

pm

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

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WV Department of
Environmental Protection

API 47-017-06450 County Doddridge District Greenbrier
Quad Salem & Big Isaac Pad Name Clarence Pad Field/Pool Name _____
Farm name Mutschelknaus, Clarence & Mary Well Number Arters 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 4,344,025.287m Easting 537,267.559m
Landing Point of Curve Northing 4,344,282.70m Easting 537,243.75m
Bottom Hole Northing 4,347,343.855m Easting 536,317.643m

Elevation (ft) 1050' 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 2/21/2014 Date drilling commenced 4/12/2014 Date drilling ceased 5/23/2014
Date completion activities began 6/13/2014 Date completion activities ceased 12/27/2014
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 107', 260' 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 1736' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
A.L. 5/26/15
W.S. 6/05/2015

WR-35
Rev. 8/23/13

API 47-017 - 06450

Farm name Mutschelknaus, Clarence & Mary Well number Arters Unit 1H

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Baskin Depth(s) Did cement circulate (Y/N) * Provide details below*

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Baskin Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	40'	New	106.50#/K-55	N/A	Y
Surface	17-1/2"	13-3/8"	360'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2560'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	18,198'	New	23#/P-110	N/A	Y
Tubing		2-3/8"	7247'	New	5.95#/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	196 sx	15.6	1.18	38 Cu. Ft.	0'	8 Hrs.
Surface	Class A	414 sx	15.6	1.18	250 Cu. Ft.	0'	8 Hrs.
Coal							
Intermediate 1	Class A	947 sx	15.6	1.18	802 Cu. Ft.	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1004 sx (Lead), 1741 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.44 (Lead), 1.80 (Tail)	3697 Cu. Ft.	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 18,198' MD, 7239' TVD (BHL) Loggers TD (ft) 18,151' MD

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

Plug back procedure N/A

Kick off depth (ft) 6643'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Ruth Unit 1H API# 47-017-06164). Please reference the wireline logs submitted with Form WR-35 for the Ruth Unit 1H. A Cement Bond Log has been included with this submittal.

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

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 _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED Radioactive & Chemical

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WR-35
Rev. 8/23/13

API 47- 017 - 06450

Farm name Mutschelknaus, Clarence & Mary

WV Department of Environmental Protection
Well number Allen Unit 1H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
			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)
			SEE ATTACHED EXHIBIT 2					

Please insert additional pages as applicable.

API 47- 017 - 06450 Farm name Mutschelknaus, Clarence & Mary Well number Arters Unit 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Marcellus	7116' (Top) TVD	7282' (Top) MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

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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 2823 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		
			SEE ATTACHED 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 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 US Well Services
Address 533 Industrial Park Drive 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 3/31/2015

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

06/05/2015

API 47-017-06450 Farm Name Mutschelknaus, Clarence & Mary Well Number Arters Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	13-Jun-14	17,939	18,107	60	Marcellus
2	22-Jul-14	17,741	17,908	60	Marcellus
3	22-Jul-14	17,542	17,709	60	Marcellus
4	22-Jul-14	17,343	17,511	60	Marcellus
5	23-Jul-14	17,144	17,312	60	Marcellus
6	23-Jul-14	16,945	17,113	60	Marcellus
7	23-Jul-14	16,746	16,914	60	Marcellus
8	23-Jul-14	16,548	16,715	60	Marcellus
9	24-Jul-14	16,349	16,517	60	Marcellus
10	24-Jul-14	16,150	16,318	60	Marcellus
11	24-Jul-14	15,951	16,119	60	Marcellus
12	25-Jul-14	15,752	15,920	60	Marcellus
13	25-Jul-14	15,554	15,721	60	Marcellus
14	25-Jul-14	15,355	15,522	60	Marcellus
15	25-Jul-14	15,156	15,324	60	Marcellus
16	26-Jul-14	14,957	15,125	60	Marcellus
17	26-Jul-14	14,758	14,926	60	Marcellus
18	27-Jul-14	14,560	14,727	60	Marcellus
19	27-Jul-14	14,361	14,528	60	Marcellus
20	27-Jul-14	14,162	14,330	60	Marcellus
21	28-Jul-14	13,963	14,131	60	Marcellus
22	28-Jul-14	13,764	13,932	60	Marcellus
23	28-Jul-14	13,566	13,733	60	Marcellus
24	29-Jul-14	13,367	13,534	60	Marcellus
25	30-Jul-14	13,168	13,336	60	Marcellus
26	30-Jul-14	12,969	13,137	60	Marcellus
27	30-Jul-14	12,770	12,938	60	Marcellus
28	31-Jul-14	12,425	12,590	60	Marcellus
29	31-Jul-14	12,229	12,394	60	Marcellus
30	31-Jul-14	12,032	12,198	60	Marcellus
31	31-Jul-14	11,836	12,002	60	Marcellus
32	1-Aug-14	11,640	11,806	60	Marcellus
33	1-Aug-14	11,444	11,610	60	Marcellus
34	1-Aug-14	11,248	11,414	60	Marcellus
35	1-Aug-14	11,052	11,217	60	Marcellus
36	1-Aug-14	10,856	11,021	60	Marcellus
37	2-Aug-14	10,660	10,825	60	Marcellus
38	2-Aug-14	10,464	10,629	60	Marcellus
39	2-Aug-14	10,268	10,433	60	Marcellus
40	2-Aug-14	10,072	10,237	60	Marcellus
41	8-Sep-14	9,876	10,041	60	Marcellus
42	9-Sep-14	9,679	9,845	60	Marcellus
43	9-Sep-14	9,483	9,649	60	Marcellus
44	9-Sep-14	9,287	9,453	60	Marcellus
45	9-Sep-14	9,091	9,257	60	Marcellus
46	9-Sep-14	8,895	9,061	60	Marcellus
47	10-Sep-14	8,699	8,864	60	Marcellus
48	10-Sep-14	8,503	8,668	60	Marcellus
49	11-Sep-14	8,307	8,472	60	Marcellus
50	11-Sep-14	8,111	8,276	60	Marcellus
51	11-Sep-14	7,915	8,080	60	Marcellus
52	11-Sep-14	7,719	7,884	60	Marcellus
53	12-Sep-14	7,523	7,688	60	Marcellus
54	12-Sep-14	7,327	7,492	60	Marcellus

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API 47-017-06450 Farm Name Mutschelknaus, Clarence & Mary Well Number Arters 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	21-Jul-14	64.0	7,989	6,397	4,949	253,500	7,259	N/A
2	22-Jul-14	68.0	7,948	6,305	4,896	252,800	7,145	N/A
3	22-Jul-14	70.0	7,836	6,256	4,924	254,000	7,212	N/A
4	22-Jul-14	69.0	7,909	6,333	4,580	253,800	6,893	N/A
5	23-Jul-14	73.0	7,738	6,165	5,121	255,350	7,040	N/A
6	23-Jul-14	70.0	7,916	6,110	5,005	230,200	7,245	N/A
7	23-Jul-14	60.0	8,041	6,470	5,317	51,000	7,230	N/A
8	23-Jul-14	63.0	7,883	6,293	5,784	81,400	7,202	N/A
9	24-Jul-15	70.0	7,778	6,512	6,034	253,900	6,869	N/A
10	24-Jul-14	72.0	7,460	6,181	5,772	254,400	6,805	N/A
11	24-Jul-14	72.0	7,813	6,004	5,747	255,600	6,673	N/A
12	25-Jul-14	73.0	7,728	6,132	5,946	253,150	6,561	N/A
13	25-Jul-14	74.0	7,699	6,066	5,995	254,700	6,538	N/A
14	25-Jul-14	73.0	7,419	5,883	5,981	255,200	6,515	N/A
15	25-Jul-14	74.0	7,630	6,285	5,903	254,800	6,492	N/A
16	26-Jul-14	74.0	7,641	6,369	5,862	257,700	6,511	N/A
17	26-Jul-14	75.0	7,473	6,108	5,913	255,700	6,492	N/A
18	27-Jul-14	74.0	7,395	5,917	5,875	256,000	6,524	N/A
19	27-Jul-14	73.0	7,530	6,087	5,876	256,300	6,496	N/A
20	27-Jul-14	72.0	7,566	6,309	5,309	255,400	6,594	N/A
21	28-Jul-14	74.0	7,647	6,473	4,933	257,100	6,468	N/A
22	28-Jul-14	73.0	7,382	62,614	5,105	255,400	6,680	N/A
23	28-Jul-14	74.0	7,581	6,635	4,950	257,700	6,511	N/A
24	29-Jul-14	71.5	7,495	6,008	5,386	207,400	6,966	N/A
25	30-Jul-14	75.0	7,751	6,032	4,890	167,000	6,976	N/A
26	30-Jul-14	73.0	7,695	6,478	4,774	196,500	6,959	N/A
27	30-Jul-14	72.5	7,765	6,561	4,909	179,000	6,884	N/A
28	31-Jul-14	71.0	7,595	6,244	5,090	254,300	6,327	N/A
29	31-Jul-14	74.0	7,559	6,145	4,887	248,200	6,683	N/A
30	31-Jul-14	75.0	7,322	6,410	6,034	253,900	6,289	N/A
31	31-Jul-14	71.0	7,764	6,302	5,786	253,300	6,279	N/A
32	1-Aug-14	73.0	7,655	6,511	4,678	253,800	6,264	N/A
33	1-Aug-14	75.0	7,392	5,988	6,099	253,800	6,250	N/A
34	1-Aug-14	74.0	7,424	6,076	5,518	254,200	6,243	N/A
35	1-Aug-14	71.0	7,755	6,278	5,520	239,200	6,279	N/A
36	1-Aug-14	74.0	7,555	6,230	5,765	254,500	6,279	N/A
37	2-Aug-14	76.0	7,449	5,880	5,419	253,700	6,195	N/A
38	2-Aug-14	74.0	7,100	5,675	5,157	253,800	6,189	N/A
39	2-Aug-14	72.0	7,368	6,282	5,153	253,500	6,243	N/A
40	2-Aug-14	75.0	7,539	5,985	6,166	249,700	6,109	N/A
41	8-Sep-14	70.0	6,900	6,264	5,626	143,200	6,682	N/A
42	9-Sep-14	70.0	7,219	6,277	4,792	246,100	6,470	N/A
43	9-Sep-14	68.0	6,791	6,014	5,769	133,180	6,308	N/A
44	9-Sep-14	69.2	6,660	5,577	5,685	150,000	6,461	N/A
45	9-Sep-14	73.0	6,979	6,123	5,137	253,100	6,458	N/A
46	9-Sep-14	73.0	7,182	6,657	5,581	252,800	6,452	N/A
47	10-Sep-14	72.4	6,833	6,014	5,291	240,050	6,458	N/A
48	10-Sep-14	69.3	6,897	6,042	5,594	238,920	6,418	N/A
49	11-Sep-14	71.0	6,968	6,504	4,959	253,100	6,551	N/A
50	11-Sep-14	71.8	7,199	5,884	5,178	158,750	6,641	N/A
51	11-Sep-14	70.8	7,048	6,088	5,871	217,650	6,017	N/A
52	11-Sep-14	72.0	7,088	6,144	5,145	253,100	6,605	N/A
53	12-Sep-14	63.5	6,937	6,318	5,051	177,700	6,633	N/A
54	12-Sep-14	64.0	7,052	7,336	4,929	126,200	6,589	N/A
	AVG=	71.5	7,462	7,263	5,400	12,334,750	356,112	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Freshwater	107	NA	107	NA
Freshwater	353	NA	353	NA
Shale	0	566	0	566
Shale/Siltstone	est. 566	676	est. 566	676
Shale	est. 676	716	est. 676	716
Shale/Coal	est. 716	836	est. 716	836
Shale/Siltstone	est. 836	1,696	est. 836	1,696
Sandstone	est. 1696	1,736	est. 1696	1,736
Coal	est. 1736	1,766	est. 1736	1,766
Shale	est. 1766	2,013	est. 1766	2,016
Big Lime	2,013	2,116	2,016	2,119
Big Injun	2,116	2,462	2,119	2,465
Gantz Sand	2,462	2,590	2,465	2,593
Fifty Foot Sandstone	2,590	2,677	2,593	2,680
Gordon	2,677	2,848	2,680	2,851
Fifth Sandstone	2,848	2,886	2,851	2,889
Bayard	2,886	3,364	2,889	3,367
Warren	3,364	3,566	3,367	3,569
Speechley	3,566	3,882	3,569	3,885
Baltown	3,882	4,380	3,885	4,385
Bradford	4,380	4,968	4,385	4,976
Benson	4,968	5,284	4,976	5,292
Alexander	5,284	5,442	5,292	5,450
Elk	5,442	6,069	5,450	6,078
Rhinestreet	6,069	6,598	6,078	6,607
Sycamore	6,598	6,788	6,607	6,805
Middlesex	6,788	6,944	6,805	6,991
Burkett	6,944	6,968	6,991	7,023
Tully	6,968	7,116	7,023	7,282
Marcellus	7,116	NA	7,282	NA
Onondaga**	7,158	NA	12,585	NA

*Please note Antero determines shallow formation tops based on mud and/or wireline logs that are only run on one well on a multi-well pad (Please reference Wireline Logs submitted for the Ruth Unit 1H API# 47-017-06164). The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

**A portion of this well drilled less than 5 feet into the Onondaga from 12,610'-12,750' (MD) in the lateral, but this section was not perforated or completed.

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/21/2014
Job End Date:	9/11/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06450-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Arlers Unit 1H
Longitude:	-80.56830000
Latitude:	39.24464700
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,239
Total Base Water Volume (gal):	14,123,970
Total Base Non Water Volume:	598,600

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	90.58992	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	9.05773	
LGC-15	U.S. Well Services, LLC	Gelling Agents	Guar Gum	9000-30-0	50.00000	0.05030	
			Petroleum Distillates	64742-47-8	60.00000	0.04764	
			Suspending agent (solid)	14808-60-7	3.00000	0.00769	
			Surfactant	68439-51-0	3.00000	0.00302	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.50000	0.08550	
			Hydrogen Chloride	7647-01-0	18.00000	0.02042	
MFRA-405	U.S. Well Services, LLC	Friction Reducer	Antonic Polyacrylamide	Proprietary		0.03291	
			Water	7732-18-5	40.00000	0.03291	
			Petroleum Distillates	64742-47-8	22.00000	0.02649	
			Ethoxylated alcohol blend	Proprietary	5.00000	0.00411	



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SI-1100	J.S. Well Services	Scale Inhibitor	Crystalline Salt	12125-02-9	5.00000	0.00414	
			DI Water	7732-18-5	80.00000	0.01151	
			Ethylene Glycol	107-21-1	40.00000	0.00650	
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	10.00000	0.00194	
			2-Phosphonobutane 1,2,4 dicarboxylic salt	37971-36-1	10.00000	0.00186	
			hexamethylenediamine tetra (methylene phosphonic acid)	38820-59-6	10.00000	0.00180	
			Copolymer of Maleic and Acrylic acid	26677-99-6	10.00000	0.00170	
			bis (hexamethylene) triamine penta (methylene phosphonic acid) - phosphate acid	40623-75-4	10.00000	0.00165	
			Acrylic polymer	52255-49-9	5.00000	0.00072	
K-BAC 1020	J.S. Well Services, LLC	Anti-Bacterial Agent					
			2,2-dibromo-3-nitropropanamide	10222-01-2	20.00000	0.00464	
			Deionized Water	7732-18-5	28.00000	0.00265	
AP One	J.S. Well Services, LLC	Gel Breakers					
			Ammonium Persulfate	7727-54-0	100.00000	0.00175	
AI-300	J.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene Glycol	107-21-1	31.00000	0.00022	
			N,N-Dimethylformamide	68-12-2	15.00000	0.00007	
			Cinnamaldehyde	104-55-2	5.00000	0.00006	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	13.00000	0.00006	
			2-Butoxyethanol	111-76-2	7.00000	0.00005	
			Ethoxylated Nonylphenol	68412-54-4	5.00000	0.00002	
			Water	7732-18-5	20.00000	0.00002	
			Triethyl Phosphate	78-40-0	3.00000	0.00001	
			isopropyl Alcohol	67-63-0	3.00000	0.00001	

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)

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Office of Oil and Gas
MAY 18 2015

7,567' to Top Hole

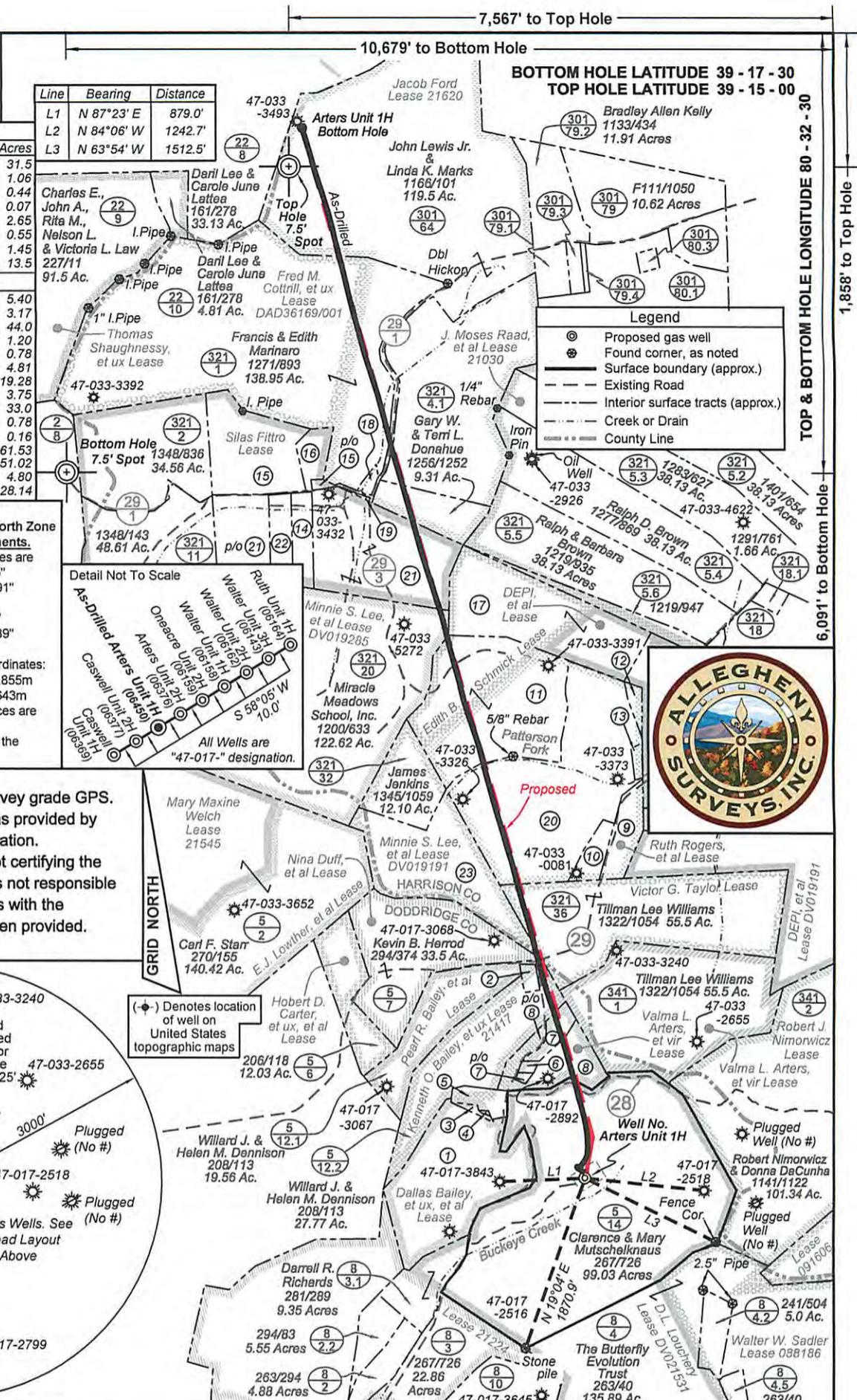
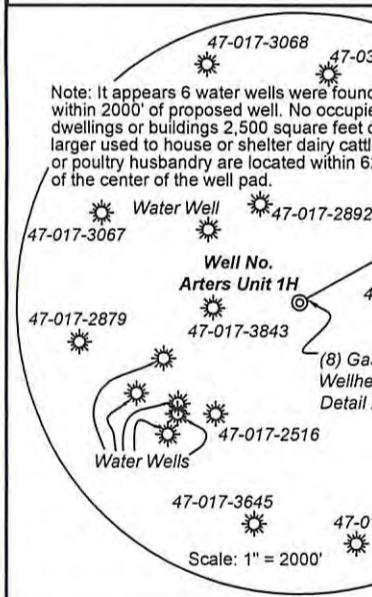
Antero Resources
Well No. Arters Unit 1H
As-Drilled Plat
Antero Resources Corporation

Tax Map 5 Parcels				
Par	Owner	DB/Pg	Acres	
1	12	Ricky & Carla Jan Watson	186/339	31.5
2	16	Phillip & Sue Ellen Rager	195/779	1.06
3	12.4	Mt. Olive Baptist Trustees	252/98	0.44
4	12.3	Mt. Olive Baptist Trustees	214/734	0.07
5	13	Mt. Olive Baptist Trustees	-	2.65
6	17.1	William & Leanna J. Davis	229/116	0.55
7	17	James Jr. & Jo Anne Davis	168/338	1.45
8	20	Tillman Lee Williams	246/344	13.5

Tax Map 321 Parcels				
Par	Owner	DB/Pg	Acres	
9	34	Tillman Lee Williams	1322/1056	5.40
10	22.1	Earl Dixon	1062/878	3.17
11	21	Dave & Jennifer Lohman	1369/196	44.0
12	14	Arthur & Linda Lunsford	1004/1150	1.20
13	24	Gary & Janette Alderman	1421/1212	0.78
14	12.2	Layman Foundation	1300/641	4.81
15	3	Francis & Edith Marinaro	1348/836	19.28
16	3.1	Francis & Edith Marinaro	1461/310	3.75
17	13	Linda S. Lunsford	1219/947	33.0
18	4.4	Gordon & Kerry Edgell	1466/590	0.78
19	4.2	Gordon & Kerry Edgell	1466/588	0.16
20	22	James & Anna Taylor	1188/435	61.53
21	12	Miracle Meadows School	1210/9	51.02
22	12.1	Layman Foundation	1307/743	4.80
23	33	James L. Jenkins	1345/1059	28.14

Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Arters Unit 1H Top Hole coordinates are
 N: 273,017.02 Latitude: 39°14'40.75"
 E: 1,697,438.79 Longitude: 80°34'05.91"
 Bottom Hole coordinates are
 N: 283,958.93 Latitude: 39°16'28.55"
 E: 1,694,503.08 Longitude: 80°34'44.89"
UTM Zone 17, NAD 1983
 Top Hole Coordinates: Bottom Hole Coordinates:
 N: 4,344,025.287m N: 4,347,343.855m
 E: 537,267.559m E: 536,317.643m
 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.



FILE NO: 355-30-G-12
 DRAWING NO: Arters 1H As-Drilled Plat
 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: March 27 2015
 OPERATOR'S WELL NO. Arters Unit 1H
 API WELL NO:
 47 - 017 - 06450
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Existing Grade - 1045' Proposed Grade - 1050' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: Big Isaac
 DISTRICT: Greenbrier COUNTY: Doddridge
 SURFACE OWNER: Clarence & Mary Mutschelknaus ACREAGE: 99.03 39.339; 130
 ROYALTY OWNER: D. L. Louchery; Valma L. Arters, et vir; Victor G. Taylor; Pearl R. Bailey, et ux; Ruth Rogers, et al LEASE NO: DV019191; 21620 ACREAGE: 72.253; 27.12; 20.42
 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: MD 18, 198'

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

