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west virginia department of environmental protection

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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)

Wednesday, February 26, 2025  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for Saturn Unit 1H  
47-085-10536-00-00

**Extended 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: Saturn Unit 1H  
Farm Name: Richard E Blouir ET UX  
U.S. WELL NUMBER: 47-085-10536-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 2/26/2025

Promoting a healthy environment.

02/28/2025

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

1) Well Operator: Antero Resources Corporation | 494507062 | 085 - Ritchie | Clay | Ellenboro 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Saturn Unit 1H MOD Well Pad Name: Husher Pad

3) Farm Name/Surface Owner: Richard E. Blouir Et Ux Public Road Access: Lamberton Rd

4) Elevation, current ground: 1,007' 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: 7600' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7600' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 28200' MD

11) Proposed Horizontal Leg Length: 18267' \*Open to modification at a later date

12) Approximate Fresh Water Strata Depths: 147', 406'

13) Method to Determine Fresh Water Depths: 47085015510000, 47085088820000 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1654'

15) Approximate Coal Seam Depths: N/A

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: \_\_\_\_\_

*James [Signature]*  
2-12-25

RECEIVED  
Office of Oil and Gas  
FEB 21 2025  
WV Department of Environmental Protection

WW-6B  
(04/15)

API NO. 47- 085 - 10536  
 OPERATOR WELL NO. Saturn Unit 1H MOD  
 Well Pad Name: Husher 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         | J-55     | 94#                    | 100'                       | 100'                         | CTS, 96 Cu. Ft.               |
| Fresh Water  | 13-3/8"   | New         | J-55     | 54.5#                  | 456'                       | 456'                         | CTS, 475 Cu. Ft.              |
| Coal         | 9-5/8"    | New         | J-55     | 36#                    | 6000'                      | 6000'                        | CTS, 2443 Cu. Ft.             |
| Intermediate |           |             |          |                        |                            |                              |                               |
| Production   | 5-1/2"    | New         | P110-ICY | 23#                    | 28200'                     | 28200'                       | CTS, 6178 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"                    | 0.375"              | 2250                 | 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"              | 14,360               | 2500                                     | Class G/H   | ~1.8                     |
| Tubing       | 2-3/8"    | 4.778"                 | 0.19"               | 11,200               |  |             |                          |
| Liners       |           |                        |                     |                      |  |             |                          |

**PACKERS**

|             |     |  |  |  |  |
|-------------|-----|--|--|--|--|
| Kind:       | N/A |  |  |  | RECEIVED<br>Office of Oil and Gas<br><br>FEB 21 2025<br><br>WV Department of<br>Environmental Protection |
| Sizes:      | N/A |  |  |  |  |
| Depths Set: | N/A |  |  |  |  |

*James M. ...*  
2-12-25

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

Drill a new horizontal shallow well into the Marcellus Shale.

\*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): 20.13 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.66 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 G/H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

RECEIVED  
Office of Environmental Protection  
FEB 21 2025

25) Proposed borehole conditioning procedures:

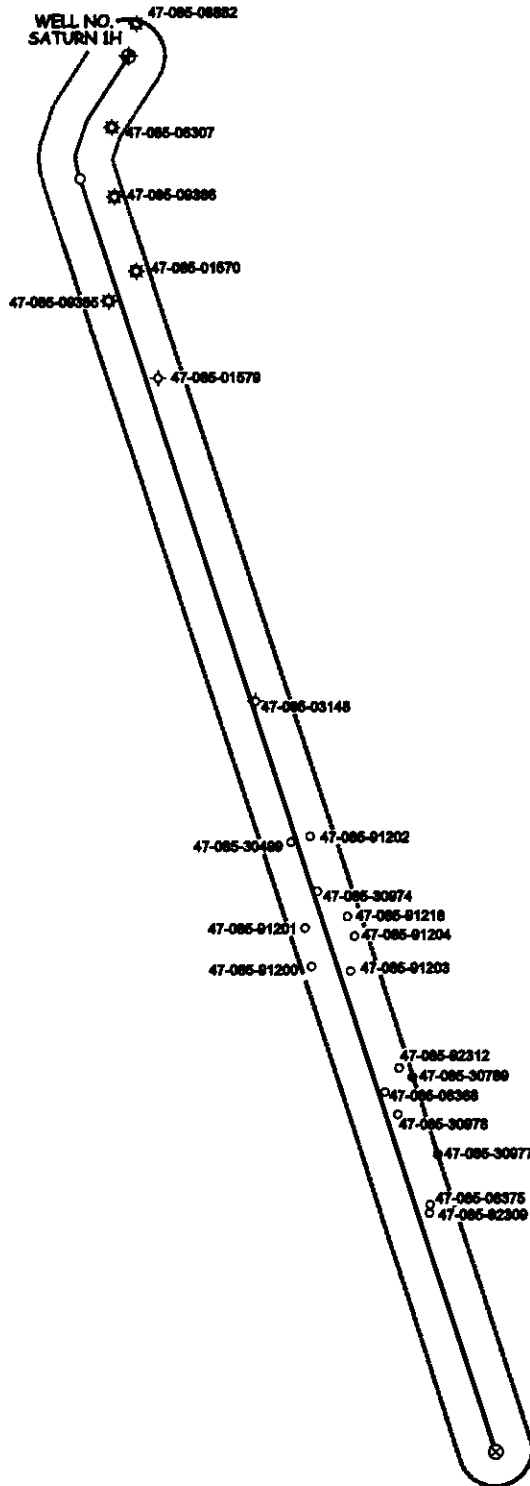
Conductor: blowhole clean with air, run casing, 10 bbls fresh water.  
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.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

Office of Environmental Protection

\*Note: Attach additional sheets as needed.

*James M. ...*  
2-12-25

# HUSHER PAD ANTERO RESOURCES CORPORATION



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

JOB #: 23-010WA  
FILE: SATURN1HAOR.DWG

DATE: 01/22/25

DRAWN BY: D.L.P.

SCALE: 1-INCH = 2000-FEET

0'                      2000'                      4000'                      6000'



02/28/2025



**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<br>Number              | Grantor, Lessor, etc. | Grantee, Lessee, etc.        | Royalty | Book/Page |
|--------------------------------------|-----------------------|------------------------------|---------|-----------|
| <b>S: Janet Riddle-Stanley Lease</b> |                       |                              |         |           |
|                                      | Janet Riddle-Stanley  | Antero Resources Corporation | 1/8+    | 0352/0092 |

\*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.

**\*Co-tenancy utilization – Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with the 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:

- 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

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| Grantor, lessor, etc.  | Grantee, lessee, etc.             | Royalty    | Book/Page    |
|--|-----------------------------------|------------|--------------|
| <b><u>U: Agnes L. Rogers Lease</u></b>                                     |                                   |            |              |
| Agnes L. Rogers  | Jenkins Energy Corporation        | 1/8        | 0204/0778    |
| Jenkins Energy Corporation   | Clarence W. Mutschelknaus         | Assignment | 0273/0692    |
| Clarence W. Mutschelknaus  | Antero Resources Corporation      | Assignment | 0274/1002    |
| <b><u>V: F. Robert Hayhurst Family Trust Lease</u></b>                     |                                   |            |              |
| F. Robert Hayhurst Family Trust  | Antero Resources Corporation      | 1/8+       | 0298/0401    |
| <b><u>B: Tom G. Strickler Jr. Et Ux Lease</u></b>                          |                                   |            |              |
| Tom G. Strickler Jr. Et Ux   | Palmer Hill                       | 1/8        | 0119/0405    |
| Palmer Hill  | Clyde Kelly                       | Assignment | 0130/0048    |
| Clyde Kelly  | Ira M. Jones & Clyde Kelly        | Assignment | 0131/0224    |
| Ira M. Jones & Clyde Kelly   | R.L. Zickefoose & W.F. Zickefoose | Assignment | 0201/0659    |
| R.L. Zickefoose & W.F. Zickefoose  | Antero Resources Corporation      | Assignment | 0294/0971    |
| <b><u>W: Clarence J. McCullough Et Ux Lease</u></b>                        |                                   |            |              |
| Clarence J. McCullough Et Ux   | Antero Resources Corporation      | 1/8+       | 0294/0920    |
| <b><u>B: Tom G. Strickler Jr. Et Ux Lease</u></b>                          |                                   |            |              |
| Tom G. Strickler Jr. Et Ux   | Palmer Hill                       | 1/8        | 0119/0405    |
| Palmer Hill  | Clyde Kelly                       | Assignment | 0130/0048    |
| Clyde Kelly  | Ira M. Jones & Clyde Kelly        | Assignment | 0131/0224    |
| Ira M. Jones & Clyde Kelly   | R.L. Zickefoose & W.F. Zickefoose | Assignment | 0201/0659    |
| R.L. Zickefoose & W.F. Zickefoose  | Antero Resources Corporation      | Assignment | 0294/0971    |
| <b><u>A: WV Division of Multimodal Transportation Facilities Lease</u></b> |                                   |            |              |
| WV Division of Multimodal Transportation Facilities                        | Antero Resources Corporation      | 1/8+       | 0336/0335    |
| <b><u>B: Tom G. Strickler Jr. Et Ux Lease</u></b>                          |                                   |            |              |
| Tom G. Strickler Jr. Et Ux   | Palmer Hill                       | 1/8        | 0119/0405    |
| Palmer Hill  | Clyde Kelly                       | Assignment | 0130/0048    |
| Clyde Kelly  | Ira M. Jones & Clyde Kelly        | Assignment | 0131/0224    |
| Ira M. Jones & Clyde Kelly   | R.L. Zickefoose & W.F. Zickefoose | Assignment | 0201/0659    |
| R.L. Zickefoose & W.F. Zickefoose  | Antero Resources Corporation      | Assignment | 0294/0971    |
| <b><u>C: Kimberly Barnes Lease</u></b>                                     |                                   |            |              |
| Kimberly Barnes  | Antero Resources Corporation      | 1/8+       | 0311/0290    |
| <b><u>D: Nancy Louise Vaughn Lease</u></b>                                 |                                   |            |              |
| Nancy Louise Vaughn  | Antero Resources Corporation      | 1/8+       | 0343/0647    |
| <b><u>F: Ronald Lane Lease</u></b>   |                                   |            |              |
| Ronald Lane  | Antero Resources Corporation      | 1/8+       | 0348/0454    |
| <b><u>G: Parks and Perkins Properties, LLC Lease</u></b>                   |                                   |            |              |
| Parks and Perkins Properties, LLC  | Antero Resources Corporation      | Assignment | Pooled Tract |

02/28/2025



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|--|--|-------------------|------------------|
| <b>J1: William Moore and Melvina Moore Lease</b> |  |                   |                  |
| William Moore and Melvina Moore                  | Pittsburgh & West Virginia Gas Company | 1/8               | 0045/0163        |
| Pittsburgh & West Virginia Gas Company           | A.W. Barnhart                          | Assignment        | 0046/0329        |
| A.W. Barnhart                                    | H.G. Hardbarger                        | Assignment        | 0083/0248        |
| H.G. Hardbarger                                  | Mossor Enterprises, Inc.               | Assignment        | 0198/0193        |
| Mossor Enterprises, Inc.                         | J. Frank Deem et al                    | Assignment        | 0201/0163        |
| J. Frank Deem et al                              | J. F. Deem Oil & Gas, LLC              | Assignment        | 0228/0230        |
| J. F. Deem Oil & Gas, LLC                        | CHK Louisiana, LLC                     | Assignment        | 0247/0624        |
| CHK Louisiana, LLC                               | Chesapeake Appalachia, LLC             | Assignment        | 0247/0933        |
| Chesapeake Appalachia, LLC                       | SWN Production Company, LLC            | Assignment        | 0280/0707        |
| <b>SWN Production Company, LLC</b>               | <b>Antero Resources Corporation</b>    | <b>Assignment</b> | <b>0348/0780</b> |
| <b>J2: William Moore and Melvina Moore Lease</b> |  |                   |                  |
| William Moore and Melvina Moore                  | Pittsburgh & West Virginia Gas Company | 1/8               | 0045/0163        |
| Pittsburgh & West Virginia Gas Company           | A.W. Barnhart                          | Assignment        | 0046/0329        |
| A.W. Barnhart                                    | H.G. Hardbarger                        | Assignment        | 0083/0248        |
| H.G. Hardbarger                                  | Mossor Enterprises, Inc.               | Assignment        | 0198/0193        |
| Mossor Enterprises, Inc.                         | J. Frank Deem et al                    | Assignment        | 0201/0163        |
| J. Frank Deem et al                              | J. F. Deem Oil & Gas, LLC              | Assignment        | 0228/0230        |
| J. F. Deem Oil & Gas, LLC                        | CHK Louisiana, LLC                     | Assignment        | 0247/0624        |
| CHK Louisiana, LLC                               | Chesapeake Appalachia, LLC             | Assignment        | 0247/0933        |
| Chesapeake Appalachia, LLC                       | SWN Production Company, LLC            | Assignment        | 0280/0707        |
| <b>SWN Production Company, LLC</b>               | <b>Antero Resources Corporation</b>    | <b>Assignment</b> | <b>0348/0780</b> |
| <b>L5: William Moore and Melvina Moore Lease</b> |  |                   |                  |
| William Moore and Melvina Moore                  | Pittsburgh & West Virginia Gas Company | 1/8               | 0045/0163        |
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| <b>SWN Production Company, LLC</b>               | <b>Antero Resources Corporation</b>    | <b>Assignment</b> | <b>0348/0780</b> |

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| SWN Production Company, LLC                       | Antero Resources Corporation           | Assignment | 0348/0780    |
| <b>M: The Nature Conservancy Lease</b>            |  |            |              |
| The Nature Conservancy                            | Antero Resources Corporation           | Assignment | Pooled Tract |
| <b>N2: Ridgewood Development, LLC Lease</b>       |  |            |              |
| Ridgewood Development, LLC                        | Antero Resources Corporation           | 1/8+       | 0346/0138    |
| <b>N1: Ridgewood Development, LLC</b>             |  |            |              |
| Ridgewood Development, LLC                        | Antero Resources Corporation           | 1/8+       | 0346/0138    |
| <b>Q: Craig Lee Seth and Linda Eve Seth Lease</b> |  |            |              |
| Craig Lee Seth and Linda Eve Seth                 | Antero Resources Corporation           | 1/8+       | 0349/0227    |

\*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.

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\*\*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.

LATITUDE 39°17'30"

6,004'

LATITUDE 39°15'00"

708' TO BOTTOM HOLE

1,724' LONGITUDE 81°00'00"

5,509' TO BOTTOM HOLE LONGITUDE 81°00'00"

### Antero Resources Corporation Well No. Saturn #1H

| CLAY DISTRICT - RITCHIE COUNTY |                                      |
|--------------------------------|--------------------------------------|
| 18-14.2                        | RONALD HAYHURST                      |
| 24-04                          | DAVID LAWRENCE                       |
| 24-4.1                         | ROGER HART                           |
| 24-05                          | RICHARD BLOUIR                       |
| 24-5.2                         | FREDERICK WANSTREET                  |
| 24-21                          | FRANKLIN OWENS                       |
| 24-22                          | CHARLES THOMAS                       |
| 24-22.1                        | TRIPLE B TRUCKING INC                |
| 24-23                          | CLARENCE MCCULLOUGH                  |
| 24-23.1                        | CLARENCE MCCULLOUGH                  |
| 24-24                          | KIMBERLY BARNES                      |
| 24-24.1                        | MATTHEW BLOUIR                       |
| 24-33                          | CHRISTOPHER LANE                     |
| 24-34                          | CRAIG HOGUE                          |
| 24-34.1                        | CRAIG HOGUE                          |
| 24-34.2                        | STONEWALL PROPERTY HOLDINGS LLC      |
| 24-34.4                        | BARNES & SONS TRUCKING LLC           |
| 24-34.5                        | RODNEY HOGUE                         |
| 24-35                          | RICHARD LAMBERT                      |
| 24-35.1                        | RICHARD LAMBERT                      |
| 24-35.3                        | RICHARD LAMBERT                      |
| 24-36                          | BRUCETON FARM SERVICE INC            |
| 24-36.1                        | RONALD LANE INC.                     |
| 24-37                          | RONALD LANE INC.                     |
| 24-37.1                        | PARKS PERKINS PROPERTIES LLC         |
| 24-38                          | CHRISTOPHER LANE                     |
| 24-40.2                        | PARKS PERKINS PROPERTIES LLC         |
| 24-40.3                        | MICHAEL HALL                         |
| 24-41                          | HALL FAMILY TRUST                    |
| 24-41.1                        | NEW MARTINSVILLE SUPPLY COMPANY INC. |
| 24-45                          | MICHAEL HALL                         |
| 24-45.1                        | MICHAEL HALL                         |
| 24-45.2                        | DAVID SEESE                          |
| 24-45.3                        | ROBERT OWENS                         |
| 24-45.4                        | PATRICK SEESE                        |
| 24-45.5                        | DAVID SEESE                          |
| 24-46                          | CLINTEN GILLIS                       |
| 24-46.2                        | DAVID SEESE                          |
| 24-59                          | RONALD LANE INC.                     |
| 29-4.1                         | ROBERT SHIPE                         |
| 29-4.2                         | ROBERT SHIPE                         |
| 29-4.3                         | ROBERT SHIPE                         |
| 29-4.4                         | ROBERT SHIPE                         |
| 29-05                          | THE NATURE CONSERVANCY               |
| 29-10                          | JOHNNIE BOSTON                       |
| 29-29                          | MARK MOSSOR                          |
| 29-30                          | ERICA DEEM                           |
| 29-31                          | LORRAINE RANKIN                      |
| 29-31.1                        | CURTIS SEESE                         |
| 29-32                          | WILLIAM EDMUNSTER                    |
| 29-33                          | AMOS BUNNER                          |
| 29-47                          | ROBERT KOCH                          |
| 29-49                          | ERICA DEEM                           |
| 29-50                          | ERICA DEEM                           |
| 29-51                          | ERICA DEEM                           |

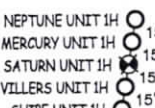
**NOTES:**  
 WELL 1H TOP HOLE INFORMATION:  
 N: 290,263ft E: 1,569,440ft  
 LAT: 39°17'12.97" LON: 81°01'16.37"  
 BOTTOM HOLE INFORMATION:  
 N: 271,215ft E: 1,574,421ft  
 LAT: 39°14'05.55" LON: 81°00'08.97"  
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS 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 1H TOP HOLE INFORMATION:  
 N: 4,348,628m E: 498,185m  
 BOTTOM HOLE INFORMATION:  
 N: 4,342,850m E: 499,799m

(NAD) 27 (UTM) ZONE 17 COORDS:  
 WELL 1H TOP HOLE INFORMATION:  
 N: 14,266,410ft E: 1,634,414ft  
 POINT OF ENTRY INFORMATION:  
 N: 14,264,723ft E: 1,633,775ft  
 BOTTOM HOLE INFORMATION:  
 N: 14,247,455ft E: 1,639,711ft

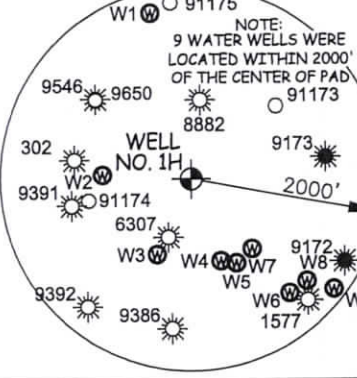
| LESSOR |  |
|--------|--|
| A      | WEST VIRGINIA DIVISION OF MULTIMODAL TRANSPORTATION FACILITIES |
| B      | TOM G. STRICKLER, JR. ET UX                                    |
| C      | KIMBERLY BARNES  |
| D      | NANCY LOUISE VAUGHN  |
| E      | DOROTHY L. KLEPFEL   |
| F      | RONALD LANE  |
| G      | PARKS AND PERKINS PROPERTIES, LLC.                             |
| H      | NORMAN LOYD JACKSON  |
| I      | PARKS AND PERKINS PROPERTIES, LLC.                             |
| J1     | WILLIAM MOORE AND MELVINA MOORE                                |
| J2     | WILLIAM MOORE AND MELVINA MOORE                                |
| J3     | WILLIAM MOORE AND MELVINA MOORE                                |
| J4     | WILLIAM MOORE AND MELVINA MOORE                                |
| L1     | WILLIAM MOORE AND MELVINA MOORE                                |
| L2     | WILLIAM MOORE AND MELVINA MOORE                                |
| L3     | WILLIAM MOORE AND MELVINA MOORE                                |
| L4     | WILLIAM MOORE AND MELVINA MOORE                                |
| L5     | WILLIAM MOORE AND MELVINA MOORE                                |
| L6     | WILLIAM MOORE AND MELVINA MOORE                                |
| L7     | WILLIAM MOORE AND MELVINA MOORE                                |
| L8     | WILLIAM MOORE AND MELVINA MOORE                                |
| L9     | WILLIAM MOORE AND MELVINA MOORE                                |
| M      | THE NATURE CONSERVANCY   |
| N1     | RIDGEWOOD DEVELOPMENT, LLC.                                    |
| N2     | RIDGEWOOD DEVELOPMENT, LLC.                                    |
| N3     | RIDGEWOOD DEVELOPMENT, LLC.                                    |
| N4     | RIDGEWOOD DEVELOPMENT, LLC.                                    |
| O1     | RIDGETOP TEN, LLC.   |
| O2     | RIDGETOP TEN, LLC.   |
| P      | NEAL COLLINS   |
| Q      | CRAIG LEE SETH AND LINDA EVE SETH                              |
| R      | EMMA J. VALENTINE  |
| S      | JANET RIDDLE-STANLEY   |
| T      | VIRGINIA L. CONNERS  |
| U      | AGNES L. ROGERS  |
| V      | F. ROBERT HAYHURST FAMILY TRUST                                |
| W      | CLARENCE J. MCCULLOUGH ET UX                                   |
| X      | RICHARD BLOUIR ET AL   |
| Y      | FRANKLIN OWENS & ANNIE I. OWENS                                |
| Z      | CHARLES A. BROADWATER  |
| AA     | WAYNE DOUGLAS STEWART  |

#### PAD LAYOUT

NOT TO SCALE



| WATER WELLS |            |         |
|-------------|------------|---------|
| W1          | S 13°36' E | 1772.1' |
| W2          | N 87°26' W | 929.2'  |
| W3          | S 24°40' W | 864.4'  |
| W4          | S 19°28' E | 906.8'  |
| W5          | S 27°55' E | 993.1'  |
| W6          | S 40°30' E | 1566.5' |
| W7          | N 40°45' W | 960.8'  |
| W8          | S 48°22' E | 1604.4' |
| W9          | S 52°09' E | 1872.9' |



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.

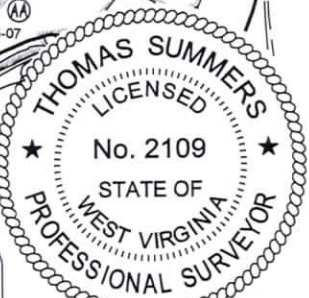


STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC  
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 23-010WA  
 DRAWING # SATURN1HR3  
 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 01/29/25  
 OPERATOR'S WELL # SATURN UNIT #1H  
 47 - 085 - 10536  
 STATE COUNTY PERMIT



WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW  
 LOCATION: ELEVATION PROPOSED - 1,007' WATERSHED NORTH FORK HUGHES RIVER  
 QUADRANGLE ELLENBORO 7.5' DISTRICT CLAY COUNTY RITCHIE  
 SURFACE OWNER RICHARD E. BLOUIR ET UX ACREAGE 53.682 ACRES +/-  
 OIL & GAS ROYALTY OWNER AGNES L. ROGERS LEASE ACREAGE 57 ACRES±  
 PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER X REDRILL \_\_\_  
 FRACTURE OR STIMULATE X 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 7,600' TVD 28,200' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT KEVIN ELLIS  
 ADDRESS 1615 WYNKOOP ST. ADDRESS 535 WHITE OAKS BLVD  
 DENVER, CO 80202 BRIDGEPORT, WV 26330

