



API 30-D45-24332

OIL CONS. DIV DIST. 3

DEC 18 2015

Analytical Report

Report Summary

Client: BP America Production Co.

Chain Of Custody Number:

Samples Received: 10/16/2015 11:07:00AM

Job Number: 03143-0424

Work Order: P510040

Project Name/Location: BH Testing

Tapp Com 5

Entire Report Reviewed By:

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

Date: 10/26/15

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.

QPI 30-045-24332



BP America Production Co.
PO Box 22024
Tulsa OK, 74121-2024

Project Name: BH Testing
Project Number: 03143-0424
Project Manager: Daniel Fuller

Reported:
26-Oct-15 10:03

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Tapp Com 5	P510040-01A	Water	10/16/15	10/16/15	Poly 500mL

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API 30-045-24332



BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: BH Testing Project Number: 03143-0424 Project Manager: Daniel Fuller	Reported: 26-Oct-15 10:03
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Tapp Com 5
P510040-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Cation/Anion Analysis									
pH @25°C	10.2		pH Units	1	1543007	10/19/15 14:55	10/19/15 14:56	150.1/4500H	H2
Electrical Conductivity	5510		umhos/cm	1	1543007	10/19/15 14:55	10/19/15 14:56	EPA 120.1	H2
Total Dissolved Solids	4450	10.0	mg/L	1	1543008	10/22/15	10/22/15	160.1/2540C	
Sodium Absorption Ratio	134		N/A	1	1543020	10/22/15	10/22/15	[CALC]	
Total Alkalinity as CaCO3	900	10.0	mg/L	1	1542029	10/16/15	10/16/15	Hach Method 8203	
Total Hardness as CaCO3	24.1	2.07	mg/L		[CALC]	10/19/15	10/19/15	[CALC]	
Bicarbonate as CaCO3	900	10.0	mg/L	1	1542029	10/16/15	10/16/15	Hach Method 8203	
Carbonate as CaCO3	ND	10.0	mg/L	1	1542029	10/16/15	10/16/15	Hach Method 8203	
Hydroxide as CaCO3	ND	10.0	mg/L	1	1542029	10/16/15	10/16/15	Hach Method 8203	
Nitrate-N	ND	2.50	mg/L	10	1542024	10/16/15 15:38	10/16/15 17:01	EPA 300.0	
Nitrite-N	ND	2.50	mg/L	10	1542024	10/16/15 15:38	10/16/15 17:01	EPA 300.0	
Chloride	ND	20.0	mg/L	10	1542024	10/16/15	10/16/15	EPA 300.0	
Fluoride	ND	2.50	mg/L	10	1542024	10/16/15	10/16/15	EPA 300.0	
o-Phosphate-P	ND	2.50	mg/L	10	1542024	10/16/15 15:38	10/16/15 17:01	EPA 300.0	
Sulfate	2960	20.0	mg/L	10	1542024	10/16/15	10/16/15	EPA 300.0	
Iron	0.69	0.50	mg/L	1	1543004	10/19/15	10/19/15	EPA 6010C	
Calcium	9.28	0.50	mg/L	1	1543004	10/19/15	10/19/15	EPA 6010C	
Magnesium	0.23	0.20	mg/L	1	1543004	10/19/15	10/19/15	EPA 6010C	
Potassium	4.03	0.50	mg/L	1	1543004	10/19/15	10/19/15	EPA 6010C	
Sodium	1510	2.50	mg/L	5	1543004	10/19/15	10/22/15	EPA 6010C	

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AP1 30-045-24332



BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: BH Testing Project Number: 03143-0424 Project Manager: Daniel Fuller	Reported: 26-Oct-15 10:03
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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 1542024 - Anion Extraction EPA 300.0										
Blank (1542024-BLK1)				Prepared & Analyzed: 16-Oct-15						
Nitrate-N	ND	0.25	mg/L							
Nitrite-N	ND	0.25	"							
Chloride	ND	2.00	"							
Fluoride	ND	0.25	"							
o-Phosphate-P	ND	0.25	"							
Sulfate	ND	2.00	"							
LCS (1542024-BS1)				Prepared & Analyzed: 16-Oct-15						
Nitrate-N	5.05	0.25	mg/L	5.00		101	90-110			
Nitrite-N	5.27	0.25	"	5.00		105	90-110			
Chloride	48.9	2.00	"	50.0		97.8	90-110			
Fluoride	5.30	0.25	"	5.00		106	90-110			
o-Phosphate-P	25.4	0.25	"	25.0		101	90-110			
Sulfate	48.2	2.00	"	50.0		96.4	90-110			
Matrix Spike (1542024-MS1)				Source: P510039-01	Prepared & Analyzed: 16-Oct-15					
Nitrate-N	51.0	2.50	mg/L	50.0	ND	102	80-120			
Nitrite-N	52.2	2.50	"	50.0	ND	104	80-120			
Chloride	5480	20.0	"	500	4990	99.2	80-120			
Fluoride	53.0	2.50	"	50.0	ND	106	80-120			
o-Phosphate-P	255	2.50	"	250	ND	102	80-120			
Sulfate	584	20.0	"	500	91.8	98.5	80-120			
Matrix Spike Dup (1542024-MSD1)				Source: P510039-01	Prepared & Analyzed: 16-Oct-15					
Nitrate-N	51.8	2.50	mg/L	50.0	ND	104	80-120	1.52	20	
Nitrite-N	52.7	2.50	"	50.0	ND	105	80-120	0.973	20	
Chloride	5490	20.0	"	500	4990	101	80-120	0.187	20	
Fluoride	53.9	2.50	"	50.0	ND	108	80-120	1.55	20	
o-Phosphate-P	259	2.50	"	250	ND	103	80-120	1.52	20	
Sulfate	591	20.0	"	500	91.8	99.9	80-120	1.24	20	

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001 30-045-24332



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Project Name: BH Testing
Project Number: 03143-0424
Project Manager: Daniel Fuller

Reported:
26-Oct-15 10:03

Notes and Definitions

H2 Sample was analyzed after regulatory hold-time exceeded for target analyte.
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

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Client: Babre Beebe (B.P.)
 Project: BH Testing
 Sampler: Daniel Fuller
 Phone: 505-419-1600
 Email(s): _____
 Project Manager: _____

RUSH?

☐ 1d
☐ 3d

Lab Use Only		Analysis and Method				Lab Only	
Lab WO#		GRO/DRO by 8015	BTEX by 8021	TPH by 418.1	Chloride by 300.0	CATIONS/ANIONS	Lab Number
Job Number							
P510040							
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	CATIONS/ANIONS	Lab Number	Correct Cont/Prsrv (s) Y/N
Tapp Com 5	10/16/15	8:00	A	1-500poly					X	1	Y

Relinquished by: (Signature) <u>[Signature]</u>	Date 10/16/15	Time 8:00	Received by: (Signature) <u>[Signature]</u>	Date 10.16.15	Time 1107	Lab Use Only	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	**Received on Ice Y / (N) T1 <u>18.0</u> T2 _____ T3 _____ AVG Temp °C <u>18.0</u>	

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 6°C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.	Chain of Custody	Notes/Billing info:
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NEW MEXICO ENERGY, MINERALS
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AZTEC, NM 87410
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<http://www.emnrd.state.nm.us/ocd/>

OIL CONS. DIV DIST. 3

DEC 18 2015

BRADENHEAD TEST REPORT

(Submit 2 copies to above address)

Date of Test 9/1/15 Operator BP America Production Company API # 3004524332

Property Name TAPP COM 005-DK Location: Unit P Section 17 Township 28 Range 8
(Well Name and Number)

Pressure (Shut-in or Producing) 115 Intermediate - Casing 122 Bradenhead 45

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Time	Bradenhead			Intermediate		Steady Flow	Surges	Down to Nothing	No Flow	Gas	Gas and Water	Water
	BH Blowdown	Casing Monitor	Intermediate Monitor	Intermediate Blowdown	Casing Monitor							
5 minutes	<u>w</u>	<u>122</u>										
10 minutes	<u>w</u>	<u>123</u>										
15 minutes	<u>w</u>	<u>124</u>										
20 minutes	<u>w</u>	<u>125</u>										
25 minutes	<u>w</u>	<u>126</u>										
30 minutes	<u>w</u>	<u>126</u>										
5 minute SI	<u>26</u>	<u>126</u>										

If bradenhead flowed water, check all of the descriptions that apply below:

Clear Fresh ✓ Salty Sulfur Black

5 Minute Shut-in Bradenhead 26 Intermediate -

REMARKS:

Blew from 1" valve. BH had water through full test.
Collected 6 gallons of water.

w = water.

By [Signature] Witness

(Position)