

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

Friday, May 18, 2018 WELL WORK PERMIT Vertical / New Drill

GREYLOCK CONVENTIONAL, LLC 500 CORPORATE LANDING

CHARLESTON, WV 25311

Re: Permit approval for FULTON 19

47-021-05791-00-00

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.

Chief

Operator's Well Number: FULTON 19

Farm Name: IL MORRIS

U.S. WELL NUMBER: 47-021-05791-00-00

Vertical New Drill Date Issued: 4/4/2018

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. 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	or: Greyl	ock Conv	entional, LLC	494521205	Gilmer	Glenville	Glenville 7.5
				Operator ID	County	District	Quadrangle
2) Operator's V	Vell Numb	er: Fulton	#19		3) Elevation:	1130'	Acct.
4) Well Type: (a	a) Oil	or Ga	ıs X				501393 \$650.1
	1 1 1 1		ction X / Un	derground Sto	rage		4 650.
 6) Proposed To 7) Approximate 	tal Depth fresh wa	ter strata	Speechley, Warren, Gord Feet A depths: None reported in offs	Formation at forted in offset wells			
9) Approximate	coal sea	m depths	s: 448',472'				
10) Approximat	e void de	pths,(coa	al, Karst, other):	None reported	in offset wells		
11) Does land	contain co	oal seam	s tributary to ac	tive mine? N	lo		
			nd fracturing meth				eeded) oproved light cement,
							ng well log analysis.
ement will be place	ced above	the shallov	vest known produc	ing horizon and	will be verified b	y bond log.	
13)		CA	SING AND TU	BING PROGR	AM		
TYPE S	PECIFIC	ATIONS		FOOTAGE	INTERVALS	S CEME	NT
	<u>Size</u>	<u>Grade</u>	Weight per ft	For Drilling	Left in Well	Fill -up (Cu	<u>J. Ft.)</u>
Conductor	13 3/8"	LS,R3	43.6#	40'	40'	N/	\
Fresh Water							
Coal	7"	LS,R3	16#	550'	550'	CT	S
Intermediate							
Production	4 1/2'	WT65,R3	9.5#	3450'	3450'	320	0
Tubing							
Liners							
Packers: Kind	d:				Office of C		
Size	200				MAR 1	2 2018	
Dep	ths Set					artment of	



WW-2A (Rev. 6-14)

1). Date: **12 FEBRUARY 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

(a) Name	vner(s) to be served:	5) (a) Coal Operator
(a) Name	I.L. Morris	Name
Address	P.O. Box 397	Address
2.00	Glenville, WV 26351	
(b) Name		(b) Coal Owner(s) with Declaration
Address		Name
		Address
		No DECLARMAN
(c) Name		Name
Address		Address
6) Inspector	Danny Mullins	(c) Coal Lessee with Declaration
Address	220 Jack Acres Rd	Name
	Buckhannon, WV 26201	
Telephone	304-932-6844	Address
· and princing	TO THE DEDOOR	IS NAMED ABOVE TAKE MOTION
Included is the	to the PERSON	NS NAMED ABOVE TAKE NOTICE THAT:
OR	ie lease or leases of other con	ntinuing contract or contracts by which I hold the right to extract oil and gas
A Included is th	e information required by Cha	pter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
i certify t	nat as required under Chapte	22-6 of the West Virginia Code I have served copies of this settles and
application, a loca	ation plat, and accompanying o	Occuments pages 1 through on the shove named parties by:
	Personal Service (Affida)	vit attached)
X	Certified Mail (Postmarks	ed postal receipt attached)
	Publication (Notice of Pu	(hilication attached)
I have rea	ad and understand Chanter 22	-6 and 35 CSR 4, and I agree to the terms and conditions of any permit
issued under this	application.	o and 35 Cont 4, and 1 agree to the terms and conditions of any permit
		e personally examined and am familiar with the information submitted on
this application for	m and all attachments, and t	that based on my inquiry of those individuals immediately responsible for
octanning the into	mauon. I believe that the intori	mation is true accurate and complete
I am awa	re that there are significant per	mailties for submitting false information, including the possibility of fine and
imprisonment.		named to destinating loss information, including the possibility or line and
HOYAL	RY PUBLIC OFFICIAL SEAL Well Op	erator Grevlock Conventional, LLC
	Shane A. Lucas	By: Don C Supcoe III
2 5 St	Shane A. Lucas ate of West Virginia	By: Don C Supcoe III
The state of	Shane A. Lucas ate of West Virginia Commission Expires	By: Don C Supcoe III Its: Director of Land Operations and Permitting
My Energy	Shane A. Lucas ate of West Virginia Commission Expires January 30, 2023 y Corporation of America	By: Don C Supcoe III Its: Director of Land Operations and Permitting dress: 500 Corporate Landing
St My Energy	Shane A. Lucas ate of West Virginia Commission Expires January 30, 2023 Add y Corporation of America B WY Highway 5 East	By: Don C Supcoe III Its: Director of Land Operations and Permitting dress: 500 Corporate Landing Charleston, WV 25311
St My Enero	Shane A, Lucas at a of West Virginis Commission Expires January 30, 2023 Add y Corporation of America 8 WY Highway 6 East Jenville, WV 28351 Telepi	By: Don C Supcoe III Its: Director of Land Operations and Permitting 500 Corporate Landing Charleston. WV 25311 shone: 304-925-6100
St My Enero	Shane A, Lucas at a of West Virginis Commission Expires January 30, 2023 Add y Corporation of America 8 WY Highway 6 East Jenville, WV 28351 Telepi	By: Don C Supcoe III Its: Director of Land Operations and Permitting 500 Corporate Landing Charleston. WV 25311 shone: 304-925-6100 Email: dcsupcoe@grevlockenergy.com
St My Enero	Shane A. Lucas ate of West Virginie Commission Expires January 30, 2023 (Corporation of America 6 WY Highway 6 East lenville, WY 28351	By: Don C Supcoe III Its: Director of Land Operations and Permitting 500 Corporate Landing Charleston. WV 25311 shone: 304-925-6100
Subscribed and s	Shane A. Lucas are of West Virginie Commission Expires January 30, 2023 Add Y Corporation of America 6 WY Highway 6 East tenville, WY 28381 worn before me this	By: Don C Supcoe III Its: Director of Land Operations and Permitting 500 Corporate Landing Charleston, WV 25311 Shone: 304-925-6100 Email: day of Torman Charleston Charlesto
Subscribed and s	Shane A. Lucas at a f West Virginis Commission Expires January 30, 2023 (Compression of America 6 WY Highway 6 East Itenville, WY 28351 Telepiworn before me this	By: Don C Supcoe III Director of Land Operations and Permitting dress: 500 Corporate Landing Charleston, WV 25311 shone: 304-925-6100 desupcoe@grevlockenergy.com day of Torono Notary Public
St My Energy 313	Shane A. Lucas are of West Virginie Commission Expires January 30, 2023 Add y Corporation of America 6 WY Highway 6 East lenville, WY 28361 Telepixorin before me this Xpires	By: Don C Supcoe III Director of Land Operations and Permitting dress: 500 Corporate Landing Charleston, WV 25311 shone: Ball: day of Torrange Charleston

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RECEIVED Office of Oil and Gas

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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, et	. Grantee, Lessee, etc.	Royalty	Book/Page
ED Fulton	Equitable Gas Co	1/8	73/71
Farmout from Equitable Gas C	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 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

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WV Department of Environmental Protection

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:

Don C Supcoe III

Greylock Conventional, LLC

By: Its:

Director of Land Operations and Permitting

WW-2B1	ı
(5-12)	

Well No. Fulton #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 Laboratory Name		Fairway Labs	
Sampling Contractor		SLS Land & Energy Development	
Well Operator	Greylock E	Enerav	
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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WV Department of Environmental Protection



Possible Water Purveyors for Fulton #19 Well

Gelected for Sampling

10/6

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4/8.3

Barry K. & Karen D. Lay

943 Mineral Rd.

Glenville, WV 26351

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APR 2 2018

WV 05 418/20168

API Number 47 - 021 -	
Operator's Well No. Fulton #19	ů.

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 Will a pit be used? Yes No	lete the proposed well work? Yes No 🗸
If so, please describe anticipated pit waste: Drill Cutt	ings
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 provid-	e a completed form WW-9-GPP)
Underground Injection (UIC Permit	Number)
Reuse (at API NumberOff Site Disposal (Supply form WWOther (Explain	/-9 for disposal location)
Will closed loop systembe used? If so, describe: No	
Drilling medium anticipated for this well (vertical and horizontal	al)? 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	
Drill cuttings disposal method? Leave in pit, landfill, removed	offsite, etc. Leave 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?	
	as of any load of drill cuttings or associated waste rejected at any within 24 hours of rejection and the permittee shall also disclose
on April 1, 2016, by the Office of Oil and Cas of the West Virg provisions of the permit are enforceable by law. Violations of a or regulation can lead to enforcement action. I certify under penalty of law that I have personally application form and all attachments thereto and that, based on the information, I believe that the information is true, accurat submitting false information, including the possibility of line or Company Official Signature Company Official (Typed Name) Don C Supcoe III	NOTARY PUBLIC OFFICIAL SEAL Shane A. Lucas State of West Virginia My Commission Expires January 30, 2023
Company Official Title Director of Land Operations and Permitti	ng Energy Corporation of America 3116 WV Highway 5 East Gienville, WV 26351
Subscribed and sworn before me this 22 day of F	EBRING , 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

	Tons/acre or to co	ormatic au 6.5	
D 10			
Fertilizer type 10-		<u></u>	
Fertilizer amount 1/3 TON Mulch Hay 2		lbs/acre	
Mulch_Hay	2	Tons/acre	
		Seed Mixtures	
Te	emporary	Perm	nanent
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		
Maps(s) of road, location, provided). If water from the (L, W), and area in acres, of	pit will be land applied the land application are		
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of invol	pit will be land applied the land application are lved 7.5' topographic sh	, provide water volume, include dimensions () ea. neet.	L, W, D) of the pit, and d
provided). If water from the (L, W), and area in acres, of Photocopied section of invo	pit will be land applied the land application are lyed 7.5' topographic sh	, provide water volume, include dimensions (lea.	L, W, D) of the pit, and d
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Maps(s) of road, location, piperovided). If water from the L, W), and area in acres, of Photocopied section of involved Approved by:	pit will be land applied the land application are lyed 7.5' topographic sh	, provide water volume, include dimensions (lea.	L, W, D) of the pit, and d
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involved Approved by:	pit will be land applied the land application are lyed 7.5' topographic sh	, provide water volume, include dimensions (lea.	L, W, D) of the pit, and d
Maps(s) of road, location, piprovided). If water from the (L, W), and area in acres, of Photocopied section of involved Approved by:	pit will be land applied the land application are lyed 7.5' topographic sh	, provide water volume, include dimensions (lea.	L, W, D) of the pit, and d

WW-9- GPP Rev. 5/16

Pa	ge [of 2
API Number 47 -		
Operator's Well No.	FULTON	#19

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

	OF OIL AND GAS ER PROTECTION PLAN
Operator Name: Greylock Conventional, LLC	
Watershed (HUC 10): Mudlick Run	Quad: Glenville 7.5
Farm Name: Fullow	
 List the procedures used for the treatment and discharg groundwater. 	ge of fluids. Include a list of all operations that could contaminate the
achieve a PH level to 7.0+. Should excessive diluted with fresh water, or disposed of at a W to drop out.	ndards. Pit will be tested, and Lime will be applied to chlorides be present, the fluids will be evaluated V DEP approved facility. Solids will be allowed time luids such as fuel, oil, and lubricants will be stored on
Describe procedures and equipment used to protect group	undwater quality from the list of potential contaminant sources above
leaks and failures.	monitored and inspected every shift for possible be monitored and inspected every shift for leaks
List the closest water body, distance to closest water discharge area.	body, and distance from closest Well Head Protection Area to the
Stwearts Creek is the closest water body at intakes within the area.	approximately 2,000ft. No known public water
Summarize all activities at your facility that are already	regulated for groundwater protection.
N/A	RECEIVED Office of Oil and Gas
	MAR 1 2 2018
	WV Department of Environmental Protection

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

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API Number 47 -	7.5	+			
Operator's Well No.	FUL?	on	#19		

No known groundwater quality data for the area. Samples have been offered for non-public sources within a 1,000' radius of the proposed well.	
Provide a statement that no waste material will be used for deicing or fill mate	erial on the property.
No waste material will be used for deicing purposes, or fill ma	aterial on the property.
Describe the groundwater protection instruction and training to be provided provide direction on how to prevent groundwater contamination.	d to the employees. Job procedures shall
All employees will be familiar with the contents of the GPP ar routine JSA meetings, the GPP will be discussed. Safe work groundwater from contamination per company policy.	
Provide provisions and frequency for inspections of all GPP elements and equ	uipment.
ALL GOP elements and equirements will be inspected upon not commence until any problem is remediated and documer	
Signature:	RECEIVED Office of Oil and Gas
Date: 2/22/18	MAR 1 2 2018
- Cy Cog	WV Department of Environmental Protection





