ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

January 21, 1998

REMEDIAL ACTION COMPLETION CERTIFICATE

Mr. Andrew Clark-Clough
City of Oakland
Public Works/Environmental Division
1333 Broadway, Suite 330
Oakland CA 94612

RE: Oakland Police Station UST Closure, 5th & Clay Sts., Oakland CA 94607
(Our site # 3842)

Dear Mr. Clark-Clough:

This letter confirms the completion of a site investigation for the underground storage tank formerly located at the above referenced location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above referenced file and with the provision that the information provided to this agency was accurate and complete, no further action related to the underground tank investigation is required.

This Notice is issued pursuant to a regulation contained in Section 2721(e) of Title 23 of the California Code of Regulations.

Please contact Pamela Evans of our office with any questions at (510)567-6770.

Sincerely,

Mee Ling Tung
Director, Environmental Health Specialist

c: Dick Pantages, Environmental Health Services

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RO#801

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700

December 31, 1997

Kevin Graves
California Regional Water Quality Control Board
2101 Webster St., Suite 500
Oakland CA 94612

RE: Case Closure – Oakland Police Station, Clay and 5th Sts., Oakland 94607
Our site #3842

Dear Mr. Graves:

Enclosed is a case closure summary for your review and sign-off.

Thank you for your attention and assistance in this matter. Please contact me with any questions at 567-6770.

Sincerely,

Pamela J. Evans

Pamela J. Evans
Senior Hazardous Materials Specialist

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 12/12/97

Agency name: **Alameda County-EPD** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Pamela J. Evans** Title: **Senior Hazardous Materials Specialist**

II. CASE INFORMATION

Site facility name: **Oakland Police Station**
Site facility address: **Clay X 5th Streets, Oakland, California 94607**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3842**
URF filing date: **Not Found** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Andrew Clark-Clough City of Oakland	**1333 Broadway, Suite 333 Oakland CA 94612**	**510) 238-6259 (Joseph Cotton)**

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	12,000	gasoline	removed	02/16/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **unknown**
Site characterization complete? **Yes**
Date approved by oversight agency: **03/28/97**
Monitoring Wells installed? **None** Number: **Zero**
Proper screened interval? **N/A**
Highest GW depth below ground surface: **16 ft** Lowest depth: **20 ft**
Flow direction: **unknown**
Most sensitive current use: **unknown**
Are drinking water wells affected? **unknown** Aquifer name: **unknown**
Is surface water affected? **NO** Nearest affected SW name: **unknown**
Off-site beneficial use impacts (addresses/locations): **unknown**
Report(s) on file? **YES** Where is report filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	12,000 gallons	Erickson Inc., Richmond	02/16/93
Piping	not specified	----	----
Water in pit	200 gallons	Gibson Oil & Refining, Redwood City	02/16/93
Tank rinsate/residual	not specified	not specified	
Soil	80-cubic yards	BFI Landfill, Livermore	03/24/93

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before*	After**	Before*	After**
TPHg	4.600	NT	****140,000	90
Benzene	*****0.045	NT	<0.001(ND)	3.7
Toluene	ND	NT	140	2.6
Ethyl benzene	.012	NT	20	ND
Xylene	***0.140	NT	130	2.3
MTBE	NT	NT	NT	180

Notes:
*Before sample results for soil are from tank pit samples at time of tank removal, water is from recharge sample taken after purging of pit.
**After sample results for groundwater from borings done in January, 1997. No confirmatory soil samples were taken from borings.
***Found in stockpile soils only, no xylene found in tank pit samples at time of tank removal
****TPHg results did not match typical chromatography pattern
*****Benzene found in west tank pit wall, soil left in place
NT = Not tested, ND = Not detected

Comments:

A 12,000 gallon gasoline tank was removed in February, 1993 after having been out of service for about 10 years. The tank seemed intact except for some damage apparently done by removal equipment. However, the removal contractor reported that the pipe connection to the tank was loose, and odorous soil was noted in the tank pit. Water with a slight sheen was seen in the tank pit. However, this water may have collected there due to a broken water pipe that ran above the former tank, rather than from groundwater. Four soil samples were taken from the sidewalls of the pit, just above the water line at 11 feet. A soil sample (OPS-4) taken from the north/west pit wall showed .045 ppm benzene from soil that was left in place. Also, a sample of the pit water was taken. Later, after limited soil overexcavation from the center of the pit bottom, pit water was purged, allowed to recharge, and a second water sample was taken. This water sample contained 140,000 ppb TPHg. No benzene was detected in this water sample.

Other observations from the tank closure report and follow up communications with the City of Oakland include the following: Soil in the pit area was described as a clayey sand from the ground surface down past the base of the tank pit, to about 13 feet. While there is some discrepancy regarding the amount of soil that was excavated and hauled away, it appears that a total of 80 cubic yards was excavated and disposed offsite, and that clean fill was used to backfill the pit. Also, the piping was left in place at the City's request because it ran under the sidewalk, street and a driveway used for emergency response vehicles. Although the City was instructed to do spot sampling along the length of the piping, no such sampling was done.

In January, 1997, four borings were made to 22 feet bgs and "grab" groundwater samples were taken from each boring. No soil analyses were done, and no boring logs were included in the report. Groundwater findings of concern included the following: Boring HP-1, to the west of the former tank pit, and within about 10 feet of the former tank, showed 0.61 ppb benzene. HP-2, 10-15 feet east of the former tank, showed benzene at 3.7 ppb, and MTBE at 180 ppb. HP-3, 20-25 feet north of the former tank, showed MTBE at 150 ppb.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? _____
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? _____

Does corrective action protect public health for current land use? **YES**
Site management requirements: NA

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **N/A**
Number Decommissioned: **None** Number Retained: **None**

List enforcement actions taken: Notice of Violation, 4/24/95
List enforcement actions rescinded: None

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Pamela J. Evans Title: **Senior Hazardous Materials Specialist**
Signature: Pamela J Evans Date: 12/31/97

Reviewed by
Name: **Tom Peacock** Title: **Supervising Hazardous Materials Specialist**
Signature: Tom Peacock Date: 12-30-97

Name: **Madhulla Logan** Title: **Hazardous Materials Specialist**
Signature: Madhulla Logan Date: 12/31/97

VI. RWQCB NOTIFICATION

Date Submitted to RB: 1/2/98 RB Response: Concur
RWQCB Staff Name: ~~Kevin Graves~~ Stephen Hill Title: ~~San. Eng. Assoc.~~ ES IV Sup Date: 1/8/98 Stephen Hill

VII. ADDITIONAL COMMENTS, DATA, ETC.

The leak has been stopped and the source (tank) has been removed. Some contaminated soil was left in place. See discussion of human health risk below.

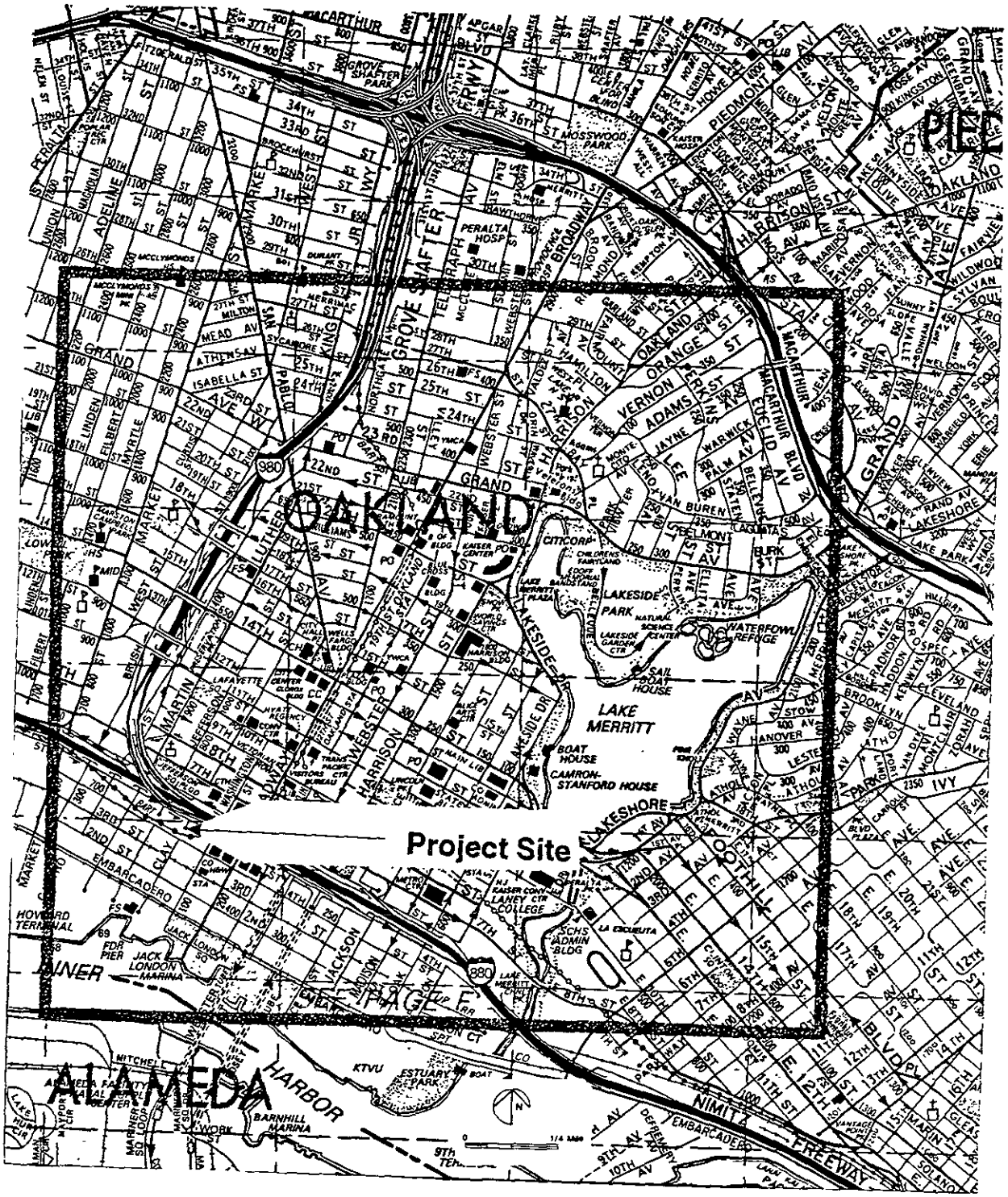
The site has been adequately characterized. Soil conditions were noted at the time of the tank removal. Four borings to groundwater were made. While no soil sampling was done in conjunction with the borings, the closure report indicates that soil contamination in the pit walls seems to have been limited to the north/west wall of the tank pit.

The dissolved hydrocarbon plume appears to be confined to an area within several yards of the former tank. The presence of MTBE can not be linked to a release from this tank, based on reports that its use was discontinued in the early 1980s. No water wells, deeper drinking water aquifers, surface waters, or other sensitive receptors are likely to have been impacted.

The site presents no significant risk to human health or the environment under current use conditions. The benzene level of 0.045 ppm in the north/west wall of the former tank pit is the only finding that raises health risk concerns. Unfortunately, the lack of soil samples from the borings deprives us of information about possible attenuation. This level (0.045 ppm) slightly exceeds the 1X10-5 RBSL from the Tier 1 Table for soil vapor intrusion from soil to building in a residential setting. However, it is less than the 1X10-4 RBSL for the same pathway for a commercial setting. Also, the average benzene concentration of the four soil samples is less than the 1X10-5 RBSL for benzene for both residential and commercial settings. Based on a Tier 1 analysis, the benzene concentrations in the groundwater are insignificant. Neither a residential nor a commercial building is currently situated within 40 feet of this contaminated soil, thus there are currently no sensitive receptors. As the former tank location is in the middle of Clay St., it is unlikely that any sort of building would be constructed above the contaminated soil, so it is unlikely there will be any future sensitive receptors.

See attachments:

1. Site general vicinity map.
2. Site diagram showing borings, groundwater concentrations, former tank location and building location.
3. Groundwater analysis report from 1/97.
4. Site diagram showing sampling locations from tank pit walls.



Reference: From Thomas Bros. Map Co., Alameda Co., Page 9

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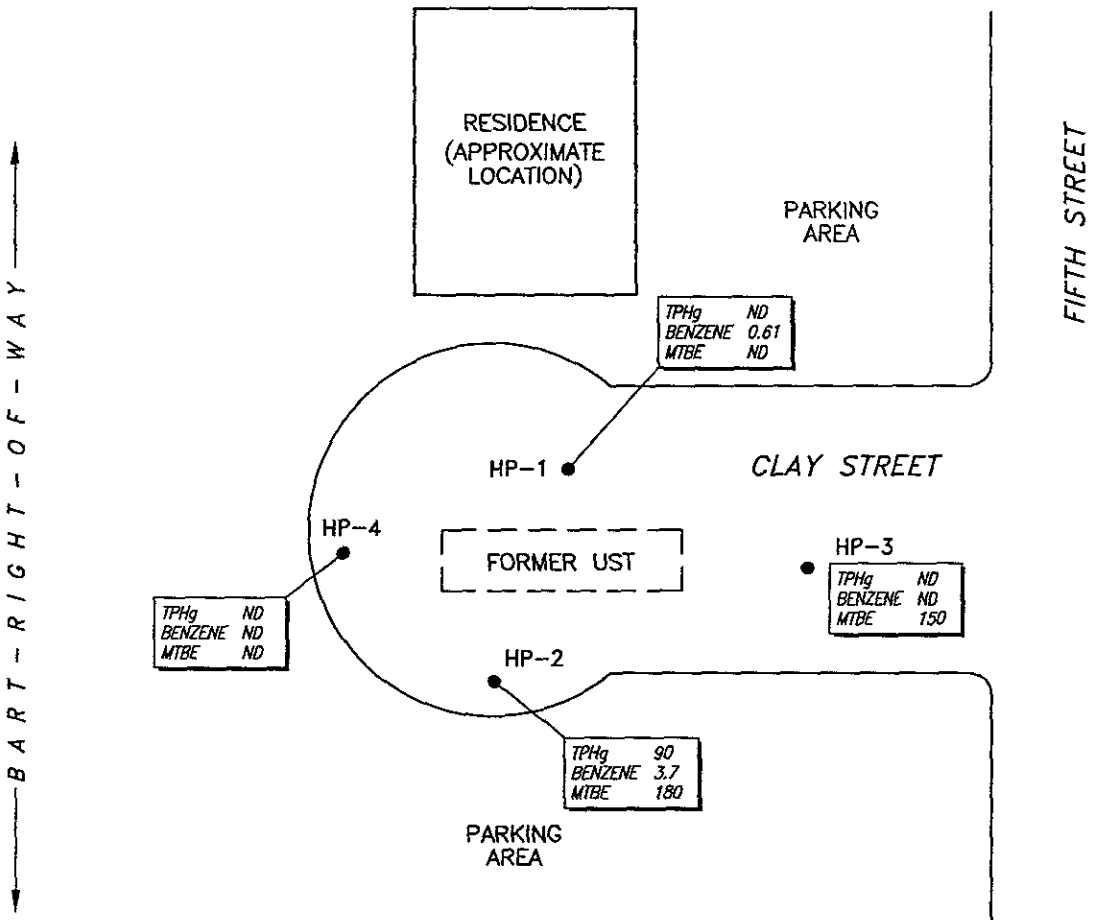
Geology & Hydrogeology

Vicinity Map

City of Oakland/Clay and 5th Streets - UST Closure
Oakland, California

FIGURE
1

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED	DATE
15,687.004.04	JBA		30 Apr 93		



LEGEND:

● HP-1 HYDROPUNCH LOCATION

CHEMICAL ANALYTICAL RESULTS:

ANALYTES

TPHg 90
BENZENE 3.7
MTBE 180

CONCENTRATION (ug/l)

ND — NOT DETECTED

ANALYTES:

TPHg — TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

MTBE — METHYL TERTIARY BUTYL ETHER

0 30 60

SCALE FEET

NOTE: APPLIED GEOTECHNOLOGY INC., 4/93.

SECOR INTERNATIONAL INCORPORATED	DRAWN CCR
	APPR KW
	DATE 24FEB97
	JOB NO. 70100-013-01

FIGURE 2
CITY OF OAKLAND
CLAY STREET

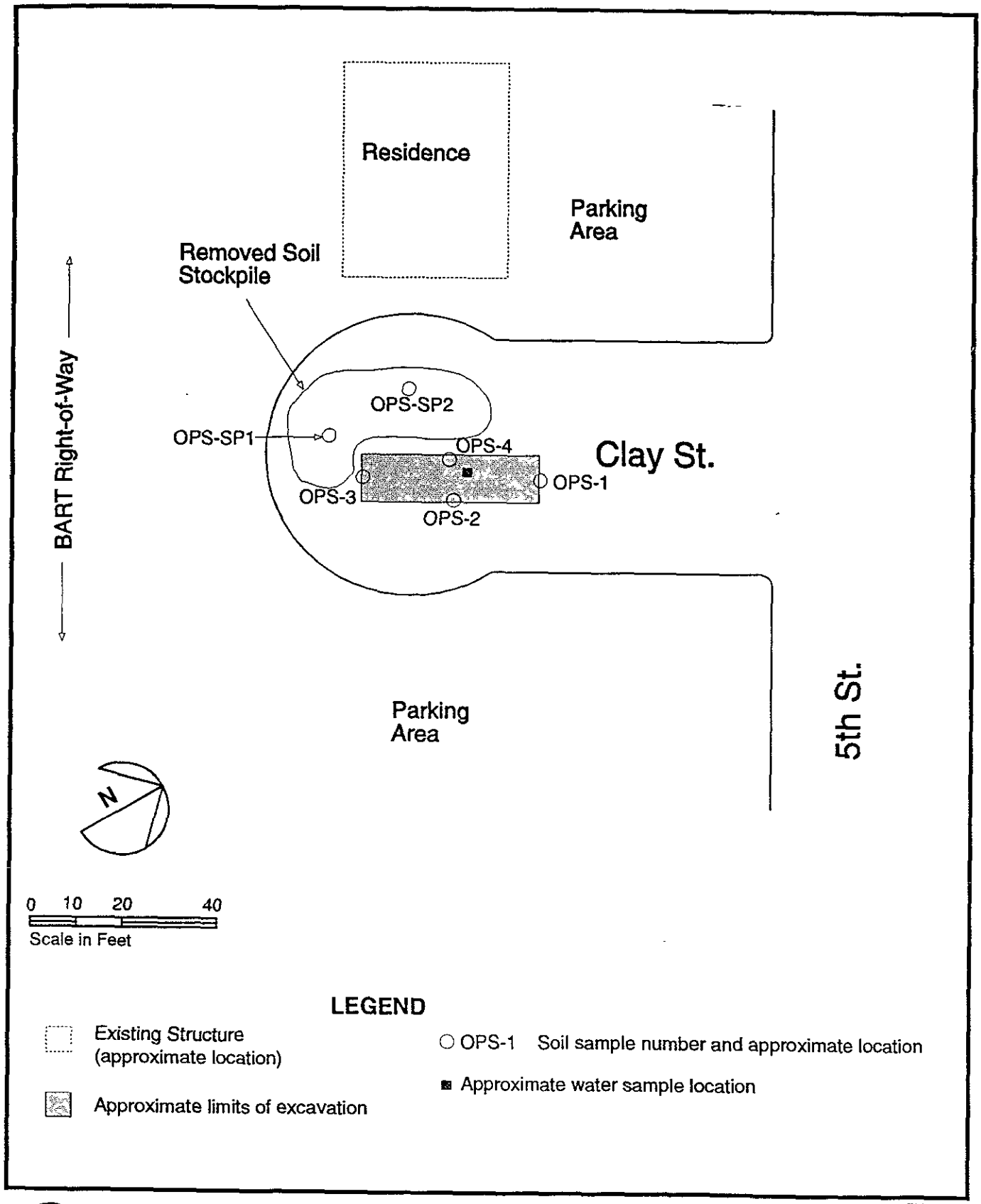
CHEMICAL CONCENTRATION MAP

199702.241442 F:\JOBS\OAKLAND\CLAY\CHEM01

TABLE 1
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Former UST Site
5th and Clay Street
Oakland, California

Sample Date	Sample Name	TPHg (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)
Jan-30-97	HP-1	ND (<50)	**0.61**	**2.6**	ND (<0.5)	**2.3**	ND (<5)
Jan-30-97	HP-2	**90**	**3.7**	ND (<0.5)	ND (<0.5)	ND (<0.5)	**180**
Jan-30-97	HP-3	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	**150**
Jan-30-97	HP-4	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<5)

Notes:
TPHg = Total petroleum hydrocarbons as gasoline range hydrocarbons (C5 - C11)
MTBE = Methyl-tertiary-butyl-ether
ug/l = Micrograms per liter
ND (<0.5) = Not detected above laboratory limit shown



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Site Plan

City of Oakland/Clay and 5th Streets - UST Closure
Oakland, California

FIGURE
2

JOB NUMBER	DRAWN	APPROVED	DATE	REVISED	DATE
15,687.004.04	JBA		30 Apr 93		