west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL

June 13, 2016

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET
DENVER, CO 80202

Re: Permit Modification Approval for API Number 9502325, Well #: GOODFELLOW UNIT 2H
Lateral Extension

Oil and Gas Operator:
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.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

Laura L. Adkins

for Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas

PERMIT MODIFICATION API# 47-095-02325 MOD

WW-6B
(04/15)

API NO. 47- 095 - 02325
OPERATOR WELL NO. Goodfellow Unit 2H
Well Pad Name: Weigle East Pad

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

1) Well Operator: Antero Resources Corporat | 494507062 | 095 - Tyler | Ellsworth | Shirley 7.5'
Operator ID | County | District | Quadrangle

2) Operator's Well Number: Goodfellow Unit 2H Well Pad Name: Weigle East Pad

3) Farm Name/Surface Owner: Edwin C. Weigle Public Road Access: CR 18/14

4) Elevation, current ground: 812' Elevation, proposed post-construction: 812'

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow X Deep _____
Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 6500' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2800#

8) Proposed Total Vertical Depth: 6500' TVD

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 15,400' MD

11) Proposed Horizontal Leg Length: 8136'

12) Approximate Fresh Water Strata Depths: 9', 194', 366'

13) Method to Determine Fresh Water Depths: Scardina Unit 1H (API# 47-095-02169) on same pad.

14) Approximate Saltwater Depths: 1931', 1136'

15) Approximate Coal Seam Depths: 1380', 1461'

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 X

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

Received
Office of Oil & Gas
MAY 23 2016

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#	60'	60'	CTS, 164 Cu. Ft.
Fresh Water	13-3/8"	New	J-55/H-40	54.5#/48#	440'	440'*see #19	CTS, 611 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2400'	2400'	CTS, 977 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	20#	15,400'	15,400'	3858 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#		7100'	
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	30"	24"	0.438"	1530	50	Class A	1.18
Fresh Water	13-3/8"	17-1/2"	0.38"/0.33"	2730/1730	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"	0.361"	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			
Sizes:	N/A			
Depths Set:	N/A			

Received
Office of Oil & Gas
MAY 23 2016

WW-6B
(10/14)

API NO. 47- 095 - 02325
OPERATOR WELL NO. Goodfellow Unit 2H
Well Pad Name: Weigle East 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.
*Antero will be air drilling the fresh water string which makes it difficult to determine when freshwater 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): 22.17 acres

22) Area to be disturbed for well pad only, less access road (acres): 3.22 acres (*expanded LOD)

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

Received
Office of Oil & Gas
MAY 23 2016

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.

WW-6A1

Operator's Well Number Goodfellow Unit 2H
PERMIT MODIFICATION API# 47-095-02325 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)

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
Kathy Ann Seago Lease			
Kathy Ann Seago, as a beneficiary of the Estate of Edwin C. Weigle, deceased	Antero Resources Appalachian Corporation	1/8+	0402/0448
Antero Resources Appalachian Corporation	**Antero Resources Corporation**	**Name Change**	**Exhibit 1**
Richard L. Seago, et ux Lease			
Richard L. Seago	Antero Resources Appalachian Corporation	1/8+	0403/0733
Antero Resources Appalachian Corporation	**Antero Resources Corporation**	**Name Change**	**Exhibit 1**
Robert L. Dean Lease			
Robert Dean	Antero Resources Appalachian Corporation	1/8+	0410/0569
Antero Resources Appalachian Corporation	**Antero Resources Corporation**	**Name Change**	**Exhibit 1**
Loretta J. Fulks Lease			
Loretta J. Fulks	Spartan Exploration Co.	1/8	0361/0529
Spartan Exploration Co.	Tenaska Resources, LLC	Merger	0375/0158
Tenaska Resources, LLC	Chesapeake Appalachia, LLC	Assignment	0399/0670
Chesapeake Appalachia, LLC	Statoil USA Onshore Properties, Inc.	Assignment	0423/0152
Statoil USA Onshore Properties, Inc.	**Antero Resources Corporation**	**Assignment**	**0441/0523**
WVDNR Lease (Middle Island Creek)			
West Virginia Division of Natural Resources	**Antero Resources Corporation**	**1/8+**	**0483/0269**
Tyler County Fair Association Lease			
Tyler County Fair Association, Inc.	Antero Resources Appalachian Corporation	1/8+	0424/0521
Antero Resources Appalachian Corporation	**Antero Resources Corporation**	**Name Change**	**Exhibit 1**
Eugene R. Smith Lease			
Eugene R. Smith	**Antero Resources Corporation**	**1/8+**	**0449/0828**
Eugene R. Smith Lease			
Eugene R. Smith	**Antero Resources Corporation**	**1/8+**	**0449/0823**
Kathy A. Keating Lease			
Kathy A. Keating	**Antero Resources Corporation**	**1/8+**	**0438/0438**

Received
Office of Oil & Gas
MAY 23 2016

***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.**

WW-6A1
(5/13)

Operator's Well No. Goodfellow Unit 2H

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
Benjamin F. Hill, et ux Lease				
	Benjamin F. Hill	Antero Resources Corporation	1/8+	0424/0549

*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

Received
Office of Oil & Gas
MAY 23 2016

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: Kevin Kilstrom
Its: Senior VP of Production

95-02325MOD

FORM WW-6A1
EXHIBIT 1

FILED
JUN 10 2013
IN THE OFFICE OF SECRETARY OF STATE

Natalie E. Tennant
Secretary of State
1900 Kanawha Blvd E
Bldg 1, Suite 157-K
Charleston, WV 25305

Penney Barker, Manager
Corporations Division
Tel: (304)558-8000
Fax: (304)558-8381
Website: www.wvsos.com
E-mail: business@wvsos.com

Office Hours: Monday – Friday
8:30 a.m. – 5:00 p.m. ET

FILE ONE ORIGINAL
(Two if you want a filed stamped copy returned to you)
FEE: $25.00

APPLICATION FOR AMENDED CERTIFICATE OF AUTHORITY

**** In accordance with the provisions of the West Virginia Code, the undersigned corporation hereby **** applies for an Amended Certificate of Authority and submits the following statement:

1. Name under which the corporation was authorized to transact business in WV: Antero Resources Appalachian Corporation
2. Date Certificate of Authority was issued in West Virginia: 6/25/2008
3. Corporate name has been changed to: Antero Resources Corporation
   (Attach one Certified Copy of Name Change as filed in home State of incorporation.)
4. Name the corporation elects to use in WV: Antero Resources Corporation
   (due to home state name not being available)
5. Other amendments:
   (attach additional pages if necessary)

6. Name and phone number of contact person. (This is optional, however, if there is a problem with the filing, listing a contact person and phone number may avoid having to return or reject the document.)

   Alvyn A. Schopp — Contact Name
   (303) 357-7310 — Phone Number

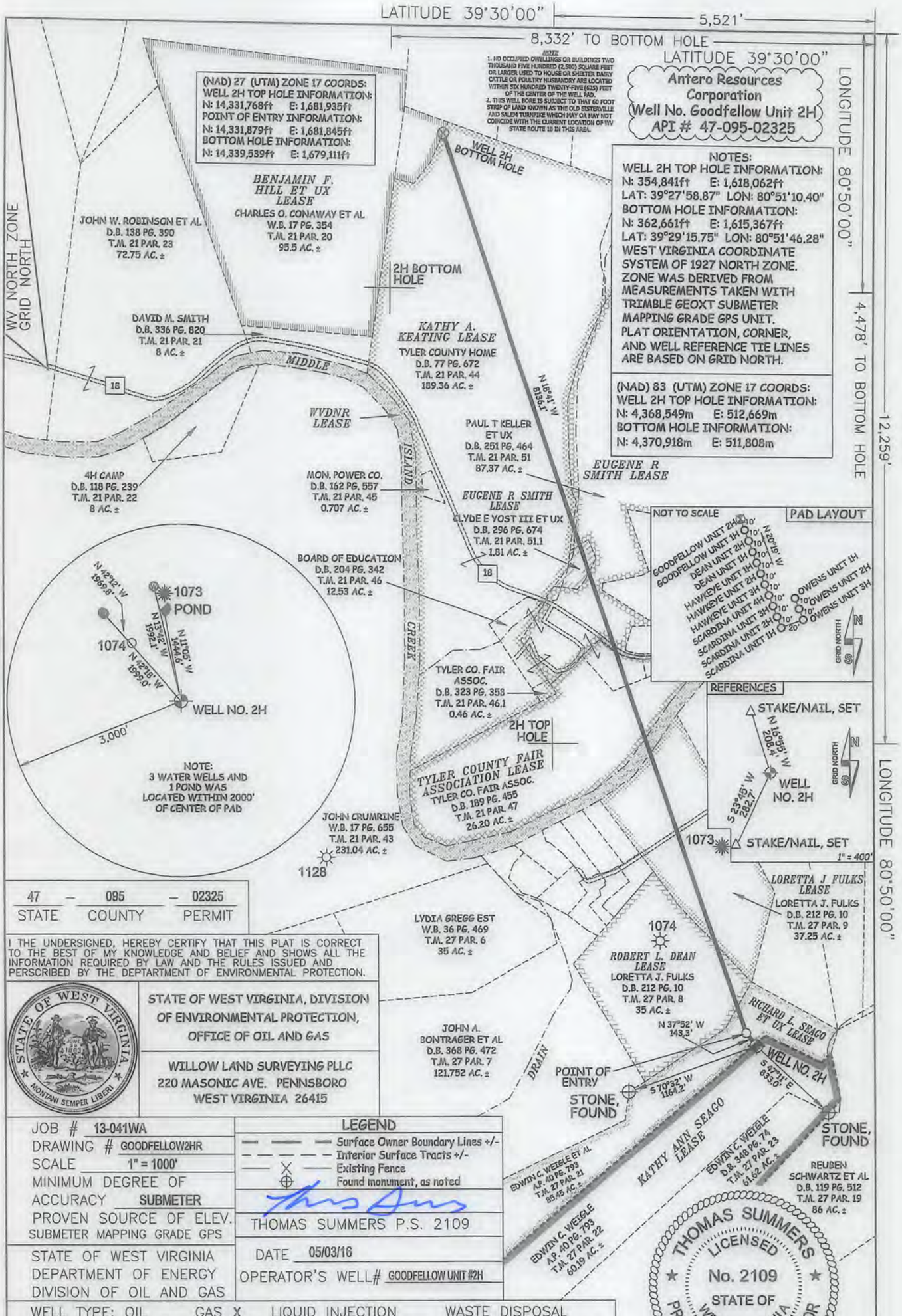
7. Signature information (See below *Important Legal Notice Regarding Signature):

   Print Name of Signer: Alvyn A. Schopp Title/Capacity: Authorized Person

   Signature: [signature] Date: June 10, 2013

*Important Legal Notice Regarding Signature: Per West Virginia Code §31D-1-129, Penalty for signing false document. Any person who signs a document he or she knows is false in any material respect and knows that the document is to be delivered to the secretary of state for filing is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than one thousand dollars or confined in the county or regional jail not more than one year, or both.

Received
Office of Oil & Gas
MAY 23 2016



47	095	02325
STATE	COUNTY	PERMIT

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 PERSCRIBED BY THE DEPTARTMENT OF ENVIRONMENTAL PROTECTION.

STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

JOB # 13-041WA
DRAWING # GOODFELLOW2HR
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

LEGEND
Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Existing Fence
Found monument, as noted

THOMAS SUMMERS P.S. 2109

DATE 05/03/16
OPERATOR'S WELL# GOODFELLOW UNIT #2H

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 811 ORIGINAL - 812' AS-BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
QUADRANGLE SHIRLEY 7.5' DISTRICT ELLSWORTH COUNTY TYLER
SURFACE OWNER EDWIN C. WEIGLE ACREAGE 60.19 ACRES +/-
OIL & GAS ROYALTY OWNER KATHY ANN SEAGO; RICHARD L. SEAGO ET UX; ROBERT L. DEAN; LORETTA J. FULKS; WVDNR; TYLER COUNTY FAIR ASSOCIATION; EUGENE R SMITH; ; EUGENE R SMITH; KATHY A KEATING; BENJAMIN F. HILL ET UX
LEASE ACREAGE 129.2 AC.±; 74.2 AC.±; 35 AC±; 37.25 AC±; 34 AC±; 26.665 AC.±; 87.37 AC±; 1.812 AC±; 190.07 AC±; 95.5 AC±
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER X REDRILL ___ FRACTURE OR STIMULATE X
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD - BHL PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,500' TVD 15,400' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313

FORM WW-6

COUNTY NAME PERMIT

LATITUDE 39°30'00" — 5,521'

8,332' TO BOTTOM HOLE

LATITUDE 39°30'00"

LONGITUDE 80°50'00"

4,478' TO BOTTOM HOLE

12,259'

LONGITUDE 80°50'00"

NOTE:
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
2. THIS WELL BORE IS SUBJECT TO THAT 60 FOOT STRIP OF LAND KNOWN AS THE OLD SISTERSVILLE AND SALEM TURNPIKE WHICH MAY OR MAY NOT COINCIDE WITH THE CURRENT LOCATION OF WV STATE ROUTE 18 IN THIS AREA.

Antero Resources Corporation
(Well No. Goodfellow Unit 2H)
API # 47-095-02325

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 14,331,768ft E: 1,681,935ft
POINT OF ENTRY INFORMATION:
N: 14,331,879ft E: 1,681,845ft
BOTTOM HOLE INFORMATION:
N: 14,339,539ft E: 1,679,111ft

NOTES:
WELL 2H TOP HOLE INFORMATION:
N: 354,841ft E: 1,618,062ft
LAT: 39°27'58.87" LON: 80°51'10.40"
BOTTOM HOLE INFORMATION:
N: 362,661ft E: 1,615,367ft
LAT: 39°29'15.75" LON: 80°51'46.28"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 4,368,549m E: 512,669m
BOTTOM HOLE INFORMATION:
N: 4,370,918m E: 511,808m

WV NORTH ZONE GRID NORTH

WELL 2H BOTTOM HOLE

2H BOTTOM HOLE

BENJAMIN F. HILL ET UX LEASE

CHARLES O. CONAWAY ET AL
W.B. 17 PG. 354
T.M. 21 PAR. 20
95.5 AC. ±

JOHN W. ROBINSON ET AL
D.B. 138 PG. 390
T.M. 21 PAR. 23
72.75 AC. ±

DAVID M. SMITH
D.B. 336 PG. 820
T.M. 21 PAR. 21
8 AC. ±

MIDDLE ISLAND CREEK

18

KATHY A. KEATING LEASE
TYLER COUNTY HOME
D.B. 77 PG. 672
T.M. 21 PAR. 44
189.36 AC. ±

N 18°41' W 6136.1'

WVDNR LEASE

PAUL T KELLER ET UX
D.B. 251 PG. 464
T.M. 21 PAR. 51
87.37 AC. ±

EUGENE R SMITH LEASE

4H CAMP
D.B. 118 PG. 239
T.M. 21 PAR. 22
8 AC. ±

MON. POWER CO.
D.B. 162 PG. 557
T.M. 21 PAR. 45
0.707 AC. ±

EUGENE R SMITH LEASE

CLYDE E YOST III ET UX
D.B. 296 PG. 674
T.M. 21 PAR. 51.1
1.81 AC. ±

BOARD OF EDUCATION
D.B. 204 PG. 342
T.M. 21 PAR. 46
12.53 AC. ±

NOT TO SCALE — PAD LAYOUT

GOODFELLOW UNIT 2H
GOODFELLOW UNIT 1H
DEAN UNIT 2H
DEAN UNIT 1H
HAWKEYE UNIT 2H
HAWKEYE UNIT 3H
HAWKEYE UNIT 4H
SCARDINA UNIT 4H
SCARDINA UNIT 3H
SCARDINA UNIT 2H
SCARDINA UNIT 1H
OWENS UNIT 1H
OWENS UNIT 2H
OWENS UNIT 3H
N 20°19' W
GRID NORTH

N 42°42' W 1969.8'
1073
POND
N 13°42' W 1992.1'
N 11°05' W 1444.6'
1074
N 42°18' W 1999.0'
WELL NO. 2H
3,000'

NOTE:
3 WATER WELLS AND 1 POND WAS LOCATED WITHIN 2000' OF CENTER OF PAD

TYLER CO. FAIR ASSOC.
D.B. 323 PG. 358
T.M. 21 PAR. 46.1
0.46 AC. ±

2H TOP HOLE

TYLER COUNTY FAIR ASSOCIATION LEASE
TYLER CO. FAIR ASSOC.
D.B. 189 PG. 455
T.M. 21 PAR. 47
26.20 AC. ±

JOHN CRUMRINE
W.B. 17 PG. 655
T.M. 21 PAR. 43
231.04 AC. ±
1128

REFERENCES
STAKE/NAIL, SET
N 16°55' W 208.4'
WELL NO. 2H
S 23°45' W 282.7'
1073
STAKE/NAIL, SET
1" = 400'
GRID NORTH

LORETTA J FULKS LEASE
LORETTA J. FULKS
D.B. 212 PG. 10
T.M. 27 PAR. 9
37.25 AC. ±

47	095	02325
STATE	COUNTY	PERMIT

LYDIA GREGG EST
W.B. 36 PG. 469
T.M. 27 PAR. 6
35 AC. ±

1074

ROBERT L. DEAN LEASE
LORETTA J. FULKS
D.B. 212 PG. 10
T.M. 27 PAR. 8
35 AC. ±

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 PERSCRIBED BY THE DEPTARTMENT OF ENVIRONMENTAL PROTECTION.

STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415

N 37°52' W 143.3'

RICHARD L. SEAGO ET UX LEASE

JOHN A. BONTRAGER ET AL
D.B. 368 PG. 472
T.M. 27 PAR. 7
121.752 AC. ±

DRAIN

POINT OF ENTRY

S 70°32' W 1164.2'

WELL NO. 2H

S 47°11' E 833.8'

STONE, FOUND

STONE, FOUND

KATHY ANN SEAGO LEASE

EDWIN C. WEIGLE ET AL
A.P. 40 PG. 793
T.M. 27 PAR. 21
89.46 AC. ±

EDWIN C. WEIGLE
D.B. 348 PG. 74
T.M. 27 PAR. 23
61.62 AC. ±

REUBEN SCHWARTZ ET AL
D.B. 119 PG. 512
T.M. 27 PAR. 19
86 AC. ±

EDWIN C. WEIGLE
A.P. 40 PG. 793
T.M. 27 PAR. 22
60.19 AC. ±

THOMAS SUMMERS LICENSED No. 2109 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

Received
Office of Oil & Gas
MAY 3 2016

JOB # 13-041WA	LEGEND
DRAWING # GOODFELLOW2HR	Surface Owner Boundary Lines +/-
SCALE 1" = 1000'	Interior Surface Tracts +/-
MINIMUM DEGREE OF ACCURACY SUBMETER	Existing Fence
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS	Found monument, as noted
	THOMAS SUMMERS P.S. 2109
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS	DATE 05/03/16
	OPERATOR'S WELL# GOODFELLOW UNIT #2H

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 811 ORIGINAL - 812' AS-BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
QUADRANGLE SHIRLEY 7.5' DISTRICT ELLSWORTH COUNTY TYLER
SURFACE OWNER EDWIN C. WEIGLE ACREAGE 60.19 ACRES +/-
OIL & GAS ROYALTY OWNER KATHY ANN SEAGO; RICHARD L. SEAGO ET UX; ROBERT L. DEAN; LEASE ACREAGE 129.2 AC.±; 74.2 AC.±; 35 AC±;
LORETTA J. FULKS; WVDNR;TYLER COUNTY FAIR ASSOCIATION; EUGENE R SMITH; ; EUGENE R SMITH; KATHY A KEATING; BENJAMIN F. HILL ET UX 37.25 AC±; 34 AC±; 26.665 AC.±; 87.37 AC±; 1.812 AC±; 190.07 AC±; 95.5 AC±
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER X REDRILL ___ FRACTURE OR STIMULATE X
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL
(SPECIFY) MOD - BHL PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,500' TVD 15,400' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME PERMIT

FORM WW-6