January 16, 2006

GA Project No. 157-02-01

Alameda County Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

# **RECEIVED**

By lopprojectop at 9:08 am, Jan 27, 2006

Attention: Mr. Jerry Wickham

Subject: Work Plan for Soil Removal

533 Exchange Court Livermore, California

Dear Mr. Wickham:

Gribi Associates is pleased to submit this letter work plan on behalf of Pitcock Petroleum proposing removal of hydrocarbon-impacted soil, collection of confirmation samples, and collection of one grab groundwater sample at 533 Exchange Court in Livermore, California (Figure 1 and Figure 2). This work plan is provided at the request of the Alameda County Health Services, Environmental Protection in a letter dated October 12, 2005.

# **BACKGROUND**

The project site is an operating bulk fueling facility located south of Interstate 580, near the intersection of South Vasco Road and Brisa Street. Five UST vent lines are present adjacent a concrete wall near the perimeter of the site (see site photos on Figure 3). It is our understanding that fuel hydrocarbons were accidently released from the UST vent lines in the recent past during UST filling.

On December 3, 2004 (with the approval of Mr. John Rigter of Livermore-Pleasanton Fire Department), Gribi Associates conducted an investigation of shallow soils contained in a landscape area adjacent to UST vent lines. The soil investigation comprised of three shallow (less than 2 feet deep) soil borings. Analysis of collected soil samples showed detectable levels of total petroleum hydrocarbons (TPH) as diesel as high as 410,000 milligrams per kilogram (mg/kg) and TPH as gasoline as high as 410 mg/kg. Soil investigation details were documented in "Report of Vent Area Sampling" (Gribi Associates, February 2005). The report concluded that the soil impacts were limited in both vertical and lateral extent, and that the impacts do not appear to be recent, as evidenced by the non-detectable levels of benzene and MTBE in the soil samples.

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#### SOIL REMOVAL WORKPLAN

## **Cleanup Goals**

In order to address the limited subsurface soil impacts at the site, Gribi Associates proposes soil removal activities to in order to mitigate shallow soil hydrocarbon-impacts that exceed San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs)(February 2005). From Table A of the ESL Technical Document, which considers shallow soils of commercial/industrial property where groundwater is a potential drinking water source, we determine the following cleanup goals:

- 100 mg/kg TPH-gasoline
- 100 mg/kg TPH-diesel
- 0.044 mg/kg benzene
- 2.9 mg/kg toluene
- 3.3 mg/kg ethylbenzene
- 2.3 mg/kg xylenes

To accomplish these goals, Gribi Associates proposes excavation of a volume of soil approximately 6 feet by 6 feet by 1.5 feet deep (Figure 3). Based on soil hydrocarbon concentrations from the previous sampling of the area, Gribi Associates is confident that most, if not all, shallow soils exceeding the ESL values will be removed. Soil samples will be collected to confirm that cleanup goals are achieved.

### **Soil Removal Activities**

Through the use of hand-digging or small excavation equipment, a volume of soil approximately 6 feet by 6 feet by 1.5 feet will be removed. Removed soil will be contained in 55 gallon drums and will remain onsite pending soil profiling and disposal.

## **Confirmation Soil Sampling**

Within the area of excavation, four confirmation soil samples will be collected. The four soil will be collected from the surface of the excavation and will be located in a manner that maximizes coverage of the excavation surface. The soil samples will be submitted to a state-certified laboratory and analyzed for the following:

- USEPA 8015M Total Petroleum Hydrocarbons as Diesell (TPH-D)
- USEPA 8015M Total Petroleum Hydrocarbons as Gasoline (TPH-G)
- USEPA 8020/602 Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)
- USEPA 8020/602 Methyl-t-butyl Ether (MTBE)

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In the event that a confirmation sample shows hydrocarbon levels above the determined cleanup goals, "hot spot" excavation in the vicinity of the "failing" soil sample will be conducted. "Hot spot" excavation will consist of a 2 feet by 2 feet by 1 feet excavation centered around the failing soil sample location.

#### **Excavation Backfill**

Upon receipt of acceptable soil sample confirmation results, the excavation will be backfilled using clean fill soil.

## **Groundwater Sampling**

A single groundwater sample will be obtained from below the excavation area using direct-push hydraulically driven soil coring equipment. Using this method, almost continuous soil cores will be obtained, which will then be examined, logged, and field screened for hydrocarbons by a qualified geologist using sight and smell. Once groundwater is encountered, clean 3/4-inch PVC well casing will be placed in the borehole and a groundwater sample will be collected in laboratory supplied containers using a clean bailer. The groundwater sample will be submitted to a state-certified laboratory and analyzed for the following:

- USEPA 8015M Total Petroleum Hydrocarbons as Diesel/Motor Oil (TPH-D)
- USEPA 8015M Total Petroleum Hydrocarbons as Gasoline (TPH-G)
- USEPA 8020/602 Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)
- USEPA 8020/602 Methyl-t-butyl Ether (MTBE)

## SOIL REMOVAL REPORT

Within four weeks of completion of field activities, a report documenting soil removal and groundwater sampling activities will be provided to Alameda County. The report will document details and results of soil removal and groundwater sampling activites; and will be accompanied by laboratory analytical data, figures, photographs, and records of soil disposal.

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We appreciate the opportunity to present this workplan for your review. Please call if you have questions or require additional information. We look forward to working with you on this important project.

Very truly yours,

Matthew A. Rosman Project Engineer

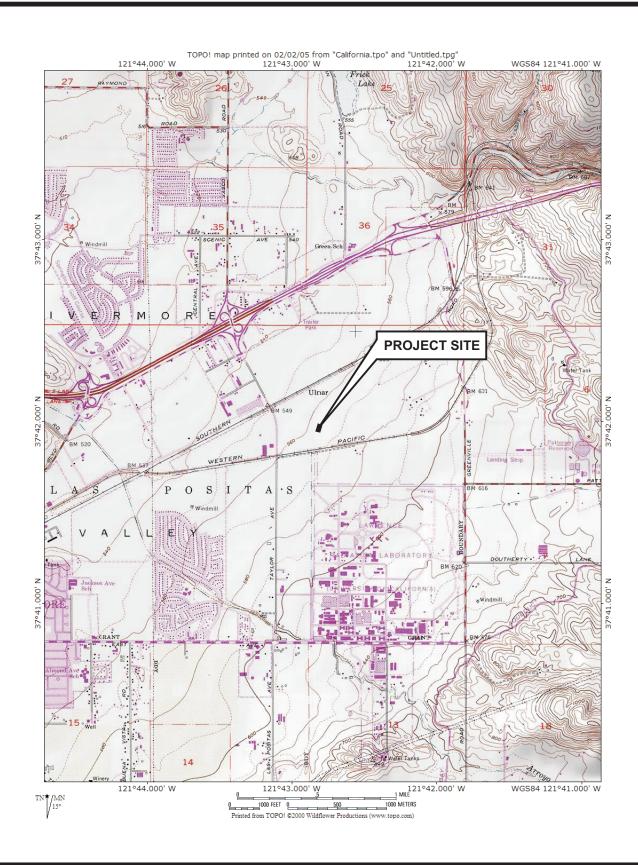
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cc Jeff Pitcock, Pitcock Petroleum

James E. Gribi Registered Geologist California No. 5843







DESIGNED BY: CHECKED BY:

DRAWN BY: JG SCALE:

PROJECT NO: 157-02-01

**SITE VICINITY MAP** 

BAY COUNTIES PETROLEUM 533 EXCHANGE COURT LIVERMORE, CALIFORNIA DATE: 01/16/2006

FIGURE: 1

**GRIBI** Associates

