



March 21, 1989
Project 4486

Mr. Mark Detterman
Terrasearch, Inc.
1580 North Fourth Street
San Jose, California 95112-4676

Subject: Proposal For Environmental Services
Phase I Investigation of Ground Water Contamination
Okata Property
San Leandro, California

Dear Mr. Detterman:

We have prepared this proposal to describe the scope and cost of performing a Phase I investigation of ground water contamination at the Okata Property Site on Ashland Avenue in San Leandro, California.

The immediate work needed is to install two monitoring wells onsite and analyze the ground water for contamination. Based on the findings of this initial study we will be able to provide you with an assessment of the current magnitude of the ground water contamination problem in the vicinity of the fuel oil and gasoline tanks. It is our understanding that this investigation is being completed as part of a site evaluation for a real estate transaction and as such will require rapid results on our findings.

BACKGROUND

The need for this ground water investigation was the result of the discovery of subsurface contamination during tank removal activities. Preliminary sampling by Terrasearch identified elevated levels of high boiling point hydrocarbons and oil & grease within the soils and standing water of the fuel oil tank pit. Trace levels of low boiling point hydrocarbons were found in the standing water within the gasoline tank pit.

SCOPE OF SERVICES

1. Research available public information on local hydrogeologic conditions, particularly with regard to ground water flow directions and existing nearby wells, if any.
2. Determine the locations of underground utilities in the vicinity of the monitoring well locations using a professional locator service.
3. Obtain well permits from the Zone 7 Water District.

4. Install two ground water monitoring wells in accordance with regulatory guidelines. The well heads will be protected by a locking vault. In paved areas, a Christy box will be installed slightly above the pavement surface to inhibit the inflow of runoff.

Well MW-1 will be sited within five feet of the oil tank area on the western (expected downgradient) side. In order to provide for the proposed site development, well MW-2 will be sited approximately 100 feet south-southwest from the gasoline tank pit. Although we understand that perched water was present within the pits at about 6 1/2 feet, the regional aquifer in this area is known to be approximately 20 to 25 feet below ground surface. Therefore the wells are expected to be constructed to depths of 30 to 40 feet.

The drilling and sampling of the borings, and the monitoring well construction, will be performed by a licensed drilling company as supervised by an environmental geologist from our staff. The geologist will also prepare logs of the borings and as-built sketches of the wells. Soil samples will be obtained at five-foot vertical intervals between the ground surface and the water table (unless otherwise specified by Alameda Department of Health Services).

5. At least 24 hours after development, collect a bailer sample from the wells to check for floating product, odor, and sheen. If the sample has less than 1/4 inch of floating product, the well will be purged and sampled for dissolved hydrocarbon constituents.
6. Analyze the ground water sample and selected unsaturated soil samples from the gasoline tank monitoring well at a state certified laboratory for total petroleum hydrocarbons (TPH) as gasoline and gasoline constituents - benzene, toluene, ethylbenzene and xylenes (BTEX). Analyze the ground water sample and selected unsaturated soil samples from the fuel oil tank monitoring well for TPH as diesel and BTEX.
7. Evaluate the findings and prepare a written report describing the work performed, the findings and our conclusions. The report will also include a site plan (assuming an appropriate base map is available) delineating monitoring well locations. As appropriate, comments will be included on a Phase II investigation, monitoring or remediation.

Sampling and analyses will be performed in accordance with EPA approved methodology by trained personnel.



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FEES, CONTRACT AND SCHEDULE

The estimated costs for the work to be performed, as described herein, are:

- * Items 1, 2 and 3 - \$500 (including permit fees).
- * Item 4 - \$4,500 (up to 40 feet deep).
- * Items 5 and 7 - \$1,000
- * Item 6 - \$250 per sample for the fuel oil tank monitoring well, \$115 per sample for the gasoline tank monitoring well (estimate 8 soil + 2 water samples). These are "normal" two-week turnaround costs. Surcharges for 1-week turnaround would be 50%, 48-hr turnaround would be 75%, and 24-hr turnaround would be 100%.

Invoiced costs will be calculated on a "time and materials" basis in accordance with the enclosed Schedule of Charges.

To formally authorize us to proceed with the work described herein, please return one signed copy of the enclosed Agreement for Professional Services and its attachment.

We have tentatively scheduled a drill rig for Tuesday, March 28 and are ready to begin the hydrogeologic research.

Sincerely,

TERRATECH, INC.



Brian M. Kahl

bnk/erl

Attachments

cc: Larry Sito, Alameda County Environmental Health Service
California Regional Water Quality Control Board - San Francisco Bay
Region

