

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

DATE: 9/4/2012
API #: 47-033-05506

Farm name: J.L. Morris & Mike Ross, Inc. Operator Well No.: Richman Unit 2H

LOCATION: Elevation: 1169' Quadrangle: Wolf Summit

District: Coal County: Harrison
Latitude: 3584' Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude 10,931' Feet West of 80 Deg. 25 Min. 00 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" 68#	489'	489'	679 Cu. Ft. Class A
Inspector: Tristan Jenkins	9-5/8" 36#	2554'	2554'	1040 Cu. Ft. Class A
Date Permit Issued: 01/28/2011	5-1/2" 20#	13,610'	13,610'	3331 Cu. Ft. Class H
Date Well Work Commenced: 6/8/2011				
Date Well Work Completed: 10/26/2011	2-3/8" 4.7#	7126'		
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): 7086' TVD (Deepest point drilled)				
Total Measured Depth (ft): 13,610' MD, 7,043' TVD (BHL)				
Fresh Water Depth (ft.): *None available				
Salt Water Depth (ft.): 1137'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): *None available				
Void(s) encountered (N/Y) Depth(s) N, N/A				

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

Producing formation Marcellus Pay zone depth (ft) 7,046' TVD (Top)

Gas: Initial open flow _____ MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 1,383 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.

[Signature]
Signature

9/4/12
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 Yes- Cement Bond Log/Gamma Ray/CCL Log

This is a subsequent well. Antero only runs wireline logs on the first well on a multi-pad (Reynolds Unit 1H AP# 47-033-05451). Please reference wireline logs submitted with Form WR-35 for Reynolds 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: 7321' - 13,490' MD

Frac'd w/ 4,750 gals 15% HCL Acid, 93,309 bbls Slick Water carrying 445,000# 100 mesh, 1,985,800# 40/70 and 1,263,500# 20/40 sand.

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

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		
**Sycamore	6,365'	6,833'
Tully	6,834'	6,961'
Hamilton	6,962'	7,045'
Marcellus	7,046'	7,086' TVD

**Antero only runs wireline logs on the first well on a multi-well pad (Reynolds Unit 1H). Since this is a subsequent well, our logging started at the top of the Sycamore. Therefore, we are unable to accurately identify formation tops from surface. Please reference the additional formation tops submitted on Form WR-35 for the Reynolds Unit 1H (API# 47-033-05451).