

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

API 47-017-06918 County Doddridge District West Union
Quad West Union Pad Name Gaspar Field/Pool Name -----
Farm name Antero Midstream, LLC Well Number Mule Unit 3H
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 4351721m Easting 520459m
Landing Point of Curve Northing 4351295.65m Easting 520107.52m
Bottom Hole Northing 4348750m Easting 520937m

Elevation (ft) 1189' 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 1/18/2022 Date drilling commenced 3/5/2022 Date drilling ceased 6/15/2022
Date completion activities began 9/4/2022 Date completion activities ceased 10/23/2022
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 140, 200, 171' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1345' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 814' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED

Reviewed by:
IMR 02/13/2023
03/17/2023

API 47-017 - 06918 Farm name Antero Midstream, LLC Well number Mule Unit 3H

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	20"	16"	80'	New	62.64#, X-60	N/A	Y
Surface	13-1/2"	10-3/4"	354'	New	40.5#, J-55	N/A	Y
Coal							
Intermediate 1	9-7/8"	7-5/8"	2637'	New	26.4#, L-80	N/A	Y
Intermediate 2							
Intermediate 3							
Production	6-3/4"	5"	16109'	New	18#, P-110CY	N/A	Y
Tubing		2-3/8"	7105.3'		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	96 sx	15.6	1.18	22	0'	8 Hrs.
Surface	Class A	681 sx	15.8	1.16	790	0'	8 Hrs.
Coal							
Intermediate 1	Class A	620 sx	15.8	1.16	719	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	996 sx (Lead)	13 (Lead), 12.5 (Tail)	1.42 (Lead)	1414	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16109' MD, 6834' TVD (BHL), 6906' (Deepest Point Drilled) Loggers TD (ft) 16109' MD

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

Plug back procedure N/A

Kick off depth (ft) 6514'

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

API 47- 017 - 06918 Farm name Antero Midstream, LLC Well number Mule Unit 3H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6830' (TOP)</u> TVD	<u>7284' (TOP)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2203 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 6782 mcfpd Oil 85 bpd NGL --- bpd Water 1214 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>		<u>BOTTOM</u>		<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	

***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor H & P Drilling
Address 912 N Eagle Valley Rd City Howard State PA Zip 16841

Logging Company GR Energy Services
Address 2150 Town Square Pl #410 City Sugar Land State TX Zip 77479

Cementing Company Halliburton Energy Services
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Stimulating Company Halliburton
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Please insert additional pages as applicable.

Completed by Carly Marvel Telephone 303-357-7373
Signature Carly Marvel Title Permitting Agent Date 1/9/2023

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

03/17/2023

API 47-017-06918 Farm Name Antero Midstream, LLC Well Number Mule Unit 3H

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	09/04/2022	15988.0	15941.0	60	Marcellus
2	09/04/2022	15903.7	15738.9	60	Marcellus
3	09/04/2022	15703.6	15538.9	60	Marcellus
4	09/05/2022	15503.5	15338.8	60	Marcellus
5	09/05/2022	15303.4	15138.7	60	Marcellus
6	09/05/2022	15103.4	14938.7	60	Marcellus
7	09/05/2022	14903.3	14738.6	60	Marcellus
8	09/05/2022	14703.2	14538.5	60	Marcellus
9	09/06/2022	14503.2	14338.4	60	Marcellus
10	09/06/2022	14303.1	14138.4	60	Marcellus
11	09/06/2022	14103.0	13938.3	60	Marcellus
12	09/06/2022	13903.0	13738.2	60	Marcellus
13	09/07/2022	13702.9	13538.2	60	Marcellus
14	09/07/2022	13502.8	13338.1	60	Marcellus
15	09/07/2022	13302.7	13138.0	60	Marcellus
16	09/07/2022	13102.7	12938.0	60	Marcellus
17	09/07/2022	12902.6	12737.9	60	Marcellus
18	09/07/2022	12702.5	12537.8	60	Marcellus
19	09/08/2022	12502.5	12337.7	60	Marcellus
20	09/08/2022	12302.4	12137.7	60	Marcellus
21	09/08/2022	12102.3	11937.6	60	Marcellus
22	09/08/2022	11902.3	11737.5	60	Marcellus
23	09/08/2022	11702.2	11537.5	60	Marcellus
24	09/09/2022	11502.1	11337.4	60	Marcellus
25	09/09/2022	11302.1	11137.3	60	Marcellus
26	09/09/2022	11102.0	10937.3	60	Marcellus
27	09/09/2022	10901.9	10737.2	60	Marcellus
28	09/09/2022	10701.8	10537.1	60	Marcellus
29	09/10/2022	10501.8	10337.0	60	Marcellus
30	09/10/2022	10301.7	10137.0	60	Marcellus
31	09/10/2022	10101.6	9936.9	60	Marcellus
32	09/10/2022	9901.6	9736.8	60	Marcellus
33	09/10/2022	9701.5	9536.8	60	Marcellus
34	09/11/2022	9501.4	9336.7	60	Marcellus
35	09/11/2022	9301.4	9136.6	60	Marcellus
36	09/11/2022	9101.3	8936.6	60	Marcellus
37	09/11/2022	8901.2	8736.5	60	Marcellus
38	09/11/2022	8701.1	8536.4	60	Marcellus
39	09/12/2022	8501.1	8336.3	60	Marcellus
40	09/12/2022	8301.0	8136.3	60	Marcellus
41	09/12/2022	8100.9	7936.2	60	Marcellus
42	09/12/2022	7900.9	7736.1	60	Marcellus
43	09/12/2022	7700.8	7536.1	60	Marcellus
44	09/12/2022	7500.7	7336.0	60	Marcellus

03/17/2023

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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	09/04/2022	59.2	7991	6145	4772	179,000	215,062	N/A
2	09/04/2022	71.7	8389	5529	4675	413,610	367,467	N/A
3	09/04/2022	72.4	8497	5770	4915	394,800	302,668	N/A
4	09/05/2022	76.1	8586	5855	4754	414,890	305,846	N/A
5	09/05/2022	68.9	8461	5096	4835	413,430	344,237	N/A
6	09/05/2022	77.2	8419	5359	4866	414,320	317,178	N/A
7	09/05/2022	76.6	8482	4904	4692	408,930	329,903	N/A
8	09/05/2022	76.6	8475	6666	4771	413,170	308,869	N/A
9	09/06/2022	70.3	8309	6714	4687	410,250	333,023	N/A
10	09/06/2022	76.9	8506	5944	5667	414,010	285,675	N/A
11	09/06/2022	80.5	8475	4994	5371	400,410	286,627	N/A
12	09/06/2022	78.4	8438	4094	4386	407,350	286,753	N/A
13	09/07/2022	77.9	8417	6161	4789	415,620	350,063	N/A
14	09/07/2022	73.1	8411	5824	4900	410,080	290,864	N/A
15	09/07/2022	82.0	8522	5934	5361	398,040	299,200	N/A
16	09/07/2022	81.0	8462	4950	4896	412,510	291,500	N/A
17	09/07/2022	82.1	8442	6346	4638	417,410	304,326	N/A
18	09/07/2022	82.2	8479	5384	4330	416,610	293,708	N/A
19	09/08/2022	82.1	8494	5475	4547	409,020	293,989	N/A
20	09/08/2022	87.1	8580	4967	4925	405,790	287,972	N/A
21	09/08/2022	88.0	8548	5209	4212	378,620	282,452	N/A
22	09/08/2022	85.8	8580	5907	4416	399,920	279,113	N/A
23	09/08/2022	87.6	8513	5007	4395	398,560	283,785	N/A
24	09/09/2022	82.2	8477	4410	4239	395,380	288,673	N/A
25	09/09/2022	83.9	8605	7112	5098	397,800	281,365	N/A
26	09/09/2022	87.2	8460	6049	5321	404,740	281,842	N/A
27	09/09/2022	88.2	8458	6267	4729	400,100	290,246	N/A
28	09/09/2022	91.0	8493	6396	4872	397,320	289,218	N/A
29	09/10/2022	91.9	8464	4846	4603	397,680	285,244	N/A
30	09/10/2022	91.1	8467	6041	4547	404,320	292,850	N/A
31	09/10/2022	91.8	8451	6397	5204	399,130	281,535	N/A
32	09/10/2022	90.4	8415	6203	4763	413,960	288,708	N/A
33	09/10/2022	88.8	8388	6068	4687	416,400	294,836	N/A
34	09/11/2022	89.5	8287	6097	4756	398,370	284,221	N/A
35	09/11/2022	94.6	8331	6024	4490	412,810	285,123	N/A
36	09/11/2022	93.3	8365	5791	4704	396,020	274,589	N/A
37	09/11/2022	94.8	8344	6589	4979	402,910	295,401	N/A
38	09/11/2022	95.8	8337	6298	4795	417,710	294,536	N/A
39	09/12/2022	97.3	8423	6170	4250	411,098	299,098	N/A
40	09/12/2022	96.5	8267	5675	4325	408,610	289,982	N/A
41	09/12/2022	94.3	8289	6649	4133	399,340	281,134	N/A
42	09/12/2022	95.7	8092	6204	4813	400,340	286,846	N/A
43	09/12/2022	96.6	8203	6390	4325	413,310	283,266	N/A
44	09/12/2022	97.6	8298	5729	3716	398,700	283,340	N/A
	AVG=	85	8,418	5,810	4,708	17,632,398	12,972,333	TOTAL

03/17/2023

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Shaley Siltstone	120	210	120	210
Shale	210	390	210	390
Silty Shale	390	480	390	480
Shale	480	810	480	810
Silty Shale	810	840	810	840
Shaley Sandstone	840	960	840	960
Shaley Sandstone	960	1,050	960	1,050
Shale	1,050	1,110	1,050	1,110
Sandy Shale	1,110	1,230	1,110	1,230
Shaley Sandstone	1,230	1,290	1,230	1,290
Sandstone, Tr Shale, Tr Silt	1,290	1,710	1,290	1,710
Shaley Sandstone, Occ Coal	1,710	1,890	1,710	1,890
Sandy Shale, Tr Coal, Tr Limestone	1,890	2,135	1,890	2,173
Big Lime	2,165	2,786	2,173	2,862
Fifty Foot Sandstone	2,786	2,863	2,832	2,941
Gordon	2,863	3,143	2,911	3,230
Fifth Sandstone	3,143	3,341	3,200	3,435
Bayard	3,341	4,016	3,405	4,140
Speechley	4,016	4,286	4,110	4,418
Balltown	4,286	4,699	4,388	4,842
Bradford	4,699	5,149	4,812	5,309
Benson	5,149	5,426	5,279	5,598
Alexander	5,426	6,653	5,568	6,920
Sycamore	6,419	6,623	6,628	6,890
Middlesex	6,623	6,753	6,890	7,106
Burkett	6,753	6,782	7,106	7,164
Tully	6,782	6,830	7,164	7,284
Marcellus	6,830	NA	7,284	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:	9/4/2022
Job End Date:	9/12/2022
State:	West Virginia
County:	Doddridge
API Number:	47-017-06918-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	MULE UNIT 3H
Latitude:	39.31456000
Longitude:	-80.76285000
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,906
Total Base Water Volume (gal):	13,352,223
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
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.36406	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.17746	

Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
Sand-Premium White-30/70	Halliburton	Proppant					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
MC B-8614A	MultiChem	Biocide					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				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	13.41755	
			Hydrochloric acid	7647-01-0	30.00000	0.03932	
			Complex Amine Compound	Proprietary	60.00000	0.03811	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01905	
			Guar gum	9000-30-0	100.00000	0.01492	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00318	
			Surfactant	Proprietary	5.00000	0.00318	
			Glutaraldehyde	111-30-8	30.00000	0.00248	
			Ethoxylated alcohols	Proprietary	5.00000	0.00065	
			Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00064	
			Organic chloride compound	Proprietary	1.00000	0.00064	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00041	
			Ammonium persulfate	7727-54-0	100.00000	0.00040	
			Methanol	67-56-1	100.00000	0.00025	
			Oxylated phenolic resin	Proprietary	30.00000	0.00012	
			Ethanol	64-17-5	1.00000	0.00008	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	
			Modified thiourea polymer	Proprietary	30.00000	0.00007	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			Hexadecene	629-73-2	5.00000	0.00001	
			Organic salt #1	Proprietary	0.01000	0.00001	
			Sodium hydroxide	1310-73-2	0.01000	0.00001	
			Formaldehyde	50-00-0	0.01000	0.00001	
			Acrylamide	79-06-1	0.01000	0.00001	
			Organic salt #2	Proprietary	0.01000	0.00001	

			Nitrated acetate salt	Proprietary	0.01000	0.00001	
			Sodium glycolate	2836-32-0	0.01000	0.00001	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	

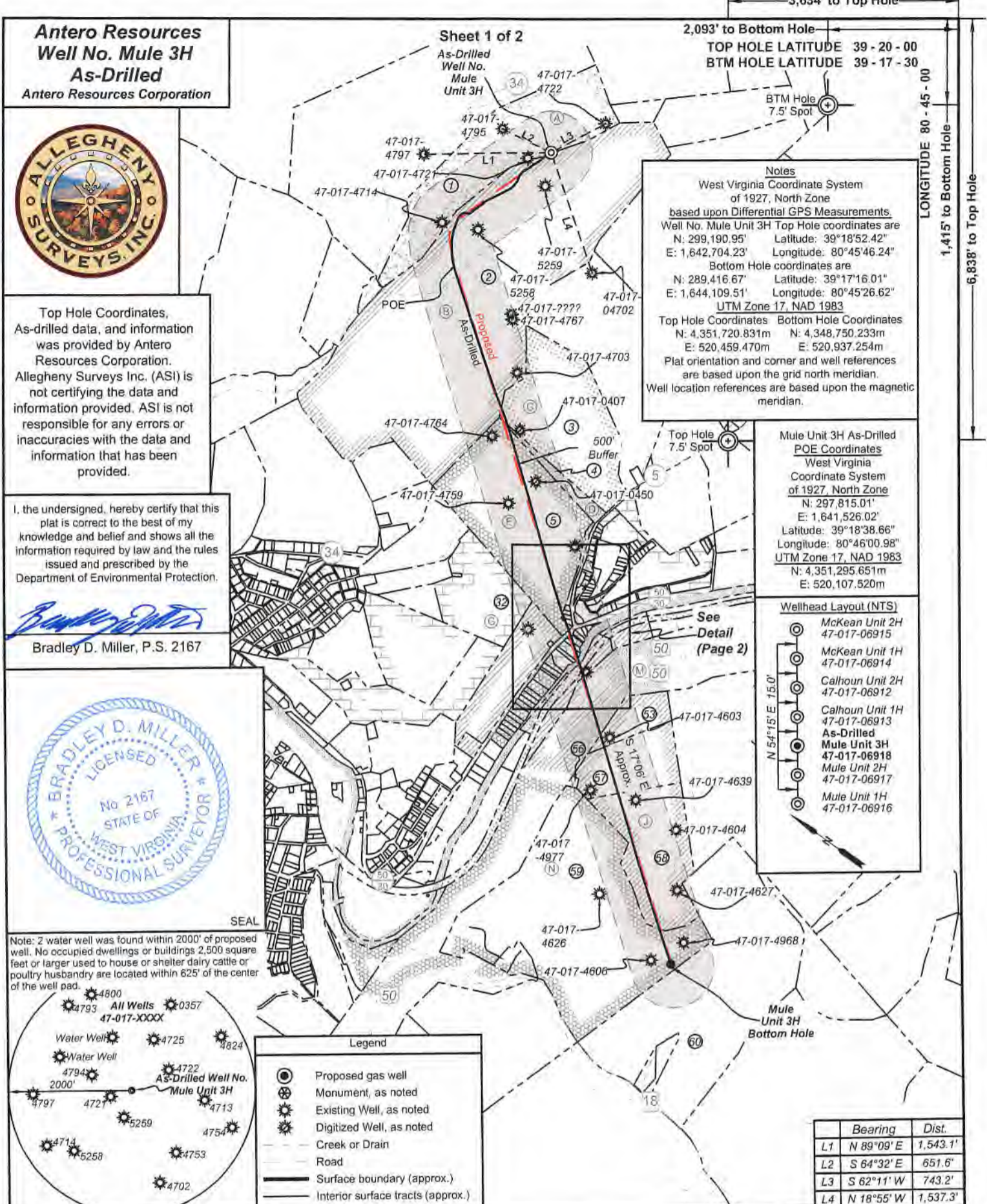
* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** 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. Mule 3H
As-Drilled
 Antero Resources Corporation



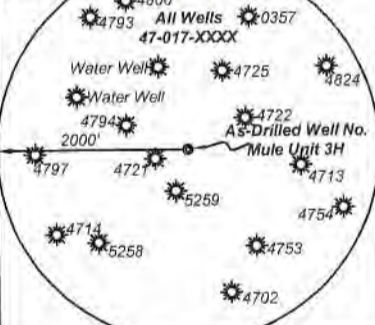
Top Hole Coordinates, As-drilled data, and information was provided by Antero Resources Corporation. Allegheny Surveys Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

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



Note: 2 water well was 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.

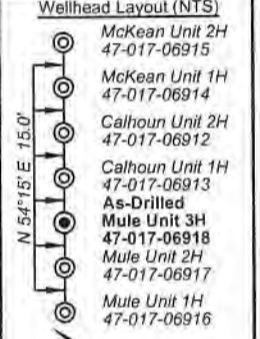


Legend

- Proposed gas well
- Monument, as noted
- Existing Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

Notes
 West Virginia Coordinate System of 1927, North Zone
 based upon Differential GPS Measurements
 Well No. Mule Unit 3H Top Hole coordinates are
 N: 299,190.95' Latitude: 39°18'52.42"
 E: 1,642,704.23' Longitude: 80°45'46.24"
 Bottom Hole coordinates are
 N: 289,416.67' Latitude: 39°17'16.01"
 E: 1,644,109.51' Longitude: 80°45'26.62"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,351,720.831m N: 4,348,750.233m
 E: 520,459.470m E: 520,937.254m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Mule Unit 3H As-Drilled POE Coordinates
 West Virginia Coordinate System of 1927, North Zone
 N: 297,815.01'
 E: 1,641,526.02'
 Latitude: 39°18'38.66"
 Longitude: 80°46'00.98"
 UTM Zone 17, NAD 1983
 N: 4,351,295.651m
 E: 520,107.520m



	Bearing	Dist.
L1	N 89°09' E	1,543.1'
L2	S 64°32' E	651.6'
L3	S 62°11' W	743.2'
L4	N 18°55' W	1,537.3'

FILE NO: 55-30-WU-14
 DRAWING NO: Mule Unit 3H As-Drilled
 SCALE: 1" = 1500'
 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: December 20 2022
 OPERATOR'S WELL NO. Mule Unit 3H
 API WELL NO
 47 - 017 - 06918
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built: 1,189' WATERSHED: Middle Island Creek QUADRANGLE: West Union
 DISTRICT: West Union Antero COUNTY: Doddridge 03/17/2023
 SURFACE OWNER: Midstream, LLC R.S. Maxwell & Clarence E. Sigley, Sr.; WVDNR; WV State Rail Authority; WV DOT, Division of Highways; ACREAGE: 45.8
 ROYALTY OWNER: William A. Farr; James Lincoln Smith; Robert Powell, et ux; John G. Azar; LEASE NO: ACREAGE: 45.8; 92; 10.9; 137
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6.834' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 16,109' MD

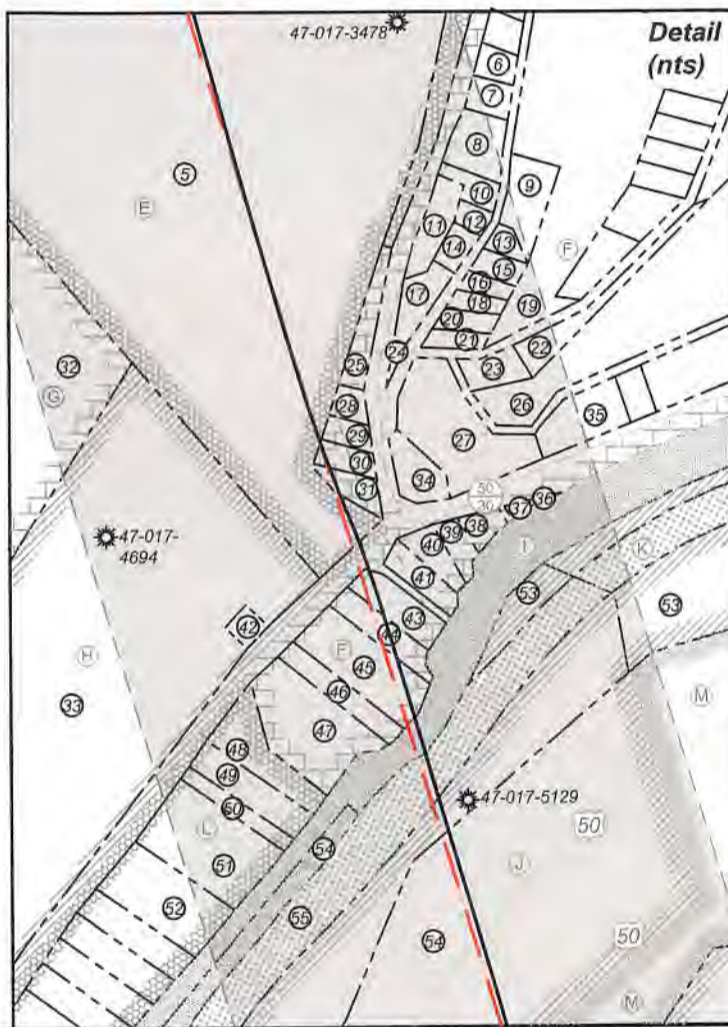
WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
 Denver, CO 80202 Bridgeport, WV 26330

Antero Resources
Well No. Mule 3H
As-Drilled
 Antero Resources Corporation



Leases	
A	William A. Farr
B	James Lincoln Smith
C	Robert Powell, et ux
D	John G. Azar
E	Richard Lowther, et ux
F	Carolyn E. Farr Trust
G	Ernest Spence Shannon, et al
H	Frank L. Butler
I	WVDNR
J	Mary Agnes Phillips, et al
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M	WV DOT, Division of Highways
N	R. S. Maxwell & Clarence E. Sigley Sr.

ID	TM/Par	Owner	Bk/Pg	Acres
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2	7-29	Sharon A. Gaspar	W113/242	182.67
3	11-8	Granville Jr. & Rose Mae Criss	317/43	44.15
4	11-9.1	Leonard & Sheila Cash	387/31	6.14
5	11-9	Shelia Jane Lynch Buck, et al	W8/35	56.25
6	34-56	Terri Lynn Whitehill	AP44/659	0.10
7	34-55	Terri Lynn Whitehill	AP44/659	0.10
8	34-6	Webb & Son, LLC	423/335	0.25
9	34-63	Terri Lynn Whitehill	AP44/659	0.30
10	34-54	Terri Lynn Whitehill	AP44/659	0.12
11	34-53.1	Cheryl L. Brunner	AP38/201	0.24
12	34-5	Terri Lynn Whitehill	AP44/659	0.07
13	34-64	Terri Lynn Whitehill	AP44/659	0.08
14	34-53	Terri Lynn Whitehill	AP44/659	0.10
15	34-65	Terri Lynn Whitehill	AP44/659	0.10
16	34-66	Terri Lynn Whitehill	AP44/659	0.10
17	34-52	Terri Lynn Whitehill	AP44/659	0.20
18	34-67	Terri Lynn Whitehill	AP44/659	0.10
19	34-7	Terri Lynn Whitehill	AP44/659	3.00
20	34-68	Terri Lynn Whitehill	AP44/659	0.10
21	34-69	Terri Lynn Whitehill	AP44/659	0.10
22	34-83	Terri Lynn Whitehill	AP44/659	0.20
23	34-70	Terri Lynn Whitehill	AP44/659	0.16
24	34-5	Terri Lynn Whitehill	AP44/659	0.07
25	34-4	Terri Lynn Whitehill	AP44/659	0.22
26	34-98	Rossie & Eva Lowery	272/321	15.62
27	34-8	Terri Lynn Whitehill	AP44/659	1.40
28	34-50	Terri Lynn Whitehill	AP44/659	0.11
29	34-49	Terri Lynn Whitehill	AP44/659	0.14
30	34-48	Terri Lynn Whitehill	AP44/659	0.14
31	34-47	Terri Lynn Whitehill	AP44/659	0.14
32	11-16	Rhoda Rene Fitzsimmons, et al	272/89	19.72
33	11-24	Clarence Ray Bonnell, et al	105/317	15.76
34	11-46	Terri Lynn Whitehill	AP44/659	0.20
35	34-98	Rossie & Eva Lowery	272/321	15.62
36	34-24	Terri Lynn Whitehill	AP44/659	0.07
37	34-24	Terri Lynn Whitehill	AP44/659	0.07
38	34-23	Terri Lynn Whitehill	AP44/659	0.15
39	34-12	Terri Lynn Whitehill	AP44/659	0.14
40	34-22	Terri Lynn Whitehill	AP44/659	0.16
41	34-115	Rhonda Cunningham, et al	357/64	0.16
42	11-40	Webb & Son	438/195	0.08
43	34-20	Rhonda Cunningham, et al	357/64	0.20
44	34-21	Rhonda Cunningham, et al	357/64	0.18
45	34-11	Monkey Row Trailer Park LLC	288/26	0.40
46	34-19	Monkey Row Trailer Park LLC	288/26	0.21
47	34-10	Monkey Row Trailer Park LLC	288/26	0.65
48	11-66	Monkey Row Trailer Park LLC	288/26	0.25
49	11-65.1	Monkey Row Trailer Park LLC	288/26	0.40
50	11-65	Monkey Row Trailer Park LLC	288/26	0.15
51	11-64	Monkey Row Trailer Park LLC	288/26	0.96
52	11-63	Monkey Row Trailer Park LLC	288/26	0.73
53	11-26	Karen M. Ireland Family L.P.	235/3	11.80
54	11-25	J. Charles & George J. Buff III, et al	377/517	6.02
55	11-95	WV Railroad Maintenance Authority	216/166	31.84
56	11-70	Four Leaf Land Co.	270/147	0.24
57	11-25.1	J. Charles & George J. Buff III, et al	377/517	16.72
58	12-63	Karen M. Ireland Family L.P.	235/3	31.50
59	11-80	Karen M. Ireland Family L.P.	235/3	105.35
60	12-71.1	Franklin L. Butler & Key Oil Co.	256/324	81.91



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

FILE NO: 55-30-WU-14
 DRAWING NO: Mule Unit 3H As-Drilled
 SCALE: 1" = 1500'
 MINIMUM DEGREE OF ACCURACY:
 Submeter
 PROVEN SOURCE OF ELEVATION:
 WVDOT, Harrisville, WV

DATE: December 20 20 22
 OPERATOR'S WELL NO. Mule Unit 3H
 API WELL NO
 47 - 017 - 06918
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built: 1,189' WATERSHED: Middle Island Creek QUADRANGLE: West Union
 DISTRICT: West Union Antero COUNTY: Doddridge 03/17/2023
 SURFACE OWNER: Midstream, LLC R.S. Maxwell & Clarence E. Sigley, Sr.; WVDNR; WV State Rail Authority; WV DOT, Division of Highways; ACREAGE: 45.8
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 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,834' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 16,109' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.
 Denver, CO 80202 Bridgeport, WV 26330

Antero Resources
Well No. Mule 3H
As-Drilled
 Antero Resources Corporation

Sheet 1 of 2

As-Drilled
 Well No.
 Mule
 Unit 3H

3,634' to Top Hole

2,093' to Bottom Hole

TOP HOLE LATITUDE 39 - 20 - 00

BTM HOLE LATITUDE 39 - 17 - 30

BTM Hole
 7.5' Spot

LONGITUDE 80 - 45 - 00
 1,415' to Bottom Hole
 6,838' to Top Hole



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.

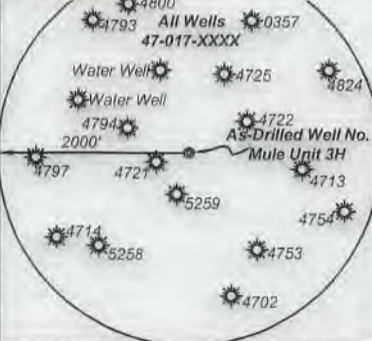
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller, P.S. 2167



SEAL

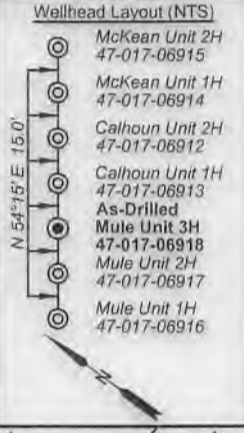
Note: 2 water well was found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



Legend	
	Proposed gas well
	Monument, as noted
	Existing Well, as noted
	Digitized Well, as noted
	Creek or Drain
	Road
	Surface boundary (approx.)
	Interior surface tracts (approx.)

Notes
 West Virginia Coordinate System of 1927, North Zone
 based upon Differential GPS Measurements.
 Well No. Mule Unit 3H Top Hole coordinates are
 N: 299,190.95' Latitude: 39°18'52.42"
 E: 1,642,704.23' Longitude: 80°45'46.24"
 Bottom Hole coordinates are
 N: 289,416.67' Latitude: 39°17'16.01"
 E: 1,644,109.51' Longitude: 80°45'26.62"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,351,720.831m N: 4,348,750.233m
 E: 520,459.470m E: 520,937.254m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Mule Unit 3H As-Drilled POE Coordinates
 West Virginia Coordinate System of 1927, North Zone
 N: 297,815.01'
 E: 1,641,526.02'
 Latitude: 39°18'38.66"
 Longitude: 80°46'00.98"
 UTM Zone 17, NAD 1983
 N: 4,351,295.651m
 E: 520,107.520m



Bearing	Dist.
L1 N 89°09' E	1,543.1'
L2 S 64°32' E	651.6'
L3 S 62°11' W	743.2'
L4 N 18°55' W	1,537.3'

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

DATE: December 20 2022
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 API WELL NO
 47 - 017 - 06918
 STATE COUNTY PERMIT

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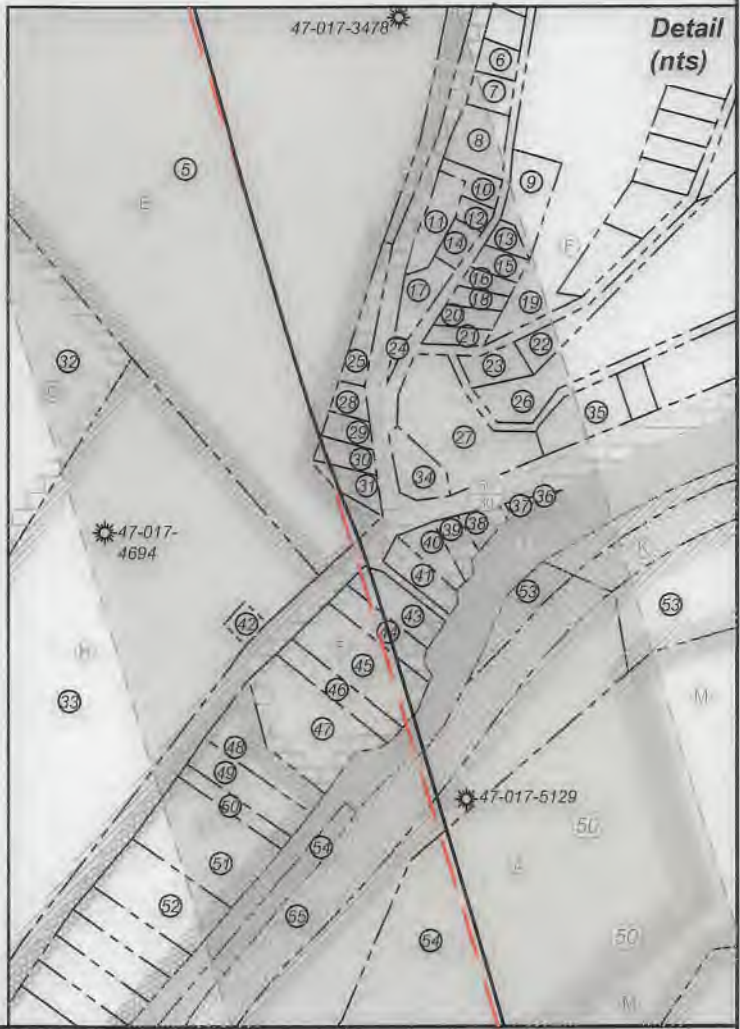
03/17/2023

Antero Resources
Well No. Mule 3H
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OIL AND GAS DIVISION

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