



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Thursday, October 13, 2022
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for MAMBA UNIT 2H
47-095-02821-00-00

Extended lateral length

ANTERO RESOURCES CORPORATION

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

A blue ink signature of James A. Martin, Chief, is written over the printed name and title. The signature is stylized and cursive.

Operator's Well Number: MAMBA UNIT 2H
Farm Name: DENNIS & CLISTA HEINTZMAN
U.S. WELL NUMBER: 47-095-02821-00-00
Horizontal 6A New Drill
Date Modification Issued: 10/13/2022

Promoting a healthy environment.

10/14/2022

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Antero Resources Corporation 494507062 095 - Tyler Ellsworth Porter Falls 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Mamba Unit 2H MOD Well Pad Name: Heintzman Pad

3) Farm Name/Surface Owner: Dennis & Clista Heintzman Public Road Access: Elk Fork Rd

4) Elevation, current ground: 1215' Elevation, proposed post-construction: ~1193'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7100' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7100' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 25300' MD

11) Proposed Horizontal Leg Length: 16102.1'

12) Approximate Fresh Water Strata Depths: 420', 475'

13) Method to Determine Fresh Water Depths: 47-095-00269 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1420'

15) Approximate Coal Seam Depths: 58'

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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Page 1 of 3
Steve McRay
9/30/22 10/14/2022

WW-6B
(04/15)

API NO. 47- 095 - 02821
 OPERATOR WELL NO. Mamba Unit 2H MOD
 Well Pad Name: Heintzman Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	X60	78.67#	100	100	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	525	525	CTS, 729 Cu. Ft.
Coal	9-5/8"	New	J/K-55	36#	3293	3293	CTS, 1341 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110ICY	23#	25300	25300	6308 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438"	1530	50	Class A	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630	2500	Land-HPOZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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Page 2 of 3

Steve McKay
 9/30/22

10/14/2022

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill a new horizontal shallow well into the Marcellus Shale.

*Antero will be air drilling the fresh water string which makes it difficult to determine when fresh water is encountered. Therefore, we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs
Anticipated Max Rate - 80 bpm

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 56.03 acres

22) Area to be disturbed for well pad only, less access road (acres): 7.82 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.

Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.

Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A cement.

Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake

Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51

Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

*Note: Attach additional sheets as needed.

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Page 3 of 3

Steve McKay
9/30/22

10/14/2022

4709502821

LEGEND

- Proposed gas well
- ☀ Existing Well, as noted
- ☀ Digitized Well, as noted



The orientation of this survey is Grid North, and its coordinate base is the West Virginia Coordinate System of 1927, North Zone

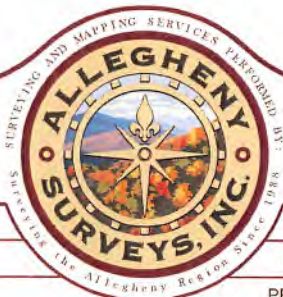
Wetzel County
Tyler County

47-095
-00685

500' Buffer

Mamba Unit 2H

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Office of Oil & Gas
SEP 21 2022
WV Department of
Environmental Protection



Bridgeport Office
Phone: (304) 848-5035
Fax: (304) 848-5037

172 Thompson Drive
Bridgeport, WV 26330

PARTY CHIEF: C. Lynch	DRAWN BY: J. Smith
RESEARCH: J. Miller	PREPARED: July 29, 2022
SURVEYED: Dec. 2016	PROJECT NO: 99-54-E-19
FIELD CREW: C.L., K.M.	DRAWING NO: Mamba 2H AOR

Sheet 1 of 1



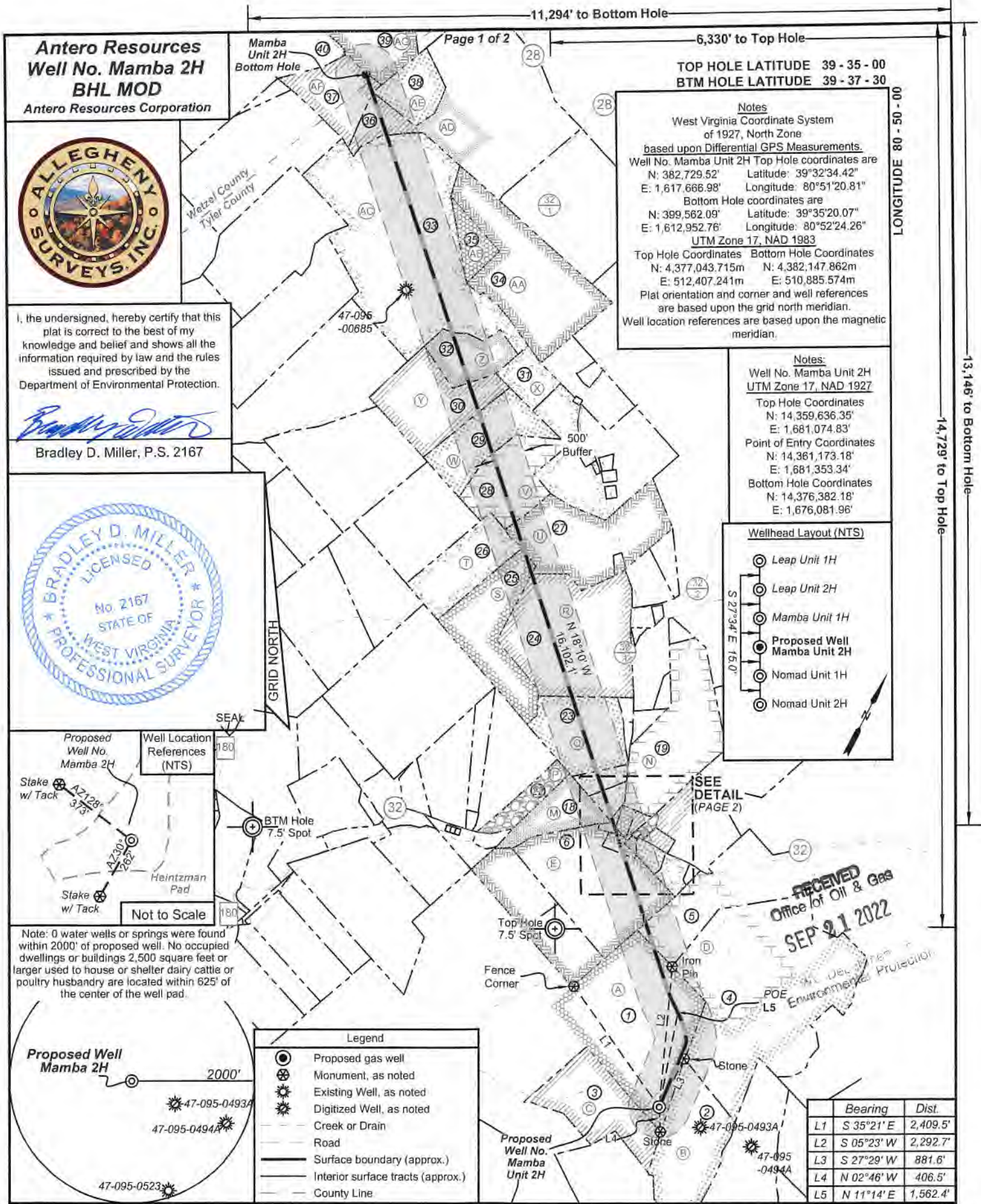
Scale: 1 inch = 2000 feet

10/14/2022

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47095006850000	KIMBLE BRADY	1	EQT PRODUCTION CO	CARTER-JONES LUMBER	2,695	2391 - 2581	Berea	Weir, Benson, Alexander

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 MN Department of
 Environmental Protection

4709502821

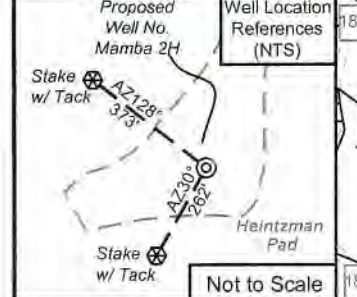


Antero Resources
Well No. Mamba 2H
BHL MOD
 Antero Resources Corporation

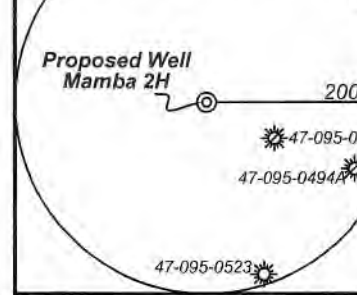


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
 Bradley D. Miller, P.S. 2167



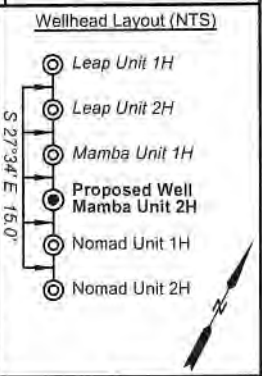
Note: 0 water wells or springs were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



Legend	
	Proposed gas well
	Monument, as noted
	Existing Well, as noted
	Digitized Well, as noted
	Creek or Drain
	Road
	Surface boundary (approx.)
	Interior surface tracts (approx.)
	County Line

Notes
 West Virginia Coordinate System of 1927, North Zone
 based upon Differential GPS Measurements.
 Well No. Mamba Unit 2H Top Hole coordinates are
 N: 382,729.52' Latitude: 39°32'34.42"
 E: 1,617,666.98' Longitude: 80°51'20.81"
 Bottom Hole coordinates are
 N: 399,562.09' Latitude: 39°35'20.07"
 E: 1,612,952.76' Longitude: 80°52'24.26"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,377,043.715m N: 4,382,147.862m
 E: 512,407.241m E: 510,885.574m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Notes:
 Well No. Mamba Unit 2H UTM Zone 17, NAD 1927
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 N: 14,359,636.35'
 E: 1,681,074.83'
 Point of Entry Coordinates
 N: 14,361,173.18'
 E: 1,681,353.34'
 Bottom Hole Coordinates
 N: 14,376,382.18'
 E: 1,676,081.96'



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Bearing	Dist.
L1 S 35°21' E	2,409.5'
L2 S 05°23' W	2,292.7'
L3 S 27°29' W	881.6'
L4 N 02°46' W	406.5'
L5 N 11°14' E	1,562.4'

FILE NO: 99-54-E-19
 DRAWING NO: Mamba Unit 2H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

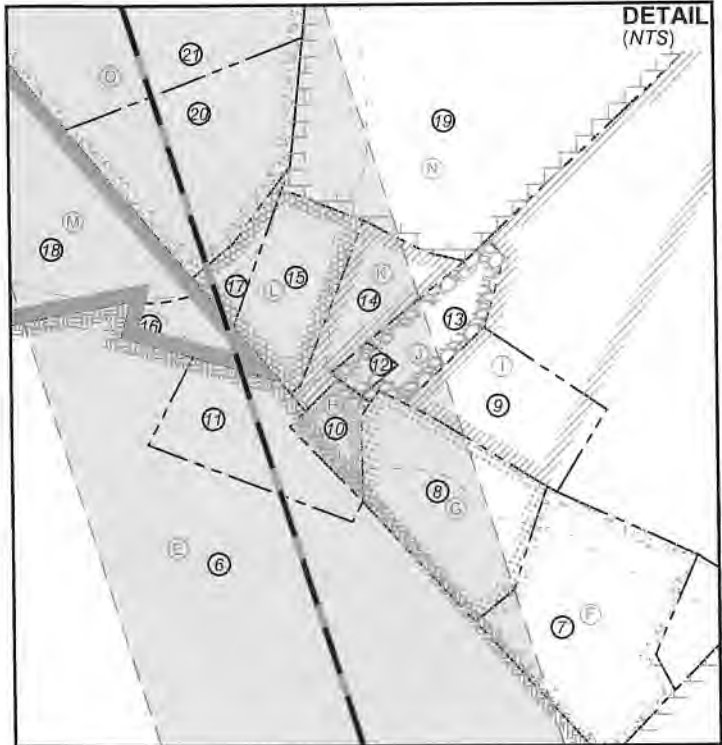
DATE: September 14 20 22
 OPERATOR'S WELL NO. Mamba Unit 2H
 API WELL NO. MOD 17282
 47 - 095 - MOD 17282
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: Proposed 1193' Existing 1215' WATERSHED: Middle Island Creek TH:Porter Falls BH:Paden City
 QUADRANGLE: 20: 164.28125; 20: 67: 33.25; 3: 36.15; 98.5; 10/14/2022
 DISTRICT: Ellsworth/Magnolia Michael Stillwagner, Don A. Stertzbach, et ux; Jeffrey Seckman; James D. VanCamp, et ux; William G. Baker; Antero Minerals, LLC; COUNTY: Tyler/Wetzel
 SURFACE OWNER: Dennis & Clista Heintzman Gary A. Midcap, et ux (3); Lee Morgan; James D. VanCamp; ACREAGE: 417.6 30.9625; 40; 48.796; 10.02; 33.48125; 44;
 ROYALTY OWNER: BRC Appalachian Minerals I, LLC (2); TMP Properties, LLC; Judy P. Meyers; LEASE NO: ACREAGE: 42.46875; 99.4438
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,100' TVD 25,300' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313

Antero Resources
Well No. Mamba 2H
BHL MOD
 Antero Resources Corporation



ID	TM/Par	Owner	Bk/Pg	Acres
1	6-36	Dennis & Clista Heintzman	297/640	417.60
2	10-4	Stefan L. & Alberta B. Smolski	356/467	56.08
3	6-49	Dennis & Clista A. Heintzman	297/637	45.00
4	6-30.1	Larry M. & Amy B. Adams	369/344	150.33
5	6-30	Larry G. Rice	333/682	64.61
6	6-27	Ronnie L. VanCamp, et al	568/32	69.88
7	6-27.3	Laura A. Richeson	365/34	5.14
8	6-27.4	Joseph M. & Tammy A. Rice	634/778	3.79
9	6-21.2	Richard E. Leek	OR147/27	3.15
10	6-27.1	Larry G. Rice	333/682	0.81
11	6-27.5	David W. VanCamp	555/14	2.56
12	6-21.3	Richard E. Leek	OR147/27	0.28
13	6-21.1	Richard E. Leek	391/533	2.74
14	6-29	Richard Leek	402/216	1.00
15	6-28	David Wayne & Virginia VanCamp	395/557	2.00
16	6-47.1	Donna Faulk	408/113	1.00
17	6-27.2	David Wayne & Virginia VanCamp	395/557	1.0
18	6-47	Jeffrey Seckman	545/70	18.99
19	6-11	Jeffrey A. & Joann E. Seckman	343/153-A	68.72
20	6-20.2	Hiram Groves	98/195	7.50
21	6-20.1	Jeffrey Seckman	545/70	2.52
22	6-19	Linda J. & Jack E. Mason	OR101/678	10.00
23	6-20	Jeffrey Seckman	545/70	36.15
24	6-8	Matthew T. Ebert	361/219	98.50
25	6-7	Gary A. & Penny K. Midcap	301/265	30.90
26	3-26.1	Gary A. & Penny K. Midcap	301/265	40.00
27	3-34	Charlotte Terry, et al	WB76/367	57.19
28	3-27	Herbert & Phyllis Glendenning	349/827	33.25
29	3-25.1	Gary A. & Penny K. Midcap	304/230	33.48
30	3-25	Gary A. & Penny K. Midcap	301/265	42.47
31	3-28	Rhoda & Lawrence Morgan Est	317/413	61.33
32	3-19	Gary A. & Penny K. Midcap	301/265	20.94
33	3-9	Steven D. & Brenda M. Higgins	313/623	163.34
34	3-10	Steven D. & Brenda M. Higgins	313/623	79.75
35	3-10.1	Steven D. & Brenda M. Higgins	313/623	10.16
36	1-11	Daniel A. Witschey	541/326	122.81
37	16-64	Richard Todd Kay	420/650	29.00
38	1-16	Daniel A. & Amy J. Witschey	602/421	20.00
39	17-15	Don A. Stertzbach	367/623	37.90
40	16-63	Richard E. Kay, et ux	395/329	19.00

Leases	
A	BRC Appalachian Minerals I, LLC
B	Rose Enterprises, LLC
C	Dennis R. & Clista A. Heintzman
D	TMP Properties, LLC
E	Judy P. Meyers
F	Laura A. Richeson
G	Bobby J. Dennis
H	David W. VanCamp, et ux
I	BRC Appalachian Minerals I, LLC
J	Antero Mineral, LLC
K	Martha Elizabeth Matthews
L	David Wayne VanCamp, et ux
M	Jeffrey Seckman
N	Jon Keith Irvin
O	James D. VanCamp
P	Linda J. & Jack E. Mason
Q	David E. Bowyer
R	Christina L. Ebert
S	Gary A. Midcap, et ux
T	Gary A. Midcap, et ux
U	Lee Morgan
V	BRC Appalachian Minerals I, LLC
W	James D. VanCamp, et ux
X	MAP2012-OK
Y	William G. Baker
Z	Gary A. Midcap, et ux
AA	Mary F. Mutschelknaus
AB	Steven D. Higgins, et ux
AC	Beverly Kay Campbell
AD	Cider Run Mineral Holdings, LLC
AE	Don A. Stertzbach, et ux
AF	Michael Stillwagner
AG	Ridgetop Royalties

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FILE NO: 99-54-E-19
 DRAWING NO: Mamba Unit 2H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY:
 Submeter
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 WVDOT, Harrisville, WV


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

DATE: September 14 2022
 OPERATOR'S WELL NO. Mamba Unit 2H
 API WELL NO. 47-095-12821
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Existing 1215' Proposed 1193' Outlet: Middle Island Creek TH:Porter Falls
 DISTRICT: Ellsworth/Magnolia WATERSHED: Middle Island Creek QUADRANGLE: BH:Paden City 20: 164.28125;
 SURFACE OWNER: Dennis & Clista Heintzman COUNTY: Tyler/Wetzel 20: 67-33.25;
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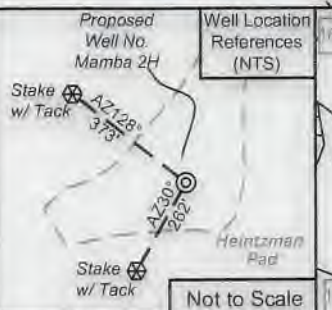
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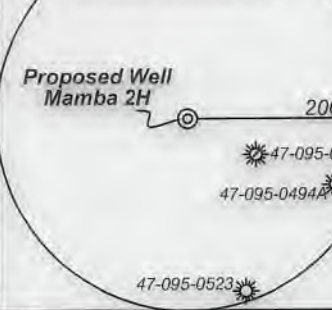


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
 Bradley D. Miller, P.S. 2167



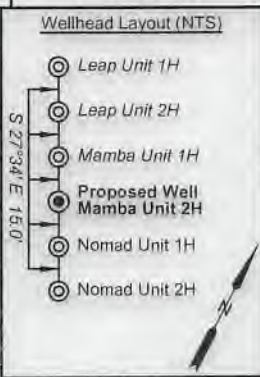
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 47 - 095 - **02821**
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 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313

10/14/2022

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Well No. Mamba 2H
BHL MOD
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ID	TM/Par	Owner	Bk/Pg	Acres
1	6-36	Dennis & Clista Heintzman	297/640	417.60
2	10-4	Stefan L. & Alberta B. Smolski	356/467	56.08
3	6-49	Dennis & Clista A. Heintzman	297/637	45.00
4	6-30.1	Larry M. & Amy B. Adams	369/344	150.33
5	6-30	Larry G. Rice	333/682	64.61
6	6-27	Ronnie L. VanCamp, et al	568/32	69.88
7	6-27.3	Laura A. Richeson	365/34	5.14
8	6-27.4	Joseph M. & Tammy A. Rice	634/778	3.79
9	6-21.2	Richard E. Leek	OR147/27	3.15
10	6-27.1	Larry G. Rice	333/682	0.81
11	6-27.5	David W. VanCamp	555/14	2.56
12	6-21.3	Richard E. Leek	OR147/27	0.28
13	6-21.1	Richard E. Leek	391/533	2.74
14	6-29	Richard Leek	402/216	1.00
15	6-28	David Wayne & Virginia VanCamp	395/557	2.00
16	6-47.1	Donna Faulk	408/113	1.00
17	6-27.2	David Wayne & Virginia VanCamp	395/557	1.0
18	6-47	Jeffrey Seckman	545/70	18.99
19	6-11	Jeffrey A. & Joann E. Seckman	343/153-A	68.72
20	6-20.2	Hiram Groves	98/195	7.50
21	6-20.1	Jeffrey Seckman	545/70	2.52
22	6-19	Linda J. & Jack E. Mason	OR101/678	10.00
23	6-20	Jeffrey Seckman	545/70	36.15
24	6-8	Matthew T. Ebert	361/219	98.50
25	6-7	Gary A. & Penny K. Midcap	301/265	30.90
26	3-26.1	Gary A. & Penny K. Midcap	301/265	40.00
27	3-34	Charlotte Terry, et al	WB76/367	57.19
28	3-27	Herbert & Phyllis Glendenning	349/827	33.25
29	3-25.1	Gary A. & Penny K. Midcap	304/230	33.48
30	3-25	Gary A. & Penny K. Midcap	301/265	42.47
31	3-28	Rhoda & Lawrence Morgan Est	317/413	61.33
32	3-19	Gary A. & Penny K. Midcap	301/265	20.94
33	3-9	Steven D. & Brenda M. Higgins	313/623	163.34
34	3-10	Steven D. & Brenda M. Higgins	313/623	79.75
35	3-10.1	Steven D. & Brenda M. Higgins	313/623	10.16
36	1-11	Daniel A. Witschey	541/326	122.81
37	16-64	Richard Todd Kay	420/650	29.00
38	1-16	Daniel A. & Amy J. Witschey	602/421	20.00
39	17-15	Don A. Stertzbach	367/623	37.90
40	16-63	Richard E. Kay, et ux	395/329	19.00

Leases	
A	BRC Appalachian Minerals I, LLC
B	Rose Enterprises, LLC
C	Dennis R. & Clista A. Heintzman
D	TMP Properties, LLC
E	Judy P. Meyers
F	Laura A. Richeson
G	Bobby J. Dennis
H	David W. VanCamp, et ux
I	BRC Appalachian Minerals I, LLC
J	Antero Mineral, LLC
K	Martha Elizabeth Matthews
L	David Wayne VanCamp, et ux
M	Jeffrey Seckman
N	Jon Keith Irvin
O	James D. VanCamp
P	Linda J. & Jack E. Mason
Q	David E. Bowyer
R	Christina L. Ebert
S	Gary A. Midcap, et ux
T	Gary A. Midcap, et ux
U	Lee Morgan
V	BRC Appalachian Minerals I, LLC
W	James D. VanCamp, et ux
X	MAP2012-OK
Y	William G. Baker
Z	Gary A. Midcap, et ux
AA	Mary F. Mutschelknaus
AB	Steven D. Higgins, et ux
AC	Beverly Kay Campbell
AD	Cider Run Mineral Holdings, LLC
AE	Don A. Stertzbach, et ux
AF	Michael Stillwagner
AG	Ridgetop Royalties

FILE NO: 99-54-E-19

DRAWING NO: Mamba Unit 2H Well Plat

SCALE: 1" = 2000'

MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV

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

DATE: September 14 2022

OPERATOR'S WELL NO. Mamba Unit 2H

API WELL NO **MOD**

47 -- 095 -- **02821**
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: Existing 1215' Proposed 1193' WATERSHED: Middle Island Creek Outlet: _____ QUADRANGLE: BH: Paden City 20; 164.28125; 20; 67; 33.25; 3.60; 3.62

DISTRICT: Ellsworth/Magnolia COUNTY: Tyler/WV **10/14/2022**

SURFACE OWNER: Dennis & Clista Heintzman ACREAGE: 417.6 30.9625; 40; 48.796; 10.02; 33.48125; 44; 3.60; 3.62

ROYALTY OWNER: BRC Appalachian Minerals I, LLC (2); TMP Properties, LLC; Judy P. Meyers; LEASE NO: _____ ACREAGE: 42.46875; 99.4438

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 7,100' TVD

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 25,300' MD

WELL OPERATOR: Antero Resources Corporation

DESIGNATED AGENT: Dianna Stamper - CT Corporation System

ADDRESS: 1615 Wynkoop Street
 Denver, CO 80202

ADDRESS: 5400 D Big Tyler Road
 Charleston, WV 25313

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>A: BRC Appalachian Minerals I LLC Lease</u>			
BRC Appalachian Minerals I LLC	BRC Working Interest Company LLC	1/8	0369/0300
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	0369/0784
Chesapeake Appalachia LLC	Statoil USA Onshore Properties Inc	Assignment	0378/0764
Statoil USA Onshore Properties Inc	SWN Exchange Titleholder LLC	Assignment	0470/0668
SWN Exchange Titleholder LLC	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>D: TMP Properties, LLC Lease</u>			
TMP Properties, LLC	Antero Resources Corporation	1/8+	0070/0197
<u>E: Judy P. Meyers Lease</u>			
Judy P. Meyers	Antero Resources Corporation	1/8+	0002/0044
<u>M: Jeffrey Seckman Lease</u>			
Jeffrey Seckman	Antero Resources Corporation	1/8+	0191/0097
<u>L: David Wayne VanCamp, et ux Lease</u>			
David Wayne VanCamp, et ux	Antero Resources Corporation	1/8+	0415/0756
<u>O: James D. VanCamp Lease</u>			
James D. VanCamp	Antero Resources Corporation	1/8+	0553/0693
<u>Q: David E. Bowyer Lease</u>			
David E. Bowyer	Antero Resources Corporation	1/8+	0191/0095
<u>R: Christina L. Ebert Lease</u>			
Christina L. Ebert	Antero Resources Corporation	1/8+	0108/0694
<u>S: Gary A. Midcap, et ux Lease</u>			
Gary A. Midcap, et ux	Antero Resources Corporation	1/8+	0070/0182
<u>T: Gary A. Midcap, et ux Lease</u>			
Gary A. Midcap, et ux	Antero Resources Corporation	1/8+	0070/0182
<u>U: Lee Morgan Lease</u>			
Lee Morgan	Antero Resources Corporation	1/8+	0106/0557
<u>V: BRC Appalachian Minerals I LLC Lease</u>			
BRC Appalachian Minerals I LLC	BRC Working Interest Company LLC	1/8	0369/0300
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	0369/0784
Chesapeake Appalachia LLC	Statoil USA Onshore Properties Inc	Assignment	0378/0764
Statoil USA Onshore Properties Inc	SWN Exchange Titleholder LLC	Assignment	0470/0668
SWN Exchange Titleholder LLC	EQT Production Company	Assignment	0539/0239

RECEIVED
 Office of Oil & Gas
SEP 21 2022
 WV Department of
 Environmental Protection

10/14/2022

WW-6A1

Operator's Well Number Mamba Unit 2H MOD

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>W: James D. VanCamp, et ux Lease</u> James D. VanCamp, et ux	Antero Resources Corporation	1/8+	0664/0478
<u>Y: William G. Baker Lease</u> William G. Baker	Antero Resources Corporation	1/8+	0016/0488
<u>Z: Gary A. Midcap, et ux Lease</u> Gary A. Midcap, et ux	Antero Resources Corporation	1/8+	0070/0182
<u>AC: Beverly Kay Campbell Lease</u> Beverly Kay Campbell	Antero Resources Corporation	1/8+	0012/0572
<u>AF: Michael Stillwagner Lease</u> Michael Stillwagner Stone Energy Corporation EQT Production Company	Stone Energy Corporation EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment	0421/0168 0556/0132 0662/0686
<u>AE: Don A. Stertzbach, et ux Lease</u> Don A. Stertzbach, et ux Stone Energy Corporation EQT Production Company	Stone Energy Corporation EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment	0419/0667 0556/0132 0662/0686

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

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SEP 21 2022
WV Department of
Environmental Protection

10/14/2022

WW-6A1
(5/13)

Operator's Well No. Mamba Unit 2H MOD

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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>AF: Michael Stillwagner Lease</u>	Michael Stillwagner Stone Energy Corporation EQT Production Company	Stone Energy Corporation EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment	0421/0168 0556/0132 0662/0686

*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

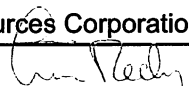
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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Office of Oil & Gas
SEP 21 2022
WV Department of
Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Antero Resources Corporation
By: Tim Rady 
Its: Senior Vice President of Land