

west virginia department of environmental protection

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

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

Thursday, July 29, 2021 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET DENVER, CO 80202

Re: Permit approval for PARR UNIT 2H 47-095-02747-00-00

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.

Operator's Well Number: Farm Name: U.S. WELL NUMBER: Horizontal 6A Date Issued: 7/29/2021

Promoting a healthy environment.

# **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</u> conditions may result in enforcement action.

#### CONDITIONS

- 1. 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.

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API NO. 47-095 - 02747

WW-6B (04/15)

OPERATOR WELL NO. Parr Unit 2H Well Pad Name: Margery Pad

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

1) Well Operator: A	ntero Resources	s Corpora	494507062	095 - Ty	ler Ellsworth	Porter Falls 7.5'
			Operator ID	County	District	Quadrangle
2) Operator's Well N	umber: Parr Unit	2H /	Well	Pad Name:	Margery Pad /	
3) Farm Name/Surfac	e Owner: Kayla	Leek	Public	Road Access:	CR 11	
4) Elevation, current	ground: 1041'	Ē	evation, propo	sed post-cons	struction:	
5) Well Type (a) G Othe		Oil	t	Inderground	Storage	
(b)If	Gas Shallow	х	Deep			
	Horizonta	1 X				Dalt
6) Existing Pad: Yes	or No Yes					100001
7) Proposed Target F	ormation(s), Dept	th(s), Antic	ipated Thickne	ss and Expec	ted Pressure(s):	62721
Marcellus Shale: 7			*		sure- 2850#	
8) Proposed Total Ve					Office of Oil a	ED ind Gas
9) Formation at Total		Marcellus	S		JUL 01	2021
10) Proposed Total N	leasured Depth:	15,700 M	ID/		WV Departm	ient of
11) Proposed Horizo	ntal Leg Length:	7535'	/		Environmental F	rotection
12) Approximate Fre	sh Water Strata D	epths:	103'			
13) Method to Detern	nine Fresh Water	Depths:	Offset well records	. Depths have b	een adjusted accord	ing to surface elevations
14) Approximate Sal	twater Depths: 1	998'				
15) Approximate Coa	al Seam Depths:	None Anti	cipated			
16) Approximate Dep	oth to Possible Vo	oid (coal m	ine, karst, other	): None An	ticipated	
17) Does Proposed w directly overlying or			ms Yes		No X	
(a) If Yes, provide l	Vine Info: Nam	e:				
	Dept	h:				
	Sean	n:				
	Own	er:				

API NO. 47- 095 - 02747 OPERATOR WELL NO. Parr Unit 2H Well Pad Name: Margery Pad

WW-6B (04/15)

# 18)

## CASING AND TUBING PROGRAM

TYPE	Size (in)	<u>New</u> or <u>Used</u>	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: <u>Fill-up</u> (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	90	90	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	300	300	CTS, 417 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500	2500	CTS, 1018 Cu. Ft.
Intermediate		-					
Production	5-1/2"	New	P-110	23#	15700 /	15700	3910Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#			
Liners				RECEIVE	D		

Office of Oil and Gas

# JUL 0 1 2021

Dm1+ 6-29-21

TYPE	Size (in)	Wellbore Diameter (in)	Enviro Waltai Pro <u>Thickness</u> (in)	t of Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	<u>Cement</u> <u>Yield</u> (cu. ft./k)
Conductor	20"	24"	0.438"	1530	50	Class A	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	~1.18
Intermediate						1	
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630	2500	Lend-HUPOZ & Tall - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

## PACKERS

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

WW-6B (10/14) API NO. 47-095 - 02797 OPERATOR WELL NO. Parr Unit 2H Well Pad Name: Margary Pad

Drill, perforate, fracture a new horizontal shallow well a	nd complete Marcellus Shale.
	DMH 625-21
20) Describe fracturing/stimulating methods in detail, inclu-	ding anticipated max pressure and max rate:
Antero plans to pump Slickwater into the Marcellus Sha production. The fluid will be comprised of approximate percent special-purpose additives as shown in the attac Fracturing or Stimulating Well."	ly 99 percent water and sand, with less than 1
Anticipated Max Pressure - 9300 lbs Anticipated Max Rate - 80 bpm	JUL 0 1 2021
21) Total Area to be disturbed, including roads, stockpile are	Environmenta
22) Area to be disturbed for well pad only, less access road	(acres): 13.44 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 i to surface. Intermediate Casing: one centralizer above float joint, one centralizer 5' above f Production Casing: one centralizer at shoe joint and one every 3 joints to top of	loat collar and one every 4th collar to surface.
24) Describe all cement additives associated with each ceme	ent 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-15a Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.	a + 0,2% C-12 + 0.45% C-20 + 0.05% C-51

\*Note: Attach additional sheets as needed.

WW-9	
(4/16)	

WW-9	2 /21/2
(4/16)	API Number 47 - 095 - 02791
ST AT	Operator's Well No. Parr Unit 2H
	E OF WEST VIRGINIA ENVIRONMENTAL PROTECTION
OFFI	ICE OF OIL AND GAS
FLUIDS/ CUTTINGS	DISPOSAL & RECLAMATION PLAN
Operator Name Antero Resources Corporation	OP Code, 494507062
Watershed (HUC 10) Outlet Middle Island Creek	Quadrangle King 7512
Do you anticipate using more than 5,000 bbls of water to	complete the proposed well work? Yes Ves No
Will a pit be used? Yes No 🗸	
If so, please describe anticipated pit waste:	pli will be used at this site (Drilling and Flowback 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 Was	tes: Drh H
Land Application	6-25-21
	Permit Number *UIC Permit # will be provided on Form WR-34 )
	permitted well locations when applicable. API# will be provided on Form WR-34
Off Site Disposal (Supply for Other (Explain	m WW-9 for disposal location) ( <u>Meadowfill Landfill Permit #SWF-1032-98)</u> Northwestern Landfill Permit #SWF-1025/ WV0109410
Will closed loop system be used? If so, describe: Yes, fl	luids stored in tanks, cuttings removed offsite and taken to landfill.
Drilling medium anticipated for this well (vertical and ho	prizontal)? Air, freshwater, ollejensed, etc. synthetic Based Mud or
-If oil based, what type? Synthetic, petroleum, e	etc. Synthetic JUL 0 1 2021
Additives to be used in drilling medium? Please See Atta	www.compartment.of
Drill cuttings disposal method? Leave in pit, landfill, ren	WV Dependition noved offsite, etc. Drill cuttings glywid on taken to landfill.
-If left in pit and plan to solidify what medium v	vill be used? (cement, lime, sawdust) N/A
-Landfill or offsite name/permit number?Mond	lowfill Landlill (Permit #SWF-1032-98), Northwestern Landfill (Permit # SWF-1025AWV0109410)
Permittee shall provide written notice to the Office of Oil West Virginia solid waste facility. The notice shall be pro- where it was properly disposed.	and Gas of any load of drill cuttings or associated waste rejected at any ovided within 24 hours of rejection and the permittee shall also disclose
	s and conditions of the GENERAL WATER POLLUTION PERMIT issued
provisions of the permit are enforceable by law. Violati	lest Virginia Department of Environmental Protection. I understand that the ions of any term or condition of the general permit and/or other applicable
law or regulation can lead to enforcement action.	
I certify under penalty of law that I have pers	sonally examined and am familiar with the information submitted on this based on my inquiry of those individuals immediately responsible for
approverior contrained an analytication stretcto and that,	is a my many or mose marriedars infinitedately 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 or imprisonment.

Company Official Signature Gretchen Kohler Company Official (Typed Name) Gretchen Kohler		
Company Official Title Sr. Environmental & Regulatory Manager		
Subscribed and sworn before me this 14 day of JUNP	, 20 21	
Sydney Swetty My commission expires 9-11-22	Notary Public	SYDNEY SWEITZER NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20184038008 WY COMMISSION EXPIRES SEPTEMBER 11, 202

# 4709502747

Form WW-9	Onerator	s Well No. Parr Unit 2H
Antero Resources Corporation		• won no
Proposed Revegetation Treatment: Acres Disturbed	51.65 acres Prevegetation	рН
Lime 2-4 Tons/acre or to corre		
Fertilizer type	Lbe used where needed)	
Fertilizer amount 500	lbs/acre	
Mulch 2-3	Tons/acre	
Access Road "A" (9.18 acres) + Access Road "B	8" (2.59 acres) + Staging Area (0.41) + Well Pad (13.44 acre Stockpilos (26.03 acres) = 51.65 Acres	s) + Excess/Topsoil Material
	Seed Mixtures	
Temporary	Per	manent
Seed Type Ibs/acre	Seed Type	lbs/acre
Annual Ryegrass 40	Crownvetch	10-15
Field Bromegrass 40	Tall Fescue	30
See attached Table IV-3 for additional seed type (Margery Pad Des *or type of grass seed requested by surface ow		onal seed type (Margery Pad Design)
Attach: Maps(s) of road, location, pit and proposed area for lan provided). If water from the pit will be land applied, in acreage, of the land application area. Photocopied section of involved 7.5' topographic sheet	nd application (unless engineered plans in include dimensions (L x W x D) of the pit, t. Environm	Sluding fits info have been and dimensions (L x W), and ar epartment of epartal Protection
Plan Approved by:		
		<u> </u>
		······
Title: Dil tacr Inspector	Date: 6-25-21	
Title: United the spectral	Daic. Y y Fat	

# 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**

I. IMPIIGIUS.	1.	Alpha	1655	5
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Salt Inhibitor

 Mil-Carb Calcium Carbonate
 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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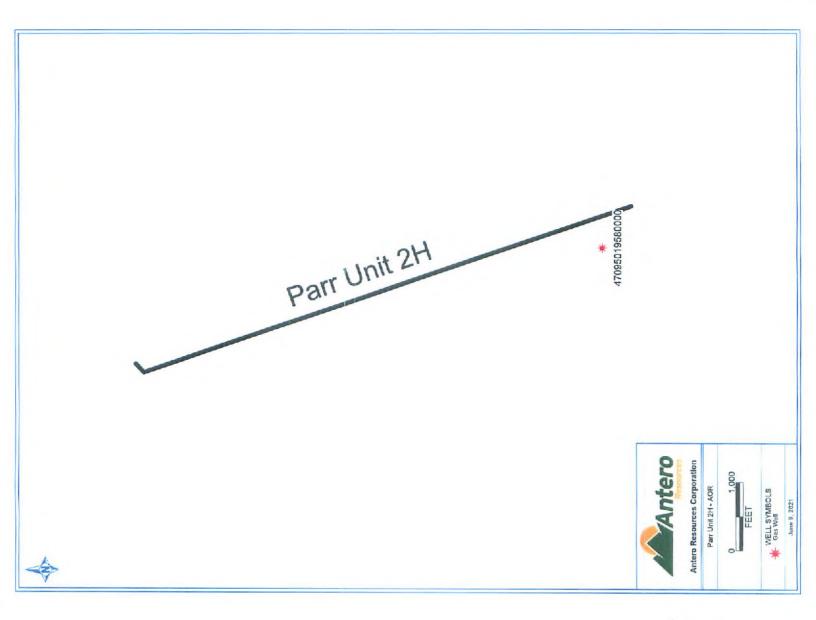
13.	Escaid 110
	Drilling Fluild Solvent – Aliphatic Hydrocarbon
14.	Ligco
	Highly Oxidized Leonardite – Filteration Control Agent
15.	Super Sweep
	Polypropylene – Hole Cleaning Agent
16.	Sulfatrol K
1 -	Drilling Fluid Additive – Sulfonated Asphalt Residuum
17.	Sodium Chloride, Anhydrous
10	Inorganic Salt
18.	D-D Drilling Detergent Surfactant
10	Drilling Detergent – Surfactant Terra-Rate
19.	Organic Surfactant Blend
20	W.O. Defoam
20.	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
าง	Sodium Carbonate – Alkalinity Control Agent
28.	Clay Trol
20	Amine Acid complex – Shale Stabilizer Sulfatrol
29.	Sulfonated Asphalt – Shale Control Additive
30	Xanvis
50.	Viscosifier For Water-Based Muds
31.	Milstarch
	Starch – Fluid Loss Reducer For Water Based Muds
32.	Mil-Lube
	Drilling Fluid Lubricant

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UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	то	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
47095019580000	WALNUT MEADOWS	2	DIVERSIFIED RES INC	OLYMPIC ENERGY LLC	3,400	3148 - 3158	Fifth Sand	Weir, Alexander, Benson

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WV Department or Environmental Protection

JUN 2 3 2021

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911 Address 4332 Elk Fork Road Middlebourne, WV 26149

# Well Site Safety Plan

# **Antero Resources**

Well Name: Margery Unit 5H, Grapevine Unit 1H-2H, Lemon Unit 1H-2H, Specter Unit 1H-2H, Glamdring Unit 1H-2H, Parr Unit 1H-2H and National Unit 1H-2H

Pad Location: MARGERY PAD Tyler County/Ellsworth District

**GPS Coordinates:** 

Entrance - Lat 39.520117'/ Long -80.834338' (NAD83) Pad Center - Lat 39.517463'/ Long -80.829413' (NAD83)

# **Driving Directions:**

From Middlebourne: Head northeast on WV-18 North/Main Street toward Court Street/ Dodd Street for .4 miles - turn right onto CO Rd 18/6 3.9 miles, turn right onto Elk Fork Road for .8 miles -lease road will be on your right.

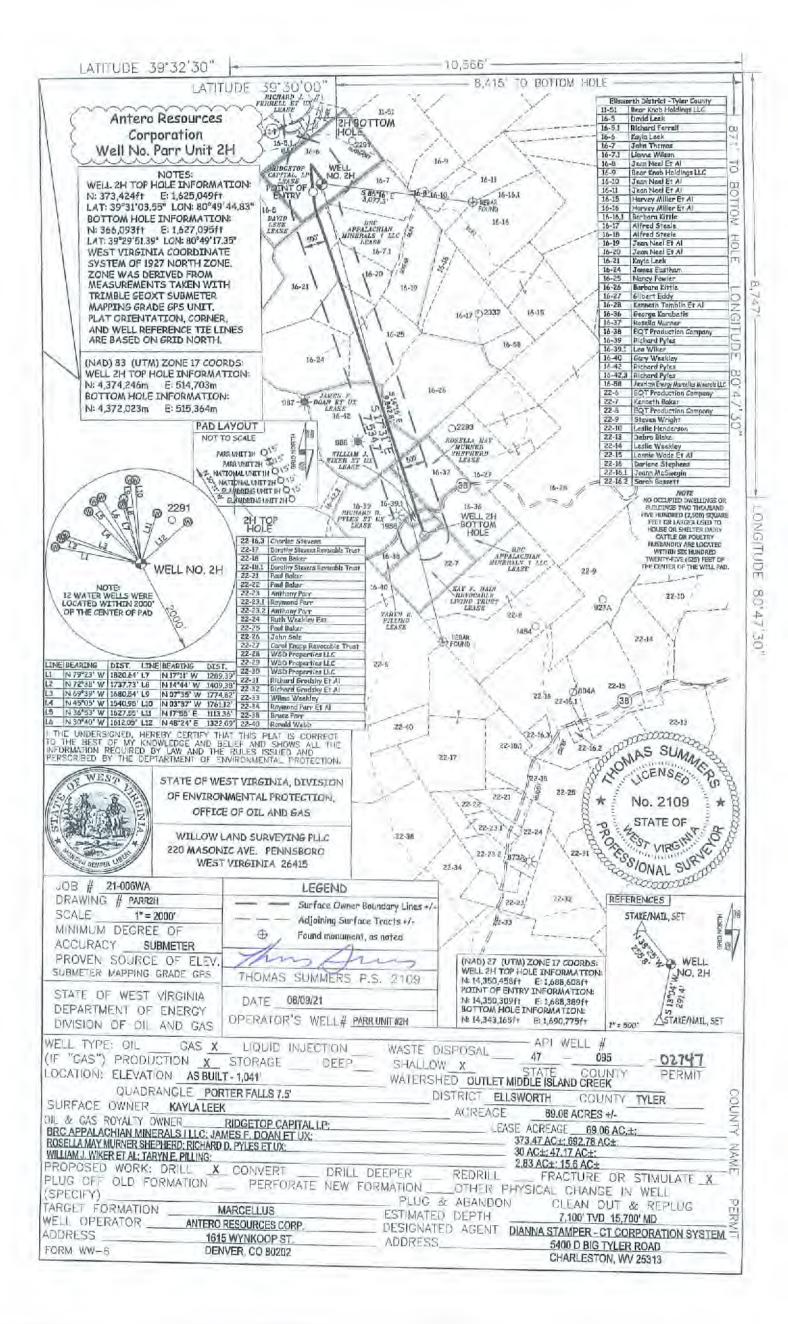
# Alternate Route:

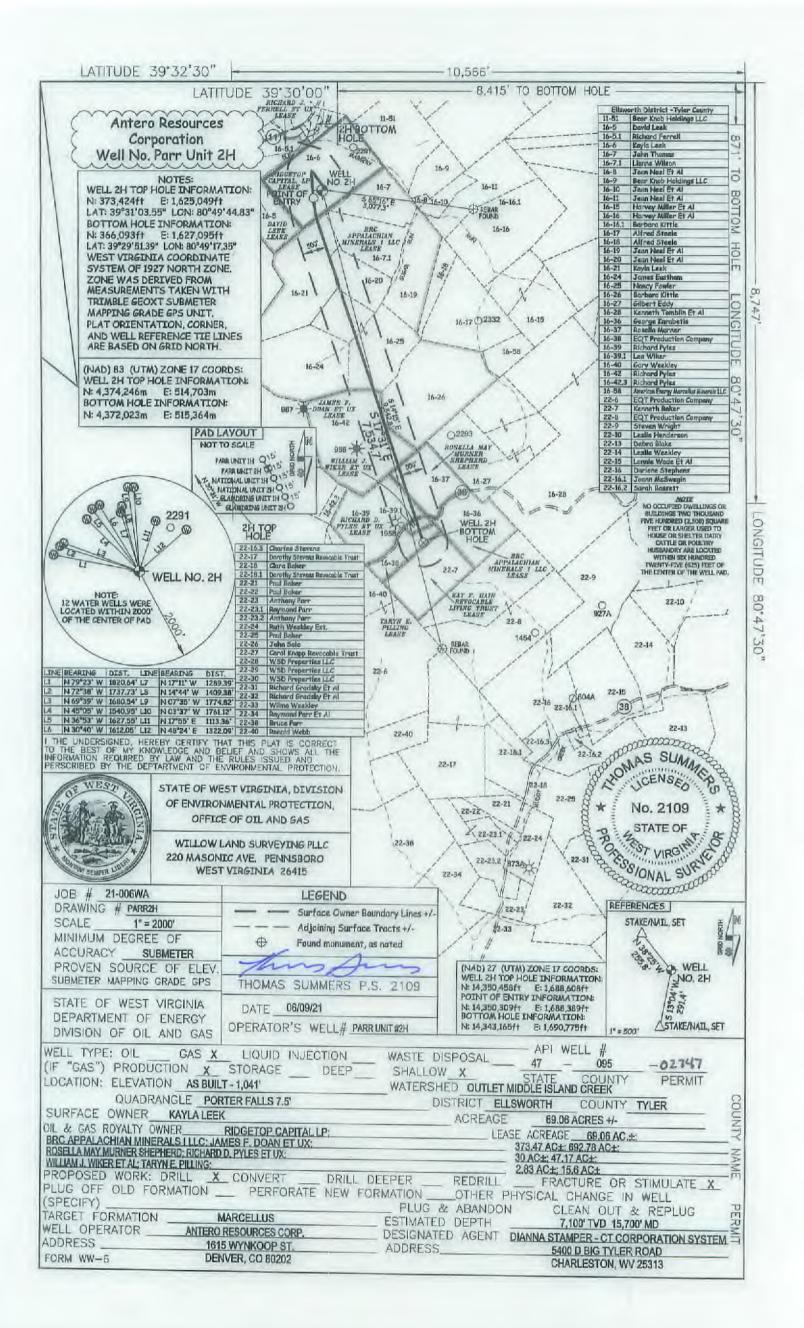
From Sisterville: Head southeast on Diamond Street toward Wells Street for 308 feet - turn right onto WV-2 South/Chelsea Street for 0.9 miles - continue straight onto WV-18 South for 6.9 miles - turn left onto WV-180 North for 0.2 miles - turn right onto CO Road 11/6 for 0.4 miles - continue onto Elk Fork Road for 0.2 miles - lease road will be on your right.

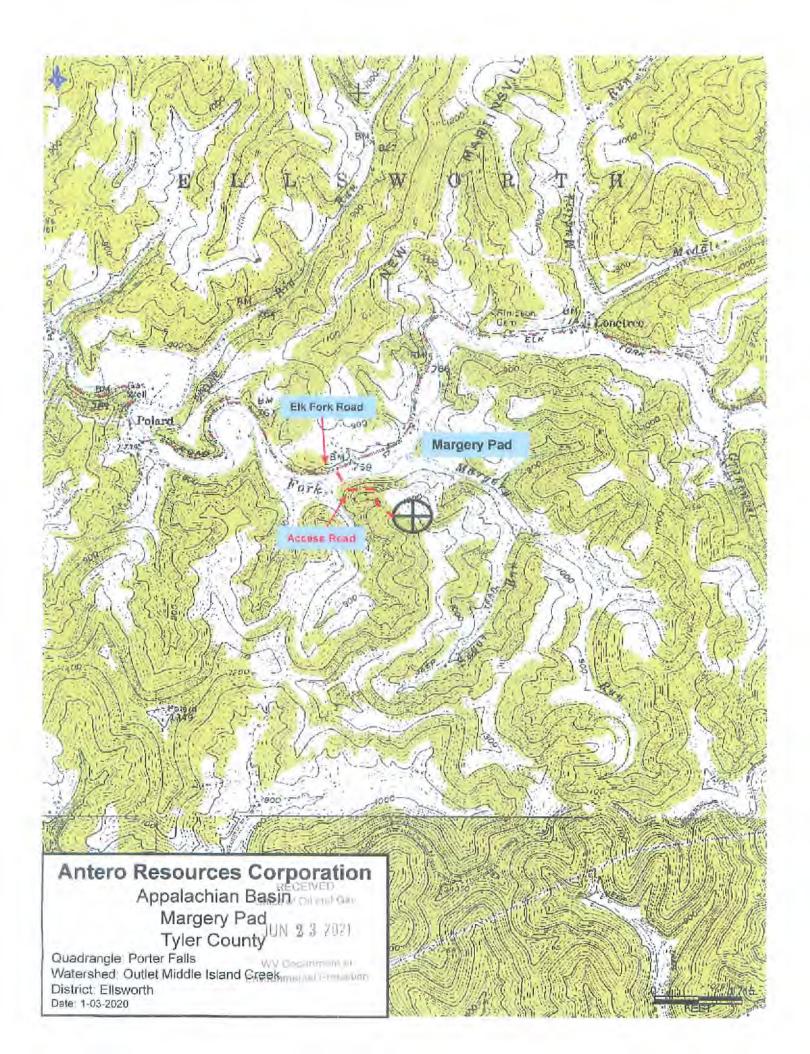
# EMERGENCY (24 HOUR) CONTACT 1-800-878-1373

02/07/2020

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Operator's Well Number Parr Unit 2H

## INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Ridgetop Capital LP Lease			
Ridgetop Capital LP	Petroedge Energy LLC	1/8	0420/0643
Petroedge Energy LLC	Statoil USA Onshore Properties Inc.	Assignment	0436/0001
Statoil USA Onshore Properties Inc.	EQT Production Company	Assignment	0539/0239
EQT Production Company	Antero Resources Corporation	Assignment	0663/0001
BRC Appalachian Minerals I LLC Lease			
BRC Appalachian Minerals I LLC	BRC Working Interest Company LLC	1/8	369/300
BRC Working Interest Company LLC	Chesapeake Appalachia LLC	Assignment	369/784
Chesapeake Appalachia LLC	Statoil USA Onshore Properties Inc	Assignment	378/764
Statoil USA Onshore Properties Inc	EQT Production Company	Assignment	539/239
EQT Production Company	Antero Resources Corporation	Assignment	663/1
James F. Doan et ux Lease			
James F. Doan et ux	KC Production Company	1/8+	232/113
KC Production Company	Appalachian Energy Development	Merger	WVSOS
Appalachia Energy Development	Triad Energy Corporation	Assignment	339/641
Triad Energy Corporation	Antero Resources Corporation	Assignment	489/787
Rosella May Murner Shepherd Lease			
Rosella May Murner Shepherd	Antero Resources Corporation	1/8+	23/791
Richard D. Pyles et ux Lease			
Richard D. Pyles et ux	Antero Resources Corporation	1/8+	567/457
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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.

## **\*\*CONTINUED ON NEXT PAGE\*\***

WW-6A1 (5/13) Operator's Well No. Parr Unit 2H

#### INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Taryn E. Pilling Lease				······································
	Taryn E. Pilling	Antero Resources Corporation	1/8+	566/331

\*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		
By:	Tim Rady	Can Veda,	
Its:	VP of Land	1	

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## JUN 2 3 2021

WV Department or Environmental Protection

# 4709502747



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

June 8, 2021

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: Parr Unit 2H 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 Parr Unit 2H 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 Parr Unit 2H horizontal lateral will drill through including any and all roads crossed under as identified on the attached survey plat.

Sincerely,

Tyler Adams

Tyler Adams

Landman

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WV Department of Environments' Protection

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS <u>NOTICE CERTIFICATION</u>

Date of Notice Certification: 06/11/2021

API No. 47- 095	
<b>Operator's Well No</b>	Parr Unit 2H
Well Pad Name: M	largery Pad

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	West Virginia *	UTM NAD 83 Easting:	514703m
County:	Tyler 🖌	Northing:	4374246m
District:	Ellsworth	Public Road Access:	CR 11
Quadrangle:	Porter Falls 7.5'	Generally used farm name:	Kayla Leek
Watershed:	Outlet Middle Island Creek		

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:	OOG OFFICE USE
*PLEASE CHECK ALL THAT APPLY	ONLY
□ 1. NOTICE OF SEISMIC ACTIVITY or ■ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	RECEIVED/ NOT REQUIRED
□ 2. NOTICE OF ENTRY FOR PLAT SURVEY OF ■ NO PLAT SURVEY WAS CONDUCTED	RECEIVED
■ 3. NOTICE OF INTENT TO DRILL or DINOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	RECEIVED/ NOT REQUIRED
WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	
4. NOTICE OF PLANNED OPERATION	RECEIVED
5. PUBLIC NOTICE	RECEIVED
6. NOTICE OF APPLICATION	□ RECEIVED

#### **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.

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 Diana O. Hold	1.	Denver, CO 80202
Its:	Senior VP of Operations	Facsimile:	303-357-7315
Telephone:	303-357-7310	Email:	mstanton@anteroresources.com
presee	SYDNEY SWEITZER NOTARY PUBLIC STATE OF COLORADO		ment for this 14 day of June, 208.1 Ment for Notary Public

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS <u>NOTICE CERTIFICATION</u>

Date of Notice Certification: 06/11/2021

API No. 47- 095	
<b>Operator's Well N</b>	0. Parr Unit 2H
Well Pad Name:	Margery Pad

#### Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	West Virginia	UTNANIAD 02	Easting:	514703m
County:	Tyler /	UTM NAD 83	Northing:	4374246m
District:	Ellsworth	Public Road Ac	cess:	CR 11
Quadrangle:	Porter Falls 7.5'	Generally used f	farm name:	Kayla Leek
Watershed:	Outlet Middle Island Creek			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:	
*PLEASE CHECK ALL THAT APPLY	OOG OFFICE USE ONLY
□ 1. NOTICE OF SEISMIC ACTIVITY or ■ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	RECEIVED/ NOT REQUIRED
□ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ■ NO PLAT SURVEY WAS CONDUCTED	
■ 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	RECEIVED/ NOT REQUIRED
U WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	
■ 4. NOTICE OF PLANNED OPERATION	
<b>5.</b> PUBLIC NOTICE	
6. NOTICE OF APPLICATION	RECEIVED

## **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.

# 4709502747

WW-6AC (1/12)

#### Certification of Notice is hereby given:

Well Operator:	Antero Resources Corporation	Address:	1615 Wynkoop Street
By:	Diana Hoff Diana O. Hoff		Denver, CO 80202
Its:	Senior VP of Operations	Facsimile:	303-357-7315
Telephone:	303-357-7310	Email:	mstanton@anteroresources.com

NOTARY SEAL SYDNEY SWEITZER NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20184036008 MY COMMISSION EXPIRES SEPTEMBER 11, 2022	Subscribed and sworn before me this 14 day of JUNL, 208.1 Symmetry Swotchs Notary Public My Commission Expires 9-11-22
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#### 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 <u>depprivacyofficer@wv.gov</u>.

RECEIVED Office of Oil and Ges

JUN 2 3 2021

WV Department of Environmental Protection

# 4709502747

API NO. 47- 095

OPERATOR WELL NO. Parr Unit 2H Well Pad Name: Margery 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 than the filing date of permit application.

	e of Notice: <u>6/14/2021</u> ice of:	_ Date Permit Applica	tion Filed: <u>6/14/2021</u>
2	PERMIT FOR AN WELL WORK	_	ICATE OF APPROVAL FOR THE RUCTION OF AN IMPOUNDMENT OR PIT
Deli	very method pursu	ant to West Virginia C	ode § 22-6A-10(b)
	PERSONAL SERVICE	REGISTERED MAIL	METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION
certi	ficate of approval for	the construction of an im	an the filing date of the application, the applicant for a permit for any well work or for a poundment or pit as required by this article shall deliver, by personal service or by quires a receipt or signature confirmation, copies of the application, the erosion and

service or by e confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") 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.

Application Notice VSSP Notice E & Plan Notice Well Plat Notice is hereby provided to:

☑ SURFACE OWNER(s)	COAL OWNER OR LESSEE	
Name: Kayla Leek	Name: NO DECLARATIONS ON RECORD WITH COUNTY	
Address: 27 North 6th Avenue	Address:	_
Paden City, WV 26159		-
Name:	COAL OPERATOR	-
Address:	Name: NO DECLARATIONS ON RECORD WITH COUNTY	RECEIVED
	Address:	Office of Oil and Gas
SURFACE OWNER(s) (Road and/or Other Disturbance)		-
Name: Kayta Leek	WATER PURVEYOR(s)/OWNER(s) OF WATER WELL,	JUN 2 3 2021
Address: 27 North 6th Avenue	SPRING OR OTHER WATER SUPPLY SOURCE	
Paden City, WV 26159	Name: Please see attached	WV Department or
Name:	Address:	Environmer,tal Protection
Address:		
	OPERATOR OF ANY NATURAL GAS STOR	AGE FIELD
□ SURFACE OWNER(s) (Impoundments or Pits)	Name:	
Name:	Address:	
Address:		-
	*Please attach additional forms if necessary	=

WW-6A (9-13)

#### 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 <u>www.dep.wv.gov/oil-and-gas/pages/default.aspx</u>.

#### 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 of 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

WW-6A (8-13)

OPERATOR WELL NO. Parr Unit 2H Well Pad Name: Margery 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 the best by 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

JUN 2 3 2021

WV Department or 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)

#### 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-

<u>Permits/Pages/default.aspx</u> 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.

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WV Department of Environmental Protection WW-6A (8-13)

API NO. 47- 095	. 0	2747	
OPERATOR WE	ELL NO.	Parr Unit 2H	
Well Pad Name:	Margery Pa	ad	

#### Notice is hereby given by:

Telephone:	(303) 357-7223	Diana O. Hoff
------------	----------------	---------------

Address:	615 Wynkoop Street	
I	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 <u>depprivacyofficer@wv.gov</u>.

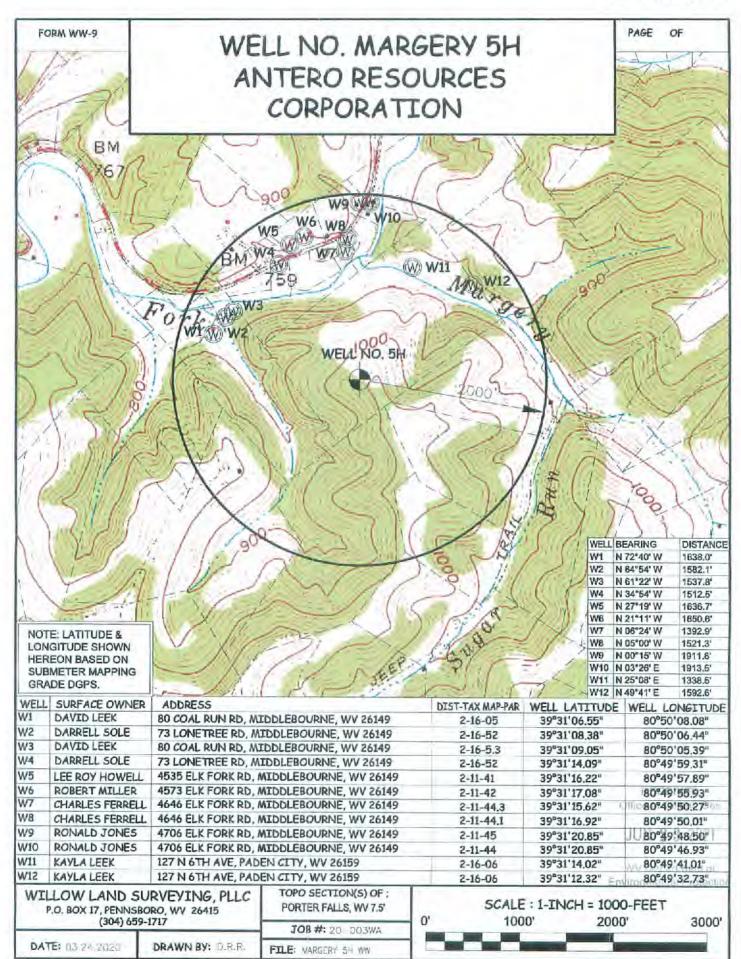


+1.	cribed and sworn befor	and sworn before me this <u>14</u> day	of JUN 2021
ublic	Sydney	Muy Switz ssion Expires 9-11-22	Notary Publi
	Commission Expires	ssion Expires 9-11-2-2	

RECEIVED Office of Oil and Gas

JUN 2 3 2021

WV Department of Environmental Protection



# WW-6A Notice of Application to Water Well Owner Attachment:

## Water Well Owners:

Tax Parcel ID: 2-11-44.3

Owner:	Charles Ferrell /
Address:	4646 Elk Fork Rd
	Middlebourne, WV 26149

Tax Parcel ID: 2-16-06

Owner:	Kayla Leek 🖊
Address:	127 N 6 <sup>th</sup> Ave
	Paden City, WV 26159

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JUN 2 3 2021

WV Department or Environmental Protection

WV Department of

#### Operator Well No. Parr Unit 2H

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

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 Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application. Date of Notice: 05/24/2021 Date Permit Application Filed: 06/14/2021

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND	CERTIFIED MAIL
DELIVERY	RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided*, *however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

#### Notice is hereby provided to the SURFACE OWNER(s):

Name: Kayla Leek	Name:
Address: 302 E Main St	Address:
Paden City, WV 26159	Print Print

#### Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	West Virginia	LITMINIAD 02 Easting:	514703m
County:	Tyler	UTM NAD 83 Northing:	4374246m
District:	Ellsworth	Public Road Access:	CR 11 C
Quadrangle:	Porter Falls 7.5'	Generally used farm name:	Kayla Leek
Watershed:	Outlet Middle Island Creek		

#### This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. 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 www.dep.wv.gov/oil-and-gas/pages/default.aspx.

#### Notice is hereby given by:

Well Operator: Address:	Antero Resources Corporation	Authorized Representative:	Mallory Stanton	
	1615 Wynkoop St.	Address:	1615 Wynkoop St.	
	Denver, CO 80202		Denver, CO 80202	RECEIVED
Telephone:	303-357-7223	Telephone:	303-357-7223	Office of Oil and Gas
Email:	mstanton@anteroresources.com	Email:	mstanton@anteroresou	irces.com
Facsimile:	303-357-7315	Facsimile:	303-357-7315	JUN 2 3 7071

#### 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 <u>depprivacyofficer@wv.gov</u>.

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 06/14/2021 Date Permit Application Filed: 06/14/2021

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

=	CERTIFIED MAIL
	RETURN RECEIPT REQUESTED

HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

#### Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Kayla Leek	/	Name:
Address: 27 North 6th Avenue		Address:
Paden City, WV 26159		

#### Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	West Virginia	UTM NAD 83 Easting:	51470 514703m
County:	Tyler	Northing	: 4374246m
District:	Ellsworth	Public Road Access:	CR 11
Quadrangle:	Porter Falls 7,5*	Generally used farm name	Kayla Leek
Watershed:	Outlet Middle Island Creek		

#### This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. 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 www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Offica of Oil and Gas

Well Operator: Telephone:	Antero Resources Corporation	Address:	1615 Wynkoop Street	HIN 9 9 7021
	(303) 357-7223		Denver, CO 80202	JUN 4 0 202
Email:	mstanton@anteroresources.com	Facsimile:	303-357-7315	W/V Department of

Environmanthi Protection

#### **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 <u>depprivacyofficer@wv.gov</u>.

WW-6AW (1-12)

# 4709502747

API NO. 47- 095 -OPERATOR WELL NO. Parr Unit 2H Well Pad Name: Margary 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

1, \_\_\_\_\_\_\_, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (I) through \_\_\_\_\_\_, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	West Virginia	UTM NAD 83	Easting:	514703m	
County:	Tyler	UTMINAD 83	Northing:	4374246m	
District:	Ellsworth	Public Road Acc	ess:	CR 11	
Quadrangle:	Porter Falls 7 5	Generally used f	arm name:	Kayla Leek	
Watershed:	Outlet Middle Island Creek				

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

*Please check the box that applies	FOR EXECUTION I	BY A NATURAL PERSON
SURFACE OWNER	Signature:	
SURFACE OWNER (Road and/or Other Disturbance)	Print Name: Date:	
□ SURFACE OWNER (Impoundments/Pits)		
COAL OWNER OR LESSEE	Company:	BY A CORPORATION, ETC.
COAL OPERATOR	By: Its:	RECEIVED Office al Oil ann Gas
□ WATER PURVEYOR	Signature:	JUN 2 3 2021
OPERATOR OF ANY NATURAL GAS STORAGE FIELD	Date:	
		WV Cepanniest 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

1900 Kanawha Boulevard East • Building Five • Room 110

Charleston, West Virginia 25305-0430 \* (304) 558-3505

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

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

June 2, 2021

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 Margery Pad, Tyler County Parr Unit 2H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2020-0049 which has been issued to Antero Resources for access to the State Road for a well site located off Tyler County 11 at MP 4.55.

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,

Jan K. Clayton

Gary K. Clayton, P.E. Regional Maintenance Engineer Central Office O&G Coordinator RECEIVED Office of Oil and Cas

JUN 2 3 2021

WV Desail rental Environmente (Pollecion

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

# List of Anticipated Additives Used for Fractul ing 67 0 2 7 4 7 Stimulating Well

Additives	Chemical Abstract Service Number (CAS #)	1
Fresh Water	7732-18-5	1
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	1
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	RECEIVED
Phosphino Carboxylic acid polymer	71050-62-9	⇒fice of Oil and Gas
Hexamethylene Diamine Tetra	23605-75-5	UN 2 3 2021
2-Propenoic acid, polymer with 2 propenamide	9003-06-9	
Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5	VIV Department of
Diethylene Glycol	111-46-6	∕n <mark>ona⊧sa:∋ Protectio</mark>
Methenamine	100-97-0	1
Polyethylene polyamine	68603-67-8	1
Coco amine	61791-14-8	4
2-Propyn-1-olcompound with methyloxirane	38172-91-7	1

