enviros®

August 15, 1996

RO350

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

RE: **Quarterly Monitoring Report - Second Quarter 1996**
Former Shell Service Station
2101 Park Boulevard
Oakland, California
WIC #204-5508-1206

Dear Mr. Granberry:

This Quarterly Monitoring Report describes the recently completed activities associated with ground water monitoring and sampling at the referenced site (Plate 1). This report was prepared to meet quarterly reporting guidelines issued by the Regional Water Quality Control Board, San Francisco Bay Region and the Alameda County Health Care Services Agency (ACHCSA).

Quarterly Monitoring & Sampling Summary

Ground water monitoring and sampling for the second quarter of 1996 are summarized below:

- Blaine Tech Services Inc. (Blaine Tech) of San Jose, measured ground water levels and collected ground water samples from Wells S-1, S-2, and S-3 on June 27, 1996. The samples were transported to Sequoia Analytical (Sequoia) of Redwood City, California for chemical analysis.

- Ground water level measurement data were evaluated and used to prepare a ground water contour map (Plate 2). Ground water flow direction appears to be southeast at a calculated hydraulic gradient of 0.06.

- The ground water from Well S-3 contained 17,000 ppb TPPH and 1,100 ppb benzene. Wells S-1 and S-2 contained TPPH concentrations ranging from ND to 150 ppb and benzene concentrations ranging from 0.59 to 7.7 ppb. Well S-1 also contained 140 ppb TEPH.

Quarterly Sampling

Monitoring Wells S-1, S-2, and S-3 were sampled and analyzed for Total Purgeable Petroleum Hydrocarbons (TPPH) according to EPA Method 8015 (Modified) and benzene.

toluene, ethylbenzene, xylenes (BTEX), and methyl-tertiary-butyl-ether (MTBE) according to EPA Method 8020. Monitoring Well S-1 was also analyzed for Total Extractable Petroleum Hydrocarbons (TEPH) according to EPA Method 8015 (Modified). Additionally, an equipment blank and a duplicate sample were prepared and analyzed for quality control purposes.

Field monitoring data and chemical analytical data for TPPH, TEPH and BTEX have been included in Table 1. A ground water contour/benzene concentration map is presented as Plate 2. The Blaine Tech quarterly ground water monitoring report is presented in Appendix A.

Quarterly 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.

Joe W. Neely
Project Geologist

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

Attachments

Table 1. Well Concentrations

Plate 1. Vicinity Map
Plate 2. Ground Water Contour/Benzene Concentration Map

Appendix A

Blaine Tech Services Inc. - Quarterly Ground Water Monitoring Report

cc Mr. Barney Chan, Alameda County Health Care Services Agency
Mr. Frank J. Schlessinger, Schlessinger & Associates
Mr. Steve Makara, Goodyear Tire & Rubber Company

TABLE 1

WELL CONCENTRATIONS
Shell Oil Products Company
2101 Park Boulevard
Oakland, California
WIC #204-5508-1206

Sample Date	Measured GW Depth (ft)	Corrected GW Elev (ft)	SP (ft)	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	O & G by 5520 B (ug/L)	O & G by 5520 B/F (ug/L)	MTBE (ug/L)	Comments
25-Mar-96	NA	NA	NA	7400	NA	580	19	620	670	NA	NA	<20	
27-Jun-96	NA	NA	NA	1903	NA	13	1.0	14	34	NA	NA	7.2	

Abbreviations
NA = Not analyzed or not available
TPPH = Total Purgeable Petroleum Hydrocarbons carbon range C6 to C12 by EPA Method 8015 (Modified)
(previously reported as Total Petroleum Hydrocarbons as Gasoline)
TPH-D = Total Extractable Petroleum Hydrocarbons carbon range C9 to C24 by EPA Method 8015 (Modified)
(previously reported as Total Petroleum Hydrocarbons as Diesel)
O&G = Oil and Grease
<x = Not detected at detection limit of x
(DUP) = Duplicate sample
BTEX = benzene, toluene, ethylbenzene, xylene
MTBE = methyl-tert-butyl ether

Note
All wells surveyed to Mean Sea Level

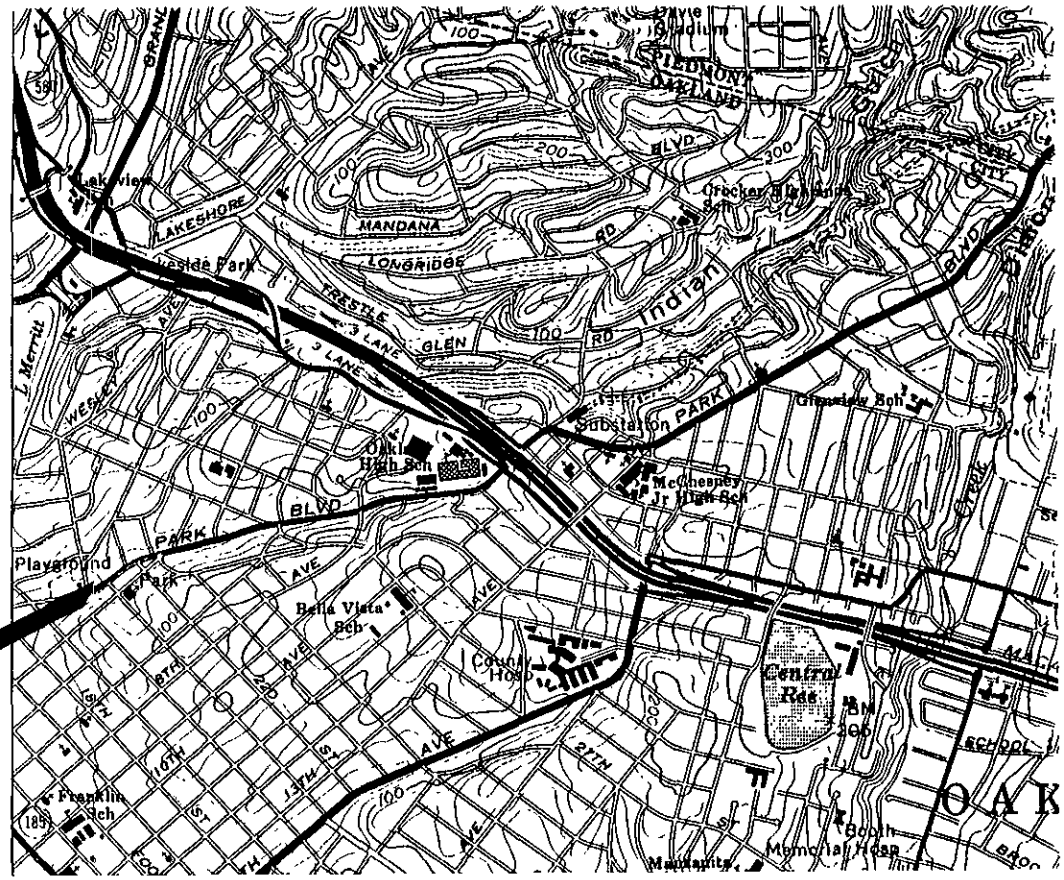

PLATE
1

VICINITY MAP
Former Shell Service Station
2101 Park Boulevard
Oakland, California

enviros®
E4/95267.01

Drawn By: GLV | Date: 2-24-95 | Approved By: [signature] | Date: 15-Aug-96

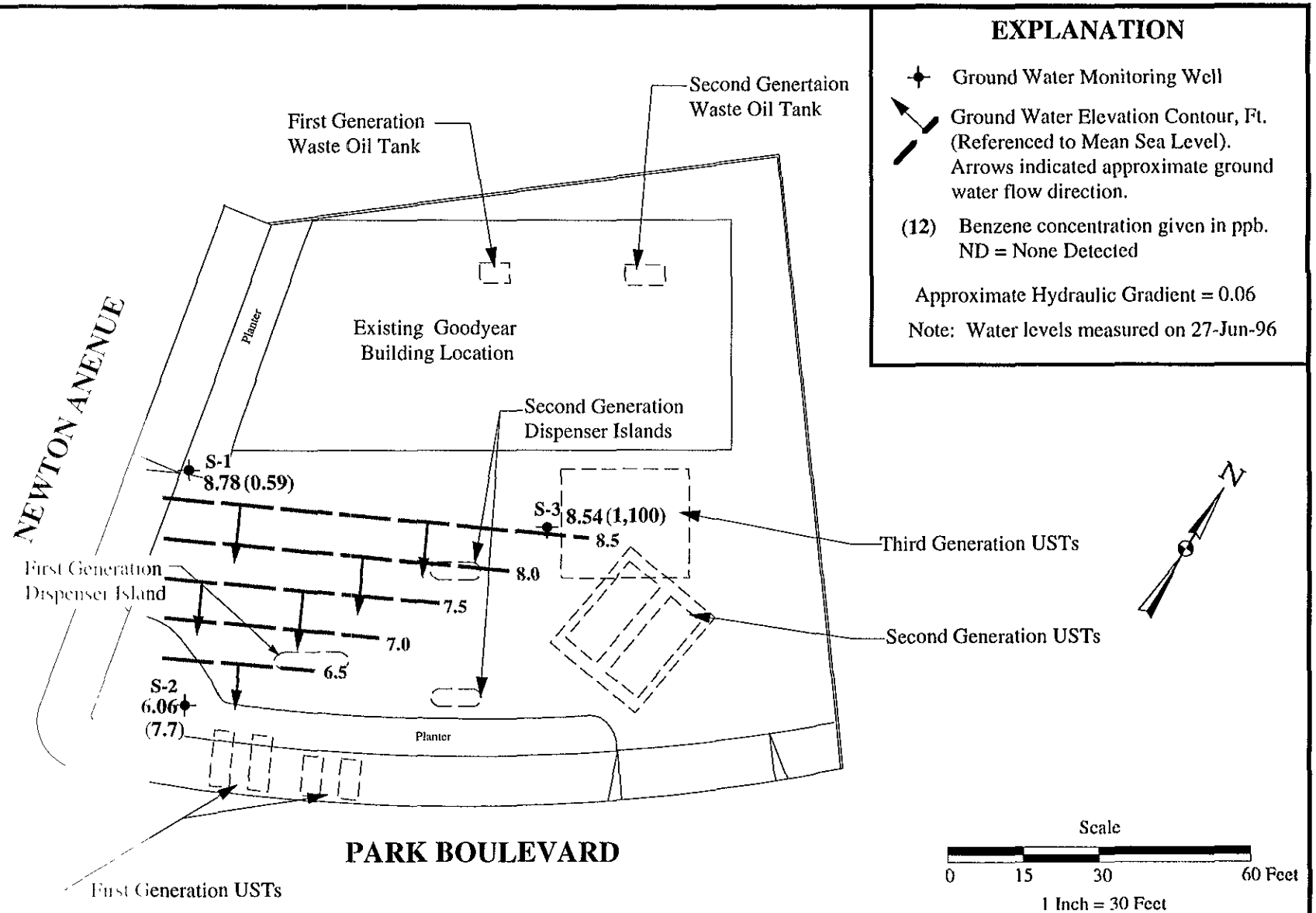

PLATE
2

GROUND WATER CONTOUR/BENZENE CONCENTRATION MAP
Former Shell Service Station
2101 Park Boulevard
Oakland, California

enviros®
96267

Drawn By JWN | Date: 1-Aug-96 | Approved By: _____ | Date: 15-Aug-96

Appendix A

BLAINE TECH SERVICES INC.
Quarterly Ground Water Monitoring Report

BLAINE
TECH SERVICES INC.

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

July 23, 1996

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

Attn: R. Jeff Granberry

Shell WIC #204-5508-1206
2101 Park Blvd.
Oakland, California

2nd Quarter 1996

Quarterly Groundwater Monitoring Report 960627-T-3

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. Enviros, Inc
P.O Box 259
Sonoma, CA 95476-0259
Attn: Joe Neely

(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	6/27/96	TOC	--	NONE	--	--	3.15	17.23
S-2	6/27/96	TOC	--	NONE	--	--	6.00	17.40
S-3 *	6/27/96	TOC	--	NONE	--	--	5.00	17.00

* Sample DUP was a duplicate sample taken from well S-3.

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 960627-T3

Date: 6/27/96
Page 1 of 1

Site Address: 2101 Park Blvd., Oakland, CA

WIC#: 204-5508-1206

Shell Engineer: R. Jeff Granberry / Lynn Walker — Phone No.: (510) 675-6169 Fax #:

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

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

Comments:

Sampled by: M/Tell

Printed Name: Mike Tell

LAB: SEQ

Analysis Required

960627-T3

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 6240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	MTBE	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
1 S1	6/27			X		5		X				X	X						
2 S2	6/27			X		3						X	X						
3 S3	6/27			X		3						X	X						
4 EB	6/27			X		3						X	X						
5 DUP	6/27			X		3						X	X						

CHECK ONE (1) BOX ONLY | CT/DT | TURN AROUND TIME

- G.W. Monitoring [X] 4461 — 24 hours [ ]
- Site Investigation [ ] 4461 — 48 hours [ ]
- Soil Classify/Disposal [ ] 4462 — 15 days [X] (Normal)
- Water Classify/Disposal [ ] 4463 — Other [ ]
- Soil/Air Rem. or Sys. O & M [ ] 4452
- Water Rem. or Sys. O & M [ ] 4453
- Other [ ]

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

UST AGENCY:

Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
M Tell	Mike Tell	6-26	1015	Michael Reed	M-Heid	6-25-96	1015
Michael Reed							
	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:
					W. Hole	6/26/96	1154

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

Bill On Day of Custody

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: Fran Thie

Project: Shell Oakland 960627-T3

Enclosed are the results from samples received at Sequoia Analytical on June 28, 1996. The requested analyses are listed below:

SAMPLE #	SAMPLE DESCRIPTION	DATE COLLECTED	TEST METHOD
9606H19 -01	LIQUID, S1	06/27/96	TPGBMW Purgeable TPH/BTEX
9606H19 -01	LIQUID, S1	06/27/96	TPHD W Extractable TPH
9606H19 -02	LIQUID, S2	06/27/96	TPGBMW Purgeable TPH/BTEX
9606H19 -03	LIQUID, S3	06/27/96	TPGBMW Purgeable TPH/BTEX
9606H19 -04	LIQUID, EB	06/27/96	TPGBMW Purgeable TPH/BTEX
9606H19 -05	LIQUID, DUP	06/27/96	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 960627-T3	Sampled: 06/27/96
985 Timothy Drive	Sample Descript: S1	Received: 06/28/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/05/96
Attention: Fran Thie	Lab Number: 9606H19-01	Reported: 07/19/96

QC Batch Number: GC070596BTEX02A
Instrument ID: GCHP2

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**	**0.59**
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

SEQUOIA ANALYTICAL - ELAP #1624

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 960627-T3	Sampled: 06/27/96
985 Timothy Drive	Sample Descript: S1	Received: 06/28/96
San Jose, CA 95133	Matrix: LIQUID	Extracted: 07/08/96
	Analysis Method: EPA 8015 Mod	Analyzed: 07/09/96
Attention: Fran Thie	Lab Number: 9606H19-01	Reported: 07/19/96

QC Batch Number: GC0708960HBPEXZ
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	140
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	112

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

SEQUOIA ANALYTICAL - ELAP #1210

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 960627-T3	Sampled: 06/27/96
985 Timothy Drive	Sample Descript: S2	Received: 06/28/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/05/96
Attention: Fran Thie	Lab Number: 9606H19-02	Reported: 07/19/96

QC Batch Number: GC070596BTEX02A
Instrument ID: GCHP2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**150**
Methyl t-Butyl Ether	2.5	N.D.
Benzene	**0.50**	**7.7**
Toluene	**0.50**	**0.79**
Ethyl Benzene	**0.50**	**0.93**
Xylenes (Total)	**0.50**	**0.53**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	109

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

SEQUOIA ANALYTICAL - ELAP #1624

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Oakland 960627-T3	Sampled: 06/27/96
985 Timothy Drive	Sample Descript: S3	Received: 06/28/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/06/96
Attention: Fran Thie	Lab Number: 9606H19-03	Reported: 07/19/96

QC Batch Number: GC070696BTEX02A
Instrument ID: GCHP2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**5000**	**17000**
Methyl t-Butyl Ether	250	N.D.
Benzene	**50**	**1100**
Toluene	**50**	**83**
Ethyl Benzene	**50**	**1200**
Xylenes (Total)	**50**	**2700**
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	106

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

SEQUOIA ANALYTICAL - ELAP #1624

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Oakland 960627-T3	Sampled: 06/27/96
985 Timothy Drive	Sample Descript: EB	Received: 06/28/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/05/96
Attention: Fran Thie	Lab Number: 9606H19-04	Reported: 07/19/96

QC Batch Number: GC070596BTEX02A
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	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

SEQUOIA ANALYTICAL - ELAP #1624

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Blaine Technical Services	Client Proj. ID: Shell Oakland 960627-T3	Sampled: 06/27/96
985 Timothy Drive	Sample Descript: DUP	Received: 06/28/96
San Jose, CA 95133	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/05/96
Attention: Fran Thie	Lab Number: 9606H19-05	Reported: 07/19/96

QC Batch Number: GC070596BTEX02A
Instrument ID: GCHP2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	1903
Methyl t-Butyl Ether	2.5	7.2
Benzene	0.50	13
Toluene	0.50	1.0
Ethyl Benzene	0.50	14
Xylenes (Total)	0.50	34
Chromatogram Pattern:		C6-C12

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	128

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

SEQUOIA ANALYTICAL - ELAP #1624

Peggy Penner
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Project ID: Shell, Oakland / 960627-T3
Matrix: Liquid
Work Order #: 9606H19 -01
Reported: Jul 19, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0708960HBPEXZ
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3520
Analyst:	J. Minkel
MS/MSD #:	9606H2001
Sample Conc.:	3400
Prepared Date:	7/8/96
Analyzed Date:	7/10/96
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
Result:	5200
MS % Recovery:	180
Dup. Result:	5700
MSD % Recov.:	230
RPD:	9.2
RPD Limit:	0-50

LCS #:	BLK070896
Prepared Date:	7/8/96
Analyzed Date:	7/9/96
Instrument I.D.#:	GCHP5
Conc. Spiked:	1000 µg/L
LCS Result:	840
LCS % Recov.:	84

MS/MSD	50-150
LCS	60-140
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