

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

December 10, 2014

WELL WORK PERMIT

Re-Work

This permit, API Well Number: 47-3904549, issued to VIKING ENERGY CORPORATION, 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 easing. 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: LEMMA REALTY 1

Farm Name: LEMMA REALTY CO., INC.

James Martin

API Well Number: 47-3904549 Permit Type: Re-Work

Date Issued: 12/10/2014

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

- 1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
- 4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 5. 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.
- 6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours
- 7. Well work activities shall not constitute a hazard to the safety of persons.
- 8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

WW - 2B (Rev. 8/10)

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

1) Well Operator	r: Viking	Energy	Corporation	51440	039	Union (9)	St Albans (594)
				Operator ID	County	District	Quadrangle
2) Operator's W	ell Numb	er: Lemr	ma Realty #1 DD		3) Elevation:	689	-
4) Well Type: (a) OilX	or Ga	as X				
(b) If Gas:	Produ	uction _X_ / Un	derground Sto	orage		
		Dee	p/ \$	Shallow X			
5) Proposed Tar 6) Proposed Tot 7) Approximate 8) Approximate	al Depth fresh wa	: <u>4,900'</u> ter strata	Feet a depths: 140'	Formation at I	Proposed Tar Proposed Total	al Depth: Mar	cellus Shale
9) Approximate	rnal saa	m denth	s· N/A			Recei	
9) Approximate	coai sca	iii deptii	S	1,744		Office of O	
10) Approximate	void de	pths,(co	al, Karst, other):	N/A		NOV 17	2014
11) Does land c	ontain co	oal seam	s tributary to ac	tive mine?	lo		
12) Describe prop Pull 2" tubing, remo		plug and o		rac Marcellus Sh	nale	MWW 11/-13-14	eded)
TYPE SI	PECIFIC	A STATE OF THE PARTY OF THE PARTY.		FOOTAGE	The second second second second	S CEME	NT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu	. Ft.)
Conductor							
Fresh Water	9 5/8"	T		236'	236'	to surface 70 C	F (existing)
Coal							
Intermediate							
Production	7"			1,741.25'	1,741.25'	156 CF (e	xisting)
Tubing	4 1/2"		10.5 lbs	4,900'	4,900'	Cement to 2,500'Le	ston Followay
Liners							
Packers: Kind: Sizes Depti	-						

IV-35 (Rev 8-81)

WELL TYPE:

Oil

EMState of Mest Nirginia Bepartment of Alines MAR 24 1988 Gil und Gas Bivision

Date March 15, 1988
Operator's
Well No. 1
Farm Lemma Realty
API No. 47 -039 - 4549

DIVISION OF OIL & GAS WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Oil___/ Gas X / Liquid Injection___/ Waste Disposal___/
(If "Gas," Production___/ Underground Storage___/ Deep___/ Shallow X /)

LOCATION: Elevation: 698' Watershed				
District: Union County Kanas	wha	Quadrangie	St. All	bans 7 1/2
COMPANY Viking Energy, Inc.				
ADDRESS P.O. Box 13366, Sissonville, WV 25360	Casing	Used in	Left	Cement
DESIGNATED AGENT Michael S. Pinkerton	Tubing			fill up Cu. ft.
ADDRESS same	Size			
SURFACE OWNER Lemma Realty Co., Inc.	20-16			Ì
ADDRESS same	Cond. 13-10"			
MINERAL RIGHTS OWNER Lemma Realty Co., Inc.	**************************************	0061	2061	
ADDRESS Same	9 5/8	236'	236'	70_CF_
OIL AND GAS INSPECTOR FOR THIS WORK Carlos	8 5/8			
Hively ADDRESS	7	1741.25'	1741.25	156 CF
PERMIT ISSUED 10-22-87	5 1/2	<u> </u>		
DRILLING COMMENCED 12-8-87	4 1/2	<u> </u>		
DRILLING COMPLETED 12-18-87	3			
IF APPLICABLE: PLUGGING OF DRY HOLE ON	2	ļ	1610'	
CONTINUOUS PROGRESSION FROM DRILLING OR	Liners		Bridge Plug	a 1642'
REWORKING. VERBAL PERMISSION OBTAINED ON	used		- 105	
GEOLOGICAL TARGET FORMATION <u>Devonian Shale</u> Depth of completed well <u>3916'</u> feet				
Water strata depth: Fresh feet;				· · · · · · · · · · · · · · · · · · ·
Coal seam depths: None reported				area? No
•		20219	u.	· uncui, jio
OPEN FLOW DATA				
Producing formation Devonian Shale				
Gas: Initial open flow odor Mcf/d				
Final open flow 150 Mcf/d				
Time of open flow between init				
Static rock pressure 710 psig(surfac	e measurer	ment) afte	r <u>168</u> hou	ırs shut i
(If applicable due to multiple completion				12/12/1
Second producing formation Big Lime	Pay	y zone dep	th 1543	- 1620 fee
Gas: Initial open flow 0 Mcf/d	Oil: In	itial open	flow	Bb1/
Final open flow est 80 Mcf/d	Oil: Fir	nal open f	low	Bb1/
Time of open flow between init	ial and fi	inal tests	ho	urs
Static rock pressure 600 psig(surface	measurem	ent) after	hou	rs shut j
			rue on re	

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

3300' - 3916' (Young Wireline) Devonian Shale - Shot 12-19-87

Big Lime - Acidization 2-23-88 1543 - 1620 12 holes 4000 gal 15% HCl Gelled Acid Job, BKDN 2200 psi, ATP 1800 7 2400 psi, AIR 5 BPM, ISI 1800 psi

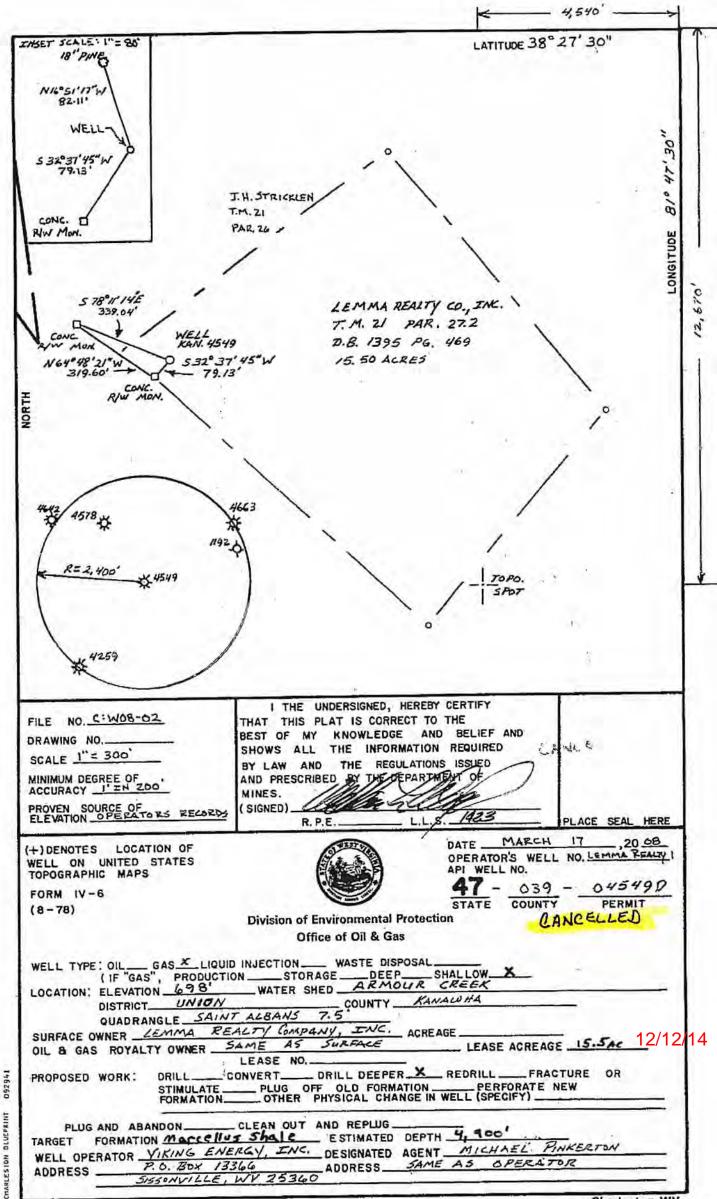
, No	LOR HAR	OR SO	OFT	TOP FEET	BOTTOM FEET	
•						and salt water, coal, oil and gas
Fo	shale sand shale sand shale sand Salt Salt Salt Salt Salt Shale Little Big Li	and Lime ne jun nd shale shale Shale	le	0 from Gamma 800 906 968 980 995 1011 1158 1443 1452 1474 1630 1704 1867 2112 2132 2145 3332 3370 3642 3813	800 Ray Log: 906 968 980 995 1011 1158 1443 1452 1474 1630 1704 1867 2112 2132 2145 3332 3370 3642 3813 — 3916	3" stream salt water in Salt Sand increased to 4" stream @ 1680' Well logged by Young Wireline

(Attach separate sheets as necessary)

Viking Energy, Inc.	
Well Operator	_
By: W Thomas 1/Wil - consultarist	-
Date:	·····

Regulation 2.02(i) provides as follows: Note:

"The term 'log' or 'well log' shall mean a systematic detailed gevlogical record of all formations, including wil, encountered in the drilling of a well."



WW-2	2A
(Rev.	6-07)

1). Date: October 14, 2014 2.) Operator's Well Number Lemma Realty #1 DD State County Permit

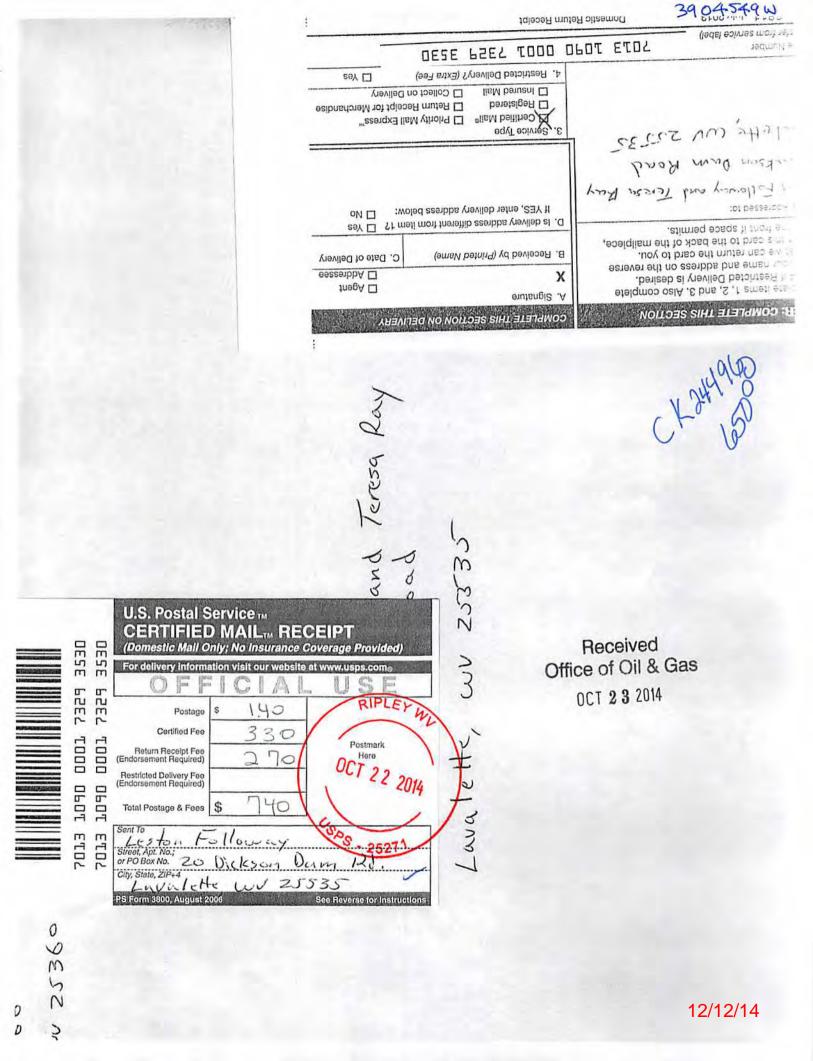
3.) API Well No .:

47-039 - 04549DD

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

4) Surface Own	er(s) to be served	:	5) (a) Coal Op	erator	
(a) Name	Leston Followay & Teresa	Ray /	Name	Coal not operated	
Address	Rt 1 Box 1459		Address		
	Wayne, WV 25570				
(b) Name	Same		(b) Coal C	wner(s) with Declarat	ion
	20 Dickson Dam Rd.	1/	Name	Same as surface owner	
	Lavalette, WV 25535	-	Address		
(c) Name			Name		
Address			Address	_	
				-	
6) Inspector	Terry Urban		(c) Coal L	essee with Declaration	n
Address	P O Box 1207		Name	N/A	
	Clendenin, WV 25045		Address		
Telephone	304-549-5915				
	TO THE	PERSONS NA	MED ABOVE T	AKE NOTICE THAT:	
issued under this a I certify un this application for obtaining the inforr I am aware	Publication (No d and understand C application. Inder penalty of law m and all attachmenation, I believe that	tice of Publication hapter 22-6 and that I have persents, and that bat the information	135 CSR 4, and onally examined sed on my inqui is true, accurate	I agree to the terms a and am familiar with the ry of those individuals in and complete.	nd conditions of any perm e information submitted of mmediately responsible f g the possibility of fine ar
imprisonment.		Well Operator	Viking Energy Corpora	ation	1 / willing
Desnived		By:	Michael Pinkerton	Michael +	in Seastonians ly
Received	Gas	Its:	President	pulling 1	TO COLOR
Office of Oil 8	- Character	Address	P O Box 13366		- 3-87
NOV 17 20	14		Sissonville, WV 25360		32
		Telephone	304-988-1161		101 8 2
Subscribed and sw	orn before me this		October	, 2014	76.4
	Mu	91.u	10	Notary Public	5
My Commission Ex	kpires 9-8-1019			CONT. 202.200	Tooksel
Oil and Gas Privacy No	otice				

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



ELUCULUI ELBE Domestic Return Receipt (Transfer from service label) EZSE BZEZ TOOD OBOT ETOZ 2. Article Number 4. Restricted Delivery? (Extra Fee) Sey 🗆 lisM beruani [☐ Collect on Delivery Unyng www ☐ Return Receipt for Merchandise benetsigeA □ Service Type ☐ Priority Mail Express** Leston Followay and Tevesu Ray If YES, enter delivery address below: 1. Article Addressed to: D. Is delivery address different from Item 1?

O or on the front if space permits. Attach this card to the back of the mailpiece, B. Received by (Printed Name) so that we can return the card to you. C. Date of Delivery Print your name and address on the reverse eesseibbA 🗆 X ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. T Agent A. Signature SENDER: COMPLETE THIS SECTION COMPLETE THIS SECTION ON DELIVERY

U.S. Postal Service TM
CERTIFIED MAILTM RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery Information visit our website at www.usps.coms

Postage \$ 140

Certified Fee 330

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees \$ 140

Sent To

Sireel, Apt. No.; or PO Box No. 24 1 8 0 1 145 9

City, State, ZiP+4

Way Mk 255 20

PS Form 3800, August 2006

See Reverso for Instructions

3523

7329

1000

1090

7013

Received Office of Oil & Gas 00T 2 3 2014

Opera	tor's	Well	N	um	ber	
-------	-------	------	---	----	-----	--

Lemma Realty #1 DD

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:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Lemma Realty Co. Inc.	Michael Pinkerton	1/8	234/1002
Michael Pinkerton	Viking Energy Corporation	Assignment	116/197

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

Received Office of Oil & Gas

NOV 1 7 2014

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: Viking Energy Corrporation
Michael Pinkerton

President

WW-9 (5/13)

		Page o	f
API Number	47 - 039	- 04549	
Opera	tor's Well	No. Lemma Realty #11	OD

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

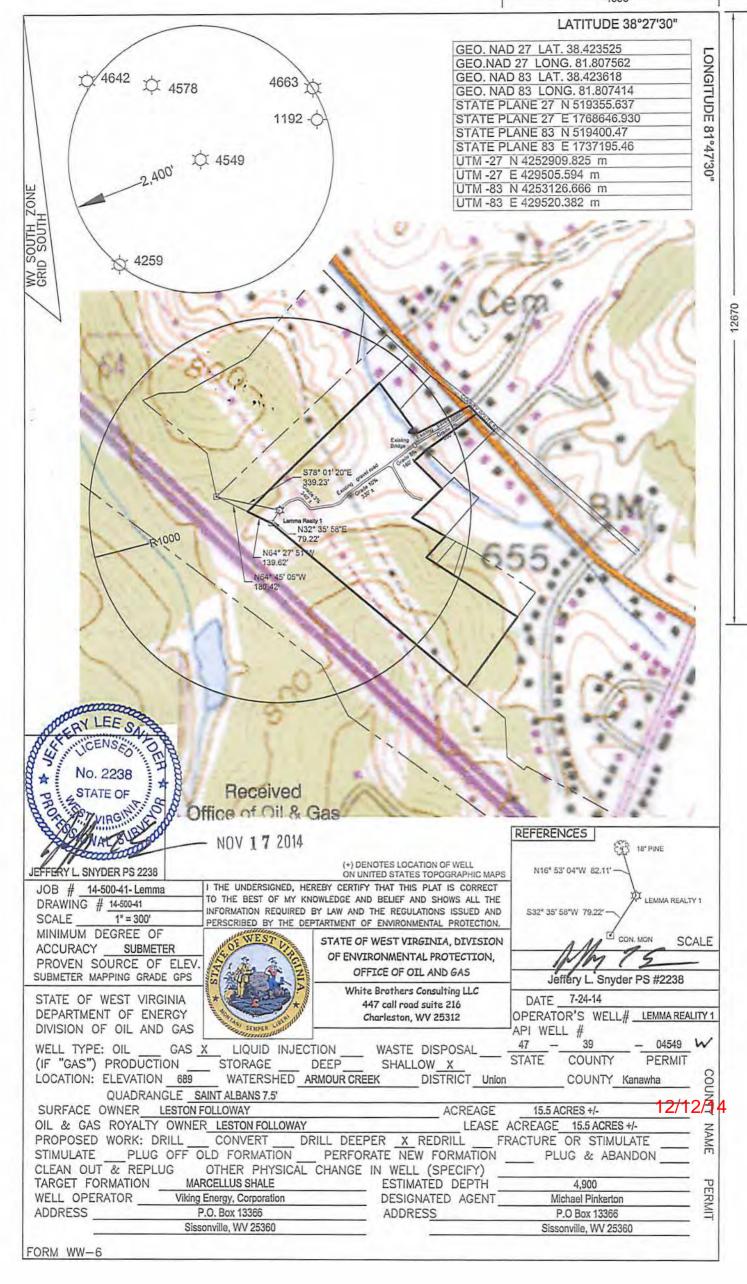
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name_Viking Energy Co	rporation	OP Code _51440
Watershed (HUC 10) Armors Co	reek	Quadrangle St Alabns
Elevation 689'	County_Kanawha (039)	District Union (9)
Will a pit be used for drill cutting		e proposed well work? Yes No _X
	used in the pit? Yes X No	If so, what ml.? 30 ml
	nod For Treated Pit Wastes:	
Reuse Off Si	Application ground Injection (UIC Permit Numb (at API Number te Disposal (Supply form WW-9 for (Explain)
Will closed loop system be used:	2 No	
Drilling medium anticipated for t	this well? Air, freshwater, oil based,	etc. Air
-If oil based, what type?	Synthetic, petroleum, etc. N/A	
Additives to be used in drilling n		
	Leave in pit, landfill, removed offsite	. etc. leave in pit
	solidify what medium will be used?	
-Landfill or offsite name		(
on August 1, 2005, by the Office provisions of the permit are enfo law or regulation can lead to enfo I certify under penalty application form and all attach obtaining the information, I bel	of Oil and Gas of the West Virginia or ceable by law. Violations of any to or cement action. of law that I have personally examments thereto and that, based on in	ons of the GENERAL WATER POLLUTION PERMIT issued permit of Environmental Protection. I understand that the erm or condition of the general permit and/or other application and am familiar with the information submitted on the injury of those individuals immediately responsible extrate, and complete. I am aware that there are signification or imprisonment.
Company Official Signature		1 0 1
Company Official (Typed Name	Michael Pinkerton Wich	sel finkerton
Company Official Title Presiden	nt	
Subscribed and sworn before me	this 14 day of October	Notary Public NOV 1 7 2014
My commission expires 09/08/201	9	NOV 1 7 2014 12/11

Proposed Revegetation Treatm	nent: Acres Disturbed	1ac		Prevegetation pH	N/A
	Tons/acre or to corr		6.5		
Fertilizer (10-20-20 o	or equivalent) 50	0 lbs lbs/ac	cre (500 lbs	minimum)	
Mulch 2 tons ha	ay mulch	Tons/acr			
			Mixtures		
Area	a I			Area	in
Seed Type	lbs/acre			Seed Type	lbs/acr
KY 31 Fescue	40#				
Perennial Rye	40#		Same	as area 1	
Landine Clover	40#				
Orawing(s) of road, location,p Photocopied section of involve	ed 7.5' topographic shee	et.	eation.		
Attach: Drawing(s) of road, location,p Photocopied section of involve Plan Approved by: Comments:	ed 7.5' topographic shee	et.			
Drawing(s) of road, location,p Photocopied section of involve	ed 7.5' topographic shee	et.			
Photocopied section of involve	ed 7.5' topographic shee	et.			
Photocopied section of involve	ed 7.5' topographic shee	et.			
Photocopied section of involve	ed 7.5' topographic shee	et.			
Photocopied section of involve	ed 7.5' topographic shee	et.			
Photocopied section of involve	ed 7.5' topographic shee	et.			
Photocopied section of involved Plan Approved by:	ry Dula	et.			
Photocopied section of involve	ry Dula	et.			

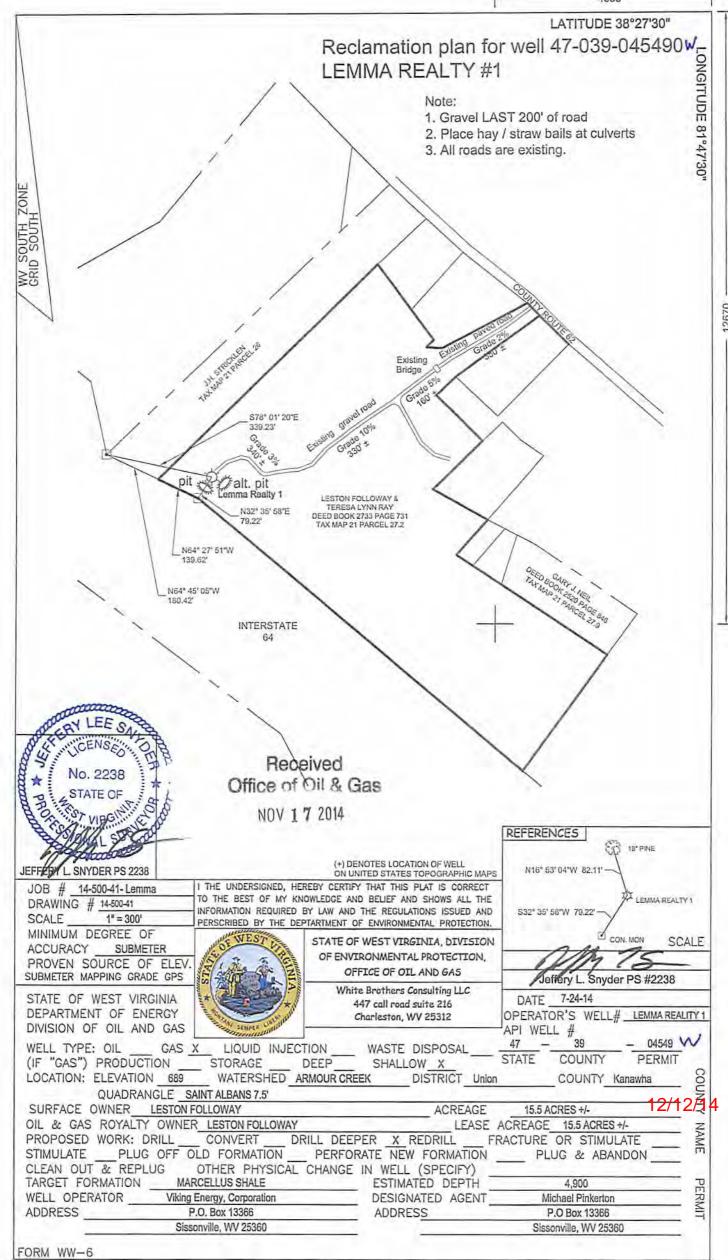
Received Office of Oil & Gas NOV 1 7 2014











WW-2B1	ı
(5-12)	

Well No.	Lemma Realty #1 DD	

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 Sampling Contractor		Strum Environmental, Inc.		
		Mark T. Wine		
Well Operator	Viking Energy Corporation			
Address	P O Box 13366			
	Sissonville, WV	/ 25360		
Telephone	304-988-1161			

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.

Received Office of Oil & Gas

NOV 17 2014