

## 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 18, 2014

## WELL WORK PLUGGING PERMIT

## Plugging

This permit, API Well Number: 47-4301316, 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

James Martin

Chief

Operator's Well No: 502016 P&A (8721)

Farm Name: FERGUSON, KENNETH

API Well Number: 47-4301316

Permit Type: Plugging Date Issued: 03/18/2014

Promoting a healthy environment.

# **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.

FORM WW-4 (B) Observe File Copy

1) Date: 3/6/2014 2) Operator's Well No. 502016 P&A 3) API Well No. 47-043-01316

	/. 2/01)						200,000 200,000	No. 47-043-0	
				STATE OF	WEST VIRG	INIA			
			DEPARTME	NT OF ENV	IRONMENTA	L PROTE	ECTION		
				OFFICE O	FOIL AND	SAS			
Š1.	Sin wa		APPLICATION						
4)	Well Type:	Oil_	Gas	X	Liquid injecti		_ Was	ste disposal	
	(Is Gas, Pro	duction X	or Underground	storage _	_) L	еер	-	Shallow X	
5)	Location:	Elevation	1123'	Watershed		East	ork of Twel	vepole Creek	
		District	Harts Creek 3		Lincoln		drangle	Trace, WV 7.5	643
	W-# 0	01				4 1	F : D 011	hot ka	
5)	Well Operator Address	P.O. Box	ke Appalachia,	L.L.C.	<ol><li>Designat Address</li></ol>	ed Agent	P.O. Box 6		
	Address		City, OK 73154	1-0496	Address			n, WV 25362	
		Omanoma	ony, on roto-	1 0 100			Charleston	1, *** 20002	
3)	Oil and Gas Ins		notified		9) Plugging				
		h Triplett			Name		ake Appalac	hia, L.L.C.	
		39 McClellan Highway			Address				
	Bran	chland, WV	25506			Oklahom	a City, OK 7	3154-0496	
			Se	e Attached S	heet				
			Se	e Attached S	heet				
			Se	e Attached S	heet				

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

RECEIVED

Work Order approved by Inspector

Diffice of Oil and Gas

MAR 0 7 2014

WV Department of Environmental P03/21/2014

## ELEU 1123

#### 502016 P&A Procedure

- Prepare road and location, MIRU Service Rig
- 2) Pull rods, pump and tubing, check TD with tools
- 3) Attempt to pull 4 1/2" and packer

DOES NOT APPEAR TO BE ANY 41/2" IN WELL

- 4) Run W.S. to approximately 1715', load hole with gel
- Spot 100' cement plug 1715'-1615', pull W.S.
- 6) If attempt to pull 4 ½" was unsuccessful, cut 4 ½" at free-point (approximately 1600') and pull, then set 100' cement plug at 4 ½" cut.
- 7) Cut 6 5/8" at free-point (approximately 950') and pull
- 8) Run W.S. to 950', load hole with gel
- 9) Spot 100' cement plug 950'-850', pull W.S. to 775'
- 10) Spot 100' cement plug 775'-675', pull W.S.
- 11) Attempt to pull 8 5/8" casing
  - A) If successful:
    - Run W.S. to 615', load hole with gel, pull W.S. to 575'
    - b) Spot 100' cement plug 575'-475', pull W.S.
    - c) Proceed to step #12
  - B) If successful:
    - a) Rip holes in 8 5/8" at approximately 530' and 500', run W.S. to 650'
    - b) Spot 175' cement plug 650'-475', pull W.S.
    - c) Proceed to step #12
- 12) Cut 8 5/8" at free-point (approximately 345') and pull. NOTE: If free-point is above 345' then rip holes at approximately 330' and 300'.
- 13) Run W.S. to 345', load hole with gel
- 14) Spot 100' cement plug 345'-245', pull W.S. to 215'
- 15) Spot 70' cement plug 215'-145', pull W.S. to 100'
- 16) Spot 100' cement plug 100' surface
- 17) Pull W.S. and top off with cement
- 18) Erect monument and reclaim as prescribed by law

CPTION I
CAN SET CLASS A
CEMENT PLUG FROM 215'- SUIFME

REGEIVED

Office of Oil and Gas

MAR 0 7 2014

WV Department of Environmental Protection 03/21/2014

	0	TE OF WEST VIRG ARTMENT OF N IL AND GAS DIVISIO DR'S WELL	IINES	т	
1		-,-		Oil or	Gas Watt Gas
	Company United Fuel Gas Company P.O. Box 1273	CATING AND	DRILLING	LEFT IN	PACKERS
	Address Charleston, W. Va.	Size			
	Farm_ U.P.G.Co. Min. Tr. #31	16			Kind of Packer
	Well No 8721	13			
-1	District Harts Crock County Lincoln	10	61618"		Size of
	Drilling commenced 6-6-60	6%	16581		
		5 3/16		-	Depth set 16581 Bottom Hole Packer
	Drilling completedTotal depth	- 3	1		
	Date shotDepth of shot	_ 2			Perf. bottom
	initial open flow/10ths Water inInc	h Liners Used_			Perf. top
	Open flow after tubing /10ths Merc. in Inc.				Perf. bottom
	Valume				
	tlack pressurelbsber	. CASING CEME	TED	SIZE	_No. FTDate
	24   bbla, 1st 21 hrs   Fresh water 150   feet   feet	308 FEET_	36 INCHE	т_183 , яц	ECEIVE ACIES
	Drillers' Names George Sowards				OF MINES
demo	Kenneth Paul				1016813
	Remarks: Salt Sand 970'-1215'; Maxon San from 1689'-1696'; fill up in 7" casi	d 1524'-1583'; ng - 1350'; no	Rig Lime 1 t acidised	628'+ 011 as of thi	in Hig Line
	7-21-60		1	Pa	
	MATE		Ju.	pa	CAP
			-		WILL IMPECTOR



# Well 502016 API 47-043-013169

## DEPARTMENT OF MINES OIL AND GAS DIVISION

Holden.

Off	er	Gas	Well	011
120.20	7.			(MINAM)

Permit No. LIN-1316 WELL	RECORD		Off or	Gas Well 011 (HMG)
Company United Fuel Gas Company Address P.O. Box 1273; Charleston 25, W. Va. Farm United Fuel Gas Co.Min.Tr.#31 cres 2,255.95	Casing and Tubing	Used in Drilling	Left in Well	Packers
Location (waters) East Fork of 12-Pole Creek Well No. 8721 (Now P.O. V-2016)Elev 1119.62 District Harts Creek County Lincoln	Size 16			Kind of Packer Bottom Hole
The surface of tract is owned in fee by	10_3/4 8% 5/8		16' 616	Size of 7" x 8-5/8"
Mineral rights are owned by United Fuel Gas Co.  Address Charleston, W. Va.	3684c 7 5 3/16		1667	Depth set
Drilling commenced 6-6-60  Drilling completed 7-15-60	3 2			Perf. top Perf. bottom
Date Shot Not shot From To	Liners Used			Perf. top
Open Flow         /10ths Water in	CASING CEM	ENTED	SIZE	_No. Ft Date
Rock Pressure lbs. hrs.  Oil bbls., 1st 24 hrs.  WELL ACIDIZED	COAL WAS E	r_ 36 IN		
WELL FRACTURED				

RESULT AFTER TREATMENT

ROCK PRESSURE AFTER TREATMENT

Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	5			
Slate		1	5	45	1 40 19 - 2 / 14		
Sand			45	183	Water at 15	0' - 4 BPH	
oal			183	185	1	N	
and	1		185	308	1		
oal	1		308	311			
and			311	350		X .	
late			350	395		8	
and			395	450			
late			450	511			
oal			511	515			
late & She	118		515	790	Water at 72	' - Hole Ful	.1
and		1	790	900		7 4 4	
late			900	970			
alt Sand		1	970	1215			
Slate & She	118	1	1215	1432	1		
and		1	1432	1484			
Slate & She	lls	1	1484	1524			
exon Send			1524	1583	1		
ittle Lime			1583	1625			
Pencil Cave	-	02226	1625	1628		-1696' - 10	10 W - 2"
Big Line	1500	100000	1628	1728	011 at 1689	- 1696'	
Cotal Depth	100	4 3	1728'		m + 2/26/2	11 711	
	1	ER 1961 93			Test (/10/10	- 1½ Bbl.	
	19	1 33 E					03/21/20
	E RE	EB 1961 CEIVED St. Virginia t. of Mines 6 0 1 9 5 7 5					
	Wa Wa	St Virginia			1	RECEI	VED
	Der Der	t. of Williams				Office of Oil	2240
	110	C 70				01011	and Gas

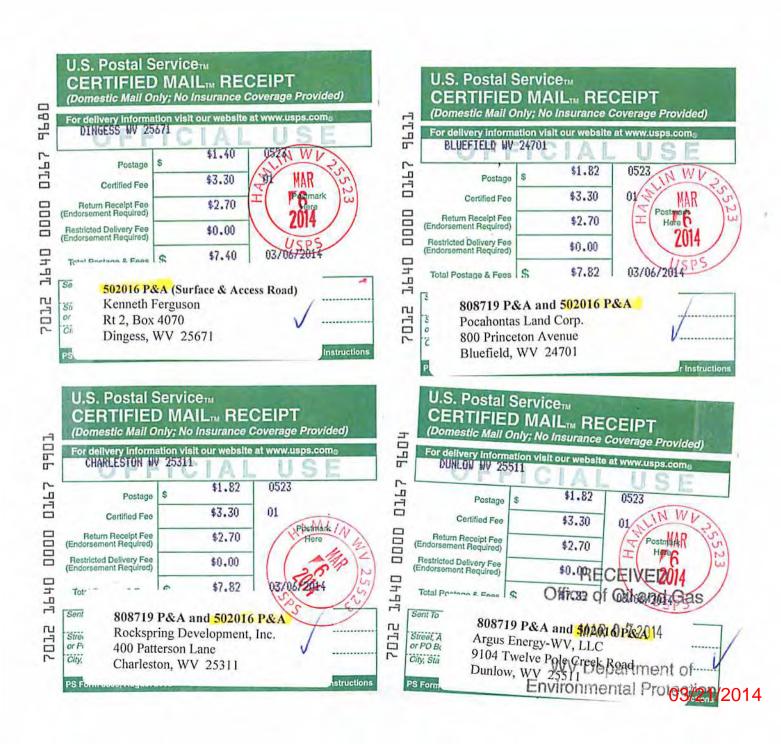
(over)

... WV Department of Environmental Protection

WW4-A Revised 2/01 1) Date: 3/6/2014 2) Operator's Well No. 502016 P&A 3) API Well No. 47-043-01316

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

		NOTICE	OF APPLICATION TO	PLUG AND ABANDO	N A WELL	
4)		ner(s) to be served:		5) Coal Operato		/
	(a) Name	Kenneth Ferguson		(a) Name	Argus Energy WV, LLC	٧
	Address	Rt 2, Box 4070		Address	9104 Twelve Pole Creek Road	
		Dingess, WV 25671			Dunlow, WV 25511	_
		-		Coal Owner(	s) with Declaration	
	(b) Name			(b) Name	Poahontas Land Corporation	-
	Address			Address	800 Princeton Avenue	
	(10000000000000000000000000000000000000				Bluefield, WV 24701	
	(c) Name			Name		
	Address			Address		
	7 1441 545			71441000		
4.5					e with Declaration	/
6)	Inspector	Ralph Triplett		(c) Name	Rockspring Development, Inc.	V
	Address	5539 McClellan Highw	ay	Address	400 Patterson Lane	
		Branchland, WV 2550	6		Charleston, WV 25311	
	Telephone	304-389-0350				_
_						
	(2) The plat (s The reason yo instructions on Take notice the Notice and App Oil and Gas, W attached Applie mailed by regis circumstances	olication and accompanying  Jest Virginia Department of I  cation and depicted on the a  stered or certified mail or del  on or before the day of mail	well location on Form WW is that you have rights reg r, you are not required to ta West Virginia Code, the u documents for a permit to Environmental Protection, ttached Form WW-6. Cop ivered by hand to the perso iling or delivery to the Chie	parding the application white any action at all.  Indersigned well operator pulling and abandon a well with respect to the well at ties of the Notice, the Application of the Application of the Application of the Notice.	proposes to file or has filed the with the Chief of the Office of the location described on the lication, and the plat have been publication in certain	
		Contral Seed Hotary Public Scale of West Virginia Phyllis A. Copley 64 Wilseld Chris Hartleam, WV 25525 My Commission English September 18, 2018	Well Operator By: Its: Address: Telephone:	when	ńs, Appalachia South	
Subs	cribed and swo	rn before me this 6th	day ofMarc	2 Cu 10 -	2014	
_			Thick	su cyling N	lotary Public	
	ommission Exp WW-9	ires	September 16, 2018	-		



Departmer03/21/2014

Environmental Protection

Rev. 02/01

API Number	47-043-01316	
Operator's Well No.	502016 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 Name	Chesapeake	Appalachia, L.L.C.	OP Code	49447755	7
Watershed	East Fork of	Twelvepole Creek	Quadran	gleTrac	e, WV 7.5'
Elevation	1123'	CountyLi	ncoln	District	Harts Creek
Description of ar	nticipated Pit Waste:	Plugging Returns/0	Cement		
Will a synthetic l	iner be used in the pit	? Yes	20 M	iL.	
Proposed Dispos	Undergi Reuse (	oplication round Injection ( UIC P at API Number Disposal (Supply form		)	
Proposed Work	For Which Pit Will Be Drilling Workov Swabbir X Plugging Other (E	er ng		)	
issued on Dece understand that permit and/or of I certify und this application for obtaining the significant pena Company Officia Company Officia Company Officia Subscribed and s	ember 31, 1999, by the Offit the provisions of the permither applicable law or regulder penalty of law that I have form and all attachments the information, I believe that alties for submitting false in all Signature  If (Typed Name)  If Title  Sworn before me this	b the terms and conditions of ce of Oil and Gas of the We not are enforceable by law. It lation can lead to enforcement the personally examined and hereto and that, based on not the information is true, according to the information, including the post of the lating that the information is true, according to the post of the lating that the lating th	est Virginia Department of Jiolations of any term or contraction. am familiar with the inform my inquiry of those individuate, and complete. I am sibility of fine or imprison	f Environmental F condition of the go mation submitted uals immediately m aware that ther ment.	Protection. I eneral on responsible
My Commission	Expires Septe	mber 16, 2018	Lun	Official Su	RECEIVED

## Attachment #1

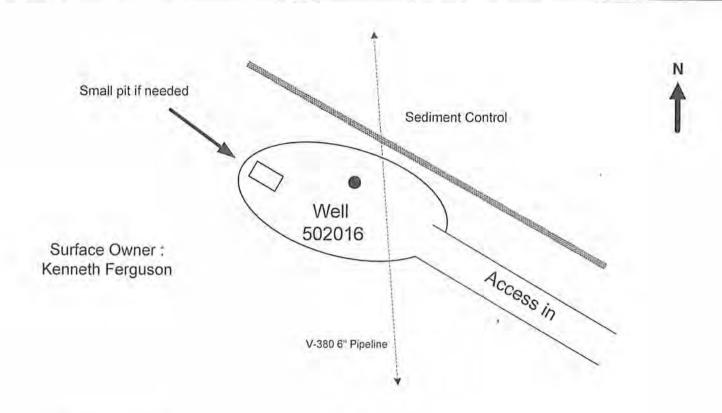
API #: 47-043-01316 Operator's Well No. 502016 P&A

ı	EGEND	
Property Boundary	Diversion (4:441411111111111111111111111111111111	اللاب المالية
Road = = = = = = = = = = = =	Spring	
Existing Fence — X — X — X —	Wet Spot	
Planned Fence / / /	Drain Pipe with size in inches (3	
Stream Change Control of the Stream	Waterway $\longleftrightarrow$	$\longleftrightarrow$
Open Ditch	Cross Drain	7777
Rock ESESSE	Artificial Filter Strip	OCXXXXXX
North N	Pit: cut walls	
Buildings	Pit: compacted fill walls	
Water wells	Area for Land Application of Pit Waste	
Drill site		
Proposed Revegetation Treatment: Acres Disturbe	1_1.0 Prevegetation pH 6.1	
Lime <b>3</b>	<u> </u>	
Fertilizer (10-20-20 or equivalent) 1/3 TOI	l ibs/acre (500 lbs minimum)	
Fertilizer (10-20-20 or equivalent) 1/3 TOI  Mulch Hay 2	_	
Mulch Hay 2	Tons/acre	
Mulch Hay 2	_	
Mulch Hay 2  S  Area I  Seed Type Ibs/acre	Tons/acre _eed Mixtures Area II Seed Type	lbs/acre
Mulch Hay 2  S  Area I  Seed Type Ibs/acre  (Y-31 40	Tons/acre _eed Mixtures Area II Seed Type ORCHARD GRASS	15
Mulch Hay 2  Seed Type   Ibs/acre  CY-31	Tons/acre _eed Mixtures Area II Seed Type	
Mulch Hay 2  Seed Type   Ibs/acre  CY-31	Tons/acre _eed Mixtures Area II Seed Type ORCHARD GRASS	15
Mulch Hay 2  S Area I Seed Type   Ibs/acre  (Y-31 40  ALSIKE CLOVER 5  ANNUAL RYE 15	Tons/acre _eed Mixtures Area II Seed Type ORCHARD GRASS	15
Mulch Hay 2  Seed Type Ibs/acre  (Y-31 40  ALSIKE CLOVER 5  ANNUAL RYE 15	Tons/acre  eed Mixtures  Area II  Seed Type  ORCHARD GRASS  ALSIKE CLOVER	15
Area I Seed Type Ibs/acre  (Y-31 40 ALSIKE CLOVER 5 ANNUAL RYE 15  Attach: Drawing(s) of road, location, pit and proposed area for	Tons/acre  eed Mixtures  Area II  Seed Type  ORCHARD GRASS  ALSIKE CLOVER  land application.	15
Mulch Hay 2  Seed Type Ibs/acre  (Y-31 40  ALSIKE CLOVER 5  ANNUAL RYE 15	Tons/acre  eed Mixtures  Area II  Seed Type  ORCHARD GRASS  ALSIKE CLOVER  land application.	15
Area I Seed Type   Ibs/acre  (Y-31	Tons/acre  eed Mixtures  Area II  Seed Type  ORCHARD GRASS  ALSIKE CLOVER  land application.	15
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Area I Seed Type   Ibs/acre  (Y-31	Tons/acre  eed Mixtures  Area II  Seed Type  ORCHARD GRASS  ALSIKE CLOVER  land application. t.	15

## 4301316P

# CHESAPEAKE APPALACHIA, L.L.C.

Diagram of Well 502016 API 47-043-01316 Field Office - Branchland County -Lincoln



### 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

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Office of Oil and Gas

MAR 0 7 2014

Site Plan

WV Department of Environmental Protection

Prepared by: Kris Aldridge

Date: 2-14-2014

# CHESAPEAKE APPALACHIA, L.L.C. 4301316P

Topographical Map of Access and Well Location 502016 API 47-043-01316 Field Office - Branchland County - Lincoln

