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

API 47-051-01659 County Marshall District Webster  
Quad Majorsville Pad Name WEB13 Field/Pool Name NA  
Farm name Lucille Hartley Well Number WEB13 DHS  
Operator (as registered with the OOG) Noble Energy, Inc.  
Address 333 Technology Drive, Suite 116 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 4422747.41 Easting 538471.00  
Landing Point of Curve Northing 4422930.33 Easting 538491.95  
Bottom Hole Northing 4424424.80 Easting 537327.84

Elevation (ft) 1265.78 GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

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

Date permit issued 7/31/2013 Date drilling commenced 12/1/2013 Date drilling ceased 3/16/2014  
Date completion activities began 7/29/2014 Date completion activities ceased 9/28/2014  
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 128', 200', 300' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None noted for Offsets Void(s) encountered (Y/N) depths None noted for Offsets  
Coal depth(s) ft 703' - Pittsburgh Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) \_\_\_\_\_

Reviewed by: \_\_\_\_\_

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API 47-051 - 01659 Farm name Lucille Hartley Well number WEB13 DHS

| CASING STRINGS            | Hole Size | Casing Size | Depth   | New or Used | Grade wt/ft | Basket Depth(s) | Did cement circulate (Y/N)<br>* Provide details below* |
|---------------------------|-----------|-------------|---------|-------------|-------------|-----------------|--------------------------------------------------------|
| Conductor                 | 36        | 30          | 40      | N           |             |                 |                                                        |
| Surface                   | 24        | 20          | 421.8   | N           | J-55 94#    |                 | Y                                                      |
| Coal                      |           |             |         |             |             |                 |                                                        |
| Intermediate 1            | 17 1/2    | 13 3/8      | 1174.0  | N           | J-55 54.5#  |                 | Y                                                      |
| Intermediate 2            | 12 3/8    | 9 5/8       | 3153.0  | N           | K-55 36#    |                 | Y                                                      |
| Intermediate 3            |           |             |         |             |             |                 |                                                        |
| Production                | 8 3/4     | 5 1/2       | 13441.5 | N           | P-110 20#   |                 | Y                                                      |
| Tubing                    |           |             |         |             |             |                 |                                                        |
| Packer type and depth set |           |             |         |             |             |                 |                                                        |

Comment Details \_\_\_\_\_

| CEMENT DATA    | Class/Type of Cement | Number of Sacks        | Slurry wt (ppg)     | Yield (ft <sup>3</sup> /sks) | Volume (ft <sup>3</sup> ) | Cement Top (MD) | WOC (hrs) |
|----------------|----------------------|------------------------|---------------------|------------------------------|---------------------------|-----------------|-----------|
| Conductor      |                      |                        |                     |                              |                           |                 |           |
| Surface        | Type I               | 580                    | 15.6                | 1.19                         | 119                       | 0               | 8         |
| Coal           | Type I               | 987                    | 15.8                | 1.16                         | 204                       | 0               | 8         |
| Intermediate 1 | Type I               | 1120                   | 16.0                | 1.12                         | 223                       | 0               | 8         |
| Intermediate 2 |                      |                        |                     |                              |                           |                 |           |
| Intermediate 3 |                      |                        |                     |                              |                           |                 |           |
| Production     | Class A              | Lead - 398 Tail - 1636 | Lead 14.2 Lead 14.8 | Lead - 1.58 Lead 1.41        | Lead - 112 Tail 411       |                 | 8         |
| Tubing         |                      |                        |                     |                              |                           |                 |           |

Drillers TD (ft) 13450 Loggers TD (ft) 13425

Deepest formation penetrated Marcellus Plug back to (ft) Not a Pilot Hole

Plug back procedure Not a Pilot Hole

Kick off depth (ft) 5200

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 \_\_\_\_\_

4 Centralizers on Surface (1 every 3rd joint) 10 Centralizers on Coal String (1 every 3rd joint) 58 Centralizers on Intermediate 1 (1 every 3rd joint)  
218 Centralizers on Production (1 every 3rd to Curve, then 1 every joint to TD)

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

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

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

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Perforation Record

API: 47-051-01659

Farm name  
Hartley, Lucille

Well Name: WEB-13 D-HS

| Stage No.      | Stim Date | Top Perf | Bottom Perf | # of Perfs | Formation |
|----------------|-----------|----------|-------------|------------|-----------|
| Toe Sleeve     | 6/13/2014 | 13311    | 13315       |            |           |
| 1 Inj Test     | 7/28/2014 |          |             |            | Marcellus |
| 1              | 7/29/2014 | 13036    | 13288       | 60         | Marcellus |
| 2              | 7/30/2014 | 12734    | 12988       | 50         | Marcellus |
| 3              | 7/31/2014 | 12434    | 12688       | 50         | Marcellus |
| 4              | 8/1/2014  | 12134    | 12388       | 50         | Marcellus |
| 5              | 8/2/2014  | 11834    | 12088       | 50         | Marcellus |
| 6              | 8/3/2014  | 11534    | 11788       | 50         | Marcellus |
| 6B (Reperf I)  | 8/3/2014  | 11530    | 11627       | 48         | Marcellus |
| 6B.2           | 8/4/2014  |          |             | 0          | Marcellus |
| 6C             | 8/14/2014 | 11428    | 11500       | 36         | Marcellus |
| 6D             | 8/14/2014 | 11448    | 11516       | 36         | Marcellus |
| 6D.2           | 8/15/2014 |          |             | 0          | Marcellus |
| 7              | 8/25/2014 | 11153    | 11363       | 50         | Marcellus |
| 8              | 8/25/2014 | 10878    | 11088       | 50         | Marcellus |
| 9              | 8/28/2014 | 10603    | 10813       | 50         | Marcellus |
| 10             | 8/29/2014 | 10330    | 10540       | 50         | Marcellus |
| 10A2           | 8/29/2014 | 10510    | 10512       | 12         | Marcellus |
| 10B Reperf (2) | 8/29/2014 | 10354    | 10460       | 36         | Marcellus |
| 11             | 8/30/2014 | 10034    | 10288       | 50         | Marcellus |
| 12             | 8/31/2014 | 9734     | 9988        | 50         | Marcellus |
| 12 Reperf      | 8/31/2014 | 9766     | 9830        | 24         | Marcellus |
| 13             | 9/1/2014  | 9434     | 9688        | 50         | Marcellus |
| 14             | 9/2/2014  | 9134     | 9388        | 50         | Marcellus |
| 15             | 9/3/2014  | 8834     | 9088        | 50         | Marcellus |
| 16             | 9/4/2014  | 8534     | 8788        | 50         | Marcellus |
| 17             | 9/4/2014  | 8234     | 8488        | 50         | Marcellus |
| 17 Reperf      | 9/4/2014  | 8260     | 8453        | 48         | Marcellus |
| 18             | 9/4/2014  | 7934     | 8188        | 50         | Marcellus |
| 18 Reperf      | 9/5/2014  | 7949     | 8036        | 48         | Marcellus |
| 19             | 9/6/2014  | 7634     | 7888        | 50         | Marcellus |
| 20             | 9/6/2014  | 7334     | 7588        | 50         | Marcellus |
| 21             | 9/7/2014  | 7160     | 7302        | 50         | Marcellus |
| 22             | 9/7/2014  | 6882     | 6982        | 50         | Marcellus |

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STIMULATION INFORMATION PER STAGE

API: 47-051-01659

Farm name  
Hartley, Lucille

Well Name: WEB-13 D-HS

| Stage No.      | Stim Date | Avg Rate (bpm) | ATP (psi) | Max BD Pressure | ISIP (psi) | Proppant (lbs) | Water (BBLs) | Amount of N <sup>2</sup> / other (units) |
|----------------|-----------|----------------|-----------|-----------------|------------|----------------|--------------|------------------------------------------|
| 1 Inj Test     | 7/28/2014 | 0              | -         | -               | -          | -              | 457.38       |                                          |
| 1              | 7/29/2014 | 90             | 7,455     | -               | 4,299      | 599,837        | 16,588.57    |                                          |
| 2              | 7/30/2014 | 89             | 7,278     | 6,493           | 4,477      | 602,591        | 13,502.57    |                                          |
| 3              | 7/31/2014 | 80             | 7,470     | 7,370           | 7,204      | 571,161        | 13,070.57    |                                          |
| 4              | 8/1/2014  | 82             | 7,046     | 5,651           | 4,123      | 605,174        | 15,807.57    |                                          |
| 5              | 8/2/2014  | 66             | 6,693     | 5,990           | 4,488      | 601,290        | 13,935.57    |                                          |
| 6              | 8/3/2014  | 54             | 6,807     | 5,980           | 4,413      | 218,250        | 8,231.14     |                                          |
| 6B (Reperf I)  | 8/3/2014  | 50             | 7,100     | -               | 4,573      | 69,377         | 5,507.00     |                                          |
| 6B.2           | 8/4/2014  | 4              | 8,355     | -               | 4,993      | -              | 1,111.86     |                                          |
| 6C             | 8/14/2014 | 40             | 8,260     | -               | 4,714      | 7,677          | 6,572.00     |                                          |
| 6D             | 8/14/2014 | 51             | 8,648     | -               | 4,844      | 35,445         | 9,320.98     |                                          |
| 6D.2           | 8/15/2014 | 52             | 7,429     | -               | 5,589      | 257,877        | 13,811.55    |                                          |
| 7              | 8/25/2014 | 87             | 7,181     | 6,071           | 4,903      | 618,681        | 17,181.38    |                                          |
| 8              | 8/25/2014 | 87             | 8,056     | 6,553           | 8,251      | 609,231        | 17,117.38    |                                          |
| 9              | 8/28/2014 | 83             | 7,783     | 6,697           | 3,604      | 603,975        | 16,115.38    |                                          |
| 10             | 8/29/2014 | 88             | 8,831     | 6,219           | 4,895      | 3,019          | 3,148.38     |                                          |
| 10A2           | 8/29/2014 | 60             | 8,816     | -               | 4,920      | 5,162          | 8,139.96     |                                          |
| 10B Reperf (2) | 8/29/2014 | 86             | 7,798     | 5,946           | 3,593      | 606,210        | 16,449.38    |                                          |
| 11             | 8/30/2014 | 88             | 7,697     | 6,378           | 4,516      | 600,571        | 16,965.38    |                                          |
| 12             | 8/31/2014 | 64             | 8,933     | 6,158           | 4,663      | 6,046          | 6,604.96     |                                          |
| 12 Reperf      | 8/31/2014 | 70             | 7,989     | -               | 4,485      | 600,025        | 22,242.98    |                                          |
| 13             | 9/1/2014  | 87             | 7,326     | 6,738           | 3,870      | 602,283        | 13,062.38    |                                          |
| 14             | 9/2/2014  | 90             | 7,151     | 6,293           | 5,102      | 600,013        | 13,776.98    |                                          |
| 15             | 9/3/2014  | 84             | 7,036     | 6,665           | 4,690      | 607,273        | 12,462.38    |                                          |
| 16             | 9/4/2014  | 80             | 6,891     | 6,866           | 4,644      | 608,512        | 15,828.38    |                                          |
| 17             | 9/4/2014  | 58             | 8,609     | 7,135           | 4,834      | 8,319          | 5,680.76     |                                          |
| 17 Reperf      | 9/4/2014  | 89             | 6,486     | -               | 4,867      | 551,980        | 11,153.98    |                                          |
| 18             | 9/4/2014  | 79             | 8,178     | 7,079           | 5,058      | 3,719          | 3,381.98     |                                          |
| 18 Reperf      | 9/5/2014  | 90             | 6,977     | -               | 4,919      | 636,009        | 12,235.98    |                                          |
| 19             | 9/6/2014  | 80             | 6,138     | 6,767           | 4,744      | 608,884        | 13,785.38    |                                          |
| 20             | 9/6/2014  | 87             | 6,684     | 6,165           | 4,701      | 600,080        | 13,077.98    |                                          |
| 21             | 9/7/2014  | 89             | 5,540     | 6,047           | 4,882      | 618,202        | 12,607.38    |                                          |
| 22             | 9/7/2014  | 90             | 5,996     | 5,925           | 4,769      | 318,109        | 7,123.38     |                                          |

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WEB 13 DHS  
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| Formations          | Top TVD | Base TVD | Top MD          | Base MD         | Fluid |
|---------------------|---------|----------|-----------------|-----------------|-------|
| Shale               | 0       | 729      | 0               | 729             |       |
| Pittsburgh Coal     | 729     | 739      | 729             | 739             |       |
| Shale and Sandstone | 739     | 1355     | 739             | 1355            |       |
| Gas Sand            | 1355    | 1418     | 1355            | 1418            |       |
| Shale               | 1418    | 1490     | 1418            | 1490            |       |
| 1st Salt Sand       | 1490    | 1514     | 1490            | 1514            |       |
| Shale               | 1514    | 1640     | 1514            | 3181            |       |
| Maxton Sand         | 1640    | 1756     | 1640            | 3201            |       |
| Shale               | 1756    | 1786     | 1756            | 4282            |       |
| Big Lime            | 1786    | 1861     | 1786            | 4287            |       |
| Big Injun           | 1861    | 2010     | 1861            | 4960            |       |
| Price               | 2010    | 2361     | 2010            | 5068            |       |
| Murrysville         | 2361    | 2374     | 2361            | 5170            |       |
| Shale               | 2374    | 2834     | 2374            | 5824            |       |
| Fifth Sand          | 2834    | 2871     | 2834            | 6299            |       |
| Shale               | 2871    | 3181     | 2871            | 6429            |       |
| Speechley Sand      | 3181    | 3201     | 3181            | 3201            |       |
| Shale               | 3201    | 4272     | 3201            | 4282            |       |
| Warren Sand         | 4272    | 4277     | 4282            | 4287            |       |
| Shale               | 4277    | 4943     | 4287            | 4960            |       |
| Java Shale          | 4943    | 5050     | 4960            | 5068            |       |
| Pipe Creek Shale    | 5050    | 5151     | 5068            | 5170            |       |
| Angola Shale        | 5151    | 5798     | 5170            | 5824            |       |
| Rhinestreet         | 5798    | 6258     | 5824            | 6299            |       |
| Cashaqua            | 6258    | 6366     | 6299            | 6429            |       |
| Middlesex           | 6366    | 6397     | 6429            | 6471            |       |
| West River          | 6397    | 6468     | 6471            | 6584            |       |
| Burkett             | 6468    | 6487     | 6584            | 6620            |       |
| Tully Limestone     | 6487    | 6517     | 6620            | 6686            |       |
| Hamilton            | 6517    | 6634     | 6686            | 7145            | Gas   |
| Marcellus           | 6634    | 6685     | 7145            | not encountered |       |
| Onondaga            | 6685    | 6693     | not encountered | not encountered |       |
| Huntersville        | 6693    |          | not encountered | not encountered |       |

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

|                                |                    |
|--------------------------------|--------------------|
| Job Start Date:                | 7/29/2014          |
| Job End Date:                  | 9/7/2014           |
| State:                         | West Virginia      |
| County:                        | Marshall           |
| API Number:                    | 47-051-01659-00-00 |
| Operator Name:                 | Noble Energy, Inc. |
| Well Name and Number:          | WEB-13D            |
| Longitude:                     | -80.54981400       |
| Latitude:                      | 39.95391200        |
| Datum:                         | NAD27              |
| Federal/Tribal Well:           | NO                 |
| True Vertical Depth:           | 6,611              |
| Total Base Water Volume (gal): | 15,794,474         |
| Total Base Non Water Volume:   | 0                  |

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## Hydraulic Fracturing Fluid Composition:

| Trade Name              | Supplier | Purpose          | Ingredients                   | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|-------------------------|----------|------------------|-------------------------------|------------------------------------------|------------------------------------------------------------|------------------------------------------------------------|----------|
| Water                   | Operator | Carrier          | Water                         | 7732-18-5                                | 100.00000                                                  | 90.31418                                                   |          |
| 40/70 White             | FTSI     | proppant         | Silica, Quartz                | 14808-60-7                               | 100.00000                                                  | 7.04629                                                    |          |
| 100 Mesh Sand           | FTSI     | proppant         | Silica, Quartz                | 14808-60-7                               | 100.00000                                                  | 1.85650                                                    |          |
| Hydrochloric Acid (HCl) | FTSI     | Acid             | Water                         | 7732-18-5                                | 63.00000                                                   | 0.38970                                                    |          |
|                         |          |                  | Hydrogen Chloride             | 7647-01-0                                | 37.00000                                                   | 0.22887                                                    |          |
| FRW-600                 | FTSI     | Friction Reducer | Acrylamide Polymer            | Trade Secret                             | 100.00000                                                  | 0.05973                                                    |          |
|                         |          |                  | Hydrotreated light distillate | 64742-47-8                               | 30.00000                                                   | 0.01792                                                    |          |
|                         |          |                  | Ammonium acetate              | 631-61-8                                 | 6.00000                                                    | 0.00358                                                    |          |
| CS-500 SI               | FTSI     | Scale inhibitor  | Water                         | 7732-18-5                                | 55.00000                                                   | 0.02730                                                    |          |
|                         |          |                  | Acrylic Polymer               | Proprietary                              | 24.00000                                                   | 0.01191                                                    |          |
|                         |          |                  | Ethylene glycol               | 107-21-1                                 | 10.00000                                                   | 0.00496                                                    |          |
|                         |          |                  | Sodium chloride               | 7647-14-5                                | 6.00000                                                    | 0.00298                                                    |          |
|                         |          |                  | Sodium Polyacrylate           | 9003-04-7                                | 5.00000                                                    | 0.00248                                                    |          |



|         |      |                          |                                                                    |             |          |         |
|---------|------|--------------------------|--------------------------------------------------------------------|-------------|----------|---------|
| CI-3240 | FTSI | Biocide                  |                                                                    |             |          |         |
|         |      |                          | Water                                                              | 7732-18-5   | 55.00000 | 0.02207 |
|         |      |                          | Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione. | 533-74-4    | 24.00000 | 0.00963 |
|         |      |                          | Sodium Hydroxide                                                   | 1310-73-2   | 23.00000 | 0.00923 |
| HVG-1   | FTSI | Water Gelling Agent      |                                                                    |             |          |         |
|         |      |                          | Guar Gum                                                           | 9000-30-0   | 55.00000 | 0.00614 |
|         |      |                          | Petroleum Distillate                                               | 64742-47-8  | 55.00000 | 0.00614 |
|         |      |                          | Raffinates (Petroleum), Sorption Process                           | 64741-85-1  | 50.00000 | 0.00558 |
|         |      |                          | Clay                                                               | 1302-78-9   | 5.00000  | 0.00056 |
|         |      |                          | Surfactant                                                         | Proprietary | 2.00000  | 0.00022 |
|         |      |                          | Clay                                                               | 14808-60-7  | 2.00000  | 0.00022 |
|         |      |                          | Surfactant                                                         | 24938-91-8  | 1.00000  | 0.00011 |
|         |      |                          | Surfactant                                                         | 154518-36-2 | 1.00000  | 0.00011 |
|         |      |                          | Surfactant                                                         | 9043-30-5   | 1.00000  | 0.00011 |
| FE-100L | FTSI | Iron control             |                                                                    |             |          |         |
|         |      |                          | Water                                                              | 7732-18-5   | 60.00000 | 0.00112 |
|         |      |                          | Citric acid                                                        | 77-92-9     | 55.00000 | 0.00103 |
| CI-150  | FTSI | Acid Corrosion Inhibitor |                                                                    |             |          |         |
|         |      |                          | Organic amine resin salt                                           | Proprietary | 30.00000 | 0.00031 |
|         |      |                          | Isopropanol                                                        | 67-63-0     | 30.00000 | 0.00031 |
|         |      |                          | Ethylene Glycol                                                    | 107-21-1    | 30.00000 | 0.00031 |
|         |      |                          | Quaternary ammonium compound                                       | Proprietary | 10.00000 | 0.00010 |
|         |      |                          | Dimethylformamide                                                  | 68-12-2     | 10.00000 | 0.00010 |
|         |      |                          | Aromatic aldehyde                                                  | Proprietary | 10.00000 | 0.00010 |
|         |      |                          | Alkylene Oxide Block Polymer                                       | Proprietary | 10.00000 | 0.00010 |
|         |      |                          | Water                                                              | 7732-18-5   | 5.00000  | 0.00005 |
|         |      |                          | Diethylene glycol                                                  | 111-46-6    | 1.00000  | 0.00001 |
|         |      |                          | Fatty Acid Salt                                                    | Proprietary | 0.10000  | 0.00000 |
|         |      |                          | Aliphatic alcohol                                                  | Proprietary | 0.10000  | 0.00000 |
|         |      |                          | Fatty Acid                                                         | Proprietary | 0.10000  | 0.00000 |
| NE-100  | FTSI | Non-emulsifier           |                                                                    |             |          |         |
|         |      |                          | Water                                                              | 7732-18-5   | 90.00000 | 0.00047 |
|         |      |                          | 2-Butoxyethanol                                                    | 111-76-2    | 10.00000 | 0.00005 |
|         |      |                          | 2-Propanol                                                         | 67-63-0     | 10.00000 | 0.00005 |
|         |      |                          | Dodecylbenzenesulfonic acid                                        | 27176-87-0  | 5.00000  | 0.00003 |
|         |      |                          | Benzene, C10-16 Alkyl Derivatives                                  | 68648-87-3  | 0.04000  | 0.00000 |
|         |      |                          | Unsulphonated Matter                                               | Proprietary | 0.03000  | 0.00000 |
|         |      |                          | Sulfuric Acid                                                      | 7664-93-9   | 0.01000  | 0.00000 |
|         |      |                          | Sulfur Dioxide                                                     | 7446-09-5   |          | 0.00000 |
| APB-1   | FTSI | Gel breaker              |                                                                    |             |          |         |

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|  |                     |           |           |         |
|--|---------------------|-----------|-----------|---------|
|  | Ammonium Persulfate | 7727-54-0 | 100.00000 | 0.00037 |
|--|---------------------|-----------|-----------|---------|

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

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

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

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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Well is located on topo map 1,619' feet south of Latitude: 39° 57' 30"

# AS DRILLED PLAT

Well is located on topo map 2,285' feet west of Longitude: 80° 32' 30"

**LEGEND**

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- LEASE NUMBER
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM CENTER LINE
- AS DRILLED

WELLS WITHIN 3000'

- EXISTING WELLS
- PLUGGED WELLS

**PERMITTED BOTTOM HOLE LOCATION (BHL)**

UTM 17-NAD83  
N:4424424.32  
E:537325.37

NAD27\_WV NORTH  
N:536839.85  
E:1702027.48

**AS DRILLED BOTTOM HOLE LOCATION (BHL)**

UTM 17-NAD83  
N:4424424.80  
E:537327.84

NAD27\_WV NORTH  
N:536841.30  
E:1702035.59

**PERMITTED APPROX. LANDING POINT**

UTM 17-NAD83  
N:4422906.43  
E:538509.48

NAD27\_WV NORTH  
N:531793.80  
E:1705829.75

**AS DRILLED APPROX. LANDING POINT**

UTM 17-NAD83  
N:4422930.33  
E:538491.95

NAD27\_WV NORTH  
N:531873.18  
E:1705773.55



**AS DRILLED SURFACE HOLE LOCATION (SHL)**

UTM 17-NAD83  
N:4422747.41  
E:538471.00

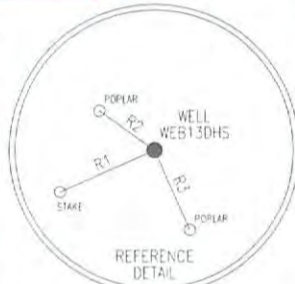
NAD27\_WV NORTH  
N:531274.08  
E:1705694.77

**PERMITTED SURFACE HOLE LOCATION (SHL)**

UTM 17-NAD83  
N:4422747.33  
E:538471.00

NAD27\_WV NORTH  
N:531273.82  
E:1705694.75

| PARCEL | LESSOR                               |
|--------|--------------------------------------|
| 1      | LUCILLE HARTLEY, LIFE TENANT, ET AL. |
| 2      | GEORGE MCCARRIHAN ET AL.             |
| 3      | AMERICAN PREMIER UNDERWRITERS, INC.  |
| 4      | SUSANNA SANTO                        |
| 5      | FLOYD ARLEY RUTH ET UX., ET AL.      |
| 6      | RALPH E. MOORE                       |
| 7      | MICHAEL R. FLYNN                     |
| 8      | RICHARD E. MCCAUSLAND                |
| 9      | CHARLES A. KRAFT                     |
| 10     | JOSEPH P. POCKI                      |
| 11     | CINDY P. WOOD                        |



| LINE | BEARING       | DISTANCE |
|------|---------------|----------|
| R1   | S 66°04'31" W | 222.53'  |
| R2   | N 54°33'55" W | 145.59'  |
| R3   | S 23°35'41" E | 189.45'  |
| R4   | N 20°13'45" W | 1848.50' |
| R5   | N 39°21'50" W | 1939.93' |
| R6   | N 52°39'14" W | 1938.84' |

**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.

**Blue Mountain Inc.**  
10125 MASON DIXON HIGHWAY  
BURTON, WV 25562  
PHONE: (304) 662-6486

FILE #: WEB13DHS-AS DRILLED  
DRAWING #: WEB13DHS-AS DRILLED  
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: [Signature]  
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

Received  
Office of Oil & Gas  
DEC 22 2014



DATE: DECEMBER 8, 2014  
OPERATOR'S WELL #: WEB13DHS-AS DRILLED  
API WELL #: 47 51 1659H6A  
STATE COUNTY PERMIT

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

WATERSHED: WHEELING CREEK ELEVATION: 1265.78'

COUNTY/DISTRICT: MARSHALL / WEBSTER QUADRANGLE: MAJORSVILLE, WV-PA 7.5'

SURFACE OWNER: LUCILLE HARTLEY-LIFE (BRADFORD W. HARTLEY) ACREAGE: 153.408±

OIL & GAS ROYALTY OWNER: LUCILLE HARTLEY, LIFE TENANT, ET AL. ACREAGE: 648.274±

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: 6,668'± TMD: 13,443'±

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