



west virginia department of environmental protection

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

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

Friday, May 13, 2022
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET
DENVER, CO 80202

Re: Permit Modification Approval for BALDY UNIT 1H
47-103-03478-00-00

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: BALDY UNIT 1H
Farm Name: MARGARET LANCASTER
U.S. WELL NUMBER: 47-103-03478-00-00
Horizontal 6A New Drill
Date Modification Issued: 05/13/2022

Promoting a healthy environment.

05/13/2022

Ch#
4007059
\$5000
4/7/22

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

1) Well Operator: Antero Resources Corporation 494507062 103-Wetzel Green Porter Falls 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Baldy Unit 1H MOD Well Pad Name: Red Lady Pad

3) Farm Name/Surface Owner: Margaret Lancaster Public Road Access: Wetzel Tyler Ridge Rd

4) Elevation, current ground: 1237' Elevation, proposed post-construction: ~1206'

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- 2850#

8) Proposed Total Vertical Depth: 7400' TVD ✓

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 27,900' ✓

11) Proposed Horizontal Leg Length: 19,593.4' ✓

12) Approximate Fresh Water Strata Depths: 33', 283', 831' ✓

13) Method to Determine Fresh Water Depths: 095-02177, 095-02104 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1592'

15) Approximate Coal Seam Depths: 851'

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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Environmental Protection

4710303478

WW-6B
(04/15)

API NO. 47- 103 -
OPERATOR WELL NO. Baldy Unit 1H MOD
Well Pad Name: Red Lady 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	H-40	79#	80'	80' /	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	881'	881' /	CTS, 557 Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	2500'	2500' /	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	27,900'	27,900' /	CTS, 6113 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

James L. Reynolds 5-6-22

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	~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"	14,360	2500	Class G/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 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): 51.15 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.42 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

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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.

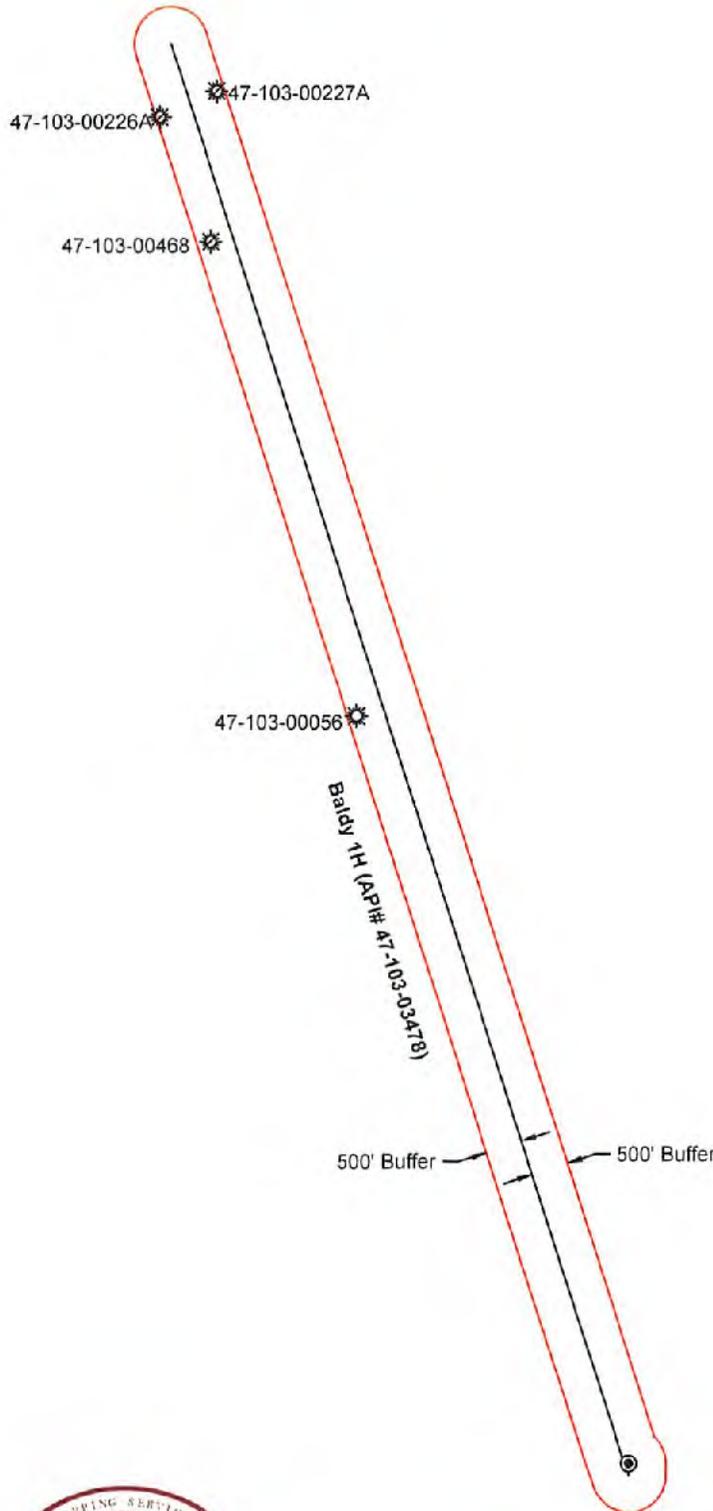
*Note: Attach additional sheets as needed.

LEGEND

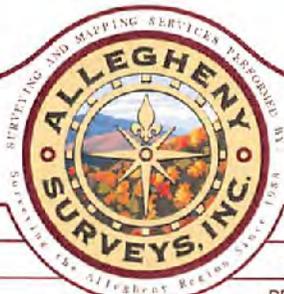
- ⊙ Proposed gas well
- ⊛ Existing Well, as noted
- ⊛ Digitized Well, as noted



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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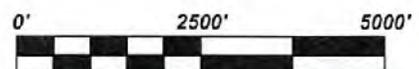


Bridgeport Office
Phone: (304) 848-5035
Fax: (304) 848-5037

172 Thompson Drive
Bridgeport, WV 26330

PARTY CHIEF: C. Lynch	DRAWN BY: J. Smith
RESEARCH: J. Miller	PREPARED: April 1, 2022
SURVEYED: Dec. 2016	PROJECT NO: 109-34-G-18
FIELD CREW: C.L., K.M.	DRAWING NO: Baldy 1H Well Exhibit

Sheet 1 of 1



Scale: 1 inch = 2500 feet 05/13/2022

47-103-03478

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47103000560000	DAVE AMOS	1			1,932		Big Injun.	Weir, Berea, Benson, Alexander
47103004680000	MIDCAP	1		ELSON	2,410		Big Injun.	Weir, Berea, Benson, Alexander
47103302260000	J B WHITEMAN	1	DAUBENSPECK & MASON	DAUBENSPECK & MASON	2,220			
47103302270000	J B WHITEMAN	2	DAUBENSPECK & MASON	DAUBENSPECK & MASON	2,343			

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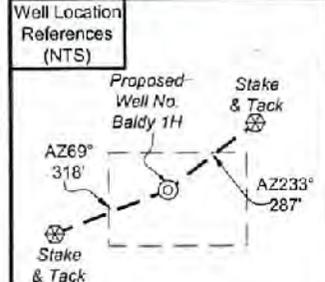
Antero Resources
Well No. Baldy 1H
BHL MOD
 Antero Resources Corporation

Page 1 of 2

9,817' to Bottom Hole

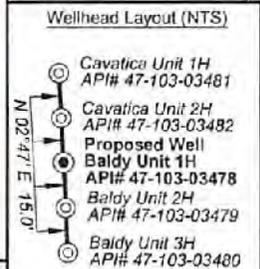
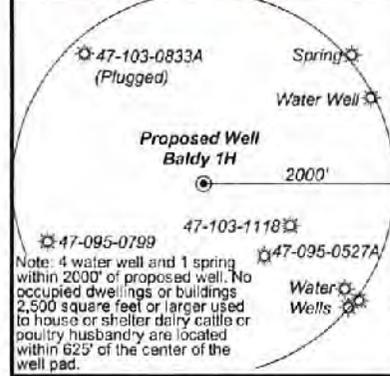
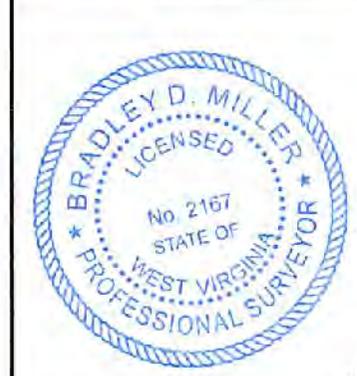
3,387' to Top Hole

TOP HOLE LATITUDE 39 - 32 - 30
 BTM HOLE LATITUDE 39 - 35 - 00



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



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

Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Baldy Unit 1H Top Hole coordinates are
 N: 376,194.25' Latitude: 39°31'33.63"
 E: 1,644,023.01' Longitude: 80°45'43.22"
 Bottom Hole coordinates are
 N: 395,192.03' Latitude: 39°34'40.52"
 E: 1,637,856.92' Longitude: 80°47'05.38"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,375,186.952m N: 4,380,943.380m
 E: 520,469.907m E: 518,494.972m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

Notes:
 Well No. Baldy Unit 1H UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,353,543.99'
 E: 1,707,527.31'
 Point of Entry Coordinates
 N: 14,353,884.53'
 E: 1,707,348.94'
 Bottom Hole Coordinates
 N: 14,372,429.86'
 E: 1,701,047.15'

	Bearing	Dist.
L1	S 40°31' E	1,972.8'
L2	S 22°42' W	1,667.3'
L3	S 51°26' W	2,093.7'
L4	S 67°38' W	1,952.2'
L5	N 26°41' W	384.6'

FILE NO: 109-34-G-18
 DRAWING NO: Baldy 1H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: Submeter
 PROVEN SOURCE OF ELEVATION: CORS, Monroe County, OH

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

DATE: April 8 2022
 OPERATOR'S WELL NO. Baldy Unit 1H
 API WELL NO
 47 - 103 - 03478
 STATE COUNTY PERMIT

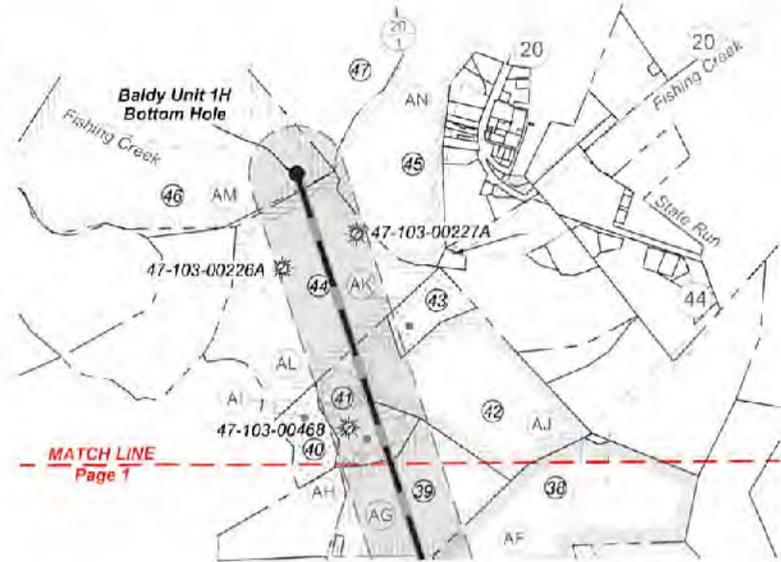
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: Existing 1,237' Proposed 1,206' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls 34 17; 17: 41.75; 39; 42; 1665
 DISTRICT: Green Margaret Stone Hill Mineral Holdings, LLC; Charmaine A. Starkweather, et vir; Paul H. Aber; Gladys E. Conley Trust; Robert E. & Michaelmary Midcap; Five Star Resources; COUNTY: Wetzel 33.5; 50.4; 47.67; 6; 57.1; 26.5; 15; 69
 SURFACE OWNER: Lancaster Edward D. & Heather M. Stewart; Susan J. Fair; Dale L. Fox; Thomas W. Lins; Linda Ice Long; Ridgetop Royalties, LLC (2); Antero Minerals, LLC; Richard R. & Mary J. Scyoc; Dennis B. Moore; ACREAGE: 39.00 71.61; 38; 32.56; 26; 46.5; 119.03125; 57; 60; 57.1; 26.5; 15; 69
 ROYALTY OWNER: Shiben Estates Inc. (3); Chesapeake Appalachia, LLC (3); Kenneth Stewart Keystone Trust (2); LEASE NO: ACREAGE: 80; 57.1; 26.5; 15; 69

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL_MOD 7,400' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 27,900' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313

05/13/2022

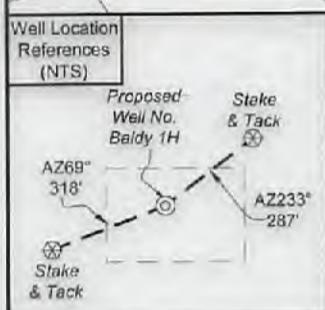


ID	TM-Par	Owner	Bk/Pg	Acres
1	19-31	Margaret Lancaster	333 / 440	39.00
2	12-27	Crystal A. Muzzy (Tyler Co.)	W69 / 226	60.91
3	-	Garrett Cemetery	85 / 62	1.80
4	12-25	Cecil & Margaret Lancaster	170 / 46	76.17
5	19-52	Joshua Highley	464 / 208	8.01
6	19-30	Richard R. & Mary J. Scyoc	452 / 177	13.00
7	19-21	Joshua Highley	464 / 208	41.75
8	19-23	Richard R. & Mary J. Scyoc	452 / 177	25.00
9	19-15	Joshua Highley	464 / 208	17.00
10	19-16	Richard R. & Mary J. Scyoc	443 / 336	73.96
11	19-13	Joshua Highley	464 / 208	5.00
12	19-14	Joshua Highley	419 / 822	6.00
13	19-12	Joshua Highley	464 / 208	17.17
14	19-22	John Sheldon Condit	309 / 312	24.25
15	19-5	Gregg Weis	297 / 608	6.50
16	16-75	Gregg John Weis	317 / 157	7.50
17	19-54	Susan J. Fair	378 / 97	59.75
18	16-59.1	Mark Goldstein	435 / 308	25.00
19	16-73	Gregg Weis	294 / 477	5.00
20	16-53	Edward D. & Heather M. Stewart	390 / 110	32.60
21	16-74	Mark I. Goldstein	431 / 532	6.00
22	16-52	RBMA, LLC	431 / 526	43.25
23	16-44	Kenneth E. Stewart Keystone Trust	424 / 821	46.30
24	16-37	Garrett S. Estate	316 / 248	61.00
25	16-36	Kenneth E. Stewart Keystone Trust	424 / 821	53.00
26	16-29	Kenneth E. Stewart Keystone Trust	424 / 821	53.50
27	16-20	Bonita Andrich, et al	W70 / 243	79.03
28	16-8	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	75.75
29	16-19	Eugene D., Jr. & Diane Mason	405 / 291	64.70
30	16-18	Cathy A. & Ernest E. Stewart	355 / 280	28.50
31	16-7	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	54.50
32	16-2	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	44.50
33	12-53	Robert E. Midcap	399 / 40	57.00
34	12-54	Jerri L. & Donald H. Satterfield, Jr.	399 / 108	54.72
35	12-45	Roger Dale Midcap	399 / 37	46.00
36	12-48	John W. & Rosalie M. Ueltschey	362 / 403	47.87
37	12-47	Linda K. Ice	447 / 793	26.25
38	12-39	Martin E. Rodgers	421 / 621	60.00
39	12-38	Roger D. & Tina S. Midcap	342 / 74	37.00
40	12-24	Jerome E. Staley	242 / 72	10.00
41	12-25	Jerome E. Staley	242 / 72	15.00
42	12-26	Martin E. Rodgers	419 / 493	50.40
43	12-26.1	Phillip Wiley	361 / 471	8.25
44	12-17	Charmaine A. & Heath C. Starkweather	427 / 930	69.00
45	7-50	Bradley W. & Kimberly Ueltschey	342 / 710	79.78
46	12-1	Bradley W. Ueltschey	476 / 310	78.13
47	7-38	Marikay G. Corliss	447 / 763	144.00

Leases	
A	Shiben Estates, Inc.
B	Randy Bradley
C	Shiben Estates, Inc.
D	Richard R. & Mary J. Scyoc
E	Shiben Estates, Inc.
F	Shiben Estates, Inc.
G	Allen Vincent Wilcox
H	Richard R. & Mary J. Scyoc
I	Antero Minerals, LLC
J	Susan J. Fair
K	Chesapeake Appalachia, LLC
L	Dale L. Fox
M	Joyce E. Henry
N	Antero Minerals, LLC
O	Edward D. & Heather M. Stewart
P	RBMA, LLC
Q	Thomas W. Lins
R	Harry I. Elson
S	Kenneth Stewart Keystone Trust
T	Kenneth Stewart Keystone Trust
U	Gladys E. Conley Trust
V	Ernest & Cathy Stewart 2019 Irrevocable Trust
W	Chesapeake Appalachia, LLC
X	Ernest & Cathy Stewart 2019 Irrevocable Trust
Y	Shiben Estates, Inc.
Z	Chesapeake Appalachia, LLC
AA	Robert E. & Michaelmary Midcap
AB	Five Star Resources
AC	Barbara Anne Amos King
AD	Ridgetop Royalties, LLC
AE	Linda Ice Long
AF	Paul H. Abel
AG	Chesapeake Appalachia, LLC
AH	Dennis B. Moore
AI	Jerome E. Staley
AJ	Ridgetop Royalties, LLC
AK	Phillip W. Wiley
AL	Charmaine A. Starkweather, et vir
AM	Stone Hill Minerals Holdings, LLC
AN	Bradley W. Ueltschey, et ux

FILE NO: <u>109-34-G-18</u> DRAWING NO: <u>Baldy 1H Well Plat</u> SCALE: <u>1" = 2000'</u> MINIMUM DEGREE OF ACCURACY: <u>Submeter</u> PROVEN SOURCE OF ELEVATION: <u>CORS, Monroe County, OH</u>	<p>STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS DIVISION</p>	DATE: <u>April 8</u> 20 <u>22</u> OPERATOR'S WELL NO. <u>Baldy Unit 1H</u> API WELL NO <u>47</u> - <u>103</u> - <u>03478</u> STATE COUNTY PERMIT
WELL TYPE: <input type="checkbox"/> OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> WASTE DISPOSAL (IF GAS) PRODUCTION: <input type="checkbox"/> STORAGE <input type="checkbox"/> DEEP <input checked="" type="checkbox"/> SHALLOW		
LOCATION: ELEVATION: <u>Existing 1,237'</u> / <u>Proposed 1,206'</u> WATERSHED: <u>Fishing Creek</u> QUADRANGLE: <u>Porter Falls</u> 34.17; 17; 41.75; 39; 42; 76.16; 5; 20.24; 53.5; 50.4; 47.87; 6; 71.61; 38; 32.56; 26; 46.5; 119.03125; 57; 60; 57.1; 26.5; 15; 69		
DISTRICT: <u>Green</u> Margaret Stone Hill Mineral Holdings, LLC; Charmaine A. Starkweather, et vir; Paul H. Abel; Gladys E. Conley Trust; Robert E. & Michaelmary Midcap; Five Star Resources; Edward D. & Heather M. Stewart; Susan J. Fair; Dale L. Fox; Thomas W. Lins; Linda Ice Long; Ridgetop Royalties, LLC (2); Antero Minerals, LLC; Richard R. & Mary J. Scyoc; Dennis B. Moore; ROYALTY OWNER: <u>Shiben Estates Inc. (3); Chesapeake Appalachia, LLC (3); Kenneth Stewart Keystone Trust (2)</u> LEASE NO: _____ ACREAGE: _____		
PROPOSED WORK: <input type="checkbox"/> DRILL <input type="checkbox"/> CONVERT <input checked="" type="checkbox"/> DRILL DEEPER <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input checked="" type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) <u>BHL MOD</u> 7,400' TVD		
<input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CLEAN OUT AND REPLUG TARGET FORMATION: <u>Marcellus Shale</u> ESTIMATED DEPTH: <u>27,900' MD</u>		
WELL OPERATOR: <u>Antero Resources Corporation</u> DESIGNATED AGENT: <u>Dianna Stamper - CT Corporation System</u> ADDRESS: <u>1615 Wynkoop Street</u> ADDRESS: <u>5400 D Big Tyler Road</u> <u>Denver, CO 80202</u> <u>Charleston, WV 25313</u>		

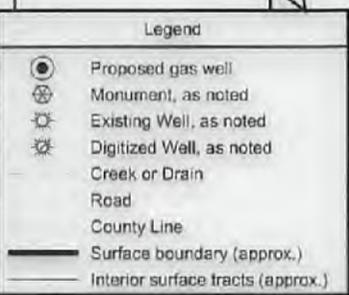
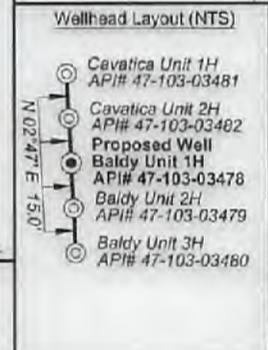
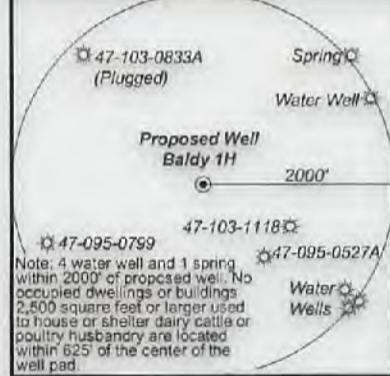
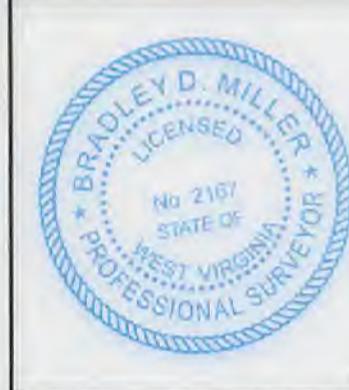
Antero Resources
Well No. Baldy 1H
BHL MOD
 Antero Resources Corporation

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



FILE NO: 109-34-G-18
 DRAWING NO: Baldy 1H Well Plat
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: Submeter
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OIL AND GAS DIVISION

DATE: April 8 2022
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 API WELL NO. M.B.D.
 47 - 103 - 03478
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: Existing 1,237' Proposed 1,205' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls 34.17; 17.41 75.39; 42.16; 59.5; 50.4; 47.8; 16.6; 71.61; 38; 32.56; 26; 46.5; 119.03125; 57; 80; 57.1; 26.5; 15; 69

DISTRICT: Green Margaret Stone Hill Mineral Holdings, LLC; Charmaine A. Starkweather, et vir; Paul H. Abel; Gladys E. Conlay Trust; Robert E. & Michaelmary Midcap; Five Star Resources; Edward D. & Heather M. Stewart; Susan J. Fair; Dale L. Fox; Thomas W. Lins; Linda Ice Long; Ridgeway Royalties, LLC (2); Antero Minerals, LLC; Richard R. & Mary J. Soyoc; Dennis B. Moore; Shiben Estates Inc. (3); Chesapeake Appalachia, LLC (3); Kenneth Stewart; Keystone Trust (2);

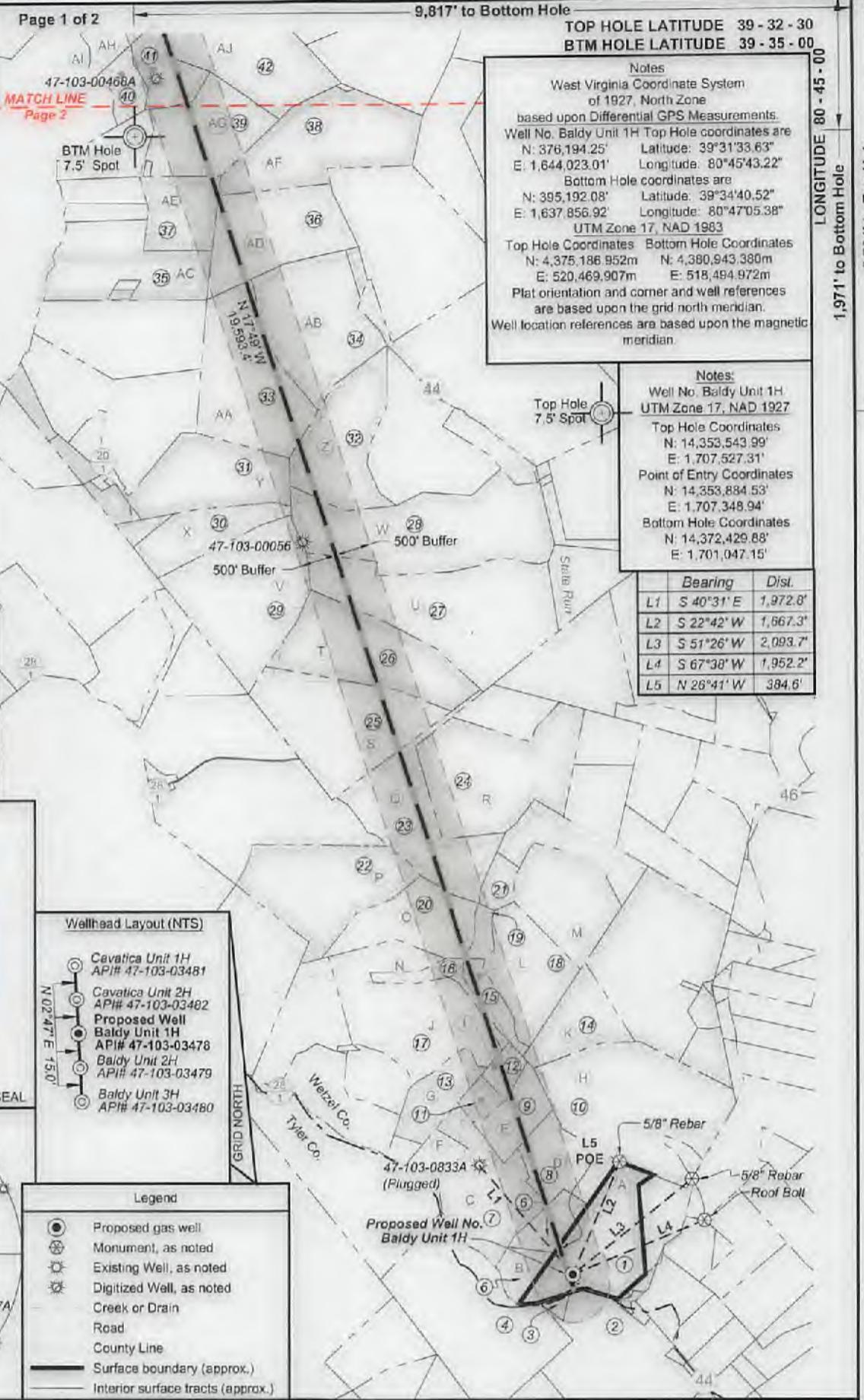
SURFACE OWNER: Lancaster COUNTY: Wetzel ACREAGE: 39.00

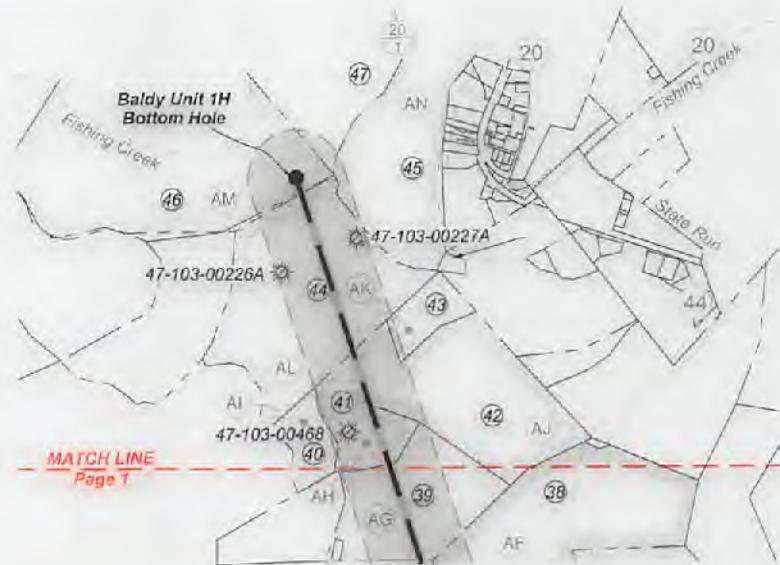
ROYALTY OWNER: Shiben Estates Inc. (3); Chesapeake Appalachia, LLC (3); Kenneth Stewart; Keystone Trust (2); LEASE NO: ACREAGE: 80; 57.1; 26.5; 15; 69

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: 7,400' TVD; 27,900' MD

WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System
 ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road
 Denver, CO 80202 Charleston, WV 25313





ID	TM-Par	Owner	Bk/Pg	Acres
1	19-31	Margaret Lancaster	333 / 440	39.00
2	12-27	Crystal A. Muzzy (Tyler Co.)	W69 / 226	60.91
3	-	Garrett Cemetary	85 / 62	1.80
4	12-25	Cecil & Margaret Lancaster	170 / 48	78.17
5	19-52	Joshua Highley	464 / 208	8.01
6	19-30	Richard R. & Mary J. Scyoc	452 / 177	13.00
7	19-21	Joshua Highley	464 / 208	41.75
8	19-23	Richard R. & Mary J. Scyoc	452 / 177	25.00
9	19-15	Joshua Highley	464 / 208	17.00
10	19-16	Richard R. & Mary J. Scyoc	443 / 336	73.96
11	19-13	Joshua Highley	464 / 208	5.00
12	19-14	Joshua Highley	419 / 822	6.00
13	19-12	Joshua Highley	464 / 208	17.17
14	19-22	John Sheldon Condit	309 / 312	24.25
15	19-5	Gregg Weis	297 / 608	6.50
16	16-75	Gregg John Weis	317 / 157	7.50
17	19-54	Susan J. Fair	378 / 97	59.75
18	16-59.1	Mark Goldstein	435 / 303	25.00
19	16-73	Gregg Weis	294 / 477	5.00
20	16-53	Edward D. & Heather M. Stewart	390 / 10	32.60
21	16-74	Mark I. Goldstein	431 / 532	8.00
22	16-52	RBMA, LLC	431 / 528	43.25
23	16-44	Kenneth E. Stewart Keystone Trust	424 / 821	46.30
24	16-37	Garrett S. Estate	316 / 248	61.00
25	16-36	Kenneth E. Stewart Keystone Trust	424 / 821	53.00
26	16-29	Kenneth E. Stewart Keystone Trust	424 / 821	53.50
27	16-20	Bonita Andrich, et al	W70 / 243	79.03
28	16-6	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	75.75
29	16-19	Eugene D., Jr. & Diane Mason	405 / 291	64.70
30	16-18	Cathy A. & Ernest E. Stewart	355 / 280	28.50
31	16-7	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	54.50
32	16-2	Wilbur B. Dawson & Loretta P. Ueltschey	408 / 192	44.50
33	12-53	Robert E. Midcap	399 / 40	57.00
34	12-54	Jerri L. & Donald H. Satterfield, Jr.	399 / 108	54.72
35	12-45	Roger Dale Midcap	399 / 37	46.00
36	12-48	John W. & Rosalie M. Ueltschey	382 / 403	47.87
37	12-47	Linda K. Ice	447 / 793	26.25
38	12-39	Martin E. Rodgers	421 / 621	60.00
39	12-38	Roger D. & Tina S. Midcap	342 / 74	37.00
40	12-24	Jerome E. Staley	242 / 72	10.00
41	12-25	Jerome E. Staley	242 / 72	15.00
42	12-26	Martin E. Rodgers	419 / 493	50.40
43	12-26.1	Phillip Wiley	361 / 471	8.25
44	12-17	Charmaine A. & Heath C. Starkweather	427 / 930	69.00
45	7-50	Bradley W. & Kimberly Ueltschey	342 / 710	79.78
46	12-1	Bradley W. Ueltschey	476 / 310	78.13
47	7-38	Marikay G. Corliss	447 / 763	144.00

Leases	
A	Shiben Estates, Inc.
B	Randy Bradley
C	Shiben Estates, Inc.
D	Richard R. & Mary J. Scyoc
E	Shiben Estates, Inc.
F	Shiben Estates, Inc.
G	Allen Vincent Wilcox
H	Richard R. & Mary J. Scyoc
I	Antero Minerals, LLC
J	Susan J. Fair
K	Chesapeake Appalachia, LLC
L	Dale L. Fox
M	Joyce E. Henry
N	Antero Minerals, LLC
O	Edward D. & Heather M. Stewart
P	RBMA, LLC
Q	Thomas W. Lins
R	Harry I. Elson
S	Kenneth Stewart Keystone Trust
T	Kenneth Stewart Keystone Trust
U	Gladys E. Conley Trust
V	Ernest & Cathy Stewart 2019 Irrevocable Trust
W	Chesapeake Appalachia, LLC
X	Ernest & Cathy Stewart 2019 Irrevocable Trust
Y	Shiben Estates, Inc.
Z	Chesapeake Appalachia, LLC
AA	Robert E. & Michaelmary Midcap
AB	Five Star Resources
AC	Barbara Anne Amos King
AD	Ridgetop Royalties, LLC
AE	Linda Ice Long
AF	Paul H. Abel
AG	Chesapeake Appalachia, LLC
AH	Dennis B. Moore
AI	Jerome E. Staley
AJ	Ridgetop Royalties, LLC
AK	Phillip W. Wiley
AL	Charmaine A. Starkweather, et vir
AM	Stone Hill Minerals Holdings, LLC
AN	Bradley W. Ueltschey, et ux

FILE NO: <u>109-34-G-18</u> DRAWING NO: <u>Baldy 1H Well Plat</u> SCALE: <u>1" = 2000'</u> MINIMUM DEGREE OF ACCURACY: <u>Submeter</u> PROVEN SOURCE OF ELEVATION: <u>CORS, Monroe County, OH</u>	STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS DIVISION	DATE: <u>April 8</u> <u>20 22</u> OPERATOR'S WELL NO. <u>Baldy Unit 1H</u> API WELL NO <u>MOD</u> <u>47</u> - <u>103</u> - <u>03478</u> STATE COUNTY PERMIT
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WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: Existing 1,237' Proposed 1,206' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls 34.17, 17, 41.75, 39, 42, 53.5, 50.4, 47.87, 6, 71.61, 38, 32.56, 26, 48.5, 119.03125, 57, 60, 57.1; 26.5, 15; 69

DISTRICT: Green Margaret SURFACE OWNER: Lancaster ROYALTY OWNER: Shiben Estates Inc. (3); Chesapeake Appalachia, LLC (3); Kenneth Stewart Keystone Trust (2) LEASE NO: _____ ACREAGE: _____

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD ESTIMATED DEPTH: 7,400' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 27,900' MD

WELL OPERATOR: <u>Antero Resources Corporation</u> ADDRESS: <u>1615 Wynkoop Street</u> <u>Denver, CO 80202</u>	DESIGNATED AGENT: <u>Dianna Stamper - CT Corporation System</u> ADDRESS: <u>5400 D Big Tyler Road</u> <u>Charleston, WV 25313</u>
--	---

05/13/2022

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>A: Shiben Estates LLC Lease</u> Shiben Estates LLC	Antero Resources Corporation	1/8+	255A/0681
<u>B: Randy Bradley Lease</u> Randy Bradley Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	1/8+ Name Change	136A/0758 0121/0008
<u>C: Shiben Estates LLC Lease</u> Shiben Estates LLC	Antero Resources Corporation	1/8+	265A/0235
<u>D: Richard R. & Mary J. Scyoc Lease</u> Richard R. Scyoc & Mary J. Scyoc	Antero Resources Corporation	1/8+	179A/0613
<u>E: Shiben Estates LLC Lease</u> Shiben Estates LLC	Antero Resources Corporation	1/8+	265A/0251
<u>I: Antero Minerals, LLC Lease</u> Antero Minerals, LLC	Antero Resources Corporation	1/8+	250A/783
<u>J: Susan J. Fair Lease</u> Susan J. Fair	Antero Resources Corporation	1/8+	282A/0413
<u>L: Dale L. Fox Lease</u> Dale L. Fox	Antero Resources Corporation	1/8+	247A/0225
<u>O: Edward D. & Heather M. Stewart Lease</u> Edward D. Stewart and Heather M. Stewart	Antero Resources Corporation	1/8+	229A/0884
<u>Q: Thomas W. Lins Lease</u> Thomas W. Lins	Antero Resources Corporation	1/8+	240A/0639
<u>S: Kenneth Stewart Keystone Trust Lease</u> Kenneth E. Stewart Keystone Trust Agreement dated 3/7/11	Antero Resources Corporation	1/8+	135A/0042
<u>T: Kenneth Stewart Keystone Trust Lease</u> Kenneth E. Stewart Keystone Trust Agreement dated 3/7/11	Antero Resources Corporation	1/8+	236A/0463
<u>U: Gladys E. Conley Trust Lease</u> Gladys E. Conley Trust	Antero Resources Corporation	1/8+	251A/0794

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*CONTINUED ON NEXT PAGE

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>W: Chesapeake Appalachia, LLC Lease</u>			
Chesapeake Appalachia LLC	SWN Production Company	1/8	157A/0640
SWN Production Company	Antero Exchange Properties LLC	Assignment	177A/0533
Antero Exchange Properties LLC	Antero Resources Corporation	Name Change	0013/0311
<u>Z: Chesapeake Appalachia, LLC Lease</u>			
Chesapeake Appalachia LLC	SWN Production Company	1/8	157A/0640
SWN Production Company	Antero Exchange Properties LLC	Assignment	177A/0533
Antero Exchange Properties LLC	Antero Resources Corporation	Name Change	0013/0311
<u>AA: Robert E. & Michaelmary Midcap Lease</u>			
Robert E. Midcap and Mchaelmary Midcap	Antero Resources Corporation	1/8+	260A/0267
<u>AB: Five Star Resources Lease</u>			
Five Star Resources	Antero Resources Corporation	1/8+	181A/0305
<u>AA: Robert E. & Michaelmary Midcap Lease</u>			
Robert E. Midcap and Mchaelmary Midcap	Antero Resources Corporation	1/8+	260A/0267
<u>AD: Ridgetop Royalties, LLC Lease</u>			
Ridgetop Royalties, LLC	Antero Resources Corporation	1/8+	231A/0824
<u>AF: Paul H. Abel Lease</u>			
Paul H. Abel	Antero Resources Corporation	1/8+	184A/0164
<u>AE: Linda Ice Long Lease</u>			
Linda Ice Long	Antero Resources Corporation	1/8+	237A/0676
<u>AG: Chesapeake Appalachia, LLC Lease</u>			
Chesapeake Appalachia LLC	SWN Production Company	1/8	157A/0640
SWN Production Company	Antero Exchange Properties LLC	Assignment	177A/0533
Antero Exchange Properties LLC	Antero Resources Corporation	Name Change	0013/0311
<u>AH: Dennis B. Moore Lease</u>			
Dennis B. Moore	Stone Energy Corporation	1/8+	132A/0037
Stone Energy Corporation	EQT Production Company	Assignment	183A/0305
EQT Production Company	Antero Resources Corporation	Assignment	230A/0801
<u>AJ: Ridgetop Royalties, LLC Lease</u>			
Ridgetop Royalties, LLC	Antero Resources Corporation	1/8+	231A/0815

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WV Department of
Environmental Protection

***CONTINUED ON NEXT PAGE**

WW-6A1

Operator's Well Number Baldy Unit 1H MOD

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)

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- (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>AH: Dennis B. Moore Lease</u>			
Dennis B. Moore	Stone Energy Corporation	1/8+	132A/0037
Stone Energy Corporation	EQT Production Company	Assignment	183A/0305
EQT Production Company	Antero Resources Corporation	Assignment	230A/0801
<u>AL: Charmaine A. Starkweather, et vir Lease</u>			
Charmaine A. Starkweather and Heath C. Starkweather	Stone Energy Corporation	1/8+	135A/0030
Stone Energy Corporation	EQT Production Company	Assignment	183A/0305
EQT Production Company	Antero Resources Corporation	Assignment	230A/0801

*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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05/10/2022

WW-6A1
(5/13)

Operator's Well No. Baldy Unit 1H MOD

**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)**

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(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
<u>AM: Stone Hill Minerals Holdings, LLC Lease</u>	Stone Hill Minerals Holdings, LLC	Antero Resources Corporation	1/8+	259A/0769

*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.

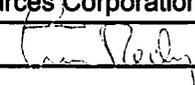
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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

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Environmental Protection

Page 4 of 4

05/13/2022



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

Expedited Modification H6A Horizontal Well Work Permit (API: 47-103-03478, 03479, 03480)

1 message

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

Fri, May 13, 2022 at 12:11 PM

To: Mallory Stanton <mstanton@anteroresources.com>, Diane Blair <dblair@anteroresources.com>, Dani DeVito <ddevito@shalepro.com>, Scott Lemley <slemley@wvassessor.com>, "Greynolds, Kenneth L" <kenneth.l.greynolds@wv.gov>

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

47-103-03478 - BALDY UNIT 1H
47-103-03479 - BALDY UNIT 2H
47-103-03480 - BALDY UNIT 3H

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

4 attachments

 **47-103-03478 - mod.pdf**
1351K

 **47-103-03479 - mod.pdf**
1632K

 **47-103-03480 - mod.pdf**
1549K

 **47-103-03480 - mod.pdf**
1549K

05/13/2022

47 10303478



April 20, 2022

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

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

ck#
4007059
\$5000⁰⁰

Mr. Brewer:

Antero Resources Corporation (Antero) would like to submit the following permit modifications for approved well on the existing Red Lady Pad; Baldy Unit 1H & 2H, Cavatica Unit 2H (47-103-03478, 47-103-03479, 47-103-03482)

Attached you will find the following:

- Revised Forms WW-6B
- Revised Forms WW-6A1
- Revised Mylar Plats
- AORs

If you have any questions please feel free to contact me at (303) 357-7182.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "Diane Blair".

Diane Blair
Permitting Agent
Antero Resources Corporation

Enclosures

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05/13/2022

4710303478

UWI (API Num)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Produccible Formation(s) not perf'd
4710300560000	DAVE AMOS	1			1,932		Big Injun	Weir, Berea, Benson, Alexander
4710300468000		1			2,410		Big Injun	Weir, Berea, Benson, Alexander
4710300226000	QUINCE LEMON	1			640		1st Cow Rh	Weir, Berea, Benson, Alexander
4710300227000	H L CALVERT	1	PERKINS OIL & GAS	FERRELL J H	3,100		Gordon	Weir, Berea, Benson, Alexander

for issues??

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05/13/2022