

WR-35  
Rev (9-11)

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

DATE: 11/29/2012  
API #: 47-033-05581

Farm name: Williams, Edgar- Estate Operator Well No.: Williams Unit 2H

LOCATION: Elevation: 1190' Quadrangle: Wolf Summit

District: Coal County: Harrison  
Latitude: 7.457 Feet South of 39 Deg. 20 Min. 00 Sec.  
Longitude 8.144 Feet West of 80 Deg. 22 Min. 30 Sec.

Company: Antero Resources Appalachian Corp

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
1625 17th Street Denver, CO 80202	20" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13-3/8" 48#	500'	500'	695 Cu. Ft. Class A
Inspector: Tristan Jenkins	9-5/8" 36#	2565'	2565'	1044 Cu. Ft. Class A
Date Permit Issued: 12/01/2011	5-1/2" 20#	14,165'	14,165'	3475 Cu. Ft. Class H
Date Well Work Commenced: 12/16/2011				
Date Well Work Completed: 04/22/2012	2-3/8" 4.7#	7110'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7021' TVD				
Total Measured Depth (ft): 14,165' MD, 6,999' TVD (BHL)				
Fresh Water Depth (ft.): 100', 156'				
Salt Water Depth (ft.): *None available				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): Pad on PGH strip bench				
Void(s) encountered (N/Y) Depth(s) N, N/A				

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

Producing formation Marcellus Pay zone depth (ft) 6,972' TVD (Top)

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow N/A Bbl/d

Final open flow 7095 MCF/d Final open flow N/A Bbl/d

Time of open flow between initial and final tests N/A Hours

Static rock Pressure 3300 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.

Shannon Redican  
Signature

11/29/12  
Date

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

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

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list **Yes - CBL**

This is a subsequent well. Aniero only runs wireline logs on the first well on a multi-pad (Marsh Unit 1H AP# 47-033-06361). Please reference wireline logs submitted with Form WR-35 for Marsh Unit 1H.

**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.**

Perforated Intervals, Fracturing, or Stimulating:

Perforations: 7,147' - 14,100' MD (1,776 holes)

Frac'd w/ 11,000 gals 15% HCL Acid, 148,278 bbls Slick Water carrying 731,300# 100 mesh, 3,378,500# 40/70 and 2,295,600# 20/40 sand.

Plug Back Details Including Plug Type and Depth(s): **N/A**

**Formations Encountered:** \_\_\_\_\_ **Top Depth** / \_\_\_\_\_ **Bottom Depth**

Surface:

Gantz Sand	1,847'	1,941'
Fifty Foot Sandstone	1,942'	2,144'
Gordon	2,145'	2,375'
Fifth Sand	2,376'	2,613'
Bayard	2,614'	3,077'
Speechley	3,078'	3,304'
Balltown	3,305'	3,779'
Bradford	3,780'	4,455'
Benson	4,456'	4,722'
Alexander	4,723'	4,976'
Elk	4,977'	6,250'
Sycamore	6,251'	6,541'
Middlesex	6,542'	6,678'
Genundewa	6,679'	6,721'
Burket	6,722'	6,749'
Tully	6,750'	6,882'
Hamilton	6,883'	6,971'
Marcellus	6,972'	7,021' TVD