Sh

WR-35 Rev (9-11)

Farm name: Moore, Dwight E. and Tina M.

that the information is true, accurate, and complete. -

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

Operator Well No.: Emily Unit 2H

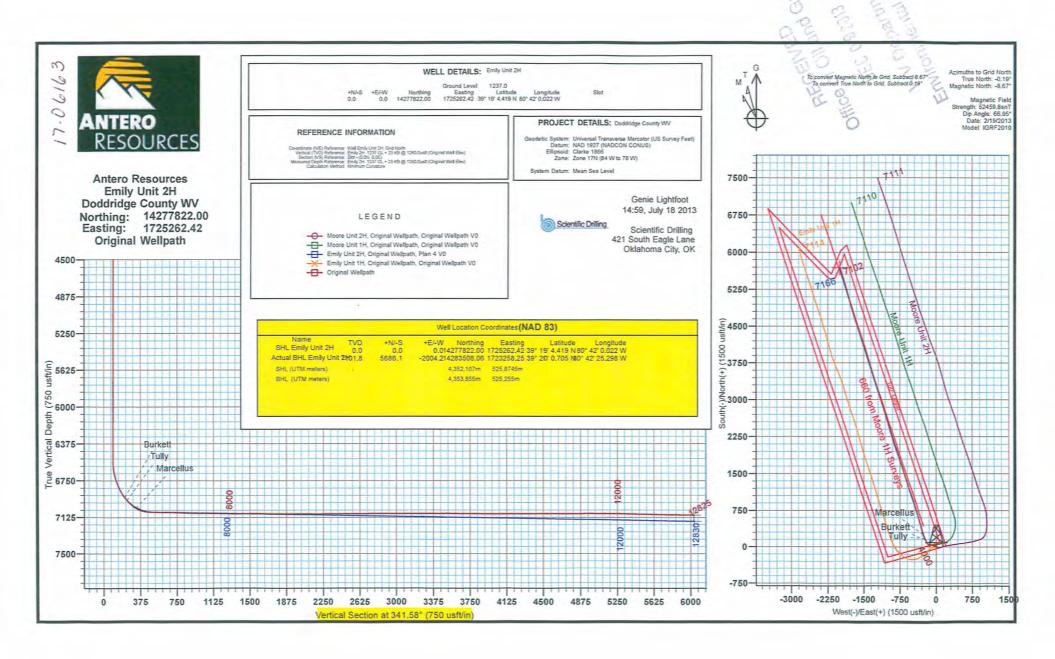
DATE:	7/5/2013	
API #:	47-017-06163	

04/04/2014

District: Grant	County: Dodd	ridge		
Latitude: 9,433' Feet South of 39 Deg	g. 20 Min			
Longitude 5.624' Feet West of 80 De	g. 40 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'	39 Cu Ft. Class A
Agent: CT Corporation System	13 3/8" 48#	399'	399'	554 Cu Ft. Class A
Inspector: Douglas Newlon	9 5/8" 36#	2,538'	2,538'	1033 Cu Ft. Class A
Date Permit Issued: 1/18/2013	5 1/2" 20#	12,825'	12,825'	3108 Cu Ft. Class H
Date Well Work Commenced: 2/18/2013				
Date Well Work Completed: 5/20/2013	2 3/8" 4.7#	7,159'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary Cable Rig				
Total Vertical Depth (ft): 7102' TVD				
Total Measured Depth (ft): 12,825' MD				
Fresh Water Depth (ft.): 191'				
Salt Water Depth (ft.): 1336', 1681'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 274', 444', 1290'				
Void(s) encountered (N/Y) Depth(s) None				
as: Initial open flow MCF/d Oil: Initial open Final open flow MCF/d Final open flow Time of open flow between initial and final tests atic rock Pressure psig (surface pressure)	y zone depth (ft) flow B ow Bt Hours after Hou	7031' (TOP) bl/d bl/d	ata on separate	Sheet) RECEIVED DEL P 95 19 WV Dopard Environmental
econd producing formation Pay a as: Initial open flow MCF/d Oil: Initial open		bl/d		M Dadala
Final open flow MCF/d Final open flow		ol/d		MANUELLO
Time of open flow between initial and final tests_			F	EUNITO
atic rock Pressure psig (surface pressure)	after Hou	rs		

all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe

Were core samples taken? YesNo_>	Were cuttings of	aught during drilling? Yes	No_X
Were Electrical, Mechanical or Geophysical	ogs recorded on this well? If yes, plea	use list Yes, CBL.	
This is a subsequent well. Antero only runs wireline logs on the first well of	on a multi-well pad (Moore Unit 1H API#47-017-06128). Please	reference the wireline logs submitted with Form WR	-35 for Moore Unit 1H.
NOTE: IN THE AREA BELOW PU FRACTURING OR STIMULATING, PH DETAILED GEOLOGICAL RECORD COAL ENCOUNTERED BY THE WELL	YSICAL CHANGE, ETC. 2). THE OF THE TOPS AND BOTTOMS	WELL LOG WHICH IS A S OF ALL FORMATIONS,	YSTEMATIC
Perforated Intervals, Fracturing, or Stimulating	g:		
Perforated: 7,136- 12,771 (1,152 Hol	es)		
Frac'd w/ 8,500 gals 15% Acid, 118,2	254 bbls Slick Water carrying 56	31,080# mesh,	
2,220,030# 40/70 sand and 1,348,3 <u>0</u>	0# 20/40 sand.		
Plug Back Details Including Plug Type and D	Pepth(s): N/A		
		·	
Formations Encountered:	Top Depth /	Bottom	Denth
Surface:	Top Beptin	Bottom	<u> Дериі</u>
Big Lime	est. 2049'	2165'	
Big Injun	est. 2166'	2596¹	
Gantz Sand	est. 2597'	2730'	
Fifty Foot Sandstone	est. 2731'	2799'	
Gordon	est. 2800'	3142'	
Fifth Sandstone	est. 3143'	3156'	
Bayard	est. 3157'	3885'	
Speechley	est. 3886'	4146'	
Balltown	est. 4147'	4663'	
Bradford	est. 4663'	5165'	
Benson	est. 5166'	5434'	
Alexander	est. 5435'	6189'	
Rhinestreet	est. 6190'	6624'	
Sycamore	6625'	6920'	
Sonyea	6770'	6769'	
Burkett	6921'	6920'	
Tully LS	6950'	6949'	
Hamilton	7010'	7009'	
Marcellus	7031'	7102' TVD	
	·		



Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	
Job End Date:	
State:	
County:	
API Number:	
Operator Name:	
Well Name and Number:	
Longitude:	
Latitude:	39.33335000
Datum:	NAD27
Federal/Tribal Well:	NO
Total Base Water Volume (gal):	5,122,698
Total Base Non Water Volume:	20,782







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
reshwater	Antero Resources	Water					
			Water	7732-18-5	100.00000	89.99162	
0/70 White	US Silica	Propppant					
			Sand	14808-60-7	100.00000	5.25796	
0/40 White	US Silica	Propppant					
			Sand	14808-60-7	100.00000	3.21627	
00 Mesh	US Silica	Propppant					
			Sand	14808-60-7	100.00000	1.31484	
eta M-4.0	PfP	Guar Gel					
			Petroleum Distillate	64742-47-8	55.00000	0.06888	
			Guar Gum	9000-30-0	50.00000	0.06262	
			Clay	1302-78-9	5.00000	0.00626	
			Surfactant	154518-36-2	1.00000	0.00125	
Plexslick 953	Chemplex	Friction Reducer					
			Water	7732-18-5	35.00000	0.01814	
			Polyacrylamide-co-acrylic acid	9003-06-9	32.00000	0.01659	
			Hydrotreated Petroleum Distillate	64742-47-8	30.00000	0.01555	
			Alcohol Ethoxylate Surfactants	Proprietary	8.00000	0.00415	
lydrochloric Acid 10- 5%	Reagent	Acid	No.				

			Hydrchloric Acid	7647-01-0	15.00000	0.03144	6 0
excide 15G	Chemplex	Biocide					
			Water	7732-18-5	90.00000	0.02234	- 07 Cr
			Glutaraldehyde	111-30-8	14.00000	0.00348	
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00074	6 8 6
			Alkyl Dimethyl Benzyl Ammonium Chloride	68424-85-1	3.00000	0.00074	1
			Ethanol	64-17-5	3.00000	0.00074	0 22
exaid 673	Chemplex	Scale Inhibitor					
			Water	7732-18-5	85.00000	0.01083	= 14
			Methyl Alcohol	67-56-1	25.00000	0.00318	0
			Sodium Salt of Phosphonodimethylated Diamine	Proprietary	5.00000	0.00064	
odium Persulfate	Chemplex	Breaker					
			Sodium Persulfate	7775-27-1	100.00000	0.00150	
exhib 256	Chemplex	Corrosion					
			Methyl Alcohol	67-56-1	70.00000	0.00043	
			thiourea-formaldehyde copolymer	68527-49-1	30.00000	0.00019	
			Alcohol Ethoxylate Surfactants	Proprietary	30.00000	0.00019	
			n-olefins	Proprietary	10.00000	0.00006	
			Propargyl Alcohol	107-19-7	8.00000	0.00005	
exbreak 145	Chemplex	Non-emulsifier					
			Water	732-18-5	66.00000	0.00046	
			Ethylene Glycol Monobutyl Ethe	r111-76-2	15.00000	0.00010	
			Methyl Alcohol	67-56-1	15.00000	0.00010	
			Cocamide Diethanolamine Salt	68603-42-9	10.00000	0.00007	
			Diethanolamine	111-42-2	5.00000	0.00003	
rriplex 66	Chemplex	Iron Control					
			Acetic Acid	64-19-7	50.00000	0.00019	
			Water	7732-18-5	35.00000	0.00013	
			Citric Acid	77-92-9	30.00000	0.00011	

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)

^{*} 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%