

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

March 27, 1997

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

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

STID 5844

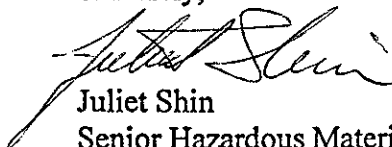
Re: Workplan for investigations at 510 Lincoln Avenue, Alameda, CA

Dear William & Ed Sheehan,

This office has reviewed SEMCO/HK₂, Inc.'s workplan, dated March 20, 1997, for the above site. This workplan is acceptable to this office. Per the workplan, this work shall be implemented within 30 days of the date of this letter, and a report documenting the work shall be submitted to this office within 45 days after completing field activities.

Please notify this office one week in advance of implementing the field work. If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,



Juliet Shin
Senior Hazardous Materials Specialist

cc: Deno 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)

97 MAR 24 PM 4:00
ENVIRONMENTAL
PROTECTION

March 20, 1997

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

Subject: Work Plan for Site Characterization at 510 Lincoln Avenue, Alameda, California
(SEMCO Project 97-0153)

Dear Ms. Shin:

This is a work plan to assess the lateral extent of dissolved-phase hydrocarbons encountered at 510 Lincoln Avenue in Alameda, California. The site location is shown in Figure 1. Figure 2 is a site plan. The work plan was requested in your letter dated October 1, 1996 (copy attached).

BACKGROUND

On September 20, 1996, SEMCO removed one 1,500 gallon underground heating oil tank from the above referenced site. The concentration of total petroleum hydrocarbons as diesel (TPH-D) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) in soil samples collected from excavated soil and the tank cavity sidewalls at approximately 6 and 7 feet below grade (fbg) were below the laboratory reporting limit (1 mg/kg for TPH-D and 0.005 to 0.010 mg/kg for BTEX). However, 27,000 ug/l of TPH-D was measured in a sample of water collected from the tank cavity.

Based on the concentration of TPH-D measured in groundwater, ACHCSA requested contaminant source removal, assessment of the extent of the dissolved-phase hydrocarbons encountered during tank removal, and an assurance the hydrocarbons are not significantly migrating or posing a risk to human health or the environment. These requests were summarized in the ACHCSA letter dated October 1, 1996. In our opinion, source removal cannot be addressed at this time until assessment is performed. Assessment however may demonstrate that the hydrocarbons encountered during tank removal activities are not significantly migrating or posing a risk to human health and the environment.

PLANNED WORK

SEMCO ^{proposes} ~~purposes~~ two separate scopes of work to assess the extent of hydrocarbons encountered during tank removal activities. The first phase of assessment will ascertain if hydrocarbon-affected groundwater is actually present in concentrations requiring further regulatory action. The second phase of work will assess the lateral and vertical extent of any hydrocarbons encountered during the initial scope of work.

Initial Scope of Work

Although the groundwater sample collected from the tank cavity contained TPH-D, it is unusual for a soil sample collected from the capillary fringe to have a TPH-D concentration below the laboratory reporting limit when the groundwater contained 27,000 ug/l TPH-D. To evaluate this unusual condition, we plan to collect and analyze soil and groundwater samples obtained by drilling one boring (PB-1) up to 15 fbg over the central portion of the former tank cavity and converting the boring to a 2-inch-diameter PVC monitoring well.

The boring will be percussion drilled with a SIMCO Earthprobe 200. Soil samples will be continuously collected between approximately 5 and 15 fbg by driving a 2-foot-long, 1-inch-diameter split-spoon sampler lined with acetate. The samples will be described using the Unified Soil Classification System and submitted to a state-certified laboratory. Two soil samples will be analyzed for TPH-D (Modified EPA Method 8015). The sample containing the highest TPH-D concentration will also be analyzed for polycyclic aromatic hydrocarbons (PAHs; EPA Method 8100) unless the TPH-D concentration of each sample is below the laboratory detection limit. The sample containing the highest TPH-D concentration may also be analyzed for BTEX (EPA Method 8020) and Luft 5 Metals (nickel, cadmium, chromium, zinc, and lead) for soil cuttings disposal purposes.

The boring will be reamed with a 6-inch-diameter solid-stem auger before the well is constructed. The well will be constructed of blank casing from approximately 0 to 5 fbg and 0.020 inch slotted casing from approximately 5 to 15 fbg. The annular space will contain neat cement from approximately 0 to 2 fbg, bentonite from approximately 2 to 4 fbg, and sand filter pack from approximately 4 to 15 fbg. The well will be developed with a surge block and purged of at least five borehole volumes of fluid before a groundwater sample is collected. A groundwater sample will be collected with a disposable bailer and submitted to a state-certified laboratory for analysis of TPH-D and PAHs.

Subsequent Scope of Work

This scope of work will only be performed if hydrocarbons are encountered in the initial scope of work in concentrations requiring further regulatory action. If this scope of work becomes necessary, SEMCO will drill four 2.5-inch-diameter borings to assess the lateral and vertical extent of hydrocarbons in the vicinity of the former tank cavity. The location of each boring is shown in Figure 2.

Soil samples will be collected from these borings and analyzed as discussed above under the initial scope of work, except no samples will be analyzed for PAHs if the PAH concentration of the sample collected from PB-1 is below the laboratory detection limit. A sample of groundwater will be collected from each boring and analyzed for TPH-D (Modified EPA Method 8015) and PAHs (EPA Method 8100). Each boring will then be backfilled with neat cement.


Permitting, Decontamination, Waste Disposal, and Reporting

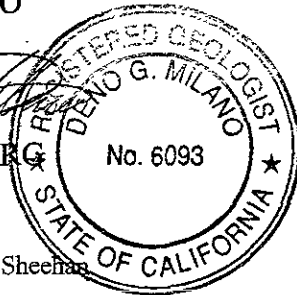
Boring locations will be permitted and cleared by utility markout before they are drilled. Drilling rods, augers, and samplers will be cleaned with a phosphate free TSP solution and rinsed with water before each boring is drilled. New factory sealed casing will be used to construct the monitoring well. Soil cuttings and wash, rinse, and well purge water will be placed in separate drums and temporarily stored onsite for up to 60 days. The drummed wastes will be transported to an appropriate disposal facility based on the laboratory results of analyzed samples. The initial phase of work will be performed within 30 days of ACHCSA approval of the work plan. A report summarizing Phase I and Phase II (if performed) activities will be submitted to ACHCSA within 45 days of the date the borings are drilled.

Please call if you have any questions.

Sincerely,

HK2, Inc./SEMCO


Deno G. Milano, R.G.
Senior Geologist



cc: Mr. William Sheehan

97-0153.WP

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



October 1, 1996

William & Ed Sheehan
1236 Bay Street
Alameda, CA 94501

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

STID 5844

Re: Investigations at 510 Lincoln Avenue, Alameda, California

Dear William & Ed Sheehan,

One 1,500-gallon heating oil underground storage tank (UST) was removed from the above site on September 20, 1996. According to my conversations with Mark Dysert, with HK2, Inc./SEMCO, and William Sheehan, this UST contained #6 diesel fuel. Soil samples, and one "grab" groundwater sample were collected from the UST pit and analyzed for Total Petroleum Hydrocarbons as diesel (TPHd) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Although analysis of soil samples did not identify any contaminants above detection limits, analysis of the groundwater sample identified elevated levels of TPHd at 27,000 parts per billion (ppb). According to some references, these concentrations of #6 diesel in the groundwater could be indicative of separate-phase hydrocarbons (i.e., free product).

Guidelines established by the California Regional Water Quality Control Board (RWQCB) require that soil and ground water investigations be conducted when there is evidence to indicate that a release to groundwater may impact human health or the environment (please refer to attached RWQCB interim guidelines). Per these guidelines, the primary goals for the site are the following: 1) to remove any ongoing source of contaminants, including free product; 2) to adequately characterize the extent and severity of the groundwater contaminant plume; 3) to assure that the groundwater contaminant plume is not significantly migrating; and 4) to assure that there is no significant risk to human health or the environment.

Consequently, this office is requesting that a workplan be submitted addressing the concerns outlined in the RWQCB interim guidelines. Based on the recent studies, it has been shown that Polynuclear Aromatic Hydrocarbons (PNAs) are the driving risk in TPHd due to the carcinogenic nature and volatility of many of these constituents. Therefore, the next sampling event should include the analysis for PNAs, in addition to TPHd.

Please submit the requested workplan to this office within 60 days of the date of this letter (i.e., by November 26, 1996).

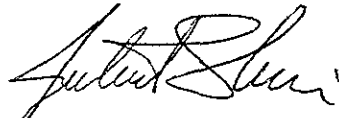
William & Ed Sheehan
Re: 510 Lincoln
October 1, 1996
Page 2 of 2

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 can be directed to Cheryl Gordon at (916) 227-4539. If you have any other questions, please contact me at (510) 567-6763.

Sincerely,



Juliet Shin
Senior Hazardous Materials Specialist

ATTACHMENT

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

Acting Chief



Figure 1. Site Location Map



NOT TO SCALE

510 Lincoln

508 Lincoln

24'

o PB-2

Parking

Parking

o PB-1

o PB-3

Sidewalk

o PB-5

Former Heating Oil Tank Cavity

o PB-4

Lincoln Avenue

HK2, Inc./SEMCO 1751 Leslie Street San Mateo, CA 94402	<p align="center"><u>Legend</u></p> <p>o PB-1 Proposed Boring</p>	<p align="center">Site Plan 510 Lincoln Avenue Alameda, California</p>
Project No 97-0153		<p align="center">Figure 2</p>