

March 12, 1996

Vol 403

Mr. R. Jeff Granberry
Shell Oil Products Company
P.O. Box 4023
Concord, California 94524

RE: Quarterly Monitoring Report - First Quarter 1996
Shell Service Station
2800 Telegraph Avenue
Oakland, California
WIC #204-5508-2303

Dear Mr. Granberry:

This Quarterly Monitoring Report describes the recently completed activities associated with groundwater monitoring and sampling at the referenced site (Plates 1 and 2). This report was prepared to meet quarterly reporting guidelines issued by the Regional Water Quality Control Board and the Alameda County Health Care Services Agency.

This document presents the results of activities performed in the first quarter of 1996.

Quarterly Monitoring & Sampling Summary

- Blaine Tech Services, Inc. (Blaine) of San Jose, California measured groundwater levels in Wells S-1, S-4 through S-11, and SR-1 on February 2, 1996.
- Groundwater samples collected from Wells S-5, S-8, S-11, and SR-1 were transported to National Environmental Testing (NET) of Santa Rosa, California. A duplicate sample and an equipment blank were prepared and analyzed for quality control purposes.
- Enviro, Inc. (Enviros) evaluated water-level measurement data and chemical analytical results and prepared this report, which includes the Blaine Quarterly Groundwater Monitoring Report and a groundwater contour/benzene concentration map.
- Groundwater flows southwest at an approximate hydraulic gradient of 0.02. A groundwater contour map is presented on Plate 2.
- TPH-G concentrations in groundwater samples ranged from not detected (ND) to 7,100 ppb. Benzene concentrations ranged from ND to 29 ppb. A benzene concentration map was prepared and is presented on Plate 2.

First Quarter Sampling

Monitoring Wells S-5, S-8, S-11, and SR-1 were sampled and analyzed for Total Petroleum Hydrocarbons calculated as Gasoline (TPH-G) according to EPA Method 8015 (Modified) and benzene, toluene, ethylbenzene and xylenes (BTEX) according to EPA Method 8020. Additionally, a duplicate sample and an equipment blank were prepared and analyzed for quality control purposes.

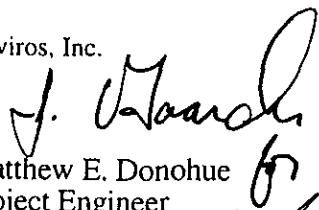
Field monitoring data and chemical analytical data are summarized in Table 1. The Blaine Quarterly Groundwater Sampling Report is presented in Appendix A.

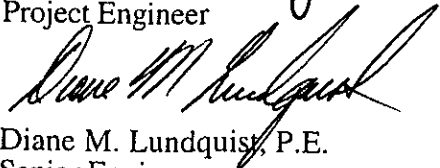
Monitoring, sampling, and reporting will continue on the established schedule for the next quarter.

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

Sincerely,

Enviros, Inc.


Matthew E. Donohue
Project Engineer


Diane M. Lundquist, P.E.
Senior Engineer
C46725



Attachments:

Table 1. Well Concentrations

Plate 1. Vicinity Map

Plate 2. Groundwater Contour/Benzene Concentration Map

Appendix A

Blaine Quarterly Groundwater Sampling Data Report

cc: Mr. Brian Oliva, Alameda County Health Care Services Agency

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2800 Telegraph Avenue
Oakland, California
WIC# 204-5508-2303

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Comments
S-1									
Top casing elevation (ft): 35.31									
(3rd quarter)									
04-May-92	9.50	25.81	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Aug-92	10.85	24.46	0.00	<50	<0.5	<0.5	<0.5	<0.5	
09-Nov-92	10.34	24.97	0.00	<50	<0.5	<0.5	<0.5	<0.5	
23-Feb-93	7.60	27.71	0.00	<50	<0.5	<0.5	<0.5	<0.5	
07-Jun-93	8.63	26.68	0.00	<50	2.8	1.3	0.7	3.0	
13-Aug-93	9.20	26.11	0.00	<50	<0.5	<0.5	<0.5	<0.5	
18-Nov-93	10.58	24.73	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Feb-94	8.41	26.90	0.00	<50	<0.5	<0.5	<0.5	<0.5	
03-May-94	9.09	26.22	0.00	<50	<0.5	<0.5	<0.5	<0.5	
01-Aug-94	8.81	26.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Aug-95	9.35	25.96	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Feb-96	7.45	27.86	0.00	NA	NA	NA	NA	NA	
S-2									
Top casing elevation (ft): 33.91									
04-May-92	9.44	24.47	0.00	1600	190	6	240	54	
10-Aug-92	10.73	23.18	0.00	<50	4.1	<0.5	<0.5	<0.5	
11-Sep-92	NA	NA	0.00	84	19	0.7	2.2	4.3	
23-Feb-93	9.04	24.87	0.00	16000	1600	480	850	1800	
07-Jun-93									Well Destroyed
S-3									
Top casing elevation (ft): 33.56									
04-May-92	9.22	NA	0.00	NA	NA	NA	NA	NA	
10-Aug-92									Well Paved Over - Inaccessible
S-4									
Top casing elevation (ft): 34.08									
(3rd quarter)									
04-May-92	9.96	24.12	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Aug-92	11.32	22.76	0.00	<50	<0.5	<0.5	<0.5	<0.5	

TABLE 1

**WELL CONCENTRATIONS
Shell Oil Products Company
2800 Telegraph Avenue
Oakland, California
WIC# 204-5508-2303**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Comments
09-Nov-92	11.29	22.79	0.00	<50	<0.5	<0.5	<0.5	<0.5	
23-Feb-93	9.82	24.26	0.00	<50	<0.5	<0.5	<0.5	<0.5	
07-Jun-93	10.51	23.57	0.00	50	9.2	5.5	3.3	14	
13-Aug-93	11.05	23.03	0.00	<50	<0.5	<0.5	<0.5	<0.5	
18-Nov-93	11.34	22.74	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Feb-94	9.93	24.15	0.00	<50	<0.5	<0.5	<0.5	<0.5	
03-May-94	10.40	23.68	0.00	<50	<0.5	<0.5	<0.5	<0.5	
01-Aug-94	10.68	23.40	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Aug-95	10.62	23.46	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Feb-96	9.23	24.85	0.00	NA	NA	NA	NA	NA	

S-5		Top casing elevation (ft): 33.42							
(1st & 3rd quarters)									
04-May-92	10.27	23.15	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Aug-92	10.68	22.74	0.00	<50	<0.5	<0.5	<0.5	<0.5	
09-Nov-92	10.69	22.73	0.00	<50	<0.5	<0.5	<0.5	<0.5	
23-Feb-93	9.45	23.97	0.00	<50	<0.5	<0.5	<0.5	<0.5	
07-Jun-93	10.23	23.19	0.00	<50	<0.5	<0.5	<0.5	<0.5	
13-Aug-93	10.58	22.84	0.00	<50	<0.5	<0.5	<0.5	<0.5	
18-Nov-93	10.70	22.72	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Feb-94	9.75	23.67	0.00	<50	<0.5	<0.5	<0.5	<0.5	
03-May-94	10.19	23.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	
01-Aug-94	10.30	23.12	0.00	<50	<0.5	<0.5	<0.5	<0.5	
03-Feb-95	9.59	23.83	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Aug-95	10.23	23.90	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Feb-96	9.51	23.91	0.00	<50 d	<0.5	<0.5	<0.5	<0.5	

S-6		Top casing elevation (ft): 32.59							
(3rd Quarter)									
04-May-92	9.42	23.17	0.00	3100	640	22	23	97	

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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Comments
10-Aug-92	10.40	22.19	0.00	3400	430	27	26	120	
09-Nov-92	10.16	22.43	0.00	2000	320	15	15	100	
23-Feb-93	7.60	24.99	0.00	14000	780	180	380	1300	
07-Jun-93	8.90	23.69	0.00	3900	1,400	56	83	210	
13-Aug-93	9.39	23.20	0.00	4000 a	890	16	<0.5	41	
18-Nov-93	10.32	22.27	0.00	80	5	<0.5	<0.5	<0.5	
10-Feb-94	8.68	23.91	0.00	4100	370	23	21	90	
03-May-94	9.20	23.39	0.00	4700	550	28	85	340	
01-Aug-94	8.90	23.69	0.00	2900	370	11	11	43	
02-Aug-95	9.26	23.19	0.00	1400	160	<5	<5	<5	
02-Feb-96	7.90	24.69	0.00	NA	NA	NA	NA	NA	
S-6 (DUP)									
01-Aug-94	NA	NA	NA	2600	340	8.8	7.7	33	
02-Aug-95	NA	NA	NA	1400	170	<5	<5	<5	
S-7									
Top casing elevation (ft): 33.39									
(Sampled 1st & 3rd quarters)									
04-May-92	11.21	22.12	0.00	180	1.6	<0.5	1.5	3.0	
10-Aug-92	12.28	21.05	0.00	190	8.0	1.4	4.7	8.5	
09-Nov-92	11.77	21.56	0.00	280	16	4.0	7.8	21	
23-Feb-93	8.86	24.47	0.00	210	13	2.2	5.4	12	
07-Jun-93	10.58	22.75	0.00	90	1.2	2.5	1.0	<0.5	
13-Aug-93	11.34	21.99	0.00	140	4.0	0.8	<0.5	0.5	
18-Nov-93	12.00	21.33	0.00	440	43	4.9	0.9	4.2	
10-Feb-94	9.88	23.45	0.00	250a	<0.5	<0.5	1.8	<0.5	
03-May-94	10.75	22.58	0.00	130	<0.5	<0.5	<0.5	<0.5	
01-Aug-94	11.05	22.28	0.00	250	4.8	<0.5	<0.5	<0.5	
03-Feb-95	8.53	24.80	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Aug-95	11.10	22.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Feb-96	8.58	24.81	0.00	480d	2.2	2.4	7.9	25	

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Shell Oil Products Company
2800 Telegraph Avenue
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WIC# 204-5508-2303**

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Comments
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S-8		Top casing elevation (ft): 31.97							
(Quarterly)									
04-May-92	10.29	21.68	0.00	1600	20	420	96	330	
10-Aug-92	11.12	20.85	0.00	1500	19	37	60	250	
09-Nov-92	10.71	21.26	0.00	710	5.7	24	28	120	
23-Feb-93	6.04	25.93	0.00	3800	40	54	68	260	
07-Jun-93	10.06	21.91	0.00	1200	13	19	65	150	
13-Aug-93	10.56	21.41	0.00	1300	21	23	49	250	
18-Nov-93	10.90	21.07	0.00	870	16	5.3	59	230	
10-Feb-94	9.53	22.44	0.00	2400	11	55	120	530	
03-May-94	10.06	21.91	0.00	3100	12	27	130	370	
01-Aug-94	10.32	21.65	0.00	1500	20	18	39	190	
08-Nov-94	9.25	22.72	0.00	2100	22	38	73	390	
03-Feb-95	8.99	22.98	0.00	4800	67	39	130	300	
04-May-95	9.22	22.75	0.00	2600	31	23	71	310	
02-Aug-95	10.36	21.61	0.00	1700	10	9.1	48	210	
02-Nov-95	10.72	21.25	0.00	1200	16	13	72	130	
02-Feb-96	8.92	23.05	0.00	7100d	29	140	360	1,300	

S-8 (DUP)									
10-Feb-94	NA	NA	NA	2400	11	46	100	440	
03-May-94	NA	NA	NA	3000	21	25	120	340	
08-Nov-94	NA	NA	NA	2100	20	31	75	390	
03-Feb-95	NA	NA	NA	3700	53	30	100	240	
04-May-95	NA	NA	NA	3300	38	26	89	390	
02-Aug-95	NA	NA	NA	1200	15	13	70	120	
02-Feb-96	NA	NA	NA	7800d	33	160	400	1500	

S-9		Top casing elevation (ft): 31.86							
(3rd quarter)									
04-May-92	9.50	25.81	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Aug-92	10.85	24.46	0.00	<50	<0.5	<0.5	<0.5	<0.5	
09-Nov-92	10.34	24.97	0.00	<50	<0.5	<0.5	<0.5	0.7	

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2800 Telegraph Avenue
Oakland, California
WIC# 204-5508-2303

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Comments
23-Feb-93	7.60	27.71	0.00	<50	<0.5	<0.5	<0.5	<0.5	
07-Jun-93	8.63	26.68	0.00	<50	<0.5	<0.5	<0.5	<0.5	
13-Aug-93	9.20	26.11	0.00	140 b	<0.5	<0.5	<0.5	<0.5	
18-Nov-93	10.58	24.73	0.00	170	<0.5	<0.5	<0.5	<0.5	
10-Feb-94	8.41	26.90	0.00	140 b	<0.5	<0.5	<0.5	<0.5	
03-May-94	9.09	26.22	0.00	<50	<0.5	<0.5	<0.5	<0.5	
01-Aug-94	8.81	26.50	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Aug-95	9.35	25.96	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Feb-96	7.53	24.33	0.00	NA	NA	NA	NA	NA	

S-10		Top casing elevation (ft): 32.95							
(3rd quarter)									
04-May-92	8.54	24.41	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Aug-92	10.43	22.52	0.00	<50	<0.5	<0.5	<0.5	<0.5	
09-Nov-92	9.14	23.81	0.00	<50	<0.5	<0.5	<0.5	<0.5	
23-Feb-93	6.72	26.23	0.00	<50	<0.5	<0.5	<0.5	<0.5	
07-Jun-93	8.08	24.87	0.00	<50	<0.5	<0.5	<0.5	<0.5	
13-Aug-93	8.83	24.12	0.00	<50	<0.5	<0.5	<0.5	<0.5	
18-Nov-93	9.46	23.49	0.00	<50	<0.5	<0.5	<0.5	<0.5	
10-Feb-94	7.41	25.54	0.00	<50	<0.5	<0.5	<0.5	<0.5	
03-May-94	8.16	24.79	0.00	<50	<0.5	<0.5	<0.5	<0.5	
01-Aug-94	8.29	24.66	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Aug-95	8.30	24.65	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Feb-96	6.49	26.46	0.00	NA	NA	NA	NA	NA	

S-11		Top casing elevation (ft): 30.78							
(Quarterly)									
04-May-92	9.99	20.79	0.00	1500	55	32	57	190	
10-Aug-92	10.92	19.86	0.00	750	29	13	43	120	
09-Nov-92	10.44	20.34	0.00	4100	32	62	120	1100	
23-Feb-93	7.30	23.48	0.00	760	15	13	37	140	
07-Jun-93	9.51	21.27	0.00	1700	40	16	100	360	
13-Aug-93	10.39	20.39	0.00	60	0.9	<0.5	0.8	1.2	

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Shell Oil Products Company
2800 Telegraph Avenue
Oakland, California
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Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Comments
18-Nov-93	10.64	20.14	0.00	150	7.8	1	9	12	
10-Feb-94	8.50	22.28	0.00	4400	53	19	160	390	
03-May-94	9.42	21.36	0.00	65	1.5	<0.5	0.53	0.59	
01-Aug-94	10.12	20.66	0.00	240	18	6.7	6.9	18	
08-Nov-94	8.84	21.94	0.00	490	14	5.2	15	47	
03-Feb-95	7.12	23.66	0.00	380	4.1	0.9	1.4	5.1	
04-May-95	7.96	22.82	0.00	110	1.3	<0.5	1.1	1.8	
02-Aug-95	9.88	20.90	0.00	230	22	11	13	35	
02-Nov-95	10.10	20.68	0.00	200	26	10	10	30	
02-Feb-96	7.33	23.45	0.00	110 d	2.9	1.0	2.6	6.5	
S-11 (DUP)									
07-Jun-93	NA	NA	NA	1600	51	16	83	300	
13-Aug-93	NA	NA	NA	70	2.1	<0.5	0.9	2.1	
SR-1									
		Top casing elevation (ft): not surveyed							
18-Nov-93	10.02	NA	0.00	<50	<0.5	<0.5	<0.5	<0.5	
02-Feb-96	7.30	NA	0.00	90d	6.1	6.7	2.8	8.5	
SR-1 (DUP)									
18-Nov-93	NA	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015

<x = Not detected at detection limit of x

NA = Not analyzed or not available

DUP = Duplicate sample

Notes:

Benzene, Toluene, Ethylbenzene, Xylenes analyzed by EPA Method 8020

a = The concentration reported as gasoline is primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.

TABLE 1

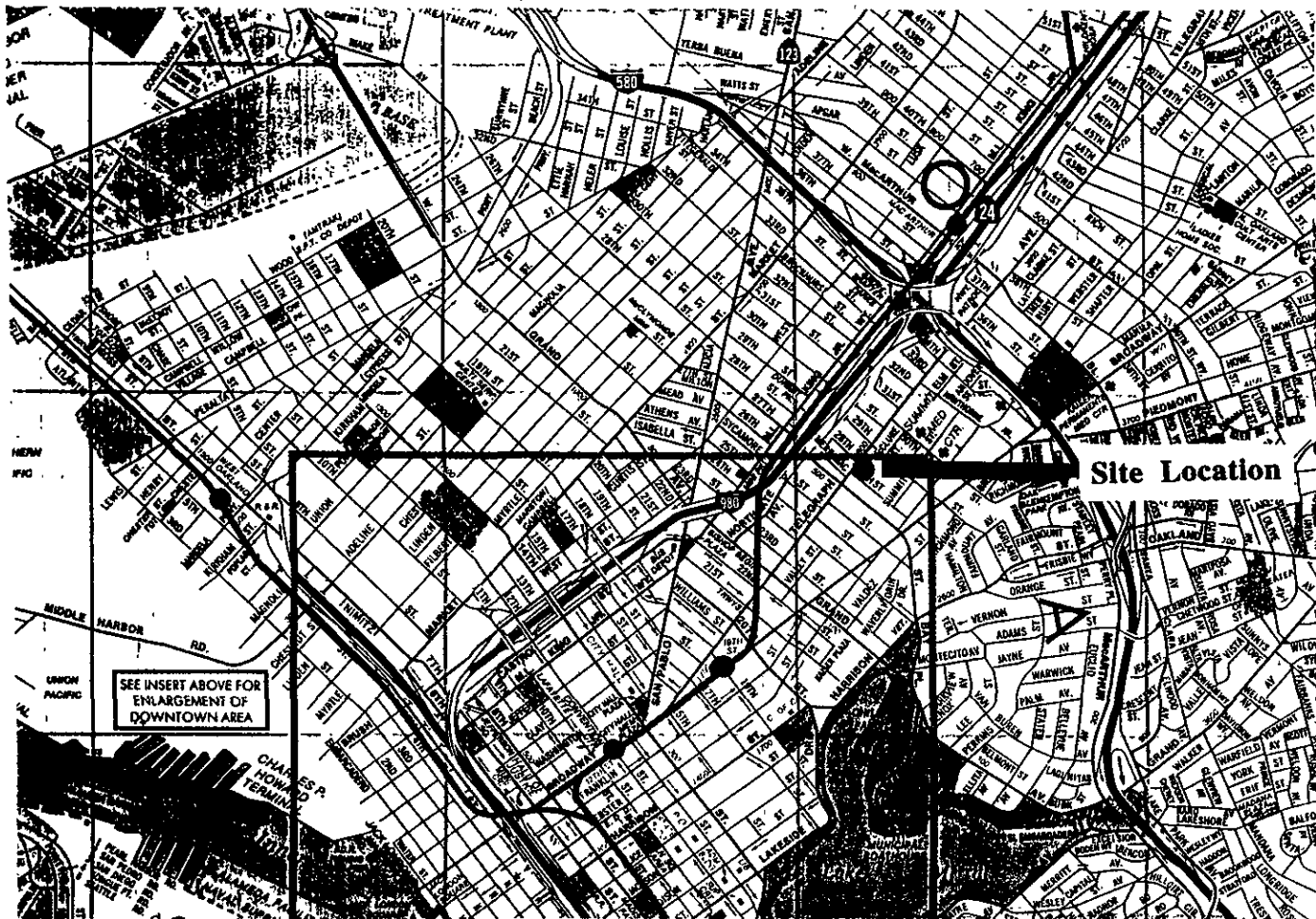
WELL CONCENTRATIONS
Shell Oil Products Company
2800 Telegraph Avenue
Oakland, California
WIC# 204-5508-2303

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	Comments
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b = Well inaccessible since August 1992

c = The concentration reported as gasoline is primarily due to the presence of a discrete peak not indicative of gasoline.

d = Laboratory reports as "Purgeable TPH, Carbon Range: C6 to C12"
Elevations referenced to Mean Sea Level



Note: Vicinity Map taken from California State AAA map.

PLATE

1

SITE VICINITY MAP
 Former Shell Service Station
 2800 Telegraph Avenue
 Oakland, California

enviros®
 95290


Drawn By: JLP

Date: 5-15-95

Approved By: JLP

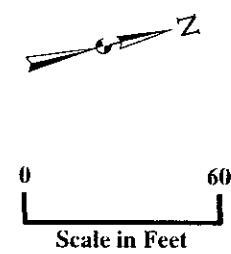
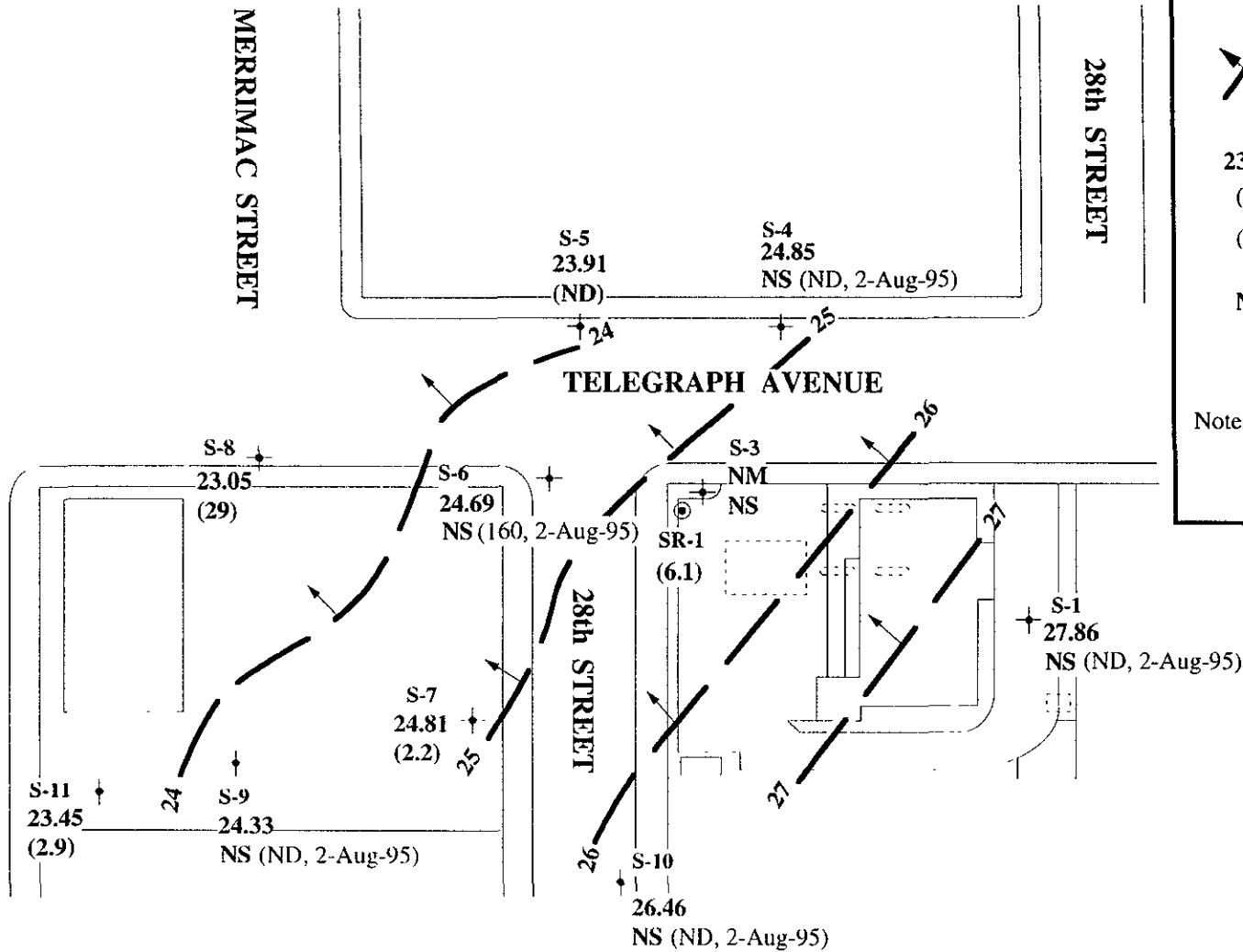
Date: 5-14-96

EXPLANATION

- † Groundwater Monitoring Well
- ⊙ Recovery Well
-  Groundwater Elevation contour in feet referenced to Mean Sea Level (MSL). Arrows Indicate Approximate Groundwater Flow Direction.

- 23.45 Groundwater elevation in feet MSL
- (2.2) Benzene Concentration in ppb
- (ND, 2-Aug-95) Benzene concentration and date of last sampling
- NM Not Measured
- NS Not Sampled
- ND Not Detected

Notes: Monitoring performed on 2-Feb-96.
 Approximate Hydraulic Gradient = 0.02.
 Well SR-1 not used in contouring.



Base map taken from Weiss Associates Site Map

PLATE

2

GROUNDWATER CONTOUR/BENZENE CONCENTRATION MAP
 Former Shell Service Station
 2800 Telegraph Avenue
 Oakland, California

enviros®

96290

Drawn By: MED

Date: 12-Mar-96

Approved By: 

Date: 3-14-96

Appendix A

**Blaine
Quarterly Groundwater Sampling Report**

Chain-Of-Custody Record

NET Certified Analytical Report

BLAINE TECH SERVICES INC.

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

RECEIVED
FEB 28 1996

February 22, 1996

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

Attn: R. Jeff Granberry

Project No.	96290				
RPT	PF <input checked="" type="checkbox"/> BF <input type="checkbox"/>				
1	2	3	4	5	6
					<input checked="" type="checkbox"/>

Shell WIC #204-5508-2303
2800 Telegraph Avenue
Oakland, California


1st Quarter 1996

Quarterly Groundwater Monitoring Report 960202-K-1

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 995-5535 ext. 201.

Yours truly,



Francis Thie

attachments: Table of Well Gauging Data
Chain of Custody
Field Data Sheets
Certified Analytical Report

cc: Enviro, Inc.
P.O. Box 259
Sonoma, CA 95476-0259
Attn: Diane Lundquist

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FT) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
S-1	2/2/96	TOB	-	NONE	-	-	7.45	27.41
S-4	2/2/96	TOB	-	NONE	-	-	9.23	30.35
S-5	2/2/96	TOB	-	NONE	-	-	9.51	30.50
S-6	2/2/96	TOB	ODOR	NONE	-	-	7.90	22.18
S-7	2/2/96	TOB	-	NONE	-	-	8.58	30.63
S-8*	2/2/96	TOB	ODOR	NONE	-	-	8.92	19.12
S-9	2/2/96	TOB	-	NONE	-	-	7.53	30.02
S-10	2/2/96	TOB	-	NONE	-	-	6.49	24.23
S-11	2/2/96	TOB	ODOR	NONE	-	-	7.33	19.21
SR-1	2/2/96	TOB	-	NONE	-	-	7.30	33.90

* Sample DUP was a duplicate sample taken from well S-8.



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2383

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

Date: 02/14/1996
NET Client Acct. No: 1821
NET Job No: 96.00442
Received: 02/06/1996

Client Reference Information

Shell 2800 Telegraph Ave., Oakland, CA/960202-K1

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. All positive results have been confirmed as required. 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 free to call me at (707) 541-2305.

Submitted by:

A handwritten signature in cursive script that reads "Ginger Binlee". The signature is written in black ink and is positioned above a horizontal line.

Ginger Binlee
Project Coordinator

Enclosure (s)



Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 96.00442

Date: 02/14/1996
ELAP Cert: 1386
Page: 2

Ref: Shell 2800 Telegraph Ave., Oakland, CA/960202-K1

SAMPLE DESCRIPTION: S-5
NET SAMPLE NUMBER: 259987

DATE TAKEN: 02/02/1996
TIME TAKEN:

Parameter	Results	Flags	Reporting		Method	Date	Date	Batch
			Limit	Units		Extracted	Analyzed	
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						02/07/1996	3525
Purgeable TPH	ND		50	ug/L	5030/M8015		02/07/1996	3525
Carbon Range: C6 to C12	--						02/07/1996	3525
8020 (GC, Liquid)								
Benzene	ND		0.5	ug/L	8020		02/07/1996	3525
Toluene	ND		0.5	ug/L	8020		02/07/1996	3525
Ethylbenzene	ND		0.5	ug/L	8020		02/07/1996	3525
Xylenes (Total)	ND		0.5	ug/L	8020		02/07/1996	3525
SURROGATE RESULTS								
Bromofluorobenzene (SURR)	85			% Rec.	8020		02/07/1996	3525

SAMPLE DESCRIPTION: S-7
NET SAMPLE NUMBER: 259988

DATE TAKEN: 02/02/1996
TIME TAKEN:

Parameter	Results	Flags	Reporting		Method	Date	Date	Batch
			Limit	Units		Extracted	Analyzed	
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						02/07/1996	3525
Purgeable TPH	480		50	ug/L	5030/M8015		02/07/1996	3525
Carbon Range: C6 to C12	--						02/07/1996	3525
8020 (GC, Liquid)								
Benzene	2.2		0.5	ug/L	8020		02/07/1996	3525
Toluene	2.4		0.5	ug/L	8020		02/07/1996	3525
Ethylbenzene	7.9		0.5	ug/L	8020		02/07/1996	3525
Xylenes (Total)	25		0.5	ug/L	8020		02/07/1996	3525
SURROGATE RESULTS								
Bromofluorobenzene (SURR)	104			% Rec.	8020		02/07/1996	3525

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: 96.00442

Date: 02/14/1996
ELAP Cert: 1386
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Ref: Shell 2800 Telegraph Ave., Oakland, CA/960202-K1

SAMPLE DESCRIPTION: S-8
NET SAMPLE NUMBER: 259989

DATE TAKEN: 02/02/1996
TIME TAKEN:

Parameter	Results	Flags	Reporting		Units	Method	Date	Date	Batch
			Limit				Extracted	Analyzed	
5030/8015-M/8020 (Shell)									
DILUTION FACTOR*	10								
Purgeable TPH	7,100		500	ug/L	5030/M8015		02/07/1996		3525
Carbon Range: C6 to C12	--						02/07/1996		3525
8020 (GC, Liquid)	--						02/07/1996		3525
Benzene	29		5	ug/L	8020		02/07/1996		3525
Toluene	140		5	ug/L	8020		02/07/1996		3525
Ethylbenzene	360		5	ug/L	8020		02/07/1996		3525
Xylenes (Total)	1,300		5	ug/L	8020		02/07/1996		3525
SURROGATE RESULTS	--						02/07/1996		3525
Bromofluorobenzene (SURR)	92			% Rec.	8020		02/07/1996		3525

SAMPLE DESCRIPTION: S-11
NET SAMPLE NUMBER: 259990

DATE TAKEN: 02/02/1996
TIME TAKEN:

Parameter	Results	Flags	Reporting		Units	Method	Date	Date	Batch
			Limit				Extracted	Analyzed	
5030/8015-M/8020 (Shell)									
DILUTION FACTOR*	1								
Purgeable TPH	110		50	ug/L	5030/M8015		02/07/1996		3525
Carbon Range: C6 to C12	--						02/07/1996		3525
8020 (GC, Liquid)	--						02/07/1996		3525
Benzene	2.9		0.5	ug/L	8020		02/07/1996		3525
Toluene	1.0		0.5	ug/L	8020		02/07/1996		3525
Ethylbenzene	2.6		0.5	ug/L	8020		02/07/1996		3525
Xylenes (Total)	6.5		0.5	ug/L	8020		02/07/1996		3525
SURROGATE RESULTS	--						02/07/1996		3525
Bromofluorobenzene (SURR)	92			% Rec.	8020		02/07/1996		3525

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: 96.00442

Date: 02/14/1996
ELAP Cert: 1386
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Ref: Shell 2800 Telegraph Ave , Oakland, CA/960202-K1

SAMPLE DESCRIPTION: DUP
NET SAMPLE NUMBER: 259991

DATE TAKEN: 02/02/1996
TIME TAKEN:

Parameter	Results	Flags	Reporting		Method	Date	Date	Batch
			Limit	Units		Extracted	Analyzed	No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	10						02/07/1996	3525
Purgeable TPH	7,800		500	ug/L	5030/M8015		02/07/1996	3525
Carbon Range: C6 to C12	--						02/07/1996	3525
8020 (GC, Liquid)	--						02/07/1996	3525
Benzene	33		5	ug/L	8020		02/07/1996	3525
Toluene	160		5	ug/L	8020		02/07/1996	3525
Ethylbenzene	400		5	ug/L	8020		02/07/1996	3525
Xylenes (Total)	1,500	FF	50	ug/L	8020		02/09/1996	3531
SURROGATE RESULTS	--						02/07/1996	3525
Bromofluorobenzene (SURR)	101			% Rec.	8020		02/07/1996	3525

SAMPLE DESCRIPTION: EB
NET SAMPLE NUMBER: 259992

DATE TAKEN: 02/02/1996
TIME TAKEN:

Parameter	Results	Flags	Reporting		Method	Date	Date	Batch
			Limit	Units		Extracted	Analyzed	No.
5030/8015-M/8020 (Shell)								
DILUTION FACTOR*	1						02/07/1996	3525
Purgeable TPH	ND		50	ug/L	5030/M8015		02/07/1996	3525
Carbon Range: C6 to C12	--						02/07/1996	3525
8020 (GC, Liquid)	--						02/07/1996	3525
Benzene	ND		0.5	ug/L	8020		02/07/1996	3525
Toluene	ND		0.5	ug/L	8020		02/07/1996	3525
Ethylbenzene	ND		0.5	ug/L	8020		02/07/1996	3525
Xylenes (Total)	ND		0.5	ug/L	8020		02/07/1996	3525
SURROGATE RESULTS	--						02/07/1996	3525
Bromofluorobenzene (SURR)	74			% Rec.	8020		02/07/1996	3525

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: 96.00442

Date: 02/14/1996
ELAP Cert: 1386
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Ref: Shell 2800 Telegraph Ave., Oakland, CA/960202-K1

SAMPLE DESCRIPTION: SR-1
NET SAMPLE NUMBER: 259993

DATE TAKEN: 02/02/1996
TIME TAKEN:

Parameter	Results	Flags	Reporting		Units	Method	Date	Date	Batch
			Limit				Extracted	Analyzed	
5030/8015-M/8020 (Shell)									
DILUTION FACTOR*	1								
Purgeable TPH	90		50	ug/L	5030/M8015		02/07/1996		3525
Carbon Range: C6 to C12	--						02/07/1996		3525
8020 (GC, Liquid)	--						02/07/1996		3525
Benzene	6.1		0.5	ug/L	8020		02/07/1996		3525
Toluene	6.7		0.5	ug/L	8020		02/07/1996		3525
Ethylbenzene	2.8		0.5	ug/L	8020		02/07/1996		3525
Xylenes (Total)	8.5		0.5	ug/L	8020		02/07/1996		3525
SURROGATE RESULTS	--						02/07/1996		3525
Bromofluorobenzene (SURR)	94			‡ Rec.	8020		02/07/1996		3525

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: 96.00442

Date: 02/14/1996
ELAP Cert: 1386
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Ref: Shell 2800 Telegraph Ave., Oakland, CA/960202-K1

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard % Recovery	Standard Amount Found					
5030/8015-M/8020 (Shell)							
Purgeable TPH	106.0	0.53	0.50	mg/L	02/07/1996	aal	3525
Benzene	104.6	5.23	5.00	ug/L	02/07/1996	aal	3525
Toluene	109.8	5.49	5.00	ug/L	02/07/1996	aal	3525
Ethylbenzene	107.0	5.35	5.00	ug/L	02/07/1996	aal	3525
Xylenes (Total)	107.3	16.1	15.0	ug/L	02/07/1996	aal	3525
Bromofluorobenzene (SURR)	101.0	101	100	% Rec.	02/07/1996	aal	3525
5030/8015-M/8020 (Shell)							
Purgeable TPH	90.0	0.45	0.50	mg/L	02/09/1996	dld	3531
Benzene	99.2	4.96	5.00	ug/L	02/09/1996	dld	3531
Toluene	95.2	4.76	5.00	ug/L	02/09/1996	dld	3531
Ethylbenzene	100.4	5.02	5.00	ug/L	02/09/1996	dld	3531
Xylenes (Total)	100.0	15.0	15.0	ug/L	02/09/1996	dld	3531
Bromofluorobenzene (SURR)	97.0	97	100	% Rec.	02/09/1996	dld	3531

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: 1921
NET Job No: 96.00442

Date: 02/14/1996
ELAP Cert: 1386
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Ref: Shell 2800 Telegraph Ave., Oakland, CA/960202-K1

METHOD BLANK REPORT

Parameter	Method	Reporting	Flags	Units	Date	Analyst	Run
	Blank						
	Found						Number
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	0.05		mg/L	02/07/1996	aal	3525
Benzene	ND	0.5		ug/L	02/07/1996	aal	3525
Toluene	ND	0.5		ug/L	02/07/1996	aal	3525
Ethylbenzene	ND	0.5		ug/L	02/07/1996	aal	3525
Xylenes (Total)	ND	0.5		ug/L	02/07/1996	aal	3525
Bromofluorobenzene (SURR)	95			% Rec.	02/07/1996	aal	3525
5030/8015-M/8020 (Shell)							
Purgeable TPH	ND	0.05		mg/L	02/09/1996	dld	3531
Benzene	ND	0.5		ug/L	02/09/1996	dld	3531
Toluene	ND	0.5		ug/L	02/09/1996	dld	3531
Ethylbenzene	ND	0.5		ug/L	02/09/1996	dld	3531
Xylenes (Total)	ND	0.5		ug/L	02/09/1996	dld	3531
Bromofluorobenzene (SURR)	97			% Rec.	02/09/1996	dld	3531

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

Client Name: Blaine Tech Services

Date: 02/14/1996

Client Acct: 1821

ELAP Cert: 1386

NET Job No: 96.00442

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Ref: Shell 2800 Telegraph Ave., Oakland, CA/960202-K1

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike		RPD	Spike Amount	Sample Conc.	Matrix Spike		Flags	Units	Date Analyzed	Run Batch	Sample Spiked
	% Rec.	% Rec.				Conc.	Conc.					
5030/8015-M/8020 (Shell)												259988
Purgeable TPH	100.0	90.0	10.4	0.5	0.48	0.98	0.93		mg/L	02/07/1996	3525	259988
Benzene	95.8	84.1	13.0	5.46	2.2	7.43	6.79		ug/L	02/07/1996	3525	259988
Toluene	95.6	88.6	7.6	29.7	2.4	30.8	28.7		ug/L	02/07/1996	3525	259988
Bromofluorobenzene (SURR)	102.0	99.0	2.9	100	104	102	99		% Rec.	02/07/1996	3525	259988

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

COOLER RECEIPT FORM

Project: 960202-K1 Log No: 0189
Cooler received on: 2/6/96 and checked on 2/6/96 by SMG/veeal
(signature)

- Were custody papers present?..... YES NO
- Were custody papers properly filled out?..... YES NO
- Were the custody papers signed?..... YES NO
- Was sufficient ice used?..... YES NO
- Did all bottles arrive in good condition (unbroken)?..... YES NO
- Did bottle labels match COC?..... YES NO
- Were proper bottles used for analysis indicated?..... YES NO
- Correct preservatives used?..... YES NO
- VOA vials checked for headspace bubbles?..... YES NO

Temp 1°

Note which voas (if any) had bubbles:*

Sample descriptor:	Number of vials:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

*All VOAs with headspace bubbles have been set aside so they will not be used for analysis.....YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(coolerrec)



KEY TO RESULT FLAGS

- * : RPD between sample duplicates exceeds 30%.
- *M : RPD between sample duplicates or MS/MSD exceeds 20%.
- + : Correlation coefficient for the Method of Standard Additions is less than 0.995.
- < : Sample result is less than reported value.
- B-I : Value is between Method Detection Limit and Reporting Limit.
- B-0 : Analyte found in blank and sample.
- C : The result confirmed by secondary column or GC/MS analysis.
- CNA : Cr+6 not analyzed; Total Chromium concentration below Cr+6 regulatory level.
- COMP : Sample composited by equal volume prior to analysis.
- D- : The result has an atypical pattern for Diesel analysis.
- D1 : The result for Diesel is an unknown hydrocarbon which consists of a single peak.
- DH : The result appears to be a heavier hydrocarbon than Diesel.
- DL : The result appears to be a lighter hydrocarbon than Diesel.
- DR : Elevated Reporting Limit due to Matrix.
- DS : Surrogate diluted out of range.
- DX : The result for Diesel is an unknown hydrocarbon which consists of several peaks.
- FA : Compound quantitated at a 2X dilution factor.
- FB : Compound quantitated at a 5X dilution factor.
- FC : Compound quantitated at a 10X dilution factor.
- FD : Compound quantitated at a 20X dilution factor.
- FE : Compound quantitated at a 50X dilution factor.
- FF : Compound quantitated at a 100X dilution factor.
- FG : Compound quantitated at a 200X dilution factor.
- FH : Compound quantitated at a 500X dilution factor.
- FI : Compound quantitated at a 1000X dilution factor.
- FJ : Compound quantitated at a greater than 1000x dilution factor.
- FK : Compound quantitated at a 25X dilution factor.
- FL : Compound quantitated at a 250X dilution factor.
- G- : The result has an atypical pattern for Gasoline.
- G1 : The result for Gasoline is an unknown hydrocarbon which consists of a single peak.
- GH : The result appears to be a heavier hydrocarbon than Gasoline.
- GL : The result appears to be a lighter hydrocarbon than Gasoline.
- GX : The result for Gasoline is an unknown hydrocarbon which consists of several peaks.
- HX : Peaks detected within the quantitation range do not match standard used.
- J : Value is estimated.
- MI : Matrix Interference Suspected.
- MSA : Value determined by Method of Standard Additions.
- MSA* : Value obtained by Method of Standard Additions; Correlation coefficient is <0.995.
- NI1 : Sample spikes outside of QC limits; matrix interference suspected.
- NI2 : Sample concentration is greater than 4X the spiked value; the spiked value is considered insignificant.
- NI3 : Matrix Spike values exceed established QC limits, post digestion spike is in control.
- P7 : pH of sample > 2; sample analyzed past 7 days.
- RSC : Refer to subcontract laboratory report for QC data.
- S2 : Matrix interference confirmed by repeat analysis.
- SCN : Thiocyanate not analyzed separately; total value is below the Reporting Limit for Free Cyanide.
- UMDL : Undetected at the Method Detection Limit.

KEY TO ABBREVIATIONS

ICVS : Initial Calibration Verification Standard (External Standard).

mean : Average; sum of measurements divided by number of measurements.

mg/Kg : Concentration in units of milligrams of analyte per kilogram of sample.

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.

NTU : Nephelometric turbidity units.

RPD : Relative percent difference.

SNA : Standard not available.

ug/Kg : Concentration in units of micrograms of analyte per kilogram of sample.

ug/L : Concentration in units of micrograms of analyte per liter of sample.

umhos/cm : Micromhos per centimeter.



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 96020241

Date: 2/2/96

Page 1 of 1

Site Address: 2800 Telegraph Ave., Oakland

WICK: 204-5508-2303

Shell Engineer: Lynn Walker
Phone No.: (510) 575-6169
Fax #: 675-6172

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: KCB

Printed Name: Keith Brown

Analysis Required

LAB: NCT

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
Quality Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	6442	
Water Rem. or Sys. O & M <input type="checkbox"/>	6443	
Other <input type="checkbox"/>		

NOTE: Hold by Lab as soon as Possible of 24/48 hr. TAT.

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	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
S-5	2/2			W		3						X				
S-7	✓			↓		↓						X				
S-8	✓			↓		↓						X				
S-11	✓			↓		↓						X				
DOP	✓			↓		↓						X				
EB	2/2			W		3						X				
SR-1	2/2			W		3						X				

CUSTODY SEALED

Date: 2/5/96 Time: 16:05 Initials: BS

SEAL INTACT?

Yes: No: Initials: BS

Relinquished By (signature): [Signature]

Printed Name: Keith Brown

Date: 2/5/96

Time: 11:15

Received (signature): [Signature]

Printed Name: P. Smart

Date: 2/5/96

Time: 11:15

Relinquished By (signature): [Signature]

Printed Name: P. Smart

Date: 2/5/96

Time: 16:05

Received (signature): [Signature]

Printed Name: PAM GREENS

Date: 2/11/96

Time: 08:10

Relinquished By (signature): [Signature]

Printed Name: [Name]

Date: [Date]

Time: [Time]

Received (signature): [Signature]

Printed Name: [Name]

Date: [Date]

Time: [Time]

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

VIA: NCS