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 4, 2026
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for CHEDDAR UNIT 2H
47-103-03839-00-00

Lateral Extension with Forced Pooling

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
Chief

Operator's Well Number: CHEDDAR UNIT 2H
Farm Name: RAYMON J & LINDA S HEILMAN
U.S. WELL NUMBER: 47-103-03839-00-00
Horizontal 6A New Drill
Date Modification Issued: 06/04/2026

06/05/2026

WW-6B
(04/15)

API NO. 47- 103 - 03839
OPERATOR WELL NO. Cheddar Unit 2H MOD
Well Pad Name: Heilman Pad

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

1) Well Operator:	Antero Resources Corporat	494507062	103 - Wetze	Green	Pine Grove
		Operator ID	County	District	Quadrangle

2) Operator's Well Number: Cheddar Unit 2H MOD Well Pad Name: Heilman Pad

3) Farm Name/Surface Owner: Raymond J. and Linda S. Heilman Public Road Access: Ashland Ridge Road

4) Elevation, current ground: 1442' Elevation, proposed post-construction: 1442'

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: 7900' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2800#

8) Proposed Total Vertical Depth: 7900' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 17600' MD

11) Proposed Horizontal Leg Length: 7546.3'

12) Approximate Fresh Water Strata Depths: 388'

13) Method to Determine Fresh Water Depths: 47-103-00537

14) Approximate Saltwater Depths: 2071'

15) Approximate Coal Seam Depths: N/A

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

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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: _____

CK# 4051490
7500.00

Stephen Mccoy
06/05/2026
Digitally signed by Stephen Mccoy
Date: 2026.04.21 18:07:04 -04'00'

WW-6B
(04/15)

API NO. 47- 103 - 03839
OPERATOR WELL NO. Cheddar Unit 2H MOD
Well Pad Name: Heilman 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#	438'	438'	CTS, 456 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#	17600'	17600'	3507 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"	0.438"	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

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

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Stephen Mccoy
06/05/2026
Digitally signed by Stephen Mccoy
Date: 2026.04.21 18:06:53 -04'00'

WW-6B
(10/14)

API NO. 47- 103 - 03839
OPERATOR WELL NO. Cheddar Unit 2H MOD
Well Pad Name: Heilman 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): 19.62 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.29 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.

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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

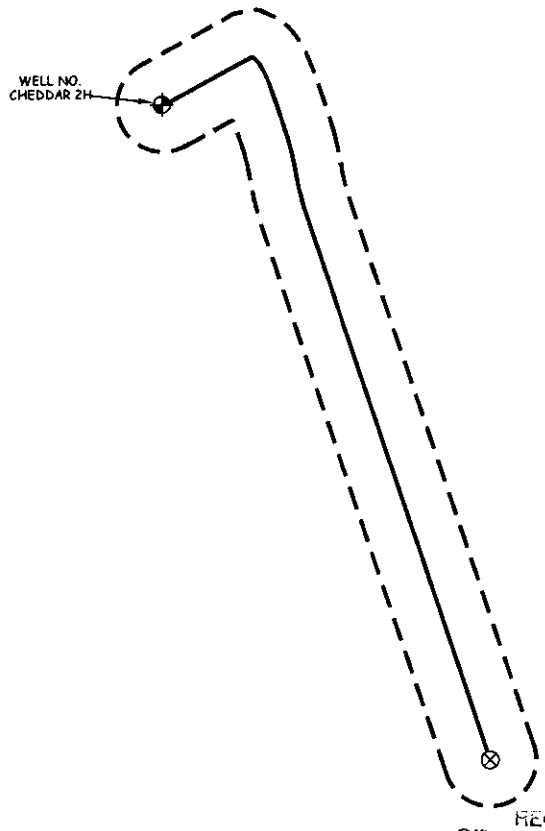
25) Proposed borehole conditioning procedures:

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.

Stephen Mccoy
Digitally signed by Stephen Mccoy
Date: 2026.04.21 18:06:44 -04'00'
06/05/2026

HEILMAN PAD
ANTERO RESOURCES CORPORATION



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

DATE: 04/24/26 | DRAWN BY: T.B.S.

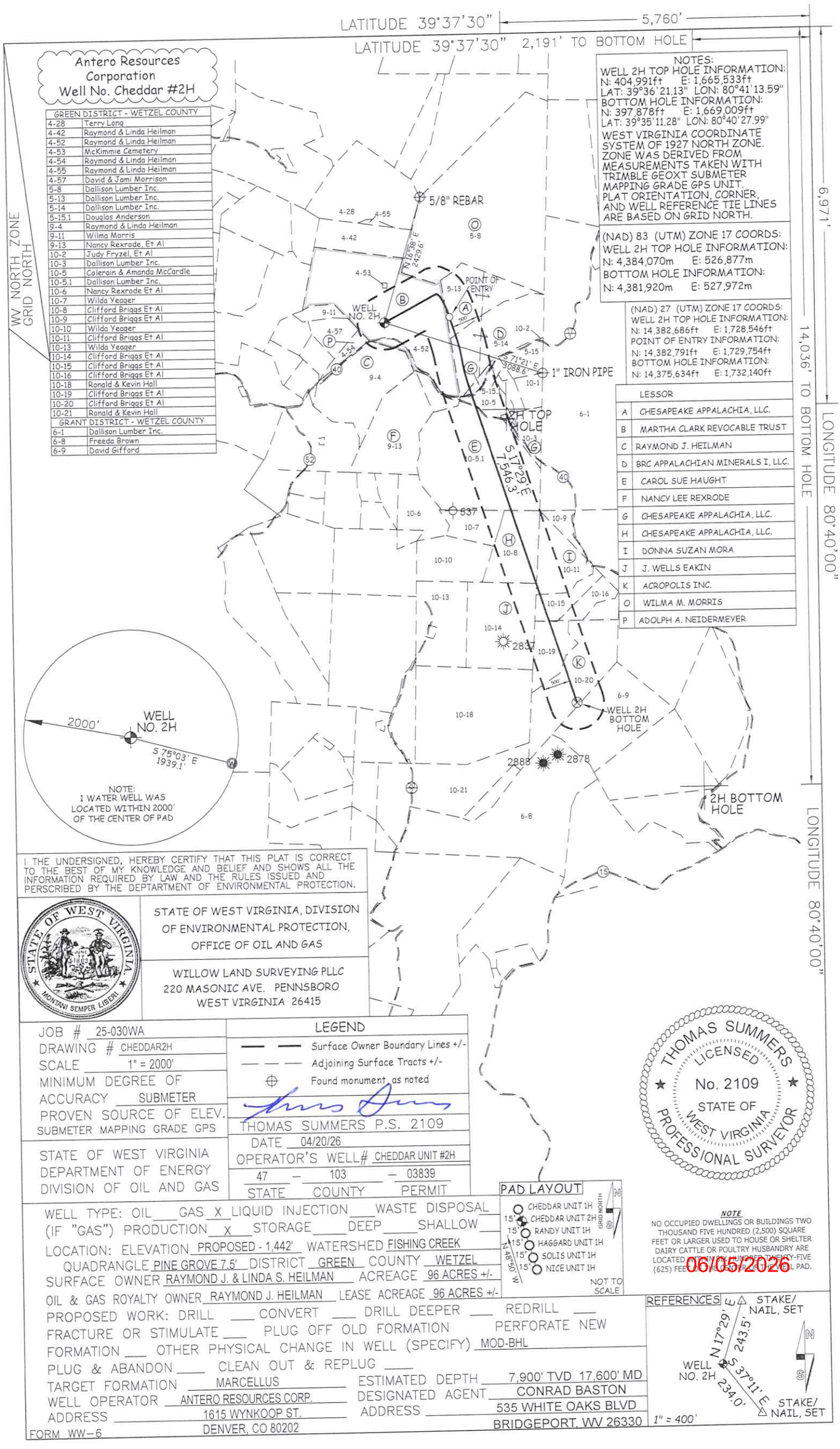
JOB #: 25-030WA

FILE: CHEDDAR2HAOR.DWG

SCALE : 1-INCH = 2000-FEET

0' 2000' 4000' 6000'

06/05/2026


LATITUDE 39°37'30"
5,760'
LATITUDE 39°37'30" 2,191' TO BOTTOM HOLE
6,971'
14,036' TO BOTTOM HOLE
LONGITUDE 80°40'00"
LONGITUDE 80°40'00"
WV NORTH ZONE
GRID NORTH
Antero Resources Corporation
Well No. Cheddar #2H
NOTES:
WELL 2H TOP HOLE INFORMATION:
N: 404,991ft E: 1,665,533ft
LAT: 39°36'21.13" LON: 80°41'13.59"
BOTTOM HOLE INFORMATION:
N: 397,878ft E: 1,669,009ft
LAT: 39°35'11.28" LON: 80°40'27.99"
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: 4,384,070m E: 526,877m
BOTTOM HOLE INFORMATION:
N: 4,381,920m E: 527,972m
(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 14,382,686ft E: 1,728,546ft
POINT OF ENTRY INFORMATION:
N: 14,382,791ft E: 1,729,754ft
BOTTOM HOLE INFORMATION:
N: 14,375,634ft E: 1,732,140ft
GREEN DISTRICT - WETZEL COUNTY
4-28 Terry Long
4-42 Raymond & Linda Heilman
4-52 Raymond & Linda Heilman
4-53 McKimmie Cemetery
4-54 Raymond & Linda Heilman
4-55 Raymond & Linda Heilman
4-57 David & Jami Morrison
5-8 Dallison Lumber Inc.
5-13 Dallison Lumber Inc.
5-14 Dallison Lumber Inc.
5-15.1 Douglas Anderson
9-4 Raymond & Linda Heilman
9-11 Wilma Morris
9-13 Nancy Rexrode, Et Al
10-2 Judy Fryzel, Et Al
10-3 Dallison Lumber Inc.
10-5 Colerain & Amanda McCardle
10-5.1 Dallison Lumber Inc.
10-6 Nancy Rexrode Et Al
10-7 Wilda Yeager
10-8 Clifford Briggs Et Al
10-9 Clifford Briggs Et Al
10-10 Wilda Yeager
10-11 Clifford Briggs Et Al
10-13 Wilda Yeager
10-14 Clifford Briggs Et Al
10-15 Clifford Briggs Et Al
10-16 Clifford Briggs Et Al
10-18 Ronald & Kevin Hall
10-19 Clifford Briggs Et Al
10-20 Clifford Briggs Et Al
10-21 Ronald & Kevin Hall
GRANT DISTRICT - WETZEL COUNTY
6-1 Dallison Lumber Inc.
6-8 Freeda Brown
6-9 David Gifford
LESSOR
A CHESAPEAKE APPALACHIA, LLC.
B MARTHA CLARK REVOCABLE TRUST
C RAYMOND J. HEILMAN
D BRC APPALACHIAN MINERALS I, LLC.
E CAROL SUE HAUGHT
F NANCY LEE REXRODE
G CHESAPEAKE APPALACHIA, LLC.
H CHESAPEAKE APPALACHIA, LLC.
I DONNA SUZAN MORA
J J. WELLS EAKIN
K ACROPOLIS INC.
O WILMA M. MORRIS
P ADOLPH A. NEIDERMEYER
5/8" REBAR
POINT OF ENTRY
WELL NO. 2H
1" IRON PIPE
2H TOP HOLE
WELL 2H BOTTOM HOLE
2H BOTTOM HOLE
N 16°38' E 2429.6'
S 71°21' E 3088.6'
S 17°29' E 7546.3'
2000'
S 75°03' E 1939.1'
NOTE: 1 WATER WELL WAS LOCATED WITHIN 2000' OF THE CENTER OF PAD
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 DEPTARTMENT 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 # 25-030WA
DRAWING # CHEDDAR2H
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS
LEGEND
Surface Owner Boundary Lines +/-
Adjoining Surface Tracts +/-
Found monument, as noted
THOMAS SUMMERS P.S. 2109
DATE 04/20/26
OPERATOR'S WELL# CHEDDAR UNIT #2H
47 – 103 – 03839
STATE COUNTY PERMIT
PAD LAYOUT
CHEDDAR UNIT 1H
CHEDDAR UNIT 2H
RANDY UNIT 1H
HAGGARD UNIT 1H
SOLIS UNIT 1H
NICE UNIT 1H
N 38° W
GRID NORTH
NOT TO SCALE
THOMAS SUMMERS LICENSED No. 2109 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR
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 TWENTY-FIVE HUNDRED (2,500) FEET OF THE CENTER OF WELL PAD.
06/05/2026
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION PROPOSED - 1,442' WATERSHED FISHING CREEK
QUADRANGLE PINE GROVE 7.5' DISTRICT GREEN COUNTY WETZEL
SURFACE OWNER RAYMOND J. & LINDA S. HEILMAN ACREAGE 96 ACRES +/-
OIL & GAS ROYALTY OWNER RAYMOND J. HEILMAN LEASE ACREAGE 96 ACRES +/-
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 7,900' TVD 17,600' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CONRAD BASTON
ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAKS BLVD
DENVER, CO 80202 BRIDGEPORT, WV 26330
FORM WW-6
REFERENCES
STAKE/ NAIL, SET
N 17°29' E 243.5'
WELL NO. 2H
S 37°11' E 234.0'
STAKE/ NAIL, SET
1" = 400'

WW-6A1

Operator's Well Number Cheddar 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)

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
B: Martha Clark Revocable Trust Lease:			
Martha Clark Revocable Trust	**Antero Resources Corporation**	**1/8+**	**307A/574**
A: Chesapeake Appalachia, LLC Lease			
Chesapeake Appalachia, LLC	SWN Production Company, LLC	1/8	157A/640
SWN Productions Company, LLC	Antero Exchange Properties, LLC	Assignment	177A/533
Antero Exchange Properties, LLC	**Antero Resources Corporation**	**Merger**	**13/311**
G: Chesapeake Appalachia, LLC Lease			
Chesapeake Appalachia, LLC	SWN Production Company, LLC	1/8	157A/640
SWN Productions Company, LLC	Antero Exchange Properties, LLC	Assignment	177A/533
Antero Exchange Properties, LLC	**Antero Resources Corporation**	**Merger**	**13/311**
E: Carol Sue Haught Lease			
Carol Sue Haught	**Antero Resources Corporation**	**1/8+**	**330A/600**
H: Chesapeake Appalachia, LLC Lease			
Chesapeake Appalachia, LLC	SWN Production Company	Assignment	157A/640
SWN Production Company	Antero Exchange Properties, Inc	Assignment	177A/533
Antero Exchange Properties, Inc	**Antero Resources Corporation**	**Name Change**	**13/311**
J: J. Wells Eakin Lease			
J. Wells Eakin	Mountain Link Associates, Inc	1/8	108A/869
Mountain Link Associates, Inc	Rockford Energy, LLC	Assignment	122A/882
Rockford Energy, LLC	Montani Energy, LLC	Assignment	394/435
Montani Energy, LLC	**Antero Resources Corporation**	**Assignment**	**427A/250**
I: Donna Suzan Mora Lease			
Donna Suzan Mora	**Antero Resources Corporation**	**1/8+**	**384A/454**

***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

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WV Department of
Environmental Protection

06/05/2026

WW-6A1
(5/13)

Operator's Well No. Cheddar 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)

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
K: Acropolis Inc. Lease	**Acropolis Inc.**	**Antero Resources Corporation**	**1/8+**	**292A/682**

*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

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:

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- 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 Vice President of Land

06/05/2026

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

May 14th, 2026

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

Mr. Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for approved wells on the Wagner B Pad & Heilman Pad. We are requesting to extend the horizontal lateral length which will change the bottom hole locations of the Mason Unit 1H, Cheddar Unit 1H, Cheddar Unit 2H, Randy Unit 1H & Haggard Unit 1H wells.

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the revised MD and Production Casing/Cement program
- REVISED Form WW-6A1, which shows the leases we will be drilling into
- REVISED Mylar Plat, which shows the new bottom hole location

If you have any questions please feel free to contact me at (303) 357-7373.

Thank you in advance for your consideration.

Sincerely,

Carly Wren
Permitting Agent
Antero Resources Corporation

Enclosures

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WV Department of
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06/05/2026