



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, January 28, 2021
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

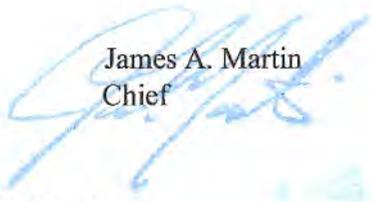
Re: Permit Modification Approval for CHEAT 2H
47-095-02720-00-00

Extend Lateral Length

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: CHEAT 2H
Farm Name: PATRICIA ANN HEINTZMAN
U.S. WELL NUMBER: 47-095-02720-00-00
Horizontal 6A New Drill
Date Modification Issued: 1/28/2021

Promoting a healthy environment.

WW-6B
(04/15)

API NO. 47-095 - 02720
OPERATOR WELL NO. Cheat Unit 2H
Well Pad Name: Elk Fork 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 095 - Tyler Ellsworth Porters Falls 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Cheat Unit 2H Well Pad Name: Elk Fork Pad

3) Farm Name/Surface Owner: Patricia Ann Heintzman Public Road Access: Elk Fork Road

4) Elevation, current ground: 1126' Elevation, proposed post-construction: _____

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: 7000' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

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8) Proposed Total Vertical Depth: 7000' TVD

JAN 19 2021

9) Formation at Total Vertical Depth: Marcellus

WV Department of
Environmental Protection

10) Proposed Total Measured Depth: 23300'

11) Proposed Horizontal Leg Length: 15712'

12) Approximate Fresh Water Strata Depths: 125'

13) Method to Determine Fresh Water Depths: 47-095-00269

14) Approximate Saltwater Depths: 1703'

15) Approximate Coal Seam Depths: 58'

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: _____

*CHK# 2024761
Amt \$ 5000
Date 12/15/20*

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#	90'	90'	CTS, 86 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	300'	300'	CTS, 417 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#	23300'	23300'	5999 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	~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"	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

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Kind:	N/A			JAN 19 2021
Sizes:	N/A			WV Department of Environmental Protection
Depths Set:	N/A			

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

Drill a new vertical shallow well into the 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): 43.65 acres

22) Area to be disturbed for well pad only, less access road (acres): 8.91 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:

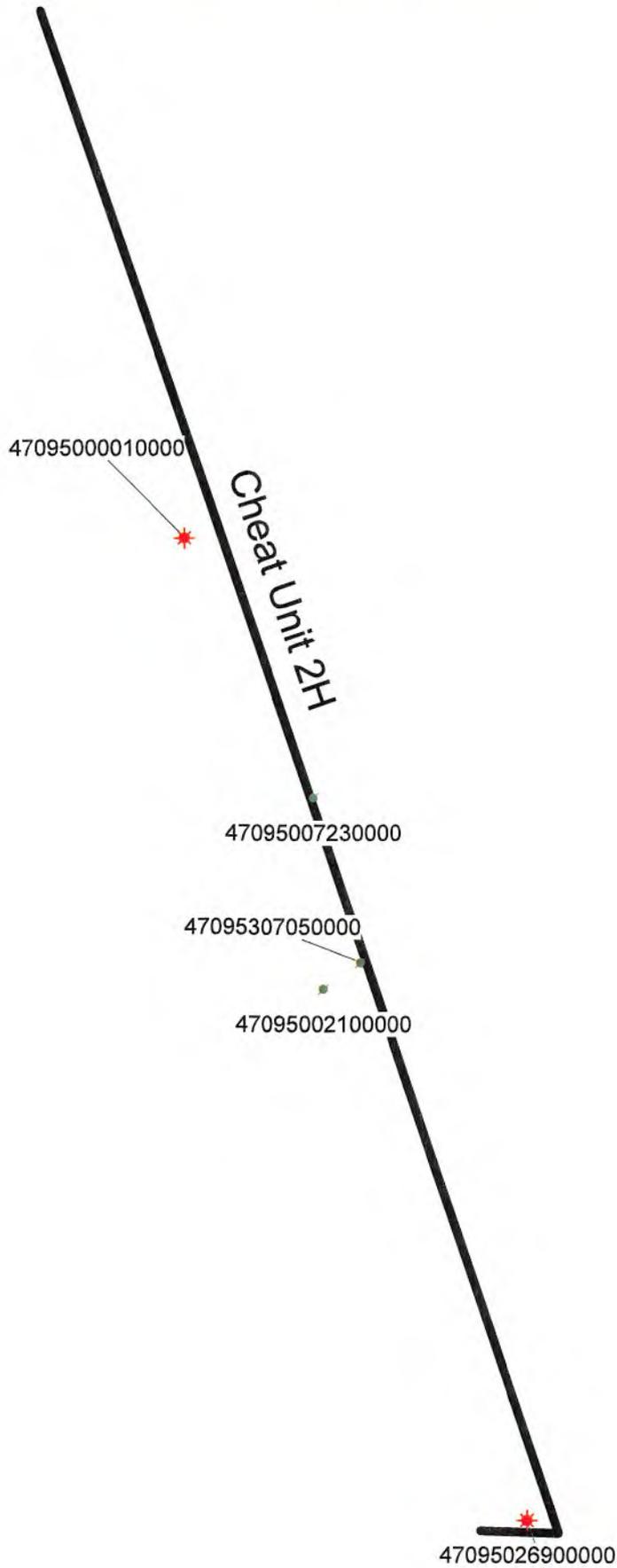
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Environmental Protection

*Note: Attach additional sheets as needed.

PERMIT MODIFICATION API # 47-095-02720



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JAN 19 2021
WV Department of Environmental Protection

Antero Resources Corporation

Cheat Unit 2H - AOR

0 2,500
FEET

WELL SYMBOLS
Gas Well
Plugged Oil Well

January 12, 2021

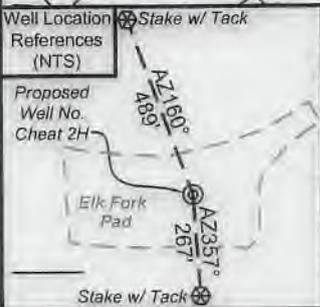
UWI (APINum)	Well Name	Well Number	Operator	Historical Operator
47095000010000	CHARLES A WATKINS	1	JCR Petroleum Inc.	JCR Petroleum Inc.
47095007230000	WATKINS HEIRS	1	VAN CAMP DONALD	CARTER-JONES LUMBER
47095307050000	ANNA FOX	1	Unknown	Unknown
47095002100000	ANNA FOX	2	Unknown	Unknown
47095026900000	Richmond Unit	1H	ANTERO RESOURCES CORPORATION	ANTERO RESOURCES CORPORATION

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TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
1,600	Unknown	Unknown	Unknown
2,445	2005 - 2193	Weir, Berea	Big Injun, Alexander
1,710	Unknown	Kenner	Big Injun, Berea, Alexander
1,660	Unknown	Kenner	Big Injun, Berea, Alexander
22,714	6743 - 22602	Marcellus	N/A

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Antero Resources
Well No. Cheat 2H
BHL MOD
 Antero Resources Corporation

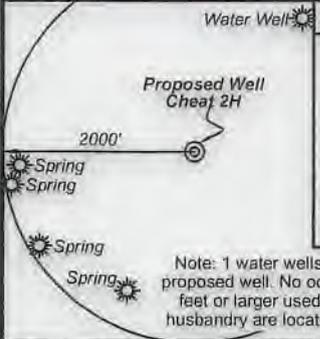


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller, P.S. 2167



- Legend**
- Proposed gas well
 - Monument, as noted
 - Existing Well, as noted
 - Creek or Drain
 - Road
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)
 - County Line



Note: 1 water wells and 4 springs 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.

FILE NO: 44-54-E-19
 DRAWING NO: Cheat Unit 2H BHL MOD
 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: December 17 2020
 OPERATOR'S WELL NO. Cheat 2H
 API WELL NO
 47 - 095 - 02720
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,126' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Top Hole:Porter Falls
 DISTRICT: Ellsworth/Magnolia COUNTY: BTM Hole:Paden City
 SURFACE OWNER: Patricia Ann Heintzman Lowmax R. Kunkel; BRC Appalachian Minerals I, LLC; Penny G. Bond; Antero Minerals, LLC; Judy P. Meyers; James D. VanCamp, et al (3); Top Hole Tyler
 ROYALTY OWNER: Patricia Ann Heintzman; Norma Smith; Dennis R. Heintzman, et ux; Brenda L. Martin; Harold Skinner; LEASE NO: ACREAGE: 76.25; 93.6985; 33.8125; 62.18; 48; 42.55; 24.44; 365.2064; 48.8; 151.08; 27; 59.75; 98.6
 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: 7,000' TVD
 23,300' 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

10,508' to Top Hole

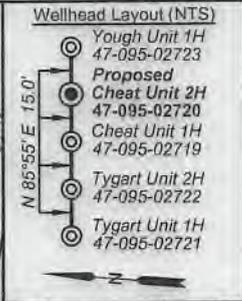
3,230' to Bottom Hole

BTM Hole 7.5' Spot

TOP HOLE LATITUDE 39 - 32 - 30
 BTM HOLE LATITUDE 39 - 35 - 00

Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Cheat Unit 2H Top Hole coordinates are
 N: 382,182.57' Latitude: 39°32'28.39"
 E: 1,613,481.02' Longitude: 80°52'14.13"
 Bottom Hole coordinates are
 N: 397,494.93' Latitude: 39°34'59.08"
 E: 1,609,240.84' Longitude: 80°53'11.27"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,376,855.758m N: 4,381,499.176m
 E: 511,134.744m E: 509,765.210m
 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. Cheat Unit 2H UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,359,018.81'
 E: 1,676,900.00'
 Point of Entry Coordinates
 N: 14,359,395.46'
 E: 1,677,497.37'
 Bottom Hole Coordinates
 N: 14,374,254.06'
 E: 1,672,406.31'



	Bearing	Dist.
L1	S 63°37' E	1,427.5'
L2	N 05°09' E	1,295.2'
L3	N 62°26' E	543.1'
L4	N 88°32' E	699.7'
L5	N 58°48' E	705.9'

94' to Bottom Hole
 163' to Top Hole

Antero Resources
Well No. Cheat 2H
BHL MOD
 Antero Resources Corporation



ID	TM/Par	Owner	Bk/Pg	Acres
1	10-2	Patricia Ann Heintzman	W13/384	73.26
2	10-3	Kevin S. & Melinda S. Goff	597/808	53.75
3	6-36	Dennis & Clista Heintzman	297/640	417.60
4	6-35.4	Stephen & Andriea Knowlton	340/412	17.46
5	6-24	Harold Skinner	204/595	62.18
6	6-25.2	Kevin Lee Fletcher	328/723	32.00
7	6-25.1	Kevin Lee Fletcher	328/723	5.76
8	6-16.3	Michael L. Roberts	407/45	14.81
9	6-16.4	Michael L. Roberts	407/45	27.74
10	6-16.5	James M. & Sherry Starkey	344/785	24.44
11	6-25	William L. McClain	253/323	11.87
12	6-15	James D. VanCamp, et al	W38/144	47.50
13	6-16.5	James M. & Sherry Starkey	344/785	24.44
14	6-6	Gary A. & Penny K. Midcap	301/265	100.00
15	6-4	James D. Vancamp, et al	W38/144	46.76
16	6-5	Gary A. & Penny K. Midcap	301/265	75.55
17	3-43	Joel A. Prosser	387/736	23.62
18	3-42	Rosalie B. Henry	362/339	27.00
19	3-40	Rosalie Henry	170/006	46.21
20	3-41	Gary A. & Penny K. Midcap	296/518	7.00
21	3-18	Gary Midcap	322/108	80.33
22	3-12	Lomax R. Kunkel	297/692	57.51
23	3-13	Lomax R. Kunkel	297/692	63.50
24	3-48	Linda Hoover	356/233	45.00
25	16-65	Kenneth W. & Norma A. Headley	355/347	58.60
26	16-56	Verda Hart	W69/785	10.50
27	16-59	Kenneth W. & Norma A. Headley	355/347	47.75

Leases	
A	Patricia Ann Heintzman
B	Nina & Phillip Whitefield
C	Norma Smith
D	BRC Appalachian Minerals I, LLC
E	Dennis R. Heintzman, et ux
F	BRC Appalachian Minerals I, LLC
G	BRC Appalachian Minerals I, LLC
H	Harold Skinner
I	Antero Minerals, LLC
J	Judy P. Meyers
K	Brenda L. Martin
L	James D. VanCamp, et al
M	Judy P. Meyers
N	Gary A. Midcap, et ux
O	James D. VanCamp, et al
P	James D. VanCamp, et al
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S	Linda Allen
T	James D. VanCamp, et al
U	Gary A. & Penny K. Midcap
V	Lowmax R. Kunkel
W	Lowmax R. Kunkel
X	James D. VanCamp, et ux
Y	BRC Appalachian Minerals, I LLC
Z	David B. Shriver
AA	No Lease

FILE NO: 44-54-E-19
 DRAWING NO: Cheat Unit 2H BHL MOD
 SCALE: 1" = 2000'
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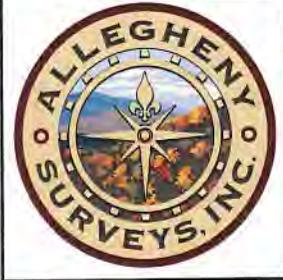
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OIL AND GAS DIVISION

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LOCATION: ELEVATION: As-Built 1,126' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Top Hole:Porter Falls
 DISTRICT: Ellsworth/Magnolia COUNTY: Top Hole Tyler 76.25; 93.6985;
 SURFACE OWNER: Patricia Ann Heintzman Lowmax R. Kunkel; BRC Appalachian Minerals I, LLC; Penny G. Bond; 33.8125; 62.18; 48;
 ROYALTY OWNER: Patricia Ann Heintzman; Norma Smith; Dennis R. Heintzman, et ux; Brenda L. Martin; Harold Skinner; LEASE NO: ACREAGE: 73.26 42.55; 24.44;
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION 365.2064; 48.5;
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 7,000' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,300' 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



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 Denver, CO 80202 Charleston, WV 25313

10,508' to Top Hole

BTM Hole 7.5' Spot

3,230' to Bottom Hole

Page 1 of 2

Cheat Unit 2H Bottom Hole

Wetzel Tyler

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BTM HOLE LATITUDE 39 - 35 - 00

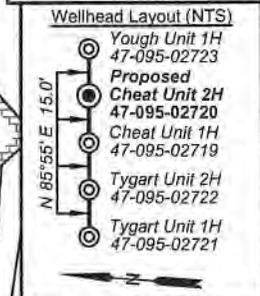
TOP HOLE LONGITUDE 80 - 50 - 00
BTM HOLE LONGITUDE 80 - 52 - 30
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163' to Top Hole

Antero Resources
Well No. Cheat 2H
BHL MOD
Antero Resources Corporation



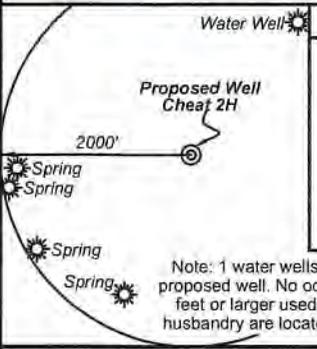
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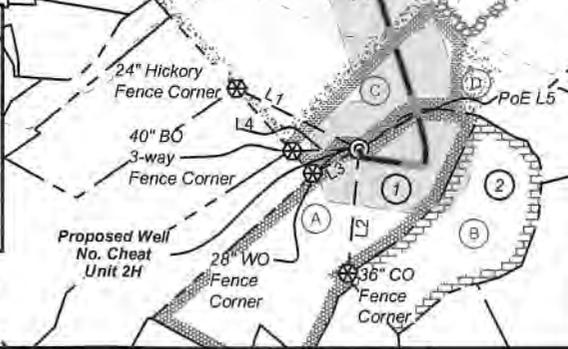


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

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



- Legend**
- Proposed gas well
 - Monument, as noted
 - Existing Well, as noted
 - Creek or Drain
 - Road
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)
 - County Line



	Bearing	Dist.
L1	S 63°37' E	1,427.5'
L2	N 05°09' E	1,295.2'
L3	N 62°26' E	543.1'
L4	N 88°32' E	699.7'
L5	N 58°48' E	705.9'

FILE NO: 44-54-E-19
DRAWING NO: Cheat Unit 2H BHL MOD
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: December 17, 2020
OPERATOR'S WELL NO. Cheat 2H
API WELL NO
47 - 095 - 02720
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,126' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Top Hole:Porter Falls
DISTRICT: Ellsworth/Magnolia COUNTY: Top Hole Tyler 76.25; 93.6985; 33.8125; 62.18; 48; BTM Hole Wetzel 42.55; 24.44; 365.2064; 48.5; 151.08; 27; 59.75; 88.6

SURFACE OWNER: Patricia Ann Heintzman Lowmax R. Kunkel; BRC Appalachian Minerals I, LLC; Penny G. Bond; Antero Minerals, LLC; Judy P. Meyers; James D. VanCamp, et al (3); ACREAGE: 73.26

ROYALTY OWNER: Patricia Ann Heintzman; Norma Smith; Dennis R. Heintzman, et ux; Brenda L. Martin; Harold Skinner; LEASE NO: ACREAGE: 151.08; 27; 59.75; 88.6

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 7,000' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,300' 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

WW-6A1

Operator's Well Number Cheat Unit 2H

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>Patricia Ann Heintzman Lease</u> Patricia Ann Heintzman	Antero Resources Corporation	1/8+	0594/0309
<u>Norma Smith Lease</u> Norma Smith	Antero Resources Corporation	1/8+	0467/0551
<u>Dennis R. Heintzman et ux Lease</u> Dennis R. Heintzman et ux Stone Energy Corporation Antero Resources Appalachian Corporation	Stone Energy Corporation Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Assignment Name Change	0397/0726 0447/0767 Exhibit 1
<u>Harold Skinner Lease</u> Harold Skinner	Antero Resources Corporation	1/8+	0576/0102
<u>Antero Minerals LLC Lease</u> Antero Minerals LLC	Antero Resources Corporation	1/8+	0067/0486
<u>Brenda L. Martin Lease</u> Brenda L. Martin	Antero Resources Corporation	1/8	0062/0470
<u>Judy P. Meyers Lease</u> Judy P. Meyers	Antero Resources Corporation	1/8+	0002/0044
<u>James D. VanCamp et al Lease (TM 3 PCL 32)</u> James D. VanCamp et al Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	0404/0380 0557/0430
<u>James D. VanCamp et al Lease (TM 6 PCL 3)</u> James D. VanCamp et al Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	0404/0380 0557/0430
<u>Penny G. Bond Lease</u> Penny G. Bond	Antero Resources Corporation	1/8+	0671/0840
<u>James D. VanCamp et al Lease (TM 3 PCL 48)</u> James D. VanCamp et al Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	0404/0380 0557/0430
<u>Lowmax R. Kunkel Lease</u> Lowmax R. Kunkel EQT Production Company	EQT Production Company Antero Resources Corporation	1/8+ Assignment	0605/0008 0663/0001

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Office of Oil and Gas

JAN 19 2021

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.

WW-6A1
(5/13)

Operator's Well No. Cheat Unit 2H

**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
BRC Appalachian Minerals I LLC Lease				
	BRC Appalachian Minerals I LLC	Chesapeake Appalachia LLC	Assignment	0369/0784
	Chesapeake Appalachia LLC	Statoil USA Onshore Properties	Assignment	0378/0764
	Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
	EQT Production Company	Antero Resources Corporation	Assignment	0663/0001

*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

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

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WV Department of
Environmental Protection

*Co-tenancy utilization – At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act



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

January 14, 2021

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Ms. Laura Adkins
601 57th Street
Charleston, WV 25304

Cheat Unit 2H
75-02720
Yough Unit
45-02723

Ms. Laura Adkins:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for the following approved wells on the existing Elk Fork Pad: Cheat Unit 2H (API # 47-095-02720) & Yough Unit 1H (API # 47-095-02723).

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the updated POE & Measured Depth
- REVISED Form WW-6A1, which shows the new leases we will be drilling into
- REVISED Mylar Plat, which shows the new Lateral Length & Estimated Measured Depth
- AOR & As-Built Design

If you have any questions please feel free to contact me at (303) 357-7223.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "MGriffith", with a long horizontal flourish extending to the right.

Megan Griffith
Permitting Agent
Antero Resources Corporation

Enclosures

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Environmental Protection

Expedited Permit Modification

20 days

Received date: 1/19/21

Expedited Final Date: 2/8/21

Operator: Antero

Well Name: Cheat 2H

Pad Name: Elk York

API: 95-02720

	MODIFIED PERMIT	ORIGINAL PERMIT
TVD	7000 ✓	7000' ✓
TMD	23300 ✓	10200' ←
HL	15 712 ✓	2095' ←
FW	125	125' ✓
SW	1703	1703 ✓
COAL	58	58 ✓
CONDUCTOR	90	90 ✓
FRESHWATER	300	300 ✓
INTERMEDIATE 1	2500	2500 ✓
INTERMEDIATE 2	—	—
PRODUCTION	23300	10200' ←

Notes: Oris. Parcel, A, D, F A. Heintzman,
D. Morra, Smith E. D. Heintzman

Updated AOR included

- A. Heintzman, P I Antero - P VanCamp - V Kunko D
- C Morra - K Martin - R Boud - Y BRC
- E Heintzman, D - M Meyers - T VanCamp
- H Skinner - O VanCamp

Co tenancy ✓