west virginia department of environmental protection

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

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

Monday, August 18, 2025
WELL WORK PLUGGING PERMIT
Horizontal 6A Plugging

EXPAND OPERATING LLC
6100 N WESTERN AVE.

OKLAHOMA CITY, OK 73118

Re: Permit approval for STATE OF WV DNR A BRK 3H
47-009-00147-00-00

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:
Farm Name: E. YODER, L. MAST, D. MILL
U.S. WELL NUMBER: 47-009-00147-00-00
Horizontal 6A Plugging
Date Issued: 8/18/2025

08/22/2025

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

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.

08/22/2025

WW-4B
Rev. 2/01

1) Date JULY 17, 2025
2) Operator's
Well No. STATE OF WV DNR A BRK 3H
3) API Well No. 47 - 009 00147

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 1140 Watershed UPPER OHIO SOUTH
District CROSS CREEK County BROOKE Quadrangle STEUBENVILLE E

6) Well Operator EXPAND OPERATING LLC
Address PO BOX 18496
OKLAHOMA CITY, OK 73154-0496

7) Designated Agent BRITTANY WOODY
Address 1300 FORT PIERPONT, SUITE 201
MORGANTOWN, WV 26508

8) Oil and Gas Inspector to be notified
Name GAYNE J KNITOWSKI
Address 601 57TH STREET SE
CHARLESTON, WV 25304

9) Plugging Contractor
Name PLANTS AND GOODWIN
Address 360 HIGH STREET
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
AUG 01 2025
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 Strader Gower Date 07/30/2025

08/22/2025

STATE OF WV DNR A BRK 3H (PN: 835521)

Plug & Abandon

County/State: BROOKE, WV Township: CROSS CREEK BLM: NO
Latitude: 40.3210639946 Longitude: -80.5351237084 (NAD 83)
Property Number: 835521 API: 4700900147
AFE: WO:

Summary
The STATE OF WV DNR A BRK 3H will be plugged and abandoned. The well is located in BROOKE County, WV and was spud on 10-17-2012 by CHESAPEAKE APPALACHIA LLC, targeting the MARCELLUS SHALE as a HORIZONTAL well. The last know production date for this well was 01-00-1900 where it produced MCF, BO, and BW.
Cut & Pull ~5700' Production Tubing Run CBL Cut and Pull ~5,100' of 5.5" Production Casing (3) 200' & (1) 100' Cement Plugs. Detail on Page 10 Gel Detail on Page 11

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. **Per the Well Control Standard (OGB-CHK-STD-001)**: 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. **Preferred Well Control Method – Bullhead Method**. 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.

	Flow Path	
Barriers	**Production Casing X Tubing**	**Tubing**
Primary		
Secondary		
Tertiary		

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Pump KWF at Start of Job	
Step	**Operation**
1	MIRU pump truck to production wing valve off. Prepare to leave rigged up until CIBP with cement is set in production casing.
2	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).
3	Perform flow check to ensure QHB is established.
	a. Contact supervisor and OKC engineer if higher weight kill fluid is required.
4	Complete **Well Control Standard (OGB-CHK-STD-001) Exception** 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		

Set BPV in hanger	
Step	**Operation**
5	ND tree cap and necessary well head equipment downstream of master valve, NU Pressure Balanced Manually Operated (PBMO) lubricator loaded with TWC, and test against upper master valve to 250 psi low / and a high pressure to a minimum of well's shut in pressure pre-job.

	Flow Path	
Barriers	**Production Casing X Tubing**	**Tubing**
Primary	Tubing Hanger Seals	Pump Through Tubing Plug
Secondary	Upper Master Valve	Upper Master Valve
Tertiary	Lower Master Valve	Lower Master Valve

6	Open master valve and install two-way check in tubing hanger, retract lubricating rod, close master valve and pressure test TWC against master valve to 250 / 4,500 psi to qualify as barrier.
	a. Negative pressure test not possible if QHB is established.

	Flow Path	
Barriers	**Production Casing X Tubing**	**Tubing**
Primary	Tubing Hanger Seals	QHB
Secondary	PBMO Lubricator	PBMO Lubricator
Tertiary		

7	ND PBMO lubricator.

	Flow Path	
Barriers	**Production Casing X Tubing**	**Tubing**
Primary	Tubing Hanger Seals	TWC
Secondary	Upper Master Valve	Upper Master Valve
Tertiary	Lower Master Valve	Lower Master Valve

Nipple Up WOR BOPs (Test against Master Valve)	
Step	**Operation**
8	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

9		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.
10		NU 7-1/16" WOR BOPs and 7-1/16" 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

Pull BPV/TWC in hanger	
Step	**Operation**
11	NU Pressure Balanced Manually Operated (PBMO) lubricator, and test against 7-1/16" master valve to 250 psi low / and a high pressure to a minimum of well's shut in pressure pre-job.

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

12	Open 7-1/16" 10K master valve, latch TWC and retract lubricating rod. Close Blind Ram and 7-1/16" Master

	Flow Path	
Barriers	**Production Casing X Tubing**	**Tubing**
Primary	QHB	QHB
Secondary	PBMO Lubricator	Pump Through Tubing Plug
Tertiary	Tubing Hanger Seals	PBMO Lubricator

13	ND PBMO lubricator.

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

Cut Tubing	
Step	**Operation**
Note: For slickline work detailing barrier envelope, barrier testing, surface equipment specs for this operation refer to the **"Marcellus Production Wireline, Slickline, Braided Line Barrier Template."**	
14	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.

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

15	Round trip 1.90" gauge ring to 5700'.
16	Make up 1.90" OD jet cutter and RIH to 5700'. Pressure up on 2.375" casing to 500 psi and fire cutter. Record all pressure changes at time of cut.
17	RD wireline.

Pull Tubing	
Step	**Operation**
18	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

19	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, ensuire pulling speeds are low enough to prevent swabbing.

20	Close 7-1/16" Master valve and Blind Ram

	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 **"Marcellus Production Wireline, Slickline, Braided Line Barrier Template."**	
21	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

22	Round trip 4.65" OD gauge ring to 7,100'.

23	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.
24	Pressure test CIBP to 1,500 psi or 80% of casing burst pressure accounting for hydrostatic to CIBP depth, which ever is less.

25	Run pressurized CBL log from CIBP to surface. Reported estimated TOC at 5,100'.
26	ND wireline lubricator, wireline rams, primary pressure control.

Pump Cement and Spacer and Tac Weld Slips		
Step	**Operation**	
27	Prep 7,100' of 2-3/8" 4.7# L-80 workstring.	
28	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.	
29	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

30	Plug Details - Plug #2 - Cement - Cement Perf Isolation Pump balanced cement plug as directed in Plug Detials, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours.
31	Tag top of cement. Record depth.
32	TIH w/ workstring to bottom of spacer #1 and pump spacer as defined in Spacer Details.
33	POOH w/ workstring.
34	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 5.5" casing slips to 5.5" casing.

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

Nipple Up WOR BOPs (Test against CIBP)	
Step	**Operation**
35	NU 11" WOR BOPs and annular. Torque all bolts/nuts to spec.

	Flow Path	
Barriers	**Production Casing X Tubing**	**Tubing**
Primary	QHB	QHB
Secondary	Tubing Hanger Seals	TWC
Tertiary		

36	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.

	Flow Path	
Barriers	**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 **"Marcellus Production Wireline, Slickline, Braided Line Barrier Template."**	
37	Shut Blind Ram. 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	CIBP
Secondary	QHB
Tertiary	Blind Ram

38	Using TOC from CBL, Round trip 4.65" gauge ring to 5150'.	
39	Make up 4.65" OD jet cutter and RIH to desired depth. Pressure up on 5.5" casing to 500 psi and fire cutter. Record all pressure changes at time of cut.	
40	RD wireline. Circulate down 5.5" 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.

Pull Casing		
Step	**Operation**	
41	MU casing spear, spear 5.5" casing. TOOH laying down 5.5" 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	

42	Once out of hole with casing shut Blind Ram.

	Flow Path
Barriers	**Intermediate Casing**
Primary	QHB
Secondary	Blind Ram
Tertiary	

Pump Cement and Spacer		
Step	**Operation**	
43	Prep 5,100' of 2-3/8" 4.7# L-80 workstring.	
44	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.	
45	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

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

	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**
50	Prep 850' of 2-3/8" 4.7# L-80 workstring.
51	Change out pipe rams to handle 2-3/8" 4.7# L-80 workstring.
52	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

53	Plug Details - Plug #4 - Cement - Inter Csg Shoe Plug (Inside Csg) Pump balanced cement plug as directed in Plug Detials, displace tubing with specified volume. POOH 1,500' above estimated TOC. Close pipe ram. WOC for at least 8 hours.
54	Tag top of cement. Record depth.
55	TIH w/ workstring to bottom of spacer #3 and pump spacer as defined in Spacer Details.
56	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**
57	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.
58	Plug Details - Plug #5 - Cement - Surface Plug Pump balanced cement plug as directed in Plug Detials, displace tubing with specified volume. Close pipe ram.
59	ND WOR BOPs. RDMO Workover rig and all associated equipment.

	Flow Path
Barriers	**Surface Casing**
Primary	Cement
Secondary	Cement
Tertiary	QHB

60	Monitor well for a minimum of 24 hrs or until state allows well to have abandoment cap installed.
61	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.

STATE OF WV DNR A BRK 3H (PN: 835521)

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Well Information

Surface Location	
County/State	BROOKE, WV
Township	CROSS CREEK
Latitude*	40.32106399
Longitude*	-80.53512371

*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

General Well Data							
KB	18	Top Perf	5,870	Perf Interval (ft)	7,475	PBTD	13,350
KOP	5154	Btm Perf	13,345	TD	13,450	Elevation	1,140

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# J-55	19.124	18.936	18	38	364	1,477	548	0.3553	7	20
Surface	13.375" 54.5# J-55	12.615	12.459	18	750	791	1,911	360	0.1546	113	17.5
Intermediate	9.625" 40# J-55	8.835	8.679	18	1,566	1,799	2,765	316	0.0758	117	12.25
Production	5.5" 17# P-110	4.892	4.767	18	13,450	5,236	7,448	312	0.0232	312	8.5
Production											
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	0.50	18	19	6,480	6,160	72,000	0.0039	0
2.375" 4.7#	J-55	2	1.901	5,706	19	5,725	6,480	6,160	72,000	0.0039	22
2.375" 4.7#	J-55	2	1.901	0.90	5,725	5,725	6,480	6,160	72,000	0.0039	22
2.375" 4.7#	J-55	2	1.901	287.10	5,725	6,013	6,480	6,160	72,000	0.0039	23
2.375" 4.7#	J-55	2	1.901	1.00	6,013	6,014	6,480	6,160	72,000	0.0039	23
2.375" 4.7#	J-55	2	1.901	32.40	6,014	6,046	6,480	6,160	72,000	0.0039	23

8rd EUE

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	5,100	18	5,118	9,424	8,960	83,440	0.0039	20

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

STATE OF WV DNR A BRK 3H (PN: 835521)

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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	5,700	5,698	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Cement	Cement Perf Isolation	4.892	200	5,698	5,498	Class A	1.28	15.5	0	4.6	20.4	20.0
3	Cement	Prod Csg Stub Plug (Inside Csg)	4.892	50	5,100	5,050	Class A	1.28	15.5	0	1.2	5.1	0.0
3	Cement	Prod Csg Stub Plug (Open Hole)	8.5	150	5,050	4,900	Class A	1.28	15.5	50	15.8	69.3	19.5
4	Cement	Inter Csg Shoe Plug (Open Hole)	8.5	100	1,666	1,566	Class A	1.28	15.5	50	10.5	46.2	0.0
4	Cement	Inter Csg Shoe Plug (Inside Csg)	8.835	100	1,566	1,466	Class A	1.28	15.5	0	7.6	33.3	6.1
5	Cement	Surface Plug	8.835	100	100	0	Class A	1.28	15.5	0	7.6	33.3	0.0
9													
10													

STATE OF WV DNR A BRK 3H (PN: 835521)

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	4.892	398	5,498	5,100	9	-	5	9.7
2	Gel	Elevation Plug to Inter Csg Shoe Plug	8.5	3,234	4,900	1,666	9	-	40	317.8
3	Gel	Inter Csg Shoe Plug to Surface Plug	12.615	1,366	1,466	100	9	-	5	221.7
4										
5										
6										
7										
8										
9										
10										

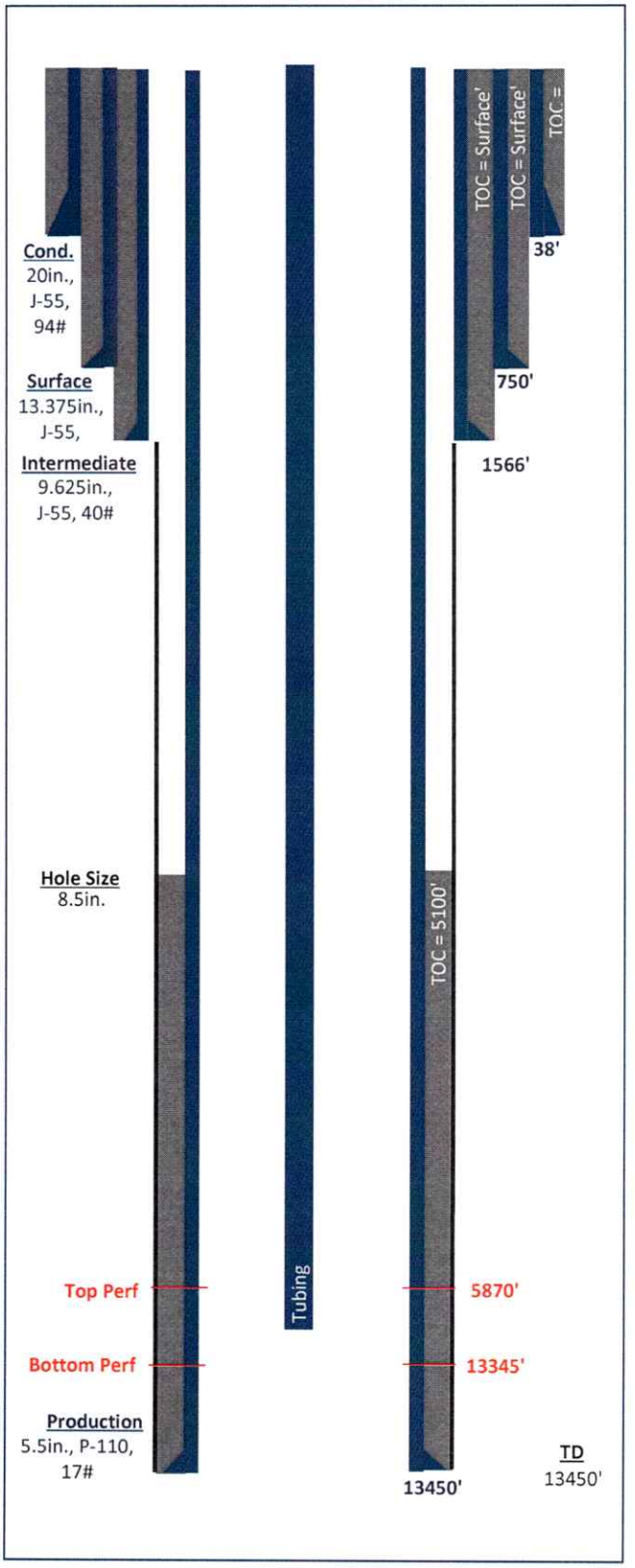
Estimated Casing Cuts

String	Est. Cut Depth (ftKB)
Intermediate	
Production	5,050

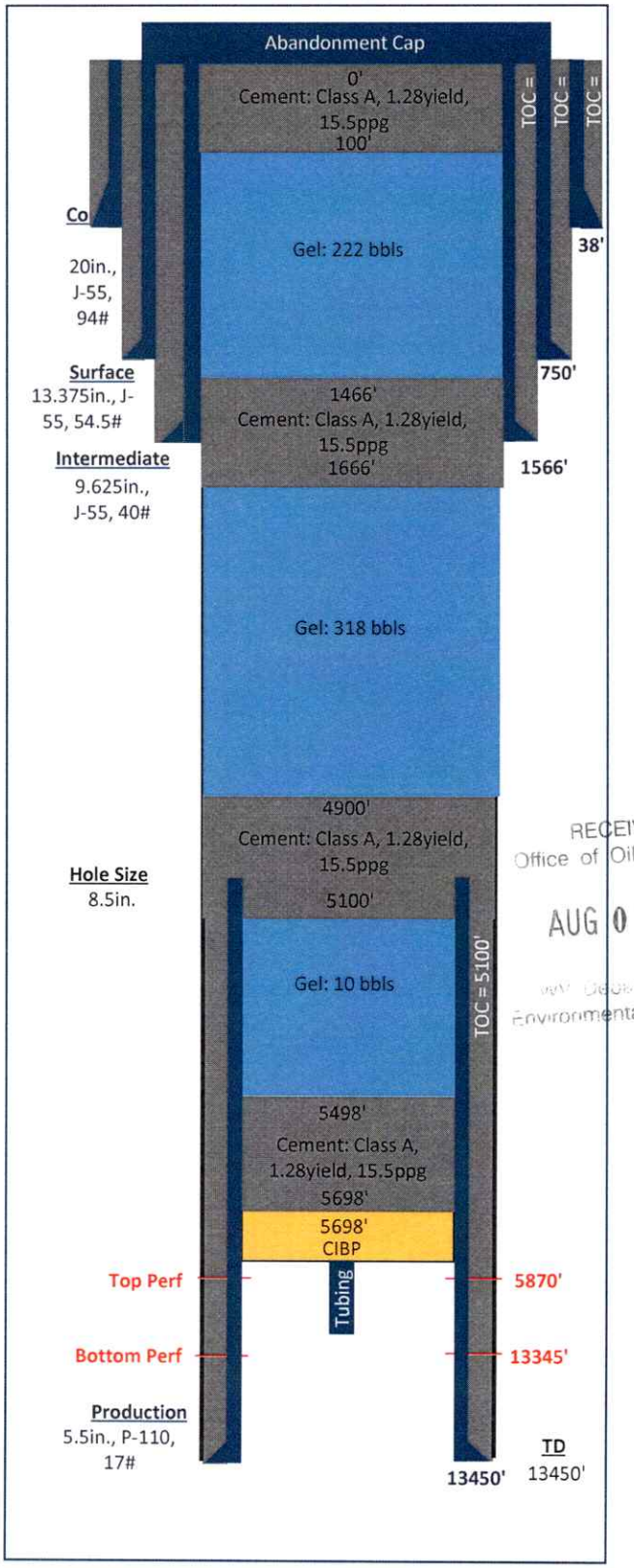
STATE OF WV DNR A BRK 3H (PN: 835521)

expand

Current Wellbore Schematic



Proposed Wellbore Schematic



08/22/2025

Preliminary Report

WR-35
Rev (9-11)

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
Well Operator's Report of Well Work

DATE: 3-6-2013
API #: 47-009-00147

Farm name: State of WV DNR A BRK 3H Operator Well No.: 835521

LOCATION: Elevation: 1,140' Quadrangle: Steubenville East, WV

District: Cross Creek County: Brooke
Latitude: 9,860' Feet South of 40 Deg. 20 Min. 00 Sec.
Longitude 4,500' Feet West of 80 Deg. 30 Min. 00 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address: P.O. Box 18496	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Oklahoma City, OK 73154-0496	20"	138'	138'	443 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	750'	750'	825 Cu. Ft.
Inspector: Bill Hendershot	9 5/8"	1,566'	1,566'	643 Cu. Ft.
Date Permit Issued: 8-28-2012	5 1/2"	13,476'	13,476'	1061 Cu. Ft.
Date Well Work Commenced: 10-17-2012				
Date Well Work Completed: 11-3-2012(Rig release date)				
Verbal Plugging:				
Date Permission granted on:				
Rotary ☑ Cable ☐ Rig ☐				
Total Vertical Depth (ft): 5,705'				
Total Measured Depth (ft): 13,476'				
Fresh Water Depth (ft.): 330'				
Salt Water Depth (ft.): 1,210'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)
Producing formation Marcellus Pay zone depth (ft) (n/a not frac'd)
Gas: Initial open flow_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow N/A * MCF/d Final open flow _____Bbl/d *Planned for production 6/17/2013
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

Second producing formation_____ Pay zone depth (ft)_____
Gas: Initial open flow_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow_____MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests_____Hours
Static rock Pressure_____psig (surface pressure) after _____Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments 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.

Marlene Williams
Signature

3-1-2013
Date

08/22/2025

Were core samples taken? Yes_____ No N Were cuttings caught during drilling? Yes Y No_____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list LWD GR from 5091-13476' MD.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Scheduled to frac on 6/7/2013

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: Top Depth / Bottom Depth
Surface:

See attached

LATERAL WELLBORE (no vertical pilot hole associated with this well)

Maximum TVD of wellbore: 5705 ft TVD @ 5943 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SS/SH	0	0	656	656
KITTANING COAL	656	656	664	664
SS/SH	664	664	880	880
SHALE	880	880	1000	1000
SS	1000	1000	1120	1120
BIG LIME	1120	1120	1210	1210
BIG INJUN (SS)	1210	1210	1385	1385
SHALE	1385	1385	5520	5500
GENESEO (SH)	5520	5500	5540	5517
TULLY (LS)	5540	5517	5617	5578
HAMILTON (SH)	5617	5578	5739	5656
MARCELLUS (SH)	5739	5656		
TD OF LATERAL			13476	5597

WW-4A
Revised 6-07

1) Date: 7/17/2025
2) Operator's Well Number
STATE OF WV DNR A BRK 3H

3) API Well No.: 47 - 009 - 00147

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: STATE OF WEST VIRGINA, DEPT OF COMMERCE
Address: DIVISION OF NATURAL RESOURCES, ATTN THOMAS D PRATT
1110 RAILROAD ST, FARMINGTON, WV 26571
(b) Name:
Address:
(c) Name:
Address:

5) (a) Coal Operator
Name:
Address:
(b) Coal Owner(s) with Declaration
Name:
Address:
Name:
Address:
(c) Coal Lessee with Declaration
Name:
Address:

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WV Department of
Environmental Protection

6) Inspector: STRADER GOWER
Address: 601 57TH STREET SE
CHARLESTON WV 25304
Telephone: 304-993-6188

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: EXPAND OPERATING 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 31st day of July 2025
Carla M. Harris
Notary Public
My Commission Expires October 22, 2025

Commonwealth of Pennsylvania - Notary Seal
Carla M. Harris, Notary Public
Bradford County
My commission expires October 22, 2026
Commission number 1286242
Member, Pennsylvania Association of Notaries

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.

08/22/2025

From: UPS
To: Keri Fieno
Subject: [EXTERNAL] UPS Delivery Notification, Tracking Number 1ZV3127X0197786916
Date: Wednesday, July 23, 2025 1:14:30 PM

This Message Is From an External Sender
This message came from outside your organization.

Report Suspicious

Hello, your package has been delivered.

Delivery Date: Wednesday, 07/23/2025
Delivery Time: 1:11 PM
Signed by: TOMANA

Set Delivery Instructions | Manage Preferences | View My Packages

EXPAND ENERGY CORPORATION

STATE OF WV DNR A BRK 2H SURFACE OWNER NOI TO PLUG NOTIFICATION

Tracking Number:	1ZV3127X0197786916
Ship To:	STATE OF WEST VIRGINIA DIVISION OF NATURAL RESOURCES 1110 RAILROAD ST FARMINGTON, WV 26571 US
Number of Packages:	1
UPS Service:	UPS Next Day Air®
Package Weight:	0.0 LBS
Reference Number:	STATE OF WV DNR A BRK 3H

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WW-9
(5/16)

API Number 47 - 009 - 00147
Operator's WellNo. STATE OF WV DNR A BRK 3H

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) UPPER OHIO SOUTH Quadrangle STEUBENVILLE E

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 CUTTINS 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.

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Company Official Signature Keri Fieno

Company Official (Typed Name) KERI FIENO

Company Official Title REGULATORY SPECIALIST

Subscribed and sworn before me this 31st day of July, 2025

Carla M. Harris
Notary Public

My commission expires October 22, 2026

Commonwealth of Pennsylvania - Notary Seal
Carla M. Harris, Notary Public
Bradford County
My commission expires October 22, 2026
Commission number 1286247
Member, Pennsylvania Association of Notaries

08/22/2025

Form WW-9

Operator's Well No. STATE OF WV DNR A BRK 3H

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: Strader Gower

Comments:

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Environmental Protection

Title: Oil & Gas Inspector Date: 07/30/2025

Field Reviewed? (X) Yes ( ) No

08/22/2025

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

APPROXIMATE TACK COAT

PROCEDURE: SURFACE TO BE HYDROSEEDED SHALL BE CLEANED OF ALL DEBRIS AND OTHER MATTER HARMFUL TO UNIFORM GERMINATION. A WATER–SURRY MIXTURE COMMPOSED OF THE ABOVE "MATERIALS". ITEMS (1) THROUGHT (3) INCLUSIVE, SHALL BE SPRAYED UNIFORMLY OVER THE AREAS TO BE HYDROSEEDED. 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 RESEEDED 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.

WW-9- GPP
Rev. 5/16

Page _____ of _____
API Number 47 - 009 - 00147
Operator's Well No. STATE OF WV DNR A BRK 3H

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

Operator Name: EXPAND OPERATING LLC

Watershed (HUC 10): UPPER OHIO SOUTH Quad: STEUBENVILLE E

Farm Name: STATE OF WV DNR A BRK 3H

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.

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

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

08/22/2025

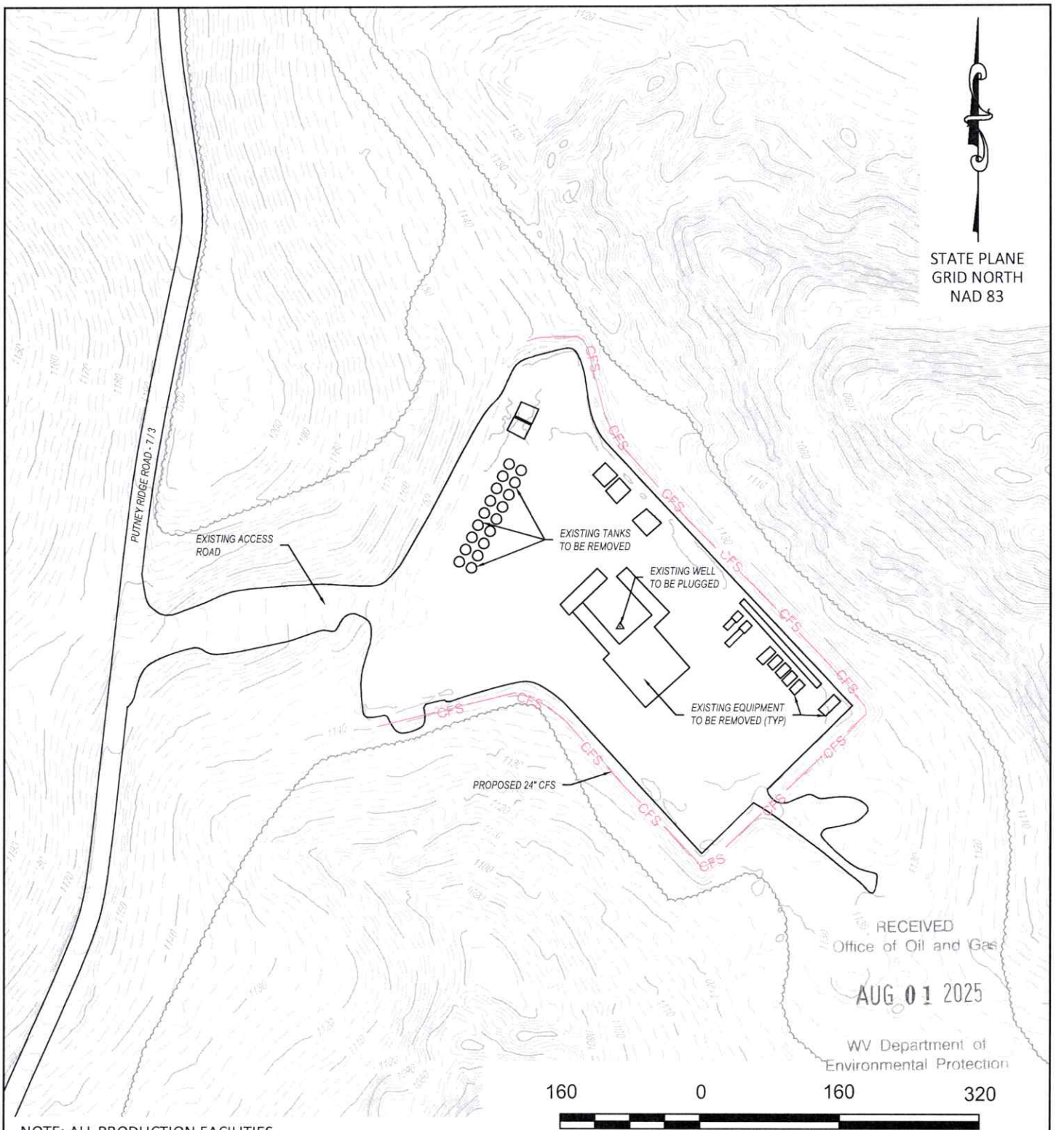
6. Provide a statement that no waste material will be used for deicing or fill material on the property.

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.

Signature: Keri Lueno

Date: 7/30/25



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

STATE OF WV DNR A BRK 3H SITE RECLAMATION API# 47-009-00147

FOR

EXPAND OPERATING, LLC

LOCATED IN

BROOKE COUNTY, WEST VIRGINIA

SITE PLAN

PLAN STATUS	DATE	NO.
FINAL	7/18/2025	1

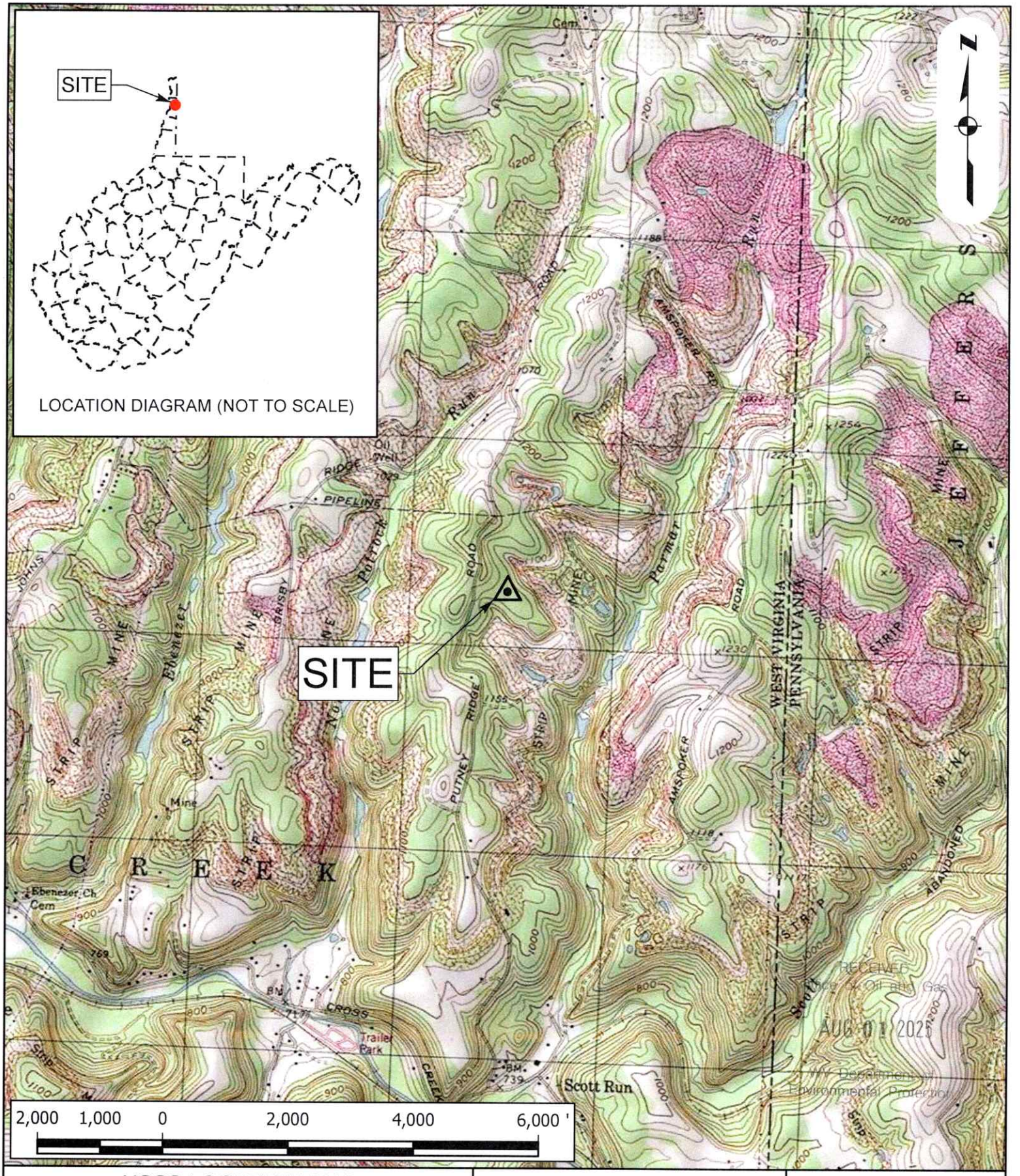
LEGEND

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

JHA SURVEYING ENGINEERING ENVIRONMENTAL ARCHITECTURE

844-542-4757

466 SOUTH MAIN STREET
MONTROSE, PA 18801
PA • OH • NY • WV • VA • MD



USGS LOCATION MAP

PREPARED FOR

STATE OF WV DNR A BRK 3H

BROOKE COUNTY, WEST VIRGINIA
STEUBENVILLE EAST USGS QUAD

PROJECT -	STATE OF WV DNR A BRK 3H
DATE -	7/18/2025
SCALE -	1 " = 2,000 '
DRAWN -	MWS
FILE -	USGS_LOCATION_MAP.mxd

JHA SURVEYING ENGINEERING ENVIRONMENTAL ARCHITECTURE
(844) 542-4757

08/22/2025

WW-7
8-30-06

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

API: 47-009-00147 **WELL NO.:** 3H

FARM NAME: STATE OF WV DNR A BRK

RESPONSIBLE PARTY NAME: EXPAND OPERATING LLC

COUNTY: BROOKE **DISTRICT:** CROSS CREEK

QUADRANGLE: STEUBENVILLE E

SURFACE OWNER: STATE OF WV, DEPT OF COMMERCE, DNR

ROYALTY OWNER: STATE OF WV, DEPT OF COMMERCE, DNR

UTM GPS NORTHING: 4463496.8

UTM GPS EASTING: 539495.3 **GPS ELEVATION:** 1140'

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 ____

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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 | REGULATORY SPECIALIST (Title) | 7/17/2025 (Date)

08/22/2025

SURFACE HOLE DEC. LONG: 80.535331
SURVEYED LONG: 80° 32' 07.2"

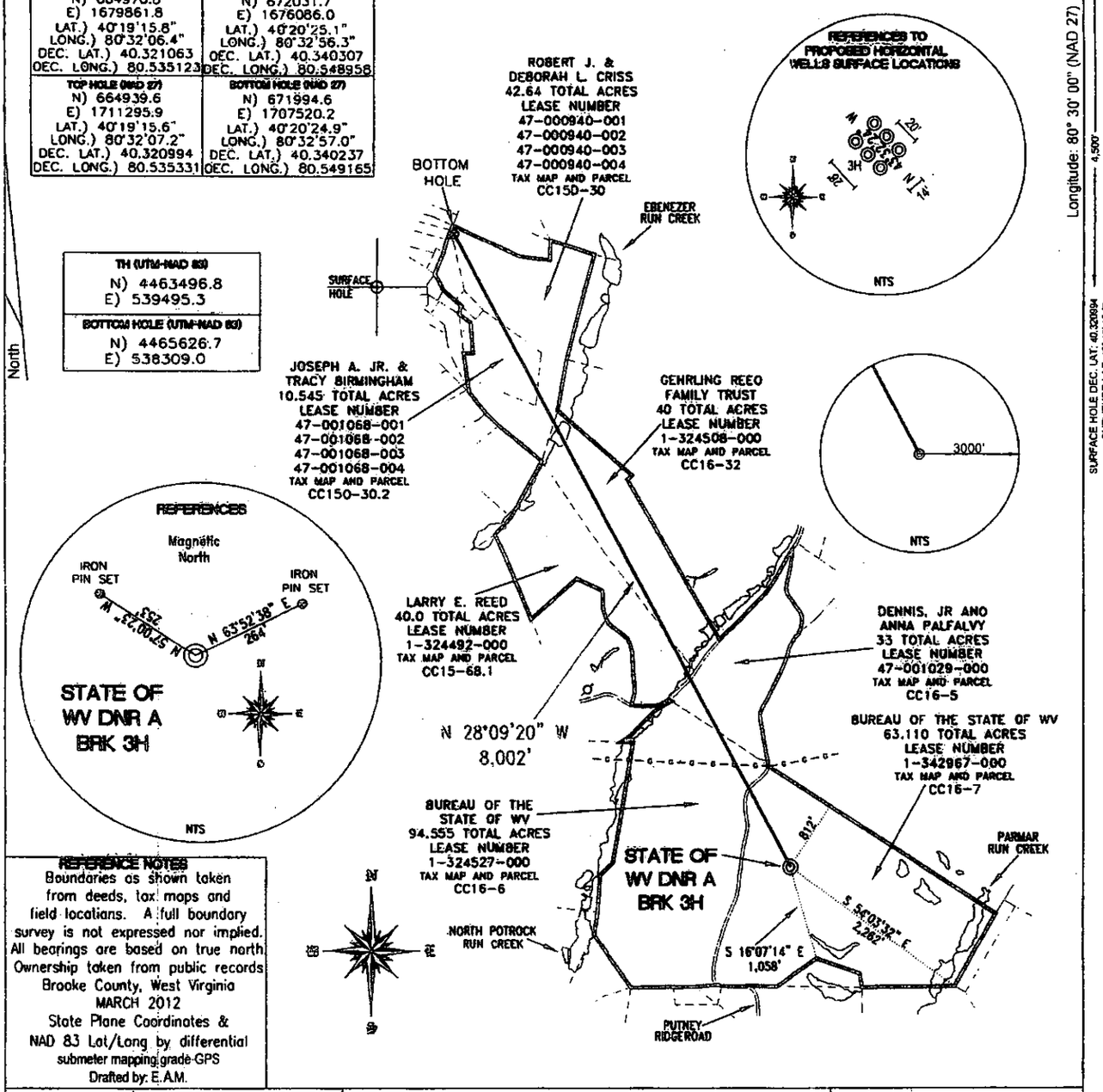
9,860'

Latitude: 40° 20' 00" (NAD 27)

TOP HOLE (NAD 83)	BOTTOM HOLE (NAD 83)
N) 664976.8 E) 1679861.8 LAT.) 40°19'15.8" LONG.) 80°32'06.4" DEC. LAT.) 40.321063 DEC. LONG.) 80.535123	N) 672031.7 E) 1676086.0 LAT.) 40°20'25.1" LONG.) 80°32'56.3" DEC. LAT.) 40.340307 DEC. LONG.) 80.548958
TOP HOLE (NAD 27)	**BOTTOM HOLE (NAD 27)**
N) 664939.6 E) 1711295.9 LAT.) 40°19'15.6" LONG.) 80°32'07.2" DEC. LAT.) 40.320994 DEC. LONG.) 80.535331	N) 671994.6 E) 1707520.2 LAT.) 40°20'24.9" LONG.) 80°32'57.0" DEC. LAT.) 40.340237 DEC. LONG.) 80.549165

TH (UTM-NAD 83)
N) 4463496.8 E) 539495.3
BOTTOM HOLE (UTM-NAD 83)
N) 4465626.7 E) 538309.0

North



Longitude: 80° 30' 00" (NAD 27)

4,500'

SURFACE HOLE DEC. LAT.: 40.320994
SURVEYED LAT: 40° 19' 15.6"

REFERENCE NOTES
Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Brooke County, West Virginia MARCH 2012. State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS. Drafted by: E.A.M.

FILE #: CHE 094
DRAWING #: 2019
SCALE: 1" = 1600'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: _____

L.L.S. #2124 : Ernest J. Benchek III

ERNEST J. BENCHEK III LICENSED No. 2124 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE: APRIL 6, 2012

OPERATOR'S WELL #: STATE OF WV DNR A BRK 3H

API WELL #: 47 (STATE) 09 (COUNTY) 00147-H6A (PERMIT)

Well Type: ☐ Oil ☐ Waste Diposal ☐ Production ☐ Deep
☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,140'

COUNTY/DISTRICT: BROOKE / CROSS CREEK QUADRANGLE: STEUBENVILLE EAST, WV.

SURFACE OWNER: STATE OF WEST VIRGINIA DNR ACREAGE: 63.11 +/-

OIL & GAS ROYALTY OWNER: STARVAGGI INDUSTRIES INC ACREAGE: 323.85 +/-

LEASE NUMBERS: _____

DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒
PLUG OFF FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐
CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY): _____

08/22/2025

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 5,720' TMD: 13,517'

WELL OPERATOR: CHESAPEAKE APPALACHIA, LLC. DESIGNATED AGENT: ERIC GILLESPIE

ADDRESS: PO BOX 18496 ADDRESS: PO BOX 6070

CITY: OKLAHOMA CITY STATE: OK ZIP CODE: 73154-0496 CITY: CHARLESTON STATE: WV ZIP CODE: 25362

Keri Fieno
Regulatory Specialist, HSER

7/31/2025

James Kennedy
WV DEP, Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304

Dear Mr. Kennedy

Expand Operating LLC submits the following P&A applications for your review:

State of WV DNR A BRK 3H 47-009-00147

If you have any questions, please contact me.

Best regards,

Keri Fieno
Regulatory Specialist, HSER
Expand Energy

Expand Energy Corporation
14 Chesapeake Lane / Sayre, PA 18840
405-766-8791 / keri.fieno@expandenergy.com

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

plugging permit issued for 4700900147

1 message

Kennedy, James P <james.p.kennedy@wv.gov> Mon, Aug 18, 2025 at 9:04 AM
To: Gayne J Knitowski <gayne.j.knitowski@wv.gov>, Eric Haskins <eric.haskins@expandenergy.com>, Keri Fieno <keri.fieno@expandenergy.com>, "toughton@wvassessor.com" <toughton@wvassessor.com>

To whom it may concern, a plugging permit has been issued for 4700900147.

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James Kennedy

Environmental Resource Specialist III / Permitting

WVDEP Office of Oil and Gas

601 57th Street, SE

Charleston, WV 25304

304-926-0499 ext. 45025

james.p.kennedy@wv.gov

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