November 4, 1991

Mr. Larry Seto Hazardous Materials Specialist ALAMEDA COUNTY HEALTH CARE SERVICES 80 Swan Way, Room 200 Oakland, CA 94621

RE:

GROUNDWATER MONITORING PROGRAM

EMERYBAY MARKETPLACE EMERYVILLE, CA 94608

Dear Larry:

Enclosed is the executed copy of the proposed groundwater monitoring program for the above referenced property. You will be sent copies of the quarterly reports as they are received.

Sincerely,

Synn Jolw

THE MARTIN GROUP Agent in fee for Christie Avenue Partners-JS a California limited partnership

Enclosure

LA1712.23



October 9, 1991

Ms. Lynne Tolin Christie Avenue Partners - JS 6475 Christie Avenue, Suite 500 Emeryville, California 94608

Dear Ms. Tolin:

PROPOSAL AND COST ESTIMATE FOR CONTINUED GROUNDWATER MONITORING AT THE EMERY BAY MARKETPLACE SITE, EMERYVILLE, CALIFORNIA

At your request, McLaren/Hart is submitting this proposal and cost estimate to continue the Self-Monitoring Program at the Emery Bay Marketplace site in Emeryville, California for the period October 1991 through September 1992.

Groundwater monitoring has been performed at the Emery Bay Marketplace site since July 1990. This was recommended in the Groundwater Characterization Report and as detailed in the "Work Plan for Groundwater Monitoring and Free Product Removal at the Marketplace Site, Emeryville, California," July 6, 1990. Groundwater monitoring has been performed at the site to: 1) verify groundwater flow direction, and 2) verify that total petroleum hydrocarbons as diesel (TPH/D) and motor oil (TPH/MO) in groundwater are confined to the north-central side of the site and are not migrating off-site.

Based on the results of one year of groundwater monitoring, McLaren/Hart recommends continued groundwater monitoring and product removal as described below:

Continue to sample groundwater from downgradient wells W-7, W-13, W-14, W-19, W-20, and W-24 on a quarterly basis for the period of one year, and analyze the samples for total petroleum hydrocarbons as gasoline, kerosene,

diesel, and motor oil by EPA Method 8015. The results will help determine if: 1) hydrocarbons in groundwater are confined to the site and 2) hydrocarbons detected in the April 1991 samples from Wells W-20 and W-24 continue to be detected.

- During the next quarterly sampling event, collect groundwater samples from Wells W-7, W-19, W-20 and W-24, and a free product sample from Well W-5, for hydrocarbon fingerprint characterization by capillary gas chromatography using Friedman and Bruya Laboratory. The hydrocarbon fingerprint characterization may help determine if: 1) hydrocarbons detected in Wells W-7 and W-19 are related to the former asphalt refining plant near Well W-5, as has previously been assumed, and 2) hydrocarbons recently detected in Wells W-20 and W-24 are related to the former asphalt refining plant, the hydrocarbons detected in Wells W-7 and W-19, or a previously unrecognized hydrocarbon source.
 - During the next quarterly sampling event, collect groundwater samples from wells W-20 and W-24 for analysis of the hydrocarbon components benzene, toluene, xylenes, and ethylbenzene to determine if these components are in groundwater where TPH was detected for the first time in April 1991.
- Continue to measure depths to groundwater at all wells prior to each sampling event and continue to prepare groundwater surface elevation maps.
- Submit reports on a quarterly basis for a period of one year, documenting the results of groundwater monitoring.
 - Evaluate the monitoring results at the end of one year to determine whether continued monitoring is necessary.



Mr. Lynne Tolin October 9, 1991 Page 3

The proposed work is detailed in Attachment I. The total cost for this work is \$33,612 as presented in Attachment II. This proposal is subject to the McLaren/Hart terms and conditions, forms C-3 and C-5 that are included in Attachment III. Our current billing rate schedule (January 1991) is provided in Attachment IV. To initiate this project, please sign and date below and return this letter. Please call if you have questions.

Sincerely,

Julie S. Menack, RG # 4440 Supervising Hydrogeologist

Julie S. Menack

Albert A. Dovle Principal Engineer

Attachments

1009CDJ1

THE ATTACHED PROPOSAL HAS BEEN READ, IS UNDERSTOOD, AND IS HEREBY AGREED TO AND ACCEPTED.

Title Date



ATTACHMENT I

SCOPE OF WORK

GROUNDWATER MONITORING AND FREE PRODUCT REMOVAL EMERY BAY MARKETPLACE, EMERYVILLE, CALIFORNIA

McLaren/Hart is presenting this proposal to continue the Self-Monitoring Program at the Emery Bay Marketplace site in Emeryville, California. The work to be performed includes monitoring groundwater quality and preparation of quarterly groundwater monitoring reports. The work will be completed in two tasks as follows:

Task 1: Monitor Groundwater Quality

Collect groundwater samples on four occasions (July (date now past) and October 1990; January and April 1991). The work to be completed during each sampling event includes the following:

- Measure water levels in all on-site wells.
- Collect groundwater samples from six wells (W-7, W-13, W-14, W-19, W-20, and W-24) and analyze the samples from all four sampling events for total petroleum hydrocarbons as gasoline, kerosene, diesel, and motor oil by Modified EPA Method 8015 using McLaren Analytical Laboratory (MAL). During only the July 1991 sampling events, collect groundwater samples from Wells W-7, W-19, W-20 and W-24 and collect a free product sample from Well W-5 for a hydrocarbon fingerprint characterization by capillary gas chromatography using Friedman and Bruya Laboratory (FBL). Both MAL and FBL are State of California certified laboratories.
- Collect groundwater samples from wells MW-20 and MW-24 and analyze for BTXE by EPA Method 8020.
- Contain sampling purge water in 55-gallon drums which will remain on site. This proposal and cost estimate do not include the cost of purge water disposal because disposal fees are highly variable and depend on the level of chemicals detected. A future authorization for purge water disposal can be submitted by McLaren/Hart after groundwater samples have been analyzed.
 - Include one trip blank for EPA 8015 analysis on each day of sampling for quality assurance and control. This proposal assumes that two trip blanks will be required each quarter.

- Provide quality control check of laboratory analytical data.
- Revise Site Safety and Health Plan on a quarterly basis.

Task 2: Prepare Quarterly Letter Reports

Prepare four quarterly letter reports summarizing: 1) the results of each monitoring event described in Task 1) and the progress of product removal from Well W-5 (being performed under a separate authorization). The work to be completed for each letter report includes the following:

- Tabulate groundwater elevation and analytical data, and present laboratory data sheets in an appendix.
- Prepare groundwater level contour map.
- Prepare a letter that presents and discusses: 1) groundwater elevation data, 2) groundwater level contour map, 3) groundwater analytical data, and 4) progress of product removal from Well W-5 (performed under separate authorization).
- Submit the letter report to Christie Avenue Partners-JS for review and comment.
- Submit a final letter report to Alameda County Department of Environmental Health.
- Review the monitoring program at the end of one year and recommend any appropriate changes.