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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: 12/9/2013
API #: 47-033-05670

Farm name: Antero Resources Corporation Operator Well No.: Rodney Unit 1H

LOCATION: Elevation: 1358' Quadrangle: Big Isaac

District: Union County: Harrison
Latitude: 2,002' Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude 3,987' Feet West of 80 Deg. 30 Min. 00 Sec.

Company: Antero Resources Corporation

Address: 1625 17th Street	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Denver, CO 80202	20" 51#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	504'	504'	700 Cu. Ft. Class A
Inspector: Sam Ward	9 5/8" 36#	2,571'	2,571'	1046 Cu. Ft. Class A
Date Permit Issued: 9/21/2012	5 1/2" 20#	14,735'	14,735'	3623 Cu. Ft. Class H
Date Well Work Commenced: 4/28/2013				
Date Well Work Completed: 9/26/2013	2 3/8" 4.7#	7501'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7353' (Deepest Point Drilled)				
Total Measured Depth (ft): 14,735' MD, 7276' (BHL)				
Fresh Water Depth (ft.): 140'				
Salt Water Depth (ft.): 1936'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 178', 422', 458'				
Void(s) encountered (N/Y) Depth(s) None				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Marcellus Pay zone depth (ft) 7312' (TOP)
Gas: Initial open flow ---- MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow 9,829 MCF/d Final open flow ---- Bbl/d
Time of open flow between initial and final tests ---- Hours
Static rock Pressure 3600 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.

Kaitlin Buck
Signature

2/7/14
Date

05/30/2014

33-05670

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. Antero only runs wireline logs on the first well on a multi-well pad (Rodney Unit 2H API#47-033-05676). Please reference the wireline logs submitted with Form WR-35 for Rodney Unit 2H.

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:7,636'-14,681' (1,560Holes)

Frac'd w/ 11,508 gals 15% HCL Acid, 212,251 bbls Slick Water carrying 739,841# 100 mesh, 4,616,470# 40/70 sand and 2,145,215# 20/40 sand.

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

Formations Encountered: Surface:	Top Depth	/	Bottom Depth
Big Lime	est 1933'		2042'
Big Injun	est 2043'		2297'
Gantz Sand	est 2298'		2415'
Fifty Foot Sandstone	est 2416'		2512'
Gordon	est 2513'		2819'
Fifth Sandstone	est 2820'		2861'
Bayard	est 2862'		3512'
Speechley	est 3513'		3756'
Balltown	est 3757'		4278'
Bradford	est 4279'		4833'
Benson	est 4834'		5036'
Alexander	est 5037'		5193'
Elk	est 5194'		5936'
Rhinestreet	est 5937'		6639'
Sycamore	6640'		6942'
Middlesex	6943'		7117'
Burkett	7118'		7132'
Tully	7133'		7242'
Hamilton	7243'		7311'
Marcellus	7312'		7353' TVD

05/30/2014

33.05670

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/24/2013
Job End Date:	9/26/2013
State:	West Virginia
County:	Harrison
API Number:	47-033-05670-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Rodney Unit 1H
Longitude:	-80.50690560
Latitude:	39.19732500
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,353
Total Base Water Volume (gal):	8,914,542
Total Base Non Water Volume:	372,516

FracFocus Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

Oil & Gas

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	Antero Resources	Base Fluid					
			Water	7732-18-5	100.00000	90.59094	
Sand	U.S. Well Services, LLC	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	9.14049	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid					
			Water	7732-18-5	87.50000	0.10223	
			Hydrogen Chloride	7641-01-1	18.00000	0.02442	
WFRA-405	U.S. Well Services, LLC	Friction Reducer					
			Water	7732-18-5	40.00000	0.02017	
			Anionic Polyacrylamide	Proprietary		0.02017	
			Petroleum Distillates	64742-47-8	22.00000	0.01624	
			Crystalline Salt	12125-02-9	5.00000	0.00252	
			Ethoxylated alcohol blend	Proprietary	5.00000	0.00252	
LGC-15	U.S. Well Services, LLC	Gelling Agents					
			Guar Gum	9000-30-0	50.00000	0.02831	
			Petroleum Distillates	64742-47-8	60.00000	0.02681	
			Suspending agent (solid)	14808-60-7	3.00000	0.00433	

33-05670

			Surfactant	68439-51-0	3.00000	0.00170	
SI-1000	U.S. Well Services, LLC	Scale Inhibitor					
			Anionic Copolymer	Proprietary		0.00394	
			Ethylene Glycol	107-21-1	20.00000	0.00356	
			Water	7732-18-5	30.00000	0.00297	
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent					
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00458	
			Deionized Water	7732-18-5	28.00000	0.00262	
AP One	U.S. Well Services, LLC	Gel Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00091	
AI-300	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene Glycol	107-21-1	31.00000	0.00024	
			N,N-Dimethylformamide	68-12-2	15.00000	0.00008	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00000	0.00007	
			Cinnamaldehyde	104-55-2	5.00000	0.00007	
			2-Butoxyethanol	111-76-2	7.00000	0.00006	
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00002	
			Water	7732-18-5	20.00000	0.00002	
			Isopropyl Alcohol	67-63-0	3.00000	0.00001	
			Triethyl Phosphate	78-40-0	3.00000	0.00001	

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)