



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 29, 2022
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for REDWOOD 3H
47-017-06932-00-00

Lateral Extension, Drilling near other laterals

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: REDWOOD 2H
Farm Name: MICHAEL R BRITTON & ANGELA D PRATT
U.S. WELL NUMBER: 47-017-06932-00-00
Horizontal 6A New Drill
Date Modification Issued: 8/29/2022

Promoting a healthy environment.

09/02/2022

WW-6B
(04/15)

*Ch# 4012209
\$5000.00*

API NO. 47- 017 - 06932
OPERATOR WELL NO. Redwood Unit 3H MOD
Well Pad Name: Oxford 98 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 017 - Doddri West Uni West Union 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Redwood Unit 3H MOD Well Pad Name: Oxford 98 Pad

3) Farm Name/Surface Owner: Michael R. Britton & Angela D. Pratt Public Road Access: CR 11/4

4) Elevation, current ground: 1120' AS-BUILT 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

*SOW
8/25/2022*

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: 21400'

11) Proposed Horizontal Leg Length: 11367.7'

12) Approximate Fresh Water Strata Depths: 123'

13) Method to Determine Fresh Water Depths: 47-017-02837, 47-017-06326 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1653'

15) Approximate Coal Seam Depths: 120'

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: _____

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, 313 Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	21400'	21400'	CTS, 4475 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

SDW
8/25/2022

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			

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): 24.47 acres

22) Area to be disturbed for well pad only, less access road (acres): 5.73 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:

AUG 18 2022

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

WV Department of
Environmental Protection

25) Proposed borehole conditioning procedures:

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

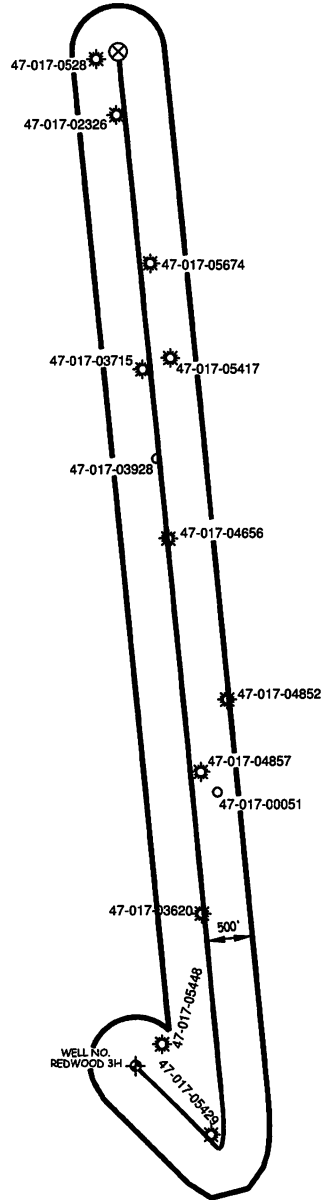
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

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.

OXFORD 98 PAD ANTERO RESOURCES CORPORATION



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Environmental Protection

WILLOW LAND SURVEYING, PLLC
P.O. BOX 17, PENNSBORO, WV 26415
(304) 659-1717

JOB #: 22-005WA

FILE: REDWOOD3HAOR.DWG

SCALE : 1-INCH = 2000-FEET



DATE: 08/04/22

DRAWN BY: D.L.P.

09/02/2022

UWI (API Num)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Productible Formation(s) not perf'd
47017048520000	FLEMING	8	KEY OIL CO	KEY OIL CO	2,707	1856 - 2649	Big Lime, Big Injun, Hampshire	Weir, Berea, Benson
47017048570000	FLEMING	9	KEY OIL CO	KEY OIL CO	2,559	1546 - 2408	Maxton, Big Injun, Gordon	Weir, Berea
47017000510000	ELI FLEMING	1	DILLY H M	DILLY H M	1,780		Big Injun	Weir, Berea
47017036200000	GAIN J A	2859	DIVERSIFIED PROD LLC	CNG DEVELOPMENT CO	5,270	4999 - 5069	Alexander	Weir, Berea, Benson
47017054290000	DEPI	15130	DIVERSIFIED PROD LLC	DOMINION EXPL&PROD	5,261	1934 - 5118	Big Injun, Speechley, Balltown, Bradford, Alexander	Weir, Berea, Benson
47017054480000	DEPI	15129	DIVERSIFIED PROD LLC	DOMINION EXPL&PROD	5,310	2589 - 5174	Gordon, Warren, Riley, Alexander	Weir, Berea, Benson
47017046560000	SMITH MARK BRADLEY	TATRO 2	KEY OIL CO	KEY OIL CO	5,268	3187 - 5118	Warren, Speechley, Balltown, Riley, Benson, Alexander	Weir, Berea, Benson
47017039280000	EARL ROLLINS	1	TARGA DEV INC	DILMUR OIL				Weir, Berea, Benson
47017037150000	MCDONNELL	2	GREYLOCK OP CO LLC	EASTERN AMERICAN ENE	5,539		Warren, Riley, Benson, Alexander	Weir, Berea
47017054170000	MAXWELL/KNIGHT	2	KEY OIL CO	KEY OIL CO	2,972	2114 - 2769	Big Injun, Gordon	Weir, Berea, Benson
47017056740000	MAXWELL/KNIGHT	3	KEY OIL CO	KEY OIL CO	2,738	1818 - 2565	Big Injun, Gordon	Weir, Berea, Benson
47017023260000	BATTON E A	B-261	DIVERSIFIED PROD LLC	J & J ENTERPRISES	5,600	5384 - 5414	Alexander	Weir, Berea, Benson
47017005280000	RAY C HUDKINS	1	JACO OIL & GAS	JACO OIL & GAS	2,195		Big Injun	Weir, Berea, Benson

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 Office of Oil and Gas
 AUG 18 2022
 West Virginia Department of
 Environmental Protection

LATITUDE 39°17'30"

2,259'

LATITUDE 39°17'30"

2,571' TO BOTTOM HOLE

Antero Resources Corporation
Well No. Redwood 3H

NOTES:
WELL 3H TOP HOLE INFORMATION:
N: 276,950ft E: 1,631,969ft
LAT: 39°15'11.09" LON: 80°47'58.72"
BOTTOM HOLE INFORMATION:
N: 287,905ft E: 1,631,815ft
LAT: 39°16'59.35" LON: 80°48'02.70"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 3H TOP HOLE INFORMATION:
N: 4,344,890m E: 517,302m
BOTTOM HOLE INFORMATION:
N: 4,348,227m E: 517,199m

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 3H TOP HOLE INFORMATION:
N: 14,254,147ft E: 1,697,135ft
POINT OF ENTRY INFORMATION:
N: 14,253,803ft E: 1,698,076ft
BOTTOM HOLE INFORMATION:
N: 14,265,094ft E: 1,696,798ft

NOTE
NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.

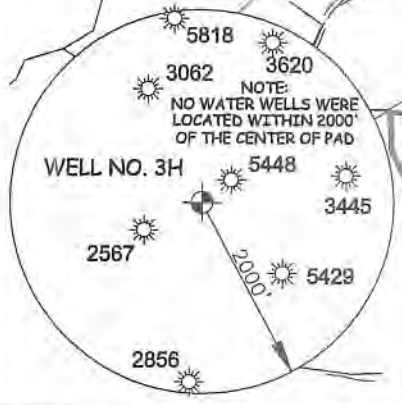
14-02	Alfred Perine
14-03	Gail DeBerry
14-06	Lisa Meyer
14-07	Dennis Hayes
14-09	Marvin Rollins
14-16	Glenn Whitehair
14-17	Mark Smith
14-18	Michael Mignanni
14-19.1	Richard Leggett
14-19.3	Richard Leggett
14-19.4	Richard Leggett
14-20	Mary Nealer
15-01	Danny Harris
15-11	Roger Barton
15-12	Bobby Harris
15-06	Coastal Forest Resources Co
15-4.1	Dodridge County Board of Education
15-09	Coastal Forest Resources Co
15-10	Coastal Forest Resources Co
15-11	Coastal Forest Resources Co
15-12	Brexelene Perrine
15-12.1	Michael Wilkinson
15-12.2	Michael Wilkinson
15-12.4	John Treat
15-13	Loren Smith
15-14	Kenneth Hughes
15-16	Glade Perine
19-09	Donald Perine
19-10	EQM Gathering OPCO LLC
19-15	Michael Britton
19-23.2	Russell Nelson
20-01	Arnolds Creek UB Church
20-02	Michael Wilkinson
20-03	Loren Smith
20-04	EQM Gathering OPCO LLC
20-05	Loren Smith
20-08	Loren Smith
20-8.1	Jessie Vanscoy
20-09	Loren Smith
20-11	Diane Bennett
20-12	CNG Transmission Corp
20-13	Loren Smith
20-14	Mary Secriar

WV NORTH ZONE
GRID NORTH

3,102' TO BOTTOM HOLE

LONGITUDE 80°47'30"

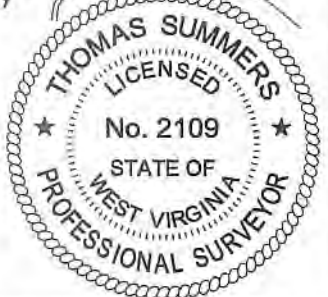
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I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

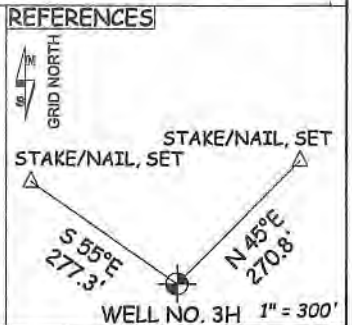
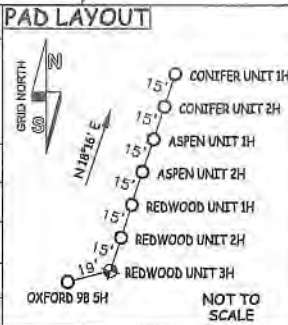


STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415



JOB # 19-039WA
DRAWING # REDWOOD3H
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

LEGEND
— — — Surface Owner Boundary Lines +/-
- - - Adjoining Surface Tracts +/-
⊕ Found monument, as noted
THOMAS SUMMERS P.S. 2109



STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
DATE 08/04/22
OPERATOR'S WELL# REDWOOD 3H

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___ 47 - 017 - 06932 **MOB**
 (IF "GAS") PRODUCTION STORAGE ___ DEEP ___ SHALLOW STATE COUNTY PERMIT
 LOCATION: ELEVATION 1,120' - AS BUILT WATERSHED HEADWATERS MIDDLE ISLAND CREEK
 QUADRANGLE WEST UNION 7.5' DISTRICT WEST UNION COUNTY DODDRIDGE
 SURFACE OWNER MICHAEL R. BRITTON & ANGELA D. PRATT ACREAGE 136.56 ACRES +/-
 OIL & GAS ROYALTY OWNER MICHAEL S. FRANCIS ET AL; RICHARD W. MINNIS ET AL; LEASE ACREAGE 173 AC±; 69 AC±;
 JAMES P. GAINES ET UX; SHIRLEY W. FLEMING; FRANKLIN L. BUTLER; J.S. NETZER ET UX; 200 AC±; 29 AC±; 109 AC±; 85 AC±;
 WILMER ROLLINS ET UX; A. K. ROLLINS ET UX; MELISSA A. CROSS; EVERETT ALLEN BATTON ET AL 75 AC±; 40 AC±; 62.5 AC±; 53 AC±
 PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER REDRILL ___ FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL
 (SPECIFY) MOD-BHL PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,600' TVD 21,400' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
 ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313

09/02/2022

COUNTY NAME PERMIT

LATITUDE 39°17'30"

2,259'

LATITUDE 39°17'30"

2,571' TO BOTTOM HOLE

Antero Resources Corporation Well No. Redwood 3H

NOTES:

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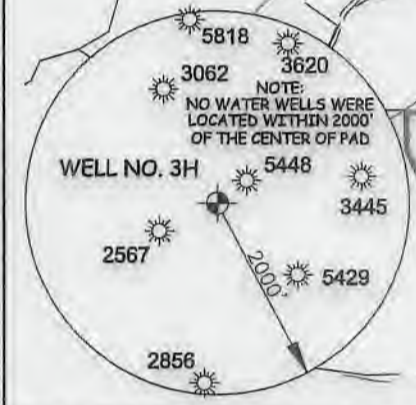
Table listing landowners and lease information for the West Union District, including names like Alfred Perine, Gail DeBerry, Lisa Meyer, etc.

WV NORTH ZONE GRID NORTH

3,102' TO BOTTOM HOLE LONGITUDE 80°47'30"

14,054'

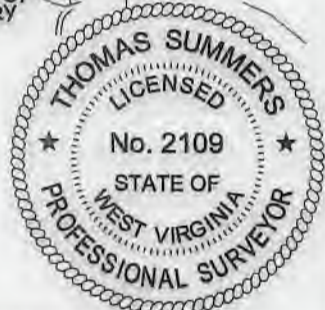
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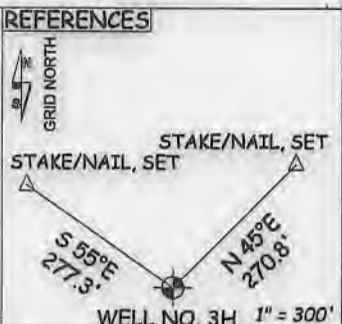
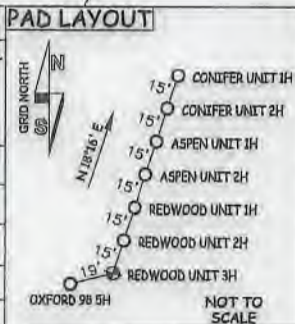


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JOB # 19-039WA DRAWING # REDWOOD3H SCALE 1" = 2000' MINIMUM DEGREE OF ACCURACY SUBMETER PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS. DATE 08/04/22 OPERATOR'S WELL# REDWOOD 3H

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09/02/2022

COUNTY NAME PERMIT

**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>Michael S. Francis, et al Lease</u>			
Michael S. Francis, et al	Key Oil Company	1/8	0106/0273
Key Oil Company	Columbia Gas Transmission Corporation	Assignment	0115/0436
Columbia Gas Transmission Corporation	Columbia Natural Resources Inc	Assignment	0161/0068
Columbia Natural Resources Inc	Columbia Natural Resources LLC	Name Change	0256/0588
Columbia Natural Resources LLC	Chesapeake Appalachia LLC	Merger	0264/0447
Chesapeake Appalachia LLC	CNX Gas Company	Assignment	0372/0585
CNX Gas Company	Antero Resources Corporation	Assignment	0387/0216
<u>Richard W. Minnis, et al Lease</u>			
Richard W. Minnis, et al	Consolidated Gas Supply Corporation	1/8	0095/0706
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmission Corporation	CNG Development Company	Assignment	0139/0041
CNG Development Company	Dominion Exploration & Production Inc	Name Change	WV SOS
Dominion Exploration & Production Inc	Dominion Transmission Inc	Assignment	0244/0528
Dominion Transmission Inc	CONSOL Gas Company	Name Change	0292/0469
CONSOL Gas Company	CNX Gas Company, LLC	Name Change	0293/0252
CNX Gas Company, LLC	Antero Resources Corporation	Assignment	0325/0507
<u>James P. Gaines, et ux Lease</u>			
James P. Gaines, et ux	Hope Natural Gas Company	1/8	0022/0228
Hope Natural Company	Consolidated Gas Supply Corporation	Assignment	0143/0345
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Assignment	0332/0563
CNG Transmission Corporation	Dominion Transmission Inc	Assignment	0332/0570
Dominion Transmission Inc	CNX Gas Company LLC	Assignment	0325/0517
CNX Gas Company LLC	Antero Resources Corporation	Assignment	0628/0257
<u>Shirley W. Flemming Lease</u>			
Shirley W. Fleming	Key Oil Company	1/8	0107/0313
Key Oil Company	J & J Enterprises, Inc	Assignment	0111/0326
J & J Enterprises, Inc	Eastern American Energy Corporation	Merger	0211/0137
Eastern American Energy Corporation	Energy Corporation of America	Merger	0283/0431
Energy Corporation of America	Antero Resources Appalachian Corporation	Assignment	0272/0307
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0046/0523

RECEIVED
Office of Oil and Gas
AUG 18 2022
WV Department of
Environmental Protection

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>Franklin L. Butler Lease</u>			
Franklin L. Butler	Key Oil Company	1/8	0195/0445
Key Oil Company	Antero Resources Appalachian Corporation	Assignment	0256/0285
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0046/0523
<u>J.S. Netzer, et ux Lease</u>			
J.S. Netzer, et ux	Hope Natural Gas Company	1/8	0035/0362
Hope Natural Gas Company	Consolidated Gas Supply Corporation	Merger	0143/0345
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmission Corporation	CNG Development Company	Assignment	0139/0041
CNG Development Company	Dominion Exploration & Production Inc.	Name Change	WV SOS
Dominion Exploration & Production Inc.	Dominion Transmission Inc	Assignment	0244/0528
Dominion Transmission Inc	CONSOL Gas Company	Name Change	0292/0469
CONSOL Gas Company	CNX Gas Company, LLC	Name Change	0293/0252
CNX Gas Company, LLC	Antero Resources Corporation	Assignment	0628/0257
<u>Wilmer Rollins, et ux Lease</u>			
Wilmer Rollins, et ux	C.H. Pigott	1/8	0031/0431
C.H. Pigott	Murphey Oil Company	Assignment	0040/0443
Murphey Oil Company	Dilmur Oil Company	Assignment	0091/0742
Dilmur Oil Company	Targa Development, Inc	Assignment	0165/0428
Targa Development, Inc	Antero Resources Corporation	Assignment	0257/0362
Antero Resources Corporation	CNX Gas Company	Assignment	0411/0160
CNX Gas Company	Antero Resources Corporation	Assignment	0387/0180
<u>A.K. Rollins, et ux Lease</u>			
A.K. Rollins, et ux	C.H. Pigott	1/8	0031/0433
C.H. Pigott	Murphey Oil Company	Assignment	0040/0443
Murphey Oil Company	Dilmur Oil Company	Assignment	0091/0742
Dilmur Oil Company	Targa Development, Inc	Assignment	0165/0428
Targa Development, Inc	Antero Resources Corporation	Assignment	0257/0362
Antero Resources Corporation	CNX Gas Company	Assignment	0411/0160
CNX Gas Company	Antero Resources Corporation	Assignment	0387/0180

RECEIVED
 Office of Oil and Gas
 AUG 18 2022
 Myra L. Smith, Director of
 Environmental Protection

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>Melissa A. Cross Lease</u>			
Melissa A. Cross	Key Oil Company	1/8	0217/0538
Key Oil Company	Antero Resources Appalachian Corporation	Assignment	0256/0285
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0046/0523

*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 18 2022

Department of
Environmental Protection

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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Everett Allen Batton, et al Lease				
	Everett Allen Batton, et al	Justin Henderson	1/8	0103/0483
	Justin Henderson	W. B. Berry	Assignment	0110/0553
	W. B. Berry	Benson Drilling Joint Venture No. 2	Assignment	0110/0061
	Benson Drilling Joint Venture No. 2	J&J Enterprises, Inc.	Agreement	0167/0102
	J&J Enterprises, Inc.	UMC Petroleum Corporation	Merger	0210/0581
	UMC Petroleum Corporation	Ashland Exploration, Inc	Assignment	0227/0252
	Ashland Exploration, Inc	Ashland Exploration Holdings, Inc	Name Change	WVSOS
	Ashland Exploration Holdings, Inc	Blazer Energy Corporation	Conveyance	0181/0421
	Blazer Energy Corporation	Eastern States Oil & Gas	Name Change	0244/0149
	Eastern States Oil & Gas	Equitable Production - Eastern States	Name Change	WVSOS
	Equitable Production - Eastern States	Equitable Production Company	Merger	WVSOS
	Equitable Production Company	EQT Production Company	Name Change	0281/0346
	EQT Production Company	Antero Resources Corporation	Assignment	0371/0270

*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.

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
Environment, Health, and Safety

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: Max Green

Its: VP of Land



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

Expedited Modification Horizontal H6A Well Work Permits API: (47-017-06926, 06930, 06931, 06932)

1 message

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

Tue, Aug 30, 2022 at 10:51 AM

To: Mallory Stanton <mstanton@anteroresources.com>, Diane Blair <dblair@anteroresources.com>, Dani DeVito <ddevito@shalepro.com>, "Blevins, Cragin" <cragin.blevins@wv.gov>, David Sponaugle <dsponaug@assessor.state.wv.us>, "Ward, Samuel D" <samuel.d.ward@wv.gov>

I have attached a copy of the newly issued well [permit](#) numbers:

47-017-06926 - ASPEN 1H
47-017-06930 - REDWOOD 1H
47-017-06931 - REDWOOD 2H
47-017-06932 - REDWOOD 3H

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

4 attachments

 **47-017-06926 - mod.pdf**
1635K

 **47-017-06930 - mod.pdf**
997K

 **47-017-06931 - mod.pdf**
989K

 **47-017-06932 - mod.pdf**
1058K

09/02/2022