



west virginia department of environmental protection

02/10/2023

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, February 6, 2023  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for MARCELLINA UNIT 2H  
47-095-02830-00-00

**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.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a blue circular stamp.

James A. Martin  
Chief

Operator's Well Number: MARCELLINA UNIT 2H  
Farm Name: CLARA SUZANNE WALLACE & RICKIE WALLACE  
U.S. WELL NUMBER: 47-095-02830-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 2/6/2023

Promoting a healthy environment.

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

02/10/2023

- 1) Well Operator: Antero Resources Corporation 494507062 095-Tyler Ellsworth Porter Falls 7.5'  
Operator ID County District Quadrangle
- 2) Operator's Well Number: Marcinella Unit 2H MOD Well Pad Name: Thin Air Pad
- 3) Farm Name/Surface Owner: Clara Suzanne Wallace & Rickie Wallace Public Road Access: CR 11
- 4) Elevation, current ground: 1200'as-built 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: 7400' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2950#
- 8) Proposed Total Vertical Depth: 7400' TVD ✓
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 26200' MD ✓
- 11) Proposed Horizontal Leg Length: 17038' ✓
- 12) Approximate Fresh Water Strata Depths: 328' ✓
- 13) Method to Determine Fresh Water Depths: 47-095-02266 ✓
- 14) Approximate Saltwater Depths: 1660' ✓
- 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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WV Department of  
Environmental Protection

CK#4016735  
\$ 2500<sup>00</sup>

*OMG*  
2/13/23

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: Foot (Cu. Ft.)/CTS
Conductor	20"	New	X-60	78.67#	100	100	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	380	380	CTS, 396 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	3100	3100	CTS, 1262 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110HP	23#	26200	26200	5674 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

02/10/2023

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	30"	24"	0.438"	1530	50	Class A/L	1.18
Fresh Water	13-3/8"	17-1/2"	0.38"/0.33"	2730/1730	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"	0.361"	12,630	2500	Lead-HPOZ & 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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*[Signature]*  
 2/3/23

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

Drill, perforate, fracture a new horizontal shallow well and complete Marcellus Shale. **02/10/2023**

\*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): 45.05 acres

22) Area to be disturbed for well pad only, less access road (acres): 17.67 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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Office of Oil and Gas  
FEB 6 2023  
WV Department of  
Environmental Protection

*[Signature]*  
2/13/23

January 24, 2023

West Virginia Office of Oil and Gas  
Attn: Taylor Brewer  
601 57<sup>th</sup> St SE  
Charleston, WV 25304

02/10/2023

RE: Request for Variance – Class L Cement  
Marcellina Unit 1H-2H  
Tyler County, WV

Mr. Brewer:

Pursuant to 35CSR8 Section 9.2.h.8, Antero Resources Corporation (“Antero”) would like to implement the variance to allow Class L Cement in place of Class A cement relating to the construction of the following horizontal wells (Marcellina Unit 1H-2H) on the Thin Air pad.

Antero only plans to use this method if Class A cement is not available to be use due to supply issues. Please see Order No 2022-14 attached.

If you have any questions or need further information, please feel free to contact Mallory Turco, Permitting Manager, at (303) 357-7182 or email at [sgaspar@anteroresources.com](mailto:sgaspar@anteroresources.com).

Sincerely,



Stefan Gaspar  
Permitting Agent  
Antero Resources Corporation

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Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone (304) 926-0450

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

**BEFORE THE OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
STATE OF WEST VIRGINIA**

**IN THE MATTER OF A VARIANCE FROM )  
LEGISLATIVE RULE 35CSR4 )  
SECTION 11.5 AND LEGISLATIVE RULE )  
35CSR8 SECTION 9.2.h.8., )  
RELATING TO THE CEMENTING )  
OF OIL AND GAS WELLS )**

**ORDER NO. 2022-14**

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JAN 27 2023  
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**REPORT OF THE OFFICE**

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well construction.

**FINDINGS OF FACT**

1. On July 14, 2022, Northeast Natural Energy (NNE) submitted a variance request from Legislative Rule 35CSR8 Section 9.2.h.8., for the use of API Class L cement in place of API Class A cement, relating to the construction of horizontal wells.
2. Laboratory analysis submitted by NNE on July 14, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
3. Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a variance to Legislative Rule 35CSR4 Section 11.5., for the use of API Class L cement in place of API Class A cement, relating to the construction of vertical wells.

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4. On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance consideration. During the 20-day public comment period, no comments were received.

**CONCLUSIONS OF LAW**

02/10/2023

Pursuant to Article 6 and Article 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.


**ORDER**

It is ordered that the Class L cement product approved and monogrammed by API is approved for use in place of API Class A cement for well construction subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

IN THE NAME OF THE STATE OF WEST VIRGINIA

OFFICE OF OIL AND GAS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OF THE STATE OF WEST VIRGINIA

  
James Martin, Chief  
Office of Oil and Gas

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Office of Oil and Gas

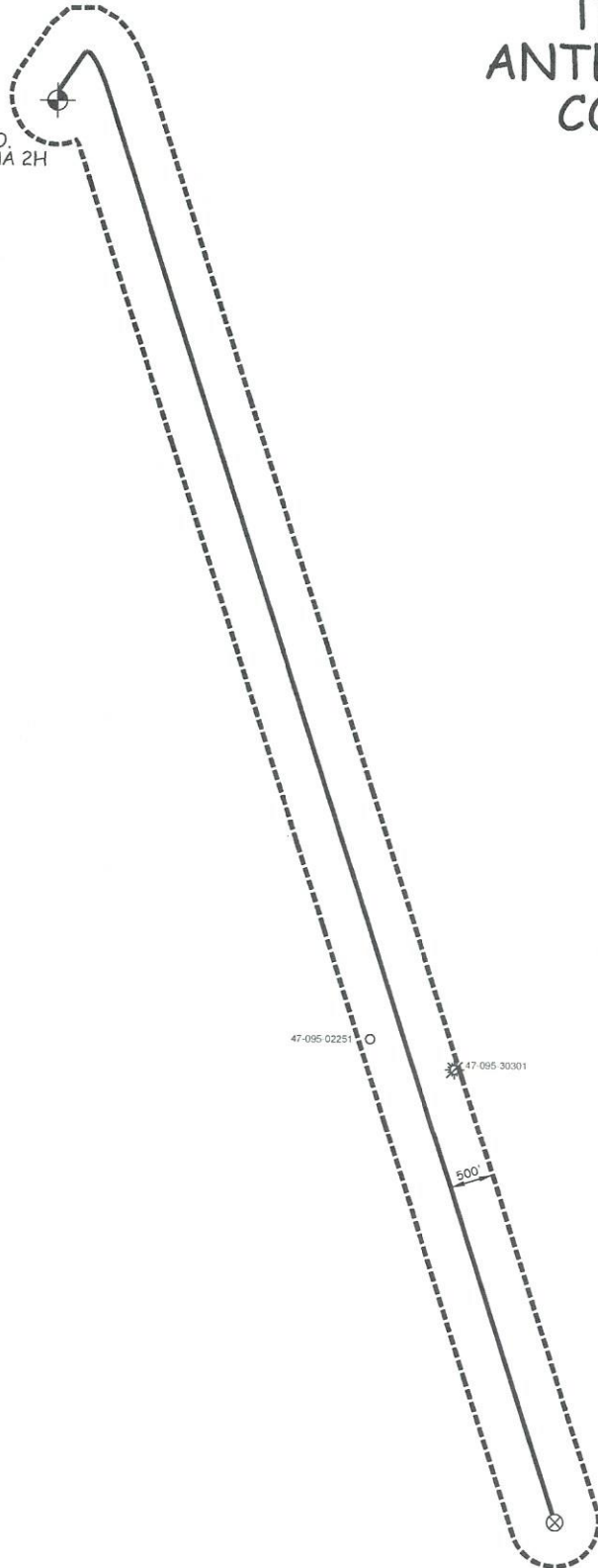
JAN 27 2023

WV Department of  
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# THIN AIR PAD ANTERO RESOURCES CORPORATION

02/10/2023

WELL NO.  
MARCELLINA 2H



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

JOB #: 22-011WA

FILE: MARCELLINA2HAOR.DWG

SCALE : 1-INCH = 2000-FEET



DATE: 01/12/23

DRAWN BY: D.R.R.

*[Handwritten Signature]*  
2/13/23



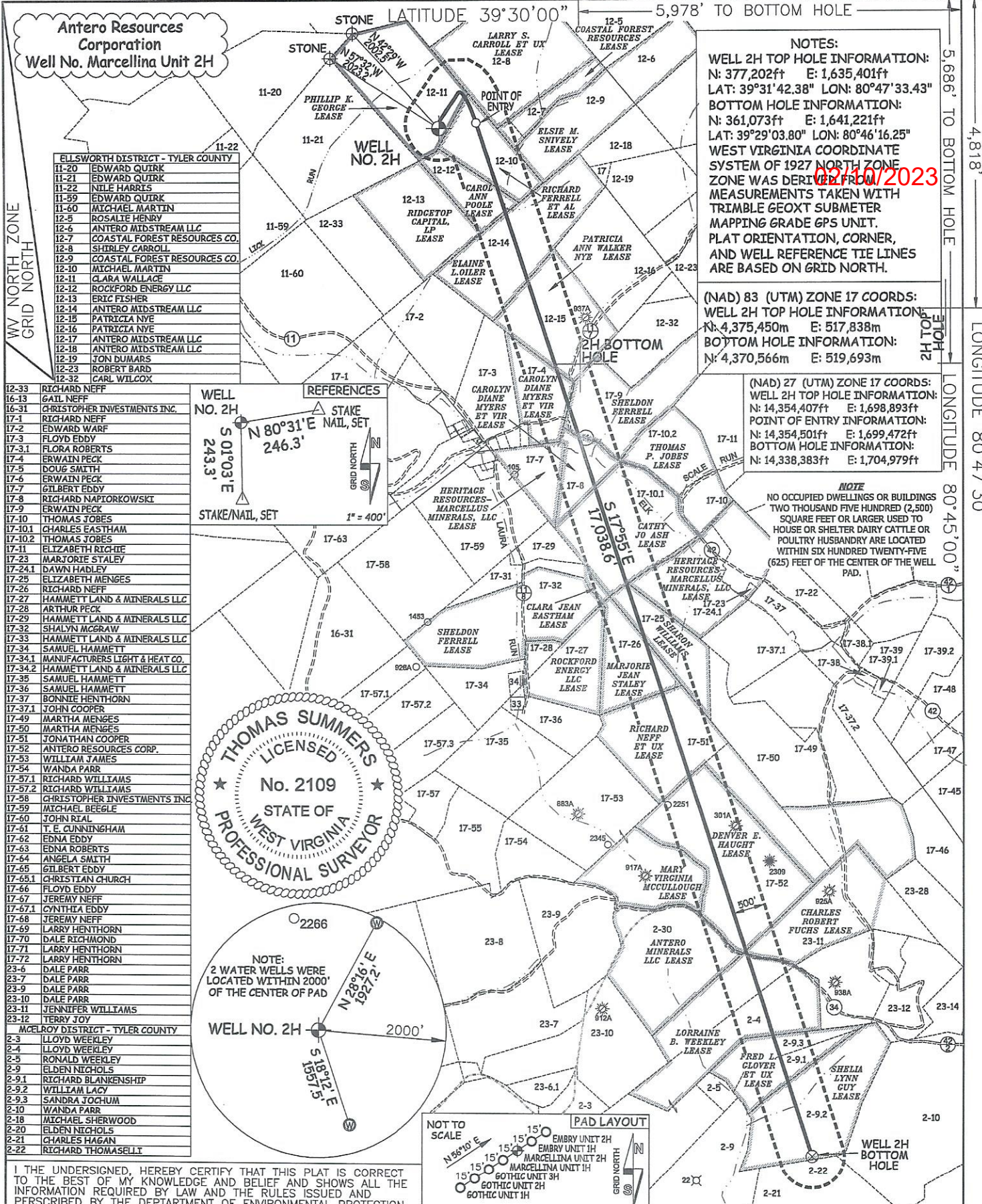
4709502830

02/10/2023

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producing Formation(s) not perf'd
47095022510000	YURIGAN	1V	BOWYER DAVID	ALLIANCE PETR CORP	4,050	2249 - 3759	Big Injun, Gordon, Bayard, Warren, Speechley	Berea, Weir, Alexander
47095030010000	WM NOLAN 1	1321	MANUFACT LIGHT & HEAT	MANUFACT LIGHT & HEAT	1,943		Big Injun, Gordon	Berea, Weir, Alexander

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LATITUDE 39°32'30" 269'

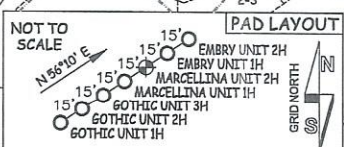
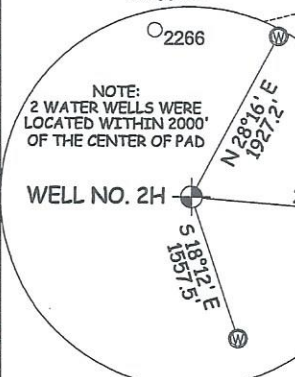
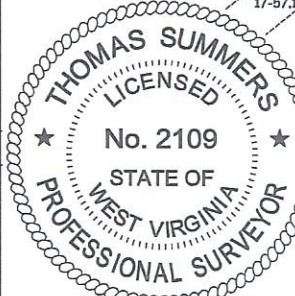
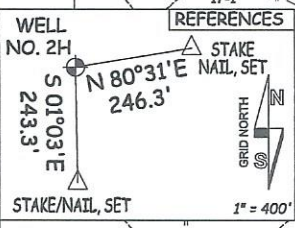


**NOTES:**  
**WELL 2H TOP HOLE INFORMATION:**  
 N: 377,202ft E: 1,635,401ft  
 LAT: 39°31'42.38" LON: 80°47'33.43"  
**BOTTOM HOLE INFORMATION:**  
 N: 361,073ft E: 1,641,221ft  
 LAT: 39°29'03.80" LON: 80°46'16.25"  
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE  
 MEASUREMENTS TAKEN WITH TRIMBLE 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: 4,375,450m E: 517,838m  
**BOTTOM HOLE INFORMATION:**  
 N: 4,370,566m E: 519,693m

**(NAD) 27 (UTM) ZONE 17 COORDS:**  
**WELL 2H TOP HOLE INFORMATION:**  
 N: 14,354,407ft E: 1,698,893ft  
**POINT OF ENTRY INFORMATION:**  
 N: 14,354,501ft E: 1,699,472ft  
**BOTTOM HOLE INFORMATION:**  
 N: 14,338,383ft E: 1,704,979ft

**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.



**Antero Resources Corporation**  
**Well No. Marcellina Unit 2H**

ELLSWORTH DISTRICT - TYLER COUNTY

11-20	EDWARD QUIRK
11-21	EDWARD QUIRK
11-22	NILE HARRIS
11-53	EDWARD QUIRK
11-60	MICHAEL MARTIN
12-5	ROSALIE HENRY
12-6	ANTERO MIDSTREAM LLC
12-7	COASTAL FOREST RESOURCES CO.
12-8	SHIRLEY CARROLL
12-9	COASTAL FOREST RESOURCES CO.
12-10	MICHAEL MARTIN
12-11	CLARA WALLACE
12-12	ROCKFORD ENERGY LLC
12-13	ERIC FISHER
12-14	ANTERO MIDSTREAM LLC
12-15	PATRICIA NYE
12-16	PATRICIA NYE
12-17	ANTERO MIDSTREAM LLC
12-18	ANTERO MIDSTREAM LLC
12-19	JOHN WILLIAMS
12-23	ROBERT BARD
12-32	CARL WILCOX

REFERENCES

12-33	RICHARD NEFF
16-13	GAIL NEFF
16-31	CHRISTOPHER INVESTMENTS INC.
17-1	RICHARD NEFF
17-2	EDWARD WARF
17-3	FLOYD EDDY
17-3.1	FLORA ROBERTS
17-4	ERWAIN PECK
17-5	DOUG SMITH
17-6	ERWAIN PECK
17-7	GILBERT EDDY
17-8	RICHARD NAPIORKOWSKI
17-9	ERWAIN PECK
17-10	THOMAS JOBS
17-10.1	CHARLES EASTHAM
17-10.2	THOMAS JOBS
17-11	ELIZABETH RICHIE
17-23	MARJORIE STALEY
17-24.1	DAWN HADLEY
17-25	ELIZABETH MENGES
17-26	RICHARD NEFF
17-27	HAMMETT LAND & MINERALS LLC
17-28	ARTHUR PECK
17-29	HAMMETT LAND & MINERALS LLC
17-32	SHALYN MCGRAW
17-33	HAMMETT LAND & MINERALS LLC
17-34	SAMUEL HAMMETT
17-34.1	MANUFACTURERS LIGHT & HEAT CO.
17-34.2	HAMMETT LAND & MINERALS LLC
17-35	SAMUEL HAMMETT
17-36	SAMUEL HAMMETT
17-37	BONNIE HENTHORN
17-37.1	JOHN COOPER
17-49	MARTHA MENGES
17-50	MARTHA MENGES
17-51	JONATHAN COOPER
17-52	ANTERO RESOURCES CORP.
17-53	WILLIAM JAMES
17-54	WANDA PARR
17-57.1	RICHARD WILLIAMS
17-57.2	RICHARD WILLIAMS
17-58	CHRISTOPHER INVESTMENTS INC.
17-59	MICHAEL BEEGLE
17-60	JOHN RYAN
17-61	T. E. CUNNINGHAM
17-62	EDNA EDDY
17-63	EDNA ROBERTS
17-64	ANGELA SMITH
17-65	GILBERT EDDY
17-65.1	CHRISTIAN CHURCH
17-66	FLOYD EDDY
17-67	JEREMY NEFF
17-67.1	CYNTHIA EDDY
17-68	JEREMY NEFF
17-69	LARRY HENTHORN
17-70	DALE RICHMOND
17-71	LARRY HENTHORN
17-72	LARRY HENTHORN
23-6	DALE PARR
23-7	DALE PARR
23-9	DALE PARR
23-10	DALE PARR
23-11	JENNIFER WILLIAMS
23-12	TERRY JOY

MCLEROY DISTRICT - TYLER COUNTY

2-3	LLOYD WEEKLEY
2-4	LLOYD WEEKLEY
2-5	RONALD WEEKLEY
2-9	ELDEN NICHOLS
2-9.1	RICHARD BLANKENSHIP
2-9.2	WILLIAM LACY
2-9.3	SANDRA JOCHUM
2-10	WANDA PARR
2-18	MICHAEL SHERWOOD
2-20	ELDEN NICHOLS
2-21	CHARLES HAGAN
2-22	RICHARD THOMASELLI

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.

JOB # 20-011WA	LEGEND	STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
DRAWING # MARCELLINA2H	----- Surface Owner Boundary Lines +/-	
SCALE 1" = 2000'	----- Adjoining Surface Tracts +/-	WILLOW LAND SURVEYING PLLC 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415
MINIMUM DEGREE OF ACCURACY SUBMETER	⊕ Found monument, as noted	
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS	THOMAS SUMMERS P.S. 2109	DATE 02/01/23
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS	OPERATOR'S WELL# MARCELLINA UNIT #2H	
WELL TYPE: OIL ___ GAS <input checked="" type="checkbox"/> LIQUID INJECTION ___ WASTE DISPOSAL ___ 47 - 095 - 02830 (IF "GAS") PRODUCTION <input checked="" type="checkbox"/> STORAGE ___ DEEP ___ SHALLOW <input checked="" type="checkbox"/> STATE COUNTY PERMIT LOCATION: ELEVATION 1,200' - AS BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK QUADRANGLE PORTER FALLS 7.5' (TH) - SHIRLEY 7.5' (BH) DISTRICT ELLSWORTH COUNTY TYLER SURFACE OWNER CLARA SUZANNE WALLACE & RICKIE WALLACE ACREAGE 60 ACRES +/- OIL & GAS ROYALTY OWNER PHILLIP K. GEORGE; RICHARD FERRELL ET AL; CAROL ANN POOLE; ELAINE L. OILER; LEASE ACREAGE 60 AC +/-; 27.9 AC +/-; 19.1 AC +/-; 66.49 AC +/-; 52.5 AC +/-; 24 AC +/-; 64.53 AC +/-; 14.27 AC +/-; 60.46 AC +/-; 31.5 AC +/-; 29.54 AC +/-; 108.67 AC +/-; 84.07 AC +/-; 50 AC +/-; 68.5 AC +/-; 35.5 AC +/-; 57 AC +/-		
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER <input checked="" type="checkbox"/> REDRILL ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION <input checked="" type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL ___ (SPECIFY) MOD-BHL PLUG & ABANDON ___ CLEAN OUT & REPLUG ___ TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,400' TVD 26,200' MD WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS ADDRESS 1615 WYNKOOP ST. DENVER, CO 80202 ADDRESS 535 WHITE OAKS BLVD BRIDGEPORT, WV 26330		

~~JAN 27 2023~~

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)

WV Department of  
Environmental Protection

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 **-02/10/2023**

- (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>Philip K. George Lease</u> Philip K. George Statoil USA Onshore Properties EQT Production Company	Statoil USA Onshore Properties EQT Production Company Antero Resources Corporation	1/8+ Assignment Assignment	0466/0193 0539/0239 0663/0001
<u>Richard Ferrell, et al Lease</u> Richard Ferrell, et al Stone Energy Corporation EQT Production Company	Stone Energy Corporation EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment	0394/0294 0547/0662 0663/0001
<u>Carol Ann Poole Lease</u> Carol Ann Poole Statoil USA Onshore Properties Inc. EQT Production Company	Statoil USA Onshore Properties Inc. EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment	0456/0804 0539/0239 0663/0001
<u>Elaine L. Oiler Lease</u> Elaine L. Oiler Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company	Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company Antero Resources Corporation	1/8+ Assignment Assignment Assignment	0400/0195 0406/0147 0539/0239 0663/0001
<u>Patricia Ann Walker Nye Lease</u> Patricia Ann Walker Nye	Antero Resources Corporation	1/8+	0206/0548
<u>Carolyn Diane Myers, et vir Lease</u> Carolyn Diane Myers, et vir Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company	Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment Assignment	0396/0112 0408/0066 0539/0239 0663/0001
<u>Sheldon Ferrell Lease</u> Sheldon Ferrell Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company	Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment Assignment	0384/0726 0406/0147 0539/0239 0663/0001
<u>Carolyn Diane Myers, et vir Lease</u> Carolyn Diane Myers, et vir Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company	Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company Antero Resources Corporation	1/8 Assignment Assignment Assignment	0392/0204 0406/0147 0539/0239 0663/0001
<u>Cathy Jo Ash Lease</u> Cathy Jo Ash Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company	Petroedge Energy LLC Statoil USA Onshore Properties Inc. EQT Production Company Antero Resources Corporation	1/8+ Assignment Assignment Assignment	0415/0247 0406/0147 0539/0239 0663/0001

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 - **02/10/2023**

- (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>Heritage Resources – Marcellus Minerals LLC</u>			
<u>Lease</u>			
Heritage Resources – Marcellus Minerals LLC	Antero Resources Corporation	1/8+	0195/0085
<u>Sharon Williams Lease</u>			
Sharon Williams	Petroedge Energy LLC	1/8	0412/0164
Petroedge Energy LLC	Statoil USA Onshore Properties Inc.	Assignment	0436/0001
Statoil USA Onshore Properties Inc.	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>Marjorie Jean Staley Lease</u>			
Marjorie Jean Staley	Antero Resources Corporation	1/8+	0085/0094
<u>Richard Neff, et ux Lease</u>			
Richard Neff, et ux	Petroedge Energy LLC	1/8	0392/0443
Petroedge Energy LLC	Statoil USA Onshore Properties Inc.	Assignment	0406/0147
Statoil USA Onshore Properties Inc.	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>Denver E. Haught Lease</u>			
Denver E. Haught	Petroedge Energy LLC	1/8	0380/0762
Petroedge Energy LLC	Statoil USA Onshore Properties Inc.	Assignment	0406/0147
Statoil USA Onshore Properties Inc.	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>Charles Robert Fuchs Lease</u>			
Charles Robert Fuchs	Petroedge Energy LLC	1/8+	0410/0821
Petroedge Energy LLC	Statoil USA Onshore Properties Inc.	Assignment	0406/0147
Statoil USA Onshore Properties Inc.	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>Lorraine B. Weekley Lease</u>			
Lorraine B. Weekley	Antero Resources Corporation	1/8	0176/0660
<u>Fred L. Glover, et ux Lease</u>			
Fred L. Glover, et ux	Statoil USA Onshore Properties Inc.	1/8	0449/0433
Statoil USA Onshore Properties Inc.	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0662/0671

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
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Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
<u>Shelia Lynn Guy Lease</u>	Shelia Lynn Guy	Statoil USA Onshore Properties Inc.	1/8	0449/0406
	Statoil USA Onshore Properties Inc.	EQT Production Company	Assignment	0539/0239
	EQT Production Company	Antero Resources Corporation	Assignment	0662/0671

RECEIVED  
Office of Oil and Gas

JAN 27 2023

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.

- 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



January 26, 2023

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

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

02/10/2023

Mr. Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for approved well on the existing Thin Air Pad: Marcellina Unit 1H (47-095-02829) and Marcellina Unit 2H (47-095-02830).

Attached you will find the following:

- Revised Form WW-6B
- Revised Form WW-6A1
- Revised Mylar Plat
- AOR

If you have any questions please feel free to contact me at (303) 357-6959.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink that reads "S Gaspar".

Stefan Gaspar  
Permitting Agent  
Antero Resources Corporation

Enclosures

RECEIVED  
Office of Oil and Gas  
JAN 27 2023  
WV Department of  
Environmental Protection