

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

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Oil and Gas

MAY 10 2023

WV Department of  
Environmental Protection

API 47 - 103 - 03497 County Wetzel District Green  
Quad Pine Grove Pad Name Furbee Field/Pool Name -----  
Farm name James A. Sell Well Number Reader 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 4378656.236m Easting 523086.457m  
Landing Point of Curve Northing 4378590.44m Easting 523649.43m  
Bottom Hole Northing 4374415.128m Easting 525096.485m

Elevation (ft) 1211' 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 4/28/2022 Date drilling commenced 8/15/2022 Date drilling ceased 10/27/2022  
Date completion activities began 1/7/2023 Date completion activities ceased 2/15/2023  
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 575' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 2284' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft 973' Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No



Reviewed by:  
[Signature]  
12/08/2023  
8-10-23

API 47- 103 - 03497 Farm name James A. Sell Well number Reader 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	28"	20"	130'	New	78.67#, X-60	N/A	Y
Surface	17-1/2"	13-3/8"	679'	New	54.5#, K-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3571'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	22692'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7322'		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	209 sx	15.6	1.18	247	0'	8 Hrs.
Surface	Class A	780 sx	15.8	1.17	913	0'	8 Hrs.
Coal							
Intermediate 1	Class C	1235 sx	15.8	1.16	1433	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	3640 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.25 (Tail)	4550	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 22692' MD, 7151' TVD (BHL), 7151' (Deepest Point Drilled) Loggers TD (ft) 22692' MD  
 Deepest formation penetrated Marcellus Plug back to (ft) N/A  
 Plug back procedure N/A

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Kick off depth (ft) 6425'

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

12/08/2022  
JJA  
6/10/23



API 47- 103 - 03497 Farm name James A. Sell Well number Reader Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>			
<u>Marcellus</u>	<u>7007' (TOP)</u>	<u>TVD</u>	<u>7506' (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 1039.54 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 17071 mcfpd Oil 466 bpd NGL --- bpd Water 970 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 <sub>2</sub> S, ETC)
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**\*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 Nine Energy Services  
Address 6500 West Fwy City Fort Worth State TX Zip 76116

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

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

Please insert additional pages as applicable.

Completed by Carly Marvel Telephone 303-357-7373  
Signature Carly Marvel Title Permitting Agent Date 5/3/2023

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

12/08/2023  
SM  
6/10/23

Exhibit 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	1/8/2023	22560.5	22517.4	60	Marcellus
2	1/8/2023	22478.51486	22312.0892	60	Marcellus
3	1/8/2023	22276.40405	22109.9784	60	Marcellus
4	1/9/2023	22074.29324	21907.8676	60	Marcellus
5	1/9/2023	21872.18243	21705.7568	60	Marcellus
6	1/9/2023	21670.07162	21503.6459	60	Marcellus
7	1/10/2023	21467.96081	21301.5351	60	Marcellus
8	1/10/2023	21265.85	21099.4243	60	Marcellus
9	1/10/2023	21063.73919	20897.3135	60	Marcellus
10	1/11/2023	20861.62838	20695.2027	60	Marcellus
11	1/11/2023	20659.51757	20493.0919	60	Marcellus
12	1/11/2023	20457.40676	20290.9811	60	Marcellus
13	1/11/2023	20255.29595	20088.8703	60	Marcellus
14	1/12/2023	20053.18514	19886.7595	60	Marcellus
15	1/12/2023	19851.07432	19684.6486	60	Marcellus
16	1/12/2023	19648.96351	19482.5378	60	Marcellus
17	1/13/2023	19446.8527	19280.427	60	Marcellus
18	1/13/2023	19244.74189	19078.3162	60	Marcellus
19	1/13/2023	19042.63108	18876.2054	60	Marcellus
20	1/14/2023	18840.52027	18674.0946	60	Marcellus
21	1/14/2023	18638.40946	18471.9838	60	Marcellus
22	1/14/2023	18436.29865	18269.873	60	Marcellus
23	1/14/2023	18234.18784	18067.7622	60	Marcellus
24	1/15/2023	18032.07703	17865.6514	60	Marcellus
25	1/15/2023	17829.96622	17663.5405	60	Marcellus
26	1/15/2023	17627.85541	17461.4297	60	Marcellus
27	1/15/2023	17425.74459	17259.3189	60	Marcellus
28	1/16/2023	17223.63378	17057.2081	60	Marcellus
29	1/16/2023	17021.52297	16855.0973	60	Marcellus
30	1/16/2023	16819.41216	16652.9865	60	Marcellus
31	1/17/2023	16617.30135	16450.8757	60	Marcellus
32	1/17/2023	16415.19054	16248.7649	60	Marcellus
33	1/17/2023	16213.07973	16046.6541	60	Marcellus
34	1/17/2023	16010.96892	15844.5432	60	Marcellus
35	1/18/2023	15808.85811	15642.4324	60	Marcellus
36	1/18/2023	15606.7473	15440.3216	60	Marcellus
37	1/18/2023	15404.63649	15238.2108	60	Marcellus
38	1/18/2023	15202.52568	15036.1	60	Marcellus
39	1/19/2023	15000.41486	14833.9892	60	Marcellus
40	1/19/2023	14798.30405	14631.8784	60	Marcellus
41	1/19/2023	14596.19324	14429.7676	60	Marcellus
42	1/19/2023	14394.08243	14227.6568	60	Marcellus
43	1/20/2023	14191.97162	14025.5459	60	Marcellus
44	1/20/2023	13989.86081	13823.4351	60	Marcellus
45	1/20/2023	13787.75	13621.3243	60	Marcellus
46	1/20/2023	13585.63919	13419.2135	60	Marcellus
47	1/21/2023	13383.52838	13217.1027	60	Marcellus
48	1/21/2023	13181.41757	13014.9919	60	Marcellus
49	1/21/2023	12979.30676	12812.8811	60	Marcellus
50	1/21/2023	12777.19595	12610.7703	60	Marcellus
51	1/22/2023	12575.08514	12408.6595	60	Marcellus
52	1/22/2023	12372.97432	12206.5486	60	Marcellus
53	1/22/2023	12170.86351	12004.4378	60	Marcellus
54	1/22/2023	11968.7527	11802.327	60	Marcellus
55	1/23/2023	11766.64189	11600.2162	60	Marcellus
56	1/23/2023	11564.53108	11398.1054	60	Marcellus
57	1/24/2023	11362.42027	11195.9946	60	Marcellus
58	1/24/2023	11160.30946	10993.8838	60	Marcellus
59	1/24/2023	10958.19865	10791.773	60	Marcellus
60	1/24/2023	10756.08784	10589.6622	60	Marcellus
61	1/24/2023	10553.97703	10387.5514	60	Marcellus
62	1/25/2023	10351.86622	10185.4405	60	Marcellus
63	1/25/2023	10149.75541	9983.32973	60	Marcellus
64	1/25/2023	9947.644595	9781.21892	60	Marcellus
65	1/25/2023	9745.533784	9579.10811	60	Marcellus
66	1/26/2023	9543.422973	9376.9973	60	Marcellus
67	1/26/2023	9341.312162	9174.88649	60	Marcellus
68	1/26/2023	9139.201351	8972.77568	60	Marcellus
69	1/27/2023	8937.090541	8770.66486	60	Marcellus
70	1/27/2023	8734.97973	8568.55405	60	Marcellus
71	1/27/2023	8532.868919	8366.44324	60	Marcellus
72	1/27/2023	8330.758108	8164.33243	60	Marcellus
73	1/28/2023	8128.647297	7962.22162	60	Marcellus
74	1/28/2023	7926.536486	7760.11081	60	Marcellus
75	1/28/2023	7724.425676	7558	60	Marcellus

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12/08/2023  
SR



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	1/8/2023	51.3	10271	7027	4665	42110	287685	N/A
2	1/8/2023	83.2	10423	6958	4757	413200	314404	N/A
3	1/8/2023	86.8	10144	6035	4433	407780	329478	N/A
4	1/9/2023	87.0	10205	4314	4672	414220	342203	N/A
5	1/9/2023	88.4	10378	5611	3992	413310	357879	N/A
6	1/9/2023	88.5	10401	5620	4337	417490	335344	N/A
7	1/10/2023	86.6	10351	4765	4452	416530	302621	N/A
8	1/10/2023	89.2	10419	5305	4550	414400	287183	N/A
9	1/10/2023	88.5	10479	5465	4335	407240	301957	N/A
10	1/11/2023	88.5	10402	5809	4407	409190	304281	N/A
11	1/11/2023	90.5	10369	6028	4299	413030	286797	N/A
12	1/11/2023	89.4	10043	5896	4375	400480	295894	N/A
13	1/11/2023	84.7	9880	4865	4380	398610	301372	N/A
14	1/12/2023	85.8	10034	5794	4645	416340	304312	N/A
15	1/12/2023	85.3	9947	5464	4272	408730	324076	N/A
16	1/12/2023	86.3	9940	4975	4059	397910	295515	N/A
17	1/13/2023	90.3	10078	4367	4188	410440	291500	N/A
18	1/13/2023	94.4	9920	5836	4314	412490	300232	N/A
19	1/13/2023	94.3	10087	9799	4535	417270	304347	N/A
20	1/14/2023	92.6	10002	4750	4253	414490	298448	N/A
21	1/14/2023	92.9	10036	6468	4401	415950	298387	N/A
22	1/14/2023	97.3	9965	5627	4422	416870	294773	N/A
23	1/14/2023	96.3	9919	4359	4375	397920	288258	N/A
24	1/15/2023	95.9	9995	5457	4558	416670	299869	N/A
25	1/15/2023	95.6	9642	4748	4430	411640	301372	N/A
26	1/15/2023	95.4	9996	5987	4239	396950	291878	N/A
27	1/15/2023	96.1	9624	4417	4485	416460	297561	N/A
28	1/16/2023	97.2	9909	4425	4640	397680	281805	N/A
29	1/16/2023	95.9	9924	4792	4330	418810	292747	N/A
30	1/16/2023	96.3	9912	5897	4404	414790	294859	N/A
31	1/17/2023	97.7	10012	6401	4613	413650	294170	N/A
32	1/17/2023	95.4	9952	5905	4291	404900	281728	N/A
33	1/17/2023	97.3	10026	5903	4598	403310	291469	N/A
34	1/17/2023	92.3	9394	4576	4181	418600	307533	N/A
35	1/18/2023	95.6	9453	5432	4151	416280	286150	N/A
36	1/18/2023	96.0	9575	8074	4224	413890	295043	N/A
37	1/18/2023	96.3	9084	7554	4279	414840	291201	N/A
38	1/18/2023	95.2	9078	5899	4139	419310	288988	N/A
39	1/19/2023	95.7	9062	8377	4141	417690	292406	N/A
40	1/19/2023	96.8	9026	5589	4135	415160	293202	N/A
41	1/19/2023	97.6	8980	5578	4479	397960	282997	N/A
42	1/19/2023	96.3	8961	5889	4422	420550	300119	N/A
43	1/20/2023	96.7	8950	5630	4361	400230	293358	N/A
44	1/20/2023	96.8	9052	7634.2	4117.203	416870	299519	N/A
45	1/20/2023	95.6	9068	5200	4472	408910	338924	N/A
46	1/20/2023	96.5	9071	5700	4493	402600	298566	N/A
47	1/21/2023	98.3	9074	5333	4571	405000	296245	N/A
48	1/21/2023	98.2	9049	5511	4224	408240	301690	N/A
49	1/21/2023	97.0	9058	5585.46	4059.828	417560	292729	N/A
50	1/21/2023	98.2	9032	4622	4659	405330	288670	N/A
51	1/22/2023	98.1	9013	6036	4390	411200	293465	N/A
52	1/22/2023	97.5	8973	5372	4199	411300	288868	N/A
53	1/22/2023	98.2	9039	5793	4154	413840	297502	N/A
54	1/22/2023	97.0	8658	5772	4464	393620	292625	N/A
55	1/23/2023	96.5	9001	5451	4032	413070	297587	N/A
56	1/23/2023	97.5	8960	5693.65	4094.057	411920	297840	N/A
57	1/24/2023	98.0	8574	5616	4252	406976	287667	N/A
58	1/24/2023	98.1	8913	5515	4021	410612	290217	N/A
59	1/24/2023	98.2	8928	5214	3956	398200	282904	N/A
60	1/24/2023	97.0	8665	5314	4135	407952	288274	N/A
61	1/24/2023	98.2	8766	5597	4435	414530	296561	N/A
62	1/25/2023	97.7	8587	5934	4394	417420	296492	N/A
63	1/25/2023	97.9	8634	5273	4187	415140	300931	N/A
64	1/25/2023	97.9	8507	5396	4297	415150	293788	N/A
65	1/25/2023	98.7	8419	5492	4476	415540	295550	N/A
66	1/26/2023	97.8	8479	5627	4245	405380	291098	N/A
67	1/26/2023	97.8	8614	4771	4367	409350	288986	N/A
68	1/26/2023	93.5	8402	5389	4310	401500	286812	N/A
69	1/27/2023	98.2	8545	5631	4520	410920	287130	N/A
70	1/27/2023	97.4	8445	5130	4142	409840	288311	N/A
71	1/27/2023	96.0	8211	7191	3858	405580	286894	N/A
72	1/27/2023	98.4	8080	5464	4615	405110	284282	N/A
73	1/28/2023	97.9	8106	4818	4810	405880	277365	N/A
74	1/28/2023	98.7	7787	3954	3956	408730	280025	N/A
75	1/28/2023	98.2	7918	5541	4041	405130	278423	N/A
	AVERAGE	94	9,358	5,656	4,336	30,393,770	22,271,341	0

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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
Sandy Siltstone, LS	100	320	100	320
Shaley Siltstone, tr LS	320	370	320	370
Sandy Shale	370	620	370	620
Siltstone, Occ SS, tr Shale, tr Coal	470	820	470	820
Sandy Siltstone, tr LS, tr Shale	620	820	620	820
Silty Sandstone, tr LS	820	920	820	920
Sandy Siltstone, tr LS, tr Shale	920	1,020	920	1,020
Silty Sandstone, tr Shale	1,020	1,120	1,020	1,120
Silty Sandstone, tr Shale, tr LS	1,120	1,220	1,120	1,220
Shaley Sandstone, occ Siltstone	1,220	1,420	1,220	1,420
Silty Sandstone, tr shale	1,420	1,520	1,420	1,520
Sandy Siltstone, tr Coal	1,520	1,670	1,520	1,670
Silty Sandstone, tr Coal, tr Shale	1,670	1,870	1,670	1,870
Sandy Shale, tr Coal	1,870	2,020	1,870	2,020
Silty Sandstone, rr Coal	2,020	2,100	2,020	2,137
Big Lime	2,130	2,979	2,137	3,057
Fifty Foot Sandstone	2,979	3,022	3,027	3,102
Gordon	3,022	3,243	3,072	3,332
Fifth Sandstone	3,243	3,582	3,302	3,686
Bayard	3,582	3,978	3,656	4,103
Speechley	3,978	4,124	4,073	4,258
Balltown	4,124	4,627	4,228	4,786
Bradford	4,627	5,184	4,756	5,373
Benson	5,184	5,629	5,343	5,838
Alexander	5,629	6,828	5,808	7,129
Sycamore	6,666	6,798	6,933	7,099
Middlesex	6,798	6,894	7,099	7,244
Burkett	6,894	6,924	7,244	7,296
Tully	6,924	7,007	7,296	7,506
Marcellus	7,007	NA	7,506	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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12/08/2023 

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/7/2023
Job End Date:	1/28/2023
State:	West Virginia
County:	Wetzel
API Number:	47-103-03497-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Reader Unit 2H
Latitude:	39.55720000
Longitude:	-80.73144000
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,150
Total Base Water Volume (gal):	23,388,265
Total Base Non Water Volume:	0



## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Propose	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	86.56279	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.13517	

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WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
Chemstream StimSTREAM FR 2800	Chemstream, Inc.	Friction Reducer					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
MC B-8614A	MultiChem	Biocide					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica, quartz	14808-60-7	100.00000	13.23425	
			Hydrochloric acid	7647-01-0	30.00000	0.03796	

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			Distillates, (petroleum), hydrotreated light	64742-47-8	25.00000	0.01598	
			Guar gum	9000-30-0	100.00000	0.00353	
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00320	
			Glutaraldehyde	111-30-8	30.00000	0.00259	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00043	
			Methanol	67-56-1	100.00000	0.00024	
			Ammonium persulfate	7727-54-0	100.00000	0.00009	
			Ethanol	64-17-5	1.00000	0.00009	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	
			Modified thiourea polymer	Proprietary	30.00000	0.00007	
			Oxylated phenolic resin	Proprietary	30.00000	0.00003	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	
			Hexadecene	629-73-2	5.00000	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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Energy

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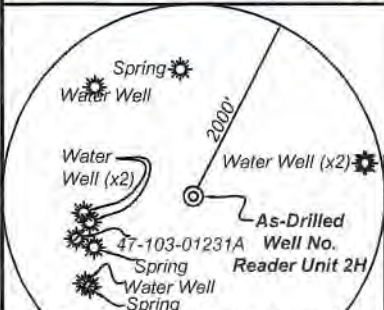
**Antero Resources**  
**Well No. Reader 2H**  
**As-Drilled**  
 Antero Resources Corporation



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

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

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



	Bearing	Dist.
L1	S 75°14' W	1,921.4'
L2	N 83°01' W	2,092.0'
L3	N 74°57' E	1,558.5'
L4	N 80°12' E	1,561.0'

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

FILE NO: 129-34-G-18  
 DRAWING NO: Reader 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**

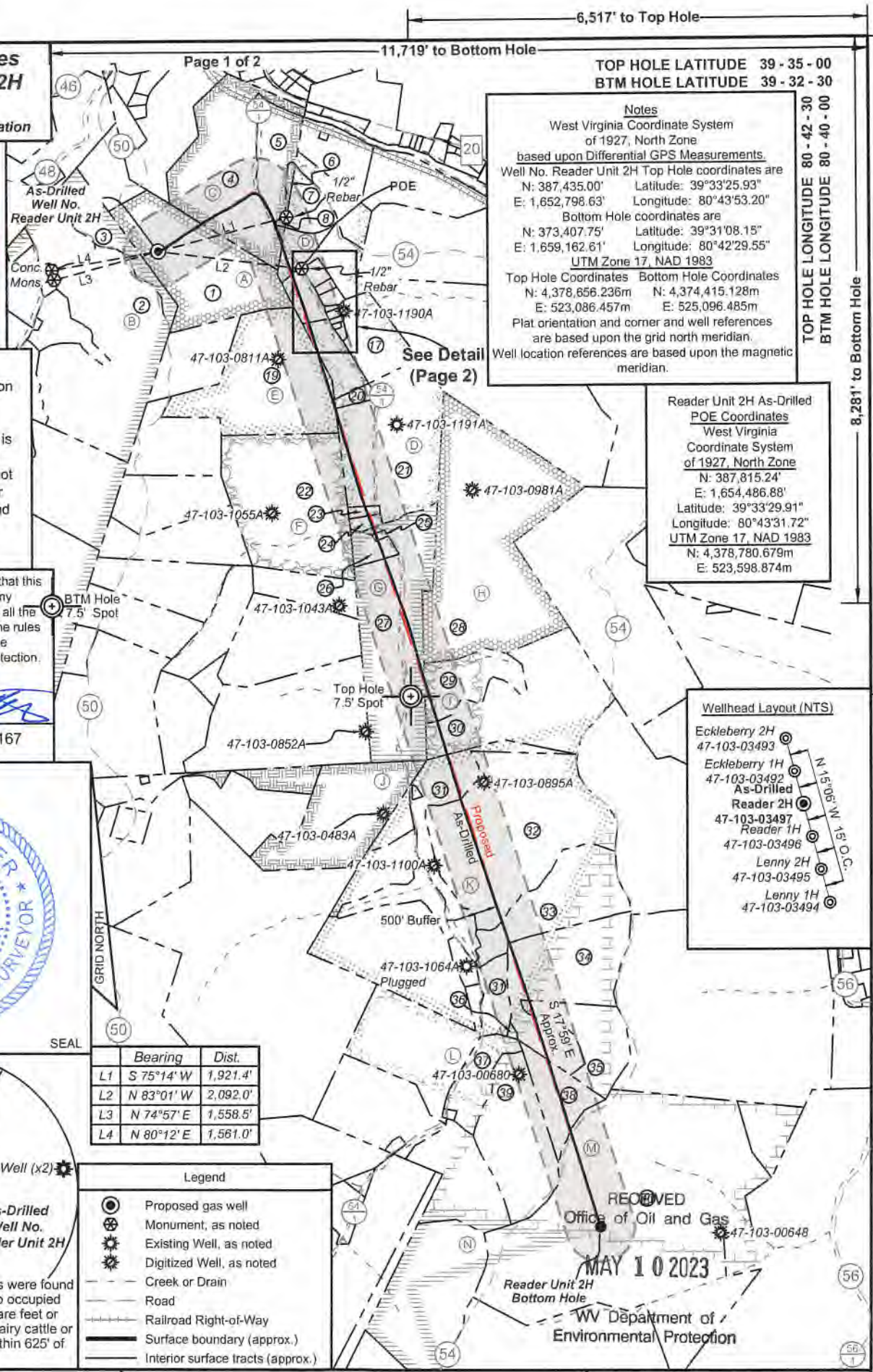
DATE: May 5 2023  
 OPERATOR'S WELL NO. Reader Unit 2H  
 API WELL NO  
 47 - 103 - 03497  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Drilled 1,211' WATERSHED: Fishing Creek QUADRANGLE: Pine Grove  
 DISTRICT: Green James COUNTY: Wayne  
 SURFACE OWNER: A. Sell Josephine Brast, et al ACREAGE: 58.1  
 ROYALTY OWNER: James Allen Sell; Marilyn Halley Seeley; Shiben Estates, Inc.; AMP Fund, II LP; LEASE NO: ACREAGE: 257, 300

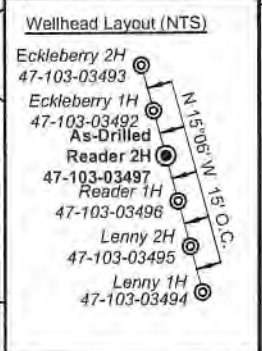
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,151' TVD  
 22,692' MD

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



**Notes**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.  
 Well No. Reader Unit 2H Top Hole coordinates are  
 N: 387,435.00' Longitude: 39°33'25.93"  
 E: 1,652,798.63' Longitude: 80°43'53.20"  
 Bottom Hole coordinates are  
 N: 373,407.75' Latitude: 39°31'08.15"  
 E: 1,659,162.61' Longitude: 80°42'29.55"  
 UTM Zone 17, NAD 1983  
 Top Hole Coordinates Bottom Hole Coordinates  
 N: 4,378,856.236m N: 4,374,415.128m  
 E: 523,086.457m E: 525,096.485m  
 Plat orientation and corner and well references are based upon the grid north meridian.  
 Well location references are based upon the magnetic meridian.

**Reader Unit 2H As-Drilled POE Coordinates**  
 West Virginia Coordinate System of 1927, North Zone  
 N: 387,815.24'  
 E: 1,654,486.88'  
 Latitude: 39°33'29.91"  
 Longitude: 80°43'31.72"  
 UTM Zone 17, NAD 1983  
 N: 4,378,780.679m  
 E: 523,598.874m



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Leases	
A	James Allen Sell
B	William R. Stalnaker
C	Marilyn Halley Seeley
D	Tribune Resources Minerals, LLC
E	Shiben Estates, Inc.
F	BRC Appalachian Minerals I, LLC
G	AMP Fund II, LP
H	AMP Fund II, LP
I	Michael M. Holman
J	BRC Appalachian Minerals I, LLC
K	Tribune Resources Minerals, LLC
L	Joshua R. Edgell, et al
M	Josephine Brast, et al
N	Shiben Estates, Inc.

ID	TM-Par	Owner	Bk/Pg	Acres
1	17-12	James Allen Sell	370/148	58.10
2	17-60	Ross Bucher	411/765	79.00
3	17-1	James Allen Sell	370/148	15.35
4	13-71	Charles R. & Kay L. Blair	387/577	63.11
5	17-71.1	Clarence L. & Carol J. Lancaster	387/266	19.19
6	17-3.1	Bradford D. Highley	386/607	1.00
7	17-3	Bradford Highley	386/607	17.00
8	17-2	Clarence & Carol Lancaster	287/357	0.50
9	17-14	Bradford Highley	386/607	18.53
10	17-14.2	Michael & Tammy Lemasters	384/10	2.18
11	17-14.1	Michael Lemasters	331/413	0.93
12	17-13	Russell & Carol Walls	416/637	1.53
13	17-19.4	Everett Haught	293/243	0.52
14	17-19.1	Lloyd Bassett	270/106	0.35
15	17-19.5	Mitchel Eddy	415/429	0.24
16	17-19.3	Howard & Patricia Bassett	280/136	0.81
17	17-19	Donna Bassett	299/614	19.10
18	17-18	Samuel Highley	387/408	12.07
19	17-17	James Allen Sell	370/148	70.00
20	17-27	Eliza Louiza Highley	303/352	2.70
21	17-29	Leslie & Georgia Bassett	319/394	66.00
22	17-26	Heartland Forest Land Fund VII, LP	431/936	75.50
23	17-29.2	Michael & Teresa Bassett	336/110	1.56
24	17-29.1	Robert & Kathy Bassett	336/427	1.92
25	17-36	Heartland Forest Land Fund VII, LP	431/936	0.49
26	17-37	Heartland Forest Land Fund VII, LP	431/936	5.00
27	17-38	Heartland Forest Land Fund VII, LP	431/936	60.00
28	17-31	Heartland Forest Land Fund VII, LP	431/936	120.33
29	17-49	Heartland Forest Land Fund VII, LP	431/936	20.90
30	17-50	EIP III, West Virginia LLC	463/193	69.00
31	20-14	Robert Bassett	371/32	126.74
32	20-14.4	Matthew D. Bassett, et al	421/365	97.18
33	20-14.2	Coastal Forest Resources Co.	444/105	37.40
34	20-14.1	Coastal Forest Resources Co.	444/105	49.25
35	20-21	Coastal Forest Resources Co.	444/105	29.00
36	20-20.1	Robert Bassett	371/32	0.44
37	20-19	Coastal Forest Resources Co.	444/105	16.44
38	20-20	Coastal Forest Resources Co.	444/105	26.00
39	20-19.2	Coastal Forest Resources Co.	444/105	35.56
40	20-37	Coastal Forest Resources Co.	444/105	246.84



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Environmental Protection

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