

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

January 14, 2016

WELL WORK PERMIT Horizontal 6A Well

This permit, API Well Number: 47-9502324, issued to ANTERO RESOURCES CORPORATION, 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin

Operator's Well No: GOODFELLOW UNIT 1H

Farm Name: WEIGLE, EDWIN C.

API Well Number: 47-9502324

Permit Type: Horizontal 6A Well

Date Issued: 01/14/2016

API Number: 95-02324

PERMIT CONDITIONS

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

CONDITIONS

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

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WW-6B (04/15) API NO. 47-095 - 02324

OPERATOR WELL NO. Goodfellow Unit 1H

Well Pad Name: Weigle East Pad

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

1) Well Operator	Antero Re	sources Co	rporat	494488557	095 - Tyler	Ellsworth	Shirley 7.5'
				Operator ID	County	District	Quadrangle
2) Operator's We	ell Number: G	oodfellow U	nit 11	Well P	ad Name: Weig	le East Pa	d 🕖
3) Farm Name/Si	urface Owner:	Edwin C. V	Veigle	Public Ro	oad Access: CR	18/14	
4) Elevation, cur	rent ground:	817'	_ El	evation, propose	d post-constructi	on: 817'	
5) Well Type (a) Gas X Other	C	oil	Un	derground Stora	ge	
(b)If Gas Sh	allow X		Deep	ht		
6) Existing Pad:		orizontal X					DM4 12-2-15
7) Proposed Targ Marcellus Shal		-		ipated Thickness ss- 55 feet, Assoc			10011
8) Proposed Tota	l Vertical Dep	th: 6500' T	VD				
9) Formation at T	otal Vertical	Depth: Mar	cellus	Shale			
10) Proposed Tot	al Measured I	Depth: 14,2	200' N	1D			
11) Proposed Ho	rizontal Leg L	ength: 758	7'			PEGE!	VED GES
12) Approximate	Fresh Water S	Strata Depths	1:	9', 194', 366' Scardina Unit 11		Mag of O	1 8110
13) Method to De			hs: S	Scardina Unit 11	1 (API# 47-095	-02169)-on	Came pad.
14) Approximate	Saltwater Dep	oths: 1931',	1136			Die	artment of tection
15) Approximate	Coal Seam D	epths: 1380	', 146	i1'		MADE	pental Protection
16) Approximate	Depth to Poss	sible Void (co	oal mi	ne, karst, other):	None Anticipa	tegnironn	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
17) Does Propose directly overlying	ed well location	n contain coa	al sear ine?	ns Yes	No.	X	epartment of appartment of app
(a) If Yes, provi	de Mine Info:	Name:					
		Depth:			11		-
		Seam:					
		Owner:					

API NO. 47-095 - 02324

OPERATOR WELL NO. Goodfellow Unit 1H
Well Pad Name: Welgia East Pad

18)

CASING AND TUBING PROGRAM

ТҮРЕ	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	60'	60'	CTS, 164 Cu. Ft.
Fresh Water	13-3/B°	New	J-55/H-40	54.5#/48#	440'	440'*see #19	CTS, 611 Cu. Ft.
Coal	9-5/8°	New	J-55	36#	2400'	2400'	CTS, 977 Cu. Ft.
Intermediate							
Production	5-1/2"	New	P-110	20#	14,200'	14,200'	CTS, 3498 Cu. Ft
Tubing	2-3/8"	New	N-80	4.7#		7100'	
Liners							

DAH 12-2-15

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

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PACKERS

DEC 0 4 2015

Kind:	N/A	WV Der	partment of
Sizes:	N/A		ntal Protection
Depths Set:	N/A		

API NO. 47- 085

OPERATOR WELL NO. Goodfellow Unit 1H Well Pad Name: Welgle East 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 freshwater 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): 22.17 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 3.22 acres (*expanded LOD)

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 Office of Oil and Gas

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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.

WV Department pt Surface: blowhole clean with air, trip to conductor shoe, trip to bottom, blowhole clean with air, trip out, run casing, circulate pipe capacity 40 bbis 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 bbis fresh water, pump 48 bbis barite pill, pump 10 bbis fresh water followed by 48 bbis mud flush and 10 bbis water.

*Note: Attach additional sheets as needed

API Number 47 - 095 - 02324
Operator's Well No. Goodfellow Unit 1H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

FLOIDS/ COTTINGS DISPOSAL & RECI	LAMATION PLAIN	
Operator Name Antero Resources Corporation	OP Code 494488557	
Watershed (HUC 10) Outlet Middle Island Creek Quadrang	le Shirley 7.5'	
Do you anticipate using more than 5,000 bbls of water to complete the propose Will a pit be used? Yes No	ed well work? Yes V No	
	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		
Reuse (at API Number Future permitted well locations when		
Off Site Disposal (Supply form WW-9 for disposal Other (Explain_	location)(Meadowfill Landfill Permit #SWF-1032-98)	
Will closed loop system be used? If so, describe: Yes		
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshv	water, oil based, etc. Surface - Afr/Freshwater, Intermediate - Dust/Stiff Foam, Production - Water Based Mud	hH
-If oil based, what type? Synthetic, petroleum, etc. N/A		hlt 1-2-15
Additives to be used in drilling medium? Please See Attachment		
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.	tored 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 #St	The state of the s	
Permittee shall provide written notice to the Office of Oil and Gas of any load of West Virginia solid waste facility. The notice shall be provided within 24 hours where it was properly disposed.	of drill cuttings or associated waste rejected at any s of rejection and the permittee shall also disclose	
I certify that I understand and agree to the terms and conditions of the on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department provisions of the permit are enforceable by law. Violations of any term or collaw or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and application form and all attachments thereto and that, based on my inquire obtaining the information, I believe that the information is true, accurate, a penalties for submitting false information, including the possibility of fine or including the possibility of fine or including the possibility of the province of the certain penalties for submitting false information, including the possibility of fine or including the possibility of the certain penalties for submitting false information, including the possibility of fine or including the possibility of the certain penalties for submitting false information, including the possibility of the certain penalties for submitting false information, including the possibility of the certain penalties for submitting false information, including the possibility of the certain penalties for submitting false information, including the possibility of the certain penalties for submitting false information, including the possibility of the certain penalties for submitted penalties for submitting false information, including the possibility of the certain penalties for submitting false information, including the possibility of the certain penalties for submitting false information, and the certain penalties for submitting false information, and the certain penalties for submitting false information penalties false penalties false penalties false penalties false penalties false pena	ent of Environmental Protection. I understand that the condition of the general permit and/or other applicable am familiar with the information submitted in the ry of those individuals immediately expensive and complete. I am aware that there are significant	
Company Official Signature	DEC 0 2 2010	
Company Official (Typed Name) Cole Kilstrom	NOTARY MELIODEPARTMEN	
Company Official Title	MY COMMISSION EXPIRES JULY 18 2018	, via
Subscribed and sworn before me this 24th day of DCtobe	V .20 15	
hatalike	Notary Public	
My commission expires 2018	733327	

Form WW-9

Proposed Revegetation Tre	atment: Acres Disturbed 22.17 ac	Prevegetation pl	н
Lime 2-3	Tons/acre or to correct to pH	6.5	
Fertilizer type Hay	or straw or Wood Fiber (will be used v	where needed)	
Fertilizer amount	500 lb	os/acre	
Mulch 2-3	Tons/s	acre	
		3.38) + Topsoil Stockpile (1.67) + Additional Clear	ing (10.54)= 22.17 Acres
	Seed	d Mixtures	
т	Cemporary	Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
See attached Table 2, 3 & 4 for additional	seed type (Weigle East Pad Design Page D5)	See attached Table 2, 3 & 4 for additional seed	type (Weigle East Ped Design Page D5)
Attach: Drawing(s) of road, location	equested by surface owner n, pit and proposed area for land app	*or type of grass seed requipolar ty	
Attach: Drawing(s) of road, location provided) Photocopied section of invo	n, pit and proposed area for land appolyed 7.5' topographic sheet.		
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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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13. Escaid 110

Drilling Fluild Solvent - Aliphatic Hydrocarbon

14. Ligco

Highly Oxidized Leonardite - Filteration Control Agent

15. Super Sweep

Polypropylene – Hole Cleaning Agent

16. Sulfatrol K

Drilling Fluid Additive – Sulfonated Asphalt Residuum

17. Sodium Chloride, Anhydrous

Inorganic Salt

18. D-D

Drilling Detergent - Surfactant

19. Terra-Rate

Organic Surfactant Blend

20. W.O. Defoam

Alcohol-Based Defoamer

21. Perma-Lose HT

Fluid Loss Reducer For Water-Based Muds

22. Xan-Plex D

Polysaccharide Polymer – Drilling Fluid Viscosifier

23. Walnut Shells

Ground Cellulosic Material – Ground Walnut Shells – LCM

24. Mil-Graphite

Natural Graphite - LCM

25. Mil Bar

Barite - Weighting Agent

26. X-Cide 102

Biocide

27. Soda Ash

Sodium Carbonate - Alkalinity Control Agent

28. Clay Trol

Amine Acid complex – Shale Stabilizer

29. Sulfatrol

Sulfonated Asphalt – Shale Control Additive

30. Xanvis

Viscosifier For Water-Based Muds

31. Milstarch

Starch - Fluid Loss Reducer For Water Based Muds

32. Mil-Lube

Drilling Fluid Lubricant

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911 Address

A: 441 Lemasters Road Middlebourne, WV 26149 B: 312 Jug Run Road Alma, WV 26320

Well Site Safety Plan **Antero Resources**

Well Name: Hawkeye Unit 1H, Hawkeye Unit 2H, Hawkeye

Unit 3H, Scardina Unit 1H, Scardina Unit 2H,

Scardina Unit 3H, Scardina Unit 4H, Dean Unit 1H, Dean Unit 2H, Goodfellow Unit 1H, Goodfellow Unit 2H, Owens Unit 1H, Owens Unit 2H, Owens

Unit 3H

Pad Location: WEIGLE EAST PAD

Tyler County/Ellsworth District

GPS Coordinates: Lat 39°27'58.60"/Long -80°51'09.51" (NAD83)

Driving Directions:

Office of Oil and Gas

Main Access:

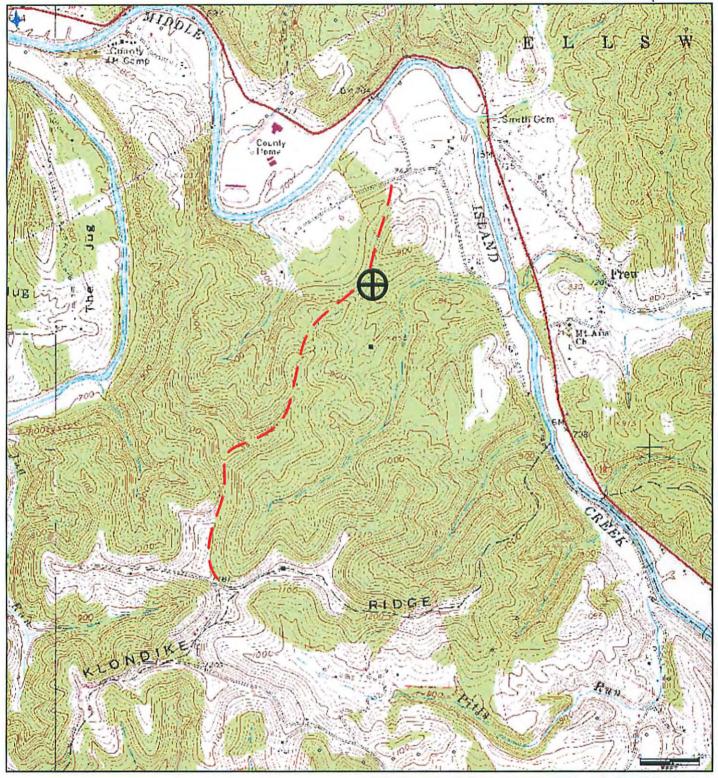
From US Route 50, turn onto WV Route 18 (towards West Union). Follow WV Route 18 North 0 4 2015 for 22.8 miles. Turn Left onto County Route 18/7 (Lemasters Bridge Road). Follow County Route 18/7 for .3 miles. Turn Right onto County Route 18/4. Follow County Route 18/4 for .1 miles epartment of Environmental Protection The site entrance will be on the left (South) side of the road.

Temporary Access:

From US Route 50, turn onto WV Route 18 North (towards West Union). Follow WV Route 18 North for 17.8 miles. Turn Left onto County Route 46 (Klondike Ridge). Follow County Route 46 for 2 miles. Turn Right onto County Route 46/1. Follow County Route 46/1 for .3 miles. The temporary site entrance will be on the Right (North) side of the road. (Near the existing Pierpoint Site Entrance).

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

95-02324



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Antero Resources Corporation

Appalachian Basin Goodfellow Unit 1H Tyler County

Quadrangle: Smithburg

Watershed: Gorrell Run Run - Middle Island Creek

District: Ellsworth Date: 02/21/2014

Operator's Well Number

Goodfellow Unit 1H

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

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

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

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
Kathy Ann Seago Lease			
Kathy Ann Seago, as a beneficiary of the Estate of	Antero Resources Appalachian Corporation	1/8+	0402/0448
Edwin C. Weigle, deceased Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
Antero Resources Appaiachian Corporation	Aftero Resources Corporation	Name Change	EXHIBIT
Richard L. Seago, et ux Lease			
Richard L. Seago	Antero Resources Appalachian Corporation	1/8+	0403/0733
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
Robert L. Dean Lease			
Robert Dean	Antero Resources Appalachian Corporation	1/8+	0410/0659
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
James E. Gregg, et ux Lease			
James E. Gregg, et ux	Antero Resources Appalachian Corporation	1/8+	0408/0460
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
WVDNR Lease (Middle Island Creek)			
West Virginia Division of Natural Resources	Antero Resources Corporation	1/8+	0483/0269
Tyler County Fair Association Lease Tyler County Fair Association, Inc.	Antero Resources Appalachian Corporation	1/8+	0424/0521
Antero Resources Appalachian Corporation	Antero Resources Corporation	Name Change	Exhibit 1
John Gregory Thompson Smith Lease John Gregory Thompson Smith	Antero Resources Corporation	1/8+	0455/0074
- ,		4.5	,
David and Nina Miller Lease	Antone Bergumes Company	1/8+	0470/0378
David Miller, et ux	Antero Resources Corporation	1/07	U4/U/U3/0
Eugene R. Smith Lease		- 4-	
Eugene R. Smith	Antero Resources Corporation	1/8+	0449/0828

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NOV 06 2015

CONTINUED ON NEXT PAGE

^{*}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.

WW-6A	1
(5/13)	

Operator's Well No.	Goodfellow Unit 1H	
- 1		

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:

	Kathy A. Keating	Antero Resources Corporation	1/8+	0438/0438
Kathy A. Keating Lease				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Lease Name or				

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

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

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

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

Well Operator:	Antero Resource	rces, Corporation				
By:	Kevin Kilstrom	lle		July	The same of the sa	
Its:	Vice President o	f Prod	uet	ion		

Page 1 of

^{*}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.

EXHIBIT 1



Natalio E. Tennant. Scoretary of State 1900 Kanawha Bivd E Bldg 1, Suite 157-K Charleston, WV 25305

FILE ONE ORIGINAL (Two if you want a filted stamped copy returned to you) FEE: \$25:00



AMENDED CERTIFICATE OF AUTHORITY

Penney Barker, Munager
IN THE OFFICE OF Corporations Division
SECRETARY OF STATE Patr. (304)558-8000
Penney Barker, Munager
Tel: (304)558-8000
Penney Barker, Munager
Tel: (304)558-8381

Website: www.wysos.com B-mail: business@wvsos.com

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

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

1.	name under which the corporation was authorized to transact business in WV:	Antero Resource	s Appalachian Corporation
2.	Date Certificate of Authority was issued in West Virginia:	6/25/2008	
3.	Corporate name has been changed to: (Attach one <u>Certified Conv of Name Change</u> as filed in home State of incorporation.)	Antero Resource	s Corporation .
4.	Name the corporation elects to use in WV: (due to home state name not being available)	Antero Resource	s Corporation
5.	Other amendments: (attach additional pages if necessary)		
6.	Name and phone number of contact person. (the filing, listing a contact person and phone nun document.)	nber may avoid has	ving to return or reject the
	Alvyn A. Schopp		9) 367-7310
	Contact Name		Phone Number
7.	Signature information (See below * <i>Immorfant !</i>	egal Notice Rega	rding Signatura):
	Print Name of Signer: Alyn A. Schopp	Title	Capacity: Authorized Person
	Signature: Az Hacketh	Da	ter June 10, 2013
Any 1 to the	periant Legal Notice Repartitus Standurg: For West Virgin person who signs a document his or she knows is false in any secretary of state for filing is guilty of a misdomeaner and, and dollars or confined in the county or regional jail not ma	material respect and k upon conviction those	nows that the document is to be delivered of whall be fined not more than one
Porm C	P-4 Issued by the Office	of the Secretary of Sinto -	Received Office of Oil R. Reflectors
ties Kik	nver Oaliae		NOV 06 2015

WY-011 - 04/6/2011 Wal



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

October 20, 2015

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

RE: Goodfellow Unit 1H

Quadrangle: Shirley 7.5'

Tyler County/Ellsworth District, West Virginia

Mr. Martin:

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

Sincerely,

Jared Hurst Senior Landman

> Office of Oil & Gas NOV 0 6 1915

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

Date of Notic	ee Certification: 11/02/2015	API No. 47	API No. 47- 095 - 02324		
			Well No. Good		
		Well Pad N	Name: Existing	Weigle East Pad	
		§ 22-6A, the Operator has provided the rec	quired parties v	vith the Notice Forms listed	
State:	West Virginia	Easting:	512,670m		
County:	Tyler	UTM NAD 83 Basting.	4,368,547m		
District:	Elisworth	Public Road Access:	CR 18/14		
Quadrangle:	Shirley 7.5'	Generally used farm name:	Edwin C. Weigle		
Watershed:	Outlet Middle Island Creek				
it has provide information re of giving the requirements Virginia Code	ed the owners of the surface descri- equired by subsections (b) and (c), se surface owner notice of entry to su of subsection (b), section sixteen of	hall contain the following information: (1) bed in subdivisions (1), (2) and (4), subsection sixteen of this article; (ii) that the reservey pursuant to subsection (a), section of this article were waived in writing by ender proof of and certify to the secretary at.	section (b), sec quirement was ten of this arti the surface ov	ction ten of this article, the deemed satisfied as a result cle six-a; or (iii) the notice vner; and Pursuant to West	
Pursuant to that the Open	West Virginia Code § 22-6A, the Operator has properly served the require	perator has attached proof to this Notice C d parties with the following:	Certification	OOG OFFICE USE	
*PLEASE CHE	CK ALL THAT APPLY			ONLY	
□ 1. NOT	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECAUSEISMIC ACTIVITY WAS CONDUC		☐ RECEIVED/ NOT REQUIRED	
■ 2. NOT	TICE OF ENTRY FOR PLAT SURV	YEY or D NO PLAT SURVEY WAS CO	ONDUCTED	□ RÉCEIVED	
☐ 3. NO	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED BECAUNOTICE OF ENTRY FOR PLAT SURVIVAS CONDUCTED or		☐ RECEIVED/ NOT REQUIRED	
		☐ WRITTEN WAIVER BY SURFACE (PLEASE ATTACH)			
■ 4. NOT	TICE OF PLANNED OPERATION	Received Office of Oil &	Gas	□ RECEIMED	
■ 5. PUB	BLIC NOTICE	NOV 0 6 2015	ō	□ received	
■ 6. NOT	TICE OF APPLICATION	1101 - 2		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.

Its:

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 By:

Kevin Kilstrom VP of Production

Telephone: 303-357-7310 Address: 1615 Wynkoop Street

Denver, CO 80202

Facsimile: 303-357-7315

Email: asteele@anteroresources.com

NOTARY SEAL

NATALIE KOMP NOTARY PUBLIC STATE OF COLORADO NOTARY ID # 20144028170 MY COMMISSION EXPIRES JULY 18, 2018 Subscribed and sworn before me this

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.

> Received Office of Oil & Gas NOV 06 2015

WW-6A (9-13) API NO. 47- 095 - 03324

OPERATOR WELL NO. Goodfellow Unit 1H

Well Pad Name: Existing Weigle East Pad

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

Noti	ce Time Requirem	ent: notice shall be provid	led no later tha	n the filing date of permit application.	
	of Notice: 11/3/2015 ce of:	_ Date Permit Applicati	ion Filed: 11/3/	2015	
Ø	PERMIT FOR AN	Y CERTIFIC	CATE OF APP	ROVAL FOR THE	
لنا	WELL WORK			AN IMPOUNDMENT OR PIT	
	WELL WORK	CONSTR	oction of A	IN INFOONDMENT OR FIT	
Deliv	very method pursu	ant to West Virginia Co	de § 22-6A-10	(b)	
	PERSONAL	☐ REGISTERED	✓ METHO	OD OF DELIVERY THAT REQUIRES A	
	SERVICE	MAIL	RECEI	PT OR SIGNATURE CONFIRMATION	
the su oil and descr opera more well v impo have provi propo subser recor- provi Code	arface of the tract on ad gas leasehold being ibed in the erosion a stor or lessee, in the coal seams; (4) The work, if the surface fundment or pit as dea water well, spring de water for consumpted well work activection (b) of this section (b) of this article to R. § 35-8-5.7.a requirement or surface.	which the well is or is propaged eveloped by the propose and sediment control plan survent the tract of land on who where of record of the survent is to be used for the plant scribed in section nine of the or water supply source local ption by humans or domest ity is to take place. (c)(1) If ion hold interests in the landing to be maintained pursue the contrary, notice to a lieuries, in part, that the operations are supply source contrary, notice to a lieuries, in part, that the operations are supply to the contrary subject to notice and the section of the contrary subject to notice and the section of the contrary subject to notice and the section of the contrary subject to notice and the section of the survey of the section of the	posed to be located well work, if abmitted pursua hich the well preface tract or tracement, construits article; (5) A ted within one to animals; and more than threeds, the applicant to section each holder is not the total also prefer the tracement.	ne well plat to each of the following persons: (1) The sted; (2) The owners of record of the surface tract or to the surface tract is to be used for roads or other land on to subsection (c), section seven of this article; (3) Toposed to be drilled is located [sic] is known to be uncts overlying the oil and gas leasehold being developed action, enlargement, alteration, repair, removal or abased my surface owner or water purveyor who is known to thousand five hundred feet of the center of the well perform the operator of any natural gas storage field with the tenants in common or other co-owners of interests dat may serve the documents required upon the person of eight, article one, chapter eleven-a of this code. (2) No notice to a landowner, unless the lien holder is the largovide the Well Site Safety Plan ("WSSP") to the surface provided in section 15 of this rule.	racts overlying the disturbance as The coal owner, derlain by one or ed by the proposed indonment of any the applicant to ed which is used to in which the escribed in described in the stwithstanding any endowner. W. Va. ace owner and any
⊘ A;	pplication Notice	☑ WSSP Notice ☑E&S	S Plan Notice	☑ Well Plat Notice is hereby provided to: Of	Received fice of Circles
	RFACE OWNER() e: PLEASE SEE ATTACK	- /		COAL OWNER OR LESSEE Name: NO DECLARATIONS ON RECORD WITH COUNTY	MOV A A
Addr		HAICIAI		Address:	NOV 0 6 2015
					<u>.</u>
Nam				COAL OPERATOR	
Addr	ess:			Name: NO DECLARATIONS ON RECORD WITH COUNTY	
71 911	DEACE OWNER	s) (Road and/or Other Dist	Historica)	Address:	-
	e: PLEASE SEE ATTACI		iur bance)	WATER PURVEYOR(s)/OWNER(s) OF WATER WELL,	-
				SPRING OR OTHER WATER SUPPLY SOURCE	
, iuui				Name: Loretta Fulks (1 pond)	* 3 water wells are identified but are
Nam	e:		,	Address: 633 Lemasters Road	located greater than
Addr	ess:			Middlebourne, WV 26149	1500'
		nun		OPERATOR OF ANY NATURAL GAS STOR	
¬SU	RFACE OWNER	s) (Impoundments or Pits)	•	Name:	
				Address:	· _
Addr	ess:				_
	<u></u>		•	*Please attach additional forms if necessary	

WW-6A Notice of Application Attachment (WEIGLE EAST PAD): 95-03324

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

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

Located on TM 27/PCL 21 & 22 – Heirs of Edwin C. Weigle

Owner:

Kathy Ann Seago & Richard L. Seago *

Address:

1018 Frew Circle

Middlebourne, WV 26149

Owner:

Steven C. Weigle, II

Address:

6473 Middle Island Road Middlebourne, WV 26149

Owner:

Brian M. Weigle

Address:

4789 Middle Island Road

Middlebourne, WV 26149

Owner: Address: Michelle S. Forester 970 McElroy Creek Rd.

Alma, WV 26320

Located on TM 27/PCL 8

Owner:

Loretta J. Fulks

Address:

633 Lemasters Road

Middlebourne, WV 26149

ROAD AND/OR OTHER DISTURBANCE -Owners have executed signed Surface Use and/or Road Agreements with Antero Resources Corporation. However, they were only notified if their tracts were overlying the oil and gas leasehold being developed by the proposed well work.

Received

Office of Oil & Gas

NOV 06 2015

Located on TM 27/PCL 10 &22 – Heirs of Edwin C. Weigle

Owner:

Kathy Ann Seago & Richard L. Seago

Address:

1018 Frew Circle

Middlebourne, WV 26149

Owner:

Steven C. Weigle, II

Address:

6473 Middle Island Road

Middlebourne, WV 26149

Owner:

Brian M. Weigle

Address:

4789 Middle Island Road Middlebourne, WV 26149

01/15/2016

Owner:

Michelle S. Forester

Address:

970 McElroy Creek Rd.

Alma, WV 26320

Located on TM 27/PCL 9

Owner:

Loretta J. Fulks

Address:

633 Lemasters Road

Middlebourne, WV 26149

Office of Oil & Gas NOV 0 6 2015

API NO. 47-095 - 03324

OPERATOR WELL NO. Goodfellow Unit 1H

Well Pad Name: Existing Weigle East 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.

Office of Oil & Gas

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting the world by the control of the Secretary of the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting the world by the control of the Secretary of the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting the world by the control of the Secretary of the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting the world by the control of the Secretary of the

Well Location Restrictions

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

API NO. 47-095 OPERATOR WELL NO. Goodfellow Unit 1H

Well Pad Name: Existing Weigle East 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

Received
Office of Oil R Gas NOV 06 2015

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

API NO. 47-095 - OO324

OPERATOR WELL NO. Goodfellow Unit 1H

Well Pad Name: Existing Weigle East 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 http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

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

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

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

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

Received
Office of Oil 8. Co
NOV 0 6 2015

WW-6A (8-13)

API NO. 47-095 - 03324
OPERATOR WELL NO. Goodfellow Unit 1H
Well Pad Name: Existing Weigle East Pad

Notice is hereby given by:

Well Operator: Antero Resources Corporation

Telephone: (303) 357-7310

Email: asteele@anteroresources.com

Address: 1615 Wynkoop Street

Denver, CO 80202

Facsimile: 303-357-7315

Oil and Gas Privacy Notice:

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

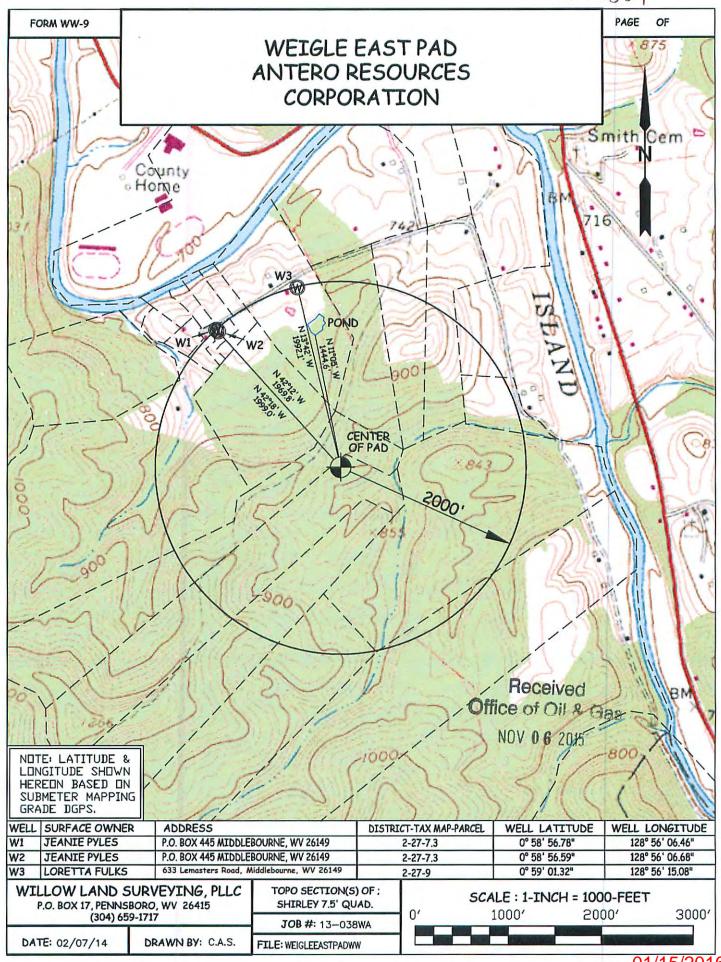
NATALIE KOMP NOTARY PUBLIC STATE OF COLORADO NOTARY ID # 20144028170 MY COMMISSION EXPIRES JULY 18, 2018 Subscribed and sworn before me this

day of

Notary Public

My Commission Expires

Received
Office of Oil & Gas
NOV 0 6 2015



WW-6A3 (1/12)

Operator Well No. Goodfellow Unit 1H

Multiple Wells on the Weigle East Pad

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

	Requirement:	Notice shall be provi	ed at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to	
entry Date of Notice	ce: 10/20/2013	Date of Plan	ed Entry: 10/27/2013	
Delivery met	thod pursuant	to West Virginia Co	e § 22-6A-10a	
☐ PERSO	nal 🗆	REGISTERED	■ METHOD OF DELIVERY THAT REQUIRES A	
SERVIC	Œ	MAIL	RECEIPT OR SIGNATURE CONFIRMATION	
on to the surf but no more t beneath such owner of min and Sediment Secretary, wh	ace tract to con han forty-five of tract that has fi erals underlying to Control Manuach statement s	duct any plat surveys lays prior to such enti led a declaration purs g such tract in the cou al and the statutes and	or to filing a permit application, the operator shall provide notice of planned entry equired pursuant to this article. Such notice shall be provided at least seven days to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams ant to section thirty-six, article six, chapter twenty-two of this code; and (3) any ty tax records. The notice shall include a statement that copies of the state Erosio cules related to oil and gas exploration and production may be obtained from the formation, including the address for a web page on the Secretary's web site, to secretary.	n
Notice is her	eby provided t	o:		
SURFACE	CE OWNER(s)		☐ COAL OWNER OR LESSEE	
Name: PLEASE	E SEE ATTACHMEN	г	Name: NO DECLARATIONS ON RECORD WITH COUNTY	
Address:			Address:	
Name:			Received	
Address:			I MINERAL OWNER(s)	.
			Name: PLEASE SEE ATTACHMENT Office of Oil & C	est
Name:			Address:	
Address:			*please attach additional forms if necessary	
	Vest Virginia C	ode § 22-6A-10(a), n and as follows:	ce is hereby given that the undersigned well operator is planning entry to conduct Approx. Latitude & Longitude: 39.466278, -80.852642	
County:	Tyler			
District:	Elisworth		Watershed: Gorrell Run - Middle Island Creek	
Quadrangle:	Shirley 7.5'		Generally used farm name: Enten Weigle, Kothy Arn Seego, Michelle S. Forester, Richard L. Seego, and Star	in C.Y
may be obtain		cretary, at the WV D	Ianual and the statutes and rules related to oil and gas exploration and production sartment of Environmental Protection headquarters, located at 601 57 th Street, SE, such documents or additional information related to horizontal drilling may be	
obtained fron	VV 25304 (304		v.gov/oil-and-gas/pages/default.aspx.	
	VV 25304 (304	by visiting <u>www.dep</u>	v.gov/oil-and-gas/pages/default.aspx.	
	VV 25304 (304 the Secretary reby given by	by visiting <u>www.dep.</u> y:	v.gov/oil-and-gas/pages/default.aspx. Address: 1615 Wynkoop Street	
Notice is he	VV 25304 (304 the Secretary reby given by	by visiting <u>www.dep</u> y: ses Corporation		

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.

WW-6A3 Notice of Entry For Plat Survey Attachment:

Surface Owners – Heirs of Edwin C. Weigle

Owner: Address: Richard L. Seago 1018 Frew Circle

Middlebourne, WV 26149

Owner: Address: Brian M. Weigle HC 69 Box 40B

Middlebourne, WV 26149

Owner: Address: Steven C. Weigle II HC 69 Box 63

Middlebourne, WV 26149

Owner: Address: Kathy Ann Seago 1018 Frew Circle

Middlebourne, WV 26149

Owner: Address:

Michelle S. Forester 970 McElroy Road

Alma, WV 26320

Owner: Address: Kathy Ann Seago HC 69 Box 53AA

Middlebourne, WV 26149

Mineral Owners:

Owner: Address: Richard L. Seago HC 69 Box 53AA

Middlebourne, WV 26149

Owner: Address: Richard L. Seago 1018 Frew Circle

Middlebourne, WV 26149

Owner: Address: Brian M. Weigle HC 69 Box 40B

Middlebourne, WV 26149

Owner: Address: Steven C. Weigle II

HC 69 Box 63

Middlebourne, WV 26149

Owner: Address: Steven C. Weigle II HC 69 Box 53AA

Middlebourne, WV 26149

Owner: Address: Loretta J. Fulks 633 Lemasters Road

Middlebourne, WV 26149

Owner: Address: Loretta J. Fulks HC 69 Box 37

Middlebourne, WV 26149

Owner: Address: Michelle S. Forester 970 McElroy Road Alma, WV 26320

Owner: Address: Kathy Ann Seago 1018 Frew Circle

Middlebourne, WV 26149

Owner: Address:

Kathy Ann Seago HC 69 Box 53AA Middlebourne, WV 26149

Owner:

James H. Dean

Address: 1671 Bay View Drive

Sarasota, FL 34241

Owner: Address: Stephanie McGowan 4675 Redbay Way

Owner:

Robert C. Dean

Address:

6701 South Gator Boulevard

Sarasota, FL 34241

Sarasota, FL 34241

Received Office of Oil & Gas

NOV 06 2015

WW-6A5 (1/12)

95-0 230 4 Operator Well No. Goodfellow Unit 1H

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

Notice Time I Date of Notic	Requirement: notice shall be provi e: 11/03/2015 Date Peri	ded no later than the filin mit Application Filed: 1		application. ——
Delivery metl	nod pursuant to West Virginia Co	ode § 22-6A-16(c)		
	TIED MAIL N RECEIPT REQUESTED	☐ HAND DELIVERY		
return receipt the planned o required to be drilling of a h damages to the	requested or hand delivery, give the peration. The notice required by provided by subsection (b), section orizontal well; and (3) A proposed e surface affected by oil and gas op	e surface owner whose la this subsection shall incl ten of this article to a su d surface use and compe erations to the extent the	nd will be used for lude: (1) A copy rface owner whos nsation agreemen damages 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 we 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
(at the address Name: PLEASE	by provided to the SURFACE O' listed in the records of the sheriff a SEE ATTACHMENT	at the time of notice): Name	::	
		pose of drilling a horizon UTM NAD Public Roa	tal well on the tra Easting: Northing:	512,670m 4,368,547m CR 18/14
to be provide horizontal wel surface affecto information re headquarters, gas/pages/defa	est Virginia Code § 22-6A-16(c), the desired by W. Va. Code § 22-6A-10(b) and (3) A proposed surface use and by oil and gas operations to the elated to horizontal drilling may be located at 601 57th Street, SE, ault.aspx.	to a surface owner who and compensation agreen e extent the damages are e obtained from the Sect Charleston, WV 25304	se land will be unent containing an compensable und retary, at the WV (304-926-0450)	code section; (2) The information required used 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-page1ved
Well Operator Telephone:	Antero Resources Corporation (303) 357-7310	Address:	1615 Wynkoop Stre Denver, CO 80202	Office of OII & Gree NOV 0 6 2015
Email:	asteels@anteroresources.com	Facsimile	303-357-7315	1404 00 2012

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.

95-02324

WW-6A5 Notice of Planned Operations Attachment (WEIGLE EAST PAD):

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

Located on TM 27/PCL 21 & 22 - Heirs of Edwin C. Weigle

Owner: Kathy Ann Seago & Richard L. Seago

Address: 1018 Frew Circle

Middlebourne, WV 26149

Owner: Steven C. Weigle, II

Address: 6473 Middle Island Road

Middlebourne, WV 26149

Owner: Brian M. Weigle

Address: 4789 Middle Island Road

Middlebourne, WV 26149

Owner: Michelle S. Forester

Address: 970 McElroy Creek Rd.

Alma, WV 26320

Located on TM 27/PCL 8

Owner: Loretta J. Fulks

Address: 633 Lemasters Road

Middlebourne, WV 26149

Received
Office of Oil & Gas
NOV 0 6 2015



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

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

Earl Ray Tomblin

Governor

February 5, 2014

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

Subject: DOH Permit for the Weigle East Pad, Tyler County

Goodfellow Unit 1H Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2014-0052 which has been applied for by Antero Resources Corporation for access to the State Road for a well site located off of Tyler County Route 18/14 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.

Day K. Clayton

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Ashlie Mihalcin

Antero Resources Corporation

CH, OM, D-6

File

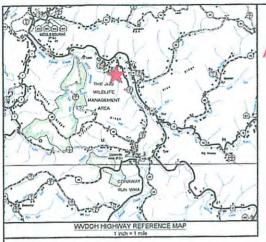
Received
Office of Oil & Gas

NOV 06 2015

List of Anticipated Additives Used for Fracturing or Stimulating Well

Additives	Chemical Abstract Service Number (CAS #)
Fresh Water	7732-18-5
2 Phosphobutane 1,2,4 tricarboxylic acid	37971-36-1
Ammonium Persulfate	7727-54-0
Anionic copolymer	proprietary
Anionic polymer	proprietary
BTEX Free Hydrotreated Heavy Naphtha	64742-48-9
Cellulase enzyme	(Proprietary)
Demulsifier Base	(Proprietary)
Ethoxylated alcohol blend	Mixture
Ethoxylated Nonylphenol	68412-54-4
Ethoxylated oleylamine	26635-93-8
Ethylene Glycol	107-21-1
Glycol Ethers	111-76-2
guar gum	9000-30-0
Hydrogen Chloride	7647-01-0
Hydrotreated light distillates, non-aromatic, BTEX free	64742-47-8
Isopropyl alcohol	67-63-0
liquid, 2,2-dibromo-3-nitrilopropionamide	10222-01-2
Microparticle	proprietary
Petroleum Distillates (BTEX Below Detect)	64742-47-8
Polyacrylamide	57-55-6
Propargyl Alcohol	107-19-7
Propylene Glycol	57-55-6
Quartz	14808-60-7
Sillica, crystalline quartz	7631-86-9
Sodium Chloride	7647-14-5
Sodium Hydroxide	1310-73-2
Sugar	57-50-1
Surfactant	68439-51-0
Suspending agent (solid)	14808-60-7
Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7

Received
Office of Oil & Gas
NOV 0 6 2015



FINAL DESIGN: ISSUE FOR PERMITTING

ANTERO RESOURCES WEIGLE EAST SITE PAD MODIFICATION

ELLSWORTH DISTRICT, TYLER COUNTY, WEST VIRGINIA

APPROVED
WVDEP OOG
Modification
11/30/2015



REVISIONS

ntero

urveying

WY COUNTY REFERENCE MAP

GENERAL DESCRIPTION

WEIGLE EAST PAD MODIFICATION

PROJECT CONTACTS

OPERATOR:

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ANTERO RESOURCES CORPORATION 535 WHITE CAYS BLVD. BRIDGEPORT, WY 20330 PHONE: (304) 842–4100 FAX: (204) 842–4100 FAX: (204) 842–4100

PROJECT COORDINATOR :

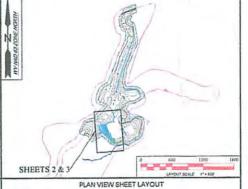
ROBERT WRKS
DEBION MANAGER
PHONE: (304) 842-4100
CELL: (304) 827-7405
FAX: (304) 842-4102
EMAIL: myrks@srbsroresources.com

CONSTRUCTION COORDINATOR :

ELI WAONER ENVIRONMENTAL ENGINEER PHONE: (304) 842-4088 CELL (304) 476-9770 FAX: (304) 842-4102 EMAIL: evennet@anteroresources.com

JOHN KAWCAK
OPERATIONS SUPERINTENDENT
CELL(817) 388-1553
FAX: (304) 842-4102
EMAIL: [zawcak@arteroresource.com





WELL LOCATION RESTRICTIONS

ALL PAD AND FRACTURE PIT CONSTRUCTION COMPLIES 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 2,500 SF USED FOR POULTRY OR DARY MEASURED FROM THE CHIEFO FOR THE PAID.

**TOW FROM THE EDGS OF DISTURBANCE TO EVERLANDS, PERDINBAL STREAMS, NATURAL OR ARTIFICIAL LAKE, POIND OR RESERVOR.

POND ON RESERVOR.

100 FROM THE EDGE OF DISTURBANCE TO A NATURALLY REPRODUCING TROUT STREAM.
1,00 OF A SURFACE OR GROUND WATER INTAKE TO A PUBLIC WATER SUPPLY.

WELL LOCATION BERTRICTIONS OF WY COOF 22444-171

	Well Spacing 10 Typical and 25 horses	miles.	LIVETTE FOOM LIGHT HE	STALL I CHIECE THE COOL	
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NO.	INDEX TO SHEETS
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NI	GENERAL NOTES
N2	EROSION & SEDIMENT CONTROL NOTES
N3	GENERAL CONSTRUCTION NOTES
Df	EROSION & SEDIMENT CONTROL DETAILS
D2	EROSION & SEDIMENT CONTROL DETAILS
D3	TYPICAL DETAILS
D4	TYPICAL DETAILS
D5	REVEGETATION CHARTS
1	EXISTING SITE PLAN OVERVIEW
2	EXISTING SITE PLAN VIEW
3	PAD MODIFICATION DESIGN PLAN VIEW
4	SECTIONS SHEET
8	SCHEDULE OF QUANTITIES AND VOLUMES
6	WELL OFFSET DIMENSIONS
7	SITE RECLAMATION

ENGINEER / SURVEYOR

KELLY SURVEYING PLLC. P.O.BOX 254 DALLEY, WV 26258 PHONE: (304) 338-5965 FAX: (304) 304-338-5081

PROJECTMANAGER

JOHN P. SEE PE 6051 KENNETH KELLY PSSU 973 KIRK WAGNER EIT



GEOTECHNICAL

GEOTECHNICAL INVESTIGATION AS PROVIDED BY KLEINFELDER DATED OCTOBER 4, 2013

NVIRONMENTAL:

WETLAND DELINEATIONS AS PROVIDED BY ALLSTAR ECOLOGY DATED MAY 24, 2013

TOPOGRAPHIC INFORMATION;

THE TOPOGRAPHIC INFORMATION SHOWN HEREIN IS BASED ON AFRIAL PHOTOGRAPHY BY BLUE MOUNTAIN AERIAL MAPPING, BURTON, WV

Floodplain Condition	18		
Do site construction activities take place in	n e floodplain:	NO	
Permit needed from county floodplain coordinator:			
Flood Hezard Zone			
HEC-RAS Study completed:			
Floodplain shown on drawings:			
FIRM Map Number(s) for site:	540950	001750	
Acreeges of construction in floodplain: NVA			



Energy Continues the pair pair from a fingure of the de local for the properties to rething that Tripmes Collect Both Energy Continues of Energy Continues of Energy Collect State Collect C

MISS UTILITY OF WEST VIRGINIA 1-800-245-4646



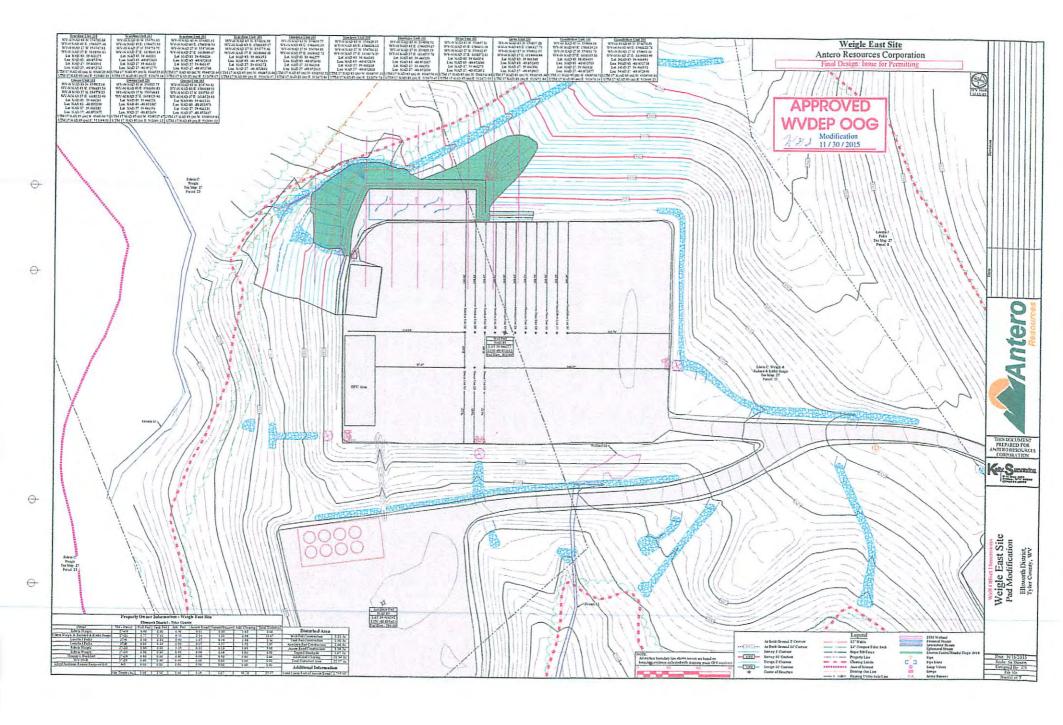
Dute: 10/16/2015 Seale: AS NOTED

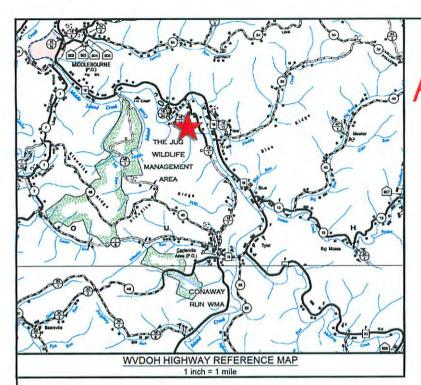
WEIGLE EAST SITE PAD MODIFICATION ELLSWORTH DISTRICT TYLER COUNT, WEST VIRGINIA

Disigned By, KW

Fig No. Comma

you dig. Figs COVER





FINAL DESIGN: ISSU ANTERO RE WEIGLE E PAD MODII

ELLSWORTH DISTRICT, TYLEI SHIRLEY 7.5 MINU

GENERAL DESCRIPTION

WEIGLE EAST PAD MODIFICATION

PROJECT CONTACTS

OPERATOR:

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ANTERO RESOURCES CORPORATION 535 WHITE OAKS BLVD. BRIDGEPORT, WV 26330 PHONE: (304) 842-4100 FAX: (304) 842-4102 www.anteroresources.com

PROJECT COORDINATOR:

ROBERT WIRKS DESIGN MANAGER PHONE: (304) 842-4100 CELL: (304) 627-7405 FAX: (304) 842-4102

EMAIL: rwirks@anteroresources.com

CONSTRUCTION COORDINATOR:

FLI WAGNER ENVIRONMENTAL ENGINEER PHONE: (304) 842-4068 CELL:(304) 476-9770 FAX: (304) 842-4102

EMAIL: ewagner@anteroresources.com

JOHN KAWCAK **OPERATIONS SUPERINTENDENT** CELL:(817) 368-1553 FAX: (304) 842-4102 EMAIL: jkawcak@anteroresources.com



WY NAD 83 ZONE NORTH 6000 LONDIKE LAYOUT SCALE 1" = 2000" SHIRLEY 7.5 MINUTE QUADRANGLE REFERENCE

WELL LOCATION RESTRICTIONS

ALL PAD AND FRACTURE PIT CONSTRUCTION COMPLIES 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 2,500 SF USED FOR POULTRY OR DAIRY MEASURED FROM THE CENTER OF THE PAD.

100' FROM THE EDGE OF DISTURBANCE TO WETLANDS, PERENNIAL STREAMS, NATURAL OR ARTIFICIAL L POND OR RESERVOIR.

*300' FROM THE EDGE OF DISTURBANCE TO A NATURALLY REPRODUCING TROUT STREAM.

*1,000' OF A SURFACE OR GROUND WATER INTAKE TO A PUBLIC WATER SUPPLY.

WELL LOCATION RESTRICTIONS OF WY CODE 22-64-121

Well Spacing: 10' Typical and 35' between rows.			(WELL LOCATION RES	STRICTIONS OF WV CODE			
Scardina Unit 1H	Scardina Unit 2H	Scardina Unit 3H	Scardina Unit 4H	Hawkeye Unit 3H	Hawkeye Unit 2H	Hawkeye Unit 1H	
WV-N NAD 83 N: 354782.26	WV-N NAD 83 N: 354791.63	WV-N NAD 83 N: 354801.01	WV-N NAD 83 N: 354810.39	WV-N NAD 83 N; 354819.77	WV-N NAD 83 N. 354829.15	WV-N NAD 83 N; 354838.52	
WV-N NAD 83 E: 1586455.48	WV-N NAD 83 E: 1586652.01	WV-N NAD 83 E: 1586648.54	WV-N NAD 83 E: 1586645.07	WV-N NAD 83 E: 1586641.60	WV-N NAD 83 E: 1586638.12	WV-N NAD 83 E: 1586634.65	
WV-N NAD 27 N: 354747.32	WV-N NAD 27 N: 354756.70	WV-N NAD 27 N: 354766.08	WV-N NAD 27 N: 354775.46	WV-N NAD 27 N: 354784.83	WV-N NAD 27 N: 354794.21	WV-N NAD 27 N: 354803.59	
WV-N NAD 27 E: 1618096.61	WV-N NAD 27 E. 1618093.14	WV-N NAD 27 E: 1618089 67	WV-N NAD 27 E: 1618086.20	WV-N NAD 27 E; 1618082.72	WV-N NAD 27 E: 1618079.25	WV-N NAD 27 E 1618075.78	
Lat. NAD 83: 39.466175	Lat. NAD 83: 39.466201	Lat. NAD 83: 39.466226	Lat. NAD 83: 39.466252	Lat. NAD 83: 39.466277	Lat. NAD 83: 39.466303	Lat. NAD 83: 39.466329	h i
Lon. NAD 83: -80.852590	Lon. NAD \$3: -80.852603	Lon. NAD 83: -80.852616	Lon NAD 83: -80.852629	Lon. NAD 83: -80.852641	Lon. NAD 83: -80.852654	Lon. NAD 83: -80.852667	
Lat. NAD 27: 39.466096	Lat. NAD 27: 39.466122	Lat. NAD 27: 39.466147	Lat. NAD 27: 39.466173	Lat. NAD 27: 39.466198	Lat. NAD 27: 39.466224	Lat. NAD 27: 39.466250	
Lon. NAD 27: -80.852762	Lon. NAD 27: -80.852775	Lon. NAD 27; -80 852788	Lon. NAD 27: -80.852801	Log. NAD 27: -80.852813	Lon. NAD 27: -80.852826	Lon. NAD 27: -80.852839	
UTM 17 NAD 83 (m) N: 4368520.96	UTM 17 NAD 83 (m) N: 4368523.80	UTM 17 NAD 83 (m) N: 4368526.64	UTM 17 NAD 83 (m) N: 4368529.48	UTM 17 NAD 83 (m) N: 4368532.32	UTM 17 NAD 83 (m) N: 4368535.16	UTM 17 NAD 83 (m) N: 4368532 00	
UTM 17 NAD 83 (m) E: 512680 29	UTM 17 NAD 83 (m) E: 512679.18	UTM 17 NAD 83 (m) E: 512678.07	UTM 17 NAD 83 (m) E: 512676.97	UTM 17 NAD 83 (m) E: 512675.86	UTM 17 NAD 83 (m) E: 512674.76	UTM 17 NAD 83 (m) E: 512673.65	
Dean Unit 1H	Dean Unit 2H	Goodfellow Unit 1H	Goodfellow Unit 2H	Owens Unit 1H	Owens Unit 2H	Owens Unit 3H	
WV-N NAD 83 N: 354847.90	WV-N NAD 83 N: 354857.28	WV-N NAD 83 N: 354866.66	WV-N NAD 83 N. 354876.03	WV-N NAD 83 N: 354813.16	WV-N NAD 83 N: 354803.79	WV-N NAD 83 N: 354794.41	
WV-N NAD 83 E: 1586631.18	WV-N NAD 83 E: 1586627.71	WV-N NAD 83 E: 1586624.24	WV-N NAD 83 E: 1586620.76	WV-N NAD 83 E: 1586681.36	WV-N NAD 83 E: 1586684.83	WV-N NAD 83 E: 158668831	
WV-N NAD 27 N: 354812.97	WV-N NAD 27 N: 354822.35	WV-N NAD 27 N: 354831.73	WV-N NAD 27 N: 354841.10	WV-N NAD 27 N: 354778.23	WV-N NAD 27 N 354768.85	WV-N NAD 27 N: 354759.47	
WV-N NAD 27 E: 1618072.31	WV-N NAD 27 E: 1618068 84	WV-N NAD 27 E: 1618065.36	WV-N NAD 27 E: 1618061.89	WV-N NAD 27 E: 1618122.49	WV-N NAD 27 E: 1618125.96	WV-N NAD 27 E: 1618129.43	
Lat. NAD 83: 39.466354	Lat. NAD 83, 39,466380	Lat. NAD 83: 39.466405	Lat. NAD 83: 39.466431	Lat. NAD 83: 39.466261	Lat. NAD 83: 39.466235	Lat. NAD 83: 39,466210	
Lon. NAD 83: -80.852680	Lon. NAD 83: -80.852693	Lon. NAD 83: -80.852705	Lon. NAD 83: -80.852718	Len. NAD 83: -80.852500	Lon. NAD 83: -80.852487	Lon. NAD 83: -80.852475	
Lat. NAD 27: 39.466275	Lat. NAD 27: 39.466301	Lat. NAD 27: 39.466326	Lat. NAD 27: 39.466352	Lat. NAD 27: 39.466182	Lat. NAD 27: 39.466156	Lat. NAD 27: 39.466131	4 /4 = 100 4 0
Lon. NAD 27: -80 #52#52	Len. NAD 27: -80.852865	Lon. NAD 2780.852877	Lon. NAD 27: -80.852890	Les. NAD 27: -80.852672	Lon. NAD 27: -80.852659	Len. NAD 27: -\$0.852647	1/15/2016
UTM 17 NAD 83 (m) N: 4368540.84	JTM 17 NAD 83 (m) N: 4368543.68	UTM 17 NAD 83 (m) N: 4368546.52	UTM 17 NAD 83 (m) N: 4368549.36	UTM 17 NAD 83 (m) N: 4368530.51	UTM 17 NAD 83 (m) N: 4368527.67	JTM 17 NAD 83 (m) N: 4368524.45	1/10/2010
Lat. NAD 27: 39.466275 Lon. NAD 27: -80.852852 UTM 17 NAD 83 (m) N: 4368540.84 UTM 17 NAD 83 (m) E: 512672.55	UTM 17 NAD 83 (m) E: 512671.44	UTM 17 NAD 83 (m) E: 512670.34	UTM 17 NAD 83 (m) E: 512669.23	UTM 17 NAD 83 (m) E: 512688.01	UTM 17 NAD 83 (m) E: 512689.12	UTM 17 NAD 83 (m) E: 512690.22	



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Date: 10/16/2015

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SCHEDULE OF QUANTITIES AND VOLUMES
SECTIONS SHEET
PAD MODIFICATION DESIGN PLAN VIEW
EXISTING SITE PLAN VIEW
EXISTING SITE PLAN OVERVIEW
REVEGETATION CHARTS
TYPICAL DETAILS
TYPICAL DETAILS
EROSION & SEDIMENT CONTROL DETAILS
EROSION & SEDIMENT CONTROL DETAILS
GENERAL CONSTRUCTION NOTES

SECTIONS SHEET	7
PAD MODIFICATION DESIGN PLAN VIEW	3
EXISTING SITE PLAN VIEW	2
EXISTING SITE PLAN OVERVIEW	1
REVEGETATION CHARTS	90
TYPICAL DETAILS	ÞØ.
TYPICAL DETAILS	D3
EROSION & SEDIMENT CONTROL DETAILS	DS
EROSION & SEDIMENT CONTROL DETAILS	10
GENERAL CONSTRUCTION NOTES	EN
EROSION & SEDIMENT CONTROL NOTES	NS
GENERAL NOTES	IN
CONER	COVER
INDEX TO SHEETS	ON.

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A/N Acreages of construction in floodplain: FIRM Map Number(s) for site: 24095C0175C Floodplain shown on drawings: A\N A/N HEC-RAS Study completed: Flood Hazard Zone ON Permit needed from county floodplain coordinator: ON Do site construction activities take place in a floodplain: ON Floodplain Conditions

MAPPING, BURTON, WY ТНЕ ТОРОGRAPHIС ІИГОЯМАТІОИ БНОWИ НЕЯЕІИ ІБ

торобранис інговматіон:

DATED MAY 24, 2013 WETLAND DELINEATIONS AS PROVIDED BY ALLSTAR ECOLOGY

ENVIRONMENTAL:

DATED OCTOBER 4, 2013

GEOTECHNICAL:



РВОЈЕСТ МАИА СЕВ

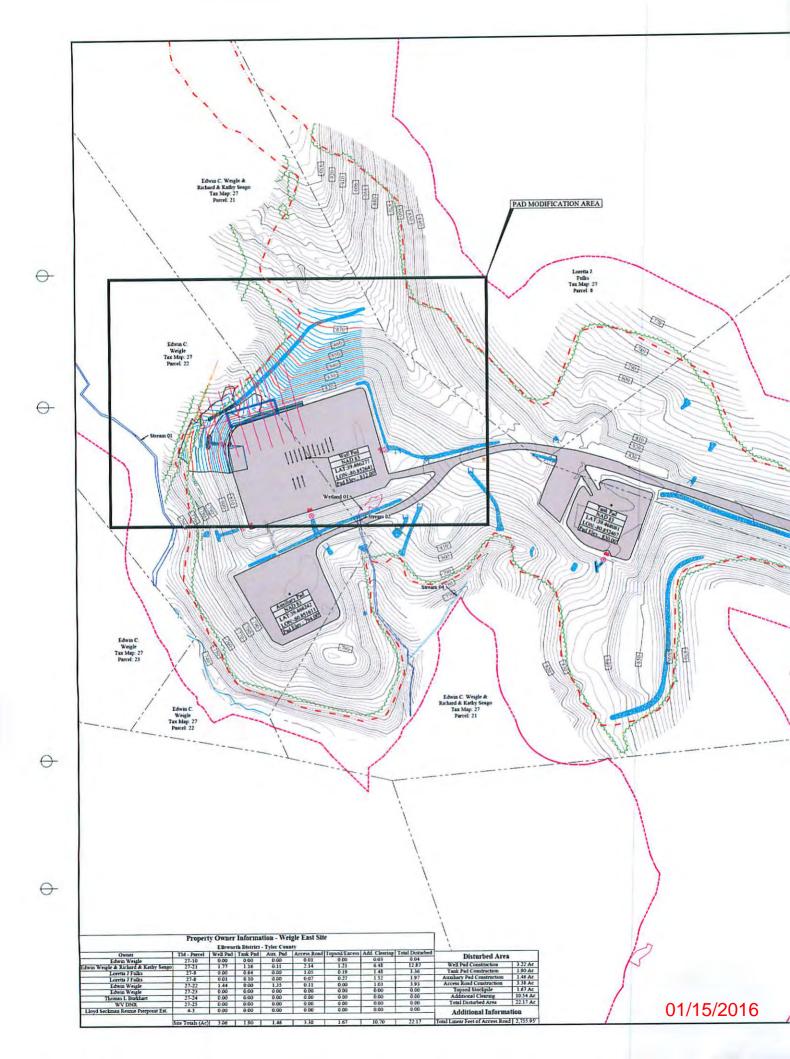
POUS OCC PUC (PUC) ·AV
HONE: (304) 338-6985
DAILEY, WV 26269
P.O.BOX 254
КЕГГА ЗПВЛЕЛИВ БГГС.
ENGINEER / SURVEYOR



AAM GAU OUNTY, WEST VIRGINIA

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01/15/2016



95-02324 Weigle East Site Antero Resources Corporation
Final Design: Issue for Permitting WV North NAD 81 THIS DOCUMENT PREPARED FOR ANTERO RESOURCES CORPORATION Kelly Surveying Ellsworth District, Tyler County, WV Existing Site Plan Overview Weigle East Site Pad Modification Edwing C. Weigle Tax Map 27 Parcel: 10 Legend As Buil Ground 2 Content
As Buil Ground 10 Content
Survey 2 Content
Entry 10 Confoor
Design 2 Confoor
Design 2 Confoor
Content of Structure
Cruster of Structure Orage Construct
24° Filter Sock
Super Silt Fence
Property Line
Clearing Limits
Area of Interest
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