

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

API 47 - 041 - 05763 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-4H
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 4327362.878m Easting 528678.896m
Landing Point of Curve Northing 4327634.53m Easting 529133.82m
Bottom Hole Northing 4333420.919m Easting 527104.782m

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 10/19/2024 Date drilling ceased 5/29/2025
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 by:

Reviewed

Kimberly Ayala
07/31/2026

API 47- 041 - 05763 Farm name HG Energy II Appalachia, LLC, et al Well number Van Wie 1221 N-4H

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	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 BTC	N/A	Y
Intermediate 2	12-1/4"	9-5/8"	6367'	New	40# N/L-80 BTC	N/A	
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	28124'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7392'		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	290 sks	15.6	1.18	342	0'	8 Hrs.
Surface	Class A	901 sks	15.6	1.20	1081	0'	8 Hrs.
Coal							
Intermediate 1	SLB BLEND	800 sks	15.9	1.17	936	0'	8 Hrs.
Intermediate 2	Class A	194 sks	15.9	1.25	243	0'	8 Hrs.
Intermediate 3							
Production	Class A	822 sks	14.5 (Lead), 14.8(Tail)	1.19 (Lead), 1.94 (Tail)	1595	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 28124' MD, 7288' TVD (BHL), 7290' (Deepest Point Drilled) Loggers TD (ft) 28124' MD
Deepest formation penetrated Marcellus Plug back to (ft) N/A RECEIVED
Plug back procedure N/A Office of Oil and Gas

Kick off depth (ft) 7100' JUL 22 2026

Check all wireline logs run ☐ caliper ☐ density ☐ deviated/directional ☐ induction ☐ temperature ☐ sonic
☐ neutron ☐ resistivity ☐ gamma ray

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

API 47- 041 - 05763 Farm name HG Energy II Appalachia, LLC, et al Well number Van Wie 1221 N-4H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

***PLEASE SEE ATTACHED EXHIBIT 1**

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					WV Department of
					Environmental Protection

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)

***PLEASE SEE ATTACHED EXHIBIT 2**

Please insert additional pages as applicable.

07/31/2026

API 47- 041 - 05763 Farm name HG Energy II Appalachia, LLC, et al Well number Van Wie 1221 N-4H

PRODUCING FORMATION(S)

DEPTHS

Marcellus 7706' (TOP) TVD 7706' (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 14902 mcfpd Oil 184 bpd NGL --- bpd Water 620 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 7/21/20

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

07/31/2026

API 47-041-05763 Farm Name JG Energy Appalachia, LLC, et al Well Number Van Wye 2221 N-4H					
Exhibit 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	10/18/2025	28040	27985	12	Marcellus
2	10/27/2025	27951	27783	12	Marcellus
3	10/28/2025	27755	27587	12	Marcellus
4	10/29/2025	27559	27391	12	Marcellus
5	10/29/2025	27363	27195	12	Marcellus
6	10/29/2025	27167	26999	12	Marcellus
7	10/30/2025	26971	26803	12	Marcellus
8	10/30/2025	26775	26607	12	Marcellus
9	10/30/2025	26579	26411	12	Marcellus
10	10/30/2025	26383	26215	12	Marcellus
11	10/31/2025	26187	26019	12	Marcellus
12	10/31/2025	25991	25823	12	Marcellus
13	10/31/2025	25795	25627	12	Marcellus
14	11/1/2025	25599	25431	12	Marcellus
15	11/1/2025	25403	25235	12	Marcellus
16	11/1/2025	25207	25039	12	Marcellus
17	11/1/2025	25011	24843	12	Marcellus
18	11/2/2025	24815	24647	12	Marcellus
19	11/2/2025	24619	24451	12	Marcellus
20	11/3/2025	24423	24255	12	Marcellus
21	11/3/2025	24227	24059	12	Marcellus
22	11/3/2025	24031	23863	12	Marcellus
23	11/4/2025	23835	23667	12	Marcellus
24	11/4/2025	23639	23471	12	Marcellus
25	11/4/2025	23443	23275	12	Marcellus
26	11/4/2025	23247	23079	12	Marcellus
27	11/5/2025	23051	22883	12	Marcellus
28	11/5/2025	22855	22687	12	Marcellus
29	11/5/2025	22659	22491	12	Marcellus
30	11/6/2025	22463	22295	12	Marcellus
31	11/6/2025	22267	22099	12	Marcellus
32	11/6/2025	22071	21903	12	Marcellus
33	11/6/2025	21875	21707	12	Marcellus
34	11/7/2025	21679	21511	12	Marcellus
35	11/7/2025	21483	21315	12	Marcellus
36	11/7/2025	21287	21119	12	Marcellus
37	11/8/2025	21091	20923	12	Marcellus
38	11/8/2025	20895	20727	12	Marcellus
39	11/8/2025	20699	20531	12	Marcellus
40	11/9/2025	20503	20335	12	Marcellus
41	11/9/2025	20307	20139	12	Marcellus
42	11/9/2025	20111	19943	12	Marcellus
43	11/10/2025	19915	19747	12	Marcellus
44	11/10/2025	19719	19551	12	Marcellus
45	11/10/2025	19523	19355	12	Marcellus
46	11/11/2025	19327	19159	12	Marcellus
47	11/11/2025	19131	18963	12	Marcellus
48	11/11/2025	18935	18767	12	Marcellus
49	11/12/2025	18739	18571	12	Marcellus
50	11/12/2025	18543	18375	12	Marcellus
51	11/12/2025	18347	18179	12	Marcellus
52	11/13/2025	18151	17983	12	Marcellus
53	11/13/2025	17955	17787	12	Marcellus
54	11/13/2025	17759	17591	12	Marcellus
55	11/13/2025	17563	17395	12	Marcellus
56	11/14/2025	17367	17199	12	Marcellus
57	11/14/2025	17171	17003	12	Marcellus
58	11/14/2025	16975	16807	12	Marcellus
59	11/14/2025	16779	16611	12	Marcellus
60	11/15/2025	16583	16415	12	Marcellus
61	11/15/2025	16387	16219	12	Marcellus
62	11/16/2025	16191	16023	12	Marcellus
63	11/16/2025	15995	15827	12	Marcellus
64	11/16/2025	15799	15631	12	Marcellus
65	11/17/2025	15603	15435	12	Marcellus
66	11/17/2025	15407	15239	12	Marcellus
67	11/17/2025	15211	15043	12	Marcellus
68	11/18/2025	15015	14847	12	Marcellus
69	11/18/2025	14819	14651	12	Marcellus
70	11/19/2025	14623	14455	12	Marcellus
71	11/19/2025	14427	14259	12	Marcellus
72	11/20/2025	14231	14063	12	Marcellus
73	11/20/2025	14035	13867	12	Marcellus
74	11/20/2025	13839	13671	12	Marcellus
75	11/21/2025	13643	13475	12	Marcellus
76	11/21/2025	13447	13279	12	Marcellus
77	11/21/2025	13251	13083	12	Marcellus
78	11/21/2025	13055	12887	12	Marcellus
79	11/22/2025	12859	12691	12	Marcellus
80	11/22/2025	12663	12495	12	Marcellus
81	11/22/2025	12467	12299	12	Marcellus
82	11/22/2025	12271	12103	12	Marcellus
83	11/23/2025	12075	11907	12	Marcellus
84	11/23/2025	11879	11711	12	Marcellus
85	11/23/2025	11683	11515	12	Marcellus
86	11/23/2025	11487	11319	12	Marcellus
87	11/24/2025	11291	11123	12	Marcellus
88	12/12/2025	11095	10927	12	Marcellus
89	12/12/2025	10899	10731	12	Marcellus
90	12/12/2025	10703	10535	12	Marcellus
91	12/13/2025	10507	10339	12	Marcellus
92	12/13/2025	10311	10143	12	Marcellus
93	12/13/2025	10115	9947	12	Marcellus
94	12/16/2025	9919	9751	12	Marcellus
95	12/16/2025	9723	9555	12	Marcellus
96	12/17/2025	9527	9359	12	Marcellus
97	12/17/2025	9331	9163	12	Marcellus
98	12/17/2025	9135	8967	12	Marcellus
99	12/17/2025	8939	8771	12	Marcellus
100	12/18/2025	8743	8575	12	Marcellus
101	12/18/2025	8547	8379	12	Marcellus
102	12/18/2025	8351	8183	12	Marcellus

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07/31/2026

API 47-041-05763 Farm Name HG Energy II Appalachia, LLC et al Well Number 1221-N Unit 4H								
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	48.6	9871.7	11150	4785	0	3162	N/A
2	10/27/2025	76.0	9923.0	7856	4581	479520	12584	N/A
3	10/28/2025	87.6	10299.9	5797	5454	523530	13367	N/A
4	10/29/2025	86.1	10284.0	5741	5914	705340	15189	N/A
5	10/29/2025	86.3	10665.1	5684	5124	284260	10695	N/A
6	10/29/2025	87.4	10267.9	5488	4827	420660	12680	N/A
7	10/30/2025	89.3	10250.3	5339	4662	705280	14755	N/A
8	10/30/2025	87.2	10438.5	5704	5231	603960	13309	N/A
9	10/30/2025	87.4	10391.5	5554	4938	510241	12038	N/A
10	10/30/2025	90.6	10248.8	5829	5430	705380	13914	N/A
11	10/31/2025	84.7	10407.4	6045	6051	667160	13549	N/A
12	10/31/2025	85.9	10376.4	6047	5697	705460	13017	N/A
13	10/31/2025	95.2	10156.6	5147	4647	705200	13398	N/A
14	11/1/2025	90.3	10192.1	6728	5692	705620	12801	N/A
15	11/1/2025	76.2	10495.1	5956	4847	370800	11959	N/A
16	11/1/2025	94.5	10310.2	8036	5148	705850	13370	N/A
17	11/1/2025	96.3	10260.0	8503	5193	705650	13142	N/A
18	11/2/2025	91.0	10315.2	8390	5361	674420	12254	N/A
19	11/2/2025	91.5	10331.0	8573	5342	705720	12605	N/A
20	11/3/2025	94.8	10274.9	8626	5707	705340	12408	N/A
21	11/3/2025	94.2	10384.8	7500	5728	705380	12541	N/A
22	11/3/2025	90.1	10434.4	8443	4916	457260	11196	N/A
23	11/4/2025	95.2	10315.2	8397	5784	680440	12275	N/A
24	11/4/2025	94.0	10367.8	7596	5508	680380	12553	N/A
25	11/4/2025	96.5	10297.4	7636	5459	680610	12277	N/A
26	11/4/2025	88.1	10066.0	8509	5730	680350	12414	N/A
27	11/5/2025	91.2	10224.6	8575	5084	680990	12322	N/A
28	11/5/2025	93.4	10224.9	8272	5662	680420	12247	N/A
29	11/5/2025	93.6	10377.1	8358	5974	680510	12291	N/A
30	11/6/2025	102.2	10402.2	8313	5531	680650	12408	N/A
31	11/6/2025	89.7	10345.0	8274	5116	680620	12233	N/A
32	11/6/2025	98.8	10072.3	7550	5202	680580	12348	N/A
33	11/6/2025	98.2	10335.1	7854	5167	680580	13773	N/A
34	11/7/2025	91.9	10143.1	8566	6045	680660	12388	N/A
35	11/7/2025	94.7	9962.7	7952	5689	680740	12215	N/A
36	11/7/2025	105.2	10465.9	8222	5033	680620	12304	N/A
37	11/8/2025	100.7	10356.1	7977	5658	680430	12436	N/A
38	11/8/2025	98.6	10022.2	7214	5139	680520	12215	N/A
39	11/8/2025	102.7	10303.4	7945	5612	680310	12224	N/A
40	11/9/2025	102.3	10335.6	7988	5089	680570	12339	N/A
41	11/9/2025	98.2	9935.2	6797	5678	680600	12067	N/A
42	11/9/2025	84.7	10417.3	7653	5534	680340	15875	N/A
43	11/10/2025	102.8	10291.2	8181	6042	621640	10339	N/A
44	11/10/2025	92.4	10023.0	7438	5640	680400	11068	N/A
45	11/10/2025	102.5	10051.0	5125	5789	680450	10830	N/A
46	11/11/2025	100.4	9942.5	6938	5405	680160	10669	N/A
47	11/11/2025	97.0	9873.3	7741	5561	660100	10620	N/A
48	11/11/2025	96.7	10066.0	8013	5724	660290	9920	N/A
49	11/12/2025	96.3	10354.2	7982	5250	661560	9841	N/A
50	11/12/2025	80.5	9971.3	7175	5398	385460	9006	N/A
51	11/12/2025	102.0	10061.6	7256	5087	660180	11020	N/A
52	11/13/2025	105.4	10215.5	8137	6058	660280	9782	N/A
53	11/13/2025	105.7	10123.9	7945	5448	660440	11055	N/A
54	11/13/2025	100.3	9968.1	7698	5747	547820	9189	N/A
55	11/13/2025	103.6	10145.4	7255	5238	660560	11949	N/A
56	11/14/2025	99.9	10106.7	7851	5410	660460	9745	N/A
57	11/14/2025	102.6	10091.7	8005	5577	633120	9659	N/A
58	11/14/2025	95.6	10091.7	8056	5109	660160	12735	N/A
59	11/14/2025	105.8	10008.3	7713	5897	660380	9655	N/A
60	11/15/2025	104.2	9981.4	7699	6100	660140	11190	N/A
61	11/15/2025	102.2	10270.4	8007	5239	376180	9135	N/A
62	11/16/2025	103.0	9978.7	7219	5210	660100	9893	N/A
63	11/16/2025	100.0	9905.6	7834	5558	660120	9631	N/A
64	11/16/2025	98.9	10166.4	8394	5234	620220	9486	N/A
65	11/17/2025	93.9	9988.2	8777	5613	506600	10967	N/A
66	11/17/2025	85.1	10015.6	7631	4541	860220	13934	N/A
67	11/17/2025	105.4	9939.4	7709	5511	660180	9727	N/A
68	11/18/2025	99.0	9934.4	8559	4649	588150	11215	N/A
69	11/18/2025	108.5	9756.5	8255	6045	660170	10764	N/A
70	11/19/2025	105.4	10089.7	8110	6284	660400	10920	N/A
71	11/19/2025	108.1	9899.2	9139	6463	660110	9885	N/A
72	11/20/2025	104.3	9970.9	8511	5805	660410	10714	N/A
73	11/20/2025	102.2	10153.6	9215	5691	605490	9379	N/A
74	11/20/2025	106.0	10046.9	8494	5533	660230	9727	N/A
75	11/21/2025	97.3	9739.1	8435	6072	381910	10045	N/A
76	11/21/2025	107.9	9828.9	8072	6436	660440	10554	N/A
77	11/21/2025	108.5	9726.9	8407	5197	631470	10481	N/A
78	11/21/2025	107.3	9346.3	7493	5426	660110	10318	N/A
79	11/22/2025	109.9	9582.3	8401	5764	660840	9575	N/A
80	11/22/2025	109.7	9547.7	8169	5607	660270	9508	N/A
81	11/22/2025	106.8	9674.0	8880	5933	660260	10399	N/A
82	11/22/2025	106.9	9054.7	7710	6285	661186	9589	N/A
83	11/23/2025	106.6	9314.2	8177	5853	665580	9498	N/A
84	11/23/2025	110.2	9262.0	6208	5586	660430	9640	N/A
85	11/23/2025	109.4	9608.4	8652	5644	660510	9588	N/A
86	11/23/2025	109.3	9111.9	6841	5094	660850	10177	N/A
87	11/24/2025	107.6	8980.4	7714	6066	660410	9445	N/A
88	12/12/2025	107.2	9613.1	7401	4431	432420	8144	N/A
89	12/12/2025	108.2	9179.4	8246	5374	533360	9516	N/A
90	12/12/2025	104.3	9616.4	8432	5851	339080	8377	N/A
91	12/13/2025	106.6	9288.1	8143	5490	661440	9203	N/A
92	12/13/2025	108.7	9089.0	8261	5266	660920	9461	N/A
93	12/13/2025	109.4	8850.1	8061	6499	705690	9245	N/A
94	12/16/2025	108.0	9020.9	8223	6265	660500	9317	N/A
95	12/16/2025	107.7	8601.8	7127	5519	660340	11187	N/A
96	12/17/2025	109.4	9017.4	8012	5753	594730	8802	N/A
97	12/17/2025	110.6	9113.0	7348	5342	526990	8993	N/A
98	12/17/2025	110.1	8638.8	8289	5923	660420	9428	N/A
99	12/17/2025	110.6	8743.3	7580	6072	660190	9335	N/A
100	12/18/2025	109.4	8702.0	7411	5816	614400	9545	N/A
101	12/18/2025	108.7	8750.7	7681	5706	660920	10026	N/A
102	12/18/2025	109.8	8731.6	7450	5214	606250	8970	N/A
AVERAGE		99	9908	7,686	5,507	64,054,957	1,127,188	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
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	2,208	2,325	2,208
Big Lime	2,233	2,617	2,208	2,617
Fifty Foot Sandstone	2,617	2,751	2,592	2,751
Gordon	2,751	2,920	2,726	2,920
Fifth Sandstone	2,920	3,204	2,895	3,204
Bayard	3,204	3,772	3,179	3,772
Speechley	3,772	3,942	3,747	3,942
Balltown	3,942	4,619	3,917	4,619
Bradford	4,619	5,169	4,594	5,169
Benson	5,169	5,444	5,144	5,444
Alexander	5,444	7,145	5,419	7,145
Sycamore	6,915	7,120	6,915	7,120
Middlesex	7,120	7,334	7,120	7,334
Burkett	7,334	7,706	7,334	7,706
Marcellus	7,706	NA	7,706	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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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/18/2025
Job End Date:	12/18/2025
State:	West Virginia
County:	Lewis
API Number:	47-041-05763-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Van Wie 1221 N-4H
Latitude:	39.094932
Longitude:	-80.668363
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7179
Total Base Water Volume (gal)*:	47379696
Total Base Non Water Volume:	0



Water Source	Percent
Other, > 1000TDS	100.00%

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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	85.76946	None
Sand (40/70 White Proppant)	Operator	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	12.23729	None
Sand (100 Mesh Proppant)	Operator	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	1.64772	None
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	85.00000	0.17685	None
			Water	7732-18-5	90.00000	0.01843	None
			Inorganic salt	Proprietary	10.00000	0.01492	None
			Oxyalkylated alcohol	Proprietary	5.00000	0.00746	None

07/31/2026

			Non-hazardous substances	Proprietary	70.00000	0.00395	None
			Substituted alkylamine	Proprietary	1.00000	0.00149	None
			Methanol	67-56-1	20.00000	0.00113	None
			Quarternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1	3.00000	0.00061	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00061	None
			Petroleum distillate	64741-44-2	60.00000	0.00059	None
Hydrochloric Acid (15%)	Pad2Pad	Acidizing					
			Water	7732-18-5	85.00000	0.17685	None
			Hydrochloric Acid	7647-01-0	15.00000	0.03121	None
TRUSlick C	Pad2Pad	Friction Reducer					
			Hydrotreated light distillate	64742-47-8	30.00000	0.04476	None
			Inorganic salt	Proprietary	10.00000	0.01492	None
			Oxyalkylated alcohol	Proprietary	5.00000	0.00746	None
			Substituted alkylamine	Proprietary	1.00000	0.00149	None
Aquacide 12:3	Pad2Pad	Biocide					
			Water	7732-18-5	90.00000	0.01843	None
			Glutaraldehyde	111-30-8	20.00000	0.00410	None
			Quarternary Ammonium Compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1	3.00000	0.00061	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00061	None
SI 9125	Pad2Pad	Scale Inhibitor					
			Non-hazardous substances	Proprietary	80.00000	0.01952	None
TruCorr 880	Pad2Pad	Corrosion Inhibitor					
			Non-hazardous substances	Proprietary	70.00000	0.00395	None
			1-Hydroxyethylidene-, 1-diphosphonic acid (HEDP)	2809-21-4	20.00000	0.00113	None
			Methanol	67-56-1	20.00000	0.00113	None
TruGel 100	Pad2Pad	Guar					
			Petroleum distillate	64741-44-2	60.00000	0.00059	None
			Guar Gum	9000-30-0	60.00000	0.00059	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)

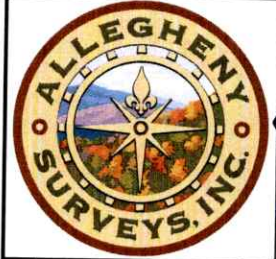
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Antero Resources
Well No. Van Wie 1221 N-4H
As-Drilled
Antero Resources Corporation

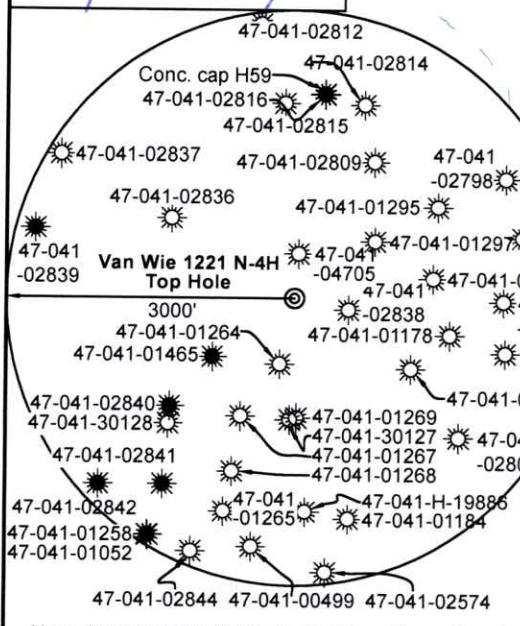


Page 1 of 2



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
Dwayne D. Matheny, P.S. 2070



Note: 0 water wells, 0 cistern, and 0 pond were found within 1500' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

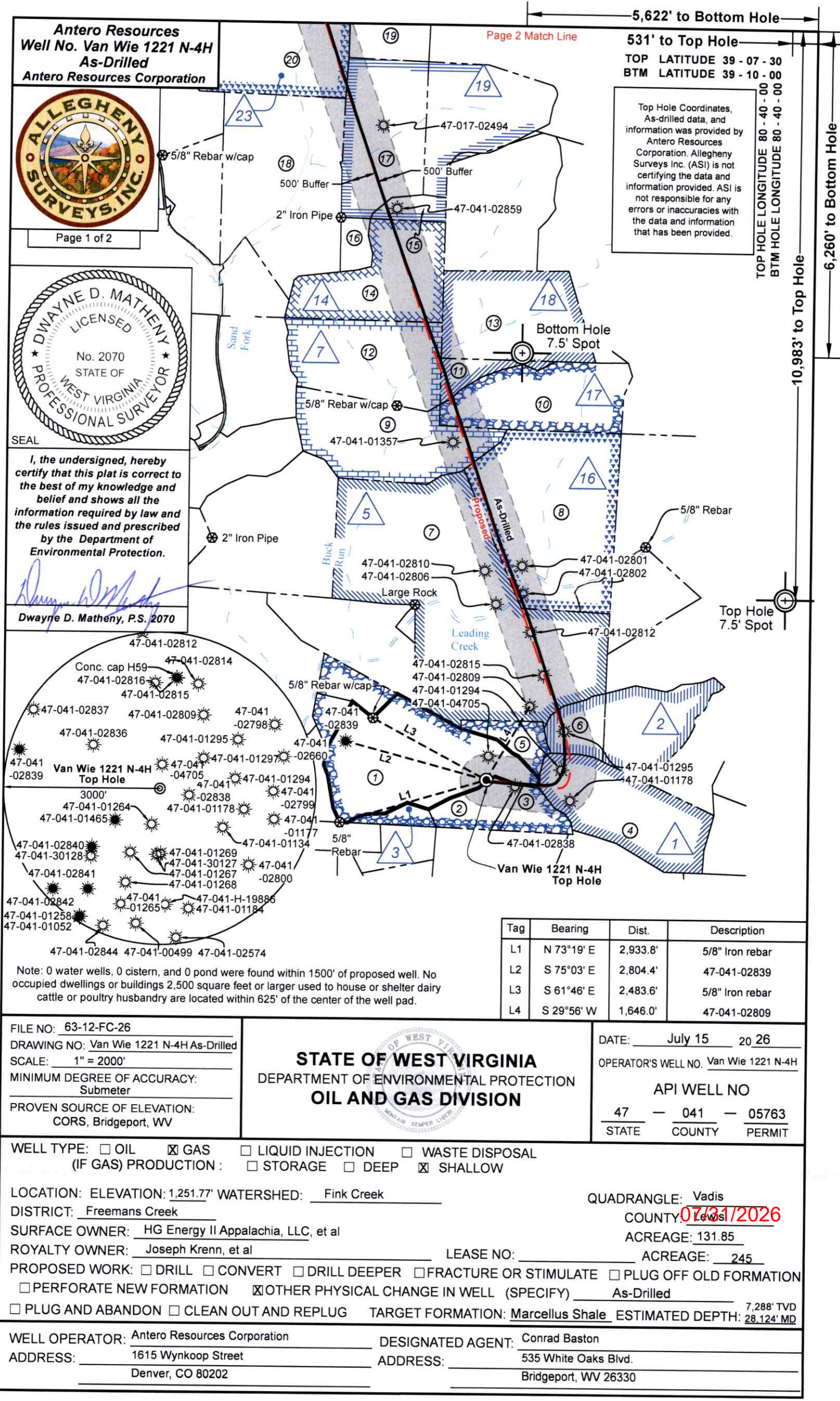
FILE NO: 63-12-FC-26
DRAWING NO: Van Wie 1221 N-4H As-Drilled
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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-4H
API WELL NO
47 - 041 - 05763
STATE COUNTY PERMIT

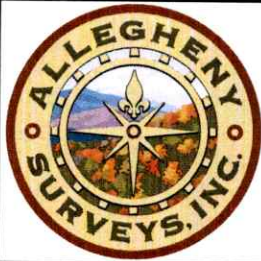
WELL TYPE: ☐ OIL ☒ GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL
(IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☒ SHALLOW
LOCATION: ELEVATION: 1,251.77' WATERSHED: Fink Creek
DISTRICT: Freemans Creek
SURFACE OWNER: HG Energy II Appalachia, LLC, et al
ROYALTY OWNER: Joseph Krenn, et al LEASE NO: ACREAGE: 245
PROPOSED 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: 28,124' MD 7,288' TVD

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



Tag	Bearing	Dist.	Description
L1	N 73°19' E	2,933.8'	5/8" Iron rebar
L2	S 75°03' E	2,804.4'	47-041-02839
L3	S 61°46' E	2,483.6'	5/8" Iron rebar
L4	S 29°56' W	1,646.0'	47-041-02809

Antero Resources
Well No. Van Wie 1221 N-4H
As-Drilled
Antero Resources Corporation

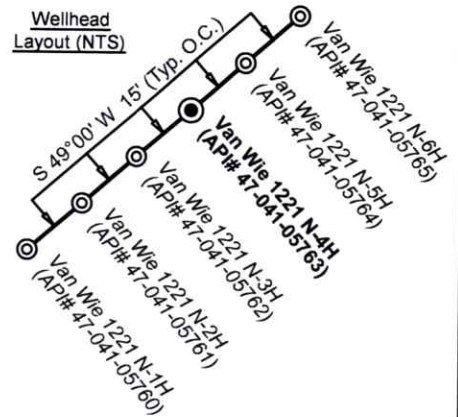


Page 2 of 2

Legend

- Used 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)



ID	Lease
1	J.C. Starcher & A.C. Starcher
2	HG Energy II Appalachia, LLC
3	Joseph Krenn, et ux
5	John Tierney
7	William E. Ruppert, et al
14	HG Energy II Appalachia, LLC
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
23	HG Energy II Appalachia, LLC
24	Stella Severin, et al
32	George J. Determan, et ux

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	2C / 7	James R. & Shelia A. Gum, II	721 / 350	350.78
8	2C / 12	Frances McCutchan, et al	726 / 561	159.75
9	2C / 4	Susanne Securro	725 / 199	111.75
10	2C / 13	Jenny E. Dropplemann, et al	740 / 25	97.00
11	2C / 14	Jenny E. Dropplemann, et al	740 / 25	16.00
12	2C / 3	Stephen Ruppert	666 / 428	102.46
13	2C / 15	Dorothy K. Downey & Frank A. Altomare, Jr.	342 / 679	107.25
14	2C / 2	Clarence D. Brown	W4 / 572	96.50
15	2C / 1	Clarence D. Brown	589 / 428	14.60

Doddridge Co. (Cove Dist.)				
No.	TM / Par	Owner	Bk / Pg	Ac.
16	10 / 13	Clarence D. Brown	W20 / 306	12.50
17	10 / 15.1	Scott Flanagan, et al	239 / 591	101.56
18	10 / 14	Clarence D. Brown	W20 / 306	180.00
19	6 / 11.1	Florence A. Adams	W103 / 448	102.00
20	6 / 11	Joseph D. & Darlene K. Church	244 / 451	107.60
21	6 / 10.6	Lewie K. Andrews	386 / 485	17.65
22	6 / 10.1	Paul F. & Elizabeth E. Jerrett	276 / 676	52.83
23	6 / 10.5	Charles R. & Lori L. Tucker	390 / 601	26.77
24	6 / 10	Robert Johnson & Ricky Jenkins	505 / 637	8.68
25	6 / 10.3	Brandon W. Gilbert	211 / 126	104.90
26	6 / 10.2	Robert Johnson & Ricky Jenkins	505 / 637	51.84
27	6 / 5.2	Mary Byrne	247 / 613	108.75
28	3 / 1	Mary A. Ruddy & Teigh Byrne	218 / 120	52.25
29	6 / 4	Mary A. Ruddy & Teigh Byrne	226 / 360	140.00
30	6 / 10.4	Duane A. Adams, et al	232 / 377	4.69

Notes:

Well No. Van Wie Unit
1221 N-4H
As-Drilled POE Coordinates
WV Coordinate System
of 1927, South Zone
N: 763,831.40"
E: 2,095,569.88"
Latitude: 39°05'49.54"
Longitude: 80°39'47.87"
UTM Zone 17, NAD 1983
N: 4,327,615.318m
E: 529,131.377m

Notes

West Virginia Coordinate System
of 1927, South Zone
based upon Differential GPS Measurements.
Well No. Van Wie Unit 1221 N-4H
Top Hole coordinates are
N: 763,002.96' Latitude: 39°05'41.41"
E: 2,094,084.65' Longitude: 80°40'06.74"
Bottom Hole coordinates are
N: 782,887.90' Latitude: 39°08'58.11"
E: 2,088,919.67' Longitude: 80°41'11.39"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,327,362.878m N: 4,333,420.919m
E: 528,678.896m E: 527,104.782m
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-4H 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-4H

API WELL NO

47 — 041 — 05763
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: 7,288' TVD
28,124' MD

WELL OPERATOR: Antero Resources Corporation

DESIGNATED AGENT: Conrad Baston

ADDRESS: 1615 Wynkoop Street
Denver, CO 80202

ADDRESS: 535 White Oaks Blvd.
Bridgeport, WV 26330

QUADRANGLE: Vadis

COUNTY: 07/31/2026

ACREAGE: 131.85