

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



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

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 4810 - 1034 66th Ave, Oakland, CA
(1-12K gallon diesel and 1-1K gallon unknown tank removed
in November 28, 1994)

April 2, 1997

Mr. Lee Cavanaugh
Joan Cavanaugh Trust
P.O. Box 2418
Alameda, CA 94501

Dear Mr. Cavanaugh:

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above-described 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 representative of site conditions, no further action related to the underground tank release is required.

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

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Lori Casias, SWRCB (with attachment-case closure summary)
Cheryl Gordon, UST Cleanup Fund
files-ec (acts.2)

RW OLS
Approval

01-2213

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: December 3, 1996

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible staff person: M. Logan Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: ACTS Full Gospel Church
Site facility address: 1034 66th Ave, Oakland, CA 94621
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 4810
URF filing date: SWEEPS No: N/A

Responsible Parties: Addresses: Phone Numbers:

ACTS Full Gospel Church 6118 E. 14th Street
Wendall McCoy Oakland, CA 94621

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	12,000	Diesel	Removed	11/28/94
2	1,000	Unknown	Removed	11/28/94

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Unknown
Site characterization complete? YES
Date approved by oversight agency: 10/11/96
Monitoring Wells installed? No, but four temporary piezometers were installed.
Proper screened interval? Yes. Groundwater under confined conditions, occurring at 11' to 22' bgs. Static depth to water at 2' to 4' bgs
Highest GW depth below ground surface: 1.0 Lowest depth: 8.8' bgs
Flow direction: Southwest
Most sensitive current use: Church
Are drinking water wells affected? No Aquifer name: Unknown
Is surface water affected? No Nearest affected SW name: NA
Off-site beneficial use impacts (addresses/locations): None

Report(s) on file? YES Where is report(s) filed? Alameda County
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> <u>(include units)</u>	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Tank	2 USTs	Disposed by Erickson, in Richmond	11/28/94
Soil	30 cy soil from UST removal was reused onsite ~300 cy from Oil & Grease Area, unknown disposal ~60 to 70 cy from Sump Area, unknown disposal		
Groundwater Barrels	30,000 gallon rainwater disposed onsite		

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

<u>Contaminant</u>	<u>Soil (ppm)</u>		<u>Water (ppb)</u>	
	<u>Before¹</u>	<u>After²</u>	<u>Before³</u>	<u>After⁴</u>
TPH (Gas)	380	ND	250	ND
TPH (Diesel)	2,200	270	8,100	ND
Benzene	ND	ND	ND	ND
Toluene	ND	.0018	ND	ND
Ethylbenzene	ND	ND	ND	ND
Xylenes	0.91	ND	ND	ND

- NOTE 1 Soil sample collected from pit bottom after UST removal, 11/29/94
 2 soil sample from boring B-9 advanced around former tank pit.
 3 grab water sample (WS-1) from excavation (11/29/94).
 4 grab water sample from boring B-6, March 1996.

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **Undetermined**
 Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Undetermined**
 Does corrective action protect public health for current land use? **YES**
 Site management requirements: **None**
 Should corrective action be reviewed if land use changes? **YES**
 Monitoring wells Decommissioned: **NA, but temporary piezometers were grouted after water samples were collected (3/20/96).**
 Number Decommissioned: **NA** Number Retained: **NA**
 List enforcement actions taken: **None**
 List enforcement actions rescinded: **NA**

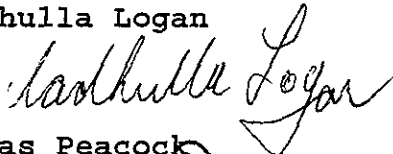
V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature:  Date: 3/4/97

Reviewed by

Name: Madhulla Logan Title: Haz Mat Specialist

Signature:  Date: 2/5/97

Name: Thomas Peacock Title: Supervisor

Signature:  Date: 2-27-97

VI. RWQCB NOTIFICATION

Date Submitted to RB: 3/5/97 RB Response: 

RWQCB Staff Name: Kevin Graves Title: AWRCE

Signature:  Date: 3-18-97

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is a nine acre parcel formerly occupied by a warehouse and office building. The building was a wood structure used for wire insulation manufacturing and textile storage. The ACTS Full Gospel Church currently occupy two newly constructed buildings on the parcels's west side. Leon Creek, a concrete lined culverted drainage, runs through the northern part of the site. The remaining portions of the parcel are occupied by building demolition material and the Church's parking lot.

Past environmental investigations identified four locations where contaminants have impacted soil at the site: 1) Oil and Grease Area; 2) Former Sump; 3) Trench Adjacent to Driveway Cover; and, 4) Former Underground Storage Tank.

Oil and Grease Area

An Oil and Grease Area was identified beneath the floor of the combined office/warehouse building before it was demolished. The location is also referred to as **Area 2** in some reports. The source of the oil and grease may be from previous operations associated with the General Electric Wire and Cable facility. A soil sample, S-1, collected in August 1993 contained 95,000 ppm non-polar oil and grease. Metals were also present in the soil samples but the concentrations were less than Title 22 Total Threshold Limit Concentrations (TTLIC).

Oil and grease-impacted soils were excavated in Oct/Nov 1993, removing ~300 cy of soil. Confirmatory soil samples (sample 1 through 36) still contained elevated levels of oil and grease. Additional excavation in January 1994 removed more hydrocarbon-impacted soil. Confirmatory sidewall samples (EW-1 through EW-14) were collected from 2' and 4' bgs and pit bottom samples (TB-1 through TB-8) were collected from 8' to 12' bgs. Elevated non-polar oil and grease was identified in samples EW-2 and TP-2 and TB-8. Ponded water samples (P-1 and P-2) collected from the excavation did not contain TPH or PCBs.

In September 1995 additional excavation was performed in the area of EW-2 and TP-2. Final confirmatory samples (S-1 through S-5) collected from 8' bgs contained Oil and Grease ranging from 15 to 280 ppm. It appears most of the hydrocarbon impacted soil was removed.

In March 1996 a soil boring (B-1) was drilled and sampled continuously to a depth of 24' bgs. The boring was located adjacent and in the estimated downgradient direction of groundwater flow to the former excavation. Soil and groundwater samples collected did not contain detectable hydrocarbon concentrations. It does not appear further action is required at this area.

FORMER SUMP AREA

When the combined office/warehouse building was demolished, a former sump site was identified. This area is also referred to as **Area 1** in some reports. The initial soil sample collected beneath the former sump contained high levels of ethylbenzene (500 ppm) and xylenes (4,500 ppm). The area was excavated in September 1995 and soil samples E-1 through E-5 collected. Samples E-2 and E-4 contained elevated levels of VOCs.

When the area around E-2 was excavated, another sump was discovered. Soil samples E-6 through E-8 were collected. Area by sample E-4 was also excavated and soil sample E-9 was collected. Soil analytical results indicated that additional hydrocarbon-impacted soil should be removed from the area near sample E-6 and E-8. The final excavation was completed in October 19, 1995. The two soil samples E-10 and E-11, obtained from the northern wall and base of the excavation did not contain VOCs. It appears that the excavation of impacted soil was complete in the former sump area.

In March 1996 a soil boring B-2 was drilled to 24' bgs to collect a water sample to determine if the VOCs previously detected in soil had also impacted groundwater. The boring was adjacent to the former excavation and in the estimated downgradient direction. The grab groundwater sample did not contain detectable VOCs.

TRENCH ADJACENT TO DRIVEWAY COVER

During building demolition activities in October 1995, odors were observed near the driveway cover of the church building. An exploratory trench was dug and a soil sample E-12 collected and analyzed for VOCs. Tetrachloroethene (PCE) was the only compound detected (350 ppb).

In March 1996 a soil boring, B-3, was advanced within the trench and continuously logged to a depth of 18' bgs. A grab water sample was collected. Borings B-4 and B-5 were installed adjacent to the trench location and soil samples collected at 3.5 and 5' bgs from each boring. Groundwater and select soil samples were analyzed for PCE. Low levels of PCE were detected in soil and groundwater. PCE concentrations in soil (8.7ppb) were several orders of magnitude lower than Preliminary Remediation Goals (PRGs) for residential soil (7,000 ppb).

PCE in groundwater (33 ppb) was slightly above the State drinking water Maximum Contaminant Level (MCL, 5 ppb). However, PCE detected in groundwater should pose no significant risk to human health since: 1) residual soil and groundwater concentrations are low; 2) the confined groundwater conditions and the low permeability soils above the groundwater act to isolate the remaining constituents; and 3) the groundwater beneath the site is not a source of drinking water.

UST AREA

On November 28, 1994 two tar-wrapped USTs (1-12K diesel, 1-1K unknown tank) were removed. The 1,000 gallon UST had numerous holes. Before soil samples could be collected, rain water had filled the tank pit to ~ 3.0' bgs. Approximately 10,000 gallons of rain water was pumped from the pit into storage tanks. Four soil borings (SB-1 through SB-4) were advanced from the pit bottom to 8.5' bgs to collect soil samples. A grab groundwater sample, WS-1, was also collected from the excavation. The soil and water samples were analyzed for TPHg, TPHd, and BTEX.

Soil sample SB-2 contained up to 2,200 ppm TPHd and 380 ppm TPHg. BTEX was not detected. The water sample contained 8,100 ppb TPHd and 250 ppb TPHg. Again, BTEX was not detected.

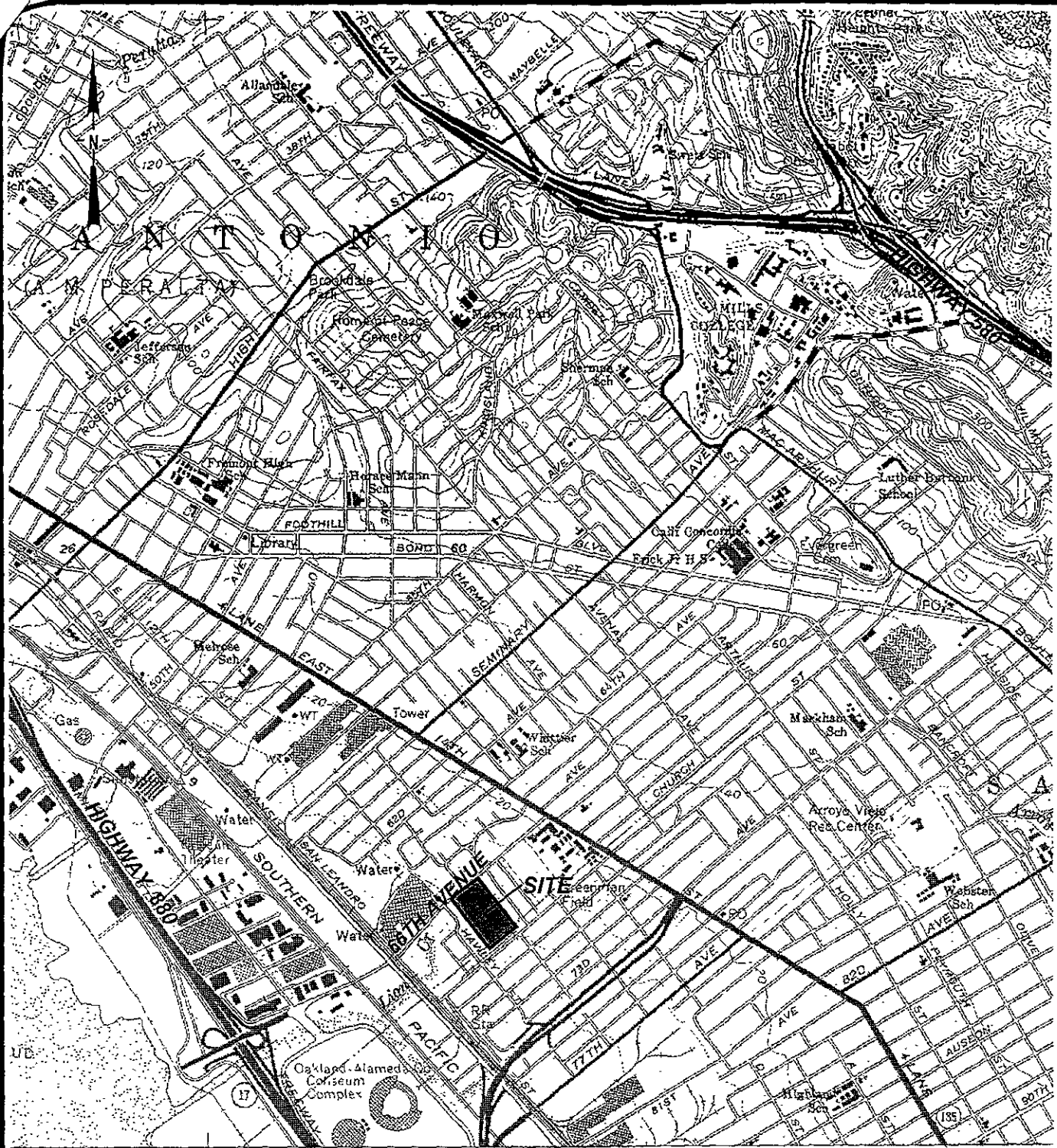
In March 1996 four soil borings (B-6 through B-9) were installed to 19' to 25' bgs near the former USTs. Boring B-6 was converted into a temporary piezometer. Boring B-9 identified up to 270 ppm TPHd in soil from 9.5' bgs. A soil sample from 19.5' bgs did not contain TPHd. Soil samples from the other borings did not contain detectable levels of TPHd, TPHg, or BTEX. The grab groundwater sample from boring B-6 did not contain TPHd, TPHg, or BTEX.

It appears that the fuel release from the UST did not impact groundwater quality beneath the site.

In summary, case closure is recommended because:

- the UST leak and other ongoing sources have been removed;
- the site has been adequately characterized;
- impact to groundwater is minimal;
- no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- the site presents no significant risk to human health or the environment.

acts.1



SCALE: 0 2,000 4,000 FEET



BASE: USGS 7.5' quadrangle of Oakland East, California 1959, photorevised 1980

4/96

 EINARSON
FOWLER & WATSON

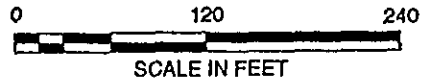
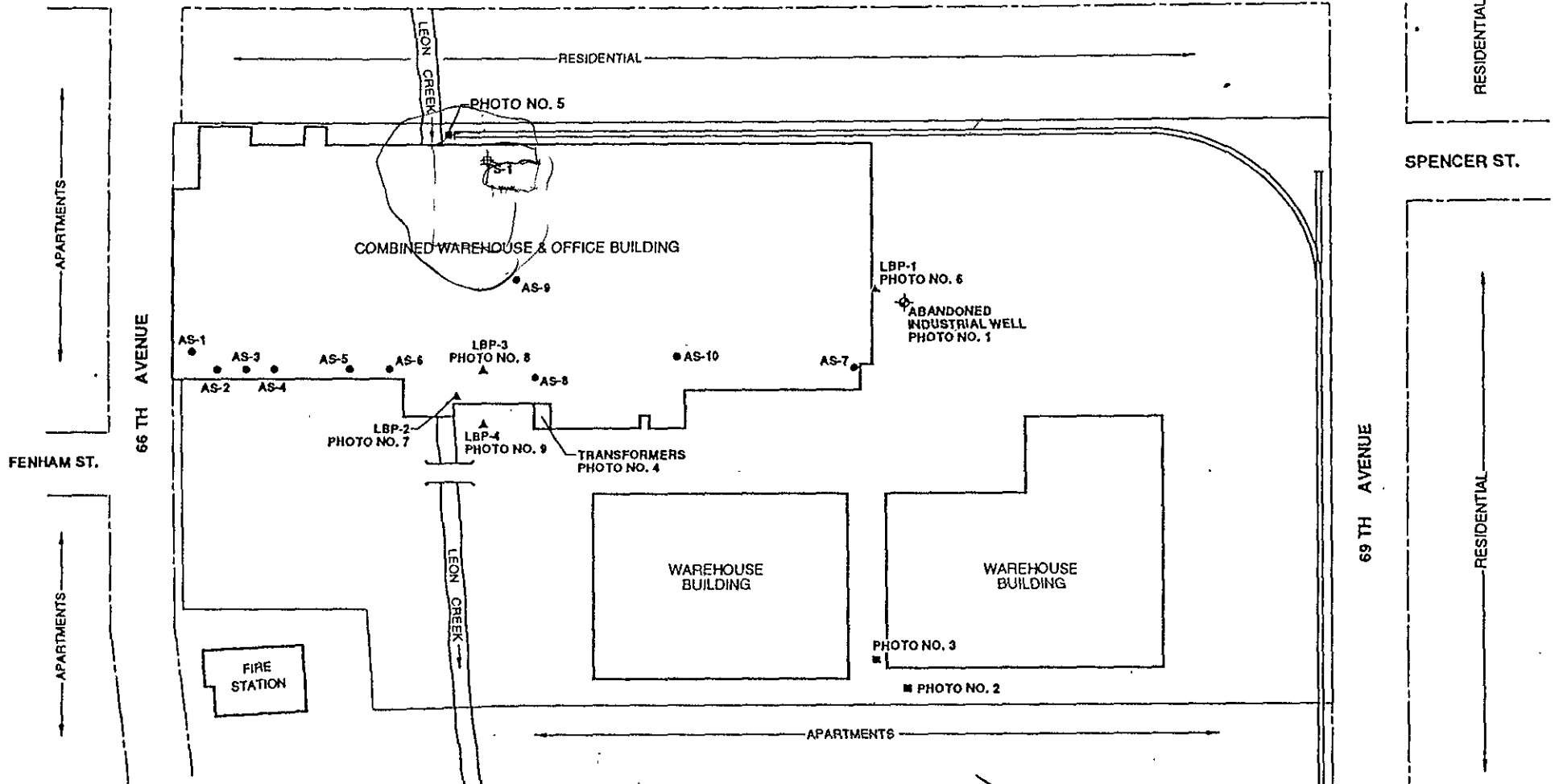
ACTS FULL GOSPEL CHURCH
1034 66TH AVENUE
OAKLAND, CALIFORNIA

FIGURE

1

SITE LOCATION MAP

PROJECT NO.
ACT101



LEGEND

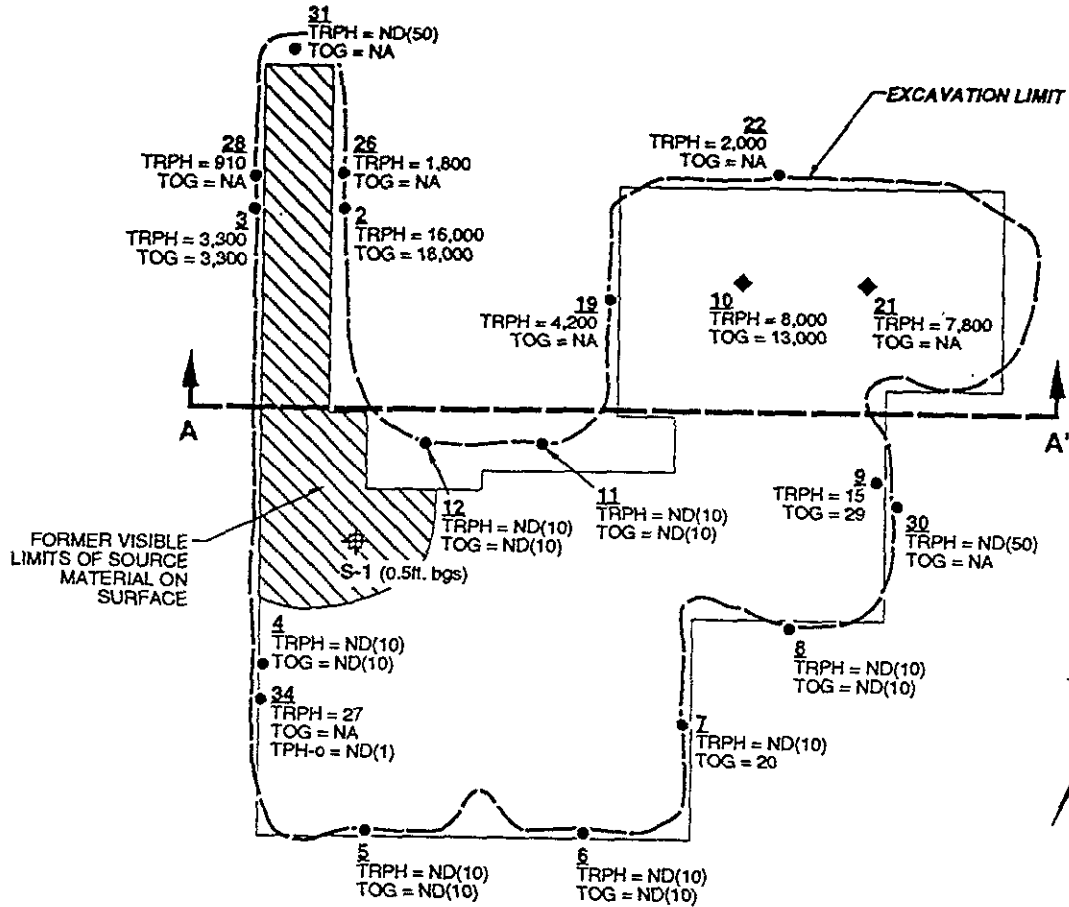
- AS-1 ● ASBESTOS SAMPLE LOCATION (approx.)
- PHOTO LOCATION AND NUMBER
- LBP-1 ▲ LEAD BASED PAINT SAMPLE LOCATION (approx.)
- ⊕ SOIL SAMPLE LOCATION

SITE VICINITY and SAMPLE LOCATION MAP

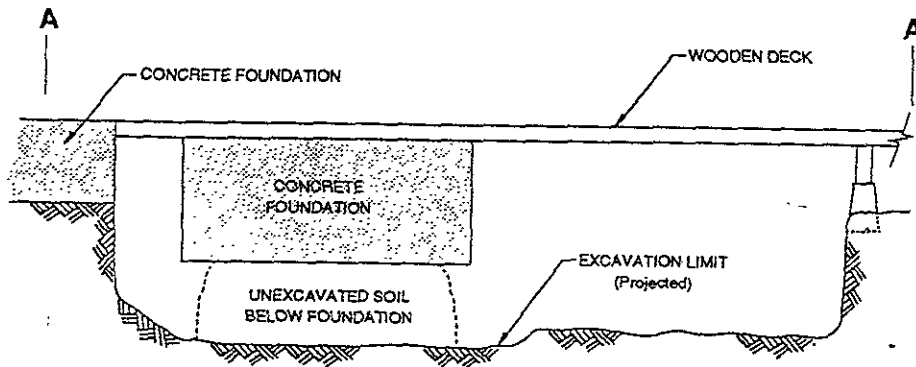
TRANS INTERNATIONAL WAREHOUSE FACILITY
 1034 66th Avenue
 Oakland, California

Scale	AS SHOWN	Project No.	93-44-395-01
Prepared by	TNW	Date	8/16/93
Checked by	RCP	Drawing No.	
Approved by			





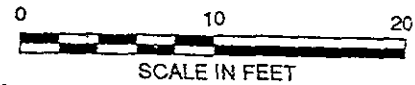
EXCAVATION PLAN



EXCAVATION CROSS SECTION A-A'

LEGEND

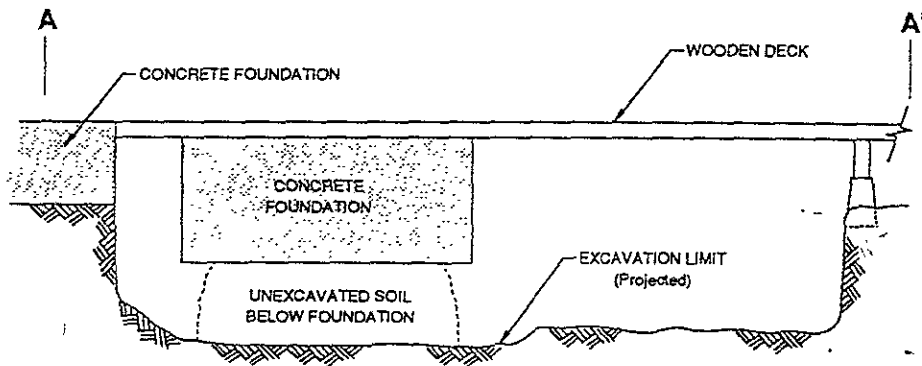
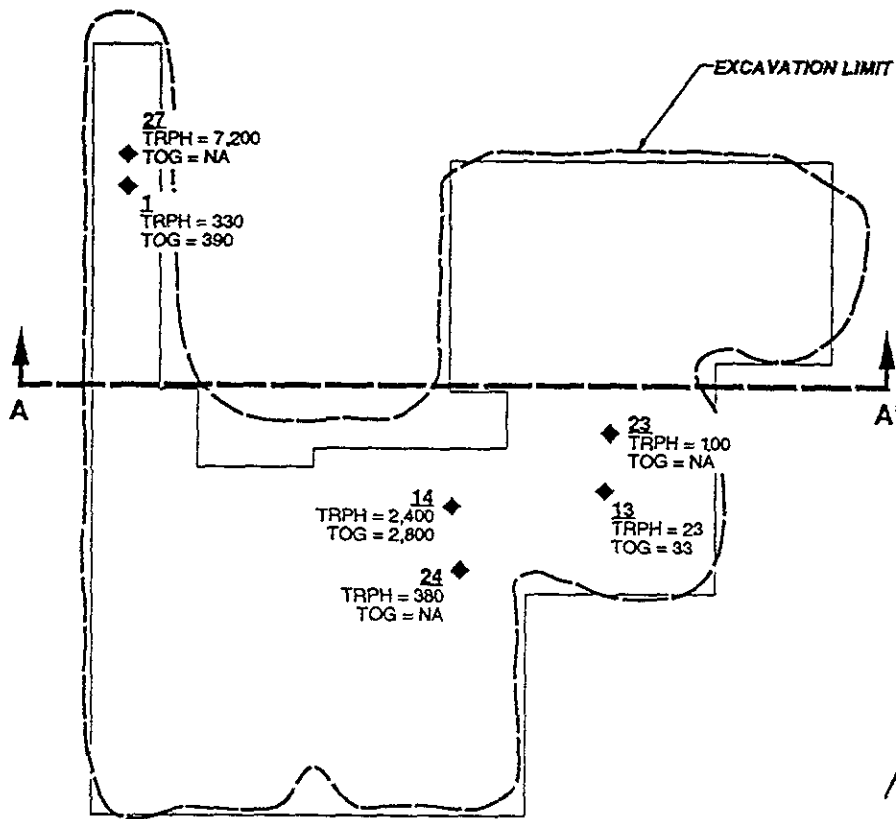
- 2 ● EXCAVATION SIDEWALL SAMPLE LOCATION (Collected by PCOC October and November 1993)
 - 10 ◆ EXCAVATION BOTTOM SAMPLE LOCATION (Collected by PCOC October and November 1993)
 - S-1 ⊕ LOCATION OF SOIL SAMPLE COLLECTED BY CONVERSE ON AUGUST 20, 1993
- TRPH = TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (in milligrams per kilogram, by EPA Method 418.1)
- TOG = TOTAL OIL AND GREASE (in milligrams per kilogram, by EPA Method 413.2)
- TPH-o = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS OIL (in milligrams per kilogram, by EPA Method 8015 - Modified)
- ND(10) = Not reported above the laboratory method detection limit (detection limit in parenthesis)
- NA = Sample Not Analyzed for the constituent indicated



INITIAL SOIL SAMPLE LOCATION MAP (2.0 - 3.0 ft. b.g.s.)

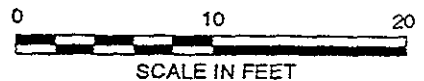
TRANS INTERNATIONAL WAREHOUSE FACILITY
 1034 66th Avenue
 Oakland, California

Scale	AS SHOWN	Project No.	93-44-395-05
Prepared by	TNW	Date	11/26/93
Checked by	RCP	Drawing No.	
Approved by			



LEGEND

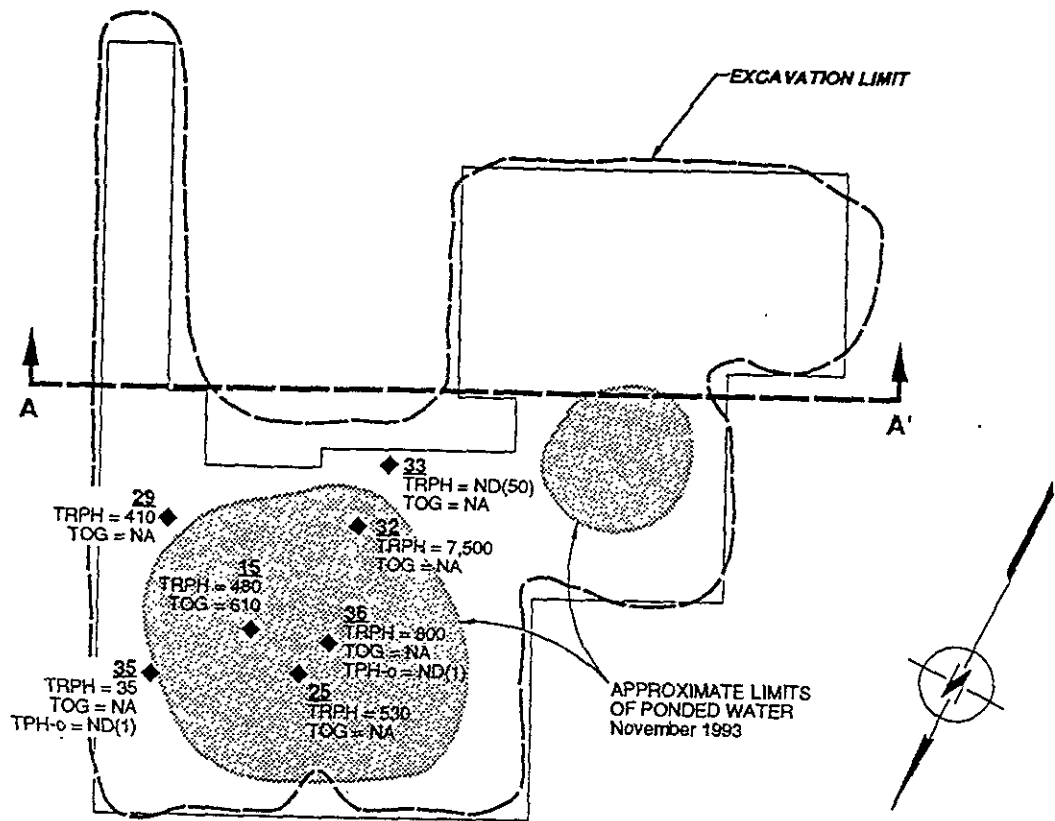
- ◆ EXCAVATION BOTTOM SAMPLE LOCATION (Collected by PCOC October and November 1993)
- TRPH = TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (in milligrams per kilogram, by EPA Method 418.1)
- TOG = TOTAL OIL AND GREASE (in milligrams per kilogram, by EPA Method 413.2)
- NA = Sample Not Analyzed for the constituent indicated



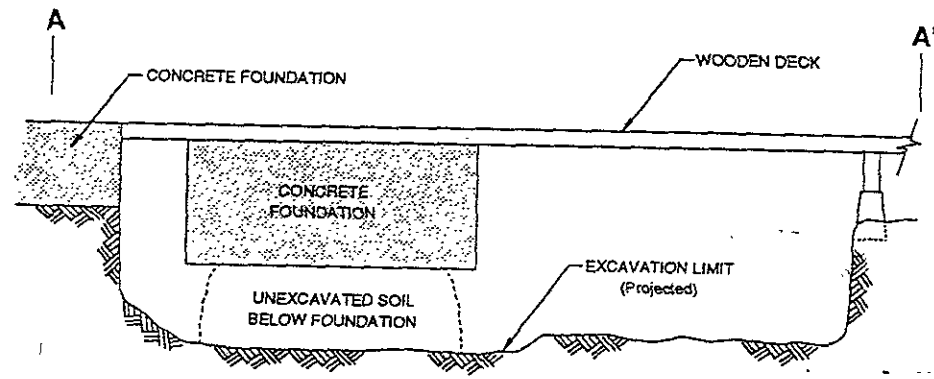
INITIAL SOIL SAMPLE LOCATION MAP (5.0 - 6.0 ft. b.g.s.)

TRANS INTERNATIONAL WAREHOUSE FACILITY
1034 66th Avenue
Oakland, California

Scale	AS SHOWN	Project No.	93-44-395-05
Prepared by	TNW	Date	11/26/93
Checked by	RCP	Drawing No.	
Approved by			4



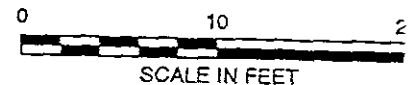
EXCAVATION PLAN



EXCAVATION CROSS SECTION A-A'

LEGEND

- 15 ◆ EXCAVATION BOTTOM SAMPLE LOCATION (Collected by PCOC October and November 1993)
- TRPH = TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (in milligrams per kilogram, by EPA Method 418.1)
- TOG = TOTAL OIL AND GREASE (in milligrams per kilogram, by EPA Method 413.2)
- TPH-o = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS OIL (in milligrams per kilogram, by EPA Method 8015 - Modified)
- ND(10) = Not reported above the laboratory method detection limit (detection limit in parenthesis)
- NA = Sample Not Analyzed for the constituent indicated



INITIAL SOIL SAMPLE LOCATION MAP (7.0 - 7.5ft. b.g.s.)

TRANS INTERNATIONAL WAREHOUSE FACILITY
 1034 66th Avenue
 Oakland, California

Scale	AS SHOWN	Project No.	93-44-395-05
Prepared by	TNW	Date	11/26/93
Checked by	RCP	Drawing No.	
Approved by			5

TABLE II

CONCENTRATIONS OF PETROLEUM CONSTITUENTS IN SOIL
 SITE CHARACTERIZATION INVESTIGATIONS
 TRANS INTERNATIONAL WAREHOUSE
 1034 66th AVENUE
 OAKLAND, CALIFORNIA
 DUNAVANT ENTERPRISES, INC.
 SEPTEMBER/OCTOBER 1993 REMEDIAL ACTIONS

(All concentrations are expressed in parts per million)

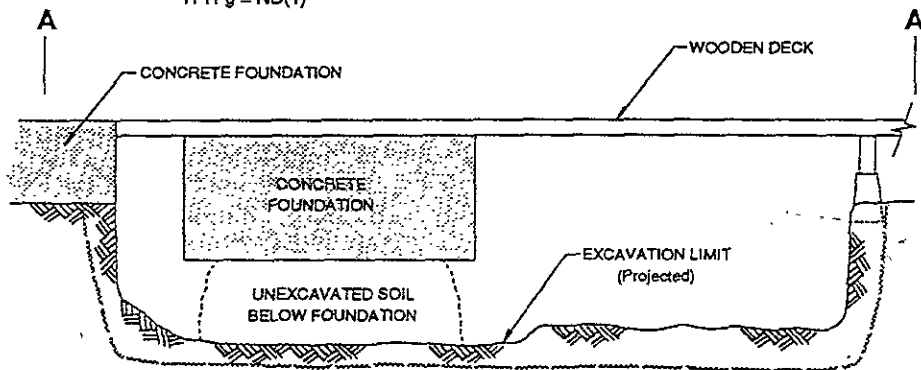
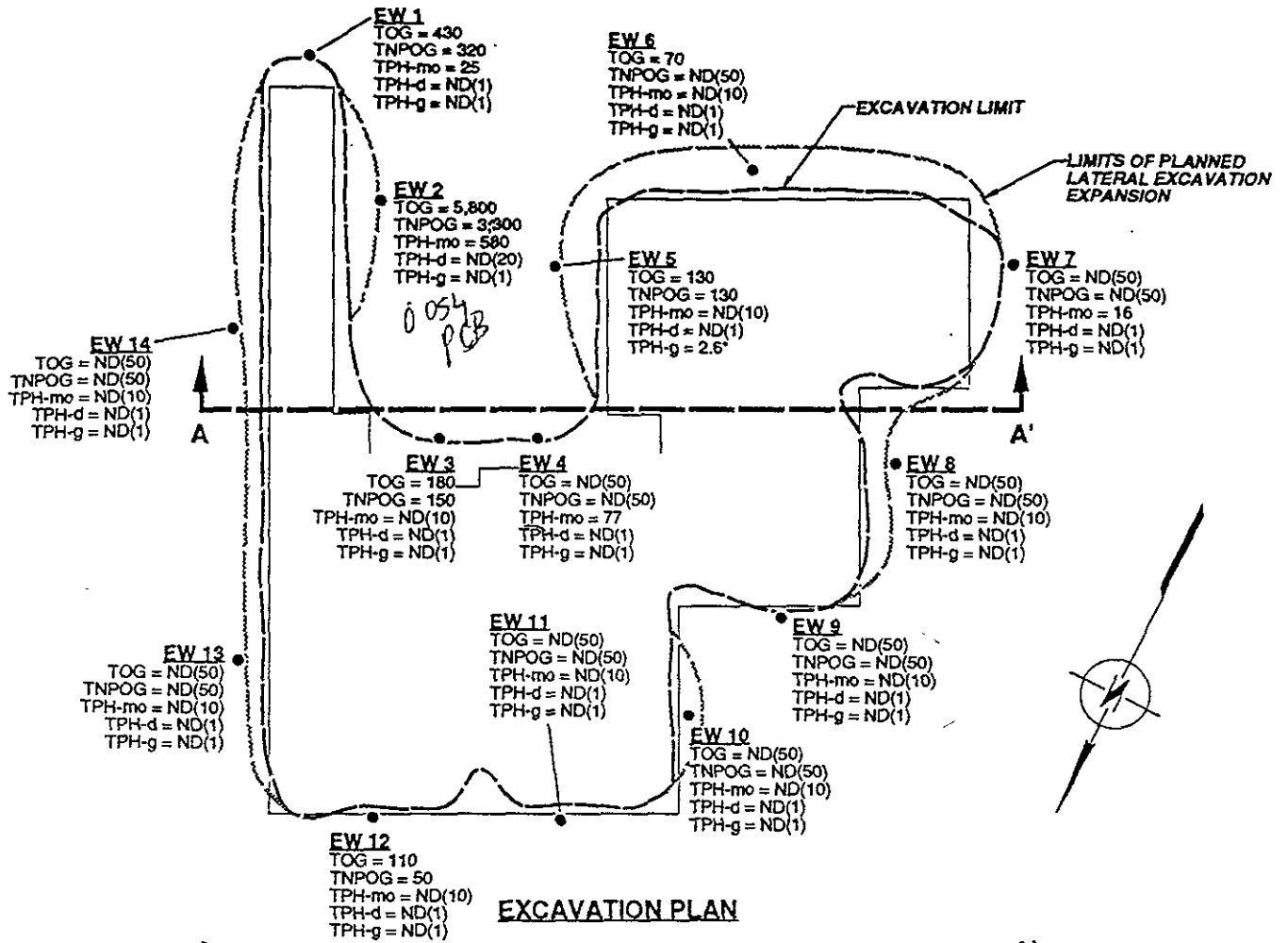
Sample I.D. Grade	Oil & Grease	TRPH	Date Sample Rec'd.	Depth Below
1	390	330	10/01/93	6
2	18,000	16,000	10/01/93	2
3	33,000	3,500	10/01/93	2
4	ND	ND	10/01/93	2
5	ND	ND	10/01/93	2
6	ND	ND	10/01/93	2
7	20	ND	10/01/93	2
8	ND	ND	10/01/93	2
9	29	15	10/01/93	2
10	3,000	8,000	10/01/93	2
11	ND	ND	10/01/93	2
12	ND	ND	10/01/93	2
13	33	23	10/01/93	6
14	2,800	2,400	10/01/93	6
15	610	480	10/01/93	7
16	3,000	2,200	10/01/93	Bin Sample
17	7,400	6,500	10/01/93	Bin Sample
18	5,300	4,500	10/01/93	Bin Sample
19		4,200	10/05/93	2
20	540,000	240,000	10/05/93	Sludge Sample
21		7,800	10/05/93	2
22		2,000	10/01/93	2
23		100	10/01/93	6
24		380	10/01/93	6
25		530	10/01/93	7
26		1,800	10/01/93	3
27		7,200	10/01/93	5
28		910	10/01/93	3
29		410	10/01/93	7
30		ND	10/01/93	2
31		ND	10/01/93	2
32		7,500	10/01/93	7
33		ND	10/01/93	7

Oil & Grease = by EPA Method 413.2

TRPH = Total Recoverable Petroleum Hydrocarbon by EPA Method 418.1

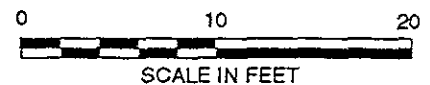
ND = None Detected

Elevation = Elevation below soil grade



LEGEND

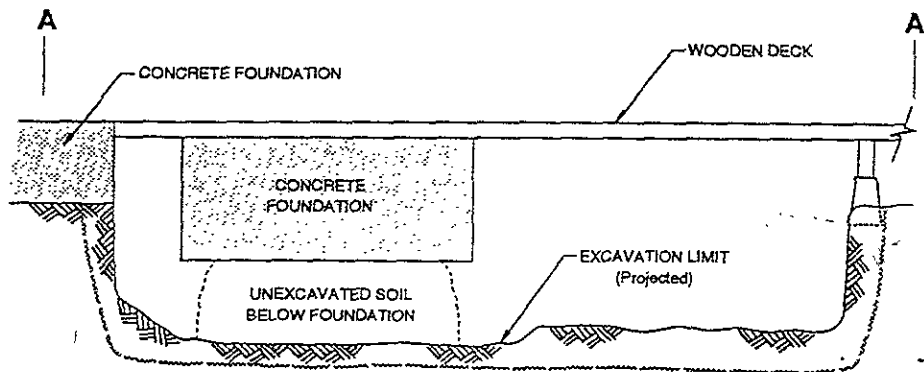
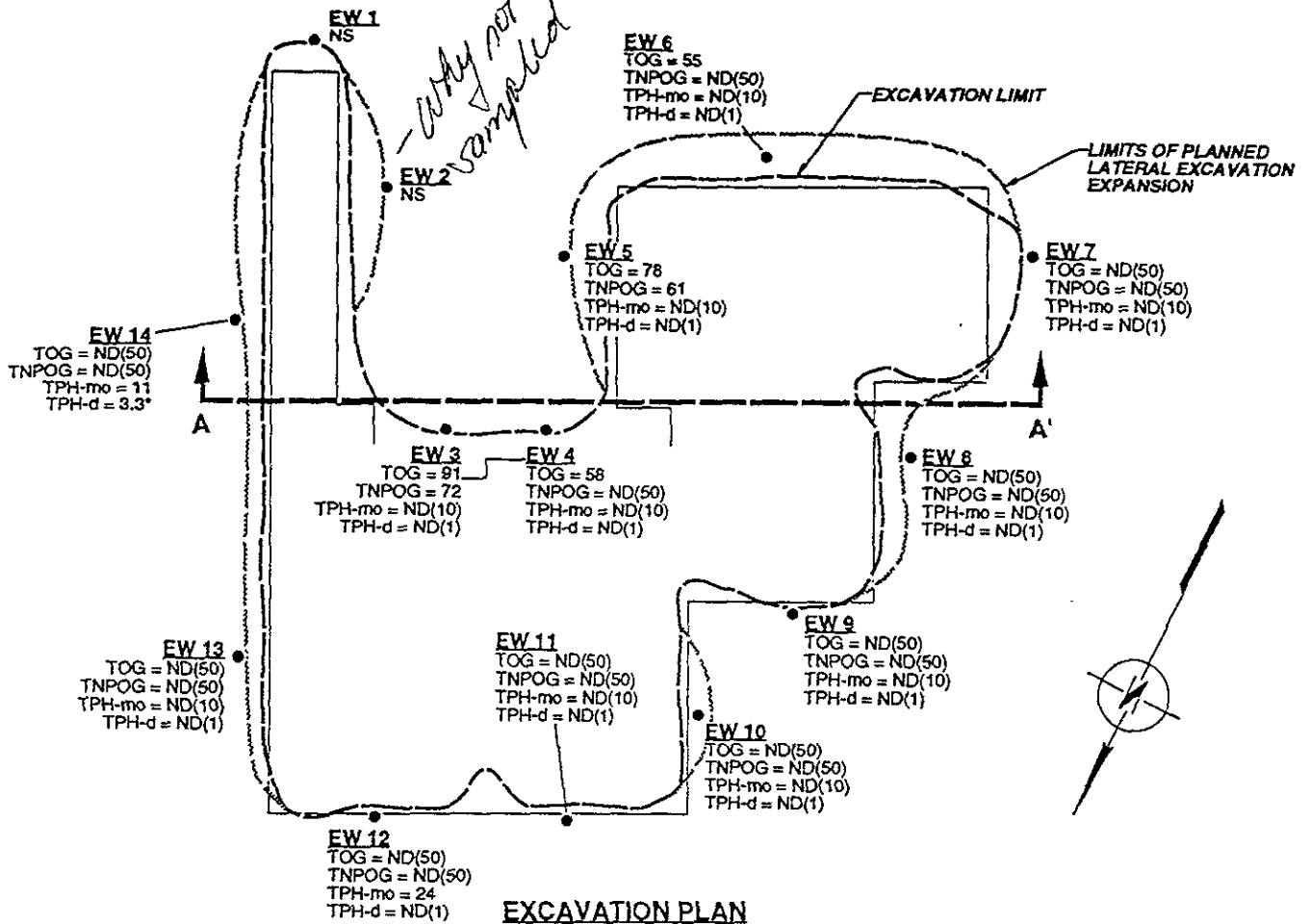
- EW 1 ● SIDEWALL CONFIRMATION SOIL SAMPLE LOCATION
- TOG = TOTAL OIL AND GREASE (in milligrams per kilogram)
- TNPOG = TOTAL NON-POLAR OIL AND GREASE (in milligrams per kilogram)
- TPH-mo = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS MOTOR OIL (in milligrams per kilogram)
- TPH-d = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS DIESEL (in milligrams per kilogram)
- TPH-g = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS GASOLINE (in milligrams per kilogram)
- ND(5) = NOT DETECTED (detection limit in parenthesis)
- * Gasoline range hydrocarbons do not have typical gasoline chromatogram pattern.



ANALYTICAL RESULTS FOR EXCAVATION SIDEWALL SOIL SAMPLES (2 ft. b.g.s.)

TRANS INTERNATIONAL WAREHOUSE FACILITY
1034 66th Avenue
Oakland, California

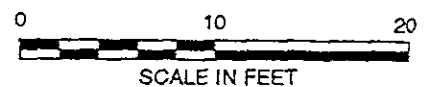
Scale	AS SHOWN	Project No.	93-44-395-05
Prepared by	TNW	Date	11/26/93
Checked by	RCP	Drawing No.	
Approved by			8



LEGEND

- EW 1 ● SIDEWALL CONFIRMATION SOIL SAMPLE LOCATION
- TOG = TOTAL OIL AND GREASE (in milligrams per kilogram)
- TNPOG = TOTAL NON-POLAR OIL AND GREASE (in milligrams per kilogram)
- TPH-mo = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS MOTOR OIL (in milligrams per kilogram)
- TPH-d = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS DIESEL (in milligrams per kilogram)
- ND(5) = NOT DETECTED (detection limit in parenthesis)
- NS = NOT SAMPLED

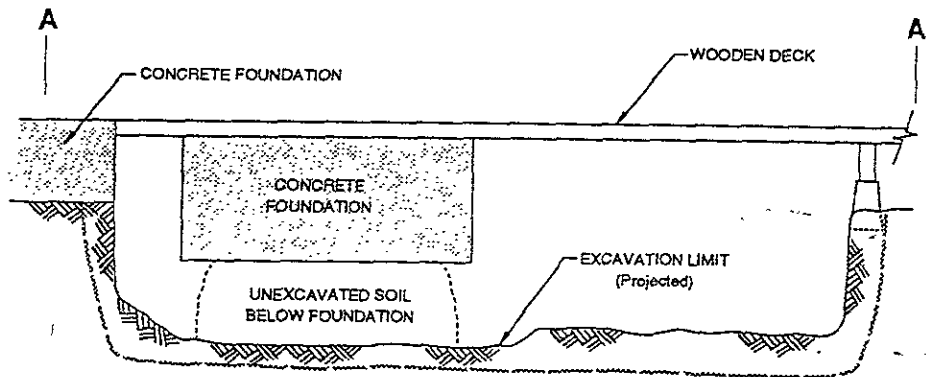
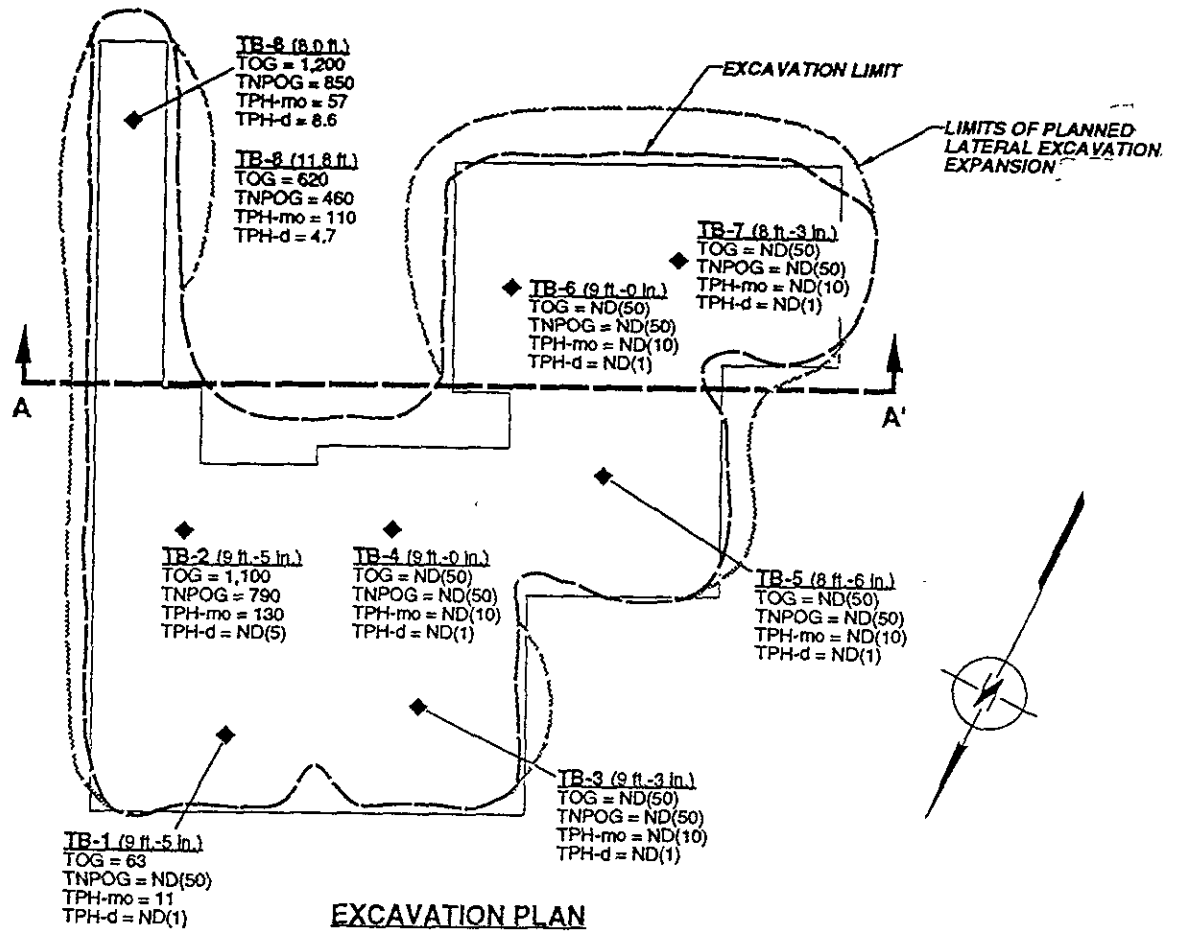
* Diesel range hydrocarbons appear to be heavier hydrocarbons than diesel



ANALYTICAL RESULTS FOR EXCAVATION SIDEWALL SOIL SAMPLES (4 ft. b.g.s.)

TRANS INTERNATIONAL WAREHOUSE FACILITY
1034 66th Avenue
Oakland, California

Scale	AS SHOWN	Project No.	93-44-395-05
Prepared by	TNW	Date	11/26/93
Checked by	RCP	Drawing No.	
Approved by			9



LEGEND

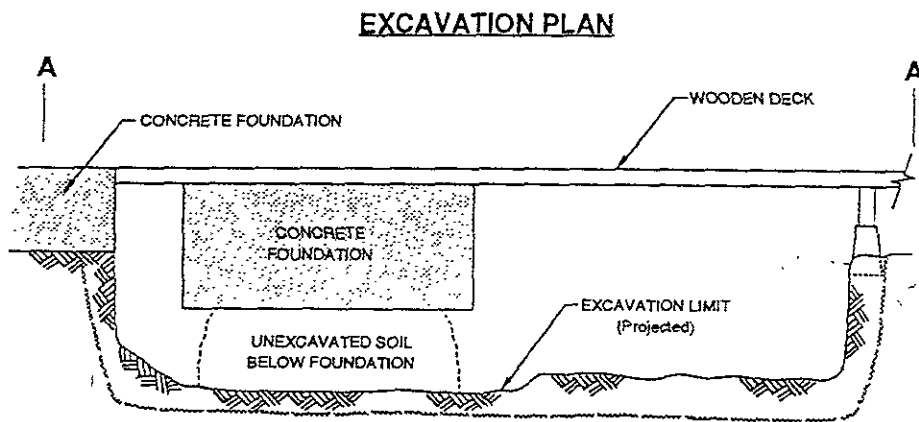
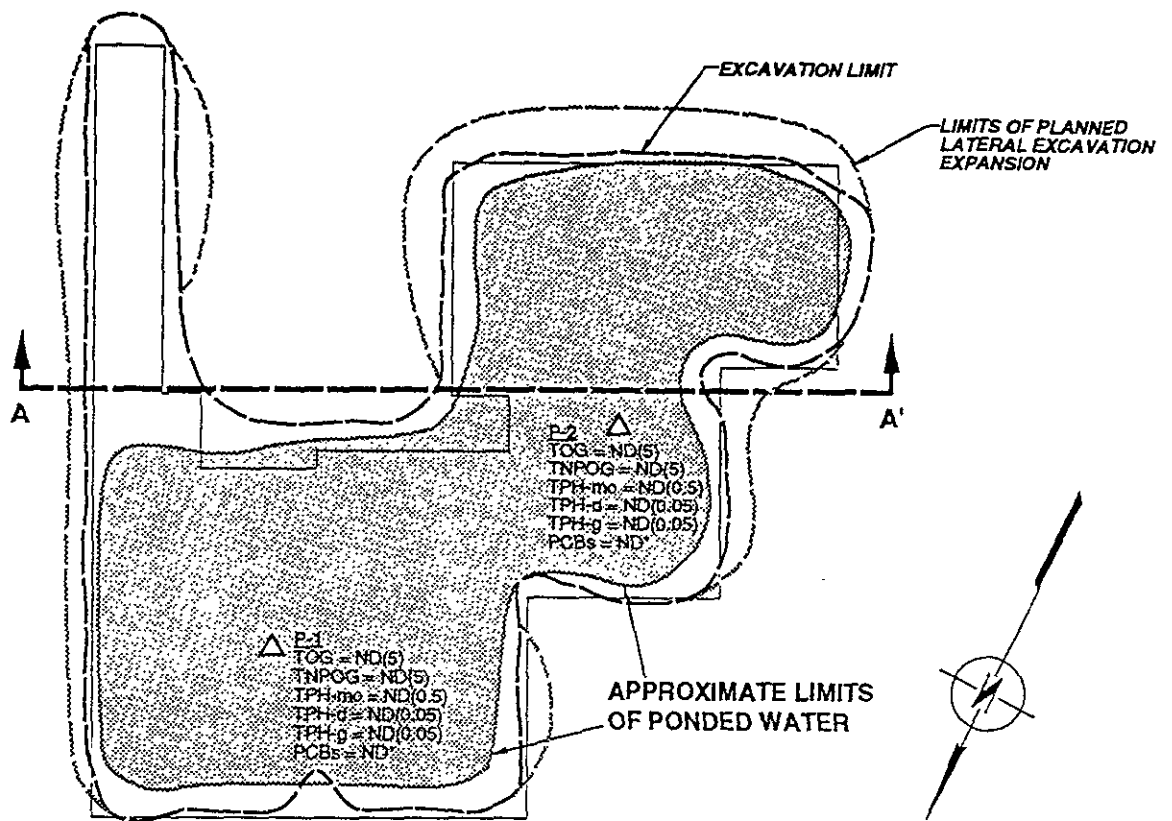
- TB-3 ◆ BOTTOM CONFIRMATION SOIL SAMPLE LOCATION (depth shown in parenthesis)
- TOG = TOTAL OIL AND GREASE (in milligrams per kilogram)
- TNPOG = TOTAL NON-POLAR OIL AND GREASE (in milligrams per kilogram)
- TPH-mo = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS MOTOR OIL (in milligrams per kilogram)
- TPH-d = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS DIESEL (in milligrams per kilogram)
- ND(5) = NOT DETECTED (detection limit in parenthesis)



ANALYTICAL RESULTS FOR EXCAVATION BOTTOM SOIL SAMPLES

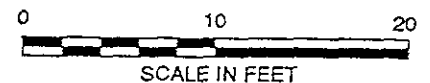
TRANS INTERNATIONAL WAREHOUSE FACILITY
1034 66th Avenue
Oakland, California

Scale	AS SHOWN	Project No.	93-44-395-05
Prepared by	TNW	Date	11/26/93
Checked by	RCP	Drawing No.	7
Approved by			



LEGEND

- P-1 Δ PONDED WATER GRAB SAMPLE LOCATION
- TOG = TOTAL OIL AND GREASE (in micrograms per liter)
- TNPOG = TOTAL NON-POLAR OIL AND GREASE (in micrograms per liter)
- TPH-mo = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS MOTOR OIL (in micrograms per liter)
- TPH-d = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS DIESEL (in micrograms per liter)
- TPH-g = TOTAL PETROLEUM HYDROCARBONS QUANTIFIED AS GASOLINE (in micrograms per liter)
- PCBs = POLYCHLORINATED BIPHENYLS (in micrograms per liter)
- ND(5) = NOT DETECTED (detection limit in parenthesis)
- * Detection Limits for PCB's varied from 0.5 to 8 micrograms per liter



ANALYTICAL RESULTS FOR PONDED WATER SAMPLES

TRANS INTERNATIONAL WAREHOUSE FACILITY
 1034 66th Avenue
 Oakland, California

Scale	AS SHOWN	Project No.	93-44-395-05
Prepared by	TNW	Date	11/26/93
Checked by	RCP	Drawing No.	10
Approved by			



Converse Environmental West

Soil and Poned Water Confirmation Sampling
 Trans International Warehouse Facility
 1034 66th Avenue
 Oakland, California

TABLE 1. SUMMARY OF ANALYTICAL RESULTS -
 SOIL SAMPLES

Sample ID	Date Sampled	Sample Depth (ft bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	TNPOG (mg/kg)	¹ Arachlor 1260 (mg/kg)
EW1	01/05/94	2	ND(1)	ND(1)	25	430	320	ND(0.05)
EW2	01/05/94	2	ND(1)	ND(1)	580	5,800	3,300	0.054
EW3	01/05/94	2	ND(1)	ND(1)	ND(10)	180	150	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	91	72	ND(0.05)
EW4	01/05/94	2	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	58	ND(50)	ND(0.05)
EW5	01/05/94	2	2.6 ²	ND(1)	ND(10)	130	130	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	78	61	ND(0.05)
EW6	01/05/94	2	ND(1.0)	ND(1)	ND(10)	70	ND(50)	ND(0.05)
	01/05/94	4	ND(1.0)	ND(1)	ND(10)	55	ND(50)	ND(0.05)
EW7	01/05/94	2	ND(1)	ND(1)	16	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
EW8	01/05/94	2	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
EW9	01/05/94	2	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
EW10	01/05/94	2	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
EW11	01/05/94	2	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
EW12	01/05/94	2	ND(1)	ND(1)	ND(10)	110	50	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	24	ND(50)	ND(50)	ND(0.05)
EW13	01/05/94	2	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
EW14	01/05/94	2	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(0.05)
	01/05/94	4	ND(1)	3.3 ³	11	ND(50)	ND(50)	ND(0.05)

Soil and Poned Water Confirmation Sampling
 Trans International Warehouse Facility
 1034 66th Avenue
 Oakland, California

TABLE 1.(cont'd) SUMMARY OF ANALYTICAL RESULTS -
 SOIL SAMPLES

Sample ID	Date Sampled	Sample Depth (ft bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	TOG (mg/kg)	TNPOG (mg/kg)	¹ Arachlor 1260 (mg/kg)
TB-1	02/04/94	9.42	ND(1)	ND(1)	11	63	ND(50)	ND(50)
TB-2	02/04/94	9.42	ND(1)	ND(1)	130	1,100	790	ND(50)
TB-3	02/04/94	9.25	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(50)
TB-4	02/04/94	9.0	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(50)
TB-5	02/04/94	8.5	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(50)
TB-6	02/04/94	9.0	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(50)
TB-7	02/04/94	8.25	ND(1)	ND(1)	ND(10)	ND(50)	ND(50)	ND(50)
TB-8	02/04/94 02/04/94	8.0 11.75	ND(1) ND(1)	8.6 4.7	57 110	1,200 620	850 460	ND(50) ND(50)

NOTES:

- 1 Analysis for polychlorinated biphenyls (PCBs) was performed using EPA method 8080. No PCBs other than those noted were reported above the laboratory method detection limit.
- 2 The positive result for petroleum hydrocarbons in the gasoline range has an atypical pattern for gasoline.
- 3 The positive result for petroleum hydrocarbons in the diesel range appears to be due to the presence of a heavier hydrocarbon rather than diesel.

TPH-g Total petroleum hydrocarbons quantified as gasoline - low to medium boiling point hydrocarbons
 TPH-d Total petroleum hydrocarbons quantified as diesel - high boiling point hydrocarbons
 TPH-mo Total petroleum hydrocarbons quantified as motor oil - high boiling point hydrocarbons
 TOG Total oil and grease
 TNPOG Total non-polar oil and grease
 ND Analyte was not reported above the laboratory method detection limit (Detection Limit in parenthesis).
 mg/kg Milligrams per kilogram
 ft bgs Feet below ground surface

Soil and Poned Water Confirmation Sampling
 Trans International Warehouse Facility
 1034 66th Avenue
 Oakland, California

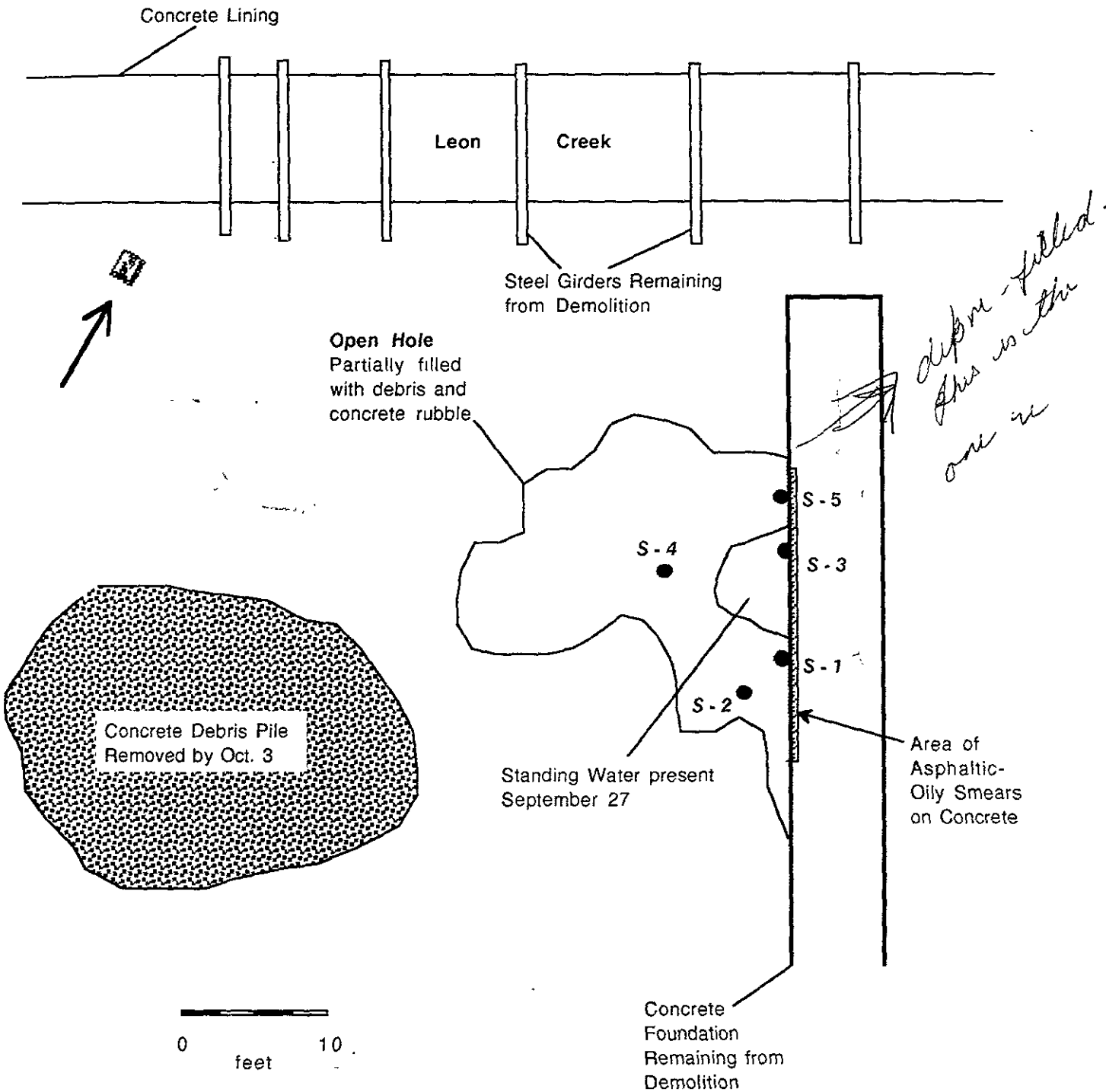
TABLE 2. SUMMARY OF ANALYTICAL RESULTS -
 PONDED WATER SAMPLES

Sample ID	Date Sampled	TPH-g ($\mu\text{g/l}$)	TPH-d ($\mu\text{g/l}$)	TPH-mo ($\mu\text{g/l}$)	TOG ($\mu\text{g/l}$)	TNPOG ($\mu\text{g/l}$)	¹ PCBs ($\mu\text{g/l}$)
P-1	01/05/94	ND(50)	ND(50)	ND(500)	ND(5000)	ND(5000)	ND
P-2	01/05/94	ND(50)	ND(50)	ND(500)	ND(5000)	ND(5000)	ND

NOTES:

1 Analysis for polychlorinated biphenyls (PCBs) was performed using EPA method 8080. No PCBs were reported above the laboratory method detection limit. Detection limits varied from 0.5 $\mu\text{g/l}$ to 8 $\mu\text{g/l}$.

TPH-g Total petroleum hydrocarbons quantified as gasoline
 TPH-d Total petroleum hydrocarbons quantified as diesel
 TPH-mo Total petroleum hydrocarbons quantified as motor oil
 TOG Total oil and grease
 TNPOG Total non-polar oil and grease
 PCBs Polychlorinated biphenyls
 ND Analyte was not reported above the laboratory method detection limit (Detection Limit in parenthesis).
 $\mu\text{g/l}$ Micrograms per liter



S-2
● Soil Sample Location, September 27, 1995

Christopher M. Palmer
Consulting Hydrogeologist
San Jose, CA

Soil Sampling Map at Area 2 (Open Hole) ACTS Full Gospel Church 1034 66th Avenue Oakland, CA	Project No. 140.00 Scale: 1" = 10' Date: Oct., 1995 Figure 3
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Christopher M. Palmer, CEG Consulting Hydrogeologist

1345 Kimberly Drive, San Jose, CA 95118 ph. 408/267-5238

Chemical Analysis

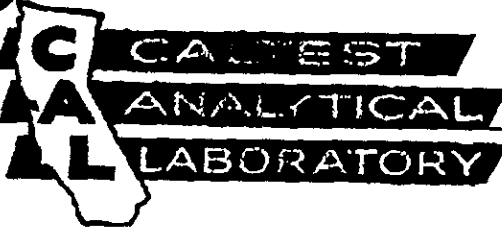
Eleven soil samples were transported for analysis at On-Site Laboratories, a State certified analytical laboratory. Selected samples were tested for the following; Total Petroleum Hydrocarbons as Oil and Grease (OG) and Volatile Organic Compounds (VOC) using EPA Methods 418 and 624/8260. Samples from the excavated soil stockpile for chemical analysis classification included EPA Methods 624/8260, 625/8270, 8080, CAM 17 Metals, 418.1 and Bioassay. The results are attached and listed below in Table 1.

Table 1. Soil Sample Chemical Results

Sample No.	VOC					Trimethylbenzene		
	E-Benz	m,p-Xyl	o-Xyl	Isobenz all	Propylbenz µg/kg	1,3,5	1,2,4	Isotol
E-1	ND	ND	ND	ND	ND	ND	ND	ND
E-2	4,000	27,000	14,000	1,700	4,000	8,400	22,000	ND
E-3	ND	ND	ND	ND	ND	ND	ND	ND
E-4	53	360	130	21	4,000	84	240	ND
E-5	ND	ND	ND	ND	ND	ND	ND	ND
E-6	3,000	19,000	6,300	1,500	5,400	6,200	20,000	440
E-7	ND	ND	ND	ND	ND	ND	ND	ND
E-8	39,000	230,000	77,000	12,000	37,000	42,000	120,000	2,200
E-9	ND	ND	ND	ND	ND	ND	ND	ND
SP-1,2,3,4	240	230,000	1,300,000	480,000	149,000	230,000	290,000	290,000
SP-2-1,2,3	500,000	2,700,000	1,000,000	150,000	420,000	490,000	1,300,000	22,000

Sample No.	Bioassay	EPA 8080											CAM -17 Metals						
		As	Sb	Ba	Be	Cd	Co	Cr	Cu	Hg	Mo	Ni	Pb	Se	Th	Ag	Va	Zn	
SP-1,2,3,4	nonhaz	ND	ND	ND	ND	92	ND	16	26	81	0.06	ND	73	13	ND	ND	ND	24	46
SP-2-1,2,3	---	ND	16	ND	51	ND	2.2	ND	29	46	ND	ND	31	6.3	4.1	18	ND	27	30

Sample No.	TOG mg/kg
S-1	36
S-2	200
S-3	15
S-4	45
S-5	280
SP-3-1,2,3	30



CERTIFIED ENVIRONMENTAL SERVICES
CALIFORNIA ELAP# 1664

Lab Number: 9506-236-1

Page 1 of 3

CLIENT: David Elias
Cambria
1144 65th Street, Suite C
Oakland, CA 94608

PROJECT: 38-XXX

Analyzed :06-14-95
Analyzed by:JDE
Method :EPA 8260

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED
SS-1	SOIL	DAVID ELIAS	13 JUN 95	14 JUN 95
ANALYTE			RESULT mg/kg	*R.L. mg/kg

PRIORITY POLLUTANT VOLATILE ORGANICS				1,2,3
Benzene			ND	3.
Bromodichloromethane			ND	3.
Bromoform			ND	3.
Bromomethane (Methyl Bromide)			ND	3.
Carbon Tetrachloride			ND	3.
Chlorobenzene			ND	3.
Chloroethane (Ethyl Chloride)			ND	3.
2-Chloroethylvinyl ether			ND	6.
Chloroform			ND	3.
Chloromethane (Methyl Chloride)			ND	3.
Dibromochloromethane			ND	3.
1,2-Dichlorobenzene			ND	3.
1,3-Dichlorobenzene			ND	3.
1,4-Dichlorobenzene			ND	3.
Dichlorodifluoromethane (F-12)			ND	3.
1,1-Dichloroethane			ND	3.
1,2-Dichloroethane (EDC)			ND	3.
1,1-Dichloroethane			ND	3.

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 EPA SW-846 or 600/4 Methods except where noted-SM indicates Stand. Methods; 18th Ed.
 *Results of 'ND' not detected at or above the listed Reporting Limit (R.L.).
 [1] Sample Preparation on 06-14-95 by JDE using EPA 5030
 [2] All results expressed as wet weight of sample.
 [3] Sample diluted prior to analysis in an effort to reduce matrix interferences
 resulting in (a) higher reporting limit(s).

06/15/95
0614A/07
950614A.8260

Lab Number: 9506-236-1

Page 2 of 3

CLIENT: David Elias
Cambria
1144 65th Street, Suite C
Oakland, CA 94608

PROJECT: 38-XXX

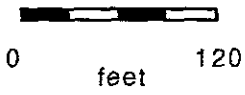
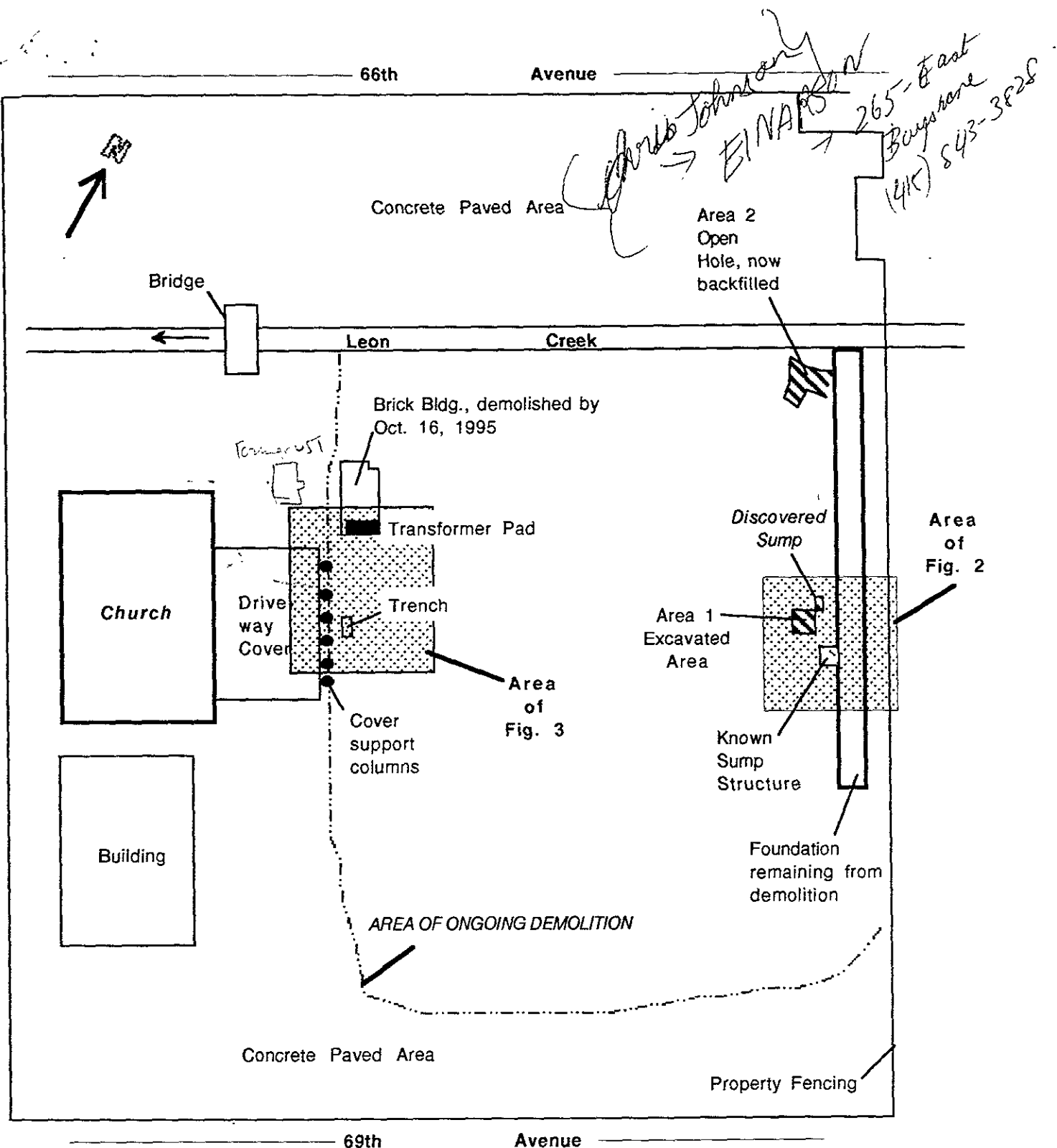
Analyzed :06-14-95
Analyzed by:JDE
Method :EPA 8260

REPORT OF ANALYTICAL RESULTS

SAMPLE DESCRIPTION	MATRIX	SAMPLED BY	SAMPLED DATE/TIME	RECEIVED	
SS-1	SOIL	DAVID ELIAS	13 JUN 95	14 JUN 95	
ANALYTE			RESULT mg/kg	*R.L. mg/kg	NOTES
cis-1,2-Dichloroethene			ND	3.	
trans-1,2-Dichloroethene			ND	3.	
1,2-Dichloropropane			ND	3.	
cis-1,3-Dichloropropene			ND	3.	
trans-1,3-Dichloropropene			ND	3.	
Dichlorotrifluoroethane (F-123)			ND	3.	
Ethylbenzene			500.	300.	
Methylene Chloride			ND	18.	
1,1,2,2-Tetrachloroethane			ND	3.	
Tetrachloroethene (PCE)			ND	3.	
Toluene			10.	3.	
1,1,1-Trichloroethane (TCA)			ND	3.	
1,1,2-Trichloroethane			ND	3.	
Trichloroethene (TCE)			ND	3.	
Trichlorofluoromethane (F-11)			ND	3.	
Trichlorotrifluoroethane (F-113)			ND	3.	
Vinyl Chloride			ND	3.	
Xylenes (Total)			4500.	300.	
Surrogate 1,2-Dichloro-ethane-d4			80%		

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EPA SW-846 or 600/4 Methods except where noted-SM indicates Stand. Methods; 18th Ed.
*Results of 'ND' not detected at or above the listed Reporting Limit (R.L.).

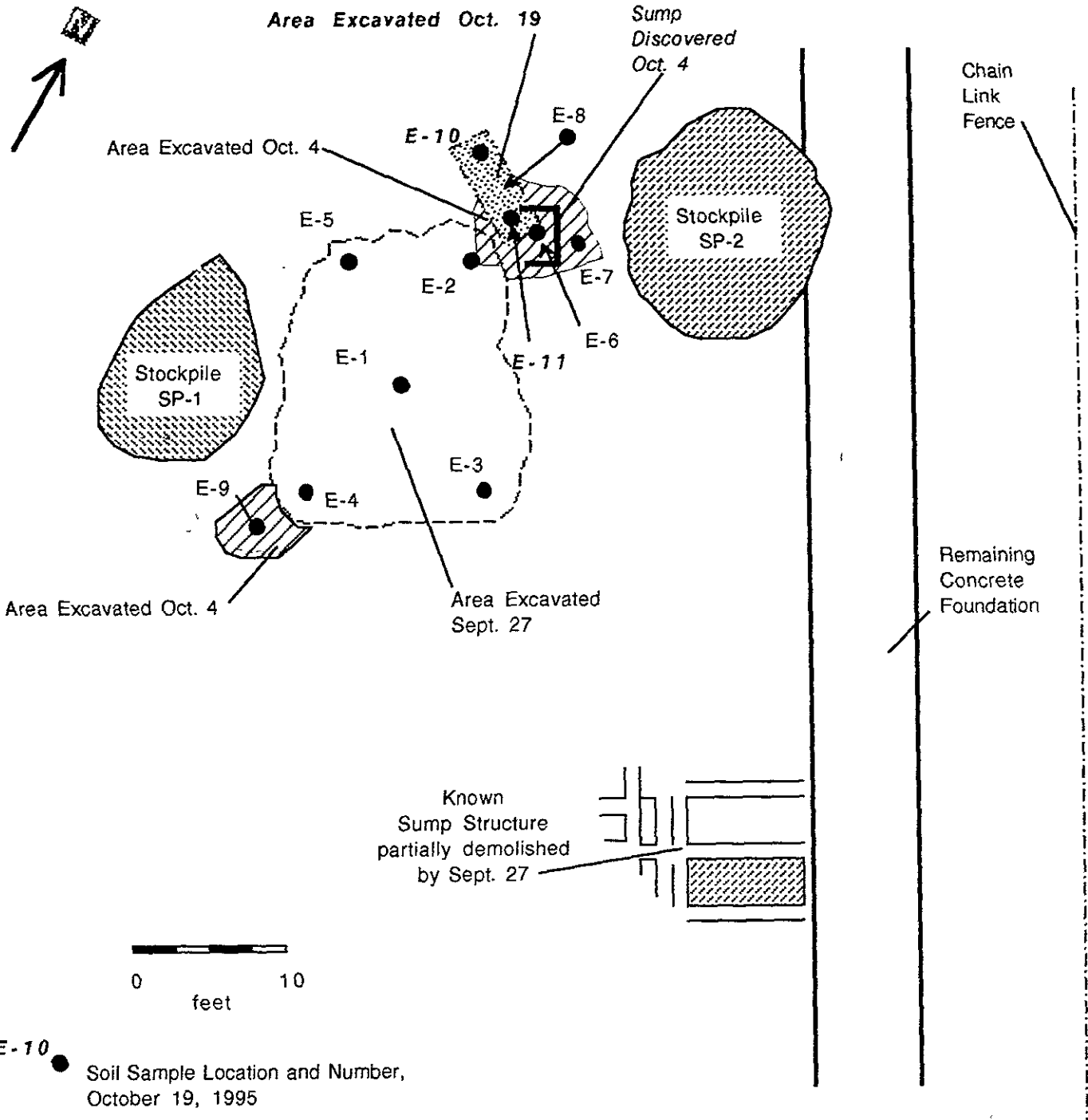
06/15/95
0614A/07
950614A.8260



Ref. Report entitled, "Reconnaissance Soil Sampling and Chemical Analysis at Excavations ACTS Full Gospel Church, 1034 66th Street, Oakland, CA," dated Oct. 11, 1995, Proj. No. 140.00

Christopher M. Palmer
Consulting Hydrogeologist
 San Jose, CA

Site Map	Project No. 140.00
ACTS Full Gospel Church	Scale: 1" = 120'
1034 66th Avenue	Date: Oct., 1995
Oakland, CA	Figure 1



- E-10 ● Soil Sample Location and Number, October 19, 1995
- E-2 ● Soil Sample Location and Number, September 27 and October 4, 1995

Ref. "Reconnaissance Soil Sampling and Chemical Analysis at Excavations ACTS Full Gospel Church, 1034 66th Street, Oakland, CA" dated Oct. 11, 1995, proj. no. 140.00.

Christopher M. Palmer
Consulting Hydrogeologist
San Jose, CA

Soil Sampling at Area 1 (Excavation), October 19, 1995 ACTS Full Gospel Church 1034 66th Avenue Oakland, CA	Project No. 140.00 Scale: 1" = 10' Date: Oct., 1995 Figure 2
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2B070.RPT

LABORATORY ANALYTICAL REPORT

VOLATILE ORGANICS BY GC/MS EPA 8260

Date sampled :	10/4/95	Client :	Remedial Solutions, Inc.
Date received :	10/4/95	Project :	ACTS F. G. CHURCH
Date extracted :	10/6/95	Project # :	140.00
Date analyzed :	10/6/95	Matrix :	soil
Report # :	2B070.rpt	Units :	ug/Kg
Lab. ID # :	2B070	COC # :	

SAMPLE ID		2B070-01 E-6	2B070-02 E-7	2B070-03 E-8	2B070-04 E-9	2B070-05 SP-2-1,2,3
Target Compounds	DL soil					
Dichlorodifluoromethane	10	nd	nd	nd	nd	nd
Chloromethane	10	nd	nd	nd	nd	nd
Vinyl chloride (ccc)	10	nd	nd	nd	nd	nd
Bromomethane	10	nd	nd	nd	nd	nd
Chloroethane	10	nd	nd	nd	nd	nd
Trichlorofluoromethane	10	nd	nd	nd	nd	nd
1,1-Dichloroethene (ccc)	5	nd	nd	nd	nd	nd
Methylene chloride	5	nd	9.8	nd	13	nd
Carbon disulfide	5	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	5	nd	nd	nd	nd	nd
1,1-Dichloroethane	5	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	5	nd	nd	nd	nd	nd
2,2-Dichloropropane	5	nd	nd	nd	nd	nd
Bromochloromethane	5	nd	nd	nd	nd	nd
Chloroform (ccc)	5	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	5	nd	nd	nd	nd	nd
Carbon tetrachloride	5	nd	nd	nd	nd	nd
1,1-Dichloropropene	5	nd	nd	nd	nd	nd
Benzene	5	nd	nd	nd	nd	nd
1,2-Dichloroethane	5	nd	nd	nd	nd	nd
Trichloroethene	5	nd	nd	nd	nd	nd
1,2-Dichloropropane (ccc)	5	nd	nd	nd	nd	nd
Dibromomethane	5	nd	nd	nd	nd	nd
Bromodichloromethane	5	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	5	nd	nd	nd	nd	nd
Toluene (ccc)	5	nd	nd	1300 J	nd	19000
trans-1,3-Dichloropropene	5	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	5	nd	nd	nd	nd	nd
Tetrachloroethene	5	nd	nd	nd	nd	nd



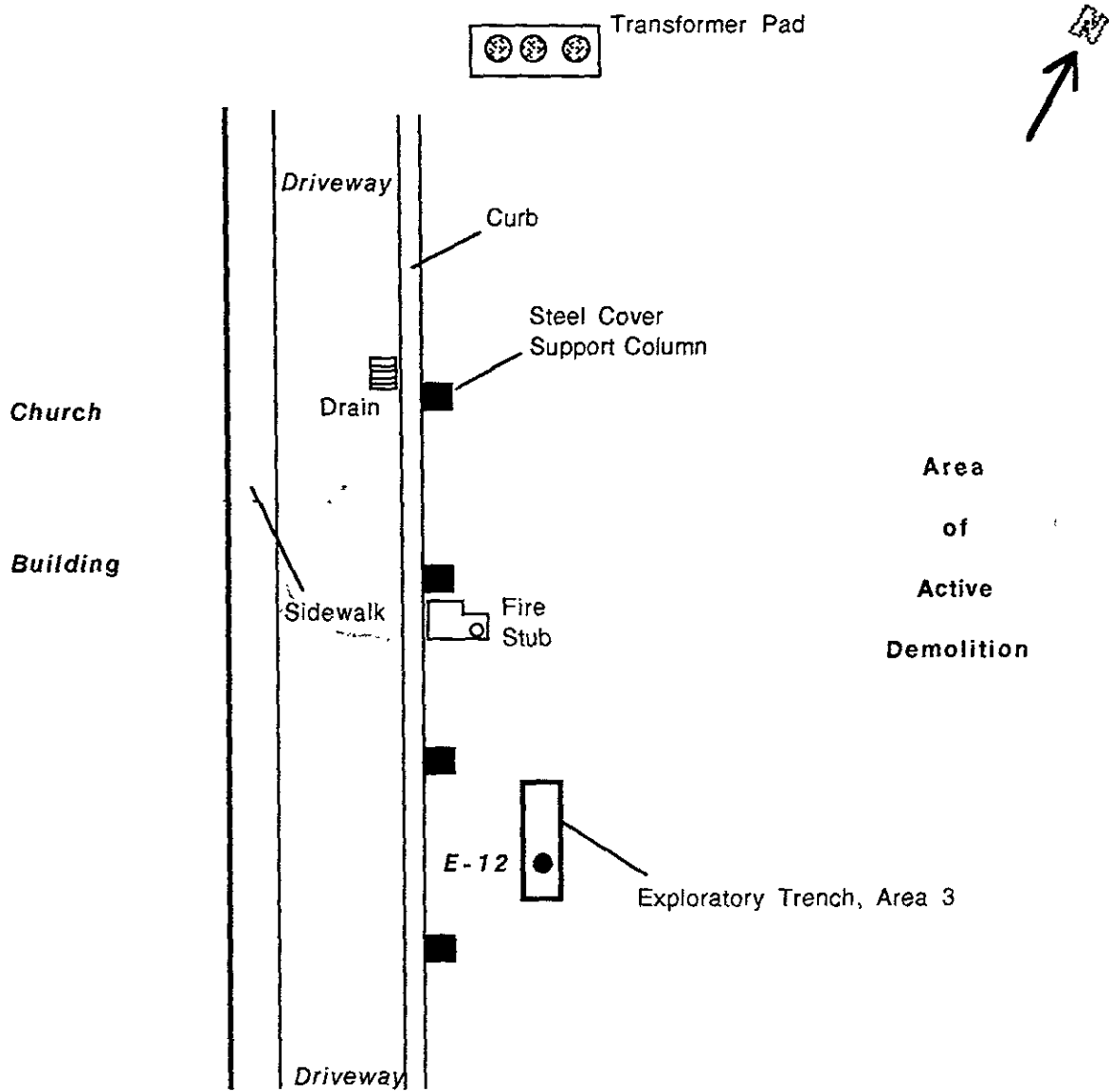
SAMPLE ID		2B070-01 E-6	2B070-02 E-7	2B070-03 E-8	2B070-04 E-9	2B070-05 SP-2-1,2,3
Target Compounds	DL soil					
1,3-Dichloropropane	5	nd	nd	nd	nd	nd
Dibromochloromethane	5	nd	nd	nd	nd	nd
1,2-Dibromomethane	5	nd	nd	nd	nd	nd
Chlorobenzene	5	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	5	nd	nd	nd	nd	nd
Ethylbenzene (ccc)	5	3000	nd	39000	nd	500000
m,p-Xylene	5	19000	nd	230000	nd	2700000
o-Xylene	5	6300	nd	77000	nd	1000000
Styrene	5	nd	nd	nd	nd	nd
Bromoform	5	nd	nd	nd	nd	nd
Isopropylbenzene	5	1500	nd	12000	nd	150000
Bromobenzene	5	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	5	nd	nd	nd	nd	nd
n-Propylbenzene	5	5400	nd	37000	nd	420000
2-Chlorotoluene	5	nd	nd	nd	nd	nd
4-Chlorotoluene	5	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	5	6200	nd	42000	nd	490000
tert-Butylbenzene	5	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	5	20000	nd	120000	nd	1300000
sec-Butylbenzene	5	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	5	nd	nd	nd	nd	nd
4-Isopropyltoluene	5	440	nd	2200	nd	22000
1,4-Dichlorobenzene	5	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	5	nd	nd	nd	nd	nd
n-Butylbenzene	5	nd	nd	nd	nd	5900 J
1,2-Dibromo-3-chloropropa	5	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	5	nd	nd	nd	nd	nd
Hexachlorobutadiene	5	nd	nd	nd	nd	nd
Naphthalene	5	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	5	nd	nd	nd	nd	nd
Dibromofluoromethane	surr.	89%	90%	88%	91%	88%
Toluene-d8		98%	98%	98%	99%	98%
4-Bromofluorobenzene		88%	100%	88%	100%	86%
Dilution factor (DF)		80	1	400	1	2000

Notes :

- nd - Analytes not detected at, or above the stated detection limit
- DL - Detection limit
- DF - Dilution Factor
- PQL - Practical Quantitation Limit - Multiply DL by the DF to obtain the PQL for a specific sample
- D - Diluted out
- E - exceed upper calibration limit
- J - Below reporting limit

James Parker
Laboratory director

10/2/95
Date



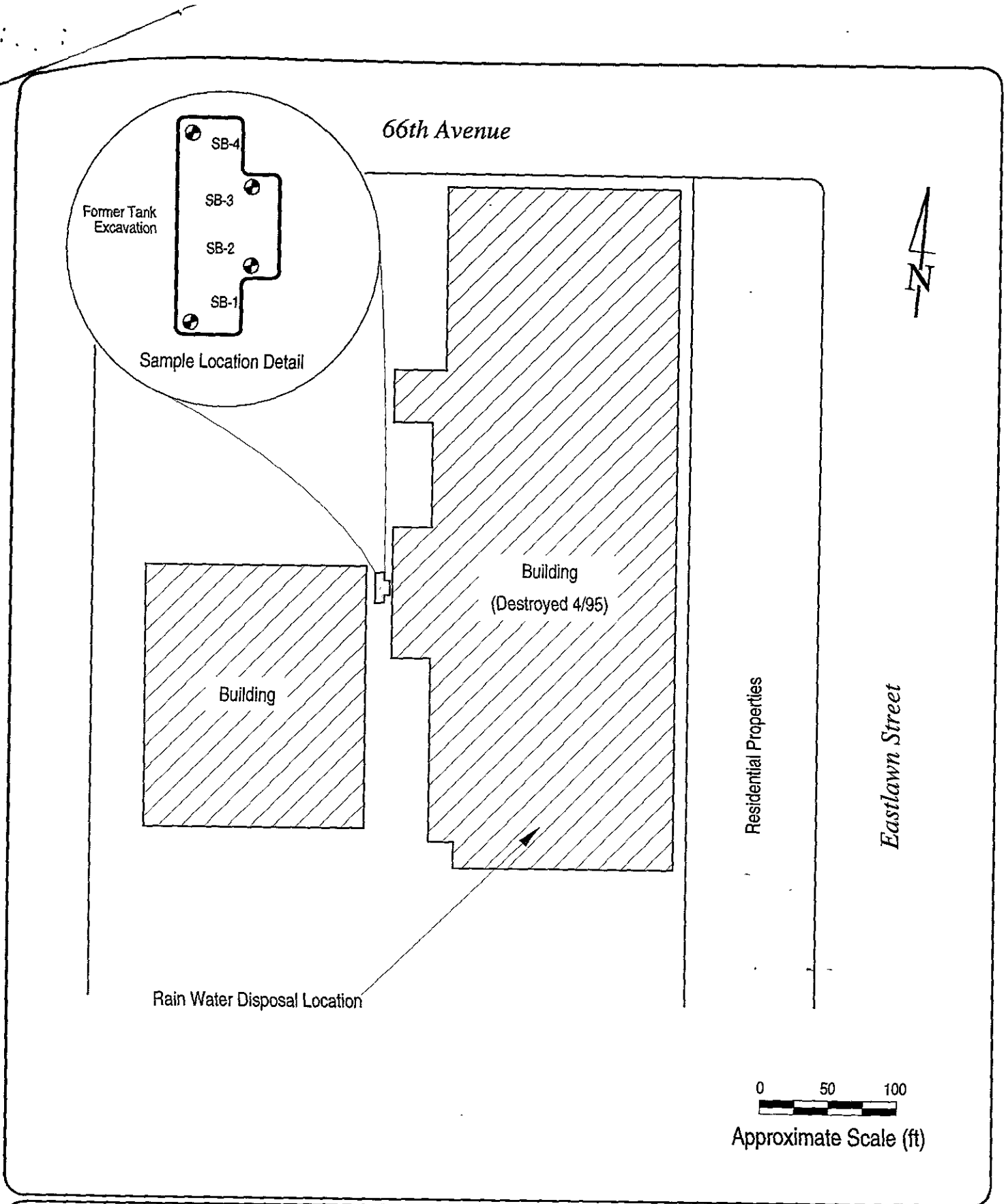
E-12 ● Soil Sample Location, October 19, 1995



Ref. Report entitled, "Reconnaissance Soil Sampling and Chemical Analysis at Excavations ACTS Full Gospel Church, 1034 66th Street, Oakland, CA," dated Oct. 11, 1995, Proj. No. 140.00

Soil Sample Location	Project No. 140.00
Area 3	Scale: 1" = 120'
October 19, 1995	Date: Oct., 1995
ACTS Full Gospel Church	
1034 66th Avenue	
Oakland, CA	Figure 3

Christopher M. Palmer
Consulting Hydrogeologist
San Jose, CA




 <p>CAMBRIA Environmental Technology, Inc.</p>	<p>EXPLANATION</p> <p>● Soil Sample Location</p>	<p>Tank and Soil Sample Locations</p> <p>Acts Full Gospel Church 1034 66th Avenue Oakland, California</p>	<p>FIGURE</p> <p>1</p>
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Table 1. Soil and Ground Water Analytic Data - Acts Full Gospel Church - 1034 66th Avenue, Oakland, California

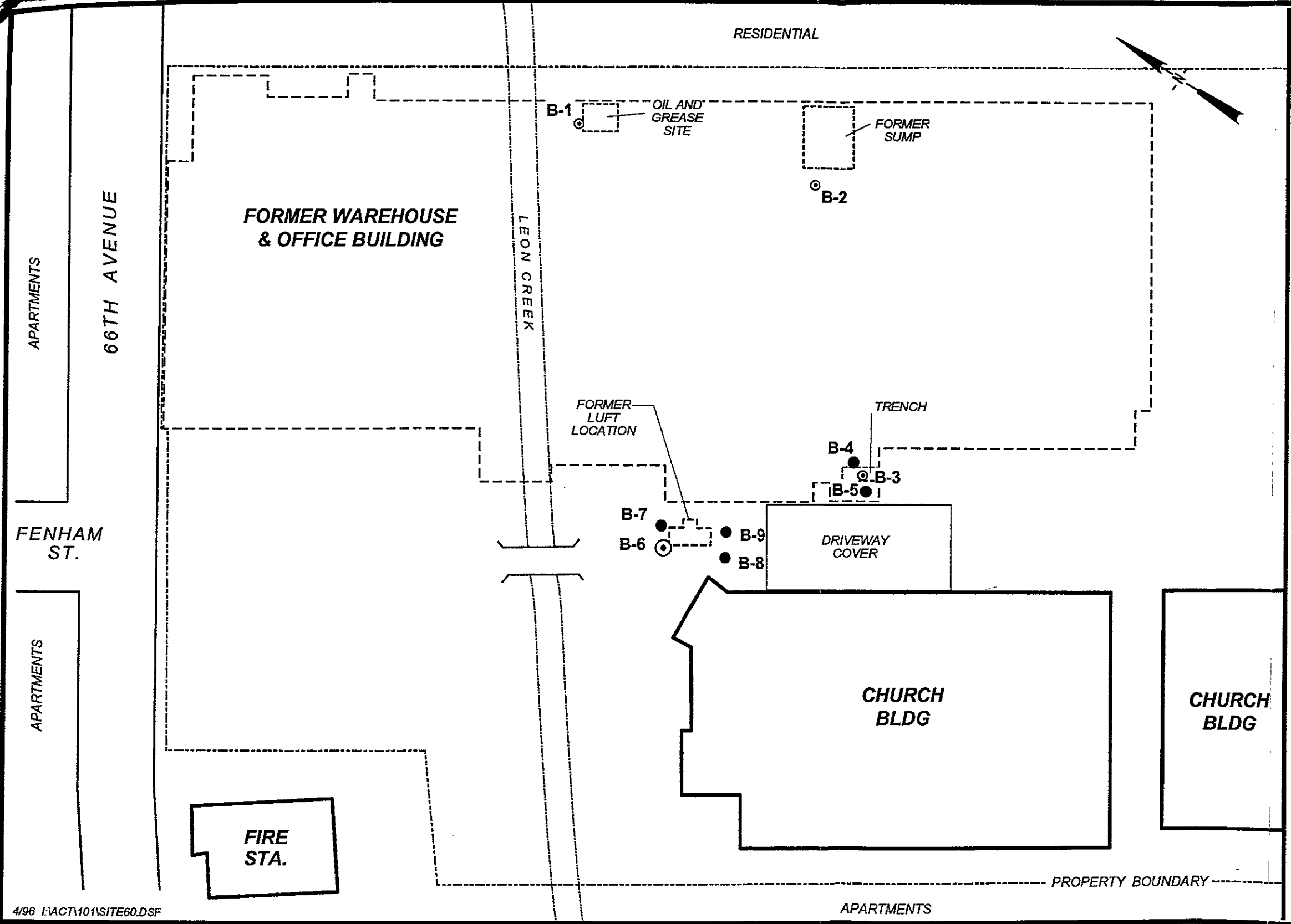
Sample ID	Date Sampled	Sample Depth (ft)	Sample Matrix	TPHg	TPHd	(Concentration in parts per million)				Notes
						Benzene	Toluene	Ethylbenzene	Xylenes	
<u>Tankpit Soil Samples</u>										
SB-1	11/29/94	8.5	Soil	<1.0	4.9	<0.0025	<0.0025	<0.0025	<0.0025	1
SB-2	11/29/94	8.5	Soil	380	2,200	<0.250	<0.250	<0.250	0.910	2
SB-3	11/29/94	8.5	Soil	80	750	<0.025	<0.025	<0.025	<0.025	2
SB-4	11/29/94	8.0	Soil	2.8	24	<0.0025	<0.0025	<0.0025	<0.0025	1,2
<u>Stockpile Soil Sample</u>										
SP-1-A	12/6/94	NA	Soil	1.8	36	<0.0005	0.007	<0.0005	0.016	3,4
<u>Rain Water Samples</u>										
WS-1	11/29/94	NA	H ₂ O	0.25	8.1	<0.0005	<0.0005	<0.0005	<0.0005	2
Tank 1	1/9/95	NA	H ₂ O	2.2	--	--	--	--	--	1
Tank 2	1/9/95	NA	H ₂ O	0.70	--	--	--	--	--	1

Abbreviations

TPHg = total petroleum hydrocarbons as gasoline by modified EPA Method 8015
 TPHd = total petroleum hydrocarbons as diesel by modified EPA Method 8015
 NA = not applicable

Notes

1. The positive TPHd result appears to be a heavier hydrocarbon than diesel.
2. The positive TPHg result appears to be a heavier hydrocarbon than gasoline.
3. The positive TPHd result has an atypical pattern for diesel analysis.
4. Strongly aged gasoline or diesel range hydrocarbons are significant.



EXPLANATION

- ⊙ Temporary Piezometer; grab groundwater sample collected
- Soil Boring

4/96 I:\ACT\101\SITE60.DSF

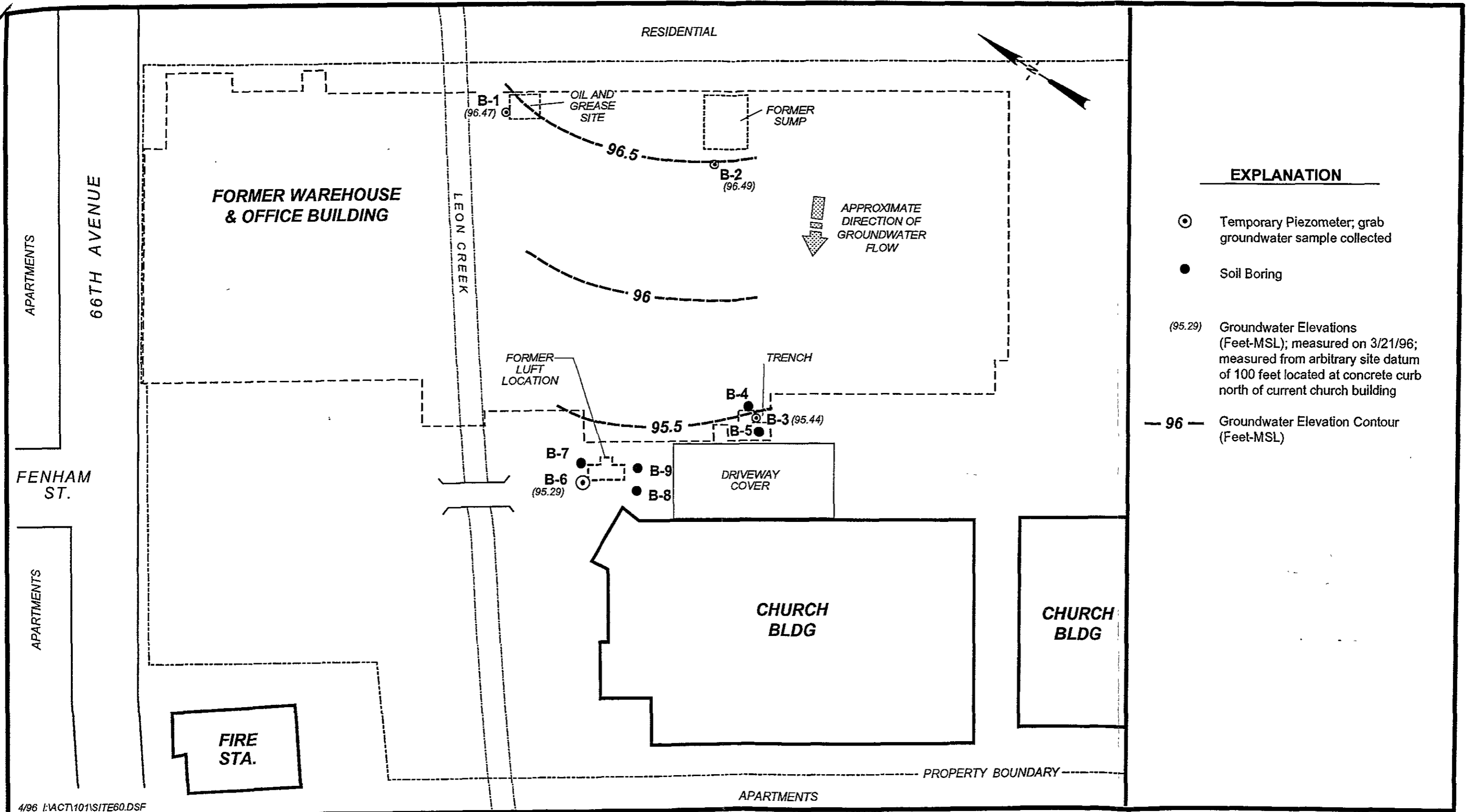
**EINARSON
FOWLER & WATSON**

SCALE: 0 60 120 FEET

ACTS FULL GOSPEL CHURCH
1034 66TH AVENUE
OAKLAND, CALIFORNIA

SITE MAP

FIGURE
2
PROJECT NO.
ACT101



EXPLANATION	
⊙	Temporary Piezometer; grab groundwater sample collected
●	Soil Boring
(95.29)	Groundwater Elevations (Feet-MSL); measured on 3/21/96; measured from arbitrary site datum of 100 feet located at concrete curb north of current church building
— 96 —	Groundwater Elevation Contour (Feet-MSL)

4/96 I:\ACT\101\SITE60.DSF

**EINARSON
FOWLER & WATSON**

SCALE: 0 60 120 FEET

ACTS FULL GOSPEL CHURCH
1034 66TH AVENUE
OAKLAND, CALIFORNIA

GROUNDWATER CONTOUR MAP

FIGURE
3
PROJECT NO.
ACT101

Table 1
Soil Sample Analytical Results
ACTS Full Gospel Church
1034 66th Avenue, Oakland, California

Boring	Sample Depth (ft)	Date Sampled	Oil and Grease (mg/kg)	Tetrachloroethene (µg/kg)	TPH-D (mg/kg)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
<u>Oil and Grease Site</u>										
B-1	3.5-4.0	3/19/96	< 3.33	NA	NA	NA	NA	NA	NA	NA
B-1	13.5-14.0	3/19/96	< 3.33	NA	NA	NA	NA	NA	NA	NA
<u>Trench Site</u>										
B-3	5.0-5.5	3/19/96	NA	7.7	NA	NA	NA	NA	NA	NA
B-3	11.5-12.0	3/19/96	NA	8.7	NA	NA	NA	NA	NA	NA
B-4	3.5-4.0	3/20/96	NA	8.2	NA	NA	NA	NA	NA	NA
B-4	5.0-5.5	3/20/96	NA	< 5	NA	NA	NA	NA	NA	NA
B-5	3.0-3.5	3/20/96	NA	< 5	NA	NA	NA	NA	NA	NA
B-5	5.2-5.7	3/20/96	NA	< 5	NA	NA	NA	NA	NA	NA
<u>UST site</u>										
B-6	11.0-11.5	3/20/96	NA	NA	< 5.0	< 0.2	< 0.001	0.0018	< 0.001	< 0.002
B-6	21.0-21.5	3/20/96	NA	NA	< 5.0	< 0.2	< 0.001	< 0.001	< 0.001	< 0.002
B-7	10.0-10.5	3/20/96	NA	NA	8	< 0.2	< 0.001	0.0011	< 0.001	< 0.002
B-7	18.5-19.0	3/20/96	NA	NA	< 5.0	< 0.2	< 0.001	< 0.001	< 0.001	< 0.002
B-8	10.0-10.5	3/20/96	NA	NA	< 5.0	< 0.2	< 0.001	< 0.001	< 0.001	< 0.002
B-8	18.5-19.0	3/20/96	NA	NA	< 5.0	< 0.2	< 0.001	< 0.001	< 0.001	< 0.002
B-9	9.0-9.5	3/20/96	NA	NA	270	< 0.2	< 0.001	< 0.001	< 0.001	< 0.002
B-9	18.5-19.0	3/20/96	NA	NA	< 5.0	< 0.2	< 0.001	< 0.001	< 0.001	< 0.002

TPH-D = total petroleum hydrocarbons as diesel
 TPH-G = total petroleum hydrocarbons as gasoline
 mg/kg = milligrams per kilogram
 µg/kg = micrograms per kilogram
 NA = not analyzed

Table 2
 Groundwater Sample Analytical Results
 ACTS Full Gospel Church
 1034 66th Avenue, Oakland, California

Boring	Date Sampled	Oil and Grease (mg/L)	Tetrachloroethene (µg/L)	VOCs ¹ (µg/L)	TPH-D (mg/L)	TPH-G (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)
<u>Oil and Grease Site</u>										
B-1	3/19/96	< 5.0	NA	NA	NA	NA	NA	NA	NA	NA
<u>Sump Site</u>										
B-2	3/19/96	NA	NA	< 5	NA	NA	NA	NM	NA	NA
<u>Trench Site</u>										
B-3	3/20/96	NA	33	NA	NA	NA	NA	NM	NA	NA
<u>UST Site</u>										
B-6	3/20/96	NA	NA	NA	< 0.05	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.001

TPH-D = total petroleum hydrocarbons as diesel
 TPH-G = total petroleum hydrocarbons as gasoline
 mg/L = milligrams per liter
 µg/L = micrograms per liter
 NA = not analyzed

1: sample analyzed for Volatile Organic Compounds (VOCs, EPA Method 8260)



SITE: 1034 66th Avenue, Oakland, California

CLIENT: ACTS Full Gospel Church

PROJECT NUMBER: ACT 101

DATE(S) DRILLED: March 19, 1996

DATE(S) WELL INSTALLED: NA

DRILLING CO./DRILLER: PSI/F. Rangel

DRILLING SUMMARY: Continuously cored from 0 to 18 feet with 2 3/8-inch diameter outer rod and 1 1/2-inch diameter sampling rod. From 18 to 24 feet, continuously cored with 1-inch diameter split spoon. Boring grouted to surface using cement with 4% bentonite.

GROUND ELEVATION: NA

T.O.C. ELEVATION: 99.09 ft. (100 ft. site datum)

COORDINATES: N E

DRILLING METHOD: Hydraulic Drive Sampling

BOREHOLE TOTAL DEPTH (FT): 24

FINAL BOREHOLE DIAMETER (IN): 2 3/8

Date Checked:

Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
	0						1			FILL, SANDY CLAY WITH GRAVEL (GL) Very dark grayish brown (2.5y,4/2), 15% fine gravel (0.5" diameter), 35% coarse sand, 50% fines, trace wood chips, medium plasticity, firm to stiff, moist
						3/2/96	2			
	0	B-1, 3.5'	(L)				3			CLAY FILL (CL) Very dark grayish brown (2.5y,4/2), 10-15% medium to coarse sand, 85-90% fines, medium plasticity, moist
							4			
							5			CLAY WITH SAND (CL) Olive yellow (2.5y,8/4), 20% fine sand, trace medium sand, 80% fines, trace manganese flakes (< 2mm), medium plasticity, firm, becoming stiff with depth, moist
							6			
							7			@ 4.5 ft: rare caliche nodules (< 0.5 inches)
	0	B-1, 8'	(L)				8			CLAY WITH SAND (CL) Light olive brown (2.5y,5/4), trace fine gravel (subrounded to angular), 20% fine to coarse sand, 80% fines, rare caliche nodules (< 0.25 inches), medium plasticity, very stiff, damp to moist
							9			
	0	B-1, 11'	(L)				10			SANDY CLAY WITH GRAVEL (CL) Olive brown (2.5y,5/4), 15-20% fine to coarse gravel, 20-25% fine to medium sand, approximately 60% fines, low plasticity, very stiff, damp to moist
							11			CLAY WITH SAND (CL) as above
							12			SANDY CLAY WITH GRAVEL (CL) as above
							13			CLAY WITH SAND (CL) as above
	0	B-1, 13.5'	(L)				14			@ 11.5 ft: increasing fine sand (30-40%)
							15			CLAY WITH SAND (CL) Light yellowish brown (2.5y,6/4), 20-30% fine sand, 70-80% fines, trace manganese nodules (< 1mm), medium plasticity, very stiff, moist
							16			CLAYEY SAND (SC) Light yellowish brown (2.5y,6/4), rare fine gravel, 10-15% coarse sand, 50-70% fine to medium sand, 20-35% fines, loose, moist
							17			CLAY WITH SAND (CL) as above very moist
							18			SANDY CLAY (CL) Light yellowish brown (2.5y,6/4), up to 3% coarse gravel (subrounded to angular), 30% fine sand, approximately 70% fines, medium plasticity, very stiff, moist
							19			CLAY WITH SAND (CL) as above moist
							20			CLAY (CL) Light olive brown (2.5y,5/4), 10% fine sand,

Checked By: Kris H. Johnson, C.E.G.

Logged By: Robert E. Langdon



Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
						3-18-86	22			CLAY (CL) (CONTINUED) trace medium sand, 90% fines, low to medium plasticity, firm to stiff, very moist to wet, becoming wet with depth
	20?						23			@ 22.5 soft to firm CLAYEY SAND (SC) Light olive brown (2.5y, 5/4), 5% fine gravel (subrounded to angular), 60% fine to medium sand, 5% coarse sand, 30% fines, loose, wet
							24			BORING TERMINATED AT 24 FEET; sufficient information obtained.
							25			
							26			
							27			
							28			
							29			
							30			
							31			
							32			
							33			
							34			
							35			
							36			
							37			
							38			
							39			
							40			
							41			
							42			
							43			
							44			
							45			
							46			
							47			

Date Checked:

Checked By: Kris H. Johnson, C.E.G.

Logged By: Robert E. Langdon



SITE: 1034 66th Avenue, Oakland, California

CLIENT: ACTS Full Gospel Church

PROJECT NUMBER: ACT 101

DATE(S) DRILLED: March 18, 1996

DATE(S) WELL INSTALLED: NA

DRILLING CO./DRILLER: PSI/F. Rangel

GROUND ELEVATION: NA

T.O.C. ELEVATION: 101.60 ft. (100 ft. site datum)

COORDINATES: N E

DRILLING METHOD: Hydraulic Drive Sampling

BOREHOLE TOTAL DEPTH (FT): 24

FINAL BOREHOLE DIAMETER (IN): 2 3/8

DRILLING SUMMARY: Continuously cored from 0 to 18 feet with 2 3/8-inch diameter outer rod and 1 1/2-inch diameter sampling rod. From 18 to 24 feet continuously cored with 1-inch diameter split spoon. Boring grouted to surface using cement with 4% bentonite.

Date Checked:

Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
	0						1			CLAYEY SAND FILL (SC) Very dark grayish brown (2.5y,3/2), 75-80% fine to medium sand, 20-25% fines, increased coarse sand with depth, loose, wet @ 0.6 ft: increasing fines
							2			CLAY (CL) Very dark gray (2.5y,n3/), trace fine sand, medium plasticity, firm, moist
							3			
						3/24/96	4			CLAY Light olive brown (2.5y,5/4), rare fine gravel, trace fine sand, medium plasticity, very firm, damp to moist
	0						5			
							6			
							7			
							8			@ 8 ft: trace fine gravel, very firm to stiff
	40						9			SANDY CLAY (CL) Light olive brown (2.5y,5/4), trace fine gravel, 10% fine to medium fine sand, 90% fines, rare caliche nodules, 10% mottling (dark brown), medium plasticity, firm, moist
							10			
							11			
	80						12			CLAY (CL) Light olive brown (2.5y,5/6), trace fine to coarse gravel (subrounded to angular), 15-20% fine sand, 5% medium sand, 75-80% fines, medium plasticity, stiff, damp to moist
							13			
							14			
	60						15			
							16			
							17			CLAYEY SAND (SC) Light olive brown (2.5y,5/4), 55% fine sand, trace medium sand, 45% fines, loose, moist to very moist
							18			
							19			SANDY CLAY (CL) Light olive brown (2.5y,5/4), 25% fine sand, 75 % fines, medium plasticity, firm, very moist to wet
							20			

Checked By: Kris H. Johnson, C.E.G.

Checked By: Robert E. Langdon



**EINARSON
FOWLER & WATSON**

PROJECT NO.: ACT 101
 CLIENT: ACTS Full Gospel Church
 SITE: 1034 66th Avenue, Oakland, California

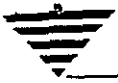
BORING NO.: B-2
 WELL NO. NA
 Sheet 2 of 2

Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
	0					3-19-96	22			CLAYEY SAND (SC) as above wet
							23			CLAY (CL) as above
							24			CLAYEY SAND (SC) as above
							25			BORING TERMINATED AT 24 FEET; sufficient information obtained.
							26			
							27			
							28			
							29			
							30			
							31			
							32			
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							46			
							47			

Date Checked:

Checked By: Kris H. Johnson, C.E.G.

Logged By: Robert E. Langdon



SITE: 1034 66th Avenue, Oakland, California

CLIENT: ACTS Full Gospel Church

PROJECT NUMBER: ACT 101

DATE(S) DRILLED: March 19, 1996

DATE(S) WELL INSTALLED: NA

DRILLING CO./DRILLER: PSI/F. Rangel

DRILLING SUMMARY: Continuously cored from 0 to 18 feet with 2 3/8-inch diameter outer rod and 1 1/2-inch diameter sampling rod. Boring grouted to surface using cement with 4% bentonite.

GROUND ELEVATION: NA

T.O.C. ELEVATION: 99.30 ft. (100 ft. site datum)

COORDINATES: N E

DRILLING METHOD: Hydraulic Drive Sampling

BOREHOLE TOTAL DEPTH (FT): 18

FINAL BOREHOLE DIAMETER (IN): 2 3/8

Date Checked:

Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
	0						1			CLAY FILL (CL) Very dark grayish brown (2.5y,3/2), 10% fine sand, 90% fines, trace wood chips, medium plasticity, soft to firm, wet
							2			
							3			CLAY FILL (CL) Light olive brown (2.5y,5/4), trace fine sand, firm, moist
						3/21/96	4			CLAY (CL) Light olive brown (2.5y,5/4), 10% fine sand, 90% fines, trace manganese flakes, medium plasticity, very firm, moist
80		B-3, 5	(L)				5			@ 5.5 ft: gray mottling (5%)
							6			
							7			@ 7.5 ft: increasing fine gravel (<5%)
							8			SANDY CLAY WITH GRAVEL (CL) Olive yellow (2.5y,6/6), 20% fine to medium gravel (subangular to subrounded), 10% fine to medium sand, 70% fines, medium plasticity, stiff, moist
20							9			CLAY (CL) as above
							10			
							11			SANDY CLAY WITH GRAVEL (CL) as above
							12			SANDY CLAY (CL) Light olive brown (2.5y,5/4), 40% fine sand, 60% fines, medium plasticity, stiff to firm, very moist to wet
		B-3, 11.5	(L)			3-19-96	13			SANDY CLAY WITH GRAVEL (CL) as above trace coarse gravel, very moist to wet
							14			CLAY (CL) Olive yellow (2.5y,6/6), trace fine sand, rare medium sand, medium plasticity, firm to stiff, very moist
							15			@ 14 ft: increasing fine gravel with depth
							16			SANDY CLAY (CL) Light olive brown (2.5y,5/4), 25% fine sand, trace medium sand, 75% fines, medium plasticity, firm,
							17			CLAYEY SAND (SC) Light olive brown (2.5y,5/4), 55% fine sand and 45% fines, trace manganese flakes (< 2mm), loose, wet
							18			BORING TERMINATED AT 18 FEET; sufficient information obtained.
							19			
							20			

Checked By: Kris H. Johnson, C.E.G

Logged By: Robert E. Langdon



**EINARSON
FOWLER & WATSON**

BORING LOG

BORING NO.: B-6
WELL NO. NA
Sheet 1 of 2

SITE: 1034 66th Avenue, Oakland, California
CLIENT: ACTS Full Gospel Church
PROJECT NUMBER: ACT 101
DATE(S) DRILLED: March 20, 1996
DATE(S) WELL INSTALLED: NA
DRILLING CO./DRILLER: PSI/F. Rangel
DRILLING SUMMARY: Continuously cored from 0.7 to 25 feet with 2 3/8-inch diameter outer rod and 1 1/2-inch diameter sampling rod. Boring grouted to surface using cement with 4% bentonite.

GROUND ELEVATION: NA
T.O.C. ELEVATION: 99.15 ft. (100 ft. site datum)
COORDINATES: N E
DRILLING METHOD: Hydraulic Drive Sampling
BOREHOLE TOTAL DEPTH (FT): 25
FINAL BOREHOLE DIAMETER (IN): 2 3/8

Date Checked:

Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
							1		CONCRETE	
	0						2		SANDY CLAY FILL (CL) Dark grayish brown (2.5y,4/2), 20% fine to course gravel, 65% fines, trace brick (< 1.5 inches), 15% medium to coarse sand, medium plasticity, firm, moist	
							3		CLAY (CL) Dark grayish brown (2.5y,4/2), trace fine gravel, 5% fine sand, medium plasticity, firm, moist	
						3/21/96	4		CLAY (CL) Black (2.5y,n2), trace fine sand, medium plasticity, firm, moist	
	0	B-6, 6	(L)				5			
	0						6		CLAY (CL) Light yellowish brown (2.5y,6/4), 5% fine sand, 95% fines, 50% mottled (redish-brown), 5-10% manganese flakes (1-2mm), medium plasticity, firm, moist	
	0						7			
	0						8			
	0						9			
	0	B-6, 11	(L)				10		GRAVELLY CLAY WITH SAND (CL) Light olive brown (2.5y,5/4), 10% coarse sand, 15-20% medium sand, and fine gravel, 60-75% fines, medium plasticity, very firm, moist	
	0						11			
	0						12		CLAY (CL) Olive yellow (2.5y,6/8), 10% fine sand, trace medium sand, 90% fines, medium plasticity, firm to stiff, moist	
	0						13			
	0	B-6, 15	(L)				14		GRAVELLY CLAY WITH SAND (CL) as above	
	0						15		CLAY (CL) as above rare caliche	
	0						16			
	0						17		GRAVELLY CLAY WITH SAND (CL) as above 5% manganese flakes (1-2mm), medium plasticity, firm, moist	
	0						18		CLAY WITH SAND (CL) Light olive brown (2.5y,5/4), 20% fine sand, trace coarse sand, 80% fines, medium plasticity, firm, moist	
	0						19		@ 18 ft: increasing manganese flakes (15-20%), increasing fine to medium sand (25%)	
	0	B-6, 21	(L)				20		CLAY (CL) Olive brown (2.5y,6/8), 15-20% fine sand, trace medium sand, 80-85%	

Checked By: Kris H. Johnson, C.E.G.

Logged By: Robert E. Langdon



**EINARSON
FOWLER & WATSON**

PROJECT NO.: ACT 101
 CLIENT: ACTS Full Gospel Church
 SITE: 1034 66th Avenue, Oakland, California

BORING NO.: B-6
 WELL NO. NA
 Sheet 2 of 2

Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
	0					3-20-98	22			CLAY (CL) (CONTINUED) 80-85% fines, 15% manganese flakes, medium plasticity, firm, moist @ 21 ft: firm, very moist to wet
							23			
							24			
							25			CLAYEY GRAVEL WITH SAND (GC) Light olive brown (2.5y, 5/6), 40% fine to coarse gravel (subangular to subrounded), 40% medium sand, 20% fines, dense, damp BORING TERMINATED AT 25 FEET; sufficient information obtained.
							26			
							27			
							28			
							29			
							30			
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Date Checked:

Checked By: Kris H. Johnson, C.E.G.

Logged By: Robert E. Langdon



SITE: 1034 66th Avenue, Oakland, California

CLIENT: ACTS Full Gospel Church

PROJECT NUMBER: ACT 101

DATE(S) DRILLED: March 20, 1998

DATE(S) WELL INSTALLED: NA

DRILLING CO./DRILLER: PSI/F. Rangel

DRILLING SUMMARY: Continuously cored from 0.7 to 19 feet with 2 3/8-inch diameter outer rod and 1 1/2-inch diameter sampling rod. Boring grouted to surface using cement with 4% bentonite.

GROUND ELEVATION: NA

T.O.C. ELEVATION: NA

COORDINATES: N E

DRILLING METHOD: Hydraulic Drive Sampling

BOREHOLE TOTAL DEPTH (FT): 19

FINAL BOREHOLE DIAMETER (IN): 2 3/8

Date Checked:

Blows/Run	P.I.D. (ppm)	Sample Number	Sample Type	Recovery	Sampler	Water Level	Depth (feet)	Elevation (feet MSL)	Graphic Log	LITHOLOGY
							1			CONCRETE
							2			GRAVELLY CLAY FILL Dark olive gray (2.5y,3/2), 20% fine to coarse gravel, 10% coarse sand, 60% fines, loose, moist
							3			CLAY FILL Dark olive gray (2.5y,3/2), 15% fine sand, 85% fines, medium plasticity, firm, damp to moist
							4			@ 2.5 ft: rare pieces of asphalt (< 1inch), wet CLAY (CL) Dark olive gray (2.5y,3/2), 5-10% fine sand, 90-95% fines, medium plasticity, firm, moist
	0	B-9, 5					5			
							6			CLAY (CL) Dark olive brown (2.5y,5/4), trace medium sand, 10% fine sand, 90% fines, 7% reddish gray mottling, medium plasticity, firm, moist
	0						7			
							8			
							9			@ 8.5 ft: < 5% reddish gray mottling
		B-9, 9.5					10			SANDY CLAY (CL) Light olive brown (2.5y,5/6), 70% fine to medium sand, rare coarse sand, 30% fines, low plasticity, firm, moist
	0					3-20-96	11			CLAYEY GRAVEL (GC) Light olive brown (2.5y,5/4), 50-60% subangular to angular coarse gravel, 25% medium to coarse sand, 15-20% fines, loose, wet
							12			SANDY CLAY (CL) as above
							13			
		B-9, 14					14			CLAY (CL) Light olive brown (2.5y,5/4), 15% sand, 85% fines, medium plasticity, < 5% manganese flakes, firm, very moist
	0						15			
							16			@ 16 ft: 10% reddish brown mottling
							17			CLAYEY SAND (SC) Light olive brown (2.5y,5/4), 5% fine gravel, 50% fine sand, 45% fines, loose, very moist
							18			@ 18 ft: increase in fine gravel (10%)
	20	B-9, 18.5					19			BORING TERMINATED AT 19 FEET; sufficient information obtained.
							20			

Checked By: Kris H. Johnson, C.E.G.

Logged By: Robert E. Langdon

20/17
June

OTID #4810

HEALTH AND SAFETY PLAN
DUNAVANT ENTERPRISES, INC.
TRANS INTERNATIONAL WAREHOUSE
1034 66TH AVENUE
OAKLAND, CA 94621

HEALTH AND SAFETY PLAN SUMMARY

The purpose of this summary is for quick field reference for the commonly referred to items covered in the Health and Safety Plan. It is not the intent of this summary to replace or supersede the information referred to in the Health and Safety Plan.

ANTICIPATED CLOTHING/EQUIPMENT

Hard Hat	Safety Glasses
Ear Plugs	Steel Toe/Shank Boots (Work__Rubber__)
Gloves (work__nitrile__)	Uniform__ / Work Clothes__ / Coveralls

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EMERGENCY CONTACTS

STEVE WHITE (209) 487-7932 or (209) 448-1878

Fire 911

Police 911

Paramedics 911

NOTE: For additional information regarding this project site, please refer to the Health and Safety or Work Plans for this project.

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September 20 1993

**HEALTH AND SAFETY PLAN
DUNAVANT ENTERPRISES, INC.
TIW FACILITY
1034 66TH AVENUE
OAKLAND, CA**

1.0 INTRODUCTION

This plan describes the health and safety procedure for the activities planned for the investigation at the Trans International project site. All employees and field personnel will abide by this plan. It is intended that all project work will comply with applicable codes and regulations of the United States Occupational Safety and Health Administration. Each field team member working on this project will have the general responsibility to identify and correct any health and safety hazards and strive to make the work place safe.

1.1 Project Description

This project is the removal of equipment and demolition to be performed by Kroeker at the previously mentioned project site. The scope of the project will include the removal of select equipment and machinery on the subject property and the facilities' improvement demolition as directed by Dunavant/PCOC staff.

1.2 Key Personnel and Responsibilities

The following personnel who will have the overall responsibility of the safe operation at this site are:

Project Directors: Steve White

Gary Goodman

Safety Officers: Gary Goodman

It is the responsibility of the ave designated safety office to:

Implement, the site safety training program for all project field team members as described in this document.

Assure that all field personnel have read and understand this Health and Safety Plan.

Establish effective traffic and pedestrian control around the site.

Insure that adequate site security is maintained.

Perform work place surveillance for flammable/explosive conditions and insure that there is a portable fire extinguisher located on-site.

Observe activities to insure the proper use of personal protective equipment such as hard hats, protective eyewear, coveralls, gloves, and steel-toe boots, etc.

Inspect safety equipment for use by all field personnel to insure that it has been maintained and is in a useable condition.

Shut down or modify field work activity based on the criteria presented in Section 8.0

Initiate outside emergency phone calls when an emergency or accident requires medical attention.

Insure that all field personnel meet or exceed the minimum requirements for health and safety training.

All field personnel will have a responsibility to :

Read, understand, and follow this plan.

Perform work safety.

Cooperate with all safety personnel.

Report any unsafe conditions to the immediate supervisor.

Be aware and alert for signs and symptoms of potential exposure to site contaminants and health concerns.

Attend the site safety training program/meeting.

Insure equipment and other machines are properly inspected and maintained and in compliance with applicable sections of the California and United States Occupational Health and Safety Codes.

Maintain safety related protective equipment such as hard hats, coveralls, gloves, safety eyewear, etc., as specified in this plan.

2.0 HAZARD EVALUATION

This Health and Safety Plan addresses specific on-site work activities related to the removal of flooring and excavating soil from the project site. While the basic Work and Health & Safety Plans are by now very familiar to Kroeker field crews, work on certain sites, particularly in hazardous environments, involve exposure potentials to various contaminants and possibly to contaminants at unpredictable levels.

Based on the limited historical and technical data available, this plan covers anticipated activities and hazards, and makes provision for modification or amendment as health related data is obtained during this investigation. This plan will be amended with site specific hazards identified as posing a potential health hazard for workers. For select sites, the Safety Officer will conduct a preliminary survey involving air and solid samples analysis, and amend the Health and Safety Plan as needed.

The general categories of hazards associated with this investigation are:

Mechanical hazards: cuts, contusions, slips, trips, falls, being struck by moving objects being caught by rotating objects; also muscular injury potential caused by overexerting or improper movement (e.g. back injury due to improper lifting), etc....

Electrical hazards: possible excavation of buried cables, exposure to overhead power lines, wet electrical cords, etc....

Chemical hazards: exposure to chemicals/contaminants listed in Section 4.0 of this plan and exposure to extraction solvents, etc....

Fire hazards: possible excavation of buried utilities, flammable petroleum hydrocarbons, equipment fires, etc....

Thermal (heat stress) hazards: exposure to outside temperature extremes and/or increased body temperatures while wearing protective clothing/equipment etc....

Acoustical hazards: exposure to excessive noise created by drilling operations and/or related to the site specific operations, etc....

Routine job-related hazards: as outlined above.

2.1 Heat Stress/Stoke and Noise

During day-to-day field work, the on-site engineer/geologist and/or safety officer will alert for the signs and symptoms of heat stress. Hazard exists when individuals are required to work in warm or hot temperatures while wearing protective clothing. When the ambient air temperature exceeds 85 degrees Fahrenheit, heat stress may become a problem. For an unacclimatized person this temperature may be less. If these conditions are encountered, the following precautions will be taken:

The on-site safety officer will regularly monitor the ambient air temperature.

Field team members will be observed for the following signs and symptoms of heat stress:

- Profuse sweating
- Skin color change
- Increased heart rate
- Vision problems
- Body temperatures in excess of 100 degrees Fahrenheit as measured by fever detectors (forehead strips) may also be used.

Any team member who exhibits any of these signs or symptoms will be removed immediately from field work and be requested to remove impervious clothing, and consume electrolyte fluid or cool water while resting in a shaded area. The individual will be instructed to rest until the symptoms are no longer recognizable. If the symptoms appear critical, persist or get worse, immediate medical attention will be sought.

While working around equipment the potential exists for exposure to excessive noise. If noise levels are known/believed to exceed 85 dBA - 8 hours per day, all individuals will be instructed to use adequate hearing protectors (ear plugs). All field team members will be given background and annual evaluations. All field members have been/will be trained in noise hazards and how to wear the protective equipment.

3.0 SAFE WORK PRACTICES AND LEVEL OF PERSONAL PROTECTION

The following sections present procedures on how to adequately address the primary potential hazards encountered in the different task of this project. The standard level of personal protection is also defined.

Based on the work to be performed the type of hazards that may be encountered, EPA Level D personal protection has been determined to be adequately protective and suitable for most of the tasks in this project. These determinations will be made by the Safety Officer of Safety Task Leader and will be specified as amendments to this section of the plan.

3.1 Potential Fire/Explosion Hazard

Due to the flammable nature of the hydrocarbons, explosive vapor conditions will be carefully monitored by the PCOC task leader.

3.2 Potential Health Hazards

Depending on the condition encountered, the Task Leader in coordination with the Project Safety Officer may increase or decrease the level of personal protection required of all field team members.

Generally speaking, EPA Level D Personal Protection will be in accordance with the following guidelines:

- Kroeker Technician uniform
- Hard Hat
- Safety glasses
- Ear plugs (as required)
- Steel-toe boots (as required)

3.3 Potential Heat Stress Hazards

During conditions when the temperature, humidity and/or radiant heat are high and air movement is low, the following procedures will be followed to prevent heat stress hazards for workers wearing protective clothing/equipment:

Work activity will be limited to reduce the amount of heat naturally produced by the body. Alternating work and rest periods will be used in high potential conditions. For example, in moderately hot conditions, 5 minute rest breaks in the shade with 60 minute work periods in the sun may be desirable. Under sever conditions, the duration of rest periods will be increased as necessary.

Heavy work will be performed during the cooler periods of the day when feasible.

Under heat stress conditions special attention will be given toward assuring workers replace lost body fluids. Adequate supplies of cool drinking water or electrolyte solution will be provided by each company for their own employees' use. Workers will be instructed in the need to replace the fluids throughout the working day.

Special care and attention will be paid to field crew members that may not be acclimatized to the area.

3.4 Potential Noise Hazards

Exposure to excessive noise will be controlled by issuance and use of hearing protection as instructed by the Task Leader or Safety Officer.

4.0 HYDROCARBON VAPOR HAZARD CRITERIA

Exposure to elevated levels of hydrocarbon vapors presents potential health risks that must be addressed. Work practices and methods will be used to limit exposures. Where elevated exposures persist, respiratory protection will be used to protect personnel from inhalation of hydrocarbon vapors. The hydrocarbon vapors expected to be encountered during the field portion of this investigation are a result of working in the Excavation Area.

5.0 PERSONAL PROTECTIVE CLOTHING/EQUIPMENT REQUIREMENTS

This section specifies personal protective clothing/equipment required for the various tasks to be performed during this investigation.

5.1 Removal Operations

Respiratory: Not required.

Protective Clothing: All field personnel will wear appropriate Kroeker work clothes. Company issued safety helmets will be worn by all personnel during field work.

Ear Protection: Based on anticipated on-site noise measurements, field personnel may be required to by the tasks safety leader or safety officer to wear hearing protection devices (ear plugs) during operations.

Eye Protection: Each field team member will wear a minimum of impact-resistant safety glasses with attached side shield. Where splashes of potentially hazardous liquid or flying particles are likely, chemical safety goggles will be required in place of safety glasses.

Foot Protection: Field personnel will wear boots with steel toes and shanks.

6.0 WORK ZONE ACCESS

During operations a work zone shall be established and cordoned off. This zone should include all equipment and its immediate vicinity. Only authorized personnel will be permitted to enter this work zone. Authorized personnel will include those who have duties requiring their presence in the work zone, and have received appropriate health and safety training.

7.0 SAFETY AND HEALTH TRAINING

All field personnel will be trained in methods of safely conducting field activities. This plan is intended to provided additional site specific information to accomplish this goal. It will be the responsibility of the Project Directors, Safety Officer, and Safety Task leader to ensure the field team has access to, reads and understand this plan. It will be the individual's responsibility to bring the attention of the Project Director or Safety Officer any portion of this plan and related training they

do not fully understand. Prior to the commencement of the field portion of this investigation, the field team will meet to discuss the contents of this plan and make sure all members understand it.

At the site meeting, all field team members will be instructed regarding the health and safety hazards. Especially:

Physical safety hazards.

Emergency procedures.

Explosive/flammability hazards.

The hazards materials that may be encountered and their potential routes of exposure.

Personal hygiene practices.

The types, proper use, inspection, limitations, maintenance, and storage of protective clothing and equipment (as applicable).

In the event that the ambient air temperature exceeds 85 degrees Fahrenheit, a review of heat stress symptom recognition/corrective procedures will be conducted. For an unacclimatized person, this value may be less.

8.0 EMERGENCY RESPONSE PLAN

The emergency procedures described in this plan are designed to give the field team guidance in the handling of medical emergencies, fires, explosions, and excessive emissions. These emergency procedures will be carefully explained to the field team during the on-site health and safety meeting.

8.1 Injuries

Medical problems must be quickly dealt with; a road map to the nearest emergency medical facility are kept in an envelope on the dash of each vehicle. The local emergency numbers are:

Police	911
Fire	911
Paramedics	911
Hospital	Oakland

The field team is to seek immediate professional medical attention for all serious injuries. A first aid kit will be present at the site for use in case of minor injuries. If any field team member receives a splash or particle in the eye, the eye is to be flushed for 15 minutes. Clean water or portable eye wash will be available for this purpose. Instruction will also be provided to wash any skin areas with soap and water if direct contact with contaminants has occurred.

During normal field activities work clothes may become wet. If a field team member's clothing becomes saturated with an obviously contaminated liquid/sludge the possibility of dermal exposure to contaminants may exist. Under those circumstances, that field team member will change out of the contaminated clothing into clean clothing of the proper level of protection.

8.2 Fire and Explosion Hazards

Fires are of particular concern during this removal of equipment due to the possibility of encountering flammable petroleum hydrocarbon liquid or vapors. AN adequate multi-purpose (A,B,C) fire extinguisher will be located on-site at all times.

The local fire department will be notified by a Kroeker representative of the location and anticipated activities in order to provide a more timely response in the event of an emergency. In

the remote chance that a fire does occur, the local fire department will be notified immediately. Additional call to the main office of Dunavant Enterprises, Inc. will be made.

8.3 Operations Shutdown

Under extremely hazardous situations the Task Leader, Project Director, Task Safety Officer, may request that field operations be temporarily suspended while the underlying hazard is corrected or controlled.

8.4 Community Protection

To assure the community is not affected by our work, caution shall be taken during the material excavation process.

9.0 RECORD KEEPING REQUIREMENT

The following record keeping requirements will be maintained in the health and safety or program file indefinitely:

Copy of this Health and Safety Plan

healsafe

**HEALTH AND SAFETY PLAN
FIELD PERSONNEL RELEASE FORM**

I, _____ do hereby confirm that I have read and understand the Health and Safety Plan for Producers Cotton Oil Company, TIW located 1034 66th Avenue in Oakland, Ca. I do agree to follow this plan, and to make every effort to make the work place safe. I will report any health or safety hazard that I observe to the Safety Task Leader, Project Safety Officer, or the Project Director.

I do agree to defend, indemnify, and hold harmless Dunavant, its owners, employees, representatives, clients, and the property owner for any accidents, sickness, or injuries resulting from violation, alleged violation, or non-compliance of this Health and Safety Plan.

Name: _____ **Title:** _____

Signature: _____ **Date:** _____
