

#### 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

Monday, July 31, 2017 WELL WORK PERMIT Horizontal 6A / New Drill

ANTERO RESOURCES CORPORATION 1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit approval for BURGESS UNIT 2H

47-017-06851-00-00

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: BURGESS UNIT 2H Farm Name: STANLEY WEBB ET AL

U.S. WELL NUMBER: 47-017-06851-00-00

Horizontal 6A / New Drill

Date Issued: 7/31/2017

Promoting a healthy environment.

API Number: 17-06851

### **PERMIT CONDITIONS**

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

#### **CONDITIONS**

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

API Number: 17-06851

## **PERMIT CONDITIONS**

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

API NO. 47-017 - 06951
OPERATOR WELL NO. Burgess Unit 2H
Well Pad Name: Existing Stanley Pad

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

1) Well Operator:	Antero Res	ources Corpor	ene I	017 - Do	ddri Central	Pullman 7.5'
			Operator ID	County	District	Quadrangle
2) Operator's Well	Number: Bu	rgess Unit 2H	Well P	ad Name: E	xisting Stanley	y Pad
3) Farm Name/Surf	face Owner:	Stanley Webb	et al Public R	oad Access:	Cabin Run Ro	(CR 21/1)
4) Elevation, curren	nt ground:	1095' E	Elevation, propose	d post-const	ruction: 1095'	
5) Well Type (a) Oth	Gas X	Oil _	Un	derground St	torage	
(b) <sup>1</sup>		illow X	Deep	_		
6) Existing Pad: Ye						
7) Proposed Target Marcellus Shale:			cipated Thickness ess- 50 feet, Asso	10 m		
8) Proposed Total V	ertical Dept	h: 7400' TVD				
9) Formation at Tot		1 2 2 2	S			
10) Proposed Total	Measured D	epth: 19000' N	1D			
11) Proposed Horiz	ontal Leg Le	ngth: 10874'				
12) Approximate Fr	esh Water S	trata Depths:	168', 322', 433	1		
13) Method to Deter 14) Approximate Sa		uto. 2 optim.		epths have bee	en adjusted accord	ling to surface elevations.
15) Approximate Co	oal Seam De	pths: 170', 877'				
16) Approximate De	epth to Possi	ble Void (coal m	ine, karst, other):	None Antic	cipated	
17) Does Proposed of directly overlying or			ms Yes		No X	
(a) If Yes, provide	Mine Info:	Name:				
		Depth:				
		Seam:				
		Owner:				

DAF

OFFICE OF OIL & GAS JUN 16 2017

API NO. 47-017 - 6685

OPERATOR WELL NO. Burgess Unit 2H
Well Pad Name: Existing Stanley 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#	80'	80'	CTS, 77 Cu. Ft.
Fresh Water	13-3/8"	New	J-55	54.5#	485' *see #19	485' *see #19	CTS, 674 Cu. Ft.
Coal	9-5/8"	New	J-55	36#	2500'	2500'	CTS, 1018 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	23#	19000'	19000'	4817 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	20"	24"	0.438"	1530	50	Class A	~1.18
Fresh Water	13-3/8"	17-1/2"	0.38"	2730	1000	Class A	~1.18
Coal	9-5/8"	12-1/4"	0.352"	3520	1500	Class A	~1.18
Intermediate							
Production	5-1/2"	8-3/4" & 8-1/2"	0.415"	12,630	2500	Lead-NPO2 & Tell - H	H/POZ~1.44 & H~1.8
Tubing	2-3/8"	4.778"	0.19"	11,200			
Liners							

#### **PACKERS**

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

OFFICE OF DIL & GAS JUN 16 2017

DAF

OPERATOR WELL NO. Burgess Unit 2H

Well Pad Name: Existing Stanley Pad

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

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

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

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

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

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

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 43.30 Existing Acres
- 22) Area to be disturbed for well pad only, less access road (acres): 9.00 Existing 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.

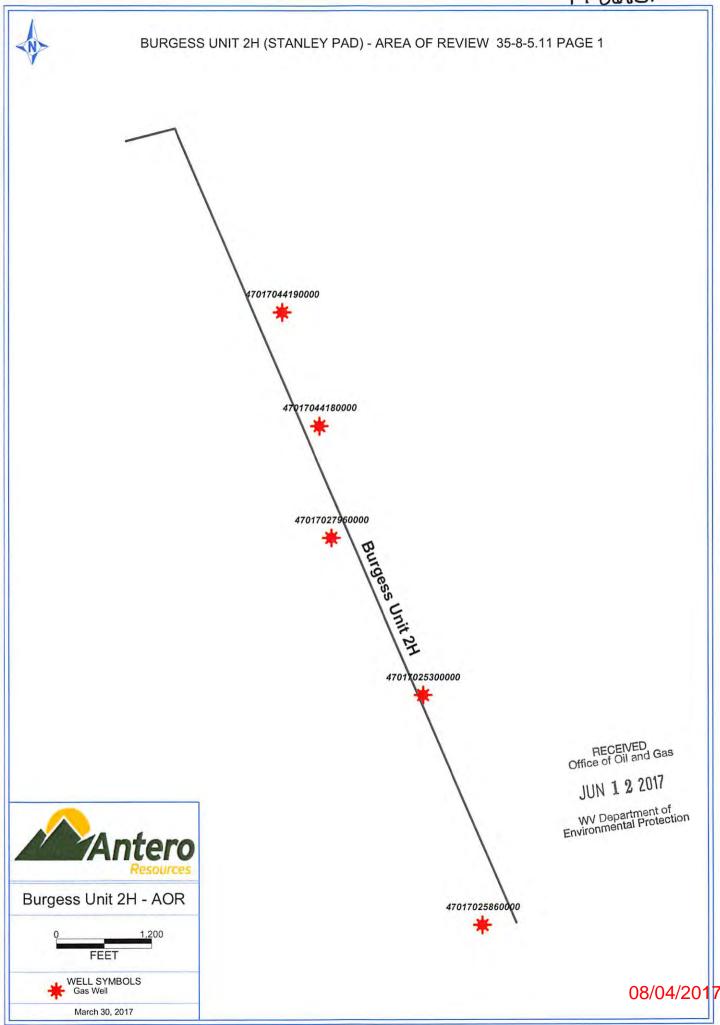
Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity + 40 bbls fresh water followed by 25 bbls bentonite mud, 10 bbls fresh water spacer.

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.

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### BURGESS UNIT 2H (STANLEY PAD) - AREA OF REVIEW 35-8-5.11 PAGE 2

UWI (APINum)	Well Name	Well Number	Operator	Historical Operator	TD
47017027960000 RG	OSS S BYRL ETAL	2	ABARTA O&G CO INC	CHASE PETROLEUM CO	5532
47017025300000 Gi	RIBBLE OPAL	2	ALLIANCE PETR CORP	PETROLEUM DEV CORP	5383
47017044190000 D	AVIS H B & NELLIE JTOS H & W ET AL	1	KEY OIL COMPANY	KEY OIL INCORPORATED	5346
47017044180000 M	MARY WELCH ET AL	1	KEY OIL COMPANY	KEY OIL INCORPORATED	5346
47017025860000 B	ROADWATER LEONA	2	ALLIANCE PETR CORP	PETROLEUM DEV CORP	5260

ELEV_GR	Approx Distance to well	TD (SSTVD)	Perforated Interval (shallowest, deepest)	Perforated Formation(s)	Producible Formation(s) not perf'd
1030	199	-4502	3394-5227	Speechley, Balltown, Bradford, Riley, Benson, Alexander	Big Injun, Weir, Warren, Elk
1010	47	-4373	4883-5186	Benson	Big Injun, Weir, Warren, Speechley, Balltown, Bradford, Riley, Elk, Alexander
997	326	-4349	3903-5222	Balltown, Riley, Benson, Alexander	Big Injun, Weir, Warren, Speechley, Bradford, Elk
958	200	-4388	3795-5177	Balltown, Riley, Benson, Elk, Alexander	Big Injun, Weir, Warren, Speechley, Bradford
970	414	-4290	5142	Alexander	Big Injun, Weir, Warren, Speechley, Balltown, Bradford, Riley, Benson, Elk

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WV Department of Environmental Protection

4701706851

API Number 47 - 017 - 06

Operator's Well No. Burgess Unit 2H

#### 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) North Fork Hughes River Quadrangle Pullman 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 pill will be used at this site (Drilling and Flowback Fluids will be stored in tanks. Cuttings will be tanked and hauled off site.)	
Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A	
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	
Underground Injection ( UIC Permit Number *UIC Permit # will be provided on Form WR-34  ■ Reuse (at API Number Future permitted well locations when applicable. API# will be provided on Form WR-34  )	
Off Site Disposal (Supply form WW-9 for disposal location) (Meadowfill Landfill Permit #SWF-1032-98)  Other (Explain Northwestern Landfill Permit #SWF-1025/WV0109410	
Will closed loop system be used? If so, describe: Yes, fluids stored in tanks, cuttings removed offsite and taken to landfill.	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc	tic Based Mud
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	
Additives to be used in drilling medium? Please See Attachment	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Drill cuttings stored in tanks, removed offsite and taken to landfill.	
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A	
-Landfill or offsite name/permit number? Meadowfill Landfill (Permit #SWF-1032-98), Northwestern Landfill (Permit # SWF-1025/WV0109410)	
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 a provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applical 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 the application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significately penalties for submitting false information, including the possibility of fine or imprisonment.  RECEIVED Office of Oil and Google Official (Typed Name) Gretchen Kohler	the ble his for ant
Company Official (Typed Frame)	-f
Company Official Title Senior Environmental & Regulatory Manager  WV Department 1 Environmental Prote	BRION
Subscribed and sworn before me this day of JUND, 20 17 Notary Public	OH
My commission expires 7/8/2020	IC NSON
08/04/	2017

Form WW-9

Proposed Revegetation Treat	ment: Acres Disturbed 43.30 A	cres Prevegetation pH	
	Tons/acre or to correct to pE		
Fertilizer type Hay o	or straw or Wood Fiber (will be used	where needed)	
Fertilizer amount 50		os/acre	
Mulch 2-3	Tons/s	acre	
Well Pad (9.00 Acres) + Water Contain	inment Pad (5.51 Acres) + Access Road 1 (25.3	O Acres). + Access Road 2 (1.12 Acres) + James Webb	Access Road (2.37 Acres) = 4
	mporary	Permane	
Seed Type Tall Fescue	lbs/acre 45	Seed Type Tall Fescue	lbs/acre 45
Tall I Cocac	70	rail resoure	70
Perennial Rye Gra	ss 20	Perennial Rye Grass	
	ANT DATE OF THE PARTY OF THE PA	Perennial Rye Grass	20
*or type of grass seed request  ttach:  Maps(s) of road, location, pit rovided). If water from the p creage, of the land application	and proposed area for land applic twill be land applied, include din	Perennial Rye Grass  *See General Erosion & Sediment Control Notes  *or type of grass seed requested by sation (unless engineered plans including mensions (L x W x D) of the pit, and dispenses of the	20 (Stanley Pad Final Design Pg 4 surface owner
*See General Erosion & Sediment Control  *or type of grass seed request  Attach: Maps(s) of road, location, pit provided). If water from the p creage, of the land application  Photocopied section of involv	and proposed area for land applic twill be land applied, include din	*See General Erosion & Sediment Control Notes  *or type of grass seed requested by s  ation (unless engineered plans including	20 (Stanley Pad Final Design Pg 4 surface owner
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#### 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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Drilling Fluild Solvent - Aliphatic Hydrocarbon

14. Ligco

Highly Oxidized Leonardite - Filteration Control Agent

15. Super Sweep

Polypropylene - Hole Cleaning Agent

16. Sulfatrol K

Drilling Fluid Additive – Sulfonated Asphalt Residuum

17. Sodium Chloride, Anhydrous

Inorganic Salt

18. D-D

Drilling Detergent - Surfactant

19. Terra-Rate

Organic Surfactant Blend

20. W.O. Defoam

Alcohol-Based Defoamer

21. Perma-Lose HT

Fluid Loss Reducer For Water-Based Muds

22. Xan-Plex D

Polysaccharide Polymer - Drilling Fluid Viscosifier

23. Walnut Shells

Ground Cellulosic Material - Ground Walnut Shells - LCM

24. Mil-Graphite

Natural Graphite - LCM

25. Mil Bar

Barite - Weighting Agent

26. X-Cide 102

Biocide

27. Soda Ash

Sodium Carbonate – Alkalinity Control Agent

28. Clay Trol

Amine Acid complex - Shale Stabilizer

29. Sulfatrol

Sulfonated Asphalt – Shale Control Additive

30. Xanvis

Viscosifier For Water-Based Muds

31. Milstarch

Starch - Fluid Loss Reducer For Water Based Muds

32. Mil-Lube

**Drilling Fluid Lubricant** 

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JUN 1 2 2017

WV Department of Environmental Protection



## 911 Address 428 Cabin Run Rd. West Union, WV 26456

# Well Site Safety Plan Antero Resources

Well Name: Burgess Unit 1H-2H; Cool Unit 1H-2H; Hattie

Unit 1H-3H;

Pad Location: STANLEY PAD

Doddridge County/ Central District

### **GPS Coordinates:**

Entrance - Lat 39°14′19.3092″/Long -80°52′8.4606″ (NAD83)

Pad Center - Lat 39°14′13.5702″/Long -80°52′46.1208″ (NAD83)

### **Driving Directions:**

From Greenwood WV: Head southeast on Co Route 50/30/Old U.S. 50 W/Sunnyside Rd for 3.4 miles. Turn right onto Co Route 21/Oxford Rd and continue for 2 miles. Turn right onto Co Route 21/1/Cabin Run. After approximately 0.4 miles, access road will be on the right.

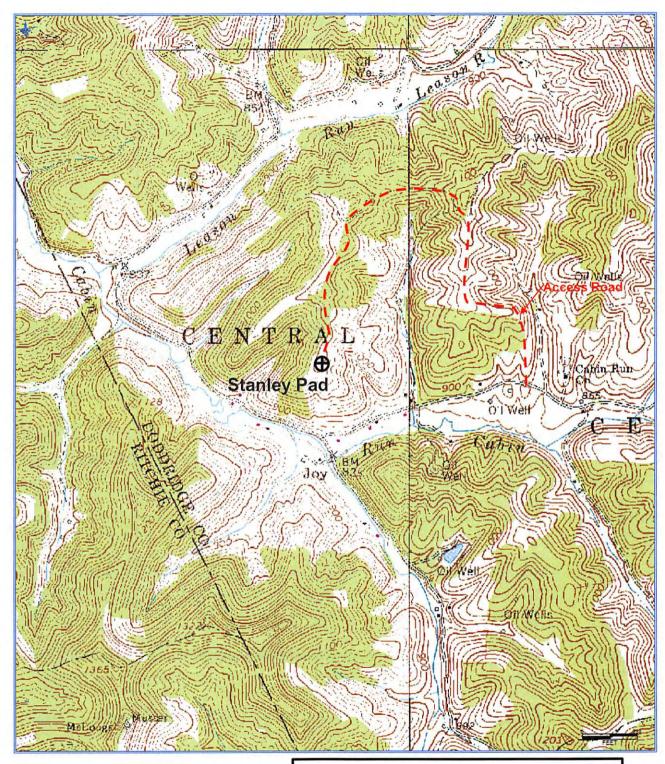
### **Alternate Route:**

From William R Sharpe Jr Hospital near the town of Weston WV: Turn left onto US-119 S/US – 33 W for 15.6 miles. Turn right onto WV-47 W for 3.6 miles. Continue forward onto WV-18 N for 9.4 miles. Turn left onto Grove Summers Rd for 5.9 miles. Grove summers Rd turns right and becomes Taylor Drain Rd, follow for 4.2 miles. Turn right onto S Fork of Hughes River for 0.9 miles. Continue straight onto Co Rte 21 for 2.5 miles. Turn left onto Co Rte 21/1 for 0.4 miles. The access road will be on the right.

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

OFFICE OF OIL & GAS JUN 16 2017

<del>08/04/2017</del>



## **Antero Resources Corporation**

Appalachian Basin Burgess Unit 2H Doddridge County

Quadrangle: Pullman 7.5'

Watershed: North Fork Hughes River

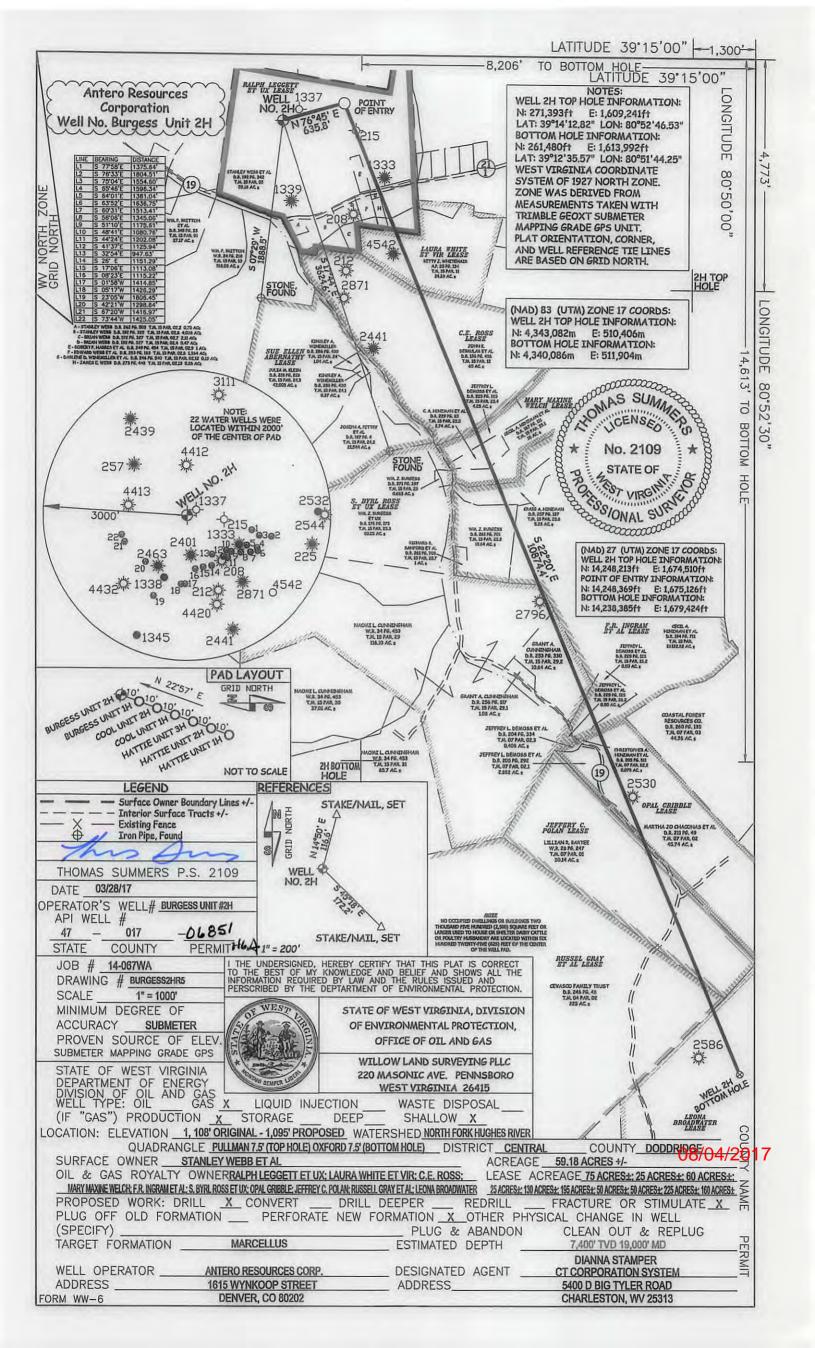
District: Central Date: 3-12-2015 ent of Protection

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W Departr

Enviro



Operator's Well Number

Burgess Unit 2H

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

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

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

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Ralph Leggett et ux Lease			
Ralph Leggett et ux	Harold B. Smith	1/8	0088/0228
Harold B. Smith	Reeves Lewenthal	Assignment	0088/0232
Reeves Lewenthal	Ray Resources Corporation	Assignment	0099/0332
Ray Resources Corporation	Bow Valley Petroleum, Inc.	Assignment	0115/0031
Bow Valley Petroleum, Inc.	G.W. Petroleum, Inc.	Name Change	Recital in 0166/0312
G.W. Petroleum, Inc.	Great Western Onshore, Inc.	Name Change	Recital in 0166/0312
Great Western Onshore, Inc.	Eastern American Energy Corporation	Assignment	0166/0312
Eastern American Energy Corporation	Targa Development, Inc.	Assignment	0219/0529
Targa Development, Inc.	Antero Resources Appalachian Corporation	Assignment	0257/0362
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
Laura White et vir Lease			
Laura F. White & G.T. White	Hope Natural Gas Company	1/8	0036/0150
Hope Natural Gas Company	Consolidated Gas Supply Corporation	Confirmatory Deed	DB 0143/0345
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Amended Certificate of Authority	AOI 0051/0795
CNG Transmission Corporation	Dominion Transmission, Inc.	Amended Certificate of Authority	AOI 0058/0362
Dominion Transmission, Inc., et al	CNX Gas Company, LLC	Affidavit of Name Changes and Merger	DB 0293/0252
CNX Gas Company, LLC	Antero Resources Corporation	Notice of Agreement	0346/0007
C.E. Ross Lease		<u>.</u>	
C.E. Ross	Carnegie Natural Gas Company	1/8	0031/0272
Carnegie Natural Gas Company	H.L. Pernell & Luther Davis	Assignment	0058/0329
H.L. Pernell & Luther Davis	David M. Harrison & Charles E. Young	Assignment	DB 0128/0453
David M. Harrison: Helen F. Young & James E. Young Executors of the estate of Charles E. Young	Don D. Debrular & Charles Brady Debrular	Assignment	0095/0485
Don D. Debrular & Charles Brady Debrular	Vinson Gas & Oil Drilling, Co.	Assignment	0108/0458
Vinson Gas & Oil Drilling, Co.	West Virginia Joint Venture No. Two Limited	Assignment	0112/0552
West Virginia Joint Venture No. Two Limited	Key Oil Company	Assignment	0181/0729
Key Oil Company Antero Resources Appalachian Corporation	Antero Resources Appalachian Corporation Antero Resources Corporation	Assignment Name Change	0256/0285 Exhibit 1

RECEIVED
Office of Oil and Gas

JUN 1 2 2017

<sup>\*</sup>Partial Assignments to Antero Resources Corporation include 100% rights to extract, produce and market the operation include Marcellus and any other formations completed with this well.

Environmental Protection

Operator's Well Number Burgess Unit 2H

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

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

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

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Mary Maxine Welch Lease			
Mary Maxine Welch	Key Oil Company	1/8	0181/0599
Key Oil Company	Antero Resources Appalachian Corporation	Assignment	0256/0285
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
F. R. Ingram et al Lease			
F.R. Ingram et al	Pennzoil Company	1/8	0103/0172
Pennzoil Company	Consolidated Gas Supply Corporation	Assignment	0108/0206
Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	0135/0583
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Amended Certificate of Authority	AOI 0051/0795
CNG Transmission Corporation	Dominion Transmission, Inc.	Amended Certificate of Authority	AOI 0058/0362
Dominion Transmission, Inc.	CONSOL Energy Holdings, LLC XVI	Assignment	0245/0001
CONSOL Energy Holdings, LLC XVI	CNX Gas Company, LLC	Affidavit of Name	DB 0293/0252
		Changes and Merger	
CNX Gas Company, LLC and Noble Energy, Inc.	Antero Resources Corporation	Assignment	0325/0507
S. Byrl Ross et ux Lease			
S. Byrl Ross & Elinor K. Ross	Alton Skinner	1/8	0114/0441
Alton L. Skinner, II, et al, as co-administrators of	Crystal Skinner, et al	Assignment	0169/0193
the estate of Alton L. Skinner, deceased	•		
Crystal Skinner, et al	DC Petroleum, Inc., et al	Assignment	0170/0583
DC Petroleum, Inc. and Chase Petroleum, Inc.	Antero Resources Appalachian Corporation	Assignment	0257/0062
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
Opal Gribble Lease			
Opal Gribble	Clarence W. Mutschelknaus	1/8	0105/0125
Clarence W. Mutschelknaus	Petroleum Development Corporation	Assignment	0110/0634
Petroleum Development Corporation	PDC Mountaineer, LLC	Assignment	0240/0118
PDC Mountaineer, LLC	Antero Resources Appalachian Corporation	Assignment	0278/0607
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
Jeffrey C. Polan Lease /	RECEIVED OF	385	
Jeffrey C. Polan	Antero Resources Corporation of Oil and Co.  Alton Skinner	\7	0356/0537
Russel Gray et al Lease	IUN 1220	· . of	
Russel Gray and Edith Gray, et ux	Alton Skinner	nt Ol 1/8	0121/0123
Alton L. Skinner, II, et al, as co-administrators of the estate of Alton L. Skinner, deceased	Alton Skinner Crystal Skinner, et al  DC Petroleum, Inc., et al  Environmental	Assignment	0169/0193
Crystal Skinner, et al	DC Petroleum, Inc., et al	Assignment	0170/0583
DC Petroleum, Inc. & Chase Petroleum, Inc.	Antero Resources Appalachian Corporation	Assignment	0257/0062
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1

<sup>\*</sup>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.

Operator's	Well	No.	Burgess Unit 2H	
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#### INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
eona Broadwater Lease				
	Leona Broadwater	Clarence W. Mutschelknaus	1/8	0102/0592
	Clarence W. Mutschelknaus	J. Robert Hornor	Assignment	0105/0277
	J. Robert Hornor	Petroleum Development Corporation	Assignment	0112/0664
	Petroleum Development Corporation	PDC Mountaineer, LLC	Assignment	0240/0118
	PDC Mountaineer, LLC	Antero Resources Appalachian Corporation	Assignment	0278/0607
	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

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WV Department of Environmental Protection

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: Its:	Kevin Kilstrom	Contillation			
	Senior Vice President - Production				

Page 1 of \_\_\_\_

## FORM WW-6A1 EXHIBIT 1

Natalie B. Tennant.

FILE ONE ORIGINAL

(Two if you want a Red stamped copy returned to you) FEB: \$25:00

Secretary of State 1900 Kanawha Bivd E Bldg 1, Suite 157-K Charleston, WV 25305 FILED

JUN 1 0 2013

Penney Barker, Manager
IN THE OFFICE OF Corporations Division
SECRETARY OF STATE Pace (304)558-8381

Website: www.wvsos.com
E-mail: business@wvsos.com

APPLICATION FOR AMENDED CERTIFICATE OF AUTHORITY

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

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

1.	Name under which the corporation was authorized to transact business in WV:	Antero Resources App	elechian Corporation			
2	Date Certificate of Authority was issued in West Virginia:	6/25/2008				
3,	Corporate name has been changed to: (Attach one Certified Copy of Name Change as filed in home State of incorporation.)					
•	Name the corporation elects to use in WV: (due to home state name not being available)	Antero Resources Con	potelion	-		
	Other amendments: (attach additional pages if necessary)			-		
				-		
	document.) Alvyn A. Schopp	(303) 36				
	Contact Name Signature information (See below *Important i		Signature):			
	Print Name of Signer: Aboyn A. Schopp		acity: Authorized Pers	iOn.		
	Print Plante of Signer.	Ittic/Cap	acity.			
	Stangerman As North	Dolar	Inne 10, 2013	-		
	Signature: H3H3Choff		June 10, 2013			
ny	Signature: A Standard: Per West Virging person who signs a document he or she knows is false in any a secretary of state for filing is guilty of a misdomosmor and, and dollars or conflued in the county or regional jall not mo	nia Code <u>6311)-1-129.</u> Penal y mnicrist respect and knows upon conviction thereof, aha	ty for signing false document is to be o	usuf. Solivered		
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WV012 - 0446/2011 Walters Klunyr Oelle.



June 9, 2017

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

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

RE: Burgess Unit 2H

Quadrangle: Pullman 7.5'

Doddridge County/Central District, West Virginia

Mr. Martin:

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

Sincerely,

Haley West Landman

Office of Oil and Gas

JUN 1 2 2017

W Department of Environmental Protection

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

Notice has been given:  Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has below for the tract of land as follows:  State: West Virginia UTM NAD 8  County: Doddridge Public Road Quadrangle: Pullman 7.5' Generally use Watershed: North Fork Hughes River  Pursuant to West Virginia Code § 22-6A-7(b), every permit application	Well Pad I provided the rec  Easting: Northing:	S Well No. Burge Name: Stanley F quired parties w 510406m 4343082m Cabin Run Rd (Cl Stanley Webb et a	rith the Notice Forms listed
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has below for the tract of land as follows:  State: West Virginia County: Doddridge District: Central Quadrangle: Pullman 7.5' Watershed: North Fork Hughes River  Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has below for the tract of land as follows:  UTM NAD 8 Public Road A Generally use	provided the red  Easting: Northing: Access:	quired parties w 510406m 4343082m Cabin Run Rd (Cl	vith the Notice Forms listed
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has below for the tract of land as follows:  State: West Virginia County: Doddridge District: Central Quadrangle: Pullman 7.5' Watershed: North Fork Hughes River  Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has below for the tract of land as follows:  UTM NAD 8 Public Road A Generally use	Easting: Northing:	510406m 4343082m Cabin Run Rd (Cl	
below for the tract of land as follows:  State: West Virginia  County: Doddridge  District: Central  Quadrangle: Pullman 7.5'  Watershed: North Fork Hughes River  DISTRICT OF THE PURPLE OF THE PUBLIC ROAD OF THE PUBLIC ROA	Easting: Northing:	510406m 4343082m Cabin Run Rd (Cl	
State: West Virginia UTM NAD 8 County: Doddridge District: Central Public Road 2 Quadrangle: Pullman 7.5' Generally use Watershed: North Fork Hughes River	Northing:	4343082m Cabin Run Rd (Cl	R 21/1)
County: Doddridge UTM NAD 8 District: Central Public Road 2 Quadrangle: Pullman 7.5' Generally use Watershed: North Fork Hughes River	Northing:	4343082m Cabin Run Rd (Cl	R 21/1)
District: Central Public Road & Quadrangle: Pullman 7.5' Generally use Watershed: North Fork Hughes River	Access:	Cabin Run Rd (Cl	R 21/1)
Quadrangle: Pullman 7.5' Generally use Watershed: North Fork Hughes River		<del></del>	N 2 1/ 1)
Watershed: North Fork Hughes River	d faill flame.	Statiley Webb et a	ol
Pursuant to West Virginia Code & 22-64-7(h) every permit application			
prescribed by the secretary, shall be verified and shall contain the following it has provided the owners of the surface described in subdivisions (1), (information required by subsections (b) and (c), section sixteen of this article of giving the surface owner notice of entry to survey pursuant to subsecti requirements of subsection (b), section sixteen of this article were waived Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify of this article have been completed by the applicant.	information: (1-2) and (4), subsection; (ii) that the recon (a), section I in writing by	4) A certification (b), section (b), section (c), section	on from the operator that (i) tion ten of this article, the deemed satisfied as a result cle six-a; or (iii) the notice vner; and Pursuant to West
Pursuant to West Virginia Code § 22-6A, the Operator has attached proof that the Operator has properly served the required parties with the following *PLEASE CHECK ALL THAT APPLY		Certification	OOG OFFICE USE
THEASE CHECK ALL THAT APPLY			ONLY
1. NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUESTION     SEISMIC ACTIVITY W			RECEIVED/ NOT REQUIRED
☐ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ■ NO PLAT SU	RVEY WAS C	ONDUCTED	☐ RECEIVED
■ 3. NOTICE OF INTENT TO DRILL OF NOTICE NOT REQ NOTICE OF ENTRY FO WAS CONDUCTED OF	OR PLAT SUR		□ RECEIVED/ NOT REQUIRED
☐ WRITTEN WAIVE (PLEASE ATTA			
4. NOTICE OF PLANNED OPERATION	CH)  RECEIVED GO	,5 1	□ RECEIVED
5. PUBLIC NOTICE  Of	ANN 18 SOL	n of tion	RECEIVED
6. NOTICE OF APPLICATION	AND Debattub	COLOCU	☐ RECEIVED

#### Required Attachments:

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

#### 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: Antero Resources Corporation Address: 1615 Wynkoop Street

By: Kevin Kilstrom Denver, CO 80202

Its: Senior Vice President - Production Facsimile: 303-357-7315

Telephone: 303-357-7310 Email: sklaas@anteroresources.com

NOTARY SEAL

SHELBY MARIE JOHNSON

NOTARY PUBLIC

STATE OF COLORADO

NOTARY ID 20164026060

MY COMMISSION EXPIRES JULY 8, 2020

Subscribed and sworn before me this 8 day of Une 2017

00110 201.1

Notary Public

My Commission Expires

#### Oil and Gas Privacy Notice:

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

Office of Oil and Gas

JUN 122017

WV Department of Environmental Protection

WW-6A (9-13)

API NO. 47- 017 - **O6951**OPERATOR WELL NO. Burgess Unit 2H
Well Pad Name: Stanley Pad

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

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 06/09/2017 Date Permit Application Filed: 06/09/2017 Notice of: PERMIT FOR ANY ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT WELL WORK Delivery method pursuant to West Virginia Code § 22-6A-10(b) ☐ REGISTERED PERSONAL ✓ METHOD OF DELIVERY THAT REOUIRES A MAIL **SERVICE** 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: COAL OWNER OR LESSEE ☑ SURFACE OWNER(s) Name: NO DECLARATIONS ON RECORD WITH COUNTY Name: PLEASE SEE ATTACHMENT Address: Address: COAL OPERATOR Name: Name: NO DECLARATIONS ON RECORD WITH COUNTY Address: \_ WV Department of WV Department of Environmental Protect Address: ☑ SURFACE OWNER(s) (Road and/or Other Disturbance) Name: PLEASE SEE ATTACHMENT WATER PURVEYOR(s)/OWNER(s) OF WATER WELL, SPRING OR OTHER WATER SUPPLY SOURCE Address: Name: PLEASE SEE ATTACHMENT Address: Name: Address: **OPERATOR OF ANY NATURAL GAS STORAGE FIELD** ☐ SURFACE OWNER(s) (Impoundments or Pits) Name: Address: Name: Address: \*Please attach additional forms if necessary

API NO. 47-017 OPERATOR WELL NO. Burgess Unit 2H Well Pad Name: Stanley Pad

#### Notice is hereby given:

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

#### This Notice Shall Include:

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

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

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

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

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.defa.com/www.defa.c JUN 1 2 2017 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 contains water well or developed spring used for human or demostic animal are well as the state of t water well or developed spring used for human or domestic animal consumption. The center of well pads may not be 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 WW-6A (8-13)

API NO. 47-017 OPERATOR WELL NO. Burgess Unit 2H Well Pad Name: Stanley Pad

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

#### Water Well Testing:

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

#### Water Testing Laboratories:

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

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

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

#### Written Comment:

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

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

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

API NO. 47-017 - 06851
OPERATOR WELL NO. Burgess Unit 2H
Well Pad Name: Stanley Pad

#### Time Limits and Methods for Filing Comments.

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

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

#### **Comment Requirements**

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

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

#### Permit Denial or Condition

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

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

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

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

Office of Sil and Gas

JUN 1 2 2017

JUN 1 2 2017

WV Department of protection
Environmental Protection

WW-6A (8-13)

API NO. 47-017 OPERATOR WELL NO. Burgess Unit 2H Well Pad Name: Stanley Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation

Telephone: (303) 357-7310 Email: sklaas@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.

SHELBY MARIE JOHNSON NOTARY PUBLIC STATE OF COLORADO NOTARY ID 20164026060 MY COMMISSION EXPIRES JULY 8, 2020

Notary Public

My Commission Expires

Office of DIN 122017
JUN 122017
Environmental Protect

### WW-6A Notice of Application Attachment (Burgess Unit 2H):

#### List of Owners with Proposed Disturbance associated with Burgess Unit 2H (Stanley 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 15 PCL 2** 

Owner: Stanley Webb, et al (James E. Webb,

Richard L. Webb, Brian M. Webb)

Address: 945 Cabin Run Rd.

West Union, WV 26456

ROAD AND/OR OTHER DISTURBANCE – These owners were only notified if their tract is overlying the oil and gas leasehold being developed by the proposed well work as outlined in WV Code 22-6A-10(b)(2).

TM 15 PCL 2 (On-Lease)

Owner: Stanley Webb, et al (James E. Webb,

Richard L. Webb, Brian M. Webb)

Address: 945 Cabin Run Rd.

West Union, WV 26456

TM 15 PCL 1.1 (Off-Lease)

Owner: William P & Sharon D Britton

Address: RR 1 Box 203

West Union, WV 26456

Owner: William P & Sharon D Britton

(2<sup>nd</sup> Address)

Address: 34 Britton Lane

West Union, WV 26456

TM 11 PCL 8 (Off-Lease)

Owner: I. L. (Ike) Morris
Address: PO Box 397

Glenville, WV 26351

Owner: I. L. (Ike) Morris (2<sup>nd</sup> Address)

Address: 1595 US Highway 33 E

Glenville, WV 26351

TM 15 PCL 3 (Off-Lease)

Owner: James E. Webb (Life)
Address: 813 Cabin Run Rd

West Union, WV 26456

TM 12 PCL 38 (Off-Lease)

TM 12 PCL 37.2 (Off-Lease)

Owner: Shirley Jean Williams

Address: 296 Cabin Run Rd

West Union, WV 26456

<u>TM 12 PCL 26</u> (Off-Lease) TM 12 PCL 25 (Off-Lease)

Owner: Randy Reese & Gary Wheeler

ET AL

Address: 1636 Lesson Rn.

Greenwood, WV 26415

Office of Civil and Case

Office of Civil and Case

JUN 19 2017

JUN 19 2017

Live Departmental Projection

WATER SOURCE OWNERS: These owners of water sources, within 1500' of the well pad, were notified of all well work permit applications.

1 Water Well: 1376' (WW1)

Owner: Robert L. Britton, et ux

Address:

2641 Leeson Run

Pennsboro, WV 26415

1 Water Well: 1381' (WW5)

Owner:

William P. Britton, et al

Address:

RR 1 Box 203

West Union, WV 26456

Owner:

William P & Sharon D Britton

(2<sup>nd</sup> Address)

Address:

34 Britton Lane

West Union, WV 26456

3 Water Wells: 1345' (WW8), 1176' (WW9),

1081' (WW10)

Owner: Stanley Webb, et al (James E. Webb,

Richard L. Webb, Brian M. Webb) (3 Water Sources)

Address:

945 Cabin Run Rd.

West Union, WV 26456

2 Water Wells: 1202' (WW11) & 1299' (WW20)

Owner:

Brian Webb

Address:

RR 1 Box 207

West Union, WV 26456

1 Water Well: 1126' (WW12)

Owner:

Edward Webb, et al

Address:

RR 1 Box 208

West Union, WV 26456

1 Water Well: 948' (WW13)

Owner:

Robert P. Harris, et al

Address:

RR 1 Box 207

West Union, WV 26456

1 Water Well: 1151' (WW14)

Owner:

Darlene D. Winemiller, et al

Address:

858 Cabin Run Rd

West Union, WV 26456

5 Water Wells: 1113' (WW15), 1115'

(WW16), 1415' (WW17), 1426' (WW18),

1425' (WW22)

Owner:

James E. Webb

Address: RR 1 Box 208A

West Union, WV 26456

1 Water Well: 1417' (WW21)

Owner:

Daniel M. Webb

Address:

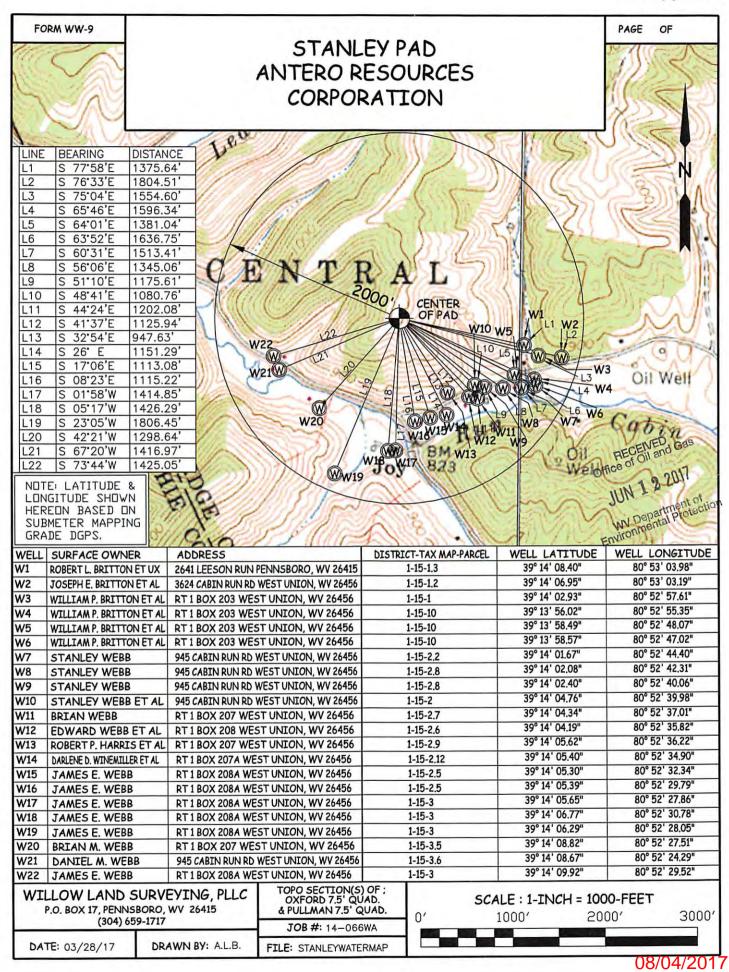
945 Cabin Run Rd

West Union, WV 26456

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Office of Oil and Gas
JUN 1 2 2017
JUN 1 Protection

Please note there are 6 additional water sources identified on the attached map, however they are located greater than 1500' from the proposed well location.



WW-6A4 (1/12) Operator Well No. Burgess Unit 2H

Multiple Wells on Stanley Pad

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

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

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:  State:  West Virginia  County:  Doddridge  District:  Central  Quadrangle:  Pullic Road Access:  Quadrangle:  Pullman 7.5'; Oxford 7.5'  Morth Fork Hughes River  This Notice Shall Include:  Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, an facsimile number and electronic mail address of the operator and the operator's authorized representative. Addition related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-gas/page">www.dep.wv.gov/oil-and-gas/page</a> Notice is hereby given by:  Well Operator:  Antero Resources Appalachian Corporation  Authorized Representative:  Address:  1615 Wynkoop St.  Denver, CO 80202  Telephone:  303-357-6759  Telephone:  303-357-6759	Notice Time I Date of Notice	Requirement: Notice shall be provided at lea e: 05/25/2017 Date Permi	ast TEN (10) days prior to filing a t Application Filed: 06/09/2017	permit application.	
Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certifreceipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for drilling a horizontal well: Provided, That notice given pursuant to subsection (a), section ten of this article satisfies the of this subsection as of the date the notice was provided to the surface owner: Provided, however, That the notice require subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telej and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.  Notice is hereby provided to the SURFACE OWNER(s): Name: Summy Webs, at al. Lames E. Webs, Record L. Webs, Braan M. Webs) Address: 94 Scalms Run Rd.  Wast Union, WV 26456  Notice is hereby given: Pursuant to West Virignia Code § 22-6A-16(b), notice is hereby given that the undersigned well operatorFalls an intent the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virignia Code § 22-6A-16(b), notice is hereby given that the undersigned well operatorFalls an intent the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virignia Code § 22-6A-16(b), The public Road Access: Casting: Northing: OperatorFalls and intent the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: Watershed: North Hughes River  This Notice Shall Include: Pulman 7:5; Oxford 7.5' Generally used farm name: State (Address) State (Ad	Delivery meth	nod pursuant to West Virginia Code § 22-0	6A-16(b)		
receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for drilling a horizontal well: Provided, That notice given pursuant to subsection (a), section ten of this article satisfies th of this subsection as of the date the notice was provided to the surface owner. Provided, however, That the notice requisions to the surface owner. The notice, if required, shall include the name, address, tele and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.  Notice is hereby provided to the SURFACE OWNER(s):  Name: Summy Weeb, et al. (Lames E. Webb, Bichard L. Webb, Bichard M. Webb)  Address: 945 Cabin Run Rd.  West Union, WV 26456  Notice is hereby given:  Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator RNB an intent the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:  State: West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator RNB an intent the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:  State: West Virginia Public Road Access: Cabin Run Rd (CR 21/1)  Quadrangle: Pulman 7.5; Oxford 7.5; Generally used farm name: Stanley Webb et al.  Watershed: North Fork Hughes River  This Notice Shall Include:  Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, an facsimile number and electronic mail address of the operator and the operator's authorized representative. Addition related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/page.  Notice is hereby given by:  Well Operator: Antero Resources Appalachian Corporation  Address: 1615 Wynkoop St. Denver, CO 80202  Telephone: 303-			ESTED		
Notice is hereby given:  Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator RNS an intenthe surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virginia Code § 22-6A-16(b)    County: Doddridge	receipt request drilling a horiz of this subsect subsection ma	ed or hand delivery, give the surface owner contal well: <i>Provided</i> , That notice given pution as of the date the notice was provided to be waived in writing by the surface owner.	notice of its intent to enter upon the result to subsection (a), section to the surface owner: <i>Provided, how.</i> The notice, if required, shall incl	ne surface owner's land for the purpose of in of this article satisfies the requirements ovever, That the notice requirements of this ude the name, address, telephone number, or's authorized representative.	
Notice is hereby given:  Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator RNS an intenthe surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virginia Code § 22-6A-16(b)    County: Doddridge		그는 그래 가게 되었다. 그림 생활은 경우를 하는 사람들은 사람들이 되었다. 그렇게 되었다. 그 없는 사람들이 되었다.		RECEIVED Gas	
Notice is hereby given:  Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator of the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:  State:  West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator of land as follows:  State:  West Virginia County:  Doddridge  District:  Central  Quadrangle: Pulliman 7.5'; Oxford 7.5'  Quadrangle: Watershed:  North Fork Hughes River   This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, an facsimile number and electronic mail address of the operator and the operator's authorized representative. Addition related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/page.  Notice is hereby given by:  Well Operator: Antero Resources Appalachian Corporation  Authorized Representative:  Address:  Ienver, CO 80202  Telephone:  303-357-6759  Telephone:  303-357-6759	Address: 945 C	abin Run Rd.		1/05 0	
County: Doddridge Public Road Access: Cabin Run Rd (CR 21/1)  Quadrangle: Pulman 7.5°; Oxford 7.5° Generally used farm name: Stanley Webb et al  Watershed: North Fork Hughes River  This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, an facsimile number and electronic mail address of the operator and the operator's authorized representative. Addition related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/page.  Notice is hereby given by:  Well Operator: Antero Resources Appalachian Corporation Authorized Representative: Samantha Klaas  1615 Wynkoop St. Address: 1615 Wynkoop St.  Denver, CO 80202  Telephone: 303-357-6759  Telephone: 303-357-6759	Notice is her Pursuant to W the surface ow	eby given: est Virginia Code § 22-6A-16(b), notice is her's land for the purpose of drilling a horize	ontal well on the tract of land as to	WV Departmental Protection  Well operator Friday an intent to enter upon llows:	
District: Central Public Road Access: Cabin Run Rd (CR 21/1)  Quadrangle: Pullman 7.5'; Oxford 7.5' Watershed: North Fork Hughes River  This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, an facsimile number and electronic mail address of the operator and the operator's authorized representative. Addition related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection located at 601 57 <sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-gas/pages">www.dep.wv.gov/oil-and-gas/pages</a> Notice is hereby given by:  Well Operator: Antero Resources Appalachian Corporation Authorized Representative: Samantha Klaas  Address: 1615 Wynkoop St. Denver, CO 80202  Telephone: 303-357-6759  Telephone: 303-357-6759					
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Watershed: North Fork Hughes River  This Notice Shall Include:  Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, an facsimile number and electronic mail address of the operator and the operator's authorized representative. Addition related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-gas/page">www.dep.wv.gov/oil-and-gas/page</a> Notice is hereby given by:  Well Operator: Antero Resources Appalachian Corporation Authorized Representative: Samantha Klaas  Address: 1615 Wynkoop St. Denver, CO 80202  Telephone: 303-357-6759  Telephone: 303-357-6759		P# 177 287			
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Well Operator: Antero Resources Appalachian Corporation Authorized Representative: Samantha Klaas  Address: 1615 Wynkoop St. Denver, CO 80202  Telephone: 303-357-6759  Authorized Representative: Samantha Klaas  Address: 1615 Wynkoop St. Denver, CO 80202  Telephone: 303-357-6759	Pursuant to W facsimile num related to hori	est Virginia Code § 22-6A-16(b), this not ber and electronic mail address of the ope zontal drilling may be obtained from the Se	rator and the operator's authorize ecretary, at the WV Department o	ed representative. Additional information f Environmental Protection headquarters,	
Address:         1615 Wynkoop St.         Address:         1615 Wynkoop St.           Denver, CO 80202         Denver, CO 80202           Telephone:         303-357-6759         Telephone:         303-357-6759					
Denver, CO 80202         Denver, CO 80202           Telephone:         303-357-6759         Telephone:         303-357-6759	Well Operator	Antero Resources Appalachian Corporation		Samantha Klaas	
Telephone: 303-357-6759 Telephone: 303-357-6759	Address:	1615 Wynkoop St.	Address:	1615 Wynkoop St.	
		Denver, CO 80202		Denver, CO 80202	
	Telephone:	303-357-6759	Telephone:	303-357-6759	
Email: sklaas@anteroresources.com Email: sklaas@anteroresources.com	Email:	sklaas@anteroresources.com	Email:	sklaas@anteroresources.com	
Facsimile: 303-357-7315 Facsimile: 303-357-7315	Facsimile:	303-357-7315	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 <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

Operator Well No. Burgess Unit 2H

WW-6A5 (1/12)

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

Date of No					
Delivery m	ethod pursuant to West Virginia Co	de § 22-6A-16	(c)		
■ CER	TIFIED MAIL	☐ HAND			
	URN RECEIPT REQUESTED	DELIV	ERY		
return recei the planned required to drilling of damages to (d) The not of notice.	pt requested or hand delivery, give the doperation. The notice required by the provided by subsection (b), section a horizontal well; and (3) A proposed the surface affected by oil and gas open.	e surface owner this subsection ten of this artic I surface use al erations to the e iven to the surf	whose lan- shall inclu- cle to a surf- ind compen- extent the di- ace owner	d will be used for ide: (1) A copy face owner whose sation agreement amages are com	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
	Webb, et al (James E. Webb, Richard L. Webb, Brian M. Webb)	it the time of he	Name:		Office of a 2017
Address: 94	5 Cabin Run Rd.		Addres		JUN 1 2 2017
					1013
Notice is h	ereby given:		-		WV Departmental Protection
Notice is he Pursuant to operation of State: County: District: Quadrangle	west Virginia Code § 22-6A-16(c), no on the surface owner's land for the purpose Vest Virginia  Doddridge Central  Pullman 7.5'	pose of drilling U	a horizonta TM NAD 8 ublic Road	al well on the tra Basting: Northing:	WV Departmental Protection  Environmental Protection  Environmental Protection  well operator has developed a planned
Notice is he Pursuant to operation of State: County: District:	west Virginia Code § 22-6A-16(c), no on the surface owner's land for the purpose Vest Virginia  Doddridge Central  Pullman 7.5'	pose of drilling U	a horizonta TM NAD 8 ublic Road	al well on the tra Easting: Northing: Access:	www Departmental Protection  Environmental Protection  Environmental Protection  well operator has developed a planned act of land as follows:  510406m  4343082m  Cabin Run Rd (CR 21/1)
Notice is he Pursuant to operation of State: County: District: Quadrangle Watershed: This Notice Pursuant to to be provi horizontal v surface affei information headquarter	West Virginia Code § 22-6A-16(c), no on the surface owner's land for the purpode Virginia  Doddridge Central  Pullman 7.5' North Fork Hughes River  Pe Shall Include: West Virginia Code § 22-6A-16(c), the ded by W. Va. Code § 22-6A-10(b) to well; and (3) A proposed surface use an exceed by oil and gas operations to the related to horizontal drilling may be	pose of drilling  Property of the property of	a horizonta TM NAD 8 ublic Road enerally us include: (1 wner whose on agreementages are continued in the Secre	Al well on the tra Easting: Northing: Access: ed farm name:  A copy of this e land will be unt containing arompensable und tary, at the WV	www Departmental Protection  Environmental Protection  Environmental Protection  well operator has developed a planned act of land as follows:  510406m  4343082m  Cabin Run Rd (CR 21/1)
Notice is he Pursuant to operation of State: County: District: Quadrangle Watershed: This Notice Pursuant to to be provided information headquarter gas/pages/d	West Virginia Code § 22-6A-16(c), no on the surface owner's land for the purpose Vest Virginia  Doddridge  Central  Pullman 7.5'  North Fork Hughes River  Pest Virginia Code § 22-6A-16(c), the ded by W. Va. Code § 22-6A-10(b) to well; and (3) A proposed surface use an extend by oil and gas operations to the related to horizontal drilling may be res, located at 601 57th Street, SE, refault.aspx.	pose of drilling  Property of the property of	a horizonta TM NAD 8 ublic Road enerally us include: (1 wner whose on agreeme nages are con the Secre V 25304	al well on the tra Easting: Northing: Access: ed farm name:  A copy of this e land will be unt containing arompensable unctary, at the WV (304-926-0450)	well operator has developed a planned act of land as follows:  510406m  4343082m  Cabin Run Rd (CR 21/1)  Stanley Webb et al  code section; (2) The information required ased in conjunction with the drilling of a coffer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-
Notice is he Pursuant to operation of State: County: District: Quadrangle Watershed: This Notice Pursuant to to be provided information headquarter gas/pages/d	West Virginia Code § 22-6A-16(c), no on the surface owner's land for the purpose Virginia  Doddridge Central  Pullman 7.5' North Fork Hughes River  Shall Include: West Virginia Code § 22-6A-16(c), the ded by W. Va. Code § 22-6A-10(b) to well; and (3) A proposed surface use an extend by oil and gas operations to the related to horizontal drilling may be seen to compare the com	pose of drilling  Property of the property of	a horizonta TM NAD 8 ublic Road enerally us include: (1 wner whose on agreementages are continued in the Secre	al well on the tra Easting: Northing: Access: ed farm name:  A copy of this e land will be unt containing arompensable unctary, at the WV (304-926-0450)	well operator has developed a planned act of land as follows:  510406m  4343082m  Cabin Run Rd (CR 21/1)  Stanley Webb et al  code section; (2) The information required ased in conjunction with the drilling of a coffer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-
Notice is he Pursuant to operation of State: County: District: Quadrangle Watershed: This Notice Pursuant to to be provided information headquarter gas/pages/d	West Virginia Code § 22-6A-16(c), no on the surface owner's land for the purpose Vest Virginia  Doddridge  Central  Pullman 7.5'  North Fork Hughes River  Pest Virginia Code § 22-6A-16(c), the ded by W. Va. Code § 22-6A-10(b) to well; and (3) A proposed surface use an extend by oil and gas operations to the related to horizontal drilling may be res, located at 601 57th Street, SE, refault.aspx.	pose of drilling  Property of the property of	a horizonta TM NAD 8 ublic Road enerally us include: (1 wner whose on agreeme nages are con the Secre V 25304	al well on the tra Easting: Northing: Access: ed farm name:  A copy of this e land will be unt containing arompensable unctary, at the WV (304-926-0450)  1615 Wynkoop Stre Denver, CO 80202	well operator has developed a planned act of land as follows:  510406m  4343082m  Cabin Run Rd (CR 21/1)  Stanley Webb et al  code section; (2) The information required ased in conjunction with the drilling of a coffer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-

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



#### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

## **Division of Highways**

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

Jim Justice Governor

Thomas J. Smith, P. E. Secretary of Transportation/ Commissioner of Highways

Reissued March 21, 2017

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

Subject: DOH Permit for the Stanley Webb Pad, Doddridge County

Burgess Unit 2H Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit 04-2012-1097 issued to Antero Resources Corporation for access to the State Road for a well site located off of Doddridge County Route 21/1 SLS.

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: Shelby Johnson

Antero Resources Corporation

CH, OM, D-4

File

Office of Oil and Gas

JUN 1 2 2017

JUN 1 Pepartment of Control Protection
Environmental Protection

## List of Anticipated Additives Used for Fracturing or Stimulating Well

Additives	Chemical Abstract Service Number		
Additives	(CAS #)		
resh Water	7732-18-5		
2 Phosphobutane 1,2,4 tricarboxylic acid	37971-36-1		
Ammonium Persulfate	7727-54-0		
Anionic copolymer	Proprietary		
Anionic polymer	Proprietary		
BTEX Free Hydrotreated Heavy Naphtha	64742-48-9		
Cellulase enzyme	Proprietary		
Demulsifier Base	Proprietary		
thoxylated alcohol blend	Mixture		
Ethoxylated Nonylphenol	68412-54-4		
Ethoxylated oleylamine	26635-93-8		
Ethylene Glycol	107-21-1		
Glycol Ethers	111-76-2		
Guar gum	9000-30-0		
lydrogen Chloride	7647-01-0		
lydrotreated light distillates, non-aromatic, BTEX free	64742-47-8		
sopropyl alcohol	67-63-0		
iquid, 2,2-dibromo-3-nitrilopropionamide	10222-01-2		
Aicroparticle Aicroparticle	Proprietary		
Petroleum Distillates (BTEX Below Detect)	64742-47-8		
olyacrylamide	57-55-6		
ropargyl Alcohol	107-19-7		
ropylene Glycol	57-55-6		
Quartz	14808-60-7		
illica, crystalline quartz	7631-86-9		
odium Chloride	7647-14-5		
odium Hydroxide	1310-73-2		
ugar	57-50-1		
urfactant	68439-51-0		
uspending agent (solid)	14808-60-7		
ar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7		
olvent Naphtha, petroleum, heavy aliph	64742-96-7		
oybean Oil, Me ester	67784-80-9		
Copolymer of Maleic and Acrylic Acid	52255-49-9		
DETA phosphonate	15827-60-8		
lexamthylene Triamine Penta	34690-00-1		
hosphino Carboxylic acid polymer	71050-62-9		
lexamethylene Diamine Tetra	23605-75-5		
-Propenoic acid, polymer with 2 propenamide	9003-06-9		
lexamethylene diamine penta (methylene phosphonic acid)			
Diethylene Glycol	23605-74-5 111-46-6 AECEN 100-97-0 Office of Oil		
Methenamine	100-97-0 Affice of Oil		
Polyethylene polyamine			
Coco amine	68603-67-8 61791-14-8 38172-91-7 WY Dep		
-Propyn-1-olcompound with methyloxirane	38172-91-7 WY Dep		

# WEST VIRGINIA PROJECT LOCATION

STANLEY WELL AND WATER CONTAINMENT PAD AS BUILT PLANS

WVDEP OOG **ACCEPTED AS-BUILT** VA / 6/30/2017

ANTERO RESOURCES CORPORATION

	SHEET INDEX	
PAGE	DESCRIPTION	
1	COVER PAGE & LOCATION MAP	
2	OVERALL SITE PLAN	
3.9	SITE PLAN	
10-12	PROFILES	

#### PROJECT CONTACTS

#### PROJECT OWNER

ANTERO RESOURCES 1615 WYNKOOP STREET DENVER. CO 80202

CONTACT: BOB WIRKS DESIGN MANAGER 304 842 4100 OFFICE 304.627.7405 CELL

CONTACT: ELI WAGONER **ENVIRONMENTAL** ENGINEER

CONTACT: AARON KUNZLER CONSTRUCTION MANAGER

#### 304.842.4068 OFFICE 304.476.9770 CELL LOCATION SURVEYOR

TRIPLE H ENTERPRISES CONTACT: DARELL BOICE, PS 945 CABIN RUN ROAD WEST UNION, W 26456 304.266.6493

#### ENVIRONMENTAL/ **DELINEATION BOUNDARY**

ALLSTAR ECOLOGY, LLC CONTACT: TERRY BURHANS 1582 MEADOWDALE ROAD FAIRMONT, WV 26554 304 816 3480 OFFICE 858 243 9900 CELL

#### ENGINEER OF RECORD

CONTACT: JON MCEVERS OPERATIONS SUPERINTENDENT

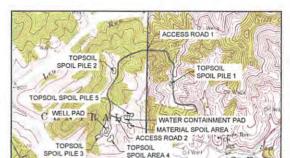
304 842 4730 OFFICE

304.641.8242

KLEINFELDER EAST, INC. CONTAGT, JOSH D. FREGOSI, PE WV PE #20281 230 EXECUTIVE DRIVE, SUITE 122 CRANBERRY TOWNSHIP, PA 15068 724.772.7079 OFFICE 724.772.7079 FAX

#### TOPO SURVEYOR

BLUE MOUNTAIN AERIAL MAPPING CONTACT: CRAIG FRY 11023 MASON DIXON HIGHWAY BURTON, WV 26562 304.662.2626 OFFICE 304.854.850 CELL



NORTH MERIDIAN REFERENCED TO NAD83 WEST VIRGINIA STATE PLANE NORTH ZONE OXFORD & PULLMAN 7.5 QUAD LITTLE MUSKINGUM

CE

	SITE LOCA	TIONS		
DESCRIPTION	NAD 83 (V	W NORTH)	UTM ZONE 17 (METERS	
DESCRIPTION	LATITUDE	LONGITUDE	NORTHING	EASTING
CENTER OF WELL PAD	39.23710135	-80.87947654	4343095.4306	510401.4184
CENTER OF WATER CONTAINMENT PAD	39.23797324	-80.87732122	4343192,4394	510587.2961
STANLEY ACCESS ROAD ENTRANCE	39.23869686	-80.86901707	4343273.7250	511303.8363
JAMES WEBB ACCESS ROAD ENTRANCE	39.23622000	-80.86847100	4342998 9441	511351.3615

FLOODPLAIN	CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIES	TAKE PLACE IN FLOODPLAIN:	NO
PERMIT NEEDED FROM COUNTY FLOO	ODPLAIN COORDINATOR:	NO
HEC-RAS STUDY COMPLETED		N/A
FLOODPLAIN SHOWN ON DRAWINGS:		N/A
FIRM MAP NUMBER(S) FOR SITE:	54017C0200C & 54017C	02250
ACREAGES OF CONSTRUCTION IN FLI	DODPLAIN:	N/A

ACCESS F LENGTH (F	
DESCRIPTION	FEET
ACCESS ROAD 1	6,347
ACCESS ROAD 2	368
TOTAL	6,715





INTERO RESOURCES WILL OBTAIN AN ENCROACHMENT PERMIT (MM-105) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES

WELL LOCATION RESTRICTIONS

DRILL PAD IS TO COMPLY WITH WELL LOCATION RESTRICTIONS OF WY CODE 22 AA-TE. THE PADS COMPLY WITH THE FOLLOWING RESTRICTIONS OF WY CODE 25 AA-TE. THE PADS COMPLY WITH THE FOLLOWING RESTRICTIONS OF USE 250 FROM AND EXEMPTION SHELD RESTRICTIONS OF USE 250 FROM AND OCCUPIED DIVELLING OR BARN OREATER THAN 2003 SF USED FOR POULTRY OR DARRY MEASURED FROM THE CENTER OF THE PAD 107 FROM DODGE OF DISTURBANCE TO WELT AND SHEEPING INTERNAL A PARTIE OF A RETRICAL LAKE, POND OR RESERVOR 5.500 FROM DODGE OF DISTURBANCE OF WITHOUT AND THE PAD 1000 OF RESERVOR THE PAD 1000 OF RE

#### PLAN REPRODUCTION WARNING

		WELL HEAD	LAYOUT		
MENT MANE		NAD 83	(WW NORTH Z	ONE)	-
WELL NAME	NORTHING	EASTING	LATITUDE	LONGITUDE	API
BURGESS LINET 2H	271427.3202	1577799.5664	39 23897809	-80 87942195	47-017-06732-00
BURGESS LINIT 1H	271415 1116	1577795.6676	39 23895264	-80 87943516°	47-017-05731-00
COOL UNIT 2H	271408 9029	1577791 7888	39 23892720	-80 87944843	47-017-06834-00
COOL UNIT 1H	271399.0943	1577787.8899	39 23690175	-80 87946169	47-017-06633-00
HATTIE UNIT 3H	271390 4855	1577783 9911	39.23687631	-80 87947495	47-017-06837-00
HATTIE UNIT 2H	271381 2770	1577780.0923	39 23685087	-80 87945822	47-017-06836-00
HATTIE UNIT TH	271372 0663	1577776 1935	39 23682542	-80 87950148	47-017-08835-00
		WELL HEAD	LAYOUT		
WELL NAME	NAD 27 (WV 1	NORTH ZONE)	UTM ZONE 17 (METERS)		API
WELL NAME	NORTHING	EASTING	NORTHING	EASTING	
BURGESS LINIT 2H	2713927644	1609240 6569	4343081 7582	510408 1527	47-017-05732-00
BURGESS LINIT 1H	271383 5558	1609236 7580	4343078 9330	510405 0118	47-017-06731-00
COOL UNIT 2H	271374.3472	1609232 8591	4343075.1078	510403.8708	47-017-06834-00
	271365 1386	1509228 9602	4343073.2825	510402.7299	47-017-06833-00
COOL UNIT 1H					
HATTIE UNIT 3H	271355.9301	1509225.0613	4343070.4573	510401 5888	47-017-05837-00
4-1-1	271355.9301 271346.7215	1509225.0613 1609221.1624	4343070 4573 4343067 6321	510401 5888	47-017-06837-00 47-017-06836-00

UM	TS OF DISTURBANC	
DESCRIPTION	AREA (ACRES)	AFFECTED TAX PARCELS
ACCESS ROAD 1	0.69	TAX MAP # 15 PAGE # 3
JAMES WEBS ACCESS ROAD	YEBS ACCESS ROAD 2.37	
ACCESS ROAD 1	1.17	EMIRLEY J. WILLIAMS TAX MAP # 12 PARCEL # 38 WE #1 / PG 168
ACCESS ROAD 1	18.34	IKE MORRIS
ACCESS ROAD 2	0.43	PARCEL #3
WATER CONTAINMENT PAD	1.54	DB 230 / PG 307
TOPSOL SPOIL PILE !	0.76	
TOPSOIL SPOIL PILE 2	1.18	1
TOPSOIL SPOIL PILE 5	0.93	1
DIVERSION DITCHES	0.16	
ACCESS ROAD 1	0.33	PORENT WILLIAMS TAX MAP # 12 PARCEL # 37 DB 2011 PG. 428
ACCESS ROAD 1	2.39	DHIRLEY J WILLIAMS TAX MAP # 12 PARCEL # 37 2 WB 41 / PG 188
ACCESS ROAD 1	0.68	RANDY REEGE & GARY WHEELER TAX MAP # 12 PARCEL # 26 WE 36 / PG: 219
ACCESS ROAD 1	0.22	RANDY REESE & GARY WHEELER TAX MAP # 12 PARCEL # 25 WB 36 / PG 210
ACCESS ROAD 1	1.06	WM P & SHARON DE BRITTON
ACCESS ROAD 2	0.04	TAX MAP # 15 PARCEL # 1 1 DB 145 / PG 23
ACCESS ROAD 1	0.48	STANLEY R. WESS ET AL
ACCESS ROAD 2	0.65	TAX MAP # 15 PARCEL # 2
WATER CONTAINMENT PAD	1.80	DB 192 / PG 342
MATERIAL SPOIL PILE 1	0.93	
WELL PAD	0.37	
TOPSOL SPOIL AREA 3	1.23	
TOPSOIL SPOIL AREA 4	1.40	
DIVERSION DITCHES	0.55	
TOTAL	43.30	
TOTAL WOODED ACRES	22.65	
TOTAL NON-WOODED ACRES DISTURBED	20.65	

LIMITS OF DISTURBAN	CE
DESCRIPTION	AREA (ACRES)
WELL PAD	9.00
WATER CONTAINMENT PAD	5.51
ACCESS ROAD 1	25.30
ACCESS ROAD 2	1.12
JAMES WE'N'S ACCESS ROAD	2.37
TOTAL	43.30

AREA (ACRES)	& W.C. P	NO T
9.00	0 =	E
5.51	> -	2 2
25.30	- 4	FE
1.12	20	000
2.37	7 7	ES CORF
43.30	STANLEY WEL	ANTERO RESOURCES CORPORATION STANLEY WELL & WATER CONTAINMENT PA

MAP



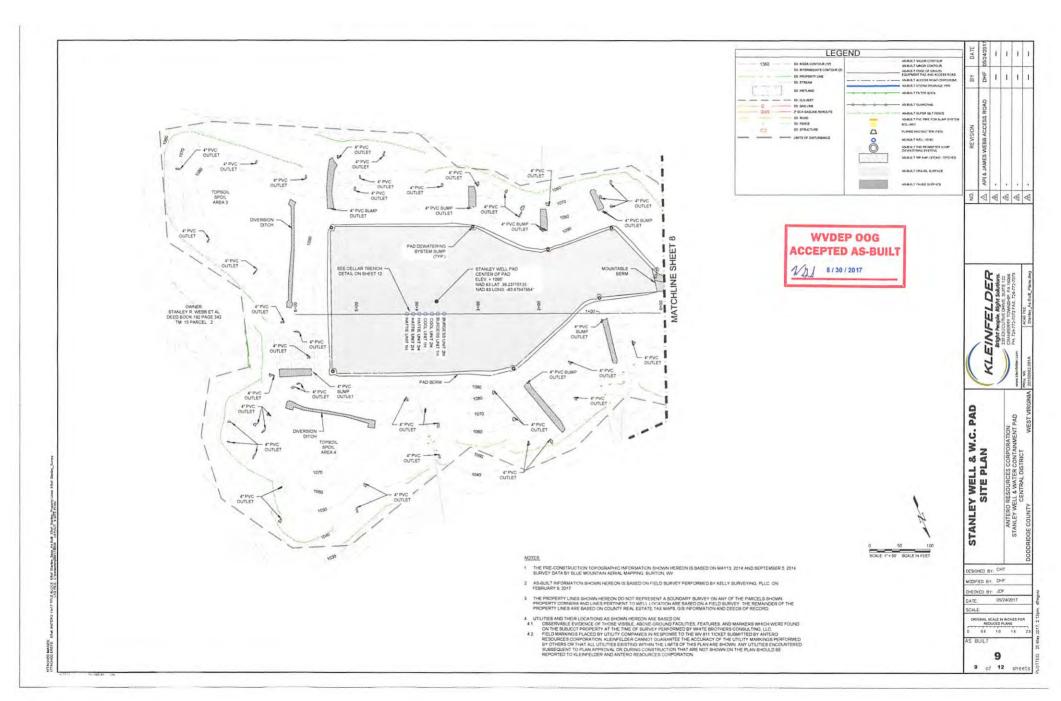
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Call before you day
MSS UTLITY OF WEST VIRGORS
WEST VIRGORS STATE LAW
RECURRES THAT YOU CALL TW
BUSINESS DAYS BEFORE YOU
DO N'THE STATE OF WEST
VIRGORA. IT'S THE LAW!

1 of 12 sheets S



ANTERO RESOURCES (



AS BUILT P

### PROJECT CONTACTS

#### PROJECT OWNER

ANTERO RESOURCES 1615 WYNKOOP STREET **DENVER, CO 80202** 

CONTACT: BOB WIRKS **DESIGN MANAGER** 304 842 4100 OFFICE 304.627.7405 CELL

CONTACT: ELI WAGONER ENVIRONMENTAL ENGINEER 304.842.4068 OFFICE 304.476.9770 CELL

CONTACT: JON MCEVERS **OPERATIONS** SUPERINTENDENT 304.842.4739 OFFICE 303.808.2423 CELL

CONTACT: AARON KUNZLER CONSTRUCTION MANAGER 304.641.8242

#### LOCATION SURVEYOR

TRIPLE H ENTERPRISES CONTACT: DARELL BOICE, PS 945 CABIN RUN ROAD WEST UNION, WV 26456 304.266.6493

#### ENVIRONMENTAL/ DELINEATION BOUNDARY

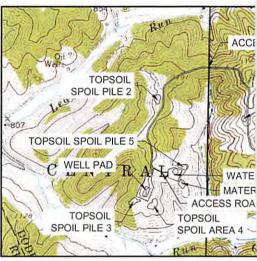
ALLSTAR ECOLOGY, LLC CONTACT: TERRY BURHANS 1582 MEADOWDALE ROAD FAIRMONT, WV 26554 304.816.3490 OFFICE 858.243.9900 CELL

#### ENGINEER OF RECORD

KLEINFELDER EAST, INC. CONTACT: JOSH D. FREGOSI, PE WV PE #20261 230 EXECUTIVE DRIVE, SUITE 122 CRANBERRY TOWNSHIP, PA 16066 724.772.7072 OFFICE 724.772.7079 FAX

#### TOPO SURVEYOR

BLUE MOUNTAIN AERIAL MAPPING CONTACT: CRAIG FRY 11023 MASON DIXON HIGHWAY BURTON, WV 26562 304.662.2626 OFFICE 304.815.4890 CELL

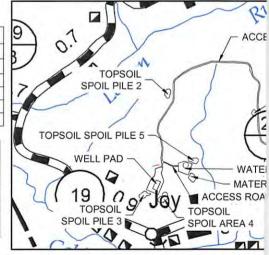


NORTH MERIDIAN REFERENCED TO NAD83 WEST VIRGINIA STATE PLANE NORTH ZONE

	SITE LOCA	TIONS		
NAD 83 (WV NORTH) UTM ZONE 17 (METERS	7 (METERS)			
DESCRIPTION	LATITUDE	LONGITUDE	NORTHING	EASTING
CENTER OF WELL PAD	39.23710135	-80.87947654	4343095.4306	510401.4184
CENTER OF WATER CONTAINMENT PAD	39.23797324	-80.87732122	4343192.4394	510587.2961
STANLEY ACCESS ROAD ENTRANCE	39.23869666	-80.86901707	4343273.7250	511303.8363
JAMES WEBB ACCESS ROAD ENTRANCE	39.23622000	-80.86847100	4342998.9441	511351.3615

FLOODPLAIN (	CONDITIONS	
DO SITE CONSTRUCTION ACTIVITIES T	AKE PLACE IN FLOODPLAIN:	NO
PERMIT NEEDED FROM COUNTY FLOC	DPLAIN COORDINATOR:	NO
HEC-RAS STUDY COMPLETED:	HEC-RAS STUDY COMPLETED:	
FLOODPLAIN SHOWN ON DRAWINGS:		N/A
FIRM MAP NUMBER(S) FOR SITE:	54017C0200C & 54017C	0225C
ACREAGES OF CONSTRUCTION IN FLO	OODPLAIN:	N/A

ACCESS ROAD LENGTH (FEET)				
DESCRIPTION	FEET			
ACCESS ROAD 1	6,347			
ACCESS ROAD 2	368			
TOTAL	6.715			





ow what's below. Call before you dig.

MISS UTILITY OF WEST VIRGINIA 1-800-245-4848 WEST VIRGINIA STATE LAW REQUIRES THAT YOU CALL TWO
BUSINESS DAYS BEFORE YOU
DIG IN THE STATE OF WEST
VIRGINIA. IT'S THE LAW!!

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

ANTERO RESOURCES WILL OBTAIN AN ENCROACHMENT PERMIT (MM-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

WELL LOCATION RESTRICTIONS
DRILL PAD IS TO COMPLY WITH WELL LOCATION RESTRICTIONS OF WY CODE 22-8A-12. THE PADS COMPLY WITH THE FOLLOWING RESTRICTIONS:

LEPAD IS TO COMPLY WITH WELL COCATION RESTRICTIONS OF WE CODE 22-84-12. THE PADS COMPLY WITH THE FOLLOWING RESTRICTIONS: 250 FROM AN EXISTING WELL OR DEVELOPED SPRING USED FOR HUMAN OR DOMESTIC ANIMALS 625 FROM AN 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 WEITLANDS, PERENNIAL STREAMS, NATURAL OR ARTIFICIAL LAKE, POND OR RESERVOIR 300° FROM EDGE OF DISTURBANCE TO NATURALLY REPRODUCING TROUT STREAMS 1000° OF SURFACE OR GROUND WATER INTAKE TO A PUBLIC WATER SUPPLY 08 500° FOR SURFACE OR GROUND WATER INTAKE TO A PUBLIC WATER SUPPLY

SCALE PLOTTING 08/04/2<del>017</del>

PLAN RE THE PLANS HAVE

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OF THE PLANS THE

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API & JAMES WEBB ACCESS ROAD

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BY

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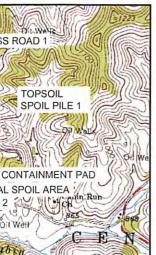
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DEFICE OF OIL & GAS JUN 16 2017

## ORPORATION

	SHEET INDEX	
PAGE NO.	DESCRIPTION	
1	COVER PAGE & LOCATION MAP	
2	OVERALL SITE PLAN	
3-9	SITE PLAN	
10-12	PROFILES	

		)	
	5		



OXFORD & PULLMAN 7.5 QUAD LITTLE MUSKINGUM MIDDLE ISLAND WATERSHED

SS F	ROAD 1			
	TOPS	OIL PILE 1		
1	)			
CO	NTAINN	MENT P	PAD	
2 ]		-JU.	20	3
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#### RODUCTION WARNING

EEN CREATED ON ANSI D (22"x34") SHEETS. FOR R TO GRAPHIC SCALE.

EEN CREATED FOR FULL COLOR PLOTTING. ANY SET T IS NOT PLOTTED IN FULL COLOR SHALL NOT BE

		WELL HEAD	LAYOUT		
NAD 83 (WV NORTH ZONE)					_
WELL NAME	NORTHING	EASTING	LATITUDE	LONGITUDE	API
BURGESS UNIT 2H	271427.3202	1577799,5864	39.23697809	-80.87942190	47-017-06732-00
BURGESS UNIT 1H	271418.1116	1577795.6876	39.23695264	-80.87943516	47-017-06731-00
COOL UNIT 2H	271408,9029	1577791.7888	39.23692720	-80.87944843	47-017-06834-00
COOL UNIT 1H	271399,6943	1577787.8899	39.23690175	-80.87946169	47-017-06833-00
HATTIE UNIT 3H	271390,4856	1577783,9911	39.23687631	-80,87947495	47-017-06837-00
HATTIE UNIT 2H	271381.2770	1577780.0923	39.23685087	-80.87948822	47-017-06836-00
HATTIE UNIT 1H	271372.0683	1577776.1935	39.23682542	-80.87950148	47-017-06835-00
		WELL HEAD	LAYOUT		
ME	NAD 27 (WV N	NORTH ZONE)	UTM ZONE	17 (METERS)	API
WELL NAME	NORTHING	EASTING	NORTHING	EASTING	
BURGESS UNIT 2H	271392.7644	1609240.6569	4343081.7582	510406.1527	47-017-06732-00
BURGESS UNIT 1H	271383,5558	1609236.7580	4343078,9330	510405,0118	47-017-06731-00
COOL UNIT 2H	271374.3472	1609232,8591	4343076.1078	510403.8708	47-017-06834-00
COOL UNIT 1H	271365,1386	1609228.9602	4343073,2825	510402.7299	47-017-06833-00
HATTIE UNIT 3H	271355,9301	1609225.0613	4343070,4573	510401.5889	47-017-06837-00
HATTIE UNIT 2H	271346.7215	1609221.1624	4343067.6321	510400.4480	47-017-06836-00
HATTIE UNIT 1H	271337.5129	1609217.2634	4343064,8069	510399.3070	47-017-06835-00

LIMI	TS OF DISTURBANC	E
DESCRIPTION	AREA (ACRES)	AFFECTED TAX PARCEL
ACCESS ROAD 1	0.69	JAMES E WEBB TAX MAP # 15
JAMES WEBB ACCESS ROAD	2.37	PAGE # 3 DB: 221 / PG: 17
ACCESS ROAD 1	1.17	SHIRLEY J, WILLIAMS TAX MAP # 12 PARCEL # 38 WB: 41 / PG: 168
ACCESS ROAD 1	16.34	IKE MORRIS
ACCESS ROAD 2	0.43	TAX MAP # 11 PARCEL # 8
WATER CONTAINMENT PAD	1.14	DB: 230 / PG: 307
TOPSOIL SPOIL PILE 1	0.76	
TOPSOIL SPOIL PILE 2	1,18	
TOPSOIL SPOIL PILE 5	0.93	
DIVERSION DITCHES	0.16	
ACCESS ROAD 1	0.33	ROBERT WILLIAMS TAX MAP # 12 PARCEL # 37 DB 201 / PG: 428
ACCESS ROAD 1	2.39	SHIRLEY J. WILLIAMS TAX MAP #12 PARCEL #37.2 WB: 41 / PG: 168
ACCESS ROAD 1	0.68	RANDY REESE & GARY WHEELER TAX MAP # 12 PARCEL # 26 WB: 38 / PG: 219
ACCESS ROAD 1	0.22	RANDY REESE & GARY WHEELER TAX MAP # 12 PARCEL # 25 WB: 38 / PG: 219
ACCESS ROAD 1	1.06	WM P & SHARON DE BRITTON
ACCESS ROAD 2	0.04	TAX MAP # 15 PARCEL # 1,1 DB: 149 / PG: 33
ACCESS ROAD 1	0.48	STANLEY R. WEBB ET A
ACCESS ROAD 2	0.65	TAX MAP # 15 PARCEL # 2
WATER CONTAINMENT PAD	1.80	DB 192 / PG 342
MATERIAL SPOIL PILE 1	0.93	
WELL PAD	6.37	
TOPSOIL SPOIL AREA 3	1.23	
TOPSOIL SPOIL AREA 4	1.40	
DIVERSION DITCHES	0.55	
TOTAL	43.30	
TOTAL WOODED ACRES DISTURBED	22,65	
TOTAL NON-WOODED ACRES DISTURBED	20.65	

LIMITS OF DISTURBAN	CE
DESCRIPTION	AREA (ACRES)
WELL PAD	9.00
WATER CONTAINMENT PAD	5.51
ACCESS ROAD 1	25.30
ACCESS ROAD 2	1.12
JAMES WEBB ACCESS ROAD	2.37
TOTAL	43.30

MITS OF DISTURBAN	CE	AD	Q	The second second
ESCRIPTION	AREA (ACRES)	- Z	NO TA	
WELL PAD	9.00	0 =	A H	
CONTAINMENT PAD	5.51	2.5	S S	
CESS ROAD 1	25,30	- 5	STA	
CESS ROAD 2	1.12	ಷ ೮	000 2	
EBB ACCESS ROAD	2.37	77	CES (	
TOTAL	43,30	STANLEY WE	ANTERO RESOURCES CORPORATION STANLEY WELL & WATER CONTAINMENT PAD CENTRAL DISTRICT	100 100 100



		-
DESIGNED BY:	СНТ	
MODIFIED BY:	DHF	
	inc.	

DATE: 05/24/2017

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0.5 1.0

AS BUILT

08/04/2015