



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, September 16, 2020
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit Modification Approval for PROSPER 1H
47-095-02699-00-00

Laterl Length

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 positioned above the printed name and title.

James A. Martin
Chief

Operator's Well Number: PROSPER 1H
Farm Name: RICHARD D. PYLES
U.S. WELL NUMBER: 47-095-02699-00-00
Horizontal 6A New Drill
Date Modification Issued: September 16, 2020

Promoting a healthy environment.

WW-6B
(04/15)

Check# 220079
7/23/2009
\$5,000.00

PERMIT MODIFICATION API # 47-095-02699

API NO. 47-095 - 02699
OPERATOR WELL NO. Prosper Unit 1H
Well Pad Name: Pyles Pad

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

1) Well Operator: Antero Resources Corporation 494507062 095 - Tyler Ellsworth Porter Falls 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Prosper Unit 1H Well Pad Name: Pyles Pad

3) Farm Name/Surface Owner: Richard D. Pyles Public Road Access: US Route 34

4) Elevation, current ground: 1081' Elevation, proposed post-construction: ~1081'

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: 7100' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 7100' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22700' MD

11) Proposed Horizontal Leg Length: 13911'

12) Approximate Fresh Water Strata Depths: 61'

13) Method to Determine Fresh Water Depths: 47-095-01958

14) Approximate Saltwater Depths: 2200'

15) Approximate Coal Seam Depths: None Identified

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47- 095 - 02699

OPERATOR WELL NO. Prosper Unit 1H

Well Pad Name: Pyles 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	94#	80	80	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	300	300	CTS, 417 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#	22700	22700	5834 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

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

PACKERS

Kind:	N/A				RECEIVED Office of Oil and Gas SEP 14 2020 WV Department of Environmental Protection
Sizes:	N/A				
Depths Set:	N/A				

WW-6B
(10/14)

API NO. 47- 095 - 02699

OPERATOR WELL NO. Prosper Unit 1H

Well Pad Name: Pyles Pad

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): 23.71 acres

22) Area to be disturbed for well pad only, less access road (acres): 10.00 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

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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.

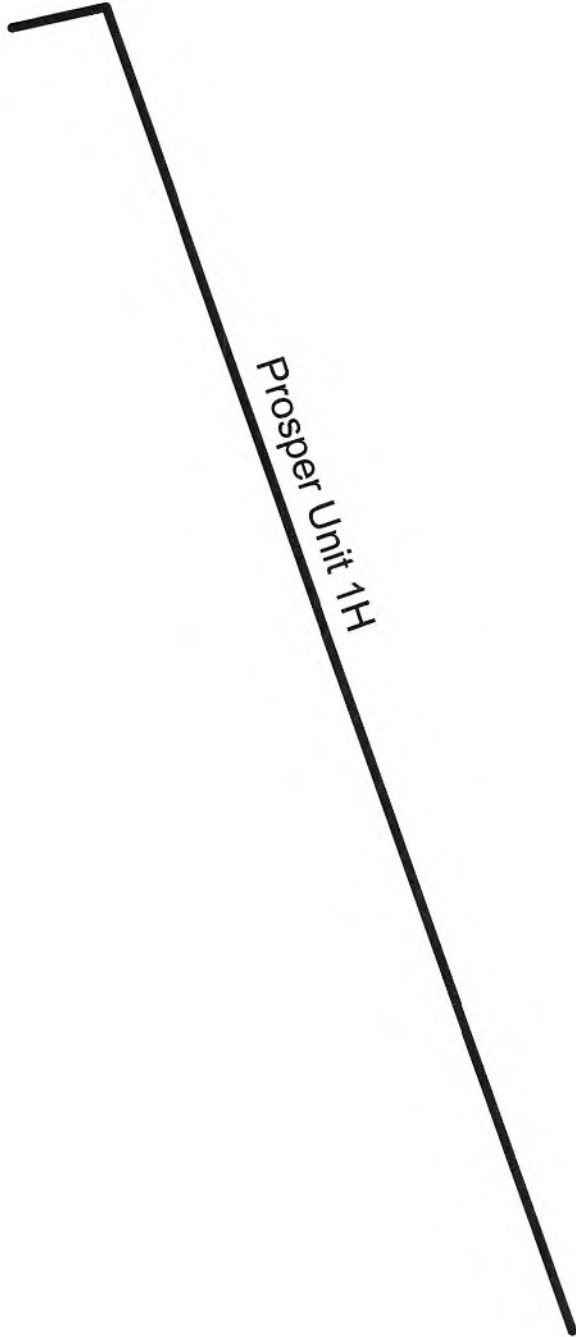
Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

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.



PERMIT MODIFICATION API # 47-095-02699



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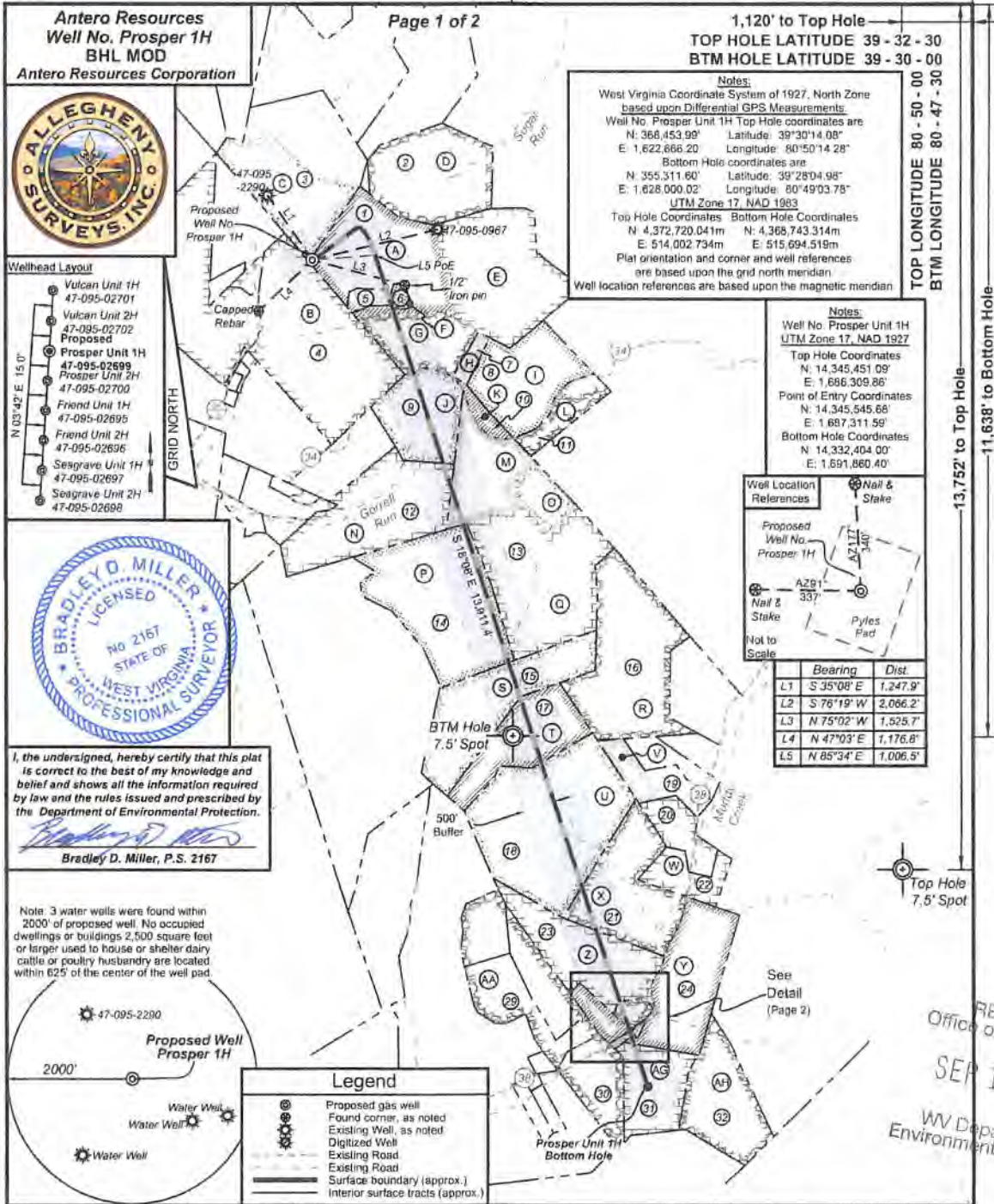
Antero Resources Corporation

Prosper Unit 1H - AOR



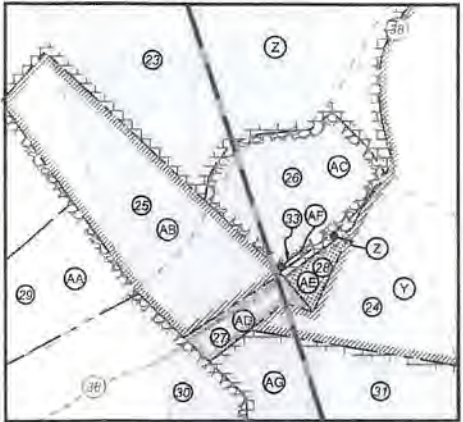
No Wells of Interest REMARKS

April 14, 2020



<p>FILE NO: 189-54-E-19</p> <p>DRAWING NO: Prosper Unit 1H Well Plat</p> <p>SCALE: 1" = 2000'</p> <p>MINIMUM DEGREE OF ACCURACY: Submeter</p> <p>PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV</p>	<p>STATE OF WEST VIRGINIA</p> <p>DEPARTMENT OF ENVIRONMENTAL PROTECTION</p> <p>OIL AND GAS DIVISION</p>	<p>DATE: July 30 2020</p> <p>OPERATOR'S WELL NO. Prosper 1H</p> <p>API WELL NO M00D1</p> <p>47 - 095 - 02699</p> <p>STATE COUNTY PERMIT</p>
<p>WELL TYPE: <input type="checkbox"/> OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> WASTE DISPOSAL</p> <p>(IF GAS) PRODUCTION: <input type="checkbox"/> STORAGE <input type="checkbox"/> DEEP <input checked="" type="checkbox"/> SHALLOW</p>		
<p>LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley 65 75;</p> <p>DISTRICT: Ellsworth Elizabeth Ann Weekley (2); Bounty Minerals LLC; Lucille Adams (2); Dale H Parr: 79.042; 33, 45; 2.44;</p> <p>SURFACE OWNER: Richard D. Pyles Anthony Bruce Parr, et ux; Nancy L. Mains; Larry Stevens; Wanda J. Parr: 39, 69.50; 37.10; 90;</p> <p>ROYALTY OWNER: Joseph L. Sitko, et ux; Richard D. & Cathy J. Pyles (2); Dustin A. Hendershot; Alfred Lonzo Eddy LEASE NO: 65, 45; 113; 55.25;</p> <p>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</p> <p><input type="checkbox"/> PERFORATE NEW FORMATION <input checked="" type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD</p> <p><input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,100' TVD 22,700' MD</p>		
<p>WELL OPERATOR: Antero Resources Corporation DESIGNATED AGENT: Dianna Stamper - CT Corporation System</p> <p>ADDRESS: 1615 Wynkoop Street ADDRESS: 5400 D Big Tyler Road</p> <p>Denver, CO 80202 Charleston, WV 25313</p>		

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ID	TM/Par	Owner	DB/PG	Acres
1	16-42	Richard D. Pyles	379/20	168.5
2	16-24	Harry Eastham, et al	AR54/518	64.00
3	16-22	Joseph L. Jr. & Karen Sitko	296/13	81.70
4	16-44	Robert A. Pyles, et al	335/482	87.82
5	16-42.1	Richard D. Pyles	336/815	4.56
6	16-42.2	Bonnie J. Hair	569/105	2.44
7	16-42.3	Richard D. Pyles	379/20	3.00
8	16-39	Richard D. & Cathy J. Pyles	490/566	48.51
9	16-43	Alfred L. Eddy	344/22	37.10
10	16-40	Gary L. Weekley	WB 22/601	5.79
11	16-38	Antero Resources Corp.	662/782	15.00
12	22-4	Stephen H. & Barbara J. Dunthorn	216/40	69.00
13	22-6	Antero Resources Corp.	662/782	131.57
14	22-5	Antero Resources Corp.	662/782	84.67
15	22-40	Ronald P. & Sandra L. Webb	282/1	65.00
16	22-17	Dorothy Mae Slevens Irrevocable Trust	453/610	82.75
17	22-38	Ronald P. & Sandra L. Webb	270/587	45.00
18	22-38	Bruce & Sandra L. Parr	368/790	113.00
19	22-23.1	Raymond L. Parr	284/350	18.00
20	22-23.2	Anthony B. Parr	440/62	17.00
21	22-34	Raymond L. Parr, et al	329/181	55.25
22	22-23	Anthony B. Parr	440/62	17.00
23	22-35	Marie Eddy	344/368	52.96
24	22-33	Donald & Wilma Weekley	262/587	65.75
25	28-43	Wanda J. Parr	327/435	6.02
26	28-45	Wanda J. Parr	349/18	4.55
27	28-42	Robert H. Anderson	238/76	0.99
28	28-34	Shirri N. Baker, Jr.	WB 38/1	0.50
29	28-32	B W Weekley	107/562	33.31
30	28-33	B W Weekley	107/562	25.30
31	28-35	Shirri N. Baker, Jr.	WB 38/1	32.00
32	28-36	Jim & Sandra Young	368/797	46.50
33	28-44	Shirri N. Baker, et al	WB 38/1	0.02

Leases	
A	Richard D. & Cathy J. Pyles
B	Helen E. Boggs
C	Joseph L. Sitko, et ux
D	BRC Appalachian Minerals I, LLC
E	James F. Doan, et ux
F	Dustin A. Hendershot
G	Richard D. & Cathy J. Pyles
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I	Richard D. & Cathy J. Pyles
J	Alfred Lonzo Eddy
K	Gary L. Weekley
L	Taryn E. Pilling
M	Clarence W. Mutschelknaus Sr. & Clarence W. Mutschelknaus Jr
N	Ridgetop Capital II, LP
O	Rosemary Haught
P	BRC Appalachian Minerals I, LLC
Q	Clarence W. Mutschelknaus Sr. & Clarence W. Mutschelknaus Jr.
R	Mary B. Hoover
S	Ronald P. Webb
T	Carol J. Knapp
U	Anthony Bruce Parr, et ux
V	Open
W	Judith Ramley Phillip
X	Nancy L. Mains
Y	Dale H. Parr
Z	Larry Stevens
AA	Richard L. White, II
AB	Wanda J. Parr
AC	Elizabeth Ann Weekley
AD	Lucille Adams
AE	Lucille Adams
AF	Elizabeth A. Weekley
AG	Bounty Minerals LLC
AH	Jim & Sandra Young

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FILE NO: 189-54-E-19
DRAWING NO: Prosper Unit 1H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV



DATE: July 30 2020
OPERATOR'S WELL NO. Prosper 1H
API WELL NO M0D1
47 - 095 - 02699
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley 65.75;
Elizabeth Ann Weekley (2) Bounty Minerals LLC; Lucille Adams (2); Dale H. Parr; 79.042; 33; 45; 2.44;
DISTRICT: Ellsworth COUNTY: Tyler 39; 69.50; 37.10; 90;
SURFACE OWNER: Richard D. Pyles ANCREAGE: 168.5 65.45; 113; 55.25;
Ridgetop Capital II, LP; BRC Appalachian Minerals I, LLC; Carol J. Knapp; 52.938; 6.004; 0.02;
ROYALTY OWNER: Joseph L. Sitko, et ux; Richard D. & Cathy J. Pyles (2); Dustin A. Hendershot; Alfred Lonzo Eddy LEASE NO: ANCREAGE: 0.5; 4.532; 32; 0.99

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) BHL MOD 7,100' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,700' MD

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

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



Wellhead Layout

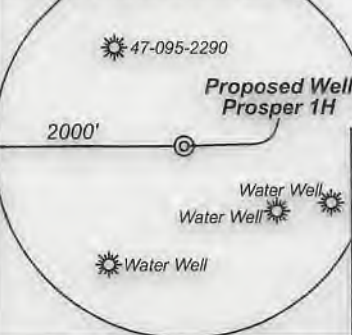
- Vulcan Unit 1H
47-095-02701
- Vulcan Unit 2H
47-095-02702
- Proposed Prosper Unit 1H
47-095-02699
- Prosper Unit 2H
47-095-02700
- Friend Unit 1H
47-095-02695
- Friend Unit 2H
47-095-02696
- Seagrave Unit 1H
47-095-02697
- Seagrave Unit 2H
47-095-02698



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

Note: 3 water wells were 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
- ⊙ Found corner, as noted
- ⊙ Existing Well, as noted
- ⊙ Digitized Well
- Existing Road
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

7,354' to Bottom Hole

1,120' to Top Hole

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

Notes:
 West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
 Well No. Prosper Unit 1H Top Hole coordinates are
 N: 368,453.99' Latitude: 39°30'14.08"
 E: 1,622,666.20' Longitude: 80°50'14.28"
 Bottom Hole coordinates are
 N: 355,311.60' Latitude: 39°28'04.98"
 E: 1,628,000.02' Longitude: 80°49'03.78"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,372,720.041m N: 4,368,743.314m
 E: 514,002.734m E: 515,694.519m
 Plat orientation and corner and well references are based upon the grid north meridian.
 Well location references are based upon the magnetic meridian.

TOP LONGITUDE 80 - 50 - 00
 BTM LONGITUDE 80 - 47 - 30

Notes:
 Well No. Prosper Unit 1H
 UTM Zone 17, NAD 1927
 Top Hole Coordinates
 N: 14,345,451.09'
 E: 1,686,309.86'
 Point of Entry Coordinates
 N: 14,345,545.68'
 E: 1,687,311.59'
 Bottom Hole Coordinates
 N: 14,332,404.00'
 E: 1,691,860.40'



	Bearing	Dist.
L1	S 35°08' E	1,247.9'
L2	S 76°19' W	2,066.2'
L3	N 75°02' W	1,525.7'
L4	N 47°03' E	1,176.8'
L5	N 85°34' E	1,006.5'

13,752' to Top Hole
 11,638' to Bottom Hole

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

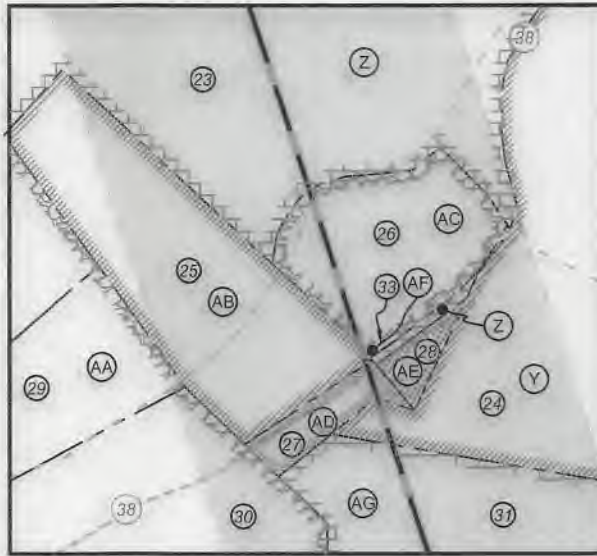
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 WVDOT, Harrisville, WV

DATE: July 30 20 20
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API WELL NO MOD1
 47 - 095 - 02699
 STATE COUNTY PERMIT

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32	28-36	Jim & Sandra Young	368/797	46.50
33	28-44	Shirl N. Baker, et al	WB 38/1	0.02

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J	Alfred Lonzo Eddy
K	Gary L. Weekley
L	Taryn E. Pilling
M	Clarence W. Mutschelknaus Sr. & Clarence W Mutschelknaus Jr.
N	Ridgetop Capital II, LP
O	Rosemary Haught
P	BRC Appalachian Minerals I, LLC
Q	Clarence W. Mutschelknaus Sr. & Clarence W Mutschelknaus Jr.
R	Mary B. Hoover
S	Ronald P. Webb
T	Carol J. Knapp
U	Anthony Bruce Parr, et ux
V	Open
W	Judith Remley Phillip
X	Nancy L. Mains
Y	Dale H. Parr
Z	Larry Stevens
AA	Richard L. White, II
AB	Wanda J. Parr
AC	Elizabeth Ann Weekley
AD	Lucille Adams
AE	Lucille Adams
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AG	Bounty Minerals LLC
AH	Jim & Sandra Young

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WVDOT, Harrisville, WV

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

DATE: July 30 2020
OPERATOR'S WELL NO. Prosper 1H
API WELL NO MODI
47 - 095 - 02699
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley 65.75;
DISTRICT: Ellsworth Elizabeth Ann Weekley (2); Bounty Minerals LLC; Lucille Adams (2); Dale H. Parr. COUNTY: Tyler 79.042; 33; 45; 2.44;
SURFACE OWNER: Richard D. Pyles Anthony Bruce Parr, et ux; Nancy L. Mains; Larry Stevens; Wanda J. Parr; Ridgetop Capital II, LP; BRC Appalachian Minerals I, LLC; Carol J. Knapp; ACREAGE: 168.5 39; 69.50; 37.10; 90;
ROYALTY OWNER: Joseph L. Sitko, et ux; Richard D. & Cathy J. Pyles (2); Dustin A. Hendershot; Alfred Lonzo Eddy LEASE NO: ACREAGE: 0.5; 45; 113; 55.25;
Clarence W. Mutschelknaus Sr. & Clarence W. Mutschelknaus Jr.; Ronald P. Webb; 52.938; 8.004; 0.02;
LEASE NO: ACREAGE: 0.5; 4.532; 32; 0.99

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: 7,100' TVD
22,700' 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

7,354' to Bottom Hole

1,120' to Top Hole

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

TOP LONGITUDE 80 - 50 - 00
BTM LONGITUDE 80 - 47 - 30

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



Wellhead Layout

- Vulcan Unit 1H 47-095-02701
- Vulcan Unit 2H 47-095-02702
- Proposed Prosper Unit 1H 47-095-02699
- Prosper Unit 2H 47-095-02700
- Friend Unit 1H 47-095-02695
- Friend Unit 2H 47-095-02696
- Seagrave Unit 1H 47-095-02697
- Seagrave Unit 2H 47-095-02698

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Prosper Unit 1H Top Hole coordinates are
N: 368,453.99' Latitude: 39°30'14.08"
E: 1,622,666.20' Longitude: 80°50'14.28"
Bottom Hole coordinates are
N: 355,311.60' Latitude: 39°28'04.98"
E: 1,628,000.02' Longitude: 80°49'03.78"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,372,720.041m N: 4,368,743.314m
E: 514,002.734m E: 515,694.519m
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. Prosper Unit 1H UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,345,451.09'
E: 1,686,309.86'
Point of Entry Coordinates
N: 14,345,545.68'
E: 1,687,311.59'
Bottom Hole Coordinates
N: 14,332,404.00'
E: 1,691,860.40'



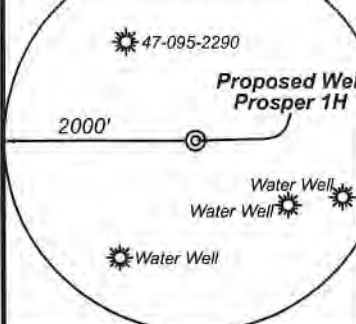
	Bearing	Dist.
L1	S 35°08' E	1,247.9'
L2	S 76°19' W	2,066.2'
L3	N 75°02' W	1,525.7'
L4	N 47°03' E	1,176.8'
L5	N 85°34' E	1,006.5'



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

Note: 3 water wells were 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
- Found corner, as noted
- Existing Well, as noted
- Digitized Well
- Existing Road
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)

See Detail (Page 2)
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SEP 14 2020
WV Department of Environmental Protection

FILE NO: 189-54-E-19
DRAWING NO: Prosper Unit 1H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

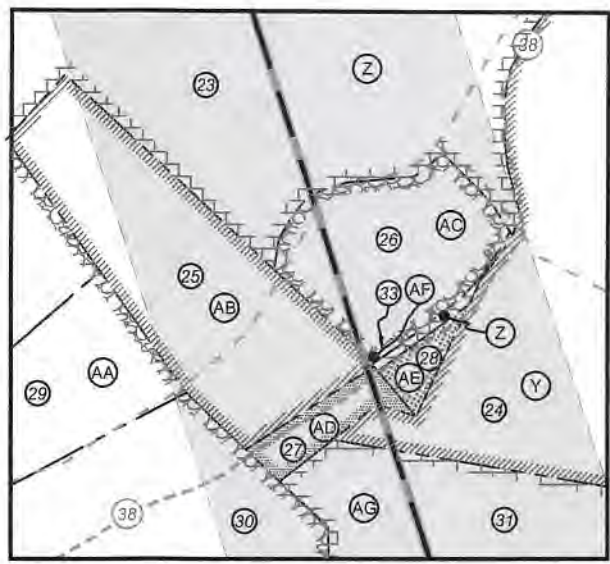
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: July 30 2020
OPERATOR'S WELL NO. Prosper 1H
API WELL NO. 47-095-02699
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1081' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Shirley 65.75; 79.042; 33; 45; 2.44;
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 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 22,700' 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	DB/PG	Acres
1	16-42	Richard D. Pyles	379/20	168.5
2	16-24	Harry Eastham, et al	AR54/518	64.00
3	16-22	Joseph L. Jr. & Karen Sitko	296/13	81.70
4	16-44	Robert A. Pyles, et al	335/482	87.82
5	16-42.1	Richard D. Pyles	336/815	4.56
6	16-42.2	Bonnie J. Hair	569/105	2.44
7	16-42.3	Richard D. Pyles	379/20	3.00
8	16-39	Richard D. & Cathy J. Pyles	490/566	48.51
9	16-43	Alfred L. Eddy	344/22	37.10
10	16-40	Gary L. Weekley	WB 22/601	5.79
11	16-38	Antero Resources Corp.	662/782	15.00
12	22-4	Stephen H. & Barbara J. Dunthorn	216/40	69.00
13	22-6	Antero Resources Corp.	662/782	131.57
14	22-5	Antero Resources Corp.	662/782	84.67
15	22-40	Ronald P. & Sandra L. Webb	282/1	65.00
16	22-17	Dorothy Mae Stevens Irrevocable Trust	453/610	82.75
17	22-39	Ronald P. & Sandra L. Webb	270/587	45.00
18	22-38	Bruce & Sandra L. Parr	368/790	113.00
19	22-23.1	Raymond L. Parr	284/350	18.00
20	22-23.2	Anthony B. Parr	440/62	17.00
21	22-34	Raymond L. Parr, et al	329/181	55.25
22	22-23	Anthony B. Parr	440/62	17.00
23	22-35	Mane Eddy	344/358	52.96
24	22-33	Donald & Wilma Weekley	262/587	65.75
25	28-43	Wanda J. Parr	327/435	8.02
26	28-45	Wanda J. Parr	349/18	4.55
27	28-42	Robert H. Anderson	238/76	0.99
28	28-34	Shirl N. Baker, Jr.	WB 38/1	0.50
29	28-32	B.W. Weekley	107/562	33.31
30	28-33	B.W. Weekley	107/562	25.30
31	28-35	Shirl N. Baker, Jr.	WB 38/1	32.00
32	28-36	Jim & Sandra Young	368/797	46.50
33	28-44	Shirl N. Baker, et al	WB 38/1	0.02

Leases	
A	Richard D. & Cathy J. Pyles
B	Helen E. Boggs
C	Joseph L. Sitko, et ux
D	BRC Appalachian Minerals I, LLC
E	James F. Doan, et ux
F	Dustin A. Hendershot
G	Richard D. & Cathy J. Pyles
H	Richard D. & Cathy J. Pyles
I	Richard D. & Cathy J. Pyles
J	Alfred Lonzo Eddy
K	Gary L. Weekley
L	Taryn E. Pilling
M	Clarence W. Mutschelknaus Sr. & Clarence W Mutschelknaus Jr.
N	Ridgetop Capital II, LP
O	Rosemary Haught
P	BRC Appalachian Minerals I, LLC
Q	Clarence W. Mutschelknaus Sr. & Clarence W Mutschelknaus Jr.
R	Mary B. Hoover
S	Ronald P. Webb
T	Carol J. Knapp
U	Anthony Bruce Parr, et ux
V	Open
W	Judith Remley Phillip
X	Nancy L. Mains
Y	Dale H. Parr
Z	Larry Stevens
AA	Richard L. White, II
AB	Wanda J. Parr
AC	Elizabeth Ann Weekley
AD	Lucille Adams
AE	Lucille Adams
AF	Elizabeth A. Weekley
AG	Bounty Minerals LLC
AH	Jim & Sandra Young

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FILE NO: 189-54-E-19
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WW-6A1
(5/13)

Operator's Well No. Prosper Unit 1H

**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
<u>Richard D. Pyles Lease</u>	Richard D. Pyles	Antero Resources Corporation	1/8+	0562/0590

*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

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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

*Co-tenancy utilization – At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act

WW-6A1

Operator's Well Number Prosper Unit 1H

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<u>Richard D. & Cathy J. Pyles Lease (TM 16 PCL 42)</u>			
Richard D. & Cathy J. Pyles	PetroEdge Energy LLC	1/8+	0385/0350
PetroEdge Energy LLC	Statoil USA Onshore Properties	Assignment	0406/0147
Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0022/0144
<u>Dustin A. Hendershot Lease</u>			
Dustin A. Hendershot	PetroEdge Energy LLC	1/8+	0385/0348
PetroEdge Energy LLC	Statoil USA Onshore Properties	Assignment	0406/0147
Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0022/0144
<u>Richard D. & Cathy J. Pyles Lease (TM 16 PCL 42.2)</u>			
Richard D. & Cathy J. Pyles	PetroEdge Energy LLC	1/8+	0385/0350
PetroEdge Energy LLC	Statoil USA Onshore Properties	Assignment	0406/0147
Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0022/0144
<u>Alfred Lonzo Eddy Lease</u>			
Alfred Lonzo Eddy	Antero Resources Corporation	1/5+	0411/0532
<u>Ridgetop Capital II LP Lease</u>			
Ridgetop Capital II LP	PetroEdge Energy LLC	1/8+	0387/0210
PetroEdge Energy LLC	Statoil USA Onshore Properties	Assignment	0406/0147
Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>Clarence W. Mutschelknaus Sr. & Clarence W. Jr. Lease</u>			
Clarence W. Mutschelknaus Sr. & Clarence W. Jr.	Antero Resources Corporation	1/8+	0529/0453
<u>BRC Appalachian Minerals I LLC Lease</u>			
BRC Appalachian Minerals I LLC	BRC Working Interest Company	1/8	0369/0300
BRC Working Interest Company	Chesapeake Appalachia LLC	Assignment	0378/0764
Chesapeake Appalachia LLC	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001

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Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
<u>Ronald P. Webb Lease</u>			
Ronald P. Webb	Antero Resources Corporation	1/8	0044/0697
<u>Carol J. Knapp Lease</u>			
Carol J. Knapp	JB Production Company	1/8	0388/0141
JB Production Company	Statoil USA Onshore Properties	Assignment	0469/0419
Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
<u>Anthony Bruce Parr et ux Lease</u>			
Anthony Bruce Parr et ux	Antero Resources Corporation	1/8+	0031/0727
<u>Nancy L. Mains Lease</u>			
Nancy L. Mains	Antero Resources Corporation	1/8+	0504/0357
<u>Larry Stevens Lease</u>			
Larry Stevens	Antero Resources Corporation	1/8+	0587/0787
<u>Elizabeth Ann Weekley Lease (TM 28 PCL 44)</u>			
Elizabeth Ann Weekley	Antero Resources Corporation	1/8+	0559/0074
<u>Elizabeth Ann Weekley Lease (TM 28 PCL 45)</u>			
Elizabeth Ann Weekley	Antero Resources Corporation	1/8+	0559/0074
<u>Wanda J. Parr Lease</u>			
Wanda J. Parr	Antero Resources Corporation	1/8+	0420/0382
<u>Lucille Adams Lease</u>			
Lucille Adams	Antero Resources Corporation	1/8+	0565/0371
<u>Dale H. Parr Lease</u>			
Dale H. Parr	Antero Resources Corporation	1/8+	0500/0110

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