

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

API 47 - 017 - 06232 County Doddridge District Greenbrier
Quad Salem & Big Isaac Pad Name Leonard Pad Field/Pool Name ----
Farm name Walter V. Davidson & Leonard J. Davidson Well Number Irons 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 4,346,303.326m Easting 534,813.250m
Landing Point of Curve Northing 4,346,011.41m Easting 534,773.87m
Bottom Hole Northing 4,343,818.224m Easting 536,326.562m

Elevation (ft) 1320' 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

Office of Oil and Gas
WV Dept. of Environmental Protection

SEP 28 2015

Date permit issued 6/13/2013 Date drilling commenced 1/15/2014 Date drilling ceased 4/30/2014
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 107', 212' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1325', 1934' Void(s) encountered (Y/N) depths None
Coal depth(s) ft 517', 1077', 2013' Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

Reviewed by:

10/30/2015

API 47-017 - 06232 Farm name Walter V. Davidson & Leonard J. Davidson Well number Irons 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	106.5#; J-55	N/A	Yes
Surface	17 1/2"	13 3/8"	361'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2607'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	17,014'	New	23#; P-110	N/A	Yes
Tubing							
Packer type and depth set		N/A					

Comment Details _____

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	198 sx	15.6	1.18	38 Cu. Ft.	0'	8 Hrs.
Surface	Class A	426 sx	15.6	1.18	251 Cu. Ft.	0'	8 Hrs.
Coal							
Intermediate 1	Class A	960 sx	15.6	1.18	817 Cu. Ft.	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1184 sx (Lead), 1465 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.3 (Lead); 1.86 (Tail)	3415 Cu. Ft.	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17,014' MD; 7421' TVD (BHL); 7519' TVD (Deepest Point Drilled) Loggers TD (ft) 16,962'

Deepest formation penetrated Marcellus Shale Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6729'

**Logs will be submitted with FINAL Completion Report Form WR-35

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 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

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

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 - 06232 Farm name Waller V. Davidson & Leonard J. Davidson Well number Irons Unit 2H

PERFORATION RECORD

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

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)
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API 47- 017 - 06232

Farm name Walter V. Davidson & Leonard J. Davidson Well number Irons Unit 2H

PRODUCING FORMATION(S)

DEPTHS

Marcellus 7409' (Top) TVD 7822' (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	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 ATTACHED EXHIBIT 3					

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WV Dept. of Environmental Protection

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 Nabors Completion & Production Services Co. (bought Superior)
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 Natalie Komp Telephone 303-357-6820
Signature Natalie Komp Title Permitting Agent Date 9/25/2015

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

*Please Note: This is an interim report for a well which has been drilled, but not yet fractured or completed. A final report will be sent at a later date once fracturing and completion operations have been executed.

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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	107	N/A	107	N/A
Fresh Water	212	N/A	212	N/A
Siltstone	0	217	0	217
Sand	est. 217	457	est. 217	457
Siltstone	est. 457	497	est. 457	497
Sandstone	est. 497	517	est. 497	517
Coal	est. 517	657	est. 517	657
Siltstone	est. 657	697	est. 657	697
Sandstone	est. 697	857	est. 697	857
Siltstone	est. 857	927	est. 857	927
Limestone	est. 927	1,057	est. 927	1,057
Sandstone/Silt	est. 1057	1,077	est. 1057	1,077
Coal	est. 1077	1,477	est. 1077	1,477
Limestone/Silt	est. 1477	1,577	est. 1477	1,577
Siltstone	est. 1577	1,737	est. 1577	1,737
Sandstone/Limestone	est. 1737	2,004	est. 1737	2,004
Sandstone/Silt	est. 2004	2,013	est. 2004	2,013
Coal	est. 2013	2,317	est. 2013	2,317
Sandstone/Silt	est. 2317	2,398	est. 2317	2,401
Big Lime	2,398	2,506	2,401	2,509
Big Injun	2,506	2,836	2,509	2,840
Gantz Sand	2,836	2,969	2,840	2,972
Fifty Foot Sandstone	2,969	3,128	2,972	3,131
Gordon	3,128	3,398	3,131	3,401
Fifth Sandstone	3,398	3,473	3,401	3,477
Bayard	3,473	3,742	3,477	3,745
Warren	3,742	3,978	3,745	3,981
Spechley	3,978	4,294	3,981	4,297
Baltown	4,294	4,752	4,297	4,755
Bradford	4,752	5,357	4,755	5,360
Benson	5,357	5,606	5,360	5,609
Alexander	5,606	5,836	5,609	5,840
Elk	5,836	6,396	5,840	6,400
Rhinestreet	6,396	6,873	6,400	6,855
Sycamore	6,873	7,084	6,855	7,155
Middlesex	7,084	7,237	7,155	7,400
Burkett	7,237	7,273	7,400	7,468
Tully	7,273	7,409	7,468	7,822
Marcellus	7,409	NA	7,822	NA
Onondaga**	7,496	NA	11,359	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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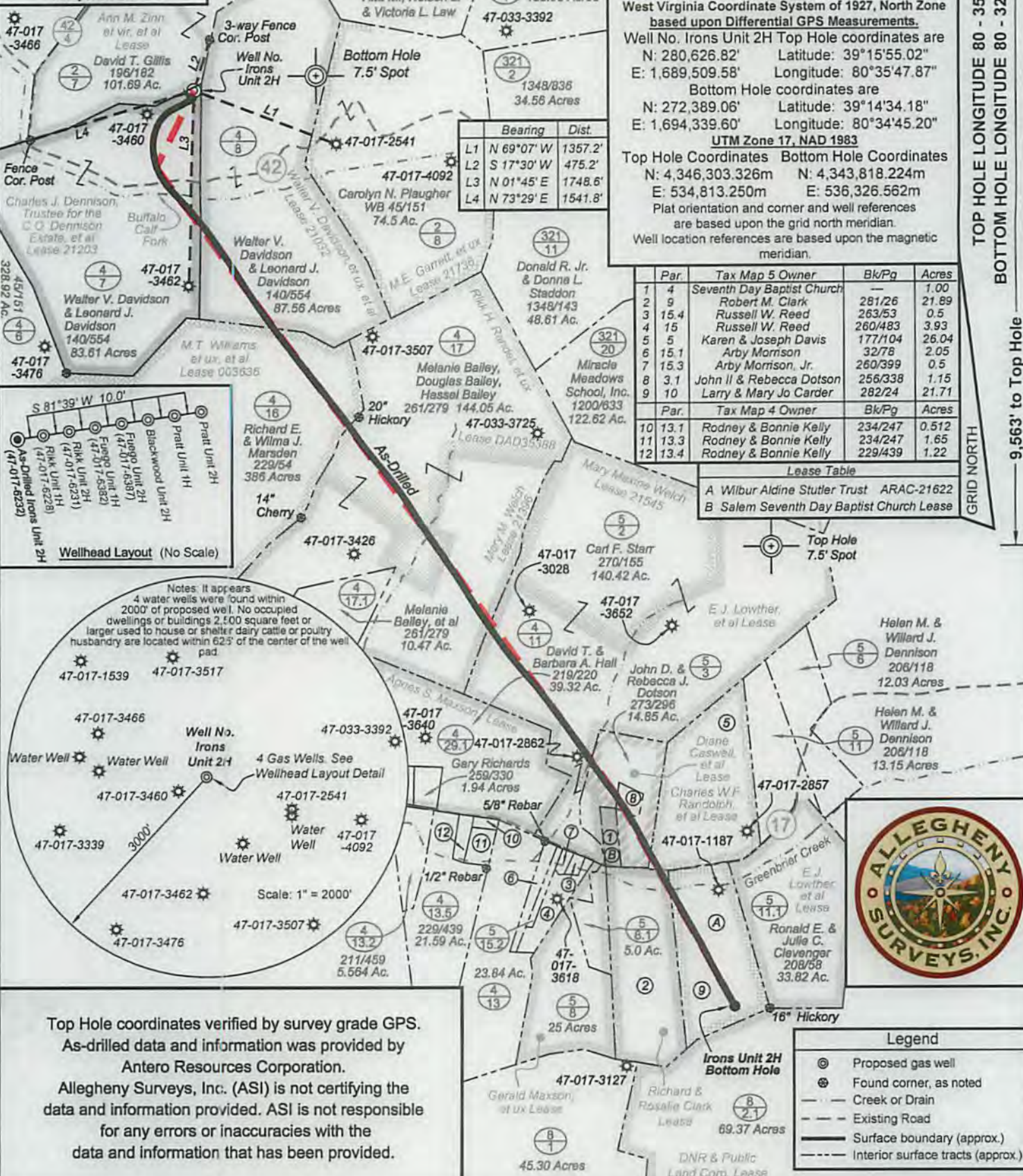
**Antero drilled a small portion of this well less than 5 feet into the Onondaga formation from approximately 11,382'-11,602' and 12,765'-13,013' in the lateral but this section was not perforated or completed.

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10/30/2015

**Antero Resources
Well No. Irons Unit 2H
As-Drilled Plat
Antero Resources
Corporation**



FILE NO: 44-30-GR-13
DRAWING NO: Irons 2H Well Plat As-Drilled
SCALE: 1" = 1200'
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: March 3 2015
OPERATOR'S WELL NO. Irons Unit 2H
API WELL NO
47 - 017 - 06232
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1320' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: Salem & Big Isaac
DISTRICT: Greenbrier
SURFACE OWNER: Walter V. Davidson & Leonard J. Davidson
ROYALTY OWNER: Charles J. Dennison, Trustee for the C.O. Dennison Estate, et al
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: 7,421' TVD 17,014' 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



10/30/2015