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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, November 13, 2023  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

CNX GAS COMPANY LLC  
1000 HORIZON VUE DR.  
CANONSBURG, PA 15370

Re: Permit Modification Approval for WDTN18EHSM  
47-061-01948-00-00

**Lateral Extension**

CNX GAS COMPANY LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a blue circular stamp.

James A. Martin  
Chief

Operator's Well Number: WDTN18EHSM  
Farm Name: CONSOL MINING COMPANY LLC  
U.S. WELL NUMBER: 47-061-01948-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 11/13/2023

Promoting a healthy environment.

11/17/2023

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 MONONGA BATTEL WADESTOWN  
Operator ID County District Quadrangle

2) Operator's Well Number: WDTN18EHSM Well Pad Name: WDTN18

3) Farm Name/Surface Owner: CONSOL MINING CO. LLC Public Road Access: CAMP RUN ROAD CR 4

4) Elevation, current ground: 1215' Elevation, proposed post-construction: 1199'

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

Other \_\_\_\_\_

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

Horizontal

6) Existing Pad: Yes or No YES

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Target formation is Marcellus Shale @ 7815' - 7868' TVD, 53' thick, expected formation pressure ~4600 psi

8) Proposed Total Vertical Depth: 7848' TVD at TD, depending on formation dip

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

10) Proposed Total Measured Depth: 25,523' MD at TD

11) Proposed Horizontal Leg Length: 17,099'

12) Approximate Fresh Water Strata Depths: 103', 111', 190', 243', 259', 325', 399'

13) Method to Determine Fresh Water Depths: Offset Well Information

14) Approximate Saltwater Depths: 2415', 3045', 3210'

15) Approximate Coal Seam Depths: 448'-449', 537'-538', 612'-613', 614'-617', 873'-878', 960'-974'

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

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

CK# 2140043933  
\$7500  
11/8/23

RECEIVED  
Office Of Oil and Gas  
NOV - 1 2023  
WV Department of  
Environmental Protection

Gayne  
Knitowski,  
Inspector  
Digitally signed by Gayne  
Knitowski, Inspector  
Date: 2023.10.25 14:23:24  
-0400

18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	20	New	L/S	<94.0	75	46 ✓	96 / CTS ✓
Fresh Water	13.375	New	J-55	54.5	1,180	1,151 ✓	940 / CTS
Coal	13.375	New	J-55	54.5	1,180	1,151 ✓	940 / CTS
Intermediate	9.625	New	J-55	36	2,876	2,847 ✓	1,046 / CTS
Production	5.5	New	P-110	20	25,523	25,494 ✓	2,040 TOC @ 1,550'
Tubing	2.375	New	J-55	4.7	Above assumes RF = 29'	TBD	N/A
Liners	N/A						

Digitally signed by Gayne Knitowski, Inspector  
Date: 2023.10.25 14:23:53 -04'00'

<b>TYPE</b>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	20	30	.375	N/A	N/A	Type 1	1.18
Fresh Water	13.375	17.5	.380	2,730	<500	Class A ✓	1.19
Coal	13.375	17.5	.380	2,730	<500	Class A	1.19
Intermediate	9.625	12.25	.352	3,520	<2,815	Class A	1.19
Production	5.5	8.75 x 8.5	.415	14,340	~11,000 ✓	Class A or H	1.10
Tubing	2.375	N/A	.190	7,700	N/A	N/A	N/A
Liners							

**PACKERS**

Kind:	N/A			
Sizes:				
Depths Set:				

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

Utilize conductor rig to set 20" conductor into solid rock and cement back to surface. MIRU drilling rig. Air drill 17-1/2" hole. Run and cement 13-3/8" fresh water casing. Note that 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 12.0-12.8 ppg SOBMs. Drill 8-1/2" curve from KOP to landing point. Continue drilling 8-1/2" lateral to TD (geosteer this section to remain in Marcellus target window). Perform clean-up cycle to condition well. Run and cement 5-1/2" production casing. Suspend well and skid to next well or RDMO drilling rig.

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

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

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

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

23) Describe centralizer placement for each casing string:

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

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

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

25) Proposed borehole conditioning procedures:

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

\*Note: Attach additional sheets as needed.



CNX



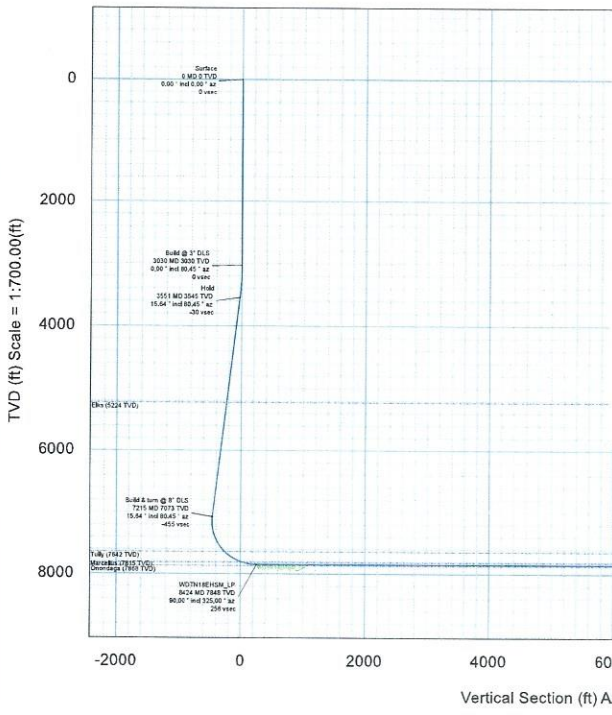
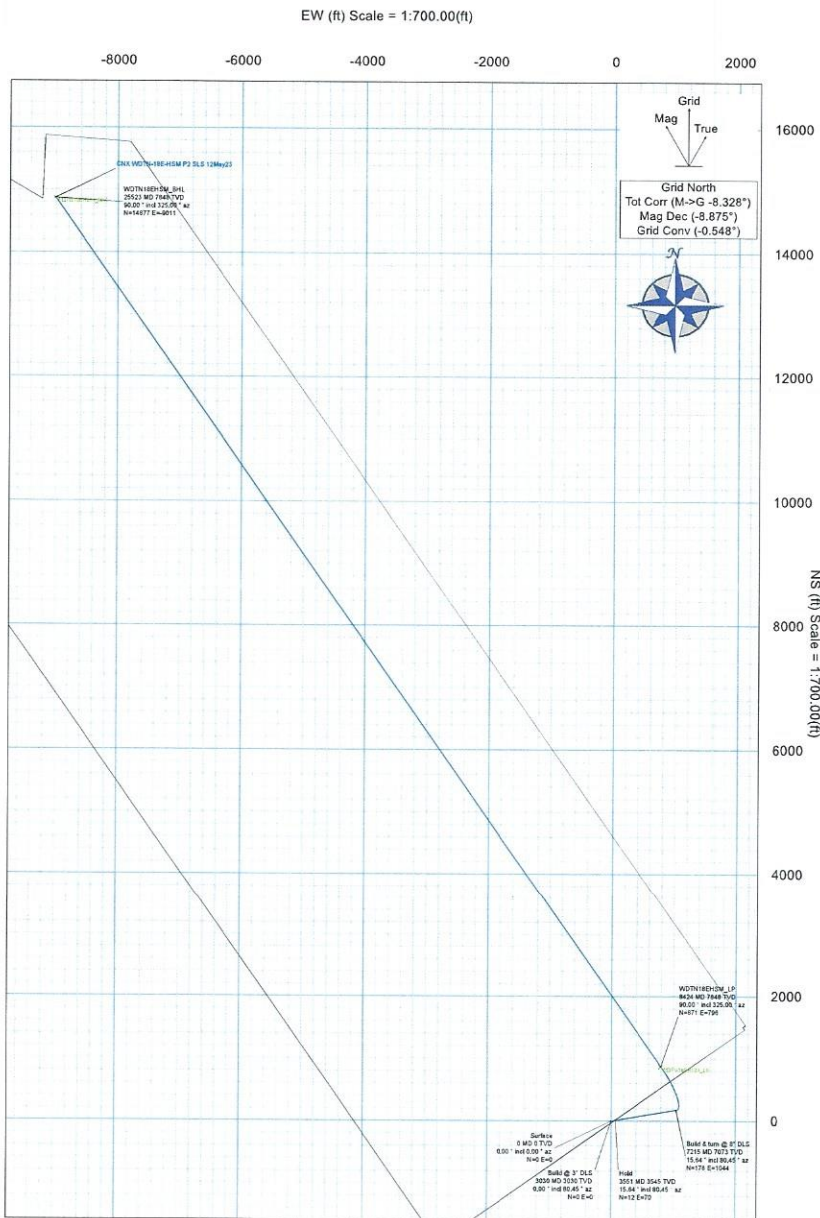
<b>Borehole:</b> Original Borehole	<b>Well:</b> WDTN18EHSM	<b>Field:</b> WV Monongalia County (NAD 27)	<b>Structure:</b> CNX WDTN18 Pad
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<b>Gravity &amp; Magnetic Parameters</b>		<b>Surface Location</b>		<b>NAD27 West Virginia State Plane, Northern Zone, US Feet</b>		<b>Miscellaneous</b>	
Model: HDGM 2023	Dip: 66.325°	Date: 12-May-2023	Lat: N 39 41 27.78	Northing: 434961.16RUS	Grid Conv: -0.6475°	Slot: WDTN18EHSM	TVD Ref: KB(1228ft above MSL)
MagDec: -8.875°	FS: 51727.566mT	Gravity FS: 999.349mgn (9.80665 Based)	Lon: W 80 21 30.50	Easting: 1758419.24RUS	Scale Fact: 0.99994139	Plan: CNX WDTN18EHSM P2 SLS 12May23	

Surface Location										
Northing:	434961.16	Easting:	1758419.24	Latitude:	N 39 41 27.78	Longitude:	W 80 21 30.50			
Vtrue Azimuth:		325.08								
Target Description	Shape	Dimension	Latitude	Longitude	Northing	Easting	TVD	VSec	N(°)E	E(W)
WDTN18_M1_FREELM_INT	Point	N/A	N 39 41 27.88	W 80 21 30.73	434932.68	1758408.80	1228.00	28.16	21.53	-18.34
WDTN18EHSM_BHL	Point	N/A	N 39 41 53.93	W 80 21 27.55	448937.08	176408.58	7848.00	17355.48	14877.42	-4011.21
WDTN18EHSM_LP	Point	N/A	N 39 41 26.49	W 80 21 20.42	435831.77	1759215.43	7848.00	254.39	870.66	796.43

PART	Seq.	Survey Tool	Vendor/Tool	Hole Size (in)	Case Size (in)	Expected Max Incl (°)	MD From (ft)	MD To (ft)	Survey Frequency (ft)	ECU Size (Beam Major) (ft)	ECU Size (Beam Minor) (ft)	Comments/Contingency
1	1	AD200A_GYROINS-Depth Only		17.5	13.375	0	29	1700	1700	0.729	0.729	
1	2	AD200A_GYROINS		17.5	13.375	28	1120	1700	1700	5.902	5.879	
1	3	AD01MB_MWD		12.25	9.625	1120	2930	1700	1700	16.879	10.865	
1	4	AD01MB_MWD		8.75	5.5	2930	7500	1700	1700	37.502	27.203	
1	5	BD01MB_MWD-KRF		8.5	5.5	7500	25522.627	1700	1700	591.857	55.896	

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(°)E	E(W)	DLS
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Build @ 3' DLS	3030.00	0.00	80.45	3030.00	0.00	0.00	0.00	0.00
Hole	3551.42	15.64	80.45	3544.94	-10.40	11.33	69.76	3.00
Sho	5295.03	15.64	80.45	5224.00	-232.48	88.70	533.38	0.00
Build & turn @ 8' DLS	7215.34	15.64	80.45	7071.18	-454.89	175.58	1043.89	0.00
Turb	7857.20	48.43	338.91	7842.00	-252.74	423.73	1940.79	0.00
Manuel	8201.83	72.82	329.48	7815.00	38.22	887.16	914.73	0.00
WDTN18EHSM_LP	8423.52	90.00	325.00	7848.00	254.39	870.66	796.43	0.00
WDTN18EHSM_BHL	25522.63	90.00	325.00	7848.00	17355.48	14877.42	-4011.21	0.00
Druidage	N/A	N/A	N/A	7848.00				



11/17/2023



## WDTN18 M1 WV Area of 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 WDTN18 M1 wells that are within West Virginia state boundary. These wells extended their origination in West Virginia cross the state line into Pennsylvania. 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, Status, Formation at TD, Total Depth, and Lat/Long (see Figures 3 and 6).

The Marcellus Shale of the Wadestown area is found at an approximate True Vertical Depth (TVD) of 8,000'. In the Wadestown area, there were very few wells that produced from formations deeper than the Bayard Sand (approximately 3,600'). With that being said, there are **no known vertical wells that reach a total depth within 1,500 vertical feet of the Marcellus Shale**. 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 WDTN18 M1 wells.

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 area. Geomechanical data is available that suggests the Tully Limestone to be an adequate upward frac barrier for Marcellus hydraulic fracturing. This data was collected from dipole sonic logs. CNX's nearest sonic data is from the NV20CCV well (Figure 4), approximately 21.4 miles north of the WDTN18 pad. Frac modeling (Figure 5) of the Marcellus in the area does not show significant upward frac growth.

There are no known CNX Marcellus lateral wells that lie within 500' of the proposed WDTN18 M1 wells. If any CNX Marcellus wells existed within 500' of the WDTN18 laterals, we would monitor and utilize the Production Control Room (PCR) to set up alarms via CygNet for any abrupt casing pressure or water rate changes. Those variances are outlined below. If the CNX PCR receives an alarm, the process is to notify the production foreman and production engineer responsible for the pad so that they can analyze if a frac hit is imminent, or if the alarm is of little to no concern. Should a communication event occur that triggers DEP notification requirements per 35CRS8 Section 9.3.a, CNX will follow and implement applicable guidance documents regarding incident reporting and resolution.

- 20% positive or negative rate of change for hourly water log period
- 10% positive or negative rate of change for casing pressure over a period of 30 minutes

There are no 3<sup>rd</sup> Party Marcellus lateral wells that lie within 500' of the proposed WDTN18 M1 wells in West Virginia.



**Figure 1.** Zero 3<sup>rd</sup> Party Marcellus wells lie within a 500' buffer around the proposed WDTN18 laterals, producing from the Marcellus Shale, shown below.

Well Name/API	Formation	Operator	Orientation	Within Zone of Influence	TVD Depth (ft)
N/A					

**Figure 2.** Zero CNX wells producing from formations within 1,500' above or below the Marcellus Shale and within 500' of proposed WDTN18 laterals.

Well Name/API	Formation	Operator	Orientation	Within Zone of Influence	TVD Depth (ft)
N/A					



WDTN18 M1 Pad Risk Assessment Review September 13, 2023

Figure 3. 18 wells lie within a 500' buffer around the WDTN18 M1 pad that penetrate the Big Injun Sand or deeper horizons (highlighted green in the table on page 6). The deepest well is 3,740' and produces from the Bayard Sand. No known SOG Communication events have occurred in this area. The pink horizontal wells in the figure below are Pittsburgh Coal seam horizontal laterals.

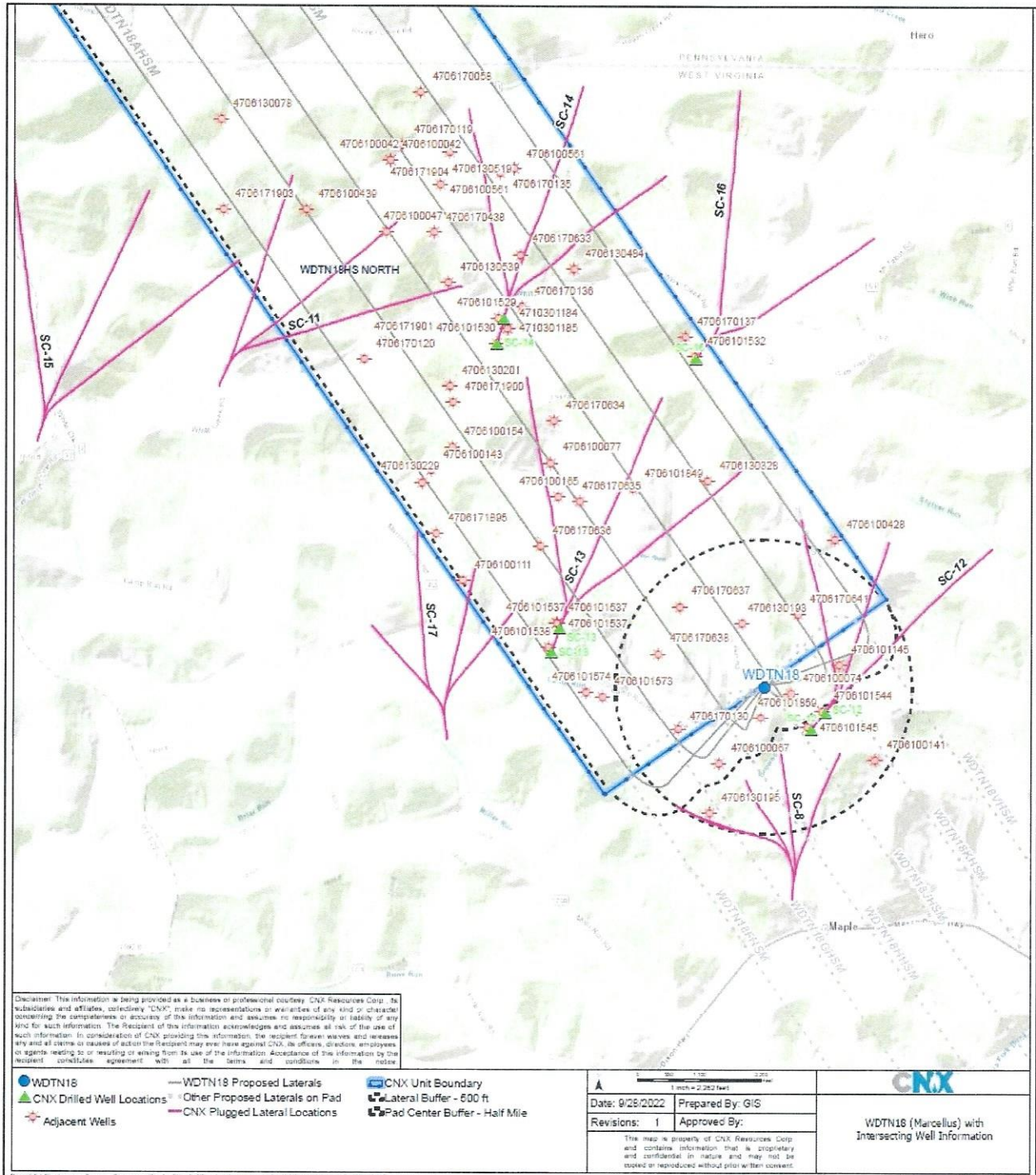






Figure 4. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the Wadestown Area Stress Profile log.

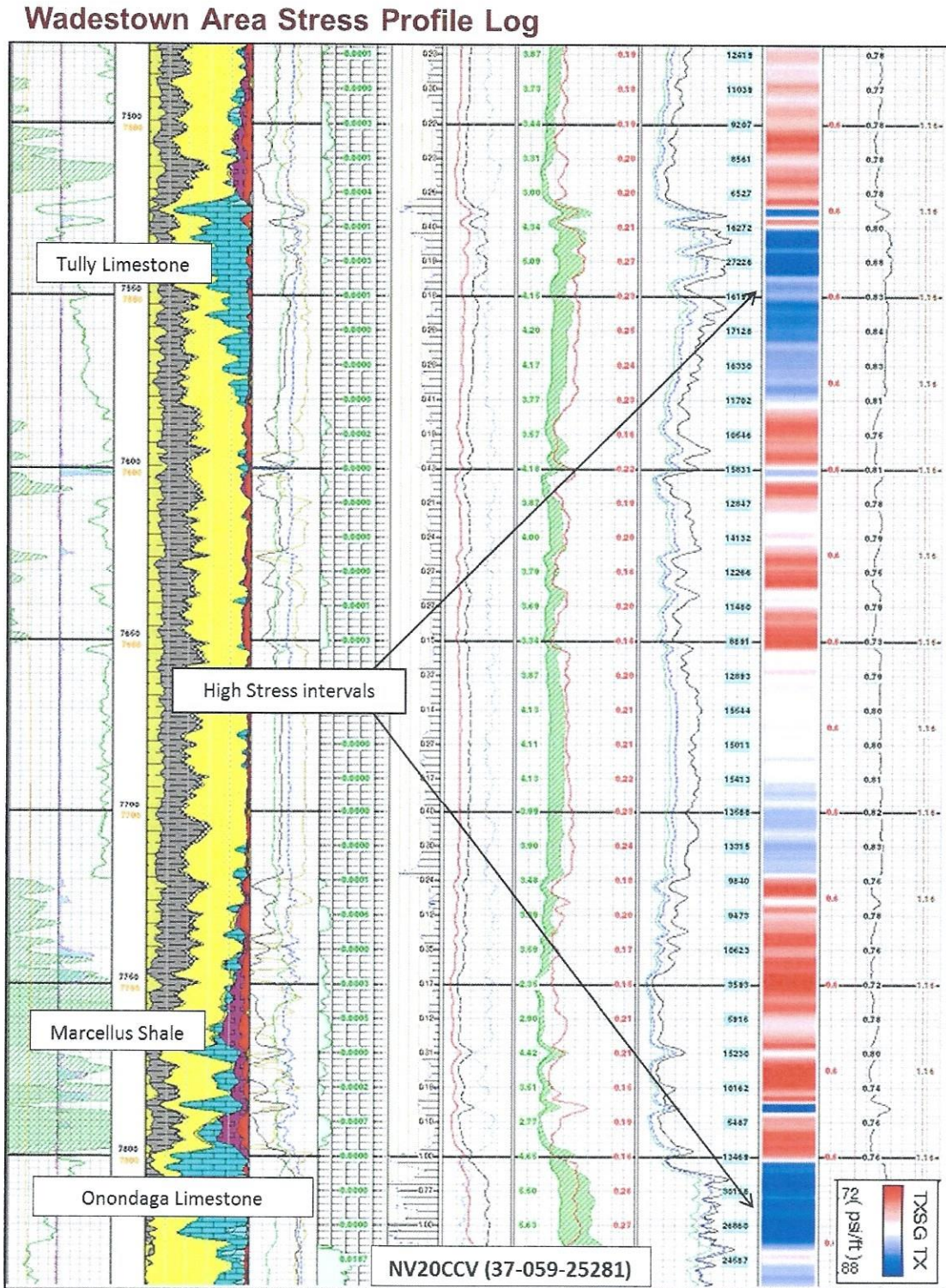
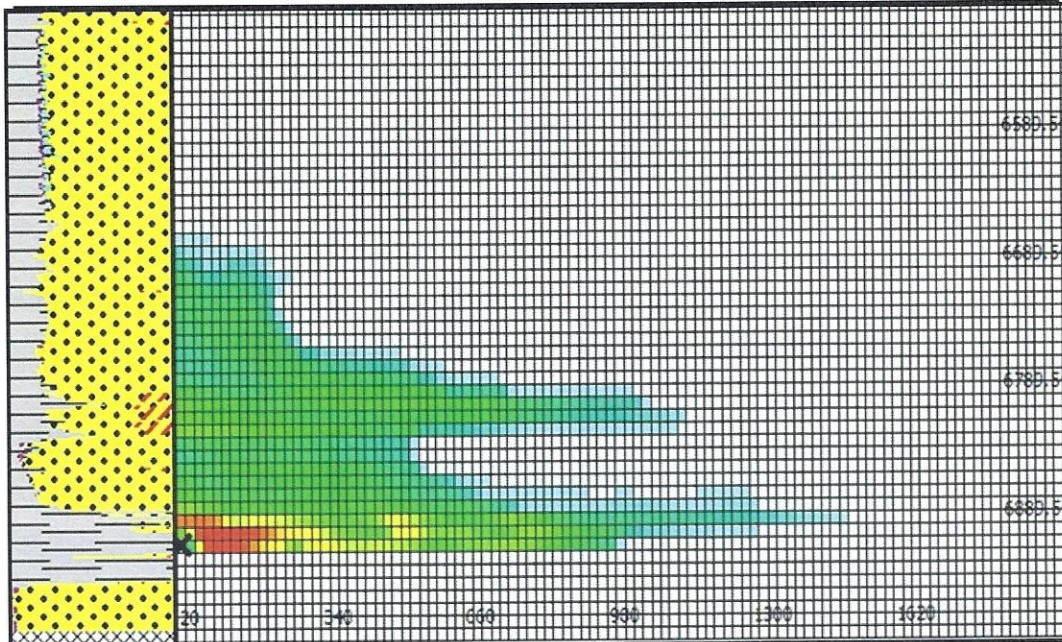




Figure 5. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Hamilton and Tully are much thinner than Wadestown. Frac modeling predicts frac height of approximately 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')

7

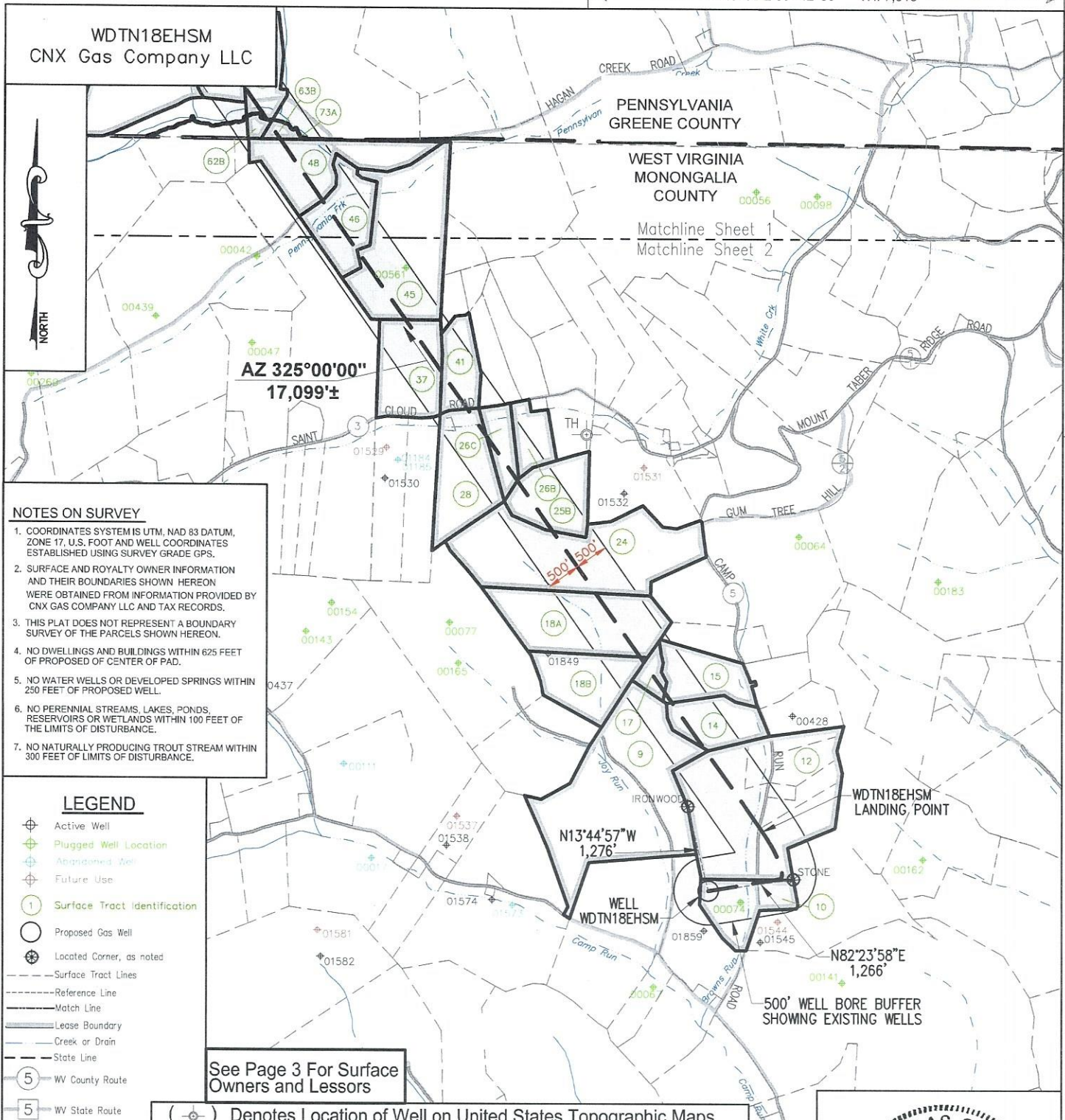


Figure 6. 70 wells lie within the 500' buffer of the entire WDTN18 M1 wells and pad. With the data available, only 18 of them can be verified to penetrate the Big Injun Sand or deeper stratigraphy (green). 14 of them are Pittsburgh Coal seam wells. 38 wells have no Formation or TD information available (status highlighted pink). Completion reports are not available for these on the WVGES website.

API Number	Well Name	Well Number	Current Operator	Fluid Type	Profile Type	Completion Formatio	Current Stbu	Total Dept	Latitude - WGS8	Longitude - WGS8
4705101532000	TERRA FIRMA COMPANY	SC15A	CNX	OIL & GAS	V	FITTSBURGH COAL	INACTIVE	912	39.707169	-80.382924
4705101535000	HENNEN, ALEX - HEIRS 1	1	OPER IN MIN.OWNER FLD.NO CODE ASSGN(ORPHAN WELL PROJ)	DRY HOLE	V	SEWICKLEY COAL	P & A	920	39.700238	-80.371501
4705101538000	CONSOLIDATION COAL CO.	SC13A	CNX	OIL & GAS	V	FITTSBURGH COAL	INACTIVE	1001	39.692845	-80.371986
4705101545000	CONSOLIDATION COAL COMPAI	SC12A	CNX	OIL & GAS	V	FITTSBURGH COAL	ACTIVE	1210	39.689001	-80.355512
4705101544000	CONSOLIDATION COAL COMPAI	SC12	CNX	OIL & GAS	V	UNIDENTIFIED COAL	INACTIVE	1210	39.689912	-80.354837
4705101574000	TERRA FIRMA COMPANY	SC 8A	DIVERSIFIED ENERGY	OIL & GAS	V	FITTSBURGH COAL	INACTIVE	1250	39.690605	-80.369674
4705101537000	CONSOLIDATION COAL CO.	SC13	CNX	OIL & GAS	H	FITTSBURGH COAL	INACTIVE	1270	39.69402	-80.371478
47051015370100	CONSOLIDATION COAL CO.	SC13	CNX	CEM	H	<Null>	DRILLED	1270	39.69402	-80.371478
47051015370200	CONSOLIDATION COAL CO.	SC13	CNX	CEM	H	<Null>	COMPLETED	1270	39.69402	-80.371478
4705101529000	MOORE, EDGAR & SETH	SC14	CNX	OIL & GAS	V	FITTSBURGH COAL	INACTIVE	1304	39.705911	-80.376388
4705101533000	MOORE, EDGAR & SETH	SC14A	CNX	OIL & GAS	V	FITTSBURGH COAL	INACTIVE	1304	39.707055	-80.375445
47051001430000	E C CLOVIS HEIRS	1	OPER IN MIN.OWNER FLD.NO CODE ASSGN(ORPHAN WELL PROJ)	GAS	V	FITTSBURGH COAL	P & A	1494	39.701449	-80.379491
47051015730000	TERRA FIRMA COMPANY	SC 8	DIVERSIFIED ENERGY	GAS	V	UNIDENTIFIED COAL	P & A	1520	39.690478	-80.388827
47051001540000	CLOVIS, E. C. - HEIRS 2	2	OPER IN MIN.OWNER FLD.NO CODE ASSGN(ORPHAN WELL PROJ)	DRY HOLE	V	FITTSBURGH COAL	P & A	1630	39.702609	-80.378177
4705101190000	ELI WHITE		GIBSON & GILES	UNKNOWN	U		INACTIVE	2550	39.711305	-80.351527
47051000570000	M.L. SHRIVER ESTATE 1-2810		(N/A)			BIG INJUN (PRICESEQ)	P & A	3188	39.657224	-80.361097
47051000420000	SIX, D. A. 1	1	OPER IN MIN.OWNER FLD.NO CODE ASSGN(ORPHAN WELL PROJ)	UNKNOWN	V	FITTSBURGH COAL	P & A	3195	39.715554	-80.382306
47051000420001	SIX, D. A. 1	1	OPER IN MIN.OWNER FLD.NO CODE ASSGN(ORPHAN WELL PROJ)	UNKNOWN	V	FITTSBURGH COAL	P & A	3195	39.715554	-80.382306
47051005190000	S E KIMBLE		NELSON M RICHARDS	GAS	U	FIFTY-FOOT	INACTIVE	3280	39.715424	-80.379117
47051000170000	CLOVIS, EVA H. 1		PILLAR ENERGY LLC	UNKNOWN	V		P & A	3382	39.692305	-80.375825
47051000780000	MRS S R COX		WALKER/CONKLIN/MINTR	WATER	U	1ST SALT SAND	INACTIVE	3383	39.71847	-80.393011
47051000470000	WHITE, JAMES L. 2		(N/A)	UNKNOWN	U		P & A	3371	39.718071	-80.382494
47051000740000	TENNANT, LEWLEY 5285		(N/A)	GAS	U	THIRTY-FOOT	INACTIVE	3385	39.691037	-80.388892
47051004940000	J H STILES		AM SNIDER	GAS	U	BAYARD	INACTIVE	3448	39.711364	-80.37058
47051001110000	C E HENNEN	1	PITTSBURGH & WV GAS	GAS	U	BAYARD	P & A	3483	39.698078	-80.377426
47051003740000	LUCINDA SIX		CLOVIS ROY W	GAS	U	BAYARD	INACTIVE	3485	39.708579	-80.386601
47051001140000	HAINES, E.	2505	A V COMPANY	GAS	V	FIFTH	P & A	3471	39.692173	-80.383359
47051000280000	GILMORE, ELIZABETH, ETUX 1	1	BIG SAND DRILLING-BIG SANDY GAS	GAS	V	BAYARD	P & A	3501	39.711693	-80.394039
47051001200000	JAMES L WHITE		(N/A)	UNKNOWN	U		INACTIVE	3520	39.708919	-80.383851
47051003290000	E C CLOVIS		PITTSBURGH & WV GAS	GAS	U	BIG INJUN (PRICESEQ)	INACTIVE	3578	39.703974	-80.380065
47051003690000	W FRANK TAYLOR		B GUY & A G PATERSON	GAS	U	FIFTH	INACTIVE	3680	39.710939	-80.378593
47051001410000	SHRIVER, CHARLES F. 1-2832		A V COMPANY	WATER	U	BAYARD	P & A	3740	39.697472	-80.381244
47051018590000	CONSOL MINING COMPANY LLC WDTN18M1SHM		CNX	UNKNOWN	H	MARCELLUS SHALE	EXPIRED PERMIT	<Null>	39.689504	-80.385481
47051004280000	SHRIVER 5114		PILLAR ENERGY LLC	GAS	V		ACTIVE	39.688254	-80.383983	
47051004370000	CLOVIS 5390		PILLAR ENERGY LLC	GAS	V		ACTIVE	39.698891	-80.381931	
47051001930000	MAHLON TENNANT HEIRS	1	PITTSBURGH & WV GAS	GAS	U	BAYARD	INACTIVE	39.694108	-80.389785	
47051002010000	CHAS WHITE		MANUFACTURERS LIGHT & HEAT CO	GAS	U	BAYARD	INACTIVE	39.694178	-80.389185	
47051002220000	E C CLOVIS	2	PITTSBURGH & WV GAS	GAS	U	BAYARD	INACTIVE	39.700564	-80.378074	
47051003380000	Laura B Tennant	1	MANUFACTURERS LIGHT & HEAT CO	GAS	U	BAYARD	INACTIVE	39.700049	-80.385987	
47051004750000	FRED HENNEN	2	CARNEGIE NATURAL GAS CO	GAS	U	GORDON STRAY	INACTIVE	39.701009	-80.382024	
47051004750001	FRED HENNEN	2	CARNEGIE NATURAL GAS CO	GAS	U	GORDON STRAY	INACTIVE	39.719919	-80.373312	
47051005890000	R V HENNEN/TAYLOR		BP	UNKNOWN	U	FIFTH	INACTIVE	39.719919	-80.373312	
47051001300000		1	OPER IN MIN.OWNER FLD.NO CODE ASSGN(ORPHAN WELL PROJ)	UNKNOWN	U	FIFTH	INACTIVE	39.698858	-80.383124	
47051001350000	F H HENNEN		CARNEGIE NATURAL GAS CO	UNKNOWN	U		INACTIVE	39.710004	-80.378381	
47051001360000	JOHN G WHITE		CARNEGIE NATURAL GAS CO	UNKNOWN	U		INACTIVE	39.708475	-80.379371	
47051001370000	SIMON L WHITE		CARNEGIE NATURAL GAS CO	UNKNOWN	U		INACTIVE	39.708124	-80.383544	
47051001670000	HENRY W HAINES		PHILADELPHIA COMPANY, THE	UNKNOWN	U		INACTIVE	39.692478	-80.388335	
47051001910000	ELIJAH C CLOVIS		MANUFACTURERS LIGHT & HEAT CO	UNKNOWN	U		INACTIVE	39.700694	-80.381932	
47051004380000	S E KIMBLE		(N/A)	UNKNOWN	U		INACTIVE	39.71307	-80.37949	
47051006330000	J G WHITE		BP	UNKNOWN	U		INACTIVE	39.712055	-80.374044	
47051006340000	L A STILES		(N/A)	UNKNOWN	U		INACTIVE	39.709915	-80.378184	
47051006350000	ALEX HENNAN		CLOVIS	UNKNOWN	U		INACTIVE	39.699955	-80.379104	
47051006370000	L HENNEN		(N/A)	UNKNOWN	U		INACTIVE	39.697619	-80.372544	
47051006380000	MAHLON TENNANT		(N/A)	UNKNOWN	U		INACTIVE	39.694917	-80.383723	
47051006390000	ROBERT CLOVIS		PHILADELPHIA OIL CO	UNKNOWN	U		INACTIVE	39.692594	-80.380037	
47051006410000	S S WHITE		PHILADELPHIA OIL CO	UNKNOWN	U		INACTIVE	39.694026	-80.380010	
47051018980000	ALEX HENNEN		(N/A)	UNKNOWN	U		INACTIVE	39.6994	-80.379115	
47051018980001	ALEX HENNEN		CLOVIS	UNKNOWN	U		INACTIVE	39.69911	-80.380034	
47051019000000	CHARLES WHITE		BP	UNKNOWN	U		INACTIVE	39.704186	-80.378177	
47051019010000	R FETHLE		(N/A)	UNKNOWN	U		INACTIVE	39.707689	-80.382484	
47051019030000	ELIZABETH GILMORE		(N/A)	UNKNOWN	U		INACTIVE	39.714066	-80.382816	
47051019040000	S E KIMBLE		(N/A)	UNKNOWN	U		INACTIVE	39.710939	-80.378562	
47051000170000	ALEX HENNEN		PITTSBURGH & WV GAS	DRY HOLE	V	P & A		39.701893	-80.371981	
47051004390000	OLA SIX		EQUITRANS MIDSTREAM	UNKNOWN	V	P & A		39.714087	-80.387551	
47051006810000	HENNEN	37	ECT	GAS	V	P & A		39.7162	-80.374498	
47051006810001	HENNEN	37	ECT	GAS	V	P & A		39.7162	-80.374498	
47051015100000	INDIGO 3		INDIGO ENERGY	UNKNOWN	V	P & A		39.720508	-80.401626	
47103011840000	SANTEE HEIRS 4		J A & M OIL & GAS COMPANY	UNKNOWN	V	MAXTON	P & A	39.708413	-80.374798	
47103011850000	SANTEE HEIRS 5		J A & M OIL & GAS COMPANY	GAS	V	MAXTON	P & A	39.708413	-80.374798	

LATITUDE 39° 42' 30" TH: 7,015'

LONGITUDE 80° 20' 00" TH: 6,265'



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE OBTAINED FROM INFORMATION PROVIDED BY CNX GAS COMPANY LLC AND TAX RECORDS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

- LEGEND**
- Active Well
  - Plugged Well Location
  - Abandoned Well
  - Future Use
  - Surface Tract Identification
  - Proposed Gas Well
  - Located Corner, as noted
  - Surface Tract Lines
  - Reference Line
  - Match Line
  - Lease Boundary
  - Creek or Drain
  - State Line
  - WV County Route
  - WV State Route

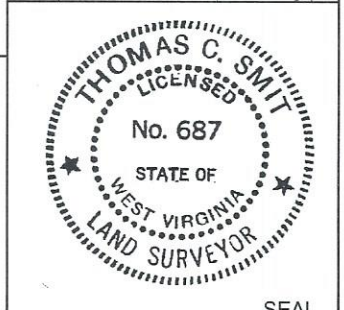
See Page 3 For Surface Owners and Lessors

( ) Denotes Location of Well on United States Topographic Maps

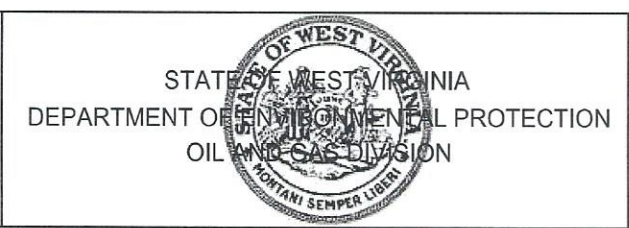


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



FILE NO:  
DRAWING NO:  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: OCTOBER 24 20 23  
OPERATORS WELL NO:  
API WELL NO  
47 - 061 - 01948  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1199' WATERSHED: Dunkard Creek QUADRANGLE: Wadestown  
DISTRICT: Battelle COUNTY: Monongalia

SURFACE OWNER: Consol Mining Company LLC ACREAGE: 46.75 ±  
ROYALTY OWNER: Bounty Minerals, LLC LEASE NO: 189033000 ACREAGE: 53.02 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD: 7,848'

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Anthony Kendziora  
ADDRESS: 1000 Horizon Vue Drive ADDRESS: 111 Avondale Road  
Canonsburg, PA 15317 Fairmont, WV 26554

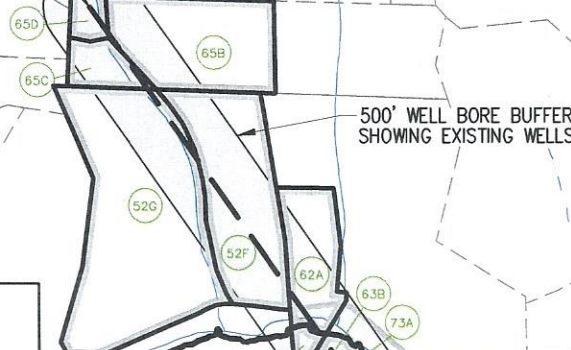
11/17/2023

LATITUDE 39° 45' 00" BH: 4,445'

LONGITUDE 80° 22' 30" BH: 6,655'

WDTN18EHSM  
CNX Gas Company LLC

WDTN18EHSM  
BOTTOM HOLE



500' WELL BORE BUFFER  
SHOWING EXISTING WELLS

PENNSYLVANIA  
GREENE COUNTY

WEST VIRGINIA  
MONONGALIA  
COUNTY

Matchline Sheet 1  
Matchline Sheet 2

**NOTES ON SURVEY**

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2. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE OBTAINED FROM INFORMATION PROVIDED BY CNX GAS COMPANY LLC AND TAX RECORDS.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
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5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
6. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
7. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

**LEGEND**

- ⊕ Active Well
- ⊕ Plugged Well Location
- ⊕ Abandoned Well
- ⊕ Future Use
- ① Surface Tract Identification
- Proposed Gas Well
- ⊕ Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Match Line
- Lease Boundary
- Creek or Drain
- State Line
- ⑤ WV County Route
- ⑤ WV State Route

See Page 3 For Surface  
Owners and Lessors

(⊕) Denotes Location of Well on United States Topographic Maps



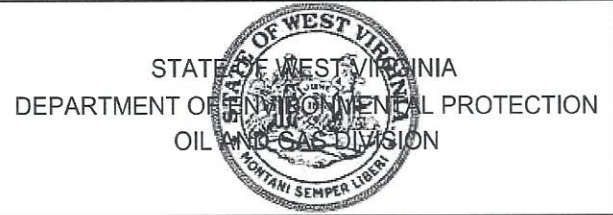
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



SEAL

FILE NO: \_\_\_\_\_  
 DRAWING NO: \_\_\_\_\_  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: OCTOBER 24 20 23  
 OPERATORS WELL NO: \_\_\_\_\_  
 API WELL NO: 47 - 061 - 01948  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

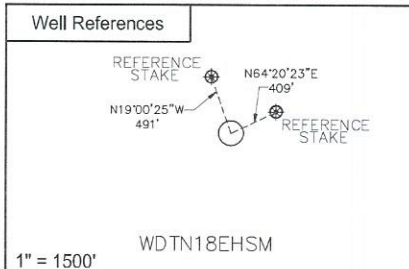
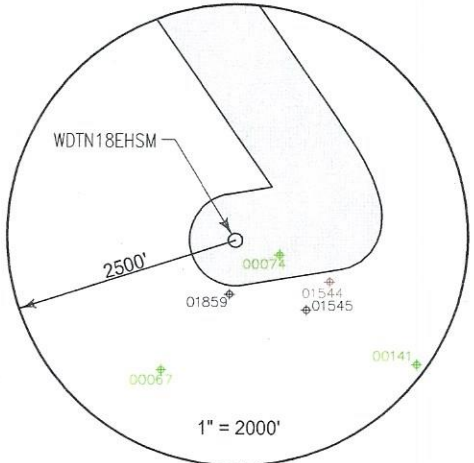
LOCATION ELEVATION: 1199' WATERSHED: Dunkard Creek QUADRANGLE: Wadestown  
 DISTRICT: Battelle COUNTY: Monongalia

SURFACE OWNER: Consol Mining Company LLC ACREAGE: 46.75 ±  
 ROYALTY OWNER: Bounty Minerals, LLC LEASE NO: 189033000 ACREAGE: 59.2023

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD: 7,848'

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Anthony Kendziora  
 ADDRESS: 1000 Horizon Vue Drive ADDRESS: 111 Avondale Road  
 Canonsburg, PA 15317 Fairmont, WV 26554

TRACT ID	SURFACE OWNER	LESSOR	PIN
9	Consol Mining Company LLC	Paul Reeder	1-9-33
		Consolidation Coal Company	
		CONSOL Mining Company LLC	
		CNX Resource Holdings LLC	
TRACT ID	SURFACE OWNER	LESSOR	PIN
10	Consol Mining Company LLC	Eastern Associated Coal Corporation	1-9-37
			1-9-38
TRACT ID	SURFACE OWNER	LESSOR	PIN
12	Consol Mining Company LLC, et al	Ralph Six	1-9-39
			1-9-39.1
			1-9-39.2
			1-9-39.3
			1-9-39.4
			1-9-39.5
			1-9-39.6
		Antero Resources Corporation	
		Doris Margaret White	
		George Stephen Knight	
TRACT ID	SURFACE OWNER	LESSOR	PIN
14	Curtis L Thomas, et ux	Curtis L. Thomas and Diana B. Thomas	1-9-40.3



SURFACE HOLE LOCATION (SHL)	
UTM 17 NAD 83	
N:	4393673.36
E:	555024.08
NAD 83, WV NORTH	
N:	434998.533
E:	1726982.378
LAT/LON DATUM NAD 83	
LAT:	39°41'28.067"
LON:	80°21'29.773"
LANDING POINT	
UTM 17 NAD 83	
N:	4393942.65
E:	555262.29
NAD 83, WV NORTH	
N:	435869.124
E:	1727778.793
LAT/LON DATUM NAD 83	
LAT:	39°41'36.746"
LON:	80°21'19.691"
BOTTOM HOLE LOCATION (BHL)	
UTM 17 NAD 83	
N:	4398159.90
E:	552203.29
NAD 83, WV NORTH	
N:	449875.262
E:	1717972.316
LAT/LON DATUM NAD 83	
LAT:	39°43'54.226"
LON:	80°23'28.920"



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.

*L. L. S.*  
L. L. S. 687



FILE NO: \_\_\_\_\_  
DRAWING NO: \_\_\_\_\_  
SCALE: 1" = 1000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: OCTOBER 24 20 23  
OPERATORS WELL NO: \_\_\_\_\_  
API WELL NO: 47 - 061 - 01948  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION ELEVATION: 1199' WATERSHED: Dunkard Creek QUADRANGLE: Wadestown  
DISTRICT: Battelle COUNTY: Monongalia  
SURFACE OWNER: Consol Mining Company LLC ACREAGE: 146.75 ±  
ROYALTY OWNER: Bounty Minerals, LLC LEASE NO: 189033000 ACREAGE: 59.02 ±  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD: 7,848'

WELL OPERATOR: CNX Gas Company LLC DESIGNATED AGENT: Anthony Kendziora  
ADDRESS: 1000 Horizon Vue Drive ADDRESS: 111 Avondale Road  
Canonsburg, PA 15317 Fairmont, WV 26554

11/17/2023

TRACT ID	SURFACE OWNER	LESSOR	PIN
15	Curtis L Thomas, et ux	Gail T. Bellucci	1-9-40.1
		Alma E. Kirkland Revocable Living Trust Agreement, Bank of Oklahoma N.A., Sole Successor Trustee	
		Sherry Lemons	
		Melissa Kubischke	
		Pamela Jayne Brewer, as Trustee of the Pamela Jayne Brewer Revocable Trust	
		Stephen D. Kirkland and Julie D. Kirkland, Trustees of the Kirkland Family Revocable Trust dated September 2, 1998	
		Louise Kirkland Berg	
		Christine A. Kirkland, as Trustee of the Christine A. Kirkland Trust	
		Catherine C. Kirkland	
		Ann W. Haning	
		Morgan Haning	
		Zachery Haning	
		Catherine Haning Coleman	
		Kathleen Farmer	
		A. E. Hennen III	
		John K. Hennen	
		David Michael Hennen	
		Mary Hennen	
		Robert Douglas Hennen	
		Sarah C. Sheridan	
		Curtis L. Thomas and Diana B. Thomas	
		Hugh Kirkland	
		Patrick Lee North, individually and as co-executor of the Edward Lee North Estate	
		Diane H. Goncalves, individually and as co-executor of the Edward Lee North Estate	
		Barbara Haning	
TRACT ID	SURFACE OWNER	LESSOR	PIN
17	Wolfpen Knob Development	Gail T. Bellucci	1-9-40.4
		Alma E. Kirkland Revocable Living Trust Agreement, Bank of Oklahoma N.A., Sole Successor Trustee	
		Sherry Lemons	
		Melissa Kubischke	
		Pamela Jayne Brewer, as Trustee of the Pamela Jayne Brewer Revocable Trust	
		Stephen D. Kirkland and Julie D. Kirkland, Trustees of the Kirkland Family Revocable Trust dated September 2, 1998	
		Louise Kirkland Berg	
		Christine A. Kirkland, as Trustee of the Christine A. Kirkland Trust	
		Catherine C. Kirkland	
		Ann W. Haning	
		Morgan Haning	
		Zachery Haning	
		Catherine Haning Coleman	
		Kathleen Farmer	
		A. E. Hennen III	
		John K. Hennen	
		David Michael Hennen	
		Mary Hennen	
		Robert Douglas Hennen	
		Sarah C. Sheridan	
		Hugh Kirkland	
		Patrick Lee North, individually and as co-executor of the Edward Lee North Estate	
		Diane H. Goncalves, individually and as co-executor of the Edward Lee North Estate	
		Barbara Haning	
		CNX Resource Holdings LLC	

11/17/2023

TRACT ID	SURFACE OWNER	LESSOR	PIN
18A	CNX RCPC LLC	Donna R. Hennen WOG Leasing, LLC	1-9-20
		Milan W. Cikovich, Jr. and Susan K. Cikovich, husband and wife	
		EQT Production Company	
		Don Fordyce	
		Betty Short	
		Milan W. Cikovich, Jr. and Christine Michelle Park, individually and trustee of of the Amended and Restated Milan W. Cikovich Testamentary Trust F/B/O Francine R. Cikovich	
		Melissa Ann Hennen Limbaugh	
		Linda S. Sansone	
		Mildred Louise Walton	
		Judy Kay Marshall, f/k/a Judy Kay Howard	
		Mary Virginia Davis	
		Karen S. Gray	
		Helene M. Muetzel	
		James R. Hennen, Jr.	
		Cecil Hennen	
		Roger L. Pratt	
		Nelson James Hennen, Jr.	
		Clark H. Hennen	
		Delores Ann Hennen Bryant	
		Francis J. Waldron Hennen	
		Ronald Fordyce	
		James Cox	
		Joseph Muto	
		Robert Morgan and Vickie Morgan	
		Terra Firma Company	
		CNX Land LLC	
TRACT ID	SURFACE OWNER	LESSOR	PIN
18B	CNX RCPC LLC	Kimeric and Company LLC Antero Resources Corporation	1-9-20
TRACT ID	SURFACE OWNER	LESSOR	PIN
24	Consol Mining Company LLC	Bounty Minerals, LLC	1-9-19
TRACT ID	SURFACE OWNER	LESSOR	PIN
25B	CNX RCPC LLC	Marsha W. Byers and Stephen R. Byers David C. White a/k/a David Charles White and Regina S. White a/k/a Regina Sue White Candace L. McPheron and Douglas A. McPheron Howard L. Leckey Lucy Mae Sticklely Betty Ann Reed David Ray Stone Donald E. Stone Marian Rebecca Stone Garrett Patricia Kathaleen White Hoekstra Alvy Scott White Karen Imogene Meyer Robert S. Elliott Carol Sue Davis Edwin Ray White, II Melinda Reid Hatton Dennis F. Hatton Jr. Amanda Hatton Jane E. McIntyre and Glenn C. McIntyre Jan W. Ellison and Thomas A. Ellison Mary Ann Borkowski and Marc Borkowski Edith B. White Robert L. Tate, Jr. Nancy Emerick Doris Jean White Anita Susan Talbott Richard H. Benson, II Three Rivers Royalty II, LLC	1-9-9.6
		Frederick C. Tate	

11/17/2023



API WELL NO  
47 - 061 - 01948  
STATE COUNTY PERMIT



TRACT ID	SURFACE OWNER	LESSOR	PIN
26B	Kevin Hartley, et ux	Kevin Hartley and Linda Hartley	1-9-7
TRACT ID	SURFACE OWNER	LESSOR	PIN
26C	Kevin Hartley, et ux	Kevin Hartley and Linda Hartley	1-9-7
		Betty Carol Canan	
		Neil M. Canan	
TRACT ID	SURFACE OWNER	LESSOR	PIN
28	Paul David Beck, et al	Bounty Minerals, LLC	1-9-6 1-9-6.1 1-9-6.2
TRACT ID	SURFACE OWNER	LESSOR	PIN
37	Mike J. Prendergast, et ux	Mike J. Prendergast and Thelma M. Prendergast	1-2-7
TRACT ID	SURFACE OWNER	LESSOR	PIN
41	Paul David Beck, et al	Bounty Minerals, LLC	1-2-8
TRACT ID	SURFACE OWNER	LESSOR	PIN
45	Consol Mining Company LLC	Aliakbar Afshari	1-2-5
		Amir H. Mohammadi	
		EQT Production Company	
		EQT Production Company	
		Flossie Kimble; Denzle Kimble and Olive Irene Wright Kimble	
		Consolidation Coal Company	
TRACT ID	SURFACE OWNER	LESSOR	PIN
46	Consol Mining Company LLC	Elkhorn Minerals, LLC	1-2-5
		Shuman Inc.	
		Noumenon Corporation	
		O-Max Coal Company	
		Flossie Kimble; Denzle Kimble and Olive Irene Wright Kimble	
		Consolidation Coal Company	
TRACT ID	SURFACE OWNER	LESSOR	PIN
48	Consol Mining Company LLC	Elkhorn Minerals, LLC	1-2-4
		James L. Taylor and DeEtta K. Taylor	
		Consolidation Coal Company	

11/17/2023

WW-6A1  
(5/13)

Operator's Well No. WDTN18EHSM

**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				

RECEIVED  
Office Of Oil and Gas  
NOV -1 2023  
WV Department of  
Environmental Protection

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

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

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

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

Well Operator: CNX GAS COMPANY LLC  
 By: SARAH WEIGAND *Sarah Weigand*  
 Its: MANAGER PERMITTING SERVICES

Attachment - Form WW-6A-1 for WDTN18EHSM											
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Surface Owner	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page				
9	1-9-33	188616000	Consol Mining Company LLC	Paul Reeder	Consolidation Coal Company	Fee	1809/433				
				Consolidation Coal Company	CONSOL Mining Company LLC	Quitclaim	1889/107				
				CONSOL Mining Company LLC	CNX Resource Holdings LLC	Quitclaim	1603/78				
				CNX Resource Holdings LLC	CNX Gas Company LLC	Quitclaim	1667/86				
10	1-9-37 1-9-38	203527000	Consol Mining Company LLC	Eastern Associated Coal Corporation	CNX Gas Company LLC	Fee	1267/233				
12	1-9-39 1-9-39.1 1-9-39.2 1-9-39.3 1-9-39.4 1-9-39.5 1-9-39.6	189024000 189009000 189019000 189020000 189021000 189022000 189023000	Consol Mining Company LLC, et al	Ralph Six	Antero Resources Corporation	Not less than 1/8	1781/354				
				Antero Resources Corporation	CNX Gas Company LLC	Assignment	158/372				
				Doris Margaret White	CNX Gas Company LLC	Not less than 1/8	1484/348				
				George Stephen Knight	CNX Gas Company LLC	Not less than 1/8	1482/438				
				14	1-9-40.3	188607000	Curtis L. Thomas, et ux	Curtis L. Thomas and Diana B. Thomas	CNX Gas Company LLC	Not less than 1/8	1824/416
				15	1-9-40.1	188606000	Curtis L. Thomas, et ux	Gail T. Bellucci	CNX Gas Company LLC	Not less than 1/8	1653/686
								Alma E. Kirkland Revocable Living Trust Agreement, Bank of Oklahoma N.A., Sole Successor Trustee	CNX Gas Company LLC	Not less than 1/8	1637/103
Sherry Lemons	CNX Gas Company LLC	Not less than 1/8	1634/111								
Melissa Kubischke	CNX Gas Company LLC	Not less than 1/8	1634/116								
Pamela Jayne Brewer, as Trustee of the Pamela Jayne Brewer Revocable Trust	CNX Gas Company LLC	Not less than 1/8	1634/80								
Stephen D. Kirkland and Julie D. Kirkland, Trustees of the Kirkland Family Revocable Trust dated September 2, 1998	CNX Gas Company LLC	Not less than 1/8	1636/311								
Louise Kirkland Berg	CNX Gas Company LLC	Not less than 1/8	1631/89								
Christine A. Kirkland, as Trustee of the Christine A. Kirkland Trust	CNX Gas Company LLC	Not less than 1/8	1627/659								
Catherine C. Kirkland	CNX Gas Company LLC	Not less than 1/8	1627/705								
Ann W. Haning	CNX Gas Company LLC	Not less than 1/8	1626/728								
Morgan Haning	CNX Gas Company LLC	Not less than 1/8	1631/64								
Zachery Haning	CNX Gas Company LLC	Not less than 1/8	1633/514								
Catherine Haning Coleman	CNX Gas Company LLC	Not less than 1/8	1626/733								
Kathleen Farmer	CNX Gas Company LLC	Not less than 1/8	1629/520								
A. E. Hennen III	CNX Gas Company LLC	Not less than 1/8	1631/22								
John K. Hennen	CNX Gas Company LLC	Not less than 1/8	1627/654								
David Michael Hennen	CNX Gas Company LLC	Not less than 1/8	1627/718								
Mary Hennen	CNX Gas Company LLC	Not less than 1/8	1627/713								
Robert Douglas Hennen	CNX Gas Company LLC	Not less than 1/8	1631/27								
Sarah C. Sheridan	CNX Gas Company LLC	Not less than 1/8	1639/527								
Curtis L. Thomas and Diana B. Thomas	CNX Gas Company LLC	Not less than 1/8	1824/416								
Hugh Kirkland	CNX Gas Company LLC	Fee	1628/647								
Patrick Lee North, individually and as co-executor of the Edward Lee North Estate	CNX Gas Company LLC	Fee	1629/411								
Diane H. Goncalves, individually and as co-executor of the Edward Lee North Estate	CNX Gas Company LLC	Fee	1629/420								
Barbara Haning	CNX Gas Company LLC	Fee	1628/641								
17	1-9-40.4	205196000	Wolfpen Knob Development	Gail T. Bellucci	CNX Gas Company LLC	Not less than 1/8	1653/686				
				Alma E. Kirkland Revocable Living Trust Agreement, Bank of Oklahoma N.A., Sole Successor Trustee	CNX Gas Company LLC	Not less than 1/8	1637/103				
				Sherry Lemons	CNX Gas Company LLC	Not less than 1/8	1634/111				
				Melissa Kubischke	CNX Gas Company LLC	Not less than 1/8	1634/116				
				Pamela Jayne Brewer, as Trustee of the Pamela Jayne Brewer Revocable Trust	CNX Gas Company LLC	Not less than 1/8	1634/80				
				Stephen D. Kirkland and Julie D. Kirkland, Trustees of the Kirkland Family Revocable Trust dated September 2, 1998	CNX Gas Company LLC	Not less than 1/8	1636/311				
				Louise Kirkland Berg	CNX Gas Company LLC	Not less than 1/8	1631/89				
				Christine A. Kirkland, as Trustee of the Christine A. Kirkland Trust	CNX Gas Company LLC	Not less than 1/8	1627/659				
				Catherine C. Kirkland	CNX Gas Company LLC	Not less than 1/8	1627/705				
				Ann W. Haning	CNX Gas Company LLC	Not less than 1/8	1626/728				
				Morgan Haning	CNX Gas Company LLC	Not less than 1/8	1631/64				
				Zachery Haning	CNX Gas Company LLC	Not less than 1/8	1633/514				
				Catherine Haning Coleman	CNX Gas Company LLC	Not less than 1/8	1626/733				
				Kathleen Farmer	CNX Gas Company LLC	Not less than 1/8	1629/520				
				A. E. Hennen III	CNX Gas Company LLC	Not less than 1/8	1631/22				
				John K. Hennen	CNX Gas Company LLC	Not less than 1/8	1627/654				
				David Michael Hennen	CNX Gas Company LLC	Not less than 1/8	1627/718				
				Mary Hennen	CNX Gas Company LLC	Not less than 1/8	1627/713				
				Robert Douglas Hennen	CNX Gas Company LLC	Not less than 1/8	1631/27				
				Sarah C. Sheridan	CNX Gas Company LLC	Not less than 1/8	1639/527				
				Hugh Kirkland	CNX Gas Company LLC	Fee	1628/647				
				Patrick Lee North, individually and as co-executor of the Edward Lee North Estate	CNX Gas Company LLC	Fee	1629/411				
				Diane H. Goncalves, individually and as co-executor of the Edward Lee North Estate	CNX Gas Company LLC	Fee	1629/420				
				Barbara Haning	CNX Gas Company LLC	Fee	1628/641				
				CNX Resource Holdings LLC	CNX Gas Company LLC	Fee	1817/841				
18A	1-9-20	188573000	CNX RCPC LLC	Donna R. Hennen	WOG Leasing, LLC	Not less than 1/8	1800/218				
				WOG Leasing, LLC	CNX Gas Company LLC	Assignment	161/362				
				Milan W. Cikovich, Jr. and Susan K. Cikovich, husband and wife	EQT Production Company	Not less than 1/8	1642/416				
				EQT Production Company	CNX Gas Company LLC	Assignment	1644/14				
				Don Fordyce	CNX Gas Company LLC	Not less than 1/8	1639/567				
				Betty Short	CNX Gas Company LLC	Not less than 1/8	1639/552				
				Milan W. Cikovich, Jr. and Christine Michelle Park, individually and trustee of the Amended and Restated Milan W. Cikovich Testamentary Trust F/B/O Francine R. Cikovich	CNX Gas Company LLC	Not less than 1/8	1648/731				
				Melissa Ann Hennen Limbaugh	CNX Gas Company LLC	Not less than 1/8	1655/291				
				Linda S. Sansone	CNX Gas Company LLC	Not less than 1/8	1807/789				
				Mildred Louise Walton	CNX Gas Company LLC	Not less than 1/8	1803/723				
				Judy Kay Marshall, f/k/a Judy Kay Howard	CNX Gas Company LLC	Not less than 1/8	1655/286				
				Mary Virginia Davis	CNX Gas Company LLC	Not less than 1/8	1656/792				

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11/17/2023



**From:** [Weigand, Sarah](#)  
**To:** [EP, SW OG-Submissions](#)  
**Cc:** [Zachwieja, Becky](#)  
**Subject:** CNX AOR for WDTN18 M1 Wells with Origination in West Virginia  
**Date:** Monday, October 9, 2023 11:47:00 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.jpg](#)  
[20231009 WDTN18 M1 cover letter.pdf](#)  
[WDTN18 M1 PA AORs.xlsx](#)  
[WDTN18 M1 AOR Well Maps.pdf](#)  
[20231009 WDTN18 M1 PA monitoring and historic.pdf](#)

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Hello,

Please find CNX's AOR for our WDTN18 M1 wells that originate in West Virginia, but cross the southern state line into Pennsylvania. Per the guidance given earlier this year, we were advised that we should follow the AOR requirements and submit to this email. The attached cover letter includes locational information as well as additional documentation of the earlier guidance given, as well as a screenshot of the failed attempt to submit via Greenport. Typically AOR's are submitted individually, however since this isn't getting submitted via Greenport all wells are tabbed in the excel summaries and the PDF for maps includes all individual well maps.

Thank you,

**Sarah Weigand**

**CNX** | Manager, Permitting Services

CNX Center | **1000 Horizon Vue Drive** | Canonsburg, PA 15317

(724) 485-3244 – office | (412) 628-1829 – mobile



[cnx.com](http://cnx.com)

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11/17/2023

**From:** [Donohue, Thomas E](#)  
**To:** [Weigand, Sarah](#); [Zachwieja, Becky](#)  
**Cc:** [Campbell, Heather](#); [Keller, Joel](#); [Sabocheck, Scott](#)  
**Subject:** [EXTERNAL] CNX - WDTN18UHSM Well Permit Application  
**Date:** Thursday, October 27, 2022 8:46:28 AM  
**Attachments:** [WV Well Plat - CNX.pdf](#)

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**CAUTION:** This email originated from outside CNX. Do not click links or open attachments unless you recognize the sender and believe the content is safe.

Sarah and Becky,

Thank you for your notification that this WV well will be crossing into PA. Please be aware of CNX's obligations to submit an Area of Review survey pursuant to PA Code Ch. 78a.52a for the portion of the well that will exist in Pennsylvania, prior to commencing drilling.

Additionally, if the portion of this well in Pennsylvania is drilled below the top of the Onondaga horizon, CNX will need to adhere to provisions of the Oil & Gas Conservation Law, in particular Section 6. This states in part that *"...In areas in which no spacing order has been entered and no application is pending, no permit shall be issued for the drilling of a well unless the location of the well is at least three hundred thirty feet from the nearest outside boundary line of the lease on which it is located: Provided, however, That if the lease is included in a voluntary unit, a well may be located without regard to lease lines if it is not within three hundred thirty feet of the nearest unit line...."*. Please provide a statement whether or not the portion of the well in Pennsylvania will be drilled below the top of the Onondaga.

Links to PA Code Ch. 78a.52a and the Oil & Gas Conservation Law are below for your reference.

PA Code Ch. 78a.52a – Area of Review

<http://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/025/chapter78a/chap78atoc.html&d=#78a.52a>.

Oil & Gas Conservation Law

<http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/LawsRegsGuidelines/Act359uc.pdf>

Please let me know if you have any questions.

Thanks

**Thomas E. Donohue, P.G.** | Environmental Program Manager  
Department of Environmental Protection | District Oil & Gas Operations  
400 Waterfront Dr. | Pittsburgh, PA 15222  
Phone: 412.442.4004 | Fax: 412.442.4328  
[www.depweb.state.pa.us](http://www.depweb.state.pa.us)

11/17/2023



4706101948

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

October 24, 2023

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

**RE: WDTN18EHSM- \*MODIFICATION\* Horizontal Drilling Permit Application**

To Whom It May Concern:

CNX Gas Company LLC (CNX) is requesting a modification to extend the WDTN18EHSM horizontal lateral well permit. The subject WDTN18 Marcellus lease well, is in Monongalia County.

CNX would like to use the expedited review process for the WDTN18EHSM Modification application and have enclosed a check for: \$15,150.00. CNX previously permitted the "WDTN18EHSM" in September 2023.

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

Sincerely,

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

Sarah Weigand

11/17/2023



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

November 7, 2023

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

RE: WDTN18 A-E MOD Payments

Dear Cragin,

Please find the correct checks for the WDTN18 A, B, C, D, & E MOD permit applications enclosed.

Thank you,

Becky Zachwieja

A	2140043929	7500 <sup>00</sup>
B	2140043930	7500 <sup>00</sup>
C	2140043931	7500 <sup>00</sup>
D	2140043932	7500 <sup>00</sup>
E	2140043933	7500 <sup>00</sup>

RECEIVED  
Office of Oil and Gas  
NOV 08 2023  
WV Department of  
Environmental Protection

11/17/2023