

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

Friday, April 06, 2018 WELL WORK PERMIT Horizontal 6A / New Drill

CNX GAS COMPANY LLC POST OFFICE BOX 1248

JANE LEW, WV 263786506

Re: Permit approval for SHR 31 CHSM

47-095-02490-00-00

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.

Operator's Well Number: SHR 31 CHSM

Farm Name: ALLEN W. SECKMAN, ET AL.

U.S. WELL NUMBER: 47-095-02490-00-00

Horizontal 6A New Drill Date Issued: 4/6/2018

API Number: 95-02490

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

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

API Number: <u>95 - 02490</u>

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, cessation of drilling, sending an email to DEPOOGNotify@wv.gov.

API NO. 47-95 - 02490	_
OPERATOR WELL NO. SHR31CHSM	_
Well Pad Name: SHR31	

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

1) Well Operate	or: CNX G	as Compan	y, LLC	494458046	Tyler	McElroy	Shirley
				Operator ID	County	District	Quadrangle
2) Operator's V	Vell Number	: SHR31CH	SM	Well Pad	Name: SHR3	1	
3) Farm Name/	Surface Owr	ner: Seckma	an	Public Road	d Access: CR	58	
4) Elevation, cu	rrent ground	i: <u>1091'</u>	Ele	evation, proposed p	oost-construction	on: 1091'	
5) Well Type	(a) Gas	Х	Oil	Unde	rground Storag	е	
	Other	·					
	(b)If Gas	Shallow	X	Deep			
		Horizontal	X				
6) Existing Pad	: Yes or No		Yes				
*	•	` ' '		pated Thickness ar		` '	
Target forma	tion is Marce	llus Shale @	6683'-673	1' TVD, 48' thick, ex	pected formation	n pressure	~4000 psi
8) Proposed To	tal Vertical I	Depth: 6725	5' TVD at	TD (dependent u	pon formation	dip)	
9) Formation at	Total Vertic	cal Depth: 1	Marcellus	Shale (will not pe	enetrate Onone	daga)	
10) Proposed T	otal Measure	ed Depth: 1	4,930' M	D at TD			
11) Proposed H	orizontal Le	g Length: 7	' 608'				
12) Approxima	te Fresh Wat	ter Strata De _l	oths:	125', 580'			
13) Method to 1	Determine Fi	resh Water D	epths: D	epth of bit when water	er shows in flowlir	ne or depth w	hen misting is required
14) Approxima	te Saltwater	Depths: 22	71'				
15) Approxima	te Coal Sean	n Depths: N	o known	coal seams	_		
16) Approxima	te Depth to I	Possible Void	l (coal mi	ne, karst, other):	None anticipat	ed	
17) Does Propo directly overlyi				ns Yes	No		X
(a) If Yes, pro	vide Mine II	nfo: Name:					
•		Depth:					
		Seam:					
		Owner	•				

WW-6B (04/15)

API NO. 47- 47 09 5 0 2 4 9 0

OPERATOR WELL NO. SHR31CHSM Well Pad Name: SHR31

18)

CASING AND TUBING PROGRAM

ТҮРЕ	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	129	100	96 / CTS
Fresh Water	13.375	New	J-55	54.5	709	680	472 / CTS
Coal	N/A						
Intermediate	9.625	New	J-55	36.0	2604	2575	840 / CTS
Production	5.5	New	P-110	20.0	14959	14930	2830 / TOC @ 2075'
Tubing	2.375	New	J-55	4.7	Above assumes RF=29'	TBD	N/A
Liners	N/A						

DMH 11/21/17

TYPE	Size (in)	Wellbore Diameter (in)	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	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	1.07
Tubing	2.375	N/A	0.190	7700	N/A	N/A	N/A
Liners	N/A						

PACKERS

RECEIVED
Office of Oil and Gas

Kind:	N/A		NOV 2 8 2017
Sizes:			WV Department of Environmental Protection
Depths Set:			

API NO. 47-47 09 5 02 4 9 0

OPERATOR WELL NO. SHR31CHSM
Well Pad Name: SHR31

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 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 12.0-12.5 ppg SOBM. Drill 8-1/2" curve from KOP to landing point. Continue drilling 8-1/2" lateral to TD (geosteer this section to remain in Marcellus target window). Perform clean-up cycle to condition well. Run and cement 5-1/2" production casing. Suspend well and skid to next well or RDMO drilling rig.

DMH 11/21/17

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): 41.57
- 22) Area to be disturbed for well pad only, less access road (acres): 7.42
- 23) Describe centralizer placement for each casing string:

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

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

Fresh water 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 control gas

NOV 2 8 2017

25) Proposed borehole conditioning procedures:

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

*Note: Attach additional sheets as needed.

SHR31 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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NOV 28 2017

WV Department of Environmental Protection

95-02490

								MOLD CALL	SHK31CHSM (Marcellus HZ)	
	Š		CONSOLENER	5	,			Marcellus Sh Tyler Co	Marcellus Shale Horizontal Tyler County, WV	
					SH	R31CH	SHR31CHSM SHL	Z	N 337886, E 1626598 (NAD27)	(NAD27)
Ground Elevation		1091' GL	GL Elevation		S	SHR31CHSM LP	ISM LP	Z	N 337085, E 1627917 (NAD27)	(NAD27)
Azimuth		161°	0		SH	SHR31CHSM BHL	SM BHL	Z	N 329875, E 1630348	1630348 (NAD27)
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	QW	TVD	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
		9				9		7774	XII.	11 - 17 112 12 12 12 12 12 12 12 12 12 12 12 12
	-54	20-1/2	Conductor	100	100	AIR	lo surface	A'N	VIN.	orabilize surface illusoil
			Shallowest Fresh Water		125		15.6 ppg Class A + 1% to 3% CaCl2	Centralize every 3rd		Set through fresh water zones
	17-1/2"	13-3/8" 54.5# J-55 BTC	Deepest Fresh Water		580	AIR / FW Mist	+ 1/4 pps Flake 20% OH Excess Yield = 1.19	Surface Surface Bow spring centralizers	Ensure the hole is clean at section TD	Cemented to surface No known coal seams
			Fresh Water Casing	730	730		TOC @ surface			
			No known coal zones		N/A					
			Big Lime		2200		15.6 ppg Class A	Centralize every 3rd		Set through potential salt water
	40.144	9-5/8" 36.0#	Big Injun		2271	AIR /	+ 0% to 2% Caciz + 1/4 pps Flake	joint from shoe to	Soap the hole as needed	Cemented to surface
	5/1-7	J-55 LTC	Price		2325	Seap	20% OH Excess	anguing	clean at section TD	Casing to be set ~2001.250' helow
			Weir		2478		TOC @ surface	Bow spring centralizers		the Big Injun base
			Intermediate Casing	2575	2575					
			Berea		2669					
			Gordon		3095					
	8-3/4"		Warren		3588		15.2 ppg Class H		di di	
	Tangent		Lower Huran		3986	AIR	50:50 Class H:Poz with additives (retarder,	Pontraliza oscilarios	Once at 1D, circulate at max flowrate with max	Motor Actival contralizar relacione
			Benson		5156		suspension agent, gas block, defoamer, fluid	from shoe to KOP -	rotation until shakers clean- up (typically requires	may be changed due to hole
		5-1/2" 20.0#	Alexander		5400		loss, extender, etc.)	then every 3rd joint from KOP to TOC	multiple bottoms-up)	conditions
		P-110 VAR	Cashaqua		6388		10% OH Evenes		Once on bottom with	Note: Actual cement blends may
			Burkett		6614		Yield = 1.07	Single-piece/rigid bow	casing, circulate a minimum	vary slightly depending upon
	8-1/2" Curve		Tully		9999	12.0-12.5			of one hole volume prior to	
-	& Lateral		Hamilton		1999	ppg SOBM	9-5/8" shoe		building callent	
un			Marcellus		6683					
			Production Casing	14930	6725					
NVED	OUT 12072 14 V		8-3/4" x 8-1/2" Hole - Cemented Long String	Hole - Cer	nented L	ong String	liero c. co	27 /+	7608' stored	TD @ +/ 6775
1	LF @ 4/- 0/23 IVD		5-1/2	5-1/2" 20.0# P-110 VAR	110 VAF	~		200	on rate a	GA 67.6.1. (B)

CONSOLENERGY AMERICA'S ENERGY STARTS HERE

SHR31 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 SHR31 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, Producing Formation at Total Depth, and Permit Date. See following pages, including (Figures 4 and 5).

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 (Figure 1), 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. CONSOL's nearest sonic data is from the SHRL1C well (Figure 2), immediately west of the SHRL3 pad. Frac modeling (Figure 3) of the Marcellus in the area does not show significant upward frac growth. In fact, typical frac height would need to be more than double to reach the Alexander, approximately 1000' above the Marcellus Shale.

Figure 1. SOG Communication events in the SHR31 area are represented by red diamonds below. These events were conjunction with the SHRL1, SHRL3, and SHRL40 fracs (pads immediately to the west, already completed).

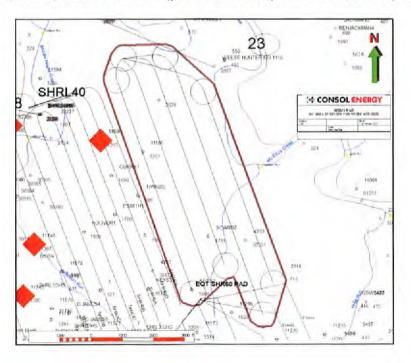








Figure 2. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the SHRL1C Stress Profile log.

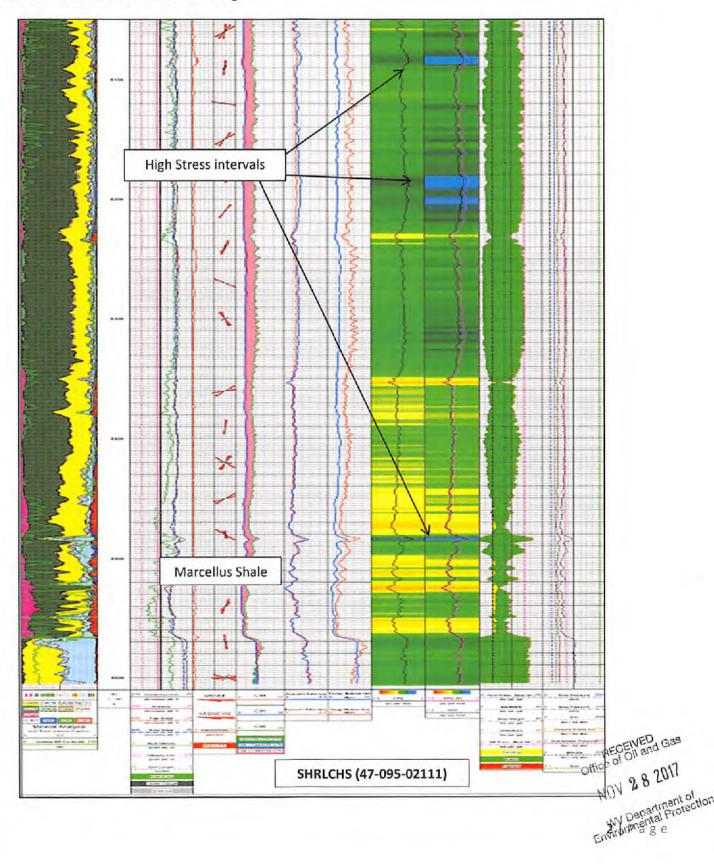
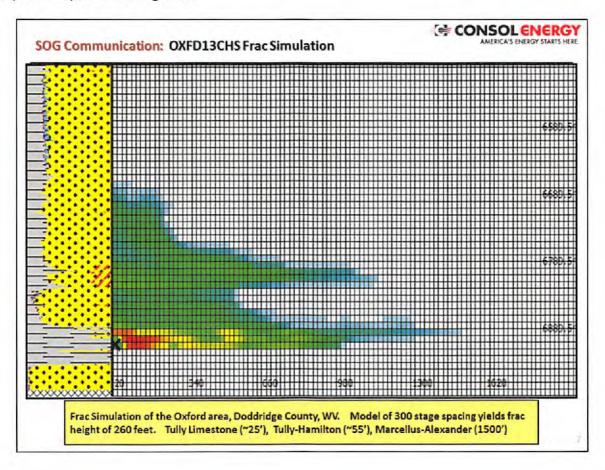




Figure 3. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Marcellus and adjacent shallower shales are lithologically similar to Pennsboro. Frac modeling only 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.







o BENJACKMAN4 1491 329 WEESE HUNTER NO 1110 2027 2027 SHRL40 CONSOLENERGY SHRULPAD RO ARIA OF REVIEW FOR WVDEP AND CRUD 11001 1(WK60) 30384 01251 30315 30180 30179 2118 ECT SHREO RAD 117 SHRLIDHS GSW5480 ⊅ ° 1306 446 475 11236 5457

Figure 4. All wells within 500' buffer around the SHR31 pad have been reviewed and listed below.

Figure 5. All wells within 500' buffer around the SHR31 pad have been reviewed and listed below.

API	OPERATOR	WELL NAME	WELL#	LAT	LONG	STATUS	TD	STATUS COMMENTS	DISTANCE FROM LATERAL	PERMIT DATE
4709500713	Abandoned	UNDERWOOD W	2118	39.39715	-80.80017	ABANDONED	2731	ABANDONED BIG INJUN	450"	4/27/1971
4709501261	CONSOL	SECKMAN L	11595	39.4102	-80.81914	GAS	5292	PRODUCING BENSON, BILEY	30,	10/6/1988
4709501668	ALLIANCE PETROLEUM CORP	KEYS MARY	KEY52	39.39563	-80.81254	GAS	2230	PRODUCING BIG INJUN	10'	11/3/1996
4709501711	ALLIANCE PETROLEUM CORP	BOARD MARVIN	BOARD2	39.40126	-80.81027	GAS	2956	PRODUCING GORDON, BIG INJUN	240"	6/4/2001
4709502028	Triad Hunter, LLC.	WEESE PAD	WEESE HUNTER NO 1111	39.41564	-80.81692	CANBH		CANCELLED MARCELLUSPERMIT	245"	4/25/2011
4709502027	Triad Hunter, LLC.	WEESE PAD	WEESE HUNTER NO 1110			GAS	6407	PRODUCING MARCELLUS LATERAL	356	4/25/2011
4709530361	Hope Natural Gas Company	D N Furbee	4233	39.40085	-80.80517	ABDGAS	2620	PLUGGED GORDON 2/18/1944	3301	8/30/1916
4709502365	EQT PRODUCTION CO	SHR60 PAD	515434			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	510"	10/17/2016
4709502342	EQT PRODUCTION CO	SHR60 PAD	514466			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	465'	3/31/2016
4709502341	EQT PRODUCTION CO	SHR60 PAD	514465			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380	3/31/2016
4709502264	EQT PRODUCTION CO	SHR60 PAD	514461			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	7/23/2015
4709502257	EQT PRODUCTION CO	SHR60 PAD	514460			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	7/23/2015
4709502256	EQT PRODUCTION CO	SHR60 PAD	514464			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	7/23/2015
4709502220	EQT PRODUCTION CO	SHR60 PAD	514463			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380	3/24/2013
4709502255	EQT PRODUCTION CO	SHR60 PAD	514452			PERMIT ISSUED		PERMITTED MARCELLUS	380	7/23/2015

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CONSOLENERGY.

AMERICA'S ENERGY STARTS HERE

SHR31 Pad Frac SOG Review / CRSD Review Tuesday, November 7, 2017

Office of Siland Gas
NOV 28 2017
NOV Department of the Control of



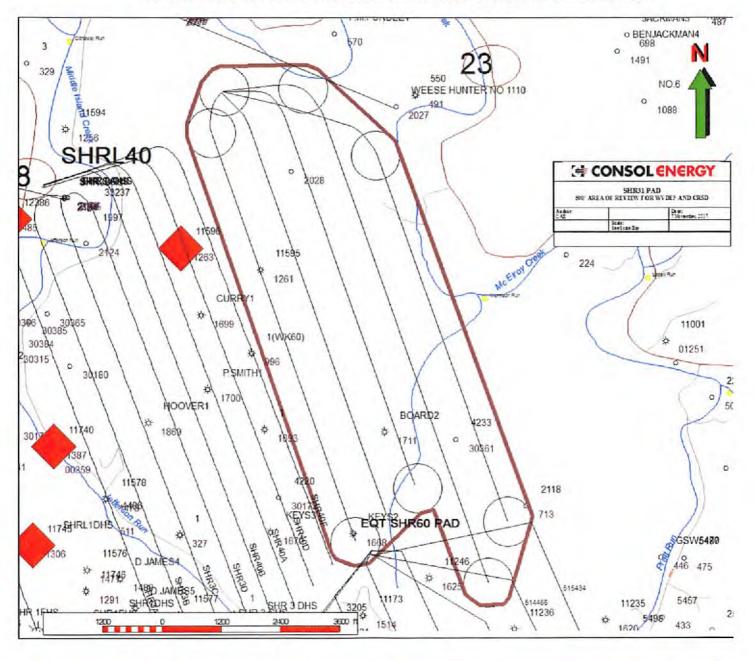
SHR31 PAD GEOLOGICAL PROGNOSIS

Top Depth from Ground Elevation (TVD		Possible Show	Coal Seam Thickness (FEET)	Minable Coal Seam	General Rock Type	Drilling Problems	Type of Formation Evaluation
0	Soil & Colluvium				Soil & Rock		
470, 580	Deepest Fresh Water						
	No known coals this far west		none	no			
	Sand and Red Rock				Sand & Shale		
2200	Big Lime (no red rock deeper than this depth)				Limestone	uce oil	
2271	Big Injun Top	GAS / SALTWATER			Sand	The Big Injun and Gordon Sands may produce oil and/or water.	
2325	Price Formation				Sandstone	nds n er.	· ·
2478	Weir Sand				Sandstone	Gordon Sands and/or water.	No pilot hole logs will be ran on one well on this pad.
2669	Berea				Sandstone	Sordi Ind/o	on th
2677	Devonian Shale Top				Grey Shale	and	well
3095	Gordon				Sandstone	Inju	one
3588	Warren Sand				Sandstone	e Bi	uo .
3986	Lower Huron	GAS			Grey Shale	F	e ran
5156	Benson				Siltstone		d ≡
5400	Alexander	GAS			Siltstone	are	ogsv
6399	Cashaqua Shale	CON	FINING LAYER		Grey Shale	ams.	ole I
6505	Middlesex				Grey Shale	roble	lot h
6546	West River				Grey Shale	lling probler anticipated.	9
6614	Burket Shale	GAS			Black Shale	No drilling problems are anticipated.	
6646	Tully Limestone	CON	FINING LAYER		Limestone	2	
6667	Hamilton				Grey Shale		
6683	Upper Marcellus	GAS			Black Shale	S 01 -	
6699	Middle Marcellus	GAS			Black Shale	llus to be	
6713	Cherry Valley	GAS			Limestone	larce cted oress	
6720	Lower Marcellus	GAS			Black Shale	The Marcellus is expected to be overpressured	
6731	Onondaga Limestone				Limestone		

Office of Oil and Gas
NOV 9,8 2017
NOV Decrease Production



SHRL AREA WITH SOG COMMUNICATION WELLS



The SHR31 Pad to be frac'd (in maroon) is in an area of pervasive communication.

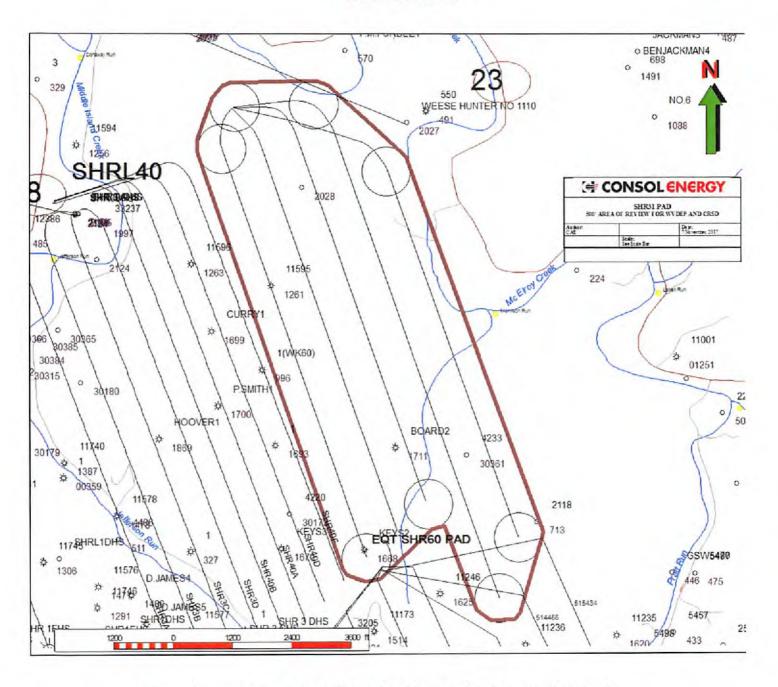
Many Shallow O&G wells are being effected by gas migration from the Marcellus pad fracs, charging the Benson reservoir, which is the primary producing reservoir of the SOG wells.

Pressure migration with the vertical Shallow Oil and Gas wells above the pads is believed to be due to faulting in the area. Frac modeling shows that it is hypothetically impossible to fractive 1000' upwards to the Alexander and Benson formations.

Wy Department of Exvironmental Protection



SHR31 PAD



All wells within a 500' buffer have been reviewed.







SHR31 WELL REVIEW WITHIN 500' AREA OF REVIEW

API	OPERATOR	WELL NAME	WELL#	LAT	LONG	STATUS	TD	STATUS COMMENTS	DISTANCE FROM LATERAL	PERMIT DATE
4709500713	Abandoned	UNDERWOOD W	2118	39.39715	-80.80017	ABANDONED	2731	ABANDONED BIG INJUN	460'	4/27/1971
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4709501668	ALLIANCE PETROLEUM CORP	KEYS MARY	KEYS2	39.39563	-80.81254	GAS	2230	PRODUCING BIG INJUN	10'	11/3/1998
4709501711	ALLIANCE PETROLEUM CORP	BOARD MARVIN	BOARD2	39.40126	-80.81027	GAS	2956	PRODUCING GORDON, BIG INJUN	240'	6/4/2001
4709502028	Triad Hunter, LLC.	WEESE PAD	WEESE HUNTER NO 1111	39.41564	-80.81692	CANBH		CANCELLED MARCELLUSPERMIT	245'	4/25/201
4709502027	Triad Hunter, LLC.	WEESE PAD	WEESE HUNTER NO 1110			GAS	6407	PRODUCING MARCELLUS LATERAL	356'	4/25/201
4709530361	Hope Natural Gas Company	D N Furbee	4233	39.40085	-80.80517	ABDGAS	2620	PLUGGED GORDON 2/18/1944	330'	8/30/191
4709502365	EQT PRODUCTION CO	SHR60 PAD	515434			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	510'	10/17/201
4709502342	EQT PRODUCTION CO	SHR60 PAD	514466			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	465'	3/31/201
4709502341	EQT PRODUCTION CO	SHR60 PAD	514465			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	3/31/201
4709502254	EQT PRODUCTION CO	SHR50 PAD	514461			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	7/23/201
4709502257	EQT PRODUCTION CO	SHR60 PAD	514460			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	7/23/201
4709502256	EQT PRODUCTION CO	SHR60 PAD	514464			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	7/23/201
4709502220	EQT PRODUCTION CO	SHR60 PAD	514463			PERMIT ISSUED		PERMITTED MARCELLUS LATERAL	380'	3/24/201
4709502255	EQT PRODUCTION CO	SHR60 PAD	514462			PERMIT ISSUED		PERMITTED MARCELLUS	380'	7/23/201

CONSOL wells to monitor in pink.



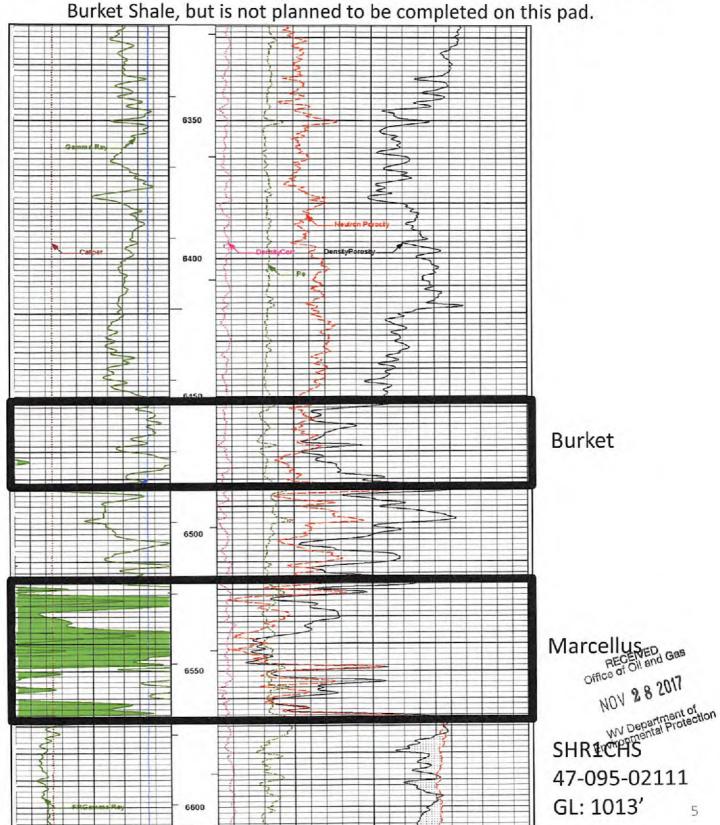
SHRL Area Type Log (SHRL1C)



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

Also, the Rhinestreet and Cashaqua provide confinement for the

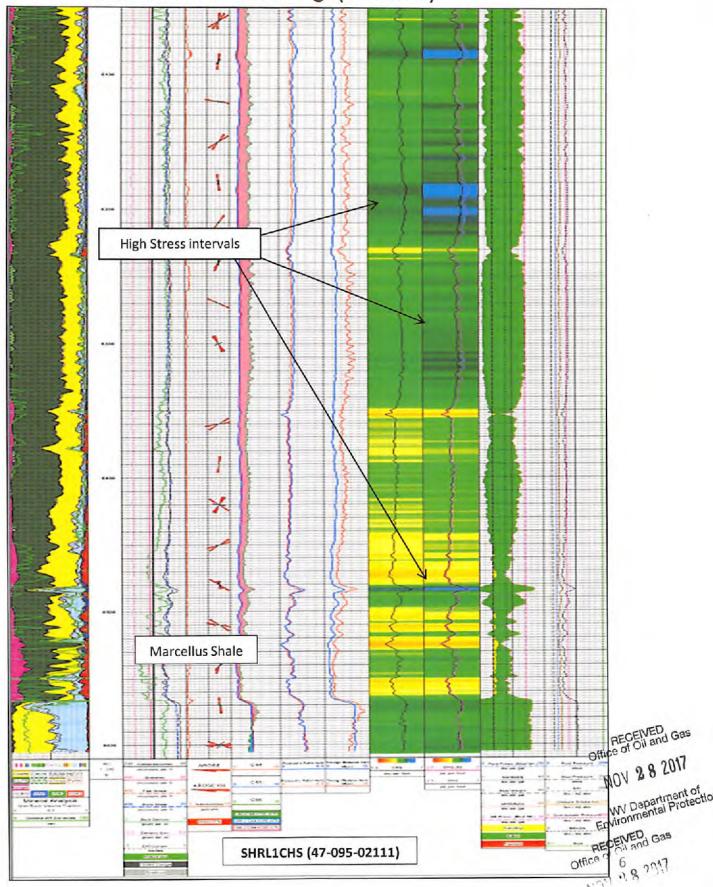
Burket Shale, but is not planned to be completed on this pad.





CONSOLENERGY. AMERICA'S ENERGY STARTS HERE

SHRL Area Stress Profile Log (SHRL1C)



Commence or within

API Number 47	95	02490
O	TTT 11 S.T.	CONTRACTOR OF THE PARTY OF THE

Operator's Well No. SHR31HSM

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 49445804	6
Watershed (HUC 10) McElroy Creek Quadrangle Shirley	
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes	No No
Will a pit be used? Yes No _✓	
If so, please describe anticipated pit waste: Closed Loop- No utilization of a pit	
Will a synthetic liner be used in the pit? Yes No If so, what ml.?	
Proposed Disposal Method For Treated Pit Wastes:	2011/11/21/17
Land Application	DMH 11/21/17
Underground Injection (UIC Permit Number see attached Reuse (at API Number at next anticipated well	
Off Site Disposal (Supply form WW-9 for disposal location) Other (Explain	
Will closed loop system be used? If so, describe: yes	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.	ir based mus through intermediate string then SOBM
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	
Additives to be used in drilling medium? Please see attached sheet	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc	
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust)	
-Landfill or offsite name/permit number? please see attached sheet	
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permeter it was properly disposed.	ated waste rejected at any nittee shall also disclose
I certify that I understand and agree to the terms and conditions of the GENERAL WATER Poor August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Proportions of the permit are enforceable by law. Violations of any term or condition of the general polaw or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the in application form and all attachments thereto and that, based on my inquiry of those individuals a obtaining the information, I believe that the information is true, accurate, and complete. I am away penalties for submitting false information, including the possibility of fine or imprisonment. Company Official Signature	fection. I understand that the ermit and/or other applicable formation submitted on this immediately responsible for the there are significant RECEIVED Gas
Company Official (Typed Name) Raymond Hoon	NOV 2 8 2017
Company Official Title Permitting Supervisor	WV Department of Environmental Protection
Subscribed and sworn before me this 8 day of Nevember , 20 17 Notary Public My commission expires 111 27 / 202	JONATHAN D. JONES Notary Public Official Seal State of West Virginia My Comm. Expires Nov 27, 2021 One Dominion Drive Jane Lew WV 26378

Proposed Revegetation Treatment: Acres Disturbed 41.57	Prevegetati	on pH 6.0
Lime 2-3 Tons/acre or to correct to p		
Fertilizer type 10-20-20 or equal		
Fertilizer amount_500	lbs/acre	
Mulch hay or straw at 2	s/acre	
	eed Mixtures	
Temporary	P	ermanent
Seed Type Ibs/acre Tall Fescue 40	Seed Type	lbs/acre
Ladino Clover 5	Tall Fescue	40
**alternative seed mixtures are shown on the site design.	Ladino Clover	5
Maps(s) of road, location, pit and proposed area for land application application included applied, included applied, included applied, included applied, included applied, included applied.	ication (unless engineered plans dimensions (L x W x D) of the pi	including this info have been t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land appl provided). If water from the pit will be land applied, include of acreage, of the land application area.	lication (unless engineered plans dimensions (L x W x D) of the pi	including this info have been t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land application area. Photocopied section of involved 7.5' topographic sheet.	dimensions (L x W x D) of the pi	including this info have been t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land application area for land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Derse M. Haught	dimensions (L x W x D) of the pi	t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land application area for land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Derak M. Haught	dimensions (L x W x D) of the pi	t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land application and land applied. If water from the pit will be land applied, include a coreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Derak M. Haught	dimensions (L x W x D) of the pi	t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land application area for land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Derak M. Haught	dimensions (L x W x D) of the pi	t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land application area for land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Derak M. Haught	dimensions (L x W x D) of the pi	t, and dimensions (L x W), and
Maps(s) of road, location, pit and proposed area for land application area for land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Derse M. Haught	dimensions (L x W x D) of the pi	t, and dimensions (L x W), and
Attach: Maps(s) of road, location, pit and proposed area for land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Dersk M. Haught Comments:	dimensions (L x W x D) of the pi	RECEI
Maps(s) of road, location, pit and proposed area for land appliprovided). If water from the pit will be land applied, include a acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: Darak M. Haught	dimensions (L x W x D) of the pi	t, and dimensions (L x W), and

Cuttings Disposal/Site Water

Cuttings - Haul off Company:

Eap Industries, Inc. DOT # 0876278 1575 Smith Two State Rd. Atlasburg, PA 15004 1-888-294-5227

Waste Management 200 Rangos Lane Washington, PA 15301 724-222-3272

Environmental Coordination Services & Recycling (ECS&R) 3237 US Highway 19 Cochranton, PA 16314 814-425-7773

Disposal Locations:

Apex Environnemental, LLC Permit # 06-08438 11 County Road 78 Amsterdam, OH 43903 740-543-4389

Westmoreland Waste, LLC Permit # 100277 111 Conner Lane Belle Vernon, PA 15012 724-929-7694

Sycamore Landfill Inc. Permit #R30-079001 05-2010 4301 Sycamore Ridge Road Hurricane, WV 25526 304-562-2611

Max Environnemental Technologies, Inc. facility Permit # PAD004835146 / 301071 233 Max Lane Yukon, PA 25968 724-722-3500

Max Environnemental Technologies, Inc. Facility Permit # PAD05087072 / 301359 200 Max Drive Bulger, PA 15019 724-796-1571

Waste Management Kelly Run Permit # 100663 1901 Park Side Drive Elizabeth, PA 15037

Waste Management South Hills (Arnoni) Permit # 100592 3100 Hill Road Library, PA 15129 724-348-7013

Waste Management Arden Permit # 100172 200 Rangos Lane Washington, PA 15301 724-222-3272

Waste Management Meadowfill Permit # 1032 1488 Dawson Drive Bridgeport, WV 26330

Brooke County Landfill Permit # SWF-103-97 / WV 0109029 Rd 2 Box 410 Colliers, WV 26035 304-748-0014

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WV Department of Environmental Protection Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185 Rt 1 Box 156A New Martinsville, WV 26035 304-455-3800

Energy Solutions, LLC Permit # UT 2300249 423 West 300 South Suite 200 Salt Lake City, UT 84101

Energy Solutions Services, Inc. Permit # R-73006-L24 1560 Bear Creek Road Oak Ridge, TN 37830

Water Haul off Companies:

Dynamic Structures, Clear Creek DOT # 720485 3790 State Route 7 New Waterford, OH 44445 330-892-0164

Disposal Locations:

Solidification Waste Management, Arden Landfill Permit # 100172 200 Rangos Lane Washington, PA 15301 724-225-1589

Solidification/Incineration Soil Remediation, Inc. Permit # 02-20753 6065 Arrel-Smith Road Lowelville, OH 44436 330-536-6825

Adams #1 Permit # 34-031-2-7177 23986 Airport Road Coshocton, OH 43812 740-575-4484

Adams #2 Permit # 34-031-2-7178 740-575-4484

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Site Safety Plan for Well SHR31HSM CNX Gas Company, LLC.

DMH 11/29/17





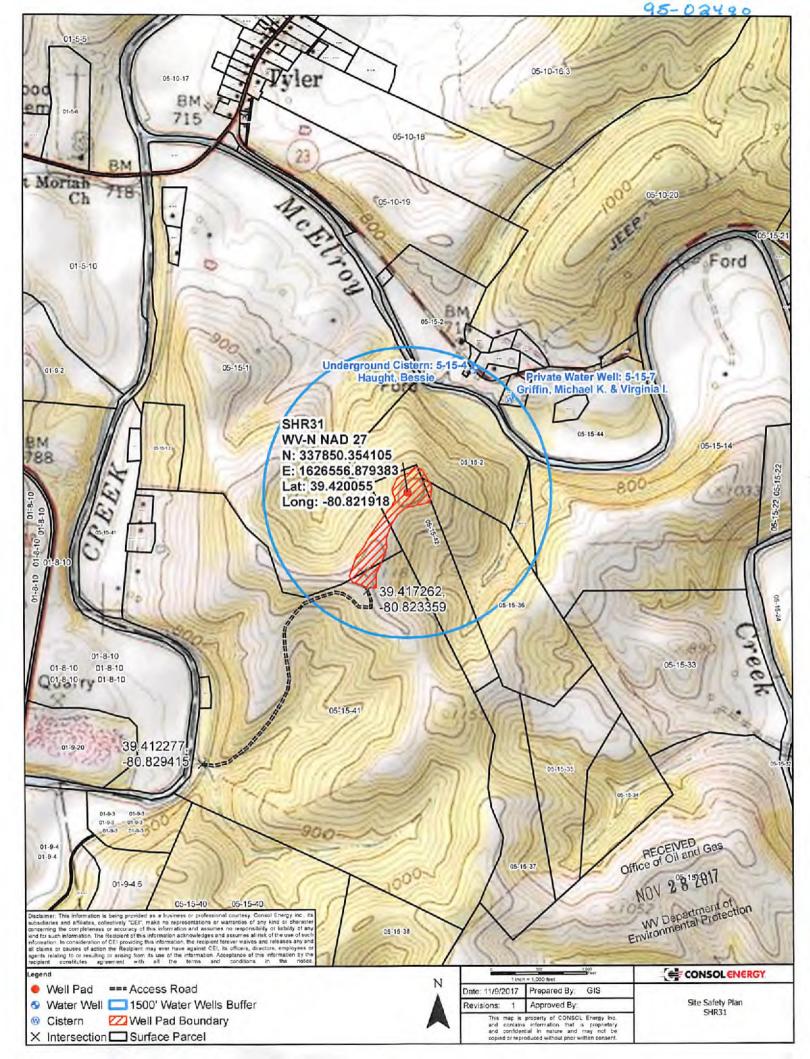
Site Safety Plan for Well SHR31HSM CNX Gas Company, LLC.

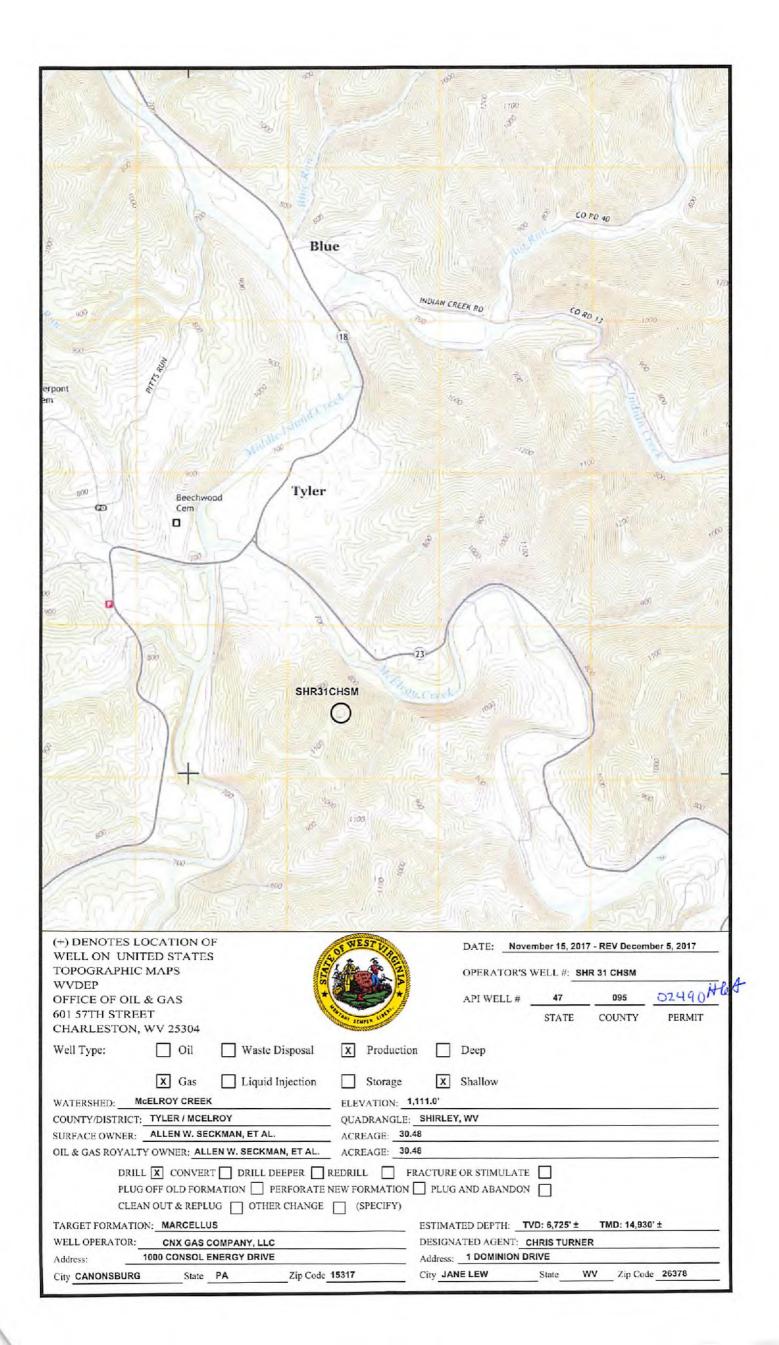


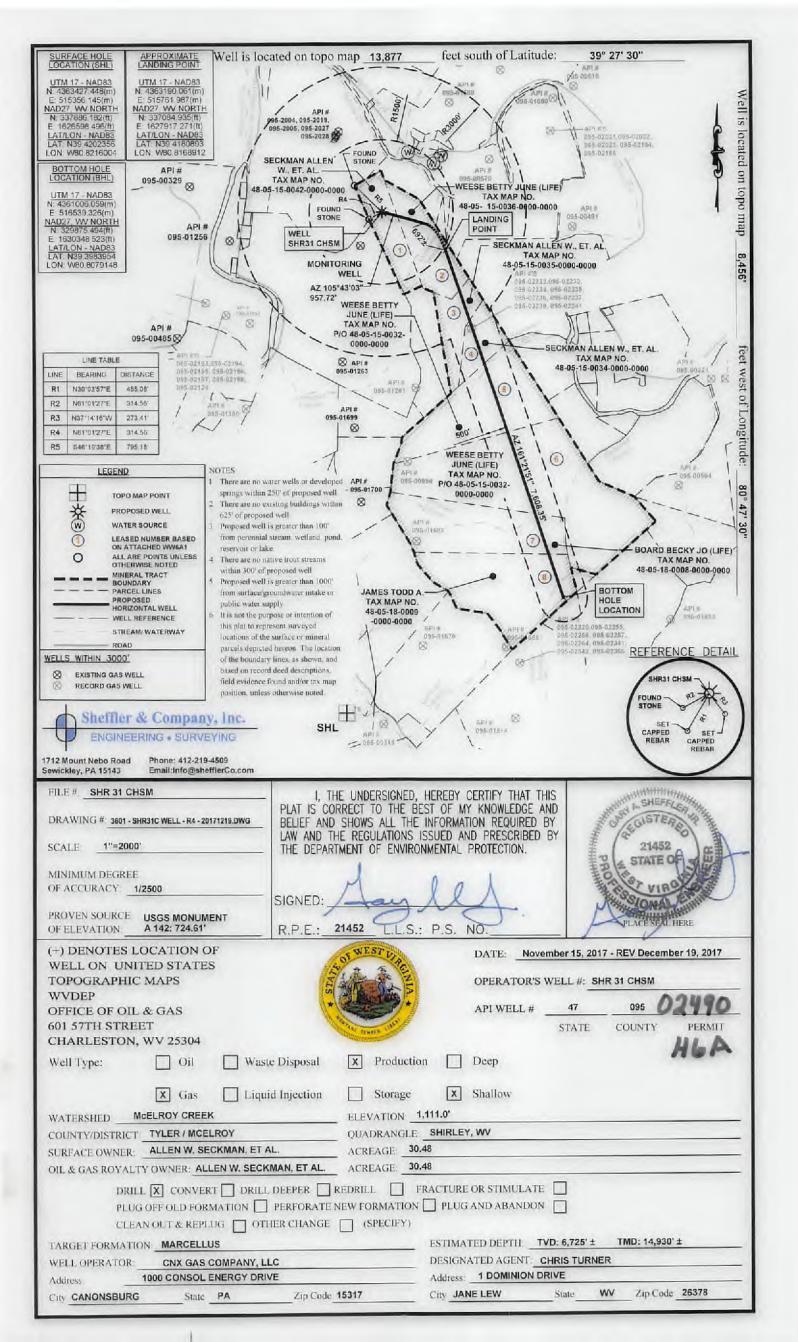
RECEIVED Office of Oil and Gas

NOV 28 2017

WV Department of Environmental Protection







Well is loca	ited on topo map 6,656'	feet south of Latitude:	39° 25' 00''
	1 -1		
			Well is located on topo map
			locate
			ed on t
			opo m
			4,592
		BHL	feet west of Longitude:
		BILL	est of
			Longi
			lude:
			80°
			80° 47' 30"
Sheffler & Company, Inc.			
ENGINEERING * SURVEYING			
1712 Mount Nebo Road Sewickley, PA 15143 Phone: 412-219-4509 Email:Info@shefflerCo.com			
FILE#: SHR 31 CHSM	I, THE UNDERSIGNED PLAT IS CORRECT TO THE I), HEREBY CERTIFY THAT THIS BEST OF MY KNOWLEDGE AND	SHEFFLER MARKET
DRAWING #. 3601 - SHR31C WELL - R4 - 20171219.DWG SCALE: 1"=2000'	BELIEF AND SHOWS ALL TH LAW AND THE REGULATIONS THE DEPARTMENT OF ENVIR	E INFORMATION REQUIRED BY ISSUED AND PRESCRIBED BY	21452
MINIMUM DEGREE	THE DEPARTMENT OF ENVIR	ONMENIAL PROTECTION.	STATE OF STATE
OF ACCURACY: 1/2500	SIGNED:		JONAL
OF ELEVATION: USGS MONUMENT A 142: 724.61'	R.P.E.: 21452 L.L.S	i.: P.S. NO	PLACE SEAL HERE
(+) DENOTES LOCATION OF WELL ON UNITED STATES	AND WEST VIRE	DATE: November	15, 2017 - REV December 19, 2017
TOPOGRAPHIC MAPS WVDEP	ES Z	OPERATOR'S WEL	AQUIA
OFFICE OF OIL & GAS 601 57TH STREET	MARIAN SENTED TOTAL		TATE COUNTY PERMIT
CHARLESTON, WV 25304 Well Type: Oil Wass	te Disposal X Product	ion Deep	H6A
	id Injection Storage	X Shallow	
WATERSHED: McELROY CREEK	ELEVATION:	1,111.0'	
COUNTY/DISTRICT: TYLER / MCELROY SURFACE OWNER: ALLEN W. SECKMAN, ET /		SHIRLEY, WV	
OIL & GAS ROYALTY OWNER: ALLEN W. SECK	MAN, ET AL. ACREAGE: 3		
DRILL X CONVERT DRILL PLUG OFF OLD FORMATION	PERFORATE NEW FORMATION	N PLUG AND ABANDON	
CLEAN OUT & REPLUG OTT TARGET FORMATION: MARGELLUS	HER CHANGE (SPECIFY)	ESTIMATED DEPTH: TVD: 6	,725' ± TMD: 14,930' ±
WELL OPERATOR: CNX GAS COMPANY, L Address: 1000 CONSOL ENERGY DRI		DESIGNATED AGENT: CHRIS	
City CANONSBURG State PA	Zip Code 15317	City JANE LEW Star	te WV Zip Code 26378

	Title Opinion QLS#	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
	261711000	Lillie Seckman	Drilling Appalachian Corporation	Not less than 1/8	DB 268/475
		Drilling Appalachian Corporation	Dominion Appalachian Development Properties LLC	Assignment	322/190
Parcel 05-15-42 Tax Map & Parcel 5-15-36		Dominion Appalachian Development Properties LLC	CONSOL Gas Appalachian Development Properties LLC	Certificate of Incorporation	CIB 9/124
		CONSOL Gas Appalachian Development Properties LLC	CONSOL Gas Reserves Inc.	Merger	CIB 9/144
		CONSOL Gas Reserves Inc.	CONSOL Gas Company	Merger	CIB 9/156
		CONSOL Gas Company	CNX Gas Company LLC	Merger	Barbour CIB 17/
		CNX Gas Company LLC	Noble Energy Inc.	50% Assignment	DB 388/286
	3	CNX Gas Company LLC	Drilling Appalachian Corporation	Corrective Assignment	401/342
		Noble Energy Inc.	CNX Gas Company LLC	Corrective Assignment	402/704
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	401/499
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy Inc.	Assignment	LB 422/517
		Noble Energy Inc.	CNX Gas Company LLC	Assignment	DB 550/273
	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5-15-36	282099000	Everett Roy Weese and Betty June Weese	Triad Hunter LLC	Not less than 1/8	378/195
		Triad Hunter LLC	CNX Gas Company LLC	Assignment	Not yet recorde
	Title Opinion QLS#	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
-	282100000	Lillie Seckman	Drilling Appalachian Corporation	Not less than 1/8	DB 268/475
		Drilling Appalachian Corporation	Dominion Appalachian Development Properties LLC	Assignment	322/190
		Dominion Appalachian Development Properties LLC	CONSOL Gas Appalachian Development Properties LLC	Certificate of Incorporation	CIB 9/124
		CONSOL Gas Appalachian Development Properties LLC	CONSOL Gas Reserves Inc.	Merger	CIB 9/144
		CONSOL Gas Reserves Inc.	CONSOL Gas Company	Merger	CIB 9/156
		CONSOL Gas Company	CNX Gas Company LLC	Merger	Barbour CIB 17/
		CNX Gas Company LLC	Noble Energy Inc.	50% Assignment	DB 388/286
		CNX Gas Company LLC	Drilling Appalachian Corporation	Corrective Assignment	401/342
		Noble Energy Inc.	CNX Gas Company LLC	Corrective Assignment	402/704
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	401/499
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy Inc.	Assignment	LB 422/517
		Noble Energy Inc.	CNX Gas Company LLC	Assignment	DB 550/273
		Donald L Seckman and Dora Seckman	Noble Energy Inc.	Not less than 1/8	471/686
		Noble Energy Inc.	CNX Gas Company LLC	Assignment (50%)	499/447
		Noble Energy Inc.	CNX Gas Company LLC	Assignment	DB 550/273
		Gary Solak	CNX Gas Company LLC	Not less than 1/8	Not yet recorde (Attached)
		John Dudash	CNX Gas Company LLC	Not less than 1/8	Not yet recorder (Attached)
		Holly Dudash	CNX Gas Company LLC	Not less than 1/8	Not yet recorder (Attached)
		Delores Church	CNX Gas Company LLC	Not less than 1/8	Not yet recorde (Attached)
				tractions within all a	for a second a second



	Sentimeter, 1 A 10140
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS	DATE: November 15, 2017 - REV November 21, 2017 OPERATOR'S WELL #: SHR 31 CHSM
WVDEP OFFICE OF OIL & GAS	API WELL # 47 095 02490
601 57TH STREET CHARLESTON, WV 25304	STATE COUNTY PERMIT
Well Type:	ction Deep
X Gas Liquid Injection Storag	e X Shallow
WATERSHED: McELROY CREEK ELEVATION	1,111.0
COUNTY/DISTRICT: TYLER / MCELROY QUADRANG	ILE: SHIRLEY, WV
SURFACE OWNER: ALLEN W. SECKMAN, ET AL. ACREAGE:	30,48
OIL & GAS ROYALTY OWNER: ALLEN W. SECKMAN, ET AL. ACREAGE.	30.48
DRILL X CONVERT DRILL DEEPER REDRILL PLUG OFF OLD FORMATION PERFORATE NEW FORMATIC CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY	ON PLUG AND ABANDON
TARGET FORMATION: MARCELLUS	ESTIMATED DEPTH: TVD: 6,725' ± TMD: 14,930' ±
WELL OPERATOR: CNX GAS COMPANY, LLC	DESIGNATED AGENT: CHRIS TURNER
Address: 1000 CONSOL ENERGY DRIVE	Address: 1 DOMINION DRIVE
City CANONSBURG State PA Zip Code 15317	City JANE LEW State WV Zip Code 26378

Parcel	Title Opinion QLS#	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5-15-34 26	261709000	Lillie Seckman	Drilling Appalachian Corporation	Not less than 1/8	DB 268/475
		Drilling Appalachian Corporation	Dominion Appalachian Development Properties LLC	Assignment	322/190
		Dominion Appalachian Development Properties LLC	CONSOL Gas Appalachian Development Properties LLC	Certificate of Incorporation	CIB 9/124
		CONSOL Gas Appalachian Development Properties LLC	CONSOL Gas Reserves Inc.	Merger	CIB 9/144
		CONSOL Gas Reserves Inc.	CONSOL Gas Company	Merger	CIB 9/156
		CONSOL Gas Company	CNX Gas Company LLC	Merger	Barbour CIB 17/2
		CNX Gas Company LLC	Noble Energy Inc.	50% Assignment	DB 388/286
		CNX Gas Company LLC	Drilling Appalachian Corporation	Corrective Assignment	401/342
		Noble Energy Inc.	CNX Gas Company LLC	Corrective Assignment	402/704
		Drilling Appalachian Corporation	Corporation Antero Resources Appalachian Corporation Assignment	Assignment	401/499
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy Inc.	Assignment	LB 422/517
		Noble Energy Inc.	CNX Gas Company LLC	Assignment	DB 550/273



ENGINEERING • SURVEYING	1712 Mount Nebo Road Sewickley, PA 15143 Phone: 412-219-4509 Email:Info@shefflerCo.com
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS	DATE: November 15, 2017 - REV November 21, 2017 OPERATOR'S WELL #: SHR 31 CHSM
WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304	API WELL# 47 095 02490 STATE COUNTY PERMIT
Well Type: Oil Waste Disposal X Product X Gas Liquid Injection Storage	X Shallow
WATERSHED MCELROY CREEK COUNTY/DISTRICT: TYLER / MCELROY SURFACE OWNER: ALLEN W. SECKMAN, ET AL. OIL & GAS ROYALTY OWNER: ALLEN W. SECKMAN, ET AL. ACREAGE: 3	E: SHIRLEY, WV 30.48
DRILL X CONVERT DRILL DEEPER REDRILL PLUG OFF OLD FORMATION PERFORATE NEW FORMATION CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)	N PLUG AND ABANDON
TARGET FORMATION: MARCELLUS WELL OPERATOR: CNX GAS COMPANY, LLC Address: 1000 CONSOL ENERGY DRIVE	ESTIMATED DEPTH: TVD: 6,725' ± TMD: 14,930' ± DESIGNATED AGENT: CHRIS TURNER Address: 1 DOMINION DRIVE

Parcel	Title Opinion QL5 #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5-15-32	238357000	Everett Roy Weese and Betty J. Weese, h/w	KEPCO, Inc.	Not less than 1/8	DB 232/30
		KEPCO, Inc.	Swift Energy Company	Assignment (50%)	254/5
		KEPCO	Union Drilling, Inc.	Merger	WV Sec of Stat
		Union Drilling Inc.	Equitable Resources Exploration, Inc.	Name Change	WV Sec of Stat
		Equitable Resources Exploration, Inc.	Swift Energy Company	Assignment (50%)	275/566
		Swift Energy Company	Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Assignment	287/352
		Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Peake Energy, Inc.	Assignment	319/291
		Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Peake Energy, Inc.	Corrective Assignment	321/652
		Peake Energy, Inc.	North Coast Energy Eastern, Inc.	Name Change	WV Sec of Stat
		North Coast Energy Eastern, Inc.	EXCO - North Coast Energy Eastern, Inc.	Name Change	WV Sec of Stat
		EXCO Resources (WV), LLC	EXCO Resources (WV), Inc. (49.75%) EXCO Resources (PA), Inc. (0.5%) BG Production Company (WV), LLC (49.75%)	Assignment	374/808
		EXCO Resources (WV), Inc. (49.75%)	EXCO Production Company (WV), LLC (49.75%)	Name Change	WV Sec of Stat
		EXCO Production Company (WV), LLC (49.75%) EXCO Resources (PA), Inc. (0.5%) BG Production Company (WV), LLC (49.75%)	Antero Resources Corporation	Assignment	406/195
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Gloria Morris	Four Leaf Land Company	Not less than 1/8	397/669
		Ralph T. Sweeney and Shelley A. Sweeney	Four Leaf Land Company	Not less than 1/8	397/675
		Donald Lee Sweeney	Four Leaf Land Company	Not less than 1/8	370/605
		Rodger A. Sweeney	Four Leaf Land Company	Not less than 1/8	370/611
		Devon Ruth Horsley (Sweeney)	Four Leaf Land Company	Not less than 1/8	370/629
		Anna Sweeney	Four Leaf Land Company	Not less than 1/8	370/635
		LaMoyne Sweeney	Four Leaf Land Company	Not less than 1/8	370/617
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Assignment	403/566
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Not less than 1/8	403/561
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Mary Sue Furbee Zebley	Noble Energy, Inc.	Not less than 1/8	440/447
		Thomas Val Furbee and Katherine Shelek-Furbee, h/w	Noble Energy, Inc.	Not less than 1/8	440/443
		Allison McKay Hardin (Allison Furbee Herring)	Noble Energy, Inc.	Not less than 1/8	440/453
		Rani J. Boyt	Noble Energy, Inc.	Not less than 1/8	440/433
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment (50%)	484/288
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment (50%)	550/273
		THE STATE OF THE S	and company att	risangi iliterit	330/2/3



			Sewi	ckiey, PA	15143 Email:	mo@snemerc	o.com	
(+) DENOTES I WELL ON UN TOPOGRAPHIC	ITED STATES	4	OF WEST VIRGI		DATE: Nove		7 - REV Noven	nber 21, 2017
WVDEP OFFICE OF OII 601 57TH STRE CHARLESTON	EET	35	A STATE OF THE STA		API WELL#	47 STATE	095 COUNTY	O2490 PERMIT
Well Type:	Oil	Waste Disposal	x Production		Deep			11.
	X Gas	Liquid Injection	Storage	X	Shallow			
WATERSHED:	MCELROY CREEK	<	ELEVATION: 1,1	11.0				
COUNTY/DISTRIC	TYLER / MCE	LROY	QUADRANGLE:		Y, WV			
SURFACE OWNER	ALLEN W. SE	CKMAN, ET AL.	ACREAGE: 30.48					
OIL & GAS ROYAL	TY OWNER: ALI	LEN W. SECKMAN, ET AL.	ACREAGE: 30.48					
PLU	G OFF OLD FOR	T DRILL DEEPER MATION PERFORATE UG OTHER CHANGE	NEW FORMATION					
TARGET FORMATI	ON: MARCELLU	JS		ESTIMA	TED DEPTH: T	VD: 6,725' ±	TMD: 14,93	0' ±
WELL OPERATOR.	CNX GAS	COMPANY, LLC		DESIGN	ATED AGENT: 0	HRIS TURNE	R	
Address:	1000 CONSOL E	CONTRACTOR		Address:	1 DOMINION D	RIVE		
City CANONSBURG	G State	PA Zin Code			NE LEW		W Zin Coo	ie 26378

Parcel	Title Opinion QLS#	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5-15-32	238357000	Everett Roy Weese and Betty J. Weese, h/w	KEPCO, Inc.	Not less than 1/8	DB 232/30
		KEPCO, Inc.	Swift Energy Company	Assignment (50%)	254/5
		KEPCO	Union Drilling, Inc.	Merger	WV Sec of Stat
		Union Drilling Inc.	Equitable Resources Exploration, Inc.	Name Change	WV Sec of Stat
		Equitable Resources Exploration, Inc.	Swift Energy Company	Assignment (50%)	275/566
		Swift Energy Company	Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Assignment	287/352
		Swift Energy Income Partners 1987-D.Ltd. (34%) Swift Energy Income Partners 1988-A.Ltd. (33%) Swift Energy Income Partners 1988-B.Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Peake Energy, Inc.	Assignment	319/291
		Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Peake Energy, Inc.	Corrective Assignment	321/652
		Peake Energy, Inc.	North Coast Energy Eastern, Inc.	Name Change	WV Sec of Stat
		North Coast Energy Eastern, Inc.	EXCO - North Coast Energy Eastern, Inc.	Name Change	WV Sec of Stat
		EXCO Resources (WV), LLC	EXCO Resources (WV), Inc. (49.75%) EXCO Resources (PA), Inc. (0.5%) BG Production Company (WV), LLC (49.75%)	Assignment	374/808
		EXCO Resources (WV), Inc. (49.75%)	EXCO Production Company (WV), LLC (49.75%)	Name Change	WV Sec of Stat
		EXCO Production Company (WV), LLC (49.75%) EXCO Resources (PA), Inc. (0.5%) BG Production Company (WV), LLC (49.75%)	Antero Resources Corporation	Assignment	406/195
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Gloria Morris	Four Leaf Land Company	Not less than 1/8	397/669
		Ralph T. Sweeney and Shelley A. Sweeney	Four Leaf Land Company	Not less than 1/8	397/675
		Donald Lee Sweeney	Four Leaf Land Company	Not less than 1/8	370/605
7		Rodger A. Sweeney	Four Leaf Land Company	Not less than 1/8	370/611
		Devon Ruth Horsley (Sweeney)	Four Leaf Land Company	Not less than 1/8	370/629
		Anna Sweeney	Four Leaf Land Company	Not less than 1/8	370/635
		LaMoyne Sweeney	Four Leaf Land Company	Not less than 1/8	370/617
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Assignment	403/566
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Not less than 1/8	403/561
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Mary Sue Furbee Zebley	Noble Energy, Inc.	Not less than 1/8	440/447
		Thomas Val Furbee and Katherine Shelek-Furbee, h/w	Noble Energy, Inc.	Not less than 1/8	440/443
		Allison McKay Hardin (Allison Furbee Herring)	Noble Energy, Inc.	Not less than 1/8	440/453
		Rani J. Boyt	Noble Energy, Inc.	Not less than 1/8	445/835
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment (50%)	484/288



	12 Mount Nebo wickley, PA 15		: 412-219-4509 Info@shefflerCo	o.com	
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS		DATE: Nove	January I. San	7 - REV Noven	nber 21, 2017
WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304	,	API WELL #	47 STATE	095 COUNTY	PERMIT ALLA
Well Type: Oil Waste Disposal X Production X Gas Liquid Injection Storage		Deep			, , , ,
WATERSHED: McELROY CREEK COUNTY/DISTRICT: TYLER / MCELROY SURFACE OWNER: ALLEN W. SECKMAN, ET AL. ACREAGE: 30.4	,111.0' SHIRLEY, '				
OIL & GAS ROYALTY OWNER: ALLEN W. SECKMAN, ET AL. ACREAGE 30.					
DRILL X CONVERT DRILL DEEPER REDRILL FOR PLUG OFF OLD FORMATION PERFORATE NEW FORMATION CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)		DR STIMULATE AND ABANDON			
TARGET FORMATION: MARCELLUS	ESTIMATE	ED DEPTH: _T	VD: 6,725' ±	TMD: 14,93	10' ±
WELL OPERATOR: CNX GAS COMPANY, LLC Address 1000 CONSOL ENERGY DRIVE		TED AGENT: 0		:R	
City CANONSBURG State PA Zip Code 15317	City JANE			XV Zip Coo	de 26378

Parcel	Title Opinion QL5 #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5-18-8	108567000	Leota B. McKinney and Lester McKinney, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/237
		Howard Stubbs and Nelda Stubbs, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/241
		Marvin G. Board and Becky Jo Board, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/426
		Robert Travis and Carol Travis, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/487
		Creal Hoover	Drilling Appalachian Corporation	Not less than 1/8	330/491
	1000	Joseph Travis and Carole Travis, h/w	Drilling Appalachian Corporation		330/511
		Eva Jean Hoover	Drilling Appalachian Corporation	Not less than 1/8	330/542
		Glenda Gregory	Drilling Appalachian Corporation	Not less than 1/8	330/546
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	391/416
		Drilling Appalachian Corporation	Antero Resources Corporation	Corrective Assignment	421/130
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Josephine Spencer and David Spencer, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/233
		Walter Seckman and Eva Seckman, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/430
		Michael Fisher	Drilling Appalachian Corporation	Not less than 1/8	330/503
		Joe Seckman	Drilling Appalachian Corporation	Not less than 1/8	330/507
		Antonia Underwood	Drilling Appalachian Corporation	Not less than 1/8	330/550
		Camella Ash	Drilling Appalachian Corporation	Not less than 1/8	330/575
		Jill Robinson	Drilling Appalachian Corporation	Not less than 1/8	330/579
		Donna Wolther	Drilling Appalachian Corporation	Not less than 1/8	330/742
		Jennifer Sexson	Drilling Appalachian Corporation	Not less than 1/8	330/657
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	401/499
		Drilling Appalachian Corporation	Antero Resources Corporation	Corrective Assignment	421/138
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Kimberly Dawn Jackson	Drilling Appalachian Corporation	Not less than 1/8	395/795
		Scott Seckman	Drilling Appalachian Corporation	Not less than 1/8	395/797
		James F. Bonnell and Jacqueline S. Bonnell, h/w	Drilling Appalachian Corporation	Not less than 1/8	409/253
		Drilling Appalachian Corporation	Noble Energy, Inc.	Assignment	452/641
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	542/147
		Keith E. Rheinhardt	Noble Energy, Inc.	Not less than 1/8	DB 449/525
		Gary A. Rheinhardt, Jr.	Noble Energy, Inc.	Not less than 1/8	DB 449/527
		Charles D. Rheinhardt and Denise M. Rheinhardt, h/w	Noble Energy, Inc.	Not less than 1/8	DB 449/531
		Randall Rheinhardt, a single man	Noble Energy, Inc.	Not less than 1/8	DB 453/535
		David Rheinhardt, a single man	Noble Energy, Inc.	Not less than 1/8	DB 453/633
		Iris Rheinhardt, a single woman	Noble Energy, Inc.	Not less than 1/8	DB 458/642
		Tami Dawn Rheinhardt	Noble Energy, Inc.	Not less than 1/8	DB 465/270
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
ax Map &	Title Opinion	Grantor, Lessor, etc	Grantee, Lessee, etc		
5-18-9	QLS# 281687000	Wm. Blaine Underwood and Laura J. Underwood, h/w, Donald Underwood, Hugh Underwood and Pearline	Equitable Gas Company	Royalty Not less than 1/8	185/86
		Underwood, h/w, and D.L. Haught and Susan O. Haught, h/w			
		Equitable Gas Company	Equitrans, Inc.	Assignment	274/471
		Equitrans, Inc.	Equitable Gas Company LLC	Merger	433/738
		Equitable Resources, Inc.	Equitable Gas Company LLC	Merger	433/755
		Equitable Gas Company LLC and EQT Corporation	Equitrans, LP	Assignment	433/777
		Equitrans, LP	EQT Production Company	Sublease	396/640
		Equitrans, LP	EQT Production Company	Sublease	420/10
		EQT Production Company	CNX Gas Company LLC and Noble Energy, Inc.	Farmout	411/252
		EQT Production Company	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	449/480
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273

1712 Mount Nebo Road Phone: 412-219-4509

	-	ENGINEERING • SU	JRVEYING S	ewickley, PA	15143 Email:1	nfo@shefflerC	o.com	
(+) DENOTES LO WELL ON UNIT			OF WEST VIAC		DATE: Nove	mber 15, 201	7 - REV Novem	ber 21, 2017
TOPOGRAPHIC	MAPS		1		OPERATOR'S	WELL#: SH	HR 31 CHSM	
WVDEP OFFICE OF OIL	Contract Contract	*			API WELL#	47	095	02490
601 57TH STREE CHARLESTON,			THE STATES OF			STATE	COUNTY	PERMIT
Well Type:	Oil	☐ Waste Disposal	X Production	on 🗌	Deep			1100
	X Gas	Liquid Injection	Storage	X	Shallow			
WATERSHED: MC	ELROY CREEK		ELEVATION.	1,111.0'				
COUNTY/DISTRICT:	TYLER / MCEL	ROY	QUADRANGLE	SHIRLE	Y, WV			
SURFACE OWNER:	ALLEN W. SEC	KMAN, ET AL.	ACREAGE: 30	.48				
OIL & GAS ROYALTY	Y OWNER: ALL	EN W. SECKMAN, ET AL.	ACREAGE: 30	CIPE				
PLUG	OFF OLD FORM	DRILL DEEPER DE DIATION DEFENDATE DE DEFENDATE DE DEFENDATE DE DESTRUIR DE	NEW FORMATION			The second second		
TARGET FORMATIO	N: MARCELLU	s		ESTIMA	TED DEPTH: TV	D: 6,725' ±	TMD: 14,930	o' ±
WELL OPERATOR:	CNX GAS C	OMPANY, LLC			ATED AGENT: C		R	
Address: 1	1000 CONSOL E	NERGY DRIVE			1 DOMINION DE			
City CANONSBURG	State	PA Zip Code	15317	City JAI			VV Zip Cod	e 26378

WW-6A	1
(5/13)	

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that —

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

See attached.

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

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

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

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

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

Page 1 of

Attachment - Form WW-6A-1 for SHRL31CHS

	Title Opinion	Grantor, Lessor, etc	Grantee, Lessee, etc		
Parcel	QLS#		The state of the s	Royalty	Book/Page
05-15-42	261711000	Lille Seckman	Drilling Appalachian Corporation	Not less than 1/8	DB 268/475
		Drilling Appalachian Corporation	Dominion Appalachian Development Properties (Assignment	322/190
		Dominion Appalachian Development Properties LLC	CONSOL Gas Appalachian Development Propertie	Certificate of Incorporation	CIB 9/124
		CONSOL Gas Appalachian Development Properties LLC	CONSOL Gas Reserves Inc.	Merger	CIB 9/144
		CONSOL Gas Reserves Inc.	CONSOL Gas Company	Merger	CIB 9/156
		CONSOL Gas Company CNX Gas Company LLC	CNX Gas Company LLC Noble Energy Inc.	Merger	Barbour CIB 17/1
		CNX Gas Company LLC	Drilling Appalachian Corporation	50% Assignment Corrective Assignment	D8 388/286 401/342
		Noble Energy Inc.	CNX Gas Company LLC	Corrective Assignment	402/704
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	401/499
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy Inc.	Assignment	LB 422/517
		Noble Energy Inc.	CNX Gas Company LLC	Assignment	DB 550/273
ov Mon S	Title Opinion				
Parcel	QLS#	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5-15-36	282099000	Everett Roy Weese and Betty June Weese Triad Hunter LLC	Triad Hunter LLC CNX Gas Company LLC	Not less than 1/8 Assignment	378/195 582/188
ax Map &	Title Opinion				
Parcel	QLS#	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
5-15-35	282100000	Lille Seckman	Drilling Appalachian Corporation	Not less than 1/8	DB 268/475
	•	Drilling Appalachian Corporation	Dominion Appalachian Development Properties I	Assignment	322/190
		Dominion Appalachian Development Properties LLC	CONSOL Gas Appalachian Development Propertie	Certificate of Incorporation	CIB 9/124
		CONSOL Gas Appalachian Development Properties LLC	CONSOL Gas Reserves Inc.	Merger	CIB 9/144
		CONSOL Gas Reserves Inc. CONSOL Gas Company	CONSOL Gas Company	Merger	CIB 9/156
		CONSOL Gas Company CNX Gas Company LLC	CNX Gas Company LLC	Merger	Barbour CIB 17/1
		CNX Gas Company LLC	Noble Energy Inc. Drilling Appalachian Corporation	50% Assignment	DB 388/286 401/342
		Noble Energy Inc.	CNX Gas Company LLC	Corrective Assignment Corrective Assignment	401/342 402/704
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	401/499
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy Inc.	Assignment	LB 422/517
		Noble Energy Inc.	CNX Gas Company LLC	Assignment	DB 550/273
		Donald L Seckman and Dora Seckman	Noble Energy Inc.	Not less than 1/8	471/686
		Noble Energy Inc.	CNX Gas Company LLC	Assignment (50%)	499/447
		Noble Energy Inc.	CNX Gas Company LLC	Assignment	DB 550/273
		Gary Solak	CNX Gas Company LLC	Not less than 1/8	581/653
		John Dudesh	CNX Gas Company LLC	Not less than 1/8	581/658
		Holly Dudash	CNX Gas Company LLC	Not less than 1/8	581/648
		Delores Church Karen Solak	CNX Gas Company LLC CNX Gas Company LLC	Not less than 1/8 Not less than 1/8	581/643 581/663
Fax Map &	Title Opinion	_	_		
Parcei	QLS#	Grantor, Lessor, etc	<u>Grantee, Lessee, etc</u>	Royalty	Book/Page
5-15-34	261709000	Lillie Seckman	Drilling Appalachian Corporation	Not less than 1/8	DB 268/475
		Drilling Appalachian Corporation	Dominion Appalachian Development Properties I	Assignment	322/190
		Dominion Appalachian Development Properties LLC	CONSOL Gas Appalachian Development Propertie	Certificate of Incorporation	CIB 9/124
		CONSOL Gas Appalachian Development Properties LLC	CONSOL Gas Reserves Inc.	Merger	CIB 9/144
		CONSOL Gas Reserves Inc.	CONSOL Gas Company	Merger	
					CIB 9/156
		CONSOL Gas Company	CNX Gas Company LLC	Merger	Barbour CIB 17/1
		CONSOL Gas Company CNX Gas Company LLC	Noble Energy Inc.	50% Assignment	Barbour CIB 17/1 DB 388/286
		CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC	Noble Energy Inc. Drilling Appalachian Corporation	50% Assignment Corrective Assignment	Barbour CIB 17/1 DB 388/286 401/342
		CONSOL Gas Company CNK Gas Company LLC CNK Gas Company LLC Noble Energy inc.	Noble Energy Inc. Drilling Appalachian Corporation CNX Gas Company LLC	50% Assignment Corrective Assignment Corrective Assignment	Barbour CIB 17/1 DB 388/286 401/342 402/704
		CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC	Noble Energy Inc. Drilling Appalachian Corporation	50% Assignment Corrective Assignment	Barbour CIB 17/1 DB 388/286 401/342
		CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC Noble Energy inc. Drilling Appalachian Corporation	Noble Energy Inc. Orilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation	50% Assignment Corrective Assignment Corrective Assignment Assignment	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499
	Title Opinion	CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc.	Noble Energy Inc. Orilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc.	50% Assignment Corrective Assignment Corrective Assignment Assignment Assignment	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517
Parcel	QLS#	CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC Noblo Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc	Noble Energy Inc. Ording Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, ctc	50% Assignment Corrective Assignment Corrective Assignment Assignment Assignment Assignment Assignment	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273
	QLS#	CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC Noble Energy inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w	Noble Energy Inc. Orilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, etc KEPCO, Inc.	50% Assignment Corrective Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Not less than 1/8	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 232/30
Parcel	QLS#	CONSOL Gas Company CNK Gas Company LLC CNK Gas Company LLC Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc.	Noble Energy Inc. Drilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, etc KEPCO, Inc. Swift Energy Company	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 IB 422/517 DB 550/273 Book/Page DB 232/30 254/5
Parcel	QLS#	CONSOL Gas Company LLC CNX Gas Company LLC Noblo Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc. KEPCO	Noble Energy Inc. Ording Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, etc KEPCO, Inc. Swift Energy Company Union Drilling, Inc.	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Movality Not less than 1/8 Assignment (50%) Merger	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 332/30 254/5 WV Sec of State
Parcel	QLS#	CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc. KEPCO Union Drilling Inc.	Noble Energy Inc. Orilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, ctc KEPCO, Inc. Swift Energy Company Union Orilling, Inc. Equitable Resources Exploration, Inc.	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment (50%) Merger Name Change	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 232/30 254/5 WV Sec of State WV Sec of State
Parcel	QLS#	CONSOL Gas Company LLC CNX Gas Company LLC Noblo Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc. KEPCO	Noble Energy Inc. Ording Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, etc KEPCO, Inc. Swift Energy Company Union Drilling, Inc.	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Movality Not less than 1/8 Assignment (50%) Merger	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 332/30 254/5 WV Sec of State
Parcel	QLS#	CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc. KEPCO Union Drilling Inc.	Noble Energy Inc. Drilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, ctc KEPCO, Inc. Swift Energy Company Union Drilling, Inc. Equitable Resources Exploration, Inc. Swift Energy Company Swift Energy Company Swift Energy Income Partners 1987-D Ltd. (34%)	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment (50%) Merger Name Change	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 232/30 254/5 WV Sec of State WV Sec of State
Parcel	QLS#	CONSOL Gas Company LLC CNX Gas Company LLC Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc. KEPCO Union Drilling Inc. Equitable Resources Exploration, Inc.	Noble Energy Inc. Oriling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, etc KEPCO, Inc. Swift Energy Company Union Orilling, Inc. Equitable Resources Exploration, Inc. Swift Energy Company Swift Energy Company Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%)	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment (50%) Merger Name Change Assignment (50%)	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 232/30 254/5 WV Sec of State WV Sec of State 275/566
Parcel	QLS#	CONSOL Gas Company CNX Gas Company LLC CNX Gas Company LLC Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc. KEPCO Union Drilling Inc.	Noble Energy Inc. Drilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, ctc KEPCO, Inc. Swift Energy Company Union Drilling, Inc. Equitable Resources Exploration, Inc. Swift Energy Company Swift Energy Company Swift Energy Income Partners 1987-D Ltd. (34%)	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment (50%) Merger Name Change	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 232/30 254/5 WV Sec of State WV Sec of State
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Parcel	QLS#	CONSOL Gas Company LC CNX Gas Company LC Noble Energy Inc. Drilling Appalachian Corporation Antero Resources Corporation Noble Energy Inc. Grantor, Lessor, etc Everett Roy Weese and Betty J. Weese, h/w KEPCO, Inc. KEPCO Union Drilling Inc. Equitable Resources Exploration, Inc. Swift Energy Company Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-B Ltd. (22%)	Noble Energy Inc. Drilling Appalachian Corporation CNX Gas Company LLC Antero Resources Appalachian Corporation CNX Gas Company LLC and Noble Energy Inc. CNX Gas Company LLC Grantee, Lessee, ctc KEPCO, Inc. Swift Energy Company Union Drilling, Inc. Equitable Resources Exploration, Inc. Swift Energy Company Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-B Ltd. (21%)	50% Assignment Corrective Assignment Assignment Assignment Assignment Assignment Assignment Assignment Sover the service of th	Barbour CIB 17/1 DB 388/286 401/342 402/704 401/499 LB 422/517 DB 550/273 Book/Page DB 232/30 254/5 WV Sec of State WV Sec of State 275/566
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		EXCO Resources (WV), LLC	EXCO Resources (WV), Inc. (49.75%) EXCO Resources (PA), Inc. (0.5%) BG Production Company (WV), LLC (49.75%)	Assignment	374/808
		EXCO Resources (WV), Inc. (49.75%)	EXCO Production Company (WV), LLC (49.75%)	Name Change	WV Sec of State
		EXCO Production Company (WV), LLC (49.75%) EXCO Resources (PA), Inc. (0.5%) BG Production Company (WV), LLC (49.75%)	Antero Resources Corporation	Assignment	406/195
		Antero Resources Corporation Noble Energy, Inc.	CNX Gas Company LLC and Noble Energy, Inc. CNX Gas Company LLC	Assignment Assignment	422/517 550/273
		Gloria Morris	Four Leaf Land Company	-	
		Raiph T. Sweeney and Shelley A. Sweeney	Four Leaf Land Company	Not less than 1/8 Not less than 1/8	397/669 397/675
		Donald Lee Sweeney	Four Leaf Land Company	Not less than 1/8	370/605
		Rodger A. Sweeney	Four Leaf Land Company	Not less than 1/8	370/611
		Devon Ruth Horsley (Sweeney)	Four Leaf Land Company	Not less than 1/8	370/629
		Anna Sweeney	Four Leaf Land Company	Not less than 1/8	370/635
		LaMoyne Sweeney	Four Leaf Land Company	Not less than 1/8	370/617
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Assignment	403/566
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Not less than 1/8	403/561
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Mary Suc Furbec Zebley	Noble Energy, Inc.	Not less than 1/8	440/447
		Thomas Val Furbee and Katherine Shelek-Furbee, h/w	Noble Energy, Inc.	Not less than 1/8	440/443
		Allison McKay Hardin (Allison Furbee Herring)	Noble Energy, Inc.	Not less than 1/8	440/453
		Rani J. Boyt	Noble Energy, Inc.	Not less than 1/8	445/835
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment (50%)	484/288
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
	Title Opinior	Grantor, Lessor, etc	Grantee, Lessee, etc		
<u>Parcel</u>	QLS#	31411411141141	granted scarce are	Royalty	Book/Page
05-15-32	238357000	Everett Roy Weese and Betty J. Weese, h/w	KEPCO, Inc.	Not less than 1/8	DB 232/30
		KEPCO, Inc.	Swift Energy Company	Assignment (50%)	254/5
		KEPCO	Union Drilling, Inc.	Merger	WV Sec of State
		Union Drilling Inc.	Equitable Resources Exploration, Inc.	Name Change	WV Sec of State
		Equitable Resources Exploration, Inc.	Swift Energy Company	Assignment (50%)	275/566
		Swift Energy Company	Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Assignment	287/352
		Swift Energy Income Partners 1987-D Ltd. (34%) Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%) Swift Energy Income Partners 1987-D Ltd. (34%)	Peake Energy, Inc.	Assignment	319/291
		Swift Energy Income Partners 1988-A Ltd. (33%) Swift Energy Income Partners 1988-B Ltd. (22%) Swift Energy Income Partners 1988-1 Ltd. (11%)	Peake Energy, Inc.	Corrective Assignment	321/652
		Peake Energy, Inc.	North Coast Energy Eastern, Inc.	Name Change	WV Sec of State
		North Coast Energy Eastern, Inc.	EXCO - North Coast Energy Eastern, Inc.	Name Change	WV Sec of State
			EXCO Resources (WV), Inc. (49.75%)		
		EXCO Resources (WV), LLC	EXCO Resources (PA), Inc. (0.5%) BG Production Company (WV), LLC (49.75%)	Assignment	374/808
		EXCO Resources (WV), Inc. (49.75%)	EXCO Production Company (WV), LLC (49.75%)	Name Change	WV Sec of State
		EXCO Production Company (WV), LLC (49.75%) EXCO Resources (PA), Inc. (0.5%)	Antero Resources Corporation	Assignment	406/195
		BG Production Company (WV), LLC (49.75%) Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Claric Adamia	Sauch and Land Carrers.	Not less than 1/8	397/669
		Gloria Morris	Four Leaf Land Company	Not less than 1/8 Not less than 1/8	397/675
		Raiph T. Sweeney and Shelley A. Sweeney Donald Lee Sweeney	Four Leaf Land Company Four Leaf Land Company	Not less than 1/8	370/605
		Rodger A. Sweeney	Four Leaf Land Company	Not less than 1/8	370/611
		Devon Ruth Horsley (Sweeney)	Four Leaf Land Company	Not less than 1/8	370/629
		Anna Sweeney	Four Leaf Land Company	Not less than 1/8	370/635
		LaMoyne Sweeney	Four Leaf Land Company	Not less than 1/8	370/617
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Assignment	403/566
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Four Leaf Land Company	Antero Resources Appalachian Corporation	Not less than 1/8	403/561
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Mary Sue Furbee Zebley	Noble Energy, Inc.	Not less than 1/8	440/447
		Thomas Val Furbee and Katherine Shelek-Furbee, h/w	Noble Energy, Inc.	Not less than 1/8	440/443
		Allison McKay Hardin (Allison Furbee Herring)	Noble Energy, Inc.	Not less than 1/8	440/453
		Rani J. Boyt	Noble Energy, Inc.	Not less than 1/8	445/835
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment (50%)	484/288
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273

Tex Man & Parcel	Title Opinion	Grantor, Lessor, etc	Grantee, Lessee, etc		
5-18-8	100667000	Landa D. Adaldan and A. A Adalda b. b.		Royalty	Bock/Page
3-10-0	108567000	Leota B. McKinney and Lester McKinney, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/237
		Howard Stubbs and Nelda Stubbs, h/w	Orilling Appalachian Corporation	Not less than 1/8	330/241
		Marvin G. Board and Becky Jo Board, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/426
		Robert Travis and Carol Travis, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/487
		Creal Hoover	Drilling Appalachian Corporation	Not less than 1/8	330/491
		Joseph Travis and Carole Travis, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/511
		Eva Jean Hoover	Drilling Appalachian Corporation	Not less than 1/8	330/542
		Glenda Gregory	Orilling Appalachian Corporation	Not less than 1/8	330/546
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	391/416
		Orilling Appalachian Corporation	Antero Resources Corporation	Corrective Assignment	421/130
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Josephine Spencer and David Spencer, h/w	Drilling Appalachian Corporation	Not less than 1/8	330/233
		Walter Seckman and Eva Seckman, h/w	Orilling Appalachian Corporation	Not less than 1/8	330/430
		Michael Fisher	Drilling Appalachian Corporation	Not less than 1/8	330/503
		Joe Seckman	Drilling Appalachian Corporation	Not less than 1/8	330/507
		Antonia Underwood	Drilling Appalachian Corporation	Not less than 1/8	330/550
		Carnella Ash	Drilling Appalachian Corporation	Not less than 1/8	330/575
		Jill Robinson	Drilling Appalachian Corporation	Not less than 1/8	330/579
		Donna Wolther	Drilling Appalachian Corporation	Not less than 1/8	330/742
		Jennifer Sexson	Orilling Appalachian Corporation	Not less than 1/8	330/657
		Drilling Appalachian Corporation	Antero Resources Appalachian Corporation	Assignment	401/499
		Drilling Appalachian Corporation	Antero Resources Corporation	Corrective Assignment	421/138
		Antero Resources Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	422/517
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	550/273
		Kimberly Dawn Jackson	Brilling Appalachian Corporation	Not less than 1/8	395/795
		Scott Seckman	Drilling Appalachlan Corporation	Not less than 1/8	395/797
		James F. Bonnell and Jacqueline S. Bonnell, h/w	Drilling Appalachian Corporation	Not less than 1/8	409/253
		Drilling Appalachian Corporation	Noble Energy, Inc.	Assignment	452/641
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	542/147
		Keith E. Rheinhardt	Noble Energy, Inc.	Not less than 1/8	DB 449/525
		Gary A. Rheinhardt, Jr.	Noble Energy, Inc.	Not less than 1/8	DB 449/527
		Charles D. Rheinhardt and Denise M. Rheinhardt, h/w	Noble Energy, Inc.	Not less than 1/8	DB 449/531
		Randall Rheinhardt, a single man	Noble Energy, Inc.	Not less than 1/8	DB 453/535
		David Rheinhardt, a single man	Noble Energy, Inc.	Not less than 1/8	DB 453/633
		tris Rheinhardt, a single woman	Noble Energy, Inc.	Not less than 1/8	DB 458/642
		Tami Dawn Rheinhardt	Noble Energy, Inc.	Not less than 1/8	DB 465/270
		Noble Energy, inc.	CNX Gas Company LLC	Assignment	550/273
Tau Man G	Title Opinion				
Parcel	QIS#	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
		Miles District Mademics of and Levins & Mademics of Information		KOVALLY	BOOK/Pake
		Wm. Blaine Underwood and Laura J. Underwood, h/w, Donald	Familia Can Camanana	Not less than 1/8	186/86
5-18-9	281687000	Underwood, Hugh Underwood and Pearline Underwood, h/w, and D.L. Haught and Susan O. Haught, h/w	Equitable das Company	NOT ICES WISH 1/0	•
		Equitable Gas Company	Equitrans, Inc.	Assignment	274/471
		Equitrans, Inc.	Equitable Gas Company LLC	Merger	433/738
		Equitable Resources, Inc.	Equitable Gas Company LLC	Merger	433/755
		Equitable Gas Company LLC and EQT Corporation	Equitrans, LP	Assignment	433/777
		Equitrans, LP	EQT Production Company	Sublease	396/640
		Equitrans, LP	EQT Production Company	Sublease	420/10
		EQT Production Company	CNX Gas Company LLC and Noble Energy, Inc.	Farmout	411/252
		EQT Production Company	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	449/480
		Noble Energy, Inc.	CNX Gas Company LLC	Assignment	\$50/273
		- ·			



Erika Whetstone Manager – Gas Permitting CONSOL Energy Inc. 1000 CONSOL Energy Drive Canonsburg, PA 15317

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

RE: Road Letter - SHR 31 Well Pad

To Whom It May Concern:

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

Should you have any questions or need additional information, please do not hesitate to contact me at erikawhetstone@consolenergy.com or 724-485-4035.

Sincerely,

Erika Whetstone

CNX Gas Company LLC

RECEIVED Office of Oil and Gas

NOV 2 8 2017

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

Date of Notic	ce Certification: 11-21-17	API No. 4	47-95 - 6	2490
2 110 01 1 1011			's Well No. SHR	
			Name: SHR31F	
Notice has l	oeen given:			
		§ 22-6A, the Operator has provided the re	equired parties v	with the Notice Forms listed
	tract of land as follows:	•		
State:	West Virginia	UTM NAD 83 Easting:	515356.145	
County:	Tyler	Northing:	4363427.449	
District:	McElroy	Public Road Access:	County Route 58	
Quadrangle:	Shirley	Generally used farm name:	Seckman	
Watershed:	McElroy Creek			
information r of giving the requirements Virginia Code of this article Pursuant to that the Ope	equired by subsections (b) and (c), s surface owner notice of entry to s of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall have been completed by the applicant West Virginia Code § 22-6A, the Operator has properly served the require	perator has attached proof to this Notice	requirement was n ten of this arti y the surface ov ry that the notice	deemed satisfied as a result cle six-a; or (iii) the notice vner; and Pursuant to West
*PLEASE CHI	ECK ALL THAT APPLY			ONLY
□ 1. NO	TICE OF SEISMIC ACTIVITY of	■ NOTICE NOT REQUIRED BECA SEISMIC ACTIVITY WAS CONDU		☐ RECEIVED/ NOT REQUIRED
■ 2. NO	TICE OF ENTRY FOR PLAT SUR	VEY or NO PLAT SURVEY WAS	CONDUCTED	☐ RECEIVED
■ 3. NO	TICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECANOTICE OF ENTRY FOR PLAT SUI WAS CONDUCTED or		☐ RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY SURF	ACE OWNER	1/1 1 1 1 1 1
		(PLEASE ATTACH)		
■ 4. NO	TICE OF PLANNED OPERATION			☐ RECEIVED
	TICE OF PLANNED OPERATION			☐ RECEIVED

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 person of Collection of Office of Oil and Gas

NOV 2 8 2017

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@ConsolEnergy.com

COMMONWEAL NATOR YEAR SYLVANIA

NOTARIAL SEAL
Sara M. Micoli, Notary Public
Cecil Twp.. Washington County
My Commission Expires March 11, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Subscribed an	d sworn bei	fore me this	21	day of	Nov	2017
1	ma	nna.	4 .			

My Commission Expires 3/11/19

Oil and Gas Privacy Notice:

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

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NOV 28 2017

API NO. 47-OPERATOR WELL NO. SHR31CHSM Well Pad Name: SHR31HSM

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: //-22-17 Date Permit Application Filed: //-27-17 Notice of: PERMIT FOR ANY ☐ CERTIFICATE OF APPROVAL FOR THE WELL WORK CONSTRUCTION OF AN IMPOUNDMENT OR PIT Delivery method pursuant to West Virginia Code § 22-6A-10(b) ✓ REGISTERED ■ METHOD OF DELIVERY THAT REQUIRES A ☐ PERSONAL SERVICE RECEIPT OR SIGNATURE CONFIRMATION MAIL 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: M COAL OWNER OR LESSEE ☐ SURFACE OWNER(s) Name: See attached. Name: See attached. Address: Address: ☐ COAL OPERATOR Name: Name: Address: Address: ☑ SURFACE OWNER(s) (Road and/or Other Disturbance) ☑ SURFACE OWNER OF WATER WELL Name: See attached. AND/OR WATER PURVEYOR(s) Address: Name: See attached. Address: Name: Address: OPERATOR OF ANY NATURAL GAS STORAGE FIELD ☐ SURFACE OWNER(s) (Impoundments or Pits) Name: EQT Corporation RECEIVED Address: EQT Plaza, 625 Liberty Ave, Ste 1700 Name: Office of Oil and Gas Pittsburgh, PA 15222 Address: *Please attach additional forms if necessary NOV 28 2017

API NO. 47- 95 -OPERATOR WELL NO. SHR31CHSM Well Pad Name: SHR31HSM

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 Englishmont Gas Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-NOV 2 8 2017 and-gas/pages/default.aspx.

Well Location Restrictions

W Department of Environmental Protection

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

API NO. 47-<u>95</u> - 02490 OPERATOR WELL NO. SHR31CHSM

Well Pad Name: SHR31HSM

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 quantities westion test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

API NO. 47-95 - 0 2490
OPERATOR WELL NO. SHR31CHSM
Well Pad Name: SHR31HSM

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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NOV 28 2017

API NO. 47-95 O2 490
OPERATOR WELL NO. SHR31CHSM
Well Pad Name: SHR31

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rouce	13	hereby	given	DY.

Well Operator: CNX Gas Company, LLC
Telephone: 724-485-3540

Address: 1000 Consol Energy Drive Canonsburg, PA 15317

Facsimile:

Email: RaymondHoon@ConsolEnergy.com

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.

My Commission Expires

COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL
Sara M. Micoli, Notary Public
Cecil Twp., Washington County
My Commission Expires March 11, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Subscribed and sworn before me this 2 day of Nov., 2017.

Notary Public

Office of Oil and Gas

NOV 2 8 2017

WV Department of Environmental Protection

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

Allen W. Seckman and Nancy J. Seckman, trustees of the Allen and Nancy Seckman Irrevocable Trust dated November 29, 2016
824 Jefferson Run Road, Alma, WV 26320

Donald L. Seckman 705 Jefferson Run Road, Alma, WV 26320

Potts Place LLC 353 Foundry St., New Martinsville, WV 26155

Becannray LLC 5042 Tyler Highway, Sisterville, WV 26175

STS Enterprises LLC 659 Jefferson Run Road, Alma, WV 26320

George G. Hamilton 2812 McElroy Creek Road, Alma, WV 26320

Charles E. Hamilton, Jr. 17095 WV Rt 23 N, West Union, WV 26456

Gary L. Hamilton 102 Big Flint Road, West Union, WV 26456

Nicole Eastham 34973 State Route 800, New Matamoras, OH 45767

Alexandria Fetty 44958 Benwood Road, Sardis, OH 43946

Rachelle Hise 44832 State Route 78, Woodsfield, OH 43793

Coal Owner(s):

Allen W Seckman and Nancy J. Seckman, trustees of the Allen and Nancy Seckman Irrevocable Trust Dated November 29, 2016 824 Jefferson Run Road, Alma WV 26320

Donald L. Seckman 705 Jefferson Run Road, Alma, WV 26320

George G. Hamilton 2812 McElroy Creek Road, Alma, WV 26320 Office of Oil and Gas

NOV 28 2017



Charles E. Hamilton, Jr. 17095 WV Rt 23 N, West Union, WV 26456

Gary L. Hamilton 102 Big Flint Road, West Union, WV 26456

Potts Place LLC 353 Foundry St., New Martinsville, WV 26155

Becannray LLC 5042 Tyler Highway, Sisterville, WV 26175

Nicole Eastham 34973 State Route 800, New Matamoras, OH 45767

Alexandria Fetty 44958 Benwood Road, Sardis, OH 43946

Rachelle Hise 44832 State Route 78, Woodsfield, OH 43793

STS Enterprises LLC 659 Jefferson Run Road, Alma, WV 26320

William P. Ingram 471 Next Road, Sisterville, WV 26175

Jeffrey Alan Baker 1640 Gorrells Run Road, Middlebourne, WV 26149

Debra Kay Jenkins 305 Fair Avenue, Middlebourne, West Virginia 26149

William M. Baker 753 Middle Island Road, Middlebourne, WV 26149

Donald K. Baker 995 Gorrells Run Road, Middlebourne, WV 26149

Surface Owner of Water Well And/Or Water Purveyor(s):

Bessie Haught 771 McElroy Creek Rd, Alma, WV 26320

Michael K & Virginia L Griffin PO Box 254, Middlebourne, WV 26149

Operator of Any Natural Gas Storage Field:

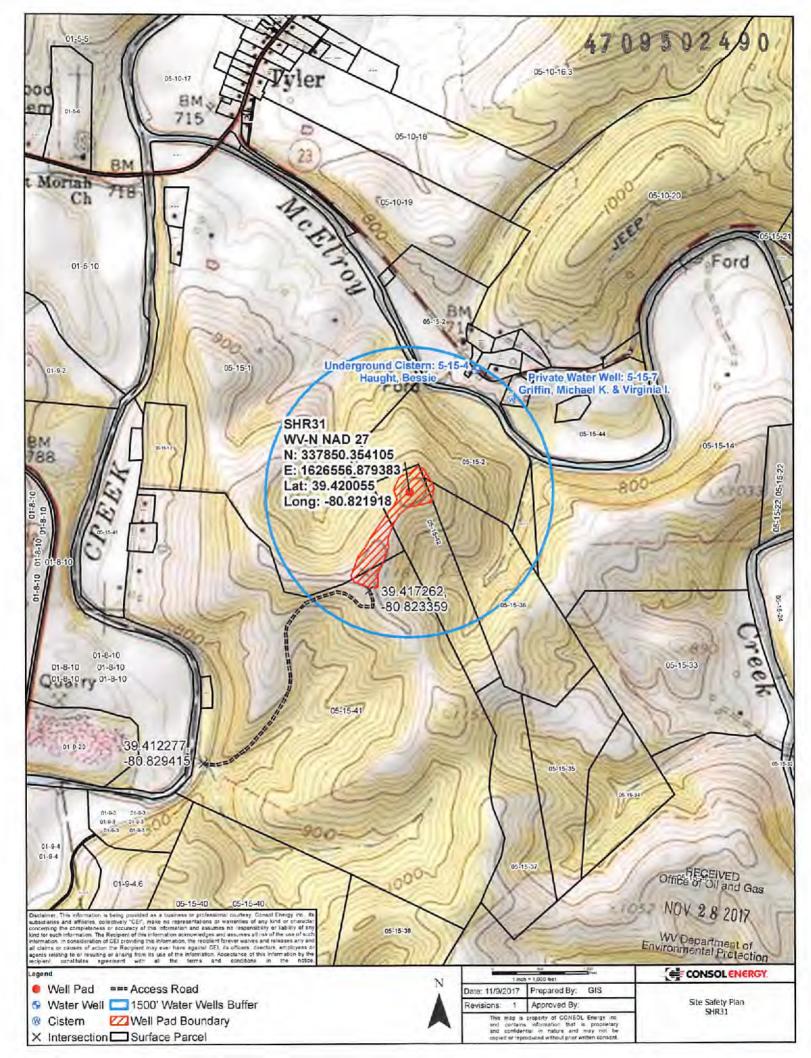
EQT Corporation
EQT Plaza, 625 Liberty Ave, Ste 1700, Pittsburgh, PA 15222

Office of Oil and Gas

NOV 28 2017

WV Department of Environmental Protection

Page 2 of 2



47 0 9 5 0 2 4 9 0 Operator Well No. SHR31EHS

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

Date of Notic	ce: 10/11/17	Date of Plans	ned Entry: 10/19/17		n FORTY-FIVE (45) days	
Delivery met	hod pursuant to W	est Virginia Co	de § 22-6A-10a			
PERSON SERVICE		GISTERED AIL	☐ METHOD OF DEL RECEIPT OR SIGN			
on to the surf but no more t beneath such owner of min and Sediment Secretary, wh	ace tract to conduct a han forty-five days p tract that has filed a erals underlying suc Control Manual and	any plat surveys a prior to such entry declaration pursu th tract in the coun I the statutes and nelude contact in	required pursuant to this are y to: (1) The surface owner and to section thirty-six, as nty tax records. The notice rules related to oil and gas aformation, including the ac-	rticle. Such notice s r of such tract; (2) rticle six, chapter t e shall include a sta s exploration and p	shall provide notice of planshall be provided at least se to any owner or lessee of conventy-two of this code; and atement that copies of the stroduction may be obtained age on the Secretary's web	ven days oal seams (3) any rate Erosion from the
	eby provided to:					
	CE OWNER(s)		■ COA	LOWNER OR LE	SSEE	
Name: See atta			Name: See			
Address:						
Name:						
Address:		-	■ MINE	ERAL OWNER(s)		
			Name: See			
Vame:						
Address:						
			*please attack	h additional forms if ne	cessary	
Votice is her	eby given:	22-6A-10(a) no	tice is hereby given that th	e undersigned well	operator is planning entry	
Pursuant to W plat survey of State:	on the tract of land a West Virginia	s follows:	Approx. Latite	ude & Longitude:	39.420055, -80.821918	to conduct
Pursuant to Was plat survey of State: County:	on the tract of land a West Virginia Tyler	s follows:	Approx. Latitu Public Road A	ude & Longitude:		to conduct
Pursuant to Wa plat survey of State: County: District:	on the tract of land a West Virginia Tyler	s follows:	Approx. Latitu Public Road A	ude & Longitude: Access:	39.420055, -80.821918 County Route 58	to conduct
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Oil and Gas Privacy Notice:

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

SHR31EHS WW6A3 Attachment

SURFACE OWNER(S):

Allen W. Seckman and Nancy J. Seckman, trustees of the Allen and Nancy Seckman Irrevocable Trust dated November 29, 2016
824 Jefferson Run Road,
Alma, WV 26320

Donald L. Seckman 705 Jefferson Run Road, Alma, WV 26320

Mary Belle Ashenhart Star Rt Cp Box 80, West Union, WV 26456

Potts Place LLC 353 Foundry St., New Martinsville, WV 26155

Becannray LLC 5042 Tyler Highway, Sisterville, WV 26175

Kathy A. Roberts 42842 Trail Run Road, New Matamoras, OH 45767

STS Enterprises LLC 659 Jefferson Run Road, Alma, WV 26320

George G. Hamilton 2812 McElroy Creek Road, Alma, WV 26320

Charles E. Hamilton, Jr. 17095 WV Rt 23 N, West Union, WV 26456

Gary L. Hamilton 102 Big Flint Road, West Union, WV 26456

Nicole Eastham 34973 State Route 800, New Matamoras, OH 45767



Office of Oil and Gas
NOV 2 8 2017

Alexandria Fetty 44958 Benwood Road, Sardis, OH 43946

Rachelle Hise 44832 State Route 78, Woodsfield, OH 43793

COAL OWNER OR LESSEE:

Allen W Seckman and Nancy J. Seckman, trustees of the Allen and Nancy Seckman Irrevocable Trust Dated November 29, 2016 824 Jefferson Run Road, Alma WV 26320

Donald L. Seckman 705 Jefferson Run Road, Alma, WV 26320

George G. Hamilton 2812 McElroy Creek Road, Alma, WV 26320

Charles E. Hamilton, Jr. 17095 WV Rt 23 N, West Union, WV 26456

Gary L. Hamilton 102 Big Flint Road, West Union, WV 26456

Potts Place LLC 353 Foundry St., New Martinsville, WV 26155

Becannray LLC 5042 Tyler Highway, Sisterville, WV 26175

Nicole Eastham 34973 State Route 800, New Matamoras, OH 45767

Alexandria Fetty 44958 Benwood Road, Sardis, OH 43946

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Environment of Page Z of Apental Protection

Rachelle Hise 44832 State Route 78, Woodsfield, OH 43793

STS Enterprises LLC 659 Jefferson Run Road, Alma, WV 26320

William P. Ingram 471 Next Road, Sisterville, WV 26175

Jeffrey Alan Baker 1640 Gorrells Run Road, Middlebourne, WV 26149

Debra Kay Jenkins 305 Fair Avenue, Middlebourne, West Virginia 26149

William M. Baker 753 Middle Island Road, Middlebourne, WV 26149

Donald K. Baker 995 Gorrells Run Road, Middlebourne, WV 26149

MINERAL OWNER(S):

Charles E. Hamilton, Jr. 17095 WV Rt 23 N, West Union, WV 26456

Gary L. Hamilton 102 Big Flint Road, West Union, WV 26456

George G. Hamilton 2812 McElroy Creek Road, Alma, WV 26320

Potts Place LLC 353 Foundry St., New Martinsville, WV 26155

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Becannray LLC 5042 Tyler Highway, Sisterville, WV 26175

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Donald L. Seckman 705 Jefferson Run Road, Alma, WV 26320



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.

	Requirement: Notice shall be provided at ee: //- \(\frac{1}{2-17} \) Date Per		
Delivery met	hod pursuant to West Virginia Code § 2	22-6A-16(b)	
☐ HAND	■ CERTIFIED MAIL		
DELIVE		QUESTED	
receipt reques drilling a hori of this subsec subsection ma	sted or hand delivery, give the surface own izontal well: <i>Provided</i> , That notice given tion as of the date the notice was provided	ner notice of its intent to enter upon the pursuant to subsection (a), section to to the surface owner: <i>Provided, hower</i> . The notice, if required, shall incline	an operator shall, by certified mail return he surface owner's land for the purpose of en of this article satisfies the requirements wever, That the notice requirements of this tude the name, address, telephone number, or's authorized representative.
Notice is he	reby provided to the SURFACE OW	/NER(s):	
Name: See atta		Name:	
Address:		Address:	
State: County: District:	West Virginia Tyler McElroy	UTM NAD 83 Easting: Northing: Public Road Access:	515356.145 4363427.449 County Route 58
Quadrangle:	Shirley	Generally used farm name:	Seckman
Watershed:	McElroy Creek	_	
Pursuant to V facsimile nun related to hor	nber and electronic mail address of the o	operator and the operator's authorized Secretary, at the WV Department of	ress, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
	reby given by:		
	CNX Gas Company, LLC	Authorized Representative:	Raymond Hoon
Address:	1000 Consol Energy Drive	Address:	1000 Consol Energy Drive
Canonsburg, PA		Canonsburg, PA 15317	
Telephone:	724-485-3540	Telephone:	724-485-3540
Email: Facsimile:	RaymondHoon@ConsolEnergy.com	Email: Facsimile:	RaymondHoon@ConsolEnergy.com
21-7-00000-2-0,	-		\ -

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.

NOV 2 8 2017

WW6A Notice of Intent to Drill - Attachment

SHR31HSM

Surface Owner(s):

Allen W. Seckman and Nancy J. Seckman, trustees of the Allen and Nancy Seckman Irrevocable Trust dated November 29, 2016
824 Jefferson Run Road, Alma, WV 26320

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Rachelle Hise 44832 State Route 78, Woodsfield, OH 43793

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WV Department of Environmental Protection

Page 1 of 1

Operator Well No. SHR31CHSM

NOV 28 2017

WV Department of Environmental Protection

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

Delivery met	hod pursuant to West Virginia Cod	e § 22-6A-16(c)	
■ CERTII	FIED MAIL	☐ HAND	
	RN RECEIPT REQUESTED	DELIVERY	
return receipt the planned or required to be drilling of a l damages to the	requested or hand delivery, give the superation. The notice required by the provided by subsection (b), section to norizontal well; and (3) A proposed securification of the surface affected by oil and gas open	surface owner whose land will be used is subsection shall include: (1) A cop en of this article to a surface owner wh surface use and compensation agreem ations to the extent the damages are con	lication, an operator shall, by certified mail for the drilling of a horizontal well notice of y of this code section; (2) The information ose land will be used in conjunction with the ent containing an offer of compensation for inpensable under article six-b of this chapter. listed in the records of the sheriff at the time
(at the addres	eby provided to the SURFACE OW s listed in the records of the sheriff at	the time of notice):	
Manage Sac atta	nad		
Notice is here	eby given: /est Virginia Code § 22-6A-16(c), not		d well operator has developed a planned
Address:	eby given: /est Virginia Code § 22-6A-16(c), not the surface owner's land for the purpo West Virginia	Address: ice is hereby given that the undersigneouse of drilling a horizontal well on the total Easting:	ract of land as follows: 515356.145
Address:	eby given: /est Virginia Code § 22-6A-16(c), not the surface owner's land for the purpo	Address: ice is hereby given that the undersigned use of drilling a horizontal well on the teasting:	ract of land as follows: 515356.145
Address:	eby given: /est Virginia Code § 22-6A-16(c), not the surface owner's land for the purpo West Virginia Tyler	Address: ice is hereby given that the undersigned ose of drilling a horizontal well on the to Easting: UTM NAD 83 Northing	ract of land as follows: 515356.145 4363427.449 County Route 58
Address:	eby given: /est Virginia Code § 22-6A-16(c), not the surface owner's land for the purpo West Virginia Tyler McElroy	Address: ice is hereby given that the undersigned ose of drilling a horizontal well on the to the control of t	ract of land as follows: 515356.145 4363427.449 County Route 58
Notice is here Pursuant to Woperation on State: County: District: Quadrangle: Watershed: This Notice Separate to Wood be provided horizontal we surface affect information resume to many surface affect information resume to many surface affect information resume to work to be provided horizontal we surface affect information resume to work to be provided horizontal we surface affect information resume to work the surface affect information resume to work the surface affect information resume to work the surface affect in t	eby given: //est Virginia Code § 22-6A-16(c), not the surface owner's land for the purpor West Virginia Tyler McElroy Shirley McElroy Creek Shall Include: //est Virginia Code § 22-6A-16(c), third the down of the second of th	Address: Address: Address: Address: Address: Address: Address: Address: Address: Basting: Northing Public Road Access: Generally used farm name: Address: Basting: Northing Public Road Access: Generally used farm name: Address: Address: Basting: Northing Address: Address: Basting: Northing Address: Basting: Northing Northing Northing Address: Basting: Northing Northing Northing Address: Basting: Northing Northing Northing Northing Address: Basting: Northing	ract of land as follows: 515356.145 4363427.449 County Route 58
Address: Notice is here Pursuant to Wo operation on State: County: District: Quadrangle: Watershed: This Notice Sepursuant to We to be provided horizontal we surface affect information re headquarters,	eby given: //est Virginia Code § 22-6A-16(c), not the surface owner's land for the purpo West Virginia Tyler McEtroy Shirley McEtroy Creek Shall Include: //est Virginia Code § 22-6A-16(c), thi ed by W. Va. Code § 22-6A-10(b) to edl; and (3) A proposed surface use an ed by oil and gas operations to the e elated to horizontal drilling may be located at 601 57 th Street, SE, Co ault.aspx.	Address: Address: Address: Address: Address: Address: Address: Address: Address: Basting: Northing Public Road Access: Generally used farm name: Address: Basting: Northing Public Road Access: Generally used farm name: Address: Address: Basting: Northing Address: Address: Basting: Northing Address: Basting: Northing Northing Northing Address: Basting: Northing Northing Northing Address: Basting: Northing Northing Northing Northing Address: Basting: Northing	ract of land as follows: 515356.145 4363427.449 County Route 58 Seckman s code section; (2) The information required a used in conjunction with the drilling of a an offer of compensation for damages to the oder article six-b of this chapter. Additional V Department of Environmental Protection (b) or by visiting www.dep.wv.gov/oil-and-
Notice is here Pursuant to Woperation on State: County: District: Quadrangle: Watershed: This Notice S Pursuant to Woto be provide horizontal we surface affect information readquarters, gas/pages/def	eby given: //est Virginia Code § 22-6A-16(c), not the surface owner's land for the purpo West Virginia Tyler McEtroy Shirley McEtroy Creek Shall Include: //est Virginia Code § 22-6A-16(c), thi ed by W. Va. Code § 22-6A-10(b) to edl; and (3) A proposed surface use an ed by oil and gas operations to the e elated to horizontal drilling may be located at 601 57 th Street, SE, Co ault.aspx.	Address: Address: Address: Ice is hereby given that the undersigned be of drilling a horizontal well on the test of drilling Public Road Access: Generally used farm name: Is notice shall include: (1)A copy of this of a surface owner whose land will be do compensation agreement containing extent the damages are compensable unobtained from the Secretary, at the Witharleston, WV 25304 (304-926-045)	ract of land as follows: 515356.145 24363427.449 County Route 58 Seckman Seckman Seckman Seckman Seckman Seckman County Route 58 Seckman Seckman

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 RECEIVED Gas DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

SHR31HSM

Surface Owner(s):

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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

October 31, 2017

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

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-31 Well Pad, Tyler County SHR31 CHSM

Dear Mr. Martin,

Jim Justice

Governor

The West Virginia Division of Highways has transferred Permit #06-2014-0719 for the subject site to CNXGAS for access to the State Road for the well sites located off of Tyler County Route 58 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.

Very Truly Yours, Lay K. Clayton

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

Cc: Shannon Miller CNXGAS CH, OM, D-6 File

Ewitouthause

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

Office of Oil and Gas

NOV 28 2017

WV Department Chion
Environmental Protection



LOCATION MAP

PROPERTY OWNERS

- 05-15-41 ALLEN W SECKMAN ET AL 824 JEFFERSON RUN RD ALMA, WV 26320
- 2 05-15-42 ALLEN W SECKMAN ET AL 824 JEFFERSON RUN RD ALMA, WV 26320
- 3. 05-15-37 ALLEN W SECKMAN ET AL 824 JEFFERSON RUN RD ALMA WV 26320
- 4. 05-15-35 ALLEN W SECKMAN ET AL 824 JEFFERSON RUN RD ALMA, WV 26320



CNX RESOURCES CORPORATION 1000 CONSOL ENERGY DRIVE CANONSBURG, PA 15317

POST MODIFICATION AS-BUILT PLANS FOR THE SHR 31 WELL PAD, TANK PAD, SHR 30 WELL PAD, AND ACCESS ROAD



LOCATION MAP

SHR30 WELL SITE LOCATION

NAD 83 - LAT: N 39"24'49.181": LONG: W 80"48'54.273" NAD 27 - LAT. N 39°24'48.891": LONG. W 80°48'54.894"

SHR31 WELL SITE LOCATION

NAD 83 - LAT: N 39°25'12.404"; LONG, W 80°49'18.123" NAD 27 - LAT: N 39°25'12.114"; LONG: W 80°49'18.744"

ENTRANCE LOCATION

NAD 83 - LAT: N 39°24'44.598": LONG: W 80°49'45.062" NAD 27 - LAT: N 39°24'44.309": LONG: W 80°49'45.683"

> McELROY DISTRICT TYLER COUNTY, WEST VIRGINIA DATE: APRIL 5TH, 2018



Engineers and Land Surveyors 10125 Mason Dixon Hwy. Burton, WV 26562-9656 (304) 662-6486

SHR 30 WELL PAD API #'S 047-095-02232 047-095-02241 047-095-02233 047-095-02234 047-095-02235 047-095-02236 047-095-02237 047-095-02238

SHR 31 WELL PAD API #'s 047-095-0222 047-095-02217 047-095-02218 047-095-02219

SHEET INDEX DRAWING NUMBER DRAWING NAME COVER SHEET OVERALL POST MOD AS-BUILT 2 POST MOD AS-BUILT AS-BUILT ROAD PROFILES

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MATE	sima.
STALL	Al terms
31 F 192	weaken's
Service Age	MIC sind liber

SHEET

WVDEP DOG ACCEPTED AS-BUILT 1/1/ 4/6/2018

NOTE: DRAWING WAS CREATED ON 22x34 PAPER. 11x17 DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.

ENGINEER CENTIFICATION

All Diano Coles MATINE FOLEY, P.L.

Blue Mountain Inc

SHR 31 V

REVISIONS

