



west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

November 13, 2013

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-5101669, issued to NOBLE ENERGY, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

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

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

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: MND3FH5
Farm Name: CONSOLIDATION COAL COMPA
API Well Number: 47-5101669
Permit Type: Horizontal 6A Well
Date Issued: 11/13/2013

Promoting a healthy environment.

INSPECTORS PERMIT SUMMARY FORM

GPS YES [] NO []

DATE STARTED/LOCATION: _____ OPERATOR: NOBLE ENERGY, INC.
 DRILLING COMMENCED: _____ FARM: CONSOLIDATION COAL COMPANY
 TO DATE: _____ DEPTHS: _____ Well No: MND3FHS
 WATER DEPTHS: _____ COAL DEPTHS _____

QUESTIONS FOR THIS REPORT ARE IN ACCORDANCE OF WV CODE 22-6-30 AND REGULATIONS 35CSR 4-12.1 AND 35CSR 4-16 AND THE GENERAL WATER POLLUTION CONTROL PERMIT.

POINTS ARE TO BE GIVEN UP TO MAXIMUM AS SHOWN BASED ON PERFORMANCE.

1. DID OPERATOR GIVE PROPER NOTICE TO INSPECTOR BEFORE THE FOLLOWING:
 - A. CONSTRUCTION YES [] NO [] (2_PTS) (4_PTS) _____
 - B. DRILLING YES [] NO [] (2_PTS)
2. WAS THE TIMBER CUT, STACKED, AND BRUSH USED FOR SEDIMENT BARRIERS BEFORE DIRT WORK STARTED? YES [] NO [] (2_PTS) (4_PTS) _____
3. ARE ALL LOCATION AND/OR ROAD BANKS BEING SLOPED? YES [] NO [] (4_PTS) (4_PTS) _____
4. CONSTRUCTIONS:
WERE THE FOLLOWING SEDIMENT CONTROL STRUCTURES PROPERLY INSTALLED/MAINTAINED?
 - A. ROAD DITCHES (1)_(2)_(3)_(4)_(PTS) B. CROSS DRAINS (1)_(2)_(3)_(4)_(5)_(PTS)
 - C. CULVERTS (1)_(2)_(3)_(4)_(5)_(PTS) D. CREEK CROSSINGS (1)_(2)_(3)_(PTS)
 - E. DIVERSION DITCHES (1)_(2)_(3)_(PTS) F. BARRIERS (1)_(2)_(3)_(PTS)
 - G. TEMPORARY SEEDING YES [] NO [] (10_PTS)

POINTS AVAILABLE FOR QUESTION 4: (33_PTS) _____

5. HAS TOP SOIL (IF ANY) BEEN STOCKED PILED? YES [] NO [] (2_PTS) (2_PTS) _____
6. IS THE PIT PROPERLY INSTALLED AND MAINTAINED? YES [] NO [] (9_PTS) (9_PTS) _____
7. RECLAMATION:
 - A. ROADWAY (1)_(2)_(3)_(PTS) B. LOCATION (1)_(2)_(3)_(PTS)
 - C. PITS (1)_(2)_(3)_(PTS) D. PIPELINES (1)_(2)_(3)_(PTS)
 - E. TANK DIKES (1)_(2)_(3)_(PTS) F. API INSTALLED YES [] NO [] (3_PTS)
 - G. ADEQUATE SEEDING MATERIALS (1)_(2)_(3)_(PTS)
 - H. WAS SEED BED ADEQUATE (1)_(2)_(3)_(PTS)

POINTS AVAILABLE FOR QUESTION 7: (24_PTS) _____

8. WAS RECLAMATION COMPLETED WITHIN:
6 MTHS OF TD 6_PTS ONLY; 4 MTHS OF TD 12_PTS ONLY; 2 MTHS OF TD 19_PTS ONLY;

POINTS AVAILABLE FOR QUESTION 8: (19_PTS) _____

TOTAL MAXIMUM POSSIBLE SCORE OF 99.

TOTAL RECLAMATION SCORE: _____

DATE RELEASED

INSPECTOR'S SIGNATURE

PERMIT CONDITIONS

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

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACOE). Through this permit, you are hereby being advised to consult with USACOE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

WW - 6B
(3/13)

20)

CASING AND TUBING PROGRAM

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	30"	N	LS	117#	40'	40'	CTS
Fresh Water	20"	N	J-55	94#	400'	400'	CTS
Coal	13 3/8"	N	J-55	54.5#	1062'	1062'	CTS
Intermediate	9 5/8"	N	J-55	36#	2600' or 100' past Big Injun	2600' or 100' past Big Injun	CTS
Production	5 1/2"	N	P110	20#	12,804'	12,804'	TOC 200' above 9.625 shoe
Tubing							
Liners							

WRH
7-9-13

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
Conductor	30"	36"	.374		Type 1/Class A	1.2
Fresh Water	20"	26"	.438	2730	Type 1/Class A	1.2
Coal	13 3/8"	17 1/2"	.380	2730	Type 1/Class A	1.2
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	12,640	Type 1/Class A	1.27
Tubing						
Liners						

PACKERS

Kind:				
Sizes:				
Depths Set:				

WW - 6B
(3/13)

21) 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.

22) Describe all cement additives associated with each cement type. Conductor-1.15% CaCl₂. Surface-Class A cement with flake and CaCl₂ Intermediate- 15.6 ppg Class A +0.4% Ret, 0.15% Disp, 0.2% AntiFoam, 0.125#/sk Lost circ 30% Excess Yield=1.19 to surface. Production- 14.8 ppg class A 25:75:0 System +2.6% Cement extender, 0.7% Fluid Loss additive, 0.45% high temp retarder, 0.2% friction reducer 15% Excess Yield=1.27 TOC greater or equal to 200' above 9.625" shoe.

23) 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 or SOBM and filled with KCl water once drilled to TD. Production-The hole is drilled with SOBM 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.

51-01669



DRILLING WELL PLAN
MND-3F-HS (Marcellus HZ)
Marcellus Shale Horizontal
Marshall County, WV

Ground Elevation		1112'		MND-3F SHL (Lat/Long)			(494430.54N, 1637194.42E) (NAD27)		
Azm		149.302°		MND-3F LP (Lat/Long)			(493870.57N, 1636999.43E) (NAD27)		
WELLBORE DIAGRAM		149.302°		MND-3F BHL (Lat/Long)			(488917.84N, 1640467.38E) (NAD27)		
HOLE	CASING	GEOLOGY	MD	TVD	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
36	30" 117#				AIR	To Surface	N/A	Ensure the hole is clean at TD.	Stabilize surface fill/soil. Conductor casing = 0.375" wall thickness
		Conductor	40	40					
26	20" 94#				AIR	15.6 ppg Type 1 + 2% CaCl, 0.25# Lost Circ 30% Excess Yield = 1.18	Centralized every 3 joints to surface	Fill with KCl water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2730 psi
		Surface Casing	400	400					
17 1/2	13-3/8" 54.5# J-55 BTC				AIR	15.6 ppg Type 1 + 2% CaCl, 0.25# Lost Circ 30% Excess Yield = 1.18	Bow Spring on first 2 joints then every third joint to 100' form 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
		Pittsburgh Coal	602	602					
12 3/8	9-5/8" 36# J-55 LTC				AIR	15.6ppg Class A + 0.4% Ret, 0.15% Disp, 0.2% AntiFoam, 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
		Price Formation	2190	2190					
8.75" Vertical					8.0ppg - 9.0ppg SOBM	14.8ppg Class A 25.75:0 System	Rigid Bow Spring every third joint from KOP to TOC		
		Weir Sand	2350	2350					
8.75" Curve	5-1/2" 20# HCP-110 TXP BTC				12.0ppg- 12.5ppg SOBM	+2.6% Cement extender, 0.7% Fluid Loss additive, 0.45% high temp retarder, 0.2% friction reducer	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
		Int. Casing	2600	2600					
8.75" - 8.5" Lateral					12.0ppg- 12.5ppg SOBM	10% Excess Yield=1.27 TOC >= 200' above 9.625" shoe			
		Speechley		3506					
		Java		4985					
		Angola		5193					
		Rheinstreet		5758					
		Sonyea		6055					
		Cashaqua		6074					
		Middlesex		6080.5					
		West River		6126					
		Burkett		6170					
		Tully Limestone		6197					
		Hamilton		6206					
		Marcellus	6226	6226					
		TD	12804	6279					
		Onondaga	6290	6290					

LP @ 6279' TVD / 6758' MD

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

+/-6046' ft Lateral

TD @ +/-6279' TVD
 +/-12804' MD

X=centralizers

Received

JUL 8 2013

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Noble Energy, Inc OP Code 494501907

Watershed (HUC 10) Short Creek-Ohio River HUC 10 Quadrangle Powhatan Point

Elevation 1112' County Marshall District Franklin

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

Will a pit be used for drill cuttings? Yes No

If so, please describe anticipated pit waste: Closed Loop-no 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? Yes

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

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

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

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

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

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

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

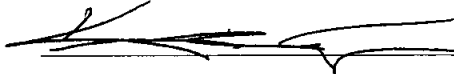
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is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

Company Official Signature Laura L. Adkins

Company Official (Typed Name) Laura L. Adkins

Company Official Title Regulatory Analyst

Subscribed and sworn before me this 3rd day of July, 2020



Office of Oil and Gas
 WY 3 Dept. of Environmental Protection
OFFICIAL SEAL
COMMISSIONER FOR WEST VIRGINIA
 Notary Public Kevin Swiger
 332 W. Main Avenue
 Jefferson 26378
 My Commission Expires January 14, 2020

My commission expires Jan. 14, 2020

51-01664

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JUL 12 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

Form WW-9

Operator's Well No. MND 3 FHS

Noble Energy, Inc

Proposed Revegetation Treatment: Acres Disturbed 15.6 acres Prevegetation pH _____

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

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

Mulch hay or straw at 2 Tons/acre

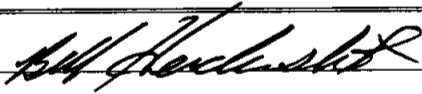
Seed Mixtures

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

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

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bill Hendershot 

Comments: _____

Title: Oil and Gas Inspector Date: 7-9-13

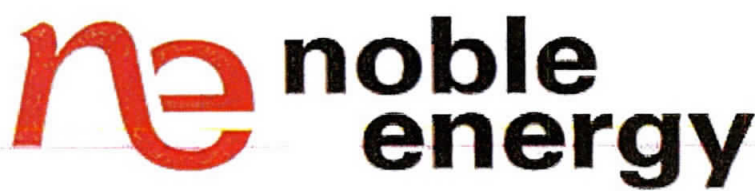
Field Reviewed? Yes No

51-01669

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JUL 12 2013

Office of Oil and Gas
WV Dept. of Environmental Protection



WRH
7-9-13

Site Safety Plan

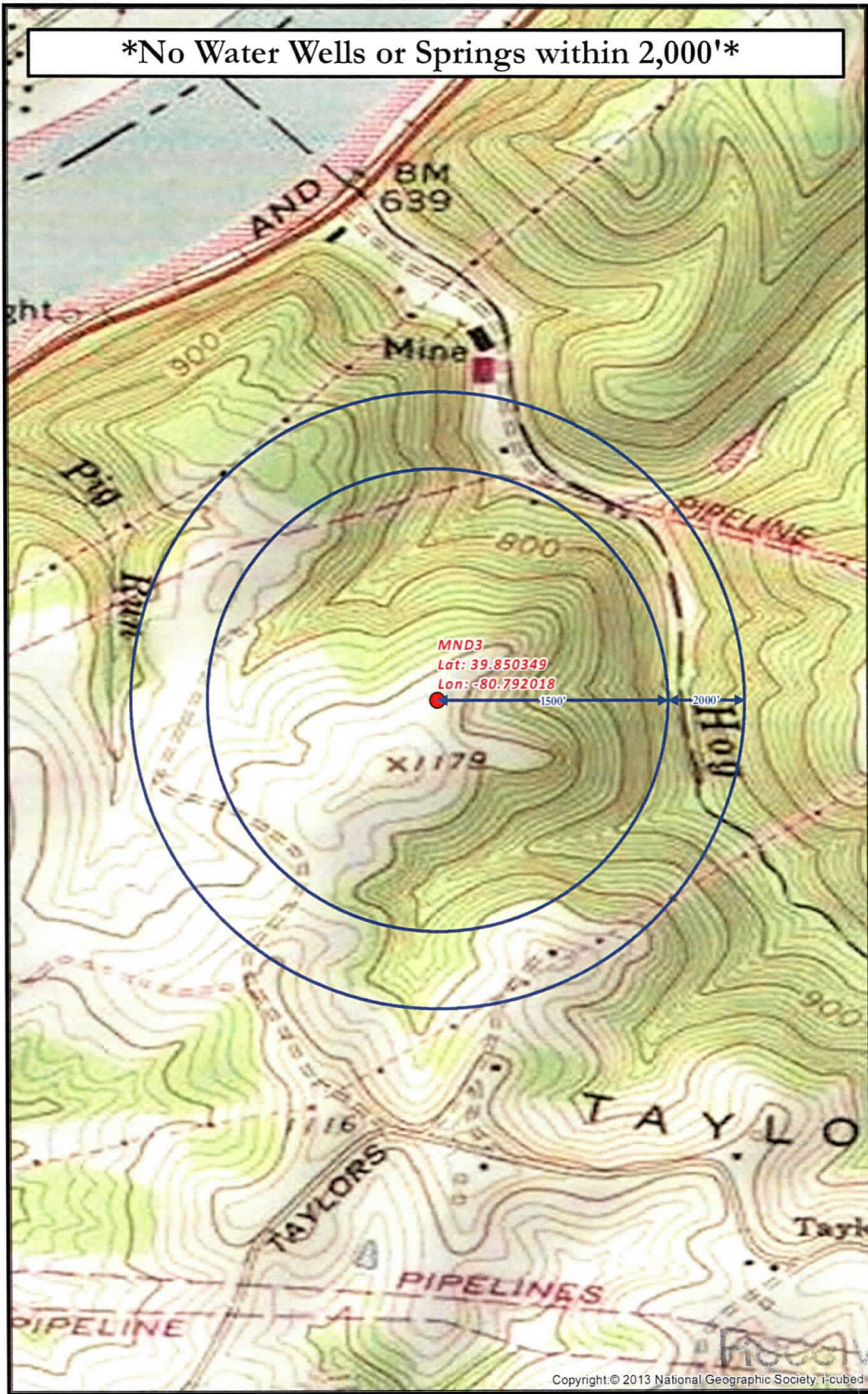
**Noble Energy, Inc.
MND 3 FHS**

June 2013: Version 1

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

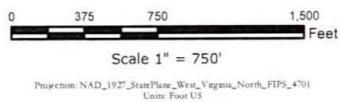
**Noble Energy, Inc.
Appalachia Offices
333 Technology Drive, Suite 116
Canonsburg, PA 15317-9504**

No Water Wells or Springs within 2,000'



MND3 SITE SAFETY PLAN
 - WATER WELLS PROXIMITY -

● Well Pad □ Water Wells Buffer



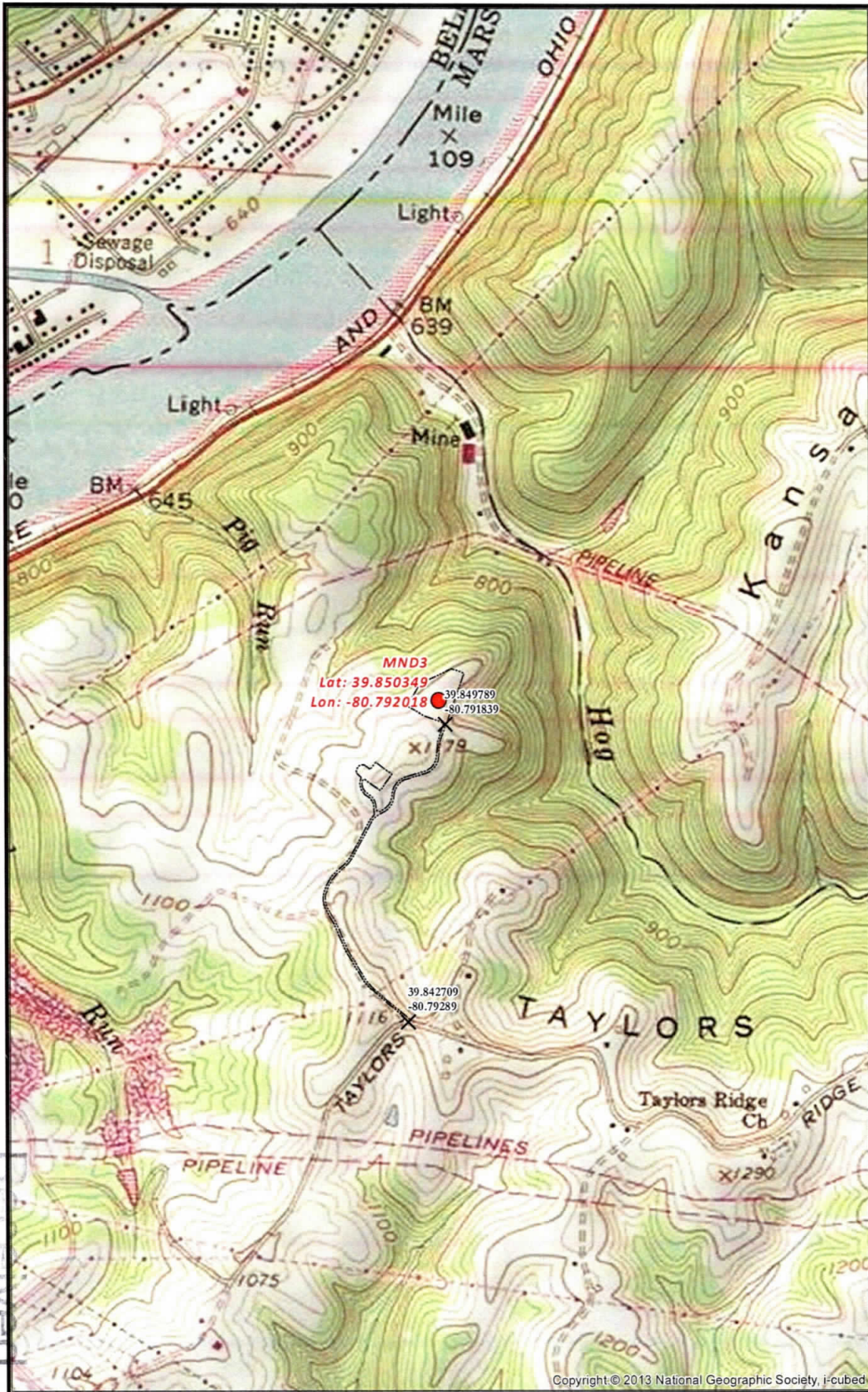
noble energy

Date: 6/24/2013
 Author: Christopher Glover

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

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SI-01669



RECEIVED

JUL 8 2013

MND3 SITE SAFETY PLAN
 - SITE WELL LOCATION -

Well Pad Center
 PROPOSED
 Access Road Intersection

0 500 1,000 2,000 Feet

Scale 1" = 1,000'

Projection: NAD_1983_StatePlane_Virginia_North_FIPS_4701
 Units: Foot US

noble energy

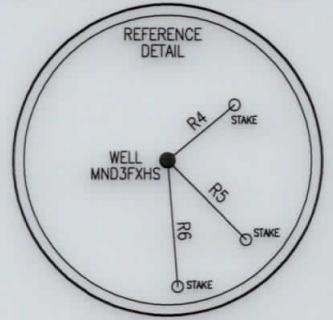
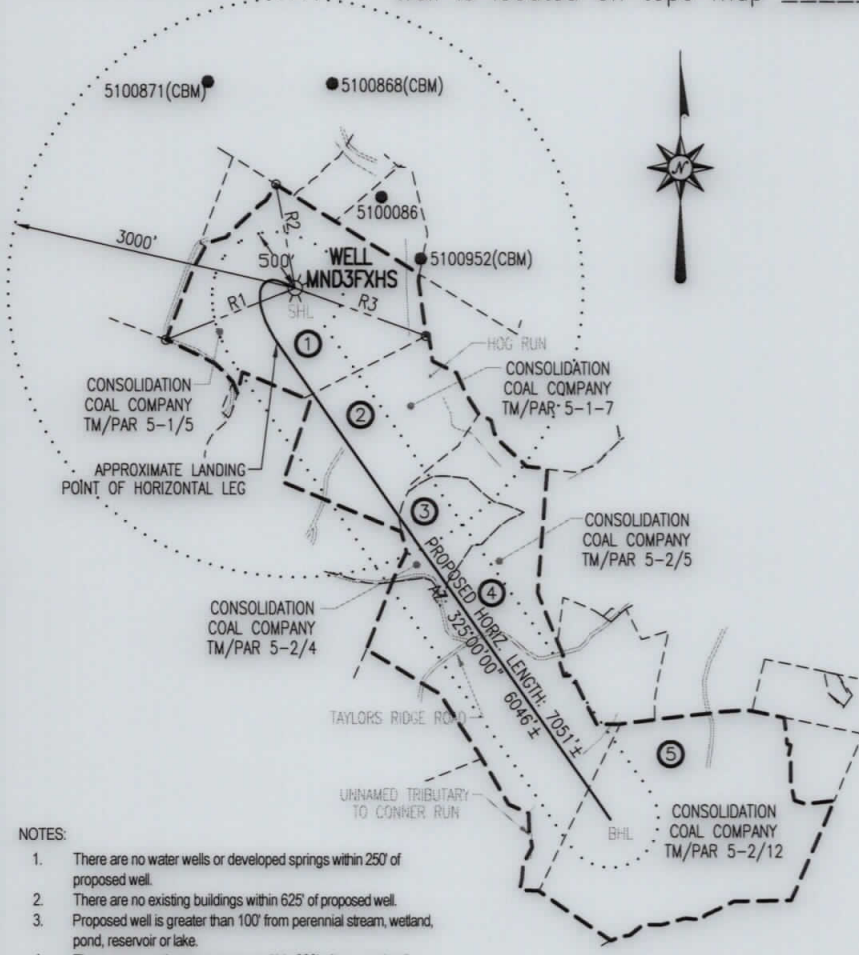
Disclaimer: All data is licensed for use by Noble Energy Inc. use only.

Date: 7/3/2013
 Author: Christopher Glover

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Well is located on topo map 9,000' feet south of Latitude: 39° 52' 30"

Well is located on topo map 163' feet west of Longitude: 80° 47' 30"



LINE	BEARING	DISTANCE
R1	S 68°23'02" W	1448.13'
R2	N 10°33'55" W	1095.09'
R3	S 70°11'23" E	1450.46'
R4	N 50°29'36" E	180.96'
R5	S 44°43'46" E	232.44'
R6	S 04°29'51" E	263.48'

NOTES:

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

LEGEND

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

SURFACE HOLE LOCATION (SHL)	APPROX. LANDING POINT	BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83 N:4411172.14 E:517788.00 NAD27, WV NORTH N:494425.684 E:1637190.950 LAT/LON DATUM-NAD83 LAT:39.850383 LON:80.792064	UTM 17-NAD83 N:4411002.05 E:517732.48 NAD27, WV NORTH N:493870.57 E:1636999.43 LAT/LON DATUM-NAD83 LAT:39.848852 LON:80.792718	UTM 17-NAD83 N:4409510.86 E:518814.22 NAD27, WV NORTH N:488917.84 E:1640467.38 LAT/LON DATUM-NAD83 LAT:39.835393 LON:80.780116

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

FILE #: MND3FXHS
 DRAWING #: MND3FXHS
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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

Signed:

R.P.E.: _____ L.L.S.: P.S. No. 2000

PLACE SEAL HERE

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



DATE: JULY 28, 2014
 OPERATOR'S WELL #: MND3FXHS
 API WELL #: 47 51 01669 H6A mod
 STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK ELEVATION: 1128.39'

COUNTY/DISTRICT: MARSHALL / FRANKLIN QUADRANGLE: POWHATAN POINT, OH-WV 7.5'

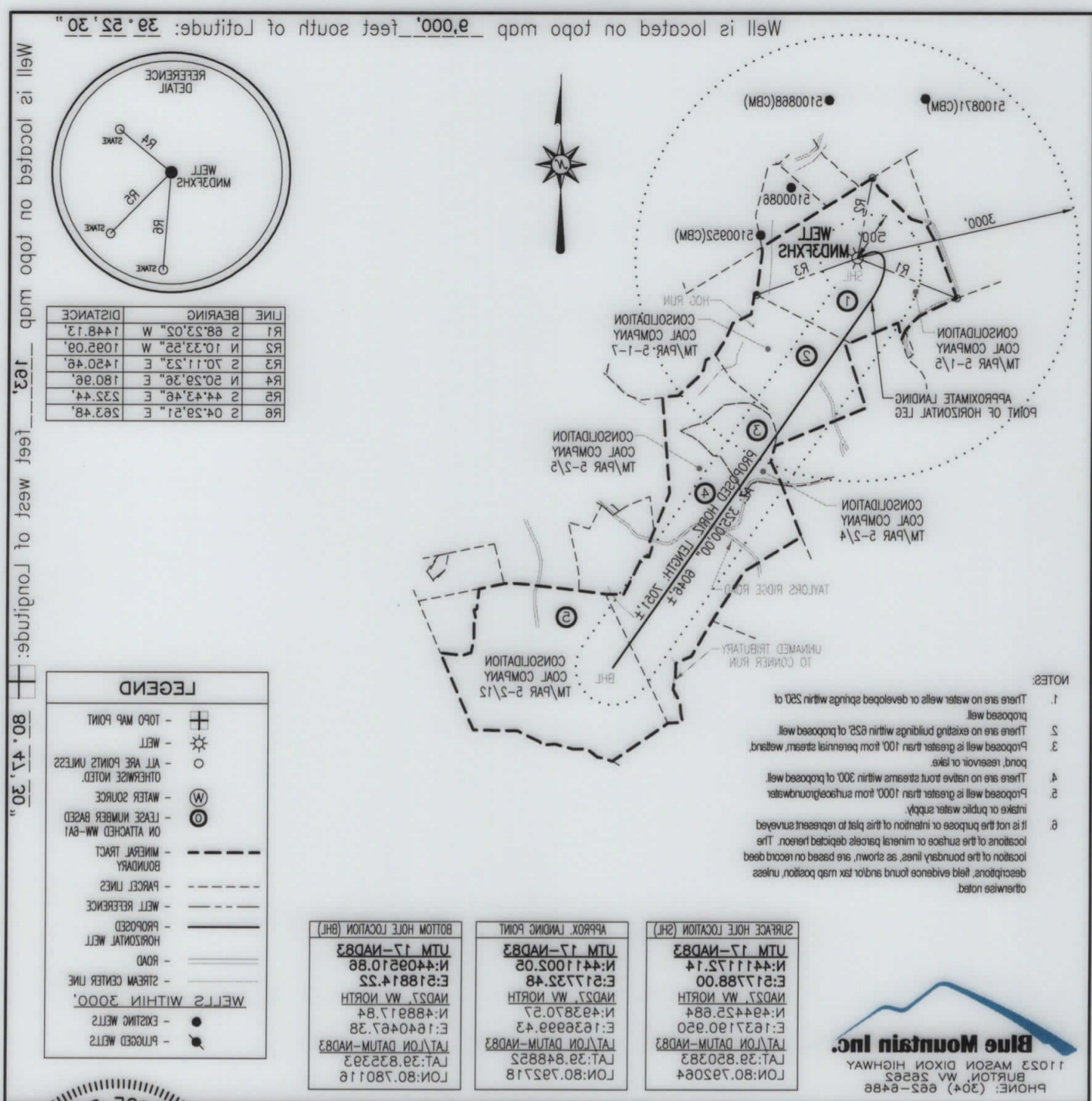
SURFACE OWNER: CONSOLIDATION COAL COMPANY ACREAGE: 180.214±

OIL & GAS ROYALTY OWNER: SEE ATTACHED WW-6A1 ACREAGE: 380.911±

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

TARGET FORMATION: BURKETT-TULLY-HAMILTON-MARCELLUS ESTIMATED DEPTH: TVD: 6,279'± TMD: 12,804'±

WELL OPERATOR NOBLE ENERGY, INC. DESIGNATED AGENT STEVEN M. GREEN
 Address 333 TECHNOLOGY DRIVE, SUITE 116 Address 500 VIRGINIA STREET EAST, UNITED CENTER SUITE 590
 City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301



FILE #: MND3FXHS
 DRAWING #: MND3FXHS
 SCALE: 1" = 200'
 MINIMUM DEGREE: 1/2500
 OF ACCURACY:
 PROVEN SOURCE: U.S.G.S. MONUMENT THOMAS 148.81'
 OF ELEVATION:
 R.P.E.:
 L.I.S.: P.S. No. 2000

PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: _____

DATE: JULY 28, 2014

OPERATOR'S WELL #: MND3FXHS

API WELL #: 47 51

STATE COUNTY PERMIT

WELL OPERATOR: NOBLE ENERGY, INC.
 Address: 333 TECHNOLOGY DRIVE, SUITE 116
 City: CANONSBURG State: PA Zip Code: 15317

DESIGNATED AGENT: STEVEN M. GREEN
 Address: 500 VIRGINIA STREET EAST, UNITED CENTER SUITE 500
 City: CHARLESTON State: WV Zip Code: 25301

TARGET FORMATION: BURKETT-TULLY-HAMILTON-MARCELLUS
 ESTIMATED DEPTH: _____ TMD: 12,804'±

CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE

OIL & GAS ROYALTY OWNER: SEE ATTACHED WW-6A1

SURFACE OWNER: CONSOLIDATION COAL COMPANY

COUNTY/DISTRICT: MARSHALL \ FRANKLIN

WATERSHED: SHORT CREEK

WELL TYPE: Gas Liquid Injection Oil Waste Disposal Deep Shallow

CHARLESTON, WV 25304
 601 27TH STREET
 OFFICE OF OIL & GAS
 WADBP
 UNITED STATES TOPOGRAPHIC MAPS
 (+) DENOTES LOCATION OF WELL ON

PROFESSIONAL SURVEYOR
 STATE OF WEST VIRGINIA
 No. 2000
 LICENSED
 GEORGE D. SIX

Blue Mountain Inc.
 11023 MASON DIXON HIGHWAY
 BURTON, WV 25822
 PHONE: (304) 682-8488

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

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

Date of Notice Certification: 7-3-13

API No. 47- 51 - 01609
Operator's Well No. MND 3 FHS
Well Pad Name: MND 3

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>517789.037</u>
County: <u>Marshall</u>		Northing: <u>4411173.644</u>
District: <u>Franklin</u>	Public Road Access: <u>County Road 2/1</u>	
Quadrangle: <u>Powhatan Point</u>	Generally used farm name: <u>Consolidaton Coal Company</u>	
Watershed: <u>Short Creek-Ohio River 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>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p>
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Required Attachments:

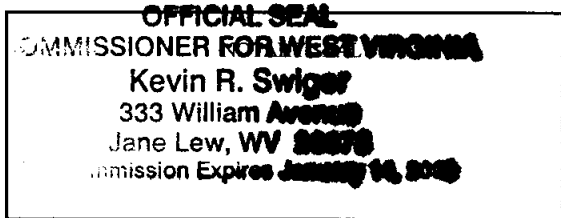
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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 notified 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 Laura L. Adkins, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Noble Energy, Inc
By: Laura L. Adkins
Its: Regulatory Analyst
Telephone: 724-820-3118

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



Subscribed and sworn before me this 3rd day of July.
[Signature] Notary Public
My Commission Expires Jan. 14, 2020

Oil and Gas Privacy Notice:

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

Received

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

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

Date of Notice: 7/24 **Date Permit Application Filed:** 7/3

Notice of:

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

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)
Name: Consolidaton Coal Company ✓
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317
Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: _____
Address: _____
Name: _____
Address: _____

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

COAL OWNER OR LESSEE
Name: Consolidaton Coal Company ✓
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
Name: Consolidaton Coal Company ✓
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

WATER PURVEYOR(s)
Name: None found within 2000'
Address: _____

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

Received
Office of Oil & Gas

AUG - 5 2013

*Please attach additional forms if necessary

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

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

Date of Notice: 7-3-13 **Date Permit Application Filed:** 7-3-13

Notice of:

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

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)
Name: Consolidaton Coal Company
Address: 333 Technology Drive Suite 116
Canonsburg, PA 15317

Name: _____
Address: _____

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

Name: _____
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments/Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE ✓
Name: Consolidaton Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR
Name: Consolidaton Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

WATER PURVEYOR(s) 8 300
Name: None found within 2000'
Address: _____
*Office of Oil and Gas
WV Dept. of Environmental Protection*

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

*Please attach additional forms if necessary

Notice is hereby given:

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

This Notice Shall Include:

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

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall also 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.

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

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.

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.

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 wellpad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such

Received

Office of Oil and Gas
West Virginia Department of Environmental Protection

factors, if necessary.

Written Comment:

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

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

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

Received

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.

Office of Oil and Gas
WV Dept. of Environmental Protection

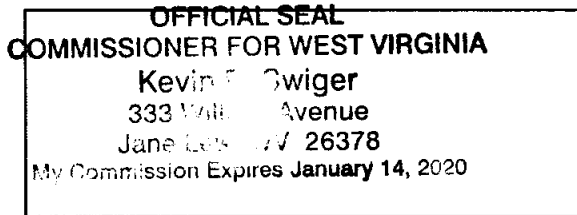
Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the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

Notice is hereby given by:

Well Operator: Noble Energy, Inc *Laura L. Adkins* Address: 333 Technology Drive Suite 116
Telephone: 724-820-3118 Canonsburg, PA 15317
Email: ladkins@nobleenergyinc.com 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 deprivacyofficer@wv.gov.



Notary Seal

Subscribed and sworn before me this 3rd day of July, 2020.
[Signature] Notary Public
My Commission Expires Jan. 14, 2020

Received

Office of Oil and Gas
WV Dept. of Environmental Protection

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

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

Date of Notice: 7-3-13 **Date Permit Application Filed:** 7-3-13

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: Consolidaton Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

Name: _____
Address: _____

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>517789.037</u>
County:	<u>Marshall</u>		Northing:	<u>4411173.644</u>
District:	<u>Franklin</u>	Public Road Access:	<u>County Road 2/1</u>	
Quadrangle:	<u>Powhatan Point</u>	Generally used farm name:	<u>Consolidaton Coal Company</u>	
Watershed:	<u>Short Creek-Ohio River HUC 10</u>			

This Notice Shall Include:

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

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

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

Oil and Gas Privacy Notice:

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



51-01669
7/8

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

July 31, 2013

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

Subject: DOH Permit for the MND-3 Well Site, Marshall County

Dear Mr. Martin,

The West Virginia Division of Highways has requested a permit application for the subject site from Noble Energy, Inc. for access to the State Road for the well site located off of Marshall County Route 2/1 SLS.

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

Very Truly Yours,

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

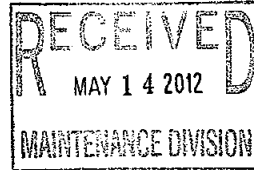
Cc: James L. McCune
Noble Energy, Inc.
CH, CHH, OM, D-6
File

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406-2

Office of Oil and Gas
WV Dept. of Environmental Protection

**OIL AND GAS ROAD
STATEWIDE BONDING AGREEMENT**



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

WITNESSETH:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

IN WITNESS WHEREOF, the parties hereto have caused this Bonding Agreement to

[Faint stamp]

Office of Oil and Gas
WV Dept. of Environmental Protection

51-01669

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

WEST VIRGINIA DEPARTMENT OF
TRANSPORTATION,
DIVISION OF HIGHWAYS

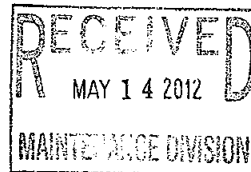
Doreen Barner
Witness

By: *Robert S. Murphy*
State Highway Engineer

Mark Miller
Witness

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

(To be executed in duplicate)



APPROVED AS TO FORM THIS
29th DAY OF May 20 12
[Signature]
ATTORNEY LEGAL DIVISION
WEST VIRGINIA DIVISION
OF HIGHWAYS

Received

Office of Oil and Gas
WV Dept. of Environmental Protection

Chemical List Including CAS#'s

Type: Friction Reducer (DWP-612)

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

Type: Biocide (DWP-944)

1st Chemical Component as listed on MSDS: 2,2-Dibromo-3-nitropropionamide
CAS: 10222-01-22nd Chemical Component as listed on MSDS: Polyethylene Glycol Mixture
CAS: 25322-68-3

Type: Scale Inhibitor (DAP-901)

1st Chemical Component as listed on MSDS: Methanol
CAS: 67-56-12nd Chemical Component as listed on MSDS: Phosphoric Acid Ammonium Salt
CAS: Trade Secret3rd Chemical Component as listed on MSDS: Ammonium Chloride
CAS: 12125-02-94th Chemical Component as listed on MSDS: Organic Phosphonate
CAS: Trade Secret5th Chemical Component as listed on MSDS: Amine Salt
CAS: Trade Secret6th Chemical Component as listed on MSDS: Oxyalkylated Polyamine
CAS: Trade Secret

Type: Surfactant (DWP-938)

Chemical Component as listed on MSDS: Soap
CAS: N/A

Type: Hydrochloric Acid

Chemical Component as listed on MSDS: Hydrochloric Acid
CAS: 7647-01-0

Type: PA Breaker (DWP-690)

Chemical Component as listed on MSDS: Hydrogen Peroxide
CAS: Trade Secret

Type: Gel Slurry (DWP-111)

Chemical Component as listed on MSDS: Viscosifier
CAS: N/A

Type: Oxidizer Breaker (DWP-901)

Chemical Component as listed on MSDS: Ammonium Persulfate
CAS: 7727-54-0

Type: Buffer (DWP-204)

Chemical Component as listed on MSDS: Formic Acid
CAS: 64-18-6

Received

Received

JUL 12 2013

Office of Oil and Gas
and Environmental Protection

EROSION & SEDIMENT CONTROL PLAN FOR MIND 3 WELL PAD FRANKLIN DISTRICT, MARSHALL COUNTY, WV

Handwritten initials/signature

GENERAL NOTES

1. THE TOPOGRAPHIC SURVEY UTILIZED FOR THIS DRAWING WAS PERFORMED BY RETTEW ASSOCIATES, INC. IN MAY 2013.
2. PROPERTY BOUNDARIES, LANDOWNER INFORMATION AND ROAD NETWORKS SHOWN ON THIS PLAN ARE BASED ON AVAILABLE COUNTY GIS PARCEL DATA.
3. ALL EXISTING UTILITIES, DITCHES AND ROADS HAVE BEEN LOCATED PER AVAILABLE COUNTY AERIAL PHOTOGRAPHY.
4. THE HORIZONTAL DATUM IS WEST VIRGINIA STATE PLANE, NORTH AMERICAN DATUM 1983 (NAD 83), NORTH ZONE.
5. THE VERTICAL DATUM IS WEST VIRGINIA STATE PLANE, NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88).
6. THE UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION PRIOR TO ANY EXCAVATION BY NOTIFYING WEST VIRGINIA AT 1-800-342-6848.
7. A METEOROLOGICAL PRESENCE/SURVEY WAS PERFORMED BY RETTEW ASSOCIATES IN MAY 2013.
8. CONTRACTOR TO PROTECT ALL WEIPLANS, NO WEIPLAN IMPACTS ARE SHOWN IN THIS PLAN.
9. THE CUT & FILL QUANTITY CALCULATIONS PRESENTED ON THIS PLAN ARE FOR PERMITTING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY EXISTING GRADES AND TO VERIFY EXISTING VOLUMES, VOLUMES AND PROCEEDURES ARE TO BE BROUGHT TO THE OWNER'S AND OWNER'S ATTENTION PRIOR TO ANY EXCAVATION.
10. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION.
11. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES AT ALL TIMES. BE RESPONSIBLE FOR THE PROTECTION OF THESE UTILITIES AND STRUCTURES.
12. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND STRUCTURES FROM DAMAGE DURING CONSTRUCTION.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF DAMAGED OR DESTROYED UTILITIES AND STRUCTURES.
14. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE PROJECT SITE PRIOR TO THE START OF CONSTRUCTION.
15. CONTRACTOR MAY BE RESPONSIBLE FOR THE REPLACEMENT OF DAMAGED OR DESTROYED UTILITIES AND STRUCTURES.
16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND TO ALL PUBLIC ROADS.
17. ACCESS SHALL NOT SHUT FLOW ON TO PUBLIC ROADS.
18. SED AND MATCH ALL DISTURBED AREAS PER DETAILS IN THIS PLAN.
19. ALL CLEARED TREE OPENINGS SHALL BE PLACED ON UPHILL SIDE OF COMPOST FILTER SOCKS AND NOT STOPPED ON-SITE WORK. IMMEDIATELY AND CONTACT HEAT ENERGY AND APPROPRIATE RESPONSIBLE AGENCIES SHOULD ANY METEOROLOGICAL AGENCIES (I.E. BONES POTTERY, ETC.) BE ENCOURAGED DURING CONSTRUCTION.
20. NO WORK SHALL BE DONE OUTSIDE THE LIMITS OF DISTURBANCE OR IN PROTECTED AREAS.

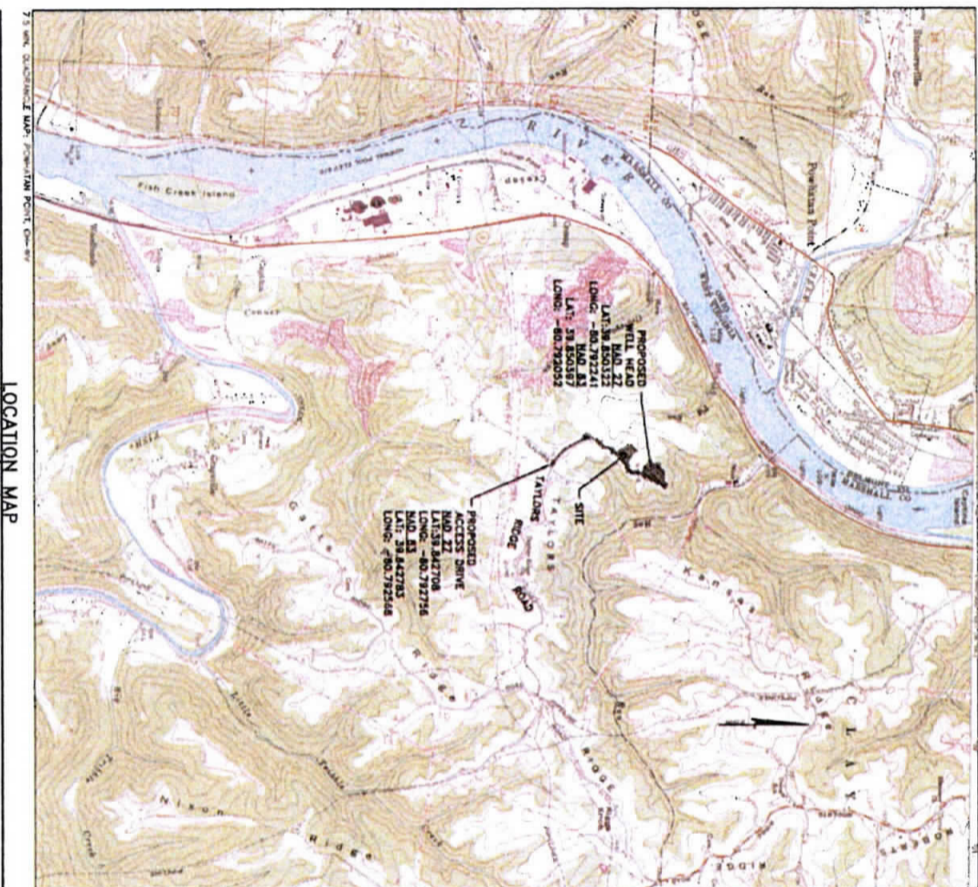
DIRECTIONS TO THE SITE

FROM INTERSECTION OF I-70 AND US-52/VA-27
TRAVEL WEST 2.5 MILES TO THE LIGHT HOUSE
ROAD AND TURN RIGHT ON LIGHT HOUSE ROAD
FOR 1.5 MILES TURN RIGHT ON WILSON ROAD
FOR 0.5 MILES TURN RIGHT ON MIND 3 WELL PAD
DRIVE WILL BE ON RIGHT.

CUT & FILL

	WELL ACCESS	LAND ACCESS	TOTAL SITE
CUT	431.657 C.Y.	43.393 C.Y.	475.050 C.Y.
FILL	4.121 C.Y.	4.121 C.Y.	8.242 C.Y.
NET	427.536 C.Y.	39.272 C.Y.	466.808 C.Y.
COMPACTION	1.188 C.Y.	1.188 C.Y.	2.376 C.Y.
NET	426.348 C.Y.	38.084 C.Y.	464.432 C.Y.

1. THE ASSUMED TOP SOIL DEPTH IS 7".
2. THE CUT & FILL CALCULATIONS ARE BASED ON THE PLAN AND FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING GRADES AND VERIFY EXISTING VOLUMES, VOLUMES AND PROCEEDURES ARE TO BE BROUGHT TO THE OWNER'S AND OWNER'S ATTENTION PRIOR TO COMMENCEMENT OF WORK.



LOCATION MAP
SCALE: 1" = 2500'

WEST VIRGINIA 811

CALL BEFORE YOU DIG!
Dial 811 or 800.245.4818

AT LEAST 48 HOURS, BUT NOT MORE THAN 10 WORKING DAYS EXCLUDING HOLIDAYS, BEFORE ANY EXCAVATION OR OTHER ACTIVITY THAT MAY AFFECT UTILITIES SHALL CONTACT WEST VIRGINIA 811 SERVICE.

SOILS CLASSIFICATION

- 040 OUTLIER-DOMINANT COMPLEX, 1% TO 2% SILTS
- 041 OUTLIER-DOMINANT-FLECK COMPLEX, 1% TO 2% SILTS
- 042 OUTLIER-DOMINANT-FLECK COMPLEX, 1% TO 2% SILTS
- 043 OUTLIER-DOMINANT-FLECK COMPLEX, 1% TO 2% SILTS
- 044 OUTLIER-DOMINANT-FLECK COMPLEX, 1% TO 2% SILTS

LIST OF DRAWINGS

- 1 OF 18 COVER SHEET
- 2 OF 18 ENVIRONMENTAL RESOURCES BUFFER PLAN
- 3 OF 18 MEASUREMENTS & LAYOUT PLAN
- 4 OF 18 MEASUREMENTS & LAYOUT PLAN
- 5 OF 18 MEASUREMENTS & LAYOUT PLAN
- 6 OF 18 MEASUREMENTS & LAYOUT PLAN
- 7 OF 18 MEASUREMENTS & LAYOUT PLAN
- 8 OF 18 MEASUREMENTS & LAYOUT PLAN
- 9 OF 18 MEASUREMENTS & LAYOUT PLAN
- 10 OF 18 MEASUREMENTS & LAYOUT PLAN
- 11 OF 18 MEASUREMENTS & LAYOUT PLAN
- 12 OF 18 MEASUREMENTS & LAYOUT PLAN
- 13 OF 18 MEASUREMENTS & LAYOUT PLAN
- 14 OF 18 MEASUREMENTS & LAYOUT PLAN
- 15 OF 18 MEASUREMENTS & LAYOUT PLAN
- 16 OF 18 MEASUREMENTS & LAYOUT PLAN
- 17 OF 18 MEASUREMENTS & LAYOUT PLAN
- 18 OF 18 MEASUREMENTS & LAYOUT PLAN

DISTURBANCE SUMMARY

TOTAL LIMIT OF DISTURBANCE	15.8 ACRES
TOTAL LIMIT OF DISTURBANCE	11.1 ACRES
TOTAL LIMIT OF DISTURBANCE	4.7 ACRES

COVER SHEET
FOR
MIND 3 WELL PAD

RETTEW

RETTEW Associates, Inc.
1401 Taylor, 4805 Shenandoah Pk, Ste 305, Pittsburg, PA 15206
Phone (412) 449-4949 Fax (412) 449-1733
Email: rettew@rettew.com
Website: www.rettew.com

CLIENT
NOBLE ENERGY
333 TECHNOLOGY DRIVE, SUITE 116
CANONSBURG, PA 15317-3077
BEN DEREUPE, PE
(724) 820-3000
noble energy

MANAGER: MICHAEL R. OGDEN
DESIGN BY: ASH
DRAWN BY: ASH
SURV. CHECK: FELDROCK, W. MAJ. OGDEN



NO.	DATE	REVISION

DATE: 6/24/13
SHEET NO. 1 OF 18
DWG. NO. 033842008

FRANKLIN DISTRICT MARSHALL COUNTY, WV