

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

October 02, 2013

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-1706368, issued to BERRY ENERGY, INC., 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

Operator's Well No: B-859

Farm Name: KELLEY, CHRISTOPHER D. & GA

API Well Number: 47-1706368

Permit Type: Vertical Well

Date Issued: 10/02/2013

Promoting a healthy environment.

WW - 2B (Rev. 8/10) Check # 2945 1,300,00

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL WORK PERMIT APPLICATION

		V	VELL WORK PE	RMIT APPLIC	ATION	06	511
1) Well Opera	tor: Berry	Energy,	Inc.	306005	Doddridge	New Milton	New Milton
				Operator ID	County	District	Quadrangle
2) Operator's	Well Numl	oer:_B-859	9		3) Elevation:	1208'	-
4) Well Type:	(a) Oil	or Ga	as X				2
	(b) If Gas:	Produ	iction X / Und	derground Sto	rage		
		Deep	o/ S	Shallow X	_		
7) Approximat	te fresh wa	ater strata			Proposed Tar Proposed Tota		
3) Approximat							- N
9) Approximat	te coal sea	ım depth	s: 300', 850'				De.
I0) Approxima	ate void de	epths,(co	al, Karst, other):	None			- 1-22°
(1) Does land	l contain c	oal seam	s tributary to act	tive mine? N	0		
					i committee		7.4
			nd fracturing mether frac. See attached				
riii and Stimulat	e new well.	Open note	e frac. See attached	d Sheet (Berry E	lergy's Open Ho	DIE FIAC FIOCE	uure).
13)		and the second second	ASING AND TUE				
TYPE	SPECIFIC	ATIONS		FOOTAGE	INTERVALS	S CEME	<u>NT</u>
	Size	<u>Grade</u>	Weight per ft	For Drilling	Left in Well	Fill -up (Cu	<u>. Ft.)</u>
Conductor	13"		37#	30'	30'		
				-			

	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	13"		37#	30'	30'	
Fresh Water	9 5/8"	API	26#	200'	200'	To Surface
Coal						
Intermediate						
Production	7"	API	17#	1200'	1200'	To Surface
Tubing	2 7/8"			2800'	0'	Rocci
Liners	41/2"					HOCON

Packers: Kind: open hole packer

Sizes: 6 1/2

Depths Set various

Office of Oil and Gas
WV Dept. of Environ 10/04/20103

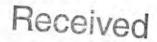
SEP - 3 20B

Berry Energy's Open Hole Frac Procedure

An open hole correlation log will be ran once drilling is completed. The exact formations to be completed will not be determined until the open hole log is ran. Formations will likely be the Big Injun, Weir, and Gordon. Each zone will be double notched with a sand jet perforation tool attached to the 1 ½" tubing.

Once the 1 ½" tubing is pulled, 2.7/8" will be used to pump pea gravel into the hole. The pea gravel will be placed below the upper most formation, Big Injun, and a packer will be set above the upper most formation. This will isolate that formation to then be fraced. Next we will release the packer and wash the frack string down to next formation, circulating pea gravel out of hole to the bottom of the next zone to be completed. We will then again set the packer above the second zone (Weir) isolating the top zone which has been frac. After fracking second zone we will precede with washing frac sting down to bottom zone (Gordon), again circulating the peas gravel out of hole and exposing bottom zone. Reset packer and frac Gordon.

The well will be flowed back and swabbed. 2 3/8" tubing and rods will be ran with pump jack.



SEP - 3 2013

WW-	2A
(Rev.	6-07)

1). Date: April 24, 2013

2.) Operator's Well Number B-859

State County P

3.) API Well No .:

47-

017

Permit 06368

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE AND APPLICATION FOR A WELL WORK PERMIT

	ner(s) to be served		5) (a) Coal Op	erator		
(a) Name	Garner D. Kelley	v W	Name			
Address	129 Patterson Road		Address			
0.5.51	Weirton, WV 26062	, , ,	_ ",,,,,,			
(b) Name	Christopher D. Kelley	V W		wner(s) with Declar		
Address	8368 Lamplight Drive		Name	Willis G. Tetrick, jr. et al C/	O Tetrick Mineral Prop	perties V
	Jenison, MI 49428		Address	92 16th street		
				Wheeling, WV 26003		
(c) Name			Name			
Address			Address		_	
6) Inspector	Douglas Newlon		(c) Coal L	essee with Declarat	ion	
Address	4060 Dutchman Road		Name			
000000000	Macfarlan, WV 26148		Address	-		
Telephone	304-932-8049					
o tarre-former next	TO THE	PERSONS NA	MED ABOVE T	AKE NOTICE THA	T·	
I have re issued under this I certify this application fobtaining the info	Personal Service Certified Mail (I Publication (No ead and understand Cs application. Under penalty of law form and all attachments or the personal control of the personal c	ce (Affidavit atta Postmarked pos stice of Publication Chapter 22-6 and that I have persents, and that bast the information	ched) tal receipt attache on attached) d 35 CSR 4, and sonally examined ased on my inqui n is true, accurate	I agree to the terms and am familiar with ry of those individual	and conditions the information s immediately r	s of any permit n submitted on responsible for
		Ву:	KRUMN	K Come	411119	NONER FOLL
		Its:	President	0.10	All contracts	the le
		Address	310 Stiles Street		201	188
			Clarksburg, WV 26302		= Man	N 18
		Telephone	304-622-3450		-0	CWW. B
Subscribed and	sworn before me this	19th day o	f AUGUST	2013	= 5 8	"MCW ! E
4	layne W. Ham	lin		Notary Publ	ic de	The state of the s
My Commission		10-2016	2		ic 80,9G	MV 26301 111
Oil and Gas Privacy	Notice				He	cerved
The Office of Oil and	d Gae processes your no	reonal information	euch ae namo add	ress and phone number	as a part of our re	gulatory duties

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

		SURFACE OWNER WAIVER	
County	Doddridge	_ Operator Operator well number	Berry Energy, Inc
		·	
	INSTRUCTIONS	TO SURFACE OWNERS NAMED ON	PAGE WW2-A
If the surface appeared on be the only permits are	e tract is owned by more than the Sheriff's tax ticket on the owner who will actually recei valid for 24 months. If you do mmediately if you know who it NOTE: YOU	three persons, then these materials w land or because you actually occupy the vethese materials.) See Chapter 22	OMMENT.
Department 601 57 th St. Charleston,	WV 25304		
operator files be filed in pe be s ure of t handling. If the planned Con well operato from the app The 1) 2) 3) 4) 5)	s and methods for filing comes his Application. You have Flerson or received in the mail be he date. Check with your person or received in the mail be he date. Check with your person work described in these matering ments must be in writing. The same and well number and colication. You may add other do the proposed well work will control the soil erosion and sediment Damage would occur to public the proposed well work fails to the applicant has committed more of the rules promulgated	FTEEN (15) DAYS after the filing date y the Chief's office by the time stated a ps tmaster to ensure a dequate deliver he well operator and you have signed a ials, then the permit may be issued at a Your comments must include your nare the approximate location of the proposocuments, such as sketches, maps or pur condition a well work permit based on constitute a hazard to the safety of person control plan is not adequate or effective by owned lands or resources; to protect fresh water sources or supplied a substantial violation of a previous per under Chapter 22, and has failed to about the state of the safety of person and the safety of person control plan is not adequate or effective by owned lands or resources; the protect fresh water sources or supplied a substantial violation of a previous per under Chapter 22, and has failed to about the safety of the	me, address and telephone number, the sed well site including district and county photographs to support your comments. comments on the following grounds: ns. e; e; ermit or a substantial violation of one or
request a control List to test your value I her	opy from the Chief. of Water Testing Laboratori water to establish water quality VOLU reby state that I have read the	es. The Office maintains a list of wate prior to and after drilling. Contact the ONTARY STATEMENT OF NO OBJECT instructions to surface owners and tha	er testing laboratories which you can hire Chief to obtain a copy. <u>FION</u> It I have received copies of a Notice and
order on F o	rm WW2-B, a s urvey plat, an erein.	d a s oil and erosion plan, all for prop	of pages 1 through including a work posed well work on my surface land as
	ther state that I have no objecting issued on those materials.	ion to the planned work described in the	ese materials, and I have no objection to
FOR EXECU	JTION BY A NATURAL PERS	ON FOR EXE	CUTION BY A CORPORATION, ETC.
Garne	N A Kelley	Company Date0 <u>2/02/2013</u> Name By Its	
GARNEI	D RELLEY	Its	Recei∜ed
	Print Name	Signa	ature SEP = 3 Date

WW-2A Surface Waiver

. . .

		SUR	FACE OWNER W	AIVER			
County	Doddridge		Operator	II	Berry Ene	rgy, Inc	
			Operator we	ı number	B-859		
	INSTR	RUCTIONS TO SUR	RFACE OWNERS	NAMED ON P	AGE WW	<u>2-A</u>	
If the surface appeared on be the only permits are years.	e tract is owned by the Sheriff's tax tic owner who will ac valid for 24 months nmediately if you k	ed on page WW2A in three pooket on the land or build receive these and who it is. Also, oter YOU ARE NO FILE COMMENT	ersons, then these pecause you actuate materials.) See any interest in the please notify the part of REQUIRED TO	e materials we illy occupy the C hapter 22 o e surface tract well operator a FILE ANY CC	ere served surface transfer the West, please for the Official of the Official	on you because yact. In either case st Virginia C ode. orward these mate ice of Oil and Gas	your name e, you may Well work erials to the
Department 601 57th St. 3 Charleston, (304) 926-04 Time Limits operator files be filed in person be sure of the planned well operator from the apport The 1) 2) 3) 4) 5) If your request a continuous limit to test your will be sure of the first to test your will be sure of the first to test your will be sure of the first to test your will be sure of the first to test your will be sure of the first to test your will be sure of the first to test your will be sure of the first test your will be sur	and methods for shis Application. Ye shis Application. Ye show or received in the date. Check wyou have been conwork described in the ments must be in the ments must be in the ments must be in the proposed well of the proposed well. The soil erosion and Damage would occur the proposed well. The applicant has more of the rules proposed well the applicant has more of the rules proposed well to want a copy or prom the Chies of Water Testing water to establish were well work Perm WW2-B, a s un arein	filing comments. You have FIFTEEN in the mail by the Character of the well of these materials, there is many and other documentar to deny or condition work will constitute of sediment control pur to publicly owned work fails to protect committed a substant of the permit as it for	(15) DAYS after the lief's office by the sert of ensure a decomperator and you had the permit may be ments must include the permit may be moved to the service of a well work permit a hazard to the service and after source antial violation of a service that is issued or a competition of a service of the se	the filing date to time stated about the delivery ave signed a see issued at an ude your name of the propose as, maps or phonit based on offety of persons the or effective; as; as or supplies; a previous personal to about the order of the order the Contact t	o file your of the your of the your of the yountary so time. e, address and well site of the youngary somments of the youngary some youngary youngary some youngary youngary some youngar	comments. Comments comments. Comments comments comments of the Chief control of the control of t	ments must f's office to expedited bjection" to umber, the and county comments. rounds: n of one or ation". ou should ou can hire Notice and ding a work ace land as
FOR EXECU	JTION BY A NATU	RAL PERSON		FOR EXEC	UTION BY	A CORPORATIO	ON, ETC.
Saff	Signature D.	Mey Date	8/9/13 Com Nam By Its	pany e		Rec	<u>Eived</u>
	1/101	 /				SEP -	- 3 2013
	Print Name			Signat	ure	OΨ	Date
						- opt. Of Enviro.	Dil and Gas Inmental Protection

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Doddridge				D 050
Operator Berry Energy, Inc.	Operato	r's Well Num	nber _	B-859
INSTRUCTIONS T	TO COAL OPE	RATOR. OW	VNER.	OR LESSEE
mornoone.	io cone oi e	1011,011,	· · · · · · · · · · · · · · · · · · ·	, 011
To the coal operator, owner, any objection you wish to make or a with the Chief of the Office of Oil ar by the Office. Mail objections to:	re required to n	nake by WV	Code	
Chief, Office of Oil and Gas Department of Environmental Protec 601 57 th St. SE Charleston, WV 25304 (304) 926-0499 extension 1654	ction			
	WAIN	/ER		
The undersigned coal operate location has examined this proposed location, the well location has been work proposed to be done at this location requirements of the West Virginia Co	d well location. added to the mi cation, provided	If a mine maine maine map. Th the well ope	ap exis e und erator	ersigned has no objection to the has complied with all applicable
FOR EXECUTION BY A NATURAL PERSO	ON	FOR	EXEC	UTION BY A CORPORATION, ETC.
	Date	Company Name		
Signature		By		
		Its		Date
			Signa	ture Date

Received

SEP - 3 2013

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6, Section 8(d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan:
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantee, Lessee, etc. Royalty Book/Page Grantor, Lessor, etc. Gamer D. Kelley et al Berry Energy, Inc. 1/8 263/303

RECEIVED Office of Oil and Gas

OCT 0 1 2013

WV Department of **Environmental Protection**

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application he reby a cknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be ac quired from the appr opriate aut hority before the affected activity is initiated.

Well Operator:

By: Its:

Berry Energy, Inc.

President

WW-2B1
(5-12)

Well	No.	B-859	

West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name
Sturm Environmental Services

Berry Energy, Inc.

Well Operator
Address
Berry Energy, Inc.
310 Stiles Street

Clarksburg, WV 26301

Telephone (304) 622-3450

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

No known water wells or springs within 1000 feet.

Received

SEP - 3 2013

WW-9 Rev. 5/10

Page	of
API Number 47 - 017	
Operator's Well No. B-859	

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

Watershed Sugarcamp Run	Quadrangle New Milton 7 1/2'
Elevation 1208' County Dodd	dridge District New Milton
Description of anticipated Pit Waste: Drilling Fluids, Stimula	ulation Fluids, Brine
Do you anticipate using more than 5,000 bbls of water to	o complete the proposed well work? Yes No X
Will a synthetic liner be used in the pit? Yes	. If so, what mil.? 6 20 MK
Proposed Disposal Method For Treated Pit Wastes: X	o complete the proposed well work? Yes No X If so, what mil.? 6 20 km C Permit Number orm WW-9 for disposal location)
Other (Explain_	
-If oil based, what type? Synthetic, petroleum, of Additives to be used? None Will closed loop system be used? No Drill cuttings disposal method? Leave in pit, landfill, ren -If left in pit and plan to solidify what medium of	emoved offsite, etc. Leave in pit will be used? Cement, lime, sawdust
on August 1, 2005, by the Office of Oil and Gas of the W provisions of the permit are enforceable by law. Violat law or regulation can lead to enforcement action. I certify under penalty of law that I have persapplication form and all attachments thereto and that obtaining the information, I believe that the information penalties for submitting false information, including the Company Official Signature	
Company Official (Typed Name) David Berry	110
Company Official Title President	2
	331
Subscribed and sworn before me this 19th day	ay of August, 20 13 Remission

L	EGEND
Property Boundary	Diversion (2.22/21/21/11/11/11/11/11/11/11/11/11/11/1
Rond = = = = = = = = = = = = = = = = = = =	Spring —
Existing Fence — X — X — X —	Wet Spot
Planned Fence / / /	Drain Pipe with size in inches (3)
Stream	Waterway \longleftrightarrow
Open Ditch	Cross Drain
Rock fights	Artificial Filter Strip XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
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 Disturbed 2.5	Drayagatation nH
Proposed Revegetation Treatment: Acres Disturbed	Prevegetation pH
Lime As determined by pH test Tons/acre or to correct to pH	0.5
Fertilizer (10-20-20 or equivalent) 500 lbs/a	cre (500 lbs minimum)
Hay or Straw	
Mulch Tons/act	re
Seed	Mixtures
Area I	Area II
Seed Type lbs/acre	Seed Type lbs/acre
Kentucky Bluegrass 20	Kentucky Bluegrass 20
Redtop 5	Redtop 5
White Clover 2	White Clover 2
Attach: Drawing(s) of road, location,pit and proposed area for land appli	cation.
Photocopied section of involved 7.5' topographic sheet.	
Plan Approved by: Hanglas Mewler	
Comments: Preszed om ulch insta	11 Ets TO WU DEP
regulations	Received
Title: Oil o Das inspector	Date: 8-27-2013
Field Reviewed? () Yes (

The drainage ditch lines will be cut as shown for adequate erosion control.

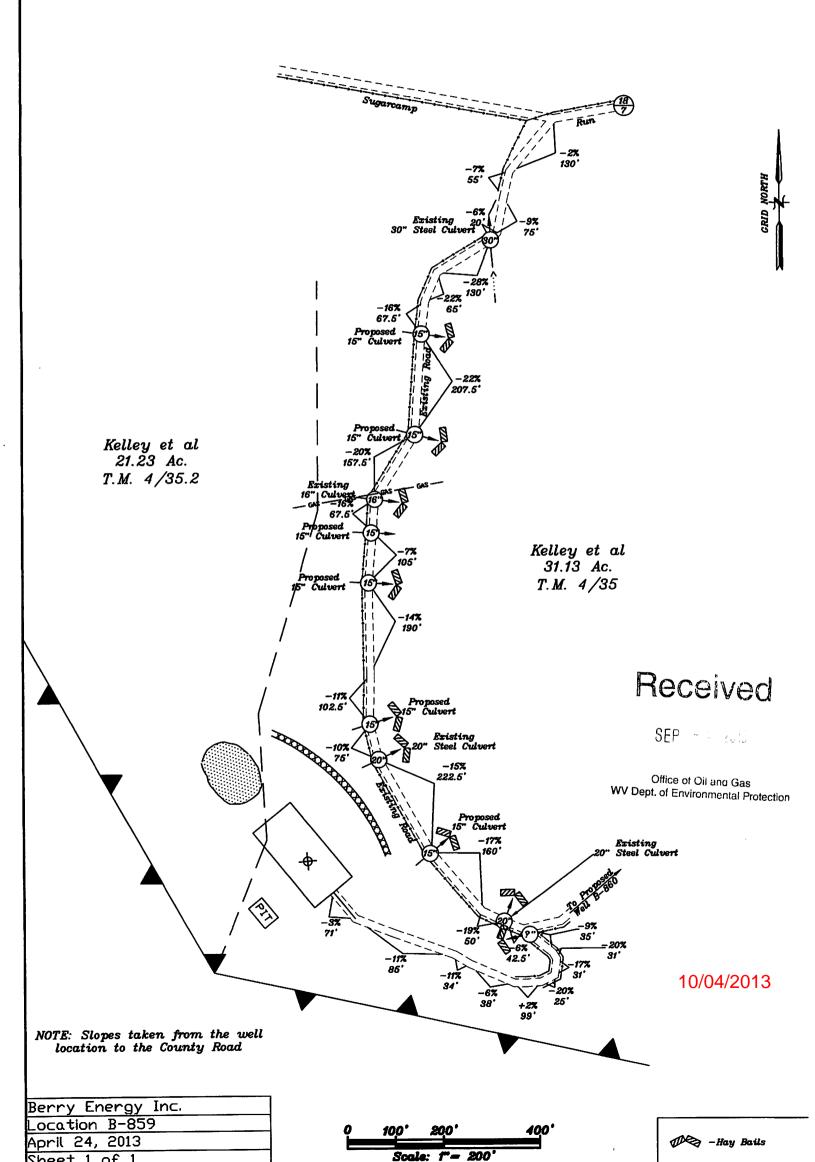
Topsoil will be stockpiled for use in reclamationand

revegetation.

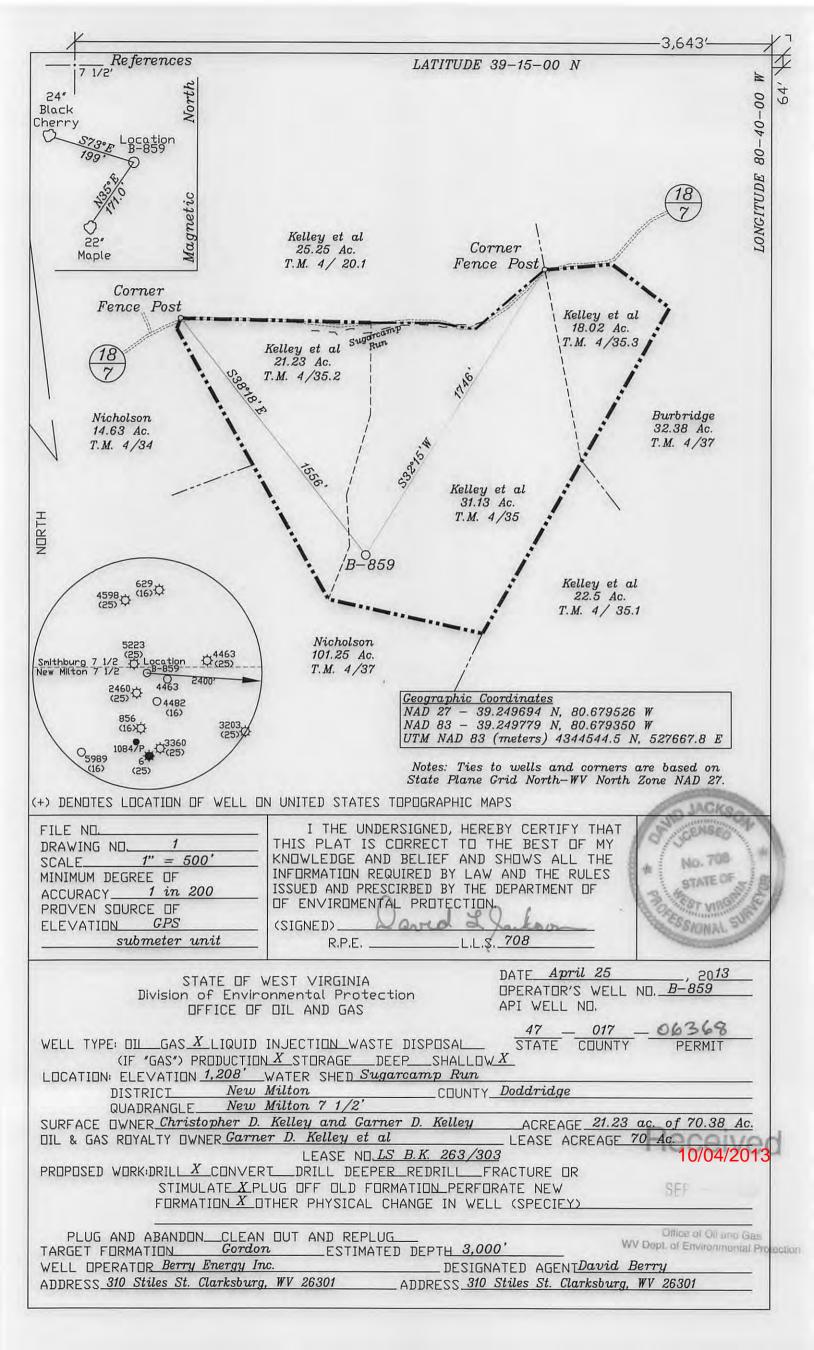
Sheet 1 of 1

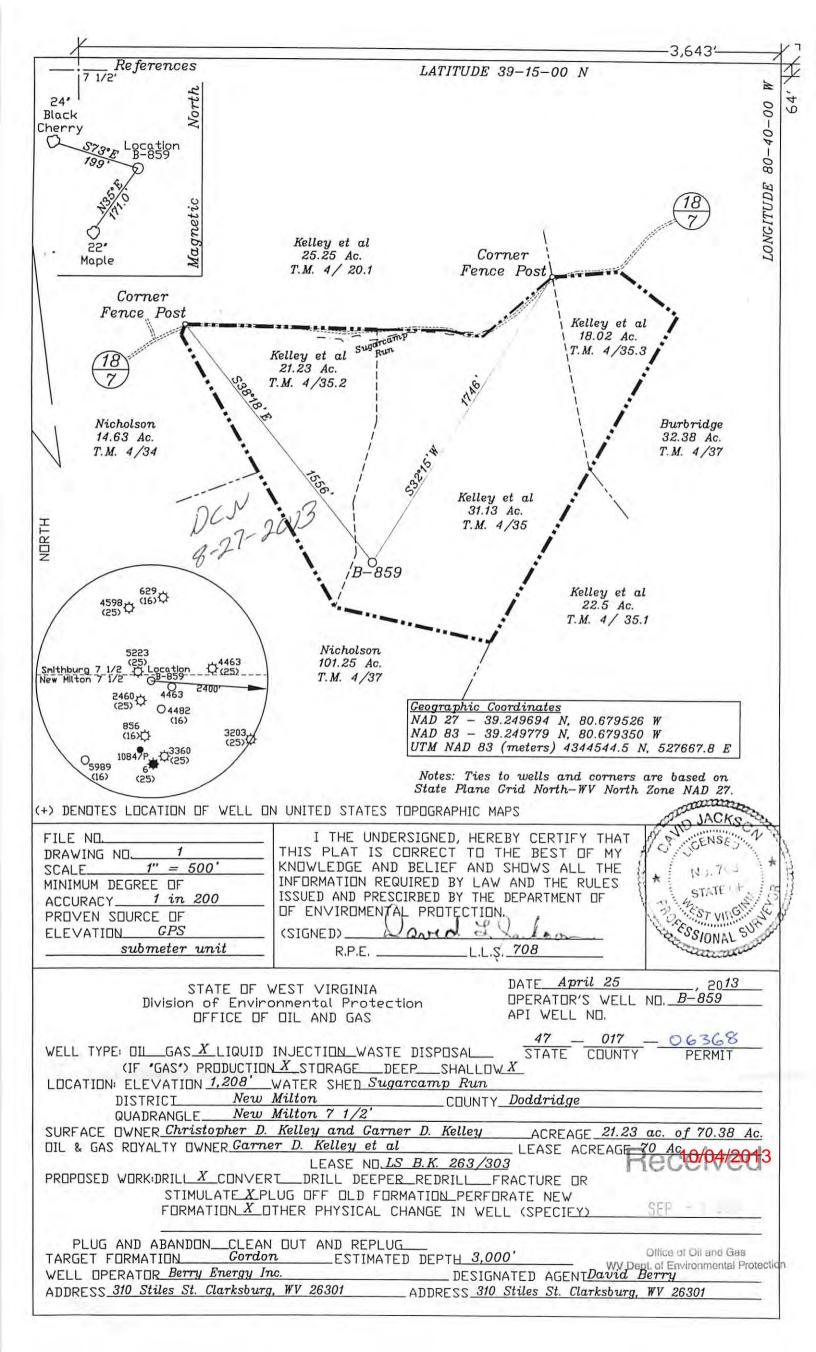
Culverts will be added as needed after construction. Sediment control will be added prior to construction

phase.
Pit will contain less than 5000 barrells. The bottom will be 60'x20' with 2:1 slopes and will not exceed 9' of depth with 2' of freeboard.









0	perator	's	Well	Numbe	r B-859
-		_			

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Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Garner D. Kelley et al	Garner D. Kelley et al	1/8	263/303



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- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- · U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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Well Operator: By:Its: Berry Energy, Inc.

President

Office of Oil and Gas WV Dept. of Environ/04/2046an

SED