

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

DEC 08 2014

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: BP	Contact: Jeff Peace
Address: 200 Energy Court, Farmington, NM 87401	Telephone No.: 505-326-9479
Facility Name: Heaton LS 3	Facility Type: Natural gas well

Surface Owner: Federal	Mineral Owner: Federal	API No. 3004510055
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LOCATION OF RELEASE

Unit Letter M	Section 32	Township 31N	Range 11W	Feet from the 990	North/South Line South	Feet from the 990	East/West Line West	County: San Juan
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Latitude 36.85103 Longitude 108.01949

NATURE OF RELEASE

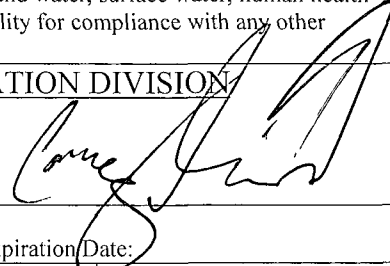
Type of Release: condensate/oil	Volume of Release: unknown	Volume Recovered: none
Source of Release: unknown	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: 8/5/2014; 1:00 PM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Impacts to soil were found while trenching during BGT removal. Impacts are historic and sandstone bedrock was found three feet below the surface.

Describe Area Affected and Cleanup Action Taken.* The impacted soil was removed by excavation and transported to a landfarm for treatment. Approximately 828 cubic yards of impacted soil were removed. Subsequent soil analyses of the remaining soil on the bottom and walls of the excavation showed TPH below 100 ppm. Soil sampling data and remediation summary is attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Jeff Peace	Approved by Environmental Specialist: 	
Title: Field Environmental coordinator	Approval Date: 1/8/15	Expiration Date:
E-mail Address: peace.jeffrey@bp.com	Conditions of Approval:	Attached ☐
Date: December 8, 2014	Phone: 505-326-9479	

* Attach Additional Sheets If Necessary

#NCS 15008 28 688

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BP America: Heaton LS 3

(M) Sec 32 – T30N – R11W
San Juan County, New Mexico

Summary Record of Impact Remediation

August 5, 2014 Soils impacted with hydrocarbons encountered during trenching for new flow line between meter house and separator. Original source of impacts not evident, but appeared to be historical in nature with no integrity issues found on any current flow lines or equipment. Shallow sandstone encountered throughout location, beginning at 2' – 3' below grade.

Site Closure Standard Determined at 1,000 ppm TPH based on:

Horizontal Distance to Estes Arroyo = 785 feet (10 points)

Nearest Water Well (SJ 03691 POD 1) = 1,399 feet (0 points)

Depth to Groundwater based on SJ 03267 along Estes Arroyo >100 feet (0 points)

November 21, 2014 Begin remediation of site by excavation of impacts with trackhoe.

December 1, 2014 Excavation size 40' x 30' (6' deep on East Side, 9' deep on West Side). Sample West, East, South Sidewalls and Base. Entire excavation in sandstone.

Sample ID	Date/Time	Map ID	Field OVM	TPH 8015B	BTEX 8021	Chloride
West Wall 3-pt 3'-8'	12/01/2014 @ 14:19	1	9.0	49.8 mg/Kg	ND	ND
East Wall 3-pt 2'-5'	12/01/2014 @ 14:24	2	3.9	ND	ND	ND
South Wall 3-pt 4'-8'	12/01/2014 @ 14:27	3	1.7	ND	ND	ND
Base 3-pt @ - 9'	12/01/2014 @ 14:32	4	5.4	ND	ND	ND

December 2-3, 2014 Excavation crew extends excavation 10' further north to remove evident impacts. Excavation extended vertically to 14 foot depth (note that previous base samples from 9' depth were non-detect on TPH, BTEX and Chlorides, and West, East and South sidewall samples all tested below site closure standard)

December 3, 2014 Final excavation size 40 x 40' x 14' deep. Approximate volume = 828 CY. Resample base, and sample North Sidewall.

Sample ID	Date/Time	Map ID	Field OVM	TPH 8015B	BTEX 8021	Chloride
Base #2 3-pt @ -14'	12/03/2014 @ 11:22	5	0.0	ND	ND	ND
North Wall 3-pt 5'-12'	12/03/2014 @ 11:29	6	4.6	ND	ND	ND

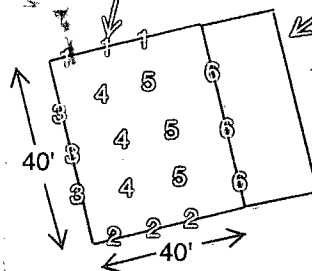
December 5, 2014 Excavation crew completes backfilling operation.

HEATON LS 3

Excavation 40' x 40' x 14' deep
(Approximately 828 CY)
(Shallow Sandstone Beginning @ 3' Depth)
(Vertical Extent of Impacts 9' Below Grade)

Excavation Entrance Ramp
(40' x 15' x 6' deep)

Heaton LS 3



1, 2, 3, 4, 5 & 6: Composite Sample Locations



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

Project Name: Heaton LS 3
Project Number: 03143-0424
Project Manager: Jeff Blagg

Reported:
03-Dec-14 10:20

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
West Wall 3-pt 3'-8'	P412003-01A	Soil	12/01/14	12/01/14	Glass Jar, 4 oz.
East Wall 3-pt 2'-5'	P412003-02A	Soil	12/01/14	12/01/14	Glass Jar, 4 oz.
South Wall 3-pt 4'-8'	P412003-03A	Soil	12/01/14	12/01/14	Glass Jar, 4 oz.
Base 3-pt @ -9'	P412003-04A	Soil	12/01/14	12/01/14	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 03-Dec-14 10:20
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

West Wall 3-pt 3'-8'
P412003-01 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Volatile Organics by EPA 8021										
Benzene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		107 %		50-150		1449006	12/01/14	12/02/14	EPA 8021B	
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	14.2	9.99	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8015D	
Diesel Range Organics (C10-C28)	35.6	34.9	mg/kg	1		1449005	12/01/14	12/02/14	EPA 8015D	
Surrogate: o-Terphenyl		108 %		50-200		1449005	12/01/14	12/02/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		96.6 %		50-150		1449006	12/01/14	12/02/14	EPA 8015D	
Cation/Anion Analysis										
Chloride	ND	9.86	mg/kg	1		1449009	12/02/14	12/02/14	EPA 300.0	

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 03-Dec-14 10:20
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

East Wall 3-pt 2'-5'
P412003-02 (Solid)

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Volatile Organics by EPA 8021										
Benzene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		107 %		50-150		1449006	12/01/14	12/02/14	EPA 8021B	
Nonhalogenated Organics by 8015										
Gasoline Range Organics (C6-C10)	ND	9.99	mg/kg	1		1449006	12/01/14	12/02/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1		1449005	12/01/14	12/02/14	EPA 8015D	
Surrogate: o-Terphenyl		126 %		50-200		1449005	12/01/14	12/02/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		96.0 %		50-150		1449006	12/01/14	12/02/14	EPA 8015D	
Cation/Anion Analysis										
Chloride	ND	9.93	mg/kg	1		1449009	12/02/14	12/02/14	EPA 300.0	

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 03-Dec-14 10:20
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

South Wall 3-pt 4'-8'

P412003-03 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %	50-150		1449006	12/01/14	12/02/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.98	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	35.0	mg/kg	1	1449005	12/01/14	12/02/14	EPA 8015D	
Surrogate: o-Terphenyl		107 %	50-200		1449005	12/01/14	12/02/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		91.4 %	50-150		1449006	12/01/14	12/02/14	EPA 8015D	
Cation/Anion Analysis									
Chloride	ND	9.83	mg/kg	1	1449009	12/02/14	12/02/14	EPA 300.0	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: Heaton LS 3 Project Number: 03143-0424 Project Manager: Jeff Blagg	Reported: 03-Dec-14 10:20
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Base 3-pt @ -9'
P412003-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	50-150		1449006	12/01/14	12/02/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.96	mg/kg	1	1449006	12/01/14	12/02/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	34.9	mg/kg	1	1449005	12/01/14	12/02/14	EPA 8015D	
<i>Surrogate: o-Terphenyl</i>		113 %	50-200		1449005	12/01/14	12/02/14	EPA 8015D	
<i>Surrogate: 4-Bromochlorobenzene-FID</i>		92.6 %	50-150		1449006	12/01/14	12/02/14	EPA 8015D	
Cation/Anion Analysis									
Chloride	ND	9.94	mg/kg	1	1449009	12/02/14	12/02/14	EPA 300.0	

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5796 US Highway 64, Farmington, NM 87401

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 03-Dec-14 10:20
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1449006 - Purge and Trap EPA 5030A

Blank (1449006-BLK1)				Prepared: 01-Dec-14 Analyzed: 02-Dec-14						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	0.418		"	0.399		105	50-150			

LCS (1449006-BS1)				Prepared: 01-Dec-14 Analyzed: 02-Dec-14						
Benzene	18.7	0.10	mg/kg	20.0		93.7	75-125			
Toluene	19.0	0.10	"	20.0		95.3	70-125			
Ethylbenzene	19.1	0.10	"	20.0		95.7	75-125			
p,m-Xylene	38.9	0.20	"	40.0		97.2	80-125			
o-Xylene	19.1	0.10	"	20.0		95.6	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.407		"	0.400		102	50-150			

Matrix Spike (1449006-MS1)				Source: P411085-01	Prepared: 01-Dec-14 Analyzed: 02-Dec-14					
Benzene	19.5	0.10	mg/kg	20.0	ND	97.6	75-125			
Toluene	19.9	0.10	"	20.0	ND	99.4	70-125			
Ethylbenzene	20.0	0.10	"	20.0	0.10	99.5	75-125			
p,m-Xylene	40.5	0.20	"	39.9	0.21	101	80-125			
o-Xylene	19.9	0.10	"	20.0	0.17	99.0	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.405		"	0.399		101	50-150			

Matrix Spike Dup (1449006-MSD1)				Source: P411085-01	Prepared: 01-Dec-14 Analyzed: 02-Dec-14					
Benzene	19.2	0.10	mg/kg	19.9	ND	96.4	75-125	1.44	15	
Toluene	19.6	0.10	"	19.9	ND	98.5	70-125	1.14	15	
Ethylbenzene	19.7	0.10	"	19.9	0.10	98.5	75-125	1.21	15	
p,m-Xylene	40.0	0.20	"	39.9	0.21	99.7	80-125	1.21	15	
o-Xylene	19.8	0.10	"	19.9	0.17	98.6	75-125	0.564	15	
Surrogate: 4-Bromochlorobenzene-PID	0.407		"	0.399		102	50-150			

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 03-Dec-14 10:20
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1449005 - DRO Extraction EPA 3550M										
Blank (1449005-BLK1)				Prepared: 01-Dec-14 Analyzed: 02-Dec-14						
Diesel Range Organics (C10-C28)	ND	29.9	mg/kg							
Surrogate: o-Terphenyl	40.9		"	39.9		103	50-200			
LCS (1449005-BS1)				Prepared: 01-Dec-14 Analyzed: 02-Dec-14						
Diesel Range Organics (C10-C28)	485	29.9	mg/kg	499		97.2	38-132			
Surrogate: o-Terphenyl	40.9		"	39.9		103	50-200			
Matrix Spike (1449005-MS1)				Source: P411085-01		Prepared: 01-Dec-14 Analyzed: 02-Dec-14				
Diesel Range Organics (C10-C28)	555	30.0	mg/kg	499	ND	111	38-132			
Surrogate: o-Terphenyl	45.1		"	40.0		113	50-200			
Matrix Spike Dup (1449005-MSD1)				Source: P411085-01		Prepared: 01-Dec-14 Analyzed: 02-Dec-14				
Diesel Range Organics (C10-C28)	661	30.0	mg/kg	499	ND	132	38-132	17.5	20	
Surrogate: o-Terphenyl	54.4		"	39.9		136	50-200			

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 03-Dec-14 10:20
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1449006 - Purge and Trap EPA 5030A										
Blank (1449006-BLK1)				Prepared: 01-Dec-14 Analyzed: 02-Dec-14						
Gasoline Range Organics (C6-C10)	ND	9.97	mg/kg							
Surrogate: 4-Bromochlorobenzene-FID	0.376		"	0.399		94.1	50-150			
LCS (1449006-BS1)				Prepared: 01-Dec-14 Analyzed: 02-Dec-14						
Gasoline Range Organics (C6-C10)	270	9.99	mg/kg	292		92.7	80-120			
Surrogate: 4-Bromochlorobenzene-FID	0.371		"	0.400		92.8	50-150			
Matrix Spike (1449006-MS1)				Source: P411085-01		Prepared: 01-Dec-14 Analyzed: 02-Dec-14				
Gasoline Range Organics (C6-C10)	280	9.98	mg/kg	292	ND	96.0	75-125			
Surrogate: 4-Bromochlorobenzene-FID	0.365		"	0.399		91.4	50-150			
Matrix Spike Dup (1449006-MSD1)				Source: P411085-01		Prepared: 01-Dec-14 Analyzed: 02-Dec-14				
Gasoline Range Organics (C6-C10)	277	9.96	mg/kg	291	ND	95.2	75-125	1.09	15	
Surrogate: 4-Bromochlorobenzene-FID	0.368		"	0.399		92.3	50-150			

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 03-Dec-14 10:20
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Cation/Anion Analysis - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1449009 - Anion Extraction EPA 300.0

Blank (1449009-BLK1)				Prepared & Analyzed: 02-Dec-14						
Chloride	ND	9.93	mg/kg							
LCS (1449009-BS1)				Prepared & Analyzed: 02-Dec-14						
Chloride	453	9.87	mg/kg	493		91.8	90-110			
Matrix Spike (1449009-MS1)				Source: P412003-01		Prepared & Analyzed: 02-Dec-14				
Chloride	473	9.98	mg/kg	499	ND	94.7	80-120			
Matrix Spike Dup (1449009-MSD1)				Source: P412003-01		Prepared & Analyzed: 02-Dec-14				
Chloride	474	9.96	mg/kg	498	ND	95.1	80-120	0.255	20	

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

Project Name: Heaton LS 3
Project Number: 03143-0424
Project Manager: Jeff Blagg

Reported:
03-Dec-14 10:20

Notes and Definitions

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

Project Name: Heaton LS 3
Project Number: 03143-0424
Project Manager: Jeff Blagg

Reported:
05-Dec-14 13:33

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Base #2 3-pt @-14'	P412014-01A	Soil	12/03/14	12/03/14	Glass Jar, 4 oz.
North Wall 3-pt 5'-12'	P412014-02A	Soil	12/03/14	12/03/14	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 05-Dec-14 13:33
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Base #2 3-pt @-14'
P412014-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %	50-150		1449028	12/03/14	12/04/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.97	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1449029	12/03/14	12/04/14	EPA 8015D	
Surrogate: o-Terphenyl		95.5 %	50-200		1449029	12/03/14	12/04/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		93.7 %	50-150		1449028	12/03/14	12/04/14	EPA 8015D	
Cation/Anion Analysis									
Chloride	ND	98.6	mg/kg	10	1449030	12/04/14	12/04/14	EPA 300.0	

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 05-Dec-14 13:33
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

North Wall 3-pt 5'-12'
P412014-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %		50-150	1449028	12/03/14	12/04/14	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.98	mg/kg	1	1449028	12/03/14	12/04/14	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1449029	12/03/14	12/04/14	EPA 8015D	
Surrogate: o-Terphenyl		86.7 %		50-200	1449029	12/03/14	12/04/14	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		94.3 %		50-150	1449028	12/03/14	12/04/14	EPA 8015D	
Cation/Anion Analysis									
Chloride	ND	9.83	mg/kg	1	1449030	12/04/14	12/04/14	EPA 300.0	

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 05-Dec-14 13:33
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1449028 - Purge and Trap EPA 5030A

Blank (1449028-BLK1)

Prepared: 03-Dec-14 Analyzed: 04-Dec-14

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	0.419		"	0.400		105	50-150			

LCS (1449028-BS1)

Prepared: 03-Dec-14 Analyzed: 04-Dec-14

Benzene	18.2	0.10	mg/kg	20.0		91.2	75-125			
Toluene	18.6	0.10	"	20.0		93.1	70-125			
Ethylbenzene	18.5	0.10	"	20.0		92.8	75-125			
p,m-Xylene	38.0	0.20	"	39.9		95.2	80-125			
o-Xylene	18.8	0.10	"	20.0		94.0	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.432		"	0.399		108	50-150			

Matrix Spike (1449028-MS1)

Source: P412014-01

Prepared: 03-Dec-14 Analyzed: 04-Dec-14

Benzene	18.6	0.10	mg/kg	19.9	ND	93.3	75-125			
Toluene	19.0	0.10	"	19.9	ND	95.1	70-125			
Ethylbenzene	19.2	0.10	"	19.9	ND	96.0	75-125			
p,m-Xylene	39.1	0.20	"	39.9	ND	98.1	80-125			
o-Xylene	19.2	0.10	"	19.9	ND	96.5	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.417		"	0.399		105	50-150			

Matrix Spike Dup (1449028-MSD1)

Source: P412014-01

Prepared: 03-Dec-14 Analyzed: 04-Dec-14

Benzene	20.0	0.10	mg/kg	20.0	ND	100	75-125	7.41	15	
Toluene	20.3	0.10	"	20.0	ND	102	70-125	7.09	15	
Ethylbenzene	20.5	0.10	"	20.0	ND	102	75-125	6.60	15	
p,m-Xylene	41.8	0.20	"	39.9	ND	105	80-125	6.46	15	
o-Xylene	20.5	0.10	"	20.0	ND	103	75-125	6.57	15	
Surrogate: 4-Bromochlorobenzene-PID	0.409		"	0.399		102	50-150			

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 05-Dec-14 13:33
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1449028 - Purge and Trap EPA 5030A										
Blank (1449028-BLK1)				Prepared: 03-Dec-14 Analyzed: 04-Dec-14						
Gasoline Range Organics (C6-C10)	ND	10.0	mg/kg							
Surrogate: 4-Bromochlorobenzene-FID	0.375		"	0.400		93.8	50-150			
LCS (1449028-BS1)				Prepared: 03-Dec-14 Analyzed: 04-Dec-14						
Gasoline Range Organics (C6-C10)	276	9.98	mg/kg	291		94.5	80-120			
Surrogate: 4-Bromochlorobenzene-FID	0.385		"	0.399		96.4	50-150			
Matrix Spike (1449028-MS1)				Source: P412014-01		Prepared: 03-Dec-14 Analyzed: 04-Dec-14				
Gasoline Range Organics (C6-C10)	272	9.97	mg/kg	291	ND	93.4	75-125			
Surrogate: 4-Bromochlorobenzene-FID	0.376		"	0.399		94.3	50-150			
Matrix Spike Dup (1449028-MSD1)				Source: P412014-01		Prepared: 03-Dec-14 Analyzed: 04-Dec-14				
Gasoline Range Organics (C6-C10)	289	9.98	mg/kg	292	ND	99.3	75-125	6.23	15	
Surrogate: 4-Bromochlorobenzene-FID	0.370		"	0.399		92.6	50-150			

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BP America Production Co.	Project Name:	Heaton LS 3	Reported: 05-Dec-14 13:33
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1449029 - DRO Extraction EPA 3550M										
Blank (1449029-BLK1)				Prepared: 03-Dec-14 Analyzed: 04-Dec-14						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: o-Terphenyl	45.2		"	39.9		113	50-200			
LCS (1449029-BS1)				Prepared: 03-Dec-14 Analyzed: 04-Dec-14						
Diesel Range Organics (C10-C28)	477	25.0	mg/kg	500		95.4	38-132			
Surrogate: o-Terphenyl	40.6		"	40.0		102	50-200			
Matrix Spike (1449029-MS1)				Source: P412014-01		Prepared: 03-Dec-14 Analyzed: 04-Dec-14				
Diesel Range Organics (C10-C28)	429	25.0	mg/kg	499	ND	85.8	38-132			
Surrogate: o-Terphenyl	35.8		"	39.9		89.6	50-200			
Matrix Spike Dup (1449029-MSD1)				Source: P412014-01		Prepared: 03-Dec-14 Analyzed: 04-Dec-14				
Diesel Range Organics (C10-C28)	423	25.0	mg/kg	500	ND	84.7	38-132	1.23	20	
Surrogate: o-Terphenyl	36.0		"	40.0		90.0	50-200			

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BP America Production Co.	Project Name:	Heaton LS 3	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Jeff Blagg	05-Dec-14 13:33

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 1449030 - Anion Extraction EPA 300.0										
Blank (1449030-BLK1)				Prepared & Analyzed: 04-Dec-14						
Chloride	ND	9.87	mg/kg							
LCS (1449030-BS1)				Prepared & Analyzed: 04-Dec-14						
Chloride	483	9.92	mg/kg	496		97.4	90-110			
Matrix Spike (1449030-MS1)				Source: P412014-01		Prepared & Analyzed: 04-Dec-14				
Chloride	472	99.0	mg/kg	495	ND	95.4	80-120			
Matrix Spike Dup (1449030-MSD1)				Source: P412014-01		Prepared & Analyzed: 04-Dec-14				
Chloride	473	98.7	mg/kg	494	ND	95.9	80-120	0.215	20	

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

Project Name: Heaton LS 3
Project Number: 03143-0424
Project Manager: Jeff Blagg

Reported:
05-Dec-14 13:33

Notes and Definitions

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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CHAIN OF CUSTODY RECORD

17566

Client: BP America			Project Name / Location: HEATON LS 3			ANALYSIS / PARAMETERS															
Email results to: Jeff Peace Jeff Blagg Nelson Velez			Sampler Name: J. Blagg			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact	
Client Phone No.: 505-320-1193			Client No.: 03143-0424																		
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative																
					HNO ₃	HCl															
BASE #2 3-PE @ -14"	12/3/14	1122	PH12014-01	1 x 402				X	X												
NORTH Wall 3-PE 5"-12"	11	1129	PH12014-02	11				X	X												
Relinquished by: (Signature) Jeff Blagg					Date	Time	Received by: (Signature) Diane Zazouni										Date	Time			
					12/3/14	1300											12/3/14	1300			
Relinquished by: (Signature)							Received by: (Signature)														
Sample Matrix																					
Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐																					
☐ Sample(s) dropped off after hours to secure drop off area. PO: 4300373962 WO: N15334638					 RUSH ASAP 12.4 Bill BP 10.3																

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