

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

API 47-017-06287 County Doddridge District New Milton
Quad New Milton Pad Name Stewart Pad Field/Pool Name _____
Farm name Stewart, Randall & Carolyn S. Well Number Randall Unit 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,337,765.17m Easting 529,246.47m
Landing Point of Curve Northing 4,337,607.40m Easting 529,335.57m
Bottom Hole Northing 4,334,321.41m Easting 530,358.27m

Elevation (ft) 1,333' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Air- Foam & 4% KCL

Mud- Polymer

Date permit issued 08/13/2013 Date drilling commenced 09/23/2014 Date drilling ceased 01/17/2015
Date completion activities began WOC Date completion activities ceased WOC
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 372' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 962'; 1,217' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

Reviewed by:

JK

10/30/2015

Received

SEP 28 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

API 47-017 - 06287

Farm name Stewart, Randall & Carolyn S. Well number Randall Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	New	94#; H-40	N/A	Yes
Surface	17 1/2"	13 3/8"	446'	New	48#; H-40	N/A	Yes*
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,526'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	18,995'	New	23#; P-110	N/A	Yes
Tubing							
Packer type and depth set		N/A					

Comment Details *1st attempt to cement surface casing (557 sx) failed to produce returns to surface. 2nd attempt (585 sx) was successful in bringing returns to surface.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	100 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	1,142 sx*	15.6	1.18	310	0'	8 Hrs.
Coal							
Intermediate 1	Class A	988 sx	15.6	1.18	791	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,067 sx (Lead); 1,017 sx (Tail)	13.5 (Lead); 15.2 (Tail)	1.44 (Lead); 1.78 (Tail)	3,888	-500' into Intermediate Casing	8 Hrs
Tubing							

Drillers TD (ft) 18,995' MD; 7,324' TVD (BHL); 7,356' TVD (Doopest Point Drilled)

Loggers TD (ft) 18,948'

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

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Kick off depth (ft) 6,823'

Check all wireline logs run**

- caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

**Logs will be submitted with
FINAL Completion Report

Well cored Yes No

Conventional Sidewall

Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

Conductor- 0

Surface- 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

Intermediate- 1 above float joint, 1 above float collar, 1 every 4th joint to surface

Production- 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS N/A - WOC

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS N/A - WOC

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED N/A - WOC

API 47- 017 - 06287 Farm name Stewart, Randall & Carolyn S. Well number Randall Unit 2H

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	7,298' (top) TVD	7,402' (top) MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP		BOTTOM		DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		

***PLEASE SEE EXHIBIT 3**

Please insert additional pages as applicable.

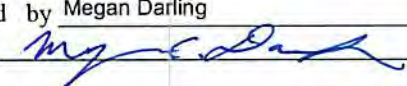
Drilling Contractor Patterson - UTI Drilling Company, LLC
 Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company _____
 Address _____ City _____ State _____ Zip _____

Cementing Company Allied Oil & Gas Services, LLC
 Address 1036 East Main Street City Bridgeport State WV Zip 26330

Stimulating Company _____
 Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Megan Darling Telephone 303-357-7230 SEP 28 2015
 Signature  Title Permitting Agent Date 09/25/2015

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

Office of Oil and Gas
 West Virginia Dept. of Environmental Protection

10/30/2015

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Fresh Water	372'	N/A	372'	N/A
Shale/Siltstone	0	447	0	447
Sandstone	est. 447	467	est. 447	467
Shale/Siltstone	est. 467	687	est. 467	687
Sandstone	est. 687	727	est. 687	727
Shale	est. 727	827	est. 727	827
Sandstone	est. 827	887	est. 827	887
Shale	est. 887	1,127	est. 887	1,127
Sandstone	est. 1127	1,207	est. 1127	1,207
Shale	est. 1207	1,787	est. 1207	1,787
Sandstone/Siltstone	est. 1787	1,907	est. 1787	1,907
Sandstone/Siltstone with trace coal	est. 1907	1,967	est. 1907	1,967
Shale	est. 1967	2,395	est. 1967	2,399
Big Lime	2,395	2,481	2,399	2,484
Big Injun	2,481	2,693	2,484	2,697
Gantz Sand	2,693	2,847	2,697	2,850
Fifty Foot Sandstone	2,847	3,053	2,850	3,057
Gordon	3,053	3,409	3,057	3,412
Fifth Sandstone	3,409	3,471	3,412	3,474
Bayard	3,471	3,720	3,474	3,723
Warren	3,720	4,018	3,723	4,022
Speechley	4,018	4,217	4,022	4,220
Baltown	4,217	4,849	4,220	4,853
Bradford	4,849	5,309	4,853	5,312
Benson	5,309	5,560	5,312	5,563
Alexander	5,560	5,787	5,563	5,790
Elk	5,787	6,305	5,790	6,309
Rhinestreet	6,305	6,854	6,309	6,858
Sycamore	6,854	7,019	6,858	7,031
Middlesex	7,019	7,168	7,031	7,200
Burkett	7,168	7,198	7,200	7,238
Tully	7,198	7,298	7,238	7,402
Marcellus	7,298	NA	7,402	NA

*Please note Antero determines shallow formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

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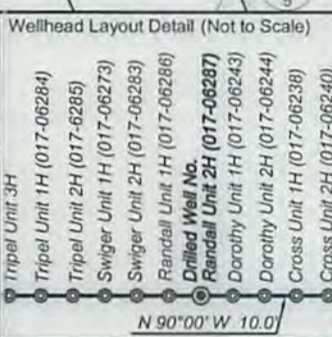
Tag	TM/Par	Owner	Bk/Pg	Ac.
1	16/17.1	Edward L. & Connie Lee Cumpston	281 / 355	29.41
2	16/17.3	John D. & Deborah Cumpston	232 / 127	32.00
3	16/17.4	Ronald E. & Trannis A. Smith	232 / 129	8.19
4	20/9.3	Mark E. & Tara A. Bee	253 / 146	19.77
5	20/8	James Devericks, et al	131 / 11	31.10
6	20/7	Mary Barile Merandi & Paul Lister (Mountain Link Associates)	288 / 131	13.00
7	20/6	Richard Dean Goldsmith	262 / 581	58.00
8	20/24.1	Darrell E. Reed, Jr.	261 / 662	2.00
9	20/11	Darrell E. Reed, Jr.	261 / 664	37.90
10	9.2	Mark E. & Tara A. Bee	253 / 149	4.44

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Randall Unit 2H Top Hole coordinates are
 N: 252,913.37' Latitude: 39°11'18.79"
 E: 1,670,775.04' Longitude: 80°39'41.49"
 Bottom Hole coordinates are
 N: 241,551.55' Latitude: 39°09'26.94"
 E: 1,674,234.99' Longitude: 80°38'55.71"
UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,337,765.168 m N: 4,334,321.410 m
 E: 529,246.468 m E: 530,358.265 m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

Bearing	Distance
L1 S 75°42' E	865.0'
L2 S 77°54' W	1600.9'
L3 N 55°25' W	2210.5'
L4 N 42°14' E	456.2'

- Legend**
- ⊙ Proposed gas well
 - ⊙ Found Monument (as noted)
 - Creek or Drain
 - Existing Road
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)
 - 60 County Route



FILE NO: 74-30-NM-13
 DRAWING NO: As-Drilled Randall 2H Well
 SCALE: 1" = 1500'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: April 23 2015
 OPERATOR'S WELL NO. Randall Unit 2H
 API WELL NO
 47 - 017 - 06287
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 Existing - 1333'
 LOCATION: ELEVATION: Original - 1361' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: New Milton
 DISTRICT: New Milton COUNTY: Doddridge
 SURFACE OWNER: Randall & Carolyn S. Stewart Everett Nicholson, et ux; Ed Broome, Inc; Chad A. Swiger, et al; ACREAGE: 105.1 195; 150; 108;
 ROYALTY OWNER: Joyce A. Shaw Nazelrod, et al; Randall P. Stewart, et al; O.J. Herrod, et ux LEASE NO: 21994 ACREAGE: 69.54; 87.01; 384
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 7,324' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: 18,995' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313