CAMBRIA

FILE COPY

April 21, 1999

Leroy Griffin
City of Oakland Fire Department
505 14th Street, Suite 702
Alameda, California 94502

Site: Oakland 8930
Proj. ☐ Rem. ☐ Rpt. ☑ Bill ☐
1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐

Re: **Fourth Quarter 1998 Monitoring Report**
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, California
Incident# 98995742
Cambria Project# 24-314-498

Dear Mr. Griffin:

On behalf of Equiva Services LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this ground water monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

FOURTH QUARTER 1998 ACTIVITIES

Ground Water Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged, developed, and sampled all site wells. Blaine calculated ground water elevations and compiled the analytical data. Cambria prepared a ground water elevation contour map (Figure 1). The Blaine report, presenting the laboratory report, is included as Attachment A. On January 21, 1999, Virgil Chavez Surveying (Chavez) of Vallejo, California surveyed the onsite wells vertically to the top of casing (TOC). The well TOC elevations are presented in Appendix B.

ANTICIPATED FIRST QUARTER 1999 ACTIVITIES

Ground Water Monitoring: Blaine will gauge and sample all site wells and tabulate the data. Cambria will prepare a monitoring report.

Oakland, CA
Sonoma, CA
Portland, OR
Seattle, WA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

CLOSING

We appreciate the opportunity to work with you on this project. Please call Darryk Ataide at (510) 420-3339 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

Darryk Ataide, REA I
Project Manager

REGISTERED GEOLOGIST
AILSA S. LE MAY
NO. 6717
STATE OF CALIFORNIA

Ailsa Le May, R.G.
Senior Geologist

Figure 1: Ground Water Elevation Contour Map
Attachment: A - Blaine Ground Water Monitoring Report
B - Chavez Surveying Resuts

cc: Karen Petryna, Equiva Services LLC, P.O. Box 6249, Carson, California 90749-6249

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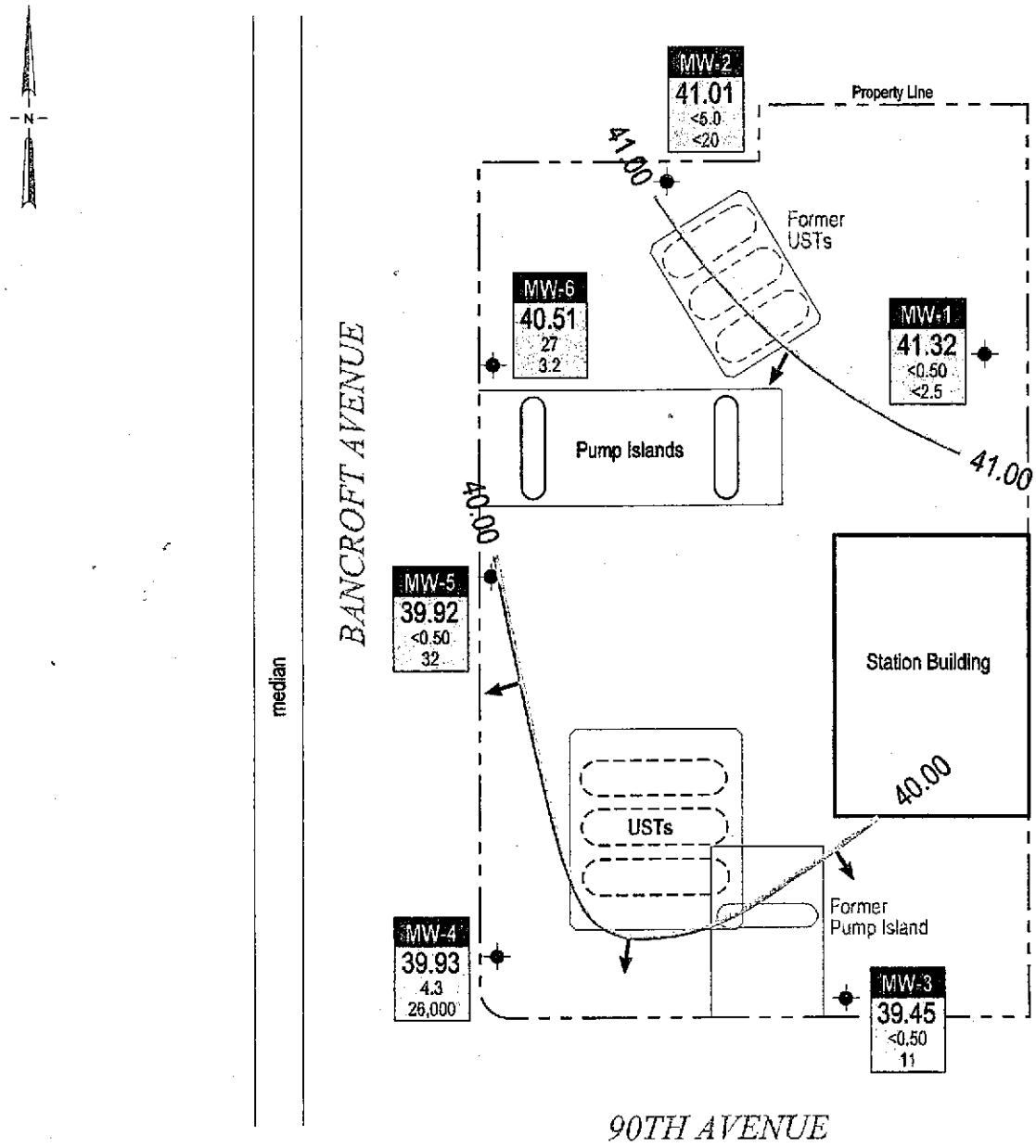

EXPLANATION

- MW-1 ⊕ Monitoring well location
- → Ground water flow direction
- XX.XX Ground water elevation contour, in feet above mean sea level (msl), dashed where inferred
- Well / ELEV / Benzene / MTBE — Well designation; Ground water elevation (msl); Benzene and MTBE concentrations are in parts per billion (ppb)

0 15 30
Scale (ft)

FIGURE
1

G:\OAK6930\FIGURES\4QM98-MP.DWG

Shell-branded Service Station
8930 Bancroft Avenue
Oakland, California
Incident #98995742

CAMBRIA

Ground Water Elevation Contour Map

December 17, 1998

ATTACHMENT A

Blaine Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE

February 8, 1999

Karen Petryna
Equiva Services LLC
P.O. Box 6249
Carson, CA 90749-6249

Fourth Quarter 1998 Groundwater Monitoring at
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, CA

Monitoring performed on December 17, 1998

Groundwater Monitoring Report **981217-K-2**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, apprioriate calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Shell Martinez Manufacturing Complex.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type 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. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

Deidre Kerwin
Operations Manager

DK/mt

attachments: Cumulative Table of WELL CONCENTRATIONS
Certified Analytical Report
Field Data Sheet

cc: Anni Kreml
Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, CA 94608-2411

WELL CONCENTRATIONS
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, California

Well ID	Date	TPHg (ug/L)	TPHd (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	53.19	11.87	41.32
MW-2	12/17/1998	9900	NA	<5.0	37	22	47	48	<20	52.66	11.65	41.01
MW-3	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	10	11	51.30	11.85	39.45
MW-4	12/17/1998	700	NA	4.3	0.88	<0.50	<0.50	21,000	26,000	50.73	10.80	39.93
MW-5	12/17/1998	750	NA	<0.50	17	1.8	3.5	33	32	51.43	11.51	39.92
MW-6	12/17/1998	940	NA	27	0.32	2.4	2.3	3.0	3.2	51.88	11.37	40.51

Abbreviations:
TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020
MTBE = methyl-tertiary-butyl ether by EPA Method 8020
TOC = Top of Casing Elevation
GW = Groundwater
ug/L = parts per billion
msl = Mean sea level
ft = Feet
<n = Below detection limit

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112
Attention: -

Project: Shell 8930 Bancroft

Enclosed are the results from samples received at Sequoia Analytical on December 17, 1998.
The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9812B49 -01	LIQUID, 1	12/17/98	Purgeable TPH/BTEX/MTBE
9812B49 -02	LIQUID, 2	12/17/98	Purgeable TPH/BTEX/MTBE
9812B49 -02	LIQUID, 2	12/17/98	MTBE by 8260
9812B49 -03	LIQUID, 3	12/17/98	Purgeable TPH/BTEX/MTBE
9812B49 -03	LIQUID, 3	12/17/98	MTBE by 8260
9812B49 -04	LIQUID, 4	12/17/98	Purgeable TPH/BTEX/MTBE
9812B49 -04	LIQUID, 4	12/17/98	MTBE by 8260
9812B49 -05	LIQUID, 5	12/17/98	Purgeable TPH/BTEX/MTBE
9812B49 -05	LIQUID, 5	12/17/98	MTBE by 8260
9812B49 -06	LIQUID, 6	12/17/98	Purgeable TPH/BTEX/MTBE
9812B49 -06	LIQUID, 6	12/17/98	MTBE by 8260

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, (650) 364-9600, FAX (650) 364-9233
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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 1	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/17/98
Attention: -	Lab Number: 9812B49-01	Reported: 12/21/98

QC Batch Number: GC121798BTEX30A
Instrument ID: GCHP30

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	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 2	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-02	Reported: 12/21/98

QC Batch Number: GC121898BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**500**	**9900**
Methyl t-Butyl Ether	**25**	**48**
Benzene	5.0	N.D.
Toluene	**5.0**	**37**
Ethyl Benzene	**5.0**	**22**
Xylenes (Total)	**5.0**	**47**
Chromatogram Pattern:		
Gas & Unidentified HC		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	254 Q

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

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Project Manager

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 2	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-02	Reported: 12/21/98

QC Batch Number: MS121898MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	20	N.D.

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	95

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 3	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-03	Reported: 12/21/98

QC Batch Number: GC121898BTEX02A
Instrument ID: GCHP02

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**	**10**
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	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 3	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-03	Reported: 12/21/98

QC Batch Number: MS121898MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	11

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	100

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 4	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/17/98
Attention: -	Lab Number: 9812B49-04	Reported: 12/21/98

QC Batch Number: GC121798BTEX30A
Instrument ID: GCHP30

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**700**
Methyl t-Butyl Ether	**250**	**21000**
Benzene	**0.50**	**4.3**
Toluene	**0.50**	**0.88**
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		**GAS**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	109

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

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Christine Middleton

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 4	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-04	Reported: 12/21/98

QC Batch Number: MS121898MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	**400**	**26000**

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	103

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 5	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/17/98
Attention: -	Lab Number: 9812B49-05	Reported: 12/21/98

QC Batch Number: GC121798BTEX30A
Instrument ID: GCHP30

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**750**
Methyl t-Butyl Ether	**2.5**	**33**
Benzene	0.50	N.D.
Toluene	**0.50**	**17**
Ethyl Benzene	**0.50**	**1.8**
Xylenes (Total)	**0.50**	**3.5**
Chromatogram Pattern:		
Unidentified HC		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	157 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 5	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-05	Reported: 12/21/98

QC Batch Number: MS121898MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	32

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 6	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-06	Reported: 12/21/98

QC Batch Number: GC121898BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	940
Methyl t-Butyl Ether	2.5	3.0
Benzene	0.50	27
Toluene	0.50	0.32
Ethyl Benzene	0.50	2.4
Xylenes (Total)	0.50	2.3
Chromatogram Pattern:		
Unidentified HC		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	133 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

Sequoia Analytical

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Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Sampled: 12/17/98
1680 Rogers Avenue	Sample Descript: 6	Received: 12/17/98
San Jose, CA 95112	Matrix: LIQUID	
	Analysis Method: EPA 8260	Analyzed: 12/18/98
Attention: -	Lab Number: 9812B49-06	Reported: 12/21/98

QC Batch Number: MS121898MTBEH6A
Instrument ID: H6

Methyl t-Butyl Ether (MTBE)

Analyte	Detection Limit ug/L	Sample Results ug/L
Methyl t-Butyl Ether	2.0	3.2

Surrogates	Control Limits %		% Recovery
1,2-Dichloroethane-d4	76	114	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Christine Middleton

Peggy Penner
Project Manager

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112
Attention: -

Client Project ID: Shell 8930 Bancroft

QC Sample Group: 9812B49-01, 04, 05

Reported: Dec 21, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015
Analyst:	MM
ANALYTE	Gasoline

QC Batch #: GC121798BTEX30A

Sample No.:	GW9812601-3
Date Prepared:	12/17/98
Date Analyzed:	12/17/98
Instrument I.D.#:	GCHP30
Sample Conc., ug/L:	N.D.
Conc. Spiked, ug/L:	250
Matrix Spike, ug/L:	240
% Recovery:	96
Matrix Spike Duplicate, ug/L:	260
% Recovery:	103
Relative % Difference	7.0
RPD Control Limits:	0-25

LCS Batch#: GC121798BTEX30A

Date Prepared:	12/17/98
Date Analyzed:	12/17/98
Instrument I.D.#:	GCHP30
Conc. Spiked, ug/L:	250
LCS Recovery, ug/L:	260
LCS % Recovery:	104

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Christine Middleton
Peggy Penner
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.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112
Attention: -

Client Project ID: Shell 8930 Bancroft

QC Sample Group: 9812B49-02, 03

Reported: Dec 21, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid			
Method:	EPA 8020			
Analyst:	MM			
ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
QC Batch #:	GC121898BTEX02A			
Sample No.:	GW9812B51-1			
Date Prepared:	12/18/98	12/18/98	12/18/98	12/18/98
Date Analyzed:	12/18/98	12/18/98	12/18/98	12/18/98
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02
Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30
Matrix Spike, ug/L:	9.8	10.0	10.0	30
% Recovery:	98	100.0	100.0	100.0
Matrix Spike Duplicate, ug/L:	9.5	9.7	9.8	30
% Recovery:	95	97	98	100.0
Relative % Difference	3.1	3.0	2.0	0.0
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#:	GC121898BTEX02A			
Date Prepared:	12/18/98	12/18/98	12/18/98	12/18/98
Date Analyzed:	12/18/98	12/18/98	12/18/98	12/18/98
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked, ug/L:	10	10	10	30
LCS Recovery, ug/L:	9.7	9.8	9.9	30
LCS % Recovery:	97	98	99	100.0

Percent Recovery Control Limits:

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

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Christine Middleton
Peggy Penner
Project Manager

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Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112
Attention: -

Client Project ID: Shell 8930 Bancroft

QC Sample Group: 9812B49-06

Reported: Dec 21, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015
Analyst:	SH
ANALYTE	Gasoline

QC Batch #: GC121798BTEX06A

Sample No.:	GW9812510-1
Date Prepared:	12/17/98
Date Analyzed:	12/17/98
Instrument I.D.#:	GCHP06
Sample Conc., ug/L:	N.D.
Conc. Spiked, ug/L:	250
Matrix Spike, ug/L:	210
% Recovery:	84
Matrix Spike Duplicate, ug/L:	240
% Recovery:	96
Relative % Difference	13
RPD Control Limits:	0-25

LCS Batch#: GC121798BTREX06A

Date Prepared:	12/17/98
Date Analyzed:	12/17/98
Instrument I.D.#:	GCHP06
Conc. Spiked, ug/L:	250
LCS Recovery, ug/L:	250
LCS % Recovery:	100.0

Percent Recovery Control Limits:

MS/MSD	60-140
LCS	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Christine Middleton

Peggy Penner
Project Manager

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Blaine Tech Services, Inc.
1680 Rogers Ave.
San Jose, CA 95112

Client Project ID: Shell 8930 Bancroft
Matrix: Liquid

Work Order #: 9812B49 -02-06

Reported: Dec 23, 1998

QUALITY CONTROL DATA REPORT

Analyte:	MTBE
QC Batch#:	MS121898MTBEH6A
Analy. Method:	EPA 8260
Prep. Method:	N.A.
Analyst:	L. Zhu
MS/MSD #:	981299004
Sample Conc.:	N.D.
Prepared Date:	12/18/98
Analyzed Date:	12/18/98
Instrument I.D.#:	H6
Conc. Spiked:	50 µg/L
Result:	42
MS % Recovery:	84
Dup. Result:	47
MSD % Recov.:	94
RPD:	11
RPD Limit:	0-25

LCS #:	LCS121898
Prepared Date:	12/18/98
Analyzed Date:	12/18/98
Instrument I.D.#:	H6
Conc. Spiked:	50 µg/L
LCS Result:	42
LCS % Recov.:	84

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

SEQUOIA ANALYTICAL

Peggy Penner
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

Sequoia Analytical

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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Blaine Tech Services	Client Proj. ID: Shell 8930 Bancroft	Received: 12/17/98
1680 Rogers Avenue		
San Jose, CA 95112	Lab Proj. ID: 9812B49	Reported: 12/21/98
Attention:		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of_____ pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

EPA 8260:
A high purity mtbe spectral match was not possible for sample 9812B49-05 because of 3-methyl pentane interference. However, the mtbe quantitation was not affected.

SEQUOIA ANALYTICAL

Peggy Penner
Project Manager

BLAINE TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY 981217-K2

CLIENT Shell

SITE 8930 Bancroft
Oakland, CA

98-12-1349

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT: TPH-G/BTEX/MTBE

LAB Sequoia DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

"Confirm MTBE by 8260"
"24 hr. Turn Around Time"

SAMPLE I.D.	DATE	TIME	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C	TPH-G/BTEX/MTBE	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
1	12/17/98	1125	W	3	40ml		X				
2		1205		3	VOAs		X				
3		1215		3			X				
4		1235		3			X				
5		1240		3			X				
6		1105		3			X				

SAMPLING COMPLETED DATE 12/17/98 TIME 1300

SAMPLING PERFORMED BY Mark Spandler/Paul Sanna

RESULTS NEEDED NO LATER THAN

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	12/17/98	1518		12/17/98	1546
	12/17/98			121798	16:15

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

BLAINE
TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY 981217-K2

CLIENT Shell

SITE 8970 Bancroft
Oakland, CA

98-12-1349

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB Sequoia DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS
"Confirm MTBE by 8260"
"24 hr. Turn Around Time"

SAMPLE I.D.	DATE	TIME	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL		C	TPH-G/BTEX/MTBE	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
1	12/17/98	1125	W	3	40 ml		X				
2		1205		3	VOA's		X				
3		1215		3			X				
4		1235		3			X				
5		1240		3			X				
6		1255		3			X				

SAMPLING COMPLETED DATE 12/17/98 TIME 1300

SAMPLING PERFORMED BY Mark Spandler/Paul Sanna

RESULTS NEEDED NO LATER THAN

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	12/17/98	1518		12/17/98	1546
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	12/17/98			121798	16:15

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

DEC 21 1998 4:37PM NO 3535 P. 14

ATTACHMENT B

Chavez Surveying Results

Virgil Chavez Land Surveying

312 Georgia Street, Suite 200
Vallejo, California 94590
(707) 553-2476 • Fax (707) 553-8698

January 22, 1999
Project No. 1703-02

Anni Kreml
Cambria Environmental
1144 65th Street, Suite C
Oakland, Ca. 94608

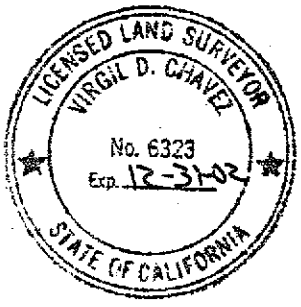
Subject: Monitoring Well Survey
Shell Service Station
8930 Bancroft Ave.
Oakland, Ca.
WIC #204-5508-1305

Dear Anni:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was performed on January 21, 1999. Our findings are shown in the table below. The bench-mark for the survey was a cut "T" in the top of curb, at the southeast corner of Bancroft Ave. & 90th Ave.
Benchmark Elevation = 50.964' MSL.

Monitoring Well No.	Rim Elevation	TOC Elevation
MW - 1	53.79'	53.19'
MW - 2	53.17'	52.66'
MW - 3	51.66'	51.30'
MW - 4	51.46'	50.73'
MW - 5	52.00'	51.43'
MW - 6	52.32'	51.88'

Measurements taken at approximate north side of top of box, top of casings were marked at location of measurements.



Sincerely,

Virgil D. Chavez, PLS 6323

WELL GAUGING DATA

Project # 981217-1K2 Date 12/17/98 Client Shell

Site 8930 Bancroft Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
1	3					11.87	18.35	TOC	
2	3					11.65	19.75		
3	3					11.85	19.61		
4	3					10.80	19.61		
5	3					11.81	19.65		
6	3					11.37	19.50		

WELL DEVELOPMENT DATA SHEET

Project #: 98127-K2	Client: Shell
Developer: Paul Sarna	Date Developed: 12-17-98
Well I.D. 1	Well Diameter: (circle one) 2 (3) 4 6 ___
Total Well Depth:	Depth to Water:
Before 15.85 After 18.35	Before 11.75 After 11.87
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
(12 x (d^2/4) x π) /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

.06	X	10		6.5
1 Case Volume		Specified Volumes	=	gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐
Type of Installed Pump _____
Other equipment used _____

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
11:25	64.5	7.6	960	>200	.05	turbid
11:26	65.0	7.6	950	>200	1.0	turbid
11:27	64.8	7.6	950	>200	1.5	Cloudy
11:28	65.2	7.7	960	>200	2.0	cloudy
11:29	64.8	7.8	975	>200	2.5	turbid
11:30	64.6	7.8	975	>200	3.0	sand bottom
11:31	64.4	7.8	1000	>200	3.5	turbid
11:32	64.2	7.6	1000	>200	4.0	solid bottom
11:33	64.4	7.6	1025	>200	4.5	turbid
11:34	64.2	7.6	1100	>200	5.0	solid bottom
11:35	64.4	7.6	1100	>200	5.5	Solid bottom
11:36	64.2	7.6	1100	>200	6.0	turbid
11:37	64.4	7.6	1100	>200	6.5	cloudy

Did Well Dewater? No If yes, note above. Gallons Actually Evacuated: 6.5

WELL DEVELOPMENT DATA SHEET

Project #: 961217-K2	Client: Shell
Developer: Paul Sarna	Date Developed: 12-17-96
Well I.D. 2	Well Diameter: (circle one) 2 (3) 4 6 __
Total Well Depth:	Depth to Water:
Before 17.65 After 19.75	Before 11.42 After 11.65
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
(12 x (d^2/4) x π) /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

2.3	x	10		23.0
1 Case Volume		Specified Volumes	=	gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐

Type of Installed Pump _____
Other equipment used _____

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
12:15	65.9	7.2	2200	7200	2.5	odor, grey
12:18	64.2	7.2	2100	7200	5.0	thick mud
12:21	65.0	7.1	2150	>200	7.5	cloudy
12:24	64.8	7.1	2100	7200	10.0	turbid
12:27	64.4	7.1	2150	7200	12.5	surged bottom
12:30	64.2	7.0	2200	>200	15.0	turbid
12:33	63.8	7.0	2200	>200	17.5	surged bottom
12:36	64.0	7.0	2200	>200	20.0	solid bottom
12:39	64.2	7.1	2150	>200	22.5	turbid
12:42	64.4	7.1	2100	>200	25.0	solid bottom

Did Well Dewater? NO If yes, note above. Gallons Actually Evacuated: 25

WELL DEVELOPMENT DATA SHEET

Project #: 981217-K2	Client: Shell
Developer: Mark	Date Developed: 12/17/98
Well I.D. 3	Well Diameter: (circle one) 2 (3) 4 6 ___
Total Well Depth: Before 14.41 After 19.61	Depth to Water: Before 9.91 After 11.85
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF): {12 x (d²/4) x π} /231

where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

1.7	X	10	=	17
1 Case Volume		Specified Volumes		gallons

Purging Device: Bailer ☐ Middleburg ☒ Electric Submersible ☐ Suction Pump ☐

Type of Installed Pump ______________

Other equipment used ______________

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
1124	surged		5 mins			
1128	69.5	6.9	891	>200	1.75	odor, gray silt
1130	69.4	6.9	740	>200	3.50	thick mud
1133	70.0	6.8	545	>200	5.25	surged w/pump
1141	70.0	6.7	550	>200	7.0	clean pump full mud
1144	69.8	6.7	553	>200	8.75	surged bottom
1147	70.0	6.6	552	>200	10.50	bottom solid, clearing
1150	69.9	6.6	565	>200	12.25	good recharge, less silt
1153	69.9	6.6	562	>200	14.00	surged bottom
1156	70.0	6.6	564	>200	15.75	clearing.
1159	70.1	6.6	562	>200	17.75	solid bottom

Did Well Dewater? no If yes, note above. Gallons Actually Evacuated: 17.75

WELL DEVELOPMENT DATA SHEET

Project #: 381217-K2	Client: Shell
Developer: Work	Date Developed: 12/17/08
Well I.D. 4	Well Diameter: (circle one) 2 (3) 4 6 __
Total Well Depth:	Depth to Water:
Before 18.90 After 19.61	Before 9.68 After 10.80
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
{12 x (d^2/4) x π} /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

1.5	X	10		15
1 Case Volume		Specified Volumes	=	gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐

Type of Installed Pump _____
Other equipment used _____

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
1220	surged w/block					solid bottom
1225	70.1	6.7	447	>200	1.5	brown sandy
1227	70.2	6.7	441	>200	3.0	clearing less sand
1229	70.2	6.7	437	>200	4.5	surged w/pump
1231	70.1	6.8	439	>200	6.0	cloudy brown
1233	70.3	6.8	450	>200	7.5	solid bottom
1235	70.2	6.8	447	>200	9.0	surged w/pump
1237	70.0	6.8	451	183	10.5	cloudy tan
1239	70.1	6.7	452	121	12.0	no silt, good recharge
1241	70.3	6.7	450	83	13.5	solid bottom
1243	70.2	6.7	451	77	15.0	

Did Well Dewater? no If yes, note above. Gallons Actually Evacuated: 15

WELL DEVELOPMENT DATA SHEET

Project #: 981211-K2	Client: Shell
Developer: Mark	Date Developed: 12/17/98
Well I.D.: S	Well Diameter: (circle one) 2 (3) 4 6 ___
Total Well Depth: Before 19.15 After 19.65	Depth to Water: Before 10.29 After 11.91
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):

$(12 \times (d^2/4) \times \pi)/231$

where

12 = in/foot
d = diameter (in.)
π = 3.1416
231 = in³/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	5.87

1.4 (1 Case Volume) x 10 (Specified Volumes) = 14 gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐

Type of Installed Pump _____

Other equipment used _____

TIME	TEMP. (F)	pH	COND.	TURBID-ITY	VOLUME REMOVED:	NOTATIONS:
1306	surged	w/bladder				
1310	70.5	7.1	362	>200	1.5	solid bottom
1312	70.4	7.0	359	>200	3.0	brown silty
1314	70.8	6.8	355	>200	4.5	surged w/pump
1316	71.0	6.7	359	>200	6.0	clearing up
1318	71.2	6.6	361	191	7.5	no silt, tan
1320	71.1	6.8	370	>200	9.0	surged w/pump
1322	71.2	6.9	381	>200	10.5	good recharge
1324	71.1	6.8	385	>200	12.0	cloudy tan
1326	71.0	6.7	383	>200	13.5	surged bottom
1328	71.2	6.7	388	>200	15.0	solid bottom

Did Well Dewater? No If yes, note above. Gallons Actually Evacuated: 15

WELL DEVELOPMENT DATA SHEET

Project #: 981217-K2	Client: Shell
Developer: Paul Scott	Date Developed: 12-17-98
Well I.D. 6	Well Diameter: (circle one) 2 (3) 4 6 ___
Total Well Depth:	Depth to Water:
Before 18.43 After 19.50	Before 11.12 After 11:37
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):
(12 x (d^2/4) x π) /231
where
12 = in / foot
d = diameter (in.)
π = 3.1416
231 = in 3/gal

Well dia.		VCF
2"	=	0.16
3"	=	0.37
4"	=	0.65
6"	=	1.47
10"	=	4.08
12"	=	6.87

1 Case Volume	X	Specified Volumes	=	gallons
2.7		3 | 0		27

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐
Type of Installed Pump _____
Other equipment used _____

TIME	TEMP (F)	pH	COND.	TURBIDITY	VOLUME REMOVED:	NOTATIONS:
13:15	66.4	6.9	3900	>200	3	odor, turbid,
13:18	66.2	6.8	3950	>200	6	cloudy, brown
13:21	66.0	6.8	4000	>200	9	in color
13:24	66.0	6.8	4000	>200	12	sucked bottom
13:27	65.8	6.8	4050	>200	15	turbid
13:30	65.8	6.9	4000	>200	18	cloudy
13:33	65.4	6.9	4100	>200	21	turbid
13:36	65.2	7.0	4000	>200	24	sucked bottom
13:39	65.4	7.0	4100	>200	27	solid bottom
13:42	65.0	7.0	3900	>200	30	solid bottom
13:45	65.2	7.0	4000	>200	33	turbid

Did Well Dewater? NO If yes, note above. Gallons Actually Evacuated: 33

EQUIVA WELL MONITORING DATA SHEET

Project #: 981217-K2	Job # Shell
Sampler: PAUL	Date: 12-17-98
Well I.D.: 1	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 18.35	Depth to Water: 11.87
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method: Bailer / Middleburg / (Electric Submersible) / Extraction Pump / Other: _____

Sampling Method: (Bailer) / Extraction Port / Other: _____

1 Case Volume (Gals.)	X	Specified Volumes	=	Calculated Volume
2.3	X	3	=	7.1 Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
11:46	64.6	7.6	1100	>200	2.5	
11:47	65.2	7.8	1150	>200	5.0	
11:48	64.8	7.8	1100	>200	7.0	

Did well dewater? Yes (No)		Gallons actually evacuated: 7.0	
Sampling Time: 11:55		Sampling Date: 12-17-98	
Sample I.D.: 1		Laboratory: Sequoia BC Other_____	
Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D		Other:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

EQUIVA WELL MONITORING DATA SHEET

Project #: 981217-K2	Job # Shell
Sampler: Paul Saung	Date: 12.17.98
Well I.D.: 2	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.75	Depth to Water: 11.65
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
(3")	0.37	6"	1.47
4"	0.65	Other	radius² * 0.163

Purge Method: Bailer / Middleburg / ~~Electric Submersible~~ / Extraction Pump / Other: _____

Sampling Method: (Bailer) / Extraction Port / Other: _____

1 Case Volume (Gals.)	X	Specified Volumes	=	Calculated Volume
2.9	X	3	=	8.9 Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
12:56	65.4	7.0	2100	7200	3	
12:57	64.8	7.0	7200	7200	6	
12:58	64.6	7.1	7200	7200	9	

Did well dewater? Yes (No)		Gallons actually evacuated: 9	
Sampling Time: 13:05		Sampling Date: 12-17-98	
Sample I.D.: 2		Laboratory: Sequoia BC Other_____	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

EQUIVA WELL MONITORING DATA SHEET

Project #: 98129-K2	Job # Shell
Sampler: Mark	Date: 12/17/98
Well I.D.: 3	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 19.61	Depth to Water: 11.85
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / Extraction Port / Other: _____

1.2 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 3.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1205	70.0	6.6	561	>200	1.25	
1208	69.9	6.6	564	>200	2.50	
1211	70.1	6.6	560	183	3.75	

Did well dewater? Yes (No)		Gallons actually evacuated: 3.75	
Sampling Time: 1215		Sampling Date: 12/17	
Sample I.D.: 3		Laboratory: (Sequoia) BC Other_____	
Analyzed for: (TPH-G BTEX MTBE) TPH-D		Other:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

EQUIVA WELL MONITORING DATA SHEET

Project #: 98217-K2	Job # Shell
Sampler: Mark	Date: 12/17/98
Well I.D.: 4	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 19.61	Depth to Water: 10.80
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method: Bailer / Middleburg X / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer X / Extraction Port / Other: _____

1.4 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 4.2 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1249	70.5	6.7	450	159	1.5	
1251	70.3	6.6	451	91	3.0	
1252	70.4	6.6	449	89	4.25	

Did well dewater? Yes (No)	Gallons actually evacuated: 4.25
Sampling Time: 1255	Sampling Date: 12/17
Sample I.D.: 4	Laboratory: (Sequoia) BC Other_____
Analyzed for: (TPH-G BTEX MTBE) TPH-D	Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

EQUIVA WELL MONITORING DATA SHEET

Project #: 981217-K2	Job # Shell
Sampler: Mark	Date: 12/17/98
Well I.D.: 5	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.65	Depth to Water: 11.51
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method: Bailer / Middleburg / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / Extraction Port / Other: _____

1 Case Volume (Gals.)	X	Specified Volumes	=	Calculated Volume
1.3	X	3	=	3.9 Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1333	71.0	6.7	389	134	1.25	cloudy
1335	70.9	6.7	391	121	2.75	
1337	71.1	6.7	387	134	4.0	

Did well dewater? Yes (No)		Gallons actually evacuated: 4.0	
Sampling Time: 1340		Sampling Date: 12/17	
Sample I.D.: 5		Laboratory: (Sequoia) BC Other_____	
Analyzed for: (TPH-G BTEX MTBE) TPH-D		Other:	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

EQUIVA WELL MONITORING DATA SHEET

Project #: 98 1217-K2	Job # Shell
Sampler: Paul Sanchez	Date: 12-17-98
Well I.D.: C6	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.50	Depth to Water: 11.37
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
(3")	0.37	6"	1.47
4"	0.65	Other	radius^2 * 0.163

Purge Method: Bailer / Middleburg / ~~Electric Submersible~~ / Extraction Pump / Other: ___

Sampling Method: (Bailer) / Extraction Port / Other: ___

3.0 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 9.0 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
13:55	65.2	7.0	3900	>200	3	
13:56	64.8	7.0	4000	>200	6	
13:57	64.6	7.0	4050	>200	9	

Did well dewater? Yes (No)		Gallons actually evacuated: 9	
Sampling Time: 0		Sampling Date: 12/17	
Sample I.D.: 14:05		Laboratory: Sequoia BC Other___	
Analyzed for: (TPH-G BTEX ~~MTBE~~ TPH-D)		Other:	
D.O. (if req'd):	Pre-purge:	mg/L Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV Post-purge:	mV

WELL HEAD INSPECTION CHECKLIST AND REPAIR ORDER

Client Shell 204-5508-1347 Inspection date: 12/17/98

Site address 8930 BANCROFT OAKLAND Inspected by: Mark/Paul

BTS Event # 981217-KZ

1. Lid on the box? Yes No	5. Water standing in the well box?	7. Can cap be pulled loose?
2. Lid whole?	5a. Standing above well top?	8. Can cap seal out water?
3. Lid secure?	5b. Standing below well top?	9. Padlock present?
4. Lid seal intact?	5c. Water even with top of well cap?	10. Padlock found locked?
	6. Well cap/plug present?	11. Padlock functional?

☒ Check box if *no deficiences* were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken

Note below all deficiences that could not be corrected and *still need to be corrected.*

Well I.D.	Persisting Deficiency	BTS Office assigns or defers Correction to:	Date assigned	Date corrected

Office review and assignments made by _____ date _____