



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, January 8, 2020
WELL WORK PERMIT
Horizontal 6A / New Drill

CNX GAS COMPANY LLC
1000 CONSOL ENERGY DR
CANONSBURG, PA 15370

Re: Permit approval for SHR 37 EHSM
47-095-02668-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.


James A. Martin
Chief

Operator's Well Number: SHR 37 EHSM
Farm Name: CNX GAS COMPANY
U.S. WELL NUMBER: 47-095-02668-00-00
Horizontal 6A: New Drill
Date Issued: 1/8/2020

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: _____

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: CNX Gas Company, LLC 494458046 Tyler Centerville West Union
Operator ID County District Quadrangle

2) Operator's Well Number: SHR37EHSM Well Pad Name: SHR37

3) Farm Name/Surface Owner: CNX GAS COMPANY LLC Public Road Access: DUCKWORTH RIDGE ROAD

4) Elevation, current ground: 828' Elevation, proposed post-construction: 828'

5) Well Type (a) Gas X Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow X Deep _____

Horizontal X

JCB
10/29/2019

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target formation is Marcellus Shale @ 6290'-6337' TVD, 47' thick, expected formation pressure ~4000 psi

8) Proposed Total Vertical Depth: 6302'

9) Formation at Total Vertical Depth: Marcellus Shale (will not penetrate Onondaga)

10) Proposed Total Measured Depth: 19,242' ✓

11) Proposed Horizontal Leg Length: 12,379'

12) Approximate Fresh Water Strata Depths: 92', 126', 144', 148', 150', 176', 220'

13) Method to Determine Fresh Water Depths: Offset water well information

14) Approximate Saltwater Depths: 1748', 2458'

15) Approximate Coal Seam Depths: No mineable coal seams; trace @ 154', 526', 618', 955', 992', 1044'

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	L/S	<94.0	100	100 ✓	96 / CTS
Fresh Water	13.375	New	J-55	54.5	400	400 ✓	278 / CTS
Coal	13.375	New	J-55	54.5	400	400 ✓	278/CTS
Intermediate	9.625	New	J-55	36.0	2600	2600 ✓	834 / CTS
Production	5.5	New	P-110	20.0	19,242	19,242 ✓	3927 / TOC @ 2100'
Tubing	2.375	New	J-55	4.7		TBD	N/A
Liners	N/A						

QCB
10/29/2019

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	24	0.375	N/A	N/A	Type 1	1.18
Fresh Water	13.375	17.5	0.380	2730	<500	Class A	1.19
Coal	13.375	17.5	0.380	2730	<500	Class A	1.19
Intermediate	9.625	12.25	0.352	3520 ✓	<2815	Class A	1.19
Production	5.5	8.75 x 8.5	0.361	14340 ✓	~11000 during frac ✓	Class A or H	1.10 ✓
Tubing	2.375	N/A	0.190	7700	N/A	N/A	N/A
Liners	N/A						

PACKERS

Kind:	N/A			
Sizes:				
Depths Set:				

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WW-6B
(10/14)

API NO. 47- _____ - _____
OPERATOR WELL NO. SHR37EHSM
Well Pad Name: SHR37

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Utilize conductor rig to set 20" conductor into solid rock and cement back to surface. MIRU drilling rig. Air drill 17-1/2" hole. Run and cement 13-3/8" fresh water casing. Note that there are no known mineable coal seams in this area. Air drill 12-1/4" hole. Run and cement 9-5/8" intermediate casing. Air drill 8-3/4" production hole to curve KOP (this section is typically directionally drilled with a slant/tangent profile for anti-collision and for lateral spacing). Displace hole with 12.0-12.8 ppg SOBMs. Drill 8-1/2" curve from KOP to landing point. Continue drilling 8-1/2" lateral to TD (geosteer this section to remain in Marcellus target window). Perform clean-up cycle to condition well. Run and cement 5-1/2" production casing. Suspend well and skid to next well or RDMO drilling rig.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Run CBL to ~60 degrees in the curve and back to surface to determine production casing TOC. Test production casing and toe prep well. MIRU stimulation/hydraulic fracturing equipment. Fracture well by pumping required number of stages utilizing plug-and-perf method. Max anticipated treating pressure is ~11,000 psi and max anticipated treating pump rate is ~100 bpm. Number of stages and stage spacing to be finalized after drilling. After last stimulation stage, drill out frac plugs and clean-out well to PBTD. Flow back and clean-up well. Tie well into production. Run tubing when required.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 8.5

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22) Area to be disturbed for well pad only, less access road (acres): 8

23) Describe centralizer placement for each casing string:

Fresh water string: centralize shoe joint and every other joint to surface - utilize bow spring centralizers. Intermediate string: centralize shoe joint and every 3rd joint to surface - utilize bow spring centralizers. Production string: centralize every joint from shoe to TOC - utilize single piece/rigid bow centralizers. Actual centralizer placement may be changed based on hole conditions.

24) Describe all cement additives associated with each cement type:

Fresh water string: Class A cement with 1%-3% CaCl₂ and 1/4 pps cello-flake/LCM. Intermediate string: Class A cement with 0%-2% CaCl₂ and 1/4 pps cello-flake/LCM. Production string: Class A or Class H with dry blend and/or liquid additives including retarder, suspension agent, gas block, defoamer, fluid loss control, extender, dispersant, anti-settling agent. Actual cement blends may vary slightly depending upon cementing service company utilized.

25) Proposed borehole conditioning procedures:

Air sections are typically vertical holes - will ensure the hole is clean at section TD prior to TOOH to run casing (may require mist and/or soap to clean the hole). For the production hole - once at TD, circulate at max flowrate with max rotation until the shakers clean-up (typically requires multiple bottoms-up). For the production casing - once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement.

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*Note: Attach additional sheets as needed.

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SHR37 Cement Additives

Fresh water string: Class A cement with 1%-3% CaCl₂ and 1/4 pps cello-flake/LCM.
Intermediate string: Class A cement with 0%-2% CaCl₂ and 1/4 pps cello-flake/LCM.
Production string: Class A or Class H with dry blend and/or liquid additives including retarder, suspension agent, gas block, defoamer, fluid loss control, extender, dispersant, anti-settling agent. Actual cement blends may vary slightly depending upon cementing service company utilized.

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DRILLING WELL PLAN
SHR-37E-HSM (Marcellus HZ)
Marcellus Shale Horizontal
Tyler County, WV

			SHR-37E-HSM SHL				N 313577.25, E 1619475.6 (NAD27)							
Ground Elevation			828 GL Elevation				SHR-37E-HSM LP				N 313452.49, E 1618525.28 (NAD27)			
Azimuth			341°				SHR-37E-HSM BHL				N 325156.99, E 1614495.11 (NAD27)			
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	MD	TVD	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS				
	24"	20" L/S	Conductor	100	100	AIR	To Surface	N/A	N/A	Stabilize surface fill/soil				
	17-1/2"	13-3/8" 54.5# J-55 BTC	Shallowest Fresh Water		92	AIR / FW Mist	15.6 ppg Class A + 1% to 3% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface	Centralize every other joint from shoe to surface Bow spring centralizers	Ensure the hole is clean at section TD	Set through fresh water zones Cemented to surface No known mineable coal seams				
			Deepest Fresh Water		220									
			Fresh Water Casing	400	400									
	12-1/4"	9-5/8" 36.0# J-55 LTC	No mineable coal zones		N/A	AIR / Soap	15.6 ppg Class A + 0% to 2% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface	Centralize every 3rd joint from shoe to surface Bow spring centralizers	Soap the hole as needed and ensure the hole is clean at section TD	Set through potential salt water zones Cemented to surface Casing to be set below the Big Injun and Berea and into Devonian Shale				
			Big Lime		1683									
			Big Injun		1748									
			Price		1888									
			Weir		2018									
			Berea		2238									
			Gordon		2458									
	Intermediate Casing	2600	2600											
	8-3/4" Tangent 8-1/2" Curve & Lateral	5-1/2" 20.0# P-110 VAR	Warren		3153	AIR	15.0 ppg Class A or H with additives (retarder, suspension agent, gas block, defoamer, fluid loss, extender, etc.) 10% OH Excess Yield = 1.10 TOC @ >= 500' above 9-5/8" shoe	Centralize every joint from shoe to TOC Single-piece/rigid bow centralizers	Once at TD, circulate at max flowrate with max rotation until shakers clean-up (typically requires multiple bottoms-up) Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement	Note: Actual centralizer placement may be changed due to hole conditions Note: Actual cement blends may vary slightly depending upon service company utilized				
			Benson		4733									
			Alexander		4978									
Cashaqua				5978										
Middlesex				6083										
West River				6123										
Burkett				6193										
Tully				6223										
Hamilton				6243										
Marcellus				6261										
Production Casing	19242	6302												

LP @ +/- 6302' TVD ✓

8-3/4" x 8-1/2" Hole - Cemented Long String
 5-1/2" 20.0# VA-EP-P110-NY VAR (115-125 MYS, 95% RBW, API Modified BTC)

+/- 12379' Lateral ✓

TD @ +/- 6302' TVD ✓

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 10/29/2019

Wade,

No wells have been drilled on this Pad as of now so we do not have any new confirmed depths or completion reports. The water depths are based on a study we had completed that took the local water depths from our pre-drill sampling and iterated to our site location, an additional buffer was added to be conservative.

See attached.

Let me know if you require anything else.

-Ray

From: Stansberry, Wade A [<mailto:Wade.A.Stansberry@wv.gov>]
Sent: Wednesday, December 11, 2019 1:19 PM
To: Hoon, Raymond <RaymondHoon@cnx.com>; Rhodes, Jacob K <Jacob.K.Rhodes@wv.gov>
Cc: Weigand, Sarah <sarahweigand@cnx.com>; Zachwieja, Becky <BeckyZachwieja@cnx.com>; Simmons, Walter G <Walter.G.Simmons@wv.gov>; Kees, Kelly L <Kelly.L.Kees@wv.gov>; Adkins, Laura L <Laura.L.Adkins@wv.gov>
Subject: RE: [EXTERNAL] RE: SHR37 Permit applications

Ray,

I have a question about the approximate water strata depths. On the 95-02588, the depths were given 137' & 247' for freshwater.

I'm just wondering if you are pulling the new depths from well records in the area or if you got the new water depth approximations from drilling?

Whichever one, could you send me an API # or #s of the nearby/offset wells you used or the completion report of 95-02588 to have that entered each of the SHR 37 applications.

Everything looks good in terms of the WW-6B and the casing plan.

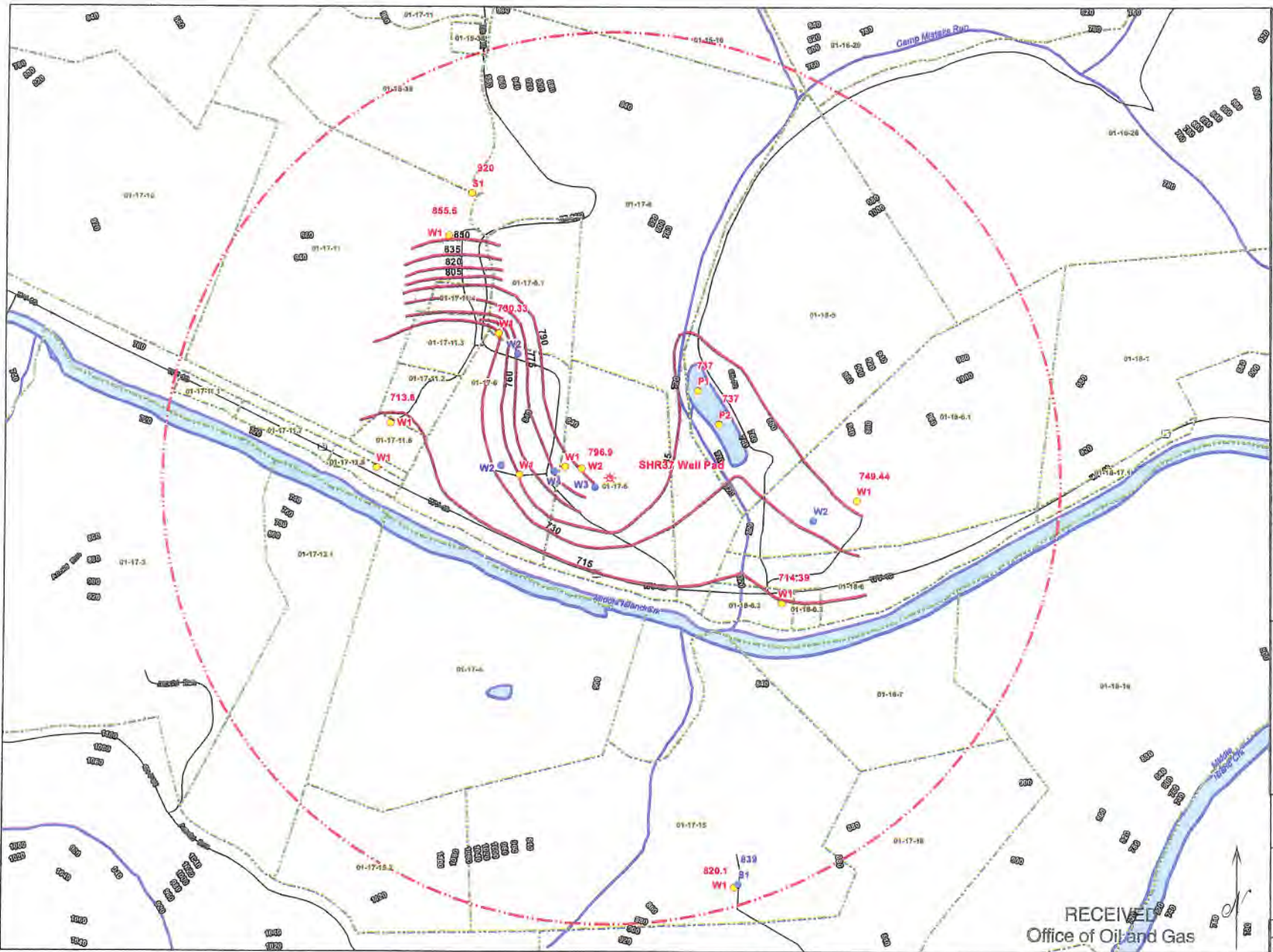
Thank you,

Wade A. Stansberry
Environmental Resources Specialist 3
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 ext. 1653
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Wade.A.Stansberry@wv.gov

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LEGEND

- SHR37 Well Pad Location
- 2500' Buffer
- Parcel Boundary
- Road
- Stream
- Groundwater Contours

Known Water Supplies

- Sampled Source
- Inventoried, Not Sampled

Scale:
 0 500 1,000
 Feet
 1 in = 500 ft

Map References:
 • 7 1/2 minute quadrangle: West Union, WV
 • Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

Notes:
 • This drawing is the property of CNX Resources Corporation and contains information that is proprietary and confidential in nature. It may not be copied or otherwise reproduced in whole or in part without prior written consent.

Groundwater Interval Map

SHR37 Gas Well Pad

Centerville District,
 Tyler County, WV
 Project #: 17-227-09

Prepared for:

199 Johnson Road
 Building 2, Suite 101
 Houston, PA 15342
 Office: (724) 746-5200
 Fax: (724) 746-5603
 www.moody-s.com

Drawn by:	IDW	Date:	12/28/2018
Checked by:	CS	Revision:	

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P:\05\Area_02\GIS\MapDocs\17227\Map_05_SHR37GroundwaterIntervalMap_05.mxd

National Flood Hazard Layer FIRMette



4709502668

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE)
Zone A, V, A99
 - With BFE or Depth *Zone AE, AO, AH, VE, AR*
 - Regulatory Floodway

- OTHER AREAS OF FLOOD HAZARD**
 - 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone J*
 - Future Conditions 1% Annual Chance Flood Hazard *Zone X*
 - Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
 - Area with Flood Risk due to Levee *Zone D*

- OTHER AREAS**
 - NO SCREEN** Area of Minimal Flood Hazard *Zone X*
 - Effective LOMRs
 - Area of Undetermined Flood Hazard *Zone*

- GENERAL STRUCTURES**
 - Channel, Culvert, or Storm Sewer
 - Levee, Dike, or Floodwall

- OTHER FEATURES**
 - 20.2** Cross Sections with 1% Annual Chance Water Surface Elevation
 - 17.5** Coastal Transect
 - Coastal Transect
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
 - Coastal Transect Baseline
 - Profile Baseline
 - Hydrographic Feature

- MAP PANELS**
 - Digital Data Available
 - No Digital Data Available
 - Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/19/2018 at 11:31:08 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



39°21'27.98"N

USGS The National Map: Orthoimagery. Data refreshed October, 2017.

0 250 500 1,000 1,500 2,000 Feet

1:6,000

39°21'0.15"N

80°50'24.73"W

WW-6A7
(6-12)

OPERATOR: CNX Gas Company, LLC WELL NO: SHR37EHSM

PAD NAME: SHR37

REVIEWED BY: Sarah Weigand SIGNATURE: *Sarah Weigand*

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
 - DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
 - DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
 - DEP Waiver and Permit Conditions
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
 - Surface Owner Waiver and Recorded with County Clerk, OR
 - DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
 - Surface Owner Waiver and Recorded with County Clerk, OR
 - DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
 - Surface Owner Waiver and Recorded with County Clerk, OR
 - DEP Variance and Permit Conditions

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SHR37 Pad Frac - SOG Review

In accordance with WVDEP 35CSR8 Section 5.11, all known shallow oil and gas (SOG) wells have been identified within a 500' radius of the SHR37 pad. Any SOG well that falls within the Area of Review (AOR) has been reviewed and is provided in a list that includes API, Operator, Well Name, Well Number, Current Status, Total Depth, and Producing Formation at Total Depth. See following pages, including (Figures 3 and 4).

The Marcellus Shale of the Shirley area is found at an approximate True Vertical Depth (TVD) of 6500'. In the Shirley area, there are very few producing formations between the Big Injun and the Benson Sand. Most wells are either approximately 2000' or 5000' deep. Although there are a significant number of SOG Communication events in the Shirley area, it is highly unlikely that communication will occur with any wells producing from formations shallower than the Benson Sand, found at an approximate TVD of 5000'. This is based on previous experience and study of SOG Communication with Marcellus fracs throughout Ritchie and Doddridge counties.

The current hypothesis for SOG Communication is that Marcellus frac fluids and pressure intersect and migrate up a nearby fault that acts as a conduit for upward migration and intersection with high permeability reservoirs of the Alexander and Benson. Both of these reservoirs are primarily depleted, allowing an easier pressure migration throughout these formations. Geomechanical data is collected from dipole sonic logs. CNX's nearest sonic data is from the SHR1C well (Figure 1), immediately north of the SHR38 pad. Frac modeling (Figure 2) of the Marcellus in the area does not show significant upward frac growth. In fact, typical frac height would need to be more than double to reach the Alexander, approximately 1000' above the Marcellus Shale.

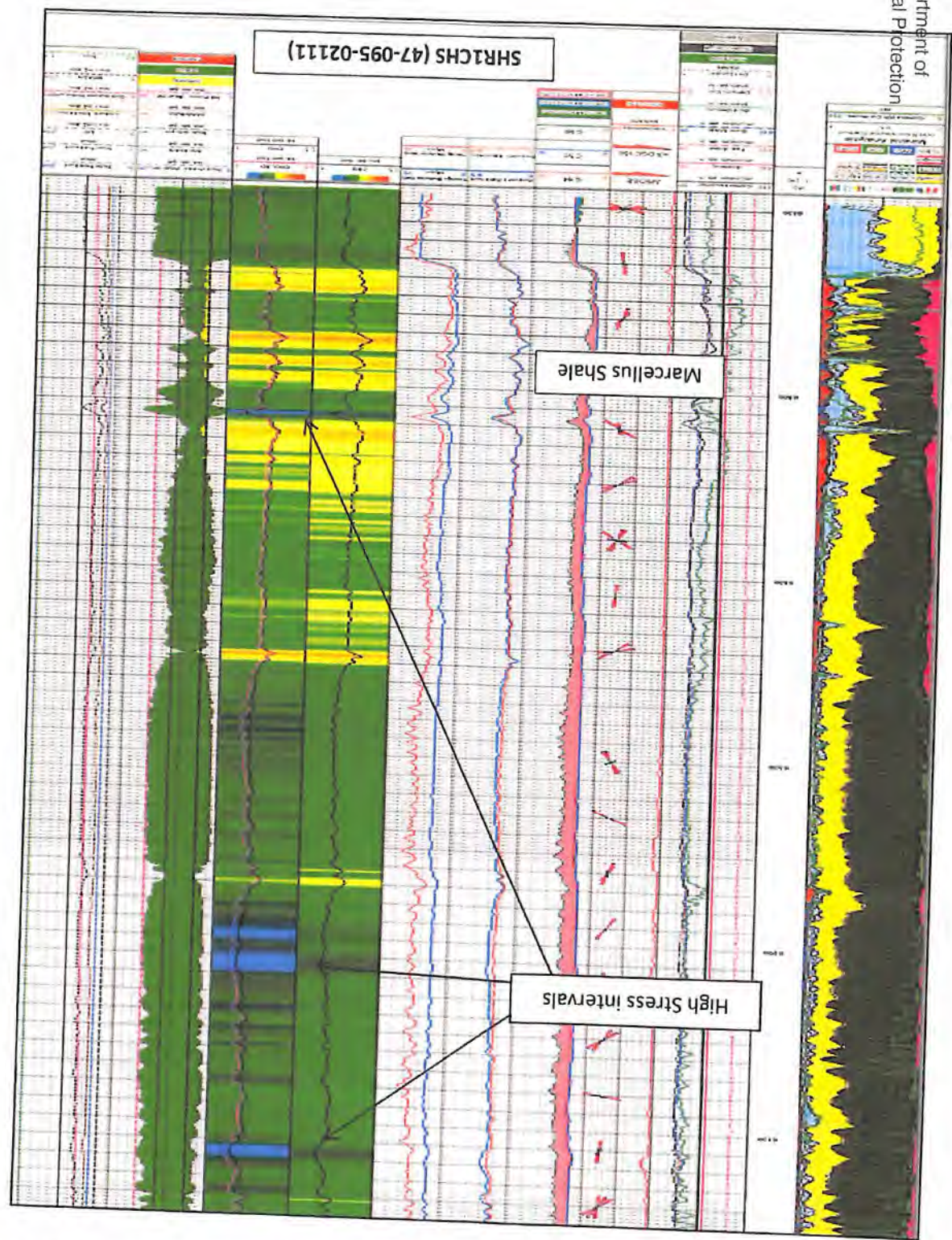
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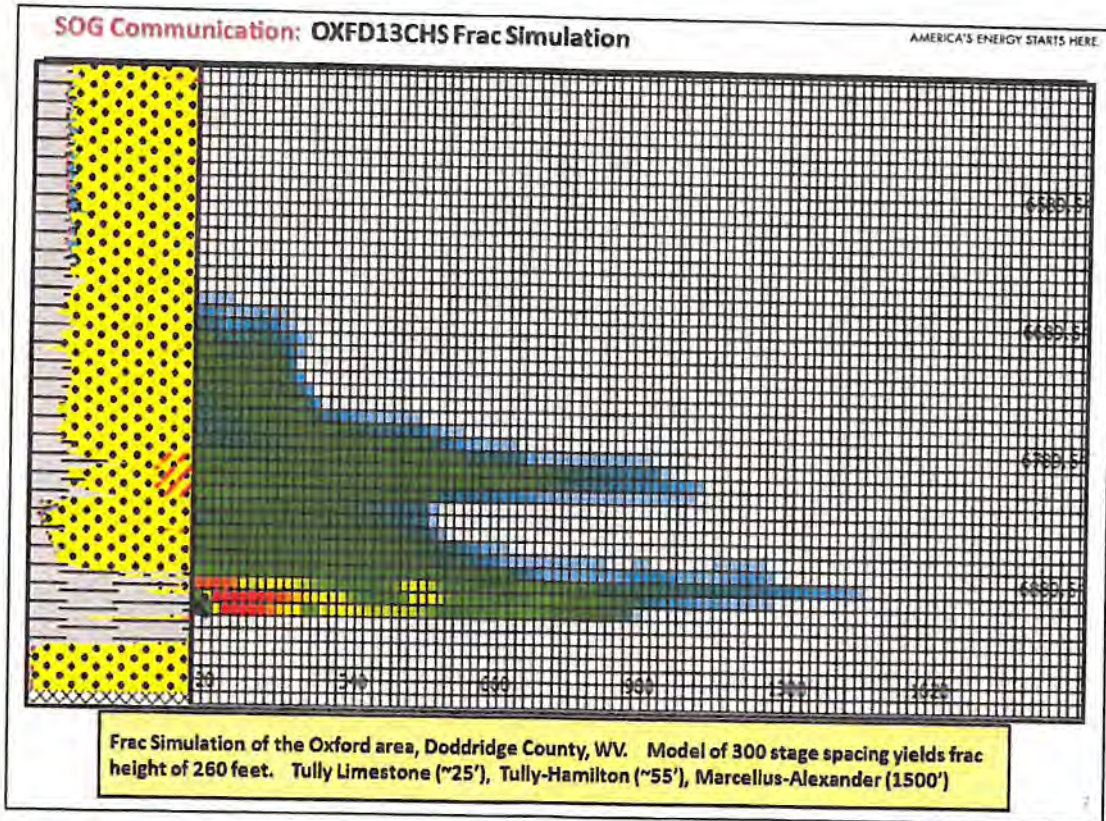
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SHR37 Pad Frac SOG Review / CRSD Review Tuesday, March 12, 2019
Figure 1. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the SHR13C Stress Profile log.



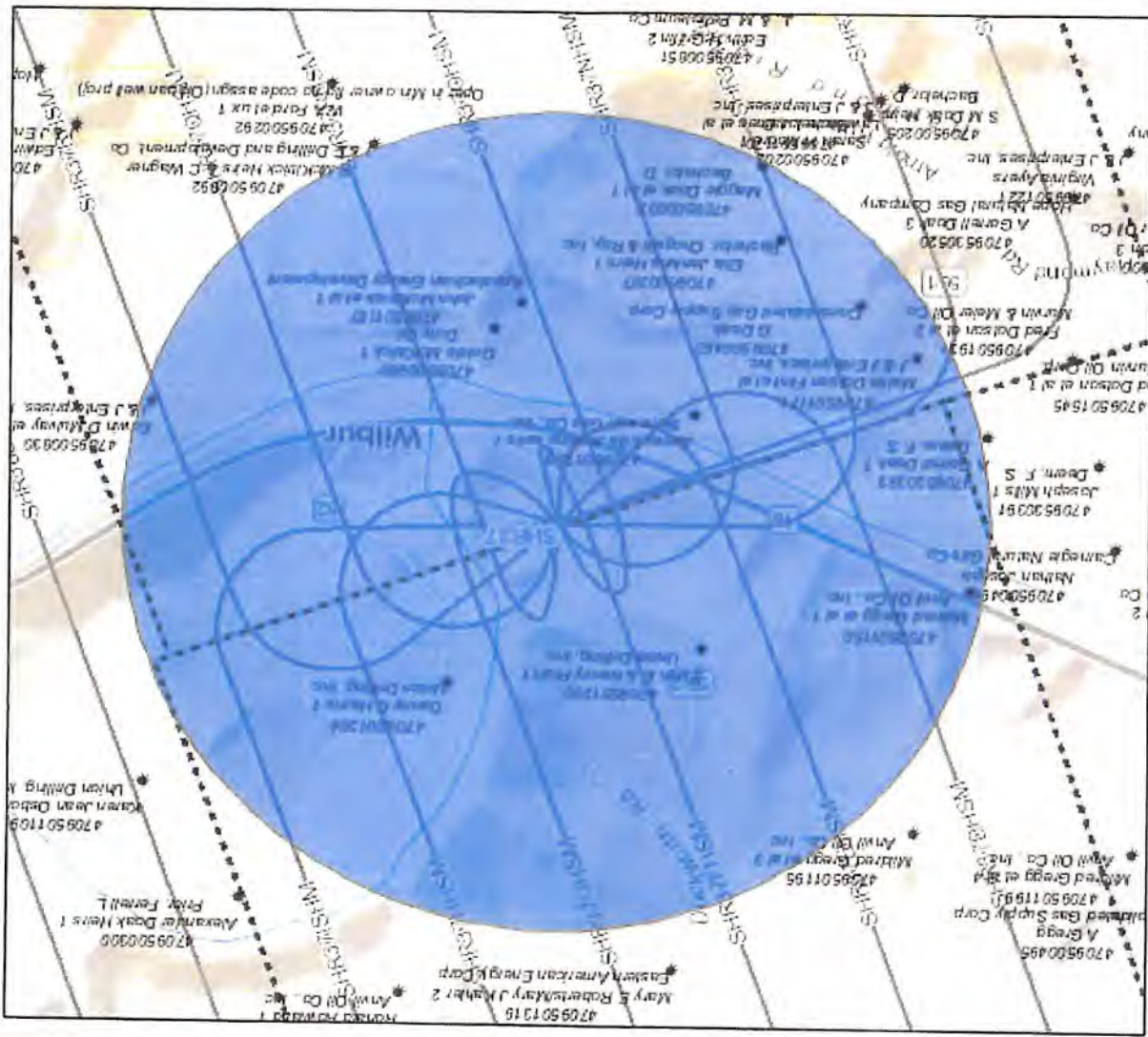
Figure 2. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Marcellus and adjacent shallower shales are lithologically similar to Pennsboro. Frac modeling only yields frac height of approximately 300' and falls far short of the 1000' required to communicate with the Alexander or Benson formations. Therefore, faulting is the primary suspect for upward frac migration.



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API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL NAME	WELL NO.	PLUG DATE	TD	FINTD	ELEVATION	FIELD NAME	COMMENTS
470501150	WV	Tyler	39.3420208	-80.85425861	Amoil Oil Co, Inc	Gas	Milled Gregg et al	1		4795		719	Wilbur	Ground Level
470500830	WV	Tyler	39.3312871	-80.8375798	J & J Enterprises, Inc	Gas	Edwin D Mulvey et al			5196		800	Wilbur	Ground Level
470501171	WV	Tyler	39.3504699	-80.8312162	J & J Enterprises, Inc	Gas	Mattie Dotson Flint et al			5469		948	Wilbur	Ground Level
470501213	WV	Tyler	39.3518673	-80.8486473	Stonewall Gas Co, Inc	Gas	James Ellisenkins Hairs	1		4954		850	Wilbur	Ground Level
470500287	WV	Tyler	39.3482819	-80.85035268	Behlor, Chogull & Ray, Inc	Dry	Ellis Jenkins Hairs	1	4/11/1958	3103		778	Wilbur	Ground Level
470501204	WV	Tyler	39.3558378	-80.84560685	Union Drilling, Inc	Gas	Danny C Hairs	1		4919		719	Wilbur	Field Topo Map
470500037	WV	Tyler	39.3471588	-80.84993069	Bachlor, D	Dry	Maggie Deak et al	1	10/4/1955	1195		1082	Stanley	Ground Level
470501939	WV	Tyler	39.3516904	-80.85453599	Deem, F. S	Gas	A Gornell Deak	7		2110		818	Wilbur	Ground Level
470501167	WV	Tyler	39.3516904	-80.85453599	Appalachian Energy Development	Gas	John Nicklitch et al	1		4866		818	Wilbur	Ground Level
470500280	WV	Tyler	39.3492182	-80.8483982	Dry Oil	Dry	Goldie Nicklitch	1	5/22/1959	945		833	Wilbur	Ground Level
470500280	WV	Tyler	39.3522799	-80.8483979	Union Drilling, Inc	Gas	Elean E & Nancy Pratt	1		4927		860	Wilbur	Ground Level
470500892	WV	Tyler	39.3468373	-80.8420587	J & J Enterprises, Inc	Gas	Ricktrick Hairs & Wagner	1		5014		851	unamed	Ground Level
470500492	WV	Tyler	39.3494789	-80.8521084	Consolidated Gas Supply Corp	Gas	G Oak	1		1916		851	unamed	Ground Level

Figure 3. All wells within a 2640' buffer around the SHR37 pad center have been reviewed and listed below.





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Figure 4. All wells within a 500' buffer around the SHR37 pad have been reviewed and listed below. Pink highlights mean that no data exists for the well.

API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL NAME	WELL NO	PLUG DATE	TD	FMTD	ELEVATION	COMMENTS
4709501442	WV	Tyler	39.33517	-80.8336774		Canceled Permit						804	
4709501002	WV	Tyler	39.3755024	-80.8548587	Carnegie Natural Gas Co	Gas	Laura Conway	1		D		735	Ground Level
4701708452	WV	Doddridge	39.33817	-80.8336774		Canceled Permit				D		804	
4701771433	WV	Doddridge	39.3308663	-80.83576	Hope Natural Gas Company	not available	Eliaz Thomas			D		871	
4701704570	WV	Doddridge	39.3185292	-80.8390069	----- unknown -----	not available	McKendry Dotson 1			D		958	
4709508080	WV	Tyler	39.335578	-80.8529416	Hope Natural Gas Company	not available	Robert Doak	1		D		1116	Spirit Level
4701771436	WV	Doddridge	39.3369759	-80.8296341	----- unknown -----	not available	McCutchen-Heines 1			D		990	
4709500044	WV	Tyler	39.3881758	-80.8557997	----- unknown -----	not available	B & Smith	1		D		816	Ground Level
4701704186	WV	Doddridge	39.3257924	-80.8413618	Ritchie Petroleum Corp	not available	Brake Samuel 1			D		1081	
4701771447	WV	Doddridge	39.3211421	-80.833294	Hope Natural Gas Company	not available	Lawrence James			D		883	
4701701062	WV	Doddridge	39.3220222	-80.834267	Prior, Ferrell L DBA Prior Oil Company	not available	W H Hight 2			D		830	
4701771448	WV	Doddridge	39.3207062	-80.8366799	----- unknown -----	not available	S Yeater			D		751	
4701703945	WV	Doddridge	39.33817	-80.8336774		not available				D		804	
4701771435	WV	Doddridge	39.3372694	-80.83552	Hope Natural Gas Company	not available	Wagner			D		746	
4709501060	WV	Tyler	39.3250282	-80.8464097	Hope Construction & Refining	not available	E M Jackson	7		D		1115	Ground Level
4701771438	WV	Doddridge	39.3301403	-80.831594	----- unknown -----	not available	B Hendershot 1			D		763	
4701771426	WV	Doddridge	39.3250282	-80.8460167	----- unknown -----	not available	Cisco Dotson			D		989	
4701771427	WV	Doddridge	39.3250282	-80.8376269	Oper in Min owner fid no code assign(Orphan well proj)	not available	Mary Montgomery 1			D		790	
4709500202	WV	Tyler	39.3458127	-80.8411859	Oper in Min owner fid no code assign(Orphan well proj)	not available	W A Foid et al	1		D		841	Spirit Level
4701771428	WV	Doddridge	39.3257864	-80.8411738	----- unknown -----	not available	Cisco Dotson 1			D		1040	
4701703401	WV	Doddridge	39.33517	-80.8336774		not available				D		804	
4701730835	WV	Doddridge	39.3211419	-80.8400526	----- unknown -----	not available	S Yeater			D		786	
4709501495	WV	Tyler	39.33517	-80.8336774		not available				D		804	
4701704599	WV	Doddridge	39.33517	-80.8336774		not available				D		804	
4701771425	WV	Doddridge	39.3228894	-80.8437868	----- unknown -----	not available	Arlington Dotson 2			D		819	
4709501159	WV	Tyler	39.33317	-80.8336774		not available				D		804	
4701703948	WV	Doddridge	39.33517	-80.8336774		not available				D		804	
4701750182	WV	Doddridge	39.3189643	-80.8421938	Philadelphia Oil Co	not available	F Dotson			D		840	
4701771434	WV	Doddridge	39.3227524	-80.8593059	Hope Natural Gas Company	not available	Wagner			D		964	
4709501158	WV	Tyler	39.3266925	-80.8482707	Hope Construction & Refining	not available	E M Jackson	3		D		1197	Spirit Level
4701771431	WV	Doddridge	39.3295605	-80.8443358	----- unknown -----	not available	Alfred Dotson 1			D		1087	
4701703944	WV	Doddridge	39.33517	-80.8336774		not available				D		804	
4709505470	WV	Ritchie	39.33517	-80.8336774		not available				D		804	
4709500280	WV	Tyler	39.3499118	-80.8445998	Duty Oil	Dry	Goldie McKibrick	1	9/22/1959	945	1st Cow Rn/Moundsville	818	Ground Level
4709500715	WV	Tyler	39.3393295	-80.8587489	Industrial Gas Associates	Dry	W Paul McCutchen	3	abandoned	948	1st Frprt 5s/Frprt 5s	780	Ground Level
4709500203	WV	Tyler	39.3462789	-80.8521198	Bachelor, D	Dry	Sarah H Moore	1	8/14/1951	1096	1st Cow Rn/Moundsville	1084	Ground Level
4709500205	WV	Tyler	39.3458049	-80.8521876	Bachelor, D	Dry	S M Doak Heirs	1	11/29/1951	1100	Mehong 3s/Big Dunk	1036	Ground Level
4709500267	WV	Tyler	39.3485819	-80.8503507	Bachelor, Chaguill & Ray, Inc	Dry	Ellis Jenkins Heirs	1	4/9/1959	1103	1st Cow Rn/Moundsville	1088	Ground Level
4709500087	WV	Tyler	39.3471569	-80.8499597	Bachelor, D	Dry	Maggie Deakst et al	1	11/4/1955	1193	1st Cow Rn/Moundsville	1109	Field Topo Map
4701701070	WV	Doddridge	39.3210802	-80.8390949	Prior, Ferrell L DBA Prior Oil Company	Oil	D Garner 1			1792	Big in un (undiff)	729	Ground Level
4701703056	WV	Doddridge	39.3156704	-80.83464	Hope Natural Gas Company	Gas	Austin Doak			1800	Big in un (undiff)	759	Ground Level
4709500300	WV	Tyler	39.3598158	-80.839415	Prior, Ferrell L	Gas	Alexander Doak Heirs	1		1836	Big in un (undiff)	785	Ground Level
4701700014	WV	Doddridge	39.3228924	-80.8497888	Foley Oil & Gas	Oil and Gas	Arthur Yeater	2		1845	Big in un (undiff)	775	Ground Level
4709500288	WV	Tyler	39.3354827	-80.8472267	Oper in Min owner fid no code assign(Orphan well proj)	Gas	Dale Ash	1		1849	Big in un (undiff)	857	Ground Level
4701701092	WV	Doddridge	39.3212513	-80.8413988	Hickman, Charles L	Dry w/ O&G Show	Arlington Dotson Mrs B		1964	1865	Big in un (undiff)	780	Ground Level
4701750201	WV	Doddridge	39.3220283	-80.84484	Deem, F. S	Oil and Gas	Henderson Walton	1		1880	Big in un (undiff)	802	Ground Level
4701750448	WV	Doddridge	39.3162863	-80.8426878	Clifton Oil & Gas	Oil and Gas	McKendry Dotson	2		1882	Big in un (undiff)	820	Ground Level
4709500393	WV	Tyler	39.3357067	-80.8628425	Menn Drilling	Oil	H B Smith & Ash	1		1900	Big in un (undiff)	805	Ground Level

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4709570199	WV	Tyler	39.3869136	-80.9544647	Philadelphia Company, The	Gas	W N Moore			1901	Big Injun (undiff)	830	Ground Level
4709500492	WV	Tyler	39.349477	-80.8520106	Consolidated Gas Supply Corp.	Gas	G Doak			1916	Squaw	882	Ground Level
4701700204	WV	Doddridge	39.3321783	-80.833993	P & M Oil Co.	Dry w/ O&G Show	Henry Tullington	1		1916	Big Injun (undiff)	883	Ground Level
4709530526	WV	Tyler	39.3641701	-80.8538826	Pittsburgh & WV Gas	Gas w/ Oil Show	Noah & Laura Duckworth	2		1923	Big Injun (undiff)	888	Ground Level
4701730160	WV	Doddridge	39.3324633	-80.8314891	Hope Natural Gas Company	Gas	E A Hendershot			1950	Big Injun (undiff)	870	Ground Level
4701731194	WV	Doddridge	39.3272425	-80.8478967	Hope Natural Gas Company	Oil and Gas	Cisco Dotson	1		1973	Big Injun (undiff)	961	Ground Level
4701730277	WV	Doddridge	39.3272425	-80.8478967	Hope Construction & Refining	Oil w/ Gas Show	Austin Doak			1978	Squaw	988	Ground Level
4701701065	WV	Doddridge	39.3185952	-80.8393859	Prior, Ferrell L DBA Prior Oil Company	Oil w/ Gas Show	W H Pigott Mrs 1			1985	Big Injun (undiff)	1010	Ground Level
4701730102	WV	Doddridge	39.3320284	-80.8376278	Deem, F. S.	Oil and Gas	Okey Washburn			1987	Big Injun (undiff)	826	Barometer
4709500428	WV	Tyler	39.3767876	-80.8591176	Clifton Oil & Gas	Gas w/ Oil Show	Lewis Maxwell Heirs	1		2010	Big Injun (undiff)	1053	Ground Level
4709500520	WV	Tyler	39.347659	-80.8563095	Warren Drilling Co (John R. Warren)	Gas w/ Oil Show	Dele Ash	1		2052	Weir	720	Ground Level
4709530993	WV	Tyler	39.351699	-80.8546256	Hope Natural Gas Company	Gas w/ Oil Show	A Gorrell Doak	8		2105	Big Injun (undiff)	1073	Ground Level
4701701359	WV	Doddridge	39.3368594	-80.8318811	Deem, F. S.	Gas	A Gorrell Doak	7		2110	Big Injun (undiff)	1082	Ground Level
4701701356	WV	Doddridge	39.33294574	-80.8379199	Industrial Gas Associates	Oil and Gas	L G Hamner 1			2300	Weir	818	Ground Level
4709500679	WV	Tyler	39.3402015	-80.835668	Industrial Gas Associates	Oil and Gas	N Shepherd 1			2303	Weir	920	Ground Level
4701702514	WV	Doddridge	39.3170163	-80.8370789	Industrial Gas Associates	Oil and Gas	Hattie Bradford	2		2313	Weir	780	Ground Level
4709500851	WV	Tyler	39.3445459	-80.8505147	L & M Petroleum Co.	Oil and Gas	Paul James 1			2390	Weir	1000	Ground Level
4709500676	WV	Tyler	39.3411227	-80.8452958	Industrial Gas Associates	Gas	Edith H Griffin	2		2465	Berea 3s	1010	Ground Level
4709530600	WV	Tyler	39.3422726	-80.8383739	Industrial Gas Associates	Oil and Gas	Faul McCutchen	1		2466	Fifty-foot	950	Ground Level
4709501891	WV	Tyler	39.3503471	-80.8563086	Hope Natural Gas Company	Gas	W P Bradford			2498	Giant	862	Ground Level
4701701078	WV	Doddridge	39.3246812	-80.8549939	Murvin & Meier Oil Co.	Dry w/ Gas Show	Fred Dotson et al	2		2551	Berea 3s	959	Kelly Bushing
4709500220	WV	Tyler	39.3861748	-80.8593907	Prior, Ferrell L DBA Prior Oil Company	Dry	Elizabeth Thomas 1			2553	Big Injun (undiff)	771	Ground Level
4709500400	WV	Tyler	39.3779476	-80.8604268	Oper in Min. owner fid. no code assign (Orphan well prop)	Dry w/ O&G Show	Okey R & Ora Nelson Moore	1		2605	Gordon	752	Ground Level
4709530830	WV	Tyler	39.3456086	-80.835201	Quaker State Oil Refining Co.	Dry w/ O&G Show	Dele Ash Jr	1		2610	Weir	816	Ground Level
4709500813	WV	Tyler	39.3661544	-80.8565335	Hope Natural Gas Company	Gas	William Smith			2921	Fifth	745	Ground Level
4709501150	WV	Tyler	39.3542621	-80.8542336	L & M Petroleum Co.	Gas w/ Oil Show	Frank Dillon	1		3400	Warren First	810	Ground Level
4709501298	WV	Tyler	39.3753365	-80.8581836	Anvil Oil Co., Inc	Gas	Mildred Gregg et al	1		4795	Benson	719	Ground Level
4709501817	WV	Tyler	39.3718094	-80.8542387	Coastal Corp, The	Gas	Randall & Doretta Ash	1		4858	Benson	729	Ground Level
4709501167	WV	Tyler	39.3494768	-80.8450998	Coastal Corp, The	Gas	Duane & Sandra Clark	8		4859	Benson	737	Ground Level
4709501210	WV	Tyler	39.3625183	-80.8583655	Appalachian Energy Development	Gas	John Mick/Trick et al	1		4866	Benson	818	Ground Level
4709501104	WV	Tyler	39.3658979	-80.8436069	Anvil Oil Co., Inc	Gas	David Gregg et al	6		4862	Benson	746	Ground Level
4709501304	WV	Tyler	39.3788402	-80.8458919	Union Drilling, Inc.	Gas	Danny C Harris	1		4819	Benson	778	Ground Level
4709501199	WV	Tyler	39.3780926	-80.8614815	Coastal Corp, The	Gas	Duane Clark et al	1		4923	Benson	758	Ground Level
4709501120	WV	Tyler	39.355276	-80.8488307	Coastal Corp, The	Gas w/ Oil Show	Ralph Ash et al	2		4927	Benson	727	Ground Level
4701703558	WV	Doddridge	39.3568604	-80.835761	Union Drilling, Inc.	Gas	Elden E & Nancy Prett	1		4827	Benson	839	Ground Level
4709501223	WV	Tyler	39.3513619	-80.8464887	Stonewall Gas Co., Inc.	Gas	Char Stinesporing			4551	Benson	852	Ground Level
4709501316	WV	Tyler	39.3690543	-80.8461788	Stonewall Gas Co., Inc.	Gas	James Ellis Jenkins heirs	1		4554	Benson	850	Ground Level
4709501355	WV	Tyler	39.3857786	-80.8537017	Eastern American Energy Corp.	Gas	Mary E Roberts/Mary J Kahler	3		4554	Benson	839	Ground Level
4709501224	WV	Tyler	39.361076	-80.8426739	DAC, Inc.	Gas	Marc A Massullo et al	1		4355	Benson	877	Ground Level
					Anvil Oil Co., Inc.	Gas	Ronald Rowland	1		5010	Benson	865	Ground Level

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Well ID	County	Operator	Well Type	Production Status	Company Name	Gas	Production	Volume	Location	Depth	Ground Level	
4709501315	WV	Tyler	39.3668793	-80.85129497	Eastern American Energy Corp.	Gas	Mary E Roberts/Mary J Kahler	2	5014	Benson	917	Ground Level
4709500992	WV	Tyler	39.3468357	-80.8420509	J & E Drilling and Development Co	Gas	R Micklitz Heirs & C Wagner		5014	Benson	960	Ground Level
4709501505	WV	Tyler	39.3747104	-80.8508957	Coastal Corp, The	Gas w/ Oil Show	Mildred Gregg	7	5016	Benson	830	Ground Level
4709501107	WV	Tyler	39.3349756	-80.8441696	Stonewall Gas Co., Inc.	Gas	Charter D Stinespring	2	5056	Benson	1007	Ground Level
4709501208	WV	Tyler	39.3621892	-80.8551547	Anvil Oil Co., Inc	Gas	David C Gregg et al	5	5068	Benson	891	Ground Level
4701701787	WV	Doddridge	39.5251243	-80.8403488	J & J Enterprises, Inc.	Gas	L Shepherd		5070	Alexander	900	Ground Level
4709500782	WV	Tyler	39.3430745	-80.8345418	J & J Enterprises, Inc.	Gas	Delmer Mulvay		5100	Alexander	750	Ground Level
4709501322	WV	Tyler	39.3647041	-80.8471578	Eastern American Energy Corp.	Gas	Mary E Roberts/Mary J Kahler	1	5127	Benson	910	Ground Level
4709501328	WV	Tyler	39.3641827	-80.8589936	Eastern American Energy Corp.	Gas	Lawrence & Thelma James	4	5130	Alexander	800	Ground Level
4709500850	WV	Tyler	39.3511867	-80.837558	Coastal Corp, The	Gas w/ Oil Show	George W & Carolyn Moore	1	5135	Benson	965	Ground Level
4709501319	WV	Tyler	39.3606431	-80.8462778	J & J Enterprises, Inc.	Gas	Edwin D Mulvay et ux		5136	Alexander	800	Ground Level
4701703829	WV	Doddridge	39.3336705	-80.8393089	Eastern American Energy Corp.	Gas	Mary E Roberts/Mary J Kahler	1	5141	Benson	995	Ground Level
4709501669	WV	Tyler	39.3390357	-80.8490197	Stonewall Gas Co., Inc.	Gas	Charter Stinespring B		5150	Benson	1043	Ground Level
4709501495	WV	Tyler	39.3327536	-80.8490187	DAC, Inc.	Gas	Leonard & Renie Smith	1	5175	Benson	1051	Ground Level
4701704124	WV	Doddridge	39.3246325	-80.8467757	Nugent & Sons, Inc.	Gas	Merice J Carlisle/Ralph Thacker	2	5180	Alexander	807	Ground Level
4701702964	WV	Doddridge	39.3261573	-80.835354	Key Oil Co.	Gas	Samuel Brake 2		5216	Alexander	901	Ground Level
4701703016	WV	Doddridge	39.3393254	-80.8311261	J & J Enterprises, Inc.	Gas	Lonnie James		5267	Alexander	985	Ground Level
4709501557	WV	Tyler	39.3361355	-80.8408039	J & J Enterprises, Inc.	Gas	W P McCutchen		5305	Alexander	920	Ground Level
4701703389	WV	Doddridge	39.3231311	-80.831994	Key Oil Co.	Gas w/ Oil Show	Robert F Burgess Sr	1	5321	Alexander	1020	Ground Level
4701704161	WV	Doddridge	39.3295558	-80.836521	J & J Enterprises, Inc.	Gas	L J James		5322	Alexander	866	Ground Level
4709500620	WV	Tyler	39.3846178	-80.8634185	Key Oil Co.	Gas	Lonnie James 1		5336	Alexander	962	Ground Level
4701704200	WV	Doddridge	39.3198462	-80.8561339	Tried Hunter, LLC	Gas	Kenneth Sinclair		5337	Alexander	780	Ground Level
4701703248	WV	Doddridge	39.3349755	-80.8312541	Murvin Oil Corp.	Gas	Carl G James 1		5350	Alexander	1048	Ground Level
4701704126	WV	Doddridge	39.3211515	-80.8439748	J & J Enterprises, Inc.	Gas	W P Bush et ux		5369	Benson	965	Ground Level
4709500925	WV	Tyler	39.3414527	-80.8439708	Key Oil Co.	Gas	Carroll Shepherd 2		5375	Alexander	1010	Ground Level
4701704123	WV	Doddridge	39.3278224	-80.8411749	J & J Enterprises, Inc.	Gas	W Paul McCutchen		5428	Alexander	1025	Ground Level
4709501171	WV	Tyler	39.350347	-80.8531916	Key Oil Co.	Gas	Samuel J Brake 1		5486	Alexander	1076	Ground Level
4709501810	WV	Tyler	39.3458208	-80.8482797	J & J Enterprises, Inc.	Gas	Mattie Dotson Flint et al		5489	Alexander	948	Ground Level
4709500831	WV	Tyler	39.3465026	-80.836001	Eastern American Energy Corp.	Gas	Lawrence L & Thelma E James	5	5490	Alexander	1065	Ground Level
4709501170	WV	Tyler	39.3459969	-80.8523626	J & J Enterprises, Inc.	Gas	Edwin D Mulvay		5512	Alexander	840	Ground Level
4701704162	WV	Doddridge	39.3299975	-80.8458567	J & J Enterprises, Inc.	Gas	Lawrence L James et al		5530	Alexander	1032	Ground Level
4709501198	WV	Tyler	39.3589231	-80.8331356	Key Oil Co.	Gas	Lonnie James 2		5537	Alexander	1170	Ground Level
4709501096	WV	Tyler	39.3693444	-80.8572466	Anvil Oil Co., Inc	Gas	Mildred Gregg et al	5	5578	Brillier	923	Ground Level
4709500427	WV	Tyler	39.3684922	-80.8511807	Kepto, Inc.	Gas	Thelma Ferguson et al		5656	Rhinestreet Sh	729	Ground Level
					Quaker State Oil Refining Co	Dry w/ O&G Show	C D Costrell	1	9/17/1955	6816	857	Ground Level

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WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. SHR37EHSM

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS**

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

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Operator Name CNX Gas Company, LLC OP Code 494458046

Watershed (HUC 10) Headwaters Middle Island Creek Quadrangle West Union

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: no pits

Will a synthetic liner be used in the pit? Yes No If so, what ml.? NA

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 47-001-00561, 47-097-01514, 47-097-01613, 34-013-2-0609)
- Reuse (at API Number Pens3 and Pens21 wells API TBD)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No Pits)

JCB
10/29/2019

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical: air from spud/surface to curve kick-off point (KOP). Horizontal: synthetic oil-based mud (SOBM) from curve KOP to lateral TD

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Bactericide, Polymers, and Weighting Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Land Application of soil conductor cuttings only, all other cuttings will be taken to an approved Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? See attached.

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Sarah Weigand*
Company Official (Typed Name) Sarah Weigand
Company Official Title Manager Upstream Permitting

Subscribed and sworn before me this 23rd day of October, 2019
Jacob C Young Notary Public
My commission expires 6/4/2022

Commonwealth of Pennsylvania - Notary Seal
JACOB C YOUNG - Notary Public
Washington County
My Commission Expires Jun 4, 2022
Commission Number 1333900

CNX Gas Company, LLC

Proposed Revegetation Treatment: Acres Disturbed 15.57 Prevegetation pH 6.5

Lime according to pH test Tons/acre or to correct to pH 7.0

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch hay or straw @ 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Orchard Grass	25
Birdsfoot Trefoil	15	Birdsfoot Trefoil	15
Ladino Clover	10	Ladino Clover	10

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: J. Craig Blum

Comments: _____

Title: Oil & Gas Inspector Date: 10/29/2019

Field Reviewed? Yes No

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CNX RESOURCES CORPORATION - HSE APPROVED ELEVATED NORM/TENORM TSD* FACILITIES**				
TENORM Transfer/ Treatment/Downblending Facility	Location		Accepted Waste Streams	Contact Information
Austin Master Services - Treatment, Downblending, and Transfer Facility	Martins Ferry Facility	OH	Non-radioactive material, low level radioactive material, (NORM/TENORM), and high level TENORM material handling, storage, downblending, transport/loading to rail, tank cleaning, radiological sampling/testing analysis/lab.	Office: 740-609-3800 Jack Bement CEO Austin Master Services LLC 555 Circle of Progress Pottstown PA, 19464 Ph: (585) 704-2744 Fax: 484 624-5506
Belmont Solids Control				
Buckeye Solids, Recycling, and Lab Facility	64054 Wintergreen Rd Lore City, Ohio 43725	OH	Non-radioactive material, low level radioactive material, (NORM/TENORM), and high level TENORM material handling, storage, downblending, transport/loading to rail, tank cleaning, radiological sampling/testing analysis/lab.	Bill Dawson 740-591-4393 bill@buckeyebrine.com Billing Address: 64054 Wintergreen Rd Lore City, Ohio 43725
Ground Tech LLC	240 Sinter Court, Youngstown, OH 44510	OH	Non-radioactive material, low level radioactive material (NORM/TENORM), and high level TENORM material handling, storage, and transport. (TENORM downblending of low level TENORM material (≤ 85 pCi) on-site. High level TENORM (< 85 pCi) materials will be directed to Austin Master Services in Martins Ferry, Ohio by Ground Tech).	Office: (330) 270-9900 Larry Chamberlain 330-398-5919 lchamberlain@iwc-inc.com
Mud Masters LLC	64054 Wintergreen Rd Lore City, Ohio 43725	OH	Non-radioactive material, low level radioactive material (NORM/TENORM), and high level TENORM material handling, storage, downblending, transport/loading to rail, tank cleaning, radiological sampling/testing analysis/lab. Non-radioactive material & radioactive material handling (NORM/TENORM), solids separation, material downblending, tank cleaning, radiological sampling/testing analysis/lab. Liquid/semi-solids treatment and separation for waste disposal.	Tom Meiner 740-255-0357 heavymudmasters@gmail.com Billing Address: 739 Southgate Pkwy, Cambridge, Ohio 43725
PETTA Enterprises LLC	38 Technology Dr Triadelphia, WV 26059	WV	Non-radioactive material, low level radioactive material (NORM/TENORM) material handling, storage, downblending, transport/loading to rail, tank cleaning, radiological sampling/testing analysis/lab. Non-radioactive material & radioactive material handling (NORM/TENORM), solids separation, material downblending, tank cleaning, radiological sampling/testing analysis/lab. Liquid/semi-solids treatment and separation for waste disposal.	Office: 740-341-6396 Kylie Feldner PETTA Enterprises Sales Representative 614-477-1368
	713 North Third Street, Cambridge	OH		
Pressure Tech	7675 East Pike Norwich, Ohio 43767	OH	Non-TENORM wastes including cement water and oil or water based drilling mud only. Are not to accept waste that is known to have elevated levels of TENORM or compressor station water.	Bob Orr: 614-648-8898
Secur - Bens Run Facility	160 Industrial Park Road, Friendly, WV 26146	WV	Non-radioactive material, low level radioactive material, (NORM/TENORM), and high level TENORM material handling, storage, downblending, transport/loading to rail, tank cleaning, radiological sampling/testing analysis/lab	Melissa Adams 740-502-6039 melissa.adams@securllc.com

*NORM/TENORM = Naturally Occurring Radioactive Material /Technologically Enhanced Naturally Occurring Radioactive Material

**TSD = Treatment, Storage, and Disposal Facility

Note: Contact the CNX - HSE Department when any hazardous water or material containing elevated NORM/TENORM is encountered to review proper handling, disposal requirements, and capabilities of approved facilities.

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CNX RESOURCES CORPORATION - HSE APPROVED HAZARDOUS WASTE DISPOSAL FACILITIES				
Hazardous Disposal Facility		Location	Accepted Waste Streams	Contact Information
Disposal Facility				
Waste Management	Model City	NY	RCRA/TSCA Waste, PCB Transformers & Capacitors, PCB Soil/Debris, Non-Hazardous Wastes, Asbestos Waste, Solidification Services	Linda Davie: 716-286-0365 or 716-754-8231 or 800-963-4776

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CNX RESOURCES CORPORATION - USE APPROVED NON-HAZARDOUS WASTE DISPOSAL FACILITIES														
Republic Services (Allied Waste) Industrial Landfills		Gas Specific Waste Streams			Other Accepted Waste Streams									Contact Information
Landfill	Location	Drill * Cuttings	Waste Liners	Waste Brine	Contaminated Soil (Including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Friable Asbestos	Non-Friable Asbestos	Process Waste	Solidification Services	Municipal Solid Waste	
Republic Services - Benson VA	Frankfort	KY	X	X		X	X	X	X	X	X		X	
Republic Services - Blue Ridge	Irvine	KY	X	X		X	X	X	X	X	X		X	
Republic Services - Morehead	Morehead	KY	X	X		X	X	X	X	X	X		X	
Republic Services - Green Valley	Rush	KY	X	X		X	X	X	X	X	X		X	
Republic Services - Carbon-La	Lowellville	OH	X	X		X	X	X	X	X	X		X	
Republic Services - Imperial	Imperial	PA				X	X	X	X	X	X		X	
Republic Services - Brunswick	Lawrenceville	VA				X	X	X	X	X	X		X	
Republic Services - King and C	Little Plymouth	VA				X	X	X	X	X	X		X	
Republic Services - Old Dominion	Richmond	VA				X	X	X	X	X	X		X	
Republic Services - Sycamore	Hurricane	WV				X	X	X	X	X	X		X	
Republic Services - Short Creek	Wheeling (Short Creek)	WV	X	X		X	X	X	X	X	X		X	
WM - Arden Landfill	Washington	PA	X	X		X	X	X	X	X	X		X	
WM - South Hills (Armoni)	South Park	PA	X	X		X	X	X	X	X	X		X	
WM - Kelly Run	Elizabeth	PA	X	X		X	X	X	X	X	X		X	
WM - Valley Landfill	Irwin	PA	X	X		X	X	X	X	X	X		X	
WM - Evergreen Landfill	Blairsville	PA	X	X		X	X	X	X	X	X		X	
WM - Meadowsfill Landfill	Bridgeport	WV	X	X		X	X	X	X	X	X		X	
WM - Northwestern Landfill	Parkersburg	WV	X	X		X	X	X	X	X	X		X	
WM - S&S Grading Landfill	Clarksburg	WV	X	X		X	X	X	X	X	X		X	
WM - American Landfill	Waynesburg	OH	X	X		X	X	X	X	X	X		X	
WM - Suburban RDF	Glenford	OH	X	X		X	X	X	X	X	X		X	
WM - Mahoning Landfill	New Springfield	OH	X	X		X	X	X	X	X	X		X	
Noble Environmental Landfill (Former Westmorland Waste)	111 Conner Lane, Belle Vernon, PA 15012	PA	X	X		X	X	X	X	X	X		X	Customer Service: (724) 929-7694
MAX Environmental (Bulger Facility)	Bulger, PA 15019	PA	X	X		X	X	X	X	X	X		X	Corporate Office: 412-543-4900 Cell: 412-543-4886
Apex Sanitary landfill (Apex Environmental)	11 County Road 78, Amsterdam, Ohio 43903	OH	X	X		X	X	X	X	X	X		X	Landfill Office: (740) 543-4389 Joe Teterick: 740-275-2887 joet@els-company.com
Rumpke, Mt. Sterling (Rumpke Consolidated)	30 Larison Rd, Jeffersonville, KY 40337	KY	X	X		X	X	X	X	X	X		X	Landfill Contact: (859) 498-1572 Carl Walter: 513-623-2471
Laurel Ridge Landfill (Waste Connections of KY)	3612 E State Highway 552, Lily, KY 40740	KY	X	X		X	X	X	X	X	X		X	(606) 864-7996 or 866-428-4208 Bruce Crouch: Work: Cell: 606-219-0261
Advanced Disposal - Chestnut Valley LF	Chestnut Valley, 1184 McClellandtown Rd, McClellandtown, PA 15458	PA	X	X		X	X	X	X	X	X		X	Ph 724-892-2199 Fax 724-437-7378 Donald.Henrichs@AdvancedDisposal.com
Advanced Disposal - Greentree LF	Greentree Landfill, 635 Toby Rd., Kersey, PA	PA	X	X		X	X	X	X	X	X		X	Ph 814-265-1744 Fax 814-265-8745 Donald.Henrichs@AdvancedDisposal.com

** Ohio "TENORM" - requires Radium 226/228 analysis by load before leaving the well pad. Solid waste landfills in Ohio can only accept TENORM waste with combined concentration less than 5 picocuries per gram above the natural background level.
 *** Accepts drilling wastes but profile for disposal is not currently completed.
 X Waste stream accepted by facility.
 Waste stream is not or may not be accepted by facility. Contact facility directly to verify waste streams accepted.
 Notes: New PADEP rules regarding "TENORM" testing requirement are pending.
 * Drill Cuttings include fine sand for the purpose of this table (Contact facility directly to verify waste streams accepted).

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CNX RESOURCES CORPORATION - HSE APPROVED BRINE WATER INJECTION & RECYCLING FACILITIES

Unconventional or Conventional Brine/Produced Fluid Water Disposal					Accepted Waste Streams	Contact Information
Company Name	Permit	Location	Coordinates			
Buckeye Brine Injection Facility	34-031-27177-00-00	23986 Airport Road, Coshocton, OH 43812	OH	40.301051 -81.851189	Brine (Produced Water)	Bill Dawson 740-591-4393 bill@buckeyebrine.com
	34-031-27178-00-00					
	34-031-27241-00-00					
CNX Resources Corporation (CNX Gas)	VAS2D960BBUC	Buchanan Co.	VA	-	CNX Owned UIC SWIWs: Frac water, brine, produced water	Contact Ops Groups
	VAS2D930BBUC	Buchanan Co.	VA	-		
	VAS2D926BBUC	Buchanan Co.	VA	-		
	VAS2D970BRUS	Russell Co.	VA	-		
	34-013-2-0609 UIC #609	Barnsville, Bellmont Co.	OH	-		
Camp Creek Disposal Services, Inc. (Gas Field Services, Inc.)	UIC: UIC2D0550319 API: 47-055-00319	200 Camp Creek Road, Camp Creek, WV 25820	WV	37.495138 -81.105161	Class II injection fluids that are in connection with conventional oil or gas production and may be commingled with waste waters from gas plants unless those waters are classified as hazardous wastes at the time of injection.	Zachery Reed zacheryr4@yahoo.com PO Box 555, Rosedale, VA 24280 Phone: (276) 880-2323
Cambrian Well Services - Kemble (Orr Petroleum Corporation)	34-119-2-8780	Zanesville, Muskingum County, Perry Township	OH	39.974954 -81.845389	Brine (Produced Water)	Bob Orr 740-796-6495 614-648-8898 orrpetro@gmail.com
Central Environmental Services	34-009-2-3821	Troy Township, Athens County, Ohio	OH	39.226075 -81.761403	Brine (Produced Water)	Jeff Harper 304-893-9978 Jeff Harper jharper@centrallenvironmentalservices.com
	34-009-2-3823			39.234815 -81.757167		
	34-009-2-3824			39.235082 -81.748312		
DeepRock Disposal Solutions	Issued: 9/24/2015	2341 State Route 821, Building 11C, Marietta, OH 45750	OH	39.426278 -81.502379	Brine (Produced Water)	Wes Mossor General Manager DeepRock Disposal Solutions LLC Office: 740.371.5078 ext. 206 Cell: 304.588.0936
	Issued: 12/21/2105			39.425172 -81.507900		
	Issued: 12/21/2015			39.429867 -81.511020		
Environmental Energy Services LLC (Force, Inc.) - Pattison 1-D	34-119-2-8803	Muskingum County, Perry Township	OH	39.973643 -81.825727	Brine (Produced Water)	Bryan Force Mobile: 412.289.0069 Office: 724.465.9399 bforce@forceincorporated.com or Bob Orr 740-796-6495 614-648-8898 orrpetro@gmail.com

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EGO Water Solutions LLC - Mozena	34-157-2-5511	5367 E. State Street, Newcomerstown, OH 43832	OH	40.283293 -81.578068	Brine (Produced Water)	Michael Chapin: Ph. 740-763-3966 Cell 740-403-9664 tantrumr@aol.com Robert Schenken Director Business Development HydroEdge Solutions Wisconsin White Sand rschenken@hydroedgesolutions.com Cell 412.295.3614
Greene County Water Treatment, Inc.	WMGR123SW010	401 Jefferson Rd. Waynesburg, PA 15370	PA		Oil and Gas Fluids with minimal oil and solids present	Gary Carpenter 267-246-6176 JRBGCarpenter@aol.com
Hydro Recovery	WMGR123SW019	572 Route 18 Burgettstown, PA 15021	PA		Oil and Gas Fluids with minimal oil and solids present	Ashley Cromley 570-394-4450 Ashlev.cromlev@hydrorecoverylp.com
Nuverra	34-059-2-4445-00 34-059-2-4473-00 34-119-2-8776-00	64036 Wintergreen Road, Lore City, Ohio 43755	OH		Oil and Gas Fluids with any amount of oil and solids	Rob Bealko 304-291-0383 Office 304-282-8814 Cell rob.bealko@nuverra.com
Reserved Environmental Services (RES)	WMGR123SW005	1119 Old Route 119 South Mt. Pleasant, PA 15666	PA		Oil and Gas Fluids with minimal oil and solids present	Matt Kicinski 814-574-9701 mkicinski@reswater.com
Secur - Bens Run Facility	Regis Number: 483100	160 Industrial Park Road, Friendly, WV 26146	WV		Oil and Gas Fluids with any amount of oil and solids	Melissa Adams 740-502-6039
ShaleLogix LLC	34-007-21847	5035 State Rt. 46, Jefferson, OH 44047 (Ashtabula County, New Lyme Township)	OH	41.613214 -80.782835	Brine (Produced Water)	Michael Alvetro cell: 330-307-5303
Silcor Oilfield Services, Inc.	34-059-24202	Cambridge, OH	OH	39.993615 -81.572975	Brine (Produced Water)	Matt Brewer HydroEdge Solutions mbrewer@hydroedgesolutions.com (412) 439-7866
Fluid Recovery Services	NPDES - PA0095273	931 Bells Mills Rd. Josephine, PA 15750	PA	40.482410 -79.171193	Approved for treatment of conventional brine (produced water) only. (Not approved for unconventional waste	Jim Donovan 724.746.5300 x227 donovanj@fluidrecovery.com
	NPDES - PA0095443	5035 U.S. Route 110 West. Creekside, PA 15732	PA		Approved for treatment of conventional brine (produced water) only. (Not approved for unconventional waste	Jim Donovan 724.746.5300 x227 donovanj@fluidrecovery.com
	NPDES - PA0101508	5148 Rt. 322, Franklin, PA 16323	PA	41.373037 -79.798620	Approved for treatment of conventional brine (produced water) only. (Not approved for unconventional waste	Jim Donovan 724.746.5300 x227 donovanj@fluidrecovery.com

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CNX RESOURCES CORPORATION - HSE APPROVED TREATMENT & RECYCLING FACILITIES					
Specialty Recycling			Waste Services Provided	Contacts	
Company Name	Location				
Enviro Clean Services, Inc.	515 Industrial Blvd., Wooster, OH 44691	OH	Non-hazardous wastewater, transportation, treatment and disposal facility. Also offer transportation and solidification services.	Rishi Bhanot Director of Operations 330-264-8080 (O) rishi.bhanot@ctco.com www.ctco.com	
Ergon - Marietta Terminal	35020 OH Route 7, Newport, OH 45768	OH	Oil purchaser and transportation.	Keith Britton, Purchasing: 330-284-4343 Tom Leyda, Transportation: 800-846-2550	
Everclear of Ohio	3700 Oakwood Ave., Austintown, OH 44515	OH	Approved for non-haz water treatment of oil & water mix, oil, oil filters, and antifreeze only.	330-792-2120 www.everclearoil.com	
Heritage-Crystal Clean, LLC	Multiple Locations in Most States	Multi-State	Approved for non-haz water treatment of oil & water mix. Also offer transportation and solidification services. Capable of other types of waste disposal and handling with prior Environmental and Supply Chain approval.	Paul Reddington Heritage Crystal Clean, LLC 304.904.5020 paul.reddington@crystal-clean.com	
Necessary Oil Co.	Main Office - 1300 Georgia Avenue Bristol, TN 37620-4048	TN	Approved for non-haz water treatment of oil & water mix, oil, oil filters, and antifreeze only. Also offer transportation services.	Local Phone 764-4533 Toll-Free 800-764-4533 Fax 423-764-2175	
	Fleet Trucking Management NTC Acquisition Company - PO Box 875 Bristol, VA 24201	VA			
	Purchasing - Virginia (Roanoke Metro) Norfolk & Western Avenue Cloverdale, VA 24077	VA			
	Drum Services, Processing & Fleet Trucking - 111 East Mary St., Bristol, VA 24201	VA			
	Solids Processing - 215 North Industrial Drive Industrial Park Bristol, TN 37620	TN			
Petromax, Ltd.	301 Prestley Avenue, Carnegie, PA 15106	PA	Approved for lubricants, coolants, pipeline pressure fluids, transmission fluids, oil, and oily water. PA Residual Waste Processing and Transfer Facility Permit # 301294 PA DEP Facility ID 30-23918 NPDES Stormwater Permit # PAR706105 EPA ID # PAD982684458 CWT Discharge Permit # P2-0102	Adam Hall 412-279-9040 412-276-2011 Fax: 412-279-9041 Cell: 412-554-0233 ahall@petromaxLtd.com	
Spirit Services, Inc.	15801 Lockwood Road, Williamsport, MD 21795	Multi-State	Approved for non-haz water treatment of oil & water mix. Also offer transportation and solidification services. Capable of other types of waste disposal and handling with prior Environmental and Supply Chain approval.	1-866-670-9034 Joe Staton 717-360-7916 Office: 301-223-1251 Fax: 301-223-1253 jstaton@spiritservices.com	
Valicor Environmental Services LLC (Formerly United Wastewater)	401 Industrial Drive, Franklin, OH 45005	OH	Approved for non-haz water treatment of oil & water mix, oil, oil filters, and antifreeze only.	Corporate Number: 734-442-2353 www.valicor.com or Steve Atkinson 937-746-7944 304-522-8028 SAtkinson@valicor.com	
	1045 Reed Dr, Monroe, OH 45050	OH			
	515 N. 8th Ave, Huntington, WV 25201	WV			
	11807 Reading Rd, Cincinnati, OH 45241	OH			

Note: Facilities approved for disposal/treatment of oily water mixtures only unless otherwise indicated.

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CNX RESOURCES CORPORATION - HSE APPROVED ALTERNATIVE MUNICIPAL SOLID WASTE LANDFILLS				
Landfill	Location		Municipal Solid Waste	Contact Information
Cumberland Plateau Regional Authority - Buchanan County	Buchanan County	VA	X	They transfer municipal waste to Advanced Disposal – Tennessee Landfill Eco Safe MSW Landfill (See above)
Tazewell County (TC) Landfill 2475 Lynn Hollow Rd, North Tazewell, VA 24630	Route 649 Gratton, VA 24651	VA	X	(276) 988-4003 or Chris Hurley: 276-988-4310 or Megan Hurley mhurely@tazewellcounty.org (276)-988-1200
Buchanon County Landfill	Oakwood, VA 24631	VA	X	Customer Service: (276) 498-4403

Note: Waste Management and Republic Services landfills should be utilized instead of these Municipal Solid Waste Landfills when possible.

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CNX RESOURCES CORPORATION - HSE APPROVED SOLID WASTE RECYCLING & BENEFICIAL USE FACILITIES

Specialty Recycling			Waste Services Provided	Contacts
Company Name	Location			
JaSar Recycling, Inc.	183 Edgeworth Ave. East Palestine, OH 44413	OH	Recycle a full range of commodities including liners, fibers, plastics (#1-#7), glass, paper, ferrous metals and non-ferrous metals.	(330) 426-2538 [inquiries] (330) 426-6243 [sales] sales@jasarrecycling.com
Ultra-Poly Corporation	Berwick, PA; Portland, PA; transfer facility in Weirton, WV	PA	Polyethylene and polypropylene oil and gas waste plastic (liners, etc.).	Joe Barcelona jbarcelona@untra-poly.com 412-495-5962

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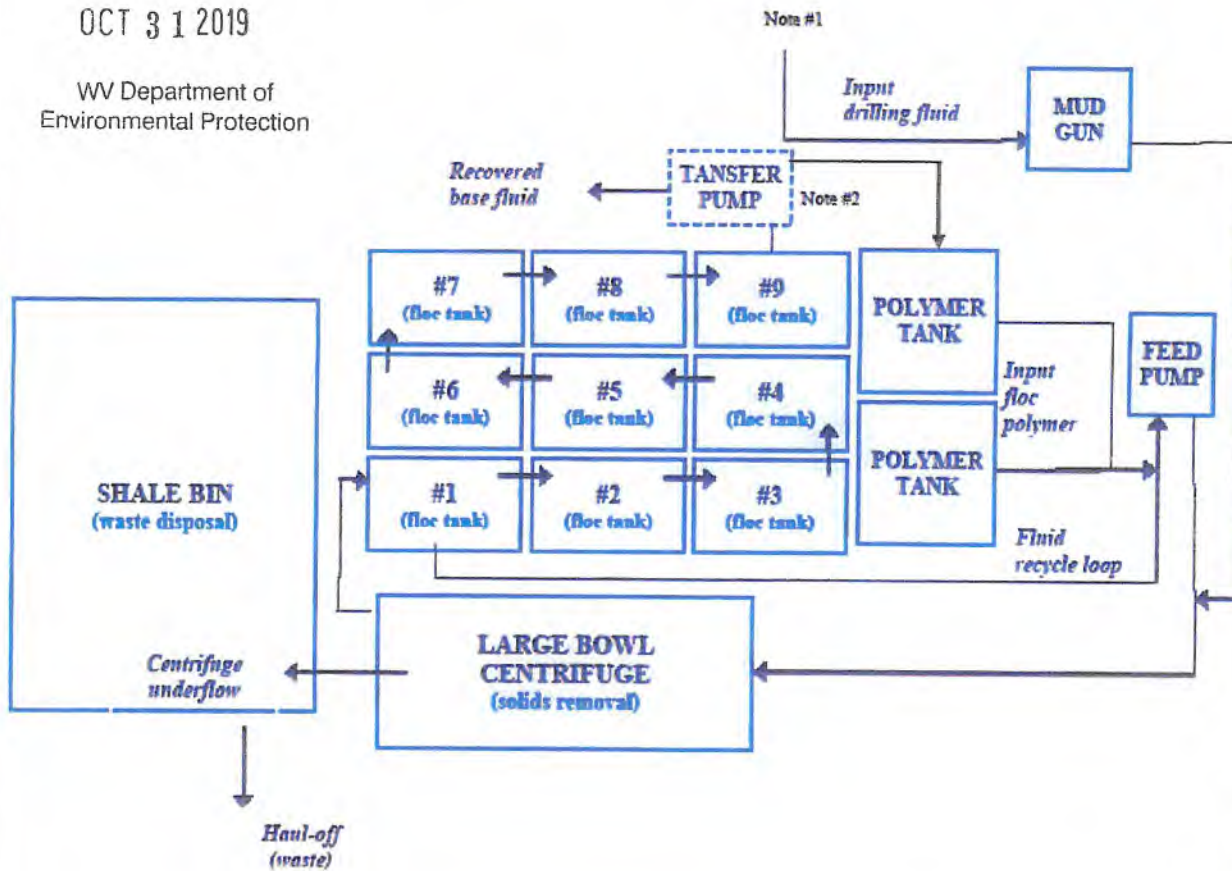
FLOW CHART MUD AND SLURRY DEWATERING RECOMMENDED RIG UP



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Notes/ Comments:

- 1) Ensure all rig tank suction fittings are 6" for ideal flow. DO NOT use any thing less them 4" dia.
- 2) Use a Transfer Pump in Cell 9 to transfer clean fluid.

MUD & SLURRY DEWATERING/ STRIPING
Recommended Rig-Up of BOS III Tank

Drawing/ Revision Date: December 12, 2011

Approved By: Andrew Pow





Sarah Weigand
Manager Upstream Permitting
Work: 724-485-3244
Email: sarahweigand@cnx.com

CNX Center
1000 CONSOL Energy Drive
Canonsburg, PA 15317-6506
724-485-4000

West Virginia Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Dear Sir or Madam:

Pursuant to West Virginia Code §22-6A-8(g2), CNX Gas Company, LLC is requesting an approval from the office to land apply cuttings associated with the drilling of the conductor (unconsolidated materials) on location for pad SHR37. CNX Gas Company, LLC is the surface landowner of parcel 01-17-0005 in Tyler County and therefore consents to this method.

The wells planned to be drilled on this pad are:

SHR37DHSM
SHR37EHSM - 95-02668
SHR37FHSM
SHR37GHSM
SHR37HHSM
SHR37IHSM
SHR37KHSM
SHR37LHSM
SHR37MHSM
SHR37NHSM
SHR37OHSM (API 47-095-02588)
SHR37PHSM
SHR37QHSM
SHR37RHSM

Sincerely,

Sarah Weigand

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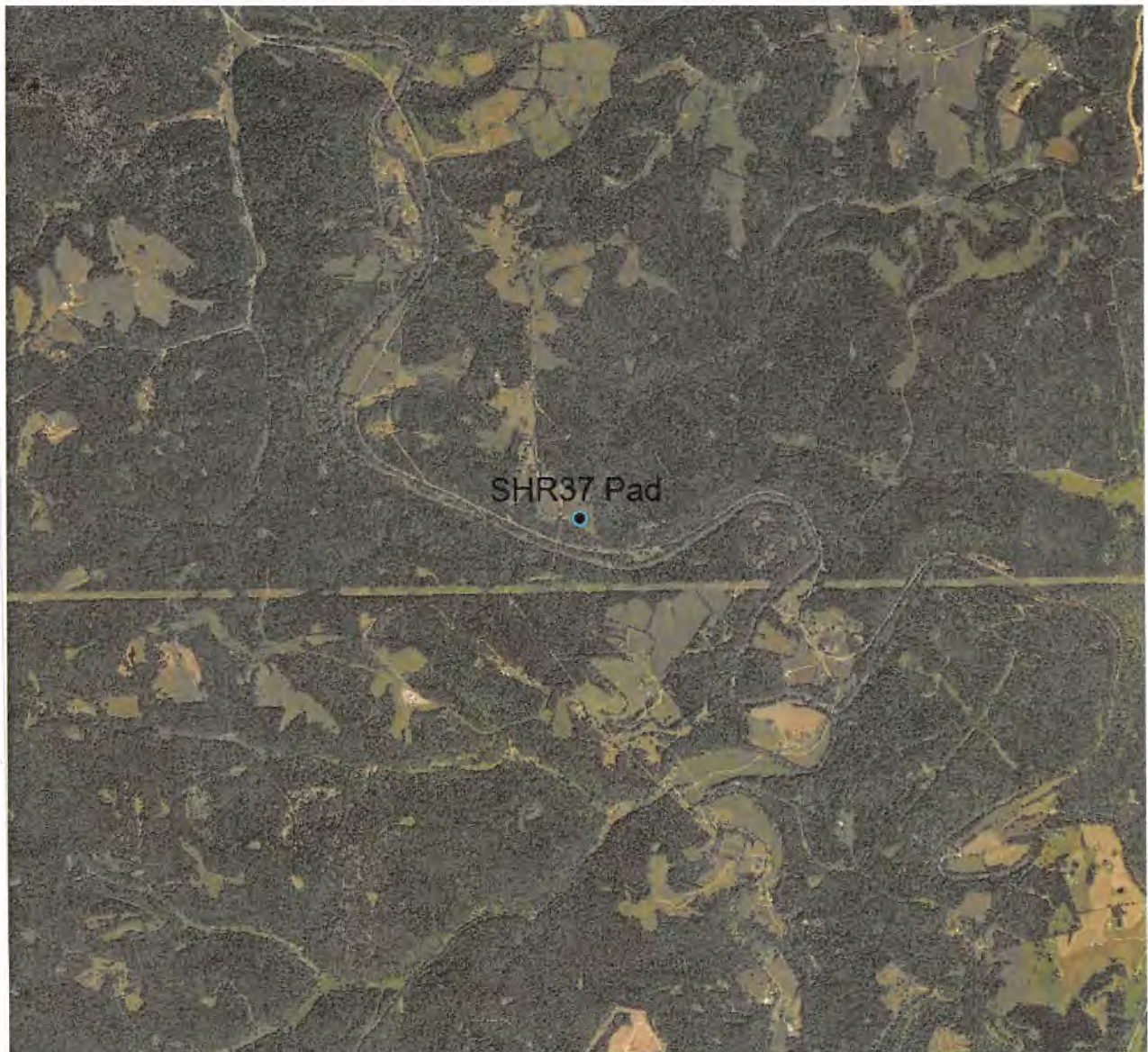
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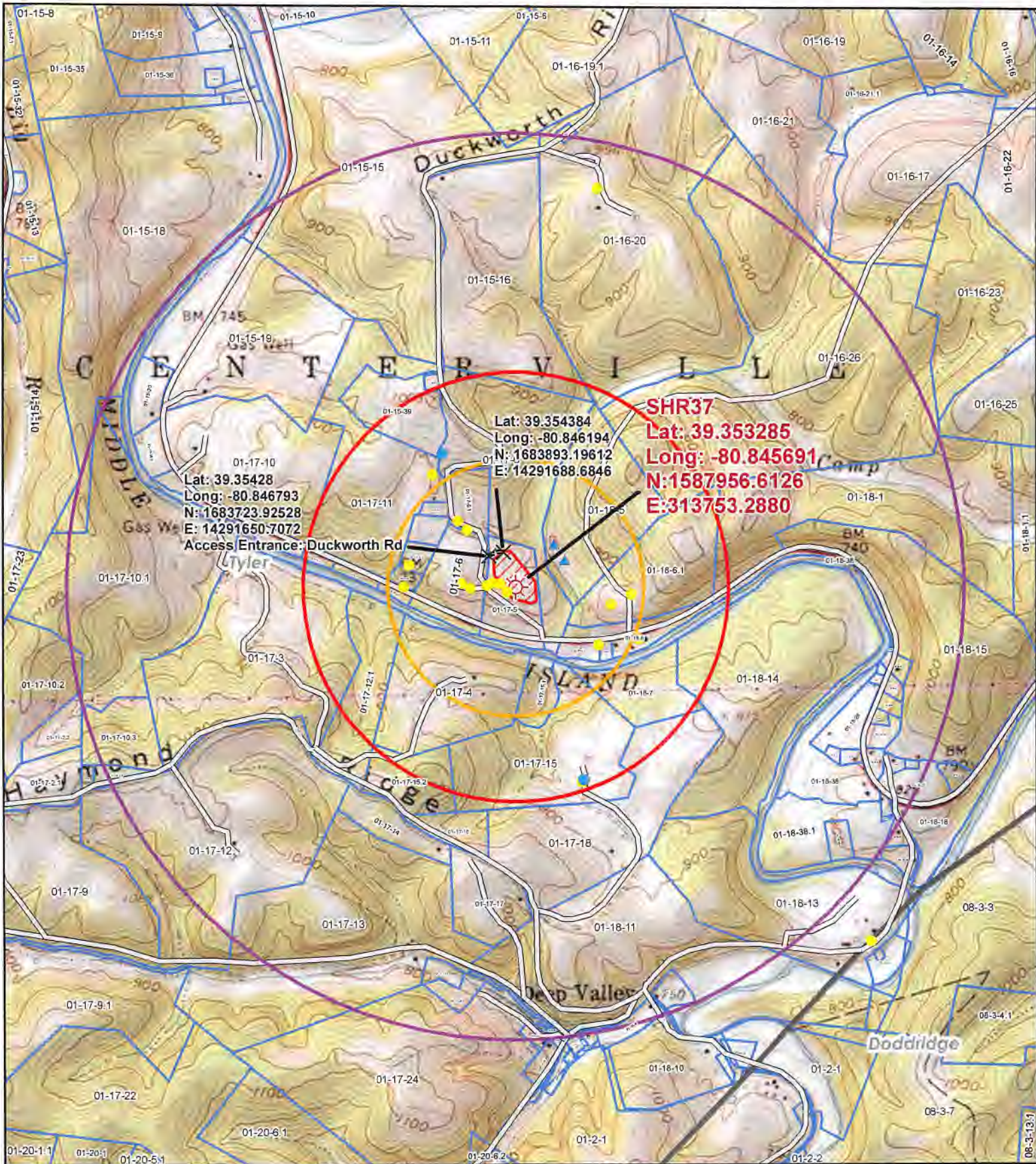
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Site Safety Plan for Well SHR37EHSM CNX Gas Company, LLC.



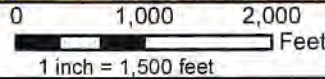
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JCB
10/29/2019



Legend

- ▲ Pond
- Spring
- Well
- ☼ Wellbore
- ✕ Access Points
- == Access Road
- 1 Mile Buffer
- 2,500 Foot Buffer
- 1,500 Foot Buffer
- Surface Parcel
- Well Pad



Original Date: 12/14/2018	Prepared By: GIS
Revision Date: 12/14/2018	Approved By: GIS

Topographic Well Map
SHR37

This map is property of CNX Land Resources Inc. and contains information that is proprietary and confidential in nature and may not be copied or reproduced without prior written consent.
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Landowners within 1 mile

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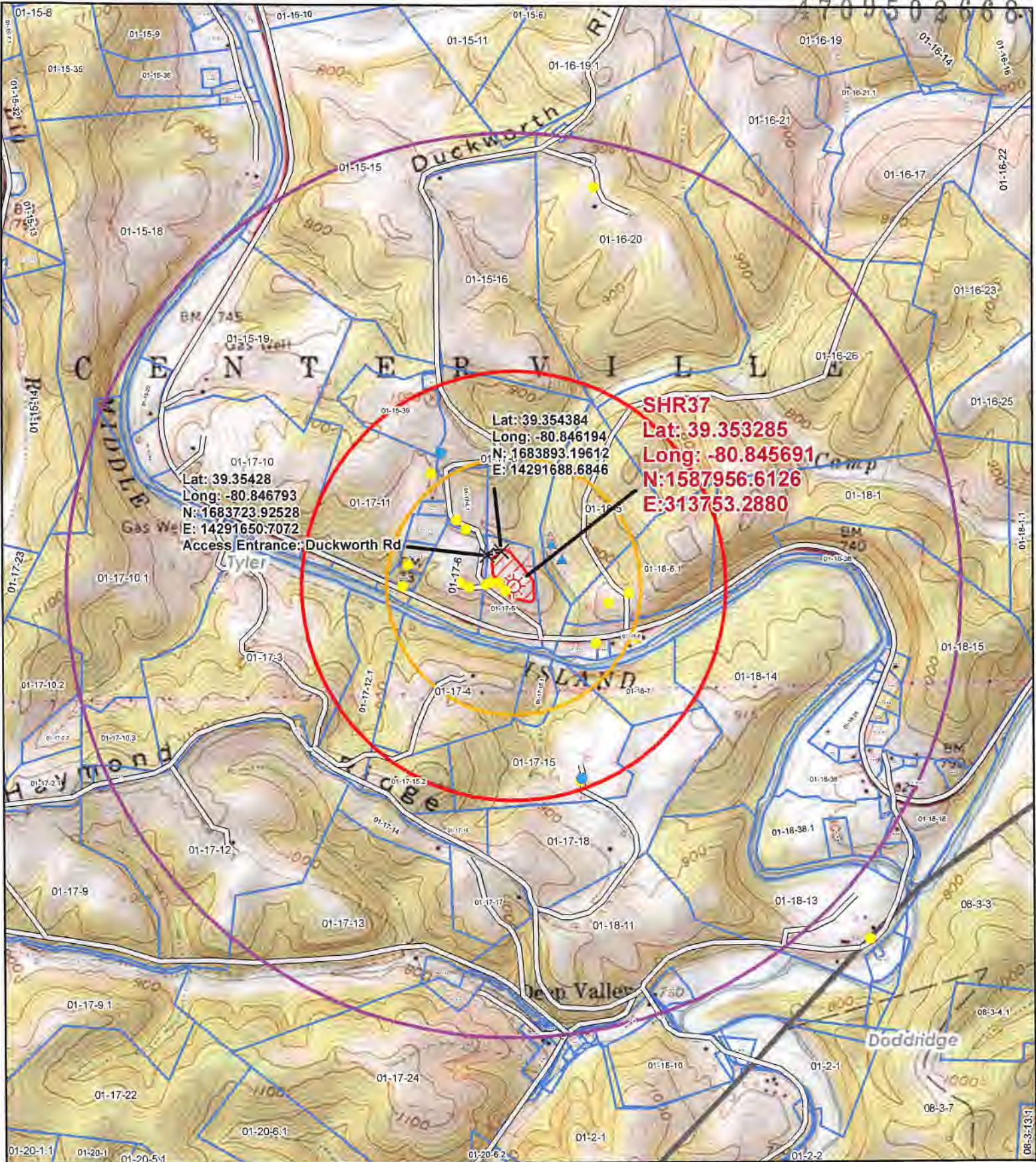
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Tax ID	Owner as shown on Tyler Co. Tax Site	Property Address	Property City	Property State	Property Zip Code	Owner Phone Number (Best Found)
01-17-10.7	No Results Shown on Tax Site for this Parcel		ALMA	WV	26320	
01-17-31.4	No Results Shown on Tax Site for this Parcel		PENNSBORO	WV	26415	
01-18-9	Arnolds Creek Christian Church	ARNOLDS CRK	PENNSBORO	WV	26415	(304) 455-4348
01-17-13	George W. Ash	ROUTE 56/2	ALMA	WV	26320	(304) 873-2060
01-16-19.1	James E, Ash	ROUTE 58/2	ALMA	WV	26320	304-758-2498
01-17-4	Samuel V. Ash Denise Rule c/o Samuel Ash	M I C 184 DUCKWORTH RIDGE RD	ALMA	WV	26320	(973) 402-9625
01-17-5	CNX Gas Company LLC	ROUTE 56/1	ALMA	WV	26320	724-485-4000
01-17-15.2	Shirley J. Bembyr	ROUTE 56/1	ALMA	WV	26320	(304) 758-4459
01-18-26.1	Everett Carmichael	MIC STATE ROUTE 18	ALMA	WV	26320	(304) 223-6454 (304) 280-8755
01-18-24.1	Everett Carmichael	M I C	ALMA	WV	26320	duplicate
01-18-25	Everett Carmichael	ROUTE 18	ALMA	WV	26320	duplicate
01-15-20	Sandra Sue Clark	8859 MIDDLE ISLAND RD	ALMA	WV	26320	(304) 758-2226
01-17-10.1	Sandra Sue Clark	ROUTE 74/1	ALMA	WV	26320	duplicate
01-17-10.2	Sandra Sue Clark	ROUTE 74/1	ALMA	WV	26320	duplicate
01-17-10.3	Sandra Sue Clark	ROUTE 56/1	ALMA	WV	26320	duplicate
01-17-10.5	Sandra Sue Clark	ROUTE 56/1	ALMA	WV	26320	duplicate
01-17-12	CNG Transmission Corporation	ROUTE 56/1	ALMA	WV	26320	(304) 889-3142
01-18-22	Jay Glenn Collins et al c/o Nina Molnar	M I C	ALMA	WV	26320	(304) 873-1935 Nina
01-18-15	Mary Monnie Collins Delverna McKiterict	M I C	ALMA	WV	26320	(304) 527-2794
01-17-15.1	Ryan & Carrie L. Davis	473 GARDEN WAY	ALMA	WV	26320	(910) 245-4750 - Carrie
01-18-7	Ryan & Carrie L. Davis	473 GARDEN WAY	ALMA	WV	26320	duplicate
01-17-15	Ryan & Carrie L. Davis	ROUTE 74/1	ALMA	WV	26320	duplicate
01-18-33	Madelene K. Doll	ROUTE 18	ALMA	WV	26320	(304) 873-1897
01-18-31	Fred M. Dotson Jr.		ALMA	WV	26320	(540) 937-5997
01-18-38	Fred M. Dotson Jr. & Linnea B. Dotson	MIC	ALMA	WV	26320	duplicate
01-18-1	Fred M. Dotson Jr.	ROUTE 52/1	ALMA	WV	26320	duplicate
01-17-3	Kevin O. Dotson et al	ROUTE 56/1	ALMA	WV	26320	(904) 591-8276
01-18-24	Joseph J. Duff	ROUTE 18	ALMA	WV	26320	304-494-8501
01-18-27	Joseph J. Duff	M I C	ALMA	WV	26320	duplicate
01-17-14	Anita K. Elkins & Mark B. Gooch	ROUTE 56/1	ALMA	WV	26320	(540) 672-0969

01-18-6	Federal Home Loan Mortgage Corp Harry R. & Vonda K. Galloop	ROUTE 18	ALMA	WV	26320	(703) 903-2000
01-17-16	Jason A. & Kandace R. Glasscock	ROUTE 56/1	ALMA	WV	26320	(304) 387-1941
01-17-10	Danny & Patricia Harris	15127 MIDDLE ISLAND RD	ALMA	WV	26320	(304) 758-4975
01-18-6.1	Danny & Patricia Harris	ROUTE 18	ALMA	WV	26320	(304) 873-1540
01-18-5	Danny & Patricia Harris	MISTAKE CP	ALMA	WV	26320	duplicate
01-18-36	Michael T. Headley	ROUTE 18	ALMA	WV	26320	(304) 873-1746
01-18-37	T.L. & Howard Headley	M I C DEEP VALLEY-RT 18 JUNCTI	ALMA	WV	26320	(304) 873-1410
01-17-24.1	Ronald & Frances Hurst	SHORT R	PENNSBORO	WV	26415	(304) 873-3565
01-17-13.1	Ronald & Frances Hurst	ROUTE 56	PENNSBORO	WV	26415	duplicate
01-15-18	John Jacenkiw Sr. & Tina B. Jacenkiw John Jacenkiw Jr. & Candice R. Jacenkiw	ROUTE 18/10	ALMA	WV	26320	(304) 758-4554
01-15-15	Mary J. Kahler (Life) c/o James Bagley	N R ROBERTS RUN	ALMA	WV	26320	304-758-2498
01-15-16	Mary J. Kahler (Life) c/o James Bagley	ROUTE 58/2	ALMA	WV	26320	duplicate
01-17-28	John G. Kelley	ROUTE 56	PENNSBORO	WV	26415	(304) 873-1837
01-17-31	Kevin L. Kelley	ROUTE 56	PENNSBORO	WV	26415	(304) 873-1567
01-17-30	Kevin L. & Lynne A. Kelley	3004 SHORT RUN RD	PENNSBORO	WV	26415	duplicate
01-17-31.1	Kevin L. & Lynne E. Kelley	ROUTE 56	PENNSBORO	WV	26415	duplicate
01-18-28	Phil Koontz Leonard Tracy H. & Crystal D. Mann	M I C R 18 DEEP INTERSE VLY	ALMA	WV	26320	(336) 237-9905
01-17-17	Robert C. & Christina J. Mason	ROUTE 56/1	ALMA	WV	26320	(304) 349-5741
01-18-38.2	Ralph Paul & Ida May McCutchan	MIC	ALMA	WV	26320	304-873-2947
01-18-11.1	Ralph Paul McCutchan (Life)	ROUTE 56	ALMA	WV	26320	(304) 873-1889
01-18-11	Roy Alfred Meredith	ROUTE 56	ALMA	WV	26320	duplicate
01-17-2.2	Jeffrey Allen Milligan	ROUTE 74/1	ALMA	WV	26320	(304) 863-3658
01-17-24	Jon M. Montgomery	ROUTE 56/2	PENNSBORO	WV	26415	(678) 776-2215
01-18-20	George Moore et al c/o Linda Lou Moore	M I C	ALMA	WV	26320	(740) 595-3271
01-15-14	Edwin D. & Patricia L. Mulvay	ROUTE 74	ALMA	WV	26320	(304) 758-2258
01-18-13	Edwin D. & Patricia L. Mulvay	3665 SHORT RUN RD	ALMA	WV	26320	304-873-2467
01-18-14	Edwin D. & Patricia L. Mulvay	3665 SHORT RUN RD	ALMA	WV	26320	duplicate
01-18-18	Edwin D. & Patricia L. Mulvay	ROUTE 18	ALMA	WV	26320	duplicate
01-17-18	Harlond D. & Myra R. Mulvay	ROUTE 74/1	ALMA	WV	26320	(304) 873-2084
01-17-11.3	Wayne C. & Ronda Mumbauer	DUCKWORTH RIDGE RD	ALMA	WV	26320	(304) 758-4393
01-17-11.4	Wayne C. & Ronda Mumbauer	DUCKWORTH RIDGE RD	ALMA	WV	26320	duplicate

01-18-29	Jacob Myer Jerry D. & Christina D. Myer	ROUTE 18	ALMA	WV	26320	(304) 873-1755
01-18-26	Jerry D. & Christina D. Myer	HC 74 BOX 40	ALMA	WV	26320	(304) 873-1755
01-18-26.2	Myer	ROUTE 18	ALMA	WV	26320	duplicate
01-17-27	Clifton Nicholson et al	ROUTE 56	PENNSBORO	WV	26415	304-855-6189
01-18-38.1	Thomas R. & Sharon L. Nutter	MIC	ALMA	WV	26320	(304) 873-1642
01-18-35	Thomas R. & Sharon L. Nutter	DEEP VLY	ALMA	WV	26320	duplicate
01-18-6.3	Franklin D. & Wanda L. Parsons		ALMA	WV	26320	(304) 873-3043
01-17-11.6	Forrest G. Powell	M I C	ALMA	WV	26320	(304) 873-1819
01-15-38	Elden L. Pratt & Christine Lasure	ROUTE 58/2	ALMA	WV	26320	304-758-2354
01-17-11	Elden L. Pratt; Dean Rodney & Timothy Ray Pratt	MIDDLE CREEK IS	ALMA	WV	26320	(304) 758-2272
01-17-11.2	Rodney D. Pratt	JOSEPH MLS	ALMA	WV	26320	(304) 758-2513
01-15-39	Timothy R. Pratt	HC 69 BOX 9A	ALMA	WV	26320	(304) 758-2272
01-15-19	David J. Price	ROUTE 18	ALMA	WV	26320	(304) 349-4666
01-18-6.2	Riki Nicole Riley	ROUTE 18	ALMA	WV	26320	(304) 873-3840
01-16-20.1	Ronald & Reva Rowland	B C M	ALMA	WV	26320	(304) 873-1272
01-16-20	Ronald & Reva Rowland	ROUTE 58/2	ALMA	WV	26320	duplicate
01-17-6.1	Ronald & Reva Rowland	M I C	ALMA	WV	26320	duplicate
01-17-2.4	Andrew E. Smith	ROUTE 74/1	ALMA	WV	26320	301-967-4078
01-17-11.1	Thomas D. Snyder II & Connie S. Snyder	NR JOSEPHS MLS	ALMA	WV	26320	(215) 885-7069
01-17-10.6	George F. & Kathleen S. Spowls	MIDDLE ISLAND CRK	ALMA	WV	26320	(304) 367-1000
01-17-11.5	State of West Virginia	M I C	ALMA	WV	26320	n/a
01-18-8	William L. & Kelly F. Stringham	ROUTE 56	PENNSBORO	WV	26415	(304) 873-1370
01-18-32	Kevin Douglas Swisher	ROUTE 18	ALMA	WV	26320	(304) 370-2113
01-16-26	D. Ralph Thacker & Maurice J. Carlisle UNKNOWN OWNER 000001	20021 THACKER DR	ALMA	WV	26320	(304) 432-4441 (304) 416-2770 (304) 432- 7616
01-18-17.1	The Tax Site listed no owner for this parcel	ROUTE 18	ALMA	WV	26320	n/a
01-17-12.2	James R. Underwood Sr. & James R. Jr. & Mitzie Johnson		ALMA	WV	26320	(304) 863-8136
01-17-12.1	James R. Underwood Sr. & James R. Jr. & Mitzie Johnson	ROUTE 56/1	ALMA	WV	26320	duplicate
01-18-23	Clifford A. & Toby A. Weekley	M I C	ALMA	WV	26320	(304-873-1770
01-18-30	James C. & Patricia L. Williams	ROUTE 18	ALMA	WV	26320	570-568-0029
01-17-11.7	Roger L. & Marjorie P. Williams	16207 MIDDLE ISLAND RD	ALMA	WV	26320	(304) 776-7293
01-17-6	Gail Williamson	MIDDLE CREEK IS	ALMA	WV	26320	(304) 873-1954

4709502668



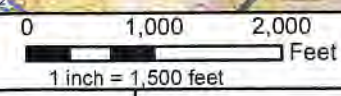
Lat: 39.35428
 Long: -80.846793
 N: 1683723.92528
 E: 14291650.7072
 Access Entrance: Duckworth Rd

Lat: 39.354384
 Long: -80.846194
 N: 1683893.19612
 E: 14291688.6846

SHR37
 Lat: 39.353285
 Long: -80.845691
 N: 1587956.6126
 E: 313753.2880

Legend

- Pond
- Spring
- Well
- Wellbore
- Access Points
- Access Road
- 1 Mile Buffer
- 2,500 Foot Buffer
- 1,500 Foot Buffer
- Surface Parcel
- Well Pad



Original Date: 12/14/2018

Prepared By: GIS

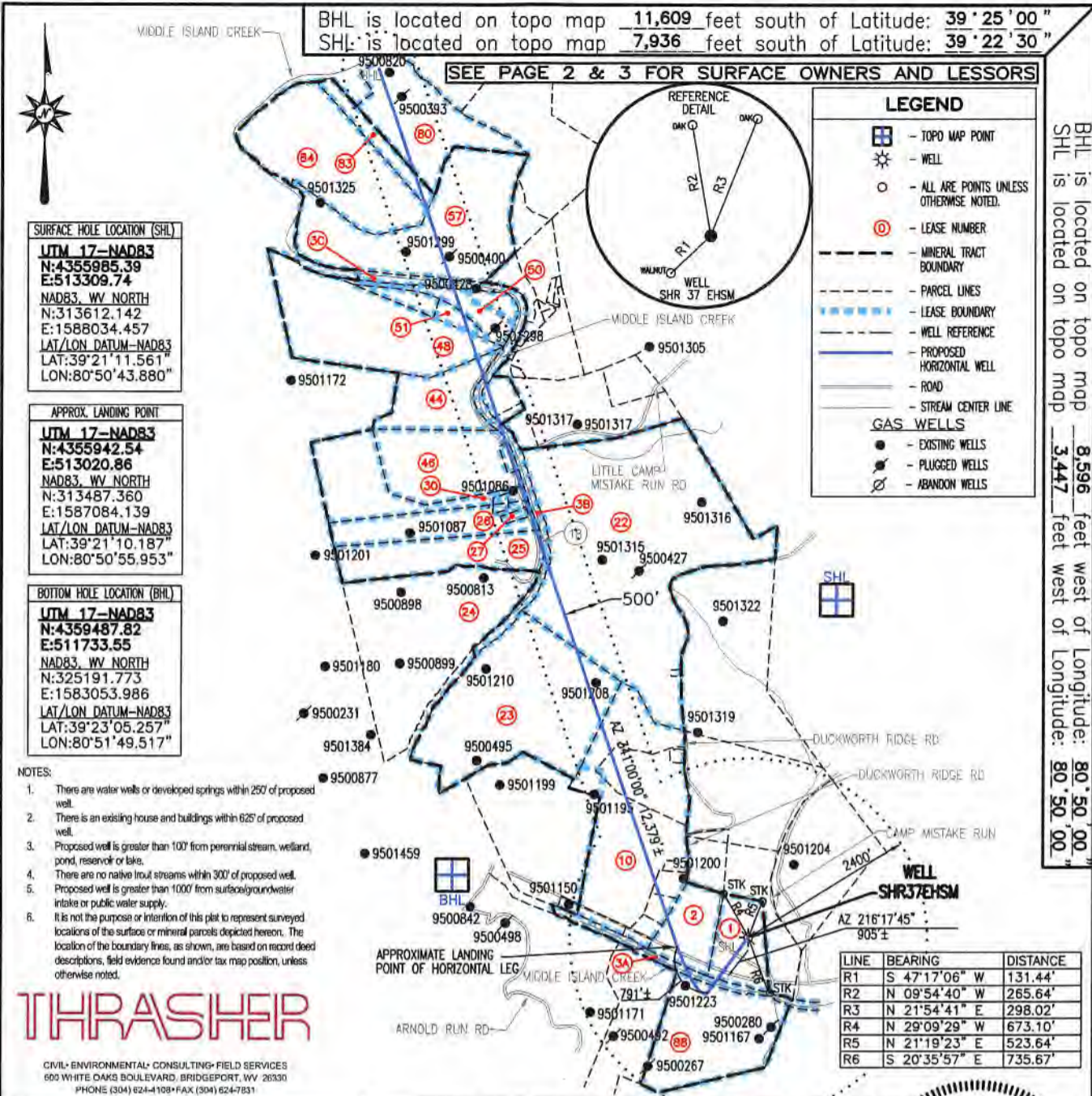
Revision Date: 12/14/2018

Approved By: GIS

Topographic Well Map
SHR37

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Path: \\erupt\gis\business\and\support\gis\permitting\qa31\shr37\tops\water_well\shr37_topo_water_well_map.mxd - [10/11]



BHL is located on topo map 8,596 feet west of Longitude: 80° 50' 00"
 SHL is located on topo map 3,447 feet west of Longitude: 80° 50' 00"

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*

R.P.E.: _____ L.L.S.: P.S. No. 2000

GEORGE D. SIX
 LICENSED
 No. 2000
 STATE OF
 WEST VIRGINIA
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP

OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

DATE: OCTOBER 22, 2019

OPERATOR'S WELL #: SHR 37 EHSM

API WELL #: 47 95 *HWH*
02668

STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 828.57±

COUNTY/DISTRICT: TYLER / CENTERVILLE QUADRANGLE: WEST UNION, WV 7.5'

SURFACE OWNER: CNX GAS COMPANY ACREAGE: 18±

OIL & GAS ROYALTY OWNER: ELEANOR V. & DEAN A. EARNHEART, ET AL ACREAGE: 816.645±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,302± TMD: 19,242±

WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT ANTHONY KENDZIORA
 Address 1000 CONSOL ENERGY DRIVE Address 1000 CONSOL ENERGY DRIVE
 City CANONSBURG State PA Zip Code 15317 City CANONSBURG State PA Zip Code 15317

JRS 10/29/2019

SHR 37 EHSM

PAGE 2 OF 3

	SURFACE OWNER	LESSOR	DIST-TM/PAR
1	CNX GAS COMPANY	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNES GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, H/W	1-17/5
2	GAIL WILLIAMSON	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNES GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, W/H REVA ROWLAND AND RONALD ROYCE ROWLAND	1-17/6
3A	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	MIDDLE ISLAND CREEK
3B	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	MIDDLE ISLAND CREEK
3C	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	MIDDLE ISLAND CREEK
10	ELDEN L. PRATT & CHRISTINE LEASURE TIMOTHY R. PRATT ELDEN L., RODNEY DEAN & TIMOTHY RAY PRATT THOMAS D. II & CONNIE S. SNYDER ROGNEY D. PRATT WAYNE C. & RHONDA G. MUMBAUER WAYNE C. & RHONDA G. MUMBAUER STATE OF WEST VIRGINIA FORREST G. POWELL ROGER L. & MARJORIE P. WILLIAMS JASON L. & REBECCA M. PRATT	ARTIS HOPE JACK PARKER, ATTORNEY-IN-FACT FOR COLEN C. JACK	1-15/38 1-15/39 1-17/11 1-17/11.1 1-17/11.2 1-17/11.3 1-17/11.4 1-17/11.5 1-17/11.6 1-17/11.7 1-17/11.8
22	MARY J. KAHLER (LIFE)	JACOB C. COTTRILL, ATTORNEY-IN-FACT FOR CHARLES D. COTTRILL HEIRS; JACOB C. COTTRILL AND SHIRLEY A. COTTRILL, H/W	1-15/15
23	DAVID J. PRICE	AMANDA GREGG ET AL	1-15/19
25	JOHN SR., & TINA B. JACENKIW	NANCY B. WESTFALL	1-15/18
26	JAMIE M. FERGUSON & MICHAEL NEELEY	THELMA FERGUSON ET AL	P/O 1-15/35
30	DONALD FERGUSON		P/O 1-15/36
32	GLADYS V. GREGG	DAVID C. GREGG GLADYS V. GREGG	1-15-10.2
44	EUGENE W. & LESLIE BENNETT JOHN JR., & TANYA LYNN JACENKIW	BARBARA ANN PARKER, FORMERLY BARBARA ANN FERGUSON BETTY SUE EAKLE, FORMERLY, BETTY SUE FERGUSON AND HOWARD EAKLE, SR., W/H PATRICIA ANN GORDON, FORMERLY PATRICIA ANN FERGUSON DONALD L. SECKMAN AND DORA OLIVE SECKMAN, H/W HUGH EDWIN FERGUSON MARY ELIZABETH DEARTH, FORMERLY MARY ELIZABETH FERGUSON ROGER L. FERGUSON DONALD FERGUSON VIRGINIA LYNN FERGUSON, WIDOW OF JAMES FERGUSON MELVIN EUGENE FERGUSON AND SANDRA K. FERGUSON, H/W LEE ROY FERGUSON AND TRACY FERGUSON, H/W ROSEMARY DAVIS, FORMERLY ROSEMARY FERGUSON RICHARD O. FERGUSON, JR. RONALD H. WOODBURN MARGARET E. OLEXA BARBARA R. NELSON, F/K/A RENEE F. COLLINSWORTH, F/K/A RENEE MERRICK JAMES E. ULLOM WILLIAM STEVEN MORRIS JOHN ANDREW MORRIS DEBRA G. KYLE DAVID D. HULL	1-15/9 1-15/9.1
45	HERBERT L. & DIXIE S. BUCKLEY	BETTY SUE EAKLE, FORMERLY, BETTY SUE FERGUSON AND HOWARD EAKLE, SR., W/H RONALD H. WOODBURN MARGARET E. OLEXA JAMES E. ULLOM WILLIAM STEVEN MORRIS JOHN ANDREW MORRIS DEBRA G. KYLE DAVID D. HULL	1-15-37
46	EUGENE W. & LESLIE BENNETT LORETTA L. HAUGHT HERBERT L. & DIXIE S. BUCKLEY	DONALD L. SECKMAN AND DORA OLIVE SECKMAN, H/W ROGER L. FERGUSON MELVIN EUGENE FERGUSON AND SANDRA K. FERGUSON, H/W LEE ROY FERGUSON AND TRACY FERGUSON, H/W RICHARD O. FERGUSON, JR. RONALD H. WOODBURN MARGARET E. OLEXA JAMES E. ULLOM WILLIAM STEVEN MORRIS JOHN ANDREW MORRIS DEBRA G. KYLE DAVID D. HULL	1-15/9 1-15/9.2 1-15/9.3

SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4355985.39
E:513309.74
 NAD83, WV NORTH
 N:313612.142
 E:1588034.457
 LAT/LON DATUM-NAD83
 LAT:39°21'11.561"
 LON:80°50'43.880"

APPROX. LANDING POINT

UTM 17-NAD83
N:4355942.54
E:513020.86
 NAD83, WV NORTH
 N:313487.360
 E:1587084.139
 LAT/LON DATUM-NAD83
 LAT:39°21'10.187"
 LON:80°50'55.953"

BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
N:4359487.82
E:511733.55
 NAD83, WV NORTH
 N:325191.773
 E:1583053.986
 LAT/LON DATUM-NAD83
 LAT:39°23'05.257"
 LON:80°51'49.517"

API WELL #: 47 95 02668
 STATE COUNTY PERMIT

OCTOBER 22, 2019

THRASHER

CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 800 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-4108 • FAX (304) 624-7831

SHR 37 EHSM

PAGE 3 OF 3

	SURFACE OWNER	LESSOR	DIST-TM/PAR
48	CONRAD E. COSTILOW	CONRAD E. COSTILOW ANN LENZ DENLINGER, F/K/A, ANN HOKMAN LENZ DENLINGER, F/K/A, ANN HOKMAN LENZ	1-15/8
50	ROBERT W. GRAHAM WILLIAM C. HENTHORN	ERNEST LANTZ RONALD LEE ASH RALPH ARNOLD ASH RANDALL DALE ASH AND DORETTA LYNN ASH	1-15/2 1-15/2.4
51	MICHAEL SHEPHERD	ERNEST LANTZ RONALD LEE ASH RALPH ARNOLD ASH RANDALL DALE ASH AND DORETTA LYNN ASH ROBERT A. JOHNSON AND EVELYN F. JOHNSON, H/W JOE H. AND LINDEL M. LANTZ, H/W JACK EDWARD AND BETTY JUNE LANTZ	1-15/2.3
57	ROBERT W. GRAHAM	ERNEST LANTZ RONALD LEE ASH RALPH ARNOLD ASH RANDALL DALE ASH AND DORETTA LYNN ASH	P/O 1-15/2
80	ROBERT C. & JAMES L. SINCLAIR ROSE MCGRATH & JAMES T. EDGAR	SANDRA L. SPENCE BARBARA J. DRUCHNIAK PATTY L. BUTERBAUGH RICHARD B. SMITH CHARLES ALAN MCCULLOUGH AND FRED A. MCCULLOUGH DONALD BURL SMITH RONALD CARLETON MOORE JR. CHERYL ANN CALKINS BENNY EDWIN SMITH ROY LEE SMITH JEREMY JOE LOPEZ MARIAH FAYE RITTMANN	1-12/18 1-12/18.2
83	ROBERT C. & JAMES L. SINCLAIR	SANDRA L. SPENCE	P/O 1-12/19
84		BARBARA J. DRUCHNIAK PATTY L. BUTERBAUGH RICHARD B. SMITH	
88	SAMUEL V. ASH & DENISE RULE	A. E. AND CALLIE DOAK	1-17/4

SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4355985.39
E:513309.74
 NAD83, WV NORTH
 N:313612.142
 E:1588034.457
 LAT/LON DATUM-NAD83
 LAT:39°21'11.561"
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 STATE COUNTY PERMIT

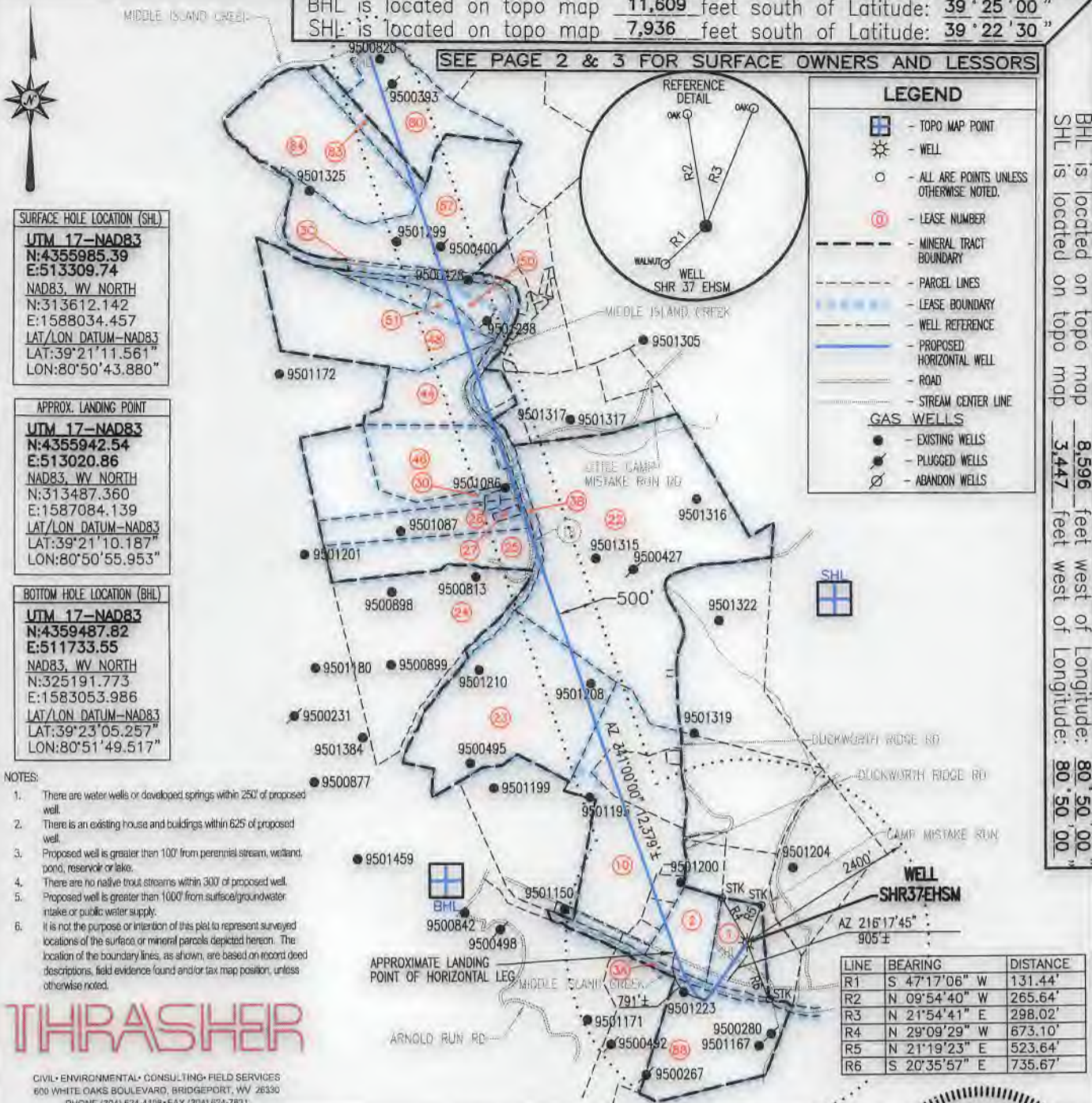
THRASHER

OCTOBER 22, 2019

BHL is located on topo map 11,609 feet south of Latitude: 39° 25' 00"
 SHL is located on topo map 7,936 feet south of Latitude: 39° 22' 30"

SEE PAGE 2 & 3 FOR SURFACE OWNERS AND LESSORS

BHL is located on topo map 8,596 feet west of Longitude: 80° 50' 00"
 SHL is located on topo map 3,447 feet west of Longitude: 80° 50' 00"



SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83
 N:4355985.39
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 N:325191.773
 E:1583053.986
 LAT/LON DATUM-NAD83
 LAT:39°23'05.257"
 LON:80°51'49.517"

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- LEASE NUMBER
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- LEASE BOUNDARY
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE

GAS WELLS

- EXISTING WELLS
- PLUGGED WELLS
- ABANDON WELLS

- NOTES:
- There are water wells or developed springs within 250' of proposed well.
 - There is an existing house and buildings within 625' of proposed well.
 - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 - There are no native trout streams within 300' of proposed well.
 - Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 - It is not the purpose or intention of this plot to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LINE	BEARING	DISTANCE
R1	S 47°17'06" W	131.44'
R2	N 09°54'40" W	265.64'
R3	N 21°54'41" E	298.02'
R4	N 29°09'29" W	673.10'
R5	N 21°19'23" E	523.64'
R6	S 20°35'57" E	735.67'

THRASHER
 CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-4108 • FAX (304) 624-7831

FILE #: SHR 37 EHSM
 DRAWING #: SHR 37 EHSM
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: George D. Six
 R.P.E.: _____ L.L.S.: P.S. No. 2000

GEORGE D. SIX
 LICENSED
 No. 2000
 STATE OF WEST VIRGINIA
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP

OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

DATE: OCTOBER 22, 2019
 OPERATOR'S WELL #: SHR 37 EHSM
 API WELL #: 47 95 02268
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 828.57'±
 COUNTY/DISTRICT: TYLER / CENTERVILLE QUADRANGLE: WEST UNION, WV 7.5'
 SURFACE OWNER: CNX GAS COMPANY ACREAGE: 18±
 OIL & GAS ROYALTY OWNER: ELEANOR V. & DEAN A. EARNHEART, ET AL ACREAGE: 816.645±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,302'± TMD: 19,242'±
 WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT ANTHONY KENDZIORA
 Address 1000 CONSOL ENERGY DRIVE Address 1000 CONSOL ENERGY DRIVE
 City CANONSBURG State PA Zip Code 15317 City CANONSBURG State PA Zip Code 15317

SHR 37 EHSM

PAGE 2 OF 3

	SURFACE OWNER	LESSOR	DIST-TM/PAR
1	CNX GAS COMPANY	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNES GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, H/W	1-17/5
2	GAIL WILLIAMSON	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNES GODWIN, WIDOW NANCY P. MCCLAIN AND RALPH E. MCCLAIN, W/H GEORGIA P. SNYDER, DIVORCED BRADIE PIPES AND GOLDIE PIPES, H/W PURSIE PIPES AND NORMA J. PIPES, H/W DOROTHY BELLE WELLS AND BYRON WELLS, W/H MYRNA MORGAN AND DAVID MORGAN, W/H REVA ROWLAND AND RONALD ROYCE ROWLAND	1-17/6
3A	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	MIDDLE ISLAND CREEK
3B	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	MIDDLE ISLAND CREEK
3C	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	MIDDLE ISLAND CREEK
10	ELDEN L. PRATT & CHRISTINE LEASURE TIMOTHY R. PRATT ELDEN L., RODNEY DEAN & TIMOTHY RAY PRATT THOMAS D. II & CONNIE S. SNYDER ROGNEY D. PRATT WAYNE C. & RHONDA G. MUMBAUER WAYNE C. & RHONDA G. MUMBAUER STATE OF WEST VIRGINIA FORREST G. POWELL ROGER L. & MARJORIE P. WILLIAMS JASON L. & REBECCA M. PRATT	ARTIS HOPE JACK PARKER, ATTORNEY-IN-FACT FOR COLEN C. JACK	1-15/38 1-15/39 1-17/11 1-17/11.1 1-17/11.2 1-17/11.3 1-17/11.4 1-17/11.5 1-17/11.6 1-17/11.7 1-17/11.8
22	MARY J. KAHLER (LIFE)	JACOB C. COTTRILL, ATTORNEY-IN-FACT FOR CHARLES D. COTTRILL HEIRS; JACOB C. COTTRILL AND SHIRLEY A. COTTRILL, H/W	1-15/15
23	DAVID J. PRICE	AMANDA GREGG ET AL	1-15/19
25	JOHN SR., & TINA B. JACENKIW	NANCY B. WESTFALL	1-15/18
26	JAMIE M. FERGUSON & MICHAEL NEELEY	THELMA FERGUSON ET AL	P/O 1-15/35
30	DONALD FERGUSON		P/O 1-15/36
32	GLADYS V. GREGG	DAVID C. GREGG GLADYS V. GREGG	1-15-10.2
44	EUGENE W. & LESLIE BENNETT JOHN JR., & TANYA LYNN JACENKIW	BARBARA ANN PARKER, FORMERLY BARBARA ANN FERGUSON BETTY SUE EAKLE, FORMERLY, BETTY SUE FERGUSON AND HOWARD EAKLE, SR., W/H PATRICIA ANN GORDON, FORMERLY PATRICIA ANN FERGUSON DONALD L. SECKMAN AND DORA OLIVE SECKMAN, H/W HUGH EDWIN FERGUSON MARY ELIZABETH DEARTH, FORMERLY MARY ELIZABETH FERGUSON ROGER L. FERGUSON DONALD FERGUSON VIRGINIA LYNN FERGUSON, WIDOW OF JAMES FERGUSON MELVIN EUGENE FERGUSON AND SANDRA K. FERGUSON, H/W LEE ROY FERGUSON AND TRACY FERGUSON, H/W ROSEMARY DAVIS, FORMERLY ROSEMARY FERGUSON RICHARD O. FERGUSON, JR. RONALD H. WOODBURN MARGARET E. OLEXA BARBARA R. NELSON, F/K/A RENEE F. COLLINSWORTH, F/K/A RENEE MERRICK JAMES E. ULLOM WILLIAM STEVEN MORRIS JOHN ANDREW MORRIS DEBRA G. KYLE DAVID D. HULL	1-15/9 1-15/9.1
45	HERBERT L. & DIXIE S. BUCKLEY	BETTY SUE EAKLE, FORMERLY, BETTY SUE FERGUSON AND HOWARD EAKLE, SR., W/H RONALD H. WOODBURN MARGARET E. OLEXA JAMES E. ULLOM WILLIAM STEVEN MORRIS JOHN ANDREW MORRIS DEBRA G. KYLE DAVID D. HULL	1-15-37
46	EUGENE W. & LESLIE BENNETT LORETTA L. HAUGHT HERBERT L. & DIXIE S. BUCKLEY	DONALD L. SECKMAN AND DORA OLIVE SECKMAN, H/W ROGER L. FERGUSON MELVIN EUGENE FERGUSON AND SANDRA K. FERGUSON, H/W LEE ROY FERGUSON AND TRACY FERGUSON, H/W RICHARD O. FERGUSON, JR. RONALD H. WOODBURN MARGARET E. OLEXA JAMES E. ULLOM WILLIAM STEVEN MORRIS JOHN ANDREW MORRIS DEBRA G. KYLE DAVID D. HULL	1-15/9 1-15/9.2 1-15/9.3

SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4355985.39
E:513309.74
 NAD83, WV NORTH
 N:313612.142
 E:1588034.457
 LAT/LON DATUM-NAD83
 LAT:39°21'11.561"
 LON:80°50'43.880"

APPROX. LANDING POINT

UTM 17-NAD83
N:4355942.54
E:513020.86
 NAD83, WV NORTH
 N:313487.360
 E:1587084.139
 LAT/LON DATUM-NAD83
 LAT:39°21'10.187"
 LON:80°50'55.953"

BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
N:4359487.82
E:511733.55
 NAD83, WV NORTH
 N:325191.773
 E:1583053.986
 LAT/LON DATUM-NAD83
 LAT:39°23'05.257"
 LON:80°51'49.517"

API WELL #: 47 95 02268 H6A
 STATE COUNTY PERMIT

OCTOBER 22, 2019

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SHR 37 EHSM

PAGE 3 OF 3

	SURFACE OWNER	LESSOR	DIST-TM/PAR
48	CONRAD E. COSTILOW	CONRAD E. COSTILOW ANN LENZ DENLINGER, F/K/A, ANN HOKMAN LENZ DENLINGER, F/K/A, ANN HOKMAN LENZ	1-15/8
50	ROBERT W. GRAHAM WILLIAM C. HENTHORN	ERNEST LANTZ RONALD LEE ASH RALPH ARNOLD ASH RANDALL DALE ASH AND DORETTA LYNN ASH	1-15/2 1-15/2.4
51	MICHAEL SHEPHERD	ERNEST LANTZ RONALD LEE ASH RALPH ARNOLD ASH RANDALL DALE ASH AND DORETTA LYNN ASH ROBERT A. JOHNSON AND EVELYN F. JOHNSON, H/W JOE H. AND LINDEL M. LANTZ, H/W JACK EDWARD AND BETTY JUNE LANTZ	1-15/2.3
57	ROBERT W. GRAHAM	ERNEST LANTZ RONALD LEE ASH RALPH ARNOLD ASH RANDALL DALE ASH AND DORETTA LYNN ASH	P/O 1-15/2
80	ROBERT C. & JAMES L. SINCLAIR ROSE MCGRATH & JAMES T. EDGAR	SANDRA L. SPENCE BARBARA J. DRUCHNIAK PATTY L. BUTERBAUGH RICHARD B. SMITH CHARLES ALAN MCCULLOUGH AND FRED A. MCCULLOUGH DONALD BURL SMITH RONALD CARLETON MOORE JR. CHERYL ANN CALKINS BENNY EDWIN SMITH ROY LEE SMITH JEREMY JOE LOPEZ MARIAH FAYE RITTMANN	1-12/18 1-12/18.2
83	ROBERT C. & JAMES L. SINCLAIR	SANDRA L. SPENCE	P/O 1-12/19
84		BARBARA J. DRUCHNIAK PATTY L. BUTERBAUGH RICHARD B. SMITH	
88	SAMUEL V. ASH & DENISE RULE	A. E. AND CALLIE DOAK	1-17/4

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4355985.39
E:513309.74
 NAD83, WV NORTH
 N:313612.142
 E:1588034.457
 LAT/LON DATUM-NAD83
 LAT:39°21'11.561"
 LON:80°50'43.880"

APPROX. LANDING POINT
UTM 17-NAD83
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 NAD83, WV NORTH
 N:313487.360
 E:1587084.139
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 LAT:39°21'10.187"
 LON:80°50'55.953"

BOTTOM HOLE LOCATION (BHL)
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E:511733.55
 NAD83, WV NORTH
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 E:1583053.986
 LAT/LON DATUM-NAD83
 LAT:39°23'05.257"
 LON:80°51'49.517"

API WELL #: 47 95 02268 H6A
 STATE COUNTY PERMIT

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OCTOBER 22, 2019

WW-6A1
(5/13)

Operator's Well No. SHR37EHSM

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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See attached

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**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: CNX Gas Company, LLC

By: Sarah Weigand

Its: Manager Upstream Permitting

Updated Leases - 12/18/2019 ✓

4709502668

Attachment - Form WW-6A-1 for SHR37EHSM

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
1	1-17-5	269278000	Eleanor V. Earnheart and Dean A. Earnheart, w/h	Sefco Enterprises, Inc.	Not less than 1/8	267/74
			Clella Boice, widow	Sefco Enterprises, Inc.	Not less than 1/8	267/76
			Luella I. McConnell, widow	Sefco Enterprises, Inc.	Not less than 1/8	267/78
			Agnes Godwin, widow	Sefco Enterprises, Inc.	Not less than 1/8	267/80
			Nancy P. McClain and Ralph E. McClain, w/h	Sefco Enterprises, Inc.	Not less than 1/8	267/82
			Georgia P. Snyder, divorced	Sefco Enterprises, Inc.	Not less than 1/8	267/84
			Bradie Pipes and Goldie Pipes, his wife	Sefco Enterprises, Inc.	Not less than 1/8	267/86
			Pursie Pipes and Norma J. Pipes, husband and wife	Sefco Enterprises, Inc.	Not less than 1/8	267/88
			Dorothy Belle Wells and Byron Wells, her husband	Sefco Enterprises, Inc.	Not less than 1/8	267/90
			Myrna Morgan and David Morgan, her husband	Sefco Enterprises, Inc.	Not less than 1/8	267/640
			Sefco Enterprises, Inc.	Eastern American Energy	Assignment	285/650
			Eastern American Energy Corporation	Seneca-Upshur Petroleum, Inc.	Assignment	354/757
			Seneca-Upshur Petroleum, Inc.	Seneca-Upshur Petroleum, LLC	Assignment	381/540
			Seneca-Upshur Petroleum, LLC	Antero Resources Appalachian	Assignment	402/132
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	WVSOS			
	CNX Gas Company, LLC		425/701			
	Antero Resources Corporation	Noble Energy Inc.	Assignment	427/564		
	Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273		

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
2	1-17-6	266300000	Eleanor V. Earnheart and Dean A. Earnheart, w/h	Sefco Enterprises, Inc.	Not less than 1/8	267/74
			Clella Boice, widow	Sefco Enterprises, Inc.	Not less than 1/8	267/76
			Luella I. McConnell, widow	Sefco Enterprises, Inc.	Not less than 1/8	267/78
			Agnes Godwin, widow	Sefco Enterprises, Inc.	Not less than 1/8	267/80
			Nancy P. McClain and Ralph E. McClain, w/h	Sefco Enterprises, Inc.	Not less than 1/8	267/82
			Georgia P. Snyder, divorced	Sefco Enterprises, Inc.	Not less than 1/8	267/84

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Bradie Pipes and Goldie Pipes, his wife	Sefco Enterprises, Inc.	Not less than 1/8	267/86
Pursie Pipes and Norma J. Pipes, husband and wife	Sefco Enterprises, Inc.	Not less than 1/8	267/88
Dorothy Belle Wells and Byron Wells, her husband	Sefco Enterprises, Inc.	Not less than 1/8	267/90
Myrna Morgan and David Morgan, her husband	Sefco Enterprises, Inc.	Not less than 1/8	267/640
Sefco Enterprises, Inc.	Eastern American Energy	Assignment	285/650
Eastern American Energy Corporation	Seneca-Upshur Petroleum, Inc.	Assignment	354/757
Seneca-Upshur Petroleum, Inc.	Seneca-Upshur Petroleum, LLC	Assignment	381/540
Seneca-Upshur Petroleum, LLC	Antero Resources Appalachian	Assignment	402/132
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	WVSOS
	CNX Gas Company, LLC		425/701
Antero Resources Corporation	Noble Energy Inc.	Assignment	427/564
Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273
Reva Rowland and Ronald Royce Rowland	CNX Gas Company, LLC	Not less than 1/8	661/312

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
	Island					
3A	Creek	N/A	West Virginia Division of Natural Resources Antero Resources Corporation	Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Assignment	553/295 629/658

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
	Island					
3B	Creek	N/A	West Virginia Division of Natural Resources Antero Resources Corporation	Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Assignment	553/295 629/658

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
	Island					
3C	Creek	N/A	West Virginia Division of Natural Resources Antero Resources Corporation	Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Assignment	553/295 629/658

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<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
10	1-15-39 1-17-11 1-17-11.1 through 11.8	263403000	Artis Hope Jack Parker, Attorney-In-Fact for Colen C. Jack J&J Enterprises Eastern American Energy Corporation Seneca-Upshur Petroleum, Inc. Seneca-Upshur Petroleum, LLC Antero Resources Appalachian Corporation Antero Resources Corporation Noble Energy, Inc.	J&J Enterprises Eastern American Energy Seneca-Upshur Petroleum, Inc. Seneca-Upshur Petroleum, LLC Antero Resources Appalachian Antero Resources Corporation CNX Gas Company, LLC Noble Energy Inc. CNX Gas Company, LLC	Not less than 1/8 Assignment Assignment Assignment Assignment Name Change Assignment Assignment	257/620 282/296 354/757 381/540 402/132 WVSOS 425/701 550/273

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
22	1-15-15	266749000	Cottrill Heirs; Jacob C. Cottrill and Shirley A. Cottrill, h/w J&J Enterprises Eastern American Energy Corporation Energy Corporation of America Energy Corporation of America Antero Resources Appalachian Corporation Noble Energy, Inc.	J & J Enterprises, Inc. Eastern American Energy Energy Corporation of America Antero Resources Appalachian Antero Resources Appalachian CNX Gas Company, LLC Noble Energy Inc. CNX Gas Company, LLC	Not less than 1/8 Assignment Assignment Assignment Assignment Assignment Assignment	258/220 282/296 371/528 398/416 420/316 427/564 550/273

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
23	1-15-19	271972000	Amanda Gregg, et al Hope Natural Gas Company Consolidated Gas Supply Corporation	Hope Natural Gas Company Consolidated Gas Supply Consolidated Gas Transmission	Not less than 1/8 Deed Assignment	81/137 169/26 249/287

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Antero Resources Corporation Noble Energy, Inc.	CNX Gas Company, LLC Noble Energy Inc. CNX Gas Company, LLC	Assignment Assignment	503/754 550/273
Margaret E. Olexa	Ronald H. Woodburn	Not less than 1/8	377/13
Ronald H. Woodburn Sancho Oil and Gas Company	Sancho Oil and Gas Company Ronald H. Woodburn	Assignment Assignment	428/104 429/204 435/228 435/229
Ronald H. Woodburn Sancho Oil and Gas Company	Sancho Oil and Gas Company Antero Resources Corporation CNX Gas Company, LLC	Assignment Assignment	455/706 498/605
Antero Resources Corporation Noble Energy, Inc.	Noble Energy Inc. CNX Gas Company, LLC	Assignment Assignment	503/754 550/273
Barbara R. Nelson, f/k/a Renee F. Collinsworth, f/k/a Renee Merrick	Antero Resources Corporation	Not less than 1/8	635/821
James E. Ullom	Antero Resources Corporation	Not less than 1/8	661/259
William Steven Morris	Antero Resources Corporation	Not less than 1/8	652/362
John Andrew Morris	Antero Resources Corporation	Not less than 1/8	648/76
Debra G. Kyle	Antero Resources Corporation	Not less than 1/8	645/36
David D. Hull	Antero Resources Corporation	Not less than 1/8	645/589
Antero Resources Corporation	CNX Gas Company, LLC	Affidavit of Agreement	668/368 <i>See Attached</i>

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
45	1-15-37	263456000	Betty Sue Eakle, formerly, Betty Sue Ferguson and Howard Eakle, Sr., w/h	Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8	466/783
			Antero Resources Corporation Noble Energy, Inc.	Noble Energy Inc. CNX Gas Company, LLC	Assignment Assignment	503/754 550/273

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WV Department of
Environmental Protection

Ronald H. Woodburn Sancho Oil and Gas Company	Sancho Oil and Gas Company Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Assignment	435/414 455/643 498/605
Antero Resources Corporation Noble Energy, Inc.	Noble Energy Inc. CNX Gas Company, LLC	Assignment Assignment	503/754 550/273
Margaret E. Olexa	Ronald H. Woodburn	Not less than 1/8	377/13 428/104
Ronald H. Woodburn Sancho Oil and Gas Company	Sancho Oil and Gas Company Ronald H. Woodburn	Assignment Assignment	429/204 435/228 435/229
Ronald H. Woodburn Sancho Oil and Gas Company	Sancho Oil and Gas Company Antero Resources Corporation CNX Gas Company, LLC	Assignment Assignment	455/706 498/605
Antero Resources Corporation Noble Energy, Inc.	Noble Energy Inc. CNX Gas Company, LLC	Assignment Assignment	503/754 550/273
James E. Ullom William Steven Morris John Andrew Morris Debra G. Kyle David D. Hull Antero Resources Corporation	Antero Resources Corporation Antero Resources Corporation Antero Resources Corporation Antero Resources Corporation Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Affidavit of Agreement	661/259 652/362 648/76 645/36 645/589 668/368 <i>See Attached</i>

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
46	1-15-9 1-15-9.2 1-15-9.3	263456000	Donald L. Seckman and Dora Olive Seckman, h/w Roger L. Ferguson Melvin Eugene Ferguson and Sandra K. Ferguson, Lee Roy Ferguson and Tracy Ferguson, h/w	Antero Resources Corporation Antero Resources Corporation Antero Resources Corporation Antero Resources Corporation	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8	466/792 466/777 467/648 467/650

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DEC 18 2019

WV Department of
Environmental Protection

Richard O. Ferguson, Jr.	Antero Resources Corporation	Not less than 1/8	476/171
Antero Resources Corporation	CNX Gas Company, LLC		
Noble Energy, Inc.	Noble Energy Inc.	Assignment	503/754
	CNX Gas Company, LLC	Assignment	550/273
			435/414
Ronald H. Woodburn	Sancho Oil and Gas Company	Not less than 1/8	455/643
Sancho Oil and Gas Company	Antero Resources Corporation	Assignment	498/605
	CNX Gas Company, LLC		
Antero Resources Corporation	Noble Energy Inc.	Assignment	503/754
Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273
Margaret E. Olexa	Ronald H. Woodburn	Not less than 1/8	377/13
			428/104
Ronald H. Woodburn	Sancho Oil and Gas Company	Assignment	429/204
Sancho Oil and Gas Company	Ronald H. Woodburn	Assignment	435/228
			435/229
Ronald H. Woodburn	Sancho Oil and Gas Company	Assignment	455/706
Sancho Oil and Gas Company	Antero Resources Corporation	Assignment	498/605
	CNX Gas Company, LLC		
Antero Resources Corporation	Noble Energy Inc.	Assignment	503/754
Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273
James E. Ullom	Antero Resources Corporation	Not less than 1/8	661/259
William Steven Morris	Antero Resources Corporation	Not less than 1/8	652/362
John Andrew Morris	Antero Resources Corporation	Not less than 1/8	648/76
Debra G. Kyle	Antero Resources Corporation	Not less than 1/8	645/36
David D. Hull	Antero Resources Corporation	Not less than 1/8	645/589
Antero Resources Corporation	CNX Gas Company, LLC	Affidavit of Agreement	668/368 <i>See Attached</i>

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
48	1-15-8	263456000	Conrad E. Costilow	Antero Resources Corporation	Not less than 1/8	505/644

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Ann Lenz Denlinger, f/k/a, Ann Hokman Lenz
Denlinger, f/k/a, Ann Hokman Lenz

Antero Resources Corporation
Noble Energy, Inc.
HG Energy II Appalachia, LLC
Antero Resources Corporation

Antero Resources Corporation
CNX Gas Company, LLC
Noble Energy Inc.
HG Energy II Appalachia, LLC
Antero Resources Corporation
CNX Gas Company, LLC

Not less than 1/8 525/375
Assignment 546/770
Assignment 570/96
Assignment 667/1
Affidavit of Agreement 668/368 *See Attached*

antz

The Coastal Corporation
Pardee Gas Company
Pardee Exploration Company
Pardee Resources Group, Inc.
Pardee Minerals, LLC
Antero Resources Appalachian
Antero Resources Corporation
CNX Gas Company, LLC
Noble Energy Inc.
CNX Gas Company, LLC

Corporation

Tract ID	Tax Map & Title Opinion		Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
	Parcel	QLS #				
50	1-15-2.4	279175000	Ernest Lantz Ronald Lee Ash Ralph Arnold Ash Randall Dale Ash and Doretta Lynn Ash The Coastal Corporation Pardee Gas Company Pardee Exploration Company Pardee Resources Group, Inc. Pardee Minerals, LLC Antero Resources Appalachian Corporation Antero Resources Corporation Noble Energy, Inc.	The Coastal Corporation The Coastal Corporation The Coastal Corporation The Coastal Corporation Pardee Gas Company Pardee Exploration Company Pardee Resources Group, Inc. Pardee Minerals, LLC Antero Resources Appalachian Antero Resources Corporation CNX Gas Company, LLC Noble Energy Inc. CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Merger Deed Merger Merger Assignment Name Change Assignment Assignment	279/244 278/554 278/556 278/558 WVSOS 301/416 8/580 WVSOS 416/465 WVSOS 468/769 550/273

or, etc

Grantee, Lessee, etc

The Coastal Corporation
The Coastal Corporation
The Coastal Corporation
The Coastal Corporation
Pardee Gas Company
Pardee Exploration Company
Pardee Resources Group, Inc.
Pardee Minerals, LLC
Antero Resources Appalachian
Antero Resources Corporation
CNX Gas Company, LLC
Noble Energy Inc.
CNX Gas Company, LLC

Lynn Ash

Corporation

Tract ID	Tax Map & Title Opinion		Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
	Parcel	QLS #				
51	1-15-2.3	269289000	Ernest Lantz Ronald Lee Ash Ralph Arnold Ash Randall Dale Ash and Doretta Lynn Ash Robert A. Johnson and Evelyn F. Johnson, h/w Joe H. and Lindel M. Lantz, h/w	The Coastal Corporation The Coastal Corporation The Coastal Corporation The Coastal Corporation The Coastal Corporation The Coastal Corporation	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8	279/244 278/554 278/556 278/558 278/719 278/721

or, etc

Grantee, Lessee, etc

Antero Resources Corporation
Antero Resources Corporation
Antero Resources Corporation

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Jack Edward and Betty June Lantz
 The Coastal Corporation
 Pardee Gas Company
 Pardee Exploration Company
 Pardee Resources Group, Inc.
 Pardee Minerals, LLC
 Antero Resources Appalachian Corporation

 Antero Resources Corporation
 Noble Energy, Inc.

The Coastal Corporation
 Pardee Gas Company
 Pardee Exploration Company
 Pardee Resources Group, Inc.
 Pardee Minerals, LLC
 Antero Resources Appalachian
 Antero Resources Corporation
 CNX Gas Company, LLC

 Noble Energy Inc.
 CNX Gas Company, LLC

Not less than 1/8
 Merger
 Deed
 Merger
 Merger
 Assignment
 Name Change

 Assignment
 Assignment

278/723
 WVSOS
 301/416
 8/580
 WVSOS
 416/465
 WVSOS

 468/769
 550/273

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
57	1-15-2	279175000	Ernest Lantz Ronald Lee Ash Ralph Arnold Ash Randall Dale Ash and Doretta Lynn Ash The Coastal Corporation Pardee Gas Company Pardee Exploration Company Pardee Resources Group, Inc. Pardee Minerals, LLC Antero Resources Appalachian Corporation Antero Resources Corporation Noble Energy, Inc.	The Coastal Corporation The Coastal Corporation The Coastal Corporation The Coastal Corporation Pardee Gas Company Pardee Exploration Company Pardee Resources Group, Inc. Pardee Minerals, LLC Antero Resources Appalachian Antero Resources Corporation CNX Gas Company, LLC Noble Energy Inc. CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Merger Deed Merger Merger Assignment Name Change Assignment Assignment	279/244 278/554 278/556 278/558 WVSOS 301/416 8/580 WVSOS 416/465 WVSOS 468/769 550/273

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
80	1-12-18 1-12-18.2	266282000	Sandra L. Spence Barbara J. Druchniak Patty L. Buterbaugh	Antero Resources Corporation Antero Resources Corporation Antero Resources Corporation	Not less than 1/8 Not less than 1/8 Not less than 1/8	444/333 444/335 444/337

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Richard B. Smith	Antero Resources Corporation	Not less than 1/8	444/339
Antero Resources Corporation	CNX Gas Company, LLC		
Noble Energy, Inc.	Noble Energy Inc.	Assignment	468/769
	CNX Gas Company, LLC	Assignment	550/273
Charles Alan McCullough and Freda McCullough	Noble Energy, Inc.	Not less than 1/8	480/843
Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273
Donald Burl Smith	CNX Gas Company, LLC	Not less than 1/8	639/318
Ronald Carleton Moore Jr.	CNX Gas Company LLC	Not less than 1/8	653/215
Cheryl Ann Calkins	CNX Gas Company LLC	Not less than 1/8	653/230
Benny Edwin Smith	CNX Gas Company LLC	Not less than 1/8	653/225
Roy Lee Smith	CNX Gas Company LLC	Not less than 1/8	653/220
Jeremy Joe Lopez	CNX Gas Company LLC	Not less than 1/8	666/52
Mariah Faye Rittmann	CNX Gas Company LLC	Not less than 1/8	665/605

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
83	1-12-19	266284000	Sandra L. Spence	Antero Resources Corporation	Not less than 1/8	444/333
			Barbara J. Druchniak	Antero Resources Corporation	Not less than 1/8	444/335
			Patty L. Buterbaugh	Antero Resources Corporation	Not less than 1/8	444/337
			Richard B. Smith	Antero Resources Corporation	Not less than 1/8	444/339
			Antero Resources Corporation	CNX Gas Company, LLC		
			Noble Energy, Inc.	Noble Energy Inc.	Assignment	468/769
				CNX Gas Company, LLC	Assignment	550/273

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
84	1-12-19	266284000	Sandra L. Spence	Antero Resources Corporation	Not less than 1/8	444/333
			Barbara J. Druchniak	Antero Resources Corporation	Not less than 1/8	444/335
			Patty L. Buterbaugh	Antero Resources Corporation	Not less than 1/8	444/337
			Richard B. Smith	Antero Resources Corporation	Not less than 1/8	444/339

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Antero Resources Corporation	CNX Gas Company, LLC	Assignment	468/769
Noble Energy, Inc.	Noble Energy Inc.	Assignment	550/273
	CNX Gas Company, LLC		

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
88	1-17-4	266301000	A.E. Doak and Callie Doak J.E. Trainer and Tressie May Trainer, his wife and George H. Trainer and J. E. Trainer, partners trading under the firm name and style of Sun Gas Company	J.E. Trainer	Not less than 1/8	71/174
			W.W. Hepburn	W.W. Hepburn	Assignment	80/346
			Eastern Petroleum Company	Eastern Petroleum Company	Assignment	80/338
			Clifton Oil & Gas Company	Clifton Oil & Gas Company	Assignment	94/61
			Quaker State Oil Refining Corporation	Quaker State Oil Refining	Assignment	270/111
			Quaker State Corporation	Quaker State Corporation	Name Change	WVSOS
			Belden & Blake Corporation	Belden & Blake Corporation	Assignment	311/584
			Peake Energy, Inc.	Peake Energy, Inc.	Assignment	321/340
			North Coast Energy Eastern, Inc.	North Coast Energy Eastern, Inc.	Name Change	8/702
			EXCO-North Coast Energy	EXCO-North Coast Energy	Name Change	9/80
			EXCO-North Coast Energy Eastern, Inc	EXCO Resources (WV), Inc.	Name Change	WVSOS
				EXCO Resources (WV), LLC, BG Production Company (WV), LLC and EXCO Resources (PA), LLC	Deed	374/808
			EXCO Resources (WV), Inc.	Antero Resources Appalachian Corporation	Assignment	406/195
			EXCO Resources (WV), LLC, BG Production Company (WV), LLC and EXCO Resources (PA), LLC	Antero Resources Corporation	Name Change	WVSOS
			Antero Resources Appalachian Corporation	CNX Gas Company, LLC		
			Antero Resources Corporation	Noble Energy Inc.	Assignment	433/7
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273

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Neil A Archer II
TYLER County 10:37:49 AM
Instrument No 1203635
Date Recorded 10/16/2019
Document Type AFF
Pages Recorded 4
Book-Page 668-368
Recording Fee \$5.00
Additional \$6.00

AFFIDAVIT OF AGREEMENT

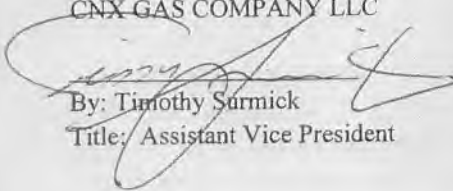
THIS AFFIDAVIT OF AGREEMENT (the "*Affidavit*") is executed to provide notice of a written Agreement dated October 14, 2019 (the "*Agreement*"), between Antero Resources Corporation, a Delaware corporation, whose address is 1615 Wynkoop Street, Denver, Colorado 80202 ("*Antero*"), and CNX Gas Company LLC, a Virginia limited liability company whose address is 1000 CONSOL Energy Drive Suite 400, Canonsburg, Pennsylvania 15317 ("*CNX*"). CNX and Antero are to be known collectively as the "*Parties*."

WHEREAS, pursuant to the provisions contained in the Agreement, Antero has agreed to assign to CNX all of its right, title and interest in and to certain tracts or portions of those oil and gas leases situate in Tyler County, West Virginia as more particularly described on Exhibit "A," attached hereto (the "*Leases*").

WHEREAS, closing of the transaction contemplated by the Agreement is expected to occur on or before March 31, 2020. Upon closing of the transaction by the Parties, Antero will execute and place of record an Assignment, Bill of Sale and Conveyance to CNX of its right, title and interest in and to the Leases, pursuant to the terms and conditions set out in the Agreement (the "*Assignment*"). In the event that Antero does not assign the entirety of the Leases to CNX by the Assignment, then Antero will retain title to any of the Leases not specifically assigned or conveyed therein. Once the Assignment is placed of record, it shall supersede this Affidavit.

CNX acknowledges that it is contractually bound by the terms and conditions contained in the Agreement. CNX has hereby executed this Affidavit as of the date of acknowledgment below, but this Affidavit is effective as of October 14, 2019.

CNX GAS COMPANY LLC


By: Timothy Sarmick
Title: Assistant Vice President

[Acknowledgment page follows]

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CORPORATE ACKNOWLEDGMENT

STATE OF PENNSYLVANIA)
COUNTY OF WASHINGTON)

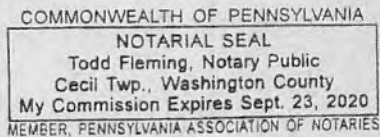
I, Todd Fleming, a notary public of said county do certify that Timothy Surmick, appearing herein in his capacity as Assistant Vice President for CNX Gas Company LLC, who signed the writing above, bearing date the 14 day of October, 2019, has this day in my said county, before me, acknowledged the said writing to be the act and deed of said corporation.

My commission expires: September 23, 2020

Todd Fleming

Notary Public

[SEAL]



This document prepared by:
CNX Gas Company LLC
1000 CONSOL Energy Drive Suite 400
Canonsburg, Pennsylvania 15317

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Exhibit "A"

<u>Lessor</u>	<u>Lease Date</u>	<u>Book/Page</u>	<u>Lease Gross Acres</u>	<u>County</u>	<u>District</u>	<u>Conveyed Legal Description</u>
Nancy B. Westfall	2/18/2019	635/676	26	Tyler	Centerville	P/O 1-15-18 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>
Conrad E. Costilow	8/19/2015	505/644	56.75	Tyler	Centerville	P/O 1-15-8 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>
Ann Lenz Denlinger, f/k/a, Ann Hokman Lenz Denlinger, f/k/a, Ann Hokman Lenz	1/13/2016	525/375	79.75	Tyler	Centerville	P/O 1-15-8 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>
Barbara R. Nelson, FKA Renee F. Collinsworth, FKA Renee Merrick	2/13/2019	635/821	42.50	Tyler	Centerville	P/O 1-15-8, P/O 1-15-9, 1-15-9.1 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>
James E. Ullom	7/2/2019	661/259	99.50	Tyler	Centerville	P/O 1-15-8, P/O 1-15-9, 1-15-9.1, 1-15-9.2, 1-15-9.3, 1-15-37 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>
William Steven Morris	3/1/2019	652/362	79.50	Tyler	Centerville	P/O 1-15-8, P/O 1-15-9, 1-15-9.1, 1-15-9.2, 1-15-9.3, 1-15-37 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>

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John Andrew Morris	2/15/2019	648/76	79.50	Tyler	Centerville	P/O 1-15-8, P/O 1-15-9, 1-15-9.1, 1-15-9.2, 1-15-9.3, 1-15-37 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>
Debra G. Kyle	2/21/2019	645/36	79.50	Tyler	Centerville	P/O 1-15-8, P/O 1-15-9, 1-15-9.1, 1-15-9.2, 1-15-9.3, 1-15-37 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>
David D. Hull	2/21/2019	645/589	79.50	Tyler	Centerville	P/O 1-15-8, P/O 1-15-9, 1-15-9.1, 1-15-9.2, 1-15-9.3, 1-15-37 <i>All portions of the lease lying outside of the Gabitalalek Unit filed at Book 652, Page 728</i>

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AIMEE V SCOTT ESQ
BABST CALLAND
TWO GATEWAY CENTER
PITTSBURGH PA 15222

Execution Version

ASSIGNMENT AND CONVEYANCE OF OIL AND GAS LEASES

STATE OF WEST VIRGINIA)
)
) \$
COUNTIES OF TYLER, DODDRIDGE,)
AND MONONGALIA)

Neil A Archer II
TYLER County 10:54:23 AM
Instrument No 1192684
Date Recorded 01/14/2019
Document Type AOG
Pages Recorded 110
Book-Page 629-658
Recording Fee \$110.00
Additional \$17.00

ATTN: SHAWN BLACKWELL
PERDORON ENERGY LLC
320 SOUTHWEST DRIVE STE 400
BRIDGEFORD, WV 26330-4678

This Assignment and Conveyance of Oil and Gas Leases (this "Assignment"), dated December 19, 2018, but effective as of December 20, 2018 at 7:00 a.m. Central Time (the "Effective Time"), is made by Antero Resources Corporation, a Delaware corporation, whose address is 1615 Wynkoop Street, Denver, CO 80202 ("Assignor"), to CNX Gas Company LLC, a Virginia limited liability company, whose address is 1000 Consol Energy Drive, Canonsburg, PA 15317 ("Assignee"). Assignor and Assignee are sometimes referred to herein together as the "Parties" and individually as a "Party."

WHEREAS, Assignor owns an undivided working interest in the Leases (as defined below).

WHEREAS, Assignor desires to assign to Assignee, and Assignee desires to accept such assignment of, the Leasehold Rights (as defined below), as more particularly described in this Assignment.

NOW, THEREFORE, for and in consideration of Ten Dollars (\$10.00) and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged:

Assignor does hereby GRANT, BARGAIN, TRANSFER, ASSIGN and CONVEY to Assignee 100% of Assignor's right, title and interest in and to the "Leasehold Rights", which means 100% of Assignor's collective right, title and interest in and to:

- i. the oil and gas leases described in more detail on Exhibit A - Part I, less and except the Retained Wellbores (as defined below) (the "Antero Leases"); and
- ii. the oil and gas leases described in more detail on Exhibit A - Part II, but limited to the partial tracts identified as the "Conveyed" tracts on those maps attached hereto as Exhibit A - Part III and described in the "Conveyed Legal" column listed on Exhibit A - Part II, and less and except the Retained Wellbores (the "Antero Partial Leases") (the Antero Leases and Antero Partial Lease are collectively referred to herein as the "Leases"). The sub-letter references listed on Exhibit A - Part III are not in sequential letter order, such exhibit was assigned sub-letters in order to match the references in the "Conveyed Legal" column listed on Exhibit A - Part II.

Monongalia County
Carve L Blaney, Clerk
Instrument 749303
01/28/2019 @ 02:29:09 PM
ASSIGNMENT
Book 139 @ Page 186
Pages Recorded 110
Recording Cost \$ 127.00

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US 5985901

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As used in this Assignment, “**Retained Wellbores**” means any and all oil and/or gas wells (i) owned in whole or in part by Assignor and (ii) located on the lands covered by the Leases (whether any such well is drilled to and/or completed in the formations covered by the Leasehold Rights or otherwise) as of or prior to the Effective Time, whether producing, operating, plugged, permanently abandoned, shut-in or temporarily abandoned and including, without limitation, those wells described in Exhibit B.

This Assignment is further made subject to the following:

1. **Assignment Subject to Trade Agreement.** This Assignment is made in accordance with and is subject to the terms, covenants and conditions contained in that certain Trade Agreement, dated September 19, 2018 by and between Assignor and Assignee (as the same may be amended from time to time, the “**Trade Agreement**”). In the event of a conflict between the provisions of the Trade Agreement and this Assignment, the provisions of the Trade Agreement shall control. The execution and delivery of this Assignment by Assignor, and the execution and acceptance of this Assignment by Assignee, shall not operate to release or impair any surviving rights or obligations of Assignor or Assignee under the Trade Agreement. Capitalized terms used but not otherwise defined in this Assignment shall have the respective meanings given to such terms in the Trade Agreement.
2. **Assumption of Liabilities.** Subject to the terms of the Trade Agreement, effective as of the Effective Time, Assignee hereby acknowledges, assumes, and agrees to assume, pay, perform, fulfill and discharge the CNX Assumed Liabilities.
3. **Special Warranty of Title.** Assignor (a) hereby warrants, and shall defend, title to the Leasehold Rights unto Assignee and its successors in interest against every person whomsoever lawfully claiming, or to claim the same or any part thereof by, through or under Assignor, but not otherwise, subject to the Permitted Encumbrances and (b) hereby subrogates Assignee to all covenants and warranties of title by third persons (other than Assignor) heretofore given or made to Assignor or its predecessors in title in respect of any of the Leasehold Rights.
4. **No Interference.** The Parties understand that Assignee may have future wells, pipelines and access roads located on or under the lands covered by the Leases in the vicinity of the Retained Wellbores, *provided* Assignee shall not unreasonably interfere with or impede the operation of the Retained Wellbores by Assignor under the Leases. Upon request by Assignee, Assignor may, at its sole option, permit Assignee the right to utilize any existing well pads and other surface facilities pertaining to the Retained Wellbores on such Leases. Should Assignee be granted such utilization rights, Assignee agrees to make repairs for any damage to and to share in the cost of maintenance of any shared facilities on a proportionate basis based on usage for so long as Assignee continues to share such facilities with Assignor.

5. **Surface Use.** To the extent that each Party is not restricted from granting such access, each Party shall have the right to use any access roads constructed by the other Party for the non-constructing Party's oil and gas operations related to its operations upon the Leases. The non-constructing Party shall indemnify the other Party from any claims, damages or injuries that arise from such non-constructing Party's or its representatives' or contractors' use of such access roads, and each Party, for so long as such access roads are used jointly by the Parties, shall (a) promptly repair any and all damages that such Party or its representatives or contractors may cause to such access roads; and (b) participate in the further maintenance of such access roads on a proportionate basis based on usage.
6. **Notice of Abandonment.** In the event that any Retained Wellbore on the lands covered by the Leases (or lands pooled therewith) is not capable of producing oil and/or gas in paying quantities and there are no other wells capable of production in paying quantities on the respective Lease (or lands pooled therewith), or a Retained Wellbore ceases to produce oil and/or gas in paying quantities and such well is the only well capable of production in paying quantities on the respective Lease (or lands pooled therewith) and Assignor owns an interest in such Retained Wellbore and (a) Assignor (i) is required to plug and abandon such Retained Wellbore pursuant to applicable Law or (ii) otherwise desires to plug and abandon such Retained Wellbore, or (b) such Retained Wellbore ceases to produce in paying quantities for more than ninety (90) days, then, in each such case, Assignor shall provide written notice (or if during the drilling of such well, oral notice) (any such notice, the "Abandonment Notice") to Assignee at least thirty (30) days (or, if during the drilling of such well, twenty-four (24) hours) prior to the anticipated plugging and abandonment of such well in order to permit Assignee the option, in its sole discretion, to take over operation of such well. In the event that Assignee desires to take over the operation of such well, then Assignee shall provide written notice (or, if during the drilling of such well, oral notice) (the "Take Over Notice") to Assignor within thirty (30) days (or, if during the drilling of such well, twenty-four (24) hours) of receiving such Abandonment Notice applicable thereto. Promptly following such receipt of such Take Over Notice, Assignor shall assign to Assignee, free and clear of all encumbrances created by Assignor, all of Assignor's right, title and interest in such well pursuant to a mutually agreeable form of assignment containing no warranties except for a special warranty of title by, through and under Assignor, but not otherwise. If Assignee takes over the operations of any such well, then Assignee agrees to plug and abandon such well and reclaim, restore and clean up the drillsite location associated therewith in accordance with all applicable rules, regulations and laws and the terms of the applicable Lease. If Assignee does not elect to take over the operations of such well within the time period specified, then Assignor agrees to plug and abandon such well and reclaim, restore and clean up the drillsite location associated therewith in accordance with all applicable rules, regulations and laws and the terms of the applicable Lease. All oral notices provided under this Section 6 shall be followed with written notice as soon as reasonably practicable. All written notices shall be mailed to the addresses for the Parties as reflected on the first page.

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7. **Disclaimers of Warranties and Representations.** EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION VII OF THE TRADE AGREEMENT OR IN SECTION 3 OF THIS ASSIGNMENT, ASSIGNOR MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR WARRANTY, EXPRESS, IMPLIED OR STATUTORY, INCLUDING AS TO (I) TITLE TO THE LEASES, (II) THE CONTENTS, CHARACTER OR NATURE OF ANY DESCRIPTIVE MEMORANDUM, OR ANY REPORT OF ANY PETROLEUM ENGINEERING CONSULTANT OF ASSIGNOR, OR ANY GEOLOGICAL OR SEISMIC DATA OR INTERPRETATION, RELATING TO THE LEASES, (III) THE QUANTITY, QUALITY OR RECOVERABILITY OF PETROLEUM SUBSTANCES IN OR FROM THE LEASES, (IV) THE EXISTENCE OF ANY PROSPECT, OR ANY RECOMPLETION, INFILL OR STEPOUT DRILLING OPPORTUNITIES, (V) ANY ESTIMATES OF THE VALUE OF THE LEASES, (VI) THE PRODUCTION OF PETROLEUM SUBSTANCES FROM THE LEASES, OR ANY PRODUCTION OR DECLINE RATES, (VII) THE MAINTENANCE, REPAIR, CONDITION, QUALITY, SUITABILITY, DESIGN OR MARKETABILITY OF THE LEASES, (VIII) INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHT, AND (IX) ANY OTHER MATERIALS OR INFORMATION THAT MAY HAVE BEEN MADE AVAILABLE OR COMMUNICATED TO ASSIGNEE OR ITS AFFILIATES, OR ITS OR THEIR RESPECTIVE EMPLOYEES, AGENTS, CONSULTANTS, REPRESENTATIVES OR ADVISORS IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED BY THIS ASSIGNMENT OR ANY DISCUSSION OR PRESENTATION RELATING THERETO, AND FURTHER DISCLAIM ANY REPRESENTATION OR WARRANTY, EXPRESS, IMPLIED, OR STATUTORY, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR CONFORMITY TO MODELS OR SAMPLES OF MATERIALS OR ANY EQUIPMENT, IT BEING EXPRESSLY UNDERSTOOD AND AGREED BY THE PARTIES THAT, EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION VII OF THE TRADE AGREEMENT OR SECTION 3 OF THIS ASSIGNMENT, THE LEASEHOLD RIGHTS ARE BEING TRANSFERRED BY ASSIGNOR "AS IS, WHERE IS," WITH ALL FAULTS AND DEFECTS.
8. **Governing Law.** EXCEPT TO THE EXTENT THAT THE LAWS OF THE STATE OF WEST VIRGINIA ARE MANDATORILY APPLICABLE TO THIS ASSIGNMENT IN CONNECTION WITH THE CONVEYANCES OF PROPERTY INTERESTS INVOLVING REAL PROPERTY LOCATED IN THE STATE OF WEST VIRGINIA, THIS ASSIGNMENT SHALL BE GOVERNED BY, CONSTRUED, INTERPRETED AND APPLIED IN ACCORDANCE WITH THE LAWS OF THE STATE OF WEST VIRGINIA EXCLUDING ANY CHOICE OF LAW RULES WHICH WOULD REFER THE MATTER TO THE LAWS OF ANOTHER JURISDICTION. ANY DISPUTE, CONTROVERSY OR CLAIM ARISING OUT OF, RELATING TO OR IN CONNECTION WITH THIS ASSIGNMENT OR THE VALIDITY HEREOF,

SHALL BE FINALLY SETTLED IN ACCORDANCE WITH SECTION XII.E OF THE TRADE AGREEMENT.

9. **Titles and Captions.** All Section titles or captions in this Assignment are for convenience only, shall not be deemed part of this Assignment and in no way define, limit, extend or describe the scope or intent of any provisions hereof. Except to the extent otherwise stated in this Assignment, references to "Sections" are to Sections of this Assignment, and references to "Exhibits" are to Exhibits attached to this Assignment, which are made a part hereof and incorporated herein for all purposes.
10. **Third Party Beneficiaries.** Nothing contained herein is intended or shall be deemed to create or confer any rights upon any third person not a party hereto, whether as a third party beneficiary or otherwise, except as expressly provided herein; nor shall anything contained herein be construed to create any partnership, agency, joint venture or like relationship between Assignee and Assignor.
11. **Further Assurances.** Assignor and Assignee agree to take such further actions and to execute, acknowledge and deliver all such further documents as are reasonably requested by the other Party for carrying out the purposes of this Assignment.
12. **Binding Effect.** This Assignment shall extend and inure to the benefit of Assignor and Assignee and their respective successors or assigns.
13. **Counterparts.** This Assignment may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement.

[Signature page follows.]

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IN WITNESS WHEREOF, the Parties have caused this Assignment to be effective as of the Effective Time.

ASSIGNOR:

ANTERO RESOURCES CORPORATION

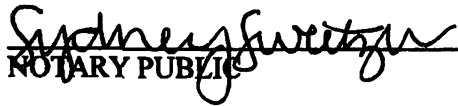
By: 

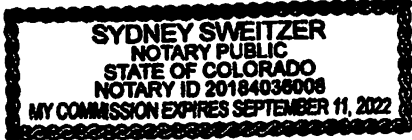
Name: Brian A. Kuhn
Title: Senior Vice President - Land

STATE OF COLORADO
COUNTY OF DENVER

BE IT KNOWN, that on this 19 day of December, 2018, before me, the undersigned authority, personally came and appeared Brian A. Kuhn appearing herein in his capacity as Senior Vice President - Land of Antero Resources Corporation, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

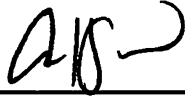
My Commission Expires: 9-11-22


NOTARY PUBLIC



ASSIGNEE:

CNX GAS COMPANY LLC

By: 
Name: Alexander J. Reyes
Title: Vice President

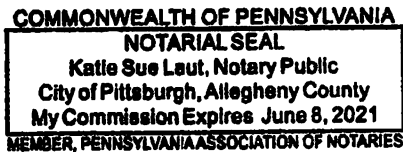
COMMONWEALTH OF PENNSYLVANIA

COUNTY OF ALLEGHENY

BE IT KNOWN, that on this 20th day of December, 2018, before me, the undersigned authority, personally came and appeared Alexander J. Reyes appearing herein in his capacity as Vice President of CNX Gas Company LLC, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said limited liability company, and declared and acknowledged to me, Notary, that he executed the same on behalf of said limited liability company with full authority, and that the said instrument is the free act and deed of the said limited liability company and was executed for the uses, purposes and benefits therein expressed.

My Commission Expires: June 8, 2021


NOTARY PUBLIC



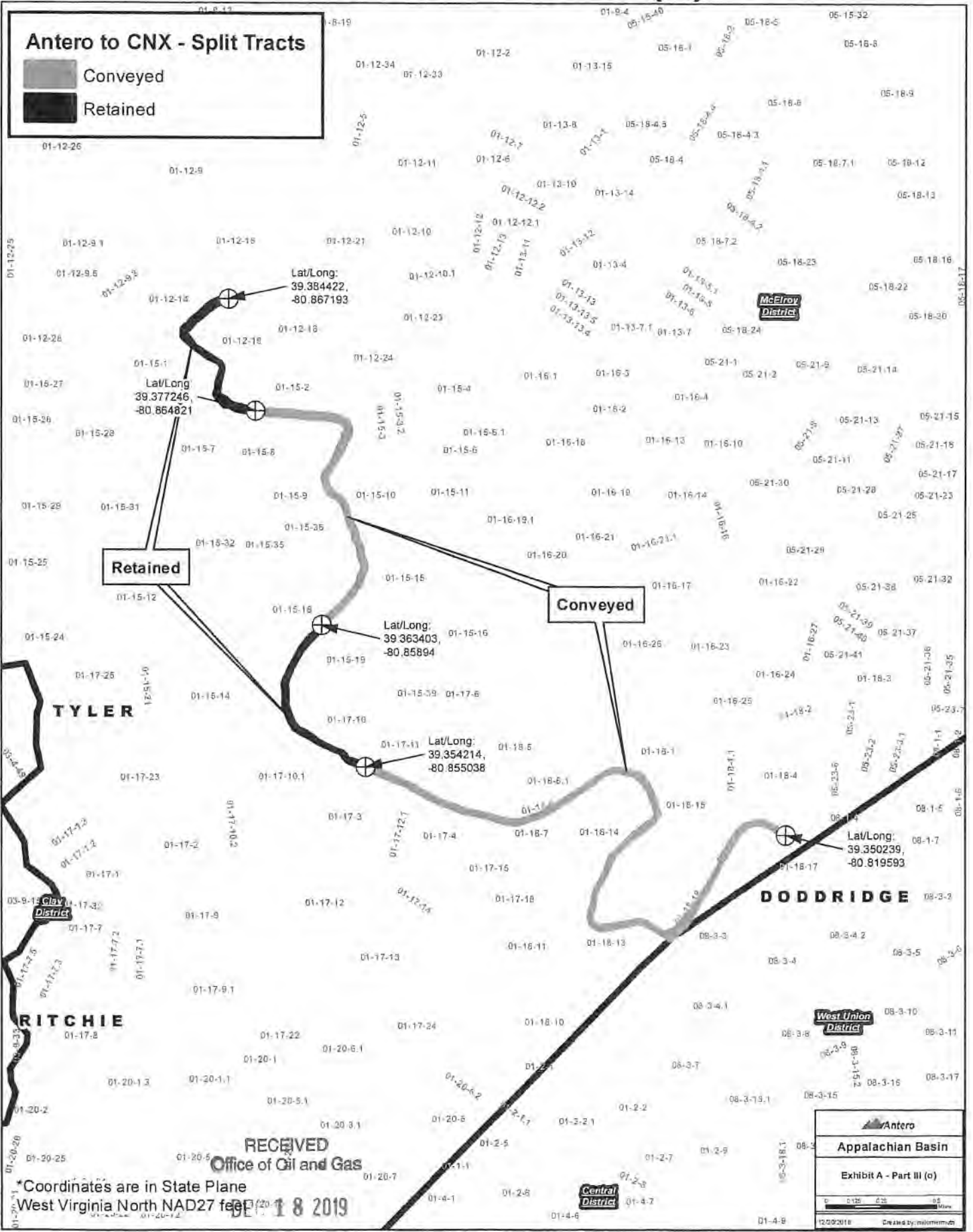
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SIGNATURE AND NOTARY PAGE TO ANTERO ASSIGNMENT

								DOU, filed at Book 445, Page 663 (Doddrige County), and Book 565, Page 158 (Tyler County)	(Doddrige County), and Book 565, Page 158 (Tyler County)
20637	Tyler	Centerville	Horton, his wife, et al, Sam and Carol	3/7/1990	145.25000	287/325	1-20-6, 1-20-6.1, 1-20-6.2, 1-20-6.3, 1-20-6.4	1-20-6, p/o 1-20-6.1, 1-20-6.2, p/o 1-20-6.3, p/o 1-20-6.4 See Exhibit A - Part III (e) Those portions of this lease that fall outside of the Hawk Unit DOU, filed at Book 449, Page 520 (Doddrige County), and Book 570, Page 203 (Tyler County), the California Unit DOU, filed at Book 445, Page 663 (Doddrige County), and Book 565, Page 158 (Tyler County)	p/o 1-20-6.1, p/o 1-20-6.3, p/o 1-20-6.4 See Exhibit A - Part III (e) Those portions of this lease that fall inside of the Hawk Unit DOU, filed at Book 449, Page 520 (Doddrige County), and Book 570, Page 203 (Tyler County), the California Unit DOU, filed at Book 445, Page 663 (Doddrige County), and Book 565, Page 158 (Tyler County)
120957	Tyler	Centerville	West Virginia Division of Natural Resources	11/8/2016	64.78000	553/295	p/o Middle Island Creek	p/o Middle Island Creek See Exhibit A - Part III (o)	p/o Middle Island Creek See Exhibit A - Part III (o)

Exhibit A - Part III (o)



Wade,

See attached request documents, let me know if you need anything else.

-Ray

From: McLane, John

Sent: Tuesday, December 17, 2019 5:58 PM

To: Hoon, Raymond <RaymondHoon@cnx.com>

Cc: Surmick, Tim <TimothySurmick@cnx.com>; Weigand, Sarah <sarahweigand@cnx.com>; O'Rourke, Sean E. <SeanO'Rourke@cnx.com>; Stanton, Brenton <BrentonStanton@cnx.com>

Subject: RE: [EXTERNAL] RE: SHR37 Permit applications

Ray –

See attached for updated 6A1's for the DHSM and EHSM laterals. Tracts 3A, 3B and 3C were updated with the recording information from the actual assignment from Antero to CNX in DB 629/658. I've attached the assignment in 629/658 for reference. The Antero/CNX in Affidavit of Agreement in 624/332 was listed by mistake. For tracts 25, 44, 45, 46 and 48 - I've attached a copy of the Affidavit of Agreement in 668/368 requested by the DNR. Lastly, for tract 49, updated the 6A1 to include the recording information for the Rita Marie Shepherd lease. See below.

95-02667

Tract ID

3B – 6A1 updated w/ actual assignment from Antero to CNX in 629/658

3C – 6A1 updated w/ actual assignment from Antero to CNX in 629/658

25 – "Affidavit of Agreement" in 668/368 attached

44 – "Affidavit of Agreement" in 668/368 attached

46 – "Affidavit of Agreement" in 668/368 attached

48 – "Affidavit of Agreement" in 668/368 attached

49 – 6A1 updated with recording information for CNX's lease with Rita Marie Shepherd

95-02668

Tract ID

3A – 6A1 updated w/ actual assignment from Antero to CNX in 629/658

3B – 6A1 updated w/ actual assignment from Antero to CNX in 629/658

3C – 6A1 updated w/ actual assignment from Antero to CNX in 629/658

25 – "Affidavit of Agreement" in 668/368 attached

44 – "Affidavit of Agreement" in 668/368 attached

45 – "Affidavit of Agreement" in 668/368 attached

46 – "Affidavit of Agreement" in 668/368 attached

48 – "Affidavit of Agreement" in 668/368 attached

Please let us know if anything further is needed.

Thanks,

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WV Department of
Environmental Protection



Sarah Weigand
Manager Upstream Permitting
Work: 724-485-3244
Email: SarahWeigand@cnx.com

CNX Center
1000 CONSOL Energy Drive
Canonsburg, PA 15317-6506
724-485-4000
cnx.com

September 26, 2019

West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304-2345

RE: Road Letter – SHR37 Well Pad Drilling Applications

To Whom It May Concern:

CNX Gas Company, LLC has the right to drill, stimulate, and produce wells that are drilled under the County and State roads as designated on the plats.

If any further information or correspondence is required, please contact me at (724) 485-3244 or SarahWeigand@cnx.com.

Sincerely,

A handwritten signature in blue ink that reads 'Sarah Weigand'.

Sarah Weigand

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WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 10-30-19

API No. 47- _____ - _____

Operator's Well No. SHR37EHSM

Well Pad Name: SHR37

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>513309.740</u>
County: <u>Tyler</u>		Northing: <u>4355985.386</u>
District: <u>Centerville</u>	Public Road Access: <u>Duckworth Ridge Road (CR 58/2)</u>	
Quadrangle: <u>West Union</u>	Generally used farm name: <u>CNX</u>	
Watershed: <u>Headwaters Middle Island Creek</u>		

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

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- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

Required Attachments:

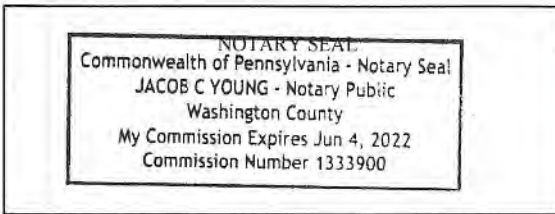
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

WV Department of
Environmental Protection

Certification of Notice is hereby given:

THEREFORE, I Sarah Weigand, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:	CNX Gas Company, LLC	Address:	1000 Consol Energy Drive
By:	Sarah Weigand <u>Sarah Weigand</u>		Canonsburg, PA 15317
Its:	Manager Upstream Permitting	Facsimile:	
Telephone:	724-485-3244	Email:	SarahWeigand@CNX.com



Subscribed and sworn before me this 23rd day of October, 2019.

Jacob C Young Notary Public

My Commission Expires 6/4/2022

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/29/19 Date Permit Application Filed: 10/31/19

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: CNX Gas Company LLC
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: CNX Gas Company LLC
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: See attached.
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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WV Department of
Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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Office of Oil and Gas

OCT 31 2019

WV Department of
Environmental Protection

WW-6A
(8-13)

4709502668

API NO. 47- _____ - _____
OPERATOR WELL NO. SHR37EHSM
Well Pad Name: SHR37

Notice is hereby given by:

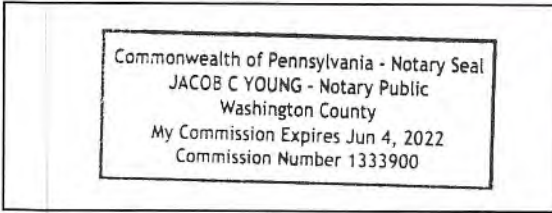
Well Operator: CNX Gas Company, LLC
Telephone: 724-485-3244
Email: SarahWeigand@CNX.com

Sarah Weigand

Address: 1000 Consol Energy Drive
Canonsburg, PA 15317
Facsimile: _____

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



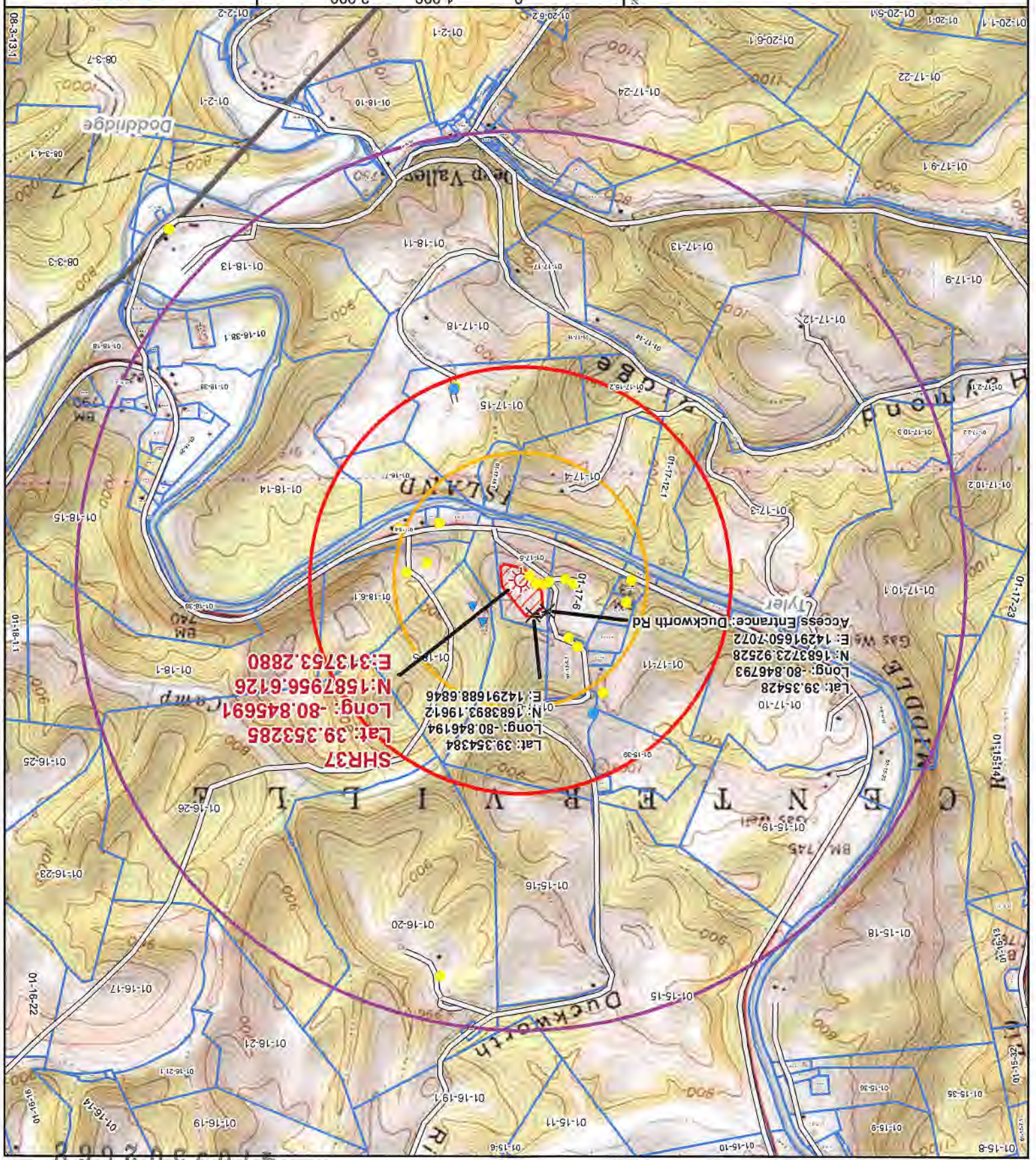
Subscribed and sworn before me this 23rd day of Oct, 2019.
Jacob C Young Notary Public
My Commission Expires 6/4/2022

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© Copyright CNX Land Resources Inc. 2011

Original Date: 12/14/2018	Prepared By: GIS
Revision Date: 12/14/2018	Approved By: GIS

Legend

- ▲ Pond
- Spring
- Well
- ☼ Wellbore
- ✕ Access Points
- == Access Road
- ▭ 1 Mile Buffer
- ▭ 2,500 Foot Buffer
- ▭ 1,500 Foot Buffer
- ▭ Surface Parcel
- ▭ Well Pad



WW-6A5
(1/12)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 10/29/19 **Date Permit Application Filed:** 10/31/19

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: CNX Gas Company LLC	Name: _____
Address: 1000 Consol Energy Drive	Address: _____
Canonsburg, PA 15317	

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia	UTM NAD 83	Easting: 513309.740
County: Tyler		Northing: 4355985.386
District: Centerville	Public Road Access:	Duckworth Ridge Road (CR 58/2)
Quadrangle: West Union	Generally used farm name:	CNX
Watershed: Headwaters Middle Island Creek		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: CNX Gas Company, LLC	Address: 1000 Consol Energy Drive
Telephone: 724-485-3244	Canonsburg, PA 15317
Email: SarahWeigand@CNX.com	Facsimile: _____

Sarah Weigand

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Office of Oil and Gas

OCT 31 2019

WV Department of
Environmental Protection



Sarah Weigand
Manager Upstream Permitting
Work: 724-485-3244
Email: SarahWeigand@cnx.com

CNX Center
1000 CONSOL Energy Drive
Canonsburg, PA 15317-6506
724-485-4000
cnx.com

October 11, 2019

West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304-2345

RE: SHR37EHSM Waiver Request

To Whom It May Concern:

CNX Gas Company LLC (CNX) as surface and coal owner of the SHR37EHSM drill tract hereby waives the right to receive the Notice of Intent to Drill. An executed Voluntary Statement of No Objection form has been included with this application.

If any further information or correspondence is required, please contact me at (724) 485-3244 or SarahWeigand@cnx.com.

Sincerely,

A handwritten signature in blue ink that reads 'Sarah Weigand'. The signature is written in a cursive, flowing style.

Sarah Weigand

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Office of Oil and Gas
OCT 31 2019
WV Department of
Environmental Protection

WW-6RW
(1-12) CNX # 294099001

API NO. 47- _____
OPERATOR WELL NO. See Exhibit A
Well Pad Name: SHR 37

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL LOCATION RESTRICTION WAIVER

The well operator, CNX GAS COMPANY LLC is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

Well Location Restrictions

Pursuant to West Virginia Code § 22-6A-12(a), Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements.

WAIVER

I, Timothy Surmick, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through ALL, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>513285.2620 m</u>
County: <u>Tyler</u>	UTM NAD 83 Northing: <u>4356027.9910 m</u>
District: <u>Centerville</u>	Public Road Access: <u>Duckworth Ridge Road (CR 58/2)</u>
Quadrangle: <u>West Union</u>	Generally used farm name: <u>CNX</u>
Watershed: <u>Headwaters Middle Island Creek</u>	

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).

WELL SITE RESTRICTIONS BEING WAIVED

*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

FOR EXECUTION BY A NATURAL PERSON

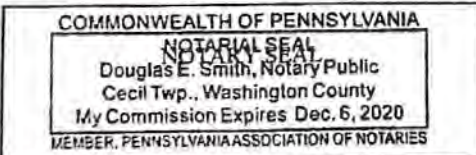
Signature: _____
Print Name: _____
Date: _____

FOR EXECUTION BY A CORPORATION, ETC.

Company: CNX Gas Company LLC
By: Timothy Surmick
Its: Assistant Vice President
Signature: _____
Date: 12/17/2018

Well Operator: CNX GAS COMPANY LLC
By: Raymond Hoon
Its: Permitting Supervisor

Signature: _____
Telephone: 724-485-3540



Subscribed and sworn before me this 17 day of December
Douglas E. Smith Notary Public

My Commission Expires 12-6-2020

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Office of Oil and Gas

OCT 31 2019

Operator Well No.

SHR37DHSM
SHR37EHSM
SHR37FHSM
SHR37GHSM
SHR37HHSM
SHR37IHSM
SHR37KHSM
SHR37LHSM
SHR37MHSM
SHR37NHSM
SHR37OHSM
SHR37PHSM
SHR37QHSM
SHR37RHSM

SAVANNAH SHILACK
CAMPBELL DEVELOPMENT
2006 E CARSON STREET
PITTSBURGH, PA 15203-1902

Neil A Archer II
TYLER County 10:31:58 AM
Instrument No 1191946
Date Recorded 12/18/2018
Document Type OG
Pages Recorded 2
Book-Page 627-619
Recording Fee \$5.00
Additional \$6.00

RECEIVED
Office of Oil and Gas

OCT 31 2019

WV Department of
Environmental Protection

WW-6AW
(1-12)

OCT 31 2019

API NO. 47- _____
OPERATOR WELL NO. SHR37EHSM
Well Pad Name: SHR37

WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Sarah Weigand, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>513309.740</u>
County:	<u>Tyler</u>		Northing:	<u>4355985.386</u>
District:	<u>Centerville</u>	Public Road Access:		<u>Duckworth Ridge Road</u>
Quadrangle:	<u>West Union</u>	Generally used farm name:		<u>CNX Gas Company</u>
Watershed:	<u>Middle Island Creek</u>			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

<p>*Please check the box that applies</p> <p><input checked="" type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p>
	<p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>CNX Gas Company, LLC</u></p> <p>By: <u>Sarah Weigand</u></p> <p>Its: <u>Manager Upstream Permitting</u></p> <p>Signature: <u>Sarah Weigand</u></p> <p>Date: <u>10/23/19</u></p>

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

December 14, 2018

Jill M. Newman
Deputy Commissioner

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the SHR-37 Well Pad, Tyler County
shr37ehsm Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2018-0949 for the subject site to CNX Gas Company for access to the State Road for the well sites located off of Tyler County Route 58/2 SLS.

The operator has signed an OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018.

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Office of Oil and Gas

OCT 31 2019

WV Department of
Environmental Protection

Very Truly Yours,

Gary K. Clayton P.E.
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator

Cc: Shannon Miller
CNX Gas Company, LLC
CH, OM, D-6
File

Section V – Proposed Additives to be used in Fracturing or Stimulations

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

Type: Copolymer of Two Propenamide CAS: 69418-26-4

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

Type: Diethylene glycol mono n-butyl ether CAS: 112-34-5

Type: Oleic acid diethanolamide CAS: 93-83-4

Type: Alcohols, C12-16, ethoxylated CAS: 68551-12-2

Type: Quaternary ammonium compound CAS: 68424-85-1

Type: Ammonium chloride CAS: 12125-02-9

Type: Short chained glycol ether CAS: 112-34-5

Type: Ethoxylated (C10-16) alcohols CAS: 68002-97-1

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

Type: Thiourea CAS: 62-56-6

Type: Acetophenone CAS: 98-86-2

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Office of Oil and Gas

NOV 3 2019

Oil and Gas
Regulatory
and Protection



LOCATION MAP
USGS-WEST UNION, WV
Scale: 1"=200'

CNX RESOURCES CORPORATION

SHIRLEY 37 WELL PAD AS-BUILT

ENTRANCE LOCATION

NAD 83 - LAT: 39° 21' 15.32"; LONG: 80° 50' 48.62"

NAD 27 - LAT: 39° 21' 15.02"; LONG: 80° 50' 49.24"

CENTERVILLE DISTRICT,
TYLER COUNTY, WEST VIRGINIA

DATE: JULY 02, 2019



LOCATION MAP
Scale: 1"=200'

I hereby certify that I am a licensed engineer in the state of West Virginia. This As-Built certifies, to the best of my knowledge, information and belief, the Well Pad constructed by Anderson Excavating in Tyler County, WV on behalf of CNX Resources Corporation, has been constructed in general conformance to the plans and specifications and, in my professional opinion, is in compliance with applicable laws, codes, and ordinances.



**WVDEP OOG
ACCEPTED AS-BUILT**

WJ 10/31/2019



Know what's below.
Call before you dig.



SHEET INDEX	
DWG #	DRAWING NAME
1	COVER SHEET
2	PLAN VIEW
3	PLAN VIEW WITH ORTHO
4	ACCESS ROAD PROFILE

Note: Drawing was created on 22x34 paper. 11x17 drawings are half scale. Refer to scale bar for proper scaling.

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NO.	REV.	DATE	DESCRIPTION
1	001	10-20-18	ISSUED TO CLIENT
2	002	12-2-18	PROJECT COMPLETE
3	003	2019	AS-BUILT



SCALE: 1"=40'	DATE: 07/02/19
DRAWN BY: [blank]	CHECKED BY: [blank]
DESIGNED BY: [blank]	REVIEWED BY: [blank]
DATE: 07/02/19	DATE: 07/02/19
SUPPLY DATE:	DATE:
DRAWN BY:	CHECKED BY:
FIELD CHECK:	DATE:



1725 MADISON DRIVE HICKORY HURTMAN, WV 26042
www.thrasherinc.com
PHONE: 206-662-6440 FAX: 206-662-7171

PROJECT NO.	050-10290
CONTRACT NO.	
PROJECT NAME	

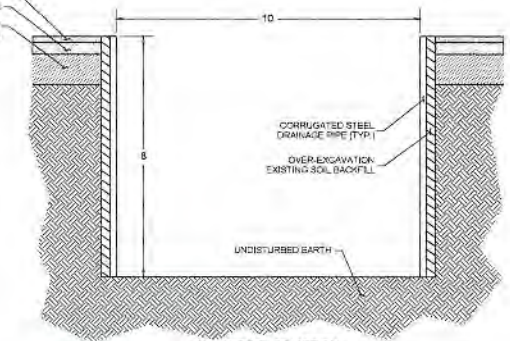
CNX RESOURCES CORPORATION
SHIRLEY 37 SITE
PAD AS-BUILT
TYLER COUNTY, WEST VIRGINIA
COVER SHEET

SHEET No.
1

CHART OF PROPOSED WELL SPOTS AND SITE LOCATION

POINT	API #	MODUS WY NORTH	UTM-NAD83-17 (METERS)
		LATITUDE LONGITUDE	NORTH EAST
SHR37 D	TED	39°21'4.52" 84°10'43.52"	4355945.255 515249.974
SHR37 E	TED	39°21'4.52" 84°10'43.52"	4355945.255 515249.974
SHR37 F	TED	39°21'4.52" 84°10'43.52"	4355945.255 515249.974
SHR37 G	TED	39°21'4.52" 84°10'43.52"	4355945.255 515249.974
SHR37 H	TED	39°21'4.52" 84°10'43.52"	4355945.255 515249.974
SHR37 I	TED	39°21'4.52" 84°10'43.52"	4355945.255 515249.974
ENTRANCE		39°21'5.52" 84°10'43.52"	4356010.976 515195.945

7" OF 24 MODIFIED STONE
4" OF ASH-10 #4 STONE
12" MIN OF SOIL/CEMENT STABILIZATION

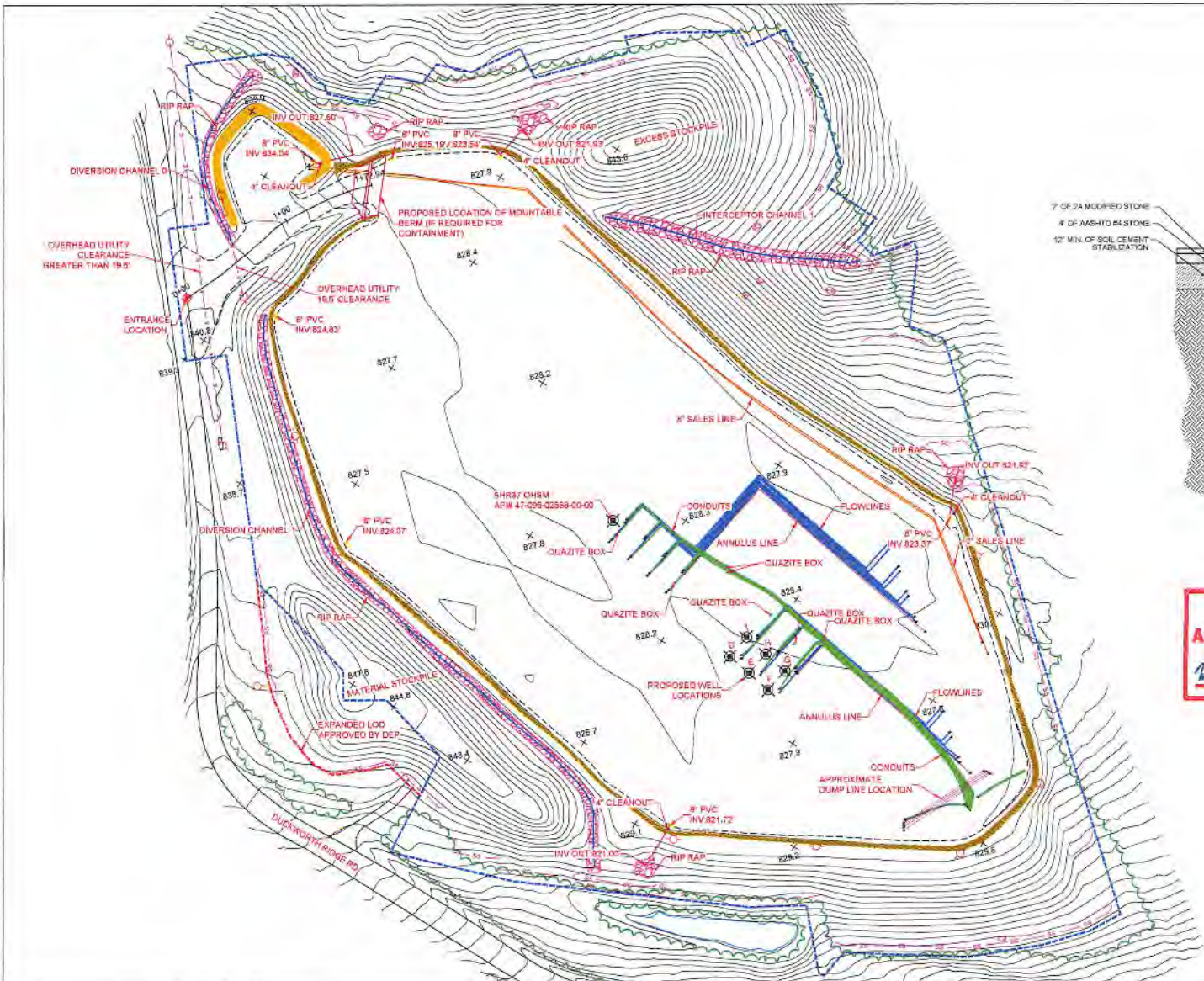


**WVDEP OOG
ACCEPTED AS-BUILT**
10/31/2019

- LEGEND**
- - - - - EDGE OF TRAVEL
 - - - - - BERM
 - - - - - BERM LOD
 - - - - - TRELLINE
 - - - - - SIX 1/2" SOD
 - - - - - COMPOSITE FILTER SOCK
 - - POST
 - - UTILITY POLE
 - - - - - RIP RAP
 - - - - - BERM
 - - - - - FLOWLINES
 - - - - - ANNULUS LINE
 - - - - - CONDUIT LINES
 - - - - - SALES LINES
 - - - - - DUMP LINES
 - - - - - QUARTZITE BOX
 - - - - - OVERHEAD UTILITY



NOTE: DRAWING WAS CREATED ON 22x34 PAPER. IF 11" DRAWINGS ARE HALF SCALE, REFER TO SCALE BAR FOR PROPER SCALING.



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NO.	REV.	DATE	DESCRIPTION
1	1	12-09-18	UPDATES AS-BUILT
1	2	12-02-19	UPDATES AS-BUILT
NO.	BY	DATE	DESCRIPTION



SCALE:	DATE:
SHOWN:	DATE: 12/09/18
CHECKED:	DATE: 12/09/18
REVIEWED:	DATE: 12/09/18
SURVEY DATE:	DATE: 12/09/18
SURVEY BY:	
TITLE NUMBER:	



PROJECT:	050-10290
CONTRACT NO.:	
PRODUCT NO.:	

CNX RESOURCES CORPORATION
SHIRLEY 37 SITE
PAD AS-BUILT
TYLER COUNTY, WEST VIRGINIA
PLAN VIEW

SHEET NO. **2**