

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

Wednesday, November 5, 2025 PERMIT MODIFICATION APPROVAL Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET

DENVER, CO 80202

Re:

Permit Modification Approval for Wysong Unit 1H

47-017-06994-00-00

Extended lateral

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.

H. Jason Harmon

Acting Chief

Operator's Well Number: Wysong Unit 1H

Farm Name: Sandra E Erwin

U.S. WELL NUMBER: 47-017-06994-00-00

Horizontal 6A New Drill

Date Modification Issued: 11/5/2025

Promoting a healthy environment.

API NO. 47-017	_ 06994	
OPERATOR W	ELL NO.	Wysong Unit 1H MOD
Well Pad Nar	ne Brushy	Pad

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

1) Well Operator:	Antero R	Resources	Corporat	494507062	017-Dod	drid New Milto	New Milton
-,	-			Operator ID	County	District	Quadrangle
2) Operator's Well	l Number:	Wysong U	nit 1H M	OD Well Pa	d Name: B	rushy Pad	
3) Farm Name/Sur	face Owne	er: Sandra	E. Erwin	Public Roa	ad Access:	Toms Fork	
4) Elevation, curre	ent ground:	1213'	Ele	evation, proposed	post-constr	ruction:	
5) Well Type (a)) Gas X	(Oil	Und	erground S	torage	
Ot	ther _						RECEIVED Office of Oil and Gas
(b	,	Shallow		Deep			OCT 16 2025
		Horizontal	<u>X</u>				
6) Existing Pad: Y	-			· 1 ml · 1	- 15	1 D ()	WV Department of Environmental Protection
7) Proposed Targe Marcellus Shale				ipated Thickness a ss- 55 feet, Associ			
8) Proposed Total		The second secon	Marcellus				
9) Formation at To	otal Vertica	ui Depin.					
10) Proposed Tota	l Measure	d Depth:	22700' M	D			
11) Proposed Hori	zontal Leg	g Length:	11359.4'				
12) Approximate l	Fresh Wate	er Strata De	pths:	702'			
13) Method to Det	termine Fro	esh Water I	Depths: 4	17-017-01341			
14) Approximate S	Saltwater I	Depths: 23	307'				
15) Approximate (Coal Seam	Depths: N	I/A				
16) Approximate	Depth to P	ossible Voi	d (coal mi	ine, karst, other):	None Anti	cipated	
17) Does Proposed directly overlying				ms Yes		No X	
(a) If Yes, provide	de Mine In	ifo: Name	:				
		Depth	ı:				
		Seam	:				
		Owne					



WW-6B	
(04/15)	

API	NO.	47-	017	-	06994	
						۰

OPERATOR WELL NO. Wysong Unit 1H MOD

Well Pad Name: Brushy Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	<u>Grade</u>	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#	100'	100'	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	752'	752'	CTS, 731 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	1117'	1117'	CTS, 455 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	22700'	22700'	4792 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/L	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A/L	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A/L	~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							

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PACKERS

WV Department of Environmental Protection

Kind:	N/A		
Sizes:	N/A		
Depths Set:	N/A		

Sherman Zing

WW-6B (10/14) API NO. 47- 017 - 06994

OPERATOR WELL NO. Wysong Unit 1H MOD

Well Pad Name: Brushy Pad

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill, perforate, fracture a new shallow well and complete Marcellus Shale.

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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): 37.49 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 6.90 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/L cement.

Surface: Class A/L cement with 2-3% calcium chloride and 1/4 lb of flake Intermediate: Class A/L 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:

Conductor: blowhole clean with air, run casing, 10 bbls fresh water.

Surface: blowhole clean with air, trip conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pip capacity +40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

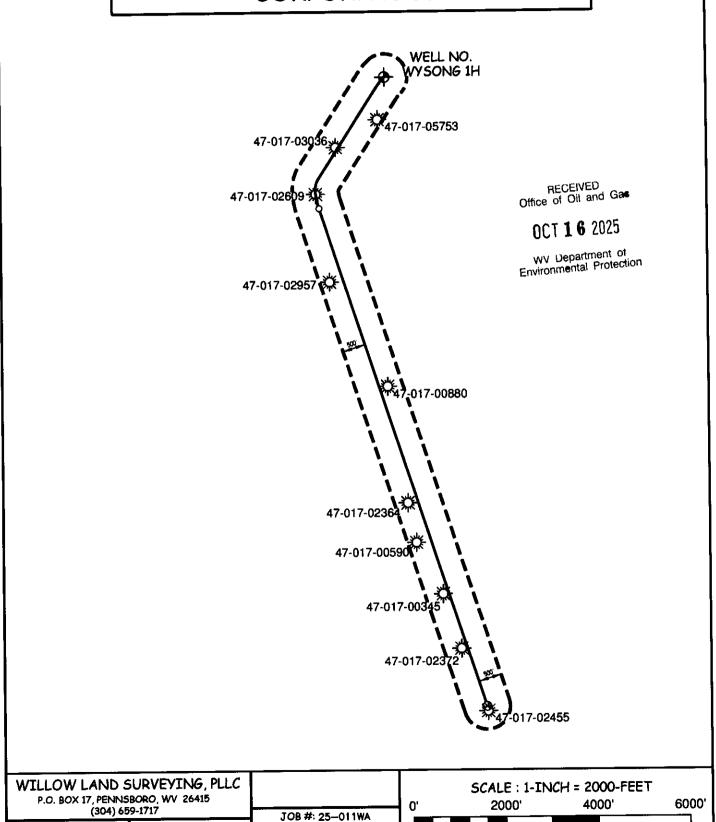
Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.

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.



BRUSHY PAD ANTERO RESOURCES CORPORATION



FILE: WYSONG1HAOR.DWG

11/07/2025

DRAWN BY: D.R.R.

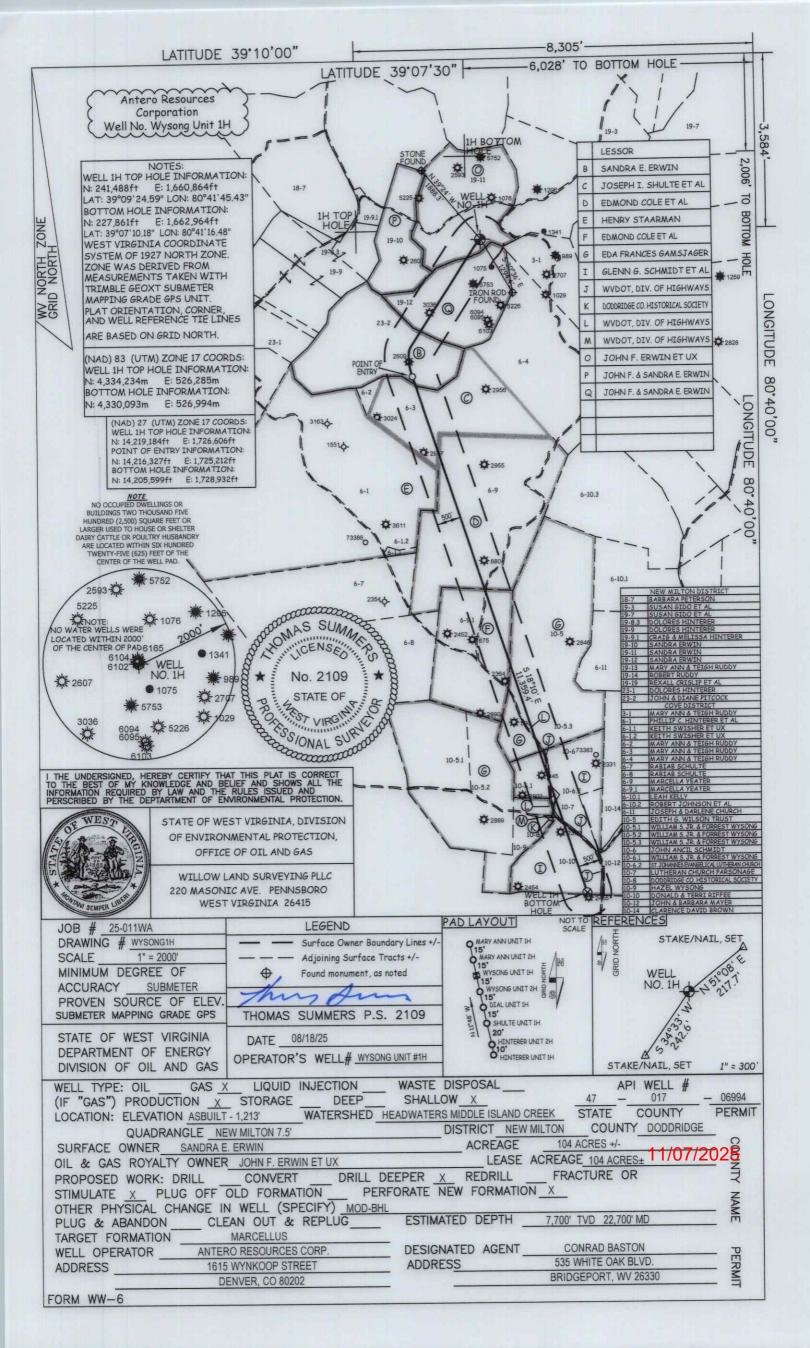
DATE: 09/22/25

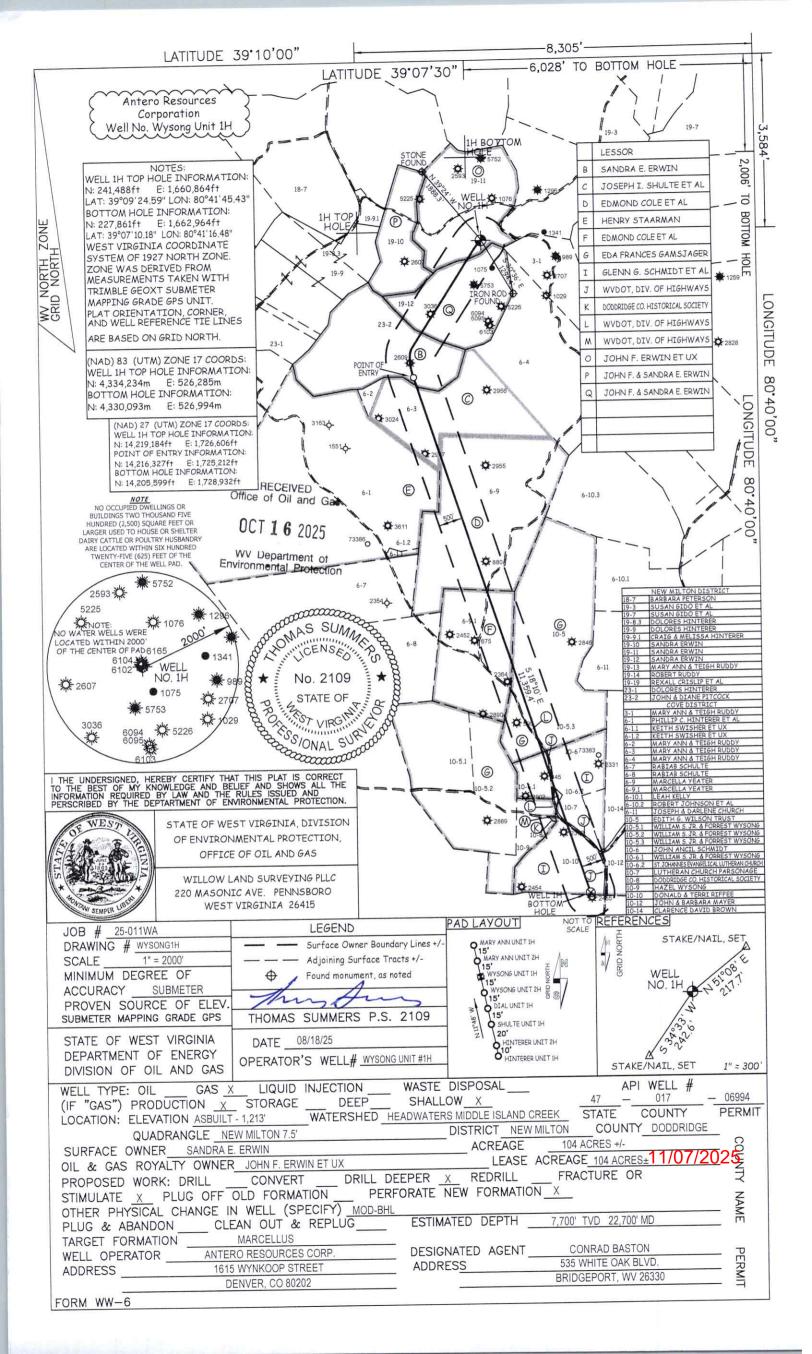
UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	TD	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd	Well Hyperlink
4701703036	ERWIN JOHN ET AL	1	CARSON PETROLEUM CORP	CARSON PETROLEUM CORP	2,651	2096-2214	Blue Monday Sand, Big Injun	Weir, Benson, Alexander	WVGES
4701702609	ALKIRE WILMA	H-959	POSTROCK EASTERN PRODUCTION LLC	HAUGHT G L & SONS	2,532	2410-2444	Big Injun	Weir, Benson, Alexander	WVGES
4701702957	SHULTE W H HEIRS	3	CARSON PETROLEUM CORP	CARSON PETROLEUM CORP	5,690	2334 - 5264	Big Injun, Benson	Weir, Alexander	WVGES
4701700880	HENRY VANWERTH	1	PROFESSIONAL OILFIELD SERVICES INC	SOUTHRN TRIANGLE OIL	5,162		Benson	Weir, Alexander	WVGES
4701702364	EDMUND G COLE	1	ROCKWELL PETROLEUM	ROCKWELL PETROLEUM	5,388	4863 - 5231	Benson, Alexander	Weir	WVGES
4701700590	E F GAMSJAGER	1	PROFESSIONAL OILFIELD SERVICES INC	SOUTHRN TRIANGLE OIL	2,086		Big Injun	Weir, Benson, Alexander	WVGES
4701700345	GLENN G SCHMIDT ET	1	COX JAMES T	COX JAMES T	2,575		Big Lime	Weir, Benson, Alexander	WVGES
4701702372	SCHMIDT ROY B ET AL	2	ROCKWELL PETROLEUM	ROCKWELL PETROLEUM	5,150	4714 - 4985	Benson, Alexander	Weir	WVGES
	ROY B SCHMIDT ETAL	3	ROSS & WHARTON GAS CO	ROCKWELL PETROLEUM	5,311	4849 - 5179	Benson, Alexander	Weir	WVGES
4701705753	ERWIN JOHN	4	BERRY ENERGY INC	SUTTONS EXP&PROD CO	5,780	3606 - 5447	Warren, Speechley, Benson, Brailier	Weir, Alexander	WVGES

Don't Delete http://www.wvgs.wvn

WV Department of Environmental Protection OCT **16** 2025

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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
O: John F. Erwin, et ux Lease				
John F. Erwin, et ux	Bluestone Energy Partners		1/8	251/486
Bluestone Energy Partners	BEP Merger Sub, LP	RECEIVED	Merger	288/1
BEP Merger Sub, LP	Antero Resources Corporation	Office of Oil and Gas	Merger	288/1
	•			200/1
Q: John F. & Sandra E. Erwin Lease		OCT 16 2025		
John F. & Sandra E. Erwin	Antero Resources Appalachian	_ 0 2023	1/8+	272/573
Antero Resources Appalachian	Antero Resources Corporation	_ WV Department of	Name Change	46/523
		Environmental Protection		
B: Sandra E. Erwin Lease				
Sandra E. Erwin	Antero Resources Corporation		1/8+	537/470
C: Joseph I. Shulte, et al Lease				
Joseph I. Shulte, et al	Rockwell Petroleum Company		1/8	110/6
Rockwell Petroleum Company	Carson Petroleum Corporation, et	al	Assignment	117/525
Carson Petroleum Corporation, et al	Devon Energy Corporation		Assignment	128/273
Devon Energy Corporation	Abarta Oil and Gas Company Inc		Assignment	178/682
Abarta Oil and Gas Company Inc	Antero Resources Appalachian Cor	poration	Assignment	261/463
Antero Resources Appalachian Corporation	Antero Resources Corporation		Name Change	46/523
D: Edmond Cole, et al Lease				
Edmond Cole, et al	J.M.L. Smith		1/8	61/214
J.M.L. Smith	Kewanee Oil Company		Assignment	61/214 62/8
Kewanee Oil Company	John S. Bailey		Assignment	68/439
John S. Bailey	Triangle Oil Company, et al		Assignment	69/46
Triangle Oil Company, et al	New Triangle Oil Company		Assignment	149/174
New Triangle Oil Company	Professional Oilfield Services Inc		Assignment	194/277
Professional Oilfield Services Inc	Bluestone Energy Partners		Assignment	246/181
Bluestone Energy Partners	BEP Merger Sub LP		Merger	288/1
BEP Merger Sub LP	Antero Resources Corporation		Merger	288/1
F. Edward Cala and Lance				
F: Edmond Cole, et al Lease Edmond Cole, et al	Rockwell Petroleum Company		1/8	KAN AN
Rockwell Petroleum Company	Rockwell Resources, LLC		Assignment	108/142
Rockwell Resources, LLC	Antero Resources Appalachian		Assignment	260/429
Antero Resources Appalachian	Antero Resources Corporation		Name Change	267/244 46/523
G: Eda Francis Gamsjager Lease Eda Frances Gamsjager	J.M.L. Smith		1/8	-
J.M.L. Smith	Kewanee Oil Company		Assignment	51/222
Kewanee Oil Company	John S. Bailey		Assignment	68/438
John S. Bailey	Triangle Oil Company		Assignment	
Triangle Oil Company	New Triangle Oil Company		Assignment	69/46
New Triangle Oil Company	Professional Oilfield Services Inc		Assignment	149/174
Professional Oilfield Services Inc	Bluestone Energy Partners		Assignment	194/277
Bluestone Energy Partners	BEP Merger Sub LP		Merger	246/181 288/1
BEP Merger Sub LP	Antero Resources Corporation		Merger	288/1 288/1
CONTRACTOR				400/1

Operator's V	∿ell N	Numbe	r
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Wysong Unit 1H MO	D	MO	1H	Unit	Wysong
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L: WVDOT, Div. of Highways Lease WVDOT, Div. of Highways G: Eda Frances Gamsjager Lease Eda Frances Gamsjager J. M.L. Smith Kewanee Oll Company John S. Bailey Triangle Oil Company New Triangle Oil Company Professional Oilfield Services Inc Bluestone Energy Partners BEP Merger Sub LP	Antero Resources Corporation RECE Office of O J.M.L. Smith Kewanee Oil Company John S. Bailey Triangle Oil Company New Triangle Oil Company Professional Oilfield Services Inc Bluestone Energy Partners BEP Merger Sub LP Antero Resources Corporation	6 2025 Assignment Assignment Assignment Assignment Assignment	61/222 62/8 68/438 69/46 149/174 194/277 246/181 288/1
I: Glenn G. Schmidt, et al Lease Glenn G. Schmidt, et al Rockwell Petroleum Company Carson Petroleum Corporation Devon Energy Corporation Abarta Oil and Gas Company, Inc Antero Resources Appalachian HG Energy II Appalachia, LLC	Rockwell Petroleum Company Carson Petroleum Corporation Devon Energy Corporation Abarta Oil and Gas Company, Inc Antero Resources Appalachian HG Energy II Appalachia, LLC Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment Assignment Assignment	106/639 107/704 126/434 178/682 261/463 512/658 543/170
J: WVDOT, Div. of Highways Lease WVDOT, Div. of Highways I: Glenn G. Schmidt, et al Lease Glenn G. Schmidt, et al Rockwell Petroleum Company Carson Petroleum Corporation Devon Energy Corporation Abarta Oil and Gas Company, Inc Antero Resources Appalachian HG Energy II Appalachia, LLC	Antero Resources Corporation Rockwell Petroleum Company Carson Petroleum Corporation Devon Energy Corporation Abarta Oil and Gas Company, Inc Antero Resources Appalachian HG Energy II Appalachia, LLC Antero Resources Corporation	1/8 Assignment Assignment Assignment Assignment Assignment Assignment	106/639 107/704 126/434 178/682 261/463 512/658 543/170
J: WVDOT, Div. of Highways Lease WVDOT, Div. of Highways	Antero Resources Corporation	1/8	Pooled Tract

^{*}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.

**Pooling/Unitization – Antero has filed a horizontal well unitization application with the West Virginia
Oil and Gas Conservation Commission that seeks to pool certain owners in this tract

^{*}Cotenancy Utilization - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

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	Abarta Oil and Gas Company, Inc	Antero Resources Appalachian	Assignment	261/463
	Antero Resources Appalachian	HG Energy II Appalachia, LLC	Assignment	512/658
	HG Energy II Appalachia, LLC	Antero Resources Corporation	Assignment	543/170

^{*}Cotenancy Utilization - Antero is utilizing the Co-tenancy Modernization and Majority Protection Act to proceed with development of certain royalty owners' interests in this tract.

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

Senior Vice President of Land

^{**}Pooling/Unitization – Antero has filed a horizontal well unitization application with the West Virginia Oil and Gas Conservation Commission that seeks to pool certain owners in this tract

Operator's Well Number

Wysong Unit 1H MOD

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Royalty

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