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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: 11/12/2013
API #: 47-033-05667

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

LOCATION: Elevation: 1358' Quadrangle: Big Isaac

District: Union County: Harrison
Latitude: 1,985' Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude 3,998' 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" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	515'	515'	715 Cu. Ft. Class A
Inspector: Sam Ward	9 5/8" 36#	2,588'	2,588'	1054 Cu. Ft. Class A
Date Permit Issued: 10/22/12	5 1/2" 20#	14,900'	14,900'	3663 Cu. Ft. Class H
Date Well Work Commenced: 5/12/2013				
Date Well Work Completed: 9/6/2013	2 3/8" 4.7#	7,625'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7338' TVD (Deepest Point Drilled)				
Total Measured Depth (ft): 14,900' MD, 7298' TVD (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) 7293' (TOP)
Gas: Initial open flow ---- MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow 11,190 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

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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: 7,678'-14,845 (1,740 Holes)

Frac'd w/ 9,004 gals 15% HCL Acid, 215,012 bbls Slick Water carrying 822,347# 100 mesh,

4,670,000# 40/70 sand and 2,062,785# 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'	6657'
Sycamore	6658'	6917'
Middlesex	6918'	7087'
Burkett	7088'	7108'
Tully	7109'	7229'
Hamilton	7230'	7292'
Marcellus	7293'	7338' TVD

05/30/2014

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/29/2013
Job End Date:	9/6/2013
State:	West Virginia
County:	Harrison
API Number:	47-033-05667-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Marion Unit 1H
Longitude:	-80.50684440
Latitude:	39.19729720
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,338
Total Base Water Volume (gal):	9,030,504
Total Base Non Water Volume:	375,147

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	90.64256	
Sand	U.S. Well Services, LLC	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	9.09277	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid					
			Water	7732-18-5	87.50000	0.07900	
			Hydrogen Chloride	7641-01-1	18.00000	0.01887	
LGC-15	U.S. Well Services, LLC	Gelling Agents					
			Guar Gum	9000-30-0	50.00000	0.03508	
			Petroleum Distillates	64742-47-8	60.00000	0.03322	
			Suspending agent (solid)	14808-60-7	3.00000	0.00536	
			Surfactant	68439-51-0	3.00000	0.00210	
WFRA-405	U.S. Well Services, LLC	Friction Reducer					
			Water	7732-18-5	40.00000	0.02332	
			Anionic Polyacrylamide	Proprietary		0.02332	
			Petroleum Distillates	64742-47-8	22.00000	0.01877	
			Crystalline Salt	12125-02-9	5.00000	0.00291	

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			Ethoxylated alcohol blend	Proprietary	5.00000	0.00291	
SI-1000	U.S. Well Services, LLC	Scale Inhibitor					
			Anionic Copolymer	Proprietary		0.00420	
			Ethylene Glycol	107-21-1	20.00000	0.00380	
			Water	7732-18-5	30.00000	0.00317	
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent					
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00457	
			Deionized Water	7732-18-5	28.00000	0.00261	
AP One	U.S. Well Services, LLC	Gel Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00097	
AI-300	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene Glycol	107-21-1	31.00000	0.00021	
			N,N-Dimethylformamide	68-12-2	15.00000	0.00006	
			Cinnamaldehyde	104-55-2	5.00000	0.00006	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00000	0.00006	
			2-Butoxyethanol	111-76-2	7.00000	0.00005	
			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	
			Ethoxylated Nonylphenol	68412-54-4	5.00000	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)