

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

February 12, 2015

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-3906371, issued to RESERVE OIL & GAS, 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.

James Martin

Chief

Operator's Well No: WVSU 3

Farm Name: BOARD OF GOVERNORS, WV S1

API Well Number: 47-3906371 Permit Type: Vertical Well

Date Issued: 02/12/2015

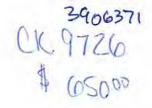
PERMIT CONDITIONS

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. <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.
- 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)



02/13/2015

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

1) Mall Operat							
i) Well Operat	or: Rese	rve Oil &	Gas, Inc.	310-324	Kanawha	Union	St. Albans
	-			Operator ID	County	District	Quadrangle
2) Operator's V	Vell Numb	er: WSU	J #3		3) Elevation:	606	
4) Well Type: (a) Oil	or Ga	ıs <u>x</u>				
(b) If Gas:	Produ	iction × / Une	derground Sto	rage		
		Deep	o/ S	Shallow <u>×</u>			
5) Proposed Ta 6) Proposed Ta 7) Approximate 8) Approximate	otal Depth fresh wa	: 4350 ter strata	depths: 200	ron/Rhinestreet Formation at I			
9) Approximate	coal sea	m depths	s: None				
			e encomm	N/Δ			
io) Approxima	te voia de	pins,(coa	al, Karst, other):	IVA			-
11) Does land	contain co	al seam	s tributary to act	tive mine? N	lo		
12) Describe pro	posed we	ll work ar	nd fracturing meth	nods in detail (a	ttach additiona	al sheets if nee	ded)
rill and complete	a new Deve	onian Sha	le well with 2 stage	nitrogen gas fra	C.		
						1-	Ilila
						July w	2.2-14
13)		No. of the Park of	SING AND TU		The state of the s		
TYPE S	SPECIFIC	E TOTAL		FOOTAGE	INTERVALS	302 000	11
	<u>Size</u>	<u>Grade</u>	Weight per ft	For Drilling	Left in Well	Fill -up (Cu.	
	No Colo Director						
Conductor	13 3/8"			20'	- Q	CTS	
Fresh Water	13 3/8" 9 5/8"			20' 270° 3'	36		
THE CONTRACTOR OF THE PARTY OF					36	CTS	
Fresh Water					36	CTS	excess
Fresh Water Coal	9 5/8"			278 3	36	CTS CTS X 40%	excess
Fresh Water Coal Intermediate	9 5/8"			270° 3'	36	CTS X 40% o	excess
Fresh Water Coal Intermediate Production	9 5/8"			270° 3'	36	CTS X 40% o	excess

WW-2A (Rev. 6-14)		1). Date:
(Nev. 0-14)		2.) Operator's Well Number WVSU #3
		State County Permit
		3.) API Well No.: 47
	STATE	OF WEST VIRGINIA
DEP		TAL PROTECTION, OFFICE OF OIL AND GAS
		TION FOR A WELL WORK PERMIT
	The second second	
4) Surface Ow	ner(s) to be served:	5) (a) Coal Operator
(a) Name	Board of Governors West Virg	Mame Visity
Address	124 Ferrell Hall, P.O. Box 363	3 Address
	Institute, WV 25112	
(b) Name		(b) Coal Owner(s) with Declaration
Address	-	Name
17.77		Address
(c) Name		Name
Address	*	Address
71001033		
6) Inspector	Terry Urban	(c) Coal Lessee with Declaration
Address	P.O. Box 1207	Name
	Clendenin, WV 25045	Address
Telephone	304-549-5915	
resette.		MED ABOVE TAKE NOTICE THAT:
Included is the state of the		contract or contracts by which I hold the right to extract oil and gas
OR		
Included is the		2, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
		of the West Virginia Code I have served copies of this notice and
application, a loc		ents pages 1 through on the above named parties by:
<u>X</u>	Personal Service (Affidavit attac	
-	Certified Mail (Postmarked post Publication (Notice of Publication	
I have re		d 35 CSR 4, and I agree to the terms and conditions of any permit
issued under this		a 33 Colv 4, and r agree to the terms and conditions of any permit
		sonally examined and am familiar with the information submitted on
		ased on my inquiry of those individuals immediately responsible for
	ormation, I believe that the information	
	are that there are significant penalties	s for submitting false information, including the possibility of fine and
imprisonment.	\\\-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	mile Oil 8: O I
	vveii Operator By:	Reserve Oil & Gas. Inc.
J	DEFICIAL SEAL Ite	- 11 762 H / C / C
STATE N	OTARY PUBLIC Address:	
(-VE 12015).	4C 75 Box 410	Spencer, WV 25276 Office of Oil & Gas
	nlae, WV 25235 on Expires December 10, 2017 Telephone:	
	Email:	
Subscribed and	sworn before me this/822 day of	
Maria	1 Reamnen	Notary Public
My Commission	Expires Illem In 1	10, 2017
Oil and Gas Privacy	11	

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 #2/13/2015 depprivacyofficer@wv.gov

SURFACE OWNER WAIVER

County	Kanawha	Operator	Reserve Oil & Gas, Inc.	
1500		Operator well number	WVSU #3	

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas Department of Environmental Protection 601 57th St. SE Charleston, WV 25304 (304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have FIFTEEN (15) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure a dequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

<u>Comments must be in writing.</u> Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

<u>List of Water Testing Laboratories.</u> The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ____ including a work order on F orm WW2-B, as urvey plat, and as oil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON		FOR EXECUTION BY A CORPORATION, ETC.		
	Date	Company Wast Vission State University		
Signature		By Its Date 12-2-14		
Print Name	Office of Oil & Gas		D	
	DEC 1 7 2014			

DEC 1 7 2014

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Kanawha				
Operator Reserve Oil & Gas, Inc.	Opera	tor's Well Number	WVSU #3	
INSTRUC	TIONS TO COAL OP	ERATOR, OWNER	R, OR LESSEE	
To the coal operator, any objection you wish to ma with the Chief of the Office of by the Office. Mail objections	ake or are required to of Oil and Gas within	make by WV Code	e 22-6-15, 16 or 17,	must be filed
Chief, Office of Oil and Gas Department of Environmenta 601 57 th St. SE Charleston, WV 25304 (304) 926-0499 extension 16				
(00 1) 020 0 100 0 000 1010 101		N/ED		
	VVA	IVER		
The undersigned coal location has examined this plocation, the well location has work proposed to be done at requirements of the West Vir	proposed well location is been added to the t this location, provide rginia Code and the g	. If a mine map exmine map. The under the well operator overning regulation	ists which covers the dersigned has no ob r has complied with	e area of well bjection to the all applicable
	Date	Company Name		
Signature		By		Date
		Sign	ature	Date
Received	o Known of			cact.
Office of Oil & Gas				

Operator's Well Number wysu:	Operator's	vveli	Number	wvsu	#3
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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
Board of Governors, West Virginia State University	Reserve Oil & Gas, Inc.	1/8	LB 261/738

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 appropriate authority before the affected activity is initiated.

Received		Reserve Ojj & Gas Inc.
Office of Oil & Gas	Well Operator:	AIVXM
Gas	By:Its:	Vice President
DEC 1 7 2014		

WW-2B1	
(5-12)	

Well No.	WVSU#3	
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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		ALS Environmental Lab	
Well Operator	Reserve Oil & O	Sas, Inc.	
Address	929 Charleston	Road	
	Spencer, WV 2	5276	
Telephone	304-927-5228		

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
DEC 17 2014

MUST TEST ONE SAMPLE.

Source.

9 mm

Sce Attach cd.

WW-9 (5/13)

	Page of
API Number 47 -	¥ .
Operator's Well No	o. WVSU #3

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name_ Reserve Oil & Gas, Inc.	OP Code
Watershed (HUC 10) Kanawha River	Quadrangle St. Albans
Elevation 595 County	Kanawha District Union
Do you anticipate using more than 5,000 bbls of water t	to complete the proposed well work? Yes No
Will a pit be used for drill cuttings? Yes X N	lo
If so, please describe anticipated pit waste: 96	el water, drill cuttings, fresh water
Will a synthetic liner be used in the pit? Yes	x No If so, what m1.?_20 / U
Proposed Disposal Method For Treated Pit Wa	
Land Application Underground Injection (UIC Reuse (at API Number	C Permit Number)
Off Site Disposal (Supply for Other (Explain	orm WW-9 for disposal location)
Will closed loop system be used? N/A	
Drilling medium anticipated for this well? Air, freshwa	ater, oil based, etc. Air. gel, fresh water
-If oil based, what type? Synthetic, petroleum,	, etc
Drill cuttings disposal method? Leave in pit, landfill, re	
	will be used? (cement, lime, sawdust) Soil/Dirt
on August 1, 2005, by the Office of Oil and Gas of the provisions of the permit are enforceable by law. Viola law or regulation can lead to enforcement action. I certify under penalty of law that I have pe application form and all attachments thereto and that	
Company Official Signature	Received
Company Official (Typed Name) J. Scott Freshwater	Office of Oil & Gas
Company Official Title Vice President	DEC 1 7 2014
Subscribed and sworn before me this 18th da Havid A Brannen My commission expires Illeen by	ay of November, 2014 Notary Public STATE OF WEST VIRGINIA NOTARY PUBLIC NOTARY PUBLIC

Form WW-9		Operator's Well N	_{o.} WVSU #3
Proceed Proceedings of the August Process	turbed 1.5	Drayagetation pH 5.	5
roposed Revegetation Treatment: Acres Disturbed 1.3 Lime 3 Tons/acre or to correct to pH 6.5		Prevegetation pH 5.	
Fertilizer (10-20-20 or equivalent)	0.25 lbs/acre (500 lbs	minimum)	
Mulch Hay	2 Tons/acre	· · · · · · · · · · · · · · · · · · ·	
	Seed Mixtures		
Area I		Area II	
Seed Type lbs/acre		Seed Type	lbs/acre
Orchard Grass 25			
Red Top Clover 15	·		
Plan Approved by: Comments:	hic sheet.		
Title: Inspectually (A) Field Reviewed? Yes	Date:/<	2-14	
Received Office of Oil & Gas			
DEC 1 7 2014			

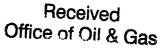
NOTE:

Any Trees 6" or larger in Diameter will be cut and piled. Brush will be used as Sediment Barriers.
Tempory seed and mulch all slopes upon construction.
Stone over all Culverts and entrance off existing roadway.

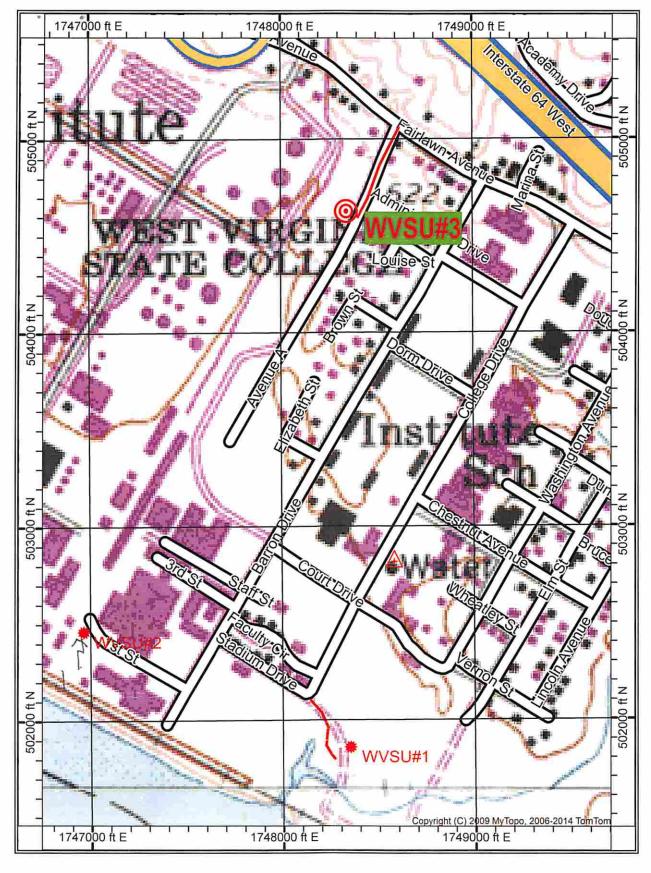
WVSU #3

NOTE: PIT SIZE: 25'X80' *

LOCATION SIZE: 100'X200' 1/-



DEC 1 7 2014



Received Office of Oil & Gas DEC 1 7 2014

