

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

API 47 - 103 - 03482 County Wetzel District Green  
Quad Porter Falls Pad Name Red Lady Field/Pool Name -----  
Farm name Margaret Lancaster Well Number Cavatica 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 4375192m Easting 520470m  
Landing Point of Curve Northing 4375272.144m Easting 520153.378m  
Bottom Hole Northing 4380659m Easting 518323m

Elevation (ft) 1206' 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 3/2/2022 Date drilling commenced 4/4/2022 Date drilling ceased 7/23/2022  
Date completion activities began 9/16/2022 Date completion activities ceased 11/15/2022  
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 1040' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1592' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft 851' Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

**APPROVED**

Reviewed by: Steve McG...  
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API 47- 103 - 03482 Farm name Margaret Lancaster Well number Cavatica 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	26"	20"	328'	New	78.67#, X-60	N/A	Y
Surface	17-1/2"	13-3/8"	936'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3440'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	25936'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6996'		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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	270 sx	15.6	1.18	319	0'	8 Hrs.
Surface	Class A	739 sx	15.6	1.20	887	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1161 sx	15.6	1.20	1393	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class G	4407 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.26 (Tail)	5553	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 25936' MD, 6880' TVD (BHL), 6906' (Deepest Point Drilled)

Loggers TD (ft) 25936' MD

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

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Kick off depth (ft) 6634'

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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- 103 - 03482 Farm name Margaret Lancaster Well number Cavatica Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6853' (TOP)</u>	<u>TVD</u>	<u>7236' (TOP)</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 1447 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 10358 mcfpd Oil 521 bpd NGL --- bpd Water 4454 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 <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	

**\*PLEASE SEE ATTACHED EXHIBIT 3**

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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 Schlumberger US Land  
Address 1080 US-33 City Weston State WV Zip 26452

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 1/24/2023

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

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**Exhibit 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	09/16/2022	25806.2	25763.3	60	Marcellus
2	09/17/2022	25724.3	25557.1	60	Marcellus
3	09/17/2022	25521.2	25354.0	60	Marcellus
4	09/18/2022	25318.2	25151.0	60	Marcellus
5	09/19/2022	25115.2	24948.0	60	Marcellus
6	09/19/2022	24912.1	24744.9	60	Marcellus
7	09/20/2022	24709.1	24541.9	60	Marcellus
8	09/20/2022	24506.1	24338.9	60	Marcellus
9	09/21/2022	24303.0	24135.8	60	Marcellus
10	09/21/2022	24100.0	23932.8	60	Marcellus
11	09/22/2022	23897.0	23729.8	60	Marcellus
12	09/22/2022	23693.9	23526.7	60	Marcellus
13	09/23/2022	23490.9	23323.7	60	Marcellus
14	09/23/2022	23287.9	23120.7	60	Marcellus
15	09/23/2022	23084.8	22917.6	60	Marcellus
16	09/24/2022	22881.8	22714.6	60	Marcellus
17	09/25/2022	22678.8	22511.6	60	Marcellus
18	09/25/2022	22475.7	22308.5	60	Marcellus
19	09/26/2022	22272.7	22105.5	60	Marcellus
20	09/26/2022	22069.6	21902.5	60	Marcellus
21	09/26/2022	21866.6	21699.4	60	Marcellus
22	09/27/2022	21663.6	21496.4	60	Marcellus
23	09/27/2022	21460.5	21293.4	60	Marcellus
24	09/27/2022	21257.5	21090.3	60	Marcellus
25	09/27/2022	21054.5	20887.3	60	Marcellus
26	09/28/2022	20851.4	20684.2	60	Marcellus
27	09/28/2022	20648.4	20481.2	60	Marcellus
28	09/28/2022	20445.4	20278.2	60	Marcellus
29	09/28/2022	20242.3	20075.1	60	Marcellus
30	09/29/2022	20039.3	19872.1	60	Marcellus
31	09/29/2022	19836.3	19669.1	60	Marcellus
32	09/29/2022	19633.2	19466.0	60	Marcellus
33	09/29/2022	19430.2	19263.0	60	Marcellus
34	09/30/2022	19227.2	19060.0	60	Marcellus
35	09/30/2022	19024.1	18856.9	60	Marcellus
36	09/30/2022	18821.1	18653.9	60	Marcellus
37	09/30/2022	18618.1	18450.9	60	Marcellus
38	09/30/2022	18415.0	18247.8	60	Marcellus
39	10/01/2022	18212.0	18044.8	60	Marcellus
40	10/01/2022	18009.0	17841.8	60	Marcellus
41	10/01/2022	17805.9	17638.7	60	Marcellus
42	10/01/2022	17602.9	17435.7	60	Marcellus
43	10/02/2022	17399.9	17232.7	60	Marcellus
44	10/02/2022	17196.8	17029.6	60	Marcellus
45	10/02/2022	16993.8	16826.6	60	Marcellus
46	10/02/2022	16790.8	16623.6	60	Marcellus
47	10/02/2022	16587.7	16420.5	60	Marcellus
48	10/02/2022	16384.7	16217.5	60	Marcellus
49	10/03/2022	16181.7	16014.5	60	Marcellus
50	10/03/2022	15978.6	15811.4	60	Marcellus
51	10/04/2022	15775.6	15608.4	60	Marcellus
52	10/04/2022	15572.6	15405.4	60	Marcellus
53	10/04/2022	15369.5	15202.3	60	Marcellus
54	10/05/2022	15166.5	14999.3	60	Marcellus
55	10/05/2022	14963.5	14796.3	60	Marcellus
56	10/06/2022	14760.4	14593.2	60	Marcellus
57	10/06/2022	14557.4	14390.2	60	Marcellus
58	10/06/2022	14354.4	14187.2	60	Marcellus
59	10/07/2022	14151.3	13984.1	60	Marcellus
60	10/07/2022	13948.3	13781.1	60	Marcellus
61	10/07/2022	13745.3	13578.1	60	Marcellus
62	10/07/2022	13542.2	13375.0	60	Marcellus
63	10/07/2022	13339.2	13172.0	60	Marcellus
64	10/08/2022	13136.1	12969.0	60	Marcellus
65	10/08/2022	12933.1	12765.9	60	Marcellus
66	10/08/2022	12730.1	12562.9	60	Marcellus
67	10/09/2022	12527.0	12359.9	60	Marcellus
68	10/09/2022	12324.0	12156.8	60	Marcellus
69	10/09/2022	12121.0	11953.8	60	Marcellus
70	10/09/2022	11917.9	11750.7	60	Marcellus
71	10/10/2022	11714.9	11547.7	60	Marcellus
72	10/10/2022	11511.9	11344.7	60	Marcellus
73	10/10/2022	11308.8	11141.6	60	Marcellus
74	10/10/2022	11105.8	10938.6	60	Marcellus
75	10/11/2022	10902.8	10735.6	60	Marcellus
76	10/11/2022	10699.7	10532.5	60	Marcellus
77	10/11/2022	10496.7	10329.5	60	Marcellus
78	10/12/2022	10293.7	10126.5	60	Marcellus
79	10/12/2022	10090.6	9923.4	60	Marcellus
80	10/12/2022	9887.6	9720.4	60	Marcellus
81	10/13/2022	9684.6	9517.4	60	Marcellus
82	10/13/2022	9481.5	9314.3	60	Marcellus
83	10/13/2022	9278.5	9111.3	60	Marcellus
84	10/13/2022	9075.5	8908.3	60	Marcellus
85	10/14/2022	8872.4	8705.2	60	Marcellus
86	10/14/2022	8669.4	8502.2	60	Marcellus
87	10/14/2022	8466.4	8299.2	60	Marcellus
88	10/14/2022	8263.3	8096.1	60	Marcellus
89	10/15/2022	8060.3	7893.1	60	Marcellus
90	10/15/2022	7857.3	7690.1	60	Marcellus
91	10/15/2022	7654.2	7487.0	60	Marcellus
92	10/15/2022	7451.2	7284.0	60	Marcellus

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EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	(SIP) (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	09/16/2022	67.1	8995	4917	3601	178140	192340	N/A
2	09/17/2022	85.43	10580	5682	4092	413080	311240	N/A
3	09/17/2022	82.2	10153	5405	3846	408704	371289	N/A
4	09/18/2022	84.46	10520	6182	3791	409975	355027	N/A
5	09/19/2022	89.86	10805	5144	4128.95	410417	308847	N/A
6	09/19/2022	87	10386	5581	4901	415774	313182	N/A
7	09/20/2022	92.07	10832	5466	4339	413354	312355	N/A
8	09/20/2022	89.55	10576	6012	4700.88	410289	291952	N/A
9	09/21/2022	88.21	10340	5105	4863.19	419742	295381	N/A
10	09/21/2022	92.44	10678	5414	5023	412487	310076	N/A
11	09/22/2022	71.47	10295	5908	4311.58	403645	397028	N/A
12	09/22/2022	87.49522	10046.16	7517.7	4499.66	407658	297709	N/A
13	09/23/2022	91.4363	10316.52	7497.48	4679.78	401317	273234	N/A
14	09/23/2022	86.98694	9605.302	7076.62	4992.61	404578	274095	N/A
15	09/23/2022	89.90941	10567.22	6174.08	4738.53	403551	283665	N/A
16	09/24/2022	90.42848	10066.35	6339.55	4549	405130	299651	N/A
17	09/25/2022	88.48554	10464.68	6102.78	4137.44	403756	316571	N/A
18	09/25/2022	87.16	10457	6681	4233	412425	362059	N/A
19	09/26/2022	91.16077	10445	5278.52	4187.4	400235	309679	N/A
20	09/26/2022	84.66905	10594.1	6577.95	3577.35	407227	295366	N/A
21	09/26/2022	90.70635	10614.25	6672.78	3987.17	401627	308244	N/A
22	09/27/2022	71.64983	10462.84	5608.74	3854.48	402094	415560	N/A
23	09/27/2022	71.50077	10181.6	6154.39	3601.3	403060	398210	N/A
24	09/27/2022	75.61058	9428.291	6483.29	3987.48	408347	366230	N/A
25	09/27/2022	70.94619	10321.93	9795.99	3664.77	403376	310806	N/A
26	09/28/2022	82.39	9804	9550	4035	412108	324351	N/A
27	09/28/2022	87.54865	10233.12	6350.84	4095.59	414159	296152	N/A
28	09/28/2022	89.68677	10159.37	6409.59	4138.08	402362	294770	N/A
29	09/28/2022	85.24445	9993.333	9758.1	4131.56	412771	305380	N/A
30	09/29/2022	87.72282	9801.66	9597.69	3978.35	401779	301768	N/A
31	09/29/2022	89.18661	10169.63	6833.2	3907.61	409692	309809	N/A
32	09/29/2022	88.04401	9759.901	6208.36	4258.78	407586	307156	N/A
33	09/29/2022	83.34	9688	10077	4708	409872	382820	N/A
34	09/30/2022	89.08	9157	9042	4376	401621	305953	N/A
35	09/30/2022	90.80601	9843.843	9651.71	4199.77	411501	308994	N/A
36	09/30/2022	84.96174	9941.225	8384.17	4036.42	409561	312127	N/A
37	09/30/2022	90.1151	9987.236	5748.37	3903.33	407172	301849	N/A
38	09/30/2022	92.06	9674	6606	4226	406296	311601	N/A
39	10/01/2022	89.16	9825	6455	4075	399861	300767	N/A
40	10/01/2022	92.24693	9587.502	5685.36	4297.35	412446	298825	N/A
41	10/01/2022	86.52904	9938.412	7054.74	4554.45	402870	290630	N/A
42	10/01/2022	89.03	10128	5644	4308	406536	289738	N/A
43	10/02/2022	89.83	9787	7256	4225	400368	291314	N/A
44	10/02/2022	82.71849	10124.59	7762.49	3908.56	408523	293477	N/A
45	10/02/2022	85.02841	10085.13	6008.67	4424.46	413556	302608	N/A
46	10/02/2022	94.19983	9756.687	5357.13	4228.77	405753	305191	N/A
47	10/02/2022	89.96	9668	6280	4062	415756	305565	N/A
48	10/02/2022	82.8	9636	6284	3932	400364	302279	N/A
49	10/03/2022	88.02	8867	5982	3686	413352	308094	N/A
50	10/03/2022	53.13588	3968.706	6731.57	5024.04	158650	450441	N/A
51	10/04/2022	88.55	9327	5971	4155	417295	318967	N/A
52	10/04/2022	88.08	8696	5669	4724	412363	317631	N/A
53	10/04/2022	85.39	8782	8812	4048	403069	303369	N/A
54	10/05/2022	90.15	8728	8788	3755	397118	310589	N/A
55	10/05/2022	87.71	8171	8308	4359	404903	348372	N/A
56	10/06/2022	91.68	8518	4926	4673	411636	337831	N/A
57	10/06/2022	90.73	8302	5545	4008	415998	313962	N/A
58	10/06/2022	87.94	8480	7345	4562	404316	306578	N/A
59	10/07/2022	89.3	8551	7697	4005	410850	315704	N/A
60	10/07/2022	88.72	8318	8042	4671	413298	317635	N/A
61	10/07/2022	85.16	7604	5173	4972	409281	334939	N/A
62	10/07/2022	83.28	7969	5324	4007	404353	378880	N/A
63	10/07/2022	91.08	8065	8550	4402	411371	319563	N/A
64	10/08/2022	91.6	8167	8409	4274	400543	306598	N/A
65	10/08/2022	87.78	7551	5128	5007	412026	302536	N/A
66	10/08/2022	85.52	7936	7250	4343	422055	323460	N/A
67	10/09/2022	82.33	7413	8305	3983	414841	329014	N/A
68	10/09/2022	87.21	7738	5058	4108	412470	319944	N/A
69	10/09/2022	87.08	7633	5286	5010	409358	305902	N/A
70	10/09/2022	84.9	7684	8199	4489	413434	312587	N/A
71	10/10/2022	87.26	7443	7497	4289	404994	306987	N/A
72	10/10/2022	87.05	7840	5751	4016	416237	322522	N/A
73	10/10/2022	84.48	7380	5380	4043	404503	315922	N/A
74	10/10/2022	87.96	7635	8013	4366	401958	312628	N/A
75	10/11/2022	87.12	7338	8362	4256	416883	320225	N/A
76	10/11/2022	88.4	7502	4422	5054	408994	307537	N/A
77	10/11/2022	89.05	7438	5718	5050	411922	310184	N/A
78	10/12/2022	84.13	7364	5114	4017	402567	294885	N/A
79	10/12/2022	85.91	7413	5527	4014	401888	287971	N/A
80	10/12/2022	86.88	7220	6648	4268.35	397096	298601	N/A
81	10/13/2022	86.85	6954	5600	4112.08	397059	305827	N/A
82	10/13/2022	90.18	7350	6187	4008	403112	303502	N/A
83	10/13/2022	75.25	6465	4818	4253	400850	360189	N/A
84	10/13/2022	86.01	7043	5219	4181.9	419833	305595	N/A
85	10/14/2022	88.35	6769	6907	4327.32	400433	304221	N/A
86	10/14/2022	89.17	6907	4783	4032	401920	308713	N/A
87	10/14/2022	89.75	6788	5430	4501	409827	315770	N/A
88	10/14/2022	89.92	6863	5192	4103	419917	312757	N/A
89	10/15/2022	90.11	6853	5952	4102.5	400858	300250	N/A
90	10/15/2022	92.66	7191	5568	4378.82	397772	302280	N/A
91	10/15/2022	85.89	6620	4885	4585	396007	301496	N/A
92	10/15/2022	91.29	7240	5382	4432	414254	310430	N/A
	AVG=	86	8,897	6,533	4,271	37,034,065	28,984,478	TOTAL

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**EXHIBIT 3**

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Sandstone	99	194	99	194
Silty Sandstone, tr shale	194	424	194	424
Silty Sandstone, occ shale	424	724	424	724
Shaley Sandstone, occ Limestone	724	874	724	874
Silty Sandstone, tr shale	874	924	874	924
Sandstone, tr Siltstone, tr shale	924	1,124	924	1,124
Shaley Siltstone, tr coal	1,124	1,424	1,124	1,424
Sandstone	1,424	1,524	1,424	1,524
Silty Sandstone, occ shale	1,524	1,724	1,524	1,724
Sandstone, tr Siltstone, tr shale	1,724	1,874	1,724	1,874
Sandstone, Tr Shale, Tr Silt	1,874	1,924	1,874	1,924
Silty Sandstone, tr shale	1,924	2,024	1,924	2,024
Sandy Shale, Tr Coal, Tr Limestone	2,024	2,108	2,024	2,109
Big Lime	2,134	2,904	2,109	2,905
Fifty Foot Sandstone	2,904	2,960	2,879	2,962
Gordon	2,960	3,238	2,936	3,240
Fifth Sandstone	3,238	3,301	3,214	3,303
Bayard	3,301	3,967	3,277	3,971
Speechley	3,967	4,105	3,945	4,112
Balltown	4,105	4,558	4,086	4,577
Bradford	4,558	5,108	4,551	5,148
Benson	5,108	5,540	5,122	5,601
Alexander	5,540	6,684	5,575	6,849
Sycamore	6,538	6,658	6,668	6,823
Middlesex	6,658	6,756	6,823	6,983
Burkett	6,756	6,784	6,983	7,040
Tully	6,784	6,853	7,040	7,236
Marcellus	6,853	NA	7,236	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.

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Office of Oil and Gas

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WV Department of  
Environmental Protection

07/21/2023  
SM

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	9/16/2022
Job End Date:	10/15/2022
State:	West Virginia
County:	Wetzel
API Number:	47-103-03482-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	CAVATICA UNIT 2H
Latitude:	39.52605000
Longitude:	-80.76200800
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,904
Total Base Water Volume (gal):	30,619,371
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	87.30812	Density = 8.50
Ingredients	Listed Above	Listed Above	Water	7732-18-5	100.00000	0.20142	

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 Environmental Protection  
 FEB 24 2023



MC B-8614A	MultiChem	Biocide					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
Chemstream StimSTREAM FR 9800	Chemstream, Inc.	Friction Reducer					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
Sand-Premium White-30/70	Halliburton	Proppant					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			

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 WV Department of  
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 FEB 24 2023

WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				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	12.42353	
			Hydrochloric acid	7647-01-0	30.00000	0.05241	
			Guar gum	9000-30-0	100.00000	0.03781	
			Complex Amine Compound	Proprietary	60.00000	0.01837	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.00919	
			Alkanes, C16-20-iso-	Proprietary	25.00000	0.00387	
			Butene, homopolymer	9003-29-6	25.00000	0.00387	
			Glutaraldehyde	111-30-8	30.00000	0.00251	
			Surfactant	Proprietary	5.00000	0.00153	
			Sobitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00153	
			Ammonium persulfate	7727-54-0	100.00000	0.00116	
			Ethoxylated alcohols (C12-16)	68213-23-0	3.00000	0.00046	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00042	
			Oxylated phenolic resin	Proprietary	30.00000	0.00035	
			Methanol	67-56-1	100.00000	0.00033	
			Ethoxylated alcohols	Proprietary	5.00000	0.00032	
			Organic chloride compound	Proprietary	1.00000	0.00031	
			Alkoxyated polyhydric alcohol	Proprietary	1.00000	0.00031	
			Modified thiourea polymer	Proprietary	30.00000	0.00010	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00010	

WV Department of Environmental Protection

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			Ethanol	64-17-5	1.00000	0.00008	
			Propargyl alcohol	107-19-7	5.00000	0.00002	
			Hexadecene	629-73-2	5.00000	0.00002	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00001	
			Organic salt #1	Proprietary	0.01000	0.00000	
			Organic salt #2	Proprietary	0.01000	0.00000	
			Acrylamide	79-06-1	0.01000	0.00000	
			Sodium glycolate	2836-32-0	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	0.00000	
			Formaldehyde	50-00-0	0.01000	0.00000	
			Sodium hydroxide	1310-73-2	0.01000	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.

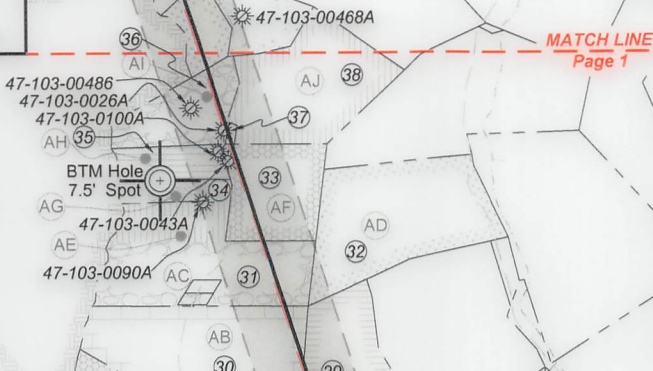
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

**Antero Resources**  
**Well No. Cavatica 2H**  
**As-Drilled**  
 Antero Resources Corporation

Page 1 of 2

10,375' to Bottom Hole

TOP HOLE LATITUDE 39 - 32 - 30  
 BTM HOLE LATITUDE 39 - 35 - 00



**Notes**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Cavatica Unit 2H Top Hole coordinates are  
 N: 376,209.60' Latitude: 39°31'33.78"  
 E: 1,644,022.47' Longitude: 80°45'43.23"  
 Bottom Hole coordinates are  
 N: 394,268.87' Latitude: 39°34'31.32"  
 E: 1,637,285.44' Longitude: 80°47'12.50"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,375,191.626m N: 4,380,659.205m  
 E: 520,469.665m E: 518,325.552m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

LONGITUDE 80 - 45 - 00  
 2,902' to Bottom Hole  
 5,688' to Top Hole

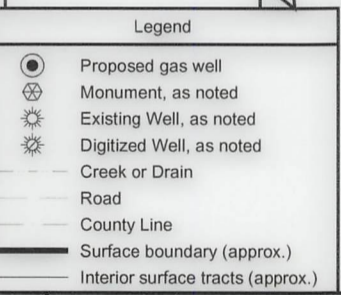
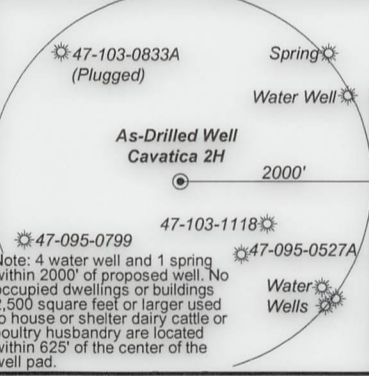
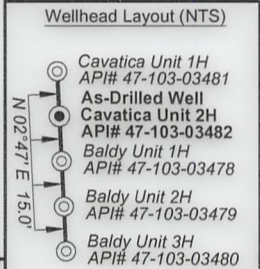
Top Hole Coordinates, As-drilled data, and information was provided by Antero Resources Corporation. Allegheny Surveys Inc. (ASI) is not certifying the data and information provided. ASI is not responsible for any errors or inaccuracies with the data and information that has been provided.

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*  
 Bradley D. Miller, P.S. 2167

Cavatica Unit 2H As-Drilled POE Coordinates West Virginia Coordinate System of 1927, North Zone  
 N: 376,491.17'  
 E: 1,642,988.98'  
 Latitude: 39°31'36.42"  
 Longitude: 80°45'56.47"  
 UTM Zone 17, NAD 1983  
 N: 4,375,272.144m  
 E: 520,153.378m

	Bearing	Dist.
L1	S 40°48' E	1,960.8'
L2	S 22°55' W	1,653.4'
L3	S 51°46' W	2,084.6'
L4	S 68°03' W	1,946.9'



FILE NO: 116-34-G-18  
 DRAWING NO: Cavatica 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: CORS, Monroe County, OH

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

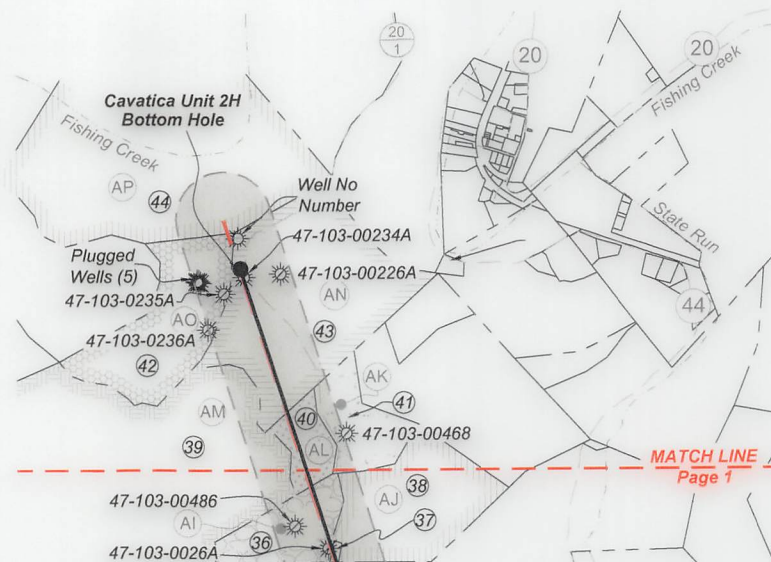
DATE: February 22 2023  
 OPERATOR'S WELL NO. Cavatica Unit 2H  
 API WELL NO  
 47 - 103 - 03482  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,206' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls 34.17; 69; 37; 39; 41.75;  
 DISTRICT: Green Margaret Chesapeake Appalachia, LLC COUNTY: Wayne 34.17; 69; 37; 39; 41.75;  
 SURFACE OWNER: Lancaster Linda Lou Jackson & Jess Stephen Jackson; Charmaine A. Starkweather, et vir; Barbara Anne Amos King; Edward D. & Heather M. Stewart; Thomas W. Lins; Robert E. & Michaelmary Midcap; Roger D. & Tina S. Midcap; Allen Vincent Wilcox; Antero Minerals, LLC; BRC Appalachian Minerals I, LLC; Linda Ice Long; Susan J. Fair; Ernest & Cathy Stewary 2019 Irrevocable Trust; Randy Bradley; Joshua Highley; RBMA, LLC; Jerome E. Staley; ACREAGE: 39.00 36.75; 64.5; 32.56; 119.75; 46.5; 57; 50;  
 ROYALTY OWNER: Shiben Estates Inc. (3); Kenneth Stewart Keystone Trust; Kenneth Stewart Keystone Trust Agreement LEASE NO: ACREAGE: 40; 26.5; 13.25; 10;

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: 6,880' TVD 25,936' 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



ID	TM-Par	Owner	Bk/Pg	Acres
1	19-31	Margaret Lancaster	333 / 440	39.00
2	12-27	Crystal A. Muzzy (Tyler Co.)	W69 / 226	60.91
3	-	Garrett Cemetery	85 / 62	1.80
4	12-25	Cecil & Margaret Lancaster	170 / 48	78.17
5	19-52	Joshua Highley	464 / 208	8.01
6	19-30	Richard R. & Mary J. Scyoc	452 / 177	13.00
7	19-21	Joshua Highley	464 / 208	41.75
8	19-21.1	McCormick Cemetery	--- / ---	---
9	12-21	Mary Adaline Lewis, et al	AR53 / 75	67.00
10	19-37	Joshua Highley	464 / 208	7.12
11	19-15	Joshua Highley	464 / 208	17.00
12	19-13	Joshua Highley	464 / 208	5.00
13	19-12	Joshua Highley	464 / 208	17.17
14	19-55	Olive M. Moore	392 / 158	13.99
15	19-54	Susan J. Fair	378 / 97	59.75
16	16-75	Gregg John Weis	317 / 157	7.50
17	16-53	Edward D. & Heather M. Stewart	390 / 10	32.60
18	16-52	RBMA, LLC	431 / 526	43.25
19	16-44	Kenneth E. Stewart Keystone Trust	424 / 821	46.30
20	16-43	RBMA, LLC	431 / 526	76.30
21	16-36	Kenneth E. Stewart Keystone Trust	424 / 821	53.00
22	16-29	Kenneth E. Stewart Keystone Trust	424 / 821	53.50
23	16-19	Eugene D., Jr. & Diane Mason	405 / 291	64.70
24	16-20	Bonita Andrich, et al	W70 / 243	79.03
25	16-8	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	75.75
26	16-18	Cathy A. & Ernest E. Stewart	355 / 280	28.50
27	16-7	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	54.50
28	16-1	Richard Coleman Nolan	264 / 313	60.72
29	12-53	Robert E. Midcap	399 / 40	57.00
30	12-52	Linda Lou Jackson	399 / 34	50.00
31	12-45	Roger Dale Midcap	399 / 37	46.00
32	12-48	John W. & Rosalie M. Ueltschey	362 / 403	47.87
33	12-47	Linda K. Ice	447 / 793	26.25
34	12-44	Jerome E. Staley II, et al	453 / 271	6.00
35	12-36	Jerome E. Staley II, et al	453 / 271	6.00
36	12-37	Roger D. & Tina S. Midcap	342 / 74	13.30
37	12-46	Roger D. & Tina S. Midcap	348 / 437	1.00
38	12-38	Roger D. & Tina S. Midcap	342 / 74	37.00
39	12-43	Coastal Forest Resources Co.	444 / 105	172.70
40	12-24	Jerome E. Staley	242 / 72	10.00
41	12-25	Jerome E. Staley	242 / 72	15.00
42	12-16	Charmaine A. & Heath C. Starkweather	427 / 930	36.00
43	12-17	Charmaine A. & Heath C. Starkweather	427 / 930	69.00
44	12-1	Bradley W. Ueltschey	476 / 310	78.13

Leases	
A	Shiben Estates, Inc.
B	Randy Bradley
C	BRC Appalachian Minerals I, LLC
D	Shiben Estates, Inc.
E	Richard R. & Mary J. Scyoc
F	Antero Minerals, LLC
G	Joshua Highley
H	Joshua Highley
I	Shiben Estates, Inc.
J	Shiben Estates, Inc.
K	Allen Vincent Wilcox
L	Tribune Resources Minerals, LLC
M	Olive M. Moore
N	Susan J. Fair
O	Antero Minerals, LLC
P	Edward D. & Heather M. Stewart
Q	RBMA, LLC
R	Thomas W. Lins
S	Kenneth Stewart Keystone Trust
T	Kenneth Stewart Keystone Trust
U	BRC Appalachian Minerals I, LLC
V	Gladys E. Conley Trust
W	Chesapeake Appalachia, LLC
X	Ernest & Cathy Stewart 2019 Irrevocable Trust
Y	Shiben Estates, Inc.
Z	Robert E. & Michaelmary Midcap
AA	John Ray Nolan
AB	Linda Lou Jackson & Jess Stephen Jackson
AC	Barbara Anne Amos King
AD	Ridgetop Royalties, LLC
AE	Barbara A. King
AF	Linda Ice Long
AG	Ridgetop Appalachia, LLC
AH	Jerome E. Staley, II, et ux
AI	Roger D. & Tina S. Midcap
AJ	Chesapeake Appalachia, LLC
AK	Dennis B. Moore
AL	Jerome E. Staley
AM	Chesapeake Appalachia, LLC
AN	Charmaine A. Starkweather, et vir
AO	Charmaine A. Starkweather, et vir
AP	Stone Hill Minerals Holdings, LLC

FILE NO: 116-34-G-18  
 DRAWING NO: Cavatica 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: CORS, Monroe County, OH

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

DATE: February 22 20 23  
 OPERATOR'S WELL NO. Cavatica Unit 2H  
 API WELL NO  
 47 - 103 - 03482  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,206' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls 34,17;  
Chesapeake Appalachia, LLC 69; 37; 39; 41.75;  
 DISTRICT: Green Margaret Linda Lou Jackson & Jess Stephen Jackson; Charmaine A. Starkweather, et vir; Barbara Anne Amos King; COUNTY: W 0721, 2023  
Edward D. & Heather M. Stewart; Thomas W. Lins; Robert E. & Michaelmary Midcap; Roger D. & Tina S. Midcap;  
 SURFACE OWNER: Lancaster Allen Vincent Wilcox; Antero Minerals, LLC; BRC Appalachian Minerals I, LLC; Linda Ice Long; Susan J. Fair; ACREAGE: 39.00 36.75; 64.5; 32.56;  
Ernest & Cathy Stewary 2019 Irrevocable Trust; Randy Bradley; Joshua Highley; RBMA, LLC; Jerome E. Staley; 119.75; 46.5; 57; 50;  
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 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,880' TVD 25,936' 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. Cavatica 2H**  
**As-Drilled**  
 Antero Resources Corporation

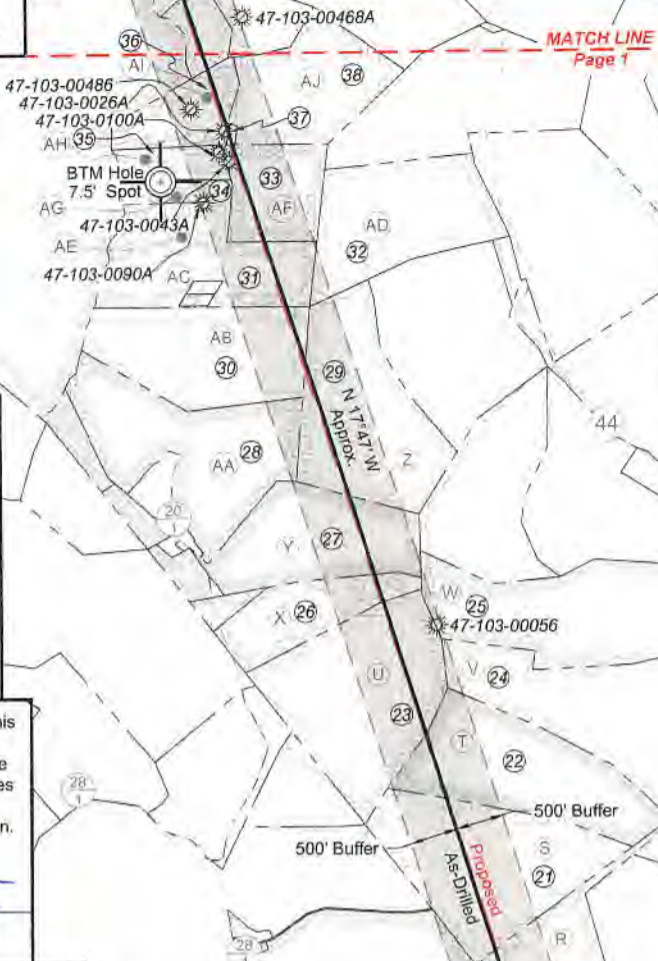
Page 1 of 2

10,375' to Bottom Hole

TOP HOLE LATITUDE 39 - 32 - 30  
 BTM HOLE LATITUDE 39 - 35 - 00

3,388' to Top Hole

LONGITUDE 80 - 45 - 00  
 5,688' to Top Hole  
 2,902' to Bottom Hole



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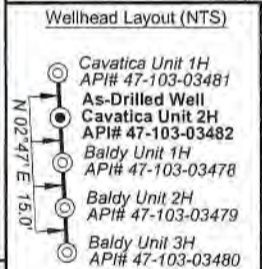
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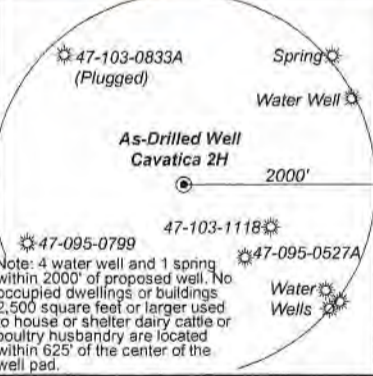
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



**Legend**

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



RECEIVED  
 Office of Oil and Gas  
 FEB 24 2023  
 WV Department of Environmental Protection

FILE NO: 116-34-G-18  
 DRAWING NO: Cavatica 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: CORS, Monroe County, OH

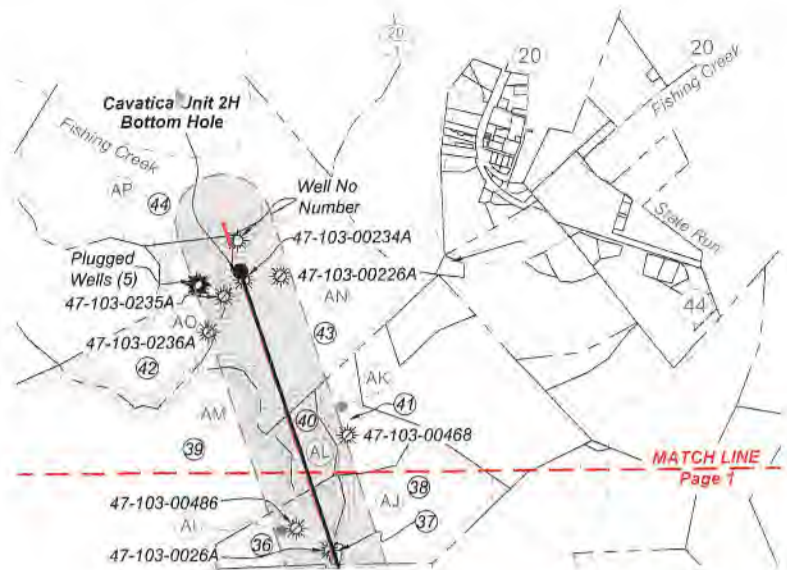
**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: February 22 2023  
 OPERATOR'S WELL NO. Cavatica Unit 2H  
 API WELL NO  
 47 - 103 - 03482  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,206' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls 34.17; 69; 37; 39; 41.75;  
 DISTRICT: Green Margaret Chesapeake Appalachia, LLC COUNTY: Wayne 28.5; 30.01; 7.123; 17.1750;  
 SURFACE OWNER: Lancaster Edward D. & Heather M. Stewart; Thomas W. Lins; Robert E. & Michaelmary Midcap; Roger D. & Tina S. Midcap; ACREAGE: 39.00 36.75; 64.5; 32.56;  
 ROYALTY OWNER: Shiban Estates Inc. (3); Kenneth Stewart Keystone Trust; Kenneth Stewart Keystone Trust Agreement LEASE NO: ACREAGE: 40; 26.5; 13.25; 10; 119.75; 46.5; 57; 50;  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
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 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,880' TVD  
 25,936' 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



ID	TM-Par	Owner	Bk/Pg	Acres
1	19-31	Margaret Lancaster	333 / 440	39.00
2	12-27	Crystal A. Muzzy (Tyler Co.)	W69 / 226	60.91
3	-	Garrett Cemetery	85 / 62	1.80
4	12-25	Cecil & Margaret Lancaster	170 / 48	78.17
5	19-52	Joshua Highley	464 / 208	8.01
6	19-30	Richard R. & Mary J. Scyoc	452 / 177	13.00
7	19-21	Joshua Highley	464 / 208	41.75
8	19-21.1	McCormick Cemetery	--- / ---	---
9	12-21	Mary Adaline Lewis, et al	AR53 / 75	67.00
10	19-37	Joshua Highley	464 / 208	7.12
11	19-15	Joshua Highley	464 / 208	17.00
12	19-13	Joshua Highley	464 / 208	5.00
13	19-12	Joshua Highley	464 / 208	17.17
14	19-55	Olive M. Moore	392 / 158	13.99
15	19-54	Susan J. Fair	378 / 97	59.75
16	16-75	Gregg John Weis	317 / 157	7.50
17	16-53	Edward D. & Heather M. Stewart	390 / 10	32.60
18	16-52	RBMA, LLC	431 / 526	43.25
19	16-44	Kenneth E. Stewart Keystone Trust	424 / 821	46.30
20	16-43	RBMA, LLC	431 / 526	76.30
21	16-36	Kenneth E. Stewart Keystone Trust	424 / 821	53.00
22	16-29	Kenneth E. Stewart Keystone Trust	424 / 821	53.50
23	16-19	Eugene D., Jr. & Diane Mason	405 / 291	64.70
24	16-20	Bonita Andrich, et al	W70 / 243	79.03
25	16-8	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	75.75
26	16-18	Cathy A. & Ernest E. Stewart	355 / 280	28.50
27	16-7	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	54.50
28	16-1	Richard Coleman Nolan	264 / 313	60.72
29	12-53	Robert E. Midcap	399 / 40	57.00
30	12-52	Linda Lou Jackson	399 / 34	50.00
31	12-45	Roger Dale Midcap	399 / 37	46.00
32	12-48	John W. & Rosalie M. Ueltschey	362 / 403	47.87
33	12-47	Linda K. Ice	447 / 793	26.25
34	12-44	Jerome E. Staley II, et al	453 / 271	6.00
35	12-36	Jerome E. Staley II, et al	453 / 271	6.00
36	12-37	Roger D. & Tina S. Midcap	342 / 74	13.30
37	12-46	Roger D. & Tina S. Midcap	348 / 437	1.00
38	12-38	Roger D. & Tina S. Midcap	342 / 74	37.00
39	12-43	Coastal Forest Resources Co.	444 / 105	172.70
40	12-24	Jerome E. Staley	242 / 72	10.00
41	12-25	Jerome E. Staley	242 / 72	15.00
42	12-16	Charmaine A. & Heath C. Starkweather	427 / 930	36.00
43	12-17	Charmaine A. & Heath C. Starkweather	427 / 930	69.00
44	12-1	Bradley W. Ueltschey	476 / 310	78.13

Leases	
A	Shiben Estates, Inc.
B	Randy Bradley
C	BRC Appalachian Minerals I, LLC
D	Shiben Estates, Inc.
E	Richard R. & Mary J. Scyoc
F	Antero Minerals, LLC
G	Joshua Highley
H	Joshua Highley
I	Shiben Estates, Inc.
J	Shiben Estates, Inc.
K	Allen Vincent Wilcox
L	Tribune Resources Minerals, LLC
M	Olive M. Moore
N	Susan J. Fair
O	Antero Minerals, LLC
P	Edward D. & Heather M. Stewart
Q	RBMA, LLC
R	Thomas W. Lins
S	Kenneth Stewart Keystone Trust
T	Kenneth Stewart Keystone Trust
U	BRC Appalachian Minerals I, LLC
V	Gladys E. Conley Trust
W	Chesapeake Appalachia, LLC
X	Ernest & Cathy Stewart 2019 Irrevocable Trust
Y	Shiben Estates, Inc.
Z	Robert E. & Michaelmary Midcap
AA	John Ray Nolan
AB	Linda Lou Jackson & Jess Stephen Jackson
AC	Barbara Anne Amos King
AD	Ridgetop Royalties, LLC
AE	Barbara A. King
AF	Linda Ice Long
AG	Ridgetop Appalachia, LLC
AH	Jerome E. Staley, II, et ux
AI	Roger D. & Tina S. Midcap
AJ	Chesapeake Appalachia, LLC
AK	Dennis B. Moore
AL	Jerome E. Staley
AM	Chesapeake Appalachia, LLC
AN	Charmaine A. Starkweather, et vir
AO	Charmaine A. Starkweather, et vir
AP	Stone Hill Minerals Holdings, LLC

RECEIVED  
 Office of Oil and Gas  
 FEB 24 2023  
 WV Department of  
 Environmental Protection

FILE NO: 116-34-G-18  
 DRAWING NO: Cavatica 2H As-Drilled  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY:  
 Submeter  
 PROVEN SOURCE OF ELEVATION:  
 CORS, Monroe County, OH

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

DATE: February 22 2023  
 OPERATOR'S WELL NO. Cavatica Unit 2H  
 API WELL NO  
 47 - 103 - 03482  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,206' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls 34.17;  
Chesapeake Appalachia, LLC COUNTY: Wetzel 69; 37; 39; 41.75;  
 DISTRICT: Green Margaret Linda Lou Jackson & Jess Stephen Jackson; Charmaine A. Starkweather, et vir; Barbara Anne Amos King; COUNTY: Wetzel 34.17; 28.5;  
 SURFACE OWNER: Lancaster Edward D. & Heather M. Stewart; Thomas W. Lins; Robert E. & Michaelmary Midcap; Roger D. & Tina S. Midcap; COUNTY: Wetzel 34.17; 17.1750;  
Allen Vincent Wilcox; Antero Minerals, LLC; BRC Appalachian Minerals I, LLC; Linda Ice Long; Susan J. Fair; ACREAGE: 39.00 36.75; 64.5; 32.56;  
Ernest & Cathy Stewart 2019 Irrevocable Trust; Randy Bradley; Joshua Highley; RBMA, LLC; Jerome E. Staley; ACREAGE: 39.00 119.75; 46.5; 57; 50;  
 ROYALTY OWNER: Shiben Estates Inc. (3); Kenneth Stewart Keystone Trust; Kenneth Stewart Keystone Trust Agreement LEASE NO: \_\_\_\_\_ ACREAGE: 40; 26.5; 13.25; 10;

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: 6,880' TVD  
25,936' 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