



 west virginia department of environmental protection

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

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

Tuesday, January 8, 2019
 WELL WORK PERMIT
 Horizontal 6A / New Drill

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

Re: Permit approval for WDTN5NHSM
 47-061-01826-00-00

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: WDTN5NHSM
 Farm Name: JOHN M. WISE, ET UX., ET A+
 U.S. WELL NUMBER: 47-061-01826-00-00
 Horizontal 6A New Drill
 Date Issued: 1/8/2019

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: WDTN5NHSM 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 *MSK 10/11/2018*

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: 21,610' MD at TD

11) Proposed Horizontal Leg Length: ~13,094'

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 _____

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

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18)

CASING AND TUBING PROGRAM

TYPE	<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	21639	21610	4251 / TOC @ 2855
Tubing	2.375	New	J-55	4.7	Above assumes RF=29'	TBD	N/A
Liners	N/A						

MSR 10/11/2018

TYPE	<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			
Sizes:				
Depths Set:				

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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 SOBM. Drill 8-1/2" curve from KOP to landing point. Continue drilling 8-1/2" lateral to TD (geosteer this section to remain in Marcellus target window). Perform clean-up cycle to condition well. Run and cement 5-1/2" production casing. Suspend well and skid to next well or RDMO drilling rig.

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

Run CBL to ~60 degrees in the curve and back to surface to determine production casing TOC. Test production casing and toe prep well. MIRU stimulation/hydraulic fracturing equipment. Fracture well by pumping required number of stages utilizing plug-and-perf method. Max anticipated treating pressure is ~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 PBSD. 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% CaCl₂ and 1/4 pps cello-flake/LCM. Intermediate string: Class A cement with 0%-2% CaCl₂ and 1/4 pps cello-flake/LCM. Production string: Class 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.

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25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

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WDTN5 Cement Additives

Fresh water/coal string: Class A cement with 1%-3% CaCl₂ and 1/4 pps cello-flake/LCM. Intermediate string: Class A cement with 0%-2% CaCl₂ and 1/4 pps cello-flake/LCM. Production string: Class 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.

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

Ground Elevation		WDTN-5N-HSM SHL		WDTN-5N-HSM LP		WDTN-5N-HSM BHL		CENTRALIZERS		CONDITIONING		COMMENTS			
Azimuth		133.5°		133.5°		133.5°									
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	MD	TVD	MUD	CEMENT								
	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										Set through fresh water zones	
			Waynesburg 1 Coal	709										Set through coal zones	
			Sewickley Coal	970			AIR / FW Mist	15.6 ppg Class A + 1% to 3% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface						Cemented to surface	
			Roof Coal	1058											13-3/8" shoe NOT to be set deeper than ground level
			Pittsburgh Coal	1063											
	12-1/4"	9-5/8" 36.0# J-55 LTC	FW/Coal Casing	1380											
			Salt Sand	2115				15.6 ppg Class A + 0% to 2% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface						Set through potential salt water zones	
			Big Lime	2475											Cemented to surface
			Big Injun	2565			AIR / Soap								Casing to be set -200'-250' below the Big Injun base
			Price	2805											
	8-3/4" Tangent	5-1/2" 20.0# P-110 VAR	Intermediate Casing	3055											
			50 Foot	3255											
			Gordon	3390				15.2 ppg Class H 50:50 Class H: Poz with additives (retarder, suspension agent, gas block, defoamer, fluid loss, extender, etc.)							Note: For all strings, actual centralizer placements may be changed due to hole conditions
			Fifth	3515			AIR	10% OH Excess Yield = 1.07							Note: For all strings, actual cement blends may vary slightly depending upon service company utilized
Bayard			3565												
8-1/2" Curve & Lateral	5-1/2" 20.0# P-110 VAR	Elks	5165												
		Cashaqua	7360												
		Burkett	7505												
		Tully	7530			12.0-12.5 ppg SOBMM									
		Hamilton	7565												
8-1/2" Curve & Lateral	5-1/2" 20.0# P-110 VAR	Marcellus	7670												
		Production Casing	21610												

01/11/2019

TD @ +/- 7715' TVD

+/- 13094' Lateral

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

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LP @ +/- 7715' TVD

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BLACKSVILLE MINE

WDTN5NHSM

1055 ft

657 ft

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FEDERAL NO 2 MINE

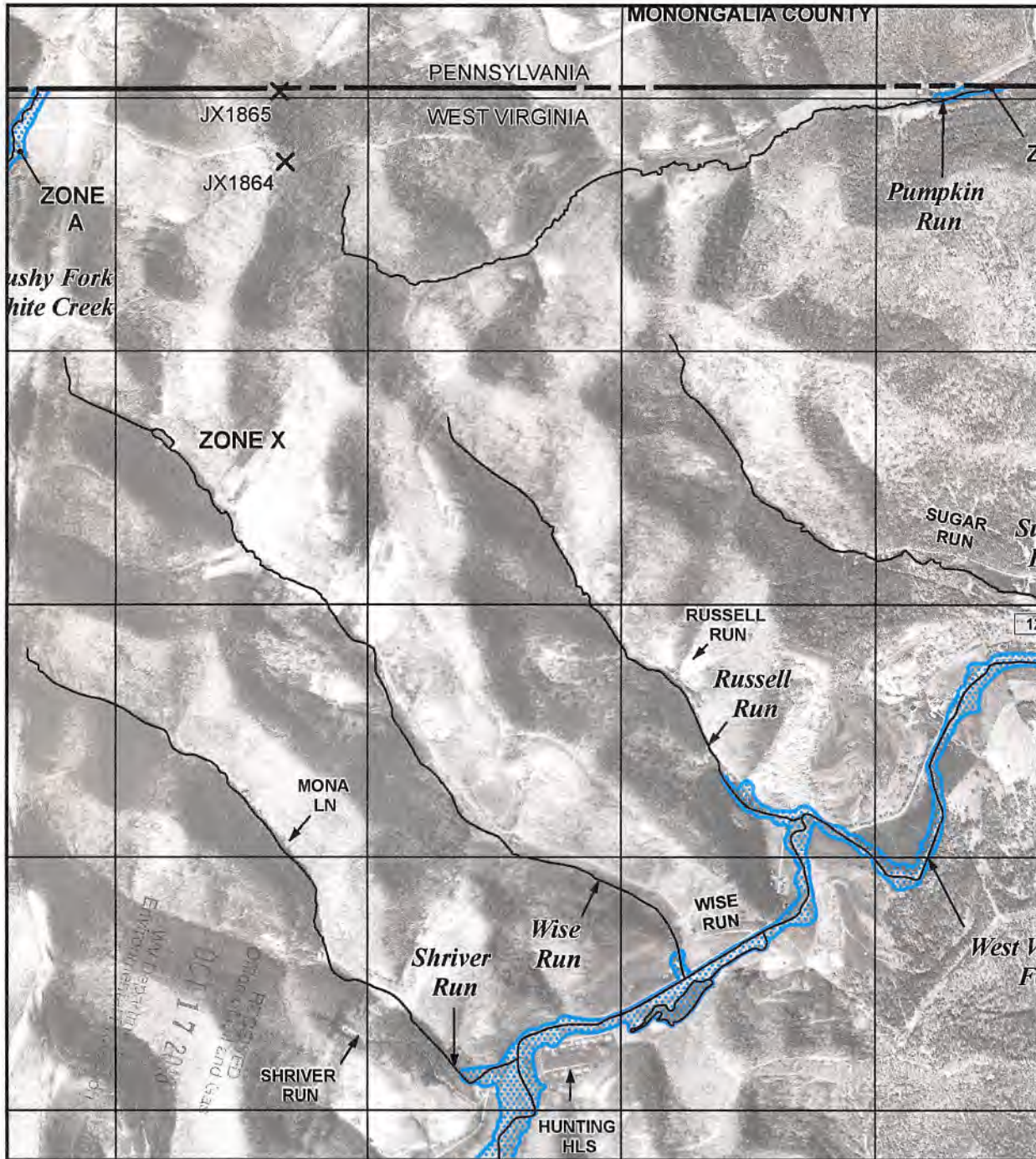
- Legend**
- Well Location
 - Active Permit
 - Remaining Coal
 - Mine Workings
 - Mined Out



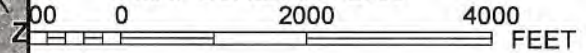
<p>1 inch = 200 feet</p>	
Date: 9/24/2018	Prepared By: GIS
Revisions: 1	Approved By:
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CNX

**WDTN5NHSM
Mine Map**



MAP SCALE 1" = 2000'



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

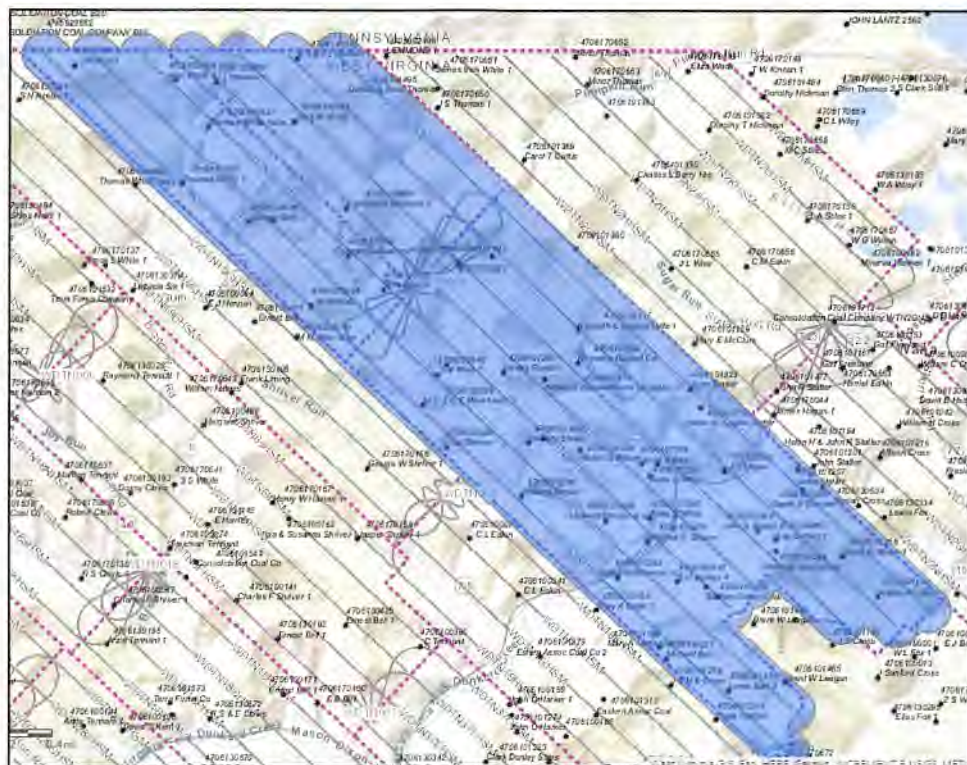
WDTN5 Pad Frac - SOG Review

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.

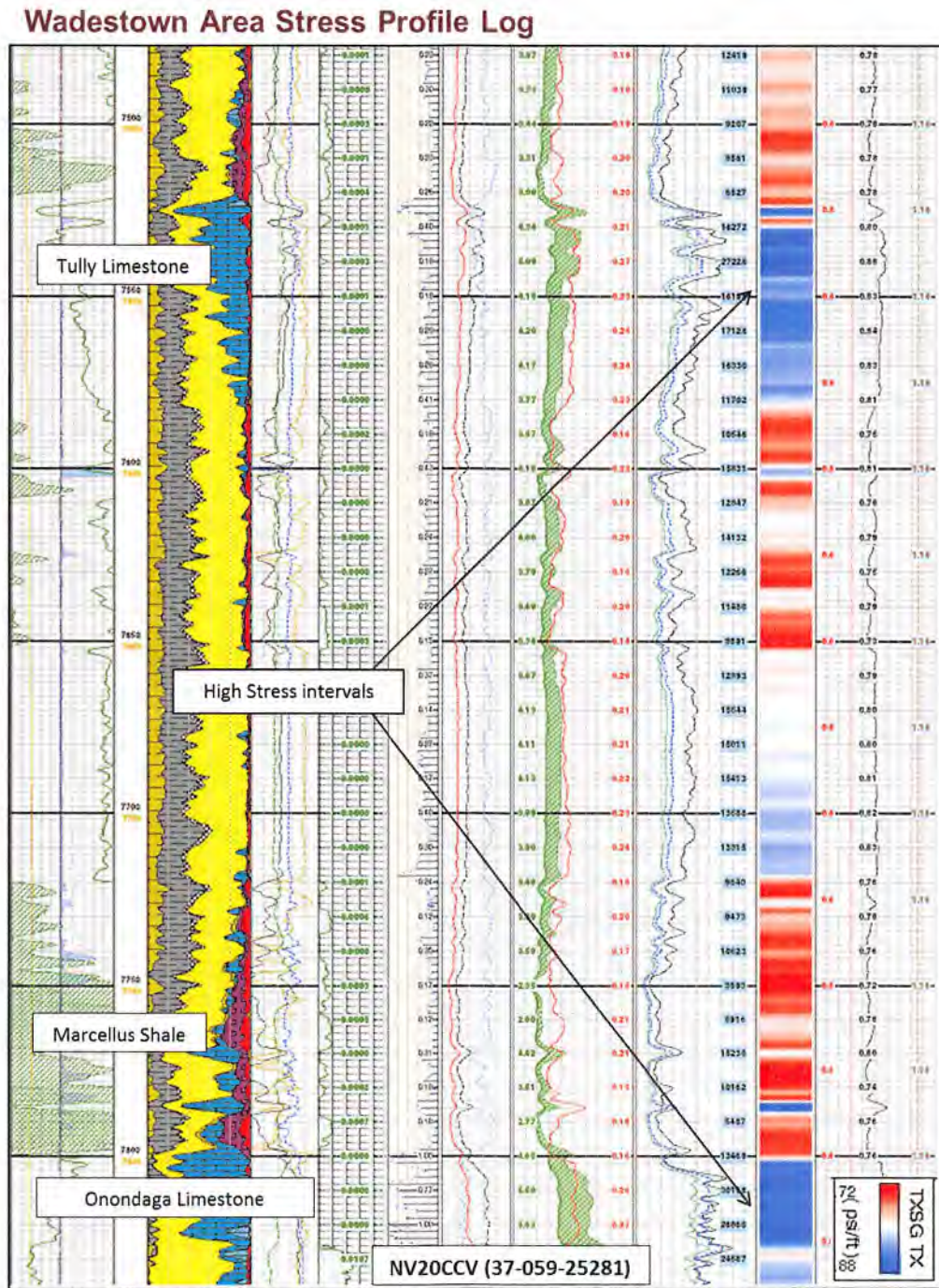
The current hypothesis for SOG Communication is that Marcellus frac fluids and pressure intersect and migrate up a nearby fault that acts as a conduit for upward migration and intersection with high permeability reservoirs of the Alexander and Benson. These reservoirs are not developed in the Wadestown. 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 5th Sand. No known SOG Communication events have occurred in this area.



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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.

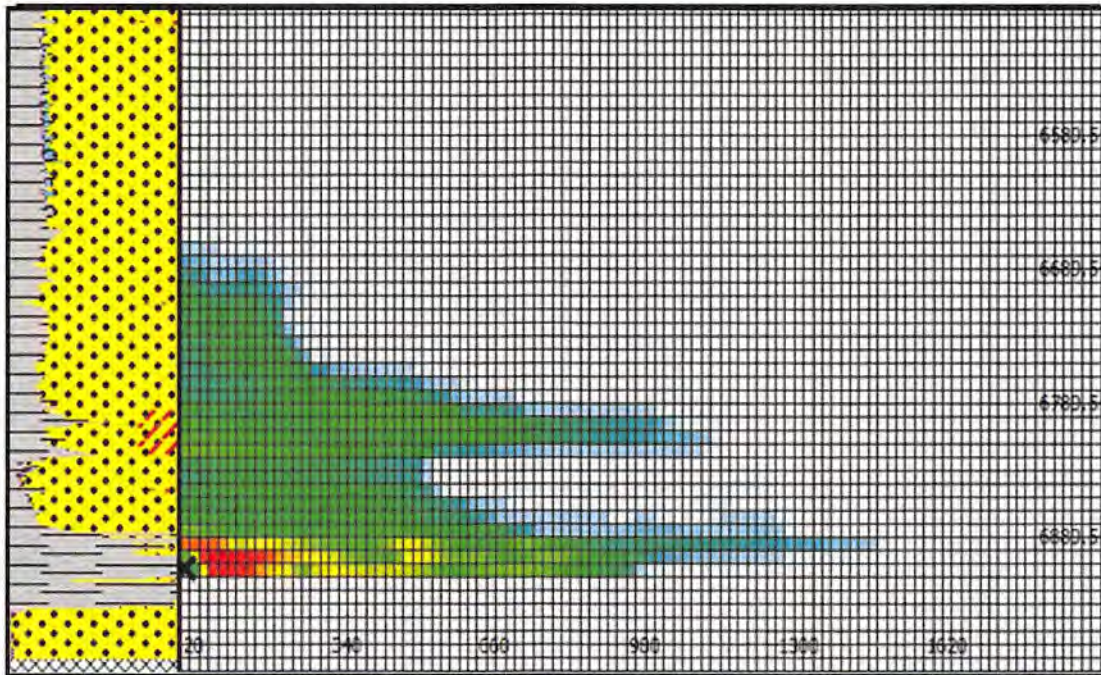


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Figure 3. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Hamilton and Tully are much thinner than Wadestown.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

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

API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL_NAME	WELL_NO	TD	FMTD	ELEVATION	FIELD_NAME	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	Pittsburgf	Gas	Zoa Wise	2		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	Manufacti	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	Manufacti	Gas	Thomas V	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	Manufacti	Gas	Alex Whit	2		3305 Thirty-foo	1280	Maple-W:		Ground Level
4706130524	WV	Monongal	39.69543	-80.3123	Hope Nati	Oil and Gas	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 Henne	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 Pittsburgf	1366	Blacksville		Ground Level
4706101245	WV	Monongal	39.6905	-80.3082	CNG Prodi	Methane	Helen & J			1028 Pittsburgf	1309	Blacksville		Ground Level
4706101256	WV	Monongal	39.69021	-80.3029	CNG Prodi	Methane	Jesse D H			1015 Pittsburgf	1317	Blacksville		Ground Level
4706101184	WV	Monongal	39.69934	-80.3142	CNG Prodi	Methane	Helen H &			1009 Pittsburgf	1303	Blacksville		Ground Level
4706101200	WV	Monongal	39.69717	-80.3281	CNG Prodi	Methane	Howard Sl			970 Pittsburgf	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 Pittsburgf	1208	Blacksville		Ground Level
4706101240	WV	Monongal	39.69253	-80.3183	CNG Prodi	Methane	Anna S Wl			860 Pittsburgf	1160	Blacksville		Ground Level
4706101208	WV	Monongal	39.69586	-80.3191	CNG Prodi	Methane	Anna S Ba			837 Pittsburgf	1114	Blacksville		Ground Level
4706101215	WV	Monongal	39.69557	-80.3123	CNG Prodi	Methane	John & He			750 Pittsburgf	1051	Blacksville		Ground Level
4706101238	WV	Monongal	39.69238	-80.3219	CNG Prodi	Methane	Howard Sl			715 Pittsburgf	1019	Blacksville		Ground Level

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WDTN5 PAD GEOLOGICAL PROGNOSIS

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

<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	

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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_NAME	WELL_NO	TD	FMTD	ELEVATION	FIELD_NAME	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	Pittsburgh Gas		Zoa Wise	2	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 V	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 Gas		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	Pittsburgh	1366	Blacksville		Ground Level
4706101245	WV	Monongal	39.6905	-80.3082	CNG Prodi Methane		Helen & Ji		1028	Pittsburgh	1309	Blacksville		Ground Level
4706101256	WV	Monongal	39.69021	-80.3029	CNG Prodi Methane		Jesse D Hc		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

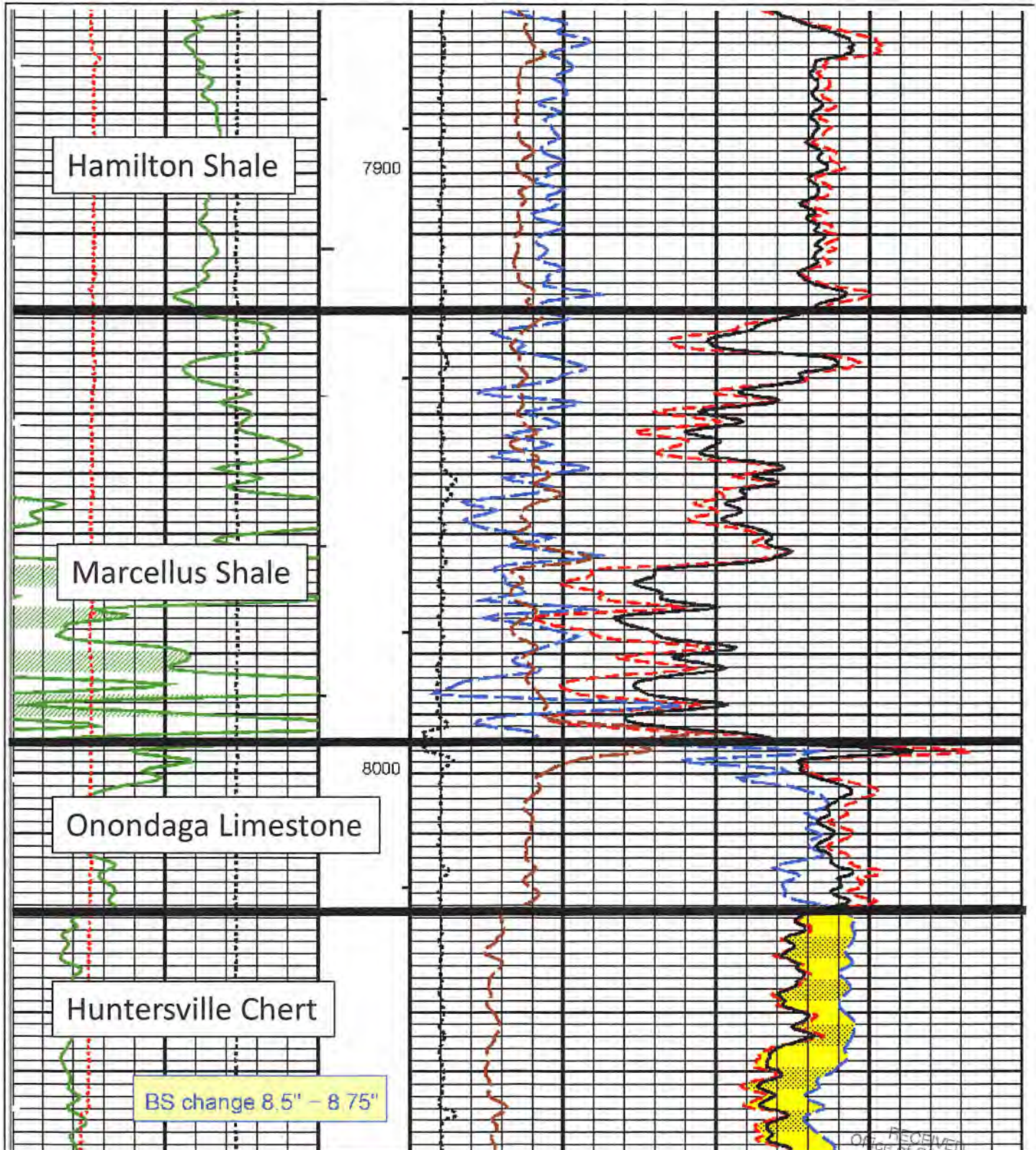
All SOG wells above the WDTN5 Marcellus pad have been plugged and were less than 3700' TD.

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

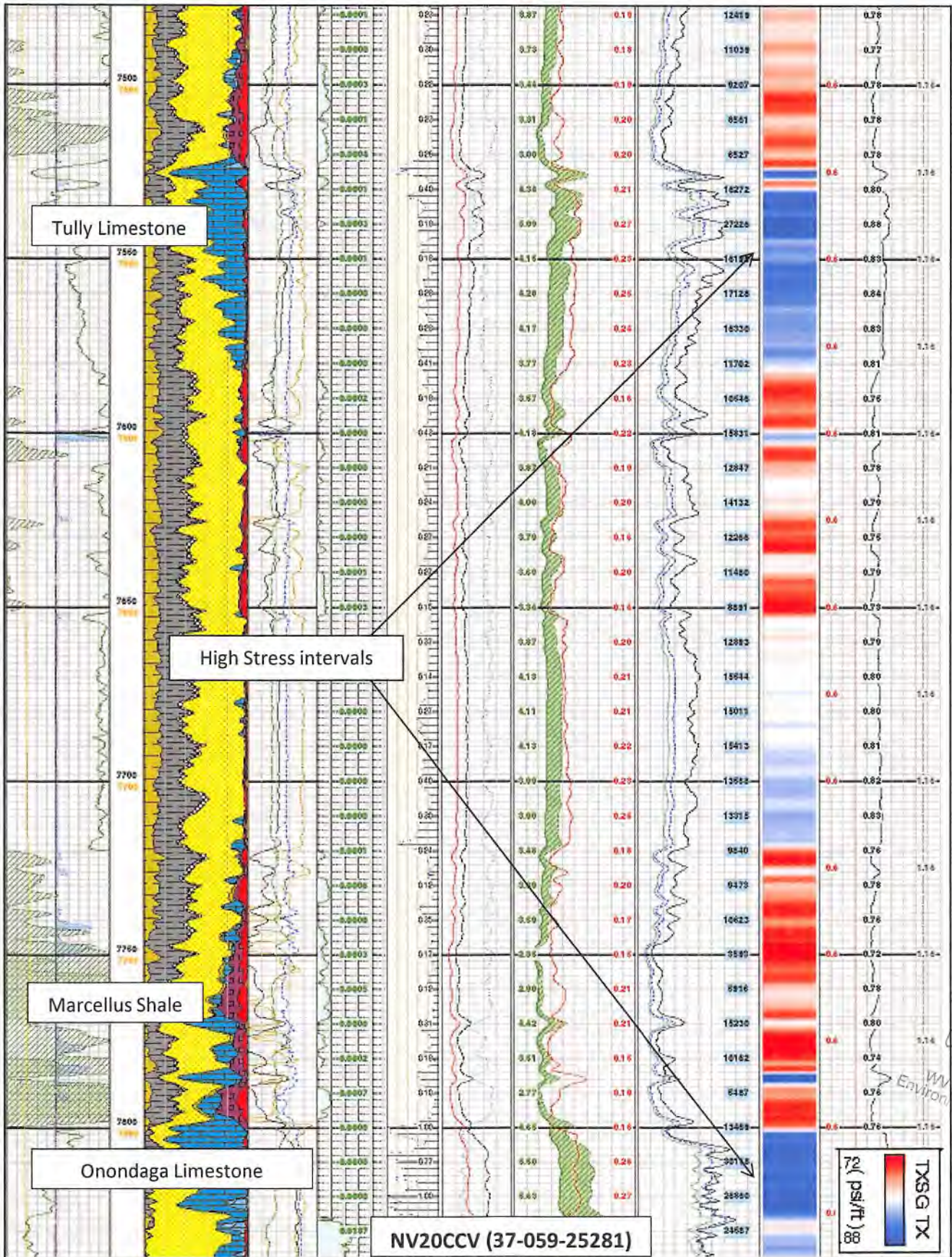
- The Tully Limestone in conjunction with the Hamilton Shale is the confining layer for the Marcellus Shale frac.



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Wadestown Area Stress Profile Log



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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

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 Raymond Hoon

Company Official (Typed Name) Raymond Hoon

Company Official Title Supervisor - Gas Permitting

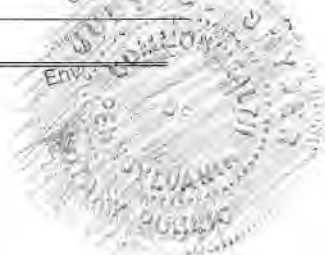
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Subscribed and sworn before me this 15th day of October, 2018
Commonwealth of Pennsylvania

Judy L Snyder

Notarial Seal
JUDY L SNYDER - Notary Public
CECIL TWP, WASHINGTON COUNTY
My Commission Expires Oct 31, 2021

My commission expires 10-31-2021



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

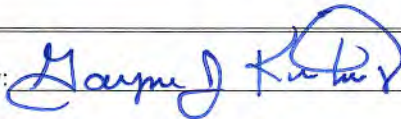
Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Orchard Grass	25
Birdsfoot Trefoil	15	Birdsfoot Trefoil	15
Ladino Clover	10	Ladino Clover	10

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:



Comments:

Title: Inspector

Date: 10/11/2018

Field Reviewed? Yes No

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	
Sveamore	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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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	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	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.
New PADEP rules regarding "TENORM" testing requirement are pending.

Notes:

* Drill Cuttings include frac sand for the purpose of this table (Contact facility directly to verify waste streams accepted).

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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		
Original	Jan. 29, 2007	Original Release of Standard	John Richardson	Employee	Supervisor	
02	Aug. 24, 2011	<changes made to the original>	Clayton Cameron			
03	Mar. 12, 2012	<changes made to the original>	Clayton Cameron			
<above +1>						
				Date	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:
<p>5 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>



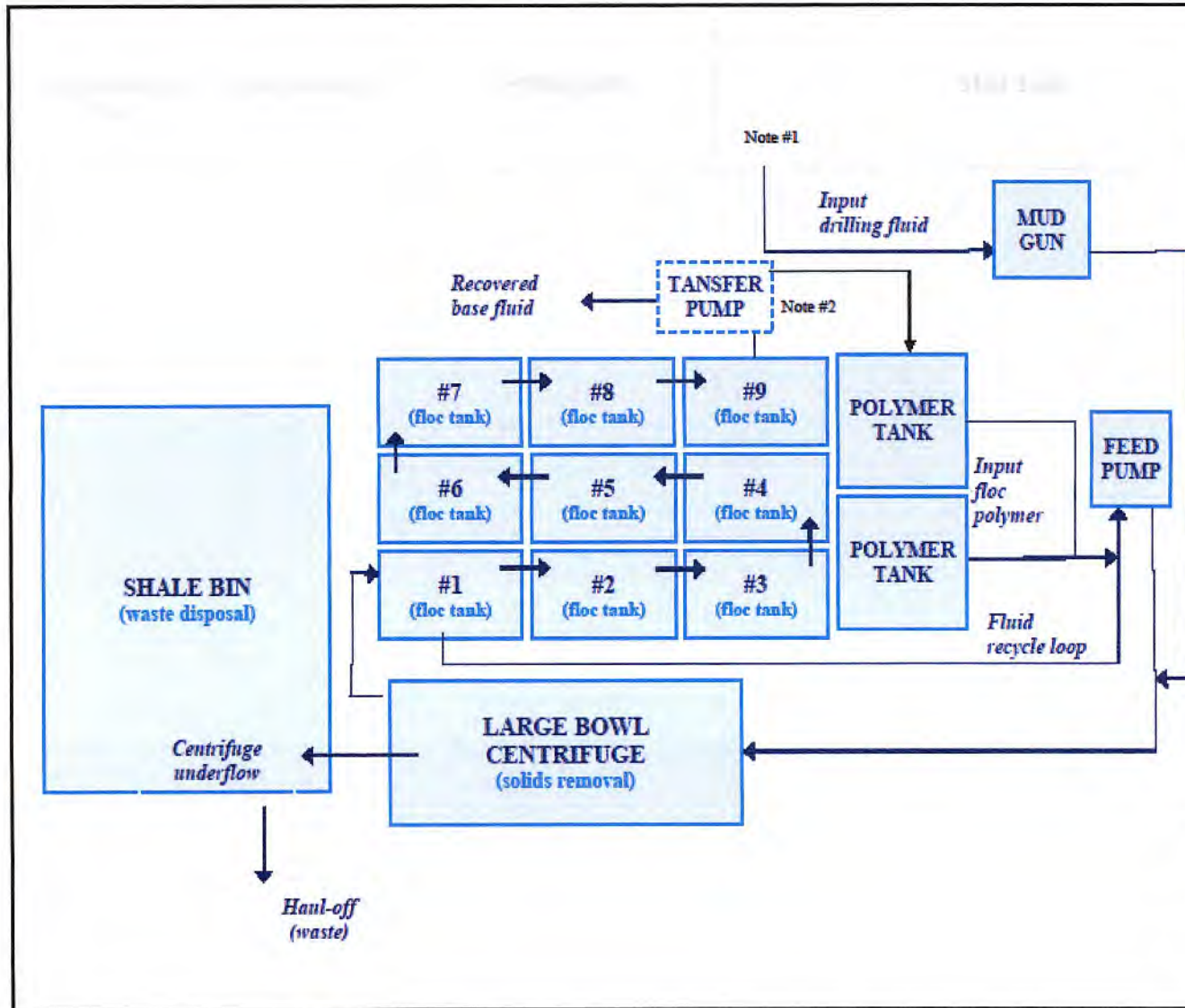
Elimination Control:	Administrative Control:	PPE:
Guards	Standard Operating Procedures #106	Fire Retardant Coveralls
Valves	Pre Job Risk Assessments	Steel Toed Safety Boots
Gates	HSE Policy	Safety Glasses
	PPE Standards	Hearing Protection
	Training/ New hire, equipment, PPE, ERP	Hard Hat
		Gloves/ per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

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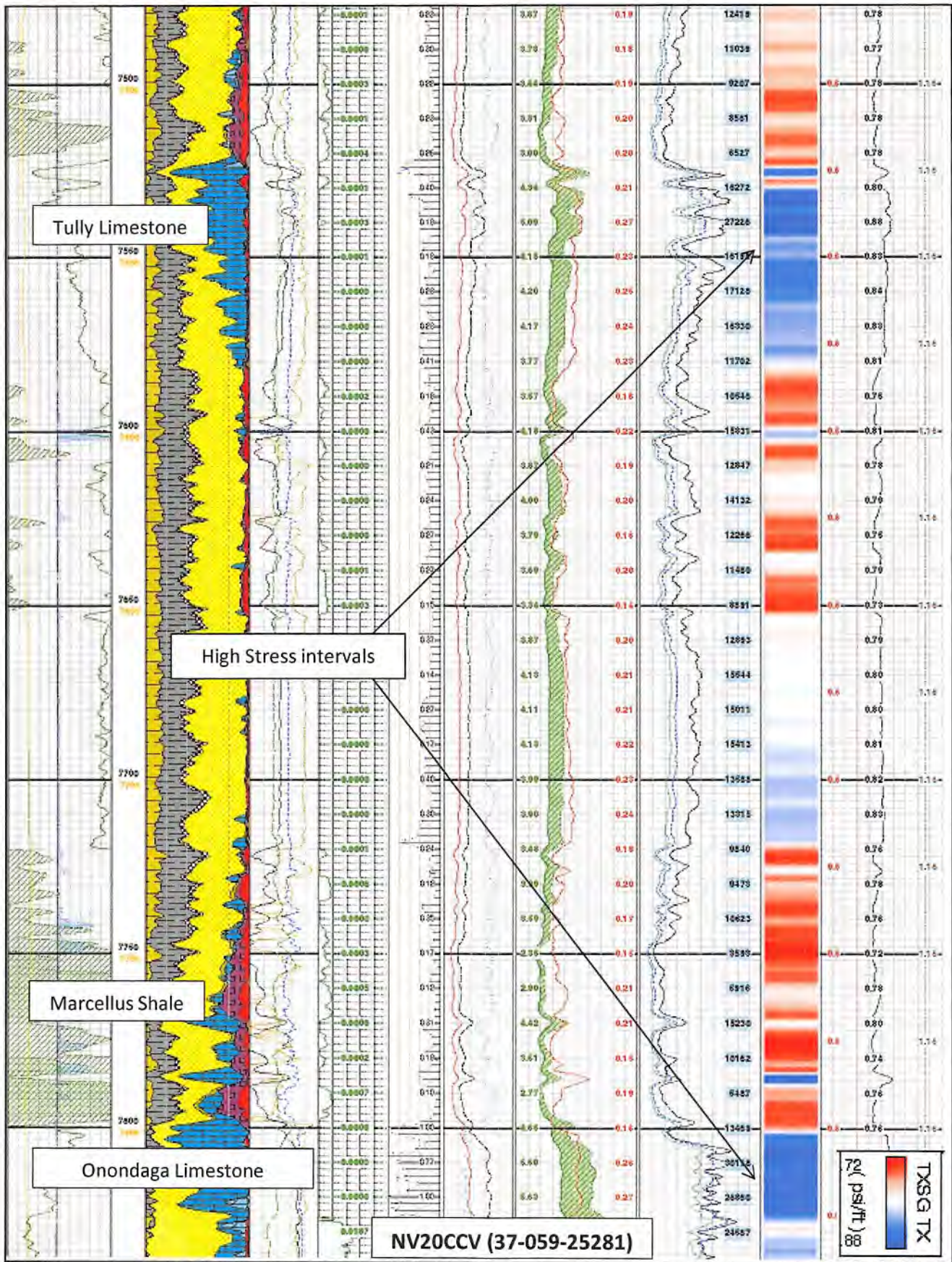
MUD & SLURRY DEWATERING/ STRIPING
Recommended Rig-Up of BOS III Tank

Drawing/ Revision Date: December 12, 2011

Approved By: Andrew Pow



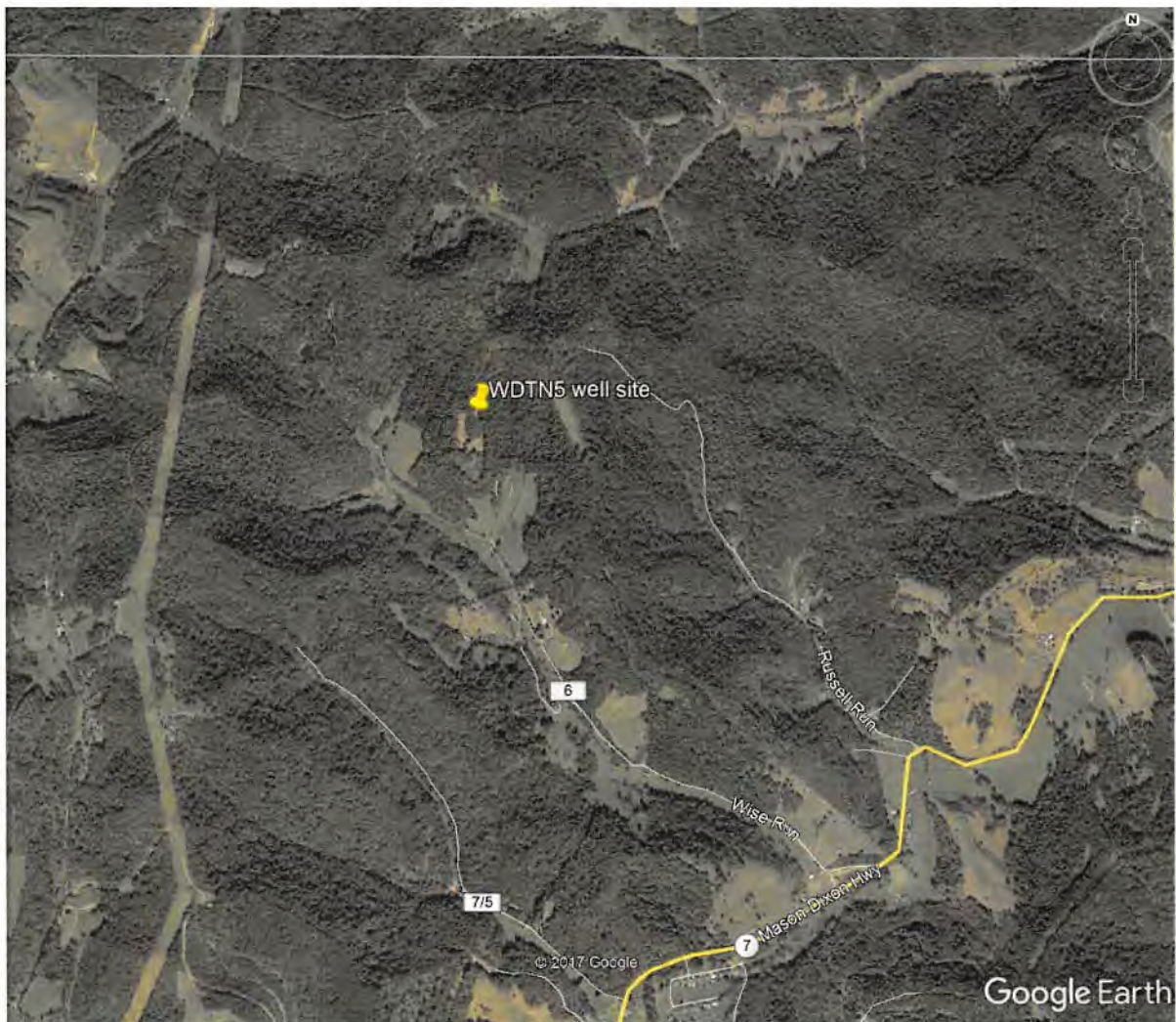
Wadestown Area Stress Profile Log





Site Safety Plan for Well WDTN5NHSM

CNX Gas Company, LLC.



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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.

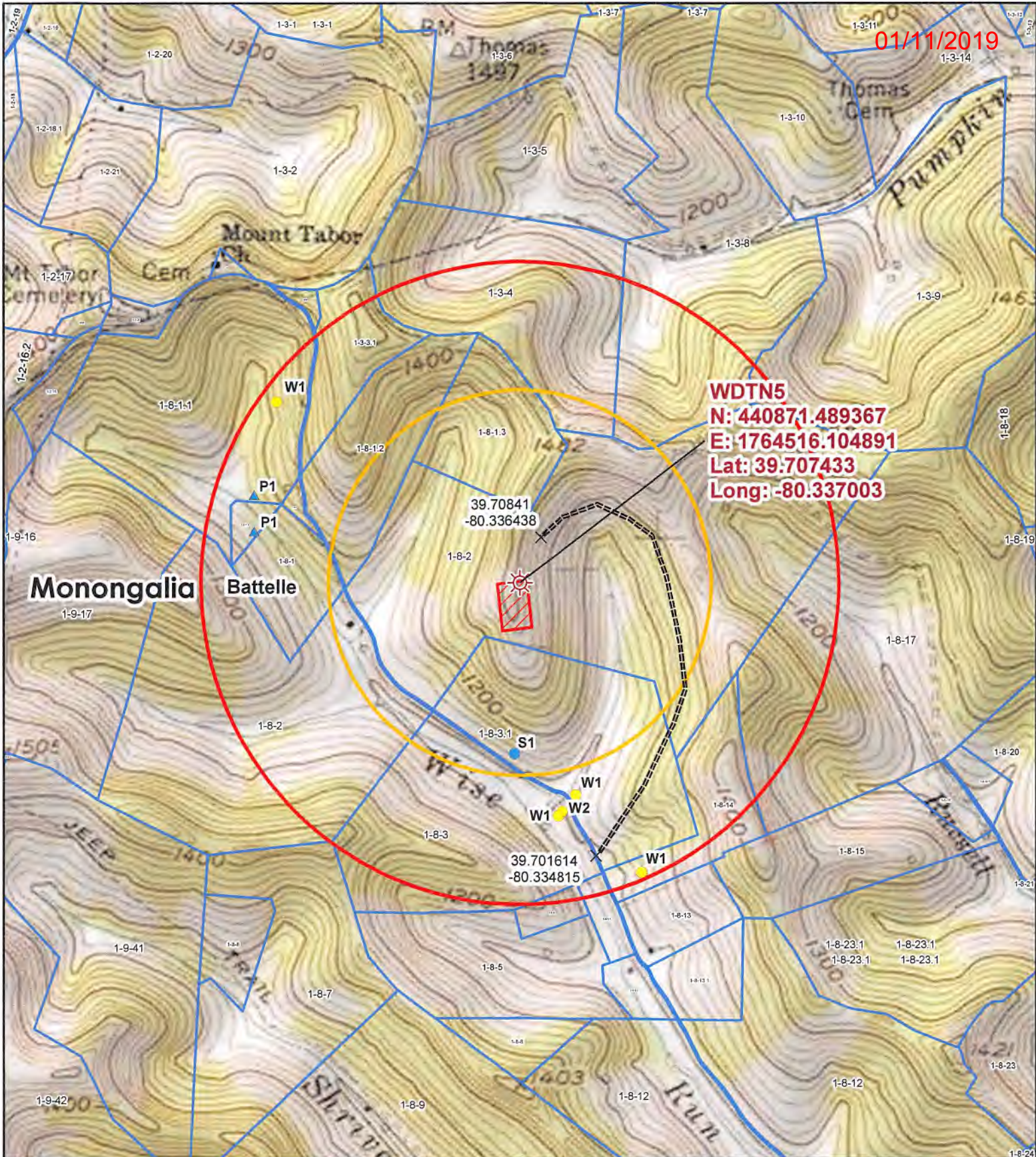
Approved this day 11 of month October, 2018 by

 _____

Date: 10/11/2018

Date: _____

01/11/2019



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

Monongalia

Battelle

<p>Legend</p> <ul style="list-style-type: none"> Wellbore Wells Spring Ponds Access Points Access Road 2,500 Foot Buffer 1,500 Foot Buffer Well Pad Surface Parcel 	<p>0 1,000 2,000 Feet</p> <p>1 inch = 1,000 feet</p>		<p>CONSOL ENERGY CNX Center, Canonsburg, PA</p>
	<p>Original Date: 11/13/2017</p> <p>Revision Date: 11/13/2017</p>	<p>Prepared By: GIS</p> <p>Approved By: GIS</p>	
<p>This map is property of CNX Land Resources Inc. and contains information that is proprietary and confidential in nature and may not be copied or reproduced without prior written consent. © Copyright CNX Land Resources Inc. 2011</p>			

SHL is located on topo map 660 feet south of Latitude: 39° 42' 30"
 BHL is located on topo map 11,098 feet south of Latitude: 39° 42' 30"



LINE TABLE		
LINE #	BEARING	DISTANCE
R1	S13°08'15"W	948.31'
R2	N71°32'23"E	263.32'
R3	S62°05'51"E	389.96'
R4	N37°38'28"W	105.88'
R5	N71°32'23"E	263.32'

SURFACE HOLE LOCATION (SHL)	
UTM 17 - NAD83(M)	
N:	4395394.759
E:	556827.076
NAD27_VV NORTH	
N:	440510.955
E:	1764429.721
LAT/LON - NAD83	
LAT:	39°42'28.475"
LONG:	80°20'13.543"
APPROXIMATE LANDING POINT	
UTM 17 - NAD83(M)	
N:	4394992.982
E:	556457.333
NAD27_VV NORTH	
N:	439212.829
E:	1763194.475
LAT/LON - NAD83	
LAT:	39°42'10.532"
LONG:	80°20'29.194"
BOTTOM HOLE LOCATION (BHL)	
UTM 17 - NAD83(M)	
N:	43282274.900
E:	559406.347
NAD27_VV NORTH	
N:	430132.300
E:	1772722.582
LAT/LON - NAD83	
LAT:	39°40'41.651"
LONG:	80°18'26.246"

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

LEGEND

	TOPO MAP POINT		ALL ARE POINTS UNLESS OTHERWISE NOTED
	PROPOSED WELL		LEASE BOUNDARY
	WATER SOURCE		PROPOSED HORIZONTAL WELL
	SPRING		SURFACE OIL & GAS LINES
	SURFACE TRACT		SURFACE TRACT LINES ONLY
	LEASED NUMBER BASED ON ATTACHED WW6A1		GAS LEASE LINES ONLY
	RECORD GAS WELL		WELL REFERENCE
	UNKNOWN WELL		STREAM/WATERWAY
			ROAD

WELLS WITHIN 3000'

RECORD GAS WELL
 UNKNOWN WELL

Sheffler & Company, Inc.
 ENGINEERING • SURVEYING

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

FILE #: WDTN5NHSM

DRAWING #: 3601 - WDTN5N.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

WELL OPERATOR: CNX GAS COMPANY, LLC

Address: 1000 CONSOL ENERGY DRIVE

City CANONSBURG State PA Zip Code 15317

DATE: October 3, 2018

OPERATOR'S WELL #: WDTN5NHSM

API WELL # 47 061 01926
 STATE COUNTY PERMIT

ESTIMATED DEPTH: TVD: 7,715' ± TMD: 21,610' ±

DESIGNATED AGENT: CHRIS TURNER

Address: 1 DOMINION DRIVE

City JANE LEW State WV Zip Code 26378



SHL is located on topo map 1,058 feet west of Longitude: 80° 20' 00"
 BHL is located on topo map 4,567 feet west of Longitude: 80° 17' 30"

01/11/2019



PLAN DETAIL
SCALE 1"=500'

SURFACE TRACT OWNERS & TAX PARCEL

1. DINA M WISE ET AL	TM# 1-8-2	59. CNX RCPC LLC	TM# 1-13B-5
2. BARBARA J. WAGNER	TM# 1-8-3.1	60. CNX RCPC LLC	TM# 1-13B-6
3. BARBARA J. WAGNER	TM# 1-8-3	61. CNX RCPC LLC	TM# 1-13B-7
4. KENNETH W. & DONNA P. EFAW	TM# 1-8-5	62. CNX RCPC LLC	TM# 1-13B-8
5. KENNETH W. & DONNA P. EFAW	TM# 1-8-8	63. CNX RCPC LLC	TM# 1-13B-9
6. BARBARA S. SHRIVER	TM# 1-8-12	64. CNX RCPC LLC	TM# 1-13B-10
7. BARBARA S. & GREGORY L. SHRIVER	TM# 1-8-12.1	65. CNX RCPC LLC	TM# 1-13B-11
8. BARBARA S. SHRIVER	TM# 1-8-24	66. CNX RCPC LLC	TM# 1-13B-12
9. HOWARD A. SHRIVER ESTATE	TM# 1-8-24.1	67. CNX RCPC LLC	TM# 1-13B-13
10. JAMES A. & PAMELA L. WATSON	TM# 1-8-24.2	68. CNX RCPC LLC	TM# 1-13B-14
11. GREGORY LYNN SHRIVER	TM# 1-8-24.3	69. CNX RCPC LLC	TM# 1-13B-15
12. DONALD L. & LINDA L. WHITE	TM# 1-8-25	70. CNX RCPC LLC	TM# 1-13B-16
13. JACKIE & PEGGY SUE WILSON	TM# 1-8-25.1	71. CNX RCPC LLC	TM# 1-13B-17
14. JACKIE & PEGGY SUE WILSON	TM# 1-8-25.2	72. CNX RCPC LLC	TM# 1-13B-18
15. ERNEST & LINDA HARKER	TM# 1-8-25.3	73. CNX RCPC LLC	TM# 1-13B-19
16. RANDY DAVID & SANDRA HELMICK	TM# 1-8-25.4	74. CNX RCPC LLC	TM# 1-13B-20
17. MICHAEL TENNANT	TM# 1-8-36	75. CNX RCPC LLC	TM# 1-13B-21
18. CNX RCPC LLC	TM# 1-13-33	76. CNX RCPC LLC	TM# 1-13B-22
19. CNX RCPC LLC	TM# 1-13-24	77. CNX RCPC LLC	TM# 1-13B-39
20. CNX RCPC LLC	TM# 1-13B-87	78. CNX RCPC LLC	TM# 1-13B-40
21. CNX RCPC LLC	TM# 1-13B-86	79. CNX RCPC LLC	TM# 1-13B-41
22. CNX RCPC LLC	TM# 1-13B-85	80. CNX RCPC LLC	TM# 1-13B-42
23. CNX RCPC LLC	TM# 1-13B-84	81. CNX RCPC LLC	TM# 1-13B-43
24. CNX RCPC LLC	TM# 1-13B-83	82. CNX RCPC LLC	TM# 1-13B-44
25. CNX RCPC LLC	TM# 1-13B-82	83. CNX RCPC LLC	TM# 1-13B-45
26. CNX RCPC LLC	TM# 1-13B-81	84. DONNIE L. & BARBARA MCDUGAL	TM# 1-13B-46
27. CNX RCPC LLC	TM# 1-13B-80	85. ERIK DAVID PRIDE	TM# 1-13B-47
28. CNX RCPC LLC	TM# 1-13B-79	86. EDGAR J. & BETTY J. HUGGINS	TM# 1-13B-48
29. CNX RCPC LLC	TM# 1-13B-78	87. DAVID F. & VALERIE D. CONAWAY	TM# 1-13B-49
30. CNX RCPC LLC	TM# 1-13B-77	88. PAT L. & BEVERLY K. PARK	TM# 1-13B-50
31. CNX RCPC LLC	TM# 1-13B-76	89. WILLIAM E. & MARY HARKER	TM# 1-13B-51
32. CNX RCPC LLC	TM# 1-13B-75	90. CNX RCPC LLC	TM# 1-13B-52
33. CNX RCPC LLC	TM# 1-13B-74	91. CNX RCPC LLC	TM# 1-13B-23
34. CNX RCPC LLC	TM# 1-13B-73	92. CNX RCPC LLC	TM# 1-13B-24
35. CNX RCPC LLC	TM# 1-13B-72	93. CNX RCPC LLC	TM# 1-13B-25
36. CONSOLIDATED GAS TRANSMISSION	TM# 1-13B-71	94. CNX RCPC LLC	TM# 1-13B-26
37. CONSOLIDATED GAS TRANSMISSION	TM# 1-13B-70	95. CNX RCPC LLC	TM# 1-13B-27
38. CONSOLIDATED GAS TRANSMISSION	TM# 1-13B-69	96. CNX RCPC LLC	TM# 1-13B-28
39. CONSOLIDATED GAS TRANSMISSION	TM# 1-13B-68	97. CNX RCPC LLC	TM# 1-13B-29
40. CONSOLIDATED GAS TRANSMISSION	TM# 1-13B-67	98. CNX RCPC LLC	TM# 1-13B-30
41. CONSOLIDATED GAS TRANSMISSION	TM# 1-13B-66	99. CNX RCPC LLC	TM# 1-13B-31
42. BASIL DAWSON	TM# 1-13B-65	100. CNX RCPC LLC	TM# 1-13B-32
43. SUSAN B. ROSS	TM# 1-13B-64	101. CNX RCPC LLC	TM# 1-13B-33
44. MITCHELL L. & LENA D. HOLMES	TM# 1-13B-63	102. CNX RCPC LLC	TM# 1-13B-34
45. LEROY W. & BARBARA J. NUCE	TM# 1-13B-62	103. CNX RCPC LLC	TM# 1-13B-35
46. DAVID K. & PAMELA S. RUSH	TM# 1-13B-61	104. CNX RCPC LLC	TM# 1-13B-36
47. JOHN R. & KATHY J. HOCKENBERRY	TM# 1-13B-60	105. CNX RCPC LLC	TM# 1-13B-37
48. JIMMIE JR. & MARCIA L. BARTLETT	TM# 1-13B-59	106. CNX RCPC LLC	TM# 1-13B-38
49. ROY DALE CHISLER ET AL.	TM# 1-13B-58	107. CNX RCPC LLC	TM# 1-13-25
50. ERNEST E. & LINDA L. HARKER	TM# 1-13B-57	108. WOLFPEN KNOB DEVELOPMENT	TM# 1-8-33.1
51. CNX RCPC LLC	TM# 1-13B-56	109. W. BRENT LEGAN	TM# 1-13-32
52. CNX RCPC LLC	TM# 1-13B-55	110. W. BRENT LEGAN	TM# 1-13-36
53. CNX RCPC LLC	TM# 1-13B-54	111. VERNON L. SIMPSON	TM# 1-13-37
54. CNX RCPC LLC	TM# 1-13B-53		
55. CNX RCPC LLC	TM# 1-13B-1		
56. CNX RCPC LLC	TM# 1-13B-2		
57. CNX RCPC LLC	TM# 1-13B-3		
58. CNX RCPC LLC	TM# 1-13B-4		

(+) 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: October 3, 2018

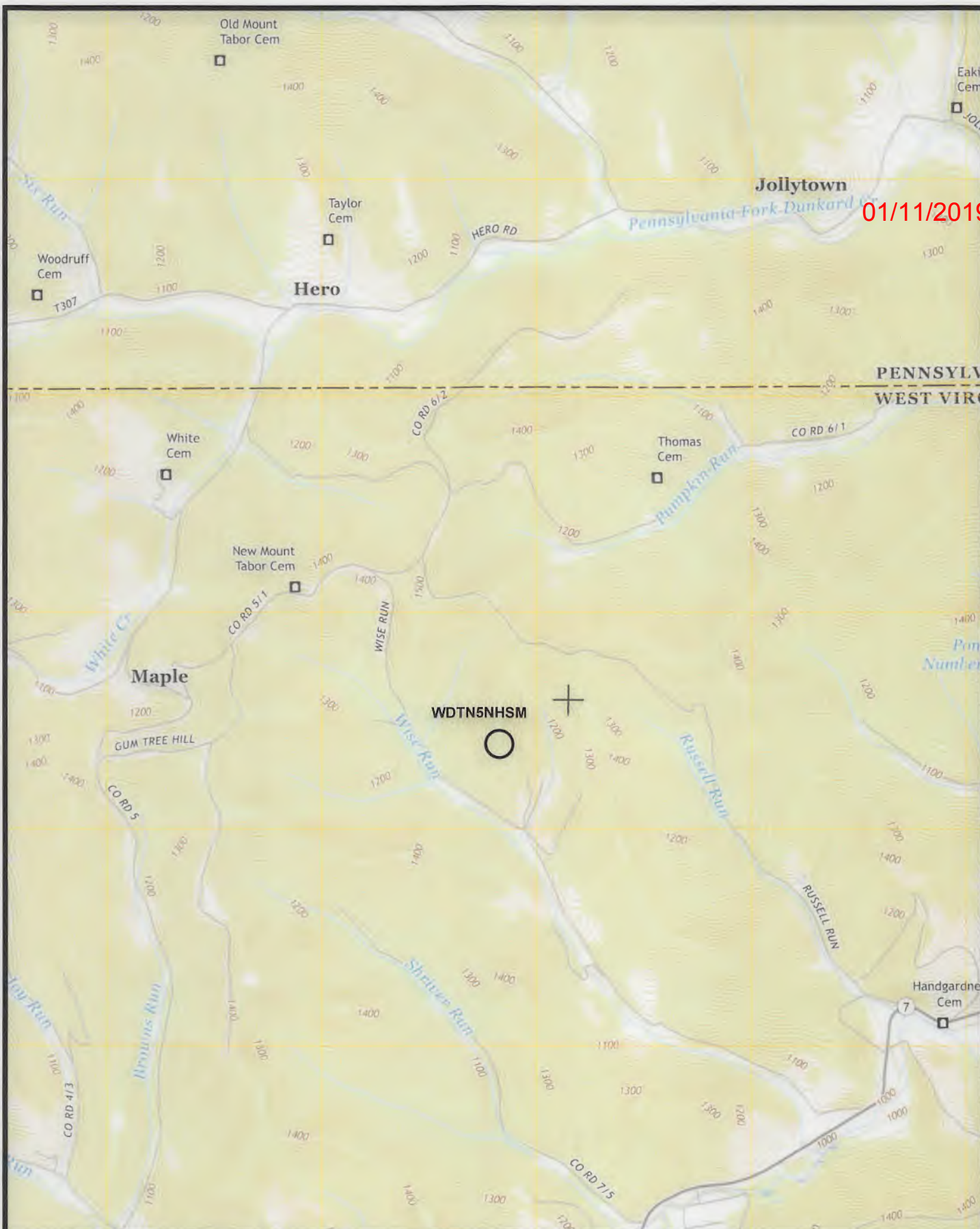
Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

OPERATOR'S WELL #: WDTN5NHSU
 API WELL # 47 061 01526 1164
 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: 21,610' ±
 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



01/11/2019

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



DATE: October 3, 2018

OPERATOR'S WELL #: WDTN5NHSU

API WELL # 47 061 01826 464
STATE COUNTY PERMIT

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: 21,610' ±

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
6	1-13-25 1-13B-1 through 71 1-13B-72 through 85	204978000	Norman Core, Gregory Shriver, and Francis M. Bland, Trustees of West Warren Baptist Church	CNG Producing Company
			William B. Richardson	CNG Producing Company
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc
7	1-13-32 1-13-36	243453000	William B. Legan and Michele R. Legan, individually and as h/w, Zana L. Legan	Dominion Exploration and Production, Inc.

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 Sewickley, PA 15143 Phone: 412-219-4509 Email: Info@shefflerCo.com

DATE: October 3, 2018

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

OPERATOR'S WELL #: WDTN5NHSU
API WELL # 47 061 01846 WA
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: 21,610' ±
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

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Environmental Protection

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

Well Operator: CNX Gas Company LLC
 By: Raymond Hoon 
 Its: Permitting Supervisor

Anne D. Coon, Betty Rodriguez, Anne Barr, Wilma S. Shriver, Ralph Shriver, William R. Shriver, Jack L. Shriver, George H. Shriver and Geraldine L. Shriver	CNG Transmission Corporation	Lease Modification	DB 1108/324
Virginia Taylor Perry	CNG Transmission Corporation	Lease Modification	DB 1108/339
CNG Transmission Corporation	CNG Producing Company	Assignment	AB 51/416
CNG Producing Company	Dominion Exploration and Production Inc.	Merger	AB 72/449
Dominion Exploration & Production, Inc., Dominion Transmission, Inc. and Dominion Appalachian Development, LLC	Antero Resources Appalachian Corporation	Assignment	AB 102/797
Antero Resources Appalachian Corporation	Dominion Transmission, Inc.	Assignment	AB 103/606
Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	AB 108/64
CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger	CR 60/18
CONSOL Gas Company	CNX Gas Company, LLC	Merger	CB 2/424
CNX Gas Company, LLC	Noble Energy, Inc.	Assignment	AB 113/458
Noble Energy, Inc.	CNX Gas Company, LLC	Assignment	AB 123/528

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
6	1-13-25 1-13B-1 through 71 1-13B-72 through 85	204978000	Norman Core, Gregory Shriver, and Francis M. Bland, Trustees of West Warren Baptist Church William B. Richardson CNG Producing Company Dominion Exploration and Production Inc., Dominion Transmission Inc., Dominion Appalachian Development LLC Antero Resources Appalachian Corporation Dominion Exploration and Production Inc. Consol Gas Company CNG Gas Company LLC Noble Energy, Inc.	CNG Producing Company CNG Producing Company Dominion Exploration and Production Inc. Antero Resources Appalachian Corporation Dominion Exploration and Production Inc. Consol Gas Company CNG Gas Company LLC Noble Energy, Inc. CNG Gas Company LLC	Not less than 1/8 Not less than 1/8 Merger Assignment Assignment Name Change Merger Assignment Assignment	DB 1141/491 DB 1142/547 AB 72/449 AB 102/797 AB 103/594 CB 60/7 CNB 2/424 AB 113/458 AB 131/339

<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion QLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
7	1-13-32 1-13-36	243453000	William B. Legan and Michele R. Legan, individually and as h/w, Zana L. Legan William C. Legan Dominion Exploration and Production Inc., Dominion Transmission Inc., Dominion Appalachian Development LLC Antero Resources Appalachian Corporation William B. Legan and Michele R. Legan, individually and as h/w Dominion Exploration and Production Inc. CONSOL Gas Company CNG Gas Company LLC Noble Energy Inc.	Dominion Exploration and Production, Inc. Dominion Exploration and Production, Inc. Antero Resources Appalachian Corporation Dominion Exploration and Production Inc. Dominion Exploration and Production Inc. Consol Gas Company CNG Gas Company LLC Noble Energy Inc. CNG Gas Company LLC	Not less than 1/8 Ratification Assignment Assignment Lease Modification Name Change Merger Assignment Assignment	DB 1259/214 DB 1260/155 AB 102/797 AB 103/594 DB 1409/746 CB 60/7 AB 120/383 AB 113/458 AB 131/339

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Office of Oil and Gas
OCT 17 2018
WV Department of
Environmental Protection

3 of 3

01/11/2019



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 57th 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.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Raymond Hoon', written over a light blue horizontal line.

Raymond Hoon
Permitting Supervisor

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Office of Oil and Gas
OCT 17 2018
WV Department of
Environmental Protection

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

Date of Notice Certification: 10-15-18

API No. 47- _____
Operator's Well No. WDTN5NHSM
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>556827.8670</u>
County: <u>Monongalia</u>		Northing: <u>4395388.7170</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 style="padding-left: 40px;"><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>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
---	---

Required Attachments:

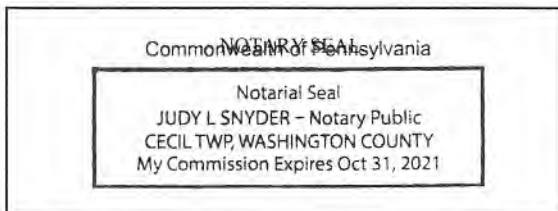
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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


 OCT 17 2018
 WV Department of
 Environmental Protection

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>



Subscribed and sworn before me this 15th day of October, 2018
Judy L Snyder Notary Public
 My Commission Expires 10-31-2021

Oil and Gas Privacy Notice:

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

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 WV Department of
 Environmental Protection

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

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

Date of Notice: 10-11-18 **Date Permit Application Filed:** 10-15-18

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.

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

SURFACE OWNER(s)
Name: See attached
Address: _____
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: See attached
Address: _____

COAL OPERATOR
Name: N/A
Address: _____

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

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

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

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

*Please attach additional forms if necessary

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Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Written Comment:

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

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

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

WW-6A
(8-13)

API NO. 47- _____ - **01/11/2019**
OPERATOR WELL NO. WDTN5NHSM
Well Pad Name: WDTN5

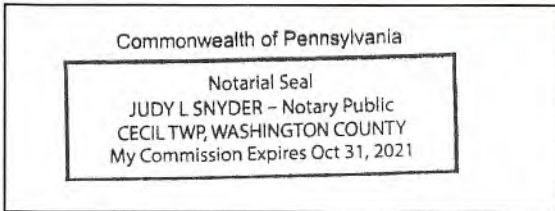
Notice is hereby given by:

Well Operator: CNX Gas Company, LLC *Raymond Hoon*
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.



Subscribed and sworn before me this 15th day of October 2018.

Judy L Snyder Notary Public

My Commission Expires 10-31-2021



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Environmental Protection

WW6A Notice of Application - Attachment

WDTN5NHSM

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

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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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

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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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

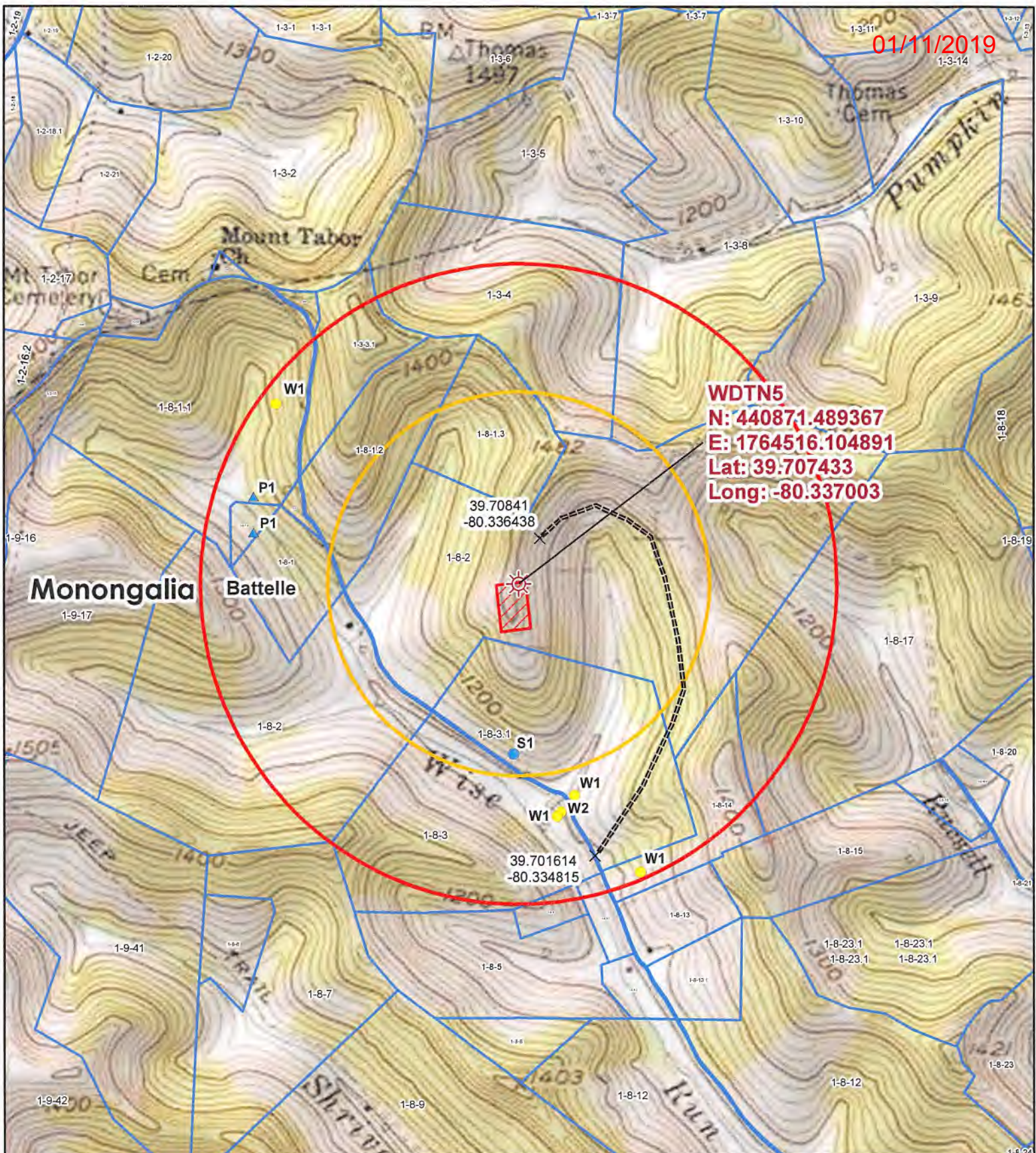
CNX RCPC LLC
1000 CONSOL Energy Drive, Canonsburg, PA 15317

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01/11/2019



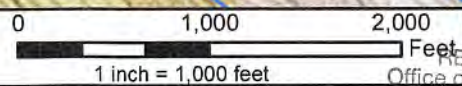
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N: 440871.489367
E: 1764516.104891
Lat: 39.707433
Long: -80.337003

39.70841
-80.336438

39.701614
-80.334815

Legend

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



CONSOL ENERGY
 Office of Environmental Protection
 CNX Center, Canonsburg, PA

Original Date: 11/13/2017

Prepared By: GIS

Revision Date: 11/13/2017

Approved By: GIS

OCT 17 2018
 Topographic Well Map
 WDTN5

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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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: 10-11-18 **Date Permit Application Filed:** 10-15-18

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.

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

Name: See attached
Address: _____

Name: _____
Address: _____

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>556827.0760</u>
County:	<u>Monongalia</u>		Northing:	<u>4395394.7590</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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting 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.

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WW6A4 Notice of Intent to Drill - Attachment

WDTN5NHSM

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

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

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

Richard Nunley
261 Festival Drive, Oceanside, CA 92057

Patricia Mumaw
3344 Northridge Drive, Wooster, OH 44691

Donald Nunley
36 Autumn Drive, Core, WV 26541

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

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

Richard McCauley
2589 Timothy Ave., Louisville, OH 44641

Judy Eckman
1223 Berwyn SW, Sherrodsville, OH, 44675

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

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

Eleanor Wise
126 Fairview Ave., Waynesburg, PA 15370

Victor E. Wise
266 Pine Drive, Poca, WV 25159

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

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

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

Dexter Murle Stewart
1283 Corssroads Road, Fairview, WV 26570

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

James Freeman Stewart
P.O. Box 443, Springfield, WV 26763

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

Annette Stewart
41 Mimosa Dr., Martinsburg, WV 25404

Debbie Goff
9009 Robinson St, Brandywine MD 20613

Wally Currence
16200 Bealle Hill Road, Waldorf, MD 20601

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

Michelle Currence
1 Carroll Drive, Stafford, VA 22554

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

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

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

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

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

Becky Bortnick Hawkins
2812 Nevis Circle, Costa Mesa, CA 92626

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

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

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

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

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

Date of Notice: 10-11-18 **Date Permit Application Filed:** 10-15-18

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: <u>See attached</u>	Name: _____
Address: _____	Address: _____
_____	_____

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>556827.0760</u>
County: <u>Monongalia</u>		Northing: <u>4395388.7170</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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: <u>CNX Gas Company, LLC</u>	Address: <u>1000 Consol Energy Drive</u>
Telephone: <u>724-485-3540</u>	<u>Canonsburg, PA 15317</u>
Email: <u>RaymondHoon@CNX.com</u>	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.

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WW6A5 Notice of Planned Operation - Attachment

WDTN5NHSM

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

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

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

Richard Nunley ✓
261 Festival Drive, Oceanside, CA 92057

Patricia Mumaw ✓
3344 Northridge Drive, Wooster, OH 44691

Donald Nunley ✓
36 Autumn Drive, Core, WV 26541

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

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

Richard McCauley ✓
2589 Timothy Ave., Louisville, OH 44641

Judy Eckman ✓
1223 Berwyn SW, Sherrodsville, OH, 44675

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

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

Eleanor Wise ✓
126 Fairview Ave., Waynesburg, PA 15370

Victor E. Wise ✓
266 Pine Drive, Poca, WV 25159

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

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1283 Corssroads Road, Fairview, WV 26570

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

James Freeman Stewart
P.O. Box 443, Springfield, WV 26763

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

• Annette Stewart
41 Mimosa Dr., Martinsburg, WV 25404

• Debbie Goff
9009 Robinson St, Brandywine MD 20613

Wally Currence
16200 Bealle Hill Road, Waldorf, MD 20601

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

Michelle Currence
1 Carroll Drive, Stafford, VA 22554

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

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

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

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

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

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• Becky Bortnick Hawkins
2812 Nevis Circle, Costa Mesa, CA 92626

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

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

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

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

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

September 26, 2018

Jill M. Newman
Deputy Commissioner

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

Subject: DOH Permit for the WDTN5 Pad, Monongalia County
WDTN5NHSM 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,

A handwritten signature in blue ink that reads "Gary K. Clayton".

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

Cc: Shannon Miller
CNX Gas Company LLC
CH, OM, D-4
File

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

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

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

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

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

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

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

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

Type: Ammonium chloride CAS: 12125-02-9

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

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

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

Type: Thiourea CAS: 62-56-6

Type: Acetophenone CAS: 98-86-2

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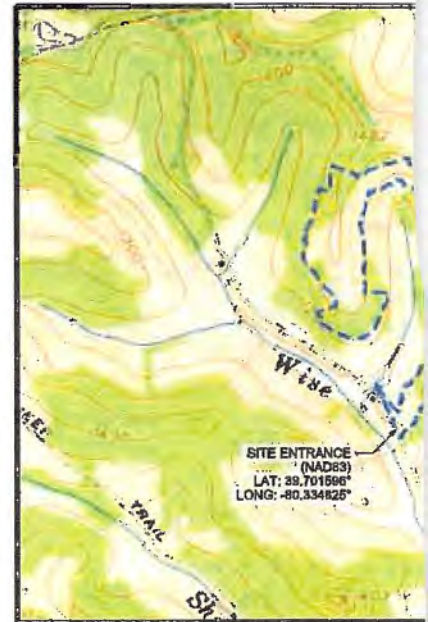
OCT 17 2018

WV Department of
Environmental Protection

EROSION & SEDIMENT AND SITE RESTORATION

WTN5 W MONONGALIA COUNTY

FO



REFERENCES: UNITED STATES GEOLOGICAL SURVEY - WADE



PROJECT N

OCTOB

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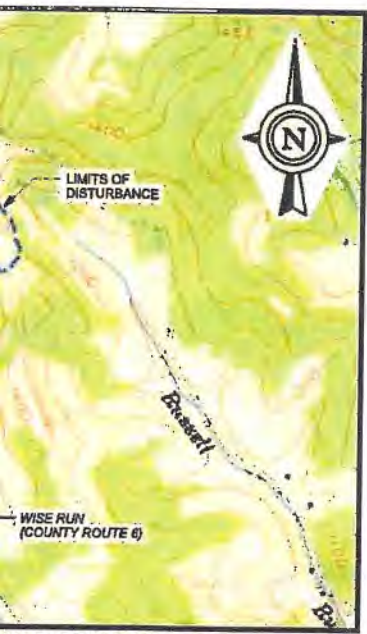
9:01:42 AM

10/6/2017

1:2000



ENVIRONMENTAL CONTROL PLAN RESTORATION PLAN WELL SITE COUNTY, WEST VIRGINIA



17016-023
 2017

& HRITZ, LLC

Handwritten signature and date: 10/20/2017

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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

REVISION	DATE	BY	JOB DRAWN
			BKG CHECKED
			HLP APPROVED
	OCT 2017		DATE
17016-023	PROJECT NO.		
DIEFFENBAUCH & HRITZ, LLC 1081 Chapin Road, Suite 200 Morgantown, WV 26501 P: 304.185.5355 F: 304.596.5557			
CLIENT	WTNS WELL SITE		
PROJECT	TITLE SHEET		
TITLE	1		
DRAWING NO.	1		