




---

 west virginia department of environmental protection
 

---

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)

Friday, August 4, 2023

WELL WORK PLUGGING PERMIT  
 Vertical Plugging

CHESAPEAKE APPALACHIA, L.L.C.  
 6100 N. WESTERN AVE.

OKLAHOMA CITY, OK 73118

Re: Permit approval for 2-2527  
 47-023-00017-00-00

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

Operator's Well Number: 2-2527  
 Farm Name: ROHRBAUGH BROTHERS  
 U.S. WELL NUMBER: 47-023-00017-00-00  
 Vertical Plugging  
 Date Issued: August 4, 2023

## 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. 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.

4702300017P

WW-4B,  
Rev. 2/01

1) Date MAY 17, 2023  
2) Operator's  
Well No. 2-2527  
3) API Well No. 47-23 - 00017

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 2848 Watershed NORTH FORK SOUTH BRANCH POTOMAC RIVER  
District UNION County GRANT Quadrangle BLACKBIRD KNOB

6) Well Operator CHESAPEAKE APPALACHIA LLC 7) Designated Agent ERIC HASKINS - MANAGER REG OPS  
Address PO BOX 18496 Address 14 CHESAPEAKE LANE  
OKLAHOMA CITY, OK 73154-0496 SAYRE, PA 18840

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**

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection

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: 2023.05.19 08:33:37 -04'00' Date 5-19-2023

08/04/2023

# ULYSSES G BERG 2/2527

**CHESAPEAKE**  
ENERGY

## Plug & Abandon

County/State: GRANT, WV Township: UNION  
Latitude: 39.021445257 Longitude: -79.294957331 (NAD 83)  
API: 4702300017

### Summary

The ULYSSES G BERG 2/2527 will be plugged and abandoned. The well is located in GRANT County, WV and was spud on 03-12-1987 by UNKNOWN, targeting the Oriskany as a Vertical well. The last known production date for this well was December of 2012 where it averaged < 1 MCFD, 0 BOD, and 0 BWD.

Casing and tubing weights and grades are unknown. Information provided in packet are assumed.

### Guideline

Step	Operation
	<p>The content of this guideline are recommendations based on expected conditions, current equipment, and existing design. Should actual conditions vary from expected, discuss with your supervisor and all necessary personnel on how to proceed.</p> <p>Pre-Job Safety Meeting</p> <ol style="list-style-type: none"> <li>Safety is the highest priority.</li> <li>2 active barriers must be maintained at all times in accordance with OGB-CHK-STD-001 Barrier Standard.</li> <li>Ensure gas monitoring equipment is being utilized on location.</li> <li>Remind all personnel that everyone has Stop Work Authority.</li> <li>Before each shift/day or new scope of work: <ul style="list-style-type: none"> <li>Hold well-site safety meetings covering the scope of work with all personnel on location.</li> <li>Review guideline and discuss critical parameters (pressures, volumes, contingency plans, etc.).</li> <li>Verify that all personnel understand and are prepared for the operation.</li> <li>Review emergency action plans for the operation.</li> </ul> </li> </ol> <p>Glossary: QHB = Qualified Hydrostatic Barrier, BPV = Back Pressure Valve, TIW = Full Open Safety Valve (Equal ID to Work String), TWC = Two Way Check</p>
1	Prior to rig arriving on site:
	<ol style="list-style-type: none"> <li>Make sure all casing valves are readily accessible and remove water from cellar.</li> <li>Perform 72-hour pressure build up test on all annuli.</li> <li>Perform negative pressure test on master valve(s) in accordance with APP Master Valve Operational Guideline - PROD-APP-002.</li> <li>Make sure A, B, and C section flanges are properly identified.</li> <li>Verify regulatory permit and approval to plug and abandon.</li> <li>Notify WVDEP, BLM, municipality and surface landowner 1 week prior to commencing operations.</li> </ol>
2	RU Containment.
3	MIRU WOR, pump, and surface equipment.
4	Pump FW until a Qualified Hydrostatic Barrier (QHB) is established. Ensure pump is rigged up and ready to pump kill weight fluid for duration of job.
	<ol style="list-style-type: none"> <li>Contact supervisor and OKC engineer if higher weight kill fluid is required.</li> </ol>

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection

08/04/2023

	<ul style="list-style-type: none"> <li>Occurs when pumped FW volume equals or exceeds casing + tubing (if applicable) volume to top perf depth and well pressure exceeds 0 psi and/or well does not pass a flow check.</li> </ul>
5	SKIP TO STEP 11 IF WELL DOES NOT HAVE TUBING - Contact supervisor and OKC engineer if well does not have a tubing hanger. NU lubricator to closed master valve and pressure test.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = Master Valve</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Master Valve</li> </ul>
6	Bleed off test pressure, open master valve, and install BPV in tubing hanger. Contact engineer and prepare to set pump through plug in tubing with SL, if BPV cannot be installed in hanger.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>Tubing – 1st Barrier = QHB, 2nd Barrier = Lubricator</li> <li>Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
7	ND lubricator, ND wellhead, NU 7.0625" master valve and NU double 7.0625" BOPs (Top to Bottom: 2.375" Pipe Ram and Blind Ram). Stab landing joint in tubing hanger. Close pipe ram and pressure test stack against tubing hanger in accordance with CHK Workover and Completions BOP Manual (outlined in section 2.6). LD landing joint, close master valve and blind ram. Pressure test blind ram against master valve in accordance with CHK Workover and Completions BOP Manual (outlined in section 2.6).
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = BPV</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
8	NU lubricator and pressure test against master valve. Bleed off test pressure, open master valve and pull BPV.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = BPV (NU), 2nd Barrier = Lubricator (Pull BPV)</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
9	Close Blind Ram and ND lubricator
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = Blind Ram</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Tubing Hanger</li> </ul>
10	MU lifting sub into tubing hanger. Unscrew tubing lockdown pins and LD tubing hanger. POOH with tubing while standing back.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Ram</li> </ul>
11	SKIP TO THIS STEP IF WELL DID NOT HAVE TUBING - Close master valve. NU WL packoff and pressure test against master valve. RU WL.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Master Valve</li> <li>9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = Master Valve</li> </ul>
12	Plug #1 (CIBP Perf Isolation) - TIH with WL and set CIBP as specified under Plug Details table in accordance with Plug 1. Use a CCL to ensure the CIBP is not set in a collar. TOOH with WL. Pressure test CIBP to 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = WL Packoff</li> <li>9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff</li> </ul>
13	ND WL packoff. RD and release WL.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP</li> <li>9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
14	ND double 7.0625" BOPs (if applicable), master valve, and necessary wellhead equipment to expose casing slips. Establish hot work permit and tac weld casing slips to casing. Ensure thorough LEL monitoring is in place, fire extinguishers are near wellhead, and fire watch is designated as outlined by hot work permit.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP</li> <li>9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
15	NU double 11" BOPs (Top to Bottom: 2.375" Pipe Ram and Blind Ram) and 11" annular BOP. Test each ram against the CIBP in accordance with CHK Workover and Completions BOP Manual (outlined in section 2.6).

RECEIVED  
Office of Oil and Gas

MAY 24 2023

WV Department of  
Environmental Protection

08/04/2023

	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
16	<p>Plug #2 (Cement Perf Isolation) - TIH with work string to bottom depth of Plug 2 as specified under the Plug Details table. Pump Spacer 1 as detailed under the Spacer Details table. Pump balanced cement plug in accordance with Plug 2. Displace tubing with volume specified on Plug Details table. POOH with WS. WOC 8 hours.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = TIW</li> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Pipe Rams</li> </ul>
17	<p>NU WL packoff. RU WL.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Cement Plug</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips</li> </ul>
18	<p>RIH with CBL, POOH with WL and discuss results with key stakeholders.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = CIBP, 3rd Barrier = Cement Plug, 4th Barrier = WL Packoff (untested)</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff (untested)</li> </ul>
19	<p>Pressure test WL Packoff against cement plug to 500 psi. Ok testing against cement due to CIBP below. RIH with jet cutter and cut csg at TOC as determined by CBL. POOH with WL.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = WL Packoff</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = WL Packoff</li> </ul>
20	<p>Close blind ram. RD WL. Verify good cut before releasing WL by attempting to establish circulation. Do not exceed a 0.8 psi/ft gradient when establishing circulation against open hole accounting for hydrostatic pressure. Example: casing cut at 5,000' with 9 ppg fluid in well --&gt; Max pressure at cut = 5,000' x 0.8 psi/ft = 4,000 psi. Hydrostatic pressure = 0.052 x 9 ppg x 5,000' = 2,340 psi. Max surface circulating pressure = 1,660 psi.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Blind Ram</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips, 3rd Barrier = Blind Ram</li> </ul>
21	<p>NU casing jacks (if applicable), MU casing spear, and open blind ram. Spear casing, LD slips and spear.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Blind Ram (Csg Jack NU), 2nd Barrier = Pipe Ram (Spear)</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Csg Head/Slips (Csg Jack NU), 2nd Barrier = Pipe Ram (Spear)</li> </ul>
22	<p>POOH with production casing.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 5.5 Casing – 1st Barrier = QHB, 2nd Barrier = Swage Nipple w/ Ball Valve</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Annular</li> </ul>
23	<p>Plug #3 (Prod Csg Stub Plug) - TIH with work string to bottom depth of Plug 3 as specified under the Plug Details table. Pump Spacer 2 as detailed under the Spacer Details table. Pump balanced cement plug in accordance with Plug 3. Displace tubing with volume specified on Plug Details table. POOH 1,500' above estimated TOC. Close pipe ram. WOC 8 hours.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Rams</li> </ul>
25	<p>Plug #4 (Inter Csg Shoe Plug) - TIH with work string and tag TOC. PU to bottom depth of Plug 4 as specified under the Plug Details table. Pump Spacer 3 as detailed under the Spacer Details table. Pump balanced cement plug in accordance with Plug 3. Displace tubing with volume specified on Plug Details table. PU a minimum of 500' above estimated TOC. Close pipe ram and WOC 8 hrs.</p>
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· 2.375 Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>· 9.625 Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Rams</li> </ul>

RECEIVED  
Office of Oil and Gas  
MAY 24 2023

WV Department of  
Environmental Protection  
08/04/2023

26	Plug #5 (Surface Plug) - TIH with work string and tag TOC. PU to bottom depth of Plug 5 as specified under the Plug Details table. Pump balanced cement plug in accordance with Plug 5. Displace tubing with volume specified on Plug Details table. POOH. Close blind ram. WOC 8 hours.
	<p>a. Flow Paths:</p> <ul style="list-style-type: none"> <li>· Tubing – 1st Barrier = QHB, 2nd Barrier = TIW</li> <li>· KOP Casing – 1st Barrier = QHB, 2nd Barrier = Pipe Ram</li> </ul>
27	RDMO.
28	Monitor well for 24 hrs minimum.
29	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.
	<p style="text-align: center;">             Digitally signed by              Gayne Knitowski              Date: 2023.05.19              08:37:21 -04'00'         </p>

**RECEIVED**  
 Office of Oil and Gas  
**MAY 24 2023**  
 WV Department of  
 Environmental Protection

08/04/2023

ULYSSES G BERG 2/2527

**CHESAPEAKE**  
ENERGY

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	4.892	2	8,394	8,392	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Cement	Cement Perf Isolation	4.892	200	8,392	8,192	Class A	1.18	15.6	0	4.6	22.1	31.4
3	Cement	Prod Csg Stub Plug (Inside Csg)	4.892	50	8,100	8,050	Class A	1.18	15.6	0	1.2	5.5	30.3
3 (con.)	Cement	Prod Csg Stub Plug (Open Hole)	7.875	150	8,050	7,900	Class A	1.18	15.6	20	10.8	51.6	0.0
4	Cement	Inter Csg Shoe Plug (Open Hole)	7.875	100	4,267	4,167	Class A	1.18	15.6	20	7.2	34.4	15.5
4 (con.)	Cement	Inter Csg Shoe Plug (Inside Csg)	8.921	100	4,167	4,067	Class A	1.18	15.6	0	7.7	36.8	0.0
5	Cement	Surface Plug	8.921	100	100	0	Class A	1.18	15.6	0	7.7	36.8	0.4

Spacer Details								
#	Fluid Type	Description	Set ID	Spacer Height	Spacer Density (ppg)	Spacer Viscosity (cp)	Excess Spacer (%)	Spacer Volume (bbls)
1	Gel	Perf Isolation to Prod Csg Stub Plug	4.892	92	9	-	5	2.2
2	Gel	Prod Csg Stub Plug to Inter Csg Shoe Plug	7.875	3,633	9	-	20	262.7
3	Gel	Inter Csg Shoe Plug to Surface Plug	8.921	3,967	9	-	5	322.0
4								

Estimated Casing Cuts	
String	Est. Cut Depth (ftKB)
Intermediate	
Production	8,050

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection

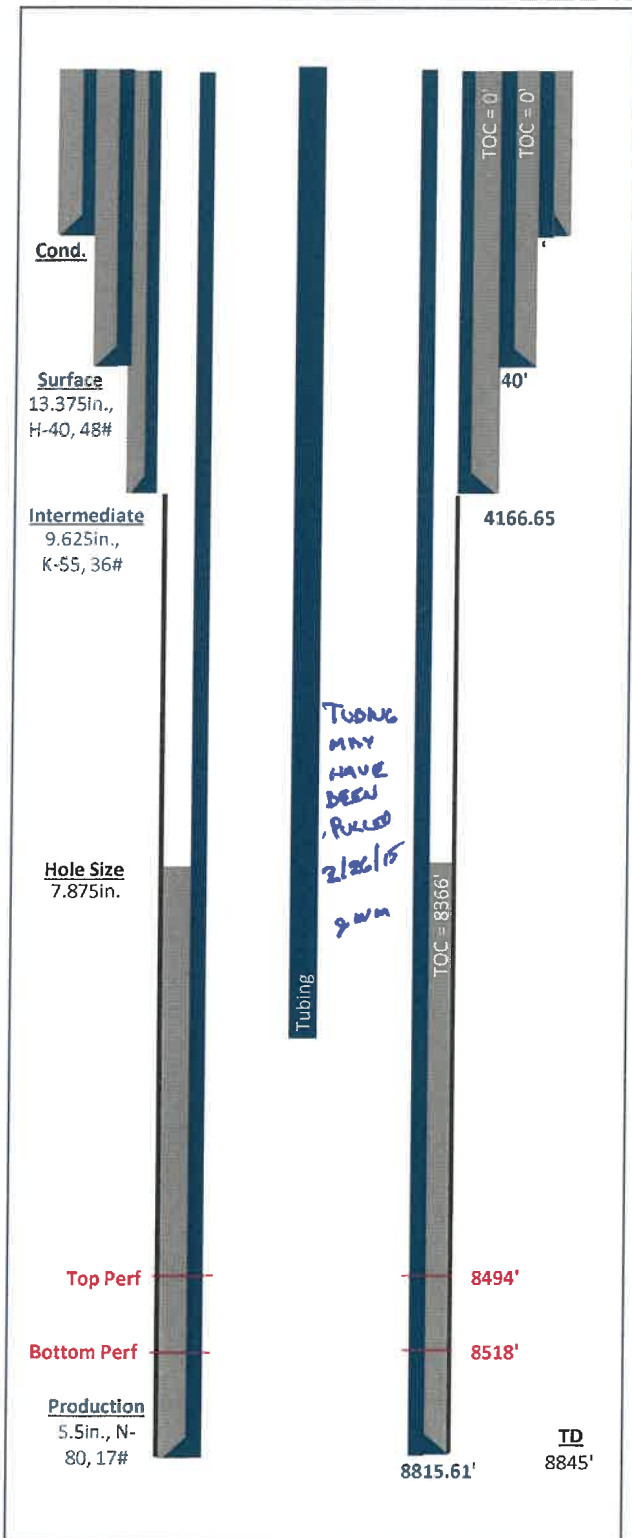
08/04/2023



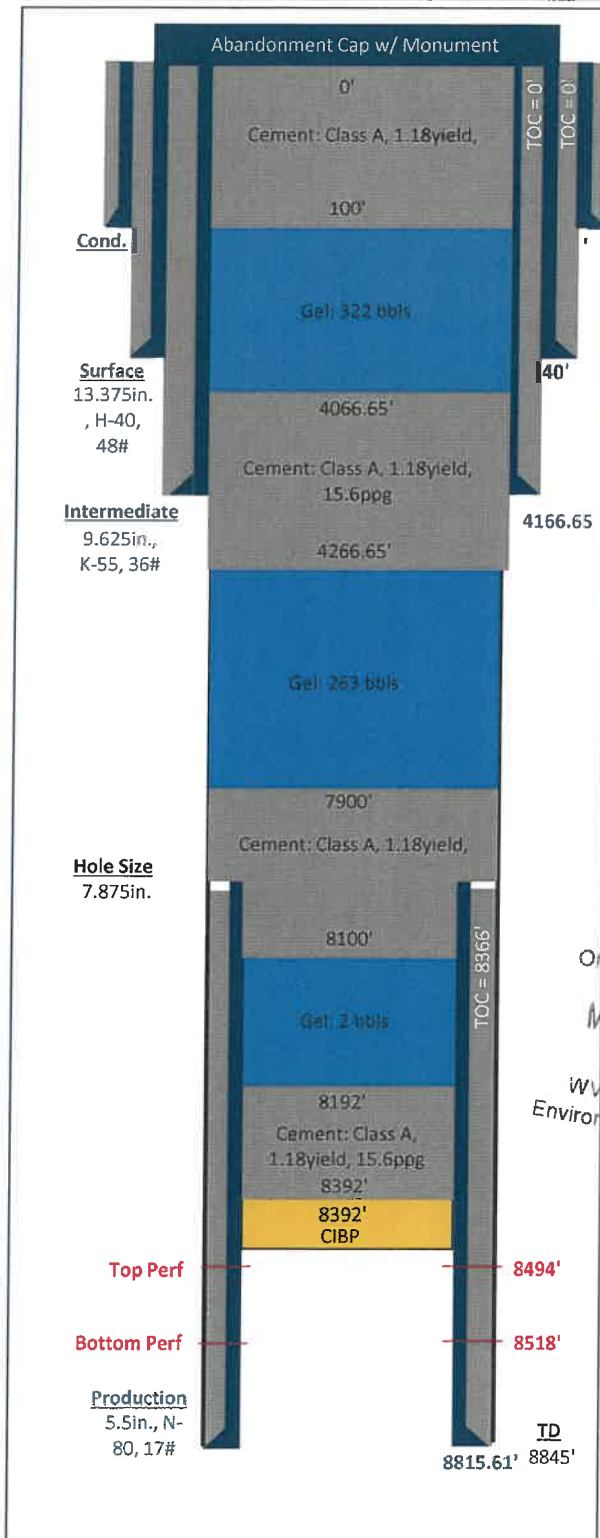
ULYSSES G BERG 2/2527



Current Wellbore Schematic



Proposed Wellbore Schematic



RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection

Schematics are note to scale

08/04/2023

4702300017P

**From:** McLaughlin, Jeffrey W <jeffrey.w.mclaughlin@wv.gov>  
**Sent:** Monday, July 31, 2023 3:34 PM  
**To:** Eric Haskins <eric.haskins@chk.com>  
**Subject:** [EXTERNAL] Re: Ulysses Berg

Working on it now.  
I will catch up with you in the morning.

Jeff McLaughlin

On Mon, Jul 31, 2023 at 3:29 PM Eric Haskins <[eric.haskins@chk.com](mailto:eric.haskins@chk.com)> wrote:

Classification: DCL-Internal

Good afternoon sir, I just wanted to check back in with you to see if there was anything else you may need to finalize your review.

**From:** Eric Haskins  
**Sent:** Monday, July 17, 2023 2:52 PM  
**To:** [Jeffrey.W.McLaughlin@wv.gov](mailto:Jeffrey.W.McLaughlin@wv.gov)  
**Subject:** Ulysses Berg

Classification: DCL-Internal

Good afternoon sir,

I wanted to get back with you on some additional discussions/reviews Chesapeake was able to do today and it appears our information is not a whole lot different that what you were able to find. It appears the confusion is coming from the original completions report that was filed with the state (the image below). It states the 2 3/8" tubing was run to a depth of 8,922' with TD being 8,845' and the 5 1/2" production casing set at 8,815'. It appears there was an error in the completion report because going through the Well View repots for this well (second image below), it shows the 2 3/8" tubing was run to 8,394' which would be more in line with the other reported depths. All other completed depths and casing set depths in Well View aligned with the completions report, which makes me believe there was an error and may be why the CHK engineer has the tubing so high on the schematic.

In addition, if you look at the second attachment below, there is a reference of tubing being pulled in February of 2025 but it is unclear if it was pulled, if all the tubing was pulled, or if it was pulled to a specific depth. So generally, I don't think I answered any questions, and may have just muddied this a bit.

2/26/2015  
JWH

08/04/2023



4702300017P



IV-35  
(Rev 8-81)

RECEIVED  
JUN 06 1987

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date June 4, 1987  
Operator's Well No. 2 - 2527  
Farm Berg Unit #2  
API No. 47 - 023 - 0017

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal /  
(If "Gas," Production / Underground Storage / Deep xx / Shallow /)

LOCATION: Elevation: 2848 Watershed Big Run of Jordan Run  
District: Union County Grant Quadrangle Blackbird Knob

COMPANY Union Drilling, Inc.  
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201  
DESIGNATED AGENT Joseph C. Pettev  
ADDRESS P.O. Drawer 40, Buckhannon, WV 26201  
SURFACE OWNER Rohrbaugh Brothers Partnership  
ADDRESS Box 224, Calverton, VA 22016  
MINERAL RIGHTS OWNER same as surface  
ADDRESS  
OIL AND GAS INSPECTOR FOR THIS WORK  
Phil Tracy ADDRESS P.O. Box 2536, Elkins, WV 26241  
PERMIT ISSUED 3/5/87  
DRILLING COMMENCED 3/12/87  
DRILLING COMPLETED 4/10/87

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"	40.00	40.00	
9 5/8	4166.65	4166.65'	1705 cf
8 5/8			
7			
5 1/2		8815.61'	851 cf
4 1/2			
3			
2 3/8"		8922.05'	
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

GEOLOGICAL TARGET FORMATION Oriskany Depth 8595/8664 feet  
Depth of completed well 8845' feet Rotary XXX / Cable Tools  
Water strata depth: Fresh 43' feet; Salt none feet  
Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth 8595/8664 feet  
Gas: Initial open flow 64 Mcf/d Oil: Initial open flow Bbl/d  
Final open flow 1,801 Mcf/d Final open flow Bbl/d  
Time of open flow between initial and final tests 2 hours  
Static rock pressure 2850# psig (surface measurement) after 24 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Pay zone depth feet  
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d  
Final open flow Mcf/d Oil: Final open flow Bbl/d  
Time of open flow between initial and final tests hours  
Static rock pressure psig (surface measurement) after hours shut in

Pulled  
2/26/2015  
JWM

RECEIVED  
Office of Oil and Gas  
MAY 24 2023

WV Department of  
Environmental Protection

(Continue on reverse side) 08/04/2023

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

Halliburton - 1 stage Frac - 5/13/87

8595,8596,8597,8598,8599,8600,8601,8602,8608,8609,8610,8611,8612,8622,8623,8625,  
8626,8628,8629,8630,8642,8645,8646,8659,8662,8663,8664

Oriskany - 466,800# sand, 65 ton CO2, and 5155 bbls fluid

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Ground Level			0	10	
Dirt			10	12	
Sand & Shale			12	56	
Red Shale			56	59	
Sand & Shale			59	340	
Top of Hamshire Group			340	2233	
Top of Fore Knobs			2233	4047	
Top of Scherr Group			4047	6613	
Sycamore			6613	6693	
Harrell Shale			7602	7932	
Tully			7932	7941	
Upper Marcellus			8195	8218	
Purcell			8218	8290	
Lower Marcellus			8290	8346	
Needmore Shale			8346	8470	
Oriskany			8470	8845'TD	Gas Check @DC = 64 mcf

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection

(Attach separate sheets as necessary)

Union Drilling, Inc.

Well Operator

By: Joseph C. Pettey

Date: Joseph C. Pettey, Vice President of Production  
6/4/87

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

08/04/2023



4702300017	Chesapeake Appalachia, LLC	2008	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2009	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Production NGL Information: (Volumes in Bbl) \* some operators may have reported NGL under Oil \* 2022 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_NGL	WTR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4702300017	Chesapeake Appalachia, LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2016	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2019	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Production Water Information: (Volumes in Gallons) \* 2022 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN_WTR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4702300017	Chesapeake Appalachia, LLC	2016	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2018	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2019	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2020	0	0	0	0	0	0	0	0	0	0	0	0	0
4702300017	Chesapeake Appalachia, LLC	2021	0	0	0	0	0	0	0	0	0	0	0	0	0

Stratigraphy Information:

API	SUFFIX	FM	FM_QUALITY	DEPTH_TOP	DEPTH_BOTTOM	QUALITY	THICKNESS	THICKNESS_QUALITY	QUALITY	ELEV DATUM
4702300017		Hempshire Grp	Well Record	340		Reasonable	1893	Reasonable	2848	Ground Level
4702300017		Forencrobs Fm	Well Record	2233		Reasonable	1814	Reasonable	2848	Ground Level
4702300017		Scherr Fm	Well Record	4047		Reasonable	2566	Reasonable	2848	Ground Level
4702300017		Sycamore	Well Record	6613		Reasonable	80	Reasonable	2848	Ground Level
4702300017		Herrill Sh	Well Record	7602		Reasonable	330	Reasonable	2848	Ground Level
4702300017		Tully Ls	Well Record	7932		Reasonable	9	Reasonable	2848	Ground Level
4702300017		Up Mercellus	Well Record	8196		Reasonable	23	Reasonable	2848	Ground Level
4702300017		Purcell S Mbr	Well Record	8218		Reasonable	72	Reasonable	2848	Ground Level
4702300017		Is Mercellus	Well Record	8290		Reasonable	56	Reasonable	2848	Ground Level
4702300017		Needmore Sh	Well Record	8346		Reasonable	124	Reasonable	2848	Ground Level
4702300017		Oriskany	Well Record	8470		Reasonable	0	Reasonable	2848	Ground Level

Wellhead (E-Log) Information:

- \* There is no Scanned/Raster Log data for this well
- \* There is no Digitized/LAS Log data for this well
- \* There is no Scanned or Digital Logs available for download
- \* There is no Plugging data for this well

Sample Information:

API	CUT1_TOP	CUT1_BOT	CUT2_TOP	CUT2_BOT	CORE1_TOP	CORE1_BOT	FM1_TOP	FM1_BOT	CORE2_TOP	CORE2_BOT	FM2_TOP	FM2_BOT	SMP1_THIN_SECT	SCAN1_SLAB1	PERM1_THIN_SECT	SCAN2_SLAB2	PERM2
4702300017		6000		8840													

WW-4A  
Revised 6-07

1) Date: 5/17/2023  
2) Operator's Well Number  
CHESAPEAKE APPALACHIA LLC

3) API Well No.: 47 - 023 - 00017

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

RECEIVED  
Office of Oil and Gas

4) Surface Owner(s) to be served:	5) (a) Coal Operator	
(a) Name <u>ROHRBAUGH BROTHERS PARTNERSHIP</u>	Name _____	<u>MAY 24 2023</u>
Address <u>6842 ELM STREET, SUITE 204</u> <u>MCLEAN, VA 22101</u>	Address _____	
(b) Name <u>UNITED STATES OF AMERICA/US FOREST SERVICE</u>	(b) Coal Owner(s) with Declaration	WV Department of Environmental Protection
Address <u>200 SYCAMORE STREET</u> <u>ELKINS, WV 26241</u>	Name <u>ROHRBAUGH BROTHERS PARTNERSHIP</u>	
	Address <u>6842 ELM STREET, SUITE 204</u> <u>MCLEAN, VA 22101</u>	
(c) Name _____	Name <u>UNITED STATES OF AMERICA/US FOREST SERVICE</u>	
Address _____	Address <u>200 SYCAMORE STREET</u> <u>ELKINS, WV 26241</u>	
6) Inspector <u>GAYNE J KNITOWSKI</u>	(c) Coal Lessee with Declaration	
Address <u>601 57TH STREET SE</u> <u>CHARLESTON WV 25304</u>	Name _____	
Telephone <u>304546-8171</u>	Address _____	

**TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:**

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

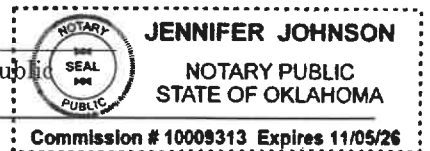
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator CHESAPEAKE APPALACHIA LLC  
 By: KERI FIENO  
 Its: REGULATORY SPECIALIST  
 Address PO BOX 18496  
OKLAHOMA CITY, OK 73154-0496  
 Telephone 405-766-8791

Subscribed and sworn before me this 17th day of May, 2023  
Jennifer Johnson  
 My Commission Expires 11/5/26

Notary Public



**Oil and Gas Privacy Notice**

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 [depprivacyoffier@wv.gov](mailto:depprivacyoffier@wv.gov).

08/04/2023



4702300017P

**From:** [UPS](#)  
**To:** [Keri Fieno](#)  
**Subject:** [EXTERNAL] UPS Delivery Notification, Tracking Number 1Z4352W51349856504  
**Date:** Thursday, May 18, 2023 10:37:53 AM



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

**Delivery Date:** Thursday, 05/18/2023

**Delivery Time:** 11:35 AM

**Signed by:** ROUGHBURG



[Set Delivery Instructions](#)

[Manage Preferences](#)

[View My Packages](#)

## CHESAPEAKE ENERGY CORPORATION

**Tracking Number:** [1Z4352W51349856504](#)

**Ship To:** ROHRBAUGH BROTHERS PARTNERSHIP  
6842 ELM STREET, SUITE 204  
MCLEAN, VA 22101  
US

**Number of Packages:** 1

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

**Package Weight:** 0.3 LBS

**Reference Number:** 142884 BERG 2-2527

**Reference Number:** RR

**Reference Number:** 2023-05-17 09:03:46.107

**Reference Number:** 062615

RECEIVED  
Office of Oil and Gas

MAY 24 2023

WV Department of  
Environmental Protection

© 2023 United Parcel Service of America, Inc. UPS, the UPS brandmark, and the color brown are trademarks of United Parcel Service of America, Inc. All rights reserved.

All trademarks, trade names, or service marks that appear in connection with UPS's services are the

08/04/2023

4702300017P

**From:** [UPS](#)  
**To:** [Keri Fieno](#)  
**Subject:** [EXTERNAL] UPS Delivery Notification, Tracking Number 1Z4352W51350696498  
**Date:** Thursday, May 18, 2023 9:57:20 AM



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

**Delivery Date:** Thursday, 05/18/2023

**Delivery Time:** 10:55 AM

## CHESAPEAKE ENERGY CORPORATION

**Tracking Number:** [1Z4352W51350696498](#)

**Ship To:** USDA - FOREST SERVICE  
MONONGAHELA NATIONAL FOREST  
200 SYCAMORE STREET  
ELKINS, WV 26241  
US

**Number of Packages:** 1

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

**Package Weight:** 0.3 LBS

**Reference Number:** 142885 BERG 2-2527

**Reference Number:** RR

**Reference Number:** 2023-05-17 09:09:01.643

**Reference Number:** 062615

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection

### Discover more about UPS:

[Visit www.ups.com](http://www.ups.com)

[Sign Up For Additional E-Mail From UPS](#)

[Read Compass Online](#)

© 2023 United Parcel Service of America, Inc. UPS, the UPS brandmark, and the color brown are trademarks of United Parcel Service of America, Inc. All rights reserved.

08/04/2023

4702300017P

WW-9  
(5/16)

API Number 47 - 023 00017  
Operator's Well No. 2-2527

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

Operator Name CHESAPEAKE APPALACHIA LLC OP Code 2528

Watershed (HUC 10) NORTH FORK SOUTH BRANCH POTOMAC RIVER Quadrangle BLACKBIRD KNOB Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No  Will a pit  used? Yes No

If so, please describe anticipated pit waste: ANY WELL EFFLUENT WILL BE CONTAINED IN TANKS AND DISPOSED OFFSITE

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) NO PIT

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

RECEIVED  
Office of Oil and Gas

MAY 24 2023

WV Department of  
Environmental Protection

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 Fieno*

Company Official (Typed Name) KERI FIENO

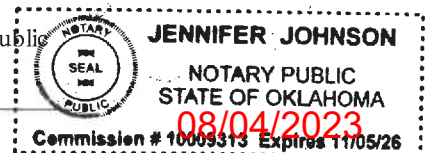
Company Official Title REGULATORY SPECIALIST

Subscribed and sworn before me this 17th day of May, 2023

*Jennifer Johnson*

My commission expires 11/5/26

Notary Public



Proposed Revegetation Treatment: Acres Disturbed 10 Prevegetation pH

Lime 3.90 Tons/acre or to correct to pH 7

Fertilizer type 8-16-16

Fertilizer amount 968 lbs/acre

Mulch 3 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

OATS/ANNUAL RYE 40LBS/ACRE

BIRDSFOOT TREFOIL 8LBS/ACRE

HAY/STRAW MULCH 3 TONS/ACRE

TALL 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: 2023.05.19 09:34:07 -0400

Comments:

RECEIVED Office of Oil and Gas

MAY 24 2023

WV Department of Environmental Protection

Title: Inspector

Date: 5-19-2023

Field Reviewed? (X) Yes ( ) No

RECOMMENDED PERMANENT SEEDING MIXTURE  
FOR ALL DISTURBED AREAS

MIXTURE NUMBER	SEASON	SPECIES	SEEDING RATE (lb/ac)
2	COOL	BIRDSFOOT TREFOIL 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

RECEIVED  
Office of Oil and Gas

MAY 24 2023

WV Department of  
Environmental Protection

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

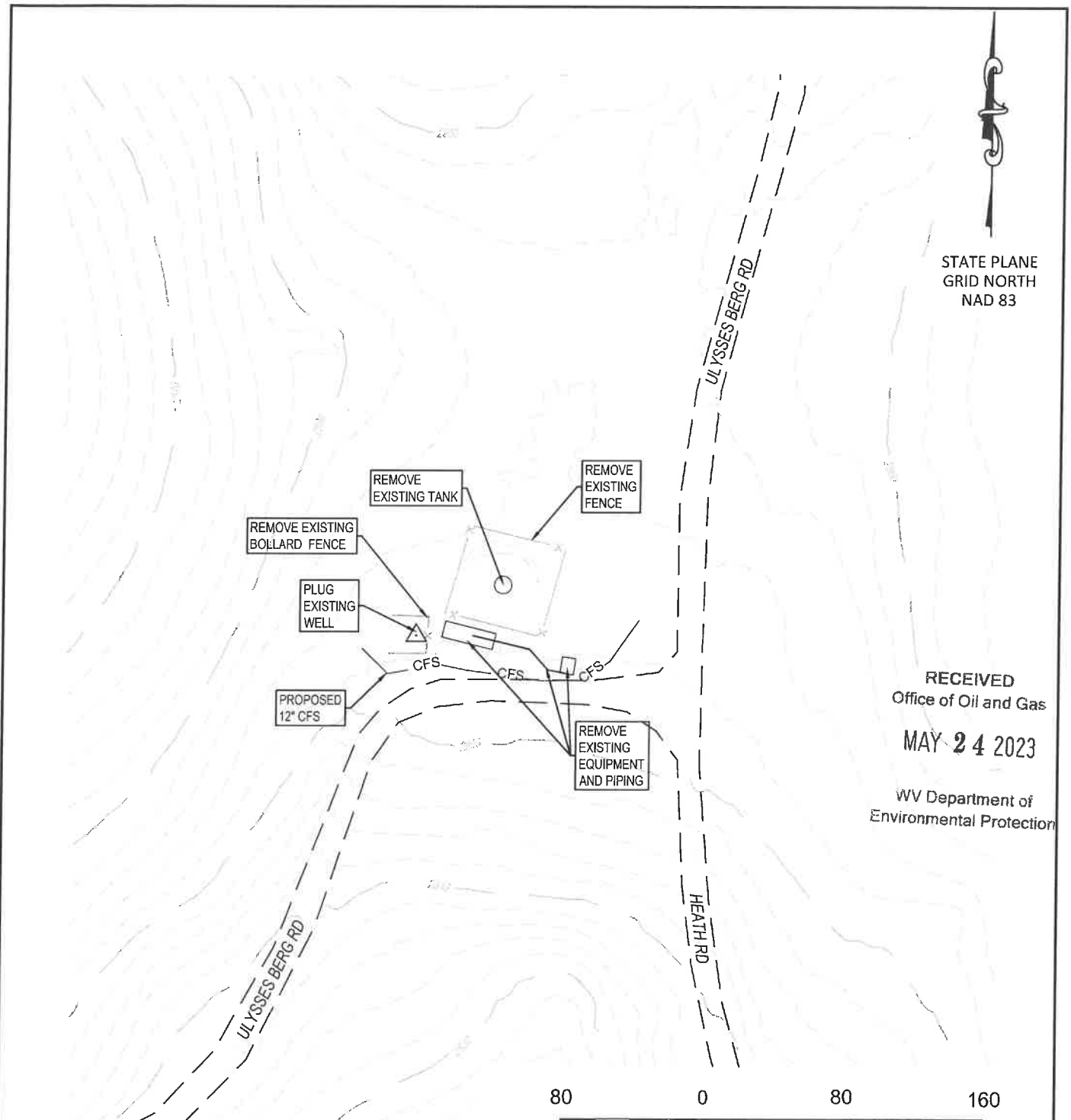
THE CONTRACTOR SHALL GUARANTEE A GOOD STAND OF GRASS IN THE SWALES AND ON BANKS. THE MEANS OF GUARANTEE SHALL BE BY WATERING, MOWING, REGRADING, REMULCHING, AND RESEEDING TO THE SATISFACTION OF THE OWNER UNTIL FINAL ACCEPTANCE. ANY AREAS WHICH FAIL TO SHOW A UNIFORM STAND WITHIN ONE YEAR SHALL BE RESEEDDED 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.

08/04/2023



STATE PLANE  
GRID NORTH  
NAD 83

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection



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

SCALE IN FEET

**ULYSSES G BERG 2 / 2527**  
**SITE RECLAMATION**  
**API# 47-023-00017**  
FOR  
**CHESAPEAKE ENERGY**  
LOCATED IN  
GRANT COUNTY, WEST VIRGINIA

LEGEND

- EXISTING CONTOUR
- EXISTING TREE LINE
- EXISTING PRIVATE ROAD EDGE
- WELLHEAD
- COMPOSITE FILTER SOCK
- CFS

**JHA** Companies  
ENGINEERS  
SURVEYORS  
ENVIRONMENTAL  
GIS MAPPING  
www.jhacompanies.com

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

SITE PLAN

DATE	03/08/2022	REV	1
STATUS	FINAL		

08/04/2023

4702300017P

WW-9- GPP  
Rev. 5/16

N/A  
JWW

Page 1 of 2  
API Number 47 - 023 - 00017  
Operator's Well No. 2-2527

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

Operator Name: CHESAPEAKE APPALACHIA LLC  
Watershed (HUC 10): NORTH FORK SOUTH BRANCH POTOMAC RIVER Quad: BLACKBIRD KNOB  
Farm Name: 2-2527

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.

RECEIVED  
Office of Oil and Gas  
MAY 24 2023

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

WV Department of  
Environmental Protection

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

08/04/2023

N/A  
gwm

[Empty rectangular box for response]

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

[Empty rectangular box for response]

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.

[Empty rectangular box for response]

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

[Empty rectangular box for response]

Signature: Keidiano

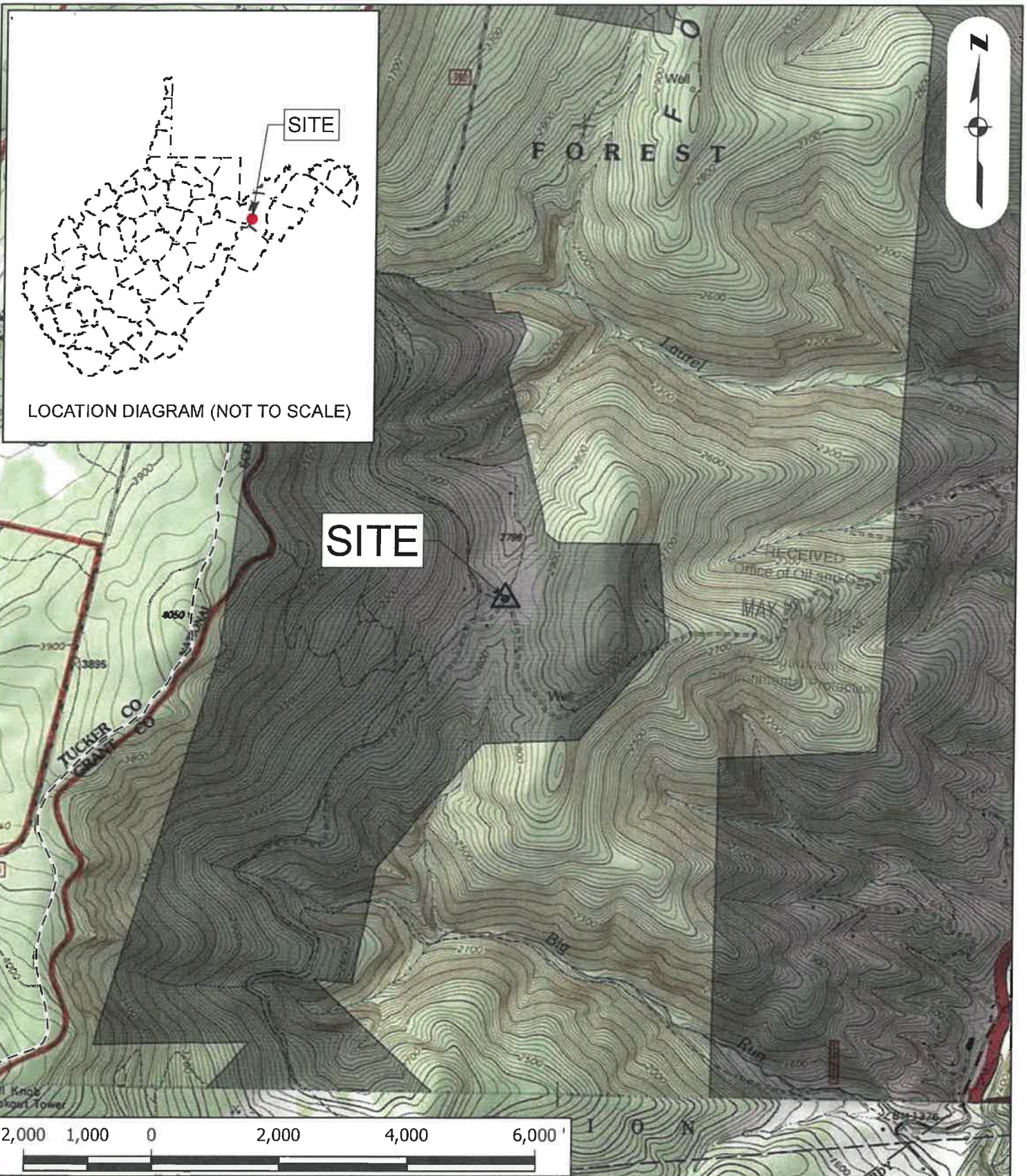
Date: 5-17-23

RECEIVED  
Office of Oil and Gas  
MAY 24 2023

WV Department of  
Environmental Protection

08/04/2023

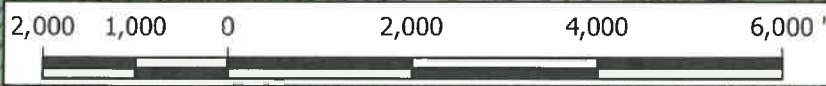




SITE

SITE

LOCATION DIAGRAM (NOT TO SCALE)



**USGS LOCATION MAP**  
 PREPARED FOR  
 Ulysses G Berg 2/2527 Site  
 GRANT COUNTY, WEST VIRGINIA  
 BLACKBIRD KNOB USGS QUAD

PROJECT -	2023-0410 Ulysses G Berg 2/2527
DATE -	3/8/2023
SCALE -	1" = 2,000'
DRAWN -	JCOOK
FILE -	ULYSSES BERG_LOCATION_MAP.mxd



08/04/2023

WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas  
**WELL LOCATION FORM: GPS**

API: 47-023-00017 WELL NO.: 2527

FARM NAME: BERG UNIT #2

RESPONSIBLE PARTY NAME: CHESAPEAKE APPALACHIA LLC

COUNTY: GRANT DISTRICT: UNION

QUADRANGLE: BLACKBIRD KNOB

SURFACE OWNER: ROHRBAUGH BROTHERS PARTNERSHIP

ROYALTY OWNER: ROHRBAUGH BROTHERS PARTNERSHIP

UTM GPS NORTHING: 4320539.385

UTM GPS EASTING: 647602.620 GPS ELEVATION: 2848'

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  : 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.

Yeli Lieno  
Signature

REGULATORY SPECIALIST  
Title

5/17/23  
Date

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection



4702300017P

May 22, 2023

Jeff McLaughlin  
WV DEP  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

RECEIVED  
Office of Oil and Gas  
MAY 24 2023  
WV Department of  
Environmental Protection

VIA UPS OVERNIGHT

Re: Plugging Permits

Mr. McLaughlin,

Please find the enclosed Plugging permits for the following wells:

Ulysses G Berg 2 / 2527 (023-00017)

Sincerely,

Keri Fieno  
Regulatory Specialist

Enclosures



---

west virginia department of environmental protection

---

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

Harold D. Ward, Cabinet Secretary  
dep.wv.gov

August 1, 2023

Rohrbaugh Brothers Partnership  
6842 Elm Street, Suite 204  
McLean, VA 22101

Re: Plugging permit for Chesapeake Appalachia, LLC  
API No. 47-023-00017 (Chesapeake Well No. 2-2527)

Gentlemen:

The Office of Oil and Gas has reviewed your comments concerning the Chesapeake Appalachia, LLC's permit application for the above referenced plugging permit. The operator has sent us an email characterizing their response to your comment letter, a copy of which is attached to this letter.

After considering your comments, the applicant's response, and the inspector's findings, the Office of Oil and Gas has determined that the application meets the requirements set forth in Article 6 Chapter 22 of the West Virginia Code and Legislative Rule Title 35 Series 4. Consequently, the Office of Oil and Gas is issuing the permit with conditions today. For your information and convenience, I am including with this letter a copy of the permit as issued.

Please contact me at (304) 926-0499, extension 41110 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Jeffrey W. McLaughlin".

Jeffrey W. McLaughlin  
WV DEP, Office of Oil and Gas  
Technical Analyst-Permitting Section

## NOTICE OF COMMENTS

**Re: Application to Plug and Abandon Well No. 2-2527  
Grant County, West Virginia**

Well Operator: Chesapeake Appalachia, LLC  
PO Box 18496  
Oklahoma City, OK 73154-0496

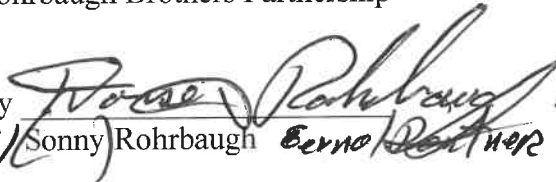
Surface Owner: Rohrbaugh Brothers Partnership  
6842 Elm Street, Suite 204  
Mclean, VA 22101

**Comments Opposing Plugging and Abandoning Well**

1. The surface owner is not convinced that the existing Well has exhausted production. The surface owner believes that horizontal drilling and present fracking methods can add life and production to this existing Well.
2. The surface owner has reservations and concern regarding the reasons for abandonment as there was a class action lawsuit against a previous leasehold interest owner and this surface owner is not convinced that the existing Well has played out.
3. The application for abandonment and plugging of said Well does not take into consideration an existing gas transmission line on the surface owner's property that is underground and covers a distance of approximately three-fourths of a mile on the surface owner's real estate. This transmission line was part of the entire project and gas was produced from this Well and transported through this existing gas line. The surface owner does not believe that plugging and abandoning said Well should occur without some concurrent plan regarding the gas transmission line. The surface owner does not know the extent of any environmental issues that may exist regarding the underground transmission line and is extremely concerned as to the impact and effect upon the surface owner's real estate.
4. The plan to abandon and plug said Well does not give any adequate protections to the surface landowner against any future liability or environmental impact upon the property should the abandonment and plugging of said Well fail.

Respectfully Submitted.

Rohrbaugh Brothers Partnership

By  General Partner  
DORSEY/Sonny Rohrbaugh ERNO ROHRBAUGH

RECEIVED  
Office of Oil and Gas

JUN 05 2023

WV Department of  
Environmental Protection

08/04/2023

4702300017P

These objections and comments have been served upon the following entities by first class mail:

1. Chesapeake Appalachia, LLC  
PO Box 18496  
Oklahoma City, OK 73154-0496
2. Oil and Gas Inspector  
Gayne J. Knitowski  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304
3. Eric Haskins  
Manager Reg Ops  
14 Chesapeake Lane  
Sayre, PA 18840
4. Contractor  
Plants and Goodwin  
360 High Street  
Bradford, PA 16701

RECEIVED  
Office of Oil and Gas  
JUN 05 2023  
WV Department of  
Environmental Protection

08/04/2023

**Eric Haskins**

---

**From:** Eric Haskins  
**Sent:** Tuesday, August 1, 2023 2:23 PM  
**To:** McLaughlin, Jeffrey W  
**Subject:** RE: [EXTERNAL] Re: Ulysses Berg  
**Attachments:** Ulysses G Berg OGL 4-11-1978.pdf

Classification: DCL-Internal

Good afternoon sir,

I spoke with our Land team and would provide the following information:

CHK did not have written correspondence with Mr. Rohrbaugh, other than a handful of emails where CHK provided him with copies of the lease, lease amendment, communitization agreements, and consent for deep well. CHK has spoken to Mr. Rohrbaugh, a handful of times, initially in the Fall of 2021 prior to a site visit by the Production & Construction Services teams. CHK spoke with him again before site visits in May of 2022 & May of 2023.

In February of 2023, Mr. Rohrbaugh expressed interest in taking over ownership of the well. This was going to be tricky for a few reasons; 1) the unit involves BLM lands and 2) Mr. Rohrbaugh noted that they were in litigation with some distant family members over the mineral rights. The BLM would need to approve the transfer (could take > 1 year) and they would require the landowner to be federally bonded. Since a possible transfer to the landowner seemed unlikely and could take over a year, CHK determined that it was best to move forward with the P&A. Mr. Rohrbaugh was disappointed and frustrated that CHK, the BLM & DEP could dictate what he does on his own property.

CHK spoke with Mr. Rohrbaugh today and let him know that his objection letter was received but were still planning to move forward with the P&A. CHK reiterated the BLM issue and explained that it doesn't make sense for CHK to produce the well (no office in the area, no new operations planned, plans to P&A remaining WV wells over the next few years). Mr. Rohrbaugh was informed the DEP does not dictate what wells an operator plugs and that CHK does anticipate receiving the approval to plug the well. He was also told he would likely hear the same this from any WV DEP representatives.

Mr. Rohrbaugh mentioned the pipeline again and is requesting that it be completely removed from the property. CHK told him the plan was to remove any above ground facilities and abandon in place (cut, purged, and capped below grade) any buried portion of the line. He quoted some language stating that the land would revert back to its natural state, which he believes obligates us to remove the line. He was asked to look through his paperwork and provide that language. In the end he said he'd like to be able to take over the well and that if he couldn't and we were plugging it he thinks CHK should remove the pipeline as well. He did suggest that he may get his attorney involved again. He was (and always has been) very pleasant.

CHK Land staff did review the landowner's paperwork and did not see any language in the lease, amendment, or consent that obligates CHK to fully remove the pipeline, but CHK Land staff did tell him they would share the request. Removing the pipeline in its entirety would create a significant environmental disturbance that I do not believe is necessary if not required by the lease (attached).

Please let me know if you have any questions or need any additional information.

Thank you,

Eric





7. As full compensation for the storage rights herein granted, and in lieu of all royalty or other payments due or to become due for the right to produce or the production of gas, oil or other hydrocarbon substances produced therefrom from the stratum or strata utilized for gas storage purposes, Lessee agrees to pay Lessor an annual rental of One Dollar (\$1.00) per acre for each acre utilized for such gas storage purposes, in advance, commencing with the date it notifies Lessor that it elects to use any stratum for storage purposes, and for so long thereafter as any such stratum is so utilized. Lessee further agrees to pay Lessor, as liquidated damages for the drilling, operation and maintenance of each well on leased premises which is utilized for storage of gas, as well as for the necessary or useful surface rights and privileges relating thereto, for the entire term of this agreement, the sum of One Hundred Dollars (\$100.00) payable in one sum within three (3) months after each well now existing or hereafter drilled upon leased premises is so utilized. The storage rights may be exercised in conjunction with other leases in the general vicinity.

8. Failure to pay or error in paying any rental or other payment due hereunder shall not constitute a ground for forfeiture of this lease and shall not affect Lessee's obligation to make such payment, but Lessee shall not be considered in default on account thereof until Lessor has first given Lessee written notice of the non-payment and Lessee shall have failed for a period of thirty (30) days after receipt of such notice to make payment. Payment or tender of rental or other payment hereunder may be made by check or draft of Lessee delivered or mailed to the authorized depository bank or Lessor (at address last known to Lessee) on or before such date for payment, and the payment or tender will be deemed made when the check or draft is so delivered or mailed. If said named or successor bank (or any other bank which may, as hereinafter provided have been designated as depository) should fail or liquidate or for any reason refuse or fail to accept rental, Lessee shall not be held in default for failure to make such payment or tender until thirty (30) days after Lessor shall deliver to Lessee a proper recordable instrument naming another bank to receive such payments or tenders. The above named or successor bank or any other bank which may be designated as depository shall be Lessor's agent.

9. If prior to discovery and production of oil, gas or other mineral on the leased premises or on acreage pooled therewith, Lessee should drill a dry hole or holes thereon or, if after discovery and production of oil, gas or other mineral the production thereof should cease from any cause, this lease shall not terminate if Lessee commences operations for drilling, deepening, plugging back, or reworking within sixty (60) days thereafter or if it be within the primary term, commences or resumes the payment or tender of delay rentals or commences operation for drilling, deepening, plugging back, or reworking on or before the delay rental paying date next ensuing after the expiration of sixty (60) days from date of completion of dry hole or cessation of production. If at any time subsequent to sixty (60) days prior to the beginning of the last year of the primary term and prior to the discovery and production of oil, gas or other mineral on the leased premises or on acreage pooled therewith, Lessee should drill a dry hole thereon, no delay rental payment or operations are necessary in order to keep the lease in force during the remainder of the primary term. If at the expiration of the primary term, oil, gas or other mineral is not being produced on the leased premises or on acreage pooled therewith, but Lessee is then engaged in drilling, deepening, plugging back, or reworking operations thereon or shall have completed a dry hole thereon within sixty (60) days prior to the end of the primary term, the lease shall remain in force so long as operations on said well or for drilling, deepening, plugging back, or reworking of any additional well are prosecuted with no cessation of more than sixty (60) consecutive days and, if they result in the production of oil, gas or other mineral, so long thereafter as oil, gas or other mineral is produced from the leased premises, or on acreage pooled therewith.

10. Lessee, at any time, and from time to time, may surrender this lease as to all or any part or parts of leased premises by tendering an appropriate instrument of surrender to the Lessor or file for record a release or releases of this lease as to any part or all of said land or of any mineral or horizon thereunder, and thereupon this lease, and the rights and obligations of the parties hereunder, shall terminate as to the part or parts so surrendered. Upon each surrender as to any part or parts of leased premises the rental and all other payments specified above shall be proportionately reduced on an acreage basis, and Lessee shall have reasonable easements for then existing pipelines or roadways on the lands surrendered for the purpose of continuing operations on the lands retained. Lessee shall have the right at any time during or after the expiration of this lease to remove all machinery, fixtures, buildings, or other structures placed on said premises, including the right to pull and remove all casing.

11. Without impairment of Lessee's rights under the warranty in event of failure of title, it is agreed that if Lessor owns an interest in the oil, gas or other minerals on, in or under any part of the leased premises less than the entire fee simple estate (whether Lessor's interest is herein specified or not and whether or not this lease purports to cover a whole or a fractional interest), then the royalties and delay, shut-in, and storage rentals to be paid Lessor shall be reduced in the proportion that his interest bears to the whole and undivided fee and in accordance with the nature of the estate of which Lessor is seized. Said Lessee shall not be required in any event to increase the delay rental, storage rental, shut-in rental, or the gas or oil royalty payments hereunder by reason of any royalty or interest in said oil or gas that may have been heretofore sold, reserved or conveyed by said Lessor or by his predecessors in title or otherwise; and if the Lessor does not have title to all the oil and gas in the leased premises or to the storage rights herein leased, there shall be refunded such part of all payments made by the Lessee hereunder as shall be proportionate to the outstanding title, and all payments and royalties thereafter to be made shall be reduced in the same proportion.

12. In case of notice of, or an adverse claim to the premises, affecting all or any part of the shut-in rentals, delay rentals, storage rentals, or royalties, Lessee may withhold payment or delivery of the same until their ownership is determined by compromise, or by final decree of a court of competent jurisdiction, and to this end Lessee may file a petition for interpleader.

13. The rights of either party hereunder may be assigned in whole or in part; but no change or division in ownership of the leased premises, delay rentals, shut-in rentals, storage rentals, or royalties or in the status of any party, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee. No change in such ownership or status shall be binding on Lessee until thirty (30) days after Lessee shall have been furnished by U.S. mail at Lessee's principal place of business with a certified copy of recorded instrument or instruments evidencing same. In the event of assignment hereof in whole or in part, liability for breach of any obligation hereunder shall rest exclusively upon the owner of this lease or of a portion thereof who commits such breach. In the event of the death of any person entitled to any sum hereunder, Lessee may pay or tender the same to the credit of the deceased or the estate of the deceased until such time as Lessee is furnished with proper evidence of the appointment and qualification of an executor or administrator of the estate or, if there be none, evidence satisfactory to it as to the heirs or devisees of the deceased and that all debts of the estate have been paid. If at any time two or more parties are entitled to or adversely claim any sum payable hereunder, or any part thereof, Lessee may pay or tender the same either jointly to such parties or separately to each in accordance with his respective ownership thereof. In event of assignment of this lease as to a segregated portion of the leased premises, the delay rentals and shut-in rentals payable hereunder shall be apportionable as between the several leasehold owners ratably according to the surface area of each, and the failure to pay delay rentals or shut-in rentals on the one segregated portion of the leased premises shall not affect the rights hereunder of the party holding the other segregated portion hereunder. If six or more parties become entitled to royalty hereunder, Lessee may withhold payment thereof unless and until furnished with a recordable instrument executed by all such parties designating an agent to receive payment for all.

14. The breach by Lessee of any obligation arising hereunder shall not work a forfeiture or termination of this lease nor cause a termination or reversion of the estate hereby nor be grounds for cancellation hereof in whole or in part. In the event Lessor considers that operations are not at any time being conducted in compliance with this Lease, Lessor shall notify Lessee in writing of the facts relied upon as constituting a breach hereof and Lessee, if in default, shall have 60 days after receipt of such notice in which to commence the compliance with the obligations imposed by virtue of this instrument. After the discovery of oil, gas or other mineral in paying quantities on the leased premises, Lessee shall develop the acreage retained hereunder as a reasonably prudent operator, but in discharging this obligation it shall in no event be required to drill more than one well per 80 acres of the area retained hereunder and capable of producing oil in paying quantities and more than one well per 640 acres of the area retained hereunder and capable of producing gas or other mineral in paying quantities, plus in each case a tolerance of 10% of the stated area.

15. Lessor hereby expressly relinquishes dower and releases and waives all rights under and by virtue of the homestead exemption laws of the state wherein leased premises are situated insofar as the same in any way may affect the purpose for which this lease is made.

16. Should any one or more of the parties named herein as Lessor fail to execute this lease, it shall nevertheless be binding on the party or parties executing the same, and additional parties may execute this lease as Lessor, and this lease shall be binding on each party executing the same notwithstanding that such party is not named herein as Lessor, and all of the provisions of this lease shall inure to the benefit of and be binding on the parties hereto and their respective heirs, legal representatives, successors and assigns, and successive successors and assigns.

IN WITNESS WHEREOF, this instrument is executed on the date first above written.

WITNESS:

ADMITTED TO RECORD  
 JUN 21 1 42 PM '78  
 BOOK 121 PAGE 643  
 MARC LEE HATHORN, CLERK  
 GRANT COUNTY COURT, W.VA.

Ulysses Berg (Seal)  
 Ulysses G. Berg  
 SS# 234-40-2965 (SS# or Tax ID #)  
 \_\_\_\_\_ (Seal)  
 \_\_\_\_\_ (SS# or Tax ID #)

ACKNOWLEDGMENT

COUNTY OF Grant STATE OF West Virginia

I, Mary F. Kimble, in and for said

County, in the State aforesaid, do hereby certify that Ulysses G. Berg, a Single Man

personally known to me to be the same person whose name subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth, and desired the same to be recorded as such.

Given under my hand and Notary Seal, this 11th day of April A. D. 19 78

My commission expires Nov. 2, 1980

Mary F. Kimble  
 08/04/2023

1.25 Rec. fee.