



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

Thursday, April 28, 2022
WELL WORK PERMIT
Horizontal 6A / New Drill

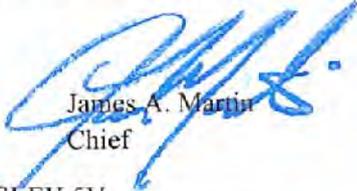
ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET
DENVER, CO 80202

Re: Permit approval for WRIGLEY 5V
47-095-02788-00-00

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. Martin
Chief

Operator's Well Number: WRIGLEY 5V
Farm Name: SHIRLEY J WELLS & SUSIE 
U.S. WELL NUMBER: 47-095-02788-00-00
Horizontal 6A New Drill
Date Issued: 4/28/2022

Promoting a healthy environment.

04/29/2022

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. Failure to adhere to the specified permit 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 4709502788

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.

04/29/2022

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

1) Well Operator: Antero Resources Corporation 494507062 095-Tyler Meade Bens Run 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Wrigley Unit 5V Well Pad Name: Wrigley Pad

3) Farm Name/Surface Owner: Shirley Wells/Susie Cunningham Public Road Access: Rock Run Rd

4) Elevation, current ground: 964' Elevation, proposed post-construction: ~937'

5) Well Type (a) Gas Oil Underground Storage

Other _____

(b) If Gas Shallow Deep

Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 6500' TVD, Anticipated Thickness- 55 feet, Associated Pressure- 2850#

8) Proposed Total Vertical Depth: 6500' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 6500'

11) Proposed Horizontal Leg Length: 0' *Open to modification at a later date

12) Approximate Fresh Water Strata Depths: 397'

13) Method to Determine Fresh Water Depths: 47095025930000 Offset well records. Depths have been adjusted according to surface elevations.

14) Approximate Saltwater Depths: 1436', 1847'

15) Approximate Coal Seam Depths: None Anticipated

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

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

Depth: _____

Seam: _____

Owner: _____

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18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	79#	80'	80'	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J/K-55	54.5#	447'	447'	CTS, 466 Cu. Ft.
Coal	9-5/8"	New	J-/K55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110CY	20#	6500'	6500'	CTS, 708 Cu. Ft.
Tubing	2-3/8"	New	N-80	4.7#			
Liners							

Samuel L. Reynolds 4-20-22

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.375"	2250	50	Class A	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	14,360	2500	Class G/H	~1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

PACKERS

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

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

Drill a new horizontal shallow well into the Marcellus Shale.

*Antero will be air drilling the fresh water string which makes it difficult to determine when fresh water is encountered. Therefore, we have built in a buffer for the casing setting depth which helps to ensure that all fresh water zones are covered.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

[Empty box for fracturing/stimulating methods]

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

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

23) Describe centralizer placement for each casing string:

Conductor: no centralizers
Surface Casing: one centralizer 10' above the float shoe, one on the insert float collar and one every 4th joint spaced up the hole to surface.
Intermediate Casing: one centralizer above float joint, one centralizer 5' above float collar and one every 4th collar to surface.
Production Casing: one centralizer at shoe joint and one every 3 joints to top of cement in intermediate casing.

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

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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.



Wrigley Unit 5V



Antero Resources Corporation

Wrigley Unit 5V - AOR



REMARKS

No Wells of Interest

February 11, 2022

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MAR 28 2022

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04/29/2022

WW-9
(4/16)

4709502788

API Number 47 - _____ - _____
Operator's Well No. Wrigley Unit 5V

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources Corporation OP Code 494507062

Watershed (HUC 10) Outlet Middle Island Creek Quadrangle Bens Run 7.5

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: No pit 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 Wastes:

- Land Application
- Underground Injection (UIC Permit Number *UIC Permit # will be provided on Form WR-34)
- Reuse (at API Number Future permitted well locations when applicable. API# will be provided on Form WR-34)
- Off Site Disposal (Supply form WW-9 for disposal location)(Meadowfill Landfill Permit #SWF-1032-98)
- Other (Explain Northwestern Landfill Permit #SWF-1025/ WV0109410
Wetzel County Landfill (Permit #SWF-1021))

Will closed loop system be used? If so, describe: Yes, fluids stored in tanks, cuttings removed offsite and taken to landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Surface - Air/Freshwater, Intermediate - Dust/ Sluff Foam, Production - Water Based Mud or Synthetic Based Mud

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Please See Attachment

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Drill cuttings stored in tanks, removed offsite and taken to landfill.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? Meadowfill Landfill (Permit #SWF-1032-98), Northwestern Landfill (Permit #SWF-1025/WV0109410)
Wetzel County Landfill (Permit #SWF-1021)

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations 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 personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 or imprisonment.

Company Official Signature Gretchen Kohler

Company Official (Typed Name) Gretchen Kohler

Company Official Title Director, Environmental and Regulatory Compliance

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WV Department of
Environmental Protection

Subscribed and sworn before me this 24 day of March, 2022

Diane Blair

Notary Public

My commission expires 27 Apr 2024

DIANE BLAIR
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 19994011871
MY COMMISSION EXPIRES 27-Apr-2024

04/29/2022

Antero Resources Corporation

Proposed Revegetation Treatment: Acres Disturbed 28.45 acres Prevegetation pH _____

Lime 2-4 Tons/acre or to correct to pH 6.5

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" (4.61 acres) + Staging area (0.75 acres) + Well Pad (10.35 acres) + Excess/Topsoil Material Stockpiles (12.74 acres) = 28.45 Total Affected Acres

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Crownvetch	10-15
Field Bromegrass	40	Tall Fescue	30
See attached Table IV-3 for additional see type, (Page 33 Eldon Pad Design)		See attached Table IV-4 for additional seed type (Page 33 Eldon Pad Design)	
*or type of grass seed requested by surface owner		*or type of grass seed requested by surface owner	

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Kenneth L. Reynolds

Comments: _____

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Title: OIL + GAS INSPECTOR Date: 4-20-22

Field Reviewed? Yes No

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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04/29/2022

13. Escaid 110
Drilling Fluid Solvent – Aliphatic Hydrocarbon
14. Ligco
Highly Oxidized Leonardite – Filtration 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

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MAR 28 2022

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04/29/2022

4709502788



911 Address
1199 Rock Run Rd
Friendly, WV 26146

Well Site Safety Plan

Antero Resources

Well Name: Wrigley Unit 5V

Pad Location: Wrigley Pad

Tyler County/Meade District

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GPS Coordinates:

Entrance - Lat 39.423516"/Long -81.006496" (NAD83)

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

Driving Directions:

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

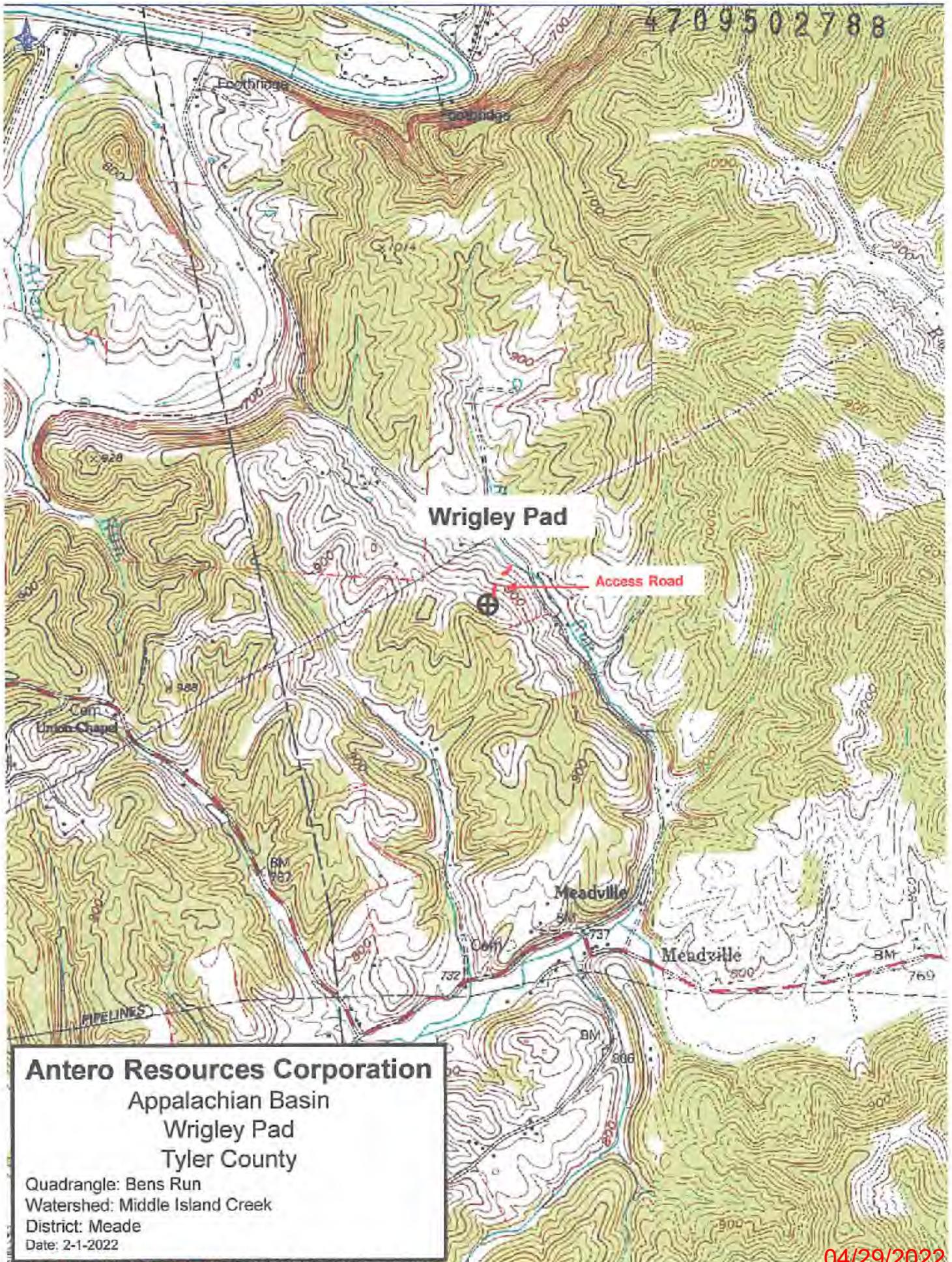
Alternate Route:

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

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

Ernest C. Szepolok
4-20-22

4709502788



Antero Resources Corporation
Appalachian Basin
Wrigley Pad
Tyler County

Quadrangle: Bens Run
Watershed: Middle Island Creek
District: Meade
Date: 2-1-2022

04/29/2022

2,155' to Top Hole

LATITUDE 39 - 27 - 30

LONGITUDE 81 - 00 - 00

Antero Resources
Well No. Wrigley 5V

Antero Resources Corporation

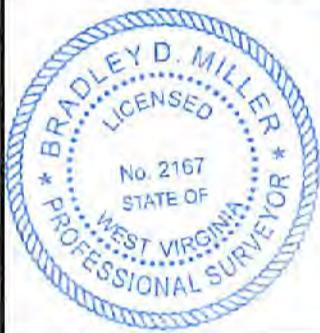


Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Wrigley 5V coordinates are
N: 339,169.15' Latitude: 39°25'17.07"
E: 1,574,106.93' Longitude: 81°00'27.46"
UTM Zone 17, NAD 1983
Top Hole Coordinates
N: 4,363,550.926m
E: 499,357.984m
UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,315,370.06'
E: 1,638,262.76'

Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

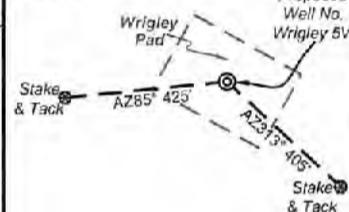
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
Bradley D. Miller, P.S. 2167



Well Location References

Not To Scale



Legend

- ⊙ Proposed gas well
- ⊕ Found corner, as noted
- ⊛ Existing Well, as noted
- ⊛ Digitized Well
- - - Existing Road
- Creek/Drain
- Surface boundary (approx.)
- Interior surface tracts (approx.)

Capped Robar

47-095-0682

7
7
Janelle S. Perkins
184/378
74.08 Ac.

47-095-222A

47-095-0617

47-095-232A

7
8
John Wells
428/412
52.39 Ac.

47-095-0489

7
3
Harry Edward West, Jr.
& Noreen Marie West
328/530
88 Ac.

Note: 8 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.



FILE NO: 195-51-U-21

DRAWING NO: Wrigley 5V Well Plat

SCALE: 1" = 500'

MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION:
WVDOT, Harrisville, WV

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

DATE: February 14 2022

OPERATOR'S WELL NO. Wrigley 5V

API WELL NO 444

47 - 095 - 02788
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: Proposed 937' Existing 964' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Bens Run

DISTRICT: Meade COUNTY: Tyler 04/29/2022

SURFACE OWNER: Shirley J. Wells & Susie Cunningham ACREAGE: 53.85

ROYALTY OWNER: Ryan Baker LEASE NO: ACREAGE: 53.85

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 6,500' TVD 6,500' MD

WELL OPERATOR: Antero Resources Corporation

DESIGNATED AGENT: Dianna Stamper - CT Corporation System

ADDRESS: 1615 Wynkoop Street
Denver, CO 80202

ADDRESS: 5400 D Big Tyler Road
Charleston, WV 25313

2,155' to Top Hole

LATITUDE 39 - 27 - 30

LONGITUDE 81 - 00 - 00

Antero Resources
Well No. Wrigley 5V

Antero Resources Corporation

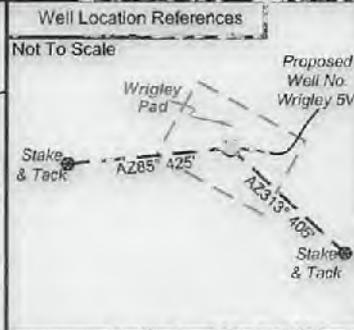


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based upon Differential GPS Measurements.
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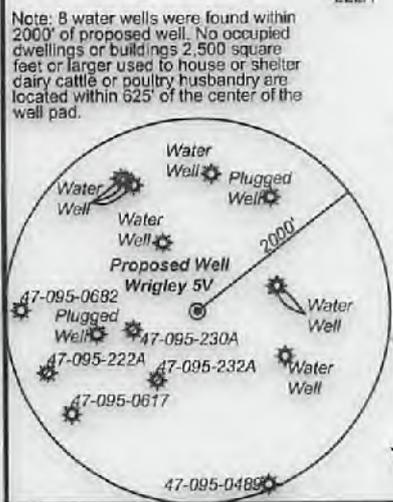
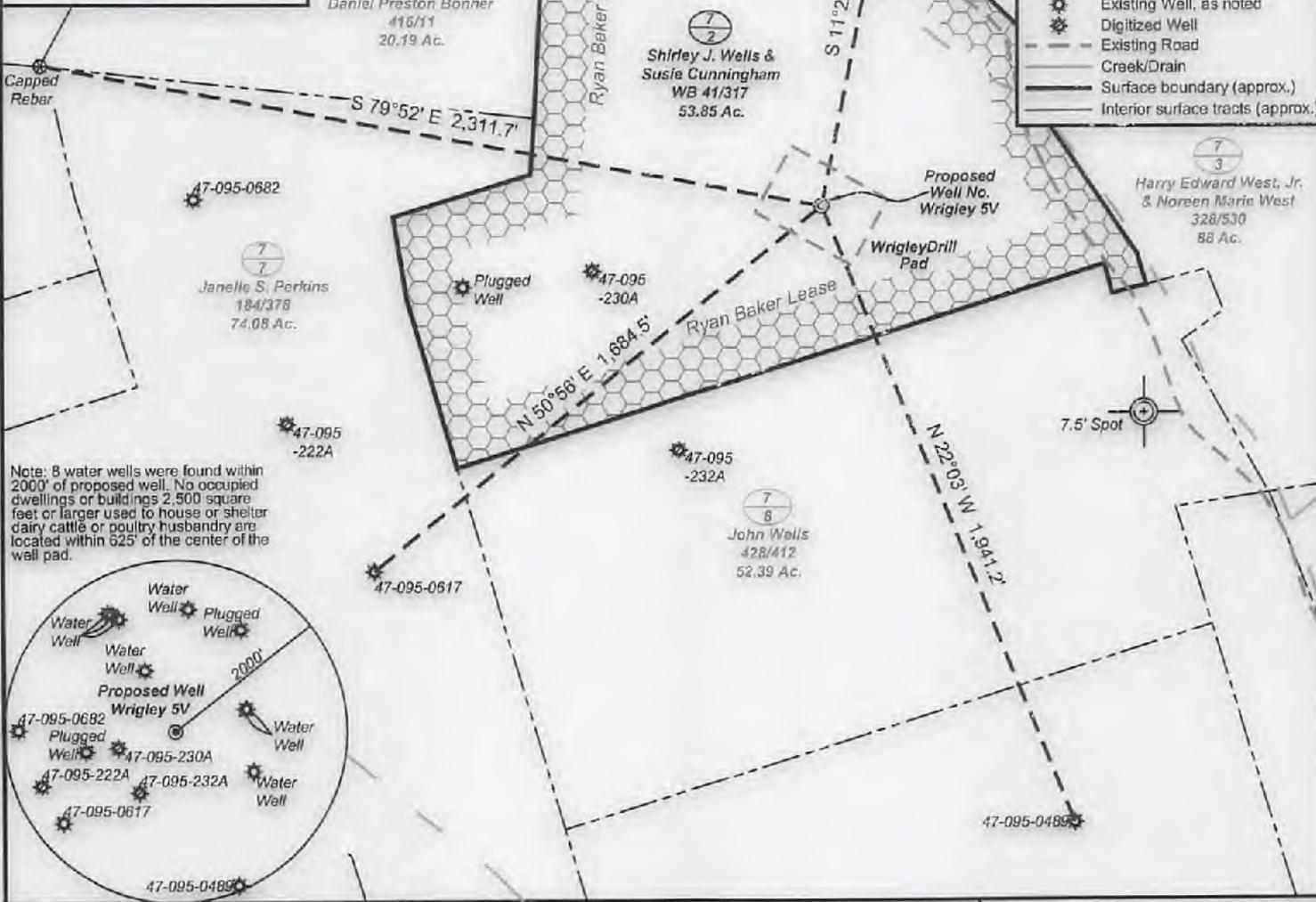
Plat orientation and corner and well references are based upon the grid north meridian. Well location references are based upon the magnetic meridian.

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Bradley D. Miller
Bradley D. Miller, P.S. 2167



- Legend
- ⊙ Proposed gas well
 - ⊗ Found corner, as noted
 - ⊛ Existing Well, as noted
 - ⊙ Digitized Well
 - - - Existing Road
 - Creek/Drain
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)



FILE NO: 195-51-U-21
DRAWING NO: Wrigley 5V Well Plat
SCALE: 1" = 500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Harrisville, WV

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

DATE: February 14 2022
OPERATOR'S WELL NO. Wrigley 5V
API WELL NO. 47-095-02188
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: Existing 984' Proposed 937' WATERSHED: Outlet Middle Island Creek QUADRANGLE: Bens Run
DISTRICT: Meade COUNTY: Tyler
SURFACE OWNER: Shirley J. Wells & Susie Cunningham ACREAGE: 53.85
ROYALTY OWNER: Ryan Baker LEASE NO: ACREAGE: 53.85
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 8,500' TVD 6,500' MD

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

04/29/2022

Operator's Well Number Wrigley Unit 5V

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
<u>Shirley Wells and Susie Cunningham Lease</u> Shirley Wells and Susie Cunningham	Antero Resources Corporation	1/8+	0041/0317

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*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.

**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
<u>Shirley Wells and Susie Cunningham Lease</u>				
	Shirley Wells and Susie Cunningham	Antero Resources Corporation	1/8+	0041/0317

*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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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

Its: VP of Land

4709502788



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

March 23, 2022

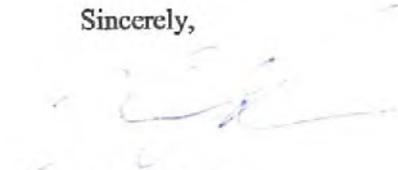
West Virginia Department of Environmental Protection
Chief, Office of Oil and Gas
Attn: Mr. James Martin
601 57th Street SE
Charleston, WV 25304

RE: Wrigley Unit 5V
Quadrangle: Bens Run 7.5'
Tyler County/Meade District, West Virginia

Mr. Martin:

Antero Resources Corporation (Antero) is submitting the following application for a new well work permit for the Wrigley Unit 5V 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 Wrigley Unit 5V horizontal lateral will drill through including any and all roads crossed under as identified on the attached survey plat.

Sincerely,



Tyler Adams
Landman

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04/29/2022

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: Tyler Star News

Public Notice Date: 02/09/2022 and 02/16/2022

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: Antero Resources Corporation **Well Number:** Wrigley Unit 5V

Address: 1615 Wynkoop Street
Denver, CO 80202

Business Conducted: Natural gas production.

Location –

State: West Virginia County: Tyler
District: Meade Quadrangle: Bens Run 7.5'
UTM Coordinate NAD83 Northing: 4363550m
UTM coordinate NAD83 Easting: 499357m
Watershed: Outlet Middle Island Creek

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

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Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.comments@wv.gov.

Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

04/29/2022

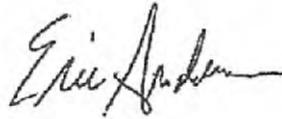
Tyler Star News
AFFIDAVIT OF PUBLICATION

4709502788

See Proof on Next Page

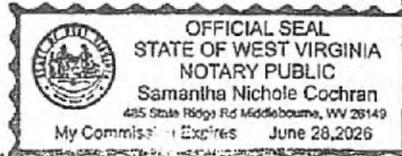
Sistersville, WV February 16th, 2022 State of West Virginia, County of : Tyler
Personally appeared before the undersigned, a Notary Public, Eric Anderson who, being duly sworn, states that he is the Publisher of Tyler Star News, a weekly newspaper of general circulation, published Sistersville, County of Tyler, State of West Virginia, and that a copy of the notice attached hereto was published:

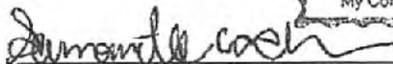
9 Feb 2022 ✓
16 Feb 2022 ✓



Eric Anderson, Publisher

Subscribed and sworn to before me, a Notary Public of said County, on this 16th day of February, 2022.



 Notary Public

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4709502788

Wrigley Unit 5V

PUBLIC NOTICE OF APPLICATION FOR NATURAL GAS HORIZONTAL WELL DRILLING PERMIT, pursuant to West Virginia Code Section 22-6A-10(e).

Antero Resources Corporation, 1615 Wynkoop Street, Denver, CO 80202, is applying for a permit for a natural gas horizontal well, Wrigley Unit 5V, located at approximately UTM NAD 83 Easting 499357.98, UTM NAD 83 Northing 4363550.93 in Outlet Middle Island Creek Watershed, ~~Beers Run~~ 7.5' Quadrangle, Meade District, Tyler County, WV which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period. To convert the coordinates above into longitude and latitude, visit: http://tags.dep.wv.gov/convert/utm_conus.php. To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Any interested person may submit written comments or request a copy of the proposed permit application. Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Emailed or written comments must reference the county, well number, and operator and be received within 30 days of the date of the last publication. Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15.00, whether mailed or obtained at DEP headquarters.

For information related to horizontal drilling, and all horizontal well applications filed in this state, visit: www.dep.wv.gov/oil-and-gas/horizontal-Permits/Pages/default.aspx

Antero Resources Corporation

TSN 2/9, 2/16 #####

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

Date of Notice Certification: 03/23/2022

API No. 47- 095 - _____
Operator's Well No. Wrigley Unit 5V
Well Pad Name: Wrigley 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:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>499357m</u>
County:	<u>Tyler</u>		Northing:	<u>4363550m</u>
District:	<u>Meade</u>	Public Road Access:	<u>Rock Run Rd</u>	
Quadrangle:	<u>Bens Run</u>	Generally used farm name:	<u>Wells</u>	
Watershed:	<u>Outlet Middle Island Creek</u>			

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 <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> 5. PUBLIC NOTICE <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		OOG OFFICE USE ONLY <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED <input checked="" type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED
RECEIVED Office of Oil and Gas MAR 28 2022 WV Department of Environmental Protection		

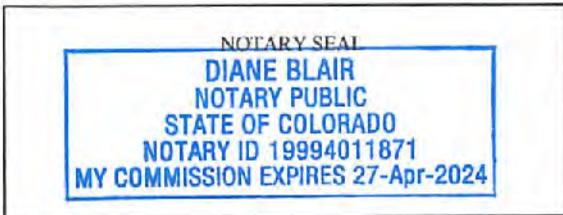
Required Attachments:

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

Certification of Notice is hereby given:

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

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



Subscribed and sworn before me this 24 day of Mar 2022.
Diane Blair Notary Public
 My Commission Expires 27 Apr 2024

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.

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 WV Department of
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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.**

Date of Notice: 03/24/2022 **Date Permit Application Filed:** 03/24/2022

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature 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 WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Shirley Wells

Address: 1509 Maple Avenue
Wellsville, OH 43968-1253

Name: Susie Cunningham

Address: 1509 Maple Avenue
Wellsville, OH 43968-1253

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____

Address: _____

Name: _____

Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: NO DECLARATIONS ON RECORD WITH COUNTY

Address: _____

COAL OPERATOR

Name: NO DECLARATIONS ON RECORD WITH COUNTY

Address: _____

WATER PURVEYOR(S)/OWNER(S) OF WATER WELL,
SPRING OR OTHER WATER SUPPLY SOURCE

Name: PLEASE SEE ATTACHMENT

Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____

Address: _____

*Please attach additional forms if necessary

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MAR 28 2022

WV Department of
Environmental Protection

04/29/2022

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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

Chief, Office of Oil and Gas
Department of Environmental Protection
601 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 a list of persons qualified to test water.

WW-6A
(8-13)

4709502788
API NO. 47-095 -
OPERATOR WELL NO. Wrigley Unit 5V
Well Pad Name: Wrigley Pad

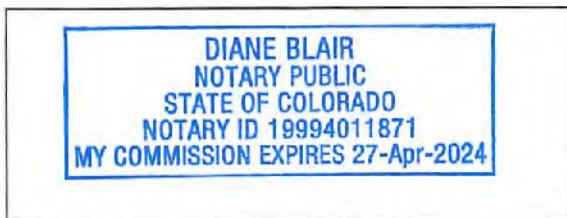
Notice is hereby given by:

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 of your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.



Subscribed and sworn before me this 24 day of Mar. 2022.

Diane Blair Notary Public

My Commission Expires 27 Apr 2024

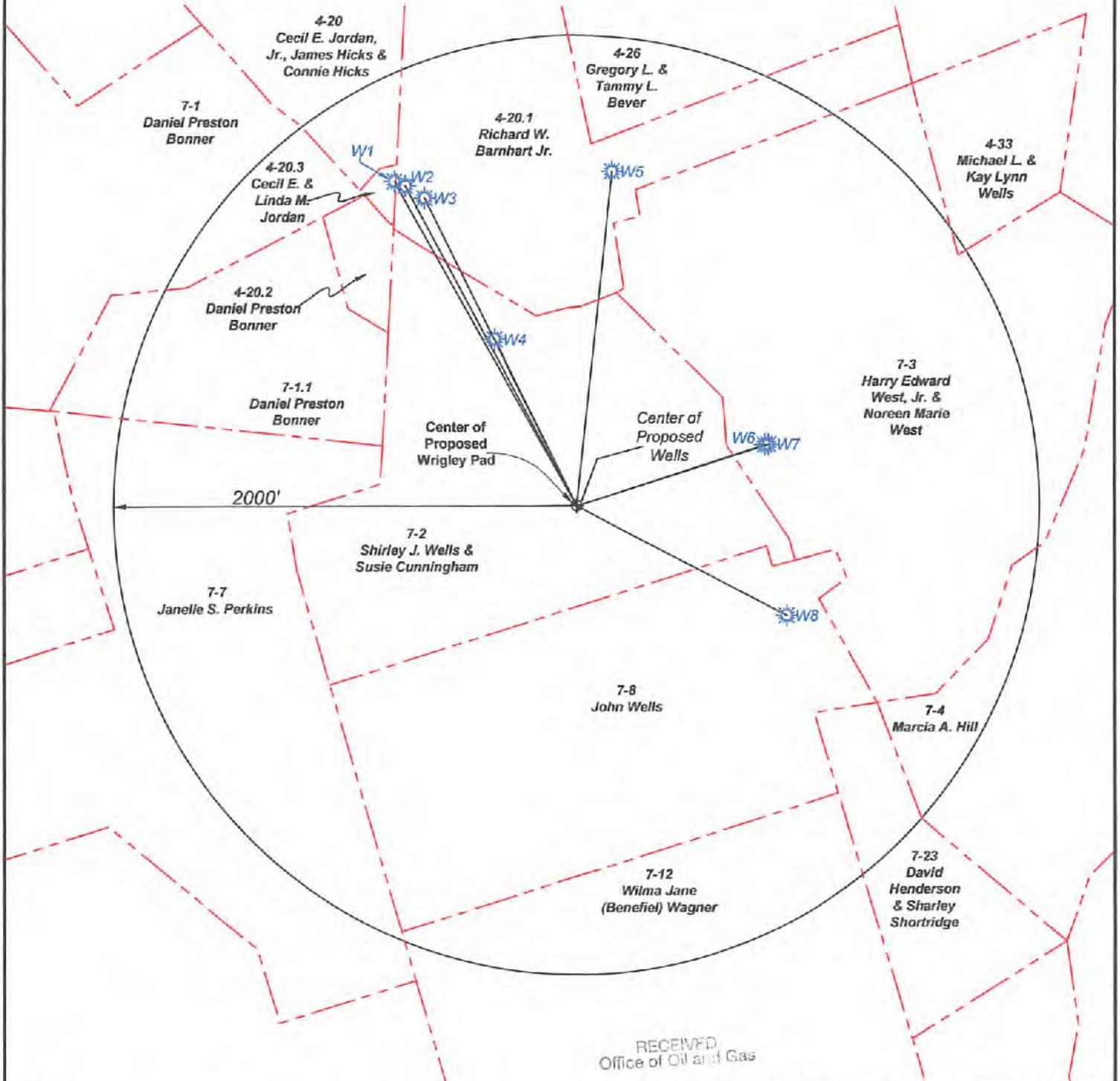
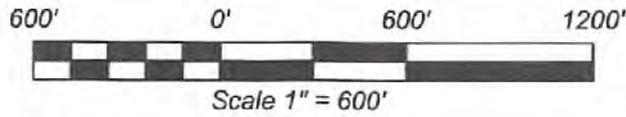
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MAR 28 2022

WV Department of
Environmental Protection

04/29/2022

**Wrigley Drill Pad
Water Well Map**



Owners

- W1. Cecil E. & Linda M. Jordan, 535 Washington St., Newell, WV 26050-1127
- W2. Richard W. Barnhart, Jr., 1431 Rock Run Rd., Friendly, WV 26146-7505
- W3. Richard W. Barnhart, Jr., 1431 Rock Run Rd., Friendly, WV 26146-7505
- W4. Susie Cunningham, 1509 Maple Ave., Wellsville, OH 43968-1258
- W5. Richard W. Barnhart, Jr., 1431 Rock Run Rd., Friendly, WV 26146-7505
- W6. Harry Edward West, 1059 Rock Run Rd., Friendly, WV 26146-7506
- W7. Harry Edward West, 1059 Rock Run Rd., Friendly, WV 26146-7506
- W8. John W. Wells, 8872 Wick Rd., Middlebourne, WV 26149-7479

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Tag	Azimuth	Dist.	Latitude	Longitude
W1	AZ330°16'	1585.3'	39°25'30.54"	81°00'37.77"
W2	AZ331°27'	1545.2'	39°25'30.36"	81°00'37.16"
W3	AZ333°21'	1481.6'	39°25'29.87"	81°00'36.09"
W4	AZ333°33'	792.4'	39°25'24.02"	81°00'32.11"
W5	AZ06°11'	1430.3'	39°25'31.15"	81°00'25.80"
W6	AZ72°31'	853.5'	39°25'19.74"	81°00'17.14"
W7	AZ72°45'	870.0'	39°25'19.76"	81°00'16.93"
W8	AZ117°16'	1021.5'	39°25'12.59"	81°00'15.79"

WW-6A Notice of Application Attachment (WRIGLEY PAD):**WATER SOURCE OWNERS: Within 1500'****TM 4 PCL 20.1**

2 Water Wells: 1461.6' (W3) & 1430.3' (W5)

Owner: Richard W. Barnhart, Jr.**Address:** 1431 rock Run Rd.
Friendly, WV 26146-7505**TM 7 PCL 2**

1 Water Well: 792.4' (W4)

Owner: Susie Cunningham**Address:** 1509 Maple Ave.
Wellsville, OH 43968-1258**TM 7 PCL 3**

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

Owner: Harry Edward West**Address:** 1059 Rock Run Rd.
Friendly, WV 26146-7506**TM 7 PCL 8**

1 Water Well: 1021.5' (W8)

Owner: John W. Wells**Address:** 8872 Wick Rd.
Middlebourne, WV 26149-7479RECEIVED
Office of Oil and Gas

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**CERTIFIED MAIL RECEIPT
WRIGLEY UNIT 5V
WW-6A NOTICE OF APPLICATION
TO SURFACE OWNER**

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Office of Oil and Gas

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WV Department of
Environmental Protection

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Instructions

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USPS TRACKING # :	
9405 5036 9930 0201 9096 20	
Trans. #:	559581292
Print Date:	03/24/2022
Ship Date:	03/24/2022
Expected	
Delivery Date:	03/28/2022
Priority Mail® Postage:	\$8.95
Total:	\$8.95
From:	JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106
Reff:	Wrigley
To:	SHIRLEY WELLS 1508 MAPLE AVE WELLSVILLE OH 43968-1258
<small>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</small>	



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WW-6A NOTICE OF APPLICATION
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USPS TRACKING # :	
9405 5036 9930 0201 9096 44	
Trans. #:	559581292
Print Date:	03/24/2022
Ship Date:	03/24/2022
Expected Delivery Date:	03/28/2022
Priority Mail® Postage:	\$8.95
Total:	\$8.95
From:	JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106
	Ref#: Wrigley 5V
To:	SUSIE CUNNINGHAM 1509 MAPLE AVE WELLSVILLE OH 43868-1258
<small>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</small>	

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**CERTIFIED MAIL RECEIPT
WRIGLEY UNIT 5V
WW-6A NOTICE OF APPLICATION
TO WATER SOURCE OWNER**

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USPS TRACKING # : 9405 5036 9930 0201 9776 43			
Trans. #:	559587113	Priority Mail® Postage:	\$8.95
Print Date:	03/24/2022	Total:	\$8.95
Ship Date:	03/24/2022		
Expected			
Delivery Date:	03/28/2022		
From: JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1108		Ref#: Wrigley 5V	
To: RICHARD W BARNHART, JR. 1431 ROCK RUN RD FRIENDLY WV 26146-7505			
<small>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</small>			



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**CERTIFIED MAIL RECEIPT
WRIGLEY UNIT 5V
WW-6A NOTICE OF APPLICATION
TO WATER SOURCE OWNER**

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USPS TRACKING # :	
9405 5036 9930 0201 9776 67	
Trans. #:	559587113
Print Date:	03/24/2022
Ship Date:	03/24/2022
Expected Delivery Date:	03/28/2022
Priority Mail® Postage:	\$8.95
Total:	\$8.95
From:	JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106
Ref#:	Wrigley 5V
To:	HARRY EDWARD WEST 1059 ROCK RUN RD FRIENDLY WV 26146-7506
<small>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</small>	



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WW-6A NOTICE OF APPLICATION
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WV Department of
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USPS TRACKING # : 9405 5036 9930 0201 9776 74			
Trans. #:	559587113	Priority Mail® Postage:	\$8.95
Print Date:	03/24/2022	Total:	\$8.95
Ship Date:	03/24/2022		
Expected Delivery Date:	03/28/2022		
From: JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106		Refill: Wrigley 5V	
To: JOHN W WELLS 8872 WICK RD MIDDLEBOURNE WV 26149-7479			
<small>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</small>			



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04/29/2022

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

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

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 02/03/2022 **Date Permit Application Filed:** 03/24/2022

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

HAND DELIVERY **CERTIFIED MAIL 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: Shirley Wells
Address: 1509 Maple Ave
Wellsville, OH 43968-1258

Name: Susie Cunningham
Address: 1509 Maple Ave
Wellsville, OH 43968-1258

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 UTM NAD 83 Easting: 499357.93m
County: Tyler Northing: 4363550.93m
District: Meade Public Road Access: Rock Run Rd
Quadrangle: Bens Run 7.5' Generally used farm name: Wells
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 57th 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: Antero Resources Appalachian Corporation
Address: 1615 Wynkoop St.
Denver, CO 80202
Telephone: 303-357-7310
Email: mstanton@anteroresources.com
Facsimile: 303-357-7315

Authorized Representative: Mallory Stanton
Address: 1615 Wynkoop St.
Denver, CO 80202
Telephone: 303-357-7310
Email: mstanton@anteroresources.com
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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

MAR 28 2022

4709502788

**CERTIFIED MAIL RECEIPT
WRIGLEY UNIT 5V (WRIGLEY PAD)
WW-6A4 NOTICE OF INTENT TO DRILL
TO SURFACE OWNER**

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USPS TRACKING # :	
9405 5036 9930 0156 0006 18	
Trans. #:	555739016
Print Date:	02/03/2022
Ship Date:	02/03/2022
Expected Delivery Date:	02/07/2022
Priority Mail® Postage:	\$8.95
Total:	\$8.95
From:	JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106
To:	SHIRLEY WELLS 1509 MAPLE AVE WELLSVILLE OH 43968-1258
Ref#:	Wrigley 5V

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MAR 28 2022
WV Department of
Environmental Protection

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CERTIFIED MAIL RECEIPT
WRIGLEY UNIT 5V (WRIGLEY PAD)
WW-6A4 NOTICE OF INTENT TO DRILL
TO SURFACE OWNER

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Click-N-Ship® Label Record

USPS TRACKING # :					
9405 5036 9930 0156 0006 25					
Trans. #: 555739016	Priority Mail® Postage: \$8.95				
Print Date: 02/03/2022	Total: \$8.95				
Ship Date: 02/03/2022					
Expected Delivery Date: 02/07/2022					
<table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> From: JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1105 </td> <td style="width: 50%; vertical-align: top;"> Ref#: Wrigley 5V </td> </tr> <tr> <td colspan="2" style="padding: 10px 0 0 40px;"> To: SUSIE CUNNINGHAM 1509 MAPLE AVE WELLSVILLE OH 43968-1258 </td> </tr> </table>		From: JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1105	Ref#: Wrigley 5V	To: SUSIE CUNNINGHAM 1509 MAPLE AVE WELLSVILLE OH 43968-1258	
From: JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1105	Ref#: Wrigley 5V				
To: SUSIE CUNNINGHAM 1509 MAPLE AVE WELLSVILLE OH 43968-1258					
<p>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</p>					

RECEIVED
Office of Oil and Gas

MAR 28 2022



Thank you for shipping with the United States Postal Service®

U.S. Department of Environmental Protection

Check the status of your shipment on the USPS Tracking® page at usps.com

04/29/2022

4709502788

**CERTIFIED MAIL RECEIPT
WRIGLEY UNIT 5V
WW-6A5 NOTICE OF PLANNED OPERATION
TO SURFACE OWNER**

Cut on dotted line.

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. **DO NOT PHOTO COPY OR ALTER LABEL.**
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, **DO NOT TAPE OVER BARCODE.** Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record

USPS TRACKING # :	
9405 5036 9930 0201 9096 44	
Trans. #:	559581292
Print Date:	03/24/2022
Ship Date:	03/24/2022
Expected Delivery Date:	03/28/2022
Priority Mail® Postage:	\$8.95
Total:	\$8.95
From:	JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106
To:	SUSIE CUNNINGHAM 1509 MAPLE AVE WELLSVILLE OH 43968-1258
Ref#:	Wrigley 5V

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

RECEIVED
Office of Oil and Gas

MAR 28 2022



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04/29/2022

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Click-N-Ship® Label Record

USPS TRACKING # :	
9405 5036 9930 0201 9096 20	
Trans. #:	559581292
Print Date:	03/24/2022
Ship Date:	03/24/2022
Expected Delivery Date:	03/28/2022
Priority Mail® Postage:	\$8.95
Total:	\$8.95
From:	JOHN GIANNAULA 1615 WYNKOOP ST DENVER CO 80202-1106
Ref#:	Wrigley
To:	SHIRLEY WELLS 1509 MAPLE AVE WELLSVILLE OH 43968-1258
<small>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</small>	

RECEIVED
Office of Oil and Gas

MAR 28 2022



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U.S. Department of
Environmental Protection

04/29/2022



4709502788

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

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

D. Alan Reed, P.E.
State Highway Engineer

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

February 25, 2022

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 Wrigley Pad, Tyler County
Wrigley Unit 5V Well Site

Dear Mr. Martin,

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

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

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Diane Blair
Antero Resources
CH, OM, D-6
File

RECEIVED
Office of Oil and Gas
MAR 28 2022

WV Department of
Environmental Protection

WRIGLEY WELL PAD & WATER CONTAINMENT PAD SITE DESIGN & CONSTRUCTION PLAN, EROSION & SEDIMENT CONTROL PLANS

MEADE DISTRICT, TYLER COUNTY, WEST VIRGINIA
SUGAR CREEK WATERSHED

USGS 7.5 BENS RUN & MIDDLEBOURNE QUAD MAPS

LOCATION COORDINATES:
ACCESS ROAD ENTRANCE:
LATITUDE: 38.425916 LONGITUDE: -81.006496 (NAD 83)
LATITUDE: 38.426289 LONGITUDE: -81.006650 (NAD 27)
N 4363776.33 E 496440.63 (UTM ZONE 17 METERS)
CENTER OF TASK:
LATITUDE: 38.421900 LONGITUDE: -81.006542 (NAD 83)
LATITUDE: 38.421563 LONGITUDE: -81.006510 (NAD 27)
N 4363645.67 E 496281.97 (UTM ZONE 17 METERS)
CENTER OF PAD:
LATITUDE: 38.423185 LONGITUDE: -81.007562 (NAD 83)
LATITUDE: 38.423258 LONGITUDE: -81.007670 (NAD 27)
N 4363532.41 E 496354.26 (UTM ZONE 17 METERS)

**APPROVED
WVDEP OOG**
[Signature]
4/26/2022

GENERAL DESCRIPTION:
THE ACCESS ROAD, STAGING AREA WATER CONTAINMENT PAD AND WELL PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALES GAS WELLS.

FLOODPLAIN NOTES:
THE PROPOSED SITE IS LOCATED IN FLOOD ZONE "A" PER FEMA MAP NUMBERS #54095C0125C.

MISS UTILITY STATEMENT:
ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. IN ADDITION MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

ENTRANCE PERMIT:
ANTERO RESOURCES CORPORATION WILL OBTAIN AN ENCROACHMENT PERMIT (FORM MV-100) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

ENVIRONMENTAL NOTES:
STREAM AND WETLAND DELINEATIONS WERE PERFORMED IN SEPTEMBER, 2021 BY ALLSTAR ECOLOGY TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE SEPTEMBER 20, 2021 STREAM AND WETLAND DELINEATION MAP WAS PREPARED BY ALLSTAR ECOLOGY AND SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE MAP DOES NOT IN ANY WAY REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WYDEP. IT IS STRONGLY RECOMMENDED THAT THE APPROPRIATE AGENCIES BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THIS EXHIBIT PRIOR TO ENGAGING CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S. INCLUDING WETLAND FILL AND STREAM CROSSINGS.

GEOTECHNICAL NOTES:
A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY PENNSYLVANIA SOIL & ROCK, INC. ON APRIL 15, 2018. THE REPORT PREPARED BY PENNSYLVANIA SOIL & ROCK, INC. DATED JUNE 6, 2018, REVISED SEPTEMBER 20, 2021, EXPRESSES THE RESULTS OF THE SUBSURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS REPORT WERE USED IN THE PREPARATION OF THESE PLANS. PLEASE REFER TO THE SUBSURFACE INVESTIGATION REPORT BY PENNSYLVANIA SOIL & ROCK, INC. FOR ADDITIONAL INFORMATION, AS NOTED.

PROJECT CONTACTS:

ROBERT EDDY - UTILITY COORDINATOR CELL: (304) 718-4169	JIM WILSON - LAND AGENT OFFICE: (304) 842-4419 CELL: (304) 871-2708
ANTERO RESOURCES CORPORATION 505 WHITE OAKS BLVD. MIDDLETOWN, WV 26033 PHONE: (304) 842-4100 FAX: (304) 842-4102	ENGINEER/SURVEYOR: NAVIGUS ENGINEERING, INC. CHRIS S. KUMP, PE - PROJECT MANAGER/ENGINEER OFFICE: (606) 682-4165 CELL: (540) 682-0747
ELI WAGNER - ENVIRONMENTAL ENGINEER & REGULATORY MANAGER OFFICE: (304) 842-4263 CELL: (304) 878-9770	ENVIRONMENTAL: ALLSTAR ECOLOGY, LLC RYAN E. WARD - ENVIRONMENTAL SCIENTIST (866) 213-2868 CELL: (304) 682-7477
DEANA HOFF - OJV OPERATIONS OFFICE: (304) 337-6994	GEOTECHNICAL: PENNSYLVANIA SOIL & ROCK, INC. CHRISTOPHER S. JARROLD - PROJECT ENGINEER OFFICE: (412) 372-4300 CELL: (412) 568-0652
ARON KUNZLER - CONSTRUCTION MANAGER CELL: (304) 842-4191	
ROBERT WIKES - DESIGN MANAGER OFFICE: (304) 842-4100 CELL: (304) 823-7480	

- RESTRICTIONS NOTES:**
- THERE ARE NO LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LOD. THERE ARE PERENNIAL STREAMS & WETLAND IMPACTS THAT WILL NEED TO BE PERMITTED BY THE APPROPRIATE AGENCIES.
 - THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 500 FEET OF THE WELL PAD AND LOD.
 - THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.
 - THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 200 FEET OF THE WELL PAD AND LOD.
 - THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 500 FEET OF THE CENTER OF THE WELL PAD. THERE IS A CABIN WITHIN 600 FEET OF THE CENTER OF THE PROPOSED WELL PAD.
 - THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 600 FEET OF THE CENTER OF THE WELL PAD.



WEST VIRGINIA COUNTY MAP



(NOT TO SCALE)

WVDOH COUNTY ROAD MAP



SCALE: 1" = 500'

WEST VIRGINIA STATE PLANS COORDINATE SYSTEM
NAD 83 DATA, NAD 27 DATA
DETAILED TO THE POINT, ORIGIN, ORIGIN, ORIGIN
POST-PROCESSING

SHEET INDEX:

- COVER SHEET
- CONSTRUCTION AND EAS CONTROL NOTES
- LEGEND
- MATERIAL QUANTITIES
- STORM DRAINAGE & EAS COMPUTATIONS
- EXISTING CONDITIONS
- EXISTING STRUCTURES & FEATURES
- OVERALL PLAN SHEET INDEX & VOLUMES
- ACCESS ROAD STAGING AREA & WELL PAD PLAN
- ACCESS ROAD WELL PAD & STOCKPILE PLAN
- WELL PAD GRADIENT PLAN
- ACCESS ROAD PROFILE
- ACCESS ROAD SECTIONS
- WELL PAD & STOCKPILE SECTIONS
- 10-16 - WELL PAD SECTIONS
- 17 - STREAM CROSSING DETAILS
- 18-20 - CONSTRUCTION DETAILS
- 26 - ACCESS ROAD, STAGING AREA & WELL PAD RECLAMATION PLAN
- 27 - ACCESS ROAD, WELL PAD & STOCKPILE RECLAMATION PLAN
- GE500-GE506 GEOTECHNICAL DETAILS

WRIGLEY LIMITS OF DISTURBANCE AREA (AC)	
Total Site	
Access Road "A" (1575)	4.61
Staging Area	0.75
Well Pad	10.35
Excavated Material Stockpiles	12.74
Total Affected Area	28.45
Total Wooded Acres Disturbed	
Access Road "A" (1575)	4.61
Staging Area	0.75
Well Pad	10.35
Excavated Material Stockpiles	12.74
Total Affected Area	28.45
Total Wooded Acres Disturbed	
	10.90

Well Name	Well Name	UTM (METERS)	UTM (METERS)
WAD 27	WAD 27	ZONE 17	WAD 27
Wrigley	N 539-00 15	E 497325 17 2070	N 4363500 83
UNIT ID:	E 497325 17 2070	E 497325 17 2070	E 497325 17 2070
Proposed Well Pad Elevation:	931.5		

WRIGLEY WETLAND IMPACT (SQUARE FEET)			
Wetland and Impact Cause	FR (SF)	Total Impact (SF)	Total Impact (AC)
GA1 Wetland 12 (Access Road)	70	70	0.002
ASE Wetland 1 (Access Road)	1,593	1,593	0.04

WRIGLEY PERENNIAL STREAM IMPACT (LINEAR FEET)					
Stream and Impact Cause	Permitted Impacts		Temp. Impacts		Total Impact (LF)
	Culvert (LF)	Intake/Outlets (LF)	Cofferdam/EAS (LF)	Control (LF)	
GA1 Stream 1 (Access Road)	65	0	34	0	99

WRIGLEY INTERMITTENT STREAM IMPACT (LINEAR FEET)					
Stream and Impact Cause	Permitted Impacts		Temp. Impacts		Total Impact (LF)
	Culvert (LF)	Intake/Outlets (LF)	Cofferdam/EAS (LF)	Control (LF)	
ASE Stream 10 (Access Road)	57	18	26	0	81
GA1 Stream 35	89	45	22	0	156

REPRODUCTION NOTE
THOSE PLANS WERE CREATED TO BE PLOTTED ON 24" X 36" (ANSI D) PAPER. HALF SCALE DRAWINGS AND 1/4" X 36" (ANSI B) PAPER. THESE PLANS WERE CREATED FOR COLOR PLOTTING AND ANY REPRODUCTIONS IN GRAY SCALE OR COLOR MAY RESULT IN A LOSS OF INFORMATION AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.

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!!

DESIGN CERTIFICATION:
THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS RES. 38-8.

*Page 10 - The plugged well shall be be monumented according to 38CSR4-5.5b or a variance will be required.

NAVIGUS
ENERGY ENGINEERING
Telephone: (606) 682-4118 | www.naviguseng.com

REVISION	DATE



THIS DOCUMENT HAS BEEN PREPARED FOR ANTERO RESOURCES CORPORATION

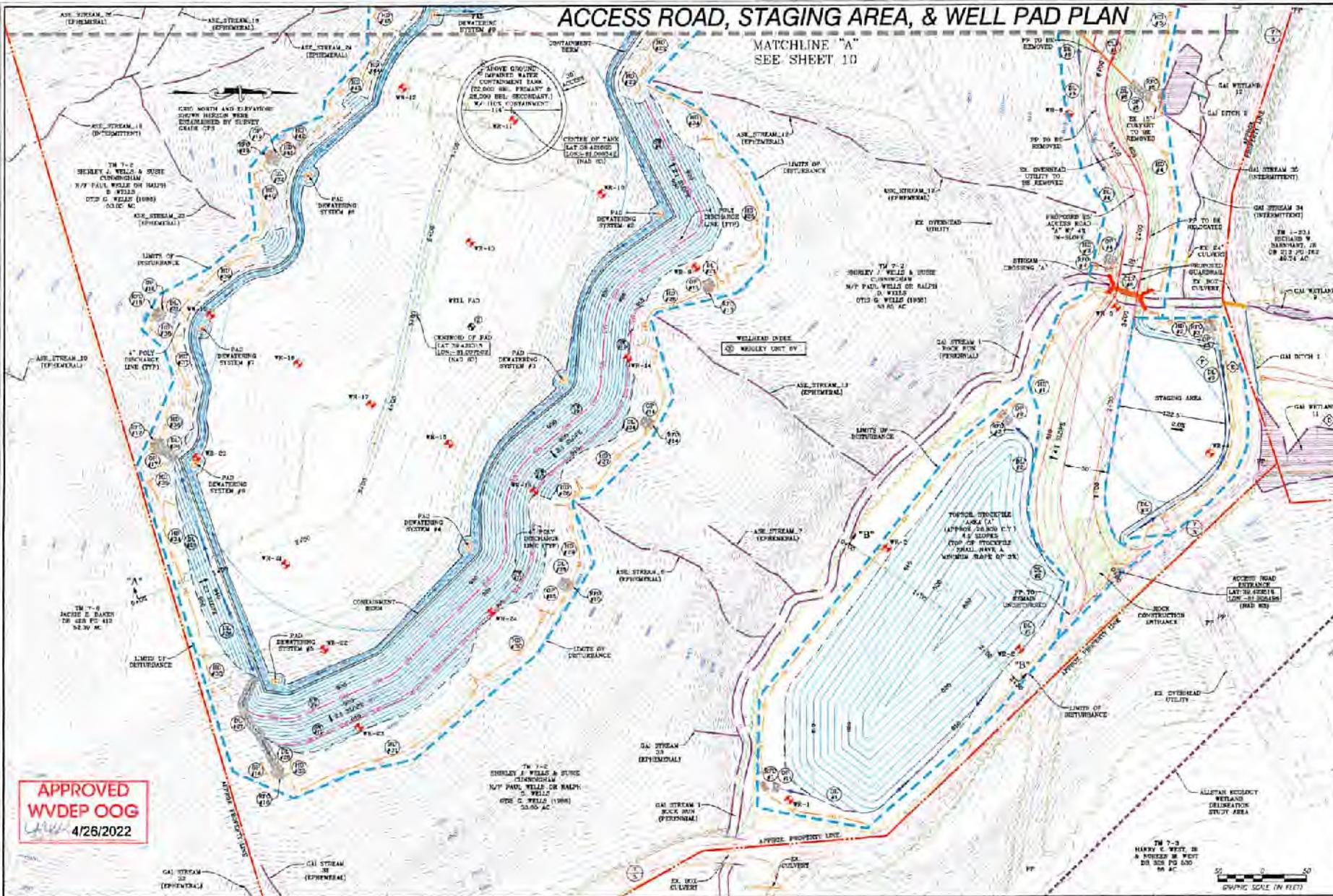
WRIGLEY
WELL PAD & WATER CONTAINMENT PAD
MEADE DISTRICT
TYLER COUNTY, WEST VIRGINIA



DATE: 10/15/2021
SCALE: AS SHOWN
SHEET 1 OF 27

ACCESS ROAD, STAGING AREA, & WELL PAD PLAN

MATCHLINE "A"
SEE SHEET 10



APPROVED
WVDEP OOG
4/26/2022

NAVITUS
ENERGY ENGINEERING

REVISION	DATE

Antero
THIS DOCUMENT
WAS PREPARED FOR
ANTERO RESOURCES
CORPORATION

ACCESS ROAD, STAGING AREA, & WELL PAD PLAN
WRIGLEY
WELL PAD & WATER CONTAINMENT PAD
MEADE DISTRICT
TYLER COUNTY, WEST VIRGINIA



DATE: 12/15/2021
SCALE: 1" = 50'
SHEET 9 OF 27

ACCESS ROAD, WELL PAD & STOCKPILE PLAN

APPROVED
WVDEP OOG
 4/26/2022

GRID NORTH AND ELEVATIONS
 SHOWN HEREIN WERE
 ESTABLISHED BY SURVEY
 GRADE GPS

NAVITUS
 ENERGY ENGINEERING

REVISION	DATE



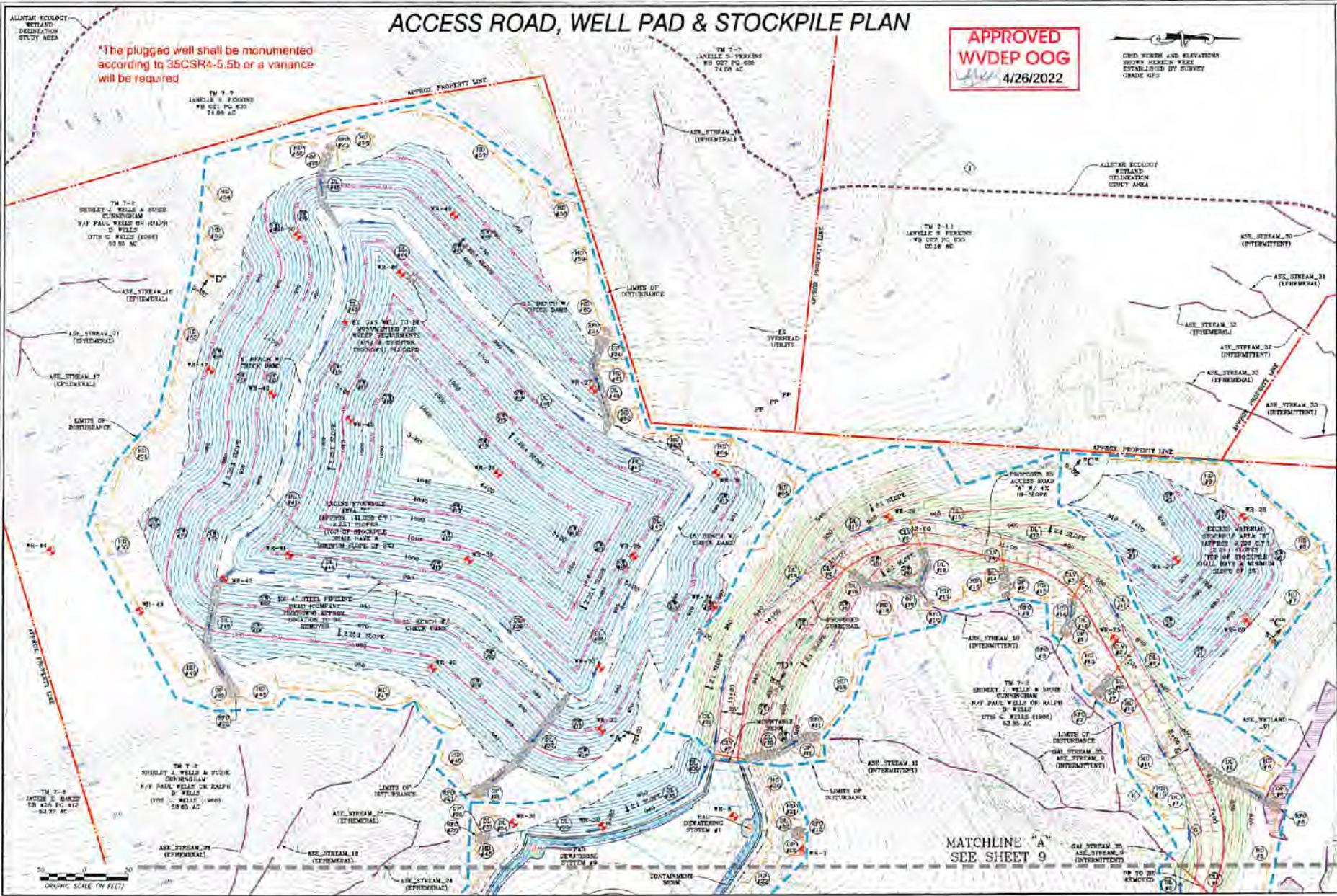
THE DOCUMENT
 HAS PREPARED FOR
 ANTERO RESOURCES
 CORPORATION

WRIGLEY
 WELL PAD & WATER CONTAINMENT PAD
 MEADE DISTRICT
 TYLER COUNTY, WEST VIRGINIA



DATE 12/15/2021
 SCALE 1" = 50'
 SHEET 10 OF 27

*The plugged well shall be monumented according to 35CSR4-5.5b or a variance will be required



MATCHLINE "A"
 SEE SHEET 9

GRAPHIC SCALE (IN FEET)

WRIGLEY WELL PAD & WATER CONTAINMENT PAD SITE DESIGN & CONSTRUCTION PLAN, EROSION & SEDIMENT CONTROL PLANS

MEADE DISTRICT, TYLER COUNTY, WEST VIRGINIA
SUGAR CREEK WATERSHED
USGS 7.5 BENS RUN & MIDDLEBOURNE QUAD MAPS

WV Department of
Environmental Protection

LOCATION COORDINATES:

ACCESS ROAD ENTRANCE
LATITUDE: 36.422516 LONGITUDE: -81.009495 (NAD 83)
LATITUDE: 36.422459 LONGITUDE: -81.009466 (NAD 27)
N 4363778.58 E 4894468.81 (TWM ZONE 17 METERS)
CENTER OF TANK
LATITUDE: 36.421660 LONGITUDE: -81.009345 (NAD 83)
LATITUDE: 36.421523 LONGITUDE: -81.009310 (NAD 27)
N 4363553.97 E 4893818.27 (TWM ZONE 17 METERS)
CENTER OF PAD
LATITUDE: 36.421239 LONGITUDE: -81.009160 (NAD 83)
LATITUDE: 36.421239 LONGITUDE: -81.009160 (NAD 27)
N 4363553.11 E 4893554.26 (TWM ZONE 17 METERS)

GENERAL DESCRIPTION

THE ACCESS ROAD, STAGING AREA, WATER CONTAINMENT PAD AND WELL PAD ARE BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

FLOODPLAIN NOTES

THE PROPOSED SITE IS LOCATED IN FLOOD ZONE 'X' PER FEMA MAP NUMBER #510995C0125C.

MISS UTILITY STATEMENT

ANTERO RESOURCES CORPORATION WILL NOTIFY MISS UTILITY OF WEST VIRGINIA FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. IN ADDITION, MISS UTILITY WILL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT.

ENTRANCE PERMIT

ANTERO RESOURCES CORPORATION WILL OBTAIN AN ENCROACHMENT PERMIT (FORM 6M-100) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

ENVIRONMENTAL NOTES

STREAM AND WETLAND DELINEATIONS WERE PERFORMED IN SEPTEMBER 2021 BY ALLSTAR ECOLOGY TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS (USACE) AND/OR THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (WVDEP). THE SEPTEMBER 30, 2021 STREAM AND WETLAND DELINEATION MAP WAS PREPARED BY ALLSTAR ECOLOGY AND SUMMARIZES THE RESULTS OF THE FIELD DELINEATION. THE MAP DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LANDWARD LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE OR THE WVDEP. IT IS STRONGLY RECOMMENDED THAT THE APPROPRIATE AGENCIES BE CONSULTED IN AN EFFORT TO OBTAIN WRITTEN CONFIRMATION OF THE DELINEATION SHOWN ON THIS MAP PRIOR TO ENGAGING CONSTRUCTION OR THE PROPERTY DESIGNER'S DESIGN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S., INCLUDING WETLAND FIELDS AND STREAM CROSSINGS.

GEOTECHNICAL NOTES

A SUBSURFACE INVESTIGATION OF THE PROPOSED SITE WAS PERFORMED BY PENNSYLVANIA SOIL & ROCK, INC. ON APRIL 16-18, 2016. THE REPORT PREPARED BY PENNSYLVANIA SOIL & ROCK, INC. DATED APRIL 20, 2016, REVISED REPORTS 02, 2021, REFLECTS THE RESULTS OF THE SUBSURFACE INVESTIGATION. THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS REPORT WERE USED IN THE FORMULATION OF THESE PLANS. PLEASE REFER TO THE SUBSURFACE INVESTIGATION REPORT BY PENNSYLVANIA SOIL & ROCK, INC. FOR ADDITIONAL INFORMATION, AS NEEDED.

PROJECT CONTACTS:

- ROBERT EDDY - UTILITY COORDINATOR
CELL: (304) 719-0130
- JIM WILSON - LAND AGENT
OFFICE: (304) 942-4410 CELL: (304) 671-2706
- ENGINEER/SURVEYOR
NAVITAS ENGINEERING, INC.
CHRIS S. KUMP, PE - PROJECT MANAGER/PROCESSOR
OFFICE: (680) 682-4185 CELL: (540) 856-4747
- ENVIRONMENTAL
ALLSTAR ECOLOGY, LLC
RYAN L. WARD - ENVIRONMENTAL SCIENTIST
(686) 215-2666 CELL: (304) 652-7477
- GEOTECHNICAL
PENNSYLVANIA SOIL & ROCK, INC.
CHRISTOPHER W. SANDS - PROJECT ENGINEER
OFFICE: (412) 378-4000 CELL: (412) 989-0882

OPERATOR

ANTERO RESOURCES CORPORATION
655 WHITE OAK BLVD
BRIDGEPORT, WV 26330
PHONE: (304) 642-4100
FAX: (304) 642-4102

EJ WACONER - ENVIRONMENTAL ENGINEER & REGULATORY MANAGER

OFFICE: (304) 642-4098 CELL: (304) 478-9770

DIANA HOTT - SVT OPERATIONS

OFFICE: (208) 357-8904

AARON RUMELER - CONSTRUCTION MANAGER

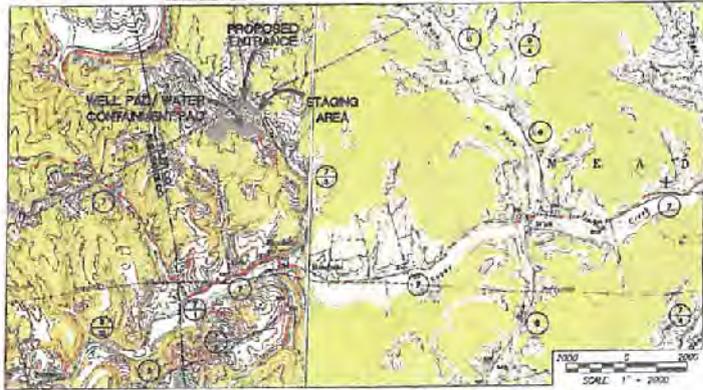
CELL: (204) 942-4391

ROBERT WIKER - DESIGN MANAGER

OFFICE: (304) 642-4100 CELL: (204) 637-7405

RESTRICTIONS NOTES:

- THERE ARE NO LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE WELL PAD AND LAD. THERE ARE FEDERAL STREAMS & WETLAND IMPACTS THAT WILL NEED TO BE PERMITTED BY THE APPROPRIATE AGENCIES.
- THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND LAD.
- THERE ARE NO AROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LAD.
- THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED STREAMS WITHIN 250 FEET OF THE WELL PAD BEING DRILLED.
- THERE ARE NO OCCUPIED DWELLING STRUCTURES WITHIN 425 FEET OF THE CENTER OF THE WELL PAD THERE IS A CABIN WITHIN 620 FEET OF THE CENTER OF THE PROPOSED WELL PAD.
- THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 620 FEET OF THE CENTER OF THE WELL PAD.



WEST VIRGINIA STATE PLANE COORDINATE SYSTEM
NORTH UTM ZONE 18N
EASTING: 4893554.26
NORTHING: 4363553.11
DATUM: NAD 83
PROJ: UTM
UNITS: METERS

WEST VIRGINIA COUNTY MAP



(NOT TO SCALE)

WVDGH COUNTY ROAD MAP



SCALE: 1" = 500'

REPRODUCTION NOTE
THESE PLANS WERE CREATED TO BE PRINTED ON 24" X 36" (ANSI D) PAPER. THESE PLANS WERE CREATED FOR COLOR PRINTING AND ANY REPRODUCTIONS IN GRAY SCALE OR BLACK AND WHITE MAY RESULT IN A LOSS OF INFORMATION AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.

MISS Utility of West Virginia
1-800-245-1848
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!!

DESIGN CERTIFICATION
THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CHS 35-8

SHEET INDEX:

- COVER SHEET
- CONSTRUCTION AND EAS CONTROLS NOTES
- LEGEND
- MATERIAL QUANTITIES
- STORM DRAINAGE & EAS COMPUTATIONS
- LOADING CONDITIONS
- ACCESS STRUCTURES & FEATURES
- OVERALL PLAN SHEET INDEX & VOLUMES
- ACCESS ROAD, STAGING AREA & WELL PAD PLAN
- WELL PAD GRADING PLAN
- ACCESS ROAD TROUBLE
- ACCESS ROAD SECTIONS
- WELL PAD & STOCKPILE SECTIONS
- WELL PAD SECTIONS
- STREAM CROSSING DETAILS
- CONSTRUCTION DETAILS
- ACCESS ROAD, STAGING AREA & WELL PAD RECLAMATION PLAN
- ACCESS ROAD, WELL PAD & STOCKPILE RECLAMATION PLAN
- GENERAL GEOTECHNICAL DETAILS

TOTAL SITE	
Area of Road "A" (15/75)	4.61
Staging Area	0.75
Well Pad	10.35
Excess/Topsoil Material Stockpiles	12.74
Total Affected Area	28.45
Total Wooded Acres Disturbed	
Impacts to Shallow & Wetland & Shrub & Small Deciduous Forest Wetlands or Grass & Wetland Cms. & Wetland Pools	16.80
Access Road "A" (15/75)	4.61
Staging Area	0.75
Well Pad	10.35
Excess/Topsoil Material Stockpiles	12.74
Total Affected Area	28.45
Total Wooded Acres Disturbed	
	16.80

Well Pad	Well Pad	Well Pad	Well Pad	Well Pad
Well ID	Well ID	Well ID	Well ID	Well ID
Well ID	N 42996.15	LAT 36.25-11.070	N 42996.63	LAT 36.25-12.300
Well ID	N 427108.23	LONG 81.0027-490	N 426187.96	LONG 81.0026-490
Proposed Well Pad Location	976			

WRIGLEY WETLAND IMPACT (SQ. AIR FEET)			
Wetland and Impact Cause	FIR (SF)	Total Impact (SF)	Total Impact (AC)
GA Wetland 12 (Access Road)	70	70	0.002
ASS Wetland 1 (Access Road)	1,993	1,993	0.54

WRIGLEY PERENNIAL STREAM IMPACT (LINEAR FEET)				
Stream and Impact Cause	Perennial Impacts		Temp. Impacts	
	Conduit Fm (LF)	Inlets/Outlets ARE (LF)	Conduits/ EAS Conduits (LF)	Total Impact (LF)
GA Stream 1 (Access Road)	65	0	24	89

WRIGLEY INTERMITTENT STREAM IMPACT (LINEAR FEET)				
Stream and Impact Cause	Perennial Impacts		Temp. Impacts	
	Conduit Fm (LF)	Inlets/Outlets Structures (LF)	Conduits/ EAS Conduits (LF)	Total Impact (LF)
A.S.E. Stream 10 (Access Road)	37	16	26	81
GA Stream 35				
ASS Stream 9 (Access Road)	89	45	22	156

Timothy J. Strayhorn 4-20-22

NAVITUS
ENERGY ENGINEERING

DATE	REVISION



THIS DOCUMENT WAS PREPARED FOR ANTERO RESOURCES CORPORATION

COVER SHEET
WRIGLEY
WELL PAD & WATER CONTAINMENT PAD
MEADE DISTRICT
TYLER COUNTY, WEST VIRGINIA



DATE: 12/15/2021
SCALE: AS SHOWN
SHEET 1 OF 27