



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, August 22, 2022
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for LENNY UNIT 1H
47-103-03494-00-00

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: LENNY UNIT 1H
Farm Name: JAMES A SELL
U.S. WELL NUMBER: 47-103-03494-00-00
Horizontal 6A New Drill
Date Modification Issued: 08/22/2022

Promoting a healthy environment.

08/26/2022

ck# 4012203
\$ 2,500

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

1) Well Operator: Antero Resources Corporation 494507062 013-Wetzel Green Pine Grove 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Lenny Unit 1H MOD Well Pad Name: Furbee Pad

3) Farm Name/Surface Owner: James Allen Sell Public Road Access: Furbee Ridge Road

4) Elevation, current ground: 1240' Elevation, proposed post-construction: ~1212'

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow X Deep _____
Horizontal X

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7600' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7600' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 24900' MD

11) Proposed Horizontal Leg Length: 15201.1'

12) Approximate Fresh Water Strata Depths: 575'

13) Method to Determine Fresh Water Depths: 47103308970000

14) Approximate Saltwater Depths: 2284'

15) Approximate Coal Seam Depths: 973'

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 X

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

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Environmental Protection

WW-6B
(04/15)

API NO. 47- 103 - 03494
 OPERATOR WELL NO. Lenny Unit 1H MOD
 Well Pad Name: Furbee 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	79#	80	80	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	625	625	CTS, 651 Cu. Ft.
Coal	9-5/8"	New	J/K-55	36#	2500	2500	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	24900	24900	CTS, 5357 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

Donald L. Reynolds
8-19-22

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"	0.375"	2250	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"	14,360	2500	Class G/H	~1.18
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

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 By COG

PACKERS

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

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

Drill, perforate, fracture a new horizontal shallow well and complete 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): 30.09 acres

22) Area to be disturbed for well pad only, less access road (acres): 13.86 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.

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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

AUG 11 2022

West Virginia Department of Environmental Protection

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.

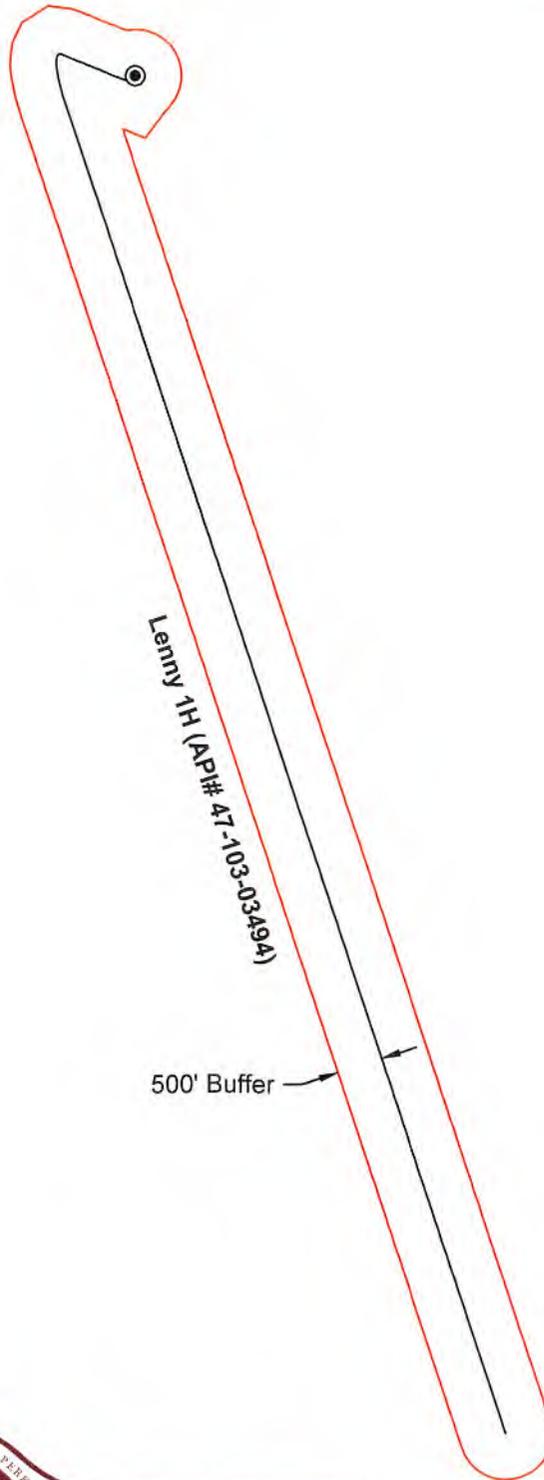
*Note: Attach additional sheets as needed.

LEGEND

- ⊙ Proposed gas well
- ☼ Existing Well, as noted
- ☼ Digitized Well, as noted



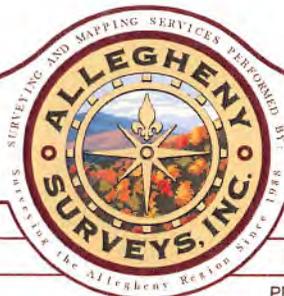
The orientation of this survey is Grid North, and its coordinate base is the West Virginia Coordinate System of 1927, North Zone



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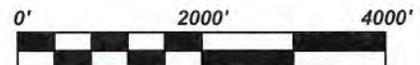
West Virginia Department of
Environmental Protection



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: May 4, 2022
SURVEYED: Dec. 2016	PROJECT NO: 120-34-G-18
FIELD CREW: C.L., K.M.	DRAWING NO: Reader 1H BHLM AOR



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

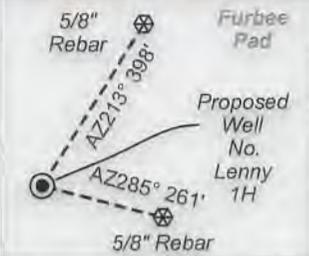
Page 1 of 2

6,503' to Top Hole
 2,334' to Bottom Hole
TOP HOLE LATITUDE 39 - 35 - 00
BTM HOLE LATITUDE 39 - 32 - 30



Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Lenny Unit 1H Top Hole coordinates are
 N: 387,391.32' Latitude: 39°33'25.50"
 E: 1,652,811.11' Longitude: 80°43'53.04"
 Bottom Hole coordinates are
 N: 372,643.84' Latitude: 39°31'00.28"
 E: 1,656,782.81' Longitude: 80°42'59.78"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,378,642.992m N: 4,374,170.277m
 E: 523,090.480m E: 524,375.324m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

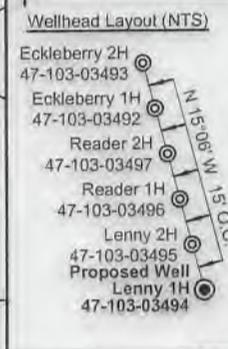
Well Location References (NTS)



Notes:
 Well No. Lenny Unit 1H UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,364,882.37'
 E: 1,716,124.41'
 Point of Entry Coordinates
 N: 14,364,568.18'
 E: 1,715,369.63'
 Bottom Hole Coordinates
 N: 14,350,208.15'
 E: 1,720,340.28'

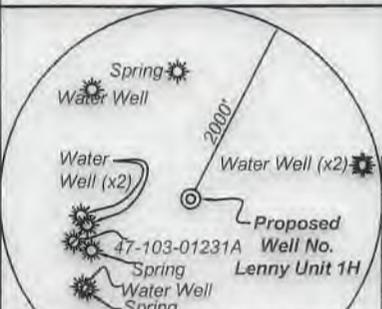
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



	Bearing	Dist.
L1	S 73°52' W	1,921.0'
L2	N 84°10' W	2,074.7'
L3	N 76°37' E	1,559.8'
L4	N 81°51' E	1,566.5'
L5	S 68°21' W	817.8'

- Legend**
- Proposed gas well
 - ⊗ Monument, as noted
 - ⊙ Existing Well, as noted
 - ⊙ Digitized Well, as noted
 - Creek or Drain
 - Road
 - Railroad Right-of-Way
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)



Note: 6 water wells and 3 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.

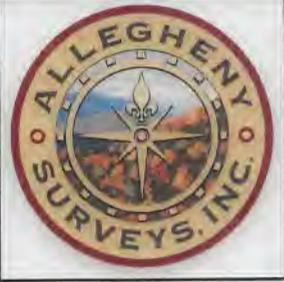
FILE NO: 125-34-G-18
 DRAWING NO: Lenny Unit 1H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: August 4 20 22
 OPERATOR'S WELL NO. Lenny Unit 1H
 API WELL NO MOD
 47 - 103 - 03494
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Existing 1240' Proposed 1212' WATERSHED: Fishing Creek QUADRANGLE: Pine Grove 264.75;
 DISTRICT: Green James George David Sell; COUNTY: Wetzel 08/26/2022
 SURFACE OWNER: A. Sell Joan B. Hoge Trust; Joshua R. Edgell, et al; Morris Moutalner Oil & Gas, LLC; Antero Minerals, LLC
 ROYALTY OWNER: James Allen Sell; William R. Stalnaker; Stone Hill Mineral Holdings, LLC; Shiben Estates, Inc. (2); LEASE NO: ACREAGE: 68.9563; 50; 13.25
 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: 24,900' MD 7,600' TVD

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



ID	TM-Par	Owner	Bk/Pg	Acres
1	17-12	James Allen Sell	370/148	58.10
2	13-69.1	Donald L. Mason	410/759	14.00
3	17-1	James Allen Sell	370/148	15.35
4	17-57	Steven C. & Bertie G. Blinkman	388/243	20.60
5	17-60	Ross Bucher	411/765	79.00
6	17-59	Olivia Brisendine	470/440	12.50
7	17-54	James Allen Sell	370/148	25.50
8	17-16	James & Andrea Sell	417/40	25.75
9	17-17	James Allen Sell	370/148	70.00
10	17-24	Nola Parks	417/35	26.50
11	17-25	Nola Parks & Jonathan Sivert	417/35	25.00
12	17-33	Debra Lynn Brown	332/480	26.00
13	17-34	Debra Lynn Brown	332/480	20.00
14	17-47	George David Sell	351/473	40.00
15	17-44	Debra Lynn Brown	362/474	26.00
16	17-46	George David Sell	351/473	4.00
17	17-35	Alfred Raymond Furbee, Sr. & Olive Gay Brown	333/638	60.00
18	17-45	George D. Sell, et al	W53/228	20.20
19	17-30	Alfred Raymond Furbee, Sr. & Olive Gay Brown	333/638	11.70
20	20-4	Nola J. Parks & Gloria C. Higgins	A100/689	25.50
21	20-5	Debbie Brown, et al	A96/679	45.00
22	20-13	Dallison Lumber Inc.	440/243	208.00
23	20-14.3	Albert E. & Betty Jean Clutter	379/182	14.35
24	20-14.10	Bobbi Jean Bassett	432/506	11.54
25	20-14.9	Randy D. & Dori R. Ice	404/39	53.33
26	20-14.5	Marsha C. Hamrick, et al	363/279	44.46
27	20-17	Christopher N. Kise	420/812	34.30
28	20-27	David Edward Arthurs, et al	347/49	0.75
29	20-25	Unkown	---/---	42.00
30	20-28	Coastal Forest Resources Co.	444/105	36.00
31	20-36	Louisa Bassett	165/304	1.50
32	20-33	David Edward Arthurs, et al	347/49	26.50
33	20-34	Columbia Gas Transmission Corporation	263/164	12.00
34	20-35	Louisa Bassett & Irvin Bassett	168/157	62.00

Leases	
A	James Allen Sell
B	George Neason Myers, et ux
C	William R. Stalnaker
D	Shiben Estates, Inc.
E	Shiben Estates, Inc.
F	Stone Hill Mineral Holdings, LLC
G	Ridgetop Capital IV, LP
H	Debra L. Brown
I	Lydia Sims
J	Debra L. Brown
K	George David Sell
L	Kevin S. Goff, et ux
M	Shiben Estates, Inc.
N	BRC Appalachian Minerals I, LLC
O	Barbara Barker, et vir
P	Waco Oil & Gas Company Inc.
Q	Tribune Resources Minerals, LLC
R	Joan B. Hoge Trust
S	Joshua R. Edgell, et al
T	Morris Mountaineer Oil & Gas LLC
U	BRC Appalachian Minerals I, LLC
V	Shiben Estates, Inc.
W	Antero Minerals, LLC
X	Josephine Brast, et al
Y	Shiben Estates, Inc.

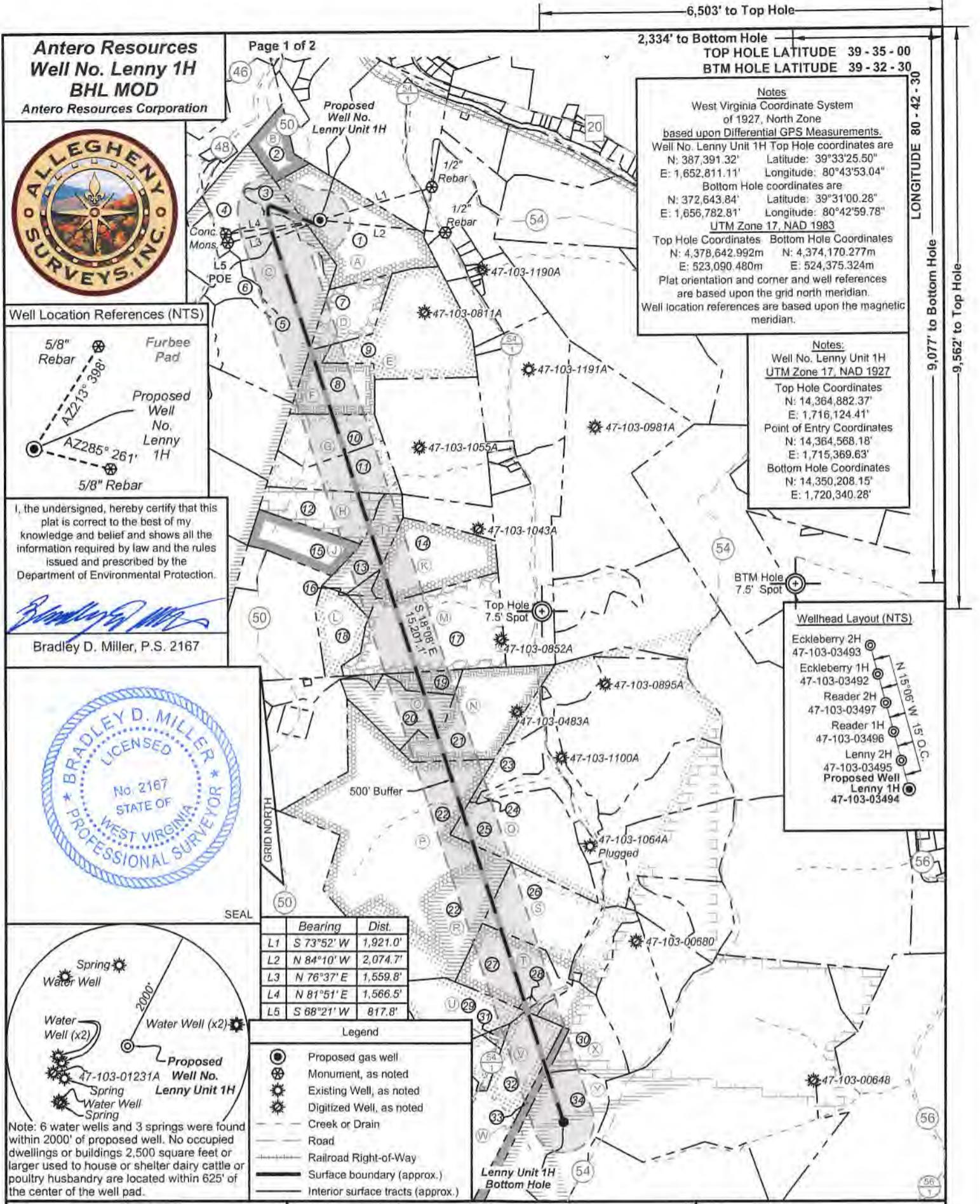
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OIL AND GAS DIVISION

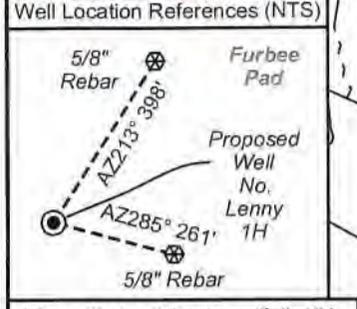
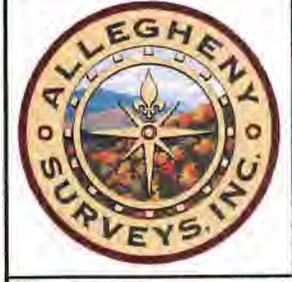
DATE: August 4 20 22
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 API WELL NO **MOD**
 47 - 103 - 03494
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Existing 1240' Proposed 1212' WATERSHED: Fishing Creek QUADRANGLE: Pine Grove 264.75,
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 ROYALTY OWNER: James Allen Sell; William R. Stalnaker; Stone Hill Mineral Holdings, LLC; Shiben Estates, Inc. (2); LEASE NO: ACREAGE: 58.1 40; 72; 35.5; 89; 257;
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL_MOD 137.9125; 23.0; 50;
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 24,900' MD 68.9563; 50; 13.25

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
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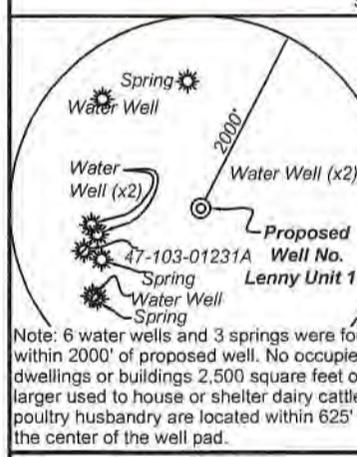
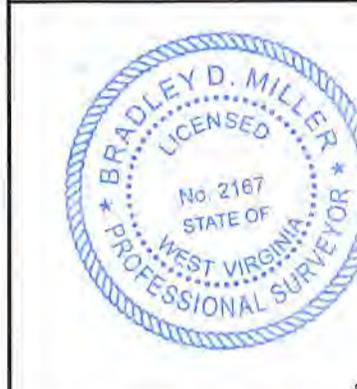
Antero Resources
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BHL MOD
 Antero Resources Corporation



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



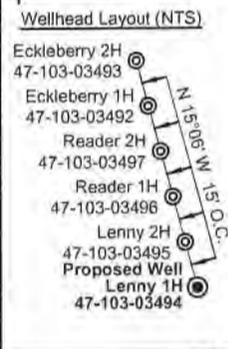
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 47 - 103 - 03494
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 SURFACE OWNER: A. Sell Barbara Barker, et vir; BRC Appalachian Minerals I, LLC (2); Waco Oil & Gas Company, Inc.;
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6	17-59	Olivia Brisendine	470/440	12.50
7	17-54	James Allen Sell	370/148	25.50
8	17-16	James & Andrea Sell	417/40	25.75
9	17-17	James Allen Sell	370/148	70.00
10	17-24	Nola Parks	417/35	26.50
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19	17-30	Alfred Raymond Furbee, Sr. & Olive Gay Brown	333/638	11.70
20	20-4	Nola J. Parks & Gloria C. Higgins	A100/689	25.50
21	20-5	Debbie Brown, et al	A96/679	45.00
22	20-13	Dallison Lumber Inc.	440/243	208.00
23	20-14.3	Albert E. & Betty Jean Clutter	379/182	14.35
24	20-14.10	Bobbi Jean Bassett	432/506	11.54
25	20-14.9	Randy D. & Dori R. Ice	404/39	53.33
26	20-14.5	Marsha C. Hamrick, et al	363/279	44.46
27	20-17	Christopher N. Kise	420/812	34.30
28	20-27	David Edward Arthurs, et al	347/49	0.75
29	20-25	Unkown	---/---	42.00
30	20-28	Coastal Forest Resources Co.	444/105	36.00
31	20-36	Louisa Bassett	165/304	1.50
32	20-33	David Edward Arthurs, et al	347/49	26.50
33	20-34	Columbia Gas Transmission Corporation	263/164	12.00
34	20-35	Louisa Bassett & Irvin Bassett	168/157	62.00

Leases	
A	James Allen Sell
B	George Neason Myers, et ux
C	William R. Stalnaker
D	Shiben Estates, Inc.
E	Shiben Estates, Inc.
F	Stone Hill Mineral Holdings, LLC
G	Ridgetop Capital IV, LP
H	Debra L. Brown
I	Lydia Sims
J	Debra L. Brown
K	George David Sell
L	Kevin S. Goff, et ux
M	Shiben Estates, Inc.
N	BRC Appalachian Minerals I, LLC
O	Barbara Barker, et vir
P	Waco Oil & Gas Company Inc.
Q	Tribune Resources Minerals, LLC
R	Joan B. Hoge Trust
S	Joshua R. Edgell, et al
T	Morris Mountaineer Oil & Gas LLC
U	BRC Appalachian Minerals I, LLC
V	Shiben Estates, Inc.
W	Antero Minerals, LLC
X	Josephine Brast, et al
Y	Shiben Estates, Inc.

FILE NO: 125-34-G-18
 DRAWING NO: Lenny Unit 1H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY:
Submeter
 PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV



DATE: August 4 20 22
 OPERATOR'S WELL NO. Lenny Unit 1H
 API WELL NO. MDD
47 - 103 - 03494
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Existing 1240' WATERSHED: Fishing Creek QUADRANGLE: Pine Grove 264.75;
 DISTRICT: Green James George David Sell; COUNTY: Wetzel 50.22; 33.33;
 SURFACE OWNER: A. Sell Joan B. Hoge Trust; Joshua R. Edgell, et al; Morris Moutaineer Oil & Gas, LLC; Antero Minerals, LLC; COUNTY: Wetzel 50.22; 33.33;
 ROYALTY OWNER: James Allen Sell; William R. Stalnaker; Stone Hill Mineral Holdings, LLC; Shiben Estates, Inc. (2); LEASE NO: _____ ACREAGE: _____
 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: 24,900' MD 7,600' TVD

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

WW-6A1

Operator's Well Number Lenny Unit 1H MOD

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: James Allen Sell Lease</u> James Allen Sell	Antero Resources Corporation	1/8+	258A/0467
<u>C: William R. Stalnaker Lease</u> William R. Stalnaker	Antero Resources Corporation	1/8+	179A/0069
<u>D: Shiben Estates, Inc. Lease</u> Shiben Estates, Inc.	Antero Resources Corporation	1/8+	265A/0247
<u>F: Stone Hill Mineral Holdings, LLC Lease</u> Stone Hill Minerals Holdings, LLC	Antero Resources Corporation	1/8+	259A/0769
<u>G: Ridgetop Capital IV, LP Lease</u> Ridgetop Capital IV, LP	Antero Resources Corporation	1/8+	215A/0616
<u>H: Debra L. Brown Lease</u> Debra L. Brown, widow	Antero Resources Corporation	1/8+	191A/0321
<u>I: Lydia Sims Lease</u> Lydia Sims	Antero Resources Corporation	1/8+	200A/0808
<u>K: George David Sell Lease</u> George David Sell, a married man dealing in his sole and separate property	Antero Resources Corporation	1/8+	176A/0463
<u>M: Shiben Estates, Inc. Lease</u> Shiben Estates, Inc.	Antero Resources Corporation	1/8+	265A/0267
<u>N: BRC Appalachian Minerals I, LLC Lease</u> BRC Appalachian Minerals I, LLC BRC Working Interest Company LLC Chesapeake Appalachia LLC SWN Production Company Antero Exchange Properties, LLC	BRC Working Interest Company LLC Chesapeake Appalachia LLC SWN Production Company Antero Exchange Properties, LLC Antero Resources Corporation	1/8+ Assignment Assignment Assignment Merger	102A/0505 103A/0470 157A/0540 177A/0533 0013/0311
<u>O: Barbara Barker, et vir Lease</u> Barbara Barker, et vir	Antero Resources Corporation	1/8+	185A/0219
<u>N: BRC Appalachian Minerals I, LLC Lease</u> BRC Appalachian Minerals I, LLC BRC Working Interest Company LLC Chesapeake Appalachia LLC SWN Production Company Antero Exchange Properties, LLC	BRC Working Interest Company LLC Chesapeake Appalachia LLC SWN Production Company Antero Exchange Properties, LLC Antero Resources Corporation	1/8+ Assignment Assignment Assignment Merger	102A/0505 103A/0470 157A/0540 177A/0533 0013/0311

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AUG 11 2022
Department of Environmental Protection

08/26/2022

WW-6A1

Operator's Well Number Lenny Unit 1H MOD

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>P: Waco Oil & Gas Company Inc Lease</u>			
Waco Oil & Gas Company Inc	Antero Resources Corporation	1/8+	184A/0741
<u>Q: Tribune Resources Minerals, LLC Lease</u>			
Tribune Resources Minerals, LLC	Tribune Resources, LLC	1/8+	218A/0803
Tribune Resources, LLC	Antero Resources Corporation	Assignment	219A/0322
<u>P: Waco Oil & Gas Company Inc Lease</u>			
Waco Oil & Gas Company Inc	Antero Resources Corporation	1/8+	184A/0741
<u>R: Joan B. Hoge Trust Lease</u>			
The Joan B. Hoge Trust	Antero Resources Corporation	1/8+	219A/0200
<u>S: Joshua R. Edgell, et al Lease</u>			
Joshua R. Edgell, DSSP and Robin F. Moore	Antero Resources Corporation	1/8+	191A/0370
<u>T: Morris Mountaineer Oil & Gas LLC Lease</u>			
Morris Mountaineer Oil & Gas LLC	Antero Resources Corporation	1/8+	257A/0400
<u>U: BRC Appalachian Minerals I, LLC Lease</u>			
BRC Appalachian Minerals I, LLC	BRC Working Interest Company LLC	1/8+	102A/0505
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	103A/0470
Chesapeake Appalachia LLC	SWN Production Company	Assignment	157A/0540
SWN Production Company	Antero Exchange Properties, LLC	Assignment	177A/0533
Antero Exchange Properties, LLC	Antero Resources Corporation	Merger	0013/0311
<u>V: Shiben Estates, Inc. Lease</u>			
Shiben Estates, Inc.	Antero Resources Corporation	1/8+	198A/0540
<u>W: Antero Minerals, LLC Lease</u>			
Antero Minerals, LLC	Antero Resources Corporation	1/8	0481/0515
<u>X: Josephine Brast, et al Lease</u>			
Josephine Brast, et al	South Penn Oil Company	1/8	0049/0059
South Penn Oil Company	Hope Natural Gas Company	Assignment	0 9A/0230
Hope Natural Gas Company	Consolidated Gas Supply Corporation	Assignment	0233/0387
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	066A/0069
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Name Change	0013/0151
CNG Transmission Corporation	Eastern States Oil & Gas Inc	Assignment	076A/0232
Eastern States Oil & Gas Inc	Equitable Production-Eastern States Inc	Name Change	0013/0014
Equitable Production-Eastern States Inc	Equitable Production Company	Merger	0013/0014
Equitable Production Company	EQT Production Company	Name Change	0013/0014
EQT Production Company	Tribune Resources successor in interest of Ascent Resources-Marcellus LLC fka American Energy-Marcellus LLC	Assignment	179A/0653

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Office of Oil and Gas

AUG 11 2022

 West Virginia Department of
Environmental Protection

08/26/2022

WW-6A1

Operator's Well Number Lenny Unit 1H MOD

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 Chapter 22, Article 6A, Section 5(a)(5)
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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Tribune Resources successor in interest of Ascent Resources-Marcellus LLC fka American Energy-Marcellus LLC	Antero Resources Corporation	Assignment	219A/0322

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 Office of Oil and Gas
 AUG 11 2022
 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.

WW-6A1
(5/13)

Operator's Well No. Lenny Unit 1H MOD

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>Y: Shiben Estates, Inc. Lease</u>	Shiben Estates, Inc.	Antero Resources Corporation	1/8+	198A/0540

*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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Office of Oil and Gas

AUG 11 2022

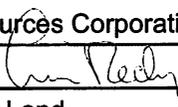
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

WV Department of
Environmental Protection

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.

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



Stansberry, Wade A <wade.a.stansberry@wv.gov>

Modification Horizontal H6A Well Work Permits API: (47-103-03492, 03494, 03495, 03496, & 03497)

1 message

Stansberry, Wade A <wade.a.stansberry@wv.gov>

Tue, Aug 23, 2022 at 5:53 PM

To: Mallory Stanton <mstanton@anteroresources.com>, Diane Blair <dblair@anteroresources.com>, Dani DeVito <ddevito@shalepro.com>, Scott Lemley <slemley@wvassessor.com>, "Greynolds, Kenneth L" <kenneth.l.greynolds@wv.gov>

I have attached a copy of the newly issued well permit numbers:

- 47-103-03492 - ECKLEBERRY UNIT 1H
- 47-103-03494 - LENNY UNIT 1H
- 47-103-03495 - LENNY UNIT 2H
- 47-103-03496 - READER 1H
- 47-103-03497 - READER 2H

These will serve as your copy.

Thank you,

Wade A. Stansberry

Environmental Resource Specialist 3

West Virginia Department of Environmental Protection

Office of Oil & Gas

601 57th St. SE

Charleston, WV 25304

(304) 926-0499 ext. 41115

(304) 926-0452 fax

Wade.A.Stansberry@wv.gov

5 attachments

-  **47-103-03492 - mod.pdf**
1310K
-  **47-103-03494 - mod.pdf**
1287K
-  **47-103-03495 - mod.pdf**
1225K
-  **47-103-03496 - mod.pdf**
1243K
-  **47-103-03497 -mod.pdf**
1185K

08/26/2022