

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

API 47 - 095 - 02839 County Tyler District Ellsworth
Quad Porter Falls 7.5' Pad Name Ed Yost Field/Pool Name -----
Farm name Edward Yost Estate Well Number Cider Run 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 4377596m Easting 514049m
Landing Point of Curve Northing 4377778.05m Easting 513161.41m
Bottom Hole Northing 4382731m Easting 511485m

Elevation (ft) 1233' 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 12/19/2022 Date drilling commenced 1/23/2023 Date drilling ceased 3/15/2023
Date completion activities began 6/16/2023 Date completion activities ceased 8/20/2023
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 203' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1810' 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: [Signature]
02/16/2024

API 47-095 - 02839 Farm name Edward Yost Estate Well number Cider Run 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"	381'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	3671'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" /8-1/2"	5-1/2"	25020'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7288'		4.7#, J-55		
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	178 sx	15.6	1.18	210	0'	8 Hrs.
Surface	Class C	370 sx	15.8	1.17	433	0'	8 Hrs.
Coal							
Intermediate 1	Class C	1280 sx	15.8	1.16	1484	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	4125 sx (Tail)	13.5 (Lead), 15.2(Tail)	1.25 (Tail)	5156	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 25020' MD, 6677' TVD (BHL), 6734' TVD (Deepest Point Drilled) Loggers TD (ft) 25020' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6597'

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

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED N/A

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
Marcellus	6674' (TOP)	TVD	7456' (TOP) MD
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

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 9117.50 mcfpd Oil 475.69 bpd NGL --- bpd Water 969.28 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 ₂ 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 Nine Energy Services
Address 6500 West Fwy City Fort Worth State TX Zip 76116

Cementing Company Halliburton
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 *S Gaspar* Title Permitting Agent Date 12/19/2023

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

02/16/2024 *[Signature]*

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	6/16/2023	24891	24848	60	Marcellus
2	6/16/2023	24809.40116	24643.407	60	Marcellus
3	6/17/2023	24607.80814	24441.814	60	Marcellus
4	6/17/2023	24406.21512	24240.2209	60	Marcellus
5	6/17/2023	24204.62209	24038.6279	60	Marcellus
6	6/18/2023	24003.02907	23837.0349	60	Marcellus
7	6/18/2023	23801.43605	23635.4419	60	Marcellus
8	6/18/2023	23599.84302	23433.8488	60	Marcellus
9	6/18/2023	23398.25	23232.2558	60	Marcellus
10	6/18/2023	23196.65698	23030.6628	60	Marcellus
11	6/19/2023	22995.06395	22829.0698	60	Marcellus
12	6/19/2023	22793.47093	22627.4767	60	Marcellus
13	6/19/2023	22591.87791	22425.8837	60	Marcellus
14	6/19/2023	22390.28488	22224.2907	60	Marcellus
15	6/19/2023	22188.69186	22022.6977	60	Marcellus
16	6/20/2023	21987.09884	21821.1047	60	Marcellus
17	6/20/2023	21785.50581	21619.5116	60	Marcellus
18	6/20/2023	21583.91279	21417.9186	60	Marcellus
19	6/20/2023	21382.31977	21216.3256	60	Marcellus
20	6/20/2023	21180.72674	21014.7326	60	Marcellus
21	6/20/2023	20979.13372	20813.1395	60	Marcellus
22	6/21/2023	20777.5407	20611.5465	60	Marcellus
23	6/21/2023	20575.94767	20409.9535	60	Marcellus
24	6/21/2023	20374.35465	20208.3605	60	Marcellus
25	6/21/2023	20172.76163	20006.7674	60	Marcellus
26	6/21/2023	19971.1686	19805.1744	60	Marcellus
27	6/21/2023	19769.57558	19603.5814	60	Marcellus
28	6/22/2023	19567.98256	19401.9884	60	Marcellus
29	6/22/2023	19366.38953	19200.3953	60	Marcellus
30	6/22/2023	19164.79651	18998.8023	60	Marcellus
31	6/22/2023	18963.20349	18797.2093	60	Marcellus
32	6/22/2023	18761.61047	18595.6163	60	Marcellus
33	6/22/2023	18560.01744	18394.0233	60	Marcellus
34	6/23/2023	18358.42442	18192.4302	60	Marcellus
35	6/23/2023	18156.8314	17990.8372	60	Marcellus
36	6/23/2023	17955.23837	17789.2442	60	Marcellus
37	6/23/2023	17753.64535	17587.6512	60	Marcellus
38	6/23/2023	17552.05233	17386.0581	60	Marcellus
39	6/24/2023	17350.4593	17184.4651	60	Marcellus
40	6/24/2023	17148.86628	16982.8721	60	Marcellus
41	6/24/2023	16947.27326	16781.2791	60	Marcellus
42	6/24/2023	16745.68023	16579.686	60	Marcellus
43	6/24/2023	16544.08721	16378.093	60	Marcellus
44	6/24/2023	16342.49419	16176.5	60	Marcellus
45	6/25/2023	16140.90116	15974.907	60	Marcellus
46	6/25/2023	15939.30814	15773.314	60	Marcellus
47	6/25/2023	15737.71512	15571.7209	60	Marcellus
48	6/25/2023	15536.12209	15370.1279	60	Marcellus
49	6/25/2023	15334.52907	15168.5349	60	Marcellus
50	6/25/2023	15132.93605	14966.9419	60	Marcellus
51	6/25/2023	14931.34302	14765.3488	60	Marcellus
52	6/26/2023	14729.75	14563.7558	60	Marcellus
53	6/26/2023	14528.15698	14362.1628	60	Marcellus
54	6/26/2023	14326.56395	14160.5698	60	Marcellus
55	6/26/2023	14124.97093	13958.9767	60	Marcellus
56	6/27/2023	13923.37791	13757.3837	60	Marcellus
57	6/27/2023	13721.78488	13555.7907	60	Marcellus
58	6/27/2023	13520.19186	13354.1977	60	Marcellus
59	6/27/2023	13318.59884	13152.6047	60	Marcellus
60	6/27/2023	13117.00581	12951.0116	60	Marcellus
61	6/27/2023	12915.41279	12749.4186	60	Marcellus
62	6/28/2023	12713.81977	12547.8256	60	Marcellus
63	6/28/2023	12512.22674	12346.2326	60	Marcellus
64	6/28/2023	12310.63372	12144.6395	60	Marcellus
65	6/28/2023	12109.0407	11943.0465	60	Marcellus
66	6/28/2023	11907.44767	11741.4535	60	Marcellus
67	6/28/2023	11705.85465	11539.8605	60	Marcellus
68	6/28/2023	11504.26163	11338.2674	60	Marcellus
69	6/29/2023	11302.6686	11136.6744	60	Marcellus
70	6/29/2023	11101.07558	10935.0814	60	Marcellus
71	6/29/2023	10899.48256	10733.4884	60	Marcellus
72	6/29/2023	10697.88953	10531.8953	60	Marcellus
73	6/29/2023	10496.29651	10330.3023	60	Marcellus
74	6/29/2023	10294.70349	10128.7093	60	Marcellus
75	6/29/2023	10093.11047	9927.11628	60	Marcellus
76	6/30/2023	9891.51744	9725.52326	60	Marcellus
77	6/30/2023	9689.924419	9523.93023	60	Marcellus
78	6/30/2023	9488.331395	9322.33721	60	Marcellus
79	6/30/2023	9286.738372	9120.74419	60	Marcellus
80	6/30/2023	9085.145349	8919.15116	60	Marcellus
81	6/30/2023	8883.552326	8717.55814	60	Marcellus
82	7/1/2023	8681.959302	8515.96512	60	Marcellus
83	7/1/2023	8480.366279	8314.37209	60	Marcellus
84	7/1/2023	8278.773256	8112.77907	60	Marcellus
85	7/1/2023	8077.180233	7911.18605	60	Marcellus
86	7/1/2023	7875.587209	7709.59302	60	Marcellus
87	7/1/2023	7673.994186	7508	60	Marcellus

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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 (bbbls)	Amount of Nitrogen/ other (units)
1	6/16/2023	73.5985	8820.249	9050.91	3240.205	174646	4953.5255	N/A
2	6/16/2023	81.41335	9984.758	6686.71	4207.169	406420	9505.1883	N/A
3	6/17/2023	79.78	9412	4925	4007	403260	7863.055	N/A
4	6/17/2023	82.74	9895	3722	3712	400060	7263.2398	N/A
5	6/17/2023	87.79398	10060.05	5196.63	3967.766	401140	7473.8526	N/A
6	6/18/2023	87.50685	9998.931	4938.66	3812.398	406200	7169.706	N/A
7	6/18/2023	87.96	10031	5317	3928	400760	7088.346	N/A
8	6/18/2023	82.25	9598	5202	3925	402460	7446.1383	N/A
9	6/18/2023	88.11	10157	5319	4066	403360	6792.1836	N/A
10	6/18/2023	91.40386	10231.91	4112.59	3812.077	401580	7235.8864	N/A
11	6/19/2023	92.43905	10381.03	4971.9	3992.375	401940	7352.1629	N/A
12	6/19/2023	90.79	10243	5397	4024	403440	7349.0771	N/A
13	6/19/2023	92.25	10252	3695	3988	402680	7416.4948	N/A
14	6/19/2023	84.89	9664	5278	3868	397100	7100.8976	N/A
15	6/19/2023	92.37	10265	5271	3873	402000	7064.3471	N/A
16	6/20/2023	92.7	10088	5373	3953	399960	6987.0198	N/A
17	6/20/2023	91.04	10022	5518	4300	404040	7278.165	N/A
18	6/20/2023	89.37	9966	5238	3923	397860	7405.7986	N/A
19	6/20/2023	90.75	9946	5137	3665	402040	7202.6398	N/A
20	6/20/2023	90.83692	10003.59	5210.11	3751.753	408640	7116.8357	N/A
21	6/20/2023	97.12	10402	4984	4016	407580	7024.1026	N/A
22	6/21/2023	97.2	10268	5225	4404	411560	7030.0424	N/A
23	6/21/2023	97.35	10006	5090	3874	410700	7006.7162	N/A
24	6/21/2023	95.51734	9878.228	5202.08	3731.326	416020	7517.4319	N/A
25	6/21/2023	95.98	9823	5122	3944	412820	7468.2164	N/A
26	6/21/2023	97.25	9860	5219	3943	417220	7736.2031	N/A
27	6/21/2023	97.67	10068	5392	4139	415100	7134.9045	N/A
28	6/22/2023	97.9	10017	5066	3867	418120	6964.6881	N/A
29	6/22/2023	97.58045	9648.789	3438.38	4166.544	418400	7054.6988	N/A
30	6/22/2023	97.33	9633	5283	4079	412200	7455.8505	N/A
31	6/22/2023	97.03439	9766.34	5266.2	3585.776	408740	7457.1388	N/A
32	6/22/2023	96.76	9547	5069	3523	401112	6901.2961	N/A
33	6/22/2023	97.87	9755	5262	3623	419480	7187.1543	N/A
34	6/23/2023	97.82	9859	4851	3905	417620	6896.9436	N/A
35	6/23/2023	98.29924	9733.582	5179.61	3829.49	415720	7251.8136	N/A
36	6/23/2023	97.76219	9732.535	5274.26	3741.909	401140	7225.2088	N/A
37	6/23/2023	97.79708	9548.548	5332.13	3668.647	412560	7220.6333	N/A
38	6/23/2023	97.83	9324	3734	3620	416480	6909.2388	N/A
39	6/24/2023	98.4	9705	5213	3768	416340	7317.8688	N/A
40	6/24/2023	98.15	9308	3620	3556	417960	6782.1155	N/A
41	6/24/2023	98.01	9586	5071	3866	418060	7402.0881	N/A
42	6/24/2023	97.96929	9703.689	5099.6	3648.779	413900	7457.8336	N/A
43	6/24/2023	97.80319	9865.532	5297.6	3631.188	416940	7460.3455	N/A
44	6/24/2023	98.52	9403	5319	3859	397258	7006.4088	N/A
45	6/25/2023	98.34	9726	4865	3698	401500	6905.171	N/A
46	6/25/2023	98.15	9039	3638	3736	400855	6933.8926	N/A
47	6/25/2023	98.34821	9095.334	5269.71	3486.589	418180	7256.8333	N/A
48	6/25/2023	97.97247	9076.386	5048.74	3740.068	417820	7317.9138	N/A
49	6/25/2023	98.21699	9083.669	5281.41	3705.89	415560	7366.6445	N/A
50	6/25/2023	98.04	8948	5350	4030	417480	7147.7721	N/A
51	6/25/2023	98.36	9082	5100	4002	405400	6648.1826	N/A
52	6/26/2023	98.35	9023	5572	4043	417980	6799.2079	N/A
53	6/26/2023	98.71432	9056.37	4902.12	3842.529	424160	7039.7286	N/A
54	6/26/2023	96.3761	8995.029	5554.82	3933.257	413380	7261.8443	N/A
55	6/26/2023	97.77	9304	5598	3903	416200	7263.219	N/A
56	6/27/2023	68.07	8310	5472	4441	423980	11656.98	N/A
57	6/27/2023	95.62	8956	5807	4397	390678	6624.7779	N/A
58	6/27/2023	96.31753	8885.718	4161.85	4084.336	416360	6964.5179	N/A
59	6/27/2023	97.51756	9040.001	6033	3843.06	407280	7139.2698	N/A
60	6/27/2023	98.01133	9045.07	5858.74	3685.636	409489	7165.421	N/A
61	6/27/2023	97.43	8833	5588	3793	398955	6597.9155	N/A
62	6/28/2023	97.82	8813	3435	3689	413560	6706.6252	N/A
63	6/28/2023	98.02	8666	4999	3593	389005	6624.9669	N/A
64	6/28/2023	98.1126	8860.032	3558.52	3531.354	408460	6954.61	N/A
65	6/28/2023	96.34181	8624.418	6083.68	3611.171	417260	7015.6888	N/A
66	6/28/2023	97.42963	8554.364	5580	3659.729	409660	7044.0526	N/A
67	6/28/2023	97.73	8433	5767	3893	417920	6722.6105	N/A
68	6/28/2023	98.41	8572	3670	3686	400588	6780.2255	N/A
69	6/29/2023	98.39	8363	5700	3815	414600	7086.9281	N/A
70	6/29/2023	97.84	8235	3918	3717	417440	6899.9774	N/A
71	6/29/2023	98.04	8100	5527	3594	418240	7049.5429	N/A
72	6/29/2023	97.86052	8057.56	6000.52	3685.147	418600	7125.1174	N/A
73	6/29/2023	97.86341	7976.742	5752.53	3440.633	417060	7140.7336	N/A
74	6/29/2023	97.72	8599	5779	3546	412500	7046.0769	N/A
75	6/29/2023	98.05	8332	5985	3708	414580	6920.6295	N/A
76	6/30/2023	97.78	8559	6210	3982	412240	7084.8164	N/A
77	6/30/2023	97.70934	8502.284	6231.01	3470.032	421800	7330.6695	N/A
78	6/30/2023	97.78413	8052.511	6536.81	3659.783	406960	7012.0212	N/A
79	6/30/2023	97.69721	8533.217	6380.43	3529.532	414880	7271.1702	N/A
80	6/30/2023	97.98933	8272.998	6368.63	3982.401	411580	7263.5914	N/A
81	6/30/2023	98.17	7907	5871	3999	417800	6947.266	N/A
82	7/1/2023	98.1	7836	6073	3756	418900	6847.314	N/A
83	7/1/2023	98.23	7625	6159	3557	409640	7033.9948	N/A
84	7/1/2023	97.31	7649	6141	3757	414400	7044.1648	N/A
85	7/1/2023	97.18	7400	5684	3792	410440	7063.8205	N/A
86	7/1/2023	97.63	7376	5680	3860	413720	7146.3314	N/A
87	7/1/2023	97.95	7426	5936	3596	416280	6816.6714	N/A
AVERAGE		85.0	9,199	5,279	3,822	35,465,986	624,002	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
Silty Sandstone	70	170	70	170
Silty Shale	170	330	170	330
shaly sand	330	420	330	420
Shale	420	850	420	850
Dolomitic Shale	850	1,000	850	1,000
Shaly Siltstone	1,000	1,100	1,000	1,100
Silty Sandstone	1,100	1,320	1,100	1,320
Shaly Sand	1,320	1,470	1,320	1,470
Sandstone	1,470	1,720	1,470	1,720
Silty, Shaly, Sandstone	1,720	1,760	1,720	1,760
Sandstone, Tr Shale, Tr Coal	1,760	1,800	1,760	1,800
Silty Sandstone	1,800	1,880	1,800	1,880
Shaly Siltstone	1,880	2,088	1,880	2,219
Big Lime	2,118	2,921	2,249	3,141
Fifty Foot Sandstone	2,921	2,989	3,141	3,214
Gordon	2,989	3,199	3,214	3,442
Fifth Sandstone	3,199	3,464	3,442	3,728
Bayard	3,464	4,125	3,728	4,450
Speechley	4,125	4,372	4,450	4,725
Balltown	4,372	4,807	4,725	5,201
Bradford	4,807	5,079	5,201	5,499
Benson	5,079	5,449	5,499	5,905
Alexander	5,449	6,539	5,905	7,145
Sycamore	6,402	6,509	6,968	7,115
Middlesex	6,509	6,597	7,115	7,263
Burkett	6,597	6,616	7,263	7,305
Tully	6,616	6,674	7,305	7,456
Marcellus	6,674	NA	7,456	NA

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02/16/2024

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/15/2023
Job End Date:	7/1/2023
State:	West Virginia
County:	Tyler
API Number:	47-095-02839-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	CIDER RUN UNIT 1H
Latitude:	39.54792500
Longitude:	-80.83647600
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8,993
Total Base Water Volume (gal):	27,574,340
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	86.47677	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.16520	

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HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
100 Mesh Permian	Halliburton	Proppant					
				Listed Below			
FDP-S1464-22	Halliburton	Friction Reducer					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				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	13.33647	
			Hydrochloric acid	7647-01-0	30.00000	0.03903	
			Complex amine compound	Proprietary	60.00000	0.02685	

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			Hydrotreated distillate	Proprietary	30.00000	0.01342	
			Guar gum	9000-30-0	100.00000	0.00329	
			Glutaraldehyde	111-30-8	30.00000	0.00247	
			Fatty nitrogen derived amides	Proprietary	5.00000	0.00224	
			Ammonium chloride	12125-02-9	5.00000	0.00224	
			Ethoxylated alcohol	Proprietary	5.00000	0.00224	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	1.00000	0.00045	
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	1.00000	0.00045	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00041	
			Methanol	67-56-1	100.00000	0.00024	
			Ammonium persulfate	7727-54-0	100.00000	0.00015	
			Ethanol	64-17-5	1.00000	0.00008	
			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	0.00005	
			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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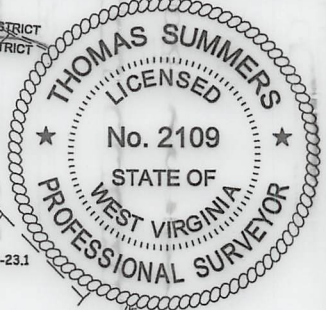
Antero Resources Corporation Well No. Cider Run Unit 1H

ELLSWORTH DISTRICT - TYLER COUNTY	
1-1	DANIEL WITSCHY
1-1.1	DANIEL WITSCHY
1-1.2	RICHARD KOCHER
1-2	ANNETTE HINKLE
1-2.1	RUBY CARROLL
1-11	DANIEL WITSCHY
1-12	DANIEL WITSCHY
3-1	WITSCHY REALTY INC.
3-4	DANIEL WITSCHY
3-10	STEVEN HIGGINS
3-14	CARL RUCKER
3-20	CYNTHIA GUTHRIE
3-20.2	CYNTHIA GUTHRIE
3-21	JCW INC.
3-28	RHODA MORGAN
3-29	GARY WILLEY
3-30	GARY WILLEY
3-34	CHARLOTTE TERRY
3-35	HAROLD SHAEFFER
3-36	GARY WILLEY
3-36.1	STACY DENNIS
3-38	GARY WILLEY
3-49	HAROLD SHAEFFER
6-11	JEFFREY SECKMAN
6-11.1	GARY WILLEY
6-11.3	JEFFREY SECKMAN
6-12	TIMOTHY MCHENRY
6-13	TIMOTHY MCHENRY
6-21	LARRY RICE
6-30	LARRY RICE
6-30.1	LARRY ADAMS
6-32	JAMES TEMPLE
6-38	ROBERT MERCER
6-44	GREGORY DITTMER
6-44.1	SCOTT STRAIGHT
6-45	HOMER MERCER
7-28	EDWARD YOST
7-30	FLODE YOST
7-31	EDWARD YOST
7-32	ROBERT MERCER
7-33	GARY MIDCAP
7-34	J. B. RICE

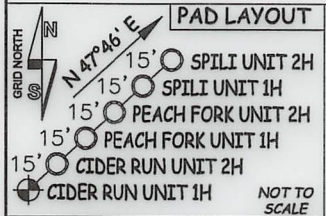
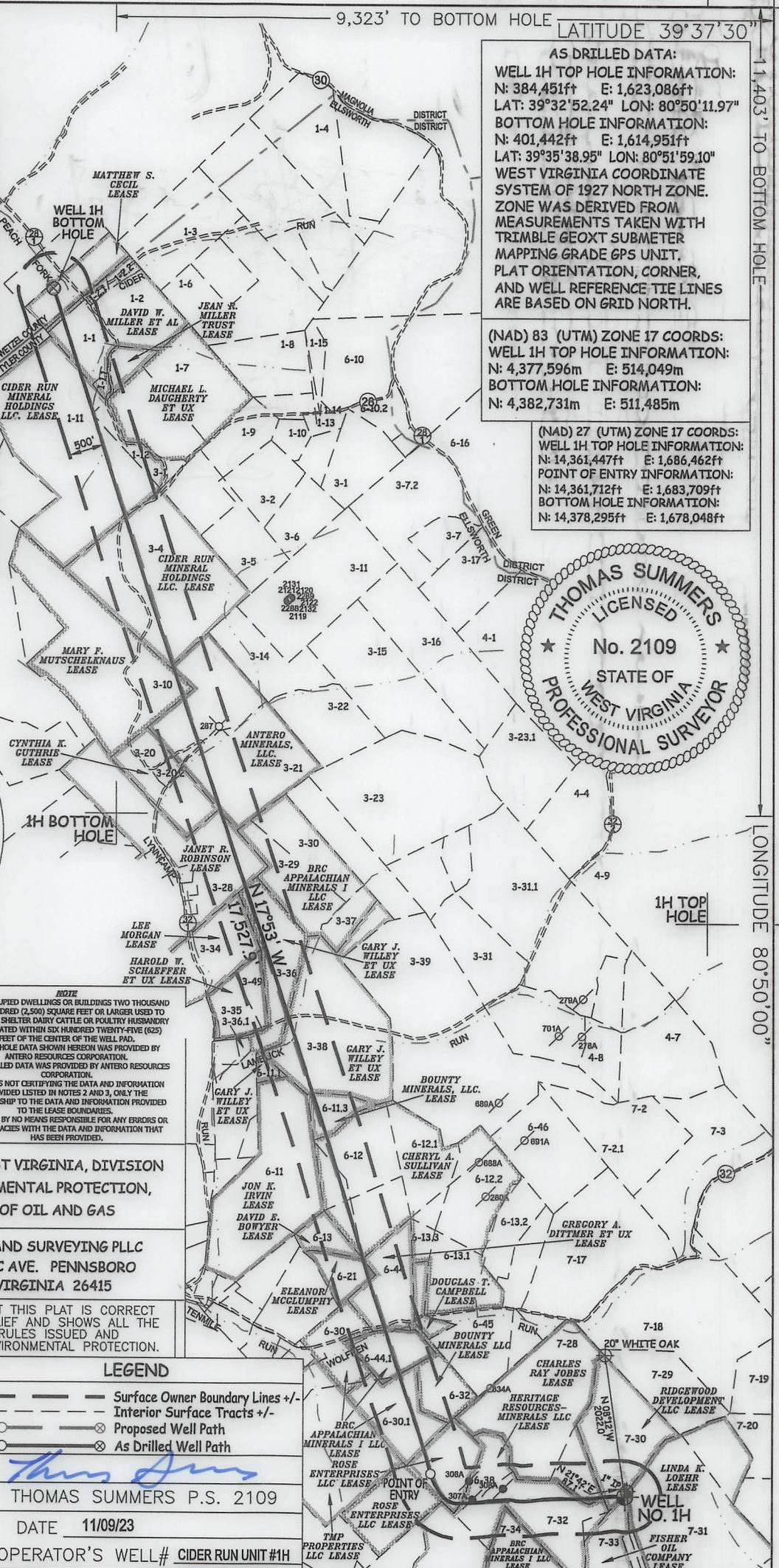
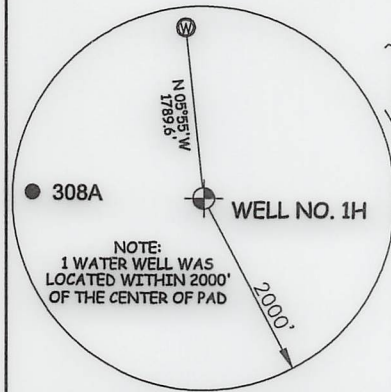
AS DRILLED DATA:
 WELL 1H TOP HOLE INFORMATION:
 N: 384,451ft E: 1,623,086ft
 LAT: 39°32'52.24" LON: 80°50'11.97"
 BOTTOM HOLE INFORMATION:
 N: 401,442ft E: 1,614,951ft
 LAT: 39°35'38.95" LON: 80°51'59.10"
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH 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:
 N: 4,377,596m E: 514,049m
 BOTTOM HOLE INFORMATION:
 N: 4,382,731m E: 511,485m

(NAD) 27 (UTM) ZONE 17 COORDS:
 WELL 1H TOP HOLE INFORMATION:
 N: 14,361,447ft E: 1,686,462ft
 POINT OF ENTRY INFORMATION:
 N: 14,361,712ft E: 1,683,709ft
 BOTTOM HOLE INFORMATION:
 N: 14,378,295ft E: 1,678,048ft



WW NORTH ZONE GRID NORTH



NOTE:
 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

JOB # 20-011WA
 DRAWING # CIDERUN1HAD
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN 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 +/-
 O - - - - - Proposed Well Path
 O - - - - - As Drilled Well Path
 THOMAS SUMMERS P.S. 2109
 DATE 11/09/23
 OPERATOR'S WELL# CIDER RUN UNIT #1H

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ 47 - 095 - 02839
 (IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X STATE COUNTY PERMIT
 LOCATION: ELEVATION 1,233' - AS BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
 QUADRANGLE PORTER FALLS 7.5' DISTRICT ELLSWORTH COUNTY TYLER
 SURFACE OWNER EDWARD YOST ESTATE ACREAGE 109.06 ACRES +/-
 OIL & GAS ROYALTY OWNER FISHER OIL COMPANY LEASE ACREAGE 45.67 ACRES±

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 6,677' TVD 25,020' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS
 ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAK BLVD.
 DENVER, CO 80202 BRIDGEPORT, WV 26330

02/16/2024

LATITUDE 39°35'00" 937'

9,323' TO BOTTOM HOLE

LATITUDE 39°37'30"

Antero Resources Corporation Well No. Cider Run Unit 1H

Table listing landowners and lease numbers in the Ellsworth District, Tyler County, West Virginia. Includes names like Daniel Witschey, Richard Kocher, and various lease numbers (e.g., 1-1, 1-1.1, 1-1.2).

AS DRILLED DATA: WELL 1H TOP HOLE INFORMATION: N: 384,451ft E: 1,623,086ft LAT: 39°32'52.24" LON: 80°50'11.97" BOTTOM HOLE INFORMATION: N: 401,442ft E: 1,614,951ft LAT: 39°35'38.95" LON: 80°51'59.10" WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE 6PS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

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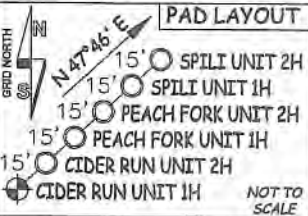
WV NORTH ZONE GRID NORTH

11,403' TO BOTTOM HOLE

12,927'

LONGITUDE 80°50'00"

LONGITUDE 80°50'00"



- NOTES: 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY... 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION... 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION... 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES... 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR UNACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



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JOB # 20-011WA DRAWING # CIDERRUN1HAD SCALE 1" = 2000' MINIMUM DEGREE OF ACCURACY SUBMETER PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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

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

THOMAS SUMMERS P.S. 2109 DATE 11/09/23 OPERATOR'S WELL# CIDER RUN UNIT #1H

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 095 02839 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT LOCATION: ELEVATION 1,233' -AS BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK QUADRANGLE PORTER FALLS 7.5' DISTRICT ELLSWORTH COUNTY TYLER SURFACE OWNER EDWARD YOST ESTATE LEASE ACREAGE 109.06 ACRES +/- LEASE ACREAGE 45.67 ACRES±

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 6,677' TVD 25,020' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS ADDRESS 1615 WYNKOOP ST. DENVER, CO 80202 ADDRESS 535 WHITE OAK BLVD. BRIDGEPORT, WV 26330

02/16/2024