3020 Rolison Rd., Redwood City, CA
650-261-1968
#6063

ENVIRONMENTAL PROTECTION
97 SEP 23 AM 10:56

HK2, Inc./SEMCO

~~70 Chemical Way, Redwood City, CA 94063~~

~~1751 LESLIE STREET • SAN MATEO, CA 94402~~ • (650) 572-8033 • (650) 572-9734 FAX
GENERAL ENGINEERING & ENVIRONMENTAL CONTRACTORS • LICENSE NO. 719103 (A, B, C57, C61/D40, HAZ, ASB)

September 18, 1997

Mr. Larry Seto
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RE: Site Characterization Activities at 845 Pacific Avenue in Alameda, California (HK2 Project 97-0154)

Dear Mr. Seto:

Enclosed is our report summarizing the site characterization activities performed at 845 Pacific Avenue in Alameda, California.

Please call if you have any questions.

Sincerely,

HK2, Inc./SEMCO

Deno G. Milano, RG
Senior Geologist

cc: Mr. William Sheehan

SITE CHARACTERIZATION REPORT

Residence
845 Pacific Avenue
Alameda, California

PREPARED BY:

HK2, Inc./SEMCO
1751 Leslie Street
San Mateo, California 94402
(650) 572-8033 phone
(650) 572-9734 fax

PROJECT 97-0154

September 1997

INTRODUCTION

This report presents the results of site characterization activities performed in May 1997 at the residence at 845 Pacific Avenue in Alameda, California. The site location is shown in Figure 1. Figure 2 is a site plan. The investigation was requested by Ms. Juliet Shin of the Alameda County Health Care Services Agency (ACHCSA) in her letter dated October 1, 1996. The work plan for these activities was prepared by HK2 on March 21, 1997, and approved by Ms. Shin on March 27, 1997. An addendum to the work plan was issued by HK2 on April 8, 1997, and verbally approved by Ms. Shin the same day. Appendix A contains a copy of Ms. Shin's letters and the addendum.

SITE DESCRIPTION

The site is owned by Mr. William Sheehan. It is a residence located on the northwest corner of 9th Street and Pacific Avenue, approximately 0.6 mile northeast of San Francisco Bay (see Figure 1), and approximately 15 feet above mean sea level (National Geodetic Vertical Datum, 1929). It is in the west-central portion of the East Bay Plain Groundwater Basin (California Regional Water Quality Control Board [CRWQCB], 1995) and is underlain by imported fill soils, Quaternary beach and dune sand deposits, and possibly saline marsh deposits (predominantly mud) deposited on the Jurassic Cretaceous rocks of the Franciscan Complex (California Department of Conservation, 1990; United States Geological Survey, 1993).

BACKGROUND

In September 1996, HK2 removed one 120 gallon underground gasoline storage tank (UST) and one 750 gallon heating oil UST from the site. The concentration of total petroleum hydrocarbons (TPH) as gasoline (TPH-G) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) in the soil sample collected beneath the former gasoline tank was below the laboratory reporting limit (0.5 mg/kg for TPH-G and $\leq$0.010 mg/kg for BTEX). However, soil sample collected beneath the former heating oil tank contained up to 800 mg/kg TPH as diesel (TPH-D), 3.6 mg/kg benzene, 2.5 mg/kg toluene, 2.0 mg/kg ethylbenzene, and 13 mg/kg total xylenes. Details are in the Tank Removal Reports prepared by HK2 on October 2 and 10, 1996.

Based on the BTEX concentrations measured in the soil samples collected beneath the heating oil tank, the ACHCSA requested further assessment. Mr. Sheehan contracted HK2 to perform the assessment. HK2's investigation is summarized below.

CURRENT INVESTIGATION

On May 13 and 14, 1997, HK2 drilled five 2-inch-diameter percussion borings (B-1 through B-5; Figure 2) to 15 feet below grade (fbg) to evaluate the extent of hydrocarbons encountered beneath the heating oil UST. The location of these borings is shown on Figure 2. The borings

were drilled in accordance with the ACHCSA approved work plan dated March 21, 1997, and our addendum dated April 8, 1997 except B-1 was moved because hydrocarbons were encountered in B-4. Our general field procedures are in Appendix A. A copy of Zone 7 Water Agency Drilling Permit 97267, City of Alameda Excavation Permit EX97-006, Encroachment Permit EN97-061, and the boring logs are in Appendix A.

Eighteen soil samples were collected with a split-spoon sample. North State Environmental (NSE; a California certified laboratory) analyzed seven of the samples for TPH-D and TPH-G (Modified EPA Method 8015), BTEX (EPA Method 8020), and methyl-tertiary-butyl ether (MTBE; EPA Method 8020). Based on the laboratory results, NSE analyzed two additional samples for TPH-D. One soil sample was submitted to Cooper Testing Laboratory for grain size (ASTM D-1140) and organic content (ASTM D-2974) analysis. The laboratory results of the hydrocarbon analyses are summarized in Table 1. A copy of the laboratory reports and chain of custody records are in Appendix B. The estimated lateral extent of hydrocarbon-affected soil is shown in Figure 3.

When sampling activities were completed, HK2 removed the drilling rod from the boring and installed 15 feet of 0.75-inch-diameter PVC pipe, the lower 10 feet of which contained 0.010-inch-wide slots. A stainless steel bailer was then lowered down the PVC pipe to collect groundwater samples. The samples were submitted to NSE for analysis of TPH-G, TPH-D, BTEX, and MTBE. A sample from B-4 was additionally analyzed for total dissolved solids (TDS; EPA Method 160.1). The laboratory results are listed in Table 2. The laboratory report and chain of custody record is in Appendix B.

On May 14, 1997, after groundwater sampling activities were completed, HK2 surveyed the top of the PVC casing in each boring and measured depth to groundwater from the top of each casing. Figure 4 is a groundwater elevation contour map based on the monitoring data. The survey was referenced to the top of a garage support footing west of the former gasoline tank cavity. The elevation of the Bench Mark was arbitrarily set at 15 feet above mean sea level. When surveying and fluid level monitoring activities were completed the PVC pipe was removed and the borings were backfilled with neat cement.

WASTE MANAGEMENT

On May 14, 1997, HK2 transported the equipment wash and rinse water (approximately five gallons) to a 55-gallon drum at 510 Lincoln Avenue in Alameda, California, another LOP site owned by Mr. Sheehan. On July 10, 1997, HK2 poured the drummed water into an undeveloped planter at 510 Lincoln Avenue as approved by Mr. Rico Duazo of the San Francisco Bay Region of the California Regional Water Quality Control Board. No soil cuttings were generated during the assessment and all soil samples were disposed of by the laboratory.

FINDINGS

- The site is in the west-central portion of the East Bay Plain Groundwater Basin. Groundwater in this Basin is designated beneficial for municipal, industrial, and agricultural uses. Depth to groundwater is approximately 9 to 10 fbg. Groundwater gradient was directed toward the north at approximately 0.017 foot per foot. No water wells are within 1,000 feet of the site according to the County of Alameda Public Works Agency.

- Fine to medium grained sand was the predominant lithology encountered from grade to approximately 15 fbg (the maximum depth of drilling).

- TPH-D concentrations up to 9,200 mg/kg were measured in soil samples collected from Borings B-3 and B-4. Soil samples collected from B-1, B-2, and B-5 contained up to 2 mg/kg TPH-D. The benzene and MTBE concentration in the samples analyzed from B-1 through B-5 was below the laboratory reporting limit (0.005 mg/kg).

- Laboratory analysis of a soil sample collected from Boring B-5 at 5 fbg indicated it was a sand with 11.9% fines (mostly clay) with an organic content of 1.8%.

- The TPH-D concentration in water samples collected from Borings B-3 through B-5 ranged from 65,000 ug/l (B-5) to 430,000 ug/l (B-4). The dissolved-phase TPH-D concentration in B-1 and B-2 was <50 ug/l and 2,000 ug/l, respectively. Dissolved-phase benzene concentrations were <0.5 ug/l in B-2 and B-3, 2 ug/l in B-1 and B-5, and 35 ug/l in B-4. Dissolved-phase MTBE was below the laboratory reporting limit (0.5 ug/l) except in B-5 (27 ug/l). The TDS concentration in B-4 was 594 mg/l.

- The dissolved-phase benzene concentration in B-4 exceeds the 10^{-6} residential use Risk Based Screening Level (RBSL) for groundwater ingestion listed in Designation E-1739 published by American Society for Testing and Materials (ASTM). The concentration of benzene in soil and in the groundwater samples collected from the other borings does not exceed the 10^{-6} RBSL for any other exposure pathway listed in Designation E-1739.

- A sheen was observed on water flowing from soil samples collected beneath the water table in Boring B-4.

- The laboratory report suggests gasoline range hydrocarbons were encountered in many soil and groundwater samples. However, chromatogram analysis performed by the laboratory indicates the TPH-G values reported represent the lighter end of diesel fuel and not gasoline. A letter from the laboratory explaining this issue is included in Appendix B.

CONCLUSIONS

- Soil and groundwater in the vicinity of the former heating oil tank have been affected by diesel range hydrocarbons based on the laboratory results of soil and groundwater sample analyses.

- The lateral and vertical extent of diesel-affected soil has not been adequately assessed west, northwest, and northeast of the former heating oil tank.

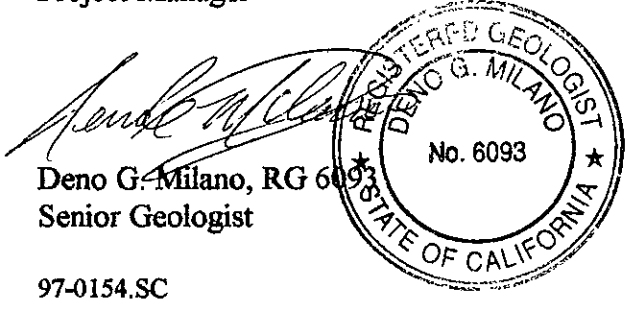
- The lateral extent of dissolved-phase benzene and TPH-D has not been adequately assessed northwest and northeast of the former heating oil tank.

LIMATATIONS AND CERTIFICATION

The activities summarized in this report have been conducted in accordance with current practice and the standard of care exercised by geologists and engineers performing similar tasks in this area. No warranty, express or implied, is made regarding the conclusions and professional opinions presented in this report. The conclusions are based solely upon an interpretation of the observed conditions. If actual conditions differ from those described in this report, our office should be notified and additional recommendations, if necessary, will be provided.

HK2, Inc./SEMCO

Keith B. Craig
Project Manager



Deno G. Milano, RG 6093
Senior Geologist

97-0154.SC

REFERENCES

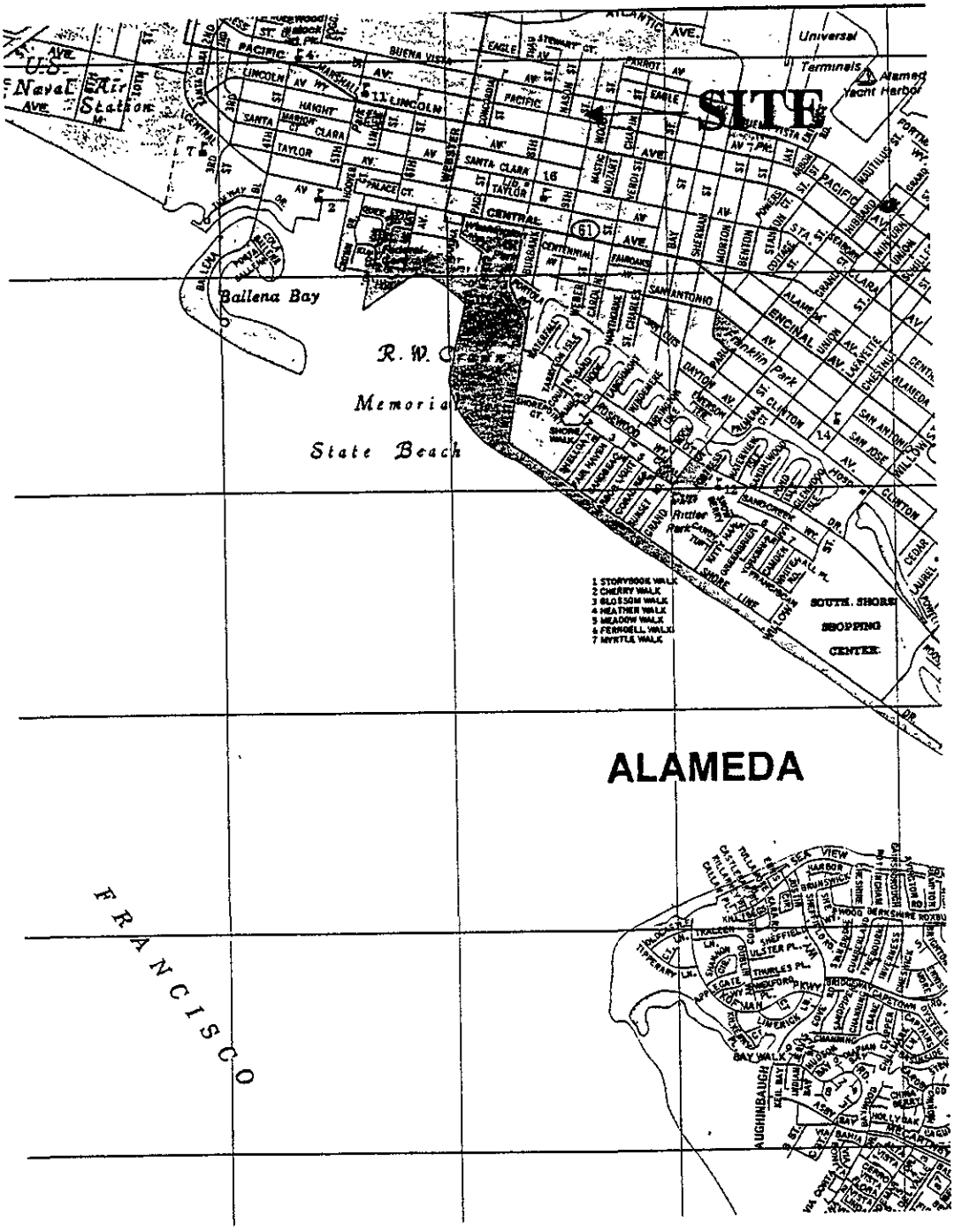
California Department of Conversation, Division of Mines and Geology, 1990. Geologic Map of the San Francisco-San Jose Quadrangle, Map No. 5A.

California Regional Water Quality Control Board, San Francisco Bay Region, 1995. Water Quality Control Plan, San Francisco Bay Basin (Region 2).

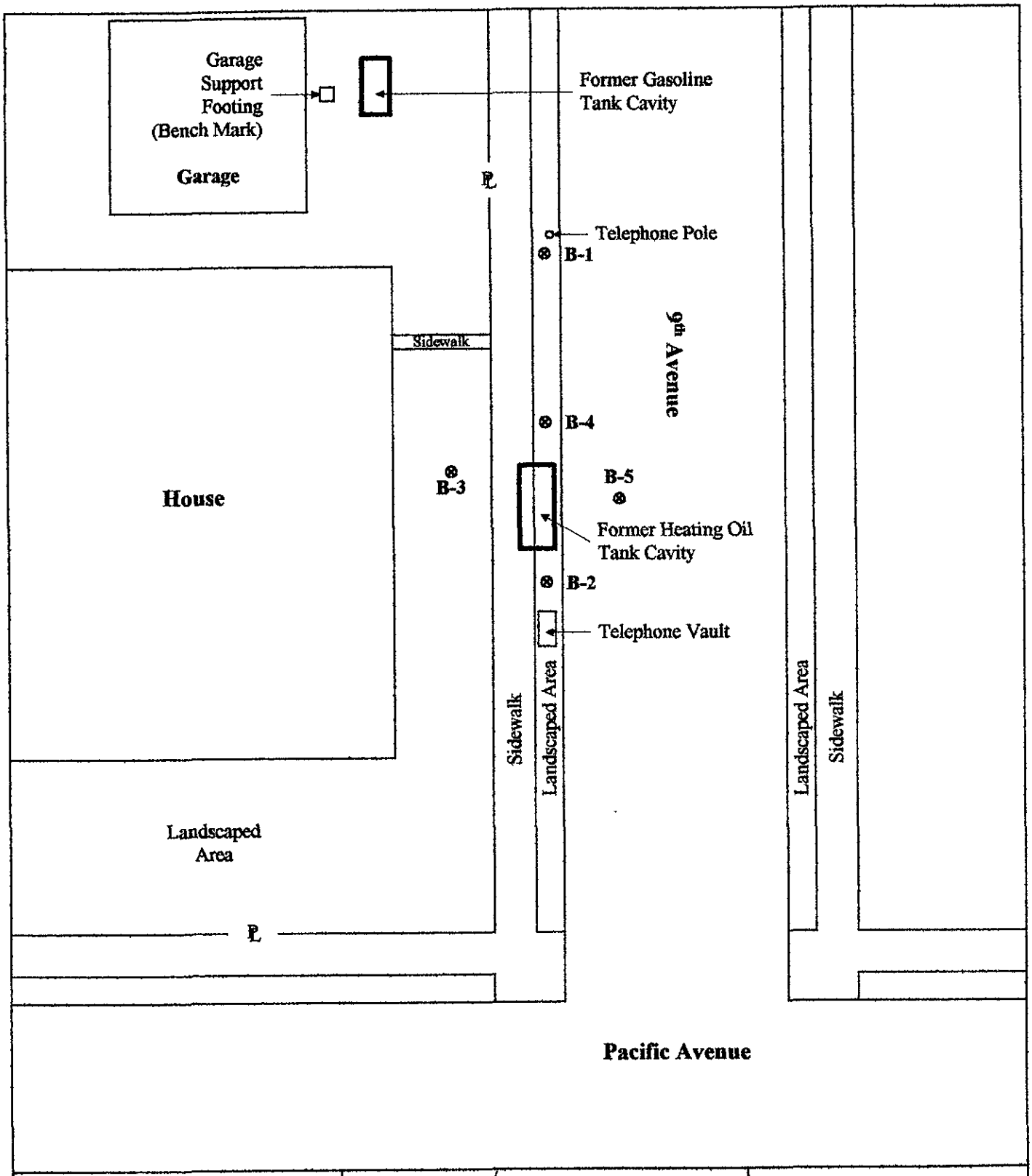
United States Department of the Interior, 1993. Quaternary Geologic Map of the San Francisco Bay, 4 x 6 Quadrangle, United States Geological Society.

HK2, Inc./SEMCO, 1996. Gasoline Tank Removal Report, 845 Pacific Avenue, Alameda, California (October 2).

HK2, Inc./SEMCO, 1996. Heating Oil Tank Removal Report, 845 Pacific Avenue, Alameda, California (October 10).



HK2, Inc./SEMCO 1751 Leslie Street San Mateo, California 94402	Legend 1 Inch = 2,500 Feet N W E S	**Site Location Map** 845 Pacific Avenue Alameda, California **Figure 1**
Project 97-0154		



HK2, Inc./SEMCO
1751 Leslie Street
San Mateo, California 94402

Project 97-0154

Hot spots Legend

B-2 Soil Boring

℄ Property Line

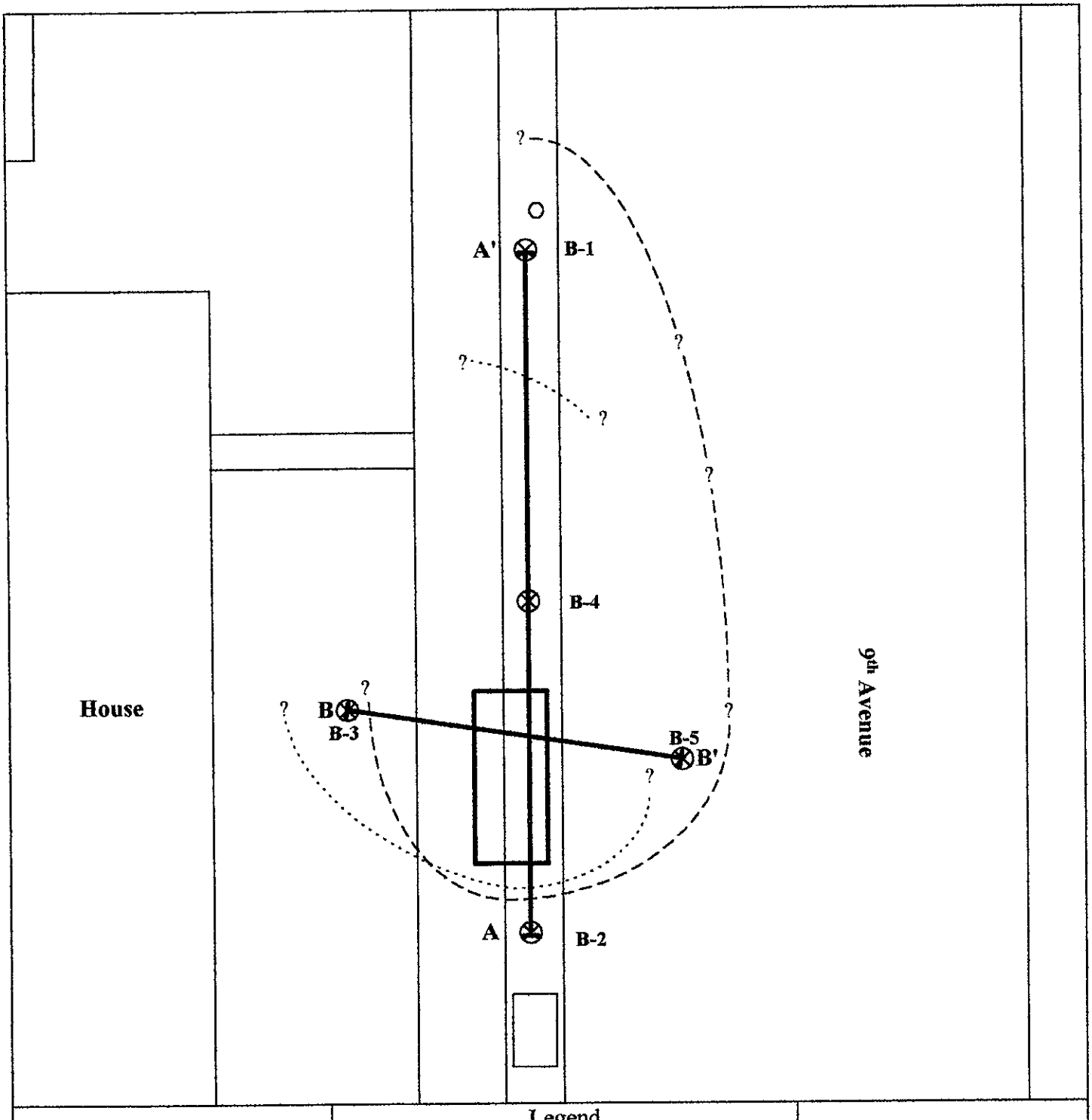
0 10 20
Feet

N
W E
S

Site Plan

845 Pacific Avenue
Alameda, California

Figure 2



Legend

Estimated 1 ug/l dissolved-phase benzene isoconcentration line

Estimated 100 mg/kg absorbed-phase TPH-D isoconcentration line

B-2 Boring Location

A A' Cross Section Line (See Figure 5)

N E S W

0 5 10 Feet

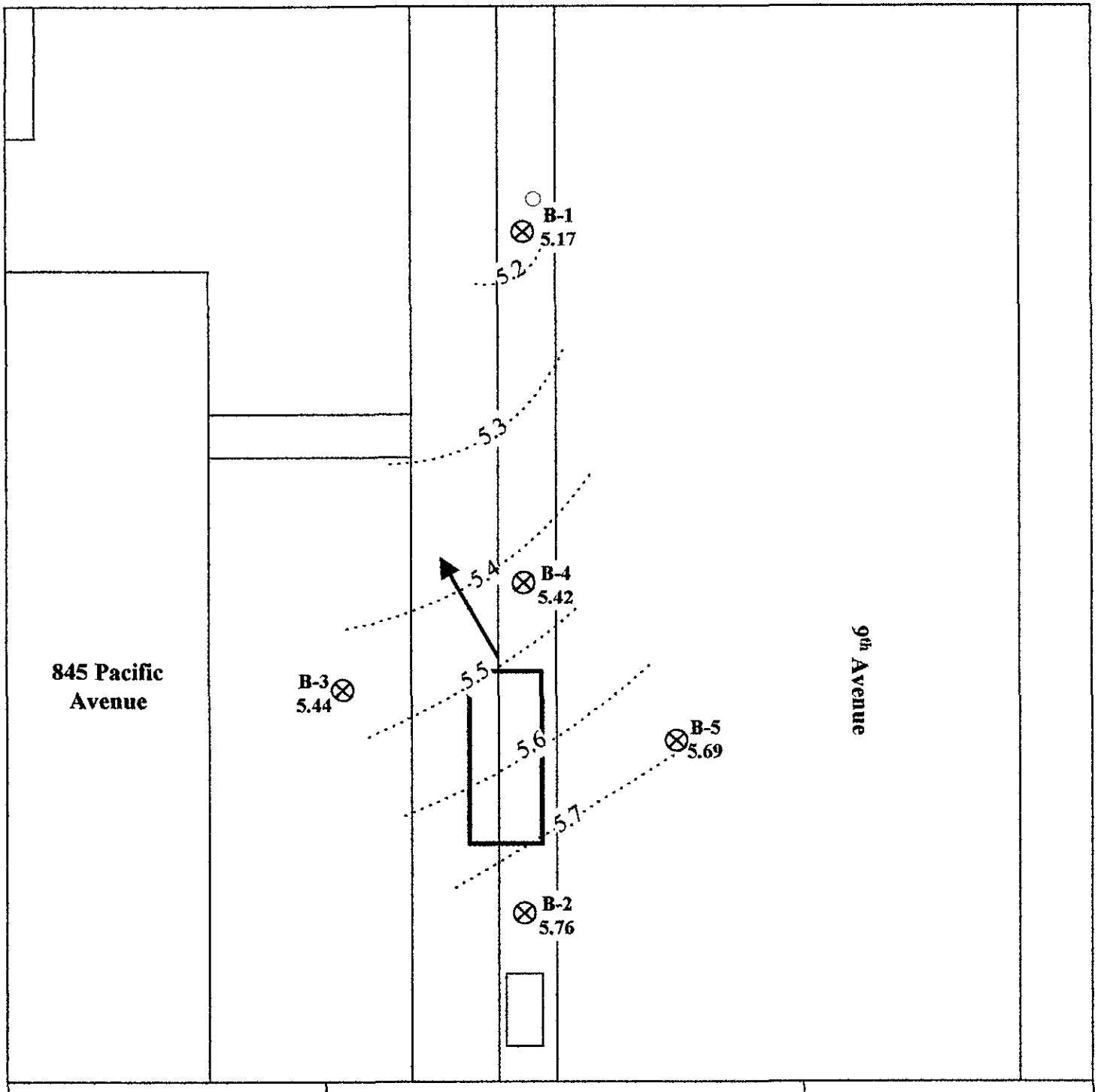
HK2, Inc./SEMCO
1751 Leslie Street
San Mateo, CA 94402

Project No. 97-0154

Estimated Lateral Extent of Hydrocaron-Affected Soil and Groundwater

845 Pacific Avenue
Alameda, California

Figure 3



HK2, Inc./SEMCO
1751 Leslie Street
San Mateo, CA 94402

Project No. 97-0154

Legend

B-2 5.76 — Boring Showing Groundwater Elevation in Feet

5.3 — Groundwater Elevation Contour in Feet

Estimated Direction of Groundwater Gradient

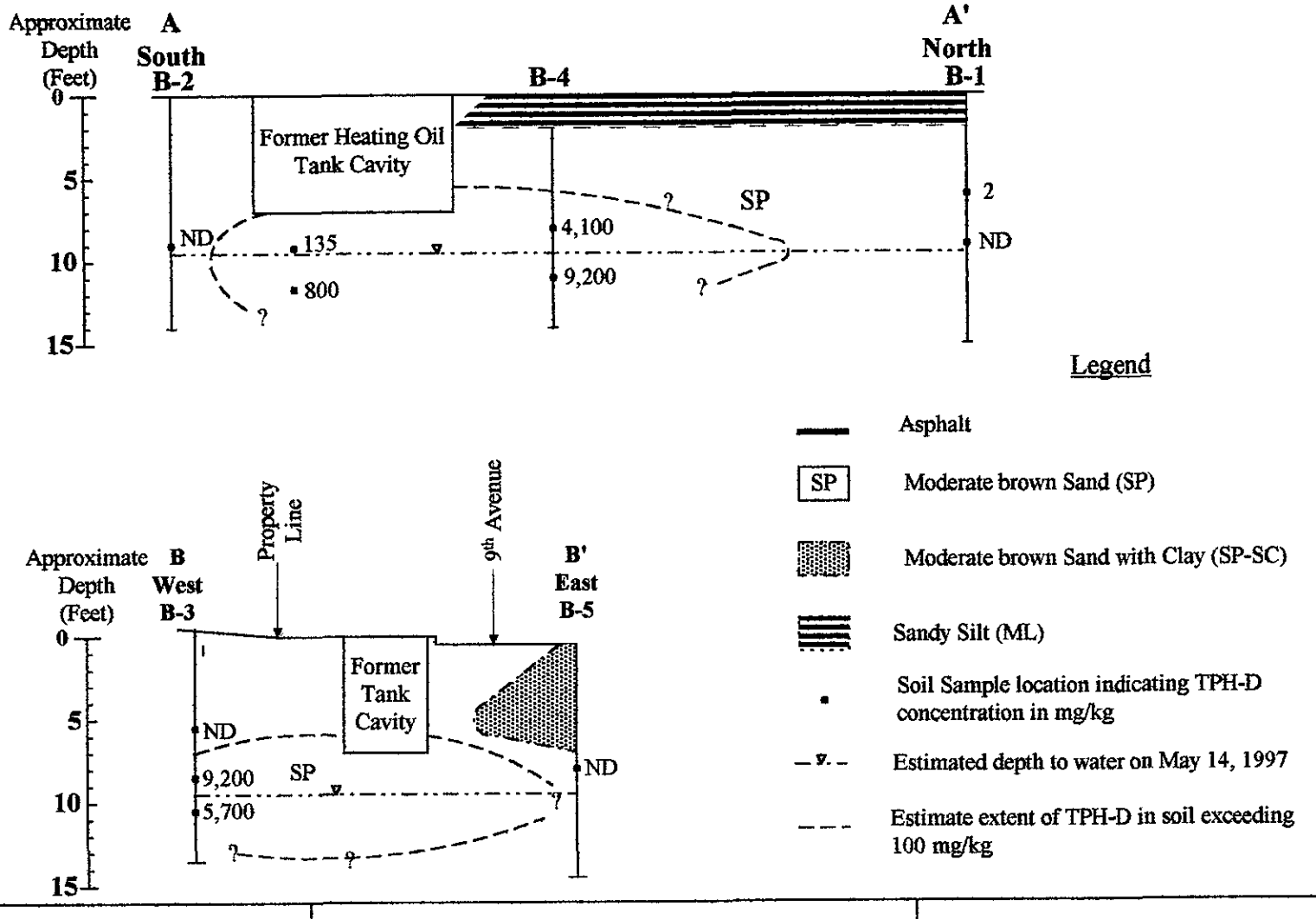
N
W E
S

0 5 10
Feet

Groundwater Elevation Contour Map

845 Pacific Avenue
Alameda, California

Figure 4



HK2, Inc./SEMCO
1751 Leslie Street
San Mateo, CA 94402

Project No. 97-0154

Scale

0 5 10

Feet

Horizontal Scale

Cross-Sections
A-A' and B-B'

845 Pacific Avenue
Alameda, California

Figure 5

Table 1

Laboratory Results of Soil Sample Analyses
845 Pacific Avenue
Alameda, Ca

Boring	Depth (fbg)	TPH-D (mg/kg)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)
B-1	6.0	2	1.3	ND	ND	ND	ND	ND
	9.0	ND	ND	ND	ND	ND	ND	ND
B-2	8.5	ND	ND	ND	ND	ND	ND	ND
B-3	6.0	ND	1.2	ND	ND	ND	ND	ND
	9.0	9,200	12	ND	0.008	0.024	0.045	ND
	11.0	5,700	--	--	--	--	--	--
B-4	8.0	4,100	12	ND	0.007	0.025	0.014	ND
	11.0	9,200	--	--	--	--	--	--
B-5	8.0	ND	ND	ND	ND	ND	ND	ND
Laboratory Reporting Limit		1.0	0.5	0.005	0.005	0.005	0.010	0.005

Table 2

Laboratory Results of Groundwater Sample Analyses
845 Pacific Avenue
Alameda, Ca

Boring	TPH-D (ug/l)	TPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	TDS (mg/l)
B-1	ND	ND	2	2	3	9	ND	--
B-2	2,000	360	ND	ND	1	15	ND	--
B-3	81,000	3,200	ND	ND	3	6	ND	--
B-4	430,000	6,100	35	ND	27	160	ND	594
B-5	65,000	3,100	2	0.5	19	34	27	--
Lab Reporting Limit	50	50	0.5	0.5	0.5	1.0	0.5	1

Sample date 5-14-99

Note:
- TPH-D = Total petroleum hydrocarbons as diesel
- TPH-G = Total petroleum hydrocarbons as gasoline
- MTBE = Methyl-tertiary-butyl ether
- TDS = Total Dissolved Solids
- fbg = Feet below grade
- mg/kg = milligrams per kilogram
- ug/l = micrograms per liter
- mg/l = milligrams per liter
- -- = Sample not analyzed for this constituent
- ND = Concentration less than laboratory reporting limit

APPENDIX A

CORRESPONDENCE, GENERAL FIELD PROCEDURES, PERMITS, AND BORING LOGS

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 1, 1996

William & Ed Sheehan
1236 Bay St.
Alameda, CA 94501

STID 6063

Re: Investigations at 845 Pacific Avenue, Alameda, California 94501

Dear William & Ed Sheehan,

In September 1996, two underground storage tanks (USTs) were removed from the above site: one 750-gallon heating oil UST and one 120-gallon gasoline UST. The one soil sample collected from beneath the gasoline UST was analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), total lead, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). The two soil samples collected from beneath the heating oil UST were analyzed for TPH as diesel (TPHd), BTEX, and heavy metals. Analysis of the soil sample collected from beneath the gasoline UST only identified lead at 25 parts per million (ppm) which is below human health protective threshold levels. Analysis of soil samples collected from beneath the heating oil UST identified up to 800 ppm TPHd, 3.6ppm benzene, 2.5ppm toluene, 2.0ppm ethylbenzene, and 13ppm total xylenes. The metal concentrations identified in these samples were all below human health protective threshold levels.

The elevated levels of BTEX identified in the soil samples collected from the 750-gallon heating oil UST pit are generally not associated with heating oil, and raises some questions as to whether the 750-gallon UST may have been used for other purposes, such as the storage of gasoline. Additionally, the levels of benzene identified in the soil samples collected from the 750-gallon UST pit exceed the human health protective levels listed in the Tier 1 table of the American Society for Testing and Materials' Risk-Based Corrective Action guidelines (ASTM RBCA; Designation: E 1739-95).

Based on the above information, additional soil and groundwater investigations will be required at this site, per Article 11, Title 23 California Code of Regulations, and the attached Regional Water Quality Control Board (RWQCB) interim guidelines. This office is requesting that you submit a workplan addressing the delineation of the extent and severity of the observed soil contamination, and investigations to determine whether groundwater beneath the site has been impacted. Based on the results of further characterization of soil and groundwater contamination at the site, and on any potential remediation employed at the site, this office may be requesting that a risk assessment be conducted to determine whether any remaining soil or groundwater contaminant concentrations may pose a risk to human health. The workplan should

be submitted to this office **within 60 days of the date of this letter (i.e., by November 27, 1996).**

This Department will oversee the assessment and remediation of your site. Our oversight will include the review of and comment on work proposals and technical guidance on appropriate investigative approaches and monitoring schedules. The issuance of well drilling permits, however, will be through the Alameda County Flood Control and Water Conservation District, Zone 7, in Pleasanton. The RWQCB may choose to take over as lead agency if it is determined, following the completion of the initial assessment, that there has been a substantial impact to ground water.

In order to properly conduct a site investigation, you are required to obtain professional services of a reputable environmental consultant. All reports and proposals must be submitted under seal of a California-Registered Geologist, -Certified Engineering Geologist, or -Registered Civil Engineer.

Per our earlier conversations, the State Water Resources Control Board has a Petroleum Underground Storage Tank Cleanup Fund available to sites to assist in investigations and cleanup. This office encourages you to look into applying to this fund. The address and phone number of the trust fund is:

State Water Resources Control Board
Division of Clean Water Programs
UST Cleanup Fund Program
2014 T Street, Ste 130
P.O. Box 944212
Sacramento, CA 94244-2120
(916) 227-4307

Any questions regarding the State Trust Fund should be directed to Cheryl Gordon at (916) 227-4539. You can contact me with any other questions at (510) 567-6763.

Sincerely,

Juliet Shin
Senior Hazardous Materials Specialist

ATTACHMENT

cc: Mark Dysert
HK2, Inc./SEMCO
1751 Leslie St.
San Mateo, CA 94402

Acting Chief

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 27, 1997

Mr. William & Ed Sheehan
1236 Bay St.
Alameda, CA 94501

STID 6063

Re: Workplan for investigations at 845 Pacific Avenue, Alameda, California 94501

Dear William & Ed Sheehan,

This office has reviewed SEMCO/HK_2, Inc.'s (SEMCO) workplan, dated March 21, 1997, for the above site. This workplan is acceptable to this office. Please be reminded that if sampling of the proposed borings does not adequately characterize the extent of the contamination or determine whether the plume is still migrating, per the attached Regional Water Quality Control Board's interim guidelines, further characterization, possibly involving the installation of permanent monitoring wells, will be required. Any subsequent investigations may also involve a well survey for potential drinking water wells and a human health risk assessment.

Per the workplan, field work shall commence within 30 days of the date of this letter. A report documenting the work should be submitted to this office within 45 days after completion of field activities.

If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin
Senior Hazardous Materials Specialist

ATTACHMENT

cc: Deno G. Milano
SEMCO/HK2, Inc.
1751 Leslie Street
San Mateo, CA 94402

Acting Chief

SEMCO/HK2, INC.
1751 LESLIE STREET • SAN MATEO, CA 94402 • (415) 572-8033 • (415) 572-9734 FAX
GENERAL ENGINEERING & ENVIRONMENTAL CONTRACTORS LICENSE NO. 719103 (A, B, C57, C61-D40, HAZ, ASB

April 8, 1997

Ms. Juliet Shin
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Addendum to Work Plan for Residence at 845 Pacific Avenue, Alameda, California (SEMCO Project 97-0154)

Dear Ms. Shin:

This is an addendum to the March 21, 1997, work plan for the residence at 845 Pacific Avenue in Alameda, California. The work plan was approved in your letter dated March 27, 1997. However, SEMCO plans the following modifications because power lines are 20 to 25 feet above the location of the proposed borings.

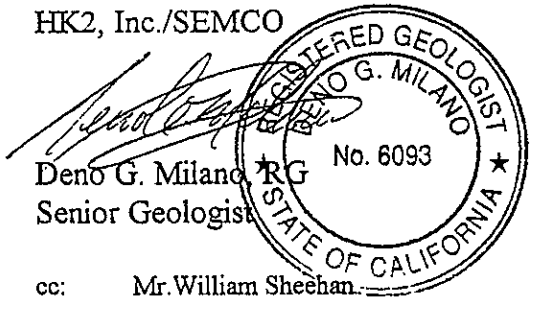
PLANNED MODIFICATIONS

- Use a SIMCO EarthProbe to drill the five borings instead of a hollow-stem auger drilling rig (less mast height).
- Substitute grain size distribution for bulk density and porosity testing because the integrity of samples collected by the EarthProbe is not sufficient to accurately measure soil bulk density and porosity.

All other work will be as outlined in the work plan. Please call if you have any questions.

Sincerely,

HK2, Inc./SEMCO



Deno G. Milano, RG
Senior Geologist

cc: Mr. William Sheehan

97-0154.WP2

GENERAL FIELD PROCEDURES

SOIL SAMPLING

The SIMCO Earthprobe 200 can percussion drill a 2.5-inch-diameter boring or, with the rotary drive attachment, rotary drill a 6-inch-diameter boring. Soil samples are collected by hydraulically hammering a 2-foot-long, 1-inch-inner-diameter split-spoon sampler that contains a hollow acetate tube. The acetate tube is removed from the sampler, cut, and the open ends covered with Teflon tape and plastic caps. The date, project number, and sample identification number are written on the tube, then the sample is placed in an ice chest chilled to approximately 4° C. The same information is also recorded on a chain of custody form. The remaining soil in the split-spoon sampler is screened by an organic vapor analyzer and described using the Unified Soil Classification System. Soil samples are collected at a minimum frequency of once every 5 feet, but may also be collected at changes in lithology or within the capillary fringe. Drilling rods, augers, and samplers are cleaned in a hot water pressure washer or cleaned with a phosphate free TSP solution and rinsed with water prior to drilling each boring or collecting each sample.

FLUID-LEVEL MONITORING AND GROUNDWATER SAMPLING

Fluid-levels in monitoring wells are measured using an electronic probe or fiberglass tape coated with pastes that indicate the presence of water or free product. Depth to fluid is measured from the top of the well casing which is typically surveyed to a local Bench Mark.

Monitoring wells are purged of groundwater in accordance with the guidelines established by the lead agency. Temperature, pH, and specific conductance are typically measured after one well or one well and annular sand pack volume of water has been removed, and every ½ volume thereafter. Purging is considered complete when these measurements vary by less than 10% from the previous measurements, the well does not recharge to 80% of its pre-purged volume within two hours, or when three well casing or borehole volumes of fluid have been removed. The purged water is either pumped directly into a vacuum truck or into labeled drums which are temporarily stored onsite.

Groundwater samples are collected immediately after purging is terminated. The samples are generally collected by lowering a bottom-fill, disposable Teflon bailer into the well to just below the water level. The samples are carefully transferred from the check-valve-equipped bailer to zero-headspace 40-milliliter or 1-liter glass containers fitted with Teflon-lined caps. The project and sample number, date of collection, and sampler's initials are written on each sample and the chain of custody record. The samples are placed in an ice chest and kept chilled to approximately 4° C until they are delivered to a state-certified laboratory for analysis.

WASTE GENERATION AND DISPOSAL

Well purge water and equipment wash and rinse water is pumped into a vacuum truck or temporarily stored onsite in labeled 55-gallon drums. The label indicates drum contents, accumulation date, consultant, consultant phone number, and site address. The fluid in the drums is either discharged to the sewer (as permitted by the local wastewater agency) or transported to an appropriate disposal facility following receipt of analytical results. A copy of each waste manifest is submitted to the lead regulatory agency.

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE, PLEASANTON, CALIFORNIA 94588-5127 PHONE (510) 484-2600 X235
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 846 Pacific Avenue
Alameda Ca

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN _____

CLIENT
Name William Sheehan
Address 1236 Bay ST. Phone (510) 522-0978
City Alameda Ca Zip 94501

APPLICANT
Name SECO / HLA, Inc.
1751 Leslie St Fax (415) 572-9734
Address San Mateo Ca Phone (415) 572-8033
City _____ Zip 94402

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☒
Monitoring	☒	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒	Percussion Hammer	(D.)

DRILLER'S LICENSE NO. C57 - 719103

WELL PROJECTS

Drill Hole Diameter	2.5 in.	Maximum Depth	15 ft.
Casing Diameter	2 in.		
Surface Seal Depth	None ft.	Number	5

Temporary wells, will be destroyed after sampling.

GEOTECHNICAL PROJECTS

Number of Borings	5	Maximum Depth	15 ft.
Hole Diameter	2.5 in.		

ESTIMATED STARTING DATE May 1997
ESTIMATED COMPLETION DATE May 1997

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robert B Craig Date 4-25-97

FOR OFFICE USE

PERMIT NUMBER 97267
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
(1.) A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS

Approved Wyman Hong Date 30 Apr 97
Wyman Hong

101996

CITY OF ALAMEDA
ENGINEERING OFFICE
2250 Central Ave., Room 250
Alameda, CA 94501 748-4614 or 748-4518

EXCAVATION PERMIT

Permit No: EX97-006
STATUS: COMPLETE
Applied : 04/28/97
Approved : 05/02/97

JOB ADDRESS : 845 PACIFIC AVE
Parcel number : 073 -0409-022-03
OWNER : SHEEHAN WILLIAM J & RENEE G
1236 BAY ST
ALAMEDA CA 94501
APPLICANT : HK2 INC DBA SEMCO
1751 LESLIE STREET
SAN MATEO,CA 94402
415-572-8033
JOB DESCRIPTION: SOIL SAMPLES
Project Desc. : SOIL SMAPLES
CONTRACTOR : HK2 INC DBA SEMCO Lic. C 719103 415-572-8033
1751 LESLIE STREET
SAN MATEO,CA 94402

Fee description	Units	Fee/Unit	Ext Fee	Data
FILING FEE (ENTER "Y" IF YES)		30.00		Y
EXCAVATION PERMIT FEE.....>	51.51		51.51	
TOTAL			81.51	

*** Fees Required ***

Account No.	
Fees:	81.51
Adjustments:	.00
Total Fees:	81.51

*** Fees Collected & Credits ***

Account No.	Receipt No.	Date	Payment
001-300-4210-3370	R9701822	04/28/97	51.51
001-300-4240-3745	R9701822	04/28/97	12.71
001-300-4240-3790	R9701822	04/28/97	5.09
510-300-9409-3790	R9701822	04/28/97	8.14
001-300-4240-3792	R9701822	04/28/97	4.06
Total Credits:			.00
Total Payments:			81.51
Balance Due:			.00

CALL 748-4614 OR 748-4518 FOR INSPECTION.

NOTE: ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT OF WAY MUST HAVE BARRICADES WITH FLASHERS FOR NIGHT TIME PROTECTION.

THIS IS TO CERTIFY THAT THE ABOVE WORK HAS BEEN COMPLETED TO MY SATISFACTION AND APPROVAL.

Date_____

_____
INSPECTOR

CALL 748-4614 OR 748-4518 FOR INSPECTION

CITY OF ALAMEDA — ENCROACHMENT PERM — Permit No: EN97-061
ENGINEERING OFFICE — STATUS: PENDING
2250 Central Ave., Room 250 — Applied : 04/28/97
Alameda, CA 94501 748-4614 or 748-4518 — Approved :

JOB ADDRESS : 945 PACIFIC AVE
Parcel number : 073 -0409-022-03
OWNER : SHEEHAN WILLIAM J & RENEE G
1236 BAY ST
ALAMEDA CA 94501
APPLICANT : HK2 INC DBA SEMCO
1751 LESLIE STREET
SAN MATEO,CA 94402
415-572-8033
Repair Order # : 4 NON-METERED SPACES
Project Desc. : 4 NON-METERED SPACES
CONTRACTOR : HK2 INC DBA SEMCO Lic. C 719103 415-572-8033
1751 LESLIE STREET
SAN MATEO,CA 94402

Fee description	Units	Fee/Unit	Ext fee	Date
PERMIT FILING FEE		1.00	30.00	
- NON-METERED SPACES	4.00		4.00	
"NO PARKING" SIGNS	8.00		8.00	

*** Fees Required *** *** Fees Collected & Credits ***

Account No.	Receipt No.	Date	Payment
001-300-4240-3305	R9702120	05/07/97	5.09
001-300-4210-3341	R9701824	04/28/97	4.00
310-300-9409-3790	R9702120	05/07/97	2.91
TOTAL THIS DATE		*********	8.00

Fees:	42.00		
Adjustments:	.00	Total Credits:	30.00
Total Fees:	42.00	Total Payments:	12.00
		Balance Due:	.00

ALL TRENCH WORK MUST BE INSPECTED PRIOR TO BACKFILL

FORMS MUST BE INSPECTED PRIOR TO CONCRETE POUR.
CALL 748-4614 OR 748-4518 FOR INSPECTION.
==========

NOTE: ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT OF WAY MUST HAVE BARRICADES WITH FLASHERS FOR NIGHT TIME PROTECTION.
Contractor's "NAME AND DATE" to be impressed in all concrete work.

THIS IS TO CERTIFY THAT THE ABOVE WORK HAS BEEN COMPLETED TO MY SATISFACTION AND APPROVAL.

Date_____ _____
INSPECTOR

CALL 748-4614 OR 748-4518 FOR INSPECTION FOR FORMS AND AFTER COMPLETION. INSPECTION MUST BE MADE BEFORE DEPOSIT CAN BE PROCESSED FOR REFUND. REFUNDS TAKE 3 WEEKS AFTER FINAL

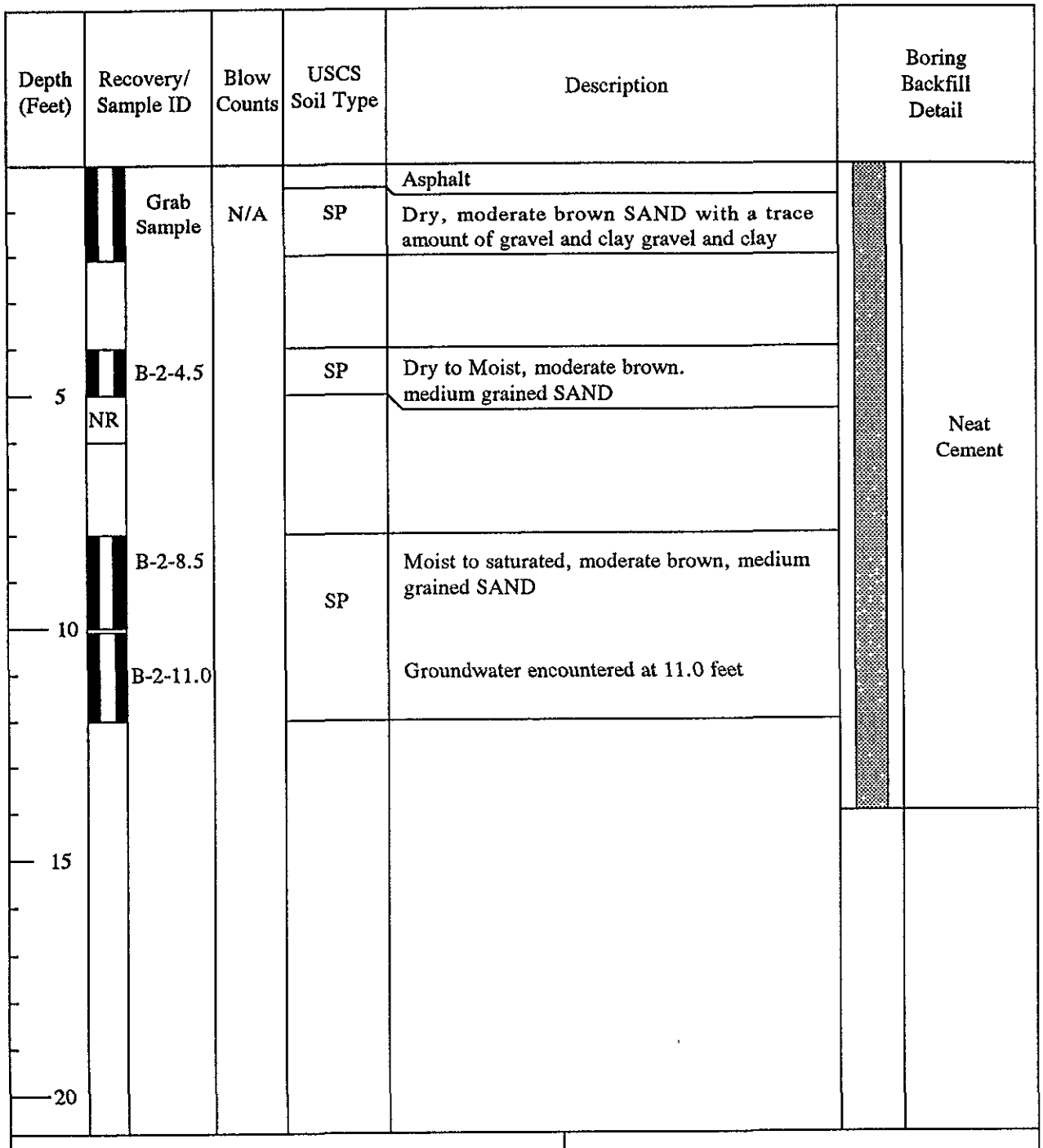
Depth (Feet)	Recovery/ Sample ID	Blow Counts	USCS Soil Type	Description	Boring Backfill Detail
	Grab Sample	N/A	ML	Dry, Moderate Brown, Sandy SILT	Neat Cement
5	B-1-5.0		SP	Moist, moderate brown, fine to medium grained SAND	
	B-1-6.0			Bluish gray layer at approximately 6.5 feet	
	B-1-9.0			Groundwater encountered at 9.0 feet	
10	B-1-10.5				
15					
20					

BORING NUMBER: B-1
LOCATION: 845 Pacific Avenue, Alameda, California

PROJECT NUMBER: 97-0154
CONTRACTOR: HK2/SEMCO
DRILLING METHOD: Percussion
DRILLING DATE: May 14, 1997
LOGGED BY: Keith B. Craig

REMARKS

Boring Terminated at 15 Feet
N/A = Not Applicable



BORING NUMBER: B-2
LOCATION: 845 Pacific Avenue, Alameda, California

PROJECT NUMBER: 97-0154
DRILLING CONTRACTOR: HK2/SEMCO
DRILLING METHOD: Percussion
DRILLING DATE: May 13, 1997
LOGGED BY: Keith B. Craig

REMARKS

Boring Terminated at 14 Feet
N/A = Not Applicable
NR = No Sample Recovered

Depth (Feet)	Recovery/ Sample ID	Blow Counts	USCS Soil Type	Description	Boring Backfill Detail
	Grab Sample	N/A	SP	Dry, moderate brown SAND	Neat Cement
5	B-3-5.0		SP	Moist, moderate brown, fine to medium grained SAND	
	B-3-9.0		SP	Moist to saturated, moderate brown to greenish gray, medium grained SAND Groundwater encountered at 8.5 feet	
10	B-3-11.0				
15					
20					

BORING NUMBER: B-3
LOCATION: 845 Pacific Avenue, Alameda, California

PROJECT NUMBER: 97-0154
DRILLING CONTRACTOR: HK2/SEMCO
DRILLING METHOD: Percussion
DRILLING DATE: May 13, 1997
LOGGED BY: Keith B. Craig

REMARKS

Boring Terminated at 14.0 Feet
N/A = Not Applicable

Depth (Feet)	Recovery/ Sample ID	Blow Counts	USCS Soil Type	Description	Boring Backfill Detail
	Grab Sample	N/A		Asphalt	Neat Cement
			ML	Dry, moderate brown SILT	
5	B-4-5.0		SP	Moist, moderate brown SAND Color becomes bluish gray at 6.0 feet	
	B-4-8.0		SP	Wet, bluish gray SAND Groundwater encountered at 8.5 feet	
10	NR				
	B-4-12.0		SP	Wet, Bluish gray SAND	
15					
20					

BORING NUMBER: B-4
LOCATION: 845 Pacific Avenue, Alameda, California

PROJECT NUMBER: 97-0154
DRILLING CONTRACTOR: HK2/SEMCO
DRILLING METHOD: Percussion
DRILLING DATE: May 13, 1997
LOGGED BY: Keith B. Craig

REMARKS

Boring Terminated at 14.0 Feet
N/A = Not Applicable
NR = No Sample Recovered

Depth (Feet)	Recovery/ Sample ID	Blow Counts	USCS Soil Type	Description	Boring Backfill Detail
				Asphalt and Baserock	Asphalt
	Grab Sample	N/A	SP-SC	Dry, moderate brown SAND with clay	
5	B-5-5.0		SP-SC	Moist, moderate brown SAND with clay	Neat Cement
	B-5-6.0				
	B-5-7.0				
	B-5-9.0		SP	Wet, moderate brown, fine-grained SAND Groundwater encountered at 9.0 feet	
10	B-5-11.0				
15					
20					

BORING NUMBER: B-5
LOCATION: 845 Pacific Avenue, Alameda, California

PROJECT NUMBER: 97-0154
DRILLING CONTRACTOR: HK2/SEMCO
DRILLING METHOD: Percussion
DRILLING DATE: May 14, 1997
LOGGED BY: Keith B. Craig

REMARKS

Boring Terminated at 15.0 Feet
N/A = Not Applicable

APPENDIX B

LABORATORY REPORTS, CHAIN OF CUSTUDY RECORDS, AND LETTER FROM NORTH STATE ENVIRONMENTAL

North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Lab Number: 97-414
Client: Semco HK2
Project: 845 Pacific, Alameda

Date Reported: 06/04/97

HOLD
Diesel Range Hydrocarbons by Method 8015 M
MTBE, Toluene, Benzene, Ethylbenzene and Xylenes by Method 8
Total Disolved Solids By Method 160.1
Gasoline Range Hydrocarbons by Method 8015 M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-414-02	Client ID: B-2-8.5				SOIL
Benzene	8020	ND		05/13/97	05/23/97
Ethylbenzene	8020	ND			
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Diesel	8015M	ND			05/23/97
Gasoline	8015M	ND			05/23/97
Sample: 97-414-05	Client ID: B-4-8.0				SOIL
Benzene	8020	ND		05/13/97	05/23/97
Ethylbenzene	8020	0.025	mg/Kg		
MTBE	8020	ND			
Toluene	8020	0.007	mg/Kg		
Xylenes	8020	0.14	mg/Kg		
Diesel	8015M	4100	mg/Kg		05/23/97
Gasoline	8015M	12	mg/Kg		05/23/97

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North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Lab Number: 97-414
Client: Semco HK2
Project: 845 Pacific, Alameda

Date Reported: 06/04/97

HOLD
Diesel Range Hydrocarbons by Method 8015 M
MTBE, Toluene, Benzene, Ethylbenzene and Xylenes by Method 8
Total Disolved Solids By Method 160.1
Gasoline Range Hydrocarbons by Method 8015 M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-414-07 Client ID: B-4-11.0					SOIL
Diesel	8015M	9200	mg/Kg	05/13/97	05/29/97
Sample: 97-414-08 Client ID: B-3-6.0					SOIL
Gasoline	8015M	1.2	mg/Kg	05/13/97	05/23/97
Benzene	8020	ND			
Ethylbenzene	8020	ND			
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Diesel	8015M	ND			05/23/97
Sample: 97-414-09 Client ID: B-3-9.0					SOIL
Benzene	8020	ND		05/13/97	05/23/97
Ethylbenzene	8020	0.024	mg/Kg		
MTBE	8020	ND			
Toluene	8020	0.008	mg/Kg		
Xylenes	8020	0.045	mg/Kg		
Diesel	8015M	9200	mg/Kg		05/23/97
Gasoline	8015M	12	mg/Kg		05/23/97

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North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Lab Number: 97-414
Client: Semco HK2
Project: 845 Pacific, Alameda

Date Reported: 06/04/97

HOLD
Diesel Range Hydrocarbons by Method 8015 M
MTBE, Toluene, Benzene, Ethylbenzene and Xylenes by Method 8
Total Disolved Solids By Method 160.1
Gasoline Range Hydrocarbons by Method 8015 M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-414-10 Client ID: B-3-11.0					SOIL
Diesel	8015M	5700	mg/Kg	05/13/97	05/29/97
Sample: 97-414-11 Client ID: B-1-6.0					SOIL
Benzene	8020	ND		05/14/97	05/23/97
Ethylbenzene	8020	ND			
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Diesel	8015M	2	mg/Kg		05/23/97
Gasoline	8015M	1.3	mg/Kg	05/13/97	05/23/97
Sample: 97-414-12 Client ID: B-1-9.0					SOIL
Benzene	8020	ND		05/14/97	05/23/97
Ethylbenzene	8020	ND			
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Diesel	8015M	ND			05/23/97
Gasoline	8015M	ND			05/23/97

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North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Lab Number: 97-414
Client: Semco HK2
Project: 845 Pacific, Alameda

Date Reported: 06/04/97

HOLD
Diesel Range Hydrocarbons by Method 8015 M
MTBE, Toluene, Benzene, Ethylbenzene and Xylenes by Method 8
Total Disolved Solids By Method 160.1
Gasoline Range Hydrocarbons by Method 8015 M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-414-15 Client ID: B-5-8.0					SOIL
Benzene	8020	ND		05/14/97	05/23/97
Ethylbenzene	8020	ND			
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Diesel	8015M	ND			05/23/97
Gasoline	8015M	ND			05/23/97
Sample: 97-414-18 Client ID: B-1-W					WATER
Gasoline	8015M	ND		05/20/97	05/23/97
Benzene	8020	2	ug/L		
Ethylbenzene	8020	3	ug/L		
MTBE	8020	ND			
Toluene	8020	2	ug/L		
Xylenes	8020	9	ug/L		
Diesel	8015M	ND			05/23/97

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North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Lab Number: 97-414
Client: Semco HK2
Project: 845 Pacific, Alameda

Date Reported: 06/04/97

HOLD
Diesel Range Hydrocarbons by Method 8015 M
MTBE, Toluene, Benzene, Ethylbenzene and Xylenes by Method 8
Total Disolved Solids By Method 160.1
Gasoline Range Hydrocarbons by Method 8015 M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-414-19	Client ID: B-3-W				WATER
Gasoline	8015M	3200	ug/L	05/14/97	05/23/97
Benzene	8020	ND			
Ethylbenzene	8020	3	ug/L		
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	6	ug/L		
Diesel	8015M	81	mg/L		05/23/97
Sample: 97-414-20	Client ID: B-5-W				WATER
Gasoline	8015M	3100	ug/L	05/14/97	05/23/97
Benzene	8020	2	ug/L		
Ethylbenzene	8020	19	ug/L		
MTBE	8020	27	ug/L		
Toluene	8020	0.5	ug/L		
Xylenes	8020	34	ug/L		
Diesel	8015M	65	mg/L		05/23/97

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North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Lab Number: 97-414
Client: Semco HK2
Project: 845 Pacific, Alameda

Date Reported: 06/04/97

HOLD
Diesel Range Hydrocarbons by Method 8015 M
MTBE, Toluene, Benzene, Ethylbenzene and Xylenes by Method 8
Total Disolved Solids By Method 160.1
Gasoline Range Hydrocarbons by Method 8015 M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 97-414-21 Client ID: B-2-W					WATER
Gasoline	8015M	360	ug/L	05/14/97	05/23/97
Benzene	8020	ND			
Ethylbenzene	8020	1	ug/L		
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	15	ug/L		
Diesel	8015M	2	mg/L		05/23/97
Sample: 97-414-22 Client ID: B-4-W					WATER
Benzene	8020	35	ug/L	05/14/97	05/23/97
Ethylbenzene	8020	27	ug/L		
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	160	ug/L		
Solids	160.1	594	mg/L		06/02/97
Diesel	8015M	430	mg/L		05/23/97
Gasoline	8015M	6100	ug/L		05/23/97

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North State Environmental
Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number: 97-414
Client: Semco HK2
Project: 845 Pacific, Alameda

Date Reported:06/04/97

HOLD
Diesel Range Hydrocarbons by Method 8015 M
MTBE, Toluene, Benzene, Ethylbenzene and Xylenes by Method 8
Total Disolved Solids By Method 160.1
Gasoline Range Hydrocarbons by Method 8015 M

Analyte	Method	Reporting Limit	Unit	Blank	MS/MSD Recovery	RPD
Gasoline	8015M	50	ug/L	ND	105	13
Benzene	8020	0.5	ug/L	ND	98	8
Ethylbenzene	8020	0.5	ug/L	ND	96	7
Toluene	8020	0.5	ug/L	ND	94	9
Xylenes	8020	1.0	ug/L	ND	94	5
MTBE	8020	0.5	ug/L	ND	122	7
Gasoline	8015M	0.5	mg/Kg	ND	103	1
Benzene	8020	.005	mg/Kg	ND	98	4
Ethylbenzene	8020	.005	mg/Kg	ND	102	4
Toluene	8020	.005	mg/Kg	ND	100	3
Xylenes	8020	.010	mg/Kg	ND	99	2
MTBE	8020	.005	mg/Kg	ND	102	2
Diesel	8015M	1.0	mg/Kg	ND	77	6
Diesel	8015M	0.05	mg/L	ND	77	6
Solids	160.1	1	mg/L	ND	96	7

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy,Laboratory Director

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North State Environmental Analytical Laboratory

97-414

Chain of Custody/Request for Analysis

Pg 1 of 3

(415) 588-9652

Client: SEMCO	Phone: (415) 572-8033	Report to: Della Milano	Turnaround Time: Normal
Mailing Address: 1751 Leslie ST San Mateo Ca 94402		Billing to: SAME	8 Hr ☐ 24 Hr ☐ 40 Hr ☐ 5 Days ☐ Other ☐
Site Address: 845 Pacific Ave Alameda Ca		PO # / Billing Reference: 97-0154 Bill to ~~INCREST~~ SAN MATEO	
Sampler: Keith Coady	Date:		

	Sample ID:	Sample Description	Container # / type	Sampling Time/Date	TPH-D	TPH-G	MTBE+ BTEX	O+G						Remarks
1	B-2-4.5	Soil 4.5 to 5.5	4oz tube liner	5-13-97 1108										Hold
2	B-2-8.5	8.5 to 9.5		1120	X	X	X							
3	B-2-11.0	11.0 to 12.0		1140										Hold
4	B-4-5.5	5.5 to 6.5		1320										Hold
5	B-4-8.0	7.0 to 8.0		1330	X	X	X							
6	B-4-9.0	9.0 to 10.0		1400										Hold
7	B-4-16.0	11.0 to 12.0		1420										Hold
8	B-3-6.0	Soil 5.0 to 6.0		5-13-97 1615	X	X	X							
9	B-3-9.0	9.0 to 10.0		1625	X	X	X							
10	B-3-11.0	11.0 to 12.0		1700										Hold
11	B-1-5.0	Soil 5.0 to 6.0		5-14-97 900	X	X	X			Acetate tubes				
12	B-1-9.0	9.0 to 10.0		920	X	X	X							
13	B-1-10.5	10.5 to 11.5		940										Hold

					Yes	No
Relinquished by:	Date: 5/14/97 Time: 1230	Received by:	ISOCHM			
Relinquished by:	Date: Time:	Received by:		Were samples Preserved ?	✓	
Relinquished by:	Date: Time:	Received in lab by:	LAS	In good condition ?	✓	

ET-41A   Pg 2 of 3

North State Environmental Analytical Laboratory

Phone: (415) 588-9652   Fax: (415) 588-1950

Chain of Custody / Request for Analysis

Lab Job No.: ______ Page ___ of ___

Client: SEMCO	Report to: Dean Milano	Phone: (415) 572-8033	Turnaround Time: Normal
Mailing Address: 1751 Leslie ST San Mateo Ca	Billing to:	Fax:	
		PO# / Billing Reference:	Date: 5-19-97
			Sampler: Kuhlberg

Project / Site Address: 845 Pacific Ave Alameda Ca

Analysis Requested: 8015(m) TPH-gasoline; 8015(m) TPH-diesel; 8020 BTEX MTBE

	Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	8015(m) TPH-gasoline	8015(m) TPH-diesel	8020 BTEX MTBE						Comments/Hazards
	~~B-5-5.0~~	~~Soil 5.0-6.0~~	~~Acetate Liner~~	~~No~~	~~5-14-97 1150~~									~~Hold~~
14	B-5-6.0	6.0-7.0			1200									Hold
15	B-5-8.0	7.0-8.0			1205	X	X	X						
16	B-5-9.0	9.0-10.0			1220									Hold
17	B-5-11.0	11.0-12.0			1245									Hold

☆ PLEASE CALL AS SOON AS RESULTS AVAILABLE SO WE CAN CONSIDER ADDITIONAL ANALYSES WITHIN HOLDING TIME.

4 X ACETATE TUBES COLD

Relinquished by: [signature]	Date: 5/19/97	Time: 12:30	Received by: [signature] NSE
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: [signature] NSE LAB

Lab Comments

North State Environmental Analytical Laboratory

97-414
Pg 3 of 3

Chain of Custody/Request for Analysis

(415) 588-9652

Client: SEMCO	Phone: (415) 572-8033	Report to: Dena Mdlano	Turnaround Time: Normal
Mailing Address: 1751 Leslie St San Mateo Ca 94402		Billing to: Same	8 Hr ☐ 24 Hr ☐ 40 Hr ☐ 5 Days ☐
Site Address: 845 Pacific Ave ~~San Mateo~~ Alameda		PO # / Billing Reference: 97-0154 Bill to ~~San Mateo~~ San Mateo	Other ☐
Sampler: Keith Crosby	Date: 5-15-97		

	Sample ID:	Sample Description	Container # / type	Sampling Time/Date	8015(M) TPH-D	8015(M) TPH-G	MTBE BTEX 8020	O+G						Remarks
18	B-1-W	water	Amber liter	5-14-97 1600	X									
↓	B-1-W	water	3-40ml VOAs	1600		X	X							
19	B-3-W	water	Amber liter	1130	X									
↓	B-3-W	water	3-40ml VOAs	1130		X	X							
20	B-5-W	water	Amber liter	1720	X									
↓	B-5-W	water	3-40ml VOAs	1720		X	X							
21	B-2-W	water	Amber liter	1600	X									
↓	B-2-W	water	3-40ml VOAs	1600		X	X							
22	B-4-W	water	Amber Liter	1720	X									
↓	B-4-W	water	3-40ml VOAs	1720		X	X							
									15 VOA, 5 GOLD					

Relinquished by:	Date: 5/19/97	Time: 1230 P	Received by: NSE LAB		Yes / No
Relinquished by:	Date:	Time:	Received by:	Were samples Preserved ?	
Relinquished by:	Date:	Time:	Received in lab by:	In good condition ?	

Wash Analysis
ASTM D-1140

Cooper Testing Lab, Inc.

Job No.: 295-002a			Project: 97-0154			
Client: N. State Env. Lab			Date: 05/23/97		By:	DC
Boring:	B-5					
Sample:						
Depth, ft.:	5					
Soil Type:	brown clayey SAND (SP-SC)					
Total Wt., gm	52.0					
Wt. Retained, gm	45.8					
% Course	88.1%	ERR	ERR	ERR	ERR	ERR
% Fines	11.9%	ERR	ERR	ERR	ERR	ERR

Remarks: Fines represents the material passing the #200 sieve.

Organic Content
ASTM D2974

Cooper Testing Lab

JOB NO.: 295-002					
CLIENT: North State Environmental Lab			DATE: 05/22/97		
PROJECT 97-0154			BY: DC		
BORING:	B-5				
SAMPLE:					
DEPTH, ft.:	5.0				
SOIL CLASSIFICATION: (visual)	brown clayey SAND				
SOIL, ORGANICS & DISH, gm:	111.82				
SOIL & DISH, gm:	111.28				
DISH, gm:	81.95				
SOIL, gm:	29.33	0	0	0	0
SOIL & ORGANICS, gm:	29.87	0	0	0	0
% ORGANICS:	1.8	ERR	ERR	ERR	ERR

North State Environmental Analytical Laboratory

Phone: (415) 588-9652 Fax: (415) 588-1950

Chain of Custody / Request for Analysis

Lab Job No.: _____ Page 1 of 1

Client: HK2, INC. / SEMCO	Report to: DENO GEMILANO	Phone: 415-572-8033	Turnaround Time: NORMAL
Mailing Address: 1751 LESLIE ST SAN MATEO, CA. 94402	Billing to: 1751 LESLIE ST. SAN MATEO, CA. 94402	Fax: 415-572-9734	
		PO# / Billing Reference: 97-0154	Date:
			Sampler:

Project / Site Address: 97-0154
845 PACIFIC AVENUE
ALAMEDA, CA.

Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	Analysis Requested: ORGANIC CONTENT ASTM D-2974	WASH OVER #200 ASTM D-1140						Comments / Hazards
B-5-5.0	SOIL	PLASTIC TUBE	NO	5-14-97 / 11:50	X	X						

Relinquished by: Mark Grant	Date: 5-20-97	Time: 8:45 am	Received by:
Relinquished by:	Date: 5-20-97	Time: 1:30 pm	Received by: Dan Martin
Relinquished by:	Date:	Time:	Received by:

Lab Comments

COOPER TESTING LABORATORY

COOPER TESTING LABORATORY
1951 Colony, Unit X
Mountain View, California 94043
Tel: 415 968-9472 FAX: 415 968-4228

LETTER OF TRANSMITTAL

TO: N. State Environmental Lab.
1751 Leslie St.
San Mateo, CA 94402
Attn: Deno Milano

DATE: May 27, 1997

PROJECT: SEMCO

CTL#: 295-002

ENCLOSED: Laboratory soil test data.

REMARKS:

COOPER TESTING LAB

NORTH STATE ENVIRONMENTAL
P.O. Box 5624
South San Francisco, CA 94083
415-588-9652
Fax: 415-588-1950

August 22, 1997

Mr. Keith Craig
SEMCO/HK2
1751 Leslie St.
San Mateo, CA 94402

Sir:

On May 19, 1997 we received 22 samples of soil and water under Chain of Custody from your firm for analyses by our laboratory for certain parameters. These included Benzene, Toluene, Ethylbenzene, Xylenes, MTBE, Gasoline, Total Petroleum Hydrocarbons for Diesel fuel and Total Dissolved Solids.

These analyses were performed using the Methods approved for this work by the California Department of Health Services Environmental Laboratory Accreditation Program.

Certain samples were seen to contain high levels of Diesel fuel. Among these are:

B-3-9.0	97-414-09	TPH-Diesel	9200 mg/Kg
B-4-W	97-414-22	TPH-Diesel	430 mg/L

These samples were also reported to have positive results for Gasoline Range Hydrocarbons at lower levels as follows:

B-3-9.0	97-414-09	TPH-Gasoline	12 mg/Kg
B-4-W	97-414-22	TPH-Gasoline	6100 ug/L

The Results for Gasoline Range Hydrocarbons can, typically, be positive when the samples contain high levels of Diesel fuel. In this case, the chromatographic patters seen, for these samples, match those of Diesel fuel, and not hat of gasoline. Gasoline is not shown to be present in any of the samples seen.

One sample showed a Diesel pattern and a result of 1.3 mg/Kg and a Similar Gasoline result:

B-1-6.0	97-414-11	TPH-Diesel	2 mg/Kg
		TPH-Gasoline	1.3 mg/Kg

These results are the same character as the other results, but may be due to the presence of the lighter portion of the Diesel mixture in this particular sample.

Diesel fuel contains hydrocarbon chains of the C11-C12 range that are calculated as part of the Gasoline range as well. This overlap is noted in the LUFT manual fuel constituent breakdown[1].

Please call me if you have any Questions.

Respectfully,

John A. Murphy
Laboratory Director

[1]) LUFT Manual, State Water Resources Control Board