

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: 8/1/2013
API #: 47-085-10036

Farm name: Annie B. Haymond, et al Operator Well No.: Blanche Unit 1H

LOCATION: Elevation: 971' Quadrangle: Pennsboro 7.5'

District: Clay County: Ritchie
Latitude: 946' Feet South of 39 Deg. 22 Min. 30 Sec.
Longitude 14,930' Feet West of 80 Deg. 55 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" 94#	40'	40'	38 Cu. Ft. Class A
Agent: CT Corporation System	13 3/8" 46#	360'	360'	500 Cu. Ft. Class A
Inspector: David Cowan	9 5/8" 36#	2,618'	2,618'	1066 Cu. Ft. Class A
Date Permit Issued: <u>5/8/2013</u>	5 1/2" 20#	13,382'	13,382'	3236 Cu. Ft. Class H
Date Well Work Commenced: <u>5/10/2013</u>				
Date Well Work Completed: <u>7/22/2013</u>	2 3/8" 4.7#	6,532'		
Verbal Plugging: <u>N/A</u>				
Date Permission granted on: <u>N/A</u>				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>6320' TVD (Deepest Point Drilled)</u>				
Total Measured Depth (ft): <u>13,385' MD, 6292' TVD (BHL)</u>				
Fresh Water Depth (ft.): <u>137'</u>				
Salt Water Depth (ft.): <u>1948'</u>				
Is coal being mined in area (N/Y)? <u>No</u>				
Coal Depths (ft.): <u>None Available</u>				
Void(s) encountered (N/Y) Depth(s) <u>None</u>				

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

Producing formation Marcellus Pay zone depth (ft) 6292' (TOP)
Gas: Initial open flow --- MCF/d Oil: Initial open flow --- Bbl/d
Final open flow 7558 MCF/d Final open flow --- Bbl/d
Time of open flow between initial and final tests --- Hours
Static rock Pressure 3000 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!

Kallen Buck
Signature

12/11/2013
Date

04/04/2014

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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 wire-line logs on the first well on a multi-well pad (Anna Unit 2H API#47-085-09963). Please reference the wire-line logs submitted with Form WR-35 for Anna 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: 6,767'-13,326' (3,096 Holes)

Frac'd w/ 33,000 gals 15% HCL Acid, 206,705 bbls Slick Water carrying 578,068# 100 mesh, 4,994,754# 40/70 sand and 2,387,885# 20/40 sand.

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

Formations Encountered: Surface:	Top Depth	/	Bottom Depth
Big Lime	est 1688'		1828'
Big Injun	est 1829'		2819'
Gordon	est 2820'		2970'
Bayard	est 2971'		3990'
Balltown	est 3991'		4469'
Bradford	est 4470'		4848'
Benson	est 4849'		5076'
Alexander	est 5077'		6016'
Sycamore	6017'		6129'
Middlesex	6130'		6235'
Burkett	6236'		6266'
Tully	6267'		6191'
Marcellus	6292'		6320' TVD

04/04/2014

Hydraulic Fracturing Fluid Product Component Information Disclosure

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Job Start Date:	7/7/2013
Job End Date:	7/22/2013
State:	West Virginia
County:	Ritchie
API Number:	47-085-10036-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Blanche Unit 1H
Longitude:	-80.92001000
Latitude:	39.33401000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	6,320
Total Base Water Volume (gal):	9,311,316
Total Base Non Water Volume:	0



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	Operator	Carrier					
			Water	7732-18-5	100.00000	90.45466	
Sand, White, 40/70	Baker Hughes	Proppant					
			Crystalline Silica (Quartz)	14808-60-7	100.00000	5.71477	
Sand, White, 20/40	Baker Hughes	Proppant					
			Crystalline Silica (Quartz)	14808-60-7	100.00000	2.57285	
Sand, White, 100 mesh	Baker Hughes	Proppant					
			Crystalline Silica (Quartz)	14808-60-7	100.00000	0.65898	
HCl, 10.1 - 15%	Baker Hughes	Acidizing					
			Water	7732-18-5	85.00000	0.31595	SmartCare Product
			Hydrochloric Acid	7647-01-0	15.00000	0.05576	SmartCare Product
GW-3LDF	Baker Hughes	Gelling Agent					
			Guar Gum	9000-30-0	60.00000	0.04883	SmartCare Product
			Petroleum Distillates	64742-47-8	30.00000	0.02442	SmartCare Product
			Paraffinic Petroleum Distillate	64742-55-8	30.00000	0.02442	SmartCare Product
			Isotridecanol, ethoxylated	9043-30-5	5.00000	0.00407	SmartCare Product
			1-butoxy-2-propanol	5131-66-8	5.00000	0.00407	SmartCare Product
			Crystalline Silica: Quartz	14808-60-7	5.00000	0.00407	SmartCare Product
FRW-18	Baker Hughes	Friction Reducer					

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			Petroleum Distillates	64742-47-8	30.00000	0.01550	SmartCare Product
Enzyme G-NE	Baker Hughes	Breaker					
			Water	7732-18-5	95.00000	0.01166	SmartCare Product
			Hemicellulase Enzyme Concentrate	9025-56-3	5.00000	0.00061	SmartCare Product
Alpha 1427	Baker Hughes	Biocide					
			Glutaraldehyde	111-30-8	30.00000	0.00634	SmartCare Product
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	10.00000	0.00211	SmartCare Product
			Quaternary Ammonium Compound	68424-85-1	5.00000	0.00106	SmartCare Product
			Ethanol	64-17-5	5.00000	0.00106	SmartCare Product
Scaletrol 720	Baker Hughes	Scale Inhibitor					
			Ethylene Glycol	107-21-1	30.00000	0.00429	SmartCare Product
			Calcium Chloride	10043-52-4	5.00000	0.00072	SmartCare Product
Ferrotrol 300L	Baker Hughes	Iron Control					
			Citric Acid	77-92-9	60.00000	0.00139	SmartCare Product
CI-14	Baker Hughes	Corrosion Inhibitor					
			Methanol	67-56-1	100.00000	0.00060	SmartCare Product
			Polyoxyalkylenes	Trade Secret	30.00000	0.00018	SmartCare Product
			Fatty Acids	Trade Secret	10.00000	0.00006	SmartCare Product
			Olefin	Trade Secret	5.00000	0.00003	SmartCare Product
			Propargyl Alcohol	107-19-7	5.00000	0.00003	SmartCare Product
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.							
		Other Chemicals					
			Water	7732-18-5		0.04684	
			Poly (acrylamide-co-acrylic acid)	Trade Secret		0.01550	
			Polyacrylate	Trade Secret		0.00286	
			Sorbitan Monooleate	Trade Secret		0.00258	
			Salt	Trade Secret		0.00258	
			Ethoxylated Alcohol	Trade Secret		0.00103	
			2-butoxy-1-propanol	15821-83-7		0.00007	
			Modified Thiorea Polymer	68527-49-1		0.00004	
			Potassium Chloride	7447-40-7		0.00001	
			Formaldehyde	50-00-0		0.00001	
			Hydrochloric Acid	7647-01-0		0.00001	
			Sodium Chloride	7647-14-5		0.00000	

* 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)