



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

Monday, May 24, 2021
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for WADE 1H
47-095-02729-00-00

Lateral Extension

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

Operator's Well Number: WADE 1H
Farm Name: ROGER D. BLIZZARD & RUTH E. SPENCER
U.S. WELL NUMBER: 47-095-02729-00-00
Horizontal 6A New Drill
Date Modification Issued: May 24, 2021

Promoting a healthy environment.

05/28/2021



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

April 26, 2021

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Ms. Laura Adkins
601 57th Street
Charleston, WV 25304

Ms. Laura Adkins:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for the following approved wells on the existing Blizzard Pad: Wade Unit 1H (API # 47-095-02729).

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the updated POE & Measured Depth
- REVISED Form WW-6A1, which shows the new leases we will be drilling into
- REVISED Mylar Plat, which shows the new Lateral Length & Estimated Measured Depth
- AOR & As-Built Design

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

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Megan Griffith", written over a white background.

Megan Griffith
Permitting Agent
Antero Resources Corporation

Enclosures

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Office of Oil and Gas
APR 29 2021
WV Department of
Environmental Protection

05/28/2021

WW-6B
(04/15)

PERMIT MODIFICATION API # 47-095-02729

API NO. 47-095 - 02729
OPERATOR WELL NO. Wade Unit 1H
Well Pad Name: Blizzard Pad

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 Shirley 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Wade Unit 1H Well Pad Name: Blizzard Pad

3) Farm Name/Surface Owner: Roger D. Blizzard & Ruth E. Spencer Public Road Access: US Route 34

4) Elevation, current ground: 1004' Elevation, proposed post-construction: _____

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: 7000' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

DMH
5-14-21

8) Proposed Total Vertical Depth: 7000' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 26100'

11) Proposed Horizontal Leg Length: 16322'

12) Approximate Fresh Water Strata Depths: 16'

13) Method to Determine Fresh Water Depths: 47-095-02274

14) Approximate Saltwater Depths: 1430', 1813'

15) Approximate Coal Seam Depths: None Identified

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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WW-6B
(04/15)

API NO. 47-095 - 02729
OPERATOR WELL NO. Wade Unit 1H
Well Pad Name: Blizzard 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	H-40	94#	80	80	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	300	300	CTS, 417 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500	2500	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	26100	26100	6769 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

DmH
5-14-21

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	Lead-H/POZ & Tall - 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			RECEIVED Office of Oil and Gas
Depths Set:	N/A			MAY 17 2021

WV Department of
Environmental Protection

WW-6B
(10/14)

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.

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): Existing 26.80 acres

22) Area to be disturbed for well pad only, less access road (acres): Existing 9.52 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:

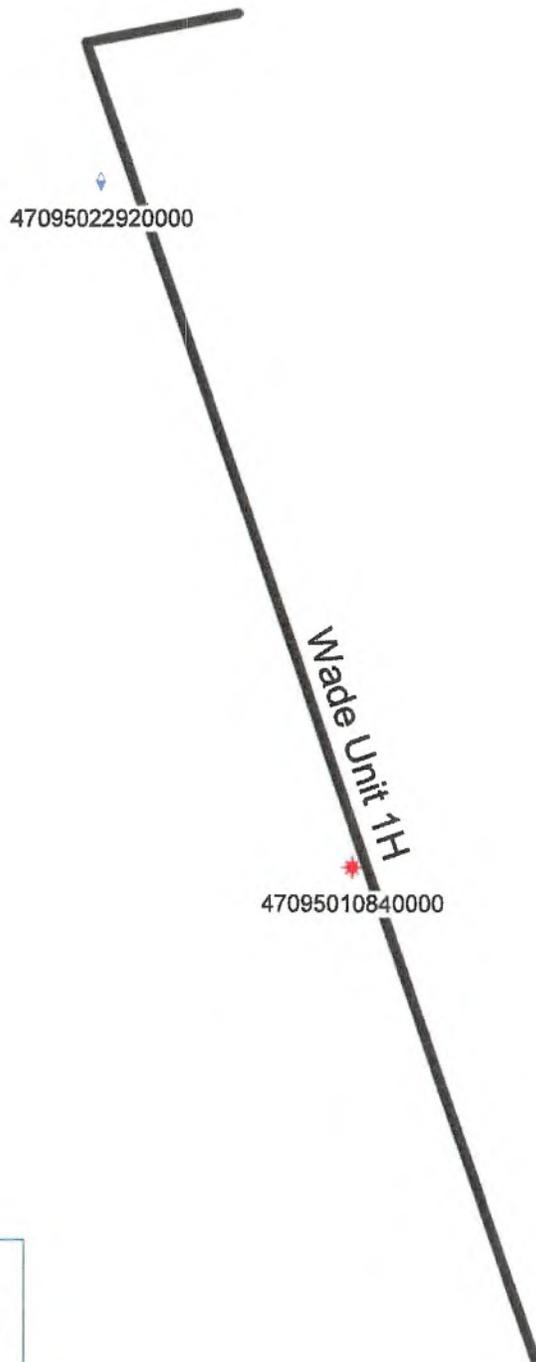
Conductor: no additives, Class A cement.
Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake
Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat
Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51
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:

(Empty box for proposed borehole conditioning procedures)

*Note: Attach additional sheets as needed.

PERMIT MODIFICATION API # 47-095-02729



Antero Resources Corporation

Wade Unit 1H - AOR



WELL SYMBOLS
At Total Depth
Gas Well

January 21, 2020

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Environmental Protection

05/28/2021

UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Productible Formation(s) not perf'd
47095022920000	TAYLOR	1	BOWYER DAVID	BOWYER DAVID	5,300	WOC	N/A	N/A
47095010840000	WADE NORMAN	1FC18	FRENCH CREEK DEV	FRENCH CREEK DEV	5,990	4570 - 4610	Speechley, Baltown, Alexander, Marcellus	Big Injun

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]

WW-6A1
(5/13)

Operator's Well No. Wade Unit 1H

**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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>WVDNR Lease</u>	WVDNR	Antero Resources Corporation	1/8+	0099/0338

*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

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.

*Co-tenancy utilization – At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act.

Well Operator: Antero Resources Corporation
By: Tim Rady
Its: VP of Land

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MAY 17 2021
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1,027' to Bottom Hole

Antero Resources
Well No. Wade 1H
BHL MOD
Antero Resources Corporation



Wellhead Layout

- Pechora Unit 2H
47-095-02725
- Pechora Unit 1H
47-095-02724
- Whitmore Unit 2H
47-095-02727
- Whitmore Unit 1H
47-095-02726
- Wade Unit 2H
47-095-02728
Proposed
- Wade Unit 1H
47-095-02729



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: 8 water wells and 2 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
- Found corner, as noted
- Existing Well, as noted
- Digitized Well
- Existing Road
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

Top Hole 7.5' Spot
5,036' to Top Hole
TOP HOLE LATITUDE 39 - 30 - 30
BTM HOLE LATITUDE 39 - 27 - 30
BTM Hole 7.5' Spot

Notes:

West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Wade Unit 1H Top Hole coordinates are
N: 366,498.23' Latitude: 39°29'54.17"
E: 1,618,720.00' Longitude: 80°51'04.25"
Bottom Hole coordinates are
N: 350,790.56' Latitude: 39°27'19.49"
E: 1,622,496.29' Longitude: 80°50'13.10"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,372,104.105m N: 4,367,337.928m
E: 512,810.442m E: 514,040.781m
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. Wade Unit 1H
UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,343,430.42'
E: 1,682,398.19'
Point of Entry Coordinates
N: 14,343,215.95'
E: 1,681,108.38'
Bottom Hole Coordinates
N: 14,327,793.31'
E: 1,686,434.75'

Well Location References



	Bearing	Dist.
L1	S 20°26' E	1,001.4'
L2	N 37°13' W	1,607.8'
L3	N 41°19' E	1,121.9'
L4	N 75°05' E	936.6'
L5	S 81°31' W	1,308.0'

FILE NO: 97-54-E-19
DRAWING NO: Wade 1H 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: April 22 20 21
OPERATOR'S WELL NO. Wade 1H
API WELL NO
47 - 095 - 02729
STATE COUNTY PERMIT

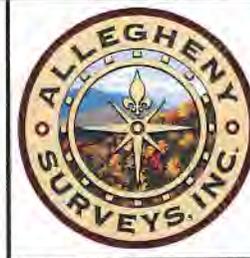
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built 1,004' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley
DISTRICT: Ellsworth COUNTY: Tyler
SURFACE OWNER: Roger D. Blizzard & Ruth E. Spencer
ROYALTY OWNER: Heritage Resources - Marcellus Minerals, LLC; B. Fred Hill Jr.; Keith C. & Phyllis J. Smith. LEASE NO: ACREAGE: 28.009; 168.175; 24;

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: 7,000' TVD 26,100' MD

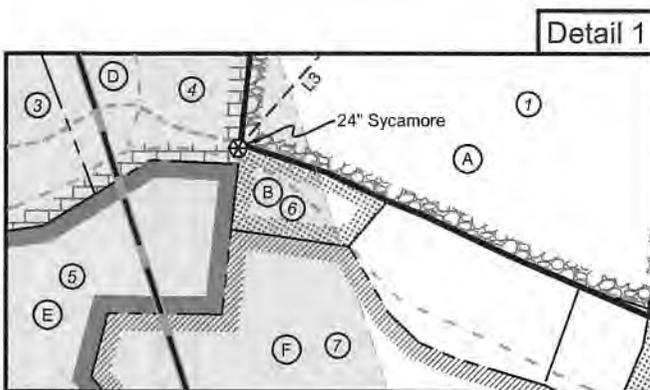
WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313

05/28/2021



Leases			
A	Heritage Resources - Marcellus Minerals, LLC	S	Patrick Lewis Smith
		T	WVDNR
B	Heritage Resources - Marcellus Minerals, LLC	U	Danny L. & Terri E. Botkins
		V	Lloyd E. & Nancy J. Wade
C	B. Fred Hill Jr.	W	James R. Pinney
D	Clifford and Virginia Perkins Irrevocable Trust	X	ATX Mineral Holdings, LLC
		Y	Edward H. Estep, et ux
E	Carl E. Taylor, et ux	Z	Brian M. Weigle
F	The Swan Living Trust	AA	Lloyd Carl Seckman
G	Charles T. White Jr.	AB	David E. Bowyer
H	Ridgetop Capital II, LP	AC	ATX Mineral Holdings, LLC
I	Elmer Earl Bowser Jr.	AD	Brian M. Glover
J	Kenneth R. & Jennifer L. Mason	AE	Robert O'Neil Dotson, et ux
K	Haessly Land & Timber, LLC	AF	AMP Fund II, LP
L	Bradley J. Carpenter	AG	Brian M. Weigle
M	WVDNR	AH	Rheba McMichael
N	Ronald E. Thompson, et ux	AI	Kenneth R. & Jennifer L. Mason
O	Kathy Ann Seago	AJ	Keith C. Smith, et ux
P	Roger D. Wade	AK	Keith C. Smith, et ux
Q	E. Lorna Howard Testamentary Trust	AL	Mount Aris Cemetery
		AM	Triple Haught Trust
R	Alf Smith Cemetery	AN	Ronald L. Hoover, et ux
		AO	WVDNR

ID	TM/Par	Owner	DB/PG	Acres
1	15-33	Roger D. Blizzard & Ruth E. Spencer	340/170	102.62
2	15-30	Thomas C. & Jeudeann L. Grinage	458/73	124.08
3	15-34	Michael & Bente H. Biddle	294/537	82.34
4	15-34.1	Randy & Pamela L. Lancaster	370/776	11.42
5	21-6	Carl E. & Elsie M. Taylor	391/181	63.50
6	21-7	Gary O. & Anita K. Bennett	332 / 605	1.75
7	21-14	Carl E. & Elsie M. Taylor	391/181	67.91
8	21-16	Stephanie & Joseph W. Havranek	254/153	4.50
9	21-17	Stephanie & Joseph W. Havranek	254/153	10.38
10	21-18	Ridgetop Capital II, LP	385/781	83.68
11	21-15	Stephanie & Joseph W. Havranek	254/153	45.48
12	21-52	Jennifer L. & Kenneth Mason	345/743	81.0
13	21-53	Haessly Land & Timber, LLC	337/101A	89.88
14	27-10	Kathy Ann Seago, et al	WB 41/119	31.18
15	21-55	Ronald & Janet Thompson	400/552	12.50
16	21-54	Sybill Gorby	WB 34/343	70.00
17	22-42	Sharon Christenson, et al	635/420	144.26
18	21-57	ALF Smith Cemetery	107/393	3.00
19	21-56	Roger D. Wade	485/486	26.68
20	21-60	Danny & Terri Botkins	342/556	0.86
21	21-61	Danny & Terri Botkins	342/556	1.51
22	21-59	Travis O. Baker	617/620	3.72
23	21-62	Lewis Timmons Estate	332/1	1.8
24	28-1	Lois J. Estep & Edward E. Estep	359/613	1.11
25	27-12	Joan Estep & Edward H. Estep	556/513	0.47
26	27-13	Joan Estep & Edward H. Estep	556/513	2.40
27	21-56.1	Nancy Wade	336/127	4.48
28	27-11	Kathy Ann Seago, et al	WB 41/119	35.08
29	28-2	Mary Ladene Lemasters	299/548	2.37
30	27-14	James & Naomi Baker	644/632	1.50
31	28-3	Lloyd C. & Kathen G. Seckman	184/296	2.88
32	28-13	David E. Bowyer	481/234	3.97
33	27-15	John Helt	448/274	0.49
34	27-16	David Newbrough Revocable Family Trust	369/370	0.94
35	28-4.6	Brian M. Glover	397/415	0.83
36	28-14	Robert & Sandra Dotson	213/445	0.87
37	27-17	David & Diana Weekley	575/9	1.94
38	28-10	Carol Knapp Rev. Trust	435/461	9.20
39	28-17	Kathy Ann Seago, et al	WB 41/119	12.11
40	28-16.1	Brian Weigle	353/776	2.36
41	28-16	Kathy Ann Seago, et al	WB 41/119	4.54
42	28-15.1	Keith & Phyllis Smith	350/565	2.40
43	27-19	Lynda Spellman, et al	119/512	86.00
44	28-15	Troy & Kelly Smith	337/393	6.60
45	28-25	Ripley Alma Methodist Church	199/1	0.86
46	28-24	Mt. Aris Union Church & Cemetery	246/47	0.97
47	27-20	Kenneth & Jennifer Mason	332/960	269.00
48	28-29	Keith C. Smith	WB 35/228	116.72
49	28-27	Kenneth & Jennifer Mason	353/389	72.00
50	4-5	Roger & Sandy Weese	312/203	182.74
51	28-28	Ronald & Linda Hoover	184/383	136.22
52	2-1	Larry & Betty Fletcher	312/200	120.00
53	27-16.1	John Helt	448/274	0.15



FILE NO: 97-54-E-19
 DRAWING NO: Wade 1H 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: April 22, 20 21
 OPERATOR'S WELL NO. Wade 1H
 API WELL NO
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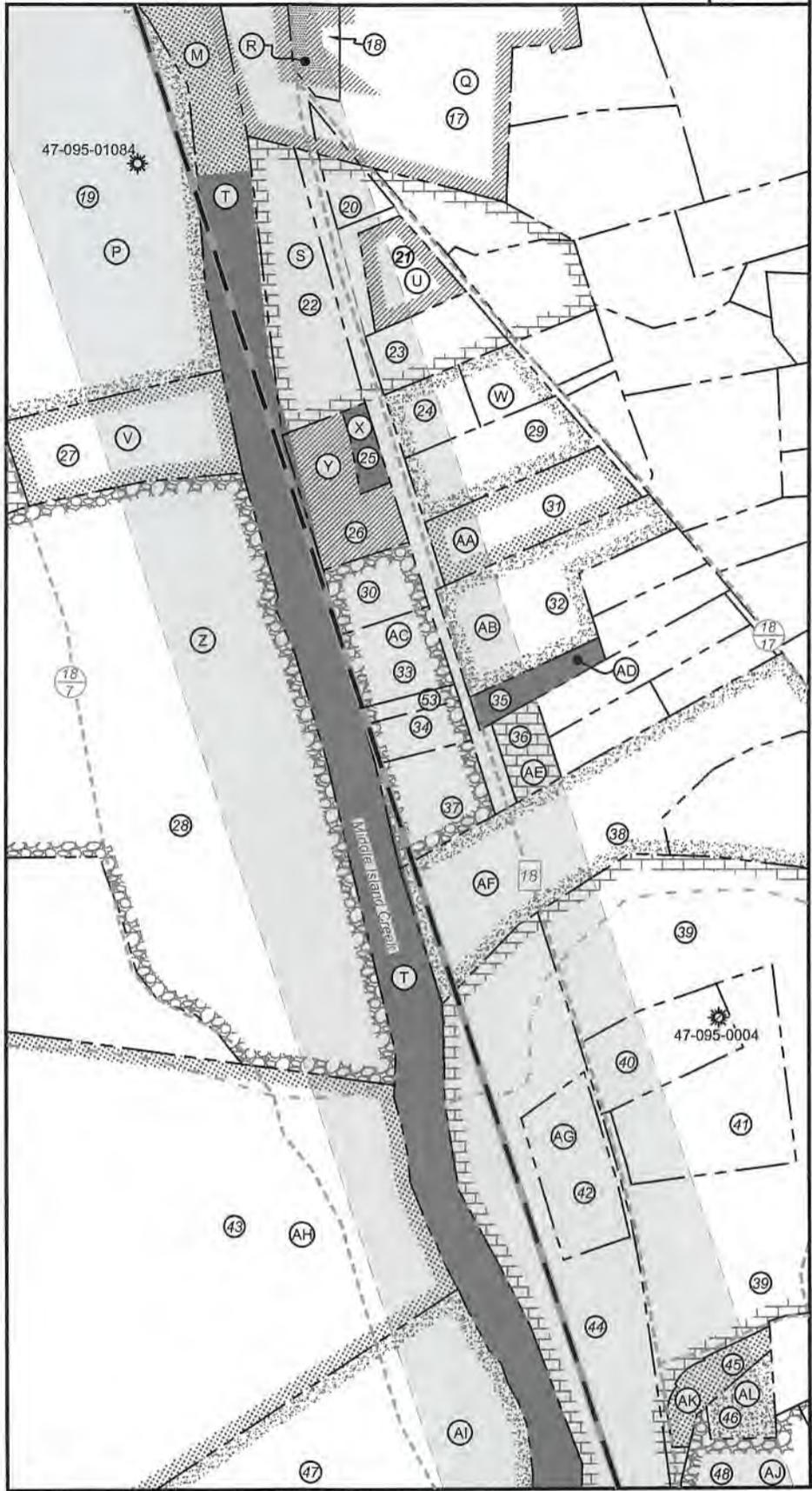
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built 1,004' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley
 DISTRICT: Ellsworth COUNTY: Tyler
 SURFACE OWNER: Roger D. Blizzard & Ruth E. Spencer ACREAGE: 102.62
 ROYALTY OWNER: Heritage Resources - Marcellus Minerals, LLC; B. Fred Hill Jr.; Keith C. & Phyllis J. Smith; LEASE NO: ACREAGE: 28.009; 168.175; 24;

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: 7,000' TVD
 26,100' 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

13,8488;
 136.22;102.62;
 119.578; 93.757;
 83.5; 67.90625;
 75.25; 70; 7.94; 12.5;
 26.684; 10.74; 19.46;
 2.4; 6.905; 17.401;
 05/28/2021



FILE NO: 97-54-E-19
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13.8488;
 136.22;102.62;
 119.578; 93.757;
 63.5; 67.90625;
 7.525; 7.0; 7.34; 12.5;
 26.684; 10.74; 19.46;
 2.4; 5.905; 17.401;
 28.009; 168.175; 24;

05/28/2021

1,027' to Bottom Hole

Top Hole 7.5' Spot

5,036' to Top Hole

BTM Hole 7.5' Spot

TOP HOLE LATITUDE 39 - 30 - 30
BTM HOLE LATITUDE 39 - 27 - 30

Antero Resources
Well No. Wade 1H
BHL MOD
Antero Resources Corporation



Wellhead Layout

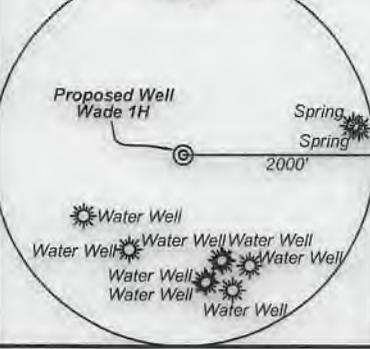
- Pechora Unit 2H 47-095-02725
- Pechora Unit 1H 47-095-02724
- Whitmore Unit 2H 47-095-02727
- Whitmore Unit 1H 47-095-02726
- Wade Unit 2H 47-095-02728
- Proposed Wade Unit 1H 47-095-02729



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. 2187

Note: 8 water wells and 2 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
- Found corner, as noted
- Existing Well, as noted
- Digitized Well
- Existing Road
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Wade Unit 1H Top Hole coordinates are
N: 366,498.23' Latitude: 39°29'54.17"
E: 1,618,720.00' Longitude: 80°51'04.25"
Bottom Hole coordinates are
N: 350,790.56' Latitude: 39°27'19.49"
E: 1,622,496.29' Longitude: 80°50'13.10"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,372,104.105m N: 4,367,337.928m
E: 512,810.442m E: 514,040.781m
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. Wade Unit 1H
UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,343,430.42'
E: 1,682,398.19'
Point of Entry Coordinates
N: 14,343,215.95'
E: 1,681,108.38'
Bottom Hole Coordinates
N: 14,327,793.31'
E: 1,686,434.75'

Well Location References



Not to Scale

	Bearing	Dist.
L1	S 20°26' E	1,001.4'
L2	N 37°13' W	1,607.8'
L3	N 41°19' E	1,121.9'
L4	N 75°05' E	936.6'
L5	S 81°31' W	1,308.0'

FILE NO: 97-54-E-19
DRAWING NO: Wade 1H 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: April 22, 20 21
OPERATOR'S WELL NO. Wade 1H
API WELL NO
47 - 095 - 02729
STATE COUNTY PERMIT

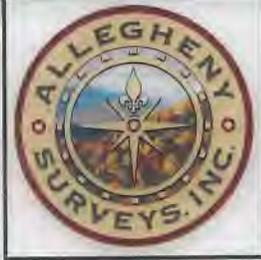
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: As-Built 1,004' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley
DISTRICT: Ellsworth COUNTY: Tyler
SURFACE OWNER: Roger D. Blizzard & Ruth E. Spencer ACREAGE: 102.62
ROYALTY OWNER: Heritage Resources - Marcellus Minerals, LLC; B. Fred Hill Jr.; Keith C. & Phyllis J. Smith; LEASE NO: ACREAGE: 28.009; 168.175; 24;

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: 7,000' TVD, 26,100' MD

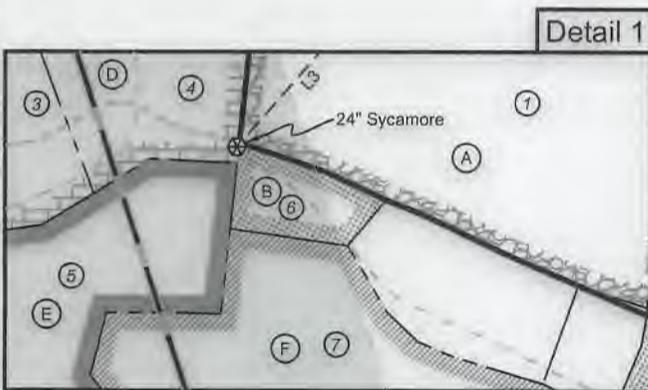
WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313

05/28/2021



Leases			
A	Heritage Resources - Marcellus Minerals, LLC	S	Patrick Lewis Smith
		T	WVDNR
B	Heritage Resources - Marcellus Minerals, LLC	U	Danny L. & Terri E. Botkins
		V	Lloyd E. & Nancy J. Wade
C	B. Fred Hill Jr.	W	James R. Pinney
D	Clifford and Virginia Perkins Irrevocable Trust	X	ATX Mineral Holdings, LLC
		Y	Edward H. Estep, et ux
E	Carl E. Taylor, et ux	Z	Brian M. Weigle
F	The Swan Living Trust	AA	Lloyd Carl Seckman
G	Charles T. White Jr.	AB	David E. Bowyer
H	Ridgetop Capital II, LP	AC	ATX Mineral Holdings, LLC
I	Elmer Earl Bowser Jr.	AD	Brian M. Glover
J	Kenneth R. & Jennifer L. Mason	AE	Robert O'Neil Dotson, et ux
K	Haessly Land & Timber, LLC	AF	AMP Fund II, LP
L	Bradley J. Carpenter	AG	Brian M. Weigle
M	WVDNR	AH	Rheba McMichael
N	Ronald E. Thompson, et ux	AI	Kenneth R. & Jennifer L. Mason
O	Kathy Ann Seago	AJ	Keith C. Smith, et ux
P	Roger D. Wade	AK	Keith C. Smith, et ux
Q	E. Lorna Howard Testamentary Trust	AL	Mount Aris Cemetery
		AM	Triple Haight Trust
R	Alf Smith Cemetery	AN	Ronald L. Hoover, et ux
		AO	WVDNR

ID	TM/Par	Owner	DB/PG	Acres
1	15-33	Roger D. Blizzard & Ruth E. Spencer	340/170	102.62
2	15-30	Thomas C. & Jeudeann L. Grinage	458/73	124.08
3	15-34	Michael & Bente H. Biddle	294/537	82.34
4	15-34.1	Randy & Pamela L. Lancaster	370/776	11.42
5	21-6	Carl E. & Elsie M. Taylor	391/181	63.50
6	21-7	Gary O. & Anita K. Bennett	332 / 605	1.75
7	21-14	Carl E. & Elsie M. Taylor	391/181	67.91
8	21-16	Stephanie & Joseph W. Havranek	254/153	4.50
9	21-17	Stephanie & Joseph W. Havranek	254/153	10.38
10	21-18	Ridgetop Capital II, LP	385/781	83.68
11	21-15	Stephanie & Joseph W. Havranek	254/153	45.48
12	21-52	Jennifer L. & Kenneth Mason	345/743	81.0
13	21-53	Haessly Land & Timber, LLC	337/101A	89.88
14	27-10	Kathy Ann Seago, et al	WB 41/119	31.18
15	21-55	Ronald & Janet Thompson	400/552	12.50
16	21-54	Sybil Gorbey	WB 34/343	70.00
17	22-42	Sharon Christenson, et al	635/420	144.26
18	21-57	ALF Smith Cemetery	107/393	3.00
19	21-56	Roger D. Wade	485/486	26.68
20	21-60	Danny & Terri Botkins	342/556	0.86
21	21-61	Danny & Terri Botkins	342/556	1.51
22	21-59	Travis O. Baker	617/620	3.72
23	21-62	Lewis Timmons Estate	332/1	1.8
24	28-1	Lois J. Estep & Edward E. Estep	359/613	1.11
25	27-12	Joan Estep & Edward H. Estep	556/513	0.47
26	27-13	Joan Estep & Edward H. Estep	556/513	2.40
27	21-56.1	Nancy Wade	336/127	4.48
28	27-11	Kathy Ann Seago, et al	WB 41/119	35.08
29	28-2	Mary Ladene Lemasters	299/548	2.37
30	27-14	James & Naomi Baker	644/632	1.50
31	28-3	Lloyd C. & Kathen G. Seckman	184/296	2.88
32	28-13	David E. Bowyer	481/234	3.97
33	27-15	John Helt	448/274	0.49
34	27-16	David Newbrough Revocable Family Trust	369/370	0.94
35	28-4.6	Brian M. Glover	397/415	0.83
36	28-14	Robert & Sandra Dotson	213/445	0.87
37	27-17	David & Diana Weekley	575/9	1.94
38	28-10	Carol Knapp Rev. Trust	435/461	9.20
39	28-17	Kathy Ann Seago, et al	WB 41/119	12.11
40	28-16.1	Brian Weigle	353/776	2.36
41	28-16	Kathy Ann Seago, et al	WB 41/119	4.54
42	28-15.1	Keith & Phyllis Smith	350/565	2.40
43	27-19	Lynda Spellman, et al	119/512	86.00
44	28-15	Troy & Kelly Smith	337/393	6.60
45	28-25	Ripley Alma Methodist Church	199/1	0.86
46	28-24	Mt. Ans Union Church & Cemetery	246/47	0.97
47	27-20	Kenneth & Jennifer Mason	332/960	269.00
48	28-29	Keith C. Smith	WB 35/228	116.72
49	28-27	Kenneth & Jennifer Mason	353/389	72.00
50	4-5	Roger & Sandy Weese	312/203	182.74
51	28-28	Ronald & Linda Hoover	184/383	136.22
52	2-1	Larry & Betty Fletcher	312/200	120.00
53	27-16.1	John Helt	448/274	0.15



FILE NO: 97-54-E-19
 DRAWING NO: Wade 1H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY:
 Submeter
 PROVEN SOURCE OF ELEVATION:
 WVDOT, Harrisville, WV



DATE: April 22 20 21
 OPERATOR'S WELL NO. Wade 1H
 API WELL NO
 47 - 095 - 02729
 STATE COUNTY PERMIT

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

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DISTRICT: Ellsworth COUNTY: Tyler

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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: 7,000' TVD
 26,100' 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

05/28/2021

Antero Resources
Well No. Wade 1H
BHL MOD
Antero Resources Corporation

Detail 2



FILE NO: 97-54-E-19
 DRAWING NO: Wade 1H 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

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 Denver, CO 80202 Charleston, WV 25313

05/28/2021

WW-6A1

Operator's Well Number Wade Unit 1H

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</u> <u>Heritage Resources Marcellus Minerals Lease</u> Heritage Resources Marcellus Minerals	Antero Resources Corporation	1/8+	0627/0134
<u>C</u> <u>B. Fred Hill Jr. Lease</u> B. Fred Hill Jr.	Antero Resources Corporation	1/8+	0531/0516
<u>D</u> <u>Cliff & Virginia Perkins Irrevocable Trust Lease</u> Cliff & Virginia Perkins Irrevocable Trust	Antero Resources Corporation	1/8+	0480/0710
<u>E</u> <u>Carl E. Taylor et ux Lease</u> Carl E. Taylor et ux Statoil USA Onshore Properties EQT Production Company	Statoil USA Onshore Properties EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment	0436/0001 0539/0239 0663/0001
<u>F</u> <u>The Swan Living Trust Lease</u> The Swan Living Trust	Antero Resources Corporation	1/8+	0400/0694
<u>G</u> <u>Charles T. White Jr. Lease</u> Charles T. White Jr. Statoil USA Onshore Properties EQT Production Company	Statoil USA Onshore Properties EQT Production Company Antero Resources Corporation	1/8+ Assignment Assignment	0397/0564 0539/0239 0663/0001
<u>I</u> <u>Elmer Earl Bowser Jr. Lease</u> Elmer Earl Bowser Jr.	Antero Resources Corporation	1/8	0559/0053
<u>J</u> <u>Kenneth R. & Jennifer L. Mason Lease</u> Kenneth R. & Jennifer L. Mason	Antero Resources Corporation	1/8+	0437/0280
<u>K</u> <u>Haessly Land & Timber LLC Lease</u> Haessly Land & Timber LLC	Antero Resources Corporation	1/8+	0087/0713
<u>L</u> <u>Bradley J. Carpenter Lease</u> Bradley J. Carpenter	Antero Resources Corporation	1/8+	0621/0039
<u>N</u> <u>Ronald E. Thompson et ux Lease</u> Ronald E. Thompson et ux	Antero Resources Corporation	1/8+	0031/0068

RECEIVED
Office of Oil and Gas

MAY 17 2021

WV Department of
Environmental Protection

*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.

05/28/2021

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	Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
P	<u>Roger D. Wade Lease</u> Roger D. Wade	Antero Resources Corporation	1/8+	0069/0147
M	<u>WVDNR Lease</u> WVDNR	Antero Resources Corporation	1/8+	0099/0310
X	<u>ATX Mineral Holdings LLC Lease</u> ATX Mineral Holdings LLC	Antero Resources Corporation	1/8+	0082/0399
AF	<u>AMP Fund II LP Lease</u> AMP Fund II LP	Antero Resources Corporation	1/8+	0557/0685
AG	<u>Brian M. Weigle Lease</u> Brian M. Weigle	Antero Resources Corporation	1/8+	0661/0646
MM	<u>Triple Haught Trust Lease</u> Triple Haught Trust	Antero Resources Corporation	1/8+	0591/0013
RR	<u>Keith C. Smith et ux Lease</u> Keith C. Smith et ux	Antero Resources Corporation	1/8+	0547/0461
NU	<u>Ronald L. Hoover et ux Lease</u> Ronald L. Hoover et ux	Antero Resources Corporation	1/8+	0072/0183
MM	<u>Triple Haught Trust Lease</u> Triple Haught Trust	Antero Resources Corporation	1/8+	0591/0013

RECEIVED
 Office of Oil and Gas
 MAY 17 2021
 WV Department of
 Environmental Protection