



The Traverse Group, Inc.

WESTERN DIVISION
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- Groundwater and Soil Contamination Assessment and Cleanup
- Property Development Risk Assessments
- Hazardous Materials Management

~~7 June 1989~~

Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Attn: Mr. Gil Wistar

Re: California Linen Rental Co.
989 41st Street
Oakland, CA 94608

Dear Mr. Wistar:

Enclosed is the workplan for the subject site.

We are confident that this plan will address regulatory concerns regarding the site.

Please feel free to call either myself or Reinhard Ruhmke at (415) 892 0022 if you have any questions or require further clarification.

Very truly yours,


John H. Sammons
Manager, Western Division

CC: File
California Linen Rental

Enclosure: Workplan

CALIFORNIA LINEN RENTAL Co.
989 Forty First Street
Oakland, CA 94608

WORKPLAN FOR SITE INVESTIGATION

SITE LOCATION

This site is located at the corner of 41st and Linden Streets in the city of Oakland. This land use in the area is mixed industrial and residential. The mailing address for this site is 989 41st Street, Oakland, CA 94608.

INTRODUCTION

This workplan covers all services, equipment and materials to be provided by The Traverse Group, Inc. (hereafter TGI) for the drilling of at least nine boreholes, the collection of appropriate soil samples, the installation of a minimum of one to a maximum of three monitoring wells on the property and the development of remedial action plans to address any soil and groundwater contamination that might be detected during this phase.

The site is presently owned by California Linen Co, a commercial laundry company. On February 8, 1989, three steel underground storage tanks were removed from the site: A 10,000 gallon capacity tank which contained regular gasoline, A 3,000 gallon tank which contained #5 fuel oil and a 550 gallon tank which contained unleaded gasoline.

Analytical results from soil samples collected by others from after tank removal indicate hydrocarbon contamination above 100 ppm. In addition, a water sample taken from standing water in the fuel oil tank pit contained 14,000 ppm of Oil and Grease and 520 ppm Total Petroleum Hydrocarbons as Diesel.

The entire project is to be completed within the guidelines and regulations set forth by the City of Oakland, the Alameda County Division of Environmental Health and the Alameda County Flood Control and Water Conservation District (ACFCD).

SCOPE OF FUNCTIONS

The Traverse Group, Inc. (TGI) shall provide geologic and engineering services for subsurface investigation of this site, including determination of background contamination levels and investigation of hazardous waste contamination.

TGI shall conduct this investigation in order to formulate a plan, called the Abatement and Replacement Program, for the treatment or other appropriate abatement of contamination in order to bring the site into compliance with current local, state and federal environmental quality laws.

TGI shall prepare closure plans, plans of correction or abatement, permit applications, necessary reports and certifications, site condition reports, and recommendations for any remedial action required. TGI shall maintain communication with all government agencies having jurisdiction.

A borehole survey of the site will be conducted. Boreholes will be drilled in such locations as to establish background contamination levels and extent of contamination (Plate 1).

- * Boreholes shall be drilled using a hollow stem auger.
- * Boring logs shall be recorded during drilling and sampling operations.
- * All Boreholes will be filled with neat cement upon completion of the drilling.
- * Boreholes shall be drilled to a depth of ten feet.
- * Soil samples will be collected at five and ten feet below grade using a split spoon sampler.
- * If groundwater is encountered, drilling shall be halted and a soil sample shall be collected at that depth. Once depth to groundwater is established the sampling depths will be altered so the capillary fringe is sampled.
- * Standard penetration tests shall be performed at each sampling depth and results shall be recorded in the boring logs.
- * Samples shall be handled in accordance with the Standard Sampling Method as described in the LUFT manual.
- * Soil Samples shall be submitted to the laboratory on the basis of a ten day turnaround for results.
- * Samples shall be analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH/Gas), Total Petroleum Hydrocarbons as Diesel (TPH/Diesel), Waste Oil and Grease (EPA Method 503D&E) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX).
- * All soil cuttings that appear to be contaminated will be stored in drums until laboratory results are available then the soil will be disposed of properly.

There are no known monitoring wells in the immediate area to establish local groundwater flow gradients. General area groundwater flow direction has been established by the Alameda County Flood control and Water Conservation District in their 205(J) report. The regional shallow groundwater flow in this area is generally to the West towards San Francisco Bay. At this site this would result in the shallow groundwater flowing from California Linen property across Linden Street. The boreholes planned for the Linden Street boundary of the California Linen property will serve to determine the approximate North/South boundaries of any plume and the borehole(s) planned for the 41st street boundary and those planned for on-site installation will further define of a plume if it is present at this site.

A monitoring well may be required at this site depending upon the results of the borehole survey as discussed in the previous paragraph. If monitoring wells are installed they will be constructed using four-inch diameter, threaded PVC casing. The well will be screened with .02 inch slotted casing from five to ten feet below the water table to approximately three feet above the water table. The appropriate filter pack will be placed to approximately two feet above the water table and a minimum three foot bentonite seal will be used above the filter pack. The well annulus will then be filled to the surface with cement grout. The casing will be capped at both ends and a Christy Box installed. The well head will be provided with a locking cap and seal. /

The well(s) will be properly developed and sampled with the purged water being collected and disposed of properly. Groundwater samples will be analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH/Gas), Total Petroleum Hydrocarbons as Diesel (TPH/Diesel), Waste Oil and Grease (EPA Method 503D&E) and Benzene, Toluene, Ethylbenzene and Xylene (BTEX).

Upon completion of this phase of work, a report detailing our findings and any possible remediation plans including cost estimates will be prepared for the client to be sent to the appropriate regulatory agencies.