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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, December 20, 2023  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION  
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for BUFF UNIT 1H  
47-017-06964-00-00

**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: Buff 1H  
Farm Name: Susan Haught Gido, et al  
U.S. WELL NUMBER: 47-017-06964-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 12/20/2023

Promoting a healthy environment.

12/22/2023

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

1) Well Operator: Antero Resources Corporation 494507062 017-Doddridge New Milton New Milton 7.5'  
Operator ID County District Quadrangle

2) Operator's Well Number: Buff Unit 1H MOD Well Pad Name: Haught Pad

3) Farm Name/Surface Owner: Susan Haught Gido, et al Public Road Access: Brushy Fork Road

4) Elevation, current ground: \_\_\_\_\_ Elevation, proposed post-construction: 1194'

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: 7700' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7700' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 24400' MD

11) Proposed Horizontal Leg Length: 14687.1'

12) Approximate Fresh Water Strata Depths: 271'

13) Method to Determine Fresh Water Depths: 47-017-01798

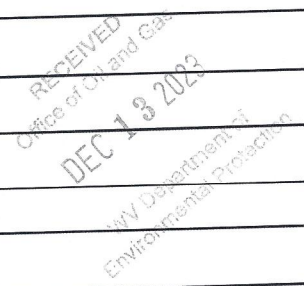
14) Approximate Saltwater Depths: 2406'

15) Approximate Coal Seam Depths: None Anticipated

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: \_\_\_\_\_



18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	80	80 ✓	CTS, 77 Cu. Ft. ✓
Fresh Water	13-3/8"	New	J-55	54.5#	321	321 ✓	CTS, 334 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#	24400	24400 ✓	5221 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

*Kenneth L. Reynolds 12-14-23*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438"	1530	50	Class A ✓	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630 ✓	2500	Lead-H/POZ & T&E - 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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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.

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): 33.94 acres

22) Area to be disturbed for well pad only, less access road (acres): 11.40 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 400 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.

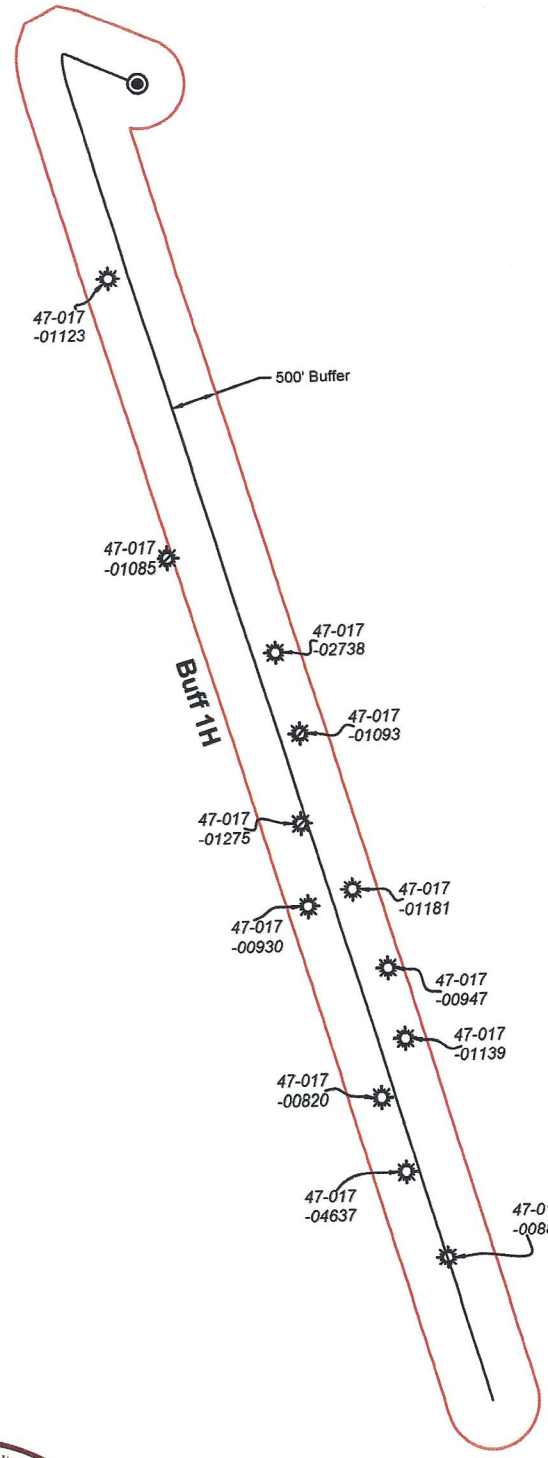
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**LEGEND**

- ⊙ Proposed gas well
- ⊛ Existing Well, as noted
- ⊛ Digitized Well, as noted



The orientation of this survey is Grid North, and its coordinate base is the West Virginia Coordinate System of 1927, North Zone



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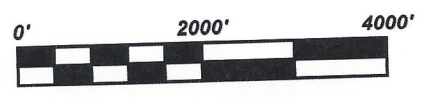


Bridgeport Office  
Phone: (304) 848-5035  
Fax: (304) 848-5037

172 Thompson Drive  
Bridgeport, WV 26330

PARTY CHIEF: C. Lynch	DRAWN BY: J. Smith
RESEARCH: J. Miller	PREPARED: October 25, 2023
SURVEYED: Dec. 2016	PROJECT NO: 245-30-N-23
FIELD CREW: C.L., K.M.	DRAWING NO: Buff 1H Short AOR

Sheet 1 of 1



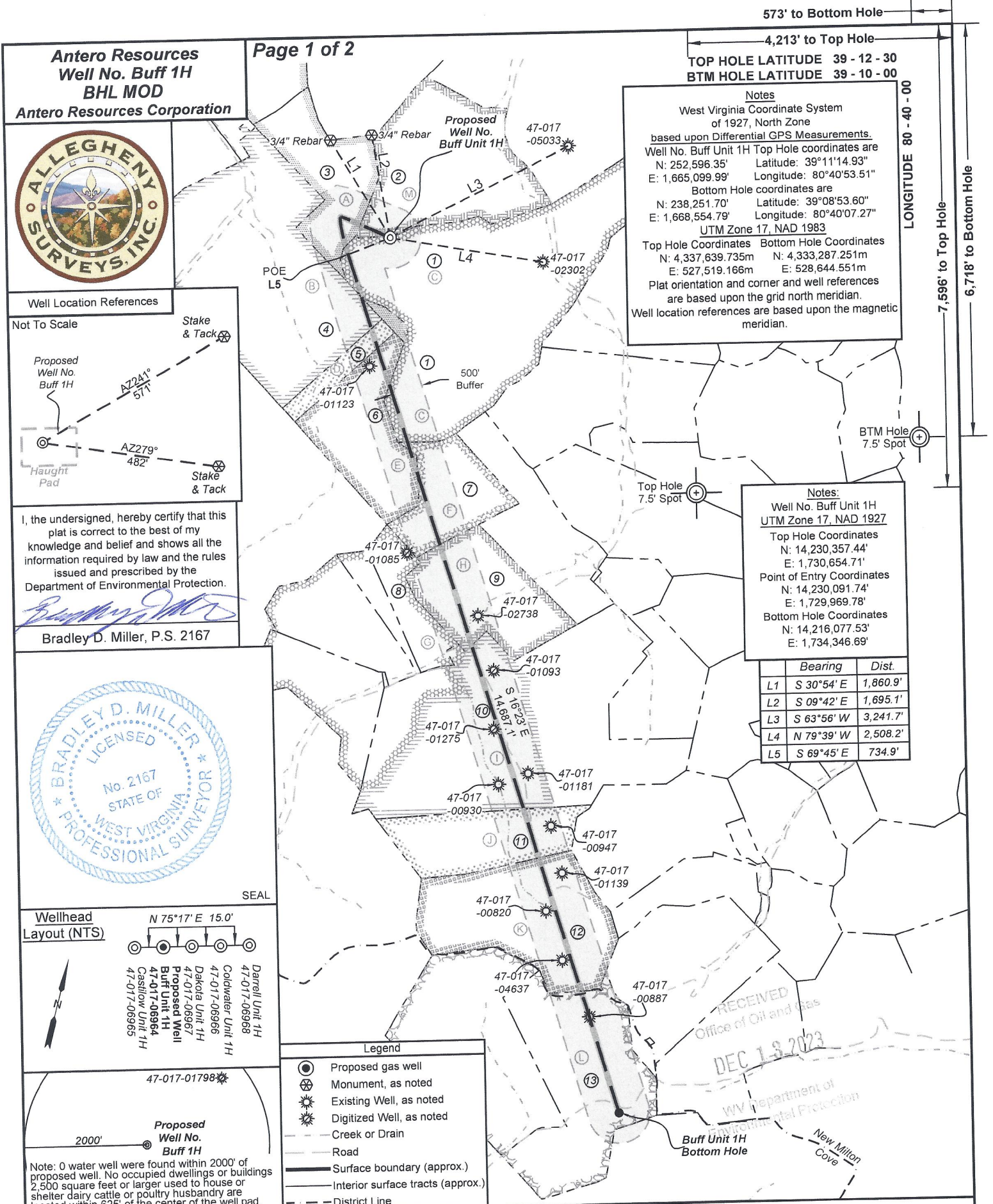
Scale: 1 inch = 2000 feet

12/22/2023

UWI (API#)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Produible Formation(s) not perf'd
4701701230000	THOMAS BATTEN HEIRS	2	GEARHART F A	GEARHART F A	2,432			Weir, Benson, Alexander
4701701085000	HAUGHT-HAUSFOND	1	PETROLEUM PROMOTIONS	PETROLEUM PROMOTIONS	2,460			Weir, Benson, Alexander
4701702738000	HAUGHT O C HEIRS	1	JOHNSON RUSSELL V JR	JOHNSON RUSSELL V JR	2,394			Weir, Benson, Alexander
4701701093000	BROYNT T	1	BECHLUCK OIL INC	PETROLEUM RESOURCES	2,775			Weir, Benson, Alexander
4701701275000	HENRY A HOUSE HEIRS	5	CHRISTENSON R W	CHRISTENSON R W	2,258			Weir, Benson, Alexander
4701700939000	HENRY A HOUSE HEIRS	1	PATCHWORK OIL & GAS LLC	CHRISTENSON R W	2,192		Keener	Weir, Benson, Alexander
4701701181000	HENRY A HOUSE HEIRS	4	EXCEL ENERGY INC	CHRISTENSON R W	2,395		Big Injun	Weir, Benson, Alexander
4701700947000	ELMER CRISLIP	2	PATCHWORK OIL & GAS LLC	CHRISTENSON R W	2,440		Big Injun	Weir, Benson, Alexander
4701701139000	STELLA SEVERN	4	XTO ENERGY INC	CHRISTENSON R W	2,455		Big Injun	Weir, Benson, Alexander
4701700820000	STELLA SEVERN	1	PATCHWORK OIL & GAS LLC	GEARHART F A	5,720	2406 - 2413	Big Injun	Weir, Benson, Alexander
4701704637000	SEVERN #6	E-240	PATCHWORK OIL & GAS LLC	EXCEL ENERGY INC	2,441		Big Injun	Weir, Benson, Alexander
4701700870000			BERRY ENERGY INC	SOUTHRN TRIANGLE OIL				

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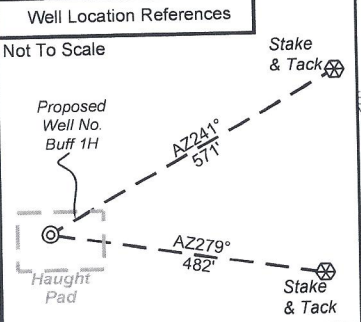
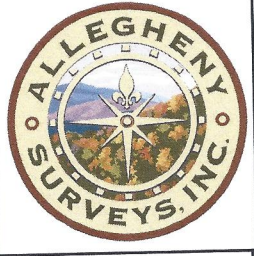
**Antero Resources**  
**Well No. Buff 1H**  
**BHL MOD**  
**Antero Resources Corporation**

Page 1 of 2

573' to Bottom Hole  
 4,213' to Top Hole  
**TOP HOLE LATITUDE 39 - 12 - 30**  
**BTM HOLE LATITUDE 39 - 10 - 00**

**Notes**  
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements. Well No. Buff Unit 1H Top Hole coordinates are N: 252,596.35' Latitude: 39°11'14.93" E: 1,665,099.99' Longitude: 80°40'53.51" Bottom Hole coordinates are N: 238,251.70' Latitude: 39°08'53.60" E: 1,668,554.79' Longitude: 80°40'07.27" UTM Zone 17, NAD 1983 Top Hole Coordinates Bottom Hole Coordinates N: 4,337,639.735m N: 4,333,287.251m E: 527,519.166m E: 528,644.551m Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

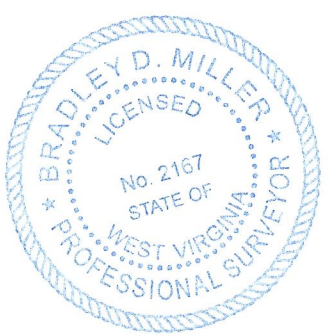
LONGITUDE 80 - 40 - 00  
 7,596' to Top Hole  
 6,718' to Bottom Hole



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

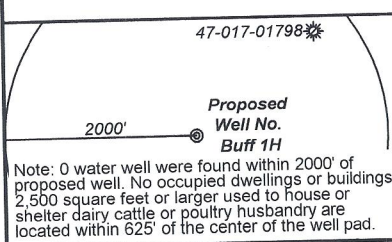
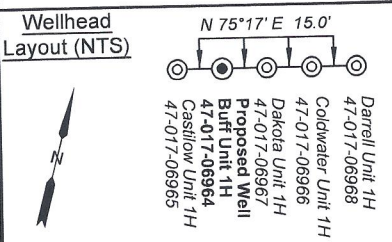
*Bradley D. Miller*

Bradley D. Miller, P.S. 2167



**Notes:**  
 Well No. Buff Unit 1H UTM Zone 17, NAD 1927  
 Top Hole Coordinates N: 14,230,357.44' E: 1,730,654.71'  
 Point of Entry Coordinates N: 14,230,091.74' E: 1,729,969.78'  
 Bottom Hole Coordinates N: 14,216,077.53' E: 1,734,346.69'

Bearing	Dist.
L1 S 30°54' E	1,860.9'
L2 S 09°42' E	1,695.1'
L3 S 63°56' W	3,241.7'
L4 N 79°39' W	2,508.2'
L5 S 69°45' E	734.9'



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

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 Buff Unit 1H Bottom Hole  
 New Milton Cove

FILE NO: 245-30-N-23  
 DRAWING NO: Buff 1H Well Plat  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: Submeter  
 PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

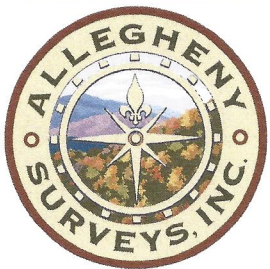
DATE: November 16 2023  
 OPERATOR'S WELL NO. Buff 1H  
 API WELL NO  
 47 - 017 - 06964  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: Proposed 1,194' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: New Milton  
 DISTRICT: BH:Cove Susan Haught COUNTY: Doddridge  
 SURFACE OWNER: Gido, et al ACREAGE: 264  
 ROYALTY OWNER: O.C. Haught, et ux LEASE NO: ACREAGE: 264

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 24,400' MD 7,700' TVD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Kevin Ellis  
 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.  
 Denver, CO 80202 Bridgeport, WV 26330



Leases	
A	Franklin Maxwell Heirs, LP
B	Denver Cox, et ux
C	O.C. Haught, et ux
D	Ralph Lee & Deloris Cox
E	Kenneth R. Mason, et ux
F	Mary K. Post Revocable Trust - 2017, et al
G	O.C. Haught, et al
H	Mary K. Post Revocable Trust - 2017, et al
I	O.C. Haught, et al
J	Embra D. White
K	AMP IV, LP
L	H.B. Gum, et ux
M	Haught Family Trust

ID	TM-Par	Owner	Bk/Pg	Acres
1	15-15	Susan Haught Gido, et al	WB62/407	264.00
2	15-6	Susan Haught Gido, et al	WB62/407	119.23
3	15-5	David E. Bowyer, et al	389/715	64.00
4	15-14	Ralph & Deloris Cox	223/187	207.50
5	15-16	Ralph & Deloris Cox	223/187	15.25
6	15-17	Denver W., Jr. & Mary Beth Cox	223/185	69.21
7	15-18	Susan Haught Gido, et al	WB62/407	37.39
8	19-4.2	Eileen Squitiro	183/341	29.84
9	19-5	Susan Haught Gido, et al	WB62/407	86.26
10	19-7	Susan Haught Gido, et al	WB62/407	269.50
11	19-19	Rezall M. Crislip, et al	349/484	63.20
12	19-15	AMP IV LP	444/354	108.56
13	7-1	Mary Ann Gum	WB30/102	130.00

FILE NO: 245-30-N-23  
 DRAWING NO: Buff 1H Well Plat  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY:  
Submeter  
 PROVEN SOURCE OF ELEVATION:  
WVDOT, Harrisville, WV

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: November 16 2023  
 OPERATOR'S WELL NO: Buff 1H  
 API WELL NO  
47-017-06964  
 STATE COUNTY PERMIT

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 ADDRESS: 1615 Wynkoop Street ADDRESS: 535 White Oaks Blvd.  
Denver, CO 80202 Bridgeport, WV 26330



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>C: O. C. Haught, et ux Lease:</u></b> O. C. Haught, et ux Rockwell Petroleum Company Rockwell Resources LLC Antero Resources Appalachian Corporation	Rockwell Petroleum Company Rockwell Resources LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Successor of Interest Assignment Name Change	103/367 260/429 267/244 <b>46/523</b>
<b><u>M: Haught Family Trust Lease:</u></b> Haught Family Trust Bluestone Energy Partners Antero Resources Bluestone, LLC	Bluestone Energy Partners Antero Resources Bluestone, LLC Antero Resources Corporation	1/8 Merge Merged	244/298 288/1 <b>WV SOS</b>
<b><u>A: Franklin Maxwell Heirs, LP Lease:</u></b> Franklin Maxwell Heirs, LP Key Oil Company Bluestone Energy Partners BEP Merger Sub LP Antero Resources Bluestone LLC	Key Oil Company Bluestone Energy Partners BEP Merger Sub LP Antero Resources Bluestone LLC Antero Resources Corporation	1/8 Assignment Merge Merge Merge	203/185 238/668 288/1 288/1 <b>WVSOS</b>
<b><u>C: O. C. Haught, et ux Lease:</u></b> O. C. Haught, et ux Rockwell Petroleum Company Rockwell Resources LLC Antero Resources Appalachian Corporation	Rockwell Petroleum Company Rockwell Resources LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Successor of Interest Assignment Name Change	103/367 260/429 267/244 <b>46/523</b>
<b><u>B: Denver Cox, et ux Lease:</u></b> Denver Cox, et ux Swift Energy Company Peake Energy Inc North Coast Energy Eastern Inc EXCO- North Coast Energy Eastern Inc EXCO Resources (WV) Inc EXCO Resources (WV) LLC EXCO Production Company (WV) LLC Antero Resources Appalachian Corporation	Swift Energy Company Peake Energy Inc North Coast Energy Eastern Inc EXCO- North Coast Energy Eastern Inc EXCO Resources (WV) Inc EXCO Resources (WV) LLC EXCO Production Company (WV) LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Name Change Name Change Name Change Merge Merge Assignment Name Change	127/473 180/604 249/343 277/68 WVSOS WVSOS 285/83 285/84 <b>46/253</b>
<b><u>D: Ralph Lee &amp; Deloris Cox Lease:</u></b> Ralph Lee & Deloris Cox	Antero Resources Corporation	1/8+	<b>504/595</b>
<b><u>E: Kenneth R. Mason, et ux Lease:</u></b> Kenneth R. Mason	Antero Resources Corporation	1/8+	<b>517/400</b>
<b><u>C: O. C. Haught, et ux Lease:</u></b> O. C. Haught, et ux Rockwell Petroleum Company Rockwell Resources LLC Antero Resources Appalachian Corporation	Rockwell Petroleum Company Rockwell Resources LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Successor of Interest Assignment Name Change	103/367 260/429 267/244 <b>46/523</b>

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Environmental Protection

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

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

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

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>F: Mary K. Post Revocable Trust – 2017, et al</u> Lease: Mary K. Post Revocable Trust – 2017, et al	Antero Resources Corporation	1/8+	512/685
<u>E: Kenneth R. Mason, et ux Lease:</u> Kenneth R. Mason	Antero Resources Corporation	1/8+	517/400
<u>F: Mary K. Post Revocable Trust – 2017, et al</u> Lease: Mary K. Revocable Trust – 2017, et al	Antero Resources Corporation	1/8+	512/685
<u>H: Mary K. Post Revocable Trust – 2017, et al</u> Lease: Mary K. Revocable Trust – 2017, et al	Antero Resources Corporation	1/8+	512/685
<u>I: O. C. Haught, et al Lease:</u> O. C. Haught, et al A.T. Carr Petroleum Promotions Inc Russell & Scott Inc William A. Scott & Yvonne B. Scott William A. Scott Antero Resources Appalachian Corporation	A.T. Carr Petroleum Promotions Inc Russell & Scott Inc William A. Scott & Yvonne B. Scott William A. Scott Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Name Change Assignment Verification of Death Assignment Name Change	72/87 72/87 285/1 280/277 280/277 280/277 46/253
<u>J: Embra D. White Lease:</u> Embra D. White Floyd A. Gearheart Homer Robinson & Phil Shipp R. Wayne Christenson Hobson Petroleum Corporation Hobson Energy Corporation	Floyd A. Gearheart Homer Robinson & Phil Shipp R. Wayne Christenson Hobson Petroleum Corporation Hobson Energy Corporation Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment Assignment	77/346 77/499 77/500 126/226 141/725 280/52
<u>K: AMP IV, LP Lease:</u> AMP IV, LP	Antero Resources Corporation	1/8+	511/604

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Office of Oil and Gas

DEC 13 2023

WV Dept 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.

**\*Cotenancy Utilization** - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with 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

**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
<b><u>L: H. B. Gum, et ux Lease:</u></b>				
	H. B. Gum, et ux	Rockwell Petroleum Company	1/8	114/209
	Rockwell Petroleum Company	Carson Petroleum Corporation	Assignment	123/820
	Carson Petroleum Corporation	Devon Energy Corporation	Assignment	126/434
	Devon Energy Corporation	Robert R. Jones	Assignment	178/543
	Robert R. Jones	Continental Petroleum, LLC	Assignment	191/128
	Continental Petroleum, LLC	Antero Resources Appalachian Corporation	Assignment	267/497
	<b>Antero Resources Appalachian Corporation</b>	<b>Antero Resources Corporation</b>	<b>Name Change</b>	<b>46/253</b>

**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

RECORDED  
Office of Oil and Gas  
DEC 13 2023  
WV Department of  
Environmental Protection

ck# 4026470  
12/12/23  
\$ 7,500.00



December 12th, 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

Mr. Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modification for approved wells on the Haught Pad. We are requesting to extend the horizontal lateral length which will change the bottom hole location of the Dakota Unit 1H, Buff Unit 1H, & Castilow Unit 1H wells.

Attached you will find the following documents:

- REVISED Form WW-6B, which shows the revised MD and Production Casing/Cement program
- REVISED Form WW-6A1, which shows the leases we will be drilling into
- REVISED Mylar Plat, which shows the new bottom hole location

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

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Carly Marvel".

Carly Marvel  
Permitting Agent  
Antero Resources Corporation

RECEIVED  
Office of Oil and Gas  
DEC 13 2023  
WV Department of  
Environmental Protection

Enclosures

12/22/2023