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: 9/1/2013
API #: 47-017-06162

Farm name: Mutschelknaus, Clarence Operator Well No.: Walter Unit 2H

LOCATION: Elevation: 1050' Quadrangle: Big Isaac

District: Greenbrier County: Doddridge
Latitude: 7,531' Feet South of 39 Deg. 15 Min. 00 Sec.
Longitude 1,839' Feet West of 80 Deg. 32 Min. 30 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#	418'	418'	581 Cu. Ft. Class A
Inspector: Douglas Newlon	9 5/8" 36#	2,556'	2,556'	1041 Cu. Ft. Class A
Date Permit Issued: 1/7/2013	5 1/2" 20#	14,148'	14,148'	3466 Cu. Ft. Class H
Date Well Work Commenced: 2/7/2013				
Date Well Work Completed: 8/8/2013	2 3/8" 4.7#	7,236'		
Verbal Plugging: N/A				
Date Permission granted on: N/A				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 7170' TVD (Deepest Point Drilled)				
Total Measured Depth (ft): 14,160' MD, 7082' TVD (BHL)				
Fresh Water Depth (ft.): 135'				
Salt Water Depth (ft.): 1,489'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): 740', 820', 1760'				
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) 7,137' (TOP)
Gas: Initial open flow ---- MCF/d Oil: Initial open flow ---- Bbl/d
Final open flow 9,541 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.

Kathy Buck
Signature

12/10/2013
Date

04/04/2014

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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 wire-line logs on the first well on a multi-well pad (Ruth Unit 1H API#47-017-06164). Please reference the wire-line logs submitted with Form WR-35 for Ruth 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: 7,275' -14,092' (3,240 Holes)

Frac'd w/ 23,000 gals 15% HCL Acid, 191,048 bbls Slick Water carrying 491,099# 100 mesh,

3,717,172# 40/70 sand and 1,739,170# 20/40 sand.

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

Formations Encountered: Surface:	Top Depth	/	Bottom Depth
Big Lime	est. 1,990'		2,104'
Big Injun	est. 2,105'		2,454'
Gantz Sand	est. 2,455'		2,573'
Fifty Foot Sandstone	est. 2,574'		2,662'
Gordon	est. 2,663'		2,831'
Fifth Sandstone	est. 2,832'		2,875'
Bayard	est. 2,876'		3,553'
Speechley	est. 3,554'		3,879'
Balltown	est. 3,880'		4,380'
Bradford	est. 4,381'		4,966'
Benson	est. 4,967'		5,279'
Alexander	est. 5,280'		5,435'
Elk	est. 5,436'		6065'
Rhinestreet	est. 6,066'		6,605'
Sycamore	6,606'		6,809'
Middlesex	6,810'		6,966'
Burkett	6,967'		6,988'
Tully	6,989'		7,089'
Hamilton	7,090'		7,136'
Marcellus	7,137'		7,169' (TVD)

04/04/2014

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ANTERO RESOURCES

Antero Resources
Walter Unit 2H
Doddridge County WV
Northing: 14251326.44
Easting: 1762672.98
As Drilled

WELL DETAILS: Walter Unit 2H

Ground Level: 1050.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	14251326.44	1762672.98	39° 14' 40.948 N	80° 34' 5.454 W	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Walter Unit 2H, Grid North
Vertical (TVD) Reference: Walter Unit 2H 1050' GL + 25' RKB @ 1075.0usft (Original Well Elev)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: Walter Unit 2H 1050' GL + 25' RKB @ 1075.0usft (Original Well Elev)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Doddridge County WV

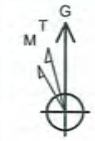
Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level

Scientific Drilling

Genie Lightfoot
9:57, October 01 2013

Scientific Drilling
421 South Eagle Lane
Oklahoma City, OK



To convert Magnetic North to Grid, Subtract 8.84°
To convert True North to Grid, Subtract 0.27°

Azimuths to Grid North
True North: -0.27°
Magnetic North: -8.84°

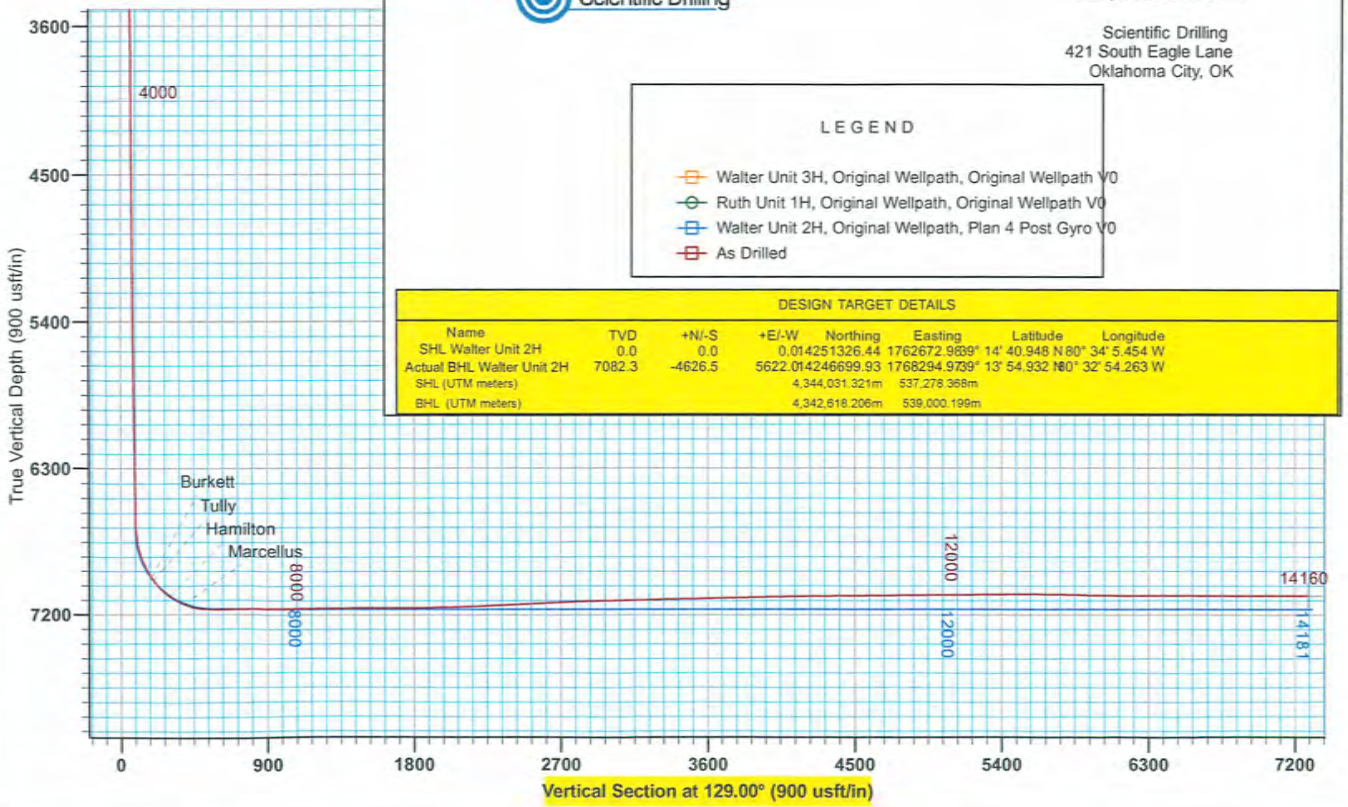
Magnetic Field
Strength: 52398.1nT
Dip Angle: 66.87°
Date: 3/22/2013
Model: IGRF2010

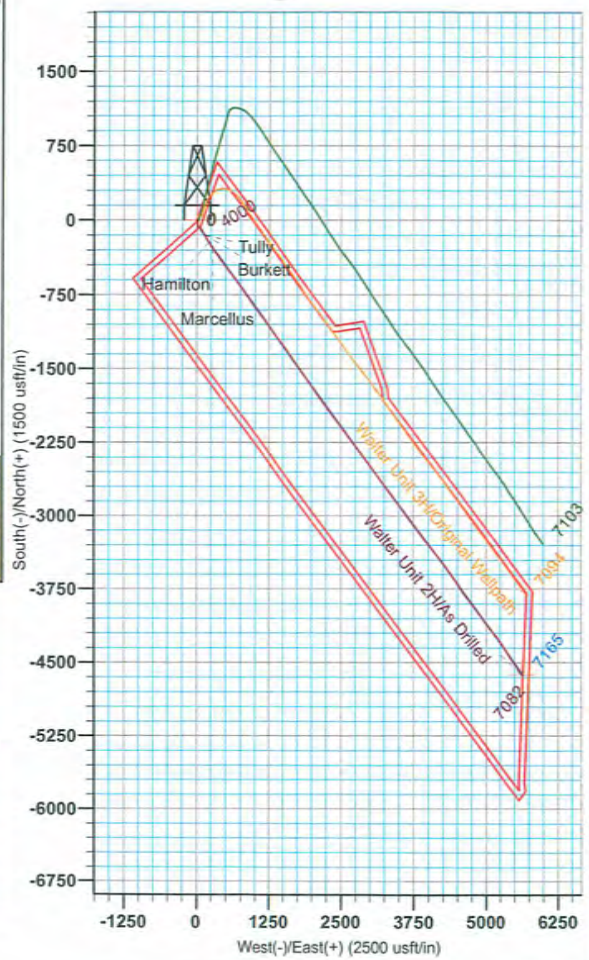
LEGEND

- Walter Unit 3H, Original Wellpath, Original Wellpath V0
- Ruth Unit 1H, Original Wellpath, Original Wellpath V0
- Walter Unit 2H, Original Wellpath, Plan 4 Post Gyro V0
- As Drilled

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL Walter Unit 2H	0.0	0.0	0.0	14251326.44	1762672.98	39° 14' 40.948 N	80° 34' 5.454 W
Actual BHL Walter Unit 2H	7082.3	-4626.5	5622.01	14246699.93	1768294.97	39° 13' 54.932 N	80° 32' 54.263 W
SHL (UTM meters)				4,344,031.321m	537,278.368m		
BHL (UTM meters)				4,342,618.206m	539,000.199m		





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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/27/2013
Job End Date:	8/9/2013
State:	West Virginia
County:	Doddridge
API Number:	47-017-06162-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Walter Unit 2H
Longitude:	-80.56818060
Latitude:	39.24470830
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,170
Total Base Water Volume (gal):	8,024,016
Total Base Non Water Volume:	303,131

FracFocus Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

Interstate Oil & Gas Compact Commission

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	91.53897	
Sand	U.S. Well Services, LLC	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	8.13539	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid					
			Water	7732-18-5	87.50000	0.11468	
			Hydrogen Chloride	7641-01-1	18.00000	0.02739	
WFRA-405	U.S. Well Services, LLC	Friction Reducer					
			Water	7732-18-5	40.00000	0.03124	
			Anionic Polyacrylamide	Proprietary	40.00000	0.03124	
			Petroleum Distillates	64742-47-8	40.00000	0.02515	
			Ethoxylated alcohol blend	Proprietary	5.00000	0.00391	
			Crystalline Salt	12125-02-9	5.00000	0.00391	
LGC-15	U.S. Well Services, LLC	Gelling Agents					
			Guar Gum	9000-30-0	50.00000	0.03069	
			Petroleum Distillates	64742-47-8	60.00000	0.02907	
			Suspending agent (solid)	14808-60-7	3.00000	0.00469	

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			Surfactant	68439-51-0	3.00000	0.00184	
SI-1000	U.S. Well Services, LLC	Scale Inhibitor					
			Anionic Copolymer	Proprietary		0.00478	
			Ethylene Glycol	107-21-1	20.00000	0.00432	
			Water	7732-18-5	30.00000	0.00361	
K-BAC 1020	U.S. Well Services, LLC	Anti-Bacterial Agent					
			2,2-dibromo-3-nitrilopropionamide	10222-01-2	20.00000	0.00493	
			Deionized Water	7732-18-5	28.00000	0.00281	
AI-300	U.S. Well Services, LLC	Acid Corrosion Inhibitor					
			Ethylene Glycol	107-21-1	40.00000	0.00030	
			N,N-Dimethylformamide	68-12-2	20.00000	0.00009	
			Cinnamaldehyde	104-55-2	15.00000	0.00008	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	15.00000	0.00008	
			2-Butoxyethanol	111-76-2	15.00000	0.00007	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nolylphenyl)-omega-hydroxy, branched	127087-87-0	5.00000	0.00003	
			1-Decanol	112-30-1	5.00000	0.00002	
			Isopropyl Alcohol	67-63-0	2.50000	0.00001	
			1-Octanol	111-87-5	3.00000	0.00001	
AP One	U.S. Well Services, LLC	Gel Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00068	
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)