

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, November 17, 2025 PERMIT MODIFICATION APPROVAL Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET

DENVER, CO 80202

Re:

Permit Modification Approval for OCEAN UNIT 2H

47-095-02950-00-00

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.

H. Jason Harmon Acting Chief

Operator's Well Number: OCEAN UNIT 2H

Farm Name: ANTERO RESOURCES CORPORATION

U.S. WELL NUMBER: 47-095-02950-00-00

Horizontal 6A New Drill

Date Modification Issued: 11/17/2025

Promoting a healthy environment.

API NO. 47-095	02950		
OPERATOR WEL	L NO.	Ocean Unit 2H MOD	
Well Pad Name	· Shinn	Pad	

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

1) Well Operato	or: Antero	Resources	Corporat	494507062	095 - Tyle	r Lincoln	Paden City
,				Operator ID	County	District	Quadrangle
2) Operator's W	ell Number	r: Ocean Un	it 2H MO	D / Well	Pad Name: Sh	inn Pad	
3) Farm Name/S	Surface Ow	ner: Antero Re	sources Corp	poration Public F	Road Access: E	Badger Run I	Road
4) Elevation, cu	rrent groun	d: 1036'	El	evation, propos	ed post-constru	action: 1036	1
5) Well Type	(a) Gas	X	_ Oil	U	nderground Sto	orage	
	Other						
	(b)If Gas	Shallow	<u>X</u>	Deep			-
		Horizontal	X				
6) Existing Pad	: Yes or No	Yes					
Proposed Tar Marcellus Sh				ipated Thicknesss- 55 feet, Ass			
8) Proposed To	tal Vertical	Depth: 670	0' TVD	1			
9) Formation at			Marcellus	s /			
10) Proposed T		5953400	23700' M	ID /			
11) Proposed H			13421'	/		Office Of	CEIVED Oil and Gas
12) Approxima			epths:	328		NOV	1 4 2025
13) Method to				47-095-02781		WV D	epartment of nental Protection
14) Approxima						Environ	17.1150
15) Approxima							10010000000000000000000000000000000000
16) Approxima	te Depth to	Possible Vo	id (coal m	ine, karst, other): None Antic	ipated	
17) Does Propo directly overlyi	osed well lo	cation contai	n coal sea	ms		No X	
(a) If Yes, pro	ovide Mine	Info: Name	e:	The Tangening County Links of the County Cou			
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API NO. 47-_095 __02950

OPERATOR WELL NO. Ocean Unit 2H MOD

Well Pad Name: Shinn Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100	100	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	378	378	CTS, 394 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500	2500	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	23700	23700	5044 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

ТҮРЕ	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438"	1530	50	Class A/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A/L	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A/L	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630	2500	Lead-H/POZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

		PACKERS	RECEIVED Gas
Kind:	N/A		NOV 1 4 2025
Sizes:	N/A		WW Department of Environmental Protection
Depths Set:	N/A		

API	NO.	47-	095	-	02950

OPERATOR WELL NO. Ocean Unit 2H MOD

Well Pad Name: Shinn Pad

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

Drill, perforate, fracture a new shallow well and complete Marcellus Shale.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs Anticipated Max Rate - 80 bpm

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 38.32 acres

22) Area to be disturbed for well pad only, less access road (acres): 16.29 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.

VV Departmen

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

Conductor: no additives, Class A/L cement.

Surface: Class A/L cement with 2-3% calcium chloride and 1/4 lb of flake Intermediate: Class A/L 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.

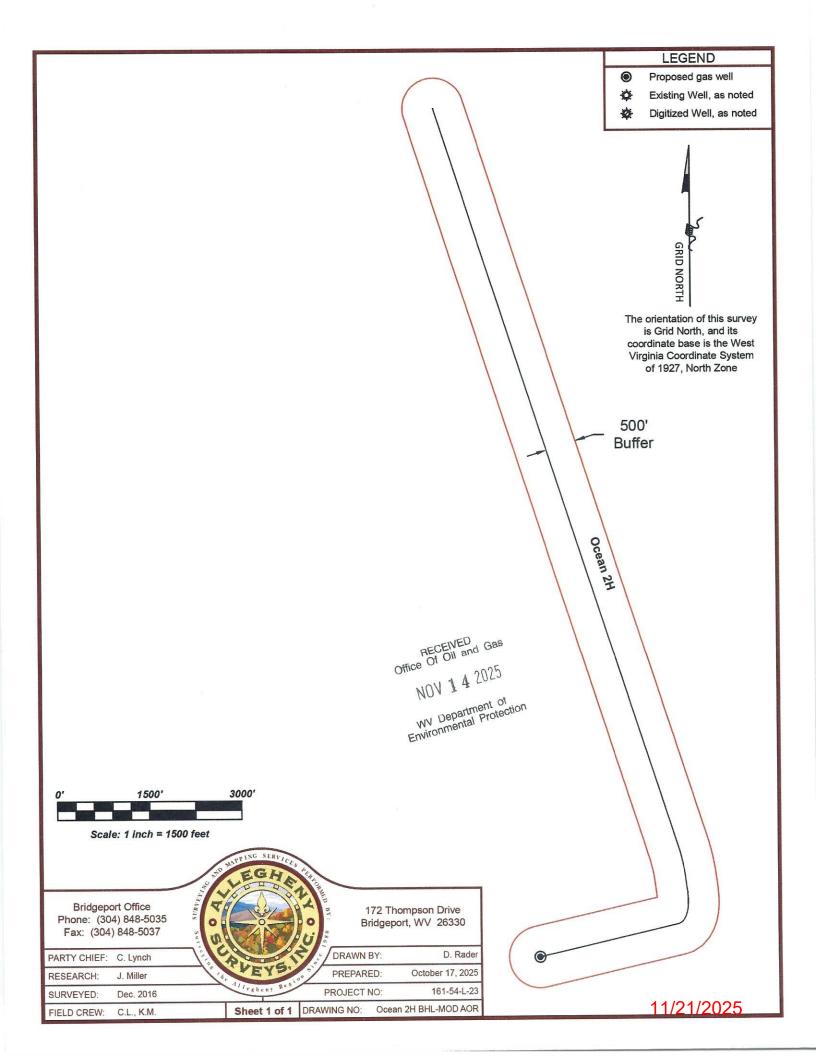
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

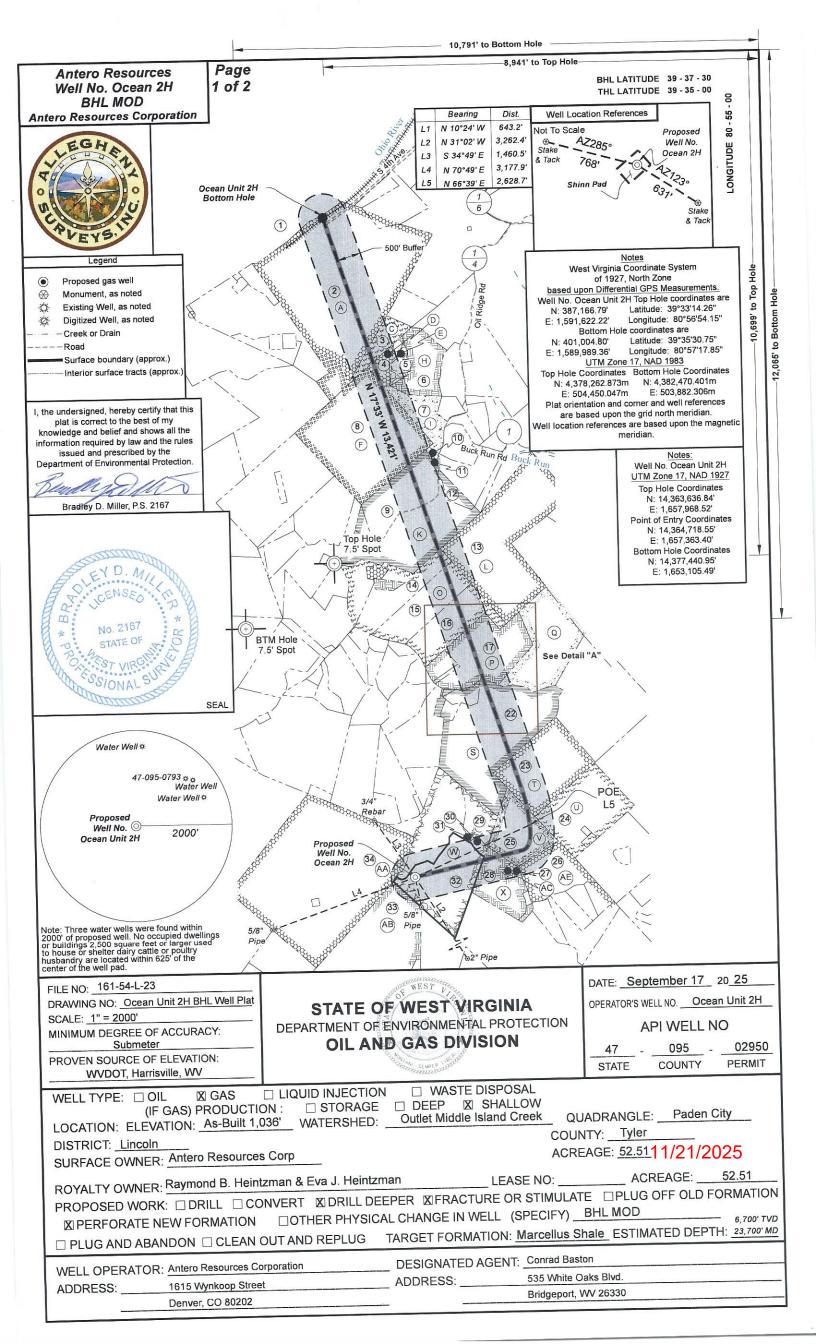
Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

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.

tephen 11/2 w 10/25 Date: 2025.09.10 08:09:46 -04:00'



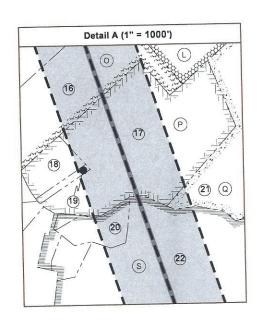


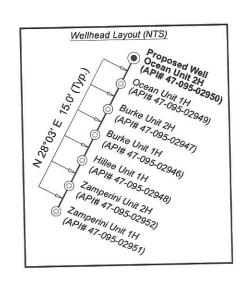
Antero Resources Well No. Ocean 2H BHL MOD Page 2 of 2



	Leases
Α	Golden Eagle Resources II, LLC
С	Michael J. Hough
D	John Stanley Starkey
E	Antero Minerals, LLC
F	Greenbrier Royalty Fund II, LLC
н	OCTO Energy, LLC
1	Virgil E. Cooper, et al
K	William J. Patterson, et al
L	John Lewis Renner, II
0	Michael D. Eddy
Р	Shirley Myers
Q	Moore Self Storage, North Carolina, LLC
S	BRC Appalachian Minerals I, LLC
Т	Bounty Minerals, LLC
U	Theresa J. Drain
V	Drilling Appalachian Corporation
W	Raymond B. Heintzman & Eva J. Heintzman
X	Bounty Minerals, LLC
AA	Nevin Porter, et al
AB	Virginia A. Nalley
AC	Michael V. Smith
AE	M. Sharon Deaton

ID	TM-Par	Owner	Bk/Pg	Acres
1	xx-xx	XX	xx/xx	X.XX
2	1-4	Haessly Hardwood Lumber Company	290/457	166.20
3	4-57	Michael J. Hough & Linda L. Anderson	OR19/795	11.64
4	4-59	Jason & Lindsey Snider	395/344	7.00
5	4-60	Jason W. & Lindsey S. Snider	OR19/232	7.00
6	4-61	Otis & Betty Ruth Workman Est	133/175	18.81
7	4-82.4	Virgil E. & Barbra J. Cooper Life Estate	251/278	13.00
8	4-58	Patrick & Shirley Lancaster	270/272	108.00
9	4-85	Patrick & Shirley A. Lancaster	212/376	86.22
10	4-82	Virgil E. & Barbra J. Cooper Life Estate	444/521	10.90
11	4-84	Virgil C. Cooper	320/388	19.98
12	4-85.2	Samuel R. Gieseke & Erin N. Eakin	375/416	4.67
13	4-76	Scott F. & Jeffery M. Grim	387/119	90.00
14	4-86	Janice M. & Michael D. Eddy	188/546	28.63
15	4-87	Janice M. & Michael D. Eddy	188/546	30.24
16	4-88	Janice M. & Michael D. Eddy	188/546	30.10
17	4-90.1	Gary B. & Melinda J. Lewis	473/1	47.33
18	4-90	William J. Grasso	284/609	5.01
19	4-90.2	William J. Grasso	284/609	1.00
20	4-96	James D. Buck	404/633	5.03
21	4-91	Donna Kathy Johnston	184/133	54.06
22	8-12	Grayce Louise Buck	144/482	86.89
23	8-13	Donna Kathy Johnston	184/133	50.00
24	8-24	Theresa J. Drain	428/607	48.38
25	8-23	Elden Jackson & Jennifer Lynn Wryosdick	385/343	30.00
26	8-27	Sharon M. & Jeffery Darrin Deaton	349/176	24.65
	8-22.2	Michael V. Smith	219/609	1.44
27 28	8-22	David E. & Ila Grace Kyle	270/206	24.63
29	8-21.1	Justin P. & Stephanie M. Richards	411/189	11.24
30	8-21.4	Jodie E. Michael	373/544	1.78
-		Adam Nathaniel Wayne	236/556	0.78
31		Antero Resources Corp	296/494	52.5
33		Virginia A. Nalley	218/520	70.6
34		Olive Branch Animal Rescue & Refuge, Inc	333/804	173.4





DRAWING NO: Ocean Unit 2H BHL Well Plat SCALE: 1" = 2000' MINIMUM DEGREE OF ACCURACY: Submeter PROVEN SOURCE OF ELEVATION:	FILE NO:	161-54-L-23
MINIMUM DEGREE OF ACCURACY: Submeter PROVEN SOURCE OF ELEVATION:	DRAWING	NO: Ocean Unit 2H BHL Well Plat
MINIMUM DEGREE OF ACCURACY: Submeter PROVEN SOURCE OF ELEVATION:	SCALE: 1	" = 2000'
		DEGREE OF ACCURACY:
VVVDO1, Harrisvine, TV		SOURCE OF ELEVATION: VDOT, Harrisville, WV

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

DATE: September 17 20 25
OPERATOR'S WELL NO. Ocean Unit 2H
API WELL NO
47 095 02950

41	-	000	-	
STATE		COUNTY		PERMIT

WELL TYPE: OIL GAS (IF GAS) PRODUCTION LOCATION: ELEVATION: As-Built 1,0 DISTRICT: Lincoln SURFACE OWNER: Antero Resources	36' WATERSHED:	□ DFFP X	SHALLOW sland Creek C	QUADRANGLE: _ COUNTY: _ Tyler ACREAGE: <u>52.51</u>		
ROYALTY OWNER: Raymond B. Heintzman & Eva J. Heintzman LEASE NO: ACREAGE:52.51 PROPOSED WORK: DRILL DEPER DRILL DEEPER D						
WELL OPERATOR: Antero Resources Co ADDRESS:	rporation	DESIGNATED A ADDRESS:	AGENT: Conract			

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
W: Raymond B. Heintzman & Eva J. Heintzman			
<u>Lease</u> Raymond B. Heintzman & Eva J. Heintzman	McCombs Conrad & Barrett	1/8	207/136
McCombs Conrad & Barrett	Appalachian Exploration & Development, Inc	Assignment	207/487
Appalachian Exploration & Development, Inc	The Carter-Jones Lumber Company	Assignment	233/563
The Carter-Jones Lumber Company	Applied Mechanics Corporation	Assignment	258/132
Applied Mechanics Corporation	Triad Hunter, LLC	Assignment	385/566
Triad Hunter, LLC	Antero Resources Corporation	Assignment	496/776
/ X: Bounty Minerals, LLC Lease		1/8+	301/448
Bounty Minerals, LLC	Antero Resources Corporation		
			RECEIVED Office Of Oil and Gas 296/19
V: Drilling Appalachian Corporation Lease		1/8+	Office Of Oil and 296/19
Drilling Appalachian Corporation	Antero Resources Corporation	2,0.	4 2025
✓ T: Bounty Minerals, LLC Lease			NOV 1 4 2025
Bounty Minerals, LLC	Antero Resources Corporation	1/8+	286/571
bounty willerais, and	Production of the Control of the Con		WV Department of Environmental Protection
S: BRC Appalachian Minerals I, LLC Lease			
BRC Appalachian Minerals I, LLC	BRC Working Interest Company LLC	1/8+	369/300
BRC Working Interest Company LLC	Chesapeake Appalachia, LLC	Assignment	369/784
Chesapeake Appalachia, LLC	Statoil USA Onshore Properties Inc	Assignment	378/764
Statoil USA Onshore Properties Inc	SWN Exchange Titleholder LLC	Assignment	470/668 9/404
SWN Exchange Titleholder LLC	SWN Production Company LLC	Merger	544/242
SWN Production Company LLC	Antero Exchange Properties	Assignment	525/315
Antero Exchange Properties	Antero Resources Corporation	Merger	323/313
P: Shirley Myers Lease:	9	1/8+	179/121
Shirley Myers	Antero Resources Corporation	1/8+	1/3/121
O: Michael D. Eddy Lease:			000/420
Michael D. Eddy	SEP Appalachia, LLC	1/8+	320/130
SEP Appalachia, LLC	Antero Resources Corporation	Agreement	375/26
(L. Jahra Lauria Bannar III Laasa			
/ L: John Lewis Renner, II Lease John Lewis Renner, II	Antero Resources Corporation	1/8+	332/730
Joint Lewis Refiner, ii	• • • • • • • • • • • • • • • • • • • •		
/ K: William J. Patterson, et al Lease		. 10	200/60
William J. Patterson, et al	Antero Resources Corporation	1/8+	200/00
/			
F: Greenbrier Royalty Fund II, LLC Lease	Antero Resources Corporation	1/8+	296/90
Greenbrier Royalty Fund II, LLC	Antero Resources corporation		
/ I: Virgil E. Cooper, et al Lease			
Virgil E. Cooper, et al	Antero Resources Corporation	1/8+	205/466
angii L. cooper, et ai	•		
D: John Stanley Starkey Lease			204/22
John Stanley Starkey	Antero Resources Corporation	1/8+	304/32
•			

Operator's Well Number

Ocean Unit 2H 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)

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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:

Grantor, lessor, etc.

Grantee, lessee, etc.

Royalty

Book/Page

C: Michael J. Hough Lease
Michael J. Hough

Antero Resources Corporation

1/8+

325/383

*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.

*Cotenancy Utilization - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

**Pooling/Unitization — Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks to pool certain owners in this tract

Office Of Oil and Gas

NOV 1 4 2025

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)

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Lease Name or				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
A: Golden Eagle Resources II, LLC I	Lease			
	Golden Eagle Resources II, LLC	Antero Resources Corporation	1/8+	325/383

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Office Of Oil and Gas

NOV 1 4 2025

WW Department of Environmental Protection

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

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:	Antero Resources Corporation		
By:	Tim Rady	hu ledy	
Its:	Senior Vice President of Land		

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