

December 7, 2004

Mr. Robert Schultz Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re:

Groundwater Monitoring Report Former BP Service Station # 11124 3315 High Street Oakland, California URS Project #38486986

Dear Mr. Schultz:

On behalf of Atlantic Richfield Company, a BP affiliated company, URS Corporation (URS) is submitting the One-Time 2004 Groundwater Monitoring Report for the Former BP Service Station #11124, located at 1355 High Street, Oakland, California.

> BARBARA J JAKUB No. 7304

If you have any questions regarding this submission, please call me at (510) 874-3296.

Sincerely,

URS CORPORATION

Barbara J. Jakub, R.G.

Senior Geologist

Enclosure:

One-Time 2004 Groundwater Monitoring Report

çc:

Mr. Kyle Christie, Atlantic Richfield Company (RM), copy uploaded to ENFOS

Ms. Liz Sewell, ConocoPhillips, copy uploaded to URS ftp server

Fax: 510.874.3268

REPORT

ONE-TIME GROUNDWATER MONITORING REPORT

FORMER BP SERVICE STATION #11124 3315 HIGH STREET OAKLAND, CALIFORNIA

Prepared for RM

December 7, 2004



URS Corporation 1333 Broadway, Suite 800 Oakland, California 94612

Date:	December 7, 2004
Quarter:	4Q 04

RM GROUNDWATER MONITORING REPORT

Former Facility No.:	11124	Address:	3315 High Street, Oakland, CA				
RM Environmental Busin	ess Manager:		Kyle Christie				
Consulting Co./Contact Person:			URS Corporation / Barbara J. Jakub				
Consultant Project No.:			38486986				
Primary Agency:			Alameda County Environmental Health (ACEH)				

WORK PERFORMED THIS QUARTER

(Fourth - 2004):

- 1. Performed fourth quarter 2004 groundwater monitoring event on October 19, 2004.
- 2. Prepared and submitted this fourth quarter 2004 groundwater monitoring report.
- 3. Prepared and submitted subsurface investigation work plan on December 7, 2004.

WORK PROPOSED FOR NEXT QUARTER (First – 2005):

1. Prepare and submit first quarter 2005 status report.

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Wells MW-1, MW-2 and MW-4 One-Time
Frequency of Groundwater Monitoring:	One-Time
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	Natural Attenuation
Approximate Depth to Groundwater:	9.45 (MW-2) to 10.50 (MW-1) feet
Groundwater Gradient (direction):	South-Southwest.
Groundwater Gradient (magnitude):	0.022 feet per foot

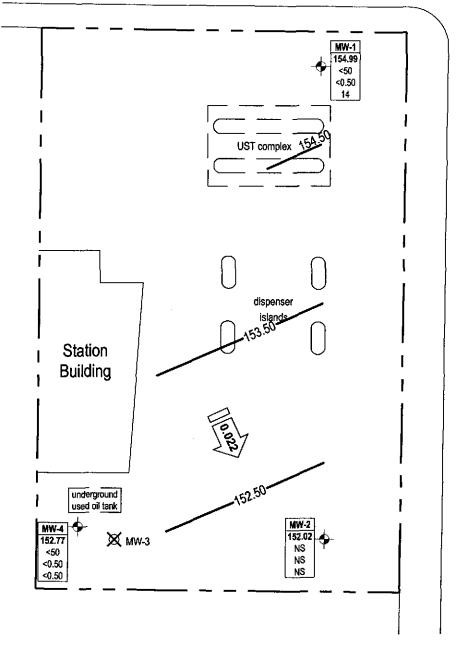
DISCUSSION:

Methyl tert-butyl ether (MTBE) was detected at or above the laboratory reporting limit in one of the two wells sampled at a concentration of 14 μ g/L (MW-1). Gasoline range organics (GRO), benzene, toluene, ethylbenzene, and xylenes (BTEX), and other fuel additives were not detected at or above the laboratory reporting limit in either of the two wells sampled. Due to insufficient water above an obstruction in the well, MW-2 could not be sampled this quarter.

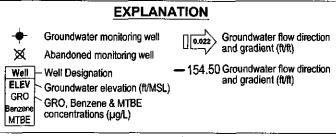
ATTACHMENTS:

- Figure 1- Groundwater Analytical Summary Map -October 19, 2004
- Table 1 Groundwater Elevation and Analytical Data
- Table 2 Fuel Additives Analytical Data
- Attachment A Field Procedures and Field Data Sheets
- Attachment B Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records
- Attachment C Error Check Reports and EDF/Geowell Submittal Confirmations

PORTER STREET



HIGH STREET



NOTE: SITE MAP ADAPTED FROM ALISTO ENGINEERING FIGURES.
SITE DIMENSIONS AND FIGURES FACILITY LOCATIONS NOT VERIFIED.



URS

Dec 07, 2004 - 1:38pm X: iz_env_wasteiBP GEM iSites1Barb JakubiKyle's sites\11124\Reports\Monitoring\Qr: 4, 2004\11124-4Q04-GW.dwg

Project No. 38486985

Former BP Service Station #11124 3315 High Street Oakland, California GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP Fourth Quarter 2004 (October 15, 2004)

FIGURE

1

Table 1

Groundwater Elevation and Analytical Data

Former BP Station #11124 3315 High St., Oakland, CA

Well No.	Date	P/ NP	Well Elevation/ TOC (feet)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	Lab	ρH	Comments
MW-1	10/19/2004	Р	154.99	10.50		144.49	<50	<0.50	<0.50	<0.50	<0.50	14	0.96	SEQM	6.9	
MW-2	10/19/2004		152.02	9.45		142.57				+-						Dry
MW-4	10/19/2004	Р	152.77	9.55		143.22	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.82	SEQM	7.0	

CALLET THE DESIGN OF THE CALLET TO THE CALLET THE CALLE

Table 1

Groundwater Elevation and Analytical Data

Former BP Station #11124 3315 High St., Oakland, CA

ABBREVIATIONS AND SYMBOLS:

P Well purged NP Well not purged TOC Top of casing

DTW Depth to water

GWE Groundwater elevation

TPH-G Total petroleum hydrocarbons as gasoline GRO Gasoline range organics, C4 to C12 range

B Benzene

T Toluene

E Ethylbenzene

X Total xylenes

MTBE Methyl tert butyl ether

DO Dissolved oxygen

bgs Below ground surfac

ug/L Micrograms per liter
--- Not analyzed/measured/applicable

< Not detected at or above laboratory reporting limit

Table 2

Fuel Additives Analytical Data

Former BP Station #11124 3315 High St., Oakland, CA

Well Number	Date Sampled	Ethanol (μg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Footnotes/ Comments
MW-1	10/19/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4	10/19/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2

Fuel Additives Analytical Data

Former BP Station #11124 3315 High St., Oakland, CA

NOTE: All fuel oxygenate compounds are analyzed using EPA Method 8260B.

ABBREVIATIONS AND SYMBOLS:

TBA = Tert-butyl alcohol
MTBE = Methyl tert-butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert butyl ether
TAME = Tert-amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
EDB = 1,2-Dibromomethane
ug/L = micrograms per liter

< = Not detected at or above laboratory reporting limit

FIELD PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear TeflonTM bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Projec	ot#_ <i>D4!0</i>	7/9-MTI	_ Date	Client _///24	
Site_	33/ <u>5</u>	High St.	Dakland		

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)			Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-/	2					10.50	31.40		
	2					9.45	1030		
MW-2 MW-\$	2,					9.55	31.35	*	
									- ·
<u> </u>									
		<u> </u>							
			<u> </u>						
				<u> </u>					
L		<u> </u>		<u> </u>	<u> </u>	<u> </u>	1	_1	<u> </u>

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

ARCO / BP WELL MONITORING DATA SHEET

BTS#:	041019.	-111		Station # 11124					
Sampler:			· – ———	Date: 10/19	104	· · · · · · · · · · · · · · · · · · ·			
Well I.D.	14w-1	.;.		Well Diameter:	2 3 4	6 8			
Total We	ll Depth: 3	1-40		Depth to Water:	10.50				
Depth to	Free Produ	ct:		Thickness of Fr	ee Product (feet)):			
Reference	ed to:	(VC)	Grade	D.O. Meter (if r	eq'd):	S) HA	СН		
Purge Meth	Di Positiv	Bailer sposable Bail Air Displaceric Submers	0.04 0.16 0.37 er ement	4" 0. 6" 1. Other radius Sampling Method:	uttinlier 65 47 2 * 0.163 Bailer Discosable Builer Extraction Port				
Top of Scre	Other:	ktraction Pun	If well is listed as	a no-purge, confirm t ise, the well must be	hat water level is be.	low the top]		
	l Case Volu	ıme (Gals.)	Specified Vo	olumes Calc	nlated Volume		<u> </u>		
Time	Temp (°F)	pŀI	Conductivity (mS or µS)	Gals. Removed	Observations				
1022	4.0	7.0	1100	3.3					
1026	66.8	6.9	1070	b.6					
1029	66.2	6,9	1063	4.9"					
Did well	dewater?	Yes	(No)	Gailons actuali	y evacuated: %	9			
Sampling	g Time:	055		Sampling Date	10/19/04				
Sample I	.D.: Mw-	<u>l</u>		Laboratory:	Pace Sequoia	Other			
Analyzed	l for: G R	O (BTEX)	MTBE DRO	Other: Per	tococ		mg ,		
D.O. (if	req'd):		Pre-purge	_ 	Post-purge:	0.940	^{mg} / ₁		
O.R.P. (i			Pre-purge		Post-purge:	(400\ F70	mV		
Blaine 1	Tech Serv	ices, Inc	:. 1680 Roger	's Ave., San Jo	se, CA 95112	(408) 573	-0000		

ARCO / BP WELL MONITORING DATA SHEET

BTS#: 火	41019-M	TI		Station # ///24							
Sampler:				Date: 10/19/04							
Well I.D.:				Well Diameter: ② 3 4 6 8							
Total Well		10.30	<u> </u>	Depth to Water: 9.45							
Depth to F	 			Thickness of Free Product (feet):							
Reference	·	€¥©	Grade	D.O. Meter	(if req'd)):	YSI	НА	CH		
Purge Metho	Dis Positiv Elec Ex	Bailer sposable Baile e Air Displace tric Saumersi traction Pum	0.04 0.16 0.37 er ement ble	Vell Dinmeter 4" 6" Other Sampling Metl	Disp						
Top of Scree	in:		If well is listed as of screen. Otherw X Specified Ve	ise, the well mu		d. Gals.	elow ti	ne top			
Time	Temp (°F)	pH (C.)	Conductivity (mS or µS)	Gals. Remov	, 	servations	-				
	I,su	HICANT	water t	Purge	4 SCIR	ipit.					
Did well	dewater?	Yes)	,No	Gallons act	ually ev	acuated:	· ,				
Sampling	Time:			Sampling I) ate: 10	19/04					
Sample I.	D.: Mw- :	2/		Laborator	Pace	Sequoia	0	ther			
Analyzed	for: @	Q (TEX	MIBI DRO	Other: A		ca					
D.O. (if re	eq'd):		Pre-purge	»:	^{ing} /L	Post-purge:		:	nig/		
O.R.P. (if	req'd):		Pre-purge	51	mV	Post-purge:			lm/		

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

ARCO / BP WELL MONITORING DATA SHEET

	41019-	UTI		Station # 1/124							
Sampler:				Date: 10/19/04							
	Nw.4	<u> </u>		Well Diameter: 2 3 4 6 8							
Total Well		31.35		Depth to Water: 9.55							
	Free Produ			Thickness of Free Product (feet):							
Reference		(PVC)	Grade	D.O. Meter (if req'd)	: ((YS)	HACH	I		
Purge Metho	Di	Bailer sposable Bail	0.04 0.16 0.37 ≳F	ell Diameter 4" 6" Other r Sampling Metho	Dispo	Bailer sable Bailer action Port					
Top of Scree	Elec E	e Air Displac ciric Submersi xtraction Pum	ble p ———— If well is listed as a	ı no-purge, confi	er:	iter level is		e top			
ļ		5 ume (Gals.)	of screen. Otherwing X	<u></u>	10. 5 Calculated	Gals.					
Time	Temp (°F)	pl·I	Conductivity (mS or µS)	Gals. Remov	ed Obs	servations					
1000	70.0	7.3	1270	3.5							
1004	65.60	7.0	1257	7	-						
1010	65.9	7.0	1257	10.5							
Did well	dewater?	Yes	6	Gallons actu		ncuated:	19.5				
	Time	1015		Sampling D	ate: 10/	19/04			<u></u>		
Sampling	3 11110.	1		_		-					
<u></u>	.D.: MW -	4		Laboratory:	Pace	Sequoia	Otl	lei			
<u></u>	.D.: MW -	D TEX	MTBE DRO	Other: Res	ero	COC			1111		
Sample I	.D.: UW- l for: (]		DRO Pre-purge	Other: Ras	Pace Pace Pace	Post-purg	e: 0. 2	32	int III		

BP GEM OIL COMPANY TYPE A BILL OF LADING

BILL OF LADING FOR NON-RECORD SOURCE **PURGEWATER** RECOVERED FROM **HAZARDOUS** GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is PLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility; from a BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This Source Record BILL OF LADING was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

•		
11174		
Station #		
3315 High St. Date	land, COL	
Station Address		
Total Gallons Collected From Gro	undwater Monitori	ng Wells:
added equip.	any other	
added equip. rinse water	adjustments	
TOTAL GALS. 30 god	loaded onto BTS vehicle # _	62
BTS event #	time	date
oflag-nTl		117 101
signature	· · · · · ·	
****	****	* * * * * * * *
REC'D AT	time	date
		_//
unloaded by		
signature		

LABORATORY PROCEDURES

Laboratory Procedures

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by RM have been reviewed and verified by that laboratory.



3 November, 2004

Barbara Jakub URS Corporation [Arco] 1333 Broadway, Suite 800 Oakland, CA 94612

RE: BP Heritage #11124, Oakland ,CA

Work Order: MNJ0607

Enclosed are the results of analyses for samples received by the laboratory on 10/20/04 17:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race

Senior Project Manager

CA ELAP Certificate #1210





•		
URS Corporation [Arco]	Project:BP Heritage #11124, Oakland ,CA	MNJ0607
1333 Broadway, Suite 800	Project Number:-	Reported:
Oakland CA, 94612	Project Manager: Barbara Jakub	11/03/04 11:00
l		

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MNJ0607-01	Water	10/19/04 10:35	10/20/04 17:35
MW-4	MNJ0607-02	Water	10/19/04 10:15	10/20/04 17:35
TB10190411124	MNJ0607-03	Water	10/19/04 00:00	10/20/04 17:35

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies. These samples were received with no custody seals.





Project:BP Heritage #11124, Oakland ,CA Project Number:-

MNJ0607 Reported:

Project Manager:Barbara Jakub

11/03/04 11:00

Volatile Organic Compounds by EPA Method 8260B Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-1 (MNJ0607-01) Water S	Sampled: 10/19/04 10:35	Received:	10/20/04	17:35					
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J28002	10/28/04	10/28/04	EPA 8260B	
Benzene	ND	0.50	u u	n	m	II .	**	II .	
tert-Butyl alcohol	ND	20	n	"	17	п	**	II .	
Di-isopropyl ether	ND	0.50	"	"	11	II	*	п	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	н	H	II .	
1,2-Dichloroethane	ND	0.50	71	**	"	11	н	н	
Ethanol	ND	100	**	н	**	**	П	"	
Ethyl tert-butyl ether	ND	0.50	**	19	n	"	ш	**	
Ethylbenzene	ND	0.50	н	**	н	"	п	**	
Methyl tert-butyl ether	14	0.50	**	**	ш	n	11	**	
Toluene	ND	0.50	**	*	11	н	11	**	
Xylenes (total)	ND	0.50	**	U	n	11	**	**	
Gasoline Range Organics (C4-C1)	2) ND	50	P	и	n	"	"	**	
Surrogate: 1,2-Dichloroethane-de	4	123 %	78-	129	"	,,	#	п	
MW-4 (MNJ0607-02) Water S	Sampled: 10/19/04 10:15	Received:	10/20/04	17:35					
tert-Amyl methyl ether	ND	0.50	ug/l	1	4J28002	10/28/04	10/28/04	EPA 8260B	
Benzene	ND	0.50	11	17	It	II	**	It	
tert-Butyl alcohol	ND	20	н	**	**	11	#	II	
Di-isopropyl ether	ND ·	0.50	**	*	**	н	н	п	
1,2-Dibromoethane (EDB)	ND	0.50	••	*	H	**	ш	"	
1,2-Dichloroethane	ND	0.50	*	*	н	11	U	"	
Ethanol	ND	100	H	*	н	*	li .	•	
Ethyl tert-butyl ether	ND	0.50	**	**	II	н	n	n	
Ethylbenzene	ND	0.50	**	н	п	17	**	n	
Methyl tert-butyl ether	ND	0.50	**	tt	n	"	"	**	
Toluene	ND	0.50	tt		**	•		**	
Xylenes (total)	ND	0.50	н	п	**	**	m	n	
Gasoline Range Organics (C4-C1)	2) ND	50	н	ŋ	"	n	11	H	
Surrogate: 1,2-Dichloroethane-de	1	121 %	78-	129	#	"	"	u .	



Project:BP Heritage #11124, Oakland ,CA

Project Number:-

Project Manager:Barbara Jakub

MNJ0607 Reported: 11/03/04 11:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J28002 - EPA 5030B P/T /	EPA 8260B		-							
Blank (4J28002-BLK1)				Prepared	& Analyze	ed: 10/28/	04			
tert-Amyl methyl ether	ND	0,50	ug/l							
Benzene	ND	0.50	10							
tert-Butyl alcohol	ND	20	••							
Di-îsopropyl ether	ND	0.50	**							
1,2-Dibromoethane (EDB)	ND	0.50	**							
1,2-Dichloroethane	ND	0.50	#							
Ethanol	ND	100	H							
Ethyl tert-butyl ether	ND	0.50	*							
Ethylbenzene	ND	0.50	Ħ							
Methyl tert-butyl ether	ND	0.50	71							
Toluene	ND	0.50	**							
Xylenes (total)	ND	0.50	**							
Gasoline Range Organics (C4-C12)	ND	. 50	**							
Surrogate: 1,2-Dichloroethane-d4	6.07	P. L. A.	'n	5.00		121	78-129			
Laboratory Control Sample (4J28002-	·BS1)			Prepared	& Analyze	d: 10/28/	04			
tert-Amyl methyl ether	9.02	0.50	ug/l	10.0		90	82-140			
Benzene	8.02	0.50	п	10.0		80	69-124			
tert-Butyl alcohol	55.2	20	II .	50.0		110	56-131			
Di-isopropyl ether	8.25	0.50	п	10.0		82	76-130			
1,2-Dibromoethane (EDB)	10.5	0.50	н	10.0		105	77-132			
1,2-Dichloroethane	8.92	0.50	n	10.0		89	77-136			
Ethanol	275	100	11	200		138	31-143			
Ethyl tert-butyl ether	8.52	0.50	"	10.0		85	81-121			
Ethylbenzene	10.8	0.50	**	10.0		108	84-132			
Methyl tert-butyl ether	8.01	0.50	**	10.0		80	63-137			
Toluene	11.2	0.50		10.0		112	78-129			
Xylenes (total)	33.8	0.50	"	30.0		113	83-137			
Surrogate: 1,2-Dichloroethane-d4	5.80		"	5.00		116	78-129			-



Project:BP Heritage #11124, Oakland ,CA Project Number:-

Project Manager:Barbara Jakub

MNJ0607 Reported: 11/03/04 11:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Batch 4J28002 - EPA 5030B P/T / EPA 8260B Benzene 5.24 0.50 ug/l 6.40 82 69-124 Ethylbenzene 7.76 0.50 " 7.52 103 84-132 Methyl tert-butyl ether 8.30 0.50 " 9.92 84 63-137 Toluene 31.4 0.50 " 31.9 98 78-129 Xylenes (total) 38.6 0.50 " 36.6 105 83-137 Gasoline Range Organics (C4-C12) 395 50 " 440 90 70-124 Surrogate: 1,2-Dichloroethane-d4 5.91 " 5.00 118 78-129 Laboratory Control Sample Dup (4J28002-BSD1) Benzene 8.09 0.50 " 10.0 87 82-140 4 20 Benzene 8.09 0.50 " 10.0 81 69-124 0.9 20 Ethylbenzene 8.07 0.50 " 10.0 81 76-130 2 20 1,2-Dichloroethane (EDB) 10.8 0.50 " 10.0 81 77-132 3 20 1,2-Dichloroethane 8.97 0.50 " 10.0 81 77-132 3 20 1,2-Dichloroethane 8.97 0.50 " 10.0 81 77-132 3 20 1,2-Dichloroethane 8.97 0.50 " 10.0 81 77-132 3 20 1,2-Dichloroethane 8.97 0.50 " 10.0 81 77-132 3 20 1,2-Dichloroethane 8.97 0.50 " 10.0 81 77-132 3 20 1,2-Dichloroethane 8.97 0.50 " 10.0 81 77-132 3 20 1,2-Dichloroethane 8.97 0.50 " 10.0 84 63-137 Ethylbenzene 10.2 0.50 " 10.0 85 81-121 0.5 20 Ethyl tert-butyl ether 8.48 0.50 " 10.0 84 63-137 4 20 Ethylenzene 9.68 0.50 " 10.0 84 63-137 4 20 Methyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 Surrogate: 1,2-Dichloroethane-d4 3.89 " 5.00 10 8 77-132 5 20 Ethylbenzene 9.68 0.50 " 10.0 84 63-137 4 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 11 8 78-129 Ethylbenzene 8.64 0.50 " 10.0 84 63-137 4 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 11 8 78-129 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Matrix Spike (4J28002-MS1) Source: MNI0601-01 Benzene 8.64 0.50 " 7.52 ND 115 84-132 Ethylbenzene 9.03 0.50 " 9.92 1.1 80 63-137 Ethylbenzene 9.03 0.50 " 9.92 1.1 80 63-137 Ethylbenzene 9.03 0.50 " 9.92 1.1 80 63-137 Ethylbenzene 9.03 0.50 " 9.02 1.1 80 63-137 Ethylbenzene 9.03 0.50 " 9.02 1.1 80 63-137	Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Prepared & Analyzed: 10/28/04 September S.24 0.50 ug/l 6.40 82 69-124 September S.24 0.50 ug/l 6.40 September S.24 63-137 September September S.24 0.50 ug/l September S.24 September Se		<u></u>						.			
Benzane					Prepared a	& Analyz	ed: 10/28/	04	 		
Methyl tert-butyl ether 8.30 0.50 " 9.92 84 63-137 Methyl tert-butyl ether 31.4 0.50 " 31.9 98 78-129 Mylenes (total) 38.6 0.50 " 36.6 105 83-137 Mylenes (total) 38.6 0.50 " 36.6 105 83-137 Mylenes (total) 395 50 " 440 90 70-124 Mylenes (total) 395 50 " 440 90 70-124 Mylenes (total) 395 50 " 440 90 70-124 Mylenes (total) 395 50 " 440 40 90 70-124 Mylenes (total) 395 50 " 440 40 90 70-124 Mylenes (total) 395 50 " 440 40 90 70-124 Mylenes (total) 395 50 " 440 40 190 70-124 Mylenes (total) 30.5 0.50 0 0 0.50 0 0 0.50 0 0 0.50 0 0 0.50 0 0 0.50 0 0 0	Benzene		0.50	ug/l	6.40	-	82	69-124			
Toluene 31.4 0.50 " 31.9 98 78-129 Xylenes (total) 38.6 0.50 " 36.6 105 83-137 Gasoline Range Organics (C4-C12) 395 50 " 440 90 70-124 Surrogate: 1,2-Dichloroethane-d4 5.91 " 5.00 118 78-129 Lett-Amyl methyl ether 8.70 0.50 ug/l 10.0 87 82-140 4 20 Benzene 8.09 0.50 " 10.0 81 69-124 0.9 20 Liert-Butyl alcohol 53.8 20 " 50.0 108 56-131 3 20 Di-isopropyl ether 8.07 0.50 " 10.0 81 76-130 2 20 Lj.2-Dichloroethane (EDB) 10.8 0.50 " 10.0 81 76-130 2 20 Lj.2-Dichloroethane (EDB) 10.8 0.50 " 10.0 90 77-136 0.6 20 Lj.2-Dichloroethane (EDB) 10.8 0.50 " 10.0 90 77-136 0.6 20 Ethyl tert-butyl ether 8.48 0.50 " 10.0 85 81-121 0.5 20 Ethyl tert-butyl ether 8.35 0.50 " 10.0 85 81-121 0.5 20 Methyl tert-butyl ether 8.35 0.50 " 10.0 97 78-129 15 20 Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Matrix Spike (4J28002-MS1) Source: MNJ061-01 Prepared & Analyzed: 10/28/04 Ethyl tert-butyl ether 9.03 0.50 " 5.00 115 81-132 Methyl tert-butyl ether 9.03 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 9.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 9.92 1.1 80 63-137 Gasoline Range Organics (C4-C12) 343 50 " 4440 15 75 70-124	Ethylbenzene	7.76	0.50	п	7.52		103	84-132		•	
Sylenes (total) 38.6 0.50 " 36.6 105 83-137 Gasoline Range Organics (C4-C12) 395 50 " 440 90 70-124	Methyl tert-butyl ether	8.30	0.50	п	9.92		84	63-137			
Casoline Range Organics (C4-C12) 395 50 " 440 90 70-124	Toluene	31.4	0.50	n	31.9		98	78-129			
Surrogate: 1,2-Dichloroethane-dd 5.91	Xylenes (total)	38.6	0.50		36.6		105	83-137			
Prepared & Analyzed: 10/28/04 10.0 87 82-140 4 20 20 20 20 20 20 2	Gasoline Range Organics (C4-C12)	395	50	II .	440		90	70-124			
Rert-Amyl methyl ether 8.70 0.50 ug/l 10.0 87 82-140 4 20	Surrogate: 1,2-Dichloroethane-d4	5.91		"	5.00		118	78-129			*
Benzene 8.09 0.50 " 10.0 81 69-124 0.9 20 letr-Butyl alcohol 53.8 20 " 50.0 108 56-131 3 20 letr-Butyl alcohol 53.8 20 " 50.0 108 56-131 3 20 letr-Butyl alcohol 53.8 20 " 50.0 108 56-131 3 20 letr-Butyl alcohol 8.07 0.50 " 10.0 81 76-130 2 20 letr-Butyl alcohol 10.8 0.50 " 10.0 108 77-132 3 20 letr-Butyl alcohol 227 100 " 200 114 31-143 19 20 lethyl bether 8.48 0.50 " 10.0 85 81-121 0.5 20 lethyl bether 8.48 0.50 " 10.0 85 81-121 0.5 20 lethyl bether 8.35 0.50 " 10.0 85 81-121 0.5 20 lethyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 lethyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 lethyl tert-butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 15 20 lethyl letr-Butyl ether 9.68 0.50 " 10.0 87 78-129 lethyl letr-Butyl ether 9.03 0.50 " 10.0 88 84 84-132 lethyl letr-Butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 lethyl letr-Butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 127 78-129 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ethyl letr-Butyl ether 9.03 0.50 " 31.9 ND 120 83-137 lethyl letr-Butyl ethyl letr-Butyl	Laboratory Control Sample Dup (4J280	02-BSD1)			Prepared	& Analyz	ed: 10/28/	04			
Section Sect	tert-Amyl methyl ether	8,70	0.50	ug/l	10.0		87	82-140	4	20	
Di-isopropyl ether 8.07 0.50 " 10.0 81 76-130 2 20 1,2-Dibromoethane (EDB) 10.8 0.50 " 10.0 108 77-132 3 20 1,2-Dibromoethane (EDB) 10.8 0.50 " 10.0 90 77-136 0.6 20 Ethanol 227 100 " 200 114 31-143 19 20 Ethyl tert-butyl ether 8.48 0.50 " 10.0 85 81-121 0.5 20 Ethylbenzene 10.2 0.50 " 10.0 102 84-132 6 20 Methyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 Toluene 9.68 0.50 " 10.0 97 78-129 15 20 Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Benzene	8.09	0.50	**	10.0		81	69-124	0.9	20	
1,2-Dibromoethane (EDB) 10.8 0.50 11.0.0 10.8 77-132 3 20 1,2-Dichloroethane 8.97 0.50 110.0 90 77-136 0.6 20 Ethanol 227 100 10.0 10.0 85 81-121 0.5 20 Ethyl tert-butyl ether 8.48 0.50 110.0 85 81-121 0.5 20 Ethylbenzene 10.2 0.50 110.0 85 81-121 0.5 20 Ethylbenzene 10.2 0.50 110.0 85 81-121 0.5 20 Ethylbenzene 10.0 85 81-121 0.5 20 Ethylbenzene 10.0 84 63-137 4 20 Foluene 9.68 0.50 10.0 97 78-129 15 20 Exylenes (total) 30.5 0.50 10.0 97 78-129 15 20 Exylenes (total) 80 Exylenes (total) 80 Exylenes (total) 80 Exylenes (4J28002-MS1) 80 Exylenes 80 80 80 80 80 80 80 80 80 80 80 80 80	tert-Butyl alcohol	53.8	20	**	50.0		108	56-131	3	20	
1,2-Dichloroethane	Di-isopropyl ether	8.07	0.50	**	10.0		81	76-130	2	20	
Ethanol 227 100 " 200 114 31-143 19 20 Ethyl tert-butyl ether 8.48 0.50 " 10.0 85 81-121 0.5 20 Ethyl benzene 10.2 0.50 " 10.0 102 84-132 6 20 Methyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 Toluene 9.68 0.50 " 10.0 97 78-129 15 20 Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Ethyl benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethyl benzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	1,2-Dibromoethane (EDB)	10.8	0.50	"	10.0		108	77-132	3	20	
Ethyl tert-butyl ether 8.48 0.50 " 10.0 85 81-121 0.5 20 Ethylbenzene 10.2 0.50 " 10.0 102 84-132 6 20 Methyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 Toluene 9.68 0.50 " 10.0 97 78-129 15 20 Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Ethylbenzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	1,2-Dichloroethane	8.97	0.50	"	10.0		90	77-136	0.6	20	
Ethylbenzene 10.2 0.50 " 10.0 102 84-132 6 20 Methyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 Toluene 9.68 0.50 " 10.0 97 78-129 15 20 Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Ethanol	227	100	n	200		114	31-143	19	20	
Methyl tert-butyl ether 8.35 0.50 " 10.0 84 63-137 4 20 Toluene 9.68 0.50 " 10.0 97 78-129 15 20 Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Ethyl tert-butyl ether	8.48	0.50	11	10.0		85	81-121	0.5	20	
Toluene 9.68 0.50 " 10.0 97 78-129 15 20 Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124 Toluene 40.4 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124 Toluene 70.00 70.00 70.00 Toluene 70.00 Toluene 70.00 70.00 Toluene 70.00 70.00	Ethylbenzene	10.2	0.50	н	10.0		102	84-132	6	20	
Xylenes (total) 30.5 0.50 " 30.0 102 83-137 10 20 Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 10/28/04 Benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Methyl tert-butyl ether	8.35	0.50	11	10.0		84	63-137	4	20	
Surrogate: 1,2-Dichloroethane-d4 5.89 " 5.00 118 78-129 Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Toluene	9.68	0.50	**	10.0		97	78-129	15	20	
Matrix Spike (4J28002-MS1) Source: MNJ0601-01 Prepared & Analyzed: 10/28/04 Benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Xylenes (total)	30.5	0.50	**	30.0		102	83-137	10	20	
Benzene 5.20 0.50 ug/l 6.40 ND 81 69-124 Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Surrogate: 1,2-Dichloroethane-d4	5.89		n	5.00	,	118	78-129			
Ethylbenzene 8.64 0.50 " 7.52 ND 115 84-132 Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Matrix Spike (4J28002-MS1)	Source: M	INJ0601-01		Prepared	& Analyz	ed: 10/28/	04			
Methyl tert-butyl ether 9.03 0.50 " 9.92 1.1 80 63-137 Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Benzene	5.20	0.50	ug/l	6.40	ND	81	69-124			
Toluene 40.4 0.50 " 31.9 ND 127 78-129 Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Ethylbenzene	8.64	0.50	и	7.52	ND	115	84-132			
Xylenes (total) 43.9 0.50 " 36.6 ND 120 83-137 Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Methyl tert-butyl ether	9.03	0.50		9.92	1.1	80	63-137			
Gasoline Range Organics (C4-C12) 343 50 " 440 15 75 70-124	Toluene	40.4	0.50	п	31.9	ND	127	78-129			
	Xylenes (total)	43.9	0.50		36.6	ND	120	83-137			
Surrogate: 1,2-Dichloroethane-d4 5.91 " 5.00 118 78-129	Gasoline Range Organics (C4-C12)	343	50	"	440	15	75	70-124			
	Surrogate: 1,2-Dichloroethane-d4	5.91		"	5.00		118	78-129			





Project:BP Heritage #11124, Oakland ,CA Project Number:-

MNJ0607 Reported:

Project Manager:Barbara Jakub

11/03/04 11:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4J28002 - EPA 5030B P/T / E	PA 8260B									
Matrix Spike Dup (4J28002-MSD1)	Source: M	NJ0601-01		Prepared	& Analyz	ed: 10/28/	04			
Benzene	5.30	0.50	ug/l	6.40	ND	83	69-124	2	20	
Ethylbenzene	7.87	0.50	"	7.52	ND	105	84-132	9	20	
Methyl tert-butyl ether	9.46	0.50	**	9.92	1.1	84	63-137	5	20	
Toluene	32.3	0.50	"	31.9	ND	101	78-129	22	20	R
Xylenes (total)	38.2	0.50	"	36.6	ND	104	83-137	14	20	
Gasoline Range Organics (C4-C12)	3.67	50	**	440	15	80	70-124	7	20	
Surrogate: 1,2-Dichloroethane-d4	6.08		"	5.00		122	78-129			





URS Corporation [Arco] Project:BP Heritage #11124, Oakland ,CA MNJ0607
1333 Broadway, Suite 800 Project Number:- Reported:
Oakland CA, 94612 Project Manager:Barbara Jakub 11/03/04 11:00

Notes and Definitions

RB RPD exceeded method control limit; % recoveries within limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Page_	<u> </u>	f	Į

Temp:



Chain of Custody Record

Project Name GWM BP BU/GEM CO Portfolio Retail

MD30407

BP Laboratory Contract Number: Atlantic Richfield Confpany

Requested Due Date (mm/dd/yy) 14 day TAT

Sky Conditions: Meteorological Events:

Off- site Time:

On-site Time: 7730 Temp: 690

Wind Speed: Direction: Send To: BP/GEM Facility No.: 11124 Consultant/Contractor: URS SEQUOIA Address: 1333 Broadway, Suite 800 ab Name: BP/GEM Facility Address: 3315 High St., Oakland, CA ab Address: 885 Jarvis Dr. Site ID No. 11124 Oakland, CA 94612 Morgan Hill, CA 95037 Site Lat/Long: -mail EDD: donna cospen@URSCorp.com Colifornia Global ID#: > 700000239 Consultant/Contractor Project No.: BP/GEM PM Contact: Consultant Tele/Pax: 510-893-3600/510-874-3268 ab PM Lisa Race Kyle Christie Consultant/Contractor PM: Barb Jakob. Tele/Pax: 408-776-9600 / 408-782-6308 \ddress: P.O. Box 6549 Invoice to: Consultant/Contractor of BP/GEM_Circle one) Report Type & QC Level: I Send BDF Reports Moraga, CA 94570 BP/GEM Work Release No: BP/GEM Account No.: 400-6-21124 Tele/Fax: 925-299-8891/925-299-8872 Lab Bottle Onler No: Matrix. Preservatives Requested Analysis Sample Description Time Lahoratory No. Comments

Water/Liquic Unpreserved Sample Point Lat/Long and Soil/Solid Item No. N.SO. 1035 Mw-3 1015 ob 11W. A ע'י TB10170411124 ON HOLD 4 5 6 7 8 9 Sampler's Name: 14,19-10 Accepted By / Affiliatio 10/26/14/10:07 Sampler's Company: 📆

Shipment Date: Shipment Method: Shipment Tracking No:

Special Instructions: Address Invoice to BP/GEM but send to URS for anaroyal

Temperature Blank Yes No Custody Seals In Place Yes

Cooler Temperature on Receipt

Trip Blank Yes

o_{F/C}

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: REC, BY (PRINT) WORKORDER:	BP: 1(124 70 . M10304	νY	-	DATE REC'D AT LAB: TIME REC'D AT LAB: DATE LOGGED IN:	1735. 10 (Far		lring pro	eservation	DRINKING WASTE WA phecks at rec	ATER YES / NO reipt, document here 1)
CIRCLE THE APPROP	RIATE RESPONSE	LAS SAMPLE#.	DASH #	CLIENT (D	CONTAINER DESCRIPTION		рН .		DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent Intact / Broken*	• • V	A.C	MW-1 '	V9/ (31	. HOI		⁸ - L J	1311/04	-
2. Chain-of-Custody	Resent / Absent*	69	AB	T8 1019 04-91124	<u> </u>	4	+	*	₩	
3, Traffic Reports or						<u> </u>				
Packing List:	Present / Absent	· · · · · · · · · · · · · · · · · · ·						_		
4. Alabill:	Airbill / Sticker Present / Absent		. <u></u> (~ ~~ _	·		
5. Airbill #:	Present / Ausent		•							
6. Sample Labels:	Present / Absent						· · · · ·			
7. Sample IDs:	Listed / Not Listed									-
. Campio iso.	on Chain-of-Custody			- 1				-/		
8. Sample Condition:	Intabj / Broken*/									
9. Does information on cl	Leaking* -								}	
traffic reports and san		···				オント		·		
sõtee;sun asu	Aee / No.				- /2(1)					_ -
10. Sample received within	7,007,100								·	
hold time?	. (Yes/Not									
11. Adequate sample volum					**				,	
received?	(Yes I No*									
12. Proper Preservatives									•	
usod?	Yes/No*						- 1			
13. Trip Black / Temp Black							[
"(circle which, if yes)	Yes / No*									
14. Temp Rec. at Lab:	34									
Is temp 4 +/-2°C?	Y95/No**		/							
(Acceptance range for samples ted		·	<u>Z:</u>	·						
**Exception (if any): METAL	ls / DFF on ICE									
or Problem COC		777 P 787 13 13 13 13 13 13 13 13 13 13 13 13 13	ISSAU PARA	ONTACT PROJECT M/		STORY DON'T	100 War 100			

SRL Revision 6
Paplaces Roy 5 (08/07/04)
Filective 07/19/14

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found! Your file has been successfully submitted!

Submittal Title:

Fourth Quarter 2004 QMR Site

#11124

Submittal Date/Time: 11/17/2004 6:11:01 PM

Confirmation

6399825870

Number:

Back to Main Menu

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 2939093351

Date/Time of Submittal: 11/17/2004 6:05:34 PM

Facility Global ID: T0600100919

Facility Name: BP

Submittal Title: Fourth Quarter 2004. Site #11124

Submittal Type: GW Monitoring Report

Click here to view the detections report for this upload.

3315 HIGH ST OAKLAND, CA		SAN FRANC Local Agency	ard - Case #: 01-09 ISCO BAY RWQC y (lead agency) - C COUNTY LOP - (R	EB (REGION 2) - (BG) ase #: 1075
CONF # 2939093351				QUARTER Q4 2004
submitted by Srijesh Thapa	:	<u>SUBMIT DATE</u> 11/17/2004	<u>status</u> PENDING F	REVIEW
SAMPLE DETE	ECTIONS	REPORT		
# FIELD POINTS !		7,21 0111		2
# FIELD POINTS		ECTIONS		1
			CTIONS ABOVE MCL	0
SAMPLE MATRIX				WATER
- 8260FA REQU	UIRED ANA METERS N JIRES DBFI JIRES BR4I JIRES BZM	ALYTES? IOT TESTED: M TO BE TESTED FBZ TO BE TESTE IED8 TO BE TESTE	D	8260FA N Y
QA/QC FOR	8021/8	3260 SERIE	S SAMPLES	<u></u>
TECHNICAL HOLD	ING TIME	VIOLATIONS		0
METHOD HOLDIN	G TIME VI	OLATIONS		0
		SOVE REPORTING	DETECTION LIMIT	0
LAB BLANK DETEC				0
DO ALL BATCHES		8021/8260 SER	IES INCLUDE THE FO	
	3LANK			Υ
- LAB METHOD E				Y
- MATRIX SPIKE				
- MATRIX SPIKE - MATRIX SPIKE		ΪĖ		Y
- MATRIX SPIKE - MATRIX SPIKE - BLANK SPIKE	DUPLICAT	Ē		Y
- MATRIX SPIKE - MATRIX SPIKE	DUPLICAT	Ē		<i>'</i>
- MATRIX SPIKE - MATRIX SPIKE - BLANK SPIKE	DUPLICAT		FRIFS	Y

MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) RPD LESS	THAN 30%	Ą
SURROGATE SPIKES % RE	COVERY BETWEEN 85-115%		N
BLANK SPIKE / BLANK SPI	KE DUPLICATES % RECOVERY	BETWEEN 70-130%	N
SOIL SAMPLES FOR	8021/8260 SERIES		
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(\$) % RECOV	ERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX S	PIKE DUPLICATE(S) RPD LESS	THAN 30%	n/a
•	PIKE DUPLICATE(S) RPD LESS COVERY BETWEEN 70-125%	THAN 30%	n/a n/a
SURROGATE SPIKES % RE	· ·		
SURROGATE SPIKES % RE	COVERY BETWEEN 70-125%		n/a
SURROGATE SPIKES % RE BLANK SPIKE / BLANK SPI	COVERY BETWEEN 70-125%		n/a n/a
SURROGATE SPIKES % RE BLANK SPIKE / BLANK SPI FIELD QC SAMPLES	COVERY BETWEEN 70-125% KE DUPLICATES % RECOVERY	BETWEEN 70-130%	n/a n/a
SURROGATE SPIKES % RE BLANK SPIKE / BLANK SPI FIELD QC SAMPLES SAMPLE	COVERY BETWEEN 70-125% KE DUPLICATES % RECOVERY COLLECTED	BETWEEN 70-130%	n/a n/a

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

SUCCESSFUL EDF CHECK - NO ERRORS

ORGANIZATION NAME:

URS Corporation-Oakland

Office

USER NAME: DATE CHECKED: **URSCORP-OAKLAND**

11/17/2004 6:05:06 PM

GLOBAL ID:

T0600100919

FILE UPLOADED:

BP#11124-EDF-MNJ0607.zip

No errors were found in your EDF upload file.

If you want to submit this file to the SWRCB, choose the "Upload EDD" option in the above menu and follow the instructions.

When you complete the submittal process, you will be given a confirmation number for your submittal.

Click here to view the detections report for this upload.

BP Regional Board - Case #: 01-0996

3315 HIGH ST OAKLAND, CA 94619 SAN FRANCISCO BAY RWQCB (REGION 2) -

Local Agency (lead agency) - Case #: 1075 ALAMEDA COUNTY LOP - (RWS)

SAMPLE DETECTIONS REPORT

FIELD POINTS SAMPLED

1

FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL

Ω WATER

METHOD QA/QC REPORT

METHODS USED

SAMPLE MATRIX TYPES

8260FA

TESTED FOR REQUIRED ANALYTES?

MISSING PARAMETERS NOT TESTED:

- 8260FA REQUIRES DBFM TO BE TESTED
- 8260FA REQUIRES BR4FBZ TO BE TESTED
- 8260FA REQUIRES BZMED8 TO BE TESTED

LAB NOTE DATA QUALIFIERS

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS 0 METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 LAB BLANK DETECTIONS ۵

DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?

- LAB METHOD BLANK
- MATRIX SPIKE
- MATRIX SPIKE DUPLICATE
- BLANK SPIKE

Υ Y

- SURROGATE SPIKE			Y
WATER SAMPLES F	OR 8021/8260 SERIES		
MATRIX SPIKE / MATRIX 135%	SPIKE DUPLICATE(S) % RE	COVERY BETWEEN 65-	Y
MATRIX SPIKE / MATRIX	SPIKE DUPLICATE(S) RPD L	LESS THAN 30%	Ý
SURROGATE SPIKES % R	ECOVERY BETWEEN 85-115	5%	N
BLANK SPIKE / BLANK SP	IKE DUPLICATES % RECOV	ERY BETWEEN 70-130%	N
SURROGATE SPIKES % R	SPIKE DUPLICATE(S) RPD L ECOVERY BETWEEN 70-125 IKE DUPLICATES % RECOV	5%	n/a n/a n/a
FIELD QC SAMPLES			
SAMPLE	COLLECTED	<u>DETECTIONS > F</u>	REPDL
QCTB SAMPLES	N	0	
QCEB SAMPLES	N	0	
OCAB SAMPLES	N	0	

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

Main Menu | View/Add Facilities | Upload EDD | Check EDD

SUCCESSFUL EDF CHECK - NO ERRORS

URS Corporation-Oakland **ORGANIZATION NAME:**

Office

USER NAME: URSCORP-OAKLAND 11/17/2004 6:05:06 PM DATE CHECKED:

GLOBAL ID: T0600100919

FILE UPLOADED: BP#11124-EDF-MNJ0607.zip

No errors were found in your EDF upload file.

If you want to submit this file to the SWRCB, choose the "Upload EDD" option in the above menu and follow the instructions.

When you complete the submittal process, you will be given a confirmation number for your submittal.

Click here to view the detections report for this upload.

BP Regional Board - Case #: 01-0996

3315 HIGH ST SAN FRANCISCO BAY RWQCB (REGION 2) -

OAKLAND, CA 94619

Local Agency (lead agency) - Case #: 1075

ALAMEDA COUNTY LOP - (RWS)

SAMPLE DETECTIONS REPORT

- # FIELD POINTS SAMPLED
- # FIELD POINTS WITH DETECTIONS # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL
- SAMPLE MATRIX TYPES WATER

METHOD QA/QC REPORT

METHODS USED 8260FA

TESTED FOR REQUIRED ANALYTES?

MISSING PARAMETERS NOT TESTED:

- 8260FA REQUIRES DBFM TO BE TESTED
- 8260FA REQUIRES BR4FBZ TO BE TESTED 8260FA REQUIRES BZMED8 TO BE TESTED

LAB NOTE DATA QUALIFIERS

Υ

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS O METHOD HOLDING TIME VIOLATIONS 0 LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 0 LAB BLANK DETECTIONS

DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?

- Υ - LAB METHOD BLANK - MATRIX SPIKE Y - MATRIX SPIKE DUPLICATE
- Υ - BLANK SPIKE

- SURROGATE SPIKE			¥
WATER SAMPLES F	OR 8021/8260 SERIES	•	
MATRIX SPIKE / MATRIX 135%	SPIKE DUPLICATE(S) % RE	COVERY BETWEEN 65-	Y
MATRIX SPIKE / MATRIX	SPIKE DUPLICATE(S) RPD I	LESS THAN 30%	Υ
SURROGATE SPIKES % F	RECOVERY BETWEEN 85-11!	5%	N
BLANK SPIKE / BLANK SI	PIKE DUPLICATES % RECOV	ERY BETWEEN 70-130%	N
135% MATRIX SPIKE / MATRIX SURROGATE SPIKES % F BLANK SPIKE / BLANK S	SPIKE DUPLICATE(S) % RE SPIKE DUPLICATE(S) RPD I RECOVERY BETWEEN 70-12! PIKE DUPLICATES % RECOV	LESS THAN 30% I	n/a n/a n/a n/a
FIELD QC SAMPLES	S COLLECTED	DETECTIONS > RE	:DUI
OCTB SAMPLES	<u>COLLECTED</u> N	DETECTIONS > KE	<u>, r</u> ()
OCEB SAMPLES	N	0	
	- 11	•	

Logged in as URSCORP-OAKLAND (CONTRACTOR)

 ${\bf CONTACT~SITE~\underline{ADMINISTRATOR}.}$