



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

Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Tuesday, January 30, 2018
WELL WORK PERMIT
Vertical / Plugging

ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit approval for 1030
47-017-01913-00-00

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: 1030
Farm Name: McGOWAN, N.
U.S. WELL NUMBER: 47-017-01913-00-00
Vertical / Plugging
Date Issued: 1/30/2018

Promoting a healthy environment.

02/02/2018

PERMIT CONDITIONS

West Virginia Code §22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. Plugging Marker Variance must be requested by the Surface Owner. In order to apply this variance a signed request by the surface owner must be received by the Office of Oil and Gas.

1) Date October 24, 2017
2) Operator's
Well No. Well #1030
3) API Well No. 47-017 - 01913

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___/ Gas X/ Liquid injection ___/ Waste disposal ___/
(If "Gas, Production ___ or Underground storage ___) Deep ___/ Shallow X

5) Location: Elevation 1069' Watershed Headwaters Middle Island Creek
District West Union County Doddridge Quadrangle Smithburg 7.5'

6) Well Operator Antero Resources Corporation 7) Designated Agent CT Corporation System - Dianna Stamper
Address 1615 Wynkoop Street Address 5400 D Big Tyler Road
Denver, CO 80202 Charleston, WV 25313

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Daniel Flack Name N/A - Antero will plug well
Address 601 57th Street, SE Address _____
Charleston, WV 25304
304-545-0109

10) Work Order: The work order for the manner of plugging this well is as follows:

*Please see attached Work Order.

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OK gwm FOR DANIEL FLACK

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector _____ Date 11/19/2018

#1030
 Doddridge, WV
 API # 47-017-01913



Antero Resources
 1615 Wynkoop St.
 Denver, CO 80202
 Office: 303.357.7310
 Fax: 303.357.7315

Objective: Plug and Abandon Wellbore.

Pipe Schedule:

1. No info available

8" ≈ 805'
 4 1/2" ≈ 1500'

Oil and Gas Zones:

1. No info available

PRODUCING ZONES: MAXON (GAS) 1500'
 GORRAN 2479'

Procedure:

1. Check and record all casing/annular pressures into Wellview.
2. Coordinate and schedule casing jacks.
3. Notify WVDEP prior to commencing work, for plug witnessing (Doddridge County Inspector).
4. Move in and rig up flat tank and frac tank (No pits will be utilized).
5. Move in rig up service unit.
6. NU BOPE and test – check and report surface pressure including bradenhead pressure.
7. Kill well
8. RU wireline and lubricator.
9. Make gauge ring run to casing TD (TBD). Pull out of hole. Note fluid depth tagged.
10. MIRU logging crew.
11. Load Hole with 6% gel.
12. Run CBL from casing TD to surface.
13. Locate TOC around smallest casing string.
14. Discuss results with completions engineers before proceeding.
15. TIH with 2 3/8" tubing to 50' below perfs or shallowest producing zone (if no perfs).
16. If perfs, go to step 16a). If no perfs, go to 16b).
 - a. MIRU cement services. Mix and pump cement for a plug that extends across perfs up to 100' above perfs. (Class A cement + 2% CaCl₂, 20% excess included; yield = 1.18 ft³/sk, WR=5.2 gal/sk)
 - a. Displace to balance plug
 - b. Slowly pull out of cement plug.
 - c. Reverse circulate tubing clear of cement
 - d. WOC and tag TOC 100' above perfs.
 - b. MIRU cement services. Mix and pump cement for plug across producing zones. (Class A cement + 2% CaCl₂, 20% excess included; yield = 1.18 ft³/sk, WR=5.2 gal/sk)
17. POOH with tubing.
18. Lubricate and RIH w/ CIBP and set at on top of shallowest cement plug. POOH w/ wireline.
19. PT CIBP to 500 psi.
20. RIH wireline and run free point above TOC in smallest casing string
 - a. Chemical cut above TOC smallest casing (exact depth determined via freepoint and CBL)
 - b. RU casing jacks and POOH – LD casing.
21. PU and RIH w/ tubing to one foot above CIBP.
22. Mix and pump 100' balanced plug on CIBP (Class A cement + 2% CaCl₂, 20% excess included; yield = 1.18 ft³/sk, WR=5.2 gal/sk).
 - a. Displace to balance plug
 - b. Slowly pull out of cement plug
 - c. Reverse circulate tubing clear of cement.
23. Pull up to 300' below casing cut (TBD via Freepoint)
24. Mix and pump 100' balanced plug across casing cut. (Class A cement + 2% CaCl₂, 20% excess included; yield = 1.18 ft³/sk, WR=5.2 gal/sk).
 - a. Displace to balance plug
 - b. Slowly pull out of cement plug and LD tubing.
 - c. Reverse circulate tubing clear of cement.
 - d. WOC and tag TOC @ 50' above casing cut.
25. Pull up to 50' below intermediate casing.
26. Mix and pump 100' balanced plug across bottom of intermediate casing (Casing should be cemented to surface and not have been removed). (Class A cement + 2% CaCl₂, 20% excess included; yield = 1.18 ft³/sk, WR=5.2 gal/sk).
 - a. Displace to balance plug
 - b. Slowly pull out of cement plug and LD tubing.

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- c. Reverse circulate tubing clear of cement
 - d. WOC and tag TOC @ 50' above intermediate casing.
 - e. If top of cement is deeper than 50', mix and spot cement so top is a minimum depth of 50' above intermediate casing depth. Tag TOC.
27. Pull up to 300'
 28. Mix and pump cement for plug from 300'-surface (Class A cement + 2% CaCl₂, 20% excess included; yield = 1.18 ft³/sk, WR=5.2 gal/sk)
 29. TOOH
 30. Wait on cement 8hrs.
 31. Set offsite marker plate with API number (API No.: 47-017-01913)
 32. Establish remote dry hole marker & provide direction and distance to DEP.
- * SEE ATTACHED PLUGGING MARKER VARIANCE.
- * VARIANCE MUST BE REQUESTED BY THE SURFACE OWNER.

- ORIGINAL TD 2516'. PROBABLY 2 CASING STRINGS IN HOLE. TRY TO PULL ALL FREE CASING. IF NOT ABLE TO PULL, PERFORATE TO GET CEMENT ACROSS GORDON & MAXON.
- LOAD HOLE WITH GEL.
 - SET BOTTOM HOLE PLUG TO COVER GORDON. (2479')
 - SET ~~CLASS A~~ 2450' - 2000' CEMENT
 - SET CLASS A CEMENT PLUG TO COVER MAXON (1500'). FROM 1500' TO 1000'. (ELEVATION 1069')
 - SET CLASS A CEMENT PLUG ACROSS BOTTOM OF 8" SURFACE CASING FROM 850' TO 750'.
 - SET 300' CLASS A CEMENT PLUG FROM 700' TO SURFACE

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PLUGGING MARKER VARIANCE

The Office of Oil and Gas is [✓]granting a general variance to the requirements under 35CSR4-5.5b of erecting a monument upon the plugging of certain wells. If granted, the following conditions will be met:

- 1) the well will be surveyed and a plat constructed as required under 22-6 of the WV Code and 35CSR4,
- 2) a readily visible, permanent offset marker, in as close proximity as reasonably possible, will be erected and will provide distance and bearing information to the plugged well,
- 3) the plugging affidavit (form WR-38), will document the absence of a monument at the well location and document the existence and location of the offset marker,
- 4) a steel plate no smaller than one square foot shall be affixed to the well casing no deeper than three feet below the ground surface and be inscribed with the api number of the well.

To qualify under the general variance, an operator may make a variance request to the Chief of the Office of Oil and Gas for a specific well(s) in conjunction with a showing of good cause by the surface owner.

WELL DETERMINATION REPORT

47-017-01913P

PARTICIPANTS:

DATE:

MAR 06 1980

BUYER-SELLER CODE

WELL OPERATOR:

Consolidated Gas Supply Corp

234228

FIRST PURCHASER:

General System Production

JA

OTHERS:

W. Va. Department of Mines, Oil & Gas Division

WELL DETERMINATION FILE NUMBER

490227-103-017-1913

Use Above File Number on all Communications Relating to Determination of this Well

CHECK EACH ITEM AS COMPLETED OR NOTE TIME IS MISSING

ITEM NO.

- 1 FERG-121 Items not completed - Mine No. _____
- 2 IV-1 - Agent J. W. Hoffmeyer
- 3 IV-2 - Well Permit _____
- 4 IV-6 - Well Plat 7
- 5 IV-35 - Well Record Drilling Deepening
- 6 IV-36 - Gas-Oil Tests: Gas Only 32 Was Oil Produced Ratio _____
- 7 IV-39 - Annual Production 3 years
- 8 IV-40 - 90 Day Production 90-annual Days off Base: _____
- 9 IV-40 - Application for Certification. Complete? Yes
- 10 - 14 IV Form 651 - 52 - 53 - 54 - 55 - 56 - 57 - 58. Complete Yes Affidavit Signed Yes
- 15 - 20 Other: Survey _____ Logs _____ Geological Charts _____ Structure Map _____
- 21-50 Map _____ Well Resolutions _____ Gas Analyses _____
- (5) Data Completed: 8-26-05 Date Completed: 12-26-05 Resealed _____
- (5) Production Depth: 1500-1720; 2484-2516
- (5) Production Formation: Maxon; Gordon
- (5) Final Open Hole: 2.11
- (5) Gas Test 30" (in 1979)
- (5) Other Gas Tests: _____
- (7) Avg. Daily Gas Prod Annual Production: 10409/365 = 28 MCF
- (8) Avg. Daily Gas Prod 90-day ending 12-30 days: 2897/90 = 32 MCF
- (9) Mine Drawings: 5 DSEG Strip Daily Report
- (10) NO 90 Day Completion Reports
- (20-24) Does Mine Law apply? Reference released regulatory ruling cases: NO
- (25-29) No affidavits of work: _____

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Does included well record with this report include the enclosed information? Yes

02/02/2018

1.0 API well number (If not available, leave blank.)	47-017-1913			
2.0 Type of determination being sought. (Use the codes found on the front of this form.)	103 Section of 13PA	Category Code		
3.0 Depth of the well completion location. (Only needed if sections 103 or 107 in 2.0 above.)				
4.0 Name, address and code number of applicant. (35 letters per line maximum. If code number not available, leave blank.)	Consolidated Gas Supply Corporation Name		004228 Seller Code	
	115 West Main Street Street			
	Clarksburg	W. Va.	26301	
	City	State	Zip Code	
5.0 Location of this well. (Complete (a) or (b).) (a) For onshore wells. (135 letters maximum for field name.)	West Virginia Other A-85772 Field Name		W. Va. State	
	HARRIDGE County			
(b) For OCS wells	Area Name	Block Number		
	Date of Lease			
	Mo. Day Yr.	OCS Lease Number		
(c) Name and identification number of this well. (35 letters and digits maximum.)	NORMA MCGOWAN		1030	
(d) If code 4 or 5 in 2.0 above: name of the reservoir. (35 letters maximum.)				
6.0 (a) Name and code number of the purchaser. (35 letters and digits maximum. If code number not available, leave blank.)	General System Purchasers Name		Buyer Code	
(b) Date of the contract				
(c) Estimated annual production	12			
	(a) Base Price (C/M/B/T/U)	(b) Tax	(c) All Other Prices (Indicate (4) or (4-1))	(d) Total of (a), (b) and (c)
7.0 Contract price (As of filing date. Complete to 3 decimal places.)				
8.0 Maximum lawful rate (As of filing date. Complete to 3 decimal places.)	2.224			
9.0 Person responsible for this application	J. W. Hendrickson Name		V Gas Supply	
Agency Use Only	Signature			
Date Received by Agency	DEC 31 1977			
Date Received by FERC	Date Application is Completed		304-623-3611 Phone Number	

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FORM 10-55-63
(12-73)

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date Nov 21 1978
Operator's Well No. 1030
API Well No. 17 - 217 - 1713
State County Permit

WELL IDENTIFICATION DATA:

WELL NAME

WELL Section 103

DESIGNED BY J. W. Hendrickson

ADDRESS 445 West Main Street

Clarksburg, West Virginia 26301

WELL OPERATOR Cons. Gas Supply Corp. LOCATION: Elevation NA

ADDRESS 445 West Main Street Watershed MEAT HOUSE FOCK

Clarksburg, W. Va. Dist. West Virginia County DODD Quad CENTER POINT

GAS PURCHASER None; gas is de- Gas Purchase Contract No. NA

ADDRESS livered into applicant's Meter Chart Code NA

interstate pipeline system Date of Contract NA

Provide a complete inventory of the lease and production equipment used for the well for the previous 24 months or, if less than 24 months, the period the well has been in production. Include a complete list of equipment or processes used in connection with recognized enhanced recovery techniques during completion or production. (Attach separate sheets, if necessary.)

See attachment; compression, dehydration, or related equipment indicated on the attached inventory, and hydraulic fracturing, shooting, or similar completion processes indicated on the attached well records, are used in connection with recognized enhanced recovery techniques during production or completion.

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List all records reasonably available to you which contain information relevant to a determination of eligibility (including production records, P/O tax records and royalty payment records) and indicate the location of such records:

Applicant's oil and gas production records (which are largely computerized) constitute its primary and most reliable source of information relevant to a determination of eligibility. From these records Applicant derives information used by it in connection with royalty payments, tax payments, and general statistical use, and records of these matters are also maintained. All of the above records are located at Applicant's offices at 445 West Main Street, Clarksburg, West Virginia.

Describe the search made of any records listed above.

As indicated, Applicant's primary oil and gas production records have been largely computerized. In preparing this application, Applicant, by use of its computers, generated a listing of those of its wells which produced non-associated natural gas at a rate not exceeding an average of 60 Mcf per production day (at maximum efficient rates of flow) during the 90 day production period indicated on the attachment. These listings were checked and verified manually by two or more Applicant's employees. The results of this diligent search and examination indicated that the well which is the subject of this application qualifies as a stripper well; see attached data submitted in compliance with applicable regulations of this agency and the Federal Energy Regulatory Commission.

Are you aware of any other information which would tend to be inconsistent with the information specified above? Yes No If yes, indicate the type and source of the information.

I, J. W. Hendrickson, having been first sworn according to law, state that I have caused to be made a diligent search of those records hereinbefore indicated in the manner herein described, that the information contained in this document is true and accurate and that on the basis of the records and examinations hereinbefore described, and to the best of my information, knowledge and belief, the well for which this certification is sought, qualifies as a stripper well.

J. W. Hendrickson

STATE OF WEST VIRGINIA,
COUNTY OF HARRISON, TO WIT:

I, Ralph D. Bradley, a Notary Public in and for the state and county aforesaid, do certify that J.W. Hendrickson, whose name is signed to the writing above, bearing date

the 31 day of Dec., 1972, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 15 day of Jan., 1979.

My term of office expires on the 13th day of September, 1985.

Ralph D. Bradley
Notary Public

(NOTORIAL SEAL)

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

DESIGNATION OF AGENT BY WELL OWNER OR OPERATOR

Well Operator / Owner Consolidated Gas Supply Corporation
Address 445 West Main Street
Clarksburg, West Virginia 26301

Pursuant to the provisions of Code § 22-4-11k, and subject to the requirements of Regulation 7.01, the undersigned hereby designates the following person to be the agent of the undersigned for the purpose of receiving process, notices, orders and other communications which may be issued under Chapter 22 of the Code of West Virginia:

Designated Agent J. V. Hendrickson
Address 445 West Main Street
Clarksburg, West Virginia 26301
Telephone 304-623-3611

The undersigned represents that said designated agent is a bona fide resident of the State of West Virginia, and has agreed to accept the designation. This designation applies to the following wells:

- all wells owned or operated by the undersigned in West Virginia
- the wells listed below (Use space below or reverse side or attach list)

[COMPLETE AS APPLICABLE]

The undersigned is hereby recording an existing designation of agent made prior to the initial adoption of Form IV-1.

The undersigned is proposing to own or operate wells in West Virginia for the first time, so that this designation should also be considered the registration by the undersigned with the Deputy Director.

The undersigned has owned and operated a well or wells in West Virginia since the year 11899, but has not heretofore appointed a designated agent.

This designation substitutes a new designated agent for the undersigned, who has owned or operated a well or wells in West Virginia since the year 19____. The present designated agent of the undersigned, who will continue as such, if he is able, until this new designation has been approved, is--

Agent being replaced _____
Address _____

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Consolidated Gas Supply Corp.
Well Owner or Operator
By: [Signature]
Its: Vice President, Anol. Gas Supply

ACCEPTED this January 17, 19 79

[Signature]
(Signature of designated agent)

Taken, subscribed and sworn to before me this 17th day of January, 1979.
Notary Public [Signature] by commission expires September 13, 1986

Well owner or operator must be a responsible officer of the corporation, trustee, individual or legally qualified representative of owner of the well(s).

02/02/2018

DATE TO 11-15-08
BY 1-15-08

WV NATURAL GAS CO.

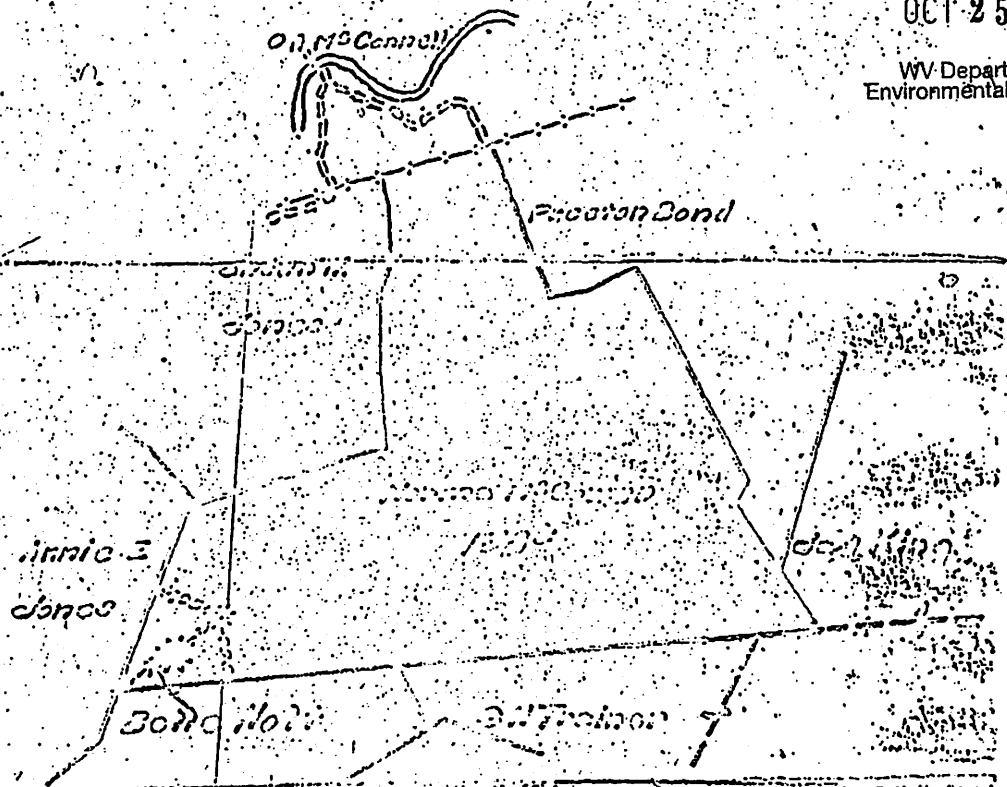
CANNOT FOR WELL NO. 1000
DISTRICT.

On Arma McCannell, on waters of Arma McCannell
West Virginia District Doddridge County, West Virginia
Lease No. 11692 Acres 13 1/2 Range: N 12 E 7
Scale: 1" = 80' Purdum

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017-1913

LOCATION MADE 1-10-1907
BY W. McCannell
As per plat except as noted
On Field Map 1-13-1907
Returned to Pittsburgh 10

SPECIAL INSTRUCTIONS: Returned from Eric
Carroll Oil Co. Dec 7, 1907
has been that the lease is now Arma McCannell

02/02/2018

47-017-01913P



Select County: (017) Doddridge Select datatypes: (Check All)

Enter Permit #: 01913

Location Production Plugging

Owner/Completion Stratigraphy Sample

Pay/ShowWater Logs Bin Hole Loc

Get Data Reset

Table Descriptions
 County Code Translations
 Permit Numbering Series
 Usage Notes
 Contact Information
 Disclaimer
 WVGES Main
 Pipeline Plus New

WV Geological & Economic Survey:

Well: County = 17 Permit = 01913

Report Time: Friday, January 19, 2018 11:50:38 AM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_16	LAT_CD	LON_CD	UTME	UTMN
4701701913	Doddridge	1913	West Union	Smithburg	Centerpoint	39.277684	-80.726444	523594.9	4347627.9

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_EST_PR
4701701913	10/30/1905	Original Loc	Completed	N McCowan		1030				Hope Natural Gas Company			

Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	G_BEF	G_AFT	O_I
4701701913	10/30/1905	8/26/1905	1220	Topo	Estimation	Smta-Fht-Sdla	Hampshire Grp	Gordon	Development Well	Development Well	Gas	Cable Tool	unknown	2516		2516	0	0

Pay/ShowWater Information:

API	CMP_DT	ACTIVITY	PRODUCT	SECTION	DEPTH_TOP	FM_TOP	DEPTH_BOT	FM_BOT	G_BEF	G_AFT	O_BEF	O_AFT	WATER_QNTY
4701701913	10/30/1905	Pay	Gas	Vertical			2485	Gordon	0	0			

Production Gas Information: (Volumes in Mcf)

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_GAS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4701701913	Consolidated Gas Supply Corp.	1979	11,191	677	865	973	945	980	936	918	955	903	927	888	924
4701701913	Consolidated Gas Supply Corp.	1981	10,764	667	781	933	888	946	924	946	927	903	916	786	855
4701701913	Consolidated Gas Supply Corp.	1982	10,164	828	764	843	819	565	790	859	834	870	1,001	990	1,001
4701701913	Consolidated Gas Supply Corp.	1983	9,303	936	804	566	661	389	909	1,192	1,300	1,190	109	704	523
4701701913	Consolidated Gas Transmission Corp.	1984	6,500	756	567	527	457	390	543	371	357	523	708	683	578
4701701913	Consolidated Gas Transmission Corp.	1985	4,892	588	308	442	902	771	428	262	216	201	0	442	272
4701701913	Consolidated Gas Transmission Corp.	1986	4,585	229	204	206	317	325	174	350	375	682	601	494	628
4701701913	Consolidated Gas Transmission Corp.	1987	5,204	541	183	333	1,172	380	275	761	337	201	183	387	450
4701701913	Consolidated Gas Transmission Corp.	1988	4,160	429	434	474	351	202	196	201	322	310	453	419	369
4701701913	Consolidated Gas Transmission Corp.	1989	4,748	302	207	302	339	370	369	74	225	630	771	509	647
4701701913	Consolidated Gas Transmission Corp.	1990	4,955	666	635	608	449	232	58	465	213	527	549	479	455
4701701913	Consolidated Gas Transmission Corp.	1991	4,154	360	338	425	370	368	330	258	384	135	334	374	438
4701701913	Consolidated Gas Transmission Corp.	1992	4,054	276	172	438	458	170	237	431	514	476	337	273	242
4701701913	Consolidated Gas Transmission Corp.	1993	2,506	262	199	145	101	182	305	296	194	162	297	385	78
4701701913	Consolidated Gas Transmission Corp.	1994	2,153	312	256	223	165	229	77	41	107	193	209	198	159
4701701913	Consolidated Gas Transmission Corp.	1995	3,753	207	306	425	248	225	207	192	179	342	436	458	508
4701701913	Consolidated Gas Transmission Corp.	1996	4,743	588	558	557	487	438	405	422	122	155	313	383	315
4701701913	Consolidated Gas Transmission Corp.	1997	3,448	342	300	71	146	275	153	192	177	123	324	291	1,054
4701701913	Consolidated Gas Transmission Corp.	1998	3,409	505	394	183	448	422	472	115	178	311	144	157	142
4701701913	Consolidated Gas Transmission Corp.	1999	5,995	290	589	0	1,621	64	279	508	540	510	558	540	496
4701701913	Dominion Transmission, Inc.	2000	5,151	481	493	527	342	527	510	463	403	306	307	420	372
4701701913	Dominion Transmission, Inc.	2001	4,505	431	280	367	359	372	360	683	174	330	527	360	312
4701701913	Dominion Transmission, Inc.	2002	3,672	280	260	279	330	343	330	372	372	302	341	167	276
4701701913	Equitable Production Company	2002	3,777	303	299	323	338	352	319	346	359	301	330	194	302
4701701913	Dominion Transmission, Inc.	2003	2,536	221	194	304	300	155	240	248	279	269	246	53	124
4701701913	Dominion Transmission, Inc.	2004	2,345	185	230	278	292	248	240	249	247	270	279	210	217
4701701913	Dominion Transmission, Inc.	2005	1,583	175	168	135	150	155	209	196	157	210	185	119	93
4701701913	Dominion Transmission, Inc.	2006	1,176	152	111	93	90	123	93	93	100	91	81	89	60
4701701913	Dominion Transmission, Inc.	2007	431	29	0	59	58	90	67	61	22	0	23	20	2
4701701913	Dominion Transmission, Inc.	2008	128	2	0	6	0	17	7	1	19	10	20	22	24
4701701913	Dominion Transmission, Inc.	2009	331	28	23	26	22	29	30	29	30	24	31	29	30
4701701913	CNX Gas Co. LLC (North)	2010	202	24	28	31	27	31	30	31	0	0	0	0	0
4701701913	CNX Gas Co. LLC (North)	2011	331	28	24	28	27	29	28	29	26	25	31	29	27
4701701913	Consol Gas Company	2012	178	29	29	31	29	30	30	0	0	0	0	0	0
4701701913	Consol Gas Company	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consol Gas Company	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consol Gas Company	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Antero Resources Corporation	2016	60	5	5	5	5	5	5	5	5	5	5	5	5

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_OIL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4701701913	Consolidated Gas Supply Corp.	1979	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Supply Corp.	1981	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Supply Corp.	1982	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Supply Corp.	1983	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1984	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1985	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1986	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1987	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1988	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1989	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1990	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1991	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1992	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1993	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1994	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1995	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1996	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1997	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1998	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consolidated Gas Transmission Corp.	1999	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2000	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2001	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2002	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Equitable Production Company	2002	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2003	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2004	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2005	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2006	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2007	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2008	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Dominion Transmission, Inc.	2009	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	CNX Gas Co. LLC (North)	2010	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	CNX Gas Co. LLC (North)	2011	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consol Gas Company	2012	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consol Gas Company	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consol Gas Company	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Consol Gas Company	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
4701701913	Antero Resources Corporation	2016	0	0	0	0	0	0	0	0	0	0	0	0	0

Production NGL Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil

WW-4A
Revised 6-07

1) Date: October 24, 2017
2) Operator's Well Number
Well #1030
3) API Well No.: 47 - 017 - 01913

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Gene P. & Linda G. Moose</u>	Name <u>NO DECLARATIONS ON RECORD WITH COUNTY</u>
Address <u>680 Barlow Greenmount Road</u> <u>Gettysburg, PA 17325</u>	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NO DECLARATIONS ON RECORD WITH COUNTY</u>
(c) Name <u>*All other surface owners with existing access road disturbance</u>	Address _____
Address <u>are off-lease and not required to be notified.</u>	Name _____
_____	Address _____
6) Inspector <u>Daniel Flack</u>	(c) Coal Lessee with Declaration
Address <u>601 57th Street SE</u>	Name <u>NO DECLARATIONS ON RECORD WITH COUNTY</u>
<u>Charleston, WV 25304</u>	Address _____
Telephone <u>304-545-0109</u>	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator Antero Resources Corporation
 By: Diana Hoff *Diana O. Hoff*
 Its: Vice President - Operations
 Address 1615 Wynkoop Street
Denver, CO 80202
 Telephone 303-357-7310

RECEIVED
Office of Oil and Gas

OCT 25 2017

WV Department of
Environmental Protection

Subscribed and sworn before me this 24th day of October 2017
S. Johnson Notary Public
My Commission Expires 7/8/2020

Oil and Gas Privacy Notice

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

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Antero Resources Corporation OP Code 494507062

Watershed Headwaters Middle Island Creek Quadrangle Smithburg 7.5'

Elevation 1069' County Doddridge District West Union

Description of anticipated Pit Waste: No pit will be used at this site (All fluids will be stored in tanks and either reused or hauled off site.)

Will a synthetic liner be used in the pit? 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)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain)
- Swabbing
- Plugging

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Gretchen Kohler*
Company Official (Typed Name) Gretchen Kohler
Company Official Title Senior Environmental & Regulatory Manager

RECEIVED
Office of Oil and Gas
25 2017
WV Department of
Environmental Protection

Subscribed and sworn before me this 24th day of October, 20 17

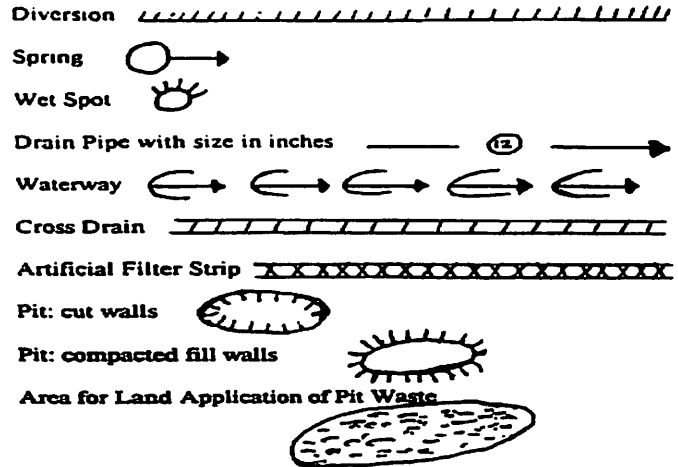
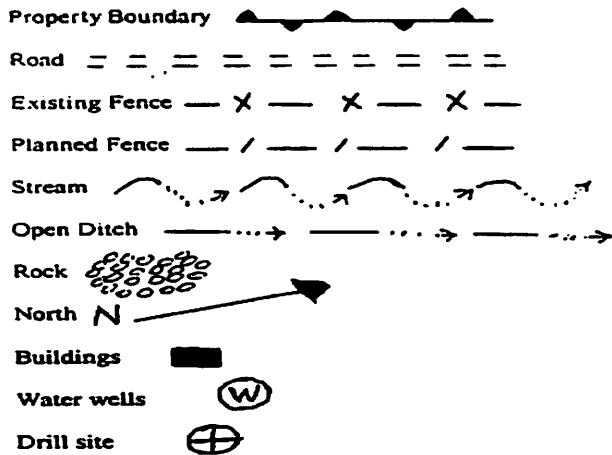
S. Johnson Notary Public

My commission expires 7/8/2020



02/02/2018

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 6.50 acres Prevegetation pH _____
 Lime 2-3 Tons/acre or to correct to pH 6.5
 Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)
 Mulch 2-3 Tons/acre (Hay, straw or wood fiber (will be used where needed))

Seed Mixtures

Seed Type	Area I	lbs/acre
Annual Ryegrass		40
Field Bromegrass		40

Seed Type	Area II	lbs/acre
Crownvetch		10-15
Tall Fescue		30

Please reference Table IV-3 on page 7 of the Well #1030 Well Plugging Plan

Please reference Table IV-4A on page 7 of the Well #1030 Well Plugging Plan

*or type of grass seed requested by surface owner

*or type of grass seed requested by surface owner

Attach:
 Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

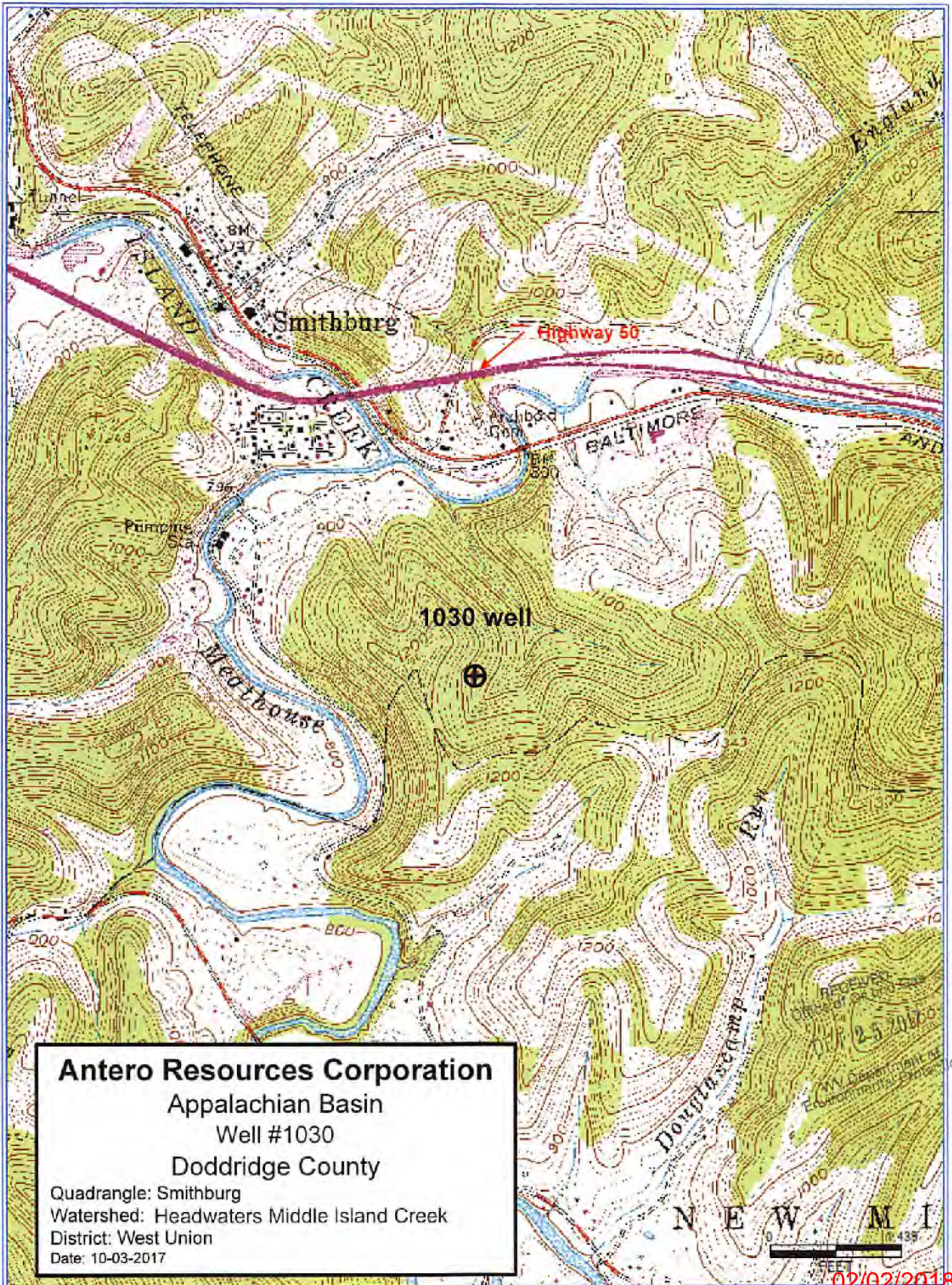
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 Office of Oil and Gas
 OCT 25 2017
 WV Department of
 Environmental Protection

Plan Approved by: _____

Comments: _____

Title: _____ Date: _____

Field Reviewed? () Yes () No



Antero Resources Corporation
 Appalachian Basin
 Well #1030
 Doddridge County
 Quadrangle: Smithburg
 Watershed: Headwaters Middle Island Creek
 District: West Union
 Date: 10-03-2017

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 OFFICE OF THE
 DEPT. 25 2017
 WV Department of
 Environmental Protection

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-017-01913 WELL NO.: 1030

FARM NAME: Moose, Gene & Linda

RESPONSIBLE PARTY NAME: Antero Resources Corporation

COUNTY: Doddridge DISTRICT: West Union

QUADRANGLE: Smithburg

SURFACE OWNER: Gene P & Linda G Moose

ROYALTY OWNER: Consol Gas Company

UTM GPS NORTHING: 4347685.45 m

UTM GPS EASTING: 523727.57 m GPS ELEVATION: 325.8 m (1069')

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:

Survey grade GPS : Post Processed Differential _____
Real-Time Differential

Mapping Grade GPS : Post Processed Differential _____
Real-Time Differential

- Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Mam [Signature]
Signature

Permitting Supervisor
Title

10/24/17
Date

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Office of Oil and Gas
OCT 25 2017
WV Department of
Environmental Protection

API#47-017- WELL #10 WELL PLUGGING

WEST UNION DISTRICT, DODDRIDGE C
BUCKEYE CREEK WAT
USGS 7.5 WEST UNION & SMITH

LOCATION COORDINATES:

ACCESS ROAD ENTRANCE
LATITUDE: 39.282913 LONGITUDE: -80.733958 (NAD 83)
N 4348206.19 E 522945.04 (UTM ZONE 17 METERS)
CENTROID OF PAD
LATITUDE: 39.278209 LONGITUDE: -80.724960 (NAD 83)
N 4347686.48 E 523720.97 (UTM ZONE 17 METERS)

GENERAL DESCRIPTION:

THE EXISTING ACCESS ROAD AND WELL PAD ARE BEING UPGRADED TO AID IN THE PLUGGING OF EXISTING INDIVIDUAL GAS WELL.

FLOODPLAIN NOTES:

THE PROPOSED SITE IS LOCATED WITHIN FEMA FLOOD ZONE "X" PER FEMA FLOOD MAP #64017C0140C.

MISS UTILITY STATEMENT:

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

ENTRANCE PERMIT:

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

GEOTECHNICAL NOTES:

NO SOIL STUDIES OR SUBSURFACE INVESTIGATIONS WERE PERFORMED AND ANALYZED FOR THE DESIGN OF THIS SITE.

ENVIRONMENTAL NOTES:

STREAM AND WETLAND DELINEATIONS WERE PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. FROM DELINEATIONS OF THE PROJECT AREA PERFORMED AUGUST 2017.

PROJECT CONTACTS:

OPERATOR:

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

ELI WAGONER - ENVIRONMENTAL ENGINEER
OFFICE: (304) 842-4068 CELL: (304) 476-9770

JON McEVERS - OPERATIONS SUPERINTENDENT
OFFICE: (303) 357-6799 CELL: (303) 808-2423

AARON KUNZLER - CONSTRUCTION SUPERVISOR
CELL: (405) 227-8344

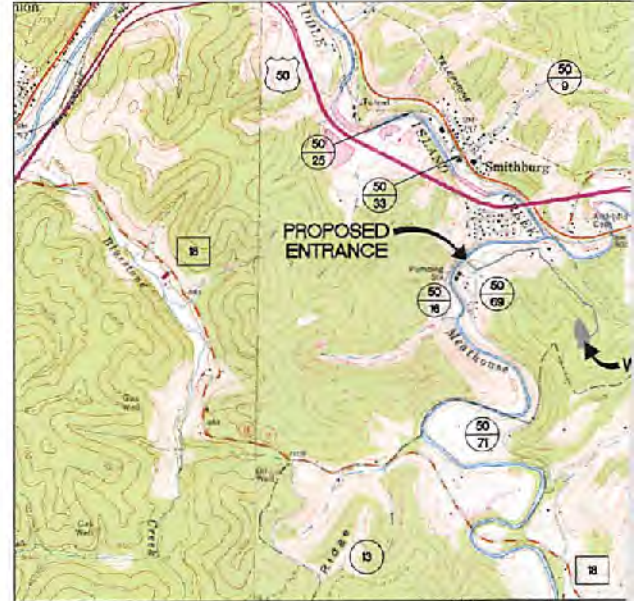
ROBERT B. WIRKS - FIELD ENGINEER
OFFICE: (304) 842-4100 CELL: (304) 827-7405

CHARLES E. COMPTON, III - SURVEYING COORDINATOR
CELL: (304) 719-6449

RICHARD LYLES - LAND AGENT
CELL: (770) 378-8833

ENGINEER/SURVEYOR:

NAVITUS ENGINEERING, INC.
CYRUS S. KUMP, PE - PROJECT MANAGER/ENGINEER
OFFICE: (888) 662-4185 CELL: (540) 686-6747



WEST VIRGINIA COUNTY MAP



(NOT TO SCALE)

MISS Utility of West
1-800-245-484
West Virginia State
(Section XIV: Chapter
Requires that you c
business days before y
the state of West V
IT'S THE LAW!

REPRODUCTION NOTE
THESE PLANS WERE CREATED TO BE PLOTTED ON 22"x34" (ANSI D) PAPER. HALF SCALE DRAWINGS ARE ON 11"x17" (ANSI B) PAPER.
THESE PLANS WERE CREATED FOR COLOR PLOTTING AND ANY REPRODUCTIONS IN GRAY SCALE OR COLOR MAY RESULT IN A LOSS OF INFORMATION AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.

01913
30
G PLAN

OUNTY, WEST VIRGINIA
RSHED
BURG QUAD MAP



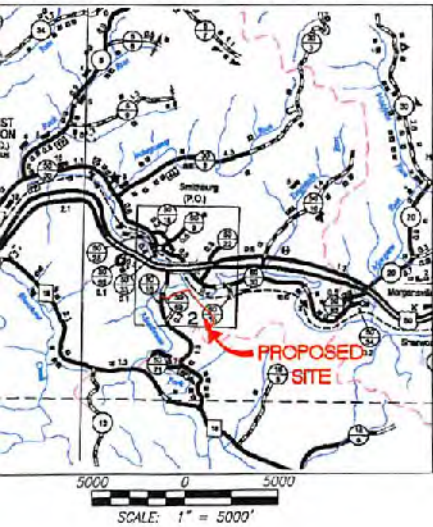
WEST VIRGINIA STATE PLANE COORDINATE SYSTEM
NORTH ZONE, NAD83
ELEVATION BASED ON NAVD83
ESTABLISHED BY SURVEY GRADE GPS & OPUS
POST-PROCESSING

SHEET INDEX:

- 1 - COVER SHEET
- 2 - CONSTRUCTION AND E&S CONTROL NOTES
- 3 - LEGEND
- 4 - OVERALL PLAN SHEET INDEX
- 5 - ACCESS ROAD PLAN
- 6 - ACCESS ROAD & WELL PAD PLAN
- 7 - CONSTRUCTION DETAILS

API#47-017-01913 LIMITS OF DISTURBANCE AREA (AC)	
Total Site	
Total Affected Area	6.50
Total Wooded Acres Disturbed	4.10
Impacts to Dominion Transmission TM 16-9	
Total Affected Area	0.18
Total Wooded Acres Disturbed	0.00
Impacts to Darlene K McKinney	
Total Affected Area	0.01
Total Wooded Acres Disturbed	0.00
Impacts to Gene P & Linda G Moose TM 15-15	
Total Affected Area	2.03
Total Wooded Acres Disturbed	0.79
Impacts to Gene P & Linda G Moose TM 16-15.2	
Total Affected Area	4.28
Total Wooded Acres Disturbed	3.31

WVDON COUNTY ROAD MAP



Proposed Well Name	WV North NAD 27	WV North NAD 83	UTM (METERS) Zone 17	NAD 83 Lat & Long
API#47-017-01913 Well #1030	N 235769.61 E 1653207.68	N 285805.33 E 1621766.50	N 4347685.45 E 623727.57	LAT 39-16-41.5171 LONG -80-43-29.6514
Ex. Well Elevation	1,068.3			



REVISION

DATE



THIS DOCUMENT WAS PREPARED FOR ANTERO RESOURCES CORPORATION

COVER SHEET

API#47-017-01913

WELL #1030

WEST UNION DISTRICT
DODDRIDGE COUNTY, WEST VIRGINIA

RECEIVED
Office of Oil and Gas
OCT 25 2017
WV Department of Environmental Protection



DATE: 09/19/2017

SCALE: AS SHOWN

SHEET 1 OF 7

02/02/2018