

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	NVF1907335094
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BPX Energy	OGRID: 778
Contact Name: Steve Moskal	Contact Telephone: (505) 330-9179
Contact email: steven.moskal@bpx.com	Incident # (assigned by OCD)
Contact mailing address: 1199 Main St., Suite 101, Durango CO, 81301	NVF1907335094

Location of Release Source

Latitude: 36.701690 ° Longitude: -107.642409°
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Wilch A 001	Site Type: Natural Gas Production Well Pad
Date Release Discovered: March 8, 2019	API#: 30-045-07902

Unit Letter	Section	Township	Range	County
B	26	T29N	R08W	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>28 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:


Internal corrosion of steel production tank resulted in hole in the base of the tank. Site has not been fully assessed.

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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>March 13, 2019</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>545</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.

<p>Characterization Report Checklist: <i>Each of the following items must be included in the report.</i></p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.<input type="checkbox"/> Field data<input type="checkbox"/> Data table of soil contaminant concentration data<input checked="" type="checkbox"/> Depth to water determination<input checked="" type="checkbox"/> Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release<input type="checkbox"/> Boring or excavation logs<input type="checkbox"/> Photographs including date and GIS information<input type="checkbox"/> Topographic/Aerial maps<input type="checkbox"/> 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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Printed Name: Steve Moskal Title: Environmental Coordinator

Signature:  Date: March 13, 2019

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

OCD Only

Received by: _____ Date: _____

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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.

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Printed Name: Steve Moskal Title: Environmental Coordinator

Signature: 

Date: March 13, 2019

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: _____

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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, 2019

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: 10/7/19

Printed Name: Cory

Title: Environmental Specialist

BPX Energy Inc.

(Formerly BP America Production Company)

Wilch A 001 - API: 30-045-07902

(B) Sec 26 – T29N – R08W, San Juan County, New Mexico

Summary Record of Impacted Soils Remediation

<u>March 13, 2019</u>	BPX submitted C-141 which included Remediation Plan to the New Mexico Oil Conservation Division (NMOCD) and to Bureau of Land Management (BLM). NMOCD approved 03/14/2019. Information provided support for applicable closure standards. <u>Official date of impact discovery.</u>
<u>March 18, 2019</u>	Initiated release investigation with advancement of five (5) test holes using manual hand equipment adjacent to production tank perimeter. Collected five (5) point composite sample (5pcs) at approximately one (1) foot below grade (b.g.) (<u>see Release Investigation Section</u>).
<u>March 21, 2019</u>	5pcs lab results were as follows; benzene = 0.565 mg/Kg; benzene, toluene, ethylbenzene, and total xylenes (BTEX) = 62.455 mg/Kg; TPH (GRO+DRO) = 2,035 mg/Kg; total TPH = 2,271 mg/Kg; chloride = <20 mg/Kg.
<u>May 8, 2019</u>	Notification of remediation commencement and initial closure sampling schedule submitted to NMOCD and BLM (<u>see May Email Correspondence</u>).
<u>May 9, 2019</u>	Initiated remediation via excavation and soil shredding (<u>see Site Remediation Section</u>).
<u>May 15, 2019</u>	Received 05/14/2019 preliminary closure sample laboratory report. East sidewall and base at 18 feet b.g. exceeded TPH (GRO+DRO) closure standards. Resampling of extended sidewalls scheduled for 05/16/2019.
<u>May 24, 2019</u>	Received 05/23/2019 preliminary closure sample laboratory report of extended east sidewall and base. <u>Summary table of results listed on following pages.</u>
<u>June 3, 2019</u>	Received final treated soil sample laboratory report. <u>Summary table of results listed on following pages.</u>
<u>June 7, 2019</u>	Completed excavation backfilling.
<u>July 24, 2019</u>	Vadose zone sampling plan submitted to NMOCD via email. NMOCD approved on same day (<u>see July Email Correspondence within Vadose Zone Confirmation Section</u>).
<u>July 25, 2019</u>	Conducted vadose zone sampling of treated stockpile areas. Aerial map and photos of sample locations included.
<u>August 2, 2019</u>	Received 07/25/2019 vadose zone soil sample final laboratory report. <u>Summary table of results listed on following pages.</u>

BPX Energy Inc.

(Formerly BP America Production Company)

Wilch A 001 - API: 30-045-07902

(B) Sec 26 – T29N – R08W, San Juan County, New Mexico

Excavation Closure Sampling Test Results

May 14, 2019 & May 23, 2019 – *(Extended East Wall & Base)*

Excavation Size: 33 x 18' x 21' Deep

Sample ID	Time	5-pt Comp. Depths (feet)	Field OVM (ppm)	Benzene (mg/Kg)	Total BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH (GRO + DRO) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
North Wall	1107	6 - 17	780	ND	0.168	ND	38.5	ND	38.5	38.5	131
South Wall	1128	6 - 17	4,389	0.237	40.017	341	648	ND	989	989	105
East Wall	1114	6 - 17	4,776	0.456	46.716	404	923	ND	1,327	1,327	60.6
Extended East Wall	1340	6 - 20	10.9	ND	ND	ND	ND	ND	ND	ND	34.6
West Wall	1121	6 - 17	3,090	0.0453	9.0303	109	296	ND	405	405	69.7
Base	1100	18	4,688	0.203	41.443	363	818	56.1	1,181	1,237.1	24.9
E. Base	1335	21	5.4	ND	ND	ND	ND	ND	ND	ND	ND
W. Base	1330	21	2.9	ND	ND	ND	ND	ND	ND	ND	ND
NMOCD Site Closure Standards -				10	50				1,000	2,500	20,000

OVM – Organic Vapor Meter, ppm – parts per million, mg/Kg – milligram per kilogram, BTEX – benzene, toluene, ethylbenzene, total xylenes, TPH – Total Petroleum Hydrocarbons, GRO – Gasoline Range Organics, DRO – Diesel Range Organics, MRO or ORO – Motor Oil Range Organics, NA – Not Analyzed, ND – Not detected at laboratory reporting limit.

BPX Energy Inc.

(Formerly BP America Production Company)

Wilch A 001 - API: 30-045-07902

(B) Sec 26 – T29N – R08W, San Juan County, New Mexico

Treated Soil Pile Test Results

May 29 through May 31, 2019

Sample ID	Stockpile Volume (c.y.)	Date Created	Date Sampled	Field OVM (ppm)	Benzene (mg/Kg)	Total BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH (GRO + DRO) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
TSP-1	100	5/28/19	5/29/19	911	ND	4.741	110	373	ND	483	483	60.0
TSP-2	100	5/28/19	5/29/19	1,349	ND	3.965	89.9	311	ND	400.9	400.9	60.9
TSP-3	100	5/28/19	5/29/19	1,446	ND	5.748	94.4	415	ND	509.4	509.4	64.3
TSP-4	100	5/29/19	5/30/19	803	ND	5.170	95.3	345	ND	440.3	440.3	77.2
TSP-5	100	5/29/19	5/30/19	895	ND	2.905	68.8	341	ND	409.8	409.8	77.0
TSP-6	100	5/29/19	5/30/19	1,023	ND	5.289	106	456	ND	562	562	74.0
TSP-7	100	5/29/19	5/30/19	1,203	ND	5.497	102	362	ND	464	464	65.6
TSP-8	100	5/29/19	5/30/19	1,178	ND	4.413	88.9	366	ND	454.9	454.9	89.0
TSP-9	100	5/29/19	5/30/19	1,270	ND	9.807	150	450	ND	600	600	88.8
TSP-10	100	5/29/19	5/30/19	909	ND	3.742	82.3	365	ND	447.3	447.3	82.1
TSP-11	100	5/29/19	5/30/19	838	ND	3.143	69.3	297	ND	366.3	366.3	66.9
TSP-12	500	5/30/19	5/31/19	2,455	ND	3.313	77.1	351	ND	428.1	428.1	63.2
TSP-13	500	5/30/19	5/31/19	1,621	ND	3.0104	75.3	337	ND	412.3	412.3	68.0
NMOCD Site Closure Standards -					10	50				1,000	2,500	20,000

c.y. – cubic yards, OVM – Organic Vapor Meter, ppm – parts per million, mg/Kg – milligram per kilogram, BTEX – benzene, toluene, ethylbenzene, total xylenes, TPH – Total Petroleum Hydrocarbons, GRO – Gasoline Range Organics, DRO – Diesel Range Organics, MRO or ORO – Motor Oil Range Organics, NA – Not Analyzed, ND – Not detected at laboratory reporting limit.

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(Formerly BP America Production Company)

Wilch A 001 - API: 30-045-07902

(I) Sec 26 – T29N – R08W, San Juan County, New Mexico

Vadose Zone Closure Sampling Test Results

July 25, 2019

(see attached aerial map of areas sampled)

Sample ID	Time	6-pt Comp. Depths (inches)	Field OVM (ppm)	Benzene (mg/Kg)	Total BTEX (mg/Kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)	TPH MRO (mg/Kg)	TPH (GRO + DRO) (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
TSP – VZ #1	0830	4 - 8	NA	ND	ND	ND	171	ND	171	171	126
TSP – VZ #2	0900	4 - 8	NA	ND	ND	ND	72.0	ND	72.0	72.0	119
TSP – VZ #3	0948	4 - 8	NA	ND	ND	ND	ND	ND	ND	ND	27.7
TSP – VZ #4	1008	4 - 8	NA	ND	ND	ND	ND	ND	ND	ND	ND
NMOCD Site Closure Standards -				10	50				1,000	2,500	20,000

OVM – Organic Vapor Meter, ppm – parts per million, mg/Kg – milligram per kilogram, BTEX – benzene, toluene, ethylbenzene, total xylenes, TPH – Total Petroleum Hydrocarbons, GRO – Gasoline Range Organics, DRO – Diesel Range Organics, MRO or ORO – Motor Oil Range Organics, NA – Not Analyzed, ND – Not detected at laboratory reporting limit.

RELEASE

INVESTIGATION

CLIENT: BPXBLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199API #: 30-045-07902TANK ID
(if applicable): —

FIELD REPORT:

(circle one): BGT CONFIRMATION / RELEASE INVESTIGATION / OTHER:@ 400 BBL ASTPAGE #: 1 of 1

SITE INFORMATION:

SITE NAME: WILCH A #1QUAD/UNIT: B SEC. 26 TWP. 29N RING 8W PM. NM CNTY. ST. NM1/4 - 1/4 FOOTAGE: 795 FNL x 1705 FELLEASE TYPE: FEDERAL / STATE / FEE / INDIANLEASE #: NMSF 078416A PROD. FORMATION:CONTRACTOR: —DATE STARTED: 3/18/2019DATE FINISHED: 3/18/2019

ENVIRONMENTAL

SPECIALIST(S): JCB

REFERENCE POINT:

WELL HEAD (W.H.) GPS COORD.: 36.70198 x 107.64289 GL ELEV.: 63401) 400 BBL ASTGPS COORD.: 36.70171 x 107.64239DISTANCE/BEARING FROM W.H.: 171' S59E

2) _____

GPS COORD.: _____

DISTANCE/BEARING FROM W.H.: _____

3) _____

GPS COORD.: _____

DISTANCE/BEARING FROM W.H.: _____

4) _____

GPS COORD.: _____

DISTANCE/BEARING FROM W.H.: _____

SAMPLING DATA:

CHAIN OF CUSTODY RECORD(S) # OR LAB USED: ENVIRUTECH1) SAMPLE ID: RELEASE 5-pt e 12"SAMPLE DATE: 3/18/2019SAMPLE TIME: 0810LAB ANALYSIS: TPH/BTEX/CL-OVM
READING
(ppm)
2825

2) SAMPLE ID: _____

SAMPLE DATE: _____

SAMPLE TIME: _____

LAB ANALYSIS: _____

3) SAMPLE ID: _____

SAMPLE DATE: _____

SAMPLE TIME: _____

LAB ANALYSIS: _____

4) SAMPLE ID: _____

SAMPLE DATE: _____

SAMPLE TIME: _____

LAB ANALYSIS: _____

SOIL DESCRIPTION:

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHERSOIL COLOR: TANCOHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVECONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSEMOISTURE: DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATEDSAMPLE TYPE: GRAB / COMPOSITE # OF PTS. 5DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION: Yellow

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

HC ODOR DETECTED: YES / NO EXPLANATION: STRONGANY AREAS DISPLAYING WETNESS: YES / NO EXPLANATION: FROM Recent RAIN

SITE OBSERVATIONS:

LOST INTEGRITY OF EQUIPMENT: YES / NO EXPLANATION: Likely Tank LeakAPPARENT EVIDENCE OF A RELEASE OBSERVED AND/OR OCCURRED: YES / NO EXPLANATION: Hydrocarbon on GroundEQUIPMENT SET OVER RECLAIMED AREA: YES / NO EXPLANATION: 400 AST

OTHER: _____

SOIL IMPACT DIMENSION ESTIMATION:

20 ft. X 3 ft. X ? ft.EXCAVATION ESTIMATION (Cubic Yards): ?DEPTH TO GROUNDWATER: >100NEAREST WATER SOURCE: >500NEAREST SURFACE WATER: >500NMOC TPH CLOSURE STD: 1,000/2,500 ppm

SITE SKETCH

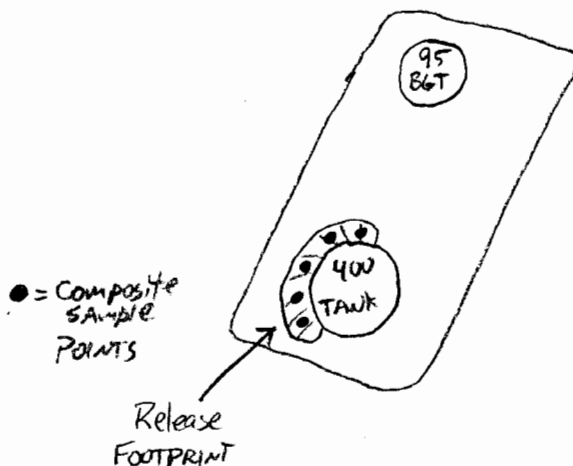
BGT Located: off / on site

PLOT PLAN circle: attached

OVM CALIB. READ. = _____ ppm RF = 0.52

OVM CALIB. GAS = _____ ppm

TIME: _____ am/pm DATE: _____



MISCELL. NOTES

WO:

PO #:

PK:

PJ #:

Permit date(s):

OCD Appr. date(s):

Tank ID OVM = Organic Vapor Meter
ppm = parts per million

BGT Sidewalls Visible: Y / N

BGT Sidewalls Visible: Y / N

BGT Sidewalls Visible: Y / N

Magnetic declination: 10° ENOTES: BGT = BELOW-GRADE TANK; E.D. = EXCAVATION DEPRESSION; B.G. = BELOW GRADE; B = BELOW; T.H. = TEST HOLE; -- = APPROX.; W.H. = WELL HEAD;
T.B. = TANK BOTTOM; PBGT = PREVIOUS BELOW-GRADE TANK LOCATION; SPD = SAMPLE POINT DESIGNATION; R.W. = RETAINING WALL; NA = NOT
APPLICABLE OR NOT AVAILABLE; SW = SINGLE WALL; DW = DOUBLE WALL; SB = SINGLE BOTTOM; DB = DOUBLE BOTTOM

NOTES:

ONSITE: 3/18/2019



61 8145





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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 03/21/19 13:10

Release 5-pt @ 12"
P903028-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	0.565	0.0250	mg/kg	1	1912004	03/18/19	03/19/19	EPA 8021B	
Toluene	13.6	0.0250	mg/kg	1	1912004	03/18/19	03/19/19	EPA 8021B	
Ethylbenzene	3.39	0.0250	mg/kg	1	1912004	03/18/19	03/19/19	EPA 8021B	
p,m-Xylene	36.9	0.0500	mg/kg	1	1912004	03/18/19	03/19/19	EPA 8021B	
o-Xylene	7.98	0.0250	mg/kg	1	1912004	03/18/19	03/19/19	EPA 8021B	
Total Xylenes	44.9	0.0250	mg/kg	1	1912004	03/18/19	03/19/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.5 %		50-150	1912004	03/18/19	03/19/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	325	20.0	mg/kg	1	1912004	03/18/19	03/19/19	EPA 8015D	
Diesel Range Organics (C10-C28)	1710	25.0	mg/kg	1	1912007	03/18/19	03/18/19	EPA 8015D	
Oil Range Organics (C28-C40)	236	50.0	mg/kg	1	1912007	03/18/19	03/18/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		95.4 %		50-150	1912004	03/18/19	03/19/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		395 %		50-200	1912007	03/18/19	03/18/19	EPA 8015D	Surr2

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1912008	03/18/19	03/18/19	EPA 300.0/9056A	
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GRO + DRO = 2,035 mg/Kg (Closure Standard = 1,000 mg/Kg)
 GRO + DRO + ORO = 2,271 mg/Kg (Closure Standard = 2,500 mg/Kg)
 Total BTEX = 62.455 mg/Kg (Closure Standard = 50 mg/Kg)

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Client: <u>BPX ENERGY</u>		Report Attention		Lab Use Only		TAT		EPA Program					
Project: <u>WILCH A #1</u>		Report due by: <u>3/26/2019</u>		Lab WQ# <u>P903028</u>		Job Number <u>03143-0424</u>		1D	3D	RCRA	CWA	SDWA	
Project Manager: <u>STEVE MUSKAL</u>		Attention: <u>Steve Muskal / Jeff Blagg</u>											
Address:		Address:		Analysis and Method								State	
City, State, Zip		City, State, Zip										NM CO UT AZ	
Phone: <u>505-330-9179</u>		Phone:										X	
Email: <u>steven.muskal@BPX.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
0810	3/13/2019	SOIL	1x402	RELEASE 5-pt @ 12"	1	X	X	X			X									

Additional Instructions: Bill BPX [SP-11 Assessments P.O.]
contact: Steve Muskal Vis ice in cooler

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

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>Jeff Blagg</u>	Date <u>3/13/2019</u>	Time <u>1033</u>	Received by: (Signature) <u>Joshua A. McMillan</u>	Date <u>3/18/19</u>	Time <u>10:33</u>	Lab Use Only	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <u>(Y)</u> N	
						T1	T2
						AVG Temp °C <u>4</u>	

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

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 laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

May 2019 Email Correspondence

BPX - Wilch A 001 - Remediation Initiation

From: Jeff (jeffcblagg@aol.com)

To: aadeloye@blm.gov; cory.smith@state.nm.us

Cc: DON.BULLER@bpx.com; Steven.Moskal@BPX.COM; dustindmace@gmail.com; blagg_njv@yahoo.com

Date: Wednesday, May 8, 2019, 05:09 PM MDT

Emmanuel & Cory:

Remediation at the BPX operated Wilch A 001, pursuant to the approved plan, is scheduled to begin tomorrow, May 9th. Presently we anticipate closure sampling on Monday, May 13 at 1:30 pm.

Thank you,

Jeff Blagg

Blagg Engineering, Inc.

Cell: (505)320-1183

Sent from my iPhone

SITE

REMEDIATION

BPX Energy
Wilch A 001
(May 23, 2019)

Wilch A 001

Excavation Top Perimeter
(48' x 45')

N
RAMP

Excavation Base Perimeter
(33'x18'x21' Deep)

E

S

W

North Sidewall

(May 14, 2019)

Ramp

X

X

X

X

X



East Sidewall

(May 14, 2019)



Extend East Sidewall
(May 23, 2019)



South Sidewall

(May 14, 2019)



West Sidewall

(May 14, 2019)



May 14, 2019

Base @ 18'

X

X

X

X

X



Extended Base @ 21'
(May 23, 2019)



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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/16/19 14:25

**North Wall (6'-17')
 P905048-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
p,m-Xylene	0.137	0.0500	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
o-Xylene	0.0308	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Total Xylenes	0.168	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %		50-150	1920023	05/14/19	05/15/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8015D	
Diesel Range Organics (C10-C28)	38.5	25.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.1 %		50-150	1920023	05/14/19	05/15/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		102 %		50-200	1920009	05/14/19	05/14/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	131	20.0	mg/kg	1	1920015	05/14/19	05/14/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/16/19 14:25

**East Wall (6'-17')
 P905048-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	0.456	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Toluene	8.86	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Ethylbenzene	2.50	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
p,m-Xylene	28.9	0.0500	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
o-Xylene	6.05	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Total Xylenes	34.9	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		93.0 %		50-150	1920023	05/14/19	05/15/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	404	20.0	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8015D	
Diesel Range Organics (C10-C28)	923	25.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %		50-150	1920023	05/14/19	05/15/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		230 %		50-200	1920009	05/14/19	05/14/19	EPA 8015D	<i>Surr2</i>

Anions by 300.0/9056A

Chloride	60.6	20.0	mg/kg	1	1920015	05/14/19	05/14/19	EPA 300.0/9056A	
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Total BTEX = 46.716 mg/Kg
TPH (GRO+DRO) = 1,327 mg/Kg

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/28/19 12:00

**Extended East Sidewall (6'-20')
 P905074-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.5 %		50-150	1921022	05/23/19	05/24/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1921028	05/23/19	05/23/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1921028	05/23/19	05/23/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		99.2 %		50-150	1921022	05/23/19	05/24/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		99.9 %		50-200	1921028	05/23/19	05/23/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	34.6	20.0	mg/kg	1	1921023	05/23/19	05/23/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/16/19 14:25

**South Wall (6'-17')
 P905048-05 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	0.237	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Toluene	6.92	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Ethylbenzene	1.76	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
p,m-Xylene	26.6	0.0500	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
o-Xylene	4.56	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Total Xylenes	31.1	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		92.5 %		50-150	1920023	05/14/19	05/15/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	341	20.0	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8015D	
Diesel Range Organics (C10-C28)	648	25.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %		50-150	1920023	05/14/19	05/15/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		188 %		50-200	1920009	05/14/19	05/14/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	105	20.0	mg/kg	1	1920015	05/14/19	05/14/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/16/19 14:25

**West Wall (6'-17')
 P905048-04 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	0.0453	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Toluene	0.326	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Ethylbenzene	0.559	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
p,m-Xylene	6.96	0.0500	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
o-Xylene	1.13	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Total Xylenes	8.10	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		95.6 %		50-150	1920023	05/14/19	05/15/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	109	20.0	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8015D	
Diesel Range Organics (C10-C28)	296	25.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1920009	05/14/19	05/14/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		99.6 %		50-150	1920023	05/14/19	05/15/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		115 %		50-200	1920009	05/14/19	05/14/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	69.7	20.0	mg/kg	1	1920015	05/14/19	05/14/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/16/19 14:25

Base @ 18'
P905048-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	0.203	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Toluene	7.67	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Ethylbenzene	2.17	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
p,m-Xylene	26.0	0.0500	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
o-Xylene	5.37	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
Total Xylenes	31.4	0.0250	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		90.1 %		50-150	1920023	05/14/19	05/15/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	363	20.0	mg/kg	1	1920023	05/14/19	05/15/19	EPA 8015D	
Diesel Range Organics (C10-C28)	818	25.0	mg/kg	1	1920009	05/14/19	05/15/19	EPA 8015D	
Oil Range Organics (C28-C40)	56.1	50.0	mg/kg	1	1920009	05/14/19	05/15/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %		50-150	1920023	05/14/19	05/15/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		225 %		50-200	1920009	05/14/19	05/15/19	EPA 8015D	<i>Surr2</i>

Anions by 300.0/9056A

Chloride	24.9	20.0	mg/kg	1	1920015	05/14/19	05/14/19	EPA 300.0/9056A	
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Total BTEX = 41.443 mg/Kg
TPH (GRO+DRO) = 1,181 mg/Kg

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/28/19 12:00

E. Base @ 21'
P905074-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	1921022	05/23/19	05/24/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1921028	05/23/19	05/23/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1921028	05/23/19	05/23/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.9 %		50-150	1921022	05/23/19	05/24/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		100 %		50-200	1921028	05/23/19	05/23/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1921023	05/23/19	05/23/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/28/19 12:00

W. Base @ 21'
P905074-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %		50-150	1921022	05/23/19	05/24/19	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1921022	05/23/19	05/24/19	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1921028	05/23/19	05/23/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1921028	05/23/19	05/23/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.5 %		50-150	1921022	05/23/19	05/24/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		102 %		50-200	1921028	05/23/19	05/23/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1921023	05/23/19	05/23/19	EPA 300.0/9056A	
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Page 13 of 13

Client: <u>BPX ENERGY</u> Project: <u>WILCH A #1</u> Project Manager: <u>STEVE MOSKAL</u> Address: _____ City, State, Zip: _____ Phone: <u>505-330-9179</u> Email: _____				Report Attention Report due by: <u>MAY 24, 2019</u> Attention: <u>STEVE MOSKAL / JEFF BLAGG</u> Address: _____ City, State, Zip: _____ Phone: <u>505-330-1183</u> Email: _____				Lab Use Only Lab WO# <u>P905074</u> Job Number <u>0843-0424</u> TAT 1D <input checked="" type="checkbox"/> 3D <input type="checkbox"/> EPA Program RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/> Analysis and Method <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>DRO/ORO by 8015</th> <th>GRO/DRO by 8015</th> <th>BTEX by 8021</th> <th>VOC by 8260</th> <th>Metals 6010</th> <th>Chloride 300.0</th> <th>TPH 418.1</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>							DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1													X	X	X			X														X	X	X			X														X	X	X			X																																																										
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Additional Instructions: <u>CONTACT: STEVE MOSKAL</u> <u>Bill P.O. for this Project</u>																																																																																																																																							
<p>I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>Jeff Blagg</u></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">Relinquished by: (Signature) <u>Jeff Blagg</u></td> <td>Date <u>5/23/2019</u></td> <td>Time <u>14:57</u></td> <td colspan="2">Received by: (Signature) <u>[Signature]</u></td> <td>Date <u>5/23/19</u></td> <td>Time <u>14:57</u></td> </tr> <tr> <td colspan="2">Relinquished by: (Signature)</td> <td>Date</td> <td>Time</td> <td colspan="2">Received by: (Signature)</td> <td>Date</td> <td>Time</td> </tr> </table> <p>Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____</p> <p>Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA</p> <p>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.</p>																			Relinquished by: (Signature) <u>Jeff Blagg</u>		Date <u>5/23/2019</u>	Time <u>14:57</u>	Received by: (Signature) <u>[Signature]</u>		Date <u>5/23/19</u>	Time <u>14:57</u>	Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time																																																																																																					
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TREATED SOIL

REMEDIATION

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/31/19 12:16

TSP-1
P905086-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922011	05/29/19	05/29/19	EPA 8021B	
Toluene	0.165	0.0250	mg/kg	1	1922011	05/29/19	05/29/19	EPA 8021B	
Ethylbenzene	0.136	0.0250	mg/kg	1	1922011	05/29/19	05/29/19	EPA 8021B	
p,m-Xylene	3.27	0.0500	mg/kg	1	1922011	05/29/19	05/29/19	EPA 8021B	
o-Xylene	1.17	0.0250	mg/kg	1	1922011	05/29/19	05/29/19	EPA 8021B	
Total Xylenes	4.44	0.0250	mg/kg	1	1922011	05/29/19	05/29/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.9 %		50-150	1922011	05/29/19	05/29/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	373	25.0	mg/kg	1	1922009	05/29/19	05/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922009	05/29/19	05/29/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		122 %		50-200	1922009	05/29/19	05/29/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	110	20.0	mg/kg	1	1922011	05/29/19	05/29/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		108 %		50-150	1922011	05/29/19	05/29/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	60.0	20.0	mg/kg	1	1922013	05/30/19	05/30/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/31/19 12:16

TSP-2
P905086-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
Toluene	0.103	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
Ethylbenzene	0.102	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
p,m-Xylene	2.90	0.0500	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
o-Xylene	0.859	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
Total Xylenes	3.76	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.4 %		50-150	1922011	05/29/19	05/30/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	311	25.0	mg/kg	1	1922009	05/29/19	05/29/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922009	05/29/19	05/29/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		85.3 %		50-200	1922009	05/29/19	05/29/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	89.9	20.0	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %		50-150	1922011	05/29/19	05/30/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	60.9	20.0	mg/kg	1	1922013	05/30/19	05/30/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/31/19 12:16

TSP-3
P905086-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
Toluene	0.255	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
Ethylbenzene	0.253	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
p,m-Xylene	4.34	0.0500	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
o-Xylene	0.896	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
Total Xylenes	5.24	0.0250	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.7 %		50-150	1922011	05/29/19	05/30/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	415	25.0	mg/kg	1	1922009	05/29/19	05/30/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922009	05/29/19	05/30/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		132 %		50-200	1922009	05/29/19	05/30/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	94.4	20.0	mg/kg	1	1922011	05/29/19	05/30/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		109 %		50-150	1922011	05/29/19	05/30/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	64.3	20.0	mg/kg	1	1922013	05/30/19	05/30/19	EPA 300.0/9056A	
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BP America Production Co.	Project Name:	Wilch A #1	Reported: 06/03/19 16:37
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

TSP-4
P905092-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.222	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.168	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	3.82	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	0.957	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	4.78	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.7 %		50-150	1922025	05/30/19	05/31/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	345	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		142 %		50-200	1922029	05/30/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	95.3	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %		50-150	1922025	05/30/19	05/31/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	77.2	20.0	mg/kg	1	1922027	05/30/19	05/30/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

TSP-5
P905092-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.104	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.101	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	2.10	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	0.599	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	2.70	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %		50-150	1922025	05/30/19	05/31/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	341	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		133 %		50-200	1922029	05/30/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	68.8	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %		50-150	1922025	05/30/19	05/31/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	77.0	20.0	mg/kg	1	1922027	05/30/19	05/30/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

TSP-6
P905092-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.179	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.160	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	3.97	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	0.981	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	4.95	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.5 %		50-150	1922025	05/30/19	05/31/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	456	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		144 %		50-200	1922029	05/30/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	106	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		107 %		50-150	1922025	05/30/19	05/31/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	74.0	20.0	mg/kg	1	1922027	05/30/19	05/30/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

TSP-7
P905092-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.324	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.213	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	4.02	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	0.945	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	4.96	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.8 %		50-150	1922025	05/30/19	05/31/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	362	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		133 %		50-200	1922029	05/30/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	102	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %		50-150	1922025	05/30/19	05/31/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	65.6	20.0	mg/kg	1	1922027	05/30/19	05/31/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

TSP-8
P905092-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.183	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.170	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	3.24	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	0.816	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	4.06	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		<i>104 %</i>		<i>50-150</i>	<i>1922025</i>	<i>05/30/19</i>	<i>05/31/19</i>	<i>EPA 8021B</i>	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	366	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		<i>135 %</i>		<i>50-200</i>	<i>1922029</i>	<i>05/30/19</i>	<i>05/31/19</i>	<i>EPA 8015D</i>	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	88.9	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		<i>104 %</i>		<i>50-150</i>	<i>1922025</i>	<i>05/30/19</i>	<i>05/31/19</i>	<i>EPA 8015D</i>	

Anions by 300.0/9056A

Chloride	89.0	20.0	mg/kg	1	1922027	05/30/19	05/31/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

TSP-9
P905092-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.532	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.325	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	7.38	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	1.57	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	8.95	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.1 %		50-150	1922025	05/30/19	05/31/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	450	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		146 %		50-200	1922029	05/30/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	150	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		109 %		50-150	1922025	05/30/19	05/31/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	88.8	20.0	mg/kg	1	1922027	05/30/19	05/31/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

TSP-10
P905092-07 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.106	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.116	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	2.76	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	0.758	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	3.52	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		100 %		50-150	1922025	05/30/19	05/31/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	365	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		129 %		50-200	1922029	05/30/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	82.3	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %		50-150	1922025	05/30/19	05/31/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	82.1	20.0	mg/kg	1	1922027	05/30/19	05/31/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

TSP-11
P905092-08 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Toluene	0.118	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Ethylbenzene	0.115	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
p,m-Xylene	2.30	0.0500	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
o-Xylene	0.616	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
Total Xylenes	2.91	0.0250	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		<i>103 %</i>		<i>50-150</i>	<i>1922025</i>	<i>05/30/19</i>	<i>05/31/19</i>	<i>EPA 8021B</i>	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	297	25.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		<i>128 %</i>		<i>50-200</i>	<i>1922029</i>	<i>05/30/19</i>	<i>05/31/19</i>	<i>EPA 8015D</i>	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	69.3	20.0	mg/kg	1	1922025	05/30/19	05/31/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		<i>105 %</i>		<i>50-150</i>	<i>1922025</i>	<i>05/30/19</i>	<i>05/31/19</i>	<i>EPA 8015D</i>	

Anions by 300.0/9056A

Chloride	66.9	20.0	mg/kg	1	1922027	05/30/19	05/31/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/04/19 11:40

TSP-12
P905098-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
Toluene	0.139	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
Ethylbenzene	0.114	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
p,m-Xylene	2.44	0.0500	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
o-Xylene	0.618	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
Total Xylenes	3.06	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.2 %		50-150	1922028	05/31/19	06/01/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	351	25.0	mg/kg	1	1922029	05/31/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/31/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		121 %		50-200	1922029	05/31/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	77.1	20.0	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		102 %		50-150	1922028	05/31/19	06/01/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	63.2	20.0	mg/kg	1	1923001	06/03/19	06/03/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/04/19 11:40

TSP-13
P905098-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
Toluene	0.0912	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
Ethylbenzene	0.0892	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
p,m-Xylene	2.22	0.0500	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
o-Xylene	0.608	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
Total Xylenes	2.83	0.0250	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.7 %		50-150	1922028	05/31/19	06/01/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	337	25.0	mg/kg	1	1922029	05/31/19	05/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1922029	05/31/19	05/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		124 %		50-200	1922029	05/31/19	05/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	75.3	20.0	mg/kg	1	1922028	05/31/19	06/01/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		102 %		50-150	1922028	05/31/19	06/01/19	EPA 8015D	

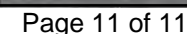
Anions by 300.0/9056A

Chloride	68.0	20.0	mg/kg	1	1923001	06/03/19	06/03/19	EPA 300.0/9056A	
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Lab Use Only										TAT		EPA Program			
Lab WO#		Job Number								1D	3D	RCRA	CWA	SDWA	
P905086		03143-0424								X					
Analysis and Method												State			
by 8015	by 8015	8021	8260	8010	300.0	1						NM	CO	UT	AZ
												X			

Additional Instructions: Bill BPX Contact: Steve Maskal P.O. #111						V. Since 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: <u>Jeffrey</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) <u>Jeffrey</u>	Date <u>5/29/2019</u>	Time <u>1440</u>	Received by: (Signature) <u>Joshua</u>	Date <u>5/29/19</u>	Time <u>14:40</u>	Lab Use Only Received on ice: <u>Y</u> / <u>N</u>	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1	T2
						AVG Temp °C <u>4</u>	T3
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____						Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA	
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.							



Project Information

Chain of Custody

Page 1 of 1

Client: BPX ENERGY
 Project: WILCH A #1
 Project Manager: STEVE MOSKAL
 Address: _____
 City, State, Zip _____
 Phone: _____
 Email: _____

Report Attention

Report due by: 5/31/2019
 Attention: STEVE MOSKAL / JEFF BLAGG
 Address: _____
 City, State, Zip _____
 Phone: _____
 Email: _____

Lab Use Only

TAT

EPA Program

Lab WO# P 905042 Job Number 03143-0424
 1D ☒ 3D ☐ RCRA ☐ CWA ☐ SDWA ☐

Analysis and Method

State

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO	GRO/DRO	BTEX by	VOC by	Metals	Chloride	TPH 418								Remarks
1340	5/30/2019	SOIL	1	TSP-4	1	X	X	X			X									
1343			1	TSP-5	2	X	X	X			X									
1346			1	TSP-6	3	X	X	X			X									
1349			1	TSP-7	4	X	X	X			X									
1352			1	TSP-8	5	X	X	X			X									
1355			1	TSP-9	6	X	X	X			X									
1358			1	TSP-10	7	X	X	X			X									
1401			1	TSP-11	8	X	X	X			X									

Additional Instructions: BILL BPX USE PROTECT P.O.
CONTACT: STEVE MOSKAL

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

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>Jeff Blagg</u>	Date <u>5/30/2019</u>	Time <u>1525</u>	Received by: (Signature) <u>Rania Lopez</u>	Date <u>5-30-19</u>	Time <u>15:25</u>	Lab Use Only Received on ice: <u>Y</u> / N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

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.



5796 US Highway 64, Farmington, NM 87401

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

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

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

envirotech inc.com
 laboratory@envirotech-inc.com

Project Information

Chain of Custody

Page 1 of 1

Client: BPX Energy
 Project: WILCH A #1
 Project Manager: Steve Moskal
 Address:
 City, State, Zip
 Phone:
 Email:

Report Attention

Report due by: JUNE 3, 2019
 Attention: Steve Moskal / Jeff Blagg
 Address:
 City, State, Zip
 Phone:
 Email:

Lab Use Only

TAT

EPA Program

Lab WO# P 915098 Job Number 03143-0424
 1D ☒ 3D ☐ RCRA ☐ CWA ☐ SDWA ☐

Analysis and Method

State

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 ☐

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
12:55	5/31/2019	SOIL	1	TSP-12	1	X	X	X			X		
13:03	"	"	1	TSP-13	2	X	X	X			X		

Additional Instructions: Bill BPX - P.O. For this site
Contact: Steve Moskal

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

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>Jeff Blagg</u>	Date <u>5/31/2019</u>	Time <u>1431</u>	Received by: (Signature) <u>Rain Lopez</u>	Date <u>5/31/19</u>	Time <u>2:32pm</u>	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

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.



5796 US Highway 64, Farmington, NM 87401

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

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

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

envirotech inc.com
 laboratory@envirotech-inc.com

From: Steven Moskal (Steven.Moskal@BPX.COM)

To: Cory.Smith@state.nm.us; aadeloye@blm.gov

Cc: jeffcblagg@aol.com; blagg_njv@yahoo.com; DON.BULLER@BPX.COM; dustindmace@gmail.com

Date: Monday, June 3, 2019, 04:32 PM MDT

All,

Attached are the results of the soil sampling conducted on Friday from the treated soil stockpiles. Both 500 yard samples passed and will be used as backfill. This concludes this project.

We will be moving to the Day B 002B, beginning excavation Monday, 6/10, with excavation sampling Tuesday 6/11 at 1:30 PM.

Thank you,

Steve Moskal

Environmental Coordinator

BP America Production Co.

bpx energy - WBU

1199 Main Ave. | Suite 101

Durango | CO | 81301

Direct: 505.330.9179

steven.moskal@bpx.com

This email and any attachments are intended only for the addressee(s) listed above and may contain confidential, proprietary, and/or privileged information. If you are not an intended recipient, please immediately advise the sender by return email, delete this email and any attachments, and destroy any copies of same. Any unauthorized review, use, copying disclosure or distribution of this email and any attachments is prohibited.



P905098 Envirotech2_v23 DRAFT 06 03 19 1624.pdf
364.3kB

VADOSE ZONE

CONFIRMATION

July 2019 Email Correspondence

RE: Vadose Zone Sampling Plans

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
To: Steven Moskal, Adeloyle, Abiodun (aadeloyle@blm.gov)
Cc: Blagg, Jefferey, 'blagg_njv@yahoo.com'
Jul 24 at 11:19 AM

Steve,

6-8 is fine.. OCD approves the proposed sampling plan for below email.
Please include this approval in your final closure reports.

Cory Smith - Environmental Specialist

Oil Conservation Division

From: Steven Moskal <Steven.Moskal@BPX.COM>
Sent: Wednesday, July 24, 2019 11:18 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Adeloyle, Abiodun (aadeloyle@blm.gov) <aadeloyle@blm.gov>
Cc: Blagg, Jefferey <jeffcblagg@aol.com>; 'blagg_njv@yahoo.com' <blagg_njv@yahoo.com>
Subject: [EXT] RE: Vadose Zone Sampling Plans

Yes, on the square footage, but with 6-8 points per composite, unless you'd like to see 5 points.

Steve Moskal - Environmental Coordinator

BP America Production Co. (bpx energy – WBU)

From: Smith, Cory, EMNRD [<mailto:Cory.Smith@state.nm.us>]
Sent: Wednesday, July 24, 2019 11:17 AM
To: Steven Moskal <Steven.Moskal@BPX.COM>; Adeloyle, Abiodun (aadeloyle@blm.gov) <aadeloyle@blm.gov>
Cc: Blagg, Jefferey <jeffcblagg@aol.com>; 'blagg_njv@yahoo.com' <blagg_njv@yahoo.com>
Subject: RE: Vadose Zone Sampling Plans

Steve,

So on average approximately 1,000 sqft per 5pt composite sample?

Cory Smith - Environmental Specialist

Oil Conservation Division

From: Steven Moskal <Steven.Moskal@BPX.COM>
Sent: Wednesday, July 24, 2019 8:58 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Adeloyle, Abiodun (aadeloyle@blm.gov) <aadeloyle@blm.gov>
Cc: Blagg, Jefferey <jeffcblagg@aol.com>; 'blagg_njv@yahoo.com' <blagg_njv@yahoo.com>
Subject: [EXT] Vadose Zone Sampling Plans

Cory,

Attached are the site maps for the vadose zone sampling scheduled for tomorrow and Friday.

~~For the Hardie LS 001A, we plan to split the two stockpile areas into 2 segments each, west and east in each area, for a total of four vadose zone samples, beginning at 8:00 AM tomorrow, 7/25. From there, we plan to move to the Wilch A 1, where the stockpile are will be split into 4 segments, the north half into 2, west and east, and the south half into north and south, for a total of four sample locations. We will then plan to move to the GCU Com H 180 for excavation closure sampling on the San Juan County owned surface.~~

-

~~On Friday, 7/26, we plan to sample the Day B 2B beginning at 10:00 AM. The stockpile area will be split into 4 equal segments, for a total of 4 samples. From there, the plan will be to mobilize to the historical landfarm area located at the Jennapah 1. Due to the unknown configuration of the landfarm area, the area on the north half of the well pad will be split into 4 equal sections, west, west central, east central and east, for a total of 4 samples.~~

All samples will be collected from the ground surface to a depth of approximately 8 inches. Each area will be sampled as composites samples, with a total of 6-8 points for each sample segments, depending on the size of the area. If any visual changes are noted, the area will be reassessed and an alternative sample plan will be discussed prior to sample collection.

Let me know if you have questions.

Steve Moskal - Environmental Coordinator

BP America Production Co. (bpx energy – WBU)

BPX - Wilch A 1

(B) Section 26, T29N, R8W

Imagery date: 10/5/2016

WH GPS Coord.: 36.701952,-107.642897

WH

TREATED
STOCKPILE
PERIMETER

TSP-VZ
#2

TSP-VZ
#3

TSP-VZ
#4

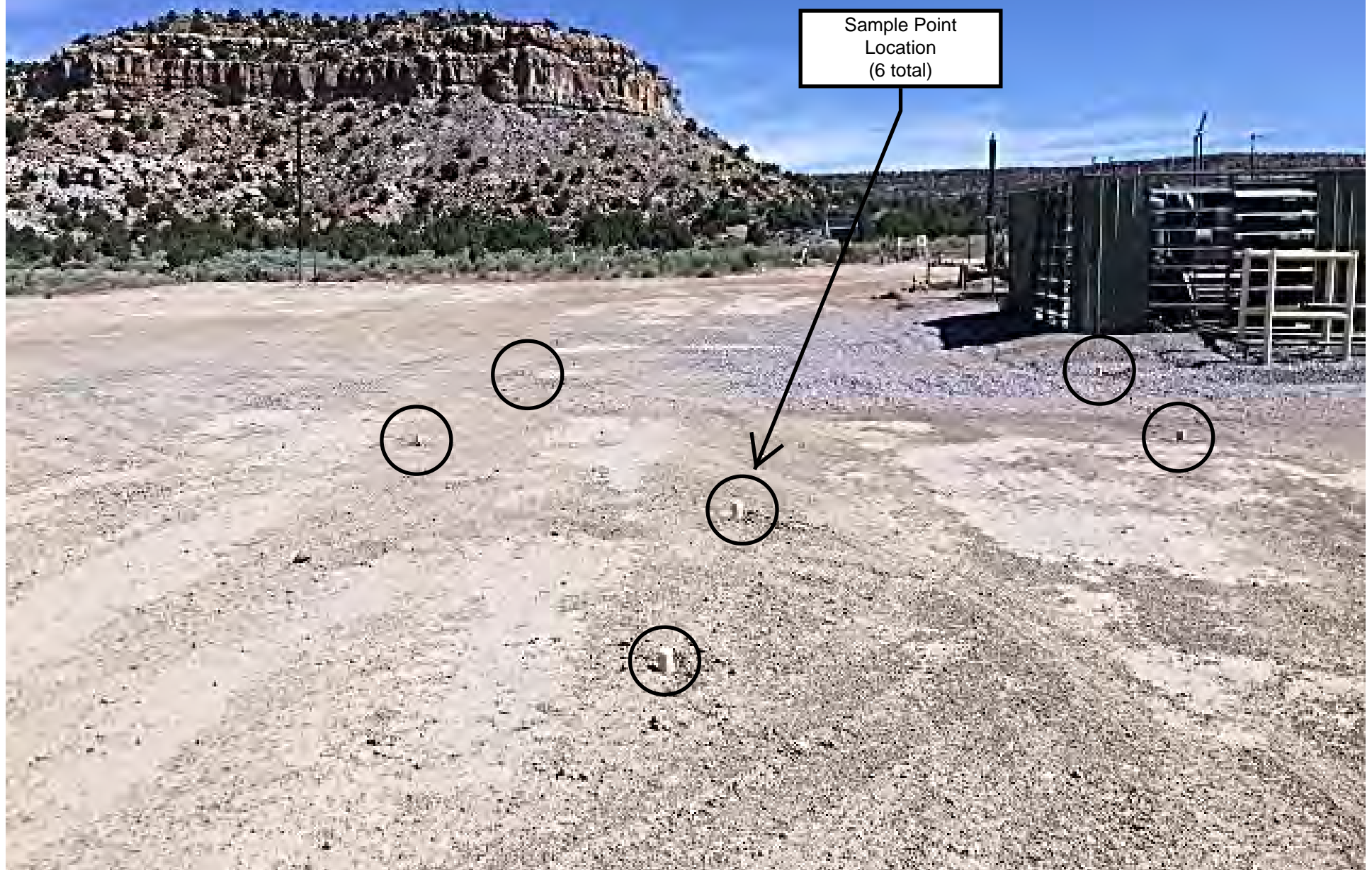
TSP-VZ
#1



60 ft

BPX - WILCH A 001
Vadose Zone Sampling
July 25, 2019

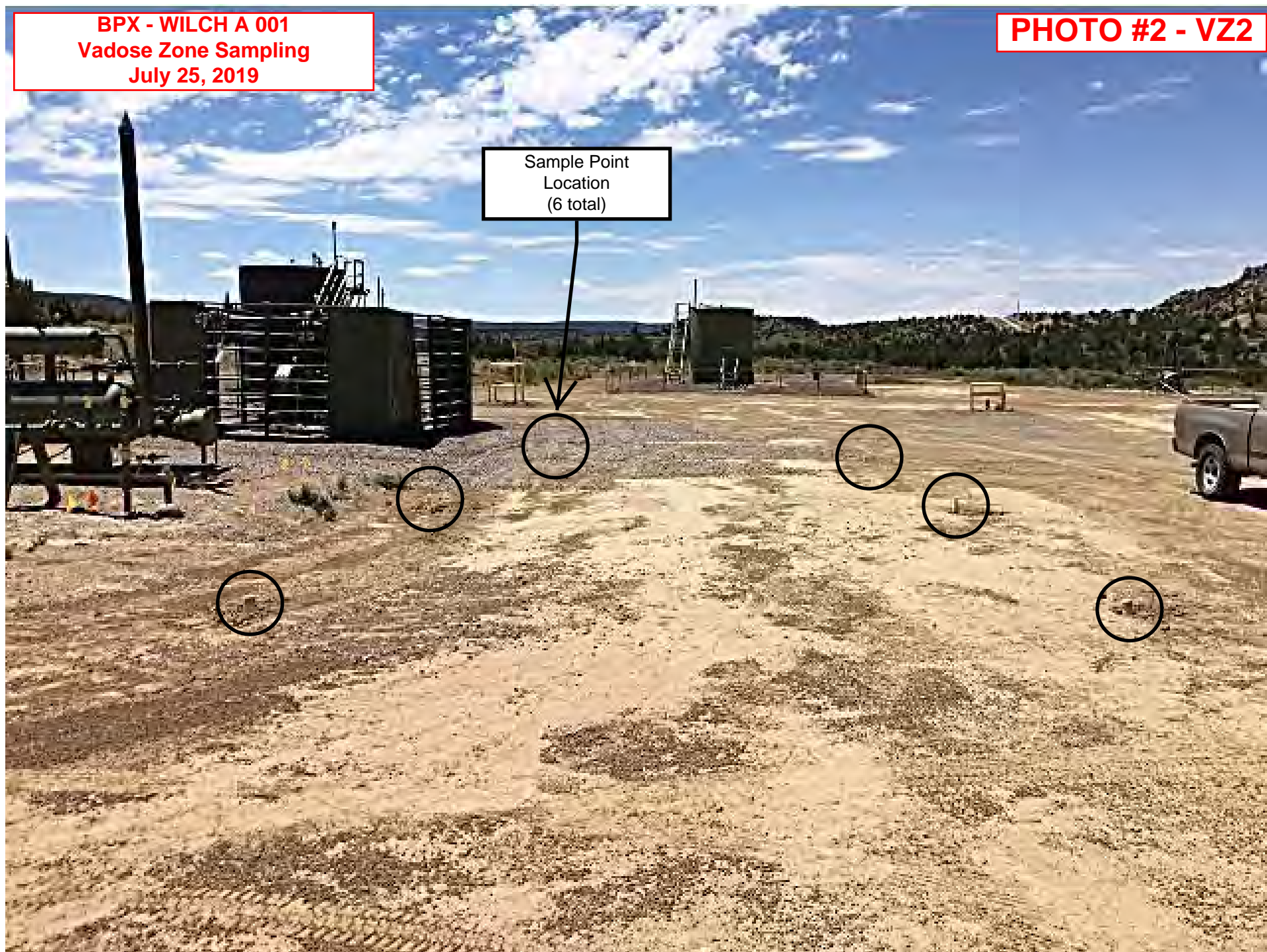
PHOTO #1 - VZ1



BPX - WILCH A 001
Vadose Zone Sampling
July 25, 2019

PHOTO #2 - VZ2

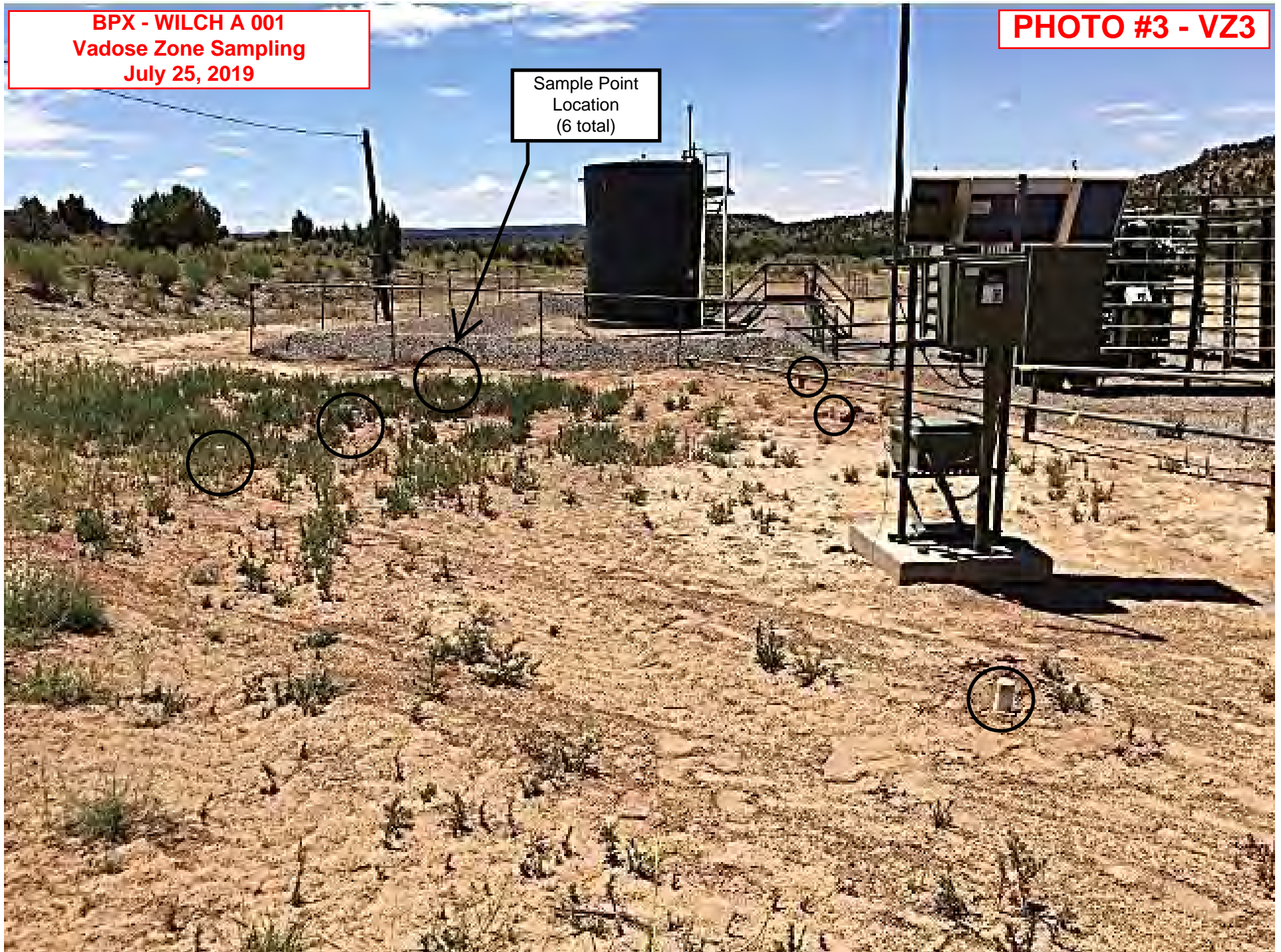
Sample Point
Location
(6 total)



BPX - WILCH A 001
Vadose Zone Sampling
July 25, 2019

PHOTO #3 - VZ3

Sample Point
Location
(6 total)



BPX - WILCH A 001
Vadose Zone Sampling
July 25, 2019

PHOTO #4 - VZ4

Sample Point
Location
(6 total)



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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/02/19 14:50

TSP- VZ #1
P907095-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %		50-150	1931030	07/31/19	08/01/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	171	25.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		74.8 %		50-200	1931022	07/31/19	07/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.4 %		50-150	1931030	07/31/19	08/01/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	126	20.0	mg/kg	1	1931040	07/31/19	08/01/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/02/19 14:50

TSP- VZ #2
P907095-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %		50-150	1931030	07/31/19	08/01/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	72.0	25.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		75.3 %		50-200	1931022	07/31/19	07/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.7 %		50-150	1931030	07/31/19	08/01/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	119	20.0	mg/kg	1	1931040	07/31/19	08/01/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/02/19 14:50

TSP- VZ #3
P907095-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %		50-150	1931030	07/31/19	08/01/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		76.2 %		50-200	1931022	07/31/19	07/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.2 %		50-150	1931030	07/31/19	08/01/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	27.7	20.0	mg/kg	1	1931040	07/31/19	08/01/19	EPA 300.0/9056A	
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/02/19 14:50

TSP- VZ #4
P907095-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8021B	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		108 %		50-150	1931030	07/31/19	08/01/19	EPA 8021B	

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1931022	07/31/19	07/31/19	EPA 8015D	
<i>Surrogate: n-Nonane</i>		74.3 %		50-200	1931022	07/31/19	07/31/19	EPA 8015D	

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1931030	07/31/19	08/01/19	EPA 8015D	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.0 %		50-150	1931030	07/31/19	08/01/19	EPA 8015D	

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1931040	07/31/19	08/01/19	EPA 300.0/9056A	
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Project Information

Client: BPX Energy Inc.

Project: **Wilch A #1**

Project Manager: Steve Moskal - BPX Energy Inc.

Address: 1199 Main Ave., Suite 101

City, State, Zip Durango, CO 81301

Phone: (505) 330-9179 - S. Moskal

Email: See "additional instructions" below

Chain of Custody

Report Attention

Report due by: **8/02/2019**

Attention: Steve Moskal

Address:

City, State, Zip

Phone: N. Velez (505) 320-3489; S. Moskal (505) 330-9179

Email: See "additional instructions" below

Page **1** of **1**

Lab Use Only

TAT

EPA Program

Lab WO#

Job Number

1D

3D

RCRA

CWA

SDWA

P907095

0343-0124

Analysis and Method

State

NM

CO

UT

AZ

X

Remarks

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO/RO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	TPH 418.1							
0830	7/25/19	SOIL	1-4 oz.	TSP - VZ #1	1	X	X	X			X								
0900	7/25/19	SOIL	1-4 oz.	TSP - VZ #2	2	X	X	X			X								
0948	7/25/19	SOIL	1-4 oz.	TSP - VZ #3	3	X	X	X			X								
1008	7/25/19	SOIL	1-4 oz.	TSP - VZ #4	4	X	X	X			X								

Additional Instructions: Send emails to: **Steven.Moskal@bpx.com**, **jeffcblagg@aol.com**, & **blagg_njv@yahoo.com**.
Use PO on file.

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: **Nelson Velez**

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	Time	Received by: (Signature)	Date	Time	Lab Use Only
<i>[Signature]</i>	7/25/19	1536	<i>[Signature]</i>	7/25/19	3:36pm	Received on ice: Y/N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1
						AVG Temp °C

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other **S**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.

LABORATORY

QUALITY CONTROL /

QUALITY ASSURANCE

Analytical Report

Report Summary

Client: BP America Production Co.

Samples Received: 3/18/2019

Job Number: 03143-0424

Work Order: P903028

Project Name/Location: Wilch A #1

Report Reviewed By:



Date: 3/21/19

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: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
03/21/19 13:10

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Release 5-pt @ 12"	P903028-01A	Soil	03/18/19	03/18/19	Glass Jar, 4 oz.

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 03/21/19 13:10

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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1912004 - Purge and Trap EPA 5030A
Blank (1912004-BLK1)

Prepared: 03/18/19 1 Analyzed: 03/19/19 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	"							

Surrogate: 4-Bromochlorobenzene-PID 8.03 " 8.00 100 50-150

LCS (1912004-BS1)

Prepared: 03/18/19 1 Analyzed: 03/19/19 1

Benzene	4.88	0.0250	mg/kg	5.00		97.7	70-130			
Toluene	4.90	0.0250	"	5.00		98.0	70-130			
Ethylbenzene	5.19	0.0250	"	5.00		104	70-130			
p,m-Xylene	10.8	0.0500	"	10.0		108	70-130			
o-Xylene	5.00	0.0250	"	5.00		100	70-130			
Total Xylenes	15.8	0.0250	"	15.0		106	70-130			

Surrogate: 4-Bromochlorobenzene-PID 8.04 " 8.00 101 50-150

Matrix Spike (1912004-MS1)

Source: P903030-01

Prepared: 03/18/19 1 Analyzed: 03/20/19 0

Benzene	4.87	0.0250	mg/kg	5.00	ND	97.3	54.3-133			
Toluene	4.89	0.0250	"	5.00	ND	97.7	61.4-130			
Ethylbenzene	5.18	0.0250	"	5.00	ND	104	61.4-133			
p,m-Xylene	10.8	0.0500	"	10.0	ND	108	63.3-131			
o-Xylene	4.99	0.0250	"	5.00	ND	99.8	63.3-131			
Total Xylenes	15.8	0.0250	"	15.0	ND	105	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8.16 " 8.00 102 50-150

Matrix Spike Dup (1912004-MSD1)

Source: P903030-01

Prepared: 03/18/19 1 Analyzed: 03/20/19 0

Benzene	5.17	0.0250	mg/kg	5.00	ND	103	54.3-133	6.01	20	
Toluene	5.20	0.0250	"	5.00	ND	104	61.4-130	6.22	20	
Ethylbenzene	5.53	0.0250	"	5.00	ND	111	61.4-133	6.42	20	
p,m-Xylene	11.5	0.0500	"	10.0	ND	115	63.3-131	6.16	20	
o-Xylene	5.30	0.0250	"	5.00	ND	106	63.3-131	5.90	20	
Total Xylenes	16.8	0.0250	"	15.0	ND	112	63.3-131	6.08	20	

Surrogate: 4-Bromochlorobenzene-PID 8.18 " 8.00 102 50-150

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 03/21/19 13:10

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 1912004 - Purge and Trap EPA 5030A
Blank (1912004-BLK1)

Prepared: 03/18/19 1 Analyzed: 03/19/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.23		"	8.00		90.3	50-150			

LCS (1912004-BS2)

Prepared: 03/18/19 1 Analyzed: 03/19/19 1

Gasoline Range Organics (C6-C10)	55.0	20.0	mg/kg	50.0		110	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.27		"	8.00		90.8	50-150			

Matrix Spike (1912004-MS2)
Source: P903030-01

Prepared: 03/18/19 1 Analyzed: 03/20/19 0

Gasoline Range Organics (C6-C10)	54.3	20.0	mg/kg	50.0	ND	109	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.09		"	8.00		88.6	50-150			

Matrix Spike Dup (1912004-MSD2)
Source: P903030-01

Prepared: 03/18/19 1 Analyzed: 03/20/19 1

Gasoline Range Organics (C6-C10)	55.9	20.0	mg/kg	50.0	ND	112	70-130	3.00	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.22		"	8.00		90.2	50-150			

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BP America Production Co.	Project Name: Wilch A #1	
PO Box 22024	Project Number: 03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager: Steve Moskal	03/21/19 13:10

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 1912007 - DRO Extraction EPA 3570

Blank (1912007-BLK1)

Prepared & Analyzed: 03/18/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
<i>Surrogate: n-Nonane</i>	<i>63.4</i>		<i>"</i>	<i>50.0</i>		<i>127</i>	<i>50-200</i>			

LCS (1912007-BS1)

Prepared & Analyzed: 03/18/19 1

Diesel Range Organics (C10-C28)	503	25.0	mg/kg	500		101	38-132			
<i>Surrogate: n-Nonane</i>	<i>62.3</i>		<i>"</i>	<i>50.0</i>		<i>125</i>	<i>50-200</i>			

Matrix Spike (1912007-MS1)

Source: P903029-03

Prepared: 03/18/19 1 Analyzed: 03/18/19 2

Diesel Range Organics (C10-C28)	246	25.0	mg/kg	500	ND	49.2	38-132			
<i>Surrogate: n-Nonane</i>	<i>28.6</i>		<i>"</i>	<i>50.0</i>		<i>57.3</i>	<i>50-200</i>			

Matrix Spike Dup (1912007-MSD1)

Source: P903029-03

Prepared: 03/18/19 1 Analyzed: 03/18/19 2

Diesel Range Organics (C10-C28)	241	25.0	mg/kg	500	ND	48.2	38-132	1.98	20	
<i>Surrogate: n-Nonane</i>	<i>27.4</i>		<i>"</i>	<i>50.0</i>		<i>54.8</i>	<i>50-200</i>			

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BP America Production Co.	Project Name:	Wilch A #1	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	03/21/19 13:10

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 1912008 - Anion Extraction EPA 300.0/9056A

Blank (1912008-BLK1)

Prepared & Analyzed: 03/18/19 1

Chloride	ND	20.0	mg/kg							
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LCS (1912008-BS1)

Prepared & Analyzed: 03/18/19 1

Chloride	251	20.0	mg/kg	250		100	90-110			
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Matrix Spike (1912008-MS1)

Source: P903028-01

Prepared & Analyzed: 03/18/19 1

Chloride	260	20.0	mg/kg	250	ND	104	80-120			
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Matrix Spike Dup (1912008-MSD1)

Source: P903028-01

Prepared: 03/18/19 1 Analyzed: 03/18/19 2

Chloride	260	20.0	mg/kg	250	ND	104	80-120	0.00769	20	
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Analytical Report

Report Summary

Client: BP America Production Co.

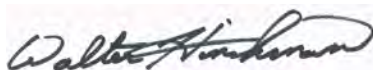
Samples Received: 5/14/2019

Job Number: 03143-0424

Work Order: P905048

Project Name/Location: Wilch A #1

Report Reviewed By:



Date: 5/16/19

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.
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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.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/16/19 14:25

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Base @ 18'	P905048-01A	Soil	05/14/19	05/14/19	Glass Jar, 4 oz.
North Wall (6'-17')	P905048-02A	Soil	05/14/19	05/14/19	Glass Jar, 4 oz.
East Wall (6'-17')	P905048-03A	Soil	05/14/19	05/14/19	Glass Jar, 4 oz.
West Wall (6'-17')	P905048-04A	Soil	05/14/19	05/14/19	Glass Jar, 4 oz.
South Wall (6'-17')	P905048-05A	Soil	05/14/19	05/14/19	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	Wilch A #1	Reported: 05/16/19 14:25
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 1920023 - Purge and Trap EPA 5030A

Blank (1920023-BLK1)				Prepared: 05/14/19 1 Analyzed: 05/15/19 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	"							
Surrogate: 4-Bromochlorobenzene-PID	8.08		"	8.00		101	50-150			

LCS (1920023-BS1)				Prepared: 05/14/19 1 Analyzed: 05/16/19 0						
Benzene	3.76	0.0250	mg/kg	5.00		75.2	70-130			
Toluene	4.32	0.0250	"	5.00		86.4	70-130			
Ethylbenzene	4.41	0.0250	"	5.00		88.2	70-130			
p,m-Xylene	9.15	0.0500	"	10.0		91.5	70-130			
o-Xylene	4.47	0.0250	"	5.00		89.4	70-130			
Total Xylenes	13.6	0.0250	"	15.0		90.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.29		"	8.00		104	50-150			

Matrix Spike (1920023-MS1)				Source: P905048-01		Prepared: 05/14/19 1 Analyzed: 05/16/19 1				
Benzene	4.21	0.0250	mg/kg	5.00	0.203	80.1	54.3-133			
Toluene	11.7	0.0250	"	5.00	7.67	80.9	61.4-130			
Ethylbenzene	6.94	0.0250	"	5.00	2.17	95.5	61.4-133			
p,m-Xylene	32.0	0.0500	"	10.0	26.0	60.5	63.3-131			E, SPK1
o-Xylene	10.1	0.0250	"	5.00	5.37	95.1	63.3-131			
Total Xylenes	42.2	0.0250	"	15.0	31.4	72.0	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7.23		"	8.00		90.4	50-150			

Matrix Spike Dup (1920023-MSD1)				Source: P905048-01		Prepared: 05/14/19 1 Analyzed: 05/16/19 1				
Benzene	3.86	0.0250	mg/kg	5.00	0.203	73.1	54.3-133	8.68	20	
Toluene	11.4	0.0250	"	5.00	7.67	74.5	61.4-130	2.75	20	
Ethylbenzene	6.59	0.0250	"	5.00	2.17	88.6	61.4-133	5.16	20	
p,m-Xylene	32.1	0.0500	"	10.0	26.0	60.5	63.3-131	0.0261	20	E, SPK1
o-Xylene	9.92	0.0250	"	5.00	5.37	91.1	63.3-131	2.03	20	
Total Xylenes	42.0	0.0250	"	15.0	31.4	70.7	63.3-131	0.463	20	
Surrogate: 4-Bromochlorobenzene-PID	7.57		"	8.00		94.6	50-150			

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BP America Production Co.	Project Name:	Wilch A #1	Reported: 05/16/19 14:25
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

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 1920009 - DRO Extraction EPA 3570

Blank (1920009-BLK1)

Prepared: 05/13/19 1 Analyzed: 05/13/19 2

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: <i>n</i> -Nonane	46.8		"	50.0		93.6	50-200			

LCS (1920009-BS1)

Prepared: 05/13/19 1 Analyzed: 05/13/19 2

Diesel Range Organics (C10-C28)	458	25.0	mg/kg	500		91.6	38-132			
Surrogate: <i>n</i> -Nonane	44.2		"	50.0		88.4	50-200			

Matrix Spike (1920009-MS1)

Source: P905025-01

Prepared: 05/13/19 1 Analyzed: 05/14/19 0

Diesel Range Organics (C10-C28)	486	25.0	mg/kg	500	73.4	82.5	38-132			
Surrogate: <i>n</i> -Nonane	45.7		"	50.0		91.5	50-200			

Matrix Spike Dup (1920009-MSD1)

Source: P905025-01

Prepared: 05/13/19 1 Analyzed: 05/14/19 0

Diesel Range Organics (C10-C28)	512	25.0	mg/kg	500	73.4	87.6	38-132	5.19	20	
Surrogate: <i>n</i> -Nonane	44.7		"	50.0		89.4	50-200			

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/16/19 14:25

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 1920023 - Purge and Trap EPA 5030A
Blank (1920023-BLK1)

Prepared: 05/14/19 1 Analyzed: 05/15/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.46		"	8.00		93.2	50-150			

LCS (1920023-BS2)

Prepared: 05/14/19 1 Analyzed: 05/15/19 1

Gasoline Range Organics (C6-C10)	50.1	20.0	mg/kg	50.0		100	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.45		"	8.00		93.1	50-150			

Matrix Spike (1920023-MS2)

Source: P905048-01

Prepared: 05/14/19 1 Analyzed: 05/15/19 2

Gasoline Range Organics (C6-C10)	348	20.0	mg/kg	50.0	363	NR	70-130			SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.18		"	8.00		102	50-150			

Matrix Spike Dup (1920023-MSD2)

Source: P905048-01

Prepared: 05/14/19 1 Analyzed: 05/15/19 2

Gasoline Range Organics (C6-C10)	386	20.0	mg/kg	50.0	363	44.9	70-130	10.2	20	SPK2
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.23		"	8.00		103	50-150			

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BP America Production Co.	Project Name:	Wilch A #1	Reported: 05/16/19 14:25
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

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 1920015 - Anion Extraction EPA 300.0/9056A

Blank (1920015-BLK1)				Prepared: 05/14/19 0 Analyzed: 05/14/19 1						
Chloride	ND	20.0	mg/kg							
LCS (1920015-BS1)				Prepared: 05/14/19 0 Analyzed: 05/14/19 1						
Chloride	251	20.0	mg/kg	250		100	90-110			
Matrix Spike (1920015-MS1)				Source: P905040-01 Prepared: 05/14/19 0 Analyzed: 05/14/19 1						
Chloride	797	20.0	mg/kg	250	592	82.1	80-120			
Matrix Spike Dup (1920015-MSD1)				Source: P905040-01 Prepared: 05/14/19 0 Analyzed: 05/14/19 1						
Chloride	769	20.0	mg/kg	250	592	70.8	80-120	3.59	20	SPK1

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BP America Production Co.	Project Name:	Wilch A #1	Reported: 05/16/19 14:25
PO Box 22024	Project Number:	03143-0424	
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	

Notes and Definitions

Surr2 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.

SPK1 The spike recovery is outside of quality control limits.

E Analyte was present at a concentration greater than the calibration curve upper limit.

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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Analytical Report

Report Summary

Client: BP America Production Co.

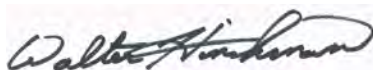
Samples Received: 5/23/2019

Job Number: 03143-0424

Work Order: P905074

Project Name/Location: Wilch A #1

Report Reviewed By:



Date: 5/28/19

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.
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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.
 PO Box 22024
 Tulsa OK, 74121-2024

Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/28/19 12:00

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
W. Base @ 21'	P905074-01A	Soil	05/23/19	05/23/19	Glass Jar, 4 oz.
E. Base @ 21'	P905074-02A	Soil	05/23/19	05/23/19	Glass Jar, 4 oz.
Extended East Sidewall (6'-20')	P905074-03A	Soil	05/23/19	05/23/19	Glass Jar, 4 oz.

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

Project Name: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
05/28/19 12:00

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 1921022 - Purge and Trap EPA 5030A

Blank (1921022-BL K1)

Prepared: 05/23/19 1 Analyzed: 05/24/19 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	"							

Surrogate: 4-Bromochlorobenzene-PID 8.10 " 8.00 101 50-150

LCS (1921022-BS1)

Prepared: 05/23/19 1 Analyzed: 05/24/19 1

Benzene	4.60	0.0250	mg/kg	5.00		92.0	70-130			
Toluene	4.99	0.0250	"	5.00		99.8	70-130			
Ethylbenzene	4.97	0.0250	"	5.00		99.5	70-130			
p,m-Xylene	10.2	0.0500	"	10.0		102	70-130			
o-Xylene	4.96	0.0250	"	5.00		99.2	70-130			
Total Xylenes	15.2	0.0250	"	15.0		101	70-130			

Surrogate: 4-Bromochlorobenzene-PID 8.10 " 8.00 101 50-150

Matrix Spike (1921022-MS1)

Source: P905066-01

Prepared: 05/23/19 1 Analyzed: 05/24/19 1

Benzene	4.56	0.0250	mg/kg	5.00	ND	91.3	54.3-133			
Toluene	4.95	0.0250	"	5.00	ND	99.0	61.4-130			
Ethylbenzene	4.93	0.0250	"	5.00	ND	98.5	61.4-133			
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131			
o-Xylene	4.92	0.0250	"	5.00	ND	98.3	63.3-131			
Total Xylenes	15.0	0.0250	"	15.0	ND	100	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 7.99 " 8.00 99.9 50-150

Matrix Spike Dup (1921022-MSD1)

Source: P905066-01

Prepared: 05/23/19 1 Analyzed: 05/24/19 1

Benzene	4.54	0.0250	mg/kg	5.00	ND	90.7	54.3-133	0.625	20	
Toluene	4.92	0.0250	"	5.00	ND	98.3	61.4-130	0.674	20	
Ethylbenzene	4.90	0.0250	"	5.00	ND	97.9	61.4-133	0.604	20	
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131	0.607	20	
o-Xylene	4.87	0.0250	"	5.00	ND	97.4	63.3-131	0.974	20	
Total Xylenes	14.9	0.0250	"	15.0	ND	99.5	63.3-131	0.727	20	

Surrogate: 4-Bromochlorobenzene-PID 7.85 " 8.00 98.2 50-150

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

Project Name: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
05/28/19 12:00

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 1921022 - Purge and Trap EPA 5030A

Blank (1921022-BLK1)

Prepared: 05/23/19 1 Analyzed: 05/24/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.76		"	8.00		97.0	50-150			

LCS (1921022-BS2)

Prepared: 05/23/19 1 Analyzed: 05/24/19 1

Gasoline Range Organics (C6-C10)	52.1	20.0	mg/kg	50.0		104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.96		"	8.00		99.5	50-150			

Matrix Spike (1921022-MS2)

Source: P905066-01

Prepared: 05/23/19 1 Analyzed: 05/24/19 1

Gasoline Range Organics (C6-C10)	52.6	20.0	mg/kg	50.0	ND	105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.94		"	8.00		99.3	50-150			

Matrix Spike Dup (1921022-MSD2)

Source: P905066-01

Prepared: 05/23/19 1 Analyzed: 05/24/19 1

Gasoline Range Organics (C6-C10)	52.8	20.0	mg/kg	50.0	ND	106	70-130	0.314	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.07		"	8.00		101	50-150			

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

Project Name: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
05/28/19 12:00

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 1921028 - DRO Extraction EPA 3570

Blank (1921028-BLK1)

Prepared & Analyzed: 05/23/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: <i>n</i> -Nonane	54.2		"	50.0		108	50-200			

LCS (1921028-BS1)

Prepared & Analyzed: 05/23/19 1

Diesel Range Organics (C10-C28)	472	25.0	mg/kg	500		94.4	38-132			
Surrogate: <i>n</i> -Nonane	49.6		"	50.0		99.3	50-200			

Matrix Spike (1921028-MS1)

Source: P905066-01

Prepared & Analyzed: 05/23/19 1

Diesel Range Organics (C10-C28)	529	25.0	mg/kg	500	41.8	97.4	38-132			
Surrogate: <i>n</i> -Nonane	50.8		"	50.0		102	50-200			

Matrix Spike Dup (1921028-MSD1)

Source: P905066-01

Prepared & Analyzed: 05/23/19 1

Diesel Range Organics (C10-C28)	531	25.0	mg/kg	500	41.8	97.9	38-132	0.514	20	
Surrogate: <i>n</i> -Nonane	50.2		"	50.0		100	50-200			

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BP America Production Co.	Project Name:	Wilch A #1	
PO Box 22024	Project Number:	03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager:	Steve Moskal	05/28/19 12:00

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 1921023 - Anion Extraction EPA 300.0/9056A

Blank (1921023-BLK1)

Prepared & Analyzed: 05/23/19 1

Chloride	ND	20.0	mg/kg							
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LCS (1921023-BS1)

Prepared & Analyzed: 05/23/19 1

Chloride	251	20.0	mg/kg	250		100	90-110			
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Matrix Spike (1921023-MS1)

Source: P905066-01

Prepared: 05/23/19 1 Analyzed: 05/24/19 0

Chloride	47500	200	mg/kg	250	34800	NR	80-120			SPK2
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Matrix Spike Dup (1921023-MSD1)

Source: P905066-01

Prepared: 05/23/19 1 Analyzed: 05/24/19 0

Chloride	44200	200	mg/kg	250	34800	NR	80-120	7.06	20	SPK2
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/28/19 12:00

Notes and Definitions

SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.

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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Analytical Report

Report Summary

Client: BP America Production Co.

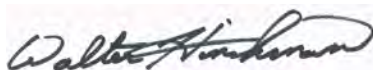
Samples Received: 5/29/2019

Job Number: 03143-0424

Work Order: P905086

Project Name/Location: Wilch A #1

Report Reviewed By:



Date: 5/31/19

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.
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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.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/31/19 12:16

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TSP-1	P905086-01A	Soil	05/29/19	05/29/19	Glass Jar, 4 oz.
TSP-2	P905086-02A	Soil	05/29/19	05/29/19	Glass Jar, 4 oz.
TSP-3	P905086-03A	Soil	05/29/19	05/29/19	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	Wilch A #1	Reported: 05/31/19 12:16
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 1922011 - Purge and Trap EPA 5030A

Blank (1922011-BLK1)

Prepared: 05/29/19 1 Analyzed: 05/29/19 2

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	"							

Surrogate: 4-Bromochlorobenzene-PID	8.17		"	8.00		102	50-150			
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LCS (1922011-BS1)

Prepared: 05/29/19 1 Analyzed: 05/29/19 2

Benzene	4.55	0.0250	mg/kg	5.00		91.0	70-130			
Toluene	4.94	0.0250	"	5.00		98.7	70-130			
Ethylbenzene	4.93	0.0250	"	5.00		98.7	70-130			
p,m-Xylene	10.1	0.0500	"	10.0		101	70-130			
o-Xylene	4.94	0.0250	"	5.00		98.8	70-130			
Total Xylenes	15.1	0.0250	"	15.0		101	70-130			

Surrogate: 4-Bromochlorobenzene-PID	8.25		"	8.00		103	50-150			
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Matrix Spike (1922011-MS1)

Source: P905084-01

Prepared: 05/29/19 1 Analyzed: 05/29/19 2

Benzene	4.63	0.0250	mg/kg	5.00	ND	92.6	54.3-133			
Toluene	5.04	0.0250	"	5.00	ND	101	61.4-130			
Ethylbenzene	5.02	0.0250	"	5.00	ND	100	61.4-133			
p,m-Xylene	10.3	0.0500	"	10.0	ND	103	63.3-131			
o-Xylene	5.02	0.0250	"	5.00	ND	100	63.3-131			
Total Xylenes	15.3	0.0250	"	15.0	ND	102	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID	8.27		"	8.00		103	50-150			
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Matrix Spike Dup (1922011-MSD1)

Source: P905084-01

Prepared: 05/29/19 1 Analyzed: 05/29/19 2

Benzene	4.50	0.0250	mg/kg	5.00	ND	89.9	54.3-133	2.87	20	
Toluene	4.89	0.0250	"	5.00	ND	97.7	61.4-130	3.16	20	
Ethylbenzene	4.89	0.0250	"	5.00	ND	97.8	61.4-133	2.53	20	
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131	2.48	20	
o-Xylene	4.89	0.0250	"	5.00	ND	97.8	63.3-131	2.56	20	
Total Xylenes	14.9	0.0250	"	15.0	ND	99.7	63.3-131	2.50	20	

Surrogate: 4-Bromochlorobenzene-PID	8.30		"	8.00		104	50-150			
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/31/19 12:16

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 1922009 - DRO Extraction EPA 3570
Blank (1922009-BLK1)

Prepared & Analyzed: 05/29/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	47.9		"	50.0		95.8	50-200			

LCS (1922009-BS1)

Prepared & Analyzed: 05/29/19 1

Diesel Range Organics (C10-C28)	503	25.0	mg/kg	500		101	38-132			
Surrogate: n-Nonane	50.5		"	50.0		101	50-200			

Matrix Spike (1922009-MS1)

Source: P905083-01

Prepared & Analyzed: 05/29/19 1

Diesel Range Organics (C10-C28)	602	25.0	mg/kg	500	ND	120	38-132			
Surrogate: n-Nonane	59.3		"	50.0		119	50-200			

Matrix Spike Dup (1922009-MSD1)

Source: P905083-01

Prepared & Analyzed: 05/29/19 1

Diesel Range Organics (C10-C28)	662	25.0	mg/kg	500	ND	132	38-132	9.58	20	
Surrogate: n-Nonane	59.2		"	50.0		118	50-200			

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/31/19 12:16

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 1922011 - Purge and Trap EPA 5030A
Blank (1922011-BLK1)

Prepared: 05/29/19 1 Analyzed: 05/29/19 2

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.21		"	8.00		103	50-150			

LCS (1922011-BS2)

Prepared: 05/29/19 1 Analyzed: 05/29/19 2

Gasoline Range Organics (C6-C10)	54.9	20.0	mg/kg	50.0		110	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.09		"	8.00		101	50-150			

Matrix Spike (1922011-MS2)

Source: P905084-01

Prepared: 05/29/19 1 Analyzed: 05/29/19 2

Gasoline Range Organics (C6-C10)	52.6	20.0	mg/kg	50.0	ND	105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.19		"	8.00		102	50-150			

Matrix Spike Dup (1922011-MSD2)

Source: P905084-01

Prepared: 05/29/19 1 Analyzed: 05/30/19 0

Gasoline Range Organics (C6-C10)	52.6	20.0	mg/kg	50.0	ND	105	70-130	0.104	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.23		"	8.00		103	50-150			

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BP America Production Co.	Project Name: Wilch A #1	
PO Box 22024	Project Number: 03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager: Steve Moskal	05/31/19 12:16

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 1922013 - Anion Extraction EPA 300.0/9056A

Blank (1922013-BLK1)

Prepared: 05/30/19 0 Analyzed: 05/30/19 1

Chloride	ND	20.0	mg/kg
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LCS (1922013-BS1)

Prepared: 05/30/19 0 Analyzed: 05/30/19 1

Chloride	254	20.0	mg/kg	250	102	90-110
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Matrix Spike (1922013-MS1)

Source: P905086-01

Prepared: 05/30/19 0 Analyzed: 05/30/19 1

Chloride	316	20.0	mg/kg	250	60.0	102	80-120
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Matrix Spike Dup (1922013-MSD1)

Source: P905086-01

Prepared: 05/30/19 0 Analyzed: 05/30/19 1

Chloride	315	20.0	mg/kg	250	60.0	102	80-120	0.399	20
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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: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 05/31/19 12:16

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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Analytical Report

Report Summary

Client: BP America Production Co.

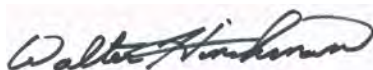
Samples Received: 5/30/2019

Job Number: 03143-0424

Work Order: P905092

Project Name/Location: Wilch A #1

Report Reviewed By:



Date: 6/3/19

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.
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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.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TSP-4	P905092-01A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.
TSP-5	P905092-02A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.
TSP-6	P905092-03A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.
TSP-7	P905092-04A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.
TSP-8	P905092-05A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.
TSP-9	P905092-06A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.
TSP-10	P905092-07A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.
TSP-11	P905092-08A	Soil	05/30/19	05/30/19	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	Wilch A #1	Reported: 06/03/19 16:37
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 1922025 - Purge and Trap EPA 5030A

Blank (1922025-BLK1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 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	"							

Surrogate: 4-Bromochlorobenzene-PID 8.01 " 8.00 100 50-150

LCS (1922025-BS1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Benzene	4.42	0.0250	mg/kg	5.00		88.4	70-130			
Toluene	4.82	0.0250	"	5.00		96.5	70-130			
Ethylbenzene	4.82	0.0250	"	5.00		96.4	70-130			
p,m-Xylene	9.91	0.0500	"	10.0		99.1	70-130			
o-Xylene	4.80	0.0250	"	5.00		96.1	70-130			
Total Xylenes	14.7	0.0250	"	15.0		98.1	70-130			

Surrogate: 4-Bromochlorobenzene-PID 7.97 " 8.00 99.6 50-150

Matrix Spike (1922025-MS1)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Benzene	4.51	0.0250	mg/kg	5.00	ND	90.1	54.3-133			
Toluene	4.90	0.0250	"	5.00	ND	98.0	61.4-130			
Ethylbenzene	4.89	0.0250	"	5.00	ND	97.8	61.4-133			
p,m-Xylene	10.1	0.0500	"	10.0	ND	101	63.3-131			
o-Xylene	4.87	0.0250	"	5.00	ND	97.4	63.3-131			
Total Xylenes	14.9	0.0250	"	15.0	ND	99.5	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8.00 " 8.00 100 50-150

Matrix Spike Dup (1922025-MSD1)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Benzene	4.50	0.0250	mg/kg	5.00	ND	90.0	54.3-133	0.0933	20	
Toluene	4.89	0.0250	"	5.00	ND	97.7	61.4-130	0.241	20	
Ethylbenzene	4.87	0.0250	"	5.00	ND	97.5	61.4-133	0.291	20	
p,m-Xylene	10.0	0.0500	"	10.0	ND	100	63.3-131	0.350	20	
o-Xylene	4.86	0.0250	"	5.00	ND	97.2	63.3-131	0.273	20	
Total Xylenes	14.9	0.0250	"	15.0	ND	99.2	63.3-131	0.325	20	

Surrogate: 4-Bromochlorobenzene-PID 8.02 " 8.00 100 50-150

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

Project Name: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
06/03/19 16:37

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 1922029 - DRO Extraction EPA 3570

Blank (1922029-BLK1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	53.0		"	50.0		106	50-200			

LCS (1922029-BS1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	483	25.0	mg/kg	500		96.5	38-132			
Surrogate: n-Nonane	50.2		"	50.0		100	50-200			

Matrix Spike (1922029-MS1)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	476	25.0	mg/kg	500	ND	95.2	38-132			
Surrogate: n-Nonane	51.6		"	50.0		103	50-200			

Matrix Spike Dup (1922029-MSD1)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	470	25.0	mg/kg	500	ND	94.0	38-132	1.33	20	
Surrogate: n-Nonane	52.0		"	50.0		104	50-200			

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/03/19 16:37

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 1922025 - Purge and Trap EPA 5030A
Blank (1922025-BLK1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		"	8.00		100	50-150			

LCS (1922025-BS2)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Gasoline Range Organics (C6-C10)	52.5	20.0	mg/kg	50.0		105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.17		"	8.00		102	50-150			

Matrix Spike (1922025-MS2)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Gasoline Range Organics (C6-C10)	53.1	20.0	mg/kg	50.0	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.16		"	8.00		102	50-150			

Matrix Spike Dup (1922025-MSD2)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Gasoline Range Organics (C6-C10)	53.2	20.0	mg/kg	50.0	ND	106	70-130	0.0550	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.12		"	8.00		101	50-150			

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BP America Production Co.	Project Name: Wilch A #1	
PO Box 22024	Project Number: 03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager: Steve Moskal	06/03/19 16:37

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 1922027 - Anion Extraction EPA 300.0/9056A

Blank (1922027-BLK1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 0

Chloride	ND	20.0	mg/kg
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LCS (1922027-BS1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 0

Chloride	258	20.0	mg/kg	250	103	90-110
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Matrix Spike (1922027-MS1)

Source: P905091-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 0

Chloride	814	20.0	mg/kg	250	546	107	80-120
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Matrix Spike Dup (1922027-MSD1)

Source: P905091-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 0

Chloride	802	20.0	mg/kg	250	546	102	80-120	1.47	20
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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: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
06/03/19 16:37

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.

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

Analytical Report

Report Summary

Client: BP America Production Co.

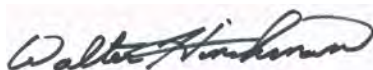
Samples Received: 5/31/2019

Job Number: 03143-0424

Work Order: P905098

Project Name/Location: Wilch A #1

Report Reviewed By:



Date: 6/4/19

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.
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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.
PO Box 22024
Tulsa OK, 74121-2024

Project Name: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
06/04/19 11:40

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TSP-12	P905098-01A	Soil	05/31/19	05/31/19	Glass Jar, 4 oz.
TSP-13	P905098-02A	Soil	05/31/19	05/31/19	Glass Jar, 4 oz.

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BP America Production Co.	Project Name: Wilch A #1	
PO Box 22024	Project Number: 03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager: Steve Moskal	06/04/19 11:40

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 1922028 - Purge and Trap EPA 5030A

Blank (1922028-BLK1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 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	"							

Surrogate: 4-Bromochlorobenzene-PID	8.00	"	8.00	100	50-150
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LCS (1922028-BS1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 2

Benzene	4.52	0.0250	mg/kg	5.00		90.5	70-130			
Toluene	4.91	0.0250	"	5.00		98.1	70-130			
Ethylbenzene	4.89	0.0250	"	5.00		97.7	70-130			
p,m-Xylene	10.0	0.0500	"	10.0		100	70-130			
o-Xylene	4.89	0.0250	"	5.00		97.7	70-130			
Total Xylenes	14.9	0.0250	"	15.0		99.5	70-130			

Surrogate: 4-Bromochlorobenzene-PID	8.14	"	8.00	102	50-150
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Matrix Spike (1922028-MS1)

Source: P905093-01

Prepared: 05/30/19 1 Analyzed: 06/01/19 0

Benzene	4.44	0.0250	mg/kg	5.00	ND	88.8	54.3-133			
Toluene	4.83	0.0250	"	5.00	ND	96.5	61.4-130			
Ethylbenzene	4.81	0.0250	"	5.00	ND	96.2	61.4-133			
p,m-Xylene	9.89	0.0500	"	10.0	ND	98.9	63.3-131			
o-Xylene	4.81	0.0250	"	5.00	ND	96.2	63.3-131			
Total Xylenes	14.7	0.0250	"	15.0	ND	98.0	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID	8.15	"	8.00	102	50-150
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Matrix Spike Dup (1922028-MSD1)

Source: P905093-01

Prepared: 05/30/19 1 Analyzed: 06/01/19 0

Benzene	4.47	0.0250	mg/kg	5.00	ND	89.3	54.3-133	0.634	20	
Toluene	4.85	0.0250	"	5.00	ND	97.1	61.4-130	0.568	20	
Ethylbenzene	4.84	0.0250	"	5.00	ND	96.9	61.4-133	0.635	20	
p,m-Xylene	9.95	0.0500	"	10.0	ND	99.5	63.3-131	0.586	20	
o-Xylene	4.84	0.0250	"	5.00	ND	96.8	63.3-131	0.569	20	
Total Xylenes	14.8	0.0250	"	15.0	ND	98.6	63.3-131	0.580	20	

Surrogate: 4-Bromochlorobenzene-PID	8.13	"	8.00	102	50-150
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BP America Production Co.
 PO Box 22024
 Tulsa OK, 74121-2024

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/04/19 11:40

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 1922029 - DRO Extraction EPA 3570
Blank (1922029-BLK1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	53.0		"	50.0		106	50-200			

LCS (1922029-BS1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	483	25.0	mg/kg	500		96.5	38-132			
Surrogate: n-Nonane	50.2		"	50.0		100	50-200			

Matrix Spike (1922029-MS1)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	476	25.0	mg/kg	500	ND	95.2	38-132			
Surrogate: n-Nonane	51.6		"	50.0		103	50-200			

Matrix Spike Dup (1922029-MSD1)

Source: P905090-01

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Diesel Range Organics (C10-C28)	470	25.0	mg/kg	500	ND	94.0	38-132	1.33	20	
Surrogate: n-Nonane	52.0		"	50.0		104	50-200			

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/04/19 11:40

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 1922028 - Purge and Trap EPA 5030A
Blank (1922028-BLK1)

Prepared: 05/30/19 1 Analyzed: 05/31/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.17		"	8.00		102	50-150			

LCS (1922028-BS2)

Prepared: 05/30/19 1 Analyzed: 05/31/19 2

Gasoline Range Organics (C6-C10)	52.3	20.0	mg/kg	50.0		105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.06		"	8.00		101	50-150			

Matrix Spike (1922028-MS2)

Source: P905093-01

Prepared: 05/30/19 1 Analyzed: 06/01/19 0

Gasoline Range Organics (C6-C10)	52.5	20.0	mg/kg	50.0	ND	105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		"	8.00		100	50-150			

Matrix Spike Dup (1922028-MSD2)

Source: P905093-01

Prepared: 05/30/19 1 Analyzed: 06/01/19 0

Gasoline Range Organics (C6-C10)	52.0	20.0	mg/kg	50.0	ND	104	70-130	0.831	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.09		"	8.00		101	50-150			

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BP America Production Co.	Project Name: Wilch A #1	
PO Box 22024	Project Number: 03143-0424	Reported:
Tulsa OK, 74121-2024	Project Manager: Steve Moskal	06/04/19 11:40

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 1923001 - Anion Extraction EPA 300.0/9056A

Blank (1923001-BLK1)

Prepared: 06/03/19 0 Analyzed: 06/03/19 1

Chloride	ND	20.0	mg/kg
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LCS (1923001-BS1)

Prepared: 06/03/19 0 Analyzed: 06/03/19 1

Chloride	254	20.0	mg/kg	250	102	90-110
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Matrix Spike (1923001-MS1)

Source: P905097-01

Prepared: 06/03/19 0 Analyzed: 06/03/19 1

Chloride	811	20.0	mg/kg	250	523	115	80-120
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Matrix Spike Dup (1923001-MSD1)

Source: P905097-01

Prepared: 06/03/19 0 Analyzed: 06/03/19 2

Chloride	841	20.0	mg/kg	250	523	127	80-120	3.64	20	SPK1
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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: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 06/04/19 11:40

Notes and Definitions

SPK1 The spike recovery is outside of quality control limits.

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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Analytical Report

Report Summary

Client: BP America Production Co.

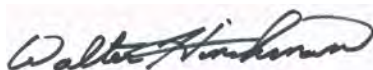
Samples Received: 7/25/2019

Job Number: 03143-0424

Work Order: P907095

Project Name/Location: Wilch A #1

Report Reviewed By:



Date: 8/2/19

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: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
08/02/19 14:50

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
TSP- VZ #1	P907095-01A	Soil	07/25/19	07/25/19	Glass Jar, 4 oz.
TSP- VZ #2	P907095-02A	Soil	07/25/19	07/25/19	Glass Jar, 4 oz.
TSP- VZ #3	P907095-03A	Soil	07/25/19	07/25/19	Glass Jar, 4 oz.
TSP- VZ #4	P907095-04A	Soil	07/25/19	07/25/19	Glass Jar, 4 oz.

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BP America Production Co.	Project Name:	Wilch A #1	Reported: 08/02/19 14:50
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 1931030 - Purge and Trap EPA 5030A

Blank (1931030-BLK1)

Prepared: 07/31/19 0 Analyzed: 08/01/19 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	"							

Surrogate: 4-Bromochlorobenzene-PID 8.39 " 8.00 105 50-150

LCS (1931030-BS1)

Prepared: 07/31/19 0 Analyzed: 08/01/19 1

Benzene	4.13	0.0250	mg/kg	5.00		82.5	70-130			
Toluene	4.79	0.0250	"	5.00		95.8	70-130			
Ethylbenzene	4.91	0.0250	"	5.00		98.2	70-130			
p,m-Xylene	10.1	0.0500	"	10.0		101	70-130			
o-Xylene	4.92	0.0250	"	5.00		98.4	70-130			
Total Xylenes	15.0	0.0250	"	15.0		100	70-130			

Surrogate: 4-Bromochlorobenzene-PID 8.48 " 8.00 106 50-150

Matrix Spike (1931030-MS1)

Source: P907092-01

Prepared: 07/31/19 0 Analyzed: 08/01/19 1

Benzene	3.91	0.0250	mg/kg	5.00	ND	78.2	54.3-133			
Toluene	4.52	0.0250	"	5.00	ND	90.4	61.4-130			
Ethylbenzene	4.65	0.0250	"	5.00	ND	93.0	61.4-133			
p,m-Xylene	9.56	0.0500	"	10.0	ND	95.6	63.3-131			
o-Xylene	4.65	0.0250	"	5.00	ND	93.1	63.3-131			
Total Xylenes	14.2	0.0250	"	15.0	ND	94.7	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8.51 " 8.00 106 50-150

Matrix Spike Dup (1931030-MSD1)

Source: P907092-01

Prepared: 07/31/19 0 Analyzed: 08/01/19 1

Benzene	3.84	0.0250	mg/kg	5.00	ND	76.8	54.3-133	1.91	20	
Toluene	4.46	0.0250	"	5.00	ND	89.2	61.4-130	1.28	20	
Ethylbenzene	4.58	0.0250	"	5.00	ND	91.6	61.4-133	1.50	20	
p,m-Xylene	9.43	0.0500	"	10.0	ND	94.3	63.3-131	1.37	20	
o-Xylene	4.59	0.0250	"	5.00	ND	91.8	63.3-131	1.36	20	
Total Xylenes	14.0	0.0250	"	15.0	ND	93.5	63.3-131	1.37	20	

Surrogate: 4-Bromochlorobenzene-PID 8.44 " 8.00 105 50-150

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/02/19 14:50

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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1931022 - DRO Extraction EPA 3570
Blank (1931022-BLK1)

Prepared: 07/30/19 1 Analyzed: 07/31/19 1

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	38.0		"	50.0		75.9	50-200			

LCS (1931022-BS1)

Prepared: 07/30/19 1 Analyzed: 07/31/19 1

Diesel Range Organics (C10-C28)	486	25.0	mg/kg	500		97.1	38-132			
Surrogate: n-Nonane	37.7		"	50.0		75.3	50-200			

Matrix Spike (1931022-MS1)

Source: P907118-21

Prepared: 07/30/19 1 Analyzed: 07/31/19 1

Diesel Range Organics (C10-C28)	512	25.0	mg/kg	500	40.3	94.3	38-132			
Surrogate: n-Nonane	36.9		"	50.0		73.8	50-200			

Matrix Spike Dup (1931022-MSD1)

Source: P907118-21

Prepared: 07/30/19 1 Analyzed: 07/31/19 2

Diesel Range Organics (C10-C28)	516	25.0	mg/kg	500	40.3	95.2	38-132	0.852	20	
Surrogate: n-Nonane	36.9		"	50.0		73.7	50-200			

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/02/19 14:50

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 1931030 - Purge and Trap EPA 5030A
Blank (1931030-BLK1)

Prepared: 07/31/19 0 Analyzed: 08/01/19 1

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.51		"	8.00		93.9	50-150			

LCS (1931030-BS2)

Prepared: 07/31/19 0 Analyzed: 08/01/19 1

Gasoline Range Organics (C6-C10)	50.5	20.0	mg/kg	50.0		101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.71		"	8.00		96.3	50-150			

Matrix Spike (1931030-MS2)

Source: P907092-01

Prepared: 07/31/19 0 Analyzed: 08/01/19 1

Gasoline Range Organics (C6-C10)	49.8	20.0	mg/kg	50.0	ND	99.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.60		"	8.00		95.0	50-150			

Matrix Spike Dup (1931030-MSD2)

Source: P907092-01

Prepared: 07/31/19 0 Analyzed: 08/01/19 1

Gasoline Range Organics (C6-C10)	49.6	20.0	mg/kg	50.0	ND	99.3	70-130	0.262	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.59		"	8.00		94.9	50-150			

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

 Project Name: Wilch A #1
 Project Number: 03143-0424
 Project Manager: Steve Moskal

Reported:
 08/02/19 14:50

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 1931040 - Anion Extraction EPA 300.0/9056A
Blank (1931040-BLK1)

Prepared: 07/31/19 2 Analyzed: 08/01/19 1

Chloride ND 20.0 mg/kg

LCS (1931040-BS1)

Prepared: 07/31/19 2 Analyzed: 08/01/19 1

Chloride 267 20.0 mg/kg 250 107 90-110

Matrix Spike (1931040-MS1)
Source: P907092-01

Prepared: 07/31/19 2 Analyzed: 08/01/19 1

Chloride 264 20.0 mg/kg 250 ND 106 80-120

Matrix Spike Dup (1931040-MSD1)
Source: P907092-01

Prepared: 07/31/19 2 Analyzed: 08/01/19 1

Chloride 269 20.0 mg/kg 250 ND 108 80-120 1.70 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: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
08/02/19 14:50

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.

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

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

Project Name: Wilch A #1
Project Number: 03143-0424
Project Manager: Steve Moskal

Reported:
03/21/19 13:10

Notes and Definitions

Surr2 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

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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