



---

**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](http://www.dep.wv.gov)

September 30, 2015

**WELL WORK PERMIT**

**Horizontal 6A Well**

This permit, API Well Number: 47-5101865, 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: MND1 JHS  
Farm Name: CONSOLIDATION COAL COMPA  
**API Well Number: 47-5101865**  
**Permit Type: Horizontal 6A Well**  
Date Issued: 09/30/2015

**Promoting a healthy environment.**

**10/02/2015**

## PERMIT CONDITIONS

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

### CONDITIONS

---

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

WW-6B  
(04/15)

API NO. 47- 051 - \_\_\_\_\_  
 OPERATOR WELL NO. MND 1 JHS  
 Well Pad Name: MND 1

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

1) Well Operator: <u>Noble Energy, Inc.</u>	494501907	051-Marshall	Clay	Powhatan Point
	Operator ID	County	District	Quadrangle

2) Operator's Well Number: MND 1 JHS Well Pad Name: MND 1

3) Farm Name/Surface Owner: Murray Energy Corporation (formerly Consol) Public Road Access: County Highway 88/8

4) Elevation, current ground: 1152.08' Elevation, proposed post-construction: 1152.08'

5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_  
 Other \_\_\_\_\_  
 (b) If Gas Shallow  Deep \_\_\_\_\_  
 Horizontal  \_\_\_\_\_

6) Existing Pad: Yes or No Yes - See attached as built *ju 7/23/15*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus 6315 - 6370' / 55' Thick / 4204 psi

8) Proposed Total Vertical Depth: 6,360'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 15,150'

11) Proposed Horizontal Leg Length: 7,622'

12) Approximate Fresh Water Strata Depths: 521', 801', 898', 947'

13) Method to Determine Fresh Water Depths: Nearest offset well

14) Approximate Saltwater Depths: None

15) Approximate Coal Seam Depths: 687'-697'

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated, drilling in pillar - maps attached

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: wells are located in abandoned area of MC Elroy Mine  
 Depth: 692' to seam base  
 Seam: Pittsburgh #8  
 Owner: Consol Mining Company, LLC

Received  
 Office of Oil & Gas  
 AUG 03 2015



WW-6B  
(04/15)

API NO. 47- 051 -  
OPERATOR WELL NO. MND 1 JHS  
Well Pad Name: MND 1

18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	LS	94	40'	40'	Surface to TD
Fresh Water	13 3/8"	New	J-55	54.5	1097'	1097'	CTS
1 Coal	13 3/8"	New	J-55	54.5	1097'	1097'	CTS
Intermediate	9 5/8"	New	J-55	36.0	2437'	2437'	CTS
Production	5 1/2"	New	P-110	20.0	15,150'	15,150'	10% excess Yield = 1.32 TOC=200' above 9.625' shoe
Tubing							
Liners							

*Ju 7/23/15*

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"	0.438			Type III	Surface to TD
Fresh Water	13 3/8"	17.5"	0.380	2730		Class A	30% excess Yield = 1.18
Coal	13 3/8"	17.5"	0.380	2730		Class A	30% excess Yield = 1.18
Intermediate	9 5/8"	12.38"	0.325	3520		Class A	20% excess Yield = 1.18 to surface
Production	5 1/2"	8.75"-8.5"	0.361	12,640	10,000 <del>13,000</del>	Class A/POZ	10% excess Yield = 1.32 TOC=200' above 9.625" shoe
Tubing							
Liners							

*GCS  
9/30/15*

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

Received  
Office of Oil & Gas

AUG 03 2015



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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6360 feet. Drill Horizontal leg - stimulate and produce the Marcellus Formation. Should we encounter formation issues, set the 13 3/8 into next competent formation but not deeper than elevation. Should we encounter a unanticipated void we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface.

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

The stimulation will be multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. The maximum pressure is not to exceed 10,000 psi and the maximum rate will not exceed 90 bpm.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 9.0

22) Area to be disturbed for well pad only, less access road (acres): 7.6

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing. Surface casing will have bow spring centralizers on first two joints then every third joint to 100' from surface. Intermediate casing will have bow spring centralizers every third joint to 100' from surface. Production casing will have Rigid bow spring every third joint from KOP to TOC. Rigid bow spring every joint to KOP.

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

Conductor- Type III \*Surface and Coal- 15.6 ppg Class A +2% CaCl (CA-100), 0.25# Lost Circ (CLC-CPF)30% Excess Yield =1.18 To surface. Intermediate 15.6 ppg Class A +2% CaCl, 0.25# Lost Circ 30% excess yield =1.18 to surface. Production 14.5ppg 75/25 Class A/Poz +/-0.4 % fluid Loss additive, +/-0.4% retarder, +/-0.5% dispersant, +/-0.2% anti-foam, +/- 2% extender, 10% excess Yield = 1.32 TOC>=200' above 9.625" shoe.

25) 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/Surface -The hole is drilled w/air and casing is run in air. Once casing is at setting depth, circulate a minimum of one hole volume 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 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 maximum allowable drilling pump rate for at least 6X bottoms up. Once on bottom with casing, circulate a minimum of one hole volume prior to pumping cement.

\*Note: Attach additional sheets as needed.

RECEIVED  
Office of Oil and Gas  
SEP 21 2015  
Page 3 of 3

4705101865

Fresh Water Protection String:		Cement Additives	
Allied Material Name	Additive (Material) Type	Additive (Material) Description	CAS #
CCAC (Class A Common)	Base Cement	Grey powder	65997-15-1
CA-100	Accelerator	White, flake	10043-52-4 7447-40-7 7732-18-5
CLC-CPF (Cellophane Flakes)	Lost Circulation Aid	White and colored flake	7647-14-5 Non-Hazardous

Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015

4705101865

*ASD*  
1/23/15

**DRILLING WELL PLAN**  
**MND-1J-HS (Marcellus HZ)**  
 Macellus Shale Horizontal  
 Marshall County, WV



Ground Elevation		MND-1J SHL (Lat/Long)		MND-1J LP (Lat/Long)		MND-1J BHL (Lat/Long)		CENTRALIZERS		CONDITIONING		COMMENTS		
Azim		1152°		325°										
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BOTTOM	MUD	CEMENT							
	26	20" 94#	Conductor	40	40	AIR	Type III Surface to TD		N/A	Ensure the hole is clean at TD.	Conductor casing = 0.438" wall thickness			
	17 1/2	13-3/8" 54.5# J-55 BTC				Air or Fresh Water Based Mud	15.6 ppg Class A + 2% CaCl <sub>2</sub> 0.25# Lost Circ 30% Excess Yield = 1.18 To Surface		Bow Spring on first 2 joints then every third joint to 100' form surface	Fill with <3% KCl water once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Surface casing = 0.380" wall thickness Burst=2730 psi			
	12 3/8	9-5/8" 36# HCK-55 BTC				Air or SOBM	15.6 ppg Class A + 2% CaCl <sub>2</sub> 0.25# Lost Circ 30% Excess Yield = 1.18 To Surface		Bow spring centralizers every third joint to 100' feet from surface.	Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.352" wall thickness Burst=3520 psi			
	8.75" Vertical					Air or SOBM	14.5ppg 75/25 Class A/Poz +/-0.4% fluid Loss additive, +/-0.4% retarder, +/-0.5% dispersant, +/-0.2% antifoam, +/- 2% extender		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			
	8.75" - 8.5" Curve	5-1/2" 20# HCP-110 TXP BTC				SOBM	10% Excess Yield=1.32 TOC >= 200' above 9.625' shoe		Rigid Bow Spring every joint to KOP					
	8.75" - 8.5" Lateral					SOBM								

Office of Oil & Gas  
 Received  
 AUG 08 2015

LP @ 6360' TVD / 7528' MD  
 8.75' / 8.5' Hole - Cemented Long String  
 5-1/2" 20# HCP-110 TXP BTC  
 +/7622' ft Lateral  
 TD @ +/6360' TVD +/15150' MD  
 X=centralizers



4705101865

WW-9  
(2/15)

API Number 47 - 051 - \_\_\_\_\_  
Operator's Well No. MND 1 JHS \_\_\_\_\_

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) Short Creek - Ohio River (Huc 10) Quadrangle Powhatan Point

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

Will a pit be used? Yes  No

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

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

Proposed Disposal Method For Treated Pit Wastes:

- \_\_\_\_\_ Land Application
- Underground Injection ( UIC Permit Number See attached sheet )
- Reuse (at API Number TBD - Next anticipated well )
- Off Site Disposal (Supply form WW-9 for disposal location)
- \_\_\_\_\_ Other (Explain \_\_\_\_\_)

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

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air thru coal string, then SOB

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

Additives to be used in drilling medium? Calcium Chloride Powder, Carbo Tec, Carbo Gel2, Carbo Tec S, Ecco-Block, Lime, MIL-Carb TM, MA-Clean, MA-Seal, Next base eC, Next Drill, Next Hold, Next Mud, Omni Cote, Mill Bar, Next Mid HT, Soda Ash, Potassium Chloride \_\_\_\_\_

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

-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

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 *Dee Swiger*

Company Official (Typed Name) Dee Swiger

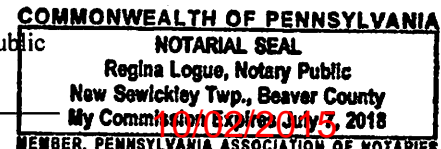
Company Official Title Regulatory Analyst III

**Received**  
**Office of Oil & Gas**

Subscribed and sworn before me this 23~~rd~~ day of July, 20 15 AUG 03 2015

*Regina Logue* Notary Public

My commission expires July 7, 2018



Form WW-9

Operator's Well No. MND 1 JHS

**Noble Energy Inc.**

Proposed Revegetation Treatment: Acres Disturbed 9.0 Prevegetation pH \_\_\_\_\_

Lime <sup>2 to 3</sup> \_\_\_\_\_ Tons/acre or to correct to pH 6.0

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch <sup>Hay or straw at 2</sup> \_\_\_\_\_ Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5
**See site plans for full list	

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5
**See site plans for full list	

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Jane Mulsdaen*

Comments: Pre Seed and mulch all cut area, maintain all E & S during operation.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Title: Oil & Gas Inspector

Date: 7/23/15

Field Reviewed? (  ) Yes (  ) No

Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015

## Cuttings Disposal/Site Water

### Cuttings –Haul off Company:

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

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

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

### Disposal Locations:

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

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

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

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

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

Waste Management Kelly Run Permit # 100663  
1901 Park Side Drive  
Elizabeth, PA 15037  
412-384-7569

Waste Management South Hills (Arnoni) Permit # 100592  
3100 Hill Road  
Library, PA 15129  
724-348-7013  
412-384-7569

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

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

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

Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015



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

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

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

Northern A-1 Environmental Services Permit ID MID020906814  
 3947 US 131 North, PO Box 1030  
 Kalkaska, MI 49646  
 231-258-9961

**Water Haul off Companies:**

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

Nabors Completion & Production Services Co.  
 PO Box 975682  
 Dallas, TX 75397-5682

Select Energy Services, LLC  
 PO Box 203997  
 Dallas, TX 75320-3997

Nuverra Environmental Solutions  
 11942 Veterans Memorial Highway  
 Masontown, WV 26542

Mustang Oilfield Services LLC  
 PO Box 739  
 St. Clairsville, OH 43950

Wilson's Outdoor Services, LLC  
 456 Cracraft Road  
 Washington, PA 15301

**Disposal Locations:**

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

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

Adams #1 (Buckeye Brine, LLC)  
 Permit # 34-031-2-7177  
 23986 Airport Road  
 Coshocton, OH 43812  
 740-575-4484  
 512-478-6545

CMS of Delaware Inc. DBA CMS Oilfield Serv  
 301 Commerce Drive  
 Moorestown, NJ 08057

Force, Inc.  
 1380 Rte. 286 Hwy. E, Suite 303  
 Indiana, PA 15701

Solo Construction  
 P.O. Box 544  
 St. Mary's, WV 26170

Equipment Transport  
 1 Tyler Court  
 Carlisle, PA 17015

Myers Well Service, Inc.  
 2001 Ballpark Court  
 Export, PA 15632

Burns Drilling & Excavating  
 618 Crabapple Road P.O. Box 41  
 Wind Ridge, PA 15380

**Received  
 Office of Oil & Gas**

Nichlos 1-A (SWW #13) AUG 03 2015  
 Permit # 3862  
 300 Cherrington Pkwy, Suite 200  
 Coraopolis, PA 15108  
 412-329-7275

Groselle (SWIW #34)  
 Permit # 4096  
 Rt. 88  
 Garrettsville, OH  
 713-275-4816

Kemble 1-D Well  
 Permit # 8780  
 7675 East Pike  
 Norwich, Oh 43767  
 614-648-8898  
 740-796-6495

10/02/2015

Adams #2 (Buckeye Brine, LLC)  
2205 Westover Road  
Austin Tx 78703  
Permit # 34-031-2-7178  
740-575-4484  
512-478-6545

Adams #3 (Buckeye Brine, LLC)  
Permit #34-031-2-7241-00-00  
2630 Exposition, Suite 117  
Austin, TX 78703  
512-478-6545

Mozena #1 Well (SWIW # 13)  
Permit # 34-157-2-5511-00-00  
5367 E. State Street  
Newcomerstown, OH 43832  
740-763-3966

Goff SWD #1 (SWIW # 27)  
Permit # 34-119-2-8776-000  
300 Cherrington Pkwy, Suite 200  
Coraopolis, PA 15108  
412-329-7275

SOS D#1 (SWIW #12)  
Permit # 34-059-2-4202-00-00  
Silcor Oilfield Services, Inc.  
2939 Hubbard Road  
Youngstown, PH 44505

Dudley #1 UIC (SWIW #1)  
Permit # 34-121-2-2459-00-00  
Select Energy Services, LLC  
7994 S. Pleasants Hwy  
St. Marys, WV 26170  
304-665-2652

OH UIC #1 Buckeye UIC Barnesville 1 & 2  
CNX Gas Company, LLC  
1000 Consol Energy Drive  
Permit # 34-013-2-0609-00-00  
Permit # 34-013-2-0614-00-00  
304-323-6568

US Steele 11385  
Permit # 47-001-00561  
200 Evergreen Drive  
Waynesburg, PA 15730  
304-323-6568

Chapin #7 UIC (SWIW #7)  
Permit # 34-083-2-4137-00-00  
Elkhead Gas& Oil Company  
12163 Marne Rd. NE  
Newark, OH 43055  
740-763-3966



# Site Safety Plan

**Noble Energy, Inc.**

**MND 1 Well Pad**

**1100 Kansas Ridge Rd**

**Moundsville, WV**

**July 2015: Version 2**

*JMS*

**For Submission to**

**West Virginia Department of Environmental Protection,**

**Office of Oil and Gas**

*JMS  
7/23/15*

Noble Energy, Inc.

Appalachia Offices

1000 Noble Energy Drive

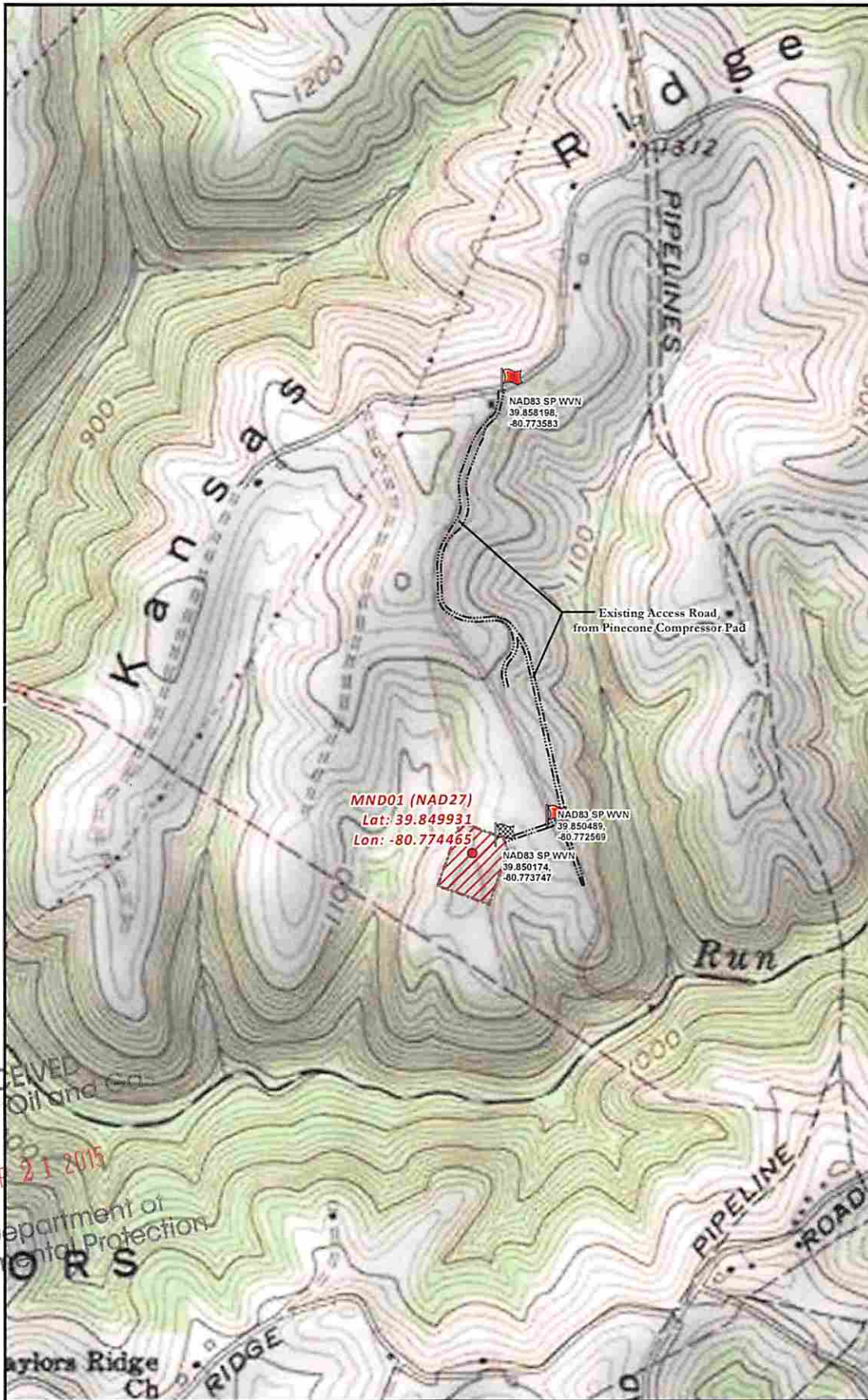
Canonsburg, PA 15317-9504

Received  
Office of Oil & Gas

AUG 03 2015

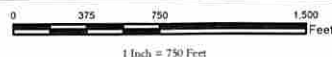
10/02/2015





RECEIVED  
Office of Oil and Gas  
SEP 21 2015  
WV Department of  
Environmental Protection

**MND 01 SITE SAFETY PLAN**  
- SITE / ACCESS ROAD -



- Site Entrance
- Well Pad
- Proposed Access Road
- Well Pad Entrance
- Well Pad Boundary

Projection: NAD 1927 UTM Zone 17N  
Units: Foot US

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



Date: 9/16/2015

Author:  
Christopher Glover





Well is located on topo map 9140 feet south of Latitude: 39° 52' 30"

Well is located on topo map 6.810 feet west of Longitude: 80° 45' 00"

**SURFACE HOLE LOCATION (SHL)**

UTM 17 - NAD83  
 N: 4411123.326  
 E: 519312.535  
 NAD27, WV NORTH  
 N: 494181.793  
 E: 1642190.916  
 LAT/LON DATUM=NAD83  
 LAT: 39.849910  
 LON: -80.774245

**APPROX. LANDING POINT**

UTM 17 - NAD83  
 N: 4411518.691  
 E: 519932.250  
 NAD27, WV NORTH  
 N: 495445.165  
 E: 1644246.127  
 LAT/LON DATUM=NAD83  
 LAT: 39.853458  
 LON: -80.766989

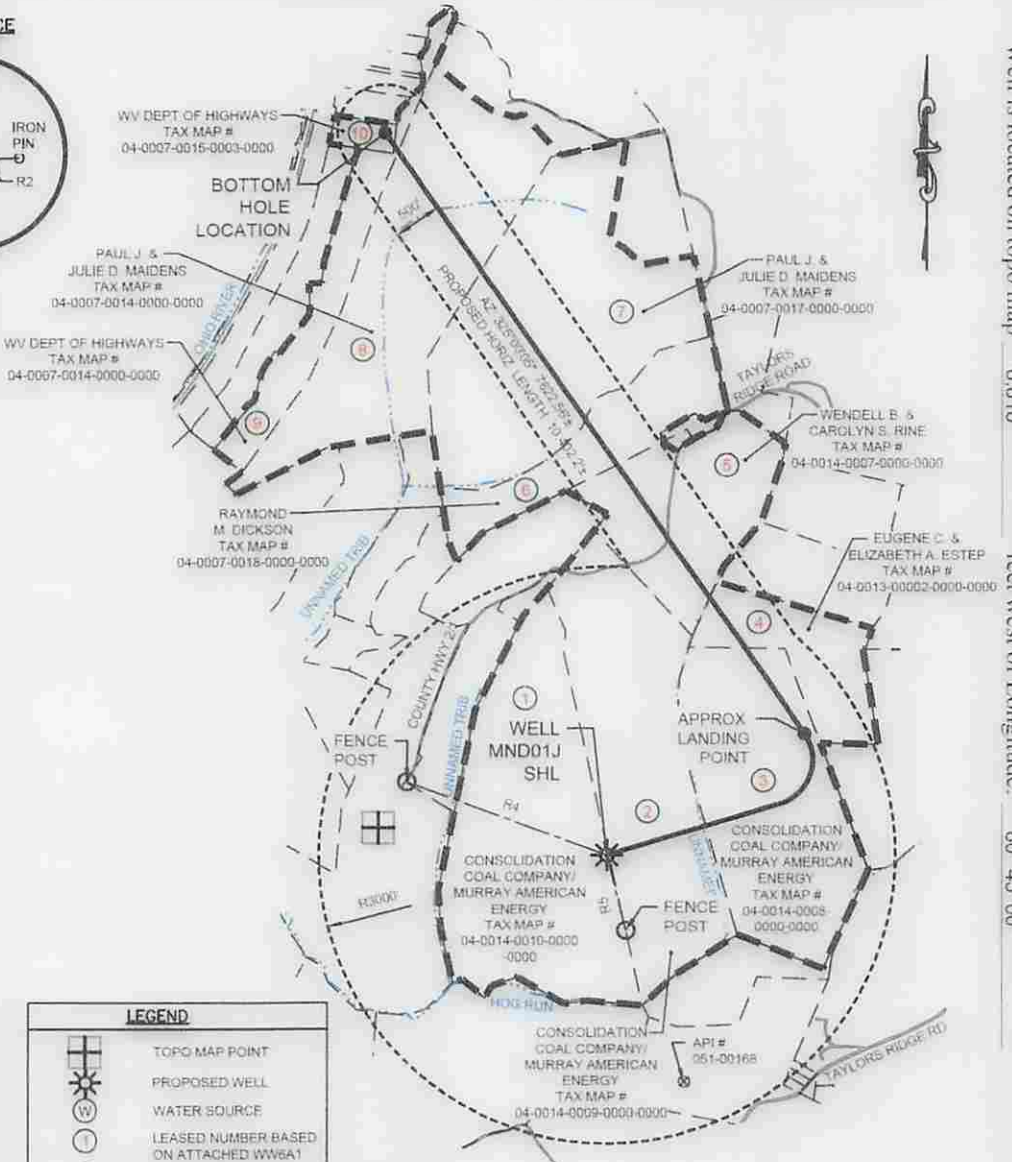
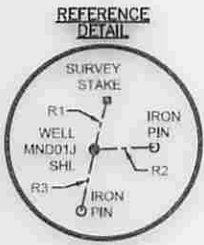
**BOTTOM HOLE LOCATION**

UTM 17 - NAD83  
 N: 4413398.690  
 E: 518568.471  
 NAD27, WV NORTH  
 N: 501689.256  
 E: 1639873.982  
 LAT/LON DATUM=NAD83  
 LAT: 39.870428  
 LON: -80.782678

**WATER WELLS:  
 NONE FOUND**

**NOTES**

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



**LEGEND**

- TOPO MAP POINT
- PROPOSED WELL
- WATER SOURCE
- LEASED NUMBER BASED ON ATTACHED W66A1
- ALL ARE POINTS UNLESS OTHERWISE NOTED
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- PROPOSED HORIZONTAL WELL
- WELL REFERENCE
- STREAM WATERWAY
- ROAD
- EXISTING GAS WELL

**LINE TABLE**

LINE	BEARING	DISTANCE
R1	S14°52'47\"W	261.23'
R2	S87°52'02\"W	312.36'
R3	N11°54'17\"E	328.45'
R4	S09°54'07\"E	2217.62'
R5	S14°05'48\"E	613.85'

**PVE Sheffler**  
 Engineering • Surveying • Design  
 Waterfront Corporate Park III, Suite 101  
 2000 Georgetowne Drive  
 Sewickley, PA 15143-8992  
 Phone: 724-444-1100

FILE #: MND 01 JHS  
 DRAWING #: MND 01 JHS  
 SCALE: 1"=2000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT H 138: 638.58'

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: *Gary A. Sheffler Jr.*  
 R.P.E.: 21452 L.L.S.: P.S. NO.



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



DATE: JULY 29, 2015 - REV. JULY 30, 2015  
 OPERATOR'S WELL #: MND 01 JHS  
 API WELL # 47 051 **01865**  
 STATE COUNTY PERMIT

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow  
 WATERSHED: SHORT CREEK-OHIO RIVER ELEVATION: 1151.05'  
 COUNTY/DISTRICT: MARSHALL / CLAY QUADRANGLE: POWHATAN POINT, W. VA./OHIO  
 SURFACE OWNER: CONSOLIDATION COAL COMPANY/MURRAY ENERGY ACREAGE: 126.99  
 OIL & GAS ROYALTY OWNER: CNX GAS COMPANY, LLC, ET AL. ACREAGE: 126.99

**10/02/2015**

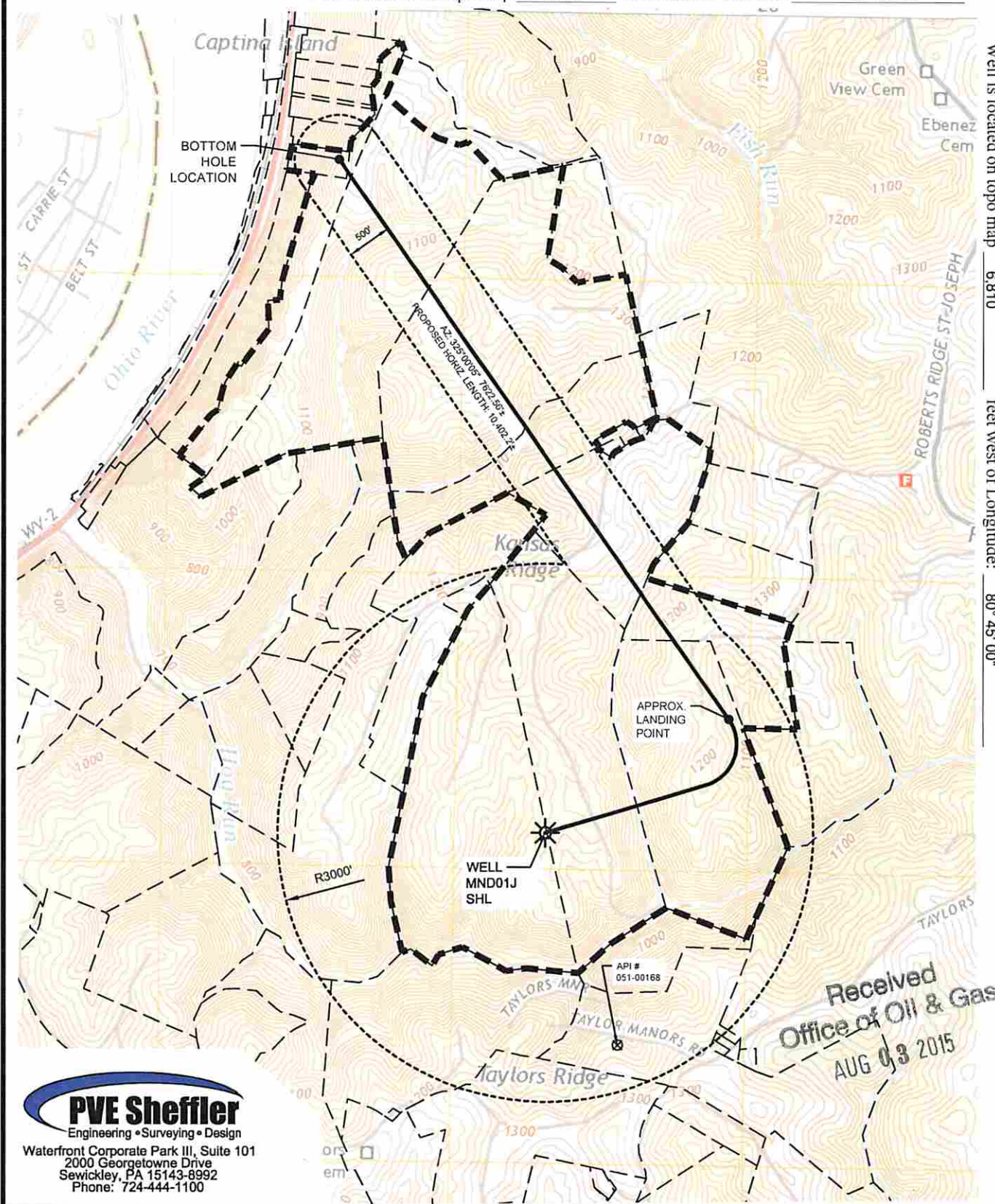
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,630' ± TMD: 15,150' ±  
 WELL OPERATOR: NOBLE ENERGY, INC. DESIGNATED AGENT: JESSICA ALSOP  
 Address: 1000 NOBLE ENERGY DRIVE Address: 301 GOLDEN EAGLE DRIVE  
 City CANONSBURG State PA Zip Code 15317 City MORGANTOWN State WV Zip Code 26508



Well is located on topo map 9,140 feet south of Latitude: 39° 52' 30"

Well is located on topo map 6,810 feet west of Longitude: 80° 45' 00"



Received  
Office of Oil & Gas  
AUG 03 2015

**PVE Shefler**  
Engineering • Surveying • Design  
Waterfront Corporate Park III, Suite 101  
2000 Georgetowne Drive  
Sewickley, PA 15143-8992  
Phone: 724-444-1100

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



DATE: JULY 29, 2015 - REV. JULY 30, 2015

OPERATOR'S WELL #: MND 01 JHS

API WELL # 47 051 01865  
STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK-OHIO RIVER ELEVATION: 1151.06'  
COUNTY/DISTRICT: MARSHALL / CLAY QUADRANGLE: POWHATAN POINT, W. VA./OHIO  
SURFACE OWNER: CONSOLIDATION COAL COMPANY/ MURRAY ENERGY ACREAGE: 126.99  
OIL & GAS ROYALTY OWNER: CNX GAS COMPANY, LLC, ET AL. ACREAGE: 126.99

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

10/02/2015

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,630' ± TMD: 15,150' ±  
WELL OPERATOR: NOBLE ENERGY, INC. DESIGNATED AGENT: JESSICA ALSOP  
Address: 1000 NOBLE ENERGY DRIVE Address: 301 GOLDEN EAGLE DRIVE  
City CANONSBURG State PA Zip Code 15317 City MORGANTOWN State WV Zip Code 26508



WW-6A1  
(5/13)

Operator's Well No. MND 01 JHS

**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
1) 623175	Consolidation Coal Company, et al	CNX Gas Company, LLC	50% Fee Mineral	646/493
		Noble Energy Inc.	50% Fee Mineral	752/066
2) 623173	Consolidation Coal Company, et al	CNX Gas Company, LLC	50% Fee Mineral	646/493
		Noble Energy Inc.	50% Fee Mineral	752/066

**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

**Received  
Office of Oil & Gas  
AUG 03 2015**

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: Noble Energy, Inc.  
By: Brian Leonhard  
Its: Operations Landman

Page 1 of 2

10/02/2015

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
3.) 623173	Consolidation Coal Company, et al	CNX Gas Company, LLC	50% Fee Mineral	646/493
	Consolidation Coal Company, et al	Noble Energy, Inc.	50% Fee Mineral	752/066
4.) No number assigned yet	Eugene Estep	Chevron U.S.A. Inc.	Not less than 1/8	861/613
	Chevron U.S.A. Inc.	Noble Energy, Inc.	N/A	34/502
5.) Q090620000-000	Wendell B. Rine and Carolyn S. Rine	Noble Energy, Inc.	Not less than 1/8	859/489
6.) Q084767000-000	Mountaineer Natural Gas Company	Noble Energy, Inc.	Not less than 1/8	833/35
7.) Q082524000-000	Paul J. Maidens and Julie D. Maidens	Noble Energy, Inc.	Not less than 1/8	826/90
8.) Q082524000-000	Paul J. Maidens and Julie D. Maidens	Noble Energy, Inc.	Not less than 1/8	826/90
9.) Q082524000-000	Paul J. Maidens and Julie D. Maidens	Noble Energy, Inc.	Not less than 1/8	826/90
10.) Q08008000-000	Nyla J. Bell	Noble Energy, Inc.	Not less than 1/8	813/251

Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015

BOOK 0752 PAGE 0066

STEPTOE & JOHNSON PLLC LISA LOVEJOY  
 P O BOX 1588  
 CHARLESTON, WV 25326-1588

RETURN TO: Lisa Lovejoy  
 Energy Department  
 Steptoe & Johnson PLLC  
 P.O. Box 1588  
 Charleston, WV 25326-1588

Jan Pest  
 MARSHALL County 10:22:36 AM  
 Instrument No 1314757  
 Date Recorded 12/05/2011  
 Document Type DEED  
 Pages Recorded 28  
 Book-Page 752-66  
 Recording Fee \$34.00  
 Transfer Tax \$144,084.60  
 Additional \$27.00

### MINERAL INTEREST DEED

This MINERAL INTEREST DEED (this "*Deed*") is from CNX GAS COMPANY LLC, a Virginia limited liability company ("*Grantor*"), whose address is 1000 CONSOL Energy Drive, Canonsburg, PA 15317, to NOBLE ENERGY, INC., a Delaware corporation ("*Grantee*"), whose address is 100 Glenborough Drive, Suite 100, Houston, Texas 77067, and is effective as of 7:00 a.m. (Central Time) on July 1, 2011 (the "*Effective Time*").

### RECITALS

WHEREAS, Grantor desires to grant and convey to Grantee, and Grantee desires to receive from Grantor, an undivided 50% of Grantor's right, title and interest in the assets and properties described below in accordance with this Deed and the Acquisition Agreement (defined below).

NOW, THEREFORE, for and in consideration of the mutual promises contained herein and in the Acquisition Agreement, the benefits to be derived by each party hereunder and under the Acquisition Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee agree as follows:

### ARTICLE I DEFINED TERMS

**1.1 Definitions.** Capitalized terms used herein and not otherwise defined in Section 3.4 or throughout the Deed shall have the meanings given such terms in the Asset Acquisition Agreement, dated as of August 17, 2011, as amended, by and between Grantor and Grantee (the "*Acquisition Agreement*").

### ARTICLE II GRANT OF CONVEYED INTERESTS

**2.1 Deed.** Subject to the terms and conditions of this Deed, Grantor does hereby GRANT, CONVEY and TRANSFER to Grantee, and Grantee agrees to acquire, the following interests and properties (less and except for the Excluded Assets, such interests and properties described in subsections (a) and (b) of this Section 2.1, collectively, the "*Conveyed Interests*"):

US 1049150v.6

MARSHALL COUNTY, WV

RECEIVED  
 Office of Oil and Gas

SEP 21 2015

WV Department of  
 Environmental Protection

10/02/2015

(a) an undivided 50% of all of Grantor's right, title and interest in and to the following assets and properties:

(i) the oil and gas and mineral fee interests more particularly described in Exhibit A, insofar and only insofar as such oil and gas and mineral fee interests cover depths within the Marcellus Formation (such 50% of Grantor's interest in such oil and gas and mineral fee interests as so limited, collectively, the "*Mineral Interests*");

(ii) all oil and gas wells drilled on the Mineral Interests or the Units insofar and only insofar as such wells are producing from, or have been drilled to produce from, those depths within the Marcellus Formation, including the oil and gas wells listed on Exhibit B (to the extent drilled on the Mineral Interests or Units and producing from or drilled to produce from such formation) (such 50% of Grantor's interest in such wells as so limited, the "*Marcellus Wells*"), and all fresh water wells, injection wells, salt water disposal wells and other wells of every nature and kind located on the Mineral Interests or the Units, in each case, to the extent that they are primarily used in connection with the Marcellus Wells, the Mineral Interests or the Units (such 50% of Grantor's interest in such wells as so limited, collectively with the Marcellus Wells, the "*Wells*");

(iii) all interests in pools or units which include all or a part of any Mineral Interests insofar and only insofar as such pools or units cover depths within the Marcellus Formation and pertain to the Mineral Interests (such 50% of Grantor's interest in such pools and units as so limited, the "*Units*");

(iv) to the extent they may be assigned (after exercising commercially reasonable efforts to obtain any and all relevant consents), all permits, licenses, servitudes, easements, rights-of-way, surface use agreements, water access and water use agreements and other similar surface use or water rights, in each case, to the extent primarily used in connection with the ownership or operation of the Mineral Interests, Units and Wells, including those set forth in Exhibit C (such 50% of Grantor's interest in the foregoing, collectively, the "*Rights-Of-Way*" and the Mineral Interests, Units, Wells and Rights-Of-Way being collectively referred to hereinafter as the "*Properties*");

(v) all equipment, machinery, fixtures and other personal property, operational or nonoperational in each case, to the extent primarily used in connection with the Properties or the other Conveyed Interests, including well equipment, casing, tubing, pumps, motors, machinery, platforms, rods, tanks, boilers, fixtures, manifolds, structures, materials and other items primarily used or held for use in the operation of the Properties (such 50% of Grantor's interest in such properties, the "*Personal Property*"); and

(vi) all Hydrocarbons produced from or allocated to the Mineral Interests, Marcellus Wells or Units on and after the Effective Time; and

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015



BOOK 0752 PAGE 0068

(b) all of Grantor's right, title and interest in and to the following assets and properties to the extent, and only to the extent, that such assets and properties relate to the interests described in Section 2.1(a):

(i) to the extent assignable, all Applicable Contracts and all rights thereunder;

(ii) all Well Imbalances relating to the Conveyed Interests;

(iii) copies (in digital form, if available) of the following, to the extent (A) in Grantor's or its Affiliates' possession or (B) to which Grantor has the right but are in the possession of a Third Party: (1) land and title records (including abstracts of title, title opinions (including title opinions that cover both the Marcellus Formation and other formations) and title curative documents), (2) contract files, (3) correspondence, (4) maps, operations, environmental, production and accounting records, (5) facility and engineering/well files, (6) division order files (including division and interest statements), (7) engineering and/or production files, (8) environmental files, (9) permitting files and (10) geological data, but excluding any of the foregoing items that are primarily used in connection with the ownership or operation of the Excluded Assets; and

(iv) to the extent assignable without payment of fees or other penalties, unless Grantor agrees to and does pay such fees and penalties, the geophysical data and other seismic and related technical data and information listed on Schedule 2.1 to the Acquisition Agreement.

**2.2 Easement.** Subject to the terms and conditions of this Deed, Grantor does hereby assign, transfer and convey to Grantee a non-exclusive subsurface well bore easement through Grantor's Shallow Depths for the purposes of accessing, exploring, developing and producing Hydrocarbons from the Marcellus Formation to the extent relating to the Conveyed Interests provided that such easement shall not permit the production of Hydrocarbons from the Shallow Depths or perforations, open hole completions, fracture operations or other stimulation operations in the Shallow Depths (the "*Subsurface Access Easement*").

**TO HAVE AND TO HOLD** the Conveyed Interests and the Subsurface Access Easement unto Grantee, its successors and assigns, forever, subject, however, to all the terms and conditions of this Deed, including, without limitation, Article III.

**2.3 Excluded Assets and Reservation.** The Conveyed Interests and the Subsurface Access Easement shall not include, and Grantor hereby reserves and retains, the Excluded Assets. Additionally, the Conveyed Interests covered by this Deed shall not include any of the Leases any of the assets covered by the Assignment, to the extent said Leases and assets are assigned to Grantee by the Assignment. Grantor and Grantee acknowledge and agree that the

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

Assignment and this Deed (including all recorded counterparts thereof) are intended to COLLECTIVELY convey to Grantee the "Conveyed Interests" as described in the Acquisition Agreement. Grantor and Grantee acknowledge and agree that the Assignment and this Deed are not intended to effect multiple conveyances of the same properties or interests in such properties.

**ARTICLE III  
SPECIAL WARRANTY; DISCLAIMERS; CERTAIN DEFINITIONS**

**3.1 Special Warranty.** Grantor hereby binds itself, its successors and assigns subject, however, to the Permitted Encumbrances, to warrant and forever defend all and singular title to the Marcellus Wells and Mineral Interests and the Subsurface Access Easement from and after April 30, 2010 to the date hereof for claims arising by, through or under Grantor, but not otherwise.

**3.2 Subrogation.** Grantor hereby assigns to Grantee all rights, claims and causes of action under title warranties given or made by Grantor's predecessors in interest (other than any Affiliates of Grantor) with respect to the Conveyed Interests, and Grantee is specifically subrogated to all rights which Grantor may have against such predecessors in interest with respect to the Conveyed Interests, to the extent Grantor may legally transfer such rights and grant such subrogation.

**3.3 Disclaimers and Subrogation of Warranties and Representations.**

(a) EXCEPT AS AND TO THE LIMITED EXTENT EXPRESSLY SET FORTH IN SECTION 3.1 OF THIS DEED AND IN ARTICLE VII OF THE ACQUISITION AGREEMENT, (I) GRANTOR MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, AND (II) GRANTOR EXPRESSLY DISCLAIMS ALL LIABILITY AND RESPONSIBILITY FOR ANY REPRESENTATION, WARRANTY, STATEMENT OR INFORMATION MADE OR COMMUNICATED (ORALLY OR IN WRITING) TO GRANTEE OR ANY OF ITS AFFILIATES, EMPLOYEES, AGENTS, CONSULTANTS OR REPRESENTATIVES (INCLUDING ANY OPINION, INFORMATION, PROJECTION OR ADVICE THAT MAY HAVE BEEN PROVIDED TO GRANTEE BY A MEMBER OF THE GRANTOR INDEMNIFIED PARTIES).

(b) EXCEPT AS AND TO THE LIMITED EXTENT EXPRESSLY SET FORTH IN SECTION 3.1 OF THIS DEED AND ARTICLE VII OF THE ACQUISITION AGREEMENT, AND WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, GRANTOR EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY, EXPRESS, STATUTORY OR IMPLIED, BY ANY MEMBER OF THE GRANTOR INDEMNIFIED PARTIES, AS TO (I) TITLE TO ANY OF THE CONVEYED INTERESTS AND THE SUBSURFACE ACCESS EASEMENT, (II) THE CONTENTS, CHARACTER OR NATURE OF ANY REPORT OF ANY PETROLEUM ENGINEERING CONSULTANT, OR

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

ANY ENGINEERING, GEOLOGICAL OR SEISMIC DATA OR INTERPRETATION RELATING TO THE CONVEYED INTERESTS, (III) THE QUANTITY, QUALITY OR RECOVERABILITY OF HYDROCARBONS IN OR FROM THE CONVEYED INTERESTS, (IV) ANY ESTIMATES OF THE VALUE OF THE CONVEYED INTERESTS OR FUTURE REVENUES GENERATED BY THE CONVEYED INTERESTS, (V) THE PRODUCTION OF HYDROCARBONS FROM THE CONVEYED INTERESTS, (VI) THE MAINTENANCE, REPAIR, CONDITION, QUALITY, SUITABILITY, DESIGN OR MARKETABILITY OF THE CONVEYED INTERESTS, (VII) THE CONTENT, CHARACTER OR NATURE OF ANY INFORMATION MEMORANDUM, REPORTS, BROCHURES, CHARTS OR STATEMENTS PREPARED BY GRANTOR OR THIRD PARTIES WITH RESPECT TO THE CONVEYED INTERESTS, (VIII) ANY OTHER MATERIALS OR INFORMATION THAT MAY HAVE BEEN MADE AVAILABLE TO GRANTEE OR ITS AFFILIATES, OR ITS OR THEIR EMPLOYEES, AGENTS, CONSULTANTS, REPRESENTATIVES OR ADVISORS IN CONNECTION WITH THE TRANSACTIONS CONTEMPLATED BY THIS DEED OR ANY DISCUSSION OR PRESENTATION RELATING THERETO, AND (IX) ANY IMPLIED OR EXPRESS WARRANTY OF FREEDOM FROM PATENT OR TRADEMARK INFRINGEMENT. EXCEPT AS AND TO THE LIMITED EXTENT EXPRESSLY REPRESENTED OTHERWISE IN SECTION 3.1 OF THIS DEED OR ARTICLE VII OF THE ACQUISITION AGREEMENT, GRANTOR FURTHER DISCLAIMS ANY REPRESENTATION OR WARRANTY, EXPRESS, STATUTORY OR IMPLIED, OF MERCHANTABILITY, FREEDOM FROM LATENT VICES OR DEFECTS, FITNESS FOR A PARTICULAR PURPOSE OR CONFORMITY TO MODELS OR SAMPLES OF MATERIALS OF ANY CONVEYED INTERESTS AND THE SUBSURFACE ACCESS EASEMENT, IT BEING EXPRESSLY UNDERSTOOD AND AGREED BY GRANTOR AND GRANTEE THAT GRANTEE SHALL BE DEEMED TO BE OBTAINING THE CONVEYED INTERESTS AND THE SUBSURFACE ACCESS EASEMENT IN THEIR PRESENT STATUS, CONDITION AND STATE OF REPAIR, "AS IS" AND "WHERE IS" WITH ALL FAULTS OR DEFECTS (KNOWN OR UNKNOWN, LATENT, DISCOVERABLE OR UNDISCOVERABLE), AND THAT GRANTEE, SUBJECT TO ITS RIGHTS UNDER ARTICLE V OF THE ACQUISITION AGREEMENT, HAS MADE OR CAUSED TO BE MADE SUCH INSPECTIONS AS GRANTEE DEEMS APPROPRIATE.

(c) EXCEPT AS AND TO THE LIMITED EXTENT EXPRESSLY SET FORTH IN SECTION 7.19 OF THE ACQUISITION AGREEMENT AND WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, GRANTOR MAKES NO REPRESENTATION OR WARRANTY REGARDING ANY MATTER OR CIRCUMSTANCE RELATING TO ENVIRONMENTAL LAWS, THE RELEASE OF MATERIALS INTO THE ENVIRONMENT OR THE PROTECTION OF HUMAN HEALTH, SAFETY, NATURAL RESOURCES OR THE ENVIRONMENT, OR ANY OTHER ENVIRONMENTAL CONDITION OF THE CONVEYED INTERESTS, AND NOTHING IN THIS DEED OR OTHERWISE SHALL BE CONSTRUED AS SUCH A REPRESENTATION

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015



OR WARRANTY, AND SUBJECT TO GRANTEE'S RIGHTS UNDER SECTIONS 6.1 AND 7.19 OF THE ACQUISITION AGREEMENT, GRANTEE SHALL BE DEEMED TO BE TAKING THE CONVEYED INTERESTS AND THE SUBSURFACE ACCESS EASEMENT "AS IS" AND "WHERE IS" WITH ALL FAULTS FOR PURPOSES OF THEIR ENVIRONMENTAL CONDITION AND THAT GRANTEE, SUBJECT TO ITS RIGHTS UNDER ARTICLE VI OF THE ACQUISITION AGREEMENT, HAS MADE OR CAUSED TO BE MADE SUCH ENVIRONMENTAL INSPECTIONS AS GRANTEE DEEMS APPROPRIATE.

(d) GRANTOR AND GRANTEE AGREE THAT, TO THE EXTENT REQUIRED BY APPLICABLE LAW TO BE EFFECTIVE, THE DISCLAIMERS OF CERTAIN REPRESENTATIONS AND WARRANTIES CONTAINED IN THIS SECTION 3.3 ARE "CONSPICUOUS" DISCLAIMERS FOR THE PURPOSE OF ANY APPLICABLE LAW.

**3.4 Certain Definitions.** The following terms, as used herein, have the meanings set forth below:

**"Additional Interests"** means those additional oil and gas leases and oil and gas and mineral fee interests acquired by Grantor and/or its Affiliates in the Development Area from and after April 29, 2011, other than those Mineral Interests or Leases (or interests therein) acquired by Grantor from its Affiliates.

**"Affiliate"** means, with respect to any Person, any other Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by, or is under common Control with, such Person.

**"Antero ORRF"** means those certain royalty and overriding royalty payments due from Antero Resources Appalachian Corporation to CNX Gas Company LLC, under those certain Partial Assignment of Oil and Gas Leases dated September 29, 2008, effective September 30, 2008 and other instruments delivered pursuant to that Amended and Restated Farmout Acquisition Agreement dated September 23, 2008 by and among Dominion Exploration & Production, Inc., Dominion Appalachian Development LLC and Dominion Transmission Inc., predecessors to CNX Gas Company LLC, collectively as farmor, and Antero Resources Appalachian Corporation, as farmee.

**"Applicable Contracts"** means all Contracts to which Grantor is a party by which any Conveyed Interest is bound and that will be binding on Grantee after the Closing, including farm in and farmout agreements; bottomhole agreements; crude oil, condensate and natural gas purchase and sale, gathering, transportation and marketing agreements; hydrocarbon storage agreements; acreage contribution agreements; operating agreements; balancing agreements; pooling declarations or agreements; unitization agreements; processing agreements; crossing

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015



BOOK 0752 PAGE 0072

agreements; saltwater disposal agreements; facilities or equipment leases; letters of objection; production handling agreements and other similar contracts and agreements, held by Grantor and relating to the Conveyed Interests.

*"Assignment"* means that certain Assignment and Bill of Sale between Grantor and Grantee dated effective as of the Effective Time, including all recorded counterparts thereof.

*"Closing"* means the closing of the transfer by Grantor of the Conveyed Interests to Grantee pursuant to the Acquisition Agreement.

*"Contract"* means any written or oral contract, agreement, lease, mortgage, franchise, license agreement, purchase order, binding bid, commitment or any Applicable Contract that is an indenture, mortgage, loan, credit or sale-leaseback, guaranty of any obligation, bonds, letters of credit or similar financial contract or any other legally binding arrangement, including farmin and farmout agreements, participation, exploration and joint development agreements, crude oil, condensate and natural gas purchase and sale, gathering, transportation and marketing agreements, acreage contribution agreements, operating agreements, balancing agreements, unitization agreements, processing agreements, hydrocarbon balancing agreements, hydrocarbon storage agreements, facilities or equipment leases, platform use and platform sharing agreements, production handling agreements and other similar Contracts, but excluding, however, any Lease, deed, easement, right-of-way, permit or other instrument (other than acquisition or similar sales or purchase agreements) creating or evidencing an interest in the Conveyed Interests or any real or immovable property related to or used in connection with the operations of any Conveyed Interests.

*"Control"* (including the terms *"Controlling," "Controlled by"* and *"under common Control with"*) means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting shares, by contract or otherwise.

*"Development Agreement"* means that certain Joint Development Agreement by and between Grantor and Grantee dated as of even date herewith, as provided for in the Acquisition Agreement.

*"Development Area"* has the meaning set forth in the Development Agreement.

*"Encumbrance"* means any lien, mortgage, security interest, defect, irregularity, pledge, charge or encumbrance.

*"Environmental Laws"* means all applicable federal, state and local Laws in effect as of the date of this Deed, including common law, relating to the protection of the public health, welfare and the environment, including those Laws relating to the storage, handling and use of

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

chemicals and other Hazardous Substances and those relating to the generation, processing, treatment, storage, transportation, disposal or other management thereof. The term "*Environmental Laws*" does not include good or desirable operating practices or standards that may be employed or adopted by other oil and gas well operators or recommended by a Governmental Authority.

"*Excluded Assets*" has the meaning set forth on Exhibit D.

"*Governmental Authority*" means any federal, state, local, municipal, tribal or other government; any governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, belief, regulatory or taxing authority or power; and any court or governmental tribunal, including any tribal authority having or asserting jurisdiction.

"*Hazardous Substances*" means any pollutants, contaminants, toxic or hazardous or extremely hazardous substances, materials, wastes, constituents, compounds or chemicals that are regulated by, or may form the basis of liability under, any Environmental Laws, including naturally occurring radioactive materials and other substances referenced in Section 6.2 of the Acquisition Agreement.

"*Hedge Contract*" means any Contract to which Grantor or any of its Affiliates is a party with respect to any swap, forward, future or derivative transaction or option or similar agreement, whether exchange traded, "over-the-counter" or otherwise, involving, or settled by reference to, one or more rates, currencies, commodities, equity or debt instruments or securities, or economic, financial or pricing indices or measures of economic, financial or pricing risk or value or any similar transaction or any combination of these transactions.

"*Hydrocarbons*" means oil and gas and other hydrocarbons (including condensate) produced or processed in association therewith (whether or not such item is in liquid or gaseous form), or any combination thereof, and any minerals produced in association therewith.

"*Imbalances*" means all Well Imbalances and Pipeline Imbalances.

"*Interim Period*" means that period of time commencing with the Effective Time and ending immediately prior to Closing.

"*Law*" means any applicable statute, law, rule, regulation, ordinance, order, code, ruling, writ, injunction, decree or other official act of or by any Governmental Authority.

"*Lease*" means those certain oil, gas and/or mineral leases assigned by Grantor to Grantee pursuant to the Assignment.

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

**"Marcellus Formation"** means, (a) in central Pennsylvania, specifically from the stratigraphic equivalent of the top of the Burkett in the DeArmitt #1 (API 37-129-27246) and 7000'MD through to the stratigraphic equivalent of the top of the Onondaga at 7530'MD; (b) in southwest Pennsylvania, specifically from the stratigraphic equivalent of the top of the Burkett in the GH-10C-CV (API 37-059-25397) at 7600'MD through to the stratigraphic equivalent of the top of the Onondaga at 7900'MD; and (c) in West Virginia, specifically from the stratigraphic equivalent of the top of the Burkett in the DEPI #14815 (API 47-001-02850) at 7350'MD through to the stratigraphic equivalent of the top of the Onondaga at 7710'MD, each of which is also shown in the logs attached to the Acquisition Agreement as Exhibit A-1.

**"Oil and Gas Assets"** mean the Conveyed Interests and, to the extent pertaining to the Marcellus Formation and operations relating thereto, the interests which are retained by Grantor in the properties and assets underlying the Conveyed Interests.

**"Overhead Costs"** means, with respect to those Conveyed Interests that are operated by Grantor and are burdened by an existing joint operating agreement covering such Conveyed Interests, the amount representing the overhead or general and administrative fee that is charged to other working interest owners with interests in the related Conveyed Interests as set forth in the lease operating expenses statement, which amount is attributable to the Conveyed Interests during the Interim Period.

**"Person"** means any individual, corporation, company, partnership, limited partnership, limited liability company, trust, estate, Governmental Authority or any other entity.

**"Pipeline Imbalance"** means any marketing imbalance between the quantity of Hydrocarbons attributable to the Oil and Gas Assets required to be delivered by Grantor under any Contract relating to the purchase and sale, gathering, transportation, storage, processing (including any production handling and processing at a separation facility) or marketing of Hydrocarbons and the quantity of Hydrocarbons attributable to the Oil and Gas Assets actually delivered by Grantor pursuant to the relevant Contract, together with any appurtenant rights and obligations concerning production balancing at the delivery point into the relevant sale, gathering, transportation, storage or processing facility.

**"Retained Interest"** means all of Grantor's rights in and to the oil and gas and mineral fee interests described in Exhibit A, insofar and only insofar as such oil and gas and mineral fee interests cover depths and formations outside of the Marcellus Formation, including the non-exclusive right to use the surface and install pipelines and gathering systems in connection with the ownership or operation of such interests with respect to such depths and formations, and all wells to the extent associated therewith.

**"SCADA Equipment"** means all SCADA and similar control equipment and network communication towers.

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015



"*Shallow Depths*" means all of Grantor's rights in and to oil and gas and mineral fee interests described in Exhibit A, insofar and only insofar as such oil and gas and mineral fee interests cover depths and formations above the top of the Marcellus Formation.

"*Third Party*" means any Person other than Grantor and Grantee or an Affiliate of Grantor or Grantee.

"*Well Imbalance*" means any imbalance at the wellhead between the amount of Hydrocarbons produced from a Marcellus Well and allocable to the interests of Grantor therein and the shares of production from the relevant Marcellus Well to which Grantor is entitled, together with any appurtenant rights and obligations concerning future in kind and/or cash balancing at the wellhead.

#### ARTICLE IV ASSUMED OBLIGATIONS

Without limiting Grantee's rights to indemnity under Article XIII of the Acquisition Agreement, any Title Indemnity Agreement, any Environmental Indemnity Agreement or under the special warranty of title in Section 3.1, and subject to the other limitations set forth in the Acquisition Agreement, effective as of the date of this Deed, Grantee hereby assumes and agrees to fulfill, perform, pay and discharge (or cause to be fulfilled, performed, paid or discharged) all of the Assumed Obligations.

#### ARTICLE V MISCELLANEOUS

**5.1 *Separate Deeds.*** Where separate deeds and assignments of the Conveyed Interests and the Subsurface Access Easement have been or will be executed for filing in other recording jurisdictions or counties or for filing with, and approval by, applicable Governmental Authorities, any such separate deeds and assignments (a) shall evidence this Deed and the grant of the applicable Conveyed Interests and the Subsurface Access Easement herein made and shall not constitute any additional grant of any of the Conveyed Interests, the Subsurface Access Easement or interests in the properties covered hereby or thereby; (b) are not intended to modify, and shall not modify, any of the terms, covenants and conditions or limitations on warranties set forth in this Deed or the Acquisition Agreement and are not intended to create, and shall not create, any representations, warranties or additional covenants of or by Grantor to Grantee; and (c) shall be deemed to contain all of the terms and provisions of this Deed, as fully and to all intents and purposes as though the same were set forth at length in such separate deeds.

**5.2 *Deed Subject to Acquisition Agreement.*** This Deed is expressly subject to the terms and conditions of the Acquisition Agreement, including with respect to the interests conveyed hereby. If there is a conflict between the terms of this Deed and the Acquisition

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015



BOOK 0752 PAGE 0076

Agreement, the terms of the Acquisition Agreement shall control. This Deed is not intended by Grantor or Grantee to be a quitclaim.

**5.3 Governing Law; Jurisdiction; Venue; Jury Waiver.** EXCEPT TO THE EXTENT THE LAWS OF ANOTHER JURISDICTION WILL, UNDER CONFLICT OF LAWS PRINCIPLES, GOVERN TRANSFERS OF THE CONVEYED INTERESTS OR THE SUBSURFACE ACCESS EASEMENT LOCATED IN SUCH OTHER JURISDICTION, THIS DEED AND THE LEGAL RELATIONS AMONG GRANTOR AND GRANTEE SHALL BE GOVERNED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS. EACH OF GRANTOR AND GRANTEE CONSENT TO THE EXERCISE OF JURISDICTION IN PERSONAM BY THE UNITED STATES FEDERAL DISTRICT COURTS LOCATED IN THE STATE OF PENNSYLVANIA FOR ANY ACTION ARISING OUT OF THIS DEED OR ANY TRANSACTION CONTEMPLATED HEREBY. ALL ACTIONS OR PROCEEDINGS WITH RESPECT TO, ARISING DIRECTLY OR INDIRECTLY IN CONNECTION WITH, OUT OF, RELATED TO, OR FROM THIS DEED OR ANY TRANSACTION CONTEMPLATED HEREBY SHALL BE EXCLUSIVELY LITIGATED IN THE UNITED STATES FEDERAL DISTRICT COURTS HAVING SITES IN PITTSBURGH, PENNSYLVANIA (AND ALL APPELLATE COURTS HAVING JURISDICTION THEREOVER). EACH OF GRANTOR AND GRANTEE WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY ACTION, SUIT OR PROCEEDING ARISING OUT OF OR RELATING TO THIS DEED OR ANY TRANSACTION CONTEMPLATED HEREBY.

**5.4 Successors and Assigns.** This Deed shall bind and inure to the benefit of the parties hereto and their respective successors and assigns.

**5.5 Counterparts.** This Deed may be executed in any number of counterparts, and each such counterpart hereof shall be deemed to be an original instrument, but all of such counterparts shall constitute for all purposes one agreement. To facilitate recordation, there are omitted from the Exhibits to this Deed in certain counterparts descriptions of the Conveyed Interests and/or the Subsurface Access Easement located in recording jurisdictions other than the jurisdiction in which the counterpart is to be filed or recorded.

**5.6 DECLARATION OF CONSIDERATION OR VALUE.** Grantor hereby declares that the total consideration paid for that portion of the Mineral Interests hereby conveyed that is (a) real property and (b) subject to the West Virginia excise tax on the privilege of transferring real property is \$32,746,391.01.

**5.7 CERTIFICATION OF EXEMPTION FROM WITHHOLDING.** The undersigned Grantor hereby certifies, under penalty of perjury, that it is a Virginia limited liability company authorized to do business in the State of West Virginia, and is therefore

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015

4705101865

BOOK 0752 PAGE 0077

exempt from state income tax withholding requirements imposed by West Virginia Code Chapter 11, Article 21, Section 71b.

*[Signature pages follow]*

12

RECEIVED  
Office of Oil and Gas

SEP 21 2015

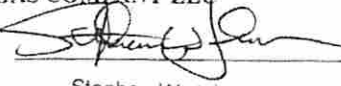
WV Department of  
Environmental Protection  
10/02/2015

BOOK 0752 PAGE 0078

IN WITNESS WHEREOF, this Deed has been executed by the parties hereto as of  
September 28, 2011, but is effective for all purposes as of the Effective  
Time.

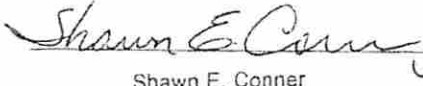
GRANTOR:

CNX GAS COMPANY LLC

By:   
Stephen W. Johnson  
Vice President and Secretary

GRANTEE:

NOBLE ENERGY, INC.

By:  *umc*  
Shawn E. Conner  
Vice President

SIGNATURE PAGE TO MINERAL INTEREST DEED

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015



BOOK 0752 PAGE 0079

ACKNOWLEDGMENTS

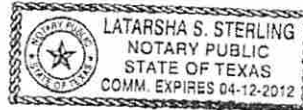
STATE OF TEXAS,  
COUNTY OF HARRIS, TO-WIT:

I, the undersigned, a notary public of the said county, do hereby certify that on this 28  
day of September 2011, before me personally appeared  
Stephen W. Johnson, who acknowledged himself to be the  
Vice President and Secretary of CNX GAS COMPANY LLC, and that he as such  
officer, being so authorized to do so, executed the foregoing instrument for the purposes therein  
contained, by signing the name of the company by himself as said officer.

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

*[Signature]*  
Notary Public

My commission expires: 4-12-2012  
(Notarial Seal)



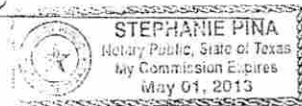
STATE OF TEXAS,  
COUNTY OF HARRIS, TO-WIT:

I, the undersigned, a notary public of the said county, do hereby certify that on this 29  
day of September 2011, before me personally appeared  
Shawn E. Conner, who acknowledged himself to be the  
Vice President of NOBLE ENERGY, INC., and that he as such officer,  
being so authorized to do so, executed the foregoing instrument for the purposes therein  
contained, by signing the name of the company by himself as said officer.

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

*[Signature]*  
Notary Public

My commission expires: 5-1-13  
(Notarial Seal)



This document was prepared by:  
C. Randall King, Esq., Porter & Hedges LLP, 1000 Main Street, 36th Floor, Houston, Texas  
77002

ACKNOWLEDGMENTS

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

EXHIBIT A  
MINERAL INTERESTS  
Marshall County, WV

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
625423	Consolidation Coal Company	6/30/2011	745	106	1311172	1-6-5.4	Benwood Corp	Marshall
390033	Consol Pennsylvania Coal Company LLC	6/30/2011	745	94	1311171	15-12-6, 3-17-8	Cameron	Marshall
624576	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-48	Cameron	Marshall
624577	McElroy Coal Company	6/30/2011	745	128	1311174	25-03-0009-0018-0000-0000	Cameron	Marshall
624586	McElroy Coal Company	6/30/2011	745	128	1311174	3-16-18	Cameron	Marshall
624597	McElroy Coal Company	6/30/2011	745	128	1311174	3-18-26.1	Cameron	Marshall
624605	McElroy Coal Company	6/30/2011	745	128	1311174	25-03-0014-0026-0001-0000	Cameron	Marshall
624606	McElroy Coal Company	6/30/2011	745	128	1311174	3-13-5	Cameron	Marshall
624609	McElroy Coal Company	6/30/2011	745	128	1311174	2-1-149, 3-15-10	Cameron	Marshall
624626	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-49, 3-19-50, 3-19-51, 3-19-52	Cameron	Marshall
624627	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-33, 3-19-42	Cameron	Marshall
624640	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-58	Cameron	Marshall
624642	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-36, 3-19-37	Cameron	Marshall
624643	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-54	Cameron	Marshall
624644	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-57	Cameron	Marshall
624645	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-56	Cameron	Marshall
624652	McElroy Coal Company	6/30/2011	745	128	1311174	05-17C-25, 07-16-9, 07-16-9.1	Cameron	Marshall

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015

4705101865

0752 REC 301

EXHIBIT A  
MINERAL INTERESTS  
Marshall County, WV

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
624657	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-14, 3-19-15, 3-19-16, 3-19-17, 3-19-19, 3-19-20, 3-19-21, 3-19-22, 3-19-23, 3-19-24	Cameron	Marshall
624658	McElroy Coal Company	6/30/2011	745	128	1311174	3-12-22, 3-12-23, 3-12-24.1, 3-12-28	Cameron	Marshall
624661	McElroy Coal Company	6/30/2011	745	128	1311174	05-17C-32	Cameron	Marshall
624662	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-59, 3-19-64, 3-19-67, 3-19-68	Cameron	Marshall
624663	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-26.1, 3-19-27, 3-19-28, 3-19-29	Cameron	Marshall
624665	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-60	Cameron	Marshall
624676	McElroy Coal Company	6/30/2011	745	128	1311174	3-19-48	Cameron	Marshall
624684	McElroy Coal Company	6/30/2011	745	128	1311174	08-11-100, 2-4-52, 3-16-4	Cameron	Marshall
624685	McElroy Coal Company	6/30/2011	745	128	1311174	2-4-50	Cameron	Marshall
624588	McElroy Coal Company	6/30/2011	745	128	1311174	TM 4 Parcel 17	Cameron Corp	Marshall
624600	McElroy Coal Company	6/30/2011	745	128	1311174	2-4-4	Cameron Corp	Marshall
624602	McElroy Coal Company	6/30/2011	745	128	1311174	2-5-56, 2-5-57	Cameron Corp	Marshall
624613	McElroy Coal Company	6/30/2011	745	128	1311174	2-5-59	Cameron Corp	Marshall
624619	McElroy Coal Company	6/30/2011	745	128	1311174	2-4-3, 2-4-3	Cameron Corp	Marshall
624620	McElroy Coal Company	6/30/2011	745	128	1311174	2-5-115	Cameron Corp	Marshall
624621	McElroy Coal Company	6/30/2011	745	128	1311174	2-2-275	Cameron Corp	Marshall

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015





EXHIBIT A  
MINERAL INTERESTS  
Marshall County, WV

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
623175	Ritchea, Avey & Olive B	2/1/1956	312	268		40014001000000400	Franklin	Marshall
623176	Sims, Clara J, Sims, Roy B	2/1/1956	312	234		40014001100000400	Franklin	Marshall
623177	Jones, Rubie & Wilma	1/31/1956	312	332		40014000900000400	Franklin	Marshall
623217	Doty, Harry E	4/19/1956	313	330		40014001400000400	Franklin	Marshall
623218	Bottoms, Paul E & Marguerite D	5/2/1956	314	385		40014000300000400	Franklin	Marshall
623235	Hubbs, Kermit Reed	4/9/1968	397	420		400070005000010400	Franklin	Marshall
623236	Utter, James & Mary	4/10/1968	397	436		400050075000010400	Franklin	Marshall
623237	Doty, Parker L	8/3/1968	399	503		40007001200010400	Franklin	Marshall
623238	Doty, Lucy E	11/9/1968	403	351		040007001200000400, 040007001300000400, 040007001900000400	Franklin	Marshall
623344	Brown, John J & Margaret; Brown, John Jr	12/5/1955	311	123		50001000200000500	Franklin	Marshall
623346	Wilson, Albert M & Effie	1/20/1956	311	411		50001001000000500	Franklin	Marshall
623347	Meeker, Lloyd Jr & Jo Ann	1/5/1956	311	404		5-1-16	Franklin	Marshall
623348	Goodrich, Robert A & Norma Jean	1/7/1956	311	406		5-1-16	Franklin	Marshall
623349	Goodrich, Clarence E & Elsie	1/7/1956	311	400		50001001600000500	Franklin	Marshall
623351	Knox, Vernon & Dessie	1/25/1956	312	6		50001000300000500	Franklin	Marshall
623352	Eller, Berrell & Florence	1/23/1956	312	55		25-05-0002-0005-0000-0000, 5-2-5	Franklin	Marshall
623353	Rine, James C & Clarice E	1/25/1956	312	127		0500010005000000500, 5-2-3	Franklin	Marshall
623354	Smith, Jerry O & Hazel	1/25/1956	312	181		0500010007000000500, 5-2-4	Franklin	Marshall

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

EXHIBIT A  
MINERAL INTERESTS  
Marshall County, WV

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
624061	Loucks, Charles H; Keister, Fenton O, Jr, Et Al	8/17/1950	273	326		25-05-0007-0003-0001- 0000, 25-05-0007-0003- 0001-0000, 5-7-3, 5-7-3.3, 5-7-3.4	Franklin	Marshall
624073	Steigner, Frederick J; Steigner, Anna Katheryne	11/27/1951	282	61		25-05-0006-0001-0001- 0000, 25-05-0006-0003- 0000-0000, 25-05-0006- 0010-0000-0000, 5-6-14, 5- 6-6	Franklin	Marshall
624074	Gatts, Alice	1/9/1952	282	394		25-05-0006-0003-0000- 0000, 25-05-0006-0010- 0000-0000, 25-05-0006- 0010-0000-0000, 25-05- 0006-0016-0000-0000, 25- 05-0007-0003-0000-0000, 25-05-0007-0003-0001- 0000, 5-7-2, 5-7-2, 5-7-3, 5- 7-3.1	Franklin	Marshall
624080	Gatts, Elizabeth R J & Harley	1/1/1953	290	97		25-05-0006-0003-0000- 0000, 25-05-0006-0010- 0000-0000, 5-6-10, 5-6-5	Franklin	Marshall
624081	Cox, Hannah O & J Frank	1/1/1953	290	110		25-05-0006-0004-0000- 0000, 25-05-0006-0010- 0000-0000, 5-6-10, 5-6-11, 5-6-4	Franklin	Marshall
624083	Gatts, Lloyd O & Mary Wolfe	1/1/1953	290	94		25-05-0006-0003-0000- 0000, 5-7-3.2, 5-7-4	Franklin	Marshall
624123	Wilkinson, Raymond M & Elsie M	1/16/1956	311	379		5-7-10, 5-7-10.1	Franklin	Marshall
624124	Kirkman, Casper Sanford; Kirkman, Lillian E	1/7/1956	311	390		5-7-15	Franklin	Marshall
624131	Eddy, Alex & Ethel	1/23/1956	311	461		5-5-2	Franklin	Marshall

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015



EXHIBIT A  
MINERAL INTERESTS  
Marshall County, WV

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
624132	Swaggart, Harry J & Alice V	1/23/1956	312	3		25-05-0006-0003-0000-0000, 5-2-1, 5-2-2, 5-2-2	Franklin	Marshall
624133	Elliott, Frank & Martha	1/24/1956	311	467		5-7-15.1	Franklin	Marshall
624135	Denis, John C & Wilma E	1/12/1956	312	16		5-2-12	Franklin	Marshall
624136	Minor, J L Et Al	1/7/1956	312	76		25-05-0006-0002-0000-0000, 5-6-2, 5-6-2, 5-6-3	Franklin	Marshall
624140	Harris, Donald B & Velma Ruth	1/26/1956	312	50		5-5-1	Franklin	Marshall
624145	Miller, Lester Et Al	1/7/1957	319	326			Franklin	Marshall
624146	Ohio Power Company	4/30/1957	321	319			Franklin	Marshall
624150	Rine, G W & Bessie J	4/9/1956	313	200		25-05-0006-0003-0000-0000	Franklin	Marshall
624160	Wolff, Delbert & Helen Et Al	3/27/1967	390	167		5-8-2, 5-8-33, 5-8-38, 5-8-53	Franklin	Marshall
624169	Frank, Alice Leona & Ben	1/21/1972	425	232		050012001000000500, 050012001000010500	Franklin	Marshall
624302	Howe, Neva J; Landers, Lena M & Richard O	1/30/1958	328	275		050012002300020501, 050012002300020501, 050012002300020502, 050012002300020502	Franklin	Marshall
624504	Consolidation Coal Company	6/30/2011	745	106	1311172	25-07-0003-0001-0000-0000	Liberty	Marshall
624515	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624516	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624517	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624518	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

**EXHIBIT A**  
**MINERAL INTERESTS**  
**Marshall County, WV**

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
624519	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624520	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624521	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624522	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624523	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624524	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624525	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624526	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624540	Consolidation Coal Company	6/30/2011	745	106	1311172	TM 2 Parcel 30	Liberty	Marshall
624550	McElroy Coal Company	6/30/2011	745	128	1311174	7-11-2, 7-11-3, 7-11-8	Liberty	Marshall
624648	McElroy Coal Company	6/30/2011	745	128	1311174	7-2-6	Liberty	Marshall
624689	McElroy Coal Company	6/30/2011	745	128	1311174	07-17-22.1, 3-14-36, 3-14-37	Loudenville	Marshall
625057	Valley Camp Coal Company	1/15/1962	355	171		12-2-5, 13-8-11	Sandhill	Marshall
625269	Consolidation Coal Company	6/30/2011	745	106	1311172	12-3-5.3, 12-3-5.4, 12-3-7, 12-3-7.1	Sandhill	Marshall
625271	Consolidation Coal Company	6/30/2011	745	106	1311172	25-12-0015-0015-0000-0000, 25-12-0015-0016-0000-0000, 25-12-0015-0016-0000-0000, 25-15-0004-0003-0000-0000	Sandhill	Marshall

RECEIVED  
 Office of Oil and Gas

SEP 21 2015

WV Department of  
 Environmental Protection

10/02/2015

EXHIBIT A  
MINERAL INTERESTS  
Marshall County, WV

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
625276	Consolidation Coal Company	6/30/2011	745	106	1311172	25-12-0015-0014-0000-0000, 25-12-0015-0015-0000-0000	Sandhill	Marshall
625384	Consolidation Coal Company	6/30/2011	745	106	1311172	25-12-0005-0001-0000-0000	Sandhill	Marshall
625388	Consolidation Coal Company	6/30/2011	745	106	1311172	25-12-0006-0003-0002-0000	Sandhill	Marshall
625419	Consolidation Coal Company	6/30/2011	745	106	1311172	25-12-0004-0012-0000-0000, 25-12-0004-0014-0000-0000	Sandhill	Marshall
625272	Consolidation Coal Company	6/30/2011	745	106	1311172	13-4-37.1	Union	Marshall
625363	Consolidation Coal Company	6/30/2011	745	106	1311172	25-13-005A-0035-0000-0000	Union	Marshall
625368	Consolidation Coal Company	6/30/2011	745	106	1311172	05-18-31, 13-5A-27, 13-5A-28	Union	Marshall
625378	Consolidation Coal Company	6/30/2011	745	106	1311172	15-17-33	Union	Marshall
625382	Consolidation Coal Company	6/30/2011	745	106	1311172	1-4-47, 1-4-49	Union	Marshall
625385	Consolidation Coal Company	6/30/2011	745	106	1311172	25-13-005A-0042-0000-0000, 25-13-005A-0042-0001-0000, 25-13-005A-0042-0002-0000	Union	Marshall
625386	Consolidation Coal Company	6/30/2011	745	106	1311172	1-4-50	Union	Marshall
625408	Consolidation Coal Company	6/30/2011	745	106	1311172	13-5A-43	Union	Marshall
625412	Consolidation Coal Company	6/30/2011	745	106	1311172	02-6-19	Union	Marshall
625417	Consolidation Coal Company	6/30/2011	745	106	1311172	1-6-5.2, 1-6-5.4, 1-6-5.4	Union	Marshall
625418	Consolidation Coal Company	6/30/2011	745	106	1311172	13-1GG-11	Union	Marshall

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015



EXHIBIT A  
MINERAL INTERESTS  
Marshall County, WV

Reference #	Grantor	Deed Date	Book	Page	Instrument #	Tax ID	District	County
625420	Consolidation Coal Company	6/30/2011	745	106	1311172	13-1-40, 13-1-42, 13-1D-1, 13-1D-60	Union	Marshall
625421	Consolidation Coal Company	6/30/2011	745	106	1311172	10-8-19	Union	Marshall
625422	Consolidation Coal Company	6/30/2011	745	106	1311172	13-1-46.2	Union	Marshall
625425	Consolidation Coal Company	6/30/2011	745	106	1311172	13-1G-19.11	Union	Marshall
625426	Consolidation Coal Company	6/30/2011	745	106	1311172	10-8-21	Union	Marshall
625431	Consolidation Coal Company	6/30/2011	745	106	1311172	13-1D-2, 13-1D-60	Union	Marshall
389878	Conrheir Coal Company	6/30/2011	745	83	1311170	15-5-11	Webster	Marshall
389894	Consol Pennsylvania Coal Company LLC	6/30/2011	745	94	1311171	25-15-0005-0011-0000-0000	Webster	Marshall
389909	Consol Pennsylvania Coal Company LLC	6/30/2011	745	94	1311171	25-15-0005-0012-0000-0000	Webster	Marshall
389961	Consol Pennsylvania Coal Company LLC	6/30/2011	745	94	1311171	25-15-0005-0013-0000-0000	Webster	Marshall
390075	Consol Pennsylvania Coal Company LLC	6/30/2011	745	94	1311171	15-14-6.1, 15-8-45, 15-8-45.1	Webster	Marshall
625277	Consolidation Coal Company	6/30/2011	745	106	1311172	25-15-0004-0015-0000-0000	Webster	Marshall
625404	Consolidation Coal Company	6/30/2011	745	106	1311172	25-15-0005-0003-0000-0000	Webster	Marshall
625439	Consolidation Coal Company	6/30/2011	745	106	1311172	08-11-97	Webster	Marshall

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015

BOOK 0752 PAGE 0089

EXHIBIT B

## MARCELLUS WELLS

WELL NAME	API NUMBER	UWI	STATE	COUNTY	AREA
SHLIBHS	4705101387	WV0510311HS	WV	MARSHALL	MAJORSVILLE

EXHIBIT B-1

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

4705101865

BOOK 0752 PAGE 0090

EXHIBIT C  
RIGHTS OF WAY

None

Exhibit C-1

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015



**EXHIBIT D****EXCLUDED ASSETS**

For purposes of this Deed, "*Excluded Assets*" means:

- (a) all of Grantor's corporate minute books and corporate financial records that relate to Grantor's business generally (including the ownership and operation of the Conveyed Interests);
- (b) all trade credits, all accounts, receivables and all other proceeds, income or revenues attributable to the Conveyed Interests with respect to any period of time prior to the Effective Time;
- (c) all claims and causes of action of Grantor arising under or with respect to any Contracts that are attributable to periods of time prior to the Effective Time (including claims for adjustments or refunds);
- (d) subject to Section 5.4 of the Acquisition Agreement, all rights and interests of Grantor (i) under any policy or agreement of insurance or indemnity, (ii) under any bond or (iii) to any insurance or condemnation proceeds or awards arising, in each case, from acts, omissions or events, or damage to or destruction of property;
- (e) all Hydrocarbons produced and sold from the Properties with respect to all periods prior to the Effective Time, other than those Hydrocarbons attributable to the Conveyed Interests and in storage or existing in stock tanks, pipelines or plants (including inventory) as of the Effective Time;
- (f) all claims of Grantor for refunds of or loss carry forwards with respect to (i) Asset Taxes attributable to any period, or portion thereof, prior to the Effective Time, (ii) income or franchise Taxes or (iii) any Taxes attributable to the Excluded Assets;
- (g) all offices (including any owned or leased real or immovable property relating thereto) and personal computers and associated peripherals and all radio and telephone equipment and licenses relating thereto;
- (h) all of Grantor's proprietary computer software, patents, trade secrets, copyrights, names, trademarks, logos and other intellectual property;
- (i) all servitudes, easements, rights-of-way, surface fee interests, surface leases and other surface use agreements not primarily used or held for use in connection with the ownership or operation of the Properties or the Personal Property;

EXHIBIT D-1

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

BOOK 0752 PAGE 0092

- (j) all documents and instruments of Grantor that may be protected by an attorney-client privilege;
- (k) all data and Contracts that cannot be disclosed to Grantee as a result of confidentiality arrangements under agreements with Third Parties;
- (l) all audit rights arising under any of the Applicable Contracts or otherwise with respect to any period prior to the Effective Time or to any of the Excluded Assets, except for any Imbalances assumed by Grantee;
- (m) all geophysical and other seismic and related technical data and information relating to the Properties or other Conveyed Interests to the extent that such geophysical and other seismic and related technical data and information is not transferable without payment of a fee or other penalty (unless Grantee agrees to, and does, pay such fees and penalties) or not otherwise set forth in Schedule 2.1 to the Acquisition Agreement;
- (n) documents prepared or received by Grantor or its Affiliates with respect to (i) lists of prospective purchasers for such transactions compiled by Grantor or its Affiliates, (ii) bids submitted by other prospective purchasers of the Conveyed Interests or any other interest in the Properties, (iii) analyses by Grantor or its Affiliates of any bids submitted by any prospective purchaser, (iv) correspondence between or among Grantor or its Affiliates or their respective representatives, and any prospective purchaser other than Grantee and (v) correspondence between Grantor or its Affiliates or any of their respective representatives with respect to any of the bids, the prospective purchasers, or the transactions contemplated in this Agreement;
- (o) all trucks, cars and drilling/workover rigs utilized by Grantor or its Affiliates in connection with the ownership or operation of the Conveyed Interests;
- (p) all Hedge Contracts;
- (q) all proceeds and amounts held in suspense as of Closing that are attributable to the Hydrocarbons produced from the Properties;
- (r) Overhead Costs payable to Grantor or any Affiliate of Grantor as an Operator of the Conveyed Interests attributable to the period between the Effective Time and the Closing Date;
- (s) files and records attributable to the Conveyed Interests that are maintained by Grantor that are not primarily used or held for use in connection with the operatorship or ownership of the Conveyed Interests;
- (t) any Conveyed Interests described in *Section 2.1(b)* that are not assignable;
- (u) any Retained Interest;

EXHIBIT D-2

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015

- (v) all Existing Gathering Assets;
- (w) the Antero ORRI;
- (x) all rights to coal and substances mined in connection therewith;
- (y) any Additional Interests acquired by Grantor during the Interim Period in the Development Area with respect to which Grantee elects not to acquire its participating share pursuant to the terms of the Development Agreement;
- (z) all water rights;
- (aa) the Downstream Contracts, the NJR Contracts and the Peoples Contract;
- (bb) all Contracts which are held or to be held by Grantor in its capacity as operator of the Development Area set forth on Exhibit A-2 to the Development Agreement, including drilling Contracts and services Contracts;
- (cc) all Pipeline Imbalances; and
- (dd) all SCADA Equipment and Federal Communication Commission licenses.

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

EXHIBIT D-3

STATE OF WEST VIRGINIA, MARSHALL COUNTY, SCT.:

I, JAN PEST, Clerk of the County Commission of said County, do hereby certify that the annexed writing, bearing date on the 28<sup>th</sup> day of September, 2011, was presented for and by me, admitted to record in my office upon the above certificate as to the parties therein named this 5<sup>th</sup> day of December, 2011 at 10:27 o'clock A.M.

CPS 5M 10-11

TESTE: *Jan Pest* Clerk.

10/02/2015



DEED

Marshall County, West Virginia

CRENTE & JENSEN PLLC  
P.O. BOX 1645  
MORGANTHAU, WV 26507-1646

THIS DEED is made and entered into as of the 21st day of July, 2005, by and among CNX LAND RESOURCES INC, a Delaware corporation, CONSOLIDATION COAL COMPANY, a Delaware corporation, CONSOL PENNSYLVANIA COAL COMPANY, a Delaware corporation, CONRHEIN COAL COMPANY, a Pennsylvania partnership, McELROY COAL COMPANY, a Delaware corporation, and RESERVE COAL PROPERTIES COMPANY, a Delaware corporation, all of whom are herein referred to collectively as "Grantors," and CNX GAS COMPANY LLC, a Virginia limited liability company, herein referred to as "Grantee."

WITNESSETH: That, for good and valuable consideration, and for the purpose of vesting in one entity (i) title to all of the reserves of, (ii) ownership of all of the mineral rights in and to, and (iii) control of all of the operating assets and contract rights related to, Coalbed Methane and Oil and Natural Gas (as such terms are herein defined) vested in or controlled by any of the Grantors in Marshall County, West Virginia. Grantors hereby grant, convey, assign and transfer to Grantee, with covenants of special warranty, subject to the terms and provisions of that certain Master Cooperation and Safety Agreement dated the 1st day of August, 2005 (herein, the "Master Agreement"), all of their respective rights, titles, interests, claims and estates in and to the following assets (herein, the "Transferred Assets"):

(A) Coalbed Methane. All of Grantors' right, title, interest, estate and claim in and to Coalbed Methane recoverable from any tract of land, coal tract, seam or vein of coal or other real estate owned or leased by any of the Grantors situate in whole or in part in Marshall County, West Virginia;

(B) Oil and Natural Gas. All of the Oil and Natural Gas owned or leased by any of the Grantors within and underlying any tract or parcel of land situate in whole or in part in the Marshall County, West Virginia.

JR PEST  
MARSHALL County 11:24:19 AM  
Instrument No 01310  
Recorded Date 08/03/2005  
Document Type DEED  
Book-Page 646-493  
Rec/Add Fee 103.00 18.00  
Transfer Tax 2501.40

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

(C) Leases & Operating Agreements. All of Grantors' right, title, interest and estate in and under any and all leases, licenses, operating agreements and other contracts and agreements whereby the right or privilege of exploring and drilling for, operating, producing, marketing and/or selling the Coalbed Methane and the Oil and Natural Gas hereby conveyed and assigned to Grantee has been leased, granted, licensed or assigned to one or more third parties;

(D) Wells & Equipment. Any and all wells, well equipment, machinery, compressors, pipelines, processing stations and other equipment, machinery or facilities owned or leased by any of the Grantors which are used or useful in connection with the drilling, production, transportation, compression, processing and/or marketing the Coalbed Methane and the Oil and Natural Gas hereby conveyed to Grantee;

(E) Easements. Any and all drilling, operating, producing, gathering, transporting and other appurtenant surface and/or subsurface easements, rights and privileges vested in any of the Grantors with respect to the Coalbed Methane and the Oil and Natural Gas hereby conveyed to Grantee;

(F) Contracts. Any and all rights of any of the Grantors existing under any contracts, agreements or other undertakings for the processing, transporting, marketing and sale of the Coalbed Methane and the Oil and Natural Gas hereby conveyed to Grantee.

The Transferred Assets are more particularly identified and described on Exhibit A attached hereto; provided, however, it is the intent of the Grantors to transfer and convey to Grantee all assets located in Marshall County, West Virginia which are described in the granting clauses above, whether or not such assets are listed on Exhibit A; and, provided, further, that, to the extent that any power lines, water lines, communication facilities, other facilities, contract rights or appurtenances hereinabove described relate to shared facilities between coal operations and gas operations, this Deed shall operate to assign only such rights as are related solely to gas operations and activities; and, provided, further, that, notwithstanding anything herein to the contrary, this Deed shall not operate to divest any of the Grantors of, or to confer on Grantee, any coal mining rights or privileges or any subsidence rights with respect to any real estate embraced within or described by the granting clauses of this Deed.

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

Covenant of Further Assurances

Grantors covenant with Grantee that the Grantors, and each of them, will provide such further assurances and execute such additional instruments as may be necessary or reasonably appropriate to evidence Grantee's title to the Transferred Assets.

Definitions

As used in this Deed, the term "Coalbed Methane" means any gas, hydrocarbon, or gaseous substance which can be produced from a coal seam, the rock or other strata in communication with a coal seam, a mined-out area or a gob well, but including within such term only such constituent minerals, gases and chemicals which are commonly recognized as of the date of this Deed as being marketable as "coalbed methane."

As used in this Deed, the term "Oil" means any and all natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced in liquid form by ordinary production methods, and the term "Natural Gas" means any and all gas, other fluid hydrocarbons which are not Oil and other gaseous substances, other than Coalbed Methane, recoverable or producible from any subterranean formation, but including within such terms only such constituent minerals, fluid or gaseous hydrocarbons and chemicals which are commonly recognized as of the date of this Deed as being marketable as "oil" or as "natural gas."

Reddendum

Grantors hereby except from this conveyance, and reserve unto themselves, their successors and assigns, all tracts or parcels of land, surface tracts, coal tracts, mineral tracts and other real estate, or interests in real estate, now or hereafter owned, leased or otherwise claimed by any of them in Marshall County West Virginia, except for the Coalbed Methane, the Oil and Natural Gas and the other Transferred Assets hereby conveyed, transferred and assigned to Grantee. Notwithstanding the conveyance and transfer by this Deed of the Grantors' rights, titles, interests and claims in and to Coalbed Methane, and without limiting the rights and obligations set forth in the Master Agreement (which rights and obligations are incorporated herein in their entirety), Grantors expressly reserve to themselves, their successors and assigns, any and all coal mining rights and privileges and any and all subsidence rights vested in them, expressly or by implication, with respect to any real estate embraced within or described by the

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

granting clauses of this Deed, including, without limitation, the right and privilege to ventilate their mines and coal seams by discharging therefrom any coalbed gas, methane or other gaseous substances which may be found therein or which may migrate thereto without liability or obligation to account to Grantee, except as may be provided to the contrary in the Master Agreement.

Incorporation of Master Agreement Provisions

Grantors and Grantee hereby incorporate by reference all of the terms and provisions of the Master Agreement which relate to the exercise of the rights hereby reserved by Grantors and the exercise of the rights hereby granted to Grantee, including, without limitation, the provision that Grantors' coal operations shall at all times prevail over Grantee's Coalbed Methane or Oil and Natural Gas operations. The terms and provisions of the Master Agreement shall be deemed to be covenants which run with the land, which shall survive the termination of the Master Agreement.

Third Party Consents

Notwithstanding anything to the contrary provided in this Deed, to the extent that the conveyance, assignment or transfer of any portion of the Transferred Assets is prohibited by the terms of a deed, deed of trust, lease, contract, agreement or other instrument, or would result in a breach or default by Grantors under any such instrument, or the termination of Grantors' rights in or title to any portion of the Transferred Assets due to the conveyance, assignment or transfer of such Transferred Asset(s) without the consent of a former grantor, deed of trust beneficiary, lessee or other third party, then, in such event, the Transferred Assets shall not include, and shall exclude, such portion of the Transferred Assets as may be affected by such prohibition or requirement for third party consent unless and until such prohibition has been waived or all requisite third party consents have been obtained.

Grantee's Covenants

The Grantee hereby accepts the conveyance, assignment and transfer of the Transferred Assets upon the terms and conditions herein provided, including, without limitation, the terms and conditions of the Master Agreement which are incorporated herein by reference. The Grantee covenants with the Grantors, their successors and assigns, that, in the exercise of

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015



the rights acquired by Grantee under this Deed, the Grantee, and its successors and assigns, will be bound by all of the foregoing terms and conditions.

Declaration of Consideration or Value

The undersigned Grantors hereby declare that the true and actual value of the Coalbed Methane and the Oil and Natural Gas transferred by this Deed is estimated to be \$ 568,171.00

WITNESS the following execution:

ATTEST:

By: [Signature]  
Name: Paige M. Greene  
Its: Assistant Secretary

CNX LAND RESOURCES INC.,  
a Delaware corporation  
By: [Signature]  
Name: William D. Stanhagen  
Its: President

ATTEST:

By: [Signature]  
Name: Paige M. Greene  
Its: Assistant Secretary

CONSOLIDATION COAL COMPANY,  
a Delaware corporation  
By: [Signature]  
Name: William D. Stanhagen  
Its: Vice President

ATTEST:

By: [Signature]  
Name: Paige M. Greene  
Its: Assistant Secretary

CONSOL PENNSYLVANIA COAL  
COMPANY, Delaware corporation  
By: [Signature]  
Name: William D. Stanhagen  
Its: Vice President

ATTEST:

By: [Signature]  
Name: Paige M. Greene  
Its: Assistant Secretary

CONRHEIN COAL COMPANY,  
a Pennsylvania partnership  
By: [Signature]  
Name: William D. Stanhagen  
Its: Manager

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

2005 JUN 21 98

ATTEST:

By: [Signature]  
Name: Paige M. Greene  
Its: Assistant Secretary

McELROY COAL COMPANY,  
a Delaware corporation

By: [Signature]  
Name: William D. Stanhagen  
Its: Vice President

ATTEST:

By: [Signature]  
Name: Paige M. Greene  
Its: Assistant Secretary

RESERVE COAL PROPERTIES  
COMPANY, a Delaware corporation

By: [Signature]  
Name: William D. Stanhagen  
Its: President

ATTEST:

By: [Signature]  
Name: Paige M. Greene  
Its: Assistant Secretary

CNX GAS COMPANY L.L.C.,  
a Virginia limited liability company

By: [Signature]  
Name: William D. Stanhagen  
Its: Vice President

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

I, the undersigned notary public, do certify that WILLIAM D. STANHAGEN,  
the President of CNX Land Resources Inc., who signed the writing hereto annexed, bearing date  
of the 21 day of JULY, 2005, has this day in my said county, before me,  
acknowledged the same to be the act and deed of said corporation.

Given under my hand this 21 day of June, JULY, 2005.

My commission expires: \_\_\_\_\_

(NOTARIAL SEAL)

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Jane M. Young, Notary Public  
Upper St. Clair Twp., Allegheny County  
My Commission Expires June 20, 2009  
Member, Pennsylvania Association of Notaries

[Signature]  
Notary Public

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

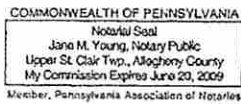
COMMONWEALTH OF PENNSYLVANIA,  
COUNTY OF ALLEGHENY, TO-WIT:

I, the undersigned notary public, do certify that WILLIAM D. STANHAGEN,  
the Vice President of Consolidation Coal Company, who signed the writing hereto annexed,  
bearing date of the 21 day of JULY, 2005, has this day in my said county, before me,  
acknowledged the same to be the act and deed of said corporation.

Given under my hand this 21 day of JULY, 2005.

My commission expires: \_\_\_\_\_

(NOTARIAL SEAL)



Jane M Young  
Notary Public

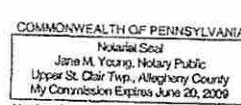
COMMONWEALTH OF PENNSYLVANIA,  
COUNTY OF ALLEGHENY, TO-WIT:

I, the undersigned notary public, do certify that WILLIAM D. STANHAGEN,  
the Vice President of Consol Pennsylvania Coal Company, who signed the writing hereto  
annexed, bearing date of the 21 day of JULY, 2005, has this day in my said county,  
before me, acknowledged the same to be the act and deed of said corporation.

Given under my hand this 21 day of JULY, 2005.

My commission expires: \_\_\_\_\_

(NOTARIAL SEAL)



Jane M Young  
Notary Public

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015

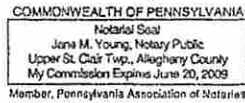
COMMONWEALTH OF PENNSYLVANIA.  
COUNTY OF ALLEGHENY, TO-WIT:

I, the undersigned notary public, do certify that WILLIAM D. STANHAGEN,  
the Manager of Conheim Coal Company, who signed the writing hereto annexed, bearing date  
of the 21 day of JULY, 2005, has this day in my said county, before me, acknowledged  
the same to be the act and deed of said partnership.

Given under my hand this 21 day of JULY, 2005.

My commission expires: \_\_\_\_\_

(NOTARIAL SEAL)



Jane M. Young  
Notary Public

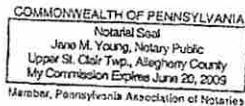
COMMONWEALTH OF PENNSYLVANIA,  
COUNTY OF ALLEGHENY, TO-WIT:

I, the undersigned notary public, do certify that WILLIAM D. STANHAGEN,  
the Vice President of McElroy Coal Company, who signed the writing hereto annexed, bearing  
date of the 21 day of JULY, 2005, has this day in my said county, before me,  
acknowledged the same to be the act and deed of said corporation.

Given under my hand this 21 day of JULY, 2005.

My commission expires: \_\_\_\_\_

(NOTARIAL SEAL)



Jane M. Young  
Notary Public

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection

10/02/2015



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

I, the undersigned notary public, do certify that WILLIAM D. STANHAGEN,  
the President of Reserve Coal Properties Company, who signed the writing hereto annexed,  
bearing date of the 21 day of JULY, 2005, has this day in my said county, before me,  
acknowledged the same to be the act and deed of said corporation.

Given under my hand this 21 day of JULY, 2005.

My commission expires: \_\_\_\_\_

(NOTARIAL SEAL)  
COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Jane M. Young, Notary Public  
Upper St. Clair Twp., Allegheny County  
My Commission Expires June 20, 2009  
Member, Pennsylvania Association of Notaries

Jane M. Young  
Notary Public

COMMONWEALTH OF PENNSYLVANIA,

COUNTY OF ALLEGHENY, TO-WIT:

I, the undersigned notary public, do certify that WILLIAM D. STANHAGEN,  
the Vice President CNX Gas Company LLC, who signed the writing hereto annexed, bearing  
date of the 21 day of JULY, 2005, has this day in my said county, before me,  
acknowledged the same to be the act and deed of said limited liability company.

Given under my hand this 21 day of JULY, 2005.

My commission expires: \_\_\_\_\_

(NOTARIAL SEAL)  
COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Jane M. Young, Notary Public  
Upper St. Clair Twp., Allegheny County  
My Commission Expires June 20, 2009  
Member, Pennsylvania Association of Notaries  
This Deed was Prepared by:

Jane M. Young  
Notary Public

James A. Russell, Esquire  
Stepoe & Johnson PLLC  
United Center, Suite 400  
1085 Van Voorhis Road  
Morgantown, WV 26507-1616

RECEIVED  
Office of Oil and Gas

SEP 21 2015

WV Department of  
Environmental Protection  
10/02/2015

NOBLE ENERGY ATTN: BRIAN LEONARD  
 1000 NOBLE ENERGY DRIVE  
 CANONSBURG, PA 15317-9513

STATE OF WEST VIRGINIA  
 COUNTY OF MARSHALL

ASSIGNMENT OF OIL AND GAS LEASES

THIS ASSIGNMENT OF OIL AND GAS LEASES (the "Assignment") is made and entered into this 2nd day of July, 2015 (the "Effective Date"), among Chevron U.S.A. Inc., a Pennsylvania corporation (hereinafter "Assignor") and Noble Energy, Inc., a Delaware corporation, and CNX Gas Company, LLC a Virginia limited liability company (collectively hereinafter "Assignees").

WITNESSETH:

WHEREAS, Assignor is the owner of all of the right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, which are described in Exhibits "A" and "A-1", attached hereto and made a part hereof (hereinafter the "Leases"); and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignees all of Assignor's right, title, and interest in and to the Leases as described below.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignees, their respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignees or their designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. Representations and Warranties. Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered its interest in the Leases since the time that Assignor obtained its interests in the Leases. Assignor does covenant, promise and agree, to and with the Assignees, their respective successors and assigns, to forever specially warrant and defend the title to the Leases, or portions thereof included under this Assignment, unto the Assignees and their respective successors and assigns, against the lawful claims of Assignor, and all persons claiming, or to claim, by through or under Assignor.

Assignor represents and warrants that Assignor has paid any and all bonuses, rentals, royalties, overriding royalties, and other payments required by the Leases which were due for the period in which Assignor held its interests in the Leases, and that Assignor has fully performed all conditions necessary to maintain the Leases in full force and effect during such period.

3. Successors and Assigns. The terms of this Assignment shall be binding upon and inure to the benefit of the parties hereto and each of their respective successors and assigns, and such terms shall be covenants running with the land, and with each subsequent transfer or assignment thereof.

4. Further Assurances. Assignor and Assignees hereby agree to take all actions and execute, acknowledge, and deliver all such instruments as are necessary or advisable to effectuate the purposes of this Assignment.

5. Counterparts; Recordation. This Assignment may be executed in any number of counterparts, each of which will be deemed an original instrument, but all of which shall collectively constitute one and the same instrument; provided that none of the parties will be bound to this Assignment unless and until all parties have executed a counterpart. For recording purposes, the signature and/or acknowledgment pages from multiple counterparts may be combined with one or more other counterparts without affecting the effect or validity of this Assignment. Assignees are responsible for recording this Assignment in the appropriate public record, and will bear any costs associated with such recording.

6. Drafting. Preparation of this Assignment has been a joint effort of the parties and the resulting Assignment must not be construed more severely against any of the parties than against any other.

7. Incorporation. This Assignment is subject to and expressly incorporates the terms of that certain Exchange Agreement dated July 2, 2015 ("Exchange Agreement") executed by and

Received  
 Office of Oil & Gas  
 AUG 03 2015

10/02/2015

between Assignor and Assignees. The Exchange Agreement will govern to the extent of any conflict between the terms of this Assignment and the Exchange Agreement.

IN WITNESS WHEREOF, and intending to be legally bound hereby, Assignor and Assignees have caused this Assignment to be duly executed the day and year first above written.

**ASSIGNEES:**

CNX GAS COMPANY LLC

By: Richard K. Elswick  
Name: RICHARD K. ELSWICK *DWH*  
Title: VICE PRESIDENT

NOBLE ENERGY, INC.

By: Casey M. Kimble *Rem  
Ex*  
Name: Casey M. Kimble  
Title: Attorney-in-Fact

**ASSIGNOR:**

CHEVRON U.S.A. INC.

By: Marc Tate  
Name: Marc Tate  
Title: Attorney-in-Fact

Jan Pest  
MARSHALL County 03:12:34 PM  
Instrument No 1383131  
Date Recorded 07/13/2015  
Document Type ASN  
Pages Recorded 5  
Book-Page 34-502  
Recording Fee \$5.00  
Additional \$6.00

Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015

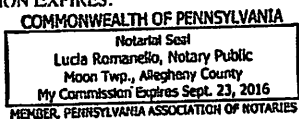
**CORPORATE ACKNOWLEDGEMENT**

STATE/Commonwealth of Pennsylvania )  
 ) SS:  
COUNTY OF Allegheny )

On this the 2<sup>nd</sup> day of July, 2015, before me, Lucia Romanello the undersigned authority, personally appeared Marc Tate, who acknowledged himself to be the Attorney-In-Fact of CHEVRON U.S.A. INC., a Pennsylvania corporation, and that he as such Attorney-In-Fact, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself as Attorney-In-Fact.

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

MY COMMISSION EXPIRES:



Lucia Romanello  
Notary Public

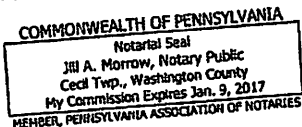
**CORPORATE ACKNOWLEDGEMENT**

STATE/Commonwealth of Pennsylvania )  
 ) SS:  
COUNTY OF Washington )

On this the 7<sup>th</sup> day of July, 2015, before me, Jill A. Morrow the undersigned authority, personally appeared Casey M. Kimble, who acknowledged himself to be the Attorney-in-Fact of NOBLE ENERGY, INC., a Delaware corporation, and that he as such official, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself as Attorney-in-Fact.

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

MY COMMISSION EXPIRES:



Jill A. Morrow  
Notary Public

**LIMITED LIABILITY COMPANY ACKNOWLEDGEMENT**

STATE/Commonwealth of West Virginia )  
 ) SS:  
COUNTY OF Lincoln )

On this the 10<sup>th</sup> day of July, 2015, before me, Karime Leonard the undersigned authority, personally appeared Richard K. Elswick, who acknowledged himself to be a Vice President of CNX GAS COMPANY LLC, a Virginia limited liability company, and that he as such Vice President, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the limited liability company by himself as Vice President.

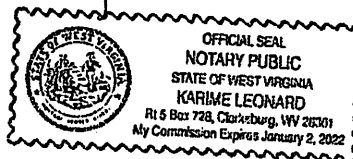
IN WITNESS WHEREOF, I hereto set my hand and official seal.

MY COMMISSION EXPIRES: 1-2-2022

Karime Leonard  
Notary Public

Received  
Office of Oil & Gas  
AUG 03 2015

Prepared by: NOBLE ENERGY, INC.  
1000 Noble Energy Drive  
Canonsburg, PA 15317



10/02/2015



**EXHIBIT "A" TO THAT CERTAIN EXCHANGE AGREEMENT BY AND AMONG  
CHEVRON U.S.A. INC., NOBLE ENERGY, INC. AND CNX GAS COMPANY LLC, with  
an Effective Date of July 2, 2015**

**LEASE SCHEDULE**

All of Chevron's right, title, and interest in and to the following Leases, to the extent covering the land described therein:

1. \*Lessor: Eugene C. Estep and Elizabeth A. Estep  
Lessee: Chevron, U.S.A., Inc.  
Effective Date: March 27, 2015  
Recording Data: Book 861, Page 613
2. Lessor: James R. Chaplin  
Lessee: NPAR LLC  
Effective Date: August 27, 2010  
Recording Data: Book 718, Page 322
3. Lessor: Lloyd Rutan and Lisa J. Gibson  
Lessee: Chevron U.S.A., Inc.  
Effective Date: March 9, 2013  
Recording Data: Book 793, Page 298
4. Lessor: Brenda Dufford  
Lessee: Chevron U.S.A., Inc.  
Effective Date: March 9, 2013  
Recording Data: Book 793, Page 303
5. Lessor: Jim Arritt, Jr.  
Lessee: Chesapeake Appalachia, LLC  
Effective Date: July 27, 2010  
Recording Data: Book 717, Page 229
6. Lessor: Jim Arritt and Donna Jean Arritt  
Lessee: Chesapeake Appalachia, LLC  
Effective Date: July 27, 2010  
Recording Data: Book 717, Page 231

\*Insofar and only insofar as pertaining to the portion of the lease lying southwest of a line which intersects the following points using NAD 1927 State Plane West Virginia North:

1. Latitude 39.859141, Longitude -80.769083,
2. Latitude 39.856756, Longitude -80.766845,
3. Latitude 39.855466, Longitude -80.765762
4. Latitude 39.854599, Longitude -80.765489
5. Latitude 39.85385, Longitude -80.765552
6. Latitude 39.85355, Longitude -80.76619

and stipulated to contain 25.04 (Twenty-Five and 4/100) acres, more or less and depicted on Exhibit A-1 (attached hereto and made a part hereof).

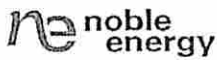
Received  
Office of Oil & Gas

AUG 03 2015

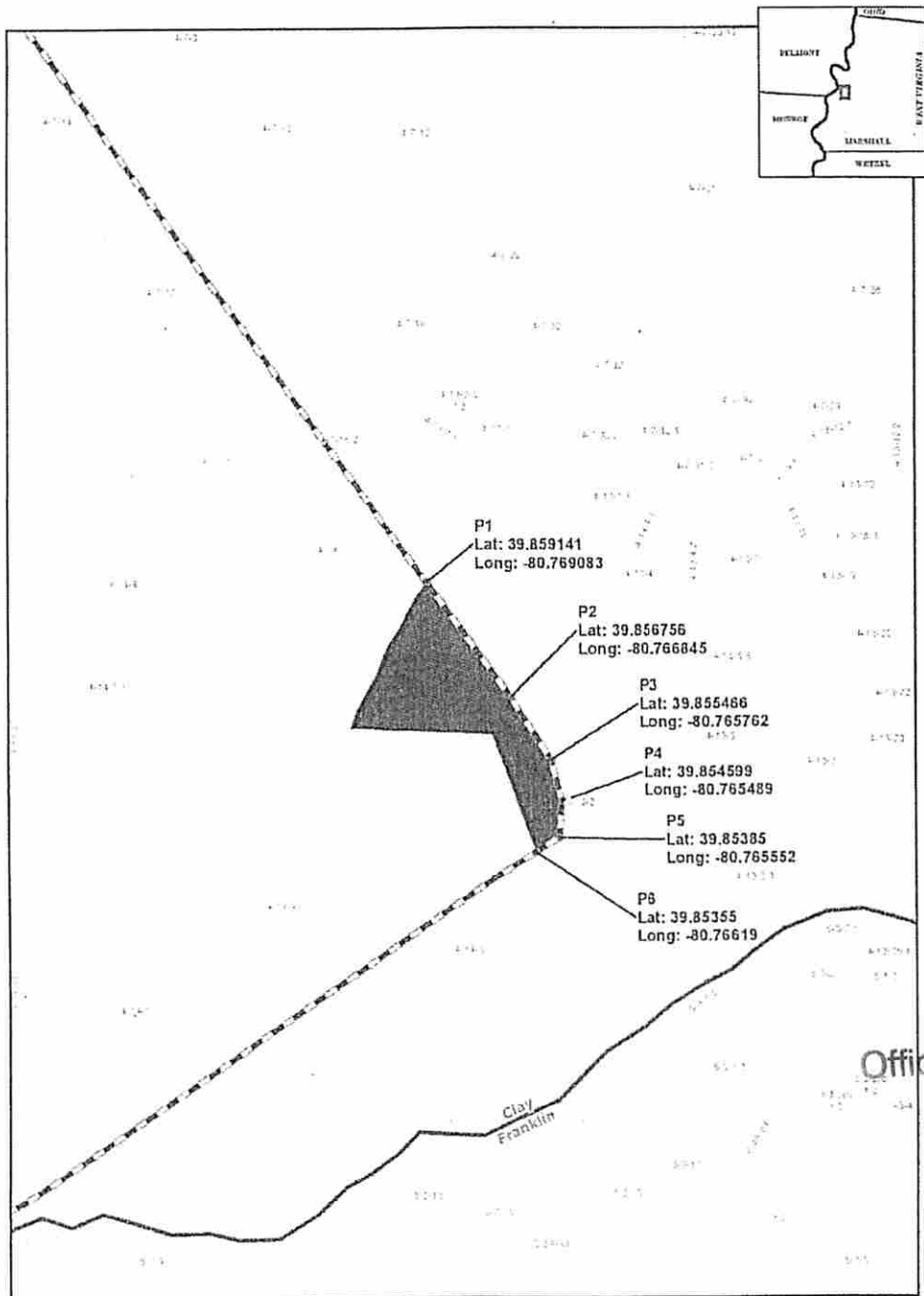
10/02/2015

EXHIBIT "A-1"

EXHIBIT "A-1" TO THAT CERTAIN ASSIGNMENT OF OIL AND GAS LEASES BETWEEN CHEVRON U.S.A. INC., AS ASSIGNOR, AND NOBLE ENERGY, INC. AND CNX GAS COMPANY LLC, AS ASSIGNEES with an Effective Date of July 2, 2015



Estep Lease Split  
Clay District, Marshall Co. Wv



Received  
Office of Oil & Gas  
AUG 03 2015

- Lease Split Vertices
- ▬ Noble Energy Unit Boundary
- Estep Lease Split



0 725  
Feet

Scale = 507 feet  
Author: sambyron  
Data Created: DATE

Map Data Frame  
Projection  
NAD 1983 UTM Zone  
17T  
Units: Foot US

All data is derived from the  
Noble Energy, Inc. and CNX Gas  
Company, LLC. The data is provided  
as is. Noble Energy, Inc. and CNX  
Gas Company, LLC do not warrant  
the accuracy or completeness of  
the data. The user assumes all  
responsibility for the use of the  
data. The user agrees to hold  
Noble Energy, Inc. and CNX Gas  
Company, LLC harmless from and  
against any and all claims, damages,  
costs and expenses, including  
attorneys' fees, arising from the  
use of the data.

10/02/2015



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

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 [dee.swiger@nblenergy.com](mailto:dee.swiger@nblenergy.com) or 724-820-3061.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dee Swiger', written over the word 'Sincerely,'.

Dee Swiger  
Regulatory Analyst III

DS/

Enclosures:

Received  
Office of Oil & Gas  
AUG 03 2015  
10/02/2015

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

Date of Notice Certification: 7/30/15

API No. 47- 051 - \_\_\_\_\_  
Operator's Well No. MND 1 JHS  
Well Pad Name: MND 1

**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: West Virginia UTM NAD 83 Easting: 519312.534  
County: Marshall Northing: 4411123.327  
District: Clay Public Road Access: County Highway 88/8  
Quadrangle: Powhatan Point Generally used farm name: Consol (Now owned by Murray American Energy DBA Consolidation Coe)  
Watershed: Short Creek - Ohio River (Huc 10)

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

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

\*PLEASE CHECK ALL THAT APPLY

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

**OOG OFFICE USE ONLY**

- RECEIVED/  
NOT REQUIRED
- RECEIVED
- RECEIVED/  
NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

**Required Attachments:**

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

Received  
Office of Oil & Gas

AUG 03 2015

10/02/2015

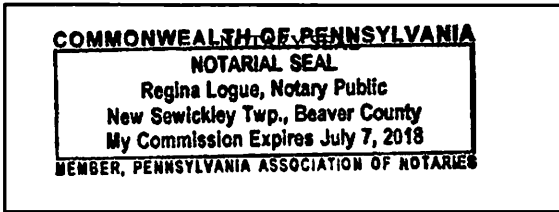


**Certification of Notice is hereby given:**

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 *Dee Swiger*  
Its: Regulatory Analyst III  
Telephone: 724-820-3061

Address: 1000 Noble Energy Drive  
Canonsburg, PA 15317  
Facsimile: 724-416-5248  
Email: dee.swiger@nblenergy.com



Subscribed and sworn before me this 23rd day of July 2015.  
Regina Logue Notary Public  
My Commission Expires July 7, 2018

**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 [deprivacvofficer@wv.gov](mailto:deprivacvofficer@wv.gov).

Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015

WW-6A  
(9-13)

API NO. 47-0514 **4705101865**  
OPERATOR WELL NO. MND 1 JHS  
Well Pad Name: MND 1

**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:** 7/30/15 **Date Permit Application Filed:** 7/30/15

**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: Murray Energy Corporation / Jason Witt ✓  
Address: 46226 National Road  
Saint Clairsville, OH 43950

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

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: Wendell B. & Carolyn S. Rine ✓  
Address: 918 Kansas Ridge Lane  
Moundsville, WV 26041

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

SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: Consol Mining Company / Ryan Arp ✓  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317

COAL OPERATOR  
Name: Consolidation Coal Company (Alex O'Neill) ✓  
Address: 46226 National Road  
Saint Clairsville, OH 43950

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: No water purveyors within 1500'  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

Received  
Office of Oil & Gas

AUG 03 2015

10/02/2015

WW-6A  
(8-13)

API NO. 47- 051 -  
OPERATOR WELL NO. MND 1 JHS  
Well Pad Name: MND 1

**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

**Well Location Restrictions**

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

10/02/2015



WW-6A  
(8-13)

API NO. 47-051 -  
OPERATOR WELL NO. MND 1 JHS  
Well Pad Name: MND 1

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

#### **Water Well Testing:**

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

#### **Water Testing Laboratories:**

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

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

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

#### **Written Comment:**

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

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

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.**

10/02/2015



WW-6A  
(8-13)

API NO. 47- 051 -  
OPERATOR WELL NO. MND 1 JHS  
Well Pad Name: MND 1

### **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 & Gas  
AUG 03 2015

10/02/2015

WW-6A  
(8-13)

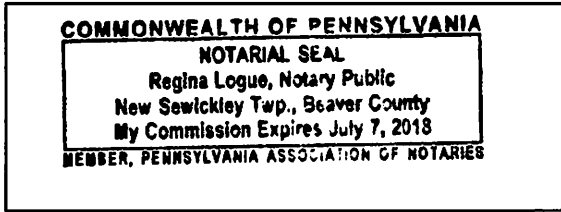
API NO. 47- 051 -  
OPERATOR WELL NO. MND 1 JHS  
Well Pad Name: MND 1

Notice is hereby given by:  
Well Operator: Noble Energy, Inc. *Dee Swiger*  
Telephone: 724-820-3061  
Email: dee.swiger@nbleenergy.com

Address: 1000 Noble Energy Drive  
Canonsburg, PA 15317  
Facsimile: 724-416-5248

**Oil and Gas Privacy Notice:**

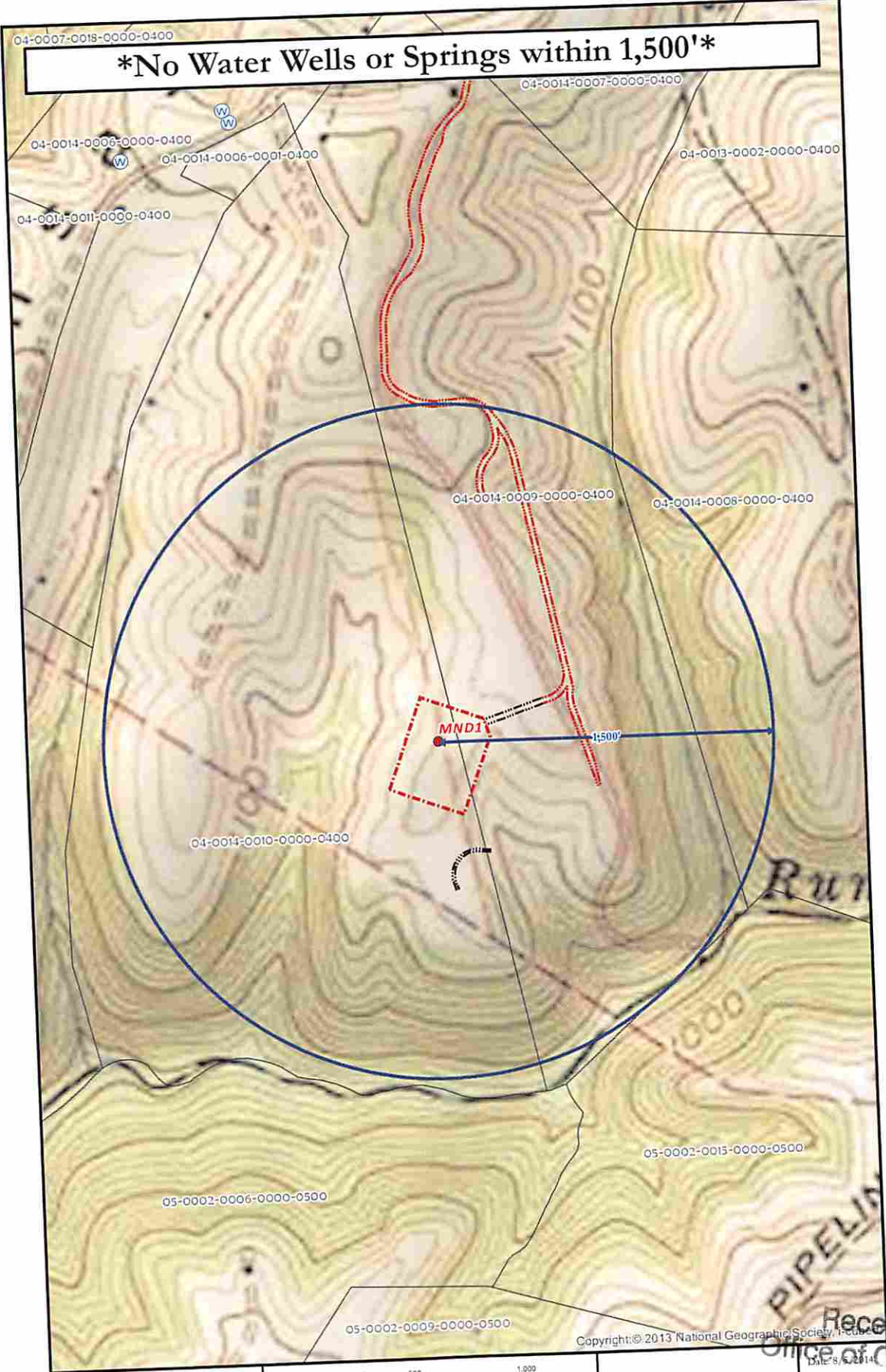
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory 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](mailto:deprivacyofficer@wv.gov).



Subscribed and sworn before me this 23rd day of July, 2015.  
*Regina Logue* Notary Public  
My Commission Expires July 7, 2015

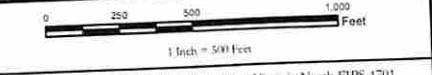
Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015



**MND 1 SITE SAFETY PLAN**  
**- WATER WELL PURVEYORS -**

- Well Pad
- Water Well
- Pipeline
- Well Pad Boundary
- Water Well Buffer
- Pipeline
- Contour
- Section
- Pipeline



Projection: NAD 1927 StatePlane West Virginia North FIPS 4701  
 Units: Foot US

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



Received  
 Office of Oil & Gas  
 Date: 8/20/14  
 AUC 2015  
 6/6

10/02/2015



WW-6A3  
(1/12)

Operator Well No. MND 1

**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: 8/20/2014 Date of Planned Entry: 08/27/2014

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)  
Name: Murray Energy Corporation / Jason Witt ✓  
Address: 46228 National Road  
Saint Clairsville, OH 43950  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
Name: Consol Mining Company / Ryan Arp ✓  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317

MINERAL OWNER(s)  
Name: CNX Gas Company, LLC ✓  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317  
\*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>N 39.849832 W 80.774225</u>
County: <u>Marshall</u>	Public Road Access: <u>Co. Hwy 88/8</u>
District: <u>Clay</u>	Watershed: <u>Short Creek - Ohio River (Huc -10)</u>
Quadrangle: <u>Powhattan Point</u>	Generally used farm name: _____

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Notice is hereby given by:

Well Operator: <u>Noble Energy, Inc.</u>	Address: <u>333 Technology Drive Suite 116</u>
Telephone: <u>724-820-3061</u>	<u>Canonsburg, PA 15317</u>
Email: <u>dswigar@nobleenergyinc.com</u>	Facsimile: <u>724-743-0050</u>

Received  
Office of Oil & 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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

AUG 03 2015

10/02/2015



**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:** 7-30-15      **Date Permit Application Filed:** 7-30-15

**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: Murray Energy Corporation / Consolidation Coal Company ✓  
Address: 46226 National Road  
Saint Clairsville, OH 43950

Name: Wendell B. & Carolyn S. Rine ✓  
Address: 918 Kansas Ridge Lane  
Moundsville, WV 26041

**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>519312.534</u>
County:	<u>Marshall</u>		Northing:	<u>4411123.327</u>
District:	<u>Clay</u>	Public Road Access:	<u>County Highway 88/8</u>	
Quadrangle:	<u>Powhatan Point</u>	Generally used farm name:	<u>Consol (Now owned by Murray American Energy DBA Consolidation Coal)</u>	
Watershed:	<u>Short Creek - Ohio River (Huc 10)</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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: Noble Energy Inc.  
Telephone: 724-820-3061  
Email: dee.swiger@nbleenergy.com

Address: 1000 Noble Energy Drive  
Canonsburg, PA 15317  
Facsimile: 724-416-5248

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

Received  
Office of Oil & Gas  
AUG 03 2015

10/02/2015



4705101865

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

Revised September 16, 2015

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

Subject: DOH Permit for the MND-1 Well Pad, Marshall County

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2014-0611 for the subject site to Noble Energy, Inc. for access to the State Road for the well site located off of Marshall County Route 88/8 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 P.E.  
Regional Maintenance Engineer  
Central Office Oil & Gas Coordinator

Cc: James L. McCune  
Noble Energy, Inc.  
CH, OM, D-6  
File

RECEIVED  
Office of Oil and Gas

SEP 21 2015

# Hydraulic Fracturing Fluid Product Component Information Disclosure

4705101865

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**
Fresh Water	Operator				100.00%
HYDROCHLORIC ACID 5-10%	Halliburton		Hydrochloric acid	7647-01-0	10.00%
SAND - COMMON WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00%
SAND - PREMIUM WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00%
FR-66	Halliburton	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	30.00%
BE-9	Halliburton	Biocide	Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00%
Scalechek® LP-65 Scale Inhibitor	Halliburton	Scale Inhibitor	Ammonium chloride	12125-02-9	10.00%
LGC-36 UC	Halliburton	Liquid Gel Concentrate	Guar gum	9000-30-0	60.00%
			Naphtha, hydrotreated heavy	64742-48-9	60.00%
LCA-1	Halliburton	Solvent	Paraffinic solvent	Confidential Business Information	100.00%
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor	Methanol	67-56-1	60.00%
			Propargyl alcohol	107-19-7	10.00%
FE-1A ACIDIZING COMPOSITION	Halliburton	Additive	Acetic acid	64-19-7	60.00%
			Acetic anhydride	108-24-7	100.00%
LoSurf-300D	Halliburton	Non-ionic Surfactant	1,2,4 Trimethylbenzene	95-63-6	1.00%
			Ethanol	64-17-5	60.00%
			Heavy aromatic petroleum naphtha	64742-94-5	30.00%
			Naphthalene	91-20-3	5.00%
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00%
SP BREAKER	Halliburton	Breaker	Sodium persulfate	7775-27-1	100.00%
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Guar gum	9000-30-0	100.00%

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and

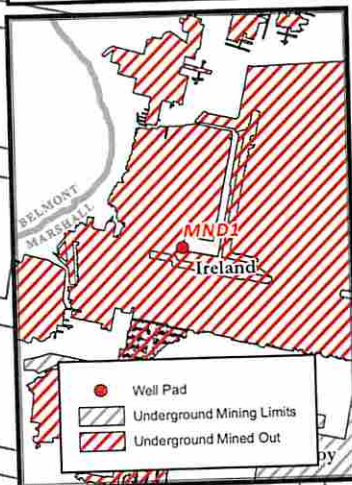
Received  
Office of Oil & Gas

AUG 03 2015

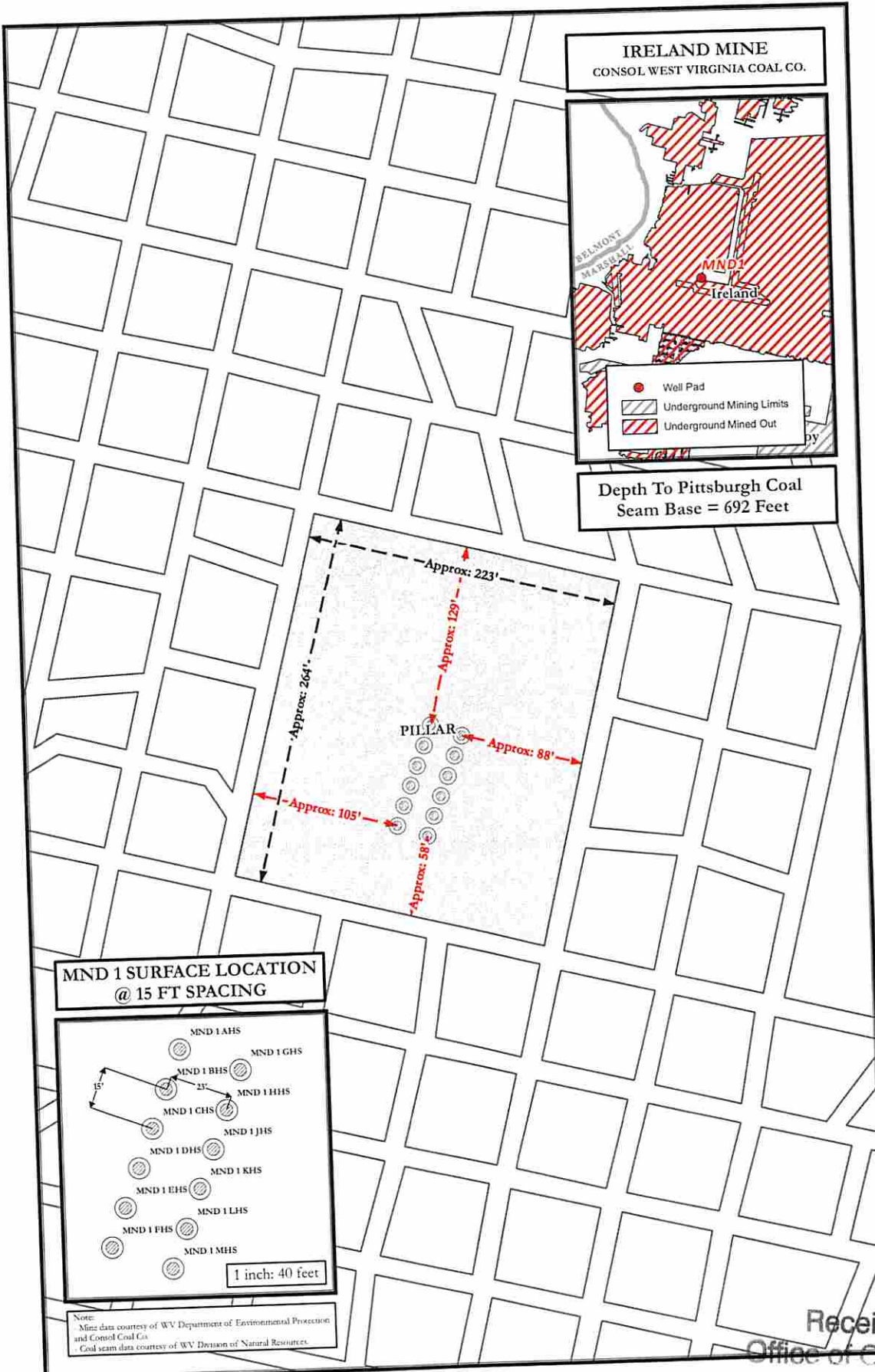
10/02/2015



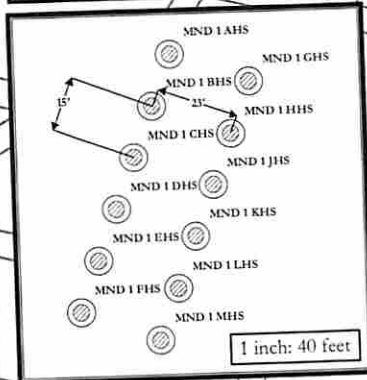
### IRELAND MINE CONSOL WEST VIRGINIA COAL CO.



Depth To Pittsburgh Coal Seam Base = 692 Feet



### MND 1 SURFACE LOCATION @ 15 FT SPACING

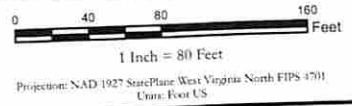


Note:  
 - Mine data courtesy of WV Department of Environmental Protection and Control Coal Gas  
 - Coal seam data courtesy of WV Division of Natural Resources

Received  
Office of Oil & Gas

**MND 1 SITE SAFETY PLAN  
- WELLHEAD TOPHOLE LOCATION -**

- Surface Hole Location
- Total Pillar Length
- Well to Well Length
- Mine Polys
- Target Coal Pillar

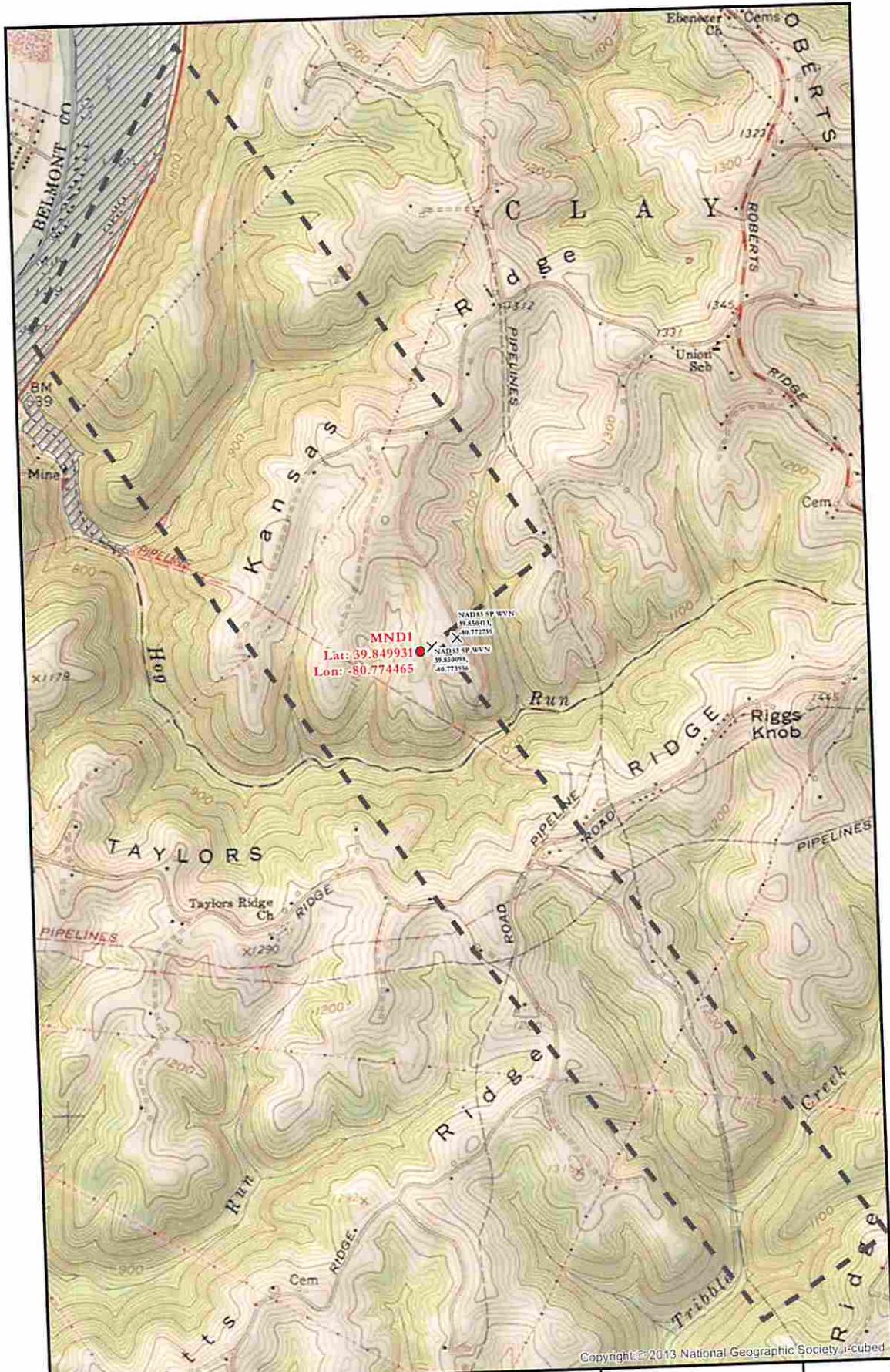


**noble energy**

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

Date: 7/2/2015  
 AUG 03 2015  
 Christopher G. Jones  
 5  
 6

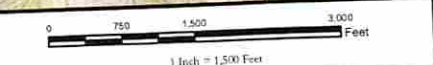




Copyright © 2013 National Geographic Society, Inc.

**MND 1 SITE SAFETY PLAN**  
**- FLOODPLAIN ZONES -**

- X Access Road Intersection
- Proposed Access Road
- Proposed Unit
- Floodplain
- Well Pad
- Contours
- States



Projection: NAD 1927 StatePlane West Virginia North FIPS 4701  
 Units: Foot US

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



Date: 7/7/2014  
 Author: Christopher Glover  
 2/6