



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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Thursday, April 13, 2017
WELL WORK PERMIT
Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION (A)
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit approval for MERRITT UNIT 1H
47-017-06825-00-00

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: MERRITT UNIT 1H
Farm Name: CHAD W. JOHNSON ET AL
U.S. WELL NUMBER: 47-017-06825-00-00
Horizontal 6A / New Drill
Date Issued: 4/13/2017

Promoting a healthy environment.

04/14/2017

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.

PERMIT CONDITIONS 47 0 17 0 0 0 2 5

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.



December 22, 2016

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

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Ms. Laura Adkins
601 57th Street
Charleston, WV 25304

Ms. Laura Adkins:

Antero Resources Corporation (Antero) would like to submit the following application for a new well work permit to explore for Marcellus Shale potential. Our **Tom's Fork** project is located in Doddridge County, WV. On the **new Victor Pad** consists **one new horizontal** shallow well (Merritt Unit 1H) that we are requesting approval to drill.

Attached you will find the following:

- Permit Application package
- CD with copy of permit application

If you have any questions please feel free to contact me at (303) 357-7233.

Thank you in advance for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kara Quackenbush", is written over the typed name.

Kara Quackenbush
Permitting Agent
Antero Resources Corporation

Received
Office of Oil & Gas
DEC 27 2016

Enclosures

04/14/2017

WW-6B
(04/15)

4701706825

API NO. 47-017
OPERATOR WELL NO. Merritt Unit 1H
Well Pad Name: Victor Pad

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

1) Well Operator: Antero Resources Corporat 494507062 017 - Doddri Greenbri Big Isaac 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Merritt Unit 1H Well Pad Name: Victor Pad

3) Farm Name/Surface Owner: Johnson, Chad W., et al Public Road Access: CR 25/10

4) Elevation, current ground: -1168' Elevation, proposed post-construction: 1156'

5) Well Type (a) Gas X Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow X Deep _____

Horizontal X

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale: 7400' TVD, Anticipated Thickness- 60 feet, Associated Pressure- 3250#

8) Proposed Total Vertical Depth: 7400' TVD

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 19750' MD

11) Proposed Horizontal Leg Length: 11022'

12) Approximate Fresh Water Strata Depths: 346', 420', 522'

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

14) Approximate Saltwater Depths: 1412', 1644', 1860'

15) Approximate Coal Seam Depths: 352', 817', 1229'

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 X

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

Depth: _____

Seam: _____

Owner: _____

DAF
12/28/16

WW-6B
(04/15)

API NO. 47- 017
 OPERATOR WELL NO. Merritt Unit 1H
 Well Pad Name: Victor Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	40'	40'	CTS, 38 Cu. Ft.
Fresh Water	13-3/8"	New	J-55/H-40	54.5#/48#	575' *see #19	575' *see #19	CTS, 799 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	20#	19750'	19750'	5023 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#		7100'	
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	24"	0.438"	1530	50	Class A	1.18
Fresh Water	13-3/8"	17-1/2"	0.38"/0.33"	2730/1730	1000	Class A	1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.361"	12,630	2500	Lead-HPOZ & Tel - H	H/POZ-1.44 & H-1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

4701706825

PACKERS

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

DAF
12/28/16

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

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

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

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

Antero plans to pump Slickwater into the Marcellus Shale formation in order to ready the well for production. The fluid will be comprised of approximately 99 percent water and sand, with less than 1 percent special-purpose additives as shown in the attached "List of Anticipated Additives Used for Fracturing or Stimulating Well."

Anticipated Max Pressure - 9300 lbs
Anticipated Max Rate - 80 bpm

470170002

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 30.71 Acres

22) Area to be disturbed for well pad only, less access road (acres): 4.46 Acres

23) Describe centralizer placement for each casing string:

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

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

Conductor: no additives, Class A cement.
Surface: Class A cement with 2-3% calcium chloride and 1/4 lb of flake
Intermediate: Class A cement with 1/4 lb of flake, 5 gallons of clay treat
Production: Lead cement- 50/50 Class H/Poz + 1.5% salt + 1% C-45 + 0.5% C-16a + 0.2% C-12 + 0.45% C-20 + 0.05% C-51
Production: Tail cement- Class H + 45 PPS Calcium Carbonate + 1.0% FL-160 + 0.2% ACGB-47 + 0.05% ACSA-51 + 0.2% ACR-20

25) Proposed borehole conditioning procedures:

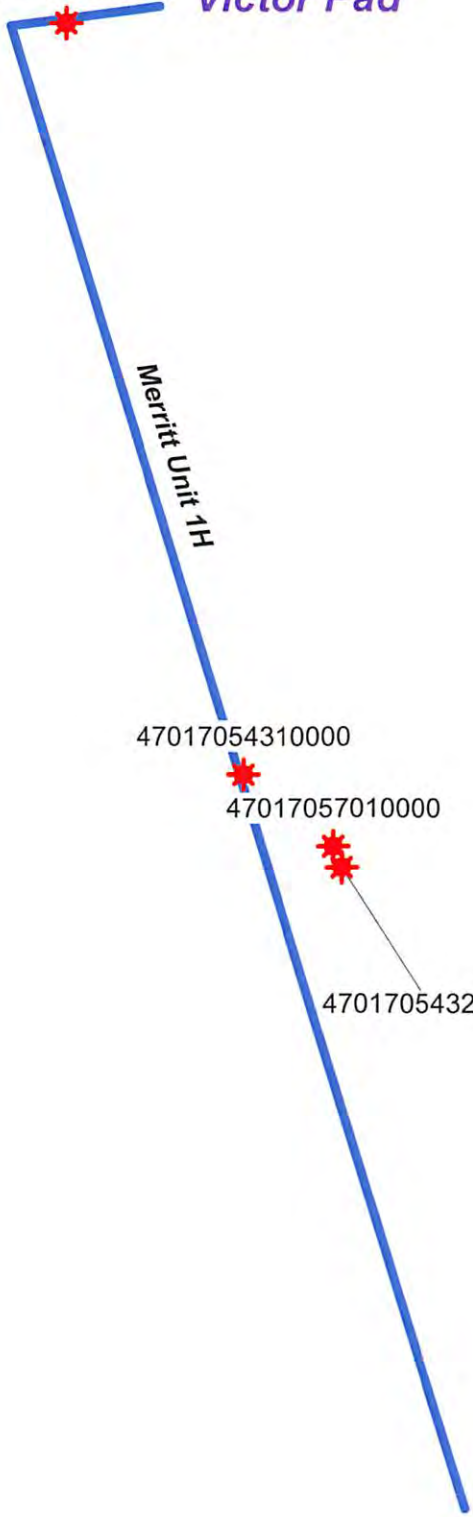
Conductor: blowhole clean with air, run casing, 10 bbls fresh water.
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.
Intermediate: blowhole clean with air, trip to surface casing shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate 40 bbls brine water followed by 10 bbls fresh water and 25 bbls bentonite mud, pump 10 bbls fresh water.
Production: circulate with 14 lb/gal NaCl mud, trip to middle of lateral, circulate, pump high viscosity sweep, trip to base of 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.

DAF
12/28/14



47017053850000 **Victor Pad**



4701706820

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04/14/2017

MERRITT UNIT 1H (VICTOR PAD) - AREA OF REVIEW 35-8-5.11 PAGE 2

UWI (APINum)	Well Name	Well Number	Operator	Hist Oper	ELEV_GR	TD	TD(SSTVD)	Formations perforated	Producible, Not perforated
47017057010000	NICHOLSON	3	ANTERO RESOURCES CORPORATION	HALL DRILLING	1404	7415	-6011	Marcellus	Big Injun, Gantz, Gordon, Fifth
47017054310000	NICHOLSON	1	ANTERO RESOURCES CORPORATION	HALL DRILLING	1290	3555	-2265	Gordon, Fifth Sand	Big Injun, Gantz
47017054320000	NICHOLSON	2	ANTERO RESOURCES CORPORATION	HALL DRILLING	1416	3627	-2211	Gordon, Fifth Sand	Big Injun, Gantz
47017053850000	MAXWELL	1	TENMILE LAND LLC	TENMILE LAND LLC	1329	3501	-2172	Big Injun, Gantz, Gordon, Fifth	NA

API - reasonably expected to penetrate a depth that could be within range of fracture propagation
 API - not reasonably expected to penetrate a depth that could be within range of fracture propagation; therefore no additional details (perforated formation and producing zones) are required as outlined in 35CSR8-5.11
 **All reported data is correct to the best of our knowledge with the resources available

4701700025

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 Office of Oil & Gas
 DEC 27 2016

WW-9
(4/16)

API Number 47 - 017 - _____
Operator's Well No. Merritt Unit 1H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Antero Resources Corporation OP Code 494507062

Watershed (HUC 10) Headwaters Middle Island Creek Quadrangle Big Isaac 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 larked 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)

Will closed loop system be used? If so, describe: Yes

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

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

Additives to be used in drilling medium? Please See Attachment

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. 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

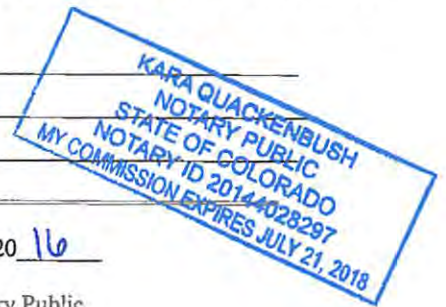
-Landfill or offsite name/permit number? Meadowfill Landfill (Permit #SWF-1032-98), Northwestern Landfill (Permit # SWF-1025/WV0109410)

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 *Cole Kilstrom*
Company Official (Typed Name) Cole Kilstrom
Company Official Title Environmental & Regulatory Manager



Subscribed and sworn before me this 22nd day of December, 20 16

Kara Quackenbush Notary Public

My commission expires July 21, 2018

*DAF
12/28/16*

04/14/2017

Antero Resources Corporation

Proposed Revegetation Treatment: Acres Disturbed 30.71 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

Road "A" (8.70 acres) + Road B (1.28 acres) + Road C (10.39 acres) + Road D (2.20 acres) + Well Pad (4.46 acres) + Engineered Fill Pad (2.17 acres) + Topsoil Spoil Pad (0.59 acres) + Water Containment Pad (0.92 acres) = 30.71 Acres

Seed Mixtures

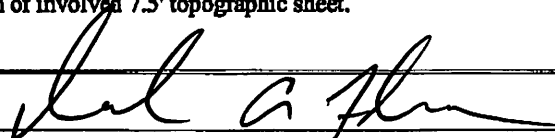
Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Crownvetch	25	Crownvetch	25
Perennial Rye Grass	30	Perennial Rye Grass	30
*or type of grass seed requested by surface owner		*or type of grass seed requested by surface owner	

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: _____



Comments: _____

4701706025

Title: Oil Gas Inspector

Date: 12/29/16

Field Reviewed? Yes No



911 Address
376 Beech Lick Rd.
New Milton, WV 26411

Well Site Safety Plan

Antero Resources

Well Name: Merritt Unit 1H, Merritt Unit 2H, Merritt Unit 3H, Sherwood Unit 1H, Sherwood Unit 2H, Standings Unit 1H, Standings Unit 2H, Falcon Unit 1H, Falcon Unit 2H

Pad Location: VICTOR PAD
Doddridge County/New Milton & Greenbrier District

GPS Coordinates:

Entrance - Lat 39°18'51.21"/Long -80°54'44.88" (NAD83)

Pad Center - Lat 39°11'10.78"/Long -80°37'31.78" (NAD83)

Driving Directions:

From the town of West Union head southeast on WV-18 S for 6.3 miles. Turn left onto Co Route 25/ Meathouse Fork. Continue to follow Co Route 25 for 7.1 miles. Turn right onto Co Rte 25/10, your destination will be on the right in 0.2 miles.

Alternate Route:

From the town of Salem, head south on Water St toward E Main St, head south on W Main St, turn right onto South St., continue onto Patterson Fork Rd, Continue onto Salem Country Club Road, this road takes a slight right and becomes Patterson Fork Rd (1.5mi). After 2.9 mi, turn left onto Co Rte 15/Sherwood-Greenbrier Rd. Turn left onto Co Rte Rd 46/2 (.5mi). Turn right onto Standing Stone Rd (1.2mi), turn left to stay on Standing Stone Rd. (.2mi). Slight left after 1.5 mi, continue onto Double Camp (.3mi). Turn right onto Meathouse Fork Rd (.2mi). Turn Left onto CO Rte 25/10 282 ft. The pad access road should be on the right after about 1000 ft.

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

John A. Z...
12/28/16

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

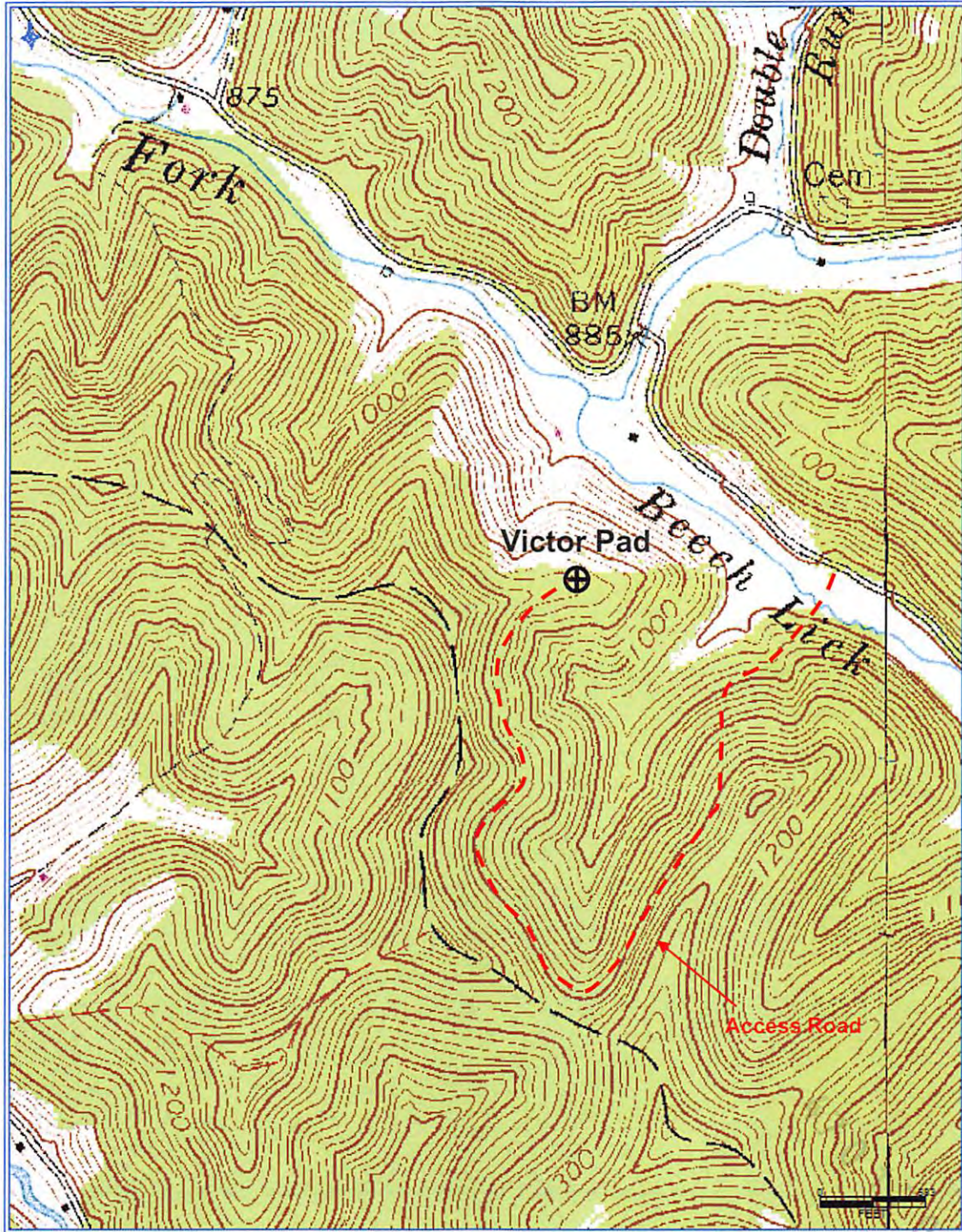
1. Alpha 1655
Salt Inhibitor
2. Mil-Carb
Calcium Carbonate
3. Cottonseed Hulls
Cellulose-Cottonseed Pellets – LCM
4. Mil-Seal
Vegetable, Cotton & Cellulose-Based Fiber Blend – LCM
5. Clay-Trol
Amine Acid Complex – Shale Stabilizer
6. Xan-Plex
Viscosifier For Water Based Muds
7. Mil-Pac (All Grades)
Sodium 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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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

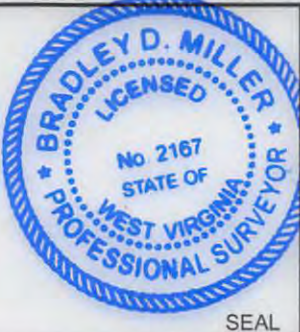
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Antero Resources Corporation
Appalachian Basin
Merritt Unit 1H
Doddridge County
Quadrangle: New Milton
Watershed: Headwaters Middle Island Creek
District: Greenbrier
Date: 10-17-2014

04/14/2017



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.

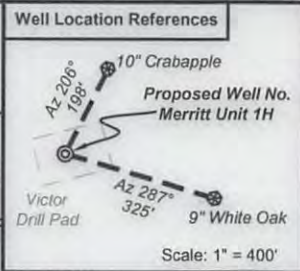
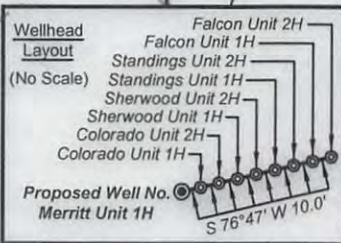
Bradley D. Miller
Bradley D. Miller, P.S. 2167

Notes:
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Well No. Merritt Unit 1H Top Hole coordinates are
N: 251,883.70' Latitude: 39°11'09.69"
E: 1,679,336.20' Longitude: 80°37'52.61"
Bottom Hole coordinates are
N: 241,182.08' Latitude: 39°09'24.18"
E: 1,681,386.83' Longitude: 80°37'24.86"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,337,495.002m N: 4,334,245.199m
E: 531,859.875m E: 532,538.958m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

Legend

- Proposed gas well
- Found corner, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)
- District Line

No.	TM/Par	Owner	Bk/Pg	Acres
Greenbrier District, Doddridge Co.				
1	13/9	Chad W. Johnson, William R. Johnson, & Anthony B. Johnson	271 / 90	24.0
2	13/10	Victor R. & Wanda F. Cox	271 / 90	61.63
3	13/8	Victor R. & Wanda F. Cox	207 / 541	40.32
New Milton District, Doddridge Co.				
4	16/26	L. Bassell Maxwell & Mary H. Holland	90 / 378	3.45
5	20/15.2	Robert K. & Betty L. Swiger	260 / 696	29.32
6	16/25	Roger L. & Jeffrey D. Wright	244 / 246	11.0
7	21/2.1	Eleanor R. Nicholson	279 / 11	0.53
8	21/3	Dale & Eleanor R. Nicholson	156 / 390	15.20
9	20/17	Edward Lee & John David Cumpston	294 / 686	35.94
10	21/4.1	Kenneth M. & Jamie S. Snider	248 / 203	39.6
11	21/4.2	Rodney W. & Loretta F. Snider	248 / 154	1.73
12	21/4.3	Rodney W. & Loretta F. Snider	248 / 157	1.09
13	16-19	p/o Antero Resources Corp.	329 / 432	87.27
14	20/18	Paul E. & Jerl Clark Wagner	282 / 694	66.73
15	20/28	Theresa Davidson Webb	309 / 340	23.23



Notes:
Well No. Merritt Unit 1H UTM Zone 17, NAD 1927
Top Hole Coordinates
N: 14,229,882.246'
E: 1,744,895.706'
Point of Entry Coordinates
N: 14,229,748.393'
E: 1,743,873.620'
Bottom Hole Coordinates
N: 14,219,220.098'
E: 1,747,123.499'



Lease	Bearing	Dist.
A Betty Lou Merritt Lease		
B Franklin Maxwell Heirs Limited Partnership No.1, LLP Lease		
C David Swann Lease		
D Franklin Maxwell Heirs Limited Partnership No.1, LLP Lease		
E Millard R. Dennison Lease	L1 S 76°38' W 955.6'	
F Gore Corporation Lease 20207	L2 S 83°30' W 1031.2'	
G Carl & Irene Cox Lease	L3 N 88°08' W 351.8'	
H Robert M. Nicholson Lease	L4 N 61°23' W 778.3'	
J Charles Sherwood Lease	L5 N 23°06' W 1399.8'	

FILE NO: 91-30-NM-13
DRAWING NO: Merritt 1H Well Plat 12-16
SCALE: 1" = 1600'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: WVDOT, Bridgeport, WV

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

DATE: December 16 2016
OPERATOR'S WELL NO. Merritt Unit 1H
API WELL NO
47 - 017 - 06825 H&A
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: Proposed 1156' Existing 1168' WATERSHED: Headwaters Middle Island Creek QUADRANGLE: New Milton
DISTRICT: Greenbrier COUNTY: Doddridge
SURFACE OWNER: Chad W. Johnson, et al ACREAGE: 24.0
ROYALTY OWNER: C. Dale Nicholson, et ux; Franklin Maxwell Heirs Limited Partnership No.1, LLP LEASE NO: 22059; 20207 ACREAGE: 70; 80; 37; 82
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 7,400' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 19,750' 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



04/14/2017

**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>Carl & Irene Cox Lease</u>			
Carl & Irene Cox	Clarence W. Mutschelknaus	1/8	0121/0758
Clarence W. Mutschelknaus	Antero Resources Appalachian Corp.	Assignment	0288/0430
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>Betty Lou Merritt Lease</u>			
Betty Lou Merritt	Antero Resources Appalachian Corporation	1/8+	0270/0583
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>Franklin Maxwell Heirs Limited Partnership No.1 LLP Lease</u>			
Franklin Maxwell Heirs Limited Partnership No.1, LLP	Antero Resources Appalachian Corporation	1/8+	0277/0150
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>Charles Sherwood Lease</u>			
Charles Sherwood	Tenmile Land, LLC	1/8	0217/0421
Tenmile Land, LLC	Bluestone Energy Partners	Assignment	0223/0653
Bluestone Energy Parnters	Antero Resources Bluestone LLC, a wholly owned subsidiary of Antero Resources Appalachian Corporation	Merger	DB 0288/0001
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>David Swann Lease</u>			
David Swann	Tenmile Land, LLC	1/8	0214/0041
Tenmile Land, LLC	Bluestone Energy Partners	Assignment	0223/0653
Bluestone Energy Partners	Antero Resources Bluestone LLC, a wholly owned subsidiary of Antero Resources Appalachian Corporation	Merger	DB 0288/0001
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>Jeannette M. Jones Lease 22061</u>			
Jeannette M. Jones	Antero Resources Appalachian Corporation	1/8	0258/0482
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>French H. Cox Lease 22059</u>			
French H. Cox	Antero Resources Appalachian Corporation	1/8+	0292/0164
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>Gore Corporation Lease 20207</u>			
Gore Corporation	Bluestone Energy Partners	0245/0539	0204/0386
Bluestone Energy Partners	Antero Resources Bluestone, LLC, a wholly owned subsidiary of Antero Resources Appalachian Corporation	Affidavit Regarding Merger	DB 0288/0001
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1

000000025

**Received
Office of Oil & Gas
DEC 27 2016**

*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)

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- (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>Millard R. Dennison Lease</u> Millard R. Dennison	Antero Resources Corporation	1/8+	0333/0481
<u>Millard Dennison, et al Lease</u> Millard Dennison, et al J&J Enterprises, Inc. Eastern American Energy Corporation	J&J Enterprises, Inc. Eastern American Energy Corporation Energy Corporation of America	1/8 Assignment Confirmatory Deed and Assignment of Leases	0118/0665 0159/0139 0240/0498
Energy Corporation of America	Antero Resources Corporation	*Partial Assignment of Oil & Gas Leases	0313/0152
<u>Charlotte F. McCartney Lease</u> Charlotte F. McCartney Tenmile Land, LLC Antero Resources Appalachian Corporation	Tenmile Land, LLC Antero Resources Appalachian Corporation Antero Resources Corporation	1/8 Assignment Name Change	0263/0673 0269/0473 Exhibit 1
<u>Wilma J. Nicholson Lease</u> Wilma J. Nicholson Bluestone Energy Partners	Bluestone Energy partners Antero Resources Bluestone, LLC, a wholly owned subsidiary of Antero Resources Appalachian Corporation	1/8 Affidavit Regarding Merger	0205/0670 DB 0288/0001
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
<u>Lloyd Dale Nicholson Lease</u> Lloyd Dale Nicholson	Antero Resources Corp.	1/8+	0326/0474

4701270025

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Office of Oil & Gas
DEC 27 2016

*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. 04/14/2017

**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
C. Dale Nicholson, et ux Lease 21782				
	Corwin Dale Nicholson, et al	Triangle Oil Co.	1/8	0070/0139
	Triangle Oil Co.	Southern Triangle Oil Co.	Assignment	0072/0301
	Southern Triangle Oil Co.	Professional Oilfield Services, Inc.	Assignment	0194/0277
	Professional Oilfield Services, Inc.	Bluestone Energy Partners	Assignment	0246/0181
	Bluestone Energy Partners	Antero Resources Bluestone, LLC, a wholly owned subsidiary of Antero Resources Appalachian Corporation	Assignment	0255/0591
	Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
*Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the oil and gas from the Marcellus and any other formations completed with this well.				

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

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

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

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Antero Resources Corporation
 By: Kevin Kilstrom
 Its: Senior VP of Production

Received
Office of Oil & Gas
DEC 27 2016

FORM WW-6A1
EXHIBIT 1

FILED

JUN 10 2013

Natalie E. Tennant
Secretary of State
1900 Kanawha Blvd E
Bldg 1, Suite 157-K
Charleston, WV 25305



Penney Barker, Manager
Corporations Division
Tel: (304)558-8000
Fax: (304)558-8381
Website: www.wvso.com
E-mail: business@wvso.com

APPLICATION FOR
AMENDED CERTIFICATE
OF AUTHORITY

Office Hours: Monday - Friday
8:30 a.m. - 5:00 p.m. ET

FILE ONE ORIGINAL
(Two if you want a filed
stamped copy returned to you)
FEE: \$25.00

**** In accordance with the provisions of the West Virginia Code, the undersigned corporation hereby ****
applies for an Amended Certificate of Authority and submits the following statement:

- Name under which the corporation was authorized to transact business in WV: Antero Resources Appalachian Corporation
- Date Certificate of Authority was issued in West Virginia: 6/25/2008
- Corporate name has been changed to: Antero Resources Corporation
(Attach one Certified Copy of Name Change as filed in home State of incorporation.)
- Name the corporation elects to use in WV: Antero Resources Corporation
(due to home state name not being available)
- Other amendments: (attach additional pages if necessary)
- Name and phone number of contact person. (This is optional, however, if there is a problem with the filing, listing a contact person and phone number may avoid having to return or reject the document.)
Alvyn A. Schopp (303) 357-7310
Contact Name Phone Number
- Signature information (See below *Important Legal Notice Regarding Signature):
Print Name of Signer: Alvyn A. Schopp Title/Capacity: Authorized Person
Signature: [Handwritten Signature] Date: June 10, 2013

***Important Legal Notice Regarding Signature:** Per West Virginia Code §31D-1-129, Penalty for signing false documents. Any person who signs a document he or she knows is false in any material respect and knows that the document is to be delivered to the secretary of state for filing is guilty of a misdemeanor and, upon conviction thereof, shall be fined not more than one thousand dollars or confined in the county or regional jail not more than one year, or both.

Form CF-4

Issued by the Office of the Secretary of State

Receiver
Office of Oil & Gas

DEC 27 2016



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

December 22, 2016

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

RE: Merritt Unit 1H
Quadrangle: Big Isaac 7.5'
Doddridge County/Greenbrier District, West Virginia

4701706825

Mr. Martin:

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

Sincerely,

Brett Kuhn
Landman

Received
Office of Oil & Gas
DEC 27 2016

04/14/2017

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

Date of Notice Certification: 12/22/2016

API No. 47- 017 -

Operator's Well No. Merritt Unit 1H

Well Pad Name: Victor 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>531859.875m</u>
County:	<u>Doddridge</u>		Northing:	<u>4337495.002m</u>
District:	<u>Greenbrier</u>	Public Road Access:	<u>CR 25/10</u>	
Quadrangle:	<u>Blg Isaac 7.5'</u>	Generally used farm name:	<u>Johnson, Chad W., et al</u>	
Watershed:	<u>Headwaters 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.

<p>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:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><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</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
--	---

Required Attachments:

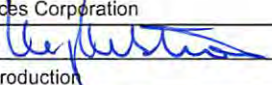
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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 notified 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.

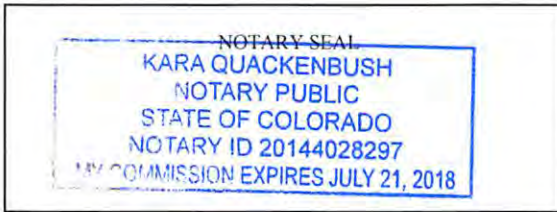
Received
Office of Oil & Gas
DEC 27 2016


04/14/2017

Certification of Notice is hereby given:

THEREFORE, I Kevin Kilstrom, 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>Kevin Kilstrom</u> 		<u>Denver, CO 80202</u>
Its:	<u>Senior VP of Production</u>	Facsimile:	<u>303-357-7315</u>
Telephone:	<u>303-357-7310</u>	Email:	<u>kquackenbush@anteroresources.com</u>



Subscribed and sworn before me this 22nd day of December.

 _____ Notary Public
 My Commission Expires July 21, 2018

Oil and Gas Privacy Notice:

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

4701706825

Received
Office of Oil & Gas
DEC 27 2016

**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: 12/22/2016 **Date Permit Application Filed:** 12/22/2016

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: PLEASE SEE ATTACHMENT
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: PLEASE SEE ATTACHMENT
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: PLEASE SEE ATTACHMENT
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 ATTACHED
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

4701700025

Received
Office of Oil & Gas

DEC 27 2016

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.

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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

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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.

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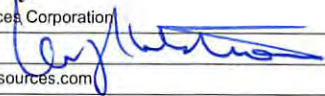
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WW-6A
(8-13)

API NO. 47- 017 -
OPERATOR WELL NO. Merritt Unit 1H
Well Pad Name: Victor Pad

Notice is hereby given by:

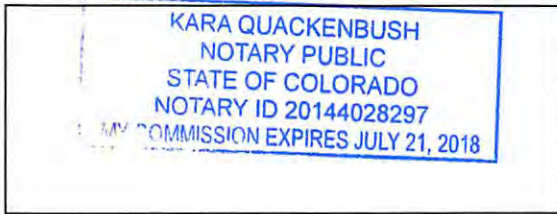
Well Operator: Antero Resources Corporation
Telephone: (303) 357-7310
Email: kquackenbush@anteroresources.com



Address: 1615 Wynkoop Street
Denver, CO 80202
Facsimile: 303-357-7315

Oil and Gas Privacy Notice:

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



Subscribed and sworn before me this 22nd day of December 2016

Kara Quackenbush Notary Public

My Commission Expires July 21, 2018

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WW-6A Notice of Application Attachment (VICTOR PAD):

List of Surface Owner(s) with Proposed Disturbance associated with Victor Well Pad:

WELL PAD – These owners were notified of all well work permit applications, and have executed signed Surface Use Agreements with Antero Resources Corporation.

TM 5 PCL 7

Owner: Victor R. & Wanda F. Cox

Address: RR 3 Box 46
Salem, WV 26426

Owner: Chad W., William R. & Anthony B. Johnson

Address: 109 Platinum Dr., Suite 1
Bridgeport, WV 26330

Owner: Chad W., William R. & Anthony B. Johnson (2nd Address)

Address: 117 E. Main St. (2nd Address)
Bridgeport, WV 26330

ROAD AND/OR OTHER DISTURBANCE – Please note the additional surface tracts with disturbance shown on the pad design are NOT overlying the Oil & Gas leasehold being developed by the proposed well; therefore, are not required to be notified per WV Code 22-6A-10.

COAL OWNER OR LESSEE

Owner: Consolidation Coal Company – CONSOL Energy, Inc.

CNX Center - Engineering & Ops. Support – Coal
Attn: Analyst

Address: 1000 CONSOL Energy Dr.
Canonsburg, PA 15317

WATER SOURCE OWNERS – Within 1500'

***NOTE:** On attached water well map 1 other water source is identified, but is located greater than 1500' from the subject well pad location.

Owner: Victor R. & Wanda F. Cox

Address: RR 3 Box 46
Salem, WV 26426

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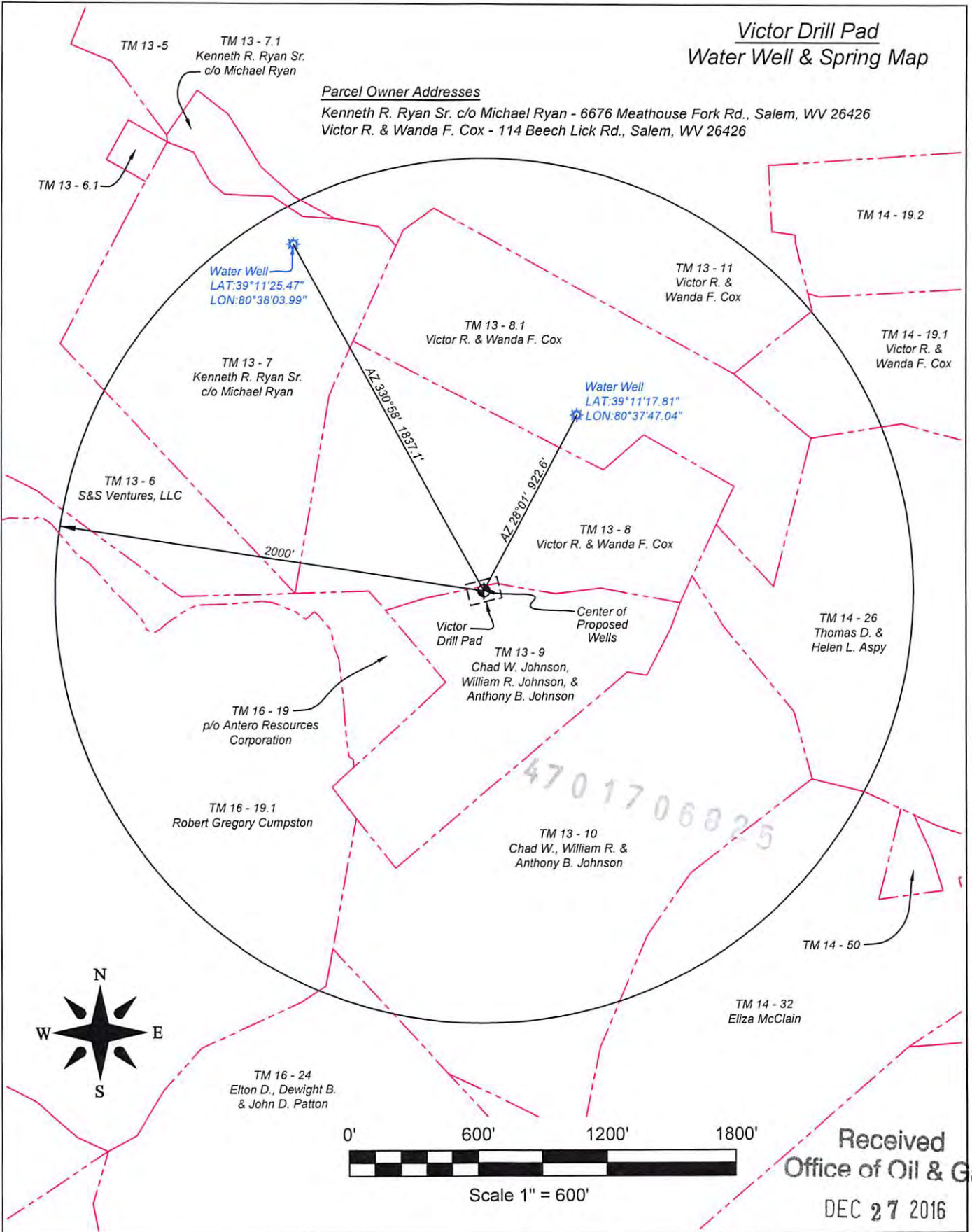
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Victor Drill Pad Water Well & Spring Map

Parcel Owner Addresses

Kenneth R. Ryan Sr. c/o Michael Ryan - 6676 Meathouse Fork Rd., Salem, WV 26426
Victor R. & Wanda F. Cox - 114 Beech Lick Rd., Salem, WV 26426



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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 12/22/2016 **Date Permit Application Filed:** 12/22/2016

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

- CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Victor R. & Wanda F. Cox
Address: RR 3 Box 46
Salem, WV 26426

Name: Chad W., William R. & Anthony B. Johnson
Address: 109 Platinum Dr., Suite 1 117 E. Main St. (2nd Address)
Bridgeport, WV 26330 Bridgeport, WV 26330

Notice is hereby given:

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>531859.875</u>
County:	<u>Doddridge</u>		Northing:	<u>4337495.002m</u>
District:	<u>Greenbrier</u>	Public Road Access:	<u>CR 25/10</u>	
Quadrangle:	<u>Big Isaac 7.5'</u>	Generally used farm name:	<u>Johnson, Chad W., et al</u>	
Watershed:	<u>Headwaters Middle Island Creek</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Antero Resources Corporation
Telephone: (303) 357-7310
Email: kquackenbush@anteroresources.com

Address: 1615 Wynkoop Street
Denver, CO 80202
Facsimile: 303-357-7315

Oil and Gas Privacy Notice:

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

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

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

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

Reissued December 2, 2016

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 Victor Pad, Doddridge County
Merritt Unit 1H Well site 47-017-06825

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2013-1004 which has been issued to Antero Resources Corporation for access to the State Road for a well site located off of County Route 25/10 in Doddridge County.

The 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 January 3, 2012.

Very Truly Yours,

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

Cc: Kara Quackenbush
Antero Resources Corporation
CH, OM, D-4
File

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Antero Resources Corporation Site Construction Plan for Victor Pad

Antero Resources Corporation (Antero) is submitting the following Site Construction Plan in compliance with §35-8-5.5. This plan is submitted in conjunction with the Victor Pad Site Design, Construction Plan, & Erosion & Sediment Control Plans prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection and Office of Oil and Gas, and certified by Allegheny Surveys, Inc., a West Virginia registered professional engineer.

Requirement §5.5.a. *The plan should describe the nature and purpose of the construction project and identify the procedures for construction that will be used to achieve site stability. The plan shall be considered conditions of the permit and be enforceable as such.*

Antero Response

The nature and purpose of the subject project is to perforate, fracture, and complete one or more horizontal shallow wells. Procedures to achieve site stability include seeding and mulching of earth disturbed areas and implementation of erosion and sediment best management practices (BMPs). Details of seeding and mulching rates as well as procedures for installation and maintenance of erosion and sediment BMPs are outlined on page 3 of "Victor Pad Site Design, Construction Plan, & Erosion & Sediment Control Plans" (Site Design) prepared and certified by Allegheny Surveys, Inc. of West Virginia.

These procedures will be considered as conditions of the permit and shall be inspected and maintained for continual compliance measures outlined in §35-8-5.5.

Requirement §5.5.b.1 *A vicinity map location the site in relation to the surrounding area and roads;*

Antero Response

Please refer to the vicinity map on Sheet 1 for the location the site in relation to the surrounding area and roads.

Requirement §5.5.b.1 *A plan view site map at a scale of one inch equal to one hundred feet (1"=100') or greater that shows appropriate detail of all site features and:*

Requirement §5.5.b.A. *Clearly identifies the limit of disturbance for the project;*

Antero Response

The limit of disturbance for the Victor Pad can be found on "Site Plans" on Sheet 6-12 of the Site Design.

Requirement §5.5.b.2.B. *Provides existing topographic information on a contour interval that affords sufficient detail to illustrate site terrain conditions*

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Antero Response

Please refer to the "Existing Conditions" maps on Sheet 4 of the Site Design for the current topographic conditions for the constructed pad on a contour interval that affords sufficient detail to illustrate site terrain conditions.

Requirement §5.5.b.2.C. Identifies proposed cut and fill areas with grading contours at an interval that provides sufficient detail to accurately depict slope ratios, indicating top and bottom of slopes; and

Antero Response

Please refer to the "Site Plans" on Sheets 6-12 as well as the "Access Road A, C, and D Cross Sections," and "Well Pad Baseline Profile & Cross Sections" on Sheets 13-15 of the Site Design for proposed cut and fill areas with grading contours.

Requirement §5.5.b.2.D. Identifies any existing structures, roads, water bodies, and other critical areas within the area that would most likely be affected by the construction.

Antero Response

Please refer to "Site Plans" of the Site Design on Sheets 6-12 for the map identifying any structures, roads, water bodies, and other critical areas within the area of interest that would be most likely affected by construction.

Requirement §5.5.b.3. A cross-section of the length and width of the location, providing cut and fill volumes; and

Antero Response

Please refer to the "Site Plans" Sheets 6-12 as well as the "Access Road A, C and D Cross Sections," and "Well Pad Baseline Profile & Cross Sections" on Sheets 13-15 for a cross-section of the location. The cut and fill volumes can be found in "Schedule of Quantities" on sheet 2.

Requirement §5.5.b.4. Any other engineering designs or drawings necessary to construct the project.

Antero Response

All other engineering designs and drawings necessary to construct this project are included in the Site Plans on pages 6-12.

Requirement §5.5.c. At a minimum, site construction shall be conducted in accordance with the following criteria:

Antero Response

All Antero contractors shall be notified of and comply with the measures outlined in Section 5.5.c. of §35-8-5.5.

Requirement §5.5.c.1. All woody material, brush, and trees shall be cleared from the site area and kept to the minimum necessary for proper construction, including the installation of necessary sediment controls. Trees six inches in diameter and larger shall be cut and stacked;

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Antero Response

The Site Design outlines measures to maintain compliance with Section 201 of the WVDOH Specifications which outlines clearing and grubbing measures. Please refer to Construction, Erosion, & Sediment Control Notes on sheet 3 of the Site Design.

Requirement §5.5.c.2. Topsoil shall be removed from construction areas and stockpiled for reuse during reclamation. In woodland areas, tree stumps, large roots, large rocks, tree and leaf debris, and ground vegetation shall be removed prior to actual site constructions;

Antero Response

The Site Design outlines procedures for stripping and stocking topsoil. Please refer to Construction, Erosion, & Sediment Control Notes on sheet 3 of the Site Design. In addition, soil for stockpiling and use as fill shall be further compliant with measures outlined in Section 5.5.c.2. of §35-8-5.5.

Requirement §5.5.c.3. No embankment fill shall be placed on frozen material;

Antero Response

All Antero contractors shall be notified of and comply with measures outlined in Section 5.5.c.3. of §35-8-5.5.

Requirement §5.5.c.4. The fill material shall be clean mineral soil, free of roots, woody vegetation, stumps, sod, large rocks, frozen soil or other objectionable material;

Antero Response

The Site Design outlines procedures for stripping and stocking topsoil. Please refer to Construction, Erosion, & Sediment Control Notes on sheet 3 of the Site Design. In addition, soil shall be further defined to the measures outlined in Section 5.5.c.4 of §35-8-5.5.

Requirement §5.5.c.5. Embankment material shall exhibit adequate soil strength and contain the proper amount of moisture to ensure that compaction will be achieved;

Antero Response

All Antero contractors shall be notified of and comply with measures outlined in Section 5.5.c.5. of §35-8-5.5.

Requirement §5.5.c.6. Earthen fill slopes should be constructed with slopes no steeper than a ratio of two to one (2:1);

Antero Response

The Site Design outlines all earthen fill slopes to be constructed with slopes no steeper than a ratio of two to one (2:1).

Requirement §5.5.c.7. Fill material will be placed in lifts or layers over the length of the fill. Lift thickness of soil shall be as thin as the suitable random excavated material will permit, typically from six to twelve (12) inches; and

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Antero Response

Please refer to the Construction, Erosion, & Sediment Control Notes on sheet 3 of the Site Design. Fill shall be placed in horizontal lifts of maximum loose depth of 12 inches. Compaction will be performed with a compactor with a minimum of five ton static drum weight vibratory roller or five ton static drum weight sheeps footed compactor as appropriate for the type of soil material at the site or other compactor approved by the Engineer.

Requirement §5.5.c.8. The size of rock lifts shall not exceed thirty-six (36) inches. The rock shall not be greater in any dimension than thirty-six (36) inches;

Antero Response

All Antero contractors shall be notified of and comply with measures outlined in Section 5.5.c.8. of §35-8-5.5.

Requirement §5.5.c.9. Compaction shall be obtained by compaction equipment or by routing the hauling equipment over the fill so that the entire surface of each fill lift is compacted by at least one wheel or tread track of equipment or by a compactor. Each lift shall be compacted before beginning the next lift;

Antero Response

Compaction compliance measures are outlined in the Construction, Erosion, & Sediment Control Notes on page 3. Compaction is required with a compactor with a minimum of five ton static drum weight vibratory roller or five ton static drum weight sheeps footed compactor as appropriate for the type of soil material at the site or other compactor approved by the Engineer.

Requirement §5.5.c.10. Surface water diversion ditches shall be constructed above the disturbed area to intercept water and to divert surface water runoff around the site; and

Antero Response

Construction, Erosion and Sediment Control Notes on page 3 of the Site Design identifies the surface diversions used to prevent surface water and subsurface water from flowing on to the well pad and coming into contact with the stormwater associated with the well pad. Additional Erosion & Sediment BMPs will be used to prevent sediment discharges from the project.

Requirement §5.5.c.11. In areas of steep terrain, a terraced bench shall be constructed at the base of the slope where fill is to be placed, creating a toe foundation and aid in holding fill material. Additional terracing shall be constructed from each additional fifty (50) vertical feet of slope and shall be a minimum of ten (10) feet wide.

Antero Response

All Antero contractors shall be notified of and comply with the measures outlined in Section 5.5.c.11. of §35-8-5.5.

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Antero Resources Corporation Erosion and Sediment Control Plan for Victor Pad

Antero Resources Corporation (Antero) is submitting the following narrative and set of drawings in compliance with §35-8-5.4. This plan is submitted in conjunction with the Victor Pad Site Design, Construction Plan, & Erosion & Sediment Control Plans prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection and Office of Oil and Gas, and certified by Allegheny Survey, Inc., a West Virginia registered professional engineer.

Requirement §5.4.b.1. *A general sequence of events that describe in relative terms how and when each construction phase (i.e. clearing and grubbing, mass grading, stabilization) will occur and when each erosion and sediment control best management practice (“BMP”) will be installed;*

Antero Response:

The following includes a general sequence of events that describe in relative terms how and when each construction phase is anticipated to occur and erosion and sediment control BMPs to be installed. Please refer to the Victor Pad Site Design, Construction Plan, & Erosion & Sediment Control Plans (Site Design) prepared and certified by Allegheny Surveys, Inc. for specific construction measures. Compliance with the measures outlined in the Site Construction Plan (§35-8-5.4) submitted in conjunction with this plan will also be maintained.

- 1) A pre-construction conference will be held on site with contractor to review the construction drawings and provide any requested guidance.
- 2) Construct the construction entrance.
- 3) Construct all proposed sediment control devices as soon as clearing and grubbing operations allow. Diversions and sediment basins shall be seeded and mulched immediately.
- 4) Clear and grub, remove topsoil and place at an area determined in the field where erosion will not take place. Topsoil stockpile to be seeded and mulched. Silt fence shall be constructed around topsoil stockpiles.
- 5) Grading operations as required. Cut slopes and fill slopes shall be topsoiled if needed. Ditch lines shall be cleaned. All ditches will have at least grass lining protection or greater based on ditch slope with the following determination; 0 to 3%- grass lined; 3 to 9 %- jute matting, and 9% or greater- TRM.
- 6) Culvert inlet and outlet protection shall be constructed immediately upon placement of inlets and culverts. Installation of matting and/or rip rap to occur once ditches are constructed.
- 7) When final grade is achieved, topsoil to be placed on all disturbed areas not lined. Seed all disturbed areas as required. A soil sample should be taken and tested to determine recommended rates. If no soils sample is taken the following rates should be applied as a minimum; lime at a rate of 4 tons per acre. Fertilize at a rate of 500 lbs. of 10-20-10 per acre. Seed with 45 lbs. per acre of tall fescue and 20 lbs. per acre of perennial rye grass.
- 8) Lime, fertilizer, and seed will be applied by hand or using a hydro-seeder. Hydro-mulch products shall be installed in accordance with manufacturers specifications.
- 9) Final seeding must occur within 7 days of final grading.

- 10) When site is stabilized with established turf growth over 70%, all erosion and sediment control measures can be removed and repair/stabilize those areas in accordance with state standards.
- 11) Make modifications for permanent Stormwater management.
- 12) Final site inspection.
- 13) A notice of termination shall be filed with WVDEP upon final stabilization.

Requirement §5.4.b.2. *A description of the stabilization methods to be used, including the application rates for temporary and permanent seeding and mulching, and provide the timeframes for establishing stabilization*

4701706025

Antero Response:

Stabilization methods used include seeding and mulching of disturbed areas as well as the implementation of erosion and sediment control BMPs. Please refer to Construction, Erosion & Sediment Control Notes on sheet 3 and Details on sheet 16 for detailed descriptions of the different stabilization methods to be used. Seeding and mulching is to be in accordance with the WVDOT Standard Specifications unless specified otherwise in the plans or unless specified otherwise by the construction engineer or Antero representative. Please refer to number 11 under Erosion Control Notes on sheet 3 of the Site Design for more specific information regarding application, liming, and mulching rates.

Erosion and Sediment BMPs will be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs. In a timely manner after earth disturbance activities cease, Antero shall stabilize any areas disturbed by the activities. During non-germination periods, mulch must be applied at the specified rates. Disturbed areas which are not at finish grade and which will be re-disturbed within 1 year will be stabilized in accordance with the temporary vegetative stabilization and specifications. Disturbed areas which are finished grade or which will not be re-disturbed within 1 year will be stabilized in accordance with the permanent vegetative stabilization specification. Please refer to "Construction, Erosion, & Sediment Control Notes" on sheet 3 for more information regarding timeframes for establishing stabilization and erosion and sediment BMPs.

The site shall be considered to have achieved full stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics to resist sliding and other movements. Until the site achieves final stabilization, Antero will assure that the best management practices (BMPs) are implemented, inspected, operated, and maintained. As such, Antero will maintain written inspection logs. All maintenance work, including cleaning, repair, replacement, regarding, and re-stabilization shall be performed immediately upon discovery of deficiency. After final stabilization has been achieved, temporary erosion and sediment BMPs controls will be removed. Areas disturbed during removal of the BMPs will be stabilized immediately.

Requirement §5.4.b.3. *Details of specifications for the erosion and sediment control BMPs employed on the project.*

Antero Response:

Please refer to the "Construction, Erosion, & Sediment Control Notes" on sheet 3 and "Details" on sheet 16 in the Site Design for specifications including instructions for installation, inspection, and maintenance for erosion and sediment control BMPs employed at this site.

04/14/2017

Requirement §5.4.c.1. *A vicinity map locating the site in relation to the surrounding area and roads;*

Antero Response:

A "Vicinity Map" locating the site in relation to the surrounding area and roads is included on page 1 the Site Design.

Requirement §5.4.c.2. *A plan view site map at a scale of one inch equal to one hundred feet (1"=100') or greater, showing appropriate detail of all site features, including the identification of site access that provides for a stabilized construction entrance and exit to reduce tracking of sediment onto public or private roads; and*

Antero Response:

"Site Plans" maps are included on sheets 6-12 of the Site Design. Specific design and layout and inspection and maintenance notes for a stabilized construction entrance are included in the "Construction, Erosion & Sediment Control Notes" verbiage on sheet 3.

Requirement §5.4.c.3. *The location of all proposed erosion and sediment control BMPs*

Antero Response:

"Site Plans" maps included on pages 6-12 of the Site Design locate all proposed erosion and sediment control BMPs.

4701700003

WW-6A7
(6-12)

OPERATOR: Antero Resources Corp. WELL NO: Merritt Unit 1H

PAD NAME: Victor Pad

REVIEWED BY: Kara Quackenbush SIGNATURE: 

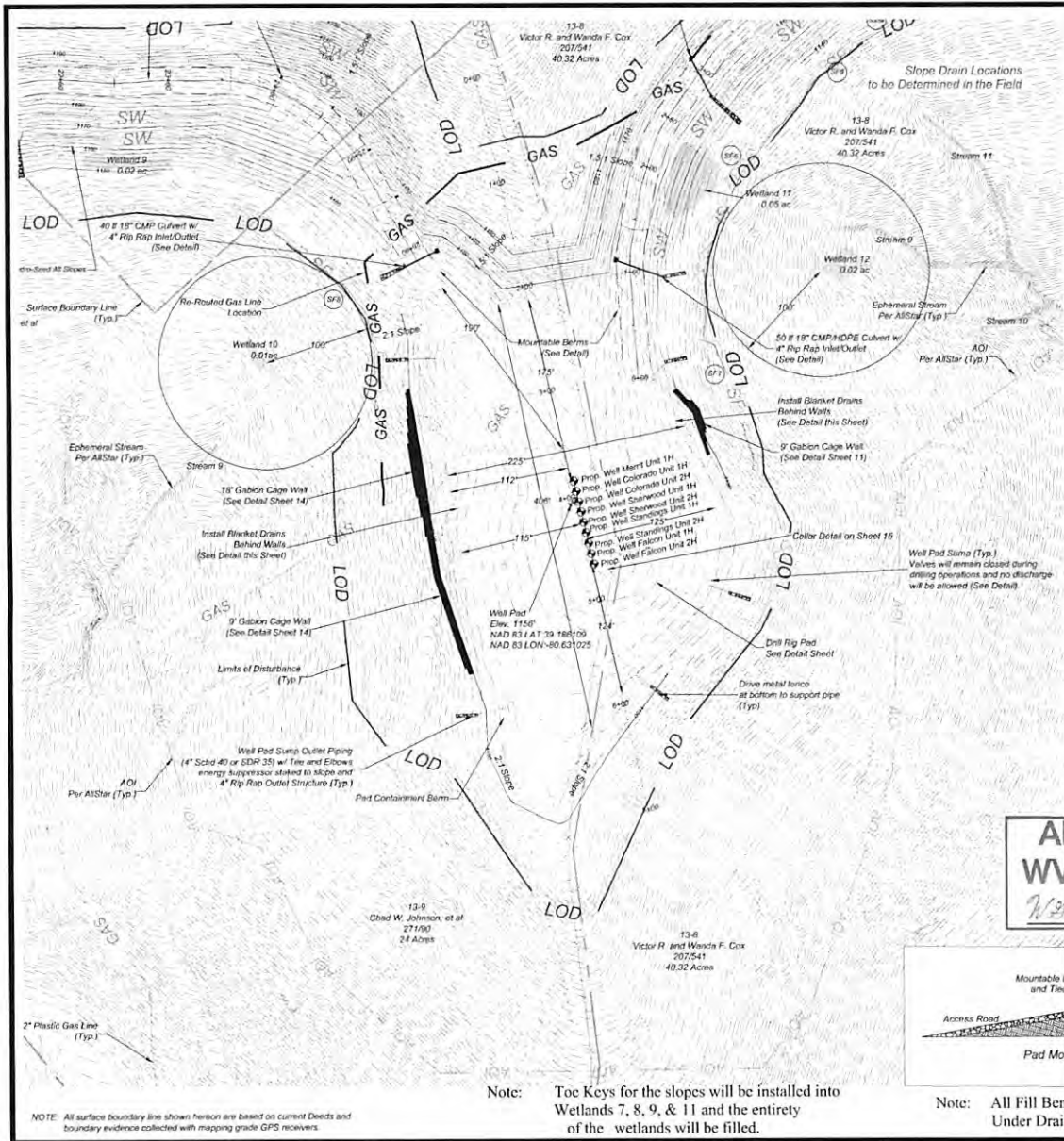
WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
 DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
 DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
 DEP Waiver and Permit Conditions 4701706225
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
 Surface Owner Waiver and Recorded with County Clerk, OR
 DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
 Surface Owner Waiver and Recorded with County Clerk, OR
 DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
 Surface Owner Waiver and Recorded with County Clerk, OR
 DEP Variance and Permit Conditions

04/14/2017

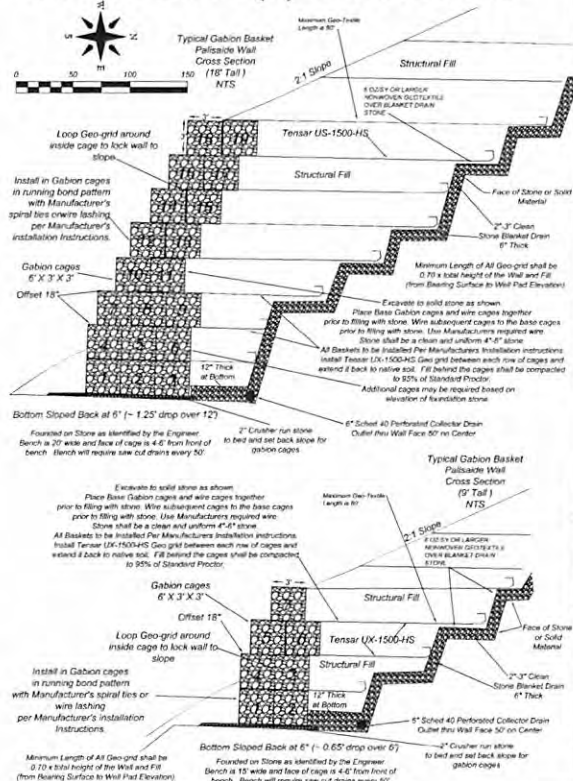


NOTE: All surface boundary line shown hereon are based on current Deeds and boundary evidence collected with mapping grade GPS receivers.

Note: Toe Keys for the slopes will be installed into Wetlands 7, 8, 9, & 11 and the entirety of the wetlands will be filled.

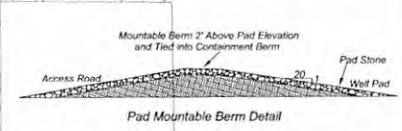
Note: All Fill Benches Shall Have Bench/Side Slope Under Drains. See Details (Sheet 16).

SITE PLAN (6) WELL PAD



DATE	REVISIONS
11-20-13	Updated Per New Antero Standards and to Reflect Geotechnical Report
12-13-13	Updated Wetlands Delineation
12-18-13	Updated Well Layout & Addition
1-4-14	Revised Design & Well Layout
1-14-14	Revised Site Entrance and Details
2-28-14	Revised Keyway/Bench and Gabion Wall Details
3-21-14	Revised Per WVDEP Comments
4-15-14	Revised Keyway/Bench Details - Updated Wetlands
12-13-16	Revise Wells
3-23-17	Revise Per DEP Comments, Mountable Berns and Detail

APPROVED WVDEP OOG
3/31/2017



Allegrihny Surveys, Inc.
172 Thompson Drive
Big Spring, MS 38608
(601) 848-5600

L&W ENTERPRISES, INC.
1000 W. Main Street
P.O. Box 1000
Pittsburgh, PA 15222
(412) 261-1111

ANTERO RESOURCES
THIS DOCUMENT PREPARED FOR
ANTERO RESOURCES CORPORATION

SITE PLAN (6) WELL PAD

VICTOR PAD
NEW MILTON / GREENBRIER DISTRICT
DODDRIEGE COUNTY, WV

Date: 2/25/13
Scale: 1" = 50'
Prepared by: CWK/CKM
File No. Annex 211-1-12
Page 11 of 17



West Virginia State Plane Coordinate System
North Zone, NAD83
Elevations Based on NAVD88
Established By Survey Grade GPS & OPUS Post-Processing



Well Table				
Prop Well Merril-Coronado Unit 1H WV-N NAD 83 N: 251920.1 WV-N NAD 83 E: 1647895.6 WV-N NAD 27 N: 251883.7 WV-N NAD 27 E: 1679336.2 Lat. NAD 83: 39.186114 Lon. NAD 83: -80.631100 Lat. NAD 27: 39.186026 Lon. NAD 27: -80.631279 UTM 17 NAD 83 (m) N: 4337495.0 UTM 17 NAD 83 (m) E: 531859.9	Prop Well Merril-Coronado Unit 2H WV-N NAD 83 N: 251925.5 WV-N NAD 83 E: 1647905.6 WV-N NAD 27 N: 251886.1 WV-N NAD 27 E: 1679346.2 Lat. NAD 83: 39.186121 Lon. NAD 83: -80.631065 Lat. NAD 27: 39.186033 Lon. NAD 27: -80.631244 UTM 17 NAD 83 (m) N: 4337495.8 UTM 17 NAD 83 (m) E: 531862.9	Prop Well Merril-Coronado Unit 3H WV-N NAD 83 N: 251924.9 WV-N NAD 83 E: 1647915.3 WV-N NAD 27 N: 251888.5 WV-N NAD 27 E: 1679355.9 Lat. NAD 83: 39.186126 Lon. NAD 83: -80.631031 Lat. NAD 27: 39.186040 Lon. NAD 27: -80.631210 UTM 17 NAD 83 (m) N: 4337496.6 UTM 17 NAD 83 (m) E: 531865.8	Prop Well Sherwood Unit 1H WV-N NAD 83 N: 251927.0 WV-N NAD 83 E: 1647924.9 WV-N NAD 27 N: 251890.5 WV-N NAD 27 E: 1679365.9 Lat. NAD 83: 39.186134 Lon. NAD 83: -80.630997 Lat. NAD 27: 39.186046 Lon. NAD 27: -80.631116 UTM 17 NAD 83 (m) N: 4337497.2 UTM 17 NAD 83 (m) E: 531868.8	Prop Well Sherwood Unit 2H WV-N NAD 83 N: 251929.4 WV-N NAD 83 E: 1647934.6 WV-N NAD 27 N: 251893.0 WV-N NAD 27 E: 1679375.2 Lat. NAD 83: 39.186141 Lon. NAD 83: -80.630963 Lat. NAD 27: 39.186053 Lon. NAD 27: -80.631142 UTM 17 NAD 83 (m) N: 4337498.0 UTM 17 NAD 83 (m) E: 531871.7
Prop Well Standings Unit 1H WV-N NAD 83 N: 251931.0 WV-N NAD 83 E: 1647944.5 WV-N NAD 27 N: 251895.1 WV-N NAD 27 E: 1679385.1 Lat. NAD 83: 39.186147 Lon. NAD 83: -80.630928 Lat. NAD 27: 39.186059 Lon. NAD 27: -80.631107 UTM 17 NAD 83 (m) N: 4337499.7 UTM 17 NAD 83 (m) E: 531874.7	Prop Well Standings Unit 2H WV-N NAD 83 N: 251933.9 WV-N NAD 83 E: 1647954.2 WV-N NAD 27 N: 251897.5 WV-N NAD 27 E: 1679394.8 Lat. NAD 83: 39.186154 Lon. NAD 83: -80.630894 Lat. NAD 27: 39.186066 Lon. NAD 27: -80.631073 UTM 17 NAD 83 (m) N: 4337499.5 UTM 17 NAD 83 (m) E: 531877.7	Prop Well Falcon Unit 1H WV-N NAD 83 N: 251936.4 WV-N NAD 83 E: 1647963.9 WV-N NAD 27 N: 251899.9 WV-N NAD 27 E: 1679404.5 Lat. NAD 83: 39.186161 Lon. NAD 83: -80.630860 Lat. NAD 27: 39.186073 Lon. NAD 27: -80.631039 UTM 17 NAD 83 (m) N: 4337500.3 UTM 17 NAD 83 (m) E: 531880.6	Prop Well Falcon Unit 2H WV-N NAD 83 N: 251939.4 WV-N NAD 83 E: 1647973.5 WV-N NAD 27 N: 251902.0 WV-N NAD 27 E: 1679414.1 Lat. NAD 83: 39.186167 Lon. NAD 83: -80.630826 Lat. NAD 27: 39.186079 Lon. NAD 27: -80.631005 UTM 17 NAD 83 (m) N: 4337501.0 UTM 17 NAD 83 (m) E: 531883.5	This space intentionally left blank

Antero will obtain an Encroachment Permit (Form MM-109) from the West Virginia Department of Transportation Division of Highways, prior to commencement of any construction activities.

Project Contacts

Antero Resources Corporation
535 White Oaks Blvd.
Bridgeport, WV 26330
Phone: 304-842-4100
Fax: 304-842-4102

ElI Wagoner, Environmental Field Manager
Office: 304-842-4068; Cell: 304-476-9770

Robert Wirks, Design Manager
Office: 304-842-4401; Cell: 304-627-7405

Aaron Kuntzler, Construction Manager
Office: 304-842-4191; Cell: 304-641-8242

Surveyor & Engineer

Bill Yetzer, P.S. EI. - Allegheny Surveys Inc.
304-848-5035 Off. 304-619-4937 Cell

Kirk Wilson, PE - L&W Enterprises, Inc
304-257-4818 Off. 304-668-0365 Cell

Well Pad Location Restrictions:

- All Pad construction complies with the following restrictions.
- * 250' from an existing well or developed spring used for human or domestic animals.
 - * 625' from occupied dwelling or barn greater than 2500 SF used for poultry or dairy measured from the center of the pad.
 - * 100' from edge of disturbance to perennial streams, natural or artificial lake, pond or reservoir. Wetlands 4, 6, 7, 8, & 9 are impacted by Road C, Wetland 11 is impacted by Road D, Wetland 17 by the Water Containment Pad, and Wetland 18 by Road A. Army Corps. of Engineers Nationwide Permits required for these wetland impacts.
 - * 300' from edge of disturbance to a naturally reproducing trout stream.
 - * 1000' of a surface or ground water intake to a public water supply.

FLOODPLAIN CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIES TAKE PLACE IN FLOODPLAIN:	NO
PERMIT NEEDED FROM COUNTY FLOODPLAIN COORDINATOR:	NO
HEC-RAS STUDY COMPLETED:	YES
FLOODPLAIN SHOWN ON DRAWINGS:	YES
FIRM MAP NUMBER(S) FOR SITE:	54017C0235C / 54017C0250C
ACREAGES OF CONSTRUCTION IN FLOODPLAIN:	0.00 Acres

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!!



Know what's below.
Call before you dig.

NEW MILTON DISTRICT

HEADWATERS MIDDLE ISLAND CREEK

Project Location

SITE LOCATION	
Begin Acc. Road (UTM Meters)	N=4
Center of Drill Pad (UTM Meters)	N=4
Begin Access Road	3
Center of Well Pad	3

R PAD

CONSTRUCTION PLAN, & EROSION CONTROL PLANS

ENTERPRISES CORPORATION



UTM QUAD

2000 3000

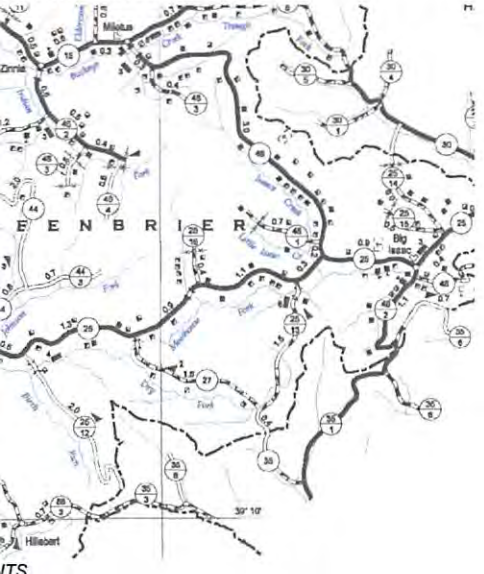
COORDINATIONS

83	
520.68 m	E=532343.93 m
494.51 m	E=531866.34 m

COORDINATIONS

LATITUDE	LONGITUDE
86328	-80.625494
86109	-80.631025

GREENBRIER DISTRICT DODDRIDGE COUNTY, WV MEATHOUSE FORK WATERSHEDS



POINTS

Property Owner Information - Victor Pad						
New Milton / Greenbrier District - Doddridge County						
Owner	TM/Parcel	Deed/Page	Total Acres	Type of Disturbance	Acreage	
Victor R. Cox and Wanda F. Cox	13/8	207/541	40.32	Road B & Construction Access	0.52	
				Topsoil Spoil Pile	0.07	
				Well Pad	1.56	
				Road D	2.20	
				Engineered Fill Pad	0.93	
				Total	5.28	
Thomas D. and Helen L. Aspy	14/26	205/253	62.5	Road B & Construction Access	0.59	
				Road A	1.43	
				Water Containment Pad	0.92	
				Total	2.94	
Chad W. Johnson, et al	13/10	271/90	63.631	Road B & Construction Access	0.17	
				Topsoil Spoil Pile	0.34	
				Road A	7.27	
				Road C	5.60	
				Total	13.38	
Chad W. Johnson, et al	13/9	271/90	24	Road C	3.18	
				Well Pad	2.90	
				Topsoil Spoil Pile	0.18	
				Total	6.26	
Michael Ryan	13-7	287/604	27.73	Engineered Fill Pad	1.24	
Brooks J. Gum	16/19	128/8	32.4	Road C	1.61	
				Grand Total	30.71	

Ephemeral Stream Impact (Linear feet)					
Stream and Impact Cause	Culvert (LF)	Inlet/Outlet Structures Fill (LF)	Slope Fill (LF)	Constr. Disturb. To LOD (LF)	Total Impact (LF)
Stream 3 (Access Road A)	0	8	0	24	32
Total Ephemeral Impact	0	8	0	24	32

Intermittent Stream Impact (Linear feet)					
Stream and Impact Cause	Culvert (LF)	Inlet/Outlet Structures (LF)	Slope Fill (LF)	Constr. Disturb. To LOD (LF)	Total Impact (LF)
Stream 2 (Access Road A)	0	6	0	4	10
Stream 2 (Gasline Crossing)**	10	0	0	12	22
Stream 5 (Access Road C)	0	0	13	27	40
Total Intermittent Impact	10	6	13	43	72

**Stream 2 Impact from Gasline: "Culvert Impact" is Impact of Gasline Itself

Perennial Stream Impact (Linear feet)					
Stream and Impact Cause	Culvert (LF)	Inlet/Outlet Structures (LF)	Slope Fill (LF)	Constr. Disturb. To LOD (LF)	Total Impact (LF)
Stream 1 (Access Road A)	32	13	0	12	57
Total Perennial Impact	32	13	0	12	57
Total Stream Impacts					161

Wetland Impact (Square feet)			
Wetland and Impact Cause	Fill (SF)	Constr. Disturb. To LOD (SF)	Total Impact (SF)
Wetland 4 (Access Road C)	513	0	513
Wetland 6 (Access Road C)	432	0	432
Wetland 7 (Access Road C)	903	0	903
Wetland 8 (Access Road C)	1088	0	1088
Wetland 9 (Access Road C)	870	0	870
Wetland 11 (Access Road D)	2244	0	2244
Wetland 17 (Water Containment Pad)	2892	2112	5004
Wetland 18 (Access Road A)	3087	390	3477
Total Square Feet	12029	2502	14531
Total Acres	0.28	0.06	0.33

DRAWING INDEX

- COVER SHEET/LOCATION MAP
- SCHEDULE OF QUANTITIES
- CONSTRUCTION, EROSION, & SEDIMENT CONTROL NOTES
- EXISTING CONDITIONS
- PLAN SHEET INDEX
- 1-12 SITE PLANS
- 13-14 ACCESS ROAD A, C, AND D CROSS SECTIONS
- 15 WELL PAD BASELINE PROFILE & CROSS SECTIONS
- 16 DETAILS
- 17 RECLAMATION PLAN

LOD Area (ac)	
Road A (3,500 feet)	8.70
Road B (255 feet) / Construction Access	1.28
Road C (2,620 feet)	10.39
Road D (830 feet)	2.20
Well Pad	4.46
Engineered Fill Pad	2.17
Topsoil Spoil Pad	0.59
Water Containment Pad	0.92
Total Affected Area	30.71
Total Wooded Acres Disturbed	16.10
Total Linear Feet of Access Road	7,205

DATE	REVISIONS
8-30-13	Updated Per Allstar Request (Sheets: 1, 10, 11, & 16)
11-20-13	Updated Per New Antero Standards and to Reflect Geotechnical Report (All Sheets)
12-13-13	Updated Wetlands Delineation (Sheets: 1, 4-11, & 16)
1-4-14	Revised Design and Well Layout (All Sheets)
1-14-14	Revised Site Entrance and Details (All Sheets)
2-28-14	Revised Keyway/Bench and Gabion Wall Details (Sheets: 1, 8, 9, 11, 14, 15, & 16)
3-21-14	Revised Per WVDEP Comments (Sheets: 1, 4, 10, 11, 12, & 15)
4-15-14	Revised Keyway/Bench Details - Updated Wetlands (Sheets: 1, 8-11, 14-16)
6-30-14	Replaced 72" CMP Culvert with Concrete Box Culvert (Sheets: 1-3 and 6)
12-13-16	Revised Wells and include Modification 1 LOD Expansion (Sheets 1, 6 and 11)



Allegheny Surveys, Inc.
172 Thompson Drive
Bridgeport, WV 26330
(304) 848-5035



L&W ENTERPRISES, INC.
1450 WILSON ST.
FELLSBURG, WV 26747
TEL: 304-848-5035 FAX: 304-848-5224
EMAIL: KARP@LWENT.COM



ANTERO RESOURCES
THIS DOCUMENT PREPARED FOR ANTERO RESOURCES CORPORATION

COVER SHEET/LOCATION MAP
VICTOR PAD
NEW MILTON / GREENBRIER DISTRICT
DODDRIDGE COUNTY, WV

Date: 2/25/13
Scale: N/A
Designed By: CKW/CKM
File No. Antero 211-12
Page 1 of 17

Handwritten: 12/28/16