

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

*pm*

API 47-043-03470 County LINCOLN District DUVAL  
Quad GRIFFITHSVILLE 7.5' Pad Name M.A. BAYS Field/Pool Name GRIFFITHSVILLE  
Farm name HG ENERGY LLC Well Number 126  
Operator (as registered with the OOG) H.G. ENERGY LLC  
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location: NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,231,760 M Easting 415,934 M  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 1,001' 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)  
N/A

Date permit issued 6/13/2013 Date drilling commenced 6/3/2014 Date drilling ceased 6/7/14  
Date completion activities began 6/24/14 Date completion activities ceased 6/27/14  
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 N/A Open mine(s) (Y/N) depths RECEIVED  
Salt water depth(s) ft 1180', 1450' Void(s) encountered (Y/N) depths Office of Oil and Gas  
Coal depth(s) ft 600'-610' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

RECEIVED  
Office of Oil and Gas  
JUL 22 2014  
WV Department of Environmental Protection

Reviewed by:

08/15/2014

API 47-043 - 03470 Farm name HG ENERGY LLC Well number 126

| 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                 | 12 1/4"   | 11 5/8"     | 30'      | Used        | LS          |                 | Sand In   |
| Surface                   | 8 3/4"    | 7"          | 675'     | New         | LS          | 84'             | Y   |
| Coal                      |           |             |          |             |             |                 |   |
| Intermediate 1            |           |             |          |             |             |                 |   |
| Intermediate 2            |           |             |          |             |             |                 |   |
| Intermediate 3            |           |             |          |             |             |                 |   |
| Production                | 6 1/4"    | 4 1/2"      | 2610.25' | New         | J-55        |                 | N   |
| Tubing                    |           |             |          |             |             |                 |   |
| Packer type and depth set |           |             |          |             |             |                 |   |

Comment Details Circulated Est. 15 sks to surface on 7" surface cement job.

| 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        | Reg Neat             | 155             | 15.6            | 1.18                         | 183                       | Surface         | 8         |
| Coal           |                      |                 |                 |                              |                           |                 |           |
| Intermediate 1 |                      |                 |                 |                              |                           |                 |           |
| Intermediate 2 |                      |                 |                 |                              |                           |                 |           |
| Intermediate 3 |                      |                 |                 |                              |                           |                 |           |
| Production     | 50:50 Pozmix         | 150             | 14.2            | 1.27                         | 254                       | 1130'           | 8         |
| Tubing         |                      |                 |                 |                              |                           |                 |           |

Drillers TD (ft) 2630' Loggers TD (ft) 2644'

Deepest formation penetrated Berea Plug back to (ft) N/A

Plug back procedure N/A

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 \_\_\_\_\_

6 Centralizers every 84 from bottom on 4 1/2", Centralizer placed mid string on 7"

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

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|-----------|------------------|------------------------|----------------------|------------------------|--------------|
| 1         | 6/27/14          | 2504'                  | 2512'                | 48                     | Berea        |
|           |                  |                        |                      |                        |              |
|           |                  |                        |                      |                        |              |
|           |                  |                        |                      |                        |              |
|           |                  |                        |                      |                        |              |
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|           |                  |                        |                      |                        |              |
|           |                  |                        |                      |                        |              |
|           |                  |                        |                      |                        |              |

Please insert additional pages as applicable.

### STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

| Stage No. | Stimulations Date | Ave Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen/other (units) |
|-----------|-------------------|---------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| 1         | 6/27/14           | 4.5                 | 1133                         | 1658                         | 813        |                          | 42                     | 15 bbls HCL                      |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
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|           |                   |                     |                              |                              |            |                          |                        |                                  |
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|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |
|           |                   |                     |                              |                              |            |                          |                        |                                  |

Please insert additional pages as applicable.

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| <u>PRODUCING FORMATION(S)</u> | <u>DEPTHS</u>          |                       |
|-------------------------------|------------------------|-----------------------|
| <u>Berea</u>                  | <u>2504'-2512'</u> TVD | <u>2504'-2512'</u> MD |
| _____                         | _____                  | _____                 |
| _____                         | _____                  | _____                 |
| _____                         | _____                  | _____                 |

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd  
 GAS MEASURED BY  Estimated  Orifice  Pilot

| LITHOLOGY/<br>FORMATION | TOP<br>DEPTH IN FT<br>NAME TVD | BOTTOM<br>DEPTH IN FT<br>TVD | TOP<br>DEPTH IN FT<br>MD | BOTTOM<br>DEPTH IN FT<br>MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND<br>TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC) |
|-------------------------|--------------------------------|------------------------------|--------------------------|-----------------------------|--|
| Sand/Shale              | 0                              | 600                          | 0                        |                             |  |
| Pittsburgh Coal         | 600                            | 610                          |                          |                             |  |
| Sand/Shale              | 610                            | 1767                         |                          |                             |  |
| Big Lime                | 1767                           | 1972                         |                          |                             |  |
| Big Injun               | 1972                           | 2080                         |                          |                             |  |
| Shale                   | 2080                           | 2480                         |                          |                             |  |
| Coffee Shale            | 2480                           | 2500                         |                          |                             |  |
| Berea                   | 2500                           | 2524                         |                          |                             |  |
| Shale                   | 2524                           | 2630                         |                          |                             |  |
| TD                      | 2630                           |                              |                          |                             |  |
|                         |                                |                              |                          |                             |  |
|                         |                                |                              |                          |                             |  |
|                         |                                |                              |                          |                             |  |
|                         |                                |                              |                          |                             |  |

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling  
 Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International  
 Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services  
 Address 5252 Rt 1428 City Allen State KY Zip 41601

Stimulating Company Producers Service Corp.  
 Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107  
 Signature  Title Operations Manger Date 5/18/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

