



west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, November 30, 2018
WELL WORK PLUGGING PERMIT
Vertical Plugging

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for MND 99 V
47-051-01764-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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

A handwritten signature in blue ink, appearing to read "James A. Martin", is placed to the right of the printed name and title.

Operator's Well Number: MND 99 V
Farm Name: CONSOLIDATION COAL COM
U.S. WELL NUMBER: 47-051-01764-00-00
Vertical Plugging
Date Issued: 11/30/2018

Promoting a healthy environment.

I

PERMIT CONDITIONS

West Virginia Code §22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

47-051-01764-P

WW-4B - Conti
Rev. 2/01

1) Date: October 5, 2018
2) Operator's Well Number MND99 V
3) API Well No: 47 - 051 - 1764
State County Permit

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) WELL TYPE: Oil _____ Gas x Liquid Injection _____ Waste Disposal _____ Observation x
(If "Gas", Production x Underground Storage _____) Deep _____ Shallow x
5) LOCATION: Elevation: 1192' Watershed: Short Creek - Ohio River
District: Franklin County: Marshall Quadrangle Powhatan Point, OH-WV 7.5'
6) WELL OPERATOR: HG Energy II Appalachia, LLC 494519932 7) DESIGNATED AGENT Diane White
Address 5260 Dupont Road Address 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101
8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) PLUGGING CONTRACTOR
Name Jim Nicholson Name To Be Determined Upon Approval of Permit
Address P. O. Box 44 Address _____
Moundsville, WV 26041 _____

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

TD- 6,458'

Manners of plugging:

- Tag bottom, flush well with fresh water
- Plug No 1 6250' to 6000', located above the highest perforation, pump Class A Portland Hydraulic Cement, WOC 8 hours, tag plug, pump 6% Bentonite gel to surface
- Plug No 2 located from 1128' to 1028', pull tubing to 1128', pump Class A Portland Hydraulic Cement
- Plug No 3 Located from 675' to 498', (across Pittsburgh Coal), pull tubing to 675', pump Class A Portland Cement
- TOH w/tubing
- Casing Rec Free-point, part and pull 4 1/2" casing from estimated 175'
- TIH w/tubing to 250'
- Plug No 4 Located from 250' to surface, Pump Class A Portland Hydraulic Cement to surface

Recover all possible casing. If casing can not be recovered, perforate for plug placement.

- Monument -
- 6" minimum diameter metal pipe
- 30" above surface
- 10' in well below surface
- Sealed with cement
- API identification (1/2") height numbering

6% Gel between all plugs

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OCT 12 2018
WV Department of Environmental Protection

47-051-0764P

Well: MND 99 V
 API: 47-051-01764
 Elevation: 1112.00

Monument to extend 30" above surface. 10' into well. 6" min metal pipe, sealed with cement. API i.D.

Cement Plugs

No.	Bottom	Top
1	6250'	6000'
2	1128'	1028'
3	675'	498'
4	250'	0'

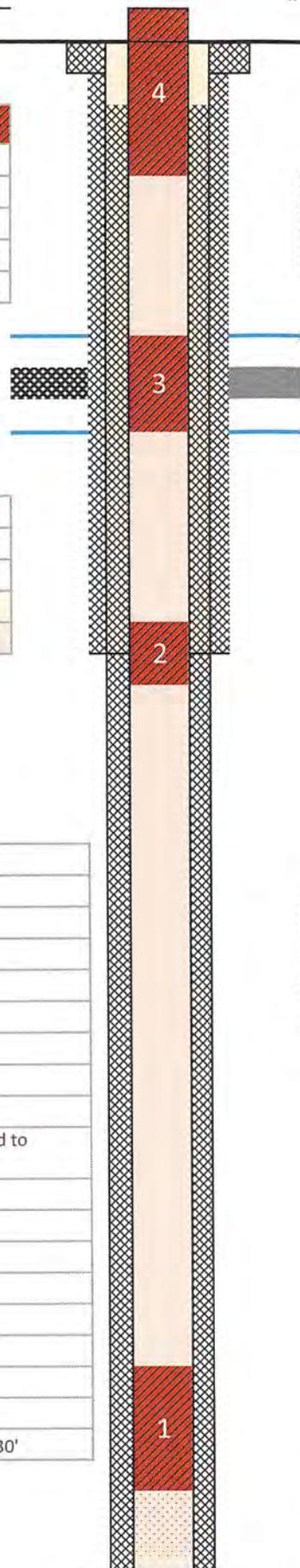
Fresh water 518'

Pittsburgh Coal 606' - 616'

Fresh water 655'

Casing Information

Size	Depth	Weight
20"	40'	
9 5/8"	1108.6'	
4 1/2"	6458'	



437 sks cement on backside of 9 5/8" casing

1850 sks cement on backside of 4 1/2" casing. TOC at 175' according to bond log.

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OCT 12 2018

WV Department of Environmental Protection

Notes:
Fresh water - 518', 655'
Pittsburgh Coal - 606'-616'
Conductor - size 20" Depth 40'
Surface - size 9 5/8" Depth 1108.6'
Intermediate - size 4 1/2" Depth 6458'
Tubing - size 2 3/8" Depth 6327'
Packer - 6259.3' - 3.6" 4.6 Wt Grade N-80
9 5/8" casing perforated at 800'. Cement squeezed to backside. Grout Job performed at surface.
Perforations
6250' - 6252'
6275' - 6277'
6360' - 6362'
6392' - 6394'
Cement
Surface - 437 sks Yield 1.18 cu ft/ sk
Intermediate - 1850 sks Yield 1.0 cu ft/ sk TOC - 630'

Highest Perforation 6250'

TVD 6397', 6468' MD

WW-4B
Rev. 2/01

Ch# 3856
\$100.00

- 1) Date October 5, 2018
- 2) Operator's
Well No. MND99V
- 3) API Well No. 47-051 - 01764

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas x / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production Ob or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1192' Watershed Short Creek - Ohio River
District Franklin County Marshall Quadrangle Powhatan Point, OH - WV 7.5'

6) Well Operator <u>HG II Appalachia, LLC</u>	7) Designated Agent <u>Diane White</u>
Address <u>5260 Dupont Road</u>	Address <u>5260 Dupont Road</u>
<u>Parkersburg, WV 26101</u>	<u>Parkersburg, WV 26101</u>

8) Oil and Gas Inspector to be notified	9) Plugging Contractor
Name <u>Jim Nicholson</u>	Name <u>To Be Determined Upon Approval of Permit</u>
Address <u>P. O. Box 44</u>	Address _____
<u>Moundsville, WV 26041</u>	_____

10) Work Order: The work order for the manner of plugging this well is as follows:

**** See Attached ****

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Office of Oil and Gas
OCT 13 2018
West Virginia Department of
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Jim Nicholson Date 10/10/18

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

OCT 13 2018

API 47-051-01764 County Marshall District Franklin
Quad Powhatan Point Pad Name MND 99 V Field/Pool Name Marcellus/Burkett
Farm name Consolidation Coal Well Number MND 99 V
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 4410361.28 Easting 518299.66
Landing Point of Curve Northing vertical well Easting _____
Bottom Hole Northing vertical well Easting _____

Elevation (ft) 1112.00 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 Observation Well
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other observation well
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)

APPROVED

NAME: Jaquelin Thornton

DATE: 6/1/2016

Date permit issued 06/05/2014 Date drilling commenced 9/04/2014 Date drilling ceased 9/21/2014
Date completion activities began N/A - Observation well Date completion activities ceased N/A - Observation well
Verbal plugging (Y/N) 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 518', 655' Open mine(s) (Y/N) depths _____
Salt water depth(s) ft none Void(s) encountered (Y/N) depths _____
Coal depth(s) ft 606-616 Pittsburgh Coal Cavern(s) encountered (Y/N) depths 2015 None
Is coal being mined in area (Y/N) Yes

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DEC 17 2015
WV Department of Environmental Protection
Reviewed by: M 07/01/2016
AX 07/01/16

API 47-051 - 01764 Farm name Consolidation Coal Well number MND 99 V

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor		20"	40'	New	H-40 / 94.00		N/a
Surface		9 5/8"	1108.6'	New	K-55 / 36.00		**No
Coal	See Surface						
Intermediate 1		4 1/2"	6458'	New	P-110HC / 11.60		Yes
Intermediate 2							
Intermediate 3							
Production							
Tubing		2 3/8"	6327'	New	J-55 4.60		
Packer type and depth set		6259.3' - 3.6" 4.6 Wt Grade N-80					

Comment Details retrievable bridge plug set top 6285' btm 6287' - top 6270' btm 6272' - packer set top 6257.3' btm 6265.6

**Surface Casing stuck at 1112', perforated at 800' and cemented from there.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	A	437		1.18	92		8
Coal							
Intermediate 1	A	1850	14.8#	1.0	406	630	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 6467.8 Loggers TD (ft) 6397.7
 Deepest formation penetrated Marcellus Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) N/a

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 9 Centralizers placed in the Surface String. 80 Centralizers placed in the Intermediate String.

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS DEC 17 2015

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS WV Department of Environmental Protection

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED 07/01/2016

WW - 2B
(Rev. 8/10)

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 99 V 3) Elevation: 1192'

4) Well Type: (a) Oil _____ or Gas X
 (b) If Gas: Production X / Other / Underground Storage _____
 Deep _____ / Shallow X

5) Proposed Target Formation(s): Marcellus, Burkett Proposed Target Depth: Deepest 6237'

6) Proposed Total Depth: 6389' TVD 6825 MD Feet Formation at Proposed Total Depth: Hunterville Chert

7) Approximate fresh water strata depths: 518' and 655'

8) Approximate salt water depths: None noted in offsets

9) Approximate coal seam depths: Sewickley 673', Pittsburgh 763'

10) Approximate void depths, (coal, Karst, other): None Anticipated; Drilling in Pillar-see map attached

11) Does land contain coal seams tributary to active mine? Yes, Ireland Mine

M 5/12/14

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Well is to be drilled at a slight deviation (schematic attached) to the Marcellus between two MND 3 laterals. This well will be used to observe and measure fracturing data from the MND 3 laterals. Additional information is attached describing our proposed well work and data gathering.

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor	20"	New	94#	40'	40'	CTS
Fresh Water	13 3/8"	J-55	54.5#	1180'	1180'	CTS
Coal	"	"	"	"	"	"
Intermediate	9 5/8"	J-55	36#	2680'	2680'	CTS (Contingency String for Red Rock)
Production	4 1/2"	HCP-110	11.6#	6825'	6825'	TCC @ 200' above casing shoe plus 30%
Tubing						
Liners						

Packers: Kind: Please see well prognosis and procedure.
 Sizes: _____
 Depths Set _____

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WV Department of Environmental Protection

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

1) Well Operator: Noble Energy, Inc. 494501907 Marshall Franklin Powhatan Point
333 Technology Drive Suite 116 Canonsburg, PA 15317 Operator ID County District Quadrangle

2) Operator's Well Number: MND 99 V (API 47-051-01764) 3) Elevation: 1192' RECEIVED
Office of Oil and Gas

4) Well Type: (a) Oil _____ or Gas X OCT 12 2018
 (b) If Gas: Production X/Other / Underground Storage _____
 Deep _____ / Shallow X WV Department of
Environmental Protection

5) Proposed Target Formation(s): Marcellus, Burkett Proposed Target Depth: Deepest 6237'

6) Proposed Total Depth: 6389'TVD 6825 MD Feet Formation at Proposed Total Depth: Huntersville Chert

7) Approximate fresh water strata depths: 518', 655'

8) Approximate salt water depths: None noted in offsets

9) Approximate coal seam depths: Sewickley 673', Pittsburgh 763'

10) Approximate void depths,(coal, Karst, other): None anticipated; drilling in Pillar-see attached map

11) Does land contain coal seams tributary to active mine? Yes, Ireland Mine

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Well is to be drilled at a slight deviation (schematic attached) to the Marcellus between two MND 3 laterals.
This well will be used to observe and measure fracturing data from the MND 3 laterals. Additional information is attached describing our proposed well work and data gathering.

13) **CASING AND TUBING PROGRAM**

JIN 9/24/2014

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	20	New	94#	40	40	Stabilize surface fill/soil
Fresh Water	9 5/8	55	36#	1112	1112	casing stuck at 1112 perforated at 800' and cemented from there.
Coal	"	"	"	"	"	
Intermediate						
Production	4 1/2	P-110	11.6	6468	6468	TOC >=500' above 9.625 shoe Plus 30 % excess
Tubing						
Liners						

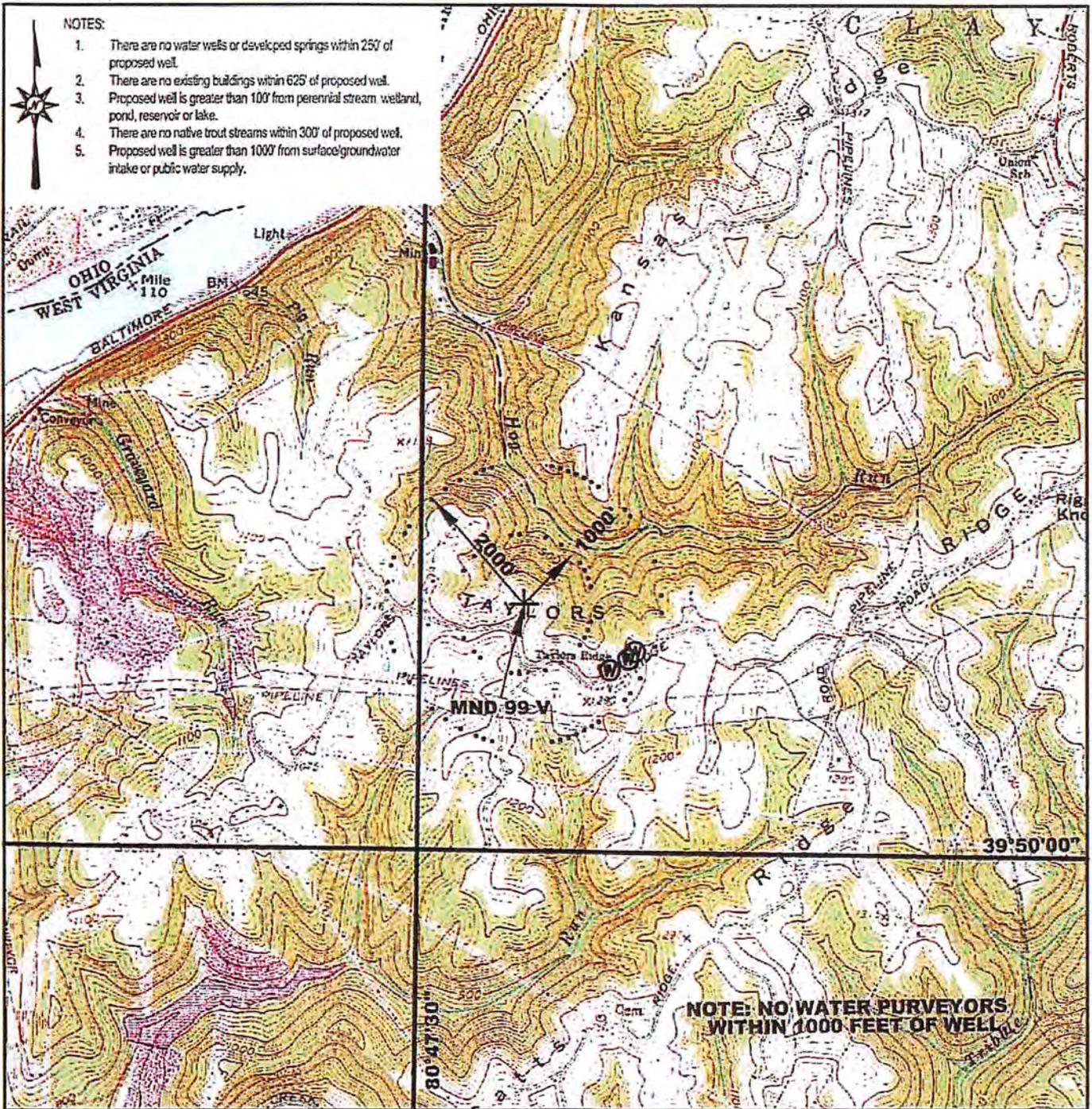
Packers: Kind: Please see well prognosis and procedure.

Sizes: _____

Depths Set _____

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. There are no existing buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.



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

PREPARED FOR:
NOBLE ENERGY, INC.
 333 TECHNOLOGY DRIVE
 SUITE 116
 CANNONSURG, PA 15317

MND 99 V
LOCATION MAP
MARSHALL COUNTY
FRANKLIN DISTRICT
WEST VIRGINIA

LEGEND
 (W) - WATER PURVEYOR
 + - EXISTING WELLS

TOPO QUAD: POWHATTAN POINT, OHIO-WV
 SCALE: 1" = 2000'
 DATE: APRIL 14, 2014

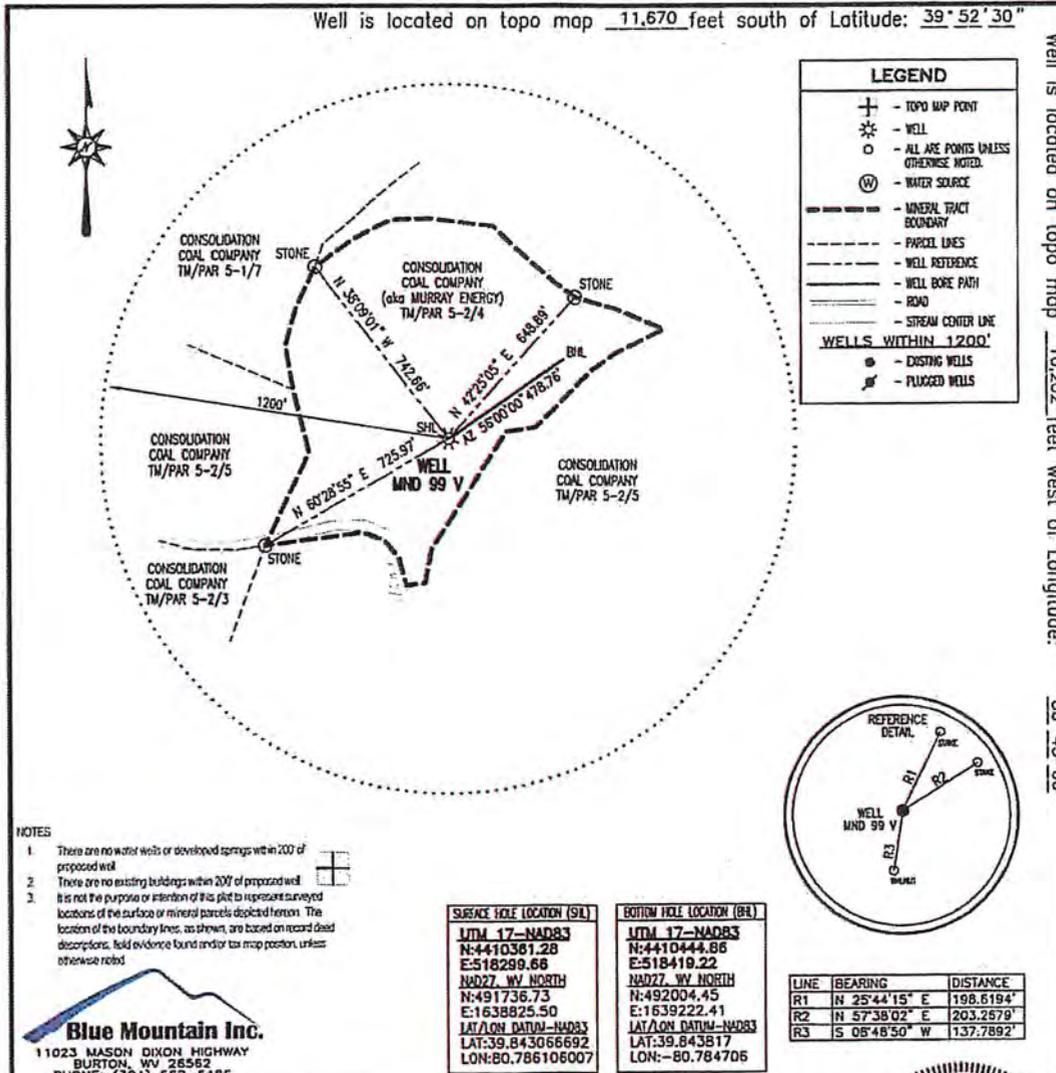
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 Office of Oil and Gas

OCT 13 2013

West Virginia Department of Environmental Protection

Well is located on topo map 11.670 feet south of Latitude: 39°52'30"

Well is located on topo map 10.202 feet west of Longitude: 80°45'00"

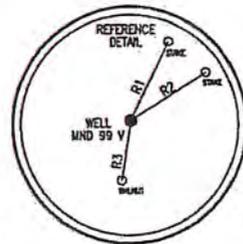


LEGEND

- ⊕ - TOPO MAP POINT
- ⊙ - WELL
- - ALL ARE POINTS UNLESS OTHERWISE NOTED
- ⊕ - WATER SOURCE
- - - - MINERAL TRACT BOUNDARY
- - - - PARTIAL LINES
- - - - WELL REFERENCE
- - - - WELL BORE PATH
- — — — ROAD
- — — — STREAM CENTER LINE

WELLS WITHIN 1,200'

- - EXISTING WELLS
- ⊕ - PLUGGED WELLS



LINE	BEARING	DISTANCE
R1	N 25°44'15" E	198.6194'
R2	N 57°38'02" E	203.2679'
R3	S 08°48'50" W	137.7892'

- NOTES**
- There are no water wells or developed springs within 200' of proposed well.
 - There are no existing buildings within 200' of proposed well.
 - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted herein. 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.

SURFACE HOLE LOCATION (SH)	BOTTOM HOLE LOCATION (BH)
UTM 17-NAD83 N:4410361.28 E:518299.66	UTM 17-NAD83 N:4410444.86 E:518419.22
NAD27 WV NORTH N:491736.73 E:1638825.50	NAD27 WV NORTH N:492004.45 E:1639222.41
LAT/LON DATUM-NAD83 LAT:39.843066692 LON:80.786106007	LAT/LON DATUM-NAD83 LAT:39.843817 LON:-80.784706

Blue Mountain Inc.
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-5486

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Division of Oil and Gas
OCT 13 2018
West Virginia Department of Environmental Protection

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

Signed: *[Signature]* R.P.E.: _____ L.L.S.: P.S. No. 2000

FILE #: MND 99 V
DRAWING #: MND 99 V
SCALE: 1" = 500'
MINIMUM DEGREE OF ACCURACY: 1/2500
PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

DATE: MAY 29, 2014
OPERATOR'S WELL #: MND 99 V
API WELL #: 47 51 01764
STATE COUNTY PERMIT

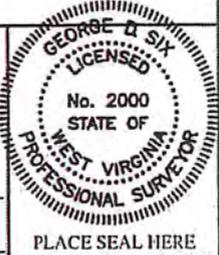
Well Type: Oil Waste Disposal Production Deep OTHER
 Gas Liquid Injection Storage Shallow

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1192.00'
COUNTY/DISTRICT: MARSHALL / FRANKLIN QUADRANGLE: POWHATAN POINT, OH-WV 7.5'
SURFACE OWNER: CONSOLIDATION COAL COMPANY ACREAGE: 20.85±
OIL & GAS ROYALTY OWNER: CONSOLIDATION COAL COMPANY ACREAGE: 20.85±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,389± TMD: 6,825±

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



06/09/2014

47-051-01764P

WW-4A
Revised 6-07



1) Date: October 5, 2018
2) Operator's Well Number MND99 X
3) API Well No.: 47 - 051 - 01764

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

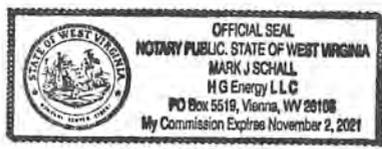
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Murray Energy Corporation</u> ✓	Name <u>Same as Surface Owner</u>
Address <u>46226 National Road</u>	Address _____
<u>St Clairsville, OH 43950</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Same as Surface Owner</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector _____	(c) Coal Lessee with Declaration
Address _____	Name _____
_____	Address _____
Telephone _____	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator HG Energy II Appalachia, LLC
 By: Diane White *Diane White*
 Its: Agent
 Address 5260 Dupont Road
Parkersburg, WV 26101
 Telephone 304-420-1119

Subscribed and sworn before me this 5th day of October, 2018
 _____ Notary Public
 My Commission Expires 11/2/2021

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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.

47-051-01764P

WW-9
(5/16)

API Number 47 - 051 - 01764
Operator's Well No. _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494519932

Watershed (HUC 10) Short Creek - Ohio River Quadrangle Powhatan Point, OH-WV 7.5'

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: Fluids encountered during the plugging process

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

DEPT 3 26 18

Will closed loop system be used? If so, describe: No

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

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

Additives to be used in drilling medium? NA

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

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

-Landfill or offsite name/permit number? To be determined upon approval of permit

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 April 1, 2016, 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 Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

Subscribed and sworn before me this 5th day of October, 2018

[Signature]

Notary Public

My commission expires 11/2/2021



Form WW-9

Operator's Well No. _____

Proposed Revegetation Treatment: Acres Disturbed 0.75 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Straw 2 Tons/acre

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Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

****Sediment Control Will Be in Place At All Times****

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, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Jim Nicholson

Comments: _____

Title: Oil & Gas Inspector Date: 10/10/18

Field Reviewed? () Yes () No

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

Operator Name: HG Energy II Appalachia, LLC

Watershed (HUC 10): Short Creek - Ohio River Quad: Powhatan Point, OH - WV 7.5'

Farm Name: _____

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

NA

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

NA

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

NA

4. Summarize all activities at your facility that are already regulated for groundwater protection.

NA

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

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NA

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

NA

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

NA

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

NA

Signature: Diane White

Date: 10-5-18

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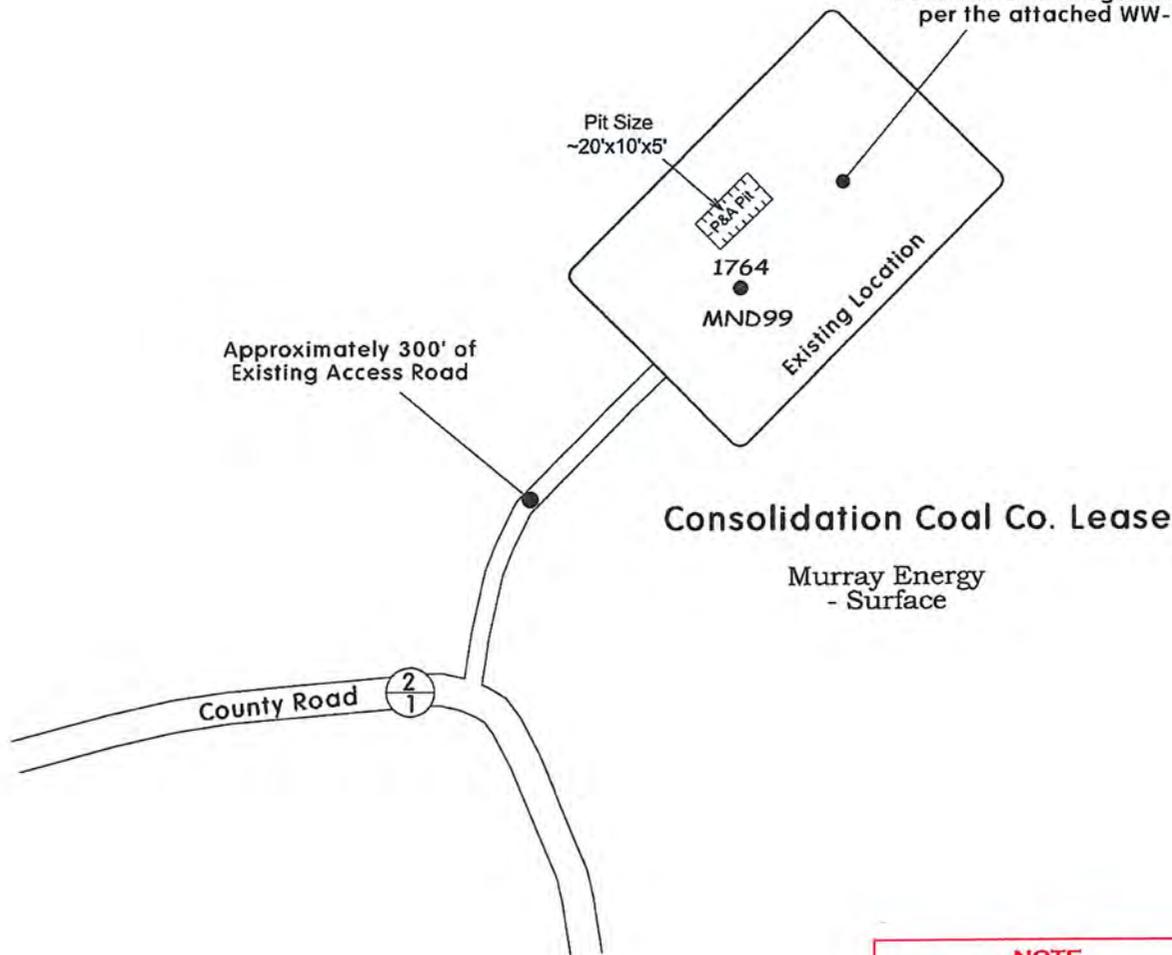
Reclamation Plan For:

MND99 V

47-051-01764



NOTE:
Location is existing. Only minimal earthwork will be required to P&A existing well. Any disturbed areas will be revegetated as per the attached WW-9.



NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.

Notes:

- REQUESTED PERMIT IS FOR PLUGGING AN EXISTING WELL.
- ALL ACCESS ROADS ARE EXISTING AND WILL BE MAINTAINED TO ACCOMODATE WELL WORK EQUIPMENT.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

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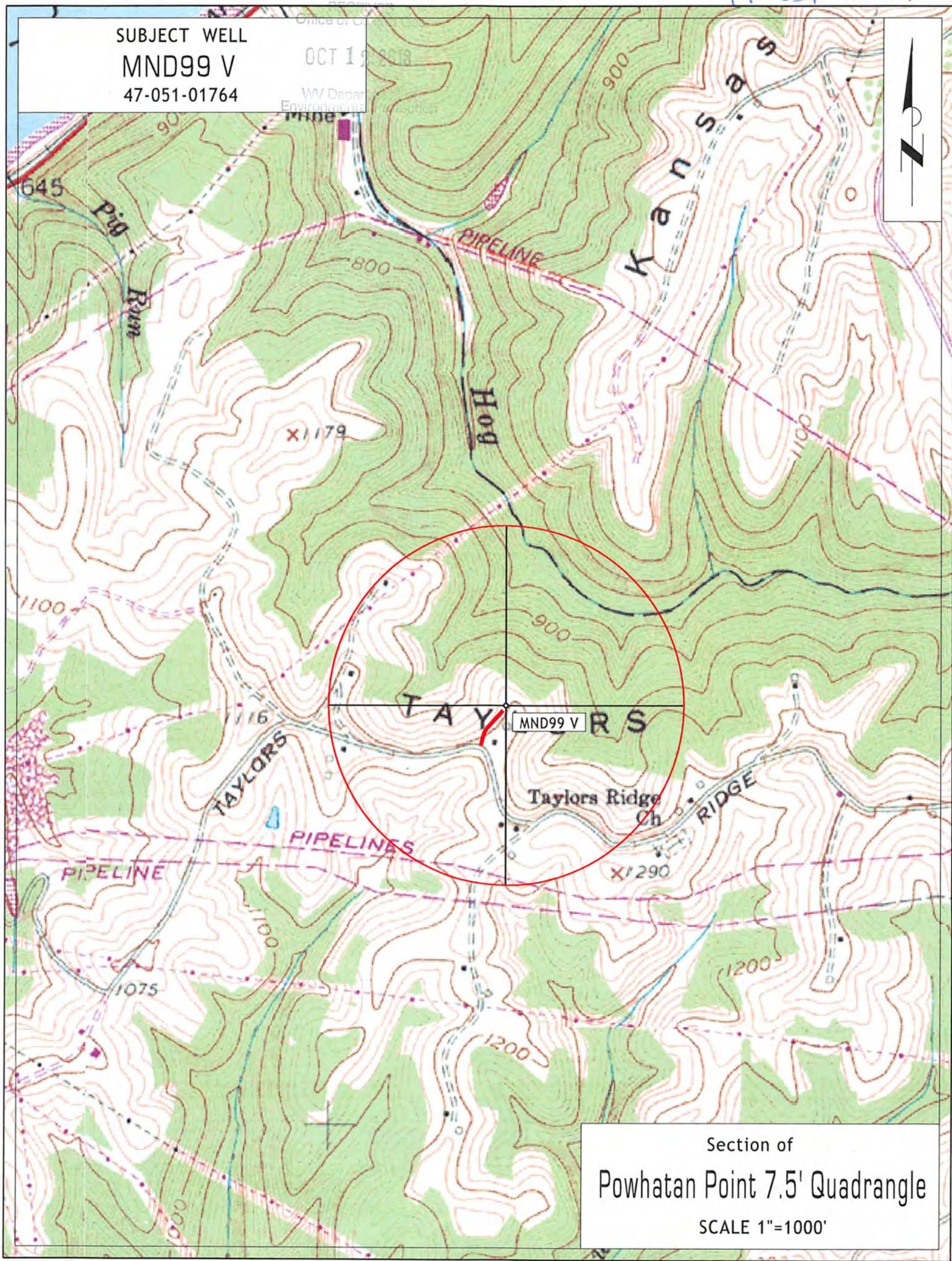
WV Department of
Environmental Protection

47-051-01764P

SUBJECT WELL
MND99 V
47-051-01764

OCT 19 2018

Office of
WV Depart
Environmental Protection



Section of
Powhatan Point 7.5' Quadrangle
SCALE 1"=1000'

West Virginia Department of Environmental Protection
Office of Oil & Gas

WELL LOCATION FORM: GPS

API: 47- 051 - 1764 WELL NO: MND99 V

FARM NAME: Centurial Products

RESPONSIBLE PARTY NAME: _____

COUNTY: Marshall DISTRICT: Franklin

QUADRANGLE: Powhatan Point 7.5'

SURFACE OWNER: Consolidation Coal Co./Murray Energy

ROYALTY OWNER: Consolidation Coal Co./Murray Energy

UTM GPS NORTHING: 4,410,361

UTM GPS EASTING: 518,299 GPS ELEVATION: (1191')
363 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	<input type="checkbox"/>	Post Processed Differential	<input type="checkbox"/>
		Real-Time Differential	<input type="checkbox"/>
Mapping Grade GPS	<input checked="" type="checkbox"/>	Post Processed Differential	<input checked="" type="checkbox"/>
		Real-Time Differential	<input type="checkbox"/>

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WV Dept. of Env. Protection

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Diane White Diane C. White
Signature

Designated Agent
Title

August 14, 2018
Date