



Antero Resources
1615 Wynkoop Street
Denver, CO 80202
Office 303.357.7310
Fax 303.357.7315

May 15, 2020

West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, WV 25304

To Whom It May Concern:

Please find enclosed the Well Operator's Report of Well Work, Form WR-35 (including As-Drilled Survey Plat, Directional Survey and FracFocus report), Discharge Monitoring Report Form WR-34 and corresponding logs for the following wells off of the **Dawson Pad**:

- Gabitalalek Unit 1H-2H
- Kilska Unit 1H-2H
- Rodzina Unit 1H-3H

If you have any questions, please feel free to contact me at (303)-357-7223.

Sincerely,

A handwritten signature in black ink, appearing to read "MGriffith", written over a horizontal line.

Megan Griffith
Permitting Agent
Antero Resources Corporation

Enclosures

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

API 47-095-02584 County Tyler District Centerville
Quad Shirley 7.5' Pad Name Dawson Pad Field/Pool Name ----
Farm name Gary D. Dawson et ux Well Number Kilska Unit 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4358974m Easting 510951m
Landing Point of Curve Northing 4358863.35m Easting 510982.08m
Bottom Hole Northing 4354449m Easting 512479m

Elevation (ft) 1009' 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 3/12/2019 Date drilling commenced 4/18/2019 Date drilling ceased 8/17/2019
Date completion activities began 10/11/2019 Date completion activities ceased 1/25/2020
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 115', 455' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 551', 1830' Void(s) encountered (Y/N) depths No
Coal depth(s) ft 275', 975' Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:

API 47-095 - 02584 Farm name Gary D. Dawson et ux Well number Kilska Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	110'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	588'	New	54#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2608'	New	36#, H-40	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	22290'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6664'		4.7#, N-80		
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	244	0'	8 Hrs.
Surface	Class A	490 sx	15.6	1.19	402	0'	8 Hrs.
Coal							
Intermediate 1	Class A	895 sx	15.6	1.18	1047	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	798sx (Lead) 3467 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.53 (Lead), 1.83 (Tail)	2819	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 20716' MD, 6461' TVD (BHL), 6463' (Deepest Point Drilled) Loggers TD (ft) 20716' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6100'

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

API 47- 095 - 02584 Farm name Gary D. Dawson et ux Well number Kilska Unit 2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
*PLEASE SEE ATTACHED EXHIBIT 1					

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)	ISP (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.

API 47- 095 - 02584 Farm name Gary D. Dawson et ux Well number Kilska Unit 2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6444' (TOP)</u>	<u>TVD</u>	<u>6725' (TOP)</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 15069 mcfpd Oil 228 bpd NGL --- bpd Water 909 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>		<u>BOTTOM</u>		<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	

***PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Frontier Drilling LLC
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company Nine Energy Services
Address 125 Museum Road City Washington State PA Zip 15301

Cementing Company C&J Energy Services
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Baker Hughes
Address 837 Philippi Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223
Signature  Title Permitting Agent Date 5/15/20

API 47-095-02584 Farm Name Gary D. Dawson et ux Well Number Kiska Unit 2H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	11/16/2019	22190	22145	60	Marcellus
2	11/16/2019	22106.30482	21939.8289	60	Marcellus
3	11/17/2019	21904.13377	21737.6579	60	Marcellus
4	11/17/2019	21701.96272	21535.4868	60	Marcellus
5	11/17/2019	21499.79167	21333.3158	60	Marcellus
6	11/18/2019	21297.62061	21131.1447	60	Marcellus
7	11/18/2019	21095.44956	20928.9737	60	Marcellus
8	11/18/2019	20893.27851	20726.8026	60	Marcellus
9	11/19/2019	20691.10746	20524.6316	60	Marcellus
10	11/19/2019	20488.9364	20322.4605	60	Marcellus
11	11/19/2019	20286.76535	20120.2895	60	Marcellus
12	11/20/2019	20084.5943	19918.1184	60	Marcellus
13	11/20/2019	19882.42325	19715.9474	60	Marcellus
14	11/20/2019	19680.25219	19513.7763	60	Marcellus
15	11/20/2019	19478.08114	19311.6053	60	Marcellus
16	11/21/2019	19275.91009	19109.4342	60	Marcellus
17	11/21/2019	19073.73904	18907.2632	60	Marcellus
18	11/21/2019	18871.56798	18705.0921	60	Marcellus
19	11/21/2019	18669.39693	18502.9211	60	Marcellus
20	11/22/2019	18467.22588	18300.75	60	Marcellus
21	11/22/2019	18265.05482	18098.5789	60	Marcellus
22	11/22/2019	18062.88377	17896.4079	60	Marcellus
23	11/22/2019	17860.71272	17694.2368	60	Marcellus
24	11/23/2019	17658.54167	17492.0658	60	Marcellus
25	11/23/2019	17456.37061	17289.8947	60	Marcellus
26	11/23/2019	17254.19956	17087.7237	60	Marcellus
27	11/23/2019	17052.02851	16885.5526	60	Marcellus
28	11/24/2019	16849.85746	16683.3816	60	Marcellus
29	11/24/2019	16647.6864	16481.2105	60	Marcellus
30	11/24/2019	16445.51535	16279.0395	60	Marcellus
31	11/25/2019	16243.3443	16076.8684	60	Marcellus
32	11/25/2019	16041.17325	15874.6974	60	Marcellus
33	11/25/2019	15839.00219	15672.5263	60	Marcellus
34	11/25/2019	15636.83114	15470.3553	60	Marcellus
35	11/26/2019	15434.66009	15268.1842	60	Marcellus
36	11/26/2019	15232.48904	15066.0132	60	Marcellus
37	11/26/2019	15030.31798	14863.8421	60	Marcellus
38	11/26/2019	14828.14699	14661.6711	60	Marcellus
39	11/27/2019	14625.97588	14459.5	60	Marcellus
40	11/27/2019	14423.80482	14257.3289	60	Marcellus
41	11/27/2019	14221.63377	14055.1579	60	Marcellus
42	11/27/2019	14019.46272	13852.9868	60	Marcellus
43	11/28/2019	13817.29167	13650.8158	60	Marcellus
44	11/28/2019	13615.12061	13448.6447	60	Marcellus
45	11/28/2019	13412.94956	13246.4737	60	Marcellus
46	11/29/2019	13210.77851	13044.3026	60	Marcellus
47	11/29/2019	13008.60746	12842.1316	60	Marcellus
48	11/29/2019	12806.4364	12639.9605	60	Marcellus
49	11/29/2019	12604.26535	12437.7895	60	Marcellus
50	12/4/2019	12402.0943	12235.6184	60	Marcellus
51	12/4/2019	12199.92325	12033.4474	60	Marcellus
52	12/5/2019	11997.75219	11831.2763	60	Marcellus
53	12/5/2019	11795.58114	11629.1053	60	Marcellus
54	12/5/2019	11593.41009	11426.9342	60	Marcellus
55	12/5/2019	11391.23904	11224.7632	60	Marcellus
56	12/6/2019	11189.06798	11022.5921	60	Marcellus
57	12/7/2019	10986.89693	10820.4211	60	Marcellus
58	12/7/2019	10784.72588	10618.25	60	Marcellus
59	12/7/2019	10582.55482	10416.0789	60	Marcellus
60	12/7/2019	10380.38377	10213.9079	60	Marcellus
61	12/8/2019	10178.21272	10011.7368	60	Marcellus
62	12/8/2019	9976.041667	9809.56579	60	Marcellus
63	12/8/2019	9773.870614	9607.39474	60	Marcellus
64	12/8/2019	9571.699561	9405.22368	60	Marcellus
65	12/8/2019	9369.528509	9203.05263	60	Marcellus
66	12/9/2019	9167.357456	9000.88158	60	Marcellus
67	12/9/2019	8965.186404	8798.71053	60	Marcellus
68	12/9/2019	8763.015351	8596.53947	60	Marcellus
69	12/9/2019	8560.844298	8394.36842	60	Marcellus
70	12/10/2019	8358.673246	8192.19737	60	Marcellus
71	12/10/2019	8156.502193	7990.02632	60	Marcellus
72	12/10/2019	7954.33114	7787.85526	60	Marcellus
73	12/10/2019	7752.160088	7585.68421	60	Marcellus
74	12/10/2019	7549.989035	7383.51316	60	Marcellus
75	12/11/2019	7347.817982	7181.34211	60	Marcellus
76	12/11/2019	7145.64693	6979.17105	60	Marcellus
77	12/11/2019	6943.475877	6777	60	Marcellus

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	11/16/2019	71.31366	8437.8	11156	3392	162620	5208.596	N/A
2	11/16/2019	82.77288	9832.904	5602	3796	403240	7433.866	N/A
3	11/17/2019	81.40561	9752.188	5247	4092	408380	7426.19	N/A
4	11/17/2019	81.94534	10025.48	5261	3711	406880	7441.67	N/A
5	11/17/2019	83.26737	9920.545	5119	3371	406440	7367.23	N/A
6	11/18/2019	78.76809	10302.7	5389	3357	398440	7355.07	N/A
7	11/18/2019	79.70272	9959.752	5923	3737	400340	9016.29	N/A
8	11/18/2019	77.21568	9701.883	6242	3485	398060	7238.21	N/A
9	11/19/2019	85.90745	9665.745	6000	3749	404380	7389.29	N/A
10	11/19/2019	84.79787	10049.33	6463	3530	406420	7322.34	N/A
11	11/19/2019	81.00057	9523.218	6755	3590	410860	7435.78	N/A
12	11/20/2019	79.76094	10031.11	6312	3288	401220	7300.47	N/A
13	11/20/2019	80.17045	8998.011	6044	3584	403980	7250.1	N/A
14	11/20/2019	82.51172	9256.463	6296	3668	406540	7242.49	N/A
15	11/20/2019	82.00336	9191.399	4674	3968	405180	7436.17	N/A
16	11/21/2019	82.36509	9136.743	6196	3930	402120	7252.78	N/A
17	11/21/2019	83.07942	9214.478	6015	3655	401220	7200.93	N/A
18	11/21/2019	83.05685	9197.659	6125	4167	402860	7147.95	N/A
19	11/21/2019	80.29381	9036.353	6137	3720	401040	7129.7	N/A
20	11/22/2019	79.8204	8808.875	6338	3762	397200	7084.64	N/A
21	11/22/2019	81.77062	9568.868	6413	3651	407320	7118.73	N/A
22	11/22/2019	84.0039	9447.832	6263	3613	403720	7160.91	N/A
23	11/22/2019	82.98435	9029.242	6249	3624	403560	7185.68	N/A
24	11/23/2019	84.59974	9191.225	6415	3703	410820	7286.72	N/A
25	11/23/2019	83.89561	9306.286	5039	3803	397560	7267.59	N/A
26	11/23/2019	82.06491	9092.22	6321	3635	400580	7066.43	N/A
27	11/23/2019	83.17217	8746.767	6052	3925	403940	7100.25	N/A
28	11/24/2019	83.40872	9026.605	6184	3695	401400	7016.61	N/A
29	11/24/2019	81.91944	9108.559	5859	4113	403380	6949.05	N/A
30	11/24/2019	84.85373	9153.284	6037	4455	388480	7569.99	N/A
31	11/25/2019	83.95802	8834.058	6445	3550	418430	7102.43	N/A
32	11/25/2019	84.86781	8803.704	5884	3736	402040	6923.68	N/A
33	11/25/2019	84.30024	9273.562	6417	3787	402900	7032.18	N/A
34	11/25/2019	81.95158	9090.425	6215	3739	404600	7068.22	N/A
35	11/26/2019	80.14749	9541.361	6075	3840	400520	7002.88	N/A
36	11/26/2019	83.80003	9001.414	5228	3654	398940	6953.57	N/A
37	11/26/2019	79.50101	9353.537	6181	3917	400240	6911.21	N/A
38	11/26/2019	84.13474	8728.946	5945	3798	405460	6933.62	N/A
39	11/27/2019	83.61082	8732.607	5981	3798	401220	6982.83	N/A
40	11/27/2019	82.8353	8656.767	5799	3405	400460	6866.06	N/A
41	11/27/2019	81.44531	8458.797	6073	3569	411680	6897.4	N/A
42	11/27/2019	83.43519	8485.696	6298	3777	408820	6991.53	N/A
43	11/28/2019	79.03185	9018.721	5914	3801	412260	7190.86	N/A
44	11/28/2019	83.32636	8388.591	5392	3689	411040	6951.38	N/A
45	11/28/2019	85.55809	8566.829	5826	3798	406240	6935.56	N/A
46	11/29/2019	85.27421	8569.858	5250	3557	407180	6979.06	N/A
47	11/29/2019	79.67651	9182.195	4788	4370	403400	11313.24	N/A
48	11/29/2019	82.08741	8604.589	4677	4548	402000	6953.99	N/A
49	11/29/2019	83.69243	8166.285	4822	4576	405300	6975.09	N/A
50	12/4/2019	83.49968	8755.911	5514	4388	405300	6917.71	N/A
51	12/4/2019	87.94355	8612.2	6631	3785	404540	6870.54	N/A
52	12/5/2019	85.49053	8596.718	5929	3593	406460	6956.21	N/A
53	12/5/2019	83.32357	8496.329	6606	3592	405420	7078.44	N/A
54	12/5/2019	85.26328	8628.311	6635	3782	406840	6937.77	N/A
55	12/5/2019	85.17226	8358.234	6385	3668	404760	6816.41	N/A
56	12/6/2019	84.12409	8651.511	6628	3418	405360	6980.63	N/A
57	12/7/2019	86.90426	8784.881	6380	3595	406620	6871.11	N/A
58	12/7/2019	83.54192	7836.617	6202	3923	401700	6917.22	N/A
59	12/7/2019	85.84872	8188.638	6503	4171	399100	6847.62	N/A
60	12/7/2019	88.0414	8258.525	5874	4098	401360	6695.4	N/A
61	12/8/2019	89.84353	8204.133	5430	3862	408200	6867.91	N/A
62	12/8/2019	86.05441	7890.811	6053	3568	405180	6968.44	N/A
63	12/8/2019	86.80182	7955.794	5974	3517	407740	7116.15	N/A
64	12/8/2019	87.48859	7966.488	5140	3757	403340	6746.95	N/A
65	12/8/2019	88.3985	7600.146	4467	3514	406640	6669.93	N/A
66	12/9/2019	88.01439	7547.537	5337	3587	403300	6642.79	N/A
67	12/9/2019	86.50778	7561.604	5092	3500	402480	6761.57	N/A
68	12/9/2019	86.73927	7883.814	5400	3560	403820	6880.68	N/A
69	12/9/2019	89.12842	7684.035	4836	3475	409780	6704.91	N/A
70	12/10/2019	89.67119	8069.155	5875	3394	404160	6716.03	N/A
71	12/10/2019	87.42945	7315.067	4374	3351	399880	6730.29	N/A
72	12/10/2019	87.39359	7231.68	5687	3506	397980	6640.04	N/A
73	12/10/2019	91.0925	7377.475	6229	3383	395640	6618.65	N/A
74	12/10/2019	90.336	7337.509	5273	3577	398520	6766.34	N/A
75	12/11/2019	90.68045	7454.183	5530	3657	403320	6662.05	N/A
76	12/11/2019	85.61827	7030.834	5101	3550	402860	7007.46	N/A
77	12/11/2019	86.22282	7201.142	6167	3499	402680	6797.3	N/A
	AVG=	82.1	9,273	6,107	3,721	16,294,670	294,076	TOTAL

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	0	300	0	300
Silty sandstone	300	440	300	440
Sandy siltstone	440	600	440	600
Sandstone	600	700	600	700
Sandy Marlstone	700	880	700	880
Calcarious Sandstone	880	1,070	880	1,070
Silty Marlstone	1,070	1,280	1,070	1,280
Sandstone w/ interbedded co	1,280	1,440	1,280	1,440
Sandstone w/ trace coal	1,440	1,590	1,440	1,590
Calcarious shale	1,590	1,650	1,590	1,650
Coal / shale	1,650	1,670	1,650	1,670
Calcarious shale	1,670	1,840	1,670	1,840
Calcarious Sandstone	1,840	1,918	1,840	N/A
Big Lime	1,918	2,720	1,918	2,720
Fifty Foot Sandstone	2,720	2,809	2,720	2,810
Gordon	2,809	3,058	2,810	3,060
Fifth Sandstone	3,058	3,242	3,060	3,245
Bayard	3,242	3,991	3,245	4,003
Speechley	3,991	4,293	4,003	4,307
Balltown	4,293	4,576	4,307	4,594
Bradford	4,576	4,802	4,594	4,822
Benson	4,802	5,167	4,822	5,191
Alexander	5,167	6,286	5,191	6,378
Sycamore	6,100	6,256	6,180	6,348
Middlesex	6,256	6,380	6,378	6,555
Burkett	6,380	6,413	6,585	6,634
Tully	6,413	6,444	6,664	6,725
Marcellus	6,444	NA	6,725	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.

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Discharge Monitoring Report
Oil and Gas General Permit

Company Name: Antero Resources Corporation
API No: 47-095-02584 County: Tyler
District: Centerville Well No: Kilska Unit 2H
Farm Name: Gary D. Dawson et ux
Discharge Date/s From:(MMDDYY) 02/03/20 To: (MMDDYY) 03/04/20
Discharge Times. From: 0:00 To: 24:00
Total Volume to be Disposed from this facility (gallons): 1,325,486
Disposal Option(s) Utilized (write volumes in gallons):

- (1) Land Application: 0 (Include a topographical map of the Area.)
(2) UIC: 0 Permit No. _____
(3) Offsite Disposal: 0 Site Location: _____
(4) Reuse: 1,325,486 Alternate Permit Number: _____
(5) Centralized Facility: 0 Permit No. _____
(6) Other method: 0 (Include an explanation)

Follow Instructions below to determine your treatment category:

Optional Pretreatment test: N/A Cl- mg/l N/A DO mg/l

1. Do you have permission to use expedited treatment from the Director or his representative?
(Y/N) N/A If yes, who? _____ and place a four (4) on line 7.
If not go to line 2
2. Was Frac Fluid or flowback put into the pit? (Y/N) N/A If yes, go to line 5. If not, go to line 3.
3. Do you have a chloride value pretreatment (see above)? (Y/N) N/A If yes, go to line 4
If not, go to line 5.
4. Is the Chloride level less than 5000 mg/l? (Y/N) N/A If yes, then enter a one (1) on line 7.
5. Do you have a pretreatment value for DO? (See above) (Y/N) N/A If yes, go to line 6
If not, enter a three (3) in line 7.
6. Is the DO level greater than 2.5 mg/l?(Y/N) N/A If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
7. N/A is the category of your pit. Use the Appropriate section.
8. Comments on Pit condition: N/A No pit on-site.

Name of Principal Exec. Officer: Gretchen Kohler

Title of Officer: Sr. Environmental & Regulatory Manager

Date Completed: 05/08/2020

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Gretchen Kohler

Digitally signed by Gretchen Kohler
Date: 2020.05.11 15:58:58 -06'00'

Signature of a Principal Exec. Officer or Authorized agent.

Category 1
Sampling Results

API No : _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	5	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl	5,000	_____	5,000	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

*** Al is only reported if the pH is above 9.0

Category 2
Sampling Results

API No : _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	10	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____

Date: _____

** Include a description of your aeration technique.

Aeration Code: _____

*** Al is only reported if the pH is above 9.0

Category 3
Sampling Results
API No : _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	20	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____ Date: _____
 ** Include a description of your aeration technique. Aeration Code: _____
 *** Al is only reported if the pH is above 9.0.

Category 4
Sampling Results
API No: _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	1	_____	N/A	N/A	Days
Fe	Monitor	_____	Monitor	_____	mg/l
D.O.	Monitor	_____	Monitor	_____	mg/l
Settleable Sol.	Monitor	_____	Monitor	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Activated Carbon (0.175)		_____	N/A	N/A	lb/B1
Date Site Reclaimed	N/A	N/A			10 days from dis.
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____ Date: _____

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/16/2019
Job End Date:	12/11/2019
State:	West Virginia
County:	Tyler
API Number:	47-095-02584-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Kiliska 2H
Latitude:	39.38009400
Longitude:	-80.87301700
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,464
Total Base Water Volume (gal):	24,292,894
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
Water	Supplied by Operator	Base Fluid	Water	7732-18-5	100.00000	86.47662	
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			

Calbreak 5501	CWS	Breaker											
					Listed Below								
DynaRate 6522	CWS	Friction Reducer											
					Listed Below								
SaniFrac 8844	CWS	Biocide											
					Listed Below								
CI-9100G	CWS	Corrosion Inhibitor											
					Listed Below								
CalGel 4000	CWS	Gel Slurry											
					Listed Below								
Hydrochloric Acid	CWS	Clean Perforations											
					Listed Below								
Other Chemical (s)	Listed Above	See Trade Name (s) List											
					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				13.16241		
				Illite	12173-60-3		1.00000				0.13161		
				Hydrochloric acid	7647-01-0		37.00000				0.11041		
				Copolymer of 2-propenamide	69418-26-4		30.00000				0.01488		
				Apatite	64476-38-6		0.10000				0.01316		

				Biotite	1302-27-8	0.10000	0.01316	
				Ilmenite	98072-94-7	0.10000	0.01316	
				Goethite	1310-14-1	0.10000	0.01316	
				Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.01174	
				Guar gum	9000-30-0	60.00000	0.01174	
				Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.00992	
				Polyethylene glycol mixture	25322-68-3	54.50000	0.00750	
				Ammonium chloride	12125-02-9	8.00000	0.00397	
				2,2-Dibromo-3-Nitripropionamide	10222-01-2	20.00000	0.00275	
				Oleic Acid Diethanolamide	93-83-4	2.00000	0.00099	
				Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5.00000	0.00098	
				Sodium bromide	7647-15-6	4.00000	0.00055	
				Dibromoacetonitrile	3252-43-5	3.00000	0.00041	
				Ammonium Persulfate	7727-54-0	100.00000	0.00036	
				Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00029	
				Vinylidene chloride-methyl acrylate copolymer	25038-72-6	20.00000	0.00007	
				Ethylene Glycol	107-21-1	40.00000	0.00006	
				Diethylene glycol, monomethyl ether	34590-94-8	20.00000	0.00003	
				Cinnamaldehyde	104-55-2	10.00000	0.00002	
				Ethoxylated Alcohols	68131-39-5	10.00000	0.00002	
				Formic acid	64-18-6	10.00000	0.00002	
				Tar bases, quinolone derivs, benzyl chloride- quaternized	72480-70-7	10.00000	0.00002	

			Isopropyl alcohol	67-63-0	5.00000	0.00001
--	--	--	-------------------	---------	---------	---------

* 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)



ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: Dawson Pad
 Wellbore: Kliska Unit 2H PWB

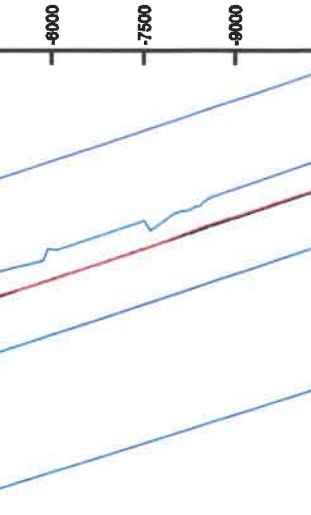
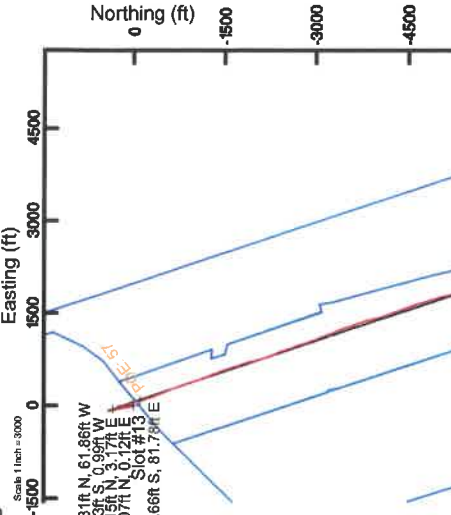
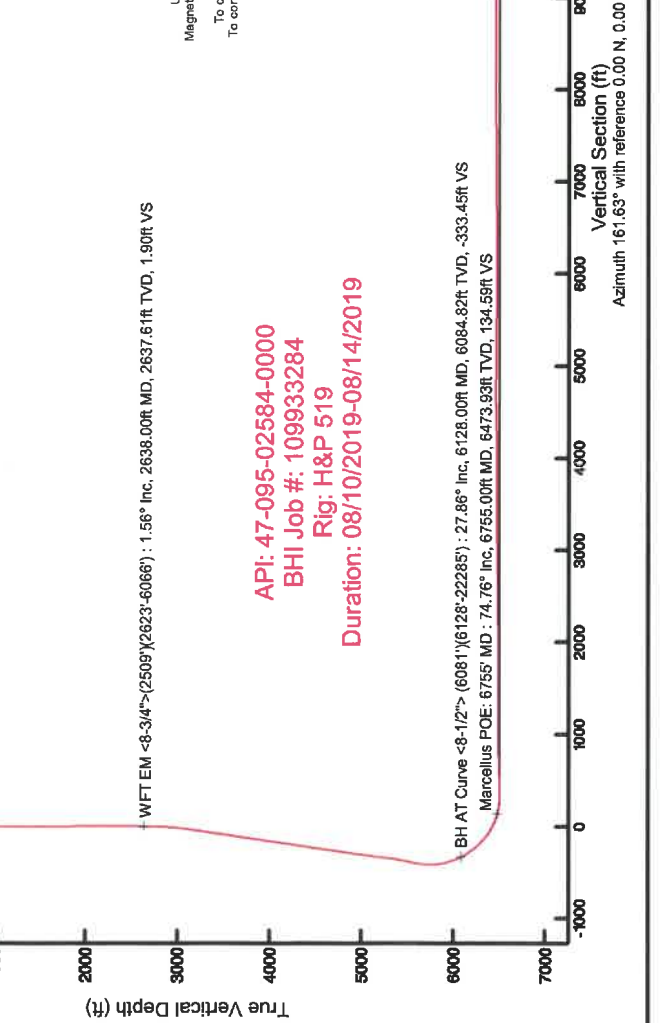


Plot reference wellpath is Kliska Unit 2H PWP Rev-A.0	
True vertical depths are referenced to H&P 519 (RKB)	
Measured depths are referenced to H&P 519 (RKB)	
H&P 519 (RKB) to Mean Sea Level: 1039 feet	
Mean Sea Level to Ground level (At Slot: Slot #13) : -1009 feet	
Coordinates are in feet referenced to Slot	
Grid System: NAD27 / UTM Zone 17 North, US feet	Grid North (US ft)
North Reference: Grid north	Latitude
Scale: True distance	Grid East (US ft)
Depths are in feet	Longitude
Created by: dslabat on 2016-08-19	Latitude
Database: WA_MPL_EasternUS_Defn	Grid North (US ft)
	Longitude
	Grid East (US ft)
	Latitude
	Grid North (US ft)
	Longitude
	Grid East (US ft)
	Latitude

Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Dawson Pad	1670049.726	14300592.517	39°22'50.710"N	80°52'28.030"W	
Slot #13	-239.44	14300592.517	39°22'48.340"N	80°52'22.800"W	
H&P 519 (RKB) to Ground level (At Slot: Slot #13)			30ft		
Mean Sea Level to Ground level (At Slot: Slot #13)			-1009ft		
H&P 519 (RKB) to Mean Sea Level			1039ft		

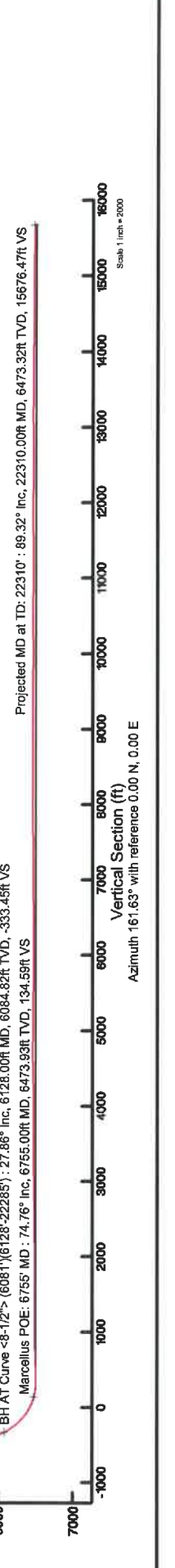
Well Profile Data					
Design Comment	MD (ft)	Az (°)	Inc (°)	Local N (ft)	VS (ft)
Tile On	6081.00	22.550	-166.430	340.69	-488.33
Tile Off	6157.00	30.390	159.010	6110.27	316.34
Prof. To Bottom	6380.22	44.532	160.734	6287.01	191.06
End of 3D Arc	6758.60	74.817	161.632	6476.00	-114.85
POE	6848.69	90.000	161.632	6501.00	-292.87
Landing Pt.	6948.69	90.000	161.632	6501.00	-292.87
BHL	22308.50	90.000	161.632	6501.00	-14870.11
					4993.85
					0.00
					15686.17

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #13	Kliska Unit 2H	Kliska Unit 2H AWB	Kliska Unit 2H AWP Prog: 22310'
Slot #13	Kliska Unit 2H	Kliska Unit 2H PWB	Kliska Unit 2H PWP Rev-A.0



Use specified (UDGSM) Dip: 88.44° Field: 51919.61T
 Magnetic North is 7.63 deg West of True North (6/7/2019)
 Grid North is 0.08 degrees East of True North
 To correct azimuth from True to Grid subtract 7.71 degrees
 To correct azimuth from Magnetic to Grid subtract 7.71 degrees

API: 47-095-02584-0000
 BHI Job #: 109933284
 Rig: H&P 519
 Duration: 08/10/2019-08/14/2019



Vertical Section (ft)
 Azimuth 161.63° with reference 0.00 N, 0.00 E
 Scale: 1 inch = 2000

LATITUDE 39°25'00"

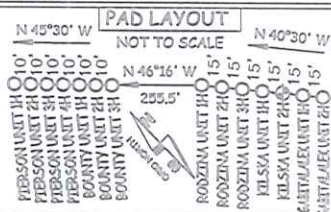
11,217'

6,231' TO BOTTOM HOLE
LATITUDE 39°22'30"

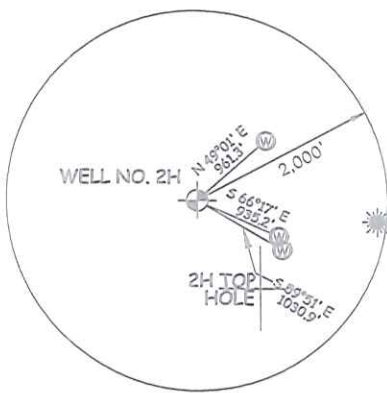
Antero Resources Corporation
Well No. Kilska Unit 2H

NOTES:
WELL 2H TOP HOLE INFORMATION:
N: 323,514ft E: 1,611,900ft
LAT: 39°22'48.34" LON: 80°52'22.86"
BOTTOM HOLE INFORMATION:
N: 308,580ft E: 1,616,665ft
LAT: 39°20'21.46" LON: 80°51'19.32"
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 2H TOP HOLE INFORMATION:
N: 4,358,974m E: 510,951m
BOTTOM HOLE INFORMATION:
N: 4,354,449m E: 512,479m



3 WATER WELLS WERE LOCATED WITHIN 2000' OF CENTER OF PAD



Clay District - Ritchie County

12-14	Warren Suiker Jr.
12-14.1	Gary Dawson
12-14.4	Gary Dawson
12-19	Robert Sinclair
15-01	Gary Dawson
15-1.1	Larry Cairns
15-1.2	Larry Robinson
15-1.3	Joseph Mills Community Center
15-1.4	David Cowles Jr.
15-1.5	Russell Bonner Est
15-1.6	Russell Bonner Est
15-1.7	Antero Resources Corp.
15-1.8	W.V.D.N.R.
15-1.9	Antero Resources Corp.
15-1.10	Gary Dawson
15-07	Ralph Underwood III
15-7.1	Judith Bentley
15-08	Conrad Costlow
15-12	Larry Hadley
15-13	Sara Reed
15-13.1	Sara Reed
15-13.2	Cecil Loveley
15-14	George Moore
15-14.1	Linda Moore
15-18	John Jaccanlew Sr.
15-20	Sandra Clark
15-28	Coastal Forest Resources Co.
15-32	Marvin Sale
15-32.1	Marvin Sale
15-33	Randy Dawson
15-34	Ronnie Dawson
15-35	Jamie Ferguson
17-2.1	Alfred Meredith
17-2.2	Alfred Meredith
17-2.4	Andrew Smith
17-03	Kimberly Ridgeway
17-09	Antero Midstream LLC
17-10.1	Sandra Clark
17-10.2	Sandra Clark
17-10.3	Sandra Clark
17-10.4	Sandra Clark
17-10.5	Sandra Clark
17-12	CNG Transmission Corporation
17-13	George Ash
17-22	David Glasure
17-23	Colleen Ash
17-24	Jeffrey Millinan

LONGITUDE 80°50'00"

13,321'

LONGITUDE 80°50'00"

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 PERSERIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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

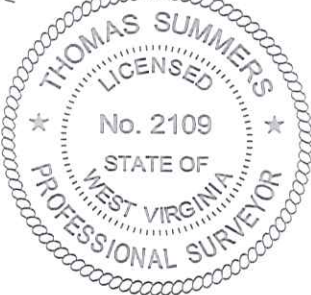
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

- 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.

JOB # 18-031WA
DRAWING # KILSKA2HAD
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 +/-
○-----○ Proposed Well Path
○-----○ As Drilled Well Path

THOMAS SUMMERS P.S. 2109
DATE 05/01/20
OPERATOR'S WELL# KILSKA UNIT #2H



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL 47 - 095 - 02584
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 1,009' - AS BUILT WATERSHED HEADWATERS MIDDLE ISLAND CREEK COUNTY PERMIT
QUADRANGLE SHIRLEY 7.5' (TH) WEST UNION 7.5' (BH) DISTRICT CENTERVILLE COUNTY TYLER
SURFACE OWNER GARY D. DAWSON ET UX ACREAGE 104.27 ACRES +/-
OIL & GAS ROYALTY OWNER GARY D. DAWSON ET UX; LARRY R. ROBINSON ET UX; BRC MINERALS 1, LLC LEASE ACREAGE 104.27 AC.+: 86.25 AC.+: 22 AC.+:
RALPH J. UNDERWOOD; RALPH J. UNDERWOOD; RANDY DAWSON ET UX; ROY L. ULLUM ET UX; ROY L. ULLUM ET UX; CLARENCE HADLEY ET UX; 57 AC.+: 76 AC.+: 1 AC.+: 30 AC.+: 32 AC.+: 176 AC.+:
EMERSON LAURENCE MOORE ET UX; RALPH J. WESTFALL ET UX; VIOLET GREGG ET AL; NATHAN JOSEPH; SARAH E. DOAK ET AL; DEBBIE HILEMAN ET VIR 169 AC.+: 84 AC.+: 114 AC.+: 147 AC.+: 136 AC.+: 97.42 AC.+:
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
TARGET FORMATION MARCELLUS PLUG & ABANDON CLEAN OUT & REPLUG
WELL OPERATOR ANTERO RESOURCES CORP. ESTIMATED DEPTH 6,473' TVD 22,310' MD
ADDRESS 1615 WYNKOOP ST. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
FORM WW-6 DENVER, CO 80202 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313