

BP OIL

92 JUN -8 11:12:00

BP Oil Company
Aetna Bldg., Suite 360
2868 Prospect Park Drive
Rancho Cordova, California 95670-6020
(916) 631-0733

June 2, 1992

STID 1075

~~BAAATY~~
Susan

Mr. Paul Smith
Alameda County Department of
Environmental Health
Hazardous Materials Division
80 Swan Way, Suite 200
Oakland, California 94621

RE: BP FACILITY #11124
3315 HIGH STREET
OAKLAND, CALIFORNIA

Dear Mr. Smith,

Enclosed please find the results of the Status Report First Quarter 1992 for the above referenced site. The sampling was performed on January 15, 1992.

Please call me at (916) 631-6919 with any questions regarding this submission.

Respectfully,

Peter J. DeSantis
Peter J. DeSantis sml
Environmental Resources Management

PJD/sml

Attachment

cc: Eric Holm, RESNA
Tom Callaghan, RWQCB San Francisco Bay Region
Jerry Blueford, City of Oakland Fire Dept.
David Baker, Mobil Oil Co.
Site file



A RESNA Company

3164 Gold Camp Drive, Suite 200
Rancho Cordova, CA 95670
Phone (916) 852-6690
FAX (916) 852-6688

RESNA

*Environmental Solutions
Through Applied Science,
Engineering & Construction*

**STATUS REPORT
FIRST QUARTER 1992**

at

**BP Facility No. 11124
3315 High Street
Oakland, California**

Job No. 30061-2



A RESNA Company

3164 Gold Camp Drive, Suite 200
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RESNA

*Environmental Solutions
Through Applied Science,
Engineering & Construction*

May 21, 1992

Mr. Peter DeSantis
BP Oil Company
2868 Prospect Park Drive
Suite 360
Rancho Cordova, California 95670

Subject: Status Report, First Quarter 1992, for BP Facility No. 11124, 3315 High Street, Oakland, California.

Mr. DeSantis:

At the request of BP Oil Company (BP), RESNA Industries (RESNA) performed the first quarter 1992 ground-water monitoring event at the subject site. This report presents the results of ground-water monitoring and includes information regarding the analytical results, depth to ground water, and gradient information.

The site is on the northwest corner of High Street and Porter Street in Oakland, California, as shown on the Site Vicinity Map (Plate 1). The work for the ground-water monitoring event included measuring depths to ground water and subjectively analyzing ground-water samples, purging and sampling ground water from monitoring wells MW-1, MW-2, and MW-4, analyzing ground-water samples from the three monitoring wells, and evaluating the ground-water flow direction and gradient beneath the site.

BACKGROUND

It is our understanding, based on conversations with personnel of BP, that two 10,000-gallon underground storage tanks, one 12,000-gallon underground storage tank, and one waste-oil tank are currently at the site. We do not know the capacity of the waste-oil tank. We understand the 10,000- and 12,000-gallon tanks are used to store regular and unleaded gasoline, respectively. The locations of the monitoring wells and site features are shown on the Generalized Site Plan (Plate 2).

In July 1986, Kaprealian Engineering, Inc. (Kaprealian) of Martinez, California, installed three ground-water monitoring wells (MW-1 through MW-3) at the site for Mobil Oil Corporation (the previous property owner). Samples of ground water collected from each well did not contain detectable concentrations of gasoline hydrocarbons (Kaprealian Engineering, Inc., September 6, 1986, Report No. KEI-J86-042). In addition, in the referenced Kaprealian report, the conclusions stated that a sufficient volume of soil had been removed from the site to significantly reduce adverse environmental impact to the ground water; therefore, Kaprealian recommended no further monitoring at the site.

On November 12, 1990, at the request of BP (the current property owner), a geologist from RESNA collected a ground-water sample from wells MW-1 and MW-2. A sample was not obtained from well MW-3 due to an obstruction in the well. Analytical results for water samples collected from wells MW-1 and MW-2 indicated hydrocarbon concentrations were below the laboratory's limits of detection (Applied GeoSystems, February 13, 1991, Letter Report No. 30061-1).

On May 13, 1991, monitoring well MW-3 was abandoned by drilling out the well casing and backfilling the boring with a cement/bentonite slurry. This well was abandoned because it could not be sampled due to the presence of a foreign object or bend in the casing. Following the abandonment of monitoring well MW-3, well MW-4 was installed approximately 12 feet south of the abandoned well. In addition to the well installation, a soil boring was drilled approximately 15 feet northeast of well MW-4 adjacent to the corner of the waste-oil tank (RESNA, January, 30, 1992, Report No. 30061-2).

PRESENT GROUND-WATER SAMPLING

A technician from RESNA visited the site on January 15, 1992, to measure the depth to ground water and collect ground-water samples from the three monitoring wells. Our technician performed this work following the methods outlined in an attachment to this report.

The depth to water in each monitoring well was measured to the nearest 0.01 foot with a Solinst water-level indicator. This information was then used in conjunction with the surveyed wellhead data to prepare a Potentiometric Map showing the direction of ground-water flow and gradient (Plate 3). Ground water beneath the site is flowing to the south-southwest with a gradient of 0.014.

Samples of ground water were collected from each monitoring well for subjective analyses of hydrocarbons using the methods summarized in an attachment to this report. No obvious product sheen was noted in the ground-water samples. The results of the subjective analyses are presented in Table 1.

Following the subjective analyses, monitoring wells MW-1, MW-2, and MW-4 were purged and ground-water samples were collected for laboratory analyses. During purging, the temperature, pH, and conductivity were monitored. These parameters are presented in Table 2. The purged water was left in drums at the site pending analytical results. Because the analyte concentrations are below the maximum contaminant levels, the water will be disposed of onsite.

The ground-water samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) using Environmental Protection Agency (EPA) Method 8015 (modified), benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) using EPA Method 602, and total oil and grease using Standard Method 503 A/E at Applied Analytical Environmental Laboratories in Fremont, California (Hazardous Waste Testing Laboratory Certificate No. 1211). TPHg, total oil and grease, benzene, ethylbenzene, and total xylene isomers were not detected in water samples collected from the three monitoring wells. Toluene was detected in monitoring well MW-4 at a concentration of 2.7 parts per billion. The results of these and previous ground-water analyses are summarized in Table 3. Copies of the analytical reports are attached.

RECOMMENDATIONS

Based on the detection of toluene in water collected from well MW-4 at concentrations below the maximum contaminant levels listed in Title 22 of the California Code of Regulations during the last three monitoring events, RESNA recommends monitoring of the ground water for TPHg, BTEX, and total oil and grease for an additional quarter. If concentrations of toluene are below maximum contaminant levels during that additional monitoring event, RESNA believes closure of the site is warranted.

We also recommend signed copies of this report be forwarded to Mr. Tom Callaghan of the California Regional Water Quality Control Board, San Francisco Bay Region, 1800 Harrison Street, Suite 700, Oakland, California 94612, Mr. Paul Smith of the Alameda County Department of Environmental Health, Hazardous Materials Division, 80 Swan Way, Suite 200, Oakland, California 94621, and Mr. Jerry Blueford of the City of Oakland Fire Department, 1605 Martin Luther King Way, Oakland, California 94612.

May 21, 1992
BP Facility No. 11124, Oakland, California

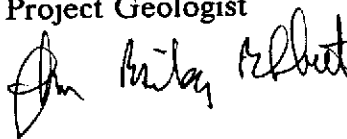
RESNA

Please call if you have questions regarding the information in this report.

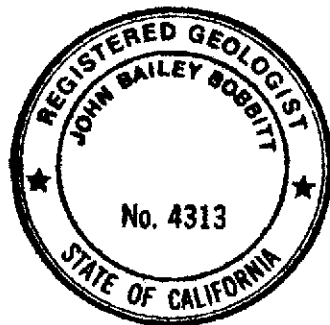
Sincerely,
RESNA Industries



Eric J. Holm
Project Geologist

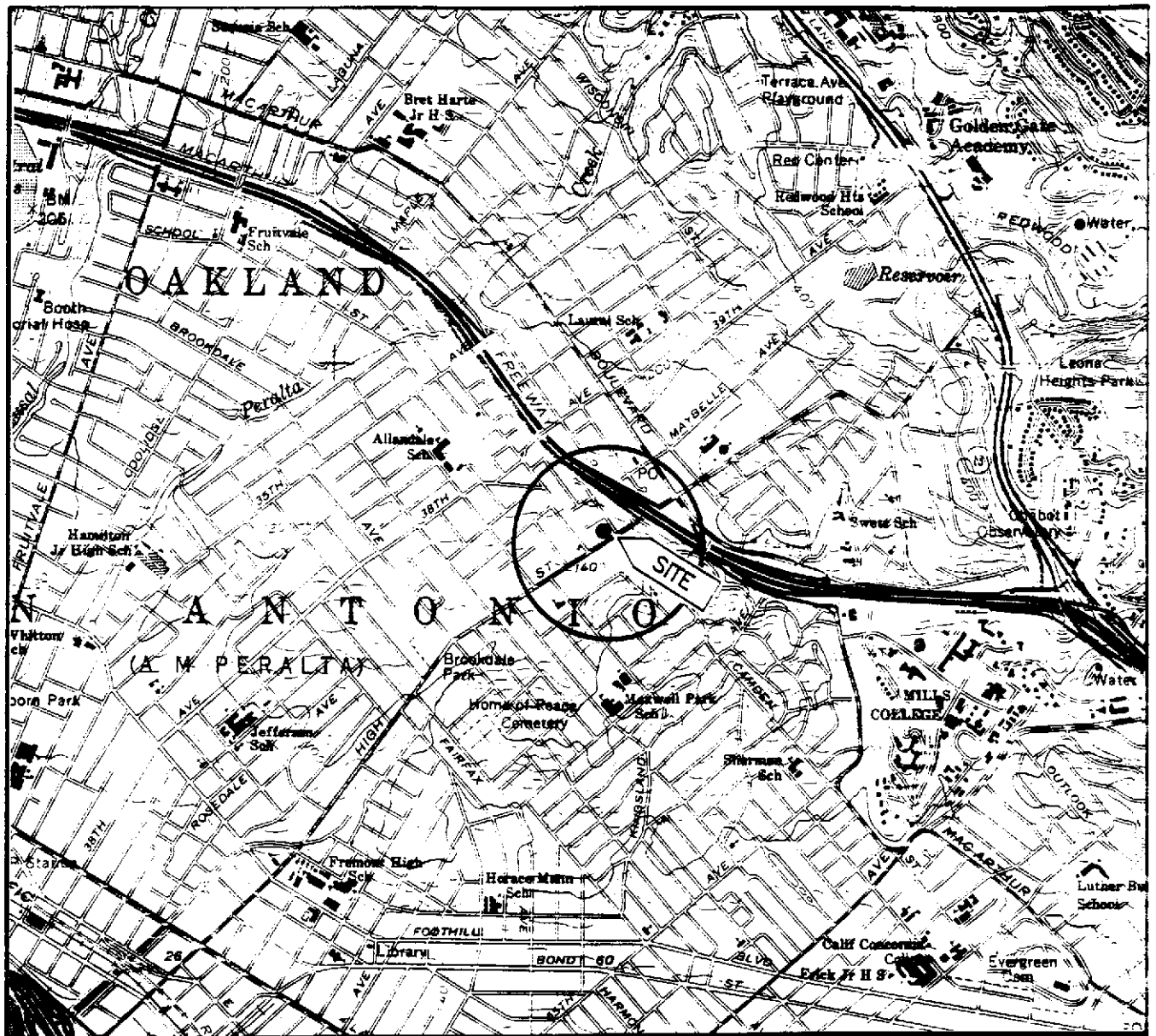


John B. Bobbitt
R.G. 4313

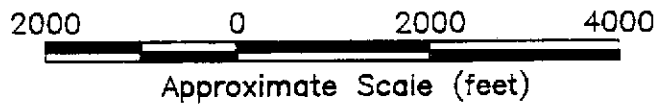


Attachments:

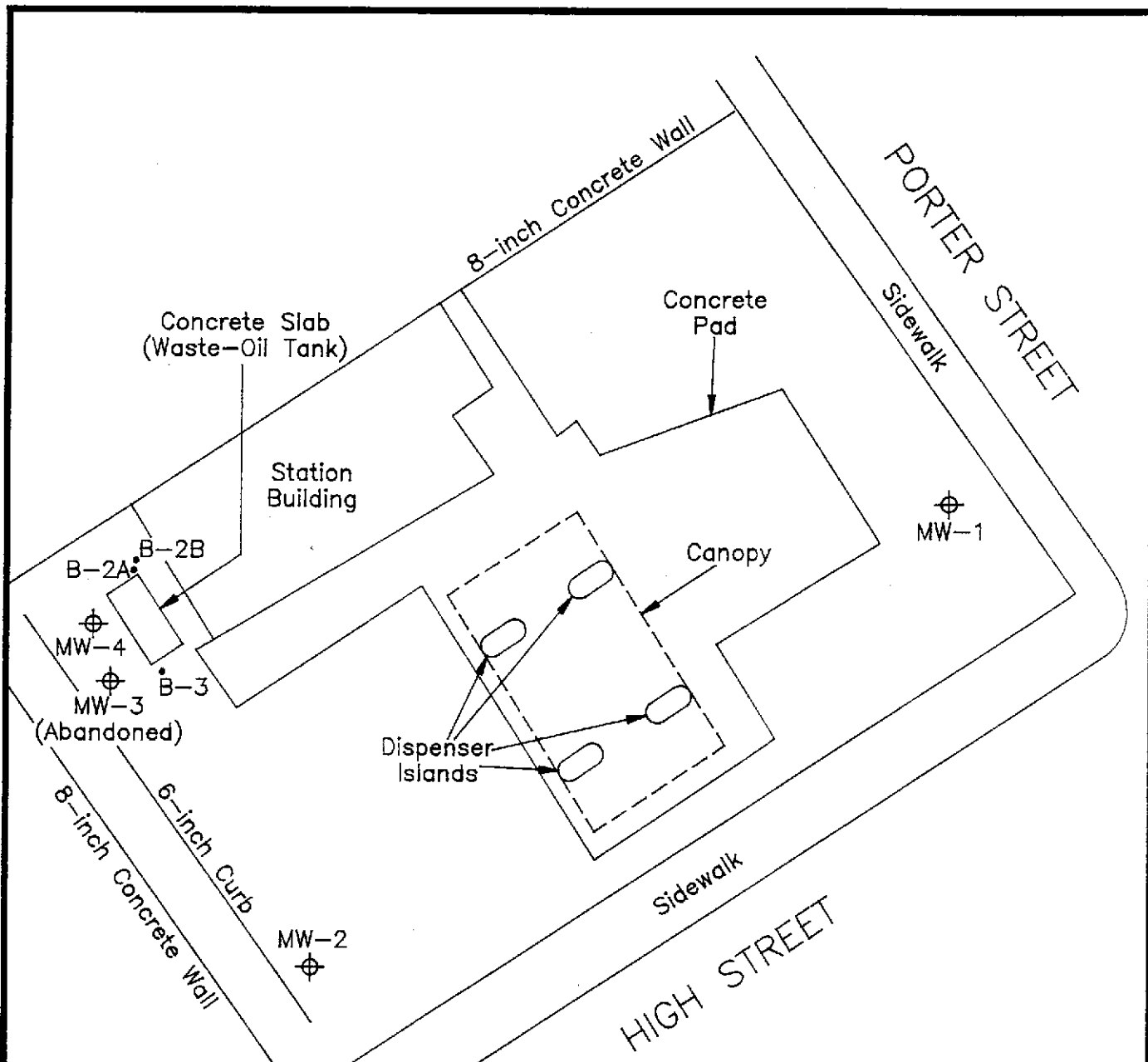
Plate 1: Site Vicinity Map
Plate 2: Generalized Site Plan
Plate 3: Potentiometric Map
Table 1: Depth to Water and Results of Subjective Analyses
Table 2: Temperature, pH, and Conductivity Results During Purging
Table 3: Cumulative Results of Analyses of Water Samples
Field Methods
Chain of Custody Records
Laboratory Analyses Reports



Source: U.S.G.S. 7.5-Minute Quadrangle
 Oakland East, California
 (1980)

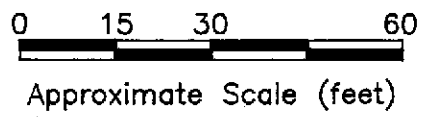


RESNA		SITE VICINITY MAP BP Facility No. 11124 3315 High Street Oakland, California	PLATE 1
PROJECT NO. 30061-2	FILE NO. 0061B1A		



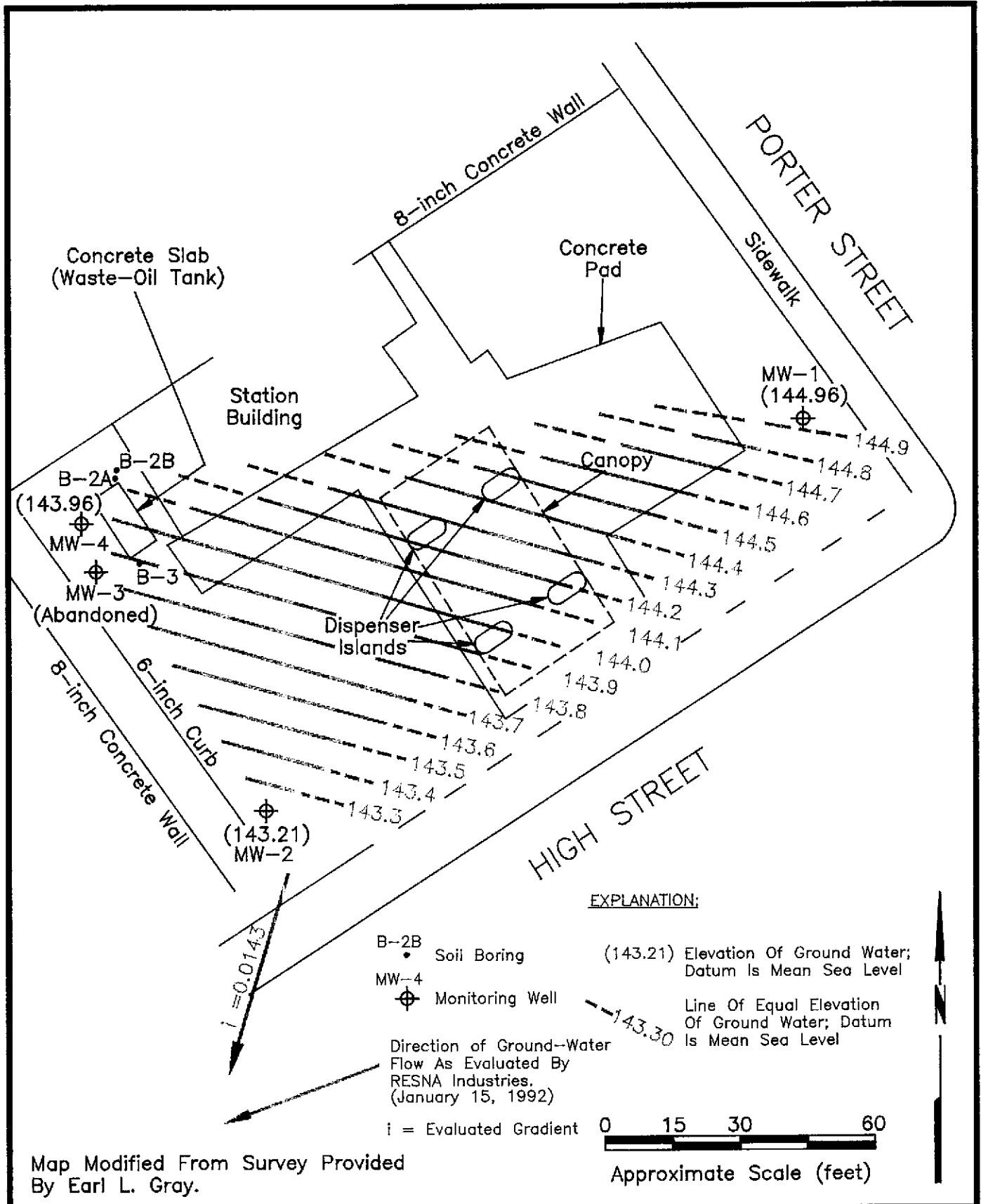
EXPLANATION:

- B-2B Soil Boring
- MW-4 Monitoring Well



Map Modified From Survey Provided
By Earl L. Gray.

	GENERALIZED SITE PLAN BP Facility No. 1124 3315 High Street Oakland, California	PLATE 2
	PROJECT NO. 30061-2	<small>FILE NO.</small> 0061B2A



	POTENTIOMETRIC MAP (January 15, 1992) BP Facility No. 11124 3315 High Street Oakland, California	PLATE 3
	PROJECT NO. 30061-2	<small>FILE NO.</small> 0061B3B

TABLE 1
 DEPTH TO WATER AND
 RESULTS OF SUBJECTIVE ANALYSES
 BP Facility No. 11124
 3315 High Street
 Oakland, California

Well Number	Sample Date	Depth to Water	TOC Elevation	Water Elevation	Floating Product	Sheen	Emulsion
MW-1	*08/18/86	10.10	154.99	144.89	None	None	None
	11/12/90	11.42	154.99	143.57	None	None	None
	07/15/91	10.66	154.99	144.33	None	None	None
	10/15/91	11.67	154.99	143.32	None	None	None
	01/15/92	10.03	154.99	144.96	None	None	None
MW-2	*08/18/86	10.00	152.02	142.02	None	None	None
	11/12/90	10.94	152.02	141.08	None	None	None
	07/15/91	9.87	152.02	142.15	None	None	None
	10/15/91	11.16	152.02	140.86	None	None	None
	01/15/92	8.81	152.02	143.21	None	None	None
MW-3	*08/18/86	9.60	NM	---	None	None	None
	11/12/90	NM	NM	---	NM	NM	NM
	07/15/91	WA	NM	WA	WA	WA	WA
	10/15/91	WA	NM	WA	WA	WA	WA
	01/15/92	WA	NM	WA	WA	WA	WA
MW-4	07/15/91	9.92	152.77	142.85	None	None	None
	10/15/91	11.30	152.77	141.47	None	None	None
	01/15/92	8.81	152.77	143.96	None	None	None

TOC = Top of well casing
 * = Measurement collected by Kaprealian Engineering, Inc.
 Elevation datum is mean sea level
 NM = Not Measured
 WA = Well Abandoned

May 21, 1992
BP Facility No. 11124, Oakland, California



TABLE 2
TEMPERATURE, pH, AND CONDUCTIVITY
RESULTS DURING PURGING
BP Facility No. 11124
3315 High Street
Oakland, California
(January 15, 1992)

Well Number	Time	Gallons Purged	Temp. (C)	pH	Conductivity (mmhos)
MW-1	07:57	0	18	6.7	370
	08:01	5	20	5.8	370
	08:05	10	20	5.5	419
	08:10	15	20	5.5	432
	08:15	20	20	5.7	480
	08:19	25	20	5.8	495
	08:24	30	20	5.9	505
	08:34	40	20	6.0	518
	08:45	50	20	6.1	521
	08:50	55	20	6.1	518
MW-2	09:10	0	16	6.2	701
	09:15	5	19	6.2	737
	09:21	10	20	6.2	689
	09:26	15	20	6.3	635
	09:31	20	20	6.3	615
	09:35	25	20	6.3	609
	09:44	30	20	6.3	594
	09:52	40	20	6.3	590
	10:01	50	20	6.4	575
	MW-4	10:20	0	17	6.5
10:23		5	17	6.5	501
10:26		10	18	6.5	507
10:29		15	18	6.5	508
10:31		20	18	6.5	509
10:33		25	18	6.5	510
10:36		30	18	6.5	511
10:42		40	18	6.5	512
10:48		50	18	6.5	511
10:55		55	18	6.5	510

TABLE 3
 CUMULATIVE RESULTS OF ANALYSES OF WATER SAMPLES
 BP Facility No. 11124
 3315 High Street
 Oakland, California
 (page 1 of 2)

Sample ID	Sample Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total O&G
MW-1							
MW1*	08/18/86	<50	<1.0	<1.0	<1.0	<1.0	NA
W-11-MW1	11/12/90	<50	<0.5	<0.5	<0.5	<0.5	NA
W-10-MW1	07/15/91	<50	<0.5	<0.5	<0.5	<0.5	NA
W-20-MW1	10/15/91	<50	<0.5	0.8	0.6	0.8	<5000
W-10-MW1	01/15/92	<50	<0.5	<0.5	<0.5	<0.5	<5000
MW-2							
MW2*	08/18/86	<50	<1.0	<1.0	<1.0	<1.0	NA
W-11-MW2	11/12/90	<50	<0.5	<0.5	<0.5	<0.5	NA
W-10-MW2	07/15/91	<50	<0.5	<0.5	<0.5	<0.5	NA
W-20-MW2	10/15/91	<50	<0.5	0.7	<0.5	1.5	<5000
W-08-MW2	01/15/92	<50	<0.5	<0.5	<0.5	<0.5	<5000

See notes on page 2 of 2

TABLE 3
 CUMULATIVE RESULTS OF ANALYSES OF WATER SAMPLES
 BP Facility No. 11124
 3315 High Street
 Oakland, California
 (page 2 of 2)

Sample ID	Sample Date	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total O&G
MW-3							
MW3*	08/18/86	<50	<1.0	<1.0	<1.0	<1.0	NA
MW3	11/12/90	NS	NS	NS	NS	NS	NA
MW3	07/15/91	WA	WA	WA	WA	WA	WA
MW3	10/15/91	WA	WA	WA	WA	WA	WA
MW3	01/15/92	WA	WA	WA	WA	WA	WA
MW-4							
W-10-MW4	07/15/91	<50	<0.5	0.5	<0.5	0.8	NA
W-20-MW4	10/15/91	<50	<0.5	0.7	0.6	1.1	<5000
W-20-MW4	01/15/92	<50	<0.5	2.7	<0.5	<0.5	<5000

Results in parts per billion (ppb)

TPHg = Total petroleum hydrocarbons as gasoline

O&G = Oil and Grease

< = Below detection limit of method of analysis used

* = Sample collected by Kaprealian Engineering, Inc.

WA = Well Abandoned

NS = Not Sampled

NA = Not Analyzed

Sample designation:

W-20-MW4

Site Safety Plan

This plan describes the safety requirements for, purging, and sampling ground-water monitoring wells. The site safety plan was applicable to personnel of RESNA Industries who performed work at the site. A copy of the site safety plan was available for reference by appropriate parties during the work. The onsite Staff Geologist or Technician of RESNA acted as the Site Safety Officer. RESNA performed work at the site following our Site Safety Plan No. 30061-1S, dated October 15, 1990.

Sample Handling Protocol

Water samples collected for laboratory analyses were accompanied by a Chain of Custody Record that was initiated by the technician at the site and completed as the samples were collected. Soil samples collected for possible chemical analyses were promptly sealed, labeled, and placed in iced storage for transport to the analytical laboratory. A Chain of Custody Record was initiated by the field technician and accompanied the selected soil samples to the laboratory.

Subjective Observations

The depth to ground water in the monitoring wells was measured to the nearest 0.01-foot with an electronic water-level indicator. Samples of ground water were collected for subjective analysis from the air-fluid interface in each well by lowering approximately half the length of a clear Teflon bailer through the interface. The bailer was retrieved and the water sample examined for free product, sheen, or other subjective evidence of hydrocarbons.

Purging

A minimum of three well volumes of ground water, corresponding to approximately 40 to 50 gallons, were purged from wells MW-1, MW-2, and MW-4 using an electric submersible pump. The ground-water temperature, pH, and conductivity were monitored to assure that a representative sample was obtained from the aquifer. The purged water was placed into labeled 55-gallon 17-E drums approved for this use by the California Department of Transportation and stored temporarily onsite pending the results of laboratory analyses.

May 21, 1992
BP Facility No. 11124, Oakland, California

RESNA

Ground-Water Sampling

Ground-water samples were collected after water in each well recovered to near its original level. The ground-water samples were collected by lowering a clean Teflon bailer gently through the air-water interface to a depth approximately 3 feet below the ground-water surface. The bailer was retrieved and the samples were transferred slowly to laboratory-cleaned, 40-milliliter glass vials or other appropriate containers as required by the laboratory. The vials and bottles contained hydrochloric acid and were filled so that no headspace was left in the containers. The field technician initiated a Chain of Custody Record and it accompanied the samples to the analytical laboratory. A copy of that record is attached to this letter report.

42501 Albrae Street
Fremont, CA 94538
Phone: (510) 623-0775
(800) 247-5223
FAX: (510) 651-8754

ANALYSIS REPORT

Attention: Mr. Eric Holm
RESNA/Applied GeoSystems
3164 Gold Camp Dr., Ste 200
Rancho Cordova, Ca 95670
Project: AGS 30061.02

Date Sampled: 01-15-92
Date Received: 01-17-92
BTEX Analyzed: 01-24-92
TPHg Analyzed: 01-24-92
TPHd Analyzed: NR
Matrix: Water

1020lab.frm

	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPHg	TPHd
	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>
Detection Limit:	0.5	0.5	0.5	0.5	50	100

SAMPLE

Laboratory Identification

W-10-MW1 W1201314	ND	ND	ND	ND	ND	NR
W-8-MW2 W1201315	ND	ND	ND	ND	ND	NR
W-8-MW4 W1201316	ND	2.7	ND	ND	ND	NR

ppb = parts per billion = µg/L = micrograms per liter.

ND = Not detected. Compound(s) may be present at concentrations below the detection limit.

NR = Analysis not requested.

ANALYTICAL PROCEDURES

BTEX— Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020/602, which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

TPHg—Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

TPHd—Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.



Laboratory Representative

January 29, 1992
Date Reported

42501 Albrae Street
Fremont, CA 94538
Phone: (510) 623-0775
(800) 247-5223
FAX: (510) 651-8754

ANALYSIS REPORT

1020lab.frm

Attention: Mr. Eric Holm
RESNA
3164 Gold Camp Dr., Ste 200
Rancho Cordova, CA 95670
Project: AGS 30061.02

Date Sampled: 01-15-92
Date Received: 01-17-92
TOG Analyzed: 01-29-92
Matrix: Water
Detection Limit: 5000 µg/L

TOG
(µg/L)

SAMPLE
Laboratory Identification

W-10-MW1 W1201314	ND
W-8-MW2 W1201315	ND
W-8-MW4 W1201316	ND

µg/L = micrograms per liter = ppb = parts per billion
ND = Not detected. Compound(s) may be present at concentrations below the detection limit.

ANALYTICAL PROCEDURES

TPH as Oil and Grease – Total Oil and Grease (TOG) of mineral or petroleum origin are measured by extraction and gravimetric analysis according to Standard Method 5520 B/F.



Laboratory Representative

January 30, 1992
Date Reported

