

#### 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

Thursday, July 18, 2019 WELL WORK PERMIT Horizontal 6A / New Drill

CNX GAS COMPANY LLC POST OFFICE BOX 1248

JANE LEW, WV 263786506

Re:

Permit approval for WDTN6CHSM

47-061-01849-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin

Chief

Operator's Well Number:

WDTN6CHSM

Farm Name:

CONSOL RCPC LLC

U.S. WELL NUMBER: 47-061-01849-00-00

Horizontal 6A

New Drill

Date Issued: 7/18/2019

### **PERMIT CONDITIONS**

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <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.

A	ΡI	Number:	

### **PERMIT CONDITIONS**

4706101849

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



#### 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 dep.wv.gov

## ORDER ISSUED UNDER WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A

TO: CNX Gas Company, LLC P.O. Box 1248 Jane Lew, WV 26378 DATE: June 18, 2019 ORDER NO.: 2019-W-11

#### INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 et seq. to CNX Gas Company, LLC (hereinafter "Operator"), collectively the "Parties."

#### FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

- 1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
- 2. CNX Gas Company, LLC is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as P.O. Box 1248, Jane Lew, WV 26378.
- On May 22, 2019, CNX Gas Company, LLC submitted a well work permit application identified as API# 47-061-01849. The proposed well is to be located on the WDTN 6 Pad in the Battelle District of Monongalia County, West Virginia.
- 4. On May 22, 2019, CNX Gas Company, LLC requested a waiver for Wetlands B and C as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-061-01849. Wetland D will be permanently impacted and subject to USACE Nationwide Permit 39.

#### **CONCLUSIONS OF LAW**

- 1. West Virginia Code §22-1-6(d) requires, in part, that "[i]n addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to...(3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing."
- 2. West Virginia Code §22-6A-2(a)(6) requires, in part, that "Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter."
- 3. West Virginia Code §22-6A-12(b) requires, in part, that "[n]o 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 Office of Oil and Gas 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 Office of Oil and Gas 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."

#### **ORDER**

West Virginia Code §22-6A-12(b) requires, in part, that "[n]o 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. The Office of Oil and Gas grants the request for a waiver for Wetlands B and C from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-061-01849. The Office of Oil and Gas hereby **ORDERS** that CNX Gas Company, LLC shall meet the following site construction and operational requirements for the WDTN 6 Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24") in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland B and C shall have a triple CFS stack consisting of two (2) rows of twenty-four (24") compost filter sock and one (1) row of eighteen-inch (18") compost filter sock to prevent any sediment from reaching the wetland from the well pad. This along with rip-rap aprons, temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½") rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies:
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

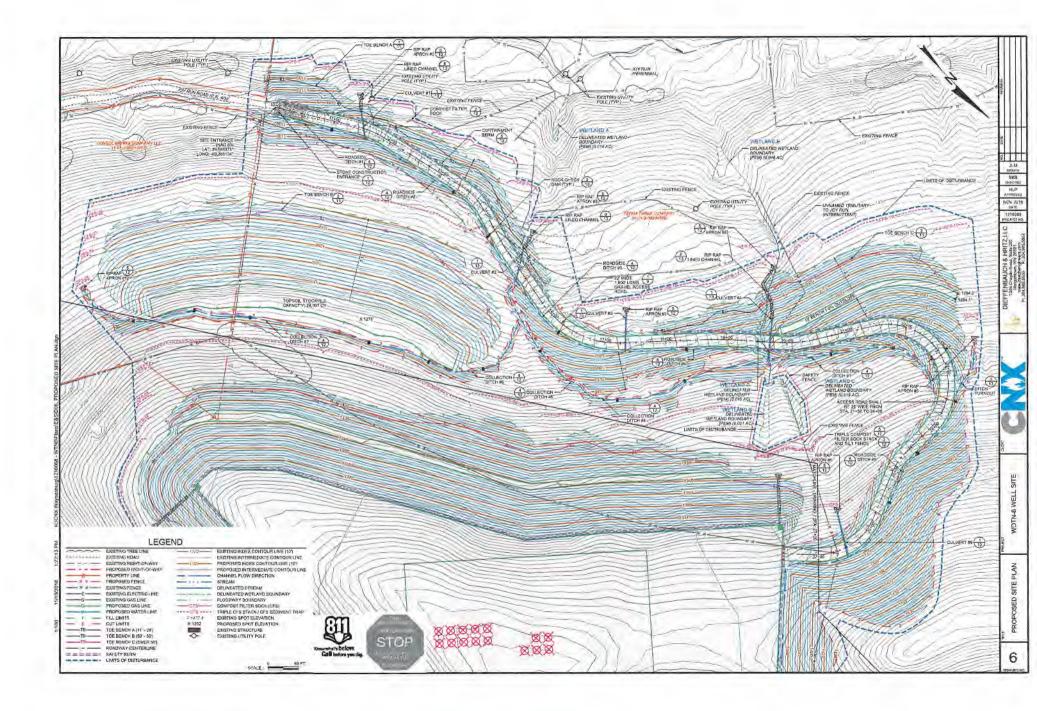
Thus ORDERED, the 18th day of June, 2019.

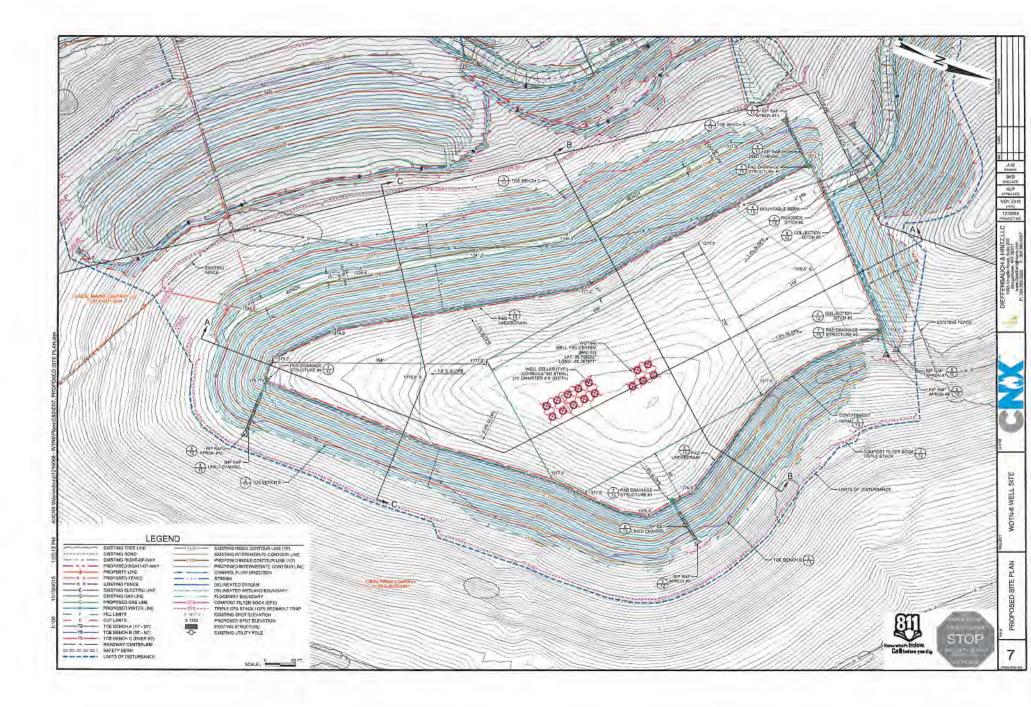
#### IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By:

JAMES A. MARTIN, CHIEF





11/3/14					
Wetland	and Perennial	Stream	Waiver	Req	uest

Wetland and Pe	erennial Stream Waiver Request	Operator's Well Number:	WDTN6CHSM
Well Operator:	CNX Gas Company, LLC	,	
	WDTN6CHSM	Well Pad Name: WDTN6	
		onongalia, Battelle, Wadestown	

API Number: 4706101849

Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.

This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:

§22-6A-12(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.

§22-6A-12(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.

API Number: 4706101849

Operator's Well Number: WDTN6CHSM

 Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.

One wetland will be completely and permanently impacted in order to construct access to the well pad. Two additional wetlands are located within 100 feet of the LOD and will be protected by utilizing the following controls.

Wetland B: Compost filter sock, Rip-Rap aprons and Temporary and permanent vegetative cover will be located above the wetland.

Wetland C: Triple Stack Compost Filter Sock, Rip-Rap aprons and Temporary and permanent vegetative cover will be located above the wetland.

- 4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.
  - a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

Additional E&S Controls that may be used during the construction of this site include:

Compost filter sock
Triple compost filter sock
Compost filter sock sediment trap
Rip-rap lined channels
Rip-rap aprons
Rock check dams
Rock Construction Entrance
Diversion Ditches
Roadway culverts
Temporary and permanent seeding & mulching
All disturbed areas are to be seeded as soon as possible.

Specific implementation of these controls can be found in the Erosion and Sedimentation Control Plan submitted with the permit application.

Operator's Well Number: WDTN6CHSM

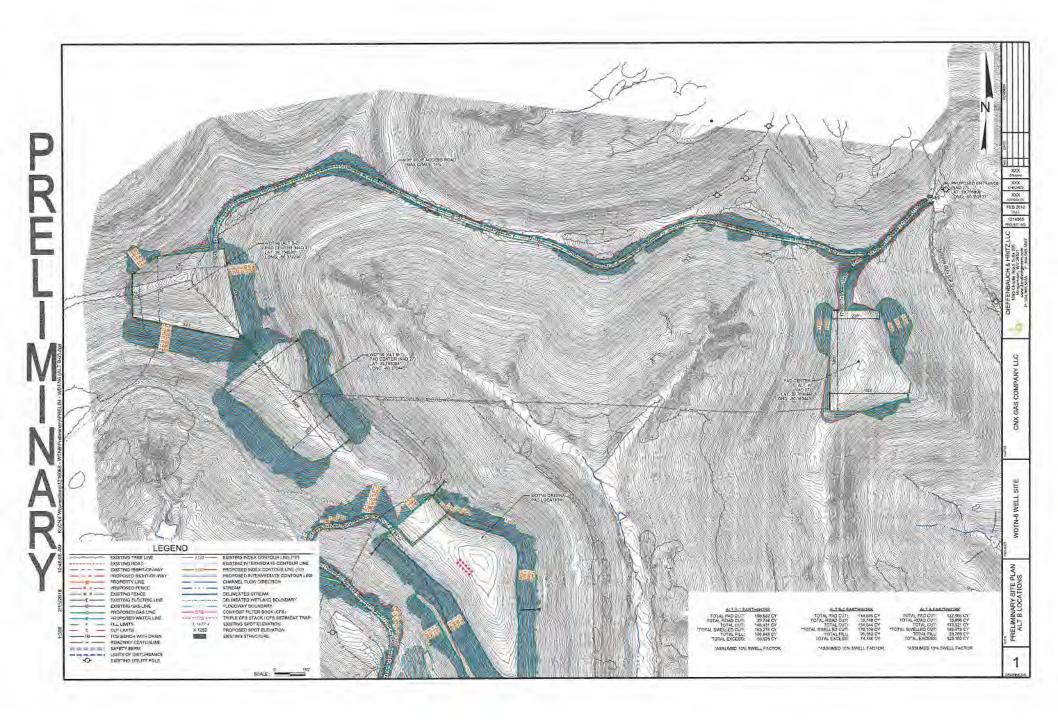
Answer in the space provided, or use additional pages as necessary to fully answer the questions below:

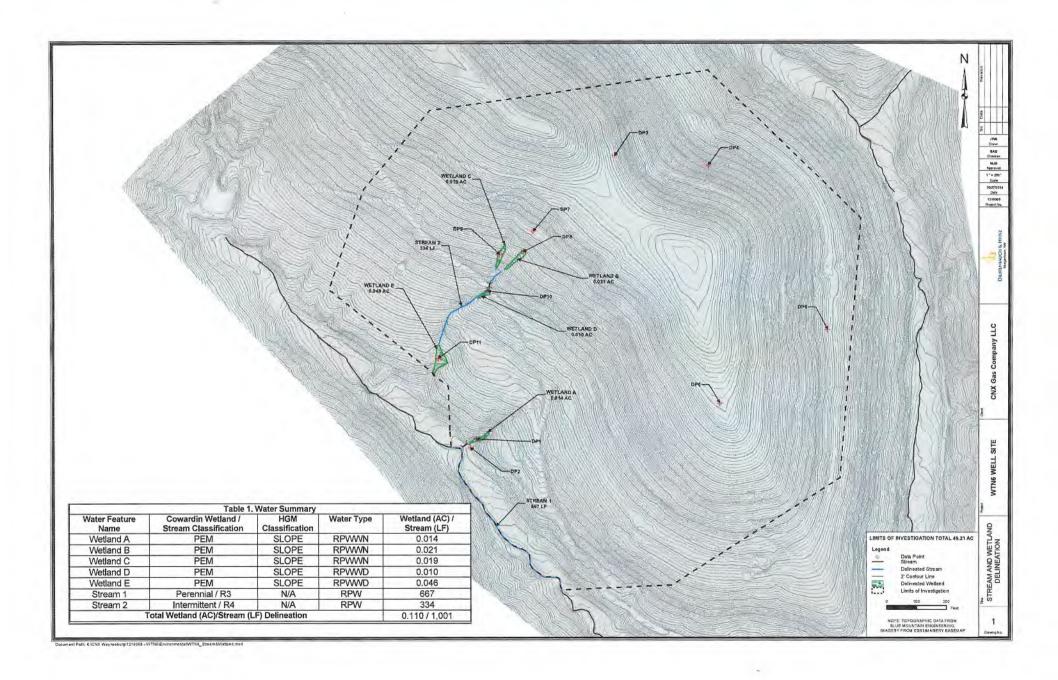
1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.

The project is located northeast of Joy Run Road (CR-4/3) in the Wadestown area of Monongalia County, WV. The proposed entrance is at 39.698375 and -80.368134 (NAD83 WVN). The limit of disturbance (LOD) of the WDTN6 Well Site project is approximately 29.2 acres in size. The project includes a 1,760-foot access road, well pad, and excess material/topsoil stockpiles. The general site topography consists of a hillslope/ridgeline complex with gentle to moderate slopes draining generally to the south to Joy Run. Joy Run is an indirect tributary to the Monongahela River, which is a traditionally navigable water (TNW). Vegetation communities include mixed deciduous forests with areas of herbaceous meadows.

The wetland description is continued on the additional attached pages...

- 2. Justify the proposed activity by describing alternatives to this project that were considered.
  - a. Include a No-Action Alternative as to show "the future without the project"
  - b. Location Alternatives must be shown
  - c. Must demonstrate why a one hundred foot buffer cannot be maintained
  - d. Describe how the proposed project is the least environmentally damaging practicable alternative
  - a. This pad is essential for gas production in this area. There would be stranded undeveloped acreage in the drilling unit if this pad were not constructed.
  - b. Alternative locations were investigated but never materialized due to topography and access constraints. Alternative location concepts are attached.
  - c/d. The submitted plan proposes no impact to Wetlands B & C due to careful consideration during the design process. These areas will be fenced off and undisturbed, but 100' of distance could not be maintained due to the location of the wetlands relative to the well pad. Alternative locations were considered but were not feasible as described above. Impact to Wetland D and Stream 2 are unavoidable in order to access the site, but impacts have been minimized to the extent practicable. The existing Joy Run Road bed was utilized to minimize environmental impacts of new road construction. Material stockpiles were located away from environmentally sensitive areas.





DIEFFENBAUCH & HRITZ, LLC 1095 Chaplin Hill Road Morgantown, WV 26501

Office: 304-985-5555 Fax: 304-985-5557

#### Introduction

Environmental Scientists from Dieffenbauch & Hritz (D&H; **Attachment A**) visited the proposed WTN6 Well Site on August 28, 2014 in order to identify streams and/or wetlands located within the limits of investigation (LOI). The LOI, also referred to as the site, includes an approximate 49.21 acre tract of land, which incorporates the limits of disturbance (LOD) of the proposed project, as well as a continuation of these limits to recognizable topographic features and/or property boundaries.

#### Scope of Services

The purpose of this investigation was to identify the location and extent of waters of the United States (WOUS) and waters of the state (WOS) of West Virginia (WV) within the confines of the site. This report is intended to provide the user with the information required by federal and state agencies to perform a jurisdictional determination (JD). It is also to be utilized as a tool in the planning and design of the project in order to avoid and minimize impacts to these resources.

#### Methodology

The wetland delineation is performed according to the routine method as described in the *U.S. Army Corps of Engineers' Wetland Delineation Manual, Technical Report Y-87-1 (1987)* and the *2012 Interim Regional Supplement: Eastern Mountains and Piedmont Region (Version 2.0)*. Soil survey information, aerial photographs, floodplain maps, National Wetland Inventory (NWI) maps, topographic maps, and site plans were reviewed prior to the field investigation in order to gain an understanding of potential stream and wetland locations.

The field investigation consists of a site walkover and collection of data at sample plots within the LOI. Sample plots are established where the site ecology changes significantly, or if an area exhibits wetland characteristics. Data from a representative wetland and associated upland sample plot are collected in order to document soil, vegetation, and hydrologic changes that occur throughout the site. In addition, data is collected within representative areas of interest (AOI) in order to document general ecology found within these areas. Descriptions of soils, vegetation, and hydrology are collected at each sample plot location. Data collected at each sample plot are utilized to complete the Wetland Determination Data Forms which are included in **Attachment B**.

Vegetation is analyzed in the following manner: At sample plots, dominant plant species are visually selected, categorized, and recorded in the order of decreasing dominance. Vegetation within the tree, sapling/shrub, woody vine, and herbaceous stratums is documented. After the dominant plants are listed and categorized, the indicator status of the dominant species is assigned. Plant indicator statuses are obtained from the *Eastem Mountains and Piedmont 2014 Final Regional Wetland Plant List*. By using this method, it is determined if the vegetation is hydrophytic or upland. To determine that hydrophytic vegetation is present, greater than 50 percent of the plant species, in a given community, must be facultative (FAC), facultative wetland (FACW), and/or obligate wetland (OBL), as opposed to being facultative upland (FACU) or upland (UPL), and/or other indicators must be present. A determination is not based on the presence of scattered individuals that do not contribute a controlling influence on the overall plant community.

Each sample plot is analyzed for both primary and secondary indicators of wetland hydrology. Primary indicators of wetland hydrology may include: aquatic fauna, algal mat crust, drift deposits, sediment deposition, water-marks, saturated soils, and inundation. The presence of only one primary indicator is required to establish evidence of wetland hydrology. Secondary indicators may include: surface soil cracks, drainage patterns, crayfish burrows, moss trim lines, and geomorphic position. The presence of two secondary indicators is required to establish evidence of wetland hydrology. Both primary and secondary indicators are apparent in that they are visual observations made on the ground during the field investigation. Evidence of wetland hydrology can also be established using recorded data from monitoring equipment such as stream gauges, monitoring wells and piezometers, or from observed hydrology on aerial photographs and previous investigations. However, recorded data are usually available for only the larger aquatic systems. Therefore, investigators more often rely on the visually confirmed presence of primary and secondary indicators to establish wetland hydrology.

Soils are assessed to determine if hydric soils are present. Indicators of hydric soils may include: organic soils, histic epipedons, sulfidic material, aquic or peraquic moisture regime, reducing soil conditions, soil colors, soil appearing on hydric soils list, or iron and manganese concretions. Under normal circumstances, the investigator relies on field observations to determine if hydric soils are present by manually extracting a soil sample and inspecting the soil profile for color and texture qualities with the aid of a *Munsell Soil Color Book*. The inspector specifically looks for the presence of gleyed soils, soils with bright mottles and/or low matrix chroma, or iron and manganese concretions in the horizon immediately below the A-horizon or 10 inches (whichever is shallower), since these characteristics are generally the most common indicators of hydric soils.

Wetlands, when observed, are demarcated in the field using "Wetland Delineation" survey tape and/or wire flagging. Streams are demarcated using pink and black stripe survey tape. These features and the associated data points are located by utilizing a sub-meter GPS. This data is processed and utilized to create maps through our in-house geographic information system (GIS) platform.

#### **Limiting Conditions**

Our scope of services did not include an investigation of rare, threatened, or endangered species, historic structures, archeological sites, hydro-geologic services, or a floodplain study. It is important to note that environmental evaluations are inherently limited in that conclusions are drawn and recommendations are developed from information obtained from limited research and site evaluation. This study is based upon an examination of the habitat conditions of the site at the time of the walkover. It should be understood that habitat conditions are constantly changing and that future investigations could reveal altered conditions. This report describes the results of wetland and stream identifications within the limits of the project as presented to us. Should project limits change, the proximity to delineated resources should be re-evaluated.

#### Site Location

The site is intersected by Joy Run Road and located north of Camp Run Road (Rd) near Wana in Monongalia County, WV, as shown on the Site Location Map included in **Attachment C**. The following directions are provided to the site from Pittsburgh, Pennsylvania (PA):

- Merge onto I-376 W
- Take exit 64A to merge onto I-79 S toward Washington go 24.6 miles (mi)
- Take exit 21 to merge onto I-79 S toward Morgantown go 19.7 mi
- Take exit 19 for US 19 toward PA-221/Ruff Creek/Jefferson go 0.2 mi
- Turn left onto US-19 S go 5.4 mi
- Turn left onto W Greene Street (St) go 0.2 mi
- Turn right onto PA-218 S/S Morgan St go 13.3 mi
- Continue onto Daybrook Rd go 0.2 mi
- Turn right onto WV-7 W go 10.0 mi
- Turn right onto Brown Run go 0.6 mi
- Continue straight onto Dead Mans Camp Run Rd go 0.2 mi
- Turn right to destination on Joy Run

#### Review of Background Information

Available sources of relevant background information were reviewed prior to conducting the field survey. These sources included aerial photographs, U.S. Geological Survey (USGS) topographic maps, NWI maps, Federal Emergency Management Administration (FEMA) Flood Insurance Rate Maps (FIRM), and local soil survey maps.

A topographic map is a large scale detail and representation of relief of a landscape. A topographic map shows both natural and manmade features. D&H utilizes the original USGS topographic map series (1945-1992), as recent digital topographic maps omit important features. The USGS 7.5 minute series topographic map (Wadestown Quadrangle) shows the LOI as located on an unforested ridge with moderate slopes. The Joy Run stream valley passes through the southwestern corner of the LOI. A copy of the map is provided as **Attachment D**.

Aerial imagery is low altitude photography of the landscape provided by both government and private sources. Aerial photographs can be utilized to determine existing land use and ground cover. A 2012 aerial photograph shows the site as predominately vegetated by herbaceous meadows with sparse patchy forested areas scattered throughout the LOI. Several cattle trails are visible in the northwestern portion of the site and branch off within the northern portion of the site. An existing access road extends from the southern boundary of the LOI and terminates near the center of the site. The aerial photograph is included as **Attachment E**.

NWI maps are prepared by stereoscopic analysis of high-altitude aerial photographs. Wetlands are identified based on vegetation, visible hydrology, and topography. NWI maps provide a useful source of background information on potential wetland locations, but should not be relied upon as the only source to determine the presence or absence of wetlands on a site. The NWI map depicting the site does not show wetlands within or immediately adjacent to the LOI. A copy of the NWI map excerpt covering the site is provided as **Attachment F**.

Flood zones are geographic areas defined according to varying levels of flood risk by FEMA. Based on the FIRM depicting the site (Map Number 54061C0050E), the LOI is not located within a 100-year flood hazard area. A FIRM depicting the LOI is enclosed as **Attachment G**.

Soil maps are the result of a soil survey inventory and typically show only general distribution of soils, accompanied by the soil survey report. A review of the online soil maps provided by the Natural

Resources Conservation Service (NRCS) was performed. The principal mapped soil types within the LOI include: Clarksburg silt loam (CkD), Dormont and Guemsey silt loams (DgC and DgD), and Gilpin-Culleoka-Upshur silt loams (GuF). Review of the soil survey indicates that none of the listed soils are hydric. The soil survey map and detailed soil unit information is included as **Attachment H**.

#### Site Ecology

The site is located near Wana in northern Monongalia County, WV. The site is intersected by Joy Run Rd, which enters the LOI from the southern boundary and terminates within the LOI. The general site topography consists of ridges sloping to the northeast and southwest of the LOI. Surface water at the site flows indirectly into the Monongahela River, a traditionally navigable water (TNW).

The site visit indicated that the majority of the site ecology consists of herbaceous meadows. The meadows are dominated by red clover (*Trifolium pretense*) and tall goldenrod (*Solidago altissima*). Photographs of the site are included as **Attachment I**.

#### **Delineation Results**

The *U.S. Army Corps of Engineers'* (USACE) *Wetland Delineation Manual, Technical Report Y-87-1* (1987) defines a wetland as an area characterized by hydrophytic vegetation, wetland hydrology, and hydric soils. Evidence of each of these three parameters must be present to identify an area as a wetland. On this basis, five palustrine emergent (PEM) wetlands were identified within the LOI. In addition, one intermittent stream and one perennial stream were identified within the LOI. The delineated features within the LOI are considered WOUS and WOS of WV. The delineated wetlands and streams and are individually discussed below. Mapping of wetlands and streams, as well as associated data point locations, are included as **Attachment J** (Limits of Delineation Plan).

Wetland A (0.014 acres, DP1, Photographs 1 and 2) is a PEM wetland located in the southwestern portion of the LOI. Vegetation in the wetland is dominated by jewelweed (Impatiens capensis), common boneset (Eupatorium perfoliatum), and arrowleaf tearthumb (Persicaria sagittata). The composition of hydrophytic plant species in this wetland is 100 percent, thereby meeting the USACE criterion for wetland vegetation. The soil in Wetland A exhibits a depleted matrix with prominent redoximorphic concentrations starting at the soil surface. These characteristics are evidence that the soil in the wetland is saturated and/or inundated for a duration sufficient to promote anaerobic conditions, thereby meeting the depleted matrix hydric soil criterion. Wetland hydrology is provided by a seasonal high water table, precipitation, and overland flow from the surrounding uplands. At the time

of the field investigation, the soil was saturated to the surface and a high water table was present to the surface. Free water at the surface (FWAS) was observed throughout the wetland. These findings demonstrate that this site has sufficient saturation and/or inundation during the growing season to satisfy the wetland hydrology criterion. Wetland A (RPWWN) lies adjacent to Stream 1, indirectly exhibiting a significant nexus to the Monongahela River, and is therefore considered a WOUS and WOS of WV.

Wetland B (0.021 acres, DP8, Photographs 9 and 10) is a PEM wetland located in the northwestern portion of the LOI. Vegetation in the wetland is dominated by common boneset and rice cutgrass (Leersia oryzoides). The composition of hydrophytic plant species in this wetland is 100 percent, thereby meeting the USACE criterion for wetland vegetation. The soil in Wetland B exhibits a gleyed matrix with prominent redoximorphic concentrations starting at the soil surface. These characteristics are evidence that the soil in the wetland is saturated and/or inundated for a duration sufficient to promote anaerobic conditions, thereby meeting the loamy gleyed matrix hydric soil criterion. Wetland hydrology is provided by a seasonal high water table, precipitation, and overland flow from the surrounding uplands. At the time of the field investigation, FWAS was observed throughout the wetland. These findings demonstrate that this site has sufficient saturation and/or inundation during the growing season to satisfy the wetland hydrology criterion. Wetland B (RPWWN) lies adjacent to Stream 2, indirectly exhibiting a significant nexus to the Monongahela River, and is therefore considered a WOUS and WOS of WV.

Wetland C (0.019 acres, DP9, Photographs 11 and 12) is a PEM wetland located in the northwestern portion of the LOI. Vegetation in the wetland is dominated by common boneset and rice cutgrass. The composition of hydrophytic plant species in this wetland is 100 percent, thereby meeting the USACE criterion for wetland vegetation. The soil in Wetland C exhibits a gleyed matrix with prominent redoximorphic concentrations starting at the soil surface. These characteristics are evidence that the soil in the wetland is saturated and/or inundated for a duration sufficient to promote anaerobic conditions, thereby meeting the loamy gleyed matrix hydric soil criterion. Wetland hydrology is provided by a seasonal high water table, precipitation, and overland flow from the surrounding uplands. At the time of the field investigation, the soil was saturated to the surface and FWAS was observed throughout the wetland. These findings demonstrate that this site has sufficient saturation and/or inundation during the growing season to satisfy the wetland hydrology criterion. Wetland C (RPWWN) lies adjacent to Stream 2, indirectly exhibiting a significant nexus to the Monongahela River, and is therefore considered a WOUS and WOS of WV.

Wetland D (0.010 acres, DP10, Photographs 13 and 14) is a PEM wetland located in the west-central portion of the LOI. Vegetation in the wetland is dominated by shallow sedge (*Carex lurida*), harvestlice (*Agrimonia parviflora*), and rice cutgrass. The composition of hydrophytic plant species in this wetland is 100 percent, thereby meeting the USACE criterion for wetland vegetation. The soil in Wetland D exhibits a depleted matrix starting at the soil surface. This characteristic is evidence that the soil in the wetland is saturated and/or inundated for a duration sufficient to promote anaerobic conditions, thereby meeting the depleted matrix hydric soil criterion. Wetland hydrology is provided by a seasonal high water table, precipitation, and overland flow from the surrounding uplands. At the time of investigation, soil saturation was present to the surface and FWAS was observed. These findings demonstrate that the site has sufficient saturation and/or inundation during the growing season to satisfy the wetland hydrology criterion. Wetland D (RPWWD) abuts Stream 2, indirectly exhibiting a significant nexus to the Monongahela River, and is therefore considered a WOUS and WOS of WV.

Wetland E (0.046 acres, DP11, Photographs 15 and 16) is a PEM wetland located in the western extent of the LOI. Vegetation in the wetland is dominated by common rush (Juncus effusus), rice cutgrass, and harvestlice. The composition of hydrophytic plant species in this wetland is 100 percent, thereby meeting the USACE criterion for wetland vegetation. The soil in Wetland E exhibits a gleyed matrix starting at the soil surface. This characteristic is evidence that the soil in the wetland is saturated and/or inundated for a duration sufficient to promote anaerobic conditions, thereby meeting the loamy gleyed matrix hydric soil criterion. Wetland hydrology is provided by a seasonal high water table, precipitation, and overland flow from the surrounding uplands. At the time of the field investigation soil saturation was present to the surface and FWAS was observed. These findings demonstrate that this site has sufficient saturation and/or inundation during the growing season to satisfy the wetland hydrology criterion. Wetland E (RPWWD) abuts Stream 2, indirectly exhibiting a significant nexus to the Monongahela River, and is therefore considered a WOUS and WOS of WV.

Stream 1 (Photograph 17) (Joy Run) is a perennial relatively permanent water (RPW) located along the southwestern boundary of the LOI. Hydrology is provided by precipitation, runoff from the surrounding uplands and wetlands, and a seasonal high water table. The stream ordinary high water mark (OHWM) is six inches deep, two to three feet wide, and the stream substrate consisted of silt/cobble. At the time of the investigation, the water depth was approximately two inches. Stream 1 flows 667 linear feet within the confines of the LOI. Stream 1 indirectly exhibits a significant nexus with the Monongahela River and is therefore considered a WOUS and WOS of WV.

Stream 2 (Photograph 18) is an intermittent RPW located in the western portion of the LOI. Hydrology is provided by precipitation, runoff from the surrounding uplands and wetlands, and a seasonal high water table. The stream OHWM is two feet wide and three inches deep, and has a silt/cobble substrate. At the time of the investigation, approximately 0.25 inch of water was observed in the stream. Stream 2 flows 334 linear feet within the confines of the LOI, before dispersing into Wetland E. The stream indirectly exhibits a significant nexus with the Monongahela River and is therefore considered a WOUS and WOS of WV.

The following table summarizes the delineated wetlands and streams:

	Table 1.	<b>Water Summary</b>			
Water Feature Name	Cowardin Wetland / Stream Classification	HGM Classification	Water Type	Wetland (AC) / Stream (LF)	
Wetland A	PEM	SLOPE	RPWWN	0.014	
Wetland B	PEM	SLOPE	RPWWN	0.021	
Wetland C	PEM	SLOPE	RPWWN	0.019	
Wetland D	PEM	SLOPE	RPWWD	0.010	
Wetland E	PEM	SLOPE	RPWWD	0.046	
Stream 1	Perennial / R3	N/A	RPW	667	
Stream 2	Intermittent / R4	N/A	RPW	334	
To	tal Wetland (AC)/Stream	(LF) Delineation		0.110 / 1,001	

#### Conclusions

The stream and wetland delineation identified five PEM wetlands, one perennial stream, and one intermittent stream within the LOI. The delineated features within the LOI are considered WOUS and WOS of WV.

Only the USACE can make final determinations regarding Section 404 jurisdiction and permitting requirements. Although a jurisdictional determination is not required, D&H recommends written concurrence be obtained from the USACE/Pittsburgh District regarding the results and conclusions of this delineation. If wetlands are determined by the USACE to be isolated, and therefore outside of USACE jurisdiction, verification of this information must be provided to the WV Department of Environmental Protection (DEP). The WV DEP has the authority to assert jurisdiction over isolated wetland features and permit impacts to these resources accordingly.

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WW-6B (04/15)

API NO. 47-061	
OPERATOR WELL	NO. WDTN6CHSM
Well Pad Name:	WDTN6

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

1) Well Operato	or: CNX G	as Comp	any, LLC	494458046	Monongalia	Battelle	Wadestown
•				Operator ID	County	District	Quadrangle
2) Operator's W	Vell Number	r: WDTN	6CHSM	Well Pa	ad Name: WDT	N6	
3) Farm Name/	Surface Ow	ner: Con	sol	Public Ro	ad Access: Joy	Run Road	d CR 4/3
4) Elevation, cu	ırrent groun	d: 1400	) H	Elevation, proposed	l post-construct	ion: 1377.	5
5) Well Type	(a) Gas	X	Oil _	Uno	derground Stora	ge	
	Other						
	(b)If Gas	Shallow	X	Deep			
		Horizon	tal X		. 10 1/	a/1/20	ıG
6) Existing Pad	: Yes or No	No	<del></del>			5/1/20	1 (
, <u>,</u>	_	` ' ' '	//	icipated Thickness 000' TVD, 87' thick,	and Expected P	ressure(s):	
8) Proposed To	tal Vertical	Depth: 7	965' TVD :	at TD (dependent	upon formatio	n dip)	
9) Formation at	Total Verti	ical Depth	Marcellu	us Shale (will not p	penetrate Onor	ndaga)	
10) Proposed T	otal Measur	red Depth:	14,153'	MD at TD			
11) Proposed H	orizontal L	eg Length	5691'				
12) Approxima	te Fresh Wa	ater Strata	Depths:	Shallowest at	-125' and deep	est at ~38	7'
13) Method to 1	Determine F	Fresh Wate	er Depths:	Depth of bit when wa	ater shows in flowl	ine or depth	when misting is required
14) Approxima	te Saltwater	Depths:	2378', 246	8'			
15) Approxima	te Coal Sea	m Depths:	789', 112	29'			
16) Approxima	te Depth to	Possible V	oid (coal r	nine, karst, other):	None anticipa	ited	
17) Does Propo directly overlyi					No	» <u>Х</u>	
(a) If Yes, pro	ovide Mine	Info: Na	me:				
		De	pth:				
		Sea	nm:		Office of	ECEIVED of Oil and Gas	
		Ow	ner:			15-0	
					Environment	art <sub>ment</sub> of al Protection	

WW-6B (04/15) API NO. 47-<u>06</u>1

OPERATOR WELL NO. WDTN6CHSM

Well Pad Name: WDTN6

#### 18)

#### **CASING AND TUBING PROGRAM**

ТҮРЕ	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	L/S	<94.0	100	100	151 / CTS
Fresh Water	13.375	New	J-55	54.5	1350	1350	938 / CTS
Coal	13.375	New	J-55	54.5	1350	1350	938 / CTS
Intermediate	9.625	New	J-55	36.0	2950	2950	991 / CTS
Production	5.5	New	P-110	20.0	14153	14153	2566 / TOC @ 2750'
Tubing	2.375		J-55	4.7		TBD	N/A
Liners	N/A						

MDK 5/1/2019

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	26	0.375	N/A	N/A	Type 1	1.18
Fresh Water	13.375	17.5	0.380	2730	<500	Class A	1.19
Coal	13.375	17.5	0.380	2730	<500	Class A	1.19
Intermediate	9.625	12.25	0.352	3520	<2815	Class A	1.19
Production	5.5	8.75 x 8.5	0.361	12360	~10000 during frac	Class H	1.07
Tubing	2.375	N/A	0.190	7700	N/A	N/A	N/A
Liners	N/A						

#### **PACKERS**

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

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WV Department of Environmental Protection

WW-6B	
(10/14)	

4706101849

API NO. 47- 061

OPERATOR WELL NO. WDTN6CHSM

Well Pad Name: WDTN6

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

Construct well pad and access road. Utilize conductor rig to set 20" conductor into solid rock and cement back to surface. MIRU drilling rig. Air drill 17-1/2" hole. Run and cement 13-3/8" fresh water/coal casing. Note that the FW/coal casing will be set just above elevation - the casing will NOT be set below ground level (setting depth to isolate sloughing formations and red beds below the Pittsburgh coal seam). Air drill 12-1/4" hole. Run and cement 9-5/8" intermediate casing. Air drill 8-3/4" production hole to curve KOP (this section is typically directionally drilled with a slant/tangent profile for anti-collision and for lateral spacing). Displace hole with 12.0-13.0 ppg SOBM. Drill 8-1/2" curve from KOP to landing point. Continue drilling 8-1/2" lateral to TD (geosteer this section to remain in Marcellus target window). Perform clean-up cycle to condition well. Run and cement 5-1/2" production casing. Suspend well and skid to next well or RDMO drilling rig.

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

Run CBL to ~60 degrees in the curve and back to surface to determine production casing TOC. Test production casing and toe prep well. MIRU stimulation/hydraulic fracturing equipment. Fracture well by pumping required number of stages utilizing plug-and-perf method. Max anticipated treating pressure is ~10,000 psi and max anticipated treating pump rate is ~80-90 bpm. Number of stages and stage spacing to be finalized after drilling. After last stimulation stage, drill out frac plugs and clean-out well to 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): 29.2
- 22) Area to be disturbed for well pad only, less access road (acres): 20.6
- 23) Describe centralizer placement for each casing string:

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

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

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

25) Proposed borehole conditioning procedures:

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

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\*Note: Attach additional sheets as needed.

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#### **WDTN6 Cement Additives**

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

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#### DRILLING WELL PLAN

WDTN-6C-HSM (Marcellus HZ)

Marcellus Shale Horizontal

Monongalia County, WV

							Monorigana County, WV						
							WD	TN-6C-F	ISM SHL	N 438	3458.27, E 1756056	.75 (NAD27)	
Grou	nd Elev	ation	- 1	378' GL E	Elevation		WI	OTN-6C-	HSM LP	N 439	475.89, E 1756313	.76 (NAD27)	
1	Azimuth 313.5°		WDTN-6C-HSM BHL				N 443328.74, E 1752268.6 (NAD27)						
WELLBORE DIAGRAM		HOLE	CASING	GEOLOGY	MD	TVD	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS		
			26"	20" L/S				AIR	To Surface	N/A	N/A	Stabilize surface fill/soil	
		13 14	1000	- es es -	Conductor	100	100	10.9	17,4340,510		440	157000000000000000000000000000000000000	
			Shallowest Fresh Water		125		30.712 - 20.113			Bolton and the Committee			
		0.11		Deepest Fresh Water		387		15.6 ppg Class A + 1% to 3% CaCl2	Centralize every 3rd		Set through fresh water zon Set through coal zones		
	17-1/2"	13-3/8" 54.5#	Waynesburg Coal		789	AIR /	+ 1/4 pps Flake	joint from shoe to surface	Ensure the hole is clean at	Cemented to surface			
	8   8	10-06	J-55 BTC	Pittsburgh Coal		1129	FW Mist	20% OH Excess Yield = 1.19		section TD	13-3/8" shoe NOT to be set		
					Red Beds				TOC @ surface	Bow spring centralizers		deeper than ground level	
					FW/Coal Casing	1350	1350			-		All the Real Property lies	
					Big Lime		2378		15.6 ppg Class A	A Language		Set through potential salt wa	
10				ar when the same	Keener		2438	7057	+ 0% to 2% CaCl2	Centralize every 3rd joint from shoe to	Soap the hole as needed	zones	
		10	12-1/4"	9-5/8" 36,0# J-55 LTC	Big Injun		2468	Soap	+ 1/4 pps Flake 20% OH Excess Yield = 1.19 TOC @ surface	surface Bow spring centralizers	and ensure the hole is	Cemented to surface	
			1 5-3		Price		2648				clean at section TD	Casing to be set ~300' below the Big Injun base	
		(B)	-		Intermediate Casing	2950	2950						
					50 Foot		3038						
- 18			Sections		Gordon		3098	100	15.2 ppg Class H				
- 10		8.8	8-3/4" Tangent	100-01	Fifth		3263	AIR	50:50 Class H:Poz		Once at TD, circulate at	1.500	
- 1			4,5		Bayard		3310	100	with additives (retarder, suspension agent, gas	Centralize every joint	max flowrate with max rotation until shakers clean-	Note: For all strings, actua centralizer placements may	
				and 120 (22 (23)	Elks		5248		block, defoamer, fluid	from shoe to KOP - then every 3rd joint	up (typically requires	changed due to hole condition	
-1	a			5-1/2" 20.0# P-110 BTC	Rhinestreet	-	7365		loss, extender, etc.)	from KOP to TOC	multiple bottoms-up)	Note: For all strings, actua	
Office of Oil and			A 1 (C 203 )	Burkett		7747		10% OH Excess	Single-piece/rigid bow	Once on bottom with	cement blends may vary sligh		
	8-1/2" Curve		Tully		7774	12.0-13.0	Yield = 1.07	centralizers	casing, circulate a minimum of one hole volume prior to	depending upon service compar utilized			
		& Lateral		Hamilton		7810	ppg SOBM	TOC @ >= 200' above		pumping cement	3,000		
				Marcellus		7913		9-5/8" shoe					
2019					Production Casing	14153	7965						

LP @ +/- 7965' TVD

8-3/4" x 8-1/2" Hole - Cemented Long String 5-1/2" 20.0# P-110 BTC (or modified buttress)

+/- 5691' Lateral

TD @ +/- 7965' TVD



WDTN6 Pad Frac SOG Review / CRSD Review Monday, April 22, 2019

#### WDTN6 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 WDTN6 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, Status, Formation at TD, Total Depth, and Lat/Long.

The Marcellus Shale of the Wadestown area is found at an approximate True Vertical Depth (TVD) of 8000'. In the Wadestown area, there were very few wells that produced from formations deeper than the Bayard Sand (approximately 3500'). Based on our experience with frac communication and shallow wells, CNX Geology feels that it is highly unlikely for communication to occur with any wells producing in the area above the WDTN6 Pad.

The current hypothesis for SOG Communication is that Marcellus frac fluids and pressure intersect and migrate up a nearby fault that acts as a conduit for upward migration and intersection with high permeability reservoirs of the Alexander and Benson. These reservoirs are not developed in the Wadestown. Geomechanical data is collected from dipole sonic logs. CNX's nearest sonic data is from the NV20CCV well (Figure 2), approximately 20.5 miles north of the WDTN6 pad. Frac modeling (Figure 3) of the Marcellus in the area does not show significant upward frac growth.

Figure 1. 18 wells lie within a 500' buffer around the WDTN6 Pad that penetrate the Big Injun Sand or deeper horizons (highlighted green in the table on page 3). The deepest well is 3740' and produces from the Bayard Sand. No known SOG Communication events have occurred in this area.

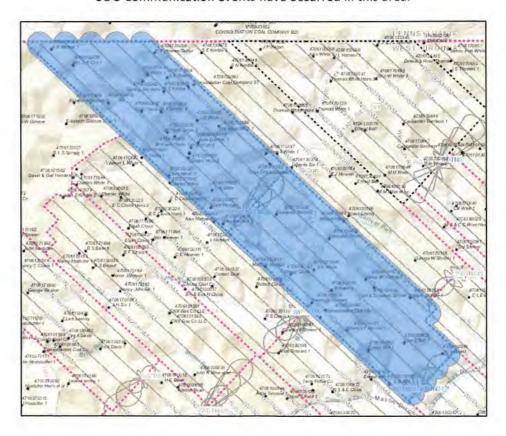




Figure 2. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the Wadestown Area Stress Profile log.

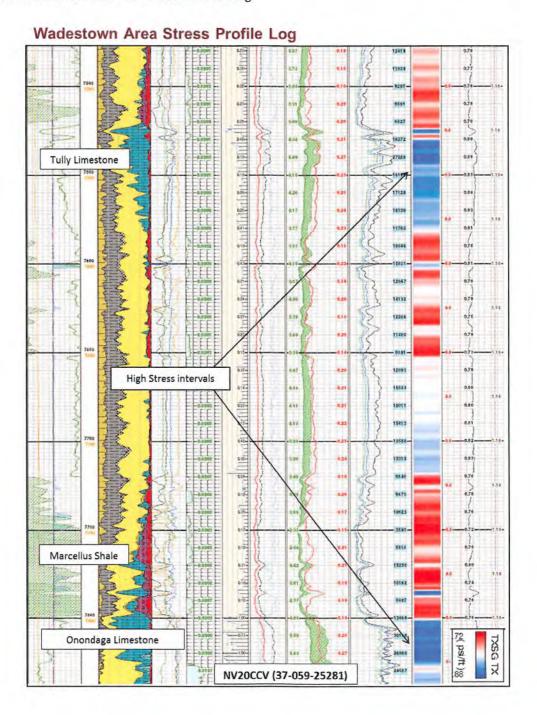
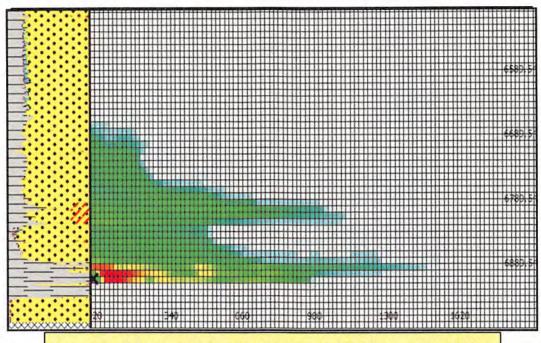
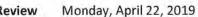




Figure 3. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Hamilton and Tully are much thinner than Wadestown. Frac modeling only yields frac height of approximately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



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







Long	Lat	API	STATE	COUNTY	LATITUDE	LONGITUDE	OPERATOR	STATUS	WELL_NAME	WELL NO	TD		ELEVATION
-80.351243	39.687472		WV		39.68739107		Oper in Min.owner fld.no code assgn(Orphan well proil	Gas	Charles F Shriver 1	000	3740	Bayard	1482
-80.378553	39.710639		WV		39.71055801	-80.37875452	Oper in Min.owner fld.no code assgn(Orphen well proi)	Gas	W Frank Taylor	2	3680	Bayard	1456
-80.36204		4706130328	WV		39.70098813		Manufacturers Light & Heat Co.	Gas	Raymond Tennant	-1	3604	Bayard	1315
-80.380429	39.719892		WV	Monongalia	39.71981112	-80.38063096	Hope Natural Gas Company	not available	B V Henner/Taylor		3599	Bayard	1241
-80.347956	39.685118		WV		39.68503708	-80.34815693	Beren, I. H.	Gas	Ernest Bell	1	3503	Bayard	1244
-80.35359	39.692173		wv		39.69209211	-80.35379116	A V Company	Gas	E Haines		3471	Fifth	1275
-80.37068	39.711364		WV		39.71128315	-80.37088174	Oper in Min. owner fld, no code assgn(Orphan well proj)	Gas	J N Stiles Heirs	1	3448	Bayard	1249
			WV		39,69242022		Manufacturers Light & Heat Co.	Gas	Ina & Susanna Shriver 1	-	3442	Fifth	1160
-80.347073							Pittsburgh & WV Gas	Gas	Freeman Tennant		3385	Thirty-foot	1115
-80.356593	39.690723		WV	Monongalia	39.69064204		West Penn Dil Co.		Taylor Heirs	2	3371	Bayard	1296
-80.382496	39.713104		WV	Monongalia	39.71302298	-80.38269755		Dry		- 2	3366	Bayard	1146
-80.359785	39.694108		WV		39.69402705	-80.3593861	Pittsburgh & WV Gas	Gas	Dossy Clovis		3363	Fifth	1130
-80.393011		4706130078	WV		39.71838889		Oper in Min.owner fid.no code assgn(Orphan well proj)	Gas	Mrs S FI Cox				1279
-80.342516	39.685988		WV		39.68590717	-80.34271711	Pittsburgh & WV Gas	Gas	Ernest Bell	1	3354	Fifth	
-80.379117	39.715424		WV		39.71534308	-80 37931876	Oper in Min.owner fid.no code assign(Orphan well proj)	Gas	S.E.Kimble	1	3260	Gordon	1240
-80.396204	39.720355	4706101154	wv	Monongalia	39.72027386	-80,39640562	Greenridge Oil Co.	Oil	A B Renner	1	3213	Fourth	1190
-80.382308	39.716584	4706100042	w	Monongalia	39.71650304	-80.38250974	Oper in Min.owner fid.no code assgn(Orphan well pro)	not available	Donely Six Heirs	1	3195	Big Injun (undiff)	1090
-80.377427	39.710204		WV		39.71012302	-80.37762852	Patterson, G. & A.	Gas w/ Oil Show	W Frank Taylor	1	3061	Thirty-foot	1236
-90.381557	39.717309		wv		39.71722906	-80.3817588	Gibson & Giles	not available	Eli White	1	2890	Big Injun (undiff)	1075
-80.374986	39.708899	4706101529	W		39,70881804	-80.37518751	CNX Gas Co. LLC (North)	Methane (CBM)	Edgar A & Seth A Moore	SC14	1304	Pennsulvanian Sustem	1245
-80.375362	39.707689	4706101525	wv		39.70760802	-80.37556344	CNX Gas Co. LLC (North)	Methane [CBM]	Edgar A & Seth A Moore		1304	Pennsulvanian Sustem	1330
80.355279	39,688983	4706101545	w		39.68890203	-80.35547395	CNX Gas Co. LLC (North)	Dry Methane (CBM)	Consolidation Coal Co		1210	Pittsburgh coal	1150
			wv						Consolidation Coal Co		1210	Pittsburgh coal	1144
-80.354528	39.689853	4706101544			39.68977206	-80.35472901	CNIX Gas Co LLC (North)	Methane (CBM)	Alex Hennen Hrs		920	Allegheny Fm	1190
-80.371502	39.700238	4706100165	wv		39.70015696	-80,37170314	Oper in Min.owner fld.no code assgn(Orphan well proj)	Dry		1	920		1190
80.371502	39.700238	4706100165	WV		39.70015696	-80.37170314	Oper in Min owner fld no code assign(Orphan well proj)	Dry	Alex Hennen Hrs	1		Allegheny Fm	
-80.362981	39,706964	4706101532	WV		39.70688321	-80.3631627	CNX Gas Co. LLC (North)	Methane (CBM)	Terra Firma Company		912	Pitteburgh coal	1252
-80.362981	39.706964	4706101532	WV		39.70688321	-80.3631627	CNM Gas Co. LLC (North)	Methane (CBM)	Terra Firma Company		912	Pittsburgh coal	1252
90.37520148	39.70825237	4706101519	WV	Monongalia	39.70817139	-80.37540295					0		1291
-80.374489	39.7162	4706100561	WV	Monongalia	39.71611917	-80.37459091	EQT Production Company		Consolidation Coal Company	37	0		7111
-80.371989	39.701989	4706100077	WV	Monongalia	39.70190798	-80.37219021	Pittsburgh & WV Gas	Dry	Clark Hennen		0		1240
-80.371989	39.701689	4706100077	WV	Monongalia	39.70190798	-80.37219021	Pittsburgh & WV Gas	Dru	Clark Hennen		0		1240
-80.363723	39.694917	4706170637	wv	Monongalia	39.694836	-80 36392405	unknown	not available	Mahlon Tennant		0		1220
-80.371794	39.703915	4706170634	wv		39.70383402	-80.37199532	unknown	not available	L A Stiles		0		1485
-80.372544	39.697819	4706170636	wv		39.69773791	-80.37274498	unknown	not available	L Hennen		0		1392
-80.370104	39.699996	4706170635	wv		39.69991498	-80.37030516	Oper in Min.owner fld,no code assgn(Orphan well proj)	not available	Alex Hennan 2		0		1192
-80.341578	39.691303	4706170158	wv		39.69122228	-80.34177941	Philadelphia Company, The	not available	Jasper Shriver	3	0		1087
-80.344767	39.681153	4706170160	wv		39.68107205	-80.34496781	Philadelphia Company, The	not available	E B Bell		0		1078
		4706100428	wv			-80.35416846	Equitable Gas Co.				0		1226
-80.353967	39.696264				39.69818321			not available	Margaret Shriver		0		1220
-80.363723	39 634917	4706170637	WV	Monongalia		-80.36392405	unknown	not available	Mahlan Tennant				1220
-80.363544	39.708124	4706170137	WV		39.70804322		Philadelphia Company. The	not available	Simon L White	1	0		1127
30.37520148			WV	Wetzel	39.70817139	-80.37540295	Kidd, Barron	not available	Santee Heirs	6	0		1291
80.37520148			WV	Wetzel	39,70817139	-80.37540295	Kidd, Barron	not available	Santee Heirs	2	0		1291
-80.356216	39.694626	4706170641	wv		39.69454511	-80.35641722	Philadelphia Cil Co.	nol available	SS White		0		1118
-80.371794	39.703915	4706170634	WV		39,70383402	-80.37199532	unknown	not available	L A Stiles		0		1485
-80.378552	39.716989	4706171904	WV	Monongalia	39.71690811	-80.37875385	unknown	not available	SE Kimble		0		1210
-80.387565	39.714119	4706100439	wv		39.71403791	-80.38776649	Equitable Gas Co.	not available	Six		0		1208
-80.37949	39,71307	4706170438	WV	Monongalia	39.71298903	-80.37969162	unknown	not available	S E Kimble	2	0		1501
-80.370104	33,699996	4706170635			39.69991498	-80.37030516	Oper in Min owner fld no code assgn/Orphan well proil	not available	Alex Hennan 2		0		1192
-80.378374	39.705564	4706130201	wv		39.70548293		Pittsburgh & WV Ges	not available	Chas White	4	0		1270
-80.336558	39.684678	4706100395	w		39.68459724	-80.33675919	Consolidated Gas Supply Corp	not available	C Termant	- 1	n		1076
-90.351712	39.700286	4706170643			39,70020528	-80.35191362	Philadelphia Oil Co.		William Haines		0		1339
-80.351712	39.716004	4706170135			39.71592315	-80.37556288		not available	F H Hennen	4	0		1188
							Carnegie Natural Gas Co.	not available		1.	U		
-80.374044	39.712055	4706170633		Monongalia		-80.3742457	Hope Natural Gas Company	not available	JG White		U		1307
-80.348335	39.693478	4706170157	WV		39.69339721	-80.34853635	unknown	not available	Henry W Haines	1	D		1199
80.37520148			WV	Wetzel	39.70817139	-80.37540295	Kidd, Barron	not available	Santee Heirs	4	0		1291
-90.373871	39.709479	4706170136	wv	Monongalia	39.70939807	-80.37407257	Carnegie Natural Gas Co.	not available	John G White	1	. 0		1157

55 wells lie within the 500' buffer of the entire WDTN6 Pad. 18 of them penetrate the Big Injun Sand or deeper stratigraphy. 8 wells are CBM or vent holes associated with GOB production. 29 wells have no Formation or TD information available. Completion reports are not available for these on the WVGES website.

WW-9 (4/16)

	0200		100	
API	Num	her	47	-

Operator's Well No. wornechsm

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

#### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name CNX Gas Company, LLC OP Code 494458046
Watershed (HUC 10) Dunkard Creek Quadrangle Wadestown
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No
Will a pit be used? Yes No ✓
If so, please describe anticipated pit waste: no pits
Will a synthetic liner be used in the pit? Yes No If so, what ml.? NA
Proposed Disposal Method For Treated Pit Wastes:
Land Application
Underground Injection (UIC Permit Number 47-001-00561, 47-097-01514, 47-097-01613, 34-013-2-0609)
Reuse (at API Number WDTN18 wells API TBD  Off Site Disposal (Supply form WW-9 for disposal location)
Other (Explain No pits
Will closed loop system be used? If so, describe: yes
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical air from specification to curve Mode off point (NOP) Horizontal: synthetic oil-based mud (SOBM) from curve KOP to lateral TD
-If oil based, what type? Synthetic, petroleum, etc. Synthetic
Additives to be used in drilling medium? Bactericide, Polymers, and Weighting Agents
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Removal offsite to an approved landfill
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA
-Landfill or offsite name/permit number? See attached.
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.
Company Official Signature
Company Official (Typed Name) Erika Whetstone
Company Official Title Permitting Manager
Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and sworn before me this day of 20 Summonwealth of Pennsylvania - Notary Subscribed and Subscribed a
My commission expires Commission number 1200781  Member, Pennsylvania Association of Notar

Operator's Well No. WDTN6CHSM

Proposed Revegetation Treatm										
	nent: Acres Disturbed 2	1.0 Prevegetation	<sub>pH</sub> 6.5							
Lime according to pH	test Tons/acre or to correc	ct to pH 7.0								
Fertilizer type 10-20	0-20									
Fertilizer amount 50	0	lbs/acre								
Mulch hay or stra	w @ 2	_Tons/acre								
		Seed Mixtures								
Ten	iporary	Permanent								
Seed Type	lbs/acre	Seed Type	lbs/acre							
Orchard Grass	25	Orchard Grass	25							
Birdsfoot Trefoil	15	Birdsfoot Trefoil	15							
Ladino Clover	10	Ladino Clover	10							
provided). If water from the piacreage, of the land application  Photocopied section of involve	n area.	clude dimensions (L x W x D) of the pit, a	luding this info have been and dimensions (L x W), and a							
acreage, of the land application	n area.	clude dimensions (L x W x D) of the pit, a								
Photocopied section of involve	n area.	clude dimensions (L x W x D) of the pit, a								
Plan Approved by:	n area.	clude dimensions (L x W x D) of the pit, a								
Plan Approved by:	n area.	clude dimensions (L x W x D) of the pit, a								
Photocopied section of involve	n area.	clude dimensions (L x W x D) of the pit, a								
Photocopied section of involve	n area.	clude dimensions (L x W x D) of the pit, a								
Photocopied section of involved Plan Approved by:	n area.	clude dimensions (L x W x D) of the pit, a								
Photocopied section of involve	n area.	clude dimensions (L x W x D) of the pit, a								

MAY 15 2019

Discinimer: Vandors have been approved for the below estegory by ENV. UPDATED AGREEMENT with MSCM MUST BE CONFIRMED.

Total Committee of Street	R ( - da)	_				OVERSOSHA	Control of the last of the las			- Contractor	The state of the s			_	
Industrial Landfills		Gas Specific Wante Streams													
Landilli	Location		Delli *	Unate	Witate	Contestionted Soll	Contraction &	Industrial Waste	Sindge	Printie	Non-Frieble Anteston	Process	Bolt/liftention Services	Municipal Solid Watte	Contact Information
McLang County	Alemmeters	IL	X	X		X	X	X	X	X	XI	X	1	X	
ERC/Coles Copney	Charfonton	JIL.	X	X		_X_	X	X	X	X	X	х	-	X	
Brick yard Dir numb	Denville	II.	X	X		X	X	X	X	X	X	X	A CONTRACTOR OF THE PARTY OF TH	X	
Southern Dimois Regional	De Sete	II.		-					ACCOUNT NAMED IN		-			X	
Les Coulty	Dixon	n.	X	X.	1	X	X	X	X	х	X	X	No.	X	1
Inger Rock Island	Em Moline	J.L.	X	X		X	Х	X	X	X	X	ж	San Contract	X	1
Sond Comm'	Greensville	D.	X	_8		X	X	Х	X	X	X	X		X	1
Uhole	Herperton	II.	X	X		X	X	X	X	X	X	X	1	X	I see and the second second
.mdComp	LaSalie	IL.	X	X	1	X	X	Х	X	X	X	7	-	X	317-921-1667 or 480-627-2700
Litchfield-Hillyboro	Litchfield	IL	X	X	CONTRA	X	X	X	х	X	X	X	100000000000000000000000000000000000000	X	1-800-634-0215
Savirontoch	Morris	IL.	X	X	4	Х	X	X	х	X	X	х	1	X	a new met want
Livingston	Pontiac	II.	X	X		ж	X	X	X		X	X	1	X	
CORRES	Rozada	IT.	X	X	10000	X	X	X	X	X	X	X	X	X	
iana amon Yallo	Berineffeld	IL.	X	X		X	X	X	X	X	X	X		X	1
Semanti Valley	Praeldort	KY KY	X	ж		X	X.	X	X	7.	X	X		X	1
Ope Ridge	Arrine	IKY	X	X	Mary .	X	X	X	X	X	X	X		X	1
feeded	Morehend	KYL	X	X.		X	X	X	X	X	X	X		X	1
irem Velle	Rush	KY.	X	X		x	X	X	X	X	X	X	70	X	
herokee Run	Bellefontalne	OH	m; ***; *** (***)		200000	X	X	X	X		X	X	-	Y	
Villians Cours	B5780	OHI	PLY CHIEF I	-	1	X	X	X	X	Y.	X I	X	-	X	
come Environmental	Certey	OH		-50	The second	X	X	X			X	X		х	
elins	Coline	OH				X	X	X	X		X	X		X	
arbon-Limestone**	Loweliville	OII	X	X		X	X	X	X			X	X		Jack Palermo:
County wide Landfilles	East Syuria	Otil	X	X	Particular,	X	X	X		-	-		-	- X	
oralo Coenty	Obertin	OH	-	-	1000	X	X	X	X			К		Y	works 330-396-8013
	Ehiloh	OH	P 201		200		X	X	X	X	×			X	cell: 330-806-9660
	Imperial	PA I		200	Acres 1	х	X	X	X	X	X		-	Y	
	Mornantown	PA	District of	-	-	x	X	100000	X	X	X	X		Y	Barbers Hammye:
ramaride	Lawrenceville	VA			Name of	X	X	X	X	X	Y	X	-	Y	work: 330-536-8013 x 120
ing and Overer	Little Phymontis	VA	Sec. of Particular	1	Name of Street	X	X	X	X	X	x	X	-	X	cell: 330-423-7267
les and Overen ld Dyminion	fochmon!	VA	-	-		X	X	X	X	X	¥ 1	x		N N	and the last that
COMOTE.	Hundone	WV		-		X	X	2	X	-		×		X	
ient Creek	Wheeling (Short Creek)	WV	X.	X	-	X	X	X	X			X	-	-0-	
	Clearch Hill	TN	-					-	-			-		-9-	

Office of Oil and Gas
MAY 1 5 2019
WW Department of Environmental Protection

West Minigument Industrial Lendilla		Ges Spe	citie Weste	Streams			Sec. Acres 6									
Landin	Location		Drift *	Wests	Waste	Contestinated Self	Construction & Demolition Warte	Industrias Wasts	Eholgo	Frisble Arbeitos	New-Prints	Process Warts	Services	Municipal Solid Waste	Costset Information	
Aso melfill	Winhiteston	PA	X	X		X	X	Χ.	- X		CON. 1 11 11	X	X	X		
Shirth Kills (Amont)	South Path	T'FA	- 75	X			X	X	X		San Company	X	X	X		
Kolly Run	Plimbeth	PA-	7.	X	1000	X	X	X	X			X	X	X		
Valicy Lendilli	Jewin	PA	X	X		X	X	X	X	X.	X	ж	X	X		
Every toon Londrill	Bulaville	FA	X	X		X	X	X						X	Scott Allen: 412-604-2256	
Charleston Landilli Kannychi Compos	Charleston	WY	х	ж		x	x	x	X			x		x	Diche Military and and annual	
Mendowiff Landfill	Bridge 1070	LWW.	X	- 3		- 2	X	X	X	X	X	X	X	X	1	
Northwestern Landfill	Parkershing .	WV		X	-	X	X	X	X	-		х	X	ж	1	
S&S Credity Land 60	Citabation	JWV.		X	1000	X	X	X	X		-	х	10000	х		
Ammian Landöll	Weignstein	OH	X	2	3 2	X	X	- 7	X	X	X	X	X	X	A TABLE A TOUR OF THE	
Suburban RDF	Glenford	DH	X	X	100mm	X	X	- A	X	X	X	_X_	X.		Putty Landolt: 262-532-8001	
Conhoctos Landfillens	Conhacton	1010	_X	X		X	Ä	X			1			Ä	Jalm Miller: 1-800-963-4776	
Marine Ladell	Then Smomfield	1011	- 3		-	X	X	X		The same of	7	- X		-3		
		-	-	_	-											
Additional Landfills Ges			Such	dic Wasto			Other Accepted Wests Streams								Contact Information	
Landill	Location		Cuttiers	Wests Linux	Wasta	Contaminated Sed (Revisative Patroleum)	Construction & Demolition Warts	Industrial Warry	Sludge	Frinble Asherim	Non-Frinkle Arhenten	Process Waste	Solidification Services	Manicipal Solid Wante	CONTAIN MARKETINE	
Westmareland Wester WWLC Group)	111 Corner Lane, Belle Verson, PA 15012	PA	х	х		x	x	х	х	х	x		x	x	Miles Home: 412-552-4427 Mark Thomas: 724-929-7694	
MAX Environmental	200 Max Onve, Onkert PA 15010	PA	x	ж		x	x	x	x				x	x	Ciril Spadaro: 412-343-4900	
CAX Brytromental Yaten Pacifity	Yulun PA 1169E	PA	x	ж		x	x	x	x				x		Dell: 412-443-9789	
Apex Sentery Lendfill Acez Baylrouxentel	11 County Rend 78 Ameterdays, Ohio 43903	BO	x	х		x	x	x	x				x		Joe Telerick: 740-275-2887	
tumples, Mt. Stedling	30 Larison Rd, Action wille KY 40337	KY	x	х		x	x	x		x	x				Carl Waher: 513-623-2471	
acrd Ridge Landfill Water Connections of K.V.	3612 E State Highway 552 Lilv. KY 40740	KY	x	x		x	х	х		x	х	x		x	Droce Crosch: Work: 606-864-7996	
Villa Salarosanosa VI. Sa 1	Cheston Valley 1184 McClellandtown Rd, McClellandtown, PA 15458	PA	ж	х		х	ж	x	х					х	Cell: 606-219-0261	
Advanced Disposal	Grountree Landfill; 635 Taby Rd.; Keessy, PA	PA	x	х		x	x	х	х					х	6184 Roote 219, Brockway, PA 1582 814-590-9905	
	Mosteller Landfill; 7035 Olades Plice Rd.; Sorsesset, PA	PA	x	×		×	х	x	x					х		

60	Ohio "TENORM" - requires Radius 226/228 scalaria by load before touring the well pad, Solid waste institlls in Ohio can only accept TENORM weste with combined concentration less than 5 piccoories per gram above the natural background level.
200	Accepts drilling wants but profile for disposal to not corrowly exemplated.
2	Waste elemm accorded by Scellin.

Waste forms accepted by scottly.

Waste stream accepted by facility. Contact facility directly to verify waste streams accepted.

New PADEF rules regarding "TENORAC" testing engalement we pending.

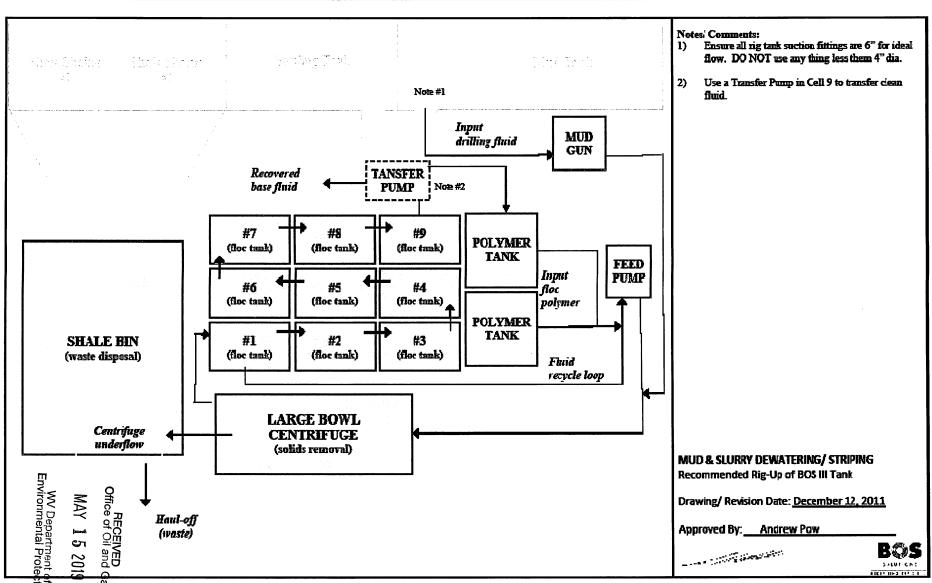
Drill Cuttings include fine send for the purpose of this highs (Contact Sacility directly to verify wants streams accepted).

RECEIVED Office of Oil and Gas MAY 1 5 2019

WW Department of Environmental Proceedion

## FLOW CHART MUD AND SLURRY DEWATERING RECOMMENDED RIG UP







# Site Safety Plan for Well WDTN6CHSM CNX Gas Company, LLC.



Office of Oil and Gas

MAY 15 2019

### **Approval Sheet**

### 4706101849

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

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

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

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

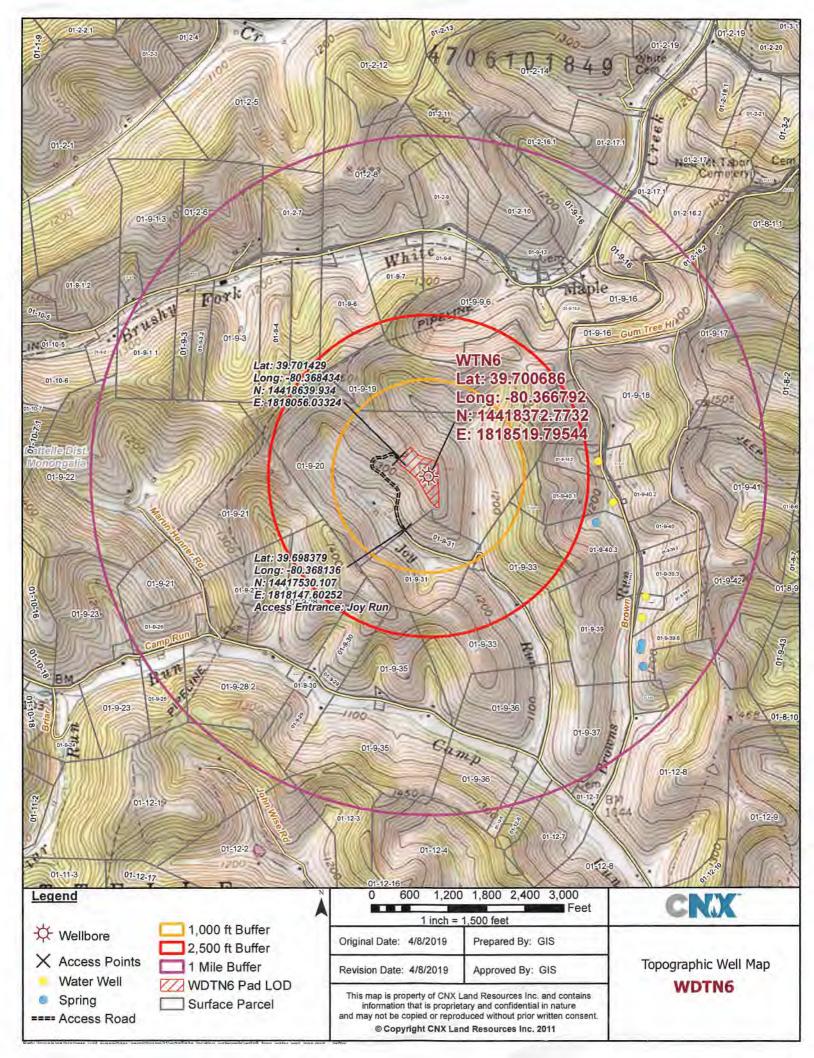
West Virginia Division of Environmental Protection, Office of Oil and Gas And

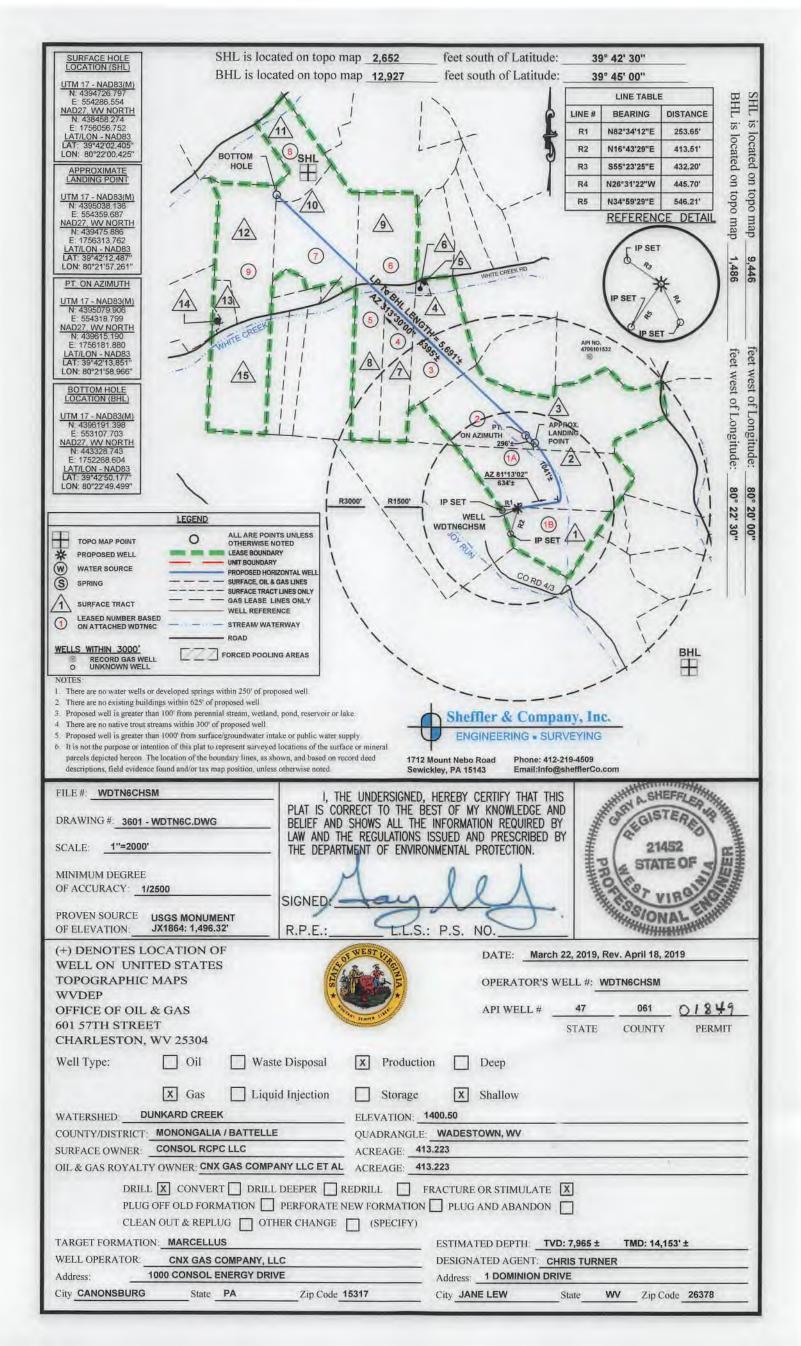
West Virginia Oil and Gas Conservation Commission.

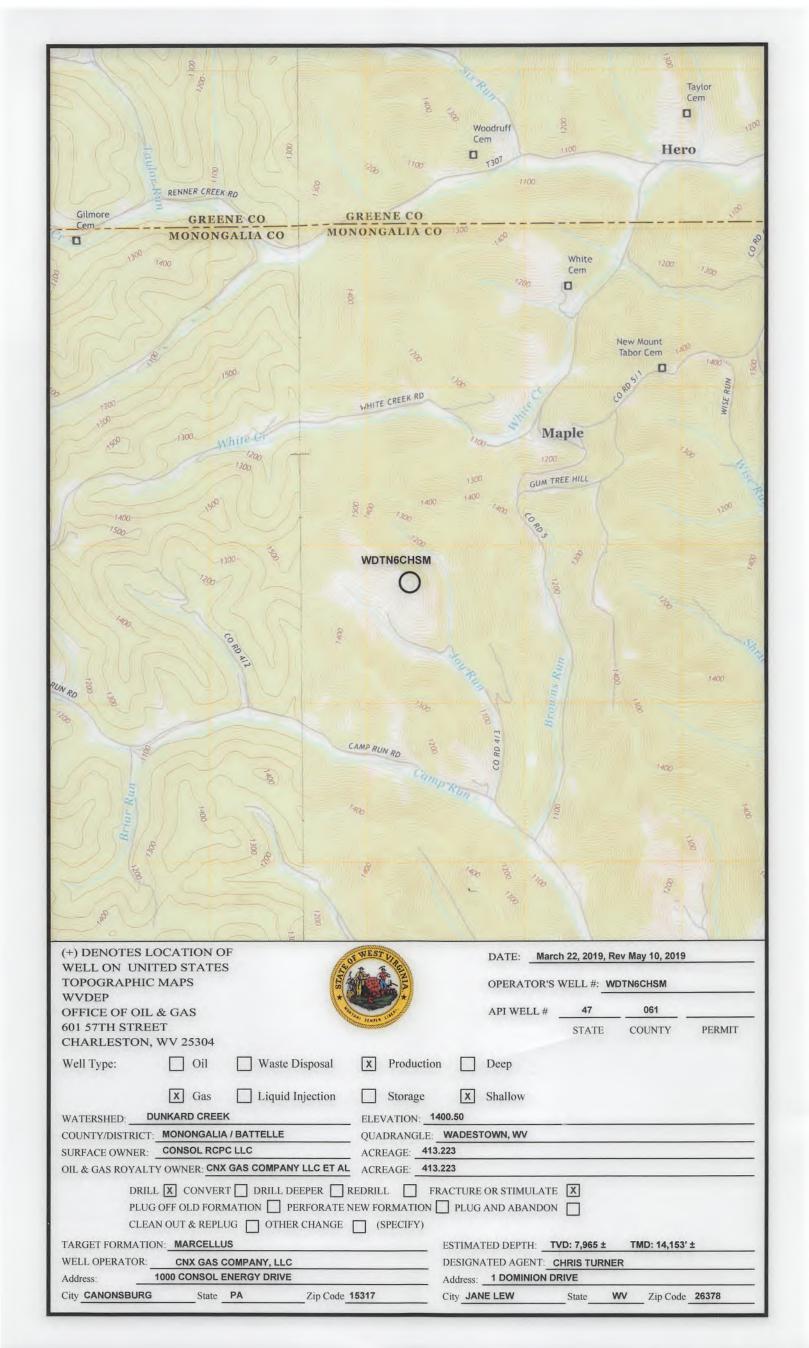
Approved this day	1	_of month_	MAY	20 <u><b>19</b></u> b
Lamy &	Kentler		Date: S/1	12019
			Date:	

RECEIVED
Office of Oil and Gas

MAY 15 2019







Tract ID	Tax Map & Parcel	Grantor, Lessor, etc	Surface Owner	
1A, 1B	1-9-20	CNX Gas Company LLC. ET. AL.	CONSOL RCPC LLC	
2	1-9-19	Bounty Minerals, LLC	CONSOL MINING COMPANY LLC	
3	1-9-6	John D. Lynch and Janet L. Lynch	WILLIAM R. BORCHERT ET AL.,	
	1-9-6.1	William R. Borchert and Ann L. Borchert	JOHN N. & CONNIE S. PALMER, JOHN N. & CONNIE S. PALMER	
	1-9-6.2	Robert E. Lynch, Jr. and Sharon L. Lynch	JOHN N. & CONNIE S. PALMER	
4	1-9-5	Roger Goodwin and Ilene Goodwin	CONSOL MINING COMPANY LLC	
5	1-9-4	Douglas A. Church	EDGAR A. MOORE JR & SETH ALLEN	
6	1-2-7	Mike J. Prendergast and Thelma Prendergast	MIKE J. & THELMA M. PRENDERGAS	
7	1-2-6	OMAX Corporation, by William H. Bland, President	FLORA K. WOLFE	
		Noumenon, Inc. by Stephen K. Shuman, President		
		Shuman Inc., by Stephen K. Shuman, President		
		XTO Energy Inc.		
8	1-2-5	OMAX Corporation, by William H. Bland, President	CONSOL MINING COMPANY LLC.	
		Noumenon, Inc. by Stephen K. Shuman, President		
		Shuman Inc., by Stephen K. Shuman, President		
		Flossie Kimble, Denzle Kimble and Olive Irene Wright Kimble		
9 1-9-1 1-9-1.1			JOEY A. & AMY B. SLIDER, WOLFPE	
	1-9-1.3	Samata Taylor-Sturm, a/k/a Dixie Taylor-Sturm and Michael Douglas Sturm	KNOB DEVELOPMENT CO.	
	1-9-1.4	Linda Suzann Miller, individually and as trustee for the Generation-Skipping Trust FBO Linda Suzann Miller		
		Chrysanthe E. Taylor a/k/a Chris Taylor		

BATTELLE	DISTRICT	
#	TAX MAP & PARCEL	UNIT ACRES
1A	1-9, P/O PARCEL 20	47.843 Ac
1B	1-9, P/O PARCEL 20	26.505 Ac
2	1-9, PARCEL 19	77.843 Ac
3	1-9, PARCEL 6, 6.1 & 6.2	33.293 Ac
4.	1-9, PARCEL 5	25.136 Ac
5	1-9, PARCEL 4	25.411 Ac
6	1-2, PARCEL 7	30.780 Ac
7	1-2, PARCEL 6	43.601 Ac
8	1-2, PARCEL 5	21.586 Ac
9	1-9, PARCEL 1, 1.1, 1.3, 1.4	81.225 Ac

SUF	RFACE TRACT OWNERS & TAX PARCEL	
1.	CONSOL RCPC LLC	TM# 1-9-20
2.	CONSOL RCPC LLC	TM# 1-9-20
3.	CONSOL MINING COMPANY LLC	TM# 1-9-19
4.	WILLIAM R. BORCHERT ET AL.	TM# 1-9-6
5.	JOHN N. & CONNIE S. PALMER	TM# 1-9-6
6.	JOHN N. & CONNIE S. PALMER	TM# 1-9-6.1
7.	CONSOL MINING COMPANY LLC.	TM# 1-9-5
8.	EDGAR A. MOORE JR & SETH ALLEN	TM# 1-9-4
9.	MIKE J. & THELMA M. PRENDERGAST	TM# 1-2-7
10.	FLORA K. WOLFE	TM# 1-2-6
11.	CONSOL MINING COMPANY LLC.	TM# 1-2-5
12.	ROBERT L. & DORIS J. SLIDER	TM# 1-9.1.3
13.	ROBERT L. & DORIS J. SLIDER	TM# 1-9-1
14.	JOEY A. & AMY B. SLIDER	TM# 1-9-1.4
15.	WOLFPEN KNOB DEVELOPMENT CO.	TM# 1-9.1.1

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304	Sheffler & Company, Inc.  ENGINEERING • SURVEYING  1712 Mount Nebo Road Sewickley, PA 15143  Phone: 412-219-4509 Email:Info@shefflerCo.com  DATE: March 22, 2019, Rev. May 10, 2019
Well Type: Oil Waste Disposal X Production	Deep OPERATOR'S WELL #: WDTN6CHSM
X Gas Liquid Injection Storage  WATERSHED: DUNKARD CREEK ELEVATION:	X   Shallow   API WELL #   47     061
COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE	WADESTOWN, WV
SURFACE OWNER: CONSOL RCPC LLC ACREAGE: 4	
OIL & GAS ROYALTY OWNER: CNX GAS COMPANY LLC ET AL ACREAGE: 4	13.223
DRILL X CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY)	Charles and a straight and a straigh
TARGET FORMATION: MARCELLUS	ESTIMATED DEPTH: TVD: 7,965 ± TMD: 14,153' ±
WELL OPERATOR: CNX GAS COMPANY, LLC	DESIGNATED AGENT: CHRIS TURNER
Address: 1000 CONSOL ENERGY DRIVE	Address: 1 DOMINION DRIVE
City CANONSBURG State PA Zip Code 15317	City JANE LEW State WV Zip Code 26378

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

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

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

Lease Name or Number

Grantor, Lessor, etc.

Grantee, Lessee, etc.

Royalty

Book/Page

See attached

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

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

WV Division of Water and Waste Management

WV Division of Natural Resources WV Division of Highways

U.S. Army Corps of Engineers

U.S. Fish and Wildlife Service

County Floodplain Coordinator

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WV Department of Environmental Protection

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

Well Operator: CNX Gas Company, LLC

By: Erika Whetstone

Its: Permitting Manager

Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
1A, 1B	1-9-20	239983000	Consol RCPC LLC	CNX Gas Company LLC	Subsurface Easement	1648/661
Tract ID	Tax Map & Parcel	Title Opinion	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
2	1-9-19	QLS # 188567000	Bounty Minerals, LLC	CNX Gas Company LLC	Not less than 1/8	1644/316
		Title			-	
Tract ID	Tax Map & Parcel	Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
3	1-9-6 1-9-6.1	188563000	John D. Lynch and Janet L. Lynch	CNX Gas Company LLC	Not less than 1/8	1522/49
-	1-9-6.2	100303000	William R. Borchert and Ann L. Borchert Robert E. Lynch, Jr. and Sharon L. Lynch	CNX Gas Company LLC CNX Gas Company LLC	Not less than 1/8 Not less than 1/8	1522/53 1522/57
Tract ID	Tax Map & Parcel	Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
			Roger Goodwin and Ilene Goodwin	Consolidation Coal Company	Deed	1309/678
			Consolidation Coal Company	Consol Mining Company LLC	Deed	1489/107 1514/389
4	1-9-5	188562000	Consol Mining Company, LLC	CNX Resource Holdings LLC	Deed	1603/78
			CNX Resource Holdings LLC	CNX Gas Company LLC	Deed	Unrecorded (See Attached Copy
	-	-				(See Attached Cop
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
			Douglas A. Church	Terra Firma Company	Deed	1295/148
5	1-9-4	188561000	Terra Firma Company	CNX Land LLC	Deed	CB 60/312 Unrecorded
			CNX Land LLC	CNX Gas Company LLC	Deed	(See Attached Copy
		Tiala				
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
6	1-2-7	191527000	Mike J. Prendergast and Thelma Prendergast	CNX Gas Company LLC	Not less than 1/8	1507/432
Tract ID	Tax Map & Parcel	<u>Title</u> <u>Opinion</u> QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
		QL3 #	OMAX Corporation, by William H. Bland, President	CNX Gas Company LLC	Not less than 1/8	1512/788
7	1-2-6	189588000	Noumenon, Inc. by Stephen K. Shuman, President	CNX Gas Company LLC	Not less than 1/8	1512/792
			Shuman Inc., by Stephen K. Shuman, President XTO Energy Inc.	CNX Gas Company LLC CNX Gas Company LLC	Not less than 1/8 Not less than 1/8	1513/102 1639/585
-		mist.			THE PARTY OF THE P	-
Tract ID	Tax Map & Parcel	Title Opinion QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
		-	OMAX Corporation, by William H. Bland, President	CNX Gas Company LLC	Not less than 1/8	1512/788
	W3.33	Carlotter of	Noumenon, Inc. by Stephen K. Shuman, President Shuman Inc., by Stephen K. Shuman, President	CNX Gas Company LLC CNX Gas Company LLC	Not less than 1/8 Not less than 1/8	1512/792 1513/102
8	1-2-5	191524000	Flossie Kimble, Denzle Kimble and Olive Irene Wright Kimble	Consolidation Coal Company	Deed	715/529
			Consolidation Coal Company	Reserve Coal Properties Company	Deed	1002/686
-		-	Reserve Coal Properties Company	CNX Gas Company LLC	Deed	1300/1
Tract ID	Tax Map & Parcel	<u>Title</u> <u>Opinion</u> QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page
	1-9-1	<u> </u>	Larry Charles Taylor, individually and as trustee for the Generation-Skipping Trust FBO Larry Charles Taylor	CNX Gas Company LLC	Not less than 1/8	1521/200
	1-9-1.1	189590000	Samata Taylor-Sturm, a/k/a Dixie Taylor-Sturm and Michael Douglas Sturm	CNX Gas Company TLE CEIVED Gas Office of Oil and Gas	Not less than 1/8	1511/142
9			물일 사람이 없는데, 이렇게 얼굴하게 되어 얼굴하면 하루 어떻게 하는데 하는데 아들이 얼굴하는데 이렇게 보는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하	CANIL S G		
9	1-9-1.3 1-9-1.4		Linda Suzann Miller, individually and as trustee for the Generation Skipping Trust FBO Linda Suzann Miller	CNX Gas Company LLC 5 7019	Not less than 1/8	1512/752

WV Department of Environmental Protection

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### 14475 OUITCLAIM DEED

This QUITCLAIM DEED (this "Deed") is made as of the 25th day of April, 2019 (the "Effective Date"), by and between CNX RESOURCE HOLDINGS LLC, a Delaware limited liability company ("Grantor"), with a tax mailing address of 1000 CONSOL Energy Drive, Suite 400, Canonsburg, PA 15317, and CNX GAS COMPANY LLC, a Virginia limited liability company ("Grantee"), with a tax mailing address of 1000 CONSOL Energy Drive, Suite 400, Canonsburg, PA 15317.

WHEREAS, Grantor desires to grant, convey, quitclaim and assign to Grantee, and Grantee desires to receive from Grantor, all of Grantor's right, title, and interest, in and to the oil, gas, and coalbed methane within and underlying the assets and properties described below.

NOW, THEREFORE, for and in consideration of the mutual promises contained herein, the benefits to be derived by each party hereunder, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the terms and conditions of this Deed, Grantor does hereby GRANT, CONVEY, ASSIGN, TRANSFER, and QUITCLAIM unto Grantee, without warranty of any kind or nature, all of Grantor's right, title, interest, and claim, if any, in and to the oil, gas, and coalbed methane within and underlying those certain tracts or parcels described on <a href="Exhibit A">Exhibit A</a> (collectively, the "Conveyed Interests"), together with all rights, privileges, benefits, and powers as are appurtenant, necessary, convenient, implied and/or incidental to the possession, ownership, enjoyment, operation and/or development of the Conveyed Interests.

TO HAVE AND TO HOLD the Conveyed Interests unto Grantee, its successors and assigns, forever, subject, however, to (i) all the terms and conditions of this Deed; (ii) any and all other reservations, exceptions, rights of way, easements, contracts, covenants, conditions, restrictions or servitudes made, created or retained in prior deeds or other instruments of record or unrecorded as of the date hereof affecting or pertaining to the Conveyed Interests hereby conveyed; and (iii) governmental laws, ordinances, and regulations affecting the Conveyed Interests hereby conveyed and the uses to be made thereof.

As of the Effective Date, Grantee hereby assumes and agrees to fulfill, perform, pay and discharge (or cause to be fulfilled, performed, paid or discharged) all of the burdens, obligations, duties and liabilities arising out of or in connection with the Conveyed Interests, regardless of whether such burdens, obligations, duties and liabilities arose prior to, on or after the Effective Date.

THE CONVEYED INTERESTS ARE BEING CONVEYED IN AN "AS IS, WHERE IS" CONDITION AND "WITH ALL FAULTS" IN THEIR PRESENT CONDITION, WITHOUT ANY REPRESENTATION OR WARRANTY AS TO TITLE OR OTHERWISE (EXPRESS OR IMPLIED) OF ANY KIND OR NATURE, STATUTORY OR OTHERWISE, ORAL OR WRITTEN, PAST, PRESENT, OR FUTURE. GRANTOR AND GRANTEE

AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE DISCLAIMERS OF CERTAIN REPRESENTATIONS AND WARRANTIES CONTAINED IN THIS PARAGRAPH ARE "CONSPICUOUS" DISCLAIMERS FOR THE PURPOSE OF ANY APPLICABLE LAW.

ASSIGNMENT AND ASSUMPTION OF MCSA. All of Conveyed Interests constitute Gas Interests (as defined therein) that were, as of the date of this Deed, subject to that certain Second Amendment and Restatement of Master Cooperation and Safety Agreement dated October 20, 2017, and effective as of 7:00 p.m. Eastern Time on October 6, 2017, by and between CONSOL Mining Corporation and certain of its Affiliates, collectively as Coal Party, and CNX Gas Company LLC and CNX Resource Holdings LLC, collectively as Gas Party, and joined by CONSOL Energy Inc., and certain of its Affiliates (for certain limited purposes), as modified and amended, a memorandum of which appears of record in the county where the Conveyed Interests are located (the "MCSA").

Affiliate Assignment under the MCSA. The parties acknowledge and agree that this Deed constitutes an Affiliate Assignment of such Gas Interests under, and as defined in, the MCSA.

Assignment and Assumption. Each Gas Interest that is Assigned (as defined in the MCSA) to Grantee by this Deed is expressly Assigned to Grantee subject to the MCSA, and (i) Grantor hereby assigns the MCSA to Grantee with respect thereto; and (ii) Grantee hereby agrees to be bound by the MCSA with respect thereto.

Amendment of MCSA. Grantor shall have the right to modify and amend the MCSA without having Grantee join in, or execute, the modification or amendment, so long as such modification or amendment does not apply to or affect the Gas Interests that are Assigned (as defined in the MCSA) to Grantee by this Deed. Grantee shall not modify or amend the MCSA, as it relates to the Gas Interests that are Assigned (as defined in the MCSA) to Grantee by this Deed without having Grantor join in, or execute, the modification or amendment.

<u>Liability</u>. Grantor shall not be liable for any costs, expenses or losses sustained or damages arising out of Grantee's assumption and/or compliance with the MCSA with respect to the Gas Interests that are Assigned (as defined in the MCSA) to Grantee by this Deed, or for any action or inaction of Grantee in connection with performing its obligations or exercising its rights under the MCSA with respect thereto, at and after the date of this Deed.

Indemnity. Grantee hereby covenants and agrees to hold Grantor harmless from, and to indemnify it against, any liability, loss, damage, penalty, charge, claim, cost, expense or deficiency (including, but not limited to, reasonable attorneys' fees and expenses and other costs and expenses incident to monitoring, remediation, proceedings or investigations or the defense of any claim) arising out of, resulting from or related to Grantee statistical of and/or compliance with the MCSA, at and after the date of this

MAY 15 2019

Deed with respect to the Gas Interests that are Assigned (as defined in the MCSA) to Grantee by this Deed, or to any action or inaction of Grantee in connection with performing its obligations or exercising its rights under the MCSA with respect thereto.

Notice. Grantee hereby covenants and agrees to provide written notice to Grantor not more than five (5) calendar days after it is notified of any act or omission, or of any claim of any act or omission, which is or which may constitute a default or breach of any nature under the terms of the MCSA, which notice shall specify the nature of such act or omission, identify the person or entity that notified Grantee of such act or omission, and include copies of all relevant correspondence with such person or entity.

Assignment. Grantee shall not Assign the MCSA, except in compliance with the terms thereof.

This Deed shall bind and inure to the benefit of the Parties hereto and their respective successors and assigns.

This Deed may be executed in any number of counterparts, and each such counterpart hereof shall be deemed to be an original instrument, but all of such counterparts shall constitute for all purposes one agreement.

DECLARATION OF CONSIDERATION OR VALUE. Grantor hereby declares that this deed is a quitclaim deed without consideration and, therefore, is not subject to the West Virginia excise tax on the privilege of transferring real property pursuant to West Virginia Code Section 11-22-1, et seq.

[Signature pages follow]

Office of Oil and Gas

MAY 15 2019

WW Department of Environmental Protection

## 4706101849

IN WITNESS WHEREOF, this Deed has been executed by the Parties hereto as of the dates of their respective acknowledgements below but is effective for all purposes as of the Effective Date.

#### **GRANTOR:**

#### CNX RESOURCE HOLDINGS LLC

Name: Alexander J. Reyes

Title: Vice President

TOF

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF WASHINGTON, TO-WIT:

I, Sara M. Microli, a notary public of the said county, do hereby certify that on this 15thday of April, 2019, before me personally appeared Alexander J. Reyes, who acknowledged himself to be the Vice President of CNX RESOURCE HOLDINGS LLC, a Delaware limited liability company, and that he, as such officer, being so authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the company by himself as said officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public Micolu

My commission expires: 03/11/2023
(Notarial Seal)

Commonwealth of Pennsylvania - Notary Seal Sara M. Micoli, Notary Public Washington County My commission expires March 11, 2023 Commission number 1288863

Member, Pennsylvania Association of Notaries

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110	le: Assistant Vice President
COMMONWEALTH OF PENNSYLVANIA COUNTY OF WASHINGTON, TO-WIT:	••
acknowledged himself to be the Assistant V Virginia limited liability company, and that	tary public of the said county, do hereby certify that me personally appeared <u>Timothy Surmick</u> , who <u>Vice President</u> of CNX GAS COMPANY LLC, a he as such officer, being so authorized to do so, poses therein contained, by signing the name of the
IN WITNESS WHEREOF, I hereunto	set my hand and official seal.
7	Notary Public Micolu
My commission expires: 03/11/207.3 (Notarial Seal)	·
Commonwealth of Pennsylvania - Notary Seal Sara M. Micoli, Notary Public	RECEIVED Office of Oil and Gas
Washington County My commission expires March 11, 2023 Commission number 1288863	MAY 1 5 2019
Member, Pennsylvania Association of Notaries	WV Department of Environmental Protection

**GRANTEE**:

CNX GAS-COMPANY LLC

CNX Resource Holdings LLC, 1000 CONSOL Energy Dr., Suite 400, Canonsburg, PA 15317 (Without Title

This document was PREPARED BY:

Examination)

#### **EXHIBIT A**

#### **Conveyed Interests**

#### CNX Agreement Number 281504000/549034

That certain tract of land situated in the District of Battelle, County of Monongalia, and State of West Virginia, being described as follows:

Beginning at a point corner to lands now or formerly of David O. Shough et ux., thence by Shough, S. 3° 15' W. 2436.23 feet to a stone; thence by land now or formerly of Anthony Sago, Jr. et ux, S. 86° E. 440.84 feet to a stone; thence N. 4 ½° E. 151.8 poles, more or less, to a stake in West Virginia Secondary Highway No. 3; thence with said Secondary Road to a point, the place of beginning, containing 25.50 acres, more or less.

Being the property described in Deed Book No. 1309, Page 678, and subsequently conveyed in Deed Book No. 1603, Page 78

Overlying surface tax parcel number: 1-9-5

Acreage: 25.50 acres

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Office of Oil and Gas

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### 14774 QUITCLAIM DEED

This QUITCLAIM DEED (this "Deed") is made as of the 25th day of April, 2019 (the "Effective Date"), by and between CNX LAND LLC, a Delaware limited liability company ("Grantor"), with a tax mailing address of 1000 CONSOL Energy Drive, Suite 400, Canonsburg, PA 15317, and CNX GAS COMPANY LLC, a Virginia limited liability company ("Grantee"), with a tax mailing address of 1000 CONSOL Energy Drive, Suite 400, Canonsburg, PA 15317.

WHEREAS, Grantor desires to grant, convey, quitclaim and assign to Grantee, and Grantee desires to receive from Grantor, all of Grantor's right, title, and interest, in and to the oil, gas, and coalbed methane within and underlying the assets and properties described below.

NOW, THEREFORE, for and in consideration of the mutual promises contained herein, the benefits to be derived by each party hereunder, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the terms and conditions of this Deed, Grantor does hereby GRANT, CONVEY, ASSIGN, TRANSFER, and QUITCLAIM unto Grantee, without warranty of any kind or nature, all of Grantor's right, title, interest, and claim, if any, in and to the oil, gas, and coalbed methane within and underlying those certain tracts or parcels described on <a href="Exhibit A">Exhibit A</a> (collectively, the "Conveyed Interests"), together with all rights, privileges, benefits, and powers as are appurtenant, necessary, convenient, implied and/or incidental to the possession, ownership, enjoyment, operation and/or development of the Conveyed Interests.

TO HAVE AND TO HOLD the Conveyed Interests unto Grantee, its successors and assigns, forever, subject, however, to (i) all the terms and conditions of this Deed; (ii) any and all other reservations, exceptions, rights of way, easements, contracts, covenants, conditions, restrictions or servitudes made, created or retained in prior deeds or other instruments of record or unrecorded as of the date hereof affecting or pertaining to the Conveyed Interests hereby conveyed; and (iii) governmental laws, ordinances, and regulations affecting the Conveyed Interests hereby conveyed and the uses to be made thereof.

As of the Effective Date, Grantee hereby assumes and agrees to fulfill, perform, pay and discharge (or cause to be fulfilled, performed, paid or discharged) all of the burdens, obligations, duties and liabilities arising out of or in connection with the Conveyed Interests, regardless of whether such burdens, obligations, duties and liabilities arose prior to, on or after the Effective Date.

THE CONVEYED INTERESTS ARE BEING CONVEYED IN AN "AS IS, WHERE IS" CONDITION AND "WITH ALL FAULTS" IN THEIR PRESENT CONDITION, WITHOUT ANY REPRESENTATION OR WARRANTY AS TO TITLE OR OTHERWISE (EXPRESS OR IMPLIED) OF ANY KIND OR NATURE, STATUTORY OR OTHERWISE, ORAL OR WRITTEN, PAST, PRESENT, OR FUTURE. GRANTOR AND GRANTEE AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE

### 4706101849

DISCLAIMERS OF CERTAIN REPRESENTATIONS AND WARRANTIES CONTAINED IN THIS PARAGRAPH ARE "CONSPICUOUS" DISCLAIMERS FOR THE PURPOSE OF ANY APPLICABLE LAW.

This Deed shall bind and inure to the benefit of the Parties hereto and their respective successors and assigns.

This Deed may be executed in any number of counterparts, and each such counterpart hereof shall be deemed to be an original instrument, but all of such counterparts shall constitute for all purposes one agreement.

DECLARATION OF CONSIDERATION OR VALUE. Grantor hereby declares that this deed is a quitclaim deed without consideration and, therefore, is not subject to the West Virginia excise tax on the privilege of transferring real property pursuant to West Virginia Code Section 11-22-1, et seq.

[Signature pages follow]

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Office of Oil and Gas

MAY 15 2019

### 4706101849

IN WITNESS WHEREOF, this Deed has been executed by the Parties hereto as of the dates of their respective acknowledgements below but is effective for all purposes as of the Effective Date.

**GRANTOR:** 

CNX LAND LLC

By:

Name: Alexander J. Reves

Title: Vice President

COMMONWEALTH OF PENNSYLVANIA, COUNTY OF WASHINGTON, TO-WIT:

I, Sara M. Miuoli, a notary public of the said county, do hereby certify that on this 15th day of April, 2019, before me personally appeared Alexander J. Reyes, who acknowledged himself to be the Vice President of CNX LAND LLC, a Delaware limited liability company, and that he, as such officer, being so authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the company by himself as said officer.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My commission expires: 03/11/2013

(Notarial Seal)

Commonwealth of Pennsylvania - Notary Seal Sara M. Micoll, Notary Public Washington County My commission expires March 11, 2023

Commission number 1288863

Member, Pennsylvania Association of Noteries

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MAY 15 2019

Name: Timotha Title: Assistant Vice President COMMONWEALTH OF PENNSYLVANIA. COUNTY OF WASHINGTON, TO-WIT: I, Nara M. Micoli, a notary public of the said county, do hereby certify that on this 15th day of April, 2019, before me personally appeared Timothy Surmick, who acknowledged himself to be the Assistant Vice President of CNX GAS COMPANY LLC, a Virginia limited liability company, and that he as such officer, being so authorized to do so, executed the foregoing instrument for the purposes therein contained, by signing the name of the company by himself as said officer. IN WITNESS WHEREOF, I hereunto set my hand and official seal. Notary Public Media My commission expires: 03/11/2023 (Notarial Seal) Commonwealth of Pennsylvania - Notary Seal Sara M. Micoli, Notary Public **Washington County** My commission expires March 11, 2023 Commission number 1288863 Member, Pennsylvania Association of Notaries This document was PREPARED BY: CNX Land LLC, 1000 CONSOL Energy Dr., Suite 400, Canonsburg, PA 15317 (Without Title Examination) RECEIVED Office of Oil and Gas MAY 15 2019 WV Department of Environmental Protection

SIGNATURE AND ACKNOWLEDGMENT PAGE TO QUITCLAIM DEED

**GRANTEE:** 

CNX GAS COMPANY LLC

#### **EXHIBIT A**

#### **Conveyed Interests**

#### CNX Agreement Number 280882000/549008

That certain tract of land situated in the District of Battelle, County of Monongalia, and State of West Virginia, being described as follows:

BEGINNING at a point in the centerline of West Virginia Secondary Highway No. 3, a corner to property owned by Mildred Hennen; thence leaving said secondary road with the line of Mildred Hennen, S. 3° 58' 15" W. 2,436.23 feet to a stake corner to the property of Clark Hennen, et al.; thence with the boundary line of said property, N. 85° 15' W. 438.61 feet to a stone corner to the property of land now or formerly owned by Nancy Weik; thence with said property lines, N. 3° 18' E. 2,399.67 feet to a point in the center line of said secondary road; thence with the center line of said road, N. 82° 22' 30" E. 167.22 feet to a point in the center of said secondary road; thence S. 85° 29' 30" E. 302.89 feet to a point in the centerline of said secondary road, the place of BEGINNING, containing 25.250 acres, more or less, as laid down and designated upon a plat of survey prepared by T. J. Mankey, Registered Professional Engineer, dated March, 1972, a copy of which is of record in the office of the Clerk of the County Commission of Monongalia County, West Virginia, in Deed Book No. 179, at Page 446.

Being the property described in Deed Book No. 1295, Page 148 Overlying surface tax parcel number: 1-9-4

Acreage: 25.25 acres

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MAY 15 2019

## STATE TAX COMMISSIONER OF WEST VIRGINIA SALES LISTING FORM

West Virginia	Code 8811-22-6 11 A 3 3	t May Not Be Recorded If Thi  & 11A-3-3 (Amended 3-11-19)	is From Is Not Completed	
			995)	Revised 8/12
County:	monon	mel! e	<u> </u>	2. 11.11.
Tax Map No. (s)	1.0101	J. 11 2	Taxing District:	Battelle
Tax Map No. (s)			Parcel(s):	
Account #:			Parcel(s):	
Mineral ID #:				
	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	v. #0 :		
Grantor's Name		Y & Land LLC		Phone No.
Grantee's Name		CNX GAS COMPANY	LLC	Phone No.
	s of New Owner:	1000	CONSOL ENERGY DR. CANO	NSBURG, PA 15317
	s for Tax Statements:	1000	CONSOL ENERGY DR. CANO	NSBURG, PA 15317
	evious Deed Book No.:	1295		No.: 148
Grantor's Source	e of Title:		8-	
		(If not by "Previous Deed	d" reference above.)	
	(a) D	eal Estate:	0.5 0.1	
Consideration/\			(b) Other Valuable Goods,	/Services: (If Applicable)
Lot Size of Acres	· · · · · · · · · · · · · · · · · · ·	0.00	_ \$	
Estate(s) Transfe		25.25		
rate(3) 11811311	erred: $0.1, 645$	CBM		
(1)	) Was this transaction on the	(Examples: Fee, Surface,		(2)
(2)	Does this transaction involve	e more than one narcel?	Yes / (No)	(Circle One)
(3)	Was this sale between relate	d individuals or related corporations	Yes / (No)	(Circle One)
(4)	Was this a liquidation, forec	losure or other "Forced" sale?		(Circle One)
(5)	Is this transaction pursuant t	o a land contact or owner financine?	Yes / No	(Circle One)
(6)	Does this transaction include	e personal property?	Yes / (No	(Circle One) (Circle One)
(7)	Does this transaction include	e minerals and/or timber?	(Ved / No	(Circle One)
(8)	Any other financing arrange	ments materially affecting considera	tion? Yes / No	(Circle One)
(9)	Is this a mineral sale only?		(Ver / No	(Circle One)
If "No	o" to Question 1 or "Yes" to Q	uestions 2 - 8 above, please explain	bolowe	(Circle One)
Explanation: 4	ntercompany QC	Deed - No consideration	00/1 1 00/1	
Printed Name	Jacob Young	Signature	Gard, Ch	Phone Number
Filed By (check on	ne): Buyer	Seller	_Agent/Attorney / C	Other
			V	
LIENHOLDER IN	FORMATION (OPTIONAL)			
Name:	(31,110,111,12)		Check i	f change of name or address
Address for Noti	ice:			
		INTEREST IN PR	OPERTY	
	Surface Owner's Rights	Deed book:		Page No.:
	Fiduciary Interest	Relationship to Own	er:	
	Lienholder	Trust Deed Book No.		Page No.:
<del></del>	Other		-	
	To Be Completed By C	nuntu Clark	7	
Stamp Fee Paid:	To be completed by C	builty Clerk:		Sheriff's Use Only
Date Recorded:			Date Received:	411
New Deed Book N	lo.:		Effective Dates of Date Entered:	of Lien:
New Deed Book Pa	age No.:		Entered By:	
Date of Transaction	on:		Tax Ticket No.:	
		RELEASE OF	LIEN	
	C	OMPLETE THIS SECTION IF YOU		
	Date Lien Is Released:			RECEIVED Gas
	Signature of Lienholder:			Office of Cil and Gas
COPIES:	ASSESSOR	SHERIFF TAX COMMISSIO		
		ive continuosi	DNER PREPARER	MAY 1 5 2019



Erika Whetstone Permitting Manager 1000 Consol Energy Dr. Canonsburg, PA 15317 (724) 485-4035

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

RE: Road Letter - WDTN6 Well Pad Drilling Applications

To Whom It May Concern:

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

If any further information or correspondence is required, please contact me at (724) 485-4035 or <a href="mailto:ErikaWhetstone@cnx.com">ErikaWhetstone@cnx.com</a>.

Sincerely,

Erika Whetstone Permitting Manager

Erike & Whitston

RECEIVED Office of Oil and Gas

MAY 15 2019

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

Date of Notic	ate of Notice Certification: 05   06   120   1			
		1. The state of th	rator's Well No. WDT	
Matica has l	haan aksan	Wei	l Pad Name: WDTN	
Notice has I	ne provisions in West Virginia Code §	22.64 the Operator has provided	the required parties	with the Notice Forms listed
	tract of land as follows:	22-6A, the Operator has provided	the required parties	with the Notice Points fisted
State:	West Virginia	Eas	ting: 554286.5540	
County:	Monongalia		thing: 4394726.7970	
District: Battelle Public Road Access: Joy Run Road,	CR 4/3			
Quadrangle:	Wadestown	Generally used farm r	ame: Consol	
Watershed:	Dunkard Creek			
information r of giving the requirements Virginia Cod	ed the owners of the surface described and (c), see surface owner notice of entry to surface of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall thave been completed by the applicant	ction sixteen of this article; (ii) that rvey pursuant to subsection (a), s f this article were waived in writtender proof of and certify to the se	t the requirement was ection ten of this art ing by the surface or	deemed satisfied as a result icle six-a; or (iii) the notice wner; and Pursuant to West
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the require ECK ALL THAT APPLY		otice Certification	OOG OFFICE USE
☐ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED SEISMIC ACTIVITY WAS CO		RECEIVED/ NOT REQUIRED
■ 2. NO	TICE OF ENTRY FOR PLAT SURV	YEY or □ NO PLAT SURVEY V	WAS CONDUCTED	RECEIVED
■ 3. NO	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED NOTICE OF ENTRY FOR PLA WAS CONDUCTED or		RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY S (PLEASE ATTACH)	SURFACE OWNER	
■ 4. NO	TICE OF PLANNED OPERATION		web	RECEIVED
■ 5. PUI	BLIC NOTICE		RECEIVED of Oil and Gas	RECEIVED
■ 6. NO	TICE OF APPLICATION	WD.	Y 1 5 2019  Department of Protection	RECEIVED
		Enviro	nmental Protection	

#### Required Attachments:

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

WW-6AC (1/12)

#### Certification of Notice is hereby given:

THEREFORE, I Erika Whetstone , 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:
 Erika Whetstone
 Canonsburg, PA 15317

 Its:
 Permitting Manager
 Facsimile:

 Telephone:
 724-485-4035
 Email:
 ErikaWhetstone@cnx.com

Commonwealth of Pennsylvania - Notary Seal Lori L. Walker, Notary Public Greene County My commission expires February 23, 2023 Commission number 1260781

Member, Pennsylvania Association of Notaries

Subscribed and sworn before me this Aday of Noy 1019.

Notary Public

My Commission Expires Follow 13 2023

Oil and Gas Privacy Notice:

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

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MAY 1 5 2019

WW-6A (9-13)

API NO. 47- 061 OPERATOR WELL NO. WDTN6CHSM
Well Pad Name: WDTN6

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

Notice Time Require	ment: notice shall be provide	ed no later that	n the filing date of permit	t application.	
Date of Notice: 5/13 Notice of:	Date Permit Applicati	on Filed: 5	14/19		
PERMIT FOR A	NV CERTIFIC	ATE OF APP	ROVAL FOR THE		
				DIT	
WELL WORK	CONSTRU	JCTION OF A	AN IMPOUNDMENT OR	PH	
Delivery method pur	suant to West Virginia Coo	le § 22-6A-10	(b)		
☐ PERSONAL	REGISTERED	✓ METHO	OD OF DELIVERY THAT	T REOLURES A	
SERVICE	MAIL		PT OR SIGNATURE CO		
SERVICE	WAIL	RECEI	FI OR SIGNATURE COL	NEIRMATION	
sediment control plan rethe surface of the tract oil and gas leasehold be described in the erosion operator or lessee, in the more coal seams; (4) The well work, if the surfact impoundment or pit as have a water well, spring provide water for consuproposed well work act subsection (b) of this serecords of the sheriff reprovision of this article Code R. § 35-8-5.7.a. re	equired by section seven of the con which the well is or is propering developed by the propose in and sediment control plan sure event the tract of land on which the owners of record of the sure e tract is to be used for the planguage of the planguage of the section in the control by humans or domesticity is to take place. (c)(1) If the control is to the contrary, notice to a lie equires, in part, that the operation of the control is part, that the operation of the control is the control in the control is to the control in the control is to the control in the control in the control in the control is to the control in the control	is article, and the cosed to be located well work, if bmitted pursuanich the well preface tract or tracement, construits article; (5) A ted within one ic animals; and more than threeds, the applicaniant to section en holder is not tor shall also present desired to be a section of the cosed to be a section	the well plat to each of the forted; (2) The owners of record the surface tract is to be used in to subsection (c), section oposed to be drilled is located to soverlying the oil and gasted to soverly the owner or water produced to the operator of any native tenants in common or other than the server the documents of the soverly the server the documents of the server the server the documents of the server the ser	ollowing persons: (1) The ord of the surface tract or traced for roads or other land do seven of this article; (3) The description of this article; (3) The description of this article; (3) The description of the send being developed from the center of the well particle of of th	wners of record of acts overlying the isturbance as the coal owner, derlain by one or all by the proposed adonment of any the applicant to all which is used to a which the scribed in the withstanding any downer. W. Va.
☐ Application Notice	e 🛮 WSSP Notice 🗘 E&S	S Plan Notice	☑ Well Plat Notice is h	nereby provided to:	
☑ SURFACE OWNER	R(s)		COAL OWNER OR L	ESSEE	(ED
Name: Consol RCPC LLC			Name:	RECEIV Office of Oil	and Gas
Address: 1000 Consol End	ergy Dr		Address:		
Canonsburg PA 15317				MAY 15	2019
Name:			☐ COAL OPERATOR	Mich	10.4
Address:			Name:	WV Depa Environment	rtment of
			Address:	Environment	al Plotos
	R(s) (Road and/or Other Dist	urbance)			
Name: Consol Mining Com			☐ SURFACE OWNER O		
Address: 1000 Consol End			AND/OR WATER PURY		
Canonsburg PA 15317			Name:		
Name:			Address:		
			☐ OPERATOR OF ANY	NATURAL GAS STORA	AGE FIELD
☐ SURFACE OWNER	R(s) (Impoundments or Pits)		Name:	Programme and the same	
			Address:		
			*Please attach additional	forms if necessary	

API NO. 47-060 6 1 0 1 8 4 9
OPERATOR WELL NO. WDTN6CHSM
Well Pad Name: WDTN6

#### Notice is hereby given:

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

#### This Notice Shall Include:

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

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

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

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

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

#### **Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizon any existing of 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. 47-00 6 1 0 1 8 4 9
OPERATOR WELL NO. WDTN6CHSM
Well Pad Name: WDTN6

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) file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

MAY 15 2019

WV Department of Environmental Protection

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

API NO. 47-061

OPERATOR WELL NO. WDTN6CHSM

Well Pad Name: WDTN6

#### 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 <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> 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.



OPERATOR WELL NO. WDTN6CHSM Well Pad Name: WDTN6

Notice is hereby given by:

Well Operator: CNX Gas Company, LLC

Telephone: 724-485-4035

Email: ErikaWhetstone@cnx.com

Address: 1000 Consol Energy Dr

Canonsburg, PA 15317

Facsimile:

#### Oil and Gas Privacy Notice:

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

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

Commonwealth of Pennsylvania - Notary Seal Lori L. Walker, Notary Public **Greene County** 

My commission expires February 23, 2023 Commission number 1260781

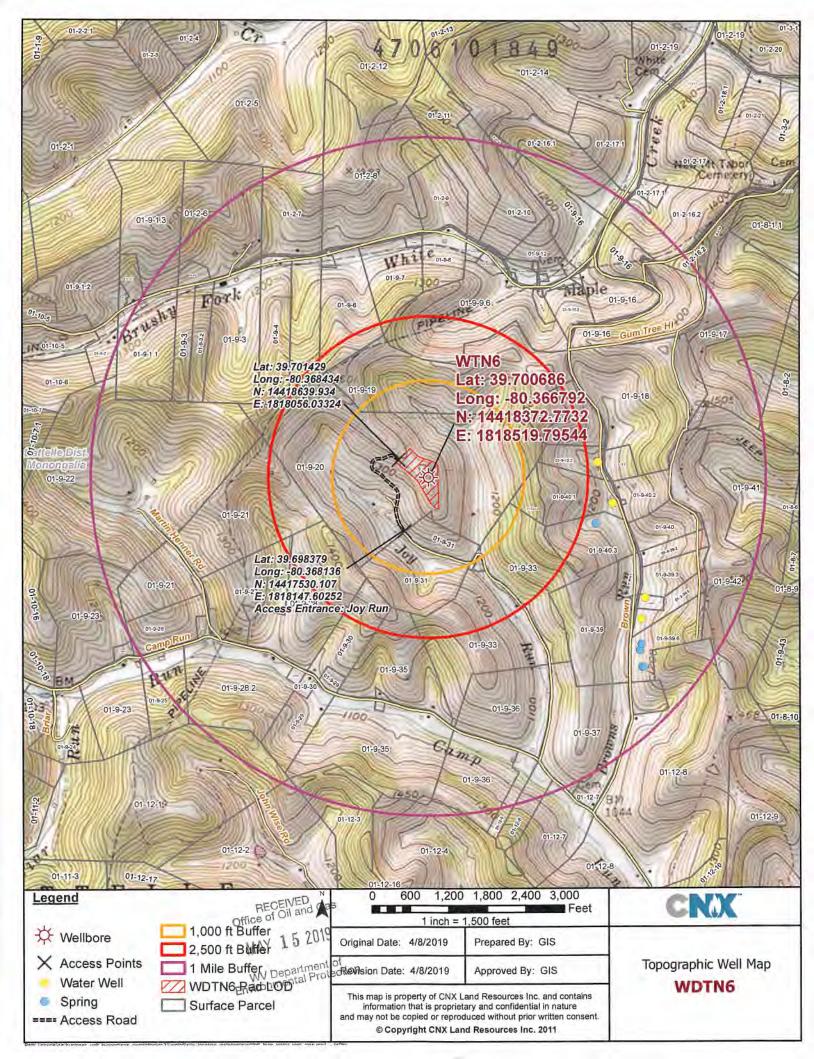
Member, Pennsylvania Association of Notaries

Subscribed and sworn before me this

Notary Public

My Commission Expires

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### **WW6A Notice of Application**

#### **WDTN6HSM**

#### Coal Owner or Lessee:

CNX Land, LLC	1000 Consol Energy, Dr Canonsburg PA 15317-6506
Dorothy Chohrach	254 Constitution Ave., Bradford, PA 16701
Helen Pecora	8 Edgewood Rd., Bradford, PA 16701
Patricia A. Cooney	1422 Windfall Rd., Olean, NY 14760
David Liming and Nancy Liming	4341 Mason Dixon Highway Core, WV 26541
Three Rivers Royalty II LLC	9055 E. Mineral Cir., STE.110, Centennial, CO 80112
Carolyn S. Moore	195 Partin Rd., Corbin, KY 40701
Belinda T. Shriver and Charles C. Shriver	P.O. Box 190 Blacksville, WV 26521
Blaze Minerals	520 Folly Road, Suite P285 Charleston, South Carolina 29412
Carl J. Woods	930 Wallace Run Rd., Beaver Falls, PA 15010
Marjorie L. White	1824 Fourth Ave., Beaver Falls, PA 15010
Wanda Lee Woods Shaffer	408 Mud Bridge Rd., Enon Valley, PA 16120
Beverly A. Woods Paden Tonge	P.O. Box 167, Enon Valley, PA 16120
Mark A. Clark	222 Blueberry Dr., Columbiana, OH 44408
Gregory S. Clark	304 Firestone Ave., Columbiana, OH 44408
Melissa Ann Hennen Limbaugh	15165 87th Rd. N., Loxahatchee, FL 33470
Milan W. Cikovich Jr.	1515 Dawn Dr., Fairmont, WV 26554
Christine Michelle Park	649 Sassafras Dr., Fairmont, WV 26554

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MAY 1 5 2019

Amended and Restated Milan W. Cikovich Testamentary Trust f/b/o Francine R. Cikovich, Milan	649 Sassafras Drive Fairmont, WV 26554
Cikovich, Jr. and Christine Park, Trustees	1515 Dawn Drive Fairmont, WV 26554
CNX Gas Company LLC	1000 Consol Energy, Dr Canonsburg PA 15317-6506
Linda S. Sansone	3771 Paseo De Cardo, Sierra Vista, AZ 85650
Mildred Louise Walton	68359 Liston Ave., Bridgeport, OH 43912
Jonathan N. Bragg	518 Race St., Fairmont, WV 26554
Natalie C. Bragg	266 Linden Pl., New Milford, NJ 07646
Tracie Bragg-Thompson	1207 S. Davis Ave., Elkins, WV 26241
Mikelene Gray	7 Overbrook Ave., Wheeling, WV 26003
Jerry Lee Hennen, Jr.	3306 State Route 152, Richmond, OH 43944
Donna R. Hennen LIFE ESTATE ONLY	8408 Carriage Ln., Fairmont, WV 26554
Cecil L. Hennen	431 Triumph Rd., Holbrook, PA 15341
Helene M. Godwin Muetzel	1195 Colston Dr., Westerville, OH 43081
Karen S. Gray	1195 Colston Dr., Westerville, OH 43081
Judy Kay Howard	9318 Sendera Dr., Magnolia, TX 77354
Mary Virginia Davis	147 South East Street Apt. A Waynesburg, PA 15370
Roger L. Pratt	89 Pratts Fork Rd., Alma, WV 26320
James R. Hennen Jr.	1860 Fish Creek Rd., Proctor, WV 26055
Don Fordyce	112 College Ln., Latrobe, PA 15650
Betty Short	1303 Benshoff Hill Rd., Johnstown, PA 15906

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Barbara Hennen	7552 Western Circle Drive Brooksville, FL 34613	
Bonnie Lee Hennen Winnen	1062 Winhurst Dr., Akron, OH 44313	
Richard P. Hennen	3275 Sylvan Rd., Bethel Park, PA 15102	
St. Johns United Church of Christ \	41 22nd St., Wheeling, WV 26003	
Nancy L. Singer	137 Crisswill Rd., St. Clairsville, OH 43950	
Jeanette Irwin Prout	119 Orchard Oak Dr., Blacklick, OH 43004	
James C. Irwin	155 Chapel Road Wheeling, WV 26003	
Connie Jean Hennen Thompson \	13 Sigsbee Road Greensboro, PA 15338	
Steven E. Hennen	1338 State Route 297 Marion, KY 42064	
Donna K. Hennen Wickham	1739 Browns Creek Rd. Nineveh, PA 15353	
Denise M. Mitchell	405 Cottage Hill Rd. New Freeport, PA 15352	
Charlie Fudge	721 Jackson Ave., Huntington, WV 25704	
Mary Louella Hennen	949 Myers Rd., Scottown, OH 45678	
CNX RCPC LLC	1000 Consol Energy, Dr Canonsburg PA 15317-6506	
Cynthia Solomon	1301 University Avenue, Morgantown, WV 26505	

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WV Department of Environmental Protection

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

	Requirement:	Notice shall be pro-	vided at least SEVEN (7) day	ys but no more tha	n FORTY-FIVE (45) days prior to
entry  Date of Noti	ice: 4/8/2019	Date of Pla	nned Entry: 4/15/2019		
Delivery me	thod pursuant	to West Virginia C	ode § 22-6A-10a		
☐ PERSO	NAL	REGISTERED	☐ METHOD OF DEL	IVERY THAT RE	EQUIRES A
SERVI	CE	MAIL	RECEIPT OR SIGN	ATURE CONFIR	RMATION
on to the sur but no more beneath such owner of min and Sedimen Secretary, w enable the su	face tract to condithan forty-five don't ract that has file tract that has file tract underlying at Control Manual hich statement surface owner to confidence to control to confidence that the confidence to confidence to confidence that the confidence to confidence that the confidence t	duct any plat survey ays prior to such ended a declaration put g such tract in the coal and the statutes as hall include contact obtain copies from the survey of the statute of the statu	rs required pursuant to this are try to: (1) The surface owner rsuant to section thirty-six, are ounty tax records. The notice and rules related to oil and gas information, including the ac-	ticle. Such notice of such tract; (2) ticle six, chapter to shall include a state exploration and p	r shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any atement that copies of the state Erosion production may be obtained from the age on the Secretary's web site, to
Notice is he	reby provided t	0:			
■ SURFA	CE OWNER(s)		■ COAL	LOWNER OR LE	ESSEE
	RCPC LLC (TMP 1-9-		Name: See	attached	
Address: 100	00 Consol Energy Drive				
Canonsburg, PA	15317				
Name:					
Addrocat			I MINE	ERAL OWNER(s)	
NT		<del></del>	Name: See	attached	
Name:			Address:		
Address:				h additional forms if ne	200000000
			prease attac	r additional forms if he	ecessary
Pursuant to V a plat survey State:	on the tract of l	and as follows:	Approx. Latit	ude & Longitude:	l operator is planning entry to conduct
County: District:	Monongalia Battelle		Watershed:	Access:	Joy Run Road County Rte 4/3
Quadrangle:			Generally use	d form name:	Dunkard Creek Consol
Copies of the may be obtain Charleston, Volume of the contraction of t	e state Erosion a fined from the Se WV 25304 (304 m the Secretary by ereby given by	cretary, at the WV l -926-0450). Copies by visiting <u>www.de</u>	of Manual and the statutes and Department of Environmenta	d rules related to o I Protection headq onal information i lefault.aspx.	related to horizontal drilling may be
Email:	724-400-4035		Facsimile:	VALA	1 5 2019
	s Privacy Not	ice: ocesses your persor		MAY WV D	epartment of ental Protection phone 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.

#### 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.

		ed at least TEN (10) days prior to filing a Permit Application Filed:	permit application.
Delivery met	thod pursuant to West Virginia Code	e § 22-6A-16(b)	
☐ HAND	■ CERTIFIED MAIL		
DELIVE		REQUESTED	
receipt request drilling a hore of this subsect subsection mand if availab	sted or hand delivery, give the surface izontal well: <i>Provided</i> , That notice given as of the date the notice was provay be waived in writing by the surface	iven pursuant to subsection (a), section to ided to the surface owner: <i>Provided, how</i> owner. The notice, if required, shall include address of the operator and the operator	ne surface owner's land for the purpose of n of this article satisfies the requirements never, That the notice requirements of this ude the name, address, telephone number,
Name: Consol F		Name:	
	Consol Energy Drive	Address:	
State: County: District: Quadrangle: Watershed:	West Virginia  Monongalia  Battelle  Wadestown  Dunkard Creek	UTM NAD 83 Easting: Northing: Public Road Access: Generally used farm name:	554286.5540 4394726.7970 Joy Run Road CR 4/3 Consol
Pursuant to Y facsimile nur related to hor	mber and electronic mail address of trizontal drilling may be obtained from	this notice shall include the name, addressed the operator and the operator's authorized the Secretary, at the WV Department of 04 (304-926-0450) or by visiting www.de	d representative. Additional information f Environmental Protection headquarters,
Notice is he	reby given by:		
Well Operato	CNX Gas Company, LLC	Authorized Representative:	Erika Whetstone
Address:	1000 Consol Energy Drive	Address:	1000 Consol Energy Drive
Canonsburg, PA		Canonsburg, PA 15317	202 103 1000
Telephone:	724-485-4035	Telephone:	724-485-4035
Email: Facsimile:	ErikaWhetstone@cnx.com	Email: RECEIVED Facsimile: RECEIVED Facsimile: RECEIVED	ErikaWhetstone@cnx.com
01 1 C	Duineau Nation	MAY 1 5 2019	

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.

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

	Requirement: notice shall be provided re: 5 13 19 Date Permit A	no later than the filing pplication Filed:	date of permit	application.
Delivery met	hod pursuant to West Virginia Code §	22-6A-16(c)		
■ CERTI	FIED MAIL	HAND		
	RN RECEIPT REQUESTED	DELIVERY		
return receipt the planned of required to be drilling of a damages to th (d) The notice of notice.	requested or hand delivery, give the surfoperation. The notice required by this seprovided by subsection (b), section ten chorizontal well; and (3) A proposed surface surface affected by oil and gas operation	face owner whose land subsection shall include of this article to a surfa- face use and compens ons to the extent the da to the surface owner a	will be used for le: (1) A copy ace owner whos ation agreement mages are com	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
	s listed in the records of the sheriff at the			
Name: Consol F		Name:		
	Consol Energy Drive	Address	1	
Canonsburg, PA	15317			
State: County: District:	the surface owner's land for the purpose West Virginia Monongalia Battelle	UTM NAD 8  Public Road	Easting: Northing:	554286.5540 4394726.7970 Joy Run Road, CR 4/3
Quadrangle:	Wadestown	Generally use		Consol
Watershed:	Dunkard Creek			
Pursuant to V to be provide horizontal we surface affect information in	ed by W. Va. Code § 22-6A-10(b) to a cell; and (3) A proposed surface use and cell; and in the extension of	surface owner whose ompensation agreement the damages are co- ained from the Secret	land will be un nt containing ar ompensable und ary, at the WV	code section; (2) The information required used in conjunction with the drilling of a noffer of compensation for damages to the der article six-b of this chapter. Additional 7 Department of Environmental Protection or by visiting <a href="https://www.dep.wv.gov/oil-and-department">www.dep.wv.gov/oil-and-department</a>
Well Operato	AF' CNV Coa Company LLC	Address:	1000 Consol Energy	v Drive
Telephone:	1. N. C.	riddioss.	Canonsburg, PA 15	
Email:	724-485-4035 ErikaWhetstone@cnx.com	Facsimile:	Canonsburg, PA 15	S11
	Privacy Notice:		-	
The Office of	f Oil and Gas processes your personal inf			telephone number, as part of our regulatory ies in the normal course of business or as

needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact

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

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## WEST VIRGINIA DEPARTMENT OF TRANSPORTATION Division of Highways

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

April 10, 2019

Byrd E. White, III Secretary of Transportation

Jimmy Wriston, P. E. Deputy Secretary/ Acting Commissioner

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

Subject: DOH Permit for the WDNT 6 Pad, Monongalia County WDTN6CHSM Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #04-2019-0227 for the subject site to CNX Gas Company LLC, for access to the State Road for the well site located off of Monongalia County route 4/3 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 October 1, 2018.

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MAY 1 5 2019

Very Truly Yours,

WV Department of Environmental Protection

Gary K. Clayton Regional Maintenance Engineer

Central Office Oil &Gas Coordinator

Dary K. Clayton

Cc: Ray Hoon

CNX Gas Company LLC

CH, OM, D-4

File

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

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

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

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

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

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

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

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

Type: Ammonium chloride CAS: 12125-02-9

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

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

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

Type: Thiourea CAS: 62-56-6

Type: Acetophenone CAS: 98-86-2

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# EROSION & SEDIMENT CONTROL PLAN & SITE RESTORATION PLAN

WDTN-6 WELL SITE

MONONGALIA COUNTY, WEST VIRGINIA FOR

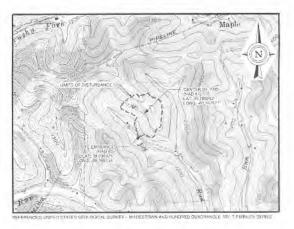


LANDOWNER	DISTURBANCE FROM ACCESS ROAD & STOCKPLES (ACRES)	DISTURBANCE FROM WELL PAD & STOCKPILES (ACRES)
TERRA FRMA COMPANY 31-01-9-0020-0000	8.5t	18.73
CONSOL MINING COMPANY LLC 31-01-9-0031-0000	0.07	1 84

APPROVED

WVDEP OOG

7 3 6/25/2019





PROJECT NO. 1216068 NOVEMBER 2018





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DRAWING NO.	TITLE	
1	TITLE SHEET	
2	GENERAL NOTES	
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18	WELL PAULTYPICAL SECTIONS	
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