

Antero Resources
Well No. Harpua Unit 2H
 BHL MOD
 Antero Resources Corporation

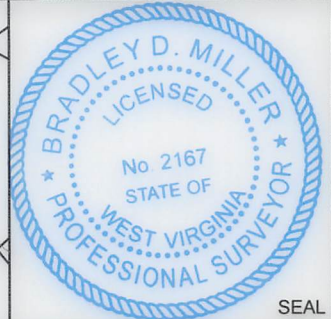


Wellhead Layout (NTS)

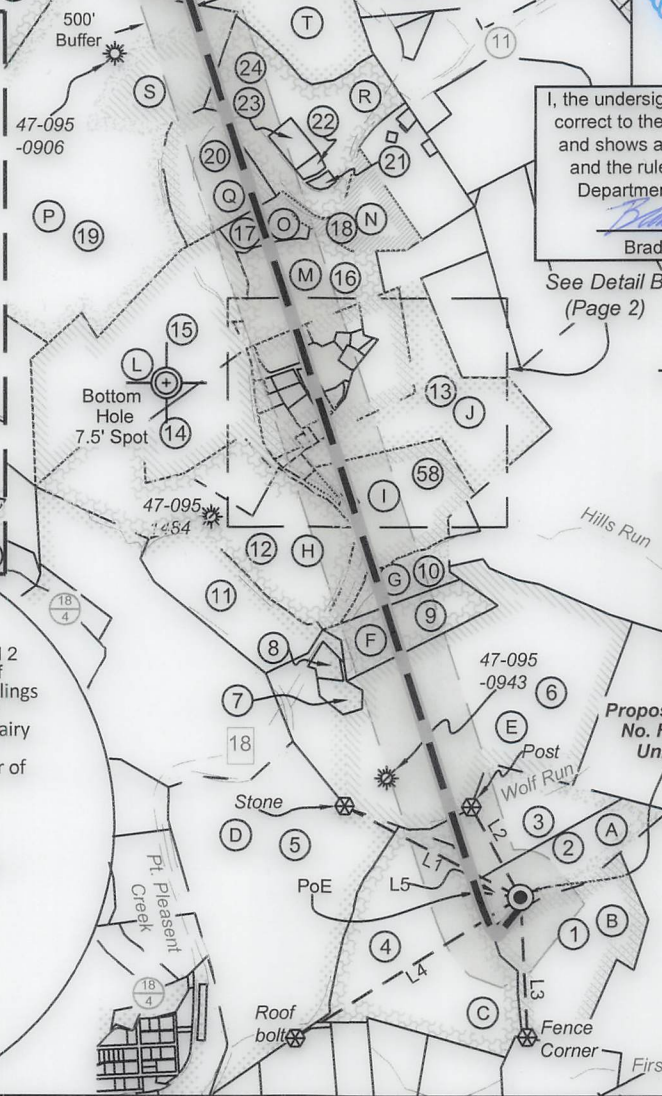
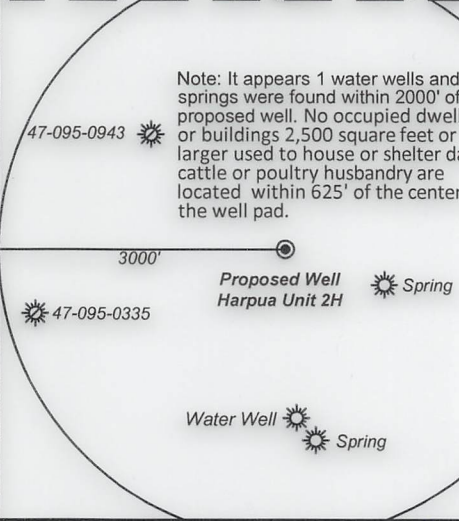
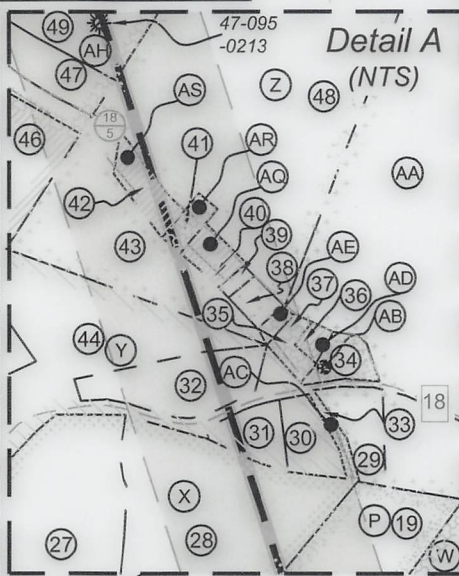
Maggie Unit 3H	47-095-02639
Maggie Unit 2H	47-095-02638
Maggie Unit 1H	47-095-02637
Proposed Well Harpua Unit 2H	47-095-02641
Harpua Unit 1H	47-095-02636
Possum Unit 2H	47-095-02642
Possum Unit 1H	47-095-02640

Notes:
 Well No. Harpua Unit 2H
 UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,347,540.06'
 E: 1,672,504.91'
 Point of Entry Coordinates
 N: 14,347,587.49'
 E: 1,672,046.11'
 Bottom Hole Coordinates
 N: 14,362,490.67'
 E: 1,666,929.04'

Notes:
 West Virginia Coordinate System
 of 1927, North Zone
 based upon Differential GPS Measurements.
 Well No. Harpua Unit 2H Top Hole coordinates are
 N: 370,773.90' Latitude: 39°30'34.95"
 E: 1,608,893.34' Longitude: 80°53'10.44"
 Bottom Hole coordinates are
 N: 385,820.64' Latitude: 39°33'02.83"
 E: 1,603,566.01' Longitude: 80°54'21.41"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,373,356.657m N: 4,377,913.610m
 E: 509,795.006m E: 508,095.617m
 Plat orientation and corner and well references
 are based upon the grid north meridian.
 Well location references are based upon the magnetic
 meridian.



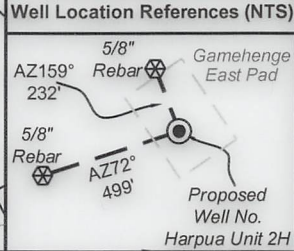
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.
 Bradley D. Miller, P.S. 2167



Legend

- Proposed gas well Monument, as noted
- Existing Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Surface boundary (approx.)
- Interior surface tracts (approx.)

	Bearing	Dist.
L1	S 62°47' E	2,070.7'
L2	S 28°56' E	1,071.5'
L3	N 02°54' W	1,454.6'
L4	N 58°02' E	2,773.0'
L5	N 83°09' W	461.4'



FILE NO: 34-54-E-16
 DRAWING NO: Harpua 2H 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 1 20 19
 OPERATOR'S WELL NO. Harpua Unit 2H
 API WELL NO. MOD
 47 - 095 - 02641
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 Proposed 1061'
 LOCATION: ELEVATION: Existing 1072' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City 3.27; 0.86088; 113.725; 64.18; 45; 62.84375; 0.37; 2.062; 0.761; 46.13; 36.47; 74.169; 24.52; 7.148; 10; 23.38688; 48.78; 217.30; 20; 12.5; 46.43; 109.48; 4.5; 285.00625; 21.5; 33.25; 74.47; 64
 DISTRICT: Ellsworth/Lincoln Stanley M. & Irene E. Koterba; Sherry Sue Dietrich; Ronald L. Perine, et ux; Pamela Oakley Whiting; Nancy Templeton; Michael D. Reynolds; Bounty Minerals, LLC; Waco Oil & Gas, Inc.; Charles M. Ferrell; Kathryn L. Watkins; Diane W. Kestle; Jefferson Minerals, LLC; Bobby S. & Sue Marie Adams; James W. Chapman; David E. Bowyer; Marilyn S. Parkinson; Phyllis M. & James F. Henthorn Sr. (2); Larry R. Henthorn; Michael P. & Sherrin J. Tuttle; Linda L. Newbrough; Kenneth F. & Donna Blake; Michael E. & Lois J. Henthorn; Robert D. & Jessica J. Masters; Larry M. & Kim M. Henthorn; Sarah Valenour Nass; Naomi V. Beagle; Jack Russell Folger, et ux
 SURFACE OWNER: Barbara Kay Turner
 ROYALTY OWNER: 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
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,000' TVD 23,700' MD

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

Antero Resources
Well No. Harpua Unit 2H
BHL MOD
Antero Resources Corporation



ID	TM/Par	Owner	Bk/Pg	Acres
1	15-19	David Mendenhall, et al	282/723	45.00
2	15-18	Barbara Kay Turner	398/670	26.18
3	14-26	Brenda K. Turner	398/670	26.34
4	14-27	Ridgetop Capital LP	372/299	64.96
5	14-24	Ridgetop Capital LP	372/299	124.76
6	14-25	Stanley M. Koterba, et al	331/32	126.05
7	14-25.2	Andrew B. & Angela M. Negie	489/577	3.00
8	14-25.1	Roy F. Gorrell	447/180	2.00
9	14-11	Larry R. Henthorn	270/363	21.50
10	9-61	Larry R. Henthorn	212/606	10.00
11	14-10	Sara A. Midcap	342/568	40.00
12	9-39	Board of Education of Tyler County	290/88	65.00
13	9-59	James F. & Phyllis Henthorn	190/311	46.13
14	9-40	Sara A. Midcap	168/3	16.83
15	9-31	Sara A. Midcap	168/3	74.00
16	9-25	Michael & Sherri Tuttle	319/341	24.52
17	9-24	Bob S. & Sue M. Adams	204/599	7.15
18	9-26	Mariyn Ankrom	WB 47/269	18.94
19	9-15	Heartwood Forestland Fund II LP	326/547	225.64
20	9-23	Raymond Chapman, et al	WB 45/271	22.31
21	9-15.1	Timothy & Marilyn S. Skinner	226/477	0.71
22	9-22	Shawn A. & Cathy A. Potts	291/219	0.98
23	9-15.2	Par Mar Realty Co.	534/407	3.091
24	9-15.3	Fred Midcap	351/7	44.00
25	9-16	Sara A. Midcap	181/278	96.78
26	9-14	Leroy Kent Morris	480/311	93.63
27	9-1	Linda L. Stemple	369/9	24.24
28	9-2	William & Margaret A. Garrett	284/41	22.19
29	9-5.1	John W. Starkey	255/571	2.55
30	9-3.1	Roger J. II & Stacey L. Morgan	340/764	2.34
31	9-3	Bridgette A. Morgan	341/289	2.16
32	9-44.1	Rodney L. & Brenda K. Morgan	297/137	5.30
33	9-64	Carol Morgan, et al	262/459	0.97
34	9-41	Roger J. Morgan II	327/31	1.40
35	9-41.1	Nancy M. Morgan	269/629	0.99
36	9-41.2	Rodney L. & Brenda K. Morgan	342/121	0.52
37	9-39	Nancy A. Morgan	157/512	0.42
38	9-37	William Bassett	WB 30/15	0.92
39	9-37.1	Dottie Marie Perine	WB 30/15	0.41
40	9-38	Charles O. Rice	157/293	1.31
41	9-33.1	Ronald L. & Dottie M. Perine	312/328	0.86
42	9-33.2	Leonard G. Cooper	328/885	3.27
43	9-33.3	David D. & Whitney C. Cooper	438/62	12.13
44	9-44	Diane Weaver Clark	WB 39/544	40.68
45	9-36	Diane Weaver Clark	WB 39/544	59.00
46	9-35	Mark E. Heintzman	246/532	19.75
47	9-32.1	Sandra M. Bassett	346/487	3.36
48	9-33	Jefferson Minerals, LLC	438/66	69.17
49	9-32	Tracy P. Carr	346/487	32.17
50	9-32.1	Sandra M. Bassett	WB 40/353	1.08
51	9-31.2	Ralph & Sylvia Harter	347/178	4.57
52	9-31.3	Ralph & Sylvia Harter	347/180	1.05
53	9-30	Ervin L. & Betty M. Bassett	309/391	19.57
54	9-31	Russell L. & Mary E. Myers	347/263	31.45
55	9-31.1	Russell L. & Mary E. Myers	340/654	38.04
56	9-21	Thomas K. Brotherton	23/310	64.00
57	9-19	Russell L. & Marry E. Myres	337/26	93.17
58	9-60	James F. & Phyllis Henthorn	190/311	36.47
59	9-57	Kenneth & Donna Blake	323/91	0.37
60	9-56	Jason Lee Henthorn	546/431	0.92
61	9-40.1	Board of Education of Tyler County	290/88	9.17
62	9-55	Michael E. & Lois Henthorn	319/327	1.02
63	9-56.1	Michael E. & Lois Henthorn	297/623	1.04
64	9-58	Beatrice Lee Henthorn	WB 31/242	0.37
65	9-54	Beatrice Lee Henthorn	WB 31/242	0.89
66	9-58.1	Robert D. & Jessica J. Masters	342/737	0.76
67	9-53	R&S Lumber Co.	318/200	5.49
68	9-52	Mark A. & Lisa D. Richmond	328/344	1.59
69	9-51	Robert L. & Toni R. Vancamp	444/541	0.68
70	9-48.1	Kirk Family Trust	511/167	0.70

ID	TM/Par	Owner	Bk/Pg	Acres
71	9-48.2	Kirk Family Trust	511/167	0.33
72	9-49	Claudia Jean Gray	WB 29/220	15.15
73	9-48.5	Kathleen Fluharty	291/212	0.93
74	9-48.4	Francis D. & Barbara A. Slider	290/347	3.64
75	9-47	Brian & Tricia Brinkmeier	328/887	1.01
76	9-50	Lloyd & Linda Waggoner	299/497	1.06
77	9-53.1	Jessie A. Thompson	346/698	1.67
78	9-45	Stanley Modesitt	332/70	0.35
79	9-46	Michael J. & Heather D. Mongold	510/509	0.86
80	9-41	Daniel J. & Sha M. Yoho	306/514	2.93
81	9-42	Michael D. & Martha K. Pierpoint	215/276	1.06
82	9-48.7	Kathleen Fluharty Baxter	332/216	0.55
83	9-43	Catherine L. Bennett	217/376	0.72
84	9-48.3	Larry R. Henthorn	290/166	0.32
85	9-48	Michael D. & Martha K. Pierpoint	332/514	2.82



	Lessor
A	Linda L. Newbrough
B	Jack Russell Folger, et ux
C	Naomi V. Beagle
D	Scott Denomme, et ux
E	Stanley M. & Irene E. Koterba
F	Sarah Valentour Nass
G	Kim M. & Larry M. Henthorn
H	Sarah A. Midcap
I	James F. Sr. & Phyllis M. Henthorn
J	James F. Sr. & Phyllis M. Henthorn
K	Larry R. Henthorn
L	Sarah A. Midcap
M	Michael P. & Sherri J. Tuttle
N	Roger Ankrom
O	Bobby S. & Sue Marie Adams
P	David E. Bowyer
Q	James W. Chapman
R	Waco Oil & Gas Inc.
S	Marylin S. Parkinson
T	Nancy J. Squires
U	Sandra L. Baumgardner
V	Charles M. Ferrell
W	H3, LLC

	Lessor
X	Kathryn L. Watkins
Y	Diane W. Kestle
Z	Jefferson Minerals, LLC
AA	Pamela Oakley-Whiting
AB	Roger Morgan, et ux
AC	Cheryl Cumberledge
AD	Rodney Morgan, et ux
AE	Nancy Morgan
AF	Jean Cline
AG	Mark E. Heintzman
AH	Nancy Templeton
AI	Michael D. Reynolds
AJ	Timothy L. Vancamp
AK	Bounty Minerals, LLC
AL	Robert D. & Jessica J. Masters
AM	Beatrice Lee Henthorn
AN	Michael E. & Lois J. Henthorn
AO	Jason L. & Patty J. Henthorn
AP	Kenneth F. & Donna Blake
AQ	Sherry Sue Dietrich
AR	Ronald L. Perine, et ux
AS	Sherry Sue Dietrich

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 47 - 095 - 02641
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WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 Proposed 1061'

LOCATION: ELEVATION: Existing 1072' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Paden City
 DISTRICT: Ellsworth/Lincoln COUNTY: Tyler
 SURFACE OWNER: Barbara Kay Turner ACREAGE: 26.18
 ROYALTY OWNER: Linda L. Newbrough; Kenneth F. & Donna Blake; Michael E. & Lois J. Henthorn; Robert D. & Jessica J. Masters; Larry M. & Kim M. Henthorn; Sarah Valentour Nass; Naomi V. Beagle; Jack Russell Folger, et ux. LEASE NO: ACREAGE: 21.5, 33.25, 74.47, 64

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
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 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,000' TVD
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 Denver, CO 80202 Charleston, WV 25313