

5510 4035
ee



FUGRO WEST, INC.

44 Montgomery Street, Suite 1010
San Francisco, CA 94104
Tel: (415) 296-1041
Fax: (415) 296-0944

August 14, 1996
Project No. 9537-1311

8/19 - Verbal approval to proceed w/ more work (sched. for Wed 8/21/96)

Alameda Health Care Services
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, California 94502-6577

Attention: Ms. Eva Chu, Hazardous Materials Specialist

**Proposed Soil Remediation
Housing Authority of the City of Alameda
1916 Webster Street
Alameda, California**

Dear Ms. Chu:

At your request, Fugro West Inc. (Fugro) has prepared this letter to inform the Alameda County Department of Environmental Health (ACDEH) of the proposed soil remediation at the Housing Authority of the City of Alameda (AHA) facility located at 1916 Webster Street in Alameda, California (Figure 1). The objective of the proposed corrective action is to sufficiently excavate and dispose of the existing gasoline-impacted soil and obtain site closure.

BACKGROUND

The subject property consists of a warehouse building and adjacent parking lot located at the southeast corner of Webster Street and Atlantic Avenue in a commercial area of Alameda, California (Figure 2). The AHA had a 280-gallon gasoline underground storage tank (UST) removed in July and August 1986. Soil sample results suggested that the UST released petroleum to the subsurface soil and groundwater. Excavation in September 1986 and March 1994 removed soil impacted with gasoline constituents from areas north and east of the former UST. 10 years ago

Six ground water monitoring wells are currently installed on the subject property. Fugro conducts quarterly and annual groundwater monitoring on these wells. Quarterly groundwater samples indicate that monitoring wells in the vicinity of the former UST excavation (MW-4, MW-5) contain total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene and xylenes (BTEX).



In January 1996, Fugro proposed to excavate residual hydrocarbon-impacted soils from a 830 square foot area surrounding the former UST. The excavation area was determined by analytical results of soil samples collected in 1994. This area extended beneath the existing building and partial building demolition was required. Fugro prepared a work plan for the project and the ACHED approved it on January 10, 1996. However, prior to implementing the project, Fugro recommended that additional soil samples be collected to further define the extent of the hydrocarbon-impacted soils. Fugro recommended this to verify estimated soil quantities and determine whether partial building demolition was necessary.

Fugro conducted additional subsurface soil sampling in May 1996 to further delimit the extent of the TPH-g and BTEX in the soils. Soil sampling and analysis indicated that hydrocarbon concentrations exceeding 1,000 ppm TPH-g and 1 ppm BTEX remain in the subsurface soils adjacent to the former UST and north of the building (Figure 3). Analytical results indicated that excavation of soils beneath the building is not warranted. The results of the soil assessment was discussed in the letter-report titled: *Results of Subsurface Soil Sampling, Housing Authority of the City of Alameda, 1916 Webster Street, Alameda, California*, dated June 3, 1996. These TPH-g and BTEX concentrations in the soils adjacent to the former UST create a source capable of impacting the shallow groundwater. On the basis of the sampling results, Fugro recommended that soil exceeding 1,000 ppm TPH-g and 1 ppm benzene be excavated and disposed.

SCOPE OF WORK

This Scope of Work is based on tasks required to remove and dispose of the existing hydrocarbon-impacted soils areas adjacent to the former UST. Fugro will contract Decon Environmental Services Inc. (Decon), of Hayward, California for this project. The proposed excavation area lies between the previous excavated area and the north wall of the building extending from the west roll-up door approximately 25 feet to the east (Figure 4). This area encompasses approximately 283 square feet. The maximum estimated depth of the required excavation is 5 feet below ground surface (bgs). The estimated soil quantities for excavation and disposal is 55 cubic yards. Soil will be transported off-site for landfill disposal or thermal treatment.

Fugro will conduct confirmation soil sampling and project oversight during excavation activities. Fugro field personnel will collect at least one soil sample each sidewall (every 20 lineal feet) and from the bottom of the excavation. Fugro will notify the ACEHD prior to the work so a representative can be onsite to witness the excavation the project.

A mobile laboratory will be on-site to analyze confirmation soil samples and provide results within an hour after sampling. Utilizing an onsite laboratory will increase the efficiency of the excavation effort and reduce equipment down-time. Confirmation soil samples will be





analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene and xylenes (BTEX). The excavation will be backfilled and compacted with clean, imported Class II aggregate base material.

Fugro plans to complete the soil removal activities in August 1996. Groundwater beneath the site is expected to be 4 to 5 feet below ground surface (bgs). If the proposed soil excavation extends to five feet bgs, dewatering may be necessary. A vacuum truck will remove the standing groundwater from the excavation if required. The water will be transported under appropriate non-hazardous waste manifests to Evergreen Environmental for treatment and disposal.

Task 4 - Closure Report

Following the completion of the above tasks, Fugro will prepare a report documenting the soil and groundwater remediation activities. The intended purpose of the closure report is to demonstrate to the ACDEH that the hydrocarbon source soils is removed and to recommend site closure. The report will include:

- Descriptions of excavation and sampling procedures
- Laboratory analytical data and data tables
- Scaled diagrams of excavation area and sample locations
- Photographs of field operations
- Copies of waste soil disposal manifests

The draft version of the report will be submitted to the AHA for review. Fugro will incorporate the comments provided by AHA, finalize the report and submit it to the ACDEH for review and comment. Fugro will address comments and questions from the ACDEH through meetings or correspondence.

PROJECT COMPLETION SCHEDULE

This schedule is based on the estimated duration of the individual tasks. We estimate that the field operations will require one week. Two weeks after the completion of the field work, the draft closure report will be submitted to the AHA for comments. Approximately one week later, Fugro will submit the final to the ACDEH for review and comment. The proposed tasks and their estimated duration is summarized in the table below.





Task	Week of Completion ^(a)
1 - Coordination/Regulatory Contact /Subcontractor Mobilization	2
2 - Hydrocarbon-Impacted Soil Excavation, Profiling, Disposal and Replacement and Backfilling with Clean Import Fill	3
3 - Dewatering and Above Ground Storage	3
4 - Impacted Water Disposal	3
5 - Closure Report	5

(a) Week of Completion represents the number of weeks to completion from the start of the project. Assume task completion during or by the end of that week.. Week 0 is the week Fugro receives the AHA Notice to Proceed.

If you have any additional questions or comments regarding this letter, please contact me at (415) 296-1041.

Sincerely,

FUGRO WEST, INC.

Peter B. Hudson
Project Geologist

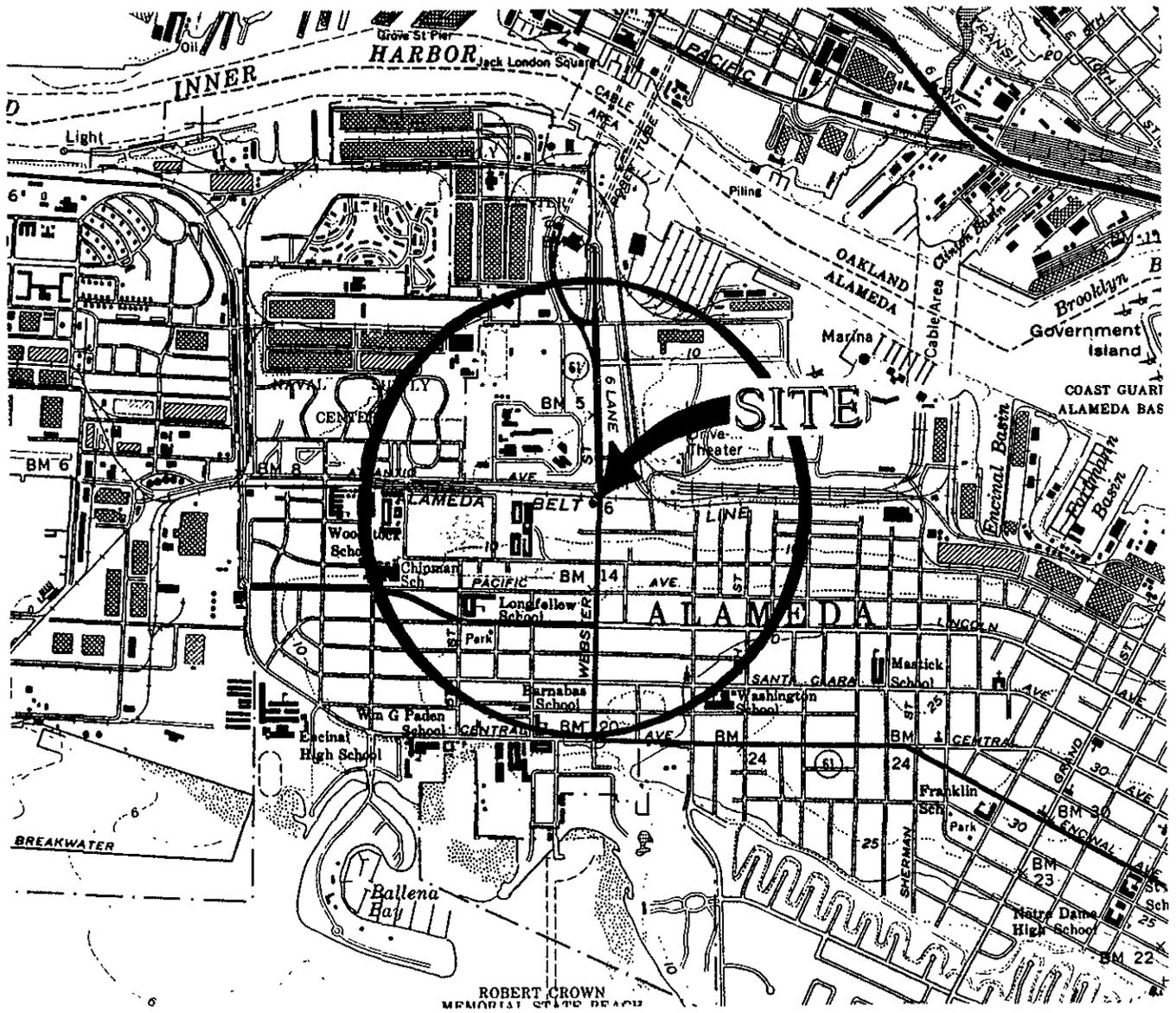
Stephen J. Boudreau
Regional Branch Manger
Senior Environmental Engineer

PBH:lah

Attachments: Figures

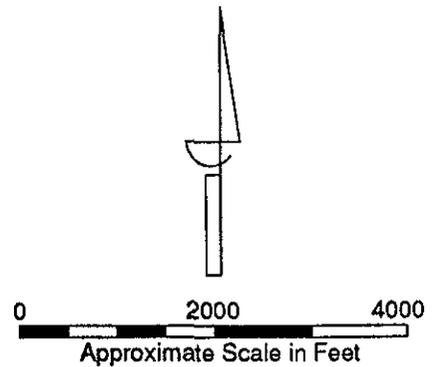
c: Ms. Eileen Duffy, Housing Authority of the City of Alameda





GENERAL NOTES:

BASE MAP FROM USGS
7.5 MINUTE TOPOGRAPHIC
OAKLAND WEST, CA



DRAWN BY:
D. Hada

DATE:
September 19, 1994

REVISED BY:

DATE:

SITE LOCATION MAP

Alameda Housing
1916 Webster Street
Alameda, CA

FIGURE

1

PROJECT NUMBER:
94-37-7623

WEBSTER STREET

ATLANTIC AVENUE

City Of Alameda Housing Authority
1916 Webster Street

Building

Canopy

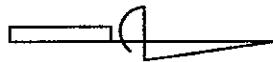
PROJECT
AREA

Former
Excavation
Limits

LEGEND

- x - x - Fence

NOTES



Site Sketch After Map
By Ron Archer, Civil Engineer, Inc.

All Locations Are Approximate



DRAWN BY: D. Hada
DATE: April 17, 1996
REVISED BY: J. Paradis
DATE: May 30, 1996

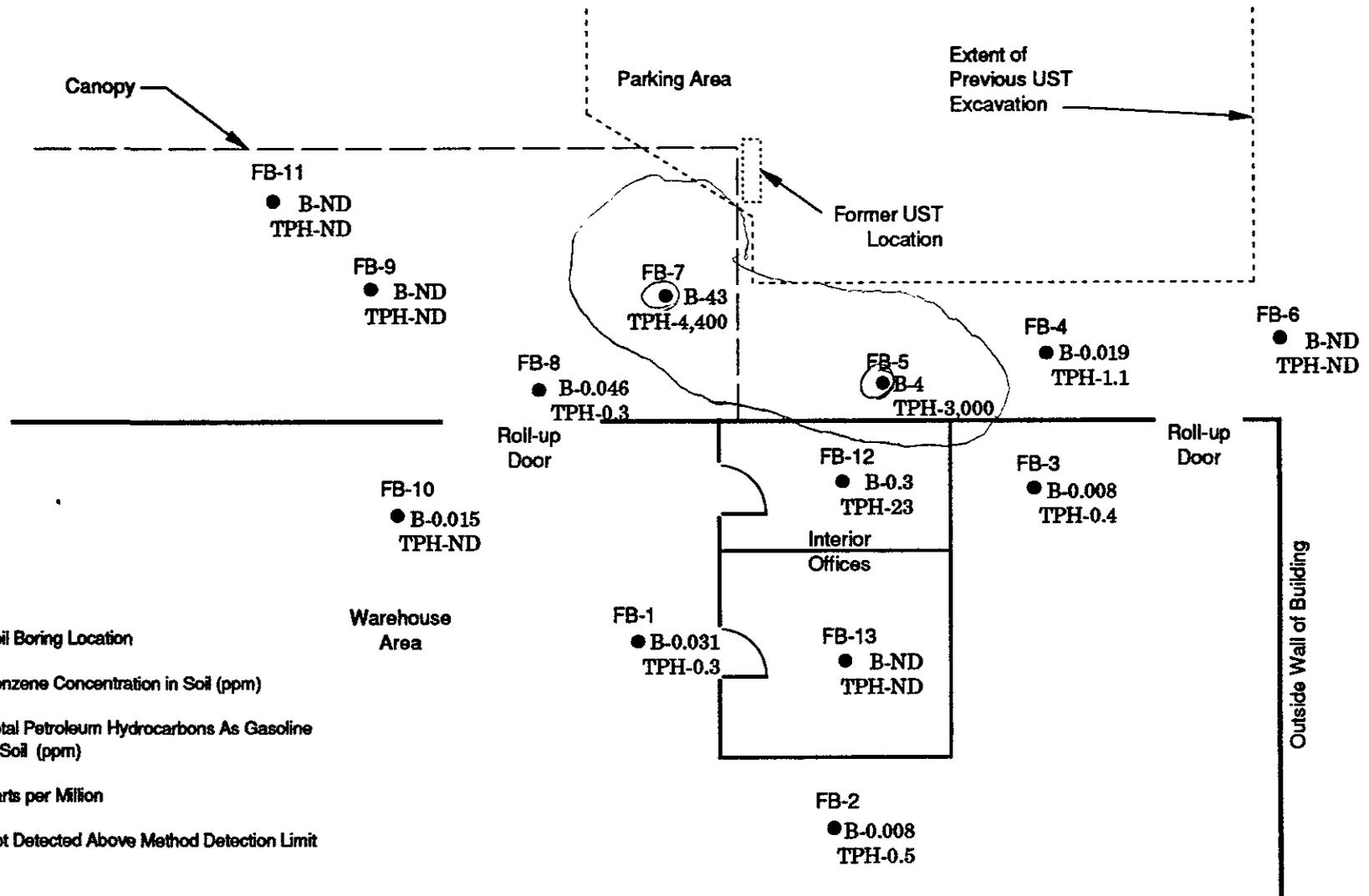
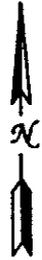
SITE AND PROJECT AREA MAP

Alameda Housing
1916 Webster Street
Alameda, CA

FIGURE

2

PROJECT NUMBER:
94-37-7623



LEGEND

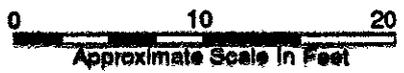
- FB-13 Soil Boring Location
- B- Benzene Concentration in Soil (ppm)
- TPH- Total Petroleum Hydrocarbons As Gasoline In Soil (ppm)
- ppm Parts per Million
- ND Not Detected Above Method Detection Limit

NOTES:

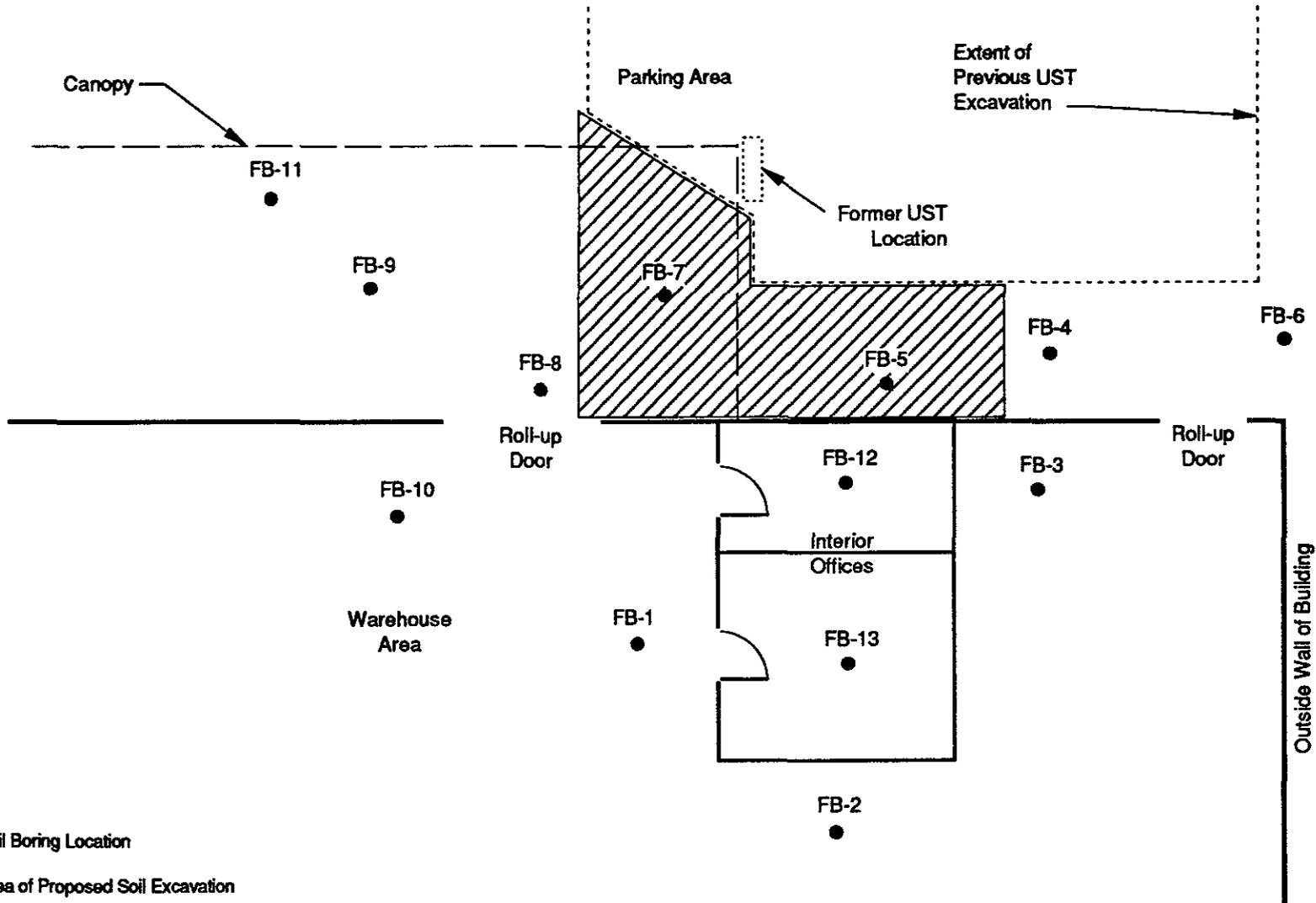
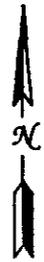
ppm = milligrams per kilogram (mg/kg)

Soil Sample Interval:
1.5-2.5 Foot Depth (typical)

All Locations Are Approximate



	DRAWN BY: J. Paradis	LOCATION OF SOIL BORINGS, DISTRIBUTION OF BENZENE AND GASOLINE CONTAMINATION IN SOIL	FIGURE 3
	DATE: May 31, 1996		
	REVISED BY:		
	DATE:		
Alameda Housing 1916 Webster Street Alameda, CA		PROJECT NUMBER: 94-37-7623	

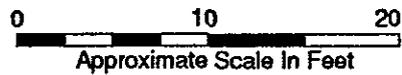


LEGEND

- FB-13 Soil Boring Location
- ▨ Area of Proposed Soil Excavation

NOTES:

All Locations Are Approximate



	DRAWN BY: J. Paradis	PROPOSED EXCAVATION AREA	FIGURE 4
	DATE: May 31, 1996		
	REVISED BY:	Alameda Housing 1916 Webster Street Alameda, CA	PROJECT NUMBER: 94-37-7623
	DATE:		