

DEPARTMENT OF TRANSPORTATION

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#2189/225

November 26, 2001

NOV 29 2001

Mr. Barney Chan
Alameda County Department of Health Services
1131 Harborway Parkway
Alameda, California 94502

Subject: Workplan and Health and Safety Plan for Soil and Groundwater Investigation and Semi-Annual Groundwater Monitoring and Sampling for the California Department of Transportation's former Hegenberger Maintenance Station, in Oakland, California

Dear Mr. Chan:

Attached is a copy of Geocon Environmental Consultant's, Inc. *Workplan for Limited Soil and Groundwater Investigation and Semi-Annual Ground Water Monitoring Report, Former Hegenberger Maintenance Station, 555 Hegenberger Road, Oakland, California*, dated November 2001.

In response to your recommendations in a letter dated August 8, 2001, further site characterization has been included in this round of Semi-Annual Groundwater Monitoring and Sampling. To more fully determine the extent of the groundwater plume, two temporary borings will be placed down gradient of the underground tank pit, one temporary boring within the pit, and one temporary boring up gradient of the tank pit. Additionally, one round of Semi-Annual Groundwater Monitoring and Sampling will be conducted on the five existing monitoring wells.

If you have any questions or require additional information, please contact me at (510) 286-5668 or Mr. Aaron Bennett of my staff at (510) 286-4934.

Sincerely,

RANDELL H. IWASAKI
Acting District Director

By: Handwritten signature of Ray Boyer in black ink.

RAY BOYER
District Branch Chief
Office of Environmental Engineering

Attachment
cc: RBoyer, File



Project No. E8100-06-13
November 21, 2001

NOV 29 2001

Ms. Frances Maroni
California Department of Transportation
District 4
111 Grand Avenue, 14th Floor
PO Box 23660
Oakland, California 94623-0660

RECEIVED

NOV 26 2001

Office of Environmental
Engineering

Subject: WORKPLAN FOR LIMITED SOIL AND GROUNDWATER INVESTIGATION
SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING
FORMER HEGENBERGER MAINTENANCE STATION, OAKLAND
CONTRACT No. 43A0078
TASK ORDER No. 04-987901-VM

Dear Ms. Maroni:

In accordance with Contract No. 43A0078 and Task Order No. 04-987901-VM, Geocon Consultants, Inc. is submitting this Workplan for site investigation work to be conducted at the subject site. This Workplan describes the proposed scope of work and outlines procedures and methods to be employed by Geocon to complete the project.

PROJECT LOCATION

The subject site is located at 555 Hegenberger Road in Oakland, California. The site is the former Hegenberger Maintenance Station. Caltrans formerly used the site to store and service maintenance vehicles and equipment. The site is currently leased to the Volvo/GM truck dealership and can only be accessed through the dealership property. A fueling system was utilized at the site. The approximate project location is depicted on the attached Vicinity Map, Figure 1.

BACKGROUND

The following background information was provided in the Caltrans Task Order No. 04-987901-VM. In September 1994, four underground storage tanks (USTs) and the associated product piping and pump island were removed. The USTs consisted of two 2,000-gallon diesel and two 6,500-gallon gasoline tanks. During the UST removal, the UST areas were over excavated and the soil was disposed. Soil samples collected from the tank excavation exhibited concentrations of total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and oil and grease (O&G), and benzene, toluene, ethylbenzene, and xylenes (BTEX).

To evaluate the potential impacts to groundwater and soil beneath the site, a soil and groundwater investigation was conducted by Geocon in September and October 1995. The investigation included the installation of five monitoring wells (MW1 through MW5). The investigation indicated that groundwater and soil beneath the site was impacted by petroleum hydrocarbons.

Based on the findings of the investigation, ACDEHS requested quarterly groundwater monitoring. The five monitoring wells were monitored quarterly from October 1995 through November 1996 and again in February 1998. Laboratory analysis of groundwater samples for methyl tert-butyl ether (MTBE) began in February 1998.

Total Petroleum Hydrocarbons as motor oil (TPHmo) and O&G were not detected in groundwater samples. Consequently, analyses of these compounds were discontinued. TPHg, TPHd, BTEX, and MTBE have historically been detected in groundwater. Since the concentration of these constituents have not attenuated over time, the ACDEHS has requested semi-annual monitoring of groundwater beneath the site. In subsequent sampling events, the laboratory analysis indicated that MTBE was no longer present in groundwater at the site; therefore, ACDEHS stated that MTBE is no longer a contaminant of concern.

PURPOSE

Based on the results of the semi-annual groundwater monitoring and groundwater analytical data, the ACDEHS has requested further site characterization to determine the extent of impacted groundwater. Additional soil and groundwater sampling and analysis is to be performed upgradient, downgradient, and within the former underground storage tank pit.

The purpose of the scope of work outlined in Task Order No. 04-987901-VM is to determine the extent of impacts to groundwater. In addition to the limited soil and groundwater investigation, semi-annual groundwater monitoring will also be performed as required by Alameda County Department of Environmental Health Services (ACDEHS).

PROJECT SCOPE

Outlined below is a summary of the scope of services to be performed by Geocon in accordance with Task Order No. 04-987901-VM.

Pre-Field Activities

A health and safety plan for the proposed field activities is being prepared concurrently to this Workplan. The health and safety plan provides guidelines on the use of personal protective equipment and the health and safety procedures to be implemented during the proposed field activities.

A Task Order meeting was conducted on November 6, 2001 and at that time the proposed boring locations were outlined with white paint for utility clearance by Underground Service Alert (USA) members. Geocon will provide 48-hour notification to USA prior to job mobilization and obtain an inquiry number. Geocon shall not be liable for damage to underground utilities and obstacles not covered by USA. In addition, Geocon will retain a private utility locating contractor to determine the location of underground utilities in the vicinity of each boring location.

Geocon will obtain a soil boring permit from Alameda County Public Works Agency for the advancement of the four proposed soil borings.

Field Activities

The fieldwork will be performed under the direct supervision of Geocon's project manager. The field work will be completed in two phases: 1) Soil and groundwater investigation and 2) Semi-annual groundwater monitoring, sampling, and analysis. The approximate sampling locations are depicted on the attached Site Plan, Figure 2.

Soil and Groundwater Investigation

~~A total of four soil borings will be advanced at the site to a depth of approximately 3 meters (10 feet)~~ below ground surface (bgs) using direct push drilling techniques. Soil and grab-groundwater samples will be collected from each boring and submitted to the laboratory for analysis. A photoionization detection device will be used to detect the presence of volatile organic compounds (VOCs) in soil samples collected from the borehole. The soil lithology in each boring will be logged for content, color, texture, VOCs, and cultural items.

~~The soil samples will be collected from 1.5 meters to 2.7 meters (5 to 9 feet) bgs utilizing a Geoprobe Macrocore sampler with an acetate liner.~~ A section of the soil-filled acetate liner retrieved from the designated sample interval will be cut out at the soil and groundwater interface. Each end of the cut section of soil-filled liner will be covered with Teflon tape secured with a plastic end cap. The soil sample will be labeled, logged on the chain-of-custody, and placed into a chilled cooler for transport to the laboratory.

Once the soil sample has been collected, the borehole will be advanced to approximately 3 meters (10 feet) bgs. A temporary well will be constructed in each borehole by inserting a screened PVC casing into the borehole. A grab-groundwater sample will be collected from each boring by lowering a stainless steel bailer into the temporary well screen and decanting the grab-groundwater sample into the appropriate laboratory supplied container.

Once the grab-groundwater sample has been collected, the temporary casing will be removed from the borehole and the borehole will be backfilled to the specifications of the soil boring permit obtained from ACDEHS. *AC Public Works*

Sampling equipment will be cleansed between sample locations by washing the equipment with an Alconox™ or Liquinox™ solution followed by a double rinse with distilled water. The decontamination water will be contained in 208-liter (55-gallon) steel drums, labeled, and left onsite pending laboratory analysis prior to disposal.

The soil and grab-groundwater samples will be chilled and transported to CRL laboratory, a California-certified environmental laboratory, utilizing standard chain-of-custody documentation.

Semi-Annual Groundwater Monitoring, Sampling and Analysis

~~One groundwater monitoring and sampling event will be performed within 5 days of the soil and groundwater investigation.~~ Depth to water will be measured in each monitoring well prior to purging and sampling any well. A minimum of three casing volumes of water will be purged from each well. Monitoring wells will be purged using a submersible pump. For each monitoring well, water quality parameters; pH, temperature, and conductivity will be recorded after every well casing volume of water is removed. Groundwater samples from each monitoring well will be collected with a disposable polyethylene bailer and transferred into the appropriate laboratory supplied container. Each container will be labeled, logged on the chain-of-custody, and placed into a chilled cooler for transport to the laboratory for analysis.

All groundwater monitoring wells will be surveyed for top of casing elevation relative to mean sea level. In addition, a Global Positioning System unit will be used to obtain latitude and longitude coordinates for each boring and groundwater monitoring well.

Laboratory Analyses

The laboratory will be instructed to analyze the soil and groundwater samples as follows:

- TPHd following EPA Test Method 8015 Modified;
- TPHg, BTEX and MTBE following EPA Test Method 8015/8020; and
- VOCs following EPA Test Method 8260B

Water samples to be analyzed for TPHd will first undergo the Silica Gel Cleanup Method (Method 3630C). Also, EPA Method 8260B is only to be run if sample analyses show BTEX or MTBE compounds by EPA Method 8015/8020. All samples will be analyzed on a standard 10-day turn around time.

Quality assurance/quality control (QA/QC) procedures will be performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. QA/QC measures will include the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever is more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever is more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever is more frequent, with spike made at ten times the detection limit or at the analyte level.

Report Preparation

A soil and groundwater investigation/semi-annual groundwater monitoring report will be prepared to transmit the field and laboratory data, and data evaluation. The report will include but not be limited to the following:

- Background summary
- Scope of services performed
- Observations during the field activities
- Results of field activities including laboratory results
- Vicinity Maps and Site Plans indicating boring locations
- Conclusions and recommendations
- Appendices including laboratory reports and chain-of-custody documentation

In addition, Geocon will submit all groundwater analytical data, elevation and coordinate information for each groundwater monitoring well and grab-groundwater sample location to the State Water Resources Control Board.

If there are any questions concerning the contents of this Workplan, or if Geocon may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.



Matthew W. Hanko, REA
Senior Project Scientist

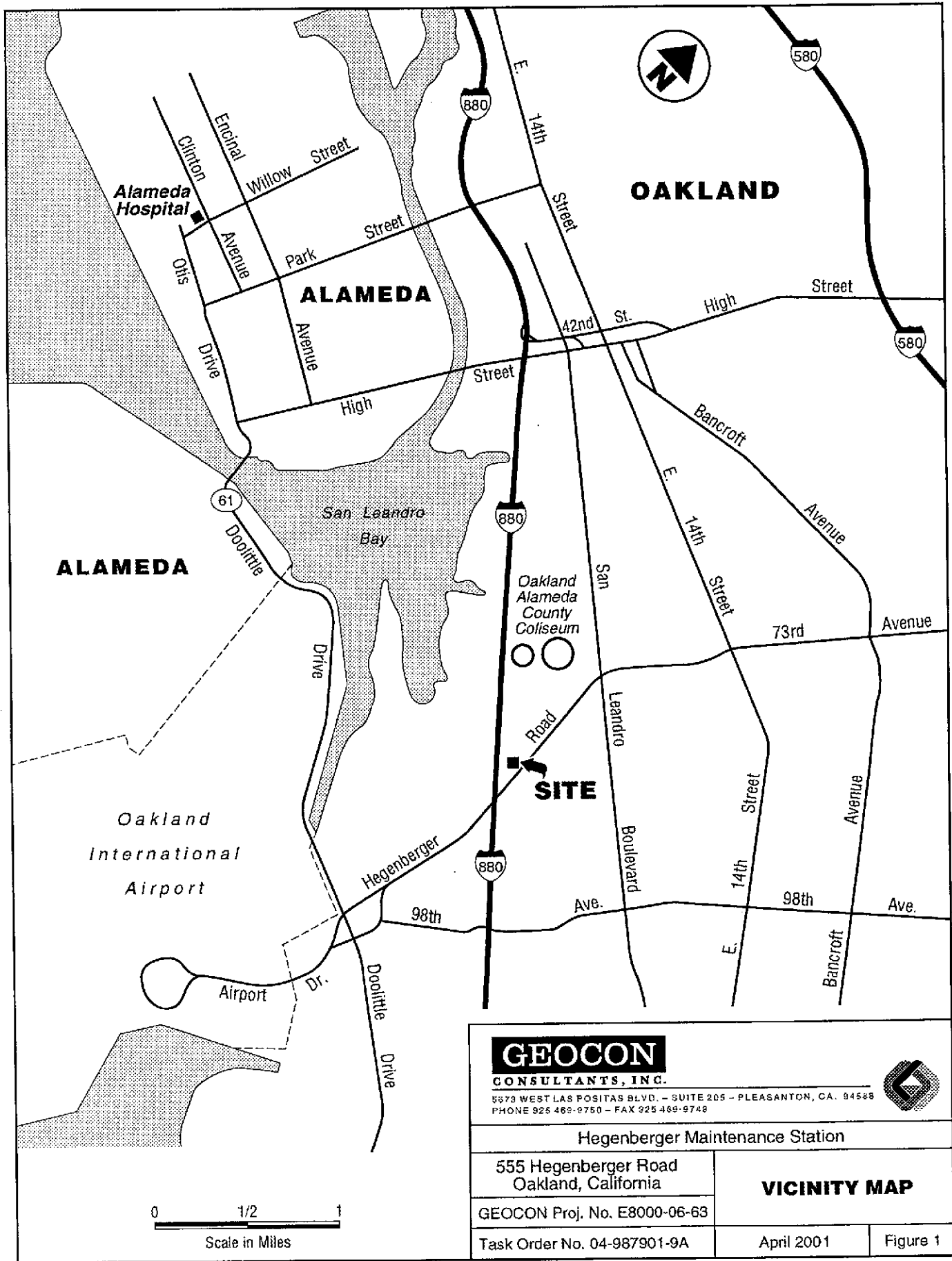


Richard Day, CEG, CHG
Regional Manager

MWH/RWD:mwh

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

(2) Addressee



GEOCON

CONSULTANTS, INC.

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 PHONE 925 469-9750 - FAX 925 469-9748



Hegenberger Maintenance Station

555 Hegenberger Road
 Oakland, California

VICINITY MAP

GEOCON Proj. No. E8000-06-63

Task Order No. 04-987901-9A

April 2001

Figure 1

