

OPI 30-045-31066



Analytical Report

OIL CONS. DIV DIST. 3

DEC 18 2015

Report Summary

Client: BP America Production Co.

Chain Of Custody Number:

Samples Received: 6/10/2015 11:45:00AM

Job Number: 03143-0424

Work Order: P506043

Project Name/Location: Braden Head Testing

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 6/18/15

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

CPI 30-045-3106e



BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Braden Head Testing Project Number: 03143-0424 Project Manager: Sabre Beebe	Reported: 18-Jun-15 15:23
---	---	-------------------------------------

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Roberts 2	P506043-01A	Aqueous	06/10/15	06/10/15	Poly 500mL

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
laboratory@envirotech-inc.com



API 30-045-31066e

BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Braden Head Testing Project Number: 03143-0424 Project Manager: Sabre Beebe	Reported: 18-Jun-15 15:23
---	---	------------------------------

Roberts 2
P506043-01 (Water)

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Cation/Anion Analysis									
pH @25°C	12.0		pH Units	1	1524016	06/11/15 10:35	06/11/15 10:49	150.1/4500H	H1
Electrical Conductivity	7440		umhos/cm	1	1524016	06/11/15 10:35	06/11/15 10:50	EPA 120.1	H1
Total Dissolved Solids	4210	10.0	mg/L	1	1525026	06/18/15	06/18/19	160.1/2540C	
Sodium Absorption Ratio	239		N/A	1	1525012	06/15/15	06/15/15	[CALC]	
Total Alkalinity as CaCO3	1500	10.0	mg/L	1	1525010	06/15/15	06/15/15	Hach Method 8203	
Total Hardness as CaCO3	7.56	0.60	mg/L		[CALC]	06/15/15	06/15/15	[CALC]	
Bicarbonate as CaCO3	ND	10.0	mg/L	1	1525010	06/15/15	06/15/15	Hach Method 8203	
Carbonate as CaCO3	4800	10.0	mg/L	1	1525010	06/15/15	06/15/15	Hach Method 8203	
Hydroxide as CaCO3	6300	10.0	mg/L	1	1525010	06/15/15	06/15/15	Hach Method 8203	
Nitrate-N	ND	1.00	mg/L	10	1524015	06/10/15 12:00	06/11/15 12:51	EPA 300.0	
Nitrite-N	ND	1.00	mg/L	10	1524015	06/10/15 12:00	06/11/15 12:51	EPA 300.0	
Chloride	462	10.0	mg/L	10	1524015	06/10/15	06/11/15	EPA 300.0	
Fluoride	ND	1.00	mg/L	10	1524015	06/10/15	06/11/15	EPA 300.0	
o-Phosphate	ND	5.00	mg/L	10	1524015	06/10/15 12:00	06/11/15 12:51	EPA 300.0	
Sulfate	165	10.0	mg/L	10	1524015	06/10/15	06/11/15	EPA 300.0	CCBI
Iron	0.79	0.09	mg/L	9	1525002	06/15/15	06/15/15	EPA 6010C	
Calcium	2.51	0.09	mg/L	9	1525002	06/15/15	06/15/15	EPA 6010C	
Magnesium	0.32	0.09	mg/L	9	1525002	06/15/15	06/15/15	EPA 6010C	
Potassium	59.2	0.09	mg/L	9	1525002	06/15/15	06/15/15	EPA 6010C	
Sodium	1510	0.09	mg/L	9	1525002	06/15/15	06/15/15	EPA 6010C	

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
laboratory@envirotech-inc.com

AP1 30-045-31066



BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Braden Head Testing Project Number: 03143-0424 Project Manager: Sabre Beebe	Reported: 18-Jun-15 15:23
---	---	------------------------------

Cation/Anion Analysis - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1524015 - Anion Extraction EPA 300.0										
Blank (1524015-BLK1) Prepared & Analyzed: 10-Jun-15										
Nitrate-N	ND	0.10	mg/L							
Nitrite-N	ND	0.10	"							
LCS (1524015-BS1) Prepared & Analyzed: 10-Jun-15										
Nitrate-N	5.16	0.10	mg/L	5.00		103	90-110			
Nitrite-N	5.18	0.10	"	5.00		104	90-110			
Matrix Spike (1524015-MS1) Source: P506042-01 Prepared & Analyzed: 10-Jun-15										
Nitrate-N	5.32	0.10	mg/L	5.00	0.12	104	80-120			
Nitrite-N	5.16	0.10	"	5.00	ND	103	80-120			
Matrix Spike Dup (1524015-MSD1) Source: P506042-01 Prepared & Analyzed: 10-Jun-15										
Nitrate-N	5.48	0.10	mg/L	5.00	0.12	107	80-120	2.96	20	
Nitrite-N	5.38	0.10	"	5.00	ND	108	80-120	4.10	20	

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
laboratory@envirotech-inc.com

CPI 30-045-31066



BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Braden Head Testing Project Number: 03143-0424 Project Manager: Sabre Beebe	Reported: 18-Jun-15 15:23
---	---	-------------------------------------

Notes and Definitions

- H1 Sample was received after regulatory hold-time exceeded for target analyte.
- CCB1 CCB above quality control limits. This target analyte may be biased high.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fx (505) 632-1865

Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879

envirotech-inc.com
 laboratory@envirotech-inc.com

Client: BP
 Project: BH Testing
 Sampler: David Fuller
 Phone: 505-419-1600
 Email(s): Sabra Beebe
 Project Manager:

RUSH?

1d
 3d

Lab Use Only		Analysis and Method				lab Only		
Lab WO# P506043		GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	S/A	Lab Number	Correct Cont/Prsrv (s) Y/N
Job Number 03143-0424								

Page 1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	S/A	Lab Number	Correct Cont/Prsrv (s) Y/N

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>6/10/15</u>	Time <u>11:45</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>6/10/15</u>	Time <u>11:45</u>	Lab Use Only	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 <u>20.6</u>	T2 <u>(N)</u>
						AVG Temp °C <u>20.6</u>	
						T3 _____	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 8C on subsequent days.

Sample(s) dropped off after hours to a secure drop off area. Chain of Custody Notes/Billing info: