

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

API 47 - 095 - 02698 County Tyler District Ellsworth
Quad Porter Falls Pad Name Pyles Pad Field/Pool Name -----
Farm name Richard D Pyles Well Number Seagrave 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop St 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 4372697m Easting 514001m
Landing Point of Curve Northing 4372948.62m Easting 514505.74m
Bottom Hole Northing 4377462m Easting 512967m

Elevation (ft) 1081' 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

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Date permit issued 06/05/2020 Date drilling commenced 8/14/2020 Date drilling ceased 9/30/2020
Date completion activities began 1/2/2021 Date completion activities ceased 2/15/2021
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 61 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2200 Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

APPROVED

03/17/2023

API 47-095 - 02698 Farm name Richard D Pyles Well number Seagrave 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	80'	New	94# H-40	N/A	Y
Surface	17-1/2"	13-3/8"	346'	New	54.5# J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2657'	New	36# J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"	5-1/2"	23129	New	23# P-110	N/A	Y
Tubing		2-3/8"	7153'		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	285 sx	15.6	1.18	60	0	8 Hrs
Surface	Class A	430 sx	15.6	1.20	76	0	8 Hrs
Coal							
Intermediate 1	Class A	1023 sx	15.6	1.19	189	0	8 Hrs
Intermediate 2							
Intermediate 3							
Production	Class H	792 sx (Lead) 3632 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.4 (Lead), 1.26 (Tail)	818	-500' into Intermediate Casing	8 Hrs
Tubing							

Drillers TD (ft) 23174' MD, 6558' TVD (BHL), 6664' (Deepest Point Drilled) Loggers TD (ft) 23174' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

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Kick off depth (ft) 6155'

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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 ever 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 on 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 _____

03/17/2023

[Handwritten signature]

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	01/02/2021	22848.9	22804.8	60	Marcellus
2	01/03/2021	22765.94935	22599.6961	60	Marcellus
3	01/03/2021	22564.04545	22397.7922	60	Marcellus
4	01/04/2021	22362.14156	22195.8883	60	Marcellus
5	01/04/2021	22160.23766	21993.9844	60	Marcellus
6	01/04/2021	21958.33377	21792.0805	60	Marcellus
7	01/05/2021	21756.42987	21590.1766	60	Marcellus
8	01/05/2021	21554.52597	21388.2727	60	Marcellus
9	01/06/2021	21352.62208	21186.3688	60	Marcellus
10	01/06/2021	21150.71818	20984.4649	60	Marcellus
11	01/07/2021	20948.81429	20782.561	60	Marcellus
12	01/07/2021	20746.91039	20580.6571	60	Marcellus
13	01/07/2021	20545.00649	20378.7532	60	Marcellus
14	01/08/2021	20343.1026	20176.8494	60	Marcellus
15	01/08/2021	20141.1987	19974.9455	60	Marcellus
16	01/08/2021	19939.29481	19773.0416	60	Marcellus
17	01/09/2021	19737.39091	19571.1377	60	Marcellus
18	01/09/2021	19535.48701	19369.2338	60	Marcellus
19	01/10/2021	19333.58312	19167.3299	60	Marcellus
20	01/10/2021	19131.67922	18965.426	60	Marcellus
21	01/10/2021	18929.77532	18763.5221	60	Marcellus
22	01/11/2021	18727.87143	18561.6182	60	Marcellus
23	01/11/2021	18525.96753	18359.7143	60	Marcellus
24	01/11/2021	18324.06364	18157.8104	60	Marcellus
25	01/12/2021	18122.15974	17955.9065	60	Marcellus
26	01/12/2021	17920.25584	17754.0026	60	Marcellus
27	01/12/2021	17718.35195	17552.0987	60	Marcellus
28	01/13/2021	17516.44805	17350.1948	60	Marcellus
29	01/13/2021	17314.54416	17148.2909	60	Marcellus
30	01/13/2021	17112.64026	16946.387	60	Marcellus
31	01/14/2021	16910.73636	16744.4831	60	Marcellus
32	01/14/2021	16708.83247	16542.5792	60	Marcellus
33	01/14/2021	16506.92857	16340.6753	60	Marcellus
34	01/15/2021	16305.02468	16138.7714	60	Marcellus
35	01/15/2021	16103.12078	15936.8675	60	Marcellus
36	01/15/2021	15901.21688	15734.9636	60	Marcellus
37	01/16/2021	15699.31299	15533.0597	60	Marcellus
38	01/16/2021	15497.40909	15331.1558	60	Marcellus
39	01/16/2021	15295.50519	15129.2519	60	Marcellus
40	01/17/2021	15093.6013	14927.3481	60	Marcellus
41	01/17/2021	14891.6974	14725.4442	60	Marcellus
42	01/17/2021	14689.79351	14523.5403	60	Marcellus
43	01/18/2021	14487.88961	14321.6364	60	Marcellus
44	01/18/2021	14285.98571	14119.7325	60	Marcellus
45	01/18/2021	14084.08182	13917.8286	60	Marcellus
46	01/19/2021	13882.17792	13715.9247	60	Marcellus
47	01/19/2021	13680.27403	13514.0208	60	Marcellus
48	01/19/2021	13478.37013	13312.1169	60	Marcellus
49	01/20/2021	13276.46623	13110.213	60	Marcellus
50	01/20/2021	13074.56234	12908.3091	60	Marcellus
51	01/20/2021	12872.65844	12706.4052	60	Marcellus
52	01/21/2021	12670.75455	12504.5013	60	Marcellus
53	01/21/2021	12468.85065	12302.5974	60	Marcellus
54	01/21/2021	12266.94675	12100.6935	60	Marcellus
55	01/21/2021	12065.04286	11898.7896	60	Marcellus
56	01/22/2021	11863.13896	11696.8857	60	Marcellus
57	01/22/2021	11661.23506	11494.9818	60	Marcellus
58	01/22/2021	11459.33117	11293.0779	60	Marcellus
59	01/23/2021	11257.42727	11091.174	60	Marcellus
60	01/23/2021	11055.52338	10889.2701	60	Marcellus
61	01/23/2021	10853.61948	10687.3662	60	Marcellus
62	01/24/2021	10651.71558	10485.4623	60	Marcellus
63	01/24/2021	10449.81169	10283.5584	60	Marcellus
64	01/24/2021	10247.90779	10081.6545	60	Marcellus
65	01/24/2021	10046.0039	9879.75065	60	Marcellus
66	01/25/2021	9844.1	9677.84675	60	Marcellus
67	01/25/2021	9642.196104	9475.94286	60	Marcellus
68	01/25/2021	9440.292208	9274.03896	60	Marcellus
69	01/26/2021	9238.388312	9072.13506	60	Marcellus
70	01/26/2021	9036.484416	8870.23117	60	Marcellus
71	01/26/2021	8834.580519	8668.32727	60	Marcellus
72	01/27/2021	8632.676623	8466.42338	60	Marcellus
73	01/27/2021	8430.772727	8264.51948	60	Marcellus
74	01/27/2021	8228.868831	8062.61558	60	Marcellus
75	01/27/2021	8026.964935	7860.71169	60	Marcellus
76	01/28/2021	7825.061039	7658.80779	60	Marcellus
77	01/28/2021	7623.157143	7456.9039	60	Marcellus
78	01/28/2021	7421.253247	7255	60	Marcellus

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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 (bbbls)	Amount of Nitrogen/other (units)
1	01/02/2021	76.28	9517	7567	3380	183300	233178	N/A
2	01/03/2021	85.21	10072	5568	3809	408300	330270	N/A
3	01/03/2021	79.21	9191	3952	4128	407340	319155	N/A
4	01/04/2021	91.44	10045	5508	4519	410600	310169	N/A
5	01/04/2021	88.5	10038	4214	4286	407310	317026	N/A
6	01/04/2021	86.63	9851	5403	3988	408880	308856	N/A
7	01/05/2021	89.16	10090	5225	4072	411690	392555	N/A
8	01/05/2021	86.49	9989	3640	4564	414090	312533	N/A
9	01/06/2021	90.53	9989	5255	4542	408890	360081	N/A
10	01/06/2021	87.86	10066	3833	4518	413260	312841	N/A
11	01/07/2021	90.27	9892	5119	4889	406140	303414	N/A
12	01/07/2021	88.38	10072	5923	3844	410600	311167	N/A
13	01/07/2021	89.68	9981	5677	4298	404670	308182	N/A
14	01/08/2021	88.23	10065	5777	4721	412860	309306	N/A
15	01/08/2021	88.18	10019	5506	4479	408710	312480	N/A
16	01/08/2021	87.22	10046	5958	3897	406340	305474	N/A
17	01/09/2021	90.83	9865	5317	4228	411780	307544	N/A
18	01/09/2021	87.84	10017	5473	3921	409630	309883	N/A
19	01/10/2021	87.84	9767	5117	4216	413160	304803	N/A
20	01/10/2021	83.76	9437	5445	3908	407480	301649	N/A
21	01/10/2021	92.84	10020	5462	4672	411240	304493	N/A
22	01/11/2021	93.34	10032	4976	4546	410890	304245	N/A
23	01/11/2021	90.96	10023	5228	3939	412220	302467	N/A
24	01/11/2021	94.56	10087	5258	4339	410900	302267	N/A
25	01/12/2021	90.01	9902	5512	4110	414070	302668	N/A
26	01/12/2021	91.02	10032	5627	4597	410010	299064	N/A
27	01/12/2021	93.67	10085	5376	4426	411820	303780	N/A
28	01/13/2021	94.64	9963	5545	4653	410140	302870	N/A
29	01/13/2021	94.28	9770	5681	4187	406590	298254	N/A
30	01/13/2021	89.44	9406	5594	4082.89	411040	302486	N/A
31	01/14/2021	95.38	9805	5858	4458	411790	301485	N/A
32	01/14/2021	92.58	9671	6011	4648	409100	296892	N/A
33	01/14/2021	95.71	9711	3993	4545	409400	299458	N/A
34	01/15/2021	95.02	9719	5770	4595	413840	301200	N/A
35	01/15/2021	94.94	9834	5447	4401	414930	298466	N/A
36	01/15/2021	92.08	9510	5779	4382	411090	302940	N/A
37	01/16/2021	95.81	9601	5373	4451	414130	301972	N/A
38	01/16/2021	96.58	9601	5356	4474	414280	298555	N/A
39	01/16/2021	96.48	9570	5631	4259	408150	295428	N/A
40	01/17/2021	95.31	9657	5415	4713	409510	298583	N/A
41	01/17/2021	93.97	10018	5797	4187	406170	293748	N/A
42	01/17/2021	95.02	10025	5518	4185	410730	297714	N/A
43	01/18/2021	92.79	9823.36	5223	4390.61	412110	299342	N/A
44	01/18/2021	95.27	9676	5275	4385	409960	293864	N/A
45	01/18/2021	96.37	9089	5280	4612	410350	328700	N/A
46	01/19/2021	96.31	9034	5682	4768	411250	294474	N/A
47	01/19/2021	95.71	8812	5294	4902	406820	292795	N/A
48	01/19/2021	90.91	8734	5514	4663	404940	290525	N/A
49	01/20/2021	95.81	9066	5429	4333	413200	294648	N/A
50	01/20/2021	96.11	9067	5182	4621	412190	294247	N/A
51	01/20/2021	90.9	8860	5601	4392	407970	289166	N/A
52	01/21/2021	95.81	9055	4496	4487	410190	288750	N/A
53	01/21/2021	95.82	9047	5396	4624	408380	288402	N/A
54	01/21/2021	96.27	8980	6065	4425	416410	293102	N/A
55	01/21/2021	96.36	8978	5385	4627	408580	289132	N/A
56	01/22/2021	96.67	9015	5190	4527	411320	292414	N/A
57	01/22/2021	97.08	8924	5404	4865	410760	292963	N/A
58	01/22/2021	96.58	8924	5671	4323	409160	283854	N/A
59	01/23/2021	97.22	8774	5545	4161	417260	286605	N/A
60	01/23/2021	96.74	8986	5540	4048	405650	285342	N/A
61	01/23/2021	96.27	8933	5533	4500	400800	324177	N/A
62	01/24/2021	97.97	8661	5429	3891	414400	293207	N/A
63	01/24/2021	96.84	8100	5494	3965	405870	286580	N/A
64	01/24/2021	96.12	8516	5797	3677	400610	284072	N/A
65	01/24/2021	96.66	8485	6471	4097	404780	290325	N/A
66	01/25/2021	95.55	8196	5655	3750	402120	288725	N/A
67	01/25/2021	96.49	8215	5580	4126	411450	287055	N/A
68	01/25/2021	97.09	8207	6200	4074	406950	289225	N/A
69	01/26/2021	96	7687	2115	4069	407620	292042	N/A
70	01/26/2021	97.7	7688	4366	3604	408090	289625	N/A
71	01/26/2021	97.26	7913	6499	3688	404630	289780	N/A
72	01/27/2021	98.4	7574	4238	3779	402580	289651	N/A
73	01/27/2021	97.52	7823	6101	3969	411380	291923	N/A
74	01/27/2021	98.32	7829	5589	3958	410510	288751	N/A
75	01/27/2021	98.29	7728	5593	4371	401860	287242	N/A
76	01/28/2021	97.77	7554	5657	4835	409700	289785	N/A
77	01/28/2021	98.45	7705	6375	4095	417500	287996	N/A
78	01/28/2021	98.18	7477	5335	4209	412440	288077	N/A
	AVG=	93	9,246	5,396	4,293	31,726,860	23,396,101	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
Shale	79	124	79	124
Shaley Siltstone	124	474	124	474
Silty Shale	474	574	474	574
Siltstone, Tr Shale	574	724	574	724
Silty Shale	724	824	724	824
Shaley Sandstone	824	1,024	824	1,024
Shale, Tr Siltstone	1,024	1,274	1,024	1,274
Shale, Tr Sandstone	1,274	1,524	1,274	1,524
Silty Shale	1,524	1,624	1,524	1,624
Sandstone, Tr Shale	1,624	1,724	1,624	1,724
Sandy Shale	1,724	1,774	1,724	1,774
Shaley Siltstone	1,774	1,824	1,774	1,824
Shale	1,824	1,963	1,824	2,028
Big Lime	1,989	2,692	2,054	2,804
Fifty Foot Sandstone	2,692	2,797	2,804	2,914
Gordon	2,797	3,106	2,914	3,243
Fifth Sandstone	3,106	3,173	3,243	3,314
Bayard	3,173	4,045	3,314	4,234
Speechley	4,045	4,183	4,234	4,378
Balltown	4,183	4,725	4,378	4,955
Bradford	4,725	5,006	4,955	5,249
Benson	5,006	5,386	5,249	5,650
Alexander	5,386	6,465	5,650	6,850
Sycamore	6,324	6,439	6,672	6,824
Middlesex	6,439	6,538	6,824	6,989
Burkett	6,538	6,563	6,989	7,043
Tully	6,563	6,616	7,043	7,207
Marcellus	6,616	NA	7,207	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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Antero Resources
Well No. Seagrave 2H
As-Drilled
Antero Resources Corporation



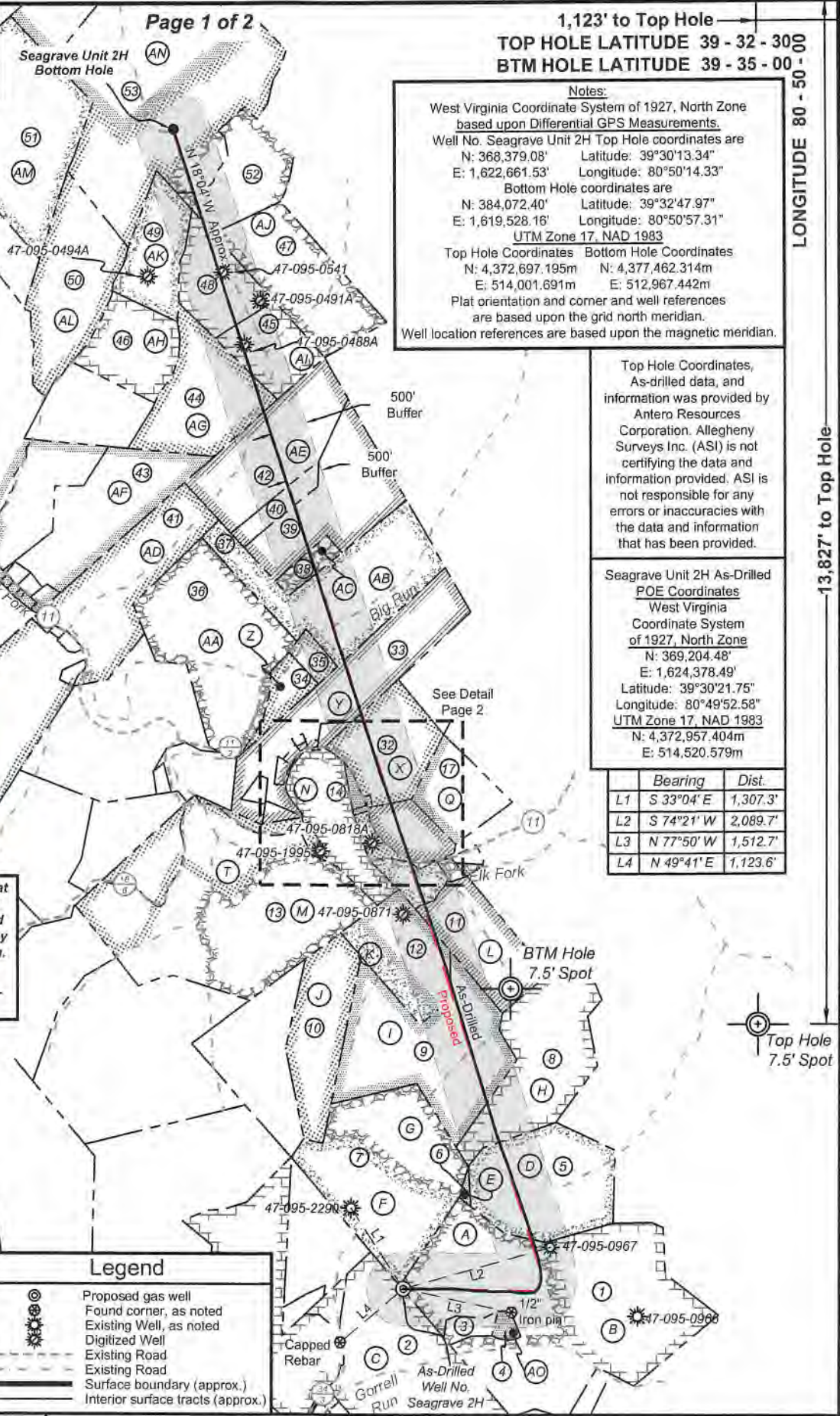
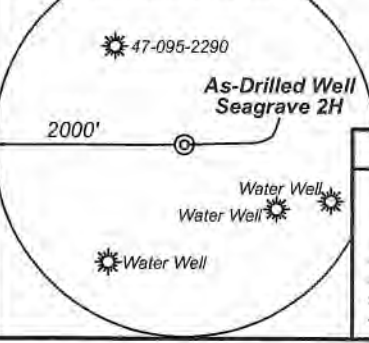
- Wellhead Layout**
- Vulcan Unit 1H
47-095-02701
 - Vulcan Unit 2H
47-095-02702
 - Prosper Unit 1H
47-095-02699
 - Prosper Unit 2H
47-095-02700
 - Friend Unit 1H
47-095-02695
 - Friend Unit 2H
47-095-02696
 - Seagrave Unit 1H
47-095-02697
 - **As-Drilled**
 - Seagrave Unit 2H
47-095-02698



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



Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Seagrave Unit 2H Top Hole coordinates are
 N: 368,379.08' Latitude: 39°30'13.34"
 E: 1,622,661.53' Longitude: 80°50'14.33"
 Bottom Hole coordinates are
 N: 384,072.40' Latitude: 39°32'47.97"
 E: 1,619,528.16' Longitude: 80°50'57.31"
UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,372,697.195m N: 4,377,462.314m
 E: 514,001.691m E: 512,967.442m
 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.

Seagrave Unit 2H As-Drilled POE Coordinates
 West Virginia Coordinate System of 1927, North Zone
 N: 369,204.48'
 E: 1,624,378.49'
 Latitude: 39°30'21.75"
 Longitude: 80°49'52.58"
UTM Zone 17, NAD 1983
 N: 4,372,957.404m
 E: 514,520.579m

	Bearing	Dist.
L1	S 33°04' E	1,307.3'
L2	S 74°21' W	2,089.7'
L3	N 77°50' W	1,512.7'
L4	N 49°41' E	1,123.6'

Legend

- Proposed gas well
- Found corner, as noted
- ⊙ Existing Well, as noted
- ⊙ Digitized Well
- Existing Road
- - - Existing Road
- - - Surface boundary (approx.)
- - - Interior surface tracts (approx.)

FILE NO: 100-54-E-19
 DRAWING NO: Seagrave Unit 2H As-Drilled
 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 24 2021
 OPERATOR'S WELL NO. Seagrave 2H
 API WELL NO
 47 - 095 - 02698
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls
 DISTRICT: Ellsworth COUNTY: Tyler
 SURFACE OWNER: Richard D. Pyles ACREAGE: 168.5
 ROYALTY OWNER: Richard D. Pyles, et ux; Donna Ables; Melissa Dawn Piant, et vir; David Leek; LEASE NO: _____ ACREAGE: 52; 83; 71.283; 70; 6;

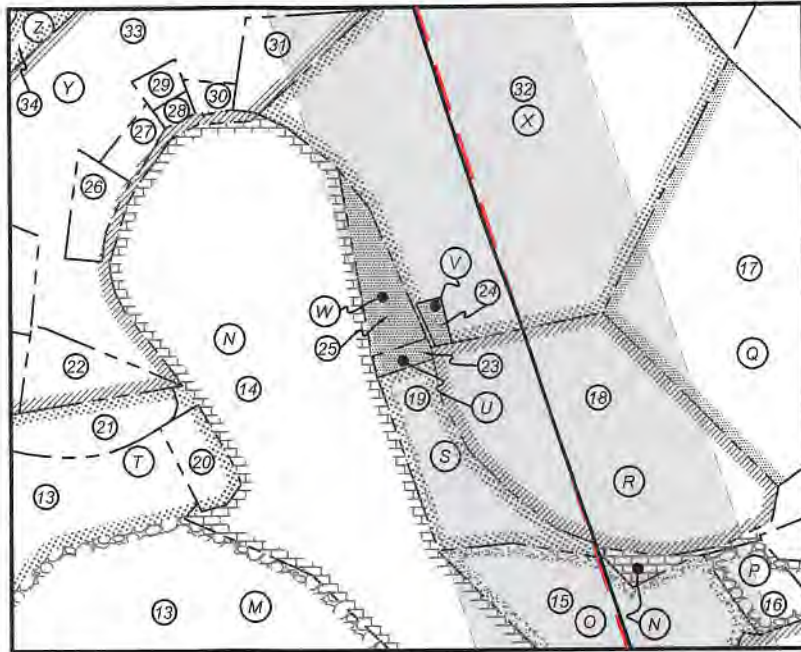
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,558' TVD
23,174' MD

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

03/17/2023

AS

Antero Resources
Well No. Seagrave 2H
As-Drilled
Antero Resources Corporation



ID	TM/Par	Owner	DB/PG	Acres
1	16-42	Richard D. Pyles	379/20	168.5
2	16-44	Robert A. Pyles, et al	335/482	87.82
3	16-42.1	Richard D. Pyles	336/815	4.56
4	16-42.4	Bonnie J. Hair	569/105	2.44
5	16-24	Harry Eastham, et al	AR54/518	64.00
6	16-21	Kayla Leek	531/56	61.73
7	16-22	Joesph L. Jr. & Karen Sitko	296/13	81.70
8	16-21	Kayla Leek	531/56	67.73
9	16-2	David E. Bowyer	622/775	80.75
10	16-1	Antero Midstram, Inc.	6177/739	35.25
11	16-5	David Leek	422/762	34.38
12	16-4	Darrell J. Sole	227/376	35.00
13	15-9	Anterto Midstream, Inc.	586/544	132.19
14	11-36	David W. Fiber	574/847	21.16
15	16-52	Darrell Sole	238/145	9.04
16	16-5.3	David Leek	434/453	1.46
17	11-40	Samuel L. & Peggy S. Leek	362/408	21.39
18	11-39	Ronnie H. Seagrave	361/236	12.30
19	11-37	Gary & Melissa Pflant	348/717	4.41
20	10-53	Kathy M. & Doug O. Smith	331/220	1.10
21	10-52	Darwin & Shirley Martin	306/537	5.00
22	10-72	Darwin & Shirley Martin	322/28	1.99
23	11-82	Minerva Banks	250/652	0.59
24	11-36.1	Ronnie H. Seagrave	361/236	0.26
25	11-81	Stephen D. Riggs, et al	362/441	2.50
26	10-70	Darwin & Shirley Martin	326/490	1.19
27	11-32.2	Bernard R. & Denise F. McDougal	636/587	0.54
28	11-32.4	Tony Ware	453/256	0.24
29	11-32.1	Melissa Stiles	380/290	0.34
30	11-33	Gary L. & Shirley A. Felton	337/136	0.39
31	11-79	Gary L. & Shirley A. Felton	337/136	4.00
32	11-34	Michael W. & Brenda S. Schmidt	582/483	31.74
33	11-32	Darwin & Shirley Martin	348/344	60.66
34	10-51	Charles E. & Laura Lynn Friend	334/839	8.03
35	10-50	Charles E. & Laura Lynn Friend	334/839	5.00
36	10-49	Charles E. & Laura Lynn Friend	334/836	71.52
37	11-1	Gertrude L. Pugh	314/140	70.00
38	11-2	Richard A. Fonner	415/796	6.00
39	11-3	Howard & Helen Young	198/126	59.90
40	10-69	Howard & Helen Young	198/126	5.10
41	10-46	Opal Carol Tallman	282/382	114.00
42	10-8	Helen M. Young	198/126	50.50
43	10-10	Ronald D. & Sandra Sue Martin	378/322	58.35
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45	10-7	Burl Rice	180/65	25.47
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50	10-4	Stefan L. & Alberta B. Smolski	356/467	56.08
51	6-36	Dennis & Clista A. Heintzman	297/640	417.06
52	7-32	Robert A Mercer	399/676	61.13
53	6-30.1	Larry M. & Amy B. Adams	369/344	150.34

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O	Donna Ables
P	David Leek
Q	Reita Jane Hall
R	Antero Resources Corp.
S	Melissa Dawn Pflant, et vir
T	Jerry Shoemaker
U	OPEN
V	OPEN
W	OPEN
X	Jerry R Brightwell & Gwendolyn C. Davies
Y	Haught Family Trust
Z	Karen J. Wolfe
AA	Darrell Sole
AB	Ridgetop Capital
AC	Richard A. Fonner
AD	Allen Smith
AE	Helen M. Karcinski, et al
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AG	BRC Appalachian Minerals I, LLC
AH	B&C Oil and Gas Company
AI	Linda K. Loehr
AJ	Will E. Morris Heir Trust
AK	B&C Oil & Gas Company
AL	Rose Enterprises, LLC
AM	BRC Appalachian Minerals I, LLC
AN	NO LEASE
AO	Dustin A. Hendershot

FILE NO: 100-54-E-19
DRAWING NO: Seagrave Unit 2H As-Drilled
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 24 20 21
OPERATOR'S WELL NO. Seagrave 2H
API WELL NO
47 - 095 - 02698
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Porter Falls

DISTRICT: Ellsworth COUNTY: Tyler

SURFACE OWNER: Richard D. Pyles ACREAGE: 168.5

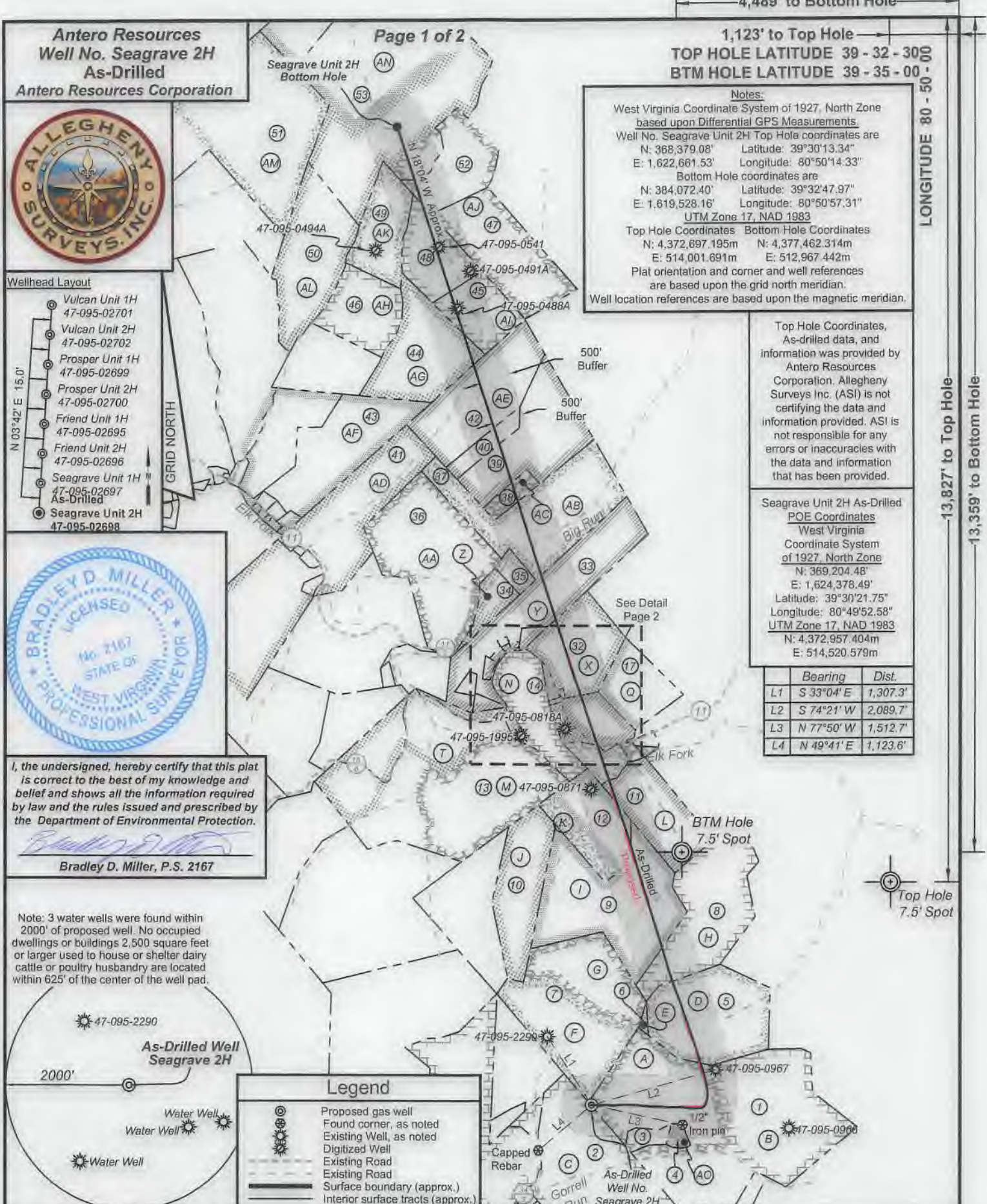
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PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,174' 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

03/17/2023



Antero Resources
Well No. Seagrave 2H
As-Drilled
Antero Resources Corporation



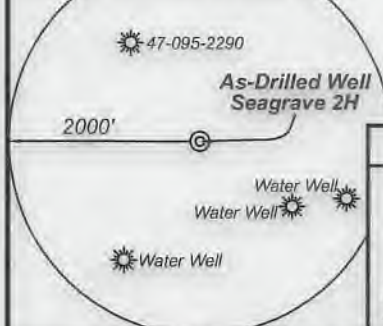
- Wellhead Layout**
- Vulcan Unit 1H
47-095-02701
 - Vulcan Unit 2H
47-095-02702
 - Prosper Unit 1H
47-095-02699
 - Prosper Unit 2H
47-095-02700
 - Friend Unit 1H
47-095-02695
 - Friend Unit 2H
47-095-02696
 - Seagrave Unit 1H
47-095-02697
As-Drilled
 - Seagrave Unit 2H
47-095-02698



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



Legend

- Proposed gas well
- Found corner, as noted
- Existing Well, as noted
- Digitized Well
- Existing Road
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

4,489' to Bottom Hole
 1,123' to Top Hole
TOP HOLE LATITUDE 39 - 32 - 30.0
BTM HOLE LATITUDE 39 - 35 - 00.0

Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Seagrave Unit 2H Top Hole coordinates are
 N: 368,379.08' Latitude: 39°30'13.34"
 E: 1,622,661.53' Longitude: 80°50'14.33"
 Bottom Hole coordinates are
 N: 384,072.40' Latitude: 39°32'47.97"
 E: 1,619,528.16' Longitude: 80°50'57.31"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,372,697.195m N: 4,377,462.314m
 E: 514,001.691m E: 512,967.442m
 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.

Seagrave Unit 2H As-Drilled POE Coordinates
 West Virginia Coordinate System of 1927, North Zone
 N: 369,204.48'
 E: 1,624,378.49'
 Latitude: 39°30'21.75"
 Longitude: 80°49'52.58"
 UTM Zone 17, NAD 1983
 N: 4,372,957.404m
 E: 514,520.579m

	Bearing	Dist.
L1	S 33°04' E	1,307.3'
L2	S 74°21' W	2,089.7'
L3	N 77°50' W	1,512.7'
L4	N 49°41' E	1,123.6'

FILE NO: 100-54-E-19
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STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: February 24 2021
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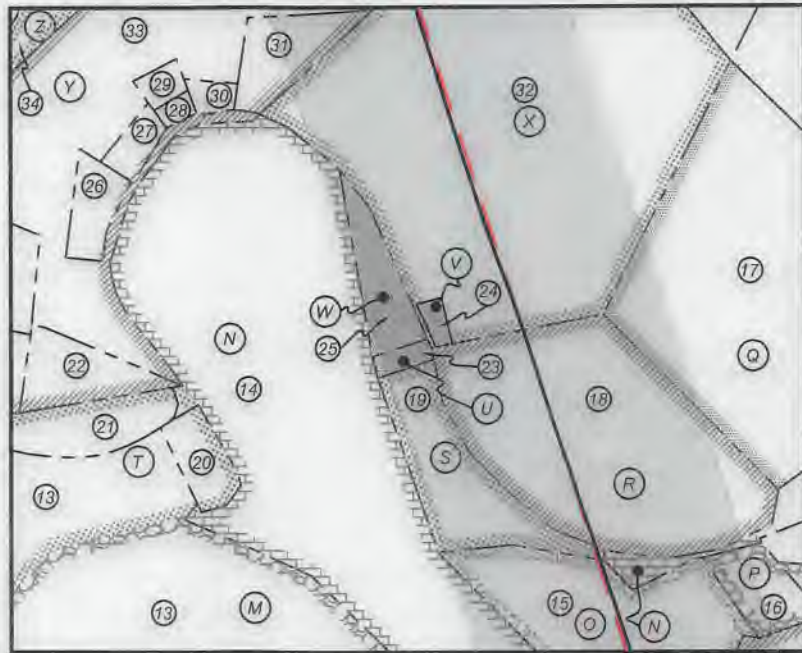
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 SURFACE OWNER: Richard D. Pyles
 ROYALTY OWNER: Richard D. Pyles, et ux; Donna Ables; Melissa Dawn Pilant, et vir; David Leek; LEASE NO: ACREAGE: 168.5
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AB	Ridgetop Capital
AC	Richard A. Fonner
AD	Allen Smith
AE	Helen M. Karcinski, et al
AF	B&C Oil & Gas Company
AG	BRC Appalachian Minerals I, LLC
AH	B&C Oil and Gas Company
AI	Linda K. Loehr
AJ	Will E. Morris Heir Trust
AK	B&C Oil & Gas Company
AL	Rose Enterprises, LLC
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AN	NO LEASE
AO	Dustin A. Hendershot

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 WV DOT, Harrisville, WV

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OIL AND GAS DIVISION

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 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313

03/17/2023

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/2/2021
Job End Date:	1/28/2021
State:	West Virginia
County:	Tyler
API Number:	47-095-02698-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	SEAGRAVE 2H
Latitude:	39.50371000
Longitude:	-80.83731000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,664
Total Base Water Volume (gal):	24,622,786
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	86.66471	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.16693	

WV Department of Environmental Protection
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Sm

OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
HYDROCHLORI C ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				Listed Below			
Sand-Premium White-40/70	Halliburton	Proppant					
				Listed Below			

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 Environmental Protection

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	13.13753	
			Hydrochloric acid	7647-01-0	30.00000	0.03756	
			Complex Amine Compound	Proprietary	60.00000	0.03379	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01690	
			Guar gum	9000-30-0	100.00000	0.00797	
			Surfactant	Proprietary	5.00000	0.00282	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00282	
			Glutaraldehyde	111-30-8	30.00000	0.00238	
			Ethoxylated alcohols	Proprietary	5.00000	0.00057	
			Alkoxyated polyhydric alcohol	Proprietary	1.00000	0.00056	
			Organic chloride compound	Proprietary	1.00000	0.00056	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00040	
			Methanol	67-56-1	100.00000	0.00031	
			Ammonium persulfate	7727-54-0	100.00000	0.00012	
			Ethanol	64-17-5	1.00000	0.00008	
			Modified thiourea polymer	Proprietary	30.00000	0.00007	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	
			Oxylated phenolic resin	Proprietary	30.00000	0.00004	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			Hexadecene	629-73-2	5.00000	0.00001	
			Phosphoric acid	7664-38-2	0.10000	0.00001	
			Sodium glycolate	2836-32-0	0.01000	0.00001	
			Nitrated acetate salt	Proprietary	0.01000	0.00001	
			Acrylamide	79-06-1	0.01000	0.00001	

WV Department of
 Environmental Protection

FEB 06 2023

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 Office of Oil and Gas

			Sodium hydroxide	1310-73-2	0.01000	0.00001	
			Formaldehyde	50-00-0	0.01000	0.00001	
			Organic salt #2	Proprietary	0.01000	0.00001	
			Organic salt #1	Proprietary	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)

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