

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

API 47 - 033 - 05699 County Harrison District Tenmile
Quad Salem Pad Name Hubert Pad Field/Pool Name _____
Farm name Bland, Hubert Jr. and Lorena Well Number Norris 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 4,345,006.117m Easting 537,942.707m
Landing Point of Curve Northing 4,344,583.10m Easting 537,942.55m
Bottom Hole Northing 4,343,108.377m Easting 539,617.030m

Elevation (ft) 1376' 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 12/21/2012 Date drilling commenced 5/11/2013 Date drilling ceased 7/21/2013
Date completion activities began 10/8/2013 Date completion activities ceased 1/12/2014
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 367' Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1760' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Office of Oil and Gas
WV Dept. of Environmental Protection

Reviewed by:
AL 5/26/15
W.S. 06/12/2015

API 47-033 - 05701 Farm name Bland, Hubert Jr. and Lorena Well number Norris 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	30"	20"	40'	New	94#/H-40	N/A	Y
Surface	17-1/2"	13-3/8"	457'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2578'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	15,752'	New	20#/P-110	N/A	
Tubing		2-3/8"	7493'	New	4.7#/N-80	N/A	N/A
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	200 sx	15.6	1.18	236 Cu. Ft.	0'	8 hrs
Surface	Class A	532 sx	15.6	1.18	628 Cu. Ft.	0'	8 hrs
Coal							
Intermediate 1	Class A	939 sx	15.6	1.18	1108 Cu. Ft.	0'	8 hrs
Intermediate 2							
Intermediate 3							
Production	Class H	781 sx (Lead), 991 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.80 (Tail)	3917 Cu. Ft.	-500' into Intermediate Casing	8 hrs
Tubing							

Drillers TD (ft) 15,765' MD, 7428' TVD (BHL), 7475' TVD (Deepest Point Drilled) Loggers TD (ft) 15,718' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6979'

Check all wireline logs run caliper density deviated/directional induction neutron resistivity gamma ray temperature

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Nellie Unit 2H API# 47-033-05687). Please reference the wireline logs submitted with Form WR-35 for the Nellie Unit 2H. A Cement Bond Log has been included with this submittal.

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 APR 27 2015

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____ Office of Oil and Gas
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WERE TRACERS USED Yes No TYPE OF TRACER(S) USED Radioactive and Chemical

API 47- 033 - 05699 Farm name Bland, Hubert Jr. and Lorena Well number Norris Unit 1H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
		*PLEASE SEE ATTACHED EXHIBIT 1			

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)
		*PLEASE SEE ATTACHED EXHIBIT 2						

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Please insert additional pages as applicable.

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API 47- 033 - 05699 Farm name Bland, Hubert Jr. and Lorena Well number Norris Unit 1H

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	7430' (Top) TVD	7874' (Top) MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface 3600 psi Bottom Hole --- psi DURATION OF TEST --- hrs
 OPEN FLOW Gas 10,993 mcfpd Oil --- bpd NGL --- bpd Water 140 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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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 Rush Wellsite Services
 Address 600 Alpha Drive City Canonsburg State PA Zip 15317

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

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

Please insert additional pages as applicable.

Completed by Natalie Komp Telephone 303-357-6820
 Signature Natalie Komp Title Permitting Agent Date 4/23/2015

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

06/12/2015

API 47-033-05699 Farm Name Bland, Hubert Jr. and Lorena Well Number Norris Unit 1H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	8-Oct-13	15171'	15341'	60	Marcellus
2	20-Oct-13	14969'	15139'	60	Marcellus
3	21-Oct-13	14768'	14938'	60	Marcellus
4	21-Oct-13	14566'	14736'	60	Marcellus
5	21-Oct-13	14365'	14535'	60	Marcellus
6	21-Oct-13	14163'	14333'	60	Marcellus
7	22-Oct-13	13962'	14132'	60	Marcellus
8	22-Oct-13	13760'	13930'	60	Marcellus
9	22-Oct-13	13559'	13729'	60	Marcellus
10	22-Oct-13	13357'	13527'	60	Marcellus
11	22-Oct-13	13156'	13326'	60	Marcellus
12	23-Oct-14	12954'	13124'	60	Marcellus
13	23-Oct-13	12753'	12923'	60	Marcellus
14	23-Oct-13	12551'	12721'	60	Marcellus
15	23-Oct-13	12350'	12520'	60	Marcellus
16	23-Oct-13	12148'	12318'	60	Marcellus
17	24-Oct-13	11947'	12117'	60	Marcellus
18	24-Oct-13	11746'	11915'	60	Marcellus
19	24-Oct-13	11544'	11714'	60	Marcellus
20	26-Oct-13	11343'	11512'	60	Marcellus
21	26-Oct-13	11141'	11311'	60	Marcellus
22	26-Oct-13	10940'	11110'	60	Marcellus
23	26-Oct-13	10738'	10908'	60	Marcellus
24	26-Oct-13	10537'	10707'	60	Marcellus
25	27-Oct-13	10335'	10505'	60	Marcellus
26	27-Oct-13	10134'	10304'	60	Marcellus
27	29-Nov-13	9932'	10102'	60	Marcellus
28	29-Nov-13	9731'	9901'	60	Marcellus
29	29-Nov-13	9529'	9699'	60	Marcellus
30	30-Nov-13	9328'	9498'	60	Marcellus
31	30-Nov-13	9126'	9296'	60	Marcellus
32	1-Dec-13	8925'	9095'	60	Marcellus
33	1-Dec-13	8723'	8893'	60	Marcellus
34	1-Dec-13	8522'	8692'	60	Marcellus
35	1-Dec-13	8320'	8490'	60	Marcellus
36	1-Dec-13	8119'	8289'	60	Marcellus
37	2-Dec-13	7917'	8087'	60	Marcellus

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 Wyoming Department of Environmental Protection

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API 47-033-05699 Farm Name Bland, Hubert Jr. and Lorena Well Number Norris Unit 1H

EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	20-Oct-13	73.9	8,006	6,780	4,458	224,900	6,141	N/A
2	20-Oct-13	67.6	7,959	6,556	4,452	227,200	6,042	N/A
3	21-Oct-13	71.4	7,915	6,507	4,652	230,800	6,242	N/A
4	21-Oct-13	70.0	8,295	6,016	4,420	229,100	6,233	N/A
5	21-Oct-13	73.2	8,161	5,443	4,167	233,000	6,230	N/A
6	21-Oct-13	71.4	7,896	5,738	4,092	231,400	5,912	N/A
7	22-Oct-13	74.8	7,902	5,552	4,221	232,000	5,902	N/A
8	22-Oct-13	77.9	7,670	5,634	4,551	232,700	6,004	N/A
9	22-Oct-13	78.4	7,679	5,844	4,380	230,100	5,555	N/A
10	22-Oct-13	76.9	7,010	5,825	4,545	233,100	5,377	N/A
11	22-Oct-13	81.5	7,687	5,315	4,154	232,300	5,986	N/A
12	23-Oct-14	78.1	7,527	5,815	4,451	230,700	5,920	N/A
13	23-Oct-13	75.9	7,255	5,634	4,345	202,400	5,397	N/A
14	23-Oct-13	77.3	7,467	5,825	4,459	230,600	5,447	N/A
15	23-Oct-13	81.1	7,422	5,032	4,601	231,500	5,344	N/A
16	23-Oct-13	78.1	8,247	5,911	4,603	203,700	6,456	N/A
17	24-Oct-13	81.1	8,014	5,859	4,708	229,700	5,761	N/A
18	24-Oct-13	74.0	7,869	6,079	4,851	228,200	5,377	N/A
19	24-Oct-13	78.9	7,680	5,171	4,573	219,800	5,777	N/A
20	26-Oct-13	78.1	7,251	5,654	4,508	230,100	5,703	N/A
21	26-Oct-13	76.2	7,659	6,205	4,431	228,400	5,474	N/A
22	26-Oct-13	76.4	7,976	5,903	4,721	228,200	5,307	N/A
23	26-Oct-13	79.9	7,639	5,889	4,907	230,600	5,552	N/A
24	26-Oct-13	80.4	7,627	5,662	4,431	230,100	5,606	N/A
25	27-Oct-13	79.5	7,513	5,288	4,765	231,700	5,498	N/A
26	27-Oct-13	58.8	7,986	6,027	8,376	83,800	6,417	N/A
27	29-Nov-13	70.8	7,525	6,115	4,310	172,700	6,154	N/A
28	29-Nov-13	74.9	7,751	6,230	4,783	159,700	6,256	N/A
29	29-Nov-13	77.5	7,653	5,947	4,681	230,900	5,810	N/A
30	30-Nov-13	72.3	7,684	6,021	4,818	167,000	6,292	N/A
31	30-Nov-13	69.7	7,052	6,154	4,470	224,100	5,911	N/A
32	1-Dec-13	78.0	7,305	6,315	4,786	224,800	5,759	N/A
33	1-Dec-13	77.5	7,208	5,496	4,469	231,400	5,864	N/A
34	1-Dec-13	79.3	7,127	5,561	4,657	234,000	5,835	N/A
35	1-Dec-13	71.9	7,266	5,490	4,585	103,300	5,665	N/A
36	1-Dec-13	73.9	7,185	6,108	4,762	191,500	6,189	N/A
37	2-Dec-13	77.8	7,439	6,506	4,719	210,000	5,653	N/A
AVG =		75.5	7,662	5,868	4,645	7,925,500	216,048	= TOTAL

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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
Freshwater	367'	NA	NA	NA
Siltstone	0	97	0	97
Sandy Shale	est 97	317	est 97	317
Sandstone	est 317	507	est 317	507
Silty Sandstone	est 507	657	est 507	657
Sandstone	est 657	1027	est 657	1027
Limestone/Dolomite	est 1027	1,117	est 1027	1,117
Siltstone	est 1117	1,297	est 1117	1,297
Sandstone	est 1297	1,327	est 1297	1,327
Limey Siltstone	est 1327	1,477	est 1327	1,477
Sandstone	est 1477	1,597	est 1477	1,597
Sandy Siltstone	est 1597	1,737	est 1597	1,737
Coal	est 1737	1757	est 1737	1757
Sandstone	est 1757	1797	est 1757	1797
Siltstone	est 1797	1817	est 1797	1817
Sandstone	est 1817	2097	est 1817	2097
Limey Shale	est 2097	2278	est 2097	2278
Big Lime	2,278	2,403	2,278	2,403
Big Injun	2,403	2,753	2,403	2,753
Gantz Sand	2,753	2,848	2,753	2,848
Fifty Foot Sandstone	2,848	2,966	2,848	2,966
Gordon	2,966	3,292	2,966	3,292
Fifth Sandstone	3,292	3,322	3,292	3,322
Bayard	3,322	3,665	3,322	3,665
Warren	3,665	3,885	3,665	3,886
Speechley	3,885	4,408	3,886	4,409
Baltown	4,408	4,739	4,409	4,739
Bradford	4,739	5,260	4,739	5,265
Benson	5,260	5,545	5,265	5,560
Alexander	5,545	5,759	5,560	5,797
Elk	5,759	6,384	5,797	6,508
Rhinestreet	6,384	6,878	6,508	7,053
Sycamore	6,878	7,108	7,053	7,307
Middlesex	7,108	7,250	7,307	7,491
Burkett	7,250	7,276	7,491	7,530
Tully	7,276	7,430	7,530	7,874
Marcellus	7,430	NA	7,874	NA

*Please note Antero determines formation tops based on mud and wireline logs that are only run on one well on a multi-well pad (Please reference Ruth Unit 2H API# 47-033-05698). The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

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Office of Oil and Gas
 West Virginia Department of Environmental Protection

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/20/2013
Job End Date:	12/2/2013
State:	West Virginia
County:	Harrison
API Number:	47-033-05699-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Norris Unit 1H
Longitude:	-80.56037600
Latitude:	39.25342600
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,474
Total Base Water Volume (gal):	9,074,016
Total Base Non Water Volume:	0



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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Service Abstract Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	ANTERO RESOURCES	Water		7732-18-5	100.00000	89.93546	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia	Crystalline Silica, quartz	14808-60-7	99.90000	5.76715	
			Aluminum Oxide	1344-28-1	1.10000	0.06350	
			Iron Oxide	1309-37-1	0.10000	0.00577	
			Titanium Oxide	13463-67-7	0.10000	0.00577	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	3.27352	
			Aluminum Oxide	1344-28-1	1.10000	0.03605	
			Iron Oxide	1309-37-1	0.10000	0.00328	
			Titanium Oxide	13463-67-7	0.10000	0.00328	
Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	0.63267	
			Aluminum Oxide	1344-28-1	1.10000	0.00697	

					Titanium Oxide	13463-67-7	0.10000	0.00063	
HCl Acid (12.5%-18.0%)	Nabors Completion and Production Services	Bulk Acid			Iron Oxide	1309-37-1	0.10000	0.00063	
LSG-100L	Nabors Completion and Production Services	Gelling Agents			Hydrogen Chloride	7647-01-0	18.00000	0.04121	
WFR-3B	Nabors Completion and Production Services	Friction Reducer			Petroleum Distillates	64742-47-8	70.00000	0.03776	
XR-153SL	Nabors Completion and Production Services	Biocides			Hydrotreated light distillates, non-aromatic, BTEX free Ethoxylated alcohols	64742-47-8	30.00000	0.01720	
					Ethoxylated oleylamine	68002-97-1	15.00000	0.00860	
						26635-93-8	5.00000	0.00287	
OB-2 LT	Nabors Completion and Production Services	Gel Breakers			Polyethylene-Glycol	25322-68-3	50.00000	0.00639	
					2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00256	
SUPER TSC-LTS	Nabors Completion and Production Services	Paraffin & Scale Additives			Ammonium Persulfate	7727-54-0	85.00000	0.00611	
Super GREEN SOLV	Nabors Completion and Production Services	Paraffin & Scale Additives			Crystalline Silica (in the form of quartz)	14808-60-7	10.00000	0.00072	
Acid Inhibitor 2 (AI-2)	Nabors Completion and Production Services	Acid Corrosion Inhibitors			Water	7732-18-5	60.00000	0.00672	
					BTEX Free Aliphatic Hydrocarbon	64742-96-7	100.00000	0.00628	
					Propargyl Alcohol	107-19-7	40.00000	0.00017	
					Isopropyl Alcohol	67-63-0	40.00000	0.00017	
					Glycol Ethers	111-46-6	40.00000	0.00017	
					Ethoxylated Nonylphenol	68412-54-4	13.00000	0.00006	
EB-4L	Nabors Completion and Production Services	Gel Breakers			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000	0.00004	
					Ethylene Glycol	107-21-1	40.00000	0.00018	

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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.

Other Ingredients	Nabors Completion and Production Services	Other Ingredients					
		Water	7732-18-5	87.50000	0.20033		
		guar gum	9000-30-0	50.00000	0.02698		
		Water	7732-18-5	40.00000	0.02294		
		Anionic Polyacrylamide	910644-97-2	40.00000	0.02294		
		Water	7732-18-5	80.00000	0.01023		
		Propylene glycol	57-55-6	15.00000	0.00860		
		Water	7732-18-5	60.00000	0.00176		
		Proprietary	Proprietary	15.00000	0.00168		
		Proprietary	Proprietary	15.00000	0.00168		
		Proprietary	Proprietary	15.00000	0.00147		
		Proprietary	Proprietary	50.00000	0.00115		
		Proprietary	Proprietary	2.00000	0.00115		
		Surfactant	68439-51-0	2.00000	0.00108		
		Crystalline Silica (in the form of quartz)	14808-60-7	2.00000	0.00108		
		Alkali Chloride salt	Proprietary	15.00000	0.00108		
		Sugar	57-50-1	100.00000	0.00046		
		Proprietary	Proprietary	100.00000	0.00046		
		Proprietary	Proprietary	15.00000	0.00044		
		Proprietary	Proprietary	15.00000	0.00044		
		Water	7732-18-5	100.00000	0.00023		
		Water	7732-18-5	48.00000	0.00021		
		2-Butoxyethanol	111-76-2	13.00000	0.00006		
		Proprietary	Proprietary	1.00000	0.00001		
		Proprietary	Proprietary	1.00000	0.00001		
		Proprietary	Proprietary	1.00000	0.00001		
		Proprietary	Proprietary	1.00000	0.00001		
		Dioxane	123-91-1	1.00000	0.00000		
		Organophylic Clay	68953-58-2				

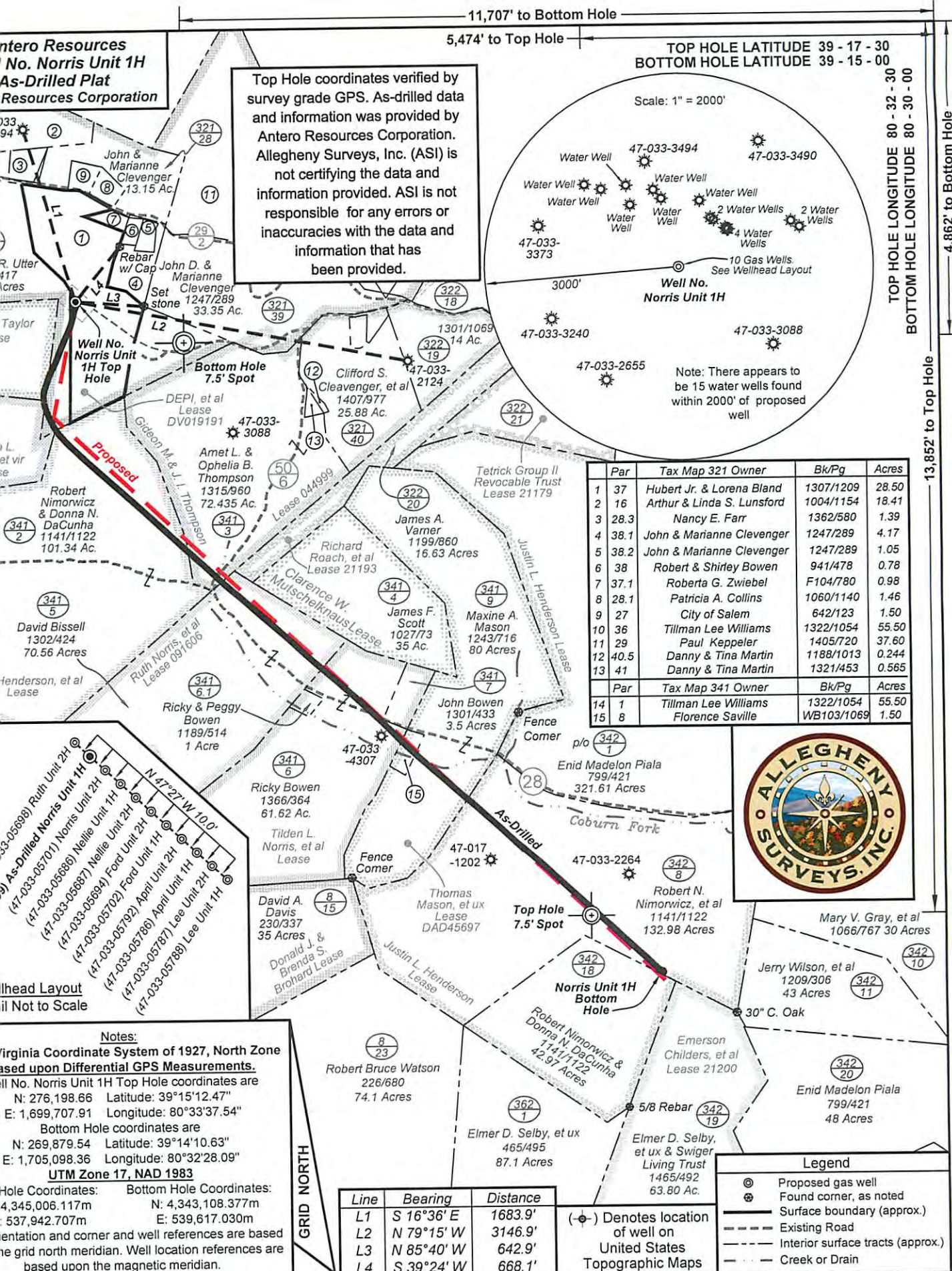
* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

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)

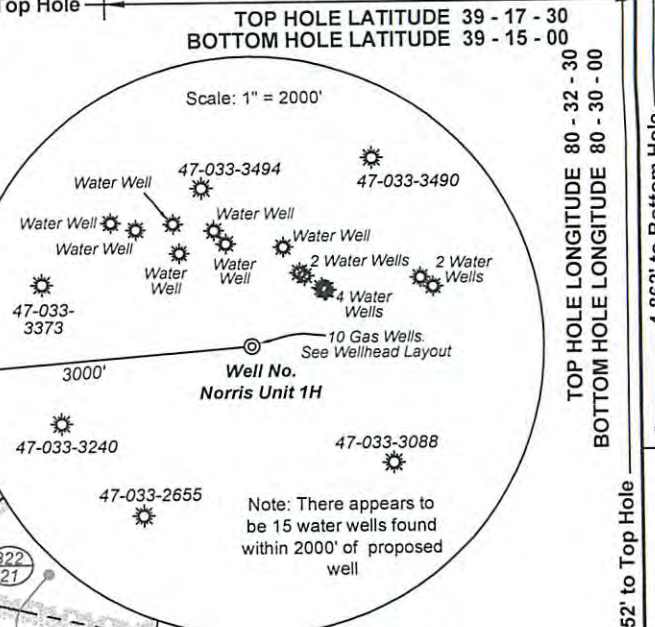
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Top Hole coordinates verified by survey grade GPS. As-drilled data and information was provided by Antero Resources Corporation. Allegheny Surveys, Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors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



Par	Tax Map 321 Owner	Bk/Pg	Acres
1	37 Hubert Jr. & Lorena Bland	1307/1209	28.50
2	16 Arthur & Linda S. Lunsford	1004/1154	18.41
3	28.3 Nancy E. Farr	1362/580	1.39
4	38.1 John & Marianne Clevenger	1247/289	4.17
5	38.2 John & Marianne Clevenger	1247/289	1.05
6	38 Robert & Shirley Bowen	941/478	0.78
7	37.1 Roberta G. Zwiebel	F104/780	0.98
8	28.1 Patricia A. Collins	1060/1140	1.46
9	27 City of Salem	642/123	1.50
10	36 Tillman Lee Williams	1322/1054	55.50
11	29 Paul Keppeler	1405/720	37.60
12	40.5 Danny & Tina Martin	1188/1013	0.244
13	41 Danny & Tina Martin	1321/453	0.565
Legend			
Par	Tax Map 341 Owner	Bk/Pg	Acres
14	1 Tillman Lee Williams	1322/1054	55.50
15	8 Florence Saville	WB103/1069	1.50



Notes:
 Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 All No. Norris Unit 1H Top Hole coordinates are
 N: 276,198.66 Latitude: 39°15'12.47"
 E: 1,699,707.91 Longitude: 80°33'37.54"
 Bottom Hole coordinates are
 N: 269,879.54 Latitude: 39°14'10.63"
 E: 1,705,098.36 Longitude: 80°32'28.09"
UTM Zone 17, NAD 1983
 Hole Coordinates: Bottom Hole Coordinates:
 4,345,006.117m N: 4,343,108.377m
 537,942.707m E: 539,617.030m
 Elevation and corner and well references are based on the grid north meridian. Well location references are based upon the magnetic meridian.

Line	Bearing	Distance
L1	S 16°36' E	1683.9'
L2	N 79°15' W	3146.9'
L3	N 85°40' W	642.9'
L4	S 39°24' W	668.1'

Legend

- ⊙ Proposed gas well
- ⊕ Found corner, as noted
- Surface boundary (approx.)
- - - Existing Road
- - - Interior surface tracts (approx.)
- - - Creek or Drain

(⊕) Denotes location of well on United States Topographic Maps

NO: 254-36-TM-12
 WING NO: Norris 1H As-Drilled Plat
 E: 1" = 1200'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

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

DATE: April 14 2015
 OPERATOR'S WELL NO. Norris Unit 1H
 API WELL NO:
 47 - 033 - 05699
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 Original Grade - 1401'
 LOCATION: ELEVATION: Existing Grade - 1376' WATERSHED: Tenmile Creek QUADRANGLE: Salem & Big Isaac
 COUNTY: Harrison 1026.936
 SURFACE OWNER: Hubert Jr. & Lorena Bland Thomas Mason, et ux; Justin L. Henderson 1012; 55.5
 Justin Henderson, et al; Valma L. Arters, et vir DAD45697; 091606 ACREAGE: 28.50 81.5; 70.56
 DOWNTY OWNER: DEPI, et al; Gideon M. & J. I. Thompson; Tiden L. Norris, et al LEASE NO: DV019191; 044999 ACREAGE: 283; 144; 66.12; 55
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled TVD 7,410'
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale DEPTH: MD 15,395'
 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

06/12/2015