

**REPORT OF ACTIVITIES
QUARTER 4, 1990**

**SHELL OIL COMPANY
630 HIGH STREET
OAKLAND, CALIFORNIA**

Prepared for:

Shell Oil Company
1390 Willow Pass Road
Concord, California 94520

Prepared by:

Converse Environmental West
55 Hawthorne, Suite 500
San Francisco, California 94105

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SECTION 1

INTRODUCTION

1.1 BACKGROUND AND OBJECTIVES

This report presents the results of investigative activities conducted by Converse Environmental West (CEW) during Quarter 4, 1990 (Q4/90) for the Shell Oil Company (Shell) station ("site") at 630 High Street, Oakland, California (Drawing 1). This report is prepared to fulfill the quarterly reporting requirements as specified in the Work Plan prepared by CEW (March 20, 1989) for achievement of environmental closure of the site. The Work Plan is on file with the regulatory agencies of jurisdiction.

The site is located on the Southeast corner of High Street and Jensen Street in Oakland, California (Drawing 2). The site is approximately 240 feet long by 180 feet wide. Shell operated a retail fuel sales operation on the site, under lease from the property owner, the City of Oakland.

Available data provided by Shell indicates that soil and groundwater contamination by petroleum hydrocarbons exists on the property. This condition has been established by preliminary and advanced remedial investigations conducted by consultants since 1985. A chronological summary of environmental activities conducted at the site is presented in Appendix A. A general description of site conditions is included in previous quarterly reports on file with the LIAs.

1.2 SCOPE OF ACTIVITIES

The investigative activities conducted during Q4/90 were authorized under an existing purchase order and blanket number from Shell for environmental services at the site. The work completed during Q4/90 consisted of the following activities:

- Collecting groundwater samples from MW-1 through MW-10.
- Evaluating the findings from field activities and preparing this report.

As a consultant to Shell on this project, CEW is contracted to perform specific activities related to acquiring data and information which will lead to the ultimate successful closure of the site under investigation. CEW's primary obligation is to collect information within proper standard of care and practice, and in accordance with protocols which have been created by CEW and which are on file with the regulatory agencies of jurisdiction. From time to time, because of site-specific conditions or limitations, CEW may find it necessary to deviate from these protocols. Under these conditions, CEW will describe in appropriate reports the rationale and necessities for the deviations which occurred, along with a statement of the possible impact these deviations may have on the database generated.

In compilation of its findings, CEW will follow the scientific method and develop multiple working hypotheses which explain site conditions and findings. CEW will not report and justify these multiple working hypotheses to the regulatory agencies for two principal reasons:

- (1) The number of assumptions and limitations that are part of the process are numerous and would require substantial discussion and justification, and
- (2) The multiple working hypothesis process is iterative to the time of closure, at which point a final, best hypothesis will be provided and fully explained to the regulatory agencies in closure documentation.

SECTION 2

WORK COMPLETED THIS QUARTER

Work initiated and completed during Q4/90 followed the task descriptions of the CEW Work Plan (March, 1989) the project critical path (Drawing 3) and the CEW protocols on file with the regulatory agencies of jurisdiction. A Quarter 4, 1990 Activity Summary is presented in Table 1.

2.1 SOIL SAMPLING AND ANALYSES

No soil samples were taken during Q4/90. Previous soil boring information and analytical results are presented in Tables 2 and 3.

2.2 GROUNDWATER SAMPLING AND ANALYSES

Well installation information is presented in Table 4. Groundwater samples were collected on October 18, 1990 from monitoring wells MW-1, and MW-3 through MW-10 following CEW protocols. MW-2 is analysed on a semi-annual basis, next analyses will occur during Q1/91. These samples were submitted to NET Pacific, Inc., a California-certified laboratory in Santa Rosa, California, following appropriate chain-of-custody. The samples were analyzed for TPH-g, TPH-d, TPH-mo, and BTEX following the recommended analytical methods listed in Table 5. Additional analytical tests were performed for consideration of remediation alternatives. Analytical data for the water samples collected from the monitoring wells are summarized in Tables 6 and 7. Laboratory reports and chain-of-custody forms from Q4/90 monitoring are provided in Appendix B.

2.3 PHYSICAL MONITORING

During Q4/90, wells MW-1 through MW-10 were each tested once for depth to water table and observed for floating product. No measurable thickness of floating product was present. A summary of these results is presented in Table 7.

2.4 EXISTING HYDROGEOLOGIC DATA

CEW is in the process of obtaining records on file with the Alameda County Health Department. Alameda County has not provided CEW with any of this information to date. This research may provide background hydrogeologic information for the site vicinity as well as potential for offsite sources.

SECTION 3

FINDINGS AND DISCUSSION

3.1 SOIL

Stratigraphy is discussed in detail in previous quarterly reports/on file with the LIA.

3.2 GROUNDWATER

3.2.1. Physical Parameters

Floating product was not present in the wells monitored during Q4/90. Petroleum hydrocarbon odors were noted in water collected from wells MW-1, MW-4 and MW-5 (Table 7).

3.2.2 Elevation and Gradient

Reported Q4/90

The groundwater table is approximately nine to thirteen feet below ground surface (bgs), with a flow direction that is variable (Drawing 4).

3.2.3 Results of Chemical Analyses

Q4/90 Groundwater Chemistry Data

- TPH-mo was not detected in any of the water samples taken during Q4/90.

- TPH-g was detected in water samples taken from MW-1, MW-3, MW-4 and MW-5. The value of TPH-g detected at MW-1 was 8.6 ppm (Table 6).
- TPH-d was detected in water samples taken from MW-1, MW-3, MW-4, MW-5, and MW-6 and MW-10. The value of TPH-d detected at MW-1 was 5.9 ppm (Table 6).
- BTEX was detected in the water samples taken from MW-1, MW-3, MW-4 and MW-5. The values of BTEX detected at MW-1 were 0.22 ppm, 0.028 ppm, 0.31 ppm and 0.27 ppm, respectively (Table 6).

3.2.4 Discussion

The presence of TPH-d, TPH-g and BTEX in groundwater is centered near MW-1, which is located near the former underground fuel and waste oil tanks (Drawing 2 and Table 6).

SECTION 4

NEXT QUARTER ACTIVITIES

4.1 WORK PLAN MODIFICATIONS

Based on the information collected to date, no modifications to the Work Plan are proposed for Q1/91:

4.2 PROPOSED ACTIVITIES

The following activities will be conducted in Q4, 1990:

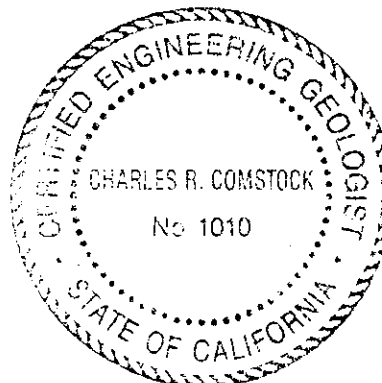
- (1) Continue monitoring groundwater conditions, with modifications as discussed in Section 3.2.3 of this report.
- (2) Submit Q1/91 Report.

CERTIFICATION

This report of activities for the Shell Oil Company site at 630 High Street Oakland, California has been prepared by the staff of **Converse Environmental West** under the professional supervision of the Engineer and/or Geologist whose seal(s) and signature(s) appear hereon.

The findings, recommendations, specifications or professional opinions are presented, within the limits prescribed by the Client, after being prepared in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied.

Respectfully submitted,



[Signature]
ROBIN M. BREUER
Principal Regulatory Specialist

[Signature]
CHARLES R. COMSTOCK
Technical Director

PRIMARY CONTACTS

Shell Oil Company Facility
630 High Street
Oakland, California

Quarter 4, 1990

Regional Water Quality Control
Board Representative:

Ms. Dyan Whyte
San Francisco Bay Regional Water
Quality Control Board
1800 Harrison Street, Room 700
Oakland, California 94612

LIA Representative:

Mr. Rafat Shahid
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Shell Engineer:

Mr. Jack Brastad
Shell Oil Company
1380 Willow Pass Road, Suite 900
Concord, California 94520

Converse Project Manager:

Robin M. Breuer
Converse Environmental West
55 Hawthorne Street Suite 500
San Francisco, California 94105

Registered Geologist in Charge:

Mr. Charles R. Comstock
Converse Environmental West
55 Hawthorne Street, Suite 500
San Francisco, California 94105

Site Owner:

Shell Oil Company

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RWQCB - see California Regional Water Quality Control Board

TABLES

TABLE 1. ACTIVITY SUMMARY - QUARTER 4, 1990

**Shell Oil Company
630 High Street
Oakland, California**

Activity	Percent Complete			
	Quarter 4, 1990		Total to Date	
	Onsite	Offsite	Onsite	Offsite
Soil Characterization	85	----	85	----
Groundwater Characterization (Dissolved Product)	70	----	70	----
Groundwater Characterization (Floating Product)	NA	NA	NA	NA
Soil Remediation	0	----	0	----
Groundwater Remediation (Dissolved Product)	0	----	0	----
Groundwater Remediation (Floating Product)	NA	NA	NA	NA

NOTES:

NA Not Applicable

TABLE 2. SOIL BORING INFORMATION

**Shell Oil Company
630 High Street
Oakland, California**

Boring No.	Date Drilled	Total Depth (ft bgs)	Completion	Unsaturated Soil Samples (ft bgs)	Saturated Soil Samples (ft bgs)	Highest OVM Reading (ppm)
SB-1	4/27/89	10	Abandoned	5	None	NR
SB-2	4/27/89	10	Abandoned	5,10	None	NR
SB-3	8/17/89	10	Abandoned	5,10	None	1300 @ 5'
SB-4	11/15/89	9	Abandoned	5,9	None	0

NOTES:

NR Not recorded

TABLE 3: RESULTS OF SOIL CHEMICAL ANALYSIS

**Shell Oil Company
630 High Street
Oakland, California**

Concentration (mg/kg)

Boring No.	Date	Sample Depth (ft. bgs)	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Total Oil and Grease	Xylene	Total Lead
SB-1	04/27/89	5	12 [*]	27	85	<0.025	0.10	NA	0.14	71
SB-2	04/27/89	5	<10	<10	<10	0.042	0.054	NA	<0.075	16
SB-2	04/27/89	5,10 ^{**}	<10	<10	130	<0.025	0.04	NA	<0.075	10
SB-3	08/17/89	5	<10	<10	<10	<0.025	0.22	290	<0.075	66
SB-3	08/17/89	10	<10	<10	<10	<0.025	0.045	<50	<0.075	4.2
SB-4	11/15/89	5	<1	16	77	<0.0025	0.032	NA	<0.0025	220
SB-4	11/15/89	9	<1	<1	11	<0.0025	0.056	NA	<0.0025	3.9
MW-1	04/25/89	5	11	<10	<10	<0.025	0.11	NA	<0.075	9.6
MW-1	04/25/89	5,10 ^{**}	63	<10	<10	0.042	0.14	NA	0.16	7.6
MW-2	04/25/89	5	<10	<10	<10	<0.025	0.34	NA	<0.075	13
MW-2	04/25/89	5,10,15 ^{**}	<10	<10	<10	<0.025	0.15	NA	<0.075	4.0
MW-3	04/26/89	10	<10	<10	<10	<0.025	<0.025	NA	<0.075	3.9
MW-3	04/26/89	5,10 ^{**}	<10	<10	<10	<0.025	0.068	NA	<0.075	5.1
MW-4	04/26/89	5	<10	<10	<10	0.046	0.21	NA	<0.075	26
MW-4	04/26/89	5,10 ^{**}	<10	<10	<10	<0.025	0.066	NA	<0.075	27
MW-5	08/17/89	5	<10	<10	<10	<0.025	<0.025	<50	<0.075	14.0
MW-5	08/17/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	5.9
MW-6	08/16/89	5	<10	<10	<10	<0.025	0.057	220	<0.075	5.6
MW-6	08/16/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	4.3
MW-7	08/15/89	5	<10	<10	<10	<0.025	0.040	<50	<0.075	9.8
MW-7	08/15/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	3.7
MW-8	08/15/89	5	<10	<10	<10	<0.025	<0.025	<50	<0.075	5.1
MW-8	08/15/89	10	<10	<10	<10	<0.025	<0.025	<50	<0.075	2.6
MW-9	11/15/89	5	<1	<1	10	<0.0025	0.013	NA	<0.0025	170
MW-10	11/16/89	5	<1	<1	240	<0.0025	0.049	NA	<0.0025	120
MW-10	11/16/89	9	<1	380	3.1	<0.0025	<0.0025	NA	<0.0025	3.1

NOTES:

- .. Sample contains higher boiling hydrocarbons not characteristic with gasoline.
- Composite sample.
- NA Not analyzed.

TABLE 4: WELL INSTALLATION INFORMATION

**Shell Oil Company
630 High Street
Oakland, California**

Well No.	Date Drilled	Well Diameter (inches)	Initial Water Table (ft. bgs)	Static Water Table (ft. bgs)	Total Depth of Well (ft. bgs)	Screen (ft. bgs)	Bentonite Seal (ft. bgs)	Grout Seal (ft. bgs)
MW-1	4/25/89	4	10.0	10.43	20	13 - 9	9 - 6	6 - 0
MW-2	4/25/89	4	14.5	11.67	25	20 - 10	10 - 8	8 - 0
MW-3	4/26/89	4	11.5	10.36	20	17 - 8	8 - 6	6 - 0
MW-4	4/26/89	4	10.0	10.91	22	17 - 7	7 - 6	6 - 0
MW-5	08/17/89	4	12.0	11.34	18	8 - 18	5 - 7	1 - 5
MW-6	08/16/89	4	15.0	10.58	20	10 - 20	7 - 9	1 - 7
MW-7	08/15/89	4	17.5	9.76	20	10 - 20	7 - 9	1 - 7
MW-8	08/15/89	4	9.0	9.01	21	9 - 21	6 - 8	1 - 6
MW-9	11/15/89	4	10.0	11.52	12	6 - 12	4 - 5	1 - 4
MW-10	11/16/89	4	11.0	9.55	13	7 - 13	5 - 6	1 - 5

NOTES:

ft bgs feet below ground surface

TABLE 5. RECOMMENDED MINIMUM VERIFICATION ANALYSES FOR UNDERGROUND TANK LEAKS

From: Tri-Regional Board Staff Recommendation for Preliminary Evaluation and Investigation of Underground Tank Sites (Revised August 10, 1990)

HYDROCARBON LEAK	SOIL ANALYSIS	WATER ANALYSIS
<u>Unknown Fuel</u>	TPH-g GCFID (5030) TPH-d GCFID (3550) BTEX 8020 or 8240 TPH and BTEX 8260	TPH-g GCFID (5030) TPH-d GCFID (3510) BTEX 602, 624 or 8260 BTEX 602, 624 or 8260
<u>Leaded Gas</u>	TPH-g GCFID (5030) BTEX 8020 or 8240 TPH and BTEX 8260 TOTAL LEAD AA	TPH-g GCFID (5030) BTEX 602, 624 or 8260 BTEX 602, 624 or 8260 TOTAL LEAD AA
	OPTIONAL	
<u>Unleaded Gas</u>	TEL DHS-LUFT EDB DHS-AB1803 TPH-g GCFID (5030) BTEX 8020 or 8240 TPH and BTEX 8260	TEL DHS-LUFT EDB DHS-AB1803 TPH-g GCFID (5030) BTEX 602, 624 or 8260
<u>Diesel</u>	TPH-d GCFID (3550) BTEX 8020 or 8240 TPH and BTEX 8260	TPH-d GCFID (3510) BTEX 602, 624 or 8260
<u>Jet Fuel</u>	TPH-d GCFID (3550) BTEX 8020 or 8240 TPH AND BTEX 8260	TPH-d GCFID (3510) BTEX 602, 624 or 8260
<u>Kerosene</u>	TPH-d GCFID (3550) BTEX 8020 or 8240	TPH-d GCFID (3510) BTEX 602, 624 or 8260
<u>Fuel/Heating Oil</u>	TPH-d GCFID (3550) BTEX 8020 or 8240	TPH-d GCFID (3510) BTEX 602, 624 or 8260
<u>Chlorinated Solvents</u>	CL HC 8010 or 8240 BTEX 8020 or 8240 CL HC and BTEX 8260	CL HC 601 or 624 BTEX 602 or 624 CL HC and BTEX 8260
<u>Non Chlorinated Solvents</u>	TPH-d GCFID (3550) BTEX 8020 or 8240 TPH and BTEX 8260	TPH-d GCFID (3510) BTEX 602 or 624 TPH and BTEX 8260
<u>Waste and Used Oil or Unknown</u>	TPH-g GCFID (5030) TPH-d GCFID (3550) TPH and BTEX 8260 O & G 5520 D&F BTEX 8020 or 8240 CL HC 8010 or 8240	TPH-g 5520 C&F TPH-d GCFID (3510) O & G 5520 C&F BTEX 602, 624 or 8260 CL HC 601 or 624
	ICAP or AA TO DETECT METALS: Cd, Cr, Pb, Zn, Ni	
	METHOD 8270 FOR SOIL OR WATER TO DETECT:	
	PCB*	PCB*
	PCP*	PCP*
	PNA	PNA
	CREOSOTE	CREOSOTE

*if found analyze for dibenzofurans (PCBs) or dioxins (PCP)

TABLE 6. RESULTS OF GROUNDWATER CHEMICAL ANALYSES

**Shell Oil Company
630 High Street
Oakland, California**

Concentration (mg/L)

Well No.	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-benzene	Xylenes	Lead
MW-1	05/25/89	11	7.1	1.6	0.0066	0.023	0.023	0.180	NA
MW-1	08/29/89	17	7.2	1.9	0.20	0.18	0.059	0.55	<0.002
MW-1	12/12/89	13	4.4	<0.05	0.250	0.036	0.270	0.380	NA
MW-1	02/20/90	11	3.8	<0.05	0.24	0.034	0.35	0.57	NA
MW-1	04/25/90	9.4	3.8	<0.05	0.17	0.035	0.0086	0.39	NA
MW-1	08/02/90	10.0	4.0	<0.5	0.25	0.03	0.0055	0.38	NA
MW-1	10/18/90	8.6	5.9	<0.5	0.22	0.028	0.31	0.27	NA
MW-2	05/25/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	NA
MW-2	08/29/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-2	12/11/89	<0.05	0.081	0.22	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-2	02/20/90	<0.05	<0.05	<0.05	<0.0005	0.0006	<0.0005	<0.0005	NA
MW-2 ¹	08/02/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-2¹									
MW-3	05/25/89	1.2	0.40	0.088	<0.0005	<0.0005	<0.0015	<0.0015	NA
MW-3	08/29/89	2.5	0.81	<0.05	0.025	0.01	0.0065	0.0055	<0.002
MW-3	12/15/89	2.8	0.81	<0.05	0.015	0.008	0.004	0.012	NA
MW-3	02/15/90	2.6	0.53	<0.05	0.016	0.0019	0.0076	0.0041	NA
MW-3	04/24/90	2.6	0.48	<0.05	0.028	0.007	0.007	0.015	NA
MW-3	08/02/90	2.6	3.6	<0.5	0.035	0.0052	0.0091	0.0094	NA
MW-3	10/18/90	2.5	0.94	<0.5	0.042	0.0072	0.013	0.027	NA
MW-4	05/25/89	2.9	1.1	0.29	<0.005	0.0094	<0.0015	0.0034	NA
MW-4	08/29/89	2.9	1.5	0.79	0.029	<0.0005	0.012	0.0016	<0.002
MW-4	12/12/89	4.6	1.0	<0.05	0.170	0.026	0.011	0.020	NA
MW-4	02/13/90	1.9	0.86	<0.05	0.055	0.0091	0.0047	0.0026	NA
MW-4	04/24/90	3.0	1.1	<0.05	0.17	0.020	0.0067	0.016	NA
MW-4	08/01/90	4.2	1.0	<0.5	0.22	0.015	0.0093	0.018	NA
MW-4	10/18/90	3.4	1.9	<0.5	0.21	0.019	0.013	0.032	NA
MW-5	08/30/89	1.4	0.30	<0.05	0.0049	0.00079	0.0056	0.0068	<0.002
MW-5	12/05/89	1.4	0.33	<0.05	0.0049	0.0038	0.0091	0.008	NA
MW-5	02/15/90	<0.05	0.18	<0.05	0.0042	0.00076	0.0024	0.0033	NA
MW-5	04/24/90	0.42	0.16	<0.05	0.0056	0.001	0.0006	0.0041	NA
MW-5	08/02/90	0.88	0.22	<0.5	0.013	0.002	0.0041	0.0081	NA
MW-5	10/18/90	5.0	1.1	<0.5	0.15	0.013	0.033	0.04	NA

NOTES:

Bold Samples analyzed during Q4/90
 NA Not Analyzed
 BTEX analyses by GCMS (EPA Method 624)
 MW-2 analyzed semi-annually, next analyses Q1/91.

TABLE 6 (cont'd). RESULTS OF GROUNDWATER CHEMICAL ANALYSES

Shell Oil Company
630 High Street
Oakland, California

Concentration (mg/L)

Well No.	Date Sampled	TPH-g	TPH-d	TPH-mo	Benzene	Toluene	Ethyl-benzene	Xylenes	Lead
MW-6	08/29/89	<0.05	0.32	0.45	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-6	12/05/89	<0.05	0.60	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	02/15/90	<0.05	0.55	<0.05	<0.0005	<0.0005	<0.0005	0.0045	NA
MW-6	04/23/90	0.18	1.2	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	08/02/90	<0.05	0.90	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-6	10/18/90	<0.05	0.96	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	08/29/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-7	12/5/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	02/13/90	<0.05	<0.05	<0.05	<0.0005	0.00056	<0.0005	<0.0005	NA
MW-7	04/24/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	08/01/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-7²	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	08/29/89	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0015	<0.0015	<0.002
MW-8	12/11/89	<0.05	<0.05	0.0011	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	02/13/90	<0.05	<0.05	<0.05	<0.0005	0.00056	<0.0005	<0.0005	NA
MW-8	04/23/90	0.18	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	08/01/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-8	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	12/13/89*	<0.05	0.23	0.54	<0.0044	<0.006	<0.0072	<0.005	NA
MW-9	02/20/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	04/24/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	08/02/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-9	10/18/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	12/13/89 ¹	<0.05	0.11	0.30	<0.0044	<0.006	<0.0072	<0.005	NA
MW-10	02/20/90	<0.05	0.06	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10 ³	04/25/90	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	08/02/90	<0.05	<0.05	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA
MW-10	10/18/90	<0.05	0.24	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA

NOTES:

- NA Not Analyzed
- BTEX analyses by GCMS (EPA Method 624)
- ¹ MW-2 analyzed semi-annually
- ² Duplicate
- ³ TPH-d and TPH-mo analyses omitted accidentally next analyses Q3/90
- Bold** Samples analyzed during Q4/90

TABLE 7. GROUNDWATER MONITORING INFORMATION

**Shell Oil Company
630 High Street
Oakland, California**

Well No.	Date Monitored	Depth to Water (ft bgs)	Petroleum Odor In Water	Floating Product Thickness (inches)	Comments
MW-1 El. 99.35	05/25/89	10.43	Yes	None	Gray sheen
	08/29/89	10.94	Yes	None	Sheen
	12/5/89	10.32	Yes	None	No sheen
	02/20/90	9.94	Yes	None	None
	04/23/90	10.50	Strong	None	Light sheen
	08/01/90	10.50	----	None	Slight sheen
	10/18/90	11.02	Yes	None	Slight sheen
MW-2 El. 101.15	05/25/89	11.63	None	None	No sheen
	08/29/89	12.62	None	None	No sheen
	12/5/89	11.83	None	None	No sheen
	02/20/90	11.50	None	None	None
	04/23/90	11.76			No sample taken
	08/01/90	11.98	None	None	Clear
	10/17/90	12.96			No sample taken
MW-3 El. 99.49	05/25/89	10.43	None	None	No sheen
	08/29/89	10.90	None	None	No sheen
	12/5/89	10.46	Yes	None	No sheen
	02/01/90	10.15	None	None	None
	04/23/90	10.43	Slight	None	
	08/01/90	10.54	Slight	None	Clear
	10/17/90	11.13	None	None	Clear
MW-4 El. 99.24	05/25/89	10.72	Yes	None	Sheen
	08/29/89	11.28	Yes	None	No sheen
	12/5/89	10.53	Yes	None	No sheen
	02/13/90	10.15	Yes	None	None
	04/23/90	10.65	None	None	None
	08/01/90	10.87	None	None	Clear
	10/17/90	11.35	Strong	None	Clear
MW-5 El. 100.08	08/30/89	11.38	Yes	None	No sheen
	12/5/89	11.27	Yes	None	No sheen
	02/01/90	10.81	Yes	None	None
	04/23/90	11.06	Slight	None	Clear
	08/01/90	11.29	Slight	None	Clear
	10/17/90	11.70	Slight	None	Clear

NOTES:

Bold Samples analyzed in Quarter 4, 1990
ft bgs feet below ground surface
All elevations are tied into a temporary benchmark elevation of 100.00 feet

TABLE 7 (cont'd) GROUNDWATER MONITORING INFORMATION

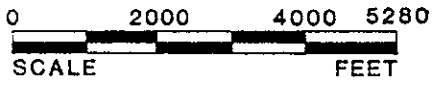
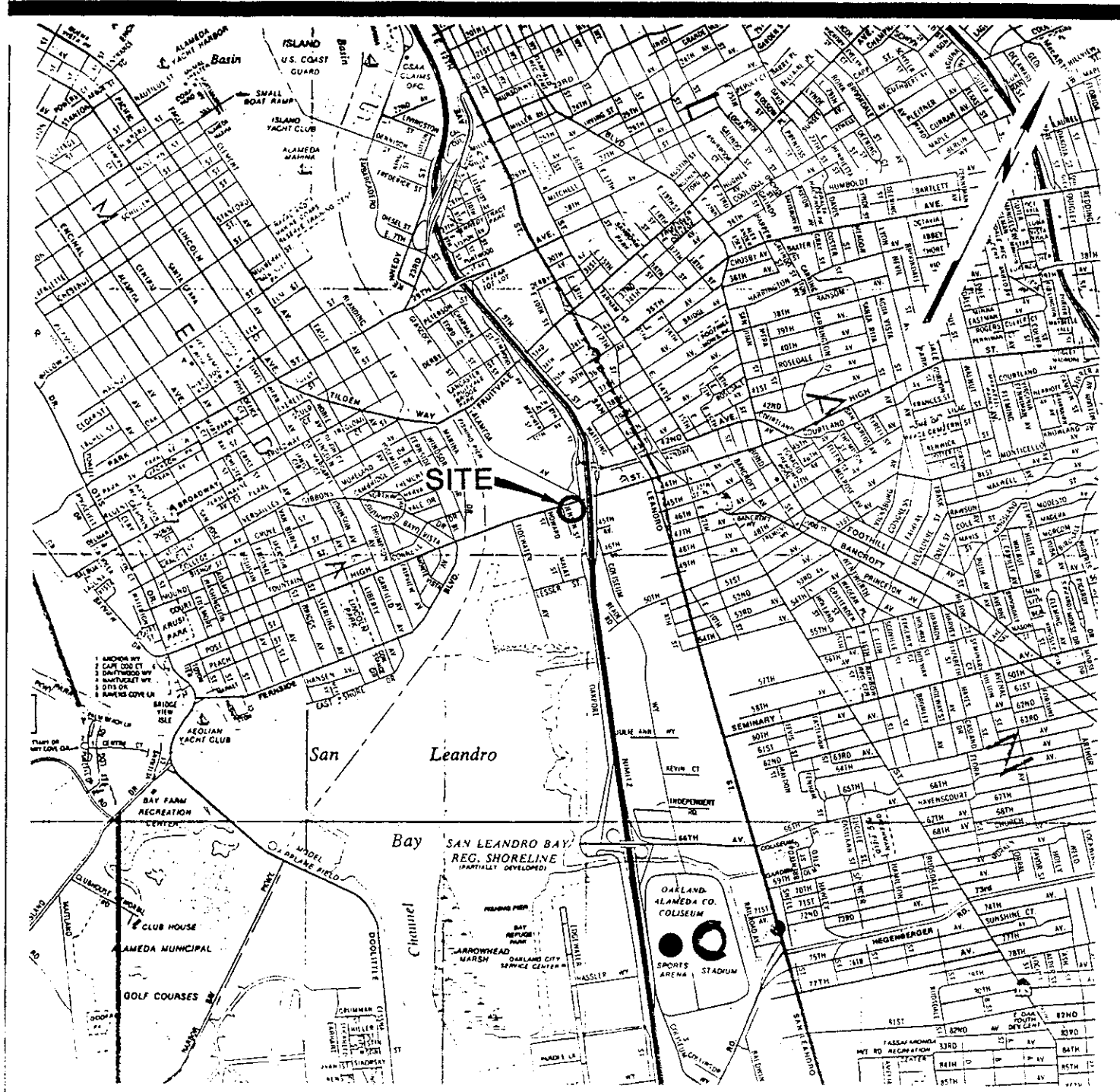
**Shell Oil Company
630 High Street
Oakland, California**

Well No.	Date Monitored	Depth to Water (ft bgs)	Petroleum Odor In Water	Floating Product Thickness (inches)	Comments
MW-6 El. 98.56	08/29/89	10.59	Yes	None	No sheen
	12/5/89	8.23	None	None	No sheen
	02/01/90	9.43	None	None	None
	04/23/90	9.97	None	None	None
	08/01/90	10.14	None	None	Solvent odor
	10/18/90	10.61	None	None	Clear
MW-7 El. 97.53	8/29/89	9.75	None	None	No sheen
	12/5/89	9.29	None	None	No sheen
	02/13/90	8.65	None	None	None
	04/23/90	9.28	None	None	None
	08/01/90	9.28	None	None	Clear
	10/17/90	9.38	None	None	Clear
MW-8 El. 97.13	8/29/89	9.02	None	None	No sheen
	12/5/89	9.87	None	None	No sheen
	02/13/90	7.73	None	None	None
	04/23/90	7.83	None	None	Clear
	04/23/90	9.28	None	None	Clear
	08/01/90	8.44	None	None	Clear
10/17/90	9.06	None	None	Clear	
MW-9 El. 99.72	12/5/89	11.52	None	None	No sheen
	02/20/90	7.94	None	None	
	04/23/90	8.15	None	None	Clear
	08/01/90	8.33	None	None	Clear
	10/17/90	8.65	None	None	Clear
MW-10 El. 98.99	12/5/89	9.55	None	None	No sheen
	02/20/90	10.69	None	None	None
	04/23/90	10.00	None	None	Clear
	08/01/90	9.99	None	None	Clear
	10/17/90	10.83	None	None	Clear

NOTES:

Bold Samples analyzed in Quarter 4, 1990
ft bgs feet below ground surface
 All elevations are tied into a temporary benchmark elevation of 100.00 feet

DRAWINGS



SOURCE: California State Automobile Association

SITE LOCATION MAP

SHELL OIL COMPANY
 630 High Street
 Oakland, California

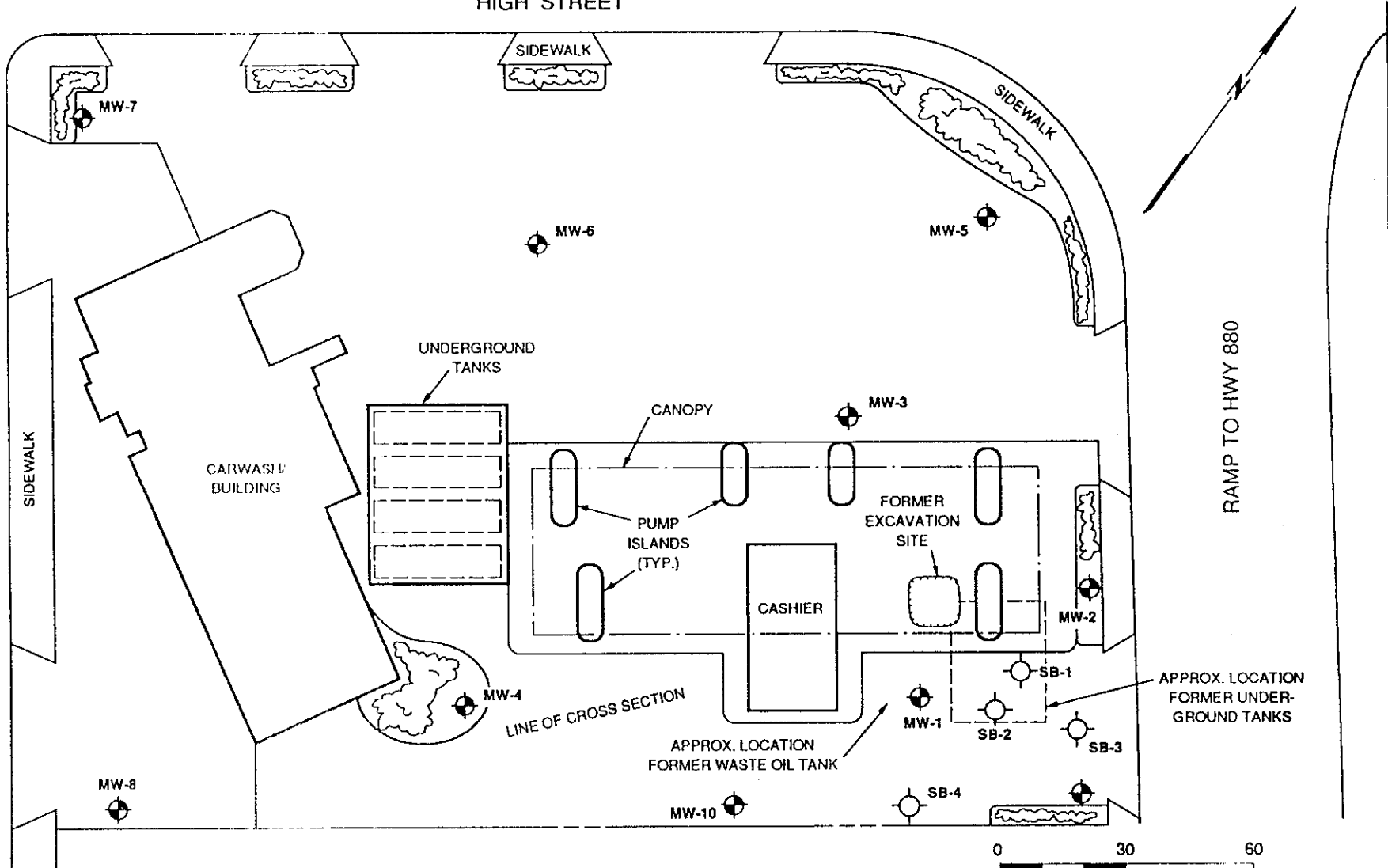
Scale	AS SHOWN	Project No.	88-44-369-20
Prepared by	KGC	Date	6/5/90
Checked by	RMB	Drawing No.	
Approved by	CRC		





Converse Environmental West

HIGH STREET

JENSEN STREET



LEGEND

- SB-1  SOIL BORING (locations approximate)
- MW-1  GROUNDWATER MONITORING WELL

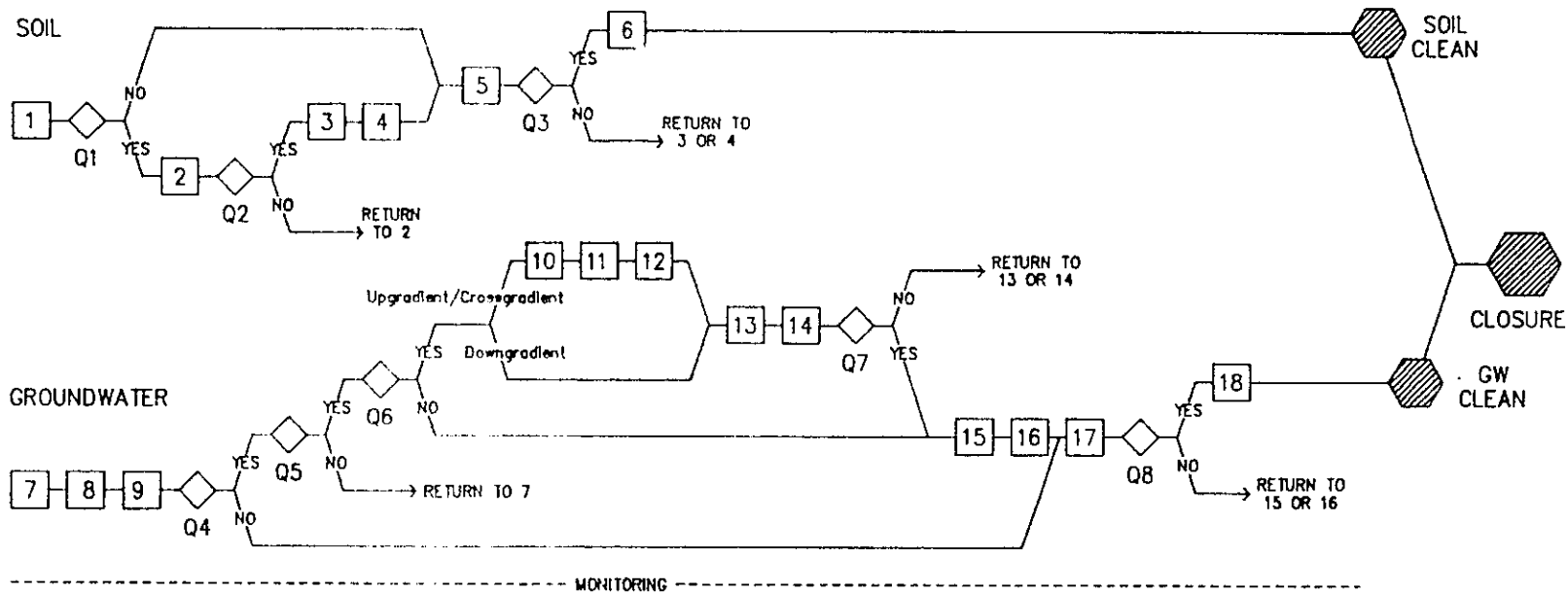
0 30 60
 SCALE IN FEET
 Base Map: Surveyed with EDM, Converse 1989.

PLOT PLAN

SHELL OIL COMPANY
 630 High Street
 Oakland, California

Scale	Project No.
AS SHOWN	88-44-369-20
Prepared by	Date
DEN/LQL	6-5-90
Checked by	Drawing No.
RMB	2
Approved by	
CRC	

 **Converse Environmental West**



TASKS

Program 1: Onsite Soil Investigation/Remediation

- Task 1 Drill and Sample Soil Borings
- Task 2 Drill Step-Out Borings
- Task 3 Prepare Soil Remedial Action Plan (if needed)
- Task 4 Remediate Soil (if needed)
- Task 5 Establish Clean Standards - Soil
- Task 6 Confirm Remediated Soil

Program 2: Onsite Groundwater Investigation

- Task 7 Install/Develop Groundwater Monitoring Wells
- Task 8 Sample/Analyze Groundwater
- Task 9 Conduct Hydrology Tests and Research

Program 3: Offsite Groundwater Investigation (if needed)

- Task 10 Perform Neighborhood Assessment
- Task 11 Refer to Legal Counsel
- Task 12 Inform RWQCB
- Task 13 Prepare Offsite Groundwater Investigation Plan
- Task 14 Install Offsite Wells, Sample/Analyze

Program 4: Groundwater Remediation (if needed)

- Task 15 Prepare Groundwater Remedial Action Plan
- Task 16 Implement Remedial Action Plan
- Task 17 Establish Cleanup Standards - Groundwater
- Task 18 Confirm Groundwater Remediation

QUESTIONS

- Q1: Are there concentrations of TPH greater than 100 ppm in any soil?
- Q2: Is soil characterized?
- Q3: Is the leaching potential acceptably low for contaminants proposed to be left in place?
- Q4: Is groundwater actionable?
- Q5: Is groundwater characterized onsite?
- Q6: Does groundwater pollution extend offsite?
- Q7: Is groundwater characterized offsite?
- Q8: Is the environmental risk acceptably low for contaminants proposed to be left in groundwater?

CRITICAL PATH DIAGRAM

SHELL OIL COMPANY
630 High Street
Oakland, California



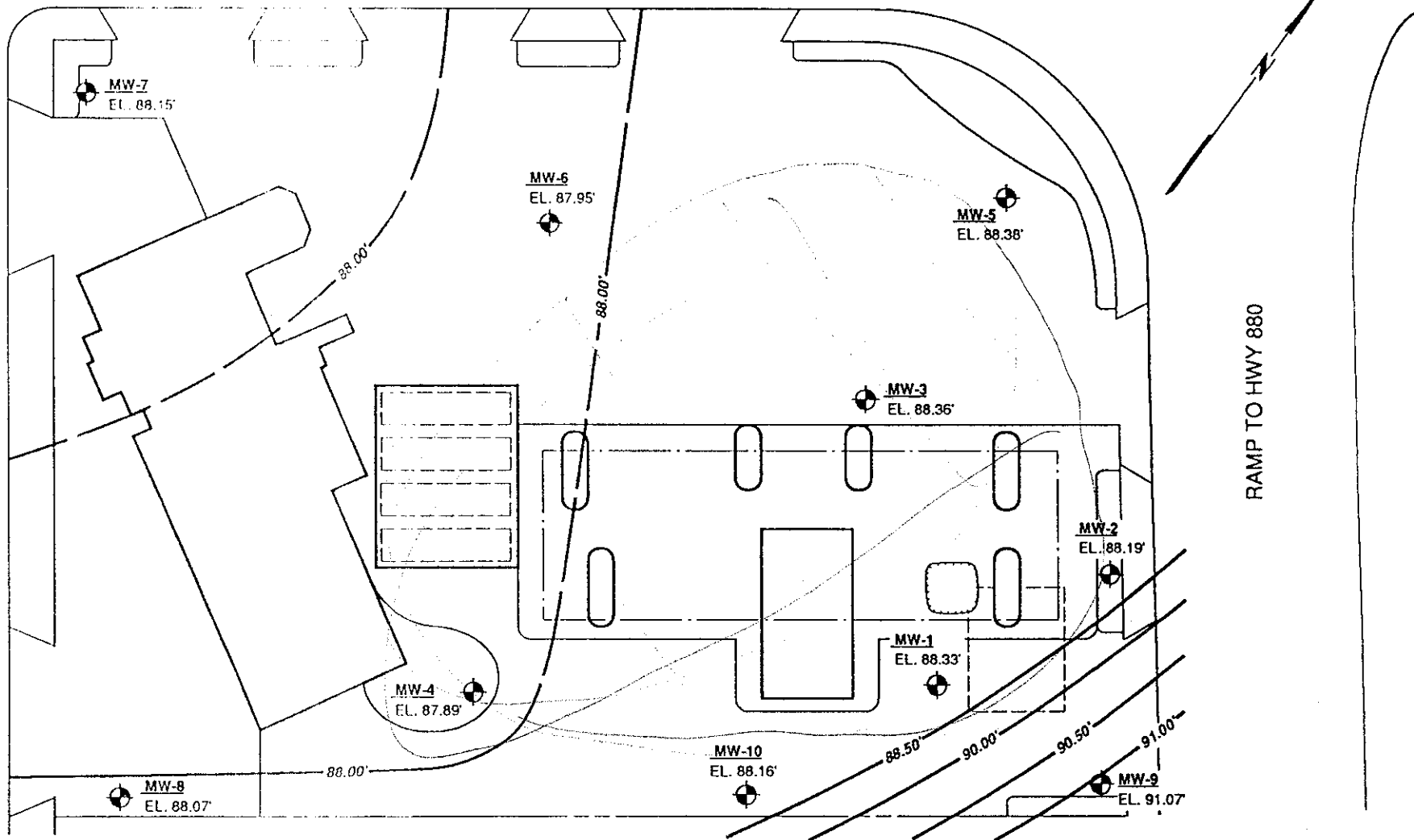
Converse Environmental West

Scale	AS SHOWN	Project No.	88-44-369-20
Prepared by	DEN	Date	6/5/90
Checked by	RMB	Drawing No.	3
Approved by	CRC		

HIGH STREET

JENSEN STREET

RAMP TO HWY 880

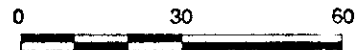


LEGEND

— GROUNDWATER CONTOUR (long dash where approximate, short dash where inferred)

MW-1 GROUNDWATER MONITORING WELL SHOWING GROUNDWATER ELEVATION

NOTES: GROUNDWATER ELEVATIONS GIVEN IN FEET ABOVE MEAN SEA LEVEL
GROUNDWATER TROUGH APPARENT BETWEEN 88.0 FEET CONTOURS
GROUNDWATER FLOW DIRECTION VARIABLE Q4/90



SCALE IN FEET

Base Map: Surveyed with EDM, Converse 1989.

GROUNDWATER CONTOUR MAP Q4/90

SHELL OIL COMPANY
630 High Street
Oakland, California



Converse Environmental West

Scale	AS SHOWN	Project No.	88-44-369-20
Prepared by	CJD	Date	9-20-90
Checked by	RMB	Drawing No.	4
Approved by	CRC		

APPENDIX A
CHRONOLOGICAL SUMMARY

CHRONOLOGICAL SUMMARY

The following chronological summary is based on information provided to Converse Environmental West (CEW) by Shell Oil Company (Shell). CEW was not provided with certain information related to the construction, operational, and environmental history of the site. According to Shell, the following information is not available in Shell files: volume of contaminated soil removed at the time of tank removal, geometry of the excavation created during tank removal, if any, and date and volume of any possible releases at the site.

Date	Description of Activity
01/85	Re-modernization of gas station. Armor Norman dismantled and removed all fuel dispensing facilities and excavated certain areas near former pump islands, product lines and areas which smelled of gasoline.
01/26/89	Blaine Technical Services collected and analyzed (10) excavation soil samples. The inspector from the Alameda county Health Department specified sampling locations. Soil were analyzed for TPH-g, BTEX and organic lead.
02/03/89	Blaine Tech Services collected and analyzed soil samples in areas of product dispensing pump islands after additional excavation in these areas and in areas of former waste oil and gasoline tank pits (sample No. 10 - 75 ppm and No. 12 - 600 ppm TPH-g).
02/03/89	Further excavation in former waste oil tank pit. Soil and groundwater samples were collected and analyzed in the area around sample no. 12 of February 3, 1989 sampling event. These soil sample contained less than 50 ppm TPH-d. Groundwater sample no. 3 from that area contained 1,800 ppm TPH-g and 200 ppm TPH-d.
02/24/89	Alameda County Environmental Health Department notified Shell that site conditions indicated a confirmed release, which required an investigation Work Plan within 25 days of the letter date.
03/89	Shell transferred project to CEW.
03/20/89	CEW submitted Revised Work Plan to agencies.
04/26/89	CEW installed wells MW-1 to MW-4 and soil borings SB-1 and SB-2.
05, 19/89	CEW developed wells MW-1 through MW-4.
05/25/89	CEW surveyed site and well head elevations (MW-1 through MW-4) to arbitrary
05/26/89	CEW sampled groundwater from wells MW-1 through MW-4.
08/15/89	CEW installed wells MW-5 through MW-8 and boring SB-3.
08/22/89	CEW surveyed wells MW-5 through MW-8 to arbitrary datum.

CHRONOLOGICAL SUMMARY (cont'd)

Date	Description of Activity
08/29/89	CEW sampled and developed wells MW-5 through MW-8.
10/17/89	Loma Prieta Earthquake struck.
11/15/89	CEW installed wells MW-9 and MW-10 and Boring SB-4.
11/22/89	CEW developed wells MW-9 and MW-10.
12/11/89	CEW sampled and surveyed wells MW-9 and MW-10.
01/31/90	CEW submitted Addendum to Quarterly Report Q4/89.
02/13,02/14, 02/15 & 02/20/90	CEW sampled and surveyed wells MW-1 through MW-10, performed slug tests on wells MW-5 through MW-9.
04/23/90 - 04/25/90	CEW sampled wells MW-1 through MW-10. CEW applied for offsite well permit with the City of Oakland.
08/01/90 & 08/02/90	CEW sampled wells MW-1 through MW-10.
12/28/90	CEW submitted Q4/90 Report of Activities.

Boldface items were conducted during Quarter 4, 1990.

APPENDIX B

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS



NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tescon Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

RECEIVED

NOV 05 1990

CONVERSE ENVIRONMENTAL

Robin Breuer
Converse Consultants
55 Hawthorne St, Ste 500
San Francisco, CA 94105

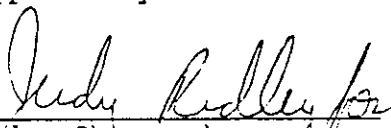
Date: 11-02-90
NET Client Acct No: 18.02
NET Pacific Log No: 4495
Received: 10-19-90 2300

Client Reference Information

SHELL, 630 High Street/Jensen, Oakland; Project: 88-44-369-20

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:


Jules Skamarack
Laboratory Manager

Enclosure(s)

Client Acct: 18.02
 Client Name: Converse Consultants
 NET Log No: 4495

Date: 11-02-90
 Page: 2

Ref: SHELL, 630 High Street/Jensen, Oakland; Project: 88-44-369-20

Descriptor, Lab No. and Results

Parameter	Reporting Limit	trip blank	field blank	MW-1	Units
		10-08-90	10-18-90 1030	10-18-90 1113	
		65929	65930	65931	
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	10	
DATE ANALYZED		10-23-90	10-24-90	10-24-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	0.05	ND	ND	8.6	mg/L
METHOD 602		--	--	--	
DILUTION FACTOR *		1	1	10	
DATE ANALYZED		10-23-90	10-24-90	10-24-90	
Benzene	0.5	ND	ND	220	ug/L
Ethylbenzene	0.5	ND	ND	310	ug/L
Toluene	0.5	ND	0.9	28	ug/L
Xylenes, total	0.5	ND	ND	270	ug/L
PETROLEUM HYDROCARBONS		--	--	--	
EXTRACTABLE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	5	
DATE EXTRACTED		10-24-90	10-24-90	10-24-90	
DATE ANALYZED		10-25-90	10-25-90	10-25-90	
METHOD GC FID/3510		--	--	--	
as Diesel	0.05	ND	ND	5.9	mg/L
as Motor Oil	0.5	ND	ND	ND	mg/L

Client Acct: 18.02
 Client Name: Converse Consultants
 NET Log No: 4495

Date: 11-02-90
 Page: 3

Ref: SHELL, 630 High Street/Jensen, Oakland; Project: 88-44-369-20

Descriptor, Lab No. and Results

Parameter	Reporting Limit	MW-3	MW-4	MW-5	Units
		10-18-90 1415	10-18-90 1510	10-18-90 1230	
		65932	65933	65934	
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (WATER)		--	--	--	
DILUTION FACTOR *		10	10	10	
DATE ANALYZED		10-24-90	10-24-90	10-25-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	0.05	2.5	3.4	5.0	mg/L
METHOD 602		--	--	--	
DILUTION FACTOR *		10	10	10	
DATE ANALYZED		10-24-90	10-24-90	10-25-90	
Benzene	0.5	42	210	150	ug/L
Ethylbenzene	0.5	13	13	33	ug/L
Toluene	0.5	7.2	19	13	ug/L
Xylenes, total	0.5	27	32	40	ug/L
PETROLEUM HYDROCARBONS		--	--	--	
EXTRACTABLE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE EXTRACTED		10-24-90	10-24-90	10-24-90	
DATE ANALYZED		10-25-90	10-25-90	10-25-90	
METHOD GC FID/3510		--	--	--	
as Diesel	0.05	0.94	1.9	1.1	mg/L
as Motor Oil	0.5	ND	ND	ND	mg/L

Client Acct: 18.02
 Client Name: Converse Consultants
 NET Log No: 4495

Date: 11-02-90
 Page: 4

Ref: SHELL, 630 High Street/Jensen, Oakland; Project: 88-44-369-20

Descriptor, Lab No. and Results

Parameter	Reporting Limit	MW-6	MW-7	MW-8	Units
		10-18-90 1320	10-18-90 1210	10-18-90 1550	
		65935	65936	65937	
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		10-24-90	10-24-90	10-24-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	0.05	ND	ND	ND	mg/L
METHOD 602		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		10-24-90	10-24-90	10-24-90	
Benzene	0.5	ND	ND	ND	ug/L
Ethylbenzene	0.5	ND	ND	ND	ug/L
Toluene	0.5	ND	ND	ND	ug/L
Xylenes, total	0.5	ND	ND	ND	ug/L
PETROLEUM HYDROCARBONS		--	--	--	
EXTRACTABLE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE EXTRACTED		10-24-90	10-24-90	10-24-90	
DATE ANALYZED		10-25-90	10-25-90	10-25-90	
METHOD GC FID/3510		--	--	--	
as Diesel	0.05	0.96	ND	ND	mg/L
as Motor Oil	0.5	ND	ND	ND	mg/L

Client Acct: 18.02
 Client Name: Converse Consultants
 NET Log No: 4495

Date: 11-02-90
 Page: 5

Ref: SHELL, 630 High Street/Jensen, Oakland; Project: 88-44-369-20

Descriptor, Lab No. and Results

Parameter	Reporting Limit	MW-9	MW-10	901810	Units
		10-18-90 1110	10-18-90 1120	10-18-90 1215	
		65938	65939	65940	
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		10-24-90	10-24-90	10-24-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	0.05	ND	ND	ND	mg/L
METHOD 602		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		10-24-90	10-24-90	10-24-90	
Benzene	0.5	ND	ND	ND	ug/L
Ethylbenzene	0.5	ND	ND	ND	ug/L
Toluene	0.5	ND	ND	ND	ug/L
Xylenes, total	0.5	ND	ND	ND	ug/L
PETROLEUM HYDROCARBONS		--	--	--	
EXTRACTABLE (WATER)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE EXTRACTED		10-24-90	10-24-90	10-24-90	
DATE ANALYZED		10-25-90	10-25-90	10-25-90	
METHOD GC FID/3510		--	--	--	
as Diesel	0.05	ND	0.24	ND	mg/L
as Motor Oil	0.5	ND	ND	ND	mg/L

Client Acct: 18.02
Client Name: Converse Consultants
NET Log No: 4495

Date: 11-02-90
Page: 6

Ref: SHELL, 630 High Street/Jensen, Oakland; Project: 88-44-369-20

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	0.05	mg/L	87	ND	88	81	8.3
Benzene	0.5	ug/L	94	ND	81	76	6.4
Toluene	0.5	ug/L	96	ND	81	76	6.4

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	0.05	mg/L	93	ND	92	90	2.2
Benzene	0.5	ug/L	76	ND	97	95	2.1
Toluene	0.5	ug/L	82	ND	99	98	1.0

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	0.05	mg/L	88	ND	91	93	2.2
Benzene	0.5	ug/L	98	ND	115	119	3.4
Toluene	0.5	ug/L	102	ND	101	102	1.0

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	112	ND	87	75	15
Motor Oil	0.5	mg/L	82	ND	N/A	N/A	N/A



CHAIN OF CUSTODY RECORD

PROJECT NO.		PROJECT NAME / CROSS STREET				ANALYSES			REMARKS	
88-44-369-20		630 High St, @ Jensen Oakland				TPH-D	TPH-G	BTEX		
SAMPLERS: (Signature)									<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">RMB</div>	
Richard Cumber										
STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NUMBER OF CONTAINERS	TPH-D	TPH-G	BTEX	
trip blank	10-16-90	10:40			1 L Amber	1	X			Standard detection limits
trip blank	10-15-90				40 mL VOA	1		X	X	Standard turnaround time
field blank	10-30				1 L Amber	1	X			
field blank	10-30				40 mL VOA	1		X	X	Detection limits:
MW-1	1113			X	1 L Amber	2	X			
MW-1	1113			X	40 mL VOA	3		X	X	TPH-D: 0.05 ppm
MW-3	215			X	1 L Amber	2	X			TPH-G: 0.05 ppm
MW-3	215			X	40 mL VOA	3		X	X	BTEX: 5×10^4 ppm
MW-4	310			X	1 L Amber	2	X			
MW-4	310			X	40 mL VOA	3		X	X	Trip blanks prepared:
MW-5	1230			X	1 L Amber	2	X			Amber: 10-8-90
MW-5	1230			X	40 mL VOA	3		X	X	VOA: 10-15-90
MW-6	120			X	1 L Amber	2	X			custody seal 10/19/90 @ 19:00
RELINQUISHED BY: (Signature)		DATE:	RECEIVED BY: (Signature)		RELINQUISHED BY: (Signature)		DATE:	RECEIVED BY: (Signature)		
Richard P. Cumber		10/19/90	Jeff [Signature]		Jeff [Signature]		10/19			
		TIME:					TIME:			
		19:40								
RELINQUISHED BY: (Signature)		DATE:	RECEIVED BY: (Signature)		RELINQUISHED BY: (Signature)		DATE:	RECEIVED BY: (Signature)		
RELINQUISHED BY COURIER: (Sign.)		DATE:	RECEIVED BY MOBILE LAB: (Sign.)		RELINQ. BY MOBILE LAB: (Signature)		DATE:	RECEIVED BY COURIER: (Signature)		
METHOD OF SHIPMENT			SHIPPED BY: (Signature)		RECEIVED FOR LAB: (Signature)		DATE:	COURIER FROM AIRPORT: (Signature)		
air mail			Example		Example		10-19-90			
							TIME:			
							2300			

WIC # : 20455085801
 AFE # : 086672
 PM: RMB 4495



CHAIN OF CUSTODY RECORD

PROJECT NO: 88-44-369-20					PROJECT NAME / CROSS STREET 670 High St @ Jensen Oakland		NUMBER OF CONTAINERS	ANALYSES				REMARKS
SAMPLERS: (Signature) Richard Neubauer					TPH-D	TPH-G		BTEX				
STATION NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION							
MW-6	10/26/90	120		X	40 mL VOA	3	X	X			Standard turnaround time:	
MW-7		1210		X	1 L Amber	2	X					
MW-7		1210		X	40 mL VOA	3	X	X			Detection limits:	
MW-8		350		X	1 L Amber	2	X					
MW-8		350		X	40 mL VOA	3	X	X			TPH-D : 0.05 ppm TPH-G : 0.05 ppm BTEX : 5x10 ⁻⁴ ppm	
MW-9		1110		X	1 L Amber	3	X					
MW-9		1110		X	40 mL VOA	4	X	X				
MW-10		1120		X	1 L Amber (PC)	1	X					
MW-10		1120		X	40 mL VOA	3	X	X				
90/810		1215		X	1 L Amber	2	X					
90/810		1215		X	40 mL VOA	3	X	X				

RELINQUISHED BY: (Signature) Richard Neubauer	DATE: 10/19/90 TIME: 14:40	RECEIVED BY: (Signature) Jeff Winkler	RELINQUISHED BY: (Signature) Jeff Winkler	DATE: 10/19 TIME:	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE: TIME:	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE: TIME:	RECEIVED BY: (Signature)
RELINQUISHED BY COURIER: (Sign.)	DATE: TIME:	RECEIVED BY MOBILE LAB: (Sign.)	RELINQ. BY MOBILE LAB: (Signature)	DATE: TIME:	RECEIVED BY COURIER: (Signature)
METHOD OF SHIPMENT by air	SHIPPED BY: (Signature)	RECEIVED FOR LAB: (Signature) K. Temple	DATE: 10-19-90 TIME: 2300	COURIER FROM AIRPORT: (Signature)	