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 west virginia department of environmental protection
 

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, January 7, 2019  
 WELL WORK PERMIT  
 Horizontal 6A / New Drill

CNX GAS COMPANY LLC  
 POST OFFICE BOX 1248  
 JANE LEW, WV 263786506

Re: Permit approval for WDTN5HHSM  
 47-061-01824-00-00

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: WDTN5HHSM  
 Farm Name: JOHN M. WISE, ET UX., ET AL  
 U.S. WELL NUMBER: 47-061-01824-00-00  
 Horizontal 6A New Drill  
 Date Issued: 1/7/2019

# 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

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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.

## 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](mailto: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 Monongalia Battelle Wadestown  
Operator ID County District Quadrangle

2) Operator's Well Number: WDTN5HSM Well Pad Name: WDTN5

3) Farm Name/Surface Owner: Wise Public Road Access: CR6 Wise Run

4) Elevation, current ground: 1412' Elevation, proposed post-construction: 1390'

5) Well Type (a) Gas X Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_  
Other \_\_\_\_\_

(b) If Gas Shallow X Deep \_\_\_\_\_  
Horizontal X

6) Existing Pad: Yes or No No *MGR 9/27/2018*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Target formation is Marcellus Shale @ 7670'-7740' TVD, 70' thick, expected formation pressure ~4600 psi

8) Proposed Total Vertical Depth: 7715' TVD at TD (dependent upon formation dip)

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

10) Proposed Total Measured Depth: 16,939' MD at TD

11) Proposed Horizontal Leg Length: ~8661'

12) Approximate Fresh Water Strata Depths: Shallowest at ~125' and deepest at ~1070'

13) Method to Determine Fresh Water Depths: Depth of bit when water shows in flowline or depth when misting is required

14) Approximate Saltwater Depths: 2115', 2565'

15) Approximate Coal Seam Depths: 709'-712'; 970'-976'; 1058'-1062'; 1063'-1070'

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

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

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OCT 03 2018  
WV Department of  
Environmental Protection

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

18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<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	129	100	96 / CTS
Fresh Water	13.375	New	J-55	54.5	1409	1380	959 / CTS
Coal	13.375	New	J-55	54.5	1409	1380	959 / CTS
Intermediate	9.625	New	J-55	36.0	3084	3055	1025 / CTS
Production	5.5	New	P-110	20.0	16968	16939	3181 / TOC @ 2855
Tubing	2.375	New	J-55	4.7	Above assumes RF=29'	TBD	N/A
Liners	N/A						

*MRK 9/27/2018*

<b>TYPE</b>	<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	12360	~10000 during frac	Class H	1.07
Tubing	2.375	N/A	0.190	7700	N/A	N/A	N/A
Liners	N/A						

**PACKERS**

Kind:	N/A			RECEIVED
Sizes:				Office of Oil and Gas
Depths Set:				OCT 03 2018

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Environmental Protection

WW-6B  
(10/14)

470610108/21/2019  
API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. WDTN5HHSM  
Well Pad Name: WDTN5

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

Construct well pad and access road. 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/coal casing. Note that the FW/coal casing will be set just above elevation - the casing will NOT be set below ground level (setting depth to isolate sloughing formations and red beds below the Pittsburgh coal seam). 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 12.0-12.5 ppg SOBMs. Drill 8-1/2" curve from KOP to landing point. Continue drilling 8-1/2" lateral to TD (geosteer this section to remain in Marcellus target window). Perform clean-up cycle to condition well. Run and cement 5-1/2" production casing. Suspend well and skid to next well or RDMO drilling rig.

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

Run CBL to ~60 degrees in the curve and back to surface to determine production casing TOC. Test production casing and toe prep well. MIRU stimulation/hydraulic fracturing equipment. Fracture well by pumping required number of stages utilizing plug-and-perf method. Max anticipated treating pressure is ~10,000 psi and max anticipated treating pump rate is 80-90 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): 46.9

22) Area to be disturbed for well pad only, less access road (acres): 5.4

23) Describe centralizer placement for each casing string:

Fresh water/coal string: centralize shoe joint and every 3rd 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 KOP and then every 3rd joint from KOP 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/coal string: Class A cement with 1%-3% CaCl<sub>2</sub> and 1/4 pps cello-flake/LCM. Intermediate string: Class A cement with 0%-2% CaCl<sub>2</sub> and 1/4 pps cello-flake/LCM. Production string: Class H cement or Class H: Poz blend with dry blend and/or liquid additives including retarder, suspension agent, gas block, defoamer, fluid loss control, extender, dispersant, anti-settling agent. Actual cement blends may vary slightly depending upon cementing service company utilized.

25) Proposed borehole conditioning procedures:

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

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Old 10388  
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\*Note: Attach additional sheets as needed.

## **WDTN5 Cement Additives**

**Fresh water/coal string: Class A cement with 1%-3% CaCl<sub>2</sub> and 1/4 pps cello-flake/LCM. Intermediate string: Class A cement with 0%-2% CaCl<sub>2</sub> and 1/4 pps cello-flake/LCM. Production string: Class H cement or Class H:Poz blend 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.**



**DRILLING WELL PLAN**  
**WDTN-5H-HSM (Marcellus HZ)**  
**Marcellus Shale Horizontal**  
**Monongalia County, WV**

			<b>WDTN-5H-HSM SHL</b>				<b>N 440488.82, E 1764412.12 (NAD27)</b>				
<b>Ground Elevation</b>		<b>1390' GL Elevation</b>			<b>WDTN-5H-HSM LP</b>				<b>N 439896.07, E 1763523.25 (NAD27)</b>		
<b>Azimuth</b>		<b>313.5°</b>			<b>WDTN-5H-HSM BHL</b>				<b>N 445858.01, E 1757240.65 (NAD27)</b>		

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	MD	TVD	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	24"	20" L/S	Conductor	100	100	AIR	To Surface	N/A	N/A	Stabilize surface fill/soil
	17-1/2"	13-3/8" 54.5# J-55 BTC	Shallowest Fresh Water		125	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 3rd joint from shoe to surface Bow spring centralizers	Ensure the hole is clean at section TD	Set through fresh water zones Set through coal zones Cemented to surface  13-3/8" shoe NOT to be set deeper than ground level
			Waynesburg 1 Coal		709					
			Sewickley Coal		970					
			Roof Coal		1058					
			Pittsburgh Coal		1063					
			<b>FW/Coal Casing</b>	<b>1380</b>	<b>1380</b>					
	12-1/4"	9-5/8" 36.0# J-55 LTC	Salt Sand		2115	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 ~200'-250' below the Big Injun base
			Big Lime		2475					
			Big Injun		2565					
			Price		2805					
			<b>Intermediate Casing</b>	<b>3055</b>	<b>3055</b>					
	8-3/4" Tangent	5-1/2" 20.0# P-110 VAR	50 Foot		3255	AIR	15.2 ppg Class H 50:50 Class H:Poz with additives (retarder, suspension agent, gas block, defoamer, fluid loss, extender, etc.)  10% OH Excess Yield = 1.07  TOC @ >= 200' above 9-5/8" shoe	Centralize every joint from shoe to KOP - then every 3rd joint from KOP to TOC  Single-piece/rigid bow centralizers	Once at TD, circulate at max flowrate with max rotation until shakers clean-up (typically requires multiple bottoms-up)  Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement	Note: For all strings, actual centralizer placements may be changed due to hole conditions  Note: For all strings, actual cement blends may vary slightly depending upon service company utilized
			Gordon		3390					
			Fifth		3515					
Bayard				3565						
Elks				5165						
Cashaqua				7360						
Burkett				7505						
Tully				7530						
Hamilton				7565						
Marcellus				7670						
		<b>Production Casing</b>	<b>16939</b>	<b>7715</b>						

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 01/03/2018

8-3/4" x 8-1/2" Hole - Cemented Long String  
 5-1/2" 20.0# P-110 VAR

+/- 8661' Lateral

TD @ +/- 7715' TVD

1706101824

01/11/2019

BLACKSVILLE MINE

WDTN5HHSM

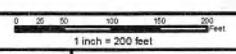
1180 ft

620 ft

FEDERAL NO 2 MINE

- Legend**
- Well Location
  - Active Permit
  - Remaining Coal

- Mine Workings
- Mined Out

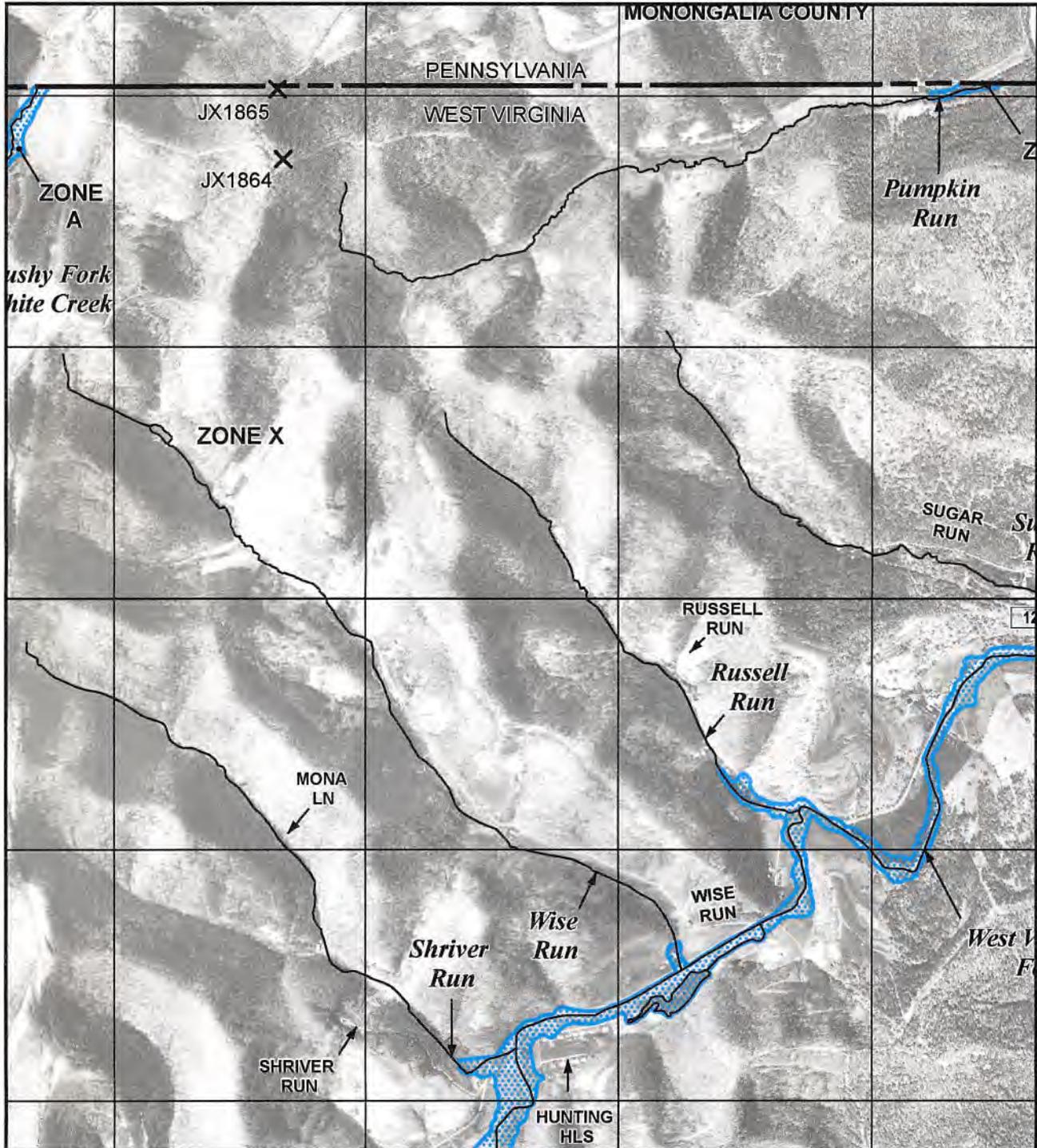


Date: 9/24/2018	Prepared By: GIS
Revisions: 1	Approved By:

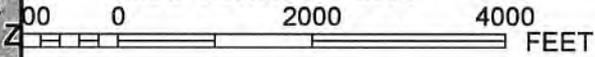
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**WDTN5HHSM  
Mine Map**



MAP SCALE 1" = 2000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0050E

**FIRM**  
FLOOD INSURANCE RATE MAP

**MONONGALIA COUNTY,  
WEST VIRGINIA  
AND INCORPORATED AREAS**

**PANEL 50 OF 325**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONONGALIA COUNTY	540139	0050	E

Notice to User: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**54061C0050E**

**EFFECTIVE DATE**  
**JANUARY 20, 2010**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## WDTN5 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 WDTN5 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 Permit Date.

The Marcellus Shale of the Wadestown area is found at an approximate True Vertical Depth (TVD) of 7900'. In the Wadestown area, there were very few wells that produced from formations deeper than the Bayard Sand (approximately 3500'). Based on our experience with frac communication and shallow wells, CNX Geology feels that it is highly unlikely for communication to occur with any wells producing in the area above the WDTN5 Pad.

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. These reservoirs are not developed in the Wadestown. Geomechanical data is collected from dipole sonic logs. CNX's nearest sonic data is from the NV20CCV well (Figure 2), approximately 19.8 miles north of the Wadestown area. Frac modeling (Figure 3) of the Marcellus in the area does not show significant upward frac growth.

Figure 1. Only 19 wells lie within a 500' buffer around the WDTN5 Pad that penetrate the Big Injun Sand or deeper horizons. The deepest well is 3700' and produces from the 5<sup>th</sup> Sand. No known SOG Communication events have occurred in this area.



Figure 2. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the Wadestown Area Stress Profile log.

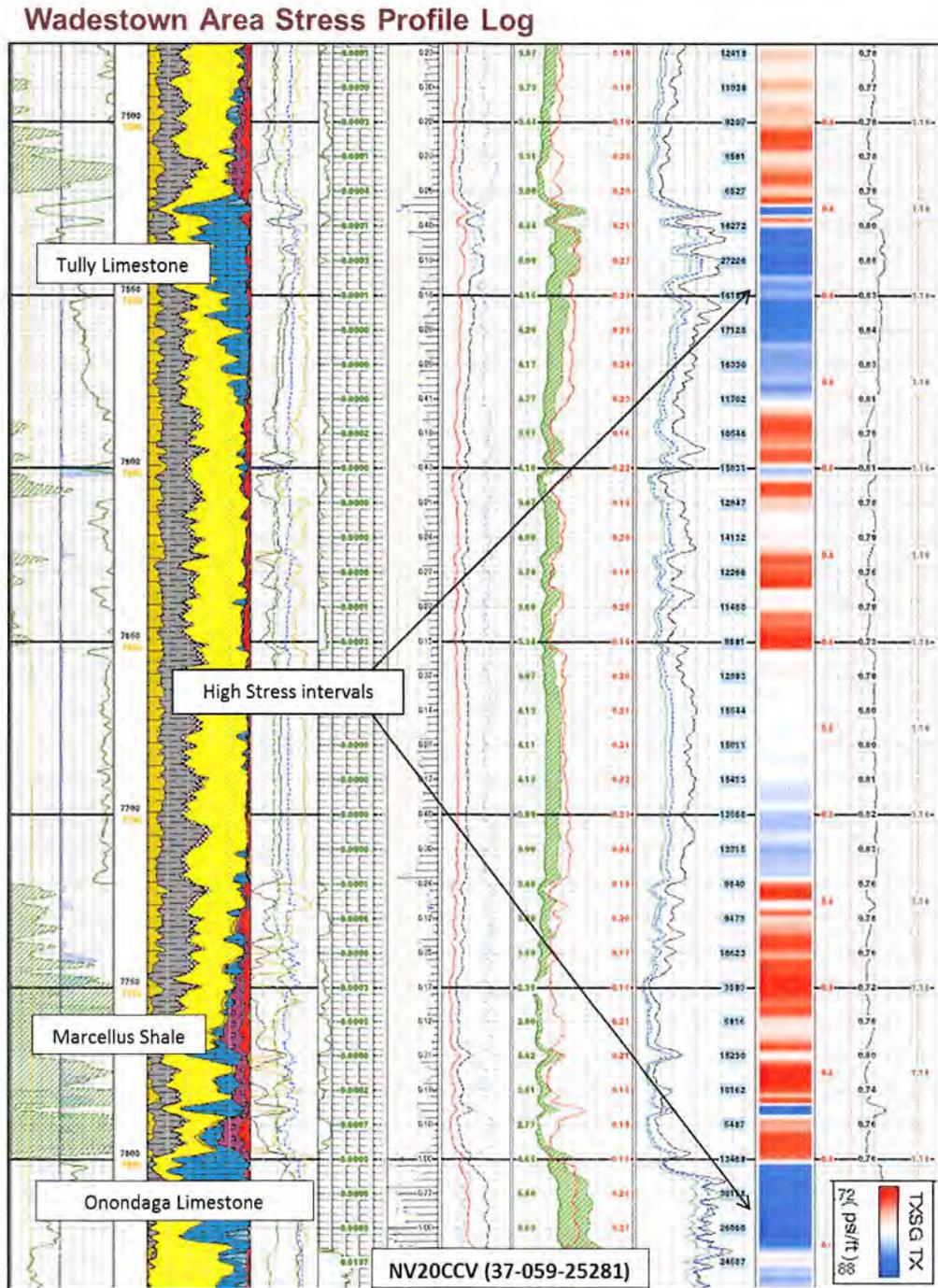
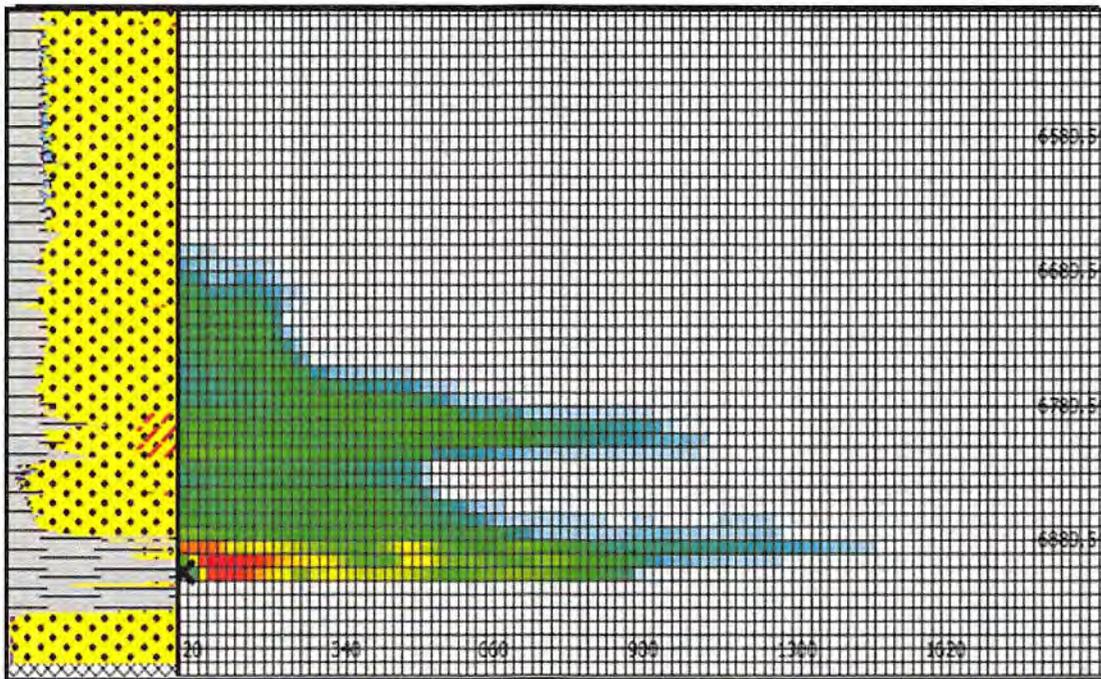


Figure 3. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Hamilton and Tully are much thinner than Wadestown. Frac modeling only yields frac height of approximately 300'.



Frac Simulation of the Oxford area, Doddridge County, WV. Model of 300 stage spacing yields frac height of 260 feet. Tully Limestone (~25'), Tully-Hamilton (~55'), Marcellus-Alexander (1500')



## WDTN5 Pad Frac SOG Review / CRSD Review Monday, September 24, 2018

API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL_NAI	WELL_NO	TD	FMTD	ELEVATION	FIELD_NAI	FMPROD	COMMENTS
4706101275	WV	Monongal	39.69746	-80.327	CNG Prodi	Gas	Howard A	1		3700 Fifth	1261	Maple-W		Ground Level
4706101289	WV	Monongal	39.70152	-80.3301	CNG Prodi	Gas	Dewey Ru			3655 Bayard	1454	Maple-W		Ground Level
4706101485	WV	Monongal	39.68238	-80.3074	Dominion	Gas	Brent W L			3620 Bayard	1322	Maple-W		Ground Level
4706101329	WV	Monongal	39.7005	-80.3151	CNG Prodi	Gas	John Statl			3588 Fifth	1298	Maple-W		Ground Level
4706130182	WV	Monongal	39.70659	-80.3397	Pittsburg	Gas	Zoa Wise			3558 Bayard	1250	Maple-W		Ground Level
4706130265	WV	Monongal	39.69122	-80.3082	Hope Nati	Gas	Leo Shrive	1		3492 Fifth	1283	Maple-W		Ground Level
4706100381	WV	Monongal	39.69688	-80.3346	Hope Nati	Gas	Sol Shrive			3452 Bayard	1190	Maple-W		Topo Estimation
4706101290	WV	Monongal	39.69514	-80.3183	CNG Prodi	Gas	Anna S Wl			3450 Bayard	1087	Maple-W		Ground Level
4706130345	WV	Monongal	39.72071	-80.3467	Manufact	Gas	E J & J L He	1		3448 Bayard	1260	Maple-W		Ground Level
4706101479	WV	Monongal	39.69108	-80.3185	Dominion	Gas	Howard A			3429 Bayard	997	Maple-W		Ground Level
4706101478	WV	Monongal	39.6918	-80.3097	Dominion	Gas	John R Sta			3334 Bayard	998	Maple-W		Ground Level
4706130331	WV	Monongal	39.7165	-80.3538	Manufact	Gas	Thomas W	3		3331 Bayard	1164	Maple-W		Ground Level
4706130327	WV	Monongal	39.68388	-80.317	Hope Nati	Gas w/ Oil	Michael B			3324 Fourth	1308	Maple-W		Ground Level
4706100056	WV	Monongal	39.7194	-80.3564	Manufact	Gas	Alex Whit	2		3305 Thirty-foo	1280	Maple-W		Ground Level
4706130524	WV	Monongal	39.69543	-80.3123	Hope Nati	Oil and Ga	J H Hagan			3300 Bayard	1043	Maple-W		Ground Level
4706100147	WV	Monongal	39.68866	-80.3161	Hope Nati	Gas	S H Shrive	4		3300 Fifth	1148	Maple-W		Ground Level
4706100098	WV	Monongal	39.71926	-80.3532	Carnegie I	Gas	J L Henner	1		3083 Fifth	1053	Maple-W		Ground Level
4706100380	WV	Monongal	39.69586	-80.3178	Hope Nati	Gas	Solomon !	2		3075 Fifty-foot	1020	Maple-W		Barometer
4706130578	WV	Monongal	39.7107	-80.3504	Equitable	Gas	Ernest Bel			2440 Big Injun (	1414	Maple-W		Ground Level
4706101206	WV	Monongal	39.69673	-80.324	CNG Prodi	Methane	Mabel G V			1093 Pittsburg	1366	Blacksville		Ground Level
4706101245	WV	Monongal	39.6905	-80.3082	CNG Prodi	Methane	Helen & J			1028 Pittsburg	1309	Blacksville		Ground Level
4706101256	WV	Monongal	39.69021	-80.3029	CNG Prodi	Methane	Jesse D Hc			1015 Pittsburg	1317	Blacksville		Ground Level
4706101184	WV	Monongal	39.69934	-80.3142	CNG Prodi	Methane	Helen H &			1009 Pittsburg	1303	Blacksville		Ground Level
4706101200	WV	Monongal	39.69717	-80.3281	CNG Prodi	Methane	Howard Sl			970 Pittsburg	1242	Blacksville		Ground Level
4706101181	WV	Monongal	39.70108	-80.3268	CNG Prodi	Methane	Mabel G V			940 Conemaug	1223	Blacksville		Ground Level
4706101209	WV	Monongal	39.69441	-80.3044	CNG Prodi	Methane	John & He			916 Pittsburg	1208	Blacksville		Ground Level
4706101240	WV	Monongal	39.69253	-80.3183	CNG Prodi	Methane	Anna S Wl			860 Pittsburg	1160	Blacksville		Ground Level
4706101208	WV	Monongal	39.69586	-80.3191	CNG Prodi	Methane	Anna S Ba			837 Pittsburg	1114	Blacksville		Ground Level
4706101215	WV	Monongal	39.69557	-80.3123	CNG Prodi	Methane	John & He			750 Pittsburg	1051	Blacksville		Ground Level
4706101238	WV	Monongal	39.69238	-80.3219	CNG Prodi	Methane	Howard Sl			715 Pittsburg	1019	Blacksville		Ground Level



## WDTN5 PAD GEOLOGICAL PROGNOSIS

<b>WELL NAME:</b>	<b>WDTN5 MARCELLUS PROGNOSIS</b>	
<b>STATE:</b>	<b>WEST VIRGINIA</b>	
<b>COUNTY:</b>	<b>MONONGALIA</b>	
<b>DISTRICT:</b>	<b>BATTELLE</b>	<b>GEOLOGIST: CAE</b>
<b>7.5' QUADRANGLE:</b>	<b>WADESTOWN</b>	<b>DATE SUBMITTED: 10/4/2017</b>
<b>PROSPECT AREA:</b>	<b>WADESTOWN</b>	<b>TARGET FM: MARCELLUS</b>
<b>ELEVATION:</b>	<b>1390'</b>	<b>PROJECTED TD: 7830'</b>

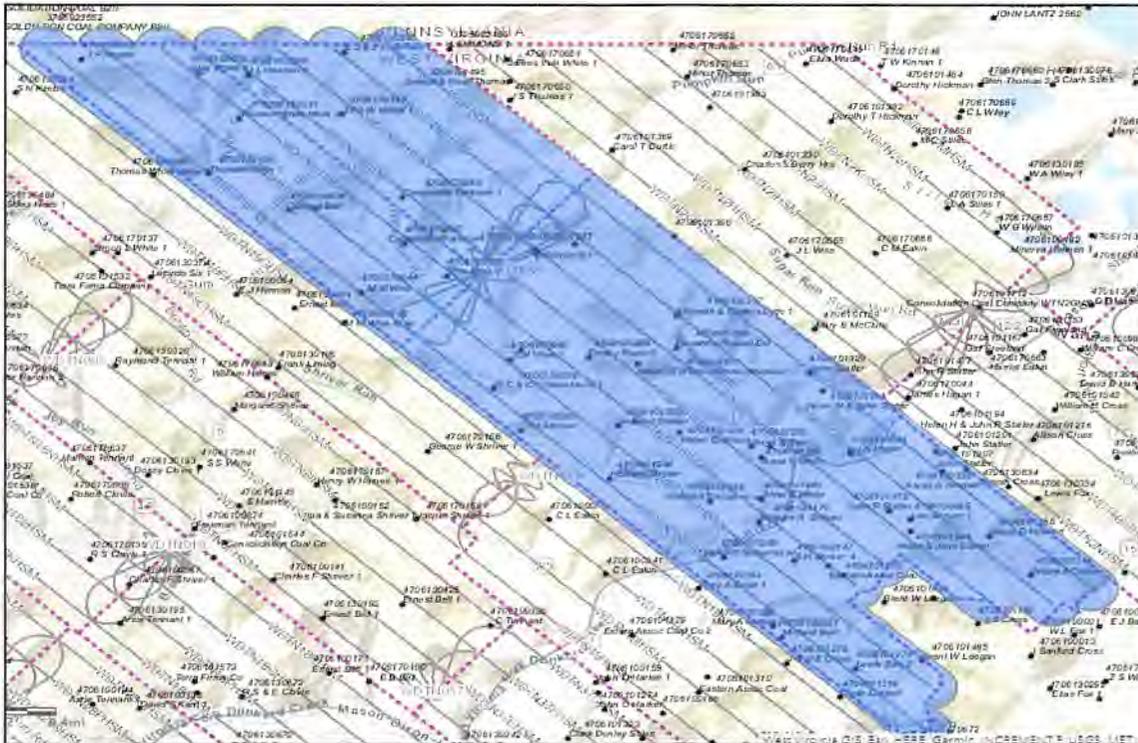
<u>ESTIMATED DEPTHS:</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>GAS CHECKS</u>
WAYNESBURG 1 COAL	709	712	
SEWICKLEY COAL	970	976	
ROOF COAL	1058	1062	
PITTSBURGH COAL	1063	1070	
SALT SAND	2115	2205	2250
BIG LIME	2475	2565	
BIG INJUN SAND	2565	2805	2850
PRICE FM	2805	3255	
50 FT SAND	3255	3335	3350
GORDON SAND	3390	3480	3500
5TH SAND	3515	3555	3560
BAYARD SAND	3565	3575	3600
ELKS	5165	5700	4500
CASHAQUA	7360	7505	5500
BURKET SHALE	7505	7530	6500
TULLY LIMESTONE	7530	7565	7000
HAMILTON SHALE	7565	7670	7600
MARCELLUS SHALE	7670	7740	
TD		7830	TD AND AFTER 4.5" CSG

**FRESH WATER: 25'**

**SALT WATER: 2180, 2625**



# WDTN5 PAD WITH 500' AREA OF REVIEW



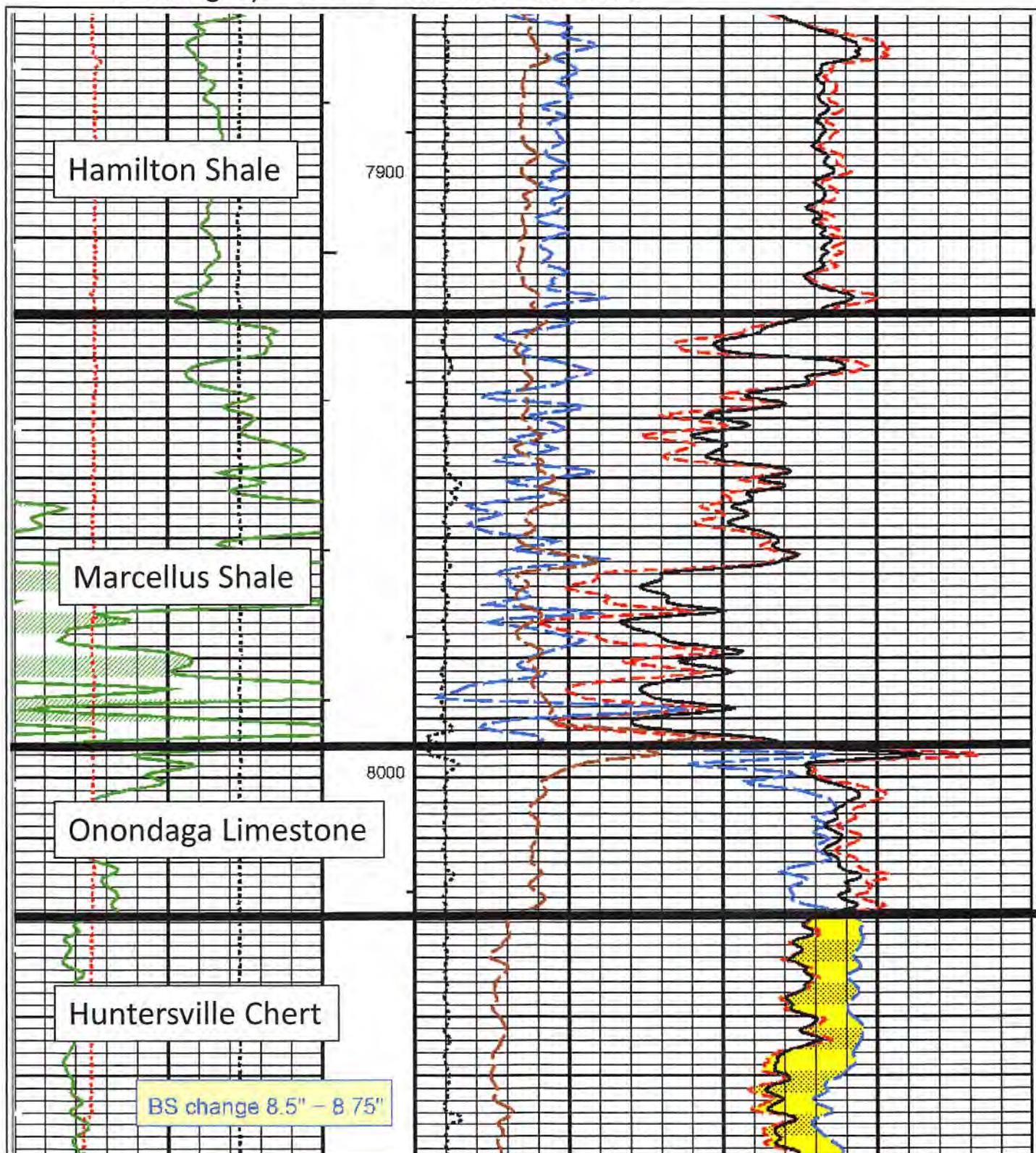
The WDTN5 Pad to be frac'd is in an area of no known frac communication with shallow wells.

API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL_NAI	WELL_NO	TD	FMTD	ELEVATION	FIELD_NAI	FMPROD	COMMENTS
4706101275	WV	Monongal	39.69746	-80.327	CNG Prodi Gas		Howard A	1	3700	Fifth	1261	Maple-We		Ground Level
4706101289	WV	Monongal	39.70152	-80.3301	CNG Prodi Gas		Dewey Ru		3655	Bayard	1454	Maple-We		Ground Level
4706101485	WV	Monongal	39.68238	-80.3074	Dominion Gas		Brent W L		3620	Bayard	1322	Maple-We		Ground Level
4706101329	WV	Monongal	39.7005	-80.3151	CNG Prodi Gas		John Statl		3588	Fifth	1298	Maple-We		Ground Level
4706130182	WV	Monongal	39.70659	-80.3397	Pittsburgh Gas		Zoa Wise	2	3558	Bayard	1250	Maple-We		Ground Level
4706130265	WV	Monongal	39.69122	-80.3082	Hope Nati Gas		Leo Shrive	1	3492	Fifth	1283	Maple-We		Ground Level
4706100381	WV	Monongal	39.69688	-80.3346	Hope Nati Gas		Sol Shrive		3452	Bayard	1190	Maple-We		Topo Estimation
4706101290	WV	Monongal	39.69514	-80.3183	CNG Prodi Gas		Anna S Wl		3450	Bayard	1087	Maple-We		Ground Level
4706130345	WV	Monongal	39.72071	-80.3467	Manufact Gas		E J & J L He	1	3448	Bayard	1260	Maple-We		Ground Level
4706101479	WV	Monongal	39.69108	-80.3185	Dominion Gas		Howard A		3429	Bayard	997	Maple-We		Ground Level
4706101478	WV	Monongal	39.6918	-80.3097	Dominion Gas		John R Sta		3334	Bayard	998	Maple-We		Ground Level
4706130331	WV	Monongal	39.7165	-80.3538	Manufact Gas		Thomas W	3	3331	Bayard	1164	Maple-We		Ground Level
4706130327	WV	Monongal	39.68388	-80.317	Hope Nati Gas w/ Oil		Michael B		3324	Fourth	1308	Maple-We		Ground Level
4706100056	WV	Monongal	39.7194	-80.3564	Manufact Gas		Alex Whit	2	3305	Thirty-foo	1280	Maple-We		Ground Level
4706130524	WV	Monongal	39.69543	-80.3123	Hope Nati Oil and Ga		J H Hagan		3300	Bayard	1043	Maple-We		Ground Level
4706100147	WV	Monongal	39.68866	-80.3161	Hope Nati Gas		S H Shrive	4	3300	Fifth	1148	Maple-We		Ground Level
4706100098	WV	Monongal	39.71926	-80.3532	Carnegie I Gas		J L Henner	1	3083	Fifth	1053	Maple-We		Ground Level
4706100380	WV	Monongal	39.69586	-80.3178	Hope Nati Gas		Solomon S	2	3075	Fifty-foot	1020	Maple-We		Barometer
4706130578	WV	Monongal	39.7107	-80.3504	Equitable Gas		Ernest Bel		2440	Big Injun (	1414	Maple-We		Ground Level
4706101206	WV	Monongal	39.69673	-80.324	CNG Prodi Methane		Mabel G V		1093	Pittsburgh	1366	Blacksville		Ground Level
4706101245	WV	Monongal	39.6905	-80.3082	CNG Prodi Methane		Helen & Jr		1028	Pittsburgh	1309	Blacksville		Ground Level
4706101256	WV	Monongal	39.69021	-80.3029	CNG Prodi Methane		Jesse D Hr		1015	Pittsburgh	1317	Blacksville		Ground Level
4706101184	WV	Monongal	39.69934	-80.3142	CNG Prodi Methane		Helen H &		1009	Pittsburgh	1303	Blacksville		Ground Level
4706101200	WV	Monongal	39.69717	-80.3281	CNG Prodi Methane		Howard Sl		970	Pittsburgh	1242	Blacksville		Ground Level
4706101181	WV	Monongal	39.70108	-80.3268	CNG Prodi Methane		Mabel G V		940	Conemaug	1223	Blacksville		Ground Level
4706101209	WV	Monongal	39.69441	-80.3044	CNG Prodi Methane		John & He		916	Pittsburgh	1208	Blacksville		Ground Level
4706101240	WV	Monongal	39.69253	-80.3183	CNG Prodi Methane		Anna S Wl		860	Pittsburgh	1160	Blacksville		Ground Level
4706101208	WV	Monongal	39.69586	-80.3191	CNG Prodi Methane		Anna S Ba		837	Pittsburgh	1114	Blacksville		Ground Level
4706101215	WV	Monongal	39.69557	-80.3123	CNG Prodi Methane		John & He		750	Pittsburgh	1051	Blacksville		Ground Level
4706101238	WV	Monongal	39.69238	-80.3219	CNG Prodi Methane		Howard Sl		715	Pittsburgh	1019	Blacksville		Ground Level

All SOG wells above the WDTN5 Marcellus pad have been plugged and were less than 3700' TD.

# WADESTOWN Area Type Log Esther Clark 3H (47-061-01623)

- The Tully Limestone in conjunction with the Hamilton Shale is the confining layer for the Marcellus Shale frac.



4706 01824

01/11/2019

# EROSION & SEDIMENT AND SITE RESTORATION

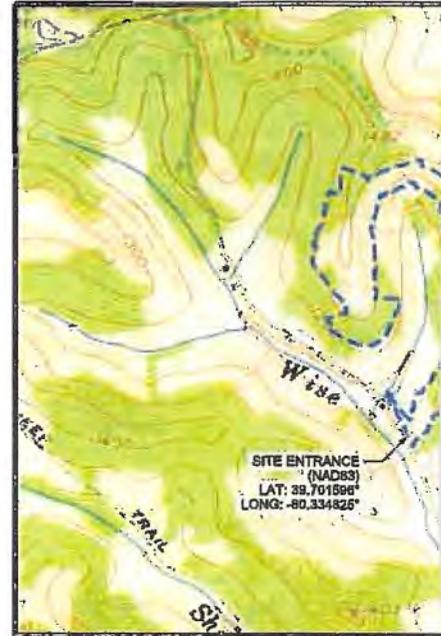
## WTN5 W

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OCT 10 8 2018

## MONONGALIA COUNTY

WV Department of  
Environmental Protection

## FO



REFERENCES: UNITED STATES GEOLOGICAL SURVEY - WADEST



PROJECT NO

OCTOBER

# DIEFFENBAUCH

K:\CNX\Waynesburgh\1216067 - WTN5\Plans\EAS\DO1\_TITLE SHEET.dgn

9:01:42 AM

10/6/2017

1:2000



Know what's below.  
Call before you dig.



01/11/2019

# ENVIRONMENTAL CONTROL PLAN RESTORATION PLAN

## WELL SITE

### WYOMING COUNTY, WEST VIRGINIA

### FOR



WYOMING QUADRANGLE, WV, 7.5 MINUTE SERIES

1000' 2000'  
SCALE

D. 17016-023

NOVEMBER 2017

## DIEFFENBAUCH & HRITZ, LLC

*Hayden J. K...  
10/20/2017*

INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES
3	EXISTING SITE PLAN
4	SOILS PLAN
5	OVERALL SITE PLAN
6 - 10	PROPOSED SITE PLAN
11	ACCESS ROAD PROFILE
12 - 14	ACCESS ROAD CROSS SECTIONS
15	WELL PAD CROSS SECTION
16 - 17	TOE BENCH DETAILS
18 - 19	E&S DETAILS
20	SITE RESTORATION PLAN
21	SEED & MULCH PLAN
22	QUANTITY SUMMARY

NO.	DATE	REVISION
JAB DRAWN		
BKB CHECKED		
HLP APPROVED		
OCT 2017 DATE		
17016-023 PROJECT NO.		
DIEFFENBAUCH & HRITZ, LLC 1086 Chapin Road, Suite 200 Morgantown, WV 26501 W. VA. REG. NO. 1400000000000000 P: 304.845.6565 F: 304.845.6567		
CLIENT	WTN5 WELL SITE	
PROJECT	TITLE SHEET	
TITLE	1	
DRAWING NO.	1	

WW-9  
(4/16)

API Number 47 - 4706 - 01824  
Operator's Well No. WDTN5HHSM

4706 01824  
01/11/2019

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) Dunkard Creek Quadrangle Wadestown, WV

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.? N/A

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 WDTN2 Wells (APIs TBD) )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No pits )

Will closed loop system be used? If so, describe: Yes (see attached pgs 1-7)

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

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

Additives to be used in drilling medium? Bactericide, Polymers, and weighting agents

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

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

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

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 [Signature]

Company Official (Typed Name) Raymond Hoon

Company Official Title Supervisor - Gas Permitting

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OCT 03 2018

Commonwealth of Pennsylvania County of Greene West Virginia

Subscribed and sworn before me this 1st day of October, 2018

[Signature]

Notary

My commission expires February 23, 2019

WV Department of Environmental Protection  
COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Lori L. Walker, Notary Public  
Richhill Twp., Greene County  
My Commission Expires Feb. 23, 2019  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

**CNX Gas Company LLC**

Proposed Revegetation Treatment: Acres Disturbed 46.9 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: *Gayle J. Knapp*

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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Title: Inspector

Date: 9/27/2018 OCT 03 2018

Field Reviewed? ( X ) Yes ( ) No

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# Standard Operating Procedure

## TASK: BOS-106 STRIP MUD

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### **Document Control**

Owner: Operations, Leduc  
Author: Clayton Cameron, Field Supervisor  
Reviewer: Technical Advisor  
Approver: Andrew Pow

### **Revision & Approval Record**

Revision	Date	Description/changes:	Prepared by:	Competency Review		
				Employee	Supervisor	Date
Original	Jan. 29, 2007	Original Release of Standard	John Richardson			
02	Aug. 24, 2011	<changes made to the original>	Clayton Cameron			
03	Mar. 12, 2012	<changes made to the original>	Clayton Cameron			
<above +1>						
				Competent	Yes	No
				If No Insert Follow Up Date		
				Follow Up Date:		
				Revised < 12/03/12>		

# SOP # BOS-106



## • TASK: STRIP MUD

Steps of task in order:	Hazards with each step:
i Meet with Site Supervisor to discuss scope of work to be performed	
ii Perform walk around check to complete Pre-job Risk Assessment, speaking with Derrick , Mud and Company Men to establish understanding of fluid to be processed and were to ship processed fluid along with properties to be reached. A pilot mud test should be completed to better understand best way to treat fluid to be processed.	Uneven ground, Weather, Pinch points, Physical stress, Slips trips and falls, Check and verify Mud Report Check MSDS of all fluids and chemicals being used.
1 First set up the BOS tank so centrifuge overflows is going in to cell #1	Physical stress, Potential Energy-Pressurized Gases/Liquids, Slips trips and falls, Potential fumes
2 Close all other bridge gates, Open up the bridge gate in cell#1. Fill cell #1 to 75% capacity with fresh water. While filling mix in one bag of calcium nitrate.	Physical stress, Slips trips and falls, Pinch points, Potential fumes
3 Start to fill you poly tank with water, As you fill the poly tanks you can add your chemicals. Once they are full you can hook up your poly injection lines in the pump room to the suction side of appropriate centrifuge feed pumps. Place mud gun pump discharge line/s into feed pump discharge lines by plumbing in stripping y/s and valves.	Potential Energy-Pressurized Gases/Liquids, Slips trips and falls, Potential fumes
4 Set up centrifuges, adjust accordingly for maintaining clear water loop and plumb mud gun pump suction with appropriate vessel containing mud to be processed.	Physical stress, Potential Energy-Pressurized Gases/Liquids, Slips trips and falls, Potential fumes

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# SOP # BOS-106



- ## TASK: STRIP MUD

	Steps of task in order:	Hazards with each step:
5	<p>Once all rigged in start centrifuge/s to process the clear water loop ensuring all valving is set accordingly. Start and set poly pumps, begin injecting mud and slowly increase feed rate and adjust settings to optimize maximum process rates. once the clean water gets to cell # 9 transfer you will then be able to transfer. Transfer is best done with a submersible pump to be located in cell #9, this pump is also able to be used for filling polymer injection tanks. Before transferring processed fluid it must be checked for ph and calcium to ensure within pre-set limits, also check to see that polymer is not being over injected and being carried in overflow.</p>	<p>Physical stress, Potential Energy- Pressurized Gases/Liquids, Slips trips and falls, Pinch points, Lifting and handling, Potential fumes</p>

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# SOP # BOS-106



- TASK: STRIP MUD



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# SOP # BOS-106



- TASK: STRIP MUD
- RISK Ranking

SEVERITY ↩	<i>Likelihood – Probability – Frequency</i>				
	<i>Impractical - Improbable - Rarely (1)</i>	<i>Unlikely - Not Probable - Infrequent (2)</i>	<i>Likely - Probable - Frequent (3)</i>	<i>More Likely - More Probable More Frequent (4)</i>	<i>Very Likely- Very Probable Very Frequent (5)</i>
Catastrophic (4)	4	8	12	16	20
Major (3)	3	6	9	12	15
Serious (2)	2	4	6	8	10
Minor (1)	1	2	3	4	5

**Level III Unacceptable RISK**  
No Work until additional Safety Controls are implemented and with Manager approval

**Level II Undesirable RISK**  
Proceed with additional Safety Controls and Supervisor approval

**Level I Acceptable RISK**  
Proceed with Caution

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# SOP # BOS-106



- **TASK: STRIP MUD**
- **Controls <List Controls to make task safe>**



Elimination Control:	Administrative Control:	PPE:
Guards	Standard Operating Procedures #106	Fire Retardant Coveralls
Valves	Pre Job Risk Assessments	Steel Toed Safety Boots
Gates	HSE Policy	Safety Glasses
	PPE Standards	Hearing Protection
	Training/ New hire, equipment, PPE, ERP	Hard Hat
		Gloves/ per task
		Rubber Boots/ per task
		Rain Suit / per task
		Respirator/ per task

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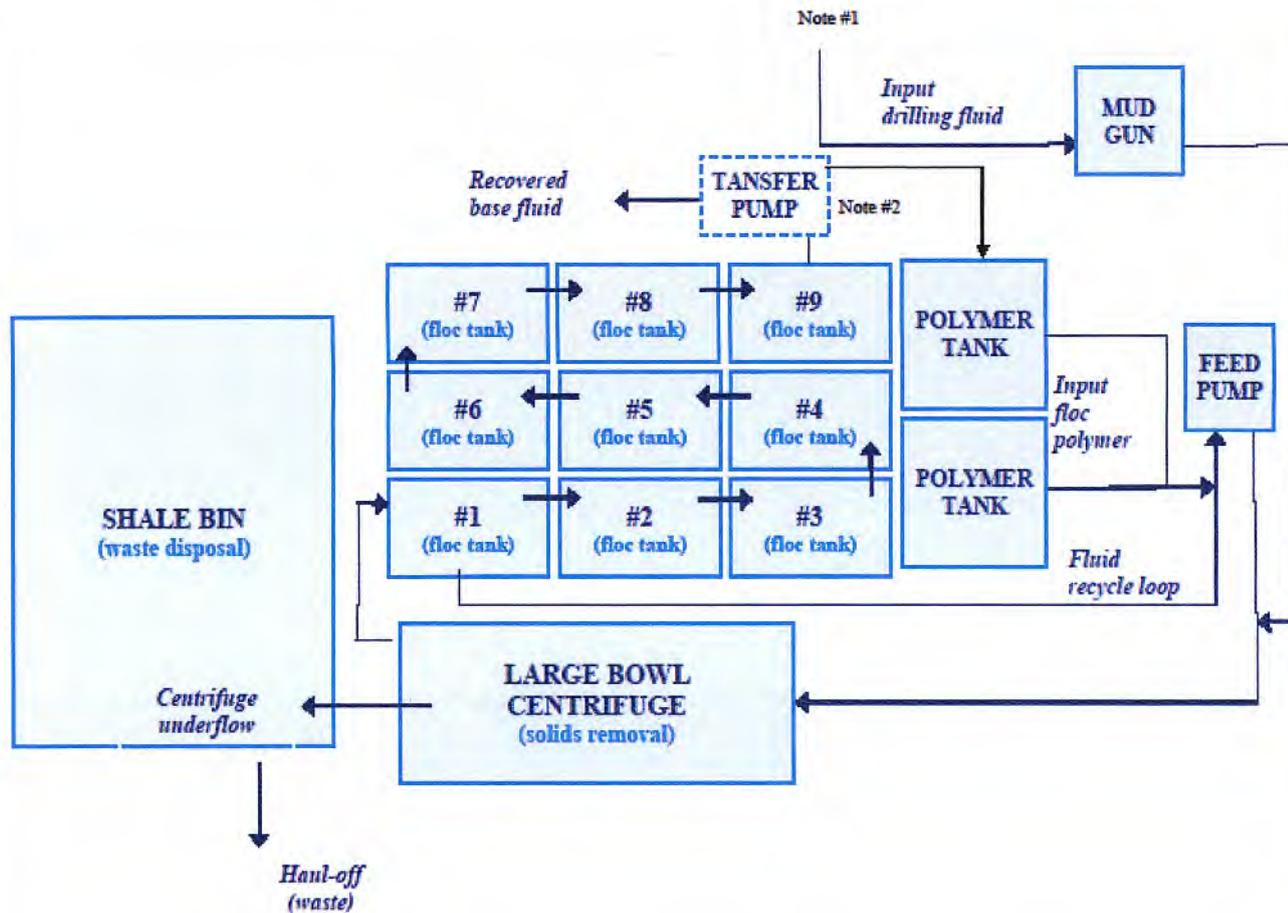
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# FLOW CHART MUD AND SLURRY DEWATERING RECOMMENDED RIG UP



**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.



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

Drawing/ Revision Date: December 12, 2011

Approved By: Andrew Pow



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 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	
McLean County	Bloomington	IL	X	X	X	X	X	X	X	X	X	X	X	
ERC/Coles County	Charleston	IL	X	X	X	X	X	X	X	X	X	X	X	
Brickyard Disposal	Danville	IL	X	X	X	X	X	X	X	X	X	X	X	
Southern Illinois Regional	De Soto	IL											X	
Lee County	Dixon	IL	X	X	X	X	X	X	X	X	X	X	X	
Upper Rock Island	East Moline	IL	X	X	X	X	X	X	X	X	X	X	X	
Bond County	Greensville	IL	X	X	X	X	X	X	X	X	X	X	X	
Illinois	Hoopeston	IL	X	X	X	X	X	X	X	X	X	X	X	
LandComp	LaSalle	IL	X	X	X	X	X	X	X	X	X	X	X	
Litchfield-Hillsboro	Litchfield	IL	X	X	X	X	X	X	X	X	X	X	X	
Envirotech	Morris	IL	X	X	X	X	X	X	X	X	X	X	X	
Livingston	Pontiac	IL	X	X	X	X	X	X	X	X	X	X	X	
Roxana	Roxana	IL	X	X	X	X	X	X	X	X	X	X	X	
Sangamon Valley	Springfield	IL	X	X	X	X	X	X	X	X	X	X	X	
Benson Valley	Frankfort	KY	X	X	X	X	X	X	X	X	X	X	X	
Blue Ridge	Irvine	KY	X	X	X	X	X	X	X	X	X	X	X	
Morehead	Morehead	KY	X	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	X	
Williams County	Bryan	OH			X	X	X	X	X	X	X	X	X	
County Environmental	Carey	OH			X	X	X	X	X	X	X	X	X	
Celina	Celina	OH			X	X	X	X	X	X	X	X	X	
Carbon-Limestone**	Lowellville	OH	X	X	X	X	X	X	X	X	X	X	X	
Countywide Landfill**	East Sparta	OH	X	X	X	X	X	X	X	X	X	X	X	
Lorain County	Oberlin	OH			X	X	X	X	X	X	X	X	X	
Oakland Marsh	Shiloh	OH			X	X	X	X	X	X	X	X	X	
Imperial	Imperial	PA			X	X	X	X	X	X	X	X	X	
Conestoga	Morgantown	PA			X	X	X	X	X	X	X	X	X	
Brunswick	Lawrenceville	VA			X	X	X	X	X	X	X	X	X	
King and Queen	Little Plymouth	VA			X	X	X	X	X	X	X	X	X	
Old Dominion	Richmond	VA			X	X	X	X	X	X	X	X	X	
Sycamore	Hurricane	WV			X	X	X	X	X	X	X	X	X	
Short Creek	Wheeling (Short Creek)	WV	X	X	X	X	X	X	X	X	X	X	X	
Carter 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 Harsanye:  
work: 330-536-8013 x 120  
cell: 330-423-7267

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4706401824

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			X	X	X		
South Hills (Armoni)	South Park	PA	X	X		X	X	X			X	X	X		
Kelly Run	Elizabeth	PA	X	X	X	X	X	X			X	X	X		
Valley Landfill	Irwin	PA	X	X	X	X	X	X	X	X	X	X	X		
Evergreen Landfill	Blairsville	PA	X	X	X	X	X						X		
Charleston Landfill (Kanawha County)	Charleston	WV	X	X	X	X	X	X			X		X		
Meadowfill Landfill	Bridgeport	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		
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			
Coshocton Landfill***	Coshocton	OH	X	X	X	X	X						X		
Mahoning Landfill	New Springfield	OH	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 (WWLC Group)	111 Conner Lane, Belle Vernon, PA 15012	PA	X	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 E State Highway 552 Lily, 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		
	Greentree 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		

Mike Horne: 412-552-4427  
Mark Thomas: 724-929-7694

Carl Spadaro: 412-343-4900  
cell: 412-445-9789

Joe Teterick: 740-275-2887  
joet@els-company.com

Carl Walter: 513-623-2471

Bruce Crouch: Work: 606-864-7996  
Cell: 606-219-0261

Tony Labenne  
6184 Route 219, Brockway, PA 15824  
814-590-9906

\*\* 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.

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

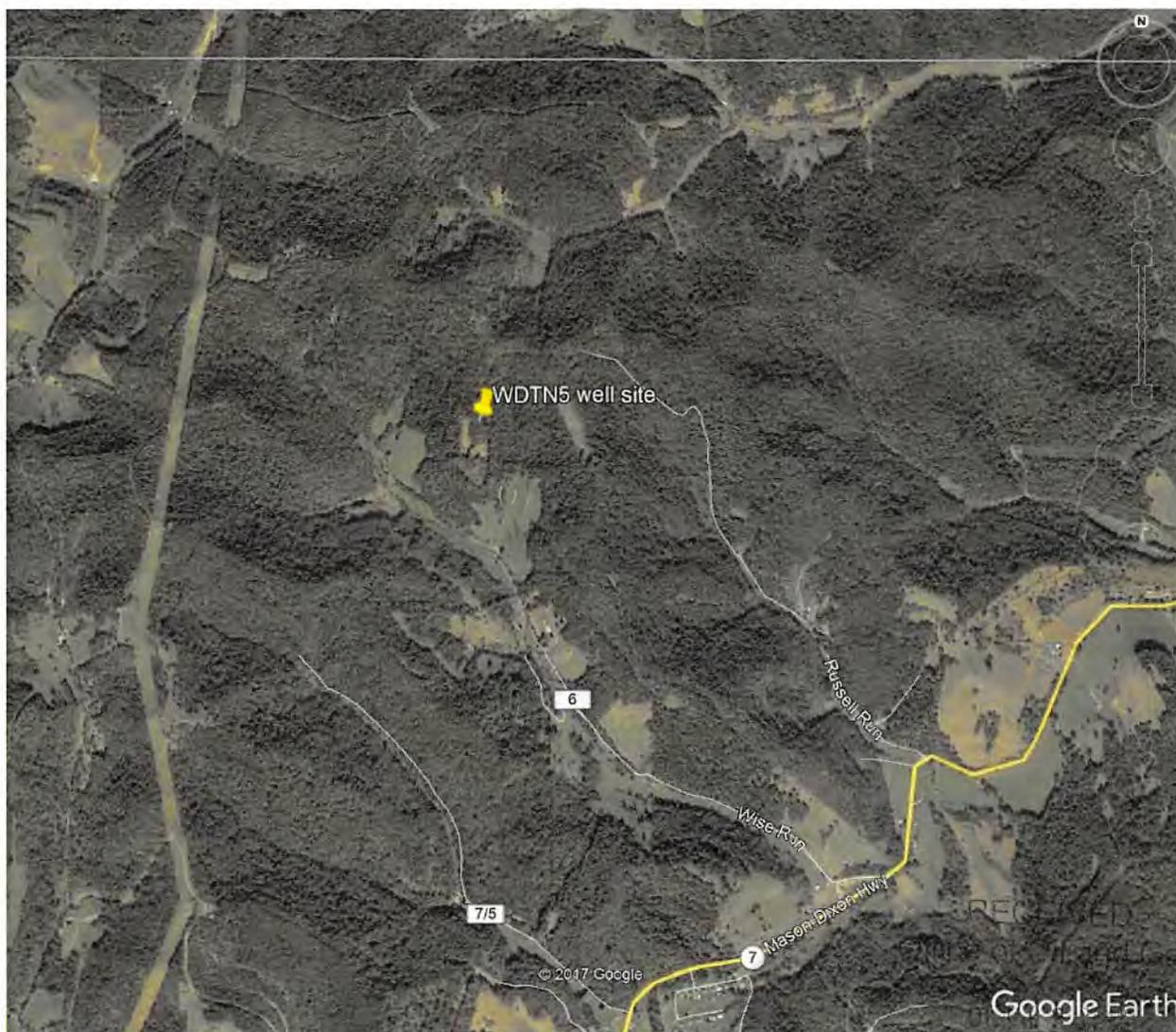
RECEIVED  
 Office of Oil and Gas  
 UC1 03 2018  
 WV Department of Environmental Protection

4706101824



# Site Safety Plan for Well WDTN5HHSM

## CNX Gas Company, LLC.



WV Department of  
Environmental Protection

# Approval Sheet

The Office of Oil and Gas and the Oil and Gas Conservation Commission have set forth minimum requirements for necessary equipment and procedures that must be addressed in a Safety Plan ("Plan") and shall be submitted and approved prior to drilling a deep well. A deep well shall be any well which meets the definition as provided for in Chapter 22C, Article 9 of the West Virginia Code.

A site specific Safety Plan must be submitted with each deep well application or no later than one week prior to spudding. Approved Plans shall be maintained and available at the drilling rig at all times.

The Office of Oil and Gas must approve all changes and modifications to previously approved plans.

This plan has met the requirements of the Policy Statement Deep Well Drilling Procedures and Site Safety Plan Requirements as set forth by:

West Virginia Division of Environmental Protection, Office of Oil and Gas

And

West Virginia Oil and Gas Conservation Commission.

Approved this day 27 of month September, 2018 by

Harper J. Kistner

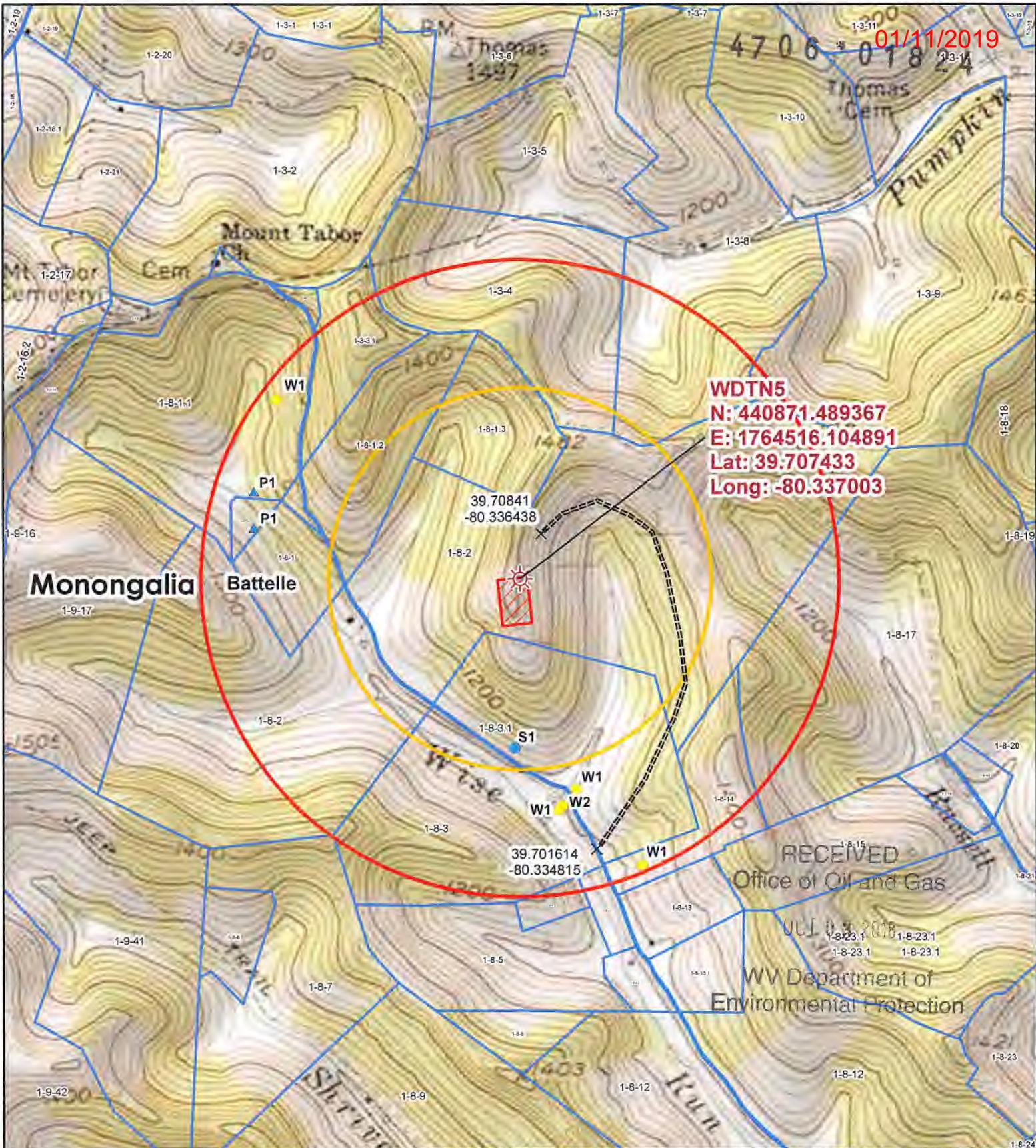
Date: 9/27/2018

\_\_\_\_\_

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

RECEIVED  
Office of Oil and Gas  
OCT 03 2018  
WV Department of  
Environmental Protection

01/11/2019



**WDTN5**  
**N: 440871.489367**  
**E: 1764516.104891**  
**Lat: 39.707433**  
**Long: -80.337003**

Monongalia

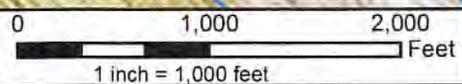
Battelle

RECEIVED  
 Office of Oil and Gas

WV Department of  
 Environmental Protection

**Legend**

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



**CONSOL ENERGY**  
 CNX Center, Canonsburg, PA

Original Date: 11/13/2017      Prepared By: GIS

Revision Date: 11/13/2017      Approved By: GIS

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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Topographic Well Map  
**WDTN5**

SHL is located on topo map 682 feet south of Latitude: 39° 42' 30"  
 BHL is located on topo map 10,434 feet south of Latitude: 39° 45' 00"



**SURFACE TRACT OWNERS & TAX PARCEL**

1. DINA M WISE ET AL	TM# 1-8-2
2. BARBARA J. WAGNER	TM# 1-8-3.1
3. BARBARA J. WAGNER	TM#1-9-3
4. HENRY W & LYNDA M AREHEART	TM# 1-8-1
5. HENRY W. & LYNDA M. AREHEART	TM#1-8-1.4
6. GARY L & ARLENE ANN NEELY	TM# 1-8-1.1
7. ROBERT ANTHONY LAUER III	TM# 1-2-16
8. THOMAS M. BARNHOUSE	TM# 1-2-17
9. DELORES J. HARRISON	TM# 1-2-16.2
10. FREDERICK JR. & PATRICIA MORGAN	TM# 1-2-16
11. DAVID & NANCY LIMING	TM# 1-2-16
12. HUSKIE LUMBER COMPANY INC	TM# 1-2-13



**SURFACE HOLE LOCATION (SHL)**

UTM 17 - NAD83(M)  
 N: 4395387.925  
 E: 556821.825  
 NAD27, WV NORTH  
 N: 440488.816  
 E: 1764412.118  
 LAT/LON - NAD83  
 LAT: 39°42'23.255"  
 LON: 80°20'13.766"

**APPROXIMATE LANDING POINT**

UTM 17 - NAD83(M)  
 N: 4395202.814  
 E: 556554.028  
 NAD27, WV NORTH  
 N: 439896.067  
 E: 1763523.247  
 LAT/LON - NAD83  
 LAT: 39°42'17.315"  
 LON: 80°20'25.069"

**BOTTOM HOLE LOCATION (BHL)**

UTM 17 - NAD83(M)  
 N: 4396987.265  
 E: 554609.656  
 NAD27, WV NORTH  
 N: 445858.014  
 E: 1757240.648  
 LAT/LON - NAD83  
 LAT: 39°43'15.649"  
 LON: 80°21'46.183"

**LINE TABLE**

LINE #	BEARING	DISTANCE
R1	S13°51'00"W	973.95'
R2	N75°13'27"E	240.10'
R3	S57°57'50"E	385.77'
R4	N53°07'50"W	102.83'
R5	N75°13'27"E	240.10'

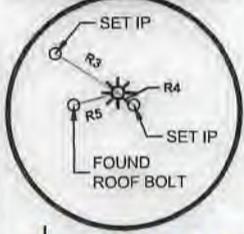
**LEGEND**

	TOPO MAP POINT		PROPOSED WELL		ALL ARE POINTS UNLESS OTHERWISE NOTED LEASE BOUNDARY
	WATER SOURCE		PROPOSED HORIZONTAL WELL		SURFACE, OIL & GAS LINES
	SPRING		SURFACE TRACT LINES ONLY		GAS LEASE LINES ONLY
	SURFACE TRACT		WELL REFERENCE		STREAM/WATERWAY
	LEASED NUMBER BASED ON ATTACHED VW6A1		ROAD		

**WELLS WITHIN 3000'**

RECORD GAS WELL  
 UNKNOWN WELL

**REFERENCE DETAIL**



**Sheffler & Company, Inc.**  
 ENGINEERING • SURVEYING

1712 Mount Nebo Road  
 Sewickley, PA 15143  
 Phone: 412-219-4509  
 Email: info@shefflerCo.com

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

FILE #: WDTN5HHSM  
 DRAWING #: 3601 - WDTN5H.DWG  
 SCALE: 1"=2000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE OF ELEVATION: USGS MONUMENT JX1864: 1,496.32'

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:

R.P.E.: 21452 L.L.S.: P.S. NO. \_\_\_\_\_



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

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

WATERSHED: DUNKARD CREEK ELEVATION: 1412'  
 COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: WADESTOWN, WV  
 SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36  
 OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL. ACREAGE: 207.36

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

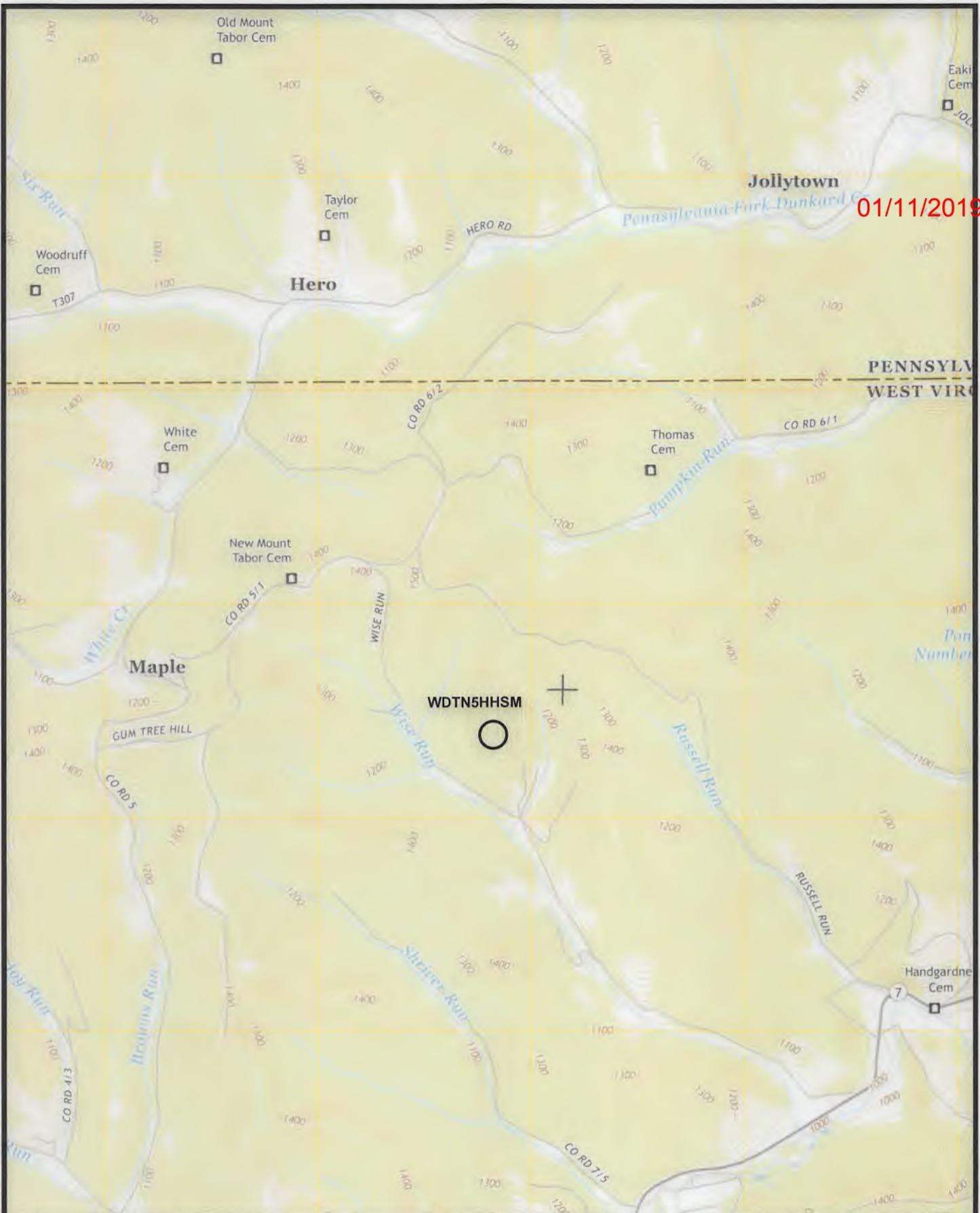
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,715' ± TMD: 16,939' ±  
 WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER  
 Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE  
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

DATE: September 21, 2018, Rev. September 24, 2018

OPERATOR'S WELL #: WDTN5HHSM

API WELL # 47 061 01824  
 STATE COUNTY PERMIT





01/11/2019

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



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STATE COUNTY PERMIT

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 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

01/11/2019

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
1	1-8-2	189010000	Richard L. McCauley	CNX Gas Company LLC
			Judy A. Eckman	CNX Gas Company LLC
			Thomas E. McCauley	CNX Gas Company LLC
			Regina Wise Myers, aka Violet Regina Myers	CNX Gas Company LLC
			Evalae A. Everly Shaheen	CNX Gas Company LLC
			Zelda Ruth Brummage	CNX Gas Company LLC
			Dexter Murle Stewart	CNX Gas Company LLC
			Walter C. Ord	CNX Gas Company LLC
			James Freeman Stewart	CNX Gas Company LLC
			Clifford J. Wise	CNX Gas Company LLC
			Victor E. Wise, a single man	CNX Gas Company LLC
			Jesse D. Jones, a married man	CNX Gas Company LLC
			Phyllis J. Petrosky, a widowed woman	CNX Gas Company LLC
			Annette E. Stewart, single	CNX Gas Company LLC
			Harold M. Jones, Jr., a single man	CNX Gas Company LLC
			Robert Stewart	CNX Gas Company LLC
			Richard W. Wise	CNX Gas Company LLC
			Walter R. Currence	CNX Gas Company LLC
			Donald D. Wise, aka Donald G. Wise	CNX Gas Company LLC
			Maureen S. Currence	CNX Gas Company LLC
			Opal Jane Wise, Life Estate Holder and John Matthew Wise and Dina M. Wise, Remaindermen	CNX Gas Company LLC
			Michelle L. Currence	CNX Gas Company LLC
			Justin P. Stewart, single	CNX Gas Company LLC
			Debra Goff	CNX Gas Company LLC
			Eleanor J. Wise, single	CNX Gas Company LLC
			Donald E. Nunley and Deborah L. Nunley	CNX Gas Company LLC
			Fred C. Wise and Alice F. Wise	CNX Gas Company LLC
			Patricia J. Mumaw and Richard L. Mumaw	CNX Gas Company LLC
			Richard A. Nunley and Diana K. Nunley	CNX Gas Company LLC
			Mary Nunley Stepelton and Donald Stepelton	CNX Gas Company LLC
			Linda Stapp	CNX Gas Company LLC
			Melissa A. Bookout	CNX Gas Company LLC
			Jane Irons, widow	CNX Gas Company LLC
			Eileen Ann Lyle	CNX Gas Company LLC
			Robert Eugene Michael, Sr.	CNX Gas Company LLC
Frank Dennis Michael, Jr.	CNX Gas Company LLC			
Evelyn June Michael	CNX Gas Company LLC			
Tonya Chersin	CNX Gas Company LLC			
Boyd Hawkins	CNX Gas Company LLC			
Becky L. Hawkins f/k/a Becky Bortnick	CNX Gas Company LLC			
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
2	1-8-3 1-8-3.1	204769000	Barbara J. Wagner, a widow	CNX Gas Company LLC
			Donald L. White, et al	CNX Gas Company LLC
			Arnold D. Anderson, individually, and as Trustee of the Arnold D. Anderson and Barbara J. Anderson Living Trust UTD May 14th, 2008	CNX Gas Company LLC
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
3	1-8-1	204516000	CBC Holdings, LLC	CNX Gas Company LLC
			Henry W. Areheart and Lynda M. Areheart, h/w	CNX Gas Company LLC
			Earl W. Kennedy	CNX Gas Company LLC
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
4	1-8-1.4	204776000	CBC Holdings, LLC	CNX Gas Company LLC
			Henry W. Areheart and Lynda M. Areheart, h/w	CNX Gas Company LLC
			Earl W. Kennedy	CNX Gas Company LLC
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
5	1-8-1.1	188587000	CBC Holdings, LLC	CNX Gas Company LLC
			Gary L. Neely and Arlene Ann Neely	CNX Gas Company LLC
			Earl W. Kennedy	CNX Gas Company LLC
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
6	1-2-16 1-2-16.2 p/o 1-2-16.1 p/o 1-2-17 p/o 1-2-17.1	188578000	XTO Energy, Inc.	CNX Gas Company, LLC
			Three Rivers Royalty II, LLC	CNX Gas Company, LLC
			Elizabeth A. Martineau, a/k/a, Elizabeth Ada Snyder, a/k/a, Elizabeth Snyder Martineau	CNX Gas Company, LLC
			Rebecca Snyder Bromley, a/k/a Alice Rebecca Snyder Bromley	CNX Gas Company, LLC
			James Brant Snyder	CNX Gas Company, LLC
			Sharon White Bartholomew, a/k/a Sharon R. W. Bartholomew, a/k/a, Sharon Ruth White Bartholomew	CNX Gas Company, LLC
			David T. White and Sarah K. White, h/w, as JTROS	CNX Gas Company, LLC
			Glenn L. White, individually and as trustee of Glenn L. White Trust	CNX Gas Company, LLC
			Alice T. Boone	CNX Gas Company, LLC
			Eldon Bryant Tucker, et ux	CNX Gas Company, LLC

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**Sheffler & Company, Inc.**  
ENGINEERING • SURVEYING  
1712 Mount Nebo Road Sewickley, PA 15143 Phone: 412-219-4509 Email: info@shefflerCo.com

DATE: September 21, 2018, Rev. September 24, 2018

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow  
 OPERATOR'S WELL #: WDTN5HSM  
 API WELL # 47 STATE 061 COUNTY 01924 PERMIT H04  
 WATERSHED: DUNKARD CREEK ELEVATION: 1412'  
 COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: WADESTOWN, WV  
 SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36  
 OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL. ACREAGE: 207.36

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 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)

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6 (CONT.)	1-2-16 1-2-16.2 p/o 1-2-16.1 p/o 1-2-17 p/o 1-2-17.1	188578000	Charles Tucker, et ux	CNX Gas Company, LLC			
			Robert Earl, et ux	CNX Gas Company, LLC			
			David Tucker	CNX Gas Company, LLC			
			James Tucker, et ux	CNX Gas Company, LLC			
			Cheryl Molesky	CNX Gas Company, LLC			
			Laurence D. Hare	CNX Gas Company, LLC			
			James F. Hare III, et ux	CNX Gas Company, LLC			
			Lacy L. Adams, et vir	CNX Gas Company, LLC			
			Donald Pelger	CNX Gas Company, LLC			
			Carl L. Anderson, et ux	CNX Gas Company, LLC			
			David Wayne Anderson	CNX Gas Company, LLC			
			Deborah Horton, Trustee and Beneficiary of the Ronald L. Horton Revocable Living Trust	CNX Gas Company, LLC			
			Chris Pelger	CNX Gas Company, LLC			
			Shannon Harker	CNX Gas Company, LLC			
			Chase Schwersenska	CNX Gas Company, LLC			
			John Pelger	CNX Gas Company, LLC			
			Holly Pelger	CNX Gas Company, LLC			
			Brenda Murphy	EQT Production Company			
			Vickie L. Simmons	EQT Production Company			
			Sherry C. McCoy	EQT Production Company			
			David C. Anderson	EQT Production Company			
			Kelly Dilbeck	CNX Gas Company, LLC			
			7	1-2-17.2 p/o 1-2-17 p/o 1-2-17.1 p/o 1-2-16.1	239935000	XTO Energy, Inc.	CNX Gas Company, LLC
						Three Rivers Royalty II, LLC	CNX Gas Company, LLC
Elizabeth A. Martineau, a/k/a, Elizabeth Ada Snyder, a/k/a, Elizabeth Snyder Martineau	CNX Gas Company, LLC						
Rebecca Snyder Bromley, a/k/a Alice Rebecca Snyder Bromley	CNX Gas Company, LLC						
James Brant Snyder	CNX Gas Company, LLC						
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Shannon Harker	CNX Gas Company, LLC						
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Vickie L. Simmons	EQT Production Company						
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8	1-2-14	188577000				XTO Energy, Inc.	CNX Gas Company, LLC
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						Elizabeth A. Martineau, a/k/a, Elizabeth Ada Snyder, a/k/a, Elizabeth Snyder Martineau	CNX Gas Company, LLC
			Rebecca Snyder Bromley, a/k/a Alice Rebecca Snyder Bromley	CNX Gas Company, LLC			
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 SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36  
 OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL. ACREAGE: 207.36

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,715' ± TMD: 16,939' ±  
 WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER  
 Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE  
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
8 (CONT.)	1-2-14	188577000	Laurence D. Hare	CNX Gas Company, LLC
			James F. Hare III, et ux	CNX Gas Company, LLC
			Lacy L. Adams, et vir	CNX Gas Company, LLC
			Donald Pelger	CNX Gas Company, LLC
			Carl L. Anderson, et ux	EQT Production Company
			David Wayne Anderson	CNX Gas Company, LLC
			Deborah Horton, Trustee and Beneficiary of the Ronald L. Horton Revocable Living Trust	CNX Gas Company, LLC
			Chris Pelger	CNX Gas Company, LLC
			Shannon Harker	CNX Gas Company, LLC
			Chase Schwersenska	CNX Gas Company, LLC
			John Pelger	CNX Gas Company, LLC
			Holly Pelger	CNX Gas Company, LLC
			Brenda Murphy	EQT Production Company
			Vickie L. Simmons	EQT Production Company
			Sherry C. McCoy	EQT Production Company
			David C. Anderson	EQT Production Company
Kelly Dilbeck	CNX Gas Company, LLC			
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
9	1-2-13	188610000	Ralph Six	CNX Gas Company LLC
			Huskie Lumber Co., Inc.	Antero Resources Corporation

01/11/2019

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



**Sheffler & Company, Inc.**  
ENGINEERING • SURVEYING  
1712 Mount Nebo Road Phone: 412-219-4509  
Sewickley, PA 15143 Email: info@shefflerCo.com

DATE: September 21, 2018, Rev. September 24, 2018

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

OPERATOR'S WELL #: WDTN5HSM  
API WELL # 47 061 01824  
STATE COUNTY PERMIT

WATERSHED: DUNKARD CREEK ELEVATION: 1412'  
COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: WADESTOWN, WV  
SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36  
OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL. ACREAGE: 207.36

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,715' ± TMD: 16,939' ±  
WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER  
Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE  
City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

**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
-------------------------	-----------------------	-----------------------	---------	-----------

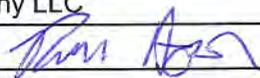
See attached.

**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

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: Raymond Hoon   
 Its: Permitting Supervisor

01/11/2019  
OCT 03 2018

Attachment - Form WW-6A-1 for WTN5HHS						
WV Department of Environmental Protection						
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
1	1-8-2	189010000	Richard L. McCauley	CNX Gas Company LLC	Not less than 1/8	1442/707
			Judy A. Eckman	CNX Gas Company LLC	Not less than 1/8	1442/711
			Thomas E. McCauley	CNX Gas Company LLC	Not less than 1/8	1442/715
			Regina Wise Myers, aka Violet Regina Myers	CNX Gas Company LLC	Not less than 1/8	1450/740
			Evalee A. Everly Shaheen	CNX Gas Company LLC	Not less than 1/8	1501/321
			Zelda Ruth Brummage	CNX Gas Company LLC	Not less than 1/8	1500/762
			Dexter Murie Stewart	CNX Gas Company LLC	Not less than 1/8	1500/277
			Walter C. Ord	CNX Gas Company LLC	Not less than 1/8	1501/803
			James Freeman Stewart	CNX Gas Company LLC	Not less than 1/8	1501/806
			Clifford J. Wise	CNX Gas Company LLC	Not less than 1/8	1525/130
			Victor E. Wise, a single man	CNX Gas Company LLC	Not less than 1/8	1501/813
			Jesse D. Jones, a married man	CNX Gas Company LLC	Not less than 1/8	1509/468
			Phyllis J. Petrosky, a widowed woman	CNX Gas Company LLC	Not less than 1/8	1510/203
			Annette E. Stewart, single	CNX Gas Company LLC	Not less than 1/8	1510/806
			Harold M. Jones, Jr., a single man	CNX Gas Company LLC	Not less than 1/8	1511/101
			Robert Stewart	CNX Gas Company LLC	Not less than 1/8	1520/433
			Richard W. Wise	CNX Gas Company LLC	Not less than 1/8	1520/785
			Walter R. Currence	CNX Gas Company LLC	Not less than 1/8	1516/36
			Donald D. Wise, aka Donald G. Wise	CNX Gas Company LLC	Not less than 1/8	1524/530
			Maureen S. Currence	CNX Gas Company LLC	Not less than 1/8	1516/486
			Opal Jane Wise, Life Estate Holder and John Matthew Wise and Dina M. Wise, Remaindermen	CNX Gas Company LLC	Not less than 1/8	1520/781
			Michelle L. Currence	CNX Gas Company LLC	Not less than 1/8	1520/481
			Justin P. Stewart, single	CNX Gas Company LLC	Not less than 1/8	1528/431
			Debra Goff	CNX Gas Company LLC	Not less than 1/8	1520/625
			Eleanor J. Wise, single	CNX Gas Company LLC	Not less than 1/8	1529/256
			Donald E. Nunley and Deborah L. Nunley	CNX Gas Company LLC	Not less than 1/8	1501/809
			Fred C. Wise and Alice F. Wise	CNX Gas Company LLC	Not less than 1/8	1596/260
			Patricia J. Mumaw and Richard L. Mumaw	CNX Gas Company LLC	Not less than 1/8	1597/89
			Richard A. Nunley and Diana K. Nunley	CNX Gas Company LLC	Not less than 1/8	1598/230
			Mary Nunley Stepelton and Donald Stepelton	CNX Gas Company LLC	Not less than 1/8	1597/99
			Linda Stapp	CNX Gas Company LLC	Not less than 1/8	1597/85
			Melissa A. Bookout	CNX Gas Company LLC	Not less than 1/8	1601/621
			Jane Irons, widow	CNX Gas Company LLC	Not less than 1/8	1602/113
			Eileen Ann Lyle	CNX Gas Company LLC	Not less than 1/8	1602/108
			Robert Eugene Michael, Sr.	CNX Gas Company LLC	Fee	1600/462
			Frank Dennis Michael, Jr.	CNX Gas Company LLC	Fee	1599/282
			Evelyn June Michael	CNX Gas Company LLC	Fee	1599/267
			Tonya Chersin	CNX Gas Company LLC	Fee	1600/800
			Boyd Hawkins	CNX Gas Company LLC	Fee	1601/148
			Becky L. Hawkins f/k/a Becky Bortnick	CNX Gas Company LLC	Fee	1601/152
					Fee	1605/324
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
2	1-8-3 1-8-3.1	204769000	Barbara J. Wagner, a widow	CNX Gas Company LLC	Not less than 1/8	1506/533
			Donald L. White, et al	CNX Gas Company LLC	Not less than 1/8	1507/427
			Arnold D. Anderson, Individually, and as Trustee of the Arnold D. Anderson and Barbara J. Anderson Living Trust UTD May 14th, 2008	CNX Gas Company LLC	Not less than 1/8	1515/794
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
3	1-8-1	204516000	CBC Holdings, LLC	CNX Gas Company LLC	Not less than 1/8	1375/675
			Henry W. Areheart and Lynda M. Areheart, h/w	CNX Gas Company LLC	Not less than 1/8	1615/710
			Earl W. Kennedy	CNX Gas Company LLC	Not less than 1/8	1375/654
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
4	1-8-1.4	204776000	CBC Holdings, LLC	CNX Gas Company LLC	Not less than 1/8	1375/675
			Henry W. Areheart and Lynda M. Areheart, h/w	CNX Gas Company LLC	Not less than 1/8	1615/710
			Earl W. Kennedy	CNX Gas Company LLC	Not less than 1/8	1375/654
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5	1-8-1.1	188587000	CBC Holdings, LLC	CNX Gas Company LLC	Not less than 1/8	1375/675
			Gary L. Neely and Arlene Ann Neely	CNX Gas Company LLC	Not less than 1/8	1602/835
			Earl W. Kennedy	CNX Gas Company LLC	Not less than 1/8	1375/654
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
6	1-2-16 1-2-16.2 p/o 1-2-16.1 p/o 1-2-17	188578000	XTO Energy, Inc.	CNX Gas Company, LLC	Fee	1629/449
			Three Rivers Royalty II, LLC	CNX Gas Company, LLC	Not less than 1/8	1616/673
			Elizabeth A. Martineau, a/k/a, Elizabeth Ada Snyder, a/k/a/, Elizabeth Snyder Martineau	CNX Gas Company, LLC	Not less than 1/8	1521/781
			Rebecca Snyder Bromley, a/k/a Alice Rebecca Snyder Bromley	CNX Gas Company, LLC	Not less than 1/8	1522/563
			James Brant Snyder	CNX Gas Company, LLC	Not less than 1/8	1523/111
			Sharon White Bartholomew, a/k/a Sharon R. W. Bartholomew, a/k/a/, Sharon Ruth White Bartholomew	CNX Gas Company, LLC	Not less than 1/8	1529/268

WV Department of Environmental Protection  
47001826

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
			David T. White and Sarah K. White, h/w, as JTROS	CNX Gas Company, LLC	Not less than 1/8	1543/430
			Glenn L. White, individually and as trustee of Glenn L. White Trust	CNX Gas Company, LLC	Not less than 1/8	1516/48
			Alice T. Boone	CNX Gas Company, LLC	Not less than 1/8	1602/805
			Eldon Bryant Tucker, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/828
			Charles Tucker, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/811
			Robert Earl, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/822
			David Tucker	CNX Gas Company, LLC	Not less than 1/8	1602/840
			James Tucker, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/798
			Cheryl Molesky	CNX Gas Company, LLC	Not less than 1/8	1605/334
			Laurence D. Hare	CNX Gas Company, LLC	Not less than 1/8	1605/618
			James F. Hare III, et ux	CNX Gas Company, LLC	Not less than 1/8	1604/615
			Lacy L. Adams, et vir	CNX Gas Company, LLC	Not less than 1/8	1612/566
			Donald Pelger	CNX Gas Company, LLC	Not less than 1/8	1612/550
			Carl L. Anderson, et ux	CNX Gas Company, LLC	Not less than 1/8	1614/309
			David Wayne Anderson	CNX Gas Company, LLC	Not less than 1/8	1614/153
			Deborah Horton, Trustee and Beneficiary of the Ronald L. Horton Revocable Living Trust	CNX Gas Company, LLC	Not less than 1/8	1612/572
			Chris Pelger	CNX Gas Company, LLC	Not less than 1/8	1614/639
			Shannon Harker	CNX Gas Company, LLC	Not less than 1/8	1615/704
			Chase Schwersenska	CNX Gas Company, LLC	Not less than 1/8	1614/712
			John Pelger	CNX Gas Company, LLC	Not less than 1/8	1621/329
			Holly Pelger	CNX Gas Company, LLC	Not less than 1/8	1635/236
			Brenda Murphy	EQT Production Company	Not less than 1/8	1615/281
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			Vickie L. Simmons	EQT Production Company	Not less than 1/8	1615/276
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			Sherry C. McCoy	EQT Production Company	Not less than 1/8	1615/278
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			David C. Anderson	EQT Production Company	Not less than 1/8	1615/285
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			Kelly Dilbeck	CNX Gas Company, LLC	Not less than 1/8	131/31
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
7	1-2-17.2 p/o 1-2-17 p/o 1-2-17.1 p/o 1-2-16.1	239935000	XTO Energy, Inc.	CNX Gas Company, LLC	Fee	1629/449
			Three Rivers Royalty II, LLC	CNX Gas Company, LLC	Not less than 1/8	1616/673
			Elizabeth A. Martineau, a/k/a, Elizabeth Ada Snyder, a/k/a/, Elizabeth Snyder Martineau	CNX Gas Company, LLC	Not less than 1/8	1521/781
			Rebecca Snyder Bromley, a/k/a Alice Rebecca Snyder Bromley	CNX Gas Company, LLC	Not less than 1/8	1522/563
			James Brant Snyder	CNX Gas Company, LLC	Not less than 1/8	1523/111
			Sharon White Bartholomew, a/k/a Sharon R. W. Bartholomew, a/k/a, Sharon Ruth White Bartholomew	CNX Gas Company, LLC	Not less than 1/8	1529/268
			David T. White and Sarah K. White, h/w, as JTROS	CNX Gas Company, LLC	Not less than 1/8	1543/430
			Glenn L. White, individually and as trustee of Glenn L. White Trust	CNX Gas Company, LLC	Not less than 1/8	1516/48
			Alice T. Boone	CNX Gas Company, LLC	Not less than 1/8	1602/805
			Eldon Bryant Tucker, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/828
			Charles Tucker, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/811
			Robert Earl, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/822
			David Tucker	CNX Gas Company, LLC	Not less than 1/8	1602/840
			James Tucker, et ux	CNX Gas Company, LLC	Not less than 1/8	1602/798
			Cheryl Molesky	CNX Gas Company, LLC	Not less than 1/8	1605/334
			Laurence D. Hare	CNX Gas Company, LLC	Not less than 1/8	1605/618
			James F. Hare III, et ux	CNX Gas Company, LLC	Not less than 1/8	1604/615
			Lacy L. Adams, et vir	CNX Gas Company, LLC	Not less than 1/8	1612/566
			Donald Pelger	CNX Gas Company, LLC	Not less than 1/8	1612/550
			Carl L. Anderson, et ux	CNX Gas Company, LLC	Not less than 1/8	1614/309
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			Deborah Horton, Trustee and Beneficiary of the Ronald L. Horton Revocable Living Trust	CNX Gas Company, LLC	Not less than 1/8	1612/572
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			Chase Schwersenska	CNX Gas Company, LLC	Not less than 1/8	1614/712
			John Pelger	CNX Gas Company, LLC	Not less than 1/8	1621/329
			Holly Pelger	CNX Gas Company, LLC	Not less than 1/8	1635/236
			Brenda Murphy	EQT Production Company	Not less than 1/8	1615/281
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			Vickie L. Simmons	EQT Production Company	Not less than 1/8	1615/276
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			Sherry C. McCoy	EQT Production Company	Not less than 1/8	1615/278
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			David C. Anderson	EQT Production Company	Not less than 1/8	1615/285
			EQT Production Company	CNX Gas Company, LLC	Assignment	136/258
			Kelly Dilbeck	CNX Gas Company, LLC	Not less than 1/8	131/29
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
8	1-2-14	188577000	XTO Energy, Inc.	CNX Gas Company, LLC	Fee	1629/449
			David Liming and Nancy Liming	CNX Gas Company, LLC	Not less than 1/8	1520/797
			Three Rivers Royalty II, LLC	CNX Gas Company, LLC	Not less than 1/8	1616/673
			Elizabeth A. Martineau, a/k/a, Elizabeth Ada Snyder, a/k/a/, Elizabeth Snyder Martineau	CNX Gas Company, LLC	Not less than 1/8	1521/781
			Rebecca Snyder Bromley, a/k/a Alice Rebecca Snyder Bromley	CNX Gas Company, LLC	Not less than 1/8	1522/563





Office of Oil and Gas  
UCI 01/11/2019  
4706901824  
WV Department of  
Environmental Protection

Raymond Hoon  
Permitting Supervisor  
1000 Consol Energy Dr.  
Canonsburg, PA 15317  
(724) 485-3540

West Virginia Department of Environmental Protection  
Office of Oil & Gas  
601 57<sup>th</sup> Street, SE  
Charlestown, WV 25304-2345

RE: Road Letter – WDTN5 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) 485-3540 or [RaymondHoon@cnx.com](mailto:RaymondHoon@cnx.com).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Raymond Hoon', written in a cursive style.

Raymond Hoon  
Permitting Supervisor



PUBLISHER'S CERTIFICATE

RECEIVED  
Office of Oil and Gas  
01/11/2019  
OCT 03 2018

4706\*01824  
vs. WV Department of  
Environmental Protection

STATE OF WEST VIRGINIA  
COUNTY OF MONONGALIA

I Brad Pennington Advertising Director of  
THE DOMINION POST, a newspaper of general circulation  
published in the City of Morgantown, County and State  
aforesaid, do hereby certify that the annexed

Legal Notice

was published in the said THE DOMINION POST once a week  
fo 2 successive weeks commencing on the  
7th day of September, 2018 and ending on the  
14th day of September, 2018

The publisher's fee for said publication is \$209.16  
Given under my hand this 14th day of  
September, 2018

*Brad Pennington*

(SEAL)

Advertising Director of THE DOMINION POST

Subscribed and sworn to before me this 14th  
day of September, 2018

*Melissa M. Rancijk*

Notary Public of Monongalia County, W. Va.

My commission expires on the 26th day of

*July 2021*



010136611 **Horizontal Natural Gas Well Work Permit** September 7, 14  
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: The Dominion Post

Public Notice Date: September 7, 14, 2018

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: WDTN5GHSM,  
WDTN5HHSM, WDTN5IHSM, WDTN5JHSM, WDTN5KHSM, WDTN5LHSM,  
WDTN5MHSM

Address: 1000 Consol Energy Drive, Canonsburg PA 15317

Business Conducted: Natural gas production.

Location -  
State: West Virginia County: Monongalia  
District: Batelle Quadrangle: Wadestown  
UTM Coordinate NAD83 Northing: 4395393.967, 4395387.925, 4395388.717,  
4395394.759, 4395406.844, 4395400.010, 4395406.052  
UTM coordinate NAD83 Easting: 556821.033, 556821.825, 556827.867,  
556827.076, 556825.492, 556820.241, 556819.450  
Watershed: Dunkard Creek

Coordinate Conversion:  
To convert the coordinates above into longitude and latitude, visit: [http://tagis.dep.wv.gov/convert/lutm\\_conus.php](http://tagis.dep.wv.gov/convert/lutm_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](mailto:DEP.comments@wv.gov).

Submitting Comments:  
Comments may be submitted online at <https://apps.dep.wv.gov/gog/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](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx)

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE CERTIFICATION 4706

Date of Notice Certification: 10-1-18

API No. 47- \_\_\_\_\_  
Operator's Well No. WDTN5HHSM  
Well Pad Name: WDTN5

**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>556821.8250</u>
County: <u>Monongalia</u>		Northing: <u>4395387.9250</u>
District: <u>Battelle</u>	Public Road Access: <u>CR6 Wise Run</u>	
Quadrangle: <u>Wadestown</u>	Generally used farm name: <u>Wise</u>	
Watershed: <u>Dunkard 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 checked="" 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><input 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><b>OOG OFFICE USE ONLY</b></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>
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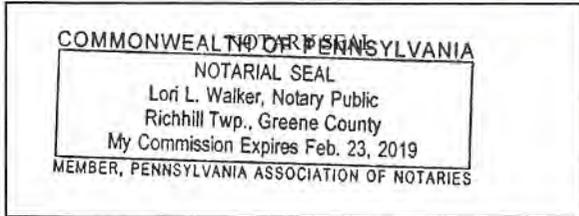
**Required Attachments:**

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.

**Certification of Notice is hereby given:**

THEREFORE, I Raymond Hoon *Raymond Hoon*, 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>Raymond Hoon</u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Permitting Supervisor</u>	Facsimile:	<u></u>
Telephone:	<u>724-485-3540</u>	Email:	<u>RaymondHoon@CNX.com</u>



*Commonwealth of Pennsylvania*  
*County of Washington 1st*  
Subscribed and sworn before me this 1st day of October.  
Lori L. Walker Notary Public  
My Commission Expires February 23, 2019

**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](mailto: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.** **4706 01824**

**Date of Notice:** 9-27-18 **Date Permit Application Filed:** 10-1-18

**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.

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**Office of Oil and Gas**  
**OCT 03 2018**

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

**WV Department of  
Environmental Protection**

SURFACE OWNER(s)  
Name: See attached  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: See attached  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OPERATOR  
Name: N/A  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: See attached  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: N/A  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: N/A  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
Name: N/A  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

01/17/2019

4706 01824

**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

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**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

WV Department of Environmental Protection

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 other cause is 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.

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WV Department of Environmental Protection

**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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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

**Time Limits and Methods for Filing Comments.**

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

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01 03 2018  
WV Department of  
Environmental Protection

WW-6A  
(8-13)

API NO. 47- \_\_\_\_\_ - \_\_\_\_\_  
OPERATOR WELL NO. WDTN5HHSM  
Well Pad Name: WDTN5 **01/11/2019**

**4706 01824**

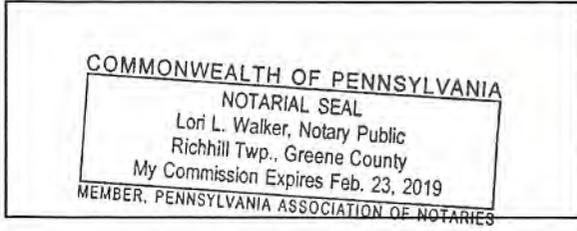
**Notice is hereby given by:**

Well Operator: CNX Gas Company, LLC  
Telephone: 724-485-3540  
Email: RaymondHoon@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](mailto:depprivacyofficer@wv.gov).



Commonwealth of Pennsylvania  
County of Washington  
Subscribed and sworn before me this 1st day of October 2018  
Lori L. Walker  
My Commission Expires February 23, 2019  
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Office of Oil and Gas  
Notary Public  
UL 03 2018  
Department of Environmental Protection

WW6A Notice of Application - Attachment

4706 WDTNSHSM 01824

Surface Owner(s) (Well Site & Road and/or Other Disturbance):

Annette Stewart  
41 Mimosa Dr., Martinsburg, WV 25404

Brandon Sweeney  
18501 Clagget Landing, Upper Marlboro, MD 20774

Brianna Skyler Sweeney  
18502 Clagget Landing, Upper Marlboro, MD 20774

Bryan Kevin Goff  
9325 Beaverdam Rd., Nanjemoy, MD 20662

Clifford J. Wise  
2394 County Road 137, Obrien, FL 32071

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

Dawn Hughes  
1134 Brooke Rd., Stafford, VA 22405

Dexter Murle Stewart  
1283 Crossroads Road, Fairview, WV 26570

Donald Nunley  
36 Autumn Drive, Core, WV 26541

Eleanor Wise  
126 Fairview Ave., Waynesburg, PA 15370

Evallee A. Everly  
1325 Citrus Gardens Dr., Apt A, Orlando, FL 32807

Frederick C. Wise  
1 West Hills Drive, Fairmont, WV 26554

Harold M. Jones  
317 Crest Ave., Charleroi, PA 15022

James Freeman Stewart  
1206 Marion Ave. Fairmont, WV 26554

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Jane Irons  
P.O. Box 681, Tellico Plains, TN 37385

Jesse D. Jones  
308 1/2 Crest Ave., Charleroi, PA 15022

John Matthew Wise and Dina Wise  
2255 East 6500 South, Price, UT 84501

Judy Eckman  
630 Coniston Drive, Leland, NC 28451-9754

Justin P. Stewart  
132 Radiant Drive, Martinsburg, WV 25404

Mary Nunley Stepelton  
7739 South Hampton Terrace, Unit G204, Tamarac, FL 33321

Maureen Currence  
203 Silver Maple Ct., Holly Ridge, NC 28445

Melissa Bookout  
311 West Walnut St., Madisonville, TN 37354

Michelle Currence  
1 Carroll Drive, Stafford, VA 22554

Opal Wise  
2002 West 600 North Hilltop Road, Price, UT 84501

Patricia Mumaw  
3344 Northridge Drive, Wooster, OH 44691

Phyllis Petrosky  
110 Chess St., Apt 401, New Eagle, PA 15067

Regina W. Myers  
1200 Carroll Heights Blvd., Hagerstown, MD 21742

Richard McCauley  
2589 Timothy Ave., Louisville, OH 44641

Richard Nunley  
261 Festival Drive, Oceanside, CA 92057

Robert Stewart  
Lot 1, Route 21 MHP, Carmichaels, PA 15320

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WV Department of  
Environmental Protection

Thomas McCauley  
220 Kennedy Street, Apt 5, Louisville, OH 44641 /

Victor E. Wise  
PO Box 7437, Charleston, WV 25356 /

Wally Currence  
16200 Bealle Hill Road, Waldorf, MD 20601 /

Walter C. Ord  
P.O. Box 802, McDowell, KY 41647 /

Zelma Ruth Brummage  
3036 Main St., Farmington, WV 26571 /

Barbara J. Wagner  
573 Wise Run Road Wana, WV 26590 /

**Coal Owner or Lessee:**

Annette Stewart  
41 Mimosa Dr., Martinsburg, WV 25404

Brandon Sweeney  
18501 Clagget Landing, Upper Marlboro, MD 20774

Brianna Skyler Sweeney  
18502 Clagget Landing, Upper Marlboro, MD 20774

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Wally Currence  
16200 Bealle Hill Road, Waldorf, MD 20601

Walter C. Ord  
P.O. Box 802, McDowell, KY 41647

Zelma Ruth Brummage  
3036 Main St., Farmington, WV 26571

John David Wise  
3 Cross Roads Road, Wana, WV 26590

Kathy A. Sine  
343 Statler Run Road, Fairview, WV 26570

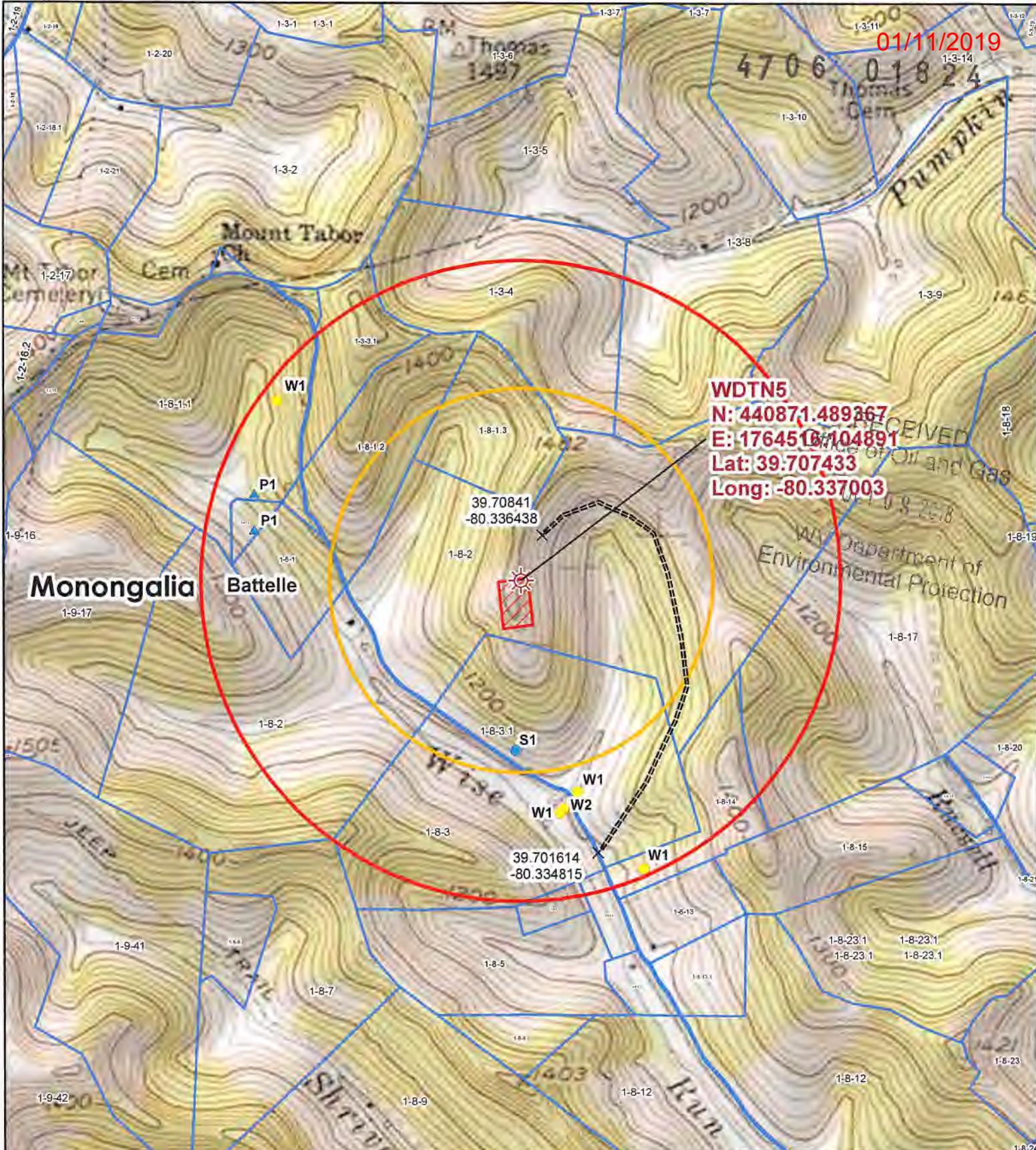
Linda Stapp  
124 Reservoir Rd., St. Clairsville, OH 43950

Richard W. Wise  
7817 Mason Dixon Highway, Wana, WV 26590

CCC RCPC LLC  
1001 CONSOL Energy Drive, Canonsburg, PA 15317

CNX RCPC LLC  
1000 CONSOL Energy Drive, Canonsburg, PA 15317

01/11/2019



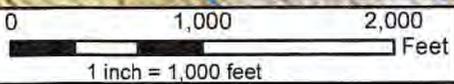
**WDTN5**  
**N: 440871.489367**  
**E: 1764510.104891**  
**Lat: 39.707433**  
**Long: -80.337003**

Monongalia

Battelle

**Legend**

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



**CONSOL ENERGY**  
 CNX Center, Canonsburg, PA

Original Date: 11/13/2017      Prepared By: GIS

Revision Date: 11/13/2017      Approved By: GIS

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Topographic Well Map  
**WDTN5**

4706301824  
01/11/2019

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF INTENT TO DRILL**

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

**Notice Time Requirement:** Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

**Date of Notice:** 9-27-18 **Date Permit Application Filed:** 10-1-18

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

- HAND DELIVERY
- CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

RECEIVED  
Office of Oil and Gas  
OCT 08 2018

**Notice is hereby provided to the SURFACE OWNER(s):**

Name: See attached  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: WV Department of Environmental Protection

**Notice is hereby given:**

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>556821.8250</u>
County: <u>Monongalia</u>	Northing: <u>4395387.9250</u>
District: <u>Battelle</u>	Public Road Access: <u>CR6 Wise Run</u>
Quadrangle: <u>Wadestown</u>	Generally used farm name: <u>Wise</u>
Watershed: <u>Dunkard Creek</u>	

**This Notice Shall Include:**

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: CNX Gas Company, LLC  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317  
Telephone: 724-485-3540  
Email: RaymondHoon@CNX.com  
Facsimile: \_\_\_\_\_

Authorized Representative: Raymond Hoon  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317  
Telephone: 724-485-3540  
Email: RaymondHoon@CNX.com  
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](mailto:depprivacyofficer@wv.gov).

## WW6A4 Notice of Intent to Drill - Attachment

WDTN5HSM

## Surface Owner(s) (Well Site &amp; Road and/or Other Disturbance):

Annette Stewart  
41 Mimosa Dr., Martinsburg, WV 25404

Brandon Sweeney  
18501 Clagget Landing, Upper Marlboro, MD 20774

Brianna Skyler Sweeney  
18502 Clagget Landing, Upper Marlboro, MD 20774

Bryan Kevin Goff  
9325 Beaverdam Rd., Nanjemoy, MD 20662

Clifford J. Wise  
2394 County Road 137, Obrien, FL 32071

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

Dawn Hughes  
1134 Brooke Rd., Stafford, VA 22405

Dexter Murle Stewart  
1283 Crossroads Road, Fairview, WV 26570

Donald Nunley  
36 Autumn Drive, Core, WV 26541

Eleanor Wise  
126 Fairview Ave., Waynesburg, PA 15370

Evallee A. Everly  
1325 Citrus Gardens Dr., Apt A, Orlando, FL 32807

Frederick C. Wise  
1 West Hills Drive, Fairmont, WV 26554

Harold M. Jones  
317 Crest Ave., Charleroi, PA 15022

James Freeman Stewart  
1206 Marion Ave. Fairmont, WV 26554

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WV Department of  
Environmental Protection

Jane Irons  
P.O. Box 681, Tellico Plains, TN 37385

Jesse D. Jones  
308 1/2 Crest Ave., Charleroi, PA 15022

John Matthew Wise and Dina Wise  
2255 East 6500 South, Price, UT 84501

Judy Eckman  
630 Coniston Drive, Leland, NC 28451-9754

Justin P. Stewart  
132 Radiant Drive, Martinsburg, WV 25404

Mary Nunley Stepelton  
7739 South Hampton Terrace, Unit G204, Tamarac, FL 33321

Maureen Currence  
203 Silver Maple Ct., Holly Ridge, NC 28445

Melissa Bookout  
311 West Walnut St., Madisonville, TN 37354

Michelle Currence  
1 Carroll Drive, Stafford, VA 22554

Opal Wise  
2002 West 600 North Hilltop Road, Price, UT 84501

Patricia Mumaw  
3344 Northridge Drive, Wooster, OH 44691

Phyllis Petrosky  
110 Chess St., Apt 401, New Eagle, PA 15067

Regina W. Myers  
1200 Carroll Heights Blvd., Hagerstown, MD 21742

Richard McCauley  
2589 Timothy Ave., Louisville, OH 44641

Richard Nunley  
261 Festival Drive, Oceanside, CA 92057

Robert Stewart  
Lot 1, Route 21 MHP, Carmichaels, PA 15320

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Environmental Protection

4706 01/11/2019  
01824

Thomas McCauley  
220 Kennedy Street, Apt 5, Louisville, OH 44641

Victor E. Wise  
PO Box 7437, Charleston, WV 25356

Wally Currence  
16200 Bealle Hill Road, Waldorf, MD 20601

Walter C. Ord  
P.O. Box 802, McDowell, KY 41647

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Barbara J. Wagner  
573 Wise Run Road Wana, WV 26590

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JUL 03 2018  
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Environmental Protection

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:** 9-27-18 **Date Permit Application Filed:** 10-1-18

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

- CERTIFIED MAIL  HAND
- RETURN RECEIPT REQUESTED 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: See attached Name: \_\_\_\_\_  
 Address: \_\_\_\_\_ Address: \_\_\_\_\_

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OCT 03 2018  
WV Department of  
Environmental Protection

**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: <u>West Virginia</u>	UTM NAD 83	Easting: <u>556821.8250</u>
County: <u>Monongalia</u>		Northing: <u>4395387.9250</u>
District: <u>Battelle</u>	Public Road Access: <u>CR6 Wise Run</u>	
Quadrangle: <u>Wadestown</u>	Generally used farm name: <u>Wise</u>	
Watershed: <u>Dunkard Creek</u>		

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: CNX Gas Company, LLC Address: 1000 Consol Energy Drive  
 Telephone: 724-485-3540 Canonsburg, PA 15317  
 Email: RaymondHoon@CNX.com 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](mailto:depprivacyofficer@wv.gov).

## WW6A5 Notice of Planned Operation - Attachment

WDTN5HHSM

## Surface Owner(s) (Well Site &amp; Road and/or Other Disturbance):

Annette Stewart  
41 Mimosa Dr., Martinsburg, WV 25404

Brandon Sweeney  
18501 Clagget Landing, Upper Marlboro, MD 20774

Brianna Skyler Sweeney  
18502 Clagget Landing, Upper Marlboro, MD 20774

Bryan Kevin Goff  
9325 Beaverdam Rd., Nanjemoy, MD 20662

Clifford J. Wise  
2394 County Road 137, Obrien, FL 32071

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

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1134 Brooke Rd., Stafford, VA 22405

Dexter Murle Stewart  
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Donald Nunley  
36 Autumn Drive, Core, WV 26541

Eleanor Wise  
126 Fairview Ave., Waynesburg, PA 15370

Evalee A. Everly  
1325 Citrus Gardens Dr., Apt A, Orlando, FL 32807

Frederick C. Wise  
1 West Hills Drive, Fairmont, WV 26554

Harold M. Jones  
317 Crest Ave., Charleroi, PA 15022

James Freeman Stewart  
1206 Marion Ave. Fairmont, WV 26554

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Jane Irons  
P.O. Box 681, Tellico Plains, TN 37385

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308 1/2 Crest Ave., Charleroi, PA 15022

John Matthew Wise and Dina Wise  
2255 East 6500 South, Price, UT 84501

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Michelle Currence  
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Opal Wise  
2002 West 600 North Hilltop Road, Price, UT 84501

Patricia Mumaw  
3344 Northridge Drive, Wooster, OH 44691

Phyllis Petrosky  
110 Chess St., Apt 401, New Eagle, PA 15067

Regina W. Myers  
1200 Carroll Heights Blvd., Hagerstown, MD 21742

Richard McCauley  
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220 Kennedy Street, Apt 5, Louisville, OH 44641

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Wally Currence  
16200 Bealle Hill Road, Waldorf, MD 20601

Walter C. Ord  
P.O. Box 802, McDowell, KY 41647

Zelma Ruth Brummage  
3036 Main St., Farmington, WV 26571

Barbara J. Wagner  
573 Wise Run Road Wana, WV 26590

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OCT 03 2018  
WV Department of  
Environmental Protection



4706101824 01/11/2019

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

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

Jim Justice  
Governor

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

December 6, 2017

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

Subject: DOH Permit for the WDTN5 Pad, Monongalia County  
WDTN5HHSM Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #04-2017-0929 for the subject site to CNX Gas Company LLC, for access to the State Road for the well site located off of Monongalia County Route 6.

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 January 3, 2012.

Very Truly Yours,

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

Cc: Ray Hoon  
CNX Gas Company LLC  
CH, OM, D-4  
File

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

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

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

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

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

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

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

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

Type: Ammonium chloride CAS: 12125-02-9

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

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

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

Type: Thiourea CAS: 62-56-6

Type: Acetophenone CAS: 98-86-2

RECEIVED  
Office of Oil and Gas  
OCT 03 2018  
WV Department of  
Environmental Protection

# EROSION & SEDIMENT CONTROL PLAN AND SITE RESTORATION PLAN

## WDTN5 WELL SITE MONONGALIA COUNTY, WEST VIRGINIA

FOR



LANDOWNER	DISTURBANCE BREAKDOWN	
	DISTURBANCE FROM ACCESS ROAD & STOCKPILES (ACRES)	DISTURBANCE FROM WELL PAD & STOCKPILES (ACRES)
BARBARA WAGNER TMAP# 14827 DB/PG 1362/584	7.5	87
BRANDON T WBE ET AL TMAP# 1482 DB/PG 1321/337	18.9	11.8



REFERENCES: UNITED STATES GEOLOGICAL SURVEY - WADESTOWN QUADRANGLE, WV, 7.5 MINUTE SERIES



PROJECT NO. 17016-023

DECEMBER 2017

DIEFFENBAUCH & HRITZ, LLC

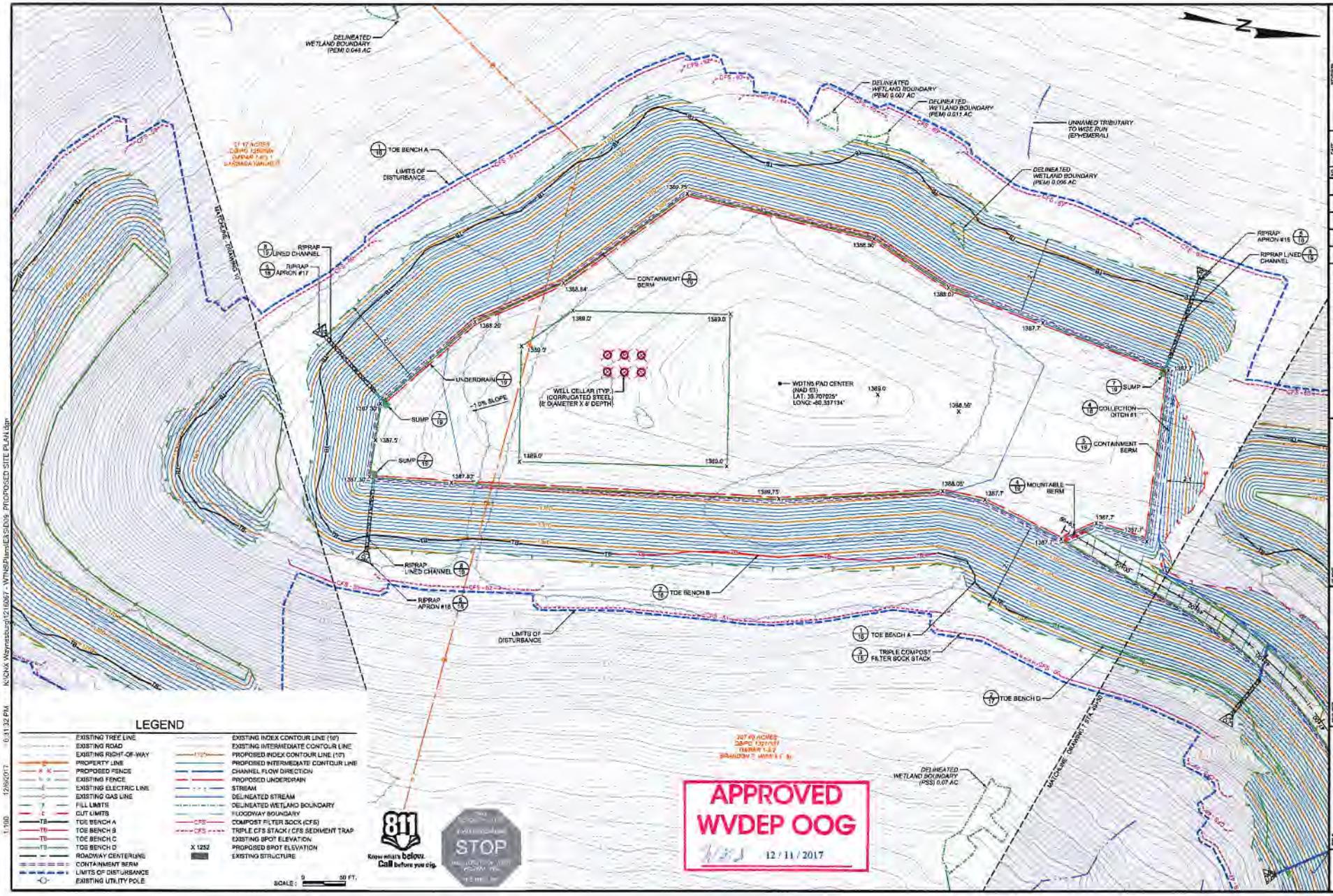


INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES
3	EXISTING SITE PLAN
4	SOILS PLAN
5	OVERALL SITE PLAN
6-10	PROPOSED SITE PLAN
11	ACCESS ROAD PROFILE
12-14	ACCESS ROAD CROSS SECTIONS
15	WELL PAD CROSS SECTION
16-17	TOE BENCH DETAILS
18-19	EAS DETAILS
20	SITE RESTORATION PLAN
21	SEED & MULCH PLAN
22	QUANTITY SUMMARY

12000 1/26/2017 6:34:08 PM K:\CNX\Wp\resubp\1216067 - WDTN5\Draw\ES1001 TITLE SHEET.dgn



DRAWING NO. 1  
 DATE 12/11/2017  
 JAB DRAWN  
 BKB CHECKED  
 HEP APPROVED  
 DEC 2017  
 17016-023  
 17016-023  
 DIEFFENBAUCH & HRITZ, LLC  
 1005 Chestnut Street, Suite 200  
 West Chester, OH 45380  
 www.dieffenbach.com  
 P: 513.885.5505 F: 513.885.5527



1.1000 12/26/2017 0:11:32 PM K:\24x\wvdep\sub\1218067 - WVDWP\plan\SS\019 - PROPOSED SITE PLAN.dwg

**LEGEND**

- |   |                        |   |                                      |
|---|------------------------|---|--------------------------------------|
| — | EXISTING TREE LINE     | — | EXISTING INDEX CONTOUR LINE (10')    |
| — | EXISTING ROAD          | — | EXISTING INTERMEDIATE CONTOUR LINE   |
| — | EXISTING RIGHT-OF-WAY  | — | PROPOSED INDEX CONTOUR LINE (10')    |
| — | PROPERTY LINE          | — | PROPOSED INTERMEDIATE CONTOUR LINE   |
| — | PROPOSED FENCE         | — | CHANNEL FLOW DIRECTION               |
| — | EXISTING FENCE         | — | PROPOSED UNDERDRAIN                  |
| — | EXISTING ELECTRIC LINE | — | STREAM                               |
| — | EXISTING GAS LINE      | — | DELINEATED STREAM                    |
| — | FILL LIMITS            | — | DELINEATED WETLAND BOUNDARY          |
| — | CUT LIMITS             | — | ROADWAY BOUNDARY                     |
| — | TOE BENCH A            | — | COMPOST FILTER SOCK (CFS)            |
| — | TOE BENCH B            | — | TRIPLE CFS STACK / CFS SEDIMENT TRAP |
| — | TOE BENCH C            | — | EXISTING SPOT ELEVATION              |
| — | TOE BENCH D            | — | PROPOSED SPOT ELEVATION              |
| — | ROADWAY CENTERLINE     | — | EXISTING STRUCTURE                   |
| — | CONTAINMENT BERM       | — |                                      |
| — | LIMITS OF DISTURBANCE  | — |                                      |
| — | EXISTING UTILITY POLE  | — |                                      |



**APPROVED WVDEP OOG**  
 12/11/2017

SCALE: 0 50 FT.

DATE	12/11/17
BY	JAR
CHECKED BY	HLP
DATE	DEC 2017
PROJECT	17019-023
CLIENT	DIFFENBAUGH & HERTZ, LLC
ADDRESS	1020 CHESHAM ROAD, SUITE 200
CITY	MARTINSBURG, WV 26152
PHONE	P 301.676.5000 F 301.676.5007
PROJECT NAME	WVOTHS WELL SITE
PROJECT TYPE	PROPOSED SITE PLAN
SCALE	AS SHOWN