



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 IHSM
47-095-02664-00-00

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 IHSM
Farm Name: CNX GAS COMPANY
U.S. WELL NUMBER: 47-095-02664-00-00
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: SHR37IHSM 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

6) Existing Pad: Yes or No Yes

JEB
9/30/2019

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: 22,000'

11) Proposed Horizontal Leg Length: 14,775'

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

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

OCT - 4 2019

X
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Environmental Protection

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

18) CASING AND TUBING PROGRAM

<u>TYPE</u>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
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	22,000	22,000	4559 / TOC @ 2100'
Tubing	2.375	New	J-55	4.7		TBD	N/A
Liners	N/A						

QEB
9/30/2019

<u>TYPE</u>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
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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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 SOBM. 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

JLB
8/9/30/2019

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.

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25) Proposed borehole conditioning procedures:

Air sections are typically vertical holes - will ensure the hole is clean at section TD prior to TOC 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.

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-371-HSM (Marcellus HZ)
Marcellus Shale Horizontal
Tyler County, WV

			SHR-371-HSM SHL				N 313605.21, E 1619480.01 (NAD27)					
Ground Elevation		828 GL Elevation			SHR-371-HSM LP				N 314429.2, E 1621361.84 (NAD27)			
Azimuth		341°			SHR-371-HSM BHL				N 328399.6, E 1616551.45 (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
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		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.)	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)	Note: Actual centralizer placement may be changed due to hole conditions
			Benson		4733					
			Alexander		4978					
	Cashaqua			5978						
	Middlesex			6083						
	West River			6123						
	Burkett			6193						
	Tully			6223						
	Hamilton			6243						
	Marcellus			6261						
Production Casing	22000	6302	12.0-12.8 ppg SOBMM	TOC @ >= 500' above 9-5/8" shoe	Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement	Note: Actual cement blends may vary slightly depending upon service company utilized				

LP @ +/- 6302' TVD 8-3/4" x 8-1/2" Hole - Cemented Long String +/- 14776' Lateral TD @ +/- 6302' TVD
 5-1/2" 20.0# VA-EP-P110-NY VAR (115-125 MYS, 95% RBW, API Modified BTC)

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JCB
 10/30/2019

4709502664

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
(304) 926-0452 fax
Wade.A.Stansberry@wv.gov

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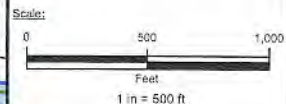
DEC 12 2019

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Environmental Protection

DEC 12 2019

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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



Map References:
 • 7.5 minute quadrangle: West Union, WV
 • Service Layer Credits: Esri, HERE, DeLorme, MapboxIndia, © 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

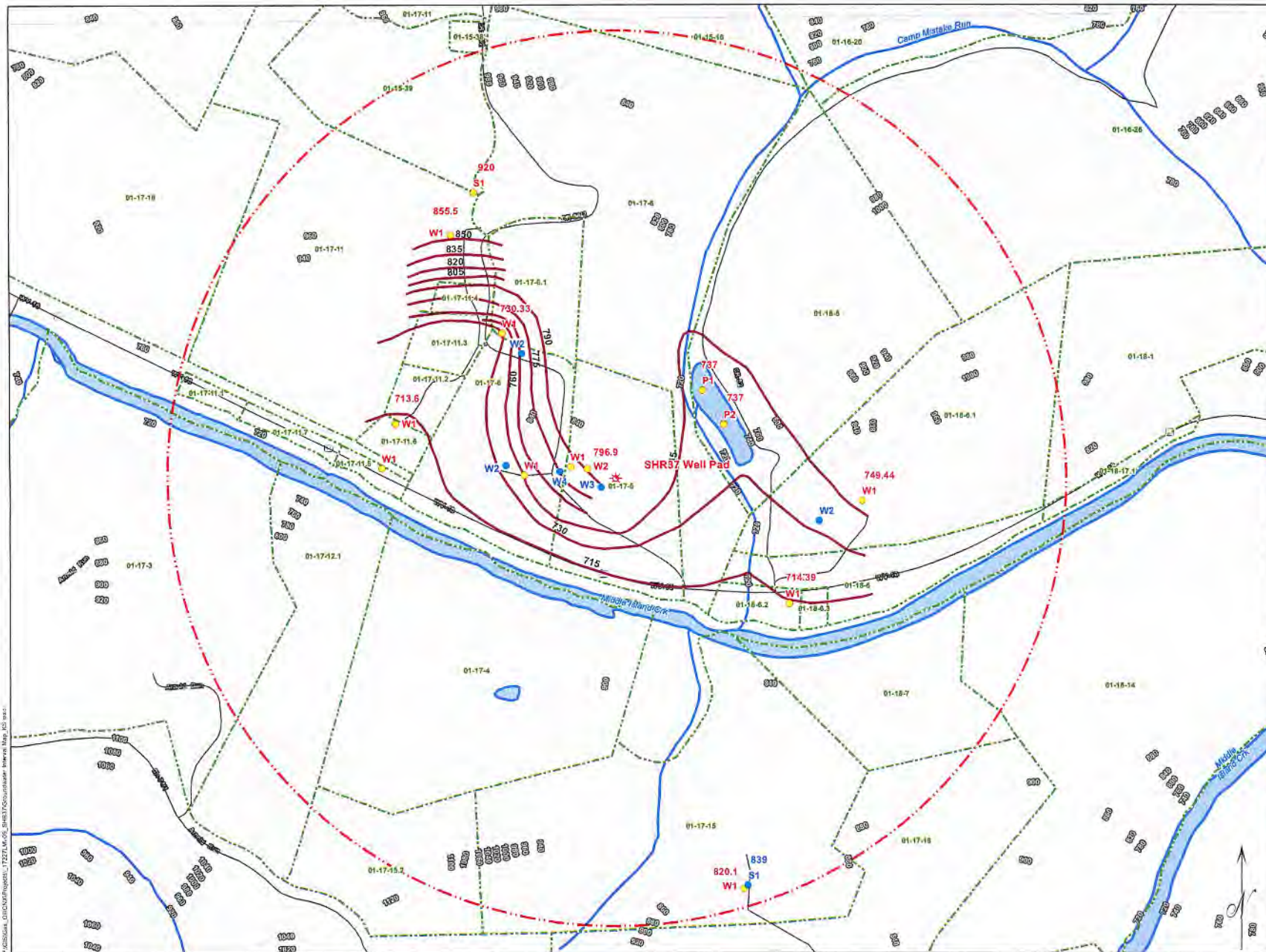
Prepared for:



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: 12/28/20
 Checked by: CS Revision:



P:\GIS\GIS_Data\Projects\17-227-09_SHR37\Groundwater_Interval_Map_2500.ft

National Flood Hazard Layer FIRMette



39°21'27.98"N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		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 <i>Zone I</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes, <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone C</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		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.



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



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.

Figure 1. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the SHR1C Stress Profile log.

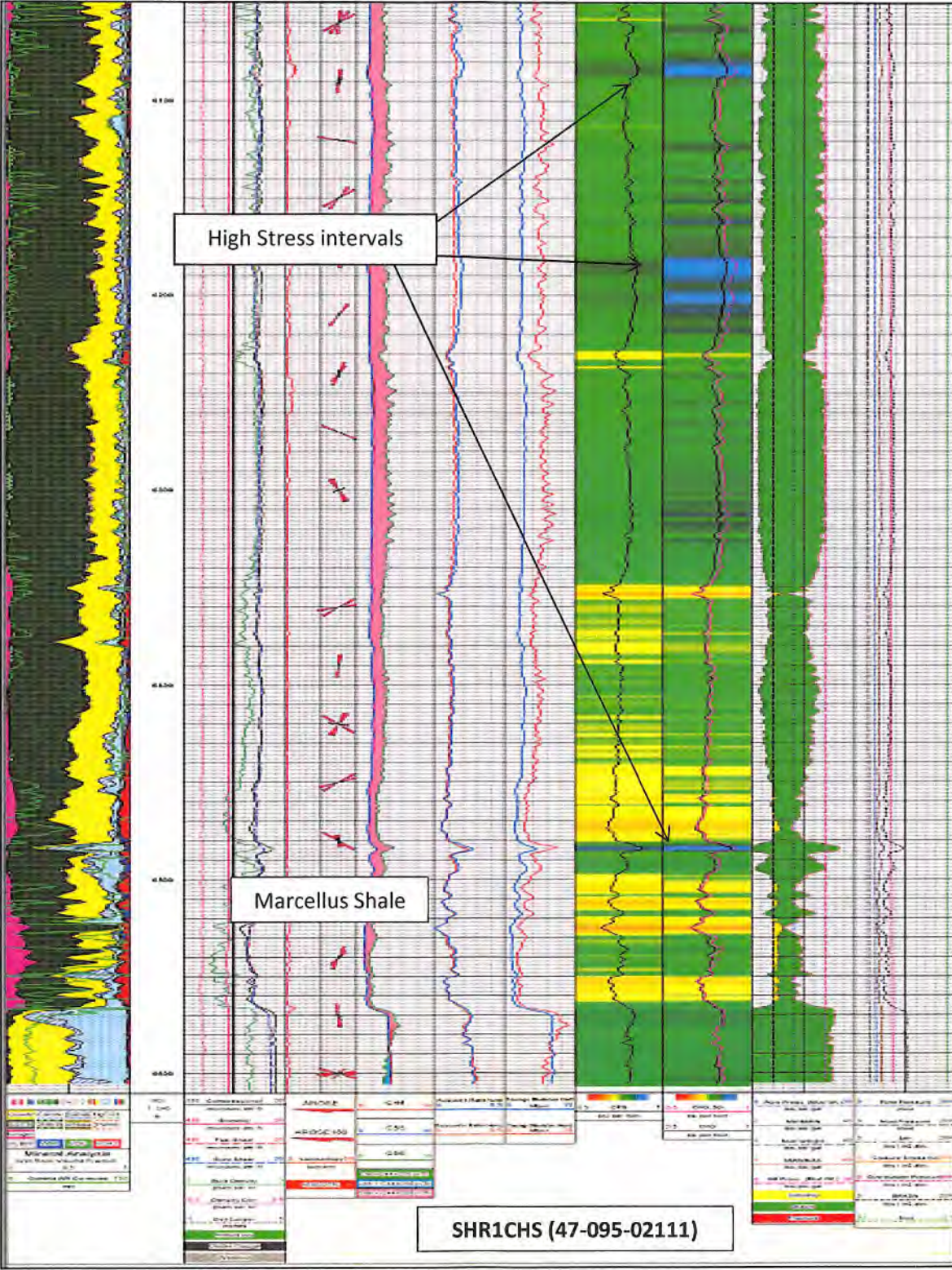


Figure 2. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Marcellus and adjacent shallower shales are lithologically similar to Pennsboro. Frac modeling only 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.

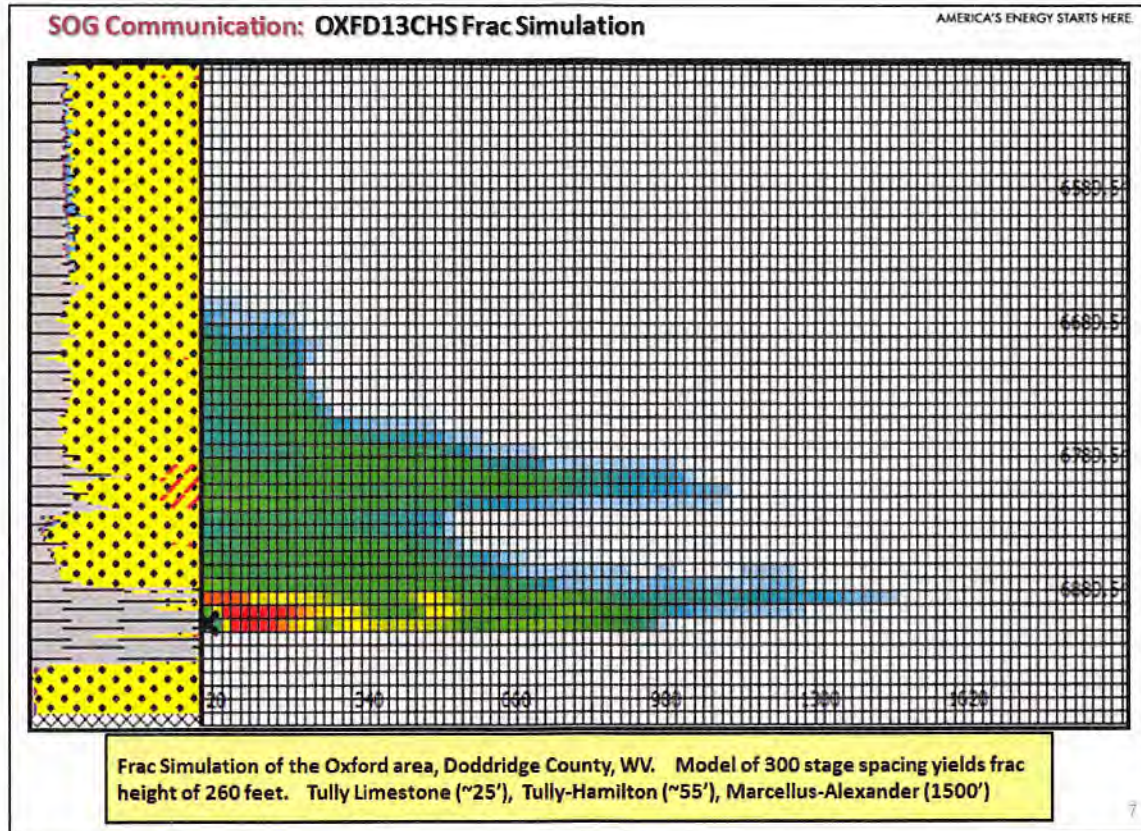
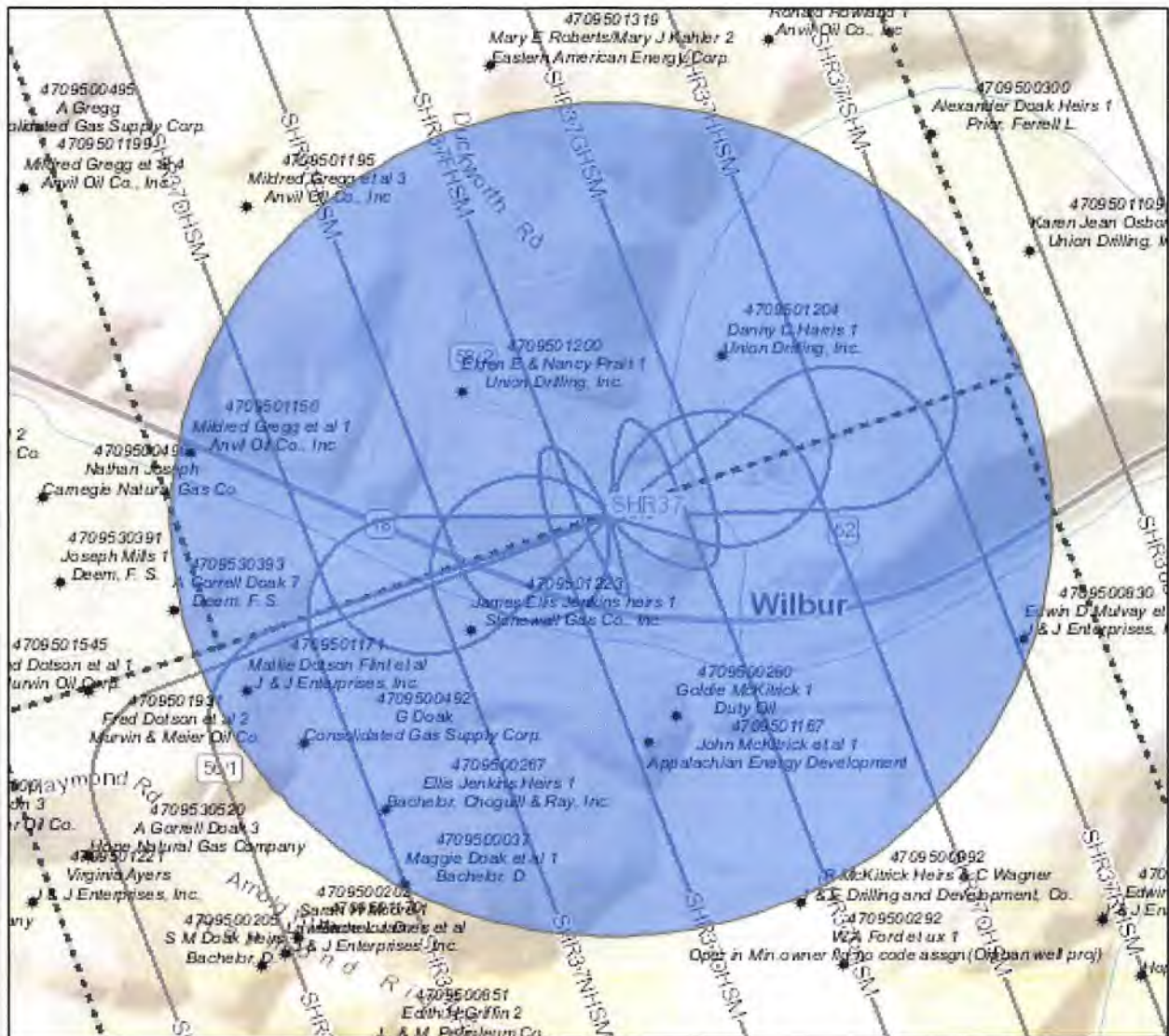


Figure 3. All wells within a 2640' buffer around the SHR37 pad center have been reviewed and listed below.

API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL_NAME	WELL_NO	PLUG_DATE	TD	FMTD	ELEVATION	FIELD_NAME	COMMENTS
4709500492	WV	Tyler	39.34947696	-80.85201064	Consolidated Gas Supply Corp.	Gas	G Doak			1916	Squaw	862	Unnamed	Ground Level
4709500992	WV	Tyler	39.34683572	-80.84205087	J & E Drilling and Development, Co.	Gas	R McKittrick Heirs & C Wagner			5034	Benson	960	Wilbur	Ground Level
4709501200	WV	Tyler	39.35527799	-80.84883673	Union Drilling, Inc.	Gas	Elden E & Nancy Pratt	1		4927	Benson	833	Wilbur	Ground Level
4709500280	WV	Tyler	39.34991182	-80.84453982	Duty Oil	Dry	Goldie McKittrick	1	5/22/1959	945	1st Cow Rn/Moundsvie	818	Wilbur	Ground Level
4709501167	WV	Tyler	39.34947683	-80.8450998	Appalachian Energy Development	Gas	John McKittrick et al	1		4866	Benson	818	Wilbur	Ground Level
4709530393	WV	Tyler	39.35169904	-80.85462559	Deem, F. S.	Gas	A Gorrell Doak	7		2110	Big injun (undiff)	1082	Stanley	Ground Level
4709500037	WV	Tyler	39.34715688	-80.84995569	Bachelor, D.	Dry	Maggie Doak et al	1	10/4/1935	1193	1st Cow Rn/Moundsvie	1109	Wilbur	Field Topo Map
4709501204	WV	Tyler	39.3558579	-80.84960685	Union Drilling, Inc.	Gas	Danny C Harris	1		4919	Benson	778	Wilbur	Ground Level
4709500267	WV	Tyler	39.34888191	-80.85055268	Bechelor, Chogull & Ray, Inc.	Dry	Ellis Jenkins Heirs	1	4/11/1958	1103	1st Cow Rn/Moundsvie	1098	Wilbur	Ground Level
4709501223	WV	Tyler	39.35136192	-80.84864873	Stonewall Gas Co., Inc.	Gas	James Ellis Jenkins heirs	1		4954	Benson	850	Wilbur	Ground Level
4709501171	WV	Tyler	39.35034699	-80.85313162	J & J Enterprises, Inc.	Gas	Mattie Dotson Flint et al			5469	Alexander	948	Wilbur	Ground Level
4709500830	WV	Tyler	39.35118671	-80.83757998	J & J Enterprises, Inc.	Gas	Edwin D Mulvay et ux			5136	Alexander	800	Wilbur	Ground Level
4709501150	WV	Tyler	39.35426208	-80.85423361	Anvil Oil Co., Inc	Gas	Mildred Gregg et al	1		4795	Benson	719	Wilbur	Ground Level



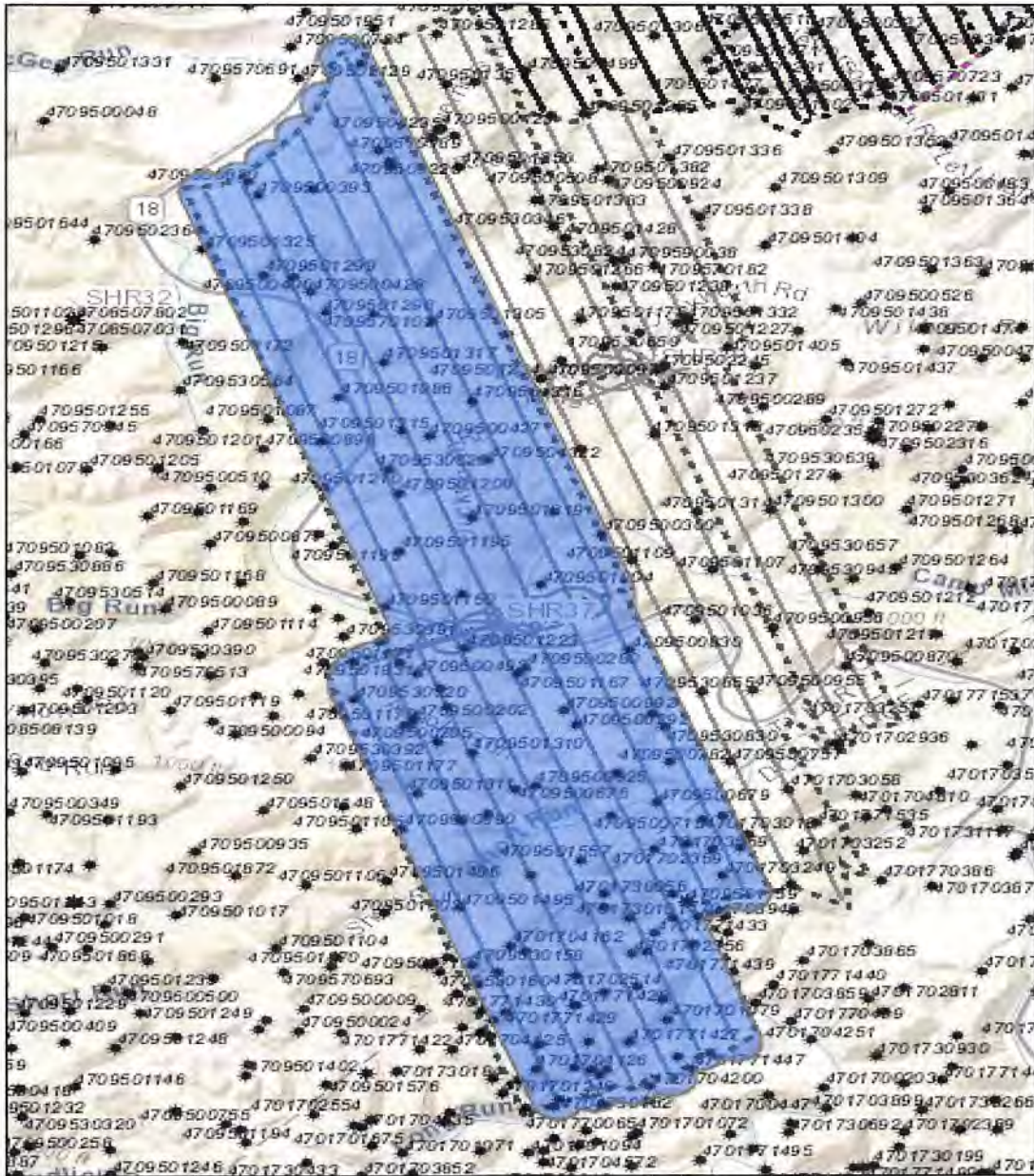
SHR37 Pad Frac SOG Review / CRSD Review Tuesday, March 12, 2019

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	39.33317	-80.8336774		Canceled Permit				0		804	
4709570102	WV	Tyler	39.3753024	-80.8548887	Carnegie Natural Gas Co.	Gas	Leura Conaway	1		0		755	Ground Level
4701703452	WV	Doddridge	39.33317	-80.8336774		Canceled Permit				0		804	
4701771433	WV	Doddridge	39.3308663	-80.833576	Hope Natural Gas Company	not available	Ellis Thomas			0		871	
4701704570	WV	Doddridge	39.3185292	-80.8393069	----- unknown -----	not available	McKendry Dotson 1			0		958	
4709530980	WV	Tyler	39.3585578	-80.8529416	Hope Natural Gas Company	not available	Robert Doak	1		0		1116	Spirit Level
4701771436	WV	Doddridge	39.3369733	-80.8299341	----- unknown -----	not available	McCutchan-Heines 1			0		930	
4709500044	WV	Tyler	39.3931738	-80.8557597	----- unknown -----	not available	B S Smith	1		0		816	Ground Level
4701704186	WV	Doddridge	39.3257924	-80.8413618	Ritchie Petroleum Corp.	not available	Brake Samuel 1			0		1081	
4701771447	WV	Doddridge	39.3211421	-80.833284	Hope Natural Gas Company	not available	Lawrence James			0		883	
4701701082	WV	Doddridge	39.3220222	-80.834267	Prior, Ferrell L DBA Prior Oil Company	not available	W H Pigott 1			0		930	
4701771448	WV	Doddridge	39.3207062	-80.8396799	----- unknown -----	not available	S Yeater			0		751	
4701703945	WV	Doddridge	39.33517	-80.8336774						0		804	
4701771485	WV	Doddridge	39.3372634	-80.83352	Hope Natural Gas Company	not available	Wagner			0		746	
4709500044	WV	Tyler	39.3281125	-80.8464057	Hope Construction & Refining	not available	E M Jackson	7		0		1115	Ground Level
4701771438	WV	Doddridge	39.3301403	-80.833284	----- unknown -----	not available	B Hendershot 1			0		762	
4701771429	WV	Doddridge	39.3252054	-80.8460267	----- unknown -----	not available	Cisco Dotson			0		989	
4701771427	WV	Doddridge	39.3230282	-80.8376269	Oper in Min. owner fld. no code assign (Orphan well proj)	not available	Mary Montgomery 1			0		790	
4709500292	WV	Tyler	39.3458127	-80.8412859	Oper in Min. owner fld. no code assign (Orphan well proj)	not available	W A Ford et ux	1		0		841	Spirit Level
4701771428	WV	Doddridge	39.3257864	-80.8411738	----- unknown -----	not available	Cisco Dotson 1			0		1040	
4701703402	WV	Doddridge	39.33317	-80.8336774						0		804	
4701730855	WV	Doddridge	39.3211415	-80.8400528	----- unknown -----	not available	S Yeater			0		786	
4709501493	WV	Tyler	39.33317	-80.8336774						0		804	
4701704399	WV	Doddridge	39.33317	-80.8336774						0		804	
4701771425	WV	Doddridge	39.3228834	-80.8437868	----- unknown -----	not available	Arlington Dotson 2			0		819	
4709501159	WV	Tyler	39.33317	-80.8336774						0		804	
4701703943	WV	Doddridge	39.33317	-80.8336774						0		804	
4701750182	WV	Doddridge	39.3189645	-80.8422938	Philadelphia Oil Co.	not available	F Dotson			0		840	
4701771434	WV	Doddridge	39.3327524	-80.8393059	Hope Natural Gas Company	not available	Wagner			0		984	
4709530158	WV	Tyler	39.3286925	-80.8482707	Hope Construction & Refining	not available	E M Jackson	3		0		1197	Spirit Level
4701771431	WV	Doddridge	39.3295605	-80.8445338	----- unknown -----	not available	Alfred Dotson 1			0		1087	
4701703944	WV	Doddridge	39.33317	-80.8336774						0		804	
4709505470	WV	Ritchie	39.33317	-80.8336774						0		804	
4709500280	WV	Tyler	39.3499118	-80.8445398	Duty Oil	Dry	Goldie McKittrick	1	9/22/1959	945	1st Cow Rn/Moundsvle	819	Ground Level
4709500715	WV	Tyler	39.3393255	-80.8387489	Industrial Gas Associates	Dry	W Paul McCutchan	5	abandoned	948	Lo Prprt Ss/Frprt Ss	780	Ground Level
4709500202	WV	Tyler	39.3462759	-80.8521136	Bechelor, D.	Dry	Sarah H Moore	1	6/14/1951	1096	1st Cow Rn/Moundsvle	1084	Ground Level
4709500205	WV	Tyler	39.3458049	-80.8528376	Bechelor, D.	Dry	S M Doak Heirs	1	11/29/1951	1100	Mehonig Ss/Big Dunk	1036	Ground Level
4709500267	WV	Tyler	39.3483819	-80.8503527	Bechelor, Chagull & Ray, inc.	Dry	Ellis Jenkins Heirs	1	4/9/1958	1103	1st Cow Rn/Moundsvle	1098	Ground Level
4709500097	WV	Tyler	39.3471569	-80.8499557	Bechelor, D.	Dry	Meggie Doak et al	1	11/4/1955	1193	1st Cow Rn/Moundsvle	1109	Field Topo Map
4701701070	WV	Doddridge	39.3210802	-80.8390849	Prior, Ferrell L DBA Prior Oil Company	Oil	D Garner 1			1792	Big Injun (undiff)	728	Ground Level
4701730056	WV	Doddridge	39.3336704	-80.83464	Hope Natural Gas Company	Gas	Austin Doak			1800	Big Injun (undiff)	759	Ground Level
4709500800	WV	Tyler	39.3595159	-80.839415	Prior, Ferrell L	Gas	Alexander Doak Heirs	1		1856	Big Injun (undiff)	785	Ground Level
4701700014	WV	Doddridge	39.3228924	-80.8437888	Foley Oil & Gas	Oil and Gas	Arthur Yeater	2		1845	Big Injun (undiff)	775	Ground Level
4709500288	WV	Tyler	39.3394627	-80.8472267	Oper in Min. owner fld. no code assign (Orphan well proj)	Gas	Dale Ash	1		1849	Big Injun (undiff)	837	Ground Level
4701701092	WV	Doddridge	39.3212513	-80.8412988	Hickman, Charles L	Dry w/ O&G show	Arlington Dotson Hrs 3		1964	1865	Big Injun (undiff)	780	Ground Level
4701730101	WV	Doddridge	39.3320283	-80.83464	Deem, F. S.	Oil and Gas	Henderson Walton	1		1880	Big Injun (undiff)	802	Ground Level
4701730445	WV	Doddridge	39.3189963	-80.8426678	Clifton Oil & Gas	Oil and Gas	McKendry Dotson	2		1882	Big Injun (undiff)	820	Ground Level
4709500393	WV	Tyler	39.3837067	-80.8628425	Mann Drilling	Oil	H B Smith & Ash	1		1900	Big Injun (undiff)	805	Ground Level

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4709570189	WV	Tyler	39.3869136	-80.8544647	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	862	Ground Level
4701700204	WV	Doddridge	39.3321733	-80.832933	P & M Oil Co.	Dry w/ O&G Show	Harley Telkington	1	1916	Big Injun (undiff)	883	Ground Level
4709530526	WV	Tyler	39.3641702	-80.8538826	Pittsburgh & WV Gas	Gas w/ Oil Show	Noah & Laura Duckworth	2	1923	Big Injun (undiff)	898	Ground Level
4701730160	WV	Doddridge	39.3324633	-80.8314391	Hope Natural Gas Company	Gas	E A Hendershot		1950	Big Injun (undiff)	870	Ground Level
4701731194	WV	Doddridge	39.3266563	-80.8393059	Hickman, Charles L.	Oil and Gas	Cisco Dotson	1	1973	Big Injun (undiff)	961	Ground Level
4701750277	WV	Doddridge	39.3272425	-80.8478967	Hope Construction & Refining	Oil w/ Gas Show	Austin Doak		1978	Squaw	938	Ground Level
4701701065	WV	Doddridge	39.3185952	-80.8593839	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	-80.8376279	Deem, F. S.	Oil and Gas	Okey Washburn		1987	Big Injun (undiff)	826	Barometer
4701730286	WV	Doddridge	39.3390824	-80.8525411	Clifton Oil & Gas	Gas w/ Oil Show	Lewis Maxwell Heirs	1	2010	Big Injun (undiff)	1053	Ground Level
4709500428	WV	Tyler	39.3767876	-80.8591176	Warren Drilling Co. (John R. Warren)	Gas w/ Oil Show	Dale Ash	1	2052	Weir	720	Ground Level
4709530520	WV	Tyler	39.347639	-80.8563055	Hope Natural Gas Company	Gas w/ Oil Show	A Gorrell Doak	3	2105	Big Injun (undiff)	1072	Ground Level
4709530893	WV	Tyler	39.351699	-80.8546256	Deem, F. S.	Gas	A Gorrell Doak	7	2110	Big Injun (undiff)	1082	Ground Level
4701702358	WV	Doddridge	39.3368394	-80.8518911	Industrial Gas Associates	Oil and Gas	LG Hammer 1		2300	Weir	818	Ground Level
4701702356	WV	Doddridge	39.3294574	-80.8375199	Industrial Gas Associates	Oil and Gas	N Shepherd 1		2303	Weir	920	Ground Level
4709500679	WV	Tyler	39.3402015	-80.835698	Industrial Gas Associates	Oil and Gas	Hattie Bradford	2	2313	Weir	780	Ground Level
4701702514	WV	Doddridge	39.3270163	-80.8370789	Industrial Gas Associates	Oil and Gas	Paul James 1		2380	Weir	1000	Ground Level
4709500851	WV	Tyler	39.3445459	-80.8505147	L & M Petroleum Co.	Gas	Edith H Griffin	2	2465	Berea 5s	1010	Ground Level
4709500676	WV	Tyler	39.3411227	-80.8452958	Industrial Gas Associates	Oil and Gas	Paul McCutchan	1	2466	Fifty-foot	950	Ground Level
4709530600	WV	Tyler	39.3422726	-80.8383759	Hope Natural Gas Company	Gas	W P Bradford		2495	Gentz	862	Ground Level
4709501931	WV	Tyler	39.3509471	-80.8563066	Murvin & Meier Oil Co.	Dry w/ Gas Show	Fred Dotson et al	2	2531	Berea 5s	989	Kelly Bushing
4701701079	WV	Doddridge	39.3246812	-80.834929	Prior, Ferrell L DBA Prior Oil Company	Dry	Elizabeth Thomas 1		2553	Big Injun (undiff)	771	Ground Level
4709500220	WV	Tyler	39.3861746	-80.8539307	Oper in Min. owner fid. no code assgn (Orphen well proj)	Dry w/ O&G Show	Okey R & Ore Nelson Moore	1	2605	Gordon	752	Ground Level
4709500400	WV	Tyler	39.3779476	-80.8604265	Quaker State Oil Refining Co.	Dry w/ O&G Show	Dale Ash Jr	1	2610	Weir	816	Ground Level
4709530850	WV	Tyler	39.3456086	-80.835201	Hope Natural Gas Company	Gas	William Smith		2922	Fifth	745	Ground Level
4709500815	WV	Tyler	39.3661544	-80.8585555	L & M Petroleum Co.	Gas w/ Oil Show	Frank Dillon	1	3400	Warren First	810	Ground Level
4709501150	WV	Tyler	39.3542621	-80.8542536	Anvil Oil Co., Inc	Gas	Mildred Gregg et al	1	4795	Benson	719	Ground Level
4709501298	WV	Tyler	39.3753365	-80.8581836	Coastal Corp, The	Gas	Randall & Doretta Ash	1	4858	Benson	729	Ground Level
4709501317	WV	Tyler	39.3718094	-80.8542587	Coastal Corp, The	Gas	Duane & Sandra Clark	8	4859	Benson	787	Ground Level
4709501167	WV	Tyler	39.3494768	-80.8450998	Appalachian Energy Development	Gas	John McKitrick et al	1	4866	Benson	818	Ground Level
4709501210	WV	Tyler	39.3628183	-80.8583655	Anvil Oil Co., Inc	Gas	David Gregg et al	6	4892	Benson	746	Ground Level
4709501204	WV	Tyler	39.3558579	-80.8436069	Union Drilling, Inc.	Gas	Danny C Harris	1	4919	Benson	778	Ground Level
4709501304	WV	Tyler	39.3738402	-80.8458519	Coastal Corp, The	Gas	Duane Clark et al	1	4923	Benson	758	Ground Level
4709501299	WV	Tyler	39.3780926	-80.8624815	Coastal Corp, The	Gas w/ Oil Show	Ralph Ash et ux	2	4927	Benson	727	Ground Level
4709501200	WV	Tyler	39.355278	-80.8488567	Union Drilling, Inc.	Gas	Elden E & Nancy Pratt	1	4927	Benson	833	Ground Level
4701703559	WV	Doddridge	39.3368604	-80.835761	Stonewall Gas Co., Inc.	Gas	Char Stinespring		4951	Benson	832	Ground Level
4709501223	WV	Tyler	39.3513619	-80.8486487	Stonewall Gas Co., Inc.	Gas	James Ellis Jenkins heirs	1	4954	Benson	850	Ground Level
4709501316	WV	Tyler	39.3690542	-80.8482788	Eastern American Energy Corp.	Gas	Mary E Roberts/Mary J Kohler	3	4954	Benson	839	Ground Level
4709501335	WV	Tyler	39.3857786	-80.8537017	DAC, Inc.	Gas	Marc A Massullo et ux	1	4955	Benson	877	Ground Level
4709501224	WV	Tyler	39.361078	-80.8426739	Anvil Oil Co., Inc	Gas	Ronald Rowland	1	5010	Benson	863	Ground Level





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4709501315	WV	Tyler	39.3668793	-80.8529497	Eastern American Energy Corp.	Gas	Mary E Roberts/Mary J Kehler	2		5014	Benson	917	Ground Level
4709500992	WV	Tyler	39.3468357	-80.8420509	J & E Drilling and Development, Co.	Gas	R Mckittrick Heirs & C Wagner			5014	Benson	960	Ground Level
4709501305	WV	Tyler	39.3747104	-80.8508957	Coastal Corp, The	Gas w/ Oil Show	Mildred Gregg	7		5016	Benson	850	Ground Level
4709501207	WV	Tyler	39.3349756	-80.8441638	Stonewall Gas Co., Inc.	Gas	Charter D Stinespring	3		5056	Benson	1007	Ground Level
4709501208	WV	Tyler	39.3623832	-80.8531547	Anvil Oil Co., Inc	Gas	David C Gregg et al	5		5068	Benson	891	Ground Level
4701702787	WV	Doddridge	39.3231243	-80.8403488	J & J Enterprises, Inc.	Gas	L Shepherd			5070	Alexander	900	Ground Level
4709500782	WV	Tyler	39.3430745	-80.834818	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 Kehler	1		5127	Benson	910	Ground Level
4709501311	WV	Tyler	39.3409208	-80.8520086	Eastern American Energy Corp.	Gas	Lawrence & Thelma James	4		5130	Alexander	800	Ground Level
4709501328	WV	Tyler	39.3841827	-80.8589336	Coastal Corp, The	Gas w/ Oil Show	George W & Carolyn Moore	1		5135	Benson	965	Ground Level
4709500850	WV	Tyler	39.3511867	-80.83758	J & J Enterprises, Inc.	Gas	Edwin D Mulvay et ux			5136	Alexander	800	Ground Level
4709501319	WV	Tyler	39.3606431	-80.8482778	Eastern American Energy Corp.	Gas	Mary E Roberts/Mary J Kehler	2		5141	Benson	993	Ground Level
4701709829	WV	Doddridge	39.3336705	-80.8393089	Stonewall Gas Co., Inc.	Gas	Charter Stinespring 3			5150	Benson	1042	Ground Level
4709501669	WV	Tyler	39.3390357	-80.8490197	DAC, Inc.	Gas	Leonard & Renie Smith	1		5175	Benson	1051	Ground Level
4709501495	WV	Tyler	39.3527556	-80.8490187	Nugent & Sons, Inc.	Gas	Marice J Carlisle/Ralph Thacker	2		5180	Alexander	807	Ground Level
4701704224	WV	Doddridge	39.3246325	-80.8467757	Key Oil Co.	Gas	Samuie J Brake 2			5216	Alexander	802	Ground Level
4701702964	WV	Doddridge	39.3261573	-80.835354	J & J Enterprises, Inc.	Gas	Lonnie James			5267	Alexander	985	Ground Level
4701703018	WV	Doddridge	39.3393254	-80.8312561	J & J Enterprises, Inc.	Gas	W P McCutchen			5305	Alexander	920	Ground Level
4709501557	WV	Tyler	39.3361355	-80.8408029	Key Oil Co.	Gas w/ Oil Show	Robert E Burgess Sr	1		5321	Alexander	1020	Ground Level
4701703989	WV	Doddridge	39.3223121	-80.831994	J & J Enterprises, Inc.	Gas	L J James			5321	Alexander	866	Ground Level
4701704161	WV	Doddridge	39.3295633	-80.836321	Key Oil Co.	Gas	Lonnie James 1			5336	Alexander	962	Ground Level
4709500820	WV	Tyler	39.3846178	-80.8634185	Tried Hunter, LLC	Gas	Kenneth Sinclair			5337	Alexander	790	Ground Level
4701704200	WV	Doddridge	39.3198462	-80.8361339	Murvin Oil Corp.	Gas	Carl G James 1			5350	Alexander	1045	Ground Level
4701703249	WV	Doddridge	39.3349753	-80.8312541	J & J Enterprises, Inc.	Gas	W P Bush et ux			5363	Benson	963	Ground Level
4701704126	WV	Doddridge	39.3211513	-80.8439748	Key Oil Co.	Gas	Carroll Shepherd 2			5375	Alexander	1030	Ground Level
4709500925	WV	Tyler	39.3414527	-80.8439708	J & J Enterprises, Inc.	Gas	W Paul McCutchen			5428	Alexander	1025	Ground Level
4701704123	WV	Doddridge	39.3278224	-80.8411748	Key Oil Co.	Gas	Samuel J Brake 1			5436	Alexander	1078	Ground Level
4709501171	WV	Tyler	39.350347	-80.8531516	J & J Enterprises, Inc.	Gas	Mettie Dotson Flint et al			5469	Alexander	948	Ground Level
4709501310	WV	Tyler	39.3438208	-80.8482737	Eastern American Energy Corp.	Gas	Lawrence L & Thelma E James	3		5490	Alexander	1065	Ground Level
4709500831	WV	Tyler	39.3465506	-80.836001	J & J Enterprises, Inc.	Gas	Edwin D Mulvay			5512	Alexander	840	Ground Level
4709501170	WV	Tyler	39.3459969	-80.8523826	J & J Enterprises, Inc.	Gas	Lawrence L James et al			5530	Alexander	1052	Ground Level
4701704162	WV	Doddridge	39.3299975	-80.8456567	Key Oil Co.	Gas	Lonnie James 2			5532	Alexander	1170	Ground Level
4709501195	WV	Tyler	39.3585231	-80.8531336	Anvil Oil Co., Inc	Gas	Mildred Gregg et al	3		5578	Brillier	923	Ground Level
4709501086	WV	Tyler	39.3693444	-80.8572466	Kecco, Inc.	Gas	Thelma Ferguson et al			5656	Rhinestreet Sh	729	Ground Level
4709500427	WV	Tyler	39.3664922	-80.8511807	Quaker State Oil Refining Co.	Dry w/ O&G Show	C D Cottrell	1	9/17/1955	6816		957	Ground Level

API Number 47 - _____
Operator's Well No. SHR37IHSM

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

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)

*OCB
9/30/2019*

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. Per DEP approval, land application of soil conductor cuttings only. All other cuttings will be sent 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 *Erika Whetstone*

Company Official (Typed Name) Erika Whetstone

Company Official Title Manager - Permitting

RECEIVED
Office of Oil and Gas

OCT - 4 2019

WV Department of
Environmental Protection

Subscribed and sworn before me this 1st 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: *[Signature]*

Comments: _____

Title: Oil & Gas Inspector

Date: 9/30/2019

Field Reviewed? () Yes () No

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Office of Oil and Gas
OCT - 4 2019
WV Department of
Environmental Protection



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
- SHR37FHSM
- SHR37GHSM
- SHR37HHSM
- SHR37IHSM - 47-095-02664
- SHR37KHSM
- SHR37LHSM
- SHR37MHSM
- SHR37NHSM
- SHR37OHSM (API 47-095-02588)
- SHR37PHSM
- SHR37QHSM
- SHR37RHSM

Sincerely,

A handwritten signature in blue ink that reads 'Erika Whetstone'.

Erika Whetstone

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Disclaimer: Vendors have been approved for the below category by ENV. UPDATED AGREEMENT with MSCM MUST BE CONFIRMED.

HSE APPROVED NON-HAZARDOUS WASTE DISPOSAL FACILITIES (version 05-23-2016)

Republic Services (Allied Waste) Industrial Landfills		Gas Specific Waste Streams			Other Accepted Waste Streams							Contact Information	
Landfill	Location	Drill + Cuttings	Waste Liquors	Waste Brine	Contaminated Soil (Including Petroleum)	Construction & Demolition Waste	Industrial Waste	Sludge	Frangible Asbestos	Non-Frangible Asbestos	Process Waste		Solidification Services
McLean County	Bloomington	IL	X	X	X	X	X	X	X	X	X		X
ERC/Colos County	Charleston	IL	X	X	X	X	X	X	X	X	X		X
Brievard Disposal	Danville	IL	X	X	X	X	X	X	X	X	X		X
Southern Illinois Regional	De Soto	IL			X	X	X	X	X	X	X		X
Lee County	Dixon	IL	X	X	X	X	X						X
Upper Rock Island	East Moline	IL	X	X	X	X	X	X	X	X	X		X
Bond County	Greenville	IL	X	X	X	X	X	X	X	X	X		X
Illinois	Hoopeston	IL	X	X	X	X	X	X	X	X	X		X
LandComm	LaSalle	IL	X	X	X	X	X	X	X	X	X		X
Litchfield-Hillsboro	Litchfield	IL	X	X	X	X	X	X	X	X	X		X
Envirotech	Morris	IL	X	X	X	X	X	X	X	X	X		X
Livingston	Pontiac	IL	X	X	X	X	X	X	X	X	X		X
Roxana	Roxana	IL	X	X	X	X	X	X		X	X		X
Stammon Valley	Springfield	IL	X	X	X	X	X	X	X	X	X	X	X
Benton Valley	Frankfort	KY	X	X	X	X	X	X	X	X	X		X
Blue Ridge	Jirvine	KY	X	X	X	X	X	X	X	X	X		X
Morehead	Morehead	KY	X	X	X	X	X	X	X	X	X		X
Green Valley	Rush	KY	X	X	X	X	X	X	X	X	X	X	X
Cherokee Run	Bellefontaine	OH			X	X	X	X		X	X	X	X
Williams County	Bryan	OH			X	X	X	X	X	X	X		X
County Environmental	Carey	OH			X	X	X			X	X		X
Celina	Celina	OH			X	X	X			X	X		X
Carbon-Limestone**	Lowellville	OH	X	X	X	X	X	X			X	X	X
Countywide Landfill**	East Sparta	OH	X	X	X	X	X				X	X	X
Lorain County	Oberlin	OH			X	X	X	X			X		X
Oakland Marsh	Shiloh	OH			X	X	X	X	X	X			X
Imperial	Imperial	PA			X	X	X	X	X	X			X
Conestoga	Morgantown	PA			X	X	X	X	X	X	X		X
Brunswick	Lawrenceville	VA			X	X	X	X	X	X	X		X
King and Queen	Little Plymouth	VA			X	X	X	X	X	X	X		X
Old Dominion	Richmond	VA			X	X	X	X	X	X	X		X
Sycamore	Hurricane	WV			X	X	X	X		X	X		X
Short Creek	Wheeling (Short Creek)	WV	X	X	X	X	X	X			X		X
Carters Valley	Church Hill	TN											X

317-921-1667 or 480-627-2700
1-800-634-0215

Jack Palermo:
work: 330-536-8013
cell: 330-806-9660

Barbara Hussany:
work: 330-536-8013 x 120
cell: 330-423-7267

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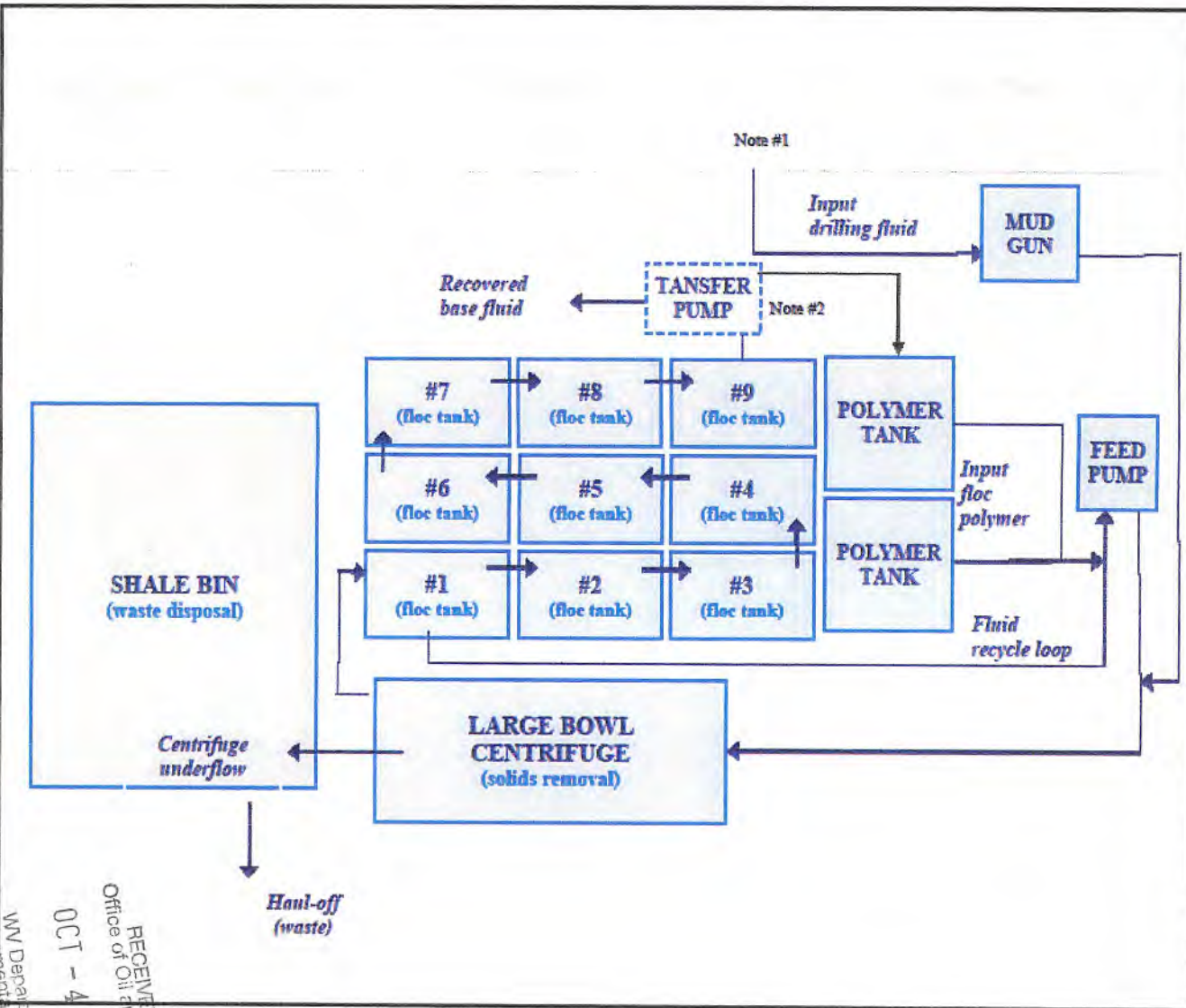
4709502664

Waste Management 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	
Arden Landfill	Washington	PA	X	X	X	X	X	X						
South Hills (Armoni)	South Park	PA	X	X	X	X	X	X			X	X	X	
Kelly Run	Elizabethtown	PA	X	X	X	X	X	X			X	X	X	
Valley Landfill	Irwin	PA	X	X	X	X	X	X			X	X	X	
Evergreen Landfill	Blairsville	PA	X	X	X	X	X	X	X	X	X	X	X	
Charleston Landfill (Kanawha County)	Charleston	WV	X	X	X	X	X	X					X	
Meadowfill Landfill	Bridgeton	WV	X	X	X	X	X	X	X	X	X	X	X	
Northwestern Landfill	Parkersburg	WV	X	X	X	X	X	X			X	X	X	
S&S Grading Landfill	Clarksburg	WV	X	X	X	X	X	X			X	X	X	
American Landfill	Waynesburg	OH	X	X	X	X	X	X	X	X	X	X	X	
Suburban RDF	Glenford	OH	X	X	X	X	X	X	X	X	X	X	X	
Conchocton Landfill***	Conchocton	OH	X	X	X	X	X	X			X	X	X	
Maryanne Landfill	New Springfield	OH	X	X	X	X	X	X			X	X	X	
Scott Allen: 412-604-2256														
Patty Landolt: 262-532-8001 John Miller: 1-800-963-4776														
Additional 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	
Westmoreland Waste (W/LC Group)	111 Conner Lane, Belle Vernon, PA 15012	PA	X	X	X	X	X	X	X	X			X	
MAX Environmental (Bulger Facility)	200 Max Drive, Bulger, PA 15019	PA	X	X	X	X	X	X				X	X	
MAX Environmental (Yukon Facility)	233 MAX Lane, Yukon, PA 15698	PA	X	X	X	X	X	X				X	X	
Apex Sanitary Landfill (Apex Environmental)	11 County Road 78, Amsterdam, Ohio 43903	OH	X	X	X	X	X	X				X	X	
Rumpke, Mt. Sterling (Rumpke Consolidated)	30 Larison Rd, Jeffersonville, KY 40337	KY	X	X	X	X	X		X	X			X	
Laurel Ridge Landfill (Waste Connections of KY)	3612 B State Highway 552, Iily, KY 40740	KY	X	X	X	X	X		X	X	X		X	
Advanced Disposal	Chestnut Valley 1184 McClellandtown Rd, McClellandtown, PA 15458	PA	X	X	X	X	X	X					X	
	Greenree Landfill; 635 Toby Rd.; Kersey, PA	PA	X	X	X	X	X	X					X	
	Mostoller Landfill; 7035 Glades Pike Rd.; Somerset, PA	PA	X	X	X	X	X	X					X	
Tony Labenne 6184 Route 219, Brockway, PA 15824 814-390-9906														

** 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.
 New PADEP rules regarding "TENORM" testing requirement are pending.
 Notes: * Drill Cuttings include frac sand for the purpose of this table (Contact facility directly to verify waste streams accepted).

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FLOW CHART MUD AND SLURRY DEWATERING RECOMMENDED RIG UP



- Notes/ Comments:
- 1) Ensure all rig tank suction fittings are 6" for ideal flow. DO NOT use anything less than 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



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Site Safety Plan for Well SHR37IHSM

CNX Gas Company, LLC.

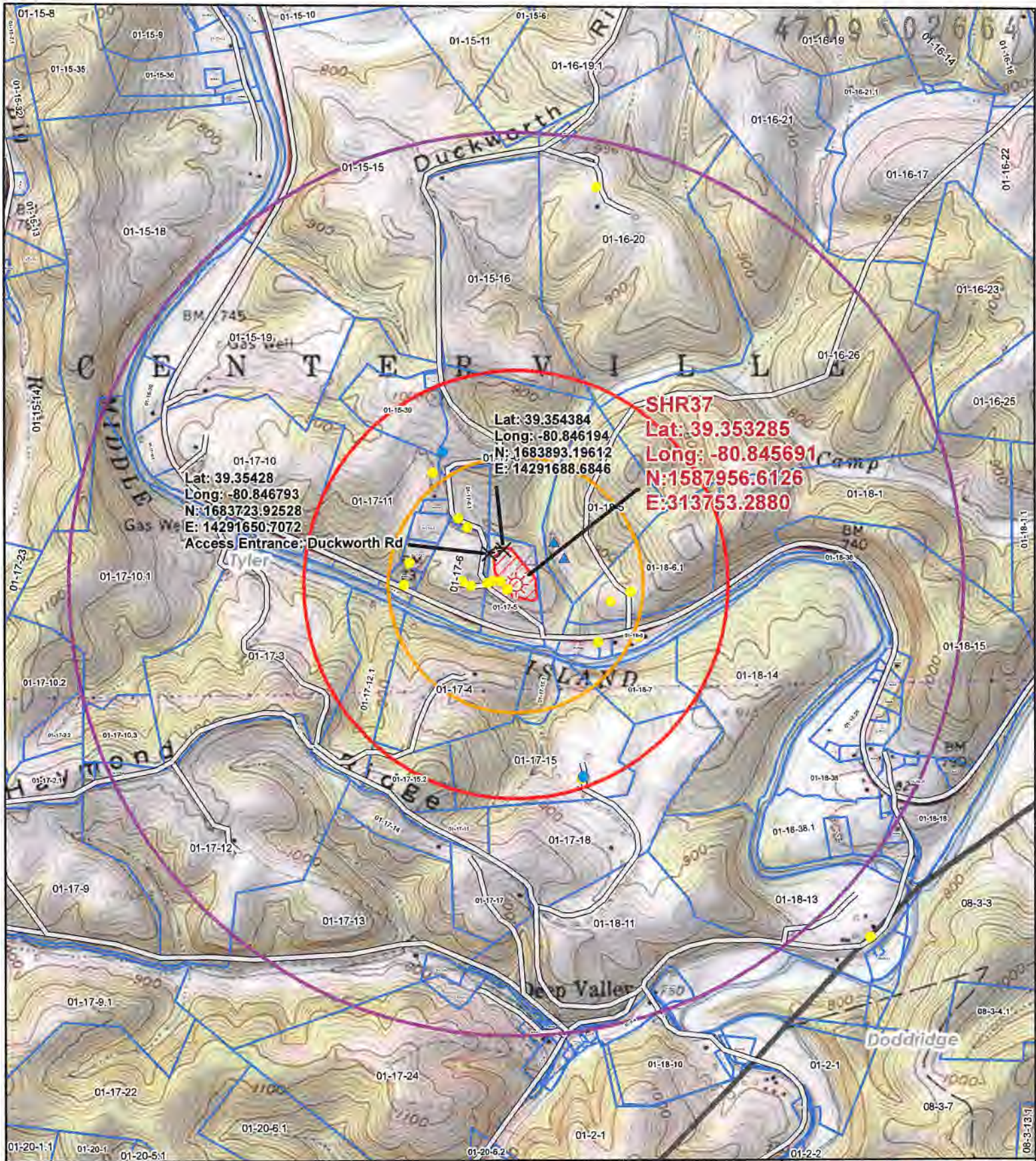


Office of Oil and Gas

OCT - 4 2019

JCB 9/30/19

WV Department of
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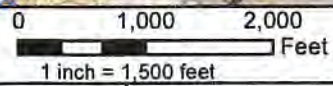
01-17-10
 Lat: 39.35428
 Long: -80.846793
 N: 1683723.92528
 E: 14291650.7072
 Access Entrance: Duckworth Rd

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

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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JCB
9/30/2019

BHL is located on topo map 8,336 feet south of Latitude: 39°25'00"
 SHL is located on topo map 7,908 feet south of Latitude: 39°22'30"



SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

SEE PAGE 3 FOR SURFACE OWNERS AND LESSORS

BHL is located on topo map 6,591 feet west of Longitude: 80°50'00"
 SHL is located on topo map 3,443 feet west of Longitude: 80°50'00"

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
 N:4355993.93
 E:513310.94
 NAD83, WV NORTH
 N:313640.103
 E:1588038.866
 LAT/LON DATUM-NAD83
 LAT:39°21'11.838"
 LON:80°50'43.829"

APPROX. LANDING POINT
UTM 17-NAD83
 N:4356254.54
 E:513880.05
 NAD83, WV NORTH
 N:314464.140
 E:1589920.686
 LAT/LON DATUM-NAD83
 LAT:39°21'20.259"
 LON:80°50'20.031"

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
 N:4360486.16
 E:512343.53
 NAD83, WV NORTH
 N:328434.443
 E:1585110.320
 LAT/LON DATUM-NAD83
 LAT:39°23'37.612"
 LON:80°51'23.953"



THRASHER

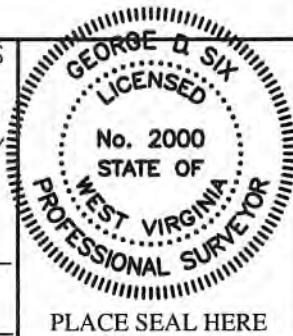
CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 800 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-4108 • FAX (304) 624-7831

FILE #: SHR 37 IHSM
 DRAWING #: SHR 37 IHSM
 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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: SEPTEMBER 20, 2019
 OPERATOR'S WELL #: SHR 37 IHSM
 API WELL #: 47 95 02664
 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: 1058.068±

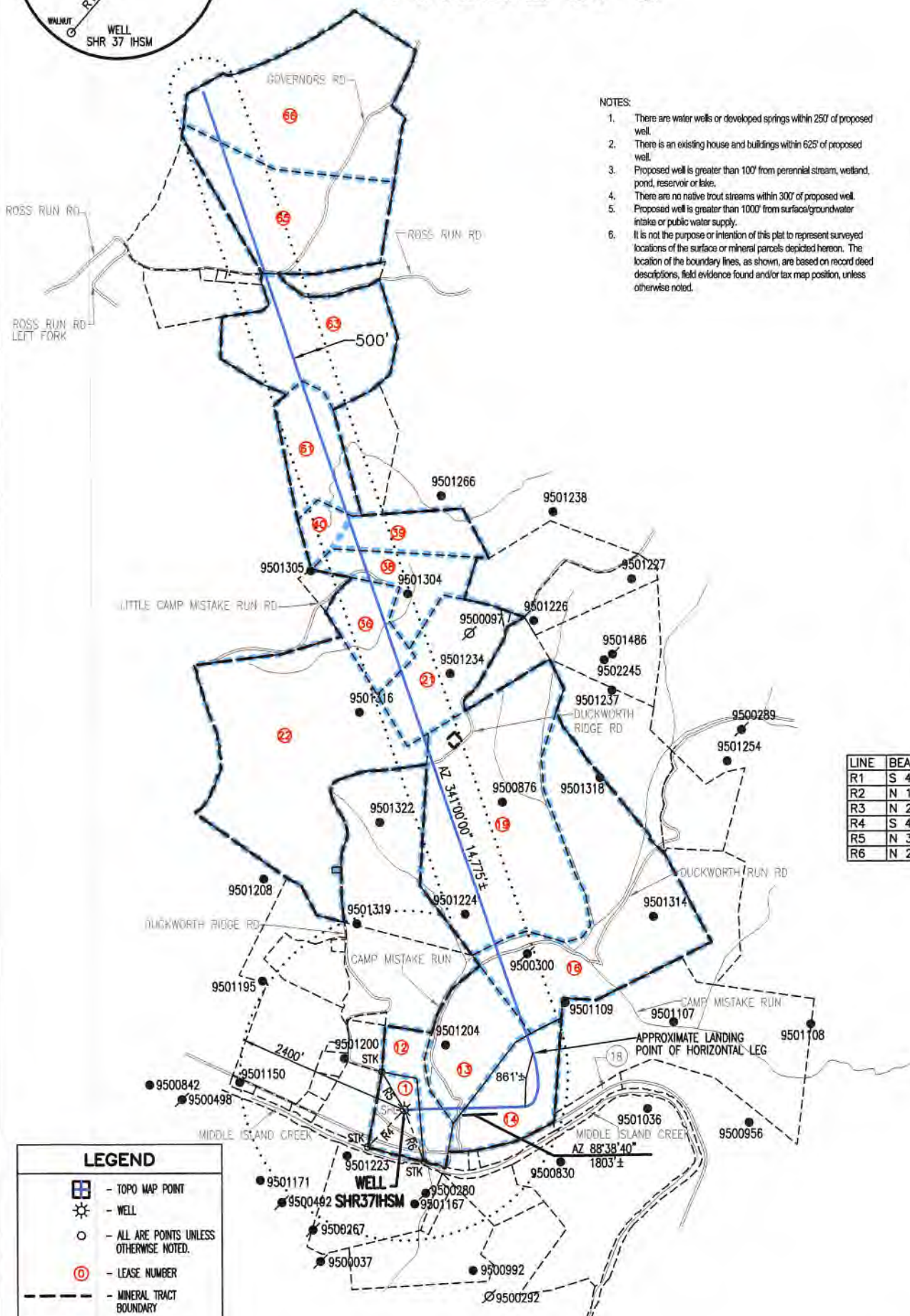
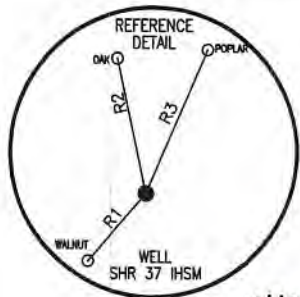
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,302'± TMD: 22,000'±

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 IHSM

PAGE 2 OF 3



- NOTES:
1. There are water wells or developed springs within 250' of proposed well.
 2. There is an existing house and buildings within 625' of proposed well.
 3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 4. There are no native trout streams within 300' of proposed well.
 5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 6. It is not the purpose or intention of this plat 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.

SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4355993.93
E:513310.94
 NAD83, WV NORTH
 N:313640.103
 E:1588038.866
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APPROX. LANDING POINT

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 NAD83, WV NORTH
 N:328434.443
 E:1585110.320
 LAT/LON DATUM-NAD83
 LAT:39°23'37.612"
 LON:80°51'23.953"

LINE	BEARING	DISTANCE
R1	S 40°46'04" W	154.65'
R2	N 12°06'23" W	239.03'
R3	N 23°15'18" E	270.51'
R4	S 45°10'33" W	767.27'
R5	N 30°42'17" W	650.82'
R6	N 20°21'35" W	798.89'

LEGEND

- ☒ - TOPO MAP POINT
- ☼ - WELL
- - ALL ARE POINTS UNLESS OTHERWISE NOTED.
- ① - 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

API WELL #: 47 95 02664
 STATE COUNTY PERMIT

SEPTEMBER 20, 2019



George D. Six

THRASHER

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

SHR 37 IHSM

PAGE 3 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 AGNESS 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	1-17/5
12	GAIL WILLIAMSON	ELEANOR V. EARNHEART AND DEAN A. EARNHEART, W/H CLELLA BOICE, WIDOW LUELLA I. MCCONNELL, WIDOW AGNESS 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	P/O 1-17/6
13	DANNY CARL & PATRICIA J. HARRIS	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	1-18/5
14	DANNY & PATRICIA J. HARRIS	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	1-18/6.1
16	D. RALPH THACKER & CARLISE J. MAURICE JR.	CHARLES W. HENDERSON AND DOROTHY M. HENDERSON, H/W CHARLES W. HENDERSON, POWER OF ATTORNEY FOR THE A. I. DOAK HEIRS JOHN A. CONKLIN AND JEAN CONKLIN, H/W GEORGE B. CONKLIN AND BETTY M. CONKLIN, H/W BETTY L. CONKLIN ROBERT LEE REED LEWIS H. REED AND CAROL J. REED, H/W KATHY PRANGER VIRGINIA O'REAR AND RALPH O'REAR, W/H ROBERT H. MELVIN BETTY L. MELVIN MARY S. LARTZ AND WILLIAM LARTZ, W/H LILLIAN CRABILL AND WILLIAM CRABILL, W/H MELISSA COLL ROBERT BARTHOLOMEW AND BARBARA BARTHOLOMEW, H/W PHILLIP L. MELVIN JOANNE GREENMAN AND GERALD GREENMAN, H/W	P/O 1-16/26
19	RONALD R. & REVA D. ROWLAND	JACOB L. DILLON AND EDNA DILLON, H/W	1-16/20
21	JAMES E. ASH	GAIL V. DAVISSON ROSEMARY EAGLE ELEANOR L. ROTH, ATTORNEY-IN-FACT FOR THE J. D. AND RUTH FOLEY HEIRS	P/O 1-16/19.1
22	JAMES ROBERT BAGLEY	JACOB C. COTTRILL, ATTORNEY-IN-FACT FOR CHARLES D. COTTRILL HEIRS; JACOB C. COTTRILL AND SHIRLEY A. COTTRILL, H/W	1-15/15
36	SANDRA SUE CLARK & CLARENCE DUANE & JEFFREY GREGG CLARK & KEVIN SCOTT	MILDRED GREGG	P/O 1-15/11
38	DUANE CLARK, ET AL C/O DUANE & SUE CLARK	CLARENCE DUANE CLARK AND SANDRA SUE CLARK, H/W JEFFREY G. CLARK, SINGLE KEVIN S. CLARK, SINGLE JOHN BAKER, INDIVIDUALLY AND AS ATTORNEY-IN-FACT FOR THE "GORRELL DOAK HEIRS"	1-15/6
39	DUANE CLARK, ET AL C/O DUANE & SUE CLARK	ORA NELSON MOORE AND MARY EDNA MOORE, H/W OLEIHA MOORE, WIDOW ROSEMARY EAGLE BRC APPALACHIAN MINERALS I, LLC	P/O 1-15/6.1
40			
61	DAVID & MARY ANN PRESTON (LIFE ESTATE)	JAMES R. ASH AND FRANCIS M. ASH, H/W	P/O 1-15/4
63	RYAN J. & SUSAN J. LIND	ORA NELSON MOORE AND MARY EDNA MOORE, H/W, AND OLEIHA MOORE, WIDOW	1-12/23 & 1-12/23.1
	GENEVA (DENNISON) BULLMAN LIFE	ROSEMARY EAGLE	
65	GENEVA (DENNISON) BULLMAN LIFE ESTATE	BILLY KENNETH FOUTS AND MARIANNE B. FOUTS, H/W ERWIN LAWRENCE FOUTS SHEILA KAY FORRESTER AND ROBERT FORRESTER, W/H	1-12/10
66	JEFFREY J. & KAY A. HEIKENFELD	ROBERT H. TENNANT, SINGLE AND OPAL V. TENNANT, WIDOW	1-12/11 & 1-12/11.1
	JAMES F. & PATRICIA A. WOOD		

API WELL #: 47 95 02664
 STATE COUNTY PERMIT



SEPTEMBER 20, 2019

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 SHL is located on topo map 7,908 feet south of Latitude: 39° 22' 30"



SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

SEE PAGE 3 FOR SURFACE OWNERS AND LESSORS

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SURFACE HOLE LOCATION (SHL)	APPROX. LANDING POINT	BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83 N:4355993.93 E:513310.94 NAD83, WV NORTH N:313640.103 E:1588038.866 LAT/LON DATUM-NAD83 LAT:39°21'11.838" LON:80°50'43.829"	UTM 17-NAD83 N:4356254.54 E:513880.05 NAD83, WV NORTH N:314464.140 E:1589920.686 LAT/LON DATUM-NAD83 LAT:39°21'20.259" LON:80°50'20.031"	UTM 17-NAD83 N:4360486.16 E:512343.53 NAD83, WV NORTH N:328434.443 E:1585110.320 LAT/LON DATUM-NAD83 LAT:39°23'37.612" LON:80°51'23.953"



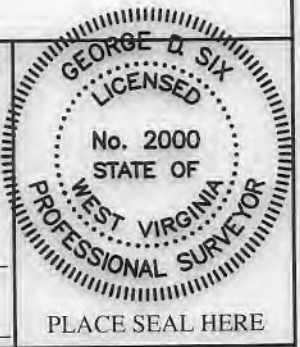
THRASHER

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

FILE #: SHR 37 IHSM
 DRAWING #: SHR 37 IHSM
 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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



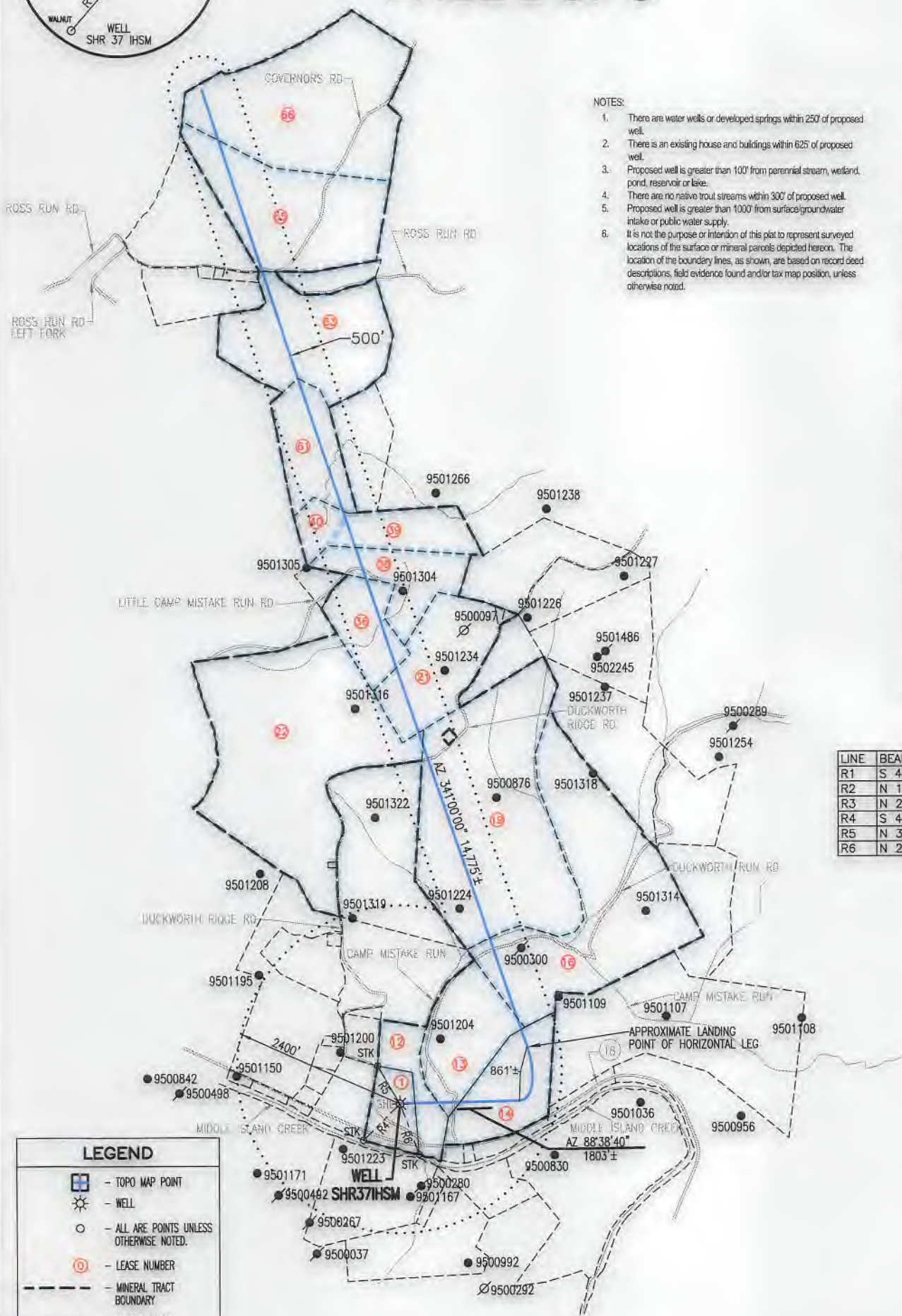
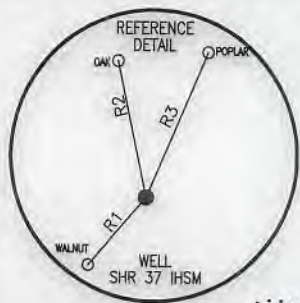
DATE: SEPTEMBER 20, 2019
 OPERATOR'S WELL #: SHR 37 IHSM
 API WELL #: 47 95 02664 #6A
 STATE COUNTY PERMIT

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: 1058.068±
 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: 22,000'±
 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 IHSM

PAGE 2 OF 3



NOTES:

1. There are water wells or developed springs within 250' of proposed well.
2. There is an existing house and buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
6. It is not the purpose or intention of this plat 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.

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4355993.93
E:513310.94
 NAD83, WV NORTH
 N:313640.103
 E:1588038.866
 LAT/LON DATUM-NAD83
 LAT:39°21'11.838"
 LON:80°50'43.829"

APPROX. LANDING POINT
UTM 17-NAD83
N:4356254.54
E:513880.05
 NAD83, WV NORTH
 N:314464.140
 E:1589920.686
 LAT/LON DATUM-NAD83
 LAT:39°21'20.259"
 LON:80°50'20.031"

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
N:4360486.16
E:512343.53
 NAD83, WV NORTH
 N:328434.443
 E:1585110.320
 LAT/LON DATUM-NAD83
 LAT:39°23'37.612"
 LON:80°51'23.953"

LINE	BEARING	DISTANCE
R1	S 40°46'04" W	154.65'
R2	N 12°06'23" W	239.03'
R3	N 23°15'18" E	270.51'
R4	S 45°10'33" W	767.27'
R5	N 30°42'17" W	650.82'
R6	N 20°21'35" W	798.89'

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

API WELL #: 47 95 02464
 STATE COUNTY PERMIT



CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-1108 • FAX (304) 624-7831

SEPTEMBER 20, 2019

George D. Six

SHR 37 IHSM

PAGE 3 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 AGNESS 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	1-17/5
12	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	P/O 1-17/6
13	DANNY CARL & PATRICIA J. HARRIS	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	1-18/5
14	DANNY & PATRICIA J. HARRIS	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	1-18/6.1
16	D. RALPH THACKER & CARLISE J. MAURICE JR.	CHARLES W. HENDERSON AND DOROTHY M. HENDERSON, H/W CHARLES W. HENDERSON, POWER OF ATTORNEY FOR THE A. L. DOAK HEIRS JOHN A. CONKLIN AND JEAN CONKLIN, H/W GEORGE B. CONKLIN AND BETTY M. CONKLIN, H/W BETTY L. CONKLIN ROBERT LEE REED LEWIS H. REED AND CAROL J. REED, H/W KATHY PRANGER VIRGINIA O'REAR AND RALPH O'REAR, W/H ROBERT H. MELVIN BETTY L. MELVIN MARY S. LARTZ AND WILLIAM LARTZ, W/H LILLIAN CRABILL AND WILLIAM CRABILL, W/H MELISSA COLL ROBERT BARTHOLOMEW AND BARBARA BARTHOLOMEW, H/W PHILLIP L. MELVIN JOANNE GREENMAN AND GERALD GREENMAN, H/W	P/O 1-16/26
19	RONALD R. & REVA D. ROWLAND	JACOB L. DILLON AND EDNA DILLON, H/W	1-16/20
21	JAMES E. ASH	GAIL V. DAVISSON ROSEMARY EAGLE ELEANOR L. ROTH, ATTORNEY-IN-FACT FOR THE J. D. AND RUTH FOLEY HEIRS	P/O 1-16/19.1
22	JAMES ROBERT BAGLEY	JACOB C. COTTRILL, ATTORNEY-IN-FACT FOR CHARLES D. COTTRILL HEIRS; JACOB C. COTTRILL AND SHIRLEY A. COTTRILL, H/W MILDRED GREGG	1-15/15
36	SANDRA SUE CLARK & CLARENCE DUANE & JEFFREY GREGG CLARK & KEVIN SCOTT	CLARENCE DUANE CLARK AND SANDRA SUE CLARK, H/W JEFFREY G. CLARK, SINGLE KEVIN S. CLARK, SINGLE JOHN BAKER, INDIVIDUALLY AND AS ATTORNEY-IN-FACT FOR THE "GORRELL DOAK HEIRS"	P/O 1-15/11
38	DUANE CLARK, ET AL C/O DUANE & SUE CLARK	ORA NELSON MOORE AND MARY EDNA MOORE, H/W OLETHA MOORE, WIDOW ROSEMARY EAGLE BRC APPALACHIAN MINERALS I, LLC	1-15/6
39	DUANE CLARK, ET AL C/O DUANE & SUE CLARK	ORA NELSON MOORE AND MARY EDNA MOORE, H/W OLETHA MOORE, WIDOW ROSEMARY EAGLE	P/O 1-15/6.1
40	DAVID & MARY ANN PRESTON (LIFE ESTATE)	JAMES R. ASH AND FRANCIS M. ASH, H/W	P/O 1-15/4
63	RYAN J. & SUSAN J. LIND GENEVA (DENNISON) BULLMAN LIFE	ORA NELSON MOORE AND MARY EDNA MOORE, H/W, AND OLETHA MOORE, WIDOW ROSEMARY EAGLE	1-12/23 & 1-12/23.1
65	GENEVA (DENNISON) BULLMAN LIFE ESTATE	BILLY KENNETH FOUTS AND MARIANNE B. FOUTS, H/W ERWIN LAWRENCE FOUTS SHEILA KAY FORRESTER AND ROBERT FORRESTER, W/H	1-12/10
66	JEFFREY J. & KAY A. HEIKENFELD JAMES F. & PATRICIA A. WOOD	ROBERT H. TENNANT, SINGLE AND OPAL V. TENNANT, WIDOW	1-12/11 & 1-12/11.1

API WELL #: 47 95 02664
STATE COUNTY PERMIT

THRASHER

SEPTEMBER 20, 2019

WW-6A1
(5/13)

Operator's Well No. SHR37iHSM

**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

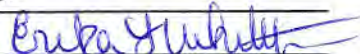
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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

RECEIVED
Office of Oil and Gas
OCT - 4 2019
WV Department of
Environmental Protection

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: Erika Whetstone 
 Its: Permitting Manager

OCT - 4 2019

WV Department of Environmental Protection

Attachment - Form WW-6A-1 for SHR37IHSM

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page			
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 Corporation	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 Corporation	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 ✓			
			12	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			
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 Corporation	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 Corporation	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 ✓			
13	1-18-5	263458000				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 Corporation	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 Corporation	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 ✓			
			14	1-18-6.1	263459000	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 Corporation	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 Corporation	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 ✓			

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
16	1-16-26	25900000	Charles W. Henderson and Dorothy M. Henderson, h/w and Charles	J&J Enterprises	Not less than 1/8	259/588
			W. Henderson, Power of Attorney for the A. I. Doak Heirs	J&J Enterprises	Not less than 1/8	259/586
			John A. Conklin and Jean Conklin, h/w	J&J Enterprises	Not less than 1/8	259/584
			George B. Conklin and Betty M. Conklin, h/w	J&J Enterprises	Not less than 1/8	259/582
			Betty L. Conklin	Eastern American Energy Corporation	Assignment	282/296
			J & J Enterprises	Energy Corporation of America	Assignment	371/528
			Eastern American Energy Corporation	Antero Resources Appalachian Corporation	Assignment	398/416
			Energy Corporation of America	Antero Resources Appalachian Corporation	Assignment	420/316
			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
			Robert Lee Reed	Eastern American Energy Corporation	Not less than 1/8	282/87
			Lewis H. Reed and Carol J. Reed, h/w	Eastern American Energy Corporation	Not less than 1/8	282/103
			Kathy Pranger	Eastern American Energy Corporation	Not less than 1/8	282/91
			Virginia O'Rear and Ralph O'Rear, w/h	Eastern American Energy Corporation	Not less than 1/8	282/67
			Robert H. Melvin	Eastern American Energy Corporation	Not less than 1/8	282/399
			Betty L. Melvin	Eastern American Energy Corporation	Not less than 1/8	282/79
			Mary S. Lartz and William Lartz, w/h	Eastern American Energy Corporation	Not less than 1/8	282/83
			Lillian Crabill and William Crabill, w/h	Eastern American Energy Corporation	Not less than 1/8	282/95
			Melissa Coll	Eastern American Energy Corporation	Not less than 1/8	282/75
			Robert Bartholomew and Barbara Bartholomew, h/w	Eastern American Energy Corporation	Not less than 1/8	282/71
			Phillip L. Melvin	Eastern American Energy Corporation	Not less than 1/8	396/498
			Joanne Greenman and Gerald Greenman, h/w	Eastern American Energy Corporation	Not less than 1/8	282/99
			Eastern American Energy Corporation	Energy Corporation of America	Assignment	371/528
			Energy Corporation of America	Antero Resources Appalachian Corporation	Assignment	398/416
			Energy Corporation of America	Antero Resources Appalachian Corporation	Assignment	420/316
			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 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
19	1-16-20	258989000	Jacob L. Dillon and Edna Dillon, h/w	Royal Resources Corporation	Not less than 1/8	196/302
			Royal Resources Corporation	Columbia Gas Transmission Corporation	Assignment	196/166
			Columbia Gas Transmission Corporation	L & M Exploration, Inc.	Unrecorded Farmout Agrmt.	See Attached
			L & M Exploration, Inc.	L & M Associates, Inc.	Unrecorded Letter Agrmt.	See Attached
			L & M Associates, Inc.	Anvil Oil Co., Inc.	Assignment	258/90
			Columbia Gas Transmission Corporation	Anvil Oil Co., Inc.	Sublease Agrmt.	265/107
			Anvil Oil Co., Inc.	Excel Energy, Inc.	Assignment	263/635
			Excel Energy, Inc.	Anvil Oil Co., Inc.	Assignment	269/143
			Anvil Oil Co., Inc.	Anvil Oil & Gas Company, Inc.	Name Change	WVSOS
			Justin L. Henderson, individually and d/b/a Anvil Oil and Gas Company; Karen M. Henderson, wife; Anvil Oil and Gas Company, Inc.	Dominion Appalachian Development, Inc.	Assignment	323/383
			Dominion Appalachian Development Properties, L.L.C.	CNX Gas Company, LLC	Merger	384/191
			CNX Gas Company, LLC	Noble Energy, Inc.	Assignment	388/286
			Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	550/273 ✓

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
21	1-16-19.1	257259000	Gale V. Davisson	Drilling Appalachian Corporation	Not less than 1/8	271/726
			Rosemary Eagle	Drilling Appalachian Corporation	Not less than 1/8	272/297
			Eleanor L. Roth, Attorney-in-Fact for the J. D. and Ruth Foley Heirs	Drilling Appalachian Corporation	Not less than 1/8	271/728
			Drilling Appalachian Corporation	Dominion Appalachian Development Properties, LLC	Assignment	322/190
			Dominion Appalachian Development Properties, LLC	CONSOL Gas Appalachian Development Properties LLC	Merger	384/191
			CONSOL Gas Appalachian Development Properties LLC	CONSOL Gas Reserves Inc.	Merger	384/191
			CONSOL Gas Reserves Inc.	CONSOL Gas Company	Merger	384/191
			CONSOL Gas Company	CNX Gas Company LLC	Merger	384/191
			CNX Gas Company LLC	Noble Energy Inc.	Assignment	388/286
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	402/704
			CNX Gas Company LLC	Drilling Appalachian Corporation	Assignment	401/342
			Drilling Appalachian Corporation	Antero Resources Corporation	Assignment	421/138
			Antero Resources Corporation	CNX Gas Company LLC	Assignment	425/701
			Noble Energy Inc.	Noble Energy, Inc.	Assignment	427/564
			Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273 ✓

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

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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>
36	1-15-11	259021000	Mildred Gregg Manna Oil & Gas Co. Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc.	Manna Oil & Gas Co. Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc.	Not less than 1/8 Name Change Assignment Name Change Merger Merger Merger Merger Assignment Assignment	265/419 Unrecorded 323/383 WVSOS 384/191 384/191 384/191 384/191 388/286 550/273 ✓
38	1-15-6	288617000	Clarence Duane Clark and Sandra Sue Clark, h/w Jeffrey G. Clark, single Kevin S. Clark, single Manna Oil & Gas Co. Anvil Oil Company Antero Resources Corporation Noble Energy, Inc. John Baker, Individually and as Attorney-in-Fact for the "Gorrell Doak Heirs" Anvil Oil Company Antero Resources Corporation Noble Energy, Inc.	Manna Oil & Gas Co. Anvil Oil Company Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company, LLC Anvil Oil Company Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company, LLC	Not less than 1/8 Name Change Assignment Assignment Assignment Not less than 1/8 Assignment Assignment Assignment	265/405 Unrecorded 445/774 468/769 550/273 265/413 445/774 468/769 550/273 ✓
39	1-15-6.1	259026000	Ora Nelson Moore and Mary Edna Moore, husband and wife, and Oletha Moore, widow Rosemary Eagle Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation Noble Energy Inc.	Clarence W. Mutschelknaus Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Assignment Merger Merger Assignment Assignment	267/637 273/80 376/822 379/537 WVSOS 433/7 550/273 ✓
40	1-15-6.1	259210000	BRC Appalachian Minerals I, LLC BRC Working Interest Company, LLC Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. SWN Exchange Title Holder LLC SWN Production Company, LLC Statoil USA Onshore Properties Inc. Noble Energy Inc.	BRC Working Interest Company, LLC Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Title Holder LLC SWN Production Company, LLC CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Assignment Assignment Assignment Merger Assignment Assignment	369/300 369/784 378/764 465/463 470/668 9/404 518/207 550/273 ✓
61	1-15-4	25908000	James R. Ash and Frances M. Ash, h/w Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc.	Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Reserves Inc. CONSOL Gas Company Noble Energy Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Name Change Merger Merger Merger Merger Assignment Assignment	271/712 323/383 WVSOS 384/191 384/191 384/191 384/191 388/286 550/273 ✓
63	1-12-23 1-12-23.1	259026000	Ora Nelson Moore and Mary Edna Moore, husband and wife, and Oletha Moore, widow Rosemary Eagle Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation Noble Energy Inc.	Clarence W. Mutschelknaus Clarence W. Mutschelknaus Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation CNX Gas Company LLC Noble Energy, Inc. CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Assignment Merger Merger Assignment Assignment	267/637 273/80 376/822 379/537 WVSOS 433/7 550/273 ✓
65	1-12-10	243400000	Billy Kenneth Fouts and Marianne B. Fouts, h/w Erwin Lawrence Fouts Sheila Kay Forrester and Robert Forrester, w/h	CNX Gas Company LLC CNX Gas Company LLC CNX Gas Company LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8	649/68 649/73 649/78 ✓

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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>
66	1-12-11 1-12-11.1	243936000	Robert H. Tennant, a single man and Opal V. Tennant, a widow Justin L. Henderson d/b/a Anvil Oil Company Anvil 1989-3 Joint Venture Anvil Oil Company Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc.	Anvil Oil Company Anvil 1989-3 Joint Venture Dominion Appalachian Development, Inc. Dominion Appalachian Development, Inc. Dominion Appalachian Development, LLC CONSOL Gas Appalachian Development Properties LLC CONSOL Gas Reserves Inc. CONSOL Gas Company CNX Gas Company LLC Noble Energy Inc. CNX Gas Company LLC	Not less than 1/8 Assignment Assignment Assignment Name Change Merger Merger Merger Merger Assignment Assignment	267/56 284/107 329/855 323/383 WVSOS 384/191 384/191 384/191 384/191 388/286 550/273 ✓

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WV Department of
Environmental Protection

47 09 502664



Erika Whetstone
Permitting Manager
1000 Consol Energy Dr.
Canonsburg, PA 15317
(724) 485-4035

West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street, SE
Charlestown, 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) 485-4035 or erikawhetstone@cnx.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Erika Whetstone'. The signature is fluid and cursive.

Erika Whetstone
Permitting Manager

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**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: TYLER STAR NEWS

Public Notice Date: 9/18/2019, 9/25/2019

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: CNX GAS COMPANY LLC **Well Number:** SHR37IHSM

Address: 1000 CONSOL ENERGY DRIVE
CANONSBURG, PA 15317

Business Conducted: Natural gas production.

Location –

State:	<u>WEST VIRGINIA</u>	County:	<u>TYLER</u>
District:	<u>CENTERVILLE</u>	Quadrangle:	<u>WEST UNION</u>
UTM Coordinate NAD83 Northing:	<u>4355993.94</u>		<u>✓</u>
UTM coordinate NAD83 Easting:	<u>513310.95</u>		<u>✓</u>
Watershed:	<u>MIDDLE ISLAND CREEK</u>		

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.comments@wv.gov.

Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

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WV Department of
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WW-PN
(11-18-2015)

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: Tyler Star News
Public Notice Date: 09/18/2019, 09/25/2019

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: CNX GAS COMPANY, LLC
Well Number: SHR37IHSM

Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Business Conducted: Natural gas production.

Location -

State: West Virginia County: Tyler
District: Centerville Quadrangle: West Union
UTM Coordinate NAD83 Northing: 4355993.94
UTM coordinate NAD83 Easting: 513310.95
Watershed: Middle Island Creek

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

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Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

CNX
TSN 09/18 9/28 3676

TYLER STAR NEWS

Sistersville, WV September 25, 2019

State of West Virginia, County of Tyler:

Personally appeared before the undersigned, a Notary Public,
Eric Anderson who, being duly sworn,

states that he is the manager of the Tyler Star News, a weekly newspaper of general circulation, published at Sistersville,

County of Tyler, State of West Virginia, and that a copy of the

notice attached hereto was published for 2 successive

weeks in the Tyler Star News, beginning on the 18TH day

of September, 2019 and ending on the 25TH day

of September, 2019.

Eric Anderson
.....
Manager, Tyler Star News

Subscribed and sworn to before me, a Notary Public of said
County, on this 25TH day of September, 2019.

Tony Jenkins
.....
Notary Public

My commission expires

Printers Fee.....



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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: 10/1/2019

API No. 47- _____
Operator's Well No. SHR37IHSM
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>513310.94</u>
County:	<u>Tyler</u>		Northing:	<u>4355993.93</u>
District:	<u>Centerville</u>	Public Road Access:	<u>Duckworth Ridge Road</u>	
Quadrangle:	<u>West Union, WV</u>	Generally used farm name:	<u>CNX Gas Company, LLC</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.

<p>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:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input checked="" type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
--	---

Required Attachments:

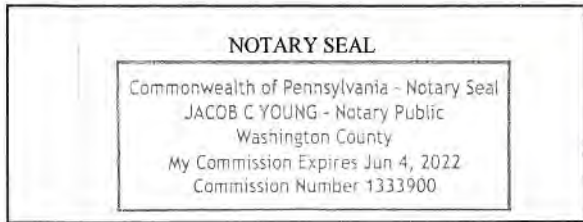
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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.

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WV Department of
Environmental Protection

Certification of Notice is hereby given:

THEREFORE, I Erika Whetstone, 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:	<u>CNX Gas Company LLC</u>	Address:	<u>1000 Consol Energy Drive</u>
By:	<u>Erika Whetstone</u> <i>Erika Whetstone</i>		<u>Canonsburg, PA 15317</u>
Its:	<u>Permitting Manager</u>	Facsimile:	<u></u>
Telephone:	<u>7244854035</u>	Email:	<u>erikawhetstone@cnx.com</u>



Subscribed and sworn before me this 1st day of October.

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.

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: 9/27/19 **Date Permit Application Filed:** 10/9/19

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 RECEIVED
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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 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

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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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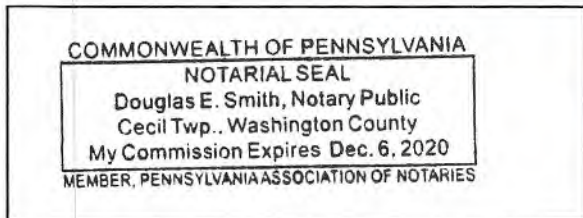
Notice is hereby given by:

Well Operator: CNX Gas Company, LLC
Telephone: 724-485-4035
Email: ErikaWhetstone@CNX.com *Erika Whetstone*

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 deprivacyofficer@wv.gov.



Subscribed and sworn before me this 27 day of September, 2019.

Douglas E. Smith

Notary Public

My Commission Expires 12-6-2020

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Surface Owner of Water Well and/or Water Purveyor(s):

CNX RESOURCES CORPORATION
1000 CONSOL ENERGY DRIVE
CANONSBURG, PA 15317

RYAN & DAVIS CARRIE L DAVIS
730 THRUST DRIVE
VASS, NC 28394

RIKI NICOLE DUNCAN (RILEY)
8100 SHAW AVENUE
HAMLIN, WV 25523

DANNY CARL & PATRICIA J HARRIS
16269 MIDDLE ISLAND ROAD
WEST UNION, WV 26456

EDWIN D & PATRICIA L MULVAY
3665 SHORT RUN ROAD
PENNSBORO, WV 26415

FORREST G. POWELL
PO BOX 91
ALMA, WV 26320

ELDEN L, RODNEY DEAN, & TIMOTHY RAY PRATT
873 DUCKWORTH RIDGE ROAD
ALMA, WV 26320

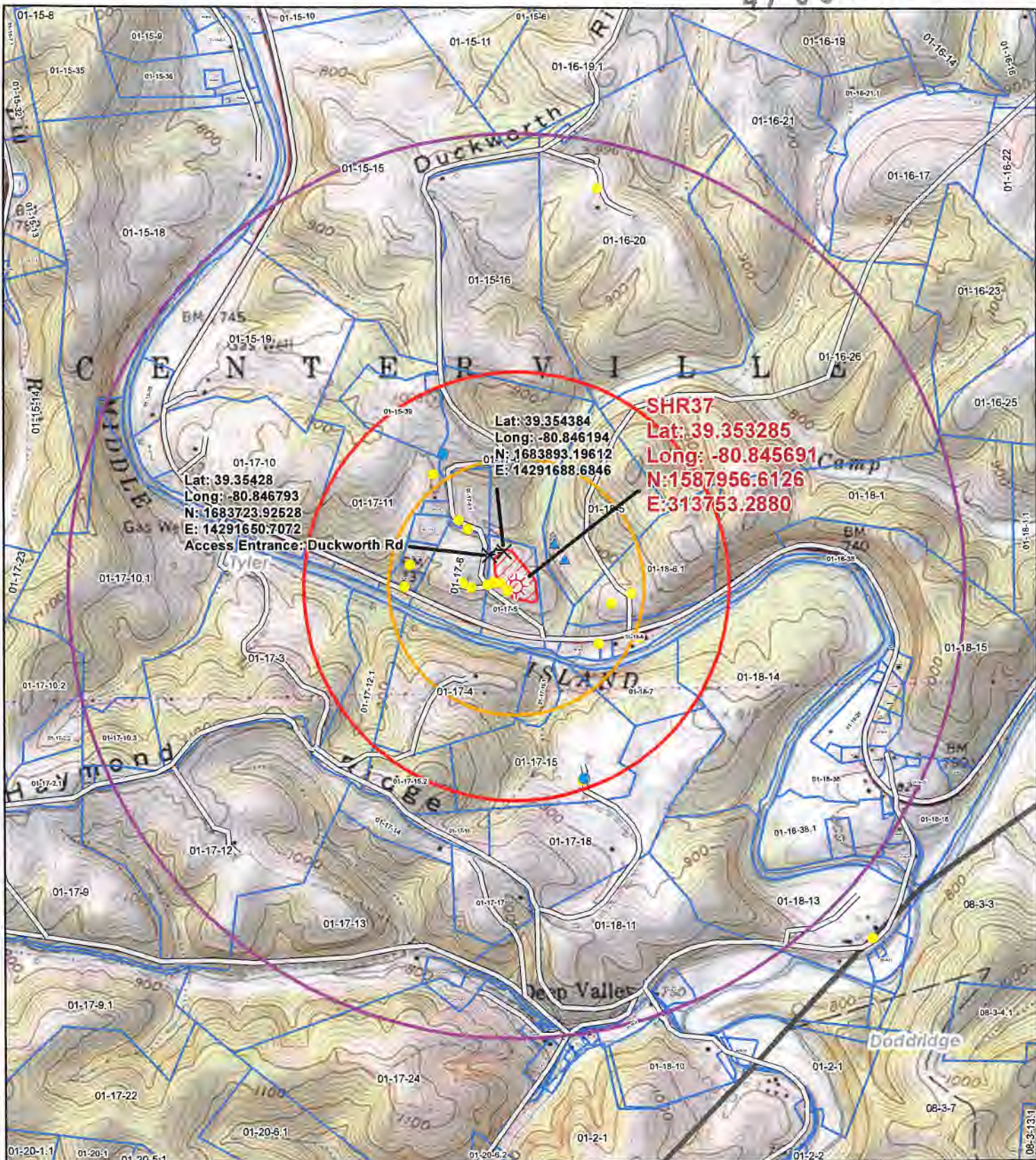
RODNEY D. PRATT
365 DUCKWORTH RIDGE ROAD
ALMA, WV 26320

RONALD ROYCE & REVA D. ROWLAND
358 DUCKWORTH RIDGE ROAD
ALMA, WV 26320

GAIL WILLIAMSON
195 DUCKWORTH RIDGE ROAD
ALMA, WV 26320

DOUG LANTZ
1376 MIDWAY ROAD
BELINGTON, WV 26250

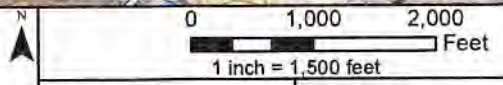
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Lat: 39.354384
 Long: -80.846194
 N: 1683893.19612
 E: 14291688.6846
SHR37
Lat: 39.353285
Long: -80.845691
N: 1587956.6126
E: 313753.2880
 Access Entrance: Duckworth Rd

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.
 © Copyright CNX Land Resources Inc. 2011



Erika Whetstone
Permitting Manager
724-485-4035

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

Waiver Request – “SHR37IHSM”

Dear Sir or Madam:

CNX Gas Company, LLC as surface and coal owner of the SHR37IHSM 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.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Erika Whetstone'.

Erika Whetstone
CNX Gas Company, LLC

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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: 9/27/19 Date Permit Application Filed: 10/2/2019

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
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: _____
Address: _____

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: 513310.95
County: Tyler Northing: 4355993.94
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
Telephone: 724-485-4035 *Erika Whetstone*
Email: ErikaWhetstone@CNX.com

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.

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

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

Signature: _____
Telephone: 724-485-3540

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WV Dept. of Environmental Protection

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Douglas E. Smith, Notary Public
Cecil Twp., Washington County
My Commission Expires Dec. 6, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

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.

WW-6RW Well Location Restriction Waiver

EXHIBIT A

SHR37HSM

Operator Well No.

- SHR37DHSM
- SHR37EHSM
- SHR37FHSM
- SHR37GHSM
- SHR37HHSM
- SHR37IHSM - 47-095-02664
- SHR37KHSM
- SHR37LHSM
- SHR37MHSM
- SHR37NHSM
- SHR37OHSM
- SHR37PHSM
- SHR37QHSM
- SHR37RHSM

SAVANAH SMILACK
 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

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WV Department of
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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, Erika Whetstone, 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>513310.95</u>
County:	<u>Tyler</u>		Northing:	<u>4355993.94</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 style="text-align: center;">FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p style="text-align: center;">FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>CNX Gas Company, LLC</u></p> <p>By: <u>Erika Whetstone</u></p> <p>Its: <u>Permitting Manager</u></p> <p>Signature: <u><i>Erika Whetstone</i></u></p> <p>Date: <u>10/1/2019</u></p>
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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
shr37ihsm 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.

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

RECEIVED
Office of Oil and Gas

OCT - 4 2019

WV Department of
Environmental Protection

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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OCT - 4 2019

WV Department of
Environmental Protection



LOCATION MAP
USGS-WEST UNION, WV
Scale: 1"=2000'

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"=2000'

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**
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
2	001	10-26-18	JPM:EO:ARJUAL
1	000	10-24-18	JPM:EO:ARJUAL



CNX RESOURCES CORPORATION
1000 JONAS HIGHWAY DRIVE
DUNSMUIR, PA 15777

SCALE: 1"=40'	
DESIGNED BY:	DATE: 07-02-19
CHECKED BY:	DATE: 08-01-19
REVIEWED BY:	DATE: 08-01-19
CLIENT BY:	
DATE: 07-02-19	



1725 MILLER DR ON HIGHWAY
RITCHIE, WV 26067
www.thrashereng.com

PHONE NO.	
CONTRACT NO.	
PROJECT NO.	050-10290

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

SHEET NO.

1

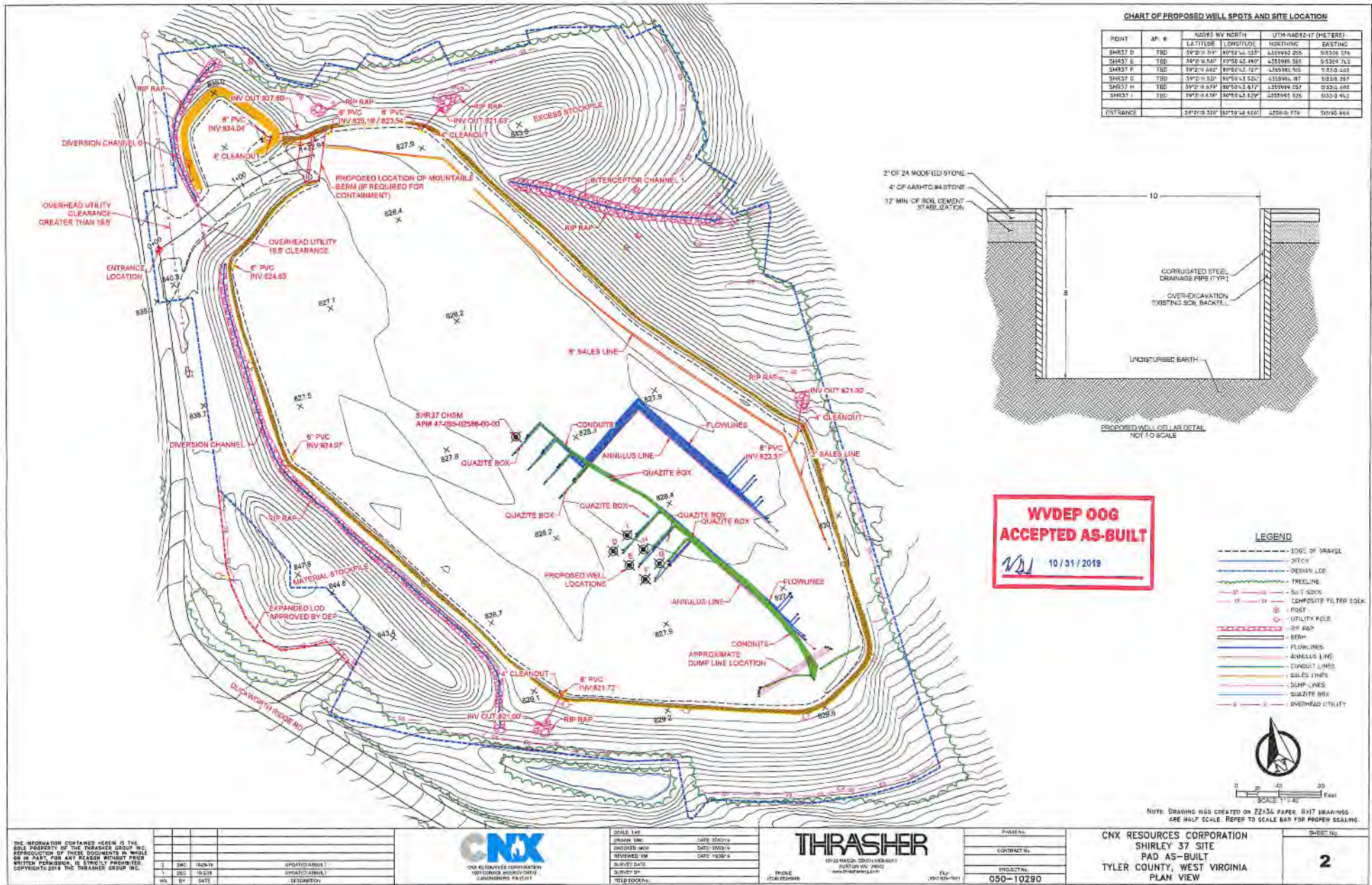
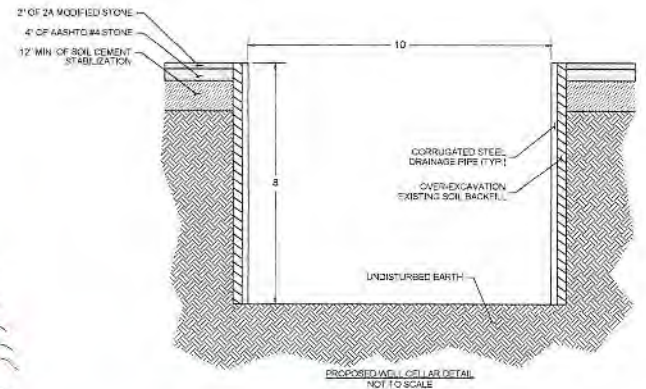


CHART OF PROPOSED WELL SPOTS AND SITE LOCATION

POINT	AP. #	NAD83 WY NORTH	LONGITUDE	UTM-NAD83-17 (METERS)	NORTHING	EASTING
SHR37 D	TBD	197219.717	107516.287	435946.205	53336.376	
SHR37 E	TBD	197219.667	107516.407	435946.345	53336.710	
SHR37 F	TBD	197219.662	107516.727	435946.345	53336.603	
SHR37 G	TBD	197219.527	107516.527	435946.187	53336.287	
SHR37 H	TBD	197219.617	107516.617	435946.237	53336.617	
SHR37 I	TBD	197219.617	107516.617	435946.236	53336.942	
ENTRANCE		197219.320	107516.610	435936.874	53345.944	



**WVDEP OOG
ACCEPTED AS-BUILT**

WJ 10/31/2019

- LEGEND**
- - - - - LODGE OF GRAVEL
 - - - - - DITCH
 - - - - - DESIGN LOD
 - - - - - TREE LINE
 - - - - - SUB SOILS
 - - - - - 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 ZZZXL PAPER. SIXX7 DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.

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NO.	BY	DATE	DESCRIPTION
1	SMC	10/28/19	ISSUED AS-BUILT
1	SMC	10/21/19	ISSUED AS-BUILT



SCALE	DATE
SCALE 1:40	DATE 10/28/19
DESIGNED BY	DATE 10/28/19
REVIEWED BY	DATE 10/28/19
SURVEY DATE	
SURVEY BY	
FIELD BOOK NO.	



PROJECT NO.	PROJECT NAME
050-10290	CNX RESOURCES CORPORATION SHIRLEY 37 SITE PAD AS-BUILT TYLER COUNTY, WEST VIRGINIA PLAN VIEW

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

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