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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Wednesday, July 23, 2025  
WELL WORK PLUGGING PERMIT  
Vertical Plugging

EXPAND OPERATING LLC  
6100 N WESTERN AVE.

OKLAHOMA CITY, OK 73118

Re: Permit approval for 20616  
47-057-00022-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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  
Chief

A handwritten signature in blue ink, appearing to read "J. Martin", is written over the printed name and title of James A. Martin.

Operator's Well Number: 20616  
Farm Name: MASTELLAR COAL CO.  
U.S. WELL NUMBER: 47-057-00022-00-00  
Vertical Plugging  
Date Issued: 7/23/2025

# 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

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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. 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.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. 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.

1) Date MAY 7, 2025  
2) Operator's  
Well No. MASTELLAR COAL CO 2  
3) API Well No. 47 - 057 00022

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil \_\_\_\_ / Gas X / Liquid injection \_\_\_\_ / Waste disposal \_\_\_\_ /  
(If "Gas, Production \_\_\_\_ or Underground storage \_\_\_\_) Deep \_\_\_\_ / Shallow \_\_\_\_

5) Location: Elevation 1,862 Watershed PURR SPRING RUN  
District NEW CREEK County MINERAL Quadrangle WESTERNPORT

6) Well Operator EXPAND OPERATING LLC 7) Designated Agent Brittany Woody  
Address PO BOX 18496 Address 300 Perryport Dr Suit 201  
OKLAHOMA CITY, OK 73154-0496 Morgantown WV 26508

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name GAYNE J KNITOWSKI Name PLANTS AND GOODWIN  
Address 601 57TH STREET SE Address 360 HIGH STREET  
CHARLESTON, WV 25304 BRADFORD, PA 16701

10) Work Order: The work order for the manner of plugging this well is as follows:

**SEE ATTACHED**

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Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Gayne Knitowski Digitally signed by  
Gayne Knitowski  
Date: 2025.06.03  
08:08:58 -04'00' Date 6-3-2025

08/01/2025

**MASTELLAR COAL CO 2 (PN: 620616)****Plug & Abandon**

County/State: MINERAL, WV Township: NEW CREEK BLM: NO  
 Latitude: 39.402333725 Longitude: -79.0455659826 (NAD 83)  
 Property Number: 620616 API: 4705700022  
 AFE: WO:

Digitally signed by  
 Gayne Knitowski  
 Date: 2025.06.03  
 08:06:16 -04'00'

**Summary**

The MASTELLAR COAL CO 2 will be plugged and abandoned. The well is located in MINERAL County, WV and was spud on 05-03-1979 by Columbia Natural Resource, targeting the Oriskany as a Vertical well. The last know production date for this well was 01-00-1900 where it produced MCF, BO, and BW.

**Pull 8,580' of Production Tubing**

**Run CBL**

**Cut and Pull ~6,950' of 7" 26/23# Production Casing**

**(3) 200' & (1) 100' Cement Plugs. See detail on Page 9**

**Get detail on Page 10**

**Guideline**

Step	Operation
	To align with the intended barrier design and designation in this procedure, on-site supervision is expected to review the relevant well history and parameters that could impact the efficacy of a barrier, or present mechanical issues with the wellbore. <b>Per the Well Control Standard (OGB-CHK-STD-001):</b> If any of the required minimum barriers fail or otherwise become non-operational, the well shall be immediately secured and operations suspended until a procedure to re-establish the minimum number of barriers is approved. <b>Preferred Well Control Method – Bullhead Method.</b> The goal will be to apply a volume of fluid with sufficient density to exceed reservoir pressure.
1	Hold safety meeting and PJSA prior to each significant operation. Review critical parameters and objectives as well as emergency action plans. Everyone on location has stop work authority. If work is stopped or course needs altered contact COI.
2	Observe condition of location before moving equipment onto location. Notify superintendent of any spills, trash, or tanks/equipment left on location. Clean and dress location.
3	Record and report all casing pressures in Wellview.
4	Negative pressure test all valves. Grease valves if necessary.

Barriers	Flow Path	
	Production Casing X Tubing	Tubing
Primary		
Secondary		
Tertiary		

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Pump KWF at Start of Job	
Step	Operation
5	MIRU pump truck to production wing valve off. Prepare to leave rigged up until CIBP with cement is set in production casing.
6	Pump fluid down production casing until a Qualified Hydrostatic Barrier (QHB) is established and maintained, per Section 4.2 of Well Control Standard (OGB-CHK-STD-001).
7	Perform flow check to ensure QHB is established.
	a. Contact supervisor and OKC engineer if higher weight kill fluid is required.
8	Complete <b>Well Control Standard (OGB-CHK-STD-001) Exception</b> to remove casing wing needle valve and install 2" ball valve.

Flow Path		
Barriers	Production Casing X Tubing	Tubing
Primary	Tubing Hanger Seals	QHB
Secondary	Master Valve	Master Valve
Tertiary		

Nipple Up WOR BOPs (Test against Master Valve)	
Step	Operation
9	ND master valves and NU 7-1/16" 10K master valve to tubing head and close.

Flow Path		
Barriers	Production Casing X Tubing	Tubing
Primary	QHB	QHB
Secondary	Tubing Hanger Seals	Pump through plug
Tertiary		TWC

10	Pressure test 7-1/16" 10K master valve against TWC to 250 / 4,500 psi.
a.	If unable to install TWC in tubing hanger, NU wireline lubricator, wireline rams, primary pressure control, set test plug with wireline ~100'-200'. Test 7-1/16" 10K flange against test plug to 250 / 4,500 psi.
11	NU 7-1/16" WOR BOPs and 2.375 Annular. Function and pressure test each ram. (T to B)
a.	Annular - Test against closed 7-1/16" master valve to 250 / 2,500 psi.
b.	Pipe Ram - Test against closed 7-1/16" master valve to 250 / 4,500 psi.
c.	Blind Ram - Test through kill port against closed 7-1/16" master valve to 250 / 4,500 psi.

Flow Path		
Barriers	Production Casing X Tubing	Tubing
Primary	QHB	QHB
Secondary	Tubing Hanger Seals	Pump Through Plug
Tertiary	Master Valve	TWC / Master Valve

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Pull Tubing	
Step	Operation
12	If applicable, release packer and let elastomers relax for 20 min.

Flow Path		
Barriers	Production Casing X Tubing	Tubing
Primary	QHB	QHB
Secondary	Annular	Pump Through Plug
Tertiary	Pipe Ram	TIW

13	TOOH laying down tubing	
	a.	Ensure appropriate TIW valve (in open position) w/ operating key is always on the rig floor.
	b.	To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level.
	c.	If pulling packer, ensure pulling speeds are low enough to prevent swabbing.

14	Close 7-1/16" Master valve and Blind Ram
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Flow Path	
Barriers	Production Casing
Primary	QHB
Secondary	Master Valve
Tertiary	Blind Ram

Set CIBPs	
Step	Operation
Note: For slickline work detailing barrier envelope, barrier testing, surface equipment specs for this operation refer to the " <b>Marcellus Production Wireline, Slickline, Braided Line Barrier Template.</b> "	
15	Close master valve, NU wireline lubricator, wireline rams, primary pressure control, and test against upper master valve to 250 psi low / and a high pressure to a minimum of well's SICP pre-job.

Flow Path	
Barriers	Production Casing
Primary	QHB
Secondary	Master Valve
Tertiary	Blind Ram

16	Round trip 6.20" OD gauge ring to 8,489'.
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17	Plug Details - Plug #1 - CIBP - CIBP Perf Isolation Make up and RIH with CIBP and set at depth defined in Plug Details. Using CCL do not place CIBP across collar.
18	Pressure test CIBP to 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.

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19	Run pressurized CBL log from CIBP to surface. Reported estimated TOC at 7,000'.
20	ND wireline lubricator, wireline rams, primary pressure control.

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Pump Cement and Spacer and Tac Weld Slips	
Step	Operation
21	Prep 8,387' of 2-3/8" 4.7# L-80 workstring.
22	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.
23	TIH w/ 2-3/8" workstring and tag TOC/CIBP.
	a. Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open
	b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level.

Flow Path		
Barriers	Production Casing X Workstring	Workstring
Primary	CIBP	CIBP
Secondary	QHB	QHB
Tertiary	Annular / Pipe Ram	TIW

24	Plug Details - Plug #2 - Cement - Cement Perf Isolation Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours.
25	Tag top of cement. Record depth.
26	TIH w/ workstring to bottom of spacer #1 and pump spacer as defined in Spacer Details.
27	POOH w/ workstring.
28	Establish hot work permit. Perform LEL assessment of well head and ensure LEL monitoring remains in place. Make sure well is static. Place fire extinguishers near wellhead and ensure fire watch is designated as outlined by hot work permit. ND Tubing Head, 7-1/16" Master Valve, 7-1/16" WOR BOPs and tac weld 7" casing slips to 7" casing.

Flow Path		
Barriers	Production X Intermediate Casing	Production Casing
Primary	Casing Packoff	CIBP
Secondary	QHB	Cement
Tertiary		QHB

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### Nipple Up WOR BOPs (Test against CIBP)

Step	Operation
29	NU 11" WOR BOPs and annular. Torque all bolts/nuts to spec.

Barriers	Flow Path	
	Production Casing X Tubing	Tubing
Primary	QHB	QHB
Secondary	Tubing Hanger Seals	Pump through plug
Tertiary		TWC

30	NU 11" WOR BOPs and 11" Annular. Function and pressure test each ram. (T to B)	
	a.	Annular - Test against CIBP to 250 low / 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.
	b.	Pipe Ram - Test against CIBP to 250 low / 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.
	c.	Blind Ram - Test through kill port against CIBP to 250 low / 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.

Barriers	Flow Path	
	Production Casing X Tubing	Tubing
Primary	Casing Packoff	CIBP
Secondary	QHB	Cement
Tertiary		QHB

### Cut Casing

Step	Operation
Note: For slickline work detailing barrier envelope, barrier testing, surface equipment specs for this operation refer to the <b>"Marcellus Production Wireline, Slickline, Braided Line Barrier Template."</b>	
31	Shut 7-1/16" Master Valve. NU wireline lubricator, wireline rams, primary pressure control, and test against upper master valve to 250 psi low / and a high pressure to a minimum of well's SICP pre-job.

Barriers	Flow Path	
	Production Casing	
Primary	CIBP	<div style="text-align: right;"> RECEIVED  Office of Oil and Gas  JUN 23 2025 </div>
Secondary	QHB	
Tertiary	Master Valve / Blind Ram	

32	Using TOC from CBL, Round trip 3.87" gauge ring to desired depth.	<div style="text-align: right;"> WV Department of  Environmental Protection </div>
33	Make up 6.25" OD jet cutter and RIH to desired depth. Pressure up on 7" casing to 500 psi and fire cutter. Record all pressure changes at time of cut.	
34	RD wireline. Circulate down 7" casing and out 9.625" casing to establish successful cut was made.	
a.	Do not exceed a 0.8 psi/ft gradient when establishing circulation against open hole accounting for hydrostatic pressure.	

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Pull Casing	
Step	Operation
35	MU casing spear, spear 7" casing. TOO H laying down 7" casing.
	a. Ensure appropriate TIW or swage to TIW valve with the operating key always on the rig floor. TIW valve must be in open position when not in use.
	b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level.
	c. NU casing jacks if necessary or unable to pull casing.

Flow Path		
Barriers	Production X Intermediate Casing	Production Casing
Primary	QHB	QHB
Secondary	Pipe Ram	TIW
Tertiary	Annular	

36	Once out of hole with casing shut 7-1/16" Master Valve and Blind Ram.
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Flow Path		
Barriers	Intermediate Casing	
Primary	QHB	
Secondary	Master Valve	
Tertiary	Blind Ram	

Pump Cement and Spacer	
Step	Operation
37	Prep 7,000' of 2-3/8" 4.7# L-80 workstring.
38	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.
39	TIH w/ 2-3/8" workstring and tag TOC/CIBP.
	a. Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open
	b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level.

Flow Path		
Barriers	Production Casing X Workstring	Workstring
Primary	CIBP	CIBP
Secondary	QHB	QHB
Tertiary	Annular / Pipe Ram	TIW

40	Plug Details - Plug #3 - Cement - Prod Csg Stub Plug
	Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours.
41	Tag top of cement. Record depth.
42	TIH w/ workstring to bottom of spacer #2 and pump spacer as defined in Spacer Details.
43	POOH w/ workstring.

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Flow Path		
Barriers	Production X Intermediate Casing	Production Casing
Primary	Casing Packoff	CIBP
Secondary	QHB	Cement
Tertiary		QHB

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Pump Cement and Spacer	
Step	Operation
44	Prep 2,640' of 2-3/8" 4.7# L-80 workstring.
45	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.
46	TIH w/ 2-3/8" workstring and tag TOC/CIBP.
	a. Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open
	b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level.

Flow Path		
Barriers	Production Casing X Workstring	Workstring
Primary	CIBP	CIBP
Secondary	QHB	QHB
Tertiary	Annular / Pipe Ram	TIW

47	Plug Details - Plug #4 - Cement - Inter Csg Shoe Plug Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours.
48	Tag top of cement. Record depth.
49	TIH w/ workstring to bottom of spacer #3 and pump spacer as defined in Spacer Details.
50	POOH w/ workstring.

Flow Path		
Barriers	Production X Intermediate Casing	Production Casing
Primary	Casing Packoff	CIBP
Secondary	QHB	Cement
Tertiary		QHB

Pump Surface Cement Plug	
Step	Operation
51	TIH w/ 2-3/8" workstring and tag TOC/CIBP.
	a. Ensure appropriate TIW valve with the operating key always on the rig floor. TIW valve must be in open
	b. To continuously maintain QHB, should utilize trickle fluid method or monitor fluid level.
52	Plug Details - Plug #5 - Cement - Surface Plug Pump balanced cement plug as directed in Plug Details, displace tubing with specified volume. Close pipe ram.
53	ND WOR BOPs. RDMO Workover rig and all associated equipment.

Flow Path	
Barriers	Surface Casing
Primary	Cement
Secondary	Cement
Tertiary	QHB

54	Monitor well for a minimum of 24 hrs or until state allows well to have abandonment cap installed.
55	Establish hot work permit. Perform LEL assessment of well head and ensure LEL monitoring remains in place. Visually check wellbore and cellar for signs of bubbling. Contact supervisor and OKC engineer if LELs or bubbling are present. Place fire extinguishers near wellhead and ensure fire watch is designated as outlined by hot work permit. Cut casing and weld abandonment cap with monument as specified by WVDEP.

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 Gayne Knitowski  
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## MASTELLAR COAL CO 2 (PN: 620616)



## Well Information

Surface Location	
County/State	MINERAL, WV
Township	NEW CREEK
Latitude*	39.40233373
Longitude*	-79.04556598

\*NAD 83

CHK Contacts		
Title	Name	Mobile
Workover Foreman	Heath Pottmeyer	740-525-3445
Completions Superintendent	Nick Flesher	304-669-3777
Production Superintendent	Donny McHenry	304-884-1624
Production Engineer	Eddie Watson	740-336-4199
Production Manager	Brandon Yaw	713-417-8537
Completions Manager	Matt Briggs	501-428-6630
Regulatory Manager	Eric Haskins	607-242-3839

## Driving Directions

Not Available

## General Well Data

KB	12	Top Perf	8,501	Perf Interval (ft)	4	PBTD	8,635
KOP	N/A	Btm Perf	8,505	TD	8,747	Elevation	1,862

## Casing Details

String	Casing Type	ID	Drift	Top (ftKB)	Bottom (ftKB)	Collapse 70% (PSI)	Burst 70% (PSI)	Yield 70% (klb)	Capacity (bbl/ft)	Tot. Cap. (bbl)	Hole Size
Conductor	20" 94# H-40	19.124	18.936	12	65	364	1,071	407	0.3553	19	
Surface	13.375" 48# H-40	12.715	12.559	12	431	518	1,211	225	0.1571	66	17.5
Intermediate	9.625" 40# K-55	8.835	8.679	12	2,543	1,799	2,765	340	0.0758	192	12.25
Production	7" 26# N-80	6.276	6.151	12	8,534	3,787	5,068	363	0.0383	326	8.75
Production	5" 17# N-80			8,489	8,594			#N/A		6	6.125
DV Tool											

## Tubing Details

Size / Weight	Grade	ID	Drift	Total (ft)	Top (ftKB)	Bottom (ftKB)	Collapse 80% (PSI)	Burst 80% (PSI)	Yield 80% (lb)	Capacity (bbl/ft)	Tot. Cap. (bbl)
2.375" 4.7#	J-55	1.995	1.901	8,580	12	8,592	6,480	6,160	72,000	0.0039	33

## Workstring Details

Size / Weight	Grade	ID	Drift	Total (ft)	Top (ftKB)	Bottom (ftKB)	Collapse 80% (PSI)	Burst 80% (PSI)	Yield 80% (lb)	Capacity (bbl/ft)	Tot. Cap. (bbl)
2.375" 4.7#	L-80	1.995	1.901	8,387	12	8,399	9,424	8,960	83,440	0.0039	32

## Reference Documents:

Live Locations for Barrier Templates:

[Policies and Controlled Documents Portal](#)Teams: [App Field Operations > Engineering > Barrier Templates](#)

Technical Documents:

[Well Control Standard](#)[Completion and Workover BOP Technical Bulletin](#)[Tubing Pull and Run Barrier Template](#)[Blanket Wellhead Lubricator Exception](#)[Wireline, Slickline, Braided Line Barrier Template](#)RECEIVED  
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MASTELLAR COAL CO 2 (PN: 620616)



### Plugging Proposal

Plug Details													
#	Type	Description	Set ID	Plug Height (ft)	Bottom of Plug (ftKB)	Top of Plug (ftKB)	Cement Type	Cement Yield	Cement Density (ppg)	Excess Cement (%)	Cement Volume (bbl)	Cement Volume (sacks)	Tubing Displacement Volume (bbls)
1	CIBP	CIBP Perf Isolation	6.276	2	8,389	8,387	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Cement	Cement Perf Isolation	6.276	200	8,387	8,187	Class A	1.28	15.5	0	7.7	33.6	30.4
3	Cement	Prod Csg Stub Plug (Inside Csg)	6.276	50	7,000	6,950	Class A	1.28	15.5	0	1.9	8.4	
3	Cement	Prod Csg Stub Plug (Open Hole)	8.75	150	6,950	6,800	Class A	1.28	15.5	50	16.7	73.4	24.9
4	Cement	Inter Csg Shoe Plug (Open Hole)	8.75	100	2,643	2,543	Class A	1.28	15.5	50	11.2	48.9	
4	Cement	Inter Csg Shoe Plug (Inside Csg)	8.835	100	2,543	2,443	Class A	1.28	15.5	0	7.6	33.3	7.8
5	Cement	Surface Plug	8.835	100	100	0	Class A	1.28	15.5	0	7.6	33.3	0.0
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Spacer Details										
#	Fluid Type	Description	Set ID	Spacer Height	Bottom of Spacer (ftKB)	Top of Spacer (ftKB)	Spacer Density (ppg)	Spacer Viscosity (cp)	Excess Spacer (%)	Spacer Volume (bbls)
1	Gel	Perf Isolation to Prod Csg Stub Plug	6.276	1,187	8,187	7,000	9	-	5	47.7
2	Gel	Elevation Plug to Inter Csg Shoe Plug	8.75	4,157	6,800	2,643	9	-	40	432.9
3	Gel	Inter Csg Shoe Plug to Surface Plug	8.835	2,343	2,543	100	9	-	5	186.5
4										
5										
6										
7										
8										
9										
10										

Estimated Casing Cuts	
String	Est. Cut Depth (ftKB)
Intermediate	
Production	6,950

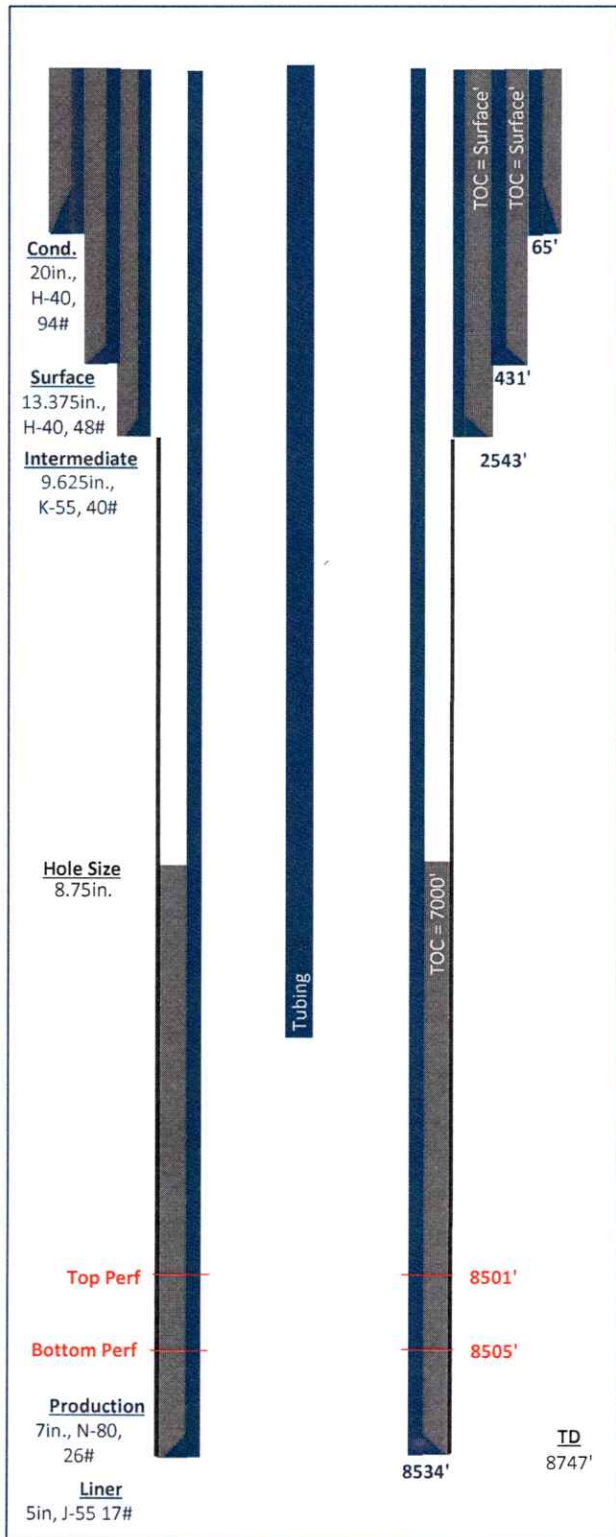
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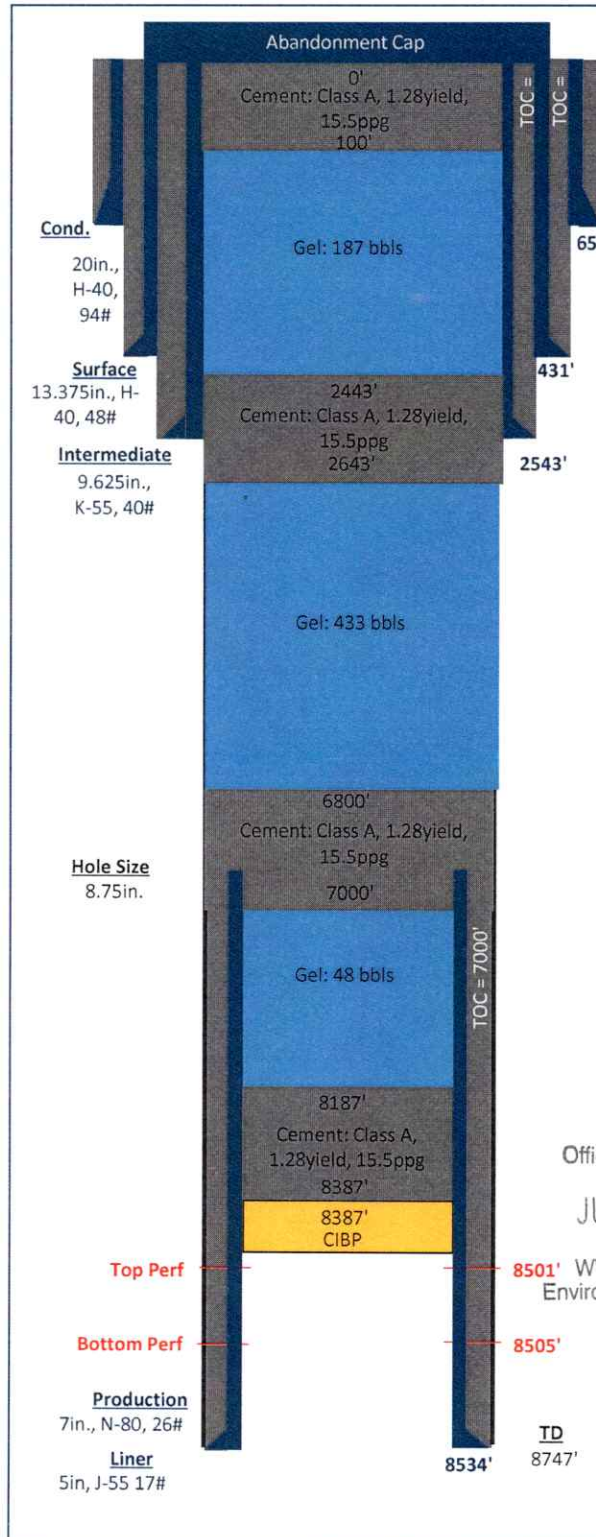
## MASTELLAR COAL CO 2 (PN: 620616)



## Current Wellbore Schematic



## Proposed Wellbore Schematic



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STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Westernport, WV-Md.

Permit No Min.-22

OIL & GAS DIVISION  
Rotary FX or M.N.C.E.  
Cable \_\_\_\_\_ Gas X  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Company Columbia Gas Transmission Corp.

Address P.O. Box 1273, Chas., WV 25314

Farm Mastellar Coal Co. Acre. 4957

Location (waters) Hoffman Run

Well No. 20616 Elev. 1919.04

District New Creek County Mineral

The surface of tract is owned in fee by \_\_\_\_\_

Mastellar Coal Co.

Address R.F.D. 4, Keyser, WV 26726

Mineral rights are owned by Same as above

Address \_\_\_\_\_

Drilling Commenced May 3, 1979

Drilling Completed July 10, 1979

Initial open flow 21,920 M. cu. ft. \_\_\_\_\_ bbls.

Final production 88,148 M. cu. ft. per day \_\_\_\_\_ bbls.

Well open 3 hrs. before test 3567 RP.

Well treatment details:

Attach copy of cementing record.

Treated with 4,000 gallons Mud Acid by Dowell on Oct. 16, 1979. Treating pressure was 2500-2900 psig.

Coal was encountered at None Feet \_\_\_\_\_ Inches \_\_\_\_\_

Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_

Producing Sand Oriskany Depth 8,559' - 8,610'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sandstone	Brown		0'	550'	Water 890'	
Siltstone	Red		550'	750'		
Sandstone	Gray		750'	870'		
Siltstone & Sh.	Gray		870'	1,000'		
Sandstone	Gray		1,000'	1,080'		
Siltstone & Sh.	Gray		1,080'	1,360'		
Sandstone & Sh.	Gray & Brn		1,360'	1,590'		
Siltstone & Sh.	Gray		1,590'	2,300'		
Shale & Chert			2,300'	2,320'		
Sandstone & Sh.	Gray		2,320'	4,210'		
Calcite, Gypsum & Sh.			4,210'	4,270'		
Sandstone & Sh.	Dark Gray		4,270'	4,800'		
Siltstone & Sh.	Gray		4,800'	5,100'		
S.S. & Siltstone, Dr.	Gray		5,100'	5,600'		
S.S., Sh. & Siltstone			5,600'	6,580'		
Siltstone & Sh.	Gray		6,580'	6,860'		
Shale & L.S. Brn. & Gray			6,860'	6,879'		
Limestone - Tully			6,879'	6,882'		
Shale			6,882'	7,232'		
Siltstone			7,232'	7,415'		
Shale & Silty Shale			7,415'	8,317'		
Limestone - Purcell			8,317'	8,381'		

(over)

\* Indicates Electric Log tops in the remarks section.

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Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Shale Black - Marcellus			8,381'	8,446'		
Shale - Needmore			8,446'	8,559'		
Sandstone - Oriskany			8,559'	8,610'	Gas @ 8,559'	

Date February 27, 1980  
 APPROVED *Reuben F. Shahan* Owner  
 By Manager, Drilling  
 (Title)

08/01/2025

08/01/2025

**Keri Fieno**

**From:** UPS <pkginfo@ups.com>  
**Sent:** Tuesday, June 17, 2025 11:18 AM  
**To:** Keri Fieno  
**Subject:** [EXTERNAL] UPS Delivery Notification, Tracking Number 1ZV3127X1396582071

**This Message Is From an External Sender**

This message came from outside your organization.

Report Suspicious



**Hello, your package has been delivered.**

**Delivery Date:** Tuesday, 06/17/2025

**Delivery Time:** 11:03 AM

**Signed by:** ALFARO

**EXPAND ENERGY CORPORATION**

MASTELLAR COAL CO 1 & 2 P&A LANDOWNER NOTIFICATION

**Tracking Number:** [1ZV3127X1396582071](#)

**Ship To:** STATE OF WEST VIRGINIA  
1900 KANAWHA BOULEVARD EAST  
BUILDING 3, SUITE 600  
DEPT OF COMMERCE; LABOR & ENVIRONME  
CHARLESTON, WV 253050001  
US

**Number of Packages:** 1

**UPS Service:** UPS Next Day Air Saver®

**Package Weight:** 0.0 LBS

**Reference Number:** MASTELLAR COAL CO 1 P&A

**Reference Number:** MASTELLAR COAL CO 2 P&A

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**Discover more about UPS:**

# Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

**Tracking Number**

1ZV3127X1399573861

**Service**

UPS Next Day Air Saver®

**Shipped / Billed On**

07/08/2025

**Delivered On**

07/09/2025 10:50 A.M.

**Delivered To**

1900 KANAWHA BLVD E  
CHARLESTON, WV, 25305, US

**Received By**

ALFARO

**Left At**

Inside Delivery

Please print for your records as photo and details are only available for a limited time.

Sincerely,

UPS

Tracking results provided by UPS: 07/10/2025 1:41 P.M. EST

08/01/2025

WW-9  
(5/16)

API Number 47 - 057 - 00022  
Operator's Well No. MASTELLAR COAL CO 2

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EXPAND OPERATING LLC OP Code \_\_\_\_\_

Watershed (HUC 10) PURR SPRING RUN Quadrangle WESTERNPORT

Do you anticipate using more than 5,000 bbls of water to complete the 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.? \_\_\_\_\_

Proposed Disposal Method For Treated Pit Wastes:

- \_\_\_\_ Land Application (if selected provide a completed form WW-9-GPP)  
\_\_\_\_ Underground Injection ( UIC Permit Number \_\_\_\_\_ )  
\_\_\_\_ Reuse (at API Number \_\_\_\_\_ )  
\_\_\_\_ Off Site Disposal (Supply form WW-9 for disposal location)  
\_\_\_\_ Other (Explain \_\_\_\_\_ )

Will closed loop system be used? If so, describe: DRILL CUTTINGS WILL BE CIRCULATED BACK INTO AN OPEN TANK

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. FRESH WATER

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? NONE

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. LANDFILL

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) SAWDUST AND CITRIC ACID

-Landfill or offsite name/permit number? KIMBLE SANITARY LANDFILL OR MUD MASTERS

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Keri Fiengo

Company Official (Typed Name) KERI FIENGO

Company Official Title REGULATORY SPECIALIST

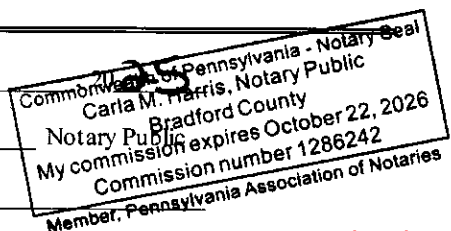
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WV Department of  
Environmental Protection

Subscribed and sworn before me this 17<sup>th</sup> day of June

Carla M. Harris  
My commission expires October 22, 2026



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Proposed Revegetation Treatment: Acres Disturbed 10 Prevegetation pH \_\_\_\_\_Lime 3.90 Tons/acre or to correct to pH 7Fertilizer type 8-16-16Fertilizer amount 968 lbs/acreMulch 3 Tons/acreSeed Mixtures**Temporary**

Seed Type lbs/acre

OATS/ANNUAL RYE 40LBS/ACREHAY/STRAW MULCH 3 TONS/ACRE**Permanent**

Seed Type lbs/acre

BIRDSFOOT TREFOIL 8LBS/ACRETALL FESCUE 40LBS/ACRE

## Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gayne Knitowski  
Digitally signed by Gayne Knitowski  
Date: 2025.06.03 09:07:31 -0400

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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WV Department of  
Environmental ProtectionTitle: Inspector Date: 6-3-2025Field Reviewed? ( X ) Yes ( ) No

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RECOMMENDED PERMANENT SEEDING MIXTURE  
FOR ALL DISTURBED AREAS

MIXTURE NUMBER	SEASON	SPECIES	SEEDING RATE (lb/ac)
2	COOL	BIRDSFOOT TREFOL TALL FESCUE	8 / 40

MULCHING

MATERIAL SHALL BE HAY OR STRAW WHICH IS FREE OF WEED AND SEEDS, NOT MOLDY, ROTTEN, AND SHALL BE APPLY TO ALL SLOPES FATTER THAN 3:1 AT A RATE OF 140 LBS/1,000 SF. (APPROXIMATELY TWO BALES PER 1,000 SF OR 3 TON PER AC)

HYDROSEEDING SPECIFICATION

MATERIAL	DESCRIPTION	APPLICATION RATE (PER 1,000 SY)
(1) SEE MIXTURE (% BY WEIGHT)	REDTOP - 10% PENNLAWN FESCUE - 45% KENTUCKY BLUEGRASS - 45%	27 LBS
(2) 8-16-16	COMMERCIAL FERTILIZER	200 LBS
(3) LIME	GROUND COMMERCIAL LIMESTONE	1,650 LBS
(4) MULCH	WOOD CELLULOSE FIBER	750 LBS

APPROXIMATE TACK COAT

PROCEDURE: SURFACE TO BE HYDROSEEDDED SHALL BE CLEANED OF ALL DEBRIS AND OTHER MATTER HARMFUL TO UNIFORM GERMINATION. A WATER-SURRY MIXTURE COMPOSED OF THE ABOVE "MATERIALS". ITEMS (1) THROUGH (3) INCLUSIVE, SHALL BE SPRAYED UNIFORMLY OVER THE AREAS TO BE HYDROSEEDDED. IMMEDIATELY, THEREAFTER, ITEM (4) "MULCH" SHALL BE BLOWN ON THE SAME AREA AND TACK-COATED. RATES AND TYPE OF MATERIALS SHALL BE SPECIFIED.

MAINTENANCE AND GUARANTEE

THE CONTRACTOR SHALL GUARANTEE A GOOD STAND OF GRASS IN THE SWALES AND ON BANKS. THE MEANS OF GUARANTEE SHALL BE BY WATERING, MOWING, REGRADING, REMULCHING, AND RESEEDING TO THE SATISFACTION OF THE OWNER UNTIL FINAL ACCEPTANCE. ANY AREAS WHICH FAIL TO SHOW A UNIFORM STAND WITHIN ONE YEAR SHALL BE RESEDED AND REMULCHED AT THE CONTRACTORS EXPENSE WITH THE SAME MIXTURE ORIGINALLY USED THEREON. ERODED AREAS SHALL BE REPAIRED AND RESTORED TO FINISHED GRADE PRIOR TO RESEEDING AND REMULCHING. ALL SUCH REPAIRING OF EROSION, RESEEDING, AND REMULCHING SHALL BE REPEATED UNTIL ALL EFFECTED AREAS ARE COVERED WITH GRASS.

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

Operator Name: EXPAND OPERATING LLC

Watershed (HUC 10): PURR SPRING RUN

Quad: WESTERNPORT

Farm Name: MASTELLAR COAL CO 2

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

SEE ATTACHED

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

4. Summarize all activities at your facility that are already regulated for groundwater protection.

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

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6. Provide a statement that no waste material will be used for deicing or fill material on the property.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

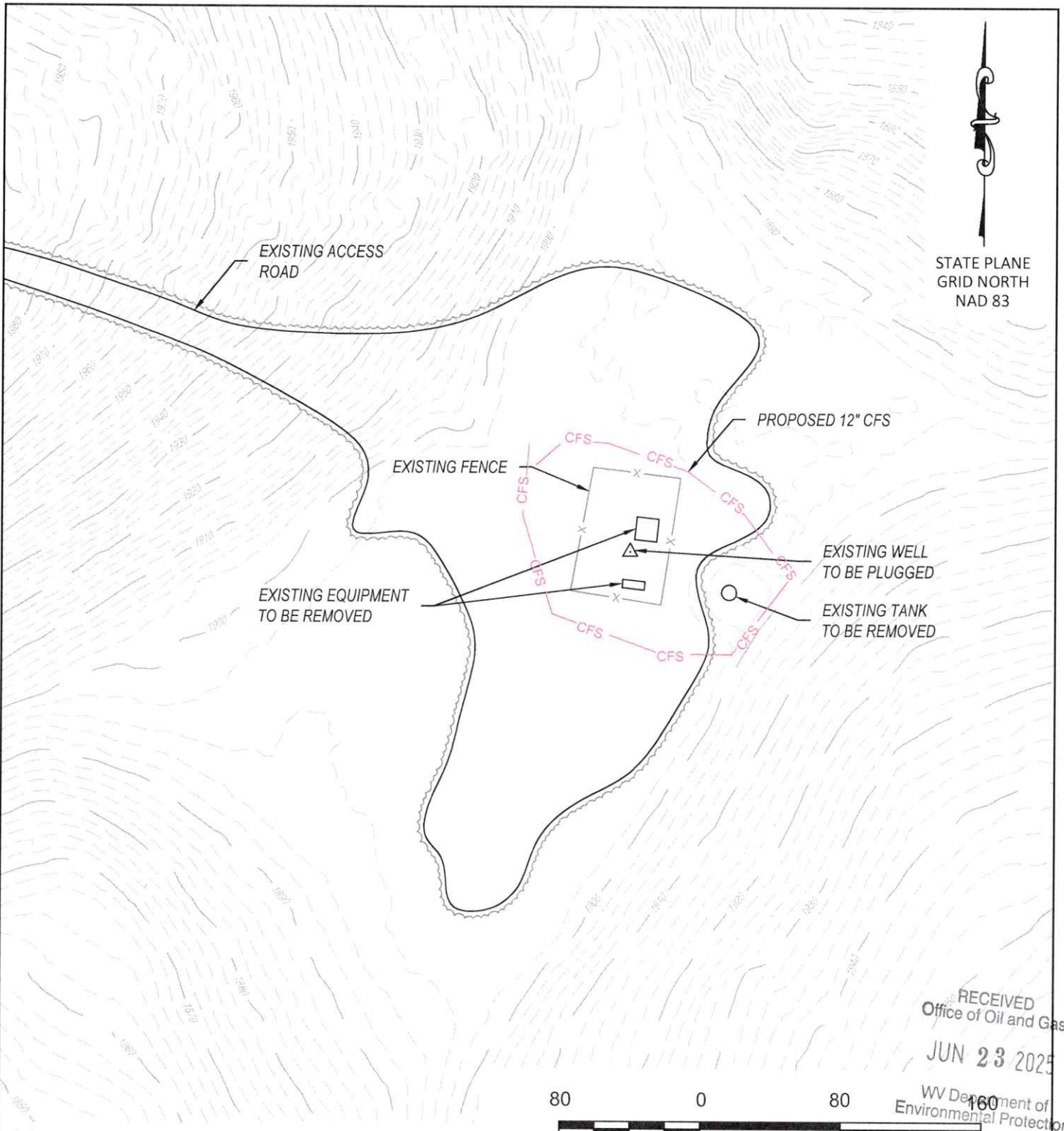
8. Provide provisions and frequency for inspections of all GPP elements and equipment.

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Signature: Kevin Leno

Date: 6/17/25

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NOTE: ALL PRODUCTION FACILITIES  
WILL BE REMOVED UPON COMPLETION  
OF THE PLUGGING OPERATIONS.

SCALE IN FEET

**MASTELLAR COAL CO 2  
SITE RECLAMATION**  
**API# 47-057-00022**  
FOR  
**EXPAND OPERATING, LLC**  
LOCATED IN  
MINERAL COUNTY, WEST VIRGINIA

**SITE PLAN**

**LEGEND**

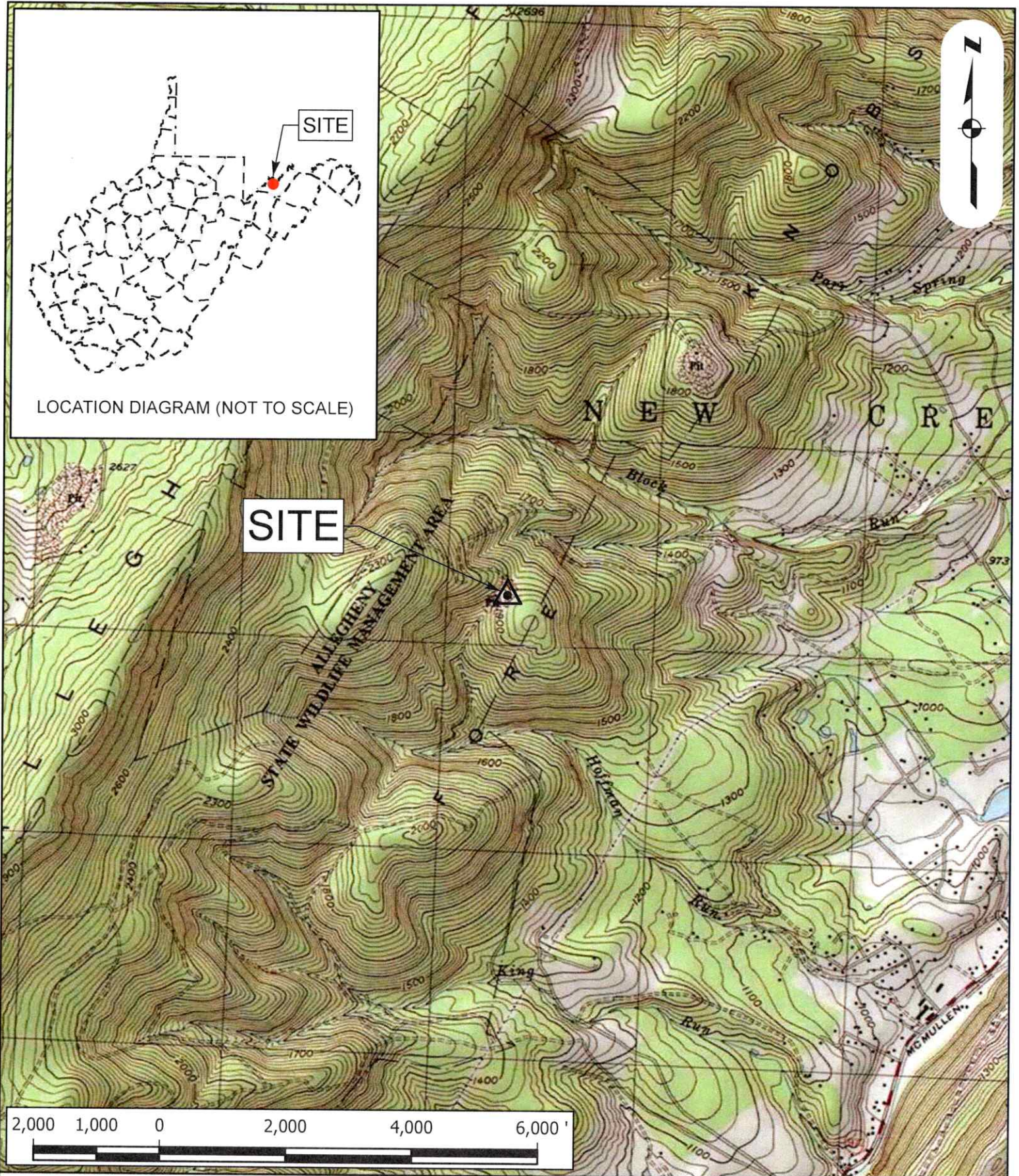
- EXISTING CONTOUR
- EXISTING TREE LINE
- EXISTING ACCESS ROAD EDGE
- WELLHEAD
- COMPOSITE FILTER SOCK



844-542-4757  
466 SOUTH MAIN STREET  
MONTROSE, PA 18801  
PA • OH • NY • WV • VA • MD

PLAN SHEET:	FINAL	DATE:	5/30/2025	NO.:	1
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USGS LOCATION MAP

PREPARED FOR  
MASTELLAR COAL CO 2  
MINERAL COUNTY, WEST VIRGINIA  
WESTERNPORT USGS QUAD

PROJECT -	MASTELLAR COAL CO 2
DATE -	5/30/2025
SCALE -	1" = 2,000'
DRAWN -	MWS
FILE -	USGS_LOCATION_MAP.mxd



08/01/2025  
(844) 542-4757

WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas

**WELL LOCATION FORM: GPS**

API: 47-057-00022 WELL NO.: 2

FARM NAME: MASTELLAR COAL CO

RESPONSIBLE PARTY NAME: EXPAND OPERATING LLC

COUNTY: MINERAL DISTRICT: NEW CREEK

QUADRANGLE: WESTERNPORT

SURFACE OWNER: State of West Virginia, Public Land, Labor & Environmental Resources

ROYALTY OWNER: \_\_\_\_\_

UTM GPS NORTHING: 4,363,247.782

UTM GPS EASTING: 668,281.323 GPS ELEVATION: 1862'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:  
Survey grade GPS X : Post Processed Differential X

Real-Time Differential \_\_\_\_\_

Mapping Grade GPS \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_

Real-Time Differential \_\_\_\_\_

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

[Signature]  
Signature

REGULATORY SPECIALIST  
\_\_\_\_\_  
Title

6/17/25  
Date

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Environmental Protection

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Kennedy, James P &lt;james.p.kennedy@wv.gov&gt;

---

**plugging permits issued 4705700016 00022**

1 message

**Kennedy, James P** <james.p.kennedy@wv.gov>

Wed, Jul 23, 2025 at 1:16 PM

To: Gayne J Knitowski &lt;gayne.j.knitowski@wv.gov&gt;, Eric Haskins &lt;eric.haskins@expandenergy.com&gt;, Keri Fieno &lt;keri.fieno@expandenergy.com&gt;, "jcosner@wvassessor.com" &lt;jcosner@wvassessor.com&gt;

To whom it may concern, plugging permits have been issued for 4705700016 00022.

--

***James Kennedy***

Environmental Resource Specialist III / Permitting

WVDEP Office of Oil and Gas

601 57<sup>th</sup> Street, SE

Charleston, WV 25304

304-926-0499 ext. 45025

[james.p.kennedy@wv.gov](mailto:james.p.kennedy@wv.gov)

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**2 attachments** **4705700016.pdf**  
4116K **4705700022.pdf**  
4344K**08/01/2025**