

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 Department

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

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NVF1828338890
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party: BP America Production Co.	OGRID: 778
Contact Name: Steve Moskal	Contact Telephone: (505) 330-9179
Contact email: steven.moskal@bpx.com	Incident # (assigned by OCD) NVF1828338890
Contact mailing address: 380 Airport Road, Durango CO, 81303	

### Location of Release Source

Latitude: 36.629012° Longitude: -108.175144°  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Gallegos Canyon Unit 175E	Site Type: Natural Gas Production Well Pad
Date Release Discovered: September 21, 2018	API#: 30-045-26211

Unit Letter	Section	Township	Range	County
M	25	T28N	R13W	San Juan

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): <u>3 bbls</u>	Volume Recovered (bbls): <u>0 bbls</u>
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Failure of fiberglass flowline from the identified at the 90° fitting at 4' below the base of the production storage tank.

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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.
Printed Name: <u>Steve Moskal</u> Title: <u>Environmental Coordinator</u>
Signature:  Date: <u>October 2, 2018</u>
email: <u>steven.moskal@bpx.com</u> Telephone: <u>(505) 330-9179</u>
<b>OCD Only</b> Received by: _____ Date: _____

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## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<100 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

**Characterization Report Checklist:** *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Steve Moskal Title: Environmental Coordinator

Signature:  Date: October 2, 2018

email: steven.moskal@bpx.com Telephone: (505) 330-9179

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
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## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: Steve Moskal Title: Environmental Coordinator

Signature: 

Date: October 2, 2018

email: steven.moskal@bpx.com

Telephone: (505) 330-9179

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Incident ID	
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Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Steve Moskal Title: Environmental Coordinator

Signature:  Date: September 9, 2018

email: steven.moskal@bpx.com Telephone: (505) 330-9179

**OCD Only**

Received by: OCD Date: 9/11/19

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 10/2/19

Printed Name: Cory Title: Environmental Specialist

**BPX Energy**  
**GCU 175E**  
(M) Sec 25 – T28N – R13W  
San Juan County, New Mexico  
API: 30-045-26211  
NMOCD Incident #NVF1828338890

Summary Record of Impact Remediation

September 21, 2018 Soils impacted with hydrocarbons discovered adjacent to oil stock tank. Cause due to failure of fiberglass elbow, buried 4' below grade. Initial volume lost estimated at 3 barrels condensate.

Site Closure Standard Determined at 100 ppm TPH based on:

- Depth to Groundwater > 100 feet
- Distance to water well > 1,000'
- Distance to dry wash < 300' based on site measurements

August 20, 2019 Begin site remediation via excavation at release point.

August 22, 2019 Complete excavation. Final base of excavation approximately 20' x 20' x 30' deep (from original well pad surface grade), with top perimeter of excavation approximately 120' x 90' with sloping to accommodate safe excavation practices.

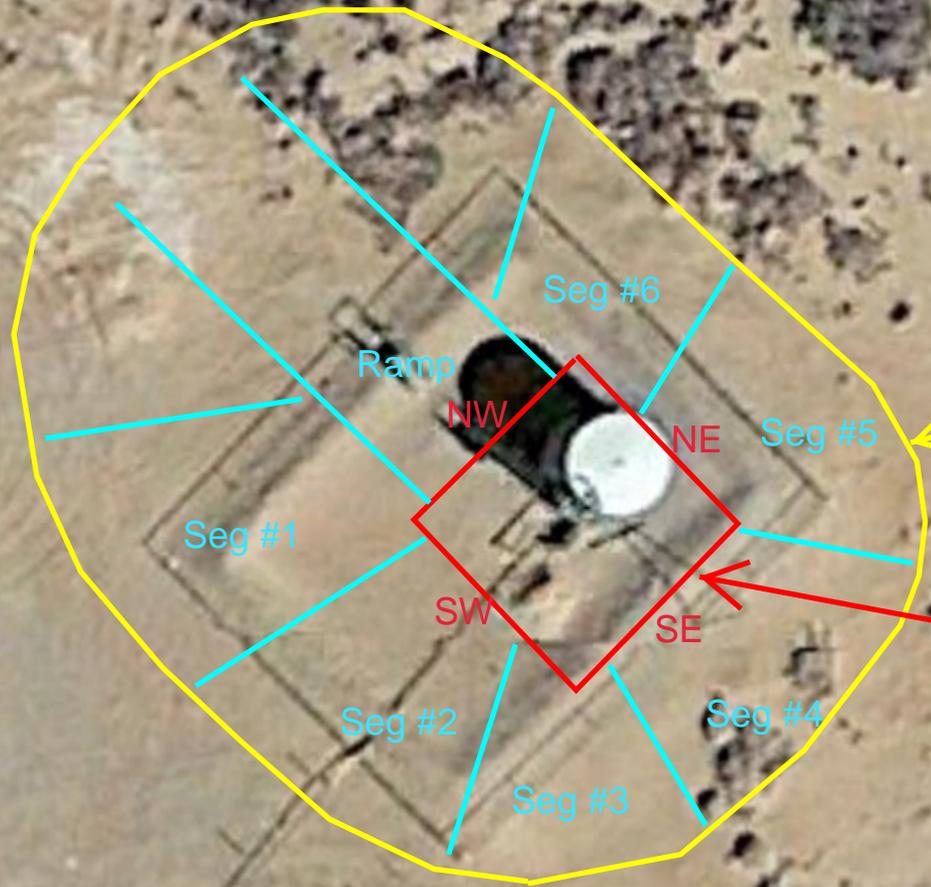
August 23, 2019 Conduct witnessed sampling of remedial excavation for final closure. Summary laboratory data presented below: (See site figures and photographs for identification of sampling areas. All samples comprised of 5-point composites):

Sample ID	Sampling Depths	TPH Total (mg/Kg)	BTEX Total (mg/Kg)	Benzene (mg/Kg)	Chloride (mg/Kg)
Ramp	10'-15'	ND	ND	ND	33.8
Segment #1	3'-15'	ND	ND	ND	ND
Segment #2	3'-15'	ND	ND	ND	ND
Segment #3	3'-15'	ND	ND	ND	ND
Segment #4	3'-15'	ND	ND	ND	ND
Segment #5	3'-15'	ND	ND	ND	30.6
Segment #6	3'-15'	ND	ND	ND	ND
Base	30'	ND	ND	ND	59.7
NW Wall	15'-29'	ND	ND	ND	78.5
SE Wall	15'-29'	ND	ND	ND	72.2
SW Wall	15'-29'	ND	ND	ND	ND
NE Wall	15'-29'	ND	ND	ND	ND
NMOCD/BLM Closure Standard					
		100	50	10	600

August 28, 2019 Complete backfilling of excavation. Impacted soil volume of 760 CY transported to Envirotech Landfarm.

GCU 175E  
(M) Sec 25 - T28N - R13W  
API: 30-045-26211

GCU 175E



Excavation Outer Perimeter

Excavation Inner Perimeter  
(23' x 23' x 30' Deep)  
(August 23, 2019)



GCU 175E  
Shallow Segment Sampling Areas  
August 23, 2019



GCU 175E  
Base @ 30'  
August 23, 2019



GCU 175E  
NW Wall (15'-29')  
August 23, 2019



GCU 175E  
SE Wall (15' - 29')  
August 23, 2019



GCU 175E  
SW Wall (15' - 29')  
August 23, 2019



GCU 175E  
NE Wall (15' - 29')  
August 23, 2019



## Analytical Report

### Report Summary

Client: BP America Production Co.

Samples Received: 8/23/2019

Job Number: 03143-0424

Work Order: P908071

Project Name/Location: GCU 175E

Report Reviewed By:



Date: 8/27/19

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNi unless footnoted otherwise.  
Statement of Data Authenticity: Envirotech, Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.  
Envirotech, Inc, currently holds the appropriate and available Utah TNi certification NM009792018-1 for the data reported.

BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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### Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Ramp @ 10'-15'	P908071-01A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #1 (3'-15')	P908071-02A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #2 (3'-15')	P908071-03A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #3 (3'-15')	P908071-04A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #4 (3'-15')	P908071-05A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #5 (3'-15')	P908071-06A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Segment #6 (3'-15')	P908071-07A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
Base @ 30'	P908071-08A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
NW Wall (15'-29')	P908071-09A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
SE Wall (15'-29')	P908071-10A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
SW Wall (15'-29')	P908071-11A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.
NE Wall (15'-29')	P908071-12A	Soil	08/23/19	08/23/19	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**Ramp @ 10'-15'**  
**P908071-01 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		98.4 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		104 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		98.4 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	33.8	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**Segment #1 (3'-15')**  
**P908071-02 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B
<i>Surrogate: Toluene-d8</i>		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B
<i>Surrogate: Bromofluorobenzene</i>		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D
<i>Surrogate: n-Nonane</i>		105 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D
<i>Surrogate: Toluene-d8</i>		89.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D
<i>Surrogate: Bromofluorobenzene</i>		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**Segment #2 (3'-15')  
P908071-03 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		88.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		99.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		107 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		88.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		99.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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**Segment #3 (3'-15')  
P908071-04 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		90.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		102 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		90.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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**Segment #4 (3'-15')  
P908071-05 (Solid)**

Analyte	Result	Reporting							
		Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B
<i>Surrogate: Toluene-d8</i>		88.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B
<i>Surrogate: Bromofluorobenzene</i>		98.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D
<i>Surrogate: n-Nonane</i>		104 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D
<i>Surrogate: Toluene-d8</i>		88.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D
<i>Surrogate: Bromofluorobenzene</i>		98.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A
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**Segment #5 (3'-15')  
P908071-06 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		88.0 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		96.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		104 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		88.0 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		96.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	30.6	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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**Segment #6 (3'-15')  
P908071-07 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		98.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		96.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		103 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		98.7 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		96.9 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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**Base @ 30'**  
**P908071-08 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		98.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		96.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		103 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		98.1 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		96.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	59.7	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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**NW Wall (15'-29')  
P908071-09 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		98.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		105 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		98.8 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		98.3 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	78.5	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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**SE Wall (15'-29')  
P908071-10 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		95.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		108 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		100 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		95.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	72.2	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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**SW Wall (15'-29')  
P908071-11 (Solid)**

Analyte	Result	Reporting							
		Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		98.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		97.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		107 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		98.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		97.6 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**NE Wall (15'-29')  
P908071-12 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

**Volatile Organic Compounds by 8260**

Benzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Toluene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Ethylbenzene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
p,m-Xylene	ND	0.0500	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
o-Xylene	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
Total Xylenes	ND	0.0250	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8260B	

**Nonhalogenated Organics by 8015 - DRO/ORO**

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1935001	08/26/19	08/26/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		107 %		50-200	1935001	08/26/19	08/26/19	EPA 8015D	

**Nonhalogenated Organics by 8015 - GRO**

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Toluene-d8</i>		99.2 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %		70-130	1934059	08/23/19	08/26/19	EPA 8015D	

**Anions by 300.0/9056A**

Chloride	ND	20.0	mg/kg	1	1934060	08/23/19	08/23/19	EPA 300.0/9056A	
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**Volatile Organic Compounds by 8260 - 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 1934059 - Purge and Trap EPA 5030A**

**Blank (1934059-BLK1)**

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.523</i>		"	<i>0.500</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.446</i>		"	<i>0.500</i>		<i>89.1</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>0.486</i>		"	<i>0.500</i>		<i>97.2</i>	<i>70-130</i>			

**LCS (1934059-BS1)**

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Benzene	2.79	0.0250	mg/kg	2.50	ND	112	70-130			
Toluene	2.23	0.0250	"	2.50	ND	89.2	70-130			
Ethylbenzene	2.28	0.0250	"	2.50	ND	91.2	70-130			
p,m-Xylene	4.47	0.0500	"	5.00	ND	89.5	70-130			
o-Xylene	2.19	0.0250	"	2.50	ND	87.5	70-130			
Total Xylenes	6.66	0.0250	"	7.50	ND	88.8	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.516</i>		"	<i>0.500</i>		<i>103</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.455</i>		"	<i>0.500</i>		<i>90.9</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>0.484</i>		"	<i>0.500</i>		<i>96.8</i>	<i>70-130</i>			

**Matrix Spike (1934059-MS1)**

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Benzene	2.78	0.0250	mg/kg	2.50	ND	111	48-131			
Toluene	2.22	0.0250	"	2.50	ND	88.8	48-130			
Ethylbenzene	2.30	0.0250	"	2.50	ND	91.9	45-135			
p,m-Xylene	4.55	0.0500	"	5.00	ND	90.9	43-135			
o-Xylene	2.22	0.0250	"	2.50	ND	88.8	43-135			
Total Xylenes	6.77	0.0250	"	7.50	ND	90.2	43-135			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.513</i>		"	<i>0.500</i>		<i>103</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.447</i>		"	<i>0.500</i>		<i>89.3</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>0.495</i>		"	<i>0.500</i>		<i>98.9</i>	<i>70-130</i>			

**Matrix Spike Dup (1934059-MSD1)**

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Benzene	2.78	0.0250	mg/kg	2.50	ND	111	48-131	0.180	23	
Toluene	2.27	0.0250	"	2.50	ND	90.6	48-130	1.98	24	
Ethylbenzene	2.33	0.0250	"	2.50	ND	93.3	45-135	1.51	27	
p,m-Xylene	4.57	0.0500	"	5.00	ND	91.4	43-135	0.516	27	
o-Xylene	2.25	0.0250	"	2.50	ND	89.8	43-135	1.21	27	
Total Xylenes	6.82	0.0250	"	7.50	ND	90.9	43-135	0.744	27	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.524</i>		"	<i>0.500</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.455</i>		"	<i>0.500</i>		<i>90.9</i>	<i>70-130</i>			
<i>Surrogate: Bromofluorobenzene</i>	<i>0.492</i>		"	<i>0.500</i>		<i>98.3</i>	<i>70-130</i>			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**Nonhalogenated Organics by 8015 - DRO/ORO - 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 1935001 - DRO Extraction EPA 3570**

**Blank (1935001-BLK1)**

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	27.5		"	50.0		55.0	50-200			

**LCS (1935001-BS1)**

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	483	25.0	mg/kg	500		96.6	38-132			
Surrogate: n-Nonane	37.0		"	50.0		74.0	50-200			

**Matrix Spike (1935001-MS1)**

Source: P908071-01

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	519	25.0	mg/kg	500	ND	104	38-132			
Surrogate: n-Nonane	39.6		"	50.0		79.1	50-200			

**Matrix Spike Dup (1935001-MSD1)**

Source: P908071-01

Prepared: 08/26/19 0 Analyzed: 08/27/19 1

Diesel Range Organics (C10-C28)	532	25.0	mg/kg	500	ND	106	38-132	2.50	20	
Surrogate: n-Nonane	36.2		"	50.0		72.3	50-200			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**Nonhalogenated Organics by 8015 - GRO - 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 1934059 - Purge and Trap EPA 5030A**

**Blank (1934059-BLK1)**

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	0.523		"	0.500		105	70-130			
Surrogate: Toluene-d8	0.446		"	0.500		89.1	70-130			
Surrogate: Bromofluorobenzene	0.486		"	0.500		97.2	70-130			

**LCS (1934059-BS2)**

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	47.9	20.0	mg/kg	50.0		95.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		"	0.500		99.6	70-130			
Surrogate: Toluene-d8	0.451		"	0.500		90.1	70-130			
Surrogate: Bromofluorobenzene	0.484		"	0.500		96.7	70-130			

**Matrix Spike (1934059-MS2)**

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	46.9	20.0	mg/kg	50.0	ND	93.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		"	0.500		101	70-130			
Surrogate: Toluene-d8	0.452		"	0.500		90.3	70-130			
Surrogate: Bromofluorobenzene	0.491		"	0.500		98.1	70-130			

**Matrix Spike Dup (1934059-MSD2)**

Source: P908071-01

Prepared: 08/23/19 1 Analyzed: 08/26/19 1

Gasoline Range Organics (C6-C10)	47.4	20.0	mg/kg	50.0	ND	94.8	70-130	1.04	20	
Surrogate: 1,2-Dichloroethane-d4	0.501		"	0.500		100	70-130			
Surrogate: Toluene-d8	0.461		"	0.500		92.2	70-130			
Surrogate: Bromofluorobenzene	0.490		"	0.500		98.0	70-130			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: GCU 175E Project Number: 03143-0424 Project Manager: Steve Moskal	<b>Reported:</b> 08/27/19 14:58
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**Anions by 300.0/9056A - 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 1934060 - Anion Extraction EPA 300.0/9056A**

<b>Blank (1934060-BLK1)</b>				Prepared & Analyzed: 08/23/19 1						
Chloride	ND	20.0	mg/kg							
<b>LCS (1934060-BS1)</b>				Prepared & Analyzed: 08/23/19 1						
Chloride	257	20.0	mg/kg	250		103	90-110			
<b>Matrix Spike (1934060-MS1)</b>				Source: P908071-01 Prepared & Analyzed: 08/23/19 1						
Chloride	303	20.0	mg/kg	250	33.8	108	80-120			
<b>Matrix Spike Dup (1934060-MSD1)</b>				Source: P908071-01 Prepared & Analyzed: 08/23/19 1						
Chloride	300	20.0	mg/kg	250	33.8	107	80-120	0.869	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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

Project Name: GCU 175E  
Project Number: 03143-0424  
Project Manager: Steve Moskal

**Reported:**  
08/27/19 14:58

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
RPD Relative Percent Difference  
\*\* Methods marked with \*\* are non-accredited methods.

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Client: <u>BPX</u> Project: <u>GCU 175E</u> Project Manager: <u>STEVE MUSKAL</u> Address: _____ City, State, Zip _____ Phone: _____ Email: _____	<b>Report Attention</b> Report due by: <u>8/26/2019</u> Attention: <u>STEVE MUSKAL / JEFF BLAGG</u> Address: _____ City, State, Zip _____ Phone: _____ Email: _____	<b>Lab Use Only</b> Lab WO# <u>P 908071</u> Job Number <u>03143-0424</u>	<b>TAT</b> 1D <input checked="" type="checkbox"/> 3D <input type="checkbox"/>	<b>EPA Program</b> RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/> Analysis and Method _____ State _____ NM <input checked="" type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/> TX <input type="checkbox"/> OK <input type="checkbox"/>
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Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	Remarks
0915	8/23/2019	SOIL	1	RAMP @ 10'-15'	1	X	X	X		X		
0918			1	SEGMENT # 1 (3'-15')	2							
0922			1	SEGMENT # 2 (3'-15')	3							
0926			1	SEGMENT # 3 (3'-15')	4							
0929			1	SEGMENT # 4 (3'-15')	5							
0932			1	SEGMENT # 5 (3'-15')	6							
0935			1	SEGMENT # 6 (3'-15')	7							
0944			1	BASE @ 30'	8							
0947			1	NW Wall (15'-29')	9							
0954			1	SE Wall (15'-29')	10							

**Additional Instructions:** BILL BPX - P.O. ISSUED FOR THIS PROJECT.

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>Jeff Blagg</u>						V.S. ice in cooler											
Relinquished by: (Signature) <u>Jeff Blagg</u> Date: <u>8/23/2019</u>			Time: <u>1157</u>			Received by: (Signature) <u>[Signature]</u> Date: <u>8/23/19</u>			Time: <u>11:57</u>			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.					
Relinquished by: (Signature) _____ Date: _____						Received by: (Signature) _____ Date: _____						Received on ice: <u>Y / N</u>					
Relinquished by: (Signature) _____ Date: _____						Received by: (Signature) _____ Date: _____						T1 _____ T2 _____ 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 _____					
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																	



5795 US Highway 64, Farmington, NM 87401  
 24 Hour Emergency Response Phone (800) 362-1879

Ph (505) 632-1381 Fax (505) 632-1865

envirotech-inc.com  
 labadmin@envirotech-inc.com

Client: <u>BPX</u> Project: <u>GCU 175E</u> Project Manager: <u>Steve Maskal</u> Address: _____ City, State, Zip _____ Phone: _____ Email: _____	<b>Report Attention</b> Report due by: <u>8/26/2019</u> Attention: <u>Steve Maskal / Jeff Blaggy</u> Address: _____ City, State, Zip _____ Phone: _____ Email: _____	<b>Lab Use Only</b> Lab WO# <u>P908071</u> Job Number <u>03143-0424</u>	<b>TAT</b> 1D <input checked="" type="checkbox"/> 3D <input type="checkbox"/>	<b>EPA Program</b> RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/>
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Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	Analysis and Method							State				Remarks				
						DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	1D	3D	RCRA	CWA	SDWA		NM	CO	UT	AZ
0957	8/23/19	SOIL	1	SW Wall (15'-29')	11	X	X	X			X										
1039	"	"	1	NE Wall (15'-29')	12	X	X	X			X										

**Additional Instructions:** BILL BPX V.5 ice in cooler

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Jeff Blaggy

Relinquished by: (Signature) <u>Jeff Blaggy</u>	Date <u>8/23/19</u>	Time <u>11:57</u>	Received by: (Signature) <u>Joshua H. [Signature]</u>	Date <u>8/23/19</u>	Time <u>11:57</u>	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.  Received on ice: <u>Y/N</u>  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

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

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.