



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

Tuesday, March 15, 2022
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for GREENWOOD UNIT 1H
47-095-02777-00-00

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.

A blue ink signature of James A. Martin, Chief, is written over a white rectangular area. The signature is stylized and cursive.

James A. Martin
Chief

Operator's Well Number: GREENWOOD UNIT 1H
Farm Name: ROBERT D & VIRGINIA A NALLEY
U.S. WELL NUMBER: 47-095-02777-00-00
Horizontal 6A New Drill
Date Modification Issued: 03/10/2022

Promoting a healthy environment.

03/18/2022

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 Lincoln Paden City 7.5'
Operator ID County District Quadrangle
- 2) Operator's Well Number: Greenwood Unit 1H ✓ Well Pad Name: Nalley Pad ✓
- 3) Farm Name/Surface Owner: Robert D. Nalley et ux Public Road Access: WV-18 Tyler Highway ✓
- 4) Elevation, current ground: 972' ✓ Elevation, proposed post-construction: _____
- 5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow X Deep _____
Horizontal X _____
- 6) Existing Pad: Yes or No Yes
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 6600' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#
- 8) Proposed Total Vertical Depth: 6600' TVD ✓
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 22,600' ✓
- 11) Proposed Horizontal Leg Length: 14,633' ✓
- 12) Approximate Fresh Water Strata Depths: 158' ✓
- 13) Method to Determine Fresh Water Depths: 47-095-00912-0000 ✓
- 14) Approximate Saltwater Depths: 1678' ✓
- 15) Approximate Coal Seam Depths: 483' ✓
- 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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WV Department of
Environmental Protection

*DCW
2-29-2022*

WW-6B
(04/15)

API NO. 47-095 - 02777 MOD ✓
 OPERATOR WELL NO. Greenwood Unit 1H ✓
 Well Pad Name: Nalley 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#	300'	300' ✓	CTS, 313Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	22,600'	22,600' ✓	CTS, 4767 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"	0.375"	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	~1.8
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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MAR 07 2022

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Environmental Protection

*DCN
2-24-2022*

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): 34.58 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.43 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:

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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

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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.



47095002340000

47095009880000

47095003990000

Greenwood Unit 1H

47095008790000

47095006890000

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Antero Resources Corporation

Greenwood Unit 1H - AOR



WELL SYMBOLS

- Dry Hole, With Show of Oil & Gas
- Dry Hole
- Gas Well

February 17, 2022

03/18/2022

UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47095008790000	JOHNSON WILLIAM	2	LIPPIZAN PETRO INC	EMES JIM PET	3,019	2830 - 2868	Gordon	Berea, Alexander, Benson
47095006890000	STARKEY CLAIR	4	LIPPIZAN PETRO INC	EMES JIM PET	3,150	2900 - 2930	Gordon	Berea, Alexander, Benson
47095003990000	WM M STEWART	2	STARR H L	STARR H L	4,294	60-60	Gordon	Berea, Alexander, Benson
47095009880000	RUSSELL ESTATE	J-653	ROSS & WHARTON	J & J ENTERPRISES	5,012	2335 - 4200	Gordon	Berea, Alexander, Benson
47095002340000	JOSH RUSSELL HEIRS	1	STRAKOSCH ERNEST	STRAKOSCH ERNEST	2,444		Gordon	Berea, Alexander, Benson

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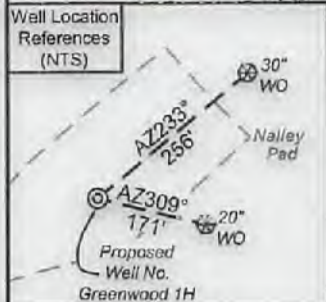
Antero Resources
Well No. Greenwood 1H
BHL MOD
 Antero Resources Corporation

Sheet 1 of 2

BTM Hole
7.5' Spot

4,132' to Bottom Hole

LATITUDE 39 - 35 - 00



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

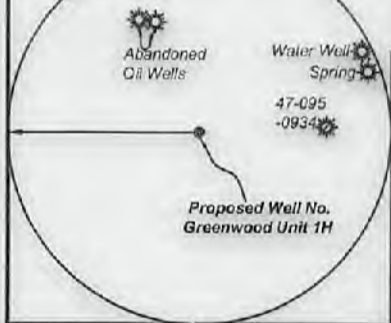
Bradley D. Miller, P.S. 2167



SEAL

Note: 1 water well and 1 spring 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.

	Bearing	Dist.
L1	N 69°07' E	782.9'
L2	N 82°23' E	1,840.7'
L3	S 72°40' W	1,367.5'
L4	N 26°20' W	1,593.3'
L5	N 78°31' W	310.6'

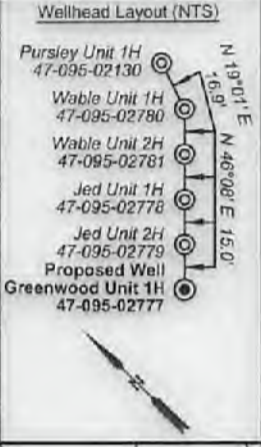


Legend

- 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.)

Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Greenwood Unit 1H Top Hole coordinates are
 N: 383,705.54' Latitude: 39°32'39.75"
 E: 1,589,710.61' Longitude: 80°57'17.83"
 Bottom Hole coordinates are
 N: 397,674.48' Latitude: 39°34'57.01"
 E: 1,584,851.82' Longitude: 80°58'22.78"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates: Bottom Hole Coordinates
 N: 4,377,198.641m N: 4,381,429.620m
 E: 503,885.245m E: 502,334.039m
 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. Greenwood Unit 1H UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,360,145.35'
 E: 1,653,115.60'
 Point of Entry Coordinates
 N: 14,360,202.08'
 E: 1,652,810.27'
 Bottom Hole Coordinates
 N: 14,374,026.48'
 E: 1,648,026.00'



FILE NO: 246-54-L-21
 DRAWING NO: Greenwood 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: February 14 2022
 OPERATOR'S WELL NO. Greenwood Unit 1H
 API WELL NO
 47 - 095 - 02777 M
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 971.8' WATERSHED: Middle Island Creek QUADRANGLE: Paden City
 DISTRICT: Lincoln COUNTY: Tyler
 SURFACE OWNER: Robert D. & Virginia A. Nalley Walter Busch Reisinger; William K. Johnson, et ux; Debra L. Smith; John E. Wright, et ux; Sara Anetsberger; J&N Management Enterprises, LLC (2); David E. Bowyer; R.L. Dielerich; ROYALTY OWNER: Robert D. Nalley, et ux; Robert L. Keller; Clair Starkey, et ux; LEASE NO: ACREAGE: 212.4, 40.0; 222.0

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: 6,600' TVD 22,600' 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

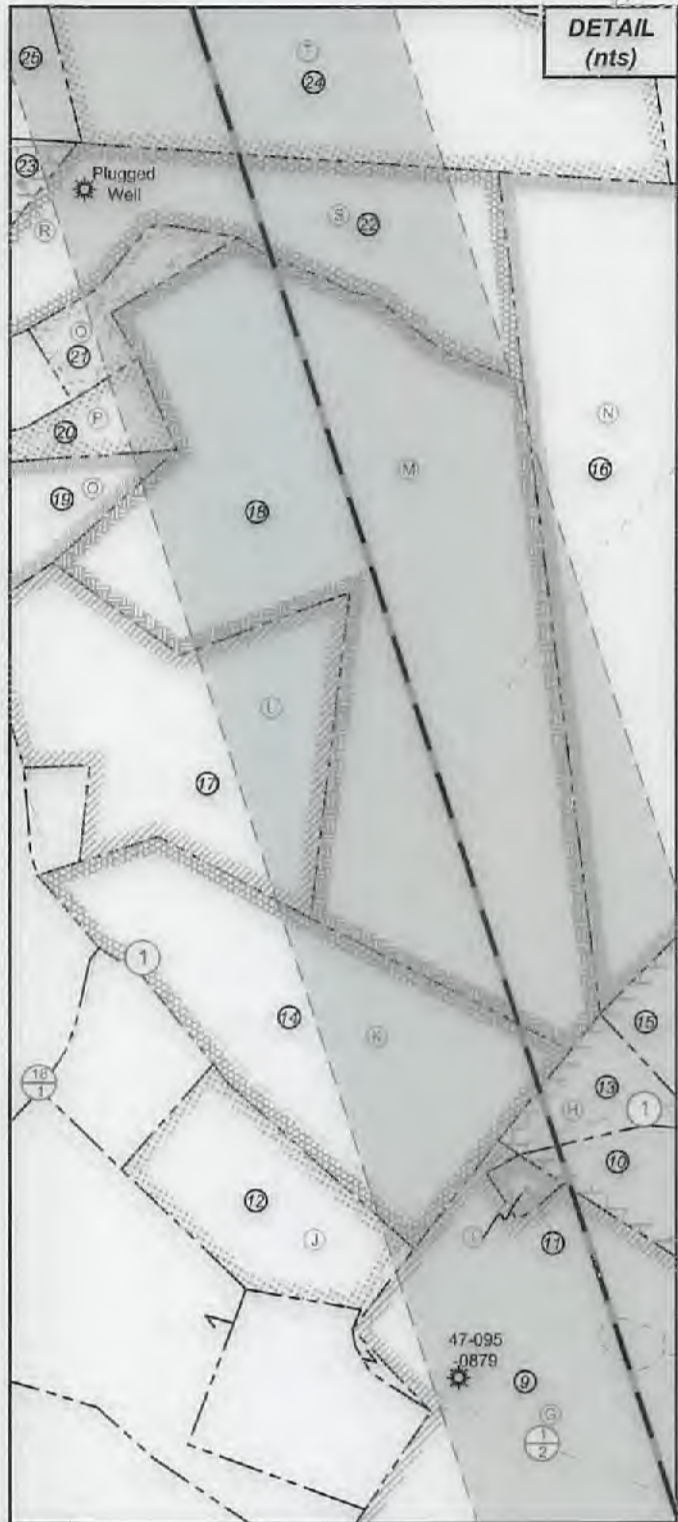
03/18/2022

14,190' to Top Hole

TOP HOLE LONGITUDE 80 - 55 - 00
 BTM HOLE LONGITUDE 80 - 57 - 30
 303' to Bottom Hole



Leases	
A	Robert D. Nalley, et ux
B	Robert D. Nalley, et ux
C	Robert D. Nalley, et ux
D	Robert D. Nalley, et ux
E	Robert L. Keller
F	Clair Starkey, et ux
G	William K. Johnson, et ux
H	J&N Management Enterprises, LLC
I	R. L. Dieterich
J	Walter B. Reisinger
K	Walter Busch Reisinger
L	Ralph E. Starkey
M	Debra L. Smith
N	Jack G. Gaiser
O	Mary Lohri
P	Patriot Real Estate, LLC
Q	Joseph Aaron Wayne
R	John Stansbury McCoach
S	John E. Wright, et ux
T	J&N Management Enterprises, LLC
U	Sara Anetsberger
V	David E. Bowyer



ID	TMPar	Owner	Bk/Pg	Acres
1	8-54	Robert D. & Virginia A. Nalley	198/41	80.00
2	12-13	Robert D. & Virginia A. Nalley	183/452	38.75
3	8-53	Robert D. & Virginia A. Nalley	200/53	48.10
4	8-39	Robert D. & Virginia A. Nalley	202/223	82.00
5	8-38.3	Joann & Howard L. Schubach Jr.	467/383	21.17
6	8-38.4	Carl W. Woolwine	313/677	21.32
7	8-38	Joann & Howard L. Schubach Jr.	451/645	98.77
8	8-19	Olive Branch Animal Rescue & Refuge, Inc.	333/804	173.48
9	8-18	William K. & Janet N. Johnson	198/48	164.80
10	8-7	Gerald E. & Sarah J. Moore	234/689	9.78
11	8-6	Robert E. & Audrey L. Christy	346/395	0.38
12	8-3.6	Ronald L. Perine Jr.	499/57	499/57
13	8-5	Zachary P. Robinson	415/371	2.12
14	8-4	Melissa D. & David L. Robinson	368/541	14.00
15	8-7.2	Jack G. & Constance M. Gaiser	295/545	18.23
16	4-22	Jack G. Gaiser, et al	556/254	49.70
17	4-14	Anita Jean Starkey	W25/444	11.52
18	4-21.3	Debbie Smith	349/254	34.88
19	4-21	Mary Lohri Stewart	349/254	3.02
20	4-21.1	Patriot Real Estate, LLC	633/575	2.96
21	4-16	Joseph Aaron Wayne	354/564	1.90
22	4-21.2	John E. & Linda P. Wright	347/727	10.91
23	4-1	Rhett R. & Teena L. Wetzel	289/589	52.57
24	4-20	Daniel L. Montgomery	389/563	40.00
25	4-95	Joseph Pope & Robert E. Wright	261/220	82.67
26	4-44	William H. McCoy	OR65/450	221.66
27	4-39	Matthew C. & Kelly Stewart	631/298	205.17
28	4-41.1	Matthew C. Stewart	216/345	0.41
29	4-42	David C. & Linda K. Wells	301/9	4.07
30	4-47	Danny W. Cochran & Richard Armstrong	649/163	5.76
31	4-48	David A. & Melissa K. McEldowney	612/325	8.50

FILE NO: 246-54-L-21
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 MINIMUM DEGREE OF ACCURACY:
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WVDOT, Harrisville, WV


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DISTRICT: Lincoln COUNTY: Tyler 03/18/2022

SURFACE OWNER: Robert D. & Virginia A. Nalley ACREAGE: 80.00

ROYALTY OWNER: Robert D. Nalley, et ux; Robert L. Keller, Clair Starkey, et ux; LEASE NO: _____ ACREAGE: 212.4; 40.0; 222.0

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: 6,600' TVD
22,600' MD

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



10,797' to Top Hole
 BTM Hole 7.5' Spot
 4,132' to Bottom Hole

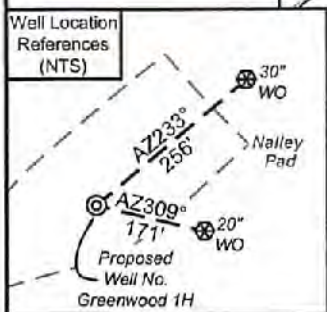
Sheet 1 of 2

LATITUDE 39 - 35 - 00

Greenwood Unit 1H Bottom Hole

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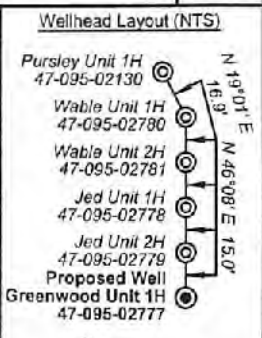
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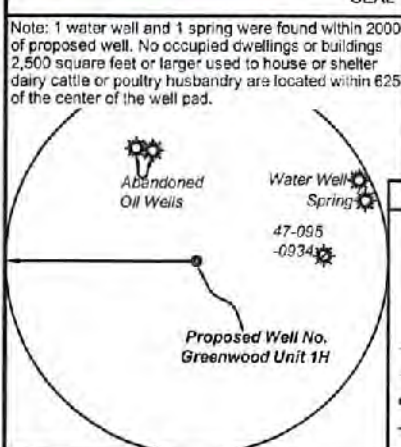
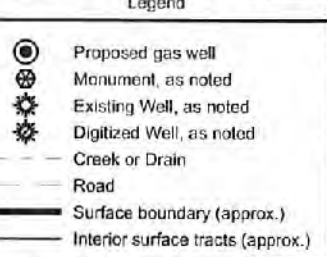
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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

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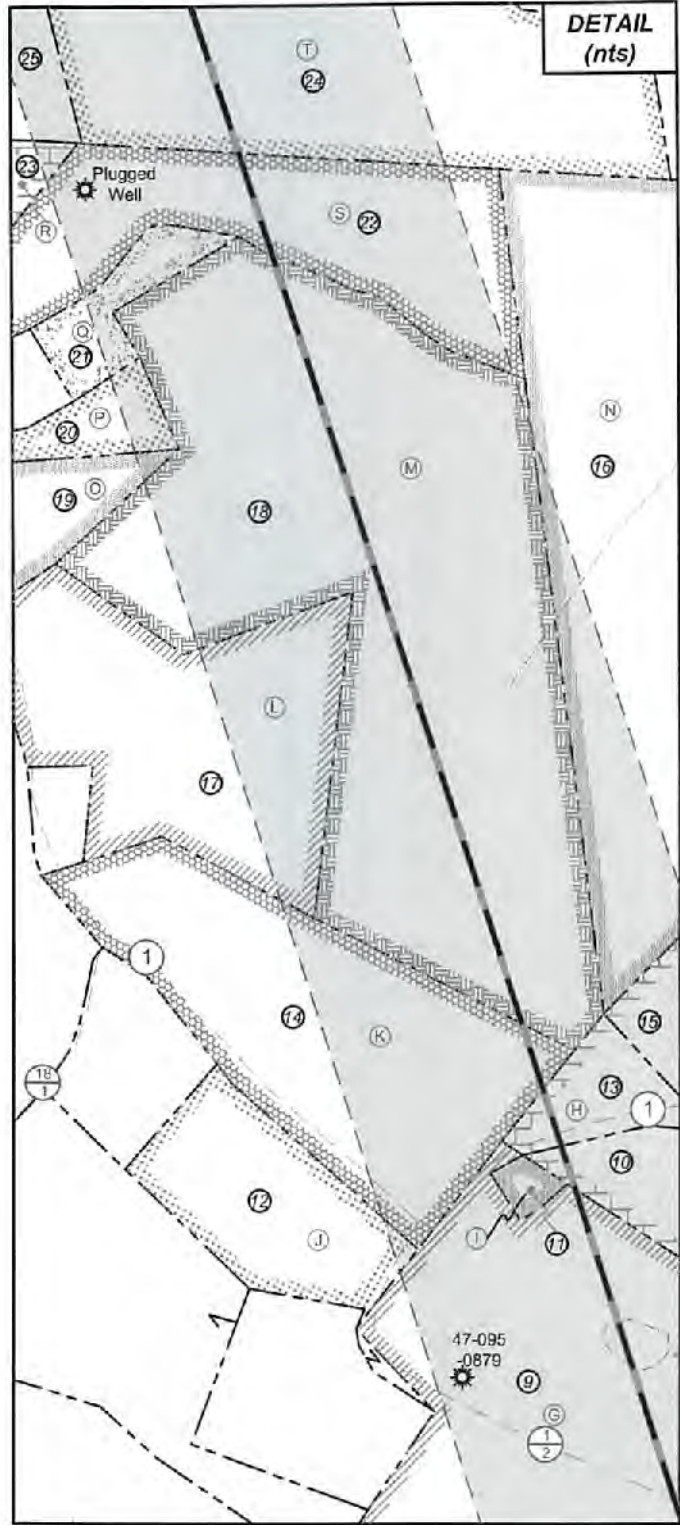
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03/18/2022



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12	8-3.6	Ronald L. Perine Jr.	499/57	499/57
13	8-5	Zachary P. Robinson	415/371	2.12
14	8-4	Melisse D. & David L. Robinson	369/541	14.00
15	8-7.2	Jack G. & Constance M. Gaiser	295/545	18.23
16	4-22	Jack G. Gaiser, et al	556/254	49.70
17	4-14	Anita Jean Starkey	W25/444	11.52
18	4-21.3	Debbie Smith	349/254	34.88
19	4-21	Mary Lohri Stewart	349/254	3.02
20	4-21.1	Patriot Real Estate, LLC	633/575	2.96
21	4-16	Joseph Aaron Wayne	354/564	1.90
22	4-21.2	John E. & Linda P. Wright	347/727	10.91
23	4-1	Rhett R. & Teena L. Wetzel	289/589	52.57
24	4-20	Daniel L. Montgomery	389/563	40.00
25	4-95	Joseph Pope & Robert E. Wright	261/220	82.67
26	4-44	William H. McCoy	OR65/450	221.66
27	4-39	Matthew C. & Kelly Stewart	631/298	205.17
28	4-41.1	Matthew C. Stewart	216/345	0.41
29	4-42	David O. & Linda K. Wells	301/9	4.07
30	4-47	Danny W. Cochran & Richard Armstrong	649/163	5.76
31	4-48	David A. & Melissa K. McEldowney	612/325	8.50



DETAIL
(nts)

FILE NO: 246-54-L-21
 DRAWING NO: Greenwood 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: February 14 2022
 OPERATOR'S WELL NO. Greenwood Unit 1H
 API WELL NO
 47 - 095 - 02777 M
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 971.8' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City
 DISTRICT: Lincoln COUNTY: Tyler
 SURFACE OWNER: Robert D. & Virginia A. Nalley; Walter Busch Reisinger; William K. Johnson, et ux; Debra L. Smith; John E. Wright, et ux; Sara Anetsberger; J&N Management Enterprises, LLC (2); David E. Bowyer; R.L. Dieterich; ACREAGE: 80.00
 ROYALTY OWNER: Robert D. Nalley, et ux; Robert L. Keller; Clair Starkey, et ux; LEASE NO: ACREAGE: 212.4; 40.0; 222.0

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: 8,600' TVD 22,600' 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

03/18/2022

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
A	<u>Robert D. Nalley et ux Lease</u> Robert D. Nalley and Virginia A. Nalley husband and wife	Antero Resources Corporation	1/8+	0134/0010
E	<u>Robert L. Keller Lease</u> Robert L. Keller Jim Emes Petroleum Company Robert Matthey Bald Eagle Oil and Gas LLC Antero Resources Appalachian Corporation	Jim Emes Petroleum Company Robert Matthey Bald Eagle Oil and Gas LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment	0230/0379 0280/0521 0302/0109 0402/0303 0557/0430
F	<u>Clair Starkey, et ux Lease</u> Clair Starkey, et ux John Richmond Jack Holden John Richmond James T. Emes Jim Emes Petroleum Company Robert Matthey Bald Eagle Oil and Gas LLC Sun Valley Oil and Gas LLC Antero Resources Appalachian Corporation	John Richmond Jack Holden John Richmond James T. Emes Jim Emes Petroleum Company Robert Matthey Bald Eagle Oil and Gas LLC Sun Valley Oil and Gas LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment Assignment	0203/0045 0212/0358 0216/0615 0217/0009 0220/0272 0280/0521 0302/0109 0390/0663 0393/0750 0557/0430
G	<u>William K. Johnson, et ux Lease</u> William K. Johnson, et ux John Richmond Jim Emes Petroleum Company Robert Matthey Bald Eagle Oil and Gas LLC Sun Valley Oil and Gas LLC Antero Resources Appalachian Corporation	John Richmond Jim Emes Petroleum Company Robert Matthey Bald Eagle Oil and Gas LLC Sun Valley Oil and Gas LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment Assignment Assignment	0220/0459 0230/0507 0280/0521 0302/0109 0390/0663 0393/0750 0557/0430
I	<u>R.L. Dieterich Lease</u> Ronald Lee Dieterich	Antero Resources Corporation	1/8+	0653/0561
H	<u>J & N Management Enterprises LLC Lease</u> J& N Management Enterprises LLC	Antero Resources Corporation	1/8+	621/581
K	<u>Walter Bush Reisinger Lease</u> Walter Busch Reisinger	Antero Resources Corporation	1/8+	437/447

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Office of Oil and Gas

FEB 18 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.

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
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	Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
M	<u>Debra L Smith Lease</u> Debra L Smith Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	408/440 557/430
S	<u>John E Wright et ux Lease</u> John E Wright et ux	Antero Resources Corporation	1/8+	631/591
T	<u>J & N Management Enterprises LLC Lease</u> J & N Management Enterprises LLC	Antero Resources Corporation	1/8+	621/579
U	<u>Sara Anetsberger Lease</u> Sara Anetsberger	Antero Resources Corporation	1/8+	622/666

**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)**

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(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>David E Bowyer Lease</u>	David E Bowyer	Antero Resources Corporation	1/8 +	0622/327

*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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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: VP of Land



February 17, 2022

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Mr. Taylor Brewer
601 57th Street
Charleston, WV 25304

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

Mr. Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for approved well on the existing Nalley Pad: Greenwood Unit 1H (47-095-02777-00), Jed Unit 1H (47-095-02778), and Wable Unit 1H (47-095-02780-00).

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Attached you will find the following:

- Revised Form WW-6B
- Revised Form WW-6A1
- Revised Mylar Plat
- AOR

If you have any questions please feel free to contact me at (303) 357-7182.

Thank you in advance for your consideration.

Sincerely,

Mallory Stanton
Permitting Supervisor
Antero Resources Corporation

Enclosures

CHK# 4005041
Amt \$ 2500
Date 2/17/22

03/18/2022



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

Modification Horizontal H6A Well Work Permit API: 47-095-02776, 02777, 02778, 02780)

1 message

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

Tue, Mar 15, 2022 at 10:25 AM

To: Mallory Stanton <mstanton@anteroresources.com>, Diane Blair <d Blair@anteroresources.com>, Dani DeVito <ddevito@shalepro.com>, Douglas Newlon <douglas.c.newlon@wv.gov>, ljackson@wvassessor.com

I have attached a copy of the newly issued well [permit](#) number. This will serve as your copy.

47-095-02776 - CLUTTER UNIT 1H
47-095-02777 - GREENWOOD UNIT 1H
47-095-02778 - JED UNIT 1H
47-095-02780 - WABLE UNIT 1H

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

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

4 attachments

-  **47-095-02776 - mod.pdf**
1233K
-  **47-095-02777 - mod.pdf**
1501K
-  **47-095-02780 - moc.pdf**
1441K
-  **47-095-02778 - mod.pdf**
1467K

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