R O 14

BASELINE ASSESSMENT REPORT
Site Number 11132
3201 35th Avenue
Oakland, California

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1. Site Features and History

EMCON visited the site on July 11, 1994. The site is an operating service station located on the northeast corner of the intersection of Sutter Street and 35th Avenue in Oakland, California. Site features include a station building and three pump islands with concrete drive slabs and canopies. Existing USTs at the station consist of one 12,000-gallon and two 10,000-gallon double wall, fiberglass tanks, installed in 1986 (Mobil, 1986b; CRWQCR 1989; Tanknology, 1992). According to the station manager, these USTs contain regular unleaded, plus unleaded, and super unleaded gasoline and are equipped with an electronic leak detection system. In addition, the station personnel inventory the contents of the USTs by manually gauging the tanks. The concrete surfaces around the pump islands and over the UST complex appeared to be in good condition. The asphalt covering the rest of the site contained three shallow trenches running from the recovery system to recovery and monitoring wells. The asphalt had a large number of cracks. A groundwater treatment system near the northwest corner of the site was operating at the time of the EMCON visit. No tank observation wells, oil and water separators, remote fills, sumps, dry wells, or catch basins were apparent. A storm drain is located in the middle of the west edge of the site.

It appears BP acquired the site from Mobil in 1989 (BP, 1989). Former USTs at the site include one 12,000-gallon, one 8,000-gallon, and one 5,000-gallon steel UST, removed in 1986 (Lee, 1986). These tanks were installed in 1972 (Mobil, 1986a). The site is located in a residential area; no other commercial businesses are evident in the immediate vicinity. A Quikstop store is located within one city block south of the site. A former Exxon station was located on the northwest corner of 35th Avenue and School Street.

A site plan and tabulated data from EMCON's supplemental assessment work (Table A-1; Figure A-1) are included with this report in Attachment A. Photographs from EMCON's site visit are included as Attachment B. Copies of figures and tabulated data from previous investigations are included as Attachment C. Copies of soil boring logs and laboratory reports from EMCON's supplemental site assessment work are included as Attachment D.

2. Previous Investigations and Remedial Activities

Mobil reported that all three former USTs at the site failed a tank integrity test on March 5, 1986 (Mobil, 1986a; PetroTite, 1986). Lee filed a closure plan with Alameda County on March 20, 1986 (Lee, 1986). KEI subsequently conducted a tank inspection and soil sampling during the removal of the three tanks in April 1986 (KEI, 1986a). KEI reported groundwater on the bottom of the pit during tank removal and soil sampling, but did not report on the condition of the tanks or the excavated soil. Four soil samples were obtained beneath two tanks 2 feet below the tank in the native soil, and three samples were collected from beneath one tank (Figure C-1). The samples were analyzed for TPH-G. TPH-G (up to 210 ppm) was detected in five of the seven samples (Table C-1). The BAAQMD issued a permit to aerate 150 cubic yards of soil on site before disposal at a Class III Landfill (BAAQMD, 1986). No evidence of excavation or soil analysis was found in documents made available to EMCON.

KEI installed three monitoring well (MW-1 through MW-3) on July 30, 1986 (KEI, 1986b; Figure C-1). MW-1 was drilled to 45 feet bgs, and MW-2 and MW-3 were drilled to 35 feet bgs. The boring logs for wells MW-1 and MW-2 indicated that silty clay with rock fragments and gravel was encountered during drilling (KEI, 1986b); a boring log for well MW-3 was not contained in the report reviewed by EMCON. Groundwater was encountered while drilling between 24 and 33 feet bgs. A faint gasoline odor was reported in the soil cuttings encountered between 5 and 7 feet bgs (KEI, 1986b). One soil sample from each boring, collected between 16 and 26 feet bgs, was analyzed for TPH-G. TPH-G (up to 12.0 ppm) was detected in the soil samples from MW-1 and MW-2 (Table C-2). Groundwater samples were also taken from each monitoring well and analyzed for TPH-G and BTEX. TPH-G (up to 26,000 ppb) and BTEX (up to 3,800 ppb benzene, 1,000 ppb toluene, and 1,700 ppb xylenes) were detected in groundwater samples collected from wells MW-1 and MW-2 (listed in ppm in Table C-2).

It appears that KEI performed monthly monitoring and quarterly sampling of the three monitoring wells from October 1986 to February 1989; however, EMCON was not provided with reports covering this period (KEI, 1987a, 1987b, 1987c, 1988, 1989). Available reports indicated that groundwater from wells MW-1 and MW-2 had an odor that increased from "moderate" to "strong" in well MW-1 and from "slight" to "moderate" in well MW-2 (Table C-3). A sheen was reported on well MW-1 on December 23, 1986 (KEI, 1987a). On December 21, 1988, KEI reported 3 inches of free-floating product in well MW-1 (KEI, 1989). Free-floating product was also reported in well MW-2 and a sheen was reported in well MW-3 on February 15, 1989 (KEI, 1989). In a September 28, 1987, report, KEI stated "the presence of a small amount of floating product in MW-1, undocumented until the present quarter, implies the possibility

that a pocket of free product is being leached from the soil into the groundwater" (KEI, 1987c). A figure attached to the KEI March 16, 1989, monitoring and sampling report indicated the direction of groundwater flow was to the south (KEI, 1989).

Quarterly groundwater samples were collected and analyzed for TPH-G and BTX or BTEX. TPH-G (up to 210,000 ppb), benzene (up to 28,000 ppb), toluene (up to 30,000 ppb) ethylbenzene (up to 8.5 ppb), and xylenes (up to 12,000 ppb) were detected in all wells (listed in ppm on page 1 of Table C-4). The highest concentrations of both TPH-G and BTEX were detected in groundwater samples collected from well MW-1, near the southeast corner of the UST complex.

Alton drilled ten soil borings to various depths ranging from 25 to 33 feet bgs in January and February 1990 (Alton, 1990a). The borings were advanced 3 to 4 feet beyond the depth at which groundwater was encountered. The report contained no information about site geology or hydrogeology, other than a groundwater contour elevation figure showing that the direction of groundwater flow beneath the site was toward the southwest at the time of the investigation (Alton, 1990a). The borings were converted into temporary wells (TW-1 through TW-10; Figure C-2), and groundwater samples were collected. Samples from MW-1 and TW-2 were not analyzed due to the presence of free-floating product. TPH-G (up to 240,000 ppb) was detected in samples collected from wells MW-2 and MW-3, and from temporary wells TW-1, TW-3, TW-5, TW-6, TW-9, and TW-10 (Table C-5). BTEX (up to 2,400 ppb benzene, 7,300 ppb toluene, 5,600 ppb ethylbenzene, and 28,000 ppb xylenes) was detected in all analyzed samples. The highest concentrations of TPH-G and BTEX were detected in temporary wells TW-5, located off site to the southwest, and TW-10, located near the northwest corner of the UST complex.

Alton drilled two soil borings based on the results of these activities. The borings were converted into one groundwater monitoring well (MW-4) and one recovery well (RW-1). Alton drilled three off-site soil borings which were converted into monitoring wells MW-5 through MW-7 (Alton, 1990b; Figure C-3). The borings were drilled to approximately 35 feet bgs. During drilling, soil samples were collected from borings at 5-foot intervals until the first groundwater was encountered, at about 26 feet bgs in MW-5 and 28 feet bgs in MW-6 and MW-7. Silty clay was the predominant soil type encountered throughout each boring. At the time of the investigation, groundwater elevation data indicated a southerly groundwater flow direction, with an average gradient of approximately 0.01 ft/ft (Alton, 1990b). Alton reported no known or reported groundwater production wells in use as domestic or municipal water supply sources within the immediate vicinity or within a 1/2-mile radius of the site (Alton, 1990b).

Eighteen soil samples collected from five borings were analyzed for TPH-G and BTEX. TPH-G (up to 770 ppm) and BTEX (up to 4.8 ppm benzene, 44 ppm toluene, 13 ppm ethylbenzene, and 94 ppm xylenes) were detected in soil samples from RW-1, near the southwest corner of the UST complex, and MW-5, off site to the southwest. (Table C-6).

Groundwater samples were collected from wells MW-3 through MW-7; MW-1 and MW-2 were not sampled because free-floating product was present in each well at a measured thickness of 1.25 and 0.10 feet, respectively. TPH-G (up to 280 ppb) and BTEX (up to 200 ppb benzene, 210 ppb toluene, 46 ppb ethylbenzene, and 290 ppb xylenes) were detected in groundwater samples collected from wells MW-3 and MW-5 (Table C-7). The sample from well MW-5, the most downgradient off-site monitoring well, had the highest concentrations of TPH-G and BTEX in both soil and groundwater samples. Alton noted that a Quikstop store with USTs was approximately 10 feet from MW-5 (Alton, 1990b).

KEI conducted soil sampling during routine dispenser modifications in August 1990 (KEI, 1990a). Three soil samples (D1, D2, and D3) were collected from beneath product dispensers at depths ranging from approximately 3 to 7 feet bgs, and four soil samples (PT-1 through PT-4) were collected from the product pipe trenches at a depth of about 3 feet bgs (Figure C-4). The samples were analyzed for TPH-G, BTEX, and organic lead. TPH-G (21 ppm), benzene (0.0099 ppm), toluene (0.062 ppm), xylenes (0.038 ppm), and ethylbenzene (0.060 ppm) were detected in soil sample PT-3 (Table C-8).

KEI also sampled approximately 100 cubic yards of stockpiled soil at the site to determine proper disposal of the soil (KEI, 1990b). Two composite soil samples (Comp A and Comp B) were taken from the piping trench excavation stockpile (Figure C-5). KEI returned 10 days later and sampled approximately 50 cubic yards of previously sampled aerated soil (Comp 1; Figure C-6). The three samples were analyzed for TPH-G and BTEX. TPH-G (up to 240 ppm) was detected in all three samples (Table C-9). One or more BTEX constituents (up to 0.060 ppm benzene, 0.70 ppm toluene, 9.5 ppm xylenes, and 0.68 ethylbenzene) was also detected in all samples. KEI stated that, based on results of laboratory analyses, the soil could be disposed of at an approved Class III disposal site (KEI, 1990b).

Alton drilled three off-site soil borings (SB-8 through SB-10) in February 1991. The borings were converted into groundwater monitoring wells MW-8 through MW-10 (Alton, 1991c; Figure A-1). The borings were drilled to approximately 35 or 40 feet bgs. Soil samples were collected from the borings at 5-foot intervals and at significant lithologic changes until the first groundwater was encountered, at approximately 25 feet bgs in each well. Silty clay was the predominant soil type

encountered throughout each boring. Depth to groundwater, as measured from the top of the casing on April 5, 1991, ranged from 12 to 18 feet. The depth to water in MW-6 could not be obtained because an abandoned vehicle was over the well box. The depth to water was not measured in RW-1 because an "oily substance" was present on the water surface (Alton, 1991c). According to Alton (1991c), these data indicated a southeasterly groundwater flow direction with an average hydraulic gradient of approximately 0.003 ft/ft at the time of the investigation. A pumping test was also conducted to estimate aquifer parameters.

Nine soil samples, collected from 10.5 to 26.0 feet bgs, were analyzed for TPH-G and BTEX. TPH-G (up to 390 ppm) and BTEX (up to 1.8 ppm benzene, 16 ppm toluene, 6.7 ppm ethylbenzene, and 37 ppm xylenes) were detected in samples taken from all borings (Table C-10). The highest concentrations were detected at 20.5 to 21.0 feet bgs in boring SB-8.

Groundwater samples collected from wells MW-3 through MW-5 and MW-7 through MW-10 and were analyzed for TPH-G and BTEX. Wells MW-1 and MW-2 were not sampled because of the presence of free-floating product. MW-7 was not sampled because an abandoned vehicle was located over the well, and RW-1 was not sampled because an oily substance was present. TPH-G (up to 7,100 ppb) was detected in samples from wells MW-3 and MW-8 through MW-10 (Table C-11). BTEX (up to 780 ppm benzene, 450 ppb toluene, 64 ppb ethylbenzene, and 2,400 ppb xylenes) was detected in wells MW-3 through MW-5 and MW-7 through MW-10. The highest concentrations of both TPH-G and BTEX were detected in off-site wells MW-8 through MW-10, located downgradient and south of the UST complex.

Alton conducted a sensitive receptors survey as part of their supplemental site investigation study (Alton, 1991c). The report, dated February 20, 1991, stated that the nearest residence was 50 feet, the nearest hospital was 11,000 feet, and the nearest school was 1,000 feet from the site. According to Alton (1991c), the aquifer was a Class III: Not a Potential Source of Drinking Water.

HETI prepared an Interim Remedial Action Plan on March 20, 1992 (HETI, 1992a). In this plan, HETI stated that free-floating product was routinely removed by hand bailing from monitoring wells MW-1 and MW-2 and recovery well RW-1 during the quarterly sampling rounds. HETI estimated that 5 gallons of product were removed each quarter (HETI, 1992a). HETI proposed an interim groundwater and product recovery system to facilitate removal of free and dissolved phase hydrocarbons from the groundwater at this site. HETI also stated that "while this system will not be designed to address the off-site portion of the hydrocarbon plume, it will provide data necessary to plan the most cost effective long term remedial solution " (HETI, 1992a).

The remediation system was activated on November 25, 1992, and has operated intermittently since. A memo from Alisto to BP noted that the remediation system "continued to be shut down by the station owner due to non-payment for electricity" (Alisto, 1994f). The East Bay Municipal Utility District (EBMUD) issued a Wastewater Discharge Permit to BP on November 10, 1992, and Alisto has filed monthly or quarterly sewer discharge reports with the EBMUD since February 1993 (EBMUD, 1992; Alisto, 1993a, 1993c, 1993e, 1994b, 1994d).

Alton, HETI, and Alisto have performed quarterly groundwater sampling since July 1990 (Alton, 1991a, 1991b, 1991d, 1992; HETI, 1992b; Alisto, 1992a, 1992b, 1993b, 1993c, 1993d, 1994a, 1994c, 1994e). The latest report available to EMCON was dated May 15, 1994 (Alisto, 1994e). Since July 1990, free-floating product has consistently been detected in monitoring wells MW-1 and MW-2 and recovery well RW-1 (Table C-12). In October 1992, free-floating product was detected in monitoring wells MW-8 and MW-10 (Table C-12). In October 1993, free-floating product was detected in monitoring well MW-9 (Table C-12). Alisto's May 1994 sampling report contained a table showing the amount of product removed from these wells since October 1993 (Table C-13). TPH-G (up to 8,700 ppb) and BTEX (up to 440 ppb benzene, 96 ppb toluene, 42 ppb ethylbenzene, and 196 ppb xylenes) consistently have been detected in wells MW-3 and MW-5 (Table C-12).

3. Regulatory Status and Other Issues

The local regulatory agency (Alameda County Department of Environmental Health) has a case file on site 11132. The file contained tank tightness tests, hazardous material management plans, UST spill response and monitoring plans for the period 1989 through 1993, as well as the release report and various site assessment and sampling reports discussed in Section 2. The file also contained agency site inspection reports of this site for 1990 through 1993 (Alameda, 1990, 1991a, 1992, 1993).

BP received a notice of violation for the noncompliance discovered during the 1991 inspection (Alameda, 1991b). These violations included not submitting copies of tank tightness test results for piping, an incorrect underground storage tank permit application, and an incomplete spill and leak response plan.

4. Supplemental Site Assessment Work

EMCON conducted supplemental assessment activities at the site on November 11, 1994. One exploratory soil boring (THP-1) was advanced by using CPT equipment, and soil samples were collected from the boring. The boring was advanced approximately

23 feet bgs near the service station building (Figure A-1). Soil types logged from drilling the boring included sandy gravel and silty sand underlain by clay to approximately 23 feet bgs. The CPT equipment met with refusal at the extent explored (23 feet bgs). A copy of the boring log for THP-1 (labeled HP-1) is included in Attachment D.

The soil sample from boring THP-1 was collected from 4 to 4.5 feet bgs and submitted for TPH-G, TPH-D, TPH-O, BTEX, and PCBs analyses. TPH-O, at a concentration of 120 ppm, was the only analyte detected (Table A-1). A copy of the laboratory report is included in Attachment D.

5. Baseline Summary

A review of the most recent relevant data available in existing files, observations made during site visits, and data collected during the environmental investigation performed in accordance with the BP/Tosco purchase agreement have determined the presence of hazardous substance contamination in the soil and groundwater at this site. Such review has further determined evidence of contamination and sources of contamination which could result in the presence of hazardous substance contamination not yet detected.

Although the complete extent of contamination is not known at this time, there is sufficient evidence to demonstrate that the site was contaminated before the time of Tosco's purchase. The areas at the site for which evidence of soil and groundwater contamination exists are the pump islands, the gasoline UST complex, and off site to the south.

Soil samples collected from borings MW-1, MW-2, MW-5, SB-8 (MW-8), SB-9 (MW-9), SB-10 (MW-10), RW-1, and THP-1; from the former UST complex excavation; from the former pump island excavations; and from the former product piping trenches contained one or more of the following at concentrations above the method detection limits: TPH-G and BTEX.

Groundwater samples taken from wells MW-1 through MW-10, RW-1, and temporary wells TW-1 and TW-3 through TW-10 demonstrated the presence of one or more of the following at concentrations above method detection limits: TPH-G and BTEX.

The extent of evidence of actual contamination levels present and the evidence of sources of contamination consists of:

- Soil and groundwater data as summarized earlier in this report and detailed in existing files

- Free-floating product observed in several on-site and downgradient off-site monitoring wells on multiple occasions

- Failed tank tightness test results in 1986

- The existence of an operating groundwater remediation system

In conclusion, existing and developed evidence establishes a contamination baseline consisting of the measured presence of hazardous substance contamination in soil and groundwater and evidence of historic sources and releases of hazardous substances. This report establishes a contamination baseline consisting of:

1. Known areas of contamination from measured or observed direct evidence, and application, and

2. On-site or off-site areas of contamination which have not yet been detected but which are associated with or are consistent with evidence areas of contamination and historic releases of hazardous substances.

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KEI. 1988. *Quarterly Report* - Mobil Service Station #10-MFG, located at 3201 35th Avenue in Oakland, California. January 8, 1988.

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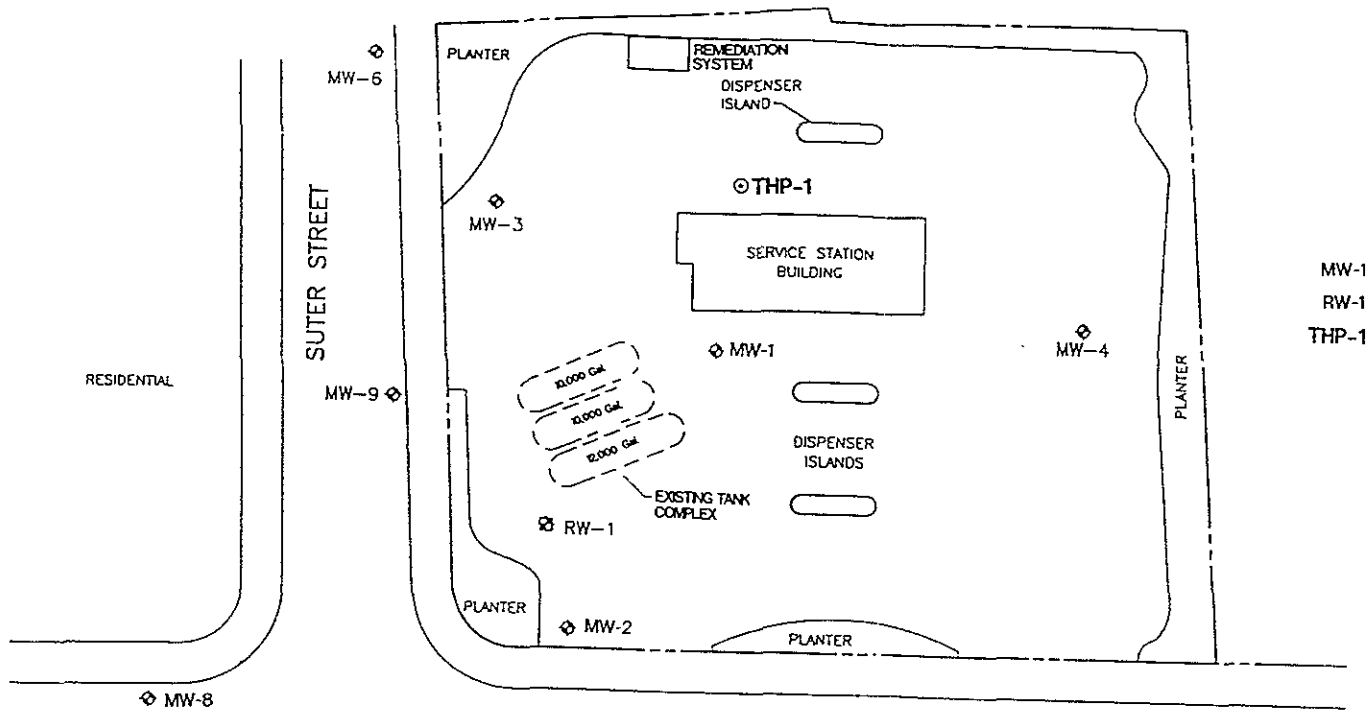
ATTACHMENT A

SITE PLAN AND TABULATED DATA FROM SUPPLEMENTAL ASSESSMENT WORK



EMCON Northwest, Inc.

SOURCE: ALISTO (JANUARY 10, 1994)

DATE 12-05-94
DWN. MLP
REV.
APPR.
PROJECT NO. 0952-044.03

Figure A-1
TOSCO #11132
3201 35TH STREET
OAKLAND, CALIFORNIA
SITE PLAN

Table A-1

Site Number 11132
3201 - 35th Avenue, Oakland, California

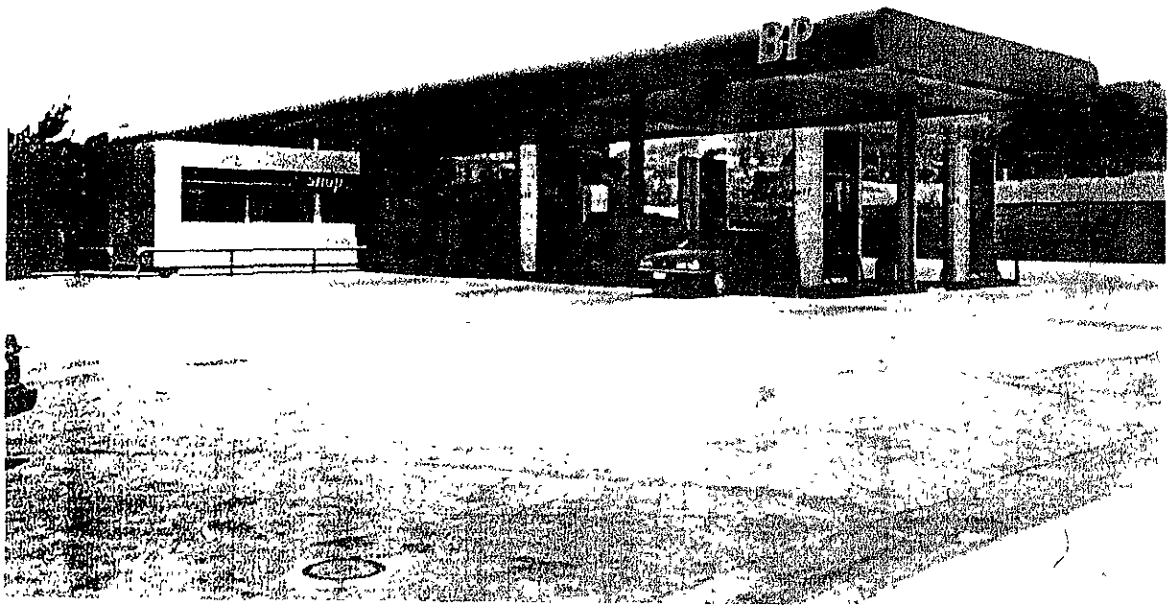
Soil Sample Results of Analyses (ppm)

Sample Number	Depth (feet)	Date Collected	California DHS LUFT Method TPH-G	California DHS LUFT Method Hydrocarbon Scan		BTEX EPA Method 5030/8020			
			TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes
THP1-S-4-4.5*	4-4.5	11/22/94	*nd*	*nd*	120	*nd*	*nd*	*nd*	*nd*

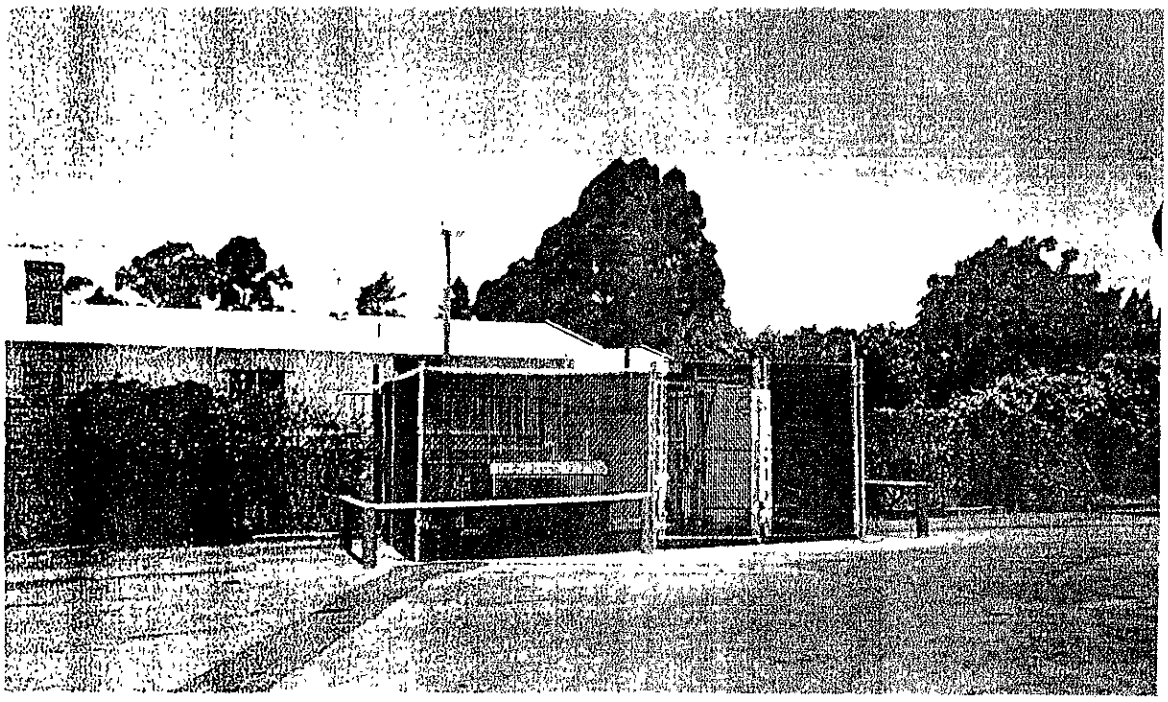
NOTE:
TPH-G = Total petroleum hydrocarbons as gasoline.
TPH-D = Total petroleum hydrocarbons as diesel.
TPH-O = Total petroleum hydrocarbons as oil.
nd = Not detected at or above method reporting limit.
n/a = Not applicable.
— = Not analyzed.
TW = Tosco well.
TB = Tosco boring.
TD = Tosco dispenser soil sample.
THP = Tosco HydroPunch.
SGP = Soil gas probe.
* = THP1 is referred to as HP1 on the lab report (see Attachment D).

ATTACHMENT B

SITE PHOTOGRAPHS



PUMP ISLANDS AND STATION BUILDING
TANK COMPLEX TO THE LEFT



GROUNDWATER TREATMENT SYSTEM

EMCON
Northwest, Inc

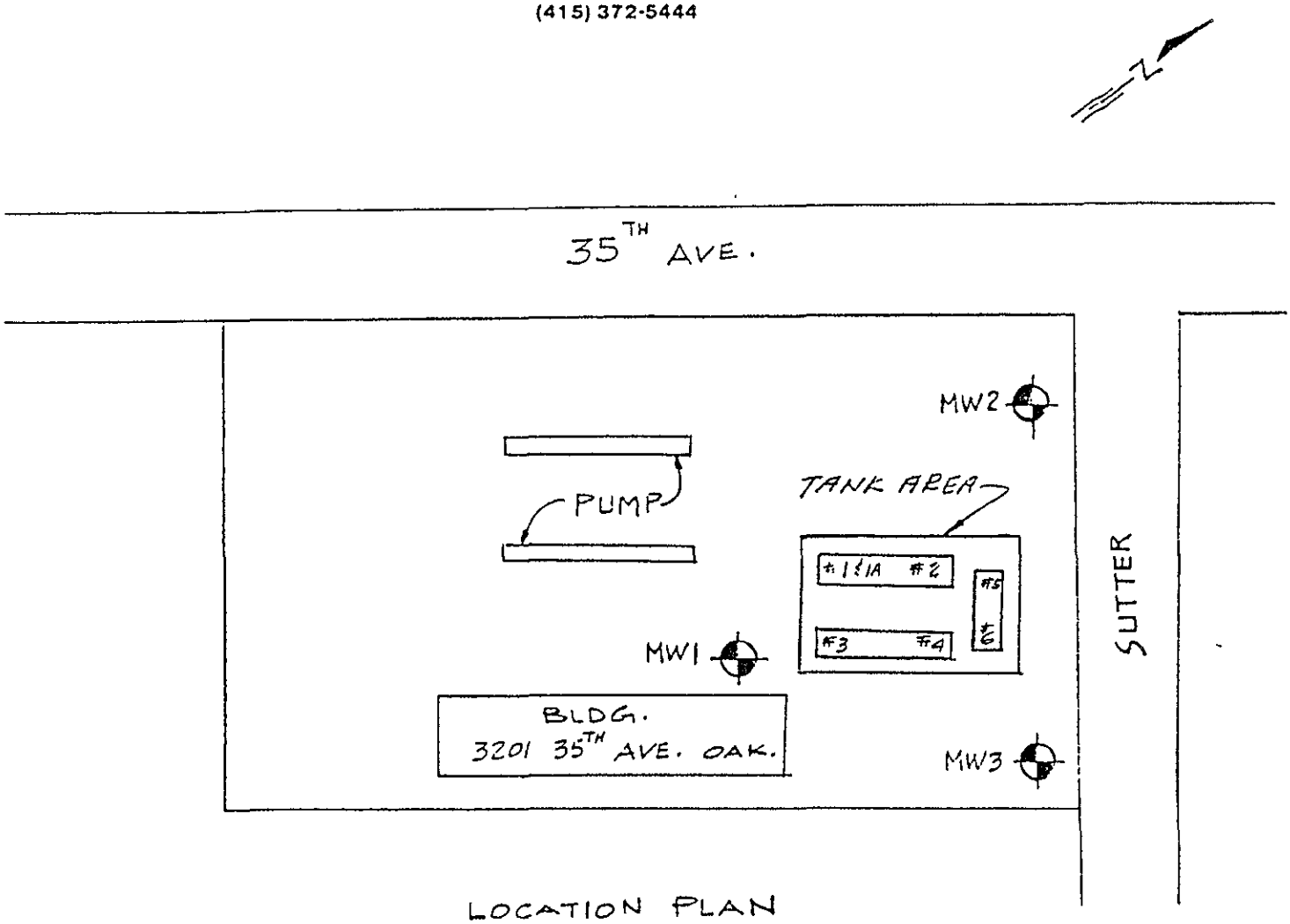
DATE 10-94
DWN MLP
APPR
REVIS.
PROJECT NO
0952-044.03

Figure B-1
TOSCO #11132
3201-35TH AVENUE
OAKLAND, CALIFORNIA
SITE PHOTOGRAPHS

ATTACHMENT C

SUMMARY TABLES AND FIGURES FROM PREVIOUS INVESTIGATIONS

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
535 Main Street
Martinez, Ca. 94553
(415) 372-5444



LOCATION PLAN
N.T.S.

MW (MONITORING WELL)

Source: KEI, September 10, 1986

Figure C-1

Source: Alton, February 28, 1990

Figure C-2

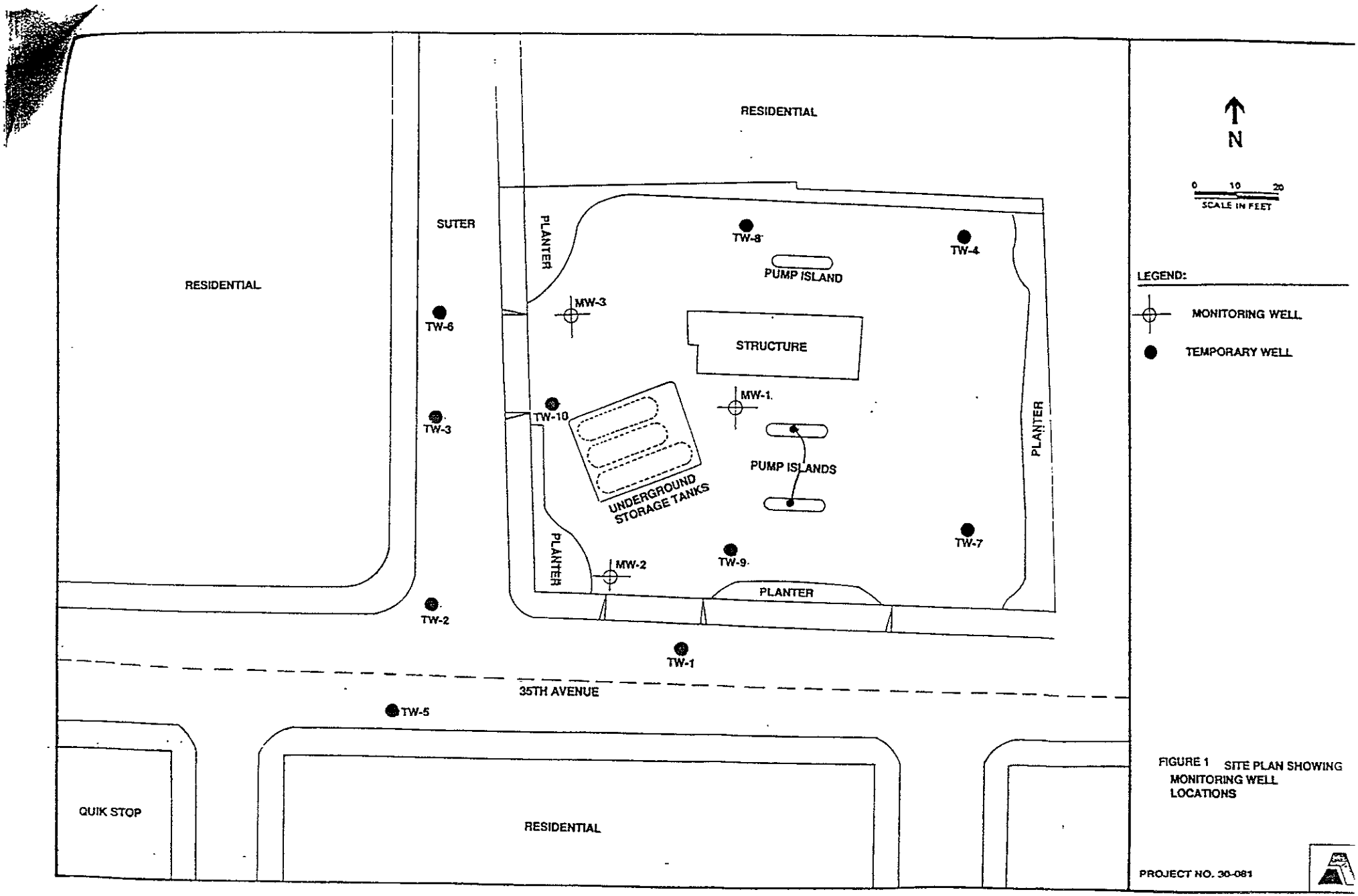
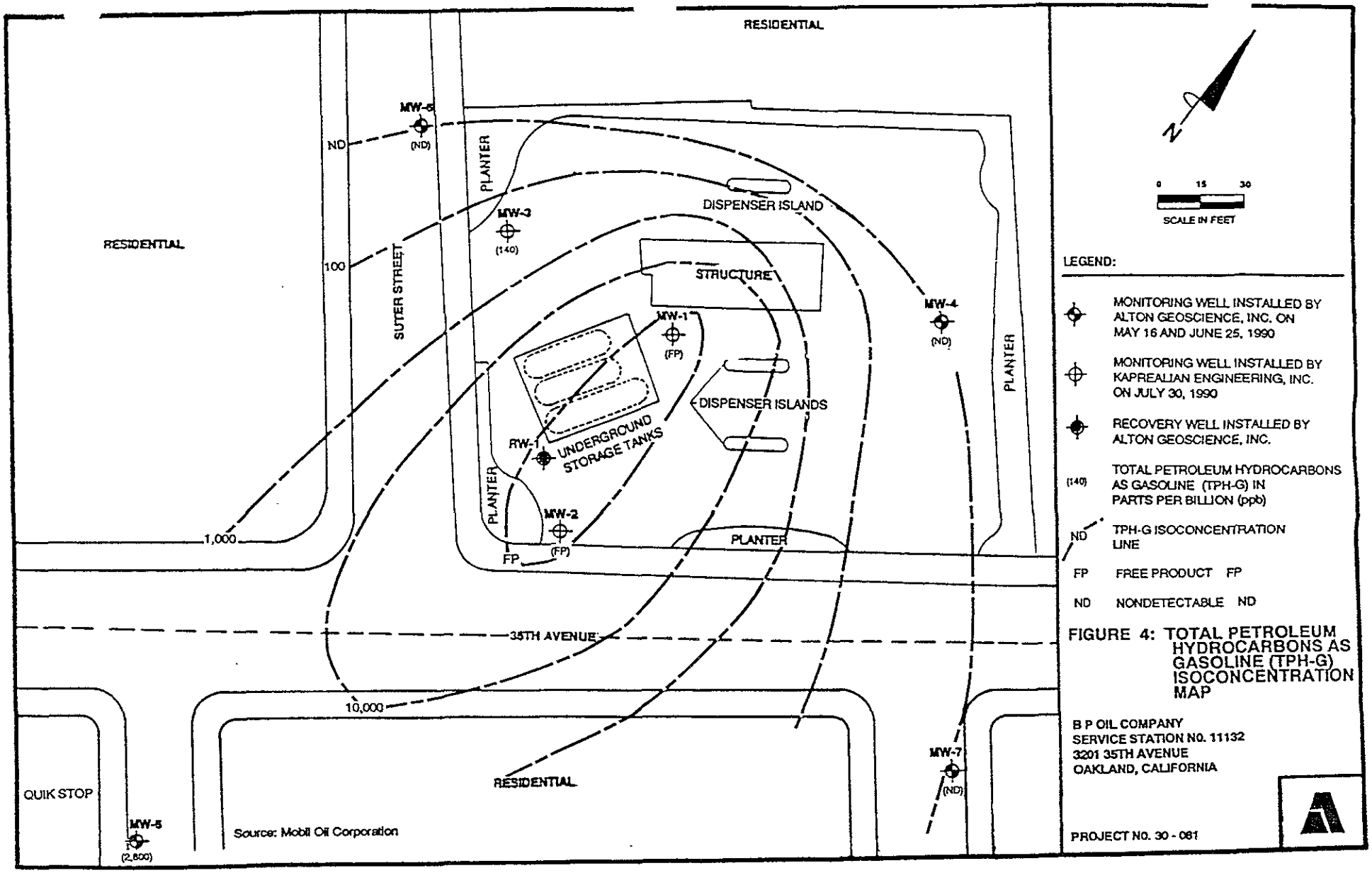


FIGURE 1 SITE PLAN SHOWING MONITORING WELL LOCATIONS

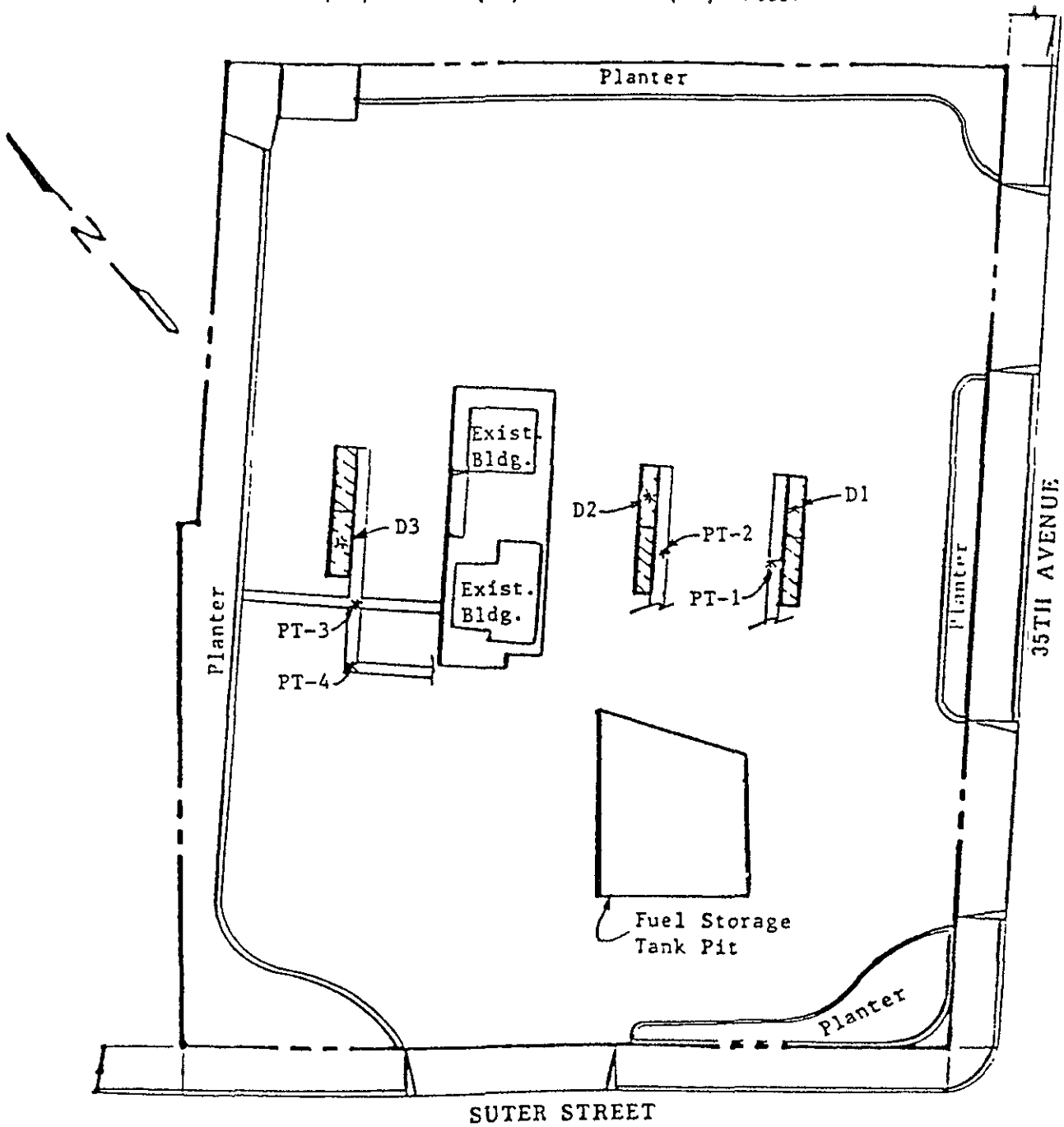
PROJECT NO. 30-081



Source: Alton, September 4, 1990

Figure C-3

KAPREALIAN ENGINEERING, INC.
Consulting Engineers
PO BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX (707) 746-5581



SITE PLAN

LEGEND

* Sample Point Location

0 30 60
Approx. scale feet

BP Service Station
3201 35th Avenue
Oakland, CA

Source: KEI, October 11, 1990a

Figure C-4

KAPREALIAN ENGINEERING, INC.
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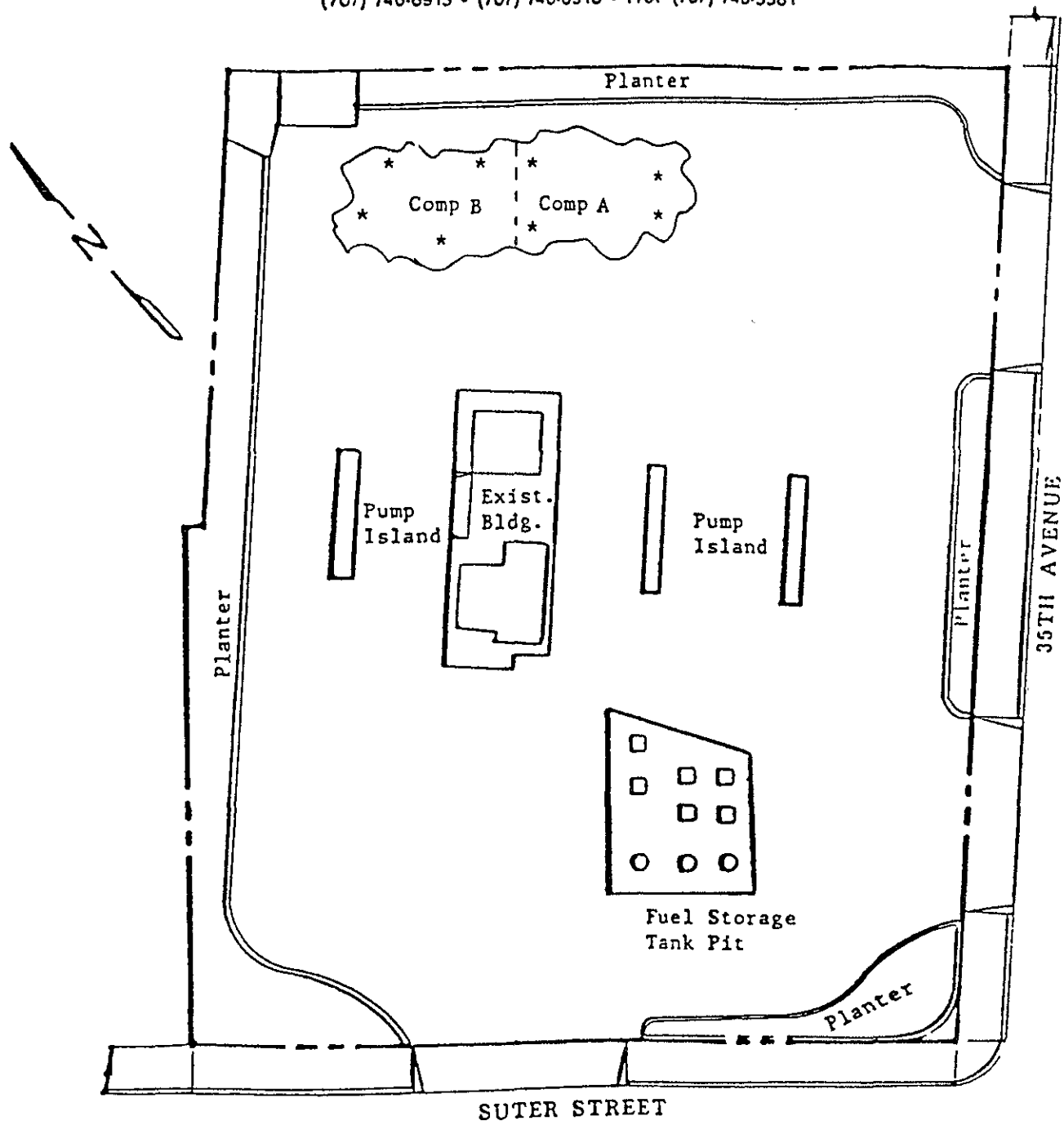

SITE PLAN
Figure 1

LEGEND

* Sample Point Location

0 30 60
Approx. scale feet

BP Service Station
3201 35th Avenue
Oakland, CA

Source: KEI, October 11, 1990b

Figure C-5

KAPREALIAN ENGINEERING, INC.
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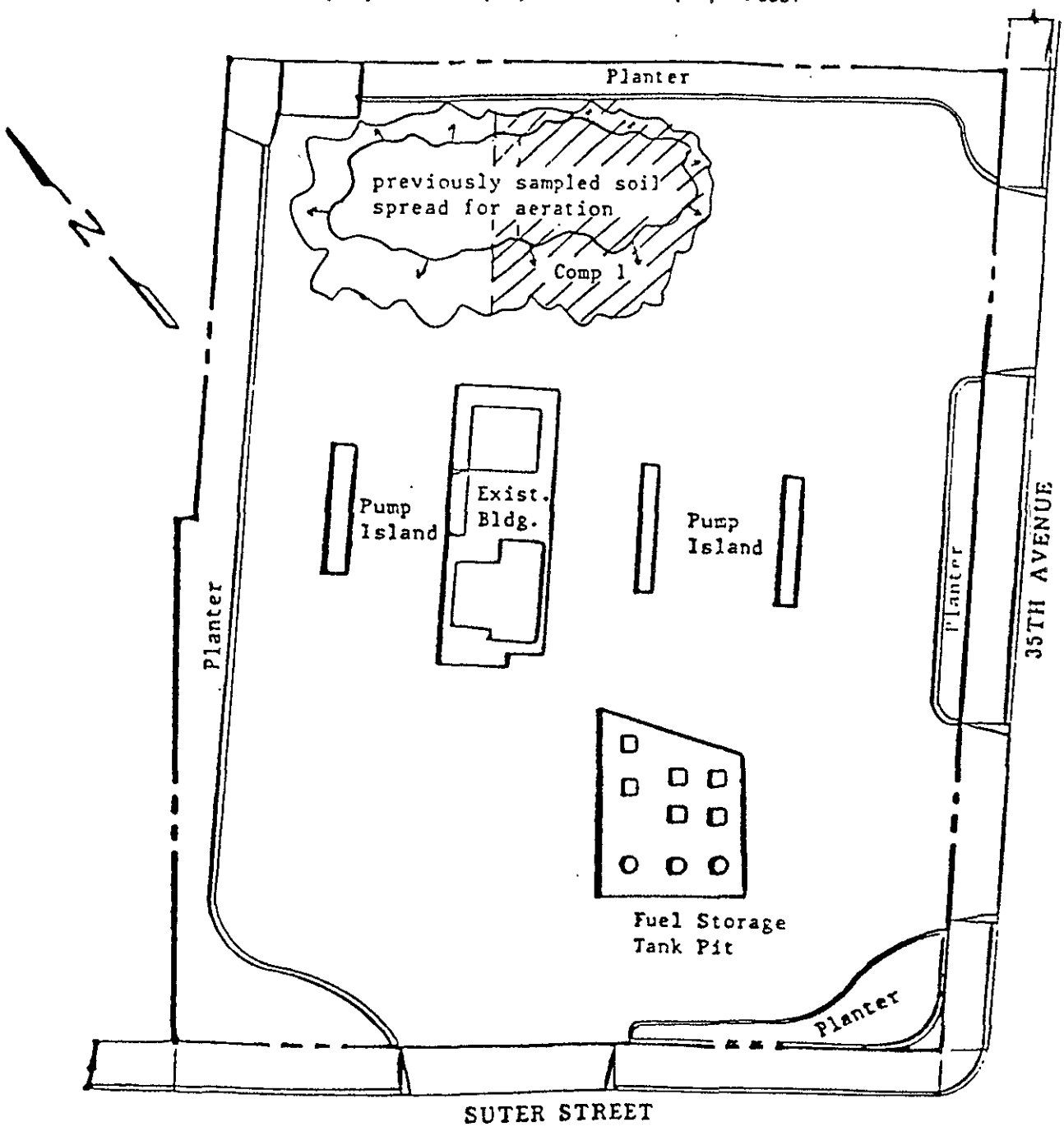

SITE PLAN
Figure 2

LEGEND

* Sample Point Location

0 30 60
Approx. scale feet

BP Service Station
3201 35th Avenue
Oakland, CA
Figure C-6

Source: KEI, October 11, 1990b

ENVIRONMENTAL RESEARCH GROUP, INC.

117 N. First Ann Arbor, Michigan 48104 (313) 662-3104

April 7, 1986

KEI Engineers
535 Main Street
Martinez, CA 94553

Attention: Mardo Kaprilieian

Report #7535 P.O. #Contract

Site Location: Mobil, Oakland, 35th

RE: Seven (7) soil samples submitted on April 2, 1986, for rush total hydrocarbon response analysis.

Procedure: The samples are analyzed for total hydrocarbon response (gasoline) by following the method described in Attachment 2, Analytical Procedures for Fuel Leak Investigations. The samples are concentrated on a Tekmar LSC-2 automatic sample concentrator prior to injection into a gas chromatograph fitted with a flame ionization detector. Quantitation is performed, as total hydrocarbon response, against known concentrations of heptane-isooctane (55/45). The limit of detection for this method of analysis is one part per million (mg/kg), unless indicated.

The results are displayed in the table below.

ERG #	CLIENT ID#	CONCENTRATION (mg/kg)
7535-1	1	8
7535-2	1A	16
7535-3	2	3.1
7535-4	3	210
7535-5	4	ND (1)
7535-6	5	ND (5)
7535-7	6	5.7

ND = None Detected. The limits of detection are in ( ).

Submitted by:

Robert B. Flay
Manager, Organics Department

RBF:clp
040886t

Source: KEI, April 21, 1986

Table C-1

KEI-86-045
September 10, 1986

TABLE - 1

Results of Groundwater Analysis

Parameter	MW #1	MW #2	MW #3
Total Fuel Hydrocarbons (ppm)	4.4	26.0	<0.05
Benzene (ppm)	0.8	3.8	<0.001
Toluene (ppm)	0.52	1.0	<0.001
Xylene (ppm)	0.35	1.7	<0.001
Depth (feet)	22.0	20.0	21.2
Free Product (inches)	0.0	0.0	0.0
Odor	ND	ND	ND
Sheen	ND	ND	ND

Results of Soil Analysis

Total Fuel Hydrocarbons (ppm)	12.0	5.7/2.0	<1.0
Depth (feet)	26.0	16.0/26.0	16.0
Odor	ND	ND	ND

ND = None Detected

Source: KEI, September 10, 1986

KEI-P86-045A-1
February 5, 1987

TABLE 1

Results of the Groundwater Analyses

In Parts Per Million (ppm)

Date	Parameter	Well #1	Well #2	Well #3
8/18/86	Total Dissolved Hydrocarbons	4.4	26.0	<0.05
	Benzene	0.8	3.8	<0.001
	Toluene	0.52	1.0	<0.001
	Xylene	0.35	1.7	<0.001
12/23/86	Total Dissolved Hydrocarbons	86.0	6.2	0.25
	Benzene	28.0	3.6	0.0087
	Toluene	30.0	1.3	0.007
	Xylene	11.0	0.39	0.023

Monitoring Wells

Date	Well #	DTW (feet)	PT (inches)	Odor	Sheen
10/28/86	1	23.0	<0.25	Yes	----
	2	21.0	0.0	Yes	No
	3	20.0	0.0	Yes	No
11/26/86	1	22.92	<0.1	Yes	----
	2	21.58	0.0	Yes	No
	3	20.25	0.0	Yes	No
12/23/86	1	21.83	0.0	Yes	Yes
	2	20.5	0.0	No	No
	3	19.25	0.0	No	No

DTW - Depth to Water
PT - Product Thickness

Source: KEI, February 5, 1987

TABLE 1

GROUNDWATER MONITORING DATA

Date	Well No.	DTW (ft)	Odor	Sheen	Gallons Pumped
4/25/87	MW-1	20.813	Moderate	No	35
	MW-2	19.375	Slight	No	35
	MW-3	17.760	No	No	40
3/17/87	MW-1	18.0	Moderate	No	30
	MW-2	16.583	Slight	No	30
	MW-3	15.563	No	No	30
2/11/87	MW-1	19.750	Moderate	Yes	31
	MW-2	17.542	Slight	No	30
	MW-3	16.167	No	No	31

DTW = Depth to water

Source: KEI, May 20, 1987

TABLE 1

GROUNDWATER MONITORING DATA

Date	Well No.	DTW (ft)	Odor	Product Thickness	Sheen	Gallons Pumped
6/20/87	MW-1	22.33	Slight	0	Yes	40
	MW-2	21.60	Slight	0	No	35
	MW-3	19.708	No	0	No	35
7/20/87	MW-1	22.875	Strong	0.25	---	40
	MW-2	21.583	Moderate	0	No	35
	MW-3	20.270	No	0	No	35
9/10/87	MW-1	23.333	Strong	1.25	---	40
	MW-2	21.917	Slight	0	No	35
	MW-3	20.667	No	0	No	35

DTW = Depth to water

Source: KEI, September 28, 1987

TABLE 1

GROUNDWATER MONITORING DATA

Date	Well No.	DTW (ft)	Product Thickness	Odor	Sheen	Gallons Pumped
10/17/87	MW-1	23.583	0.25	Strong	Yes	80
	MW-2	22.688	0	Faint	No	65
	MW-3	21.33	0	None	No	65
11/18/87	MW-1	23.250	0	Strong	Yes	45
	MW-2	21.438	0	Faint	No	35
	MW-3	20.50	0	None	No	30
12/19/87	MW-1	19.729	0	Strong	Yes	45
	MW-2	16.833	0	Faint	No	35
	MW-3	16.750	0	None	No	30

Source: KEI, January 8, 1988

KEI-P86-0405.QR5
March 16, 1989

TABLE 1

SUMMARY OF MONITORING DATA

Date	Well No.	Water Depth (feet)	Product Thickness	Sheen	Water Bailed (gallons)
2/15/89	MW-1	19.60	.5"	---	45
	MW-2	18.16	.5"	---	30
	MW-3	16.54	0	Trace	30
1/17/89	MW-1	19.71	1.25"	---	22
	MW-2	18.20	Trace	---	14
	MW-3	16.79	0	None	0
12/21/88	MW-1	22.15	3"	---	25
	MW-2	22.38	0.38"	---	15
	MW-3	19.05	0	None	0

Source: KEI, March 16, 1989

TABLE 2

RESULTS OF GROUNDWATER ANALYSES
(Concentrations are in Parts Per Million)

Date	Parameter	MW-1	MW-2	MW-3
12/22/87	TPH	69.00	9.50	<0.050
	Benzene	28.00	0.360	0.00085
	Toluene	27.00	0.990	0.0016
	Xylene	12.00	6.00	0.0058
9/10/87	TPH	210.00	13.00	<0.050
and	Benzene	6.80	0.170	<0.0005
9/22/87	Toluene	11.00	0.065	<0.0005
	Xylene	12.00	0.740	<0.0005
4/25/87	TPH	13.00	1.50	<0.050
	Benzene	1.80	0.120	<0.0005
	Toluene	0.730	0.0078	<0.0005
	Xylene	1.300	0.150	<0.0005
12/23/86	TPH	86.00	6.2	0.25
	Benzene	28.00	3.6	0.0087
	Toluene	30.00	1.3	0.007
	Xylene	11.00	0.39	0.023
8/18/86	TPH	4.4	26.0	<0.050
	Benzene	0.8	3.8	<0.001
	Toluene	0.52	1.0	<0.001
	Xylene	0.35	1.7	<0.001

Source: KEI, January 8, 1988

KEI-P86-0405.QR5
March 16, 1989

TABLE 2

SUMMARY OF LABORATORY ANALYSES

(All results in ppb)

Date	Sample Well #	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
2/15/89	MW-1	20.00	Not sampled due to presence of free product				
	MW-2	18.33	9,200	110	290	1,400	8.5
	MW-3	18.00	<50	<0.5	<0.5	<0.5	<0.5

Source: KEI, March 16, 1986

TABLE 1

RESULTS OF ANALYSIS
GROUND WATER SAMPLES

Well	TPH (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)
MW-1	FP	---	---	---	---
MW-2	14	580	1300	460	2300
MW-3	0.5	20	30	24	35
TW-1	7.4	230	180	690	1200
TW-2	FP	---	---	---	---
TW-3	22	2400	2800	530	4000
TW-4	ND <0.1	ND <0.3	ND <0.3	ND <0.3	0.7
TW-5	240	1100	5100	5600	28000
TW-6	20	56	910	590	3700
TW-7	ND <0.1	ND <0.3	0.4	0.7	4.3
TW-8	ND <0.1	0.3	0.6	1.1	7.9
TW-9	41	2100	5700	120	6900
TW-10	50	1900	7300	1400	8000

ND = Non-Detected
FP = Free Product
ppm = parts per million
ppb = parts per billion
MW = Monitoring Well
TW = Temporary Well

Source: Alton, February 28, 1990

TABLE 2

RESULTS OF
LABORATORY ANALYSIS OF SOIL SAMPLES
June - July 1990

11132

Boring	Sample Depth (ft)	TPH-G	B	T	E	X
		(Concentrations in Parts Per Million)				
		June 1990				
MW-4	5.0	ND	ND	ND	ND	ND
MW-4	10.0	ND	ND	ND	ND	ND
MW-4	15.0	ND	ND	ND	ND	ND
MW-4	20.0	ND	ND	ND	ND	ND
MW-4	25.0	ND	ND	ND	ND	ND
RW-1	5.0	ND	ND	ND	ND	ND
RW-1	10.0	ND	ND	ND	ND	ND
RW-1	15.0	22	0.72	1.6	0.58	2.2
RW-1	20.0	41	ND	18.0	8.0	40.0
RW-1	25.0	50	1.4	3.3	1.0	5.4
		July 1990				
MW-5	5.0	ND	ND	ND	ND	ND
MW-5	10.0	9.3	ND	0.019	ND	0.11
MW-5	15.0	14	0.16	0.037	0.29	0.42
MW-5	20.0	190	1.8	11	2.5	17
MW-5	25.0	770	4.8	44	13	94
MW-6	15.0	ND	ND	ND	ND	ND
MW-6	20.0	ND	ND	ND	ND	ND
MW-7	15.0	ND	ND	ND	ND	ND

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
ND = Not Detected at Method Detection Limit (refer to Appendix D, Official Laboratory Reports)

Source: Alton, September 4, 1990

Table C-6

TABLE 3

RESULTS OF
LABORATORY ANALYSIS OF GROUND WATER SAMPLES
July 1990

Monitoring Well	TPH-G	B	T	E	X
	(Concentrations in Parts per Billion)				
MW-1	--	--	--	--	--
MW-2	--	--	--	--	--
MW-3	140	5.3	4.6	2.0	3.8
MW-4	ND	ND	ND	ND	ND
MW-5	280	200	210	46	290
MW-6	ND	ND	ND	ND	ND
MW-7	ND	ND	ND	ND	ND

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
ND = Not Detected at Method Detection Limit (refer to Appendix D, Official Laboratory Reports)
-- = No sample collected due to the presence of free floating product

Source: Alton, September 4, 1990 Table C-7

KEI-J90-0804.R2
October 11, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES
SOIL

(Collected on August 21 & 24, 1990)

Sample	Depth (feet)	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene	Organic Lead
D1	4.5	ND	ND	ND	ND	ND	ND
D2	3.0	ND	ND	ND	ND	ND	ND
D3	7.0	ND	ND	ND	ND	ND	ND
PT-1	3.0	ND	ND	ND	ND	ND	0.55
PT-2	3.0	ND	ND	ND	ND	ND	ND
PT-3	4.0	21	0.0099	0.062	0.038	0.060	ND
PT-4	3.0	ND	ND	ND	ND	ND	ND
Detection Limits		1.0	0.0050	0.0050	0.0050	0.0050	0.050

ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.

Source: KEI, October 11, 1990a

KEI-J90-0804.R1
October 11, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES

(Collected on August 21 & 31, 1990)

Sample	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethylbenzene
Comp A*	8.0	ND	0.019	0.14	0.014
Comp B	240	0.060	0.70	9.5	0.68
Comp 1	6.1	ND	ND	0.019	0.0060
Detection Limits	1.0	0.0050	0.0050	0.0050	0.0050

* Organic lead was non-detectable.

ND = Non-detectable.

Results in parts per million (ppm), unless otherwise indicated.

Source: KEI, October 11, 1990b

Table C-9

TABLE 2 1132

RESULTS OF
LABORATORY ANALYSIS OF SOIL SAMPLES
March 1991

Boring	Sample Depth (ft)	TPH-G	B	T	E	X
		(Concentrations in Parts Per Million)				
SB-8	10.5-11.0	ND<1	ND<0.003	0.004	ND<0.003	ND<0.003
	20.5-21.0	390	1.8	16	6.7	37
	25.5-26.0	ND<1	0.013	0.028	0.009	0.05
SB-9	10.5-11.0	ND<1	ND<0.003	0.004	ND<0.003	0.006
	20.5-21.0	120	1.7	7.1	1.7	11
	25.5-26.0	130	0.47	3.9	1.6	12
SB-10	10.5-11.0	ND<1	ND<0.003	0.007	ND<0.003	0.017
	20.5-21.0	73	0.49	3.3	1.3	6.9
	25.5-26.0	1	0.41	0.009	0.007	0.019

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
ND = Not Detected at Method Detection Limit shown

Source: Alton, AUgust 21, 1991

TABLE 3

RESULTS OF
LABORATORY ANALYSIS OF GROUND WATER SAMPLES
April 1990

Monitoring Well	TPH-G	B	T	E	X
	(Concentrations in Parts per Billion)				
MW-1	*	*	*	*	*
MW-2	*	*	*	*	*
MW-3	400	69	22	6.1	57
MW-4	ND<50	2.2	3.8	1.5	2.8
MW-5	ND<50	17	0.9	0.7	1.6
MW-6	**	**	**	**	**
MW-7	ND<50	ND<0.3	0.4	0.3	2.4
MW-8	2700	780	450	64	310
MW-9	7100	220	4	2.4	2400
MW-10	1600	120	190	32	230
RW-1	***	***	***	***	***

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
ND = Not Detected at Method Detection Limit
* = No sample collected due to the presence of free product
** = No sample collected due to the presence of an abandoned vehicle located over the well
*** = The recovery well was not sampled due to the presence of an oily substance

Source: Alton, August 21, 1991

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 36TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (ft) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (ft) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-1	07/09/90	169.75	—	0.22	—	—	—	—	—	—	—	—
MW-1	12/21/90	169.75	—	0.58	—	—	—	—	—	—	—	—
MW-1	03/07/91	169.75	20.58	—	—	—	—	—	—	—	—	—
MW-1	06/27/91	169.75	—	0.18	—	—	—	—	—	—	—	—
MW-1	09/27/91	169.75	—	0.27	—	—	—	—	—	—	—	—
MW-1	12/18/91	169.75	—	0.28	—	—	—	—	—	—	—	—
MW-1	04/01/91	169.75	16.51	0.16	153.36	—	—	—	—	—	—	—
MW-1	07/03/92	169.75	22.30	0.27	147.85	—	—	—	—	—	—	—
MW-1	10/05/92	169.75	23.98	0.24	145.95	—	—	—	—	—	—	—
MW-1	01/13/93	169.75	17.03	0.24	152.90	—	—	—	—	—	—	—
MW-1	04/23/93	169.75	18.10	0.42	151.97	—	—	—	—	—	—	—
MW-1	07/12/93	169.75	22.02	0.49	148.10	—	—	—	—	—	—	—
MW-1	10/21/93	169.75	25.12	1.09	145.45	—	—	—	—	—	—	—
MW-1	01/21/94	169.75	23.02	0.78	147.30	—	—	—	—	—	—	—
MW-1	04/20/94	169.75	24.54	1.80	146.54	—	—	—	—	—	—	—
MW-2	07/09/90	168.14	—	0.16	—	—	—	—	—	—	—	—
MW-2	12/21/90	168.14	—	0.48	—	—	—	—	—	—	—	—
MW-2	03/07/91	168.14	19.14	—	—	—	—	—	—	—	—	—
MW-2	06/27/91	168.14	—	0.19	—	—	—	—	—	—	—	—
MW-2	09/27/91	168.14	—	0.15	—	—	—	—	—	—	—	—
MW-2	12/18/91	168.14	—	0.36	—	—	—	—	—	—	—	—
MW-2	04/01/91	168.14	14.21	0.10	153.01	—	—	—	—	—	—	—
MW-2	07/03/92	168.14	20.93	0.03	147.23	—	—	—	—	—	—	—
MW-2	10/05/92	168.14	22.74	0.21	145.56	—	—	—	—	—	—	—
MW-2	01/13/93	168.14	15.55	0.02	152.61	—	—	—	—	—	—	—
MW-2	04/23/93	168.14	16.54	0.21	151.76	—	—	—	—	—	—	—
MW-2	07/12/93	168.14	20.46	0.08	147.73	—	—	—	—	—	—	—
MW-2	10/21/93	168.14	24.91	0.31	143.48	—	—	—	—	—	—	—
MW-2	01/21/94	168.14	21.20	—	146.94	—	—	—	—	—	—	—
MW-2	04/20/94	168.14	22.44	—	145.70	1600	140	370	84	290	1.7	PACE
MW-3	07/09/90	167.17	—	—	—	140	5.3	4.6	2.0	3.6	—	—
MW-3	12/21/90	167.17	—	—	—	8.19	100	8.0	6.8	27	—	—
MW-3	03/07/91	167.17	17.40	—	148.77	9.4	88	22	6.1	57	—	—
MW-3	06/27/91	167.17	—	—	—	380	28	28	13	44	—	—
MW-3	09/27/91	167.17	—	—	—	0.07	7.9	ND	0.4	1.1	—	—
MW-3	12/18/91	167.17	—	—	—	0.26	34	24	0.8	28	—	—
MW-3	04/01/91	167.17	13.68	—	153.46	ND	ND	ND	ND	ND	—	—
MW-3	07/03/92	167.17	19.58	—	147.58	71	9.4	0.9	5.0	13	—	ANA
MW-3	10/05/92	167.17	21.22	—	145.95	67	5.1	1.1	6.1	8.1	—	ANA
CC-1 [5]	10/05/92	—	—	—	—	NO<50	2.2	NO<0.5	1.5	2.8	—	ANA
MW-3	01/13/93	167.17	13.83	—	153.34	800	50	34	42	88	—	PACE
MW-3	04/23/93	167.17	15.02	—	152.15	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
CC-1 [5]	04/23/93	—	—	—	—	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
MW-3	07/12/93	167.17	18.16	—	148.01	250	12	4.2	12	16	—	PACE
MW-3	10/21/93	167.17	21.81	—	145.36	82	4.4	1.4	4.7	3.3	—	PACE
CC-1 [5]	10/21/93	—	—	—	—	85	7.4	1.0	6.9	4.2	—	PACE
MW-3	01/21/94	167.17	19.94	—	147.23	57	3.0	3.4	3.6	9.0	—	PACE
MW-3	04/20/94	167.17	20.24	—	146.93	800	26	23	33	86	1.8	PACE

PAGE 1

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Source: Alisto, May 25, 1994

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (ft) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (ft) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-1	07/09/90	169.75	—	0.22	—	—	—	—	—	—	—	—
MW-1	12/21/90	169.75	—	0.56	—	—	—	—	—	—	—	—
MW-1	03/07/91	169.75	20.59	—	—	—	—	—	—	—	—	—
MW-1	06/27/91	169.75	—	0.18	—	—	—	—	—	—	—	—
MW-1	09/27/91	169.75	—	0.27	—	—	—	—	—	—	—	—
MW-1	12/16/91	169.75	—	0.28	—	—	—	—	—	—	—	—
MW-1	04/01/91	169.75	16.51	0.16	153.36	—	—	—	—	—	—	—
MW-1	07/03/92	169.75	22.30	0.27	147.85	—	—	—	—	—	—	—
MW-1	10/05/92	169.75	23.98	0.24	145.95	—	—	—	—	—	—	—
MW-1	01/13/93	169.75	17.03	0.24	152.90	—	—	—	—	—	—	—
MW-1	04/23/93	169.75	18.10	0.42	151.87	—	—	—	—	—	—	—
MW-1	07/12/93	169.75	22.02	0.49	148.10	—	—	—	—	—	—	—
MW-1	10/21/93	169.75	25.12	1.09	145.45	—	—	—	—	—	—	—
MW-1	01/21/94	169.75	23.02	0.78	147.30	—	—	—	—	—	—	—
MW-1	04/20/94	169.75	24.54	1.80	146.56	—	—	—	—	—	—	—
MW-2	07/09/90	166.14	—	0.10	—	—	—	—	—	—	—	—
MW-2	12/21/90	166.14	—	0.48	—	—	—	—	—	—	—	—
MW-2	03/07/91	166.14	19.14	—	—	—	—	—	—	—	—	—
MW-2	06/27/91	166.14	—	0.19	—	—	—	—	—	—	—	—
MW-2	09/27/91	166.14	—	0.15	—	—	—	—	—	—	—	—
MW-2	12/16/91	166.14	—	0.36	—	—	—	—	—	—	—	—
MW-2	04/01/91	166.14	14.21	0.10	153.01	—	—	—	—	—	—	—
MW-2	07/03/92	166.14	20.93	0.03	147.23	—	—	—	—	—	—	—
MW-2	10/05/92	166.14	22.74	0.21	145.56	—	—	—	—	—	—	—
MW-2	01/13/93	166.14	15.55	0.02	152.61	—	—	—	—	—	—	—
MW-2	04/23/93	166.14	16.54	0.21	151.76	—	—	—	—	—	—	—
MW-2	07/12/93	166.14	20.46	0.06	147.73	—	—	—	—	—	—	—
MW-2	10/21/93	166.14	24.91	0.31	143.46	—	—	—	—	—	—	—
MW-2	01/21/94	166.14	21.20	—	146.94	—	—	—	—	—	—	—
MW-2	04/20/94	166.14	22.44	—	146.70	1800	140	370	54	290	1.7	PACE
MW-3	07/09/90	167.17	—	—	—	140	5.3	4.5	2.0	3.5	—	—
MW-3	12/21/90	167.17	—	—	—	8.19	100	6.0	8.8	27	—	—
MW-3	03/07/91	167.17	17.40	—	149.77	6.4	88	22	6.1	57	—	—
MW-3	06/27/91	167.17	—	—	—	380	28	28	13	44	—	—
MW-3	09/27/91	167.17	—	—	—	0.07	7.9	NO	0.4	1.1	—	—
MW-3	12/16/91	167.17	—	—	—	0.26	34	24	0.8	28	—	—
MW-3	04/01/91	167.17	13.86	—	153.48	NO	NO	NO	NO	NO	—	ANA
MW-3	07/03/92	167.17	19.59	—	147.64	71	8.4	0.9	5.0	13	—	ANA
MW-3	10/05/92	167.17	21.22	—	145.95	67	5.1	1.1	6.1	8.1	—	ANA
MW-3	01/13/93	167.17	—	—	—	NO<50	2.2	NO<0.5	1.5	2.8	—	PACE
CC-1 [5]	10/05/92	—	—	—	—	830	50	34	42	89	—	PACE
MW-3	01/13/93	167.17	13.83	—	153.34	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
MW-3	04/23/93	167.17	15.02	—	152.15	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
CC-1 [5]	04/23/93	—	—	—	—	250	12	4.2	12	16	—	PACE
MW-3	07/12/93	167.17	19.16	—	144.01	92	4.4	1.4	4.7	3.3	—	PACE
MW-3	10/21/93	167.17	21.81	—	146.36	85	7.4	1.0	6.9	4.2	—	PACE
CC-1 [5]	10/21/93	—	—	—	—	57	3.0	3.4	3.6	9.0	—	PACE
MW-3	01/21/94	167.17	19.34	—	147.23	800	26	23	33	86	1.6	PACE
MW-3	04/20/94	167.17	20.24	—	146.93							

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Source: Alisto, May 25, 1994

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 36TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-1	07/08/90	170.36	--	--	--	NO	NO	NO	NO	NO	--	--
MW-1	12/21/90	170.36	--	--	--	NO	NO	NO	NO	0.8	--	--
MW-1	03/07/91	170.36	20.72	--	149.64	NO	2.2	3.8	1.5	2.5	--	--
MW-1	06/27/91	170.36	--	--	--	NO	6.3	1.8	0.4	1.0	--	--
MW-1	09/27/91	170.36	--	--	--	NO	NO	NO	NO	NO	--	--
MW-1	12/18/91	170.36	--	--	--	NO	NO	NO	NO	NO	--	--
MW-1	04/01/92	170.36	17.49	--	152.87	NO	NO	NO	NO	NO	--	--
MW-1	07/03/92	170.36	22.16	--	148.20	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	ANA
MW-1	10/05/92	170.36	23.38	--	146.98	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	ANA
MW-1	01/13/93	170.36	17.58	--	152.78	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-1	04/23/93	170.36	15.72	--	154.64	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-1	07/12/93	170.36	21.74	--	148.62	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-1	10/21/93	170.36	23.84	--	146.52	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-1	01/21/94	170.36	22.42	--	147.94	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-1	04/20/94	170.36	22.66	--	147.70	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	2.2	PACE
MW-5	07/08/90	165.14	--	--	--	280	200	270	46	290	--	--
MW-5	12/21/90	165.14	--	--	--	0.69	300	34	8.4	39	--	--
MW-5	03/07/91	165.14	16.60	--	148.54	NO	17	0.9	0.7	1.6	--	--
MW-5	06/27/91	165.14	--	--	--	330	120	10	12	8	--	--
MW-5	09/27/91	165.14	--	--	--	0.73	230	16	20	22	--	--
MW-5	12/18/91	165.14	--	--	--	NO	NO	NO	NO	NO	--	--
MW-5	04/01/92	165.14	11.99	--	153.15	800	230	64	11	60	--	--
MW-5	07/03/92	165.14	18.65	--	146.49	150	36	NO<0.5	NO<0.5	1.1	--	ANA
MW-5	10/05/92	165.14	20.32	--	144.82	270	79	4	1.7	2.9	--	ANA
MW-5	01/13/93	165.14	13.03	--	152.11	180	58	6.0	1.8	7.6	--	PACE
MW-5	04/23/93	165.14	13.51	--	151.63	8700	440	98	35	136	--	PACE
MW-5	07/12/93	165.14	18.08	--	147.06	250	57	2.9	2.1	6.0	--	PACE
MW-5	10/21/93	165.14	20.41	--	144.73	210	82	1.5	NO<0.5	1.4	--	PACE
MW-5	01/21/94	165.14	18.86	--	146.28	110	36	1.2	NO<0.5	0.7	--	PACE
MW-5	04/22/94	165.14	17.30	--	147.84	890	220	4.5	1.8	11	1.3	PACE
MW-6	07/08/90	165.40	--	--	--	NO	NO	NO	NO	NO	--	--
MW-6	12/21/90	165.40	--	--	--	0.17	2.8	7.0	4.9	28	--	--
MW-6 [3]	03/07/91	165.40	--	--	--	--	--	--	--	--	--	--
MW-6 [3]	06/27/91	165.40	--	--	--	--	--	--	--	--	--	--
MW-6 [3]	09/27/91	165.40	--	--	--	--	--	--	--	--	--	--
MW-6	12/18/91	165.40	--	--	--	NO	1.3	22	NO	2.7	--	--
MW-6	04/01/92	165.40	11.79	--	153.61	NO	NO	NO	NO	NO	--	--
MW-6	07/03/92	165.40	17.77	--	147.63	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	ANA
MW-6	10/05/92	165.40	19.48	--	145.94	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	ANA
MW-6	01/13/93	165.40	11.34	--	154.06	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-6	04/23/93	165.40	12.92	--	152.48	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-6	07/12/93	165.40	17.36	--	148.04	NO<50	NO<0.5	NO<0.5	NO<0.5	0.7	--	PACE
MW-6	10/21/93	165.40	19.98	--	145.42	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-6	01/21/94	165.40	18.10	--	147.30	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	--	PACE
MW-6	04/20/94	165.40	14.68	--	146.72	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	2.0	PACE

Source: Alisto, May 25, 1994

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-7	07/08/90	167.81	--	--	--	ND	ND	ND	ND	ND	--	--
MW-7	12/21/90	167.81	--	--	--	ND	ND	ND	ND	ND	--	--
MW-7	03/07/91	167.81	19.04	--	148.57	ND	ND	0.4	0.3	2.4	--	--
MW-7	06/27/91	167.81	--	--	--	70	17	4	0.8	2.2	--	--
MW-7	09/27/91	167.81	--	--	--	ND	0.4	ND	ND	0.4	--	--
MW-7	12/18/91	167.81	--	--	--	ND	0.7	2.9	0.8	3.3	--	--
MW-7	04/01/91	167.81	15.18	--	152.43	ND	ND	ND	ND	ND	--	--
MW-7	07/03/92	167.81	20.28	--	147.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ANA
MW-7	10/05/92	167.81	21.56	--	146.05	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	--	ANA
MW-7	01/13/93	167.81	15.41	--	152.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-7	04/23/93	167.81	15.84	--	151.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-7	07/12/93	167.81	19.84	--	147.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-7	10/21/93	167.81	21.81	--	146.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-7	01/21/94	167.81	20.69	--	147.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
QC-1 (c)	01/21/94	--	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	PACE
MW-7	04/20/94	167.81	20.54	--	147.27	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5	PACE
MW-8	03/07/91	165.74	16.72	--	149.02	2.7	760	450	84	310	--	--
MW-8	06/27/91	165.74	--	--	--	12000	3400	1100	240	730	--	--
MW-8	09/27/91	165.74	--	--	--	41	5700	5200	1100	4300	--	--
MW-8	12/18/91	165.74	--	--	--	3.2	990	150	120	250	--	--
MW-8	04/01/91	165.74	12.54	--	153.20	15000	3800	2800	410	1800	--	--
MW-8	07/03/92	165.74	16.78	--	148.96	72000	19000	32000	3000	15000	--	ANA
MW-8	10/05/92	165.74	20.48	0.01	145.27	--	--	--	--	--	--	--
MW-8	01/13/93	165.74	12.87	0.01	152.88	--	--	--	--	--	--	--
MW-8	04/23/93	165.74	13.90	SHEEN	151.84	--	--	--	--	--	--	--
MW-8	07/12/93	165.74	18.30	SHEEN	147.44	--	--	--	--	--	--	--
MW-8	10/21/93	165.74	21.81	0.95	144.54	--	--	--	--	--	--	--
MW-8	01/21/94	165.74	19.12	0.03	146.64	--	--	--	--	--	--	--
MW-8	04/20/94	165.74	19.28	0.03	146.48	28000	1700	4100	960	4000	1.1	PACE
MW-9	03/07/91	166.20	16.79	--	149.41	7.1	220	4	2.4	2400	--	--
MW-9	06/27/91	166.20	--	--	--	3800	520	400	85	310	--	--
MW-9	09/27/91	166.20	--	--	--	3.2	720	150	50	180	--	--
MW-9	12/18/91	166.20	--	--	--	ND	2.5	1.1	0.3	5.8	--	--
MW-9	04/01/91	166.20	12.89	--	153.31	12000	2000	2800	380	1600	--	--
MW-9	07/03/92	166.20	16.89	--	147.31	5700	17000	840	230	800	--	ANA
MW-9	10/05/92	166.20	20.52	--	145.68	1400	440	17	14	100	--	ANA
MW-9	01/13/93	166.20	12.92	--	153.28	11000	1200	1700	340	1400	--	PACE
QC-1 (c)	01/13/93	--	--	--	0.00	11000	1200	1600	330	1300	--	PACE
MW-9	04/23/93	166.20	14.08	--	152.12	24000	2800	4500	730	3400	--	PACE
MW-9	07/12/93	166.20	18.44	--	147.76	13000	1400	1100	280	1400	--	PACE
QC-1 (c)	07/12/93	--	--	--	--	10000	1200	900	310	1200	--	PACE
MW-9	10/21/93	166.20	21.81	0.88	145.06	--	--	--	--	--	--	--
MW-9	01/21/94	166.20	19.26	--	146.92	--	--	--	--	--	--	--
MW-9	04/20/94	166.20	19.72	--	146.48	43000	2800	8400	1300	7900	1.7	PACE
QC-1 (c)	04/20/94	--	--	--	--	45000	2700	8400	1200	8200	--	PACE

Source: Alisto, May 25, 1994

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11132
2201 36TH AVE. AVE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 94-034

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (a) (b) (Feet)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	DO (ppm)	LAB
MW-10	03/07/91	167.01	14.09	—	148.92	1.8	120	190	32	230	—	—
MW-10	06/27/91	167.01	—	—	—	12000	7300	800	150	300	—	—
MW-10	09/27/91	167.01	—	—	—	57	12000	7200	1400	4600	—	—
MW-10	12/14/91	167.01	—	—	—	5.3	2500	130	36	79	—	—
MW-10	04/01/91	167.01	13.92	—	153.09	NO	NO	NO	NO	NO	—	—
MW-10	07/03/92	167.01	19.92	—	147.09	8400	5100	1300	140	880	—	AHA
MW-10	10/05/92	167.01	21.92	0.19	146.33	—	—	—	—	—	—	—
MW-10	01/13/93	167.01	14.43	0.03	152.80	—	—	—	—	—	—	—
MW-10	04/23/93	167.01	15.26	0.06	151.80	—	—	—	—	—	—	—
MW-10	07/12/93	167.01	19.78	0.45	147.67	—	—	—	—	—	—	—
MW-10	10/21/93	167.01	22.90	0.89	144.63	—	—	—	—	—	—	—
MW-10	01/21/94	167.01	20.25	0.06	146.81	—	—	—	—	—	—	—
MW-10	04/20/94	167.01	20.74	—	146.27	100000	12000	34000	3400	14000	1.0	PACE
FW-1	07/09/90	166.01	—	1.21	—	—	—	—	—	—	—	—
FW-1	12/21/90	166.01	—	0.01	—	—	—	—	—	—	—	—
FW-1	03/07/91	166.01	17.82	SHEEN	160.39	—	—	—	—	—	—	—
FW-1	06/27/91	166.01	—	0.04	—	—	—	—	—	—	—	—
FW-1	09/27/91	166.01	—	0.02	—	—	—	—	—	—	—	—
FW-1	12/14/91	166.01	—	0.02	—	—	—	—	—	—	—	—
FW-1	04/01/91	166.01	14.40	0.11	153.88	—	—	—	—	—	—	—
FW-1	07/03/92	166.01	20.66	SHEEN	147.35	—	—	—	—	—	—	—
FW-1	10/05/92	166.01	23.34	0.08	144.73	—	—	—	—	—	—	—
FW-1	01/13/93	166.01	16.56	0.05	151.46	—	—	—	—	—	—	—
FW-1	04/23/93	166.01	16.17	0.18	151.96	—	—	—	—	—	—	—
FW-1	07/12/93	166.01	20.18	0.06	147.86	—	—	—	—	—	—	—
FW-1	10/21/93	166.01	25.70	0.56	142.73	—	—	—	—	—	—	—
FW-1	01/21/94	166.01	21.24	0.40	147.67	—	—	—	—	—	—	—
FW-1	04/20/94	166.01	32.39	—	136.81	—	—	—	—	—	—	—
QC-2 (c)	10/05/92	—	—	—	—	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	AHA
QC-2 (c)	01/13/93	—	—	—	—	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
QC-2 (c)	04/23/93	—	—	—	—	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
QC-2 (c)	07/12/93	—	—	—	—	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
QC-2 (c)	10/21/93	—	—	—	—	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE
QC-2 (c)	01/21/94	—	—	—	—	NO<50	NO<0.5	2.1	NO<0.5	2.1	—	PACE
QC-2 (c)	04/20/94	—	—	—	—	NO<50	NO<0.5	NO<0.5	NO<0.5	NO<0.5	—	PACE

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
DO	Dissolved oxygen
ppb	Parts per billion
ppm	Parts per million
—	Not analyzed/available/applicable/measurable
NO	Not detected above reported detection limit
AHA	Anametrix, Inc.
PACE	Pace Inc.

NOTES:

(a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level.

(b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.

(c) Blind duplicates.

(d) Not sampled due to an abandoned vehicle parked over well.

(e) Travel blank.

25-May-94

PAGE 4

Source: Alisto, May 25, 1994

TABLE 2 - PRODUCT REMOVAL STATUS

BP OIL COMPANY SERVICE STATION NO. 11132
3201 35TH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-024

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-2	09/29/93	0.10	0.10
	10/05/93	0.10	0.20
	10/14/93	0.10	0.30
	10/20/93	0.25	0.55
	11/02/93	0.10	0.65
	12/07/93	0.05	0.70
	12/17/93	<0.01	0.70
	12/23/93	0.3	1.00
	01/12/94	0.05	1.05
	02/02/94	0.01	1.06
	02/11/94	0.01	1.07
	03/18/94	<0.01	1.07
MW-8	11/02/93	0.25	0.25
	11/10/93	0.10	0.35
	11/16/93	0.10	0.45
	11/23/93	0.10	0.55
	11/30/93	0.10	0.65
	12/17/93	<0.01	0.65
	12/23/93	<0.01	0.65
	01/12/94	0.01	0.66
	02/02/94	0.05	0.71
	02/11/94	0.08	0.79
	02/18/94	<0.01	0.79
	03/18/94	0.01	0.80
	04/27/94	<0.01	0.80
MW-9	11/02/93	0.10	0.10
	11/10/93	0.10	0.20
	11/16/93	0.10	0.30
	12/23/93	<0.01	0.30
	01/12/94	0.01	0.31
	01/20/93	0.05	0.36
	02/02/94	0.05	0.41
	02/11/94	0.01	0.42
	02/18/94	<0.01	0.42
	03/18/94	0.10	0.52
MW-10	09/07/93	0.10	0.10
	09/14/93	0.10	0.20
	09/29/93	0.10	0.30
	10/05/93	1.60	1.90
	10/14/93	2.10	4.00
	10/20/93	1.00	5.00
	10/27/93	1.00	6.00
	11/02/93	0.30	6.30
	11/10/93	0.20	6.50
	11/16/93	0.10	6.60
	11/23/93	0.10	6.70
	11/30/93	0.30	7.00
	12/07/93	0.20	7.20
	12/17/93	0.30	7.50
	12/23/93	<0.01	7.50
	01/04/94	0.01	7.51
	01/12/94	<0.01	7.52
	01/20/94	0.20	7.72
	02/02/94	0.01	7.73
	02/11/94	<0.01	7.74
	02/18/94	0.20	7.94

Source: Alisto, May 25, 1994

ATTACHMENT D

BORING LOGS AND LABORATORY REPORT FROM SUPPLEMENTAL ASSESSMENT WORK

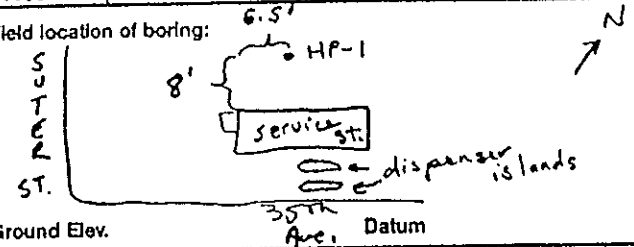
FIELD LOG OF EXPLORATORY BORING

EMCON ASSOCIATES

PROJECT No. 0152-044.02 DATE 11/22/94
CLIENT TOSCO 11132
LOCATION 3201 35th St., Oakland, CA
LOGGED BY D. Galasso

BORING No. HP-1
Sheet 1 of 2

Field location of boring:



Ground Elev. Datum

Drilling Co. Precision
Drill rig model XD 1
Drilling method CPT
Hole dia. 2 3/9"

Boring completion data Grouted hole to surface adding asphalt patch to top on boring

Depth to ▽	—	Depth to ▼			
Time		Time			
Date	—	Date			

OVM	Pocket Penetrometer (TSF)	Blows/6 in. and/or Pressure (PSI)	Type of Sampler	Recovery (ft/ft)	Sample Number and Container Type	Depth	Sampled Interval	Well Detail	Soil/Rock Symbol	Graphic Log	DESCRIPTION
				0.5/3		1			AS		Asphalt - 4"
									GP		Gravel (GP) dark gray (2.5Y, N4/0) 40% coarse (gravel) size sand, 60% fine gravel, damp, no odor (very little to look at)
						2					
						3					
						4					
0.3				0.5/3	4-4.5				GP		Sandy Gravel (GP) olive brn (2.5Y, 4/4) 5% low-plasticity fines, 35% fine to coarse sand (1:2:3), 60% fine gravel, damp, no odor (very little to look at)
						5					
						6					
						7					
				3/3							@ light olv. brn (2.5Y, 5/4) 5% low-plasticity fines, 40% fine to coarse sand (1:2:3), 55% fine to coarse gravel, mineral break-up, damp, no odor
						8					
						9					
0.6					9.5-10	10					
				1/3							
						11			SM		Silty Sand light olv. brn (2.5Y, 5/4) 35% med. fines, 55% fine to coarse sand, 10% fine gravel, red/gray veining heavy orange mottling, iron + manganese staining, gray mineral weathering, damp, no odor black, red, white minerals
0.6					11.5-12	12					
											@ 20-25% med. fines, 60-65% fine to coarse sand (1:2:3) 15% fine to coarse gravel (1:2) damp, no odor
				3/3		13					
						14					
						15					
0.3					15-15.5						
						16					@ 25-30% low-med fines 70-75% fine to coarse sand (1:2:4) damp, no odor
				3/3							
						17					
						18					
						19					@ 15-20% low-med fines, 70-80% fine to coarse sand (1:2:4), 5-10% fine gravel damp, no odor

Reviewed by Date

FIELD LOG OF EXPLORATORY BORING

EMCON ASSOCIATES

PROJECT No. 0952-044.02 DATE 11/22/94
CLIENT TOSCO 11132
LOCATION 3201 35th St., Oakland, CA
LOGGED BY D. Galasso

BORING No. HP-1
Sheet 2 of 2

Field location of boring:

Drilling Co. Precision
Drill rig model XD 1
Drilling method CPT
Hole dia. 2 3/8

Boring completion data Grouted hole to surface adding asphalt patch to top of boring

Ground Elev. see pg. 1 Datum

Depth to ▽	—	Depth to ▼			
Time		Time			
Date	—	Date			

O V M	Pocket Penetrometer (TSF)	Blows/6 in. and/or Pressure (PSI)	Type of Sampler	Recovery (ft/ft)	Sample Number and Container Type	Depth	Sampled Interval	Well Detail	Soil/Rock Symbol	Graphic Log	DESCRIPTION
0.6					20-20.5				SM		Silty Sand (SM) continued
						21					
											Clay (CL) olive (5Y, 5/3)
				1/3		22					95% high-plast. fines, 5% fine sand
1.3					22.5-23				CL		orange mottling, iron-staining, gray veining, damp, no odor
						23					Refusal at 23.0'
											Boring terminated
						24					
						25					

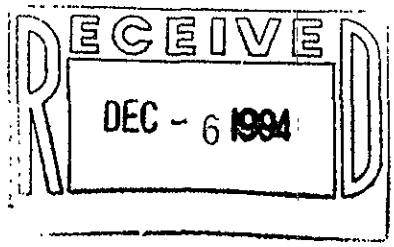
Reviewed by: _____ Date: _____

Form F-9 Rev. 10/90

Columbia Analytical Services INC.

December 6, 1994

Service Request No: S941499



Mike Noll
EMCON Northwest, Inc.
18912 N. Creek Parkway
Bothell, WA 98011

Re: TOSCO # 11132 / 0952-044.02

Dear Mr. Noll:

Attached are the results of the soil sample submitted to our lab on November 23, 1994. For your reference, these analyses have been assigned our service request number S941499.

All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and CAS is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted:

Keoni A. Murphy
COLUMBIA ANALYTICAL SERVICES, INC.

KAM/ajb

1921 Ringwood Avenue • San Jose, California 95131

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON Associates	**Service Request:**	S941499
Project:	TOSCO # 11132 / 0952-044.02	**Date Collected:**	11/22/94
Sample Matrix:	Soil	**Date Received:**	11/23/94
		Date Extracted:	11/23/94
		Date Analyzed:	12/1,2/94

Hydrocarbon Scan
California DHS LUFT Method
Units: mg/Kg (ppm)
As Received Basis

Analyte:	Mineral Spirits	Jet Fuel	Kerosene	TPH as Diesel	Hydraulic Oil
Method Reporting Limit:	1	1	1	1	5
Sample Name	**Lab Code**				
11132-HP1-S-4-4.5	S941499-001	ND	ND	ND	ND	120
Method Blank	S941123-SB	ND	ND	ND	ND	ND

Approved By: Kevin A Murphy Date: December 6, 1994

SA/061694

1921 Ringwood Avenue • San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-9356

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON Associates
Project: TOSCO # 11132 / 0952-044.02
Sample Matrix: Soil

Service Request: S941499
Date Collected: 11/22/94
Date Received: 11/23/94
Date Extracted: 11/23/94
Date Analyzed: 12/1,2/94

Surrogate Recovery Summary
Hydrocarbon Scan
California DHS LUFT Method

Sample Name	Lab Code	Percent Recovery p-Terphenyl
11132-HP1-S-4-4.5	S941499-001	72
Method Blank	S941123-SB	59

CAS Acceptance Limits: 41-140

Approved By: Karen A Murphy Date: December 6, 1994

SUR1/062994

1921 Ringwood Avenue • San Jose, California 95131 • Telephone 408/437-2400 • Fax 408/437-9356

Columbia Analytical Services, Inc.

1921 Ringwood Ave. • San Jose, CA 95131 • (408) 437-2400, FAX (408)437-9356

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 11/23/94 PAGE 1 OF 1

PROJECT NAME TOSCO 11132 #0952-044.02

PROJECT MNGR. Lynn Gallagher

COMPANY/ADDRESS EMCON - San Jose

PHONE (408) 453-7300

SAMPLERS SIGNATURE Daniel Galasso

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	REMARKS
11132-HP1-S-4-4.5	11/22/94		1	soil	1	
11132-HP1-S-9.5-10			2	soil	1	Hold
11132-HP1-S-11.5-12			3	soil	1	Hold
11132-HP1-S-15-15.5			4	soil	1	Hold
11132-HP1-S-20-20.5			5	soil	1	Hold
11132-HP1-S-22.5-23	↓		6	soil	1	Hold

ANALYSIS REQUESTED

- Base/Neut/Acid Organics GC/MS 625/8270
- Volatile Organics GC/MS 624/8240
- Halogenated or Aromatic Volatiles 601/8010 ☐ 602/8020 ☐
- TPH as Gas/BTEX DHS LUFT/8020
- TPH as Diesel/HBHC DHS LUFT
- TRPH - 418.1
- Oil and Grease Method
- Metals (total or dissolved) List Below
- pH, Cond, Cl, SO_4, PO4, F, NO_2, Alk, TDS, TSS (circle)
- NH_3-N, COD, Total P, TKN, NO_3 (circle)
- Total Organic Carbon TOC 415/9060
- Total Phenols

RELINQUISHED BY:	RECEIVED BY:
Signature: Daniel Galasso	Signature:
Printed Name: Daniel Galasso	Printed Name: P.O. NORRIS
Firm: EMCON Assoc.	Firm: CAS SJ
Date/Time: 11/23/94 9:00AM	Date/Time: 11-23-94 9:00AM

RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:
Printed Name:	Printed Name:
Firm:	Firm:
Date/Time:	Date/Time:

TURNAROUND REQUIREMENTS:

- ✓ 72 hr.
- ___ 24 hr ___ 48 hr ___ 5 day
- ___ Standard (~ 10-15 working days)
- ___ Provide Verbal Preliminary Results
- ___ Provide FAX Preliminary Results

Requested Report Date: ___

REPORT REQUIREMENTS

- ___ I. Routine Report
- ___ II. Report (includes DUP,MS, MSD, as required, may be charged as samples)
- ___ III. Data Validation Report (includes All Raw Data)
- ___ IV. CLP Deliverable Report

INVOICE INFORMATION:

P.O. #: ___

Bill to: ___

SAMPLE RECEIPT:

Shipping VIA: ___

Shipping #: ___

Condition: ___

Lab No.: 941499

SPECIAL INSTRUCTIONS/COMMENTS:

72 hr. turn around please.