STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454

R0397

April 19, 2005
Mr. Amir Gholami
Alameda County Environmental Health Service
Environmental Protection
1131 Harbor Bay Pkwy; Suite 250
Alameda, California 94502-6577

SUBJECT: Submittal of Workplan and Health & Safety Plan for **two** sites in Oakland.

Dear Mr. Gholami:

Attached please find copies of Workplan and Health & Safety Plan for 2005 Ground Water Monitoring at the following sites in Oakland.

1- 555 Hegenberger Road, Oakland, Alameda County.
2- 1112 29th Avenue, Oakland, Alameda County.

If you have any questions or require additional information, please contact Bahram Sazegar at (510) 286-5643.

Ray Boyer

RAY BOYER
District Branch Chief
Office of Environmental Engineering

Attachments

Cc: Rboyer, File

GEOCON
CONSULTANTS, INC.
ENVIRONMENTAL ■ GEOTECHNICAL ■ MATERIALS

Project No. E8220-06-18
April 14, 2005

Bahram Sazegar
California Department of Transportation
District 4
111 Grand Avenue, 14th Floor
Post Office Box 23660
Oakland, California 94623-0660

Subject: WORKPLAN TO CONDUCT GROUNDWATER MONITORING
SOUTH OAKLAND MAINTENANCE STATION
1112 29th AVENUE, OAKLAND, CALIFORNIA
CONTRACT No. 04A1862
TASK ORDER No. 18

Dear Mr. Sazegar:

As requested, Geocon has prepared this workplan to conduct groundwater monitoring at the South Oakland Maintenance Station located at 1112 29th Avenue in Oakland, California. The Site location is shown on the Vicinity Map, Figure 1.

BACKGROUND

One 4,000-gallon underground storage tank (UST) and one 2,000-gallon gasoline UST were removed from the site on March 11, 1997. The tank pit was over-excavated and confirmation soil samples were collected. Total petroleum hydrocarbon compounds as gasoline (TPHg) and as diesel fuel (TPHd) were reported as high as 380 and 21 milligrams per kilogram (mg/kg), respectively. Benzene, toluene, ethylbenzene, total xylenes (BTEX compounds) were reported as high as 48 mg/kg and methyl tertiary butyl ether (MTBE) was reported as high as 9.15 mg/kg.

On April 6 and 7, 1999, soil and groundwater samples were collected from six soil borings installed at the site. Soil sample results indicated that TPHg and MTBE were detected in one sample location at concentrations of 13 mg/kg and 0.16 mg/kg, respectively. No other contaminants were reported above the laboratory method detection limit concentrations in soil samples collected from the other soil borings. Groundwater sample results indicated that TPHg was present at concentrations of 520 micrograms per liter (ug/l) in two boring locations, and it was reported as non-detect in the other four soil boring locations. BTEX compounds were reported in several groundwater samples; however, the only compound that exceeded the State of California maximum contaminant level (MCL) was benzene. It was reported in one groundwater sample at a concentration of 6.3 ug/l. MTBE was reported in two boring locations at concentrations which exceeded the MCL. MTBE was reported at concentrations of 6,600 ug/l and 24 ug/l.

On August 13, 1999, three additional soil borings were drilled at the site. The borings were installed along the property boundary. Results indicated that MTBE was present in groundwater in two sample locations at concentrations of 5,600 and 9.0 ug/l.

In June and July 2000, Professional Service Industries (PSI) completed a supplemental investigation, which included the installation of four monitoring wells (MW-1 through MW-4). Analytical laboratory results of groundwater samples collected from MW-1 through MW-4 indicated that TPHg and BTEX compounds were present at low concentrations in monitoring wells MW-1 and MW-3; however, MTBE was present in groundwater samples collected from all four monitoring wells at concentrations ranging from 18 to 5,000 ug/l. Monitoring well locations are shown on the Site Plan, Figure 2.

In August 2001, PSI drilled three offsite soil borings. The borings were positioned in the downgradient groundwater flow direction at the All-Aboard Mini-Storage property. Analytical laboratory results of groundwater samples collected from the three temporary boring locations indicated that MTBE was not present in groundwater at concentrations that exceeded the MCL. Based on these results, PSI recommended no further investigation downgradient of the South Oakland Maintenance Station.

Quarterly groundwater sampling of monitoring wells MW-1 through MW-4 was conducted at the site from June 2000 through September 2002. The monitoring wells were also sampled in May 2004.

PURPOSE AND SCOPE OF SERVICES

The purpose of the services outlined in this workplan is to determine contaminant concentrations in groundwater. The last groundwater monitoring report was completed in May 2004. Analytical results from the groundwater sampling will be evaluated with respect to regulatory requirements and guidelines.

The scope of services will include the following:

- Collect groundwater samples from four monitoring wells;
- Submit samples for laboratory analysis; and
- Prepare report of findings.

TASK 1 – GROUNDWATER SAMPLE COLLECTION

Upon arrival at the site, the Geocon field technician will open the vault lids of each monitoring well and remove the well caps. Depths to groundwater will be collected a minimum of ten minutes after the well caps have been removed to allow the water levels in each well casing to stabilize before a water level measurement is collected. The depth to water measurements will be collected using an electronic sounding tape with marked increments to the nearest 0.01 foot. The sounding tape probe and cable will be decontaminated using an Alconox solution and deionized water rinse between each monitoring well location. Depth to water readings and the total depth of each well will be measured from the top of each well casing and recorded on the field data log sheets.

Each monitoring well will be purged using a disposable polyethylene bailer or electric submersible pump. A minimum of three well casing volumes will be evacuated from each well before a groundwater sample is collected for laboratory analysis. Water quality parameters will be measured in the field for pH, conductivity, and temperature after each well casing volume has been purged. The water quality parameters will be recorded in the field data log sheets.

Groundwater samples will be collected using a disposable polyethylene bailer after a minimum of three well casing volumes of groundwater have been purged and the water quality parameter readings are within ten percent of the previous reading.

Upon sample collection, groundwater from each bailer will be transferred into 40-milliliter glass vials preserved with hydrochloric acid (HCl). The sample containers will be labeled and placed in a chest cooled with ice for shipment to the analytical laboratory.

Purgewater generated during the groundwater sampling event will be transported to Geocon's warehouse for storage pending disposal arrangements.

TASK 2 – LABORATORY ANALYSIS

All samples will be transported to Advanced Technology Laboratories, a State of California-certified laboratory located in Signal Hill, California. The samples will be analyzed for TPHg following EPA Test Method 8015M, BTEX following EPA Test Method 8021B, and fuel oxygenate compounds (FOCs) following EPA Test Method 8260.

TASK 3 – REPORT PREPARATION

Following receipt of the laboratory analyses, the quarterly groundwater monitoring report will be prepared summarizing the field activities and the results of the analytical data. The reports will include the following:

- Scope of services performed;
- Site background;
- Groundwater sample methods and procedures;
- Results of field activities including laboratory results;
- Discussion of results;
- Conclusions and recommendations;
- Vicinity Map, Site Plan;
- Shallow groundwater contour map;
- Tabulated groundwater analytical data; and
- Laboratory reports and chain of custody documentation.

If you have any questions concerning the contents of this workplan, or if we may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.

John Love, PG
Senior Project Geologist

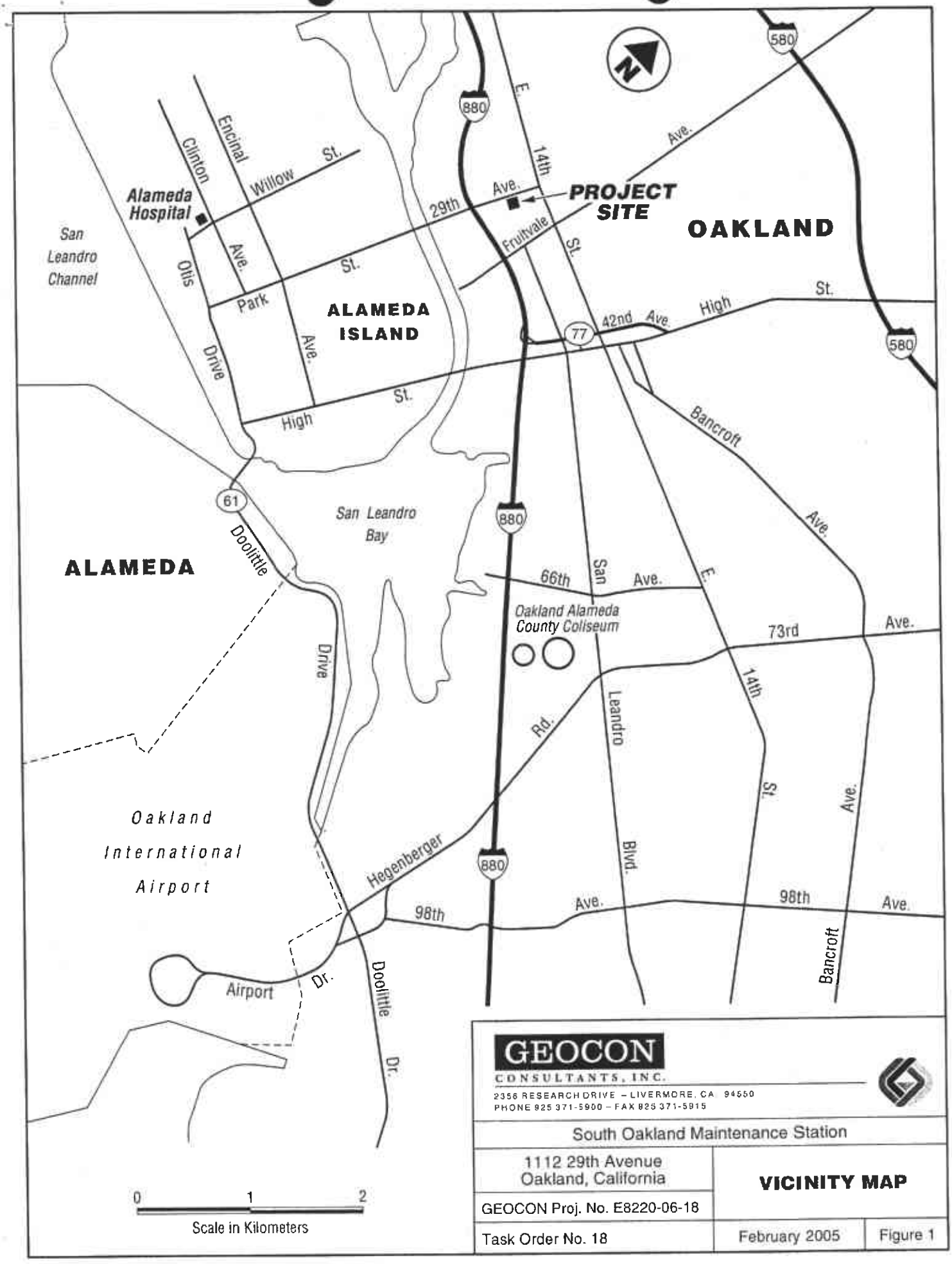
Richard Day, CEG, CHG
Regional Manager

PROFESSIONAL GEOLOGIST
JOHN W. LOVE
No. 6315
Exp. 11-30-06
STATE OF CALIFORNIA

JWL:RWD:rjk

(1) Addressee

Attachments: Figure 1 – Vicinity Map
Figure 2 – Site Plan



GEOCON
CONSULTANTS, INC.
2356 RESEARCH DRIVE – LIVERMORE, CA 94550
PHONE 925 371-5900 – FAX 925 371-5915

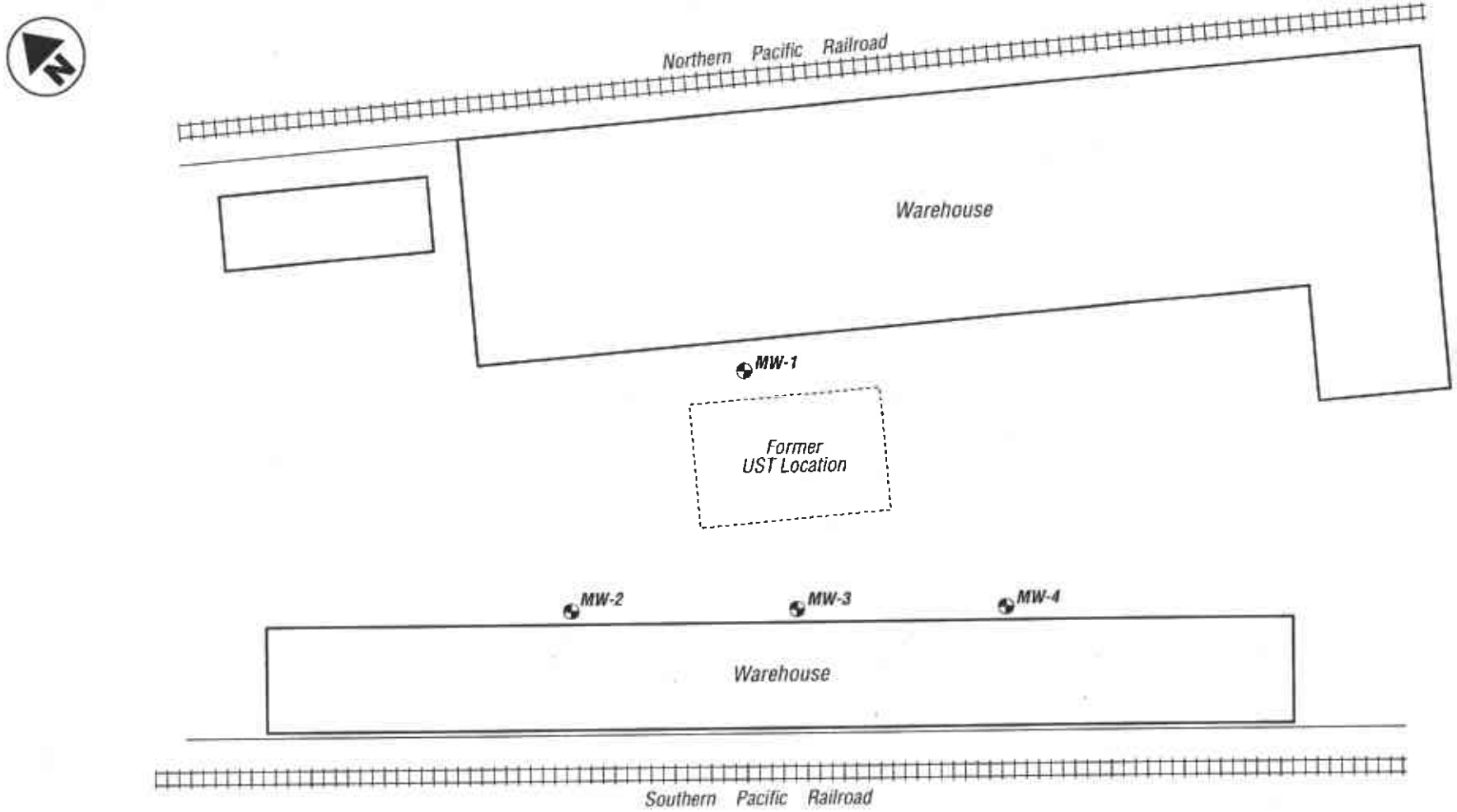
South Oakland Maintenance Station

1112 29th Avenue
Oakland, California

VICINITY MAP

GEOCON Proj. No. E8220-06-18

Task Order No. 18 | February 2005 | Figure 1



LEGEND:

MW-1 Approximate Monitoring Well Location

0 5 10m

Scale: 1:500

GEOCON
CONSULTANTS, INC.
2356 RESEARCH DRIVE – LIVERMORE, CA. 94550
PHONE 925 371-5900 – FAX 925 371-5915

South Oakland Maintenance Station

Alameda County, California	SITE PLAN	
GEOCON Proj. No. E8000-06-62		
Task Order No. 04-987901-9B	October 2001	Figure 2