



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

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

Wednesday, March 08, 2017
WELL WORK PERMIT
Vertical / Plugging

ANTERO RESOURCES CORPORATION (A)
1615 WYNKOOP STREET

DENVER, CO 80202

Re: Permit approval for JOSEPH FREEMAN 14
47-017-06804-00-00

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: JOSEPH FREEMAN 14
Farm Name: JOHN P. STRICKLING, ET AL
U.S. WELL NUMBER: 47-017-06804-00-00
Vertical / Plugging
Date Issued: 3/8/2017

Promoting a healthy environment.

03/10/2017

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. API Well No. 47-017-06804 permanent plugging marker must be set over the wellbore within 60 days of utilizing the Strickling tank pad or within 5 years from completion of the Strickling well-site pad. The marker must comply with WV State Code.

- 1) Date January 18, 2017
- 2) Operator's
Well No. Joseph Freeman #14
- 3) API Well No. 47-017 - 71607

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 1034' Watershed Headwaters Middle Island Creek
District West Union County Doddridge Quadrangle West Union 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 Stalnaker Energy Services
Address 601 57th Street, SE Address 220 West Main St., P.O. Box 178
Charleston, WV 25304 Glennville, WV 26351

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

*Please see attached Work Order.

of gman

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

Work order approved by inspector _____ Date _____

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Environmental Protection

Joseph Freeman #14
Doddridge, WV
 API #47-017-71607



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

Objective: Plug and Abandon Wellbore. No well record data has been located. A general P&A procedure has been prepared until more data becomes available upon entering well.

Pipe Schedule:

1. No well record data has been located.

Oil and Gas Zones:

1. No well record data has been located.

Cement Details:

1. No well record data has been located.

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. Run sinker bar to determine PBTD (To be determined). Note fluid depth.
10. Run caliper from PBTD to surface. Pull out of hole.
11. MIRU logging crew.
12. Load Hole with 6% gel.
13. Run CBL from PBTD to surface.
14. Locate TOC around smallest casing string.
15. Discuss results with completions engineers before proceeding. *z OCG Inspector. JMM*
16. TIH with 2 3/8" tubing to 50' below perfs.
17. 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.
18. POOH with tubing.
19. Lubricate and RIH w/ CIBP and set at on top of shallowest cement plug. POOH w/ wireline.
20. PT CIBP to 500 psi.
21. 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.
22. PU and RIH w/ tubing to one foot above CIBP.
23. 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.
24. Pull up to 300' below casing cut (TBD via Freepoint)
25. 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.
26. Pull up to 50' below surface casing.
27. Mix and pump 100' balanced plug across bottom of surface casing. (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 surface casing.
 - e. If top of cement is deeper than 50', mix and spot cement so top is a minimum depth of 50' above surface casing depth. Tag TOC.
28. Pull up to 300'
 29. 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)
 30. TOOH
 31. Wait on cement 8hrs.
 32. ~~Set offsite marker plate with API number (API No.: 47-017-71007)~~ *gwm*
 33. Establish remote dry hole marker & provide direction and distance to DEP.

NO OFFSET MARKER VARIANCE GRANTED.

A PERMANENT MARKER EXTENDING 10 FEET INTO THE WELL BORE AND 30 INCHES ABOVE GROUND MUST BE UTILIZED. THE PLACEMENT OF THE PERMANENT MARKER MAY BE DELAYED TO ALLOW FOR UTILIZATION OF THE STRICKING TANK PAD, BUT MUST BE PLACED WITHIN 60 DAYS OF FINAL USE OF THE TANK PAD. IN ANY EVENT, THE PERMANENT MARKER MUST BE IN PLACE WITHIN 5 YEARS OF COMPLETION OF THE CONSTRUCTION OF THE STRICKLING WELL PAD.

gwm

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Environmental Protection

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17 06804P



Select County: (017) Doddridge
 Enter Permit #: 71607
 Select datatypes: (Check All)
 Location Production Plugging
 Owner/Completion Stratigraphy Sample
 Pay/ShowWater Logs Btm Hole Loc

- [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 = 71607

Report Time: Monday, January 30, 2017 9:31:05 AM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4701771607	Doddridge	71607	West Union	West Union	West Union	39.330804	-80.781188	518858.8	4353510.1

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
4701771607	-/-		unknown	Prpty Map Joseph Freeman 14						----- unknown -----			

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_BEF	O_AFT	NGL	
4701771607	-/-	-/-						unclassified	unclassified	not available	unknown	unknown									

There is no Pay data for this well

There is no Production Gas data for this well

There is no Production Oil data for this well ** some operators may have reported NGL under Oil

There is no Production NGL data for this well ** some operators may have reported NGL under Oil

There is no Stratigraphy data for this well

There is no Wireline (E-Log) data for this well

There is no Plugging data for this well

There is no Sample data for this well

NO RECORDS FOUND
 FOR 70,000 SERIES WELL 017-71607
 THIS WELL HAS BEEN ASSIGNED A STATE
 OF WV API # OF 017-06804,

AN OFFSET RECORD API 017-00246
 HAS BEEN PROVIDED BY O&G AND IS ATTACHED.
 API WELL 017-00246 IS ≈ 833' AWAY FROM
 API WELL 017-06804. THIS RECORD MAY BE USED
 TO DEMONSTRATE THE FORMATIONS THAT ARE ENCOUNTERED
 IN THE AREA AND POSSIBLE TARGET FORMATIONS DRILLED.

JMM
 3/8/2017

03/10/2017

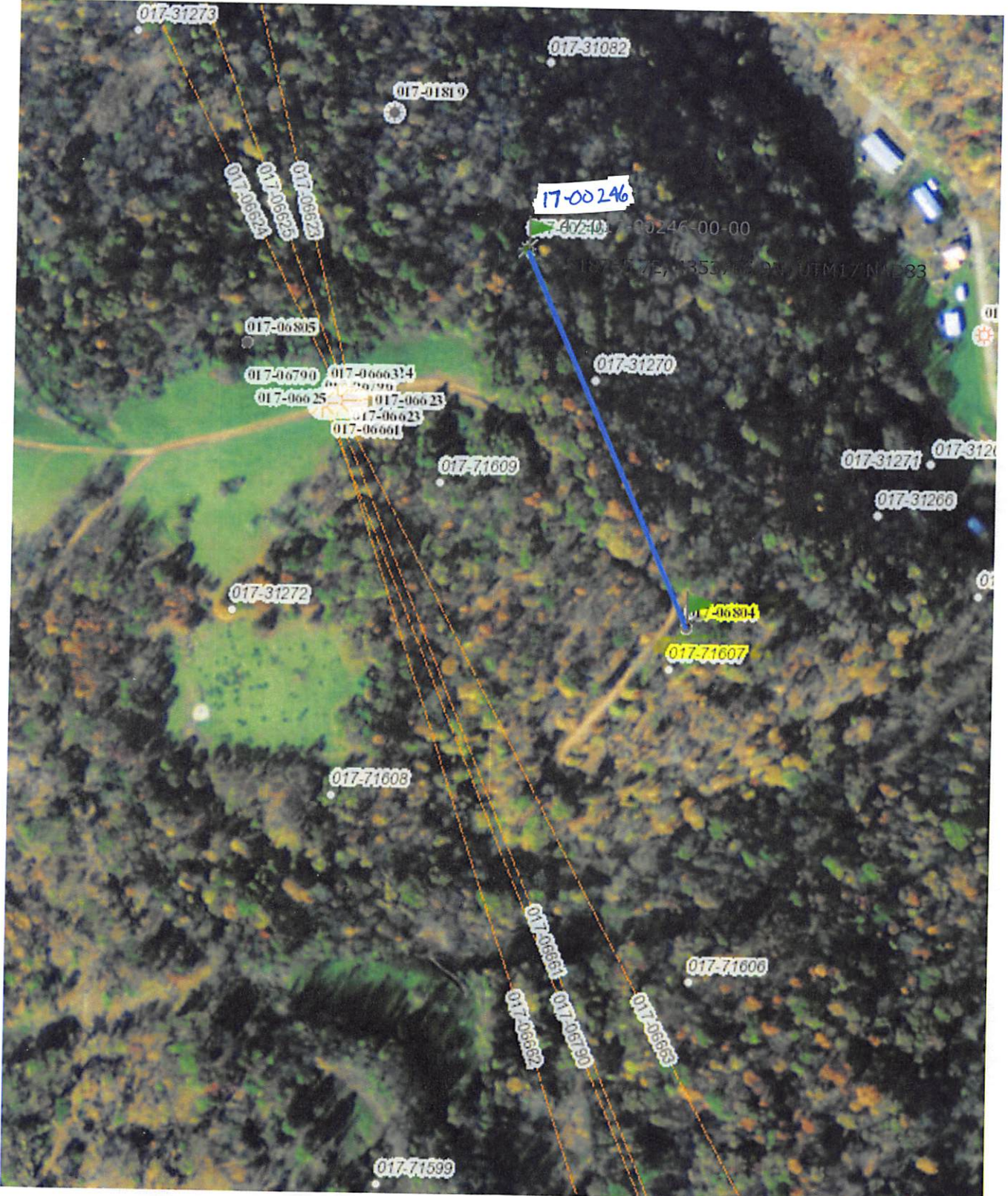
1/30/2017

17 06804 P

1 Feet

Measurement Result

833.4 Feet



03/10/2017

1706904P

00-10



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 3

Quadrangle West Union

WELL RECORD

Permit No. DOD-246

Oil or Gas Well 011
(KIND)

Company Quaker State Oil Refining Corp.
Address Box 1789, Parkersburg, W.Va.
Farm S.E. Smith Acres 36
Location (waters) Nutters Fork
Well No. 6 Elev. 969.5'
District West Union County Doddridge
The surface of tract is owned in fee by W.F. Smith, et al
J.E. Trainer Address _____
Mineral rights are owned by Brooks F. McCabe, et al
Box 1692 Address Charleston, W.Va.
Drilling commenced 4-20-58
Drilling completed 7-1-58
Date Shot None From _____ To _____
With _____
Open Flow /10ths Water in 200,000 cu. ft. _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil 10 bbls. _____ bbls., 1st 24 hrs.
Fresh water _____ feet _____ feet
Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	655'	655'	Size of
8 1/4	1940'	1940'	
6 3/4			Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

COAL WAS ENCOUNTERED AT 643 to 646 FEET INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Red Rock		Soft	0	31			
Lime	Grey	Hard	31	37			
Red Rock		Soft	37	47			
Rock	Yellow	Hard	47	56			
Red Rock		Soft	56	68			
Lime	Grey	Hard	68	74			
Red Rock		Soft	74	98			
Lime	Grey	Hard	98	120			
Rock	Grey	Soft	120	140			
Nat. Coal		Soft	140	143			
Slate	Grey	Hard	143	158			
Red Rock		Soft	158	164			
Slate	Grey		164	176			
Lime	Grey	Hard	176	187			
Red Rock		Soft	187	192			
Rock	Grey		192	204			
Red Rock		Soft	204	254			
Lime	Grey	Hard	254	260			
Red Rock			260	268			
Rock	Grey	Soft	268	282			
Lime	Grey	Hard	282	290			
Rock	Grey	Soft	290	296			
Rock	Grey	Soft	296	302			
Red Rock							
Shell		Soft	302	306			
Red Rock		Soft	306	312			
Red Rock		Soft	312	317			
Lime	Grey	Hard	317	325			
Red Rock		Soft	325	332			
Rock	Grey	Soft	332	365			
Lime	Gray	Hard	365	388			
Rock	Red & Grey						
Lime	Grey	Soft	388	406			
Red Rock		Hard	406	448			
Lime	White	Soft	448	452			
		Hard	452	458			



03/10/2017

(Over)

Formation	Color	Hard or Soft	Top 3	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime	White	Hard	458	464			
Lime	White	Hard	464	470			
Lime	White	Hard	470	476			
Red Rock		Soft	476	480			
Lime	White	Hard	480	488			
Rock	Red & Grey		488	508			
Sand	White	Hard	508	575			
Red Rock			575	583			
Red Rock			583	593			
Lime			593	643			
Coal Show			643	646			
Lime 10"							
Cog 655'			646	674			
Slate			674	679			
Lime	Grey	Hard	679	684			
Slate	Grey	Med. Hard	684	696			
Lime	Grey	Hard	696	730			
Slate	Grey	Soft	730	738			
Lime	Grey	Hard	738	764			
Lime	Hard	Hard	764	770			
Slate	Pink		770	775			
Lime		Hard	775	799			
Red Rock			799	804			
Lime			804	810			
Red Rock		Soft	810	835			
Slate	Pink	Soft	835	858			
Lime			858	863			
Red Rock			863	869			
Lime			869	879			
Red Rock			879	885			
Lime			885	900			
Red Rock	Soft	Soft	900	915			
Lime		Hard	915	940			
Slate	Dark	Soft	940	965			
Red Rock		Soft	965	975			
Lime		Hard	975	981			
Red Rock		Soft	981	987			
Lime			987	1001			
Red Rock			1001	1009			
Grey Rock			1009	1045			
Red Rock		Soft	1045	1050			
Lime		Hard	1050	1055			
Red Rock	Red & Grey						
Lime	White	Soft	1055	1074			
Red Rock		Hard	1074	1076			
Slate	Dark	Soft	1076	1085			
Sand			1085	1125			
Lime			1125	1146			
Lime		Rotten	1146	1205			
Slate	Dark	Hard	1205	1265			
Lime			1265	1295			
Slate	Dark		1295	1300			
Lime			1300	1331			
Slate	Dark		1331	1354			
Lime			1354	1368			
Slate			1368	1375			
Lime			1375	1387			
Slate			1387	1391			
Lime			1391	1430			
Slate			1430	1435			
Sand		Ex. Soft	1435	1438			
Lime			1438	1520			
Slate	Black		1520	1522			
Lime	White	Hard	1522	1525			
Sand	White	Hard	1525	1528			
Slate	Dark	Soft	1528	1542			

Date 03/10/2017

APPROVED _____, Owner

By _____ (Title)

00-10



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 3A

Quadrangle West Union
Permit No. D-246

WELL RECORD

Oil or Gas Well _____
(KIND)

Company _____
 Address _____
 Farm S.E. Smith Acres _____
 Location (waters) _____
 Well No. 6 Elev. _____
 District _____ County _____
 The surface of tract is owned in fee by _____
 Address _____
 Mineral rights are owned by _____
 Address _____
 Drilling commenced _____
 Drilling completed _____
 Date Shot _____ From _____ To _____
 With _____
 Open Flow _____ /10ths Water in _____ Inch
 _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock Pressure _____ lbs. _____ hrs.
 Oil _____ bbis., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
13			
10			Size of
8 1/2			
6 1/2			Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

Formation (continued)	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Sand	White	Hard	1585	1705			
Slate	Black	Soft	1705	1708			
Lime		Hard	1708	1720			
Slate	Dark	Soft	1720	1746			
Lime		Hard	1746	1754			
Slate		Soft	1754	1768			
Lime	White	Hard	1768	1779			
Slate		Soft	1779	1805			
Lime		Hard	1805	1820			
Red Rock	Red	Soft	1820	1821			
Lime	White	Hard	1821	1827			
Slate -							
Red Rock		Soft	1827	1832			
Slate	Dark	Soft	1832	1845			
Lime		Hard	1845	1874			
Slate	Dark	Soft	1874	1880			
Little							
Lime	White	Hard	1880	1889			
Shale		Dark	1889	1901			
Big Lime			1901	1963			
Sand			1963	1996			
Total Depth			1996				



03/10/2017

17068049

JUN 10 76

FORM 00-8

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

OIL & GAS DIVISION
DEPT. OF MINES

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

S. E. & Stella Smith
COAL OPERATOR OR OWNER
West Union, W. Va.
ADDRESS
Same
COAL OPERATOR OR OWNER
Same
ADDRESS
Same
LEASE OR PROPERTY OWNER
Same
ADDRESS

Lauderman Oil & Gas Drilling
WELL OPERATOR
110 West MAIN Street, Paden city, Wva
COMPLETE ADDRESS
June 14, 1976 19
WELL AND LOCATION
West Union District
Doddridge County
Well No. Six
S. E. & Stella Smith Farm

STATE INSPECTOR SUPERVISING PLUGGING.....

Paul Garrett

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Doddridge } ss:
D. J. Boyd and Howard Hutson

being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Lauderman Oil & Gas Drilling well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 21 day of April, 19 76, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD FORMATION	FILLING MATERIAL	PLUGS USED SIZE & KIND	CASING	
			CSG PULLED	CSG LEFT IN
2005 1960	Clay	10"	585	70
1960 875	Aquagel		84 940	1000
875 825	Cement			
825 675	Aquagel			
675 615	Cement			
615 300	Aquagel			
300 265	Cement			
265 25	Stone & n Clay			
25 0	Cement With Length of casing for marker			
COAL BEAMS		DESCRIPTION OF MONUMENT		
(NAME)	<u>Pittsburg Coal 643 to 643</u>	<u>Marker set as required by rule</u>		
(NAME)		<u>214 and extending 30" above</u>		
(NAME)		<u>ground level</u>		
(NAME)				

and that the work of plugging and filling said well was completed on the 20 day of May, 1976

And further deponents saith not.

Sworn to and subscribed before me this 22 day of June, 1976

My commission expires:

Oct 20 - 1985

D. J. Boyd
Howard Hutson

Phillip Morgan
Notary Public.

Permit No. Dodd 246 D.D.

47-017

03/10/2017

WW-4A
Revised 6-07

1) Date: January 23, 2017
2) Operator's Well Number
Joseph Freeman #14
3) API Well No.: 47 - 017 - 71607

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

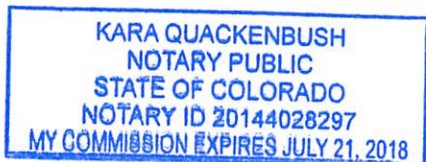
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>PLEASE SEE ATTACHMENT</u>	Name <u>NO DECLARATIONS ON RECORD WITH COUNTY</u>
Address _____	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NO DECLARATIONS ON RECORD WITH COUNTY</u>
(c) Name _____	Address _____
Address _____	Name _____
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: Robert S. Tucker *[Signature]*
 Its: Vice President of Geology
 Address 1615 Wynkoop Street
Denver, CO 80202
 Telephone 303-357-7310

Subscribed and sworn before me this 23 day of January 2017
[Signature] Notary Public

My Commission Expires July 21, 2018

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and 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.

RECEIVED
Office of Oil and Gas
JAN 24 2017
WV Department of
Environmental Protection
03/10/2017

WVA ATTACHMENT : Notice of Application to Plug and Abandon A Well**SURFACE OWNERS**

Owner: John Paul Strickling, et al
Address: 756 Strickling Farm Lane
West Union, WV 26456

Owner: Rebecca R. Strickling
Address: 756 Strickling Farm Lane
West Union, WV 26456

Owner: John Paul Strickling, et al
(2nd Address)
Address: 130 England Run Rd.
West Union, WV 26456

Owner: James E. Strickling
Address: 412 Stealey Ave.
Clarksburg, WV 26301

RECEIVED
Office of Oil and Gas
JAN 24 2017
Department of
Protection
03/10/2017

STATE OF WEST VIRGINIA - DEPARTMENT OF ENVIRONMENTAL PROTECTION

SPECIAL NOTICE OF PLUGGING OF AN ABANDONED OIL OR GAS WELL BY AN INTERESTED PARTY WHO IS NOT THE OWNER OR OPERATOR OF THE WELL.

(Page 1 of 2)

ABANDONED WELL TO BE PLUGGED:

API Well No: 47-017-71607

Elevation: 1034' Watershed: Headwaters Middle Island Creek

District: Central County: Doddridge

Public Road access: CR 28 (Nutter Fork)

Generally used Farm Name: John P. Strickling, et al

Other description of location: 39.331033, -80.781064

NOTICE TO:

[List any owners of the surface of the land upon which such abandoned well exists and their address or their location for service.]

PLEASE SEE ATTACHMENT

[List any owner or operator of such abandoned well of record with the Secretary of the Department of Environmental Protection their address or their location for service]

Unable to identify owner or operator on record with the WVDEP and WVGES.

[List any oil or gas lessee of record with the Secretary of the Department of Environmental Protection and their address or location for service:]

PLEASE SEE ATTACHMENT

Interested Party Proposing to Plug Well

Name: Antero Resources Corporation

Address: 1615 Wynkoop Street

Denver, CO 80212

Telephone: 303-357-7310

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JAN 24 2017

DOES THE INTERESTED PARTY ELECT TO TAKE THE CASING, EQUIPMENT, AND OTHER SALVAGE WHICH MAY RESULT FROM THE PLUGGING OF THE WELL? [] YES [] NO [X] N/A

If the interested party has checked "no" then the surface owners may elect to take any casing, equipment or other salvage by sending a notice to the interested party at the address listed above. The interested party must then leave the salvage at a location which will not adversely affect reclamation. If the surface owners do not elect to take the salvage, the interested party must properly dispose of the salvage.

[Service of this notice may be by certified mail return receipt requested (file the return receipt card with the Department of Environmental Protection DEP), personal service (file form WW-70 with the DEP) or by such manner as is sufficient for service of process in a civil action in court (with corresponding proof of service to be filed with the DEP). In the event there is no owner or operator of record with the Chief or no oil and gas lessee of record with the Chief, this notice must be posted in a conspicuous place at or near the well. Service and posting must be done at least 20 days prior to entering onto the surface to began plugging.]

WV Department of
Environmental Protection

STATE OF WEST VIRGINIA - DEPARTMENT OF ENVIRONMENTAL PROTECTION

SPECIAL NOTICE OF PLUGGING OF ABANDONED OIL OR GAS WELL BY AN INTERESTED PARTY

(Page 2 of 2)

NOTICE INFORMATION FOR SURFACE OWNERS, WELL OWNERS AND OPERATORS, AND OIL AND GAS LESSEES

It is lawful pursuant to The West Virginia Abandoned Well Act (W.Va. Code 22-6-1 et seq.) and the rules and regulations promulgated pursuant to that law (all of which will be called the "Act" in the rest of this notice) for any interested person, the operator of a well, or the Chief of the Department of Environmental Protection (Chief) to enter upon the premises where any abandoned well is situated and properly plug or replug the well and reclaim any area disturbed by the plugging or replugging. A permit to do the plugging or replugging must be obtained from the West Virginia Department of Environmental Protection.

You are hereby notified that the party proposing to plug the oil or gas well identified on the reverse side of this notice is claiming to be an "interested party" in the plugging of that well as that term is defined by the Act. This interested party is claiming that well is "abandoned" within the meaning of W. Va. Code 22-6-19 because it is a dry hole or because it has not been in "use" for a period of 12 months and no satisfactory proof of a "bona fide" future use" for the well has been furnished to the Director.

ADDITIONAL NOTICE INFORMATION FOR SURFACE OWNERS

Any interested person who plugs a well pursuant to the provision of the Act must repair the damage or disturbance resulting from the plugging or compensate the surface owners for the damage or disturbance. This requirement of the Act is in addition to any rights and remedies any party may have pursuant to common law or other statutes. The compensation provided by the Act if the interested party does not fully repair the damage or disturbance is (i) the reasonable cost of repairing or placing any water well, (ii) the reasonable value of any crops destroyed, damaged or prevented from reaching market, (iii) the reasonable cost of repair to personal property up to the value of the replacement value of personal property of like age, wear and quality, (iv) lost income or expense incurred, and (v) reasonable costs to reclaim or repair real property including roads.

When the interested person is finished with the reclamation, the interested person must send the surface owners a letter advising that the reclamation has been completed. If the surface owners do not agree with the interested party that as to the adequacy of the repairs performed or the amount of compensation to which the surface owners may be entitled, either party may bring a civil action in court. In addition either party upon written notice to the other may elect to have that issue finally determined by binding arbitration pursuant to W. Va. Code 55-10-1 et seq. For materials further explaining the arbitration process please contact the Chief.

ADDITIONAL NOTICE INFORMATION FOR OWNERS OR OPERATORS OF WELLS

In the event the owner or operator of a well fails or has failed to plug an abandoned well in accordance with laws and regulations in effect at the time the well is or was first subject to plugging requirements, any interested persons who plugs or replugs such well pursuant to the provisions of this section may recover from the owner or operator of such well all reasonable costs incidental to such plugging or replugging, including any compensation provided for in this section. In the event funds from the oil and gas reclamation fund established pursuant to section twenty-nine, article one of this chapter are used to plug or replug such well, the Secretary shall be entitled to recover from the owner or operator of such well any amounts so expended from the fund. Any amounts so recovered by the Chief shall be deposited in said fund.

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.

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Environmental Protection

03/10/2017

WW-4C ATTACHMENT : Plugging – Abandoned Well by Interested Party**SURFACE OWNERS**

Owner: John Paul Strickling, et al
Address: 756 Strickling Farm Lane
 West Union, WV 26456 ✓

Owner: Rebecca R. Strickling
Address: 756 Strickling Farm Lane
 West Union, WV 26456 ✓

Owner: John Paul Strickling, et al
 (2nd Address)
Address: 130 England Run Rd.
 West Union, WV 26456

Owner: James E. Strickling ✓
Address: 412 Stealey Ave.
 Clarksburg, WV 26301

OIL OR GAS LESSEE

Owner: Mary Maxine Welch
Address: PO Box 4308
 Parkersburg, WV 26104

Owner: Eugene H. Armstrong
Address: PO Box 1281
 Bridgeport, WV 26330

Owner: Donald R. Ronald
Address: PO Box 607
 Jane Lew, WV 26378 ✓

Owner: John D. Morris
Address: 11989 Allerton Ct.
 Parker, CO 80138

Owner: C. Burke Morris & S.A. Smith
Address: PO Box 659
 Wichita Falls, TX 76307

Owner: Susan K. Young
Address: 2665 Misty Morning Ln.
 Roswell, GA 30076

Owner: JP Morgan Chase Bank Trustee,
 Will E. Morris Est.
Address: PO Box 659
 Wichita Falls, TX 76307

Owner: Jean Ann Griffin
Address: 2665 Misty Morning Ln.
 Roswell, GA 30076

Owner: Gore Corporation
Address: PO Box 2101
 Clarksburg, WV 26302 ✓

Owner: JP Morgan Chase Bank trustee, John
 W. Kerns Heirs Trust U/A
Address: PO Box 659
 Wichita Falls, TX 76307

Owner: Lawrence O. Price
Address: 18955 Park Ave. Plaza
 Meadville, PA 16335

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1706804P

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 017 - 71607
Operator's Well No. Joseph Freeman #14

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 West Union 7.5'

Elevation 1034' 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)
Northwestern Landfill Permit #SWF-1025/
WV0109410
- Other (Explain _____)

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 *Cole Kilstrom*

Company Official (Typed Name) Cole Kilstrom

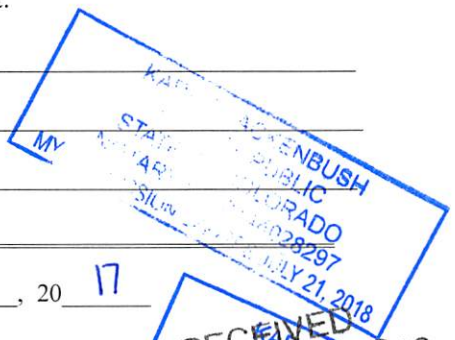
Company Official Title Environmental & Regulatory Manager

Subscribed and sworn before me this 23 day of January, 20 17

Karen Lumbush

Notary Public

My commission expires July 21, 2018



LEGEND

Property Boundary

Road

Existing Fence

Planned Fence

Stream

Open Ditch

Rock

North

Buildings

Water wells

Drill site

Diversion

Spring

Wet Spot

Drain Pipe with size in inches

Waterway

Cross Drain

Artificial Filter Strip

Pit: cut walls

Pit: compacted fill walls

Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 5.16 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
Please reference Table IV-3 on page 10 of the Joseph Freeman #14 Well Plugging Plan		

*or type of grass seed requested by surface owner		

Seed Type	Area II	lbs/acre
Please reference Table IV-4A on page 10 of the Joseph Freeman #14 Well Plugging Plan		

*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.

Plan Approved by: _____

Comments: _____

Title: _____

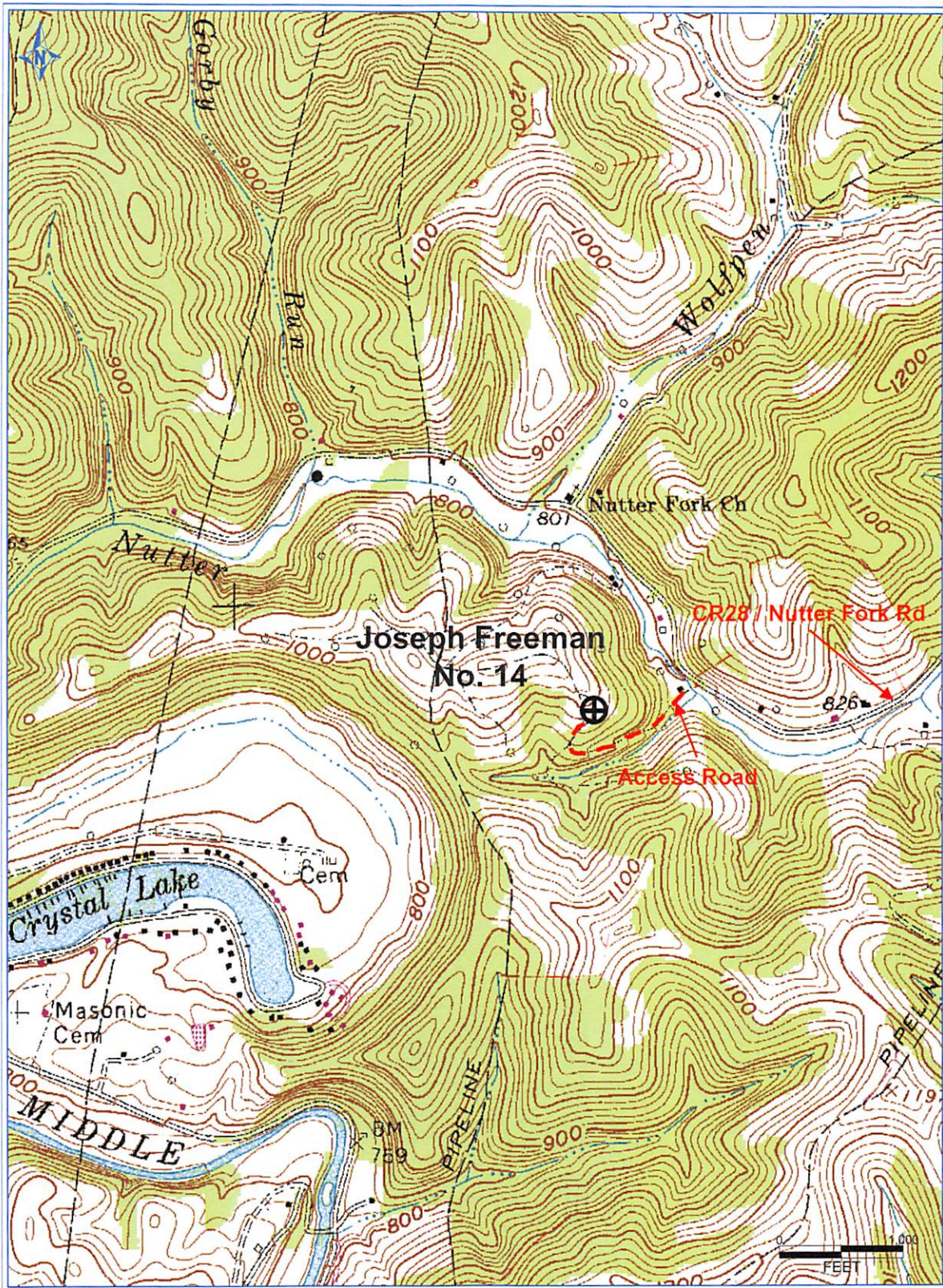
Date: _____

Field Reviewed? () Yes () No

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JAN 24 2017

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Environmental Protection
03/10/2017



Antero Resources Corporation

Appalachian Basin

Joseph Freeman No 14

Doddridge County

Quadrangle: West Union

Watershed: Nutter Fork

District: West Union

Date: 01-11-2017

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-017-71607, 47-017-06804 WELL NO.: 14

FARM NAME: Joseph Freeman

RESPONSIBLE PARTY NAME: Antero Resources Corporation

COUNTY: Doddridge DISTRICT: West Union

QUADRANGLE: West Union

SURFACE OWNER: John P. Strickling, Et Al

ROYALTY OWNER: N/A

UTM GPS NORTHING: 4353535.74 m

UTM GPS EASTING: 518869.46 m GPS ELEVATION: 296.1 m = 1,034 ft.

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:

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

Survey grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

Mapping Grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

4. 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.

Mally Stanton
Signature

Permitting Supervisor
Title

1/23/17
Date
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JAN 24 2017
West Virginia Department of
Environmental Protection

Mally Stanton

03/10/2017