



---

west virginia department of environmental protection

---

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)

Tuesday, November 9, 2021  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for CAPITOL UNIT 1H  
47-095-02754-00-00

**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.

James A. Martin  
Chief

Operator's Well Number: CAPITOL UNIT 1H  
Farm Name: CLARA SUZANNE WALLACE & RICKIE WALLACE  
U.S. WELL NUMBER: 47-095-02754-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 11/9/2021

Promoting a healthy environment.

11/12/2021



Antero Resources  
1615 Wynkoop St.  
Denver, CO 80202  
Office: 303.357.7310  
Fax: 303.357.7315

October 28, 2021

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

Mr. Martin:

Antero Resources Corporation (Antero) would like to submit the following application for modification of well work permit to explore/develop the Marcellus Shale. Our **Rabbit Ears** project is located in Tyler County, WV. On the **existing Thin Air Pad** is **one (1) new horizontal** shallow wells, Capitol Unit 1H, that we are requesting approval to modify the well bore and drill deeper to extend the laterals.

Attached you will find the following:

- Permit Application package

If you have any questions please feel free to contact me at (304) 842-4153 or by email at [mhamsher@anteroresources.com](mailto:mhamsher@anteroresources.com).

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Melissa Hamsher", written over a white background.

Melissa Hamsher  
Permitting Agent  
Antero Resources Corporation

Enclosures

RECEIVED  
Office of Oil and Gas

NOV 1 2021

WV Department of  
Environmental Protection

11/12/2021

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 Porter Falls 7.5'  
Operator ID County District Quadrangle
- 2) Operator's Well Number: Capitol Unit 1H 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: 1235' Elevation, proposed post-construction: ~1200'
- 5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_  
Other \_\_\_\_\_  
(b) If Gas Shallow  Deep \_\_\_\_\_  
Horizontal
- 6) Existing Pad: Yes or No No
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus Shale: 7300' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2950#
- 8) Proposed Total Vertical Depth: 7300' TVD
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 27,600' MD
- 11) Proposed Horizontal Leg Length: 16,698'
- 12) Approximate Fresh Water Strata Depths: 76' and 328'
- 13) Method to Determine Fresh Water Depths: 47-09-02266
- 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: \_\_\_\_\_

RECEIVED  
Office of Oil and Gas

NOV 1 2021

WV Department of  
Environmental Protection

18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<b>Size (in)</b>	<b>New or Used</b>	<b>Grade</b>	<b>Weight per ft. (lb/ft)</b>	<b>FOOTAGE: For Drilling (ft)</b>	<b>INTERVALS: Left in Well (ft)</b>	<b>CEMENT: Fill-up (Cu. Ft.)/CTS</b>
Conductor	20"	New	H-40	94#	80	80	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	378'	378'	CTS, 341 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#	27600'	27600'	CTS 6596 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

*Byron Hester*  
11-4-21

<b>TYPE</b>	<b>Size (in)</b>	<b>Wellbore Diameter (in)</b>	<b>Wall Thickness (in)</b>	<b>Burst Pressure (psi)</b>	<b>Anticipated Max. Internal Pressure (psi)</b>	<b>Cement Type</b>	<b>Cement Yield (cu. ft./k)</b>
Conductor	30"	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"	0.361"	12,630	9300	Lead-H/POZ & Tail - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

**PACKERS**

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

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.

\*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 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:

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.

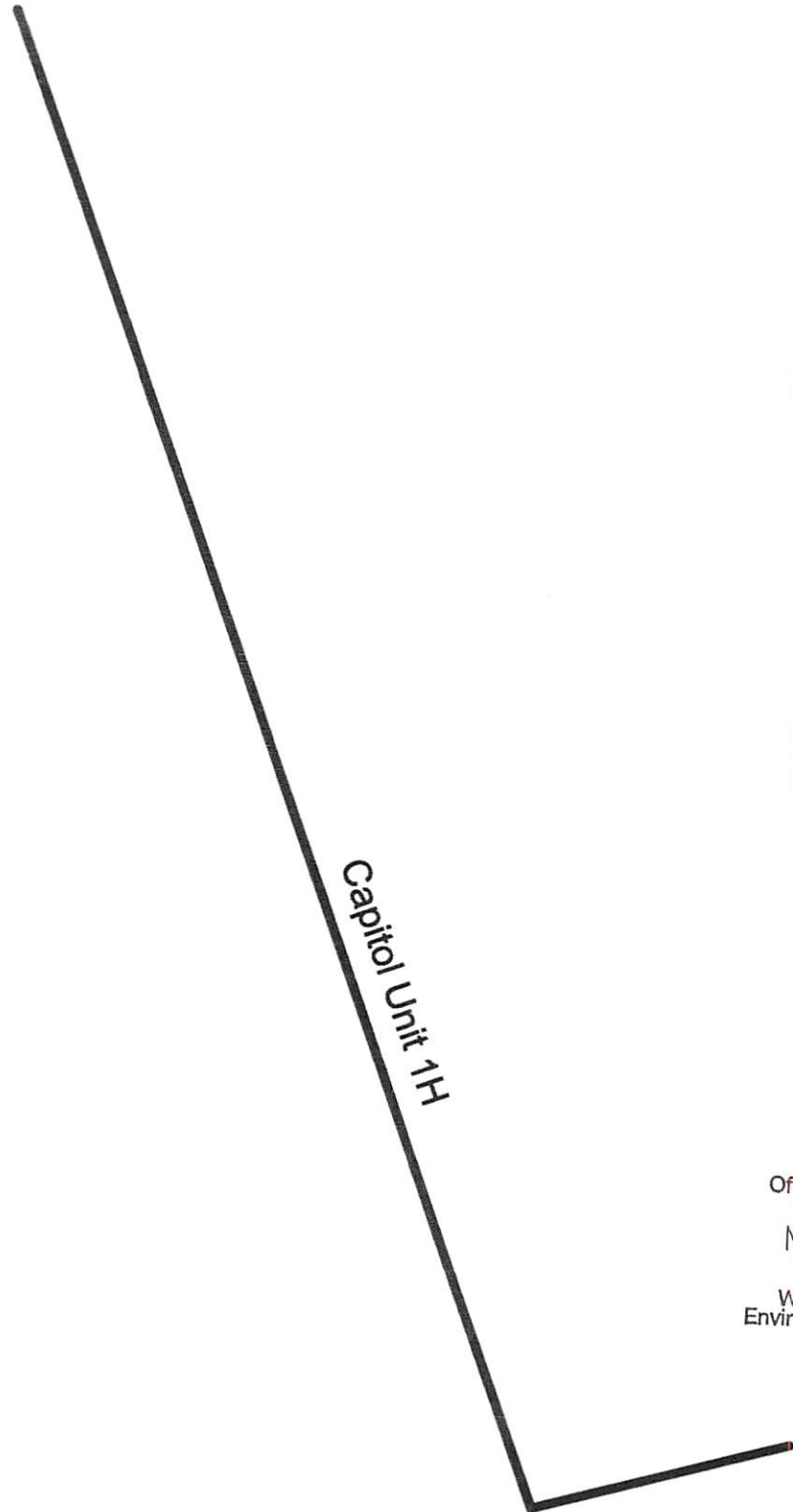
Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

RECEIVED  
Office of Oil and Gas

\*Note: Attach additional sheets as needed.

NOV 1 2021

Page 3 of 3



Capitol Unit 1H

RECEIVED  
Office of Oil and Gas  
NOV. 1 2021  
WV Department of  
Environmental Protection



**Antero Resources Corporation**

Capitol Unit 1H - AOR



No Wells of Interest **REMARKS**

October 20, 2021

11/12/2021



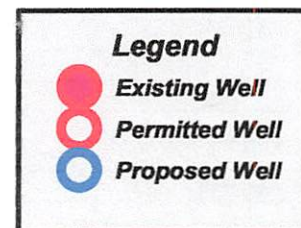
# Thin Air Pad

Axtel Unit 1H  
Purple Unit 2H  
Purple Unit 1H  
Maroon Unit 2H  
Maroon Unit 1H  
Capitol Unit 2H  
Capitol Unit 1H

RECEIVED  
Office of Oil and Gas

NOV 1 2021

WV Department of  
Environmental Protection



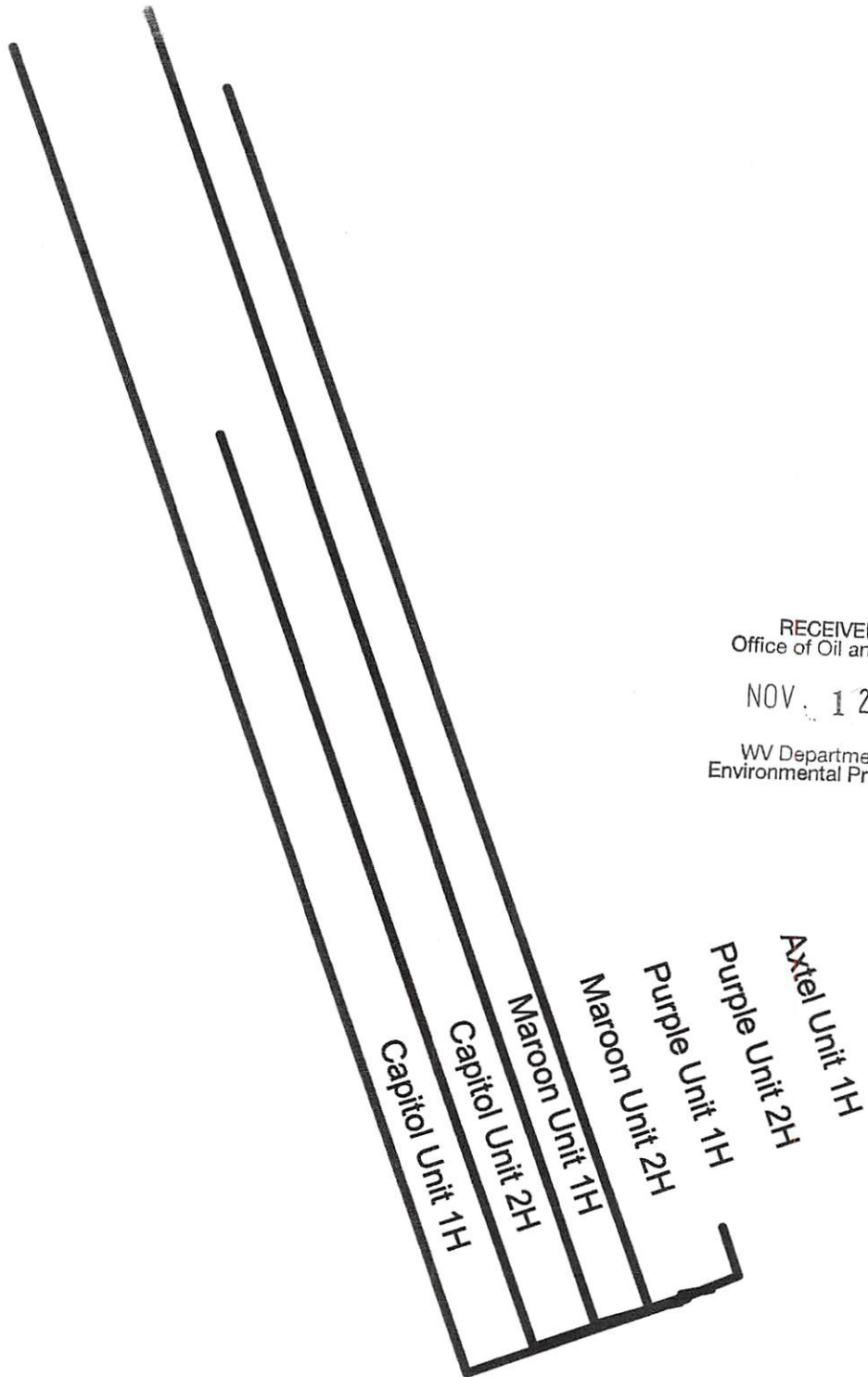
Updated: 7/28/2021

**Not to Scale**

11/12/2021



# Thin Air Pad (North) - Lateral Diagram



RECEIVED  
Office of Oil and Gas

NOV 1 2021

WV Department of  
Environmental Protection



LATITUDE 39°32'30" 426'

LATITUDE 39°32'30"

8,461' TO BOTTOM HOLE

5,138' TO BOTTOM HOLE

5,074'

LONGITUDE 80°47'30"

Antero Resources Corporation Well No. Capitol Unit 1H

Table listing leaseholders in Ellsworth District - Tyler County, including names like Dortha Gump, Lillie Gump, Harold Yost, etc.

Table listing leaseholders in Green District - Wetzel County, including names like David Smith Et Al, Fluharty Family Trust, etc.

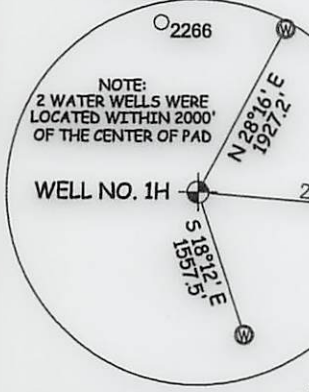
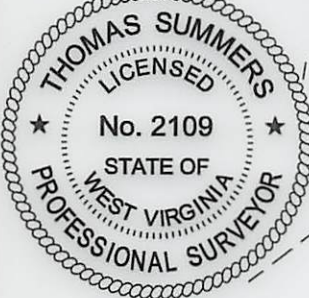
NOTES: WELL 1H TOP HOLE INFORMATION: N: 376,949ft E: 1,635,240ft... BOTTOM HOLE INFORMATION: N: 392,177ft E: 1,627,423ft...

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: 4,375,372m E: 517,790m...

(NAD) 27 (UTM) ZONE 17 COORDS: WELL 1H TOP HOLE INFORMATION: N: 14,354,152ft E: 1,698,736ft...

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.



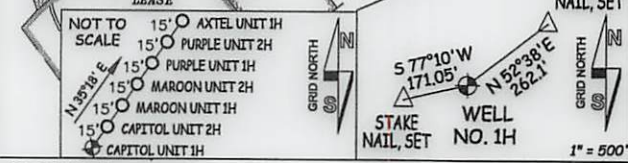
I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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 # 20-011WA, DRAWING # CAPITOL1HSR, 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 10/29/21, OPERATOR'S WELL# CAPITOL UNIT #1H



WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL 47 095 02754. LOCATION: ELEVATION 1,235'-ORIGINAL 1,200'-PROPOSED STATE COUNTY PERMIT. SURFACE OWNER CLARA SUZANNE WALLACE & RICKIE WALLACE ACREAGE 60 ACRES +/-.

LATITUDE 39°32'30" 426'

LATITUDE 39°32'30"

8,461' TO BOTTOM HOLE

5,138' TO BOTTOM HOLE

LONGITUDE 80°47'30"

### Antero Resources Corporation Well No. Capitol Unit 1H

Ellsworth District - Tyler County	
07-07	Dortha Gump
07-07	Lillie Gump
07-09	Harold Yost
07-23	Harold Yost
07-25	BB Farm Investments LLC
07-26	William Hope
07-27	James Kleeh
11-14	Paul Thomas
11-15	BB Farm Investments LLC
11-16	James Kleeh
11-17	James Kleeh
11-18	Sarah Sine
11-18.1	Sarah Sine
11-19	Elzie Hall
11-20	Edward Quirk
11-21	Edward Quirk
11-22	Nile Harris
11-59	Edward Quirk
11-60	Michael Martin
12-01	James Kleeh
12-02	Gary Midcap
12-07	Coastal Forest Resources Co.
12-08	Shirley Carroll
12-09	Coastal Forest Resources Co.
12-10	Michael Martin
12-11	Rickie Wallace
12-12	Rockford Energy LLC
12-13	Eric Fisher
12-33	Richard Neff

Green District - Wetzel County	
11-16	David Smith Et Al
11-21	Fluhart Family Trust
11-27	Raymond Young
11-28	Raymond Young
11-30	Fluhart Family Trust
11-35	Timothy Lancaster
11-36	Thomas Gaffney
11-38	Charles Gump
11-41	Charles Gump
15-01	Lillie Gump Et Al

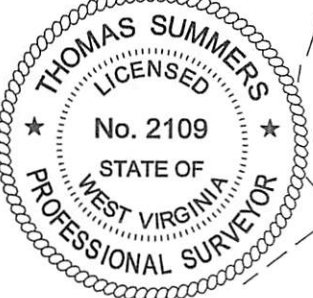
**NOTES:**  
**WELL 1H TOP HOLE INFORMATION:**  
 N: 376,949ft E: 1,635,240ft  
 LAT: 39°31'39.85" LON: 80°47'35.44"  
**BOTTOM HOLE INFORMATION:**  
 N: 392,177ft E: 1,627,423ft  
 LAT: 39°34'09.23" LON: 80°49'18.05"  
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS 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: 4,375,372m E: 517,790m  
**BOTTOM HOLE INFORMATION:**  
 N: 4,379,972m E: 515,332m

**(NAD) 27 (UTM) ZONE 17 COORDS:**  
**WELL 1H TOP HOLE INFORMATION:**  
 N: 14,354,152ft E: 1,698,736ft  
**POINT OF ENTRY INFORMATION:**  
 N: 14,353,450ft E: 1,696,077ft  
**BOTTOM HOLE INFORMATION:**  
 N: 14,369,242ft E: 1,690,669ft

**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.

WV NORTH ZONE  
GRID NORTH



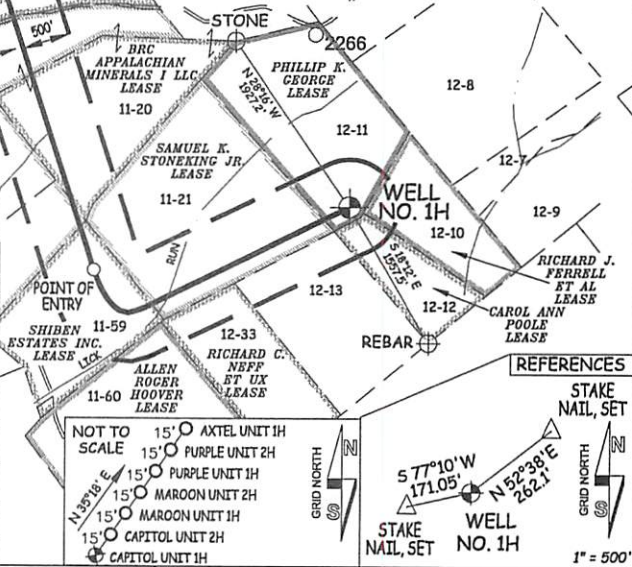
I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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 # 20-011WA  
 DRAWING # CAPITOL1HSR  
 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 10/29/21  
 OPERATOR'S WELL# CAPITOL UNIT #1H



WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ 47 - 095 - 02754  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X STATE COUNTY PERMIT  
 LOCATION: ELEVATION 1,235'-ORIGINAL 1,200'-PROPOSED WATERSHED OUTLET MIDDLE ISLAND CREEK  
 QUADRANGLE PORTER FALLS 7.5' DISTRICT ELLSWORTH COUNTY TYLER  
 SURFACE OWNER CLARA SUZANNE WALLACE & RICKIE WALLACE ACREAGE 60 ACRES +/-  
 OIL & GAS ROYALTY OWNER PHILLIP K. GEORGE; SAMUEL K. STONEKING JR.; SHIBEN ESTATES INC.; LEASE ACREAGE 60 AC +/- 76.88 AC +/- 141 AC +/-  
NILE DEAN HARRIS; BRC APPALACHIAN MINERALS I LLC; BRC APPALACHIAN MINERALS I LLC; GARY A. SOLE; KATHY K. TEDROW; 99.82 AC +/- 50 AC +/- 25.37 AC +/- 41.3 AC +/- 33.34 AC +/-  
MERCER MINERALS LLC; MERCER MINERALS LLC; HAROLD S. YOST ET UX; BRC APPALACHIAN MINERALS I LLC; BLACKROCK ENTERPRISES, LLC; 132 AC +/- 106 AC +/- 55.25 AC +/- 52 AC +/- 5.68 AC +/-  
CHARLES E. GUMP ET UX; TIMOTHY L. LANCASTER; SUZANNE HILL; THOMAS W. LINS ET UX 71.07 AC +/- 70.4 AC +/- 93.5 AC +/- 51.75 AC +/-  
 PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER X REDRILL \_\_\_ FRACTURE OR STIMULATE X  
 PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL  
 (SPECIFY) MOD-BHL PLUG & ABANDON CLEAN OUT & REPLUG  
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,300' TVD 27,600' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM  
 ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD  
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

Antero Resources Corporation Well No. Capitol Unit 1H

Ellsworth District - Tyler County	
07-07	Dortha Gump
07-07	Lillie Gump
07-09	Harold Yost
07-23	Harold Yost
07-25	BB Farm Investments LLC
07-26	William Hope
07-27	James Kleeh
11-14	Paul Thomas
11-15	BB Farm Investments LLC
11-16	James Kleeh
11-17	James Kleeh
11-18	Sarah Sine
11-18.1	Sarah Sine
11-19	Elzie Hall
11-20	Edward Quirk
11-21	Edward Quirk
11-22	Nile Harris
11-59	Edward Quirk
11-60	Michael Martin
12-01	James Kleeh
12-02	Gary Midcap
12-07	Coastal Forest Resources Co.
12-08	Shirley Carroll
12-09	Coastal Forest Resources Co.
12-10	Michael Martin
12-11	Rickie Wallace
12-12	Rockford Energy LLC
12-13	Eric Fisher
12-33	Richard Neff

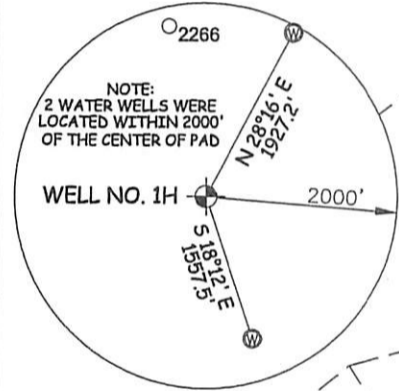
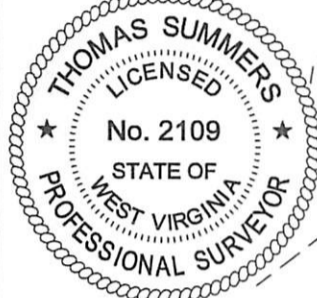
Green District - Wetzel County	
11-16	David Smith Et Al
11-21	Fluharty Family Trust
11-27	Raymond Young
11-28	Raymond Young
11-30	Fluharty Family Trust
11-35	Timothy Lancaster
11-36	Thomas Gaffney
11-38	Charles Gump
11-41	Charles Gump
15-01	Lillie Gump Et Al

**NOTES:**  
**WELL 1H TOP HOLE INFORMATION:**  
 N: 376,949ft E: 1,635,240ft  
 LAT: 39°31'39.85" LON: 80°47'35.44"  
**BOTTOM HOLE INFORMATION:**  
 N: 392,177ft E: 1,627,423ft  
 LAT: 39°34'09.23" LON: 80°49'18.05"  
 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: 4,375,372m E: 517,790m  
**BOTTOM HOLE INFORMATION:**  
 N: 4,379,972m E: 515,332m

**(NAD) 27 (UTM) ZONE 17 COORDS:**  
**WELL 1H TOP HOLE INFORMATION:**  
 N: 14,354,152ft E: 1,698,736ft  
**POINT OF ENTRY INFORMATION:**  
 N: 14,353,450ft E: 1,696,077ft  
**BOTTOM HOLE INFORMATION:**  
 N: 14,369,242ft E: 1,690,669ft

**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.



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 # 20-011WA  
 DRAWING # CAPITOL1HSR  
 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 10/29/21  
 OPERATOR'S WELL# CAPITOL UNIT #1H



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  47 - 095 - 02754  
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW  STATE COUNTY PERMIT  
 LOCATION: ELEVATION 1,235' - ORIGINAL 1,200' - PROPOSED WATERSHED OUTLET MIDDLE ISLAND CREEK  
 QUADRANGLE PORTER FALLS 7.5' DISTRICT ELLSWORTH COUNTY TYLER  
 SURFACE OWNER CLARA SUZANNE WALLACE & RICKIE WALLACE ACREAGE 60 ACRES +/-  
 OIL & GAS ROYALTY OWNER PHILLIP K. GEORGE; SAMUEL K. STONEKING JR; SHIBEN ESTATES INC.; LEASE ACREAGE 60 AC. ±: 76.88 AC. ±: 11/12/2021  
 NILE DEAN HARRIS; BRC APPALACHIAN MINERALS I LLC; BRC APPALACHIAN MINERALS I LLC; GARY A. SOLE; KATHY K. TEDROW; 99.82 AC. ±: 50 AC. ±: 25.37 AC. ±: 41.3 AC. ±: 33.34 AC. ±:  
 MERCER MINERALS LLC; MERCER MINERALS LLC; HAROLD S. YOST ET UX; BRC APPALACHIAN MINERALS I LLC; BLACKROCK ENTERPRISES, LLC; 132 AC. ±: 106 AC. ±: 55.25 AC. ±: 52 AC. ±: 5.68 AC. ±:  
 CHARLES E. GUMP ET UX; TIMOTHY L. LANCASTER; SUZANNE HILL; THOMAS W. LINS ET UX 71.07 AC. ±: 70.4 AC. ±: 93.5 AC. ±: 51.75 AC. ±

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD-BHL PLUG & ABANDON CLEAN OUT & REPLUG  
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,300' TVD 27,600' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM  
 ADDRESS 1615 WYNKOOP ST. ADDRESS 5400 D BIG TYLER ROAD  
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<b><u>Philip K. George Lease</u></b>			
Philip K. George	Statoil USA Onshore Properties	1/8+	0466/0193
Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<b><u>Samuel K. Stoneking Jr Lease</u></b>			
Samuel K. Stoneking Jr	Statoil USA Onshore Properties Inc	1/8	0456/0688
Statoil USA Onshore Properties Inc	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<b><u>Shiben Estates Inc Lease</u></b>			
Shiben Estates Inc	Petroedge Energy LLC	1/8+	0387/0471
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
<b><u>Nile Dean Harris Lease</u></b>			
Nile Dean Harris	Statoil USA Onshore Properties, Inc	1/8+	0449/0154
Statoil USA Onshore Properties, Inc	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<b><u>BRC Appalachian Minerals I LLC Lease</u></b>			
BRC Appalachian Mineral I LLC	BRC Working Interest Company LLC	1/8	0369/0300
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	0369/0784
Chesapeake Appalachia LLC	Statoil USA Onshore Properties Inc	Assignment	0423/0165
Statoil USA Onshore Properties Inc	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<b><u>BRC Appalachia Minerals I, LLC Lease</u></b>			
BRC Appalachia Minerals I, LLC	BRC Working Interest Company LLC	1/8	0369/0300
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	0369/0784
Chesapeake Appalachia LLC	Statoil USA Onshore Properties Inc	Assignment	0423/0165
Statoil USA Onshore Properties Inc	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<b><u>Gary A. Sole Lease</u></b>			
Gary A. Sole	Antero Resources Corporation	1/8+	0607/0122
<b><u>Kathy K. Tedrow Lease</u></b>			
Kathy K. Tedrow	Antero Resources Corporation	1/8+	0612/0184
<b><u>Mercer Minerals, LLC Lease</u></b>			
Mercer Minerals, LLC	Antero Resources Corporation	1/8+	0081/0182
<b><u>Mercer Minerals, LLC Lease</u></b>			
Mercer Minerals, LLC	Antero Resources Corporation	1/8+	0547/0643

11/12/2021

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<b><u>Harold S. Yost, et ux Lease</u></b>			
Harold S. Yost, et ux	Harrison Energy Services, LLC	1/8+	0569/0426
Harrison Energy Services, LLC	Antero Resources Corporation	Assignment	0584/0437
<b><u>BRC Appalachia Minerals I LLC Lease</u></b>			
BRC Appalachia Minerals I LLC	BRC Working Interest Company LLC	1/8	0369/0300
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	0369/0784
Chesapeake Appalachia LLC	Statoil USA Onshore Properties LLC	Assignment	0423/0165
Statoil USA Onshore Properties Inc	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0633/0001
<b><u>Charles E. Gump, et ux Lease</u></b>			
Charles E. Gump, et ux	Antero Resources Corporation	1/8+	216A/0831
<b><u>Timothy L. Lancaster Lease</u></b>			
Timothy L. Lancaster	Antero Resources Corporation	1/8+	0263A/0616
<b><u>Suzanne Hill Lease</u></b>			
Suzanne Hill	Antero Resources Corporation	1/8+	263A/0587
<b><u>Thomas W. Lins, et ux Lease</u></b>			
Thomas W. Lins et ux	Antero Resources Corporation	1/8+	175A/0515

\*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.

\*\*CONTINUED ON NEXT PAGE\*\*

11/12/2021

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6A, Section 5(a)(5)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Suzanne Hill Lease	Suzanne Hill	Antero Resources Corporation	1/8+	237A/0130

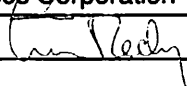
\*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

**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



Stansberry, Wade A &lt;wade.a.stansberry@wv.gov&gt;

---

**Horizontal H6A Well Work Permit (API: 47-095-02754)**

1 message

**Stansberry, Wade A** <wade.a.stansberry@wv.gov>

Tue, Nov 9, 2021 at 12:08 PM

To: mhamsher@anteroresources.com, Dani DeVito &lt;ddevito@shalepro.com&gt;, Douglas Newlon &lt;douglas.c.newlon@wv.gov&gt;, ljackson@wvassessor.com

I have attached a copy of the newly issued well [permit](#) number "CAPITOL UNIT 1H" . This will serve as your copy.

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

**Wade A. Stansberry**

**Environmental Resource Specialist 3**

**West Virginia Department of Environmental Protection**

**Office of Oil & Gas**

**601 57th St. SE**

**Charleston, WV 25304**


**(304) 926-0499 ext. 41115**

**(304) 926-0452 fax**

**[Wade.A.Stansberry@wv.gov](mailto:Wade.A.Stansberry@wv.gov)**

---

**2 attachments**

 **47-095-02754 - mod.pdf**  
3897K

 **IR-26 Blank.pdf**  
152K

**11/12/2021**