



Antero Resources
1615 Wynkoop Street
Denver, CO 80202
Office 303.357.7310
Fax 303.357.7315

April 3, 2020

West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, WV 25304

To Whom It May Concern:

Please find enclosed the Well Operator's Report of Well Work, Form WR-35 (including As-Drilled Survey Plat, Directional Survey and FracFocus report), Discharge Monitoring Report Form WR-34 and corresponding logs for the following wells off of the **Gorrell Pad**:

- Grounds Unit 1H-3H
- Wick Unit 1H-3H

If you have any questions, please feel free to contact me at (303)-357-7223.

Sincerely,

A handwritten signature in black ink, appearing to read "Megan Griffith", with a long horizontal flourish extending to the right.

Megan Griffith
Permitting Agent
Antero Resources Corporation

Enclosures

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

API 47-095-02592 ~~02952X~~ County Tyler District Meade
Quad Middlebourne 7.5' Pad Name Gorrell Pad Field/Pool Name ----
Farm name Elizabeth Gorrell Well Number Grounds 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 4363240.323m Easting 500840.398m
Landing Point of Curve Northing 4363152.06m Easting 501745.58m
Bottom Hole Northing 4360325.039m Easting 502788.284m

Elevation (ft) 1045' 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 3/15/2019 Date drilling commenced 3/26/2019 Date drilling ceased 6/10/2019
Date completion activities began 10/5/2019 Date completion activities ceased 11/19/2019
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 108', 505' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1378', 1544' 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:
JCB
8/14/2020

API 47-095 - 02052 Farm name Elizabeth Gorrell Well number Grounds 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	24"	20"	110'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	633'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2674'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	17968'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7125'		4.7#, N-80		
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	214 sx	15.6	1.18	120	0'	8 Hrs.
Surface	Class A	631 sx	15.6	1.18	826	0'	8 Hrs.
Coal							
Intermediate 1	Class A	836 sx	15.6	1.18	1181	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	675sx (Lead) 2664sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.40 (Lead), 1.26 (Tail)		-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17988' MD ,6358' TVD (BHL), 6358' (Deepest Point Drilled) Loggers TD (ft) 17988' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6275'

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

02592

API 47-095 - ~~02952~~ Farm name Elizabeth Gorrell Well number Grounds Unit 3H

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								

Please insert additional pages as applicable.

API 47- 095 ~~02952~~ Farm name Elizabeth Gorrell Well number Grounds Unit 3H

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6214' (TOP)	TVD	7204' (TOP) MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 203 mcfpd Oil 0 bpd NGL --- bpd Water 125 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
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***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 KLX Energy Services
Address 3040 Post Oak Boulevard City Houston State TX Zip 77056

Cementing Company C&J Energy Services
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Baker Hughes
Address 837 Philippi Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223
Signature  Title Permitting Agent Date 4.3.20

02592

API 47-095-02952 Farm Name Elizabeth Gorrell Well Number Grounds Unit 3H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	9/17/2019	17820.6	17874.9	60	Marcellus
2	9/17/2019	17621.232	17789.372	60	Marcellus
3	9/17/2019	17421.864	17590.004	60	Marcellus
4	9/18/2019	17222.496	17390.636	60	Marcellus
5	9/18/2019	17023.128	17191.268	60	Marcellus
6	9/19/2019	16823.76	16991.9	60	Marcellus
7	9/19/2019	16624.392	16792.532	60	Marcellus
8	9/19/2019	16425.024	16593.164	60	Marcellus
9	9/20/2019	16225.656	16393.796	60	Marcellus
10	9/20/2019	16026.288	16194.428	60	Marcellus
11	9/21/2019	15826.92	15995.06	60	Marcellus
12	9/22/2019	15627.552	15795.692	60	Marcellus
13	9/22/2019	15428.184	15596.324	60	Marcellus
14	9/22/2019	15228.816	15396.956	60	Marcellus
15	9/23/2019	15029.448	15197.588	60	Marcellus
16	9/23/2019	14830.08	14998.22	60	Marcellus
17	9/23/2019	14630.712	14798.852	60	Marcellus
18	9/24/2019	14431.344	14599.484	60	Marcellus
19	9/24/2019	14231.976	14400.116	60	Marcellus
20	9/24/2019	14032.608	14200.748	60	Marcellus
21	9/25/2019	13833.24	14001.38	60	Marcellus
22	9/25/2019	13633.872	13802.012	60	Marcellus
23	9/25/2019	13434.504	13602.644	60	Marcellus
24	9/26/2019	13235.136	13403.276	60	Marcellus
25	9/26/2019	13035.768	13203.908	60	Marcellus
26	9/26/2019	12836.4	13004.54	60	Marcellus
27	9/27/2019	12637.032	12805.172	60	Marcellus
28	9/27/2019	12437.664	12605.804	60	Marcellus
29	9/28/2019	12238.296	12406.436	60	Marcellus
30	9/28/2019	12038.928	12207.068	60	Marcellus
31	9/28/2019	11839.56	12007.7	60	Marcellus
32	9/28/2019	11640.192	11808.332	60	Marcellus
33	9/29/2019	11440.824	11608.964	60	Marcellus
34	9/29/2019	11241.456	11409.596	60	Marcellus
35	9/29/2019	11042.088	11210.228	60	Marcellus
36	9/29/2019	10842.72	11010.86	60	Marcellus
37	9/29/2019	10643.352	10811.492	60	Marcellus
38	9/30/2019	10443.984	10612.124	60	Marcellus
39	9/30/2019	10244.616	10412.756	60	Marcellus
40	9/30/2019	10045.248	10213.388	60	Marcellus
41	10/1/2019	9845.88	10014.02	60	Marcellus
42	10/1/2019	9646.512	9814.652	60	Marcellus
43	10/1/2019	9447.144	9615.284	60	Marcellus
44	10/1/2019	9247.776	9415.916	60	Marcellus
45	10/2/2019	9048.408	9216.548	60	Marcellus
46	10/2/2019	8849.04	9017.18	60	Marcellus
47	10/2/2019	8649.672	8817.812	60	Marcellus
48	10/3/2019	8450.304	8618.444	60	Marcellus
49	10/3/2019	8250.936	8419.076	60	Marcellus
50	10/3/2019	8051.568	8219.708	60	Marcellus
51	10/4/2019	7852.2	8020.34	60	Marcellus
52	10/4/2019	7652.832	7820.972	60	Marcellus
53	10/4/2019	7453.464	7621.604	60	Marcellus
54	10/4/2019	7254.096	7422.236	60	Marcellus

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	9/17/2019	71.8	8226		3512	160720	4858.5	N/A
2	9/17/2019	71.08	8109	7641	3447	280580	9143.9	N/A
3	9/17/2019	69.05	8409	5259	3810	281640	9470.2	N/A
4	9/18/2019	74.88	8510	4844	3601	280300	9069.3	N/A
5	9/18/2019	68.13	8309	5234	3663	289880	9199.6	N/A
6	9/19/2019	67.9	8314	5283	3546	282940	8977.5	N/A
7	9/19/2019	67.08	8312	5350	3806	284540	10877.7	N/A
8	9/19/2019	77.95	8143	5777	3920	284220	8887	N/A
9	9/20/2019	78.77	8339	5754	3615	285180	8936.3	N/A
10	9/20/2019	70.52	7863	5458	4396	284240	11651.6	N/A
11	9/21/2019	79.19	8350	6222	3585	287140	9190.1	N/A
12	9/22/2019	80.6	8225	5638	3495	285940	9042.1	N/A
13	9/22/2019	82.77	7956	5451	3624	287920	9030.3	N/A
14	9/22/2019	82.84	7860	5530	3453	285200	8930.8	N/A
15	9/23/2019	86.01	8205	5582	3499	284400	8832.6	N/A
16	9/23/2019	80.89	7912	5850	3433	290580	8912.7	N/A
17	9/23/2019	83.44	8149	5701	3658	286980	8907.3	N/A
18	9/24/2019	82.01	8196	5378	3545	285300	8789.9	N/A
19	9/24/2019	69.53	7955	5310	3336	287540	8755.1	N/A
20	9/24/2019	75.59	8030	5413	3284	288720	8837.6	N/A
21	9/25/2019	81.18	7760	5479	3690	289580	8884	N/A
22	9/25/2019	79.05	8150	5605	3375	282740	8675.4	N/A
23	9/25/2019	83.7	7884	5638	3377	281440	8508.5	N/A
24	9/26/2019	84.23	7991	5568	3504	279380	8739.8	N/A
25	9/26/2019	77.81	7974	5261	3620	279180	8771.5	N/A
26	9/26/2019	81.9	7841	5246	3550	286240	8911.7	N/A
27	9/27/2019	73.82	8099	5624	3711	279780	10667	N/A
28	9/27/2019	83.25	7845	5319	3561	284640	8624	N/A
29	9/28/2019	84.38	7676	5446	3525	291320	8652	N/A
30	9/28/2019	83.28	7669	6268	3602	284580	8748	N/A
31	9/28/2019	81.6	7709	5652	3504	283780	8705.7	N/A
32	9/28/2019	81.82	7682	5485	3508	285020	8733	N/A
33	9/29/2019	83.65	7379	4758	3467	278600	8622.3	N/A
34	9/29/2019	84.81	7624	5629	3314	285300	8561.9	N/A
35	9/29/2019	83.72	7367	5406	3565	285220	8617.2	N/A
36	9/29/2019	82.38	7076	5719	3467	284720	8542.3	N/A
37	9/29/2019	84.87	7261	5207	3498	285740	8546	N/A
38	9/30/2019	85.32	6992	5785	3492	282680	8511.9	N/A
39	9/30/2019	78.38	7096	5320	3536	286600	9339.6	N/A
40	9/30/2019	81.53	6834	4571	3365	285900	8543.7	N/A
41	10/1/2019	85.69	7159	5309	3216	286060	8549.1	N/A
42	10/1/2019	82.76	7057	6141	3106	284840	8451.4	N/A
43	10/1/2019	85.23	7054	5395	3212	285240	8469.4	N/A
44	10/1/2019	83.83	7231	5860	3196	284660	8511.4	N/A
45	10/2/2019	84.8	7184	5864	3246	285920	8537.7	N/A
46	10/2/2019	84.56	7044	5653	3131	277295	8420.8	N/A
47	10/2/2019	83.92	6960	6194	2943	282620	10161	N/A
48	10/3/2019	84.58	6965	5707	3116	280080	8612.5	N/A
49	10/3/2019	80.46	6732	5710	2940	282920	8543.7	N/A
50	10/3/2019	80.86	6909	5879	3586	278940	8636.5	N/A
51	10/4/2019	85.42	6657	5877	3122	287420	8656.2	N/A
52	10/4/2019	83.88	6650	6126	3169	284560	8472.5	N/A
53	10/4/2019	77.18	6561	5386	3009	281980	8393.6	N/A
54	10/4/2019	79.62	6384	5231	3163	278860	8407.5	N/A
	AVG	79.6	7,799	5,551	3,521	12,693,120	398,725	TOTAL

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Silty Sandstone	70	300	70	300
Sandy Siltstone	300	380	300	380
Sandstone	380	540	380	540
Sandy Siltstone	540	580	540	580
Silty Sandstone	580	630	580	630
Silty Shale	630	720	630	720
Shale	720	1,280	720	1,280
Sandstone	1,280	1,660	1,280	1,660
Sandy Siltstone	1,660	1,780	1,660	1,780
Silty Sandstone, tr Shale	1,780	1,820	1,780	1,820
Sandstone	1,820	1,870	1,820	1,870
Sandy siltstone	1,870	1,880	1,870	1,880
Sandstone	1,880	1,896	1,880	N/A
Big Lime	1,926	2,683	0	2,879
Fifty Foot Sandstone	2,683	2,864	0	3,095
Gordon	2,864	3,018	0	3,276
Fifth Sandstone	3,018	3,144	0	3,423
Bayard	3,144	4,066	0	4,481
Speechley	4,066	4,311	0	4,761
Balltown	4,311	4,687	0	5,202
Bradford	4,687	5,031	0	5,595
Benson	5,031	5,284	0	5,880
Alexander	5,284	6,134	0	6,949
Sycamore	6,007	6,104	6,761	6,919
Middlesex	6,104	6,190	6,919	7,114
Burkett	6,190	6,208	7,114	7,180
Tully	6,208	6,214	7,180	7,204
Marcellus	6,214	NA	7,204	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.



Actual Wellpath Report

Grounds Unit 3H AWP Proj: 17988'
Page 11 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Tyler County, WV	Well	Grounds Unit 3H
Field	Tyler	Wellbore	Grounds Unit 3H AWB
Facility	Gorrell Pad		

COMMENTS
<p>Wellpath general comments API: 47-095-02592-0000 BHI Job #: 109806380 Rig: H&P 519 Duration: 05/16/2019-05/25/2019 Gyrodata MS Gyro <17-172">(100'-607') APS EM <12-1/4">(607')(724'-2626') BHI NaviTrak <8-3/4">(2626')(2700'-6067') BH AT Curve <8-1/2">(6067')(6096'-17963') Middlesex: 6947' MD Burkett: 7144' MD Tully: 7210' MD Marcellus POE: 7234' MD Projected MD at TD: 17988'</p>

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/17/2019
Job End Date:	10/4/2019
State:	West Virginia
County:	Tyler
API Number:	47-095-02592-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Grounds 3H
Latitude:	39.41860800
Longitude:	-80.99040600
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,254
Total Base Water Volume (gal):	20,719,248
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	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	57.27426	Density = 8.34
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	31.43164	Density = 8.50

Ingredients	Listed Above	Listed Above	Listed Above						
				Water		7732-18-5	100.00000	0.26331	
Sand-Premium White-30/50	Halliburton		Proppant						
						Listed Below			
FORSA SCW4037W SCALE INHIBITOR	Baker Hughes		Scale Inhibitor						
						Listed Below			
LD-2950	MultiChem		Friction Reducer						
						Listed Below			
HYDROCHLORI C ACID, 22 BAUME	Halliburton		Solvent						
						Listed Below			
WG-36 GELLING AGENT	Halliburton		Gelling Agent						
						Listed Below			
FDP-S1296-17	Halliburton		Acid Corrosion Inhibitor						
						Listed Below			
MC B-8614	Halliburton		Biocide						
						Listed Below			

CalFrac CalBreak 5501	Calfrac Well Services Corp.	Oxidizer							
				Listed Below					
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant							
				Listed Below					
Sand-Premium White-40/70	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			10.95780	
			Hydrochloric acid	7647-01-0	15.00000			0.03801	
			Guar gum	9000-30-0	100.00000			0.01789	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000			0.01514	
			Glutaraldehyde	111-30-8	30.00000			0.00297	
			Alkanolamine phosphate	Trade Secret	30.00000			0.00121	
			Methanol	67-56-1	100.00000			0.00109	
			Ethoxylated alcohols	Proprietary	1.00000			0.00050	
			Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega- hydroxy-, branched	69011-36-5	1.00000			0.00050	
			Quaternary ammonium compounds, benzyl-C12- 16-alkyldimethyl chlorides	68424-85-1	5.00000			0.00050	
			Peroxydisulfuric acid (((HO)S(O)2]2O2), ammonium salt (1:2)	7727-54-0	100.00000			0.00042	
			Ethylene glycol	107-21-1	5.00000			0.00020	
			Ethanol	64-17-5	1.00000			0.00010	

				25038-72-6	20.00000	0.00008	
				61790-12-3	30.00000	0.00006	
				Proprietary	30.00000	0.00006	
				7664-38-2	0.10000	0.00001	
				Proprietary	5.00000	0.00001	
				107-19-7	5.00000	0.00001	
				629-73-2	5.00000	0.00001	

* 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(f) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

9,295' to Top Hole

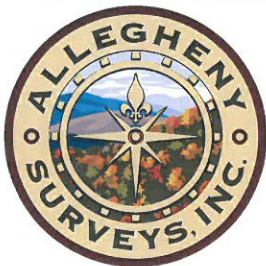
2,816' to Bottom Hole

TOP Hole LATITUDE 39 - 27 - 30
BTM Hole LATITUDE 39 - 25 - 00

9,068' to Bottom Hole

14,318' to Top Hole

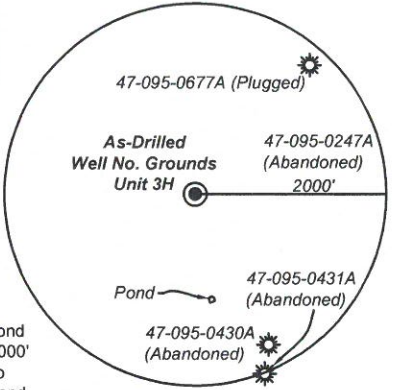
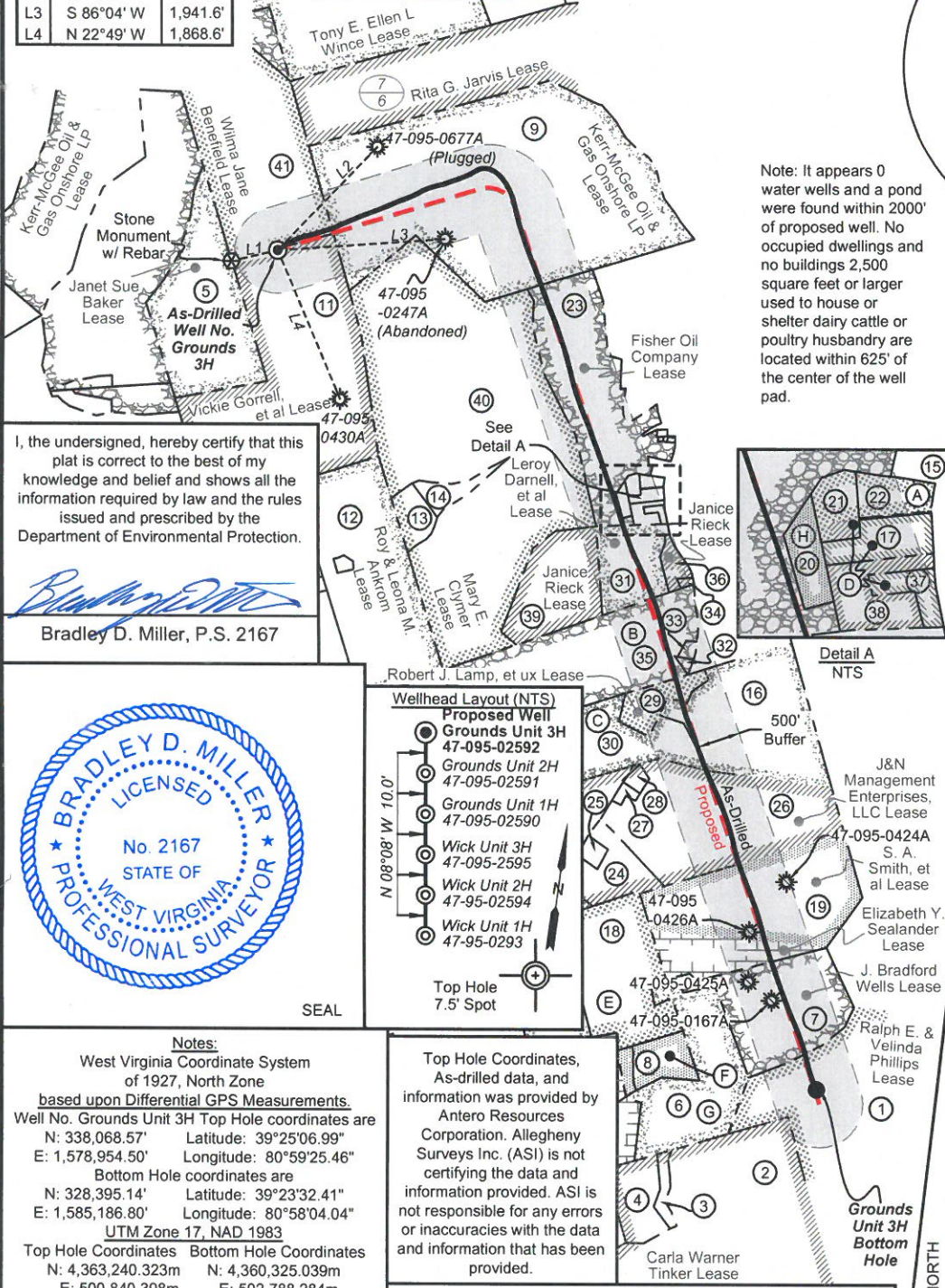
**Antero Resources
Well No. Grounds
Unit 3H
As-Drilled**
Antero Resources Corporation



Legend

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

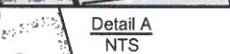
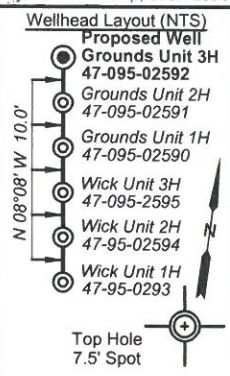
	Bearing	Dist.
L1	N 76°46' E	549.2'
L2	S 44°01' W	1,661.5'
L3	S 86°04' W	1,941.6'
L4	N 22°49' W	1,868.6'



Note: It appears 0 water wells and a pond were found within 2000' of proposed well. No occupied dwellings and no 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.

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



ID	TM/Par	Owner	Bk/Pg	Acres
41	7/5	Coastal Forest Resources Co.	352/148	6.60
40	7/16	Seven Spirits Farms, LLC	381/67	175.11
39	7/27	Darnell (Life)	260/657	23.49
38	8A/12	Ryan	325/224	1.21
37	8A/12.3	Leasure	WB 43/148	0.77
36	8/40	Darnell (Life)	260/657	3.05
35	8/42	Brisendine	353/369	49.03



ID	TM/Par	Owner	Bk/Pg	Acres
34	8/41	Dunham	352/628	0.35
33	8/43	Dawson (Life)	365/198	0.67
32	8/43.1	Lamp	365/203	0.55
31	8/47	Darnell, et ux	260/657	16.50
30	8/46	Snider	376/614	49.03
29	8/48	Lamp	344/384	12.16
28	11/4.3	Forrester	386/291	1.35
27	11/5.1	Forrester	255/713	0.85
26	11/5	Forrester	285/111	67.57
25	11/4.2	Forrester, et al	445/300	1.67
24	11/4	Forrester	285/111	7.37
23	8/38	Gray	321/430	68.42
22	8A/10	Wick Methodist Church	--- / ---	0.78
21	8A/9	Wicks Cemetery	--- / ---	1.00
20	8A/ p/o9	Trustees	157/402	1.00
19	11/6	LeMasters	294/151	62.00
18	11/2	Grim, et al	333/675	35.00
17	8A/12.4	Kile	391/29	1.23
16	8/45	Snyder	376/614	40.51
15	18A/10.1	Wick Methodist Church	156/65	0.03
14	7/26.1	Glover	347/492	4.36
13	7/26	Freeland	348/231	5.64
12	7/20	Ankrom	357/397	62.25
11	7/15	Gorrell	321/360	242.50
10	10/14	Hendrickson	261/272	38.50
9	7/10	Fritsimmons	336/764	161.63
8	11/28	Kasper	309/500	8.21
7	11/26	Waide (Life)	WB32/383	41.06
6	11/27	Yeater, et al	379/609	32.25
5	7/14	Smith	121/11	50.00
4	11/31	Kronau, et al	481/185	11.07
3	11/32.1	Kronau, et al	481/185	2.22
2	11/32	Hall	338/287	153.11
1	11/25	Hamilton	352/524	71.79

Notes:
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Well No. Grounds Unit 3H Top Hole coordinates are
N: 338,068.57' Latitude: 39°25'06.99"
E: 1,578,954.50' Longitude: 80°59'25.46"
Bottom Hole coordinates are
N: 328,395.14' Latitude: 39°23'32.41"
E: 1,585,186.80' Longitude: 80°58'04.04"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,363,240.323m N: 4,360,325.039m
E: 500,840.398m E: 502,788.284m
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, 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.

Leases

A Wick United Methodist Church	E Patricia G. Mason
B DWG Oil & Gas Acquisitions, LLC	F Ann W. Clutter
C Ottis F. Wilcox	G Kevin Andrew Yeater
D The Fisher Oil Company	H Trustees of Wick Cemetery

FILE NO: 50-54-M-17
DRAWING NO: Grounds 3H Well Plat
SCALE: 1" = 2000'
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: February 28 20 20
OPERATOR'S WELL NO. Grounds Unit 3H
API WELL NO
47 - 095 - 02592
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1045' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Middlebourne
DISTRICT: Meade J&N Management Enterprises, LLC; 71.79375; 507.42168; 14.6125; 47.3875; 116.46; 83.12; 12.16; 50; 16.175; 68.51; 1.0; 201.8; 74.3; 234.74
SURFACE OWNER: Elizabeth Gorrell COUNTY: Tyler
ROYALTY OWNER: Kerr-McGee Oil & Gas Onshore LP; Wilma Jane Benefield; Vickie Gorell, et al LEASE NO: ACREAGE: 242.5
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 6,358' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 17,988' 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

Dataset:
 Total length:
 Total weight:
 O.D.:

grounds3hrec.db: field/well/run1/KLX6
 21.37 ft
 256.00 lb
 3.25 in



Company ANTERO RESOURCES CORPORATION

Well GROUNDS 3H

Field MARCELLUS

County TYLER

State WV

Country USA

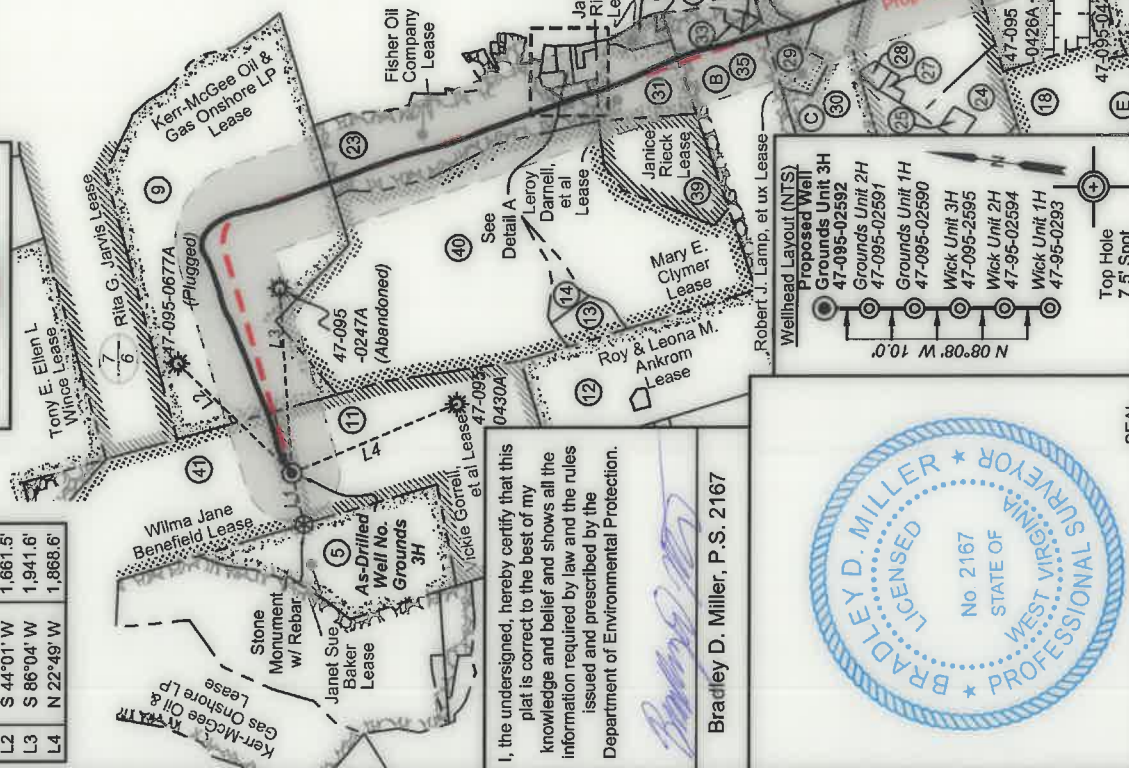
Antero Resources
Well No. Grounds
Unit 3H
As-Drilled
Antero Resources Corporation

Bearing	Dist.
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L2 S 44°01' W	1,661.5'
L3 S 86°04' W	1,941.6'
L4 N 22°49' W	1,968.6'



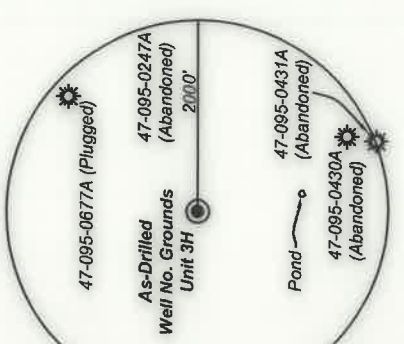
Legend

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



9,295' to Top Hole

2,816' to Bottom Hole
 TOP Hole LATITUDE 39 - 27 - 30
 BTM Hole LATITUDE 39 - 25 - 00



Note: It appears 0 water wells and a pond were found within 2000' of proposed well. No occupied dwellings and no 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.

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



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 DRAWING NO: Grounds 3H Well Plat
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 MINIMUM DEGREE OF ACCURACY:
 Submeter
 PROVEN SOURCE OF ELEVATION:
 WVDOT, Harrisville, WV

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

LOCATION: ELEVATION: As-Built 1045'
 DISTRICT: Meade
 SURFACE OWNER: Elizabeth Gorrell
 ROYALTY OWNER: Kerr-McGee Oil & Gas Onshore LP; Wilma Jane Benefield; Vickie Gorrell, et al LEASE NO:

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 ESTIMATED DEPTH: 17,968' MD

WELL OPERATOR: Antero Resources Corporation
 ADDRESS: 1615 Wynkoop Street
 Denver, CO 80202

DESIGNATED AGENT: Dianna Stamper - C Corporation System
 ADDRESS: 5400 D Big Tyler Road
 Charleston, WV 25313

14,318' to Top Hole

ID	TMP/Par	Owner	Bk/Pg	Acres
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37	8A/12.3	Leasure	WB 43/148	0.77
36	8/40	Darnell (Life)	260/657	3.05
35	8/42	Brisendine	353/369	49.03
Bottom Hole 7.5' Spot				
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33	8/43	Dawson (Life)	365/198	0.67
32	8/43.1	Lamp	365/203	0.55
31	8/47	Darnell, et ux	260/657	16.50
30	8/46	Snider	376/614	49.03
29	8/48	Lamp	344/384	12.16
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23	8/38	Gray	321/430	68.42
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3	11/32.1	Kronau, et al	481/185	2.22
2	11/32	Hall	338/287	153.11
1	11/25	Hamilton	352/524	71.79

DATE: February 28 20 20
 OPERATOR'S WELL NO. Grounds Unit 3H
 API WELL NO
 STATE 47 COUNTY 095 COUNTY PERMIT 02592

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

QUADRANGLE: Middlebourne
 71.79375; 507.42168; 14.6125; 47.3875; 116.46; 83.12; 12.16; 50.16.175; 68.51; 1.0; 201.8; 74.3; 234.74
 COUNTY: Tyler
 ACREAGE: 242.5
 ACREAGE: ACREAGE:

WATERSHED: Outlet Middle Island Creek
 J&N Management Enterprises, LLC;
 Ralph E. & Velinda Phillips; J. Bradford Wells; Elizabeth Y. Sealander; S.A. Smith, et al;
 Otis F. Wilcox; Robert J. & Cindy G. Lamp; DWG Oil & Gas Acquisitions, LLC; Leroy Darnell; Fisher Oil Company; Trustees of the Wick Cemetery;
 Ker-McGee Oil & Gas Onshore LP; Wilma Jane Benefield; Vickie Gorrell, et al LEASE NO:

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 ESTIMATED DEPTH: 17,968' MD

ADDRESS: Denver, CO 80505
 2400 D Big Tyler Road
 DESIGNATED AGENT: District Manager - C. S. ...

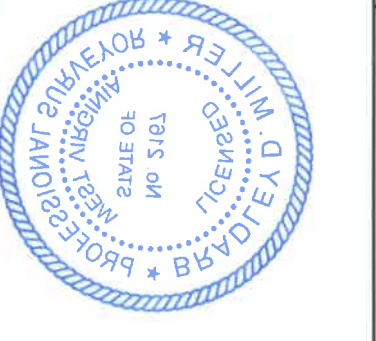
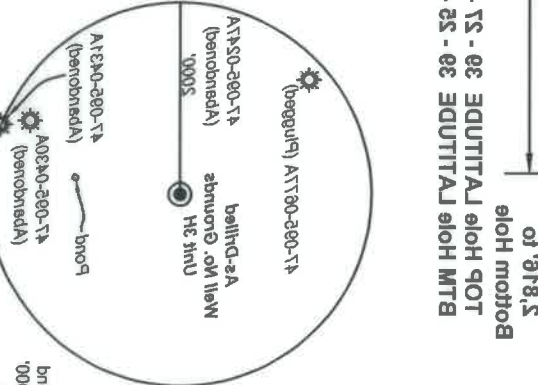
WELL OPERATOR: Antero Resources Corporation
 WELL TYPE: OIL GAS
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: As-Built 1047'
 SURFACE OWNER: El Paso Energy
 DISTRICT: Mesa
 COUNTY: Yuma
 WATER: OTHER PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION CLEAN OUT AND REGRIND GAS LIQUID INJECTION
 PROPOSED WORK: DRILL COMPLET DRIFT DEEPER FRACSTUR OR STIMULATE PLUG OFF OLD FORMATION
 PROPOSED DEPTH: 3210' (3210' TO 3215')

FILE NO: 20-M-23-00
 DRAWING NO: Grounds
 SCALE: 1" = 5000'
 PROVEN SOURCE OF ELEVATION: VV Wellhead, TOP OF W
 MINIMUM DEGREE OF ACCURACY: 1/4"

DEPARTMENT OF ENVIRONMENTAL PROTECTION
 STATE OF MONTANA
 OIL AND GAS DIVISION
 WATER: OTHER PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION CLEAN OUT AND REGRIND GAS LIQUID INJECTION
 PROPOSED WORK: DRILL COMPLET DRIFT DEEPER FRACSTUR OR STIMULATE PLUG OFF OLD FORMATION
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DATE: February 28, 2015
 OPERATOR'S WELL NO: Grounds
 WELL NO: Grounds
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 STATE: MT
 WELL TYPE: OIL GAS
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 PROPOSED DEPTH: 3210' (3210' TO 3215')



Bradley D. Miller, P.E. 15249
 Department of Environmental Protection
 Knowledge and belief that the facts stated in this application are true and correct to the best of his knowledge and belief and that he is a duly licensed professional engineer in the State of Montana.



Antero Resources Corporation
 As-Built
 Well No. Grounds
 Antero Resources

DATE: February 28, 2015
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