THE SUTTON GROUP

Engineering and Environmental Services
51 Shuey Drive
Moraga, California, 94556-2620
phone (510) 631-1688 fax (510) 631-1371

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 14
To Ms. Juliet Shin | From John Sutton
Co. Alameda Co Health | Co. The Sutton Group
Dept. | Phone # (510) 631-1688
Fax # 337-9335 | Fax # (510) 631-1371

October 26, 1994

Ms. Juliet Shin
Alameda County Environmental Health,
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, CA, 94502

Subject: **Work Plan for Stage II Tank Removal Investigation, 1,000 gallon Gasoline Tank Site Closure at the Oro Loma Sanitary District Service Center, 2600 Grant Avenue San Lorenzo, California**

Dear Ms. Shin:

This Work Plan describes a supplementary site investigation planned to quantify the extent of contaminated soil that may most appropriately be removed from the tank vicinity as "source material" at the time of removing a 1,000 gallon, underground gasoline storage tank. The tank is located adjacent to the Maintenance Building at the Oro Loma Sanitary District (OLSD) Service Center, at 2600 Grant Avenue in San Lorenzo, un-incorporated Alameda County, California. Figure 1 shows the fuel island located over the subject tank.

HISTORY

The 1,000 gallon tank was installed in about 1968. It initially stored leaded gasoline until 1985, at which time it was converted to unleaded gasoline service. This tank replaced an older tank which was installed in 1961.

A subsurface investigation of the tank area, commenced by a consultant to the District in August, 1993. Sample test results revealed soil contamination by gasoline to as much as 4,300 ppm, and ground water contamination up to 1,600 ppm. Ground water was interpreted to be 7 to 10 feet depth, and no free product was reported. The project was not completely documented. A boring location plan and laboratory results, as are available, are included as an attachment to this Work Plan.

PROPOSED INVESTIGATION

Introduction

This supplementary investigation will comprise the excavation of up to eight test trenches in the parking lot adjacent to the district's offices and maintenance shops.

The work will be performed under the direction of John R.,. Sutton, a California-registered Civil and Geotechnical Engineer.

The work will be performed under the aegis of the Districts health and safety program and the health and safety plan prepared in February 1992 for the previous tank removal project by Levine Fricke. The substances of concern for this project are gasoline hydrocarbons and their constituent chemical compounds, as may exist in soils, or floating on, or dissolved in ground water.

Prior to excavation, the District will have Underground Service Alert scan the site and mark the presence of any underground utilities. The trench boundaries will then be saw-cut through the asphalt paving.

Each trench will be approximately seven feet deep. The actual number of trenches excavated will be dependent on the discovery on significant evidence of gasoline presence in the pits.. These trenches will be excavated by backhoe. Soil removed from the trenches will be placed on visqueen prior to removal from the site by OLSD.

Soil Sample Collection and Handling

Soil samples will be collected from each test trench for observation and logging purposes. Samples will be collected by driving a metal tube into the soil removed from the trench by the backhoe. Personnel will not enter the excavation. All soil samples will be screened on-site using a portable photo-ionization detector (PID). calibrated to a known source. PID data will be used in the field to identify sampling depths, and the need for further excavation. Up to three soil samples from each trench, representative of surficial and deeper soils, may be selected for chemical analysis.

These selected soil samples will be appropriately packed and refrigerated for transport to the District's contract chemical laboratory, Sequoia Analytical Laboratory in Redwood City California. The samplers and field equipment will be cleaned prior to, and also following the field investigation.

Ground Water Sampling

The ground water sampling program will consist of collecting "grab" water samples from two selected trenches. We will observe each of the trenches for free product. We expect to encounter ground water at 5 to 7 feet depth in the trenches. Water samples will be placed in containers provided by the laboratory that contain pre-dosed amounts of preservative in accordance with EPA document SW846, and placed on ice to reduce temperature. Samples will be dispatched to the laboratory on the day they are collected

Trench Reinstatement

The soil removed from the trenches will be hauled off site by the District. The trenches will be backfilled with uncontaminated soil and the surface reinstated following completion of sampling.

Laboratory Testing Program

The chemical testing program will entail analyzing up to two soil samples from each of the test trenches (an estimated maximum of 12), and water samples from two of the trenches. The District has contracted Sequoia Analytical Laboratory of Redwood City California to collect, transport and analyze the samples. Sequoia is an independent, California EPA-certified hazardous waste testing laboratory, accredited to perform the analyses in accordance with the San Francisco Bay Regional Water Quality Control Board, and the Alameda County Health Department's Hazardous Materials Program's guidelines for analysis of petroleum fuels releases from

underground tanks.

Soil samples will be analyzed for total petroleum hydrocarbons as gasoline, benzene, toluene, ethyl benzene and xylenes using EPA Methods 5030, and 8020 respectively, and lead by EPA Method 6010.

The ground water samples will each be analyzed for the same chemical components as are the soils. Ground water samples will be filtered in the laboratory prior to analysis

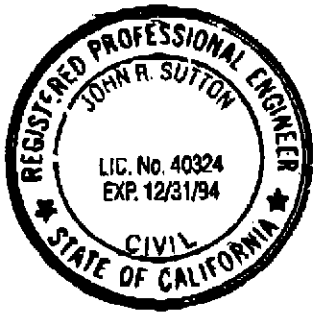
Reporting

Our findings will be summarized in a brief report that also describes field procedures and includes laboratory results and results of the earlier boring program. A copy of the report will be provided to the Alameda County Environmental Health Department, Hazardous Materials Division, to the attention of Ms. Juliet Shin.

Please call the writer should you have questions or comments

Yours truly,

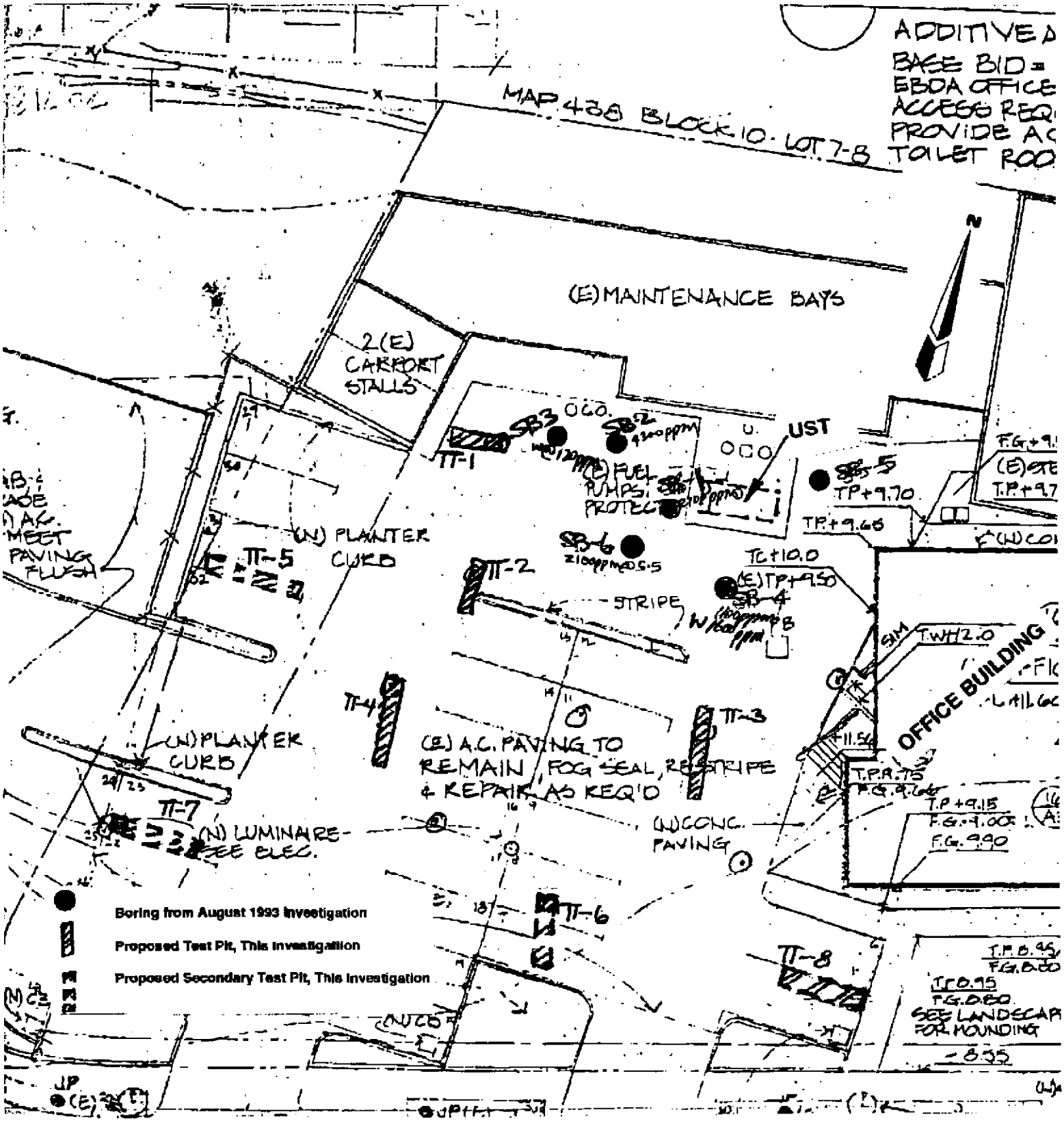
THE SUTTON GROUP



John R. Sutton,
Civil Engineer No. 40324
Geotechnical Engineer No. 812

Attachments: Figure 1, Site Plan and Test Trench Locations
Data from 1993 investigation

cc: Mr. Michael Cortez, Project Manager,
Oro Loma Sanitary District



GRANT AVENUE

THE SUTTON GROUP *Engineering and Environmental Services* *51 Shuey Drive* *Moraga, California, 94556-2620* *phone (510) 631-1688*	**SITE PLAN AND TEST TRENCH LOCATIONS** **ORO LOMA SANITARY DISTRICT** **SAN LORENZO, CALIFORNIA**	PROJECT NO. 3022 FIGURE N 1

Data From 1993 Investigation