

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	
District RP	
Facility ID	
Application ID	

Release Notification

NCS 1831935656

Responsible Party

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

Location of Release Source

Latitude: 36.832213° Longitude: -107.563805°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: NORTHEAST BLANCO UNIT #409A	Site Type: Natural Gas Production Well Pad
Date Release Discovered: October 16, 2018	API#: 3 <u>30-039-29628</u>

Unit Letter	Section	Township	Range	County
D	10	T30N	R07W	San Juan

NMOCD

NOV 28 2018

DISTRICT III

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 checked="" type="checkbox"/> Produced Water	Volume Released (bbls): <u>7.5 bbls</u>	Volume Recovered (bbls): <u>0 bbls</u>
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls):	Volume Recovered (bbls):
<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 a 6" steel water transfer line in two locations, approximately 550' from one another. Suspect internal corrosion to be the cause. The line has since been removed from service.

Due to BP sampling the release area without required notification, the release was resampled under the supervision of the NMOCD on November 19th, 2018. Attached are the results and associated documentation.

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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: The released water absorbed into the ground surface.
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>November 27, 2018</u>
email: <u>steven.moskal@bpx.com</u> Telephone: <u>(505) 330-9179</u>
<u>OCD Only</u> 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?	<u>304</u> (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 not 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 ½-mile of the lateral extents of the release
- Boring or excavation logs (Non-Applicable; surficial water release)
- 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.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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Printed Name: Steve Moskal Title: Environmental Coordinator

Signature:  Date: November 27, 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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

- Approved
 Approved with Attached Conditions of Approval
 Denied
 Deferral Approved

Signature: _____ Date: _____

Incident ID	
District RP	
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

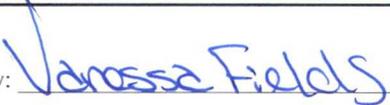
Signature:  Date: November 27, 2018

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

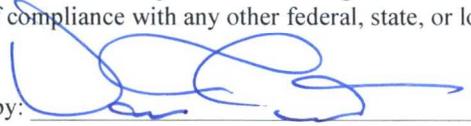
****Based on siting and lab results, no further action requested by BP.**

The area of release was resampled and witnessed by the NMOCD on November 19th, 2018.

OCD Only

Received by:  Date: 11/28/2018

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: 11/8/2019
Printed Name: _____ Title: Environmental Specialist



New Mexico Office of the State Engineer

Wells with Well Log Information

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	POD Sub-Code	basin	County	Source	q	q	q	6416	4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
SJ 03640		SJ	RA	Shallow	1	1	3	15		30N	07W		271072	4077061*	2333	03/25/2006	04/12/2006	06/02/2005	433	241	HARGIS, WILLIAM CALVIN	1508
SJ 02366		SJ	RA	Shallow	1	3	15			30N	07W		271062	4077047	2348	03/20/1992	06/03/1992	06/15/1992	345	225	RILEY, JAY	1223
SJ 02698		SJ	RA	Shallow	1	3	15			30N	07W		271173	4076962*	2418	05/02/1996	05/18/1996	05/31/1996	402	255	GLOVER, PAUL A.	1374
SJ 03946 POD1		SJ	RA	Shallow	4	2	4	15		30N	07W		270941	4076902	2512	03/30/2011	04/03/2011	04/06/2011	455	285	HOOD, TERRY (LD)	717
SJ 04189 POD1		SJAR	SJ	Shallow	1	2	3	33		31N	07W		270010	4082017	3015	06/27/2017	07/03/2017	07/14/2017	460	380	BAILEY, MARK	1357

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 271444.33

Northing (Y): 4079364.87

Radius: 3200

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Analytical Report

Report Summary

Client: BP America Production Co.
Chain Of Custody Number:
Samples Received: 10/17/2018 11:20:00AM
Job Number: 03143-0424
Work Order: P810087
Project Name/Location: NEBU 409A

Report Reviewed By:



Date: 10/24/18

Walter Hinchman, Laboratory Director



Date: 10/24/18

Tim Cain, Project Manager



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.	Project Name: NEBU 409A	Reported: 10/24/18 16:42
PO Box 22024	Project Number: 03143-0424	
Tulsa OK, 74121-2024	Project Manager: Steve Moskal	

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS-01E Source	P810087-01A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-02E Mid	P810087-02A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-03E End	P810087-03A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-01W Source	P810087-04A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-02W Mid	P810087-05A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.
SS-03W End	P810087-06A	Soil	10/16/18	10/17/18	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 10/24/18 16:42
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**SS-01E Source
P810087-01 (Solid)**

Analyte	Result	Reporting				Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution						

Volatile Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B

Surrogate: 4-Bromochlorobenzene-PID 101 % 50-150 1842026 10/19/18 10/22/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D

Surrogate: 1-Chloro-4-fluorobenzene-FID 98.3 % 50-150 1842026 10/19/18 10/22/18 EPA 8015D

Surrogate: n-Nonane 135 % 50-200 1842028 10/19/18 10/19/18 EPA 8015D

Anions by 300.0/9056A

Chloride	879	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 10/24/18 16:42
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SS-02E Mid
P810087-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatiles Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID 102 % 50-150 1842026 10/19/18 10/22/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID 97.7 % 50-150 1842026 10/19/18 10/22/18 EPA 8015D

Surrogate: n-Nonane 132 % 50-200 1842028 10/19/18 10/19/18 EPA 8015D

Anions by 300.0/9056A

Chloride	625	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 10/24/18 16:42
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**SS-03E End
P810087-03 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	1842026	10/19/18	10/22/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		99.1 %		50-150	1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		133 %		50-200	1842028	10/19/18	10/19/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	449	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

 Project Name: NEBU 409A
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 10/24/18 16:42

SS-01W Source
P810087-04 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %		50-150	1842026	10/19/18	10/22/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.1 %		50-150	1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		136 %		50-200	1842028	10/19/18	10/19/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	760	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 10/24/18 16:42
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**SS-02W Mid
P810087-05 (Solid)**

Analyte	Result	Reporting							
		Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatiles Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %		50-150	1842026	10/19/18	10/22/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		99.6 %		50-150	1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		137 %		50-200	1842028	10/19/18	10/19/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	1190	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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

 Project Name: NEBU 409A
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 10/24/18 16:42

SS-03W End
P810087-06 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatiles Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1842026	10/19/18	10/22/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %		50-150	1842026	10/19/18	10/22/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1842026	10/19/18	10/22/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1842028	10/19/18	10/19/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.5 %		50-150	1842026	10/19/18	10/22/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		130 %		50-200	1842028	10/19/18	10/19/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	415	20.0	mg/kg	1	1843008	10/23/18	10/23/18	EPA 300.0/9056A	

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BP America Production Co.	Project Name:	NEBU 409A	Reported: 10/24/18 16:42
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

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 1842026 - Purge and Trap EPA 5030A

Blank (1842026-BLK1)				Prepared: 10/18/18 1 Analyzed: 10/19/18 1						
Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7990		"	8000		99.9	50-150			

LCS (1842026-BS1)				Prepared: 10/18/18 1 Analyzed: 10/19/18 1						
Benzene	5460	100	ug/kg	5000		109	70-130			
Toluene	5520	100	"	5000		110	70-130			
Ethylbenzene	5570	100	"	5000		111	70-130			
p,m-Xylene	11400	200	"	10000		114	70-130			
o-Xylene	5480	100	"	5000		110	70-130			
Total Xylenes	16900	100	"	15000		113	70-130			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7900		"	8000		98.8	50-150			

Matrix Spike (1842026-MS1)				Source: P810093-01		Prepared: 10/18/18 1 Analyzed: 10/19/18 1				
Benzene	5870	100	ug/kg	5000	ND	117	54.3-133			
Toluene	5890	100	"	5000	ND	118	61.4-130			
Ethylbenzene	5960	100	"	5000	ND	119	61.4-133			
p,m-Xylene	12200	200	"	10000	ND	122	63.3-131			
o-Xylene	5850	100	"	5000	ND	117	63.3-131			
Total Xylenes	18000	100	"	15000	ND	120	63.3-131			
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7830		"	8000		97.9	50-150			

Matrix Spike Dup (1842026-MSD1)				Source: P810093-01		Prepared: 10/18/18 1 Analyzed: 10/19/18 1				
Benzene	5750	100	ug/kg	5000	ND	115	54.3-133	2.05	20	
Toluene	5780	100	"	5000	ND	116	61.4-130	1.88	20	
Ethylbenzene	5850	100	"	5000	ND	117	61.4-133	1.89	20	
p,m-Xylene	11900	200	"	10000	ND	119	63.3-131	1.82	20	
o-Xylene	5740	100	"	5000	ND	115	63.3-131	1.92	20	
Total Xylenes	17700	100	"	15000	ND	118	63.3-131	1.85	20	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	7840		"	8000		98.1	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 10/24/18 16:42
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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
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Batch 1842026 - Purge and Trap EPA 5030A

Blank (1842026-BLK1)				Prepared: 10/18/18 1 Analyzed: 10/19/18 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.77		"	8.00		97.1	50-150			

LCS (1842026-BS2)				Prepared: 10/18/18 1 Analyzed: 10/19/18 1						
Gasoline Range Organics (C6-C10)	42.5	20.0	mg/kg	50.0		85.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		"	8.00		100	50-150			

Matrix Spike (1842026-MS2)				Source: P810093-01		Prepared: 10/18/18 1 Analyzed: 10/19/18 1				
Gasoline Range Organics (C6-C10)	50.9	20.0	mg/kg	50.0	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.80		"	8.00		97.5	50-150			

Matrix Spike Dup (1842026-MSD2)				Source: P810093-01		Prepared: 10/18/18 1 Analyzed: 10/19/18 1				
Gasoline Range Organics (C6-C10)	50.3	20.0	mg/kg	50.0	ND	101	70-130	1.00	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.13		"	8.00		102	50-150			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 10/24/18 16:42
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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
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Batch 1842028 - DRO Extraction EPA 3570

Blank (1842028-BLK1)		Prepared: 10/19/18 0 Analyzed: 10/22/18 1								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	60.4		"	50.0		121	50-200			
LCS (1842028-BS1)		Prepared: 10/19/18 0 Analyzed: 10/19/18 1								
Diesel Range Organics (C10-C28)	476	25.0	mg/kg	500		95.2	38-132			
Surrogate: n-Nonane	60.5		"	50.0		121	50-200			
Matrix Spike (1842028-MS1)		Source: P810094-01		Prepared: 10/19/18 0 Analyzed: 10/19/18 1						
Diesel Range Organics (C10-C28)	474	25.0	mg/kg	500	ND	94.8	38-132			
Surrogate: n-Nonane	62.5		"	50.0		125	50-200			
Matrix Spike Dup (1842028-MSD1)		Source: P810094-01		Prepared: 10/19/18 0 Analyzed: 10/19/18 1						
Diesel Range Organics (C10-C28)	506	25.0	mg/kg	500	ND	101	38-132	6.41	20	
Surrogate: n-Nonane	62.9		"	50.0		126	50-200			

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 10/24/18 16:42
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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 1843008 - Anion Extraction EPA 300.0/9056A

Blank (1843008-BLK1)				Prepared & Analyzed: 10/23/18 1						
Chloride	ND	20.0	mg/kg							
LCS (1843008-BS1)				Prepared & Analyzed: 10/23/18 1						
Chloride	256	20.0	mg/kg	250		102	90-110			
Matrix Spike (1843008-MS1)				Source: P810085-01 Prepared & Analyzed: 10/23/18 1						
Chloride	775	20.0	mg/kg	250	530	97.9	80-120			
Matrix Spike Dup (1843008-MSD1)				Source: P810085-01 Prepared & Analyzed: 10/23/18 1						
Chloride	751	20.0	mg/kg	250	530	88.5	80-120	3.08	20	

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BP America Production Co.	Project Name:	NEBU 409A	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	10/24/18 16:42

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>DP</u>		Report Attention		Lab Use Only		TAT		EPA Program																			
Project: <u>NEBU 409A</u>		Report due by: <u>Standard TAT</u>		Lab WO# <u>P810087</u>		Job Number <u>03143-0424</u>		1D	3D	RCRA	CWA	SDWA															
Project Manager: <u>Steve Maskal</u>		Attention: <u>Steve Maskal</u>		Address:		Analysis and Method						State															
Address: <u>310 W Airport Rd</u>		City, State, Zip: <u>Durango CO 81303</u>		Phone:		DRO/ORO by 8015		GRO/DRO by 8015		BTEX by 8021		VOC by 8260		Metals 6010		Chloride 300.0		TPH 418.1		NM		CO		UT		AZ	
Email: <u>steve.maskal@dp.com</u>		Email:																									

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1	Remarks														
1330	10/16/18	Soil	1-4oz	SS-01E Source	1	X	X	X			X																
1335				SS-02E Mid	2	X	X	X			X																
1340				SS-03E End	3	X	X	X			X																
1400				SS-01W Source	4	X	X	X			X																
1405				SS-02W Mid	5	X	X	X			X																
1410				SS-03W End	6	X	X	X			X																

Additional Instructions:

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: Steve Maskal

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) <u>Steve Maskal</u>	Date <u>10/17/18</u>	Time <u>11:20</u>	Received by: (Signature) <u>AWL</u>	Date <u>10/17/18</u>	Time <u>11:20</u>	Lab Use Only Received on ice: <u>Y</u> / N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
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.

Page 14 of 14



Analytical Report

Report Summary

Client: BP America Production Co.
Chain Of Custody Number:
Samples Received: 11/19/2018 3:07:00PM
Job Number: 03143-0424
Work Order: P811058
Project Name/Location: NEBU 409A

Report Reviewed By:



Date: 11/26/18

Walter Hinchman, Laboratory Director



Date: 11/26/18

Tim Cain, Project Manager



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.
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Envirotech, Inc, currently holds the appropriate and available Utah TNI certification NM009792018-1 for the data reported.

BP America Production Co.	Project Name:	NEBU 409A	Reported: 11/26/18 16:35
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
West Release 10-pt Comp	P811058-01A	Soil	11/19/18	11/19/18	Glass Jar, 4 oz.
East Release 10-pt Comp	P811058-02A	Soil	11/19/18	11/19/18	Glass Jar, 4 oz.

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:35
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**West Release 10-pt Comp
P811058-01 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

Volatiles Organics by EPA 8021

Benzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B
Toluene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B
Ethylbenzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B
p,m-Xylene	ND	200	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B
o-Xylene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B
Total Xylenes	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B
Total BTEX	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B

Surrogate: 4-Bromochlorobenzene-PID 98.2 % 50-150 1847017 11/20/18 11/21/18 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1847017	11/20/18	11/21/18	EPA 8015D
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D

Surrogate: 1-Chloro-4-fluorobenzene-FID 105 % 50-150 1847017 11/20/18 11/21/18 EPA 8015D

Surrogate: n-Nonane 90.2 % 50-200 1847006 11/19/18 11/21/18 EPA 8015D

Anions by 300.0/9056A

Chloride	1600	20.0	mg/kg	1	1847012	11/20/18	11/20/18	EPA 300.0/9056A
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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:35
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**East Release 10-pt Comp
P811058-02 (Solid)**

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					
Volatile Organics by EPA 8021									
Benzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Toluene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Ethylbenzene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
p,m-Xylene	ND	200	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
o-Xylene	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total Xylenes	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
Total BTEX	ND	100	ug/kg	1	1847017	11/20/18	11/21/18	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.9 %		50-150	1847017	11/20/18	11/21/18	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1847017	11/20/18	11/21/18	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1847006	11/19/18	11/21/18	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %		50-150	1847017	11/20/18	11/21/18	EPA 8015D	
<i>Surrogate: n-Nonane</i>		88.5 %		50-200	1847006	11/19/18	11/21/18	EPA 8015D	
Anions by 300.0/9056A									
Chloride	1580	20.0	mg/kg	1	1847012	11/20/18	11/20/18	EPA 300.0/9056A	

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:35
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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 1847017 - Purge and Trap EPA 5030A

Blank (1847017-BLK1)

Prepared: 11/20/18 0 Analyzed: 11/20/18 1

Benzene	ND	100	ug/kg							
Toluene	ND	100	"							
Ethylbenzene	ND	100	"							
p,m-Xylene	ND	200	"							
o-Xylene	ND	100	"							
Total Xylenes	ND	100	"							
Total BTEX	ND	100	"							

Surrogate: 4-Bromochlorobenzene-PID 7900 " 8000 98.8 50-150

LCS (1847017-BS1)

Prepared: 11/20/18 0 Analyzed: 11/20/18 1

Benzene	5070	100	ug/kg	5000		101	70-130			
Toluene	5180	100	"	5000		104	70-130			
Ethylbenzene	5260	100	"	5000		105	70-130			
p,m-Xylene	10800	200	"	10000		108	70-130			
o-Xylene	5230	100	"	5000		105	70-130			
Total Xylenes	16000	100	"	15000		107	70-130			

Surrogate: 4-Bromochlorobenzene-PID 7980 " 8000 99.8 50-150

Matrix Spike (1847017-MS1)

Source: P811050-01

Prepared: 11/20/18 0 Analyzed: 11/21/18 0

Benzene	5370	100	ug/kg	5000	ND	107	54.3-133			
Toluene	5500	100	"	5000	ND	110	61.4-130			
Ethylbenzene	5600	100	"	5000	ND	112	61.4-133			
p,m-Xylene	11400	200	"	10000	ND	114	63.3-131			
o-Xylene	5520	100	"	5000	ND	110	63.3-131			
Total Xylenes	17000	100	"	15000	ND	113	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8000 " 8000 100 50-150

Matrix Spike Dup (1847017-MSD1)

Source: P811050-01

Prepared: 11/20/18 0 Analyzed: 11/20/18 2

Benzene	5270	100	ug/kg	5000	ND	105	54.3-133	1.89	20	
Toluene	5410	100	"	5000	ND	108	61.4-130	1.76	20	
Ethylbenzene	5510	100	"	5000	ND	110	61.4-133	1.54	20	
p,m-Xylene	11300	200	"	10000	ND	113	63.3-131	1.43	20	
o-Xylene	5470	100	"	5000	ND	109	63.3-131	0.982	20	
Total Xylenes	16800	100	"	15000	ND	112	63.3-131	1.28	20	

Surrogate: 4-Bromochlorobenzene-PID 8130 " 8000 102 50-150

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BP America Production Co. PO Box 22024 Tulsa OK, 74121-2024	Project Name: NEBU 409A Project Number: 03143-0424 Project Manager: Steve Moskal	Reported: 11/26/18 16:35
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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
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Batch 1847006 - DRO Extraction EPA 3570

Blank (1847006-BLK1)		Prepared: 11/19/18 1 Analyzed: 11/19/18 2								
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
<i>Surrogate: n-Nonane</i>	44.4		"	50.0		88.8	50-200			
LCS (1847006-BS1)		Prepared: 11/19/18 1 Analyzed: 11/20/18 0								
Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500		95.8	38-132			
<i>Surrogate: n-Nonane</i>	43.6		"	50.0		87.2	50-200			
Matrix Spike (1847006-MS1)		Source: P811041-01		Prepared: 11/19/18 1 Analyzed: 11/20/18 0						
Diesel Range Organics (C10-C28)	474	25.0	mg/kg	500	ND	94.7	38-132			
<i>Surrogate: n-Nonane</i>	39.5		"	50.0		79.0	50-200			
Matrix Spike Dup (1847006-MSD1)		Source: P811041-01		Prepared: 11/19/18 1 Analyzed: 11/20/18 0						
Diesel Range Organics (C10-C28)	502	25.0	mg/kg	500	ND	100	38-132	5.92	20	
<i>Surrogate: n-Nonane</i>	40.5		"	50.0		80.9	50-200			

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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
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Batch 1847017 - Purge and Trap EPA 5030A

Blank (1847017-BLK1)				Prepared: 11/20/18 0 Analyzed: 11/20/18 1						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.45		"	8.00		106	50-150			

LCS (1847017-BS2)				Prepared: 11/20/18 0 Analyzed: 11/20/18 2						
Gasoline Range Organics (C6-C10)	53.2	20.0	mg/kg	50.0		106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.46		"	8.00		106	50-150			

Matrix Spike (1847017-MS2)				Source: P811050-01		Prepared: 11/20/18 0 Analyzed: 11/20/18 2				
Gasoline Range Organics (C6-C10)	53.1	20.0	mg/kg	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.37		"	8.00		105	50-150			

Matrix Spike Dup (1847017-MSD2)				Source: P811050-01		Prepared: 11/20/18 0 Analyzed: 11/20/18 2				
Gasoline Range Organics (C6-C10)	45.0	20.0	mg/kg	50.0	ND	90.1	70-130	16.4	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.54		"	8.00		107	50-150			

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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
Batch 1847012 - Anion Extraction EPA 300.0/9056A										
Blank (1847012-BLK1)				Prepared & Analyzed: 11/19/18 1						
Chloride	ND	20.0	mg/kg							
LCS (1847012-BS1)				Prepared & Analyzed: 11/19/18 1						
Chloride	255	20.0	mg/kg	250		102	90-110			
Matrix Spike (1847012-MS1)				Source: P811050-01		Prepared & Analyzed: 11/19/18 1				
Chloride	333	20.0	mg/kg	250	73.8	104	80-120			
Matrix Spike Dup (1847012-MSD1)				Source: P811050-01		Prepared & Analyzed: 11/19/18 1				
Chloride	332	20.0	mg/kg	250	73.8	103	80-120	0.457	20	

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

Project Name: NEBU 409A
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
11/26/18 16:35

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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Northeast Blanco Unit 409A

API# 30-045-29628
(D) S10, T30N, R07W
Eastern Release GPS:
36.832946°, -107.562141°
Western Release
36.832213°, -107.563805°

Legend

- Release Point
- Release Extents
- Soil Sample Location



Google Earth

© 2018 Google

200 ft

Northeast Blanco Unit 409A

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(D) S10, T30N, R07W
Eastern Release GPS:
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Western Release
36.832213°, -107.563805°

Legend

- ◆ Release Point
- Release Extents
- Soil Sample Location



Google Earth

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100 ft

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Western Release
36.832213°, -107.563805°

Legend

- ◊ Release Point
- Release Extents
- Soil Sample Location

SS-01E
Eastern Release
SS-02E
SS-03E

Google Earth

© 2018 Google

100 ft



Distance to Surface Water

350' Radius for each release

Legend

-  350' Radius
-  Feature 1
-  Release Location



Google Earth

© 2018 Google

800 ft

Northeast Blanco Unit 409A

API# 30-045-29628
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Eastern Release GPS:
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Western Release
36.832213°, -107.563805°

Legend

- ◆ Release Point
- Release Extents
- Soil Sample Location

Sampling - Nov 19, 2018
x = 10-Point Composite
Sampling Point



Google Earth

© 2018 Google

100 ft

Northeast Blanco Unit 409A

API# 30-045-29628

(D) S10, T30N, R07W

Eastern Release GPS:

36.832946°, -107.562141°

Western Release

36.832213°, -107.563805°

Legend

- ◆ Release Point
- Release Extents
- Soil Sample Location

Sampling - Nov 19, 2018
x = 10-Point Composite
Sampling Point

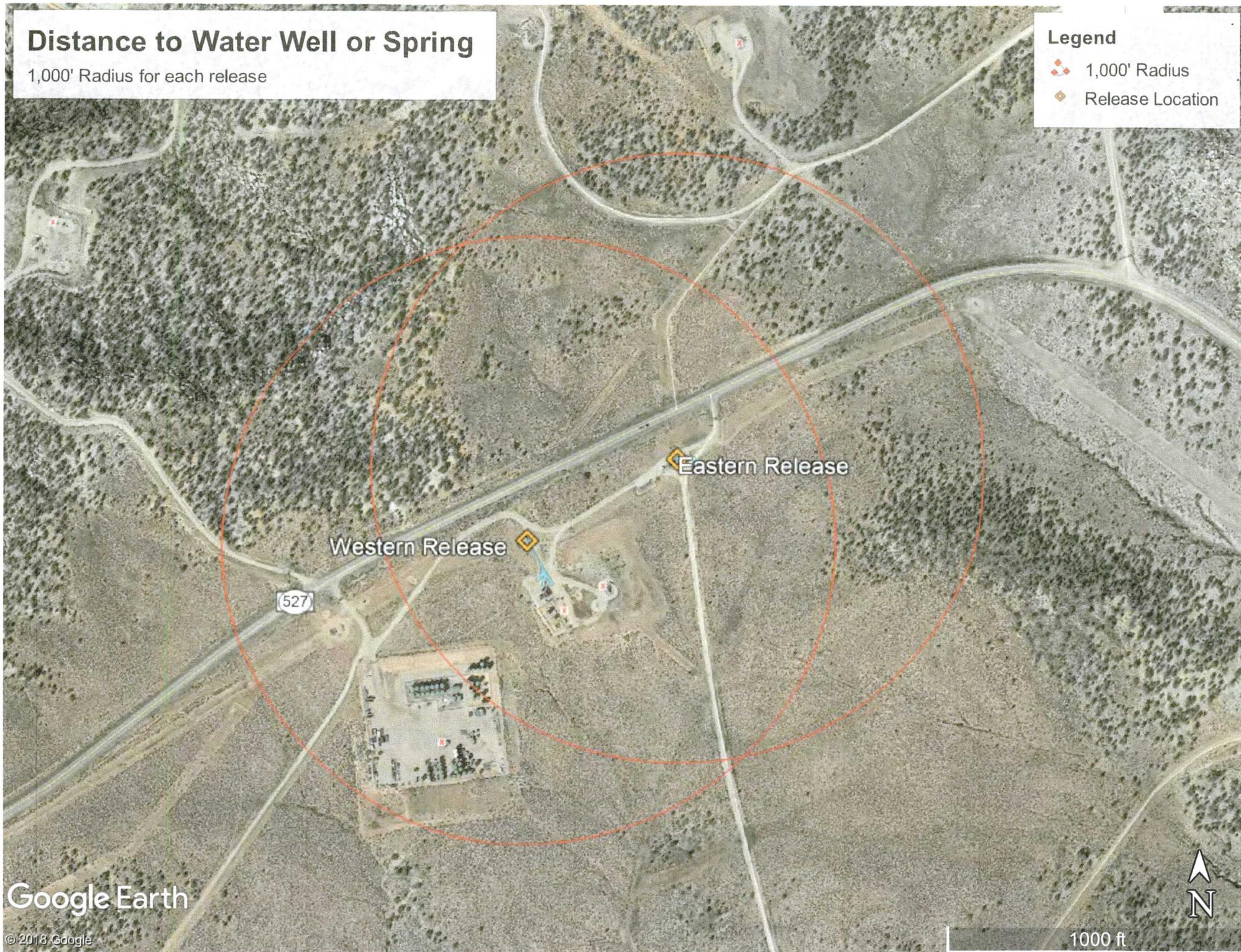


Distance to Water Well or Spring

1,000' Radius for each release

Legend

- 1,000' Radius
- Release Location

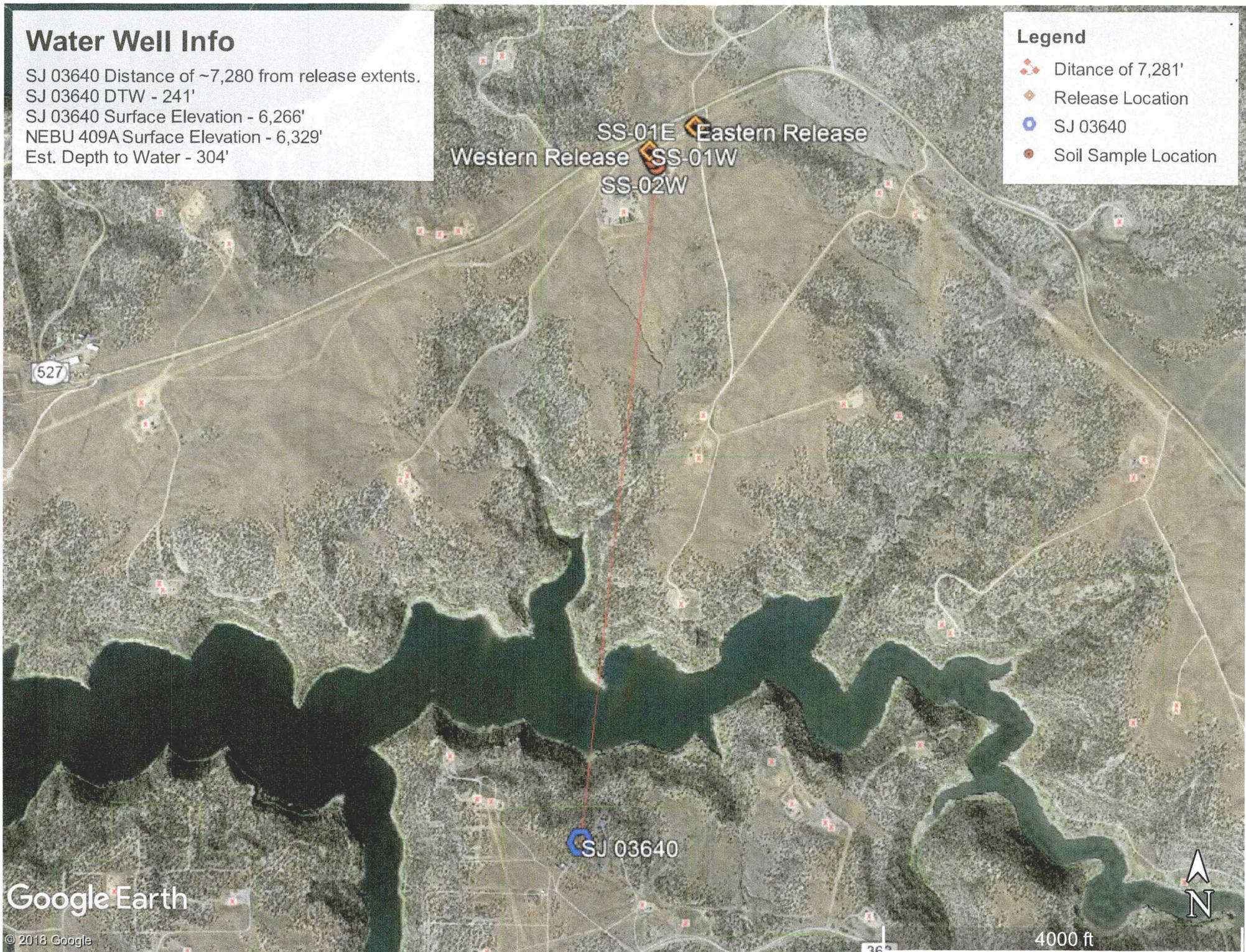


Water Well Info

SJ 03640 Distance of ~7,280 from release extents.
SJ 03640 DTW - 241'
SJ 03640 Surface Elevation - 6,266'
NEBU 409A Surface Elevation - 6,329'
Est. Depth to Water - 304'

Legend

-  Distance of 7,281'
-  Release Location
-  SJ 03640
-  Soil Sample Location



Google Earth

© 2018 Google

4000 ft

363