

\*Antero is submitting an "Interim" Form WR-35 showing the well work that has been completed to date. This well has been drilled to TD, but is waiting on completion operations, which are currently deferred at this time. We will follow up with the "Final" Form WR-35 & WR-36 within 90 days of completion.

WR-35  
Rev. 8/23/13

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

API 47 - 017 - 06379 County Doddridge District Greenbrier  
Quad Big Isaac 7.5' Pad Name Hughes Pad Field/Pool Name ----  
Farm name Nelson, Eric E., et al Well Number Richard Unit 1H  
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 4341192m Easting 532758m  
Landing Point of Curve Northing 4341188.28m Easting 533102.50m  
Bottom Hole Northing 4338927m Easting 533836m

Elevation (ft) 1332' GL Type of Well  New  Existing Type of Report  Interim  Final *Permit has expired*  
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 10/28/2013 Date drilling commenced 10/8/2014 Date drilling ceased 12/28/2014  
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 109', 112' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1091', 1150' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft 390' Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

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Reviewed by:  
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**APPROVED**

NAME: Jackie Shonta

DATE: 11/22/14

API 47-017 06379

Farm name Nelson, Eric E., et al

Well number Richard Unit 1H

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	30"	20"	40'	New	106.5#/J-55	N/A	Y
Surface	17-1/2"	13-3/8"	604'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2523'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	15634'	New	23#/P-110	N/A	Y
Tubing							
Packer type and depth set		N/A					

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>2</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	100 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	717 sx	15.6	1.18	420	0'	8 Hrs.
Coal							
Intermediate 1	Class A	967 sx	15.6	1.18	790	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1090 sx (Lead) 1400 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.3 (Lead), 1.86 (Tail)	3118	~800' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 15836' MD, 7314' TVD (BHL); 7360' TVD (Deepest Point Drilled)

Loggers TD (ft) 15586'

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 7167'

\*\*Logs will be submitted with FINAL Completion Report.

Check all wireline logs run

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

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 shoes, 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

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No

DETAILS N/A - WOC

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WAS WELL COMPLETED OPEN HOLE?  Yes  No

DETAILS N/A - WOC

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WERE TRACERS USED  Yes  No

TYPE OF TRACER(S) USED N/A - WOC

API 47-017 - 06379 Farm name Nelson, Eric E., et al Well number Richard Unit 1H

**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>*WELL IS WAITING ON COMPLETION*</b> <b>Information will be updated on FINAL WR-35 once completed</b>					

Please insert additional pages as applicable.

**STIMULATION INFORMATION PER STAGE**

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
<b>*WELL IS WAITING ON COMPLETION*</b> <b>Information will be updated on FINAL WR-35 once completed</b>								

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PRODUCING FORMATION(S)	DEPTHS	
	7312' (TOP) TVD	7637' (TOP) MD
Marcellus		

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	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> 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 Precision Drilling Company, LP  
Address 2640 Reach Rd. City Williamsport State PA Zip 17701

Logging Company \_\_\_  
Address \_\_\_ City \_\_\_ State \_\_\_ Zip \_\_\_

Cementing Company Nabors Completion & Production Services, Co.  
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company \_\_\_  
Address \_\_\_ City \_\_\_ State \_\_\_ Zip \_\_\_

Please insert additional pages as applicable.

Completed by Kara Quackenbush Telephone 304-447-7233  
Signature [Signature] Title Permitting Agent Date 3/2/2016

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**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	109'	N/A	109'	N/A
Fresh Water	112'	N/A	112'	N/A
Shale	0	188	0	188
Sandy siltstone	est. 188	390	est. 188	390
Coal	est. 390	408	est. 390	408
Shale	est. 408	488	est. 408	488
Siltstone	est. 488	828	est. 488	828
Shale	est. 828	908	est. 828	908
Sandstone	est. 908	943	est. 908	943
Shale	est. 943	964	est. 943	964
Trace coal	est. 964	986	est. 964	986
Sandy siltstone	est. 986	1348	est. 986	1348
Shale	est. 1348	1588	est. 1348	1588
Sandy shale	est. 1588	1648	est. 1588	1648
Trace coal	est. 1648	1668	est. 1648	1668
Shale	est. 1668	1708	est. 1668	1708
Sandstone	est. 1708	1808	est. 1708	1808
Silty sandstone	est. 1808	1948	est. 1808	1948
Trace coal	est. 1948	1988	est. 1948	1988
Silty sandstone	est. 1988	2248	est. 1988	2248
Shale	est. 2248	N/A	est. 2248	N/A
Big Lime**	N/A	N/A	N/A	N/A
Big Injun**	N/A	N/A	N/A	N/A
Weir**	N/A	N/A	N/A	N/A
Fifty Foot Sandstone**	N/A	N/A	N/A	N/A
Gordon**	N/A	N/A	N/A	N/A
Fifth Sandstone**	N/A	N/A	N/A	N/A
Bayard**	N/A	N/A	N/A	N/A
Speechley**	N/A	N/A	N/A	N/A
Baltown**	N/A	N/A	N/A	N/A
Bradford**	N/A	N/A	N/A	N/A
Riley**	N/A	N/A	N/A	N/A
Benson**	N/A	N/A	N/A	N/A
Alexander**	N/A	7017	N/A	6839
Sycamore	7017	7207	6839	7009
Middlesex	7207	7380	7009	7153
Burkett	7380	7419	7153	7183
Tully	7419	7637	7183	7312
Marcellus	7637	NA	7312	NA

\*Please note Antero determines 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.

\*\*Depths for these formations are recorded with the cement bond log for each individual well. This information will be provided, along with the cement bond log, in the final report for this well.

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