CAMBRIA

October 17, 1996

Susan Hugo
Alameda County
Department of Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SID 3618

Re: **Third Quarter 1996**
Shell Service Station
WIC #204-5510-0303
5755 Broadway
Oakland, California 94606

Dear Ms. Hugo:

On behalf of Shell Oil Products Company, Cambria Environmental Technology is submitting this status report to satisfy the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Division 3, Chapter 16, Article 5, Section 2652.d. Presented below is a hydrocarbon removal summary, activities performed this quarter, and anticipated activities for next quarter.

HYDROCARBON AND GROUND WATER REMOVAL SUMMARY		
Fluid	*Removed this Quarter*	*Total Removed*
Separate Phase	0.00 (lbs)	0.55 (lbs)
Ground Water with Dissolved Hydrocarbons	0 (gals)	288,238 (gals)

Third Quarter 1996 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells. The BTS report describing these activities and the analytic report for the ground water samples are included as Attachment A.

96 OCT 22 AM 8:50

ENVIRONMENTAL PROTECTION

CAMBRIA
ENVIRONMENTAL
TECHNOLOGY, INC.
1144 65TH STREET,
SUITE B
OAKLAND,
CA 94608
PH (510) 420-0700
FAX (510) 420-9170

- Cambria Environmental Technology, Inc. (Cambria) calculated ground water elevations, compiled the analytic data (Tables 1 and 2) and prepared a map showing ground water elevation contour map (Figure 1).

Anticipated Fourth Quarter 1996 Activities:

- Cambria will continue to monitor water levels and arrange dewatering of the tankpit when necessary.

- Cambria will submit a report presenting the results of the next quarter's ground water sampling and ground water depth measurements. We will also report any dewatering activities.

Please call if you have any questions We appreciate this opportunity to work with you on this project. Please call if you have any questions.

Sincerely,
Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.
Prinicipal Geologist

Attachments: A - Blaine Tech's Ground Water Monitoring Report

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

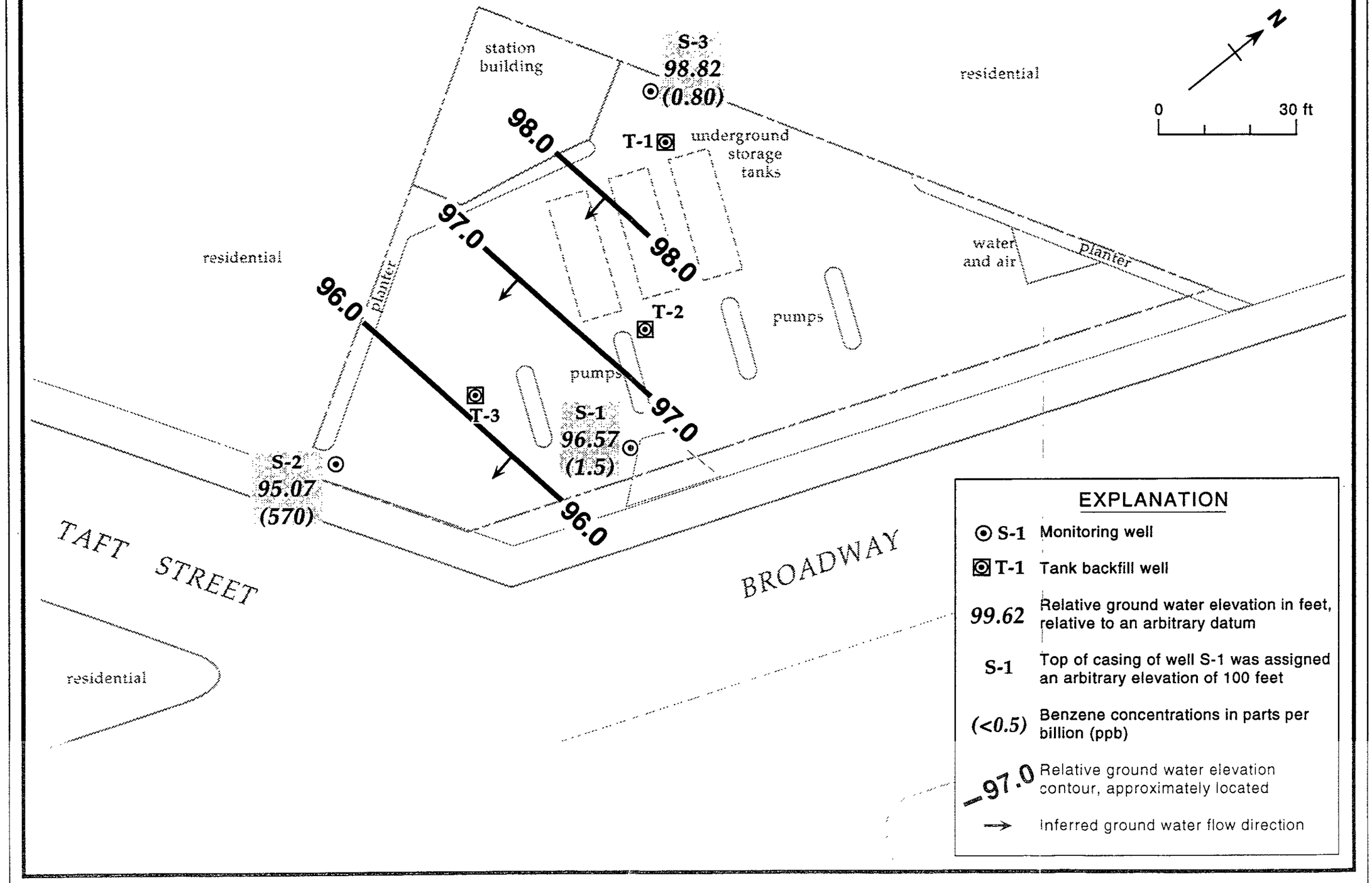

Figure 1. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - August 22, 1996
Shell Service Station WIC#204-2004-0204, 5755 Broadway, Oakland, California

Table 1. Ground Water Elevations - Shell Service Station WIC #504-5510-0303, 5755 Broadway, Oakland, California

Well ID	Date	Top-of-Casing Elevation*	Depth to Water (ft)	Ground Water Elevation (ft)
S-1	01/25/91	100.00	3.88	96.12
	06/03/91		3.51	96.49
	08/30/91		4.24	95.76
	11/22/91		4.29	95.71
	03/13/92		2.87	97.13
	05/28/92		3.79	96.21
	08/19/92		4.43	95.57
	11/18/92		4.34	95.66
	02/10/93		4.20	95.80
	06/11/93		3.39	96.61
	08/03/93		3.69	96.31
	11/02/93		4.26	95.74
	12/16/93		2.73	97.27
	02/01/94		3.38	96.62
	05/04/94		3.00	97.00
	08/18/94		3.70	96.30
	11/09/94		2.52	97.48
	02/22/95		4.08	95.92
	05/02/95		2.58	97.42
	08/30/95		3.48	96.52
	11/28/95		3.99	96.01
	02/02/96		2.00	98.00
	03/09/96		3.38	99.62
	08/22/96		**3.43**	**96.57**
S-2	01/25/91	98.92	4.52	94.40
	06/03/91		4.02	94.90
	08/30/91		4.70	94.22
	11/22/91		4.72	94.20
	03/13/92		3.47	95.45
	05/28/92		4.45	94.45
	08/19/92		4.84	94.08
	11/18/92		4.73	94.19
	02/10/93		4.83	94.09
	06/11/93		3.74	95.18
	08/03/93		4.23	94.69
	11/02/93		4.72	94.20
	12/16/93		3.00	95.92
	02/01/94		3.48	95.44
	05/04/94		3.26	95.66
	08/18/94		3.98	94.94
	11/09/94		3.10	95.82
	02/22/95		4.02	94.90
	05/02/95		2.86	96.06

Table 1. Ground Water Elevations - Shell Service Station WIC #504-5510-0303, 5755 Broadway, Oakland, California (continued)

Well ID	Date	Top-of-Casing Elevation*	Depth to Water (ft)	Ground Water Elevation (ft)
	08/30/95		4.06	94.86
	11/28/95		4.48	94.44
	02/02/96		1.99	96.93
	03/09/96		3.27	95.65
	08/22/96		**3.85**	**95.07**
S-3	01/25/91	101.67	3.84	97.83
	06/03/91		3.25	98.42
	08/03/91		4.73	96.94
	11/22/91		4.81	96.86
	03/13/92		2.29	99.38
	05/28/92		3.62	98.05
	08/19/92		4.66	97.01
	11/18/92		4.51	97.16
	02/10/93		4.36	97.31
	06/11/93		2.91	98.76
	08/03/93		3.70	97.97
	11/02/93[a]		---	---
	12/16/93		2.12	99.55
	02/01/94		2.90	98.77
	05/04/94		2.54	99.13
	08/18/94		3.51	98.16
	11/09/94		2.44	99.23
	02/22/95		4.12	97.55
	05/02/95		2.83	98.84
	08/30/95		3.16	98.51
	11/28/95		3.87	97.80
	02/02/96		2.24	99.43
	03/09/96		3.05	98.62
	085/22/96		**2.85**	**98.82**

Notes:

* = Top of casing elevations referenced to arbitrary elevation of 100 ft
a = Well inaccessible
NA = Not available

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
S-1	01/25/91	3.88	<30	<0.3	<0.3	<0.3	<0.3	---
	06/03/91	3.51	<30	<0.3	<0.3	<0.3	<0.3	---
	08/30/91	4.24	<30	<0.3	<0.3	<0.3	<0.3	---
	11/22/91	4.29	<30	2.3	0.3	<0.46	<0.65	---
	03/13/92	2.87	<30	<0.52	<0.3	<0.3	<0.3	---
	05/28/92	3.79	<50	<0.5	<0.5	<0.5	<0.5	---
	08/19/92	4.43	<50	<0.5	<0.5	<0.5	<0.5	---
	11/18/92	4.34	<50	<0.5	<0.5	<0.5	<0.5	---
	02/10/93	4.20	51	1.4	<0.5	<0.5	<0.5	---
	02/10/93[dup]	4.20	<50	1.2	<0.5	<0.5	<0.5	---
	06/11/93	3.39	<50	<0.5	<0.5	<0.5	<0.5	---
	08/03/93	3.69	<50	<0.5	<0.5	<0.5	<0.5	---
	11/02/93	4.26	70[a]	<0.5	<0.5	<0.5	<0.5	---
	02/01/94	3.38	60[a]	<0.5	<0.5	<0.5	<0.5	---
	05/04/94	3.00	<50	1.1	<0.5	<0.5	<0.5	---
	08/18/94	3.70	<50	0.6	<0.5	<0.5	<0.5	---
	08/18/94[dup]	3.70	60[b]	0.5	<0.5	<0.5	<0.5	---
	11/09/94	2.52	<50	4.0	<0.5	<0.5	<0.5	---
	02/22/95	4.08	50	0.8	<0.5	0.7	1.3	---
	05/02/95	2.58	<50	<0.5	<0.5	<0.5	<0.5	---
	08/30/95	3.48	<50	1.7	<0.5	<0.5	<0.5	---
	11/28/95	3.99	<50	<0.5	<0.5	<0.5	<0.5	---
	02/02/96	2.00	<50	11	0.9	<0.5	<0.5	---
	03/09/96	3.38	<50	<0.5	<0.5	<0.5	<0.5	---
	08/22/96	**3.43**	**<50**	**1.5**	**<0.5**	**<0.5**	**<0.5**	**130**
S-2	01/25/91	4.52	450	140	6.2	1.8	15	---
	06/03/91	4.02	490	150	8.2	2.7	7	---
	08/30/91	4.70	70	0.37	<0.3	<0.3	<0.3	---
	11/22/91	4.72	1,600	110	29	9.3	150	---
	03/13/92	3.47	1,300	210	34	5.7	79	---

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
	05/28/92	4.45	100	28	<0.5	<0.5	<0.5	---
	08/19/92	4.84	470	42	8.3	<0.5	4.0	---
	11/18/92	4.73	490	43	17	39	29	---
	02/10/93	4.83	19,000	710	80	760	370	---
	06/11/93	3.74	33,000	3,100	370	1,600	1,100	---
	08/03/93	4.23	18,000	1,400	81	130	130	---
	08/03/93[dup]	4.23	19,000	1,400	86	140	150	---
	11/02/93	4.72	12,000[a]	470	31	47	92	---
	11/02/93[dup]	4.72	13,000[a]	530	35	47	96	---
	02/01/94	3.48	31,000[a]	430	50	46	130	---
	02/01/94[dup]	3.48	31,000[a]	300	30	33	100	---
	05/04/94	3.26	3,900	1,200	53	31	71	---
	05/04/94[dup]	3.26	4,500	1,200	57	37	110	---
	08/18/94	3.98	24,000	600	15	8.3	27	---
	11/09/94	3.10	1,400[a]	240	13	9.3	20	---
	11/09/94[dup]	3.10	1,800	260	13	8.5	21	---
	02/22/95	4.02	29,000	550	12	18	63	---
	02/22/95[dup]	4.02	28,000	530	10	17	60	---
	05/02/95	2.86	4,400	1,000	38	25	77	---
	05/02/95[dup]	2.86	4,400	1,000	41	26	83	---
	08/30/95	4.06	800	350	6.7	20	16	---
	08/30/95[dup]	4.06	960	220	12	22	48	---
	11/28/95	4.48	2,000	230	50	220	230	---
	11/28/95[dup]	4.48	2,100	240	51	230	230	---
	02/02/96	2.00	18,000	540	12	18	22	---
	02/02/96[dup]	2.00	11,000	600	13	18	28	---
	03/09/96	3.27	3,800	1,500	30	27	58	---
	03/09/96[dup]	3.27	3,500	1,300	21	24	53	---
	08/22/96	**3.85**	**<20,000**	**490**	**<200**	**<200**	**<200**	**43,000**
	08/22/96[dup]	**3.85**	**<20,000**	**570**	**<200**	**<200**	**<200**	**59,000***

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
S-3	01/25/91	NA	<30	<0.3	<0.3	<0.3	<0.3	---
	06/03/91	3.25	<30	<0.3	0.3	0.3	0.3	---
	08/30/91	4.73	<30	<0.3	<0.3	<0.3	<0.3	---
	11/22/91	4.81	<30	<0.3	<0.3	<0.3	<0.3	---
	03/13/92	2.29	<30	<0.3	0.3	0.3	0.3	---
	05/28/92	3.62	<50	<0.5	<0.5	<0.5	<0.5	---
	08/19/92	4.66	<50	<0.5	<0.5	<0.5	0.5	---
	11/18/92	4.51	<50	<0.5	<0.5	<0.5	<0.5	---
	02/10/93	4.36	30	1.9	2.4	3.2	5.6	---
	06/11/93	2.91	<50	<0.5	<0.5	<0.5	<0.5	---
	06/11/93[dup]	2.91	<50	<0.5	<0.5	<0.5	<0.5	---
	08/03/93	3.70	<50	<0.5	<0.5	<0.5	<0.5	---
	11/02/93[c]	---	---	---	---	---	---	---
	02/01/94	2.90	<50	<0.5	<0.5	<0.5	<0.5	---
	05/04/94	2.54	<50	<0.5	<0.5	<0.5	<0.5	---
	08/18/94	3.51	<50	<0.5	<0.5	<0.5	<0.5	---
	11/09/94	2.44	<50	<0.5	<0.5	<0.5	<0.5	---
	02/22/95	4.12	80	<0.5	<0.5	0.5	0.5	---
	05/02/95	2.83	<50	<0.5	<0.5	<0.5	<0.5	---
	08/30/95	3.16	<50	0.5	<0.5	<0.5	<0.5	---
	11/28/95	3.87	<50	<0.5	<0.5	<0.5	<0.5	---
	02/02/96	2.24	<50	<0.5	<0.5	<0.5	<0.5	---
	03/09/96	3.05	<50	<0.5	<0.5	<0.5	<0.5	---
	08/22/96	**2.85**	**<50**	**.80**	**<0.5**	**<0.5**	**<0.5**	**<2.5**
Bailer Blank	08/19/92		<50	<0.5	<0.5	<0.5	<0.5	---
	11/22/91		<50	<0.5	<0.5	<0.5	<0.5	---
	02/22/95		<50	<0.5	<0.5	<0.5	<0.5	---

Table 2. Analytic Results for Ground Water, Shell Service Station, WIC #204-5510-0303, 5755 Broadway, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-G	B	E	T	X	MTBE
			← parts per billion (µg/L) →					
Trip Blank	03/13/92		<50	<0.3	<0.3	<0.3	<0.3	---
	05/28/92		<50	<0.5	<0.5	<0.5	<0.5	---
	08/19/92		<50	<0.5	<0.5	<0.5	<0.5	---
	11/18/92		<50	<0.5	<0.5	<0.5	<0.5	---
	02/10/93		<50	<0.5	<0.5	<0.5	<0.5	---
	08/03/93		<50	<0.5	<0.5	<0.5	<0.5	---
	11/02/93		<50	<0.5	<0.5	<0.5	<0.5	---
	02/01/94		<50	<0.5	<0.5	<0.5	<0.5	---
	05/04/94		<50	<0.5	<0.5	<0.5	<0.5	---
	11/09/94		<50	<0.5	<0.5	<0.5	<0.5	---
	02/22/95		<50	<0.5	1.0[e]	<0.5	<0.5	---
	05/02/95		<50	<0.5	<0.5	<0.5	<0.5	---
	08/30/95		<50	<0.5	<0.5	<0.5	<0.5	---
	11/28/95		<50	<0.5	<0.5	<0.5	<0.5	---
DTSC MCLs			NE	1	680	100[d]	1,750	

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 602 or 8020
--- = Not analyzed
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
NA = Not available
NE = Not established
<n = Not detected at detection limits of n ppb
dup = Duplicate sample

Notes:

a = Concentrations reported as gasoline are primarily due to presence of a discrete peak not indicative of gasoline.
b = This positive result has an atypical pattern for gasoline
c = Well inaccessible.
d = DTSC recommended action level for drinking water; MCL not established
e = Positive result confirmed by secondary column or GC/MS analysis.
* - MTBE result confirmed by EPA method 8260; sample result was 51,000 ug/l.

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ATTACHMENT A

GROUND WATER MONITORING REPORT AND ANALYTIC REPORT

BLAINE
TECH SERVICES INC.

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

September 25, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-5510-0303
5755 Broadway
Oakland, California

3rd Quarter 1996

Quarterly Groundwater Monitoring Report 960822-Y-2

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: Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, CA 94608
Attn: Scott MacLeod

(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 (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
S-1	8/22/96	TOC	--	NONE	--	--	3.43	11.59
S-2 *	8/22/96	TOC	--	NONE	--	--	3.85	9.40
S-3	8/22/96	TOC	--	NONE	--	--	2.85	9.51
T-1	8/22/96	TOC	--	NONE	--	--	2.54	13.42
T-2	8/22/96	TOC	--	NONE	--	--	1.68	12.91
T-3	8/22/96	TOC	--	NONE	--	--	1.96	8.70

* Sample DUP was a duplicate sample taken from well S-2.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960822-Y2

Date:
Page 1 of 1

Site Address: 5755 Broadway, Oakland

WIC#: 204-5510-0303

Shell Engineer: R. Jeff Granberry — Phone No.: (510) 675-6168 Fax #: 675-6160

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

Consultant Contact: Fran Thie — Phone No.: (408) 995-5535 ext 201 Fax #: 293-8773

Comments:

Sampled by: Joe Carrera

Printed Name: Joe Carrera

LAB: Sequoia

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	MTBE		Asbestos	Container Size	Preparation Used	Composite Y/N	960822F18 MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S-1	8.22			X			X						X						Confirm highest MTBE hit by 8260	
S-2	8.22			X			X						X							
S-3	8.22			X			X						X							
Dup	8.22			X			X						X							
EQUIP BLANK	8.22			X			X						X							

CHECK ONE (1) BOX ONLY — CT/DI — TURN AROUND TIME

Quarterly Monitoring	X	5441
Site Investigation		5441
Soil Closure/Disposal		5442
Water Closure/Disposal		5443
Soil/Air Rem. or Sys. O & M		5462
Water Rem. or Sys. O & M		5463
Other		

TURN AROUND TIME: 24 hours ☐ 48 hours ☐ 15 days ☒ (Normal) Other ☐ ____

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

	Printed Name	Date	Time		Printed Name	Date	Time
Relinquished By (signature): Joe Carrera	Joe Carrera	8-22-96	1035	Received (signature): Michael Reid	M. Reid	8-23-96	1035
Relinquished By (signature): Michael Reid				Received (signature):			
Relinquished By (signature):				Received (signature):		8/23/96	1210

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

White Copy of Carbon

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell Oakland/960822-Y2

Enclosed are the results from samples received at Sequoia Analytical on August 23, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9608F18 -01	LIQUID, S-1	08/22/96	TPGBMW Purgeable TPH/BTEX
9608F18 -02	LIQUID, S-2	08/22/96	TPGBMW Purgeable TPH/BTEX
9608F18 -03	LIQUID, S-3	08/22/96	TPGBMW Purgeable TPH/BTEX
9608F18 -04	LIQUID, DUP	08/22/96	MTBEMW Methyl t-Butyl Ethe
9608F18 -04	LIQUID, DUP	08/22/96	TPGBMW Purgeable TPH/BTEX
9608F18 -05	LIQUID, EB	08/22/96	TPGBMW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Oakland/960822-Y2	Sampled: 08/22/96
985 Timothy Drive	Sample Descript: S-1	Received: 08/23/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/05/96
Attention: Jim Keller	Lab Number: 9608F18-01	Reported: 09/15/96

QC Batch Number: GC090596BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**130**
Benzene	**0.50**	**1.5**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Penner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland/960822-Y2	Sampled: 08/22/96
985 Timothy Drive	Sample Descript: S-3	Received: 08/23/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/05/96
Attention: Jim Keller	Lab Number: 9608F18-03	Reported: 09/15/96

QC Batch Number: GC090596BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	**0.50**	**0.80**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	80

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Peggy Renner
Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland/960822-Y2	Sampled: 08/22/96
985 Timothy Drive	Sample Descript: DUP	Received: 08/23/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 09/11/96
Attention: Jim Keller	Lab Number: 9608F18-04	Reported: 09/15/96

QC Batch Number: MS0910968260F3A
Instrument ID: F3

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	**1000**	**51000**

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	108
Toluene-d8	88	110	101
4-Bromofluorobenzene	86	115	97

Analytes reported as N.D. were not present above the stated limit of detection.

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Project Manager

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Blaine Technical Services	Client Proj. ID: Shell Oakland/960822-Y2	Sampled: 08/22/96
985 Timothy Drive	Sample Descript: DUP	Received: 08/23/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/05/96
Attention: Jim Keller	Lab Number: 9608F18-04	Reported: 09/15/96

QC Batch Number: GC090596BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	20000	N.D.
Methyl t-Butyl Ether	**1000**	**59000**
Benzene	**200**	**570**
Toluene	200	N.D.
Ethyl Benzene	200	N.D.
Xylenes (Total)	200	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	89

Analytes reported as N.D. were not present above the stated limit of detection.

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Blaine Technical Services	Client Proj. ID: Shell Oakland/960822-Y2	Sampled: 08/22/96
985 Timothy Drive	Sample Descript: EB	Received: 08/23/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 09/05/96
Attention: Jim Keller	Lab Number: 9608F18-05	Reported: 09/15/96

QC Batch Number: GC090596BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

Analytes reported as N.D. were not present above the stated limit of detection.

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell, Oakland / 960822-Y2
Matrix: Liquid
Work Order #: 9608F18 -01-05
Reported: Sep 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC090596BTEX03A	GC090596BTEX03A	GC090596BTEX03A	GC090596BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	Y. Arteaga	Y. Arteaga	Y. Arteaga	Y. Arteaga
MS/MSD #:	9608F6302	9608F6302	9608F6302	9608F6302
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/5/96	9/5/96	9/5/96	9/5/96
Analyzed Date:	9/5/96	9/5/96	9/5/96	9/5/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.7	9.5	9.6	28
MS % Recovery:	97	95	96	93
Dup. Result:	9.3	9.1	9.1	27
MSD % Recov.:	93	91	91	90
RPD:	4.2	4.3	5.3	3.6
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK090596	BLK090596	BLK090596	BLK090596
Prepared Date:	9/5/96	9/5/96	9/5/96	9/5/96
Analyzed Date:	9/5/96	9/5/96	9/5/96	9/5/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	9.3	9.1	9.0	27
LCS % Recov.:	93	91	90	90

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

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Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell, Oakland / 960822-Y2
Matrix: Liquid
Work Order #: 9608F18-04
Reported: Sep 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chloro-benzene
QC Batch#:	MS0910968260F3A	MS0910968260F3A	MS0910968260F3A	MS0910968260F3A	MS0910968260F3A
Analy. Method:	EPA 8260	EPA 8260	EPA 8260	EPA 8260	EPA 8260
Prep. Method:	N/A	N/A	N/A	N/A	N/A
Analyst:	L. Zhu	L. Zhu	L. Zhu	L. Zhu	L. Zhu
MS/MSD #:	9608J5301	9608J5301	9608J5301	9608J5301	9608J5301
Sample Conc.:	N.D.	N.D.	N.D.	16	N.D.
Prepared Date:	-	-	-	-	-
Analyzed Date:	9/10/96	9/10/96	9/10/96	9/10/96	9/10/96
Instrument I.D.#:	F3	F3	F3	F3	F3
Conc. Spiked:	310 µg/L	310 µg/L	310 µg/L	310 µg/L	310 µg/L
Result:	290	300	320	330	310
MS % Recovery:	94	97	103	101	100
Dup. Result:	300	300	310	320	310
MSD % Recov.:	97	97	100	98	100
RPD:	3.4	0.0	3.2	3.1	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	VDB091196	VDB091196	VDB091196	VDB091196	VDB091196
Prepared Date:	-	-	-	-	-
Analyzed Date:	9/11/96	9/11/96	9/11/96	9/11/96	9/11/96
Instrument I.D.#:	F3	F3	F3	F3	F3
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L	50 µg/L	50 µg/L
LCS Result:	52	47	47	48	47
LCS % Recov.:	104	94	94	96	94
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	65-135	70-130	70-130	70-130	70-130

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Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell, Oakland / 960822-Y2
Matrix: Liquid
Work Order #: 9608F18-04

Reported: Sep 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS0910968260F3A
Analy. Method:	EPA 8260
Prep. Method:	N/A
Analyst:	L. Zhu
MS/MSD #:	9608J5301
Sample Conc.:	N.D.
Prepared Date:	-
Analyzed Date:	9/10/96
Instrument I.D.#:	F3
Conc. Spiked:	310 µg/L
Result:	300
MS % Recovery:	97
Dup. Result:	300
MSD % Recov.:	97
RPD:	0.0
RPD Limit:	0-25

LCS #:	VDB091196
Prepared Date:	-
Analyzed Date:	9/11/96
Instrument I.D.#:	F3
Conc. Spiked:	50 µg/L
LCS Result:	52
LCS % Recov.:	104

MS/MSD	60-140
LCS	70-130
Control Limits	

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