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, October 19, 2026
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for Walters N-4H
47-033-06157-00-00

Modified coal casing

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:	Walters N-4H
Farm Name:	Aurther W Walters Sr et ux
U.S. WELL NUMBER:	47-033-06157-00-00
Horizontal 6A	New Drill
Date Modification Issued:	10/19/2026

10/23/2026

WW-6B
(04/15)

API NO. 47- 033 - 06157
OPERATOR WELL NO. Walters N-4H MOD
Well Pad Name: Walters 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 (Operator ID) | 033 - Harris (County) | Eagle (District) | Clarksburg 7.5' (Quadrangle)

2) Operator's Well Number: Walters N-4H MOD Well Pad Name: Walters Pad

3) Farm Name/Surface Owner: Arthur W. Walters Sr. et ux Public Road Access: Upper Lamberts Run Rd

4) Elevation, current ground: 1199' Elevation, proposed post-construction: 1199'

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow X Deep _____
Horizontal X

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7800' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2800#

8) Proposed Total Vertical Depth: 7800' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23600' MD

11) Proposed Horizontal Leg Length: 13877.6'

12) Approximate Fresh Water Strata Depths: 1000'

13) Method to Determine Fresh Water Depths: West Virginia DEP Water Resources Map

14) Approximate Saltwater Depths: 1458'

15) Approximate Coal Seam Depths: 30', 680'

16) Approximate Depth to Possible Void (coal mine, karst, other): 130'

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes X No _____

(a) If Yes, provide Mine Info: Name: Dawson #3 Mine
Depth: _____
Seam: _____
Owner: _____

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Jeff A Propst Digitally signed by Jeff A Propst Date: 2026.10.19 14:18:14 -04'00'

10/23/2026

WW-6B
(04/15)

API NO. 47- 033 - 06157
OPERATOR WELL NO. Walters N-4H MOD
Well Pad Name: Walters 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	26"	New	X52	102.72#	100'	100'	CTS, 96 Cu. Ft.
Coal	18-5/8"	New	J-55	87.5#	199'	199'	CTS, 191 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	1050'	1050'	CTS, 1094 Cu. Ft.
Intermediate	9-5/8"	New	J-55	36#	3000'	3000'	CTS 1221 Cu. Ft.
Production	5-1/2"	New	P-110 ICY	23#	23600'	23600'	CTS 5019 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

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DN: CN = Jeff A Propst email = Jeff.a.propst@wv.gov C = US
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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	26"	32"	0.438"	1530	50	Class A/L	~1.18
Coal	18-5/8"	24"	0.38"	2730	1000	Class A/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.352"	3520	1500	Class A/L	~1.18
Intermediate	9-5/8"	12-1/4"					
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							

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PACKERS

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

10/23/2026

WW-6B
(10/14)

API NO. 47- 033 - 06157
OPERATOR WELL NO. Walters N-4H MOD
Well Pad Name: Walters 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.

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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): 28.69 acres

22) Area to be disturbed for well pad only, less access road (acres): 19.52 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/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.

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10/23/2026

October 16th, 2026

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

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 well on the Walters Pad Walters Unit 4H. We are requesting to change the Coal casing program. We could not reach our permitting depth to set casing. We still set casing over 20' below the coal void.

CK# 4057479

AMT $ 7,500.00

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the revised Coal casing depth

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

Thank you in advance for your consideration.

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OCT 15 2026

WV Department of
Environmental Protection

Sincerely,

Mallory Turco
Permitting Manager
Antero Resources Corporation

Enclosures

10/23/2026