



west virginia department of environmental protection

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

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

Friday, February 10, 2017  
WELL WORK PERMIT  
Horizontal 6A / Fracture

NOBLE ENERGY, INC. (A)  
1000 NOBLE ENEGY DRIVE

CANONSBURG, PA 15317

Re: Permit approval for MND 6 EHS  
47-051-01761-00-00

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

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

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



James A. Martin  
Chief

Operator's Well Number: MND 6 EHS  
Farm Name: CONSOLIDATION COAL COMPANY  
U.S. WELL NUMBER: 47-051-01761-00-00  
Horizontal 6A / Fracture  
Date Issued: 2/10/2017

Promoting a healthy environment.

02/10/2017

**PERMIT CONDITIONS** 4705101761

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

---

**CONDITIONS**

---

1. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
2. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
3. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
4. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
5. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
6. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

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

1) Well Operator: Noble Energy, Inc.

<u>494501907</u>	<u>Marshall</u>	<u>Franklin</u>	<u>Powhatan Point</u>
------------------	-----------------	-----------------	-----------------------

  
Operator ID County District Quadrangle

2) Operator's Well Number: MND 6 EHS Well Pad Name: MND 6

3) Farm Name/Surface Owner: Consolidation Coal Company Public Road Access: CR 7/4-Fish Creek Rd

4) Elevation, current ground: 722' Elevation, proposed post-construction: 721'

5) Well Type (a) Gas  Oil  Underground Storage

Other \_\_\_\_\_

(b) If Gas Shallow  Deep

Horizontal

6) Existing Pad: Yes or No Yes-this well has been drilled, but not completed.

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus at 5895' and 55' in thickness. Anticipated pressure at 3927#.

8) Proposed Total Vertical Depth: 5940'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 6679'

11) Proposed Horizontal Leg Length: 15,646'

12) Approximate Fresh Water Strata Depths: 128' and 265'

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

14) Approximate Saltwater Depths: none noted in offsets

15) Approximate Coal Seam Depths: 284' to 294'

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated, drilled in pillar - mine 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: Same as Above

Depth: Base at 294' at deepest point

Seam: Pittsburgh

Owner: Murray American Energy (Previously Consol)

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-051-01761 County Marshall District Franklin  
Quad Powhatan Point Pad Name MND 06 Field/Pool Name N/A  
Farm name Consolidated Coal Company Well Number MND 06 EHS  
Operator (as registered with the OOG) Noble Energy, Inc.  
Address 1000 Noble Energy Drive City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 39.817687 Easting 80.791727  
Landing Point of Curve Northing 39.817319 Easting 80.796267  
Bottom Hole Northing 39.837700 Easting 80.815286

Elevation (ft) 722' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
Synthetic Oil Based

Date permit issued 06/10/2014 Date drilling commenced 09/02/2014 Date drilling ceased 11/23/2014  
Date completion activities began Not completed Date completion activities ceased na  
Verbal plugging (Y/N) \_\_\_\_\_ Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 128' and 265' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft none noted for offsets Void(s) encountered (Y/N) depths N-drilled in pillar  
Coal depth(s) ft 284' - 294' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) No

Reviewed by:

02/10/2017



18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	20"	New	DH-36	307	40	40	CTS
Fresh Water	16"	New	H-40	65	116	116	CTS
Coal	13 3/8"	New	J-55	54.5	744	744	30% excess Yield=1.18
Intermediate	9 5/8"	New	HCK-55	36	2058	2058	20% excess Yield=1.19
Production	5 1/2"	New	P-110	23	16,646	16,646	10% Excess Yield=1.27 TOC>=200' above shoe
Tubing							
Liners							

<b>TYPE</b>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	20"	26"	.438				CTS
Fresh Water	16"	18"	.375		1200		CTS
Coal	13 3/8"	17 1/2"	.380	2730		Type 1/Class A	1.18
Intermediate	9 5/8"	12 3/8"	.352	3520		Type 1/Class A	1.19
Production	5 1/2"	8 3/4" & 8 1/2"	.361	16,500	13,000	Type 1/Class A	1.27 TOC>=200' above 9.625" shoe
Tubing							
Liners							

*Handwritten signature and date: 10/17/16*

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

Received  
Office of Oil & Gas  
OCT 17 2016

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

Noble Energy, Inc. has previously drilled this well and we are submitting this application in order to hydraulically fracture and produce the well.

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. See attached list. Maximum pressure not to exceed 10,000 lb.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 9.6

22) Area to be disturbed for well pad only, less access road (acres): 7.3

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 2 joints then every third joint to 100' from surface. Intermediate casing will have bow spring centralizers on first 2 joints then every third joint to 100' from surface. Production string will have a rigid bow spring every joint to KOP, rigid bow spring every third joint from KOP to top of cement.

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

Conductors-Type 1 to Surface. Surface 15.6 ppg Type 1 +2% Cacl, 0.25#Lost circ 30% Excess Yield 1.18. Intermediate 15.6ppg Class A +0.4% Ret. 0.15% Disp. 0.2% Anti Foam, 0.125#/sk Lost Circ 20% Excess Yield +1.19 to surface. Procuction 14.8ppg Class A 25:75:0system +2.6% Cement extender, 0.7% Fluid Loss additive, 0.45% high temp retarder, 0.2% friction reducer 10% Excess Yield+1.27 TOC>+200" above 9.625" shoe.

25) Proposed borehole conditioning procedures:

Conductor-The hole is drilled w/air and casing is run on air. Apart from insuring the hole is clean via air circulation at TD, there are no other conditioning procedures. Surface-The hole is drilled w/air and casing is run on air. Fill with KCl water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement Coal-The hole is drilled and cased w/air or on Freshwater based mud. Once casing is at setting depth, the hole is filled w/KCl water and a minimum of one hole volume is circulated prior to pumping cement. Intermediate-Once surface casing is set and cemented, intermediate hole is drilled either on air or SOBMs and filled with KCl water once drilled to TD. Production-The hole is drilled with SOBMs and once to TD, circulated at maximum 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.

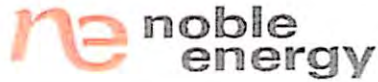
\*Note: Attach additional sheets as needed.

**Fresh Water Protection String:**

**Cement Additives**

<b>Allied Material Name</b>	<b>Additive (Material) Type</b>	<b>Additive (Material) Description</b>	<b>CAS #</b>
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 7647-14-5
CLC-CPF (Cellophane Flakes)	Lost Circulation Aid	White and colored flake	Non-Hazardous

Received  
 Office of Oil & Gas  
 OCT 17 2016



**DRILLING WELL PLAN**  
**MND-6E-HS (Marcellus HZ)**  
 Macellus Shale Horizontal  
 Marshall County, WV

		<b>MND-6E SHL (Lat/Long)</b>	<b>(482515.8N, 1637114.62E) (NAD27)</b>
<b>Ground Elevation</b>	<b>722'</b>	<b>MND-6E LP (Lat/Long)</b>	<b>(482390.81N, 1635864.69E) (NAD27)</b>
<b>Azm</b>	<b>325°</b>	<b>MND-6E BHL (Lat/Long)</b>	<b>(489901.61N, 1630605.58E) (NAD27)</b>

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	26	20" 94#	Conductor	40	40	AIR	To Surface	N/A	Ensure the hole is clean at TD	Stabilize surface fill/soil Conductor casing = 0.438" wall thickness
	20	16"	Conductor #2	120	120	Auger	To Surface	N/A	Ensure the hole is clean at TD	Stabilize surface soil
	17 1/2	13-3/8" 54 5# J-55 BTC	Pittsburgh Coal	284	294	AIR	15.6 ppg Type 1 + 2% CaCl <sub>2</sub> 0.25# Lost Circ 30% Excess Yield = 1.18	Bow Spring on first 2 joints then every third joint to 100' from surface	Fill with KCl water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.380" wall thickness Burst=2730 psi
			Surface Casing	694	694					
	12 3/8	9-5/8" 36# K-55 BTC	2nd Salt Sand	1377	1413	AIR	15.6ppg Class A + 0.4% Ret. 0.15% Disp. 0.2% AntiFoil, 0.125#/sk Lost Circ 20% Excess Yield=1.19 To Surface	Bow spring centralizers every third joint to 100' feet from surface.	Fill with KCl water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Casing to be ran 250' below the 5th Sand. Intermediate casing = 0.352" wall thickness Burst=3520 psi
			Big Lime	1488	1604					
			Big Injun	1604	1717					
			Price Formation	1717	2232					
	8.75" Vertical	5-1/2" 23# HCP-110 TXP BTC	Speechley	3019	3065	8.0ppg - 9.0ppg SOBMs	14.8ppg Class A 25.75.0 System + 2.6% Cement extender, 0.7% Fluid Loss additive, 0.45% high temp retarder, 0.2% friction reducer	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
			Java	4570	4665					
			Pipe Creek	4665	4752					
	8.75" Curve	5-1/2" 23# HCP-110 TXP BTC	Angola	4752	5334	12.0ppg-12.5ppg SOBMs	10% Excess Yield=1.27  TOC >= 200' above 9.625" shoe	Rigid Bow Spring every joint to KOP		
			Rheinstreet	5334	5655					
			Cashaqua	5655	5727					
			Middlesex	5727	5750					
West River			5750	5811						
8.75" - 8.5" Lateral	5-1/2" 23# HCP-110 TXP BTC	Burkett	5811	5836	12.0ppg-12.5ppg SOBMs	10% Excess Yield=1.27  TOC >= 200' above 9.625" shoe	Rigid Bow Spring every joint to KOP	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	
		Tully Limestone	5836	5860						
		Hamilton	5860	5895						
		Marcellus	5895	5950						
			TD	15804 MD	5940 TVD					
			Onondaga	5950						

Received  
 Office of Oil & Gas  
 OCT 17 2016

LP @ 5940' TVD / 6634' MD      8.75 / 8.5 Hole - Cemented Long String      +/- 9170' ft Lateral      TD @ +/- 5940' TVD +/- 15804' MD  
 5-1/2" 20# HCP-110 TXP BTC

JIN 8/13/14

51-01761 MOD

X=centralizers



State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-051-01761 County Marshall District Franklin  
Quad Powhatan Point Pad Name MM17-00 Field No. MM17-00  
Farm name Consolidated Coal Company Well No. MM17-00-001  
Operator (as registered with the OOG) Noble Energy, Inc.  
Address 1000 Noble Energy Drive City Caneburg State PA Zip 15317

Area Franklin Section 1 Township 10N Range 10E  
Section 1 Northing 30317319 Easting 3070267  
Landing Point of Curve Northing 30317319 Easting 3070267  
Bottom Hole Northing 30317319 Easting 3070267

Elevation (ft) 700 Type of Well Oil  
Well Type Oil Deviation 0 Direction of Deviation 0

Type of Operation  Convert  Deepen  Drill  Plug Back  Re-drilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Coal Seam  Secondary Recovery  Surface Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
Synthetic Oil Based

Date permit issued 06/10/2014 Date drilling commenced 09/02/2014 Date drilling ceased 11/23/2014  
Date completion activities began Not completed Date completion activities ceased na  
Verbal plugging (Y/N) \_\_\_\_\_ Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 128' and 265' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft none noted for offsets Void(s) encountered (Y/N) depths N  
Coal depth(s) ft NA Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) No

Reviewed by:

**02/10/2017**

API 47-051 - 01761 Farm name Consolidated Coal Company Well number MND 06 EHS

CASING STRING	Hole Size	Casing Size	Depth	New or Used	Grade	Basket	Did cement plug (Y/N)
Conductor	28"	20"	40'	Used	13.75		
Con.	17.5"	13 3/8"	74'	New	13.75		Y
Intermediate 1	12.38"	9 5/8"	2058.3'	New	HCK-55		Y
Intermediate 2							
Intermediate 3							
Tubing							
Production							

CASING STRING	Cement Class	Weight of Cement	Volume of Cement	Weight of Cement	Volume of Cement	Weight of Cement	Volume of Cement
Surface							
Intermediate 1	Type 1 / Class A	74	15.0	13	25.9		
Intermediate 2							
Intermediate 3							
Production	Type 1 / Class A	lead 718 tail 2060	14.8	lead 134 tail 13	130.99	1815.0	
Tubing							

Drillers TD (ft) 15,646.5' Loggers TD (ft) 15,653'  
 Deepest formation penetrated Marcellus Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) 3656'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING No centralizers used on conductor.  
19 Centralizers on Intermediate String (Bow string centralizers on first two joints then every third joint to 100' from surface).  
289 Centralizers on Production String (rigid bow string every joint to KOP, rigid bow spring every third joint from KOP to top of cement).

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

API 47- 051 - 01761

Form name Consolidated Coal Company

MND 06 EHS

PERFORMANCE RECORD

Well No.	Stimulation Date	Stimulation Type	Stimulation Volume	Stimulation Pressure	Stimulation Rate
well not complete					

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)

Please insert additional pages as applicable.

API 47-051-01761

Farm name Consolidated Coal Company Well number MND 06 EHS

PRODUCTION FORMATION

TVD \_\_\_\_\_ MD \_\_\_\_\_

Please insert additional pages as applicable.

GRAVESTONE  Buffalo  ...  ...

mcfpd \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

FORMATION	TOP DEPTH (FEET)	THICKNESS (FEET)	TOP DEPTH (FEET)	THICKNESS (FEET)	FORMATION
-----------	------------------	------------------	------------------	------------------	-----------

FORMATION	TOP DEPTH (FEET)	THICKNESS (FEET)	TOP DEPTH (FEET)	THICKNESS (FEET)	FORMATION

Please insert additional pages as applicable.

Drilling Contractor Nomac 79 Drilling  
Address 171 Locust Ave. Ext. City Mt. Morris State PA Zip 15349

Logging Company Baker Hughes  
Address 400 Technology Drive City Canonsburg State PA Zip 15317

Cementing Company Schlumberger  
Address 4600 J. Barry Ct., Suite 200 City Canonsburg State PA Zip 15317

Stimulating Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Dee Swiger Telephone 724-820-3061  
Signature *Dee Swiger* Title Regulatory Analyst, III Date 01/04/2017



**AS DRILLED PLAT**      EXISTING SURFACE LOCATION LONG. W 00°47'30.0" (MAD 27)      Latitude: N 39°50'00"      AS DRILLED

PERMITTED		AS DRILLED	
SURFACE LOCATION (SHL)	LANDING POINT (LP)	BOTTOM HOLE LOCATION (BHL)	SURFACE LOCATION (SHL)
UTM 17 NAD 83 N) 4,407,441.77m E) 317,444.12m NAD 27 WY NORTH N) 4,407,441.77m E) 317,444.12m	UTM 17 NAD 83 N) 4,407,441.77m E) 317,444.12m NAD 27 WY NORTH N) 4,407,441.77m E) 317,444.12m	UTM 17 NAD 83 N) 4,407,441.77m E) 317,444.12m NAD 27 WY NORTH N) 4,407,441.77m E) 317,444.12m	UTM 17 NAD 83 N) 4,407,441.77m E) 317,444.12m NAD 27 WY NORTH N) 4,407,441.77m E) 317,444.12m

**GENERAL NOTES:**

- THE LOCATION OF BOUNDARY LINES SHOWN HEREON ARE BASED ON RECORD DEED, PLATS, AND TAX MAPS BEST FIT TO FOUND FIELD EVIDENCE AND AERIAL PHOTOS, UNLESS OTHERWISE NOTED.
- THIS PLAT DOES NOT REPRESENT AN ACTUAL BOUNDARY SURVEY OF THE INDIVIDUAL PARCELS.
- THERE ARE NO EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF PROPOSED WELL.
- PROPOSED WELL IS GREATER THAN 100' FROM PERENNIAL STREAM, WETLAND, POND, RESERVOIR OR LAKE.
- THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED WELL.
- THERE ARE TWO DWELLINGS LOCATED WITHIN 650' OF PROPOSED WELLBORE.
- THE SURROUNDING LANDS ARE BEING SERVED BY PUBLIC WATER BY THE GRAND VIEW DOOLIN WATER SYSTEM PROVIDED BY MARSHALL COUNTY PUBLIC HEALTH AND SANITATION DIVISION.

**LEGEND**

- EXISTING GAS WELL
- AS-DRILLED BORE
- PROPOSED BORE
- TIE LINE
- UNIT BOUNDARY
- PROPERTY LINE
- STREAM LINE
- BUFFER LINE
- GAS WELL
- PLUGGED GAS WELL

**REFERENCES:**

- 1. JOHN JOSEPH GOUDY TWP # 05-09-45
- 2. JOHN JOSEPH GOUDY TWP # 05-09-45
- 3. JOHN JOSEPH GOUDY TWP # 05-09-45
- 4. JOHN JOSEPH GOUDY TWP # 05-09-45
- 5. JOHN JOSEPH GOUDY TWP # 05-09-45
- 6. JOHN JOSEPH GOUDY TWP # 05-09-45
- 7. JOHN JOSEPH GOUDY TWP # 05-09-45

**GENERAL NOTES:**

1. 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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

FILE #: 093842010

DRAWING #: 093842010\_SV-Plat

SCALE: PLAT & TICK: 1" = 2,000'

MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SOURCE OF PUBLICATION: NGS (CORS)

SIGNED: \_\_\_\_\_

R.P.F.: \_\_\_\_\_ I.L.S.: \_\_\_\_\_

PLACE SEAL HERE

DATE: OCTOBER 7, 2016

OPERATOR'S WELL #: MND 8 EHS

API WELL #: 47 051 01761

STATE: \_\_\_\_\_ COUNTY: \_\_\_\_\_ PERMIT: \_\_\_\_\_

WELL TYPE:  OIL  GAS  WASTE DISPOSAL  LIQUID INJECTION  PRODUCTION  STORAGE  DEEP  SHALLOW

WATERSHED: FISH CREEK

COUNTY/DISTRICT: MARSHALL / FRANKLIN

SURFACE OWNER: CONSOLIDATION COAL COMPANY

OIL & GAS ROYALTY OWNER: CHK GAS COMPANY LLC and NOBLE ENERGY, INC.

CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PERFORATE NEW FORMATION  PLUG & ABANDON

DRILL  PLUG OFF OLD FORMATION  CLEAN OUT & REPLUG  OTHER CHANGE(S) SPECIFY: \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 5,940'± TMD: 15,804'±

WELL OPERATOR: NOBLE ENERGY, INC. DESIGNATED AGENT: STEVEN GREEN

ADDRESS: 333 TECHNOLOGY DRIVE, SUITE 116 ADDRESS: 1000 NOBLE ENERGY DRIVE

CTTY: CANONSBURG STATE: PA ZIP CODE: 15317 CITY: CANONSBURG STATE: PA ZIP CODE: 15317



Shale	8254	8341	8890	8992
Clinton Sand	8341	8890	8992	9093
Shale	8890	9093	9280	9898
Clinton Shale	8992	9093	9280	9898
Clinton Shale	9093	9280	9898	10511
Reedsville Shale	9280	9898	9995	10511
Utica Shale	9898	10511	10680	not encountered
Point Pleasant	10511	10680	not encountered	not encountered
Trenton Limestone	10680	not encountered	not encountered	not encountered

**Well**

Well Name: MND-6E-IIS

Well ID: 15653

Well Type: AWB

Well Status: Active

---

**Well Path**

Well Path: MND-6E-IIS AWB

---

**Wellbore**

Wellbore: MND-6E-IIS AWB

---

**Wellhead**

Wellhead: MND-6E-IIS AWB

---

**Well Completion**

Well Completion: MND-6E-IIS AWB

---

**Well Log**

Well Log: MND-6E-IIS AWB

---

**Well Section**

Well Section: MND-6E-IIS AWB

---

**Well Survey**

Well Survey: MND-6E-IIS AWB

---

**Well Data**

Well Data: MND-6E-IIS AWB

---

**Well Tools**

Well Tools: MND-6E-IIS AWB

---

**Well History**

Well History: MND-6E-IIS AWB

---

**Well Reports**

Well Reports: MND-6E-IIS AWB

---

**Well Settings**

Well Settings: MND-6E-IIS AWB

---

**Well Parameters**

Well Parameters: MND-6E-IIS AWB

---

**Well Properties**

Well Properties: MND-6E-IIS AWB

---

**Well Characteristics**

Well Characteristics: MND-6E-IIS AWB

---

**Well Performance**

Well Performance: MND-6E-IIS AWB

---

**Well Maintenance**

Well Maintenance: MND-6E-IIS AWB

---

**Well Safety**

Well Safety: MND-6E-IIS AWB

---

**Well Security**

Well Security: MND-6E-IIS AWB

---

**Well Compliance**

Well Compliance: MND-6E-IIS AWB

---

**Well Documentation**

Well Documentation: MND-6E-IIS AWB

---

**Well Management**

Well Management: MND-6E-IIS AWB

---

**Well Administration**

Well Administration: MND-6E-IIS AWB

---

**Well Operations**

Well Operations: MND-6E-IIS AWB

---

**Well Support**

Well Support: MND-6E-IIS AWB

---

**Well Services**

Well Services: MND-6E-IIS AWB

---

**Well Equipment**

Well Equipment: MND-6E-IIS AWB

---

**Well Materials**

Well Materials: MND-6E-IIS AWB

---

**Well Contractors**

Well Contractors: MND-6E-IIS AWB

---

**Well Suppliers**

Well Suppliers: MND-6E-IIS AWB

---

**Well Vendors**

Well Vendors: MND-6E-IIS AWB

---

**Well Distributors**

Well Distributors: MND-6E-IIS AWB

---

**Well Wholesalers**

Well Wholesalers: MND-6E-IIS AWB

---

**Well Retailers**

Well Retailers: MND-6E-IIS AWB

---

**Well Manufacturers**

Well Manufacturers: MND-6E-IIS AWB

---

**Well Importers**

Well Importers: MND-6E-IIS AWB

---

**Well Exporters**

Well Exporters: MND-6E-IIS AWB

---

**Well Agents**

Well Agents: MND-6E-IIS AWB

---

**Well Brokers**

Well Brokers: MND-6E-IIS AWB

---

**Well Dealers**

Well Dealers: MND-6E-IIS AWB

---

**Well Franchises**

Well Franchises: MND-6E-IIS AWB

---

**Well Licenses**

Well Licenses: MND-6E-IIS AWB

---

**Well Permits**

Well Permits: MND-6E-IIS AWB

---

**Well Certificates**

Well Certificates: MND-6E-IIS AWB

---

**Well Registrations**

Well Registrations: MND-6E-IIS AWB

---

**Well Approvals**

Well Approvals: MND-6E-IIS AWB

---

**Well Insurances**

Well Insurances: MND-6E-IIS AWB

---

**Well Bonds**

Well Bonds: MND-6E-IIS AWB

---

**Well Guarantees**

Well Guarantees: MND-6E-IIS AWB

---

**Well Warranties**

Well Warranties: MND-6E-IIS AWB

---

**Well Agreements**

Well Agreements: MND-6E-IIS AWB

---

**Well Contracts**

Well Contracts: MND-6E-IIS AWB

---

**Well Leases**

Well Leases: MND-6E-IIS AWB

---

**Well Licenses**

Well Licenses: MND-6E-IIS AWB

---

**Well Permits**

Well Permits: MND-6E-IIS AWB

---

**Well Certificates**

Well Certificates: MND-6E-IIS AWB

---

**Well Registrations**

Well Registrations: MND-6E-IIS AWB

---

**Well Approvals**

Well Approvals: MND-6E-IIS AWB

---

**Well Insurances**

Well Insurances: MND-6E-IIS AWB

---

**Well Bonds**

Well Bonds: MND-6E-IIS AWB

---

**Well Guarantees**

Well Guarantees: MND-6E-IIS AWB

---

**Well Warranties**

Well Warranties: MND-6E-IIS AWB

---

**Well Agreements**

Well Agreements: MND-6E-IIS AWB

---

**Well Contracts**

Well Contracts: MND-6E-IIS AWB

---

**Well Leases**

Well Leases: MND-6E-IIS AWB

---

# Wellpath Report

E-IIS AWB Proj: 15653  
Page 1 of 9



Slot	Slot E
Well	MND-6E-IIS
Wellbore	MND-6E-IIS AWB

Software System	WellArchitect@ 4.0.1
User	Kroschr
Report Generated	12/3/2014 at 10:38:05 AM
Database/Source file	WA_NorthEast/MND-6E-IIS_AWB.xml

Grid coordinates		Geographic coordinates	
[US ft]	Northing[US ft]	Latitude	Longitude
14.47	482515.80	39°49'03.401"N	80°47'30.895"W
177.78	482512.23	39°49'03.375"N	80°47'30.083"W
601.22	0.00	38°23'48.753"N	84°21'09.765"W

Nomac 79 (RKB) to Facility Vertical Datum	746.79ft
Nomac 79 (RKB) to Mean Sea Level	746.79ft
Nomac 79 (RKB) to Mud Line at Slot (Slot E)	26.00ft
Section Origin	N 0.00, E 0.00 ft
Section Azimuth	325.00°





1 n e 19

# Well Report

Well ID: 15653'



Operator: ...  
 Area: ...  
 Field: ...  
 Facility: ...

Well Name	Slot E
Well ID	MND-6E-IIS
Well Type	MND-6E-IIS AWB

Well ID	Well Name	Well Type	Well Status
15653'	Slot E	MND-6E-IIS	MND-6E-IIS AWB

Station	North	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [%/100ft]
1	2.87	39°49'02.883"N	80°47'30.382"W	65.91	143.435	0.24
2	363.50	39°49'02.890"N	80°47'30.401"W	64.55	144.111	0.04
3	3464.05	39°49'02.895"N	80°47'30.417"W	63.39	144.727	0.22
4	3404.67	39°49'02.901"N	80°47'30.430"W	62.28	145.191	0.19
5	3278.29	39°49'02.907"N	80°47'30.442"W	61.23	145.591	0.24
6	3174.74	39°49'02.911"N	80°47'30.453"W	60.39	145.987	0.03
7	3086.84	39°49'02.922"N	80°47'30.487"W	58.02	147.561	0.05
8	3003.35	39°49'02.916"N	80°47'30.526"W	56.86	150.423	2.80
9	2930.00	39°49'02.882"N	80°47'30.622"W	56.68	158.704	4.02
10	2868.87	39°49'02.820"N	80°47'30.761"W	59.72	170.697	1.64
11	2819.18	39°49'02.742"N	80°47'30.924"W	66.71	182.775	1.59
12	2785.72	39°49'02.640"N	80°47'31.121"W	78.96	193.738	3.00
13	2757.31	39°49'02.577"N	80°47'31.250"W	87.85	199.171	2.75
14	2734.74	39°49'02.437"N	80°47'31.604"W	112.12	210.395	5.42
15	2714.08	39°49'02.277"N	80°47'32.033"W	144.24	218.805	7.73
16	2698.26	39°49'02.078"N	80°47'32.514"W	184.02	224.166	1.19
17	2699.79	39°49'01.863"N	80°47'32.977"W	224.97	227.060	1.52
18	2694.07	39°49'01.630"N	80°47'33.431"W	266.93	228.658	1.08
19	2678.53	39°49'01.394"N	80°47'33.882"W	309.13	229.755	0.71
20	2664.42	39°49'01.169"N	80°47'34.289"W	348.05	230.373	5.14
21	2650.49	39°49'00.952"N	80°47'34.707"W	387.17	231.027	5.55
22	2636.82	39°49'00.731"N	80°47'35.173"W	429.44	231.840	0.82
23	2624.00	39°49'00.509"N	80°47'35.628"W	471.20	232.433	0.30
24	2611.78	39°49'00.290"N	80°47'36.088"W	513.13	232.984	0.49
25	2600.00	39°49'00.083"N	80°47'36.547"W	554.28	233.542	1.17
26	2588.20	39°48'59.885"N	80°47'36.997"W	594.42	234.056	0.17
27	2577.00	39°48'59.681"N	80°47'37.450"W	635.07	234.475	0.35
28	2566.83	39°48'59.482"N	80°47'37.892"W	674.84	234.833	0.67
29	2557.14	39°48'59.282"N	80°47'38.344"W	715.19	235.184	0.84
30	2548.84	39°48'59.083"N	80°47'38.795"W	755.56	235.499	0.25

Op	N	S
Ar	M	...
Fi	M	...
Fa	M	...
W	M	...

### Report

15653'



Slot E
MND-6E-IIS
MND-6E-IIS AWB

North	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]
68.01	39°48'58.882"N	80°47'39.247"W	796.10	235.771	0.22
51.14	39°48'58.710"N	80°47'39.713"W	835.93	236.228	4.12
41.48	39°48'58.609"N	80°47'40.231"W	875.15	237.179	6.71
39.53	39°48'58.583"N	80°47'40.827"W	915.62	238.655	5.89
35.72	39°48'58.637"N	80°47'41.471"W	955.71	240.535	5.98
31.54	39°48'58.786"N	80°47'42.165"W	995.71	242.855	9.13
27.00	39°48'59.028"N	80°47'42.975"W	1041.27	245.680	11.48
23.48	39°48'59.379"N	80°47'43.863"W	1090.68	248.917	11.52
22.25	39°48'59.851"N	80°47'44.743"W	1138.73	252.440	8.47
21.49	39°49'00.428"N	80°47'45.572"W	1184.14	256.107	10.77
21.78	39°49'01.114"N	80°47'46.347"W	1227.73	259.960	11.04
21.12	39°49'01.871"N	80°47'47.056"W	1270.53	263.824	10.38
20.05	39°49'02.075"N	80°47'47.235"W	1282.07	264.820	4.58
2459.03	39°49'02.653"N	80°47'47.729"W	1315.74	267.527	1.35
2539.51	39°49'03.441"N	80°47'48.390"W	1365.20	270.995	0.10
2618.80	39°49'04.217"N	80°47'49.052"W	1419.21	274.162	0.83
2698.58	39°49'04.998"N	80°47'49.727"W	1478.37	277.102	0.03
2778.88	39°49'05.785"N	80°47'50.393"W	1540.42	279.834	1.23
2858.99	39°49'06.569"N	80°47'51.037"W	1604.08	282.355	0.42
2938.77	39°49'07.351"N	80°47'51.689"W	1671.05	284.663	1.26
3017.34	39°49'08.119"N	80°47'52.387"W	1743.69	286.717	3.53
3093.12	39°49'08.860"N	80°47'53.135"W	1821.20	288.483	2.56
3167.84	39°49'09.590"N	80°47'53.901"W	1901.24	290.058	0.34
3243.81	39°49'10.333"N	80°47'54.645"W	1981.54	291.556	2.27
3321.04	39°49'11.088"N	80°47'55.368"W	2061.99	292.988	0.59
3397.29	39°49'11.834"N	80°47'56.108"W	2144.46	294.273	2.58
3471.59	39°49'12.560"N	80°47'56.860"W	2227.92	295.406	0.18
3546.86	39°49'13.295"N	80°47'57.616"W	2312.96	296.475	0.26
3622.49	39°49'14.034"N	80°47'58.367"W	2398.51	297.480	0.51
3698.72	39°49'14.780"N	80°47'59.107"W	2484.31	298.436	0.83

1

rgy

# Report

WJ: 15653'



**ENERGY**  
**County:**  
**id:**

Slot E
MND-6E-IIS
MND-6E-IIS AWB

WJ: 172 st:

North	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [%/100ft]
775.05	39°49'15.526"N	80°47'59.824"W	2569.21	299.351	1.26
853.00	39°49'16.289"N	80°48'00.534"W	2655.05	300.243	0.57
931.80	39°49'17.060"N	80°48'01.228"W	2740.86	301.108	1.35
10.61	39°49'17.831"N	80°48'01.922"W	2827.25	301.921	1.31
89.00	39°49'18.598"N	80°48'02.624"W	2914.46	302.671	0.35
68.04	39°49'19.372"N	80°48'03.313"W	3001.69	303.399	1.16
46.94	39°49'20.144"N	80°48'03.982"W	3087.97	304.100	0.48
26.68	39°49'20.925"N	80°48'04.658"W	3175.61	304.770	0.60
5.14	39°49'21.693"N	80°48'05.336"W	3263.05	305.383	0.59
3.89	39°49'22.463"N	80°48'06.031"W	3352.12	305.955	0.67
2.49	39°49'23.232"N	80°48'06.729"W	3441.58	306.493	0.32
11.07	39°49'24.002"N	80°48'07.404"W	3529.91	307.021	1.64
21.68	39°49'24.791"N	80°48'08.063"W	3618.74	307.561	1.23
34.09	39°49'25.599"N	80°48'08.683"W	3706.59	308.126	3.28
48.96	39°49'26.421"N	80°48'09.270"W	3793.65	308.707	0.52
69.49	39°49'27.220"N	80°48'09.885"W	3881.26	309.214	4.42
85.01	39°49'27.631"N	80°48'10.241"W	3928.89	309.437	4.30
104.17	39°49'27.990"N	80°48'10.581"W	3972.31	309.609	5.47
123.52	39°49'28.726"N	80°48'11.336"W	4064.97	309.907	2.18
196.99	39°49'29.444"N	80°48'12.121"W	4158.33	310.152	1.74
268.31	39°49'30.140"N	80°48'12.919"W	4251.14	310.354	1.03
340.39	39°49'30.843"N	80°48'13.725"W	4344.99	310.550	1.05
413.71	39°49'31.559"N	80°48'14.493"W	4437.38	310.776	3.00
489.52	39°49'32.300"N	80°48'15.240"W	4530.28	311.029	0.58
565.15	39°49'33.039"N	80°48'15.991"W	4623.33	311.269	1.07
639.75	39°49'33.768"N	80°48'16.758"W	4716.76	311.479	1.21
715.02	39°49'34.504"N	80°48'17.515"W	4810.06	311.694	2.58
783.05	39°49'35.267"N	80°48'18.223"W	4902.45	311.954	3.43
853.20	39°49'36.052"N	80°48'18.892"W	4994.02	312.247	1.63
923.57	39°49'36.839"N	80°48'19.555"W	5085.59	312.533	0.98



Energy

### Report

10-6-12 MND-6E-IIS 15653'



REG  
Op  
Ac  
Fic  
Fu

STATE  
ENERGY  
County, VA  
id

lot  
Well  
Wellbore

Slot E  
MND-6E-IIS  
MND-6E-IIS AWB

Well

(172 sta

Station	Azimuth [°]	Distance [ft]	North [ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
00 321	321.00	19.05	19.05	39°49'37.622"N	80°48'20.249"W	5178.77	312.790	1.84
00 322	322.00	26.84	26.84	39°49'38.360"N	80°48'20.980"W	5271.14	312.978	4.71
00 323	323.00	28.58	28.58	39°49'39.080"N	80°48'21.761"W	5365.23	313.119	0.83
00 324	324.00	36.14	36.14	39°49'39.821"N	80°48'22.509"W	5458.84	313.289	4.65
00 325	325.00	44.08	44.08	39°49'40.579"N	80°48'23.204"W	5550.71	313.496	1.11
00 326	326.00	52.89	52.89	39°49'41.342"N	80°48'23.914"W	5643.78	313.690	2.08
00 327	327.00	61.78	61.78	39°49'42.113"N	80°48'24.608"W	5736.58	313.894	4.05
00 328	328.00	70.81	70.81	39°49'42.936"N	80°48'25.191"W	5826.75	314.187	8.95
00 329	329.00	80.05	80.05	39°49'43.769"N	80°48'25.723"W	5914.85	314.505	3.75
00 330	330.00	89.25	89.25	39°49'44.569"N	80°48'26.358"W	6006.61	314.757	7.42
00 331	331.00	98.25	98.25	39°49'45.311"N	80°48'27.101"W	6100.49	314.867	5.66
00 332	332.00	107.10	107.10	39°49'46.019"N	80°48'27.900"W	6195.10	314.943	2.05
00 333	333.00	115.98	115.98	39°49'46.744"N	80°48'28.674"W	6289.48	315.040	4.81
00 334	334.00	124.78	124.78	39°49'47.499"N	80°48'29.374"W	6382.00	315.190	3.45
00 335	335.00	133.56	133.56	39°49'48.271"N	80°48'30.067"W	6475.28	315.349	1.63
00 336	336.00	142.30	142.30	39°49'49.033"N	80°48'30.778"W	6568.90	315.490	0.57
00 337	337.00	151.04	151.04	39°49'49.774"N	80°48'31.504"W	6661.92	315.606	2.45
00 338	338.00	159.75	159.75	39°49'50.506"N	80°48'32.266"W	6756.30	315.697	1.09
00 339	339.00	168.41	168.41	39°49'51.252"N	80°48'33.005"W	6850.43	315.804	3.90
00 340	340.00	177.06	177.06	39°49'52.012"N	80°48'33.699"W	6943.03	315.938	0.98
00 341	341.00	185.76	185.76	39°49'52.766"N	80°48'34.401"W	7035.81	316.060	2.14
00 342	342.00	194.46	194.46	39°49'53.517"N	80°48'35.131"W	7129.89	316.165	0.30
00 343	343.00	203.11	203.11	39°49'54.270"N	80°48'35.858"W	7223.94	316.271	0.73
00 344	344.00	211.83	211.83	39°49'55.023"N	80°48'36.586"W	7318.05	316.372	1.08
00 345	345.00	220.54	220.54	39°49'55.763"N	80°48'37.335"W	7412.44	316.455	1.55
00 346	346.00	229.24	229.24	39°49'56.482"N	80°48'38.097"W	7506.06	316.519	1.31
00 347	347.00	237.92	237.92	39°49'57.223"N	80°48'38.845"W	7600.45	316.599	4.06
00 348	348.00	246.59	246.59	39°49'57.992"N	80°48'39.543"W	7694.22	316.713	2.09
00 349	349.00	255.26	255.26	39°49'58.771"N	80°48'40.223"W	7787.73	316.837	0.19
00 350	350.00	263.93	263.93	39°49'59.558"N	80°48'40.863"W	7879.71	316.978	3.71

Energy

### Wellpath Report

Well ID: MND-6E-IIS AWB (15653')

Page: 7 of 7



Operator: NERG  
 Area: County  
 Field:  
 Facility:

Well	MND-6E-IIS AWB
Slot	Slot E
Well	MND-6E-IIS
Well	MND-6E-IIS AWB

Well ID: MND-6E-IIS AWB

Depth [ft]	Azimuth [°]	Gamma Ray [API]	Caliper [in]	Tool Joint [in]	North [ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [%/100ft]
0	321.3				48990.53	39°50'00.374"N	80°48'41.464"W	7971.79	317.146	1.65
10	322.3				48991.22	39°50'01.174"N	80°48'42.099"W	8064.62	317.289	5.64
20	322.3				48992.96	39°50'01.943"N	80°48'42.798"W	8158.56	317.388	1.87
30	322.3				48994.70	39°50'02.691"N	80°48'43.513"W	8251.84	317.468	0.97
40	322.3				48996.44	39°50'03.437"N	80°48'44.252"W	8346.31	317.536	1.08
50	321.5				48998.18	39°50'04.180"N	80°48'44.995"W	8440.83	317.600	0.49
60	322.5				48999.92	39°50'04.910"N	80°48'45.740"W	8534.45	317.655	1.65
70	322.5				49001.66	39°50'05.647"N	80°48'46.493"W	8629.07	317.709	1.61
80	322.5				49003.40	39°50'06.386"N	80°48'47.244"W	8723.67	317.764	1.37
90	321.5				49005.14	39°50'07.102"N	80°48'48.011"W	8817.49	317.802	1.95
100	322.5				49006.88	39°50'07.827"N	80°48'48.785"W	8912.29	317.840	2.09
110	322.5				49008.62	39°50'08.570"N	80°48'49.508"W	9005.75	317.904	3.36
120	322.5				49010.36	39°50'09.354"N	80°48'50.178"W	9099.41	318.003	4.11
130	322.5				49012.10	39°50'10.143"N	80°48'50.814"W	9191.70	318.115	1.30
140	322.5				49013.84	39°50'10.928"N	80°48'51.481"W	9285.38	318.211	1.90
150	322.5				49015.58	39°50'11.702"N	80°48'52.169"W	9379.39	318.294	0.69
160	322.5				49017.32	39°50'12.470"N	80°48'52.868"W	9473.57	318.369	0.74
170	322.5				49019.06	39°50'13.246"N	80°48'53.555"W	9567.60	318.450	2.36
180	322.5				49020.80	39°50'14.022"N	80°48'54.240"W	9661.63	318.530	2.15
190	321.5				49022.54	39°50'14.758"N	80°48'54.974"W	9755.28	318.576	4.84
200	322.5				49024.28	39°50'15.527"N	80°48'55.525"W	9823.18	318.596	1.62
210	322.5				49026.02	39°50'16.293"N	80°48'56.076"W	9891.08	318.616	1.62
220	322.5				49027.76	39°50'17.059"N	80°48'56.627"W	9958.98	318.636	1.62
230	322.5				49029.50	39°50'17.825"N	80°48'57.178"W	10026.88	318.656	1.62
240	322.5				49031.24	39°50'18.591"N	80°48'57.729"W	10094.78	318.676	1.62
250	322.5				49032.98	39°50'19.357"N	80°48'58.280"W	10162.68	318.696	1.62
260	322.5				49034.72	39°50'20.123"N	80°48'58.831"W	10230.58	318.716	1.62
270	322.5				49036.46	39°50'20.889"N	80°48'59.382"W	10298.48	318.736	1.62
280	322.5				49038.20	39°50'21.655"N	80°48'59.933"W	10366.38	318.756	1.62
290	322.5				49039.94	39°50'22.421"N	80°48'60.484"W	10434.28	318.776	1.62
300	322.5				49041.68	39°50'23.187"N	80°48'61.035"W	10502.18	318.796	1.62
310	322.5				49043.42	39°50'23.953"N	80°48'61.586"W	10570.08	318.816	1.62
320	322.5				49045.16	39°50'24.719"N	80°48'62.137"W	10637.98	318.836	1.62
330	322.5				49046.90	39°50'25.485"N	80°48'62.688"W	10705.88	318.856	1.62
340	322.5				49048.64	39°50'26.251"N	80°48'63.239"W	10773.78	318.876	1.62
350	322.5				49050.38	39°50'27.017"N	80°48'63.790"W	10841.68	318.896	1.62
360	322.5				49052.12	39°50'27.783"N	80°48'64.341"W	10909.58	318.916	1.62
370	322.5				49053.86	39°50'28.549"N	80°48'64.892"W	10977.48	318.936	1.62
380	322.5				49055.60	39°50'29.315"N	80°48'65.443"W	11045.38	318.956	1.62
390	322.5				49057.34	39°50'30.081"N	80°48'65.994"W	11113.28	318.976	1.62
400	322.5				49059.08	39°50'30.847"N	80°48'66.545"W	11181.18	318.996	1.62
410	322.5				49060.82	39°50'31.613"N	80°48'67.096"W	11249.08	319.016	1.62
420	322.5				49062.56	39°50'32.379"N	80°48'67.647"W	11316.98	319.036	1.62
430	322.5				49064.30	39°50'33.145"N	80°48'68.198"W	11384.88	319.056	1.62
440	322.5				49066.04	39°50'33.911"N	80°48'68.749"W	11452.78	319.076	1.62
450	322.5				49067.78	39°50'34.677"N	80°48'69.300"W	11520.68	319.096	1.62
460	322.5				49069.52	39°50'35.443"N	80°48'69.851"W	11588.58	319.116	1.62
470	322.5				49071.26	39°50'36.209"N	80°48'70.402"W	11656.48	319.136	1.62
480	322.5				49073.00	39°50'36.975"N	80°48'70.953"W	11724.38	319.156	1.62
490	322.5				49074.74	39°50'37.741"N	80°48'71.504"W	11792.28	319.176	1.62
500	322.5				49076.48	39°50'38.507"N	80°48'72.055"W	11860.18	319.196	1.62



**R**  
 Op  
 Ar  
 Fic  
 Fac

**TAP**  
 Name  
 MND-6E-IHS  
 MND-6E-IHS  
 MND-6E-IHS  
 MND-6E-IHS

**WE**  
 Start  
 01  
 02  
 03  
 04  
 05  
 06  
 07  
 08

**POSITION**  
 ID  
 05.00 G  
 02.00 IS  
 15.00 IS  
 56.00 N  
 31.00 N  
 03.00 IS

### Wellpath Report

IHS AWP Proj: 15653  
 Page 8 of 9



Slot	Slot E
Well	MND-6E-IHS
Wellbore	MND-6E-IHS AWB

Station	Wellbore	Well	Slot	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
25				1620605.58	489901.61	39°50'15.456"N	80°48'55.690"W	point
25.50				1635842.04	482423.17	39°49'02.304"N	80°47'47.184"W	point
29.85				1635864.69	482390.81	39°49'01.988"N	80°47'46.888"W	point
58.19				1637172.66	482531.50	39°49'03.564"N	80°47'30.152"W	polygon

Wellpath: MND-6E-IHS AWP Proj: 15653

Station	Log Name/Comment	Wellbore
00	14-3/4" x (50'-265')	MND-6E-IHS AWB
02	PS 1 14-3/4" x (265')(311'-702') Proj: 760'	MND-6E-IHS AWB
03	PS 1 12-1/4" x (702')(904'-2015') Proj: 2070'	MND-6E-IHS AWB
04	11 1/2" WD x 8-3/4" x (2015')(2139'-3656')	MND-6E-IHS AWB
05	11 1/2" Curve x 8-3/4" x (3656')(3708'-15631')	MND-6E-IHS AWB
06	change to bit	MND-6E-IHS AWB



# Active Wellpath Report

MND-6E-IIS AWP Proj: 15653'

Page 9 of 9

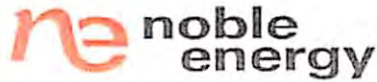


**Operator**    ENERGA  
**Area**        SL...    County, WV  
**Field**  
**Facility**    15    Pad

Slot	Slot E
Well	MND-6E-IIS
Wellbore	MND-6E-IIS AWB

**Completion**  
**Wellhead**    vents  
**API**         64  
**BLE**  
**Rig**         new  
**Date**        11.23.2014  
**Gys**         1  
**APR**        311'(112')  
**APS**        2'(904'-209')  
**BH**         015'(2130'-165')  
**BH**         (3656')(3708'-12')  
**Projected**    15653'





**DRILLING WELL PLAN**  
**MND-6C-HS (Marcellus HZ)**  
**Macellus Shale Horizontal**  
**Marshall County, WV**

		<b>MND-6C SHL (Lat/Long)</b>	<b>(482523.68N, 1637143.57E) (NAD27)</b>
<b>Ground Elevation</b>	<b>722'</b>	<b>MND-6C LP (Lat/Long)</b>	<b>(483073.65N, 1636852.59E) (NAD27)</b>
<b>Azm</b>	<b>325°</b>	<b>MND-6C BHL (Lat/Long)</b>	<b>(492622.38N, 1630166.49E) (NAD27)</b>

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	26	20" 94#	Conductor	40	40	AIR	To Surface	N/A	Ensure the hole is clean at TD	Stabilize surface fill/soil Conductor casing = 0.438" wall thickness
	18	16"	Conductor #2	120	120	Auger	To Surface	N/A	Ensure the hole is clean at TD	Stabilize surface soil
	17 1/2	13-3/8" 54.5# J-55 BTC	Pittsburgh Coal	284	294	AIR	15.6 ppg Type 1 + 2% CaCl <sub>2</sub> , 0.25# Lost Circ 30% Excess Yield = 1.18	Bow Spring on first 2 joints then every third joint to 100' from surface	Fill with KCl water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.380" wall thickness Burst=2730 psi
			Surface Casing	694	694					
	12 3/8	9-5/8" 36# K-55 BTC	2nd Salt Sand	1377	1413	AIR	15.6ppg Class A +0.4% Ret, 0.15% Disp, 0.2% AntFoam, 0.125#/sk Lost Circ 20% Excess Yield=1.19 To Surface	Bow spring centralizers every third joint to 100' feet from surface.	Fill with KCl water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Casing to be ran 250' below the 5th Sand. Intermediate casing = 0.352" wall thickness Burst=3520 psi
			Big Lime	1488	1604					
			Big Injun	1604	1717					
			Price Formation	1717	2232					
			Int. Casing	2017	2017					
	8.75" Vertical	5-1/2" 23# HCP-110 TXP BTC	Speechley	3019	3065	8.0ppg - 9.0ppg SOBM	14.8ppg Class A 25:75:0 System +2.6% Cement extender, 0.7% Fluid Loss additive, 0.45% high temp retarder, 0.2% friction reducer	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.
			Java	4570	4665					
			Pipe Creek	4665	4752					
			Angola	4752	5334					
			Rheinstreet	5334	5655					
			Cashagua	5655	5727					
Middlesex			5727	5750						
West River			5750	5811						
Burkett			5811	5836						
Tully Limestone			5836	5860						
Hamilton	5860	5895								
8.75" / 8.5"	TD	Marcellus	5895	5950	12.0ppg- 12.5ppg SOBM	10% Excess Yield=1.27  TOC >= 200' above 9.625' shoe	Rigid Bow Spring every joint to KOP			
		TD	17929	5940 TVD						
		Onondaga	5950							

RECEIVED  
 Office of Oil and Gas  
 WV Department of Environmental Protection  
 AUG 16 2014

5940' TVD / 6272' TD  
 8.75 / 8.5 Hole - Cemented Long String  
 5-1/2" 20# HCP-110 TXP BTC  
 +/-11658' ft Lateral  
 TD @ +/-5940' TVD  
 +/-17929' MD  
 X=centralizers

Received  
 Office of Oil & Gas  
 JUL 17 2016

JIN 8/13/14

51-01745 MOD





<p><b>Offset Wells</b></p> <ul style="list-style-type: none"> <li>⊗ No Data</li> <li>● Pittsburgh coal</li> <li>● Salina</li> <li>⊕ Plugged</li> </ul>	<ul style="list-style-type: none"> <li>● NBL Well Pad</li> <li>— NBL-Drilled, Marcellus</li> <li>↔ Hz Distance</li> <li>○ 500' AOR Buffer</li> <li>□ Parcels</li> <li>▬ State Line</li> </ul>
--	---

0 1,000  
Feet

1 inch = 1,000 feet

Main Data Frame  
Coordinate System:  
NAD 1927 UTM Zone  
17N

Units: Foot US

Disclaimer: All data is licensed for Noble Energy, Inc. use only. Noble Energy, Inc. makes every effort to ensure this map is free of errors, but does not warrant the map or its features are either spatially or temporally accurate or fit for a particular use. Noble Energy, Inc. provides this map without any warranty of any kind whatsoever, either

Author: devinreighton  
Date Created: 8/23/2016  
Date Saved: 8/23/2016

8/23/16



WW-9  
(4/16)

API Number 47 - 051 - 01761  
Operator's Well No. MND 6 EHS

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) Fish Creek Unidentified (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: Closed Loop - No Pit will be utilized

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number 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, Mil-Clean, Mil Seal, Next Base eC, Next Drill, Next Hold, Next MJ, Omni Cote, MI Bar, Next Mul HT, Soda Ash, Potassium Chloride

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill - see attached sheet

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

-Landfill or offsite name/permit number? See attached sheet

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

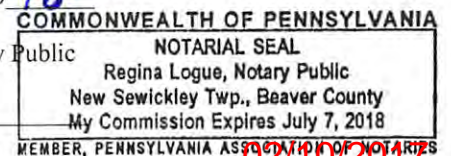
Company Official Title Regulatory Analyst, III

Subscribed and sworn before me this 10th day of October, 20 18

Regina Logue

Notary Public

My commission expires July 7, 2018



02/10/2017

Noble Energy, Inc.

Proposed Revegetation Treatment: Acres Disturbed 9.6 Prevegetation pH \_\_\_\_\_

Lime 2 to 3 Tons/acre or to correct to pH \_\_\_\_\_

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay or Straw at 2 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:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Title: Office of Oil and Gas - Inspector

Date: 10/2/16

Field Reviewed?  Yes

No

# Cuttings Disposal/Site Water

## Cuttings –Haul off Company:

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

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

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

## Disposal Locations:

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

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

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

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

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

Waste Management Kelly Run Permit # 100663  
1901 Park Side Drive  
Elizabeth, PA 15037  
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  
OCT 17 2016

02/10/2017

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 (SWIW #13) OCT 17 2016  
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

02/10/2017



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

Received  
Office of Oil & Gas  
OCT 17 2016

02/10/2017



# Site Safety Plan

**Noble Energy, Inc.**

**MND 6 Well Pad**

**1652 Fish Creek Road**

**Proctor, WV**

**July 2015: Version 2**

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

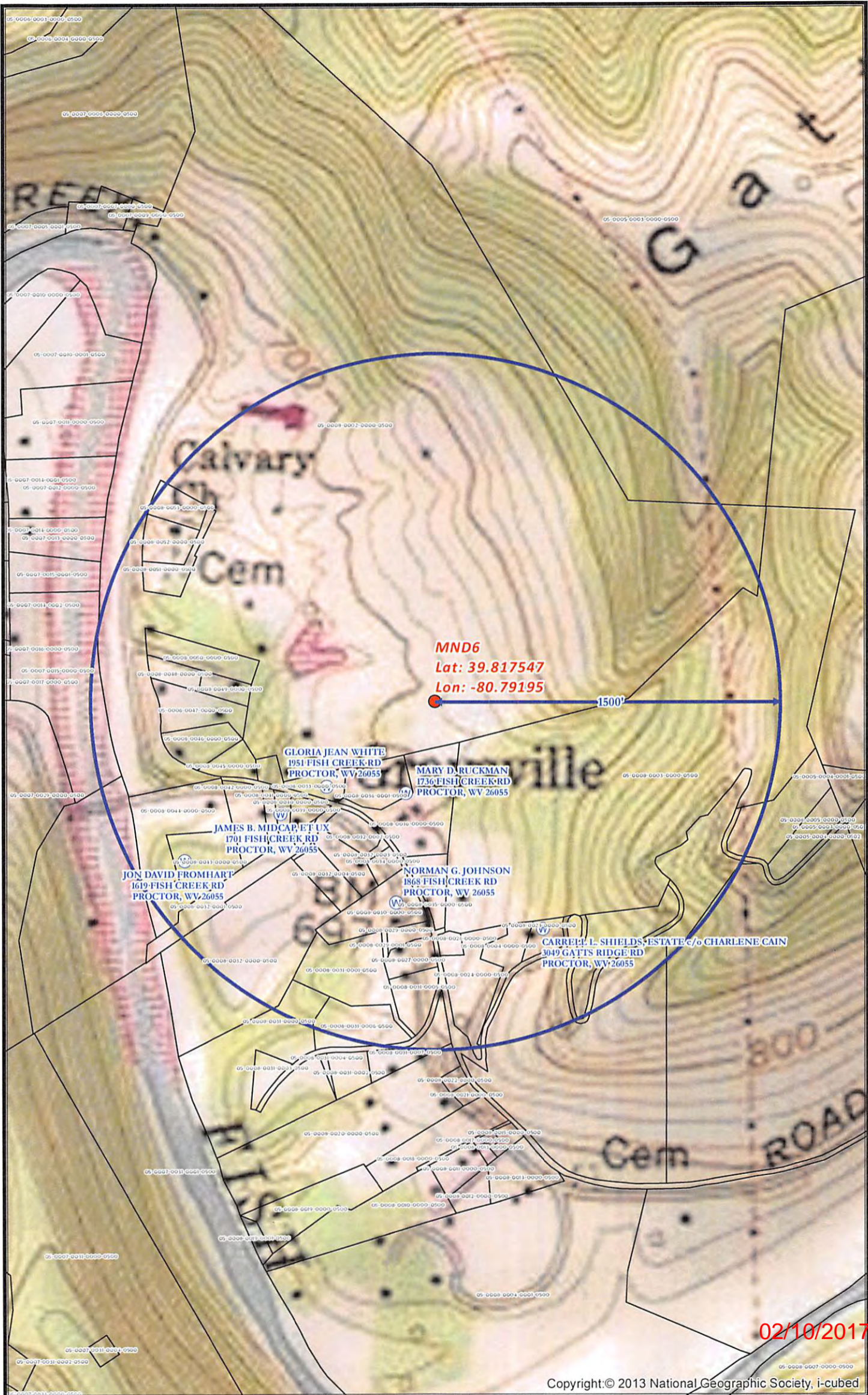
*For  
10/6/16*

Noble Energy, Inc.  
Appalachia Offices  
1000 Noble Energy Drive  
Canonsburg, PA 15317-9504

Received  
Office of Oil & Gas  
OCT 17 2016

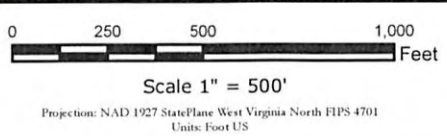
02/10/2017





**MND6 SITE SAFETY PLAN**  
 - WATER WELLS PROXIMITY -

Well Pad  
 Water Well Pumphouse  
 Water Wells Buffer



**noble energy**

Date: 12/13/2013  
 Author: Christopher Glover

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

6/6



# AS DRILLED PLAT

EXISTING SURFACE LOCATION LONG. W 80°47'30.9" (NAD 27)

Latitude: N 39°50'00"

Longitude: W 80°47'30"

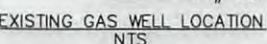
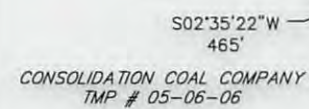
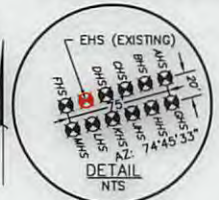
## PERMITTED

## AS DRILLED

SURFACE LOCATION (SHL)	LANDING POINT (LP)	BOTTOM HOLE LOCATION (BHL)
UTM 17 NAD 83 N) 4,407,543.37m E) 517,825.32m NAD 27 WV NORTH N) 482,515.8' E)1,637,114.6' NAD 83 DEC. LAT.) 39.817687' DEC. LONG.) 80.791727'	UTM 17 NAD 83 N) 4,407,499.66m E) 517,444.63m NAD 27 WV NORTH N) 482,393.3' E)1,635,863.0' NAD 83 DEC. LAT.) 39.817301' DEC. LONG.) 80.796176'	UTM 17 NAD 83 N) 4,409,760.34m E) 515,804.73m NAD 27 WV NORTH N) 489,901.7' E)1,630,605.6' NAD 83 DEC. LAT.) 39.837702' DEC. LONG.) 80.815282'

SURFACE LOCATION (SHL)	LANDING POINT (LP)	BOTTOM HOLE LOCATION (BHL)
UTM 17 NAD 83 N) 4,407,543.37m E) 517,825.28m NAD 27 WV NORTH N) 482,515.8' E)1,637,114.5' NAD 83 DEC. LAT.) 39.817687' DEC. LONG.) 80.791727'	UTM 17 NAD 83 N) 4,407,501.59m E) 517,436.88m NAD 27 WV NORTH N) 482,400.1' E)1,635,837.7' NAD 83 DEC. LAT.) 39.817319' DEC. LONG.) 80.796267'	UTM 17 NAD 83 N) 4,409,760.06m E) 515,804.44m NAD 27 WV NORTH N) 489,900.8' E)1,630,604.7' NAD 83 DEC. LAT.) 39.837700' DEC. LONG.) 80.815286'

GRID NORTH  
NAD 83



- 7 JUNE MORRIS  
TMP # 05-08-44
- 8 KEVIN W. WALLACE  
TMP # 05-08-45
- 9 JOHN JOSEPH GOUDY  
TMP # 05-08-46
- 10 ANNE C. KLEN  
TMP # 05-08-47
- 11 WILLIAM ROUPE ET UX.  
TMP # 05-07-15
- 16 LARRY O. HOWARD  
TMP # 05-07-14
- 17 LARRY O. HOWARD  
TMP # 05-07-14.1

### GENERAL NOTES:

1. THE LOCATION OF BOUNDARY LINES SHOWN HEREON ARE BASED ON RECORD DEED, PLATS, AND TAX MAPS BEST FIT TO FOUND FIELD EVIDENCE AND AERIAL PHOTOS, UNLESS OTHERWISE NOTED.
2. THIS PLAT DOES NOT REPRESENT AN ACTUAL BOUNDARY SURVEY OF THE INDIVIDUAL PARCELS.
3. THERE ARE NO EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF PROPOSED WELL.
4. PROPOSED WELL IS GREATER THAN 100' FROM PERENNIAL STREAM, WETLAND, POND, RESERVOIR OR LAKE.
5. THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED WELL.
6. THERE ARE TWO DWELLINGS LOCATED WITHIN 650' OF PROPOSED WELLBORE.
7. THE SURROUNDING LANDS ARE BEING SERVED BY PUBLIC WATER BY THE GRAND VIEW DOOLIN WATER SYSTEM PROVIDED BY MARSHALL COUNTY PUBLIC HEALTH AND SANITATION DIVISION.

LEGEND	
	EXISTING GAS WELL
	AS-DRILLED BORE
	PROPOSED BORE
	TIE LINE
	UNIT BOUNDARY
	PROPERTY LINE
	STREAM LINE
	BUFFER LINE
	GAS WELL
	PLUGGED GAS WELL

FILE #: 093842010

DRAWING #: 093842010\_SV-Plat

SCALE: PLAT & TICK: 1" = 2,000'

MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SOURCE OF ELEVATION: NGS (CORS)

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED:

R.P.E.: \_\_\_\_\_ L.L.S.: 2241



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



DATE: OCTOBER 7, 2016

OPERATOR'S WELL #: MND 6 EHS

API WELL #: 47 051 01761

STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  WASTE DISPOSAL  LIQUID INJECTION  PRODUCTION  STORAGE  DEEP  SHALLOW

WATERSHED: FISH CREEK ELEVATION: 722'-DESIGN (NAVD 85)

COUNTY/DISTRICT: MARSHALL / FRANKLIN QUADRANGLE: POWHATAN POINT, OHIO-W.VA

SURFACE OWNER: CONSOLIDATION COAL COMPANY ACREAGE: 136.587±

OIL & GAS ROYALTY OWNER: CNX GAS COMPANY LLC and NOBLE ENERGY, INC. ACREAGE: 136.587±

CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PERFORATE NEW FORMATION  PLUG & ABANDON

DRILL  PLUG OFF OLD FORMATION  CLEAN OUT & REPLUG  OTHER CHANGE (SPECIFY): \_\_\_\_\_

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 5,940'± TMD: 15,804'±

WELL OPERATOR: NOBLE ENERGY, INC. DESIGNATED AGENT: STEVEN GREEN

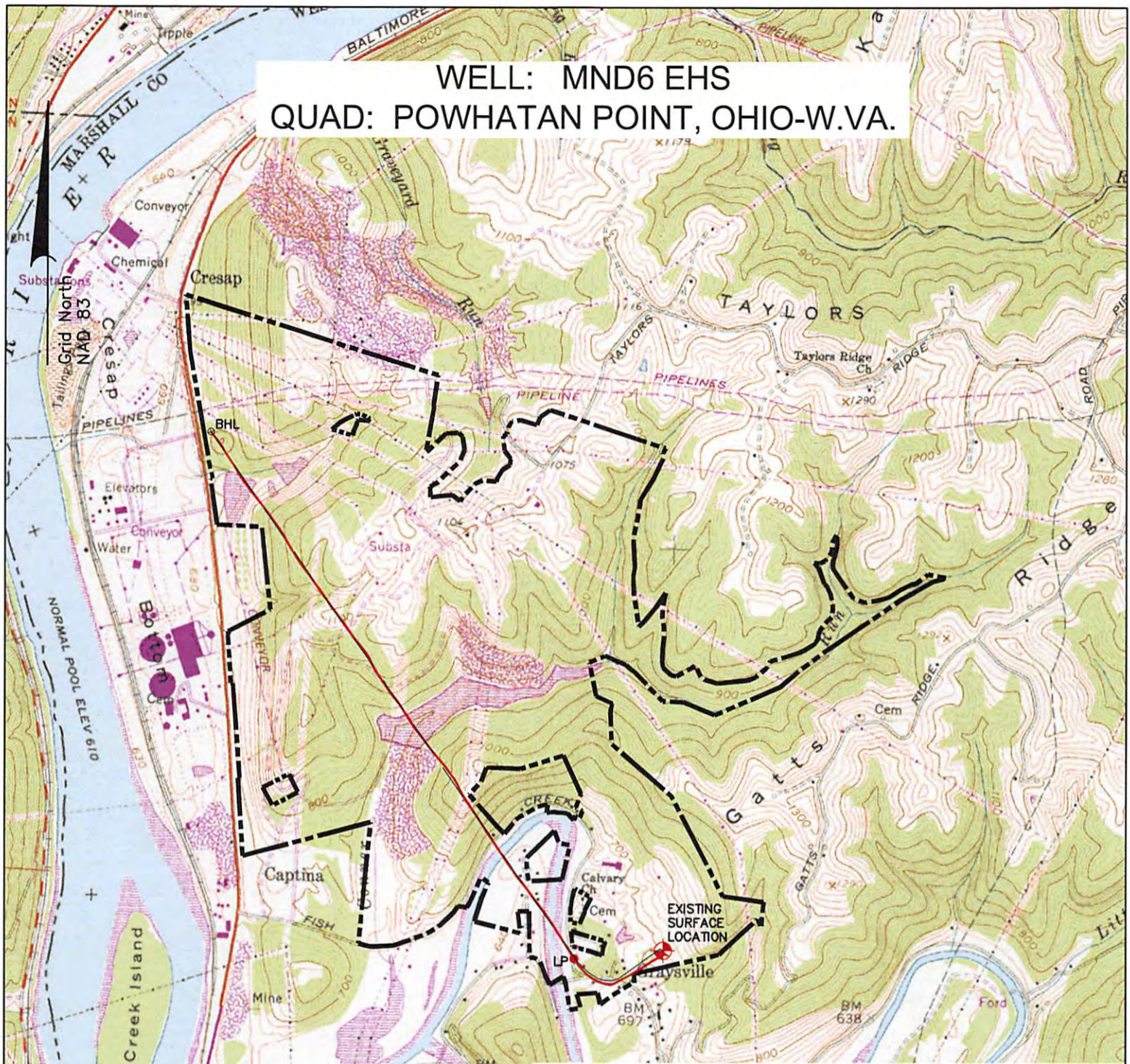
ADDRESS: 333 TECHNOLOGY DRIVE, SUITE 116 ADDRESS: 1000 NOBLE ENERGY DRIVE

CITY: CANONSBURG STATE: PA ZIP CODE: 15317 CITY: CANONSBURG STATE: PA ZIP CODE: 15317

02/10/2017



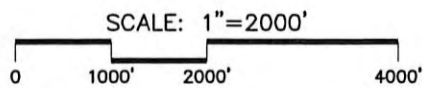
**WELL: MND6 EHS**  
**QUAD: POWHATAN POINT, OHIO-W.VA.**



**AS DRILLED**

SURFACE LOCATION (SHL)	LANDING POINT (LP)	BOTTOM HOLE LOCATION (BHL)
(NAD 83) N) 482,551.9' E) 1,605,677.1' LAT.) 39°49'03.7" LONG.) 80°47'30.2" DEC. LAT.) 39.817687' DEC. LONG.) 80.791727'	(NAD 83) N) 482,436.2' E) 1,604,400.3' LAT.) 39°49'02.3" LONG.) 80°47'46.6" DEC. LAT.) 39.817319' DEC. LONG.) 80.796267'	(NAD 83) N) 489,936.8' E) 1,599,167.3' LAT.) 39°50'15.7" LONG.) 80°48'55.0" DEC. LAT.) 39.837700' DEC. LONG.) 80.815286'
(NAD 27) N) 482,515.8' E) 1,637,114.5' LAT.) 39°49'03.4" LONG.) 80°47'30.9" DEC. LAT.) 39.817611' DEC. LONG.) 80.791915'	(NAD 27) N) 482,400.1' E) 1,635,837.7' LAT.) 39°49'02.1" LONG.) 80°47'47.2" DEC. LAT.) 39.817243' DEC. LONG.) 80.796454'	(NAD 27) N) 489,900.8' E) 1,630,604.7' LAT.) 39°50'15.4" LONG.) 80°48'55.7" DEC. LAT.) 39.837625' DEC. LONG.) 80.815473'
(UTM NAD 83) N) 4,407,543.37m E) 517,825.28m	(UTM NAD 83) N) 4,407,501.59m E) 517,436.88m	(UTM NAD 83) N) 4,409,760.06m E) 515,804.44m

**AS DRILLED PLAT**



**PERMITTED**

SURFACE LOCATION (SHL)	LANDING POINT (LP)	BOTTOM HOLE LOCATION (BHL)
(NAD 83) N) 482,551.9' E) 1,605,677.3' LAT.) 39°49'03.7" LONG.) 80°47'30.2" DEC. LAT.) 39.817687' DEC. LONG.) 80.791727'	(NAD 83) N) 482,429.4' E) 1,604,425.6' LAT.) 39°49'02.3" LONG.) 80°47'46.2" DEC. LAT.) 39.817301' DEC. LONG.) 80.796176'	(NAD 83) N) 489,937.7' E) 1,599,168.2' LAT.) 39°50'15.7" LONG.) 80°48'55.0" DEC. LAT.) 39.837702' DEC. LONG.) 80.815282'
(NAD 27) N) 482,515.8' E) 1,637,114.6' LAT.) 39°49'03.4" LONG.) 80°47'30.9" DEC. LAT.) 39.817611' DEC. LONG.) 80.791915'	(NAD 27) N) 482,393.3' E) 1,635,863.0' LAT.) 39°49'02.0" LONG.) 80°47'46.9" DEC. LAT.) 39.817226' DEC. LONG.) 80.796364'	(NAD 27) N) 489,901.7' E) 1,630,605.2' LAT.) 39°50'15.5" LONG.) 80°48'55.7" DEC. LAT.) 39.837627' DEC. LONG.) 80.815469'
(UTM NAD 83) N) 4,407,543.37m E) 517,825.32m	(UTM NAD 83) N) 4,407,499.66m E) 517,444.63m	(UTM NAD 83) N) 4,409,760.34m E) 515,804.73m

**GENERAL NOTE:**  
 THE PURPOSE OF THIS PLAT IS FOR THE LOCATION OF PROPOSED GAS WELLS AND DOES NOT REPRESENT A CLOSED BOUNDARY SURVEY. PROPERTY LINES AND OWNERS WERE OBTAINED FROM VARIOUS FIELD EVIDENCE, TAX RECORDS AND AERIAL MAPPING.

**LEGEND**

- EXISTING GAS WELL
- EXISTING BOTTOM HOLE
- PROPOSED BORE
- AS DRILLED BORE
- UNIT BOUNDARY

02/16/2017

Applicant / Well Operator Name <b>NOBLE ENERGY, INC.</b>	Well(Farm) Name <b>MND6</b>	Well # <b>EHS</b>	Serial #
Address <b>333 TECHNOLOGY DRIVE, SUITE 116, CANONSBURG, PA 15317</b>	County - Code <b>MARSHALL - 051</b>	District <b>FRANKLIN</b>	
Surface Landowner / Lessor <b>CONSOLIDATION COAL COMPANY</b>	USGS 71/2 Quadrangle Map Name <b>POWHATAN POINT, OHIO-W.VA</b>	Scale: <b>1" = 2,000'</b>	



**AS DRILLED PLAT**

EXISTING SURFACE LOCATION LONG. W 80°47'30.9" (NAD 27) Latitude: N 39°50'00"

**PERMITTED**

**AS DRILLED**

SURFACE LOCATION (SHL)
UTM 17 NAD 83 N) 4,407,543.37m E) 517,825.32m NAD 27 WV NORTH N) 482,515.8' E) 1,637,114.6' NAD 83 DEC. LAT.) 39.817687° DEC. LONG.) 80.791727°

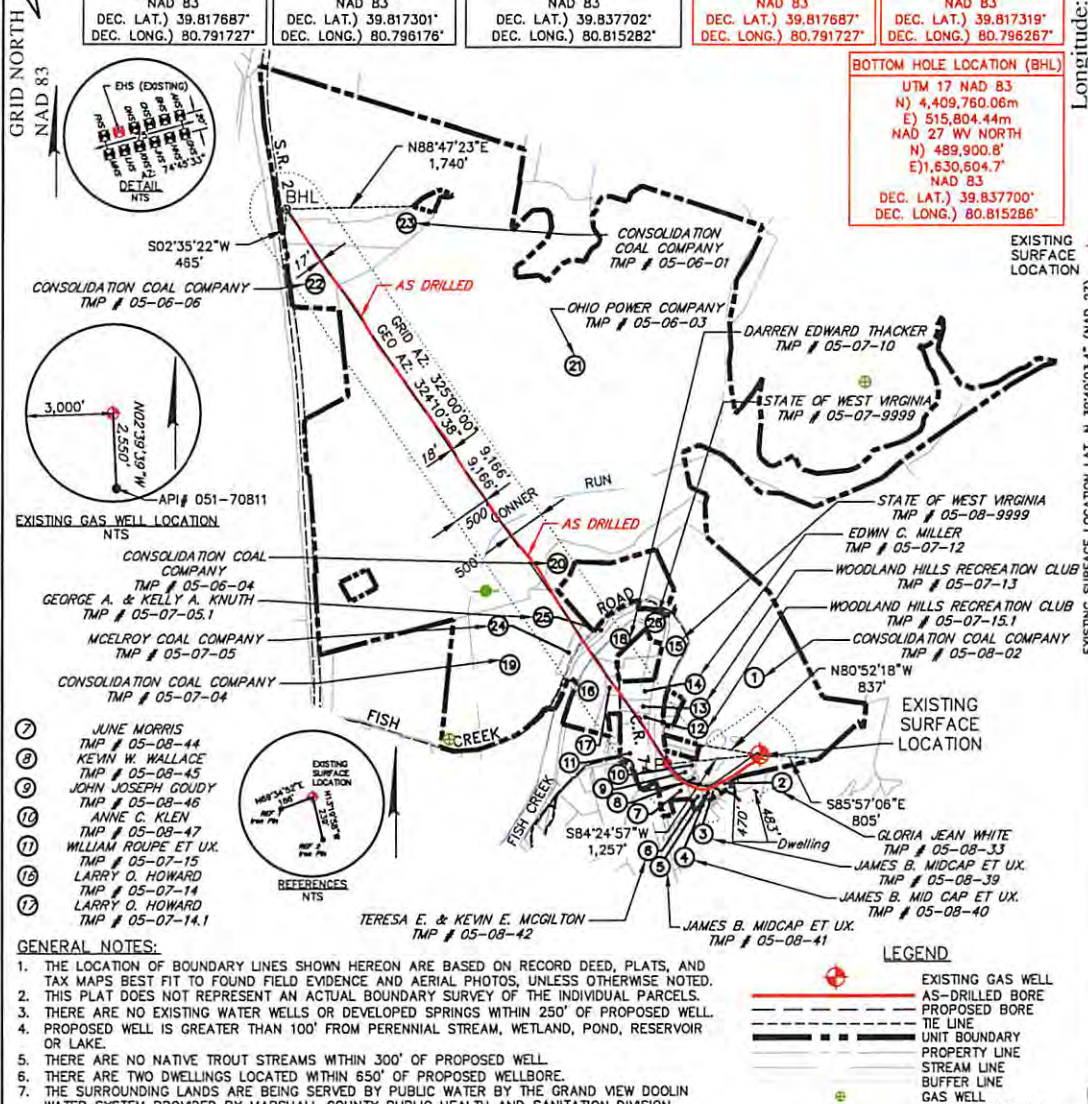
LANDING POINT (LP)
UTM 17 NAD 83 N) 4,407,499.66m E) 517,444.63m NAD 27 WV NORTH N) 482,393.3' E) 1,635,863.0' NAD 83 DEC. LAT.) 39.817301° DEC. LONG.) 80.796176°

BOTTOM HOLE LOCATION (BHL)
UTM 17 NAD 83 N) 4,409,760.34m E) 515,804.73m NAD 27 WV NORTH N) 489,901.7' E) 1,630,605.6' NAD 83 DEC. LAT.) 39.837702° DEC. LONG.) 80.815282°

SURFACE LOCATION (SHL)
UTM 17 NAD 83 N) 4,407,543.37m E) 517,825.28m NAD 27 WV NORTH N) 482,515.8' E) 1,637,114.5' NAD 83 DEC. LAT.) 39.817687° DEC. LONG.) 80.791727°

LANDING POINT (LP)
UTM 17 NAD 83 N) 4,407,501.59m E) 517,436.88m NAD 27 WV NORTH N) 482,400.1' E) 1,635,837.7' NAD 83 DEC. LAT.) 39.817319° DEC. LONG.) 80.796267°

BOTTOM HOLE LOCATION (BHL)
UTM 17 NAD 83 N) 4,409,760.06m E) 515,804.44m NAD 27 WV NORTH N) 489,900.8' E) 1,630,604.7' NAD 83 DEC. LAT.) 39.837700° DEC. LONG.) 80.815286°



**GENERAL NOTES:**

1. THE LOCATION OF BOUNDARY LINES SHOWN HEREON ARE BASED ON RECORD DEED, PLATS, AND TAX MAPS BEST FIT TO FOUND FIELD EVIDENCE AND AERIAL PHOTOS, UNLESS OTHERWISE NOTED.
2. THIS PLAT DOES NOT REPRESENT AN ACTUAL BOUNDARY SURVEY OF THE INDIVIDUAL PARCELS.
3. THERE ARE NO EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' OF PROPOSED WELL.
4. PROPOSED WELL IS GREATER THAN 100' FROM PERENNIAL STREAM, WETLAND, POND, RESERVOIR OR LAKE.
5. THERE ARE NO NATIVE TROUT STREAMS WITHIN 300' OF PROPOSED WELL.
6. THERE ARE TWO DWELLINGS LOCATED WITHIN 650' OF PROPOSED WELLS.
7. THE SURROUNDING LANDS ARE BEING SERVED BY PUBLIC WATER BY THE GRAND VIEW DOOLIN WATER SYSTEM PROVIDED BY MARSHALL COUNTY PUBLIC HEALTH AND SANITATION DIVISION.

**LEGEND**



FILE #: 093842010  
 DRAWING #: 093842010\_SV-Plat  
 SCALE: PLAT & TICK: 1" = 2,000'  
 MINIMUM DEGREE OF ACCURACY: 1/200  
 PROVEN SOURCE OF ELEVATION: NGS (CORS)

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED: \_\_\_\_\_  
 R.P.E.: \_\_\_\_\_ L.L.S.: \_\_\_\_\_

PLACE SEAL HERE

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



DATE: OCTOBER 7, 2016  
 OPERATOR'S WELL #: MND 6 EHS  
 API WELL #: 47 051 01761  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  WASTE DISPOSAL  LIQUID INJECTION  PRODUCTION  STORAGE  DEEP  SHALLOW

WATERSHED: FISH CREEK  
 COUNTY/DISTRICT: MARSHALL / FRANKLIN  
 SURFACE OWNER: CONSOLIDATION COAL COMPANY  
 OIL & GAS ROYALTY OWNER: CNX GAS COMPANY LLC and NOBLE ENERGY, INC.

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 5,940'± TMD: 15,604'±  
 WELL OPERATOR: NOBLE ENERGY, INC. DESIGNATED AGENT: STEVEN GREEN  
 ADDRESS: 333 TECHNOLOGY DRIVE, SUITE 118 ADDRESS: 1000 NOBLE ENERGY DRIVE  
 CITY: CANONSBURG STATE: PA ZIP CODE: 15317 CITY: CANONSBURG STATE: PA ZIP CODE: 15317

Received  
 Office of Oil & Gas  
 OCT 17 2016

02/10/2017



**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)	Consolidation Coal Company	CNX Gas Company, LLC	100%/Fee	646/493
	CNX Gas Company, LLC	Noble Energy, Inc.	100%/Fee	752/66
2) Q079184000	Gloria Jean White and Milton Christopher White	Noble Energy, Inc.	Not less than 1/8	808/392
3) Q076644000	James B. Midcap and Diana K. Midcap	Noble Energy, Inc.	Not less than 1/8	803/336
4) Q078626020	Trudy B. Sampson and Danny Sampson	Noble Energy, Inc.	Not less than 1/8	825/260
Q078626015	Deborah D. Mercer and Calvin P. Mercer	Noble Energy, Inc.	Not less than 1/8	821/22

**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  
OCT 17 2016

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: *Robert Brown*  
Its: Land Negotiations Supervisor

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
4 continued) Q078626016	Brian Edwin Lemasters and Beverly J. Lemasters	Noble Energy, Inc.	Not less than 1/8	821/24
Q078626022	Timothy Scott Lemasters and Amy C. Lemasters	Noble Energy, Inc.	Not less than 1/8	827/162
Q078626021	Mary L. Parriott	Noble Energy, Inc.	Not less than 1/8	827/164
Q078626028	Patricia Parriott	Noble Energy, Inc.	Not less than 1/8	828/270
Q078626027	Betty Jane Parriott	Noble Energy, Inc.	Not less than 1/8	828/265
Q078626019	Frances O. Hall, a/k/a Ornetta Parriott	Noble Energy, Inc.	Not less than 1/8	825/258
Q078626017	Southeastern Guide Dogs Inc., Titus Herman CEO Guide Dogs	Noble Energy, Inc.	Not less than 1/8	820/516
Q078626024	Shriners Hospitals For Children	Noble Energy, Inc.	Not less than 1/8	829/141
Q078626025	Courtney D. Hall	Noble Energy, Inc.	Not less than 1/8	829/147
Q078626001	Lucille E. Wingrove	Noble Energy, Inc.	Not less than 1/8	810/80
Q078626012	Justin Smith A/K/A Justine Smith	Noble Energy, Inc.	Not less than 1/8	819/307
Q078626013	Robert Lee Smith and Betsy K. Smith	Noble Energy, Inc.	Not less than 1/8	819/303
Q078626010	Marilyn Ulbrich Chalmers and Rod N. Chalmers	Noble Energy, Inc.	Not less than 1/8	820/506
Q078626009	H. Jay Ulbrich	Noble Energy, Inc.	Not less than 1/8	819/309
Q078626023	Bryce E. Ulbrich and Edna M. Ulbrich	Noble Energy, Inc.	Not less than 1/8	825/298
Q078626011	Blye Ulbrich Jenschke and Jim Jenschke	Noble Energy, Inc.	Not less than 1/8	819/305
Q078626026	Blasé Joseph Ulcak, Jr.	Noble Energy, Inc.	Not less than 1/8	829/127
Q078626036	Martha Frances Ulcak	Noble Energy, Inc.	Not less than 1/8	832/588
Q078626005	Janice R. Crook a/k/a Janice Wingrove Crook and Donald P. Crook	Noble Energy, Inc.	Not less than 1/8	808/305
Q078626003	June Morris	Noble Energy, Inc.	Not less than 1/8	808/301
Q078626004	Nancy L. Snyder a/k/a Nancy Wingrove Snyder	Noble Energy, Inc.	Not less than 1/8	808/309
Q078626002	Kenneth R. Morris and Dawn E. Morris	Noble Energy, Inc.	Not less than 1/8	808/303
Q078626014	Harry Leroy Parriott and Nancy S. Parriott	Noble Energy, Inc.	Not less than 1/8	820/508
Q078626018	Kimberly D. Lake	Noble Energy, Inc.	Not less than 1/8	825/272
Q078626031	James B. Midcap and Diana K. Midcap	Noble Energy, Inc.	Not less than 1/8	829/165
5) Q078626020	Trudy B. Sampson and Danny Sampson	Noble Energy, Inc.	Not less than 1/8	825/260
Q078626015	Deborah D. Mercer and Calvin P. Mercer	Noble Energy, Inc.	Not less than 1/8	821/22
Q078626016	Brian Edwin Lemasters and Beverly J. Lemasters	Noble Energy, Inc.	Not less than 1/8	821/24
Q078626022	Timothy Scott Lemasters and Amy C. Lemasters	Noble Energy, Inc.	Not less than 1/8	827/162
Q078626021	Mary L. Parriott	Noble Energy, Inc.	Not less than 1/8	827/164
Q078626028	Patricia Parriott	Noble Energy, Inc.	Not less than 1/8	828/270
Q078626027	Betty Jane Parriott	Noble Energy, Inc.	Not less than 1/8	828/265
Q078626019	Frances O. Hall, a/k/a Ornetta Parriott	Noble Energy, Inc.	Not less than 1/8	825/258
Q078626017	Southeastern Guide Dogs Inc., Titus Herman CEO Guide Dogs	Noble Energy, Inc.	Not less than 1/8	820/516
Q078626024	Shriners Hospitals For Children	Noble Energy, Inc.	Not less than 1/8	829/141
Q078626025	Courtney D. Hall	Noble Energy, Inc.	Not less than 1/8	829/147
Q078626001	Lucille E. Wingrove	Noble Energy, Inc.	Not less than 1/8	810/80
Q078626012	Justin Smith A/K/A Justine Smith	Noble Energy, Inc.	Not less than 1/8	819/307
Q078626013	Robert Lee Smith and Betsy K. Smith	Noble Energy, Inc.	Not less than 1/8	819/303
Q078626010	Marilyn Ulbrich Chalmers and Rod N. Chalmers	Noble Energy, Inc.	Not less than 1/8	820/506
Q078626009	H. Jay Ulbrich	Noble Energy, Inc.	Not less than 1/8	819/309
Q078626023	Bryce E. Ulbrich and Edna M. Ulbrich	Noble Energy, Inc.	Not less than 1/8	825/298
Q078626011	Blye Ulbrich Jenschke and Jim Jenschke	Noble Energy, Inc.	Not less than 1/8	819/305
Q078626026	Blasé Joseph Ulcak, Jr.	Noble Energy, Inc.	Not less than 1/8	829/127
Q078626036	Martha Frances Ulcak	Noble Energy, Inc.	Not less than 1/8	832/588
Q078626005	Janice R. Crook a/k/a Janice Wingrove Crook and Donald P. Crook	Noble Energy, Inc.	Not less than 1/8	808/305
Q078626003	June Morris	Noble Energy, Inc.	Not less than 1/8	808/301
Q078626004	Nancy L. Snyder a/k/a Nancy Wingrove Snyder	Noble Energy, Inc.	Not less than 1/8	808/309
Q078626002	Kenneth R. Morris and Dawn E. Morris	Noble Energy, Inc.	Not less than 1/8	808/303
Q078626014	Harry Leroy Parriott and Nancy S. Parriott	Noble Energy, Inc.	Not less than 1/8	820/508
Q078626018	Kimberly D. Lake	Noble Energy, Inc.	Not less than 1/8	825/272
Q078626031	James B. Midcap and Diana K. Midcap	Noble Energy, Inc.	Not less than 1/8	829/165

Received  
Office of Oil & Gas  
OCT 17 2016

02/10/2017

6) Q078626020	Trudy B. Sampson and Danny Sampson	Noble Energy, Inc.	Not less than 1/8	825/260
Q078626015	Deborah D. Mercer and Calvin P. Mercer	Noble Energy, Inc.	Not less than 1/8	821/22
Q078626016	Brian Edwin Lemasters and Beverly J. Lemasters	Noble Energy, Inc.	Not less than 1/8	821/24
Q078626022	Timothy Scott Lemasters and Amy C. Lemasters	Noble Energy, Inc.	Not less than 1/8	827/162
Q078626021	Mary L. Parriott	Noble Energy, Inc.	Not less than 1/8	827/164
Q078626028	Patricia Parriott	Noble Energy, Inc.	Not less than 1/8	828/270
Q078626027	Betty Jane Parriott	Noble Energy, Inc.	Not less than 1/8	828/265
Q078626019	Frances O. Hall, a/k/a Ornetta Parriott	Noble Energy, Inc.	Not less than 1/8	825/258
Q078626017	Southeastern Guide Dogs Inc., Titus Herman CEO Guide Dogs	Noble Energy, Inc.	Not less than 1/8	820/516
Q078626024	Shriners Hospitals For Children	Noble Energy, Inc.	Not less than 1/8	829/141
Q078626025	Courtney D. Hall	Noble Energy, Inc.	Not less than 1/8	829/147
Q078626001	Lucille E. Wingrove	Noble Energy, Inc.	Not less than 1/8	810/80
Q078626012	Justin Smith A/K/A Justine Smith	Noble Energy, Inc.	Not less than 1/8	819/307
Q078626013	Robert Lee Smith and Betsy K. Smith	Noble Energy, Inc.	Not less than 1/8	819/303
Q078626010	Marilyn Ulbrich Chalmers and Rod N. Chalmers	Noble Energy, Inc.	Not less than 1/8	820/506
Q078626009	H. Jay Ulbrich	Noble Energy, Inc.	Not less than 1/8	819/309
Q078626023	Bryce E. Ulbrich and Edna M. Ulbrich	Noble Energy, Inc.	Not less than 1/8	825/298
Q078626011	Blye Ulbrich Jenschke and Jim Jenschke	Noble Energy, Inc.	Not less than 1/8	819/305
Q078626026	Blasé Joseph Ulcak, Jr.	Noble Energy, Inc.	Not less than 1/8	829/127
Q078626036	Martha Frances Ulcak	Noble Energy, Inc.	Not less than 1/8	832/588
Q078626005	Janice R. Crook a/k/a Janice Wingrove Crook and Donald P. Crook	Noble Energy, Inc.	Not less than 1/8	808/305
Q078626003	June Morris	Noble Energy, Inc.	Not less than 1/8	808/301
Q078626004	Nancy L. Snyder a/k/a Nancy Wingrove Snyder	Noble Energy, Inc.	Not less than 1/8	808/309
Q078626002	Kenneth R. Morris and Dawn E. Morris	Noble Energy, Inc.	Not less than 1/8	808/303
Q078626014	Harry Leroy Parriott and Nancy S. Parriott	Noble Energy, Inc.	Not less than 1/8	820/508
Q078626018	Kimberly D. Lake	Noble Energy, Inc.	Not less than 1/8	825/272
7) Q078626020	Trudy B. Sampson and Danny Sampson	Noble Energy, Inc.	Not less than 1/8	825/260
Q078626015	Deborah D. Mercer and Calvin P. Mercer	Noble Energy, Inc.	Not less than 1/8	821/22
Q078626016	Brian Edwin Lemasters and Beverly J. Lemasters	Noble Energy, Inc.	Not less than 1/8	821/24
Q078626022	Timothy Scott Lemasters and Amy C. Lemasters	Noble Energy, Inc.	Not less than 1/8	827/162
Q078626021	Mary L. Parriott	Noble Energy, Inc.	Not less than 1/8	827/164
Q078626028	Patricia Parriott	Noble Energy, Inc.	Not less than 1/8	828/270
Q078626027	Betty Jane Parriott	Noble Energy, Inc.	Not less than 1/8	828/265
Q078626019	Frances O. Hall, a/k/a Ornetta Parriott	Noble Energy, Inc.	Not less than 1/8	825/258
Q078626017	Southeastern Guide Dogs Inc., Titus Herman CEO Guide Dogs	Noble Energy, Inc.	Not less than 1/8	820/516
Q078626024	Shriners Hospitals For Children	Noble Energy, Inc.	Not less than 1/8	829/141
Q078626025	Courtney D. Hall	Noble Energy, Inc.	Not less than 1/8	829/147
Q078626001	Lucille E. Wingrove	Noble Energy, Inc.	Not less than 1/8	810/80
Q078626012	Justin Smith A/K/A Justine Smith	Noble Energy, Inc.	Not less than 1/8	819/307
Q078626013	Robert Lee Smith and Betsy K. Smith	Noble Energy, Inc.	Not less than 1/8	819/303
Q078626010	Marilyn Ulbrich Chalmers and Rod N. Chalmers	Noble Energy, Inc.	Not less than 1/8	820/506
Q078626009	H. Jay Ulbrich	Noble Energy, Inc.	Not less than 1/8	819/309
Q078626023	Bryce E. Ulbrich and Edna M. Ulbrich	Noble Energy, Inc.	Not less than 1/8	825/298
Q078626011	Blye Ulbrich Jenschke and Jim Jenschke	Noble Energy, Inc.	Not less than 1/8	819/305
Q078626026	Blasé Joseph Ulcak, Jr.	Noble Energy, Inc.	Not less than 1/8	829/127
Q078626036	Martha Frances Ulcak	Noble Energy, Inc.	Not less than 1/8	832/588
Q078626005	Janice R. Crook a/k/a Janice Wingrove Crook and Donald P. Crook	Noble Energy, Inc.	Not less than 1/8	808/305
Q076469000	June Morris	Noble Energy, Inc.	Not less than 1/8	802/275
Q078626004	Nancy L. Snyder a/k/a Nancy Wingrove Snyder	Noble Energy, Inc.	Not less than 1/8	808/309
Q078626002	Kenneth R. Morris and Dawn E. Morris	Noble Energy, Inc.	Not less than 1/8	808/303
Q078626014	Harry Leroy Parriott and Nancy S. Parriott	Noble Energy, Inc.	Not less than 1/8	820/508
Q078626018	Kimberly D. Lake	Noble Energy, Inc.	Not less than 1/8	825/272

Received  
Office of Oil & C  
OCT 17 2016

02/10/2017

8)	Kevin W. Wallace	TriEnergy Holdings, LLC	Not less than 1/8	715/193
	TriEnergy Holdings, LLC	NPAR, LLC	N/A	24/430
	NPAR, LLC	Chevron U.S.A. Inc.	N/A	756/332
	TriEnergy Holdings, LLC	Chevron U.S.A. Inc.	N/A	28/356
	Chevron U.S.A. Inc.	Noble Energy, Inc.	N/A	31/59
9) Q076643000	John Joseph Goudy	Noble Energy, Inc.	N/A	803/341
10)	Anne C. Klem	TriEnergy Holdings, LLC	Not less than 1/8	719/352
	TriEnergy Holdings, LLC	NPAR, LLC	N/A	25/463
	NPAR, LLC	Chevron U.S.A. Inc.	N/A	756/307
	TriEnergy Holdings, LLC	Chevron U.S.A. Inc.	N/A	28/356
	Chevron U.S.A. Inc.	Noble Energy, Inc.	N/A	31/59
11)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
12)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
13)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
14) Q075462000	Edwin C. Miller and Kimberly Ann Miller	Noble Energy, Inc.	Not less than 1/8	797/646
15) Q091960000	State of WV	Noble Energy, Inc.	Not less than 1/5	865/558
16)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
17)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
18)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
19)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
20)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
21) Q074011007	Susan Witten Neal Meyers AKA Susan Neal Ilfeld Meyers, individually, and as Susan N. Meyers, Trustee of the Susan N. Meyers Revocable Trust	Noble Energy, Inc.	Not less than 1/8	789/538
Q074011001	Mary Witten Neal Wiseman FKA Mary Witten Neal	Noble Energy, Inc.	Not less than 1/8	789/564
Q074011009	Mary Witten Hart Ehlers	Noble Energy, Inc.	Not less than 1/8	789/552
Q074011004	Margery J. Witten	Noble Energy, Inc.	Not less than 1/8	789/543
Q074011003	Joseph Moore Neal	Noble Energy, Inc.	Not less than 1/8	789/545
Q074011008	Jane Witten Voth	Noble Energy, Inc.	Not less than 1/8	789/559
Q074011006	Frances Gale Neal	Noble Energy, Inc.	Not less than 1/8	789/536
Q074011002	Dorothy Ann Neal by her POA Jerry L. Berthold	Noble Energy, Inc.	Not less than 1/8	789/547
Q074011011	Donald R. Hart Jr.	Noble Energy, Inc.	Not less than 1/8	789/554
Q074011010	Cathy Hart Price	Noble Energy, Inc.	Not less than 1/8	789/534
Q074011005	Ann Alexander	Noble Energy, Inc.	Not less than 1/8	789/641
Q074011047	Jane R. Peterseim AKA Jane Peterseim	CNX Gas Company, LLC	Not less than 1/8	781/37
	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
22)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
23)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493

Received  
Oil & Gas  
OCT 17 2016



	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
24)	Consolidation Coal Company	CNX Gas Company LLC	100%/Fee	646/493
	CNX Gas Company LLC	Noble Energy, Inc.	100%/Fee	752/66
25) Q076636001	George A. Knuth and Kelly A. Knuth	Noble Energy, Inc.	Not less than 1/8	803/608
Q076636002	Bruce Scott Schmitt and Jerri Marie Blaney	Noble Energy, Inc.	Not less than 1/8	806/335
Q076636003	Alan Gregory Schmitt and Linda Lee Schmitt	Noble Energy, Inc.	Not less than 1/8	808/315
Q076636004	Cynthia Jean Ward and Dale P. Ward	Noble Energy, Inc.	Not less than 1/8	816/261
Q076636005	Samuel O. Coen, Jr.	Noble Energy, Inc.	Not less than 1/8	813/255
Q076636006	Mark Alan Delbrugge and Patricia A. Delbrugge	Noble Energy, Inc.	Not less than 1/8	820/512
Q076636007	Walter L. Delbrugge, Jr. and Nora L. Delbrugge	Noble Energy, Inc.	Not less than 1/8	820/510
Q076636008	William D. Martin and Andrea R. Martin	Noble Energy, Inc.	Not less than 1/8	819/298
Q076636009	Kimberly Ann DeCrease and Vincent J. DeCrease	Noble Energy, Inc.	Not less than 1/8	825/349
Q076636010	Suzanne Q. Pavlic	Noble Energy, Inc.	Not less than 1/8	825/262
Q076636011	Jane Lou Williams and Laurence P. Williams	Noble Energy, Inc.	Not less than 1/8	825/289
Q076636012	Margaret Lynn Watson and James W. Watson	Noble Energy, Inc.	Not less than 1/8	825/264
Q076636013	Beatrice J. Schmitt	Noble Energy, Inc.	Not less than 1/8	828/292
26) Q091960000	West Virginia Division of Natural Resources	Noble Energy, Inc.	Not less than 1/5	865/558

Received  
Office of Oil & Gas  
OCT 17 2016

02/10/2017



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

October 5, 2016

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 blue ink, appearing to read 'Dee Swiger', written over a circular stamp.

Dee Swiger  
Regulatory Analyst, III

Received  
Office of Oil & Gas  
OCT 17 2016

02/10/2017



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

Date of Notice Certification: 10.10.16

API No. 47- 051 - 01761  
Operator's Well No. MND 6 EHS  
Well Pad Name: MND 6

**Notice has been given:**

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>517825.3200</u>
County:	<u>Marshall</u>		Northing:	<u>4407543.3700</u>
District:	<u>Franklin</u>	Public Road Access:	<u>CR 7/4-Fish Creek Rd</u>	
Quadrangle:	<u>Powhatan Point</u>	Generally used farm name:	<u>Consol ( now owned by Murray American Energy DBA Consolidation Coal)</u>	
Watershed:	<u>Fish Creek Unidentified (HUC 10)</u>			

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

<p>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:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
---	---

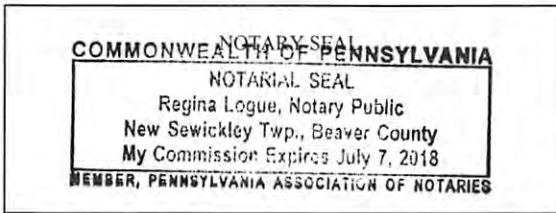
**Required Attachments:**

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

**Certification of Notice is hereby given:**

THEREFORE, I 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:	<u>Noble Energy, Inc.</u>	Address:	<u>1000 Noble Energy Drive</u>
By:	<u>Dee Swiger <i>Dee Swiger</i></u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Regulatory Analyst, III</u>	Facsimile:	<u>724-820-3098</u>
Telephone:	<u>724-820-3000</u>	Email:	<u>dee.swiger@nblenergy.com</u>



Subscribed and sworn before me this 10th day of Oct-2016.  
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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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

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

**Date of Notice:** 10/10/2016 **Date Permit Application Filed:** 10/14/2016

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: Consolidation Coal Company (Jason Witt/Alex O'Neill)  
 Address: 46226 National Road  
St. Clairsville, OH 43950  
 Name: Kevin E. and Teresa McGilton  
 Address: 1704 2nd Street  
Moundsville, WV 26041-1534

COAL OWNER OR LESSEE  
 Name: Murray American Energy, Inc.  
 Address: 46226 National Road  
St. Clairsville, OH 43950

COAL OPERATOR  
 Name: Same as Above  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
 Name: See attached list  
 Address: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

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

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

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



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.**

**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



### **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.

WW-6A  
(8-13)

API NO. 47- 051 - 01761  
OPERATOR WELL NO. MND 6 EHS  
Well Pad Name: MND 6

**Notice is hereby given by:**

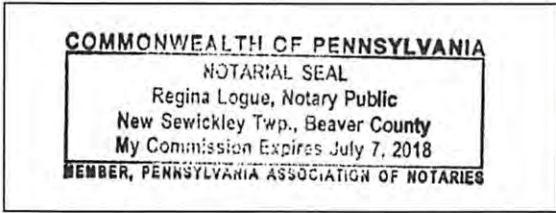
Well Operator: Noble Energy, Inc.  
Telephone: 724-820-3061  
Email: dee.swiger@nblenergyinc.com



Address: 1000 Noble Energy Drive  
Canonsburg, PA 15317  
Facsimile: 724-820-3098

**Oil and Gas Privacy Notice:**

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



Subscribed and sworn before me this 10th day of Oct., 2016.

Regina Logue Notary Public

My Commission Expires July 7, 2018



**Additional Surface owners on MND 06:**

Gloria Jean White  
PO Box 162  
Proctor, WV 26055

James B, Midcap  
1701 Fish Creek Road  
Proctor, WV 26055

**MND 6 HHS Pad Water Well and Spring Owners within 1500'.**

**John David Fromhart  
1619 Fish Creek Rd.  
Proctor, WV 26055**

**James B. Midcap, Et Ux  
1701 Fish Creek Rd.  
Proctor, WV 26055**

**Gloria Jean White  
P.O. Box 162  
Proctor, WV 26055**



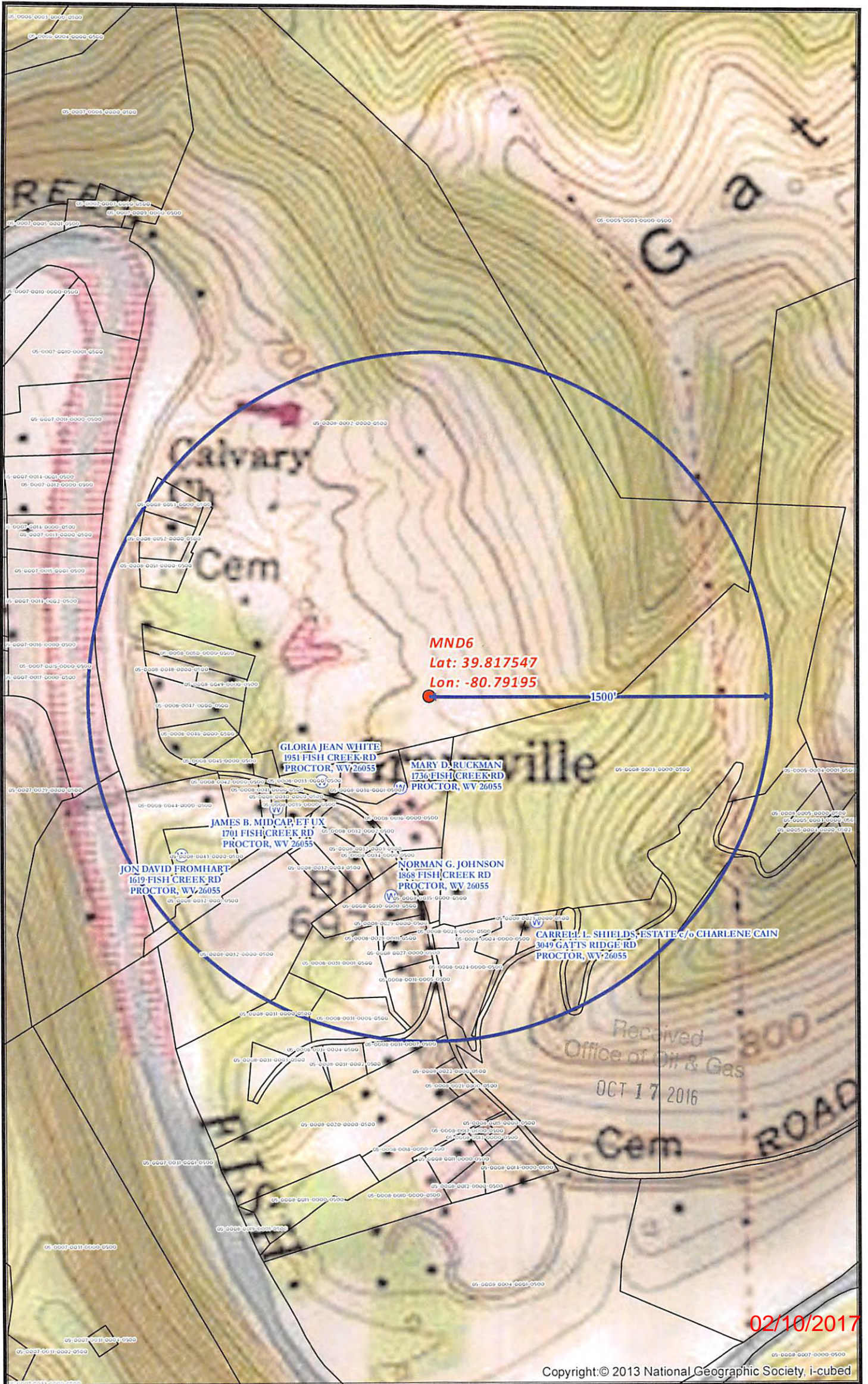
**Mary D. Ruckman  
1736 Fish Creek Rd.  
Proctor, WV 26055**

**Carrell L. Sheilds, Estate  
c/o Charlene Cain  
3049 Gatts Ridge Rd.  
Proctor, WV 26055**

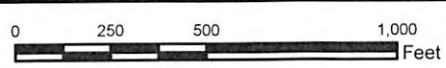
**Norman G. Johnson  
1868 Fish Creek Rd.  
Proctor, WV 26055**

**Received  
Office of Oil & Gas  
OCT 17 2016**





**MND6 SITE SAFETY PLAN**  
- WATER WELLS PROXIMITY -



Scale 1" = 500'  
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: 12/13/2013

Author: Christopher Glover





**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: 10/18/2013 Date of Planned Entry: 10/26/2013

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Consolidated Coal Company  
 Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317-8506  
 Name: Kevin E. and Teresa McGilton  
 Address: 1704 2nd Street  
Moundsville, WV 26041-1534  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: Consolidated Coal Company  
 Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317-8506

MINERAL OWNER(s)

Name: CNX Gas Company, LLC  
 Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317-8506  
 \*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>39.817699 -80.791878 NAD 83</u>
County: <u>Marshall</u>	Public Road Access: <u>CR 714-Fish Creek Rd</u>
District: <u>Franklin</u>	Watershed: <u>Fish Creek Undefined (HUC 10)</u>
Quadrangle: <u>Powhatan Point</u>	Generally used farm name: <u>Consol</u>

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

Notice is hereby given by:

Well Operator: Noble Energy, Inc.  
 Telephone: 724-820-3118  
 Email: ladkins@nobleenergyinc.com

Address: 333 Technology Drive Suite 119  
Canonsburg, PA 15317-6506  
 Facsimile: 724-820-3098

Received  
Office of Oil & Gas  
OCT 17 2013

**Oil and Gas Privacy Notice:**

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

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

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

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.  
Date of Notice: 2/20/14 Date Permit Application Filed: \_\_\_\_\_

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

HAND DELIVERY       CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

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

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

Name: Consolidation Coal Company  
Address: 46226 National Road  
Saint Clairsville, OH 43950

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

Notice is hereby given:

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

State: West Virginia      UTM NAD 83      Easting: 517842.88  
County: Marshall      Northing: 4407548.46  
District: Franklin      Public Road Access: CR 74-Fish Creek Rd  
Quadrangle: Powhatan Point      Generally used farm name: Consol  
Watershed: Fish Creek HUC 10

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 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).

Notice is hereby given by:

Well Operator: Noble Energy, Inc.  
Address: 333 Technology Dr. Suite 115  
Canonsburg, PA 15317  
Telephone: 412-841-9567  
Email: ladkins@nobleenergyinc.com  
Facsimile: \_\_\_\_\_

Authorized Representative: Laura L. Adkins  
Address: 1912 Pinewood Dr.  
Charleston, WV 25320  
Telephone: 412-841-9567  
Email: ladkins@nobleenergyinc.com  
Facsimile: \_\_\_\_\_

Oil and Gas Privacy Notice:

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

Received  
Office of Oil & Gas

OCT 17 2016

02/10/2017



**AGREEMENT**  
**FOR**  
**COAL WAIVER AND CONDITIONAL DRILLING ACTIVITY**

This Agreement, effective this 20<sup>th</sup> day of February, 2014, by and between, CONSOLIDATION COAL COMPANY, a Delaware Corporation, and Murray American Energy, Inc., a Delaware Corporation, both of whose mailing address is 46226 National Road, St. Clairsville, OH 43905, hereinafter collectively referred to as "COMPANY,"

AND

NOBLE ENERGY, INC., a Delaware Corporation, having a place of business at 1001 Noble Energy Way, Houston, Texas 77070, hereinafter referred to as "NOBLE."

**PREAMBLE**

WHEREAS, NOBLE intends to apply to the West Virginia Department of Environmental Protection for a permit to drill and develop gas wells listed in Table 1 on the pad known as the MND6 wells at a location in Franklin District, Marshall County, West Virginia; and

WHEREAS, COMPANY, through itself and/or any one or more of its affiliates, owns or controls the Pittsburgh #8 seam of coal at the proposed location of the proposed MND6 wells and said wells when drilled will penetrate the Pittsburgh #8 seam of coal; and

WHEREAS, NOBLE has a regulatory obligation and responsibility to notify coal seam owners of its intent to drill and develop oil/gas wells through such coal seams; and

WHEREAS, NOBLE has requested COMPANY to sign WW-6AW Voluntary Statement of No Objection forms for the drilling and development of the MND6 wells, which COMPANY is willing to sign subject to the conditions set forth in this agreement.

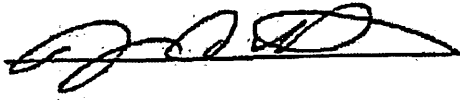
NOW, THEREFORE, in consideration of the commitments set forth herein and intending to be legally bound hereby the parties do hereby agree as follows:

Received  
Office of Oil & Gas  
OCT 17 2016

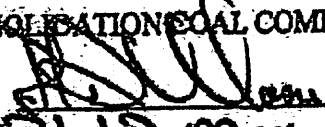
Page | 1

02/10/2017

WITNESS:



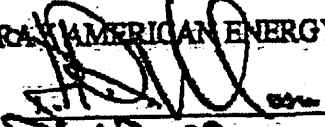
CONSOLIDATION COAL COMPANY

By:   
Name: Robert D. Moore  
Title: vice President

WITNESS:



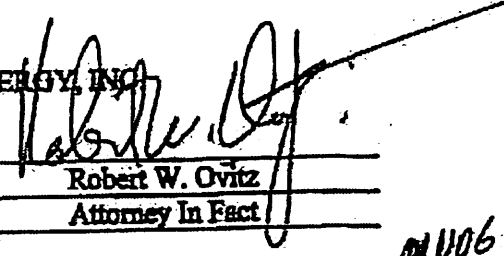
MURPHY AMERICAN ENERGY, INC.

By:   
Name: Robert D. Moore  
Title: vice President

WITNESS:

\_\_\_\_\_

NOBLE ENERGY, INC.

By:   
Name: Robert W. Ovitiz  
Title: Attorney In Fact

#1006

Received  
Office of Oil & Gas  
OCT 17 2016

Page | 5

02/10/2017

WW-6RW  
 (1-12)

API NO. 47-  
 OPERATOR WELL NO. MND 6 AHS-UHS  
 Well Pad Name: MND 6

STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
**WELL LOCATION RESTRICTION WAIVER**

The well operator, Noble Energy, Inc. is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

**Well Location Restrictions**

Pursuant to West Virginia Code § 22-6A-12(a), 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.

**WAIVER**

I, Mary Ruckman, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through \_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: See attached  
 County: Marshall UTM NAD 83 Northing: See attached  
 District: Franklin Public Road Access: CR 7/A also known as Fish Creek Rd.  
 Quadrangle: Powhatan Point Generally used farm name: Consoi  
 Watershed: HUC 10 Fish Creek

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).

<p><b>WELL SITE RESTRICTIONS BEING WAIVED</b>          *Please check all that apply</p> <p><input type="checkbox"/> EXISTING WATER WELLS</p> <p><input type="checkbox"/> DEVELOPED SPRINGS</p> <p><input checked="" type="checkbox"/> DWELLINGS</p> <p><input type="checkbox"/> AGRICULTURAL BUILDINGS</p>	<p><b>FOR EXECUTION BY A NATURAL PERSON</b>          Signature: <u>Mary Ruckman</u>          Print Name: <u>MARY RUCKMAN</u>          Date: <u>9-26-2015</u></p> <p><b>FOR EXECUTION BY A CORPORATION, ETC.</b>          Company: _____          By: _____          Its: _____          Signature: _____          Date: _____</p>
--	---

Well Operator: Noble Energy, Inc. Signature: \_\_\_\_\_  
 By: Andrew McLean Telephone: 724-820-3109  
 Its: Senior Land Registrar

NOTARY SEAL

Subscribed and sworn before me this 26th day of September  
Rodney J. Johnson Notary Public  
 My Commission Expires 10-24-2015

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

Jan Post  
 MARSHALL County 09:37:04 AM  
 Instrument No 1351123  
 Date Recorded 10/23/2013  
 Document Type O&G  
 Pages Recorded 1  
 Book-Page 807-347  
 Recording Fee \$5.00  
 Additional \$6.00

Received  
 Office of Oil & Gas  
 OCT 17 2016

This document prepared by:  
 Noble Energy, Inc.  
 333 Technology Drive  
 Suit 116  
 Canonsburg, PA 15317

02/10/2017



WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. MND 6 AHS-UHS  
Well Pad Name: MND 6

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
**WELL LOCATION RESTRICTION WAIVER**

The well operator, Noble Energy, Inc. is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

**Well Location Restrictions**

Pursuant to West Virginia Code § 22-6A-12(a), 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.

**WAIVER**

I, Lotha Ruckman, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through \_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: See attached  
County: Marshall UTM NAD 83 Northing: See attached  
District: Franklin Public Road Access: CR 7/4 also known as Fish Creek Rd.  
Quadrangle: Powhatan Point Generally used farm name: Conso!  
Watershed: HUC 10 Fish Creek

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).

<b>WELL SITE RESTRICTIONS BEING WAIVED</b> *Please check all that apply <input type="checkbox"/> EXISTING WATER WELLS <input type="checkbox"/> DEVELOPED SPRINGS <input checked="" type="checkbox"/> DWELLINGS <input type="checkbox"/> AGRICULTURAL BUILDINGS	<b>FOR EXECUTION BY A NATURAL PERSON</b> Signature: <u>Lotha Ruckman</u> Print Name: <u>LOTHA RUCKMAN</u> Date: <u>9/16/2013</u> <b>FOR EXECUTION BY A CORPORATION, ETC.</b> Company: _____ By: _____ Its: _____ Signature: _____ Date: _____
---	--

Well Operator: Noble Energy, Inc. Signature: \_\_\_\_\_  
By: Andrew Melan Telephone: 724-922-3109  
Its: Senior Land Negotiator

NOTARY SEAL

Subscribed and sworn before me this 26<sup>th</sup> day of September  
Rodney J. Dyer Notary Public  
My Commission Expires 6-24-2015

**Oil and Gas Privacy Notice:**

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

Jan Pest  
MARSHALL County 09:38:24 AM  
Instrument No 1351129  
Date Recorded 10/23/2013  
Document Type O&G  
Pages Recorded 1  
Book-Page P97-348  
Recording Fee \$5.00  
Additional \$6.00

Received  
Office of Oil & Gas

OCT 17 2016

**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:** 10-10-16      **Date Permit Application Filed:** 10/14/16

**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 American Energy, Inc.  
Address: 46226 National Road  
Saint Clairsville, OH 43950

Name: Kevin E. and Teresa Mc Gillon  
Address: 1704 2nd Street  
Moundsville, WV 26041-1534

**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>517825.3200</u>
County:	<u>Marshall</u>		Northing:	<u>4407543.3700</u>
District:	<u>Franklin</u>	Public Road Access:	<u>CR 7/4-Fish Creek Rd</u>	
Quadrangle:	<u>Powhatan Point</u>	Generally used farm name:	<u>Consol ( now owned by Murray American Energy DBA Consolidation Coal)</u>	
Watershed:	<u>Fish Creek Unidentified (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: 724-820-3000  
Email: dee.swiger@nbleenergy.com

Address: 1000 Noble Energy Drive  
Canonsburg, PA 15317  
Facsimile: 724-820-3098

**Oil and Gas Privacy Notice:**

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

Received  
Office of Oil & Gas

OCT 17 2016

02/10/2017



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

Reissued October 5, 2016

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-6 Well Site, Marshall County

Dear Mr. Martin,

The West Virginia Division of Highways has issued Permit #06-2013-0529 for the subject site to Noble Energy, Inc. for access to the State Road for the well site located off of Marshall County Route 74 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,

A handwritten signature in blue ink that reads "Gary K. Clayton".

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

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

Received  
Office of Oil & Gas  
OCT 17 2016

02/10/2017



## Hydraulic Fracturing Fluid Product Component Information Disclosure

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  
OCT 17 2016

02/10/2017



API#51-01746  
 API#51-01744  
 API#51-01745  
 API#51-01762  
 API#51-01765  
 API#51-01761  
 API#51-01763

# EROSION & SEDIMENT CONTROL PLAN FOR MND 6 WELL PAD FRANKLIN DISTRICT, MARSHALL COUNTY, WV

RESTORATION PLAN PREPARED BY:



**Blue Mountain Inc.**  
 Engineers and Land Surveyors  
 10125 Mason Dixon Hwy.  
 Burton, WV 26562-9656



JOSHUA DIAZ  
 REGISTERED  
 16852  
 STATE OF  
 WEST VIRGINIA  
 PROFESSIONAL ENGINEER

**WVDEP OOG  
 ACCEPTED AS-BUILT**

*VAD* 11/21/2016

- GENERAL NOTES**
- THE TOPOGRAPHIC SURVEY UTILIZED FOR THIS BASE MAP WAS PERFORMED BY RETTEW ASSOCIATES, INC. IN SEPTEMBER 2013.
  - PROPERTY BOUNDARIES, LANDOWNER INFORMATION AND ROAD NETWORKS SHOWN ON THIS PLAN ARE BASED ON AVAILABLE GOVERNMENT GIS PARCEL DATA.
  - EXISTING STRUCTURES, TREE LINES AND ROADWAYS HAVE BEEN LOCATED PER AVAILABLE AERIAL PHOTOGRAPHY.
  - THE HORIZONTAL DATUM IS WEST VIRGINIA STATE PLANE, NORTH AMERICAN DATUM 1983 (NAD 83), NORTH ZONE.
  - THE VERTICAL DATUM IS WEST VIRGINIA STATE PLANE, NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).
  - THE UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION AND DEPTH OF ANY UTILITIES BY NOTIFYING THE UTILITY OF WEST VIRGINIA AT 1-800-245-4848.
  - A METEOROLOGICAL/AIRBORNE SURVEY WAS PERFORMED BY RETTEW ASSOCIATES IN MAY & JUNE 2015.
  - THE CUT & FILL SUMMARY CALCULATIONS PRESENTED ON THIS PLAN ARE FOR ESTIMATING AND INFORMATIONAL PURPOSES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING GRADES AND TO VERIFY EXISTING UTILITY PLACEMENTS, METHODS AND PROCEEDURES AND BECOME AWARE OF ANY "HIDDEN" UTILITIES AND OWNERS' ATTENTION PRIOR TO COMMENCEMENT OF WORK.
  - ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION.
  - THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES AND WILL BE RESPONSIBLE FOR THE PROTECTION OF THEM DURING AND THROUGHOUT CONSTRUCTION.
  - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND STRUCTURES. UNDETERMINED UTILITY DEPTHS SHALL BE SHOWN AS "X" TO THE CONTRACTOR'S KNOWLEDGE. SHALL BE REPAIRED INDICATORLY AND COMPLETELY AT HIS EXPENSE.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF DAMAGED OR DESTROYED LANDSCAPE AND LANTNS.
  - CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE PROJECT'S E, FROM TO THE START OF CONSTRUCTION.
  - CONTRACTOR TO RELOCATE UTILITIES AS REQUIRED.
  - CONTRACTOR MAY Widen ACCESS ROAD IDE TO SLOPE SLOPES IF DEEMED NECESSARY AND PER APPROVAL BY THE ENGINEER AND OWNER.
  - PROPOSED ROAD CONSTRUCTION ENTRANCE TO BE BUILT WITH 1:1 RATIO FROM PROPOSED ACCESS ROAD TO SHEET PLOP ON TO PUBLIC ROAD.
  - SEED AND MULCH ALL EXPOSED AREAS PER DETAILS IN THIS PLAN.
  - ALL CLEARED TREE TRUNKS SHALL BE PLACED ON SMALL SIZES OF COMPOST FILTER SOCKS AND NOT STOCKPILED ON-SITE.
  - CONTRACTOR SHALL STAY AHEAD OF ANY NEARBY UTILITIES AND CONTACT NOBLE ENERGY AND APPROPRIATE RESPONSIBLE AGENCIES SHOULD ANY HISTORICAL ARTIFACTS (E.G. BONES, POTTERY, ETC.) BE ENCOUNTERED DURING CONSTRUCTION.
  - NO WORK SHALL BE DONE OUTSIDE THE LIMITS OF DISBURSMENT OR IN PROTECTED AREAS.

**DIRECTIONS TO THE SITE**

FROM MARTINS FERRY ROAD (RTE 10) SOUTH TAKE RIGHT HAND TURN ON STATE ROUTE 10. FROM STATE ROUTE 10 TAKE RIGHT HAND TURN ON STATE ROUTE 10. FROM STATE ROUTE 10 TAKE RIGHT HAND TURN ON STATE ROUTE 10. FROM STATE ROUTE 10 TAKE RIGHT HAND TURN ON STATE ROUTE 10.

**CUT & FILL**

	BEFORE	AFTER	TOTAL
C.V.	537,233 C.Y.	5,524 C.Y.	42,489 C.Y.
FILL	1,796 C.Y.	4,580 C.Y.	4,580 C.Y.
TOTAL	539,029 C.Y.	10,104 C.Y.	47,069 C.Y.



LOCATION MAP  
 SCALE: 1" = 2000'

**WEST VIRGINIA 811**

CALL BEFORE YOU DIG!  
 Dial 811 or 800.245.4848

**SOILS CLASSIFICATION**

S1: BROWNSIDE Silt LOAM, 35 TO 55% SLOPES  
 S2: BROWNSIDE Silt LOAM, 15 TO 25% SLOPES  
 S3: CLAYTON Silt LOAM, 35 TO 55% SLOPES  
 S4: CLAYTON Silt LOAM, 15 TO 25% SLOPES

**LIST OF DRAWINGS**

- 1 OF 10: COVER SHEET
- 2 OF 10: ENVIRONMENTAL RESOURCES BUFFER PLAN
- 3 OF 10: LAYOUT PLAN
- 4 OF 10: PROGRAM & SURVEY CONTROL PLAN
- 5 OF 10: ACCESS DRIVE PROFILES
- 6 OF 10: CROSS SECTION PLAN VIEW
- 7 OF 10: EROSION CONTROL PLAN VIEW
- 8 OF 10: ~~RESTORATION PLAN~~
- 9 OF 10: DETAILS

**DISTURBANCE SUMMARY**

EST. LIMITS OF DISTURBANCE: 0.0 ACRES  
 DISTURBED REGION: 0.0 ACRES  
 PAVED DISTURBANCE: 0.0 ACRES

## MODIFICATION

DATE: OCTOBER 10, 2016

△ THESE DRAWINGS PROVIDE A REVISED SITE RESTORATION PLAN FOR THE MND 6 WELL PAD AND ACCESS ROAD AND INCORPORATE THE AS-BUILT WELL PAD AND ACCESS ROAD DATA

Electronic Version of These Plans May Be Viewed at: QOIL GASISAY FILES/REVIEWS

	SCALE AS SHOWN	
MANAGER B. COOPER	BY J. DIAZ	DATE 11/21/2016
CLIENT NOBLE ENERGY 333 TECHNOLOGY DRIVE, SUITE 116 CANTONMENT, OHIO 44705 TEL: (724) 830-3000 (724) 830-3000	PROJECT MND 6 WELL PAD FRANKLIN DISTRICT, MARSHALL COUNTY, WV	DRAWING NO. MND 6 WELL PAD DATE 11/21/2016
		
COVER SHEET	FOR	MND 6 WELL PAD
DATE	3/5/2014	MARSHALL COUNTY, WV
SHEET NO.	1 OF 10	FRANKLIN DISTRICT
DWG. NO.	393942016	



- NOTES:
- AS-BUILT CONTOURS AND SITE FEATURES SHOWN ON THIS DRAWING WERE OBTAINED BY BLUE MOUNTAIN INC. ON FEBRUARY 28, 2016.
  - WITHIN SIX MONTHS AFTER THE COMPLETION OF THE FINAL HORIZONTAL WELL, NOBLE SHALL COMPLETE THE FINAL RECLAMATION OF THE WELL PAD. FINAL RECLAMATION SHALL CONSIST OF THE FOLLOWING:
    - THE EXISTING WELL PAD GRAVEL SURFACE WILL REMAIN TO THE LIMITS SHOWN.
    - EXISTING COMPOST FILTER SOCKS SHALL BE CUT OPEN AND THE CONTENTS SPREAD AND RAKED EVENLY OVER THE GROUND SURFACE. ALL STAKES AND NETTING SHALL BE REMOVED FROM THE SITE.
  - FOLLOWING ACTIVITIES ON THE PAD WHERE THE BERM IS NO LONGER REQUIRED, THE FOLLOWING ACTIVITIES WILL OCCUR:
    - THE EXISTING WELL PAD PERIMETER BERM SHALL BE BREACHED AT THE LOCATIONS SHOWN.
    - THE EXISTING WELL PAD CONTAINMENT TRENCHES, SUMP AND OUTLET PIPE, IF PRESENT, WILL REMAIN. FAILURE TO MAINTAIN PROPER OPERATION OF SUMPS MAY RESULT IN A NOTICE OF VIOLATION AND/OR FINE FROM THE WVDEP.
  - FILL PLACEMENT FOR RECLAMATION, IF NECESSARY, SHALL BE PLACED IN 24-INCH MAXIMUM LIFTS WITH COMPACTION TO A MINIMUM 90% STANDARD PROCTOR DENSITY (ASTM D698).
  - ANY DISTURBED AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH THE REVEGETATION DETAILS.
  - FOLLOWING STABILIZATION OF THE SITE AND THE ESTABLISHMENT OF 70% VEGETATIVE COVER, THE SITE SHALL BE INSPECTED PERIODICALLY FROM PERMIT RELEASE UNTIL POST PLUGGING RESTORATION IS COMPLETED.
  - A MOUNTABLE BERM SHALL BE CONSTRUCTED & MAINTAINED, PRIOR TO AND DURING COMPLETION ACTIVITIES (SEE DETAIL 6/9).

DESCRIPTION	UPDATED COORDINATES		
	NAD 83	NAD 27	UTM NAD 83
MND6AHS	LAT - 39°49'05.64" LONG - 80°47'29.48"	LAT - 39°49'03.57" LONG - 80°47'30.16"	N 4407548.94 E 51782.858
MND6BHS	LAT - 39°49'05.80" LONG - 80°47'29.86"	LAT - 39°49'03.53" LONG - 80°47'30.24"	N 4407547.580 E 51783.455
MND6CHS	LAT - 39°49'03.76" LONG - 80°47'29.85"	LAT - 39°49'03.69" LONG - 80°47'30.53"	N 4407549.363 E 517854.024
MND6DHS	LAT - 39°49'03.72" LONG - 80°47'30.04"	LAT - 39°49'03.45" LONG - 80°47'33.71"	N 4407544.752 E 517829.613
MND6EHS	LAT - 39°49'03.68" LONG - 80°47'30.22"	LAT - 39°49'03.40" LONG - 80°47'30.90"	N 4407545.239 E 517823.875
MND6FHS	LAT - 39°49'03.64" LONG - 80°47'30.41"	LAT - 39°49'03.56" LONG - 80°47'31.58"	N 4407542.205 E 517820.819
MND6MHS	LAT - 39°49'03.64" LONG - 80°47'30.33"	LAT - 39°49'03.17" LONG - 80°47'31.01"	N 4407536.195 E 517822.657

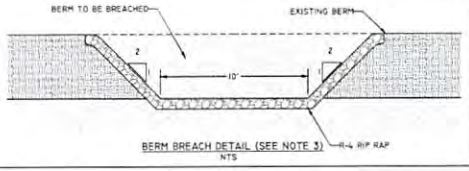
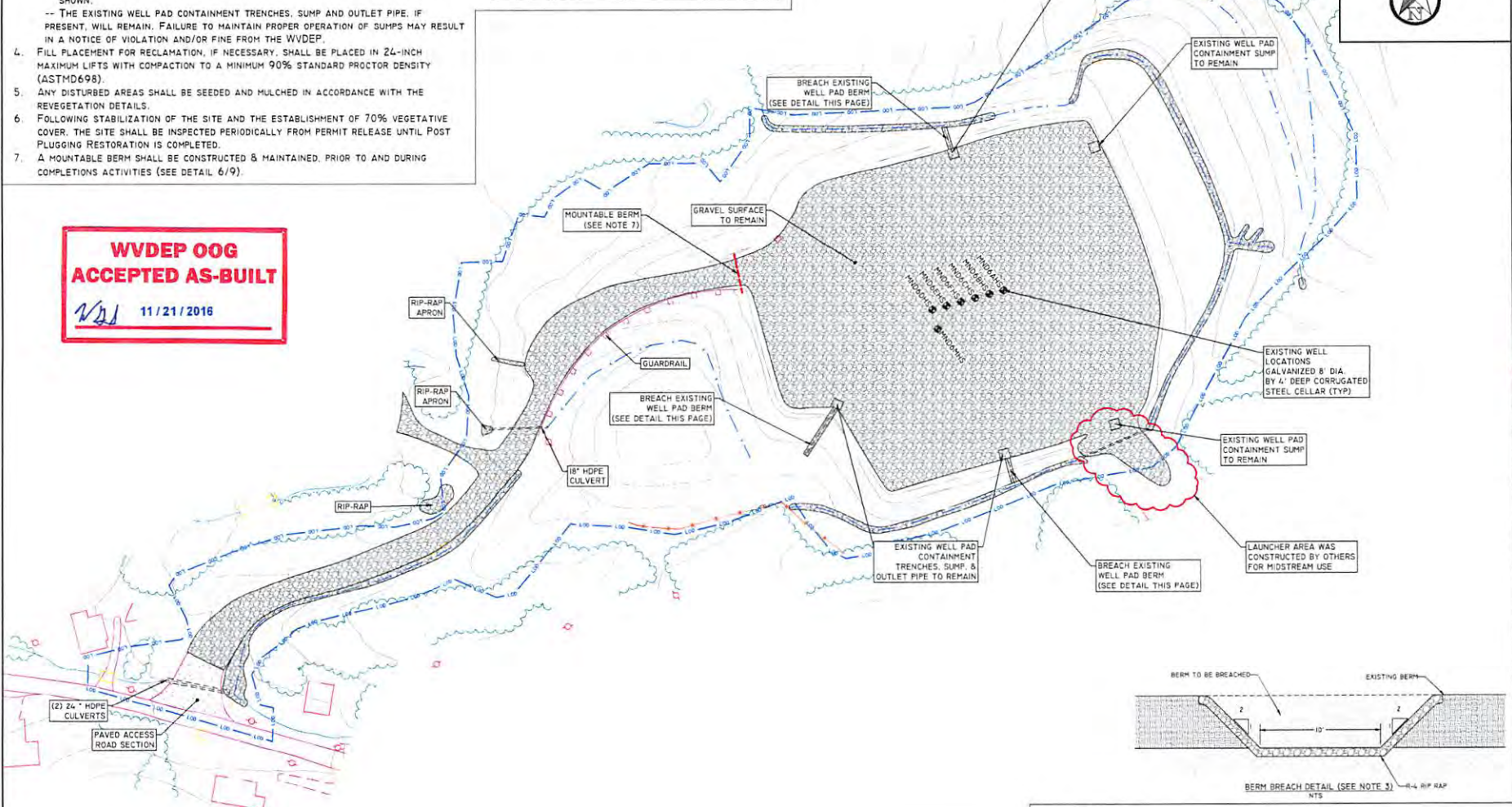
**LEGEND**

- PROPERTY BOUNDARY
- - - FENCE LINE
- - - EXISTING CONTOURS
- - - LIMIT OF DISTURBANCE
- - - EXISTING TREE LINE
- - - EXISTING 2' BERM
- - - EXISTING ELECTRIC
- - - EXISTING GASLINE
- - - OVERHEAD UTILITY
- - - STREAM

**Blue Mountain Inc.**  
 Registered and Licensed Surveyors  
 11821 Mount Olive Hwy.  
 Mount Olive, NC 27568  
 (704) 634-2424

**WVDEP OOG  
ACCEPTED AS-BUILT**

*WJ* 11/21/2016



0 25 50 100 FEET  
SCALE 1"=50'

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

**noble energy**

NOBLE ENERGY, INC.  
1000 NOBLE ENERGY DRIVE  
CANONSBURG, PA 15317

**MND-6 WELL SITE  
WELL PAD RECLAMATION PLAN**

REVISIONS

DATE	TYPE
01/16/16	✓ REVISION WELL PAD RECLAMATION PLAN

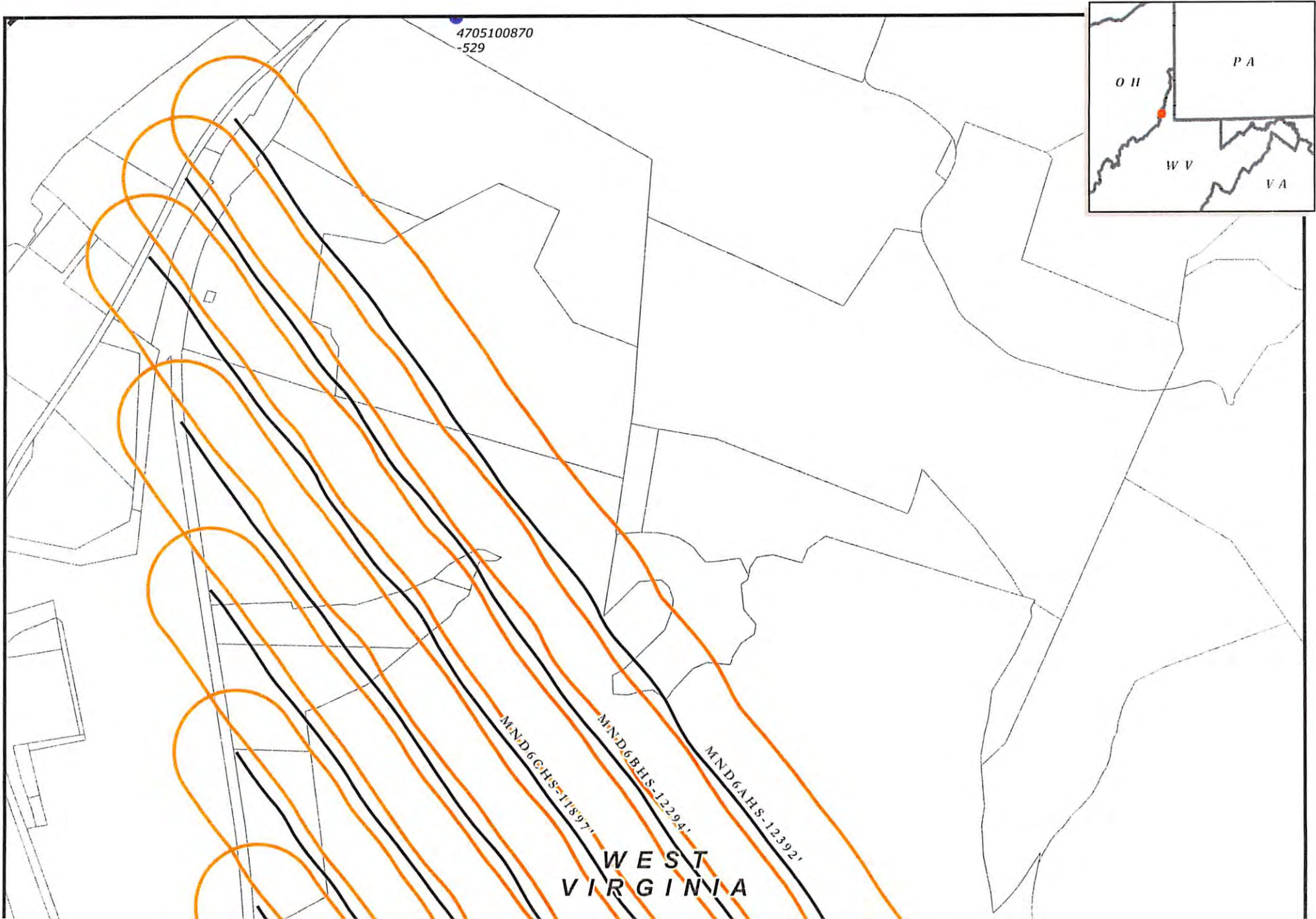
REGISTERED PROFESSIONAL ENGINEER  
 16852  
 STATE OF VIRGINIA

DRAWN BY: TJM  
 CHECKED BY: JAG  
 DATE: 08/12/16  
 SCALE: 1"=50'  
 JOB NO:  
 DRAWING NAME: MDS RESTORATION

SHEET NO. 8 OF 10







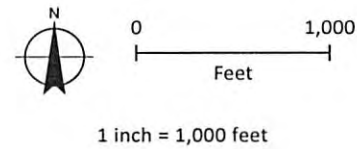




**Offset Wells**

- ⊗ No Data
- Pittsburgh coal
- Salina
- ⊕ Plugged

- NBL Well Pad
- NBL-Drilled, Marcellus
- ↗ Hz Distance
- 500' AOR Buffer
- Parcels
- ▬ State Line



Author: devincreighton  
 Date Created: 8/23/2016  
 Date Saved: 8/23/2016

Main Data Frame  
 Coordinate System:  
 NAD 1927 UTM Zone  
 17N

Units: Foot US

Disclaimer: All data is licensed for Noble Energy, Inc. use only. Noble Energy, Inc. makes every effort to ensure this map is free of errors, but does not warrant the map or its features are either spatially or temporally accurate or fit for a particular use. Noble Energy, Inc. provides this map without any warranty of any kind whatsoever, either