

WR-35
Rev. 8/23/13

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

API 47-017-06861 County Doddridge District West Union
 Quad West Union 7.5' Pad Name Alexander Pad Field/Pool Name -----
 Farm name Antero Resources Corporation Well Number Scorpio 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 7354073m Easting 519366m
 Landing Point of Curve Northing 4354143m Easting 519222m
 Bottom Hole Northing 4356650m Easting 518511m

Elevation (ft) 1181' 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 9/20/2017 Date drilling commenced 1/18/2018 Date drilling ceased 5/29/2018
 Date completion activities began 11/26/2018 Date completion activities ceased 1/5/2019
 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 None Identified Open mine(s) (Y/N) depths No
 Salt water depth(s) ft None Identified Void(s) encountered (Y/N) depths No
 Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No
 Is coal being mined in area (Y/N) No

Reviewed by:

WR-35
Rev. 8/23/13

API 47-017 - 06861 Farm name Antero Resources Corporation Well number Scorpio 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"	105'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	577.3'	New	54#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2572.1'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	16286.6'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7010'		4.7#, P-110		
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	204 sx	15.6	1.18	241	0'	8 Hrs.
Surface	Class A	530 sx	15.6	1.21	641	0'	8 Hrs.
Coal							
Intermediate 1	Class A	860 sx	15.6	1.21	1041	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	830sx (Lead) 1400 sx (Tail)	14 (Lead), 15.2 (Tail)	1.45 (Lead), 1.94(Tail)	3920	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16287' MD, 6844' TVD (BHL), 66876' (Deepest Point Drilled) Loggers TD (ft) 16287' MD

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

Plug back procedure N/A

Kick off depth (ft) 6400'

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

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 N/A

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API 47- 017 - 06861 Farm name Antero Resources Corporation Well number Scorpio Unit 2H

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6812' (TOP)	TVD	7069' (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 11653 mcfpd Oil 92 bpd NGL --- bpd Water 423 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	

***PLEASE 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 Allied Horizontal Wireline Services
Address 381 Colonial Manor Rd City North Huntington State PA Zip 15642

Cementing Company Halliburton
Address 121 Champion Way City Canonsburg State PA Zip 15317

Stimulating Company Halliburton
Address 121 Champion Way City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by Karin Cox Telephone 303-357-6820
Signature  Title Permitting Agent Date 4/30/2019

API 47-017-06861 Farm Name Matthew W. Alexander & Linda Marie Muhly Well Number Scorpio Unit 2H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	11/26/2018	16083.2	16183.1	60	Marcellus
2	11/26/2018	15883.88	16051.98	60	Marcellus
3	11/26/2018	15684.56	15852.66	60	Marcellus
4	11/27/2018	15485.24	15653.34	60	Marcellus
5	11/27/2018	15285.92	15454.02	60	Marcellus
6	11/27/2018	15086.6	15254.7	60	Marcellus
7	11/27/2018	14887.28	15055.38	60	Marcellus
8	11/28/2018	14687.96	14856.06	60	Marcellus
9	11/28/2018	14488.64	14656.74	60	Marcellus
10	11/28/2018	14289.32	14457.42	60	Marcellus
11	11/29/2018	14090	14258.1	60	Marcellus
12	11/29/2018	13890.68	14058.78	60	Marcellus
13	11/29/2018	13691.36	13859.46	60	Marcellus
14	11/30/2018	13492.04	13660.14	60	Marcellus
15	11/30/2018	13292.72	13460.82	60	Marcellus
16	11/30/2018	13093.4	13261.5	60	Marcellus
17	12/1/2018	12894.08	13062.18	60	Marcellus
18	12/1/2018	12694.76	12862.86	60	Marcellus
19	12/1/2018	12495.44	12663.54	60	Marcellus
20	12/2/2018	12296.12	12464.22	60	Marcellus
21	12/2/2018	12096.8	12264.9	60	Marcellus
22	12/2/2018	11897.48	12065.58	60	Marcellus
23	12/2/2018	11698.16	11866.26	60	Marcellus
24	12/3/2018	11498.84	11666.94	60	Marcellus
25	12/3/2018	11299.52	11467.62	60	Marcellus
26	12/3/2018	11100.2	11268.3	60	Marcellus
27	12/3/2018	10900.88	11068.98	60	Marcellus
28	12/4/2018	10701.56	10869.66	60	Marcellus
29	12/4/2018	10502.24	10670.34	60	Marcellus
30	12/4/2018	10302.92	10471.02	60	Marcellus
31	12/4/2018	10103.6	10271.7	60	Marcellus
32	12/5/2018	9904.28	10072.38	60	Marcellus
33	12/5/2018	9704.96	9873.06	60	Marcellus
34	12/5/2018	9505.64	9673.74	60	Marcellus
35	12/5/2018	9306.32	9474.42	60	Marcellus
36	12/6/2018	9107	9275.1	60	Marcellus
37	12/6/2018	8907.68	9075.78	60	Marcellus
38	12/6/2018	8708.36	8876.46	60	Marcellus
39	12/6/2018	8509.04	8677.14	60	Marcellus
40	12/7/2018	8309.72	8477.82	60	Marcellus
41	12/7/2018	8110.4	8278.5	60	Marcellus
42	12/7/2018	7911.08	8079.18	60	Marcellus
43	12/8/2018	7711.76	7879.86	60	Marcellus
44	12/8/2018	7512.44	7680.54	60	Marcellus
45	12/8/2018	7313.12	7481.22	60	Marcellus
46	12/8/2018	7113.8	7281.9	60	Marcellus

API 47-017-06861 Farm Name Matthew W. Alexander & Linda Marie Muhly Well Number Scorpio Unit 2H

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	11/26/2018	75.1	7142	5265	3991	282780	7015.31	N/A
2	11/26/2018	73.3	7376	5109	4035	404000	7643.31	N/A
3	11/26/2018	71.97	7869	6027	4039	407320	7539.214	N/A
4	11/27/2018	69.73	7852	5786	3827	402020	8947	N/A
5	11/27/2018	74.95	7894	5562	5174	400080	7409.524	N/A
6	11/27/2018	75.55	7719	5413	4684	410800	7961.31	N/A
7	11/27/2018	79.01	7882	5670	5014	403700	7731.81	N/A
8	11/28/2018	71.14	7710	5456	4866	404480	7503.786	N/A
9	11/28/2018	73.93	8192	5680	5300	411960	8064.095	N/A
10	11/28/2018	73.03	8010	5535	4580	401440	8659.357	N/A
11	11/29/2018	71.83	7757	5059	4816	403820	7999.071	N/A
12	11/29/2018	70.84	7600	5519	5073	411060	7662.905	N/A
13	11/29/2018	75.93	7853	4961	4568	405200	7396.952	N/A
14	11/30/2018	59.81	8199	5846	4399	404860	10448.57	N/A
15	11/30/2018	75.48	7843	5942	5354	405940	7493.429	N/A
16	11/30/2018	77.3	7734	6478	4392	399800	7277.952	N/A
17	12/1/2018	52.17	8365	6342	4268	405400	14938.48	N/A
18	12/1/2018	69.56	7388	6170	5388	399620	7322.19	N/A
19	12/1/2018	70.98	8032	6397	5384	400140	7112.833	N/A
20	12/2/2018	77.19	7695	6393	5120	402920	7310.286	N/A
21	12/2/2018	74.57	7845	5997	4301	408440	7405.452	N/A
22	12/2/2018	77.48	7712	6230	4935	409800	7270.5	N/A
23	12/2/2018	76.32	7686	5878	4594	404120	7175.69	N/A
24	12/3/2018	74.35	7902	6361	4901	402780	7720.214	N/A
25	12/3/2018	76.3	7530	6399	3837	402460	7235.714	N/A
26	12/3/2018	72.5	7571	6189	4568	408440	7191.905	N/A
27	12/3/2018	76.36	7311	6126	4068	408940	7248.31	N/A
28	12/4/2018	74.24	7486	6338	4746	396740	7025.762	N/A
29	12/4/2018	75.6	7426	5905	5327	406400	7143.381	N/A
30	12/4/2018	76	7298	6080	4844	405080	7141.452	N/A
31	12/4/2018	78.8	7184	6294	4883	405100	7102.667	N/A
32	12/5/2018	77.98	7090	6011	4621	400800	7133.857	N/A
33	12/5/2018	76.8	7353	6039	5599	417140	7240.119	N/A
34	12/5/2018	78.1	7154	5268	5058	414560	7197.976	N/A
35	12/5/2018	75.75	7555	5847	3747	413480	8317.238	N/A
36	12/6/2018	72.47	7743	5500	3811	415040	8174.357	N/A
37	12/6/2018	75.25	7467	5606	3768	405200	7548.857	N/A
38	12/6/2018	76.85	6917	5707	3970	416060	7663.429	N/A
39	12/6/2018	76.58	7248	8542	4004	405940	7361.881	N/A
40	12/7/2018	77.5	7296	6176	4358	405200	7224.714	N/A
41	12/7/2018	73.21	7252	6073	3858	413540	7536.81	N/A
42	12/7/2018	72.22	7562	5550	3915	411120	8242.905	N/A
43	12/8/2018	76.76	7525	5372	3920	406060	7164.619	N/A
44	12/8/2018	77.08	6834	5184	4715	415140	7350.214	N/A
45	12/8/2018	81.26	6812	5363	5122	404640	7201.762	N/A
46	12/8/2018	80.5	6603	5883	4142	409800	7174.762	N/A
AVG=		74	7,554	5,881	4,563	18,579,360	355,632	TOTAL

API 47-017-06861 Farm Name Matthew W. Alexander & Linda Marie Muhly Well Number Scorpio Unit 2H

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Shaly Sandstone	0	155	0	155
Sandy Shale	est 155	215	est 155	215
Shaly Sandstone	est 215	255	est 215	255
Sandstone	est 255	395	est 255	395
Shaly Sandstone	est 395	505	est 395	505
Sandstone	est 505	575	est 505	575
Carbonaceous shale	est 575	615	est 575	615
Sandstone	est 615	765	est 615	765
Shaly sandstone tr coal	est 765	1,025	est 765	1,025
Shaly Siltstone	est 1025	1,305	est 1025	1,305
Sandstone	est 1305	1,455	est 1305	1,455
Sandy siltstone	est 1455	1,855	est 1455	1,855
Sandstone	est 1855	2,087	est 1855	2,088
Big Lime	2,087	2,657	2,088	2,658
Fifty Foot Sandstone	2,657	2,871	2,658	2,872
Gordon	2,871	3,075	2,872	3,077
Fifth Sandstone	3,075	3,133	3,077	3,136
Bayard	3,133	3,916	3,136	3,927
Speechley	3,916	4,223	3,927	4,237
Balltown	4,223	4,710	4,237	4,729
Bradford	4,710	5,165	4,729	5,189
Benson	5,165	5,431	5,189	5,458
Alexander	5,431	6,432	5,458	6,477
Sycamore	6,432	6,601	6,477	6,675
Middlesex	6,601	6,736	6,675	6,880
Burkett	6,736	6,765	6,880	6,939
Tully	6,765	6,812	6,939	7,069
Marcellus	6,812	NA	7,069	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.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/26/2018
Job End Date:	12/8/2018
State:	West Virginia
County:	Doddridge
API Number:	47-017-06861-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Scorpio 2H
Latitude:	39.33578100
Longitude:	-80.77546400
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,877
Total Base Water Volume (gal):	15,419,592
Total Base Non Water Volume:	0



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
Fresh Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	87.09773	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.23025	

Brine Water	Operator	Base Fluid							
			Water		7732-18-5	100.00000	0.01535	Density = 9.800	
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant			Listed Below				
MC B-8614	Halliburton	Biocide							
					Listed Below				
HYDROCHLORI C ACID	Halliburton	Solvent							
					Listed Below				
FDP-S1296-17	Halliburton	Corrosion Inhibitor							
					Listed Below				
SP BREAKER	Halliburton	Breaker							
					Listed Below				
EXCELERATE PS-2	Halliburton	Friction Reducer							
					Listed Below				
SCALECHEK LP-70	Halliburton	Scale Inhibitor							
					Listed Below				

WG-36 GELLING AGENT	Halliburton	Gelling Agent							
				Listed Below					
SAND-PREMIUM WHITE-30/50, BULK	Halliburton	Proppant							
				Listed Below					
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant							
				Listed Below					
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.									
			Crystalline silica, quartz	14808-60-7	100.00000	12.60045			
			Hydrochloric acid	7647-01-0	15.00000	0.02648			
			Guar gum	9000-30-0	100.00000	0.02303			
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01896			
			Inorganic salt	Proprietary	30.00000	0.01896			
			Acrylamide acrylate polymer	Proprietary	30.00000	0.01896			Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Ethylene glycol	107-21-1	60.00000	0.00839			
			Glutaraldehyde	111-30-8	30.00000	0.00269			
			Telmer	Proprietary	10.00000	0.00140			
			Sodium persulfate	7775-27-1	100.00000	0.00065			
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00045			
			Methanol	67-56-1	100.00000	0.00014			
			Sodium polyacrylate	9003-04-7	1.00000	0.00014			

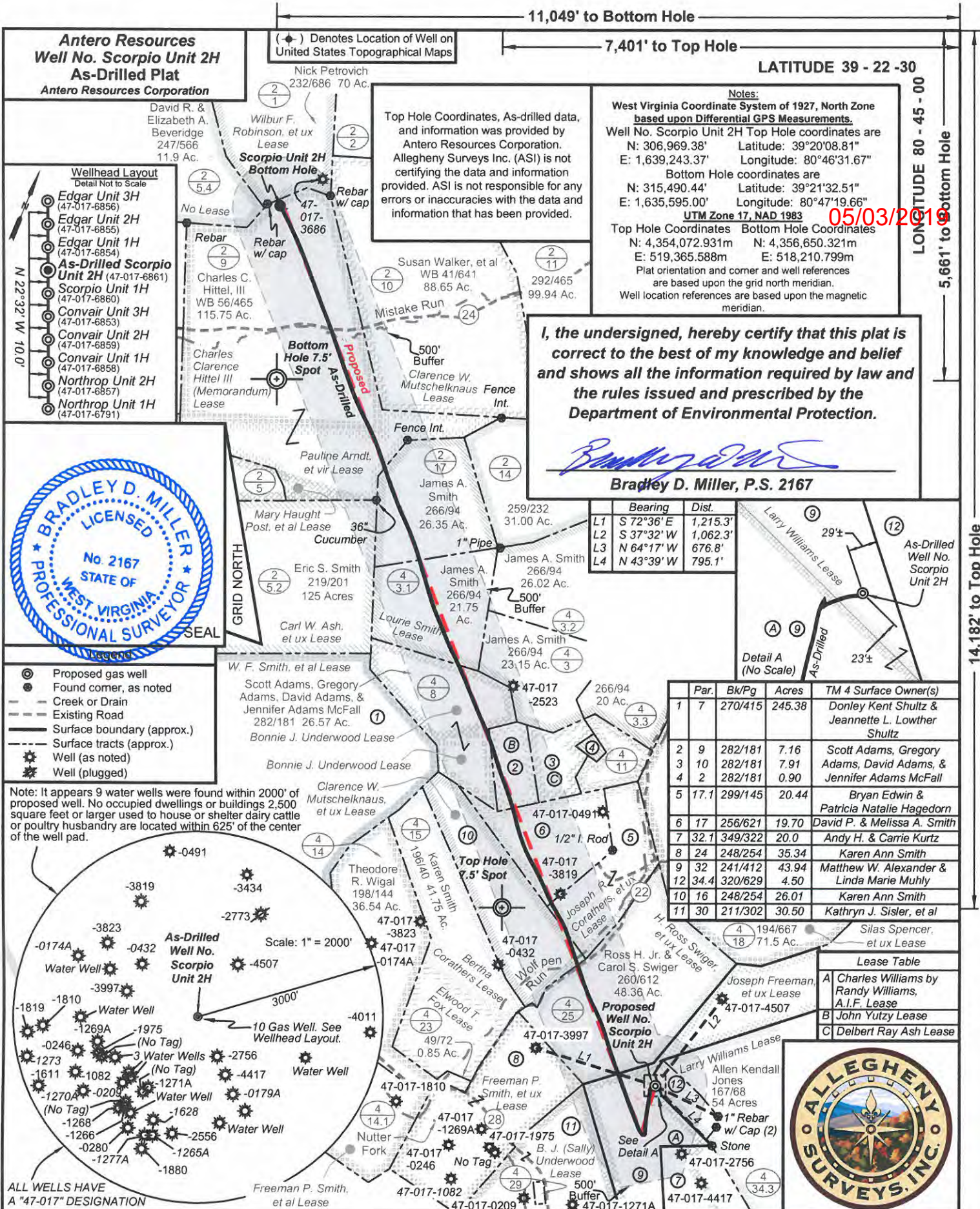
			Ethanol	64-17-5	1.00000	0.00009
			Modified thiourea polymer	Proprietary	30.00000	0.00004
			Phosphoric acid	7664-38-2	0.10000	0.00001
			Propargyl alcohol	107-19-7	5.00000	0.00001
			Ethoxylated alcohols	Proprietary	5.00000	0.00001
			Acrylic acid	79-10-7	0.01000	0.00000
			Sodium sulfate	7757-82-6	0.10000	0.00000

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)



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

David R. & Elizabeth A. Beveridge
 247/566
 11.9 Ac.

Wilbur F. Robinson, et ux
 Lease

Wellhead Layout
 Detail Not to Scale

Edgar Unit 3H (47-017-6856)
 Edgar Unit 2H (47-017-6855)
 Edgar Unit 1H (47-017-6854)
As-Drilled Scorpio Unit 2H (47-017-6861)
 Scorpio Unit 1H (47-017-6860)
 Convaire Unit 3H (47-017-6853)
 Convaire Unit 2H (47-017-6859)
 Convaire Unit 1H (47-017-6858)
 Northrop Unit 2H (47-017-6857)
 Northrop Unit 1H (47-017-6791)

(*) Denotes Location of Well on United States Topographical Maps

Nick Petrovich
 232/686 70 Ac.

11,049' to Bottom Hole

7,401' to Top Hole

LATITUDE 39 - 22 - 30

LONGITUDE 80 - 45 - 00

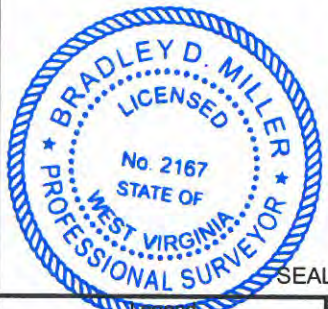
Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Scorpio Unit 2H Top Hole coordinates are
 N: 306,969.38' Latitude: 39°20'08.81"
 E: 1,639,243.37' Longitude: 80°46'31.67"
 Bottom Hole coordinates are
 N: 315,490.44' Latitude: 39°21'32.51"
 E: 1,635,595.00' Longitude: 80°47'19.66"
UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,354,072.931m N: 4,356,650.321m
 E: 519,365.588m E: 518,210.799m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

05/03/2019

Top Hole Coordinates, 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.

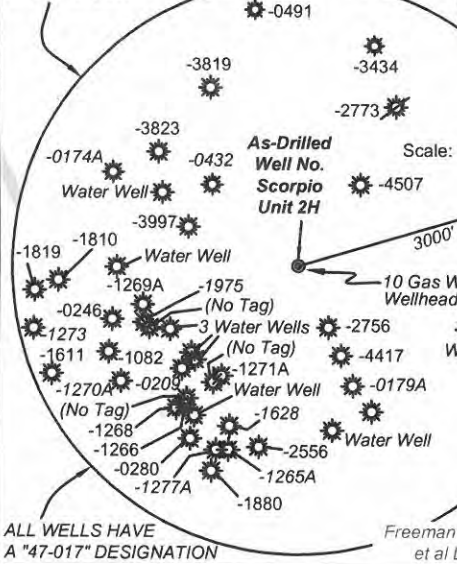
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
Bradley D. Miller, P.S. 2167



- Proposed gas well
- Found corner, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Surface tracts (approx.)
- Well (as noted)
- Well (plugged)

Note: It appears 9 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



Bearing	Dist.
L1 S 72°36' E	1,215.3'
L2 S 37°32' W	1,062.3'
L3 N 64°17' W	676.8'
L4 N 43°39' W	795.1'

Par.	Bk/Pg	Acres	TM 4 Surface Owner(s)
1	7	270/415	245.38 Donley Kent Shultz & Jeannette L. Lowther Shultz
2	9	282/181	7.16 Scott Adams, Gregory Adams, David Adams, & Jennifer Adams McFall
3	10	282/181	7.91
4	2	282/181	0.90
5	17.1	299/145	20.44 Bryan Edwin & Patricia Natalie Hagedorn
6	17	256/621	19.70 David P. & Melissa A. Smith
7	32.1	349/322	20.0 Andy H. & Carrie Kurtz
8	24	248/254	35.34 Karen Ann Smith
9	32	241/412	43.94 Matthew W. Alexander & Linda Marie Muhly
12	34.4	320/629	4.50 Karen Ann Smith
10	16	248/254	26.01
11	30	211/302	30.50 Kathryn J. Sisler, et al
4	18	194/667	71.5 Ac. Silas Spencer, et ux Lease

Lease Table
A Charles Williams by Randy Williams, A.I.F. Lease
B John Yutzy Lease
C Delbert Ray Ash Lease



FILE NO: 41-30-WU-14
 DRAWING NO: Scorpio 2H Well Plat
 SCALE: 1" = 1200'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: October 8 20 18
 Operator's Well No. Scorpio Unit 2H
 API WELL NO
 47 - 017 - 06861
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Drilled Grade - 1181' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: West Union
 DISTRICT: West Union COUNTY: Doddridge 428.51; 28
 SURFACE OWNER: Matthew W. Alexander & Linda Marie Muhly John Yutzy; Lourie Smith Clarence W. Mutschelknaus, et ux; Larry Williams Joseph R. Corathers, et ux; H. Ross Swiger, et ux ACREAGE: 43.94 48.36; 7.16
 ROYALTY OWNER: Charles Clarence Hittel III (Memorandum); Charles Williams by Randy Williams, A.I.F. LEASE NO: _____ ACREAGE: 84.25; 31; 115; 67 59; 19.5; 7

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,844' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 16,287' 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