

west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Monday, September 20, 2021 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET DENVER, CO 80202

Re: Permit approval for MAROON UNIT 1H

47-095-02756-00-00

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) 926-0450.

James A. Marin

Chief

Operator's Well Number: MAROON UNIT 1H

Farm Name: CLARA SUZANNE WALLACE

U.S. WELL NUMBER: 47-095-02756-00-00

Horizontal 6A New Drill Date Issued: 9/20/2021

API Number:	
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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 designee 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:	

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, cessation 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 -	02756
OPERATOR WELL	L NO. Maroon Unit 1H
Wall Pad Name	Thin Air Pad

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

1) Well Operate	or: Antero F	Resources	Corporat	49450	7062	095-Tyler	Ellsworth	Porter Falls 7.5'
, .	 			Opera	tor ID	County	District	Quadrangle
2) Operator's Well Number: Maroon Unit 1H Well Pad Name: Thin Air Pad								
3) Farm Name/Surface Owner: Clara Suzanne Wallace & Rickie Wallace Public Road Access: CR 11								
4) Elevation, current ground: 1235' Elevation, proposed post-construction: ~1200'								
5) Well Type	(a) Gas $\frac{\lambda}{2}$	(_ Oil		Unde	rground Storag	e	
	Other _		2 2 2000					· · · · · · · · · · · · · · · · · · ·
	(b)If Gas	Shallow	X		Deep			
		Horizontal	<u>X</u>					
6) Existing Pad	•							
7) Proposed Ta	•		` ''	-		nd Expected Pr ted Pressure- 2	` '	
		<u>-</u>				ileu Flessuie- Z		
8) Proposed To					-			
9) Formation at	Total Vertica	al Depth:	Marcellus					
10) Proposed T	otal Measure	d Depth:	7300' MD					
11) Proposed H	lorizontal Leg	g Length:	0'					
12) Approxima	te Fresh Wate	er Strata De	pths:	76' an	d 328'			
13) Method to	Determine Fro	esh Water I	Depths: 4	7-095-0	02266			
14) Approxima	te Saltwater I	Depths: <u>16</u>	60'				_	
15) Approxima	te Coal Seam	Depths: N	lone Iden	tified				
16) Approxima	te Depth to Po	ossible Voi	d (coal mi	ne, kars	t, other): 1	None Anticipat	ed	
17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X								
(a) If Yes, pro	vide Mine In	fo: Name	:				RI	ECEIVED
		Depth					Office	of Oil and Gas
40B		Seam:					SEF	1 4 2021
9/14/2 with Per	enlor Penlor	Owne					WVD	epartment of
Pay 1	Jewlon							nental Protection

WW-6B (04/15) API NO. 47- 095 - 02756

OPERATOR WELL NO. Maroon Unit 1H Well Pad Name: Thin Air Pad

18)

CASING	AND	TUBING	PROGRAM

ТҮРЕ	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#	80	80	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	378'	378'	CTS, 341 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	7300'	7300'	1601 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

Jes 9/14/2021

ТҮРЕ	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	<u>Cement</u> <u>Yield</u> (cu. ft./k)
Conductor	30"	24"	0.438"	1530	50	Class A	1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.361"	12,630	9300	Lead-H/POZ & Teil - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

PACKERS

Kind:	N/A	RECEIVED Office of Oil and Gas
Sizes:	N/A	SEP 1 4 2021
Depths Set:	N/A	WV Department of Environmental Protection

API NO. 47-095 - 02756

OPERATOR WELL NO. Marcon Unit 1H
Well Pad Name: Thin Air Pad

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

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

*Antero will be air drilling the fresh water string which makes it difficult to determine when 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 DM H 8-16-21

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 45.05 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 17.67 acres

23) Describe centralizer placement for each casing string:

Conductor: no centralizers

Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.

Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.

Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

24) Describe all cement additives associated with each cement type:

Conductor: no additives, Class A cement.

Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat

Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51
Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

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25) Proposed borehole conditioning procedures:

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

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

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

Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of curve, pump high viscosity sweep, trip to top of curve, trip to bottom, circulate, pump high viscosity sweep, trip out, run casing, circulate 10 bbls fresh water, pump 48 bbls barite pill, pump 10 bbls fresh water followed by 48 bbls mud flush and 10 bbls water.

*Note: Attach additional sheets as needed

WV Department of Environmental Protection

API Number 47 - 095

02756

Operator's Well No. Marcon Unit 1H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources C	Corporation	OP Code 494	1507062
Watershed (HUC 10) Outlet Midd	dle Island Creek	Quadrangle Porter Falls 7.5'	
Do you anticipate using more than	n 5,000 bbls of water to com	plete the proposed well work? Yes	No No
Will a pit be used? Yes	No ✓		
If so, please describe anti	icipated pit waste: No pit will be	s used at this site (Dnilling and Flowback Fluids will be stored in ta	anks. Cuttings will be tanked and hauled off site.)
Will a synthetic liner be	used in the pit? Yes	No ✓ If so, what ml.? N	I/A
Proposed Disposal Metho	od For Treated Pit Wastes:		
	Application		
-		nit Number_*UIC Permit # will be provided ted well locations when applicable. API# will be p	
		W-9 for disposal location) (Meadowfi	II Landfill Permit #SWF-1032-98)
	(Explain		ern Landfill Permit #SWF-1025/
Will closed loop system be used?	If so, describe: Yes, fluids	stored in tanks, cuttings removed offsi	ite and taken to landfill.
Drilling medium anticipated for th	is well (vertical and horizon	ntal)? Air, freshwater, oil based, etc.	Surface - Air/Freshwater, Intermediate - Dust/Stiff Foam, Production - Water Based Mud or Synthese Based Mud
-If oil based, what type?	Synthetic, petroleum, etc.	Synthetic	
Additives to be used in drilling me	edium? Please See Attachme	int	
Drill cuttings disposal method? L	eave in pit, landfill, remove	d offsite, etc. Drill cuttings stored in tanks	, removed offsite and taken to landfill.
-If left in pit and plan to s	solidify what medium will b	e used? (cement, lime, sawdust) N/A	
-Landfill or offsite name/		andfill (Permit #SWF-1032-98), Northwestern Lan	
West Virginia solid waste facility, where it was properly disposed.	The notice shall be provide	Gas of any load of drill cuttings or as d within 24 hours of rejection and the	ssociated waste rejected at any e permittee shall also disclose
on August 1, 2005, by the Office of provisions of the permit are enformation on regulation can lead to enform a certify under penalty of application form and all attachm	of Oil and Gas of the West V ceable by law. Violations of cement action. of law that I have personall tents thereto and that, base eve that the information is	conditions of the GENERAL WATE friginia Department of Environmenta of any term or condition of the gene by examined and am familiar with the ad on my inquiry of those individual true, accurate, and complete. I am onlity of fine or imprisonment.	d Protection. I understand that the eral permit and/or other applicable the information submitted on this wals immediately responsible for
Company Official Signature	100		RECEIVED
Company Official (Typed Name)	Jena Resnick		Since of Oil and Gas
Company Official Title Director, E	Environmental and Regulatory	Compliance	AUG 2.4 2021
Subscribed and sworn before me th	nis 9 th day of	August , 202	WV Department of Environmental Protection
Sydny is	wellow	Notary Po	ıblic
My commission expires 9	-11-22	Tionally I'd	SYDNEY SWEITZER NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20184036008
			MY COMMISSION EXPIRES SEPTEMBER 11, 2021

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

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WV Department of Environmental Protection 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

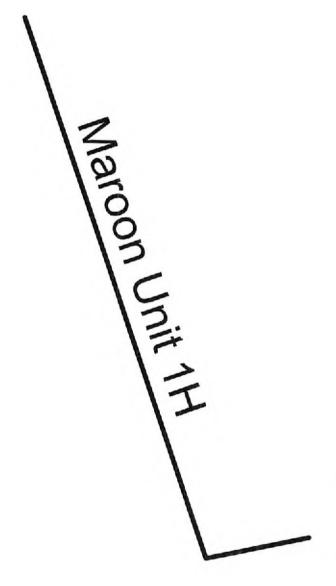
32. Mil-Lube

Drilling Fluid Lubricant

Form WW-9

Antero Resources Corporation				
Proposed Revegetation Treatment: Acres Dis	sturbed 45.05	Prevegetation	он	
Lime 2-4 Tons/acre				
Fertilizer type Hay or straw or Wood	Fiber (will be used where needed)			
Fertilizer amount 500	lbs/acre			
Mulch 2-3	Tons/acre			
Access Road "A" (8.27 scres)	+ Well Pad (18.00 acres) + Excess/Topsoil N	faterial Stockpiles (18.78 acre	s) = 45.05 Acres	
	Seed Mixtures			
Temporary		Pern	anent	
Seed Type lbs/acre	Craw	Seed Type	lbs/acre	
Annual Ryegrass 40		nvetch	10-15	
Field Bromegrass 40		escue	30	
See attached Table IV-3 for additional seed type (Thin A	Air Pad Design) See attach	ed Table IV-4A for addition	al seed type (Thin Air Pad Design)	
		*or type of grass seed requested by surface owner		
*or type of grass seed requested by su Attach: Maps(s) of road, location, pit and proposed as provided). If water from the pit will be land a accreage, of the land application area.	rea for land application (unless	engineered plans incl	uding this info have been	
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WV Department of Environmental Protection

Antero Resources Corporation

Marcon Unit 1H - AOR

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FEET

No Wells of Interest REMARKS

July 28, 2021

09/24/2021



911 Address 892 Lone Tree Road Middlebourne, WV 26149

Well Site Safety Plan Antero Resources

Well Name: Axtel Unit 1H, Capitol Unit 1H & 2H, Maroon Unit 1H

& 2H, Purple Unit 1H & 2H and Thin Air Unit 5H

Pad Location: THIN AIR PAD

Tyler County/Ellsworth District

GPS Coordinates:

Entrance - Lat 39.535510'/Long -80.788742' (NAD83)
Pad Center - Lat 39.528110'/Long -80.792574' (NAD83)

Driving Directions:

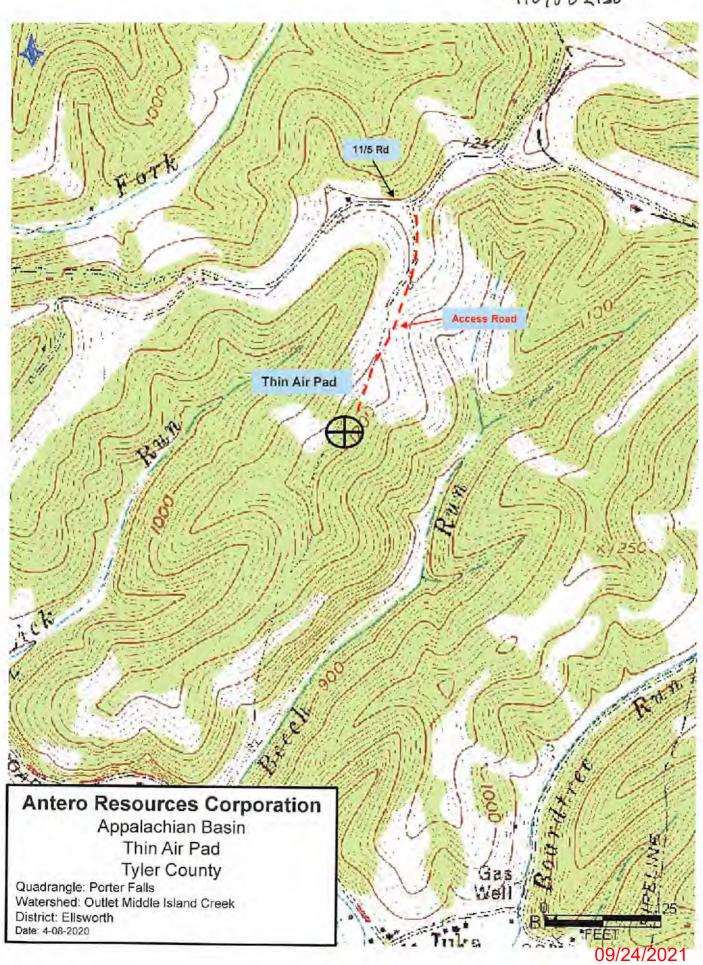
From Middlebourne: Head northeast on WV-18N/Main Street toward Court Street/Dodd Street for 3.8 miles - turn right onto Church Drive for 302 feet - Church Drive turns left & becomes Elk Fork Road for 0.4 miles - turn right onto Elk Fork Road for 5.3 miles - slight left onto Mudlick Road for 0.1 miles - continue onto Left Hand Middle Fork Road for 0.5 miles - continue onto Right Hand Middle Fork Road for 0.7 miles - lease road will be on your right.

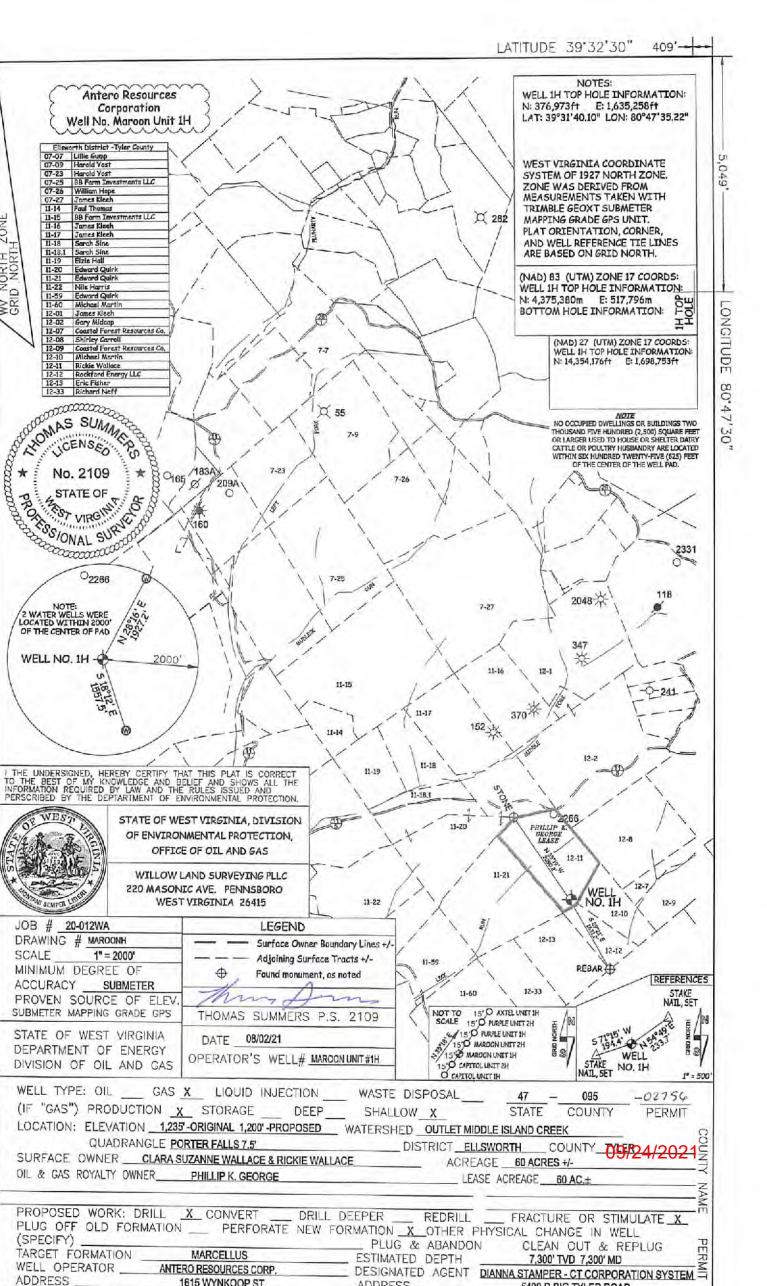
8-16-21 H mg RECEIVED Office of Oil and Gas

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EMERGENCY (24 HOUR) CONTACT 1-800-878-1373





ADDRESS.

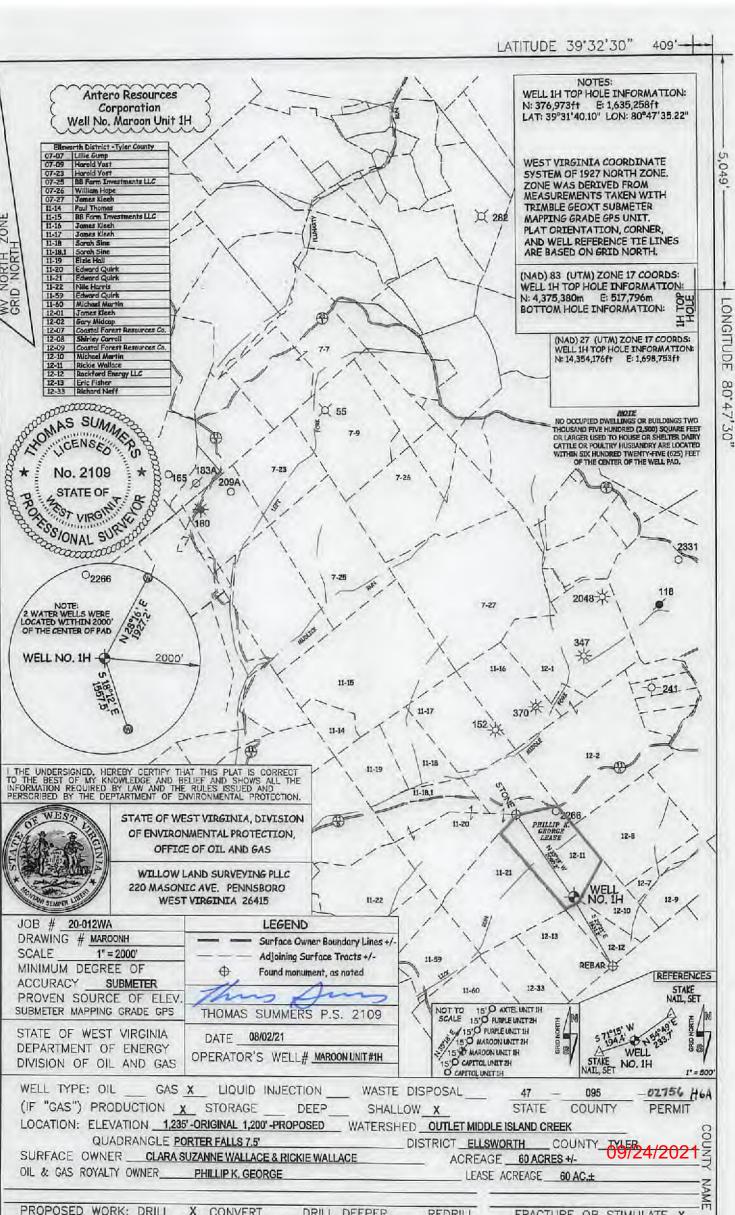
5400 D BIG TYLER ROAD

CHARLESTON, WV 25313

1615 WYNKOOP ST

DENVER, CO 80202

FORM WW-6



PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL PLUG OFF OLD FORMATION _ (SPECIFY) CLEAN OUT & REPLUG PLUG & ABANDON TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,300' TVD 7,300' MD ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313 WELL OPERATOR ADDRESS 1615 WYNKOOP ST. **ADDRESS** FORM WW-6 **DENVER, CO 80202**

WW-6A1 (5/13)

Operator's	Well No.	Maroon Unit 1H
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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:

Lease Name or				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Philip K. George Lease			 	
	Philip K. George	Statoil USA Onshore Properties	1/8+	0466/0193
	Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
	EQT Production Company	Antero Resources Corporation	Assignment	0663/0001

*Partial Assignments to Antero Resources Corporation Include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.

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

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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AUG 1 0 2021

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, who Department of 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 Resou	urces, Corporation
By:	Tim Rady	Town Rose
Its:	VP of Land	

Page 1 of ____

Operator's Well Number

Maroon 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
Philip K. George Lease			
Philip K. George	Statoil USA Onshore Properties	1/8+	0466/0193
Statoil USA Onshore Properties	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001

Office of Oil and Gas

AUG 10 2021

WV Department of Environmental Protection

^{*}Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.



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

August 5, 2021

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

RE:

Maroon Unit 1H

Quadrangle: Porter Falls 7.5'

Tyler County/Ellsworth District, West Virginia

Mr. Martin:

Antero Resources Corporation (Antero) is submitting the following application for a new well work permit for the Maroon Unit 1H horizontal shallow well. 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 Maroon Unit 1H horizontal lateral will drill through including any and all roads crossed under as identified on the attached survey plat.

Sincerely,

Thomas Kuhn

Senior Staff Landman

Office of Oil and Gas

AUG 10 2021

WV Department of Environmental Protection

Date of Notice Certification: 08/06/2021

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

			API No. 47		
			-	Well No. Mar	
otice has l	been given:		Well Pad N	ame: _Thin Ai	r Pad
		8 22 6 A the Operator has an			and the state of the state of
low for the	ne provisions in West Virginia Code tract of land as follows:	g 22-6A, the Operator has pro	vided the req	uired parties	with the Notice Forms liste
ite:	West Virginia		Easting:	517796m /	
unty:	Tyler	——— UTM NAD 83	Northing:	4375380m	
strict:	Ellsworth	Public Road Acc		CR 11	
adrangle:	Porter Falls 7.5'	Generally used fi			Wallace & Rickle Wallace
itershed:	Outlet Middle Island Creek	Generally used in	arm name.	Oldid Odzeniie	Tallaco di Nichie Wallace
escribed by has provide formation regiving the quirements rginia Code	West Virginia Code § 22-6A-7(b), the secretary, shall be verified and s ed the owners of the surface describequired by subsections (b) and (c), se surface owner notice of entry to su of subsection (b), section sixteen of e § 22-6A-11(b), the applicant shall thave been completed by the applicant	hall contain the following info bed in subdivisions (1), (2) a ection sixteen of this article; (i irvey pursuant to subsection of this article were waived in ender proof of and certify to t	ormation: (14 and (4), subseti) that the received (a), section to writing by t	A certificat ection (b), se uirement was en of this art he surface or	ion from the operator that (ection ten of this article, the s deemed satisfied as a resu- icle six-a; or (iii) the notion wner; and Pursuant to We
	West Virginia Code § 22-6A, the Op		his Notice Ce	ertification	
_	rator has properly served the require ECK ALL THAT APPLY	d parties with the following:			OOG OFFICE USE ONLY
LEASE CHE	•	_			
PLEASE CHE	ECK ALL THAT APPLY	■ NOTICE NOT REQUIRES SEISMIC ACTIVITY WAS	CONDUCT	TED	ONLY RECEIVED/
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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.

09/24/2021

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 Address: 1615 Wynkoop Street By: Diana Hoff Denver, CO 80202 Its: SR VP of Operations Facsimile: 303-357-7315 Telephone: 303-357-7310 Email: mstanton@anteroresources.com Subscribed and sworn before me this 4th day of August 200 NOTARY SEAL SYDNEY SWEITZER NOTARY PUBLIC STATE OF COLORADO Notary Public NOTARY ID 20184036008 MY COMMISSION EXPIRES SEPTEMBER 11, 2022 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 depprivacyofficer@wv.gov.

Office of Oil and Gas

AUG 10 2021

WW Department of Environmental Protection

WW-6A (9-13)

API NO. 47- 095 - 02756

OPERATOR WELL NO. Maroon Unit 1H

Well Pad Name: Thin Air Pad

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

Not	ice Time Requirement: notice shall be provided no later the	han the filing date of permit application.
	e of Notice: 8/9/2021 Date Permit Application Filed: 8/9/2021	9/2021
Noti	ce of:	
✓	PERMIT FOR ANY WELL WORK CONSTRUCTION OF	PPROVAL FOR THE FAN IMPOUNDMENT OR PIT
Deli	very method pursuant to West Virginia Code § 22-6A-1	10(b)
		HOD OF DELIVERY THAT REQUIRES A EIPT OR SIGNATURE CONFIRMATION
regis sedirithe s soil andescropera more well impo have provi prop prop provi Code	tered mail or by any method of delivery that requires a receipt nent control plan required by section seven of this article, and urface of the tract on which the well is or is proposed to be load gas leasehold being developed by the proposed well work, ribed in the erosion and sediment control plan submitted pursuator or lessee, in the event the tract of land on which the well is coal seams; (4) The owners of record of the surface tract or t work, if the surface tract is to be used for the placement, consundment or pit as described in section nine of this article; (5) a water well, spring or water supply source located within on the water for consumption by humans or domestic animals; an osed well work activity is to take place. (c)(1) If more than the ection (b) of this section hold interests in the lands, the application of this article to the contrary, notice to a lien holder is not section of this article to the contrary, notice to a lien holder is not section of this article to the contrary, notice to a lien holder is not section of this article to the contrary, notice to a lien holder is not section of this article to the contrary, notice to a lien holder is not section to the contrary, notice to a lien holder is not section.	pit as required by this article shall deliver, by personal service or by to 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 cated; (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 uant 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 racts overlying the oil and gas leasehold being developed by the proposed struction, enlargement, alteration, repair, removal or abandonment of any Any surface owner or water purveyor who is known to the applicant to be thousand five hundred feet of the center of the well pad which is used to ad (6) The operator of any natural gas storage field within which the rece tenants in common or other co-owners of interests described in ant may serve the documents required upon the person described in the a eight, article one, chapter eleven-a of this code. (2) Notwithstanding any of notice 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 g as provided in section 15 of this rule.
	pplication Notice	
	VRFACE OWNER(s)	COAL OWNER OR LESSEE
	e: PLEASE SEE ATTACHMENT ress:	Name: NO DECLARATIONS ON RECORD WITH COUNTY Address:
Nam	Δ'	T COAL OPER A TOR
	ess:	COAL OPERATOR Name: NO DECLARATIONS ON RECORD WITH COUNTY Address: Office of Oil and 2021
Luui		Address:RECEINAND ON NECESTAL MINISTER OF OIL and OU
7 SU	RFACE OWNER(s) (Road and/or Other Disturbance)	Office of 5051
Nam	e: PLEASE SEE ATTACHMENT	WATER PURVEYOR(s)/OWNER(s) OF WATER WELL, NUG 10
Addı	ess:	SPRING OR OTHER WATER SUPPLY SOURCE
		Name: NONE IDENTIFIED WITHIN 1500' W Departal Provinces
Nam	e:	Address:Environ
Addi	ress:	
7.ST	RFACE OWNER(s) (Impoundments or Pits)	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
	e:	Name:Address:
Addı	ess:	
		*Please attach additional forms if necessary

API NO. 47- 095 OPERATOR WELL NO. Marcon Unit 1H Well Pad Name: Thin Air Pag

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(t), 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 Environmember NED Gas Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.woffset/file and Gas AUG 1 0 2021 and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Vu. Code § 22-6A-12. Wells may not be drilled within two hundred fifty feet measured horizontally from any constantal Protect water well or developed spring used for human or domestic animal consumption. The content of well and the content of the 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

API NO. 47-095

OPERATOR WELL NO. Maroon Unit 1H

Well Pad Name: Thin Air 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 writested comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the secretary as to the location or construction of the applicant's proposed well work within thirty days after the location of the applicant's proposed well work within thirty days after the location or construction of the applicant's proposed well work within thirty days after the location or construction of the applicant's proposed well work within thirty days after the location or construction of the applicant's proposed well work within thirty days after the location or construction of the applicant's proposed well work within thirty days after the location or construction of the applicant's proposed well work within the secretary as to the location or construction of the applicant's proposed well work within the secretary as the location or construction of the applicant's proposed well work within the secretary as the location or construction of the applicant's proposed well work within the secretary as the location or construction of the applicant of the location of the applicant of the location or construction of the applicant of the location application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to plot location or construction of the applicant's proposed well work to the Secretary at: W Department of Environmental Protection

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

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.

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 http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx 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 persons qualified to test water.

Office of 10 2021

AUG 10 2021

AUG 10 2021

Environmental Protection

WW-6A (8-13) API NO. 47- 095 - 02.156
OPERATOR WELL NO. Maroon Unit 1H
Well Pad Name: Thin Air Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation

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

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 deprivacyofficer@wv.gov.

SYDNEY SWEITZER
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20184036008
MY COMMISSION EXPIRES SEPTEMBER 11, 2022

Subscribed and sworn before me this att day of August, 2021

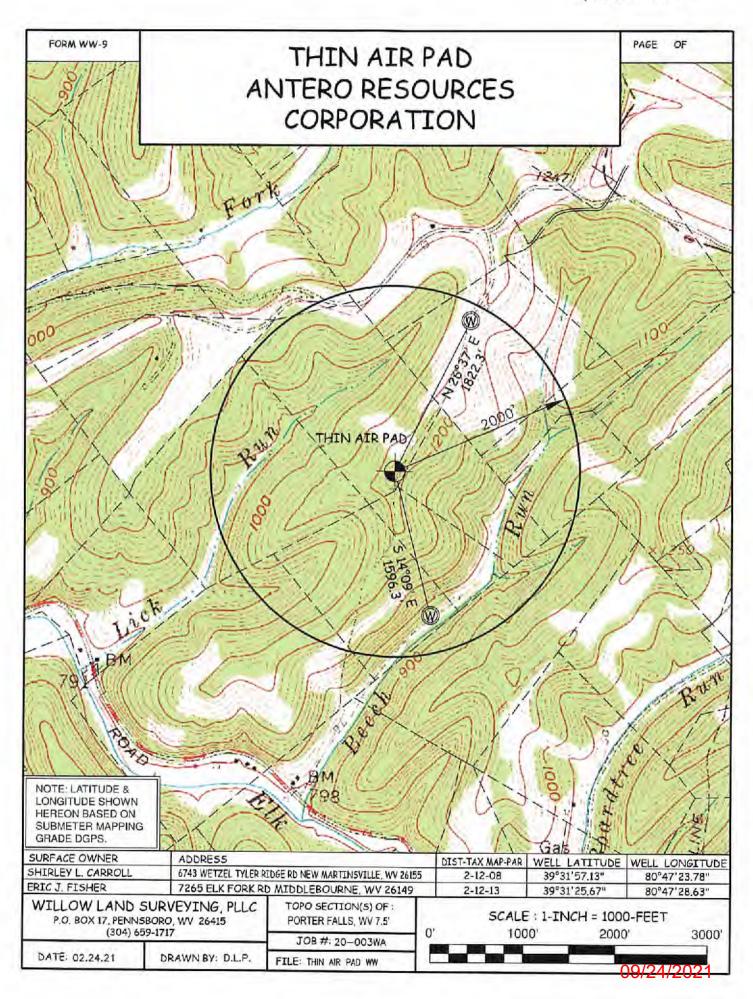
Notary Public

My Commission Expires 9-11-27

Office of Oil and Gas

AUG 10 2021

WV Department of Environmental Protection



List of Surface Owner(s) with Proposed Well Pad/Road and/or Other Disturbance associated with THIN AIR Well Pad

TM 12-11

Owner: Address: Clara Suzanne Wallace et vir-

2804 Gammon Drive Indianapolis, IN 26234 TM 12-12

Owner: Address: Rockford Energy LLC 12088 Middle Island Road

Alma, WV 26320

TM 12-10

Owner: Address:

Michael Martin 7156 Elk Fork Road Middlebourne, WV 26149

TM 12-8

Owner:

Shirley L. Carroll

Address:

6743 Wetzel Tyler Ridge Road

New Martinsville, WV 26155

RECEIVED Office of Oil and Gas

AUG 1 0 2021

WV Department of Environmental Projection

Operator Well No. Marcon Unit 1H Multiple Wells on Thin Air Pad

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.

Notice Time Date of Noti	Requirement: Notice shall be provided ce: 07/19/2021 Date P	at least TEN (10) days prior to filing a ermit Application Filed: 08/09/2021	a permit application.
Delivery me	hod pursuant to West Virginia Code §	22-6A-16(b)	
☐ HAND	■ CERTIFIED MAIL		
DELIVI		COLLECTED	
receipt reque drilling a hor of this subsec subsection m	sted or hand delivery, give the surface over izontal well: Provided, That notice give tion as of the date the notice was provide	when notice of its intent to enter upon to an pursuant to subsection (a), section to ed to the surface owner: <i>Provided</i> , how when. The notice, if required, shall inc	, an operator shall, by certified mail return he surface owner's land for the purpose of en of this article satisfies the requirements wever, That the notice requirements of this lude the name, address, telephone number, or's authorized representative.
	reby provided to the SURFACE O	WNER(s):	
	SEE ATTACHMENT	Name: PLEASE SEE ATTA	CHMENT
Address:		Address:	
State: County: District:	Tyler Ellsworth	UTM NAD 83 Easting: Northing: Public Road Access:	4375380m CR 11
District:	e di di	Public Road Access:	
Quadrangle:	Porter Falls 7.5'	Generally used farm name:	Clara Suzanne Wallace & Rickie Wallace
Watershed:	Outlet Middle Island Creek		
Pursuant to facsimile nur related to hor	nber and electronic mail address of the izontal drilling may be obtained from t	operator and the operator's authorize the Secretary, at the WV Department of	ress, telephone number, and if available, ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is he	reby given by:		
Well Operato	r: Antero Resources Corporation	Authorized Representative	Mallory Stanton
Address:	1615 Wynkoop St.	Address:	1615 Wynkoop St.
	Denver, CO 80202		Denver, CO 80202 Office of Oil and Go
Telephone:	303-357-7223	Telephone:	303-357-7223
Email:	mstanton@anteroresources.com	Email:	mstanton@antercrescurces.com AUG 1 0 2021
Facsimile:	303-357-7315	Facsimile:	303-357-7315
Oil and Ga	Privacy Notice:		Environmental Protection

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.

List of Surface Owner(s) with Proposed Well Pad/Road and/or Other Disturbance associated with THIN AIR Well Pad

TM 12-11

Clara Suzanne Wallace et vir

Owner: Address:

2804 Gammon Drive

Indianapolis, IN 26234

TM 12-12

Owner: Address: Rockford Energy LL 12088 Middle Island Road

Alma, WV 26320

TM 12-10

Owner: Address: Michael Martin 7156 Elk Fork Road

Middlebourne, WV 26149

TM 12-8

Owner:

Shirley L. Carroll

Address:

6743 Wetzel Tyler Ridge Road

New Martinsville, WV 26155

Office of Oil and Gas

WV Department of Environmental Projection

WW-6A5 (1/12)

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

Delivery meth	od pursuant to West Virginia Code §	5 22-6A-16(c)	
CERTIF	IED MAIL	HAND	
RETUR	N RECEIPT REQUESTED	DELIVERY	
eturn receipt of the planned of equired to be rilling of a hamages to the d) The notice of notice.	requested or hand delivery, give the sur- peration. The notice required by this provided by subsection (b), section ten provided by subsection (a), section ten provided well; and (b), a proposed sur- e surface affected by oil and gas operation as required by this section shall be given by provided to the SURFACE OWNI	face owner whose land will be used for subsection shall include; (1) A copy of this article to a surface owner whose face use and compensation agreement ons to the extent the damages are come to the surface owner at the address list ER(s)	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 nt containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
the address	listed in the records of the sheriff at the	e time of notice):	WALLE OF THE PARTY
The same of the same of			
		Name: PLEASE SEE ATTAC	
otice is here ursuant to W peration on t	by given: est Virginia Code § 22-6A-16(c), notice he surface owner's land for the purpose	Address: is hereby given that the undersigned of drilling a horizontal well on the tra	well operator has developed a planned act of land as follows:
otice is here ursuant to W peration on t tate: ounty: istrict:	by given: est Virginia Code § 22-6A-16(c), notice he surface owner's land for the purpose West Virginia Tyler Ellsworth	Address: a is hereby given that the undersigned of drilling a horizontal well on the trace of drilling a horizontal well on the trace of drilling and the trace of drilling and the trace of drilling and drilling a	well operator has developed a planned act of land as follows: 517796m 4375380m CR 11
otice is here	by given: est Virginia Code § 22-6A-16(c), notice he surface owner's land for the purpose West Virginia Tyler	Address: a is hereby given that the undersigned of drilling a horizontal well on the trace of UTM NAD 83 UTM NAD 83 Northing:	well operator has developed a planned act of land as follows: 517798m 4375380m
ddress: fotice is here ursuant to W peration on t tate: ounty: bistrict: buadrangle: vatershed: whis Notice S ursuant to W be provided orizontal wel urface affected formation re	by given: est Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose West Virginia Tyler Ellsworth Porter Falls 7.5' Outlet Middle Island Creek thall Include: est Virginia Code § 22-6A-16(c), this re the by W. Va. Code § 22-6A-10(b) to a lt; and (3) A proposed surface use and code by oil and gas operations to the extellated to horizontal drilling may be ob- located at 601 57th Street, SE, Cha	Address: a is hereby given that the undersigned of drilling a horizontal well on the trace of drilling and the surface owner whose land will be a compensation agreement containing an ent the damages are compensable under tained from the Secretary, at the WV	well operator has developed a planned act of land as follows: 517798m 4375380m CR 11 Clara Suzanne Wallace & Rickie Wallace 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 www.dep.wv.gov/oil-and-
otice is here ursuant to W peration on t tate: ounty: istrict: uadrangle: /atershed: his Notice S ursuant to W be provided orizontal wel urface affected formation re eadquarters,	by given: est Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose West Virginia Tyler Ellsworth Porter Falls 7.5' Outlet Middle Island Creek thall Include: est Virginia Code § 22-6A-16(c), this re d by W. Va. Code § 22-6A-10(b) to a l; and (3) A proposed surface use and code by oil and gas operations to the extellated to horizontal drilling may be oblocated at 601 57th Street, SE, Characht.aspx.	Address: a is hereby given that the undersigned of drilling a horizontal well on the trace of drilling and the surface owner whose land will be a compensation agreement containing an ent the damages are compensable under tained from the Secretary, at the WV	well operator has developed a planned act of land as follows: 517798m 4375380m CR 11 Clara Suzanne Wallace & Rickie Wallace 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 www.dep.wv.gov/oil-and- Office of Oil and of the chapter of the chapter.
otice is here cursuant to W peration on t tate: county: istrict: uadrangle: /atershed: his Notice S cursuant to W be provided prizontal wel urface affecte formation re eadquarters, as/pages/defa	by given: est Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpose West Virginia Tyler Ellsworth Porter Falls 7.5' Outlet Middle Island Creek thall Include: est Virginia Code § 22-6A-16(c), this re d by W. Va. Code § 22-6A-10(b) to a l; and (3) A proposed surface use and code by oil and gas operations to the extellated to horizontal drilling may be oblocated at 601 57th Street, SE, Characht.aspx.	Address: a is hereby given that the undersigned of drilling a horizontal well on the trace of the public Road Access: Generally used farm name:	well operator has developed a planned act of land as follows: 517796m 4375380m CR 11 Clara Suzanne Wallace & Rickie Wallace code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and- Office of Oil and other actions are the design of the design of the department of Environmental Protection or by visiting www.dep.wv.gov/oil-and- RECEIVED Office of Oil and other actions are the design of the design of the design of the department of Environmental Protection of the department of Environmental Protection of the department of Environmental Protection of the design of the department of Environmental Protection of the department of Environmental Prot

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.

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7156 Elk Fork Road

Middlebourne, WV 26149

TM 12-8

Owner:

Shirley L. Carroll

Address:

6743 Wetzel Tyler Ridge Road

New Martinsville, WV 26155

RECEIVED
Office of Oil and Gas

AUG 1 0 2021

WV Department of Environmental Protection

WW-6AW (1-12)

API NO. 47- 095 -	
OPERATOR WELL NO.	Maroon Unit 1H
Well Pad Name: Thin Air Pad	

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

State:	the well plat, all for proposed well work on the tra	UTM NAD 83 Easting:	517796m
County:	Tyler	Northing:	4375380m
District:		Public Road Access:	CR 11
Quadrangle: Watershed:	Porter Falls 7.5' Outlet Middle Island Creek	Generally used farm name:	Clara Suzanne Wallace & Rickie Wallace
Please check	the box that applies	FOR EXECUT	ION BY A NATURAL PERSON
*Please check	the box that applies	FOR EXECUT	ION BY A NATURAL PERSON
	CE OWNER	Signature:	
□ SURFAC	CE OWNER (Road and/or Other Disturbance)	Print Name: Date:	
☐ SURFAC	CE OWNER (Impoundments/Pits)	FOR EXECUT	ION DV A CODDODATION FTC
	OWNER OR LESSEE	Company:	ION BY A CORPORATION, ETC. RECEIVED Office of Oil and G
□ COAL C		Den	Office of
	PERATOR		
□ COAL C	PERATOR PURVEYOR	Its:	AUG 1 0 202

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 deprivacyofficer@wv.gov.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Byrd E. White, III Secretary of Transportation/ Commissioner of Highways

1900 Kanawha Boulevard East . Building Five . Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

Jimmy Wriston, P. E. Deputy Secretary/ Deputy Commissioner

July 30, 2021

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

Subject: DOH Permit for the Thin Air A Pad, Tyler County Maroon Unit 1H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2020-0071 which has been issued to Antero Resources for access to the State Road for a well site located off Tyler County Route 11/5 SLS MP 1.14.

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

Office of Oil and Gas

AUG 1 0 2021

WV Department of Environmental Protection

Mallory Stanton Cc: Antero Resources CH, OM, D-6

File

List of Anticipated Additives Used for Fracturing or Stimulating Well

A	Chemical Abstract Service Number		
Additives	(CAS #)		
Fresh Water	7732-18-5		
2 Phosphobutane 1,2,4 tricarboxylic acid	37971-36-1		
Ammonium Persulfate	7727-54-0		
Anionic copolymer	Proprietary		
Anionic polymer	Proprietary		
BTEX Free Hydrotreated Heavy Naphtha	64742-48-9		
Cellulase enzyme	Proprietary		
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		
Guar gum	9000-30-0		
Hydrogen Chloride	7647-01-0		
Hydrotreated light distillates, non-aromatic, BTEX free	64742-47-8		
Isopropyl alcohol	67-63-0		
liquid, 2,2-dibromo-3-nitrilopropionamide	10222-01-2		
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, quinoline derivs, benzyl chloride-quaternized	72480-70-7		
Solvent Naphtha, 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		
Hexamthylene Triamine Penta	34690-00-1		
Phosphino Carboxylic acid polymer	71050-62-9	RECEIVED	
Hexamethylene Diamine Tetra	23605-75-5	RECEIVED ice of Oil and Gas	
2-Propenoic acid, polymer with 2 propenamide	9003-06-9 A	UG 1 0 2021	
lexamethylene diamine penta (methylene phosphonic acid)			
Diethylene Glycol	111-46-6 Envitor	Department of mental Protection	
Methenamine	100-97-0	rotection	
Polyethylene polyamine	68603-67-8		
Coco amine	61791-14-8		
2-Propyn-1-olcompound with methyloxirane	38172-91-7		

LOCATION COORDINATES:
ACCESS BOAD EXPREASEE
LATITUDE: 30.505.01 LONGITUDE: -00.780742 (NAD 20)
LATITUDE: 30.505.01 LONGITUDE: -00.78097 (NAD 27)
N 4378025.75 & MINISTEL SE (ULT ZONE 17 METERS)

LATITUDE 30 529254 LONGITUDE -60 791359 (NAD 83) LATITUDE 30 529155 LONGITUDE -60 791534 (NAD 27) N 4175529.76 E 517931.23 (UTM 20NE 17 METERS)

CENTROID OF PAB LATTUDE: 30.53810 LONGITUDE -80.798574 (NAD 83) LATTUDE: 30.528031 LONGITUDE -80.798574 (NAD 27) 3 M376404.72 E 617827.10 (UTM 20N2 17 METERS)



GENERAL DESCRIPTION:

THE ACCESS GOADIS), WATER CONTAINMENT PAD, AND WELL PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS

MISS UTILITY STATEMENT:
ANTER RESOURCES COMPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGING FOR THE LOCATING OF
UTILITIES PRIOR TO THE PRODUCT DESIGN, TICKET MESSAFARIS. IN ADMITION, MISS UTILITY WILL BE
CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THES PROJECT.

ENTRANCE FERMIT.

ANTRO RESOURCES CORPORATION VILL OBTAIN AN EXCROACIMENT PERMIT (FORM MM-100) FROM THE
VEST VIRGINA DEPARTMENT OF TRANSPORTATION DIVISION OF HEGINARY, PROOF TO COMMENCEMENT OF
CONSTRUCTION ACTUSTICS.

FLOODPLAIN NOTES:
THE PROPOSED SITE IS LOCATED MITHIN THAN FLOOD ZONE X PER FEMA FLOOD MAP \$54005000750.

ENVIRONMENTAL NOTES:
STEEM AND RETLAND DELINEATIONS WERE PERFORMED BY INVARIANCE SOOF BY TERRA SECT. (NO TO
THE U.S. AND WEST AND DELINEATIONS WERE PERFORMED BY INVARIANCE OF THE U.S. AND AND YOUR OF THE U.S. AND WEST WINDOWS SECTION OF THE U.S. AND WEST WINDOWS REPORTED FOR THE AND WEST AND WEST AND WEST AND THE AND WEST AND WEST AND WEST AND THE AND WEST AND WE WEST AND WE WEST AND WE WEST AND WE WE WE WEST AND WE WE WE WELL AND WE WE WE WE WE WELL AND WE WE WE WE WE WE WE WE WE WERE AND WE WERE AND WE WERE AND WE WE WERE AND WE WE WE WE WERE AND WE WE WE WE WE WE WE WE WE WERE AND WE WE WE WE WE WE WERE AND WE WE WE WE WE WE WERE AND WE WE WERE AND WE WE WE WE WE WE WERE AND WE WERE AND WE WE WERE AND WE WERE AND WE WERE AND WE WE WERE AND WE WE WERE AND WE WERE AND WE WERE AND WE

GEOTECHNICAL STUDIES:
A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY PENNSYLVANIA SOIL &
ROCK, INC. REVIEWED JANUARY 15, 2020 A JANUARY 28, 2020. THE REPORT PREPARED BY
PENNSYLVANIA SOIL & BOUK, DUC DATED MARCH 13, 2020, REFLECTE THE RESULTE OF THE
SUBSURFACE DEPOSITIONATION. THE INFORMATION AND RECONSIDERATION FOR THAT PROPERTY
RICK URED IN THE PEPERATION OF THESE PLANS. PLASE RESIST OF THE SUBSURFACE
REPORTED FOR THE PERFORMATION OF THESE PLANS. PLASE RESIST OF THE SUBSURFACE.

PROJECT CONTACTS:

OPERATOR: ANTERO RESOURCES CORPORATION 535 WHITE DAKE BIVU. BRIDGEPORT, WV 26330 PHONE: (304) 842-4100 PAX: (304) 642-4102

ELI MAGONER - ENVIRONMENTAL ENGINEER & REGULATORY MANAGER
OFFICE (304) 842-8068 CELL: (304) 876-9770

AARON KUNZLER - CONSTRUCTION MANAGER CELL: (304) 642-4191

CHARLES E COMPTON, III - UTILITY COORDINATOR CELL: (304) 719-6449

JM WESON - LAND ACENT OFFICE: (304) 842-4410 CHLL: (304) 671-2708

ENGINEER/SURVEYOR:
NAVITUS ENGINEERING, INC.
CYRIS 3 KIMP, PE - PROJECT
MANAGES/ENGINEER

OFFICE (888) 862-4185 CEL (540) 886-6747

ENVIRONMENTAL:
TETTA TECH. INC.
HENRY SCHUMACHER - MANAGER
OFFICE (412) SEI-7090 CELL (412) 557-5148

GEOTECHNICAL. RUBERT THES - DESIGN MANAGER FENCISITARIA SOIL & ROCK, INC.
CHRISTOPHER W. HARDOY - PROJECT ENGINEER
OFFICE (1904) 842-4100 CHEL (304) 827-7400
OFFICE (412) 372-4000 CHEL (412) 509-6062

RESTRICTIONS NOTES:

1. THERE ARE NO PRESENTAL STREAMS WETLANDS, LAKES, PONDS, OR RESERVOISE WITHIN 100 FEEL OF THE WELL PAD AND LOIL THERE IS A WETLAND ADJACENT TO ACCESS ROAD "A" WHICH WILL REMAIN UNDESTREES.

- THERE ARE NO NATURALLY PRODUCING IROUT STREAMS WITHIN 300 FEET OF THE WILL PAD AND LOD.
- THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY PACIFIES WITHIN 1000 FELT OF THE WELL PAR AND LOC.
- THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250
- THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 625 FEET OF THE CENTER OF THE WILL PAD
- THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2.500 SQUARE FEET WITHIN 625 FRET OF THE CENTER OF THE WELL PAU.

THIN AIR "A" WELL PAD & WATER CONTAINMENT PAD SITE DESIGN & CONSTRUCTION PLAN. **EROSION & SEDIMENT CONTROL PLANS**

ELLSOWRTH DISTRICT, TYLER COUNTY, WV LITTLE MUSKINGUM-MIDDLE ISLAND WATERSHED

PORTERS FALLS USGS 7.5 QUAD MAP(S)



WEST VIRGINIA COUNTY MAP



DESIGN CERTIFICATION:
THE DRAWINGS, CONTRIBUTION NOTES, AND
REPRESENCE DIAGRAMS ATTACHED ELERTO HAVE
BEEN PERPARED IN ACCIREMENT WITH THE
WEST VIERBIN, CODE OF STATE MUES, MUSICION
OF ENVIRONMENTAL PROFECTION, OFFICE OF OIL
AND GAS CER ST.—8.

WVDOH COUNTY ROAD MAP



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 PAS CONTROLS NOTES

- LOUISIAN LIGHT AND FAST CONTROLS NOTTED

 LIGHTON

 TO BE DEATHAGE A FAST COMPUTATIONS

 EXECUTED CONTROLS

 EXECUTED STRUCTURESS & FEATURES

 OFFICIAL FLAN SHIELD THOSE & VALIDERS

 ACCESS ROAD, MICH, & STUCKPILE FLAN

 THELE FAST & WATER CONTROLNEST FAST GRANNI PLAN

 ACCESS ROAD FROM LESS

 ACCESS ROAD A STUCKFILE SECTIONS

 STRUCTURES STORY

 ACCESS ROAD & STOCKFILE SECTIONS

- 7-49-3-MEAL PAD SECTIONS
 1 VAIR CONTRIBUTED TAD SECTION
 22-29 CONSTRUCTION CETAIS
 23-29 CONSTRUCTION CETAIS
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 10 MEDIES TRADA BECLAMATICS PILAS
 10 WELL PAD A WATER CONTRIBUTED FECIAMATICS PILAS
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 10 WELL PAD

THIN AIR "A" LIMITS OF DISTURBAN	CE AREA (AC)
Total Site	Total
Access Road "A" (2.507)	8.20
Well Pad	17.67
Water Containment Pad	1.52
Excess/Topsoil Material Stockpiles	17.56
Total Affected Area	45.05
Total Wooded Acres Disturbed	28.57
Impacts to Emory L. Yeater & Dary A.	Widcap TM 12-2
Access Road "A" (471)	1.45
Total Affected Area	1,45
Total Wooded Acres Disturced	0.88
Impacts to Larry S. Sr. & Shirley Ca	rrall TM 12-8
Access Road "A" (1.5991)	4.59
Excess/Topsoil Material Stockpiles	10.04
Total Affected Area	14.73
Total Wooded Acres Disturbed	3.90
Impacts to Michael Martin TM	12-13
Well Pad	3.46
Water Containment Pad	1,26
Excess/Topsoil Material Stockpiles	3.71
Total Affected Area	1.53
Total Wooded Acres Disturbed	5.63
Impacts to Clara S. & Rickis Walter	e TM12-11
Access Road "A" (437)	2.06
Well Pad	11.54
Water Containment Pad	0.16
Excess/Topsoil Material Stockpiles	0.84
Total Affected Area	14.70
Total Wooded Acres Disturbed	13.39
spaces to Rockford Energy, LLC Henthon	OII & Gus TM 12-12
Well Pag	2.57
Excess/Topsoil Material Stockpiles	2.07
Total Affected Area	5.64
Total Wooded Acres Disturbed	4.57

Well Harry	WW North	NAD 27 Lat & Long	DONE 17	HAD BY LAN & LUNG	
		Permitted Location			
Capitol	N 170948.81	EAT 30-21-30 85-0	N 45/53/2 10	LAT 39-31-40 1407	
UnlitH	6 16000340 42	LCNG 40-47-05 4000	E 517790 42	LDHG-80-47-34 8053	
Capitol	N 375061.04	LAT 39-31-39-9770	44 4375375 BT	AT 39-31-40-2527	
Unit 254	E 1655249 19	LONG -80-47-35 3274	E 817798.00	DHS 804734 WITH	
Waroon	N 3750T3-31	1,AT 19,31-40 0005	14.4375375.55	LAT 39-31-40, 3052	
Una TH	6. 1835257.73	LONG 40-41-25 7106	6 617796.57	LOWS 4047-34 5686	
Maroon	N 375985.54	LAT 39-31-40,2216	N 4375383 47	LAT 39-31-40 5073	
Unit 2H	E 1635268.42	LONG 40-47-25 1104	E 817796 15	CHI2 40-47-54 4812	
Purete	N-375007-75	LAT 26 31 40.3127	N 8275397.19	LAT 39-31-40 6094	
Unit 1H	E 1635275 10	1,090 -40-47-35,0023	E 617600.73	LONG 46-47-34 3727	
Purple	N 377DOI 99	LAT 39-31-40 A057	N #375390.96	LAT 29-31-40 7914	
Unit 251	E 1635263.79	LONG -80-47-34-8037	E 817831.82	LONG #647:34 2640	
Actel	N 177022.72	LAT 39-31-40 5678	N 4575394 73	LAT 39-31-40 9735	
Unit 1H	E 1635292.48	LUNG 40-47-34,/851	6 817808.80	UDANS 40-47-34 1554	
This Air A (Permitted)	N 3700-IR 56	LAT 39-31-36,8606	H 4375342 10	LAT 39.31-39 1963	
Unit 5H	E 1635245.38	LONG 40-47-M M/18	E 617804 62	CN0 4047-14 2143	

REPRODUCTION NOTE

THESE PLANS WERE CREATED TO BE PLOTTED ON SECRET (AND D) PAPER HALF SCALE DRAWINGS AND ON 11 NOT (AND B) PAPER

THESE PLANE WERE GREATED FOR COURS PLOTTING AND ARY REPORTIONS IN GRAIT STATE ON COLORS WAS RESULT IN A LASS OF PROMATION AND SHOULD NOT BE LISTE TOW CONSTRUCTION PURPOSES

S ENGINEERING

19/21/2020 REVISED DEWATERING STSTEMS 19/21/2020 REVISED PER WELLS 19/22/2021 REVISED PER WELLS	07/06/2020	10/08/2020 REVISED PER PRELINE RELOCATION
	0202/12/20	REVISED DEWATERING SYSTEMS
	1532/10/92	
	12/27/22/90	STEEN PER WELLS



WATER CONTAINMENT
LEWORTH DISTRICT
COUNTY, WEST VIRGINIA "A" AIR THIN PAD & I

DAD



DATE: 06/23/2020 SCALE: AS SHOWN SHEET 1 OF 32

