

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

March 27, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-5900661, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

Chief

James Martin

Operator's Well No: 8719 (808719)

Farm Name: FERGUSON, THOMAS

API Well Number: 47-5900661

Permit Type: Plugging
Date Issued: 03/27/2014

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.

5900661 P. CK 5132869

FORM WW-4 (B) Observe File Copy (Rev. 2/01) 1) Date: 3/6/2014 2) Operator's Well No. 808719 P&A 3) API Well No. 47-059-00661

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

	Well Typ (Is Gas,		Oil_ luction X o	Gas or Underground	X	Liq	uid injecti D		Was	te disposal Shallow X	
Ε\	Location:		Elevation		_				-		
5)	Location.		District _	867' Harvey 2	Watershed County	-	Mingo		drangle	repole Creek Trace, WV 7.5	64
6)	Well Ope Address	rator	P.O. Box 1	ke Appalachia 8496 City, OK 7315		7)	Designat Address	ed Agent	Eric B. Gill P.O. Box 6 Charleston		
8)	Oil and G Name Address	Jeren P.O.	pector to be r ny James Box 147 WV 25545	notified		9)	Plugging Name Address	P.O. Box	ake Appalac		
				S	ee Attached S	heet					
lotii	fication m	ist he c	tiven to the d	istrict oil and g	as inspector 2	d based	ure hafass				

Received 03/28/2014

MAR 2 4 2014

Office of Oil and Gas WV Dept. of Environmental Protection

808719 P&A PROCEDURE

- 1) Prepare road and location, MIRU service rig
- 2) Pull 1 1/2" and packer

NOTE: if unable to pull packer, pump 20 sack cement plug down 1 $\frac{1}{2}$ ", displace with gel to 2000', cut 1 $\frac{1}{2}$ " at free-point (approximately 1740') and pull. Cut 3 $\frac{1}{2}$ " at free-point (approximately 1725') and pull. Proceed to step #6

- 3) Run W.S. to 2695', load hole with gel
- 4) Spot 100' cement plug 2695'-2595', pull W.S.
- 5) Cut 3 ½" at free-point (approximately 1725') and pull
- 6) Run W.S. to 1725', load hole with gel
- 7) Spot 100' cement plug 1725'-1625', pull W.S. to 1575'
- 8) Spot 100' cement plug 1575'-1475', pull W.S. to 1400'
- 9) Spot 100' cement plug 1400'-1300', pull W.S.
- 10) RIH with tools to check top of plug (If TOC is below 1325', then reset plug)
- 11) Cut 7" at free-point (approximately 770') and pull
- 12) Run W.S. to 770', load hole with gel
- 13) Spot 150' cement plug 770'-620', pull W.S.
- 14) Attempt to pull 8 5/8"
 - A) If successful:
 - a) Run W.S. to 425', load hole with gel
 - b) Spot 100' cement plug 425'-325'
 - c) Proceed to step #15
 - B) If unsuccessful:
 - a) Run W.S. to 400'
 - b) Spot 100' cement plug 400'-300', pull W.S.
 - c) Cut 8 5/8" at free-point (approximately 180') and pull
 - d) Proceed to step #15
- 15) Pull or run W.S. to 220'
- 16) Spot 220' cement plug 220' surface
- 17) Pull W.S. and top off with cement
- 18) Erect monument and reclaim as prescribed by law

03/28/2014

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STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

Quadrangle Holden

Oil or Gas Well Gas

ammone United	- 661						(KIND)
Address P.O. I	Puel Gas	Charleston	25, W. Va.	Casing and Tubing	Used in Drilling	Left in Well	Packers
ocation (waters).	Rest Fork	of 12 Pole	Creek	Size			
ocation (waters).	Baby Port	OI IL TOIC	Elev. 859.82	16			Kind of Packer
Vell No OTIS		County Mingo)	13		0.	Upside Down
				10."	20'	201	Size of 32"x 7"x 16"
ne surface of tra-				8-5/8"	343'	3431	
dinoral rights are			Gas Co. Min.	жж. 7"	1350'	13501	Depth set_ 1865'
r. #1 - P.O	. Box 1273	tharlesto	on 25, W. Va.		2811'	28111	
rilling commence	May 12,	1960	- 717 F-	3			Perf. top
rilling completed	July 30	, 1960		2			Perf. bottom
ate Shot NOT	SHOT From	т.	0	Liners Used	Marie III		Perf. top
Vith							Perf. bottom
			Inch				1 1 1 1 1 1
/	10ths Merc. i	ín	Inch	CASING CEV	TENTED	SIZE	No. FtDate
folume	Vicas		Cu. Ft.	31,000			
Colume Rock Pressure	417	lbs	_bbls., 1st 24 brs.	COAL WAS I	ENCOUNTERE	AT 145	FEET 60 INCHES
					ETINC	HES	FEETINCHES
11.200					T_INC	HES	FEETINCHES
WELL FRACTUR	RED		-				
Fresh Water		Feet			0.7 .5	1	eet
Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Dept	h Remarks
Surface Sand Slate Broken Sand Slate Coal Slate			0 25 38 50 135 145	25 38 50 135 145 150 190	Water 100' Hole full Show gas a	water 200	20'

03/28/2014 Received

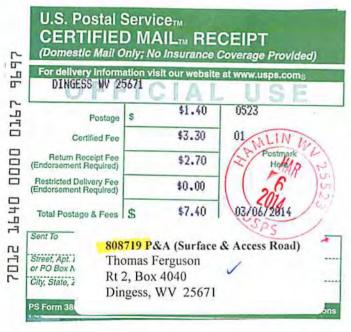
MAR 2 4 2014

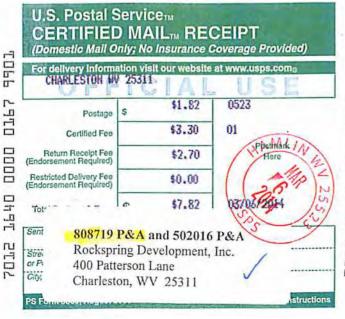
WW4-A
Revised
2/01

1) Date: 3/6/2014 2) Operator's Well No. 808719 P&A 3) API Well No. 47-059-00661

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

4)	Surface Own	ner(s) to be serve	d:		Coal Operat	or		
	(a) Name	Thomas Fergus	on	=	(a) Name		ergy WV, LLC	
	Address	Rt 2, Box 4040			Address		ve Pole Creek R	oad
		Dingess, WV 25	671	=		Dunlow, W	VV 25511	
		_		_	Coal Owner	(s) with Decl	laration	
	(b) Name				(b) Name		Land Corporat	on
	Address			_	Address		ton Avenue	OII
	Addiess	-		-)"	Address	Bluefield,		
				3				
	(c) Name				Name			
	Address		_	-	Address			
				-		-		
				_	Coal Lesse	e with Decl	laration	
5)	Inspector	Jeremy James		_	(c) Name	Rocksprin	g Development,	Inc.
	Address	P.O. Box 147		2	Address	400 Patters	son Lane	
		Ona, WV 25545				Charlestor	n, WV 25311	
	Telephone	304-951-2956						
	Take notice that Notice and App Oil and Gas, W attached Applic	the reverses side. He at under Chapter 22-6 plication and accompaniest Virginia Departmentation and depicted o	lowever, you are not not the West Virg anying documents ent of Environme in the attached Fo	not required to take inia Code, the unde s for a permit to plu- ntal Protection, with rm WW-6. Copies	ing the application whi any action at all. ersigned well operator p g and abandon a well v respect to the well at of the Notice, the App s) named above (or by	proposes to file with the Chief of the location de lication, and th	e or has filed the of the Office of escribed on the ne plat have been	
	circumstances)	on or before the day	of mailing or deli	very to the Chief.	1	7		
	1-1111111	mmmm	my	Well Operator:	Chesapeake Appal	achia, L.I		
	S STATE OF	Official Sali Notary Public State of West Vegeta	4	By:	_hhill	Make		
	(音表表質	Phyllis A. Copl	ou 3	Its:	Manager - Operatio	ns, Appalachia	South	
	1/201/1	Willard Circle Hurricans, WV		Address:	P.O. Box 18496			
	1	My Commission Espires	40020		Oklahoma City, OK	73154-0496	hree	7.
	mum	September 10, 2018	2	Telephone:	Control for the Artist Control		HEGE	
			w.	C. S. A. Marian Contract	405-935-4073		f. Hobinson & co.	VED
	277.5				405-935-4073		Office of Of	and Gas
ubs	cribed and swor	n before me this	6th day of	March Oplu	the year of	2014 lotary Public	MAR 0 7	and Gas







03/28/2014

PS Form

Rev. 02/01

API Number 47-059-00661
Operator's Well No. 808719 P&A

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 Na	me Chesa	peake Appalac	hia, L.L.C.	OP Co	ode 49447	7557	
Watershed	East	Fork of Twelvep	ole Creek	Quadr	angle	Trace, WV	7.5'
Elevation _	867'	Cou	inty Min	igo	Distric	t	Harvey
Description o	of anticipated Pit W	/aste: Pluggi	ng Returns/Ce	ment			
Will a synthe	tic liner be used in	the pit? Yes		20 MIL.			
Proposed Dis		and Application Inderground Inj Reuse (at API N Off Site Disposa	ection (UIC Per umber_ I (Supply form V	rmit Number VW-9 for dispos			
Proposed Wo	\\ XF	Will Be Used: Orilling Vorkover Swabbing Plugging Other (Explain_)		
issued on I understand permit and I certify this applica for obtainin	that I understand and December 31, 1999, by I that the provisions of for other applicable law the under penalty of law atton form and all attacing the information, I be penalties for submitting	y the Office of Oll and the permit are enforwor regulation can lead to the that I have personal hments thereto and lieve that the inform	nd Gas of the West reeable by law. Viceable by law. Vicead to enforcemently examined and arthat, based on my ation is true, accur-	Virginia Departmen lations of any term of taction. In familiar with the in inquiry of those indi ate, and confiplete.	t of Environme or condition of the formation subnoviduals immedi I am aware tha	ntal Protection. the general nitted on ately responsib	
Company Off	icial Signature _		hill.	le			-
Company Off	icial (Typed Name	e)David	Gocke				
Company Off	icial Title	Manag	er - Operation	s, Appalachia S	South		
Subscribed a	nd sworn before n	ne this 6th	day of!	March	2014	- Notary	Public CEIVED
My Commissi	ion Expires	September 16	2018	, ,			ice of Oil and Gas
				Lumm	mm	my	MAR 0 7 2014
				1	Stree of West Very Phyllis A. Co	ople Enviro	/ Department of nmental Protection

144 William Climbs Humbann, WV 25506 My Commission Expires September 16, 2018

03/28/2014

Attachment #1

API #: 47-059-00661 Operator's Well No. 508719 P&A

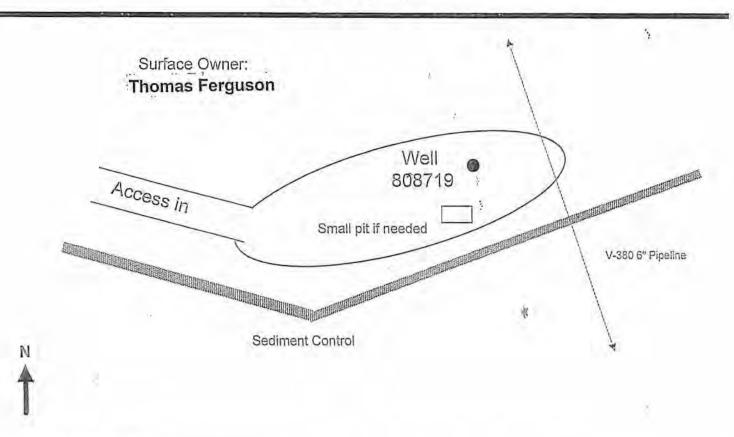
	LEGEND	
Property Boundary	Diversion Leaster Little Little	
Road = = = = = = = = = = = = = = = = = = =	Spring -	
Existing Fence — X — X — X —	Wet Spot	
Planned Fence///	Drain Pipe with size in inches	
Stream Con 7	waterway ← ← ←	• (
Open Ditch		11111
Rock <i>& S & & &</i>	Artificial Filter Strip	XXXXXXX
North N	Pit: cut walls	
Buildings	Pit: compacted fill walls	
Water wells	Area for Land Application of Pit Waste	_
Drill site)
	Carried States	
Proposed Revegetation Treatment: Acres Distr	urbed 1.0 Prevegetation pH 6.1	
Limo	7 Tong/gara as to correct to pU C.E.	
Lime	Tons/acre or to correct to pH 6.5	•
Fertilizer (10-20-20 or equivalent) 1/3	TON lbs/acre (500 lbs minimum)	
Mulch_H	ay 2 Tons/acre	
	Seed Mixtures	
Area I	Area II	·
Seed Type Ibs/ac		lbs/acre
KY-31 40	ORCHARD GRASS	15
ALSIKE CLOVER 5	ALSIKE CLOVER	5
ANNUAL RYE 15	V.332 030 v.3	•
Attach:		
Drawing(s) of road, location, pit and proposed are	ea for land application.	
Photocopied section of involved 7.5' topographic	sheet	
Thotocopied section of involved 7.5 topographic	gneet.	
Plan Approved by:		
Title: Inspector Oc	5G	
Date: 3-18-14		

Receive 28/2014

MAR 2 4 2014

CHESAPEAKE APPALACHIA, L.L.C.

Diagram of Well 808719 API 47-059-00661 Field Office - Branchland County - Mingo



GENERAL NOTES

This'drawing is a schematic representation of the well site and access road. Proposed structures such as well site, drilling pit, roadways, culverts sediment barriers etc. are shown in approximate pre-planning configurations.

All culvert pipes will be a minimum of 15 inches in diameter. All culvert pipes installed will be accompanied by an entrance sump with dimensions no less than 3 feet (width) x 3 feet (length) x 4 feet (deep). Culverts will be installed at an angle to ensure proper flow. The out fall of culverts will be protected from erosion and sedimentation using large rocks or other sediment controls deemed necessary in the prevention of erosion and sedimentation. Storm water from the ditches to the culverts will be directed to stable natural vegetative areas. Where culverts are not practical, operator will have other sediment control in place to minimize erosion and sedimentation.

Cross drains, broad based dips, water bars, and diversion ditches will be employed during the construction phase. These erosion and sediment control structures will be used to control erosion and sedimentation during the construction phase, where applicable and areas that will allow. These structures will be considered permanent and used as such.

Permanent seeding: See Attachment #1

Site Plan

Prepared by: Kris Aldridge

Date: 2-14-2014

No Scale



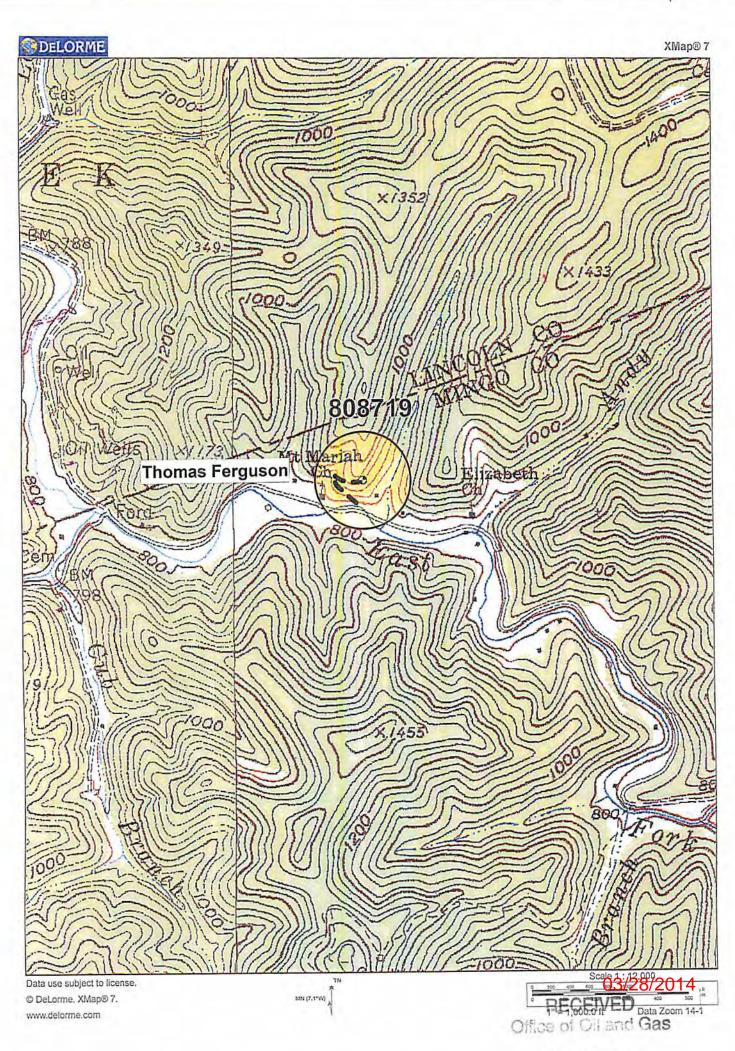
MAR 2 4 2014

Chesapeake Energy Corporation - Eastern Division P.O. Box 579 ° 8165 Court Avenue ° Hamlin, WV 25523 304.824.5141 ° fax 304.824.2247

Office of Oil and Gas WV Dept. of Environmental Protection

CHESAPEAKE APPALACHIA, L.L.C.

Topographical Map of Access and Well Location 808719 API 47-059-00661 Field Office - Branchland County - Mingo



MAR 0 7 2014

Chesapeake Energy Corporation - Eastern Division P.O. Box 579 • 8165 Court Avenue • Hamlin, WV 25523 304.824.5141 • fax 304.824.2247

WV Department of Environmental Protection

