



west virginia department of environmental protection

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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Wednesday, February 08, 2017
WELL WORK PERMIT
Horizontal 6A / Re-Work

CNX GAS COMPANY LLC (A)
POST OFFICE BOX 1248

JANE LEW, WV 263786506

Re: Permit approval for PEN2BHS
47-085-10068-00-00

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

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

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



James A. Martin
Chief

Operator's Well Number: PEN2BHS
Farm Name: KIESSLING, TERRY & HELEN
U.S. WELL NUMBER: 47-085-10068-00-00
Horizontal 6A / Re-Work
Date Issued: 2/8/2017

Promoting a healthy environment.

PERMIT CONDITIONS

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

CONDITIONS

1. 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.
2. 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.
3. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
4. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
5. 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.
6. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

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

1) Well Operator: CNX GAS COMPANY LLC

<u>494458046</u>	<u>085</u>	<u>Clay</u>	<u>Ellenboro</u>
------------------	------------	-------------	------------------

Operator ID County District Quadrangle

2) Operator's Well Number: PEN2BHS Well Pad Name: PEN2

3) Farm Name/Surface Owner: Kiessling Public Road Access: County Road 6/3

4) Elevation, current ground: 1075.4 Elevation, proposed post-construction: 1075.4

5) Well Type (a) Gas Oil Underground Storage

Other _____

(b) If Gas Shallow Deep

Horizontal

*Michael Doff
12-20-16*

6) Existing Pad: Yes or No yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Marcellus, Depth 6262'-6324, Thickness 62", Pressure 4174#psi

8) Proposed Total Vertical Depth: 6314'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 16145'

11) Proposed Horizontal Leg Length: 10,829

12) Approximate Fresh Water Strata Depths: 454

13) Method to Determine Fresh Water Depths: Closest well and Seneca Technology database

14) Approximate Saltwater Depths: 1244'

15) Approximate Coal Seam Depths: No Coal

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

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

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

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection
Page 1 of 3

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	N	LS	52	40'	40'	GTS
Fresh Water	13 3/8"	N	J-55	54.5	579'	579'	CTS
Coal							
Intermediate	9 5/8"	N	HCK-55 BTC	36.0	5410'	5410'	CTS
Production	5 1/2"	N	HCP-110 TXP BTC	20.0	16145'	16145'	14.0 ppg Class A tail slurry to intermediate
Tubing							
Liners							

existing

Existing

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	26"	0.25	2703		Grout to surface	Grout to surface
Fresh Water	13 3/8"	17.5"	.380	2730		Type 1	1.18
Coal							
Intermediate	9 5/8"	12.25"	.352	3520		Class A	1.19
Production	5 1/2"	8.75/8.5"	.361	12,640		Class A	1.27
Tubing							
Liners							

*MAG
12-20-16*

PACKERS

Kind:				
Sizes:				
Depths Set:				

RECEIVED
 Office of Oil and Gas
 JAN 03 2017
 WV Department of
 Environmental Protection
 Page 2 of 3

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

Well previously drilled by NOBLE ENERGY. Submitting permit application to complete hydraulic fracturing operations and produce the well. ✓

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

The completions phase will be multiple stages 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 9,600 PSI, Max Rate 100 BPM ✓

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 1.5 Expansion ✓

22) Area to be disturbed for well pad only, less access road (acres): 1.5 Expansion

23) Describe centralizer placement for each casing string:

PREVIOUSLY COMPLETED. From original NOBLE ENERGY submittal "Conductor- No centralizers used. Fresh Water/Surface- Bow spring centralizers every 3 joints to surface. Intermediate- Bow spring centralizers on every joint to KOP, one every third joint from KOP to 100' surface. Production - Rigid bow spring every third joint from KOP to TOC, rigid bow spring every joint to KOP" (previous submittal attached)

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

PREVIOUSLY COMPLETED. From original Noble Energy submittal "Conductor 1.15% CaCl₂. Fresh Water -1.15% CaCl₂. Coal 1.15 CaCl₂, 0.6% gas migration control additive, 0.5% fluid loss additive, 0.4% salt tolerant dispersant, and 0.3% defoamer, Intermediate -10.0% BWOW NaCl, 0.2% BWOB Anti-Foam, 0.3% BWOW Dispersant, 0.4% BWOB Cement retarder. Production: 2.6% Cement extender, 0.7% Fluid Loss additive, 0.5% high temperature retarder, 0.2% friction reducer." (previous submittal attached)

25) Proposed borehole conditioning procedures:

PREVIOUSLY COMPLETED. From original NOBLE ENERGY submittal " Conductor- The hole is drilled w/ air and casing is run in air. apart from insuring the hole is clean via air circulation at TD, there are no other conditioning procedure. Fresh Water- The hole is drilled w/air and casing is run with air. Once casing is on bottom, the hole is filled w/ KCl water and a minimum of one hole volume is circulated prior to pumping cement. Coal- The hole is drilled with air and casing is run in air. Once casing is at set depth, the hole is filled w/KCl water and a minimum of one hole volume is circulated prior to pumping cement. Intermediate - Once surface casing is set and cemented intermediate hole is drilled either on air or SOBMs and filled w/ KCl water once drilled to TD. The well is conditioned with KCl Circulation prior to running casing. Once casing is at setting depth, the well is circulated a minimum of one hole volume prior to pumping cement. Production - the hole is drilled with synthetic oil base mud and once at TD the hole is circulated at a drilling pump rate for at least three hours. Once the torque and drag trends indicate the hole is clean and drilling BHA is pulled and casing is run. Once on bottom w/ casing the hole is circulated a minimum of one hole volume prior to pumping cement." (Previous submittal attached)

*Note: Attach additional sheets as needed.

Well Name: PEN-2B-HS

Conductor, 40.0ftKB											
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
40.0				20				0			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Casing Joints	20	19.124	94.00	J-55		0.0	40.0	40.00		520.0
Surface, 579.4ftKB											
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
579.4				13 3/8		12.459		5			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
13	Casing Joints	13 3/8	12.615	54.50	J-55	Buttress Thread	0.0	533.8	533.75		1,130.0
1	Float Collar	13 3/8	12.615	54.50	J-55	Buttress Thread	533.8	535.8	2.00		1,130.0
1	Casing Joints	13 3/8	12.615	54.50	J-55	Buttress Thread	535.8	577.9	42.15		1,130.0
1	Float Shoe	13 3/8	12.615	54.50		Buttress Thread	577.9	579.4	1.50		
Intermediate, 5,562.5ftKB											
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
5,562.5				9 5/8		9.57		67			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
0	Casing Joints	9 5/8	8.921	36.00	K-55	BUTTRESS	0.0	0.0	0.00		2,020.0
1	Landing Jts	9 5/8	8.921	36.00	K-55	BUTTRESS	0.0	27.7	27.75		2,020.0
1	Hanger	9 5/8	8.921	36.00	K-55	BUTTRESS	27.7	29.6	1.87		2,020.0
13	Casing Joints	9 5/8	8.921	36.00	K-55	BUTTRESS	29.6	5,437.1	5,407.49		2,020.0
2											
1	Casing Joints	9 5/8	8.921	36.00	K-55	BUTTRESS	5,437.1	5,478.9	41.85		2,020.0
1	Float Collar	9 5/8	8.921	36.00	K-55	BUTTRESS	5,478.9	5,480.4	1.50		2,020.0
2	Casing Joints	9 5/8	8.921	36.00	K-55	BUTTRESS	5,480.4	5,561.1	80.62		2,020.0
1	Float Shoe	9 5/8	8.921	36.00	K-55	BUTTRESS	5,561.1	5,562.5	1.45		18,800.0
Production, 15,996.0ftKB											
Set Depth (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
15,996.0				5 1/2		5.12		272			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top (ftKB)	Btm (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
2	Casing Joints	5 1/2	4.778	20.00	P-110		-1.9	35.9	37.75		11,100.0
1	Pup joint	5 1/2	4.778	20.00	P-110			35.9	57.2	21.33	11,100.0
14	Casing Joints	5 1/2	4.778	20.00	P-110			57.2	5,942.0	5,884.79	11,100.0
2											
1	Pup joint	5 1/2	4.778	20.00	P-110			5,942.0	5,962.7	20.72	11,100.0
23	Casing Joints	5 1/2	4.778	20.00	P-110			5,962.7	6,913.5	950.80	11,100.0
1	Pup joint	5 1/2	4.778	20.00	P-110			6,913.5	6,933.6	20.01	11,100.0
72	Casing Joints	5 1/2	4.778	20.00	P-110			6,933.6	9,905.9	2,972.31	11,100.0
1	Pup joint	5 1/2	4.778	20.00	P-110			9,905.9	9,926.2	20.30	11,100.0
74	Casing Joints	5 1/2	4.778	20.00	P-110			9,926.2	12,968.7	3,042.58	11,100.0
1	Pup joint	5 1/2	4.778	20.00	P-110			12,968.7	12,987.4	18.63	11,100.0
69	Casing Joints	5 1/2	4.778	20.00	P-110			12,987.4	15,859.5	2,872.15	11,100.0
1	sleeve	5 1/2	4.778	20.00	P-110			15,859.5	15,865.0	5.50	11,100.0
1	Casing Joints	5 1/2	4.778	20.00	P-110			15,865.0	15,907.5	42.44	11,100.0
1	land collar	5 1/2	4.778	20.00	P-110			15,907.5	15,908.9	1.46	11,100.0
1	Casing Joints	5 1/2	4.778	20.00	P-110			15,908.9	15,949.1	40.14	11,100.0
1	float collar	5 1/2	4.778	20.00	P-110			15,949.1	15,950.1	1.00	11,100.0
1	Casing Joints	5 1/2	4.778	20.00	P-110			15,950.1	15,992.8	42.74	11,100.0
1	Float Shoe	5 1/2	4.778	20.00	P-110			15,992.8	15,996.0	3.20	11,100.0

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of Environmental Protection
MAG
12-20-16

85-10068F



Cement Summary

Well Name: PEN-2B-HS

Report Date: 12/6/2016

API 47-085-10068	Surface Legal Location	Regulatory Field	County/Parish RITCHIE	State/Province WEST VIRGINIA	Well Configuration Type HORIZONTAL
Ground Elevation (ft) 1,084	Casing Flange Elevation (ft) 1,083.25	KB - GL / MSL (ftKB) 26.00	KB-Casing Flange Distance (ft) 26.75	Spud Date 1/16/2014 06:00	Rig Release Date 7/7/2014 14:30

Surface Casing Cement, Casing, 1/16/2014 23:00

Description Surface Casing Cement							
String Surface, 579.4ftKB		Cementing Start Date 1/16/2014		Cementing End Date 1/17/2014		Wellbore Original Hole	
Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 579.0	Top Plug? Yes	Bottom Plug? No	Plug Bump Pressure (psi) 800.0	Cement Circulated? Yes		
Initial Pump Rate (bbl/min) 5	Final Pump Rate (bbl/min) 3	Plug Bump Pressure (psi) 800.0	Pipe Reciprocated? No	Tagged Depth (ftKB)	Depth Plug Drilled Out To (ftKB)		
Stage Number	Description Surface Casing Cement	Comment HELD PRE JOB SAFETY MEETING W/SCHLUMBERGER, CEMENT W/ 532 SX TYPE 1 CEMENT +2% CaCl + .25 #/PER SACK FLAKE MIX TO 15.6 ppg YIELD 1.2 SLURRY VOLUME 111 BBLS DISPLACE W/ 84.4 BBLS WATER W/ 40 BBLS CEMENT RETURNS TO SURFACE. CEMENT IN PLACE @ 12:30 AM 1-17-2014					
Fluid Type Tail	Class TYPE I	Amount (sacks) 532	Yield (ft ³ /sack) 1.20	Volume Pumped (bbl) 111.0	Density (lb/gal) 15.60	Fluid Description	

Intermediate 1 Casing Cement, Casing, 6/24/2014 20:00

Description Intermediate 1 Casing Cement							
String Intermediate, 5,562.5ftKB		Cementing Start Date 6/24/2014		Cementing End Date 6/24/2014		Wellbore Original Hole	
Top Depth (ftKB)	Bottom Depth (ftKB)	Top Plug?	Bottom Plug?	Plug Bump Pressure (psi)	Cement Circulated?		
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Plug Bump Pressure (psi)	Pipe Reciprocated?	Tagged Depth (ftKB)	Depth Plug Drilled Out To (ftKB)		
Stage Number	Description	Comment					
Fluid Type	Class	Amount (sacks)	Yield (ft ³ /sack)	Volume Pumped (bbl)	Density (lb/gal)	Fluid Description	

RECEIVED
Office of Oil and Gas
JAN 03 2017 12-28-16
WV Department of
Environmental Protection

PENS2 Pad Frac - SOG Review

In accordance with WVDEP 35CSR8 Section 5.11, all known shallow oil and gas (SOG) wells have been identified within a 1000' radius of the PENS2 pad. Any SOG well that falls within the Area of Review (AOR) is provided in a list that includes API, Operator, Well Name, Well Number, Current Status, Total Depth, Producing Formation at Total Depth, and Permit Date. See following pages.

The Marcellus Shale of the Pennsboro area is found at an approximate True Vertical Depth (TVD) of 6200'. Although there are a significant number of SOG Communication events in the Pennsboro area (Figure 1), it is highly unlikely that communication will occur with any wells producing from formations shallower than the Benson Sand, found at an approximate TVD of 5000'. This is based on previous experience and study of SOG Communication with Marcellus fracs throughout Ritchie and Doddridge counties. In the Pennsboro area, there are very few producing formations between the Big Injun and the Benson Sand. Most wells are either approximately 2000' or 5000' deep.

The current hypothesis for SOG Communication is that Marcellus frac fluids and pressure intersect and migrate up a nearby fault that acts as a conduit for upward migration and intersection with high permeability reservoirs of the Alexander and Benson. Both of these reservoirs are primarily depleted, allowing an easier pressure migration throughout these formations. Geomechanical data is collected from dipole sonic logs. CONSOL's nearest sonic data is from the PENS1C well (Figure 2), immediately adjacent to the PENS2 pad. Frac modeling (Figure 3) of the Marcellus in the area does not show significant upward frac growth. In fact, typical frac height would need to be more than double to reach the Alexander, approximately 1000' above the Marcellus Shale.

Figure 1. SOG Communication events are represented by red diamonds in conjunction with the PENS1 and PENS2 fracs completed to date.

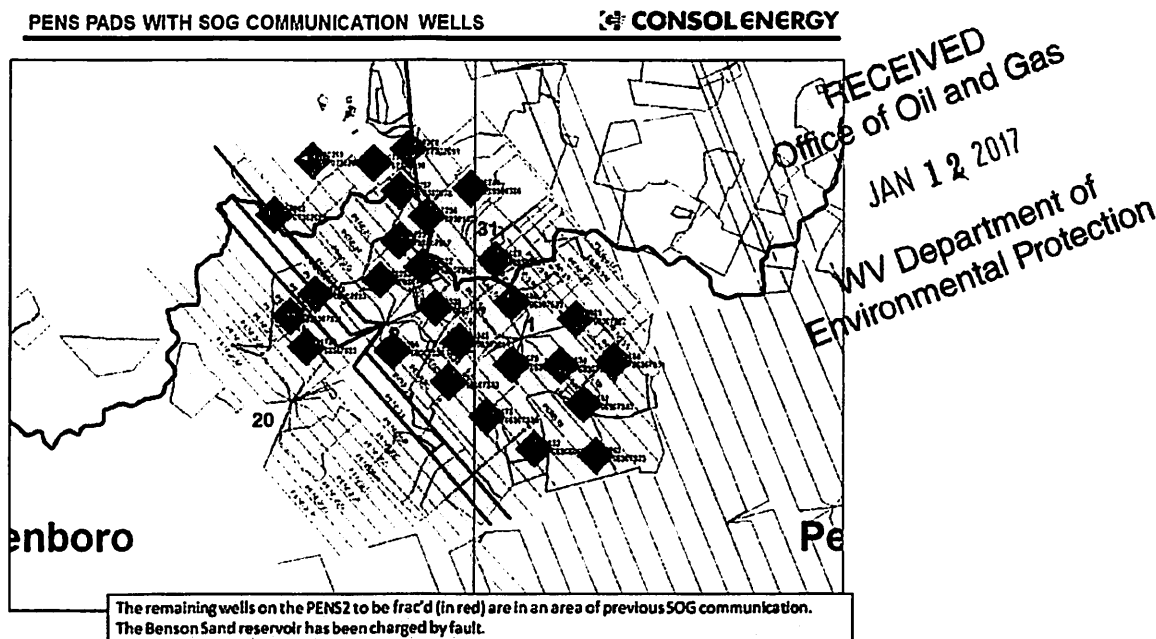


Figure 2. Stratigraphic intervals of high stress should serve as adequate confining layers, or frac barriers, for a Marcellus frac, seen below in the PENS1C Stress Profile log.

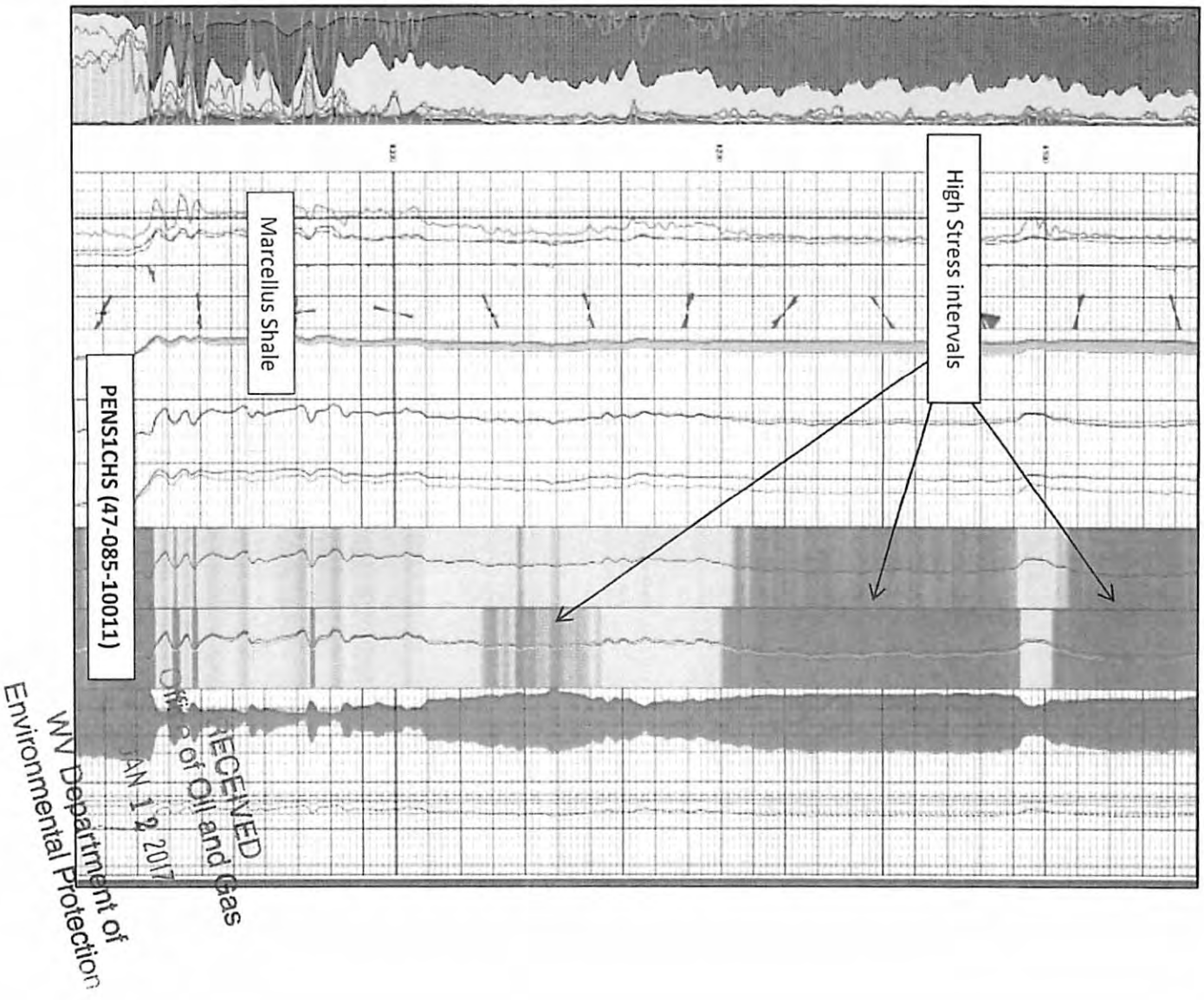
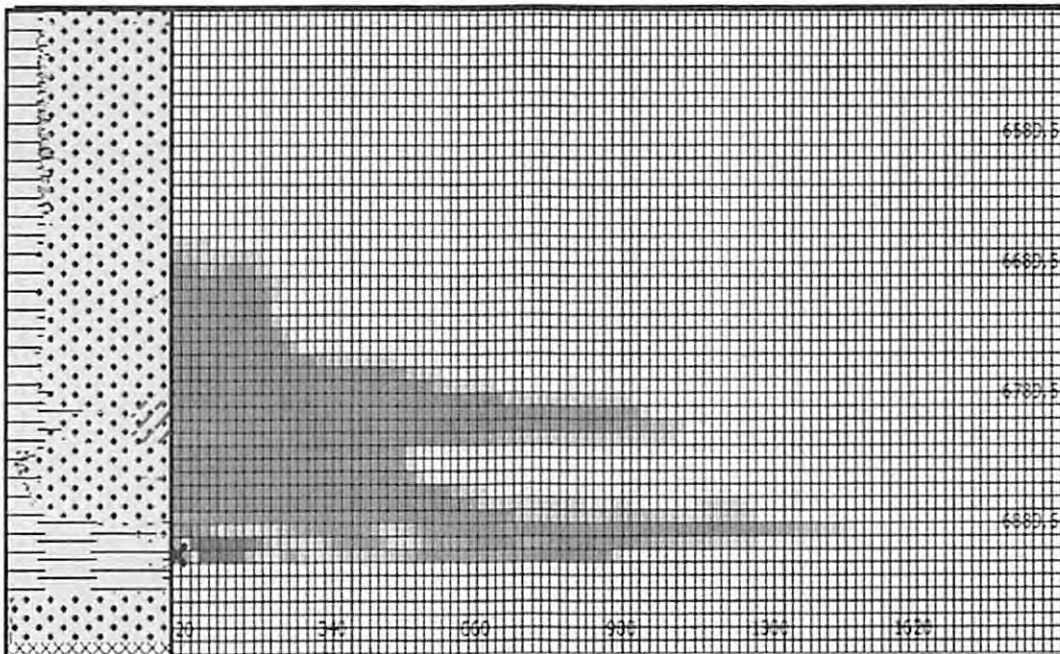


Figure 3. Stratigraphic intervals of high stress should serve as adequate frac barriers for a Marcellus frac. The frac modeling example below is from the Oxford area of western Doddridge County, where the Marcellus and adjacent shallower shales are lithologically similar to Pennsboro. Frac modeling only yields frac height of approximately 300' and falls far short of the 1000' required to communicate with the Alexander or Benson formations. Therefore, faulting is the primary suspect for upward frac migration.

SOG Communication: OXFD13CHS Frac Simulation



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

RECEIVED
Office of Oil and Gas
JAN 12 2017
WV Department of
Environmental Protection

WW-9
(4/16)

API Number 47 - 85 - 10068 F
Operator's Well No. PEN2419 BHS

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) Northfork of Hughes River HUC10 / Bonds Creek Quadrangle Ellenboro

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: N/A

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 N/A Drilling complete.)

12-20-16

Will closed loop system be used? If so, describe: N/A

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

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

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

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

-Landfill or offsite name/permit number? N/A

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

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

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

Company Official Signature *Matt Hanley*

Company Official (Typed Name) Matt Hanley

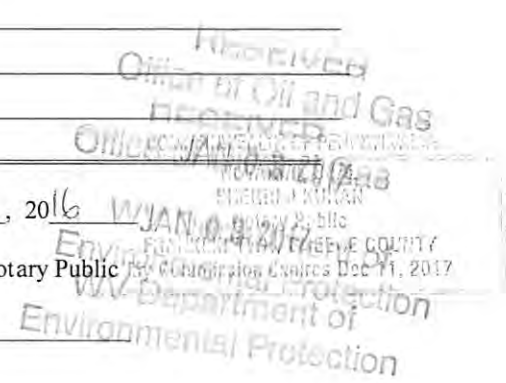
Company Official Title Manager- Permitting

Subscribed and sworn before me this 21st day of December, 2016

Shirley J. Kucera

Notary Public

My commission expires 12-11-17



CNX GAS COMPANY LLC

Proposed Revegetation Treatment: Acres Disturbed original 11.2, expansion 1.5 Prevegetation pH see attached

Lime see attached Tons/acre or to correct to pH see attached

Fertilizer type see attached

Fertilizer amount see attached lbs/acre

Mulch see attached Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

see attached

see attached

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Isely

Comments: Site previously built and wells have been drilled but not completed. Please see attached copy of originally submitted WW9 from Noble Energy Inc. CNX GAS COMPANY LLC will follow

the previously permitted reclamation plan set forth by NOBLE ENERGY in their previous submittal for reclamation of the site as well as CNX's pad expansion areas. (see attached)

Title: Oil & Gas Inspector

Date: 12-20-16

Field Reviewed? Yes No

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection



Safety Plan for PEN2 Well Pad

Wells PEN2AHS, PEN2BHS, PEN2HHS, PEN2JHS, PEN2KHS

CNX Gas Company LLC



JAN 03 2017

Approval Sheet- PEN2 Well Pad

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

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

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

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

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

And

West Virginia Oil and Gas Conservation Commission.

Approved this day 20th of month December, 2016 by

Michael A. Daff

Date: 12-20-16

Date: _____

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection

CNX Gas Company LLC – PEN2 PAD – Water Management Plan

Addendum for Pennsylvania Pits/Impoundments

Statement of Purpose:

This addendum is included to explain the inclusion of several produced water storage facilities in Pennsylvania within this water management plan application.

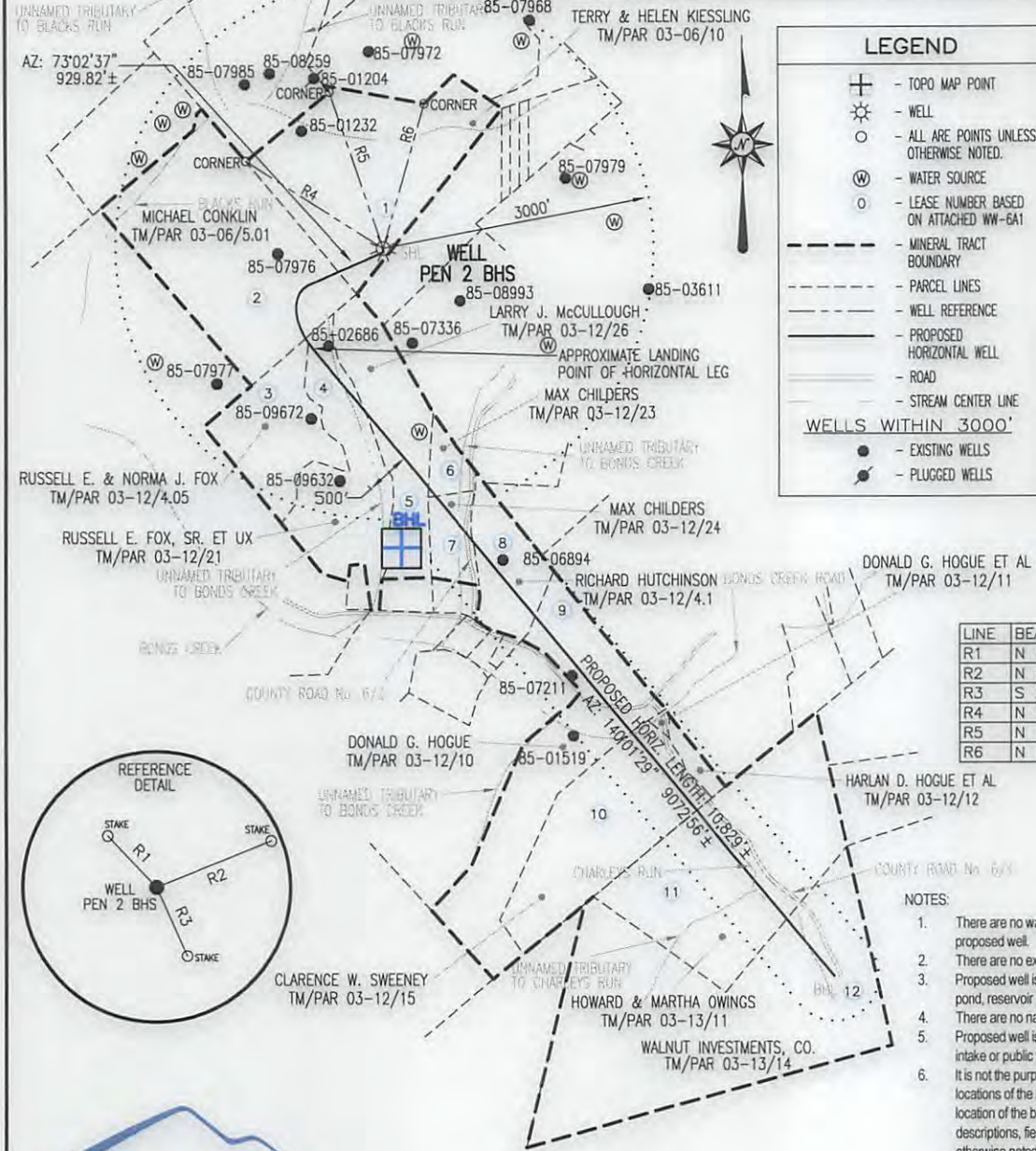
CNX Gas Company LLC (CNX) and its subsidiaries (including CNX Water Assets LLC dba CONVEY Water Systems) own or operate several facilities outside of the state of West Virginia. Some of these facilities are being included as sources within the submitted water management plan in order to preserve the ability to recycle produced fluid stored at these facilities during the PEN2 well completion operations.

A list of well pads that have supplied water to these facilities has been included as an attachment. All of the water facilities to be utilized are permitted to hold produced fluid consistent with the regulatory obligations in that state.

RECEIVED
Office of Oil and Gas
JAN 05 2017
WV Department of
Environmental Protection

BHL is located on topo map 6,820 feet south of Latitude: 39° 20' 00"
 SHL is located on topo map 13,986' feet south of Latitude: 39° 22' 30"

BHL is located on topo map 10,233 feet west of Longitude: 80° 57' 30"
 SHL is located on topo map 5,575' feet west of Longitude: 81° 00' 00"



SURFACE HOLE LOCATION (SHL)	
UTM 17-NAD83	N:4354128.62
	E:498913.37
	NAD27, WV NORTH
	N:308274.09
	E:1572131.56
	LAT/LON DATUM-NAD83
	LAT:39.336582
	LONG:-81.012609
APPROX. LANDING POINT	
UTM 17-NAD83	N:4353787.31
	E:498677.54
	NAD27, WV NORTH
	N:307167.02
	E:1571338.97
	LAT/LON DATUM-NAD83
	LAT:39.333506
	LONG:-81.015345
BOTTOM HOLE LOCATION (BHL)	
UTM 17-NAD83	N:4351698.92
	E:500488.63
	NAD27, WV NORTH
	N:300214.54
	E:1577167.73
	LAT/LON DATUM-NAD83
	LAT:39.314689
	LONG:-80.994332

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- WATER SOURCE
- LEASE NUMBER BASED ON ATTACHED WW-6A1
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE

WELLS WITHIN 3000'

- EXISTING WELLS
- PLUGGED WELLS

LINE	BEARING	DISTANCE
R1	N 43°41'33" W	157.50'
R2	N 68°09'24" E	277.02'
R3	S 24°10'08" E	167.93'
R4	N 57°51'26" W	1809.46'
R5	N 18°55'40" W	1831.61'
R6	N 16°14'49" E	1665.45'

- NOTES:**
- There are no water wells or developed springs within 250' of proposed well.
 - There are no existing buildings within 625' of proposed well.
 - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 - There are no native trout streams within 300' of proposed well.
 - Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

Blue Mountain Inc.
 10125 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

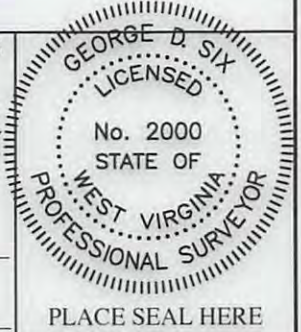


FILE #: PEN 2 BHS
 DRAWING #: PEN 2 BHS
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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:

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: DECEMBER 19, 2016

OPERATOR'S WELL #: PEN 2 BHS

API WELL #: 47 85 10068 F
 STATE COUNTY PERMIT

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

WATERSHED: NORTH FORK HUGHES RIVER ELEVATION: 1084'± 1075.4'

COUNTY/DISTRICT: RITCHIE / CLAY QUADRANGLE: ELLENBORO, WV 7.5'

SURFACE OWNER: TERRY & HELEN KIESSLING ACREAGE: 79.242±

OIL & GAS ROYALTY OWNER: TERRY KIESSLING ET AL ACREAGE: 716.083±

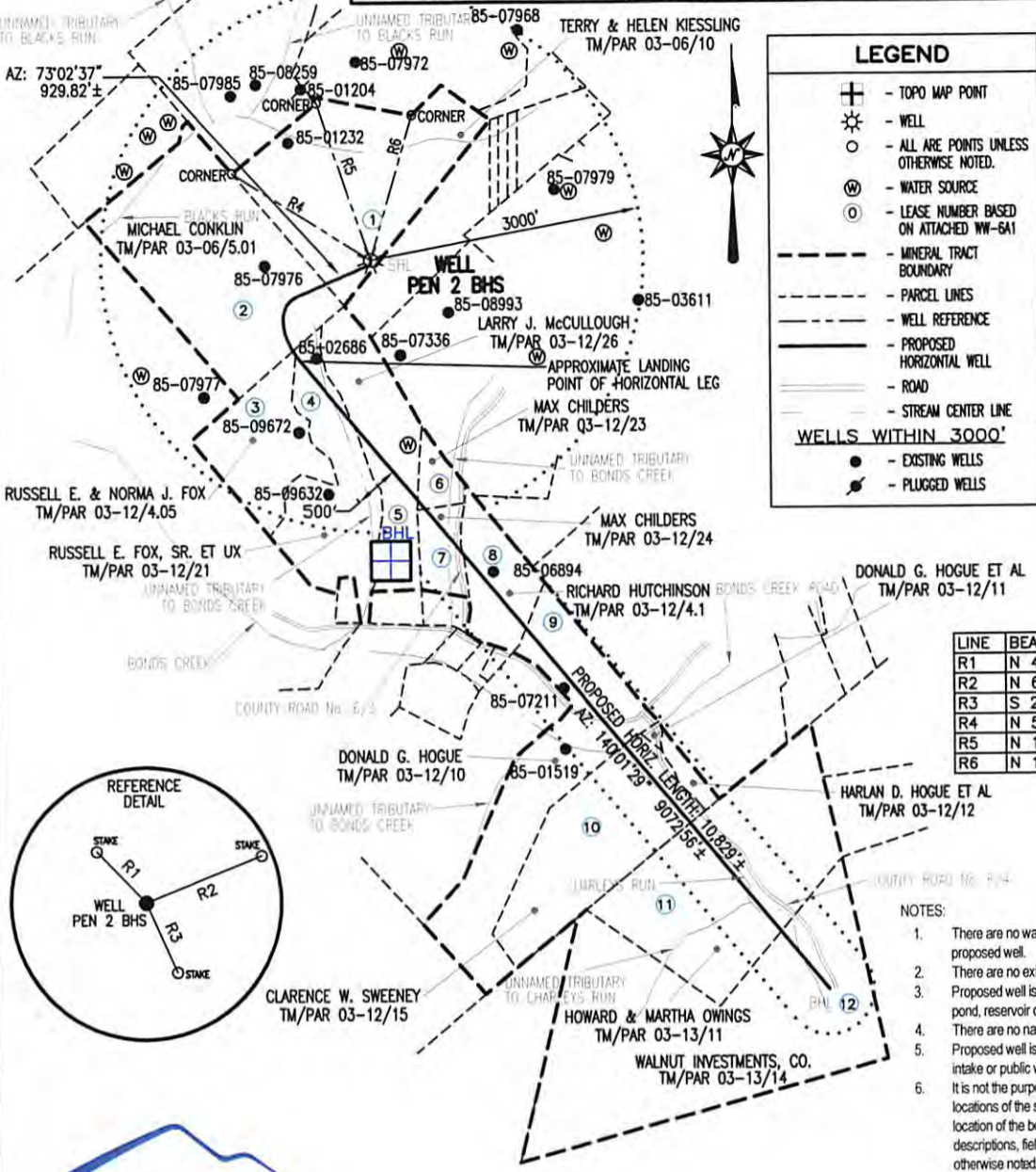
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,324'± TMD: 16,145'±

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

BHL is located on topo map 6,820 feet south of Latitude: 39° 20' 00"
 SHL is located on topo map 13,986' feet south of Latitude: 39° 22' 30"

BHL is located on topo map 10,233 feet west of Longitude: 80° 57' 30"
 SHL is located on topo map 3,575' feet west of Longitude: 81° 00' 00"



SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
 N:4354128.62
 E:498913.37
 NAD27, WV NORTH
 N:308274.09
 E:1572131.56
 LAT/LON DATUM-NAD83
 LAT:39.336582
 LON:-81.012609

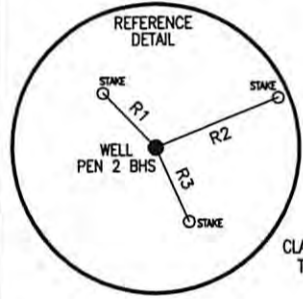
APPROX. LANDING POINT

UTM 17-NAD83
 N:4353787.31
 E:498677.54
 NAD27, WV NORTH
 N:307167.02
 E:1571338.97
 LAT/LON DATUM-NAD83
 LAT:39.333506
 LON:-81.015345

BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
 N:4351698.92
 E:500488.63
 NAD27, WV NORTH
 N:300214.54
 E:1577167.73
 LAT/LON DATUM-NAD83
 LAT:39.314689
 LON:-80.994332

LINE	BEARING	DISTANCE
R1	N 43°41'33" W	157.50'
R2	N 68°09'24" E	277.02'
R3	S 24°10'08" E	167.93'
R4	N 57°51'26" W	1809.46'
R5	N 18°55'40" W	1831.61'
R6	N 16°14'49" E	1665.45'



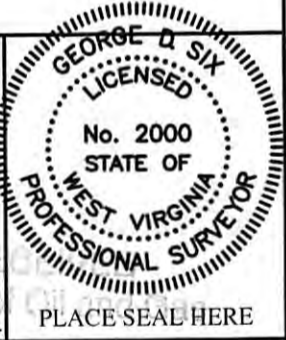
- NOTES:
- There are no water wells or developed springs within 250' of proposed well.
 - There are no existing buildings within 625' of proposed well.
 - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 - There are no native trout streams within 300' of proposed well.
 - Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

Blue Mountain Inc.
 10125 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

FILE #: PEN 2 BHS
 DRAWING #: PEN 2 BHS
 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: *George D. Six*
 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: DECEMBER 19, 2016

OPERATOR'S WELL #: PEN 2 BHS

API WELL #: 47 85 10068 F

STATE COUNTY PERMIT

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

WATERSHED: NORTH FORK HUGHES RIVER ELEVATION: 1084± 1075.4'

COUNTY/DISTRICT: RITCHIE / CLAY QUADRANGLE: ELLENBORO, WV 7.5'

SURFACE OWNER: TERRY & HELEN KIESSLING ACREAGE: 79.242±

OIL & GAS ROYALTY OWNER: TERRY KIESSLING ET AL ACREAGE: 716.083±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,324± TMD: 16,145±

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

85-10068

WW-6A1
(5/13)

Operator's Well No. PEN2BHS

**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: *Mark Hanley*
 Its: Manager-Permitting

RECEIVED
 Office of Oil and Gas
 JAN 03 2017
 WV Department of
 Environmental Protection

Attachment - Form WW-6A1 for PENS2BHSM:

Tract ID	TMP	Title QLS #	Grantor, Lessor, etc	Grantee, Lessee, etc	Royalty	Book/Page			
1	3-6-10	253982000	Terry Klesling and Helen Klesling	CNG Development Company	Not Less Than 1/8	LB 206/138			
			CNG Development Company	CNG Producing Company	Merger/Name Change	WV Sec. of State			
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison			
			Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621			
			Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648			
			CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger/Name Change	MB 6/576			
			CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	MB 6/634			
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			Evelyn Dodd and Burl Dodd, et al	CNX Development Company	Not Less Than 1/8	LB 206/126			
			CNG Development Company	CNG Producing Company	Merger/Name Change	WV Sec. of State			
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison			
			Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621			
			Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648			
			CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger/Name Change	MB 6/576			
			CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	MB 6/634			
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			Mary Ruth Everhart	CNX Development Company	Not Less Than 1/8	LB 206/130			
			CNG Development Company	CNG Producing Company	Merger/Name Change	WV Sec. of State			
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison			
			Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621			
			Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648			
			CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger/Name Change	MB 6/576			
			CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	MB 6/634			
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			Louis D. Walker and Betty P. Walker	CNX Development Company	Not Less Than 1/8	LB 206/146			
			CNG Development Company	CNG Producing Company	Merger/Name Change	WV Sec. of State			
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison			
			Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621			
			Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648			
			CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger/Name Change	MB 6/576			
			CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	MB 6/634			
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			Margaret Clark, Attorney In Fact for Monica Smith	CNX Development Company	Not Less Than 1/8	LB 206/122			
			CNG Development Company	CNG Producing Company	Merger/Name Change	WV Sec. of State			
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison			
			Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621			
			Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648			
			CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger/Name Change	MB 6/576			
			CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	MB 6/634			
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
Edith Hammond	CNX Development Company	Not Less Than 1/8	LB 206/134						
CNG Development Company	CNG Producing Company	Merger/Name Change	WV Sec. of State						
CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison						
Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621						
Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648						
CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger/Name Change	MB 6/576						
CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	MB 6/634						
CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811						
Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344						
Judith Ann Beary and C. Edward Beary	CNX Development Company	Not Less Than 1/8	LB 207/48						
CNG Development Company	CNG Producing Company	Merger/Name Change	WV Sec. of State						
CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison						
Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Assignment	LB 251/621						
Dominion Transmission, Inc.	CONSOL Energy Holdings LLC XVI	Assignment	LB 251/648						
CONSOL Energy Holdings LLC XVI	CONSOL Gas Company	Merger/Name Change	MB 6/576						
CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	MB 6/634						
CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811						
Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344						
2	3-6-5.1	258301000	Charles W. Conklin Jr. and Louanna B. Conklin, h/w	Antero Resources Appalachian Corporation	Not less than 1/8	LB 262/630			
			Antero Resources Appalachian Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	LB 266/686			
			Antero Resources Appalachian Corporation	CNX Gas Company LLC and Noble Energy, Inc.	Assignment	LB 270/534			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 285/227			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			John A. Smith and Edith Smith, h/w	Noble Energy, Inc.	Not less than 1/8	LB 263/492			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 285/227			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			Clyde & Sarah Mossburg Hopkins, h/w	Noble Energy, Inc.	Not less than 1/8	LB 264/200			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 285/227			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			Ruth Hayhurst Mossburg	Noble Energy, Inc.	Not less than 1/8	LB 264/202			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 285/227			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			William Thomas Mossburg	Noble Energy, Inc.	Not less than 1/8	LB 264/196			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 285/227			
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344			
			3	3-12-4.5	244549000	Arthur D. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/251
						Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
						BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change				WV Sec. of State			
Antero Resources Corporation	CNX Gas Company LLC	50% Assignment				LB 273/115			
Antero Resources Corporation	Noble Energy, Inc.	50% Assignment				LB 273/115			
Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment				LB 304/344			
Kenneth L. Hall	Bluestone Energy Partners	Not Less Than 1/8				DB 245/254			
Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change				ORB 6/589			
BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change				ORB 6/589			
Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change				WV Sec. of State			
Antero Resources Corporation	CNX Gas Company LLC	50% Assignment				LB 273/115			
Antero Resources Corporation	Noble Energy, Inc.	50% Assignment				LB 273/115			
Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment				LB 304/344			
Gerald S. Hall	Bluestone Energy Partners	Not Less Than 1/8				DB 245/394			
Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change				ORB 6/589			
BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change				ORB 6/589			
Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change				WV Sec. of State			
Antero Resources Corporation	CNX Gas Company LLC	50% Assignment				LB 273/115			
Antero Resources Corporation	Noble Energy, Inc.	50% Assignment				LB 273/115			
Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344						

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection

			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Haze H. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/388
			Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change	WV Sec. of State
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
7	3-12-24	244549000	Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Arthur D. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/251
			Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change	WV Sec. of State
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Bluestone Energy Partners	Bluestone Energy Partners	Not Less Than 1/8	DB 245/254
			Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change	WV Sec. of State
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Gerald S. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/394
			Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change	WV Sec. of State
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Dale Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/385
			Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change	WV Sec. of State
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Haze H. Hall	Bluestone Energy Partners	Not Less Than 1/8	DB 245/388
			Bluestone Energy Partners	BEP Merger Sub, LP	Merger/Name Change	ORB 6/589
			BEP Merger Sub, LP	Antero Resources Bluestone LLC	Merger/Name Change	ORB 6/589
			Antero Resources Bluestone LLC	Antero Resources Corporation	Merger/Name Change	WV Sec. of State
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
8	3-12-4.1	256137000	Richard L. Goff and Charlene J. Goff	J&J Enterprises, Inc.	Not Less Than 1/8	LB 165/544
			J & J Enterprises, Inc.	Eastern Pennsylvania Exploration Company	42.5% Assignment	LB 208/132
			Eastern Pennsylvania Exploration Company	Eastern American Energy Corporation	42.5% Assignment	LB 218/187
			J & J Enterprises, Inc.	Eastern American Energy Corporation	10% Assignment	DB 231/732
			Eastern American Energy Corporation	Energy Corporation of America	10% Assignment	DB 306/836
			Eastern American Energy Corporation	Energy Corporation of America	42.5% Assignment	DB 306/836 LB 250/393
			Energy Corporation of America	Antero Resources Appalachian Corporation	52.5% Assignment	LB 257/377
			J & J Enterprises, Inc.	Equitable Resources Energy Company	42.5% Assignment	LB 208/132
			Equitable Resources Energy Company	Enervest East Limited Partnership	42.5% Assignment	LB 222/273
			J & J Enterprises, Inc.	New Jersey Natural Resources Company	5% Assignment	LB 208/132
			New Jersey Natural Resources Company	Enervest East Limited Partnership	5% Assignment	LB 222/638
			Enervest East Limited Partnership	The Houston Exploration Company	47.5% Assignment	LB 234/890
			The Houston Exploration Company	Seneca Upshur Petroleum, Inc.	47.5% Assignment	LB 236/650
			Seneca Upshur Petroleum, Inc.	Seneca Upshur Petroleum, LLC	47.5% Assignment	DB 311/863
			Seneca Upshur Petroleum, LLC	Antero Resources Appalachian Corporation	47.5% Assignment	LB 258/987
			Antero Resources Corporation	Noble Energy, Inc.	50% Assignment	LB 272/1071
			Antero Resources Corporation	CNX Gas Company LLC	50% Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
9	3-12-10	108501000	Harlan B. Hogue et ux, Donald G. Hogue et ux.	Dominion Exploration & Production, Inc.	Not Less Than 1/8	LB 239/25
			Dominion Exploration & Production, Inc.	CONSOL Gas Company	Merger/Name Change	Aff of NCB 6/434
			CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	Aff of NCB 6/434
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
10	3-12-15	239327000	Harlan B. Hogue et al.	Consolidated Gas Supply Corporation	Not Less Than 1/8	LB 112/397
			Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	LB 169/756
			Consolidated Gas Transmission Corporation	CNG Development Company	Assignment	LB 176/601
			CNG Development Company	CNX Producing Company	Merger/Name Change	WV Sec. of State
			CNG Producing Company	Dominion Exploration & Production, Inc.	Merger/Name Change	Aol 58/366 Harrison
			Dominion Exploration & Production, Inc.	CONSOL Gas Company	Merger/Name Change	Aff of NCB 6/434
			CONSOL Gas Company	CNX Gas Company LLC	Merger/Name Change	Aff of NCB 6/434
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 254/811
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
11	3-13-11 & 11.2	266236000	Haught Family Trust	Whittle Corporation	Not Less Than 1/8	LB 258/772
			Whittle Corporation	Antero Resources Appalachian Corporation	Assignment	LB 259/58
			Antero Resources Appalachian Corporation	Noble Energy, Inc.	Assignment	LB 273/115
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Martha H. Owings	CNX Gas Company LLC	Not Less Than 1/8	LB 259/917
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 273/742
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Mark L. Owings	CNX Gas Company LLC	Not Less Than 1/8	LB 260/204
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 298/201
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Dewytha Jane McDonnell by Dewitt McDonnell, her Guardian, AKA Patrick Dewitt McDonnell	CNX Gas Company LLC	Not Less Than 1/8	LB 262/786
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 273/742
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Patrick Dewitt McDonnell	CNX Gas Company LLC	Not Less Than 1/8	LB 262/792
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 273/742
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Maynard D. McDonnell and Joyce McDonnell	CNX Gas Company LLC	Not Less Than 1/8	LB 262/798
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 273/742
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Doren Dewight McDonnell	CNX Gas Company LLC	Not Less Than 1/8	LB 262/804
			CNX Gas Company LLC	Noble Energy, Inc.	50% Assignment	LB 273/742
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection

			Dores D. McDonnell, Sr. and Dianna J. McDonnell	CNX Gas Company LLC	Not Less Than 1/8	LB 262/809
			Blauser Asset Management Limited Partnership	CNX Gas Company LLC	Not Less Than 1/8	LB 263/324
			CNX Gas Company LLC	Noble Energy Inc.	50% Assignment	LB 273/742
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344
			Ivleen Alyea Forran	Antero Resources Appalachian Corporation	Not Less Than 1/8	LB 263/735
			Antero Resources Corporation	CNX Gas Company LLC & Noble Energy Inc.	Assignment	LB 273/115
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Lisa Michelle McDonnell	Antero Resources Appalachian Corporation	Not Less Than 1/8	LB 263/737
			Antero Resources Corporation	CNX Gas Company LLC & Noble Energy Inc.	Assignment	LB 289/404
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Donna J. Krutilla e/k/a Donna Jean Krutilla and John N. Krutilla	Antero Resources Appalachian Corporation	Not Less Than 1/8	LB 263/745
			Antero Resources Corporation	CNX Gas Company LLC & Noble Energy Inc.	Assignment	LB 273/115
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Thomas E. Marks and Amanda T. Marks	Noble Energy, Inc.	Not Less Than 1/8	LB 267/974
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			James W. Marks	Noble Energy, Inc.	Not Less Than 1/8	LB 267/976
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			John T. Welch	Noble Energy, Inc.	Not Less Than 1/8	LB 267/978
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Charlotte L. Moss	Noble Energy, Inc.	Not Less Than 1/8	LB 267/980
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Eric Shawn Allender	Noble Energy, Inc.	Not Less Than 1/8	LB 273/398
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Teresa Diane Hall and Gerald D. Hall	Noble Energy, Inc.	Not Less Than 1/8	LB 273/400
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Jacqueline R. Freeland	Noble Energy, Inc.	Not Less Than 1/8	LB 274/541
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Kathy D. Geissler and Kenneth Geissler	Noble Energy, Inc.	Not Less Than 1/8	LB 274/547
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Randy K. Smith	Noble Energy, Inc.	Not Less Than 1/8	LB 278/804
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
			Terry L. Smith	Noble Energy, Inc.	Not Less Than 1/8	LB 278/804
			Noble Energy Inc.	CNX Gas Company LLC	Assignment	LB 304/344
12	3-13-14	258378000	Walnut Investment Co.	Key Oil Company	Not Less Than 1/8	LB 232/98
			Jennings M. Tallman	Key Oil Company	Not Less Than 1/8	LB 232/96
			Eber Calvin Tallman	Key Oil Company	Not Less Than 1/8	LB 232/203
			Charles L. Tallman	Key Oil Company	Not Less Than 1/8	LB 232/201
			Rebecca A. Smith	Key Oil Company	Not Less Than 1/8	LB 232/201
			Key Oil Company	Antero Resources Appalachian Corporation	Assignment of leases above	258/509
			Antero Resources Appalachian Corporation	Noble Energy, Inc.	50% Assignment	270/545
			Antero Resources Appalachian Corporation	CNX Gas Company LLC	50% Assignment	270/545
			Noble Energy, Inc.	CNX Gas Company LLC	50% Assignment	LB 304/344

RECEIVED
Office of Oil and Gas

JAN 03 2017

WV Department of
Environmental Protection

85-10068F



85-1006

Matthew Hanley
Manager – Gas Permitting
CONSOL Energy Inc.
1000 CONSOL Energy Drive
Canonsburg, PA 15317

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

RE: Road Letter – PENS 2 Well Pad Rework Applications

To Whom It May Concern:

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

Should you have any questions or need additional information, please do not hesitate to contact me at matthanley@consolenergy.com or 724-485-3011.

Sincerely,

Matthew Hanley
CNX Gas Company LLC

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection

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

Date of Notice Certification: 1-3-17

API No. 47- 85 - 10068 F
Operator's Well No. PEN2BHS
Well Pad Name: PEN2

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	Easting:	<u>498907.682</u>
County:	<u>085</u>		Northing:	<u>4354126.437</u>
District:	<u>Clay</u>	Public Road Access:	<u>County Road 6/3</u>	
Quadrangle:	<u>Ellenboro</u>	Generally used farm name:	<u>Keissling</u>	
Watershed:	<u>Northfork of Hughes River HUC10 / Bonds 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 <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or <i>NO DRILLING</i> <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> 5. PUBLIC NOTICE <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		OOG OFFICE USE ONLY <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED
---	--	--

Required Attachments:

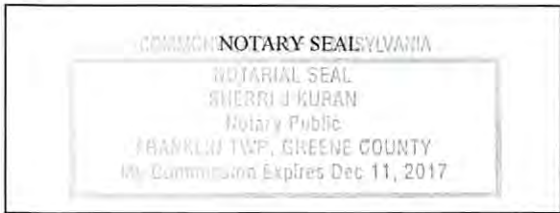
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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.

RECEIVED
Office of Oil and Gas
WV Department of
Environmental Protection

Certification of Notice is hereby given:

THEREFORE, I Matt Hanley, 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>1000 Consol Energy Dr.</u>
By:	<u><i>Matt Hanley</i></u>		<u>Canonsburg PA 15317</u>
Its:	<u>Manager-Permitting</u>	Facsimile:	<u>724-485-4932</u>
Telephone:	<u>724-485-3011</u>	Email:	<u>MattHanley@consolenergy.com</u>



Subscribed and sworn before me this 21st day of December 2016.
Sherril Kuran Notary Public
 My Commission Expires 12-11-17

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.

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: 1/3/17 Date Permit Application Filed: 1/3/17

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: Terry and Helen Kiessling
Address: 8629 Red Maple Dr.
Cincinnati, OH 45244
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass et al
Address: 5115 Lansins Dr
Charlotte, NC 28270
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Terry and Helen Kiessling
Address: 8629 Red Maple Dr.
Cincinnati, OH 45244

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
JAN 03 2017
West Virginia Department of Environmental Protection

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: 1/3/17 Date Permit Application Filed: 1/3/17

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: Terry and Helen Kiessling
Address: 8629 Red Maple Dr.
Cincinnati, OH 45244
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass et al
Address: 5115 Lansins DR
Charlotte, NC 28270
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Scott and Erica Hammond
Address: 631 Stone Road
Pennsboro WV 26415

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary JAN 03 2017

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: 1/3/17 **Date Permit Application Filed:** 1/3/17

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: Terry and Helen Kiessling
Address: 8629 Red Maple Dr.
Cincinnati, OH 45244

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass et al
Address: 5115 Lansins DR
Charlotte, NC 28270

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: Edward and Cheryl Haas
Address: 1060 Blacks Run
Pennsboro WV, 26415

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection

**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: 1/3/17 **Date Permit Application Filed:** 1/3/17

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: Terry and Helen Kiessling
 Address: 8629 Red Maple Dr.
Cincinnati, OH 45244
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: _____
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: Frank Grass et al
 Address: 5115 Lansins Dr
Charlotte, NC 28270
 Name: _____
 Address: _____

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: Larry J McCullough
 Address: 3694 Bonds Creek road,
Pennsboro WV, 26415

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
 Name: _____
 Address: _____

*Please attach additional forms if necessary

RECEIVED
 Office of Oil and Gas
 JAN 03 2017
 WV Department of
 Environmental Protection

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

RECEIVED
Office of Oil and Gas

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.**

WV Department of
Environmental Protection

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.

RECEIVED
Office of Oil and Gas


JAN 03 2017

WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- 085 - 10068 F
OPERATOR WELL NO. PEN2BHS
Well Pad Name: PEN2

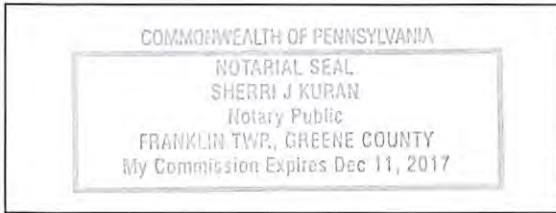
Notice is hereby given by:

Well Operator: CNX GAS COMPANY LLC 
Telephone: 724-485-3011
Email: MATTHANLEY@CONSOLEENERGY.COM

Address: 1000 Consol Energy Drive, Canonsburg PA 15317
Facsimile: 724-485-4932

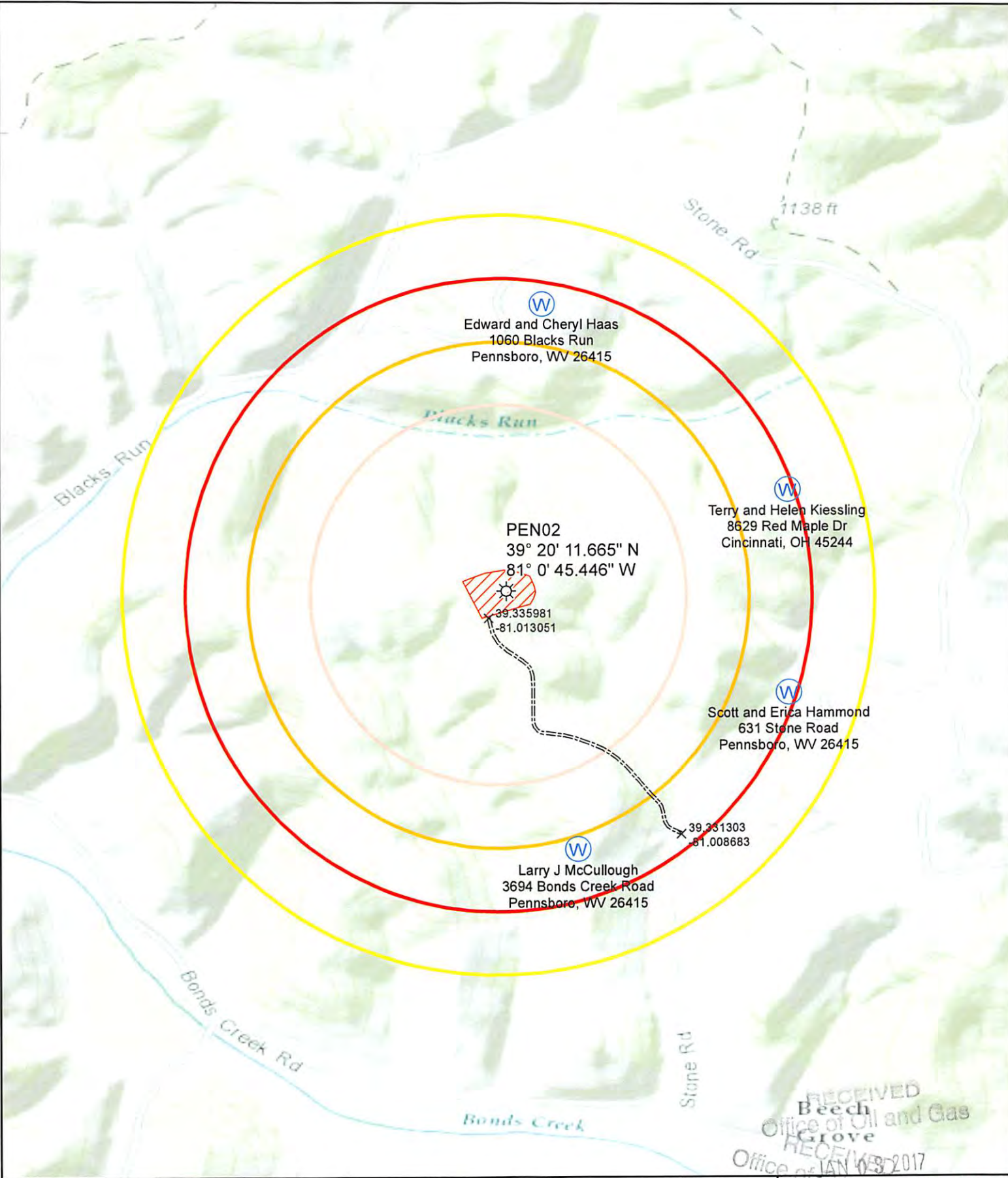
Oil and Gas Privacy Notice:

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.



Subscribed and sworn before me this 21st day of December 2016.
Sherril J. Kuran Notary Public
My Commission Expires 12.11.17

RECEIVED
Office of Oil and Gas
JAN 03 2017
WV Department of
Environmental Protection



Legend

- Wellbore
- Water Wells
- Access Points
- Well Pad
- Access Road

Buffers

- 1500
- 2000
- 2500
- 3000

0 500 1,000 2,000 3,000 Feet

1 inch = 1,000 feet

This map is property of CNX Land Resources, Inc. and contains information that is proprietary and confidential in nature and may not be copied or reproduced without prior consent.
©Copyright CNX Land Resources, Inc. 2016

CONSOL ENERGY
Canonsburg, PA

Prepared By: M. Keener
Original Date: 12/15/2016
Revision Date:
Revision Date:

PEN2
Water Purveyor Map

RECEIVED
Beech Grove
Office of Oil and Gas
RECEIVED
Office of Oil and Gas
JAN 10 2017

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

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

Date of Notice: 1-3-17 **Date Permit Application Filed:** 1-3-17

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

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Terry and Helen Kiessling
Address: 8629 Red Maple Drive
Cincinnati, OH 45244

Name: Frank Grass
Address: 5115 Lansins Drive
Charlotte, NC 28270

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>498907.682</u>
County: <u>085</u>	Northing: <u>4354126.437</u>
District: <u>Clay</u>	Public Road Access: <u>County Road 6/3</u>
Quadrangle: <u>Pennsboro</u>	Generally used farm name: <u>Keissling</u>
Watershed: <u>Northfork of Hughes River HUC10 / Bonds Creek</u>	

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: CNX GAS COMPANY LLC
Telephone: 724-485-3011
Email: MattHanley@consolenergy.com

Address: 1000 Consol Energy Dr.
Canonsburg PA 15317
Facsimile: 724-485-4932

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.

85-10068F



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

January 5, 2017

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

Subject: DOH Permit for the Pens-2 Well Site, Ritchie County
AHS Well Site BHS Well Site HHS well Site
JHS Well Site KHS Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has transferred Permit #03-2013-0290 for the subject site to CNX Gas Company LLC for access to the State Road for the well site located off of Ritchie County Route 6/3 SLS.

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

Very Truly Yours,

Gary K. Clayton
RECEIVED
Office of Oil and Gas
JAN 12 2017

Gary K. Clayton
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator
WV Department of Environmental Protection

Cc: Matt Hanley
CNX Energy LLC.
CH, OM, D-3
File

85-10068F



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

January 5, 2017

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

Subject: DOH Permit for the Pens-2 Well Site, Ritchie County
AHS Well Site BHS Well Site HHS well Site
JHS Well Site KHS Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has transferred Permit #03-2013-0290 for the subject site to CNX Gas Company LLC for access to the State Road for the well site located off of Ritchie County Route 6/3 SLS.

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

Very Truly Yours,

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

Cc: Matt Hanley
CNX Energy LLC.
CH, OM, D-3
File

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

Type: Water CAS: 7732-18-5

Type: Silica CAS: 14808-60-7

Type: Hydrochloric Acid CAS: 7647-01-0

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

Type: Petroleum distillate CAS: 64742-47-8

Type: Glutaraldehyde CAS: 111-30-8

Type: Ethylene glycol CAS: 107-21-1

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

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

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

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

Type: Ammonium chloride CAS: 12125-02-9

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

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

Type: Metanol CAS: 67-56-1

Type: Formaldehyde CAS: 50-00-0

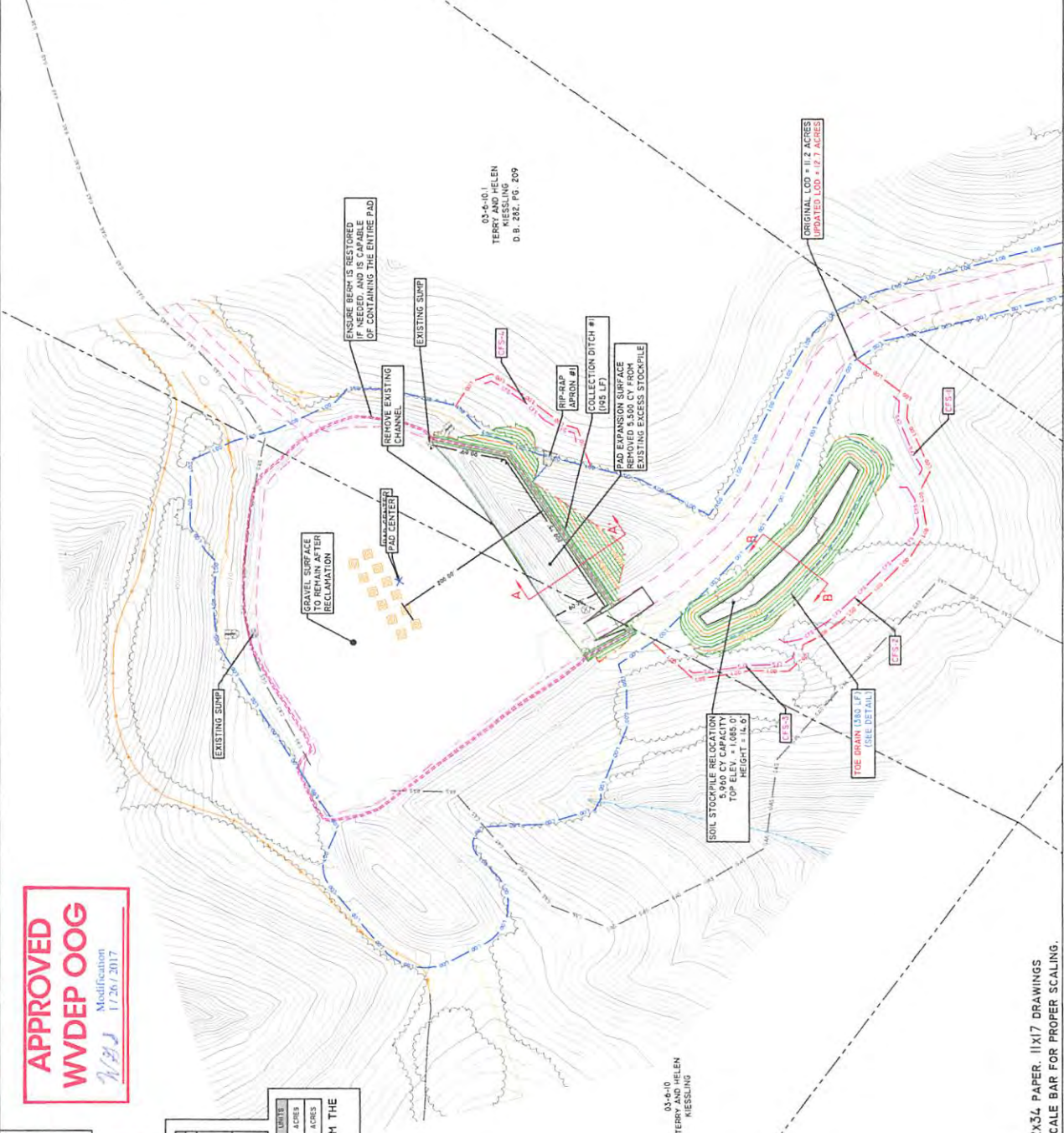
Type: Thiourea CAS: 62-56-6

Type: Acetophenone CAS: 98-86-2

LEGEND

- PROPERTY BOUNDARY
- FENCE LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- COMPOST FILTER SOCK
- MODIFIED LEO
- PRINTED LEO
- EXISTING TREE LINE
- ICE DRAIN
- DUT
- Z BERM
- OVERHEAD UTILITY
- EXISTING BUILDING

0 20 40 60 80 100 Feet



APPROVED
WVDEP OOG
 Modification
 1/7/26/2017

EARTHWORK QUANTITIES		QUANTITY	UNITS
TERRAIN			
TOPSOIL (1" @ 250'/H)		6,443	CY
CUT		53	CY
FILL		503	CY
EXCESS		8,990	CY
MODIFIED LEO AREA			
DESCRIPTION	QUANTITY	AREA	UNITS
TREE CLEARING AND GRUBBING	3.10		ACRES
TREE CLEARING	3.10		ACRES
TOTAL	6.20		ACRES
ADDITIONAL LEO	1.50		ACRES
TOTAL	7.70		ACRES
ENTRANCE			
DESCRIPTION	QUANTITY	AREA	UNITS
ENTRANCE	1.47	367.74	SQ. FT.
		0.03	ACRES
CENTER PAD			
DESCRIPTION	QUANTITY	AREA	UNITS
CENTER PAD	1.47	367.74	SQ. FT.
		0.03	ACRES
LIMITS OF DISTURBANCE BY OWNER			
DESCRIPTION	QUANTITY	AREA	UNITS
TERRY & HELEN KIESSLING	95-24-10	33	ACRES
TERRY & HELEN KIESSLING	95-24-10	14.1	ACRES

THERE IS TO BE NO DISCHARGE FROM THE PAD DURING DRILLING OPERATIONS.

NOTE: DRAWING WAS CREATED ON 22X34 PAPER. 11X17 DRAWINGS ARE HALF SCALE. REFER TO SCALE BAR FOR PROPER SCALING.



west virginia department of environmental protection

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

October 30, 2013

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-8510068, issued to NOBLE ENERGY, INC., 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: PEN2BHS
Farm Name: KIESSLING, TERRY & HELEN
API Well Number: 47-8510068
Permit Type: Horizontal 6A Well
Date Issued: 10/30/2013

Promoting a healthy environment.

PERMIT CONDITIONS

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

CONDITIONS

1. The Office of Oil and Gas has approved your permit application, which includes your addendum. Please be advised that the addendum is part of the terms of the well work permit, and will be enforced as such. The Office of Oil and Gas must receive a copy of all data collected, and submitted in a timely fashion, but no later than the WR35 submittal.
2. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACOE). Through this permit, you are hereby being advised to consult with USACOE regarding this proposed activity.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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

PERMIT CONDITIONS

particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

9. 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.

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

85 10068

Ritchie 01 539

1) Well Operator: Noble Energy, Inc. 494501907 085 Clay Pennsboro
Operator ID County District Quadrangle

2) Operator's Well Number: PEN2BHS Well Pad Name: PEN2

3 Elevation, current ground: 1074.85 Elevation, proposed post-construction: 1075.4

4) Well Type: (a) Gas Oil Underground Storage
Other _____
(b) If Gas: Shallow Deep
Horizontal _____

5) Existing Pad? Yes or No: No

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):
Target-Marcellus, Depth- 6262-6324; Thickness- 62"; Pressure- 4174 # psi

7) Proposed Total Vertical Depth: 6314'

8) Formation at Total Vertical Depth: Marcellus

9) Proposed Total Measured Depth: 15378'

10) Approximate Fresh Water Strata Depths: 454'

11) Method to Determine Fresh Water Depth: Closest well & Seneca Technology data base

12) Approximate Saltwater Depths: 1244'

13) Approximate Coal Seam Depths: no coal

14) Approximate Depth to Possible Void (coal mine, karst, other): none

15) Does proposed well location contain coal seams directly overlying or adjacent to an active mine? If so, indicate name and depth of mine: no

16) Describe proposed well work: Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6314 feet.
Drill Horizontal leg - stimulate and produce the Marcellus Formation.
Should we encounter a unanticipated void we will install a minimum of 20' of casing below the void but not more than 50' set a basket and grout to surface.

17) Describe fracturing/stimulating methods in detail:
The stimulation will be multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slitwater fracturing technique will be utilized on each stage using sand, water, and chemicals.

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres):

19) Area to be disturbed for well pad only, less access road (acres): 8.0

RECEIVED
Office of Oil and Gas
SEP 23 2013
843
WV Department of
Environmental Protection

Doc 8-21-17

20)

CASING AND TUBING PROGRAM = 85 10068

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	20"	N	LS	52	40'	40'	GTS
Fresh Water	13 3/8"	N	J-55	54.5	579'	579'	CTS
Coal							
Intermediate	9 5/8"	N	HCK-55 BTC	36.0	5410'	5410'	CTS
Production	5 1/2"	N	HCP-110 TXP BTC	20.0	15378'	15378'	50 bbls 10 ppg spacer, 12 0 ppg lead slurry, (600') of 15.6 ppg Class A tail slurry cemented to surface
Tubing							
Liners							

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
Conductor	20"	26"	.25	2730	Grout to Surface	Grout to Surface
Fresh Water	13 3/8"	17 1/2"	.380	2730	Type 1	1.18
Coal						
Intermediate	9 5/8"	12.25"	.352	3520	Class A	1.19
Production	5 1/2"	8.75/8.5"	.361	12,640	Class A	1.27
Tubing						
Liners						

PACKERS

Kind:			
Sizes:			
Depths Set:			

RECEIVED
Office of Oil and Gas
SEP 23 2013

WV Department of
Environmental Protection
Paul
8-21-13

85 10068

21) Describe centralizer placement for each casing string. Conductor - No centralizers used. Fresh Water/Surface -
Bow spring centralizers every 3 joints to surface. Intermediate - Bow spring centralizers on every joint to KOP,
one for every third joint from KOP to 100' from Surface.
Production - Rigid bow spring every third joint from KOP to TOC, rigid bow spring every joint to KOP.

22) Describe all cement additives associated with each cement type. Conductor - Grouted to surface.
Surface/Fresh Water - +2% CaCl 0.25# Lost Circ 40% excess Yield =1.18.
Intermediate - 10.0% BWOW NaCl, 0.2% BWOB Anti-foam, 0.3% BWOW Dispersant,
0.4% BWOB Cement retarder. Production: 2.6% Cement extender, 0.7% Fluid Loss additive, 0.5% high temperature retarder,
0.2% friction reducer.

23) Proposed borehole conditioning procedures. Conductor - The hole is drilled w/ air and casing is run in air. Apart from insuring
the hole is clean via air circulation at TD, there are no other conditioning procedures. Fresh Water -The hole is drilled w/air and casing
is run in air. Once casing is on bottom, the hole is filled w/ KCl water and a minimum of one hole volume is circulated prior to pumping
cement. Coal - The hole is drilled w/air and casing is run in air. Once casing is at setting depth, the hole is filled w/ KCl water and a minimum of one hole volume
is circulated prior to pumping cement. Intermediate - Once surface casing is set and cemented Intermediate hole is drilled either on air or SOBM and filled w/ KCl water once
filled w/ KCl water once drilled to TD. The well is conditioned with KCl circulation prior to running casing. Once casing is at setting depth, the well is circulated
a minimum of one hole volume prior to pumping cement. Production - The hole is drilled with synthetic oil base mud and once at TD

the hole is circulated at a drilling pump rate for at least three hours. Once the torque and drag trends indicate the hole is clean the drilling BHA
is pulled and casing is run. Once on bottom w/ casing the hole is circulated a minimum of one hole volume prior to pumping cement.

*Note: Attach additional sheets as needed.

Duc.
RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection
Page 3 of 3

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Noble Energy, Inc. OP Code 494501907

Watershed (HUC 10) North Fork of Hughs River HUC 10 / Bonds Creek Quadrangle Pennsboro

Elevation 1074.85 County Ritchie District Clay

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

Will a pit be used for drill cuttings? Yes No

If so, please describe anticipated pit waste: closed loop-no utilization of a pit

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number)
 - Reuse (at API Number at next anticipated well)
 - Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain)

Will closed loop system be used? yes

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air/water based mud through intermediate string then SOBM

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

Additives to be used in drilling medium? Please see attached list

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.

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

-Landfill or offsite name/permit number? Please see attached list

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 [Signature]
Company Official (Typed Name) Dee Swiger
Company Official Title Regulatory Analyst



RECEIVED
Office of Oil and Gas
SEP 23 2013

Subscribed and sworn before me this 22nd day of August, 20 13

[Signature]

Notary Public Laura L. Adkins
WV Department of Environmental Protection

My commission expires November 23, 2015

85 10068

Operator's Well No. PEN2CHS

Noble Energy, Inc.

Proposed Revegetation Treatment: Acres Disturbed 11.2 Prevegetation pH _____

Lime 2 to 3 Tons/acre or to correct to pH _____

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Hay or Straw at 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	Area II lbs/acre
Tall Fescue	40
Ladino Clover	5

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Dan Jackson*

Comments: *Maintain all per 5*

Title: Oil and Gas Inspector

Date: 8-21-13

Field Reviewed? Yes No

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection



Water Management Plan: Primary Water Sources



WMP-01513

API/ID Number: 047-085-10068

Operator:

Noble Energy, Inc

PEN2BHS

Important:

For each proposed primary water source (including source intakes for purchased water sources) identified in your water management plan, and summarized herein, DEP has made an evaluation concerning water availability over the specified date range. DEP's assessment is based on the following considerations:

- Statistical analysis of historical USGS stream gauge data (transferred to un-gauged locations as necessary);
- Identification of sensitive aquatic life (endangered species, mussels, etc.);
- Quantification of known existing demands on the water supply (Large Quantity Users);
- Minimum flows required by the Army Corps of Engineers; and
- Designated stream uses.

Based on these factors, DEP has provided, for each intake location (and origination point for purchased water), a reference gauge location and discharge flow reading which must be surpassed prior to withdrawals. Additionally, DEP has established a minimum passby flow at the withdrawal location which must also be surpassed prior to withdrawals. These thresholds are considered terms of the permit and are enforceable as such.

DEP is aware that some intake points will be used for multiple wells and well sites. In these cases, the thresholds set by the Water Management Plan are to be interpreted as total withdrawal limits for each location over the specified date range regardless of how many wells are supported by that intake.

For all purchased water intakes, determinations of water availability are made at the original source intake location. It is the responsibility of the Oil and Gas Operator, not the seller, to cease withdrawal of water from the seller when flows are less than the minimum gauge reading at the stream gauge referenced by the Water Management Plan in order to protect stream uses.

Note that the determinations made herein are based on the best available data, but it is impossible to predict water availability in the future. While the DEP has carefully established these minimum withdrawal thresholds, it remains the operator's responsibility to protect aquatic life at all times. Approval to withdrawal is contingent upon permission from the land owner. It is the responsibility of the operator to secure and maintain permission prior to any withdrawals.

The operator is reminded that 24-48 hours prior to withdrawing (or purchasing) water, DEP must be notified by email at DEP.water.use@wv.gov.

APPROVED OCT 28 2013

Source Summary

WMP- 01513

API Number:

047-085-10068

Operator:

Noble Energy, Inc

PEN2BHS

Purchased Water

● Source **Ohio River @ Select Energy** Pleasants Owner: **Select Energy**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
9/15/2013	9/15/2014	11,000,000	500,000	39.346473	-81.338727

Regulated Stream? **Ohio River Min. Flow** Ref. Gauge ID: 9999998 Ohio River Station: Racine Dam

Max. Pump rate (gpm): **1,680** Min. Gauge Reading (cfs): **7,216.00** Min. Passby (cfs)

DEP Comments: Refer to the specified station on the National Weather Service's Ohio River forecast website: <http://www.erh.noaa.gov/ohrfc//flows.shtml>

● Source **West Virginia American Water - Weston Water Treatme** Lewis Owner: **West Virginia American Water**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
9/15/2013	9/15/2014	11,000,000	500,000	-	-

Regulated Stream? **Stonewall Jackson Dam** Ref. Gauge ID: 3061000 WEST FORK RIVER AT ENTERPRISE, WV

Max. Pump rate (gpm): **0** Min. Gauge Reading (cfs): **170.57** Min. Passby (cfs)

DEP Comments:

● Source **Glenville Utility** Gilmer Owner: **Glenville Utility**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
9/15/2013	9/15/2014	11,000,000	10,000	-	-

Regulated Stream? **Burnsville Dam** Ref. Gauge ID: 3155000 LITTLE KANAWHA RIVER AT PALESTINE, WV

Max. Pump rate (gpm): **0** Min. Gauge Reading (cfs): **303.75** Min. Passby (cfs)

DEP Comments:

Source Detail

WMP-01513

API/ID Number: 047-085-10068

Operator:

Noble Energy, Inc

PEN2BHS

Source ID: 27109 Source Name: Ohio River @ Select Energy
Select Energy

Source Latitude: 39.346473

Source Longitude: -81.338727

HUC-8 Code: 5030201

Drainage Area (sq. mi.): 25000 County: Pleasants

Anticipated withdrawal start date: 9/15/2013

Anticipated withdrawal end date: 9/15/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 11,000,000

Trout Stream? Tier 3?

Max. Pump rate (gpm): 1,680

Regulated Stream? Ohio River Min. Flow

Max. Simultaneous Trucks:

Proximate PSD?

Max. Truck pump rate (gpm)

Gauged Stream?

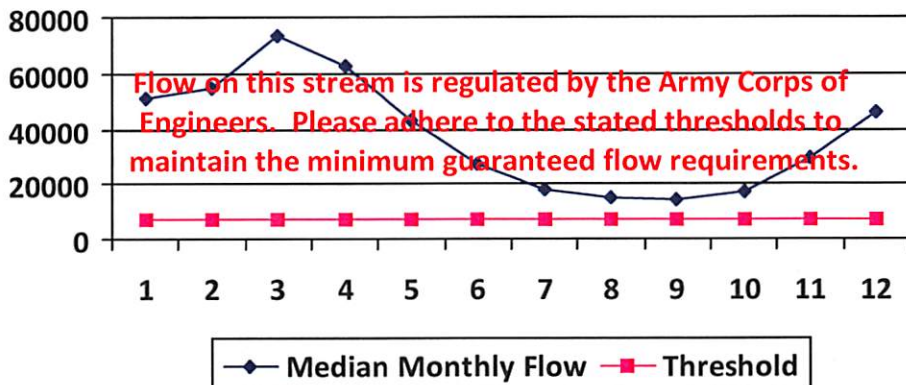
Reference Gaug: 9999998 Ohio River Station: Racine Dam

Drainage Area (sq. mi.): 25,000.00

Gauge Threshold (cfs): 7216

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	50,956.00	-	-
2	54,858.00	-	-
3	73,256.00	-	-
4	62,552.00	-	-
5	43,151.00	-	-
6	27,095.00	-	-
7	17,840.00	-	-
8	14,941.00	-	-
9	14,272.00	-	-
10	17,283.00	-	-
11	29,325.00	-	-
12	46,050.00	-	-

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): -

Upstream Demand (cfs): 0.00

Downstream Demand (cfs): 0.00

Pump rate (cfs): 3.74

Headwater Safety (cfs): 0.00

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): -

Passby at Location (cfs): -

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

WMP- 01513

API/ID Number: 047-085-10068

Operator: Noble Energy, Inc

PEN2BHS

Source ID: 27110 Source Name: West Virginia American Water - Weston Water Treat
West Virginia American Water

Source Latitude: -
Source Longitude: -

HUC-8 Code: 5020002

Drainage Area (sq. mi.): 104.83 County: Lewis

Anticipated withdrawal start date: 9/15/2013
Anticipated withdrawal end date: 9/15/2014

- Endangered Species? Mussel Stream?
- Trout Stream? Tier 3?
- Regulated Stream? Stonewall Jackson Dam
- Proximate PSD? Weston WTP
- Gauged Stream?

Total Volume from Source (gal): 11,000,000

Max. Pump rate (gpm): 0

Max. Simultaneous Trucks:

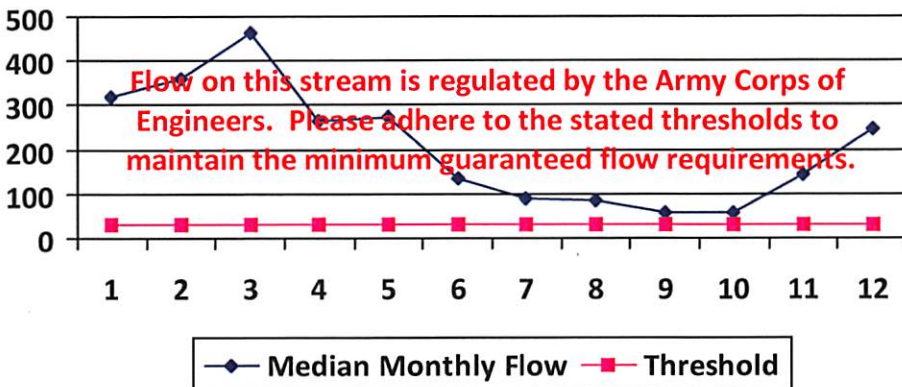
Max. Truck pump rate (gpm)

Reference Gaug: 3061000 WEST FORK RIVER AT ENTERPRISE, WV

Drainage Area (sq. mi.): 759.00 Gauge Threshold (cfs): 234

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	321.23	-	-
2	361.67	-	-
3	465.85	-	-
4	266.43	-	-
5	273.47	-	-
6	137.03	-	-
7	88.78	-	-
8	84.77	-	-
9	58.98	-	-
10	57.83	-	-
11	145.12	-	-
12	247.76	-	-

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): -

Upstream Demand (cfs): 24.32

Downstream Demand (cfs): 0.00

Pump rate (cfs): 0.00

Headwater Safety (cfs): 8.08

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): -

Passby at Location (cfs): -

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Source Detail

WMP- 01513

API/ID Number: 047-085-10068

Operator: Noble Energy, Inc

PEN2BHS

Source ID: 27111 Source Name: Source Latitude: -
 Source Longitude: -

HUC-8 Code: 5030203

Drainage Area (sq. mi.): 385.94 County: Gilmer

Anticipated withdrawal start date: 9/15/2013

Anticipated withdrawal end date: 9/15/2014

Endangered Species? Mussel Stream?

Total Volume from Source (gal): 11,000,000

Trout Stream?

Tier 3?

Max. Pump rate (gpm): 0

Regulated Stream?

Max. Simultaneous Trucks:

Proximate PSD?

Max. Truck pump rate (gpm)

Gauged Stream?

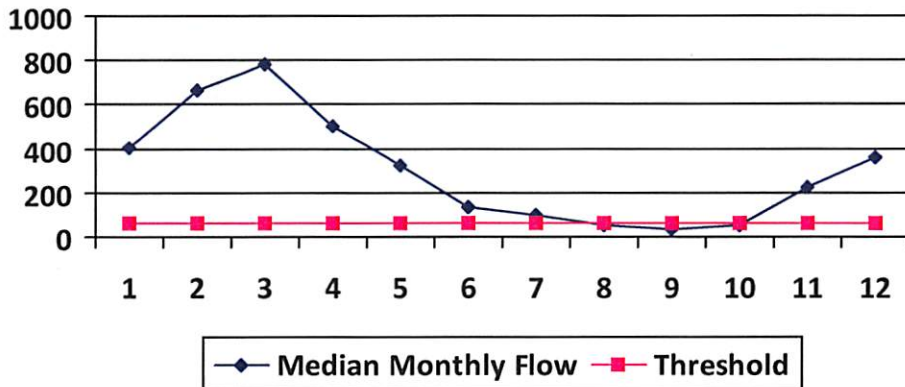
Reference Gaug: 3155000 LITTLE KANAWHA RIVER AT PALESTINE, WV

Drainage Area (sq. mi.): 1,516.00

Gauge Threshold (cfs): 243

Month	Median monthly flow (cfs)	Threshold (+ pump)	Estimated Available water (cfs)
1	407.80	77.33	331.59
2	669.98	77.33	593.76
3	785.33	77.33	709.12
4	505.51	77.33	429.29
5	324.07	77.33	247.85
6	132.12	77.33	55.90
7	99.89	77.33	23.68
8	56.28	77.33	-19.94
9	35.11	77.33	-41.11
10	52.89	77.33	-23.32
11	223.44	77.33	147.23
12	363.54	77.33	287.32

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs): 61.86

Upstream Demand (cfs): 0.00

Downstream Demand (cfs): 0.00

Pump rate (cfs): 0.00

Headwater Safety (cfs): 15.47

Ungauged Stream Safety (cfs): 0.00

Min. Gauge Reading (cfs): 303.75

Passby at Location (cfs): -

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.



Water Management Plan: Secondary Water Sources



WMP-01513	API/ID Number	047-085-10068	Operator:	Noble Energy, Inc
PEN2BHS				

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Lake/Reservoir

Source ID:	27112	Source Name	Bonds Creek Site No. 1 (WV08503)		Source start date:	9/15/2013
					Source end date:	9/15/2014
Source Lat:	39.316142	Source Long:	-80.98423	County	Ritchie	
Max. Daily Purchase (gal)		Total Volume from Source (gal):	11,000,000			
DEP Comments:	Location also known as Tracy Lake or Bonds Creek Lake					

WMP-01513

API/ID Number

047-085-10068

Operator:

Noble Energy, Inc

PEN2BHS

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Multi-site impoundment

Source ID: Source Name Source start date:
 Source end date:
 Source Lat: Source Long: County
 Max. Daily Purchase (gal) Total Volume from Source (gal):
 DEP Comments:

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

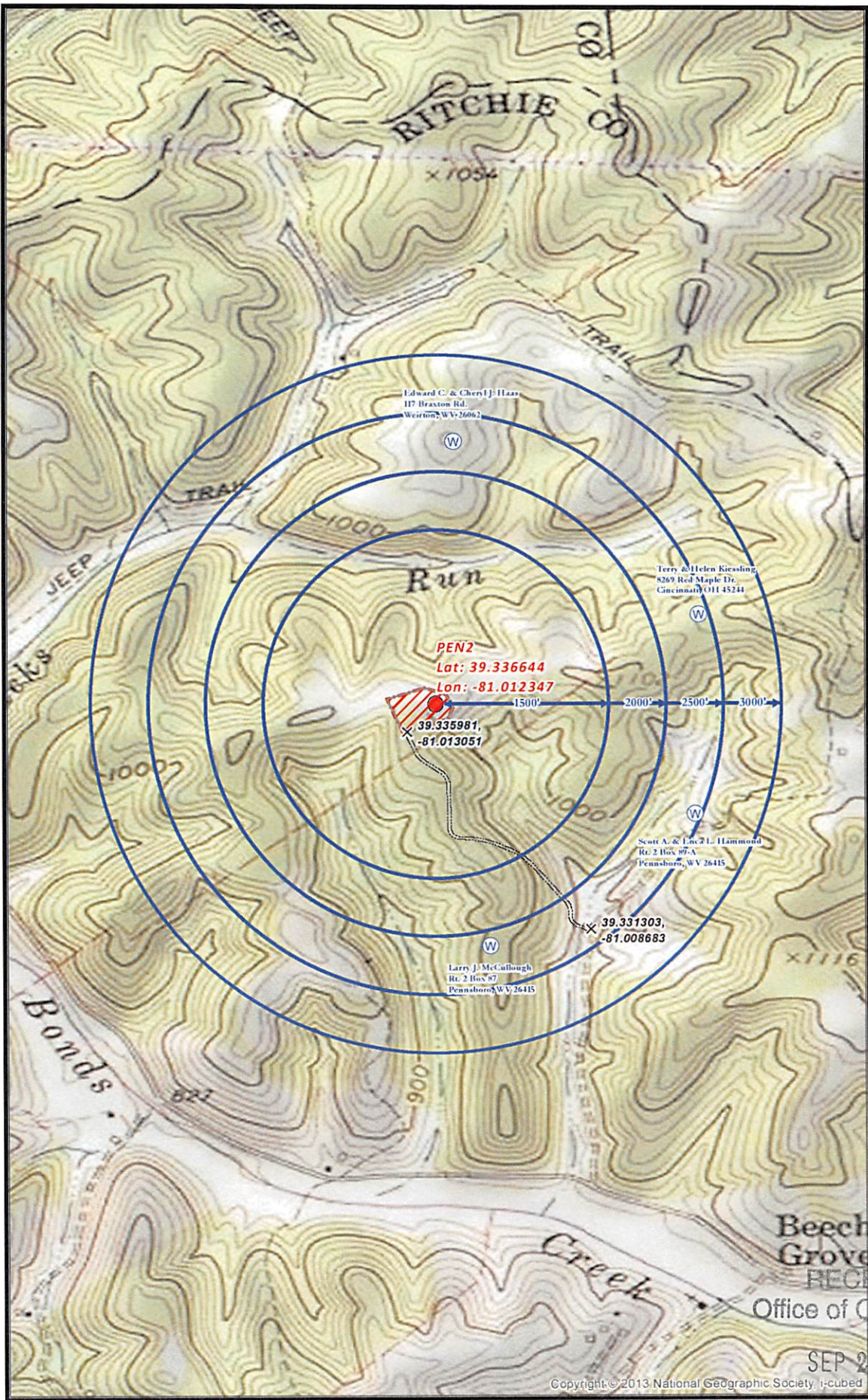
Reference: WMP-1438

Recycled Frac Water

Source ID: Source Name Source start date:
 Source end date:
 Source Lat: Source Long: County
 Max. Daily Purchase (gal) Total Volume from Source (gal):
 DEP Comments:

Plot spotted
CPE ✓

85 10068



RECEIVED
Office of Oil and Gas

SEP 28 2013

Copyright © 2013 National Geographic Society, i-cubed

PENS2 SITE SAFETY PLAN
- WATER WELLS PROXIMITY -

Water Purveyor Buffer
 Proposed Road
 Road Intersection
 Well Pad Boundary

0 500 1,000 2,000 Feet

Scale 1" = 1,000'

Projection: NAD_1983_StatePlane_Virginia_North_FIPS_4701
Units: Feet US

noble energy

Disclaimer: All data is licensed for use by Noble Energy Inc. use only.

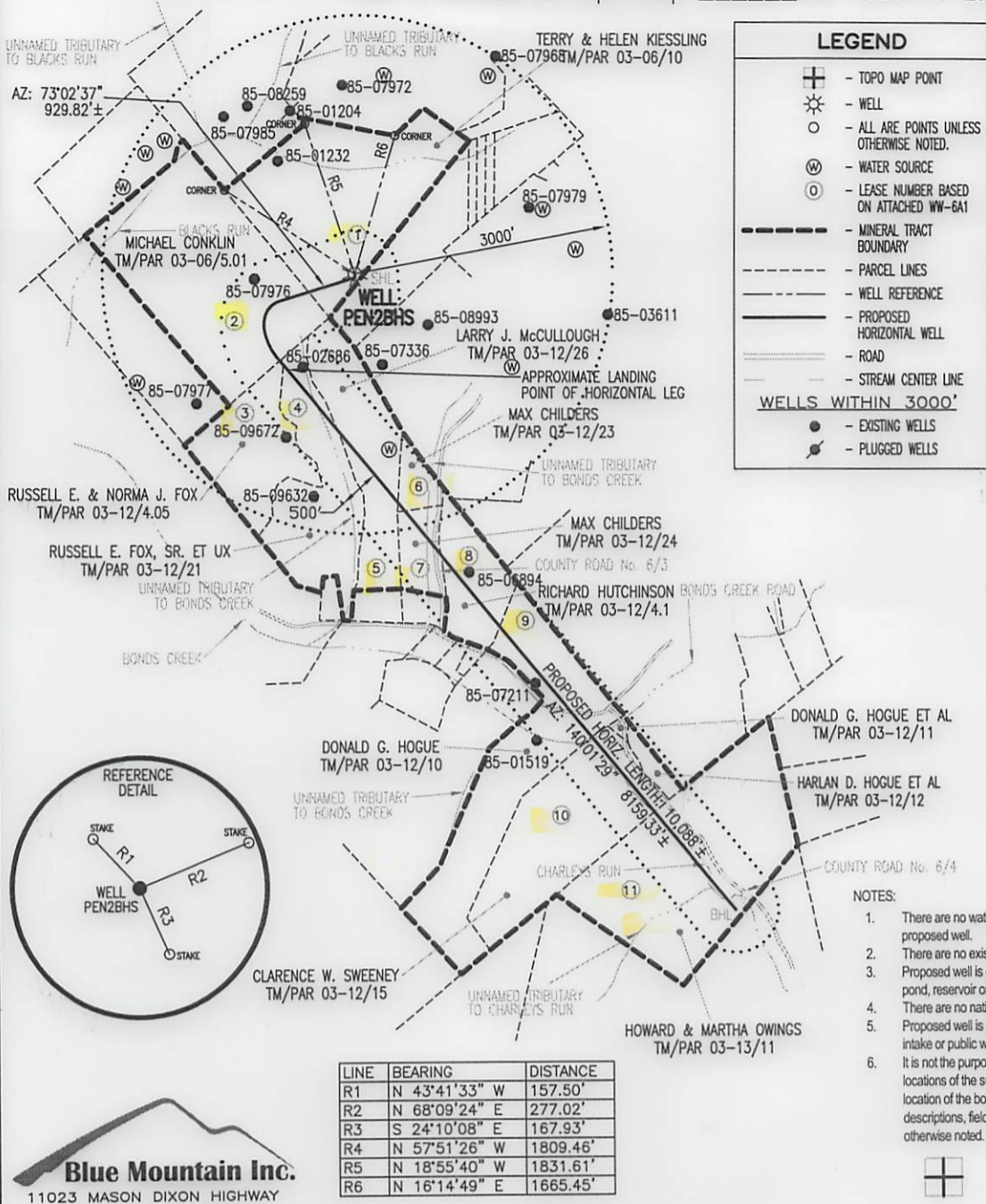
WV Department of Environmental Protection

Date: 9/17/2013
Christopher Greer

6/6

Well is located on topo map 13,986' feet south of Latitude: 39° 22' 30"

Well is located on topo map 3,575' feet west of Longitude: 81° 00' 00"



SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
 N:4354128.62
 E:498913.37
 NAD27, WV NORTH
 N:308274.09
 E:1572131.56
 LAT/LON DATUM-NAD83
 LAT:39.336582
 LON:-81.012609

APPROX. LANDING POINT
UTM 17-NAD83
 N:4353787.31
 E:498677.54
 NAD27, WV NORTH
 N:307167.02
 E:1571338.97
 LAT/LON DATUM-NAD83
 LAT:39.333506
 LON:-81.015345

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
 N:4351909.13
 E:500306.33
 NAD27, WV NORTH
 N:300914.36
 E:1576581.00
 LAT/LON DATUM-NAD83
 LAT:39.316583
 LON:-80.996447

LEGEND

- ⊕ - TOPO MAP POINT
- ☀ - WELL
- - ALL ARE POINTS UNLESS OTHERWISE NOTED.
- ⊙ - WATER SOURCE
- ⊖ - LEASE NUMBER BASED ON ATTACHED WW-6A1
- - MINERAL TRACT BOUNDARY
- - - - - PARCEL LINES
- - - - - WELL REFERENCE
- - - - - PROPOSED HORIZONTAL WELL
- — — — ROAD
- - - - - STREAM CENTER LINE
- WELLS WITHIN 3000'
- - EXISTING WELLS
- ⊖ - PLUGGED WELLS

LINE	BEARING	DISTANCE
R1	N 43°41'33" W	157.50'
R2	N 68°09'24" E	277.02'
R3	S 24°10'08" E	167.93'
R4	N 57°51'26" W	1809.46'
R5	N 18°55'40" W	1831.61'
R6	N 16°14'49" E	1665.45'

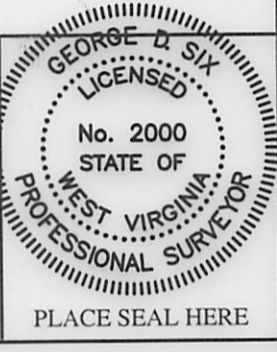
Blue Mountain Inc.
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

- NOTES:**
- There are no water wells or developed springs within 250' of proposed well.
 - There are no existing buildings within 625' of proposed well.
 - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 - There are no native trout streams within 300' of proposed well.
 - Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

FILE #: PEN2BHS
 DRAWING #: PEN2BHS
 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: *George D. Six*
 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: OCTOBER 15, 2013
 OPERATOR'S WELL #: PEN2BHS
 API WELL #: 47 85 10068
 STATE COUNTY PERMIT

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

WATERSHED: NORTH FORK HUGHES RIVER ELEVATION: 1084'±
 COUNTY/DISTRICT: RITCHIE / CLAY QUADRANGLE: ELLENBORO, WV 7.5'
 SURFACE OWNER: TERRY & HELEN KIESSLING ACREAGE: 79.242±
 OIL & GAS ROYALTY OWNER: SEE ATTACHED WW-6A1 ACREAGE: 561.585±
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____
 TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,314'± TMD: 15,378'±
 WELL OPERATOR NOBLE ENERGY, INC. DESIGNATED AGENT STEVEN M. GREEN
 Address 333 TECHNOLOGY DRIVE, SUITE 116 Address 500 VIRGINIA STREET EAST, UNITED CENTER SUITE 590
 City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

85 10068



PEN-2 WELLBORE DIAGRAM

Marcellus Shale Horizontal
Ritchie County, WV
Ground Elevation 1076'

		PEN-2B SHL (Lat/Long)			(308274.09N, 1572131.56E) (NAD27)					
Ground Elevation	1076'	PEN-2B LP (Lat/Long)			(307234.99N, 1571277.33E) (NAD27)					
Azm	139.06°	PEN-2B BHL (Lat/Long)			(300914.36N, 1576581E) (NAD27)					

RECEIVED
 Office of Oil and Gas
 SEP 23 2013
 WV Department of
 Environmental Protection

HOLE	CASING	GEOLOGY	TVD Top	TVD Bottom	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
26"	20" 52#				AIR	Grouted to surface	N/A	Ensure the hole is clean at TD.	Stabilize surface fill/soil. Conductor casing = 0.25" wall thickness
		Conductor		40					
17.5"	13-3/8" 54.5# J-55 BTC				AIR	15.6 ppg Type 1 + 2% CaCl ₂ , 0.25# Lost Circ 40% Excess Yield = 1.18	Bow Spring every 3 joints to surface	Fill with KCl water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Protect freshwater. Surface casing = 0.380" thick. Burst=2730 psi
		Surface Casing		579					
12.25"	9-5/8" 36# HCK-55 BTC				SOBM 8.0 - 8.5 ppg	50 bbls 10 ppg spacer, 12.0 ppg lead slurry, (800') of 15.6 ppg Class A tail slurry cemented to surface.	Bow Spring centralizers on every joint to KOP, one every third joint from KOP to 100' from surface	Once at TD, circulate at least 2x bottoms up. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement	Casing to be ran below the Alexander. Intermediate casing = 0.352" wall thickness Burst=3520 psi, Collapse 2980 psi
		Maxton	1929	1973					
		Big Lime	2005	2082					
		Big Injun	2082	2130					
		Weir	2449	2465					
		Fifth	2921	2927					
		Gordon	2950	2952					
		Warren	3532	3566					
		Speechley	3850	4404					
		Riley	4601	4615					
		Benson	4955	4961					
Alexander	5204	5210							
Intermediate Casing		5410							
8.75/8.5"	5-1/2" 20# HCP-110 TXP BTC	Rhinestreet	5740	5908	SOBM 12.5- 13.0 ppg	120 bbls spacer with density and rheology heirarchy, lead slurry to 2000' to recover SOBM, 14.8 ppg Class A tail slurry to inside intermediate casing	Rigid Bow Spring every third joint from KOP to TOC	Once at TD, circulate at max allowable pump rate for at least 6x bottoms up. Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.361" wall thickness Burst=12640 psi Note:Actual centralizer schedules may be changed due to hole conditions
		Marcellus	6262	6324			Rigid Bow Spring every joint to KOP		
		TD	15378						

8.75/8.5" Hole - Cemented Long String 5-1/2" 20# HCP-110 TXP BTC

4708507985	5176	Edna V Smith 6	Pardee Exploration Co	4301
4708507974	5399	John A Smith 2	Pardee Exploration Co	4378
4708507975	5296	John A Smith 3	Pardee Exploration Co	4421
4708505456	5500	Edna Smith 4	Triad Hunter LLC	4505

- Noble will contact these operators prior to fracturing and guarantee that we can monitor all of the Consol operated offset wells unless the WVDEP deems it unnecessary based on the results from the PENS-1 neighboring pad pressure monitoring results.

Description of Pressure Monitoring

Pressure transducers, on both the tubing and annulus, shall monitor the flowing tubing pressures unless it is deemed necessary to shut in the well for safety reasons. For the deepest wells in the Rhinestreet and Marcellus we will recommend shutting in the wells for pressure monitoring.

- We anticipate setting low and high pressure triggers in our automated pressure monitoring system. Anything more than 100 psi above expected pressures or at 0 psi would trigger an event.
- Our fracturing treatments will be designed to reach close to 90 bpm, use a slick water formulation. Typically our sand volumes will be between 300,000 and 500,000 pounds of sand per stage.
- The plan is to fracture all of the laterals prior to flowback procedures. However, in the event of a trigger, we will cease pumping that frac stage and continue with the following stage until that lateral is fully stimulated. If we see high pressure in any monitor well, we will immediately cease fracing operations and flow back the well to alleviate pressure seen in the offset well.

Noble will audit the surrounding wells to be pressure monitored and install temporary 3000 psi wellheads as necessary.

Contingency:

- 1) Offset wells watering out – We are recommending that an affected offset operator wait for Noble to complete operations on that particular lateral including flowback to alleviate potential pressure surges before any offset operator intervenes.

RECEIVED
Office of Oil and Gas
OCT 29 2013
WV Department of Environmental Protection

Chemical List Including CAS#'s

Type: Friction Reducer (DWP-612)

Chemical Component as listed on MSDS: Long Chain Polyacrylamide
CAS: N/A

Type: Biocide (DWP-944)

1st Chemical Component as listed on MSDS: 2,2-Dibromo-3-nitrilopropionamide
CAS: 10222-01-2

2nd Chemical Component as listed on MSDS: Polyethylene Glycol Mixture
CAS: 25322-68-3

Type: Scale Inhibitor (DAP-901)

1st Chemical Component as listed on MSDS: Methanol

CAS: 67-56-1

2nd Chemical Component as listed on MSDS: Phosphoric Acid Ammonium Salt

CAS: Trade Secret

3rd Chemical Component as listed on MSDS: Ammonium Chloride

CAS: 12125-02-9

4th Chemical Component as listed on MSDS: Organic Phosphonate

CAS: Trade Secret

5th Chemical Component as listed on MSDS: Amine Salt

CAS: Trade Secret

6th 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

85 10068

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

Site Water/Cuttings Disposal

Cuttings

Haul off Company:

85 10069

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

Disposal Locations:

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

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

Sycamore Landfill (Allied Waste) R30-07900105-2010
4301 Sycamore Ridge Road
Hurricane, WV 25526
304-562-2611

MAX Environmental Technologies, Inc. facility
233 Max Lane
Yukon, PA 25698
724-722-3500

Water

Haul off Company:

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

Disposal Location:

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

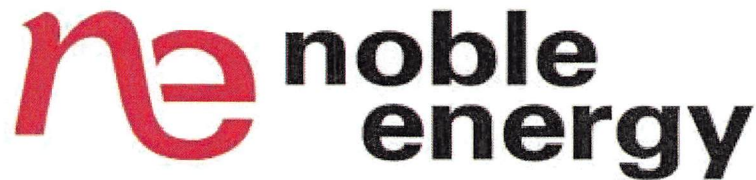
Solidification/Incineration
Soil Remediation, Inc. Permit # 02-20753
6065 Arrel-Smith Road
Lowelville, OH 44436
330-536-6825

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

85 10068



Site Safety Plan
Noble Energy, Inc.
PEN2BHS Well Pad
Ritchie County, WV
August 2013: Version 1

For Submission to
West Virginia Department of Environmental Protection,
Office of Oil and Gas

Noble Energy, Inc
Appalachia Offices
333 Technology Drive, Suite 116
Canonsburg, PA 15317-9504

David W. [Signature]
RECEIVED
Office of Oil and Gas
8-21-13

SEP 23 2013

WV Department of
Environmental Protection



October 17, 2013

West Virginia Department of Environmental Protection

601 57th Street, SE

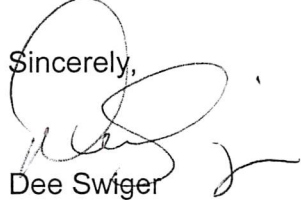
Charleston, WV 25304-2345

Re: PEN2 Wells API#'s 85-10067 / 085-10068 / 85-10055 / 85-10069 / 85-10070 / 85-10071 / 85-10072 / 85-10073 / 85-10074 / 85-10075 / 85-10076 / 85-10066

Dear Laura:

Enclosed please find revised plats for all of the PEN 2 wells. They now have the 500' buffer around the lateral leg and the county code has been corrected. I have also included a copy of a permit addendum for monitoring offset wells. These wells are located in Ritchie County, WV.

Should you have any questions, or desire any additional information, please do not hesitate to contact me at 724-820-3061 or via email at dswiger@nobleenergyinc.com.

Sincerely,

Dee Swiger

Regulatory Analyst

DS/

Enclosures:

RECEIVED
Office of Oil and Gas
OCT 22 2013
WV Department of
Environmental Protection

Noble Energy Addendum

Pennsboro site proposed well procedures

- Intermediate casing has been revised to extend below the Alexander and CTS.
- Southern laterals will be fractured while surrounding Consol offset wells are being pressure monitored
- Northern laterals will be fractured while surrounding Consol offset wells are being pressure monitored
- Operators of all offset wells will be contacted for monitoring as per tables below:

Southern lateral offsets:

API	TD	Lease	Current Operator	TVD_SS
4708508880	5057	Walnut Investment Co 2	Key Oil Co.	3997
4708507336	5128	Mary Jo Stephens	Consol Gas Company	4059
4708507979	5130	J Ralph Hammond	Consol Gas Company	4060
4708508068	5158	Howard D Owings	Consol Gas Company	4069
4708507343	5352	WV Pulp&Papr	Consol Gas Company	4240
4708507977	5453	John A Smith 9	Pardee Exploration Co	4391
4708507534	5400	Harlan Hogue	Consol Gas Company	4470
4708503611	5985	James A Hogue	Consol Gas Company	4877
4708506894	5992	Richard L Goff	Seneca-Upshur Petroleum, LLC	5012
4708507211	5911	James H Kiger	Seneca-Upshur Petroleum, LLC	5086
4708509672	6300	Russell Fox Sr	Antero Resources Appalachian Corp.	5238
4708510042	6600	SCHMIDLE UNIT	Antero Resources Appalachian Corp.	5480
4708510043	6600	SCHMIDLE UNIT	Antero Resources Appalachian Corp.	5480

Northern lateral offsets:

API	TD	Lease	Current Operator	TVD_SS
4707331065	4200	WV FARMING COMM	Hanlon Oil & Gas Co.	3560
4707302089	5015	Laura Whaley 1	Consol Gas Company	4015
4708507972	5054	Robert P Jackson 3	Consol Gas Company	4026
4708507993	5005	HERSCHEL H PIFER 2	Consol Gas Company	4036
4708507992	5032	Herschel H Pifer 1	Consol Gas Company	4041
4707301356	4880	Mary Elizabeth Jones 1	Pardee Exploration Co.	4042
4707302092	5095	Coastal Lumber 1	Consol Gas Company	4076
4707302088	5124	Mary Elizabeth Jones 3	Pardee Exploration Co	4093
4708507995	5006	Richard/Kenda Jones 1	Consol Gas Company	4176
4708507976	5300	John A Smith 8	Pardee Exploration Co	4246
4707302081	5026	Mary E Jones 2	Paulico Resources, Inc	4248
4707302080	5234	Edna V Smith 1	Glass Development Company	4259

PARTIAL TERM ASSIGNMENT OF OIL AND GAS LEASES

THIS PARTIAL TERM ASSIGNMENT OF OIL AND GAS LEASES (this "Assignment"), made and effective as of September 19, 2013, by and among **Antero Resources Corporation**, a Delaware corporation, whose address is, 1625 17th Street, Denver, Colorado 80202 (hereinafter called "Assignor"), and **CNX Gas Company LLC**, a Virginia limited liability company, whose address is 1000 CONSOL Energy Drive, Canonsburg, Pennsylvania 15317 ("CNX"), and **Noble Energy, Inc.**, a Delaware corporation, whose address is 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317 ("Noble" and, together with CNX, "Assignees" and each, and "Assignee"). Assignor and Assignees are collectively referred to herein as the "Parties" and each of Assignor and Assignees are sometimes referred to herein individually as a "Party."

WHEREAS, Assignor is the lessee of oil and gas rights in and to those certain tracts of land located in Ritchie County, West Virginia, more particularly described on **Exhibit "A"** attached hereto and made a part hereof (collectively, the "Leases"); and

WHEREAS, Assignor desires to assign certain rights under the Leases, as more particularly described in this Assignment *but only as to* (i) the portion of said Leases that is depicted in dot pattern on the map included as **Exhibit "A-1"**; said dot pattern portion of the lease assigned hereby is hereinafter referred to as the "Conveyed Acreage"; the portion of said Leases that is depicted in cross-hatched pattern on Exhibit A-1 is not being conveyed or assigned by this assignment and is referred to herein as the "Previously Conveyed Portion of the Lease".

NOW, THEREFORE, for and in consideration of Ten Dollars (\$10.00) and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor does hereby **GRANT, TRANSFER, ASSIGN and CONVEY** unto CNX an undivided fifty percent (50%) and Noble an undivided fifty percent (50%) of the following (the "Leasehold Rights"): (a) all of Assignor's right, title and interest in and to those portions of the Conveyed Portion of the Leases **INSOFAR AND ONLY INSOFAR** as such Conveyed Portion of the Leases cover those depths and formations from the top stratigraphic equivalent of the Burkett formation (as seen by DEPI # 14815 well, Barbour County, West Virginia, API number 47-001-02850), at a depth of 7,350'MD through to and ending at the top of the Onondaga formation at 7,710'MD (such depths and formations, the "Target Formations"), (b) all rights granted under such Leases to the extent relating to, or necessary in connection with, the ownership and operation of the Target Formations, including, without limitation, non-exclusive access rights and rights to install pipelines.

The term "Retained Rights" as used herein shall mean (a) any and all existing oil and/or gas wells currently on the premises, together with any future wells drilled on the premises to produce formations other than the Target Formations; (b) all of the Leases insofar and only insofar as such Leases cover depths and formations other than the Target Formations (such depths and formations, the "Retained Formations"); (c) all rights granted under such Leases to the extent relating to, or necessary in connection with, the ownership and operation of the Retained Formations, including, without limitation, non-exclusive access rights, and rights to install pipelines; and (d) any other rights, properties or interests relating to, or necessary in

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

connection with, the ownership and operation of the Retained Formations. Notwithstanding the foregoing, the rights granted under this Assignment shall specifically include the right to penetrate and drill through the shallower oil and gas formations in order to drill and produce the Leasehold Rights.

This Assignment is further made subject to the following:

1. **Term.** This Assignment shall continue in force for ten (10) years from the date hereof until September 19, 2023, (the "Primary Term"), and the rights granted hereunder be quietly enjoyed by Assignees for the entire primary term and so much longer thereafter as oil, or gas, or their constituents are produced from the Target Formations or from land(s) pooled therewith, and in paying quantities, in the judgment of Assignees, or as the Target Formations shall be operated continuously by Assignees in the search for oil and gas from the Target Formations. (the "Secondary Term"). This Assignment, however, shall become null and void and all rights of Assignees shall cease and terminate and automatically revert to Assignor unless, prior to the expiration of the Primary Term, a well shall be Commenced from or within the Target Formations. A well shall be "Commenced" when preparations for drilling have been commenced prior to the expiration of the Primary Term and Assignees continuously and diligently thereafter pursue completion of such well, provided that any such well must be completed within one hundred eighty (180) days of the expiration of the Primary Term.
2. **Pugh Clause:** Subject to the one hundred eighty (180) day allowance for Commenced wells, production from any well or wells drilled on the lands secured by the Leasehold Rights shall maintain this Assignment beyond the Primary Term only as to that portion or those portions of lands secured by the Leasehold Rights that are consolidated, pooled or unitized with other land so as to form a unit for development and production of oil and gas. At the expiration of the Primary Term, this Assignment and all rights, titles and interests assigned by it shall terminate as to all non-pooled acreage and subsurface depths as provided for herein unless said non-pooled acreage is maintained by other provisions of this Assignment. Upon termination of this Assignment, Assignees shall assign to Assignor all of Assignees' interest in those lands or portions of lands secured by the Leasehold Rights but not maintained by this Assignment.
3. **Transfer Taxes / Recording Fees.** Assignees agree to pay all filing, recording and transfer fees, documentary stamps or excise taxes in connection with the filing and recording of this Assignment, and all fees imposed by any state or federal agency in connection with this transfer.
4. **No Interference.** The Parties understand that each Party may have existing or future wells, pipelines and access roads located on or under the lands covered by the Leases, and no Party shall unreasonably interfere with or impede the operations of the other Party under the Leases. Upon request by a Party, the other Party may, at its sole option, permit such requesting Party the right to utilize any

existing well pads and other surface facilities (other than pipelines or gathering systems) on such Leases of such non-requesting Party. Should such requesting Party be granted such utilization rights, such requesting Party agrees to make repairs for any damage to and to share in the cost of maintenance of any shared facilities for so long as the requesting Party continues to share such facilities with the non-requesting Party.

5. **Reasonable Accommodation.** The Parties jointly acknowledge and agree that they both are entitled to develop their respective interests in the Leases. Whenever the Parties are drilling, operating or maintaining wells on the Leases at the same time, then the Parties shall cooperate with each other in a reasonable commercial manner so that such parallel activities can be accommodated.

6. **Lease Operations and Effect.** Each of the Parties agree not to amend, breach, default or (subject, however, to Section 11 below) cause the termination of the terms of the Leases and to comply, in all material respects, with the terms of the Leases.

7. **Surface Use.** To the extent that each Party is not restricted from granting such access, each Party shall have the right to use any access roads constructed by the other Party for the non-constructing Party's oil and gas operations related to its operations upon the Leases. The non-constructing Party shall indemnify the other Party from any claims, damages or injuries that arise from such non-constructing Party's or its representatives' or contractors' use of such access roads, and each Party, for so long as such access roads are used jointly by the Parties, shall (a) promptly repair any and all damages that such Party or its representatives or contractors may cause to such access roads; and (b) participate in the further maintenance of such access roads.

8. **Indemnifications.**

(a) Neither Party shall have any control over the drilling, testing, completing or other operations of the other Party upon the Leases and each Party shall be responsible for all costs and expenses incurred by such Party in connection with such operations including, without limitation, the proper payment of royalties, overriding royalties, and similar burdens on production. Each Party (an "Indemnifying Party") shall defend, indemnify and hold the other Party, its equity holders, officers, directors, employees, agents, contractors, subcontractors, subsidiaries, and joint venture partners (all of such persons and entities, the "Indemnified Party") harmless from and against all claims, losses, damages, expenses, causes of action or lawsuits of every kind and character, including, without limitation, those lawsuits and/or claims brought by such Indemnified Party's contractors, sub-contractors or the employees thereof, or such Indemnifying Party's employees, or any lessor or land owner associated with the Leases, or any other third party, arising out of or resulting from such Indemnifying Party's operations related in any way to the Leases and with respect to the proper payment of royalties. Each Party shall keep the lands covered by the

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

Leases, such Party's wells, and all permanently installed equipment used in connection with such operations free and clear of all liens for delinquent monies.

(b) Each Indemnifying Party shall additionally assume all liability for and defend, indemnify and hold each Indemnified Party harmless from and against any penalty, loss, injury or damage arising from pollution, contamination or environmental damage of any kind, which arises out of or results from such Indemnifying Party's or its contractors' or subcontractors' operations, including, without limitation, spills of materials such as fuels, lubricants, motor oils, pipe dope, paints and garbage, and such Indemnifying Party shall control and remove such pollution or contamination.

9. **Warranty of Title.** Assignor has not and does not make any warranty to the leased premises, whether express, implied or statutory. The leasehold rights are conveyed to Assignees "As-Is, Where-Is" with all faults and without recourse to Assignor. This Assignment is made subject and subordinate to (i) all instruments of title or other documents of record and (ii) all reservations, restrictions and conditions contained or referred to in prior deeds, leases, licenses, easements, rights of way, encumbrances, pledges, instruments, and other title documents of record affecting or pertaining to the leased premises. Assignees expressly assume the obligation in determining the sufficiency of the title of Assignor to the leased premises granted hereunder, and further releases Assignor for any liability with respect to any failure of title.

10. **Notice of Abandonment.** In the event that (a) in the case of Assignees, any well drilled by or on behalf of Assignees on lands covered by the Leasehold Rights (or lands pooled therewith) is not capable of producing oil and/or gas in paying quantities or a producing well ceases to produce oil and/or gas in paying quantities, or (b) in the case of Assignor, any well drilled by or on behalf of Assignor on the lands covered by the Leases (or lands pooled therewith) is not capable of producing oil and/or gas in paying quantities and there are no other wells capable of production in paying quantities on the respective Lease (or lands pooled therewith), or a producing well ceases to produce oil and/or gas in paying quantities and such well is the only well capable of production in paying quantities on the respective Lease (or lands pooled therewith) (in either case, Assignees or Assignor, as applicable, being an "Abandoning Party"), and such Abandoning Party desires to plug and abandon such well, then such Abandoning Party shall provide written notice (or if during the drilling of such well, oral notice) (any such notice, the "Abandonment Notice") to the non-abandoning Party at least thirty (30) days (or, if during the drilling of such well, twenty-four (24) hours) prior to the anticipated plugging and abandonment of such well in order to permit such non-abandoning Party the option, in its sole discretion, to take over operation of such well. In the event that such non-abandoning Party desires to take over the operation of such well, then such non-abandoning Party shall provide written notice (or, if during the drilling of such well, oral notice) (the "Take Over Notice") to the Abandoning Party within thirty (30) days (or, if during the drilling of such well, twenty-four (24) hours) of receiving such

RECEIVED
Office of Oil and Gas
FEB 28 2013
WV Department of
Environmental Protection

Abandonment Notice applicable thereto. Promptly following such receipt of such Take Over Notice, such Abandoning Party shall assign to such non-abandoning Party, free and clear of all encumbrances created by such Abandoning Party, all of its right, title and interest in such well pursuant to a mutually agreeable form of assignment containing no warranties except for a special warranty of title by, through and under the Abandoning Party. If a non-abandoning Party takes over the operations of any such well, then such non-abandoning Party agrees to plug and abandon such well and reclaim, restore and clean up the drillsite location and access routes associated therewith in accordance with all applicable rules, regulations and laws and the terms of the applicable Lease. If such non-abandoning Party does not elect to take over the operations of such well within the time period specified, then the Abandoning Party agrees to plug and abandon such well and reclaim, restore and clean up the drillsite location and access routes associated therewith in accordance with all applicable rules, regulations and laws and the terms of the applicable Lease. All oral notices provided under this Section 11 shall be followed with written notice as soon as reasonably practicable. All written notices shall be mailed to the addresses for the Parties as reflected on the first page.

11. **Assignment Notice.** An Assignee shall notify Assignor in writing if such Assignee assigns all or a portion of its Leasehold Rights to a third party. Provided, however, that notification shall not be required in the event of an assignment by an Assignee: (a) to an affiliate, subsidiary, or internal partners; (b) in consequence of a merger or amalgamation; or (c) of all or substantially all of its assets to a third party.
12. **Third Party Beneficiaries.** Nothing contained herein is intended or shall be deemed to create or confer any rights upon any third person not a party hereto, whether as a third party beneficiary or otherwise, except as expressly provided herein; nor shall anything contained herein be construed to create any partnership, agency, joint venture or like relationship between Assignees and Assignor.
13. **Further Assurances.** Assignor and Assignees agree to take such further actions and to execute, acknowledge and deliver all such further documents as are reasonably requested by the other Party for carrying out the purposes of this Assignment.
14. **Binding Effect.** This Assignment shall extend and inure to the benefit of Assignor and Assignees and their respective successors or assigns.
15. **Counterparts.** This Assignment may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement.

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

85 10068

IN WITNESS WHEREOF, the Parties have caused this Assignment to be effective as of the date first set forth above.

ASSIGNOR:

WITNESSED BY:

ANTERO RESOURCES CORPORATION

Name: _____

By: Bruce K. ...

Name: _____

Title: Vice President - Land

ASSIGNEE:

WITNESSED BY:

CNX GAS COMPANY, LLC

Name: _____

By: _____

Name: _____

Title: _____

ASSIGNEE:

WITNESSED BY:

NOBLE ENERGY, INC.

Name: _____

By: _____

Name: _____

Title: _____

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

85 10068

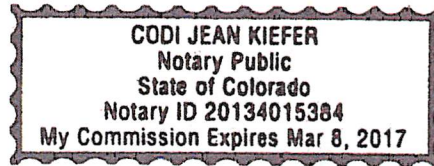
STATE OF Colorado

COUNTY OF Denver

BE IT KNOWN, that on this 19th day of September, 2013, before me, the undersigned authority, personally came and appeared Brian A. Kuhn, appearing herein in his capacity as Vice President – Land of **Antero Resources Corporation**, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

My Commission Expires: 3/8/2017

Codi Jean Kiefer
NOTARY PUBLIC



RECEIVED
Office of Oil and Gas
SEP 23 2013

WV Department of
Environmental Protection

= 85 10068

STATE OF _____

COUNTY OF _____

BE IT KNOWN, that on this _____ day of _____, 2013, before me, the undersigned authority, personally came and appeared _____ appearing herein in his capacity as _____ of **CNX Gas Company LLC**, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said limited liability company with full authority of its _____, and that the said instrument is the free act and deed of the said limited liability company and was executed for the uses, purposes and benefits therein expressed.

My Commission Expires: _____

NOTARY PUBLIC

STATE OF _____

COUNTY OF _____

BE IT KNOWN, that on this _____ day of _____, 2013, before me, the undersigned authority, personally came and appeared _____ appearing herein in his capacity as _____ of **Noble Energy, Inc.**, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

My Commission Expires: _____

NOTARY PUBLIC

Prepared by: Noble Energy, Inc. 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

Exhibit A

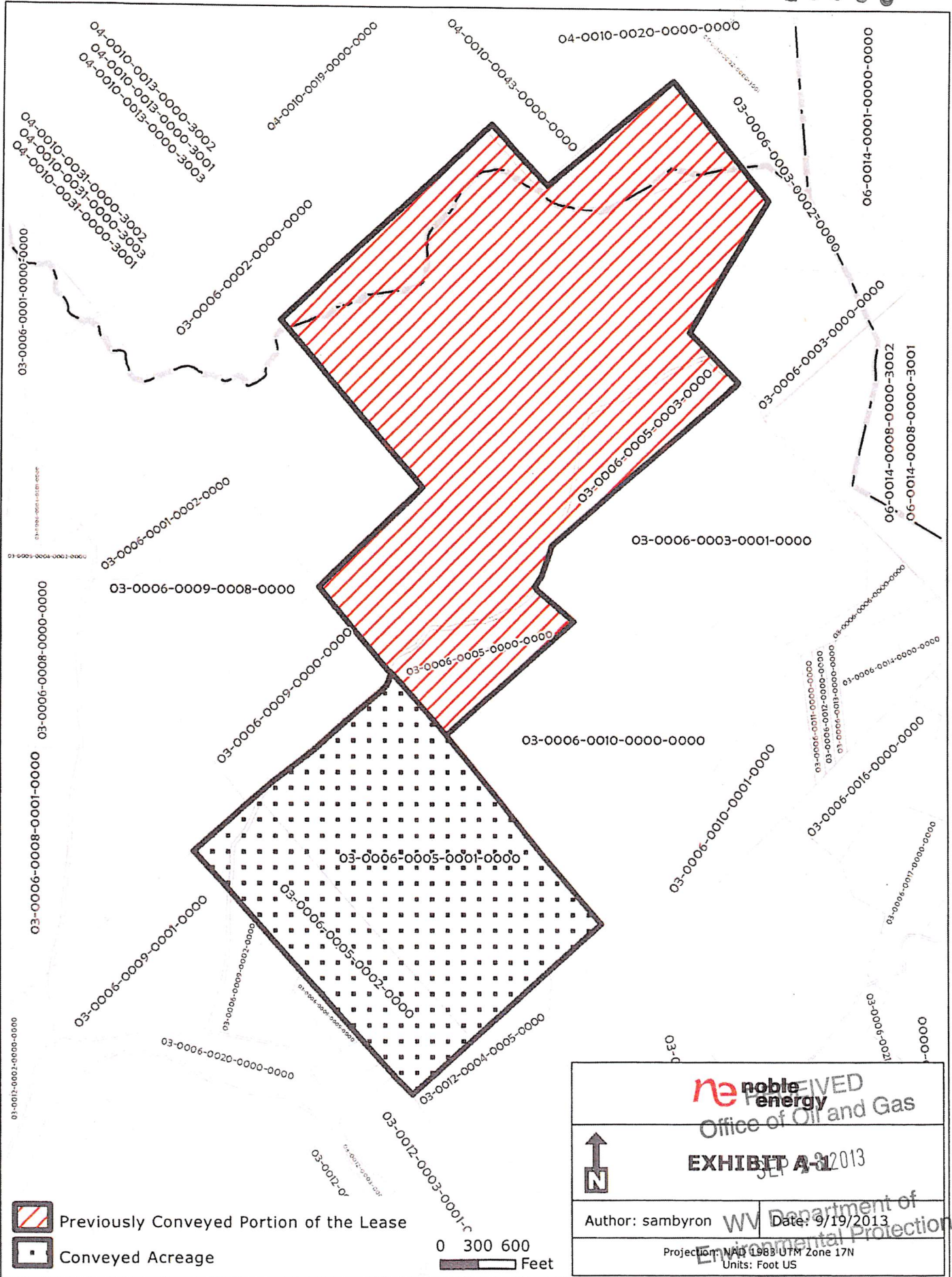
Leases


Lessor	Lease Date	BK	PG	Gross Acres	Conveyed Acres	County	District
Charles & Louanna Conklin	2/28/2013	262	630	359	123.85	Ritchie	Clay

End of Exhibit A

== 85 10068

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection



 RECEIVED Office of Oil and Gas	
EXHIBIT A-11 SEP 19 2013	
Author: sambyron	WV Department of Environmental Protection
Date: 9/19/2013 Projection: NAD 1983 UTM Zone 17N Units: Foot US	

PARTIAL TERM ASSIGNMENT OF OIL AND GAS LEASES

THIS PARTIAL TERM ASSIGNMENT OF OIL AND GAS LEASES (this "Assignment"), made and effective as of September 19, 2013, by and among **Antero Resources Corporation**, a Delaware corporation, whose address is, 1625 17th Street, Denver, Colorado 80202 (hereinafter called "Assignor"), and **CNX Gas Company LLC**, a Virginia limited liability company, whose address is 1000 CONSOL Energy Drive, Canonsburg, Pennsylvania 15317 ("CNX"), and **Noble Energy, Inc.**, a Delaware corporation, whose address is 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317 ("Noble" and, together with CNX, "Assignees" and each, and "Assignee"). Assignor and Assignees are collectively referred to herein as the "Parties" and each of Assignor and Assignees are sometimes referred to herein individually as a "Party."

WHEREAS, Assignor is the lessee of oil and gas rights in and to those certain tracts of land located in Ritchie County, West Virginia, more particularly described on **Exhibit "A"** attached hereto and made a part hereof (collectively, the "Leases"); and

WHEREAS, Assignor desires to assign certain rights under the Leases, as more particularly described in this Assignment;

NOW, THEREFORE, for and in consideration of Ten Dollars (\$10.00) and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor does hereby **GRANT, TRANSFER, ASSIGN and CONVEY** unto CNX an undivided fifty percent (50%) and Noble an undivided fifty percent (50%) of the following (the "Leasehold Rights"): (a) all of Assignor's right, title and interest in and to those portions of the Conveyed Portion of the Leases **INSOFAR AND ONLY INSOFAR** as such Conveyed Portion of the Leases cover those depths and formations from the top stratigraphic equivalent of the Burkett formation (as seen by DEPI # 14815 well, Barbour County, West Virginia, API number 47-001-02850), at a depth of 7,350' MD through to and ending at the top of the Onondaga formation at 7,710' MD (such depths and formations, the "Target Formations"), (b) all rights granted under such Leases to the extent relating to, or necessary in connection with, the ownership and operation of the Target Formations, including, without limitation, non-exclusive access rights and rights to install pipelines, (c) all of Assignor's right, title and interest in and to that certain Joint Use Agreement executed on June 29, 2012, by and between Assignor and Energy Corporation of America (the "JUA") **INSOFAR AND ONLY INSOFAR** as the JUA relates to the Leasehold Rights and (d) any other rights, properties or interests relating to, or necessary in connection with, the ownership and operation of the Target Formations, but specifically excluding (in each case) the Retained Rights (as hereinafter defined).

The term "Retained Rights" as used herein shall mean (a) any and all existing oil and/or gas wells currently on the premises, together with any future wells drilled on the premises to produce formations other than the Target Formations; (b) all of the Leases insofar and only insofar as such Leases cover depths and formations other than the Target Formations (such

depths and formations, the "Retained Formations"; (c) all rights granted under such Leases to the extent relating to, or necessary in connection with, the ownership and operation of the Retained Formations, including, without limitation, non-exclusive access rights, and rights to install pipelines; and (d) any other rights, properties or interests relating to, or necessary in connection with, the ownership and operation of the Retained Formations. Notwithstanding the foregoing, the rights granted under this Assignment shall specifically include the right to penetrate and drill through the shallower oil and gas formations in order to drill and produce the Leasehold Rights.

This Assignment is further made subject to the following:

1. **Term.** This Assignment shall continue in force for ten (10) years from the date hereof until September 19, 2023, (the "Primary Term"), and the rights granted hereunder be quietly enjoyed by Assignees for the entire primary term and so much longer thereafter as oil, or gas, or their constituents are produced from the Target Formations or from land(s) pooled therewith, and in paying quantities, in the judgment of Assignees, or as the Target Formations shall be operated continuously by Assignees in the search for oil and gas from the Target Formations. (the "Secondary Term"). This Assignment, however, shall become null and void and all rights of Assignees shall cease and terminate and automatically revert to Assignor unless, prior to the expiration of the Primary Term, a well shall be Commenced from or within the Target Formations. A well shall be "Commenced" when preparations for drilling have been commenced prior to the expiration of the Primary Term and Assignees continuously and diligently thereafter pursue completion of such well, provided that any such well must completed within one hundred eighty (180) days of the expiration of the Primary Term.
2. **Pugh Clause:** Subject to the one hundred eighty (180) day allowance for Commenced wells, production from any well or wells drilled on the lands secured by the Leasehold Rights shall maintain this Assignment beyond the Primary Term only as to that portion or those portions of lands secured by the Leasehold Rights that are consolidated, pooled or unitized with other land so as to form a unit for development and production of oil and gas. At the expiration of the Primary Term, this Assignment and all rights, titles and interests assigned by it shall terminate as to all non-pooled acreage and subsurface depths as provided for herein unless said non-pooled acreage is maintained by other provisions of this Assignment. Upon termination of this Assignment, Assignees shall assign to Assignor all of Assignees' interest in those lands or portions of lands secured by the Leasehold Rights but not maintained by this Assignment.
3. **Transfer Taxes / Recording Fees.** Assignees agree to pay all filing, recording and transfer fees, documentary stamps or excise taxes in connection with the filing and recording of this Assignment, and all fees imposed by any state or federal agency in connection with this transfer.

RECEIVED
Office of Oil and Gas

SEP 23 2013

4. **No Interference.** The Parties understand that each Party may have existing or future wells, pipelines and access roads located on or under the lands covered by the Leases, and no Party shall unreasonably interfere with or impede the operations of the other Party under the Leases. Upon request by a Party, the other Party may, at its sole option, permit such requesting Party the right to utilize any existing well pads and other surface facilities (other than pipelines or gathering systems) on such Leases of such non-requesting Party. Should such requesting Party be granted such utilization rights, such requesting Party agrees to make repairs for any damage to and to share in the cost of maintenance of any shared facilities for so long as the requesting Party continues to share such facilities with the non-requesting Party.
5. **Reasonable Accommodation.** The Parties jointly acknowledge and agree that they both are entitled to develop their respective interests in the Leases. Whenever the Parties are drilling, operating or maintaining wells on the Leases at the same time, then the Parties shall cooperate with each other in a reasonable commercial manner so that such parallel activities can be accommodated.
6. **Lease Operations and Effect.** Each of the Parties agree not to amend, breach, default or (subject, however, to Section 11 below) cause the termination of the terms of the Leases and to comply, in all material respects, with the terms of the Leases.
7. **Surface Use.** To the extent that each Party is not restricted from granting such access, each Party shall have the right to use any access roads constructed by the other Party for the non-constructing Party's oil and gas operations related to its operations upon the Leases. The non-constructing Party shall indemnify the other Party from any claims, damages or injuries that arise from such non-constructing Party's or its representatives' or contractors' use of such access roads, and each Party, for so long as such access roads are used jointly by the Parties, shall (a) promptly repair any and all damages that such Party or its representatives or contractors may cause to such access roads; and (b) participate in the further maintenance of such access roads.
8. **Indemnifications.**
- (a) Neither Party shall have any control over the drilling, testing, completing or other operations of the other Party upon the Leases and each Party shall be responsible for all costs and expenses incurred by such Party in connection with such operations including, without limitation, the proper payment of royalties, overriding royalties, and similar burdens on production. Each Party (an "Indemnifying Party") shall defend, indemnify and hold the other Party, its equity holders, officers, directors, employees, agents, contractors, subcontractors, subsidiaries, and joint venture partners (all of such persons and entities, the "Indemnified Party") harmless from and against all claims, losses, damages, expenses, causes of action or lawsuits of every kind and character, including, without limitation, those lawsuits and/or claims brought by such Indemnifying Party.

Party's contractors, sub-contractors or the employees thereof, or such Indemnifying Party's employees, or any lessor or land owner associated with the Leases, or any other third party, arising out of or resulting from such Indemnifying Party's operations related in any way to the Leases and with respect to the proper payment of royalties. Each Party shall keep the lands covered by the Leases, such Party's wells, and all permanently installed equipment used in connection with such operations free and clear of all liens for delinquent monies.

(b) Each Indemnifying Party shall additionally assume all liability for and defend, indemnify and hold each Indemnified Party harmless from and against any penalty, loss, injury or damage arising from pollution, contamination or environmental damage of any kind, which arises out of or results from such Indemnifying Party's or its contractors' or subcontractors' operations, including, without limitation, spills of materials such as fuels, lubricants, motor oils, pipe dope, paints and garbage, and such Indemnifying Party shall control and remove such pollution or contamination.

9. **Warranty of Title.** Assignor has not and does not make any warranty to the leased premises, whether express, implied or statutory. The leasehold rights are conveyed to Assignees "As-Is, Where-Is" with all faults and without recourse to Assignor. This Assignment is made subject and subordinate to (i) all instruments of title or other documents of record and (ii) all reservations, restrictions and conditions contained or referred to in prior deeds, leases, licenses, easements, rights of way, encumbrances, pledges, instruments, and other title documents of record affecting or pertaining to the leased premises. Assignees expressly assume the obligation in determining the sufficiency of the title of Assignor to the leased premises granted hereunder, and further releases Assignor for any liability with respect to any failure of title.

10. **Notice of Abandonment.** In the event that (a) in the case of Assignees, any well drilled by or on behalf of Assignees on lands covered by the Leasehold Rights (or lands pooled therewith) is not capable of producing oil and/or gas in paying quantities or a producing well ceases to produce oil and/or gas in paying quantities, or (b) in the case of Assignor, any well drilled by or on behalf of Assignor on the lands covered by the Leases (or lands pooled therewith) is not capable of producing oil and/or gas in paying quantities and there are no other wells capable of production in paying quantities on the respective Lease (or lands pooled therewith), or a producing well ceases to produce oil and/or gas in paying quantities and such well is the only well capable of production in paying quantities on the respective Lease (or lands pooled therewith) (in either case, Assignees or Assignor, as applicable, being an "Abandoning Party"), and such Abandoning Party desires to plug and abandon such well, then such Abandoning Party shall provide written notice (or if during the drilling of such well, written notice) (any such notice, the "Abandonment Notice") to the non-abandoning Party at least thirty (30) days (or, if during the drilling of such well, twenty-four (24) hours) prior to the anticipated plugging and abandonment of such well in order to permit such non-abandoning Party the option, in its sole discretion, to take over

RECEIVED
Office of Oil and Gas
Order 28
2013

operation of such well. In the event that such non-abandoning Party desires to take over the operation of such well, then such non-abandoning Party shall provide written notice (or, if during the drilling of such well, oral notice) (the "Take Over Notice") to the Abandoning Party within thirty (30) days (or, if during the drilling of such well, twenty-four (24) hours) of receiving such Abandonment Notice applicable thereto. Promptly following such receipt of such Take Over Notice, such Abandoning Party shall assign to such non-abandoning Party, free and clear of all encumbrances created by such Abandoning Party, all of its right, title and interest in such well pursuant to a mutually agreeable form of assignment containing no warranties except for a special warranty of title by, through and under the Abandoning Party. If a non-abandoning Party takes over the operations of any such well, then such non-abandoning Party agrees to plug and abandon such well and reclaim, restore and clean up the drillsite location and access routes associated therewith in accordance with all applicable rules, regulations and laws and the terms of the applicable Lease. If such non-abandoning Party does not elect to take over the operations of such well within the time period specified, then the Abandoning Party agrees to plug and abandon such well and reclaim, restore and clean up the drillsite location and access routes associated therewith in accordance with all applicable rules, regulations and laws and the terms of the applicable Lease. All oral notices provided under this Section 11 shall be followed with written notice as soon as reasonably practicable. All written notices shall be mailed to the addresses for the Parties as reflected on the first page.

11. **Assignment Notice.** An Assignee shall notify Assignor in writing if such Assignee assigns all or a portion of its Leasehold Rights to a third party. Provided, however, that notification shall not be required in the event of an assignment by an Assignee: (a) to an affiliate, subsidiary, or internal partners; (b) in consequence of a merger or amalgamation; or (c) of all or substantially all of its assets to a third party.
12. **Third Party Beneficiaries.** Nothing contained herein is intended or shall be deemed to create or confer any rights upon any third person not a party hereto, whether as a third party beneficiary or otherwise, except as expressly provided herein; nor shall anything contained herein be construed to create any partnership, agency, joint venture or like relationship between Assignees and Assignor.
13. **Joint Use Agreement.** Each of Noble and CNX acknowledge that certain of the Leases are subject to the terms and conditions of the JUA.
14. **Further Assurances.** Assignor and Assignees agree to take such further actions and to execute, acknowledge and deliver all such further documents as are reasonably requested by the other Party for carrying out the purposes of this Assignment.
15. **Binding Effect.** This Assignment shall extend and inure to the benefit of Assignor and Assignees and their respective successors or assigns.

85 10068

16. **Counterparts.** This Assignment may be executed in counterparts, each of which shall be deemed an original instrument, but all such counterparts together shall constitute but one agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

85 10068


IN WITNESS WHEREOF, the Parties have caused this Assignment to be effective as of the date first set forth above.

ASSIGNOR:

WITNESSED BY:

ANTERO RESOURCES CORPORATION

Name: _____

By: Brad K 

Name: _____

Title: Vice President

ASSIGNEE:

WITNESSED BY:

CNX GAS COMPANY, LLC

Name: _____

By: _____

Name: _____

Title: _____

ASSIGNEE:

WITNESSED BY:

NOBLE ENERGY, INC.

Name: _____

By: _____

Name: _____

Title: _____

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

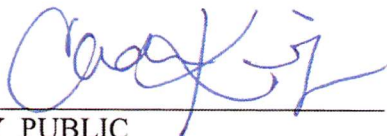
STATE OF Colorado

COUNTY OF Denver

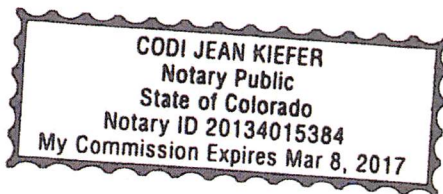
85 10068

BE IT KNOWN, that on this 19th day of September, 2013, before me, the undersigned authority, personally came and appeared Brian A. Kuhn, appearing herein in his capacity as Vice President – Land of **Antero Resources Corporation**, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

My Commission Expires: 3/8/2017



NOTARY PUBLIC



STATE OF _____

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

85 10068

COUNTY OF _____

BE IT KNOWN, that on this _____ day of _____, 2013, before me, the undersigned authority, personally came and appeared _____ appearing herein in his capacity as _____ of **CNX Gas Company LLC**, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said limited liability company with full authority of its _____, and that the said instrument is the free act and deed of the said limited liability company and was executed for the uses, purposes and benefits therein expressed.

My Commission Expires: _____

NOTARY PUBLIC

STATE OF _____

COUNTY OF _____

BE IT KNOWN, that on this _____ day of _____, 2013, before me, the undersigned authority, personally came and appeared _____ appearing herein in his capacity as _____ of **Noble Energy, Inc.**, to me personally known to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation with full authority of its Board of Directors, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

My Commission Expires: _____

NOTARY PUBLIC

Prepared by: Noble Energy, Inc. 333 Technology Drive, Suite 116, Canonsburg, Pennsylvania 15317

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

Exhibit A

Leases

Lessor	Lease Date	BK	PG	Gross Acres	County	District
Arthur D Hall	9/21/2007	245	251	253	Ritchie	Clay
Kenneth L. Hall	9/24/2007	245	254	253	Ritchie	Clay
Gerald S. Hall	10/5/2007	245	394	253	Ritchie	Clay
Dale Hall	10/10/2007	245	385	253	Ritchie	Clay
Haze H. Hall	10/11/2007	245	388	253	Ritchie	Clay
Donna J Krutilla & John N	11/30/2012	263	745	100	Ritchie	Clay
Ivaleen Alyce Forren	11/30/2012	263	735	100	Ritchie	Clay
Donna J Krutilla & John N	11/30/2012	263	743	30	Ritchie	Clay
Ivaleen Alyce Forren	11/30/2012	263	741	30	Ritchie	Clay
William Kenneth Heckert & Mary Jane Heckert, Glenn Williamson & Virginia Mae Williamson	6/5/1984	173	344	104	Ritchie	Clay

End of Exhibit A

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

85 10068



85 10068

Office of Oil & Gas
601 57th street, SE
Charleston, WV 25304-2345

August 9, 2013

Re: Drilling Under Roads

To Whom It May Concern:

Noble Energy, Inc. has the right to drill, stimulate and produce wells that are drilled under the County and State Roads as designated on the plats.

Should you have any questions or desire additional information, please do not hesitate to contact me at dswiger@nobleenergyinc.com or 724-820-3061.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dee Swiger', written over a faint circular stamp.

Dee Swiger
Regulatory Analyst

DS/

Enclosures:

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

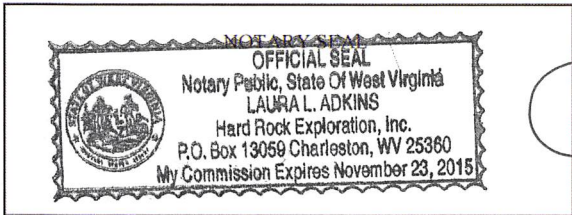
85 10068

Certification of Notice is hereby given:

THEREFORE, I Dee Swiger, 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: Noble Energy, Inc.
By: Dee Swiger
Its: Regulatory Analyst
Telephone: 724-820-3061

Address: 333 Technology Drive, Suite 116
Canonsburg, PA 15317
Facsimile: 724-820-3098
Email: dswiger@nobleenergyinc.com



Subscribed and sworn before me this 22nd day of 2013 August.
Laura L. Adkins Notary Public
My Commission Expires November 23, 2015

Oil and Gas Privacy Notice:

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

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47-0985 10068
OPERATOR WELL NO. PEN2BHS
Well Pad Name: PEN2

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: _____ **Date Permit Application Filed:** _____

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: Terry and Helen Kiessling
Address: 8629 Red Maple Drive
Cincinnati, OH 35244-2714
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass, Et Al
Address: 5115 Lansing Drive
Charlotte, NC 28270
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

WATER PURVEYOR(s)
Name: Scott and Erica Hammond
Address: Rt. 2 Box 89-A
Pennsboro, WV 26415

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

RECEIVED
Office of Oil and Gas

SEP 23 2013

*Please attach additional forms if necessary

WV Department of
Environmental Protection

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: _____ **Date Permit Application Filed:** _____

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.

Notice is hereby provided to:

SURFACE OWNER(s)
Name: Terry and Helen Kiessling
Address: 8629 Red Maple Drive
Cincinnati, OH 35244-2714
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass, et al
Address: 5115 Lansing Drive
Charlotte, NC 28270
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments/Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

WATER PURVEYOR(s)
Name: Larry J. McCullough
Address: Rt. 2 Box 87
Pennsboro, WV 26415

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

RECEIVED
Office of Oil and Gas

SEP 28 2013
WV Department of
Environmental Protection

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: _____ **Date Permit Application Filed:** _____

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.

Notice is hereby provided to:

SURFACE OWNER(s)
Name: Terry and Helen Kiessling
Address: 8629 Red Maple Drive
Cincinnati, OH 35244-2714
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass, et al
Address: 5115 Lansing Drive
Charlotte, NC 28270
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments/Pits)
Name: _____
Address: _____

WATER PURVEYOR(s)
Name: Terry and Helen Kiessling
Address: 8629 Red Maple Drive
Cincinnati, OH 35244-2714

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

*Please attach additional forms if necessary

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: _____ **Date Permit Application Filed:** _____

Notice of:

- | | |
|--|--|
| <input checked="" type="checkbox"/> PERMIT FOR ANY WELL WORK | <input type="checkbox"/> CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT |
|--|--|

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

- | | | |
|---|--|--|
| <input type="checkbox"/> PERSONAL SERVICE | <input type="checkbox"/> REGISTERED MAIL | <input checked="" type="checkbox"/> 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.

Notice is hereby provided to:

SURFACE OWNER(s)
Name: Terry and Helen Kiessling
Address: 8629 Red Maple Drive
Cincinnati, OH 35244-2714
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Frank Grass, et al
Address: 5115 Lansing Drive
Charlotte, NC 28270
Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments/Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: _____
Address: _____

COAL OPERATOR
Name: _____
Address: _____

WATER PURVEYOR(s)
Name: Edward C. & Cheryl Haas
Address: 117 Braxton Road
Weirton, WV 26062

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

RECEIVED
Office of Oil and Gas

SEP 23 2013
WV Department of
Environmental Protection

*Please attach additional forms if necessary

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

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 by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 85 10068
OPERATOR WELL NO. PEN2BHS
Well Pad Name: PEN2

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

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.

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

WW-6A
(5-12)

API NO. 47- 85,10068
OPERATOR WELL NO. PEN2BHS
Well Pad Name: PEN2

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.

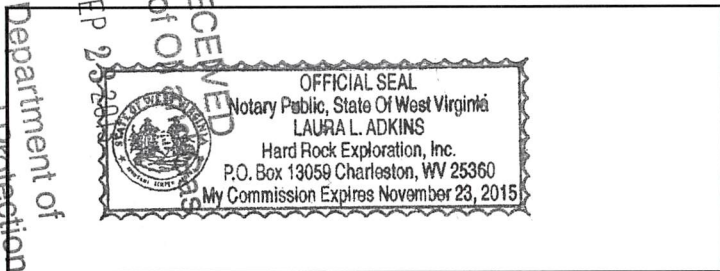
Notice is hereby given by:
Well Operator: Noble Energy, Inc. *[Signature]*
Telephone: 724-820-3061
Email: dswiger@nobleenergyinc.com

Address: 333 Technology Drive, Suite 116
Canonsburg, PA 15317
Facsimile: 724-820-3098

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.

Environmental Protection
Department of



Subscribed and sworn before me this 22nd day of August 2013.
[Signature] Notary Public
My Commission Expires November 23, 2015

85 10068

85 10068

**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: 5/14/2013 **Date of Planned Entry:** 05/21/2013

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: Terry and Helen Kiessling

Address: 8629 Red Maple Drive
Cincinnati, Ohio 35244-2714

Name: _____

Address: _____

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: none

Address: _____

MINERAL OWNER(S)

Name: Same as surface owner

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>West Virginia</u>	Approx. Latitude & Longitude: <u>498913.373</u>
County: <u>Ritchie</u>	Public Road Access: <u>4354128.616</u>
District: <u>Clay</u>	Watershed: <u>North Fork of Hughs</u>
Quadrangle: <u>Pennsboro</u>	Generally used farm name: <u>Kiessling</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 57th 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.

Notice is hereby given by:

Well Operator: Noble Energy, Inc.

Telephone: 724-820-3061

Email: dswiger@nobleenergyinc.com

Address: _____

333 Technology Drive, Suite 116

Facsimile: 724-820-3095

RECEIVED
Office of Oil and Gas

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.

SEP 23 2013
WV Department of
Environmental Protection

85 10068

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

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

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

Date of Notice: 05/14/2013 **Date Permit Application Filed:** _____

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

- HAND DELIVERY**
- CERTIFIED MAIL RETURN RECEIPT REQUESTED**

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Terry and Helen Kiessling
Address: 8629 Red Maple Drive
Cincinnati, Ohio 35244-2714

Name: _____
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>498913.373</u>
County: <u>Ritchie</u>	Northing: <u>4354128.616</u>
District: <u>Clay</u>	Public Road Access: <u>County Rd 6/3</u>
Quadrangle: <u>Pennsboro</u>	Generally used farm name: <u>Kiessling</u>
Watershed: <u>North Fork of Hughs River</u>	

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Noble Energy, Inc.
Address: 333 Technology Drive, Suite 116
Canonsburg, PA 15317
Telephone: 724-820-3061
Email: dswiger@nobleenergyinc.com
Facsimile: 724-820-3095

Authorized Representative: Dee Swiger
Address: 333 Technology Drive, Suite 116
Telephone: 724-820-3061
Email: dswiger@nobleenergyinc.com
Facsimile: 724-820-3095

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.

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

85 10068

Affidavit of Personal Service

State Of Pennsylvania

County Of Washington

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A)___/ WW-3(A)___/ WW-4(A)___/ WW-5(A)___/ WW-6(A) X
- (2) Application on Form WW-2(B)___/ WW-3(B)___/ WW-4(B)___/ WW-5(B)___/ WW-6(B)___
- (3) Plat showing the well location on Form WW-6, and
- (4) Construction and Reclamation Plan on Form WW-9

WW6A34 WW6A4

--all with respect to operator's Well No. PEN2 AHS-MHS located in Clay District, Ritchie County, West Virginia, upon the person or organization named--

Terry and Helen Kiessling

--by delivering the same in Ritchie County, State of West Virginia on the 14 day of May, 2013 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him___/ her___/ or, because he___/ she___/ refused to take it when offered it, by leaving it in his___/ her___/ presence.

Handing it to a member of his or her family above the age of 16 years named _____ who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to _____, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named _____, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

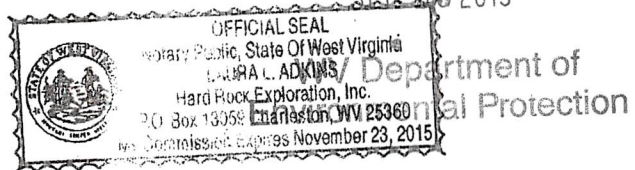
Handing it to the corporation's employee___/ officer___/ director___/ attorney in fact___/ named _____.

Norman Tallman
(Signature of person executing service)

Taken, subscribed and sworn before me this 24th day of July, 2013.
My commission expires November 23, 2015

Laura L. Adkins
Notary Public
Office of Oil and Gas

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



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

WAIVER

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Surface Owner Waiver:

I, _____, hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>498913.373</u>
County:	<u>Ritchie</u>		Northing:	<u>4354128.616</u>
District:	<u>Clay</u>	Public Road Access:		<u>County Rd 6/3</u>
Quadrangle:	<u>Pennsboro</u>	Generally used farm name:		<u>Kiessling</u>
Watershed:	<u>North Fork of Hughs River</u>			

Name: _____
Address: _____

Signature: _____
Date: _____

Oil and Gas Privacy Notice:

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

RECEIVED
Office of Oil and Gas
RECEIVED
SEP 23 2013
Office of Oil and Gas
WV Department of
Environmental Protection
SEP 23 2013
WV Department of
Environmental Protection



85 10068

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

August 5, 2013

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

Subject: DOH Permit for the Pennsboro-2 Well Site, Ritchie County

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #03-2013-0290 for the subject site to Noble Energy, Inc. for access to the State Road for the well site located off of Ritchie County Route 6/3 SLS.

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

Very Truly Yours,

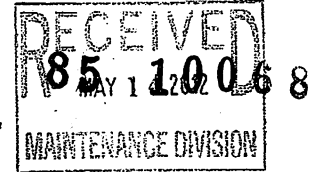
Gary K. Clayton
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator

Cc: James L. McCune
Noble Energy, Inc.
CH, CHH, OM, D-3
File

E.E.O./AFFIRMATIVE ACTION EMPLOYER

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

**OIL AND GAS ROAD
STATEWIDE BONDING AGREEMENT**



THIS AGREEMENT, executed in duplicate, made and entered into this 2 day of May, 2012, by and between the WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, hereinafter called "DEPARTMENT," and Noble Energy, Inc. a Delaware, company, hereinafter called "COMPANY."

WITNESSETH:

WHEREAS, Company has horizontal gas well drilling operations in certain areas of West Virginia; and

WHEREAS, the Department believes that the frequent and repetitive use of certain sections of highways in the State by Company, its contractors, agents, independent contractors or suppliers of drilling materials or drilling equipment, and employees contributes to increased wear and tear to public roads in the state road system in the State, including local roads ("State Owned Roads"); and,

WHEREAS, the Department and Company have entered into this Agreement to satisfy the requirements of the Department's policy entitled "Oil & Gas Road Policy" dated January 3, 2012, as issued by Paul A. Mattox, Jr., Secretary of Transportation / Commissioner of Highways, and any subsequent related policies, hereinafter called "Policy", a copy of which is made a part of this Bonding Agreement and is identified as Attachment 1.

NOW, THEREFORE, for and in consideration of the mutual agreements hereinafter set forth, the parties agree as follows:

I. For purposes of this Bonding Agreement, "Project Transportation Usage" of the Company shall be understood to mean use of one or more State Owned Roads for the delivery and removal of drilling materials and drilling equipment at the site or location of one or more of Company's horizontal gas well pad locations. To the extent reasonably practical, prior to commencing use of a State Owned Road for Project Transportation Usage after January 1, 2011, the Company shall submit to the Department a section or sections of current official WVDOH County Highway maps identifying the exact location of the proposed project and the State Owned Roads that the Company will utilize for the Project Transportation Usage.

II. Company and Department shall within 14 days of the Company's submittal, agree to a list of these sections of State Owned Roads, hereinafter called "Project Roads List", to be utilized for each of Company's projects, identified by route number and milepost; at a time to be mutually agreed to by the parties prior to initial commencement of Project Transportation Usage of a particular State Owned Road on a Project Roads List, the Company and Department will jointly review the condition of the roads and bridges on the Project Roads List. The Department will document the road type and surface condition and general right-of-way width of each section of road on the Project Road List. Either party may supplement this documentation with photographs, video or other evidence of the present condition of the road surface, shoulders, ditches, culverts, bridges or other structures or appurtenances of roads on the Project Road List, as well as approaches to the roads, utility facilities located within or along the right-of-way, or any other condition, including third-party activities, that may affect the duties and responsibilities of the parties under this Agreement. A copy of any such documentation must be made and provided to the other party within ten business days after the joint review of the roads on the Project Roads List.

III. Department shall issue a Project Agreement or Project Permit, as appropriate, to Company to use State Owned Roads and may include any minor or major improvements required of Company prior to, during or after Project with the assignment of responsibilities of both parties prior to, during and after the operator has completed well fracturing.

RECEIVED
Office of Oil and Gas

SEP 23 2013
WV Department of
Environmental Protection

IV. In the Project Agreement/Project Permit, the Department shall not require the use of State Owned Roads other than the roads proposed by Company unless the Department has safety concerns as to the Company's proposed roads. A failure to agree on roads that may otherwise be lawfully used for a particular Project Transportation Usage shall result in the designation of the State Owned Roads proposed by Company, with milepost determinations as designated by Department. This Agreement shall only cover portions of State Owned Roads designated on the Project Roads List.

V. For the duration of Company's Project Transportation Usage of the Stated Owned Roads on the Project Roads List, whether by the Company, its contractors (while working on behalf of Company), agents, independent contractors or suppliers of drilling materials or drilling equipment, or employees, the Company agrees to pay for all reasonable maintenance and repair costs incurred by the Department to repair areas of the State Owned Roads included in the Project Roads List that were directly damaged by Company's Project Transportation Usage, as determined to be reasonably necessary and appropriate by the Department. The Department shall keep a record of all labor performed by Department employees and contractors for such maintenance and repairs and shall send an invoice for the same to Company.

VI. Company shall be responsible for the cost of all maintenance and repairs reasonably necessary to put the existing roadways, bridges and appurtenances on the Project Roads List utilized for the Project Transportation Usage in the condition that existed immediately prior to the Project Transportation Usage. Company shall not be required to pay for maintenance or repairs to put any areas of such roadways, bridges and appurtenances on the Project Roads List in a condition better than the condition that existed immediately prior to the Project Transportation Usage. Company shall also not be required to pay for maintenance or repairs to any areas of these roadways, bridges or appurtenances on the Project Roads List that are not actually utilized for the Project Transportation Usage or for damage not caused by Project Transportation Usage.

VII. Company shall notify the Department in writing of Company's final completion of Project Transportation Usage for particular roadways, bridges and appurtenances on the Project Roads List. Within fourteen days after its receipt of written notification of the completion of the Project Transportation Usage for all roads on a Project Roads List, the Department will review the condition of the roadways, bridges and appurtenances on the Project Roads List actually utilized for the Project Transportation Usage and advise Company of any final repairs reasonably necessary to leave these roads, bridges and appurtenances in a condition reasonably deemed by Department to be equal to their condition prior to commencement of Project Transportation Usage; and, upon completion of all such final repairs by or on behalf of Company and acceptance by Department, the Company shall be released from all further liability for maintenance or repairs to roads, bridges, or appurtenances on said Project Roads List. Any maintenance or repair work under the Project Agreement/Project Permit for roads, bridges or appurtenances on the Project Roads List may be performed by a contractor directly chosen by the Company as approved by the Department, the Department's workforce, or a private contractor hired by the Department through the public bid process in accordance with state law, all of which work shall be subject to the standards and specifications of the Department.

VIII. In order to ensure performance of Company's performance and payment obligations under this Bonding Agreement, the Company shall post a corporate surety bond, hereinafter called "Master Bond", with the Department named as the beneficiary, which form of bond shall be subject to the consent of the Department, not to be unreasonably withheld. The amount and form of the bond shall be in accordance with the Policy as set forth above. However, the amount of the Master Bond does not limit the amount of claims that may be made by the Department against the Company under this Bonding Agreement. The Company shall provide the Master Bond to the Department within one (1) month after the execution of this Bonding Agreement. The Master Bond shall secure the good faith performance of all payment obligations of Company under the terms of this Bonding Agreement respecting the roads, bridges and appurtenances on the Project Roads List for each Project Transportation Usage undertaken by the Company, and shall remain in effect until termination of this Agreement. Company shall not be obligated to provide any other bonds, sureties, or other guarantees of performance to the Department for Company's use of State Owned Roads, except as required in this Agreement.

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

IX. Company shall maintain Commercial General Liability Insurance in the amount of two million dollars, with a minimum coverage of one million dollars per occurrence, for personal injury or death to persons, or for property damage, resulting from Company's Project Transportation Usage and shall present evidence of such insurance to Department upon request.

X. Company's usage of State Owned Roads under the Project Agreement/Project Permit shall comply with all applicable Federal, State and local laws and regulations including, but not limited to, to the extent applicable, the National Environmental Policy Act, Section 404 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Rare, Threatened and Endangered Species Act, Section 401 Water Quality Certification, and hazardous waste requirements. Further, upon reasonable written request of Department, Company shall furnish Department with acceptable documentation of such compliance which is in the possession of the Company.

XI. Company shall defend, indemnify and hold Department harmless from and against any and all losses, damage, and liability, and from all claims for damages on account of or by reason of bodily injury, including death, which may be sustained, or claimed to be sustained, by any person or persons, including employees of Department, and from and against any and all claims, losses or liabilities for damages to property, arising out of the negligent or willful acts or omissions of Company, its agents, independent contractors and suppliers of drilling materials or drilling equipment, employees and contractors, in the performance of all Project Transportation Usage activities undertaken pursuant to this Agreement (collectively, "claims"). The Company shall not be responsible to indemnify, defend or hold harmless Department for any claims caused by the negligent or willful acts or omissions of the Department or its agents, employees and contractors or third parties not performing work at the direction of Company or delivering drilling equipment or drilling materials, including water, for use by or for company.

XII. If a provision of this Agreement is or becomes illegal, invalid or unenforceable in any jurisdiction, that shall not affect the validity or enforceability of any other provision of this Agreement; or the validity or enforceability in other jurisdictions of that or any other provision of this Agreement.

XIII. Department shall give Company a minimum of thirty days written notice of default under the terms of this Bonding Agreement and the opportunity to cure this default during such thirty-day period. If a default is not cured to the satisfaction of Department, or provision acceptable to Department is not made for a cure, Department may then elect to terminate this Bonding Agreement in whole or in part, and may in addition exercise its rights under the Master Bond or seek any other lawful relief available. Company may terminate this Bonding Agreement upon thirty days written notice to Department for any reason. In the event Company terminates this Agreement for any reason, it shall be liable for the repair and maintenance costs set forth above for prior Project Transportation Usage.

XIV. Nothing herein shall be construed to mean that Company shall have any jurisdiction or control over any public roads in the state road system.

XV. Company, its contractors, agents, employees and suppliers shall at all times be subject to applicable provisions of state and federal law, including without limitation laws requiring operation of vehicles in accordance with legal size and weight restrictions and posted weight limits. Oversize/overweight permits for vehicle or loads not otherwise conforming with law must be obtained in accordance with law; Department agrees to work in good faith with Company to review and grant (where authorized by law) such permits in a timely manner upon request by Company.

XVI. This Bonding Agreement shall be construed and enforced in accordance with the laws of the State of West Virginia, as they may be amended.

XVII. This Bonding Agreement shall be binding upon the successors and assigns of each party hereto.

IN WITNESS WHEREOF, the parties hereto have caused this Bonding Agreement to be signed and sealed this _____ day of _____, 2013.

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

85 10068

be executed by their duly authorized officers effective as of the date first above written.

WEST VIRGINIA DEPARTMENT OF
TRANSPORTATION,
DIVISION OF HIGHWAYS

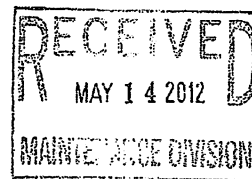
Devin Bama
Witness

By: *Robert A. Murphy*
State Highway Engineer

Mark...
Witness

By: *Robert Ovitz*
Robert Ovitz
Title: Senior Operations Manager

(To be executed in duplicate)



APPROVED AS TO FORM THIS
29th DAY OF May 20 12

[Signature]
ATTORNEY LEGAL DIVISION
WEST VIRGINIA DIVISION
OF HIGHWAYS

RECEIVED
Office of Oil and Gas

SEP 23 2013

WV Department of
Environmental Protection

AWS Cement Additives- Noble Energy

	Product Name	Product Use	Chemical Name	CAS Number
Surface & Intermediate	Calcium Chloride Flake	Cement Accelerator	Calcium Chloride Potassium Chloride Water Sodium Chloride	10043-52-4 7447-40-7 7732-18-5 7647-14-5
	C-41L	De-foamer	Methyl Alcohol Tributyl Phosphate	67-56-1 126-73-8
	Pol-E-Flake	LCM	Polyester	Non-Hazardous

Spacer	Bentonite Gel	Viscosifier	Crystalline Silica, Quartz	14808-60-7
	Baro-Seal	LCM	Mixture	Non-Hazardous
	Pol-E-Flake	LCM	Polyester	Non-Hazardous

RECEIVED
 Office of Oil and Gas
 SEP 23 2013
 WV Department of
 Environmental Protection

85 10068

Product Name

Product Use

Chemical Name

CAS Number

Intermediate	D046	Antifoam	Fuller's earth (attapulгите)	8031-18-3	
			Polypropylene glycol	25322-69-4	
	D130	Polyester Flake	polyethylene terephthalate	25038-59-9	
	D013	Retarder	Sodium lignosulfonate	8061-51-6	
			Calcium lignosulfonate	8061-52-7	
	D202	Solid Dispersant	sulphonated synthetic polymer	proprietary	
			formaldehyde (impurity)	50-00-0	
	<u>SPACER</u>				
	D020	bentonite extender	bentonite	1302-78-9	
D130	polyester flake - lcm	polyethylene terephthalate	25038-59-9		

Production Environmental Department of Protection B020	D020	Bentonide Extender	Bentonite	1302-78-9	
	D065	Dispersant	Sodium Polynaphthalene sulfonate	9008-63-3	
			Sodium Sulfate	7757-82-6	
	D046	Antifoam	Fuller's earth (attapulгите)	8031-18-3	
			Polypropylene glycol	25322-69-4	
	D013	Retarder	Sodium lignosulfonate	8061-51-6	
			Calcium lignosulfonate	8061-52-7	
	D167	Fluid Loss	Aliphatic amide polymer	proprietary	
	<u>SPACER</u>				
	D082	MUSPUSH* II Spacer	ulfonated organic polymer	proprietary	
			glucoside polymer	proprietary	
	D031	barite	barium sulfite	7727-43-7	
	D020	surfactant	fatty acid amine	proprietary	
ethoxylated alcohol			proprietary		
glycerol			56-81-5		
		2.2'-Iminodiethanol	111-42-2		

RECEIVED
 Office of Oil and Gas
 SEP 23 2013
 Department of
 Protection
 B020

85 10068

Kick Off Plug	Product Name	Product's Purpose	Chemical Ingredients	CAS Number
	DCP-AC2	Accelerator	Calcium Oxide	1305-78-8
	DCP-FR2	Friction Reducer	No hazardous components.	N/A
	DCP-RT1	Retarder	No hazardous components.	N/A
	SPACER			
	Dynaflush 2W	Viscosity	No hazardous components.	N/A
	DCP-GL1	Suspension Agent	Welan Gum	96949-22-3
	DAP-401	Mutual Solvent	Ethoxylated alcohols Alkoxyated terpene Polyethylene glycol	Trade Secret Trade Secret 25322-68-3

85 10068

RECEIVED
Office of Oil and Gas
SEP 23 2013
WV Department of
Environmental Protection

	Product Name	Product's Purpose	Chemical Ingredients	CAS Number
Production Cement	DCP-EX1	Extender	Sodium metasilicate, anhydrous	6834-92-0
	DCP-EX2	Extender	Silicon dioxide Iron Oxide Silicon Carbide Aluminum Oxide Calcium Oxide Magnesium Oxide Silicon dioxide	69012-64-2 1309-37-1 409-21-2 1344-28-1 1305-78-8 1309-48-4 14808-60-7
	DCP-FL1	Fluid Loss Agent	No hazardous components.	N/A
	DCP-FR2	Friction Reducer	No hazardous components.	N/A
	DCP-RT3	Retarder	No hazardous components.	N/A
	SPACER			
	Dynaflush 2W	Viscosity	No hazardous components.	N/A
	DCP-GL1	Suspension Agent	Welan Gum	96949-22-3
	DAP-401	Mutual Solvent	Ethoxylated alcohols Alkoxylated terpene Polyethylene glycol	Trade Secret Trade Secret 25322-68-3
	Barite	Weighting Agent	Inorganic barium salt	7727-43-7

WV Department of
Environmental Protection

RECEIVED
Office of Oil and Gas
SEP 23 2013

85 10068

Surface Cement	Product Name	Purpose	Composition	CAS Number
	Calcium Chloride	Accelerator	Calcium Chloride, 96-98%	010043-52-4
	Cello Flake	Lost Circulation Material	No hazardous ingredient	N/A
	Premium NE-1	Cement	Gypsum, 5-10%	13397-24-5
			Calcium derivative (calcium carbonate), 1-5%	1317-65-3
			Calcium oxide, 1-5%	1305-78-8
			Magnesium oxide, 1-5%	1309-48-4
			Crystalline silica: Quartz (SiO ₂), 0-0.1%	14808-60-7
	Bentonite	Extender	Bentonite, 90-100%	1302-78-9
			Crystalline silica: Quartz (SiO ₂), 5-10%	14808-60-7
	FP-12L	Anti-foamer	Octamethylcyclotetrasiloxane, 0.1-1.0%	556-67-2
	EC-1	Expansive Additive	Calcium magnesium oxide, 60-100%	37247-91-9
	Granular Sugar	Retarder	Sucrose, 60-100%	57-50-1
	Surebond III-L	Extender	Sodium silicate, 38.3%	1344-09-8

Intermediate Cement	Product Name	Purpose	Composition	CAS Number
	Calcium Chloride	Accelerator	Calcium Chloride, 96-98%	010043-52-4
	Cello Flake	Lost Circulation Material	No hazardous ingredient	N/A
	Premium NE-1	Cement	Gypsum, 5-10%	13397-24-5
			Calcium derivative (calcium carbonate), 1-5%	1317-65-3
			Calcium oxide, 1-5%	1305-78-8
			Magnesium oxide, 1-5%	1309-48-4
			Crystalline silica: Quartz (SiO ₂), 0-0.1%	14808-60-7
	Bentonite	Extender	Bentonite, 90-100%	1302-78-9
			Crystalline silica: Quartz (SiO ₂), 5-10%	14808-60-7
	FP-12L	Anti-foamer	Octamethylcyclotetrasiloxane, 0.1-1.0%	556-67-2
	EC-1	Expansive Additive	Calcium magnesium oxide, 60-100%	37247-91-9
	Granular Sugar	Retarder	Sucrose, 60-100%	57-50-1
	Surebond III-L	Extender	Sodium silicate, 38.3%	1344-09-8

RECEIVED
 Office of Oil and Gas
 SEP 23 2013
 WV Department of
 Environmental Protection

= 85 10068

Plug Cement	Product Name	Purpose	Composition	CAS Number
	Calcium Chloride	Accelerator	Calcium Chloride, 96-98%	010043-52-4
	Cello Flake	Lost Circulation Material	No hazardous ingredient	N/A
	Premium NE-1	Cement	Gypsum, 5-10%	13397-24-5
			Calcium derivative (calcium carbonate), 1-5%	1317-65-3
			Calcium oxide, 1-5%	1305-78-8
			Magnesium oxide, 1-5%	1309-48-4
			Crystalline silica: Quartz (SiO ₂), 0-0.1%	14808-60-7
	Bentonite	Extender	Bentonite, 90-100%	1302-78-9
			Crystalline silica: Quartz (SiO ₂), 5-10%	14808-60-7
	FP-12L	Anti-foamer	Octamethylcyclotetrasiloxane, 0.1-1.0%	556-67-2
	EC-1	Expansive Additive	Calcium magnesium oxide, 60-100%	37247-91-9
	Granular Sugar	Retarder	Sucrose, 60-100%	57-50-1
	Surebond III-L	Extender	Sodium silicate, 38.3%	1344-09-8

Production Cement	Product Name	Purpose	Composition	CAS Number
	US-40	Mutual Solvent	2-Butoxyethanol, 60-100%	111-76-2
	Poz (Fly Ash)	Extender	Silica, 60-100%	7631-86-9
			Aluminum oxide, 10-30%	1344-28-1
			Crystalline silica: Quartz (SiO ₂), 1-5%	14808-60-7
			Synthetic red iron oxide, 1-5%	1309-37-1
			Calcium oxide, 1-5%	1305-78-8
			Carbon, 1-5%	7440-44-0
	Barite	Weighting Material	Barium sulfate, 60-100%	7727-43-7
			Crystalline silica, quartz, 1-5%	14808-60-7
	Ultra Flush HV	Weighted Spacer	Petroleum distillates, 60-100%	64742-47-8
			Barium sulfate, 30-60%	7727-43-7
			Crystalline silica, quartz, 1-5%	14808-60-7
	Premium NE-1	Cement	Gypsum, 5-10%	13397-24-5
			Calcium derivative (calcium carbonate), 1-5%	1317-65-3
			Calcium oxide, 1-5%	1305-78-8
			Magnesium oxide, 1-5%	1309-48-4
			Crystalline silica: Quartz (SiO ₂), 0-0.1%	14808-60-7
	Techni-Hib 606	Corrosion Inhibitor/Oxygen Scavenger	Alkylpyridinium quaternary, 10-30%	14808-60-7
			Methanol, 10-30%	67-56-1
		Ammonium bisulfite, 5-10%	10192-30-0	
		Isopropanol, 1-5%	67-73-0	

RECEIVED
 Office of Oil and Gas
 SEP 25 2013
 WV Department of
 Environmental Protection

		Quaternary ammonium compound, 1-5%	Trade secret
		Quaternary ammonium compound, 1-5%	Trade secret
		Quaternary ammonium compound, 1-5%	Trade secret
Alpha 1427	Biocide	Glutaraldehyde, 10-30%	111-30-8
		Didecy dimethyl ammonium chloride, 5-10%	7173-51-5
		Quaternary ammonium compound, 1-5%	68424-85-1
		Ethanol, 1-5%	64-17-5
FP-12L	Anti-foamer	Octamethylcyclotetrasiloxane, 0.1-1.0%	556-67-2
CD-32	Dispersant	Poly(oxy-1,2-ethanediyl), a-sulfo-w-(dodecyloxy)-, sodium salt, 10-30%	9004-82-4
FL-62	Fluid Loss	Trade Secret, 45%	Trade Secret
SS-2	Surfactant	No hazardous ingredient	N/A
ASA-301	Anti-Settling Agent	tridymite, 60-100%	15468-32-3
		Welan gum, 30-60%	72121-88-1
SealBond Spacer	Weighted Spacer	Crystalline silica: Quartz (SiO ₂), 0.1-1.0%	14808-60-7

RECEIVED
 Office of Oil and Gas
 SEP 23 2013
 WV Department of
 Environmental Protection

DRAWING CONSTRUCTION PLAN & EROSION

PENNSBORO

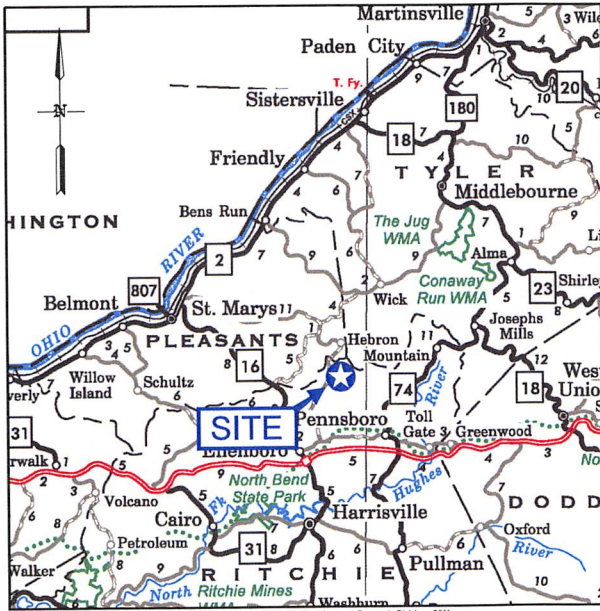
CLAY DISTRICT, RITCHIE C

API#8510055
API#8510066
API#8510067
API#8510068
API#8510069
API#8510070
API#8510071
API#8510072
API#8510073
API#8510074
API#8510075
API#8510076

JULY 2

LIST OF SH

SHEET NO.	DESCRIP
1	COVER SHEET
2	TOTAL PROJECT
2A	DRAINAGE AND
3	ACCESS ROAD
3A	STREAM CROSS
4	ACCESS ROAD
5	WELL PAD GRA
5A	WELL PAD REST
6	WELL PAD DETA
7	E&S DETAILS (S
8	E&S DETAILS (S
9	E&S DETAILS (S



VICINITY MAP

SCALE: 1" = 5 Miles

DISTURBANCE SUMMARY

LOD	11.2 ACRES
WELL PAD	2.7 ACRES
ACCESS ROAD	1.3 ACRES

DRIVING DIRECTIONS

FROM THE INTERSECTION OF I-79 AND US-50, TAKE US-50 W APPROXIMATELY 1.5 MILES AND TRAVEL ABOUT 0.75 MILES. TURN RIGHT TO ST. TRAVEL ABOUT 3.5 MILES. TURN RIGHT ONTO CO RD 63 / BRANCH BONDS CRI

WELL SITE SUMMARY

SITE LOCATION	DECIMAL DEGREES				EASTING UTM17N NAD27	NORTHING UTM17N NAD27
	LONGITUDE NAD27	LATITUDE NAD27	LONGITUDE NAD83	LATITUDE NAD83		
PAD CENTROID	-81.0127291	39.3365377	-81.0125611	39.3366160	498902.9706	4353915.0107
PAD ENTRANCE	-81.0130189	39.3360113	-81.0128509	39.3360896	498877.9915	4353856.5954
ROAD ENTRANCE	-81.0089599	39.3313106	-81.0085318	39.3313891	499250.1699	4353334.8916
WELL 1A	-81.0126040	39.3366140	-81.0124360	39.3366923	498913.7582	4353923.4756
WELL 1B	-81.0125787	39.3366628	-81.0124107	39.3366410	498915.9378	4353917.7851
WELL 2A	-81.0126700	39.3366944	-81.0125020	39.3367277	498908.0674	4353921.2996
WELL 2B	-81.0126447	39.3365431	-81.0124767	39.3366214	498910.2469	4353915.6056
WELL 3A	-81.0127361	39.3365747	-81.0125981	39.3366530	498902.3786	4353919.1177
WELL 3B	-81.0127108	39.3365235	-81.0125428	39.3366017	498904.5561	4353913.4262
WELL 4A	-81.0128021	39.3365551	-81.0126341	39.3366334	498896.6858	4353916.9373
WELL 4B	-81.0127768	39.3365038	-81.0126088	39.3365821	498898.8653	4353914.2648
WELL 5A	-81.0128681	39.3365354	-81.0127001	39.3366137	498890.9950	4353914.758
WELL 5B	-81.0128428	39.3364842	-81.0126748	39.3365624	498893.1745	4353909.067
WELL 6A	-81.0125380	39.3366337	-81.0123700	39.3367120	498919.4490	4353925.655
WELL 6B	-81.0125127	39.3366824	-81.0123447	39.3366607	498921.6286	4353919.904

PREPARED FOR:



NOBLE ENERGY, INC.
333 Technology Drive, Suite 116
Canonsburg, Pennsylvania 15317
Tel: (724) 820-3000

Electronic Version of Plans Can Be View

WEST VIRGINIA 811
CALL BEFORE YOU DIG! Dial 811 or 800.245.4848
www.WV811.com

AT LEAST 48 HOURS, BUT NOT MORE THAN 10 WORKING DAYS (EXCLUDING WEEKENDS AND HOLIDAYS), PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES. ALL CONTRACTORS INVOLVED IN THESE ACTIVITIES SHALL CONTACT MISS UTILITY OF WEST VIRGINIA AT 811 OR 1-800-245-4848.

DESIGNS FOR CONSTRUCTION AND SEDIMENT CONTROL PLAN

2 WELL PAD

CLAY DISTRICT, WEST VIRGINIA

**APPROVED
WVDEP OOG**
SAY 10/8/2013

ARM Group Inc.
 Earth Resource Engineers
 and Consultants
 www.armgroup.net



013

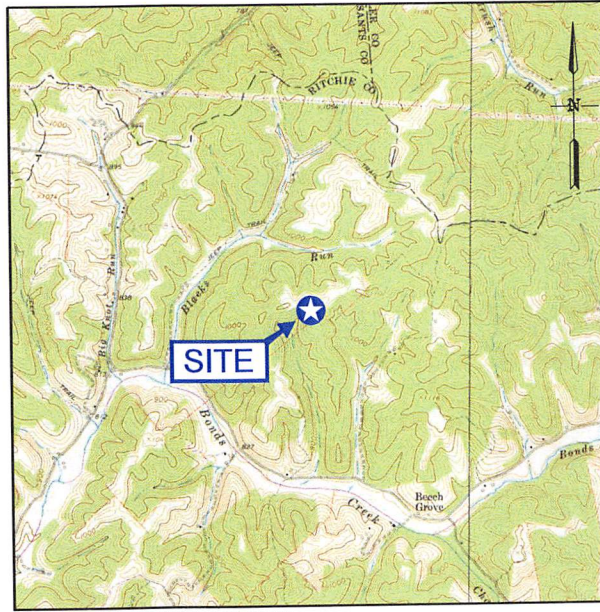
EETS

ON

- AREA PLAN
- ILS PLAN
- ADING PLAN
- 3 PLAN
- ADING PLAN
- G PLAN
- RATION PLAN
- S
- ET 1 OF 3)
- ET 2 OF 3)
- ET 3 OF 3)

0.4 MILES. TURN RIGHT ON WV-74 N / PULLMAN DR AND TRAVEL ABOUT 0.4 MILES. TURN LEFT ONTO WV-74 N / E
 ON WV-74 N AND TRAVEL APPROXIMATELY 3.5 MILES. TURN LEFT ONTO CO RD 6 / BONDS CREEK RD AND
 K RD AND TRAVEL APPROXIMATELY 0.4 MILES. THE PROJECT SITE WILL BE ON THE LEFT.

NORTHING / EASTING					
EASTING UTM17N NAD83	NORTHING UTM17N NAD83	EASTING WV NORTH NAD27	NORTHING WV NORTH NAD27	EASTING WV NORTH NAD83	NORTHING WV NORTH NAD83
498917.4877	4354132.3806	1572145.2712	308286.2173	1540704.3207	308319.8666
498892.4998	4354073.9646	1572000.0707	308095.8945	1540619.1212	308129.5417
499264.6751	4353552.2659	1573252.7989	306363.5094	1541811.8395	306397.1737
498928.2661	4354140.8459	1572181.1053	308313.4052	1540740.1545	308347.0552
498930.4457	4354135.1552	1572187.9456	308294.6113	1540746.9949	308328.2613
498922.5754	4354138.6654	1572162.3113	308306.5651	1540721.3607	308340.2148
498924.7549	4354132.9756	1572169.1517	308287.7712	1540728.2011	308321.4209
498916.8846	4354136.4866	1572143.5173	308299.7251	1540702.5968	308333.3744
498919.0642	4354130.7961	1572150.3577	308280.9312	1540709.4072	308314.5805
498911.1939	4354124.3073	1572124.7232	308292.8651	1540683.7730	308326.5340
498913.3734	4354128.6166	1572131.5637	308274.0911	1540690.6134	308307.7401
498905.5031	4354132.1278	1572105.9292	308286.0450	1540684.9791	308310.6936
498907.6826	4354126.4370	1572112.7697	308267.2511	1540671.8195	308300.8997
498933.9569	4354143.0255	1572199.8094	308320.2452	1540758.9494	308353.8956
498936.1364	4354137.3347	1572206.7398	308301.4513	1540765.7888	308335.1017



LOCATION MAP
SCALE: 1" = 2000'

PREPARED BY:



ARM Group Inc.
 Earth Resource Engineers
 and Consultants
 www.armgroup.net

1000 Town Center Way, Suite 130 • Canonsburg, PA 15317
 Ph: (724) 743-5793 Fax: (724) 743-5792

HEADQUARTERS:

1129 West Governor Road • Hershey, PA 17033-0797
 Ph: (717) 533-8600 Fax: (717) 533-8605

THIS DRAWING SET WAS ORIGINALLY PRODUCED IN COLOR. NON-COLOR REPRODUCTIONS
 DO NOT SUFFICIENTLY DIFFERENTIATE AMONG FEATURES DEPICTED IN THIS DRAWING SET.

This drawing, its contents, and each component of this drawing are the property of and proprietary to ARM Group Inc. and shall not
 be reproduced or used in any manner except for the purpose identified on the Title Block, and only by or on behalf of this client for
 the identified project unless otherwise authorized by the express, written consent of ARM Group Inc.

Sheet	1
Project Title	CONSTRUCTION PLAN & EROSION AND SEDIMENT CONTROL PLAN
Client	PENNSBORO 2 WELL PAD NOBLE ENERGY, INC.
Location	CLAY DISTRICT RITCHIE COUNTY, WV
Revision	WV DEP REVIEW COMMENTS
Date	09/30/13
By	
AS NOTED	DATE: 07/15/2013
DLL	C/S
STH	STH
Project No.	C13102-2

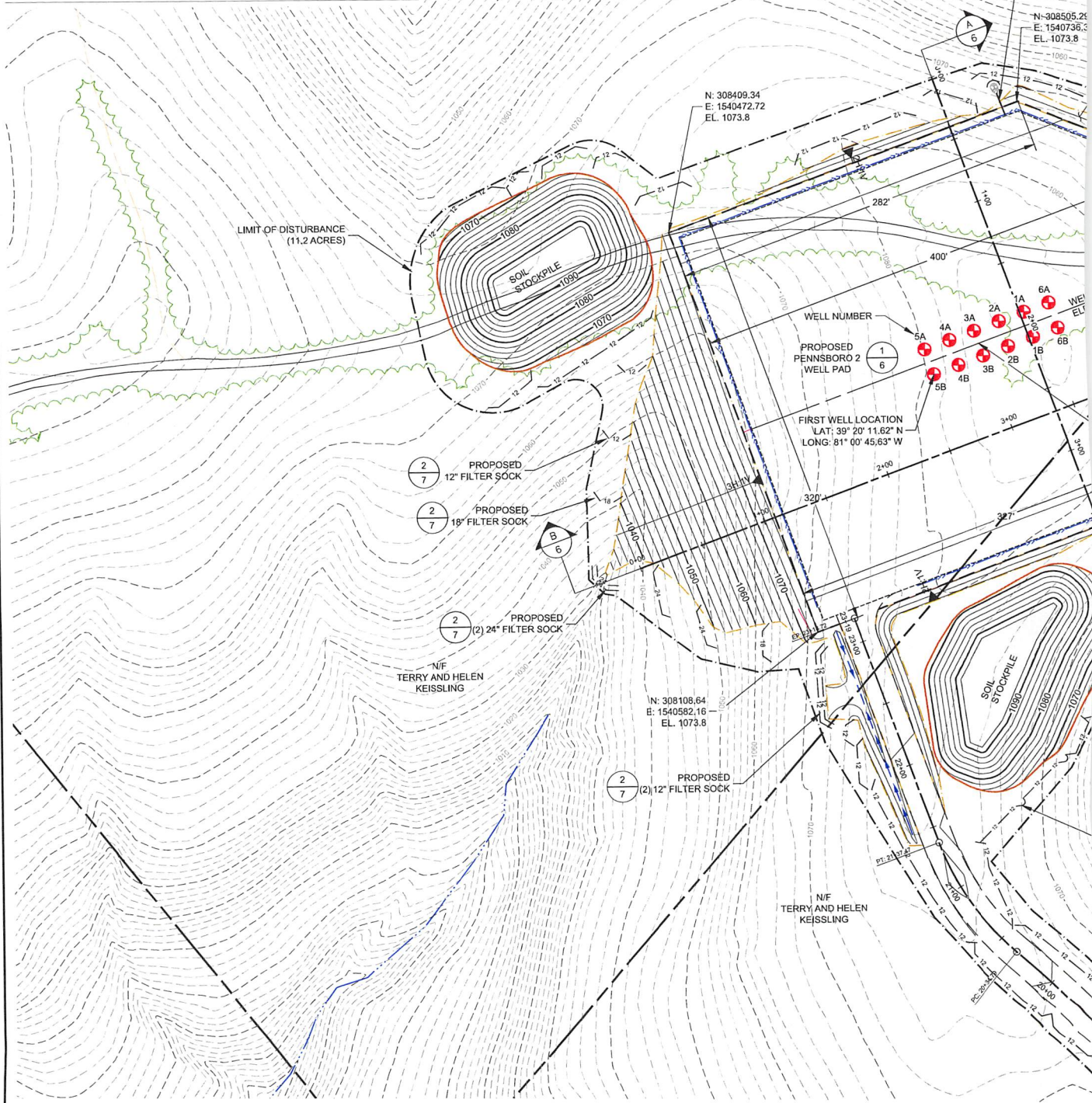
data: Q:\OIL GAS\SAY FILES\REVIEWS

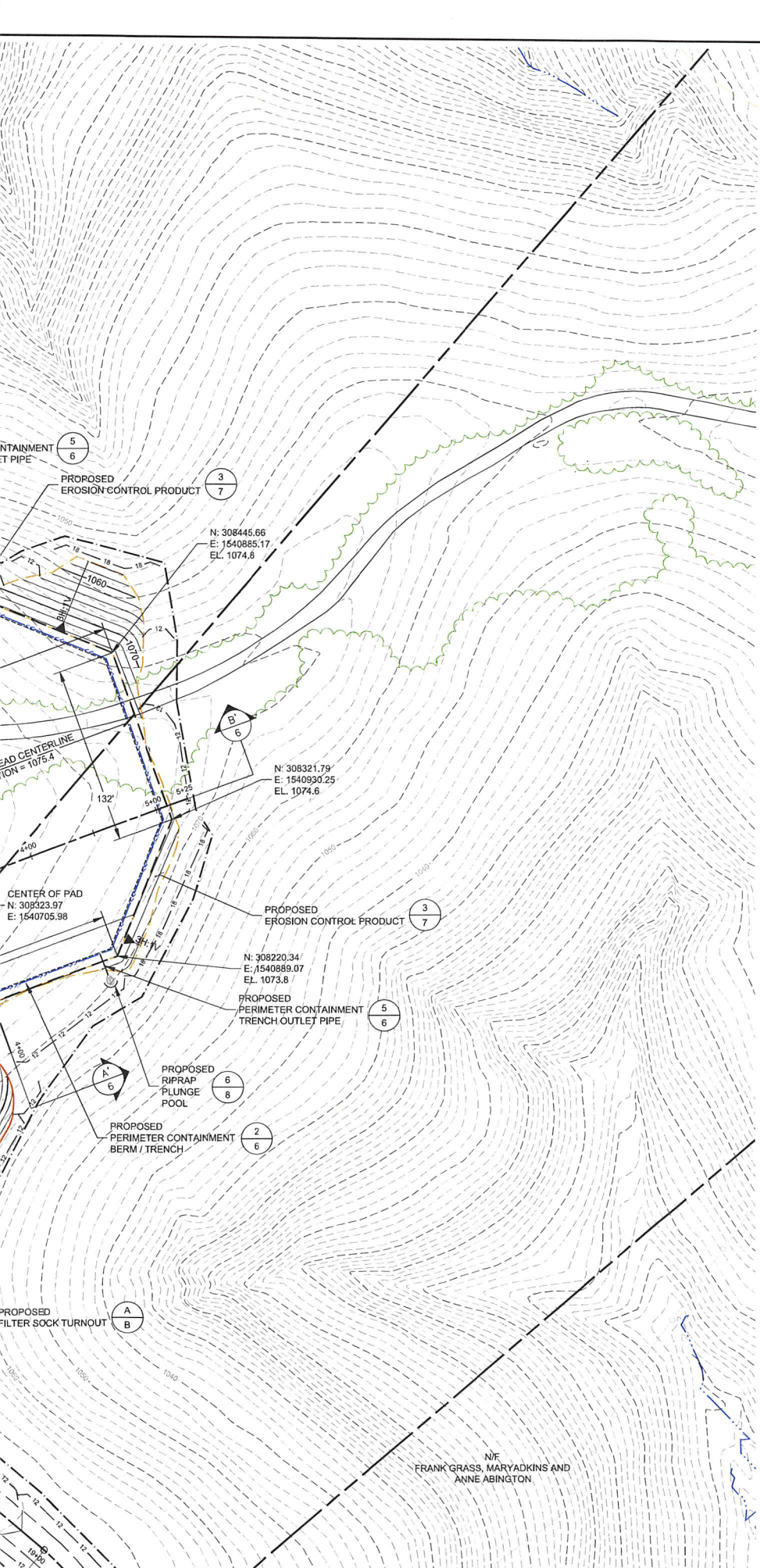


Z:\Projects\20131013\Pennsboro 2 Well Pad_Design\Pennsboro 2 Well Pad_Cover Sheet.dwg

VOLUME REPORT ¹	
WELL PAD	
TOPSOIL - STOCKPILE (CY) ²	2,803
SUBSOIL CUT (CY) ³	16,953
ROCK CUT (CY)	539
TOTAL AVAILABLE STRUCTURAL FILL (CY) ⁴	15,258
REQUIRED STRUCTURAL FILL (CY) ⁵	12,485
NET AVAILABLE FILL (CY) ⁶	2,773
ACCESS ROADS & LOADING AREA	
TOPSOIL - STOCKPILE (CY) ²	3,109
SUBSOIL CUT (CY) ³	11,415
ROCK CUT (CY)	2,442
TOTAL AVAILABLE STRUCTURAL FILL (CY) ⁴	10,274
REQUIRED STRUCTURAL FILL (CY) ⁵	10,542
NET AVAILABLE FILL (CY) ⁶	(268)
TOTAL TOPSOIL - STOCKPILE (CY)	5,912
TOTAL ROCK REMOVAL (CY)	2,981
TOTAL EXCESS MATERIAL (CY)	2,505

- VOLUMES ARE BASED ON APPROXIMATE EXISTING GROUND SURFACE. EXISTING GROUND SURFACES ARE BASED ON LIDAR AND SHALL BE FIELD VERIFIED TO CONFIRM EXISTING CONDITIONS.
- TOP SOIL VOLUME IS BASED ON IN-PLACE CUBIC YARDS, NO SWELL FACTOR APPLIED.
- SUBSOIL VOLUME IS BASED ON IN-PLACE CUBIC YARDS, NO SWELL FACTOR APPLIED.
- TOTAL AVAILABLE STRUCTURAL FILL AFTER APPLYING A 10 PERCENT SHRINKAGE FACTOR TO SUBSOIL CUT TO ACCOUNT FOR COMPACTED DENSITY AND SUBTRACTING ROCK CUT VOLUME.
- REQUIRED STRUCTURAL FILL VOLUME BASED ON IN-PLACE (i.e. COMPACTED) CUBIC YARDS.
- NET AVAILABLE FILL AFTER SUBTRACTING REQUIRED STRUCTURAL FILL FROM TOTAL AVAILABLE STRUCTURAL FILL.





APPROVED
WVDEP OOG
 Date 10/8/2013

- NOTES:**
1. THE BASE MAP HAS BEEN CREATED USING DATA OBTAINED FROM BLUE MOUNTAIN DATED MARCH 2013.
 2. PROPERTY LINES AND OWNER INFORMATION OBTAINED FROM DATA SUPPLIED BY JOBES HENDERSON & ASSOCIATES DATED MARCH 2013.
 3. ALL TEST HOLE LOCATIONS AND ELEVATIONS ARE BASED ON FIELD SURVEY.
 4. THIS PLAN IS IN THE WEST VIRGINIA STATE PLANE NORTH, NORTH AMERICAN DATUM 1983 (NAD 83) COORDINATE SYSTEM.

1" = 50'

Date: 07/15/2013
Project No: C13102-2

Scale: 0 50 100 150
SCALE IN FEET

Symbol	Description
--- 1550 ---	EXISTING CONTOURS
---	EXISTING PROPERTY LINE
X	EXISTING FENCE
-X-	EXISTING GAS LINE
---	EXISTING TREELINE
--- 1490 ---	PROPOSED CONTOURS
---	PROPOSED ROAD
---	PROPOSED EDGE OF WELL PAD SURFACE
---	PROPOSED OUTSIDE EDGE OF PERIMETER CONTAINMENT BERM
---	PROPOSED WELL PAD PERIMETER CONTAINMENT TRENCH
---	PROPOSED GUARD RAIL
12 12 12	PROPOSED 12" FILTER SOCK
18 18 18	PROPOSED 18" FILTER SOCK
24 24 24	PROPOSED 24" FILTER SOCK
32 32 32	PROPOSED 32" FILTER SOCK
36 36 36	PROPOSED STACKED 18" FILTER SOCK
12	PROPOSED FILTER SOCK TURNOUT
---	PROPOSED EROSION CONTROL PRODUCT
---	PROPOSED CHANNEL
---	PROPOSED LIMIT OF DISTURBANCE
---	PROPOSED ROCK CONSTRUCTION ENTRANCE
---	PROPOSED CULVERT
---	PROPOSED ROCK CHECK DAM
▲	PROPOSED SLOPE
1/5	DETAIL REFERENCE: DETAIL NUMBER DETAIL LOCATION

This drawing, its contents, and each component of this drawing are the property of and proprietary to ARM Group Inc. and shall not be reproduced or used in any manner except for the purpose identified on the Title Block, and only by or on behalf of this client for the identified project unless otherwise authorized by the express, written consent of ARM Group Inc.

ARM Group Inc.
Earth Resource Engineers and Consultants
www.armgroup.net

No.	Revisions	Date	By

Author: DLL Check: CIS Date: 07/15/2013 Project No: C13102-2	Scale: 1" = 50' Date: 07/15/2013 Project No: C13102-2	WELL GRADING PLAN CONSTRUCTION PLAN & EROSION AND SEDIMENT CONTROL PLAN PENNSBORO 2 WELL PAD NOBLE ENERGY, INC. CLAY DISTRICT RITCHIE COUNTY, WV
---	---	---

Sheet **5**
 2:\penn2013\13102\Pennsboro 2 Well Pad_Design\Drawings\13102\Sheet 5_Erosion Plan.dwg, Printed: July 15, 2013

85 10068

DRAWINGS FOR CONSTRUCTION PLAN & EROSION AND SEDIMENT CONTROL PLAN

PENNSBORO 2 WELL PAD

CLAY DISTRICT, RITCHIE COUNTY, WEST VIRGINIA

JULY 2013

LIST OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	TOTAL PROJECT AREA PLAN
2A	DRAINAGE AND SOILS PLAN
3	ACCESS ROAD GRADING PLAN
3A	STREAM CROSSING PLAN
4	ACCESS ROAD GRADING PLAN
5	WELL PAD GRADING PLAN
6	WELL PAD DETAILS
7	EAS DETAILS (SHEET 1 OF 3)
8	EAS DETAILS (SHEET 2 OF 3)
9	EAS DETAILS (SHEET 3 OF 3)



VICINITY MAP
SCALE: 1" = 5 Miles

DISTURBANCE SUMMARY

LOD	11.2 ACRES
WELL PAD	3.7 ACRES
ACCESS ROAD	1.3 ACRES

DRIVING DIRECTIONS
FROM THE INTERSECTION OF US-40 AND WV-18 W APPROXIMATELY 40 MILES. TURN RIGHT ON WV-18 N / FALLMAN DR AND TRAVEL ABOUT 0.4 MILES. TURN LEFT ON WV-18 N / E MILES AVE / OLD U.S. 50 E AND TRAVEL ABOUT 0.75 MILES. TURN RIGHT TO STAY ON WV-18 N AND TRAVEL APPROXIMATELY 3.5 MILES. TURN LEFT ON CO RD #1 / BONDY CREEK RD AND TRAVEL ABOUT 3.5 MILES. TURN RIGHT ONTO CO RD #2 / BRANCH MONDE CREEK RD AND TRAVEL APPROXIMATELY 0.4 MILES. THE PROJECT SITE WILL BE ON THE LEFT.

WELL SITE SUMMARY

SITE LOCATION	DECIMAL DEGREES				NORTHING / EASTING								
	LONGITUDE	LATITUDE	LONGITUDE	LATITUDE	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING
PAD CENTROID	-81.0127291	38.3385377	-81.0125811	38.3385180	488023.8796	4363915.0187	488917.4877	4354132.3803	1871445.2712	308286.2173	1540704.2007	308319.8888	
PAD ENTRANCE	-81.0130188	38.3380113	-81.0128523	38.3382886	488877.2815	4363866.9824	488882.4888	4354073.9546	1872080.0707	308096.8945	1540618.1212	308128.5417	
ROAD ENTRANCE	-81.0098908	38.3313108	-81.0086318	38.3313881	489250.8899	4353334.8918	489254.8791	4353652.2058	1872252.7989	308283.8284	1541811.8288	308387.1737	
WELL 1A	-81.0128040	38.3388140	-81.0124280	38.3388923	488913.7682	4363623.4758	488928.2881	4354140.8468	1872181.1083	308313.4552	1540740.1545	308347.0552	
WELL 1B	-81.0128787	38.3386628	-81.0124107	38.3386410	488918.8278	4363917.7881	488930.4457	4354135.1362	1872187.8468	308284.8113	1540748.8848	308328.2813	
WELL 2A	-81.0128703	38.3385844	-81.0125203	38.3386727	488908.8874	4363823.2884	488922.3754	4354138.8884	1872182.2113	308308.2881	1540721.2807	308340.2148	
WELL 2B	-81.0128447	38.3385431	-81.0124787	38.3386214	488910.2488	4363815.8028	488924.7549	4354132.8758	1872188.1817	308287.7112	1540728.2811	308321.4288	
WELL 3A	-81.0127381	38.3385747	-81.0125981	38.3386520	488902.2788	4363918.1170	488916.8948	4354138.4888	1872143.8173	308298.7251	1540702.8888	308323.3744	
WELL 3B	-81.0127108	38.3385238	-81.0125428	38.3386017	488904.8881	4363913.4282	488918.0842	4354130.7881	1872140.3277	308280.8112	1540708.4072	308314.8888	
WELL 4A	-81.0128221	38.3385561	-81.0128241	38.3385334	488908.8888	4363816.8375	488921.1828	4354134.3073	1872124.7232	308282.8851	1540683.7730	308328.8340	
WELL 4B	-81.0127788	38.3385038	-81.0126288	38.3385251	488906.8883	4363911.3488	488913.3734	4354128.8188	1872131.8837	308274.0811	1540680.8134	308307.7481	
WELL 5A	-81.0128881	38.3385354	-81.0127201	38.3386137	488902.8880	4363914.7181	488905.2031	4354132.4278	1872185.8888	308288.8482	1540684.8791	308318.8888	
WELL 5B	-81.0128428	38.3384842	-81.0128748	38.3385624	488903.1745	4363808.0873	488907.8888	4354128.4270	1872112.7887	308287.2811	1540671.8188	308320.8887	
WELL 6A	-81.0125380	38.3385337	-81.0123720	38.3387120	488916.4480	4363823.8553	488923.8888	4354143.0258	1872188.8884	308320.8452	1540758.8484	308363.8888	
WELL 6B	-81.0125127	38.3385824	-81.0123447	38.3386507	488921.8288	4363919.8548	488928.1384	4354137.3247	1872208.7388	308301.4813	1540768.7888	308328.1017	



LOCATION MAP
SCALE: 1" = 200'

PREPARED FOR:



NOBLE ENERGY, INC.
333 Technology Drive, Suite 116
Canonsburg, Pennsylvania 15317
Tel: (724) 820-3000



CALL BEFORE YOU DIG! Dial 811 or 800.245.4848
www.WV811.com

AT LEAST 48 HOURS, BUT NOT MORE THAN 10 WORKING DAYS EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES. ALL CONTRACTORS INVOLVED IN THESE ACTIVITIES SHALL CONTACT MISS UTILITY OF WEST VIRGINIA AT 811 OR 1-800-245-4848



PREPARED BY:



ARM Group Inc.
Earth Resource Engineers
and Consultants
www.armgroup.net

1000 Town Center Way, Suite 130 • Canonsburg, PA 15317
Ph: (724) 743-5793 Fax: (724) 743-5792

HEADQUARTERS:
1129 West Governor Road • Hershey, PA 17033-0797
Ph: (717) 533-8600 Fax: (717) 533-8605

THIS DRAWING SET WAS ORIGINALLY PRODUCED IN COLOR. NON-COLOR REPRODUCTIONS DO NOT SUFFICIENTLY DIFFERENTIATE AMONG FEATURES DEPICTED IN THIS DRAWING SET

This drawing, its contents, and each component of this drawing are the property of and proprietary to ARM Group Inc. and shall not be reproduced or used in any manner except for the purpose identified on the Title Block, and only by, or on behalf of the client for the identified project unless otherwise authorized by the express, written consent of ARM Group Inc.

RECEIVED
Office of Oil and Gas
SEP 23 2013

WV Department of
Environmental Protection
ARM Group Inc.
Earth Resource Engineers
and Consultants
www.armgroup.net

AS NOTED	DATE	BY
C/S	07/15/2013	
STH	C13102-2	
DLL		
COVER SHEET		
CONSTRUCTION PLAN & EROSION AND SEDIMENT CONTROL PLAN		
PENNSBORO 2 WELL PAD		
NOBLE ENERGY, INC.		
CLAY DISTRICT		
RITCHIE COUNTY, WV		
SHEET	1	