August 29, 2013

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5101571, 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.

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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: MND9DHS
Farm Name: CONSOLIDATION COAL COMPA
API Well Number: 47-5101571
Permit Type: Plugging
Date Issued: 08/29/2013

Promoting a healthy environment.
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                   (b) Name with Declaration
   Consolidation Coal Company
   Address                    Address
   1000 Consol Energy Drive   1000 Consol Energy Drive
   Canonsburg, PA 15317       Canonsburg, PA 15317
   (b) Name                   (c) Coal Lessee with Declaration
   __________________________ Name
   __________________________ Address
   __________________________ Name
   __________________________ Address
   __________________________ Name
   __________________________ Address

6) Inspector
   (a) Name                   (b) Name with Declaration
   Bill Hendershot            Address
   __________________________ 403 James Street
   __________________________ Mannington, WV 26582
   Telephone                  304-206-7750

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 reverse 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.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Julie A. DiVecchio, Notary Public
Cecil Twp., Washington County
My Commission Expires May 3, 2014
Member, Pennsylvania Association of Notaries

Well Operator: Noble Energy, Inc.
By: Dee Swiger
Its: Regulatory Analyst
Address: 333 Technology Drive, Suite 116
Canonsburg, PA 15317
Telephone: 3724-820-3061

Subscribed and sworn before me this 16th day of July 2013
Notary Public

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.
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 X or Underground storage ____) Deep X / Shallow____

5) Location: Elevation 1221.03 Watershed Conner Run
   District Franklin County Marshall Quadrangle Powhatan Point

6) Well Operator Noble Energy, Inc. 7) Designated Agent Steven M. Greene
   Address 333 Technology Drive, Suite 116 Address 500 Virginia Street East
   Canonsburg, PA 15317 Charleston, WV 25301

8) Oil and Gas Inspector to be notified
   Name Bill Hendershot
   Address 403 James Street
   Mannington, WV 26582

9) Plugging Contractor
   Name Schlumberger
   Address 4120 J. Barry Court Suite 200
   Canonsburg, PA 15317

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

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

Work order approved by inspector ________________________ Date _______________
PLUGGING PROGNOSIS

MND-9D
Marshall, COUNTY, WEST VIRGINIA
API # 47-510-1571

BY: Michael Abendschein & Jarred Inman
DATE: 7/11/2013

CURRENT STATUS:
Elevation: 1219.5'
20" Conductor @ 40'
17.5" Hole TD @ 1228'
13 3/8" Csg @1208.1'
TOC at Surface in csg annulus
TOC Inside Csg- 1079'

Oil Shows @ n/a
Gas shows none reported
Stimulation: Well not completed.

1. Notify State Inspector prior to commencing operations.
2. TIH w/ 1000’ of bg stinger (2-7/8” O.D 6.5#/ft) on 4.5” DP to 1075’, Circulate bottoms up.
   - Rabbit tubing when picking it up.
3. Set Plug #1 - 539’ Balanced Cement Plug @1079’-540’. (91.7 Bbls)
4. TOOH to 500’ at 30’/min then circulate while waiting on cement
5. Set Plug #2 (91.8 bbls) Balanced Cement Plug to ground level Plug set from (540’-GL).
6. TOOH @ 30’/min. Top off as needed
8. Cut depth for casing cap 3-4 feet below ground level and install abandonment cap.
9. **Cement Cellar to be even with ground level**
10. Get monument ready and leave in cellar to be installed after operations in pad are finalized. As per WV-DEP Specifications, monument has to extend at least 3 feet above ground level with a plate reading: Noble Energy Well MND-9D. API 47-510-1571
### WELL DATA

#### Well Data
- **Job Type:** Abandonment Plug
- **Rig Type:** Land
- **Total Depth (Measured):** 1080 ft
- **True Vertical Depth (TVD):** 1080 ft
- **TOC in pipe before POOH:** 476.9 ft
- **TOC in annulus before POOH:** 526.7 ft

#### Open Hole

<table>
<thead>
<tr>
<th>Bottom Depth</th>
<th>Mean Calliper Diameter</th>
<th>Mean Excess</th>
<th>Mean Equiv. Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1080 ft</td>
<td>17.5 in</td>
<td>0 %</td>
<td>17.932 in</td>
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</tbody>
</table>

#### Drill Pipe

<table>
<thead>
<tr>
<th>Bottom Measured Depth</th>
<th>OD</th>
<th>ID</th>
<th>Weight</th>
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<tbody>
<tr>
<td>1079 ft</td>
<td>4 in</td>
<td>3.34 in</td>
<td>0 lbm/ft</td>
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</tbody>
</table>

#### Casing

<table>
<thead>
<tr>
<th>Bottom Measured Depth</th>
<th>OD</th>
<th>ID</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>1079 ft</td>
<td>13.375 in</td>
<td>12.615 in</td>
<td>0 lbm/ft</td>
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</table>
FLUIDS DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Density, lbm/gal</th>
<th>Consistency, lbf.s^2/100ft^2</th>
<th>Power Index</th>
<th>Tel, lbf/100ft^2</th>
<th>Gel Strength, lbf/100ft^2</th>
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</thead>
<tbody>
<tr>
<td>Mud</td>
<td>MUD</td>
<td>8.3</td>
<td>0.01044</td>
<td>1</td>
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<td>0</td>
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<tr>
<td>Spacer</td>
<td>SPACER</td>
<td>8.6</td>
<td>0.02715</td>
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<td>1</td>
<td>0</td>
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<tr>
<td>Cement</td>
<td>SLURRY</td>
<td>14.5</td>
<td>0.03759</td>
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<td>26</td>
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</table>

PLACEMENT VOLUMES

Placement Summary
- Volume Optimization: Underdisplacement Sensitivity Mode
- Plug Length: 539 ft
- Plug top MD after POOH: 540 ft
- Plug Volume: 83.32 bbl
- Original Fluid: Mud
- Underdisplacement Volume: 0.5 bbl
- Drill Pipe Volume: 11.69 bbl

Fluid Sequence

<table>
<thead>
<tr>
<th>Name</th>
<th>Balanced</th>
<th>Volume, bbl</th>
<th>Annular Length, ft</th>
<th>Top MD, ft</th>
<th>Density, lbm/gal</th>
<th>Length, ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mud</td>
<td>53.2</td>
<td>382.8</td>
<td>0</td>
<td>382.8</td>
<td>8.3</td>
<td>382.8</td>
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<tr>
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<td>14.5</td>
<td>555.9</td>
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<tr>
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<td>333.1</td>
<td>8.6</td>
<td>143.8</td>
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</tr>
<tr>
<td>Mud</td>
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<td>0</td>
<td>0</td>
<td>8.3</td>
<td>333.1</td>
<td></td>
</tr>
</tbody>
</table>
STATIC PULL OUT OF HOLE (POOH)

**POOH Summary**
- Final drill pipe shoe depth after POOH: 196.16 ft
- Length of uncontaminated cement after POOH: 536.28 ft
- Length of contaminated cement after POOH: 63.51 ft
- Top MD of uncontaminated cement after POOH: 542.72 ft

**POOH Simulation Results**

![Diagram showing interfaces in annulus and pipe, with measurements and depth markers.]
PLACEMENT

### Pumping Schedule

<table>
<thead>
<tr>
<th>Fluid Name</th>
<th>Flow Rate, bbl/min</th>
<th>Volume, bbl</th>
<th>Time, min</th>
<th>Backpressure, psi</th>
<th>Cumulative Time, min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spacer</td>
<td>3</td>
<td>20</td>
<td>6.67</td>
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<td>6.67</td>
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<tr>
<td>Cement</td>
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<td>77.3</td>
<td>25.77</td>
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<td>32.43</td>
</tr>
<tr>
<td>Cement</td>
<td>3</td>
<td>6.02</td>
<td>2.01</td>
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<td>34.44</td>
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<td>3</td>
<td>3.61</td>
<td>1.2</td>
<td>0</td>
<td>36.16</td>
</tr>
</tbody>
</table>

### Well Security

Min annular pore security 27.6% (104.4 psi) at MD = 1080 ft.
Min annular frac security 27.4% (251.4 psi) at MD = 1080 ft.
Min annular static pore security 23.8% (89.9 psi) at MD = 1080 ft.
Min annular static frac security 29.5% (270.7 psi) at MD = 1080 ft.
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name: Noble Energy, Inc. OP Code: 494501907

Watershed: Conner Run Quadrange: Powhatan Point

Elevation: 1221.03 County: Marshall District: Franklin

Description of anticipated Pit Waste: closed loop

Will a synthetic liner be used in the pit? na

Proposed Disposal Method For Treated Pit Wastes:
- Land Application
- Underground Injection (UIC Permit Number_
- Reuse (at API Number_
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain_

Proposed Work For Which Pit Will Be Used:
- Drilling
- Workover
- Swabbing
- Plugging
- Other (Explain_

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

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

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

Subscribed and sworn before me this 24 day of July, 2013

Notarial Seal
Julie A. DiVecchio, Notary Public
Cecil Twp., Washington County
My Commission Expires May 3, 2014

Member, Pennsylvania Association of Notaries
Proposed Revegetation Treatment: Acres Disturbed 10.1
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)

Hay or Straw at 2 tons Tons/acre

Seed Mixtures

<table>
<thead>
<tr>
<th>Seed Type</th>
<th>Area I</th>
<th>lbs/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tall Fescue</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Ladino Clover</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seed Type</th>
<th>Area II</th>
<th>lbs/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tall Fescue</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Ladino Clover</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments:

Title: Oil and Gas Inspector

Field Reviewed? ( ) Yes ( ) No

Date: 7-05-15
West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-5101571    WELL NO.: MND9DHS
FARM NAME: Consolidation Coal Company
RESPONSIBLE PARTY NAME: Noble Energy, Inc.
COUNTY: Marshall    DISTRICT: Franklin
QUADRANGLE: Powhatan Point
SURFACE OWNER: Consolidation Coal Company
ROYALTY OWNER: CNX Gas Company
UTM GPS NORTHING: 4409082.932
UTM GPS EASTING: 538219.133    GPS ELEVATION: 1221.03

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

2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
   Survey grade GPS X: Post Processed Differential _____
   Real-Time Differential _____
   Mapping Grade GPS: Post Processed Differential _____
   Real-Time Differential _____

4. Letter size copy of the topography map showing the well location.

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.

Signature

Regulatory Analyst Title
8/27/13 Date