

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: 10/25/2013
API #: 47-017-06255

Farm name: Powell, Dennis H. & Mellie Operator Well No.: Connie Unit 1H

LOCATION: Elevation: 881' Quadrangle: Smithburg 7.5'

District: Grant County: Doddridge
Latitude: 6.930' Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude 5.659' Feet West of 80 Deg. 40 Min. 00 Sec.

Company: Antero Resources Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
1625 17th Street Denver, CO 80202	20" 106.50#	40'	40'	60 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	419'	419'	582 Cu. Ft. Class A
Inspector: Douglas Newlon	9 5/8" 36#	2,665'	2,665'	1085Cu. Ft. Class A
Date Permit Issued: 5/8/2013	5 1/2" 20#	13,701'	13,701'	3310 Cu. Ft. Class H
Date Well Work Commenced: 5/23/2013				
Date Well Work Completed: 9/19/2013	2 3/8" 4.7#	6,867'		
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): 6,795' TVD				
Total Measured Depth (ft): 13,694' MD				
Fresh Water Depth (ft.): 103'				
Salt Water Depth (ft.): 1216'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 154', 236' 273'				
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) 6,513' (TOP)
Gas: Initial open flow ---- MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow 4,180 MCF/d Final open flow ---- Bbl/d
Time of open flow between initial and final tests ---- Hours
Static rock Pressure 3550 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.

Karen Buck
Signature

2/7/14
Date

06/27/2017

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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- CBL**This is a subsequent well. Antero only runs wireline logs on the first well on a multi-well pad (Neely Unit 1H API#47-017-06086). Please reference the wireline logs submitted with Form WR-35 for Neely 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: 6,909'-13,659' (2,040 Holes)

Frac'd w/ 11,250 gals 15% HCL Acid, 188,661 bbls Slick Water carrying 545,830# 100 mesh,
4,357,095# 40/70 sand and 2,255,785# 20/40 sand.

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

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			
Big Lime	est. 1,571'		2,321'
Fifty Foot Sandstone	est. 2,322'		2,416'
Gordon	est. 2,417'		2,703'
Fifth Sandstone	est. 2,704'		2,714'
Bayard	est. 2,715'		3,361'
Speechley	est. 3,362'		3,621'
Balltown	est. 3,622'		4,174'
Bradford	est. 4,175'		4,640'
Benson	est. 4,641'		4,897'
Alexander	est. 4,898'		5,114'
Elk	est. 5,115'		5,664'
Rhinestreet	est. 5,665'		6,042'
Sycamore	6,043'		6,261'
Sonyea	6,262'		6,268'
Middlesex	6,269'		6,407'
Burkett	6,408'		6,436'
Tully	6,437'		6,497'
Hamilton	6,498'		6,512'
Marcellus	6,513'		6,795' TVD

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/10/2013
Job End Date:	9/19/2013
State:	West Virginia
County:	Doddridge
API Number:	47-017-06255-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Connie Unit 1H
Longitude:	-80.69114440
Latitude:	39.27613060
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	6,795
Total Base Water Volume (gal):	7,923,762
Total Base Non Water Volume:	2,084,036



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	91.57503	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	8.14714	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.09334	
			Hydrogen Chloride	7641-01-1	18.00000	0.02230	
LGC-15	U.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.03444	
			Petroleum Distillates	64742-47-8	60.00000	0.03261	
			Suspending agent (solid)	14808-60-7	3.00000	0.00527	
			Surfactant	68439-51-0	3.00000	0.00207	
WFRA-405	U.S. Well Services, LLC	Friction Reducer	Water	7732-18-5	40.00000	0.02259	
			Anionic Polyacrylamide	Proprietary		0.02259	
			Petroleum Distillates	64742-47-8	22.00000	0.01818	
			Crystalline Salt	12125-02-9	5.00000	0.00282	

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			Ethoxylated alcohol blend	Proprietary	5.00000	0.00282
SI-1000	U.S. Well Services, LLC	Scale Inhibitor				
			Anionic Copolymer	Proprietary		0.00391
			Ethylene Glycol	107-21-1	20.00000	0.00354
			Water	7732-18-5	30.00000	0.00295
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	0.00066
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
			Water	7732-18-5	20.00000	0.00002
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00002
			Triethyl Phosphate	78-40-0	3.00000	0.00001
			Isopropyl Alcohol	67-63-0	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)

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