

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

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JUL 22 2026

WV Department of
Environmental Protection

API 47-041-05764 County Lewis District Freemans Creek
Quad Vadis Pad Name Van Wie 1221 Pad Field/Pool Name -----
Farm name HG Energy II Appalachia, LLC, et al Well Number Van Wie 1221 N-5H
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 4327365.922m Easting 528682.235m
Landing Point of Curve Northing 4327782.29m Easting 529412.28m
Bottom Hole Northing 4332836.571m Easting 527621.294m

Elevation (ft) 1251.77' 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 2/20/2024 Date drilling commenced 10/21/2024 Date drilling ceased 6/13/2025
Date completion activities began 10/18/2025 Date completion activities ceased 3/24/2026
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 826' Open mine(s) (Y/N) depths No
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths No
Coal depth(s) ft 495'-501' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed

Reviewed by:
Terrell Angles
7-78-26
07/31/2026

API 47-041 - 05764 Farm name HG Energy II Appalachia, LLC, et al Well number Van Wie 1221 N-5H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/R	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	30"	30"	120'	New	157.5#, LS	N/A	N/A
Surface	26"	20"	1236'	New	94#, J-55	N/A	Y
Coal							
Intermediate 1	17-1/2"	13-3/8"	2830'	New	68#, J-55	N/A	Y
Intermediate 2	12-1/4"	9-5/8"	6860'	New	40# J-55	N/A	
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	26317'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7802'		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	277 sks	15.6	1.18	327	0'	8 Hrs.
Surface	Class A	899 sks	15.6	1.20	1079	0'	8 Hrs.
Coal							
Intermediate 1	Class A	720 sks	15.9	1.17	842	0'	8 Hrs.
Intermediate 2	Class A	190 sks	15.2	1.25	238	0'	8 Hrs.
Intermediate 3							
Production	Class A	2377 sks	14.6(Tail)	1.38 (Tail)	3280	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 26317' MD, 7255' TVD (BHL), 7225' (Deepest Point Drilled) Loggers TD (ft) 26317' MD RECEIVED
Deepest formation penetrated Marcellus Plug back to (ft) N/A Office of Oil and Gas
Plug back procedure N/A JUL 22 2026

Kick off depth (ft) 7100' WV Department of Environmental Protection

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

07/31/2026

PERFORATION RECORD

WV Department of
Environmental Protection

***PLEASE SEE ATTACHED EXHIBIT 2**

07/31/2026

API 47- 041 - 05764 Farm name HG Energy II Appalachia, LLC, et al Well number Van Wie 1221 N-5H

PRODUCING FORMATION(S)

DEPTHS

Marcellus 7,041' (TOP) TVD 8,216' (TOP) MD

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Please insert additional pages as applicable.

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

SHUT-IN PRESSURE Surface 999 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 16931 mcfpd Oil 172 bpd NGL --- bpd Water 723 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 ₂ S, ETC)
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***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling
Address 10350 Richmond Ave, Suite 700 City Houston State TX Zip 77042

Logging Company Renegade Services
Address 191 Earnhardt Rd City Hunker State PA Zip 15639

Cementing Company Lightning Energy Services
Address 603 US Hwy Rt. 19N City Weston State WV Zip 26452

Stimulating Company ProFrac
Address 333 Shops Boulevard Suite 301 City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Carly Wren Telephone 303-357-7373
Signature [Signature] Title Permitting Agent Date 7/21/26

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

07/31/2026

API 47-041-05754 Farm Name JG Energy II Appalachia, LLC, et al Well Number 1221-N Unit 5H					
Exhibit 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	10/18/2025	26233	26180	12	Marcellus
2	10/18/2025	26147	25985	40	Marcellus
3	10/19/2025	25957	25789	32	Marcellus
4	10/20/2025	25761	25593	32	Marcellus
5	10/21/2025	25565	25397	32	Marcellus
6	10/22/2025	25369	25201	32	Marcellus
7	10/23/2025	25173	25005	32	Marcellus
8	10/25/2025	24977	24809	32	Marcellus
9	10/25/2025	24781	24613	32	Marcellus
10	10/26/2025	24586	24418	32	Marcellus
11	10/26/2025	24392	24224	32	Marcellus
12	10/27/2025	24198	24030	32	Marcellus
13	10/27/2025	24004	23836	32	Marcellus
14	10/28/2025	23810	23642	32	Marcellus
15	10/29/2025	23616	23448	32	Marcellus
16	10/30/2025	23422	23254	32	Marcellus
17	10/30/2025	23228	23060	32	Marcellus
18	10/31/2025	23034	22866	32	Marcellus
19	11/1/2025	22840	22672	32	Marcellus
20	11/1/2025	22646	22478	32	Marcellus
21	11/2/2025	22452	22284	32	Marcellus
22	11/3/2025	22258	22090	32	Marcellus
23	11/3/2025	22064	21896	32	Marcellus
24	11/4/2025	21870	21702	32	Marcellus
25	11/5/2025	21676	21508	32	Marcellus
26	11/6/2025	21482	21314	32	Marcellus
27	11/6/2025	21288	21120	32	Marcellus
28	11/7/2025	21094	20926	32	Marcellus
29	11/8/2025	20900	20732	32	Marcellus
30	11/8/2025	20706	20538	32	Marcellus
31	11/9/2025	20512	20344	32	Marcellus
32	11/9/2025	20318	20150	32	Marcellus
33	11/10/2025	20124	19956	32	Marcellus
34	11/11/2025	19930	19762	32	Marcellus
35	11/11/2025	19736	19568	32	Marcellus
36	11/12/2025	19542	19374	44	Marcellus
37	11/12/2025	19348	19180	32	Marcellus
38	11/13/2025	19154	18986	32	Marcellus
39	11/13/2025	18960	18792	32	Marcellus
40	11/14/2025	18766	18598	32	Marcellus
41	11/14/2025	18572	18404	32	Marcellus
42	11/15/2025	18378	18210	32	Marcellus
43	11/15/2025	18184	18016	32	Marcellus
44	11/15/2025	17990	17822	32	Marcellus
45	11/15/2025	17796	17628	32	Marcellus
46	11/16/2025	17602	17434	32	Marcellus
47	11/16/2025	17408	17240	32	Marcellus
48	11/16/2025	17214	17046	32	Marcellus
49	11/16/2025	17020	16852	32	Marcellus
50	11/17/2025	16826	16658	32	Marcellus
51	11/17/2025	16632	16464	32	Marcellus
52	11/17/2025	16438	16270	32	Marcellus
53	11/17/2025	16244	16076	32	Marcellus
54	11/18/2025	16050	15882	32	Marcellus
55	11/18/2025	15856	15688	32	Marcellus
56	11/18/2025	15662	15494	32	Marcellus
57	11/18/2025	15468	15299	32	Marcellus
58	11/19/2025	15274	15106	32	Marcellus
59	11/19/2025	15079	14911	44	Marcellus
60	11/19/2025	14885	14717	32	Marcellus
61	11/20/2025	14691	14523	32	Marcellus
62	11/20/2025	14497	14329	32	Marcellus
63	11/30/2025	14303	14135	32	Marcellus
64	11/30/2025	14109	13941	32	Marcellus
65	11/30/2025	13915	13747	32	Marcellus
66	12/1/2025	13721	13553	44	Marcellus
67	12/1/2025	13527	13359	32	Marcellus
68	12/1/2025	13333	13165	32	Marcellus
69	12/1/2025	13139	12971	32	Marcellus
70	12/2/2025	12945	12777	32	Marcellus
71	12/2/2025	12751	12583	32	Marcellus
72	12/2/2025	12557	12389	32	Marcellus
73	12/2/2025	12363	12195	32	Marcellus
74	12/3/2025	12169	11999	32	Marcellus
75	12/3/2025	11975	11807	32	Marcellus
76	12/4/2025	11781	11613	32	Marcellus
77	12/4/2025	11587	11419	32	Marcellus
78	12/4/2025	11393	11225	32	Marcellus
79	12/5/2025	11199	11031	32	Marcellus
80	12/5/2025	10999	10831	32	Marcellus
81	12/5/2025	10799	10631	32	Marcellus
82	12/5/2025	10599	10431	32	Marcellus
83	12/6/2025	10399	10231	32	Marcellus
84	12/6/2025	10199	10031	32	Marcellus
85	12/6/2025	9999	9831	32	Marcellus
86	12/6/2025	9799	9631	32	Marcellus
87	12/7/2025	9599	9431	32	Marcellus
88	12/7/2025	9399	9231	32	Marcellus
89	12/7/2025	9199	9031	32	Marcellus
90	12/7/2025	8999	8831	32	Marcellus
91	12/7/2025	8799	8631	32	Marcellus
92	12/7/2025	8599	8431	32	Marcellus

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API 47-041-05764 Farm Name HG Energy II Appalachia, LLC, et al Well Number 1221-N Unit 5H								
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	10/18/2025	0.0	0.0	0	0	0	0	N/A
2	10/18/2025	77.5	9993.3	5714	3575	208350	8479	N/A
3	10/19/2025	67.6	10390.3	6132	3690	46820	4460	N/A
4	10/20/2025	63.9	10996.6	5620	5041	20140	4976	N/A
5	10/21/2025	87.6	10490.6	5938	4619	541890	13944	N/A
6	10/22/2025	94.3	10262.6	5403	4853	701930	15431	N/A
7	10/23/2025	89.0	10530.6	5169	5126	705900	13467	N/A
8	10/25/2025	88.8	10514.1	5245	5235	705870	14122	N/A
9	10/25/2025	96.2	10575.7	5362	4874	705920	13349	N/A
10	10/26/2025	85.4	10594.5	5274	4921	705830	13943	N/A
11	10/26/2025	85.3	10607.8	5396	5355	705930	13533	N/A
12	10/27/2025	93.0	10476.7	8769	5052	705550	13841	N/A
13	10/27/2025	96.4	10602.0	4743	5197	705880	12368	N/A
14	10/28/2025	97.7	10426.2	7706	4216	655200	16050	N/A
15	10/29/2025	91.0	10562.2	8957	5169	705860	12612	N/A
16	10/30/2025	95.1	10095.4	8307	5516	705060	11452	N/A
17	10/30/2025	93.6	10240.7	8130	4892	705590	12217	N/A
18	10/31/2025	96.5	10284.5	7942	5638	727400	11612	N/A
19	11/1/2025	91.8	10036.9	9577	5817	705040	11733	N/A
20	11/1/2025	95.0	10146.8	8685	5509	705510	11429	N/A
21	11/2/2025	97.1	10246.3	9476	5733	705900	11292	N/A
22	11/3/2025	92.9	10172.6	9496	6080	705790	11387	N/A
23	11/3/2025	96.4	10154.6	8400	5636	680330	11270	N/A
24	11/4/2025	95.0	10201.4	8435	5683	680760	11066	N/A
25	11/5/2025	95.5	10200.5	7475	5719	680560	11252	N/A
26	11/6/2025	101.4	10330.1	8258	5797	564860	10472	N/A
27	11/6/2025	101.2	10336.3	7114	5609	680770	11117	N/A
28	11/7/2025	98.9	10136.7	7517	5633	680120	11222	N/A
29	11/8/2025	104.8	10308.7	2417	5579	680200	13444	N/A
30	11/8/2025	102.8	10329.4	7995	5912	680650	11086	N/A
31	11/9/2025	97.2	9860.2	7139	5400	680420	11254	N/A
32	11/9/2025	102.6	10164.2	8088	5876	680320	10690	N/A
33	11/10/2025	90.9	9853.7	8339	5787	680480	10867	N/A
34	11/11/2025	103.2	10080.5	8038	5869	684960	10804	N/A
35	11/11/2025	94.3	9794.3	7123	5825	660060	9931	N/A
36	11/12/2025	89.0	9612.4	8328	4721	660000	16313	N/A
37	11/12/2025	100.2	10015.4	8956	4979	660540	11609	N/A
38	11/13/2025	93.9	9904.4	7341	5907	660040	9884	N/A
39	11/13/2025	93.9	10169.2	8294	6013	660120	9822	N/A
40	11/14/2025	103.1	10052.0	7067	5880	661120	9878	N/A
41	11/14/2025	102.9	10193.1	8509	5577	660580	10072	N/A
42	11/15/2025	103.0	10113.3	8646	5881	660800	9791	N/A
43	11/15/2025	102.3	10009.8	7322	6143	660100	10065	N/A
44	11/15/2025	94.1	9706.1	7459	5953	660080	9791	N/A
45	11/15/2025	104.8	10110.2	7658	6059	660460	9856	N/A
46	11/16/2025	104.4	10140.0	8107	5494	661085	9963	N/A
47	11/16/2025	90.2	9997.2	8864	5354	335440	8749	N/A
48	11/16/2025	105.4	9980.1	7524	5217	660000	9831	N/A
49	11/16/2025	91.7	10146.5	8862	4922	660540	11175	N/A
50	11/17/2025	100.8	10239.5	7138	6316	660300	10023	N/A
51	11/17/2025	92.0	9910.6	8757	5494	660040	12033	N/A
52	11/17/2025	93.9	9885.9	7597	5183	660120	12202	N/A
53	11/17/2025	104.4	9980.0	7793	5785	650360	9718	N/A
54	11/18/2025	105.2	10070.0	7890	6245	660220	9894	N/A
55	11/18/2025	100.7	9909.7	7701	5662	660490	12341	N/A
56	11/18/2025	108.4	10058.7	6929	6157	660370	9831	N/A
57	11/18/2025	104.8	9907.6	8662	5450	661480	9828	N/A
58	11/19/2025	104.7	10271.2	8119	6098	672690	9765	N/A
59	11/19/2025	99.3	9941.1	8613	5494	670720	14097	N/A
60	11/19/2025	105.7	9566.0	8344	5811	660750	9630	N/A
61	11/20/2025	91.9	10021.7	8063	5179	660190	9668	N/A
62	11/20/2025	90.6	9955.4	6502	6071	660440	9664	N/A
63	11/30/2025	96.7	10143.7	8012	6008	590500	10623	N/A
64	11/30/2025	88.0	10292.0	7655	5037	274390	7211	N/A
65	11/30/2025	107.4	9924.7	8020	5379	660450	9563	N/A
66	12/1/2025	98.7	9485.2	7338	5778	660460	16142	N/A
67	12/1/2025	98.4	10063.0	8026	5654	432220	10808	N/A
68	12/1/2025	101.8	9801.3	9354	5161	660600	9556	N/A
69	12/1/2025	108.6	9421.3	6617	5689	660010	9491	N/A
70	12/2/2025	107.3	9498.1	7116	5664	660190	9438	N/A
71	12/2/2025	106.5	9962.2	7719	5360	612090	9347	N/A
72	12/2/2025	106.7	9812.9	7466	5563	660430	10887	N/A
73	12/2/2025	100.6	10091.6	5610	4963	660280	10012	N/A
74	12/3/2025	100.5	10202.5	5548	5428	660690	11298	N/A
75	12/3/2025	107.6	9406.6	5926	6027	660340	9457	N/A
76	12/4/2025	105.2	9850.8	5536	5477	243000	10273	N/A
77	12/4/2025	109.7	9201.6	6092	5929	660890	9441	N/A
78	12/4/2025	109.2	9074.1	5223	5850	660240	9281	N/A
79	12/5/2025	108.9	9247.1	6300	5695	660180	9339	N/A
80	12/5/2025	109.9	9102.1	5930	5787	661060	9383	N/A
81	12/5/2025	110.1	8824.0	5501	5192	660800	9921	N/A
82	12/5/2025	109.7	8834.6	5882	5679	660160	9186	N/A
83	12/6/2025	109.9	8713.9	5661	5454	660140	9441	N/A
84	12/6/2025	109.7	8913.0	7872	4838	603600	8708	N/A
85	12/6/2025	109.1	9349.0	7641	5015	591200	10939	N/A
86	12/6/2025	108.8	8677.3	6446	6226	660430	17962	N/A
87	12/7/2025	107.4	8809.8	6619	5420	660160	11684	N/A
88	12/7/2025	108.6	8929.6	6680	5177	603110	9937	N/A
89	12/7/2025	108.5	8936.4	7011	5767	660540	10280	N/A
90	12/7/2025	109.7	8505.5	6909	6450	660440	9261	N/A
91	12/7/2025	107.2	8732.6	7702	5367	538494	9801	N/A
92	12/7/2025	107.7	7994.5	6117	5290	660220	9360	N/A
	AVERAGE	98	9779	7195	5433	57,373,239	989,695	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Sandstone, Occ Siltstone	275	425	275	425
Silty Sandstone	425	625	425	625
Sandstone, Siltstone	625	925	625	925
Sandy Siltstone	725	1,175	725	1,175
Siltstone, Occ Sandstone	925	1,175	925	1,175
Sandy Siltstone	1,175	1,275	1,175	1,275
Siltstone, tr Sandstone	1,275	1,325	1,275	1,325
Siltstone, tr Sandstone, tr Shale	1,325	1,825	1,325	1,825
Sandstone	1,825	1,975	1,825	1,975
Silty Sandstone	1,975	2,125	1,975	2,125
Sandstone, Occ Siltstone	2,125	2,275	2,125	2,275
Sandstone	2,275	2,325	2,275	2,325
Silty Sandstone	2,325	2,196	2,325	2,196
Big Lime	2,221	2,610	2,196	2,610
Fifty Foot Sandstone	2,610	2,755	2,585	2,755
Gordon	2,755	2,912	2,730	2,912
Fifth Sandstone	2,912	3,196	2,887	3,196
Bayard	3,196	3,767	3,171	3,779
Speechley	3,767	3,925	3,754	3,945
Balltown	3,925	4,563	3,920	4,662
Bradford	4,563	5,050	4,637	5,284
Benson	5,050	5,332	5,259	5,655
Alexander	5,332	6,771	5,630	7,584
Sycamore	6,584	6,746	7,323	7,559
Middlesex	6,746	6,886	7,559	7,800
Burkett	6,886	7,041	7,800	8,216
Marcellus	7,041	NA	8,216	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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JUL 22 2026

WV Department of
Environmental Protection

07/31/2026

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/18/2025
Job End Date:	12/01/2025
State:	West Virginia
County:	Lewis
API Number:	47-041-05764-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Van Wie 1221 N-5H
Latitude:	39.094986
Longitude:	-80.668283
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7084
Total Base Water Volume (gal)*:	41567190
Total Base Non Water Volume:	0



Water Source	Percent
Other, > 1000TDS	100.00%

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Environmental Protection

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
Water	Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	85.51048	None
Sand (40/70 White Proppant)	Operator	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	12.45910	None
Sand (100 Mesh Proppant)	Operator	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	1.67377	None
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	85.00000	0.19344	None
			Water	7732-18-5	90.00000	0.01784	None
			Inorganic salt	Proprietary	10.00000	0.01425	None
			Oxyalkylated alcohol	Proprietary	5.00000	0.00712	None

07/31/2026

			Non-hazardous substances	Proprietary	70.00000	0.00410	None
			Substituted alkylamine	Proprietary	1.00000	0.00142	None
			Methanol	67-56-1	20.00000	0.00117	None
			Petroleum distillate	64741-44-2	60.00000	0.00060	None
			Quarternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1	3.00000	0.00059	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00059	None
Hydrochloric Acid (15%)	Pad2Pad	Acidizing					
			Water	7732-18-5	85.00000	0.19344	None
			Hydrochloric Acid	7647-01-0	15.00000	0.03414	None
TRUSlick C	Pad2Pad	Friction Reducer					
			Hydrotreated light distillate	64742-47-8	30.00000	0.04274	None
			Inorganic salt	Proprietary	10.00000	0.01425	None
			Oxyalkylated alcohol	Proprietary	5.00000	0.00712	None
			Substituted alkylamine	Proprietary	1.00000	0.00142	None
Aquacide 12:3	Pad2Pad	Biocide					
			Water	7732-18-5	90.00000	0.01784	None
			Glutaraldehyde	111-30-8	20.00000	0.00396	None
			Quarternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1	3.00000	0.00059	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00059	None
SI 9125	Pad2Pad	Scale Inhibitor					
			Non-hazardous substances	Proprietary	80.00000	0.01854	None
TruCorr 880	Pad2Pad	Corrosion Inhibitor					
			Non-hazardous substances	Proprietary	70.00000	0.00410	None
			1-Hydroxyethylidene-, 1-diphosphonic acid (HEDP)	2809-21-4	20.00000	0.00117	None
			Methanol	67-56-1	20.00000	0.00117	None
TruGel 100	Pad2Pad	Guar					
			Petroleum distillate	64741-44-2	60.00000	0.00060	None
			Guar Gum	9000-30-0	60.00000	0.00060	None
TruBreak 100	Pad2Pad	Breaker					

07/31/2026

			Ammonium Persulfate	7727-54-0	100.00000	0.00002	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS							

- * 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)

RECEIVED
 Office of Oil and Gas

JUL 22 2026

WV Department of
 Environmental Protection

07/31/2026

Antero Resources

Well No. Van Wie 1221 N-5H

As-Drilled

Antero Resources Corporation

ALLEGHENY

SURVEYS, INC.

Page 1 of 2

DWAYNE D. MATHENY

LICENSED

No. 2070

STATE OF WEST VIRGINIA

PROFESSIONAL SURVEYOR

SEAL

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.

Dwayne D. Matheny, P.S. 2070

3,935' to Bottom Hole

520' to Top Hole

TOP LATITUDE 39 - 07 - 30

BTM LATITUDE 39 - 10 - 00

TOP HOLE LONGITUDE 80 - 40 - 00

BTM HOLE LONGITUDE 80 - 40 - 00

10,973' to Top Hole

8,183' to Bottom Hole

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

5/8" Rebar w/cap

2" Iron Pipe

500' Buffer

5/8" Rebar w/cap

2" Iron Pipe

Large Rock

5/8" Rebar w/cap

Rebar

47-017-02453

47-041-02742

47-041-02803

47-041-02805

47-041-02813

47-041-02814

47-041-02660

47-041-02798

47-041-01294

47-041-01297

47-041-04705

47-041-02809

47-041-02661

47-041-01155

47-041-02799

47-041-02838

47-041-02799

47-041-02842

47-041-01258

47-041-01052

47-041-02844

47-041-00499

47-041-02574

47-041-02837

47-041-02809

47-041-02836

47-041-01295

47-041-01297

47-041-01294

47-041-04705

47-041-02838

47-041-01178

47-041-01177

47-041-01134

47-041-01269

47-041-30127

47-041-01267

47-041-01268

47-041-01265

47-041-H-19886

47-041-01184

47-041-02841

47-041-30128

47-041-02840

47-041-01264

47-041-01465

47-041-02839

47-041-02812

47-041-02814

47-041-02816

47-041-02815

47-041-02839

47-041-02809

47-041-02836

47-041-01295

47-041-01297

47-041-01294

47-041-04705

47-041-02838

47-041-01178

47-041-01177

47-041-01134

47-041-01269

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47-041-01265

47-041-H-19886

47-041-01184

47-041-02841

47-041-30128

47-041-02840

47-041-01264

47-041-01465

47-041-02839

Van Wie 1221 N-5H Top Hole

3000'

Van Wie 1221 N-5H Top Hole

3000'

Conc. cap H59

47-041-02812

47-041-02814

47-041-02816

47-041-02815

47-041-02837

47-041-02809

47-041-02836

47-041-01295

47-041-01297

47-041-01294

47-041-04705

47-041-02838

47-041-01178

47-041-01177

47-041-01134

47-041-01269

47-041-30127

47-041-01267

47-041-01268

47-041-01265

47-041-H-19886

47-041-01184

47-041-02841

47-041-30128

47-041-02840

47-041-01264

47-041-01465

47-041-02839

Van Wie 1221 N-5H Top Hole

3000'

Conc. cap H59

47-041-02812

47-041-02814

47-041-02816

47-041-02815

47-041-02837

47-041-02809

47-041-02836

47-041-01295

47-041-01297

47-041-01294

47-041-04705

47-041-02838

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47-041-30127

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47-041-01265

47-041-H-19886

47-041-01184

47-041-02841

47-041-30128

47-041-02840

47-041-01264

47-041-01465

47-041-02839

FILE NO: 63-12-FC-26

DRAWING NO: Van Wie 1221 N-5H As-Drilled

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY: Submeter

PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

OIL AND GAS DIVISION

DATE: July 15 20 26

OPERATOR'S WELL NO. Van Wie 1221 N-5H

API WELL NO

47 - 041 - 05764

STATE COUNTY PERMIT

WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL

(IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☒ SHALLOW

LOCATION: ELEVATION: 1,251.77' WATERSHED: Fink Creek

DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II Appalachia, LLC, et al

ROYALTY OWNER: Joseph Krenn, et al LEASE NO: ACREAGE: 245

PROPOSED WORK: ☐ DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ FRACTURE OR STIMULATE ☐ PLUG OFF OLD FORMATION

☐ PERFORATE NEW FORMATION ☒ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As-Drilled 7,255' TVD

☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 26,317' MD

WELL OPERATOR: Antero Resources Corporation

DESIGNATED AGENT: Conrad Baston

ADDRESS: 1615 Wynkoop Street

ADDRESS: 535 White Oaks Blvd.

Denver, CO 80202

Bridgeport, WV 26330

Antero Resources
Well No. Van Wie 1221 N-5H
As-Drilled
Antero Resources Corporation

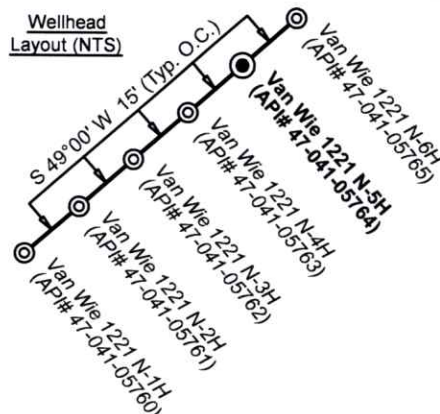


Page 2 of 2

Legend

- Proposed gas well
- Well Reference, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)

Wellhead
Layout (NTS)



3/4" Rebar @
fence corner

Van Wie
1221 N-5H
Bottom Hole

Page 1 Match Line

Lewis Co. (Freemans Creek Dist.)

No.	TM / Par	Owner	Bk / Pg	Ac.
1	2D / 3	HG Energy II Appalachia, LLC	800 / 637	131.85
2	2D / 29	Anthony S. & Dawn H. VanWie	732 / 622	26.63
3	2D / 30	Anthony S. & Dawn H. VanWie	732 / 622	19.00
4	2D / 37	Jacob R. Straley Heirs	728 / 53	97.00
5	2D / 3.1	HG Energy II Appalachia, LLC	800 / 637	20.00
6	2D / 38	William J. & Ann McCutchan	793 / 173	26.96
7	2D / 40	Judith A. Rioch	403 / 270	63.89
8	2D / 42	Frances McCutchan, et al	726 / 561	124.30
9	2C / 7	James R. & Shelia A. Gum, II	721 / 350	350.78
10	2C / 9	William & Anne McCutchan	683 / 426	46.04
11	2C / 8	Frances McCutchan	726 / 561	9.00
12	2C / 12	Frances McCutchan, et al	726 / 561	159.75
13	2C / 4	Susanne Securro	725 / 199	111.75
14	2C / 13	Jenny E. Droppelmann, et al	740 / 25	97.00
15	2C / 14	Jenny E. Droppelmann, et al	740 / 25	16.00
16	2C / 15	Jenny E. Droppelmann, et al	740 / 25	107.25
17	2C / 2	Clarence D. Brown	W4 / 572	96.50
18	2C / 27	Dorothy K. Downey & Frank A. Altomare, Jr.	418 / 615	90.90
19	2C / 1	Clarence D. Brown	589 / 428	14.60

No.	TM / Par	Owner	Bk / Pg	Ac.
20	10 / 15	Scott Flanagan, et al	W44 / 594	98.44
21	10 / 15.1	Scott Flanagan, et al	239 / 591	101.56
22	6 / 11.1	Florence A. Adams	W103 / 448	102.00
23	6 / 11	Joseph D. & Darlene K. Church	244 / 451	107.60
24	6 / 10.4	Duane A., Gregory D., & John S. Adams	232 / 377	4.69
25	6 / 10.6	Lewie K. Andrews	386 / 485	17.65
26	6 / 10.5	Charles R. & Lori L. Tucker	390 / 601	26.77
27	6 / 10	Robert Johnson & Ricky Jenkins	505 / 637	8.68
28	6 / 5.1	Paul K. & Linda K. Rogers	471 / 559	126.45
29	6 / 5.3	Charles E. & Carol F. Reel	247 / 613	62.76
30	6 / 10.2	Robert Johnson & Ricky Jenkins	505 / 637	51.84

ID	Lease
1	J.C. Starcher & A.C. Starcher
2	HG Energy II Appalachia, LLC
3	Joseph Krenn, et ux
5	John Tierney
16	William Walsh
17	Frank J. Maxwell, et ux, et al
18	Lorena M. Fahey, et vir, et al
19	C.E. Lawhead, et ux, et al
22	Virginia Trimble, et al
24	Stella Severin, et al
25	Emma Droppelman, et al

Notes:
Well No. Van Wie Unit
1221 N-5H
As-Drilled POE Coordinates
WV Coordinate System
of 1927, South Zone
N: 764,192.87'
E: 2,096,527.43'
Latitude: 39°05'53.08"
Longitude: 80°39'35.70"
UTM Zone 17, NAD 1983
N: 4,327,725.473m
E: 529,423.102m

Notes
West Virginia Coordinate System
of 1927, South Zone
based upon Differential GPS Measurements.
Well No. Van Wie Unit 1221 N-5H
Top Hole coordinates are
N: 763,012.95' Latitude: 39°05'41.50"
E: 2,094,095.61' Longitude: 80°40'06.60"
Bottom Hole coordinates are
N: 780,969.70' Latitude: 39°08'39.10"
E: 2,090,614.85' Longitude: 80°40'49.96"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,327,365.922m N: 4,332,836.571m
E: 528,682.235m E: 527,621.294m
Plat orientation and corner and well references
are based upon the grid north meridian.
Well location references are based upon the magnetic
meridian.

FILE NO: 63-12-FC-26

DRAWING NO: Van Wie 1221 N-5H As-Drilled

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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

DATE: July 15 20 26

OPERATOR'S WELL NO. Van Wie 1221 N-5H

API WELL NO

47 — 041 — 05764
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,251.77' WATERSHED: Fink Creek

DISTRICT: Freemans Creek

SURFACE OWNER: HG Energy II Appalachia, LLC, et al

ROYALTY OWNER: Joseph Krenn, et al

LEASE NO: ACREAGE: 245

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: 7,255' TVD 26,317' MD

WELL OPERATOR: Antero Resources Corporation

DESIGNATED AGENT: Conrad Baston

ADDRESS: 1615 Wynkoop Street
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ADDRESS: 535 White Oaks Blvd.
Bridgeport, WV 26330