

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

API 47-095-02607 County Tyler District McElroy
Quad Shirley 7.5' Pad Name Colorado East Pad Field/Pool Name -----
Farm name Antero Resources Corporation Well Number Mammoth Unit 3H
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 4361511m Easting 518259m
Landing Point of Curve Northing 4361457.18m Easting 519316.99m
Bottom Hole Northing 4359349m Easting 520030m

Elevation (ft) 743' 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 4/30/2019 Date drilling commenced 10/24/2019 Date drilling ceased 12/1/2019
Date completion activities began 4/4/2020 Date completion activities ceased 6/12/2020 RECEIVED
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A Office of Oil and Gas

JAN 04 2020

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 235', 241', 298' Open mine(s) (Y/N) depths No WV Department of Environmental Protection
Salt water depth(s) ft 970' Void(s) encountered (Y/N) depths No
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:
JCB
1/27/2021
06/25/2021

API 47- 095 - 02607 Farm name Antero Resources Corporation Well number Mammoth Unit 3H

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"	105'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	429'	New	54.5#, J-55	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2745'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	16212'	New	23#, HCP-110	N/A	Y
Tubing		2-3/8"	7675'		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	284 sx	15.6	1.18	241	0'	8 Hrs.
Surface	Class A	372 sx	15.6	1.20	635	0'	8 Hrs.
Coal							
Intermediate 1	Class A	939 sx	15.6	1.19	1082	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	792 sx (Lead) 2270 sx (Tail)	14.5 (Lead), 15.2(Tail)	1.4 (Lead), 1.6 (Tail)	3003	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16232' MD, 6458' TVD (BHL), 6476' (Deepest Point Drilled) Loggers TD (ft) 16232' MD

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6265'

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 - 02607 Farm name Antero Resources Corporation Well number Mammoth Unit 3H

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)	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.

API 47- 095 - 02607 Farm name Antero Resources Corporation Well number Mammoth Unit 3H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
Marcellus	6415' (TOP)	TVD	7716' (TOP) MD

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 3115 mcfpd Oil 398 bpd NGL --- bpd Water 163 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 Patterson UTI
Address 1660 Wynkoop Street City Denver State CO Zip 80202

Logging Company Nine Energy Services
Address 6500 West Fwy City Fort Worth State TX Zip 76116

Cementing Company Schlumberger Oilfield Services
Address 300 Schlumberger Dr City Sugarland State TX Zip 77478

Stimulating Company Halliburton
Address 3000 W. Sam Houston Pkwy City Houston State TX Zip 76114

Please insert additional pages as applicable.

Completed by Brandi Hankins Telephone 303-357-7223
Signature _____ Title Completions Technician Date _____

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

API 47-095-02607 Farm Name Antero Resources Corporation Well Number Mammoth Unit 3H

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	3/24/2020	16104.5	16059.9	60	Marcellus
2	3/25/2020	16022.18089	15855.5854	60	Marcellus
3	3/25/2020	15819.86626	15653.2707	60	Marcellus
4	3/26/2020	15617.55163	15450.9561	60	Marcellus
5	3/26/2020	15415.23699	15248.6415	60	Marcellus
6	3/27/2020	15212.92236	15046.3268	60	Marcellus
7	3/27/2020	15010.60772	14844.0122	60	Marcellus
8	3/28/2020	14808.29309	14641.6976	60	Marcellus
9	3/28/2020	14605.97846	14439.3829	60	Marcellus
10	3/28/2020	14403.66382	14237.0683	60	Marcellus
11	3/29/2020	14201.34919	14034.7537	60	Marcellus
12	3/29/2020	13999.03455	13832.439	60	Marcellus
13	3/30/2020	13796.71992	13630.1244	60	Marcellus
14	3/30/2020	13594.40528	13427.8098	60	Marcellus
15	3/30/2020	13392.09065	13225.4951	60	Marcellus
16	3/30/2020	13189.77602	13023.1805	60	Marcellus
17	3/31/2020	12987.46138	12820.8659	60	Marcellus
18	3/31/2020	12785.14675	12618.5512	60	Marcellus
19	3/31/2020	12582.83211	12416.2366	60	Marcellus
20	4/1/2020	12380.51748	12213.922	60	Marcellus
21	4/1/2020	12178.20285	12011.6073	60	Marcellus
22	4/1/2020	11975.88821	11809.2927	60	Marcellus
23	4/2/2020	11773.57358	11606.978	60	Marcellus
24	4/2/2020	11571.25894	11404.6634	60	Marcellus
25	4/2/2020	11368.94431	11202.3488	60	Marcellus
26	4/3/2020	11166.62967	11000.0341	60	Marcellus
27	4/3/2020	10964.31504	10797.7195	60	Marcellus
28	4/3/2020	10762.00041	10595.4049	60	Marcellus
29	4/3/2020	10559.68577	10393.0902	60	Marcellus
30	4/4/2020	10357.37114	10190.7756	60	Marcellus
31	4/4/2020	10155.0565	9988.46098	60	Marcellus
32	4/4/2020	9952.74187	9786.14634	60	Marcellus
33	4/5/2020	9750.427236	9583.83171	60	Marcellus
34	4/5/2020	9548.112602	9381.51707	60	Marcellus
35	4/5/2020	9345.797967	9179.20244	60	Marcellus
36	4/5/2020	9143.483333	8976.8878	60	Marcellus
37	4/6/2020	8941.168699	8774.57317	60	Marcellus
38	4/6/2020	8738.854065	8572.25854	60	Marcellus
39	4/6/2020	8536.539431	8369.9439	60	Marcellus
40	4/6/2020	8334.224797	8167.62927	60	Marcellus
41	4/7/2020	8131.910163	7965.31463	60	Marcellus
42	4/7/2020	7929.595528	7763	60	Marcellus

06/25/2021

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	3/24/2020	74.14	8585	9310	4080	163200	5272.881	N/A
2	3/25/2020	85.44	8109	6151	4878	406120	7366.643	N/A
3	3/25/2020	82.27	7944	6167	5281	406380	7297.405	N/A
4	3/26/2020	85.32	8146	5964	5017	408800	7247.476	N/A
5	3/26/2020	85.75	8105	6113	4746	407000	7232.976	N/A
6	3/27/2020	84.76	8081	5984	4710	406280	7217.952	N/A
7	3/27/2020	85.8	8485	6191	4683	404040	7124.905	N/A
8	3/28/2020	85.49	8388	6060	4202	408940	7162.81	N/A
9	3/28/2020	85.43	8438	6259	4524	403240	7058.238	N/A
10	3/28/2020	85.01	8434	6436	4226	408260	7258.143	N/A
11	3/29/2020	85.33	8143	6289	4073	403540	7138.31	N/A
12	3/29/2020	85.27	8334	6152	4480	399420	7082	N/A
13	3/30/2020	84.26	8411	6437	4364	406440	7175.786	N/A
14	3/30/2020	84.84	8247	5776	4289	405680	7076.69	N/A
15	3/30/2020	85.52	8104	7588	4513	405740	7073.5	N/A
16	3/30/2020	85.98	7868	5788	4726	403220	7073.738	N/A
17	3/31/2020	85.65	8189	6133	4576	403900	7016.905	N/A
18	3/31/2020	85.59	8259	5861	4238	401500	6864.524	N/A
19	3/31/2020	85.94	8170	6004	4435	403320	6961.548	N/A
20	4/1/2020	85.88	8181	6106	4319	408340	6944.143	N/A
21	4/1/2020	85.72	8084	6209	4589	407400	6947.095	N/A
22	4/1/2020	85.21	7860	5745	4468	404860	6968.762	N/A
23	4/2/2020	85.54	8198	5732	4124	407620	6954.357	N/A
24	4/2/2020	85.67	8093	5871	4156	405000	6868.738	N/A
25	4/2/2020	85.72	7850	5983	4188	405840	6069.405	N/A
26	4/3/2020	93.73	8200	5507	4146	404600	6104.81	N/A
27	4/3/2020	92.83	8073	6071	4104	405480	6926.238	N/A
28	4/3/2020	94.41	8253	6180	4452	404240	6891.952	N/A
29	4/3/2020	94.26	8060	5893	4820	404620	6917.429	N/A
30	4/4/2020	95.42	8231	5475	4551	406660	6930.19	N/A
31	4/4/2020	95.61	8254	5813	4479	408120	6887.762	N/A
32	4/4/2020	94.71	8021	5381	4518	402860	6937.929	N/A
33	4/5/2020	95.49	7968	5734	4341	408840	7174.952	N/A
34	4/5/2020	95.39	8037	5616	4236	405840	6884.31	N/A
35	4/5/2020	95.53	8105	5637	4577	407740	6887	N/A
36	4/5/2020	95.77	7944	5565	4496	405100	6924.5	N/A
37	4/6/2020	96.37	8086	6013	4411	407060	6924.857	N/A
38	4/6/2020	95.03	8099	5649	4193	405980	6848.476	N/A
39	4/6/2020	95.82	7918	5776	4162	407320	6834	N/A
40	4/6/2020	95.81	7784	5676	4205	405300	6793.619	N/A
41	4/7/2020	94.7	7403	5656	4127	407900	7823.548	N/A
42	4/7/2020	95.9	7681	5393	4068	407000	6907.262	N/A
	AVG=	89	8,115	6,032	4,423	16,798,740	292,054	TOTAL

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Shale	0	310	0	310
Silty sandstone	310	460	310	460
Shale	460	700	460	700
Silty Shale	700	820	700	820
Shale with interbedded limestone	820	850	820	850
Shale	850	880	850	880
Shale w/ trace coal	880	910	880	910
Shaley Sandstone	910	1,180	910	1,180
Shale	1,180	1,240	1,180	1,240
Sandstone w/ interbedded coals	1,240	1,330	1,240	1,330
Sandstone w/ trace coal	1,330	1,480	1,330	1,480
Sandstone	1,480	1,510	1,480	1,510
Shale	1,510	1,633	1,510	1,660
Big Lime	1,633	2,352	1,660	2,459
Fifty Foot Sandstone	2,352	2,452	2,459	2,573
Gordon	2,452	2,757	2,573	2,923
Fifth Sandstone	2,757	2,802	2,923	2,976
Bayard	2,802	3,580	2,976	3,941
Speechley	3,580	3,798	3,941	4,212
Balltown	3,798	4,318	4,212	4,856
Bradford	4,318	4,757	4,856	5,403
Benson	4,757	5,024	5,403	5,736
Alexander	5,024	6,227	5,736	7,254
Sycamore	6,059	6,202	7,024	7,229
Middlesex	6,227	6,335	7,254	7,468
Burkett	6,360	6,363	7,493	7,534
Tully	6,388	6,415	7,559	7,716
Marcellus	6,440	NA	7,716	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.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/24/2020
Job End Date:	4/6/2020
State:	West Virginia
County:	Tyler
API Number:	47-095-02607-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Mammoth 3H
Latitude:	39.40283000
Longitude:	-80.78811000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,477
Total Base Water Volume (gal):	12,725,624
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Produced Mixture	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.38942	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.16852	

HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
MC B-8614	Halliburton	Biocide					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			
Legend LD-2555	MultiChem	Additive					
				Listed Below			
LD-2950	MultiChem	Friction Reducer					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			

Legend LD-2990	MultiChem	Friction Reducer					
				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	13.41653	
			Hydrochloric acid	7647-01-0	30.00000	0.03944	
			Complex Amine Compound	Proprietary	60.00000	0.02470	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01394	
			Guar gum	9000-30-0	100.00000	0.00648	
			Complex Amine Compound	Proprietary	60.00000	0.00318	
			Glutaraldehyde	111-30-8	30.00000	0.00246	
			Ethoxylated alcohols	Proprietary	5.00000	0.00206	
			Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega-hydroxy-, branched	69011-36-5	1.00000	0.00041	
			Adipic acid	124-04-9	1.00000	0.00041	
			Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00041	
			Methanol	67-56-1	100.00000	0.00033	
			Polyethoxylated fatty amine salt	61791-26-2	30.00000	0.00029	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00027	
			Surfactant	Proprietary	5.00000	0.00027	
			Ammonium persulfate	7727-54-0	100.00000	0.00024	
			Ethanol	64-17-5	1.00000	0.00008	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00007	
			Modified thiourea polymer	Proprietary	30.00000	0.00007	

			Oxylated phenolic resin	Proprietary	30.00000	0.00007	
			Organic chloridie compound	Proprietary	1.00000	0.00005	
			Ethoxylated alcohols	Proprietary	1.00000	0.00005	
			Alkoxyated polyhydric alcohol	Proprietary	1.00000	0.00005	
			Ethoxylated alcohols	Proprietary	5.00000	0.00001	
			Propargyl alcohol	107-19-7	5.00000	0.00001	
			Hexadecene	629-73-2	5.00000	0.00001	
			Phosphoric acid	7664-38-2	0.10000	0.00001	
			Organic salt #1	Proprietary	0.10000	0.00001	
			Acrylamide	79-06-1	0.10000	0.00001	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	
			Sodium glycollate	2836-32-0	0.01000	0.00000	
			Nitrated acetate salt	Proprietary	0.01000	0.00000	
			Organic salt #2	Proprietary	0.01000	0.00000	
			Formaldehyde	50-00-0	0.01000	0.00000	
			Sodium hydroxide	1310-73-2	0.01000	0.00000	
			Organic salt #3	Proprietary	0.01000	0.00000	
			Ethylene oxide	75-21-8	0.01000	0.00000	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

LATITUDE 39°25'00"

10,768'

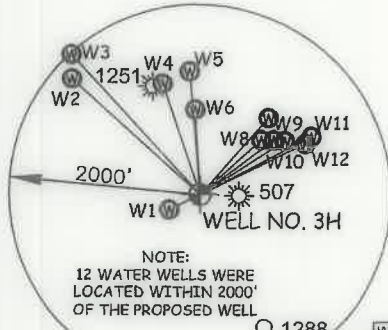
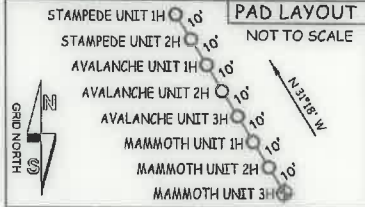
LATITUDE 39°25'00"

4,975' TO BOTTOM HOLE

Antero Resources Corporation
Well No. Mammoth Unit 3H

AS DRILLED DATA:
WELL 3H TOP HOLE INFORMATION:
N: 331,438ft E: 1,636,018ft
LAT: 39°24'10.18" LON: 80°47'17.19"
BOTTOM HOLE INFORMATION:
N: 324,248ft E: 1,641,712ft
LAT: 39°22'59.92" LON: 80°46'03.36"
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 3H TOP HOLE INFORMATION:
N: 4,361,511m E: 518,259m
BOTTOM HOLE INFORMATION:
N: 4,359,349m E: 520,030m



NOTE:
12 WATER WELLS WERE LOCATED WITHIN 2000' OF THE PROPOSED WELL

Table with 3 columns: Well ID, Northing, Easting. Lists wells W1 through W12 with their respective coordinates.

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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

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

JOB # 19-002WA
DRAWING # MAMMOTH3HAD
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

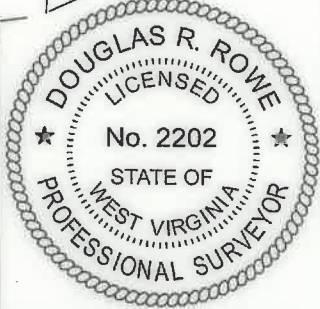
- Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Proposed Well Path
As Drilled Well Path

DOUGLAS R. ROWE P.S. 2202

DATE 09/03/20

OPERATOR'S WELL# MAMMOTH UNIT #3H

- 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.



WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ 47 - 095 - 02607
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X STATE COUNTY PERMIT
LOCATION: ELEVATION 743' - AS BUILT WATERSHED McELROY CREEK QUADRANGLE SHIRLEY 7.5 DISTRICT McELROY COUNTY TYLER

SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 127.86 ACRES +/- LEASE ACREAGE 130 AC.±; 219.39 AC.±; 210 AC.±; 256 AC.±; 90.1 AC.±; 40 AC.±; 18.65 AC.±; 57.63 AC.±; 55 AC.±; 83 AC.±; 55 AC.±; 74 AC.±; 31.82 AC.±; 25.5 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 PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,476' TVD 16,232' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

McElroy District - Tyler County. Table listing well numbers, surface owners, and lease information.

LONGITUDE 80°45'00" TO BOTTOM HOLE

LONGITUDE 80°45'00"

COUNTY NAME PERMIT

06/25/2021

LATITUDE 39°25'00"

10,768'

LATITUDE 39°25'00"

4,975' TO BOTTOM HOLE

Antero Resources Corporation Well No. Mammoth Unit 3H

AS DRILLED DATA: WELL 3H TOP HOLE INFORMATION: N: 331,438ft E: 1,636,018ft LAT: 39°24'10.18" LON: 80°47'17.19" BOTTOM HOLE INFORMATION: N: 324,248ft E: 1,641,712ft LAT: 39°22'59.92" LON: 80°46'03.36" 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 3H TOP HOLE INFORMATION: N: 4,361,511m E: 518,259m BOTTOM HOLE INFORMATION: N: 4,359,349m E: 520,030m

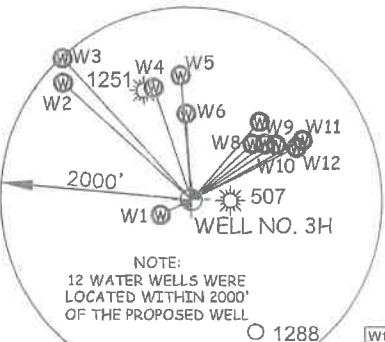
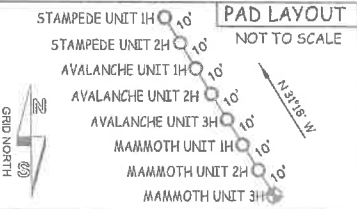
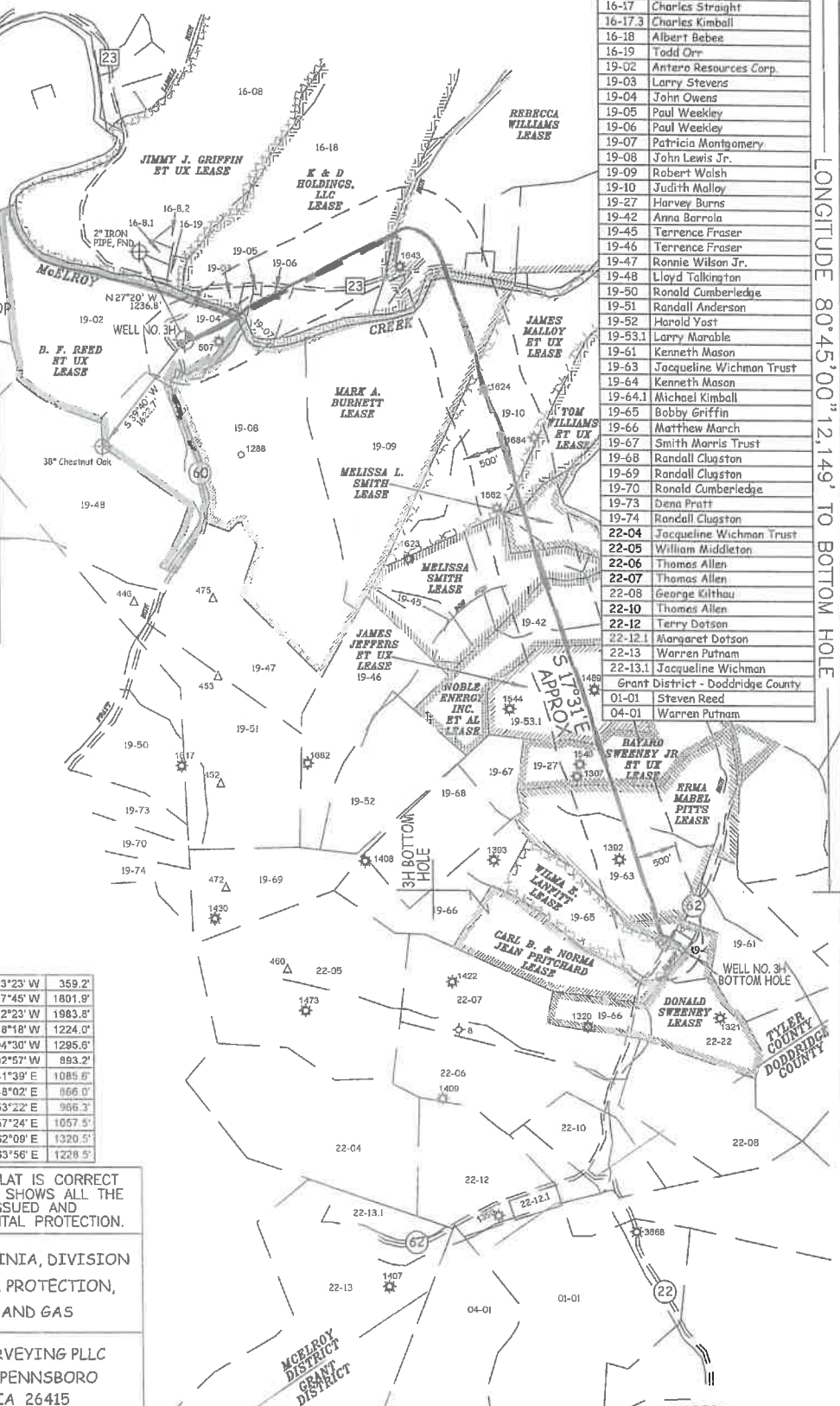


Table with 3 columns: Well ID, Bearing, Distance. Lists W1 through W12 with their respective bearings and distances.

McElroy District - Tyler County lease list table with columns for Lease No., Surface Owner, and Lease Dates.



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.

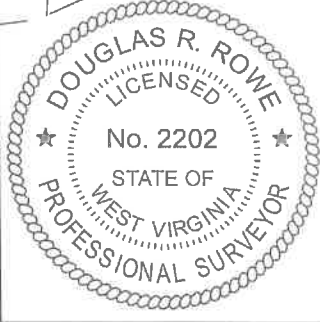


STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS. WILLOW LAND SURVEYING PLLC 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 19-002WA DRAWING # MAMMOTH3HAD 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. Includes signature of Douglas R. Rowe and date 09/03/20.

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WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 - 095 - 02607 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT LOCATION: ELEVATION 743' - AS BUILT WATERSHED McELROY CREEK QUADRANGLE SHIRLEY 7.5' DISTRICT McELROY COUNTY TYLER SURFACE OWNER ANTERO RESOURCES CORPORATION ACREAGE 127.86 ACRES +/- OIL & GAS ROYALTY OWNER B.F. REED ET UX; K & D HOLDINGS, LLC; REBECCA WILLIAMS; LEASE ACREAGE 130 AC.±; 219.39 AC.±; 210 AC.±; MARK A. BURNETT; JAMES MALLOY ET UX; TOM WILLIAMS ET UX; MELISSA L. SMITH; MELISSA SMITH; NOBLE ENERGY INC. ET AL; 256 AC.±; 90.1 AC.±; 40 AC.±; 18.85 AC.±; 57.63 AC.±; 55 AC.±; JAMES JEFFERS ET UX; BAYARD SWEENEY JR. ET UX; ERMA MABEL PITTS; DONALD SWEENEY; WILMA E. LANGFITT 83 AC.±; 55 AC.±; 74 AC.±; 31.82 AC.±; 25.5 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 PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,476' TVD 16,232' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD FORM WW-6 DENVER, CO 80202 ADDRESS CHARLESTON, WV 25313

06/25/2021

LONGITUDE 80°45'00" 12.149' TO BOTTOM HOLE

COUNTY NAME PERMIT