

# John P. Cummings & Associates

Environmental Consultants

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File No. 0193002.01  
November 15, 1993

**PERSONAL AND CONFIDENTIAL**

Mr. Ruben Hausauer  
6017 14th Street  
Oakland CA 94601

# 4610

Subject; Proposal Monitoring Well Installation  
3927 E. 14th Street, Oakland CA

Dear Mr. Hausauer,

John P. Cummings & Associates (JPCA) is pleased to present the following proposal which is based on the prior investigation of the site conditions and available data for the site. The site is located at 3927 E. 14th Street, Oakland, CA. An Underground Service Tank (UST) was filled in place beneath the sidewalk on this site. Figure 1 is a site location map.

Two borings were slant drilled at approximately 45 degrees to allow for soil sample collection in the native soil beneath the UST. Based on the analysis of the collected soil samples the tank appears to have been a waste oil tank and the release occurred a long time ago.

## **SCOPE OF WORK**

In order to complete the characterization required the following six tasks are required.

### Task 1

Task one will include preparation of a workplan for further characterization of the soil and groundwater beneath this site. Permits for the monitoring well shall be obtained from the proper regulatory agencies. As a part of the workplan, a site specific Health and Safety Plan will be completed.

### Task 2

Based on the limited area accessible (essentially the sidewalk), JPCA proposes that one monitoring be installed on the site.

The well (MW 1) will be located approximately 10 feet westerly of the exit port of the UST on the site. The approximate location will be developed for the workplan, but it will be located to the west of the UST area. USA will be contacted prior to any drilling. Figure 2 shows the approximate location of MW-1.

The well will be installed using a hollow stem auger drilling rig. The drilling services and provision of the well supplies will be subcontracted to a drilling company. A Certified Engineering Geologist will direct the installation and record the observations of the geologic materials encountered in the borings.

Soil Samples will be collected at each five foot intervals, or at significant changes in lithology whichever occurs first. These samples will be collected for a description of the subsurface soil conditions. Three samples will be chemically analyzed. The samples shall be collected in brass tubes, capped and sealed, labeled, held in a cooler at approximately 4 degrees Centigrade, until analysis by a State Certified Laboratory and transported under Chain-of Custody (COC) documentation.

The depth to groundwater at the site is estimated to be approximately 12 to 17 feet based on previous work in the region. The wells will, therefore, extend to an approximate depth of 30 feet. The lower 20 feet of the well will be 2 inch diameter factory-slotted PVC pipe. Because of the anticipated fine-grained nature of the water bearing units below the site, a slot size of 0.01 inch will be used. A sand pack (#2/16 or similarly graded sand) will be placed between the native materials and the PVC pipe. The sand will extend approximately 1 feet above the slotting and bentonite will be used to provide a transition seal above the sand. A solid pipe will be used from the slotted section to the well head and will be grouted (neat cement) above the bentonite.

It is recommended that the well head extend to just below the existing ground surface and be protected in a Christy-type, traffic-rated box. The well will have a locking, vapor-proof cap. box.

### Task 3

A minimum of three days after the installation of the well, the well will be developed by pumping, purged and a groundwater sample collected by clean dedicated bailer. The sample will be placed in a cooled ice chest and transported to a state certified laboratory under COC documentation for analyses.

### Task 4

The elevation of the well head will be surveyed using a benchmark, if one is available, in the site area. If possible, other wells (a minimum of two) located nearby which may be accessible will be utilized to calculate the site gradient. The depth to groundwater in each well will be measured to a hundredths of a foot using an electronic probe. The elevation of the groundwater in each well will be used to establish the direction and slope of the gradient.

Task 5

The soil (3) and groundwater (1) samples shall be analyzed for Total Petroleum Hydrocarbons, as gasoline (TPHG) and diesel (TPHD); Benzene, Toluene, Ethylbenzene and Xylene (BTEX); Total Oil and Grease (TOG) and for the metals Cadmium, Chromium, Lead, Nickel and Zinc (CAM 5) using Inductively Coupled Argon Plasma (ICAP) or Atomic Absorption (AA). These analyses are those required in the "Tri-Regional Guidelines" which are directives of the Regional Water Quality Control Board.

TPHG  
me

Task 6

A report documenting the results of the investigation and the laboratory analyses of the samples to include a summary, conclusions and recommendations regarding the potential environmental liabilities, if any, will be prepared.

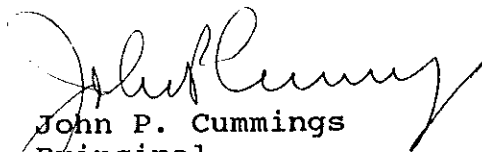
**ESTIMATED COSTS and SCHEDULE**

The estimated costs for the proposed work is \$ ~~XXXXXX~~ based on the assumptions listed below. The costs include Professional fees, drilling, well supplies, equipment rental and chemical analyses.

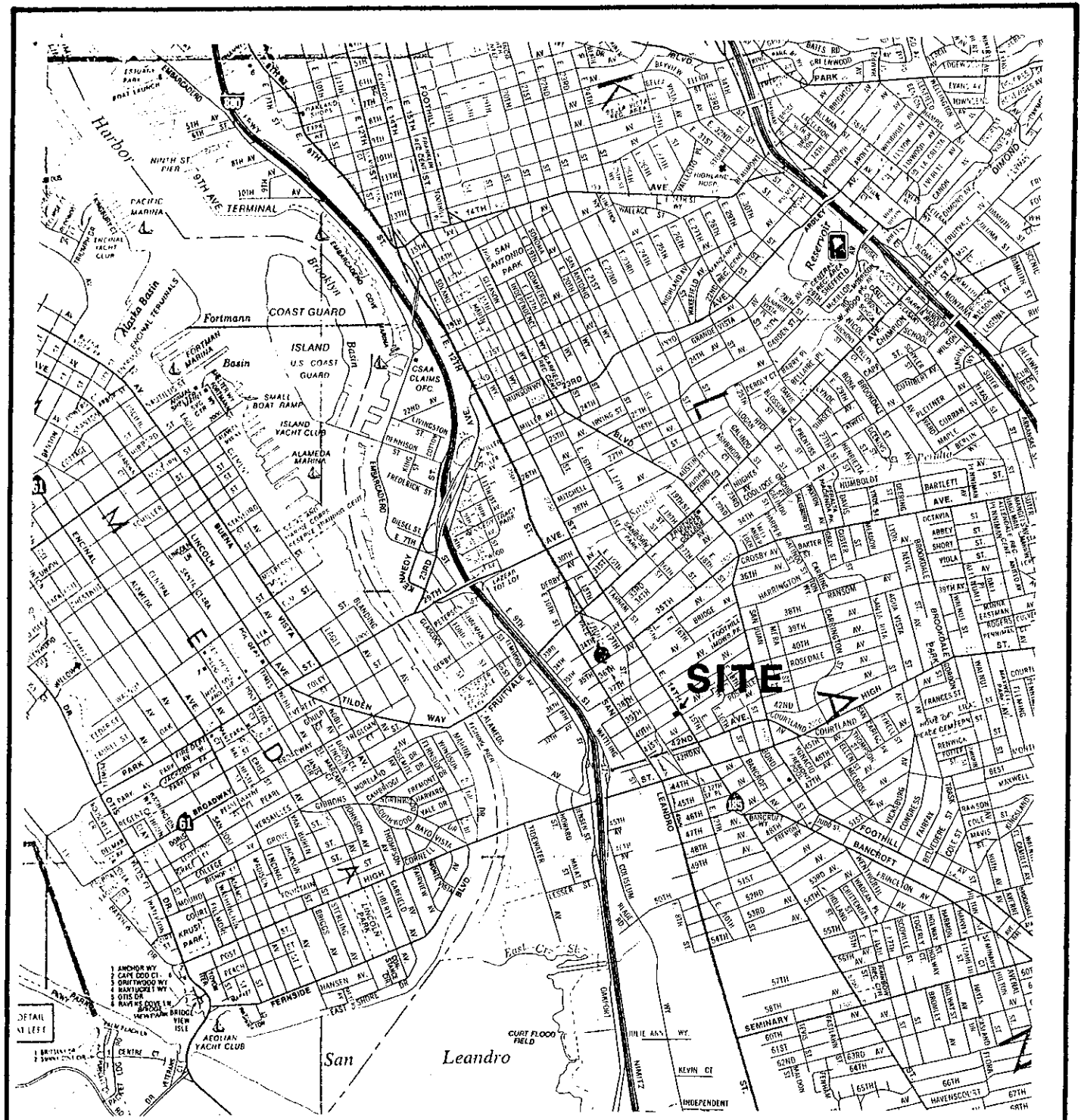
1. The depth to groundwater and the gradient are generally as assumed.
2. Soil cuttings and groundwater are not contaminated and can be disposed of on-site. Disposal of any contaminated soil and/or groundwater is the responsibility of the property owner.
3. Laboratory analyses are conducted on a normal (15 day) turnaround schedule. Shorter turnaround time is available.
4. Water and electric power are available on site during the drilling.
5. The county and/or other regulatory agencies do not request data that is in addition to what is proposed here.

Projects of this nature can be completed by our firm in about five weeks. For your convenience, JPCA has enclosed a standard form of agreement routinely used by us on this type of project. One signed copy of this agreement can serve as our notice to commence work. We are pleased to provide you with this proposal. Should you have any questions please contact the undersigned, at (510) 505-0722.

Sincerely,

  
John P. Cummings  
Principal

Enclosure



<p><b>JOHN P. CUMMINGS &amp; ASSOCIATES</b></p>	<p><b>PROJECT # 0293002.00 NEW GENICO OAKLAND, CALIF.</b></p>
<p><b>Fig. 1 SITE LOCATION MAP</b></p>	

East 14th Street

different building

3927

East

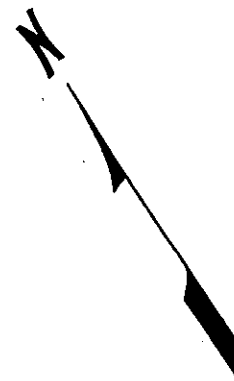
14th Street

B-1

Tank Area

B-2

40th Avenue



angle  
bump  
@ ~135°



⊕ proposed well

- ① gradient from 3750 E 14th  
W to southwest to south
- ② Southwesterly from  
4241 E 14th  
Urcal

Roll-up Door

JOHN P. CUMMINGS  
& ASSOCIATES

PROJECT #  
3927 E. 14th St.  
Oakland, California

Fig. 2 PARTIAL SITE PLAN  
& BORING LOCATIONS