

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

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Office of Oil and Gas
JAN 16 2025
WV Department of
Environmental Protection

API 47-085-10513 County Ritchie District Clay
Quad Ellenboro 7.5' Pad Name Pinewood Field/Pool Name -----
Farm name Antero Resources Corporation Well Number McKinney Unit 1H
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 4351026m Easting 497365m
Landing Point of Curve Northing 4351026.38m Easting 496852.06m
Bottom Hole Northing 4355737m Easting 495255m

Elevation (ft) 1066' 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 12/21/2023 Date drilling commenced 4/1/2024 Date drilling ceased 6/30/2024
Date completion activities began 8/3/2024 Date completion activities ceased 9/20/2024
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 200', 378', 878' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1490' Void(s) encountered (Y/N) depths No
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

APPROVED

Reviewed by:

J.N.
04/04/2025

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WR-35
Rev. 8/23/13

API 47-085 - 10513

Farm name Antero Resources Corporation

Well number McKinney Unit 1H

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	91.59#, J-55	N/A	Y
Surface	17-1/2"	13-3/8"	979'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	3084'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" /8-1/2"	5-1/2"	23299'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6573'		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	204 sx	15.6	1.18	241	0'	8 Hrs.
Surface	Class C	561 sx	15.8	1.16	651	0'	8 Hrs.
Coal							
Intermediate 1	Class C	1240 sx	15.8	1.16	1438	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	4480 sx (Tail)	13.5 (Spacer), 15.2(Tail)	1.31 (Tail)	5869	~500' Into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 23,328' MD, 6,159'TVD (BHL), 6,255' TVD (Deepest Point Drilled)

Loggers TD (ft) 22,299' MD

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6,267'

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

04/04/2025

3-14-25

Farm name Antero Resources Corporation Well number McKinney Unit 1H

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***PLEASE SEE ATTACHED EXHIBIT 1**

[illegible]

STIMULATION INFORMATION PER STAGE

[illegible]

***PLEASE SEE ATTACHED EXHIBIT 2**

[illegible]

Please insert additional pages as applicable.

04/04/2025

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
Marcellus	6,202' (TOP)	TVD	6,750' (TOP) MD

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GAS TEST ☐ Build up ☐ Drawdown ☒ Open Flow **OIL TEST** ☒ Flow ☐ Pump

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

OPEN FLOW	Gas		Oil		NGL		Water		GAS MEASURED BY
	17,420.72	mcfpd	280.19	bpd	---	bpd	1,271.18	bpd	☐ Estimated ☒ Orifice ☐ Pilot

[illegible]

***PLEASE SEE ATTACHED EXHIBIT 3**

[illegible]

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 Haliburton					
Address	3000 N Sam Houston Pkwy E.	City	Houston	State	TX Zip 77032

Stimulating Company	Halliburton
Address	3000 N Sam Houston Pkwy E.
City	Houston
State	TX
Zip	77032

Please insert additional pages as applicable.

Completed by Stefan Gaspar Telephone 303-357-6959
Signature *Stefan Gaspar* Title Permitting Agent Date 1/13/25

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

04/04/2025
7-14-21

API 47-085-10513 Farm Name Michael Underwood Et Al Well Number McKinney Unit 1H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	8/3/2024	23245.1	23201	36	Marcellus
2	8/4/2024	23162.41423	22997.4854	36	Marcellus
3	8/4/2024	22962.09959	22797.1707	36	Marcellus
4	8/5/2024	22761.78496	22596.8561	36	Marcellus
5	8/5/2024	22561.47033	22396.5415	36	Marcellus
6	8/5/2024	22361.15569	22196.2268	36	Marcellus
7	8/6/2024	22160.84106	21995.9122	36	Marcellus
8	8/6/2024	21960.52642	21795.5976	36	Marcellus
9	8/6/2024	21760.21179	21595.2829	36	Marcellus
10	8/7/2024	21559.89715	21394.9683	36	Marcellus
11	8/7/2024	21359.58252	21194.6537	36	Marcellus
12	8/7/2024	21159.26789	20994.339	36	Marcellus
13	8/8/2024	20958.95325	20794.0244	36	Marcellus
14	8/8/2024	20758.63862	20593.7098	36	Marcellus
15	8/8/2024	20558.32398	20393.3951	36	Marcellus
16	8/9/2024	20358.00935	20193.0805	36	Marcellus
17	8/9/2024	20157.69472	19992.7659	36	Marcellus
18	8/9/2024	19957.38008	19792.4512	36	Marcellus
19	8/10/2024	19757.06545	19592.1366	36	Marcellus
20	8/10/2024	19556.75081	19391.822	36	Marcellus
21	8/10/2024	19356.43618	19191.5073	36	Marcellus
22	8/11/2024	19156.12154	18991.1927	36	Marcellus
23	8/11/2024	18955.80691	18790.878	36	Marcellus
24	8/11/2024	18755.49228	18590.5634	36	Marcellus
25	8/12/2024	18555.17764	18390.2488	36	Marcellus
26	8/12/2024	18354.86301	18189.9341	36	Marcellus
27	8/12/2024	18154.54837	17989.6195	36	Marcellus
28	8/13/2024	17954.23374	17789.3049	36	Marcellus
29	8/13/2024	17753.91911	17588.9902	36	Marcellus
30	8/13/2024	17553.60447	17388.6756	36	Marcellus
31	8/13/2024	17353.28984	17188.361	36	Marcellus
32	8/14/2024	17152.9752	16988.0463	36	Marcellus
33	8/14/2024	16952.66057	16787.7317	36	Marcellus
34	8/14/2024	16752.34593	16587.4171	36	Marcellus
35	8/15/2024	16552.0313	16387.1024	36	Marcellus
36	8/15/2024	16351.71667	16186.7878	36	Marcellus
37	8/15/2024	16151.40203	15986.4732	36	Marcellus
38	8/16/2024	15951.0874	15786.1585	36	Marcellus
39	8/16/2024	15750.77276	15585.8439	36	Marcellus
40	8/16/2024	15550.45813	15385.5293	36	Marcellus
41	8/16/2024	15350.1435	15185.2146	36	Marcellus
42	8/17/2024	15149.82886	14984.9	36	Marcellus
43	8/17/2024	14949.51423	14784.5854	36	Marcellus
44	8/17/2024	14749.19959	14584.2707	36	Marcellus
45	8/18/2024	14548.88496	14383.9561	36	Marcellus
46	8/18/2024	14348.57033	14183.6415	36	Marcellus
47	8/18/2024	14148.25569	13983.3268	36	Marcellus
48	8/19/2024	13947.94106	13783.0122	36	Marcellus
49	8/19/2024	13747.62642	13582.6976	36	Marcellus
50	8/19/2024	13547.31179	13382.3829	36	Marcellus
51	8/19/2024	13346.99715	13182.0683	36	Marcellus
52	8/20/2024	13146.68252	12981.7537	36	Marcellus
53	8/20/2024	12946.36789	12781.439	36	Marcellus
54	8/20/2024	12746.05325	12581.1244	36	Marcellus
55	8/21/2024	12545.73862	12380.8098	36	Marcellus
56	8/21/2024	12345.42398	12180.4951	36	Marcellus
57	8/21/2024	12145.10935	11980.1805	36	Marcellus
58	8/21/2024	11944.79472	11779.8659	36	Marcellus
59	8/22/2024	11744.48008	11579.5512	36	Marcellus
60	8/22/2024	11544.16545	11379.2366	36	Marcellus
61	8/22/2024	11343.85081	11178.922	36	Marcellus
62	8/22/2024	11143.53618	10978.6073	36	Marcellus
63	8/23/2024	10943.22154	10778.2927	36	Marcellus
64	8/23/2024	10742.90691	10577.978	36	Marcellus
65	8/23/2024	10542.59228	10377.6634	36	Marcellus
66	8/24/2024	10342.27764	10177.3488	36	Marcellus
67	8/24/2024	10141.96301	9977.03415	36	Marcellus
68	8/24/2024	9941.648374	9776.71951	36	Marcellus
69	8/24/2024	9741.33374	9576.40488	36	Marcellus
70	8/25/2024	9541.019106	9376.09024	36	Marcellus
71	8/25/2024	9340.704472	9175.77561	36	Marcellus
72	8/25/2024	9140.389837	8975.46098	36	Marcellus
73	8/25/2024	8940.075203	8775.14634	36	Marcellus
74	8/26/2024	8739.760569	8574.83171	36	Marcellus
75	8/26/2024	8539.445935	8374.51707	36	Marcellus
76	8/26/2024	8339.131301	8174.20244	36	Marcellus
77	8/27/2024	8138.816667	7973.8878	36	Marcellus
78	8/27/2024	7938.502033	7773.57317	36	Marcellus
79	8/27/2024	7738.187398	7573.25854	36	Marcellus
80	8/27/2024	7537.872764	7372.9439	36	Marcellus
81	8/27/2024	7337.55813	7172.62927	36	Marcellus
82	8/28/2024	7137.243496	6972.31463	36	Marcellus
83	8/28/2024	6936.928862	6772	36	Marcellus

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API 47-085-10513 Farm Name: Michael Underwood Et Al. Well Number McKinney Unit 1H									
EXHIBIT 2									
Stage No.	Stimulations Date	Avg Pump Rate	AVG Treatment Pressure (PSI)	Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)	
1	8/3/2024	79.66318	9718.73	8788.74	3048.354	169160	4686.2857	N/A	
2	8/4/2024	96.05289	10361.73	6606.14	3723.993	401045	7781.5	N/A	
3	8/4/2024	94.36253	10038.11	6401.14	3783.006	405520	7727.2381	N/A	
4	8/5/2024	94.72777	10245.72	5924.66	3595.668	417420	7411.9048	N/A	
5	8/5/2024	94.14606	10203.87	6144.44	3756.271	419080	7333.2857	N/A	
6	8/5/2024	97.35855	10264.02	5826.83	3529.277	416820	7452	N/A	
7	8/6/2024	95.75308	10316.41	5958.75	4158	396030	7137.2619	N/A	
8	8/6/2024	94.19099	9995.751	6025.44	3963.137	399780	7203.4286	N/A	
9	8/6/2024	93.55573	9977.668	5995.46	4349	394990	7154	N/A	
10	8/7/2024	94.88809	10057.64	6118.21	3822.438	420340	7321.9286	N/A	
11	8/7/2024	96.7288	10058.39	6231.35	3965.22	398030	7297.2619	N/A	
12	8/7/2024	96.16627	10055.04	6048.86	3681.118	399430	7128.1429	N/A	
13	8/8/2024	96.82234	10057.05	6048.8	4007.561	401560	7230.381	N/A	
14	8/8/2024	94.73307	9975.494	5820.17	4018	420160	7288.881	N/A	
15	8/8/2024	90.97967	9899.501	6047.06	3254.55	379984	6966.2143	N/A	
16	8/9/2024	95.04909	10014.15	6296.61	3600.051	415540	7428.2857	N/A	
17	8/9/2024	95.59673	9910.817	6243.27	3567.372	421600	7359.2143	N/A	
18	8/9/2024	97.90576	10061.46	6091.31	4282.94	417820	7238.7381	N/A	
19	8/10/2024	97.88023	9568.116	5816.1	4142	402840	7125.3333	N/A	
20	8/10/2024	94.99186	10068.78	5826.11	3720.737	418510	7254	N/A	
21	8/10/2024	96.9516	9968.793	6213.34	3948.387	398070	6930.1667	N/A	
22	8/11/2024	97.19457	9717.719	6191.56	3523.889	420260	7124.0476	N/A	
23	8/11/2024	97.40711	9966.546	6218.34	3644.34	420520	7295.1429	N/A	
24	8/11/2024	96.17346	9926.02	6078.43	3097.699	414960	7061.4048	N/A	
25	8/12/2024	97.65153	9916.398	6372.35	3258.863	400920	7034.2143	N/A	
26	8/12/2024	91.60038	9501.824	6093.07	3306.233	403540	7160.0952	N/A	
27	8/12/2024	96.92683	9836.306	6106.78	3134.808	419780	7265.8333	N/A	
28	8/13/2024	98.06444	9857.102	6096.01	3090.678	417800	7255.4762	N/A	
29	8/13/2024	97.03577	9773.5	6123.56	3072.78	418920	7405.4286	N/A	
30	8/13/2024	96.98918	9891.967	6348.58	3177.232	417900	7256.1667	N/A	
31	8/13/2024	97.43333	9990.004	6553.12	3458.842	415760	7131.1905	N/A	
32	8/14/2024	97.10473	10021.91	6037.01	3411	418600	7224.4286	N/A	
33	8/14/2024	94.18882	9954.064	6008.99	3129	419740	7090.7857	N/A	
34	8/14/2024	97.40516	10071.51	6067.87	3642.352	410080	7019.4524	N/A	
35	8/15/2024	95.84824	9795.544	6030.09	3419.644	417460	7015.9048	N/A	
36	8/15/2024	97.28896	9794.947	5585.34	3660.297	402140	7049	N/A	
37	8/15/2024	95.83795	9675.373	6057.86	3746.488	399720	6920	N/A	
38	8/16/2024	97.44649	9846.991	5805.35	3829.006	398490	6769	N/A	
39	8/16/2024	96.16887	9596.254	5931.25	3710.619	397660	6800	N/A	
40	8/16/2024	96.31956	9564.408	6267.39	3684.94	395990	6748.1905	N/A	
41	8/16/2024	97.56905	9681.846	6020.45	3417.482	419060	7055.3571	N/A	
42	8/17/2024	97.22759	9539.763	5887.75	3454	396510	6903.2143	N/A	
43	8/17/2024	91.97518	9094.68	5997.49	3124	415740	6976.6667	N/A	
44	8/17/2024	97.44291	9810.407	6064.26	3416.219	401160	6990.2857	N/A	
45	8/18/2024	97.50106	9046.241	5727.32	3399.505	413000	7078.7381	N/A	
46	8/18/2024	97.25499	9080.644	6915.98	3484	399040	6939.5952	N/A	
47	8/18/2024	97.24941	9377.878	6691.8	3392.217	411180	7038.3095	N/A	
48	8/19/2024	97.78347	8962.177	6768.43	3422.566	401580	6927.5238	N/A	
49	8/19/2024	97.75854	8927.476	6819.83	3415.296	419460	7184.9286	N/A	
50	8/19/2024	97.54822	8971.305	6664.01	3355	399970	6885.6905	N/A	
51	8/19/2024	97.49461	9065.089	6502.07	3423.034	400640	6724.9762	N/A	
52	8/20/2024	96.78478	9070.138	7133.13	3955.358	400520	6860.3333	N/A	
53	8/20/2024	98.1359	9070.546	6514.87	3477.949	419060	7013.9524	N/A	
54	8/20/2024	97.22386	9009.668	6441.21	3925.805	400740	6884.2857	N/A	
55	8/21/2024	96.73747	8538.685	5945.39	4066.004	418940	6869.6905	N/A	
56	8/21/2024	97.85768	8776.063	5581.73	3459.805	396850	6681.381	N/A	
57	8/21/2024	99.60849	9018.995	5737.4	3616.025	417660	6918	N/A	
58	8/21/2024	97.24424	8825.243	5437.94	4013.481	396540	6652	N/A	
59	8/22/2024	97.21405	8621.39	5509.74	3632.005	420180	6892	N/A	
60	8/22/2024	95.64003	8727.823	5791.82	3494.488	393460	6592	N/A	
61	8/22/2024	96.82772	8749.789	5738.62	3976	414500	6861	N/A	
62	8/22/2024	88.23563	8026.431	5793.69	4094.209	399260	6699	N/A	
63	8/23/2024	97.78832	8511.854	5757.48	3900.616	417400	6833	N/A	
64	8/23/2024	97.39179	8353.392	6173.11	3992.094	395740	6698	N/A	
65	8/23/2024	97.60203	8573.49	5461.26	4252.498	415580	6867	N/A	
66	8/24/2024	97.46325	8484.494	5636.11	3952.281	390890	6550	N/A	
67	8/24/2024	97.76269	8600.958	5628.07	4073.892	415440	6801	N/A	
68	8/24/2024	95.85422	8462.379	5549.74	4137.82	399770	6587	N/A	
69	8/24/2024	96.05798	8580.063	5487.78	3827	419560	6795	N/A	
70	8/25/2024	97.01343	8724.411	5612.88	4562	400170	6556	N/A	
71	8/25/2024	96.87195	8305.029	5963.48	4676	421140	6792	N/A	
72	8/25/2024	96.94802	7738.196	5411.94	3765.701	395750	6631	N/A	
73	8/25/2024	97.9609	8134.688	5843.82	3947.757	421220	6804	N/A	
74	8/26/2024	97.46196	7888.61	5653.84	4288.206	401810	6554	N/A	
75	8/26/2024	97.59644	7768.959	5240.3	3940	419300	6587	N/A	
76	8/26/2024	96.45344	7512.603	5548.54	3760.787	396560	6478	N/A	
77	8/27/2024	97.50253	7390.673	5432.77	4047	418160	6695	N/A	
78	8/27/2024	97.124	7322.614	5531.72	3744	394650	6408	N/A	
79	8/27/2024	98.0025	7491.366	5206.69	3749	411620	6547	N/A	
80	8/27/2024	97.69407	7431.321	5373.56	3951.858	399190	6395	N/A	
81	8/27/2024	88.91708	7131.723	5481.44	3368.911	419860	6762	N/A	
82	8/28/2024	96.65654	7968.248	5409.5	3641.619	422740	6984	N/A	
83	8/28/2024	97.94001	7585.507	5868	3047.686	415180	6880	N/A	
	AVERAGE	96.2	9,198	6,017	3,693	33,670,749	576,915	0	

04/04/2025

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Silty Sandstone	100	170	100	200
Silty Sandstone, Occ LS	170	370	170	400
Silty Sandstone	370	570	370	600
Sandstone. Scat SLTST, Scat LS	570	770	570	800
Silty Sandstone, tr LS	770	970	770	1000
Sandy Siltstone	970	1170	970	1200
Sandy Siltstone	1170	1370	1170	1400
Silty Sandstone, tr MICA	1370	1770	1370	1800
Silty Sandstone, tr LS, tr PYR	1770	1870	1770	1900
Sandy Limestone, rr Shale	1870	1882	1870	1927
Big Lime	1912	2620	1897	2707
Fifty Foot Sandstone	2620	2721	2677	2819
Gordon	2721	2916	2789	3035
Fifth Sandstone	2916	3154	3005	3295
Bayard	3154	4036	3265	4226
Speechley	4036	4250	4196	4450
Balltown	4250	4616	4420	4839
Bradford	4616	4826	4809	5072
Benson	4826	5122	5042	5405
Alexander	5122	6093	5375	6538
Sycamore	5974	6063	6383	6538
Middlesex	6063	6154	6508	6706
Burkett	6154	6172	6676	6750
Marcellus	6172	NA	6720	NA

04/04/2025

3-14-25

LATITUDE 39°20'00"

8,695'

LATITUDE 39°22'30" 3,839' TO BOTTOM HOLE

Antero Resources
Corporation
Well No. McKinney #1H

AS DRILLED DATA:

WELL 1H TOP HOLE INFORMATION:
N: 298,178ft E: 1,566,881ft
LAT: 39°18'30.75" LON: 81°01'50.62"
BOTTOM HOLE INFORMATION:
N: 313,754ft E: 1,560,213ft
LAT: 39°21'03.56" LON: 81°03'18.87"
WEST VIRGINIA COORDINATE
SYSTEM OF 1927 NORTH ZONE.
ZONE WAS DERIVED FROM
MEASUREMENTS TAKEN WITH
TRIMBLE GEOXT SUBMETER
MAPPING GRADE GPS UNIT.
PLAT ORIENTATION, CORNER,
AND WELL REFERENCE TIE LINES
ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
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BOTTOM HOLE INFORMATION:
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N: 14,274,068ft E: 1,630,176ft
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NOTE:
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LOCATED WITHIN 2000'
OF PROPOSED WELL.

WELL NO. 1H



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STATE OF WEST VIRGINIA, DIVISION
OF ENVIRONMENTAL PROTECTION,
OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

JOB # 23-026WA

DRAWING # MCKINNEY1HAD

SCALE 1" = 2000'

MINIMUM DEGREE OF
ACCURACY SUBMETERPROVEN SOURCE OF ELEV.
SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Proposed Well Path
- ⊗ As Drilled Well Path

THOMAS SUMMERS P.S. 2109

DATE 12/12/24

OPERATOR'S WELL# MCKINNEY UNIT #1H

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐ 47 - 085 - 10513
(IF "GAS") PRODUCTION ☒ STORAGE ☐ DEEP ☐ SHALLOW ☒ STATE COUNTY PERMIT
LOCATION: ELEVATION 1,066' - AS BUILT WATERSHED NORTH FORK HUGHES RIVER
QUADRANGLE ELLENBORO 7.5' DISTRICT CLAY COUNTY RITCHIE
SURFACE OWNER MICHAEL UNDERWOOD ET AL ACREAGE 50 ACRES +/-
OIL & GAS ROYALTY OWNER RONNEL L. UNDERWOOD ET AL LEASE ACREAGE 266.83 ACRES 04/04/2025

PROPOSED WORK: DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL ☐
(SPECIFY) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,158' TVD 23,328' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS
ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAKS BLVD
FORM WW-6 DENVER, CO 80202 BRIDGEPORT, WV 26330

CLAY DISTRICT RITCHIE COUNTY		LAFAYETTE DISTRICT PLEASANTS COUNTY	
6-18	Consolidated Timberlands LLC	9-11	Harold Anderson
11-12	Donald Ritchey	9-21	Alton Glatfelter
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11-14	Kevin Mossar	10-25.1	Rex Cox
11-32	Lorena Mossar Et Al	10-25.3	Ellery Wilson
11-32.1	Roger Mossar	10-25.4	Ellery Wilson
11-42.1	Judith Packman Et Al	10-25.5	Rex Cox
12-1.3	Johnny Cool	10-26	Mark Hadley
12-5	Wanda McKinney	10-32	Emily Williamson
12-5.1	Wanda McKinney	10-33	Charles McCullough
12-5.2	Wanda McKinney	10-34	Charles McCullough
12-5.3	Andrea Mahaney	10-39	Robert Jay
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B	ANTERO MINERALS, LLC.
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8,746' TO BOTTOM HOLE

9,030'

LONGITUDE 81°02'30"

LONGITUDE 81°00'00"

LATITUDE 39°20'00"

8,695'

LATITUDE 39°22'30" 3,839' TO BOTTOM HOLE

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COUNTY NAME

PERMIT

Antero Resources Corporation
Well No. McKinney #1H

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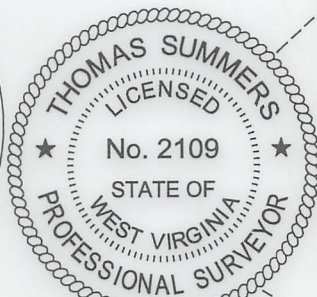
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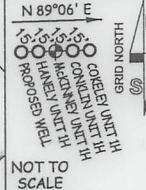
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V	RONNEL UNDERWOOD ET AL

PAD LAYOUT





04/04/2025



04/04/2025



State

WV

04/04/2025

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	08/03/2024
Job End Date:	08/28/2024
State:	West Virginia
County:	Ritchie
API Number:	47-085-10513-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	MCKINNEY UNIT 1H
Latitude:	39.308622
Longitude:	-81.030563
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6254
Total Base Water Volume (gal)*:	25361007
Total Base Non Water Volume:	0



Water Source	Percent
Produced Water	100.00%

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
Excelerate LX-21	Halliburton	Friction Reducer					
FDP-S1460-22	Halliburton	Friction Reducer					
FDP-S1470-23	Halliburton	Friction Reducer					
FDP-S1485-23	Halliburton	Friction Reducer					
HAI-501	Halliburton	Acid Corrosion Inhibitor					
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
Legend LD-1330	MultiChem	Completion/Stimulation					
MC B-8123	MultiChem	Biocide					
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
Produced Water (Density 8.8)	Operator	Base Fluid					
Sand-Common White-100 Mesh,	Halliburton	Proppant					

04/04/2025

SSA-2							
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
Items above are Trade Names. Items below are the individual ingredients.							
			Water	7732-18-5	100.00000	86.72259	None
			Crystalline silica, quartz	14808-60-7	100.00000	13.08387	None
			Water	7732-18-5	100.00000	0.15693	None
			Hydrochloric acid	7647-01-0	30.00000	0.03744	None
			Complex amine compound	Proprietary	60.00000	0.01965	None
			Ethanaminium, N,N,N-trimethyl-2-(1-oxo-2-propen-1-yl)oxy-, chloride (1:1), polymer with 2-propenamide	69418-26-4	60.00000	0.01098	None
			Hydrotreated distillate	Proprietary	30.00000	0.00983	None
			Hydrotreated light petroleum distillates	64742-47-8	30.00000	0.00629	None
			Guar gum	9000-30-0	100.00000	0.00495	None
			Ammonium chloride	12125-02-9	5.00000	0.00255	None
			Glutaraldehyde	111-30-8	30.00000	0.00235	None
			Ethoxylated alcohol	Proprietary	5.00000	0.00177	None
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00164	None
			Polymer	Proprietary	60.00000	0.00160	None
			Complex Alcohol	Proprietary	60.00000	0.00113	None
			Amides, tall-oil fatty, N,N-bis(hydroxyethyl)	68155-20-4	5.00000	0.00091	None
			Ethoxylated branched C13 alcohol	78330-21-9	5.00000	0.00091	None
			Complex Amine Compound	Proprietary	60.00000	0.00071	None
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00051	None
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00051	None
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00039	None

04/04/2025

			Petroleum distillate	Proprietary	30.00000	0.00035	None
			Methanol	67-56-1	100.00000	0.00023	None
			Bentonite	1302-78-9	5.00000	0.00009	None
			Surfactant	Proprietary	5.00000	0.00009	None
			Alcohol ethoxylates	Proprietary	5.00000	0.00009	None
			Quaternary ammonium compounds	Proprietary	5.00000	0.00009	None
			Ammonium persulfate	7727-54-0	100.00000	0.00009	None
			Citric acid	77-92-9	1.00000	0.00008	None
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	None
			Modified thiourea polymer	Proprietary	30.00000	0.00007	None
			Organic acid	Proprietary	5.00000	0.00006	None
			Fatty acid ester	Proprietary	5.00000	0.00006	None
			Oxylated phenolic resin	Proprietary	30.00000	0.00003	None
			Ethoxylated alcohols	Proprietary	5.00000	0.00002	None
			Alcohols, C12-14, ethoxylated	68439-50-9	1.00000	0.00001	None
			Ethoxylated fatty acid	Proprietary	1.00000	0.00001	None
			Ethoxylated alcohols #2	Proprietary	1.00000	0.00001	None
			Organic chloride compound	Proprietary	1.00000	0.00001	None
			Fatty amine salt	Proprietary	1.00000	0.00001	None
			Fatty acid ether	Proprietary	1.00000	0.00001	None
			Propargyl alcohol	107-19-7	5.00000	0.00001	None
			Hexadecene	629-73-2	5.00000	0.00001	None
			Diethylene triaminepentaacetic acid, pentasodiumsalt	140-01-2	0.10000	0.00000	None
			Isopropanol	67-63-0	0.10000	0.00000	None
			Ethylene oxide	75-21-8	0.10000	0.00000	None
			Sodium chloride	7647-14-5	0.10000	0.00000	None
			Acrylamide	79-06-1	0.10000	0.00000	None

04/04/2025

			Ethoxylated alcohols #3	Proprietary	0.10000	0.00000	None
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	None
			Ethylene glycol	107-21-1	0.01000	0.00000	None
			Diethylene glycol	111-46-6	0.01000	0.00000	None
			1,4-Dioxane	123-91-1	0.01000	0.00000	None
			Potassium acetate	127-08-2	0.01000	0.00000	None
			Polyethylene glycol	25322-68-3	0.01000	0.00000	None
			Acetic acid	64-19-7	0.01000	0.00000	None
			Chloroacetic acid	79-11-8	0.01000	0.00000	None
			Dichloroacetic acid	79-43-6	0.01000	0.00000	None

* 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%

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)

04/04/2025