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

July 14, 2000

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

Exxon Company USA
Attn: Mr. Darin Rouse
P.O. Box 4032
Concord, California 94524-4032

RE: Fuel Leak Site Case Closure – Former Exxon Service Station (STID 519)
3450 35th Avenue, Oakland, California 94619

Dear Mr. Rouse:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37 [h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health Services, Local Oversight Program is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

Site Investigation and Cleanup Summary:

Please be advised that the following conditions exist at the site:

- Two hundred forty parts per million (ppm) Total Petroleum Hydrocarbon (TPH) as Gasoline, 0.28 ppm benzene, 2.2 ppm toluene, 2.8 ppm ethylbenzene, and 13 ppm xylene remain in the soil at the site.
- Seventy five parts per billion (ppb) TPH gasoline, 11.5 ppb toluene, 1.8 ppb ethyl benzene, 18 ppb xylene, 1.87 ppb methyl tertiary butyl ether (MTBE) remain in groundwater beneath the site.
- Prior to any construction activity and/ or change in land use at the site, a risk management plan, which may include risk assessment, must be submitted and approved by this agency.

If you have any questions, please contact me at (510) 567-6780. Thank you.

Sincerely,

Susan L. Hugo, Hazardous Materials Specialist

Enclosures:
1. Case Closure Letter
2. Case Closure Summary

c: Leroy Griffin, Oakland Fire Department, 1605 Martin Luther King Jr. Way, Oakland, CA 94612
SH/ files

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STID 519

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

REMEDIAL ACTION COMPLETION CERTIFICATION

Exxon Company USA
Attn: Mr. Darin Rouse
P.O. Box 4032
Concord, California 94524-4032

RE: Former Exxon Service Station, 3450 35th Avenue, Oakland, California 94619

Dear Mr. Rouse:

This letter confirms the completion of a site investigation and corrective 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, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

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

Sincerely,

Mee Ling Tung
Director, Environmental Health Services

c: Chuck Headlee, RWQCB
Allan Patton, SWRCB **(w/attachment – Case Summary)**
Leroy Griffin, Oakland Fire Services Agency **(w/attachment – Case Summary)**
SH/files

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: May 12, 2000

Agency Name: **Alameda County-HazMat**
Address: **1131 Harbor Bay Parkway**
City/State/ Zip: **Alameda, CA 94502**
Phone: **(510) 567-6700**
Responsible Staff Person: **Susan L. Hugo**
Title: **Hazardous Materials Specialist**

II. CASE INFORMATION

Site Facility Name: **Former Exxon Service Station**
Site Facility Address: **3450 35th Avenue, Oakland, CA 94619**
RB LUSTIS Case No.: **N/A**
Local Case No./ LOP Case No. **519**
URF Filing Date: **3/20/91**
SWEEPS No.: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Exxon Company USA **Environmental Engineering** **Attn: Darin Rouse**	**P.O. Box 4032** **Concord, CA 94524-4032**	

Tank No:	Size in gal.	Contents:	Closed in-place or removed?:	Date:
1	**8000**	**Gasoline (Regular)**	**Removed**	**8/28/91**
2	**8000**	**Gasoline (Unleaded)**	**Removed**	**8/28/91**
3	**8000**	**Gasoline (Supreme)**	**Removed**	**8/28/91**
4	**500**	**Waste Oil**	**Removed**	**6/18/97**

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete: **YES**
Date approved by oversight agency: **1/4/93**
Monitoring wells installed ? **YES**
Number: **Three (3)**
Proper screened interval ? **YES**
Highest GW depth below ground surface **28.39'**
Lowest depth: **37.24'**
Flow direction: **Generally to the southwest**
Most sensitive current use: **Commercial**
Are drinking water wells affected ? **NO**
Aquifer Name: **NA**
Is surface water affected ? **NO**
Nearest affected SW name: **NA**
Off-site beneficial use impacts (address / location): **Unknown**
Report (s) on file ? **YES**
Where is report (s) filed ? **Alameda County, 1131 Harbor Bay Parkway, Alameda, CA 94502**

Treatment and Disposal of Affected Materials:

Materials	Amount (Include Units)	Action (Treatment /or Disposal w/ Destination)	Date
Tank	**3 - 8000 gallon**	**Disposed at Erickson, Inc., Richmond, CA**	**8/28/91**
	1 - 500 gallon	**Disposed at Erickson, Inc., Richmond, CA**	**6/18/97**
Soil	**1,200 cubic yards**	**Disposed at Chemical Waste Management Kettleman City, CA**	**9/4, 5, 12/99**

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before*	After**	Before***	After****
TPH gasoline	440	240	67	75
Benzene	2.8	0.28	6.6	<0.5
Toluene	7.2	2.2	6.9	11.5
Ethylbenzene	4.7	2.8	2.0	1.8
Xylene	27	13	4.5	18
MTBE	-	-	-	1.87

*** Results of soil samples S-4, S-9 (collected following the removal of 3-8,000 gallon USTs on 8/28/91) and /or sample from boring B-3 drilled on 3/20/91 prior to USTs removal (see Table 1).**
****Result of soil sample collected from boring B-6 drilled on 3/20/91 which was not overexcavated during the removal of the USTs on 8/28/91).**
*****Represents water sample collected from monitoring well MW-1 following well installation on 17/17/92.**
******Represents water sample collected from monitoring well MW-3 on 9/20/99 (last sampling event).**
See Table 2 for TPH diesel, TPH motor oil and metals concentrations in soil related to the former waste oil tank removal and TPH as hydraulic oil related to the hoists removal.

Comments (Depth of Remediation, etc.): See "Additional Comments" section.

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: **Risk Management Plan is required prior to any development at the site**

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

Monitoring wells Decommissioned : **None**

Number Decommissioned: **NA**

Number Retained: **Three wells (MW-1, MW-2 & MW-3) will be decommissioned after receiving case closure concurrence from RWQCB.**

List enforcement actions taken: **NA**

List enforcement actions rescinded: **NA**

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Susan L. Hugo** Title: **Hazardous Materials Specialist**
Signature: Susan L. Hugo Date: 6-14-00

Reviewed by:

Name: **Eva Chu** Title: **Hazardous Materials Specialist**
Signature: Date: 6/6/00

Name: **Thomas Peacock** Title: **Manager, LOP Program**
Signature: Thomas Peacock Date: 6-14-00

VI. RWQCB NOTIFICATION

Date Submitted to RB: 6/15/00 RB Response: Concur

RWQCB Staff Name: **Chuck Headlee** Title: **Associate EngineeringGeologist**
Signature: Chuck Headlee Date: 6/22/00

VII. ADDITIONAL COMMENTS, DATA, ETC.

The subject site is located on the southeast corner of 35th Avenue and Quigley Street in Oakland, California. The site is bordered on the west, across Quigley Street, by a retail service station (Unocal). Residential property is adjacent to the site on the east and south and across 35th Avenue to the north. Interstate 580 is located approximately 200 feet to the west. The site appears to be vacant and retail service station is closed.

A preliminary site assessment was conducted on March 20, 1991 which included the installation and sampling of ten soil borings (B-1 to B-10) to depths between 11.5 and 21.5 feet below ground surface (bgs). Results indicated the presence petroleum hydrocarbons (see Table 1) in soil at 10.5 feet bgs (B-6) and 15.5 feet bgs (B-3). Boring B-6 appeared to be located downgradient of the tank area and B-3 was in the tank area.

The three fuel tanks were removed on August 28, 1991. Soil samples collected from the bottom of the excavation at 10 feet bgs showed up to 290 parts per million (ppm) Total Petroleum Hydrocarbon (TPH) gasoline, 2.8 ppm benzene, 6.5 ppm toluene, 0.2 ppm ethyl benzene and 27 ppm xylene. Samples collected from the dispenser area (S-9) at 3 feet bgs showed up to 210 ppm TPH gasoline, 1.4 ppm benzene, 7.2 ppm toluene, 3.0 ppm ethyl benzene, 18 ppm xylene. These two hot spots were overexcavated and confirmation samples showed very low levels of petroleum hydrocarbons (see S-12 and S-14 in Table 1). New tanks (one-13,000 gallon and two-12,000 gallon) were installed in the excavation area.

On July 14, 1992, three borings were drilled and converted to groundwater monitoring wells. Borehole MW-1 was continuously cored to provide geologic information at the site. Soil samples collected from the borings did not detect the presence of petroleum hydrocarbons with the exception of one very low concentration of xylene (0.0064) in MW-1 at 8 feet bgs. Monitoring wells MW-1 and MW-2 were located downgradient and sidegradient of the underground storage tank area and dispenser islands. One well (MW-3) was located in the upgradient direction of the eastern border of the site. The wells were installed with 20 feet screen extending approximately 7 feet above saturation zone to accommodate seasonal groundwater fluctuation and extends approximately 12 feet below the water table. Initial groundwater samples collected from the wells did not detect petroleum hydrocarbon concentration with the exception of MW-1 showing very low levels of dissolved petroleum hydrocarbons (see Table 3).

Shallow surface soil beneath the site is composed clay unit occurring to a maximum depth of 8.5 feet bgs and clayey sand with gravel between 8.0 and 45.0 feet bgs. Groundwater was encountered beneath the site between 32 to 33 feet bgs. Groundwater flow direction beneath the site is generally to the south - southwest.

On June 18, 1997, the 500 gallon waste oil tank and two hydraulic hoists were removed at the site. The tank appeared to be in good condition. One soil sample (T1-12) was collected at the bottom of the excavation at approximately 12 feet bgs. Result showed low levels of petroleum hydrocarbon and metals (see Table 2). Benzene, volatile organic compounds (VOCs) by EPA Method 8240 and cadmium were not detected. One soil sample was collected from the bottom of each hydraulic hoist excavation at approximately 8 feet bgs and found TPH as hydraulic oil (up to 2100 ppm).

The three-groundwater monitoring wells at the site have been sampled from 1992 to 1995 and the last sampling event was conducted on 9/20/99. Groundwater results have been consistently non-detect with the exception of one time low hits in the upgradient well (MW-3) on 9/20/99 (see Table 3).

This site is recommended for case closure as a low risk soil/groundwater case for the following rationale:

1) Aggressive source removal has occurred at the site. The USTs were removed in 1991 (3-8000 gallon fuel) and 1997 (1- 500 gallon waste oil). Overexcavation was conducted resulting in very low levels of residual contaminants left in soil at the site.

2) The site has been adequately characterized. The extent of soil and groundwater contamination appeared to be adequately defined. Groundwater monitoring at the site showed non-detect with the exception of one time low hits in the upgradient well MW-3 during the last sampling event in 1999.

3) No water wells, deeper drinking water wells, surface water or other sensitive receptors are likely to be impacted.

4) The site does not appear to present a significant risk to human health and the environment. Soil sample collected from boring B-6 at 10 feet bgs showed very low levels of benzene (0.28 ppm) which is below the ASTM RBCA CA- modified Tier 1 RBSL value (0.490 ppm) for a 1E-05 (1 in 100,000) excess cancer risk using the exposure pathway "Soil -Volatilization to Indoor Air", for a commercial / industrial receptor scenario and also below the Tier 1 RBSL value (1.33 ppm) for a 1E-05 excess cancer risk using the exposure pathway "Soil-Volatilization to Outdoor Air", for a commercial /industrial receptor scenario. Metals detected at the site appeared to be back ground levels. TPH as hydraulic (2,100 ppm) found at 8 feet bgs does not appear to present a significant risk at the site. Depth to groundwater beneath the site ranges from 28 to 37 feet bgs. Using this conservative scenario and the current and future use of the subject site will remain commercial / industrial, the site does not appear to present a significant risk.

5) An acceptable risk management plan will be required if the site is redeveloped in the future.

Table 1

Summary of Soil Sample Analytical Results
(ppm)

Location	Date	Depth (ft bgs)	TPH Gasoline	Benzene	Toluene	Ethyl benzene	Xylene	TOG	Tota Lead
B-1	3/20/91	15.5	$BDL_{1.0}$	0.011	0.007	0.011	0.04	NA	NA
B-1	3/20/91	20.5	$BDL_{1.0}$	0.012	0.007	0.01	0.04	NA	NA
B-2	3/20/91	15.5	$BDL_{1.0}$	0.036	0.026	0.012	0.055	NA	NA
B-2	3/20/91	20.5	$BDL_{1.0}$	0.0073	0.0063	0.0098	0.038	NA	NA
B-3	3/20/91	10.5	1	0.006	0.006	0.008	0.036	NA	NA
B-3	3/20/91	15.5	440	0.7	5.4	4.7	24	NA	NA
B-4	3/20/91	10.5	5	0.013	0.019	0.014	0.082	NA	$BDL_{.5}$
B-4	3/20/91	15.5	6.6	0.039	0.043	0.027	0.12	NA	NA
B-4	3/20/91	20.5	$BDL_{1.0}$	0.0076	0.0073	0.011	0.054	NA	NA
B-5	3/20/91	10.5	26	0.055	0.061	0.17	0.67	NA	NA
B-6	3/20/91	10.5	240	0.28	2.2	2.8	13	NA	NA
B-6	3/20/91	15.5	1.4	0.0055	0.0054	0.009	0.034	NA	NA
B-7	3/20/91	10.5	$BDL_{1.0}$	0.006	0.006	0.008	0.033	NA	NA
B-8	3/20/91	10.5	$BDL_{1.0}$	0.006	0.005	0.008	0.035	NA	NA
B-9	3/20/91	10.5	NA	NA	NA	NA	NA	BDL_{50}	NA
B-10	3/20/91	10.5	NA	NA	NA	NA	NA	BDL_{50}	NA
S-1	8/28/91	10	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	$BDL_{.5}$
S-2	8/28/91	10	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	$BDL_{.5}$
S-3	8/28/91	10	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	$BDL_{.5}$
S-4	8/28/91	10	280	2.8	6.5	2	27	NA	$BDL_{.5}$
S-5	8/28/91	10	3.5	0.27	0.096	0.064	0.32	NA	$BDL_{.5}$
S-6	8/28/91	11	4.1	0.19	0.13	0.056	0.23	NA	$BDL_{.5}$
S-7	8/28/91	3	4.0	.66	0.040	0.11	0.13	NA	$BDL_{.5}$
S-8	8/28/91	3	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	$BDL_{.5}$
S-9	8/28/91	3	10	1.4	1.2	3.0	18	MA	$BDL_{.5}$

Table 1
(continued)

Location	Date	Depth (ft bgs)	TPH Gasoline	Benzene	Toluene	Ethyl benzene	Xylene	TOG	Total Lead
S-10	8/28/91	3	$BDL_{1.0}$	$BDL_{.005}$	0.031	0.029	0.067	NA	$BDL_{.5}$
S-11	8/28/91	1.5	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	$BDL_{.5}$
S-12	8/29/91	15	3.1	0.36	0.048	0.052	0.16	NA	NA
S-13	8/29/91	15	1.8	0.26	0.008	0.009	0.041	NA	NA
S-14	8/29/91	4	5.0	.047	0.063	0.009	0.041	NA	NA
S-15	8/29/91	15	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	NA
MW-1	7/14/92	8	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	.0064	NA	BDL_{10}
MW-1	7/14/92	29.5	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	BDL_{10}
MW-2	7/14/92	28	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	BDL_{10}
MW-3	7/15/92	29.5	$BDL_{1.0}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	$BDL_{.005}$	NA	BDL_{10}

TPH = Total petroleum hydrocarbons
TOG = Total oil and grease
BDL_x = Below detectable levels at x method detection limit
NA = Not analyzed
ft bgs = Feet below ground surface
ppm = Parts per million

TABLE 2 SOIL ANALYTICAL RESULTS FOR SAMPLES COLLECTED BENEATH THE USED-OIL UST AND HYDRAULIC HOIST AND FROM THE SOIL STOCKPILE, EXXON RS 7-0234, 3450 35TH AVENUE, OAKLAND, CALIFORNIA

Sample Designation	Concentration (mg/kg) Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-g	TPH-d	Motor Oil	SVOCs (8240) (µg/kg)	Cadmium	Chromium	Nickel	Zinc	Lead	EHC-HO
Used-Oil UST Confirmation Soil Sample, 18 June 1997														
T1-12	ND	0.038	0.016	0.046	8.6 a	200 b	680 c	ND	ND	47	56	84	8.8	
Stockpile Confirmation Soil Sample, 18 June 1997														
SP(1-4)	ND	ND	ND	ND	ND	47 b	150 c	ND	ND	55	53	43	8.7	
Hydraulic Hoist Confirmation Soil Sample, 18 June 1997														
H1-8														99 d
H2-8														2,100 d

a. Unidentified, C8-C12.
b. Unidentified, C9-C24.
c. Unidentified, C16-C36.
d. Unidentified, C16-C40.

ND Not detected at concentrations equal to or greater than the method detection limit.
TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-d Total Petroleum Hydrocarbons as diesel.
Motor Oil Extractable Hydrocarbons as Motor Oil
VOCs Volatile organic compounds.
EHC-HO Extractable Hydrocarbons as Hydraulic Oil
mg/kg Milligrams per kilogram.
µg/kg Micrograms per kilogram.

TABLE 3

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Exxon Service Station 7-0234

3450 35th Avenue

Oakland, California

Well ID# (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPPHg	B	T	E	X	MTBE	Total Pb	Organic Pb
		<.....feet.....>			<.....ug/L.....>							<...mg/L...>
MW1	07/17/92	NLPH	33.02	158.98	67	6.6	6.9	2.0	4.5	----	17	NA
(192.00)	10/22/92	NLPH	34.07	157.93	<50	2.9	<0.5	<0.5	<0.5	----	16	NA
	02/04/93	NLPH	29.43	162.57	<50	0.8	<0.5	<0.5	<0.5	----	4	NA
	05/03/93	NLPH	29.72	162.28	71	2.8	7.2	2.2	22	----	40	NA
	07/30/93	NLPH	32.95	159.05	<50	<0.5	<0.5	<0.5	<0.5	----	5	NA
	10/19/93	NLPH	34.34	157.66	<50	<0.5	<0.5	<0.5	<0.5	----	12	NA
	02/23/94	NLPH	31.72	160.28	<50	<0.5	<0.5	<0.5	<0.5	----	4	NA
	06/06/94	NLPH	31.77	160.23	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
	08/18/94	NLPH	33.76	158.24	<50	<0.5	<0.5	<0.5	<0.5	----	130	NA
	11/15/99	NLPH	34.08	157.92	<50	<0.5	<0.5	<0.5	<0.5	----	<3.0	<100
	02/06/95	NLPH	28.50	163.50	<50	<0.5	<0.5	<0.5	<0.5	----	NA	NA
	05/10/95	NLPH	29.30	162.70	<50	<0.5	<0.5	<0.5	<0.5	----	NA	NA
	09/20/99	NLPH	33.30	158.70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<50
MW2	07/17/92	NLPH	34.65	160.20	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
(194.85)	10/22/92	NLPH	35.64	159.21	<50	<0.5	<0.5	<0.5	<0.5	----	--	NA
	02/04/93	NLPH	31.13	163.72	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
	05/03/93	NLPH	31.08	163.77	<50	<0.5	<0.5	<0.5	<0.5	----	3	NA
	07/30/93	NLPH	34.34	160.51	<50	<0.5	<0.5	<0.5	<0.5	----	14	NA
	10/19/93	NLPH	36.00	158.85	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
	02/23/94	NLPH	33.92	160.93	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
	06/06/94	NLPH	33.50	161.35	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
	08/18/94	NLPH	35.38	159.47	<50	<0.5	<0.5	<0.5	<0.5	----	<3.0	NA
	11/15/94	NLPH	35.93	158.92	<50	<0.5	<0.5	<0.5	<0.5	----	<3.0	<100
	02/06/95	NLPH	30.38	164.47	<50	<0.5	<0.5	<0.5	<0.5	----	NA	NA
	05/10/95	NLPH	30.77	164.08	<50	<0.5	<0.5	<0.5	<0.5	----	NA	NA
	09/20/99	NLPH	35.15	159.70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<75	<0.5
MW3	07/17/92	NLPH	[illegible]	159.66	<50	<0.5	<0.5	<0.5	<0.5	----	50	NA
(196.90)	10/22/92	NLPH	35.95	160.95	<50	<0.5	<0.5	<0.5	<0.5	----	9	NA
	02/04/93	NLPH	29.85	167.05	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
	05/03/93	NLPH	29.87	167.03	<50	<0.5	<0.5	<0.5	<0.5	----	3	NA
	07/30/93	NLPH	33.85	163.05	<50	<0.5	<0.5	<0.5	<0.5	----	22	NA

TABLE 3

CUMULATIVE GROUNDWATER MONITORING AND SAMPLING DATA

Exxon Service Station 7-0234

3450 35th Avenue

Oakland, California

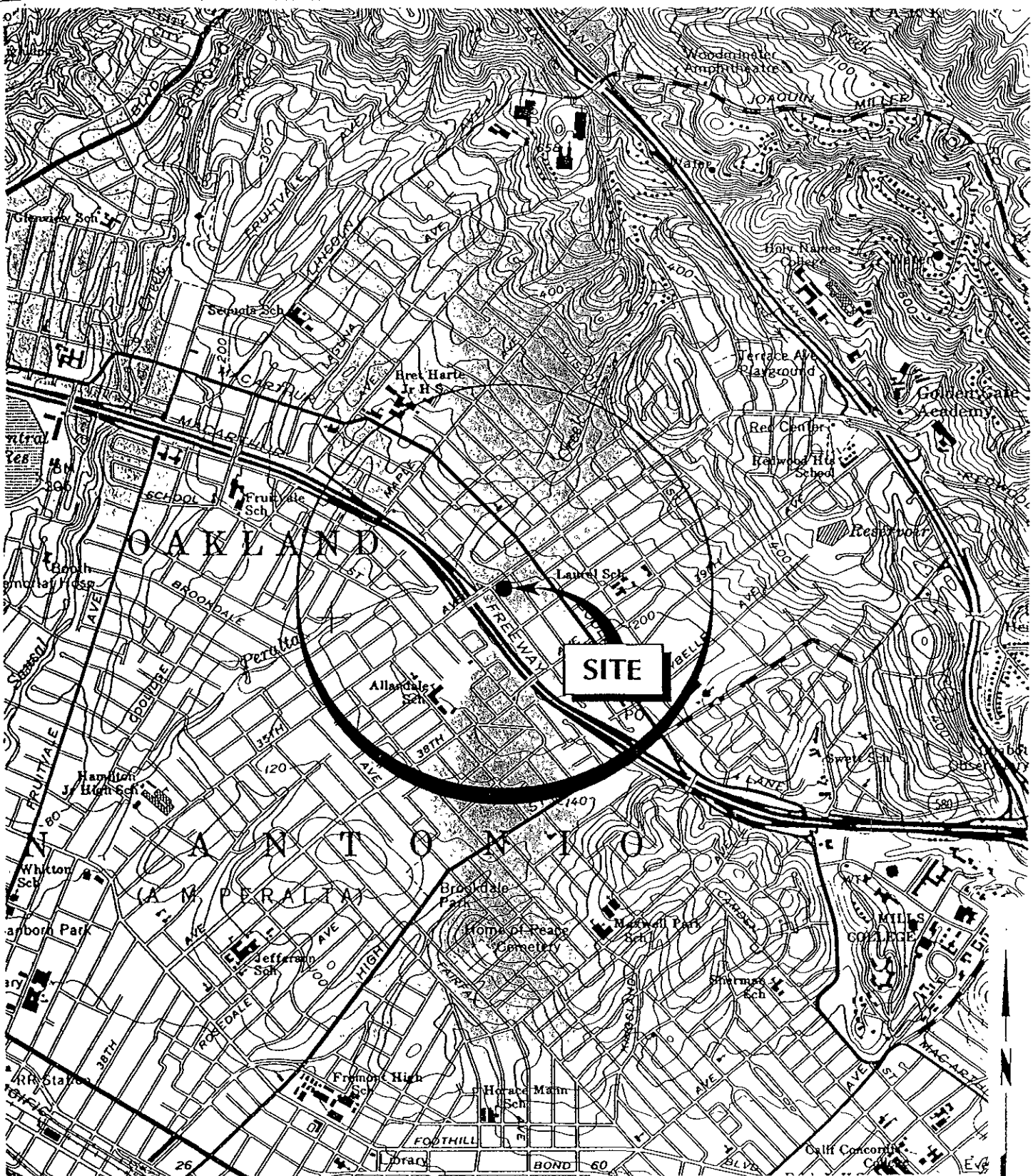
(Page 2 of 2)

Well ID# (TOC)	Sampling Date	SUBJ	DTW	Elev.	TPPHg	B	T	E	X	MTBE	Total Pb	Organic Pb
		<.....feet.....>			<.....ug/L.....>							<...mg/L...>
MW3 (Cont)	10/19/93	NLPH	35.89	161.01	<50	<0.5	<0.5	<0.5	<0.5	----	12	NA
(196.90)	02/23/94	NLPH	32.88	164.02	<50	<0.5	<0.5	<0.5	<0.5	----	25	NA
	06/06/94	NLPH	32.40	164.50	<50	<0.5	<0.5	<0.5	<0.5	----	<3	NA
	08/18/94	NLPH	35.07	161.83	<50	<0.5	<0.5	<0.5	<0.5	----	<3.0	NA
	11/15/95	NLPH	35.97	160.93	<50	<0.5	<0.5	<0.5	<0.5	----	<3.0	<100
	02/06/95	NLPH	~~28.39~~*	168.51	<50	<0.5	<0.5	<0.5	<0.5	----	NA	NA
	05/10/95	NLPH	28.90	168.00	<50	<0.5	<0.5	<0.5	<0.5	----	NA	NA
	09/20/99	**NLPH**	**34.68**	**162.22**	**75.0**	**<0.5**	**11.5**	**1.8**	**18.0**	**1.87**	**<75**	**<0.5**

Notes:

TOC	=	Elevation of well casing; relative to mean sea level.
NLPH	=	No liquid phase hydrocarbons present in wells.
DTW	=	Depth to water.
Elev.	=	Elevation of groundwater in feet above mean sea level.
TPPHg	=	Total purgeable petroleum hydrocarbons as gasoline analyzed using EPA Method 8015.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260.
BTEX	=	Benzene, ethylbenzene, toluene, and total xylenes analyzed using EPA Method 8020.
Total Pb	=	Total lead analyzed using EPA Method 6010.
Organic Pb	=	Organic lead analyzed using CA DHS LUFT method.
<	=	Symbol denotes concentrations not detected at or above stated laboratory method detection limit.
ug/L	=	Micrograms per liter.
mg/L	=	Milligrams per liter.
----	=	Not Analyzed/Not Measured.

Data prior to 1999 provided by EA Environmental Science and Engineering in previously submitted reports.



Source USGS Topographic Map, 7 5 minute series, Oakland East, Calif quadrangle, 1980

RESNA

PROJECT NO. 170078.01 | 1/93

SITE VICINITY MAP

Exxon Service Station No. 7-0234
3450 35th Avenue
Oakland, California

PLATE 1

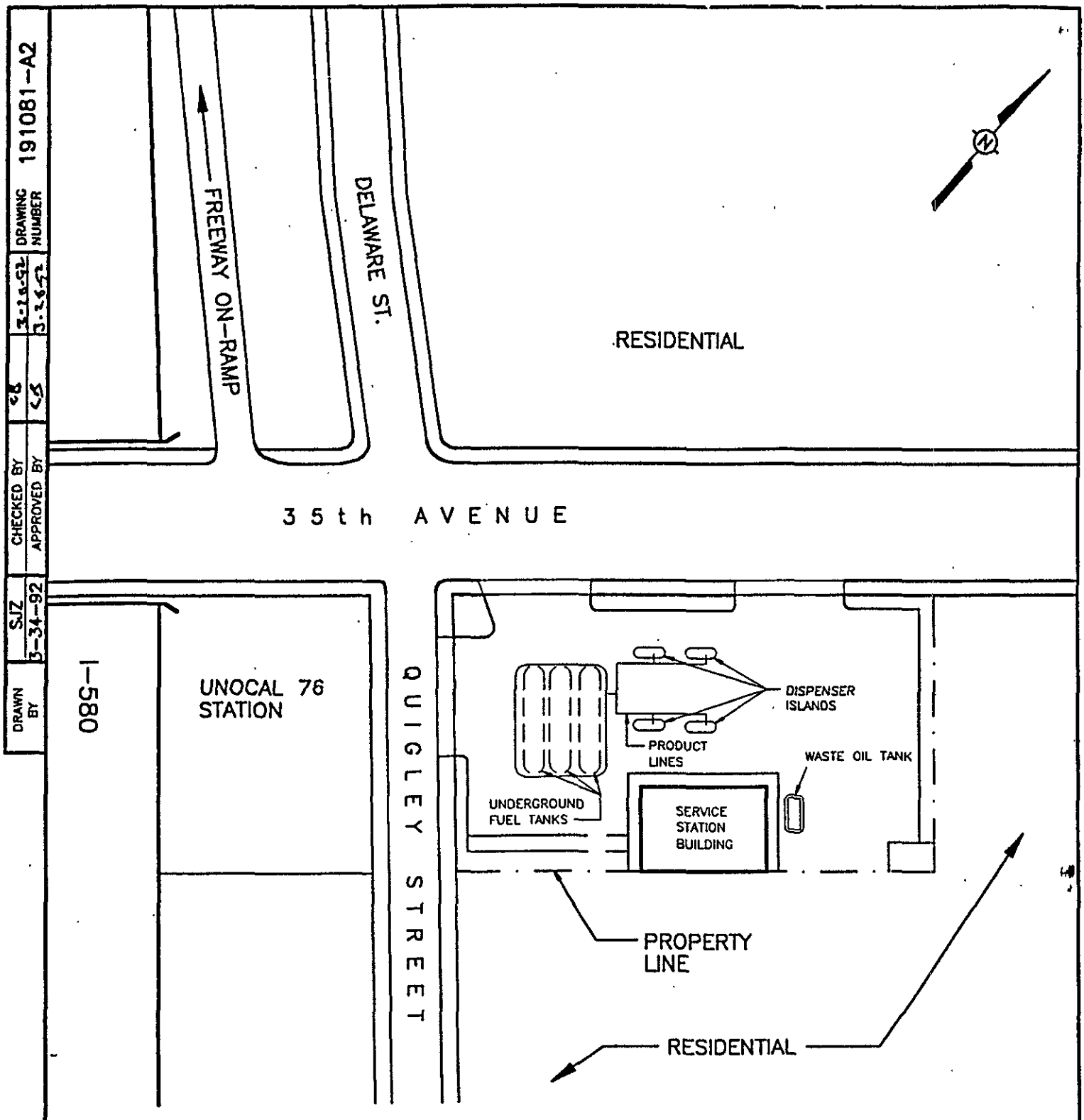


FIGURE 1

SITE VICINITY MAP

RAS# 7-0234
3450 35th AVENUE
OAKLAND, CALIFORNIA

PREPARED FOR

EXXON COMPANY, U.S.A.

APPROXIMATE SCALE

0 50 100 FEET

INTERNATIONAL TECHNOLOGY CORPORATION

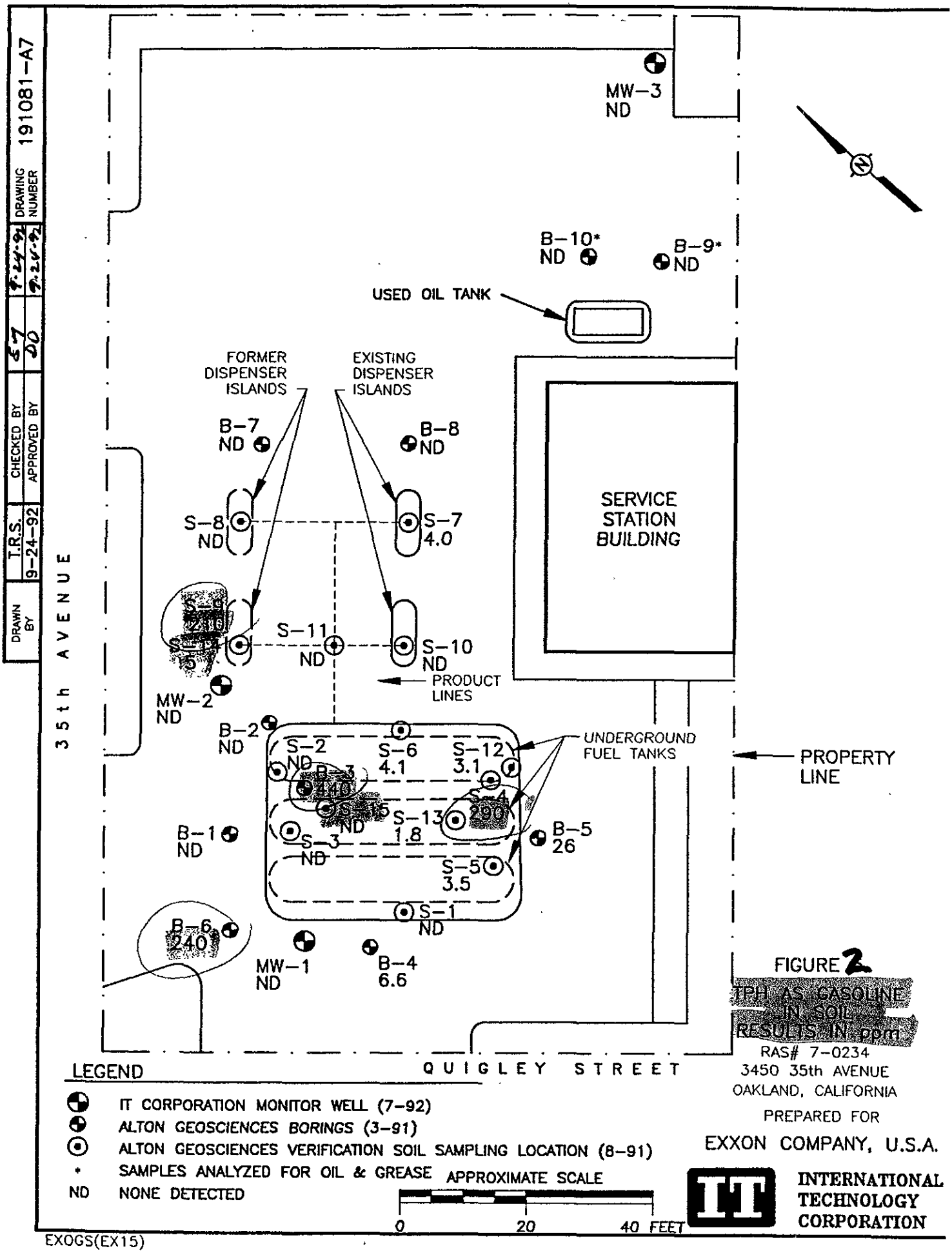


FIGURE 2

TPH AS GASOLINE IN SOIL RESULTS IN ppm

RAS# 7-0234
3450 35th AVENUE
OAKLAND, CALIFORNIA

PREPARED FOR

EXXON COMPANY, U.S.A.

INTERNATIONAL TECHNOLOGY CORPORATION

EXOGS(EX15)

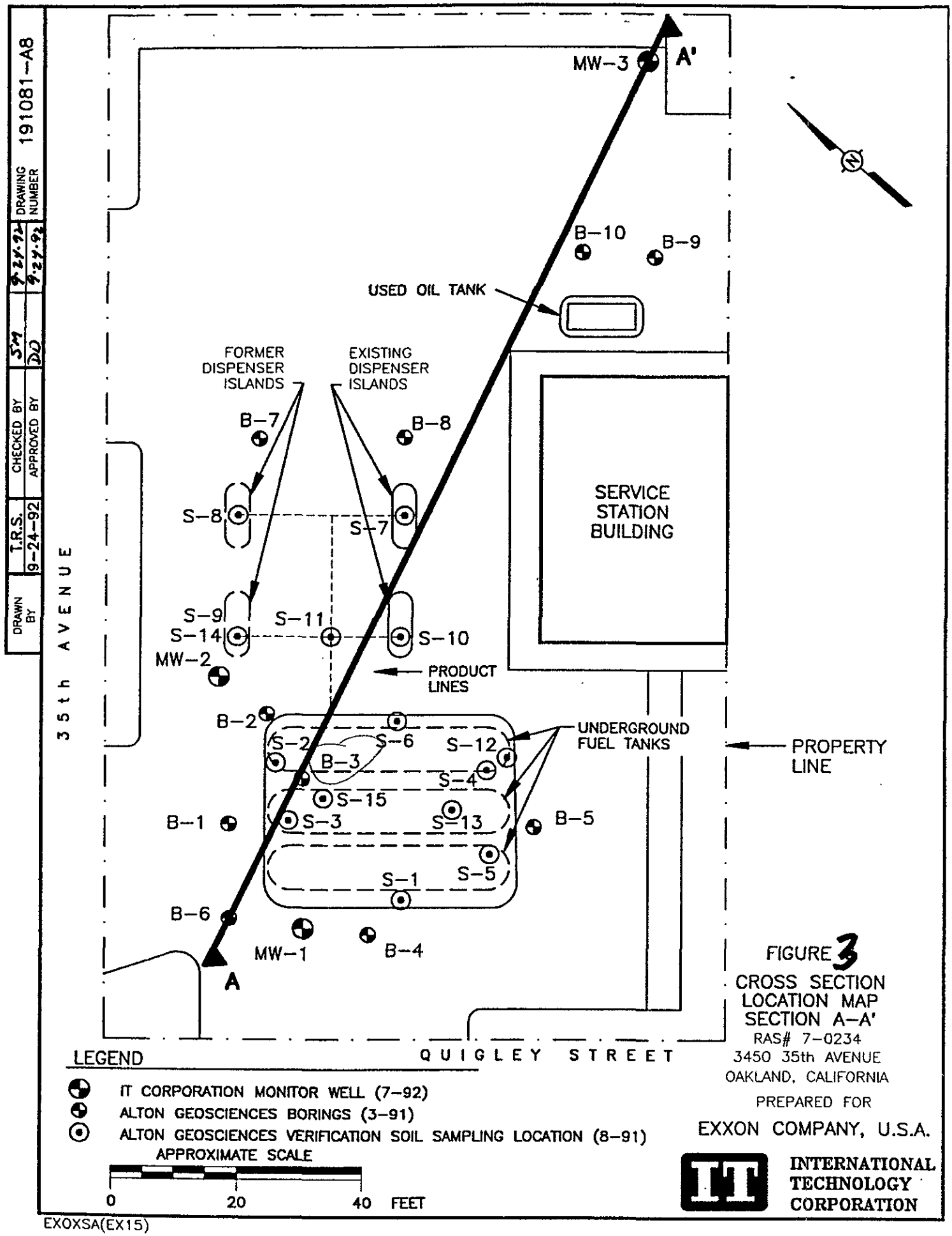
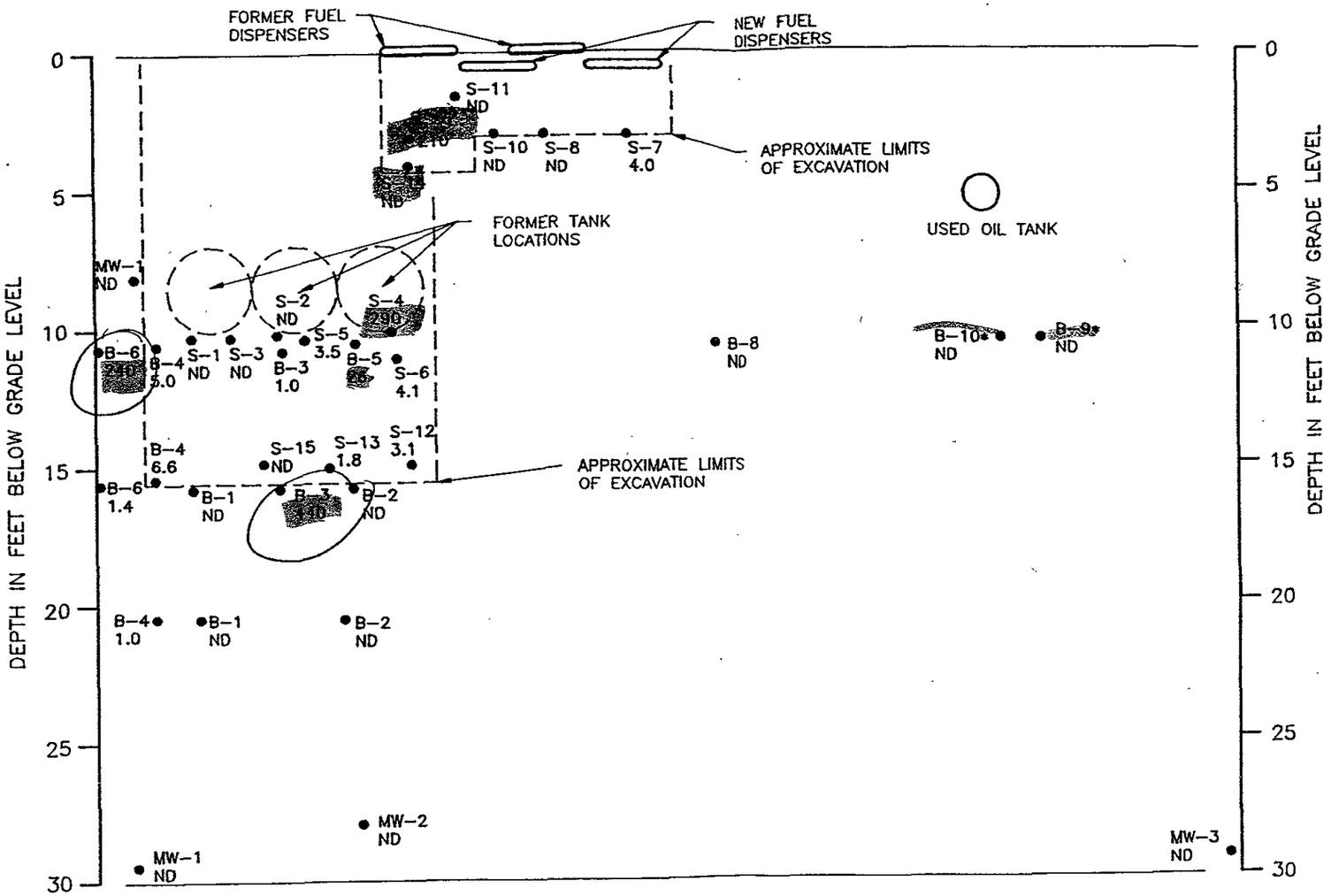


FIGURE 3
CROSS SECTION LOCATION MAP
SECTION A-A'
RAS# 7-0234
3450 35th AVENUE
OAKLAND, CALIFORNIA
PREPARED FOR
EXXON COMPANY, U.S.A.

INTERNATIONAL TECHNOLOGY CORPORATION

EXOXSA(EX15)

DRAWN BY	T.R.S.	CHECKED BY		DRAWING NUMBER
	9-24-92	APPROVED BY		191081-B1
			12-2-92	
			12-2-92	



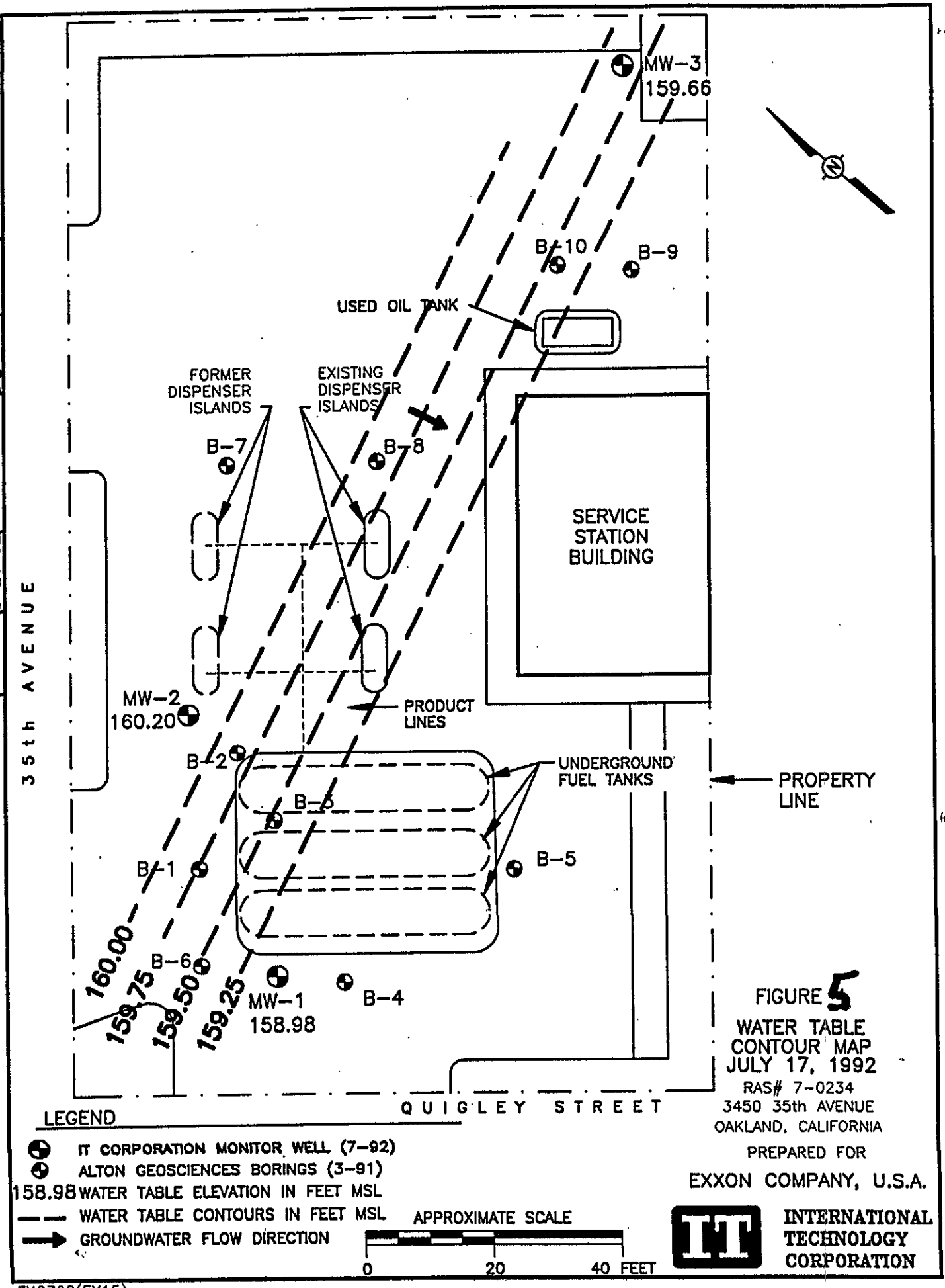
- ● MW-1 SOIL SAMPLE LOCATION
- 1.0 CONCENTRATION OF TPH GASOLINE DETECTED IN ppm
- ND NONE DETECTED
- * SAMPLES TESTED FOR TOTAL OIL & GREASE ONLY

VERTICAL SCALE
0 5 10 FEET
HORIZONTAL SCALE
0 20 40 FEET
(VERTICAL EXAGGERATION = 4X)

FIGURE 4
CROSS SECTION A–A'
RAS #7-0234
3450 35TH AVENUE
OAKLAND, CALIFORNIA
PREPARED FOR
EXXON COMPANY, U.S.A.

INTERNATIONAL TECHNOLOGY CORPORATION

EXOXSAA(EX15)


DRAWING NUMBER 191081-A6
9-27-92
9-27-92
CHECKED BY SAY
APPROVED BY DD
T.R.S. 9-24-92
DRAWN BY
MW-3
159.66
B-10
B-9
USED OIL TANK
FORMER DISPENSER ISLANDS
EXISTING DISPENSER ISLANDS
B-7
B-8
SERVICE STATION BUILDING
35th AVENUE
MW-2
160.20
PRODUCT LINES
B-2
B-3
UNDERGROUND FUEL TANKS
PROPERTY LINE
B-1
B-5
160.00
159.75
159.50
159.25
B-6
MW-1
158.98
B-4
QUIGLEY STREET
LEGEND
IT CORPORATION MONITOR WELL (7-92)
ALTON GEOSCIENCES BORINGS (3-91)
158.98 WATER TABLE ELEVATION IN FEET MSL
WATER TABLE CONTOURS IN FEET MSL
GROUNDWATER FLOW DIRECTION
APPROXIMATE SCALE
0
20
40 FEET
FIGURE 5
WATER TABLE CONTOUR MAP
JULY 17, 1992
RAS# 7-0234
3450 35th AVENUE
OAKLAND, CALIFORNIA
PREPARED FOR
EXXON COMPANY, U.S.A.
INTERNATIONAL TECHNOLOGY CORPORATION

EX0792(EX15)

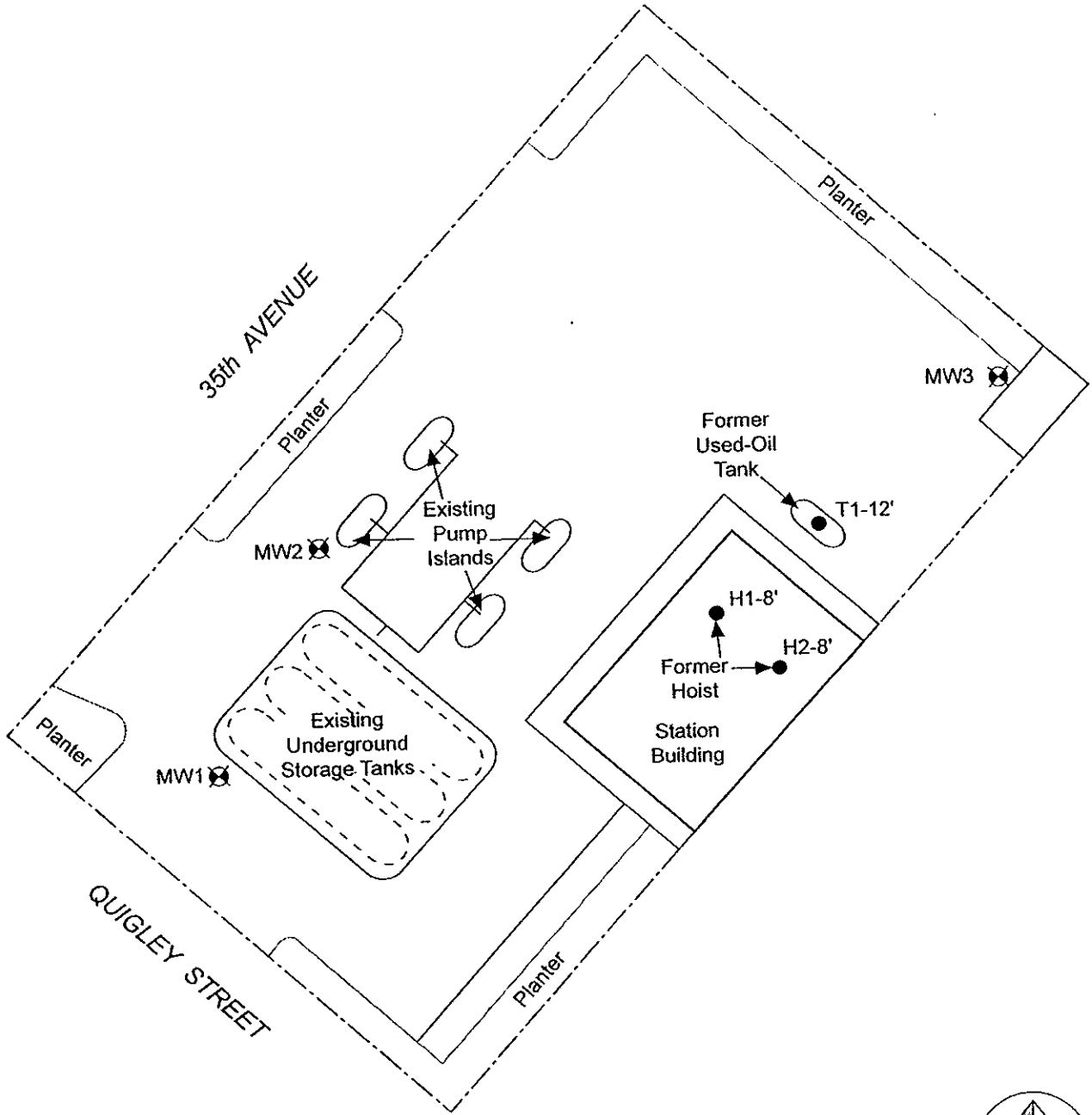


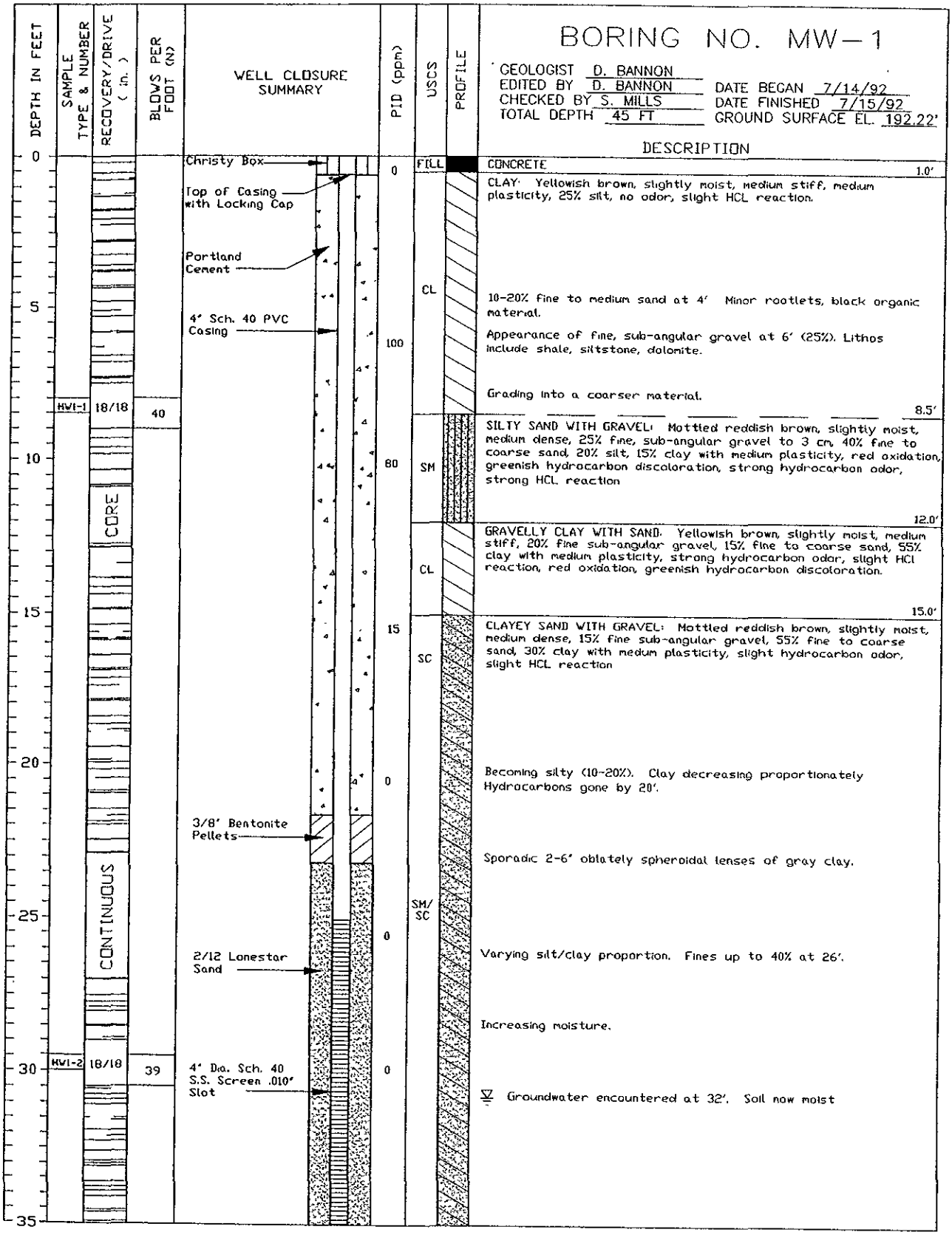
Figure 6 Site plan showing soil sample locations, Exxon 7-0234, 3450 35th Avenue Oakland, California, 18 June 1997.

Drawn	CTC	Date	7/14/97
Reviewed		Date	
Rev		Date	
Final	CW	Date	8/29/97

7D234\krpt697.fh5

BORING NO. MW-1

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT
DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 192.22'



DESCRIPTION

CONCRETE 1.0'

CLAY: Yellowish brown, slightly moist, medium stiff, medium plasticity, 25% silt, no odor, slight HCL reaction.

10-20% fine to medium sand at 4'. Minor rootlets, black organic material.

Appearance of fine, sub-angular gravel at 6' (25%). Lithos include shale, siltstone, dolomite.

Grading into a coarser material. 8.5'

SILTY SAND WITH GRAVEL: Mottled reddish brown, slightly moist, medium dense, 25% fine, sub-angular gravel to 3 cm, 40% fine to coarse sand, 20% silt, 15% clay with medium plasticity, red oxidation, greenish hydrocarbon discoloration, strong hydrocarbon odor, strong HCL reaction 12.0'

GRAVELLY CLAY WITH SAND: Yellowish brown, slightly moist, medium stiff, 20% fine sub-angular gravel, 15% fine to coarse sand, 55% clay with medium plasticity, strong hydrocarbon odor, slight HCl reaction, red oxidation, greenish hydrocarbon discoloration. 15.0'

CLAYEY SAND WITH GRAVEL: Mottled reddish brown, slightly moist, medium dense, 15% fine sub-angular gravel, 55% fine to coarse sand, 30% clay with medum plasticity, slight hydrocarbon odor, slight HCL reaction

Becoming silty (10-20%). Clay decreasing proportionately Hydrocarbons gone by 20'.

Sporadic 2-6" oblately spheroidal lenses of gray clay.

Varying silt/clay proportion. Fines up to 40% at 26'.

Increasing moisture.

▽ Groundwater encountered at 32'. Soil now moist

DRILLING CO.. SIERRA PACIFIC EXPLORATION
DRILL METHOD. HOLLOW STEM AUGER
SAMPLING METHOD: CONTINUOUS CORE

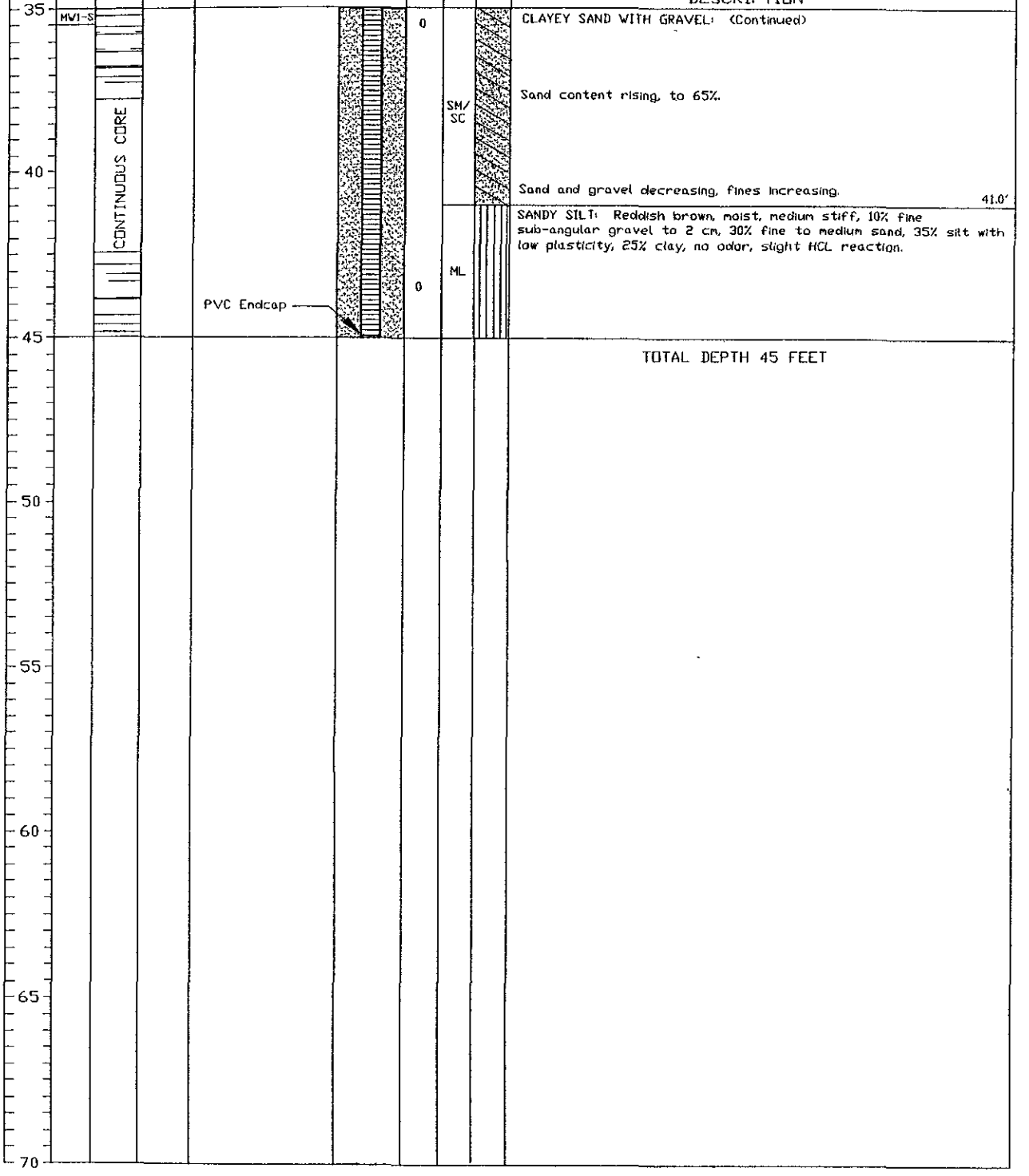
PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

BORING NO. MW-1

GEOLOGIST D. BANNON
EDITED BY D. BANNON — DATE BEGAN 7/14/92
CHECKED BY S. MILLS — DATE FINISHED 7/15/92
TOTAL DEPTH 45 FT — GROUND SURFACE EL. 192.22'



DRILLING CO.: SIERRA PACIFIC EXPLORATION
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: CONTINUOUS CORE

PROJECT NO.. 191081
CLIENT: EXXON CO , U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

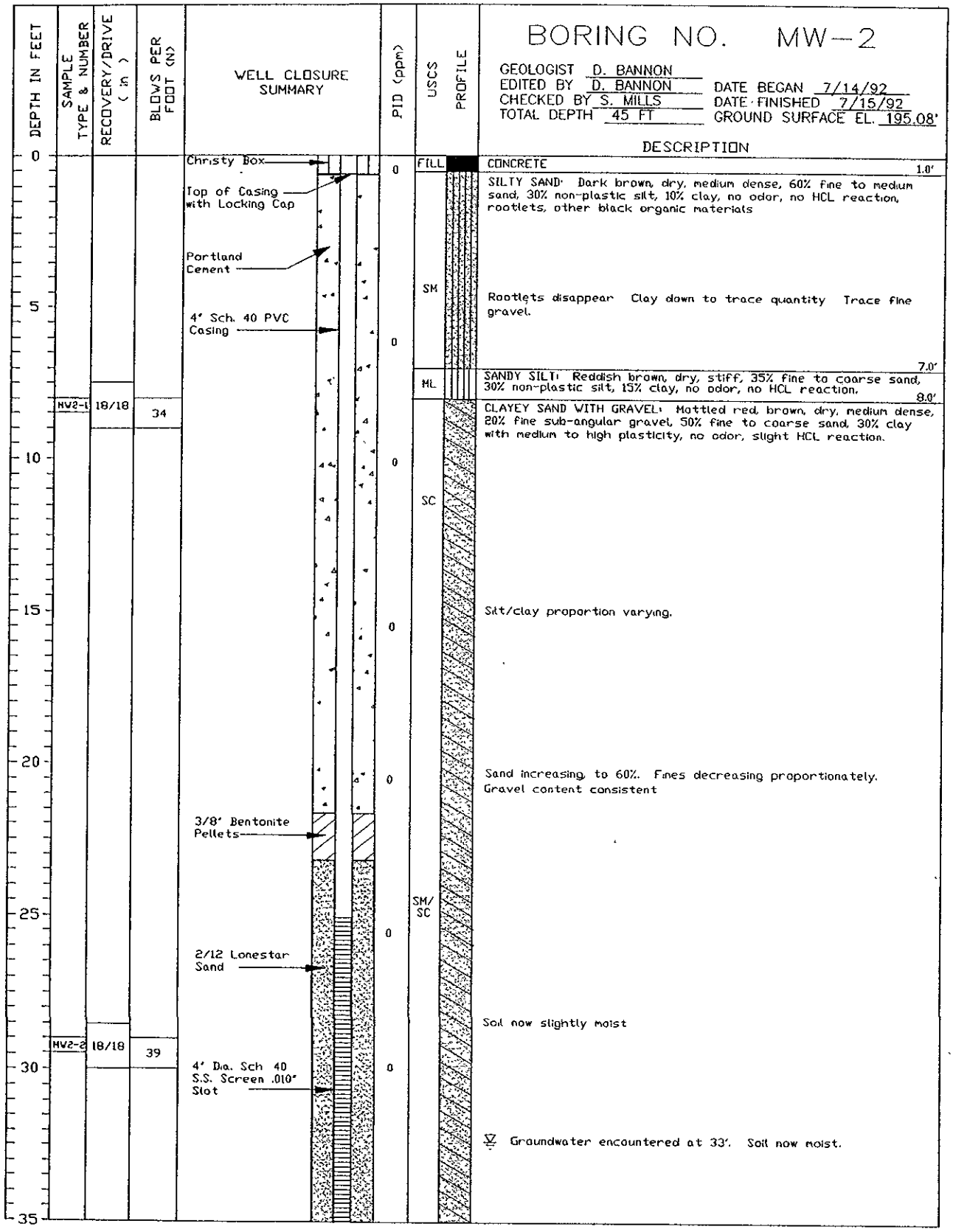
SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

BORING NO. MW-2

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT

DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 195.08'



DRILLING CO.: SIERRA PACIFIC EXPLORATION
DRILL METHOD HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

BORING NO. MW-2

GEOLOGIST D. BANNON
EDITED BY D. BANNON — DATE BEGAN 7/14/92
CHECKED BY S. MILLS — DATE FINISHED 7/15/92
TOTAL DEPTH 45 FT — GROUND SURFACE EL. 195.08'

DEPTH IN FEET	SAMPLE TYPE & NUMBER	RECOVERY/DRIVE (in.)	BLOWS PER FOOT (N)	WELL CLOSURE SUMMARY	PID (ppm)	USCS	PROFILE	DESCRIPTION
35	MW2-S	18/18	51		0	SM/SC		CLAYEY SAND WITH GRAVEL: (Continued)
								37.0'
								SANDY CLAY WITH GRAVEL: Dark brown, moist, medium stiff, 20% fine sub-round gravel to 2 cm, 15% fine to medium sand, 50% clay with moderate plasticity, 15% silt, no odor, no HCL reaction
40						CL		
				PVC Endcap	0			
45								TOTAL DEPTH 45 FEET
50								
55								
60								
65								
70								

DRILLING CO.: SIERRA PACIFIC EXPLORATION
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

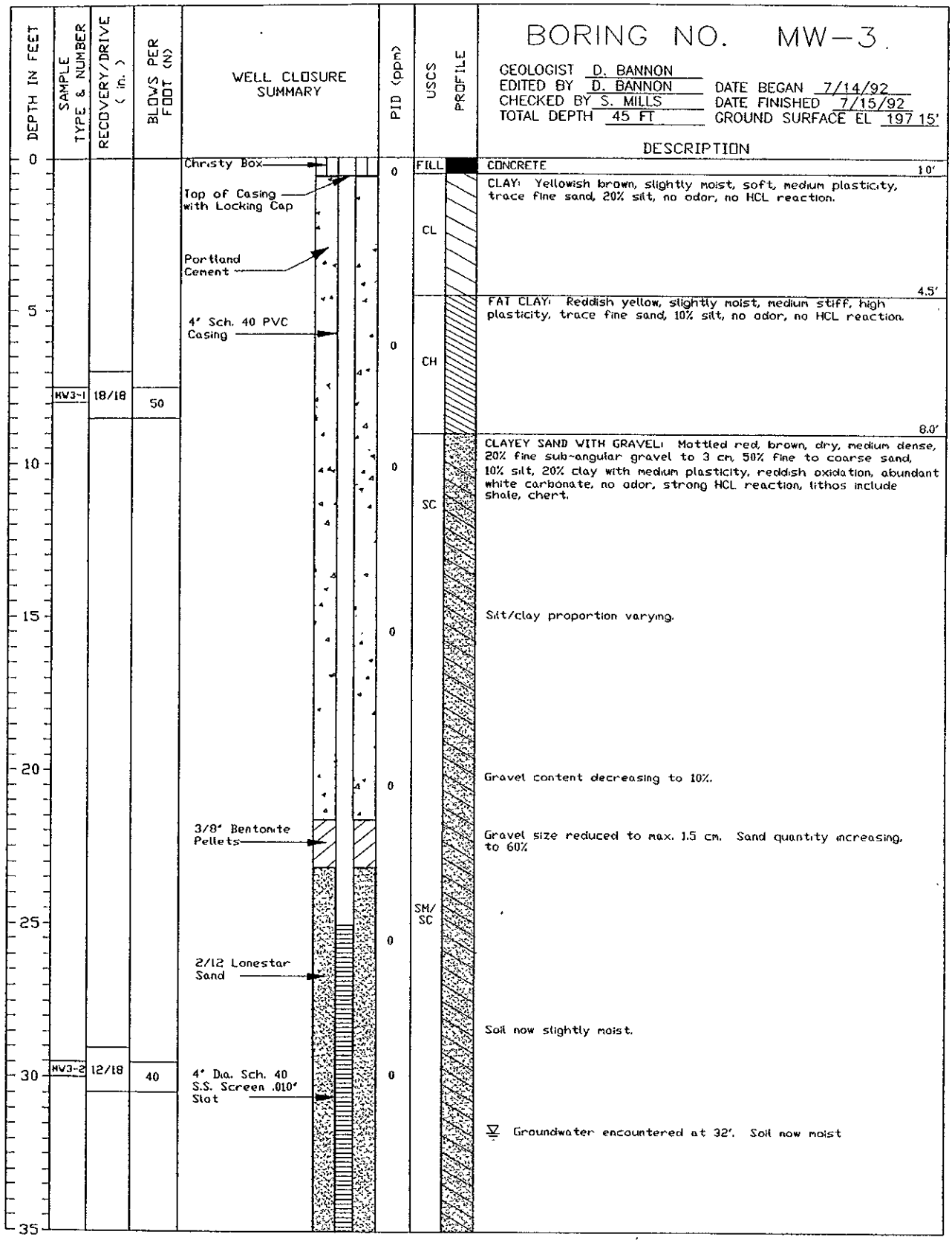
SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

PROJECT NO: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

INTERNATIONAL TECHNOLOGY CORPORATION

BORING NO. MW-3

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT
DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL 197.15'



DRILLING CO.: SIERRA PACIFIC EXPLORATION
DRILL METHOD. HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

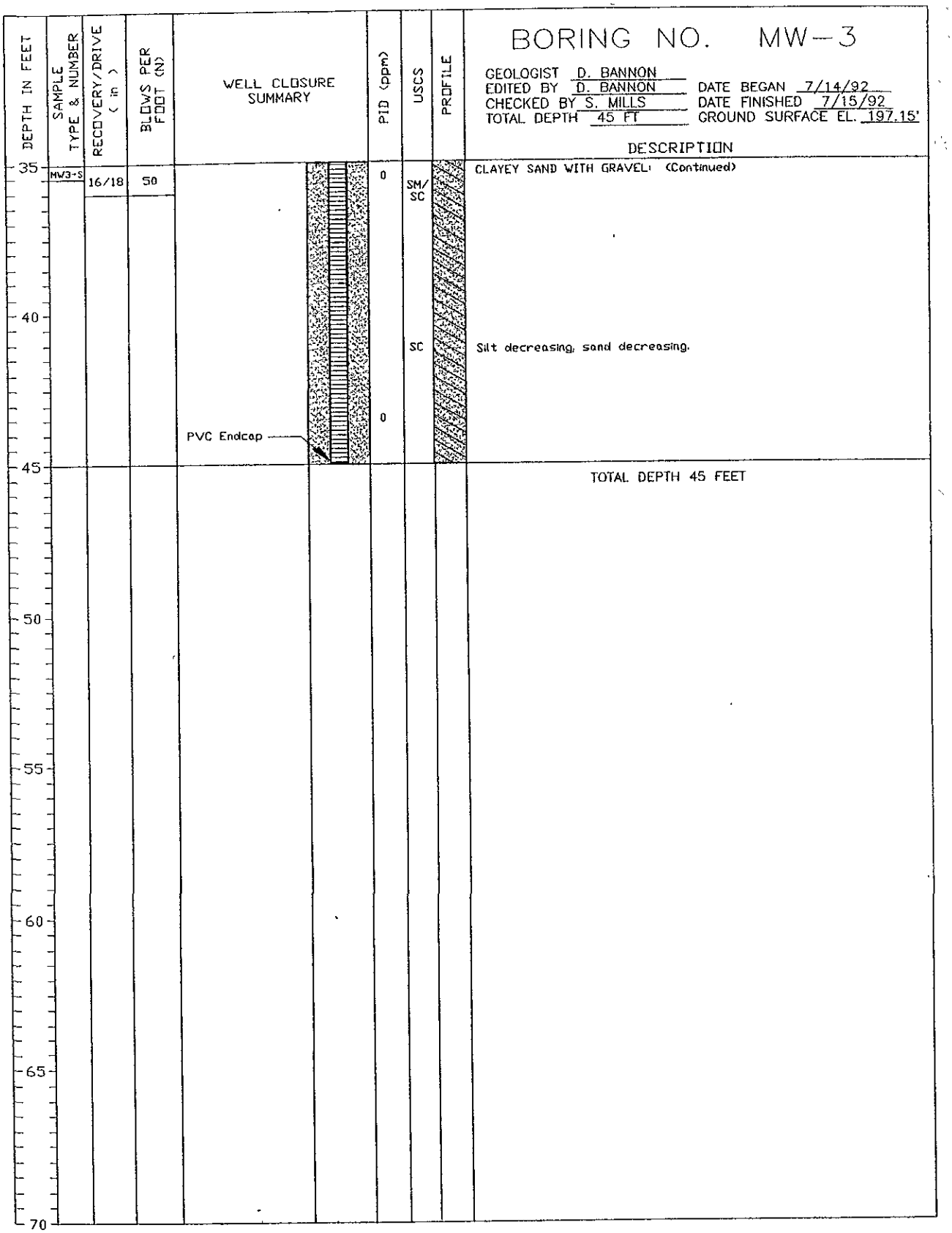
PROJECT NO: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION: OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

BORING NO. MW-3

GEOLOGIST D. BANNON
EDITED BY D. BANNON
CHECKED BY S. MILLS
TOTAL DEPTH 45 FT
DATE BEGAN 7/14/92
DATE FINISHED 7/15/92
GROUND SURFACE EL. 197.15'



DRILLING CO.: SIERRA PACIFIC EXPLORATION
DRILL METHOD: HOLLOW STEM AUGER
SAMPLING METHOD: SPLIT SPOON (SS) SAMPLER

PROJECT NO.: 191081
CLIENT: EXXON CO., U.S.A.
LOCATION. OAKLAND, CA
SITE ADDRESS: 3450 35TH AVENUE, OAKLAND, CA

SEE LEGEND FOR EXPLANATION OF SYMBOLS AND TERMS

INTERNATIONAL TECHNOLOGY CORPORATION

ALTON GEOSCIENCE LOG OF EXPLORATORY BORINGS

PROJECT NO. 30.483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-1
WELL NO.

FIELD LOCATION OF BORING

Tank Cluster

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL					
DATE					
TIME					

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
			0		CL	6" of Concrete / 1' of subgrade SILTY CLAY: light brown, moist, moderate plasticity, stiff
4,5,7	0		6		ML	SANDY SILT with clay: light brown, moist, low plasticity, fine- to coarse-grained sand, trace fine gravel, very stiff
5,9,17	6		10			
5,6,21	19		16			with black mottling
8,13,23	22		20			End of boring at 21.5' No ground water encountered Backfilled with neat cement

ALTON GEOSCIENCE LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JO APPROVED BY

BORING NO. B-2
WELL NO.

FIELD LOCATION OF BORING

Tank Cluster

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL						
DATE						
TIME						

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
						6" of Concrete / 1' of subgrade
			0		ML	SANDY SILT with gravel (fill): dark brown, moist, fine- to medium-grained sand, wood, wire and brick fragments, soft
			2			
			4		CL	SILTY CLAY: light brown, moist, moderate plasticity, very stiff
5,8,10	0		6			
			8			
			10		ML	SANDY SILT with clay: light brown, moist, low plasticity, fine- to coarse-grained sand, trace fine gravel, very stiff
6,10,20	0		12			
			14			
10,13,14	263		16			
			18			
			20			
5,27,26	4					hard
						End of boring at 21.5'
						No ground water encountered
						Backfilled with neat cement

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-3
WELL NO.

FIELD LOCATION OF BORING

Tank Cluster

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL						
DATE						
TIME						

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
			0			6" of Concrete / 1' of subgrade
					CL	SILTY CLAY: light brown, moist, moderate plasticity, firm
			2			
			4			
2,3,4	4		6			
			8			
					ML	SANDY SILT with clay: light brown, moist, low plasticity, fine- to coarse-grained sand, trace fine gravel, very stiff
6,9,18	48		10			
			12			
			14			
9,11,20	309		16			
						End of boring at 16.5'
						No ground water encountered.
						Backfilled with neat cement.

ALTON GEOSCIENCE LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JO APPROVED BY

BORING NO. B-4
WELL NO.

FIELD LOCATION OF BORING
Tank Cluster

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

BLOW COUNTS	PIDOVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	WATER LEVEL / DATE / TIME	DESCRIPTION
			0				6" of Concrete / 1' of subgrade
					CL		SILTY CLAY : light brown, moist, moderate plasticity, hard
			2				
			4				
10,15,30	11		6				
			8		ML		SANDY SILT with clay : light brown, moist, low plasticity, fine- to coarse-grained sand, trace fine gravel, hard
10,20,20	314		10				
			12				
			14				
9,14,24	180		16				
			18				
			20				
4,15,22	9						End of boring at 21.5'
							No ground water encountered
							Backfilled with neat cement

ALTON GEOSCIENCE LOG OF EXPLORATORY BORINGS

PROJECT NO. 20-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-5
WELL NO.

FIELD LOCATION OF BORING

Tank Cluster

SURFACE ELE. ____ DATUM ____

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL					
DATE					
TIME					

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
			0			6" of Concrete / 1' of subgrade
					CL	SILTY CLAY: light brown, moist, moderate plasticity, very stiff
			2			
			4			
5,9,10	4		6			
					ML	SANDY SILT with clay: light brown, moist, low plasticity, fine- to coarse-grained sand, trace fine gravel, hard
			8			
			10			
6,15,23	14		12			End of boring at 11.5'
						No ground water encountered
						Backfilled with neat cement.

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-6
WELL NO.

FIELD LOCATION OF BORING

Tank Cluster

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL					
DATE					
TIME					

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
			0			6" of Concrete / 1' of subgrade
					CL	SILTY CLAY: light brown, moist, moderate plasticity, stiff
			2			
			4			
5,6,8	0		6			
			8		ML	SANDY SILT with clay: light brown, moist, low plasticity, fine- to coarse-grained sand, trace fine gravel, very stiff
			10			
6,14,13	160		12			
			14			
			16			
5,15,19	1		18			
			20			
5,11,20	0					
						End of boring at 21.5'
						No ground water encountered
						Backfilled with neat cement.

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-7
WELL NO.

FIELD LOCATION OF BORING

Pump Island

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL										
DATE										
TIME										

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
			0			6" of Concrete / 1' of subgrade
					CL	SILTY CLAY with sand: light brown, moist, low plasticity, fine- to coarse-grained sand, very stiff
			2			
			4			
6,7,13	0		6			
			8		ML	SANDY SILT with clay: light brown, moist, low plasticity, fine- to coarse-grained sand, trace fine gravel, hard
			10			
10,22,25	51		12			End of boring at 11.5'
						No ground water encountered
						Backfilled with neat cement

ALTON GEOSCIENCE LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-30-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-8
WELL NO.

FIELD LOCATION OF BORING

Pump Island

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL											
DATE											
TIME											

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
						6" of Concrete / 1' of subgrade
			0		CL	SILTY CLAY with sand : dark brown, moist, low plasticity, fine - to coarse - grained sand, stiff
			2			
			4			color change : light brown
4,4,6	0		6			
			8			
			10			hard
11,21,22	9		12			End of boring at 11.5'
						No ground water encountered
						Backfilled with neat cement

ALTON GEOSCIENCE LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-10
WELL NO.

FIELD LOCATION OF BORING

Waste Oil Tank

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	WATER LEVEL / DATE / TIME	DESCRIPTION
			0				6" of Concrete / 1' of subgrade
					CL		SILTY CLAY with sand: dark brown, moist, low plasticity, fine- to medium-grained sand, stiff
			2				
			4				
4.4.8	0		6				
			8				
			10				
5.13.24	4						hard
			12				
			14				with trace fine gravel, angular
4.15.17	0		16				
							End of boring at 16.5'
							No ground water encountered
							Backfilled with neat cement.

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORINGS

PROJECT NO. 30-483 DATE DRILLED 3-20-91
CLIENT Exxon
LOCATION 3450 35th, Oakland
LOGGED BY JD APPROVED BY

BORING NO. B-9
WELL NO.

FIELD LOCATION OF BORING

Waste Oil Tank

SURFACE ELE. DATUM

DRILLING METHOD 4" H.S.A. HOLE DIAMETER
SAMPLER TYPE 2" S.S.
CASING INSTALLATION DATA N/A
DRILLER West Hazmat

WATER LEVEL						
DATE						
TIME						

BLOW COUNTS	PID/OVA READING	WELL CONSTRUCTION	DEPTH	SAMPLE	USCS CLASSIFICATION	DESCRIPTION
			0			6" of Concrete / 1' of subgrade
					CL	SILTY CLAY with sand: dark brown, moist, low plasticity, fine- to medium-grained sand, very stiff
			2			
			4			
8.11.19	0		6			
			8			
			10			
7.12.20	9					hard
			12			
						with trace fine gravel, angular
			14			
10.20.47	0		16			
						End of boring at 16.5'
						No ground water encountered.
						Backfilled with neat cement.