

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

DATE: 1-24-2012  
API #: 47-097-03710

Farm name: James Ogden Operator Well No.: 5H (831781)

LOCATION: Elevation: 1,950' Quadrangle: Rock Cave WV GEOLOGICAL SURVEY MORGANTOWN, WV

District: Banks County: Upshur  
Latitude: 8,495' Feet South of 38 Deg. 50 Min. 00 Sec.  
Longitude 9,250' Feet West of 80 Deg. 15 Min. 00 Sec.

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Company: Chesapeake Appalachia, L.L.C.

| Address:   | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|--|-----------------|------------------|--------------|------------------------|
| P.O. Box 18496<br>Oklahoma City, OK 73154-0496   | 20"             | 40'              | 40           | Driven                 |
| Agent: Eric Gillespie  | 13 3/8"         | 580'             | 580'         | 614 cf                 |
| Inspector: Bill Hatfield   | 9 5/8"          | 2407'            | 2407'        | 1059 cf                |
| Date Permit Issued: 1/27/2010  | 5 1/2"          | 13293'           | 13293'       | 2761 cf                |
| Date Well Work Commenced: 11/4/2010  |                 |                  |              |                        |
| Date Well Work Completed: 5/10/2011  |                 |                  |              |                        |
| Verbal Plugging:   |                 |                  |              |                        |
| Date Permission granted on:  |                 |                  |              |                        |
| Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/> |                 |                  |              |                        |
| Total Vertical Depth (ft): 7,152'  |                 |                  |              |                        |
| Total Measured Depth (ft): 13,294'   |                 |                  |              |                        |
| Fresh Water Depth (ft.): 475'  |                 |                  |              |                        |
| Salt Water Depth (ft.): None   |                 |                  |              |                        |
| Is coal being mined in area (N/Y)? N   |                 |                  |              |                        |
| Coal Depths (ft.): n/a   |                 |                  |              |                        |
| Void(s) encountered (N/Y) Depth(s) Y 144'  |                 |                  |              |                        |

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,622'-13151'  
 Gas: Initial open flow 2,662 MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure 3,218 psig (surface pressure) after \_\_\_\_\_ Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
 Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Williams  
Signature

3-21-2012  
Date

Were core samples taken? Yes \_\_\_\_\_ No

Were cuttings caught during drilling? Yes  No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list none

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.**

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Perforated Intervals, Fracturing, or Stimulating:

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See Attached

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

Plug Back Details Including Plug Type and Depth(s): BP@ 13,152'

| Formations Encountered:<br>Surface: | Top Depth | / | Bottom Depth |
|-------------------------------------|-----------|---|--------------|
|-------------------------------------|-----------|---|--------------|

see attached

| <b>FORMATION/LITHOLOGY</b>  | <b>TOP DEPTH (ft)</b> | <b>BOTTOM DEPTH (ft)</b> |
|-----------------------------|-----------------------|--------------------------|
| SS and Shale                | 0                     | 1425                     |
| Big Lime                    | 1425                  | 1646                     |
| Big Injun                   | 1646                  | 1850                     |
| SS and Sltst w/ minor Shale | 1850                  | 2450                     |
| Sltst w/ minor Shale        | 2450                  | 3998                     |
| Benson                      | 3998                  | 4400                     |
| Sltst and SS w/ minor Shale | 4400                  | 4950                     |
| Sltst and Shale w/ minor SS | 4950                  | 6650                     |
| Sltst and Shale             | 6650                  | 6795                     |
| Geneseo                     | 6795                  | 7140                     |
| Tully                       | 7140                  | 7163                     |
| Hamilton                    | 7163                  | 7315                     |
| Marcellus                   | 7315                  | 13293                    |

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