



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

Monday, August 2, 2021
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for CHARLOTTE UNIT 1H
47-103-03407-00-00

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.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a white background.

James A. Martin
Chief

Operator's Well Number: CHARLOTTE UNIT 1H
Farm Name: WILLIAM L. & DELORES J. GADD
U.S. WELL NUMBER: 47-103-03407-00-00
Horizontal 6A New Drill
Date Modification Issued: August 2, 2021

Promoting a healthy environment.

08/06/2021

CK # 231573

5000⁰²

7/15/21

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 Porters Falls 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Charlotte Unit 1H MOD Well Pad Name: Gadd Pad

3) Farm Name/Surface Owner: William L. & Delores J. Gadd Public Road Access: Eightmile Road

4) Elevation, current ground: 1223.8' Elevation, proposed post-construction: ~1223.8

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: 7500' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7500' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 21500'

11) Proposed Horizontal Leg Length: 11056'

12) Approximate Fresh Water Strata Depths: 350'

13) Method to Determine Fresh Water Depths: 47-095-02266

14) Approximate Saltwater Depths: 1887', 1917'

15) Approximate Coal Seam Depths: 656', 971'

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

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, 86 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	400 *see #19	400 *see #19	CTS, 556 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#	21500	21500 ✓	5504 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

Bryan Ham
7-28-21

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	Load-HPOZ & Tail-H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

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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 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

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21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 34.16 acres

22) Area to be disturbed for well pad only, less access road (acres): 17.00 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

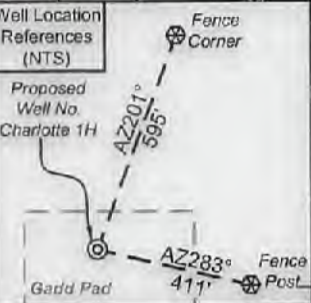
25) Proposed borehole conditioning procedures:

*Note: Attach additional sheets as needed.

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Productible Formation(s) not perf'd
47103310210000	THOMAS J FUNK 1	1349	MANUFACT LIGHT & HEAT	MANUFACT LIGHT & HEAT	2,817	Unknown	Gordon	Weir, Berea, Benson, Alexander
47103309880000	SARAH WRIGHT	4809	HOPE NATURAL GAS	HOPE NATURAL GAS	2,240	Unknown	Big Injun	Alexander, Weir
47103311320000	LEWIS CONLEY	700	HOPE NATURAL GAS	HOPE NATURAL GAS	2,889	Unknown	Gordon	Weir, Berea, Benson, Alexander
47103310220000	G W LANCASTER 1	1335	MANUFACT LIGHT & HEAT	MANUFACT LIGHT & HEAT	2,961	Unknown	Gordon	Alexander, Weir

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

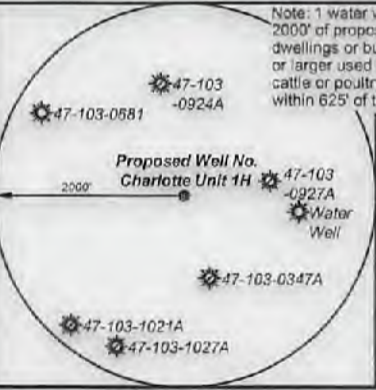


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Kevin S. James
 Kevin S. James, P.S. 2305



SEAL



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.)
- Railroad

1,620' to Top Hole
 TOP HOLE LATITUDE 39 - 35 - 00
 BTM HOLE LATITUDE 39 - 32 - 30

Notes
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Charlotte Unit 1H Top Hole coordinates are
 N: 384,866.49' Latitude: 39°32'59.80"
 E: 1,645,910.51' Longitude: 80°45'20.68"
 Bottom Hole coordinates are
 N: 373,749.70' Latitude: 39°31'09.94"
 E: 1,647,405.48' Longitude: 80°44'59.68"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,377,838.633m N: 4,374,459.430m
 E: 521,000.947m E: 521,512.797m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

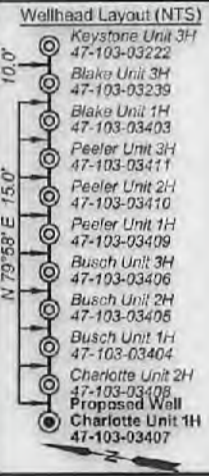
Notes:
 Well No. Charlotte Unit 1H UTM Zone 17, NAD 1927

Top Hole Coordinates
 N: 14,362,243.59'
 E: 1,709,269.21'

Point of Entry Coordinates
 N: 14,361,605.84'
 E: 1,707,348.29'

Bottom Hole Coordinates
 N: 14,351,157.04'
 E: 1,710,948.96'

	Bearing	Dist.
L1	S 39°32' E	2,536.2'
L2	S 48°53' W	1,582.1'
L3	N 67°10' W	1,058.9'
L4	N 42°51' W	879.2'
L5	S 72°35' W	2,024.1'



FILE NO: 323-34-G-17
 DRAWING NO: Charlotte 1H Well Plat
 SCALE: 1" = 1500'
 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: July 14 2021
 OPERATOR'S WELL NO. Charlotte Unit 1H
 API WELL NO. ~~MD~~
 47 - 103 - 03407
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,223.8' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls
 DISTRICT: Green William L. & Christenson Family Trust; Harry I Elson; COUNTY: Wayne 08/06/2021
 SURFACE OWNER: Delores J. Gadd Howard M. Henderson; Suzann Marie Stoehr, et al; David A. Dickey; 62, 23, 13125;
 H. Dorn Higginbotham; Sally Lou Anderson; Jim R. McHenry; 15.5; 61; 16.75; 12.2;
 Susie T. Grimm; Kevin S. Goff, et ux; Chesapeake Appalachia, LLC (2); ACREAGE: 60.5 4.75; 105; 76.675;
 ROYALTY OWNER: Shiben Estates, Inc. (2); Gladys E. Conley Trust; Richard Lee Tennant, et ux; LEASE NO: ACREAGE: 25.2675; 80; 45.72; 20; 18.5; 22.5;

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: 7,500' TVD
 21,500' 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



Leases	
A	Shiben Estates, Inc.
B	Ellen W. & Mark L. VanDyne
C	John W. Bertram
D	BRC Appalachian Minerals I, LLC
E	Mildred Caseman
F	Gladys E. Conley Trust
G	Sandra Ross Conley
H	Chesapeake Appalachia, LLC
I	Harry I. Elson
J	Richard Lee Tennant, et ux
K	Michael Tennant
L	Shiben Estates, Inc.
M	Susie T. Grimm
N	Thomas M. Stackhouse
O	Kevin S. Goff, et ux
P	David A. Dickey
Q	Chesapeake Appalachia, LLC
R	Joyce E. Henry
S	Ronald Hall
T	Chesapeake Appalachia, LLC
U	H. Dorn Higginbotham
V	Perry Dale Thorne, Jr., et ux
W	Betty S. Burns
X	Black Gold Group, LTD
Y	Sally Lou Anderson
Z	Jim R. McHenry
AA	Christenson Family Trust
AB	Boyd Muzzy, et ux
AC	Howard M. Henderson
AD	Suzann Marie Stoehr, et al

ID	TM/Par	Owner	Bk/Pg	Acres
1	16-22	William L. & Delores J. Gadd	348/169	60.50
2	16-31	William L. & Delores J. Gadd	348/169	2.65
3	16-23	Kenneth E. Butler	331/110	50.97
4	16-30	William L. & Delores J. Gadd	348/169	14.00
5	16-21	Mildred E. Caseman	WB45/396	40.00
6	16-21.2	Mildred E. Caseman	WB45/396	20.06
7	16-20	Bonita Andrich, et al	WB70/243	79.03
8	16-21.1	Mildred E. Caseman	WB45/396	15.00
9	16-37	Garrett S. Estate	319/248	61.00
10	16-47	William M. Greenwalt & Lee A. Niezgoda	387/1	12.00
11	16-38	Silas Tennant	137/85	15.50
12	16-39	Silas & William A. Tennant	WB27/97	23.30
13	16-45	James E. Newman	400/234	18.50
14	16-55	James E. Newman	400/234	4.00
15	16-56	James L. & Martha Jo Stewart	288/330	23.33
16	16-59.2	James L. & Martha Jo Stewart	288/330	4.50
17	16-59	Mark & Patti Goldstein	305/586	34.97
18	16-61	Michael L. & Tina M. Adams	444/427	67.96
19	16-61.1	Church of Christ	218/337	0.42
20	16-61.2	Harry K. Eastham	299/450	0.38
21	19-61.3	Michael L. & Tina M. Adams	346/443	3.83
22	19-61.4	Michael L. & Tina M. Adams	377/309	7.91
23	19-8.4	Ronald Hall	385/65	2.17
24	19-17.2	Timothy J. Horner	444/381	2.78
25	19-18	Richard R. & Mary J. Scyoc	443/336	73.96
26	19-17	John R. & Mary Ann Horner	416/853	47.55
27	19-16.1	Richard R. & Mary J. Scyoc	445/20	2.74
28	19-25	Perry Dale, Jr. & Martha Jo Thome	348/298	5.34
29	19-17.1	Zachary M. & Jessica N. Pittman	421/145	1.83
30	19-33	John A. Earnest	401/357	9.30
31	19-34	Sharon M. & Ronald L. Christenson	439/373	2.00
32	19-35	Sharon M. & Ronald L. Christenson	439/373	20.00
33	19-36	Perry Dale, Jr. & Martha Jo Thome	348/298	20.00
34	19-41	Sharon M. & Ronald L. Christenson	439/373	18.50
35	19-42	Sharon M. & Ronald L. Christenson	363/101	22.50
36	19-44	Boyd & Karen Muzzy	330/264	8.50
37	19-46	Sharon M. & Ronald L. Christenson	439/373	25.28
38	19-45	Sharon M. & Ronald L. Christenson	439/373	2.20
39	19-47	Suzann M. Stoehr, et al	WB48/422	80.00
40	18-1.1	Montana Sue & Lakota James Morris	WB51/364	25.73
41	18-1	William H. & Joclar Eastham	378/603	97.06
42	19-50	Ronald H. Eastham, et al	424/70	40.00

FILE NO: 323-34-G-17
DRAWING NO: Charlotte 1H Well Plat
SCALE: 1" = 1500'
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

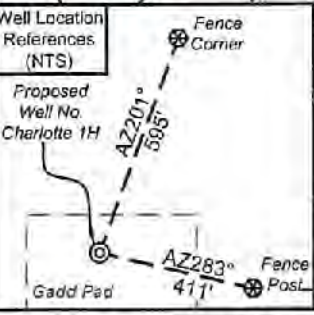
DATE: July 14 20 21
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API WELL NO MOD
47 - 103 - 03407
STATE COUNTY PERMIT

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LOCATION: ELEVATION: As-Built 1,223.8' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls
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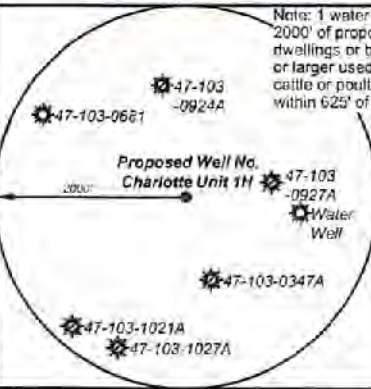
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Well No. Charlotte 1H
BHL MOD
 Antero Resources Corporation



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

Kevin S. James

Kevin S. James, P.S. 2305



Note: 1 water well was found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

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.)
	Railroad

11,725' to Bottom Hole

1,620' to Top Hole

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

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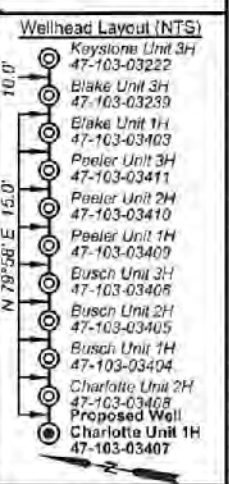
GRID NORTH

TOP HOLE LONGITUDE 80 - 45 - 00
 BTM HOLE LONGITUDE 80 - 42 - 30

12,182' to Top Hole

8,100' to Bottom Hole

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16	16-59.2	James L. & Martha Jo Stewart	288/330	4.50
17	16-59	Mark & Patti Goldstein	305/566	34.97
18	16-61	Michael L. & Tina M. Adams	444/427	67.96
19	16-61.1	Church of Christ	218/337	0.42
20	16-61.2	Harry K. Eastham	299/450	0.38
21	19-61.3	Michael L. & Tina M. Adams	346/443	3.83
22	19-61.4	Michael L. & Tina M. Adams	377/309	7.91
23	19-9.4	Ronald Hall	385/65	2.17
24	19-17.2	Timothy J. Horner	444/381	2.76
25	19-18	Richard R. & Mary J. Scyoc	443/336	73.96
26	19-17	John R. & Mary Ann Horner	416/853	47.55
27	19-16.1	Richard R. & Mary J. Scyoc	445/20	2.74
28	19-25	Perry Dale, Jr. & Martha Jo Thorne	348/298	5.34
29	19-17.1	Zachary M. & Jessica N. Pittman	421/145	1.63
30	19-33	John A. Earnest	401/357	9.30
31	19-34	Sharon M. & Ronald L. Christenson	439/373	2.00
32	19-35	Sharon M. & Ronald L. Christenson	439/373	20.00
33	19-36	Perry Dale, Jr. & Martha Jo Thorne	348/298	20.00
34	19-41	Sharon M. & Ronald L. Christenson	439/373	18.50
35	19-42	Sharon M. & Ronald L. Christenson	363/101	22.50
36	19-44	Boyd & Karen Muzzy	330/264	8.50
37	19-46	Sharon M. & Ronald L. Christenson	439/373	25.28
38	19-45	Sharon M. & Ronald L. Christenson	439/373	2.20
39	19-47	Suzann M. Stoehr, et al	WB48/422	80.00
40	18-1.1	Montana Sue & Lakota James Morris	WB51/364	25.73
41	18-1	William H. & Joclare Eastham	378/603	97.06
42	19-50	Ronald H. Eastham, et al	424/70	40.00

RECEIVED
 Office of Oil and Gas
 JUL 21 2021
 WV Department of
 Environmental Protection

FILE NO: 323-34-G-17
 DRAWING NO: Charlotte 1H Well Plat
 SCALE: 1" = 1500'
 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: July 14 2021
 OPERATOR'S WELL NO. Charlotte Unit 1H
 API WELL NO MOD
 47 - 103 - 03407
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,223.8' WATERSHED: Fishing Creek QUADRANGLE: Porter Falls
 DISTRICT: Green William L. & COUNTY: Wayne
 SURFACE OWNER: Delores J. Gadd H. Dorn Higginbotham; Sally Lou Anderson; Jim R. McHenry; ACREAGE: 60.5
 ROYALTY OWNER: Shiben Estates, Inc. (2); Gladys E. Conley Trust; Richard Lee Tennant, et ux; LEASE NO: ACREAGE: 25.2675; 80;

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: 7,500' TVD
 21,500' 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

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
A	<u>Shiben Estates Inc. Lease (TM 16 PCL 22)</u> Shiben Estates Inc.	Antero Resources Corporation	1/8+	0176/0467
F	<u>Gladys E. Conley Trust Lease</u> Gladys E. Conley Trust	Antero Resources Corporation	1/8+	0180/0443
I	<u>Harry I. Elson Lease</u> Harry I. Elson	Antero Resources Corporation	1/8+	0181/0760
J	<u>Richard Lee Tennant et ux Lease</u> Richard Lee Tennant et ux	Antero Resources Corporation	1/8	0173/0237
L	<u>Shiben Estates Inc. Lease (TM 16 PCL 45)</u> Shiben Estates Inc.	Antero Resources Corporation	1/8+	0176/0467
M	<u>Susie T. Grimm Lease</u> Susie T. Grimm	Antero Resources Corporation	1/8+	0198/0607
O	<u>Kevin S. Goff et ux Lease</u> Kevin S. Goff et ux	Antero Resources Corporation	1/8+	0187/0543
P	<u>David A. Dickey Lease</u> David A. Dickey	Antero Resources Corporation	1/8+	0237/0667
Q	<u>Chesapeake Appalachia LLC Lease (TM 19 PCL 16)</u> Chesapeake Appalachia LLC SWN Production Company Antero Exchange Properties	SWN Production Company Antero Exchange Properties Antero Resources Corporation	1/8 Assignment Merger	0157/0640 0177/0533 0013/0311
T	<u>Chesapeake Appalachia LLC Lease (TM 19 PCL 16.1)</u> Chesapeake Appalachia LLC SWN Production Company Antero Exchange Properties	SWN Production Company Antero Exchange Properties Antero Resources Corporation	1/8 Assignment Merger	0157/0640 0177/0533 0013/0311
U	<u>H. Dorn Higginbotham Lease</u> H. Dorn Higginbotham	Antero Resources Corporation	1/8+	0178/0647

RECEIVED
Office of Oil and Gas
1/8 JUL 21 2021
WV Department 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.

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
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	Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Y	<u>Sally Lou Anderson Lease</u> Sally Lou Anderson	Antero Resources Corporation	1/8+	0315/0316
Z	<u>Jim R. McHenry Lease</u> Jim R. McHenry	Antero Resources Corporation	1/8+	0172/0151
AA	<u>Christenson Family Trust Lease</u> Christenson Family Trust	Antero Resources Corporation	1/8+	0186/0581
AC	<u>Howard M. Henderson Lease</u> Howard M. Henderson	Antero Resources Corporation	1/8+	0109/0916

**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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
AD <u>Suzann Marie Stoehr et al Lease</u>	Suzann Marie Stoehr	Antero Resources Corporation	1/8+	0203/0550

*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.

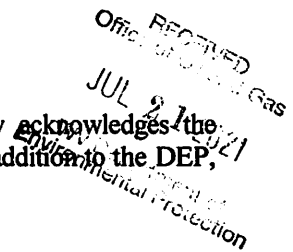
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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 <wade.a.stansberry@wv.gov>

Expedited Modification H6A Horizontal Well Work Permit (API: 47-103-03407)

1 message

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

Tue, Aug 3, 2021 at 7:35 AM

To: Mallory Stanton <mstanton@anteroresources.com>, Dani DeVito <ddevito@shalepro.com>

Cc: "Harris, Bryan O" <bryan.o.harris@wv.gov>, Scott Lemley <slemley@wvassessor.com>

I have attached a copy of the newly issued well [permit](#) number "CHARLOTTE UNIT 1H", API (47-103-03407). 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

 **47-103-03407 - mod.pdf**
1177K

08/06/2021