

#### west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Wednesday, April 04, 2018 WELL WORK PERMIT Vertical / New Drill

GREYLOCK CONVENTIONAL, LLC 500 CORPORATE LANDING

CHARLESTON, WV 25311

Re:

Permit approval for FULTON 19

47-021-09108-00-00

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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) 926-0450.

James A. Martin

Operator's Well Number: FULTON 19

Farm Name: IL MORRIS

U.S. WELL NUMBER: 47-021-09108-00-00

Vertical New Drill

Date Issued: 4/4/2018

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. <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.

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

1) Well Operato	r: Greyl	ock Conv	entional, LLC	494521205	Gilmer	Glenville	Glenville 7.5	
				Operator ID	County	District	Quadrangle	
2) Operator's W	ell Numb	er: Fulton	#19		3) Elevation:	1130'	Acct. 501393	
4) Well Type: (a	) Oil	or Ga	ıs X				\$ 650.	
			ction X / Unc	derground Sto	rage		4 650.	00
		Deep	o/ S	hallow X				
<ul><li>6) Proposed To</li><li>7) Approximate</li></ul>	tal Depth fresh wa	: <sup>3450'</sup> ter strata	Feet Fadepths: None reported in offset	ormation at F orted in offset wells	Proposed Targ Proposed Tota	get Depth: <u>3</u> Il Depth: Spee	280'	
9) Approximate	coal sea	m depths	s: <u>448',472'</u>					
10) Approximate	e void de	pths,(coa	al, Karst, other):	None reported i	n offset wells			
11) Does land c	ontain co	al seam	s tributary to acti	ive mine? N	0			
12) Describe proposed proposed properties and complete a vertical properator will drill to approperator will drill to approperation will be appropriately the properation of t	rtical well as	follows: Aff		ng the surface casi	ng string using Typ	e 1 and/or an app	proved light cement,	-
Cement will be plac	ed above t	he shallov	vest known produci	ng horizon and v	vill be verified by	bond log.		_
13)		CA	SING AND TUE	SING PROGR	<u>AM</u>			
TYPE S	PECIFIC	ATIONS		FOOTAGE	INTERVALS	CEME	<u>VT</u>	
	<u>Size</u>	<u>Grade</u>	Weight per ft	For Drilling	Left in Well	Fill -up (Cu.	<u>. Ft.)</u> フル	1
Conductor	13 3/8"	LS,R3	43.6#	40'	40'	NA		
Fresh Water								
Coal	7"	LS,R3	16#	550'	550'	CTS	;	
Intermediate								
Production	4 1/2'	WT65,R3	9.5#	3450'	3450'	320		
Tubing								
Liners					DECE	WED		
Packers: Kind	:				Office of C			
Size					MAR 1			
рерт	hs Set _				Environment	ertment of tal Protection		



WW-2A (Rev. 6-14)

1). Date:	12 FEBRUAR	Y 2018
2.) Operator	's Well Number	Fulton #19

State County

3.) API Well No .:

47-021 Permit

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

4) Surface Ov	wner(s) to be served	:	5) (a) Coal Ope	erator	
(a) Name	I.L. Morris		Name		
Address	P.O. Box 397		Address		
4.5.5.	Glenville, WV 2	6351	_		
(b) Name				vner(s) with Declaration	
Address			Name		
			Address		
0.0000000000000000000000000000000000000			71355	No Doch	224115
(c) Name			Name		1-0/04/
Address			Address		
			011.030110.030		
<ol><li>Inspector</li></ol>	Danny Mullins		(c) Coal Le	ssee with Declaration	-
Address	220 Jack Acres I	Rd	Name	or o	
	Buckhannon, W	V 26201	Address		
Telephone	304-932-6844				
	TO THE P	ERSONS NA	MED ABOVE TA	KE NOTICE THAT:	
Included is the	he lease or leases or o	ther continuing	contract or contract	cts by which I hold the right to ex	tract oil and gos
UK					
X Included is the second of	ne information required	by Chapter 22	2, Article 6, Section	8(d) of the Cade of West Virgini	a (see page 2)
i ceruiy i	inat as required unde	r Chapter 22-6	of the West Virgin	is Code I have conved conice.	of this
application, a loc	ation plat, and accomp	panying docum	ents pages 1 throug	h on the above named part	ies by:
⊽	Personal Service	e (Amdavit atta	ched)		•
_	Certined Mail (P	ostmarked pos	tal receipt attached		
I have re-	Publication (Noti	ice of Publication	on attached)		
issued under this	and and understand Cr	apter 22-6 and	35 CSR 4, and I	agree to the terms and condition	ons of any permit
I certify t	inder penalty of law ti	at I have nere	onally evenined a	nd am familiar with the informal	
una application it	om and all attachmen	its, and that ha	ised on my inquiry	of those individuals immediately	ion submitted on
obtaining the into	rmation, i delleve that	the information	is true accurate a	nd complete	
I am awa	re that there are signi	ficant penalties	for submitting false	information, including the poss	ibility of fine and
imprisonment.					
	RY PUBLIC OFFICIAL SEAL	Well Operator	Grevlock Conv	entional, LLC	
	Shane A. Lucas	By:	Don C Supcoe	III The Sale	_
MY MY	Commission Expires	Its:	Director of Lan	d Operations and Permitting	IQ
Energ	January 30, 2023 y Corporation of America	Address;	500 Corporate	Landing	
311	8 WV Highway 5 Esst Jenville, WV 26351	Tolophose	Charleston, W 304-925-6100	7 25311	
	16111116, 117 20301	Email:	document @ 25	vlockeneray.com	
Subscribed and st	worn before me this	22 day of	FERMAN		
			10000	5018	
			_	Notary Public	
My Commission E	xpires	JAN 30, 7	2023		
Oil and Gas Privacy N					

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

RECEIVED Office of Oil and Gas

2 2018 APR

Operator's Well Number Fulton #19

## 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
ED Fulton	Equitable Gas Co	1/8	73/71
Farmout from Equitable Gas Co	EAE Predecessor to Greylock Conventional, LLC	1/8	231/375

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

The per mit app licant 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

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MAR 1 2 2018

WV Department of Environmental Protection

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.

Well Operator:

Don C Supcoe III

Greylock Conventional, LLC

By: Its:

Director of Land Operations and Permitting

WW-2B1	ĺ
(5-12)	

Well I	No.	<b>Fulton</b>	#19
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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 Labora	atory Name	Fairway Labs	····
Sampling Contractor		SLS Land & Energy Development	<del></del>
Well Operator	Grevlock E	Energy	<u>-</u> _
Address	•	orate Landing	
	Charlesto	on, WV 25311	
Telephone	304-925-6	6100	

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.

There appears to be 6 parcels that fall within 1000' of the proposed site. Therefore samples will be offered and taken as required.

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### Possible Water Purveyors for Fulton #19 Well

10/6 Norman Anderson 2230 Sycamore Run Rd. Glenville, WV 26351

10/7

Waco Oil & Gas Co. Inc.

P.O. Box 397

Glenville, WV 26351

10/7.1 & 34

I.L. Morris

P.O. Box 397

Glenville, WV 26351

4/8.1

Norman L. & Sharon A. Anderson

2230 Sycamore Run Rd.

Glenville, WV 26351

4/8.3

Barry K. & Karen D. Lay

943 Mineral Rd.

Glenville, WV 26351

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### Possible Water Purveyors for Fulton #19 Well

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Glenville, WV 26351

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W Department of Environmental Protection

API Number	47 - 0	021	-	
Operator's We	ell No.	Fulton #19	9 -	

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Greylock Conventional, LLC	OP Code 494521205
Watershed (HUC 10) Little Kanawha River	Quadrangle Glenville 7.5
Do you anticipate using more than 5,000 bbls of water to complete	he proposed well work? Yes No
Will a pit be used? Yes No	
If so, please describe anticipated pit waste:	
Will a synthetic liner be used in the pit? Yes No	If so, what ml.? 30
Proposed Disposal Method For Treated Pit Wastes:	
Land Application (if selected provide a cumulation of UIC Permit Numberseuse (at API Numberseuse) Off Site Disposal (Supply form WW-9 for Other (Explain	mber) or disposal location)
Will closed loop system be used? If so, describe: No	
$Drilling \ \ medium \ \ anticipated \ for \ this \ well \ \ (vertical \ and \ horizontal)?$	Air, freshwater, oil based, etc. Air/Fresh water
-If oil based, what type? Synthetic, petroleum, etc	
Additives to be used in drilling medium? Soap, Klastay	<del></del>
Drill cuttings disposal method? Leave in pit, landfill, removed offsi	te, etcLeave in pit
-If left in pit and plan to solidify what medium will be used	? (cement, lime, sawdust) Cement/Lime
-Landfill or offsite name/permit number?	
Permittee shall provide written notice to the Office of Oil and Gas o West Virginia solid waste facility. The notice shall be provided with where it was properly disposed.	
on April 1, 2016, by the Office of Oil and Gas of the West Virginia provisions of the permit are enforceable by law. Violations of any to or regulation can lead to enforcement action.	erm or condition of the general permit and/or other applicable law mined and am familiar with the information submitted on this equiry of those individuals immediately responsible for obtaining d complete. I am aware that there are significant penalties for
Subscribed and sworn before me this 22 day of FEB	2ng/ , 20 18
	RECEIVED Notary Public Office of Oil and Gas
My commission expires January 30, 2023	MAR 1 2 2018

Operator's	Well	No	Fulton #19	

Proposed Revegetation Trea			pH
Lime 3	Tons/acre or to correct	et to pH 6.5	
Fertilizer type 10-	20-20	<u> </u>	
Fertilizer amount_1	I/3 TON	lbs/acre	
<sub>Mulch</sub> Hay	2	_Tons/acre	
		Seed Mixtures	
Te	emporary	Perr	nanent
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		
	pit will be land applied, pro the land application area.	d application (unless engineered plans incovide water volume, include dimensions (	
Maps(s) of road, location, provided). If water from the (L, W), and area in acres, of Photocopied section of invol	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involution Approved by:	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	
Maps(s) of road, location, provided). If water from the (L, W), and area in acres, of Photocopied section of involutions.	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involution Approved by:	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	
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Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involution Approved by:	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	L, W, D) of the pit, and dir
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involution Approved by:	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	RECEIVED Office of Oil and Gas
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involution Approved by:	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	RECEIVED Office of Oil and Gas MAR 1 2 2018
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involution Approved by:	pit will be land applied, pro the land application area. lved 7.5' topographic sheet.	ovide water volume, include dimensions (	RECEIVED Office of Oil and Gas MAR 1 2 2018  WV Department of Environmental Protection

WW-9- GPP Rev. 5/16

Pa	gel	of 2	
API Number 47 -	-		
Operator's Well No.	FIN TON	#19	

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

GROUNDWATER PROTECTION PLAN

Quad: Glenville 7.5
ds. Include a list of all operations that could contaminate the
s. Pit will be tested, and Lime will be applied to des be present, the fluids will be evaluated approved facility. Solids will be allowed time uch as fuel, oil, and lubricants will be stored on
er quality from the list of potential contaminant sources above.
ored and inspected every shift for possible onitored and inspected every shift for leaks
and distance from closest Well Head Protection Area to the
oximately 2,000ft. No known public water
ed for groundwater protection.
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MAR 1 2 2018
WV Department of Environmental Protection

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

WW-9-	<b>GPP</b>
Rev. 5/1	6

Pa	ge <b>2</b>	o	of_	2
API Number 47				
Operator's Well No.	FUL 20N	#	19	

No known groundwater quality data for the area. Samples have been o sources within a 1,000' radius of the proposed well.	ffered for non-public
Provide a statement that no waste material will be used for deicing or fill material on the pro-	operty.
No waste material will be used for deicing purposes, or fill material on the	ne property.
Describe the groundwater protection instruction and training to be provided to the emplo provide direction on how to prevent groundwater contamination.	yees. Job procedures shall
All employees will be familiar with the contents of the GPP and how to in routine JSA meetings, the GPP will be discussed. Safe work practices a groundwater from contamination per company policy.	
Provide provisions and frequency for inspections of all GPP elements and equipment.	
ALL GOP elements and acquirements will be inspected upon every shift not commence until any problem is remediated and documented.	t. Work shall cease and
Signature:	RECEIVED Office of Oil and Gas
Date:	MAR 1 2 2018
	WV Department of Environmental Protection





