

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

June 16, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4301162, 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: 2119

Farm Name: JONES, JENNIE

API Well Number: 47-4301162

Permit Type: Plugging

Date Issued: 06/16/2015

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. This well is under a consent order and must be plugged under the terms of that agreement.

Inspector's signed Copy

4301162P.

FORM WW-4 (B) Observe File Copy (Rev. 2/01)

1) Date: 4/13/2015 802119 P&A 2) Operator's Well No. 3) API Well No. 47-043-01162

STATE OF WEST VIRGINIA

				DEPA		OFFICE O				TECTIO	ON					
4)	Well Type (Is Gas,		Oil X		Gas	FOR A PEI		quid injecti) ABAN[te dispo	sal	<u> </u>		
5)	Location:		Elevation District	965' Sherida		Watershed County _	_	Lincoln		Two	Mile C		hland, \	NV 7.5'		
6)	Well Ope Address	erator	Chesapea P.O. Box Oklahom	18496			7)	Designat Address	ed Agen	P.O.	sica Gr Box 60 rleston	070				
8)	Oil and G Name Address	Ralph 5539	ector to be Triplett McClellan hland, WV	Highway	- - -		9)	Plugging Name Address	Chesa P.O. B	peake A	6			DEC	:EIVEC	•
10)	Work Ord	der: Th	e work ord	er for the	manner o	of plugging t	this v	vell is as fo	ollows:				Off		Oil and	
														APR	21 2015	i
					See	e Attached S	Sheet	l						•	oartme ntal Pro	nt of otection
					il and gas	s inspector 2	24 ha	ours before	e permitt	ted work o			,			
Wo	rk Order a	pprove	d by Inspec	tor	7709	OK X	<u>/</u> /	ypeat			_	Date _	04/1	7//5		

API: 47-043-01162

802119 P&A PROCEDURE

NOTE: Hole is caved, top of fill is approximately 2150'. No record of 8 1/4" in well.

- 1) Prepare road and location, MIRU service rig
- 2) Run in hole with tools to check top of fill (approximately 2150')
- 3) Run W.S. to top of fill (approximately 2150'), spot gel
- 4) Spot 150' cement plug on top of fill, (approximately 2150'-2000'), pull W.S.
- 5) Attempt to pull 5 ½" and packer
 - A) If successful
 - a) Run W.S. to 1725', spot gel
 - b) Spot 150' cement plug 1725'-1575', pull W.S. to 1460'
 - c) Proceed to step 6
 - B) If unsuccessful

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a) Run W.S. 1760', spot gel

APR 21 2015

- b) Spot 100' cement plug 1775'-1675', pull W.S.
- WV Department of
- c) Cut 5 ½" at free-point (approximately 1600'), and puffinvironmental Protection
- d) Run W.S. to 1600', spot gel
- e) Spot 100' cement plug 1600'-1500', pull W.S. to 1460'
- f) Proceed to step 6
- 6) Spot 100' cement plug 1460'-1360', pull W.S.
- 7) Cut 6 5/8" at free-point (approximately 900') and pull

RPT

- 8) Run W.S. to 900', spot gel
- 9) Spot 150' cement plug 900'-750', pull W.S.
- 10) Run in hole with tools to check to top of plug. If TOC is below 800', then reset plug.
- 11) If 8 ¼" is present, then run in hole with tools to find bottom of 8 ¼".
- 12) If 8 1/2" is present, then attempt to pull
 - A) If successful or 8 1/4" is not present
 - a) Trip in hole with W.S. to 330', spot gel
 - b) Spot 100' cement plug 330'-230'
 - c) Proceed to step 13
 - B) If unsuccessful
 - a) Trip in hole with W.S. to 50' below 8 1/4" shoe, spot gel
 - b) Spot 100' cement plug across 8 1/4" shoe, pull W.S.
 - c) Cut 8 ¼" at free-point and pull. If at least 150' of 8 ¼" cannot be pulled, then shoot or rip holes approximately at 140' and 120' 06/19/2015
- 13) Pull or run W.S. to 160' (or to 8 ¼" cut if more 8 ¼" was pulled)
- 14) Spot approximately 160' cement plug 160'-surface
- 15) Pull W.S. and top off with cement
- 16) Erect monument and reclaim as prescribed by law

LEASE NO. 24656

SERIAL WELL NO. 2119

API 47-043-01162P pag 1 of 2 MAP SQUARE 32-419

RECORD OF WELL NO. 2119	on the		CYAING YND	TUBING		TEST BEFORE SHOT		
Jornio Jones farm of	Acres	8126	WEIGHT	DEITTING DARD IN	LEFF IN WELL	1 /10 of Water in 18inc		
in Sherida	District	5-1/2"	15#	1713	1713	/10 of Merc, ininc		
Lincola	County					Volume 11 MCF Cu. f		
State of: Woot Virginia			ļ <u> </u>			TEST AFTER SHOT		
Field: Branchland						16 /10 of Water in 2" inc		
Rig Commenced September 27,	19 51					10 of Merc in inc		
Rig Completed Saptamber 28,	19 54					Volume 169 ICF Cu. f		
Drilling Commenced October 12	על עו מ					After Clg. Outpours After She		
Dilling Completed November 1	g 19 5 U					Pock Pressure 48 Hr. 135#		
Infiling to cost	per foot					Date Shot 11-3-54		
Contractor is: United Fitel G	-··					Size of Torpeds 3200 # Dup Go.		
Address Charleston, W				SHUT IN		Oil blowed 1968, 1st 24 hr		
	·. ···	• =	Date	11-9-54		O.I. Comped bbls 1st 24 hrs		
Driller Name Alford G. Tho	DAB		5-1/2" _{in.}		Tubing or			
Charles A. No	_			_{ker} 5–1/2"X		Well abas loned and		
			- 1 - 1 - 1 - 1 - 1 - 1	Botton	Hole			
				et_ in		agged		
			7					
Elevation:			2nd Peri Se	et iro	m			
	-	DRII	LILER'S RECORD					
FORMATION	TOP	ноттов :	THICKNESS	· •····-		REMARKS		
Begin Drilling	1673					and have an		
Injun Send	1673	·	21.	- Cas #	1665	15/10 H-1"		
White Slate	1694	1698			<u>. </u>			
Limo Shell	1698		25	•	· · ·	set 6 1702 °		
Slate & Shalls	1723 1826	1826	103	outon o	f Cas @	T(00,		
Big Idma Shall Slate & Shalls	1856		30 31.9	<u> </u>	·· · - ·			
Brown Shale	21.75		17	<u>:</u>				
Beroa Sand	21,92	·	12	Gas Ø	21931	2/10 W-1"		
Lime Shell	2204	2212	8	·		1/10 H-1"		
Brown Shale	2212	2229	17					
Weir Shells	2229	2294	65					
White Slate	2294	21,59	165	† · · · · · · · · · · · · · · · · ·				
Gray Shale	21,59	2635	176	Cas 9	25547 =	8/10 H-1"		
White Slate	2635	2633	148	 				
IAme Shell	2683	2693	10					
Grey Shale	2693	2857	164			RECEIVED		
				+		778 (0.1)		

APR 21 2015

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WV Department of **Environmental Protection** 06/19/2015

Well 802119

API 47-043-01162P

Page 2012

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		DRILL	ER S RECORD	1-4-3
FORMATION	TOP	BOITOM	THICKNISS	REMARKS
Brown Shale	2857	2898	112	
White Slate	2898	3048	150	
Brown Shale	3048	3058	30	
White Slate	3058	3105	47	The second of th
Brown Shale	3105	3120	15	
White Slate	31.20	311,3	21	
Brown Shale	3111	3204	63	
White Slate	3204	322)	10	
Brown Shale	3274	31,15	201	
White Slate	3415	3421	6	When Drilling Completed 1/10 W-1"
TOTAL DEPTH	34230		L. I	
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WV Department of Environmental Protection 06/19/2015

- MAP SQUARE 32-49 WILL 80-119

S TEST BEFORE SHOT 01162P

RECO	RD OF WELL No. 2119	on the	CAI	ING AND TU	BING	TEST BEFORE SHOT
W.F. Black	Farm of 991	Acres	BIIS	DRILLING	LEFT IN	of Water in
In	Sheridan Lincoln	District County	16 13			10ths of Merc. in inch 10ths Volume Cu. ft.
Branc	hland Field. State of W. V	a.	10			TEST AFTER SHOT
DI- O			8 1-4		1 "0	of Water Ininch
Rig Commenced Rig Completed		192	6 5-8		1412'6	10ths of Merc. in Inch
Drilling Commence	1 Fob 4 1000	192 192	5 3-16 4 7-8			VolumeCu. ft.
Drilling Completed	Feb. 4, 1909 March 3, 1909	192	4			Rock Pressure
Drilling to cost	per foot		3		132'11'	Size of Torpedo
	amlin Oil Co.		2		1555'10	oll Flowedbbls, 1st 24 hrs.
Address:				BHUT IN		Oil Pumpedbbls. 1st 24 hra.
Drillers' Names	Wm. Klintworth H. V. Meabon		Size of Pa	kerAn	Tubing or Casing	Well abandoned and Plugged

		DRII	LER'S REC	ORD
FORMATION	ТОР	воттом	THICKNESS	REMARKS
Frewh Water Coal Salt Sand Little Lime Pencil Cave Big Lime Big Injun Sand TOTAL DEPTH	270 300 30 130 133 3 830 1070 200 1380 1395 15 1395 1405 10 1405 1620 215 1654 1673 19		3 200 15 10 215	Water enough to drill with 300° Hole full water at 920° Small show of gas 960°-963°. Gas Pay 1655-1670 Packer set 132° from bottom of hole o on 3° tubing March 5, 1910 RECEIVED Office of Oil and Gas
				APR 21 2015
				WV Department of Environmental Protection
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WW4-A Revised 2/01

1) Date: 2) Operator's Well No. 4/13/2015 802119 P&A

3) API Well No.

47-043-9160EIVED

Office of Oil and Gas

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

APR 21 2015

4)) Surface Owner(s) to be served:			Coal Operate	or	
	(a) Name	James Byron Hatfield		(a) Name	None	WV Department of
	Address	40 Riverview Avenue				Copartment of
		Branchland, WV 25506		Coal Owner(s) with Declaration	Environmental Protection
				(b) Name	James Byron Hatfi	
				Address	40 Riverview Aven	iue
	(b) Name	H3 LLC			Branchland, WV 2	25506
	Address	1483 Johns Creek Road				
		Milton, WV 25541				
				Name	H3 LLC	
				Address	1483 Johns Creek	Road
	(c) Name	See attached list for the			Milton, WV 25541	
	Address	surface access road owners				
				Name		
		-		Address		
3)	Inspector	Ralph Triplett				
,	Address	5539 McClellan Highway		Coal Lesse	with Declaration	20
		Branchland, WV 25506	Y	(c) Name	None	
				Address	,,,,,,,	
	Telephone	304-389-0350				

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 the 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 the 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:

Chesapeake Appalachia, L.L.C.

State of West Virginia Phyllis A. Copley	By: Its:	Completion Superintendent		
144 Williard Circle Hurricane, WV 25528	Address:	P.O. Box 18496		
My Commission Expires September 16, 2018		Oklahoma City, OK 73154-0496		
Cummund	Telephone:	405-935-4073		
Subscribed and sworn before me this	day of April	1		
My Commission Expires	September 16, 2018	. Copally Notary Public		

API: 47-043-01162

Well Number: 802119RECEIVED

Office of Oil and Gas

APR 21 2015

WV Department of Environmental Protection

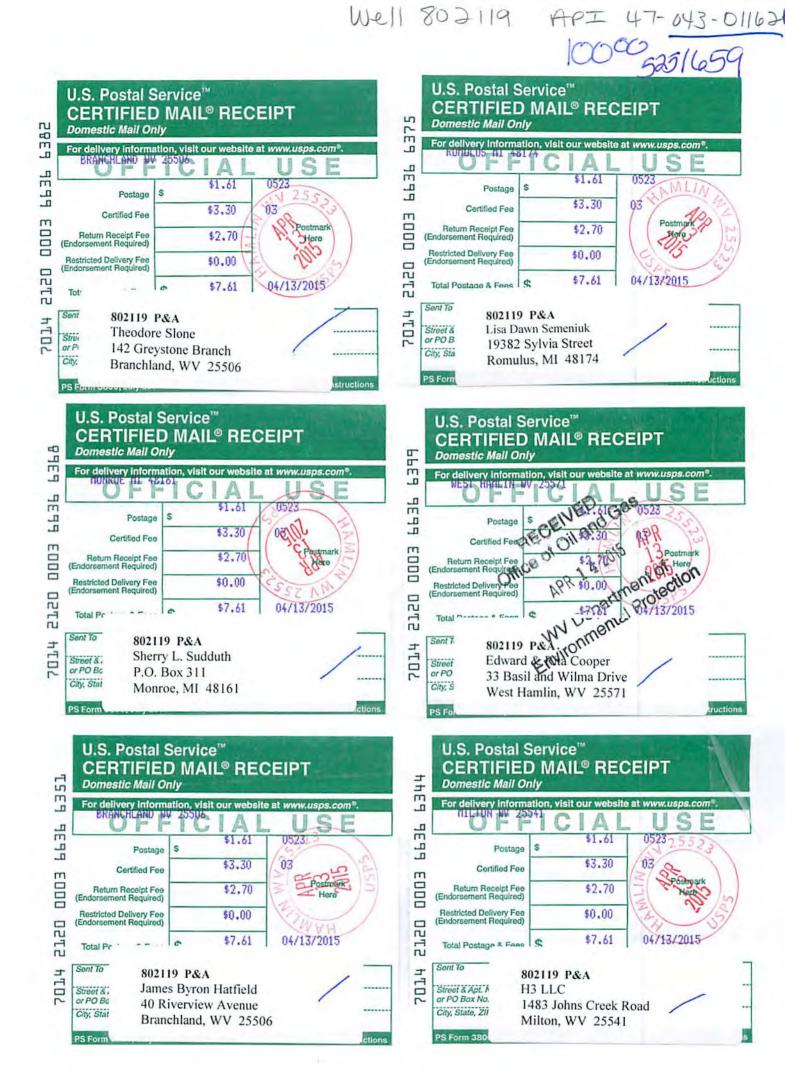
SURFACE ACCESS ROAD OWNERS

Edward & Rita Cooper 33 Basil and Wilma Drive West Hamlin, WV 25571

Theodore Slone 142 Greystone Branch Branchland, WV 25506

Lisa Dawn Semeniuk 19382 Sylvia Street Romulus, MI 48174

Sherry L. Sudduth P.O. Box 311 Monroe, MI 48161



Form WW-9 Rev. 02/01

API Number 47-043-01162
Operator's Well No. 802119 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 Code494477557						
Watershed	т	wo Mile Creek		Quadrangle Br	d, WV 7.5'	
Elevation	965'	County _	Lincoln	Distri	ict	Sheridan
Description of ar	nticipated Pit Waste	e: Plugging Ret	urns/Cement			
Will a synthetic li	ner be used in the	pit? Yes	2	OMIL.		
Proposed Dispos	Unde Reus Off S	Application erground Injection (se (at API Number_	ly form WW-9 fo	or disposal location)	_) ,))	
Proposed Work I	For Which Pit Will Drillin Work Swal X Plug	ng kover obling			_)	
issued on Dece understand that permit and/or of I certify und this application for obtaining the significant pena Company Official	mber 31, 1999, by the the provisions of the pther applicable law or refer penalty of law that I form and all attachments information, I believe alties for submitting fals	Office of Oil and Gas of permit are enforceable be egulation can lead to end that the personally examinate thereto and that, based that the information is the einformation, including the control of the	f the West Virginia by law. Violations of the Victoria of the Victoria of the Victoria of the Victoria of the possibility of fire Victoria of the possibility of fire Victoria of the Victoria	RAL WATER POLLUTION Department of Environm I any term or condition of with the information sub I those individuals immed complete. I am aware the or imprisonment.	ental Protect f the general smitted on diately resp	ction. I al onsible
	(Typed Name)		7/11/11			
Company Official	Title	Completions	Superintender	nt		
Subscribed and s	sworn before me th	nis 11 day of	April Puffis a.	Coply	 No	tary Public.
My Commission	Expires Se	ptember 16, 2018		Official Seal Not State of West Phyllis A. 144 Williard Circle Hurr My Commission Beptomber 19	Virginia Copley ricane, WV 25528 in Expirea 6, 2018	

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WV Department of Environmental Protection 06/19/2015

Attachment #1

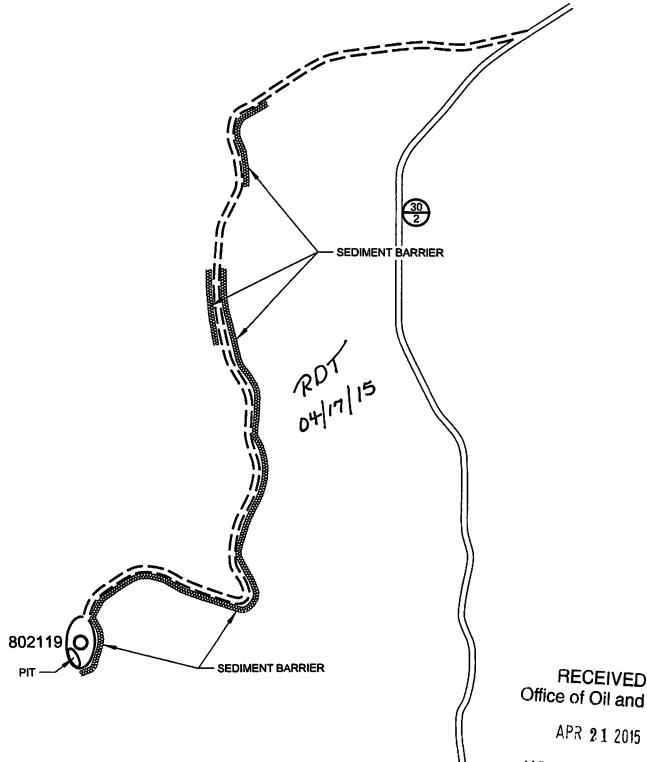
API #: 47-043-01162 Operator's Well No. 802119 P&A

L	ECEND	
Property Boundary	Diversion League 1111111	
Rond = = = = = = = = = =	Spring	
Existing Fence — X — X — X —	Wet Spot	
Planned Fence / / /	Drain Pipe with size in inches	— @ — —
Stream Stream	Waterway \longleftrightarrow	+ = =
Open Ditch	Cross Drain	
Rock Esse	Artificial Filter Strip	××××××××××
North N	Pit: cut walls	
Buildings	Pit: compacted fill walls	
Water wells W	Area for Land Application of Pit Wa	ISIC
Drill site		
December 1		
Proposed Revegetation Treatment: Acres Disturbed	1.0 Prevegetation pH	6.1
Lime3	Tons/acre or to correct to pH	6.5
Fertilizer (10-20-20 or equivalent) 1/3 TON	I lbs/acre (500 lbs minimum)	•
	_	
Mulch Hay 2	_ rons/acre	
	eed Mixtures	•
Area I Seed Type lbs/acre	Seed Type	Area II Blacre
CHESAPEAKE CONTRACTOR'S MIX 40	ORCHARD GRASS	15
ALSIKE CLOVER 5	ALSIKE CLOVER	5
ANNUAL RYE 15		
Attach:		
Drawing(s) of road, location, pit and proposed area for	rland application.	
Photocopied section of involved 7.5' topographic shee	t.	
Plan Approved by: Ralph N Triplet		
Trail Approved by. M. M. Markett)		
Title:		RECEIVED
Date:		Office of Oil and Gas
Field Reviewed? () Yes	() No	APR 9.1 2015
		WV Department of
	E	nvironmental Protection

CHESAPEAKE APPALACHIA, L.L.C.

RECLAMATION DIAGRAM WELL LOCATION 802119

API 47-043-01162



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WV Department of **Environmental Protection**

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 show in approximate pre-planning

All culvert pipes will be a minimum of 15 inches in diameter. all culvert pipes installed will be accomanied 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 roacks of 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 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 contruction phase, where applicable, and in areas that will allow. These structures will be considered permanent and used as such.

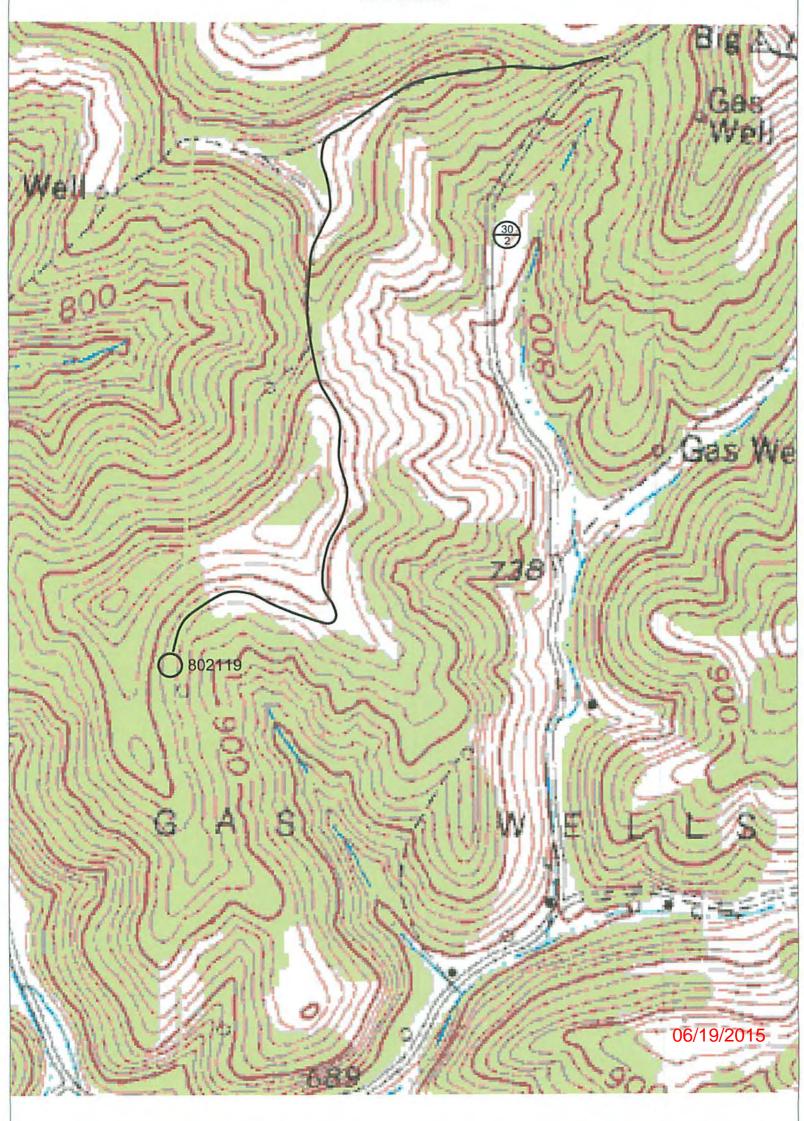
Permanent seeding: See Attachment #1.

06/19/2015

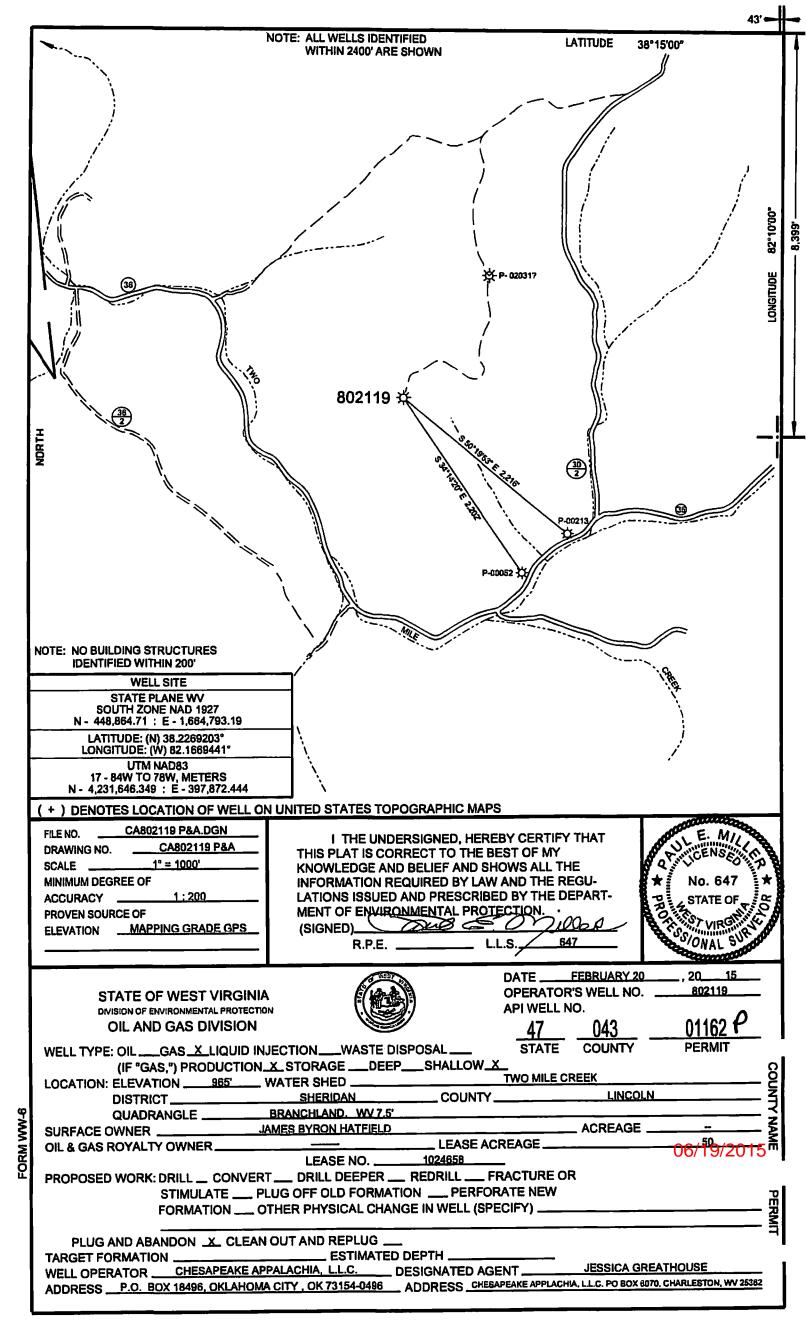
CHESAPEAKE APPALACHIA, L.L.C.

TOPOGRAPHICAL MAP OF ACCESS AND WELL LOCATION 802119

API 47-043-01162



CHESAPEAKE ENERGY CORPORATION - EASTERN DIVISION P.O. BOX 579 - 8165 COURT AVENUE - HAMLIN, WV 25523 304 824-5141 - FAX 304 824-2247



4	Operator:	CHESAPEAKE A	APPALACHIA, L.L.C.		H Agreed	on an Order	¥
NEW	API:	4301162			J		
	WELL No:	2119	111/10	_			
		f Comment: 04	Date: 6/16/15	_			

CHECKLIST FOR FILING A PERMIT

	Plugging	CK# 5251659
WW-4B		\$10000
Inspector signature on WW-4B		
Completion / Well Records of Previous V	Vork	
WW-4A (Notarized)		
Certified Mail Receipts, Waivers, or Affi	davits of Personal Service	e.
Surface Owner Waiver		
Coal Owner / Lessee /Operator Waiver		
WW-9 (Page 1) (Notarized)		
Inspector Signature on WW-9 (Optional)		
Topographic Map of location of well		
- WW-7		
OR		
Mylar Plat (Surface owner on plat match	nes WW-4A)	
Bond		
Company is Registered with the SOS		
Worker's Compensation / Unemploymen	nt Insurance account is OK	
\$100.00 check (\$0.00 if no pit)		