

#### 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

Tuesday, August 30, 2022 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET DENVER, CO 80202

Re: Permit approval for LITTLE UNIT 1H 47-095-02811-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0459.

James A. Martin

Chief

Operator's Well Number: LITTLE UNIT 1H

Farm Name: SHIRLEY J WELLS & SUISE

U.S. WELL NUMBER: 47-095-02811-00-00

Horizontal 6A New Drill Date Issued: 8/30/2022

API Number: 4709502811

### **PERMIT CONDITIONS**

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

#### CONDITIONS

- This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designed immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: 4709502811

### **PERMIT CONDITIONS**

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

API NO. 47-095 OPERATOR WELL NO. Little Unit 1H
Well Pad Name: Wrigley Pad

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

Well Operator: Antero Res	sources Corporal	494507062	095-Tyler	Meade	Bens Run 7.5'
		Operator ID	County	District	Quadrangle
) Operator's Well Number: Lit	ttle Unit 1H	Well P	ad Name: Wrig	gley Pad	
) Farm Name/Surface Owner:	Shirley Wells/Susie Cunn	Ingham Public Ro	oad Access: Ro	ock Run Ro	
) Elevation, current ground:	964' Ele	evation, propose	d post-construc	tion: ~937	
) Well Type (a) Gas X Other	Oil	Un	derground Stor	age	
The state of the s	allow X	Deep			
Но	rizontal X		7		
) Existing Pad: Yes or No No					
) Proposed Target Formation(s Marcellus Shale: 6600' TVD, A					
) Proposed Total Vertical Dep	th: 6600' TVD				
Formation at Total Vertical I	Depth: Marcellus	P			
0) Proposed Total Measured D	epth: 20600'				
1) Proposed Horizontal Leg Le	ength: 11478.7'				
2) Approximate Fresh Water S	Strata Depths:	397'			
3) Method to Determine Fresh	Water Depths: 4	7095025930000 Offset v	well records. Depths ha	ve been adjusted	according to surface elevation
4) Approximate Saltwater Dep	oths: 1436', 1847'				
5) Approximate Coal Seam De	epths: None Antic	cipated			
6) Approximate Depth to Poss	ible Void (coal mi	ne, karst, other):	None Anticip	ated	
7) Does Proposed well location irectly overlying or adjacent to		Yes	N	o X	**
(a) If Yes, provide Mine Info:	Name:				
	Depth:				
	Seam:				
	Owner:				
		DEG	EOVEN		
		AUG.	1 5 2022		

By 60G

Page 1 of 3



WW-6B (04/15) API NO. 47- 095 OPERATOR WELL NO. Little Unit 1H
Well Pad Name: Wrigley 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	X-60	78.67#	100'	100'	CTS, 96 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	555'	555'	CTS, 578 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	3100'	3100'	CTS, 1262 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110HP	20#	20600'	20600'	CTS, 4273 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

ТҮРЕ	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"	0.375"	2250	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						7 7 7 7	233.0
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	14,360	2500	Class G/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	



Page 2 of 3



WW-6B (10/14) API NO. 47- 995 OPERATOR WELL NO. Little Unit 1H
Well Pad Name: Wrigley Pad

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

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 28.45 acres

22) Area to be disturbed for well pad only, less access road (acres): 10.35 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:

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 curv

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.



Page 3 of 3



WW-9 (4/16)

API Number 47 -

Operator's Well No. Little Unit 1H

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

#### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources Corporation	OP Code: 494507062
	Quadrangle Bens Run 7.5
Do you anticipate using more than 5,000 bbls of water to complete the	e proposed well work? Yes V No
Will a pit be used? Yes No	
If so, please describe anticipated pit waste: No pit will be used at this to	site (Drilling and flowbuck Fluids will be stored in tanks. Cuttings will be tanked and hauled off site.)
Will a synthetic liner be used in the pit? Yes No	If so, what ml.? N/A
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	
	ber "UIC Permit # will be provided on Form WR-34
	callons when applicable. API# will be provided on Form WR-34 disposal location)(Meadowfill Landfill Permit #SWF-1032-98)
Other (Explain	Northwestern Landfill Permit #SWF-1025/ WVD109410
Van fluide sternel le	Wetzel County Landfill (Permit #SWF-1021)
Will closed loop system be used? If so, describe: Yes, fluids stored in	Surface - Air/Freshwater, Intermediate - Dust/
Drilling medium anticipated for this well (vertical and horizontal)? A	ir, freshwater, oil based, etc. Stiff Foam, Production - Water Based Mud or Synthetic Based Mud
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	8
Additives to be used in drilling medium? Please See Attachment	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite	e, etc. Drill cuttings stored in tanks, removed offsite and taken to landfill.
-If left in pit and plan to solidify what medium will be used?	(cement, lime, sawdust) N/A
	mit #SWF-1032-98), Northwestern Landfill (Permit #SWF-1025/WV0109410)
Wetzel County Land	Hill (Permit #SWF-1021)
Permittee shall provide written notice to the Office of Oil and Gas of a West Virginia solid waste facility. The notice shall be provided within where it was properly disposed.	
on August 1, 2005, by the Office of Oil and Gas of the West Virginia provisions of the permit are enforceable by law. Violations of any to law or regulation can lead to enforcement action.	nerm or condition of the general permit and/or other applicable and am familiar with the information submitted on this my inquiry of those individuals immediately responsible for courate, and complete. I am aware that there are significant
	AUG 1 5 2022
Company Official (Typed Name) Gretchen Kohler  Company Official Title Director, Environmental and Regulatory Complia	2000
Company Official Title Director, Environmental and Regulatory Compile	Ву_006
Subscribed and sworn before me this 27 day of Ju	ely 2022
My commission expires 27 Apr 2021	Notary Public DIANE BLAIR NOTARY PUBLIC STATE OF COLORADO NOTARY ID 19994011871 MY COMMISSION EXPIRES 27-Apr-2024



#### Form WW-9 Additives Attachment

#### **SURFACE INTERVAL**

- 1. Fresh Water
- 2. Soap -Foamer AC
- 3. Air

#### INTERMEDIATE INTERVAL

#### STIFF FOAM RECIPE:

- 1) 1 ppb Soda Ash / Sodium Carbonate-Alkalinity Control Agent
- 2) 1 ppb Conqor 404 (11.76 ppg) / Corrosion Inhibitor
- 3) 4 ppb KLA-Gard (9.17 ppg) / Amine Acid Complex-Shale Stabilizer
- 4) 1ppb Mil Pac R / Sodium Carboxymethylcellulose-Filtration Control Agent
- 5) 12 ppb KCL / Potassium Chloride-inorganic Salt
- 6) Fresh Water 80 bbls
- 7) Air

#### **PRODUCTION INTERVAL**

1. Alpha 1655

Salt Inhibitor

2. Mil-Carb

Calcium Carbonate

3. Cottonseed Hulls

Cellulose-Cottonseed Pellets - LCM

4. Mil-Seal

Vegetable, Cotton & Cellulose-Based Fiber Blend – LCM

5. Clay-Trol

Amine Acid Complex - Shale Stabilizer

6. Xan-Plex

Viscosifier For Water Based Muds

7. Mil-Pac (All Grades)

Sodium Carboxymethylcellulose – Filtration Control Agent

8. New Drill

Anionic Polyacrylamide Copolymer Emulsion – Shale Stabilizer

9. Caustic Soda

Sodium Hydroxide - Alkalinity Control

10. Mil-Lime

Calcium Hydroxide - Lime

11. LD-9

Polyether Polyol – Drilling Fluid Defoamer

12. Mil Mica

Hydro-Biotite Mica – LCM

RECEIVED
Office of Oil and Gas

JUL 28 2022

13. Escaid 110

Drilling Fluild Solvent – Aliphatic Hydrocarbon

14. Ligco

Highly Oxidized Leonardite - Filteration Control Agent

15. Super Sweep

Polypropylene - Hole Cleaning Agent

16. Sulfatrol K

Drilling Fluid Additive - Sulfonated Asphalt Residuum

17. Sodium Chloride, Anhydrous

**Inorganic Salt** 

18. D-D

Drilling Detergent - Surfactant

19. Terra-Rate

Organic Surfactant Blend

20. W.O. Defoam

Alcohol-Based Defoamer

21. Perma-Lose HT

Fluid Loss Reducer For Water-Based Muds

22. Xan-Plex D

Polysaccharide Polymer – Drilling Fluid Viscosifier

23. Walnut Shells

Ground Cellulosic Material - Ground Walnut Shells - LCM

24. Mil-Graphite

Natural Graphite - LCM

25. Mil Bar

Barite - Weighting Agent

26. X-Cide 102

Biocide

27. Soda Ash

Sodium Carbonate – Alkalinity Control Agent

28. Clay Trol

Amine Acid complex – Shale Stabilizer

29. Sulfatrol

Sulfonated Asphalt – Shale Control Additive

30. Xanvis

Viscosifier For Water-Based Muds

31. Milstarch

Starch - Fluid Loss Reducer For Water Based Muds

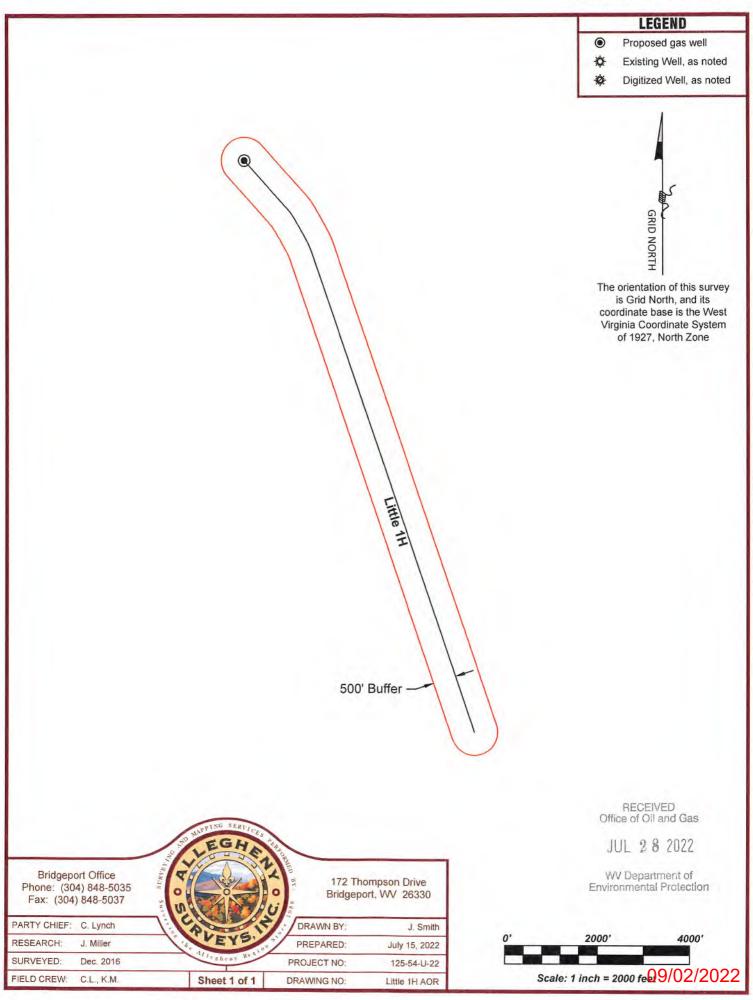
32. Mil-Lube

**Drilling Fluid Lubricant** 

RECEIVED Office of Oil and Gas

JUL 28 2022

Form WW-9 Operator's Well No. Little Unit 1H Antero Resources Corporation 28.45 acres Proposed Revegetation Treatment: Acres Disturbed Prevegetation pH \_\_ Tons/acre or to correct to pH 6.5 Lime 2-4 Hay or Straw or Wood Fiber (will be used where needed) Fertilizer type Fertilizer amount 500 lbs/acre Mulch 2-3 Tons/acre Access Road "A" (4.61 acres) + Staging area (0.75 acres) + Well Pad (10.35 acres) + Excess/Topsoil Material Stockpiles (12.74 acres) = 28.45 Total Affected Acres Seed Mixtures Temporary Permanent Seed Type lbs/acre Seed Type lbs/acre **Annual Ryegrass** 40 Crownvetch 10-15 40 Tall Fescue 30 Field Bromegrass See attached Table IV-3 for additional see type, (Wrigley Pad Design) See attached Table IV-4 for additional seed type (Wrigley Pad Design) \*or type of grass seed requested by surface owner \*or type of grass seed requested by surface owner Attach: Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet. Plan Approved by: The May Comments: Date: \$19/22 Field Reviewed?





911 Address 1199 Rock Run Rd Friendly, WV 26146

## Well Site Safety Plan Antero Resources

Well Name: Wrigley Unit 5V, Little Unit 1H-2H, Martindill Unit

1H-2H, Trunk Unit 1H-2H

Pad Location: Wrigley Pad

Tyler County/Meade District

#### **GPS Coordinates:**

Entrance - Lat 39.423516"/Long -81.006496" (NAD83) Pad Center - Lat 39.421315"/Long -81.007502" (NAD83)

### **Driving Directions:**

From the town of Wick: Head north on Friendly Rush Fork/Hog Run Rd for 59 ft, Turn left onto Wick Rd for 1.7 miles, Turn right to stay on Wick Rd for 351 ft, Turn right onto Rock Run Rd for 1.1 miles, Access road will be on your left.

#### Alternate Route:

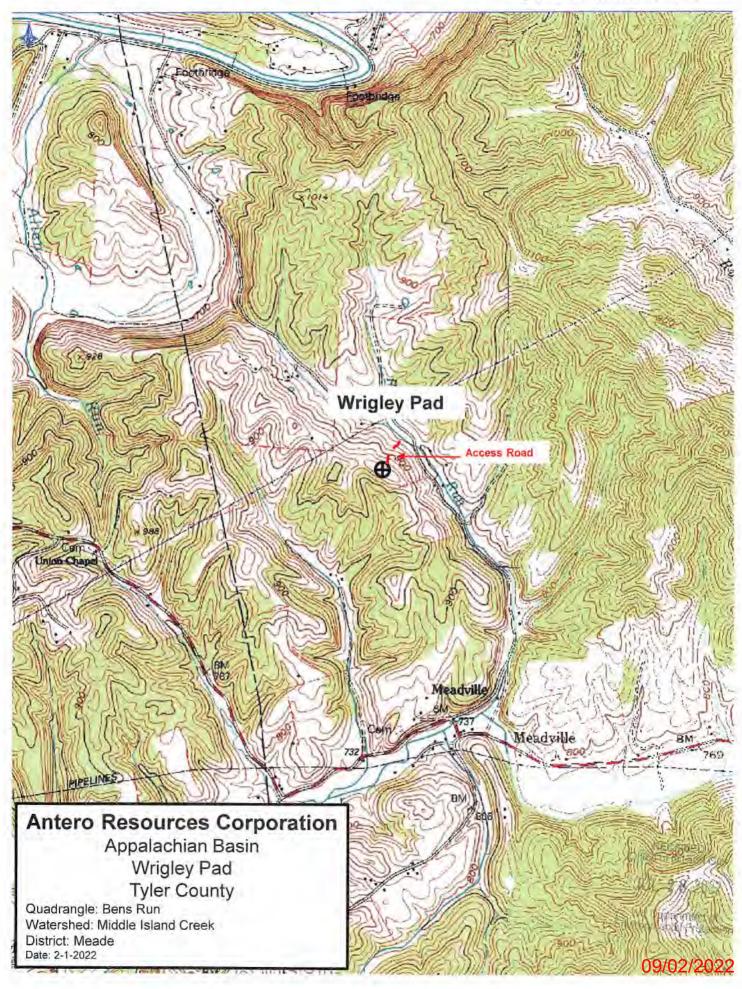
01/17/20

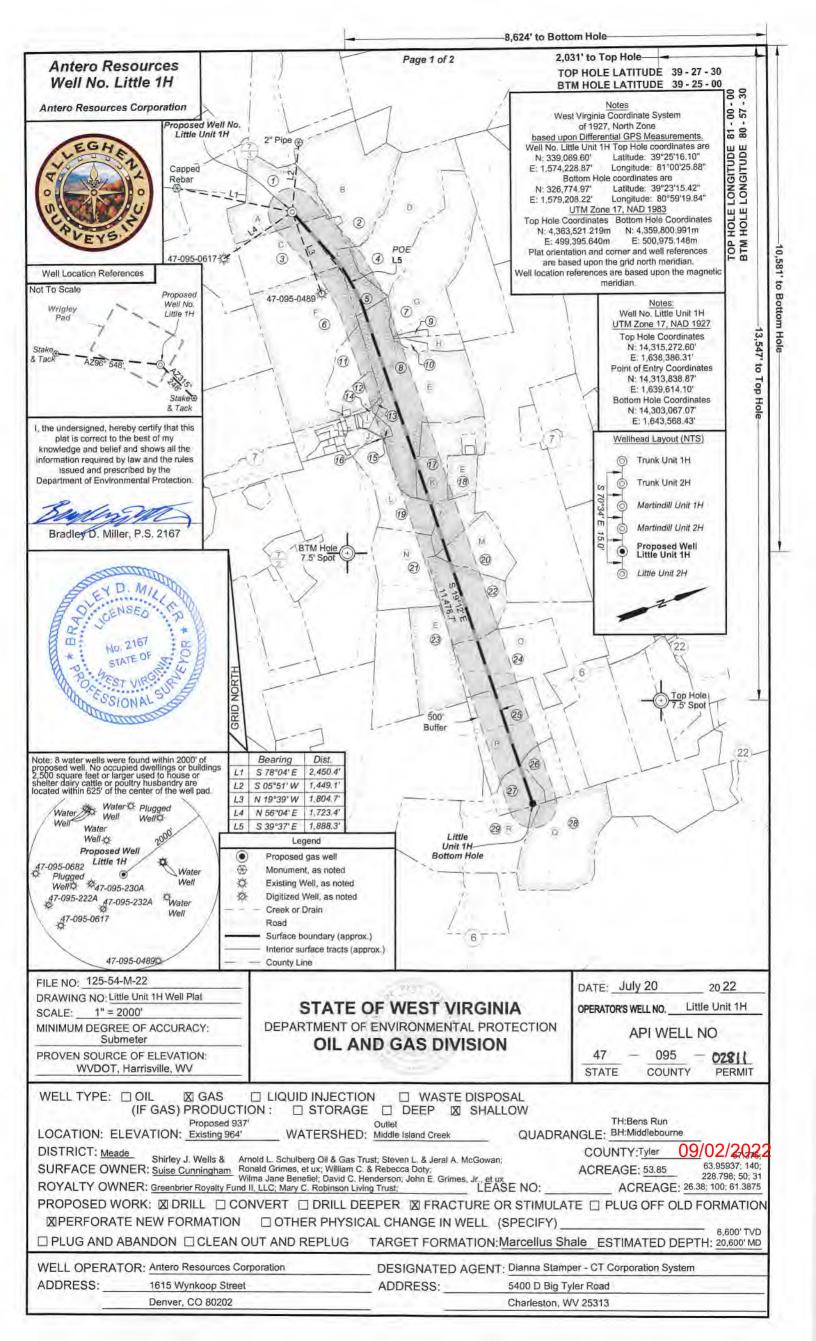
From the town of Long Reach: Head southwest on WV-2 S for 1.9 miles, Turn left onto Arvilla Rd for 4.0 miles, Turn right to stay on Arvilla Rd for 1.1 miles, Turn left onto Beech Run for 1.7 miles, Slight right onto Allen Run for 0.5 miles, Continue onto Falls Mills Rd/Shiloh-Slicker for 0.1 miles, Turn right onto Rock Run Rd for 1.7 miles, Access road will be on your right.

EMERGENCY (24 HOUR) CONTACT 1-800-878

AUG 1 5 2022

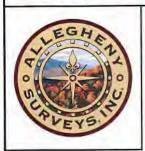
SSP Page 1





#### Antero Resources Well No. Little 1H

Antero Resources Corporation



ID	TM/Par	Owner	Bk/Pg	Acres
1	7-2	Shirley J. Wells & Susie Cunningham	W41/317	53.85
2	7-3	Harry E., Jr. & Noreen M. West	328/530	88.00
3	7-8	John Wells	428/412	52.39
4	7-4	Marcia A. Hill	506/479	74.50
5	7-23	David Henderson & Sharley Shortridge	W47/263	16.07
6	7-12	Wilma Jane (Benefiel) Wagner	W35/225	110.30
7	7-9	Russell G. & Ruth M. Smith Family Trust	541/608	66.85
8	7-19	Darlene Henderson	W47/263	122.83
9	7-9.1	Russell E. & Janice Smith	332/234	1.65
10	7-13.1	Russell E. & Janice Smith	328/867	2.60
11	7-12.2	Gary W. Freeland	336/530	19.97
12	7-12.1	Gary W. Freeland	251/546	8.73
13	7-19.1/.2	9.1/.2 Kenneth G. Hall		0.45
14	7A-9	g Jerry Irvin, Jr. & Linda Sue Lowther		2.00
15	7A-1	Trevor L. & Marinia M. Tallman	547/710	2.97
16	7A-1.1	Thaddeus R. & Deborah A. Biedrzycki	504/359	4.44
17	7-24	Ronald Wayne & Frances A. Grimes	335/304	50.00
18	7-19	Darlene Henderson	W47/263	122.83
19	7-22	Thaddeus R. & Deborah A. Biedrzycki	581/74	31.00
20	10-38	John E. Jr. & Mary Catherine Grimes	335/312	26.38
21	10-5	Thaddeus R. & Deborah A. Biedrzycki	349/513	44.73
22	10-8	David Henderson & Sharley Shortridge	W47/263	44.28
23	10-7	David Henderson & Sharley Shortridge	W47/263	41.00
24	10-9	Charles L. & Laura McGowan, et al	348/320	61.51
25	10-23	BB Farm Investments LLC	594/417	66.69
26	10-18	Lyle A. Jackson, et al	348/697	18.31
27	10-22	Clayton Hill	321/409	15.00
28	10-20	Lyle A. Jackson, et al	348/697	56.88
29	10-34	Dale A. & Melanie L. Proctor	642/567	43.55

	Leases
A	Greenbrier Royalty Fund II LLC
В	Harry E. West, Jr.
C	Mary C. Robinson Living Trust
D	Shirley Smith
E	David C. Henderson
F	Wilma Jane Benefiel
G	Thereasa L. Wilson
Н	Shirly Ann Smith
1	Jerry Irvin, Jr. & Linda S. Lowther
J	Kerr-McGee Oil & Gas Onshore LP
K	Ronald Grimes, et ux
L	William C. Doty & Rebecca Doty
M	John E Grimes, Jr., et ux
N	Ridgetop Royalties, LLC
0	Steven L. & Jeral A. McGowan
P	Arnold L. Schulberg Oil & Gas Trus
Q	Edith Ulrich Smith
R	Robert R. Osterland, et ux

FILE NO; 125-54-M-22 DRAWING NO: Little 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 20 2022 OPERATOR'S WELL NO. Little Unit 1H API WELL NO 095 - 02811 47 COUNTY

PERMIT

MELL TYPE	: UOIL	XI GAS	☐ LIQUID INJECTION	N	□ WAS	STE	DISPOSA	L		
	(IF GAS)	PRODUCTIO	N: ☐ STORAGE		DEEP	X	SHALLO	W		
Pagnings.	Z. G. H.L. Z.N.	Proposed 937'		Outle					TH:Bens Run	
LOCATION:	ELEVATION:	Existing 964'	WATERSHED	Middle	e Island Cre	ek		QUADRANGLE:	BH:Middlebou	rne
DISTRICT: M	leade Shirley	I Wells & Arn	old I. Schulberg Oil & Gas T	uet Sta	ven I & Ior	A A le	AcGowan:	COL	JNTY:Tyler	09

SURFACE OWNER: Suise Cunningham

Arnold L. Schulberg Oll & Gas Trust; Steven L. & Jeral A. McGowan;
Ronald Grimes, et ux; William C. & Rebecca Doty;

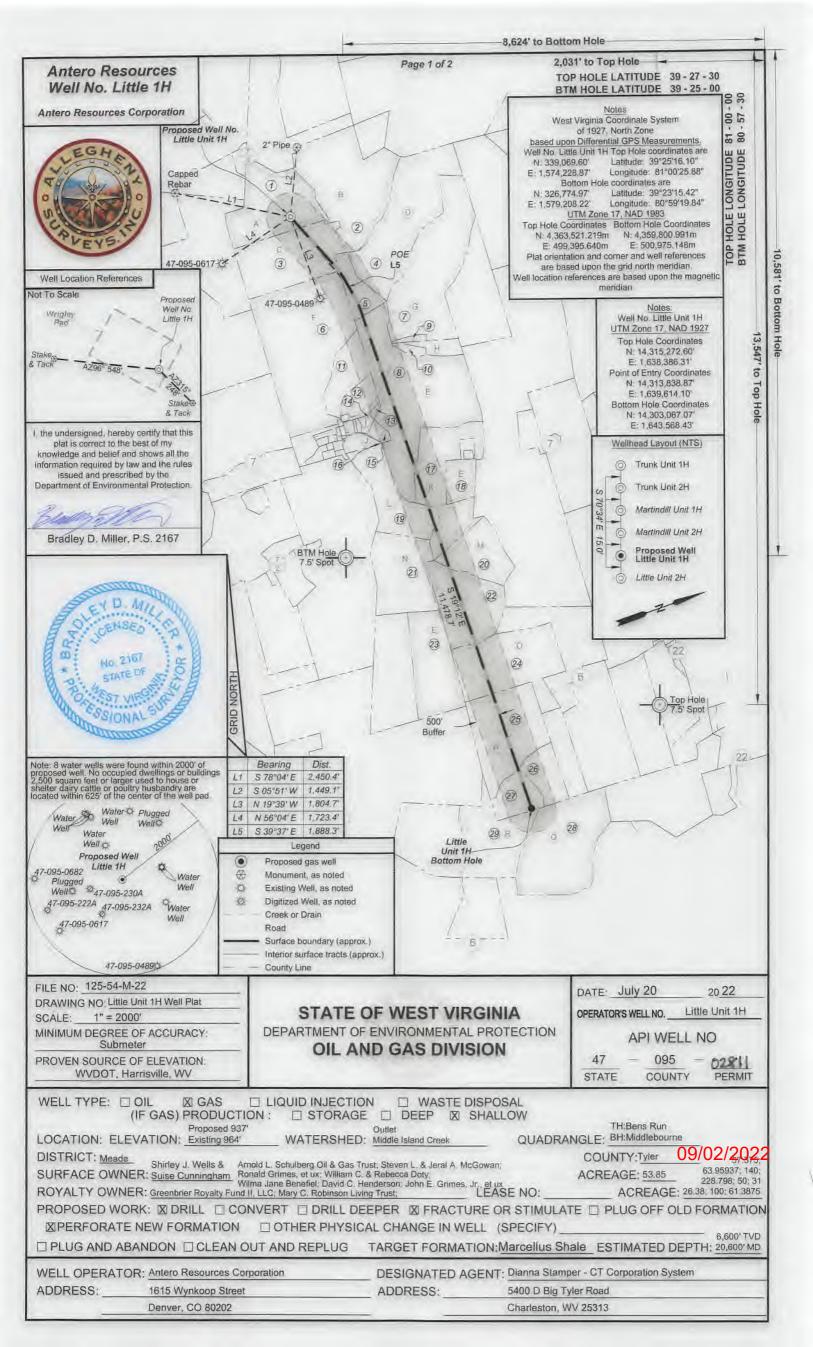
0/02/2022 63.95937; 140; ACREAGE: 53.85

STATE

ROYALTY OWNER: Greenbrier Royalty Fund II, LLC; Mary C. Robinson Living Trust;	SE NO: ACREAGE: 26.38; 100;	8; 50; 31 61.3875
PROPOSED WORK: ☑ DRILL ☐ CONVERT ☐ DRILL DEEPER ☒ FRACTURE O		ATIO

PROPOSED WORK: ☑ DRILL	☐ CONVERT ☐ DRILL D	EEPER X FRACTURE	OR STIMULATE	☐ PLUG OFF OLD FO	RMATION
☑PERFORATE NEW FORMA	ATION OTHER PHYSIC	CAL CHANGE IN WELL	(SPECIFY)		0.000171/0
☐ PLUG AND ABANDON ☐ CL	EAN OUT AND REPLUG	TARGET FORMATION	Marcellus Shale	ESTIMATED DEPTH	6,600' TVD : 20,600' MD

WELL OPERAT	OR: Antero Resources Corporation	DESIGNATED AC	GENT: Dianna Stamper - CT Corporation System
ADDRESS:	1615 Wynkoop Street	ADDRESS:	5400 D Big Tyler Road
	Denver, CO 80202		Charleston, WV 25313



#### Antero Resources Well No. Little 1H

Antero Resources Corporation



ID	TM/Par	Owner	Bk/Pg	Acres
1	7-2	Shirley J. Wells & Susie Cunningham	W41/317	53.85
2	7-3	Harry E., Jr. & Noreen M. West	328/530	88.00
3	7-8	John Wells	428/412	52.39
4	7-4	Marcia A. Hill	506/479	74.50
5	7-23	David Henderson & Sharley Shortridge	W47/263	16.07
6	7-12	Wilma Jane (Benefiel) Wagner	W35/225	110.30
7	7-9	Russell G. & Ruth M. Smith Family Trust	541/608	66.85
8	7-19	Darlene Henderson	W47/263	122.83
9	7-9.1	Russell E. & Janice Smith	332/234	1.65
10	7-13.1	Russell E. & Janice Smith	328/867	2.60
11	7-12.2	Carried Facility		19.97
12	7-12.1			8.73
13	7-19.1/.2	1/.2 Kenneth G. Hall		0.45
14	7A-9	Jerry Irvin, Jr. & Linda Sue Lowther	568/361	2.00
15	7A-1	Trevor L. & Marinia M. Tallman	547/710	2.97
16	7A-1.1	Thaddeus R. & Deborah A. Biedrzycki	504/359	4.44
17	7-24	Ronald Wayne & Frances A. Grimes	335/304	50.00
18	7-19	Darlene Henderson	W47/263	122.83
19	7-22	Thaddeus R. & Deborah A. Biedrzycki	581/74	31.00
20	10-38	John E. Jr. & Mary Catherine Grimes	335/312	26.38
21	10-5	Thaddeus R. & Deborah A. Biedrzycki	349/513	44.73
22	10-8	David Henderson & Sharley Shortridge	W47/263	44.28
23	10-7	David Henderson & Sharley Shortridge	W47/263	41.00
24	10-9	Charles L. & Laura McGowan, et al	348/320	61.51
25	10-23	BB Farm Investments LLC	594/417	66.69
26	10-18	Lyle A. Jackson, et al	348/697	18.31
27	10-22	Clayton Hill	321/409	15.00
28	10-20	Lyle A. Jackson, et al	348/697	56.88
29	10-34	Dale A. & Melanie L. Proctor	642/567	43.55

	Leases
A	Greenbrier Royalty Fund II LLC
В	Harry E. West, Jr.
C	Mary C. Robinson Living Trust
D	Shirley Smith
E	David C. Henderson
F	Wilma Jane Benefiel
G	Thereasa L. Wilson
H	Shirly Ann Smith
1	Jerry Irvin, Jr. & Linda S. Lowther
J	Kerr-McGee Oil & Gas Onshore LP
K	Ronald Grimes, et ux
L	William C. Doty & Rebecca Doty
M	John E Grimes, Jr., et ux
N	Ridgetop Royalties, LLC
0	Steven L. & Jeral A. McGowan
P	Arnold L. Schulberg Oil & Gas Trust
Q	Edith Ulrich Smith
R	Robert R. Osterland, et ux

FILE NO: 125-54-M-22

DRAWING NO: Little 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 20 20 22

OPERATOR'S WELL NO. Little Unit 1H

API WELL NO

47 - 095 - 02811

STATE COUNTY PERMIT

		STATE	COUNTY	PERIVIT
WELL TYPE: ☐ OIL ☐ GAS ☐ LIQUID INJECTIO  (IF GAS) PRODUCTION: ☐ STORAGE  Proposed 937'  LOCATION: ELEVATION: Existing 964' WATERSHED:	Oullet SHALLO	W TH	H:Bens Run H:Middlebourne	
DISTRICT: Meade Shirley J. Wells & Arnold L. Schulberg Oil & Gas Tr. Ronald Grimes, et ux; William Jane Benefiel; David C. H. ROYALTY OWNER: Greenbrier Royalty Fund II, LLC; Mary C. Robinson Livin	ust; Steven L. & Jeral A. McGowan: & Rebecca Doty; enderson; John E. Grimes, Jr., et ux ng Trust; LEASE		GF: 53.85	02/2022 63.95937; 140; 228.798; 50; 31 8; 100; 61.3875
PROPOSED WORK: ☑ DRILL ☐ CONVERT ☐ DRILL DE	EPER X FRACTURE OR AL CHANGE IN WELL (SF	STIMULATE   PL PECIFY)		6.600' TVD
WELL OPERATOR; Antero Resources Corporation	DESIGNATED AGENT: D	ianna Stamper - CT Co	rporation System	
ADDRESS: 1615 Wynkoop Street	ADDRESS: 5	400 D Big Tyler Road		
Denver, CO 80202	C	harleston, WV 25313		

Operator's Well Number

Little 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:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
A: Greenbrier Royalty Fund II, LLC Lease			
Greenbrier Royalty Fund II, LLC	Antero Resources Corporation	1/8+	0108/0631
C: Mary C. Robinson Living Trust Lease			
Mary C. Robinson Living Trust	Antero Resources Corporation	1/8+	0590/0141
E: David C. Henderson Lease			
David C. Henderson	Antero Resources Corporation	1/8+	0083/0667
/ F. Wilma Jane Benefiel Lease			
Wilma Jane Benefiel	Antero Resources Corporation	1/8+	0595/0537
E: David C. Henderson Lease			
David C. Henderson	Antero Resources Corporation	1/8+	0083/0667
K: Ronald Grimes, et ux Lease			
Ronald W. Grimes, et ux	Antero Resources Corporation	1/8+	0493/0371
L: William C. Doty & Rebecca Doty Lease			
William C. Doty, et ux	Antero Resources Corporation	1/8+	0591/0241
/K: Ronald Grimes, et ux Lease			
Ronald W. Grimes, et ux	Antero Resources Corporation	1/8+	0493/0371
M: John E. Grimes, Jr., et ux Lease			
John E. Grimes, Jr., et ux	Antero Resources Corporation	1/8+	0145/0065
E: David C. Henderson Lease			
David C. Henderson	Antero Resources Corporation	1/8+	0083/0667
O: Steven L. & Jeral A. McGowan Lease			
Steven L. McGowan, et ux	Antero Resources Corporation	1/8+	0640/0818
P: Arnold L. Schulberg Oil & Gas Trust Lease	MEGENV	ED	
Arnold L. Schulberg Oil and Gas Trust, Arnold L. Schulberg as Trustee	Antero	1/8+	0155/0735
	UU AUG 0 3 2022		
	By_00G		

WW-6A1 (5/13)

Operator's Well No.	Little 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
R: Robert R. Osterland, et ux	Lease			
	Robert R. Osterland, et ux	Antero Resources Corporation	1/8+	0470/0169
	Robert N. Osteriano, et ux	Antero nesources corporation	-, -,	

\*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	RECEIVED Office of Gil and Gas
By:	Tim Rady	
Its:	Senior Vice President - Land	JUL 2 8 2022
		WAY Department

WV Department of Environmental Protection

Page 1 of 1



Antero Resources 1615 Wynkoop Street Denver, CO 80202 Office 303.357.7310 Fax 303.357.7315

July 26, 2022

West Virginia Department of Environmental Protection Chief, Office of Oil and Gas Attn: Mr. James Martin 601 57<sup>th</sup> Street SE Charleston, WV 25304

RE: Little Unit 1H - 2H

Quadrangle: Bens Run 7.5'

Tyler County/Meade District, West Virginia

Mr. Martin:

Antero Resources Corporation (Antero) is submitting the following applications for a new well work permits for the Little Unit 1H-2H horizontal shallow wells. As an authorized representative, I certify that Antero has the right to extract, produce or market the oil or gas for all leases through which the Little Unit 1H-2H horizontal laterals will drill through including any and all roads crossed under as identified on the attached survey plats.

Sincerely,

Tyler Adams Landman

Tyler Adams

RECEIVED

JUL 28 2022

TD - 4 - C NT - 42 - - C - - 42 C - - 42 - - - 07/26/2022

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION 4709502811

	e Cerunication: 0//20/2022		FI NO. 4		
		O	perator's	Well No. Little	Unit 1H
		W	Vell Pad N	lame: Wrigley	Pad
Notice has l	een given:			-	
	e provisions in West Virginia Code § 22	2-6A, the Operator has provid	led the rec	uired parties w	rith the Notice Forms listed
	tract of land as follows:	· · · · · ·		-	
State:	West Virginia		asting:	499395.64m	
County:	Tyler	OIMNAD 85 N	orthing:	4363521.22m	
District:	Meade	Public Road Access	s:	Rock Run Rd	
Quadrangle:	Bens Run	Generally used farn	n name:	Wells	
Watershed:	Outlet Middle Island Creek				
it has provide information re of giving the requirements Virginia Code	the secretary, shall be verified and shall ed the owners of the surface described equired by subsections (b) and (c), section surface owner notice of entry to surve of subsection (b), section sixteen of the § 22-6A-11(b), the applicant shall tend have been completed by the applicant.	in subdivisions (1), (2) and on sixteen of this article; (ii) to by pursuant to subsection (a) his article were waived in w	l (4), substhat the re s, section training by	section (b), section (b), section (b), section was ten of this articate own the surface own section (b).	tion ten of this article, the deemed satisfied as a resul- cle six-a; or (iii) the notice ther; and Pursuant to Wes
that the Ope	West Virginia Code § 22-6A, the Operarator has properly served the required pack ALL THAT APPLY	tor has attached proof to this arties with the following:	s Notice C	ertification	OOG OFFICE USE ONLY
	TICE OF SEISMIC ACTIVITY or	NOTICE NOT REQUIRE			☐ RECEIVED/
П				122	NOT REQUIRED
☐ 2. NO	TICE OF ENTRY FOR PLAT SURVEY	or I NO PLAT SURVEY			NOT REQUIRED  ☐ RECEIVED
	TICE OF INTENT TO DRILL OF N	Or INO PLAT SURVEY NOTICE NOT REQUIRE OTICE OF ENTRY FOR PL VAS CONDUCTED OF	Y WAS CO	ONDUCTED	
l	TICE OF INTENT TO DRILL OF N	OTICE NOT REQUIRE	Y WAS CO ED BECA LAT SUR	ONDUCTED USE VEY	☐ RECEIVED/
■ 3. NO	TICE OF INTENT TO DRILL OF N	ONOTICE NOT REQUIRED TO TICE OF ENTRY FOR PLEASE ON OF THE PROPERTY OF THE PRO	Y WAS CO ED BECA LAT SUR	ONDUCTED USE VEY CE OWNER	☐ RECEIVED/
■ 3. NO	TICE OF INTENT TO DRILL OF N W	O NOTICE NOT REQUIRED NOTICE OF ENTRY FOR PLEASE CONDUCTED OF WRITTEN WAIVER BY (PLEASE ATTACH)	Y WAS CO ED BECA LAT SUR' Y SURFA RECEN	ONDUCTED USE VEY CE OWNER /ED and Gas	☐ RECEIVED/  RECEIVED/  NOT REQUIRED

#### Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

#### Certification of Notice is hereby given:

THEREFORE, I Diana Hoff

, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Antero Resources Corporation

By: Diana Hoff Diana C

Its: Senior VP of Operations

Telephone: 303-357-7310

Address: 1615 Wynkoop Street

Denver, CO 80202

Facsimile: 303-357-7315

Email: mstanton@anteroresources.com

DYANEY BEAIR
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994011871
MY COMMISSION EXPIRES 27-Apr-2024

Subscribed and sworn before me this 27 day of

Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

RECEIVED

JUL 28 2022

WW-6A (9-13)

# API NO. 47-1095 0\_9 5 0 2 8 1 1 OPERATOR WELL NO. Little Unit 1H Well Pad Name: Wrigley Pad

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later that	in the ming date of permit application.
Date of Notice: 03/24/2022 Date Permit Application Filed: 07/22 Notice of:	7/2022_
PERMIT FOR ANY WELL WORK CONSTRUCTION OF A	PROVAL FOR THE AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-10	<b>(b)</b>
	OD OF DELIVERY THAT REQUIRES A IPT OR SIGNATURE CONFIRMATION
sediment control plan required by section seven of this article, and the surface of the tract on which the well is or is proposed to be located and gas leasehold being developed by the proposed well work, if described in the erosion and sediment control plan submitted pursual operator or lessee, in the event the tract of land on which the well proposed well work, if the surface tract is to be used for the placement, constraint work, if the surface tract is to be used for the placement, constraint impoundment or pit as described in section nine of this article; (5) A have a water well, spring or water supply source located within one provide water for consumption by humans or domestic animals; and proposed well work activity is to take place. (c)(1) If more than three subsection (b) of this section hold interests in the lands, the applicant records of the sheriff required to be maintained pursuant to section of provision of this article to the contrary, notice to a lien holder is not	or signature confirmation, copies of the application, the erosion and the well plat to each of the following persons: (1) The owners of record of ated; (2) The owners of record of the surface tract or tracts overlying the if the surface tract is to be used for roads or other land disturbance as ant to subsection (c), section seven of this article; (3) The coal owner, proposed to be drilled is located [sic] is known to be underlain by one or acts overlying the oil and gas leasehold being developed by the proposed ruction, enlargement, alteration, repair, removal or abandonment of any Any surface owner or water purveyor who is known to the applicant to thousand five hundred feet of the center of the well pad which is used to defent the common or other co-owners of interests described in the may serve the documents required upon the person described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding any contice to a landowner, unless the lien holder is the landowner. W. Va. provide the Well Site Safety Plan ("WSSP") to the surface owner and any
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice	■ Well Plat Notice is hereby provided to:
☑ SURFACE OWNER(s)	COAL OWNER OR LESSEE
Name: Shirley Wells	Name: NO DECLARATIONS ON RECORD WITH COUNTY
Address: 1509 Maple Avenue	Address:
Wellsville, OH 43968-1253  Name: Susie Cunningham	COAL OPERATOR
Address: 1509 Maple Avenue	Name: NO DECLARATIONS ON RECORD WITH COUNTY
Wellsville, OH 43968-1253	Address:
SURFACE OWNER(s) (Road and/or Other Disturbance)	
Name:	SURFACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
	Name: PLEASE SEE ATTACHMENT
Name:	Address:
Address:	TODED ATOD OF ANY MATURAL CAS STORAGE FIELD
= CUDEACE OWNED(a) (Immoundments on Dita)	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
SURFACE OWNER(s) (Impoundments or Pits)	Name:
Name:Address:	Address: RECEIVED Office of Oil and Gas
1 AMAI VIII.	*Please attach additional forms if necessary
	ии в в 2022

JUL 2 8 2022

API NO. 47- 695 7 0 9 5 0 2 R 8 1 1 OPERATOR WELL NO. Little Unit 1 H 3 OT OT OT OTHER Wrigley Pad

#### Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

#### This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-gas/pages/default.aspx">www.dep.wv.gov/oil-and-gas/pages/default.aspx</a>.

#### **Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

47095 0 2 8 1 1

OPERATOR WELL NO. Little Unit 1H

Well Pad Name: Wrigley Pad

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

#### Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

#### Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

#### Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

#### Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57<sup>th</sup> St. SE
Charleston, WV 25304
(304) 926-0450

Office of Oil and Gas

JUL 28 2022

WV Department of Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WW-6A (8-13) API NO. 44 7 0 9 5 0 2 8 1 1

OPERATOR WELL NO. Little Unit 1H

Well Pad Name: Wrigley Pad

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

**Comment Requirements** 

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <a href="http://www.dep.wv.gov/oil-and-gas/Florizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Florizontal-Permits/Pages/default.aspx</a> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

RECEIVED
Office of Oil and Gas

JUL 28 2022

WW-6A (8-13)

OPERATOR WELL NO. Little Unit 1H Well Pad Name: Wrigley Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation

(303) 357-7310 Diana ( Telephone: mstanton@anteroresources.com Email:

Address: 1615 Wynkoop Street Denver, CO 80202

Facsimile: 303-357-7315

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

DIANE BLAIR NOTARY PUBLIC STATE OF COLORADO NOTARY ID 19994011871 MY COMMISSION EXPIRES 27-Apr-2024 Subscribed and sworn before me this 27 day of July 2022

Notary Public

My Commission Expires 37 Apr 2024

RECEIVED Office of Oil and Gas

JUL 28 2022

### WW-6A Notice of Application Attachment (WRIGLEY PAD- MULTIPLE WELLS)

WATER SOURCE OWNERS: Within 2000'

#### TM 4 PCL 20.3

1 Water Well: 1585.3" (W1)

Owner: Cecil E. & Linda M. Jordan

Address: 535 Washington St.

Newell, WV 26050-1127

#### TM 4 PCL 20.1

3 Water Wells:1545.2" (W2) 1461.6' (W3) & 1430.3' (W5)

Owner: Richard W. Barnhart, Jr. Address: 1431 Rock Run Rd.

Friendly, WV 26146-7505

#### TM 7 PCL 2

1 Water Well: 792.4' (W4)

Owner: Susie Cunningham Address: 1509 Maple Ave.

Wellsville, OH 43968-1258

#### TM 7 PCL 3

2 Water Wells: 853.5' (W6) & 870.0' (W7)

Owner: Harry Edward West Address: 1059 Rock Run Rd.

Friendly, WV 26146-7506

#### TM 7 PCL 8

1 Water Well: 1021.5' (W8)

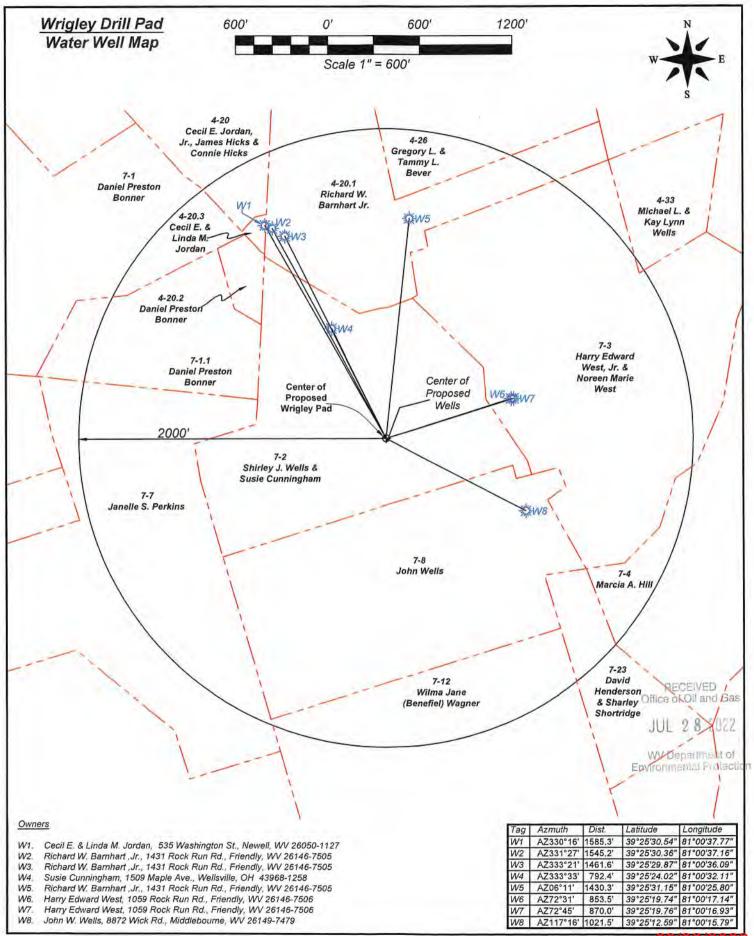
Owner: John W. Wells

Address: 8872 Wick Rd.

Middlebourne, WV 26149-7479

RECEIVED
Office of Oil and Gas

JUL 28 2022



#### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

	ce: 02/03/2022				
Delivery met	hod pursuant	to West Virginia Code § 22	2-6A-16(b)		
☐ HAND	•	CERTIFIED MAIL			
DELIVE		RETURN RECEIPT REQ	UESTED		
receipt reques drilling a hor of this subsec subsection ma and if availab	sted or hand del izontal well: P tion as of the day be waived in le, facsimile nu	ivery, give the surface owner ovided, That notice given pate the notice was provided writing by the surface owner	er notice of its intent to e bursuant to subsection (a to the surface owner: Pr er. The notice, if require dress of the operator and	enter upon t a), section to rovided, how ed, shall inc	, an operator shall, by certified mail retails the surface owner's land for the purpose on of this article satisfies the requirements wever, That the notice requirements of the lude the name, address, telephone number's authorized representative.
	ey Wells	a to the seration of		usie Cunningha	m
Address: 1509	Maple Ave		Address: 15	509 Maple Ave	
The state of the s	sville, OH 43968-1258	1		ellsville, OH 4396	68-1258
Pursuant to V the surface ov State:	Vest Virginia Co wner's land for West Virginia	ode § 22-6A-16(b), notice i the purpose of drilling a hor	izontal well on the tract	of land as for Easting:	499395.64m
Pursuant to W the surface ov State: County: District:	Vest Virginia Covner's land for West Virginia Tyler Meade		izontal well on the tract  UTM NAD 83  Public Road Acce	of land as for Easting: Northing:	ollows: 499395.64m 4363521.22m Rock Run Rd
the surface ov State: County:	Vest Virginia Covner's land for West Virginia	the purpose of drilling a hor	izontal well on the tract  UTM NAD 83	of land as for Easting: Northing:	ollows: 499395.64m 4363521.22m
Pursuant to W the surface ov State: County: District: Quadrangle: Watershed: This Notice Pursuant to W facsimile nur related to hor	Vest Virginia Covner's land for West Virginia Tyler Meade Bens Run 7.5' Outlet Middle Islan  Shall Include West Virginia Counter and electreizontal drilling	the purpose of drilling a hor  ad Creek  Code § 22-6A-16(b), this to the omay be obtained from the	izontal well on the tract  UTM NAD 83  Public Road Acce Generally used fa  notice shall include the perator and the operato. Secretary, at the WV D	of land as for Easting: Northing: ess: erm name: name, add er's authoriz	ollows: 499395.64m 4363521.22m Rock Run Rd
Pursuant to W the surface ov State: County: District: Quadrangle: Watershed:  This Notice Pursuant to W facsimile nur related to hor located at 600  Notice is he	West Virginia Covner's land for the West Virginia Tyler Meade Bens Run 7.5' Outlet Middle Islan  Shall Include West Virginia Cover and electroize and electroize and strict of the Street, SE  reby given by	the purpose of drilling a hored creek  Code § 22-6A-16(b), this report on the obtained from the Charleston, WV 25304 (3)	izontal well on the tract  UTM NAD 83  Public Road Acce Generally used fa  notice shall include the perator and the operator Secretary, at the WV D 04-926-0450) or by visit	of land as for Easting: Northing: ess: orm name: name, add or's authoriz department of ting www.d	ollows: 499395.64m 4363521.22m Rock Run Rd Wells  ress, telephone number, and if availated representative. Additional informate of Environmental Protection headquarteep.wv.gov/oil-and-gas/pages/default.as
Pursuant to W the surface ov State: County: District: Quadrangle: Watershed:  This Notice Pursuant to W facsimile nur related to hor located at 601  Notice is he Well Operato	Vest Virginia Covner's land for West Virginia Tyler Meade Bens Run 7.5' Outlet Middle Islan Shall Include West Virginia Counter and electrizontal drilling 1 57th Street, SE reby given by T: Antero Resource	the purpose of drilling a hored the purpose of drilling a hored the condition of the condit	izontal well on the tract  UTM NAD 83  Public Road Acce Generally used fa  notice shall include the perator and the operator Secretary, at the WV D 04-926-0450) or by visit  Authorized Rep	of land as for Easting: Northing: ess: orm name: name, add or's authoriz department of ting www.d	ollows: 499395.64m 4363521.22m  Rock Run Rd  Wells  ress, telephone number, and if available and representative. Additional information of Environmental Protection headquarteep.wv.gov/oil-and-gas/pages/default.asp
Pursuant to W the surface ov State: County: District: Quadrangle: Watershed:  This Notice Pursuant to W facsimile nur related to hor located at 600  Notice is he	Vest Virginia Covner's land for West Virginia Tyler Meade Bens Run 7.5' Outlet Middle Islan Shall Include West Virginia Counter and electrizontal drilling 1 57th Street, SE reby given by T: Antero Resourd 1615 Wynkoop	the purpose of drilling a hored creek  a: Code § 22-6A-16(b), this reconcion mail address of the omay be obtained from the Charleston, WV 25304 (3)  Coes Appalachian Corporation St.	izontal well on the tract  UTM NAD 83  Public Road Acce Generally used fa  notice shall include the perator and the operator Secretary, at the WV D 04-926-0450) or by visit	of land as for Easting: Northing: ess: orm name: name, add or's authoriz department of ting www.d	ollows: 499395.64m 4363521.22m  Rock Run Rd  Wells  ress, telephone number, and if available representative. Additional informat of Environmental Protection headquarteep.wv.gov/oil-and-gas/pages/default.asp
Pursuant to W the surface ov State: County: District: Quadrangle: Watershed:  This Notice Pursuant to W facsimile nur related to hor located at 601  Notice is he Well Operato Address:	West Virginia Covner's land for the West Virginia Tyler Meade Bens Run 7.5' Outlet Middle Islan  Shall Include West Virginia Cover and electroized drilling 1 57th Street, SE  reby given by T: Antero Resourd 1615 Wynkoop Denver, CO 80	the purpose of drilling a hored creek  a: Code § 22-6A-16(b), this reconcion mail address of the omay be obtained from the Charleston, WV 25304 (3)  Coes Appalachian Corporation St.	izontal well on the tract  UTM NAD 83  Public Road Acce Generally used fa  notice shall include the perator and the operator Secretary, at the WV D 04-926-0450) or by visit  Authorized Rep Address:	of land as for Easting: Northing: ess: orm name: name, add or's authoriz department of ting www.d	ollows: 499395.64m 4363521.22m Rock Run Rd Wells  ress, telephone number, and if available representative. Additional informate of Environmental Protection headquarteep.wv.gov/oil-and-gas/pages/default.asj  : Mallory Stanton 1615 Wynkoop St. Denver, CO 80202
Pursuant to V the surface ov State: County: District: Quadrangle: Watershed:  This Notice Pursuant to V facsimile nur related to hor located at 600  Notice is he Well Operato Address:  Telephone:	Vest Virginia Covner's land for West Virginia Tyler Meade Bens Run 7.5' Outlet Middle Islan Shall Include West Virginia Counter and electrizontal drilling 1 57th Street, SE reby given by T: Antero Resourd 1615 Wynkoop	the purpose of drilling a hored creek  a: Code § 22-6A-16(b), this reconcion mail address of the omay be obtained from the Charleston, WV 25304 (3)  Coes Appalachian Corporation St.	izontal well on the tract  UTM NAD 83  Public Road Acce Generally used fa  notice shall include the perator and the operator Secretary, at the WV D 04-926-0450) or by visit  Authorized Rep Address:  Telephone:	of land as for Easting: Northing: ess: orm name: name, add or's authoriz department of ting www.d	ollows: 499395.64m 4363521.22m  Rock Run Rd  Wells  ress, telephone number, and if available representative. Additional informat of Environmental Protection headquarteep.wv.gov/oil-and-gas/pages/default.asp
Pursuant to W the surface ov State: County: District: Quadrangle: Watershed:  This Notice Pursuant to W facsimile nur related to hor located at 601  Notice is he Well Operato	Vest Virginia Covner's land for the West Virginia Tyler Meade Bens Run 7.5' Outlet Middle Islan Shall Include West Virginia Country and electrizintal drilling 157th Street, SE  reby given by T: Antero Resourd 1615 Wynkoop Denver, CO 80 303-357-7310	the purpose of drilling a hored creek  a: Code § 22-6A-16(b), this reconcion mail address of the omay be obtained from the Charleston, WV 25304 (3)  Coes Appalachian Corporation St.	izontal well on the tract  UTM NAD 83  Public Road Acce Generally used fa  notice shall include the perator and the operator Secretary, at the WV D 04-926-0450) or by visit  Authorized Rep Address:	of land as for Easting: Northing: ess: orm name: name, add or's authoriz department of ting www.d	ollows: 499395.64m 4363521.22m Rock Run Rd Wells  ress, telephone number, and if available representative. Additional informate of Environmental Protection headquarteep.wv.gov/oil-and-gas/pages/default.asj  : Mallory Stanton 1615 Wynkoop St. Denver, CO 80202

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deportivacyofficer@wv.gov.



WW-6A5 (1/12) Operator Well No. Little Unit 1H

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

Notice Time I Date of Notic	Requirement: notice e: 07/27/2022		plater than the filing oplication Filed; 07/2		application.
Delivery metl	hod pursuant to Wes	st Virginia Code § 2	22-6A-16(c)		
■ CERTIF	FIED MAIL	П	HAND		
	N RECEIPT REQUE	STED	DELIVERY		
return receipt the planned o required to be drilling of a h damages to th (d) The notice of notice.	requested or hand deleperation. The notice provided by subsection norizontal well; and (e surface affected by this second provided by this second provided p	livery, give the surfate required by this surface on (b), section ten of 3) A proposed surface oil and gas operation shall be given to	ce owner whose land absection shall include this article to a surface use and compens as to the extent the day to the surface owner a	will be used for de: (1) A copy ace owner whos ation agreement mages are com	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
Notice is here	eby provided to the S	SURFACE OWNER	R(s)		
	s listed in the records	of the sheriff at the t		Susie Cunningha	m
Name: Shirle Address: 1509	ey Wells		Name: Address		
	Isville, OH 43968-1253		rudics.	Wellsville, OH 43	968-1253
State: County: District:	West Virginia Tyler Meade	and for the purpose (	UTM NAD 8	Easting: Northing:	499395.64m 4363521.22m Rock Run Rd
Quadrangle:	Bens Run		Generally use	ed farm name:	Wells
Watershed:	Outlet Middle Island Creek				
Pursuant to W to be provide horizontal we surface affect information r	ed by W. Va. Code ell; and (3) A propose ted by oil and gas op elated to horizontal of located at 601 57 <sup>th</sup>	§ 22-6A-10(b) to a standard description of the external de	surface owner whose impensation agreement the damages are callined from the Secre-	e land will be nt containing a empensable und tary, at the WV	code section; (2) The information required used in conjunction with the drilling of a n offer of compensation for damages to the der article six-b of this chapter. Additional / Department of Environmental Protection or by visiting

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



WW-6AW (1-12)

OPERATOR WELL NO.	Little Unit 1H
-------------------	----------------

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

### **VOLUNTARY STATEMENT OF NO OBJECTION**

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

#### **Comment and Waiver Provisions**

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole; *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

### VOLUNTARY STATEMENT OF NO OBJECTION

required, and State:	attachments consisting of pages one (1) through the well plat, all for proposed well work on the tra- West Virginia	ct of land as follows: Easting:	499395.64m	
County:	Tyler	Northing:		
District:		ublic Road Access:	Rock Run Rd Wells	
Quadrangle: Watershed:	Bens Run  Outlet Middle Island Creek	Generally used farm name:		
*Please check	k the box that applies	FOR EXECUT	ION BY A NATURAL PERSON	
*Please check	k the box that applies	FOR EXECUT	ION BY A NATURAL PERSON	
□ SURFA	CE OWNER	Signature:		
☐ SURFAC	CE OWNER (Road and/or Other Disturbance)			
☐ SURFAC	CE OWNER (Impoundments/Pits)		ION BY A CORPORATION, ETC.	
□ COAL C	OWNER OR LESSEE			
□ COAL C	PERATOR	Its:	RECEIVED Office of Off and Gas	
□ WATER	PURVEYOR	The second second	JUL 2 8 2022	
- ceee	TOR OF ANY NATURAL GAS STORAGE I	Date	WV Department of	

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

### Division of Highways

D. Alan Reed, P.E. State Highway Engineer 1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

Jimmy Wriston, P. E. Secretary of Transportation Commissioner of Highways

July 11, 2022

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57<sup>th</sup> Street, SE Charleston, WV 25304

Subject: DOH Permit for the Wrigley Pad, Tyler County
Little Unit 1H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2022-0028 which has been issued to Antero Resources for access to the State Road for a well site located off Tyler County Route 7/3 SLS MP 1.19.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Diane Blair

Antero Resources CH, OM, D-6

File

Office of Oil and Gas

Subdivision 3.3.e A listing of the anticipated additives that may be used in the water used for fracturing or stimulating the well. (A listing of the additives that were actually used in the fracturing or stimulating of the well shall be submitted as part of the completion report required by W. Va. Code 22-6-22.)

#### FRACTURING/STIMULATING INTERVAL

	Additive	Chemical Abstract Service Number (CAS #)
1.	Fresh Water	7732-18-5
2.	2 Phosphobutane 1,2,4 tricarboxylic acid	37971-36-1
3.	Ammonium Persulfate	7727-54-0
4.	Anionic copolymer	Proprietary
5.	Anionic polymer	Proprietary
6.	BTEX Free Hydrotreated Heavy Naphtha	64742-48-9
7.	Cellulase enzyme	(Proprietary)
8.	Demulsifier Base	(Proprietary)
	Ethoxylated alcohol blend	Mixture
	Ethoxylated Nonylphenol	68412-54-4
	Ethoxylated oleylamine	26635-93-8
	Ethylene Glycol	107-21-1
	Glycol Ethers	111-76-2 9000-30-0
	Guar gum	
	Hydrogen Chloride	7647-01-0 64742-47-8
	Hydrotreated light distillates, non-aromatic, BTEX free	67-63-0
	Isopropyl alcohol	10222-01-2
	Liquid, 2,2-dibromo-3- nitrilopropionamide	
	Microparticle	Proprietary
	Petroleum Distillates (BTEX Below Detect)	64742-47-8
	Polyacrylamide	57-55-6
	Propargyl Alcohol	107-19-7
	Propylene Glycol	57-55-6
	Quartz	14808-60-7
	Sillica crystalline quartz	7631-86-9
	Sodium Chloride	7647-14-5
	Sodium Hydroxide	1310-73-2
	Sugar	57-50-1
	Surfactant	68439-51-0
	Suspending agent (solid)	14808-60-7
	Tar bases, quinolone derivs, benzyl chloride-quarternized	72480-70-7
	Solvent Naptha, petroleum, heavy aliph	64742-96-7
	Soybean Oil, Me ester	67784-80-9
	Copolymer of Maleic and Acrylic Acid	52255-49-9
	DETA Phosphonate	15827-60-8
	Hexamythylene Triamine Penta	34690-00-1
	Phosphino Carboxylic acid polymer	71050-62-9
	Hexamethylene diamine penta	23605-74-5
	2-Propenoic acid, polymer with 2 propenamide	9003-06-9
	Hexamethylene diamine penta (methylene phosphonic a	· ·
	Diethylene Glycol	111-46-6
	Methenamine	100-97-0
	Polyethylene polyamine	68603-67-8
	Coco amine	61791-14-8 RECEIVED   38173-91-7 Office of Oil and G
45.	2-Propyn-1-olcompound with methyloxirane	361/2-31-/
		JUL 🤋 🖇 2012

#### WRIGLEY WELL PAD & WATER CONTAINMENT PAD

#### SITE DESIGN & CONSTRUCTION PLAN. **EROSION & SEDIMENT CONTROL PLANS**

MEADE DISTRICT, TYLER COUNTY, WEST VIRGINIA SUGAR CREEK WATERSHED

USGS 7.5 BENS RUN & MIDDLEBOURNE QUAD MAPS



LOCATION COORDINATES:
ACCESS ROAD ENTRANCE.
LAITUDE: 39.423516 LONGITUDE -61.008495 (NAD 83)
LAITUDE: 39.423519 LONGITUDE -61.008495 (NAD 83)
LAITUDE: 39.423499 LONGITUDE - 61.008495 (NAD 87)
ASSERTIAS B & 499444.659 (UTM 20NET VI BETEE) CENTER OF TANK
LATITUDE: 39.421600 LONGTRIDE: -81.008242 (NAB 83)
LATITUDE: 39.421623 LONGTRUDE: -81.008242 (NAB 87)
N 4383363.67 E 409281.97 (UTM ZONE 17 METERS)

CENTROID OF PAU LATITUDE: 39.421316 LONGITUDE: -81.007502 (NAD 83) LATITUDE: 39.42128 LONGITUDE: -81.007676 (NAD 27) N 438353211 E 488354.26 (UTM ZONE 17 METERS)

GENERAL DESCRIPTION:
THE ACCESS ROAD, STACING AREA, WATER CONTRINUEST PAD AND WELL PAD ARE BEING
CONSTRUCTED TO AD IN THIS DEVELOPMENT OF REDVIDUAL MARCELUS SHALE GAS WELLS.

FLOODPLAIN NOTES:
THE PROPOSED SITE IS LOCATED IN FLOOD ZONE 'X' PER FEMA MAP NUMBERS #54096C0125C.

MISS LITTLETY STATEMENT.

ATTERNESS PROMOTES CONFORMENT WILL HOTHEY MISS LITTLETY OF WEST VERGINA FOR THE LOCATING, OF CONTRACTOR PROFIT TO FESSER, IN ADDITION, MISS UTILITY WILL BE CONTRACTED FROM TO THIS PROADET DESIGN. IN ADDITION, MISS UTILITY WILL BE CONTRACTED FOR THE PROBLET.

CONTINUES PERMITS
ANTER DESCRIPTE PERMIT (FORM MM 109) FROM THE MEST VIRGINIA DEPARTMENT OF TRANSPORTATION OF HIGHWAYS, PROF. TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

ENVIRONMENTAL NOTES:
SITEMA AND WITLAND DELIMENTORS WERE PERFORMED IN SEPTEMBER, SOIL BY ALLSTAR ECCLORY TO
STREAM AND WITLAND DELIMENTORS WERE PERFORMED IN SEPTEMBER, SOIL BY ALLSTAR ECCLORY TO
FITTE U.S. ARMY CORPS OF DENORMERS (URACL) AND OR THE WEST VIRTUEL DESIMENTOR OF THE U.S. ARMY CORPS OF DENORMERS (URACL) AND OR THE WEST VIRTUEL DESIMENTOR OF THE U.S. ARMY CORPS OF THE CORPS OF THE U.S. ARMY CORPS OF THE CORPS OF THE U.S. ARMY CORPS OF THE DELIMENT OF THE STREAM OF THE SPRONG OF THE U.S. ARMY CORPS OF THE U.S. AR

GEOTECHNICAL NOTES.
A SUBSUPACE INVESTIGATION OF THE PROPOSED SHE HAS PERFORMED BY PENNSYLVANIA SOIL & ROCK, INC. ON APRIL 10-19, 2016. THE REPORT PREJAINED BY PENNSYLVANIA SOIL & ROCK, INC. ON APRIL 10-19, 2016. THE REPORT PREJAINED BY PENNSYLVANIA SOIL & ROCK, INC. DATED JUNE 6. 2018, REVISED SEPTEMBER 22, 2012. REPLICTS THE RESULTS OF THE SUBSUPACE INVESTIGATION. THE REPORTATION AND RECOMMENDATIONS CONTAINED IN THE SEPTEMBER USED IN THE PERFARATION OF THESE PLANS. PLANS REPORT PARE USED IN PENNSYLVANIAL SOIL & ROCK, INC. ON TAINING REPORT PARE USED PLANS.

PROJECT CONTACTS:

OPERATOR:
ANTERO RESOURCES CORPORATION
DOS WHITE OARS BLVD.
HRIDGEPORT, W 26330
PHONE (204) 842-4100
FAX: (304) 842-4102

ELI WAGONER - ENVIRONMENTAL ENGINEER & REGULATORY MANAGER OFFICE: (304) 842-4088 CELL: (304) 476-9770

DIANA HOFF - SVP OPERATIONS OFFICE: (303) 357 8904

AARON KUNZLER - CONSTRUCTION MANAGER CMLL (304) 842-4191

ROBERT EDDY - UTILITY COORDINATOR CELL: (304) 719-5198

JIM WILSON - LAND AGENT OFFICE: (204) 542-4419 CELL: (304) 571-2708

ENGINEER/SURVEYOR NATITUS ENGINEERING, INC. CYRUS S. KUMP, FE - PROJECT MANAGER/ENGINEER OFFICE: (886) 662-4165 CELL: (540) 685-6747

ENVIRONMENTAL: ALISTAR ECOLOGY, 11.C RYAN L. #ARD — ENVIRONMENTAL SCIENTIST (906) 210-2660 CELL: (304) 692-7477

ARRON RUYLLER - CONSTRUCTION MANAGER CELL: (094) 497-4197

ROBERT WIRES - DISIGN MANAGER (094) 527-7405

FOFFICE: (2014) 842-4100

CELL: (204) 527-7405

FOFFICE: (2014) 727-8-000 CELL: (147) 549-50822

RESTRICTIONS NOTES:

1. THERE ARE NO LAKES, POIDS, OR RESERVOIRS WITHIN 100 FREE OF THE WELL PAD AND LOD. THERE ARE PERSONAL STREAMS A WITHAND IMPACTS THAT WILL NEED TO BE PERMITTED BY THE APPROPRIATE AGENCIES.

- 2. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL
- 3. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.

- THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

PROPOSED WELL PAD/ WATER STAGING CONTAINMENT PAD (1) WEST VIRGINIA COUNTY MAP WVDOH COUNTY ROAD MAP

- PROPOSED SITE

(NOT TO SCALE)

REPRODUCTION NOTE

SE PLANS WERE CHEATED TO BE PLANTED ON 25 MAY AMED DI

THESE PLANS WERE CREATED FOR COLOR FLOTTING AND ANY OPHITHONS IN GRAY SCALE OR COLOR MAY RESELLT IN A LOSS OF MATOR AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES:

DESIGN CERTIFICATION:
THE DRAWNGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS
ATTACHED HERSTO HAVE BEEN PREPARED IN ACCORDANCE WITH
THE WEST VIRGINIA CORE OF STATE RULES. INVISION OF
ENVIRONMENTAL PROTECTION, OFFICE OF OLL AND GAS CHS 35-8.

MISS Utility of West Virginia 1-800-245-4848 West Virginia State Law (Section XIV: Chapter 24-C) Requires that you call two business days before you dig in the state of West Virginia. IT'S THE LAW!!

#### SHEET INDEX:

- COVER SHEET CONSTRUCTION AND EAS CONTROLS NOTES

- COVER SHEET

  CONSTRUCTION AND EAS CUNTROLS NOTES

  CONSTRUCTION

  MATERIAL QUANTITIES

  EXISTING DERINANCE & EAS COMPUTATIONS

  EXISTING CONDITIONS

  EXISTING CONDITIONS

  EXISTING CONDITIONS

  EXISTING CONDITIONS

  EXISTING CONDITIONS

  EXISTING

  ACCESS ROAD, STAGING AREA & VOLLINGS

  ACCESS ROAD, STAGING AREA & VOLLINGS

  ACCESS ROAD SECTIONS

  EXIL PAD & STOCKPILE PLAN

   WELL PAD & STOCKPILE PLAN

   WELL PAD & STOCKPILE SECTIONS

  EXISTING

  EXISTING

  STREAM LICONSING DESCRIPTIONS

  EXISTING

  EXISTING

  STREAM LICONSING DESCRIPTIONS

  EXISTING

  ACCESS ROAD, STAGING AREA & WELL PAD RECL.

  ACCESS ROAD, STAGING AREA & WELL PAD RECL.

- ACCESS ROAD, STAGING AREA & WELL PAD RECLAMATION PLAN-ACCESS ROAD, WELL PAD & STOCKPILE RECLAMATION PLAN-IN-GESON GEOTECHNICAL DETAILS

WRIGLEY LIMITS OF DISTURBANCE A	MENTANDI.
Total Site	
Access Road "A" (1576")	4.61
Staging Area	0.75
Well Pad	10.35
Excess/Topsoil Material Stockpiles	12.74
Total Affected Area	28,45
Total Wooded Acres Disturbed	16.80
Impacts to Shirley J. Wellis & Susie Cunningham Raiph D. Wells Des G. Wells TM ?	
Access Road "A" (1576")	461
Staging Area	0.75
Well Pad	10.35
Excess/Topsoil Material Stockpiles	12.74
Total Affected Area	28.46

West Marrie	NAC 27	MAD 2/ Lat & Long	(METERS) ZONE 17	NAD ET LIS & Long			
	Permitted Location						
Trunk	N 309059.52	LAT 39-25-15 2820	N 4362627 00	LA7 29-25-16 5002			
UNIT 1H	E 1574172 28	LONG -81-05-26 6074	E 466379.30	CMG-81-00-28 0016			
Trunk	N 230084.54	LAT 39-25-16 2452	N 4353625.55	LAT 30-25-16:5223			
UNIT 2H	E 1574198 43	LONG -81-00-26-4250	E.400382.63	LONG -61-00-25 8205			
Martindill	N 339079.56	LAT 39-25-15 1983	N 4363634.11	LAT 39-25-16,4754			
UNIT 1H	E 1674200.87	LONG -81-03-26-2447	E 499300,97	LONG -81-00-25 6391			
Martindill	N-339074.58	LAT 39-25-16 1514	N 4303622 66	LAT 39-25-10-4265			
UNIT 2H	E 1574214 72	LONG -81-00-25 0593	E 400301 30	LCNG-81-00-25-4576			
Little	N 309069.60	LAT 39-25-15 1645	N 4363521.22	LAT 39-25-16-3817			
LINIT 1H	E 1574228 87	LONG -81-09-25 8829	E 49/395.94	LONG-81-00-75 2784			
Little	N 339064.82	LAT 39-26-15.0577	N 4363610.77	LAT 39-25 18,3348			
UNIT 2H	E 1574243.02	LONG -81-00-25 7006	E 409309 SI	LONG -61 00 25 0061			
Oxtow	N 339145,72	LAT 39-25-16 8041	N C202512 TR	AT 39-25-17-0112			
UNIT 1H	E 1573913.99	LONG 41-03-29 9485	E 490298.41	LCNG-81-00-29 3430			
Dabow	N 339141.07	LAT 36-25-16 7805	N 4363541.45	LAT 39-25-17.0375			
LINUT 2H	E 1573925.25	LONG-81-00-29-7008	E 497302.78	LONG 41-09-29 1903			
Rute	N 209130-41	LAT 39-75-16 7198	N 4383540.10	EAT 30-25-16 0039			
DNIT 19	E 1573939.51	LONG 41-05-29 5831	E 490307.15	LONG-81400-28 9777			
Rote	N 339131 75	LAT 30-25-16-5732	N 4363638.75	LAT 39-25-16,9603			
UNIT 2H	E 1573963.77	LONG-81-05-29 4005	E 499311 51	LONG-81-00-28 T900			
Wrighty	N 339160-15	LAT 39-25-17 0700	N 4383550.93	LAT 30-25-17,3500			
LINIT 5V	E 1574106 83	LONG -61-30-27-4600	E 499357 98	LONG -81-00-25 8500			
Proposed Veil	Ped Elevanion	937.0					

WRIGLEY WETL	AND IMPAI	T SQUARE FEE	77
Wetland and Impact Cause	FIL(SF)	Total Impact (SF)	Total impact
GA! (Melland 12 (Access Road)	70	70	0.002
ASE Wetland 1 (Access Road)	1,593	1,593	0.04

WHALETPE		Permanant Impacts Temp. Impacts Total		
Stream and Impact Cause		Inlets/Outlets Structures (LF)	COMMUNITER CAN	(LF)
GAIStmam 1 (Access Road)	65	0	34	99

	Permanent impacts		Temp. Impacts	Total Impact	
Streem and Impact Cause	Culvent /FE(LF)	Inlets/Outlets Structures (LF)	Controls (LF)	(LF)	
ASE Stream 10 (Access Road)	37	18	26	81	
GAI Stream 35 ASE Stream 9 (Access Road)	89	45	22	156	

S ENGINEERING

z	KELLS			
ISTO	PER	П		
REVISION	REVISED			
32	2022	-		
DATE	(62/6	И	I	



WRIGLEY COVER PAD &

PAD

SHEET 1 OF 27

