### 3R - 035

## CLOSURE REQUEST

09 / 22 / 2010



P.O. Box 87, Bloomfield, New Mexico 87413

September 22, 2010

Mr. Glenn von Gonten, Senior Hydrologist New Mexico Oil Conservation Division-NMOCD Environmental Bureau 1220 St. Francis Drive Santa Fe, New Mexico 87505

RE: REQUEST FOR PERMANENT CLOSURE

BP America Production Company Groundwater Monitoring Report Jones A LS # 3, Unit G, Sec. 15, T28N, R8W, NMPM San Juan County, New Mexico

NMOCD Administrative/Environmental Order #: 3RP-35-0

Dear Mr. von Gonten:

BP America Production Company (BP) has retained Blagg Engineering, Inc. (BEI) to conduct environmental monitoring of groundwater at the Jones A LS # 3.

The last formal correspondence to NMOCD was conducted with letter dated, May 1, 2009. BP has followed its NMOCD approved groundwater management plan and is requesting permanent closure for this site.

If you have any questions concerning the enclosed documentation, please contact either myself or Jeffrey C. Blagg at (505) 632-1199. Thank you for your cooperation and assistance.

Respectfully submitted: **Blagg Engineering, Inc.** 

Nelson J. Velez Staff Geologist

Attachment: Groundwater Report (2 copies)

cc: Mr. Brandon Powell, Environmental Specialist, NMOCD District III Office, Aztec, NM Mr. Jeff Peace, Environmental Advisor, BP, Farmington, NM

### BP AMERICA PRODUCTION CO.

### GROUNDWATER REMEDIATION REPORT

JONES A LS #3 (G) SECTION 15, T28N, R8W, NMPM SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR:
NEW MEXICO OIL CONSERVATION DIVISION
1220 ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87504

**AUGUST 2010** 

PREPARED BY: BLAGG ENGINEERING, INC.

Consulting Petroleum / Reclamation Services P.O. Box 87 Bloomfield, New Mexico 87413

### BP AMERICA PRODUCTION COMPANY JONES A LS # 3 - Dehydrator Pit SW/4 NE/4, Sec. 15, T28N, R8W

Remediation via Excavation Date: 6/3/09

Monitor Well Installation Dates: 10/20/09 (MW # 2R)

Monitor Well Sampling Dates: 5/16/09, 10/26/09, 2/27/10, 5/11/10

### **Site History:**

A site dehydrator pit closure was initiated in March 2003. Potential groundwater impact was identified within the source area via installation of a monitor well in May 2004 (MW #2). Documentation for this work and subsequent groundwater monitoring data for the site have previously been submitted for New Mexico Oil Conservation Division (NMOCD) review. The reporting herein is for site monitoring from May 2009 to May 2010.

### **Groundwater Monitor Well Sampling Procedures:**

Each monitor well was developed by hand-bailing, using new disposable bailers after installation. Prior to sample collections, each monitor well was purged approximately three (3) well bore volumes with new disposable bailers. The groundwater samples were collected following US EPA: SW-846 protocol, were placed into laboratory supplied containers with appropriate preservative, and stored in an ice chest for express delivery to an analytical laboratory for testing under strict chain-of-custody procedures. Analytical testing for benzene, toluene, ethylbenzene, and total xylenes (**BTEX**) by US EPA Method 8021B or 8260 was conducted.

Fluids generated during monitor well development and purging were managed by discarding into the separator below-grade tank (BGT) located on the well site. The BGT contents were then disposed through approved NMOCD operational procedures for removal of produced fluids.

### Soil and Groundwater Abatement:

On June 3, 2009, excavation of the source area was conducted using a trackhoe (Figure 2). Groundwater depth was recorded at approximately twelve (12) feet below surface grade during the removal of impacted soils. The excavation perimeter was measured at approximately 22 X 28 X 13 feet depth with approximately seven (7) feet of non-impacted overburden. Approximately 84 cubic yards of soil were removed and transported to BP's Crouch Mesa Facility.

MW #2R was installed on October 20, 2009 and quarterly sampling was initiated thereafter. Boring log of MW #2R along with its well completion information is contained within this report.

### **Groundwater Quality & Flow Direction Information:**

MW #2R has tested below the New Mexico Water Quality Control Commission (**NMWQCC**) standards for four (4) consecutive sampling events. Down gradient delineation appears to have been achieved, based on test results of MW #3. A summary of BTEX laboratory analytical results is included within the table on the following page. Field data sheets, laboratory reports, and laboratory quality assurance/quality control information are also included.

Groundwater contour maps (Figure 3 through Figure 6) reveal the relative elevations from the site wells have consistently shown an apparent southwest flow direction toward MW #3.

### **Summary and/or Recommendations:**

Hydrocarbon impacted soils and groundwater at the site appear to have been remediated via excavation. All site monitor wells tested at non-detectable or below NMWQCC's standards for BTEX for at least four (4) consecutive sampling events; therefore, meeting sections 2.1, 2.3, and 2.7 of BP's Groundwater Management Plan (GMP). Permanent site closure is recommended. Following approval by the NMOCD, site monitor wells will be abandoned pursuant to the approved GMP.

### BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

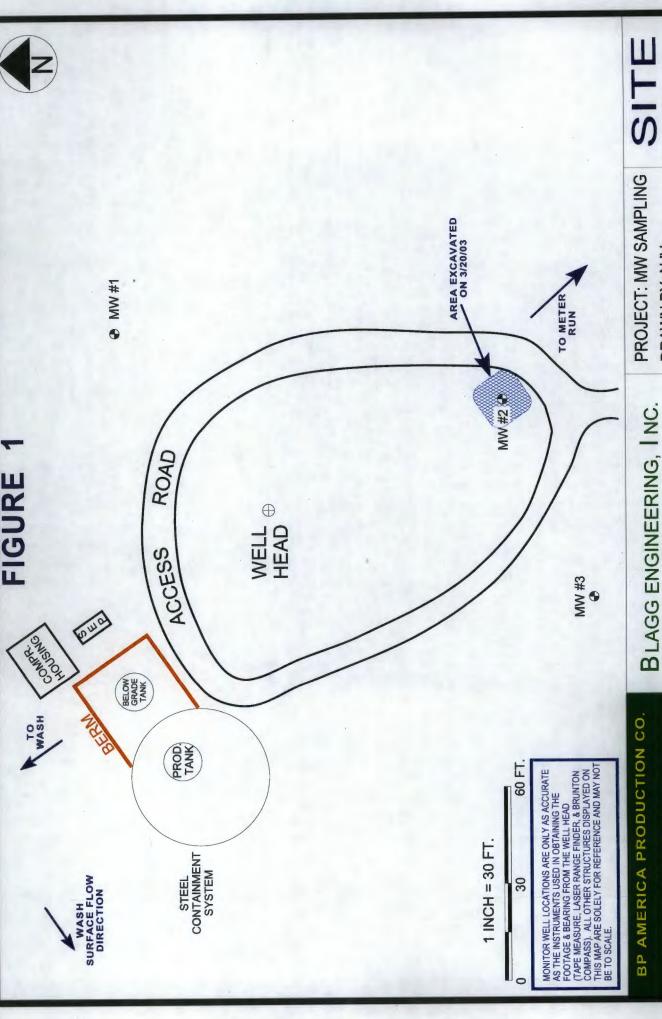
SUBMITTED BY BLAGG ENGINEERING, INC.

JONES A LS #3 - DEHY. PIT UNIT G, SEC. 15, T28N, R8W REVISED DATE: May 26, 2010 FILENAME: (J3-2Q10.WK4) NJV

•								BTEX	EPA METH	OD 8021B (	ppb)
SAMPLE DATE	WELL NAME or No.	D.T.W.	T.D.	TDS (mg/L)	COND.	рН	PRODUCT (ft)	Benzene	Toluene	Ethyl Benzene	Total Xylene
07-Jun-06	MW #1	11.04	20.00	828	1,100	7.08		ND	ND	ND	ND
23-Aug-06	WWW IF I	11.34	20.00	020	900	7.15		ND	ND	ND	ND
14-Jun-04	MW #2	10.78	20.00		2,400	7.14		290	780	52	470
29-Dec-04	WWW III	10.53	20.00		N/A	N/A		7.8	11	2.5	13
28-Mar-05		9.97			2,100	7.02		720	4,800	640	6,800
23-Jun-05		10.85			2,100	6.93		140	220	30	570
07-Jun-06		12.88	21.52	2,600	2,400	6.98		32	11	4.0	17
23-Aug-06		13.28			2,100	6.97		9.9	ND	1,2	3.9
16-Nov-06		12.25			2,400	6.96		24	18	4.9	20
25-Jan-07		11.01			900	7.34		4.0	4.3	1.4	7.9
25-Apr-07		12.05			2,300	7.06		8.4	4.7	2.2	10
19-Jul-07		13.15			2,200	6.91		60	35	7.3	32
09-Oct-07		11.98			2,200	6.95		4.8	12	3.7	22
01-Apr-08		11.45			2,300	7.01		3.5	1.3	1.7	5.3
26-Jun-08		12.19			1,400	7.21		18	6.6	5.3	22
25-Aug-08		13.01			2,100	7.04	115	63	46	14	37
16-May-09		11.70			1,100	7.55		9.1	ND	3.5	4.2
26-Oct-09		12.68			1,500	7.37		9.9	ND	13	ND
24-Feb-10		11.10			1,900	7.27		ND	ND	ND	ND
11-May-10		11.20			1,900	7.10		ND	ND	ND	ND
07-Jun-06	MW #3	12.59	20.06	2,310	2,300	7.00		ND	ND	ND	ND
23-Aug-06		13.01			1,900	7.03		ND	ND	ND	ND
16-Nov-06		11.94			2,000	6.98		1.1	ND	2.1	7.5
25-Jan-07		12.64			1,100	7.52		ND	ND	1.7	4.0
25-Apr-07		11.76		7	2,200	7.06		ND	ND	6.7	17
19-Jul-07		12.84			2,100	7.00		ND	ND	ND	ND
11-May-10		11.13	-		1,500	7.40		ND	ND	9.9	16
		NMW	QCC GF	ROUNDW	VATER S	TANDA	RDS	10	750	750	620

NOTES: 1) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS.

- 2) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED.
- 3) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10).
- 4) NMWQCC INDICATES NEW MEXICO WATER QUALITY CONTROL COMMISSION.



### FILENAME: JONES A LS 3-SM2.SKF DRAWN BY: NJV CONSULTING PETROLEUM / RECLAMATION SERVICES BLOOMFIELD, NEW MEXICO 87413

REVISED: 08-04-10 NJV

PHONE: (505) 632-1199

SAN JUAN COUNTY, NEW MEXICO

SW/4 NE/4 SEC. 15, T28N, R8W

JONES A LS # 3

P.O. BOX 87

05/09

METER AREA EXCAVATED ON 3/20/03 (15 ft. X 15 ft. X 10 ft.) AREA EXCAVATED ON 6/3/09
(22 ft. X 28 ft. X 13 ft.) with approx.
7 ft. of non impacted overburden and with 84 cubic yards removed & transported to BP's Crouch Mesa Facility. MW #2-HEAD WELL 0 MW #3 € ROAD WAY MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE & BEARING FROM THE WELL HEAD (TAPE MEASURE, LASER RANGE FINDER, & BRUNTON COMPASS). ALL OTHER STRUCTURES DISPLAYED ON THIS MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

FIGURE

PROD

BLAGG ENGINEERING, I NC.

BP AMERICA PRODUCTION CO.

JONES A LS # 3

CONSULTING PETROLEUM / RECLAMATION SERVICES

BLOOMFIELD, NEW MEXICO 87413 P.O. BOX 87

PHONE: (505) 632-1199

PROJECT: REMEDIATION **DRAWN BY: NJV** 

FILENAME: JONES A LS 3 -RM-1A.SKF REVISED: 08-07-09 NJV

SOIL/GROUNDWATER REMEDIATION SCHEMATIC

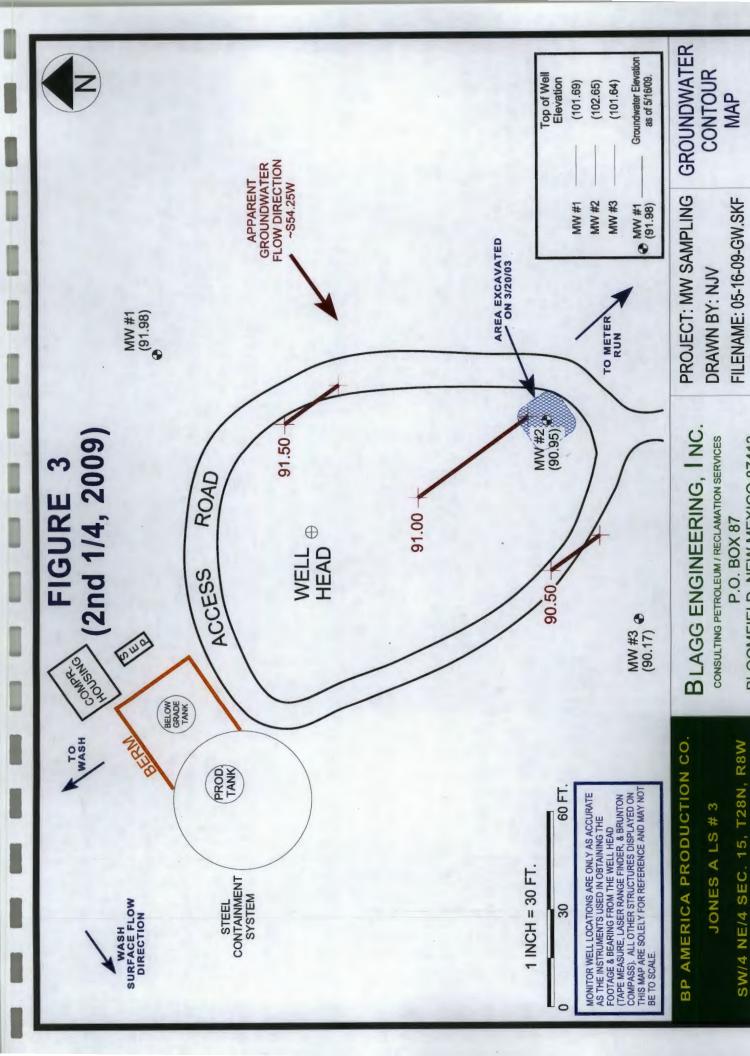
60 FT.

1 INCH = 30 FT

60/90

SAN JUAN COUNTY, NEW MEXICO

SW/4 NE/4 SEC. 15, T28N, R8W



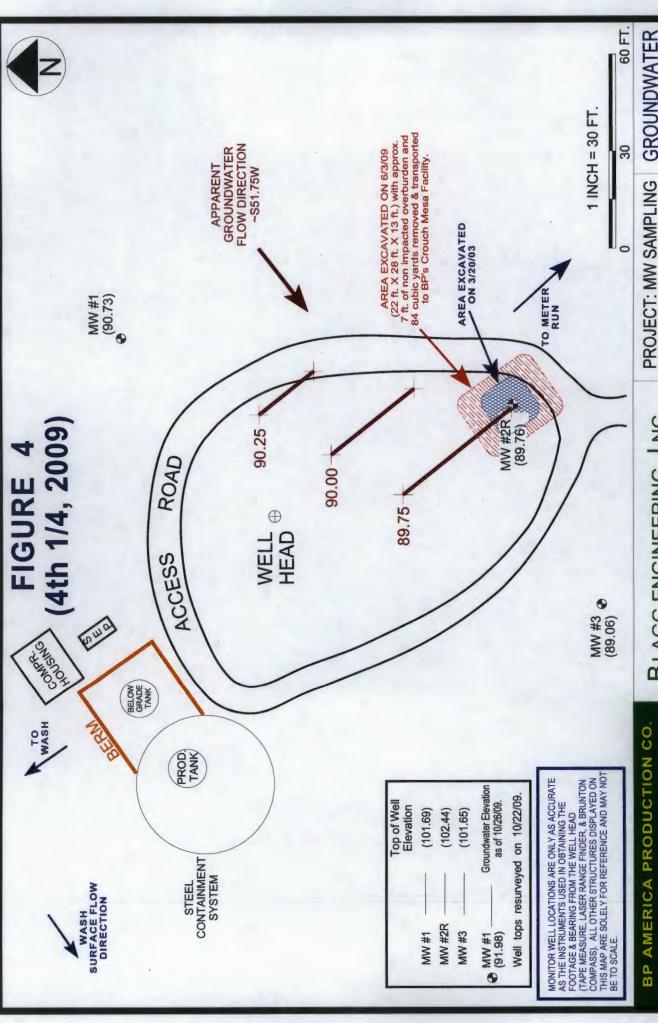
60/90

REVISED: 05-23-09 NJV

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

SAN JUAN COUNTY, NEW MEXICO



JONES A LS#3

SW/4 NE/4 SEC. 15, T28N, R8W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, I NC. CONSULTING PETROLEUM / RECLAMATION SERVICES

BLOOMFIELD, NEW MEXICO 87413 P.O. BOX 87

PHONE: (505) 632-1199

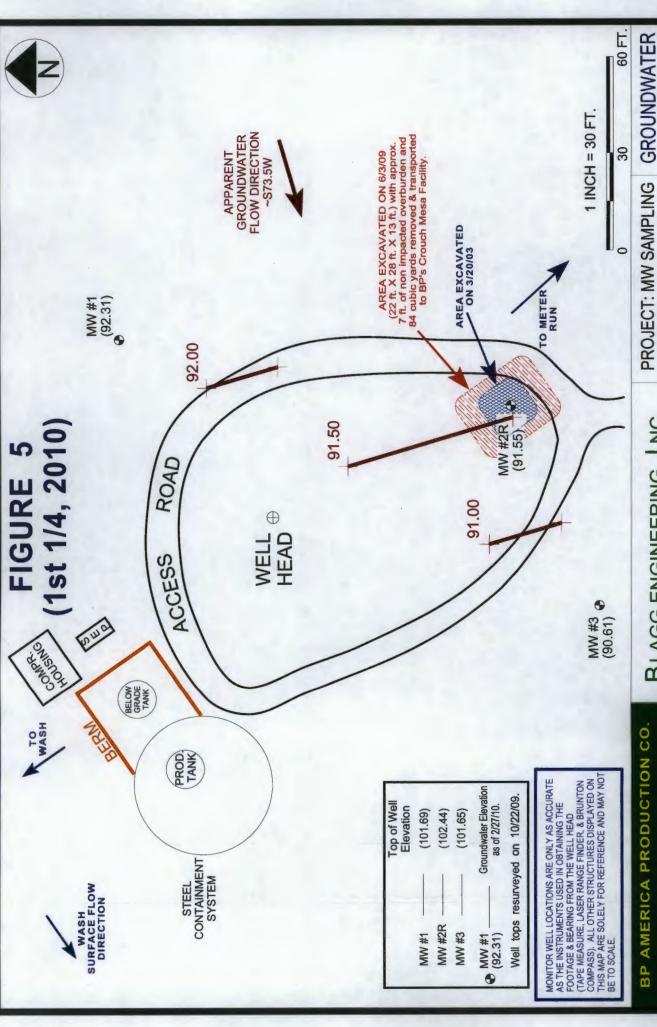
PROJECT: MW SAMPLING DRAWN BY: NJV

FILENAME: 10-26-09-GW.SKF

REVISED: 10-26-09 NJV

CONTOUR

10/09



CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

SAN JUAN COUNTY, NEW MEXICO

SW/4 NE/4 SEC. 15, T28N, R8W

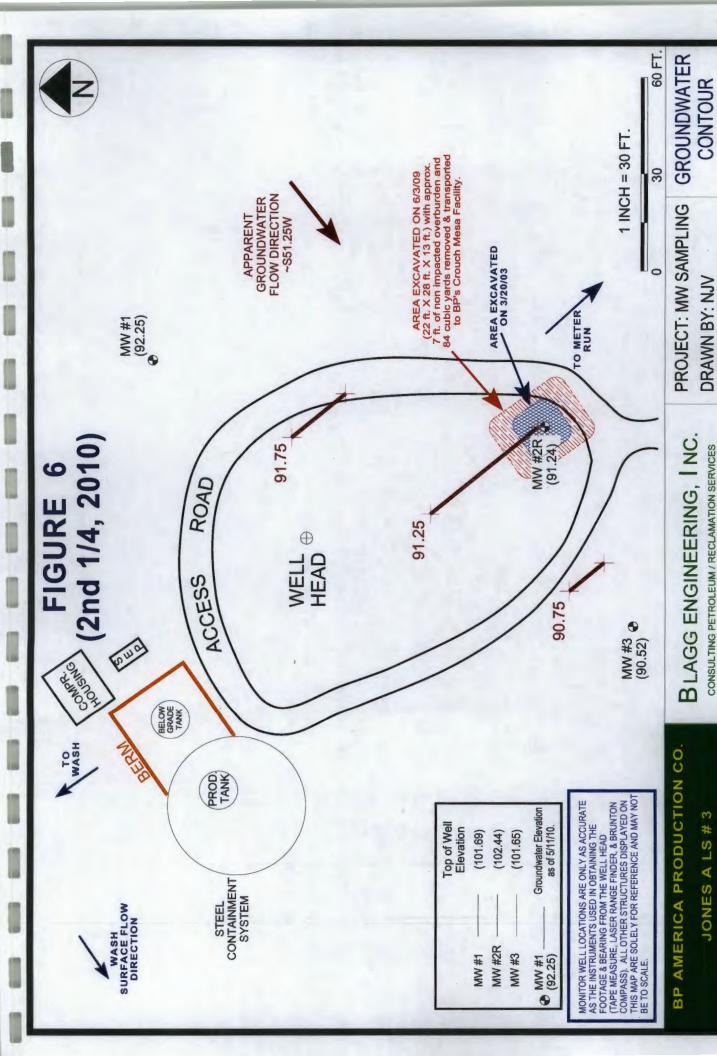
JONES A LS # 3

PROJECT: MW SAMPLING DRAWN BY: NJV

FILENAME: 02-27-10-GW.SKF

REVISED: 02-27-10 NJV

CONTOUR MAP 02/10



05/10

MAP

FILENAME: 05-11-10-GW.SKF

REVISED: 05-11-10

BLOOMFIELD, NEW MEXICO 87413

P.O. BOX 87

PHONE: (505) 632-1199

SAN JUAN COUNTY, NEW MEXICO

SW/4 NE/4 SEC. 15, T28N, R8W

P.O. BOX 87 **BLOOMFIELD, NM 87413** (505) 632-1199

MW #2R

### BORE / TEST HOLE REPORT

CLIENT:

26

28

32

34

36

38

40

30

LOCATION NAME: CONTRACTOR:

**EQUIPMENT USED:** 

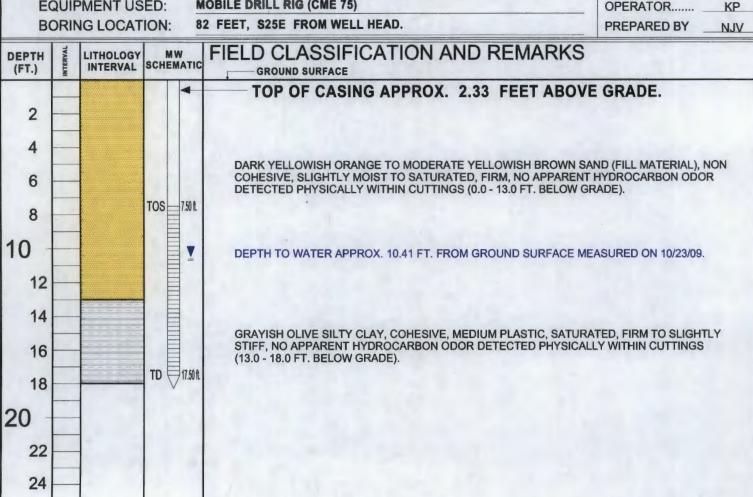
BP AMERICA PRODUCTION CO.

JONES A LS # 3 UNIT G, SEC. 15, T28N, R8W

BLAGG ENGINEERING, INC. / KYVEK ENERGY SERVICES, INC.

**MOBILE DRILL RIG (CME 75)** 

BORING #..... BH - 4 MW #..... 2R PAGE #..... 4 DATE STARTED \_\_10/20/09 DATE FINISHED 10/20/09 OPERATOR..... KP



NOTES:

SAND.

- SILTY CLAY.

- Top of screen of monitor well.

- Total depth/bottom extent of monitor well.

Monitor well consist of 2 inch PVC piping - casing from 2.33 ft. above grade to 7.50 ft. below grade, 0.010 slotted screen between 7.50 to 17.50 ft. below grade, sand packed annular to 5.5 ft. below grade, bentonite grout between 3.5 to 5.5 ft. below grade, clean fill dirt between 1.0 to 3.5 ft. below grade. Cemented well protector encompassing above grade casing and secured with padlock.

DRAWING: JONES A LS 3 MW2R-BH4. SKF DATE: 11/23/09 DWN BY: NJV

### MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD CO.

CHAIN-OF-CUSTODY #:

N/A

JONES A LS #3 - DEHY. PIT

LABORATORY (S) USED: HALL ENVIRONMENTAL

UNIT G, SEC. 15, T28N, R8W

SAMPLER:

NJV

Date: May 16, 2009

Filename: 05-16-09.WK4

PROJECT MANAGER:

NJV

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	рН	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 1	101.69	91.98	9.71	20.00	-	-	-	-	-
MW - 2	102.65	90.95	11.70	21.52	0815	7.55	1,100	13.1	4.75
MW - 3	101.64	90.17	11.47	20.06	-	-	-	-	_

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00

**DATE & TIME = 05/16/09** 

2,800

0810

NOTES: Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores). (i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2".

Excellent recovery in MW #2. Collected sample for BTEX per US EPA Method 8021B from MW #2 only.

Top of casing MW #1  $\sim$  1.95 ft., MW #2  $\sim$  3.00 ft., MW #3  $\sim$  1.80 ft. above grade.

on-site 7:44 temp 56 F 8:26 63 F off-site temp Partly cloudy sky cond. wind speed 0 - 5 direct. Ν

Date: 29-May-09

CLIENT:

**Blagg Engineering** 

Lab Order:

0905358

Jones A LS #3

Project: Lab ID:

0905358-01

Client Sample ID: MW #2

Collection Date: 5/16/2009 8:15:00 AM

Date Received: 5/20/2009

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Uni	its DF	Date Analyzed
EPA METHOD 8021B: VOLATILES				· · · · · · · · · · · · · · · · · · ·	Analyst: DAM
Benzene	9.1	1.0	μg/L	. 1	5/28/2009.11:56:29 PM
Toluene	ND	1.0	μg/L	. 1	5/28/2009 11:56:29 PM
Ethylbenzene	3.5	1.0	μg/L	. 1	5/28/2009 11:56:29 PM
Xylenes, Total	4.2	2.0	μg/L	. 1	5/28/2009 11:56:29 PM
Surr: 4-Bromofluorobenzene	89.3	65.9-130	%Rt	EC 1	5/28/2009 11:56:29 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D Albuquerque, New Mexico 87109	Tel. 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com	ANALYSIS REQUEST		nO enii 350) 50,0	eiO\ee	8'1) VH) 10'5' 10'	+ 38T 108 bor 32 bor 39 bor 49 no 4 200, 13 (AO (AO	TEX + Methole (Methole (Methol	HT						Remarks:
0A / QC Package: Std X Level 4 □ Other:	Project Name: JonをS A しび # 3	Project #:	4.7	Project Mapager:	MESSON VELEZ	Sampler NEWSON VELEZ	Sample Temperature: $3.8$	ive HEAL No.	SSESOBO LINING THE DOORS SEE	- 10A( V					Received By: (Signature)
CHAIN-OF-CUSTODY RECORD	Client: BiALL EICK- BY HINTER OF	Address: P. O. 80X 87	BEFO. NM 87413			Phone #: 632 -1199	Fax #:	Date Time Matrix Sample I.D. No.	9	5/16/29/08/5 WATER /11W 11 &					S/19/89 / 1425 Allinquished By: (Signature) Date: Time: Relinquished By: (Signature)

Date: 29-May-09

### **QA/QC SUMMARY REPORT**

Client:

Blagg Engineering

Project:

Jones A LS #3

Work Order:

0905358

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPD	Limit Qual
Method: EPA Method 8021	B: Volatiles		<u></u>	· · · · · ·					
Sample ID: 5ML RB		MBLK			Batch II	D: <b>R33871</b>	Analysis D	ate:	5/28/2009 8:39:43 AM
Benzene	ND	μg/L	1.0						
Toluene	ND	μg/L	1.0						
Ethylbenzene	ND	μg/L	1.0						
Xylenes, Total	ND	μg/L	2.0						
Sample ID: 100NG BTEX LC	S	LCS			Batch II	D: R33871	Analysis D	ate:	5/29/2009 3:29:31 AM
Benzene	20.76	μg/L	1.0	104	85.9	113			
Toluene	20.87	μg/L	1.0	102	86.4	113			
Ethylbenzene	21.00	μg/L	1.0	104	83.5	118			
Xylenes, Total	63.28	μg/L	2.0	105	83.4	122			
Sample ID: 100NG BTEX LC	SD	LCSD			Batch II	): <b>R33871</b>	Analysis D	ate:	5/29/2009 4:00:07 AM
Benzene	20.80	µg/L	1.0	104	85.9	113	0.183	27	
Toluene	20.71	μ <b>g/</b> L	1.0	101	86.4	113	0.750	19	
Ethylbenzene	20.97	μ <b>g/</b> L	1.0	104	83.5	118	0.152	10	
Xylenes, Total	62.85	μg/L	2.0	105	83.4	122	0.685	13	

### Qualifiers:

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

### Sample Receipt Checklist

Client Name BLAGG				Date Received	d: ,		5/20/2009	
Work Order Number 0905358	•			Received by	TLS		Δl	
Checklist completed by:			5 2 Date	Sample ID la	bels checked	by:	Initials	
Matrix:	Carrier name:	Grey	/hound					
Shipping container/cooler in good condition?		Yes	V	No 🗌	Not Present			
Custody seals intact on shipping container/coole	er?	Yes	$\checkmark$	No 🗌	Not Present		Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗆	N/A	V		
Chain of custody present?		Yes	$\checkmark$	No 🗌				
Chain of custody signed when relinquished and	received?	Yes	V	No 🗌				
Chain of custody agrees with sample labels?		Yes	$\checkmark$	No 🗌				
Samples in proper container/bottle?		Yes	$\checkmark$	No 🗌				
Sample containers intact?		Yes	<b>✓</b>	No 🗌				
Sufficient sample volume for indicated test?		Yes	$\checkmark$	No 🗔				
All samples received within holding time?		Yes	$ \checkmark $	No 🗌				f preserved
Water - VOA vials have zero headspace?	No VOA vials subm	nitted		Yes 🗹	No 🗌		bottles che pH:	ескеа тог
Water - Preservation labels on bottle and cap m	atch?	Yes		No 🗌	N/A ☑		•	
Water - pH acceptable upon receipt?		Yes		No 🗀	N/A ☑		<2 >12 unl	ess noted
Container/Temp Blank temperature?		3.	8°	<6° C Acceptable			DGIOW.	
COMMENTS:				If given sufficient	time to cool.			
						· -		
							,	
Client contacted	Date contacted:			Perso	on contacted			
Contacted by:	Regarding:							
Comments:								
	<b></b>	-						
Corrective Action		·						
								***************************************
		<del></del>						·

### MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY #:

N/A

JONES A LS #3 - DEHY. PIT

LABORATORY (S) USED: HALL ENVIRONMENTAL

UNIT G, SEC. 15, T28N, R8W

Date: October 26, 2009

**DEVELOPER / SAMPLER:** 

NJV

Filename: 10-26-09.WK4

PROJECT MANAGER:

NJV

WELL	WELL	WATER	DEPTH TO	TOTAL	SAMPLING	pН	CONDUCT	TEMP.	VOLUME
#	ELEV.	ELEV.	WATER	DEPTH	TIME		(umhos)	(celcius)	PURGED
	(ft)	(ft)	(ft)	(ft)					(gal.)
1	101.69	90.73	10.96	20.00	-	-	-	-	-
2R	102.44	89.76	12.68	19.83	1040	7.37	1,500	13.5	3.50
3	101.65	89.06	12.59	20.06	-	-	-	<b>-</b>	-

INSTRUMENT CALIBRATIONS =

4.01/7.00/10.00 DATE & TIME = 10/26/09

2,800

1030

NOTES: Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores). (i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

MW #2R - excellent recovery, dark yellowish orange color in appearance. Collected sample

from MW #2R and analyzed for BTEX per US EPA Method 8021B.

Monitor well top elevations surveyed on 10/22/09.

Top of casing MW #1  $\sim$  1.95 ft., MW #2  $\sim$  2.33 ft., MW #3  $\sim$  1.80 ft. above grade.

37 F on-site 10:05 temp 10:50 off-site temp 42 F sky cond. sunny wind speed 0 - 5 direct. Ε

Date: 30-Oct-09

**CLIENT:** 

Blagg Engineering

Lab Order:

0910477

T----

Project: Lab ID: Jones A LS #3

0910477-01

Client Sample ID: MW #2R

Collection Date: 10/26/2009 10:40:00 AM

Date Received: 10/27/2009

Matrix: AQUEOUS

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	9.9	1.0	µg/L	1	10/29/2009 11:04:30 PM
Toluene	ND	1.0	μg/L	1	10/29/2009 11:04:30 PM
Ethylbenzene	13	1.0	μ <b>g/L</b>	1	10/29/2009 11:04:30 PM
Xylenes, Total	ND	2.0	μg/L	1	10/29/2009 11:04:30 PM
Surr: 4-Bromofluorobenzene	90.3	65.9-130	%REC	1	10/29/2009 11:04:30 PM

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- MCL Maximum Contaminant Level
- RL Reporting Limit

<u> </u>	FIEX MTBE++ TMB* (80218)  BTEX + MTBE++ TPH (Gas only)  TPH Method 8015B (Gas/Diesel)  TPH (Method 8015B (Gas/Diesel)  TPH (Method 504.1)  B310 (PNA or PAH)  RCRA 8 Metals  RCRA 8 Metals  Anions (F,CI,NO3,NO2,PO4,SO4)  B260B (VOA)  8250 (Semi-VOA)  B270 (Semi-VOA)		Time: Relinquished by:  Received by:  Received by:  Date Time  Received by:  Date Time  Time: Relinquished by:  Received by:  Date Time  Time: Relinquished by:  The cossary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time:  X Standard □ Rush Project Name:  Jones A LS # 3 Project #:	Project Manager:  NELSON VELEZ  Sampler: NELSON VELEZ  On Joe  Sample Type and # Type  Type and # Type  AY	7 HC 4 C266	Received by:  Received by 1007 (1009 Time  Received by Date Time
Chain-of-Custody Record Client: & ABERLANGE - BARREN Mailing Address: P.O. BOX 87 BLFO. NIM 87413 Phone #: (505) 632-1199	CAVOC Package:  CAVOC Package:	191640 WATER MW # 2R	Date: Time: Relinquished by:  Date: Time: Relinquished by:  If necessary, samples submitted to Hall Environmental may be subcor

Date: 30-Oct-09

### **QA/QC SUMMARY REPORT**

Client:

Blagg Engineering

Project:

Jones A LS #3

Work Order:

0910477

Analyte	Result	Units	PQL	SPK Va S	PK ref	%Rec L	owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 8021B: \	/olatiles	•							
Sample ID: 5ML RB		MBLK		-		Batch ID:	R35953	Analysis Date:	10/29/2009 8:23:38 AN
Benzene	ND	μg/L	1.0						
Toluene	ND	μg/L	1.0						
Ethylbenzene	ND	μg/L	1.0						
Xylenes, Total	ND	μg/L	2.0						
Sample ID: 100NG BTEX LCS		LCS				Batch ID:	R35953	Analysis Date:	10/30/2009 3:36:59 AM
Benzene	18.39	μg/L	1.0	20	0	91.9	85.9	113	
Toluene	18.18	μg/L	1.0	20	0	90.9	86.4	113	
Ethylbenzene	17.96	μg/L	1.0	20	0	89.8	83.5	118	
Xylenes, Total	52.51	µg/L	2.0	60	0	87.5	83.4	122	

### Qualifiers:

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

E Estimated value

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

### Sample Receipt Checklist

Checklist completed by:   Signature	Client Name BLAGG			Date Received	l:	10/27/2009
Checklist completed by:   Carrier name:   Grayhound   Carrier name:   Grayhound	Work Order Number 0910477			Received by:	TLS	$\Lambda_{\alpha}$
Shipping container/cooler in good condition?  Ves	Checklist completed by:		NO G	Sample ID la	bels checked 1	
Custody seals intact on shipping container/cooler?  Custody seals intact on sample bottles?  Chain of custody present?  Chain of custody signed when relinquished and received?  Chain of custody signed when relinquished and received?  Chain of custody agrees with sample labels?  Samples in proper container/bottle?  Samples in proper container/bottle?  Sample containers intact?  Ves  No   Sufficient sample volume for indicated test?  Yes  No   Number of preserved bottles chacked for pht:  Water - VOA vials have zero headspace?  No VOA vials submitted  Yes  No   Number of preserved bottles chacked for pht:  Water - Preservation labels on bottle and cap match?  Water - Preservation labels on bottle and cap match?  Water - Preservation labels on bottle and cap match?  Yes  No  No  NA   Water - Preservation labels on bottles on bottle and cap match?  Yes  No  No  NA   Water - Preservation labels on bottle and cap match?  Water - Preservation labels on bottles chacked for pht:  Container/Temp Blank temperature?  Container/Temp Blank temperature?  Comments:  Client contacted  Date contacted:  Person contacted  Contacted by:  Regarding:  Comments:	Matrix:	Carrier name:	Greyhound			
Custody seals intact on sample bottles?  Chain of custody present?  Chain of custody signed when relinquished and received?  Yes	Shipping container/cooler in good condition?		Yes 🗹	No 🗆	Not Present	
Chain of custody present?  Chain of custody signed when relinquished and received?  Yes  No	Custody seals intact on shipping container/cooler	?	Yes 🗹	No 🗌	Not Present	☐ Not Shipped ☐
Chain of custody signed when relinquished and received? Yes	Custody seals intact on sample bottles?		Yes 🗌	No 🗌	N/A	<b>☑</b>
Chain of custody agrees with sample labels?  Samples in proper container/bottle?  Samples containers intact?  Sufficient sample volume for indicated test?  All samples received within holding time?  Water - VOA vials have zero headspace?  No VOA vials submitted   Yes   No   NiA   Mo   NiA   NiA   Mo   NiA   Mo   NiA   Mo   NiA   NiA   Mo	Chain of custody present?		Yes 🗹	No 🗆		
Samples in proper container/bottle?  Sample containers intact?  Sufficient sample volume for indicated test?  Yes V No No Number of preservet bottles received within holding time?  Yes V No Number of preservet bottles checked for pH:  Water - VOA vials have zero headspace?  No VOA vials submitted Yes V No No PH:  Water - Preservation labels on bottle and cap match?  Yes No No NiA V VIA VIA VIA VIA VIA VIA VIA VIA VIA	Chain of custody signed when relinquished and re	eceived?	Yes 🗹	No 🗌		
Sample containers intact?  Sufficient sample volume for indicated test?  Yes	Chain of custody agrees with sample labels?		Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?  All samples received within holding time?  Yes  No  No  No  bottle schecked for pH:  Water - VOA vials have zero headspace?  No VOA vials submitted  Yes  No  No  pH:  Water - Preservation labels on bottle and cap match?  Yes  No  No  N/A  2  Water - pH acceptable upon receipt?  Yes  No  No  N/A  2  2 >12 unless noted below.  Container/Temp Blank temperature?  1.9° <6° C Acceptable If given sufficient time to cool.  Client contacted  Date contacted:  Person contacted  Contacted by: Regarding:	Samples in proper container/bottle?		Yes 🗸	No 🗆		
All samples received within holding time?  Ves  No  No  Number of preserver bottles checked for pH:  Water - VOA vials have zero headspace? No VOA vials submitted Yes  No  No  PH:  Water - Preservation labels on bottle and cap match? Yes  No  NiA  2  Water - pH acceptable upon receipt? Yes  No  NiA  2  Container/Temp Blank temperature?  1.9° <6° C Acceptable If given sufficient time to cool.  COMMENTS:  Client contacted Date contacted: Person contacted  Contacted by: Regarding:  Comments:	Sample containers intact?		Yes 🗸	No 🗔		
Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No  bottles checked for  PH:  Water - Preservation labels on bottle and cap match? Yes  No  NIA  2  Water - pH acceptable upon receipt? Yes  No  NIA  2  Container/Temp Blank temperature? 1.9°	Sufficient sample volume for indicated test?		Yes 🗹	No 🗆		
Water - VOA vials have zero headspace? No VOA vials submitted	All samples received within holding time?		Yes 🗹	No 🗌		Number of preserved
Water - pH acceptable upon receipt?  Yes No NiA 2 <2 > 12 unless noted below.  Container/Temp Blank temperature?  1.9° <6° C Acceptable If given sufficient time to cool.  Client contacted  Date contacted:  Person contacted  Contacted by:  Regarding:  Comments:	Water - VOA vials have zero headspace?	No VOA vials subm	nitted	Yes 🗹	No 🗌	
Container/Temp Blank temperature?  1.9° <6° C Acceptable If given sufficient time to cool.  Client contacted  Date contacted:  Person contacted  Contacted by:  Regarding:  Comments:	Water - Preservation labels on bottle and cap ma	tch?	Yes 🗌	No 🗀	N/A 🗹	
Comments:  1.9° <6° C Acceptable If given sufficient time to cool.  Comments:  Corrective Action.	Water - pH acceptable upon receipt?		Yes	No 🗀	N/A 🗹	
Collent contacted Date contacted: Person contacted  Contacted by: Regarding:  Comments:	Container/Temp Blank temperature?		1.9°			Dolow.
Contacted by: Regarding:  Comments:	COMMENTS:			If given sufficient	time to cool.	
Contacted by: Regarding:  Comments:						
Contacted by: Regarding:  Comments:	Client contacted [	Date contacted:		Perso	on contacted	
Corrective Action		Da wa walio wa				
Corrective Action	Contacted by.	tegarding.				
Corrective Action	Comments:					
Corrective Action						
Corrective Action						
Corrective Action						
Corrective Action	Corrective Action					
	Conscieve Action					

### MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY #:

N/A

JONES A LS #3 - DEHY. PIT

LABORATORY (S) USED: HALL ENVIRONMENTAL

UNIT G, SEC. 15, T28N, R8W

Filename: 02-24-10.WK4

Date: February 24, 2010

**DEVELOPER / SAMPLER:** 

NJV

PROJECT MANAGER:

NJV

	WELL	WELL	WATER	DEPTH TO		SAMPLING	рН	CONDUCT		VOLUME
	#	ELEV.	ELEV. (ft)	WATER (ft)	DEPTH (ft)	TIME		(umhos)	(celcius)	PURGED (gal.)
Ī	1	101.69	92.31	9.38	20.00	_	_	-	-	-
	2R	102.44	91.34	11.10	19.83	0925	7.27	1,900	9.7	4.25
	3	101.65	90.62	11.03	20.06		-	-		-

INSTRUMENT CALIBRATIONS = | 4.01/7.00/10.00

2,800

**DATE & TIME =** 02/23/10

1000

NOTES: Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores). (i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

MW #2R - excellent recovery, dark yellowish orange color in appearance. Collected sample

from MW #2R to analyze for BTEX per US EPA Method 8021B.

Top of casing MW #1  $\sim$  1.95 ft., MW #2  $\sim$  2.33 ft., MW #3  $\sim$  1.80 ft. above grade.

8:44 32 F on-site temp 9:32 off-site temp 35 F Mostly cloudy sky cond. wind speed 0 - 10direct. Ε

Date: 09-Mar-10

CLIENT:

Blagg Engineering

Lab Order:

1003071

Project:

Jones A LS #3

Lab ID:

1003071-01

Client Sample ID: MW #2R

Collection Date: 2/27/2010 9:25:00 AM

Date Received: 3/3/2010

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	1.0	μg/L	1	3/8/2010 2:23:39 PM
Toluene	ND	1.0	μg/L	1	3/8/2010 2:23:39 PM
Ethylbenzene	ND	1.0	μg/L	1	3/8/2010 2:23:39 PM
Xylenes, Total	ND	2.0	μg/L	1	3/8/2010 2:23:39 PM
Surr: 4-Bromofluorobenzene	105	65.9-130	%REC	1	3/8/2010 2:23:39 PM

Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
  - ND Not Detected at the Reporting Limit
    - Spike recovery outside accepted recovery limits

'AL ORY	Air Bubbles (Y or N)	<u> </u>
HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com kins NE - Albuquerque, NM 87109 345-3975 Fax 505-345-4107		lalytical repor
N N 871	(AOV-ime&) 07S8	the ar
FIRONIA SILABO Mental.com erque, NM 877 505-345-4107	(AOV) 806S8	ated or
LYSIS LAE LYSIS LAE allenvironmental.cc - Albuquerque, Ni Fax 505-345-	8081 Pesticides / 8082 PCB's	
SI. SI. Viron buqu	Anions (F,Cl,NO <sub>3</sub> ,NO <sub>2</sub> ,PO <sub>4</sub> ,SO <sub>4</sub> )	
LY Eallen allen - Au	8310 (PNA or PAH) RCRA 8 Metals	
AALL ENVIRON ANALYSIS LAB( www.hallenvironmental.com ins NE - Albuquerque, NM 8 45-3975 Fax 505-345-41	EDB (Method 504.1)	de de
Wkins	(1.814 bodieM) H9T	
HALL ENVIRONME ANALYSIS LABOR www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107	(lesel) B2108 bodheM H9T	Ay set
490 Tel	BTEX + MTBE + TPH (Gas only)	Remarks.
	(BTEX) + MTBE + TMB's (8021)	Ren
Turn-Around Time:  Standard □ Rush Project Name:  Jores A LS # 3 Project #:	Project Manager:  NELSON NELEZ Sampler: NELSON NELEZ ORIGERE NESErvative Type and # Type  スーイの川 HCl な コー	Received by:  Received by:  Received by:  Bate Time Remarks:  Bate Time Remarks:  Any sub-contracted data will be clearly notated on the analytical report
nain-of-Custody Record  1.046 EVER_/BP AMERICA  ddress: P.O.80X 87  BGD., NM 87413	Level 4 (Full Validation)  x Sample Request ID  £ MW #AK	Date: Time: Relinquished by: Received by: Received by: Received by: Time: Relinquished by: Received by: Recei

Date: 09-Mar-10

### **QA/QC SUMMARY REPORT**

Client:

Blagg Engineering

Project:

Jones A LS #3

Work Order:

1003071

Analyte	Result	Units	PQL	SPK Va S	PK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: V	olatiles										
Sample ID: 5ML RB		MBLK				Batch ID:	R37664	Analys	sis Date:	3/5/2010	9:16:26 AN
Benzene	ND	μ <b>g/</b> L	1.0								
Toluene	ND	μg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	μ <b>g/L</b>	2.0								
Sample ID: b 5		MBLK				Batch ID:	R37677	Analys	sis Date:	3/8/2010 1	1:21:44 AM
Benzene	ND	μg/L	1.0								
Toluene	ND	μg/L	1.0								
Ethylbenzene	ND	μg/L	1.0								
Xylenes, Total	ND	μg/L	2.0								
Sample ID: 100NG BTEX LCS		LCS				Batch ID:	R37664	Analys	is Date:	3/5/2010 8	3:43:42 PM
Benzene	19.65	μg/L	1.0	20	0	98.3	85.9	113			
Toluene	19.01	μg/L	1.0	20	0	95.0	86.4	113			
Ethylbenzene	18.98	μg/L	1.0	20	0	94.9	83.5	118			
Xylenes, Total	57.39	μg/L	2.0	60	0	95.7	83.4	122			
Sample ID: 100NG BTEX LCS		LCS				Batch ID:	R37677	Analys	is Date:	3/8/2010 8	3:58:22 PM
Benzene	21.82	µg/L	1.0	20	0	109	85.9	113			
Toluene	21.28	µg/L	1.0	20	0	106	86.4	113			
Ethylbenzene ,	20.95	µg/L	1.0	20	0	105	83.5	118			
Xylenes, Total	62.35	µg/L	2.0	60	0	104	83.4	122			
Sample ID: 100NG BTEX LCSD		LCSD				Batch ID:	R37664	Analys	is Date:	3/5/2010 9	3:13:58 PM
Benzene	19.07	µg/L	1.0	20	0.	95.4	85.9	113	3.02	27	
Toluene	18.37	μg/L	1.0	20	0	91.8	86.4	113	3.43	19	
Ethylbenzene	18.16	µg/L	1.0	20	0	90.8	83.5	118	4.39	10	
Xylenes, Total	55.07	µg/L	2.0	60	0	91.8	83.4	122	4.14	13	

### Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

### Sample Receipt Checklist

Client Name BLAGG		Date Received	<b>l:</b>	3/3/2010
Work Order Number 1003071		Received by:	TLS	<b>A</b>
Checklist completed by:	3 3 10 Date	Sample ID la	bels checked by	initials
Matrix: Carrie	er name: <u>UPS</u>			
Shipping container/cooler in good condition?	Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗌	Not Present	Not Shipped
Custody seals intact on sample bottles?	Yes 🗌	No 🗆	N/A	•
Chain of custody present?	Yes 🗹	No 🔲		
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗆		
Chain of custody agrees with sample labels?	Yes 🗹	No 🗆		
Samples in proper container/bottle?	Yes 🗹	No 🗌		
Sample containers intact?	Yes 🗹	No 🗆		
Sufficient sample volume for indicated test?	Yes 🔽	No 🗀		
All samples received within holding time?	Yes 🗹	No 🗀		Number of preserved
Water - VOA vials have zero headspace? No VOA v	vials submitted	Yes 🗹	No 🗌	bottles checked for pH:
Water - Preservation labels on bottle and cap match?	Yes 🗌	No 🗔	N/A 🗹	
Water - pH acceptable upon receipt?	Yes 🗆	No 🗔	N/A 🔽	<2 >12 unless noted below.
Container/Temp Blank temperature?		<6° C Acceptabl		Delow.
COMMENTS:		If given sufficient	time to cool.	
		_		
Client contacted Date contact	eted:	Perso	on contacted	
Contacted by: Regarding:				
Comments:				
Corrective Action				
		1,000		

### MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY #:

N/A

JONES A LS #3 - DEHY. PIT

LABORATORY (S) USED: HALL ENVIRONMENTAL

UNIT G, SEC. 15, T28N, R8W

Date: May 11, 2010

**DEVELOPER / SAMPLER:** 

NJV

Filename: 05-11-10.WK4 **PROJECT MANAGER:**  NJV

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pН	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	101.69	92.25	9.44	20.00	-	-	-	-	_
2R	102.44	91.24	11.20	19.83	1030	7.10	1,900	14.5	4.25
3	101.65	90.52	11.13	20.06	0950	7.40	1,500	14.0	4.50

INSTRUMENT CALIBRATIONS = 4.01/7.00/10.00

2,800 0915

**DATE & TIME =** 05/10/10

NOTES: Volume of water purged from well prior to sampling; V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores). (i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

MW #2R - excellent recovery, dark yellowish orange color in appearance.

MW #3 - excellent recovery, grayish tint color in appearance. Collected samples from MW #2R & #3 to analyze for BTEX per US EPA Method 8021B.

Top of casing MW #1  $\sim$  1.95 ft., MW #2  $\sim$  2.33 ft., MW #3  $\sim$  1.80 ft. above grade.

9:22 on-site temp 10:44 off-site temp Sunny sky cond. wind speed direct.

Date: 17-May-10

**CLIENT:** Project:

Blagg Engineering

Jones A LS #3

Lab Order:

1005288

Lab ID:

Client Sample ID: MW #2

1005288-01

Collection Date: 5/11/2010 10:30:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Analyst: NSB
Benzene	ND	1.0	μg/L	1	5/15/2010 8:05:24 AM
Toluene	ND	1.0	μg/L	1	5/15/2010 8:05:24 AM
Ethylbenzene	ND	1.0	μg/L	1	5/15/2010 8:05:24 AM
Xylenes, Total	ND	2.0	μg/L	1	5/15/2010 8:05:24 AM
Surr: 4-Bromofluorobenzene	107	65.9-130	%REC	1	5/15/2010 8:05:24 AM

Lab ID:

1005288-02

Collection Date: 5/11/2010 9:50:00 AM

Matrix: AQUEOUS

Client Sample ID: MW #3 Result PQL Qual Units DF Analyses **Date Analyzed EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 1.0 μg/L 1 5/15/2010 8:35:37 AM Toluene ND 1 1.0 μg/L 5/15/2010 8:35:37 AM Ethylbenzene 9.9 μg/L 1 5/15/2010 8:35:37 AM 1.0 Xylenes, Total 16 2.0 μg/L 5/15/2010 8:35:37 AM 1 Surr: 4-Bromofluorobenzene 99.0 65.9-130 %REC 5/15/2010 8:35:37 AM

Qualifiers:

Value exceeds Maximum Contaminant Level

Ε Estimated value

Analyte detected below quantitation limits

Non-Chlorinated

PQL Practical Quantitation Limit

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

Not Detected at the Reporting Limit

Spike recovery outside accepted recovery limits Page 1 of 1

I ATMENTING CONTRACTOR OF THE PERSON OF THE	ANALYSIS LABORATORY	www hallenvironmental com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	(les)	eeid\ssa	HTPH (1.81) (1.81) (1.40) (1.40) (HA) (A) (A)	H 800 P 1 R 800 P 1 R 800 P 1 R 900 P 1 R 900 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P	BTEX + MTI BTEX + MTI TPH Methor TPH (Methor B310 (PNA)	>								Remarks:		If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
Turn-Around Time:	文 Standard □ Rush		JONES A LS #3	Project #:		Project Manager:	NEUSON VELEZ	Sampler: ルミンシンだらて On-Ice ***・エグVes	Sample Temperature: 3 4	and #	40 HOLD LOOK	-	Here, Held 2	2-40m;					18:15	received by:	ntracted to other accredited laboratories. This serves as notice of this
Chain-of-Custody Record	Client: BLAGE ENER. / 89 AMERICA		Mailing Address: P. O. BOX 87	BLFD. NM 87413 F	Phone #: 505 632-1199	email or Fax#:	QA/QC Package:	n □ Other	□ EDD (Type)	Matrix Sample Request ID	5/11/20 WATER MW # 2 AV		5/11/100950 WATER MW #3 AN						Time: Relinquished by:	Date: Time: Relinquished by:	If necessary, samples submitted to Hall Environmental may be subcon

Date: 17-May-10

### **QA/QC SUMMARY REPORT**

Client:

Blagg Engineering

Project: Jones A LS #3

Work Order:

1005288

Analyte	Result	Units	PQL	SPK Va SI	PK ref	%Rec L	owLimit Hi	ghLimit %RPD	RPDLimit Qual
Method: EPA Method 8021B:	Volatiles								
Sample ID: 5ML RB		MBLK				Batch ID:	R38716	Analysis Date:	5/14/2010 9:21:44 AM
Benzene	ND	μg/L	1.0						
Toluene	ND	μg/L	1.0						
Ethylbenzene	ND	μg/L	1.0						
Xylenes, Total	ND ~	μg/L	2.0						
Sample ID: 100NG BTEX LCS		LCS				Batch ID:	R38716	Analysis Date:	5/15/2010 1:02:19 AM
Benzene	17.76	μg/L	1.0	20	0	88.8	87.9	121	
Toluene	17.65	μg/L	1.0	20	0	88.3	83	124	
Ethylbenzene	17.57	μg/L	1.0	20	0	87.9	81.7	122	
Xylenes, Total	53.27	μg/L	2.0	60	0	88.8	85.6	<b>12</b> 1	

Qua	lifiers
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E Estimated value

ND Not Detected at the Reporting Limit

NC Non-Chlorinated

R RPD outside accepted recovery limits

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

### Sample Receipt Checklist

Client Name BLAGG	$\cap$	Date Received:		5/12/2010
Work Order Number 1005288		Received by:	ARS	Po
Checklist completed by:	5	12 10	on unconed by.	Initials
Matrix:	Carrier name: <u>Greyhou</u>	<u>nd</u>		
Shipping container/cooler in good condition?	Yes 🗹	No □ N	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗌 💮 N	Not Present 🗀	Not Shipped
Custody seals intact on sample bottles?	Yes	No 🗌 💮 N	√A ✓	
Chain of custody present?	Yes 🗹	. No 🗆		
Chain of custody signed when relinquished and rece	ived? Yes 🗹	No 🗀		
Chain of custody agrees with sample labels?	Yes 🗸	No 🗔		
Samples in proper container/bottle?	Yes 🗹	No 🗀		
Sample containers intact?	Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?	Yes 🗹	No 🗀		
All samples received within holding time?	Yes 🗸	No 🗀		Number of preserved
Water - VOA vials have zero headspace?	o VOA vials submitted	Yes 🗹	No 🗌	bottles checked for pH:
Water - Preservation labels on bottle and cap match	? Yes 🗌	No 🗌	N/A 🗹	<u></u>
Water - pH acceptable upon receipt?	Yes 🗌	No 🗆	N/A 🔽	<2 >12 unless noted below.
Container/Temp Blank temperature?	3.4°	<6° C Acceptable		Dalow.
COMMENTS:		If given sufficient tin	ne to cool.	
Client contacted Date	e contacted:	Person	contacted	
Contacted by: Reg	arding:	······································		
Comments:				
Corrective Action				
				-