



west virginia department of environmental protection

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

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

Thursday, June 23, 2022
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET
DENVER, CO 80202

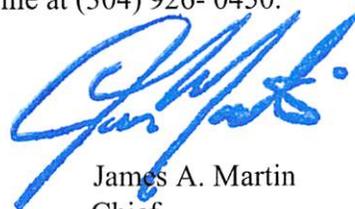
Re: Permit Modification Approval for SMELT 2H
47-085-10424-00-00

Lateral Extension. Total Measured Depth 18100' to 22300'. Horizontal Lateral Length 6588' to 11130'. Updated Leases

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: SMELT 2H
Farm Name: ELMER W PIERCE
U.S. WELL NUMBER: 47-085-10424-00-00
Horizontal 6A New Drill
Date Modification Issued: 06/23/2022

Promoting a healthy environment.

06/24/2022

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

1) Well Operator: Antero Resources Corporation 494507062 085-Ritchie Union Oxford 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Smelt Unit 2H MOD Well Pad Name: Cashew Pad

3) Farm Name/Surface Owner: Elmer W. Pierce Public Road Access: Pleasant Hollow Road

4) Elevation, current ground: 1040' Elevation, proposed post-construction: ~1019'

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: 6900' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 6900' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22,300' MD

11) Proposed Horizontal Leg Length: 11,130'

12) Approximate Fresh Water Strata Depths: 53', 236'

13) Method to Determine Fresh Water Depths: 47-085-07654

14) Approximate Saltwater Depths: 1709', 1847'

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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JUN 23 2022

WV Department of
Environmental Protection

Steve McLean
06/24/2022
1-6-77

WW-6B
(04/15)

API NO. 47- 085 - 10424
OPERATOR WELL NO. Smelt Unit 2H MOD
Well Pad Name: Cashew 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	16"	New	H-40	65#	80	80	CTS, 63 Cu. Ft.
Fresh Water	10-3/4"	New	J/K-55	40.4#	300	300	CTS, 164 Cu. Ft.
Coal	7-5/8"	New	p-110CY	26.4#	2500	2500	CTS, 698 Cu. Ft.
Intermediate							
Production	5"	New	P-110CY	18#	22,300	22,300	2258 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	16"	20"	0.375"	1530	50	Class A	~1.16
Fresh Water	10-3/4"	13-1/2"	0.35"	2730	1000	Class A	~1.16
Coal	7-5/8"	9-7/8"	0.328"	9410	1500	Class A	~1.16
Intermediate							
Production	5"	6-3/4"	0.362"	15,840	12,000	Class G/H	~1.16
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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06/24/2022

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): 33.75 acres

22) Area to be disturbed for well pad only, less access road (acres): 14.29 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers
Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.
Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.
Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in Intermediate casing.

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

Conductor: no additives, Class A cement.
Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake
Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat
Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51
Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.
Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.
Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

*Note: Attach additional sheets as needed.

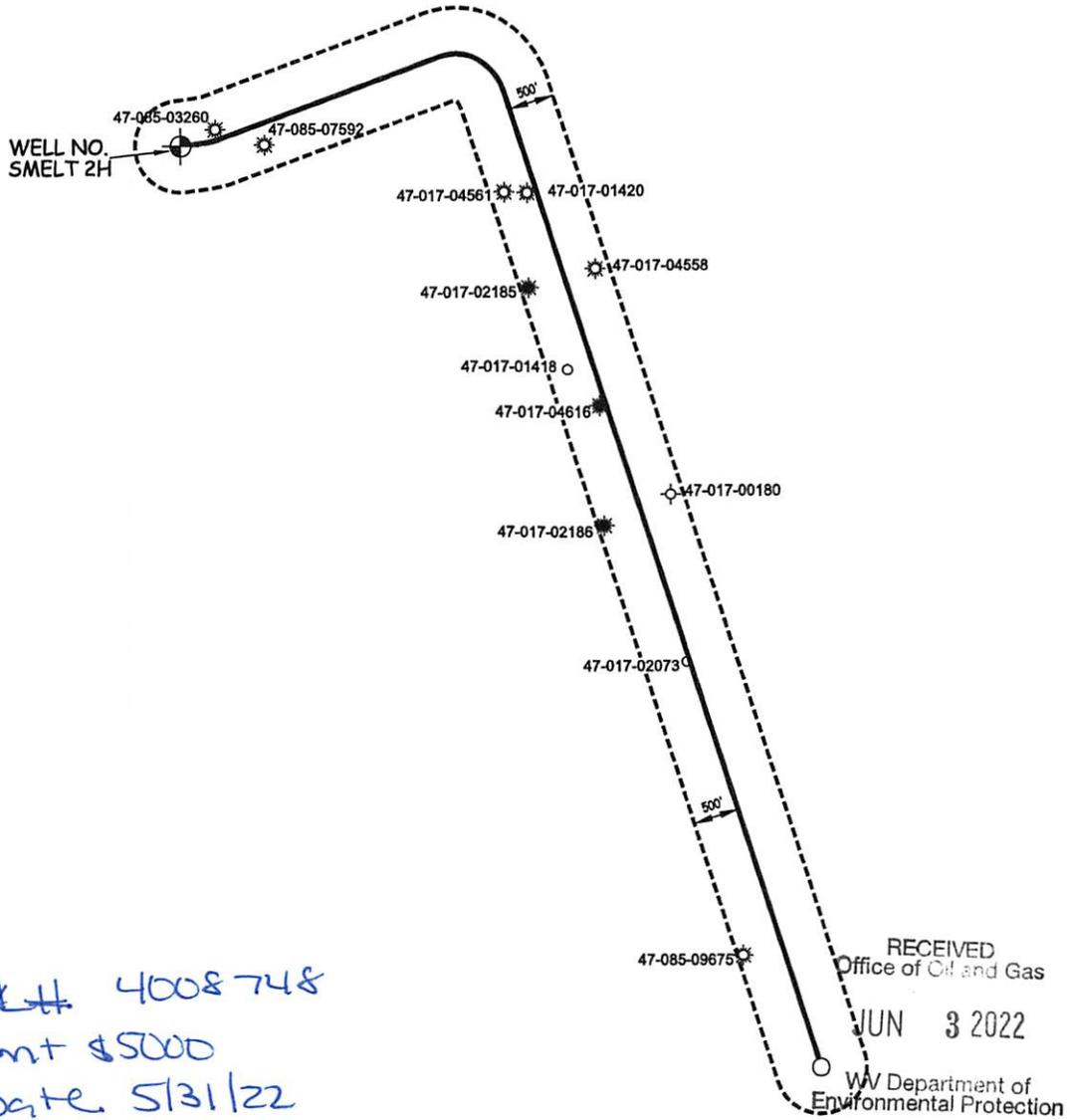
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Office of Oil and Gas Page 3 of 3

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WV Department of
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SM
06/24/2022
G-11-22

CASHEW PAD ANTERO RESOURCES CORPORATION



CK# 4008748
 Amt \$5000
 Date 5/31/22

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JUN 3 2022

WV Department of
Environmental Protection

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

JOB #: 22-005WA

FILE: SMELT2HAOR.DWG

SCALE : 1-INCH = 2000-FEET



DATE: 05/27/22

DRAWN BY: T.B.S.

06/24/2022

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
4708503260000	R L KEISTER	3	R & R OIL & GAS LLC	OIL STATES SALES	2,013		Big Injun	Gordon, Berea
47085075920000	JETT MYRTLE ET AL	1	CHARITY GAS INC	STALNAKER GENE INC	5,231	3800 - 5200		Gordon, Berea
47017014200000	DAVID D BALL	4	R & R OIL & GAS LLC	FRIESTAD FRANCIS	1,933			Gordon, Berea
47017045580000	BALL	4	KEY OIL CO	KEY OIL CO	5,210	3626 - 5008		Gordon, Berea
47017021850000	EARL ZINN	1	DIVERSIFIED PROD LLC	UNITED OPERATING CO	2,388	2170 - 2296		Gordon, Berea
47017014180000	J M JONES	1	KEY OIL CO	FRIESTAD FRANCIS	1,960			Gordon, Berea
47017046160000	RICHARDS MITCHELL	1	KEY OIL CO	KEY OIL CO	5,115	4242 - 5002		Gordon, Berea
47017001800000	W C HAUGHT	1	CORNELL GAS	CORNELL GAS	2,034			Gordon, Berea
47017021860000	W C HAUGHT	1	DIVERSIFIED PROD LLC	UNITED OPERATING CO	2,395			Gordon, Berea
47017020730000	SUMMERS	4783	DIVERSIFIED PROD LLC	EQUITABLE GAS CO				Gordon, Berea
47085096750000	DEBERRY	1	ROSS & WHARTON GAS	ROSS & WHARTON	5,502	1870 - 4809		Gordon, Berea

LATITUDE 39°12'30" 6,951'

LATITUDE 39°10'00"

11,654' TO BOTTOM HOLE

Antero Resources Corporation Well No. Smelt 2H

NOTES:

WELL 2H TOP HOLE INFORMATION: N: 247,509ft E: 1,615,039ft LAT: 39°10'17.65" LON: 80°51'28.26" BOTTOM HOLE INFORMATION: N: 237,494ft E: 1,622,006ft LAT: 39°08'39.70" LON: 80°49'57.92" 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 2H TOP HOLE INFORMATION: N: 4,335,835m E: 512,294m BOTTOM HOLE INFORMATION: N: 4,332,820m E: 514,468m

(NAD) 27 (UTM) ZONE 17 COORDS: WELL 2H TOP HOLE INFORMATION: N: 14,224,438ft E: 1,680,704ft

2H BOTTOM HOLE POINT OF ENTRY INFORMATION: N: 14,225,071ft E: 1,684,231ft BOTTOM HOLE INFORMATION: N: 14,214,544ft E: 1,687,834ft

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.

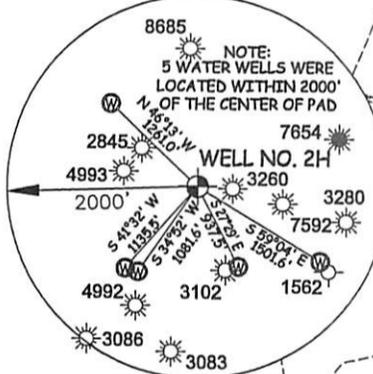


Table listing landowners and lease numbers for Southwest District - Doddridge County and Union District - Ritchie County. Includes names like David Ball, Trustees of Baptist Church, South Fork Cemetery, Kevin Ball, Isaac Richards, James Haught, James Haught, Jeffrey Bailey, Brown Goodwin, Charles Leonard, Brown Goodwin, Coy Adams, Arden Cogar, Danita Hilley, James Beck, Harvey Shepler, James Beck, Brian Harriman, Brian Vansant, Mark Vansant, Danita Hilley, Brian Harriman, Randall Hess, Steven Lusk, Kenny Osbourne, Kenny Osbourne, Kenny Osbourne, Kent Grotjan, Joshua Friedman, Miles Ball, M E Church, Kenny Osbourne, Kenny Osbourne, Brian Vansant, James Haught, Miles Ball, Kent Grotjan, Douglas Maxson, Douglas Maxson, Douglas Maxson, Mary Deberry, Linda Jennings, Clarence Bush, Patricia Shepler, Daryl Shepler, Terrell Henderson, Santi Italiano, Santi Italiano, Clarence Bush, Jon Bonnell, Daryl Shepler, Darlene Nailor, Harold Pierce, WVBDT.

WV NORTH ZONE GRID NORTH

8,124' TO BOTTOM HOLE

13,391'

LONGITUDE 80°47'30"

LONGITUDE 80°50'00"

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



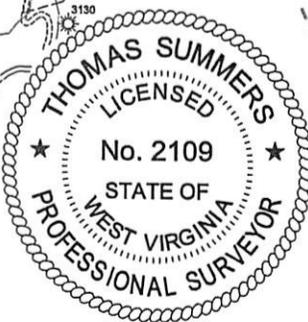
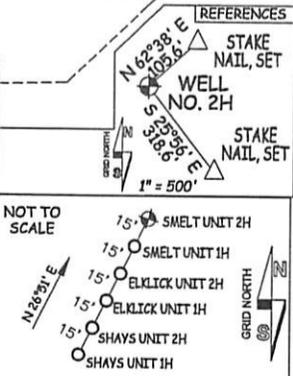
STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS. WILLOW LAND SURVEYING PLLC 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 21-015WA DRAWING # SMELT2HR 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 05/26/22 OPERATOR'S WELL# SMELT 2H



WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ 47 - 085 - 10424 MeD (IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X STATE COUNTY PERMIT LOCATION: ELEVATION 1,040'-ORIGINAL 1,019'-PROPOSED WATERSHED SOUTH FORK HUGHES RIVER QUADRANGLE OXFORD 7.5 DISTRICT UNION COUNTY RITCHIE 06/24/2022 SURFACE OWNER ELMER W. PIERCE ACREAGE 67.78 ACRES +/- OIL & GAS ROYALTY OWNERR. F. KEISTER ET AL.; B. GUY WHITEHAIR ET UX; RALPH JETT ET UX; LEASE ACREAGE 70 AC.±; 17 AC.±; 148 AC.±; DAVID D. BALL ET UX; TENID W. ZINN ET AL.; MITCHEL L. RICHARDS ET AL.; WALLACE B. HAUGHT ET AL.; 260 AC.±; 40 AC.±; 29 AC.±; 100 AC.±; E. W. SUMMERS ET UX; LUCILLE DEBERRY; MARY LUCILLE DEBERRY; GOODWIN BROWN, LLC 125 AC.±; 147 AC.±; 46 AC.±; 101.34 AC.±; PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER X REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD-BHL PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,900' TVD 22,300' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME PERMIT

LATITUDE 39°12'30"

6,951'

LATITUDE 39°10'00"

11,654' TO BOTTOM HOLE

Antero Resources Corporation Well No. Smelt 2H

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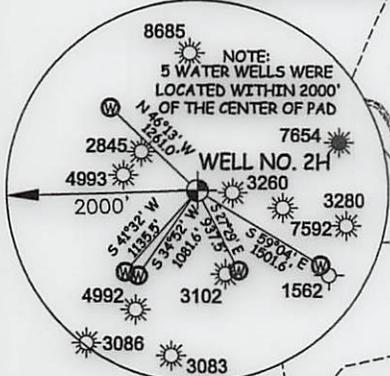


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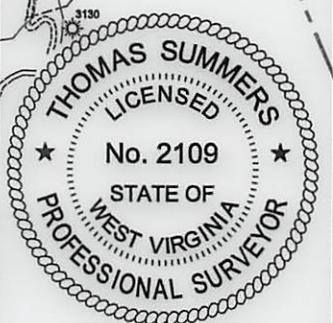
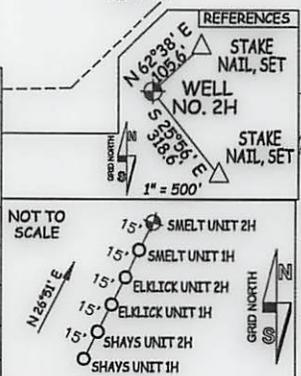
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STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS. WILLOW LAND SURVEYING PLLC 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

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LEGEND Surface Owner Boundary Lines +/- Adjoining Surface Tracts +/- Found monument, as noted THOMAS SUMMERS P.S. 2109 DATE 05/26/22 OPERATOR'S WELL # SMELT 2H



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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
R.F. Keister, et al Lease			
R.F. Keister, et al	G.L. Yaste	1/8	0105/0504
G.L. Yaste	D.L.Y., Inc.	Assignment	0112/0302
D.L.Y.m Inc.	Betty Jean Stalkner and Rosalee Roberts	Assignment	0132/0565
Betty Jean Stalkner and Rosalee Roberts	R & S Gas Company	Assignment	0147/0548
R & S Gas Company	BET-RO Inc	Assignment	0147/0554
BET-RO Inc	Roberts Energy Corporation	Assignment	0240/0036
Roberts Energy Corporation	Antero Resources Corporation	Assignment	0329/0138
B. Guy Whitehair Lease			
B. Guy Whitehair, et ux	L.E. Mossor and Harry Haddox	1/8	0107/0343
L.E. Mossor and Harry Haddox	Francis Friestad	Assignment	0089/0497
Francis Friestad	W.H. Thomson	Assignment	0152/0213
W.H. Thomson	BET-RO Inc	Assignment	0177/0011
BET-RO Inc.	Jesam Energy	Assignment	0204/0134
Jesam Energy	Roberts Energy	Assignment	0204/0705
Roberts Energy	Key Oil Company	Assignment	0258/0619
Key Oil Company	Antero Resources Appalachian Corporation	Assignment	0263/0629
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0046/0523
Ralph Jett, et ux Lease			
Ralph Jett, et ux	W.R. Development Co. Inc.	1/8	0191/0378
W.R. Development Co. Inc.	Whittle Corporation	Assignment	0254/0910
Whittle Corporation	Antero Resources Appalachian Corporation	Assignment	0255/0526
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0015/0702
David D. Ball, et ux Lease			
David Dale Ball Jr.	Antero Resources Corporation	1/8+	04170123
Enid W. Zinn et al Lease			
Enid W. Zinn, et al	Consolidated Gas Supply Corporation	1/8	0103/0080
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmision Corporation	CNG Development Company	Assignment	0139/0041
CNG Development Company	CNG Producing Company	Merger	0167/0210
CNG Producing Company	Dominion Exploration and Production, Inc	Merger	0049/0340
Dominion Exploration and Production, Inc	CONSOL Gas Company	Name Change	0293/0252
CONSOL Gas Company	CNX Gas Company	Merger	0293/0252
CNX Gas Company	Antero Resources Corporation	Assignment	0409/0672
Mitchell L. Richards, et ux Lease			
Mitchell L. Richards, et al	Key Oil Company	1/8	0191/0204
Key Oil Company	Antero Resources Appalachian Corporation	Assignment	0276/0526

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Office of Oil and Gas

JUN 23 2022

WV Department of
Environmental Protection

SM
06/24/2022
6-14-22

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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Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	0046/0523
<u>Wallace B Haught, et al Lease</u>			
Wallace B. Haught, et al	Consolidated Gas Supply Corporation	1/8	0095/0375
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmission Corporation	CNG Development Company	Assignment	0139/0041
CNG Development Company	CNG Producing Company	Merger	0167/0210
CNG Producing Company	Dominion Exploration and Production, Inc	Merger	0049/0340
Dominion Exploration and Production, Inc	CONSOL Gas Company	Name Change	0293/0252
CONSOL Gas Company	CNX Gas Company	Merger	0293/0252
CNX Gas Company	Antero Resources Corporation	Assignment	0409/0672
<u>E. W. Summers et ux Lease</u>			
E.W. Summers et ux	G.W. Thompson	1/8	25/260
G.W. Thompson	The Philadelphia Company of West Virginia	Assignment	Unrecorded
The Philadelphia Company of West Virginia	Pittsburgh and West Virginia Gas Company	Assignment	32/253
Pittsburgh and West Virginia Gas Company	Equitable Gas Company	Conveyance	126/473
Equitable Gas Company	Equitrans Inc	Assignment	154/475
Equitrans Inc	EQT Capital Corporation	Merger	6/751
EQT Capital Corporation	Equitable Resources Inc	Merger	23/32
Equitable Resources Inc	Equitrans LP	Assignment	329/645
Equitrans LP	Equitable Production Eastern States Inc	Assignment	234/830
Equitable Production Eastern States Inc	Equitable Production Company	Merger	218/346
Equitable Production Company	EQT Production Company	Name Change	218/346
EQT Production Company	Antero Resources Corporation	Assignment	487/641
<u>Lucille Deberry Lease</u>			
Lucille Deberry	Consolidated Gas Supply Corporation	1/8	96/201
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	135/583
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Name Change	332/563
CNG Transmission Corporation	Mike Ross Inc	Assignment	227/130
Mike Ross Inc	Antero Resources Corporation	Assignment	455/632
<u>Mary Lucille Deberry Lease</u>			
Mary Lucille Deberry	Antero Resources Corporation	1/8+	330/338

*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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**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>Goodwin Brown LLC Lease</u>	Goodwin Brown LLC	Antero Resources Corporation	1/8+	499/719

***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

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

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