



 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, February 26, 2019
 WELL WORK PERMIT
 Horizontal 6A / New Drill

CNX GAS COMPANY LLC
 POST OFFICE BOX 1248

JANE LEW, WV 263786506

Re: Permit approval for SHR38EHSM
 47-095-02570-00-00

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: SHR38EHSM
 Farm Name: JAMES E. ASH ET AL
 U.S. WELL NUMBER: 47-095-02570-00-00
 Horizontal 6A New Drill
 Date Issued: 2/26/2019

PERMIT CONDITIONS

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

CONDITIONS

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

PERMIT CONDITIONS

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

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

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

2) Operator's Well Number: SHR38EHSM Well Pad Name: SHR38

3) Farm Name/Surface Owner: Ash Public Road Access: Duckworth Ridge Road

4) Elevation, current ground: 1026' Elevation, proposed post-construction: 1012'

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

(b) If Gas Shallow X Deep _____
Horizontal X

Job 11/29/2018

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target formation is Marcellus Shale @ 6460'-6505' TVD, 45' thick, expected formation pressure ~4000 psi

8) Proposed Total Vertical Depth: 6480'

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

10) Proposed Total Measured Depth: 20,198'

11) Proposed Horizontal Leg Length: 13,041'

12) Approximate Fresh Water Strata Depths: 114', 209', 225', 415'

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

14) Approximate Saltwater Depths: 1932'

15) Approximate Coal Seam Depths: No known mineable coal seams; trace @ 108', 1208'

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

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

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

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WW-6B
(04/15)

4709502570
API NO. 47- _____ - 03/01/2019
OPERATOR WELL NO. SHR38EHSM
Well Pad Name: SHR38

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	L/S	<94.0	100	100	96 / CTS
Fresh Water	13.375	New	J-55	54.5	565	565	392 / CTS
Coal	N/A						
Intermediate	9.625	New	J-55	36.0	2550	2550	827 / CTS
Production	5.5	New	P-110	20.0	20198	20198	4043 / TC @ 2050'
Tubing	2.375	New	J-55	4.7		TBD	N/A
Liners	N/A						

QCB
11/29/2018

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	24	0.375	N/A	N/A	Type 1	1.18
Fresh Water	13.375	17.5	0.380	2730	<500	Class A	1.19
Coal	N/A						
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	1.10
Tubing	2.375	N/A	0.190	7700	N/A	N/A	N/A
Liners	N/A						

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

JOB
11/29/2019

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

Run CBL to ~60 degrees in the curve and back to surface to determine production casing TOC. Test production casing and toe prep well. MIRU stimulation/hydraulic fracturing equipment. Fracture well by pumping required number of stages utilizing plug-and-perf method. Max anticipated treating pressure is ~10,000 psi and max anticipated treating pump rate is 80-90 bpm. Number of stages and stage spacing to be finalized after drilling. After last stimulation stage, drill out frac plugs and clean-out well to PBTD. Flow back and clean-up well. Tie well into production. Run tubing when required.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.5722) Area to be disturbed for well pad only, less access road (acres): 6.97

23) Describe centralizer placement for each casing string:

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

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

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

25) Proposed borehole conditioning procedures:

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

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*Note: Attach additional sheets as needed.

SHR38 Cement Additives

Fresh water string: Class A cement with 1%-3% CaCl₂ and 1/4 pps cello-flake/LCM.
Intermediate string: Class A cement with 0%-2% CaCl₂ and 1/4 pps cello-flake/LCM.
Production string: Class 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
SHR38EHSM (Marcellus HZ)
Marcellus Shale Horizontal
Tyler County, WV

Ground Elevation			1012 GL Elevation			SHR38EHSM SHL		N 320156.68, E 1622472 (NAD27)		
Azimuth			160.99°			SHR38EHSM LP		N 319183.05, E 1621309.6 (NAD27)		
WELLBORE DIAGRAM			SHR38EHSM BHL			N 306852.91, E 1625556.99 (NAD27)				
HOLE	CASING	GEOLOGY	MD	TVD	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS	
	24"	20" L/S	Conductor	100	100	AIR	To Surface	N/A	N/A	Stabilize surface fill/soil
	17-1/2"	13-3/8" 54.5# J-55 BTC	Shallowest Fresh Water		114	AIR / FW Mist	15.6 ppg Class A + 1% to 3% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface	Centralize every other joint from shoe to surface Bow spring centralizers	Ensure the hole is clean at section TD	Set through fresh water zones Cemented to surface No known mineable coal seams
			Deepest Fresh Water		415					
			Fresh Water Casing	565	565					
	12-1/4"	9-5/8" 36.0# J-55 LTC	No known coal zones		N/A	AIR / Soap	15.6 ppg Class A + 0% to 2% CaCl2 + 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface	Centralize every 3rd joint from shoe to surface Bow spring centralizers	Soap the hole as needed and ensure the hole is clean at section TD	Set through potential salt water zones Cemented to surface Casing to be set below the Big Injun and Berea and into Devonian Shale
			Big Lime		1867					
			Big Injun		1932					
			Price		2072					
			Weir		2232					
			Berea		2422					
	8-3/4" Tangent 8-1/2" Curve & Lateral	5-1/2" 20.0# P-110 VAR	Gordon		2642	AIR	15.0 ppg Class H with additives (retarder, suspension agent, gas block, defoamer, fluid loss, extender, etc.) 10% OH Excess Yield = 1.10 TOC @ >= 500' above 9-5/8" shoe	Centralize every joint from shoe to TOC Single-piece/rigid bow centralizers	Once at TD, circulate at max flowrate with max rotation until shakers clean-up (typically requires multiple bottoms-up) Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement	Note: Actual centralizer placement may be changed due to hole conditions Note: Actual cement blends may vary slightly depending upon service company utilized
			Warren		3337					
Benson				4917						
Alexander				5162						
Cashaqua				6162						
Middlesex				6267						
West River				6307						
Burkett				6377						
Tully				6407						
Hamilton				6428						
Marcellus		6447								
Production Casing		20198	6480							

LP @ +/- 6480' TVD

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

+/- 13041' Lateral

TD @ +/- 6480' TVD

11/29/2018

4709502570

SHR38 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 SHR38 pad. Any SOG well that falls within the Area of Review (AOR) has been reviewed and is provided in a list that includes API, Operator, Well Name, Well Number, Current Status, Total Depth, and Producing Formation at Total Depth. See following pages, including (Figures 3 and 4).

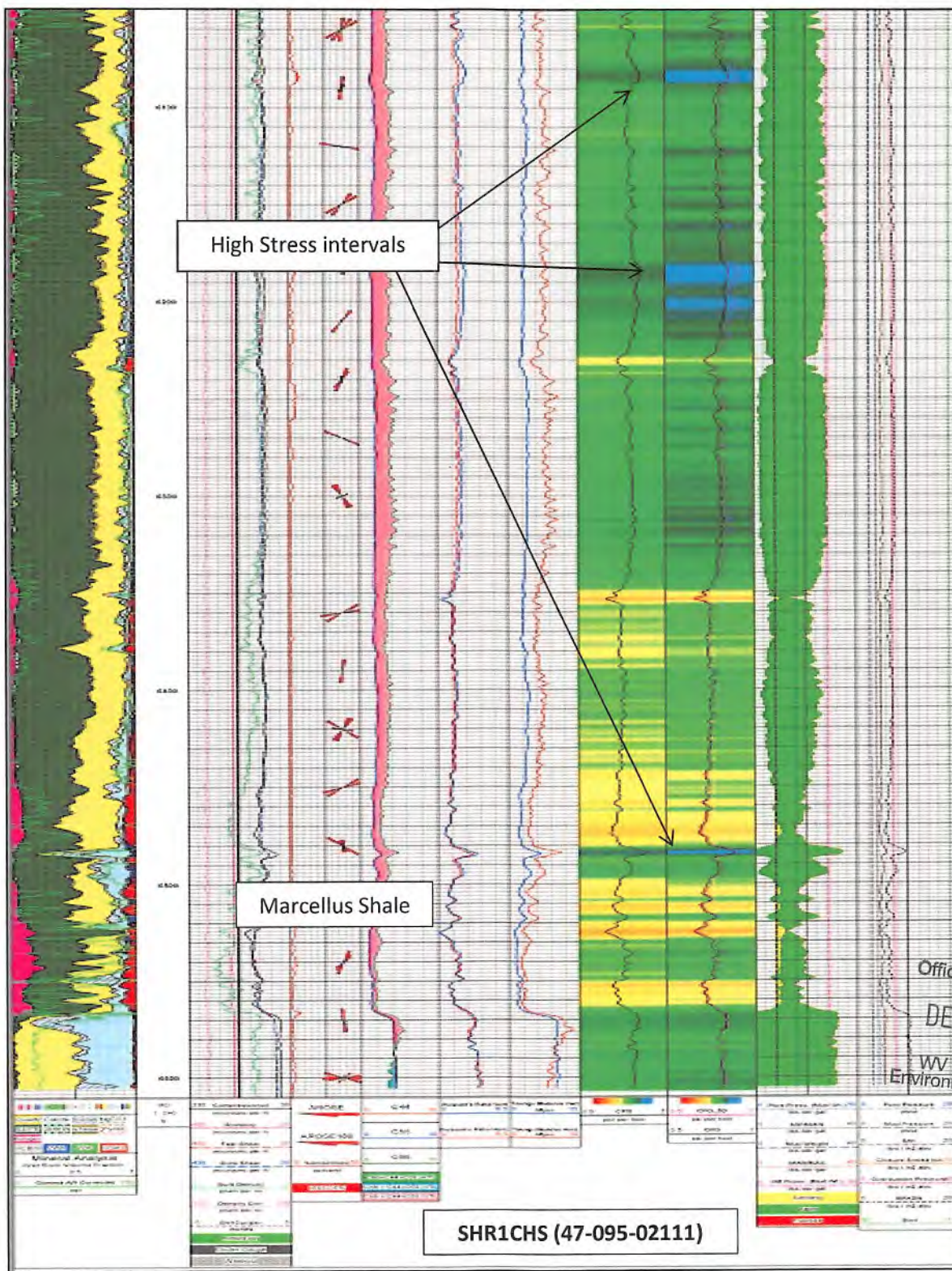
The Marcellus Shale of the Shirley area is found at an approximate True Vertical Depth (TVD) of 6500'. In the Shirley area, there are very few producing formations between the Big Injun and the Benson Sand. Most wells are either approximately 2000' or 5000' deep. Although there are a significant number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

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

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SHR38 Pad Frac SOG Review / CRSD Review Thursday, November 8, 2018

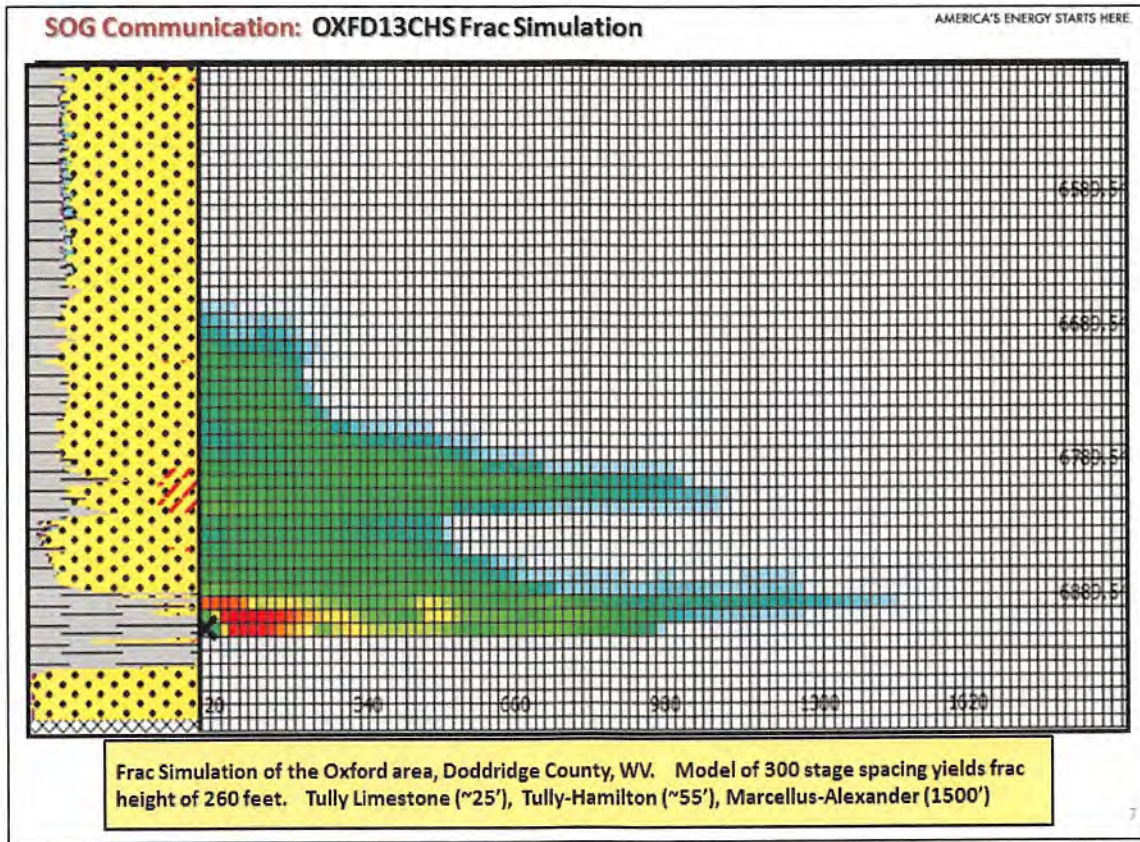
Figure 1. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the SHR1C Stress Profile log.



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SHR1CHS (47-095-02111)

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



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SHR38 Pad Frac SOG Review / CRSD Review Thursday, November 8, 2018

Figure 4. All wells within 500' buffer around the SHR38 pad have been reviewed and listed below. Three pre-permit wells had no data (highlighted pink).

API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL_NAME	WELL_NO	TD	FMTD	ELEVATION
4701702361	WV	Doddridge	39.33791934	-80.82944913	Industrial Gas Associates	Oil and Gas	L G Hammer 2		2396	Weir	990
4701702462	WV	Doddridge	39.34440133	-80.82341529	J & J Enterprises, Inc. Now Doddridge 2936	not available	Paul Strickling		Dodd 2936	Dodd 2936	830
4701702936	WV	Doddridge	39.34430633	-80.82337929	J & J Enterprises, Inc.	Gas	P Strickling 1		4900	Benson	845
4701703058	WV	Doddridge	39.34116734	-80.8266802	J & J Enterprises, Inc.	Gas	Middle Island		5117	Alexander	1039
4701703252	WV	Doddridge	39.33671524	-80.82565321	J & J Enterprises, Inc.	Gas	W & V McCutcheon		5500	Alexander	1092
4701703566	WV	Doddridge	39.37483806	-80.83367761	Never Drilled (Canceled permit)	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4701771437	WV	Doddridge	39.33436122	-80.82657418	Hope Natural Gas Company	not available	McCutchan-Haines				1135
4701771535	WV	Doddridge	39.33871526	-80.82469324	Hope Natural Gas Company	not available	NA Joseph				977
4709500097	WV	Tyler	39.37191314	-80.84222533	Pigott, L. G.	Gas	John Ash	1	2005	Big Injun (undiff)	941
4709500103	WV	Tyler	39.38803655	-80.84941881	Bachelor, D.	Oil and Gas	D D Davis	1	1925	Big Injun (undiff)	946
4709500113	WV	Tyler	39.38780257	-80.85102277	Oper in Min. owner fld.no code assign(Orphan well prot)	Oil and Gas	D D Davis	2	1885	Big Injun (undiff)	830
4709500120	WV	Tyler	39.38944545	-80.84290196	Oper in Min. owner fld.no code assign(Orphan well prot)	Dry w/ Gas Show	W C Pierson / Josephs Mills	1	1952	Squaw	873
4709500123	WV	Tyler	39.38858257	-80.85033279	Oper in Min. owner fld.no code assign(Orphan well prot)	Oil w/ Gas Show	D D Davis	3	1883	Big Injun (undiff)	803
4709500208	WV	Tyler	39.39188259	-80.84805585	Bachelor, D.	Dry w/ DR/G Show	Frank H Ash	1	2109	Price Fr & equivs	927
4709500300	WV	Tyler	39.35951588	-80.83941496	Prior, Ferrell L.	Gas	Alexander Doak Heirs	1	1836	Big Injun (undiff)	785
4709500508	WV	Tyler	39.3854884	-80.84398493	Equitable Gas Co.	Gas	W N Moore	1	1900	Big Injun (undiff)	867
4709500757	WV	Tyler	39.34307445	-80.83071912	Industrial Gas Associates	Oil and Gas	Delmer Mulvay	1	2209	Berea Ss	760
4709500870	WV	Tyler	39.35004941	-80.82286032	J & J Enterprises, Inc.	Gas	Izetta B Garner	6	4901	Benson	790
4709500876	WV	Tyler	39.36557401	-80.84080595	L. & M. Petroleum Co.	Gas	Jacob L Dillon	1	2387	Berea Ss	975
4709500824	WV	Tyler	39.38476329	-80.83893904	J & J Enterprises, Inc.	Gas	W Paul McCutchen		5122	Alexander	735
4709500955	WV	Tyler	39.3483235	-80.82911817	J & J Enterprises, Inc.	Gas	Jay & Mary Collins		5279	Alexander	883
4709500958	WV	Tyler	39.35286855	-80.82783921	J & J Enterprises, Inc.	Gas	Jay & Mary Collins		5430	Alexander	1028
4709501036	WV	Tyler	39.35339266	-80.83313209	J & J Enterprises, Inc.	Gas	Edwin D Mulvay et ux		5177	Benson	763
4709501011	WV	Tyler	39.37483806	-80.83367761	Never Drilled (Canceled permit)	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501107	WV	Tyler	39.3568727	-80.83182713	Union Drilling, Inc.	Gas	Karen Jane Osborne	3	5306	Alexander	763
4709501108	WV	Tyler	39.35687256	-80.82472829	Union Drilling, Inc.	Gas	Karen Jane Osborne	1	5240	Alexander	978
4709501109	WV	Tyler	39.35759781	-80.8374443	Union Drilling, Inc.	Gas	Karen Jean Osborne	2	5325	Alexander	943
4709501178	WV	Tyler	39.37483806	-80.83367761	Never Drilled (Canceled permit)	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501206	WV	Tyler	39.37483806	-80.83367761	Never Drilled (Canceled permit)	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501226	WV	Tyler	39.3728251	-80.8393312	DAC, Inc.	Dry	Verna O Ash	1	5140	Benson	1013
4709501227	WV	Tyler	39.37456504	-80.83426712	DAC, Inc.	Gas w/ Oil Show	Verna O Ash	2	5142	Benson	986
4709501234	WV	Tyler	39.37084915	-80.8436089	DAC, Inc.	Gas	James E Ash	1	5096	Benson	909
4709501235	WV	Tyler	39.38838857	-80.85052578	DAC, Inc.	Gas	Geneva Fouts Bullman	1	4890	Benson	812
4709501237	WV	Tyler	39.37006898	-80.83520209	DAC, Inc.	Gas	Verna O Ash	3	5157	Benson	1023
4709501238	WV	Tyler	39.37722216	-80.83837803	DAC, Inc.	Gas	Edna Dillon	1	5129	Benson	957
4709501254	WV	Tyler	39.36731382	-80.82921722	Stonewall Gas Co., Inc.	Gas	Charles Lee Cumberledge	1	5150	Benson	1018
4709501266	WV	Tyler	39.37780228	-80.8441709	Anwil Oil Co., Inc	Dry	David A Preston	1	4868	Benson	747
4709501269	WV	Tyler	39.3808472	-80.83763106	Anwil Oil Co., Inc	Gas	Lawrence Mercer	1	5007	Benson	850
4709501283	WV	Tyler	39.38592343	-80.8452929	Anwil Oil Co., Inc	Gas	Bruce & Veronica Smith	1	5003	Benson	863
4709501285	WV	Tyler	39.38954841	-80.84062202	Anwil Oil Co., Inc	Gas	James C Ferrell	1	5100	Benson	1032
4709501286	WV	Tyler	39.39534969	-80.8505278	Coastal Corp. The	Gas w/ Oil Show	Robert H Tennant	1	5005	Benson	826
4709501300	WV	Tyler	39.36122369	-80.82790623	Stonewall Gas Co., Inc.	Gas	John R Pratt	2	5150	Benson	949
4709501304	WV	Tyler	39.37384024	-80.84585165	Coastal Corp. The	Gas	Duane Clark et al	1	4923	Benson	758
4709501312	WV	Tyler	39.37483806	-80.83367761	Never Drilled (Canceled permit)	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501314	WV	Tyler	39.36107879	-80.83295012	Eastern American Energy Corp.	Gas	Charles Daughtery et al	3	5030	Benson	926
4709501316	WV	Tyler	39.36659893	-80.83576207	Eastern American Energy Corp.	Gas	Charles Daughtery et al	1	5167	Benson	1012
4709501332	WV	Tyler	39.37483806	-80.83367761	Never Drilled (Canceled permit)	Not Drilled	Never Drilled (Canceled)		not drilled	not drilled	960
4709501336	WV	Tyler	39.38635824	-80.83482814	Anwil Oil Co., Inc	Gas	Elmer Ceoll	1	5069	Benson	956
4709501338	WV	Tyler	39.38215313	-80.83277516	Anwil Oil Co., Inc	Gas	Timothy N Inogolia	1	5045	Benson	949
4709501350	WV	Tyler	39.3857785	-80.84902381	Anwil Oil Co., Inc	Gas	Ryan J Lind et ux	1	4907	Benson	785
4709501351	WV	Tyler	39.39172362	-80.8493658	Anwil Oil Co., Inc	Gas	Robert H Tennant	2	5034	Benson	924
4709501382	WV	Tyler	39.38563332	-80.83968703	Anwil Oil Co., Inc	Gas	Matthew Ash	3	5136	Benson	1043
4709501383	WV	Tyler	39.38331337	-80.84398492	Anwil Oil Co., Inc	Gas	Matthew Ash	4	5117	Benson	1027
4709501405	WV	Tyler	39.37282494	-80.8303022	DAC, Inc.	Gas	Conrad Costlow	1-A	2136	Big Injun (undiff)	976
4709501428	WV	Tyler	39.38070228	-80.84192836	Anwil Oil Co., Inc	Gas	Lawrence Mercer Hrs	5	5002	Benson	893
4709501486	WV	Tyler	39.37152	-80.83520209	DAC, Inc.	Dry	Verna O Ash	4	2155	Big Injun (undiff)	1038
4709501951	WV	Tyler	39.39563978	-80.8548267	Sancho Oil & Gas	Gas w/ Oil Show	Donna Marie Vandine	2	6280	Marcellus Sh	728
4709502245	WV	Tyler	39.37127601	-80.83562008	Never Drilled (Canceled permit)	Not Drilled	JE Ash et al		SHR08L	not drilled	not drilled
4709503046	WV	Tyler	39.38142731	-80.84267595	Pittsburgh & WV Gas	Gas	Lucretia Mercer	2	2101	Squaw	954
4709503050	WV	Tyler	39.37388707	-80.83688306	Hope Natural Gas Company	Gas	P P Doak		1992	Big Injun (undiff)	972
4709503057	WV	Tyler	39.35807958	-80.8247173	Hope Natural Gas Company	Gas	A U Davis		1972	Big Injun (undiff)	885
4709503024	WV	Tyler	39.37910719	-80.83856504	Travis, C. O. et al	Gas	Lawrence Mercer	1	1904	Squaw	738
4709503055	WV	Tyler	39.34821857	-80.83255109	Hope Natural Gas Company	Gas	Wm Smith		1836	Big Injun (undiff)	763
4709503087	WV	Tyler	39.37490217	-80.84080697	Hope Natural Gas Company	Gas	Martin M Grove	1	2010	Big Injun (undiff)	903
4709507082	WV	Tyler	39.37864113	-80.8357641	South Penn Oil (S. Penn Nat. Gas)	not available	John Mercer	1	1841	Big Injun (undiff)	770
4709500038	WV	Tyler	39.37907618	-80.83762105							774

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WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. SHR38EHSM

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name CNX Gas Company, LLC OP Code 494458046

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

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: no pits

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 47-001-00561, 47-097-01514, 47-097-01613, 34-013-2-0609)
- Reuse (at API Number SHR35 wells API TBD)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No Pits)

JOB
11/29/2018

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

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

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

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

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

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

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

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

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

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

Company Official Signature *Raymond Hoon*
Company Official (Typed Name) Raymond Hoon
Company Official Title Supervisor - Permitting

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Environmental Protection

Subscribed and sworn before me this 27th day of November, 2018

Judy L Snyder
My commission expires 10-31-2021

Notary Public Commonwealth of Pennsylvania

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

CNX Gas Company, LLC

Proposed Revegetation Treatment: Acres Disturbed 15.57 Prevegetation pH 6.5

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

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch hay or straw @ 2 Tons/acre

Seed Mixtures

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

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: _____

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Title: Oil & Gas Inspector Date: 11/29/2018

Field Reviewed? (X) 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)

Repair Services (Mixed Waste)		Gas Specific Waste Streams										Other Accepted Waste Streams										Contact Information		
Landfill	Location	Drill * Cutoffs	Waste Liners	Waste Bottle	Contaminated Soil (Including Petrochem)	Construction & Demolition Waste	Industrial Waste	Sludge	Friable ABSTRACT	Non-Friable ABSTRACT	Process Waste	Solidification Services	Municipal Solid Waste											
Midland County	Bloomington	IL	X	X	X	X	X	X	X	X	X	X	X											
PERCOBols County	Charleston	IL	X	X	X	X	X	X	X	X	X	X	X											
Beverly and Disposal	Dearville	IL	X	X	X	X	X	X	X	X	X	X	X											
Southern Illinois Regional	De Soto	IL	X	X	X	X	X	X	X	X	X	X	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	Hopkinton	IL	X	X	X	X	X	X	X	X	X	X	X											
Land Comp	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											
Environtech	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											
Sananton 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	X	X											
Williams County	Bryan	OH	X	X	X	X	X	X	X	X	X	X	X											
County Environmental	Carey	OH	X	X	X	X	X	X	X	X	X	X	X											
Celina	Celina	OH	X	X	X	X	X	X	X	X	X	X	X											
Carbon-Limestone**	Lewellville	OH	X	X	X	X	X	X	X	X	X	X	X											
County de Landfill**	East Swarta	OH	X	X	X	X	X	X	X	X	X	X	X											
Lorain County	Obertin	OH	X	X	X	X	X	X	X	X	X	X	X											
Oakland March	Shiloh	OH	X	X	X	X	X	X	X	X	X	X	X											
Imperial	Imperial	PA	X	X	X	X	X	X	X	X	X	X	X											
Conestoga	Morantown	PA	X	X	X	X	X	X	X	X	X	X	X											
Braunsg	Lancasterville	VA	X	X	X	X	X	X	X	X	X	X	X											
King and Queen	Little Plymouth	VA	X	X	X	X	X	X	X	X	X	X	X											
Old Dominion	Richmond	VA	X	X	X	X	X	X	X	X	X	X	X											
Sylvania	Harrisburg	WV	X	X	X	X	X	X	X	X	X	X	X											
Short Creek	Whetstone (Short Creek)	WV	X	X	X	X	X	X	X	X	X	X	X											
Carter Valley	Carter Valley	TN	X	X	X	X	X	X	X	X	X	X	X											

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

Jack Palermo:
work: 330-536-8013
cell: 330-506-9660

Barbara Haganayc
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	X										
South Hills (Arnon)	South Park	PA	X	X	X	X	X	X	X	X	X	X	X										
Kelly Run	Elizabeth	PA	X	X	X	X	X	X	X	X	X	X	X										
Valley Landfill	Ireva	PA	X	X	X	X	X	X	X	X	X	X	X										
Evergreen Landfill	Blairsville	PA	X	X	X	X	X	X	X	X	X	X	X										
Charleston Landfill	Charleston	WV	X	X	X	X	X	X	X	X	X	X	X										
(Kaneva County)																							
Meadow Hill Landfill	Buckport	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	X	X										
S&S Grading Landfill	Charlottesville	OH	X	X	X	X	X	X	X	X	X	X	X										
American Landfill	Warrenburg	OH	X	X	X	X	X	X	X	X	X	X	X										
Suburban RDF	Glenford	OH	X	X	X	X	X	X	X	X	X	X	X										
Cycloactive Landfill***	Coshocton	OH	X	X	X	X	X	X	X	X	X	X	X										
Mahoning Landfill	New Springfield	OH	X	X	X	X	X	X	X	X	X	X	X										
Other Accepted Waste Streams																Scott Allen: 412-604-2256							
Other Accepted Waste Streams																Patty Landolt: 262-532-8001 John Miller: 1-800-963-4776							
Additional Landfills	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 (WVIC Group)	111 Conner Lane, Belle Vernon, PA 15012	PA	X	X	X	X	X	X	X	X	X	X	X										
MAX Environmental	200 Max Drive, Butler, PA 15019	PA	X	X	X	X	X	X	X	X	X	X	X										
MAX Environmental	233 MAX Lane, Yukon, PA 15698	PA	X	X	X	X	X	X	X	X	X	X	X										
Apex Sanitary Landfill (Apex Environmental)	11 County Road 78, Amstardam, Ohio 43903	OH	X	X	X	X	X	X	X	X	X	X	X										
Rumpke, Mt. Sterling	30 Larison Rd, Jeffersville, KY 40337	KY	X	X	X	X	X	X	X	X	X	X	X										
Lanier Ridge Landfill (Waste Connections of KY)	5612 B State Highway, Crestant Valley, KY 40746	KY	X	X	X	X	X	X	X	X	X	X	X										
Advanced Disposal	1184 McClellandown Rd, McClellandown, PA 15458	PA	X	X	X	X	X	X	X	X	X	X	X										
	Greentree Landfills: 635 Toby Rd., Kesser, PA	PA	X	X	X	X	X	X	X	X	X	X	X										
	Mostoller Landfill: 7035 Gladys Pike Rd., Somerset, PA	PA	X	X	X	X	X	X	X	X	X	X	X										
Other Accepted Waste Streams																Tony Labonne 6184 Route 219, Brockway, PA 15824 814-590-9906							

Ohio "TENORM" - requires Radium 226/228 analysis by lead 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. A accepts drilling wastes but profile for disposal is not currently completed. Waste stream accepted by facility. Contact facility directly to verify waste streams accepted. New PADEP rules regarding "TENORM" testing requirement are pending.

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

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Site Safety Plan for Well SHR38EHSM CNX Gas Company, LLC.



Handwritten signature
11/29/2018

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 _____ of month _____, 20__ by

_____ Date: _____

_____ Date: _____

BHL is located on topo map 14,569 feet south of Latitude: 39°22'30"
 SHL is located on topo map 1,313 feet south of Latitude: 39°22'30"

SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

SEE PAGE 3 & 4 FOR SURFACE OWNERS AND LESSORS

03/01/2019

SHL is located on topo map 9,052 feet west of Longitude: 80°47'30"
 SHL is located on topo map 548 feet west of Longitude: 80°50'00"

SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
 N:4358005.08
 E:514189.14
 NAD83, WV NORTH
 N:320191.663
 E:1591030.848
 LAT/LON DATUM-NAD83
 LAT:39°22'17.027"
 LON:80°50'06.982"

APPROX. LANDING POINT

UTM 17-NAD83
 N:4357702.55
 E:513839.97
 NAD83, WV NORTH
 N:319218.001
 E:1589868.452
 LAT/LON DATUM-NAD83
 LAT:39°22'07.233"
 LON:80°50'21.598"

BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
 N:4353967.77
 E:515196.62
 NAD83, WV NORTH
 N:306887.950
 E:1594115.822
 LAT/LON DATUM-NAD83
 LAT:39°20'05.999"
 LON:80°49'25.206"

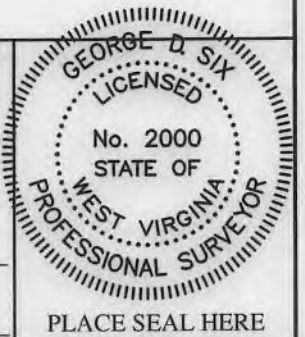


I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: George D. Six

R.P.E.:

L.L.S.: P.S. No. 2000



PLACE SEAL HERE

FILE #: SHR 38 EHSM
 DRAWING #: SHR 38 EHSM
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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



DATE: NOVEMBER 20, 2018
 OPERATOR'S WELL #: SHR 38 EHSM
 API WELL #: 47 95 02570
 STATE COUNTY PERMIT

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

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 1012'±

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

SURFACE OWNER: JAMES E. ASH ET AL ACREAGE: 111±

OIL & GAS ROYALTY OWNER: JAMES E. ASH ET AL ACREAGE: 1016.393±

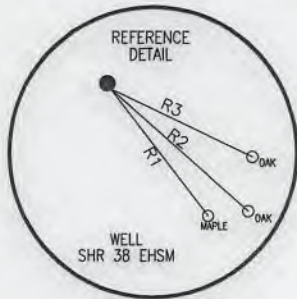
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,480'± TMD: 20,198'±

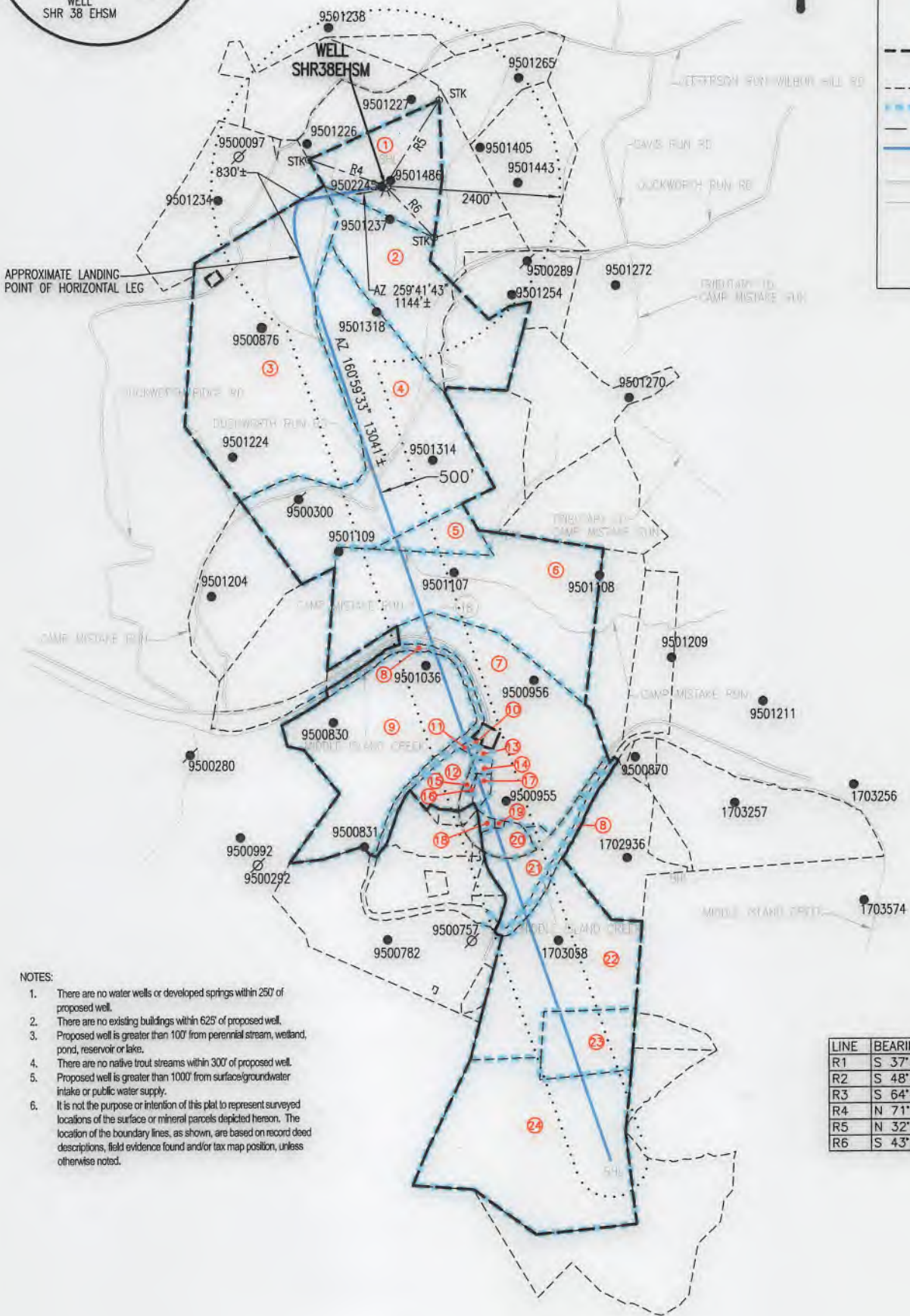
WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT CHRIS TURNER
 Address 1000 CONSOL ENERGY DRIVE Address 1 DOMINION DR.
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

SHR 38 EHSM

PAGE 2 OF 4



LEGEND	
	- TOPO MAP POINT
	- WELL
	- ALL ARE POINTS UNLESS OTHERWISE NOTED.
	LEASE NUMBER 03/01/2019
	- MINERAL TRACT BOUNDARY
	- PARCEL LINES
	- LEASE BOUNDARY
	- WELL REFERENCE
	- PROPOSED HORIZONTAL WELL
	- ROAD
	- STREAM CENTER LINE
GAS WELLS	
	- EXISTING WELLS
	- PLUGGED WELLS
	- ABANDON WELLS



- NOTES:
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, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LINE	BEARING	DISTANCE
R1	S 37°58'41" E	165.06'
R2	S 48°49'28" E	190.22'
R3	S 64°45'00" E	162.89'
R4	N 71°43'32" W	1116.44'
R5	N 32°03'26" E	1375.77'
R6	S 43°39'07" E	976.44'

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83 N:4358005.08 E:514189.14 NAD83, WV NORTH N:320191.663 E:1591030.848 LAT/LON DATUM-NAD83 LAT:39°22'17.027" LON:80°50'06.982"

APPROX. LANDING POINT
UTM 17-NAD83 N:4357702.55 E:513839.97 NAD83, WV NORTH N:319218.001 E:1589868.452 LAT/LON DATUM-NAD83 LAT:39°22'07.233" LON:80°50'21.598"

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83 N:4353967.77 E:515196.62 NAD83, WV NORTH N:306887.950 E:1594115.822 LAT/LON DATUM-NAD83 LAT:39°20'05.999" LON:80°49'25.206"

NOVEMBER 20, 2018

47-095-02570 H6A
George D. Six



SHR 38 EHSM

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03/01/2019

	SURFACE OWNER	LESSOR	DIST-TM/PAR
1	JAMES E. ASH ET AL	VERNA O. ASH, JAMES E. ASH AND THELMA B. ASH, BESSIE HAUGHT AND HAROLD WARNER ERNEST G. SECKMAN AND O. JOANNE SECKMAN RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W	P/O 1-16/19
2	RICHARD H. METCALF JOHN R. ANDERS II	JOHN MICHAEL LEONIAN JOSEPH ROBERT LEONIAN MARGO L. KIEHL AND CHARLES F. KIEHL, W/H BERDINA ROSE AND NORMAN W. ROSE, W/H PHILLIP LEONIAN, AKA PHILLIP MARSHALL LEONIAN MARION RAY BACHELOR, AKA MARION R. BACHELOR AND GLORIA JEAN BACHELOR, H/W RITA G. JARVIS MIKE ROSS, INC. I.L. MORRIS JO ELLEN HARPER DAY MARY LEE LILLY ARMEN LEONIAN, AKA ARMEN LANHAM LEONIAN JOHN FULTON LEONIAN NILA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SILEK, JR. BAILEY ANN MILLS WILLIAM PAUL HARPER DAVID PAUL LOCOCO MARY LYNNE SLATTERY, FKA MARY LYNNE LOCOCO DONALD VINCENT LOCOCO ROSE MARIE VANHEUVELN THERESA LEE ROBERTSON MARTHA SUE MUZIO, FKA MARTHA SUE LOCOCO MICHELE LOCOCO BUSHMIRE, FKA MICHELLE LUCRETIA BUSHMIRE ELIZABETH FLORENCE LOCOCO RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W BRC APPALACHIAN MINERALS I, LLC BRC APPALACHIAN MINERALS I, LLC	1-16/17 1-16/21
3	RONALD R. & ROWLAND & REVA D. ROWLAND	JACOB L. DILLON AND EDNA DILLON, H/W	P/O 1-16/20
4	D. RALPH THACKER & J. MAURICE CARLISLE JR.	CHARLES W. HENDERSON AND DOROTHY M. HENDERSON, H/W AND CHARLES W. HENDERSON, POWER OF ATTORNEY FOR THE A. I. DOKK HEIRS JOHN A. CONKLIN AND JEAN CONKLIN, H/W GEORGE B. CONKLIN AND BETTY M. CONKLIN, H/W BETTY L. CONKLIN ROBERT LEE REED LEWIS H. REED AND CAROL J. REED, H/W KATHY PRANGER VIRGINIA O'REAR AND RALPH O'REAR, W/H ROBERT H. MELVIN BETTY L. MELVIN MARY S. LARTZ AND WILLIAM LARTZ, W/H LILLIAN CRABILL AND WILLIAM CRABILL, W/H MELISSA COLL ROBERT BARTHOLOMEW AND BARBARA BARTHOLOMEW, H/W PHILLIP L. MELVIN JOANNE GREENMAN AND GERALD GREENMAN, H/W	1-16/26
5		PAUL W. HYLBERT AND CHARLOTTE J. HYLBERT, H/W	1-18/1
6	STEVEN E. MALICKI JR. FRED M. DOTSON JR. KAREN DOTSON KEVIN DOTSON STEVEN E. MALICKI JR.		1-18/1.1
7	MARY MONNIE COLLINS	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE JAY COLLINS AND MARY M. COLLIN, H/W	1-18/15
8	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	N/A
9	EDWIN D. MULVAY AND PATRICIA L. MULVAY	EDWIN DELMER MULVAY AND PATRICIA VAUGHN MULVAY A. E. PRATT HEIRS, EXECUTED BY JEAN COLE AND ROBERT L. COLE A. E. PRATT HEIRS, EXECUTED BY PATRICIA P. PRATT AND ALLEN T. PRATT A. E. PRATT HEIRS, EXECUTED BY DARRYL A. PRATT A. E. PRATT HEIRS, EXECUTED BY ROBERT F. AND GLENNA Z. PRATT A. E. PRATT HEIRS, EXECUTED BY RICHARD F. MEAD AND MARGARET MEAD A. E. PRATT HEIRS, EXECUTED BY JANET TINKHAM AND ELVIN I. TINKHAM A. E. PRATT HEIRS, EXECUTED BY KENNETH E. PRATT AND LAURA L. PRATT A. E. PRATT HEIRS, EXECUTED BY MALCOLM E. GREENWOOD AND DOROTHY ANN A. E. PRATT HEIRS, EXECUTED BY DONALD E. BORER AND MARY JANE BORER A. E. PRATT HEIRS, EXECUTED BY THERESA C. PRATT	1-18/14
10	EVERETT L. CARMICHAEL	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE EVERETT L. CARMICHAEL	1-18/25 1-18/26.1
11			
12	JERRY D. & CHRISINA D. MYER AMANDA D. GIST & KYLE J. GIST JEREMY D. MYER	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE JACOB MYER	1-18/26 1-18/26.3 1-18/26.4
13	JOSEPH J. DUFF	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE L. JUANITA BAKER	1-18/27
14	PHIL LEONARD KOONTZ	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINLGE PHIL KOONTZ LEONARD	1-18/28

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4358005.08
E:514189.14
NAD83, WV NORTH
N:320191.663
E:1591030.848
LAT/LON DATUM-NAD83
LAT:39°22'17.027"
LON:80°50'06.982"

APPROX. LANDING POINT
UTM 17-NAD83
N:4357702.55
E:513839.97
NAD83, WV NORTH
N:319218.001
E:1589868.452
LAT/LON DATUM-NAD83
LAT:39°22'07.233"
LON:80°50'21.598"

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
N:4353967.77
E:515196.62
NAD83, WV NORTH
N:306887.950
E:1594115.822
LAT/LON DATUM-NAD83
LAT:39°20'05.999"
LON:80°49'25.206"

47-095-02570 H6A

SHR 38 EHSM

PAGE 4 OF 4

03/01/2019

	SURFACE OWNER	LESSOR	DIST-TM/PAR
15	JAMES C. WILLIAMS & PATRICIA L. WILLIAMS	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE PATRICIA L. WILLIAMS	1-18/30
16 17	JACOB MYER	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE JACOB MYER	1-18/29
18	CLIFFORD A. & TOBY A. WEEKLEY	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE CLIFFORD A. WEEKLEY AND TOBY A. WEEKLEY, H/W	1-18/23
19	JAY GLENN COLLINS, ET AL	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE DANIEL VINCENT LANTZ NINA MAE MOLNAR DELVERNA JUNE MCKITRICK JAY GLENN COLLINS DAVID CARL LANTZ	1-18/22
20	JON M. MONTGOMERY	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H THERESA MARIE SMITH, SINGLE JON M. MONTGOMERY	1-18/20
21	EDWIN D. & PATRICIA L. MULVAY	CECILIA LOUISE BOOMER AND JAMES BOOMER, W/H WOODBERRY ROYALTY, INC. NANCY FOUT AND JOHN FOUT, W/H GLENDA L. HEDRICK THERESA MARIE SMITH, SINGLE EDWIN DELMER MULVAY AND PATRICIA L. MULVAY, H/W	1-18/18
22	RALPH MCCUTCHAN II CHIPPS REVOCABLE LIVING TRUST 2004	CLARENCE L. HURST AND BETTY ANN	8-3/3
23	RALPH P. MCCUTCHAN II	CLARECNE W. MUTSCHELKNAUS AND MARY F. MUTSCHELKNAUS, H/W	8-3/4.1
24	PHYLLIS MARIE STEELE (LE)	WILLIAM PAUL MCCUTCHAN AND VIRGINIA B. MCCUTCHAN, H/W JACQUELINE L. STANDAFER AND WARREN G. STANDAFER, W/H MARYLYNN H. ROBERTS AND JOHN E. ROBERTS, W/H J. W. MORTON FIELD	8-3/7

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83 N:4358005.08 E:514189.14 NAD83, WV NORTH N:320191.663 E:1591030.848 LAT/LON DATUM-NAD83 LAT:39°22'17.027" LON:80°50'06.982"

APPROX. LANDING POINT
UTM 17-NAD83 N:4357702.55 E:513839.97 NAD83, WV NORTH N:319218.001 E:1589868.452 LAT/LON DATUM-NAD83 LAT:39°22'07.233" LON:80°50'21.598"

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83 N:4353967.77 E:515196.62 NAD83, WV NORTH N:306887.950 E:1594115.822 LAT/LON DATUM-NAD83 LAT:39°20'05.999" LON:80°49'25.206"

47-095-02570H6A

**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				

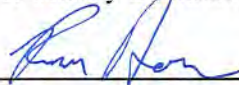
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**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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

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

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

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

Tract ID	Tax Map & Parcel	Title Opinion OLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
10, 11	TMP 1-18-15, 26.1	259011000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Everett L. Carmichael Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 488/398 513/299 521/80 542/134 550/273
12	TMP 1-18-26, 26.3, 26.4	288615000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Jacob Myer Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 462/525 480/829 513/299 521/80 542/134 550/273
13	TMP 1-18-27	259058000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single L. Juanita Baker Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 477/86 513/299 521/80 542/134 550/273
14	TMP 1-18-28	259057000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Phil Koomtz Leonard Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 477/84 499/447 513/299 521/80 542/134 550/273
15	TMP 1-18-30	288619000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Patricia L. Williams Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 465/260 499/447 513/299 521/80 542/134 550/273
16, 17	TMP 1-18-29	259020000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Jacob Myer Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 471/684 499/447 513/299 521/80 542/134 550/273
18	TMP 1-18-23	259053000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Clifford A. Weekley and Toby A. Weekley, h/w Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 485/180 513/299 521/80 542/134 550/273
19	TMP 1-18-22	259215000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Daniel Vincent Lantz Nina Mae Molnar Delverna June McKelrick Jay Glenn Collins David Carl Lantz Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 458/650 458/652 465/604 465/598 465/610 513/299 521/80 542/134 550/273

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<u>Tract ID</u>	<u>Tax Map & Parcel</u>	<u>Title Opinion OLS #</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
20	TMP 1-18-20	288616000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Theresa Marie Smith, single Jon M. Montgomery Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment	480/823 482/760 492/296 480/831 465/608 513/299 521/80 542/134 550/273
21	TMP 1-18-18	259052000	Cecilia Louise Boomer and James Boomer, w/h Woodberry Royalty, Inc. Nancy Fout and John Fout, w/h Glenda L. Hedrick Theresa Marie Smith, single Edwin Delmer Mulvay and Patricia L. Mulvay, h/w Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc.	Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. Noble Energy, Inc. CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC CNX Gas Company, LLC	Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Not less than 1/8 Assignment Assignment Assignment Assignment	480/823 482/760 492/296 458/763 480/831 488/396 513/299 521/80 542/134 550/273
22	TMP 8-3-3	258968000	Clarence L. Hurst and Betty Ann Exxon Corporation Exxon Mobil Corporation, ExxonMobil Oil Corporation, Mobil Producing Texas & New Mexico Inc., Mobil Oil Exploration & Producing Southeast Inc., and Mobil Exploration and Producing North America Inc. XTO Energy Inc. Antero Resources Corporation	Exxon Corporation Exxon Mobil Corporation XTO Energy Inc. Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Name Change Assignment Assignment Affidavit of Agreement	102/31 WVSO5 359/150 423/613 429/558
23	TMP 8-3-4.1	259048000	Clarence W. Mutschelknaus and Mary F. Mutschelknaus, h/w Stonewall Gas Company Clarence W. Mutschelknaus and Mary F. Mutschelknaus, h/w Antero Resources Corporation	Stonewall Gas Company Clarence W. Mutschelknaus Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Assignment Assignment Affidavit of Agreement	148/618 166/33 327/470 429/558
24	TMP 8-3-7	293603000	William Paul McCutchan and Virginia B. McCutchan, his wife Exxon Corporation Exxon Mobil Corporation, ExxonMobil Oil Corporation, Mobil Producing Texas & New Mexico Inc., Mobil Oil Exploration & Producing Southeast Inc., and Mobil Exploration and Producing North America Inc. XTO Energy Inc. Antero Resources Corporation Jacqueline L. Standafer and Warren G. Standafer, her husband Maryfynn H. Roberts and John E. Roberts, her husband J. W. Morton Field J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Corporation	Exxon Corporation Exxon Mobil Corporation XTO Energy Inc. Antero Resources Corporation CNX Gas Company, LLC J & J Enterprises, Inc. J & J Enterprises, Inc. J & J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America Antero Resources Corporation CNX Gas Company, LLC	Not less than 1/8 Name Change Assignment Assignment Affidavit of Agreement Not less than 1/8 Not less than 1/8 Not less than 1/8 Merger Assignment Assignment Affidavit of Agreement	102/38 WVSO5 359/150 423/613 429/558 130/571 130/704 131/188 159/139 240/498 460/453 429/558

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Erika Whetstone
Permitting Manager
Work: 724-485-4035
Mobile: 724-317-2224
Email: erikawhetstone@cnx.com

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

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

RE: Road Letter SHR38 Well Pad

To Whom it May Concern:

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

If any further information or correspondence is required, please contact me at (724)485-4035 or ErikaWhetstone@cnx.com.

Sincerely,

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

Erika Whetstone
Permitting Manager

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

Date of Notice Certification: 11-28-18

API No. 47- _____
Operator's Well No. SHR38EHSM
Well Pad Name: SHR38

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	Eastings: <u>514189.1430</u>
County: <u>Tyler</u>		Northing: <u>4358005.0840</u>
District: <u>Centerville</u>	Public Road Access: <u>Duckworth Ridge Road</u>	
Quadrangle: <u>West Union</u>	Generally used farm name: <u>Ash</u>	
Watershed: <u>Headwaters Middle Island Creek</u>		

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>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>
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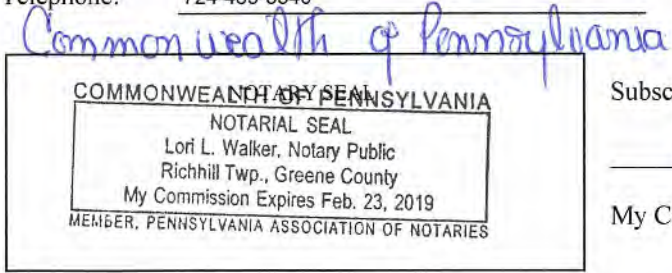
Required Attachments:

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

Certification of Notice is hereby given:

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

Well Operator: CNX Gas Company, LLC Address: 1000 Consol Energy Drive
By: Raymond Hoon Canonsburg, PA 15317
Its: Permitting Supervisor Facsimile: _____
Telephone: 724-485-3540 Email: RaymondHoon@CNX.com



County of Washington

Subscribed and sworn before me this 29th day of November 2018
Lori L. Walker Notary Public
My Commission Expires February 23, 2019

Oil and Gas Privacy Notice:

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

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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: 11-26-18 **Date Permit Application Filed:** 11-28-18

Notice of:

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

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DEC 4 2018

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

WV Department of
Environmental Protection

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: _____

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

Name: _____
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: See attached
Address: _____

COAL OPERATOR

Name: _____
Address: _____

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

Name: See attached
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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.

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Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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Notice is hereby given by:

Well Operator: CNX Gas Company, LLC *Raymond Hoon*
Telephone: 724-485-3540
Email: RaymondHoon@CNX.com

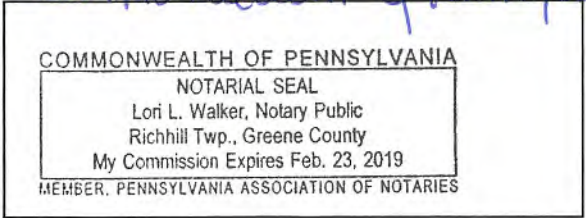
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317
Facsimile: _____

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.

Commonwealth of Pennsylvania

County of Washington



Subscribed and sworn before me this 29th day of November 2018

Lori L. Walker Notary Public

My Commission Expires February 23, 2019

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Surface Owners:

James Eli Ash	8707 Middle Island Road Alma, WV, 26320
Becannray LLC	5042 Tyler Highway Sistersville, WV 26175
Nicole Eastham	34973 State Route 800 New Matamoras, OH
Alexandria Fetty	34973 State Route 800 New Matamoras, OH
Rachelle Hise	237 Holiday Avenue Woodsfield, OH 43793
Potts Place LLC	353 Foundry Street New Martinsville, WV 26155
STS Enterprises LLC	659 Jefferson Run Road Alma, WV 26320
Bessie Warner	771 McElroy Creek Road Alma, WV 26320

Coal Owners:

James Eli Ash	8707 Middle Island Road Alma, WV, 26320
Becannray LLC	5042 Tyler Highway Sistersville, WV 26175
Nicole Eastham	34973 State Route 800 New Matamoras, OH
Alexandria Fetty	34973 State Route 800 New Matamoras, OH
Rachelle Hise	237 Holiday Avenue Woodsfield, OH 43793
Potts Place LLC	353 Foundry Street New Martinsville, WV 26155
STS Enterprises LLC	659 Jefferson Run Road Alma, WV 26320
Bessie Warner	771 McElroy Creek Road Alma, WV 26320
Ralph E Phillips	6411 Veterans Highway New Martinsville, WV 26155

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

ASH, JAMES E
8707 MIDDLE ISLAND RD ALMA WV 26320

ANDERS, JOHN R II
804 PETERS RUN RD WHEELING WV 26003

COSTILOW, CONRAD
13310 MIDDLE ISLAND RD WEST UNION WV 26456

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03/01/2019

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

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

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

Date of Notice: 11-26-18 **Date Permit Application Filed:** 11-28-18

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

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- 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>514189.1430</u>
County: <u>Tyler</u>	Northing: <u>4358005.0840</u>
District: <u>Centerville</u>	Public Road Access: <u>Duckworth Ridge Road</u>
Quadrangle: <u>West Union</u>	Generally used farm name: <u>Ash</u>
Watershed: <u>Headwaters Middle Island 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.

Surface Owners:

James Eli Ash	8707 Middle Island Road Alma, WV, 26320
Becannray LLC	5042 Tyler Highway Sistersville, WV 26175
Nicole Eastham	34973 State Route 800 New Matamoras, OH
Alexandria Fetty	34973 State Route 800 New Matamoras, OH
Rachelle Hise	237 Holiday Avenue Woodsfield, OH 43793
Potts Place LLC	353 Foundry Street New Martinsville, WV 26155
STS Enterprises LLC	659 Jefferson Run Road Alma, WV 26320
Bessie Warner	771 McElroy Creek Road Alma, WV 26320

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

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

Date of Notice: 11-26-18 Date Permit Application Filed: 11-28-18

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

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

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

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

Name: See attached
Address: _____

Name: _____
Address: _____

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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>514189.1430</u>
County: <u>Tyler</u>		Northing: <u>4358005.0840</u>
District: <u>Centerville</u>	Public Road Access: <u>Duckworth Ridge Road</u>	
Quadrangle: <u>West Union</u>	Generally used farm name: <u>Ash</u>	
Watershed: <u>Headwaters Middle Island 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: CNX Gas Company, LLC
Telephone: 724-485-3540
Email: RaymondHoon@CNX.com

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

Oil and Gas Privacy Notice:

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

Surface Owners:

James Eli Ash	8707 Middle Island Road Alma, WV, 26320
Becannray LLC	5042 Tyler Highway Sistersville, WV 26175
Nicole Eastham	34973 State Route 800 New Matamoras, OH
Alexandria Fetty	34973 State Route 800 New Matamoras, OH
Rachelle Hise	237 Holiday Avenue Woodsfield, OH 43793
Potts Place LLC	353 Foundry Street New Martinsville, WV 26155
STS Enterprises LLC	659 Jefferson Run Road Alma, WV 26320
Bessie Warner	771 McElroy Creek Road Alma, WV 26320

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**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

April 27, 2018

Jill M. Newman
Deputy Commissioner

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

Subject: DOH Permit for the SHR-38 Pad, Tyler County
SHR-38EHSM Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2018-0331 for the subject site to CNX Gas Company LLC, for access to the State Road for the well site located off of Tyler County route 58/2 SLS.

The operator has signed an OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

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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: Ray Hoon
CNX Gas Company LLC
CH, OM, D-6
File

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

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

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

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

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

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

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

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

Type: Ammonium chloride CAS: 12125-02-9

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

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

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

Type: Thiourea CAS: 62-56-6

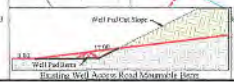
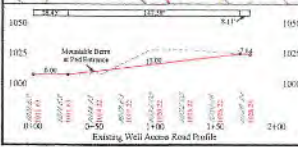
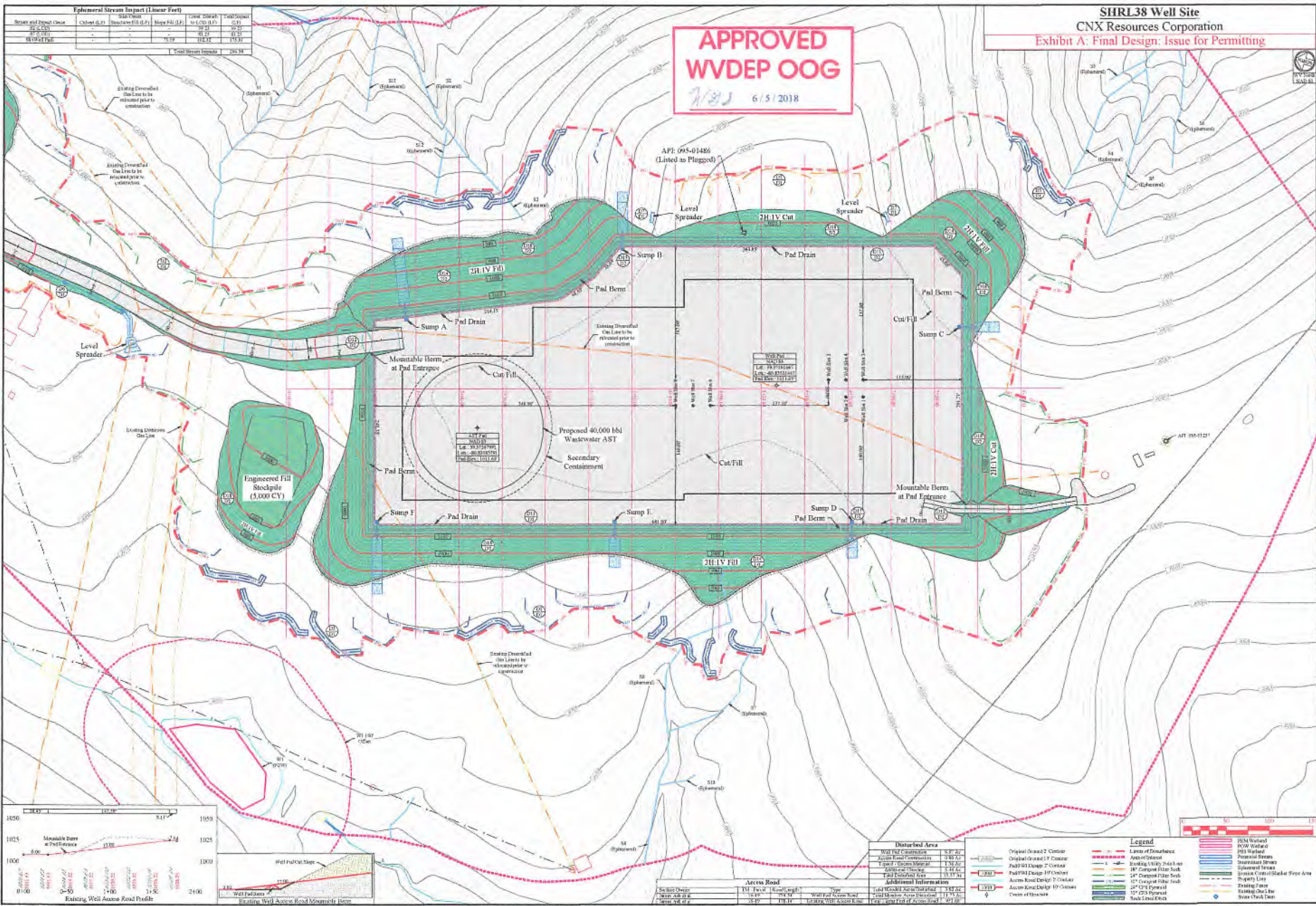
Type: Acetophenone CAS: 98-86-2

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Office of Oil and Gas
DEC 4 2018
WV Department of
Environmental Protection

Ephemeral Stream Impact (Linear Feet)			
Stream and Impact Class	2011 Data	2012 Data	2013 Data
Class 1	100	100	100
Class 2	100	100	100
Class 3	100	100	100
Class 4	100	100	100
Class 5	100	100	100
Class 6	100	100	100
Class 7	100	100	100
Class 8	100	100	100
Class 9	100	100	100
Class 10	100	100	100
Class 11	100	100	100
Class 12	100	100	100
Class 13	100	100	100
Class 14	100	100	100
Class 15	100	100	100
Class 16	100	100	100
Class 17	100	100	100
Class 18	100	100	100
Class 19	100	100	100
Class 20	100	100	100
Class 21	100	100	100
Class 22	100	100	100
Class 23	100	100	100
Class 24	100	100	100
Class 25	100	100	100
Class 26	100	100	100
Class 27	100	100	100
Class 28	100	100	100
Class 29	100	100	100
Class 30	100	100	100
Class 31	100	100	100
Class 32	100	100	100
Class 33	100	100	100
Class 34	100	100	100
Class 35	100	100	100
Class 36	100	100	100
Class 37	100	100	100
Class 38	100	100	100
Class 39	100	100	100
Class 40	100	100	100
Class 41	100	100	100
Class 42	100	100	100
Class 43	100	100	100
Class 44	100	100	100
Class 45	100	100	100
Class 46	100	100	100
Class 47	100	100	100
Class 48	100	100	100
Class 49	100	100	100
Class 50	100	100	100
Class 51	100	100	100
Class 52	100	100	100
Class 53	100	100	100
Class 54	100	100	100
Class 55	100	100	100
Class 56	100	100	100
Class 57	100	100	100
Class 58	100	100	100
Class 59	100	100	100
Class 60	100	100	100
Class 61	100	100	100
Class 62	100	100	100
Class 63	100	100	100
Class 64	100	100	100
Class 65	100	100	100
Class 66	100	100	100
Class 67	100	100	100
Class 68	100	100	100
Class 69	100	100	100
Class 70	100	100	100
Class 71	100	100	100
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Class 79	100	100	100
Class 80	100	100	100
Class 81	100	100	100
Class 82	100	100	100
Class 83	100	100	100
Class 84	100	100	100
Class 85	100	100	100
Class 86	100	100	100
Class 87	100	100	100
Class 88	100	100	100
Class 89	100	100	100
Class 90	100	100	100
Class 91	100	100	100
Class 92	100	100	100
Class 93	100	100	100
Class 94	100	100	100
Class 95	100	100	100
Class 96	100	100	100
Class 97	100	100	100
Class 98	100	100	100
Class 99	100	100	100
Class 100	100	100	100

APPROVED WVDEP OOG
 6/5/2018

SHRL38 Well Site
 CNX Resources Corporation
 Exhibit A: Final Design: Issue for Permitting



Access Road	1% Level	2% Level	3% Level	4% Level	5% Level	6% Level	7% Level	8% Level	9% Level	10% Level
1	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
2	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
3	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
4	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
5	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
6	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
7	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
8	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
9	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
10	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

Disturbed Area		Legend	
1	Original Ground 2' Contour	1	20' Contour
2	Original Ground 1' Contour	2	30' Contour
3	Original Ground 0.5' Contour	3	40' Contour
4	Original Ground 0.25' Contour	4	50' Contour
5	Original Ground 0.125' Contour	5	60' Contour
6	Original Ground 0.0625' Contour	6	70' Contour
7	Original Ground 0.03125' Contour	7	80' Contour
8	Original Ground 0.015625' Contour	8	90' Contour
9	Original Ground 0.0078125' Contour	9	100' Contour
10	Original Ground 0.00390625' Contour	10	110' Contour
11	Original Ground 0.001953125' Contour	11	120' Contour
12	Original Ground 0.0009765625' Contour	12	130' Contour
13	Original Ground 0.00048828125' Contour	13	140' Contour
14	Original Ground 0.000244140625' Contour	14	150' Contour
15	Original Ground 0.0001220703125' Contour	15	160' Contour
16	Original Ground 0.00006103515625' Contour	16	170' Contour
17	Original Ground 0.000030517578125' Contour	17	180' Contour
18	Original Ground 0.0000152587890625' Contour	18	190' Contour
19	Original Ground 0.00000762939453125' Contour	19	200' Contour
20	Original Ground 0.000003814697265625' Contour	20	210' Contour
21	Original Ground 0.0000019073486328125' Contour	21	220' Contour
22	Original Ground 0.00000095367431640625' Contour	22	230' Contour
23	Original Ground 0.000000476837158203125' Contour	23	240' Contour
24	Original Ground 0.0000002384185791015625' Contour	24	250' Contour
25	Original Ground 0.00000011920928955078125' Contour	25	260' Contour
26	Original Ground 0.000000059604644775390625' Contour	26	270' Contour
27	Original Ground 0.0000000298023223876953125' Contour	27	280' Contour
28	Original Ground 0.00000001490116119384765625' Contour	28	290' Contour
29	Original Ground 0.000000007450580596923828125' Contour	29	300' Contour
30	Original Ground 0.0000000037252902984619140625' Contour	30	310' Contour
31	Original Ground 0.00000000186264514923095703125' Contour	31	320' Contour
32	Original Ground 0.00000000093132257461547890625' Contour	32	330' Contour
33	Original Ground 0.000000000465661287307739453125' Contour	33	340' Contour
34	Original Ground 0.0000000002328306436538697265625' Contour	34	350' Contour
35	Original Ground 0.000000000116415321826934878125' Contour	35	360' Contour
36	Original Ground 0.000000000058207660913469439375' Contour	36	370' Contour
37	Original Ground 0.0000000000291038304567347196875' Contour	37	380' Contour
38	Original Ground 0.00000000001455191522836735939375' Contour	38	390' Contour
39	Original Ground 0.000000000007275957614183679696875' Contour	39	400' Contour
40	Original Ground 0.0000000000036379788070918348484375' Contour	40	410' Contour
41	Original Ground 0.00000000000181898940354591717221875' Contour	41	420' Contour
42	Original Ground 0.0000000000009094947017729585861875' Contour	42	430' Contour
43	Original Ground 0.00000000000045474735088642929309375' Contour	43	440' Contour
44	Original Ground 0.00000000000022737367544321464646875' Contour	44	450' Contour
45	Original Ground 0.00000000000011368683772160732323439375' Contour	45	460' Contour
46	Original Ground 0.000000000000056843418860814611616196875' Contour	46	470' Contour
47	Original Ground 0.00000000000002842170943040730558099375' Contour	47	480' Contour
48	Original Ground 0.000000000000014210854715217152790496875' Contour	48	490' Contour
49	Original Ground 0.0000000000000071054273576085763952484375' Contour	49	500' Contour
50	Original Ground 0.00000000000000355271367880428819762421875' Contour	50	510' Contour
51	Original Ground 0.000000000000001776356839402144098812109375' Contour	51	520' Contour
52	Original Ground 0.0000000000000008881784197010720494060546875' Contour	52	530' Contour
53	Original Ground 0.00000000000000044408920985053602470302734375' Contour	53	540' Contour
54	Original Ground 0.000000000000000222044604925268012351513671875' Contour	54	550' Contour
55	Original Ground 0.00000000000000011102230246263400617575884375' Contour	55	560' Contour
56	Original Ground 0.0000000000000000555111512313170030878921875' Contour	56	570' Contour
57	Original Ground 0.0000000000000000277555756156535015439469375' Contour	57	580' Contour
58	Original Ground 0.000000000000000013877787807826750771972346875' Contour	58	590' Contour
59	Original Ground 0.00000000000000000693889390391337538598619375' Contour	59	600' Contour
60	Original Ground 0.00000000000000000346944695195668769294309375' Contour	60	610' Contour
61	Original Ground 0.000000000000000001734723475978343846471546875' Contour	61	620' Contour
62	Original Ground 0.000000000000000000867361737989171923235734375' Contour	62	630' Contour
63	Original Ground 0.000000000000000000433680868994585961615671875' Contour	63	640' Contour
64	Original Ground 0.00000000000000000021684043449729298080784375' Contour	64	650' Contour
65	Original Ground 0.000000000000000000108420217248646490403921875' Contour	65	660' Contour
66	Original Ground 0.0000000000000000000542101086243232452019609375' Contour	66	670' Contour
67	Original Ground 0.00000000000000000002710505431216162260098046875' Contour	67	680' Contour
68	Original Ground 0.000000000000000000013552502656080811300490234375' Contour	68	690' Contour
69	Original Ground 0.000000000000000000006776251328040405502451171875' Contour	69	700' Contour
70	Original Ground 0.0000000000000000000033881256640202027512255859375' Contour	70	710' Contour
71	Original Ground 0.000000000000000000001694062832010101375612779296875' Contour	71	720' Contour
72	Original Ground 0.000000000000000000000847031416005050687813889375' Contour	72	730' Contour
73	Original Ground 0.000000000000000000000423515708002525343944446875' Contour	73	740' Contour
74	Original Ground 0.0000000000000000000002117578540012626722222234375' Contour	74	750' Contour
75	Original Ground 0.000000000000000000000105878927000631336111111671875' Contour	75	760' Contour
76	Original Ground 0.00000000000000000000005293946350031575555555859375' Contour	76	770' Contour
77	Original Ground 0.000000000000000000000026469731750158777777779296875' Contour	77	780' Contour
78			