EXXON COMPANY, U.S.A.
POST OFFICE BOX 4032 . CONCORD, CA 94524-2032

REAL ESTATE & ENGINEERING

G.DeMARZO
CONSTRUCTION & MAINTENANCE ENGINEER(510) 246-8726

30 January, 1992

Mr. Barney Chan
Alameda County Health Agency
Department of Environmental Health
80 Swan Way, room 200
Oakland, CA 94621

RE: Tank Replacement Assessment Report
Exxon RAS #7-0238
2200 East 12th St
Oakland, CA

Dear Mr. Chan:

Enclosed for your review and comment please find a report entitled **Tank Excavation Assessment Report** for the above referenced station. This report, prepared by Woodward-Clyde Environmental Consultants, details environmental activities performed during the replacement of underground tanks in September-October, 1991 at the referenced site.

It is Exxon's understanding that Texaco Refining & Marketing, Inc. is currently handling subsurface investigation and/or remediation related to the discovery of Petroleum Hydrocarbom Impacted Soils and Groundwater at the site in 1988. Please do not hesitate to contact me at (510) 246-8770 should you have any questions or require additional information regarding work performed during the replacement of the underground tanks. Please contact Marla Guensler of Exxon for information regarding the status of current environmental activities at the site.

Sincerely,

Greg DeMarzo

2140E
Attachment

c - w/attachment:
R. Hiett, San Francisco Bay Regional Water Quality Control Board
J. P. Roemer, City of Oakland Fire Prevention Bureau
M. Guensler

c - w/o attachment:
R. Zielinski, Texaco Refining & Marketing, Inc.
A. Yan, Woodward-Clyde Consultants

TANK EXCAVATION ASSESSMENT REPORT
EXXON RAS 7-0238
2200 EAST 12TH STREET
OAKLAND, CALIFORNIA

January 28, 1992

Prepared for

Exxon Company, U.S.A.
P.O. Box 4032
Concord, California 94524-2032

Prepared by

Woodward-Clyde Consultants
500 12th Street, Suite 100
Oakland, CA 94607-4014

CERTIFICATION

Tank Excavation Assessment Report
Exxon RAS 7-0238
2200 East 12th Street
Oakland, California

January 28, 1992
91C0350A-5000

This report has been prepared by the staff of Woodward-Clyde Consultants and has been reviewed and approved by the professionals whose signatures appear below.

The findings, recommendations, specifications, or professional opinions are presented, within the limits prescribed by the client, after being prepared in accordance with generally accepted engineering practice in Northern California at the time this investigation was performed. No other warranty is either expressed or implied.

WOODWARD-CLYDE CONSULTANTS

Anita Yan
Project Manager

Robert G. Aaserude, P.E.
Senior Project Engineer

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EXXON RAS 7-0238
2200 EAST 12TH STREET
OAKLAND, CALIFORNIA

INTRODUCTION

Scope of Work

Three underground storage tanks (USTs) and their associated product lines were excavated and removed from Exxon retail automotive station (RAS) 7-0238 on 4 September 1991. The tanks were removed and replaced as part of the capacity increase and renovation plans for the site. The excavated tankhole was subsequently enlarged; the tanks were replaced with larger double-walled fiberglass tanks; the product lines were replaced with new double-walled fiberglass lines; and the excavated subsurface material was transported off-site for disposal on 24, 25, and 26 September 1991. This report presents the observations and analytical results of soil samples collected by Woodward-Clyde Consultants (WCC) on behalf of Exxon Company, U.S.A. (Exxon) in support of tank and product line closure and soil disposal activities at the site.

Site Location

Exxon RAS 7-0238 is located at 2200 East 12th Street in Oakland, California. The site sits on the east corner of the intersection of East 12th Street and 22nd Avenue (Figure 1). The site is located in a multiple land use area with heavy vehicular traffic along East 12th Street and low pedestrian traffic. There is a Shell Service Station at the intersection located to the northwest, across 22nd Avenue on the northern corner (Figure 2). To the north and east of the site are some residences and light commercial businesses. Interstate 880 and multiple train tracks (Western Pacific, Southern Pacific, and BART) pass the site to the south and to the west.

Site Description

The site was formerly owned by Texaco Refining and Marketing, Incorporated (Texaco). The site property was transferred in 1988 to Exxon Company, U.S.A., the current owner. The former site plan is presented in Figure 3. As shown in Figure 3, there currently are seven groundwater monitoring wells associated with the site and are currently monitored by Harding Lawson Associates for Texaco. Measured depth to groundwater at the wells associated with this site ranges from approximately 5.5 feet to 8.5 feet below grade (HLA 1991a). Three USTs stored leaded and unleaded gasoline pending retail sale as a motor fuel while a fourth UST stored used oil pending offsite disposal and/or reclamation. The three USTs which stored gasoline were excavated and removed on 4 September 1991. The excavated tank hole was enlarged and three 12,000-gallon double-walled fiberglass USTs were subsequently installed to replace the former tanks. The 550-gallon used oil tank, which was not removed, is located behind the station building, to the east.

FIELD OPERATIONS

Excavation Process

Prior to removal, each of the three USTs had been emptied, triple-rinsed, and purged of flammable vapors using dry ice. Representatives from the Alameda County Department of Environmental Health (ACDEH), the City of Oakland Fire Prevention Bureau, Exxon, Harding Lawson Associates (HLA, environmental consultants to Texaco), and WCC were present during the tank removal process. Table 1 is a list of site contacts and includes each representative with their respective addresses and telephone numbers. The 7,500-gallon extra unleaded tank was first removed, followed by the 10,000-gallon regular unleaded and leaded tanks, respectively. The tanks were numbered, loaded, and strapped to flatbed trucks provided by Trident Trucklines for delivery to Erickson Incorporated in Richmond. The Uniform Hazardous Waste Manifests for the tank rinsate (#90573946) and the removed USTs (#90792585 and #90792586) are included in Appendix A.

UST History and Condition

The three single-walled USTs that were removed stored gasoline and were constructed of steel. These tanks had initially been installed in 1967 (HLA 1991b). One 7500-gallon UST stored extra unleaded gasoline while two 10,000-gallon USTs each stored regular leaded and unleaded gasoline. Each of the three tanks was excavated, pulled from the tank pit, and was subjected to an above-ground inspection prior to removal from the site. No apparent holes or breaches were observed in the excavated tanks during the above-ground visual inspection. Photographs of the tanks during the visual inspection are included in Appendix B. The 550-gallon used oil tank, which was not removed, was installed five years ago in 1986 (HLA 1991b) and is constructed of double-walled fiberglass. The installation of an interstitial monitor at the used oil tank is included in the plans for the site renovation. Diesel has not been stored at this site.

Observations at the Tank Hole

Generally, the native soil at the sidewalls of the pit consisted of heavy clay and appeared dark brown from beneath the asphalt pavement to 6 feet below grade and became medium brown from approximately 6 feet to 12 feet, at the bottom of the pit. Some water was observed at the bottom of the pit beneath each tank at approximately 11 feet below grade (see photographs in Appendix B). The water had a foamy brown film at the surface. No hydrocarbon sheen was observed. The water level in the pit remained at approximately 11 feet below grade, despite measurements of depth to water ranging from 5.5 feet to 8.5 feet below grade by Harding Lawson Associates (HLA 1991a). Shoring was later installed to ensure slope stability and safety around the tank hole, which was enlarged to accommodate three 12,000-gallon double-walled fiberglass USTs. The excavation was enlarged at the west corner and additional soils were removed. Confirmation samples were collected, and the the excavation was shored. The excavated fill material and native soil was stockpiled in the locations shown in Figure 4. Approximately 700 cubic yards of fill material and native soil were stockpiled at the site.

SOIL AND GROUNDWATER SAMPLE COLLECTION PROCESS

Sample Handling Procedures

A sample of the water from beneath the extra unleaded tank was collected by first lowering the excavator bucket into the tank hole. After the bucket was partially filled with the water, the bucket was raised to the surface and the sample containers were slowly submerged and filled. This sample, although submitted to the laboratory, was not analyzed because the sample was not expected to be representative of the groundwater beneath the site. Thus the water in the pit was not expected to be representative of the shallow groundwater beneath the site.

Soil samples were collected in 2-inch diameter by 4-inch long clean brass split-spoon liners. Samples from depths beyond 4-feet below grade were first excavated into a backhoe or excavator bucket. The bucket was then lifted to the ground surface and the brass liners were driven into the soil with a rubber mallet. Samples from surface to 4-feet below grade were generally driven directly into the sidewall or bottom of the trench using a rubber mallet or clean manual sample driver. The filled brass liner was removed, the ends were immediately covered with a sheet of teflon and the ends were capped with a polyethylene endcap. The brass liners were labeled with pertinent information including site, sample location, sample depth, date and time of collection, and the initials of the sampler.

All samples were transported in sealed, chilled ice chests to Pace Laboratories in Novato by a Pace courier following chain-of-custody procedures. Copies of the chain-of-custody records are provided in Appendix C at the end of the respective Laboratory Report.

Tank Pit Soil Sample Collection and Analysis

On 4 September 1991, six soil samples were collected from the base of the sidewalls of the excavated tank pit after the USTs were removed. The sample locations and depths were selected in consultation with the representatives from the ACDEH. The sample locations are shown in Figure 3. In accordance with the Regional Water Quality Control Board Tri-Regional Recommendations (RWQCB 1990), these samples were analyzed for total petroleum hydrocarbons quantified as gasoline (TPH-gas) with benzene, toluene, ethylbenzene, and xylene (BTEX) distinction by modified EPA method 8015 and EPA method 8020. Samples which were found to contain detectable concentrations of TPH-gas were also analyzed for the presence of organic lead by DHS method 338. The sample that contained the highest concentration of TPH-gas (sample TP2)was also analyzed for TPH quantified as diesel (TPH-d). The laboratory reported that the appearance of the chromatogram suggested that the petroleum hydrocarbons detected in the TPH-d analysis may be from the heavier end of the gasoline constituents, rather than diesel (Pace, 1991). Table 2 presents a summary of the analytical results. Concentrations of TPH-g greater than the 100 mg/kg priority level were detected in the 11-foot samples, TP1 (190 mg/kg) and TP2 (1,100 mg/kg), from the west and southwest sidewall of the original excavation. Low (to 0.78 mg/kg TPH-g) and nondetectable concentrations of analytes were reported in the remaining closure samples.

The analytical results of the closure samples suggested that concentrations above 100 mg/kg TPH-gas existed in the soil at the ends of the former extra unleaded gasoline tank, located at the west end of the tank pit. Therefore on the day following the tank excavation, on 5 September 1991, six confirmation samples were collected by excavating beyond the edges of the original tank pit. The confirmation samples were collected from the south and west sides of the tank pit (Figure 3). Confirmation sample locations TC2 and TC3 were collected at two depths in order to vertically characterize the presence of petroleum hydrocarbons in the soil. The confirmation samples were subjected to the same suite of analyses as the closure samples and the analytical results of the confirmation samples are presented in Table 2, with the closure samples. The analytical results for the confirmation samples ranged from nondetectable to 2.5 mg/kg TPH-g (at TC1, 12 feet below grade).

Product Line Trench Soil Sample Collection and Analysis

The product line trench samples were also collected on 4 September 1991. A total of seven product line closure samples were collected from six location in native material from within the product line trench which totaled in length approximately 115 feet. The sample locations, which were selected in consultation with the representatives from the ACDEH were located along bends and joints of the former product lines (Figure 3) at depths ranging from 3 to 6 feet below grade. An access vault with a deep bottom relative to the original product line trenches was formerly located at location P2. Therefore fill material was encountered until approximately six feet below grade. As a result, sample P2 was collected at 6 feet rather than 3 or 4 feet, the depths of the other product line closure samples. The samples were submitted to Pace Laboratories for analysis by modified EPA method 8015 for TPH-gas and BTEX by EPA method 8020. One sample (P1 at 2 feet below grade) was not analyzed because it was collected at what appeared to be the interface of native soil and fill material and may have included some fill material. As with the tank pit samples, samples at the product line trench which were found to contain detectable concentrations of TPH-gas were also analyzed for the presence of organic lead by DHS method 338. The analytical results are summarized in Table 3. The analytical results of the product line trench samples range from 1.9 mg/kg to 1,200 mg/kg TPH-g. Concentrations of TPH-g greater than the 100 mg/kg prioritization level were detected in the shallow samples from sample locations P2 (1,200 mg/kg TPH-g), P3 (190 mg/kg TPH-g), and P6 (240 mg/kg TPH-g). The concentrations of TPH-g detected at the other product line trench sample locations were well below the 100 mg/kg prioritization level. Organic lead was not detected in any of the product line closure samples.

The analytical results of the product line closure samples suggest that concentrations of TPH-gas greater than 100 mg/kg exist in the shallow (3 and 6 feet below grade) soil at sample locations P2, P3, and P6. Therefore, on 11 September 1991, confirmation soil samples were collected from each of the three locations from 11 to 13 feet below grade to determine the vertical presence of petroleum hydrocarbons in the subsurface soils. The product line trenches were excavated vertically at the three locations and the soil samples were collected from soil in the backhoe bucket. The lateral presence of petroleum hydrocarbons in the soil surrounding the product lines was not investigated at this time due to the proximity of the canopy footings. Additional lateral excavation would have risked undermining the canopy footings. The confirmation samples were analyzed for TPH-g by

EPA method 8015 and for BTEX by EPA method 8020. The analytical results of the confirmation samples at the product line trenches are presented in Table 3. The analytical results of the confirmation samples from the product line trench ranged from 0.25 mg/kg TPH-g (13 feet below grade at P2) to 1.5 mg/kg TPH-g (12 feet below grade at P3).

Quality Assurance/Quality Control Assessment

All samples were delivered to Pace Laboratories in Novato, California for analysis. Evaluation of the quality of the analytical data included examination of sample holding times, review of quality control data, and detection limits. Sample preservation techniques and transportation conditions were satisfactorily accomplished for the samples. All samples were extracted and analyzed within the specified holding times from their date of collection for the various methods. The review of the analytical data suggests that the analytical results are valid and representative of the collected soil samples.

The laboratory precision and accuracy data were within laboratory established control limits and suggest that the chemical analyses of the samples were conducted under acceptable analytical conditions. The percent recoveries for the matrix spike (MS) and matrix spike duplicate (MSD) for TPH-gas and BTEX in the samples ranged from 85 to 109 percent, with relative percent differences from 0 to 6 percent. The percent recoveries of the spike and spike duplicate for organic lead samples ranged from 92 to 98 percent with RPDs from 0 to 3 percent, while that for TPH-diesel sample ranged from 75 to 81 percent with an RPD of 7 percent.

Some detection limits were raised due to matrix interference and/or high concentrations of detected compounds. The raised detection limits, however, did not affect the results of the analytes for closure and confirmation samples.

Confirmation sample P3 at 12 feet below grade had a high concentration of benzene to TPH-gas ratio relative to other samples from this site. Pace Laboratories, however, had confirmed that the analytical result is valid by analyzing the sample on two separate instruments with comparable results.

DISPOSAL PROCEDURES

The relatively small amount of water that had been initially observed beneath the tanks was absorbed by the surrounding fill material and soil during excavation of the pit. On September 9, 1991, approximately 3,000 gallons of accumulated water was pumped from the excavation, prior to installation of the new tanks. The Uniform Hazardous Waste Manifest for the water (#90640144) has been included in Appendix A.

Excavated soil was stockpiled onsite and covered with visqueen pending characterization for disposal. The stockpiles where conceptually divided into approximately 50 cubic yard sections (Figure 4) and sampled for disposal. Discrete samples were collected from the stockpiled soil which were sent to Pace Laboratories for compositing and analysis. The samples were analyzed at Pace for TPH-gas by modified EPA method 8015 and for BTEX by EPA method 8020 and for soluble lead by CAM WET. One sample (SP1) was analyzed

for reactivity, corrosivity, and ignitability (RCI). The analytical results are presented in Table 4. Stockpile sections SP1 through SP9 and SP11 were accepted and transported to BFI Vasco Road in Livermore, California on 25 and 26 September 1991. The remaining sections, SP10, SP12, and SP13 were accepted and transported to the Chem Waste Management facility at Kettleman City, California on 24 September 1991. All soil transportation was provided by Dillard Trucking of Byron, California. Transportation documentation of the soils is included in Appendix A.

CONCLUSION

The native soil beneath this site generally consisted of heavy clay. The coloration varied from dark brown at the shallow soils to medium brown from 6 to 12 feet below grade. Water was observed at the bottom of the excavation at approximately 11 feet below grade.

In the vicinity of the tank field, the lateral presence of petroleum hydrocarbons in the soil beneath the site appears to be limited to the edges of the tank excavation. Except for the samples from the base of the original tank excavation (TP1 and TP2), the closure samples had low (less than 1 mg/kg TPH-g) to nondetectable concentrations of petroleum hydrocarbons. At the southwest corner, closure samples contained up to [redacted] Confirmation samples collected after overexcavation from five to seven feet beyond the edges of the original excavation at the southwest corners and western sides contained low (to 2.5 mg/kg TPH-g at TC1, see Figure 3) to nondetectable concentrations of petroleum hydrocarbons.

At confirmation sample locations TC2 and TC3, samples were collected at five feet below grade as well as at 11 or 12 feet below grade. The five-foot soil samples contained low (to 2.0 mg/kg TPH-g) concentrations of petroleum hydrocarbons while the deeper samples did not contain detectable concentrations of petroleum hydrocarbons. The analytical results of the confirmation samples (TC1 - TC4), collected after additional excavation at the tankhole, suggest that the soils impacted by hydrocarbons (as identified by the analytical results of closure samples) were removed in the course of overexcavation and expansion of the tankhole.

At the product line trench, relatively high concentrations (to 1,200 mg/kg) of TPH-g were detected in closure samples from the access box (P2), the west end of the central pump island, and at the east end of the pump island along 22nd Avenue. All closure samples were collected between three to six feet below grade. Confirmation samples collected 11 to 13 feet below grade, however, contained relatively low concentrations (to 1.5 mg/kg TPH-g) of petroleum hydrocarbons.

The lateral presence of petroleum hydrocarbons in the soil around the product line trench was not further investigated due to the proximity of the canopy supports and the limited space.

DISCLAIMER

This report has been prepared solely for the use of Exxon Company, U.S.A. and any reliance on this report by third parties shall be at such party's sole risk. Furthermore, the discussions contained herein are based on the results of the field exploration and laboratory test program described above and the assumption that the site subsurface conditions do not deviate substantially from those disclosed in the soil samples. If subsequent events indicate deviations from the conditions disclosed by this assessment, Woodward-Clyde Consultants reserves the right to modify any or all of the above conclusions.

REFERENCES

Harding Lawson Associates, 1991a. Quarterly Technical Report, Fourth Quarter of 1990. Former Texaco Station, 2200 East 12th Street, Oakland, California. 6 March 1991.

Harding Lawson Associates, 1991b. Letter of Transmittal and enclosure from Michael Sides (HLA) to Anita Yan (WCC). 1 May 1991.

Pace Laboratories, 1991. Telephone Conversation between Carol Posthuma (Pace) and Anita Yan (WCC). 10 September 1991.

Regional Water Quality Control Board, 1990. Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Storage Tank Sites. Prepared by North Coast RWQCB, San Francisco Bay RWQCB, and Central Valley RWQCB. 10 August 1990.

United States Geological Survey, 1980. Oakland East Quadrangle, California. 7.5 Minute Series (topographic). Photorevised 1980.

Table 1

LIST OF SITE CONTACTS REGARDING THE TANK EXCAVATION AT EXXON RAS 7-0238 2200 EAST 12TH STREET, OAKLAND, CALIFORNIA 4 SEPTEMBER 1991

Current Property Owner:

Exxon Company, U.S.A.
2300 Clayton Road, Suite 1250
P.O. Box 4032
Concord, CA 94524-2032

Site Representative: Greg DeMarzo
Construction and Maintenance Engineer
(510) 246-8726

Environmental Consultant to Exxon:

Woodward-Clyde Consultants
500 - 12th Street, Suite 100
Oakland, CA 94607-4014

Site Representative: Anita Yan
Senior Staff Engineer
(510) 874-3081

Former Property Owner (not present at site):

Texaco Refining and Marketing Incorporated
100 Cutting Boulevard
Richmond, CA 94804

Site Contact: Ron Zielinski
Environmental Supervisor
(510) 236-1770

Table 1

LIST OF SITE CONTACTS REGARDING THE TANK EXCAVATION AT EXXON RAS 7-0238 2200 EAST 12TH STREET, OAKLAND, CALIFORNIA 4 SEPTEMBER 1991 (Concluded)

Environmental Consultant to Texaco:

Harding Lawson Associates
1355 Willow Way, Suite 109
Concord, CA 94520

Site Representative: Doreen Myer
Environmental Specialist
(510) 687-9660

Health Department:

Alameda County Health Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Site Inspectors: Barney Chan and Brian P. Oliva
Hazardous Materials Specialists
(510) 271-4320

Fire Department:

City of Oakland
Fire Prevention Bureau
1330 Broadway
Oakland, CA 94612

Site Inspector: John P. Roemer
Inspector
(510) 273-3853

TABLE 2. ANALYTICAL RESULTS (IN MG/KG, OR PPM) FOR SAMPLES COLLECTED AT THE TANK HOLE IN SUPPORT OF THE TANK EXCAVATION ASSESSMENT AT EXXON RAS 7-0238, 2200 EAST 12TH STREET, OAKLAND, CALIFORNIA.

			Modified EPA 8015		EPA 8020				CA DHS # 338
Sample Location	Sample Depth (feet)	Date of Collection	TPH (gas)	TPH (diesel)	Benzene	Toluene	Ethyl Benzene	Xylenes	Organic Lead
				Tank Hole Samples					
TP1	11	4 Sep 91	190	--	0.22	0.26	0.32	0.65	< 0.2
TP2	11	4 Sep 91	1,100	340	0.88	1.6	14	7.7	< 0.2
TP3	11	4 Sep 91	<0.2	--	<0.001	<0.001	<0.001	<0.001	--
TP4	11	4 Sep 91	<0.2	--	<0.001	<0.001	<0.001	<0.001	--
TP5	11	4 Sep 91	0.78	--	0.0014	<0.001	0.0092	0.025	< 0.2
TP6	11	4 Sep 91	0.47	--	0.0033	<0.001	0.0012	0.0017	< 0.2
				Tank Hole Overexcavation Confirmation Samples					
TC1	12	5 Sep 91	2.5	--	0.005	0.012	0.078	0.12	<0.2
TC2	5	5 Sep 91	2.0	--	0.078	0.022	0.009	0.013	<0.2
TC2	11	5 Sep 91	<0.2	--	<0.001	<0.001	<0.001	<0.001	--
TC3	5	5 Sep 91	1.6	--	0.026	0.017	0.0043	0.011	<0.2
TC3	12	5 Sep 91	<0.2	--	<0.001	<0.001	<0.001	<0.001	--
TC4	11	5 Sep 91	<0.2	--	<0.001	<0.001	<0.001	0.0018	--

-- denotes that sample was not analyzed for the analyte or parameter

TABLE 3
ANALYTICAL RESULTS (IN MG/KG, OR PPM) FOR SOIL SAMPLES COLLECTED AT THE PRODUCT LINE TRENCHES AT EXXON RAS 7-0238, 2200 EAST 12TH STREET, OAKLAND, CALIFORNIA

	Sample		Modified EPA 8015		EPA 8020				CA DHS # 338
Sample Location	Depth (feet)	Date of Collection	TPH (gas)	TPH (diesel)	Benzene	Toluene	Ethyl Benzene	Xylenes	Organic Lead
				Product Line Trench Samples					
P1	3	4 Sep 91	27	--	0.44	0.13	0.89	0.29	< 0.2
P2	6	4 Sep 91	1,200	--	10	55	16	88	< 0.2
P3	3	4 Sep 91	190	--	0.41	2.2	0.93	5.4	< 0.2
P4	4	4 Sep 91	1.9	--	0.007	0.013	0.024	0.034	< 0.2
P5	3	4 Sep 91	35	--	0.41	0.26	0.34	1.4	< 0.2
P6	3	4 Sep 91	240	--	0.18	0.67	1.7	2.7	< 0.2
				Product Line Trench Overexcavation Confirmation Samples					
P2	13	11 Sep 91	0.25	--	0.014	0.0077	0.007	0.023	--
P3	12	11 Sep 91	1.5	--	0.68	<0.005	<0.005	0.009	--
P6	11	11 Sep 91	1.3	--	0.005	<0.005	0.081	0.37	--

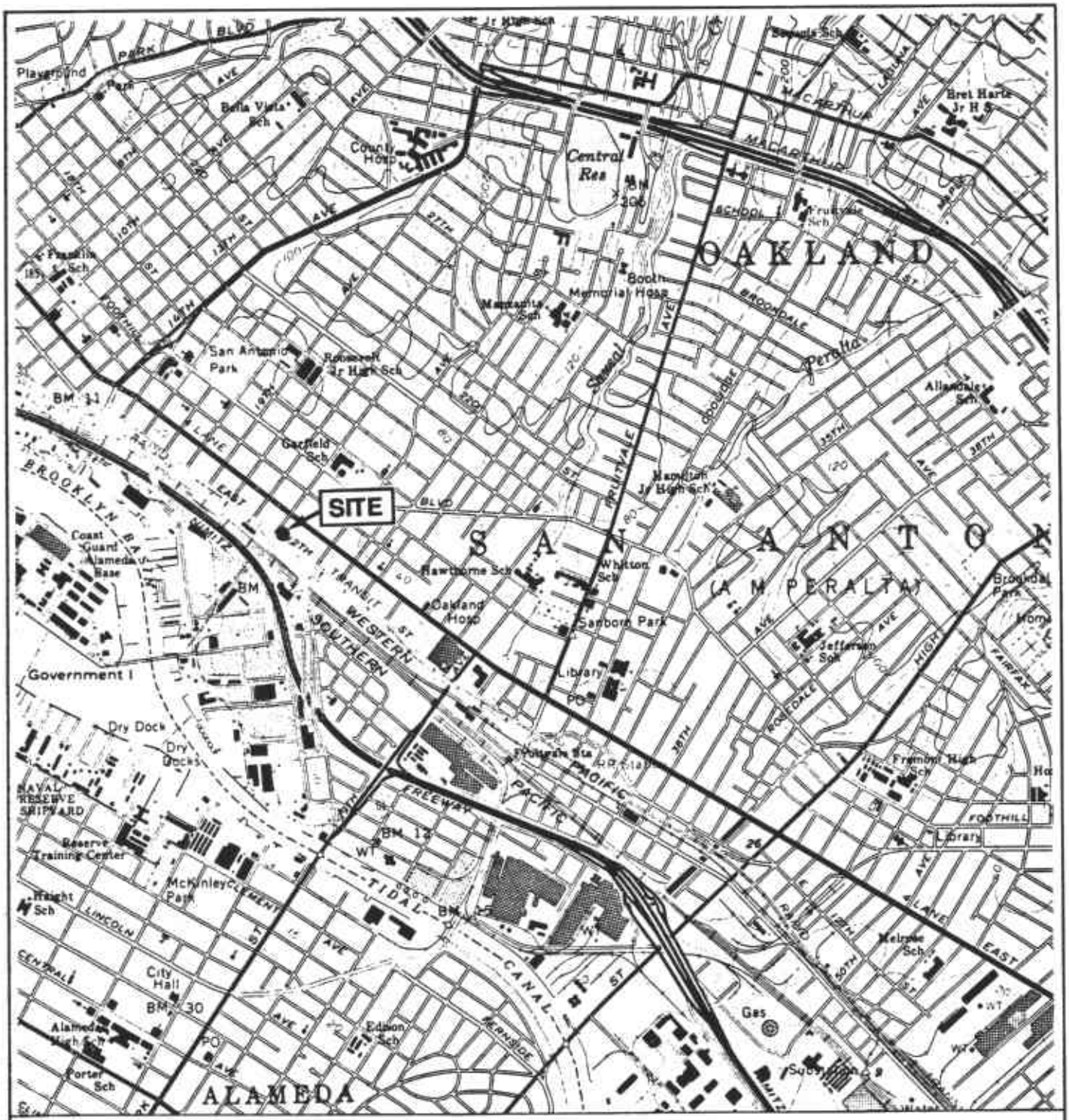
-- denotes that sample was not analyzed for the analyte or parameter

TABLE 4

ANALYTICAL RESULTS (IN MG/KG, OR PPM) FOR COMPOSITE SOIL SAMPLES COLLECTED FROM THE STOCKPILED SOILS RESULTING FROM THE TANK AND PRODUCT LINE EXCAVATION AT EXXON RAS 7-0238, 2200 EAST 12TH STREET, OAKLAND, CALIFORNIA. 11 SEPTEMBER 91.

	Modified EPA 8015	EPA 8020				EPA 6010/200.7	Reactivity		Corrosivity	Ignitability
Sample Identification	TPH (gas)	Benzene	Toluene	Ethylbenzene	Xylenes	Soluble Lead (mg/L)	Reactive Cyanide	Reactive Sulfides	pH (pH Units)	Flash Point, Closed Cup (°C)
SP1	3.0	<0.001	<0.001	0.0053	0.0059	<0.1	<0.5	<1.0	8.0	>60
SP2	<0.2	<0.001	<0.001	<0.001	<0.001	<0.1	--	--	--	--
SP3	0.36	<0.001	0.001	<0.001	0.0014	<0.1	--	--	--	--
SP4	0.82	<0.001	0.0058	0.0017	0.011	<0.1	--	--	--	--
SP5	72	<0.01	0.67	0.60	0.71	<0.1	--	--	--	--
SP6	1.1	<0.001	0.0096	0.0018	0.0049	<0.1	--	--	--	--
SP7	32	<0.025	0.18	0.1	0.34	<0.1	--	--	--	--
SP8	2.9	0.0023	0.0012	0.01	0.06	<0.1	--	--	--	--
SP9	25	<0.02	<0.02	0.036	0.27	<0.1	--	--	--	--
SP10	320	<0.2	<0.2	0.28	1.5	<0.1	--	--	--	--
SP11	16	<0.01	0.065	0.052	0.25	<0.1	--	--	--	--
SP12	13	0.005	0.010	0.062	0.18	1.0	--	--	--	--
SP13	35	0.036	0.077	0.13	0.46	0.78	--	--	--	--

-- Denotes that sample was not analyzed for the analyte or parameter.

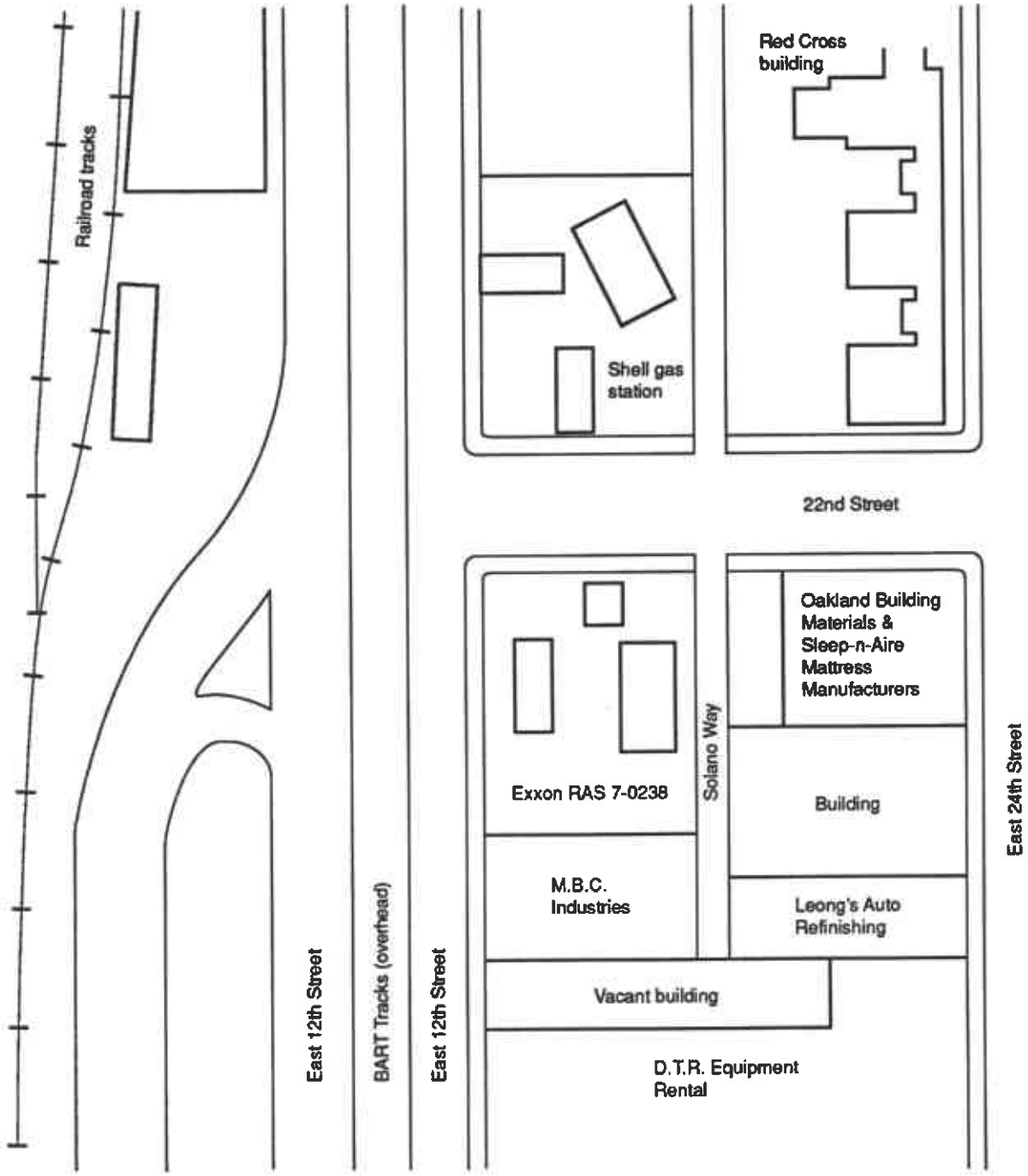


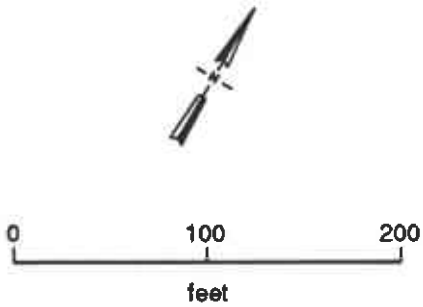
SOURCE: USGS Oakland East Quadrangle
California
7.5 Minute Series (topographic)

N

0 1000 2000
feet

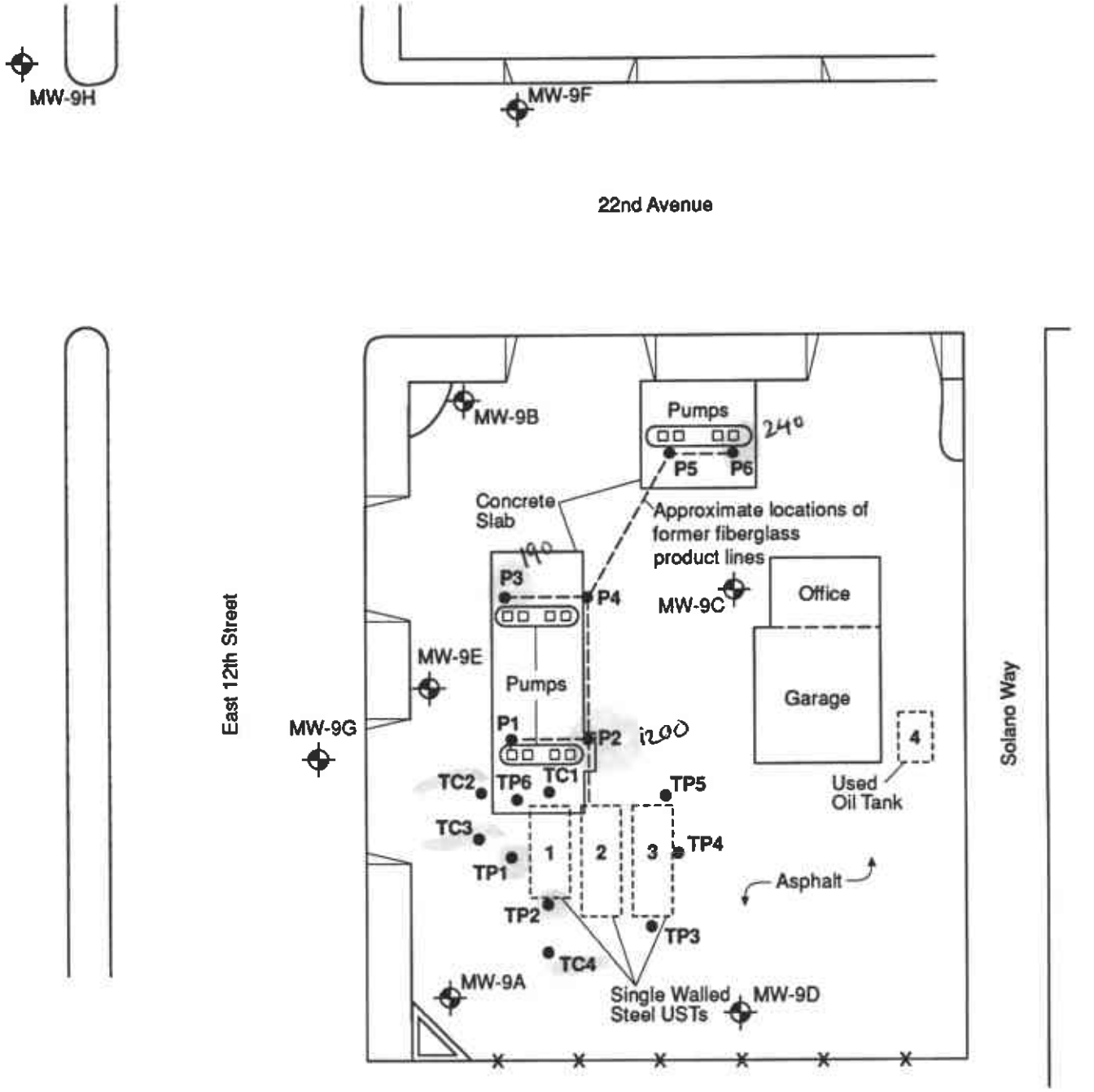
Project No. 91C0350A	Exxon RAS 7-0238	LOCATION OF EXXON RAS 7-0238 2200 EAST 12TH STREET OAKLAND, CALIFORNIA	Figure 1
Woodward-Clyde Consultants			





Source: HLA 1991

Project No. 91C0350A	Exxon RAS 7-0238	LAND USE IN THE IMMEDIATE VICINITY OF EXXON RAS 7-0238 2200 EAST 12TH STREET, OAKLAND, CALIFORNIA	Figure 2
Woodward-Clyde Consultants			



LEGEND

- Monitoring Well Location with Number
- Approximate Soil Sample Location with Number

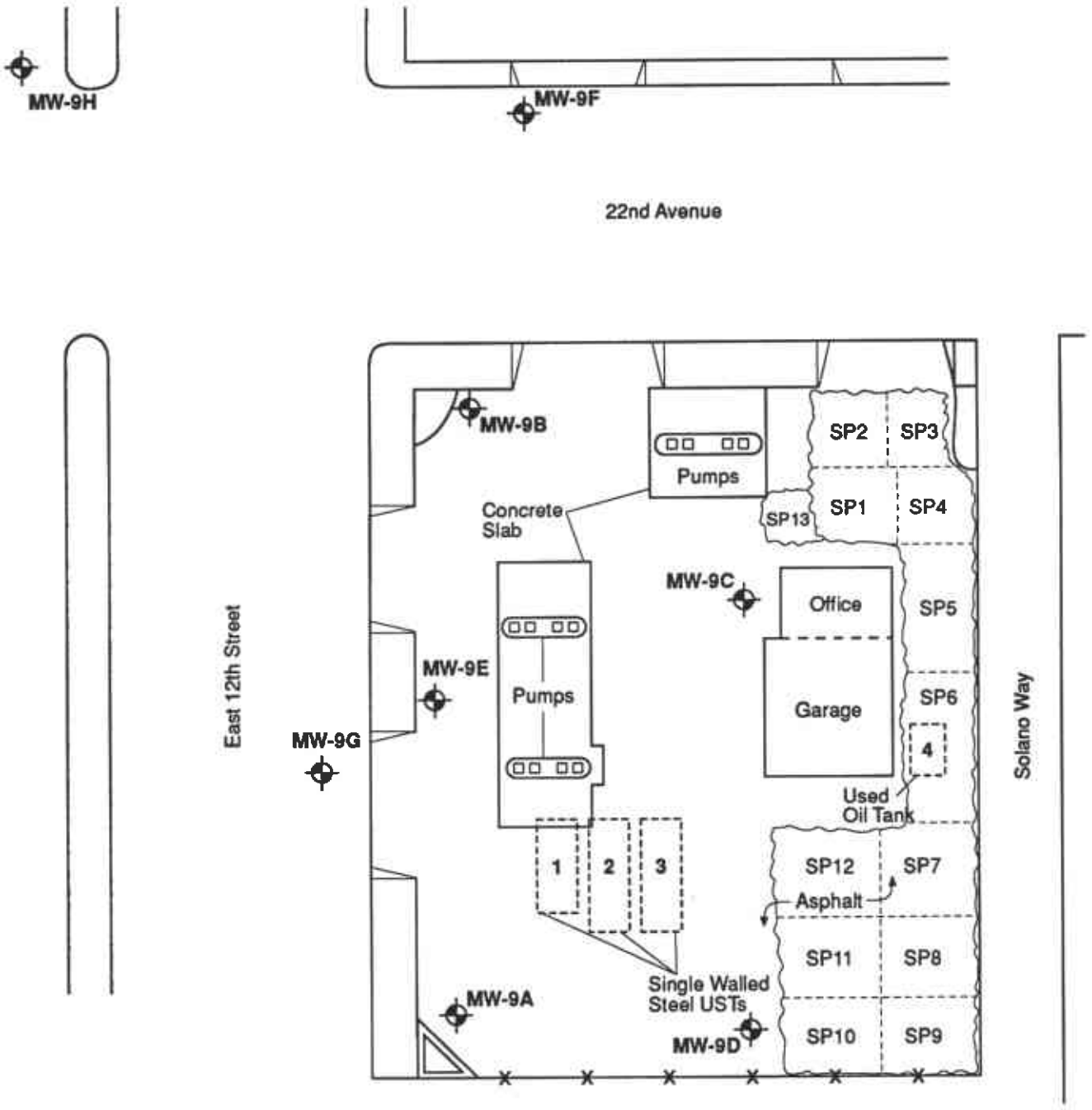
1	7500 gallon	Extra Unleaded Gasoline Tank
2	10,000 gallon	Regular Unleaded Gasoline Tank
3	10,000 gallon	Regular Leaded Gasoline Tank
4	550 gallon	Used Oil Tank

0 50

feet

Source: HLA 1991

Project No. 91C0350A	Exxon RAS 7-0238	LOCATIONS OF TANK AND LINE CLOSURE SOIL SAMPLE LOCATIONS EXXON RAS 7-0238 2200 EAST 12TH STREET, OAKLAND CALIFORNIA	Figure 3
Woodward-Clyde Consultants			



LEGEND

Monitoring Well Location with Number

1	7500 gallon	Extra Unleaded Gasoline Tank
2	10,000 gallon	Regular Unleaded Gasoline Tank
3	10,000 gallon	Regular Leaded Gasoline Tank
4	550 gallon	Used Oil Tank

0 50

feet

Source: HLA 1991

Project No. 91C0350A	Exxon RAS 7-0238	LOCATIONS OF STOCKPILED SOIL AND SOIL SECTIONS 7-0238 2200 EAST 12TH STREET, OAKLAND, CALIFORNIA	Figure 4
Woodward-Clyde Consultants			

APPENDIX A

TRANSPORTATION DOCUMENTATION

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. Form designed for use on elite (12-pitch typewriter).

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAK000028944 — Manifest Document No. 76173
2. Page 1 of
Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 90792586

3. Generator's Name and Mailing Address: EXXON CO., U.S.A. STATION #7-0038; P.O. BOX 4415 HOUSTON, TX 77210-4415

B. State Generator's ID: CAK000028944

4. Generator's Phone

5. Transporter 1 Company Name — 6. US EPA ID Number

C. State Transporter's ID: 204378

D. Transporter's Phone

7. Transporter 2 Company Name — 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: ERICKSON INCORPORATED, 255 PARR BLVD., RICHMOND, CA. 94801

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. EMPTY TANK NON-RCRA HAZARDOUS WASTE SOLID	002	TP	20000	P	State: 512; EPA/Other: NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above

QUANTITY 2 EMPTY STORAGE TANK(S) 7001, 7002, ___, ___. HAVE BEEN INERTED WITH 15 LBS. DRY ICE PER 1000 GAL. CAPACITY. (2) 10,000 GAL TANKS, SWS

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information

KEEP AWAY FROM SOURCES OF IGNITION. ALWAYS WEAR HARDHATS AND GLASSES WHEN WORKING AROUND UNDERGROUND STORAGE TANKS. 24 HR. CONTACT NAME: GREG DEMMOTT AND PHONE:

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: GREG DEMMOTT — Signature: [signature] — Month Day Year:

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: EDWARD HAYWOOD — Signature: [signature] — Month Day Year:

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Servic
Toxic Substances Control Divis
Sacramento, Californ

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000028844
Manifest Document No.: 76173
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: EXXON CO. U.S.A. STATION #7-0238
P.O. BOX 4415 HOUSTON TX 77310-4415
4. Generator's Phone ( )

A. State Manifest Document Number: 90792585
B. State Generator's ID: CAL000028844

5. Transporter 1 Company Name: TRIDENT TRUCK LINE, INC.
6. US EPA ID Number: CAD 9 8 2 4 0 4 3 7 0
C. State Transporter's ID: 204341
D. Transporter's Phone: (415)783-2881

7. Transporter 2 Company Name: N/A
8. US EPA ID Number: —
E. State Transporter's ID: —
F. Transporter's Phone: —

9. Designated Facility Name and Site Address:
ERICKSON INCORPORATED
255 PARR BLVD.
RICHMOND, CA. 94801
10. US EPA ID Number: CAD 0 0 9 4 6 6 3 9 2
G. State Facility's ID: CAD 0 0 9 4 6 6 3 9 2
H. Facility's Phone: (415) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. EMPTY TANK NON-RCRA HAZARDOUS EMPTY TANK	001	TP	08000	P	State: 512 EPA/Other: NONE
b.					State: EPA/Other:
c.					State: EPA/Other:
d.					State: EPA/Other:

J. Additional Descriptions for Materials Listed Above
QUANTITY 1 EMPTY STORAGE TANK(S) 7003.
HAVE BEEN INERTED WITH 15 LBS. DRY ICE PER 1000 GAL. CAPACITY. (1) 7,560 GAL TANK, SNS

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
KEEP AWAY FROM SOURCES OF IGNITION. ALWAYS WEAR HARDHATS AND GLASSES WHEN WORKING AROUND UNDERGROUND STORAGE TANKS. 24 HR. CONTACT NAME: GREG DEMARZO
AND PHONE: (415) 246-8726.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: GREG DEMARZO
Signature: [signature]
Month Day Year: 09 04 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: MIKE WISE
Signature: [signature]
Month Day Year: 09 04 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: —
Signature: —
Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Month Day Year:

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

90792585

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *Form designed for use on elite (12-pitch typewriter).*

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

90649144

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	CA 0000 1 88 H H
Manifest Document No.	44
2. Page 1 of	1
Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address	EXXON U.S.A. STATION# 7-0238 P.O. Box 4415 Houston, TX 77310-4415
4. Generator's Phone	415 246-8785
5. Transporter 1 Company Name	Erickson Inc.
6. US EPA ID Number	CAD009466392
7. Transporter 2 Company Name	
8. US EPA ID Number	
9. Designated Facility Name and Site Address	Gibson/Pilot 475 Seaport Blvd. Redwood City, CA 94063
10. US EPA ID Number	CAD0413246702
A. State Manifest Document Number	90649144
B. State Generator's ID	HWH0363-014878
C. State Transporter's ID	205141
D. Transporter's Phone	510-235-1393
E. State Transporter's ID	
F. Transporter's Phone	
G. State Facility's ID	
H. Facility's Phone	415 364-5511

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Hazardous Waste Liquid N.O.S. ORM-E NA 9189 D018	001	TT	2849 (~~~~)	G	State 223 / EPA/Other D018
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
Water – 85-95%
Oil – 1-10%
Sludge – 1-15%

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
[illegible] 800-[illegible]

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name	Signature	Month Day Year
DAVE DYESS	[signature]	

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Richard Haney	[signature]	1 19

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on Back of Page 6 and Front of Page 7

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CAL000088844 CAD109446439 22 K11126 Manifest Document No.
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 90573946

3. Generator's Name and Mailing Address
Exxon U.S.A. Station # 7-0238
P.O. Box 4415 Houston, Tx. 77310-4415

B. State Generator's ID: IHYHG36-G119878

4. Generator's Phone (415) 246-8785

5. Transporter 1 Company Name: Erickson, Inc.
6. US EPA ID Number: CAD009466392

C. State Transporter's ID: 205138
D. Transporter's Phone: (415) 235-1393

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address
Gibson Oil / Pilot Petroleum
475 Sea Port Blvd.
Redwood City, Ca. 94604
10. US EPA ID Number: CAD043260702

G. State Facility's ID: CAD043260704
H. Facility's Phone: (415) 368-5511

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Hazardous Waste Liquid N.O.S. ORM-E NA 9189 D018	001	TT	5316	G	State 222; EPA/Other None
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
Water 99%
Gas 0-5%
Diesel 0-5%
GOR 56199

K. Handling Codes for Wastes Listed Above
a. 01
b.
c.
d.

15. Special Handling Instructions and Additional Information
Gloves ERG 31 24Hr. Contact Name .
Site: Ph: # 1-800-992-3647
566.73
Profile RT2-033

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: DAVE E. DYESS
Signature: (signature) Sign For: Exxon
Month Day Year: 10 04 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Rodney G. Prowett
Signature: (signature)
Month Day Year: 10 04 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: BILL LEDIN
Signature: (signature)
Month Day Year: 10 04 91

GENERATOR — TRANSPORTER — FACILITY

[redacted] CASE [redacted] AN E[redacted]ENCY [redacted] SPILL [redacted] L THE [redacted] IONA[redacted] SPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-[redacted]-7550

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

White: TSDF SENDS THIS COPY TO DOHS WITHIN 30 DAYS

EXXON INDUSTRIAL WASTE SUMMARY

WHEN COMPLETE MAIL TO: ALDA POOL, EXXON CO. U.S.A.
P.O. BOX 4415, HOUSTON, TX 77210
WASTE ANALYSIS SHOULD BE ATTACHED.

LOCATION: 7-0238

ADDRESS: 2200 E 12th St. CITY: Oakland ST: Ca.

REASON GENERATED: Tank Replacement

SOURCE CODE: A89 FORM CODE: B301

QUANTITY: 239.96 CONTAINERS NO. 10 TYPE DT UNITS (CIRCLE ONE) G P Y (T)

PREPARED BY: Patricia Hill D DATE GENERATED:

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

CITY: P. O. Box 218 STATE: Ca.

PHONE # 510-634-6850 DATE TRANSPORTED: 9/24/91

TSD FACILITY

NAME: Chemical Waste Management, Inc.

ADDRESS: 35251 Old Skyline Road

CITY: Kettleman City

STATE: Ca. ZIP CODE: 93239 PHONE # 800-222-2964

DATE AT TSD FACILITY: 9/24/91

EXXON INDUSTRIAL WASTE SUMMARY

WHEN COMPLETE MAIL TO: ALDA POOL, EXXON CO. U.S.A.
P.O. BOX 4415, HOUSTON, TX 77210
WASTE ANALYSIS SHOULD BE ATTACHED.

LOCATION: 7-0238

ADDRESS: 2200 E. 12th St. CITY: OAKLAND ST: CA.

REASON GENERATED: TANK REPLACEMENT

SOURCE CODE: A89 FORM CODE: B301

QUANTITY: 738 CONTAINERS NO. 41 TYPE DT UNITS (CIRCLE ONE) G P (Y) T

PREPARED BY: Patricia Duell, D DATE GENERATED:

TRANSPORTER

NAME: DILLARD TRUCKING, INC.

CITY: Byron STATE: Ca.

PHONE # 510-634-6850 DATE TRANSPORTED: 9/25/91 & 9/26/91

TSD FACILITY

NAME: Browning Ferris Industries

ADDRESS: 4001 North Vasco Road

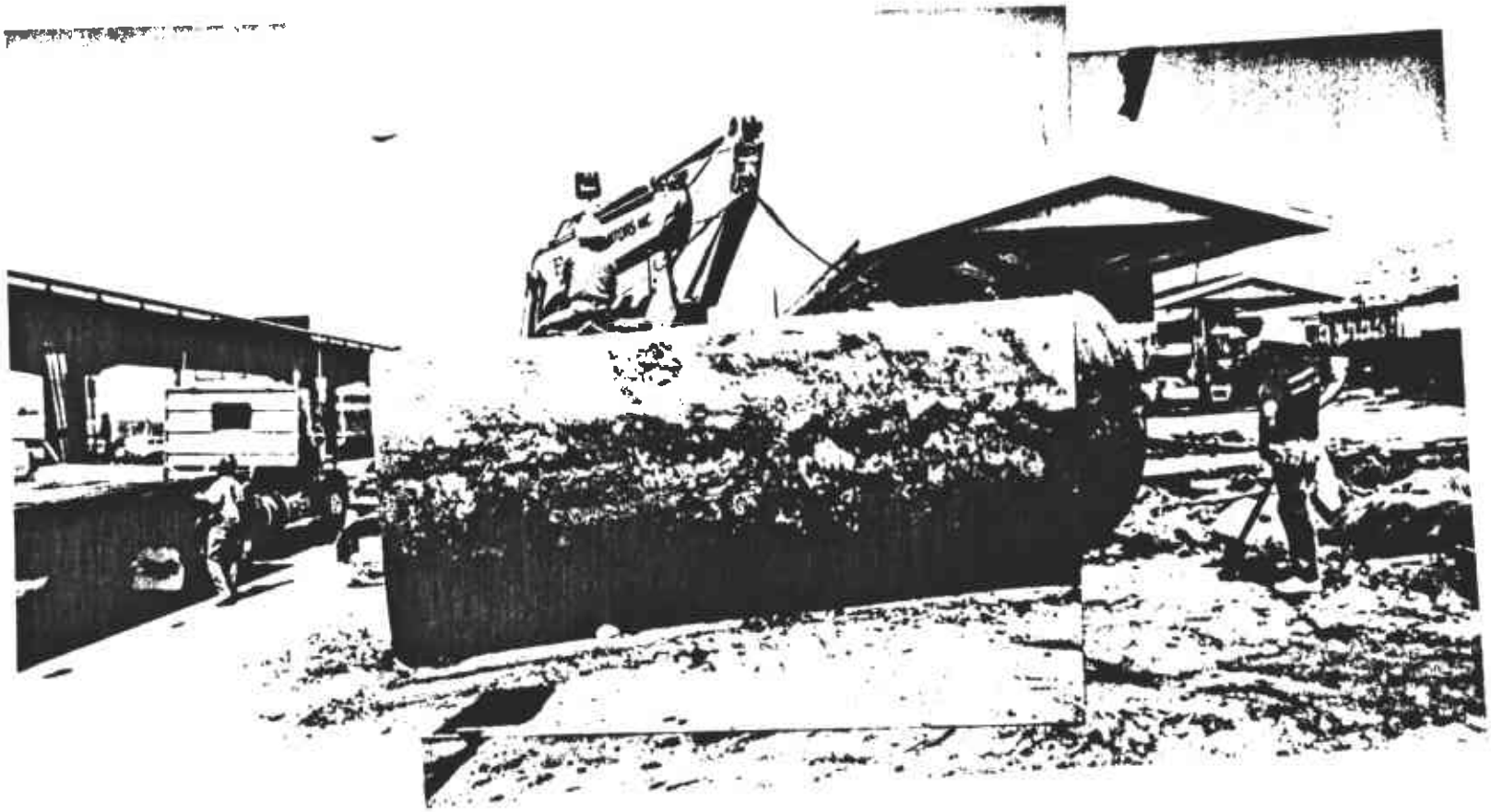
CITY: Livermore

STATE: Ca. ZIP CODE: 94550 PHONE # 510-447-0491

DATE AT TSD FACILITY: 9/25/91 & 9/26/91

APPENDIX B

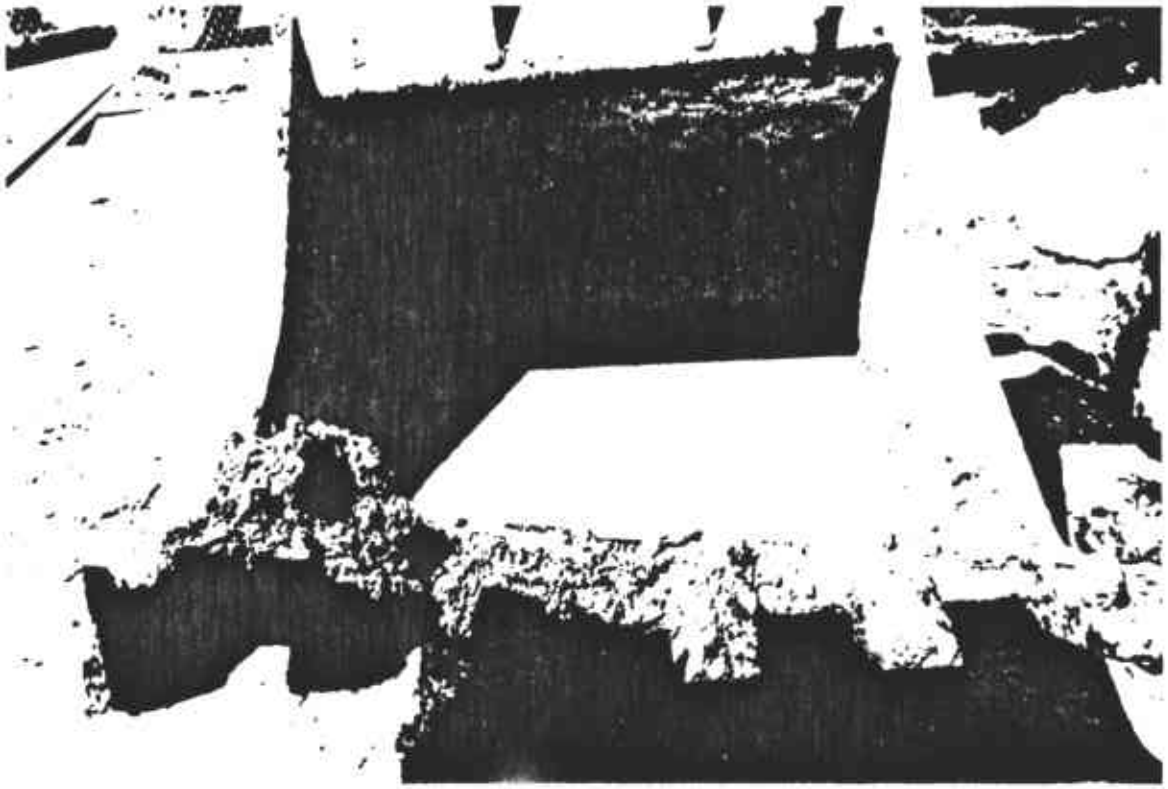
PHOTODOCUMENTATION OF UST REMOVAL



Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

2200 East 12th Street Oakland, California
7,500 gallon Single-walled Steel Extra Unleaded Gasoline Tank

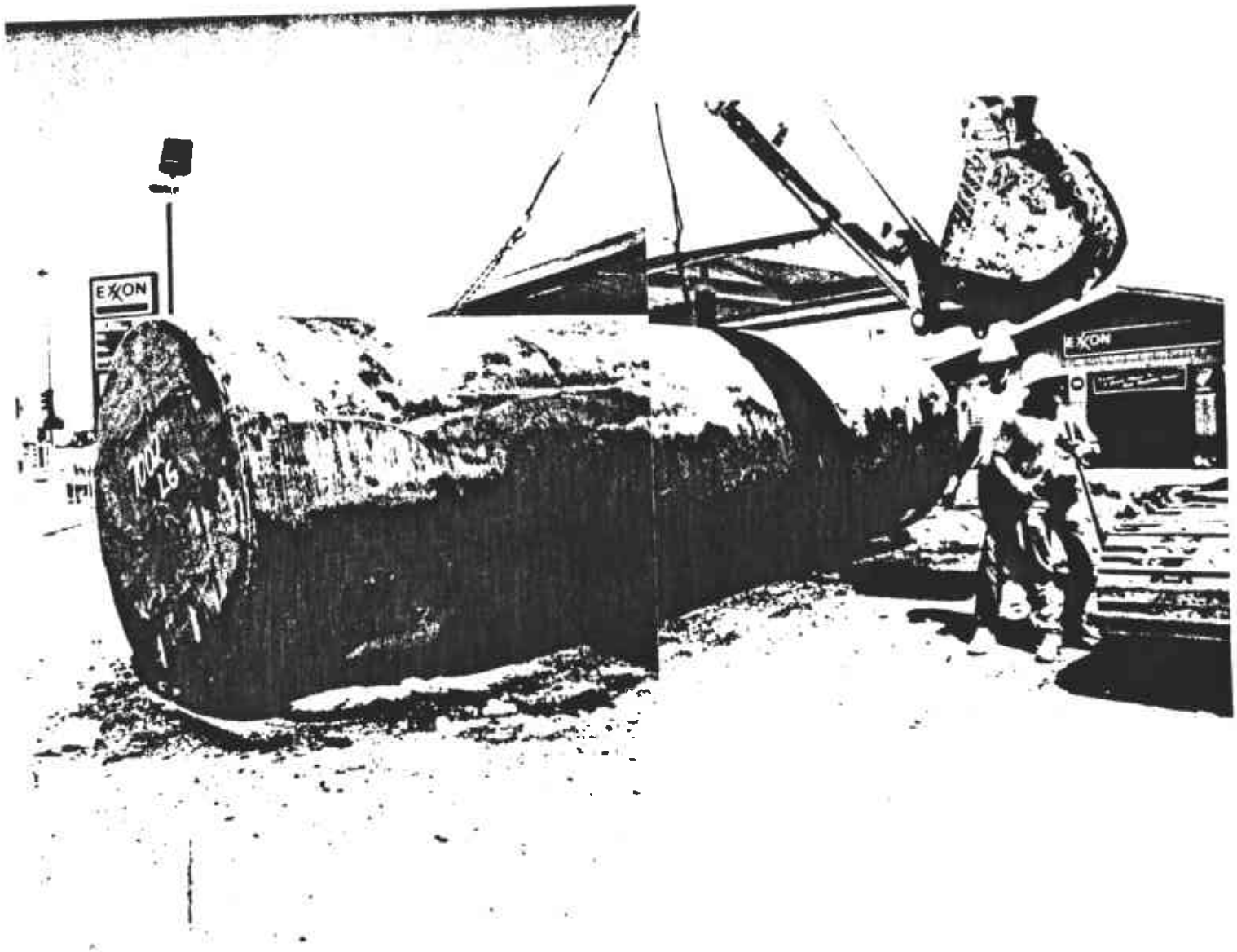
91C0350A



Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

2200 East 12th Street Oakland, California
Water in backhoe bucket from beneath the Extra Unleaded Gasoline Tank

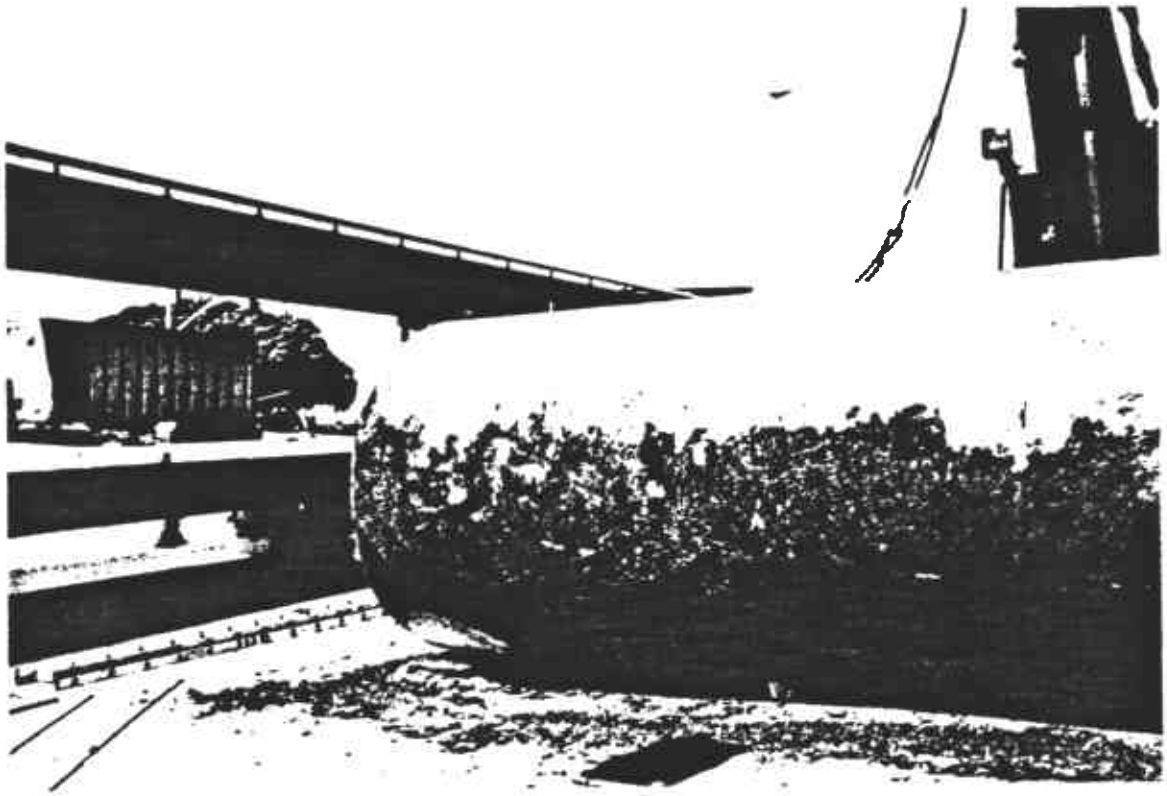
91C0350A



Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

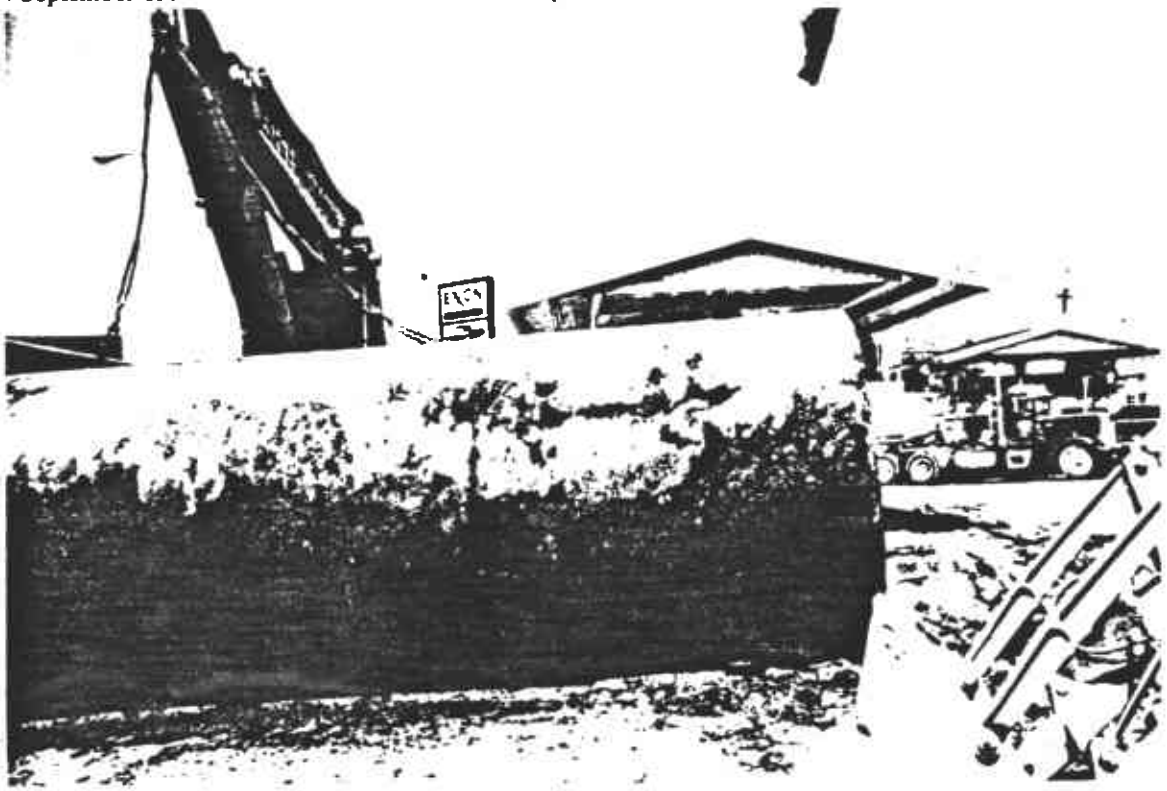
2200 East 12th Street Oakland, California
10,000 gallon Single-walled Steel Regular Leaded Gasoline
Tank (West Side)

91C0350A



Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

2200 East 12th Street Oakland, California
10,000 gallon Single-walled Steel Regular Unleaded Gasoline Tank (East Side, Southern half)



Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

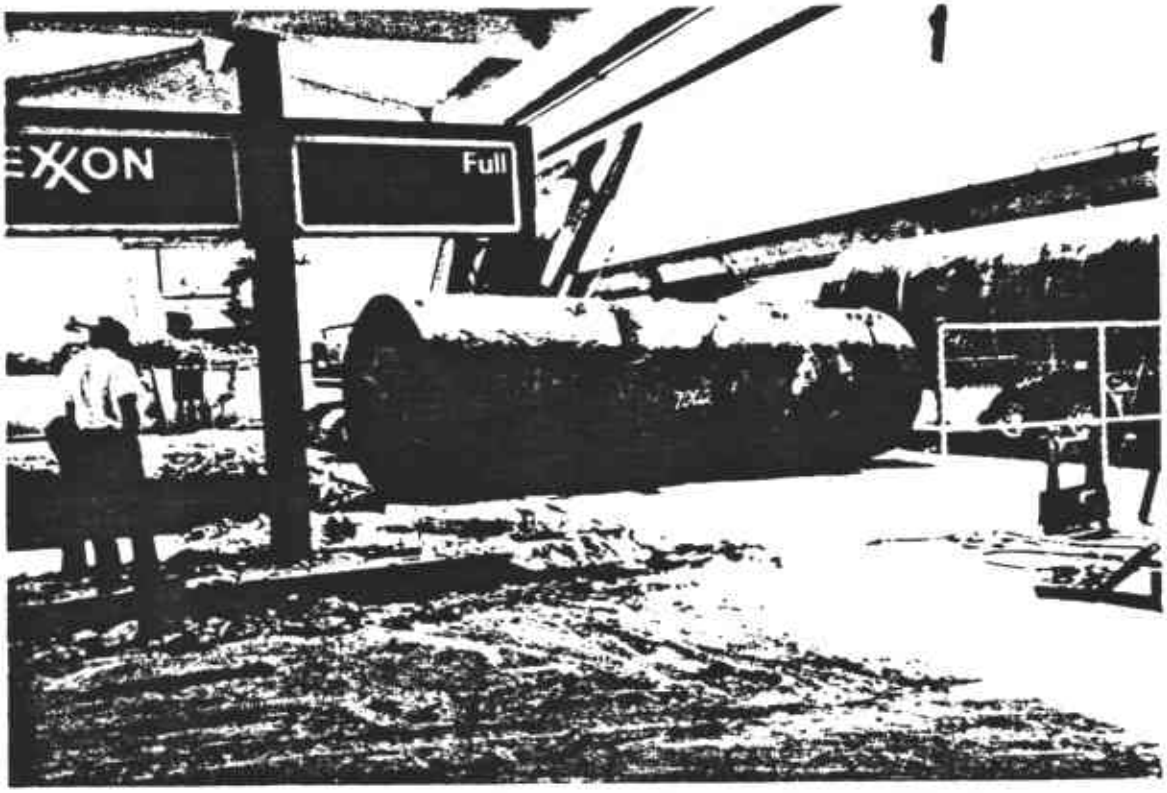
2200 East 12th Street Oakland, California
10,000 gallon Single-walled Steel Regular Unleaded Gasoline Tank (East Side, Northern half)

91C0350A

Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

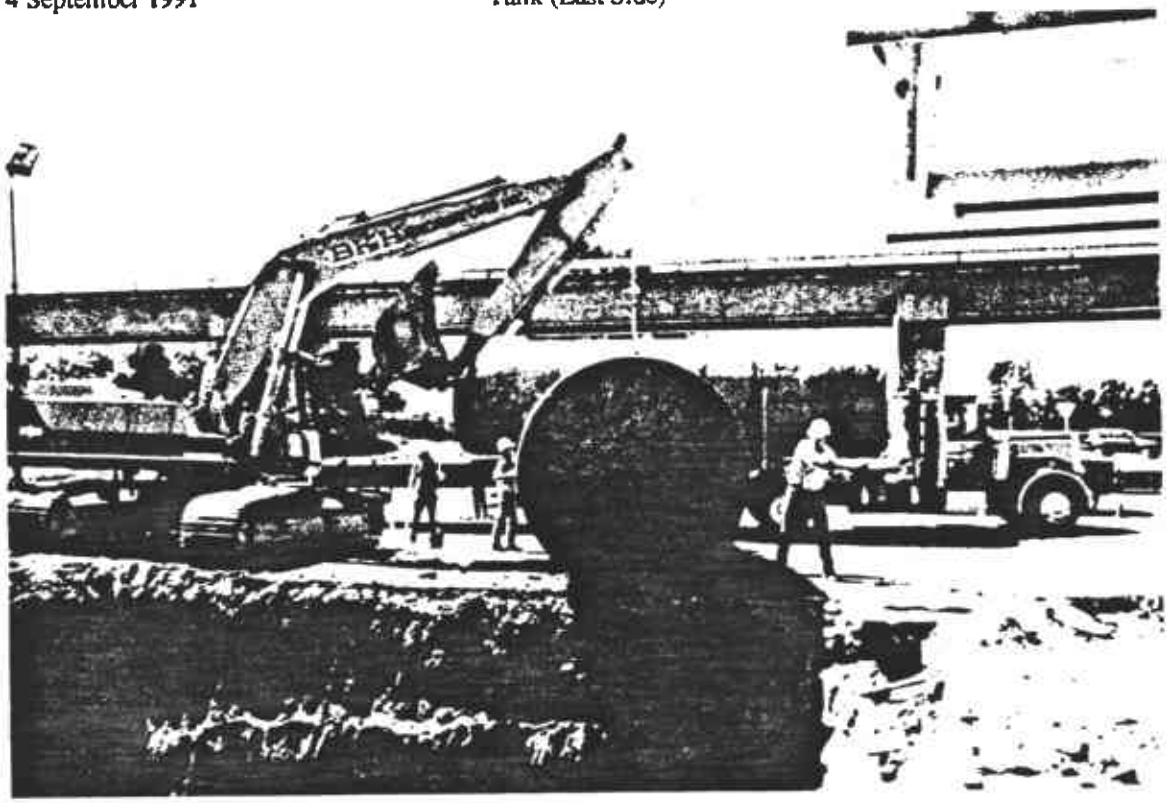
2200 East 12th Street Oakland, California
Tank bottom and sidewalls after removal of Extra Unleaded and Regular Unleaded Gasoline Tanks

91C0350A



Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

2200 East 12th Street Oakland, California
10,000 gallon Single-walled Steel Regular Leaded Gasoline
Tank (East Side)



Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

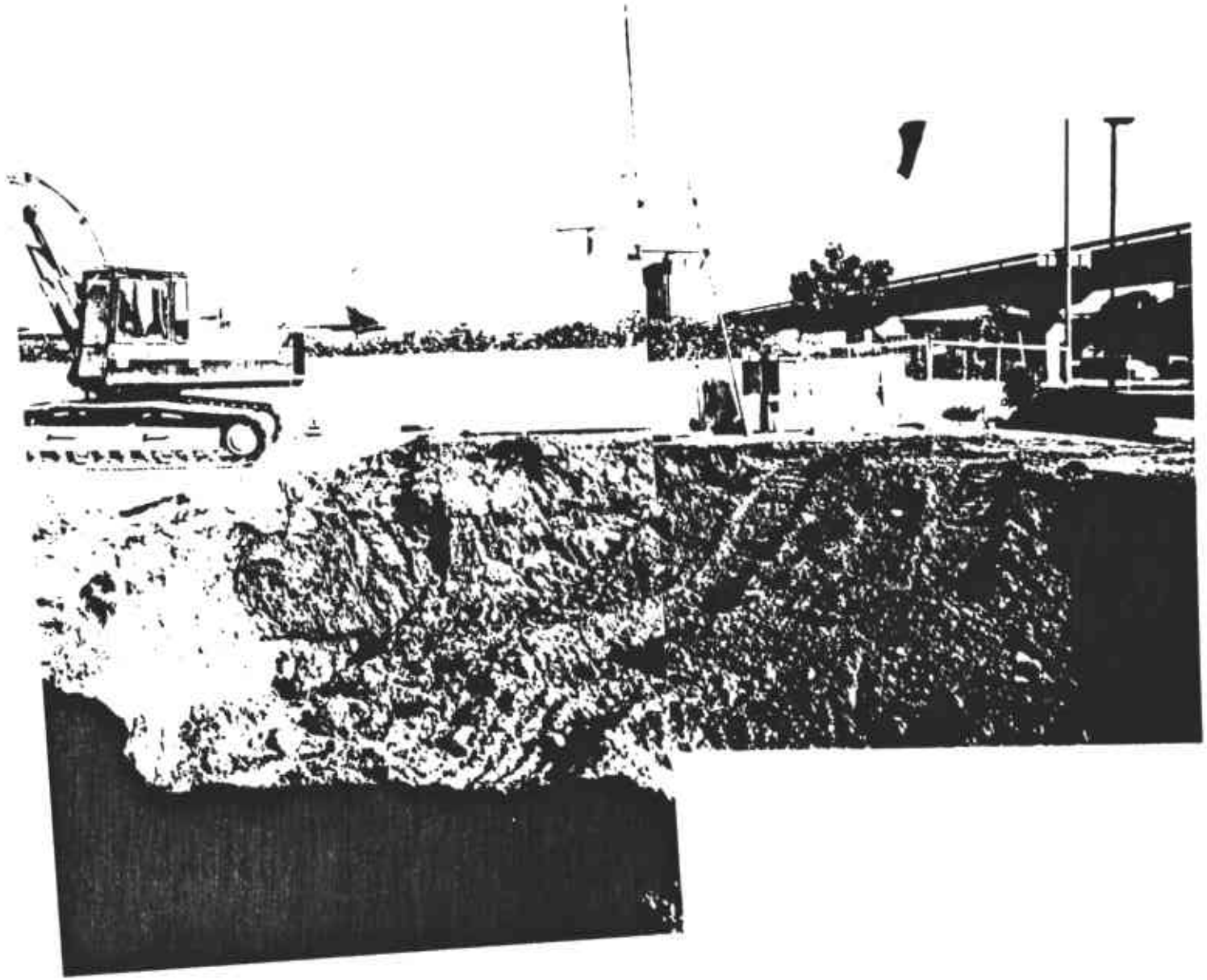
2200 East 12th Street Oakland, California
10,000 gallon Single-walled Steel Regular Leaded Gasoline
Tank (South End)

91C0350A

Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

2200 East 12th Street Oakland, California
Tank field bottom and sidewalls after removal of 10,000 gallon
Regular Leaded Gasoline Tank

91C0350A



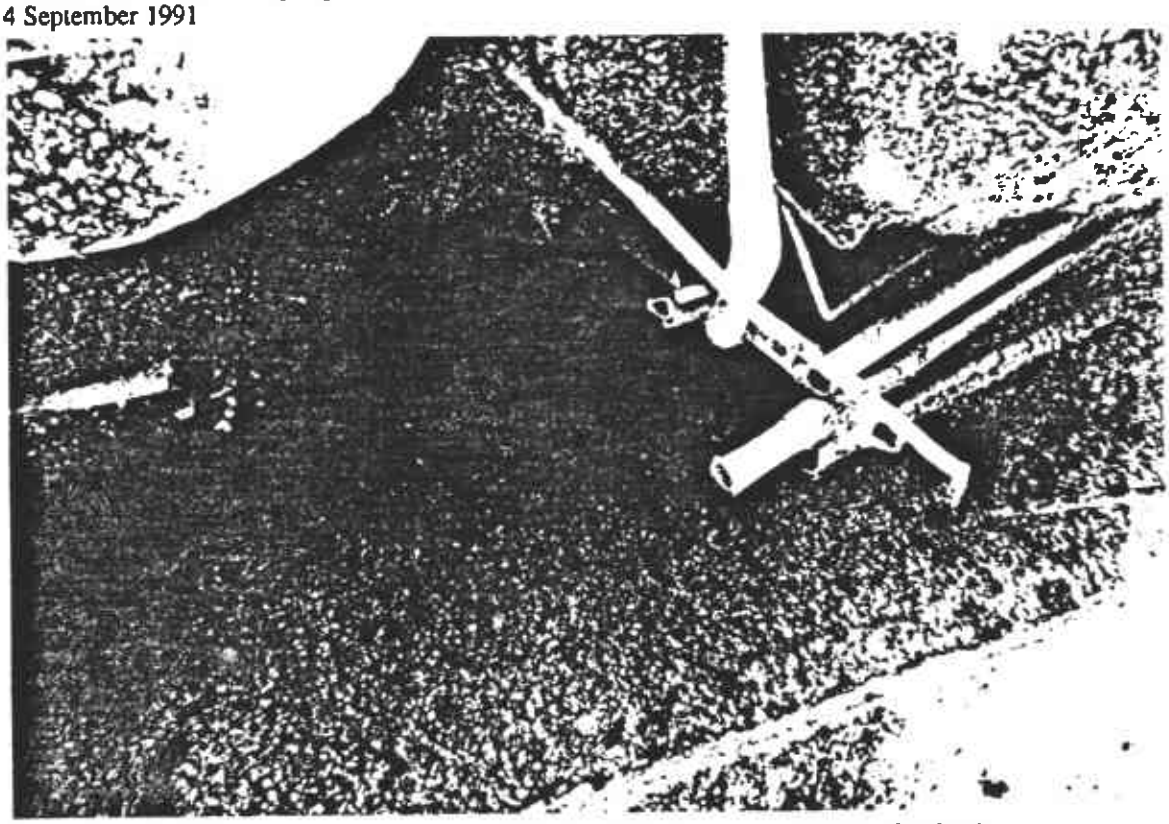
Exxon RAS 7-0238
Underground Storage Tank Removal :
4 September 1991

2200 East 12th Street Oakland, California
Tank field sidewall (south side) after removal of 10,000 gallon
Regular Leaded Gasoline Tank (left hand side)

91C0350A

Exxon RAS 7-0238
Product Line Trench Sampling :
4 September 1991

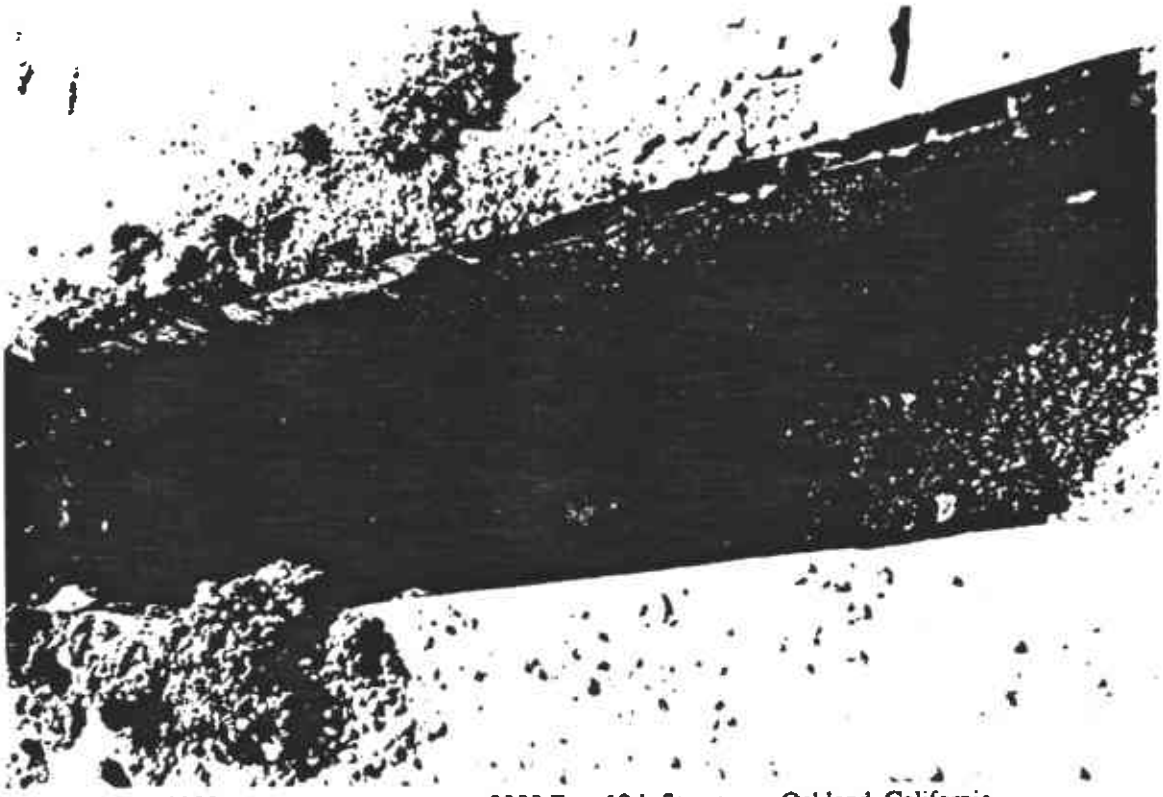
2200 East 12th Street Oakland, California
Soil Sample Location P1



Exxon RAS 7-0238
Product Line Trench Sampling :
4 September 1991

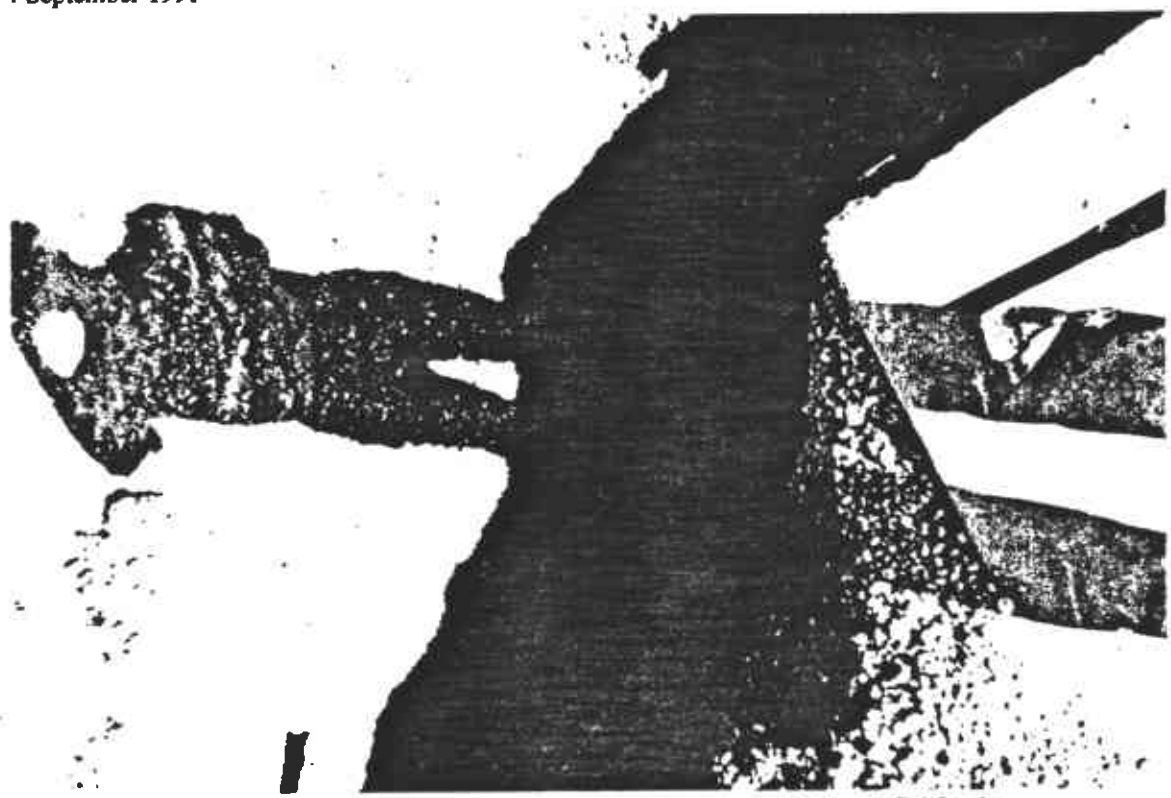
2200 East 12th Street Oakland, California
Soil Sample Location P2

91C0350A



Exxon RAS 7-0238
Product Line Trench Sampling :
4 September 1991

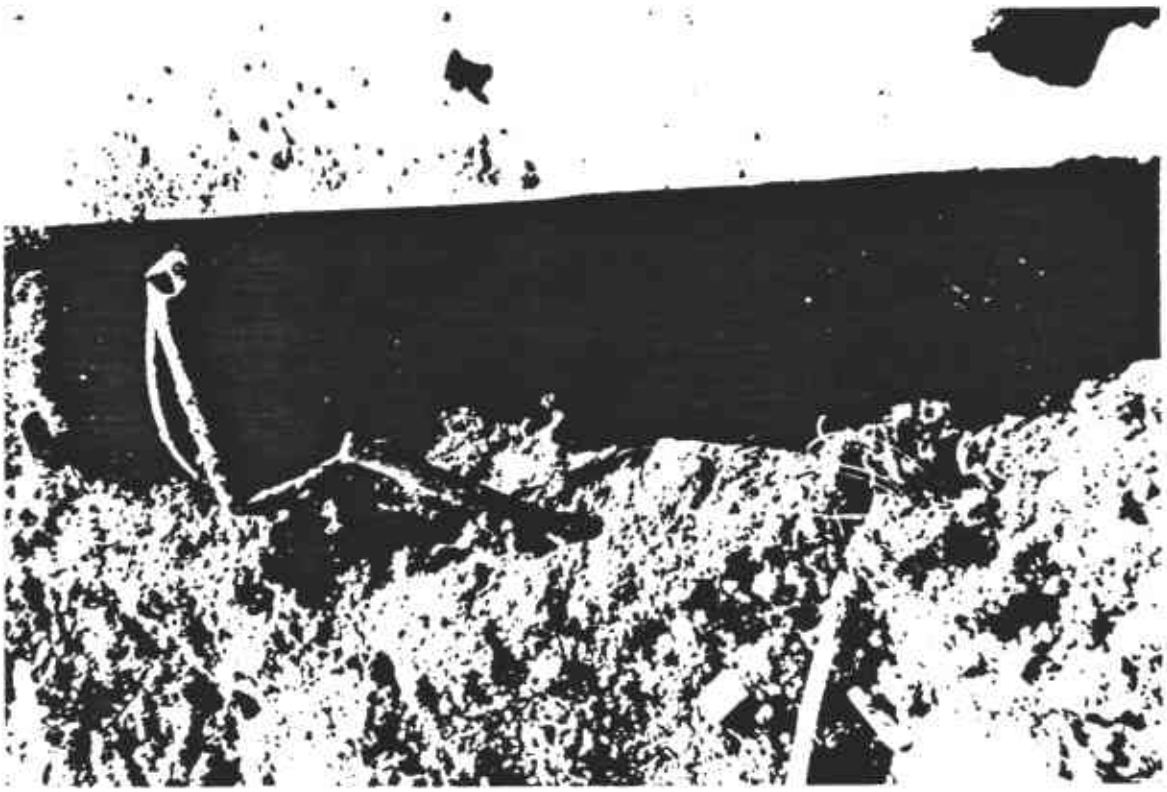
2200 East 12th Street Oakland, California
Soil Sample Location P3



Exxon RAS 7-0238
Product Line Trench Sampling :
4 September 1991

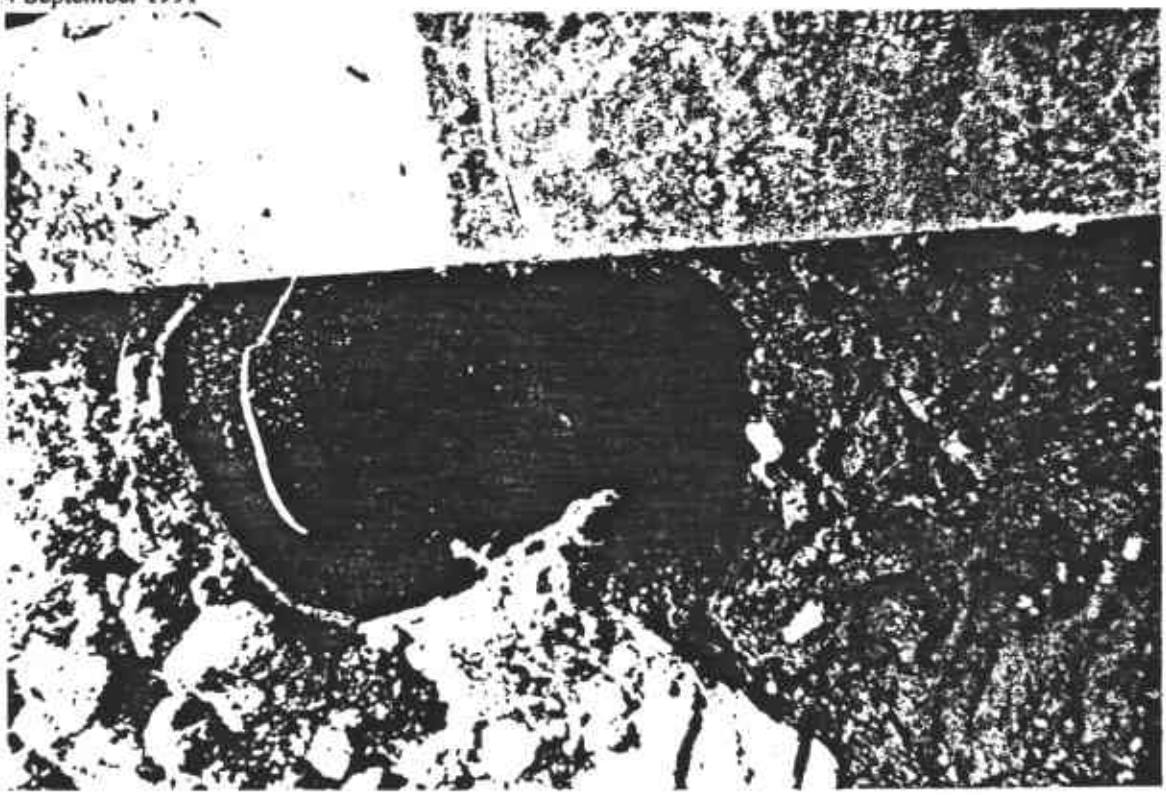
2200 East 12th Street Oakland, California
Soil Sample Location P4

91C0350A



Exxon RAS 7-0238
Product Line Trench Sampling :
4 September 1991

2200 East 12th Street Oakland, California
Soil Sample Location P5



Exxon RAS 7-0238
Product Line Trench Sampling :
4 September 1991

2200 East 12th Street Oakland, California
Soil Sample Location P6

91C0350A

APPENDIX C

LABORATORY-GENERATED
ANALYTICAL REPORTS INCLUDING CHAINS OF CUSTODY

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

September 06, 1991

Ms. Anita Yan
Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

RE: PACE Project No. 410904.503
Exxon 7-0238

Dear Ms. Yan:

Enclosed is the report of laboratory analyses for samples received September 04, 1991.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol Posthuma

Carol Posthuma
Project Manager

Enclosures

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

September 06, 1991
PACE Project Number: 410904503

Attn: Ms. Anita Yan

Exxon 7-0238

PACE Sample Number:			70 0083796	
Date Collected:			09/04/91	
Date Received:			09/04/91	
Parameter	Units	MDL	TP1-11ft.	DATE ANALYZED
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/05/91
Date of Extraction	n/a		ND	09/05/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/04/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	4000	190000	09/04/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/04/91
Benzene	ug/kg wet	20	220	09/04/91
Toluene	ug/kg wet	20	260	09/04/91
Ethylbenzene	ug/kg wet	20	320	09/04/91
Xylenes, Total	ug/kg wet	20	650	09/04/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

Parameter	Units	MDL	70 0083800 09/04/91 09/04/91 TP2-11ft.	DATE ANALYZED
PACE Sample Number:				
Date Collected:				
Date Received:				
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/05/91
Date of Extraction	n/a		ND	09/05/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/04/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	40000	1100000	09/04/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/04/91
Benzene	ug/kg wet	200	880	09/04/91
Toluene	ug/kg wet	200	1600	09/04/91
Ethylbenzene	ug/kg wet	200	14000	09/04/91
Xylenes, Total	ug/kg wet	200	7700	09/04/91
TPH DIESEL, BY EPA METHOD 8015				
Extractable Fuels, as Diesel	mg/kg	25	340	09/05/91
Sonication Extraction, Date Started			9/5/91	09/05/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page . 3

September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

PACE Sample Number:			70 0083818	
Date Collected:			09/04/91	
Date Received:			09/04/91	
Parameter	Units	MDL	TP3-11ft.	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/04/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND	09/04/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/04/91
Benzene	ug/kg wet	1.0	ND	09/04/91
Toluene	ug/kg wet	1.0	ND	09/04/91
Ethylbenzene	ug/kg wet	1.0	ND	09/04/91
Xylenes, Total	ug/kg wet	1.0	ND	09/04/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

PACE Sample Number:			70 0083826	
Date Collected:			09/04/91	
Date Received:			09/04/91	
Parameter	Units	MDL	TP4-11ft.	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/04/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND	09/04/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/04/91
Benzene	ug/kg wet	1.0	ND	09/04/91
Toluene	ug/kg wet	1.0	ND	09/04/91
Ethylbenzene	ug/kg wet	1.0	ND	09/04/91
Xylenes, Total	ug/kg wet	1.0	ND	09/04/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

Parameter	Units	MDL	70 0083834 09/04/91 09/04/91 TP5-11ft.	DATE ANALYZED
PACE Sample Number:				
Date Collected:				
Date Received:				
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/05/91
Date of Extraction	n/a		ND	09/05/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/04/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	780	09/04/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/04/91
Benzene	ug/kg wet	1.0	1.4	09/04/91
Toluene	ug/kg wet	1.0	ND	09/04/91
Ethylbenzene	ug/kg wet	1.0	9.2	09/04/91
Xylenes, Total	ug/kg wet	1.0	25	09/04/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

Parameter	Units	MDL	TP6-11ft.	DATE ANALYZED
PACE Sample Number:			70 0083842	
Date Collected:			09/04/91	
Date Received:			09/04/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/05/91
Date of Extraction	n/a		ND	09/05/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/04/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	470	09/04/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/04/91
Benzene	ug/kg wet	1.0	3.3	09/04/91
Toluene	ug/kg wet	1.0	ND	09/04/91
Ethylbenzene	ug/kg wet	1.0	1.2	09/04/91
Xylenes, Total	ug/kg wet	1.0	1.7	09/04/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

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Ms. Anita Yan
Page 7

QUALITY CONTROL DATA

September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

Organic Lead, as Pb
Batch: 70 05969
Samples: 70 0083796, 70 0083800, 70 0083834, 70 0083842

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	70 0083796 TP1-11ft.	Duplicate of 70 0083796	RPD
Organic Lead, as Pb	mg/kg wet	0.2	ND	ND	ND	NC

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	70 0083796 TP1-11ft.	Spike	Spike Recv	Spike Dupl Recv	RPD
Organic Lead, as Pb	mg/kg wet	0.2	ND	1.25	92%	95%	3%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Organic Lead, as Pb	mg/kg wet	0.2	1.25	95%

MDL Method Detection Limit
RPD Relative Percent Difference
NC No calculation due to value below detection limit.

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page : 8

QUALITY CONTROL DATA

September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

TPH DIESEL, BY EPA METHOD 8015
Batch: 70 05970
Samples: 70 0083800

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Extractable Fuels, as Diesel	mg/kg	5.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Extractable Fuels, as Diesel	mg/kg	5.0	33.3	81%	75%	7%

MDL Method Detection Limit
RPD Relative Percent Difference

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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QUALITY CONTROL DATA

September 06, 1991
PACE Project Number: 410904503

Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 05943
Samples: 70 0083796, 70 0083800, 70 0083818, 70 0083826, 70 0083834
70 0083842

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	385	103%	105%	1%
Benzene	ug/kg wet	1.0	40	89%	91%	2%
Toluene	ug/kg wet	1.0	40	92%	95%	3%
Xylenes, Total	ug/kg wet	1.0	120	96%	98%	2%

MDL Method Detection Limit
RPD Relative Percent Difference

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415

CHAIN OF CUSTODY

Consultant Name: WOODWARD-CLYDE CONSULTANTS
Address: 500 12TH STREET, STE 100
Project Contact: ANITA YAN — Project #: 91C0350A
Phone #: (510) 874-3081 — Fax #: (510) 874 3268
Consultant Work Release #:

Exxon Contact: G. DEMARZO — Phone #: (510) 246-8726
Site RAS #: 7-0238
Site Location: 12TH ST AT 22ND AVENUE
Laboratory Work Release #:

Sampled by (please print): ANITA YAN
Sampler Signature: — Date Sampled: 4 SEP 91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL TPH/GAS/BTEX EPA 8015/8020	SOIL TPH/Diesel EPA 8015	SOIL Organic Lead DHS Method	WATER TPH/GAS/BTEX EPA 8015/602	WATER TPH/Diesel EPA 8015	WATER Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520					Remarks
EXRG 7-0238	4Sep91/1340	W						X		X			83	78.	8		HOLD ANALYSES
TP1-11ft	4Sep91/1400	S			X		*X						↓	79.	6		
TP2-11ft	4Sep91/1410	S			X	X	X							80.	0		*PLEASE ALSO
TP3-11ft	4Sep91/1430	S			X		(X)	→ don't run per [illegible]						81.	8		ANALYZE
TP4-11ft	4Sep91/1440	S			X		(X)	→ 9/5/91 [illegible]						82.	6		~~SAMPLE WITH~~
TP5-11ft	4Sep91/1450	S			X		X							83.	4		~~HIGHEST~~ TPH-G
TP6-11ft	4Sep91/1505	S			X		X							84.	2		CONC FOR
Tripblank		W	yes	(2)									↓	85.	0		TPH-D
																	ANALYZE Org. Pb
A/2, 9/door, J/2																	if TPH-G detected

Cooler No. B-29

Cooler Seal Intact ☐ Yes ☐ No

Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
[signature] / WCC	[signature] - Pace	4Sep91	1505
[signature] / Pace	Tina Meyers Pace	9/4/91	1550

Turnaround Time (circle choice): (24 hr.) 48 hr. 72 hr. 96 hr. 5 workday (standard)

Shipment Method: COURIER

Shipment Date:

Additional Comments:

Distribution: White - Original — Yellow - Exxon — Pink - Lab — Goldenrod - Consultant Field Staff

4109 04.503

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

September 09, 1991

Ms. Anita Yan
Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

RE: PACE Project No. 410905.500
Exxon 7-0238

Dear Ms. Yan:

Enclosed is the report of laboratory analyses for samples received September 05, 1991.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Caron E Dontag

for Carol Posthuma
Project Manager

Enclosures

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REPORT OF LABORATORY ANALYSIS

Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

September 09, 1991
PACE Project Number: 410905500

Attn: Ms. Anita Yan

Exxon 7-0238

Parameter	Units	MDL	P1-3ft	DATE ANALYZED
PACE Sample Number:			70 0083966	
Date Collected:			09/04/91	
Date Received:			09/05/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/06/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/05/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	4000	27000	09/05/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/05/91
Benzene	ug/kg wet	20	440	09/05/91
Toluene	ug/kg wet	20	130	09/05/91
Ethylbenzene	ug/kg wet	20	890	09/05/91
Xylenes, Total	ug/kg wet	20	290	09/05/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 2

September 09, 1991
PACE Project Number: 410905500

Exxon 7-0238

Parameter	Units	MDL	P2-6ft	DATE ANALYZED
PACE Sample Number:			70 0083974	
Date Collected:			09/04/91	
Date Received:			09/05/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/06/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			(PPM)	09/05/91
Purgeable Fuels, as Gasoline (EPA 8015)	mg/kg wet	100	1200	09/05/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			(PPM)	09/05/91
Benzene	mg/kg wet	0.5	10	09/05/91
Toluene	mg/kg wet	0.5	55	09/05/91
Ethylbenzene	mg/kg wet	0.5	16	09/05/91
Xylenes, Total	mg/kg wet	0.5	88	09/05/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 3

September 09, 1991
PACE Project Number: 410905500

Exxon 7-0238

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0083982	
Date Collected:			09/04/91	
Date Received:			09/05/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/06/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/05/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	4000	190000	09/05/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/05/91
Benzene	ug/kg wet	20	410	09/05/91
Toluene	ug/kg wet	20	2200	09/05/91
Ethylbenzene	ug/kg wet	20	930	09/05/91
Xylenes, Total	ug/kg wet	20	5400	09/05/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 4

September 09, 1991
PACE Project Number: 410905500

Exxon 7-0238

PACE Sample Number:			70 0083990	
Date Collected:			09/04/91	
Date Received:			09/05/91	
Parameter	Units	MDL	P4-4ft	DATE ANALYZED
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/06/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/05/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	1000	1900	09/05/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/05/91
Benzene	ug/kg wet	5.0	7.0	09/05/91
Toluene	ug/kg wet	5.0	13	09/05/91
Ethylbenzene	ug/kg wet	5.0	24	09/05/91
Xylenes, Total	ug/kg wet	5.0	34	09/05/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 09, 1991
PACE Project Number: 410905500

Exxon 7-0238

Parameter	Units	MDL	P5-3ft	DATE ANALYZED
PACE Sample Number:			70 0084008	
Date Collected:			09/04/91	
Date Received:			09/05/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/06/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/05/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	2000	35000	09/05/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/05/91
Benzene	ug/kg wet	10	410	09/05/91
Toluene	ug/kg wet	10	260	09/05/91
Ethylbenzene	ug/kg wet	10	340	09/05/91
Xylenes, Total	ug/kg wet	10	1400	09/05/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 6

September 09, 1991
PACE Project Number: 410905500

Exxon 7-0238

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0084016	
Date Collected:			09/04/91	
Date Received:			09/05/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/06/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/05/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	4000	240000	09/05/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/05/91
Benzene	ug/kg wet	20	180	09/05/91
Toluene	ug/kg wet	20	670	09/05/91
Ethylbenzene	ug/kg wet	20	1700	09/05/91
Xylenes, Total	ug/kg wet	20	2700	09/05/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 7

QUALITY CONTROL DATA

September 09, 1991
PACE Project Number: 410905500

Exxon 7-0238

Organic Lead, as Pb
Batch: 70 05987
Samples: 70 0083966, 70 0083974, 70 0083982, 70 0083990, 70 0084008
70 0084016

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	70 0083966 P1-3ft	Duplicate of 70 0083966	RPD
Organic Lead, as Pb	mg/kg wet	0.2	ND	ND	ND	NC

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	70 0083966 P1-3ft	Spike	Spike Recv	Spike Dupl Recv	RPD
Organic Lead, as Pb	mg/kg wet	0.2	ND	1.25	93%	96%	3%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Organic Lead, as Pb	mg/kg wet	0.2	1.25	98%

MDL Method Detection Limit
RPD Relative Percent Difference
NC No calculation due to value below detection limit.

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 8

QUALITY CONTROL DATA

September 09, 1991
PACE Project Number: 410905500

Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 05981
Samples: 70 0083966, 70 0083974, 70 0083982, 70 0083990, 70 0084008
70 0084016

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	350	104%	102%	1%
Benzene	ug/kg wet	1.0	40	95%	91%	4%
Toluene	ug/kg wet	1.0	40	98%	94%	4%
Xylenes, Total	ug/kg wet	1.0	120	107%	102%	4%

MDL Method Detection Limit
RPD Relative Percent Difference

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415
CHAIN OF CUSTODY

Consultant Name: WOODWARD-CLYDE CONSULTANTS
Address: 500 12TH STREET SUITE 100#
Project Contact: ANITA YAN Project #: 91CD350A
Phone #: (510) 874 3081 Fax #: (510) 874 3268
Consultant Work Release #: 91045252

Exxon Contact: G. DEMARZO Phone #: (510) 246 8726
Site RAS #: 7-0238
Site Location: 12th ST @ 22ND AVENUE, OAKLAND
Laboratory Work Release #:

Sampled by (please print): ANITA YAN
Sampler Signature: [signature] Date Sampled: 4 Sep 91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520					Remarks
P-1 - 2ft	4 Sep 91 / 1555	S	8395.8		X		✓					← HOLD per A.Y.					✓ = analyze
P1 - 3ft	4 Sep 91 / 1605	S	8396.6		X		✓					11:30 AM 5/6					organic lead
P2 - 6ft	4 Sep 91 / 1610	S	8394.4		X		✓										only if TPH-G
P3 - 3ft	4 Sep 91 / 1615	S	8398.2		X		✓										for that sample
P4 - 4ft	4 Sep 91 / 1625	S	8399.0		X		✓										is detectable.
P5 - 3ft	4 Sep 91 / 1635	S	8400.8		X		✓										
P6 - 3ft	4 Sep 91 / 1640	S	8401.6		X		✓										
ON ICE																	

Cooler No.	Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
B-23	[signature]	[signature] - PACE	9/5/91	1015
Cooler Seal Intact ☐ Yes ☐ No	[signature] - Exxon	[signature] PACE	9/5	1055

Turnaround Time (circle choice): (24 hr.) 48 hr. 72 hr. 96 hr. 5 workday (standard)

Shipment Method: COURIER
Shipment Date: 5 SEP 91

Additional Comments:
Please call ASAP w/ TPH-G/BTEX results
Release # 91127830

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff

410405.500

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REPORT OF LABORATORY ANALYSIS

September 11, 1991

Ms. Anita Yan
Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

RE: PACE Project No. 410906.501
Exxon 7-0238

Dear Ms. Yan:

Enclosed is the report of laboratory analyses for samples received September 06, 1991.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol Posthuma

Carol Posthuma
Project Manager

Enclosures

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

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REPORT OF LABORATORY ANALYSIS

Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

September 11, 1991
PACE Project Number: 410906501

Attn: Ms. Anita Yan

Exxon 7-0238

PACE Sample Number:			70 0084776	
Date Collected:			09/05/91	
Date Received:			09/06/91	
Parameter	Units	MDL	TC1-12ft	DATE ANALYZED
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/09/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/06/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	2500	09/06/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/06/91
Benzene	ug/kg wet	1.0	5.0	09/06/91
Toluene	ug/kg wet	1.0	12	09/06/91
Ethylbenzene	ug/kg wet	1.0	78	09/06/91
Xylenes, Total	ug/kg wet	1.0	120	09/06/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

September 11, 1991
PACE Project Number: 410906501

Exxon 7-0238

Parameter	Units	MDL	TC2-11ft	DATE ANALYZED
PACE Sample Number:			70 0084784	
Date Collected:			09/05/91	
Date Received:			09/06/91	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/06/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND	09/06/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/06/91
Benzene	ug/kg wet	1.0	ND	09/06/91
Toluene	ug/kg wet	1.0	ND	09/06/91
Ethylbenzene	ug/kg wet	1.0	ND	09/06/91
Xylenes, Total	ug/kg wet	1.0	ND	09/06/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 3

September 11, 1991
PACE Project Number: 410906501

Exxon 7-0238

Parameter	Units	MDL	TC2- 5ft	DATE ANALYZED
PACE Sample Number:			70 0084792	
Date Collected:			09/05/91	
Date Received:			09/06/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/09/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/06/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	2000	09/06/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/06/91
Benzene	ug/kg wet	1.0	78	09/06/91
Toluene	ug/kg wet	1.0	22	09/06/91
Ethylbenzene	ug/kg wet	1.0	9.0	09/06/91
Xylenes, Total	ug/kg wet	1.0	13	09/06/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 4

September 11, 1991
PACE Project Number: 410906501

Exxon 7-0238

Parameter	Units	MDL	TC3- 5ft	DATE ANALYZED
PACE Sample Number:			70 0084806	
Date Collected:			09/05/91	
Date Received:			09/06/91	
INORGANIC ANALYSIS				
ORGANIC LEAD IN SOIL; CA DHS METHOD #338				
Organic Lead, as Pb	mg/kg wet	0.2	ND	09/09/91
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/06/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	1600	09/06/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/06/91
Benzene	ug/kg wet	1.0	26	09/06/91
Toluene	ug/kg wet	1.0	17	09/06/91
Ethylbenzene	ug/kg wet	1.0	4.3	09/06/91
Xylenes, Total	ug/kg wet	1.0	11	09/06/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 5

September 11, 1991
PACE Project Number: 410906501

Exxon 7-0238

Parameter	Units	MDL	TC3-12ft	DATE ANALYZED
PACE Sample Number:			70 0084814	
Date Collected:			09/05/91	
Date Received:			09/06/91	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/06/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND	09/06/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/06/91
Benzene	ug/kg wet	1.0	ND	09/06/91
Toluene	ug/kg wet	1.0	ND	09/06/91
Ethylbenzene	ug/kg wet	1.0	ND	09/06/91
Xylenes, Total	ug/kg wet	1.0	ND	09/06/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 6

September 11, 1991
PACE Project Number: 410906501

Exxon 7-0238

Parameter	Units	MDL	TC4-11ft	DATE ANALYZED
PACE Sample Number:			70 0084822	
Date Collected:			09/05/91	
Date Received:			09/06/91	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/06/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND	09/06/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/06/91
Benzene	ug/kg wet	1.0	ND	09/06/91
Toluene	ug/kg wet	1.0	ND	09/06/91
Ethylbenzene	ug/kg wet	1.0	ND	09/06/91
Xylenes, Total	ug/kg wet	1.0	1.8(CM)	09/06/91

MDL Method Detection Limit
ND Not detected at or above the MDL.
(CM) This analyte was present on the confirmation run but was below the MDL.

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 7

QUALITY CONTROL DATA

September 11, 1991
PACE Project Number: 410906501

Exxon 7-0238

Organic Lead, as Pb
Batch: 70 06034
Samples: 70 0084776, 70 0084792, 70 0084806

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	70 0084806 TC3- 5ft	Duplicate of 70 0084806	RPD
Organic Lead, as Pb	mg/kg wet	0.2	ND	ND	ND	NC

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	70 0084806 TC3- 5ft	Spike	Spike Recv	Spike Dupl Recv	RPD
Organic Lead, as Pb	mg/kg wet	0.2	ND	1.25	98%	95%	3%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Organic Lead, as Pb	mg/kg wet	0.2	1.25	105%

MDL Method Detection Limit
RPD Relative Percent Difference
NC No calculation due to value below detection limit.

Ms. Anita Yan
Page 8

QUALITY CONTROL DATA

September 11, 1991
PACE Project Number: 410906501

Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 05988
Samples: 70 0084776, 70 0084784, 70 0084792, 70 0084806, 70 0084814
70 0084822

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	350	105%	107%	1%
Benzene	ug/kg wet	1.0	40	92%	89%	3%
Toluene	ug/kg wet	1.0	40	94%	91%	3%
Xylenes, Total	ug/kg wet	1.0	120	103%	99%	3%

MDL Method Detection Limit
RPD Relative Percent Difference

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CHAIN OF CUSTODY

Consultant Name: WOODWARD-CLYDE CONSULTANTS
Address: 500 12th St Ste 100 Oakland, CA
Project Contact: ANITA YAN Project #: 91C0350A
Phone #: (510) 874 3081 Fax #: 510 874 3268
Consultant Work Release #: ~~91045252~~ 91045252

Exxon Contact: G. DEMARZO Phone #: (510) 246 8726
Site RAS #: 7-0238
Site Location: 12th St at 22nd Ave, Oakland, CA
Laboratory Work Release #:

Sampled by (please print): ANITA YAN
Sampler Signature: [signature] Date Sampled: 5 Sep 91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520	Remarks
TC1-12ft	5Sep 91/1505	S	8477.6		X								
TC2-11ft	5Sep 91/1520	S	8478.4		X								
TC2-5ft	5Sep 91/1525	S	8479.2		X								
TC3-5ft	5Sep 91/1535	S	8480.6		X								
TC3-12ft	5Sep 91/1545	S	8481.4		X								
TC4-11ft	5Sep 91/1605	S	8482.2		X								

Cooler No.	Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
1	[signature]	[signature] - Pace	9/6/91	1000
	[signature] - Pace	Steph Matz PACE	9/6	1030

Cooler Seal Intact: ☒ Yes ☐ No

Turnaround Time (circle choice): (24 hr.) 48 hr. 72 hr. 96 hr. 5 workday (standard)

Shipment Method: COURIER

Shipment Date: 6 Sep 91

Additional Comments:
Also analyze each sample for organic Pb if TPH(gas) is detectable.
Release # 91127844

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff

410906.501

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REPORT OF LABORATORY ANALYSIS

September 12, 1991

Ms. Anita Yan
Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

RE: PACE Project No. 410911.506
Exxon 7-0238

Dear Ms. Yan:

Enclosed is the report of laboratory analyses for samples received September 11, 1991.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol Posthuma

Carol Posthuma
Project Manager

Enclosures

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

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REPORT OF LABORATORY ANALYSIS

Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

September 12, 1991
PACE Project Number: 410911506

Attn: Ms. Anita Yan

Exxon 7-0238

PACE Sample Number:				70 0087201	
Date Collected:				09/11/91	
Date Received:				09/11/91	
Parameter	Units		MDL	P3-12ft	DATE ANALYZED
ORGANIC ANALYSIS					
TPH GASOLINE/BTEX					
TOTAL FUEL HYDROCARBONS, (LIGHT):				-	09/11/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg	wet	1000	1500	09/11/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):				-	09/11/91
Benzene	ug/kg	wet	5.0	680	09/11/91
Toluene	ug/kg	wet	5.0	ND	09/11/91
Ethylbenzene	ug/kg	wet	5.0	ND	09/11/91
Xylenes, Total	ug/kg	wet	5.0	9.0	09/11/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 2

September 12, 1991
PACE Project Number: 410911506

Exxon 7-0238

Parameter	Units	MDL	70 0087210 09/11/91 09/11/91 P2-13ft	DATE ANALYZED
PACE Sample Number:				
Date Collected:				
Date Received:				
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/11/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	250	09/11/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/11/91
Benzene	ug/kg wet	1.0	14	09/11/91
Toluene	ug/kg wet	1.0	7.7	09/11/91
Ethylbenzene	ug/kg wet	1.0	7.0	09/11/91
Xylenes, Total	ug/kg wet	1.0	23	09/11/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 3

September 12, 1991
PACE Project Number: 410911506

Exxon 7-0238

Parameter	Units	MDL	70 0087228 09/11/91 09/11/91 P6-11ft	DATE ANALYZED
PACE Sample Number:				
Date Collected:				
Date Received:				
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/11/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	1000	1300	09/11/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/11/91
Benzene	ug/kg wet	5.0	ND	09/11/91
Toluene	ug/kg wet	5.0	ND	09/11/91
Ethylbenzene	ug/kg wet	5.0	81	09/11/91
Xylenes, Total	ug/kg wet	5.0	370	09/11/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

These data have been reviewed and are approved for release.

Darrell Carin for

Mark A. Valentini, Ph.D.
Regional Director

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 4

QUALITY CONTROL DATA

September 12, 1991
PACE Project Number: 410911506

Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 06092
Samples: 70 0087210, 70 0087228

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	350	102%	109%	6%
Benzene	ug/kg wet	1.0	40	89%	88%	1%
Toluene	ug/kg wet	1.0	40	91%	90%	1%
Xylenes, Total	ug/kg wet	1.0	120	98%	98%	0%

MDL Method Detection Limit
RPD Relative Percent Difference

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
Page 5

QUALITY CONTROL DATA

September 12, 1991
PACE Project Number: 410911506

Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 06093
Samples: 70 0087201

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 801	ug/kg wet	200	385	100%	101%	0%
Benzene	ug/kg wet	1.0	40	85%	87%	2%
Toluene	ug/kg wet	1.0	40	88%	90%	2%
Xylenes, Total	ug/kg wet	1.0	120	92%	94%	2%

MDL Method Detection Limit
RPD Relative Percent Difference

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415
CHAIN OF CUSTODY

Consultant Name: WOODWARD-CLYDE CONSULTANTS
Address: 500 12th Street, Suite 100
Project Contact: ANITA YAN Project #: 91C0350A
Phone #: (510) 874 3081 Fax #: (510) 874 3268
Consultant Work Release #: 91045252

Exxon Contact: GREG DEMARZO Phone #: (510) 246 8726
Site RAS #: 7-0238
Site Location: 2200 E. 12th St. Oakland, CA
Laboratory Work Release #:

Sampled by (please print): ANITA YAN
Sampler Signature: [signature] Date Sampled: 11 Sep 91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520	Remarks
P3-12ft	9/11/91 0940	S		1	X								8720.1
P2-13ft	11Sep 91 1015	S		1	X								21.0
P6-11ft	11Sep 91 1110	S		1	X								22.8
K/4													

Cooler No.: D-4
Cooler Seal Intact: ☐ Yes ☐ No
Turnaround Time (circle choice): (24 hr.) 48 hr. 72 hr. 96 hr. 5 workday (standard)
Shipment Method: COURIER
Shipment Date: 11 Sep 91

Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
[signature] Woodward-Clyde	Donald Zolanski Pace	9/11/91	1500
Donald Zolanski Pace	Stephen Matzura PACE	9/11/91	1710

Additional Comments:

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff

41011506

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REPORT OF LABORATORY ANALYSIS

September 19, 1991

Ms. Anita Yan
Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

RE: PACE Project No. 410912.503
Client Reference: Exxon 7-0238

Dear Ms. Yan:

Enclosed is the report of laboratory analyses for samples received September 12, 1991.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol Posthuma

Carol Posthuma
Project Manager

Enclosures

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

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REPORT OF LABORATORY ANALYSIS

Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

September 19, 1991
PACE Project Number: 410912503

Attn: Ms. Anita Yan

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0087961	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP1A+B+C+D	
Parameter	Units	MDL	Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/13/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	3000	09/13/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/13/91
Benzene	ug/kg wet	1.0	ND	09/13/91
Toluene	ug/kg wet	1.0	ND	09/13/91
Ethylbenzene	ug/kg wet	1.0	5.3	09/13/91
Xylenes, Total	ug/kg wet	1.0	5.9	09/13/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0087970	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP2A+B+C+D	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/13/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND	09/13/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/13/91
Benzene	ug/kg wet	1.0	ND	09/13/91
Toluene	ug/kg wet	1.0	ND	09/13/91
Ethylbenzene	ug/kg wet	1.0	ND	09/13/91
Xylenes, Total	ug/kg wet	1.0	ND	09/13/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0087988	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP3A+B+C+D	
Parameter	Units	MDL	Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/13/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	360	09/13/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/13/91
Benzene	ug/kg wet	1.0	ND	09/13/91
Toluene	ug/kg wet	1.0	ND	09/13/91
Ethylbenzene	ug/kg wet	1.0	ND	09/13/91
Xylenes, Total	ug/kg wet	1.0	1.4	09/13/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Parameter	Units	MDL	70 0087996 09/11/91 09/12/91 SP4A+B+C+D Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/16/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	820	09/16/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/16/91
Benzene	ug/kg wet	1.0	ND	09/16/91
Toluene	ug/kg wet	1.0	5.8	09/16/91
Ethylbenzene	ug/kg wet	1.0	1.7	09/16/91
Xylenes, Total	ug/kg wet	1.0	11	09/16/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0088003	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP5A+B+C+D	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/16/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	2000	72000	09/16/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/16/91
Benzene	ug/kg wet	10	ND	09/16/91
Toluene	ug/kg wet	10	670	09/16/91
Ethylbenzene	ug/kg wet	10	600	09/16/91
Xylenes, Total	ug/kg wet	10	710	09/16/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Parameter	Units	MDL	70 0088011 09/11/91 09/12/91 SP6A+B+C+D Composite	DATE ANALYZED
PACE Sample Number:				
Date Collected:				
Date Received:				
Client Sample ID:				
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/16/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	1100	09/16/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/16/91
Benzene	ug/kg wet	1.0	ND	09/16/91
Toluene	ug/kg wet	1.0	9.6	09/16/91
Ethylbenzene	ug/kg wet	1.0	1.8	09/16/91
Xylenes, Total	ug/kg wet	1.0	4.9	09/16/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Parameter	Units	MDL	Composite	DATE ANALYZED
PACE Sample Number:			70 0088020	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP7A+B+C+D	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/16/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	5000	32000	09/16/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/16/91
Benzene	ug/kg wet	25	ND	09/16/91
Toluene	ug/kg wet	25	180	09/16/91
Ethylbenzene	ug/kg wet	25	100	09/16/91
Xylenes, Total	ug/kg wet	25	340	09/16/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Parameter	Units	MDL	70 0088038 Composite	DATE ANALYZED
PACE Sample Number:				
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP8A+B+C+D	
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/17/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	2900	09/17/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/17/91
Benzene	ug/kg wet	1.0	2.3	09/17/91
Toluene	ug/kg wet	1.0	1.2	09/17/91
Ethylbenzene	ug/kg wet	1.0	10	09/17/91
Xylenes, Total	ug/kg wet	1.0	60	09/17/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Parameter	Units	MDL	70 0088046 09/11/91 09/12/91 SP9A+B+C+D Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/13/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	4000	25000	09/13/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/13/91
Benzene	ug/kg wet	20	ND	09/13/91
Toluene	ug/kg wet	20	ND	09/13/91
Ethylbenzene	ug/kg wet	20	36	09/13/91
Xylenes, Total	ug/kg wet	20	270	09/13/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088054	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP10 A+B+ C+D	
Parameter	Units	MDL	Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/13/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	40000	320000	09/13/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/13/91
Benzene	ug/kg wet	200	ND	09/13/91
Toluene	ug/kg wet	200	ND	09/13/91
Ethylbenzene	ug/kg wet	200	280	09/13/91
Xylenes, Total	ug/kg wet	200	1500	09/13/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088062	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP11 A+B+ C+D	
Parameter	Units	MDL	Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/16/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	2000	16000	09/16/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/16/91
Benzene	ug/kg wet	10	ND	09/16/91
Toluene	ug/kg wet	10	65	09/16/91
Ethylbenzene	ug/kg wet	10	52	09/16/91
Xylenes, Total	ug/kg wet	10	250	09/16/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088070	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP12 A+B+ C+D	
Parameter	Units	MDL	Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/13/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	1000	13000	09/13/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/13/91
Benzene	ug/kg wet	5.0	5.0	09/13/91
Toluene	ug/kg wet	5.0	10	09/13/91
Ethylbenzene	ug/kg wet	5.0	62	09/13/91
Xylenes, Total	ug/kg wet	5.0	180	09/13/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088089	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP13 A+B+ C+D	
Parameter	Units	MDL	Composite	DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/13/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	2000	35000	09/13/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	09/13/91
Benzene	ug/kg wet	10	36	09/13/91
Toluene	ug/kg wet	10	77	09/13/91
Ethylbenzene	ug/kg wet	10	130	09/13/91
Xylenes, Total	ug/kg wet	10	460	09/13/91

MDL Method Detection Limit

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088097	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP1A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088100	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP2A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088119	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP3A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088127	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP4A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088135	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP5A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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Ms. Anita Yan
Page 19

September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088143	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP6A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088151	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP7A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088160	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP8A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088178	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP9A+B+C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:	70 0088186
Date Collected:	09/11/91
Date Received:	09/12/91
Client Sample ID:	SP10 A+B+ C+D

Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088194	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP11 A+B+ C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/18/91

MDL Method Detection Limit
ND Not detected at or above the MDL.

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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0088208	
Date Collected:			09/11/91	
Date Received:			09/12/91	
Client Sample ID:			SP12 A+B+ C+D	
Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	1.0	09/18/91

MDL Method Detection Limit

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FAX: 415-883-2673

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

PACE Sample Number:	70 0088216
Date Collected:	09/11/91
Date Received:	09/12/91
Client Sample ID:	SP13 A+B+ C+D

Parameter	Units	MDL	WetSoluble	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	0.78	09/18/91

MDL Method Detection Limit

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

11 Digital Drive
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Ms. Anita Yan
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QUALITY CONTROL DATA

September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

Lead (EPA Method 6010/200.7, ICP)
Batch: 70 06201
Samples: 70 0088097, 70 0088100, 70 0088119, 70 0088127, 70 0088135
70 0088143, 70 0088151, 70 0088160, 70 0088178, 70 0088186
70 0088194, 70 0088208, 70 0088216

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	70 0088100 SP2A+B+C+D WetSoluble	Duplicate of 70 0088100	RPD
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	ND	ND	NC

SPIKE:

Parameter	Units	MDL	70 0088100 SP2A+B+C+D WetSoluble	Spike	Spike Recv
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	2.00	97%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	1.00	111%

MDL Method Detection Limit
RPD Relative Percent Difference
NC No calculation due to value below detection limit.

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Ms. Anita Yan
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QUALITY CONTROL DATA

September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 06173
Samples: 70 0087961, 70 0087970, 70 0087988, 70 0088046, 70 0088054
70 0088070, 70 0088089

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	385	104%	104%	0%
Benzene	ug/kg wet	1.0	40	91%	92%	1%
Toluene	ug/kg wet	1.0	40	93%	93%	0%
Xylenes, Total	ug/kg wet	1.0	120	98%	98%	0%

MDL Method Detection Limit
RPD Relative Percent Difference

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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QUALITY CONTROL DATA

September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 06178
Samples: 70 0087996, 70 0088003, 70 0088011, 70 0088020, 70 0088062

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	350	104%	103%	0%
Benzene	ug/kg wet	1.0	40	89%	92%	3%
Toluene	ug/kg wet	1.0	40	90%	92%	2%
Xylenes, Total	ug/kg wet	1.0	120	98%	100%	2%

MDL Method Detection Limit
RPD Relative Percent Difference

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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QUALITY CONTROL DATA

September 19, 1991
PACE Project Number: 410912503

Client Reference: Exxon 7-0238

TPH GASOLINE/BTEX
Batch: 70 06190
Samples: 70 0088038

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
Benzene	ug/kg wet	1.0	ND
Toluene	ug/kg wet	1.0	ND
Ethylbenzene	ug/kg wet	1.0	ND
Xylenes, Total	ug/kg wet	1.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/kg wet	200	385	103%	103%	0%
Benzene	ug/kg wet	1.0	40	95%	95%	0%
Toluene	ug/kg wet	1.0	40	96%	97%	1%
Xylenes, Total	ug/kg wet	1.0	120	101%	102%	0%

MDL Method Detection Limit
RPD Relative Percent Difference

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415

CHAIN OF CUSTODY

Consultant Name: WOODWARD - CLYDE CONSULTANTS
Address: 500 - 12TH STREET, SUITE 100 OAKLAND, CA 94607
Project Contact: ANITA YAN   Project #: 91C0350A
Phone #: (510) 874 3081   Fax #: (510) 874 3268
Consultant Work Release #: 91045252

Exxon Contact: ~~7-0238~~ G. DEMARZO   Phone #: (510) 246 8726
Site RAS #: 7-0238
Site Location: 2200 E. 12th St. Oakland, CA
Laboratory Work Release #:

Sampled by (please print): ANITA YAN
Sampler Signature: [signature]   Date Sampled: 11 Sep 91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520	CAM WET Pb			Remarks	Comp. #
SP1 (ABCD)	11 Sep 91/1300	S	—	4	X								X		~~87~~83.0	COMPOSITE 8796.1	880
SP2 (ABCD)	11 Sep 91/1320	S	—	4	X								X		84.8	" and ANALYZE 97.0	10
SP3 (ABCD)	11 Sep 91/1350	S	—	4	X								X		85.6	" 98.8	11.
SP4 (ABCD)	11 Sep 91/1415	S	+	4	X								X		86.4	" 99.6	12.
SP5 (ABCD)	11 Sep 91/1430	S	-	4	X								X		87.2	" 8800.3	13.
SP6 (ABCD)	11 Sep 91/1450	S	-	4	X								X		88.0	" 01.1	14.
SP7 (ABCD)	11 Sep 91/1510	S	-	4	X								X		89.9	" ~~w/BTEX~~ 02.0	15.
SP8 (ABCD)	11 Sep 91/1525	S	-	4	X								X		90.2	" 8816.0 03.8	
SP9 (ABCD)	11 Sep 91/1540	S	—	4	X								X		91.0	" 17.8 04.6	
SP10 (ABCD)	11 Sep 91/1600	S	—	4	X								X		92.9	" 18.6 05.4	

Handwritten in right margin: 7101.7.9 CV

Cooler No. A-5 I/2 I/4

Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
[signature] / WCC	Donald Zolarski	9/12/91	930 AM
Donald Zolarski Pace	Helen [signature] Pace	9/12/91	11 20 AM

Cooler Seal Intact
☐ Yes
☐ No

Turnaround Time (circle choice)
24 hr.
48 hr.
72 hr.
96 hr.
(5 workday (standard)) [circled]

Shipment Method: COURIER

Shipment Date: 12 SEP 91

Additional Comments:

Distribution: White - Original   Yellow - Exxon   Pink - Lab   Goldenrod - Consultant Field Staff

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EXXON COMPANY, U.S.A.
P.O. Box 4415, Houston, TX 77210-4415
CHAIN OF CUSTODY

Consultant Name: WOODWARD-CLYDE CONSULTANTS
Address: 500-12th St. Suite 100 Oakland CA 94607
Project Contact: ANITA YAN Project #: 9100350A
Phone #: (510) 874 3081 Fax #: (510) 874 3268
Consultant Work Release #: 91045252

Exxon Contact: G. DEMARZO Phone #: (510) 246-8726
Site RAS #: 7-0238
Site Location: 2200 EAST 12th St., Oakland, CA
Laboratory Work Release #:

Sampled by (please print): ANITA YAN
Sampler Signature: [signature] Date Sampled: 11 Sep 91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL TPH/GAS/BTEX EPA 8015/8020	SOIL TPH/Diesel EPA 8015	SOIL Organic Lead DHS Method	WATER TPH/GAS/BTEX EPA 8015/602	WATER TPH/Diesel EPA 8015	WATER Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520	CAM WET Pb				Remarks	WET
SP11 (ABCD)	11 Sep/1620	S	–	4	X								X	8793.7			COMPOSITE; 8806.2	881
SP12 (ABCD)	11 Sep 91/1635	S	–	4	X								X		94.5		" ANALYZE 07.0	20
SP13 (ABCD)	11 Sep 91/1655	S	–	4	X								X		95.3		" 08.9	21
I/2, I/4																		

Cooler No.: A-5

Cooler Seal Intact: ☐ Yes ☐ No

Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
[signature] / WCC	Donald Zokarski	9/12/91	930AM
Donald Zokarski Pace	Helene [signature] Pace	9/12/91	1120AM

Turnaround Time (circle choice): 24 hr. / 48 hr. / 72 hr. / 96 hr. / 5 workday (standard) — circled: 5 workday (standard)

Shipment Method: COURIER
Shipment Date: 12 SEP 91

Additional Comments:

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff

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REPORT OF LABORATORY ANALYSIS

September 24, 1991

Ms. Anita Yan
Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

RE: PACE Project No. 410919.505
Client Reference: Exxon 7-0238

Dear Ms. Yan:

Enclosed is the report of laboratory analyses for samples received September 19, 1991.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol Reid

Carol Reid
Project Manager

Enclosures

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REPORT OF LABORATORY ANALYSIS

Woodward-Clyde Consultants
500 12th Street , Suite 100
Oakland, CA 94607

September 24, 1991
PACE Project Number: 410919505

Attn: Ms. Anita Yan

Client Reference: Exxon 7-0238

PACE Sample Number:			70 0091268	
Date Collected:			09/11/91	
Date Received:			09/19/91	
Client Sample ID:			SP 1 A,B,C,D	
Parameter	Units	MDL	Composite	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS				
Corrosivity (pH)	Units		8.0	09/23/91
Cyanide, Reactive	mg/kg	0.5	ND	09/23/91
Flash Point, Closed Cup	Degrees C	25	> 60	09/23/91
Sulfides, Reactive	mg/kg	1.0	ND	09/23/91

MDL Method Detection Limit
ND Not detected at or above the MDL.
> Greater than reported value.

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

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REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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QUALITY CONTROL DATA

September 24, 1991
PACE Project Number: 410919505

Client Reference: Exxon 7-0238

Corrosivity (pH)
Batch: 70 06299
Samples: 70 0091268

SAMPLE DUPLICATE:

Parameter	Units	MDL	70 0091268 SP 1 A,B,C,D Composite	Duplicate of 70 0091268	RPD
Corrosivity (pH)	Units		8.0	8.0	0%

MDL Method Detection Limit
RPD Relative Percent Difference

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REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Client Reference: Exxon 7-0238

Cyanide, Reactive
Batch: 70 06301
Samples: 70 0091268

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter	Units	MDL	Method Blank	70 0091268 SP 1 A,B,C,D Composite	Duplicate of 70 0091268	RPD
Cyanide, Reactive	mg/kg	0.5	ND	ND	ND	NC

SPIKE:

Parameter	Units	MDL	70 0091268 SP 1 A,B,C,D Composite	Spike	Spike Recv
Cyanide, Reactive	mg/kg	0.5	ND	630	44%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Cyanide, Reactive	mg/kg	0.5	630	64%

MDL Method Detection Limit
RPD Relative Percent Difference
NC No calculation due to value below detection limit.

REPORT OF LABORATORY ANALYSIS

Ms. Anita Yan
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QUALITY CONTROL DATA

September 24, 1991
PACE Project Number: 410919505

Client Reference: Exxon 7-0238

Flash Point, Closed Cup
Batch: 70 06300
Samples: 70 0091268

SAMPLE DUPLICATE:

Parameter	Units	MDL	70 0091268 SP 1 A,B,C,D Composite	Duplicate of 70 0091268	RPD
Flash Point, Closed Cup	Degrees C	25	> 60	> 60	

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Reference Value	Recv
Flash Point, Closed Cup	Degrees C	25	30	100%

MDL Method Detection Limit
RPD Relative Percent Difference

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REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

September 24, 1991
PACE Project Number: 410919505

Client Reference: Exxon 7-0238

Sulfides, Reactive
Batch: 70 06302
Samples: 70 0091268

SAMPLE DUPLICATE:

Parameter	Units	MDL	70 0091268 SP 1 A,B,C,D Composite	Duplicate of 70 0091268	RPD
Sulfides, Reactive	mg/kg	1.0	ND	ND	

MDL Method Detection Limit
RPD Relative Percent Difference

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CHAIN OF CUSTODY

Consultant Name: Woodward-Clyde Consultants
Address: 500 - 12th Street, Suite 100, Oakland
Project Contact: Anita Yan Project #: 91C0350A
Phone #: (510) 874-3084 Fax #: (510) 874-3268
Consultant Work Release #: 91045252

Exxon Contact: G. Demaryo Phone #: (510) 246-8726
Site RAS #: 7-0238
Site Location: 2200 E. 12th St. Oakland
Laboratory Work Release #: 91134886

Sampled by (please print): Anita Yan
Sampler Signature: Date Sampled: 9/11/91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520	RCI				Remarks
SP1 A-D	9/11/1300	S		4									✓	9125.0			Comp# 9126.8
																	Run analysis
																	on composite
I/2																	

Cooler No.	Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
Cooler Seal Intact ☐ Yes ☐ No		Tina Meyers/Pace	9/19/91	
Turnaround Time (circle choice) 24 hr. (48 hr) 72 hr. 96 hr. 5 workday (standard)				
Shipment Method				
Shipment Date				

Additional Comments:
Sample previously from project #410912.503 sample #8783.0 composite #8796.1. This C/C generated to accomodate further analysis on sample composite. (TH)

410919.505

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff