

PACIFIC
ENVIRONMENTAL
GROUP, INC.

ENVIRONMENTAL
95 JUL 26 PM 2:30

July 24, 1995
Project 305-085.2C

Mr. Dan Kirk
Shell Oil Products Company
P.O. Box 4023
Concord, California 94524

Re: Quarterly Report - Second Quarter 1995
Shell Service Station
230 West MacArthur Boulevard at Piedmont Avenue
Oakland, California
WIC No 204-5508-0703

Dear Mr. Kirk:

The following presents the results of the second quarter 1995 monitoring program for the site referenced above. This letter has been prepared for Shell Oil Products Company by Pacific Environmental Group, Inc. (PACIFIC).

FINDINGS

Groundwater monitoring wells were gauged and sampled by Blaine Tech Services, Inc. (Blaine) at the direction of PACIFIC on June 26, 1995. Groundwater elevation contours for the sampling date are shown on Figure 1. Table 1 presents groundwater elevation data.

All wells were analyzed for total petroleum hydrocarbons calculated as gasoline (TPH-g). Groundwater analytical data are presented in Table 2; TPH-g and benzene concentrations for the June 1995 sampling event is shown on Figure 2. Blaine's groundwater sampling report, which includes field data and the certified analytical report, is presented as Attachment A.

July 24, 1995

Page 2

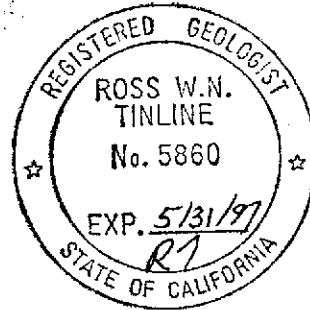
If you have any questions regarding the contents of this letter, please call.

Sincerely,

Pacific Environmental Group, Inc.



Ross W.N. Tinline
Project Geologist
RG 5860



Attachments: Table 1 - Groundwater Elevation Data
Table 2 - Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)
Figure 1 - Groundwater Elevation Contour Map
Figure 2 - TPH-g/Benzene Concentration Map
Attachment A - Groundwater Sampling Report

cc: Ms. Lisa McCann, Regional Water Quality Control Board - S.F. Bay Region
Mr. Craig Mayfield, Alameda County Flood Control and Water Conservation District
Mr. Gil Wistar, Alameda County Health Department

Table 1
Groundwater Elevation Data

Shell Service Station
230 West MacArthur Boulevard at Piedmont Avenue
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-1	07/14/88	73.89	13.30	60.59
	10/04/88		13.65	60.24
	11/10/88		13.55	60.34
	12/09/88		13.22	60.67
	01/10/89		12.86	61.03
	01/20/89		12.91	60.98
	02/06/89		12.94	60.95
	03/10/89		12.59	61.30
	06/06/89		14.05	59.84
	09/07/89		14.92	58.97
	12/18/89		14.88	59.01
	03/08/90		14.08	59.81
	06/07/90		13.89	60.00
	09/05/90		14.83	59.06
	12/03/90		15.05	58.84
	03/01/91		14.34	59.55
	06/03/91		14.16	59.73
	09/04/91		14.60	59.29
	03/13/92		13.40	60.49
	06/03/92		13.76	60.13
	08/19/92		14.57	59.32
	11/16/92		14.78	59.11
	02/18/93		12.14	61.75
	06/01/93		13.30	60.59
	08/30/93		14.32	59.57
	12/13/93		14.06	59.83
	03/03/94		13.12	60.77
	06/06/94		14.20	59.69
09/12/94	15.72	58.17		
12/15/94	12.98	60.91		
03/13/95	11.74	62.15		
06/26/95	13.00	60.89		
MW-2	07/14/88	75.24	15.18	60.06
	10/04/88		15.30	59.94
	11/10/88		15.17	60.07
	12/09/88		14.82	60.42
	01/20/89		14.54	60.70
	02/06/89		14.59	60.65
	03/10/89		14.88	60.36
	06/06/89		15.30	59.94
	09/07/89		16.76	58.48
	12/18/89		16.65	58.59
	03/08/90		15.92	59.32
	06/07/90		16.10	59.14
	09/05/90		16.61	58.63

Table 1 (continued)
Groundwater Elevation Data

Shell Service Station
230 West MacArthur Boulevard at Piedmont Avenue
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth To Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-2 (cont.)	12/03/90		17.06	58.18
	03/01/91		16.62	58.62
	06/03/91		16.65	58.59
	09/04/91		16.57	58.67
	03/13/92		14.66	60.58
	06/03/92		15.90	59.34
	08/19/92		16.72	58.52
	11/16/92		16.66	58.58
	02/18/93		13.88	61.36
	06/01/93		14.74	60.50
	08/30/93		15.85	59.39
	12/13/93		15.83	59.41
	03/03/94		14.80	60.44
	06/06/94		16.65	58.59
	09/12/94		16.72	58.52
	12/15/94		15.25	59.99
	03/13/95		15.32	59.92
06/26/95		14.65	60.59	
MW-3	07/14/88	74.68	14.05	60.63
	10/04/88		14.60	60.08
	11/10/88		14.35	60.33
	12/09/88		14.04	60.64
	01/10/89		13.70	60.98
	01/20/89		13.72	60.96
	02/06/89		13.75	60.93
	03/10/89		13.42	61.26
	06/06/89		14.52	60.16
	09/07/89		15.52	59.16
	12/18/89		19.59	55.09
	03/08/90		14.72	59.96
	06/07/90		14.65	60.03
	09/05/90		15.51	59.17
	12/03/90		14.85	59.83
	03/01/91		14.92	59.76
	06/03/91		14.75	59.93
	09/04/91		15.14	59.54
	03/13/92		13.50	61.18
	06/03/92		14.39	60.29
08/19/92		15.08	59.60	
11/16/92		15.43	59.25	
02/18/93		12.96	61.72	
06/01/93		13.98	60.70	
08/30/93		14.82	59.86	
12/13/93		14.70	59.98	

Table 1 (continued)
Groundwater Elevation Data

Shell Service Station
230 West MacArthur Boulevard at Piedmont Avenue
Oakland, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth To Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-3 (cont.)	03/03/94		13.92	60.76
	06/06/94		14.73	59.95
	09/12/94		15.42	59.26
	12/15/94		13.80	60.88
	03/13/95		12.41	62.27
	06/26/95		13.79	60.89
MW-4	01/23/90	73.83	14.68	59.15
	03/08/90		14.38	59.45
	06/07/90		14.27	59.56
	09/05/90		15.40	58.43
	12/03/90		15.90	57.93
	06/03/91		14.60	59.23
	09/04/91		15.25	58.58
	03/13/92		12.72	61.11
	06/03/92		14.33	59.50
	08/19/92		15.18	58.65
	11/16/92		15.39	58.44
	02/18/93		12.62	61.21
	06/01/93		13.68	60.15
	08/30/93		14.83	59.00
	12/13/93		14.50	59.33
	03/03/94		13.48	60.35
	06/06/94		14.26	59.57
09/12/94		15.42	58.41	
12/15/94		13.43	60.40	
03/13/95		12.13	61.70	
06/25/95		13.26	60.57	
MSL = Mean sea level				
TOC = Top of casing				

Table 2
Groundwater Analytical Data
 Total Petroleum Hydrocarbons
 (TPH as Gasoline and BTEX Compounds)

Shell Service Station
 230 West MacArthur Boulevard at Piedmont Avenue
 Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-1	07/14/88	ND	ND	ND	ND	ND
	10/04/88	ND	8	4.3	ND	9
	11/10/88	ND	ND	ND	ND	ND
	12/09/88	ND	ND	ND	ND	ND
	01/10/89	ND	ND	ND	ND	NA
	01/20/89	ND	ND	NA	NA	ND
	02/06/89	ND	ND	ND	ND	ND
	03/10/89	ND	ND	ND	ND	ND
	06/06/89	ND	ND	ND	ND	ND
	09/07/89	ND	ND	ND	ND	ND
	12/18/89	ND	ND	ND	ND	ND
	03/08/90	ND	ND	ND	ND	ND
	06/07/90	ND	ND	ND	ND	ND
	09/05/90	ND	ND	ND	ND	ND
	12/03/90	ND	ND	ND	ND	ND
	03/01/91	ND	ND	ND	ND	ND
	06/03/91	ND	ND	ND	ND	ND
	09/04/91	ND	ND	ND	ND	ND
	03/13/92	ND	ND	ND	ND	ND
	06/03/92	ND	ND	ND	ND	ND
	08/19/92	87	ND	ND	ND	ND
	11/16/92	ND	ND	ND	ND	ND
	02/18/93	59 ^a	ND	ND	ND	ND
	06/01/93	ND	ND	ND	ND	ND
	08/30/93	ND	ND	ND	ND	ND
	12/13/93	ND	ND	ND	ND	ND
	03/03/94	100	ND	ND	ND	ND
	06/06/94	ND	ND	ND	ND	ND
	09/12/94	ND	ND	ND	ND	ND
	12/15/94	ND	ND	ND	ND	ND
03/13/95 ^d	60	4.7	9.8	ND	2.9	
04/21/95	ND	ND	ND	ND	ND	
06/26/95	ND	ND	ND	ND	ND	
MW-2	07/14/88	ND	7.9	2.6	1.1	4
	10/04/88	90	ND	1.3	2.3	12
	11/10/88	ND	ND	ND	ND	2
	12/09/88	ND	ND	0.6	ND	3
	01/20/89	ND	ND	ND	ND	ND
	02/06/89	NA	ND	ND	ND	ND
	03/10/89	ND	ND	ND	ND	ND
	06/06/89	ND	ND	0.5	ND	ND
	09/07/89	ND	ND	ND	ND	ND

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
 (TPH as Gasoline and BTEX Compounds)

Shell Service Station
 230 West MacArthur Boulevard at Piedmont Avenue
 Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-2 (cont.)	12/18/89	ND	ND	ND	ND	ND
	03/08/90	ND	ND	ND	ND	ND
	06/07/90	ND	ND	ND	ND	ND
	09/05/90	ND	ND	ND	ND	ND
	12/03/90	ND	ND	ND	ND	ND
	03/01/91	ND	ND	ND	ND	ND
	06/03/91	ND	ND	ND	ND	ND
	09/04/91	ND	ND	ND	ND	ND
	03/13/92	ND	ND	ND	ND	ND
	06/03/92	ND	ND	ND	ND	ND
	08/19/92	67	ND	ND	ND	ND
	11/16/92	50	ND	ND	ND	1.2
	02/18/93	52 ^a	ND	ND	ND	ND
	02/18/93(D)	52 ^a	ND	ND	ND	ND
	06/01/93	ND	ND	ND	ND	ND
	08/30/93	70 ^a	ND	ND	ND	ND
	12/13/93	68 ^a	ND	ND	ND	ND
	03/03/94	280 ^a	ND	ND	ND	ND
	06/06/94	ND	ND	ND	ND	ND
	09/12/94	ND	ND	ND	ND	ND
12/15/94	230 ^a	ND	ND	ND	ND	
03/13/95	ND	2.9	6.3	ND	2.7	
04/21/95	ND	ND	ND	ND	ND	
06/26/95	ND	ND	ND	ND	ND	
MW-3	07/14/88	ND	ND	ND	ND	ND
	10/04/88	ND	ND	ND	ND	5
	11/10/88	ND	ND	ND	ND	ND
	12/09/88	ND	ND	ND	ND	ND
	01/10/89	ND	ND	ND	ND	NA
	01/20/89	NA	NA	ND	ND	ND
	02/06/89	70	ND	ND	ND	ND
	03/10/89	150	ND	ND	ND	ND
	06/06/89	ND	ND	ND	ND	ND
	09/07/89	ND	0.65	ND	ND	ND
	12/06/89	46	1.3	ND	0.44	0.66
	03/08/90	ND	ND	ND	ND	ND
	06/07/90	ND	ND	ND	ND	ND
	09/05/91	ND	ND	ND	ND	ND
	12/03/90	ND	ND	ND	ND	ND
	03/01/91	1.9	59	ND	22	ND
	06/03/91	ND	ND	ND	ND	ND
	09/04/91	ND	ND	ND	ND	ND
	03/13/92	ND	ND	ND	ND	ND

Table 2 (continued)
Groundwater Analytical Data
 Total Petroleum Hydrocarbons
 (TPH as Gasoline and BTEX Compounds)

Shell Service Station
 230 West MacArthur Boulevard at Piedmont Avenue
 Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	
MW-3 (cont.)	06/03/92	ND	ND	ND	ND	ND	
	08/19/92	92	ND	ND	ND	ND	
	08/19/92(D)	76	ND	ND	ND	ND	
	11/16/92	200 ^a	ND	ND	ND	ND	
	11/16/92(D)	140 ^a	ND	ND	ND	ND	
	02/18/93	680 ^a	ND	ND	ND	ND	
	06/01/93	160 ^a	ND	ND	ND	ND	
	06/01/93(D)	150 ^a	ND	ND	ND	ND	
	08/30/93	110 ^a	ND	ND	ND	ND	
	12/13/93	140 ^a	ND	ND	ND	ND	
	12/13/93(D)	110 ^a	ND	ND	ND	ND	
	03/03/94	61 ^a	ND	ND	ND	ND	
	06/06/94	ND	ND	ND	ND	ND	
	09/12/94	ND	ND	ND	ND	ND	
	12/15/94	ND	ND	0.9	ND	0.6	
	03/13/95	100 ^b	7.9	17	0.7	6.1	
	04/21/95	60	0.9	1.1	ND	1.0	
	06/26/95	ND	ND	ND	ND	ND	
MW-4	01/23/90	1,600	100	10	30	20	
	03/08/90	4,200	260	18	88	39	
	06/07/90	2,000	150	6.9	14	17	
	09/05/90	1,700	130	10	7.2	19	
	12/03/90	2,600	108	41	17	59	
	06/03/91	2,800	160	15	8.8	32	
	09/04/91	----- Separate-Phase Hydrocarbon Sheen -----					
	03/13/92	2,700	180	70	5.9	29	
	06/03/92	1,700	190	ND	30	23	
	08/19/92	170	4.2	ND	0.6	1.0	
	11/16/92	2,600	92	49	50	81	
	02/18/93	7,400	120	38	51	87	
	06/01/93	7,000	1,800	1,700	1,600	1,700	
	08/30/93	2,100	80	11	ND	11	
	08/30/93(D)	2,100	77	5.6	ND	5.5	
	12/13/93	2,000 ^a	20	ND	21	52	
	03/03/94	3,500	150	86	85	90	
	03/03/94(D)	3,200	130	73	74	76	

Table 2 (continued)
Groundwater Analytical Data
 Total Petroleum Hydrocarbons
 (TPH as Gasoline and BTEX Compounds)

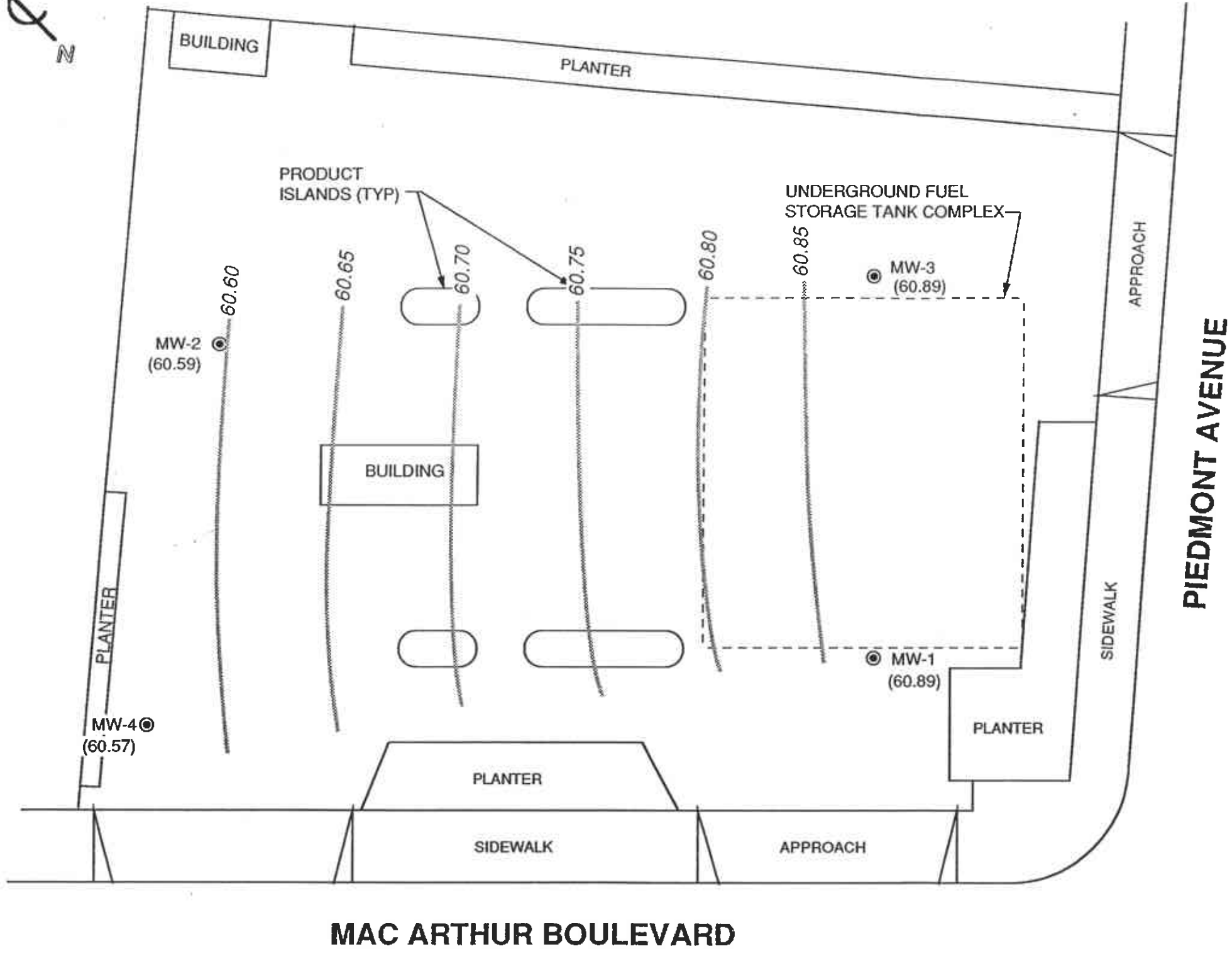
Shell Service Station
 230 West MacArthur Boulevard at Piedmont Avenue
 Oakland, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
	06/06/94	590	25	ND	ND	ND
	06/06/94(D)	400	16	ND	ND	ND
	09/12/94	1,800	42	ND	3.7	4.7
	09/12/94(D)	2,000	40	ND	5.7	8.0
	12/15/94	2,900	78	14	94	17
	12/15/94(D)	2,900	90	7	96	18
	03/13/95 ^c	2,700	240	24	99	34
	03/13/95(D) ^c	2,500	300	24	140	28
	06/26/95	2,100	87	10	67	25
	06/26/95(D)	2,300	92	12	74	26

ppb = Parts per billion
 ND = Not detected
 NA = Not analyzed
 (D) = Duplicate sample

- The concentration reported as gasoline is primarily due to the presence of a discrete hydrocarbon peak not indicative of gasoline.
- The laboratory noted result to have an atypical gasoline pattern.
- The laboratory noted sample was analyzed within hold time but further dilution was required and done out of hold time. The laboratory suggests these to be minimum concentrations.
- The laboratory noted the sampled was analyzed after the method specified holding time.

See certified analytical reports for detection limits.

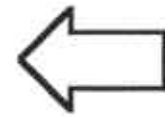


LEGEND

MW-1 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

(60.89) GROUNDWATER ELEVATION IN FEET - MSL, 6-26-95

60.80 GROUNDWATER ELEVATION CONTOUR IN FEET - MSL, 6-26-95

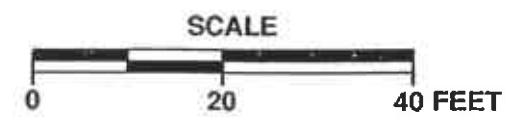


APPROXIMATE DIRECTION OF GROUNDWATER FLOW

APPROXIMATE GRADIENT = 0.002



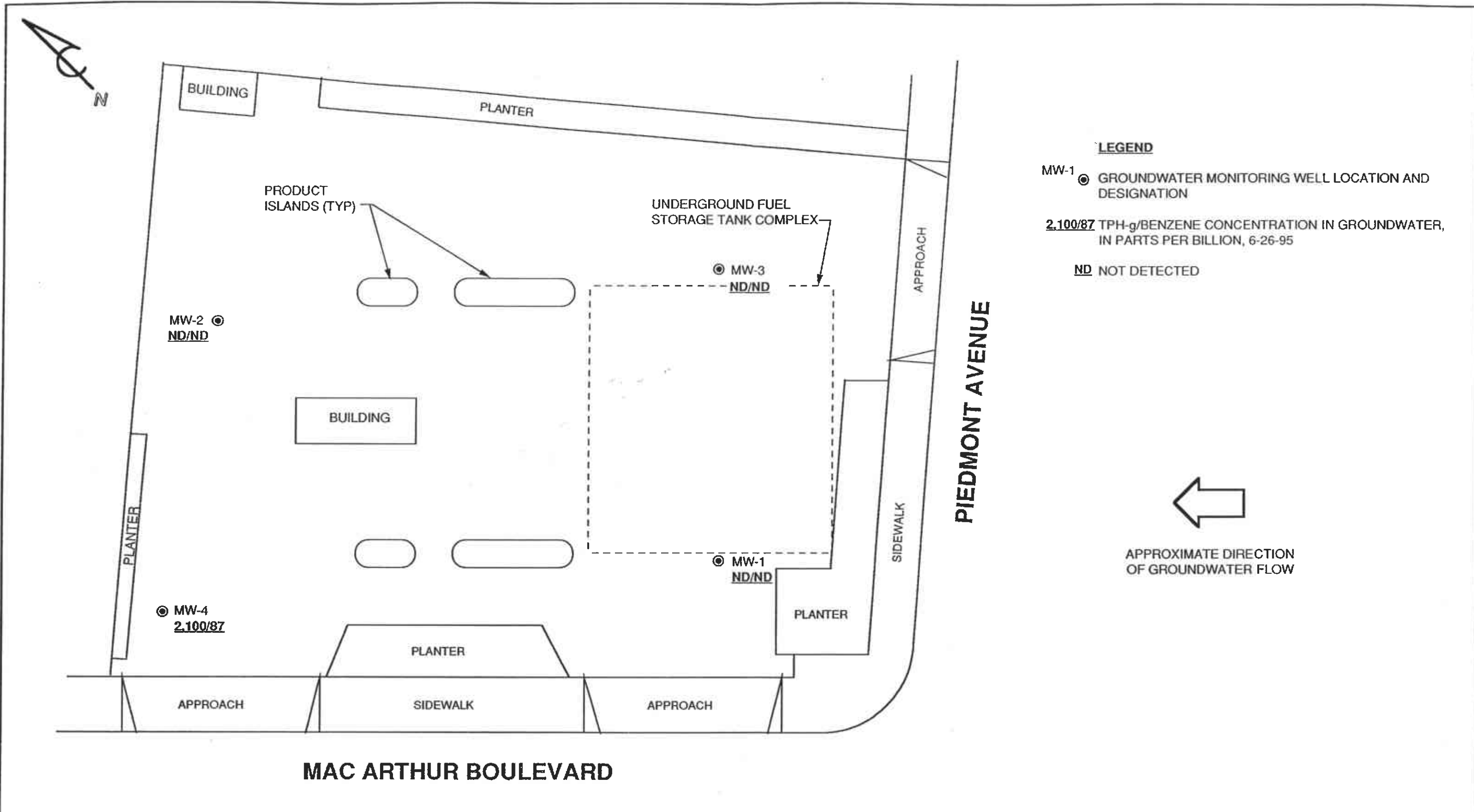
PACIFIC ENVIRONMENTAL GROUP, INC.



SHELL SERVICE STATION
230 West MacArthur Boulevard at Piedmont Avenue
Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE: 1
PROJECT: 305-085.2C



PACIFIC ENVIRONMENTAL GROUP, INC.

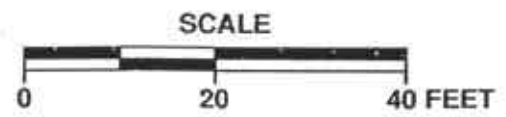
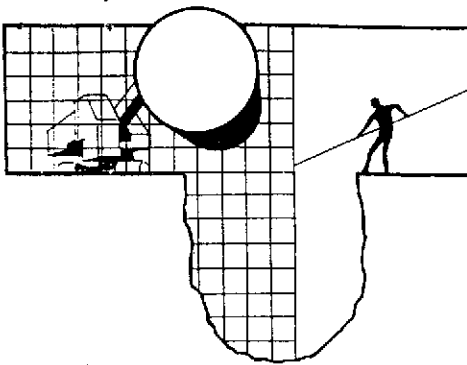


FIGURE: 2
PROJECT: 305-085.2C

ATTACHMENT A
GROUNDWATER SAMPLING REPORT



BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

July 10, 1995

Shell Oil Company
P.O. Box 4023
Concord, CA 94524

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-5508-0703
230 West MacArthur Blvd.
Oakland, California

QUARTER:
2nd quarter of 1995

QUARTERLY GROUNDWATER SAMPLING REPORT 950626-A-1

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a **TABLE OF WELL GAUGING DATA**. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

STANDARD PROCEDURES

Evacuation

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be removed in cases where the well dewateres and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California.

Free Product Skimmer

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such sites is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

Sample Containers

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

Sampling

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

Sample Designations

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

Chain of Custody

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Hazardous Materials Testing Laboratory

The samples obtained at this site were delivered to National Environmental Testing, Inc. in Santa Rosa, California. NET is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #178.

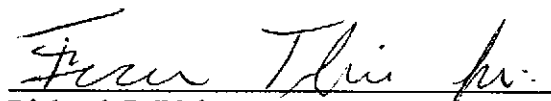
Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.


Richard C. Blaine

RCB/lp

attachments: table of well gauging data
chain of custody
certified analytical report

cc: Pacific Environmental Group, Inc.
2025 Gateway Place, Suite #440
San Jose, CA 95110
ATTN: Rhonda Barrick

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
MW-1	6/26/95	TOC	-	NONE	-	-	13.00	29.38
MW-2	6/26/95	TOC	-	NONE	-	-	14.65	27.85
MW-3	6/26/95	TOC	-	NONE	-	-	13.79	28.10
MW-4 *	6/26/95	TOC	-	NONE	-	-	13.26	23.98

* Sample DUP was a duplicate sample taken from well MW-4.

#7353



SHELL OIL COMPANY RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 950626-A1

Date: 6-26-95

Page 1 of 1

Silo Address: 230 West MacArthur Blvd., Oakland
WIC#: 204-5508-0703

Analysis Required

LAB: NET

Shell Engineer: Dan Kirk
Phone No.: (510) 675-6168
Fax #: 675-6160

Consultant Name & Address:
Blaine Tech Services, Inc.
985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller
Phone No.: (408) 995-5535
Fax #: 293-8773

Comments:

Sampled by: Randy Valent

Printed Name: RANDY VALENTINE

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020			Asbestos	Container Size	Preparation Used	Composite Y/N	<input type="checkbox"/> CHECK ONE (1) BOX ONLY <input checked="" type="checkbox"/> QUANTITY MONITORING <input type="checkbox"/> SITE INVESTIGATION <input type="checkbox"/> SOIL CLASSIFY/DISPOSAL <input type="checkbox"/> WATER CLASSIFY/DISPOSAL <input type="checkbox"/> SOIL/AIR REM. OF SYS. O & M <input type="checkbox"/> WATER REM. OF SYS. O & M <input type="checkbox"/> OTHER	CT/DI 6441 6441 6442 6443 6452 6453	TURN AROUND TIME 24 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 15 days <input checked="" type="checkbox"/> (Normal) Other <input type="checkbox"/>		
												MATERIAL DESCRIPTION			SAMPLE CONDITION/COMMENTS	

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.
MW 1	6/26			X		3
MW 2	6/26			X		3
MW 3	6/26			X		3
MW 4	6/26			X		3
TB	6/26			X		2
EB	6/26			X		3
DUP	6/26			X		3

6/27/95
EB
Real Contact
OP

Relinquished By (signature): <u>[Signature]</u>	Printed Name: _____	Date: <u>6/27</u>	Received (signature): <u>[Signature]</u>	Printed Name: _____	Date: <u>6/27</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>GT LUMARE</u>	Date: <u>6/27</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>PAM GREENS</u>	Date: <u>6/27</u>
Relinquished By (signature): _____	Printed Name: _____	Date: _____	Received (signature): _____	Printed Name: _____	Date: _____

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

VH: NCS



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 07/06/1995
NET Client Acct. No: 1821
NET Job No: 95.02514
Received: 06/28/1995

Client Reference Information

Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. 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:

Ken Larson
Division Manager

Jennifer L. Roseberry
Project Manager

Enclosure(s)





Client Name: Blaine Tech Services

Date: 07/06/1995

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 95.02514

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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

SAMPLE DESCRIPTION: MW1

Date Taken: 06/26/1995

Time Taken:

NET Sample No: 244858

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						06/30/1995	2976
Purgeable TPH	ND		50	ug/L	5030/M8015		06/30/1995	2976
Carbon Range: C6 to C12	--						06/30/1995	2976
METHOD 8020 (GC, Liquid)	--						06/30/1995	2976
Benzene	ND		0.5	ug/L	8020		06/30/1995	2976
Toluene	ND		0.5	ug/L	8020		06/30/1995	2976
Ethylbenzene	ND		0.5	ug/L	8020		06/30/1995	2976
Xylenes (Total)	ND		0.5	ug/L	8020		06/30/1995	2976
SURROGATE RESULTS	--						06/30/1995	2976
Bromofluorobenzene (SURR)	94			% Rec.	8020		06/30/1995	2976

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services

Date: 07/06/1995

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 95.02514

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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

SAMPLE DESCRIPTION: MW2

Date Taken: 06/26/1995

Time Taken:

NET Sample No: 244859

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						06/30/1995	2976
Purgeable TPH	ND		50	ug/L	5030/M8015		06/30/1995	2976
Carbon Range: C6 to C12	--						06/30/1995	2976
METHOD 8020 (GC, Liquid)	--						06/30/1995	2976
Benzene	ND		0.5	ug/L	8020		06/30/1995	2976
Toluene	ND		0.5	ug/L	8020		06/30/1995	2976
Ethylbenzene	ND		0.5	ug/L	8020		06/30/1995	2976
Xylenes (Total)	ND		0.5	ug/L	8020		06/30/1995	2976
SURROGATE RESULTS	--						06/30/1995	2976
Bromofluorobenzene (SURR)	88			% Rec.	8020		06/30/1995	2976

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 95.02514

Date: 07/06/1995
ELAP Cert: 1386
Page: 4

Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

SAMPLE DESCRIPTION: MW3

Date Taken: 06/26/1995

Time Taken:

NET Sample No: 244860

Parameter	Results	Flags	Reporting			Date Extracted	Date Analyzed	Run Batch No.
			Limit	Units	Method			
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						06/30/1995	2976
Purgeable TPH	ND		50	ug/L	5030/M8015		06/30/1995	2976
Carbon Range: C6 to C12	--						06/30/1995	2976
METHOD 8020 (GC, Liquid)	--						06/30/1995	2976
Benzene	ND		0.5	ug/L	8020		06/30/1995	2976
Toluene	ND		0.5	ug/L	8020		06/30/1995	2976
Ethylbenzene	ND		0.5	ug/L	8020		06/30/1995	2976
Xylenes (Total)	ND		0.5	ug/L	8020		06/30/1995	2976
SURROGATE RESULTS	--						06/30/1995	2976
Bromofluorobenzene (SURR)	94			% Rec.	8020		06/30/1995	2976

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services

Date: 07/06/1995

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 95.02514

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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

SAMPLE DESCRIPTION: MW4

Date Taken: 06/26/1995

Time Taken:

NET Sample No: 244861

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	10						07/03/1995	2977
Purgeable TPH	2,100		500	ug/L	5030/M8015		07/03/1995	2977
Carbon Range: C6 to C12	--						07/03/1995	2977
METHOD 8020 (GC, Liquid)	--						07/03/1995	2977
Benzene	87		5	ug/L	8020		07/03/1995	2977
Toluene	10		5	ug/L	8020		07/03/1995	2977
Ethylbenzene	67		5	ug/L	8020		07/03/1995	2977
Xylenes (Total)	25		5	ug/L	8020		07/03/1995	2977
SURROGATE RESULTS	--						07/03/1995	2977
Bromofluorobenzene (SURR)	117			% Rec.	8020		07/03/1995	2977

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services

Date: 07/06/1995

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 95.02514

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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

SAMPLE DESCRIPTION: TB

Date Taken: 06/26/1995

Time Taken:

NET Sample No: 244862

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						06/30/1995	2976
Purgeable TPH	ND		50	ug/L	5030/M8015		06/30/1995	2976
Carbon Range: C6 to C12	--						06/30/1995	2976
METHOD 8020 (GC, Liquid)							06/30/1995	2976
Benzene	ND		0.5	ug/L	8020		06/30/1995	2976
Toluene	ND		0.5	ug/L	8020		06/30/1995	2976
Ethylbenzene	ND		0.5	ug/L	8020		06/30/1995	2976
Xylenes (Total)	ND		0.5	ug/L	8020		06/30/1995	2976
SURROGATE RESULTS	--						06/30/1995	2976
Bromofluorobenzene (SURR)	88			% Rec.	8020		06/30/1995	2976

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 95.02514

Date: 07/06/1995
ELAP Cert: 1386
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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

SAMPLE DESCRIPTION: DUP
Date Taken: 06/26/1995
Time Taken:
NET Sample No: 244863

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	10						07/03/1995	2977
Purgeable TPH	2,300		500	ug/L	5030/M8015		07/03/1995	2977
Carbon Range: C6 to C12	--						07/03/1995	2977
METHOD 8020 (GC, Liquid)	--						07/03/1995	2977
Benzene	92		5	ug/L	8020		07/03/1995	2977
Toluene	12		5	ug/L	8020		07/03/1995	2977
Ethylbenzene	74		5	ug/L	8020		07/03/1995	2977
Xylenes (Total)	26		5	ug/L	8020		07/03/1995	2977
SURROGATE RESULTS	--						07/03/1995	2977
Bromofluorobenzene (SURR)	122	MI		% Rec.	8020		07/03/1995	2977

MI : Matrix Interference Suspected.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services

Date: 07/06/1995

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 95.02514

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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

SAMPLE DESCRIPTION: EB

Date Taken: 06/26/1995

Time Taken:

NET Sample No: 244864

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	i						07/01/1995	2976
Purgeable TPH	ND		50	ug/L	5030/M8015		07/01/1995	2976
Carbon Range: C6 to C12	--						07/01/1995	2976
METHOD 8020 (GC, Liquid)								
Benzene	ND		0.5	ug/L	8020		07/01/1995	2976
Toluene	ND		0.5	ug/L	8020		07/01/1995	2976
Ethylbenzene	ND		0.5	ug/L	8020		07/01/1995	2976
Xylenes (Total)	ND		0.5	ug/L	8020		07/01/1995	2976
SURROGATE RESULTS								
Bromofluorobenzene (SURRE)	87			% Rec.	8020		07/01/1995	2976

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services

Date: 07/06/1995

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 95.02514

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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard % Recovery	Standard Amount Found	Standard Amount Expected				
METHOD 5030/8015-M (Shell)							
Purgeable TPH	104.0	0.52	0.50	mg/L	06/30/1995	aal	2976
Benzene	87.2	4.36	5.00	ug/L	06/30/1995	aal	2976
Toluene	85.8	4.29	5.00	ug/L	06/30/1995	aal	2976
Ethylbenzene	94.0	4.70	5.00	ug/L	06/30/1995	aal	2976
Xylenes (Total)	95.3	14.3	15.0	ug/L	06/30/1995	aal	2976
Bromofluorobenzene (SURR)	99.0	99	100	% Rec.	06/30/1995	aal	2976
METHOD 5030/8015-M (Shell)							
Purgeable TPH	104.0	0.52	0.50	mg/L	07/03/1995	lss	2977
Benzene	95.6	4.78	5.00	ug/L	07/03/1995	lss	2977
Toluene	94.8	4.74	5.00	ug/L	07/03/1995	lss	2977
Ethylbenzene	103.4	5.17	5.00	ug/L	07/03/1995	lss	2977
Xylenes (Total)	105.3	15.8	15.0	ug/L	07/03/1995	lss	2977
Bromofluorobenzene (SURR)	107.0	107	100	% Rec.	07/03/1995	lss	2977

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services

Date: 07/06/1995

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 95.02514

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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

METHOD BLANK REPORT

Parameter	Method			Date Analyzed	Analyst Initials	Run Batch Number
	Blank Amount Found	Reporting Limit	Units			
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	06/30/1995	aal	2976
Benzene	ND	0.5	ug/L	06/30/1995	aal	2976
Toluene	ND	0.5	ug/L	06/30/1995	aal	2976
Ethylbenzene	ND	0.5	ug/L	06/30/1995	aal	2976
Xylenes (Total)	ND	0.5	ug/L	06/30/1995	aal	2976
Bromofluorobenzene (SURR)	95		% Rec.	06/30/1995	aal	2976
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	07/03/1995	lss	2977
Benzene	ND	0.5	ug/L	07/03/1995	lss	2977
Toluene	ND	0.5	ug/L	07/03/1995	lss	2977
Ethylbenzene	ND	0.5	ug/L	07/03/1995	lss	2977
Xylenes (Total)	ND	0.5	ug/L	07/03/1995	lss	2977
Bromofluorobenzene (SURR)	104		% Rec.	07/03/1995	lss	2977

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blaine Tech Services
 Client Acct: 1821
 NET Job No: 95.02514

Date: 07/06/1995
 ELAP Cert: 1386
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Ref: Shell 230 West MacArthur Blvd., Oakland, CA/950626-A1

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike				Sample Conc.	Matrix Spike Dup.			Date Analyzed	Run Batch	Sample Spiked
	Matrix Spike % Rec.	Spike Dup % Rec.	RPD	Spike Amount		Matrix Spike Conc.	Spike Dup. Conc.	Units			
METHOD 5030/8015-M (Shell)											
Purgeable TPH	106.0	104.0	1.9	0.5	ND	0.53	0.52	mg/L	06/30/1995	2976	244762
Benzene	90.7	87.9	3.1	10.7	ND	9.7	9.4	ug/L	06/30/1995	2976	244762
Toluene	99.1	105.9	6.5	32	ND	31.7	33.9	ug/L	06/30/1995	2976	244762
METHOD 5030/8015-M (Shell)											
Purgeable TPH	104.0	112.0	7.4	0.50	ND	0.52	0.56	mg/L	07/03/1995	2977	244907
Benzene	97.1	108.7	11.2	10.3	ND	10.0	11.2	ug/L	07/03/1995	2977	244907
Toluene	101.2	95.9	5.3	34.4	ND	34.8	33.0	ug/L	07/03/1995	2977	244907

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- * : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference, $100 \frac{|\text{Value 1} - \text{Value 2}|}{\text{mean value}}$.
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

SHELL WELL MONITORING DATA SHEET

Project #: <u>950626-A1</u>	Wic #: <u>204-5508-0703</u>
Sampler: <u>RV</u>	Start Date: <u>6-26-95</u>
Well I.D.: <u>MW-1</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>29.38</u> After	Depth to Water: Before <u>13.00</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>10.6</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>31.8</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer Disposable Bailer Middleburg Electric Submersible <input checked="" type="checkbox"/> Extraction Pump Other _____	Sampling: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Other _____
--	---

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1145						
1146	<u>66.2</u>	<u>6.7</u>	<u>570</u>	<u>146.</u>	<u>10.0</u>	
1147	<u>66.6</u>	<u>6.5</u>	<u>490</u>	<u>53.</u>	<u>20.0</u>	
1149	<u>66.0</u>	<u>6.4</u>	<u>490</u>	<u>92.</u>	<u>35.0</u>	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 35.0

Sampling Time: 1155 Sampling Date: 6-26-95

Sample I.D.: MW1 Laboratory: NET

Analyzed for: TPH-G BTEX TPH-D OTHER:

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

SHELL WELL MONITORING DATA SHEET

Project #: <u>950626-AY</u>		Wic #: <u>204 5508 0703</u>	
Sampler: <u>RV</u>		Start Date: <u>6-26-95</u>	
Well I.D.: <u>MW-2</u>		Well Diameter: (circle one) 2 3 <u>4</u> 6	
Total Well Depth:		Depth to Water:	
Before <u>27.85</u>	After	Before <u>14.65</u>	After
Depth to Free Product:		Thickness of Free Product (feet):	
Measurements referenced to: <u>FVC</u> Grade Other:			

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>8.6</u>	<u>x</u>	<u>3</u>	<u>=</u>	<u>25.8</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer Disposable Bailer Middleburg Electric Submersible <input checked="" type="checkbox"/> Extraction Pump Other _____	Sampling: Bailer — Disposable Bailer Extraction Port Other _____
--	---

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1117						
1118	<u>68.6</u>	<u>6.9</u>	<u>860</u>	<u>7200</u>	<u>10.0</u>	
1119	<u>67.4</u>	<u>6.1</u>	<u>700</u>	<u>7200</u>	<u>20.0</u>	
1120	<u>68.0</u>	<u>6.1</u>	<u>690</u>	<u>7200</u>	<u>30.0</u>	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 30

Sampling Time: 1130 Sampling Date: 6-26-95

Sample I.D.: MW-2 Laboratory: NET

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

Duplicate I.D.: Cleaning Blank I.D.: EB@ 1135

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER:

SHELL WELL MONITORING DATA SHEET

Project #: <u>950626-A1</u>	Wic #: <u>204 5508 0708</u>
Sampler: <u>RV</u>	Start Date: <u>6-26-95</u>
Well I.D.: <u>MW-3</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6
Total Well Depth: Before <u>28.10</u> After	Depth to Water: Before <u>13.79</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other:

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>9.3</u>	x	<u>3</u>	=	<u>27.9</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer Disposable Bailer Middleburg Electric Submersible <input checked="" type="checkbox"/> Extraction Pump Other _____	Sampling: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Other _____
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TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1205</u>						
<u>1206</u>	<u>67.2</u>	<u>6.4</u>	<u>530</u>	<u>190.</u>	<u>10.0</u>	
<u>1207</u>	<u>67.6</u>	<u>6.2</u>	<u>520</u>	<u>181.</u>	<u>20.0</u>	
<u>1208</u>	<u>68.0</u>	<u>6.2</u>	<u>520</u>	<u>189.</u>	<u>30.0</u>	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 30.0

Sampling Time: 1215 Sampling Date: 6-26-95

Sample I.D.: MW 3 Laboratory: NET

Analyzed for: TPH-G BTEX TPH-D OTHER:

Duplicate I.D.: Cleaning Blank I.D.:

Analyzed for: TPH-G BTEX TPH-D OTHER:
(Circle)

SHELL WELL MONITORING DATA SHEET

Project #: <u>950626-A1</u>	Wic #: <u>204-5508-0703</u>
Sampler: <u>RV</u>	Start Date: _____
Well I.D.: <u>MW-4</u>	Well Diameter: (circle one) 2 3 <u>4</u> 6 _____
Total Well Depth: Before <u>23.98</u> After _____	Depth to Water: Before <u>13.26</u> After _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Measurements referenced to: <u>PVC</u> Grade _____ Other: _____	

Well Diameter	VCF	Well Diameter	VCF
1"	0.04	6"	1.47
2"	0.16	8"	2.61
3"	0.37	10"	4.08
4"	0.65	12"	5.87
5"	1.02	16"	10.43

<u>6.9</u>	x	<u>3</u>	=	<u>20.7</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer Disposable Bailer Middleburg Electric Submersible Extraction Pump Other _____	Sampling: Bailer Disposable Bailer Extraction Port Other _____
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TIME	TEMP. (F)	PH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1225</u>						
<u>1226</u>	<u>66.8</u>	<u>6.4</u>	<u>610</u>	<u>7200</u>	<u>10.0</u>	
<u>1227</u>	<u>66.8</u>	<u>6.2</u>	<u>650</u>	<u>150.</u>	<u>20.0</u>	
<u>1228</u>	<u>66.6</u>	<u>6.2</u>	<u>660</u>	<u>75.</u>	<u>25.0</u>	

Did Well Dewater? N If yes, gals. _____ Gallons Actually Evacuated: 25.0

Sampling Time: 1235 Sampling Date: 6-26-95

Sample I.D.: MW4 Laboratory: NET

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: _____

Duplicate I.D.: @ 1235 Cleaning Blank I.D.: _____

Analyzed for: (Circle) TPH-G BTEX TPH-D OTHER: _____