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**west virginia** department of environmental protection

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

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

May 27, 2015

**WELL WORK PERMIT**

**Horizontal 6A Well**

This permit, API Well Number: 47-3305859, issued to CNX GAS COMPANY LLC , 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: KST2DHS  
Farm Name: COFFINDAFFER, MARK & ESTE'  
**API Well Number: 47-3305859**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 05/27/2015

**Promoting a healthy environment.**

**05/29/2015**

# PERMIT CONDITIONS

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

## CONDITIONS

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1. This proposed activity will require permit coverage from the United States Army Corps of Engineers (USACE) and WV DEP Department of Water and Waste Management (DWWM). No activity authorized under this permit shall be commenced until all necessary permits from USACE and DWWM are obtained.
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 fifty (50) 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. 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.
8. 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.
9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

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601 57<sup>th</sup> Street  
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Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.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: May 22, 2015  
ORDER NO.: 2015-W-5

**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 "CNX Gas Company" or "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 is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as Post Office Box 1248 Jane Lew, WV 26378.
3. On November 6, 2014, CNX Gas Company submitted well work permit applications identified as API#s 47-033-05856, 47-033-05857, 47-033-05858, 47-033-05859, 47-033-05860, 47-033-05861 and 47-033-05862 located on the KST2HS Pad in Union District of Harrison County, West Virginia.
4. On May 8, 2015, CNX Gas Company requested a waiver for Wetland #4 outlined in Exhibit 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as 47-033-05856, 47-033-05857, 47-033-05858, 47-033-05859, 47-033-05860, 47-033-05861 and 47-033-05862 located on the KST2HS Pad in Union District of Harrison County, West Virginia.

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## 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

Therefore, the Office of Oil and Gas grants CNX Gas Company a waiver for Wetland #4 from well location restriction requirements in W. Va. Code §22-6A-12(b) for gas well permit applications identified as API#s 47-033-05856, 47-033-05857, 47-033-05858, 47-033-05859, 47-033-05860, 47-033-05861 and 47-033-05862 located on the KST2HS Pad in Union District of Harrison County, West Virginia. The Office of Oil and Gas hereby **ORDERS** that CNX Gas Company shall meet the following site construction and operational requirements for the KST1HS well pad:

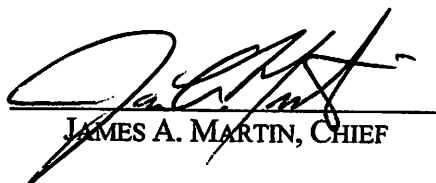
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least two feet (2') in height;
- b. Filter/silt socks and erosion control blankets shall be installed on all slopes and down gradient locations of the pad and topsoil pile areas as erosion and sediment controlling BMPs;
- c. Wetland #4 shall have a double compost filter sock stack installed adjacent to 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 (1/2") 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 22nd day of May, 2015.

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

Wetland Waiver Request

33-05856, 33-05857, 33-05858, 33-05859,  
33-05860, 33-05861 and  
API Number 33-05862

Well Number KST2 A, B, C, D, E, F, and HHS

Operator CNX Gas Company LLC Pad Name KST-2

**Submit a conclusive demonstration to justify the proposed activity by addressing the following:**

- 1. Demonstrate that there is not a practical alternative to impact the Waters of the U.S. by including other alternatives that were considered but eliminated.**
  - a. Include a No-Action Alternative as to show "the future without the project"  
If the pad is unable to be built there would be no chance to provide the natural gas to market for the citizens of the United States.
  - b. Location Alternatives must be shown  
No alternatives exist without adding significant wetland impacts to Wetland 4. The project location has wetlands on two sides of the pad. The proposed location is the only practical, environmentally friendly option.
  - c. Must demonstrate why a 100' buffer cannot be maintained  
Wetland 4 is located off of Kincheloe Road and the access road, providing filtration to Kincheloe Creek. Wetland 4 will have additional E&S controls to enable the wetland to continue to function in its natural way while being protected.
- 2. Show that treatment facilities (Erosion and Sediment Control Features) will be located as close as practical to the source(s) with which it is associated.**

The proposed E&S BMPs are located as close as possible to the proposed earthwork area. No additional wetland impacts will result from the additional grading required to construct the pad location.
- 3. Demonstrate that all proposed activity will not impact Waters of the U.S. more than is necessary to accommodate the proper construction and operation of the facility.**
  - a. Specify and identify wetlands using unique identification and/or perennial streams located within 100' of the pad's limit of disturbance (including erosion and sediment controls).

**Wetland-4**, Wetland 4 is within the forest on a steep slope within the forest edge but is primarily Palustrine Emergent (PEM) with an over canopy component of Palustrine Forested (PFO) wetland. The hydrology for this wetland originates primarily from a spring seep and is bolstered by sheet flow from the hillside and supplies water to UNT-KC-S-4. The tree stratum consists of white ash (*Fraxinus americana*) and red maple (*Acer rubrum*). The sapling and shrub layer is comprised of invasive multiflora rose (*Rosa multiflora*). The herbaceous stratum is comprised of green bulrush (*Scirpus atrovirens*), golden ragwort (*Packera aurea*), mixed sedges (*Carex spp.*), deer tongue (*Dicanthelium clandestinum*) and woodland bittercress (*Cardamine flexuosa*). The soils are comprised of two distinct layers. Layer one is silt sand from 0-8 inches, with a matrix of 10YR 3/1 at

05/29/2015



80% and a redox of 10YR 5/8 at 20%. The second layer is a clay matrix from 8-20 inches with a matrix of 10YR 4/1 at 80% and a redox of 10YR 5/8 at 20%.

- b. **Is the proposed project the least environmentally damaging practicable alternative to the waters of the United States, so long as the alternative does not have other environmental consequences.**

The proposed pad location is located within 100' of Wetland 4. However, the proposed pad location will not be environmentally damaging and is the only practical location.

**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 utilized to protect these wetlands and/or perennial streams.**

Below are a list of BMPs that may be utilized to protect adjacent wetlands.

**ROCK CONSTRUCTION ENTRANCE**

A rock construction entrance will be provided at the location shown on the plans and in accordance with the standard detail provided in the Erosion and Sediment Control Plan. This measure proves effective removing sediment from vehicles before entering onto State, and county roads. The rock construction entrance thickness shall be constantly maintained to the specified dimensions by adding rock. A stockpile shall be maintained onsite for this purpose. At the end of each construction day, all sediment deposited on paved roadways shall be removed and returned to the construction site. If the crushed stone does not adequately remove sediment from vehicle tires, the tires should be hosed off before the vehicle enters a public street. The washings should be done on an area covered with crushed stone, and the water wash should drain to a sediment control device.

**DIVERSION DITCHES**

A channel will be used to convey storm water runoff in a stable manner from the pad site construction area. The channel will be lined with erosion control matting to help keep seed in place once final grades are established. Channels shall be inspected twice a month until a uniform 70% perennial vegetative cover is established. Any damage to the channel or erosion control blanket shall be fixed immediately. The contractor is to place seed on all bare spots and areas not establishing ground cover.

**ROCK CHECK DAMS**

Rock check dams are to be installed in each channel to reduce the velocity of storm water flows, thereby reducing erosion of the channel and trapping sediment. Rock check dams are to be installed every 100 linear feet in any channel conveying sediment laden runoff. Inspect each check dam at a minimum once every seven (7) calendar days and within 24 hours after and storm event greater than 0.5 inches of rain per 24 hour period. Check to see if water has flowed around the edges of the structure. Replace stone and repair dams as necessary to maintain the correct height and configuration.

**RIP RAP OUTLET PROTECTION**

Rock Aprons will be used at storm sewer outfalls to dissipate the velocity coming from storm pipes, helping prevent erosion/scour of existing drainage ways and features.

The rock aprons shall be inspected weekly until a uniform 70% perennial vegetation has established. Any visible damage shall be fixed by the end of the working day by placing additional riprap in the damaged area with a layer of geotextile. Place additional stone as necessary to prevent further erosion.

05/29/2015

### **COMPOST FILTER SOCK**

Silt sock shall be installed in the locations shown on the plans and in accordance with the standard detail provided in the ESCP. Accumulated sediments shall be removed in all cases where accumulations have reached half the above ground height of the sock. If the sock has been damaged, it shall be repaired or replaced if beyond repair. The filter media will be dispersed on site once the disturbed area has been permanently stabilized. Adhere to manufacturer's recommendations.

### **EROSION CONTROL MATTING**

The specified products or approved equivalent erosion control matting will be installed within all permanent channels and on all slopes 3:1 or greater. The erosion control matting shall be inspected weekly and after every rainfall event to look for scour/washout areas. Any scoured areas shall be fixed immediately by compacting soil in the washout area and placing seed. Any damaged erosion control matting shall be replaced immediately. Matting shall be maintained until a uniform 70% perennial vegetation has been established.

### **TEMPORARY VEGETATIVE STABILIZATION**

Fertilizing, seeding, and mulching will be used as a temporary E&S control measure on all disturbed areas as needed. Exposed soils not subject to construction traffic shall not remain unseeded or covered by mulch for more than twenty-one (21) days, including stockpiled soil materials. Refer to the seeding mixtures provided on the erosion and sedimentation control general notes drawing of the Erosion and Sediment Control Plan for temporary seed mixtures.

The contractor shall vegetate all disturbed areas at the earliest appropriate times for establishment of temporary or permanent seed mixtures, respectively. When site development staging or season will not permit timely sowing of the permanent seed mixture(s), prepare soils as for permanent seeding, seed with temporary seed mixture and mulch, and then over-sow the perennial seed mixture into the stubble of temporary vegetation at the next appropriate seeding season.

### **PERMANENT VEGETATIVE STABILIZATION**

Fertilizing, seeding, and mulching will be used as a permanent E&S control measure on all disturbed areas. Refer to the permanent seed mixture provided on the erosion and sediment control plan's general notes drawing. The contractor shall inspect the site twice a week until a 70% perennial vegetative cover is established. The contractor is to place seed on all bare spots and disturbed areas not establishing ground cover.



DATE	TYPE	REVISIONS
12/20/15	DEP COMMENTS	
2/2/16	CNA COMMENTS	
4/10/16	PAD MODIFICATION	
4/10/16	WETLAND WAIVER	

WILLIAM P. TOLW  
 LICENSED  
 No. 4449  
 STATE OF  
 MISSOURI  
 PROJECT  
 KST2HS WELL SITE

DRAWN BY: NSH  
 CHECKED BY: WFF  
 DATE: 9/10/15  
 SCALE: 1"=50'  
 JOB NO.  
 DRAWING NAME

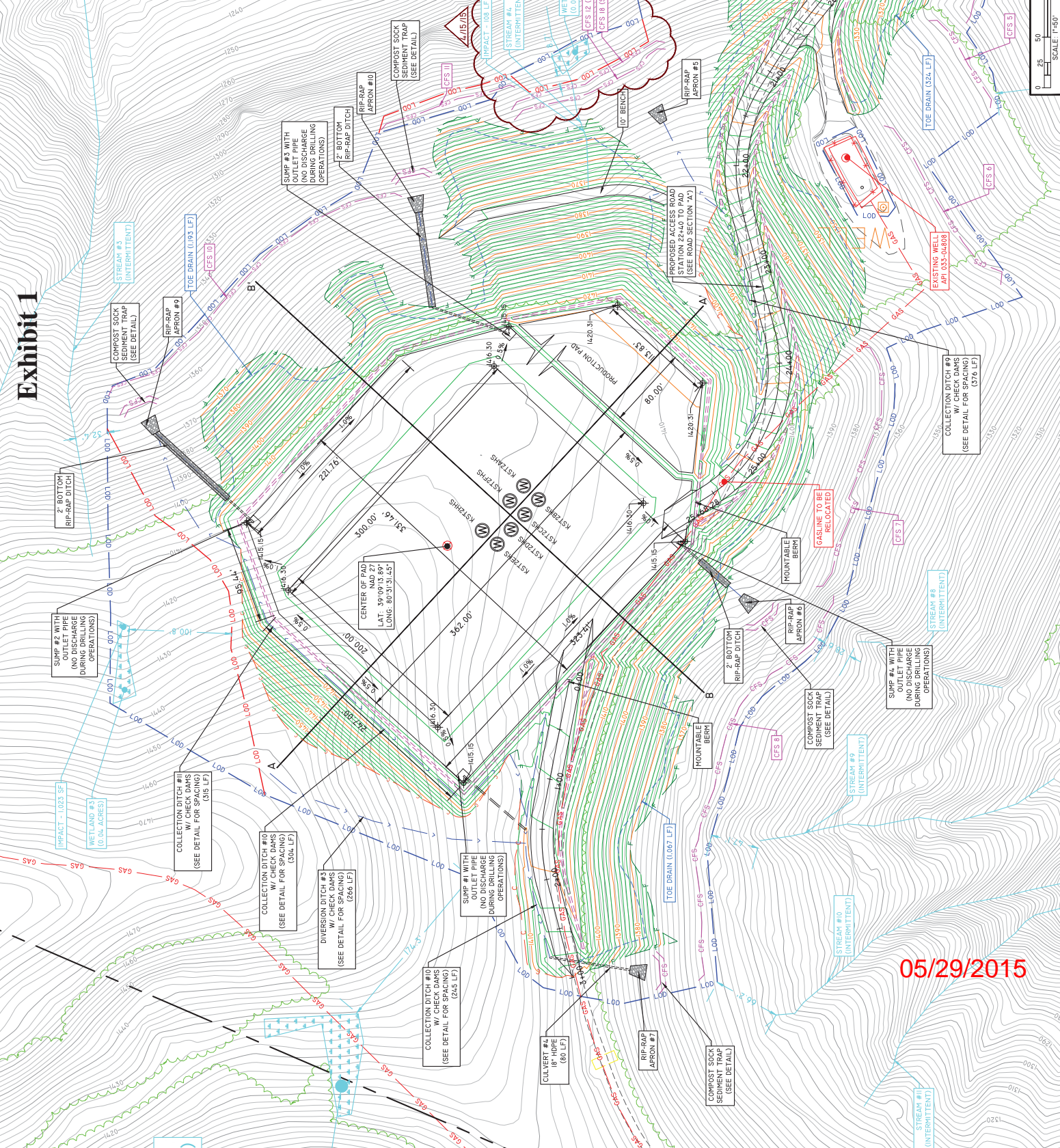
- LEGEND**
- PROPERTY BOUNDARY
  - FENCE LINE
  - EXISTING CONTOURS
  - PROPOSED CONTOURS
  - COMPOST FILTER SOCK
  - LIMIT OF DISTURBANCE
  - MODIFIED
  - DITCH LINE
  - EXISTING TREE LINE
  - TOE DRAIN
  - CUT
  - FILL
  - 2' BERM
  - EXISTING ELECTRIC
  - EXISTING GASLINE



**EARTHWORK QUANTITIES**

DESCRIPTION	QUANTITY	UNITS
ACCESS ROAD & STAGING AREA	8.491	CY
TOPSOIL (10" DEPTH)	30.890	CY
CUT	6.802	CY
EXCESS (10% SWELL)	857	CY
ACCESS ROAD EXTENSION		
TOPSOIL (10" DEPTH)	857	CY
CUT	-6.646	CY
EXCESS (10% SWELL)		
PAD	7.150	CY
TOPSOIL (10" DEPTH)	23.506	CY
EXCESS (10% SWELL)	23.506	CY
CUT	16.778	CY
TOPSOIL (10" DEPTH)	56.156	CY
EXCESS (10% SWELL)	-102	CY

**APPROVED**  
**WVDEP OOG**  
 5/26/2015



**Exhibit 1**

05/29/2015

NOTE: DRAWING WAS CREATED ON 22X34 PAPER. I1X17 DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.



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

1) Well Operator: CNX Gas Company LLC    494458046    Harrison    Union    Big Isaac  
Operator ID    County    District    Quadrangle

2) Operator's Well Number: KST2DHS    Well Pad Name: KST2HS

3) Farm Name/Surface Owner: Mark J. Coffindaffer    Public Road Access: Co. Rt. 10/10

4) Elevation, current ground: 1416.3    Elevation, proposed post-construction: 1416

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

Other    \_\_\_\_\_

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

Horizontal    X    \_\_\_\_\_

6) Existing Pad: Yes or No    NO

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):  
Target - Marcellus, Depth - 7284' (Top), Thickness - 56', Pressure - 4500#

8) Proposed Total Vertical Depth: 7440'

9) Formation at Total Vertical Depth: Onondaga

10) Proposed Total Measured Depth: 16469

11) Proposed Horizontal Leg Length: 6159

12) Approximate Fresh Water Strata Depths: 501', 813'

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

14) Approximate Saltwater Depths: 2045', 2338', 2848'

15) Approximate Coal Seam Depths: 501'

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

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

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

WW-6B  
(9/13)

18)

**CASING AND TUBING PROGRAM**

TYPE	Size	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu. Ft.)
Conductor	20"	N	J-55	94#	100'	100'	Grout to surface w/ Class A type cement
Fresh Water	13 3/8"	N	J-55	54.5#	850'	850'	CTS w/ Class A Type Cement
Coal							
Intermediate	9 5/8"	N	J-55	36#	2900'	2900'	CTS w/ Class A Type Cement
Production	5 1/2"	N	P-110	20#	16469'	16469'	2200 cu. ft. w/ 5050 PDZ Lead & Class A
Tubing	2 3/8"	N	J-55	4.7#	7700'	7700'	
Liners							

SDW  
10/8/2014

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	26"	0.438	2110	Class A Type	1.18
Fresh Water	13 3/8"	17 1/2"	0.380	2730	Class A Type	1.39
Coal						
Intermediate	9 5/8"	12 1/4"	0.352	3520	Class A Type	1.18
Production	5 1/2"	8 3/4" & 8 1/2"	0.361	14,360	Class A Type	1.26
Tubing	2 3/8"	5 1/2" Csg	0.190	7700	.....	.....
Liners						

**PACKERS**

Kind:	None			
Sizes:	None			
Depths Set:	None			

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Office of Oil & Gas  
NOV 06 2014

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

Drill and stimulate new horizontal Marcellus well. Well to be drilled to a TMD of 16469'. Well to be drilled to a TVD of 7440', formation at TVD - Onondaga. Well will be plugged back to an approximate depth of 6800' (approximate due to exact kick off point being unknown). Plugging back will be done using the displacement method and Class A Type cement. A solid cement plug will be set from TD to KOP. If an unexpected void is encountered, plan will be to set casing at a minimum of 30' past void and cement to surface with approved Class A type cement. There will not be any production, perforation, or stimulation of any formations below the target formation.

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

The stimulation will be multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals.  
Max Pressure - 9500 psi. Max Rate - 100 bbl/min.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 27.6

22) Area to be disturbed for well pad only, less access road (acres): 9.77

23) Describe centralizer placement for each casing string:

Conductor - No centralizers used.  
Surface - Rigid Bow spring centralizers on first joint then every third joint to surface.  
Intermediate - Rigid Bow spring centralizers one on the first two joints and every third joint to surface.  
Production - Rigid bow spring centralizer on first joint then every casing joint (free floating) through the lateral and every other joint in the curve. (Note: cementing the 5 1/2" casing completely in open hole lateral and curve.)

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

Conductor - 2% CaCl<sub>2</sub>.  
Surface - 3% CaCl<sub>2</sub> & 1#/sk Celloflake LCM.  
Intermediate - 3% CaCl<sub>2</sub> & 0.5#/sk Celloflake LCM.  
Production - 2.6% Cement extender, 0.7% Fluid loss additive, 0.5% High Temperature Retarder, 0.2% Friction Reducer

25) Proposed borehole conditioning procedures:

Conductor - The hole is auger drilled w/ air and casing ran in air.  
Surface - The hole is drilled w/ air and casing is ran in air. Once casing is on bottom, the casing string will be circulated w/ fresh water prior to cementing.  
Intermediate - The hole is drilled w/ air and casing is ran in air. (Note: Drilling soap may be utilized if the hole gets wet/damp during the drilling of all air holes with the exception of the conductor).  
Production - The hole will be drilled with synthetic oil base mud. At TD the hole is circulated at optimum pump rate until shale shaker deem the hole is clean. Once casing is ran the hole is circulated for a minimum of one hole volume prior to pumping cement.

\*Note: Attach additional sheets as needed.



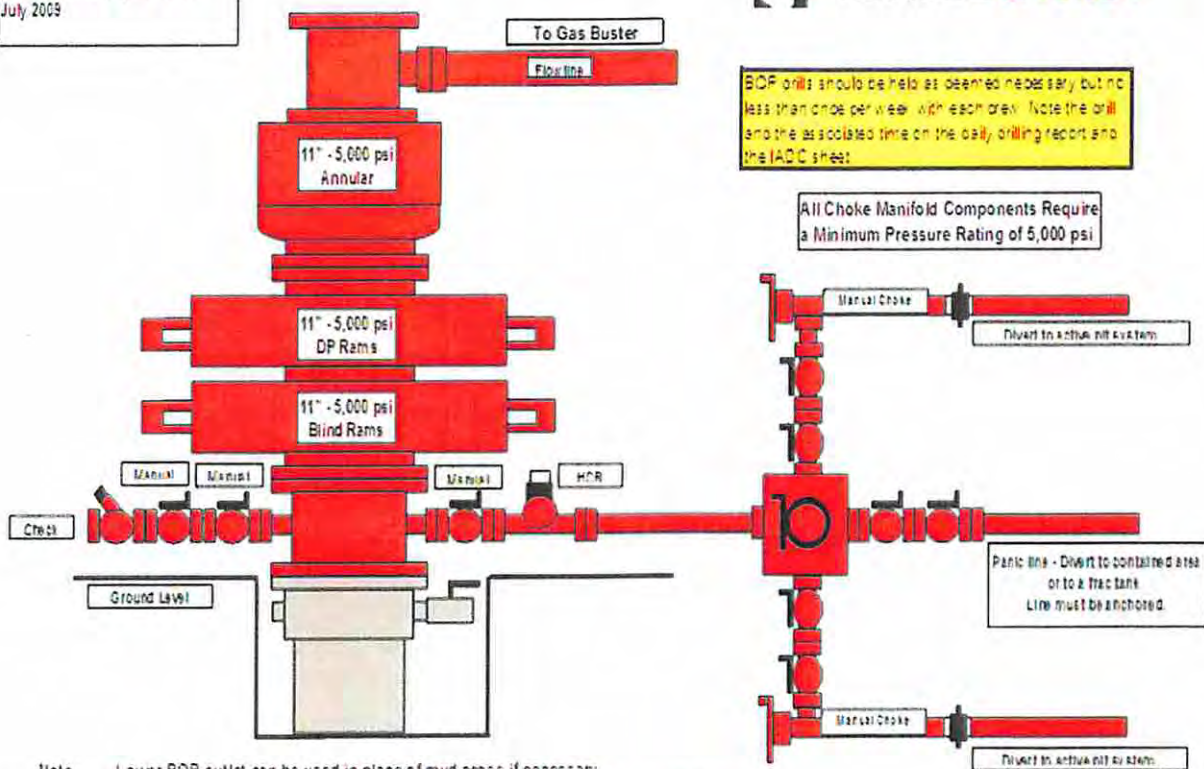
**Cement Additives**

- Conductor – 2% CaCl<sub>2</sub>
- Freshwater/Coal – 2% CaCl<sub>2</sub>
- Intermediate - 2% CaCl<sub>2</sub>
- Production -
  - 2.6% Cement extender
  - 0.7% Fluid Loss Additive
  - 0.5% High Temperature Retarder
  - 0.2% Friction Reducer

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**Office of Oil & Gas**  
NOV 06 2014

Waynesburg District  
 Minimum BOP Requirements  
 July 2009

HORIZONTAL RIG SETUP



BOP drills should be held as needed necessary but no less than once per well with each crew. Note the drill and the associated time on the daily drilling report and the IADC sheet.

All Choke Manifold Components Require a Minimum Pressure Rating of 5,000 psi

Note - Lower BOP outlet can be used in place of mud cross if necessary  
 Choke manifold configuration may vary but must have 2 manual chokes and 5,000 psi rating  
 The use of Coflex is acceptable

Remote Controls

Remote controls shall be readily accessible to the driller. Remote controls for all systems shall be capable of closing the preventer. Remote controls systems shall be capable of both opening and closing the preventer.

Received  
 Office of Oil & Gas

NOV 06 2014

WW-9  
(9/13)

4703305859

API Number 47 - 033 -  
Operator's Well No. KST2DHS

**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) Middle West Fork Creek Quadrangle Big Isaac

Elevation 1416.3' County Harrison District Union

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

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: \_\_\_\_\_

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_)
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Recycle on other well on same pad or adjacent pads.)

*SDW  
10/8/2014*

Will closed loop system be used? If so, describe: Yes, cuttings/fluids separated with the use of a centrifuge/shaker, liquids recycled and solids disposed of at an approved landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Synthetic

-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. Landfill

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

-Landfill or offsite name/permit number? Meadowfill, Northwestern Landfill and Max Environmental Yukon Landfill & Bulger Landfill

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 Kelly Eddy

Company Official (Typed Name) Matthew Imrich

Company Official Title Designated Agent - District Operations Superintendent, WV Gas Operations

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Subscribed and sworn before me this 8<sup>th</sup> day of October, 2014

Carolina Notary Public

My commission expires 09/15/2021





Form WW-9

Operator's Well No. KST2DHS

CNX Gas Company LLC

Proposed Revegetation Treatment: Acres Disturbed 27.6 Prevegetation pH 6.5

Lime <sup>according to pH test</sup> Tons/acre or to correct to pH 7.0

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch hay or straw @ 2 Tons/acre

Seed Mixtures

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

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: S. D. Warratt

Comments: Pre-seed/mulch all disturbed areas as soon as reasonably possible per regulation. Upgrade ETS as needed per WU DEP ETS manual.

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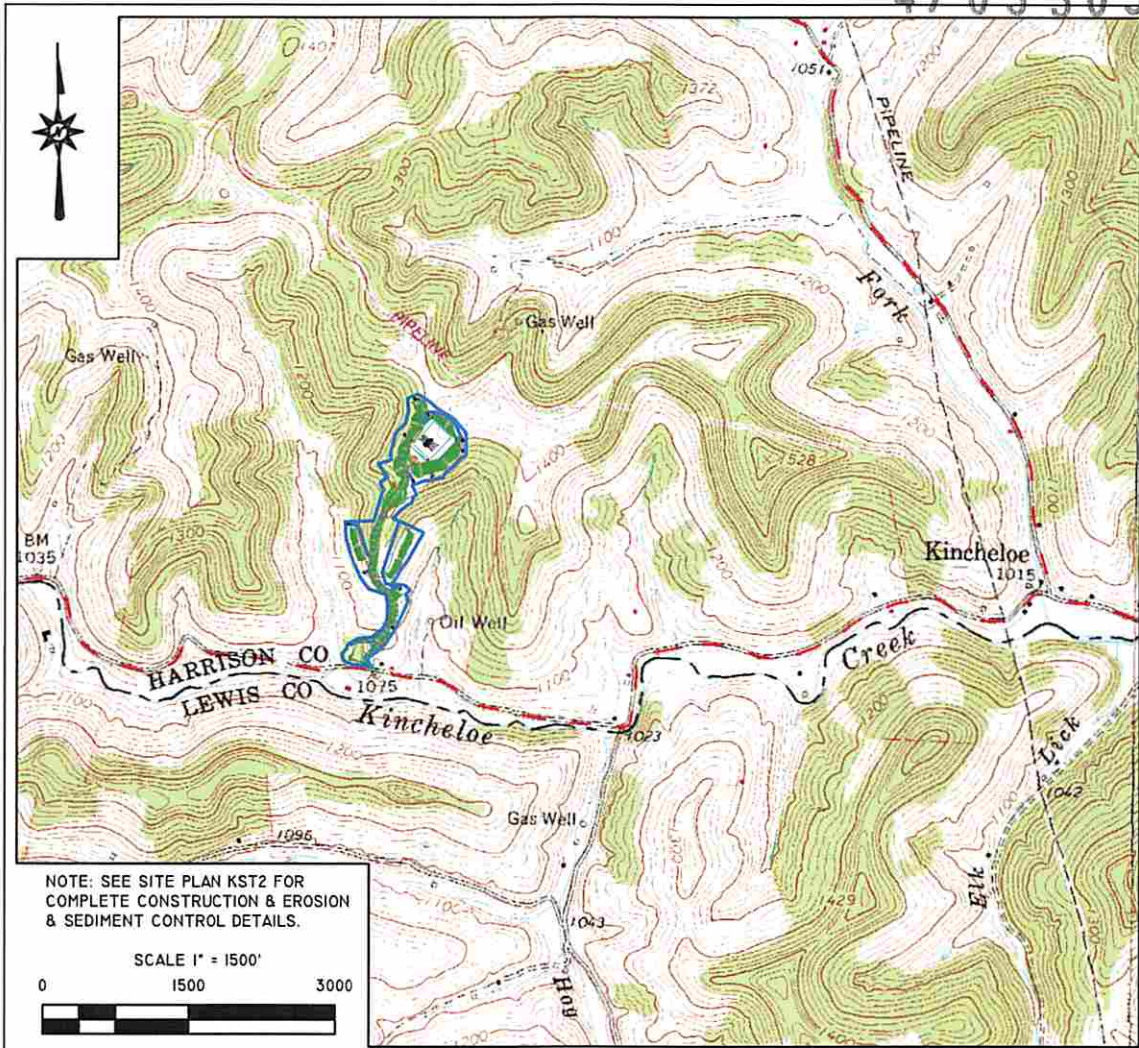
Title: Oil & Gas Inspector Date: 10/8/2014

Field Reviewed?  Yes  No

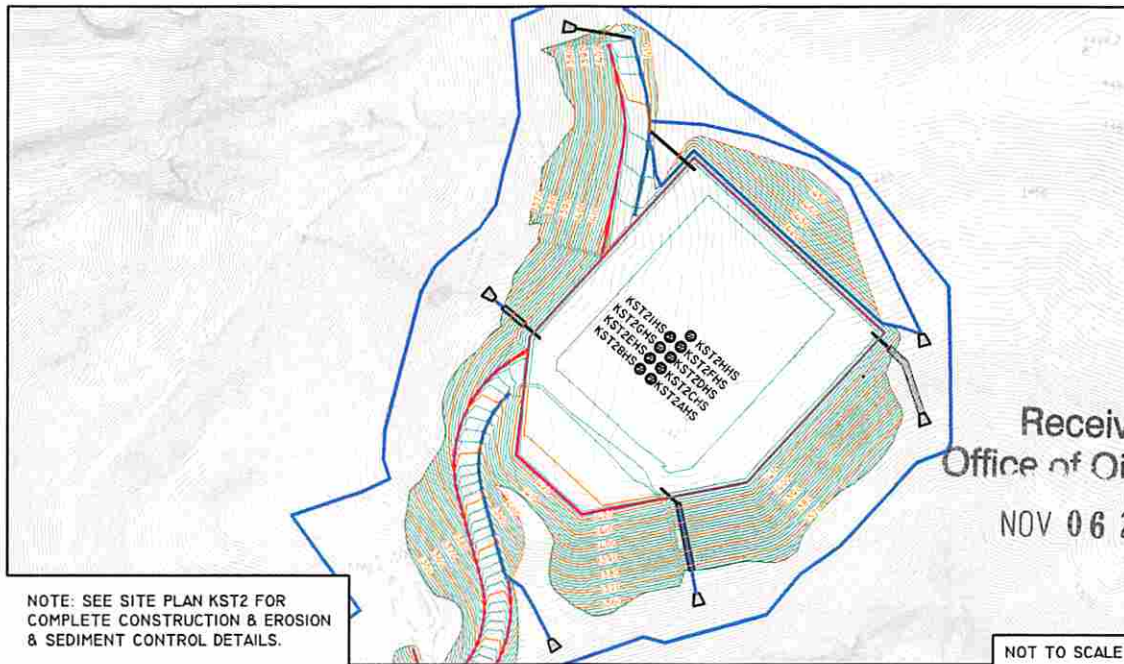
05/29/2015

2 OF 3





SDW  
6/18/2014



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**Blue Mountain Inc.**  
 11023 MASON DIXON HIGHWAY  
 BURTON, WV 26562  
 PHONE: (304) 662-6486

PREPARED FOR:  
 CNX GAS COMPANY LLC  
 P.O. BOX 1248  
 JANE LEW, WV 26378

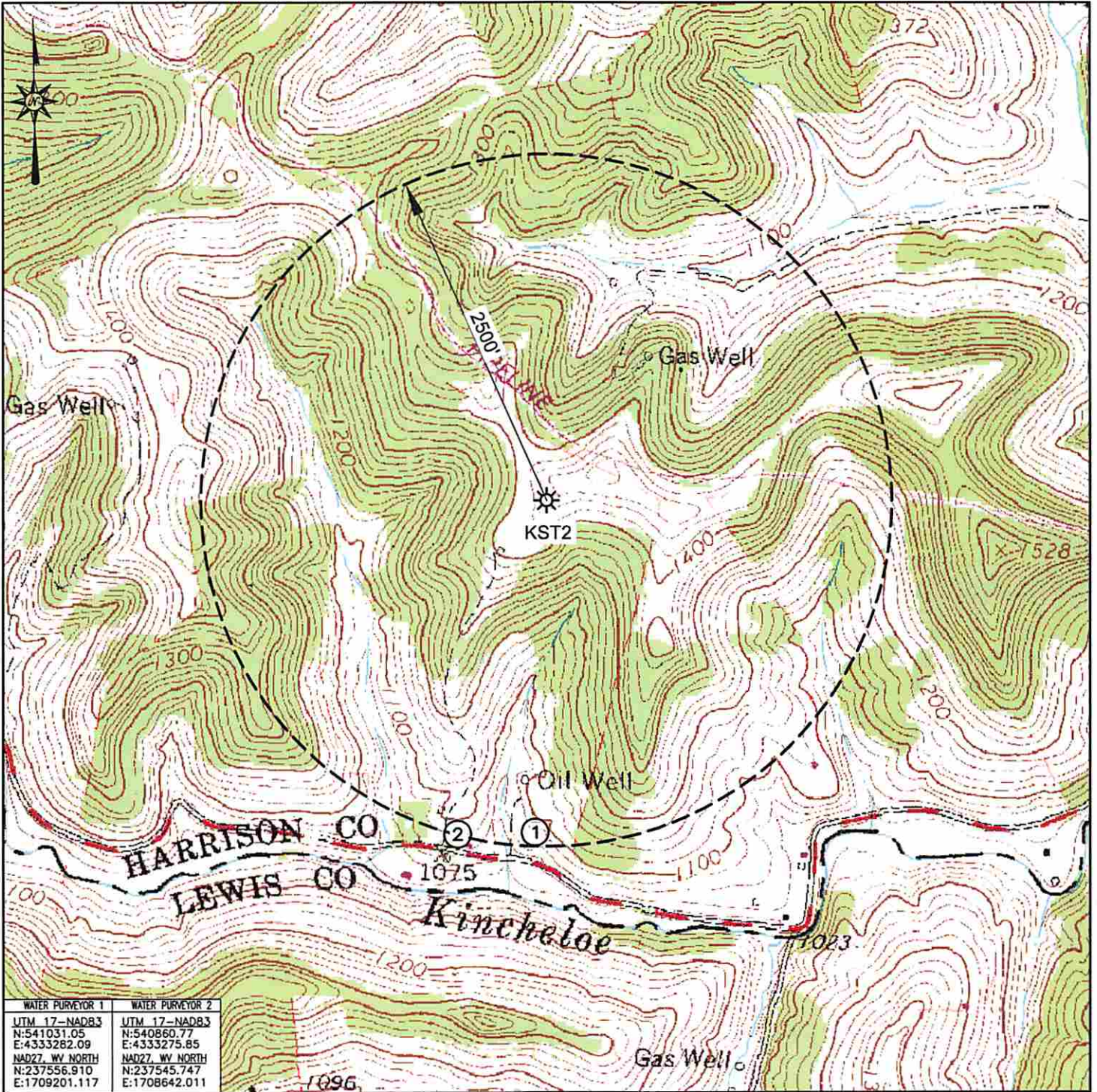
FORM WW9

**KST2 WELL**  
 TOPO SECTION OF WEST MILFORD 7.5'  
 USGS TOPO QUADRANGLE

JUNE 30, 2014

05/29/2015





WATER PURVEYOR 1	WATER PURVEYOR 2
UTM 17-NAD83 N:541031.05 E:4333282.09	UTM 17-NAD83 N:540860.77 E:4333275.85
NAD27_WV NORTH N:237556.910 E:1709201.117	NAD27_WV NORTH N:237545.747 E:1708642.011

**Blue Mountain Inc.**  
11023 MASON DIXON HIGHWAY  
BURTON, WV 26562  
PHONE: (304) 662-6486

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PREPARED FOR:  
CNX GAS COMPANY LLC  
P.O. BOX 1248  
JANE LEW, WV 26378

LEGEND  
① - POSSIBLE WATER PURVEYOR

**KST2**  
WATER PURVEYOR MAP  
HARRISON COUNTY  
UNION DISTRICT  
WEST VIRGINIA

TOPO QUAD: BIG ISAAC, WV  
SCALE: 1" = 1000'  
DATE: JUNE 25, 2014

N7V 06 2014



47 0 3 3 0 5 8 5 9



# Blue Mountain Inc.

11023 Mason Dixon Hwy | Burton, WV 26562  
Ph: (304) 662-6486 | Fax: (304) 662-6501

June 26, 2014

CNX GAS COMPANY  
P.O. BOX 1248  
JANE LEW, WV 26378

## WATER WELL REPORT

PROJECT: KST2  
DISTRICT: BIG ISAAC  
COUNTY: Harrison  
STATE: West Virginia

The following surface owners may have water supplies within 2,000 feet of the above location:

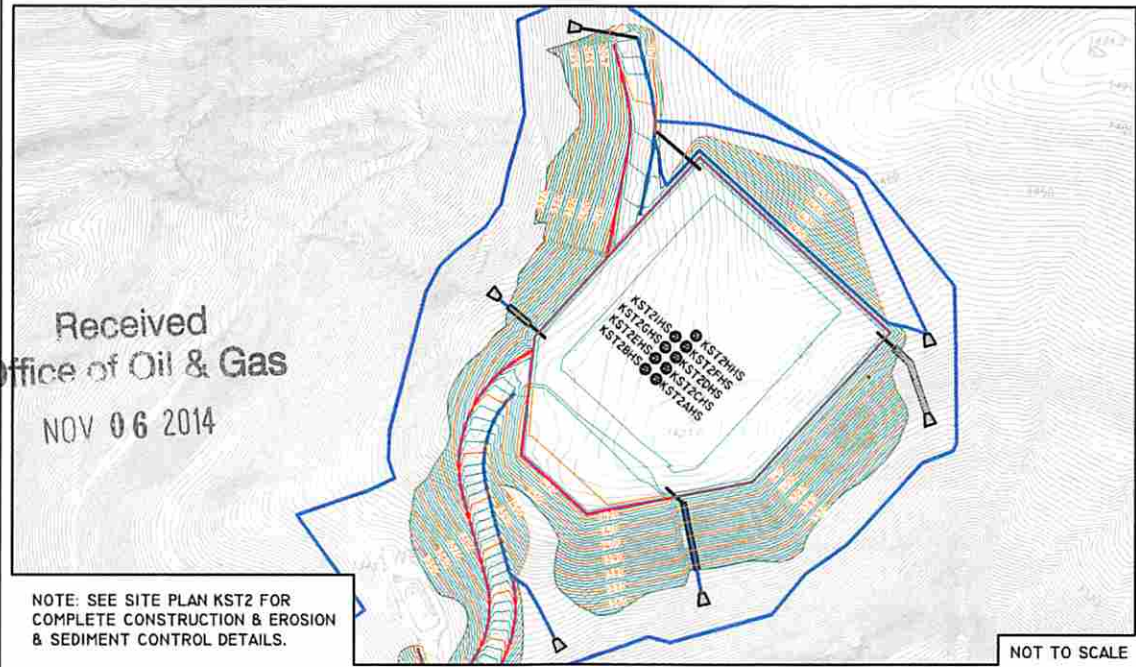
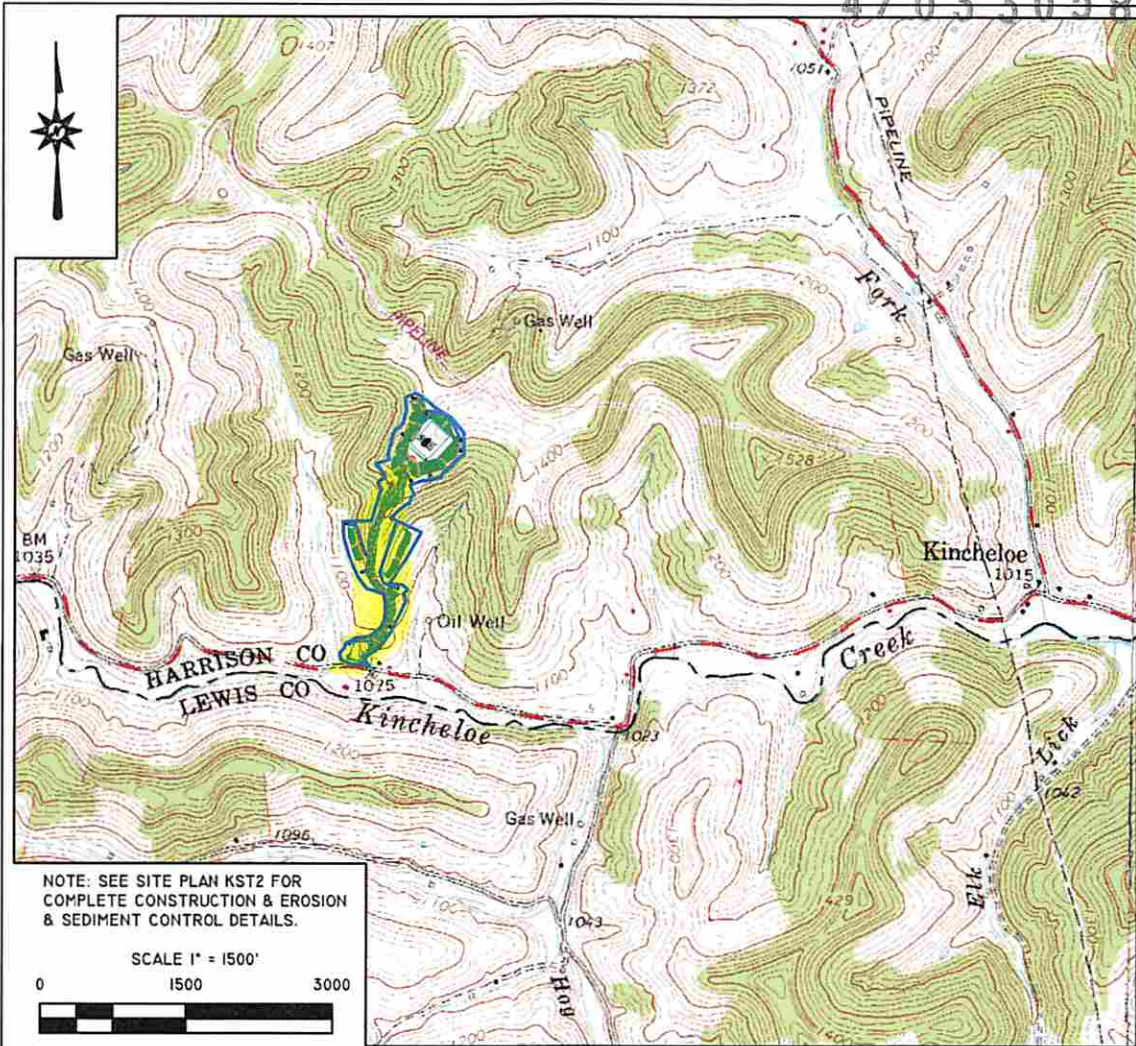
<u>NAME</u>	<u>ADDRESS</u>	<u>CITY, STATE, ZIP</u>
None		

The following surface owners may have water supplies within 2,500 feet of the above location:

<u>NAME</u>	<u>ADDRESS</u>	<u>CITY, STATE, ZIP</u>
1) Barbara Dawson	11 Morris CT	Culloden, WV 25510
2) Mark J. Coffindaffer & Diana Coffindaffer-Estev	RR 1 Box 176	Lost Creek, WV 26385

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**Blue Mountain Inc.**  
11023 MASON DIXON HIGHWAY  
BURTON, WV 26552  
PHONE: (304) 682-6486

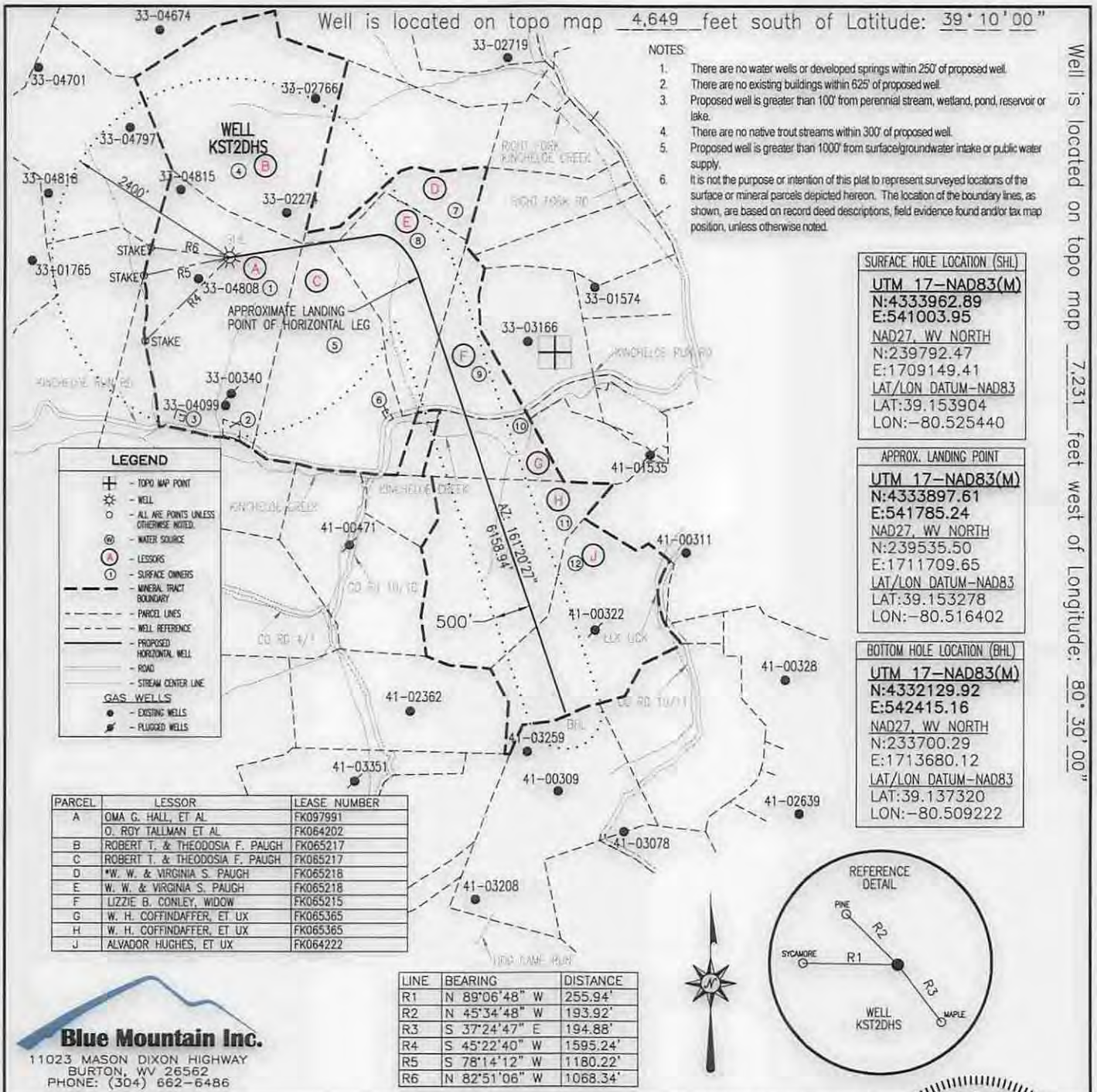
PREPARED FOR:  
CNX GAS COMPANY LLC  
P.O. BOX 1248  
JANE LEW, WV 26378

FORM WW9

KST2 WELL  
TOPO SECTION OF WEST MILFORD 7.5'  
USGS TOPO QUADRANGLE

JUNE 30, 2014

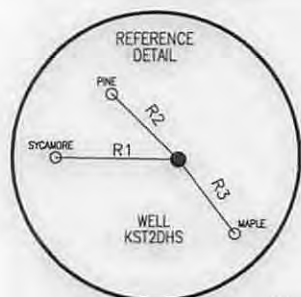




SURFACE HOLE LOCATION (SHL)  
UTM 17-NAD83(M)  
N:4333962.89  
E:541003.95  
NAD27, WV NORTH  
N:239792.47  
E:1709149.41  
LAT/LON DATUM-NAD83  
LAT:39.153904  
LON:-80.525440

APPROX. LANDING POINT  
UTM 17-NAD83(M)  
N:4333897.61  
E:541785.24  
NAD27, WV NORTH  
N:239535.50  
E:1711709.65  
LAT/LON DATUM-NAD83  
LAT:39.153278  
LON:-80.516402

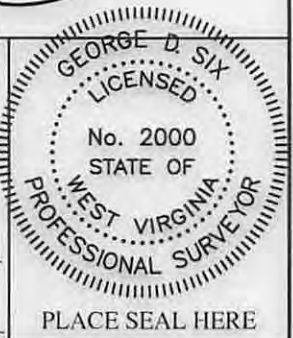
BOTTOM HOLE LOCATION (BHL)  
UTM 17-NAD83(M)  
N:4332129.92  
E:542415.16  
NAD27, WV NORTH  
N:233700.29  
E:1713680.12  
LAT/LON DATUM-NAD83  
LAT:39.137320  
LON:-80.509222



FILE #: KST2DHS REV. 4  
DRAWING #: KST2DHS REV. 4  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1/2500  
PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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

Signed: [Signature]  
R.P.E.: \_\_\_\_\_ L.L.S.: P.S. No. 2000



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

DATE: SEPTEMBER 17, 2014  
OPERATOR'S WELL #: KST2DHS  
API WELL #: 47 33 05859  
STATE COUNTY PERMIT

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

WATERSHED: MIDDLE WEST FORK CREEK ELEVATION: 1416.3'±  
COUNTY/DISTRICT: HARRISON / UNION QUADRANGLE: BIG ISAAC, WV 7.5'  
SURFACE OWNER: MARK J. COFFINDAFFER & DIANA COFFINDAFFER ESTEVE C/O MARK J. COFFINDAFFER ACREAGE: 119.784±  
OIL & GAS ROYALTY OWNER: OMA G. HALL, ET AL ACREAGE: 691.080±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,440'± TMD: 16,469'±  
WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT MATTHEW IMRICH  
Address P.O. BOX 1248 Address P.O. BOX 1248  
City JANE LEW State WV Zip Code 26378 City JANE LEW State WV Zip Code 26378

05/29/2015



# KST2DHS

## PAGE 2 OF 2

	SURFACE OWNER	DIST-TM/PAR
1	MARK J. COFFINDAFFER & DIANA COFFINDAFFER ESTEVE C/O MARK J. COFFINDAFFER	20-442/8
2	BARBARA DAWSON & MISHA LEA MCDONNIE	20-442/8.1
3	PLEASANT HILL ME CHURCH TRUSTEES	20-442/8.2
4	MARK J. COFFINDAFFER & DIANA COFFINDAFFER ESTEVE C/O MARK J. COFFINDAFFER	20-422/33
5	ROBERT J. & ETHEL R. PAUGH (LE)	20-442/9
6	JIMMIE L. & ANN E. LANE	20-442/9.1
7	*MARK J. COFFINDAFFER & DIANA COFFINDAFFER ESTEVE C/O MARK J. COFFINDAFFER	20-422/34.1
8	ALBERT GOETZ-HADDAD	20-442/10
9	DOUGLAS L. & DONNA S. NOLAN	20-442/11
10	ERIC B. & KATHY A. BEEVERS	20-442/12
11	ERIC B. & KATHY A. BEEVERS	03-6B/3
12	SIDNEY D. ROLES	03-6B/21

\* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M) N:4333962.89 E:541003.95 NAD27, WV NORTH N:239792.47 E:1709149.41 LAT/LON DATUM-NAD83 LAT:39.153904 LON:-80.525440

APPROX. LANDING POINT
UTM 17-NAD83(M) N:4333897.61 E:541785.24 NAD27, WV NORTH N:239535.50 E:1711709.65 LAT/LON DATUM-NAD83 LAT:39.153278 LON:-80.516402

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M) N:4332129.92 E:542415.16 NAD27, WV NORTH N:233700.29 E:1713680.12 LAT/LON DATUM-NAD83 LAT:39.137320 LON:-80.509222

47-033-05859 HGA

05/29/2015

SEPTEMBER 17, 2014

WW-6A1  
(5/13)

Operator's Well No. KST2DHS

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

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

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

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

See Attached

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

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

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

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

Well Operator: CNX Gas Company LLC  
 By: Matthew Imrich *Kelly Eddy*  
 Its: Designated Agent - District Operations Superintendent, WV Gas Operations

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Office of Oil & Gas**

NOV 08 2014



## Attachment - Form WW-6A-1 for KST2DHS:

<u>Lease</u>	<u>Grantor, Lessor, etc</u>	<u>Grantee, Lessee, etc</u>	<u>Royalty</u>	<u>Book/Page</u>
FK064202	O. Roy Tallman, et al Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc.	Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc. CNX Gas Company, LLC	1/8 Merger/name change Assignment Merger/name change Merger/name change Farmout Agreement	723/400 903/179 1136/250 51/795 58/362 1522/33
FK097991	Oma G. Hall, et al Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Development Company Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc.	Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Development Company Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc. CNX Gas Company, LLC	1/8 Assignment Assignment Assignment Merger/name change Merger/name change Farmout Agreement	1032/683 1135/250 1143/921 1169/820 51/795 58/362 1522/33
FK065217	Robert T. Paugh and Theodosia F. Paugh, H/W Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc.	Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc. CNX Gas Company, LLC	1/8 Merger/name change Assignment Merger/name change Merger/name change Farmout Agreement	740/31 903/179 1136/250 51/795 58/362 1522/33
FK065218	W.W. Paugh and Virginia S. Paugh, H/W Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc.	Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc. CNX Gas Company, LLC	1/8 Merger/name change Assignment Merger/name change Merger/name change Farmout Agreement	740/34 903/179 1136/250 51/795 58/362 1522/33
FK065215	Lizzie B. Conley, widow Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc.	Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc. CNX Gas Company, LLC	1/8 Merger/name change Assignment Merger/name change Merger/name change Farmout Agreement	740/39 903/179 1136/250 51/795 58/362 1522/33
FK065365	W.H. Coffindaffer, et ux Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc.	Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc. CNX Gas Company, LLC	1/8 Merger/name change Assignment Assignment Merger/name change Merger/name change Farmout Agreement	743/273 903/179 1136/250 425/127 51/795 58/362 1522/33
FK064222	Alvador Hughes, et ux Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc.	Hope Natural Gas Company Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation Dominion Transmission, Inc. CNX Gas Company, LLC	1/8 Merger/name change Assignment Merger/name change Merger/name change Farmout Agreement	220/346 294/89 425/127 VV. Sec. of State Website VV. Sec. of State Website 672/154

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NOV 06 2014

2 OF 2

05/29/2015





September 25, 2014

Ms. Laura Cooper  
WV DEP Office of Oil & Gas  
601 57<sup>th</sup> St., SE  
Charleston, WV 25304

RE: CONSOL Energy's proposed KST2DHS Well, in Harrison County, West Virginia  
Drilling Under County Route 35 Kincheloe Road

Dear Ms. Cooper:

CONSOL Energy, Inc. (CNX) is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to CNX's right to drill under County Route 35 Kincheloe Road. Please be advised that according to the title information we have relied on in submitting this application, the State owns no oil and gas rights under said road(s) and/or railroad(s) that CNX has leased said rights from the appropriate parties as set forth on the accompanying Form WW-6A1.

Very truly yours,

A handwritten signature in blue ink that reads 'Kelly Eddy'.

Kelly Eddy  
Permitting Supervisor  
CONSOL Energy, Inc.

Received  
Office of Oil & Gas  
NOV 06 2014

05/29/2015

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

Date of Notice Certification: 10/10/2014

API No. 47- 033 - \_\_\_\_\_  
Operator's Well No. KST2HHS  
Well Pad Name: KST2HS

**Notice has been given:**

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Eastings: <u>541,012.62</u>
County: <u>Harrison</u>		Northing: <u>4,333,963.34</u>
District: <u>Union</u>	Public Road Access: <u>CR 35, Kincheloe Road</u>	
Quadrangle: <u>Big Isaac</u>	Generally used farm name: <u>Coffdaffer</u>	
Watershed: <u>Middle West Fork Creek</u>		

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

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

\*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or  NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or  NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or  NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or  
 WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

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Office of Oil & Gas  
NOV 06 2014**

**OOG-OFFICE USE ONLY**

RECEIVED/  
NOT REQUIRED

RECEIVED

RECEIVED/  
NOT REQUIRED

RECEIVED

RECEIVED

RECEIVED

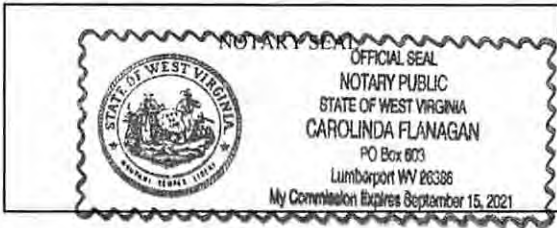
**Required Attachments:**

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

**Certification of Notice is hereby given:**

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

Well Operator:	<u>CNX Gas Company LLC</u>	Address:	<u>P O Box 1248</u>
By:	<u>Matthew Imrich <i>Kelly Eddy</i></u>		<u>Jane Lew, WV 26378</u>
Its:	<u>Designated Agent - District Operations Superintendent, WV Gas Operations</u>	Facsimile:	<u>304-884-2245</u>
Telephone:	<u>304-884-2131, Kelly Eddy</u>	Email:	<u>kellyeddy@consolenergy.com</u>



Subscribed and sworn before me this 10<sup>th</sup> day of OCT. 2014.

*Carolinda Flanagan* Notary Public

My Commission Expires 09/15/2021

**Oil and Gas Privacy Notice:**

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

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Office of Oil & Gas  
NOV 06 2014



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

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

**Date of Notice:** 9:30 & 10/17/14 **Date Permit Application Filed:** 11/5/14

**Notice of:**

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

**Delivery method pursuant to West Virginia Code § 22-6A-10(b)**

- PERSONAL SERVICE       REGISTERED MAIL       METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

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

SURFACE OWNER(s)  
Name: Mark Coffindaffer  
Address: 77 President Drive  
Lost Creek, WV 26385

Name: Diana Coffindaffer Esteve  
Address: 3926 Alta Vista Drive  
Laramie, WY 82072

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

Name: Mark Coffindaffer  
Address: 77 President Drive  
Lost Creek, WV 26385

Name: Diana Coffindaffer Esteve  
Address: 3926 Alta Vista Drive  
Laramie, WY 82072

SURFACE OWNER(s) (Impoundments or Pits)

Name: N/A  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: See Attached  
Address: \_\_\_\_\_

COAL OPERATOR  
Name: N/A  
Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: See Attached  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: Dominion Transmission Inc. % Ronald Walden  
Address: 445 West Main Street  
Clarksburg, WV 26301

\*Please attach additional forms if necessary

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**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

**Well Location Restrictions**

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

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

**Water Well Testing:**

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

**Water Testing Laboratories:**

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

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

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

**Written Comment:**

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

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

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

**Time Limits and Methods for Filing Comments.**

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

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WW-6A  
(8-13)

4703305859  
APP NO. 47-033  
OPERATOR WELL NO. KST2DHS  
Well Pad Name: KST2HS

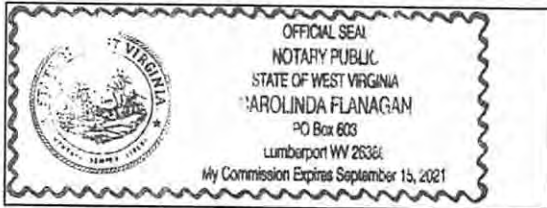
**Notice is hereby given by:**

Well Operator: CNX Gas Company LLC  
Telephone: 304-884-2131, Kelly Eddy Kelly Eddy  
Email: kellyeddy@consolenergy.com

Address: P.O. Box 1248  
Jane Lew, WV 26378  
Facsimile: 304-884-2245

**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](mailto:depprivacyofficer@wv.gov).



Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_.  
Carolinda Flanagan Notary Public  
My Commission Expires 09/15/2021

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**Attachment for WW-6A - Notice of Application**  
**KST2 Well Pad**

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

Mark Coffindaffer & Diana Coffindaffer Esteve  
77 President Drive  
Lost Creek, WV 26385

Barbara Dawson  
11 Morris Court  
Culloden, WV 25510

**Coal Owner(s):**

Eastern Associated Coal, LLC  
500 Lee Street, Suite 900  
Charleston WV, 25301

James E. Patterson Trust  
C/o DLA Piper LLP  
The Marbury Building  
6225 Smith Avenue  
Baltimore MD 21209-3600

Richard G. Hall  
1701 Quarry Lane  
McKinney, TX 75070

Pamela Ann Shanklin  
1100 Threadgrass Rd NE  
Rio Rancho, NM 87144-5759

Gertrude Beall  
410 E. Main Street  
Harrisville, WV 26362

Bertha Miller  
C/o Larry D. Miller  
1515 Adair Blvd  
Cummings, GA 30040-4531

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**Coal Owner(s) continued:**

Jeffery J. Yost  
3689 Wembley Lane  
Lexington, KY 40515

Brenda L. Yost  
151 Gone Fishin Lane  
Berkeley Springs, WV 25411

Helen Jean Currence  
249-A RR4  
Elkins, WV 26241

Pamela K. Shrader  
PO Box 582  
Petersburg, WV 26847

Beverly Ann Wilson Dunham  
36869 3 Bridges Rd  
Willards, MD 21874

Ira O. Harris  
29818 Deer Harbour Dr.  
Salisbury, MD 21804

Gary Eugene Harris  
67650 Green Timbers Rd  
Homer, AK 99603

Grover D. Mullenax  
29 Laurel View Apts.  
Belington, WV 26250

J. Beverly Johnson Young  
19 Debbie Drive  
Gallipolis, OH 45631

Theresa Hall Uthe  
21 N 122nd Ave  
Avondale, AZ 85323

Steve Hall  
48625 Coldwater Creek Road  
Caldwell, OH 43724

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**Coal Owner(s) continued:**

Martha Ann Hall Montgomery  
672 Lucille Drive  
Elyria, OH 44035

James Patrick Hall  
478 Grass Run Road  
Smithville, WV 26178

Doris Jean Hall Farriah  
2512 27th Street  
Parkersburg, WV 26101

Julie Hall Christensen  
44 Wellington Rd  
Indianapolis, IN 46260

Brenda Hall  
4960 W. Craig Street  
Mecca, IN 47860

Valarie Hall Reed  
1522 Barksdale Dr. NE  
Leesburg VA 20176

Medeta Treadwell  
163 Monticello Circle  
Elyria, OH 44035

David A. Hall  
4509 Young Road  
Glen Rock, PA 17327

Dana L. Hall  
435 Spring Ave  
Clarksburg, WV 26301

Carola S. Hall Stephens  
180 Van Clevesville Road  
Martinsburg, WV 25405

Alex Taylor  
1826 Avenue B  
Billings MT 595503-9599

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**Coal Owner(s) continued:**

Nancy Y. Coleman ✓  
205 Echols Lane  
Lewisburg, WV 24901

Charles Ray Schola ✓  
118 Tygart Drive  
Philippi, WV 26416

Linda Carol Hall Grams ✓  
80 North Wood Street  
Shinnston, WV 26431

Carolyn Lipscomb Hall ✓  
13002 Covered Bridge Rd  
Sellersburg, IN 47172-8604

John N. Hall ✓  
6370 Dockser Terrace  
Falls Church, VA 22041

Joann Marie Shifflet Hall ✓  
7160 Bensville Rd  
White Plains, MD 20695

Georgetta June Hall ✓  
1215 Fern Circle  
Saint Leonard, MD 20685

Donald R. Henderson ✓  
1348 Whispering Pines Dr.  
Clearwater, FL 33764

Kathryn Henderson ✓  
PO Box 722  
Hot Springs, VA 24445

Alice Jean Benbow ✓  
408 Harwich Drive  
Morgantown, WV 26508

Benjamin McCoy ✓  
732 Elmwood Drive  
Davis, CA 95616-3517

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**Coal Owner(s) continued:**

Anna Belle Piira ✓  
1317 Buttonwood Drive  
Fort Collins, CO 80525-1913

Donna Post Nash ✓  
112 Deer Brook Lane  
Mt. Airy, NC 27030

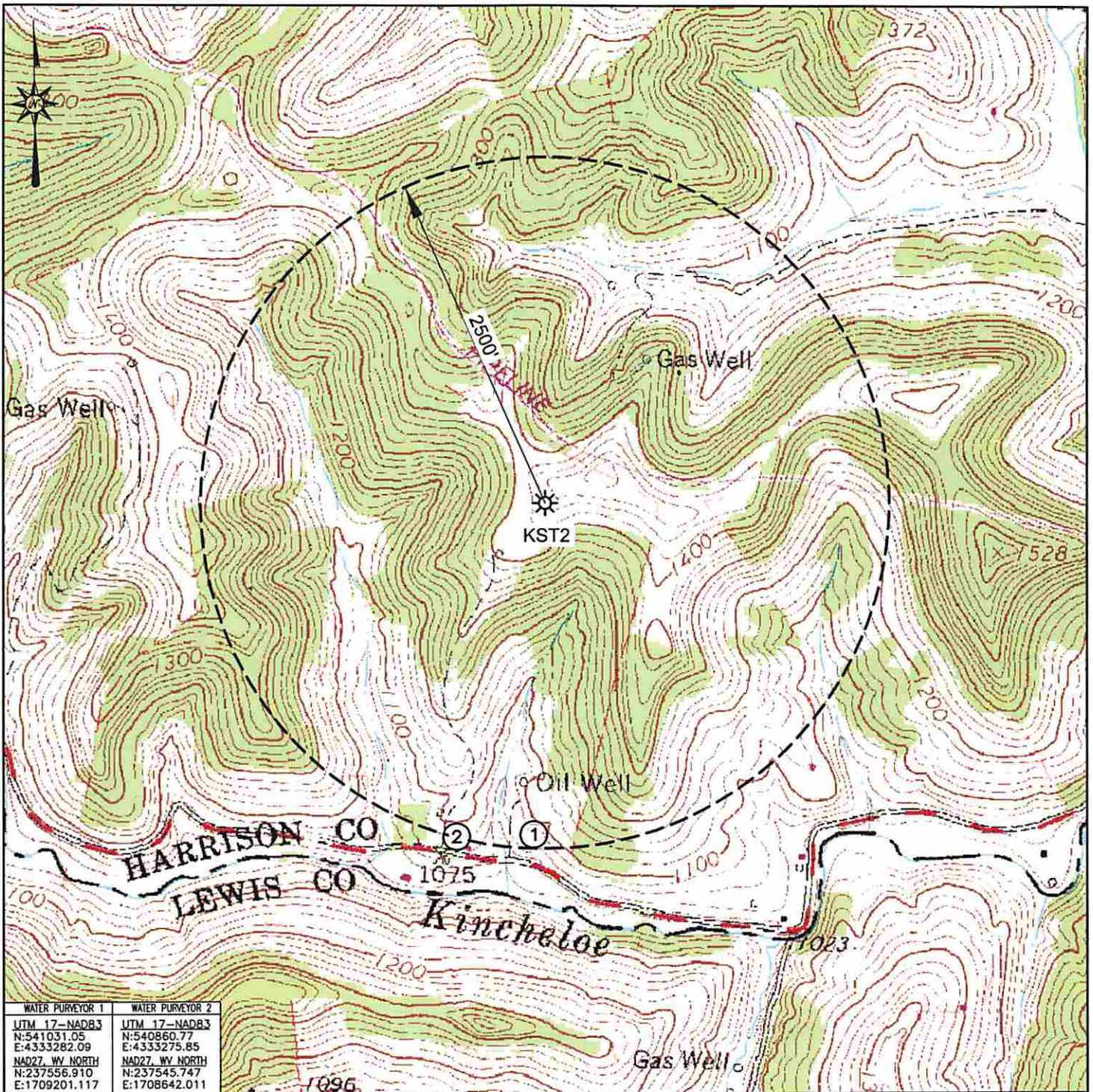
Larry Harwood Hall ✓  
2465 Edgewood Ave  
Burlington, NC 27215

Betty Sue Hartford ✓  
9404 West Kerry Lane  
Peoria, AZ 83582-3680

Harry James McCoy ✓  
1504 South Loudoun Street  
Winchester, VA 22601-4422

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WATER PURVEYOR 1	WATER PURVEYOR 2
LTM 17-NAD83 N:541031.05 E:4333282.09	LTM 17-NAD83 N:540860.77 E:4333275.85
NAD27_WV NORTH N:237556.910 E:1709201.117	NAD27_WV NORTH N:237545.747 E:1708642.011



**Blue Mountain Inc.**  
 11023 MASON DIXON HIGHWAY  
 BURTON, WV 26562  
 PHONE: (304) 662-6486  
**Received**  
**Office of Oil & Gas**

**PREPARED FOR:**  
 CNX GAS COMPANY LLC  
 P.O. BOX 1248  
 JANE LEW, WV 26378

**LEGEND**  
 ① - POSSIBLE WATER PURVEYOR

**KST2**  
**WATER PURVEYOR MAP**  
 HARRISON COUNTY  
 UNION DISTRICT  
 WEST VIRGINIA

TOPO QUAD: BIG ISAAC, WV  
 SCALE: 1" = 1000'  
 DATE: JUNE 25, 2014

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4703305859



11023 Mason Dixon Hwy | Burton, WV 26562  
Ph: (304) 662-6486 | Fax: (304) 662-6501

June 26, 2014

CNX GAS COMPANY  
P.O. BOX 1248  
JANE LEW, WV 26378

**WATER WELL REPORT**

PROJECT: KST2  
DISTRICT: BIG ISAAC  
COUNTY: Harrison  
STATE: West Virginia

The following surface owners may have water supplies within 2,000 feet of the above location:

<u>NAME</u>	<u>ADDRESS</u>	<u>CITY, STATE, ZIP</u>
None		

The following surface owners may have water supplies within 2,500 feet of the above location:

<u>NAME</u>	<u>ADDRESS</u>	<u>CITY, STATE, ZIP</u>
1) Barbara Dawson	11 Morris CT	Culloden, WV 25510
2) Mark J. Coffindaffer & Diana Coffindaffer-Esteve	RR 1 Box 176	Lost Creek, WV 26385

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

**Notice Time Requirement:** Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

**Date of Notice:** 09/08/2014 & 09/19/2014      **Date of Planned Entry:** 09/17/2014

**Delivery method pursuant to West Virginia Code § 22-6A-10a**

- PERSONAL SERVICE     
  REGISTERED MAIL     
  METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

SURFACE OWNER(s)

Name: Mark Coffindaffer ✓  
 Address: 77 President Drive  
Lost Creek, WV 26385

Name: Diana Coffindaffer Esteve ✓  
 Address: 3926 Alta Vista Drive  
Laramie, WY 82072

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: See Attached  
 Address: \_\_\_\_\_

MINERAL OWNER(s)

Name: See Attached  
 Address: \_\_\_\_\_

\*please attach additional forms if necessary

**Notice is hereby given:**

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State:	<u>WV</u>	Approx. Latitude & Longitude:	<u>E-541042.850 m / N-4334014.838 m</u>
County:	<u>Harrison</u>	Public Road Access:	<u>CR 35, Kincheloe Road</u>
District:	<u>Union</u>	Watershed:	<u>Middle West Fork Creek</u>
Quadrangle:	<u>Big Isaac</u>	Generally used farm name:	<u>Coffindaffer</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production 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). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

Well Operator: CNX Gas Company LLC

Telephone: 304-884-2131, Kelly Eddy

Email: kellyeddy@consolenergy.com

Address: P O Box 1248  
Jane Lew, WV 26378

Facsimile: 304-884-2245

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**Oil and Gas Privacy Notice:**

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

4703305859

**Attachment for WW-6A3**

**KST2 Well Pad**

**Surface Owner(s):**

Mark Coffindaffer  
77 President Drive  
Lost Creek WV 26385

Diana Coffindaffer Esteve  
3926 Alta Vista Drive  
Laramie WY 82072

**Coal Owner(s):**

Eastern Associated Coal, LLC  
500 Lee Street, Suite 900  
Charleston WV, 25301

**Mineral Owner(s):**

Allyson J. Swensson  
98 Pepperbush Ln.  
Fairmont, WV 26554-8200

Mike Ross & Waco Oil & Gas  
PO Box 219  
Coalton, WV 26527-0219

Gregory Hall  
1298 Freshwater RD  
Eureka, CA 95503

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**Attachment for WW-6A3**

**KST2 Well Pad**

**Mineral Owner(s) continued:**

Bertha Miller ✓  
c/o Larry D. Miller  
1515 Adair Blvd.  
Cummings, GA 30040-4531

Harry James McCoy ✓  
1504 South Louddoun  
Street Winchester, VA 22601-4422

Richard Cronin ✓  
9649 Norfolk Street  
Manassas, VA 20109

James B. Beall ✓  
RR2 Box 4  
Harrisville, WV 26362-9602

Milo H. Beall ✓  
695 Cooper St.  
Harrisville, WV 26362-9602

Paul D. Beall ✓  
811 East Main Street  
Harrisville, WV 26362-9602

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**Attachment for WW-6A3****KST2 Well Pad****Mineral & Coal Owner(s):**

James E. Patterson Trust  
c/o DLA Piper LLP  
The Marbury Building  
6225 Smith Avenue  
Baltimore MD 21209-3600

Richard G. Hall  
1701 Quarry Lane  
McKinney, TX 75070

Pamela Ann Shanklin  
1100 Threadgrass Rd NE  
Rio Rancho, NM 87144-5759

Gertude Beall  
410 E. Main Street  
Harrisville, WV 26362

Bertha Miller  
c/o Larry D. Miller  
1515 Adair Blvd  
Cummings, GA 30040-4531

Jeffery J. Yost  
3689 Wembly Lane  
Lexington, KY 40515

Brenda L. Yost  
151 Gone Fishin Lane  
Berkeley Springs, WV 25411

Helen Jean Currence  
249-A RR4  
Elkins, WV 26241

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**Attachment for WW-6A3****KST2 Well Pad****Mineral & Coal Owner(s) continued:**

Pamela K. Shrader ✓  
PO Box 582  
Petersburg, WV 26847

Beverly Ann Wilson Dunham  
36869 3 Bridges Rd ✓  
Willards, MD 21874

Ira O. Harris  
29818 Deer Harbour Dr ✓  
Salisbury, MD 21804

Gary Eugene Harris ✓  
67650 Green Timbers Rd  
Homer, AK 99603

Grover D. Mullenax ✓  
29 Laurel Apts.  
Belington, WV 26250

J. Beverly Johnson Young ✓  
19 Debbie Drive  
Gallipolis, OH 45631

Theresa Hall Uthe ✓  
21 N 122nd Ave  
Avondale, AZ 85323

Steve Hall ✓  
48625 Coldwater Creek Road  
Caldwell, OH 43724

Martha Ann Hall Montgomery ✓  
672 Lucille Drive  
Elyria OH 44035

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**Attachment for WW-6A3****KST2 Well Pad****Mineral & Coal Owner(s) continued:**

James Patick Hall ✓  
478 Grass Run Road  
Smithville, WV

Doris Jean Hall Farriah ✓  
2512 27th Street  
Parkersburg, WV 26101

Julie Hall Christensen ✓  
44 Wellington Rd  
Indianapolis, IN 46260

Brenda Hall ✓  
Box 182  
Macca, IN 47860

Valarie Hall Reed ✓  
1322 Barsville Ave  
Leesburg VA 20176

Medeta Treadwell ✓  
163 Moticello Circle  
Elyria, OH 44035

David A. Hall ✓  
4509 Young Road  
Glen Rock, PA 17327

Dana L. Hall ✓  
435 Spring Ave  
Clarksburg, WV 26301

Carola S. Hall Stephens ✓  
180 Van Clevesville Road  
Martinsburg, WV 25405

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**Attachment for WW-6A3****KST2 Well Pad****Mineral & Coal Owner(s) continued:**

Alex Taylor ✓  
1826 Avenue B  
Billings MT 595503-9599

Nancy Y. Coleman ✓  
205 Echols Lane  
Lewisburg, WV 24901

Charles Ray Schola ✓  
118 Tygart Drive  
Phillipi, WV 26416

Linda Carol Hall Grams ✓  
80 North Wood Street  
Shinnston, WV 26431

Carolyn Lipscomb Hall ✓  
13002 Covered Bridge Rd  
Sellersburg, IN 47172-8604

John N. Hall ✓  
6370 Dockser Ter,  
Falls Church, VA 22041

Joann Marie Shifflet Hall ✓  
7160 Bensville Rd  
White Plains, MD 20695

Georgetta June Hall ✓  
1215 Fern Cir  
Saint Leonard, MD 20685

Donald R. Henderson ✓  
1348 Whispering Pines Dr.  
Clearwater, FL 33764

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**Attachment for WW-6A3****KST2 Well Pad****Mineral & Coal Owner(s) continued:**

Kathryn Henderson ✓  
Po Box 722  
Hot Springs, VA 24445

Alice Jean Donell ✓  
408 Harwich Drive  
Morgantown, WV 26508

Benjamin McCoy ✓  
732 Elmwood Drive  
Davis, CA 95616-3517

Anna Belle Pilra ✓  
1317 Buttonwood  
Drive Fort Collins, CO 80525-1913

Donna Post Nash ✓  
112 Deer Brook Lane  
Mt. Airy, NC 27030

Larry Harwood Hall ✓  
2465 Edgewood Ave  
Burlington, NC 27215

Betty Sue Hartford ✓  
9404 West Kerry Lane  
Peoria, AZ 83582-3680

Harry James McCoy ✓  
1504 South Louddoun Street  
Winchester, VA 22601-4422

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notice for LOI Change

7014 0510 0000 4142 4432

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Postmark Here  
FEB 25 2015

Sent To: **Mark Coffindaffer**  
 77 President Drive  
 Lost Creek, WV 26385  
 KST2 - Notice of Plan. Op. - Design Change  
 Surface & Road/Other Disturb.Owner

PS Form 3800, August 2006 See Reverse for Instructions

7014 0510 0000 4142 4449

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Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 8.03</b>

Postmark Here  
FEB 25 2015

Sent To: **Diana Coffindaffer Esteve**  
 3926 Alta Vista Drive  
 Laramie, WY 82072  
 KST2 - Notice of Plan. Op. - Design Change  
 Surface & Road/Other Disturb.Owner

PS Form 3800, August 2006 See Reverse for Instructions

05/29/2015







## WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

## Division of Highways

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

Earl Ray Tomblin  
 Governor

Paul A. Mattox, Jr., P. E.  
 Secretary of Transportation/  
 Commissioner of Highways

November 5, 2014

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 KST2HS Well Pad, Harrison County

Dear Mr. Martin,

This well site will be accessed from Permit #04-2014-0928 applied for by CNX Gas Company LLC for access to the State Road for a well site located off of Harrison County 35 SLS.

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

Very Truly Yours,

Gary K. Clayton, P.E.  
 Regional Maintenance Engineer  
 Central Office O&G Coordinator

Cc: Kelly Eddy  
 CONSOL Energy  
 CH, OM, D-4  
 File

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**Section V - Planned Additives to be used in Fracturing or Stimulations**

Type: Friction Reducer (DWP-612)

Chemical Component as listed on MSDS: Long Chain Polyacrylamide

CAS: N/A

Type: Biocide (DWP-944)

1<sup>st</sup> Chemical Component as listed on MSDS: 2,2-Dibromo-3-nitrilopropionamide

CAS: 10222-01-2

2<sup>nd</sup> Chemical Component as listed on MSDS: Polyethylene Glycol Mixture

CAS: 25322-68-3

Type: Scale Inhibitor (DAP-901)

1<sup>st</sup> Chemical Component as listed on MSDS: Methanol

CAS: 67-56-1

2<sup>nd</sup> Chemical Component as listed on MSDS: Phosphoric Acid Ammonium Salt

CAS: Trade Secret

3<sup>rd</sup> Chemical Component as listed on MSDS: Ammonium Chloride

CAS: 12125-02-9

4<sup>th</sup> Chemical Component as listed on MSDS: Organic Phosphonate

CAS: Trade Secret

5<sup>th</sup> Chemical Component as listed on MSDS: Amine Salt

CAS: Trade Secret

6<sup>th</sup> Chemical Component as listed on MSDS: Oxyalkylated Polyamine

CAS: Trade Secret

Type: Surfactant (DWP-938)

Chemical Component as listed on MSDS: Soap

CAS: N/A

Type: Hydrochloric Acid

Chemical Component as listed on MSDS: Hydrochloric Acid

CAS: 7647-01-0

Type: PA Breaker (DWP-690)

Chemical Component as listed on MSDS: Hydrogen Peroxide

CAS: Trade Secret

Type: Gel Slurry (DWP-111)

Chemical Component as listed on MSDS: Viscosifier

CAS: N/A

Type: Oxidizer Breaker (DWP-901)

Chemical Component as listed on MSDS: Ammonium Persulfate

CAS: 7727-54-0

Type: Buffer (DWP-204)

Chemical Component as listed on MSDS: Formic Acid

CAS: 64-18-6

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LOCATION MAP  
NOT TO SCALE



CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV 26378

API# 3305856  
API# 3305857  
API# 3305858  
API# 3305859  
API# 3305860  
API# 3305861  
API# 3305862



LOCATION MAP  
SHEET 7.04 (08) QUADRANT  
SCALE 1"=250'

# KST2HS WELL SITE MODIFICATION

## PAD CENTER LOCATION

NAD 83 - LAT: N 39° 09' 14.22"; LONG: W 80° 31' 30.79"  
NAD 27 - LAT: N 39° 09' 13.89"; LONG: W 80° 31' 31.45"  
UTM, NAD 83 - N: 4333968.027; E: 541022.946

## ENTRANCE LOCATION

NAD 83 - LAT: N 39° 08' 51.33"; LONG: W 80° 31' 39.42"  
NAD 27 - LAT: N 39° 08' 51.00"; LONG: W 80° 31' 40.08"  
UTM, NAD83 - N: 4333261.431; E: 540819.480

UNION DISTRICT,  
HARRISON COUNTY, WEST VIRGINIA

DATE: APRIL 01, 2015

### Blue Mountain Inc.

Engineers and Land Surveyors  
11023 Mason Dixon Hwy.  
Burton, WV 26562-9656  
(304) 662-6486



Know what's below.  
Call before you dig.

#### PROJECT INFORMATION

SURFACE OWNER  
MARK J. COFFINDAFFER  
TAX MAP/PARCEL 20-442-B  
TOTAL PROPERTY AREA: 119.784 ACRES  
OIL & GAS ROYALTY OWNER  
DHA, G. HALL, ET AL.  
TAX MAP/PARCEL 20-442-B  
TOTAL PROPERTY AREA: 119.784 ACRES

#### SITE LOCATION

THE KST2HS SITE IS LOCATED NORTH OF KINCHELOE ROAD (CR 35) APPROXIMATELY 0.5 MILES WEST OF THE INTERSECTION OF COUNTY ROAD 10/10 & KINCHELOE ROAD (CR 35).

#### ENTRANCE PERMIT

CNX GAS COMPANY WILL OBTAIN AN ENFORCEMENT PERMIT (FORM KH-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

#### MISS UTILITY

MISS UTILITY OF WEST VIRGINIA WAS NOTIFIED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN (TICKET NO. 1403100290). IN ADDITION, MISS UTILITY WILL BE CONTACTED PRIOR TO THE START OF THE PROJECT.

#### FLOODPLAIN NOTE

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT ARE NOT LOCATED IN A FLOOD ZONE PER THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 54033C0220D.

SHEET INDEX		SHEET INDEX	
DRAWING NUMBER	DRAWING NAME	DRAWING NUMBER	DRAWING NAME
1	COVER SHEET	12	ROAD SECTIONS
2	GENERAL NOTES	13	WELL PAD FOOTINGS & SECTIONS
3	1/2" HOLE BOUNDARY OVERVIEW	14	RECLAMATION PLAN (1 OF 3)
4	EXISTING CONDITIONS	15	RECLAMATION PLAN (2 OF 3)
5	OVERALL SITE PLAN AND	16	CONSTRUCTION DETAILS (1 OF 3)
6	GRAVELLED SITE PLAN (1 OF 3)	17	CONSTRUCTION DETAILS (2 OF 3)
7	GRAVELLED SITE PLAN (2 OF 3)	18	CONSTRUCTION DETAILS (3 OF 3)
8	GRAVELLED SITE PLAN (3 OF 3)	19	MATERIAL QUANTITIES
9	DETAILED SITE PLAN (1 OF 2)	20	
10	DETAILED SITE PLAN (2 OF 2)		

#### ENVIRONMENTAL NOTES

A WETLAND DELINEATION WAS PERFORMED ON MARCH 10 & 11, 2014 BY BLUE MOUNTAIN INC. TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE MARCH 20, 2014 REPORT FOR KST2HS, WHICH WAS PREPARED BY BLUE MOUNTAIN INC. SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE REPORT DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR WDEP. IT IS STRONGLY RECOMMENDED THAT THE APPOINTED AGENCIES BE CONSULTED IN AN EFFORT TO GAIN CONFIRMATION OF THE DELINEATION DESCRIBED BY THE REPORT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

#### GEOTECHNICAL NOTES

A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED IN THE FIELD BY RETTEW ASSOCIATES, INC. BETWEEN MAY 27 - JUNE 4, 2014. THE REPORTS PREPARED BY RETTEW ASSOCIATES, INC. DATED JUNE 20, 2014, REFLECTS THE RESULTS OF THE SUBSURFACE INVESTIGATION. PLEASE REFER TO THE SUBSURFACE INVESTIGATION REPORT FOR ADDITIONAL INFORMATION, AS NEEDED.

#### RESTRICTIONS

1. THERE ARE NO NATURALLY PERCUSSING FROST STREAMS WITHIN 300' OF THE PAD & LOD.
2. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000' OF THE PAD AND LOD.
3. THERE ARE NO EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF THE WELLS BEING DRILLED.
4. THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625' OF THE CENTER OF THE PAD.
5. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625' OF THE CENTER OF THE PAD.

#### CERTIFICATION:

I DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE ENGINEERING AND SURVEYING CONTROL, PLAN AND SITE RESTORATION PLAN AND POST CONSTRUCTION BMP'S ARE TRUE AND CORRECT, REPRESENT ACTUAL FIELD CONDITIONS AND ARE IN ACCORDANCE WITH THE WEST VIRGINIA CODE AND THE DEPARTMENT'S RULES AND REGULATIONS. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

SIGNATURE: William E. Gabley DATE: 04/01/15



CNX GAS COMPANY LLC  
ONE ENERGY DRIVE  
JANE LEW, WV 26378



Engineers and Land Surveyors  
11023 Mason Dixon Hwy.  
Burton, WV 26562-9656  
(304) 662-6486

KST2HS WELL SITE COVER

05/29/2015

SHEET NO. 1

DRAWING NAME

DATE

SCALE

DESIGNED BY

CHECKED BY

DATE

SCALE

DRAWING NAME

SHEET NO.





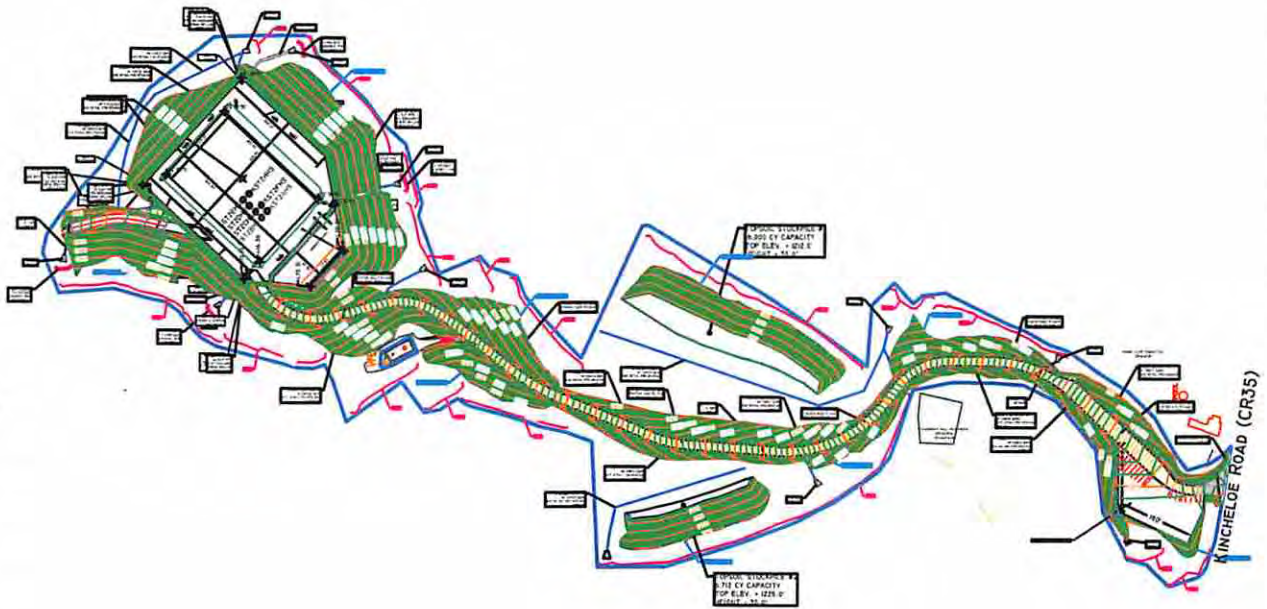






4703305859

# KST2 Mine Map



NOTE: OLD WORKS MAP SHOWS NO PREVIOUS MINING ACTIVITY IN THE AREA

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# WV Flood Map for KST2HS

4 / 0 5 3 0 3 8 3 9



This map is not the official regulatory FIRM or DFIRM. Its purpose is to assist with determining potential flood risk for the selected location.

Map Created on 10/10/2014

	Location of the mouse click		Cross Section Line
	Approximate Study (Zone A)		Base Flood Elevation Line
	Detailed Study (Zone AE, AH, AO)		DFIRM Panel (Map) Index
	Floodway		
	Flood Water Depth (HEC-RAS)		

User Notes:

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**Disclaimer:**  
The online map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. To obtain more detailed information in areas where Base Flood Elevations have been determined, users are encouraged to consult the latest Flood Profile data contained in the official flood insurance study. These studies are available online at [www.msc.fema.gov](http://www.msc.fema.gov).

WV Flood Tool is supported by FEMA, WV NFIP Office, and WV GIS Technical Center  
(<http://www.MapWV.gov/flood>)

<b>Flood Hazard Area:</b> Selected site is <b>WITHIN</b> the FEMA 100-year floodplain.
<b>Advisory Flood Height:</b> N/A
<b>Water Depth:</b> N/A
<b>Elevation:</b> About 1414 feet
<b>Location (long, lat):</b> 80.525650 W, 39.153663 N
<b>Location (UTM 17N):</b> (540986, 4333936)
<b>FEMA Issued Flood Map:</b> 54033C0220D
<b>Contacts:</b> Harrison County
<b>CRS Information:</b> N/A
<b>Flood Profile:</b> No Profile
<b>HEC-RAS Model:</b> No Model
<b>Parcel Number:</b>

05/29/2015