



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, October 20, 2025
WELL WORK PERMIT
Horizontal 6A / New Drill

EXPAND OPERATING LLC
6100 N WESTERN AVE.

OKLAHOMA CITY, OK 73118

Re: Permit approval for Serafin Ortiz MSH 6H
47-051-02559-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.


H. Jason Harmon
Acting Chief

Operator's Well Number: Serafin Ortiz MSH 6H
Farm Name: Frank J & Lori A Longwell
U.S. WELL NUMBER: 47-051-02559-00-00
Horizontal 6A New Drill
Date Issued: 10/20/2025

API Number: _____

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 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. Also, 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

10/24/2025

WW-6B
(04/15)

4705102559
API NO. 47- 051 -
OPERATOR WELL NO. Serafin Ortiz MSH 6H
Well Pad Name: Serafin Ortiz MSH

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

- 1) Well Operator: Expand Operating LLC 494533012 051- Marsha 13-Union 486-Moundsville
Operator ID County District Quadrangle
- 2) Operator's Well Number: Serafin Ortiz MSH 6H Well Pad Name: Serafin Ortiz MSH
- 3) Farm Name/Surface Owner: Frank J. & Lori A. Longwell Public Road Access: Grand View Road
- 4) Elevation, current ground: 1279' Elevation, proposed post-construction: 1279'
- 5) Well Type (a) Gas ☒ Oil ☐ Underground Storage ☐
Other ☐
(b) If Gas Shallow ☒ Deep ☐
Horizontal ☒
- 6) Existing Pad: Yes or No Yes
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Down-Dip Well to the South, Target Top TVD- 6239', Target Base TVD- 6295', Anticipated Thickness- 56', Associated Pressure- 4084
- 8) Proposed Total Vertical Depth: 6456'
- 9) Formation at Total Vertical Depth: Marcellus
- 10) Proposed Total Measured Depth: 26,607'
- 11) Proposed Horizontal Leg Length: 19,913.57'
- 12) Approximate Fresh Water Strata Depths: 390'
- 13) Method to Determine Fresh Water Depths: Clean sand below deepest water well.
- 14) Approximate Saltwater Depths: 1242'- Salinity profile
- 15) Approximate Coal Seam Depths: 765'
- 16) Approximate Depth to Possible Void (coal mine, karst, other): Possible void 765'.
- 17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes ☐ No ☒
- (a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

Steve Adams
STRADER LOWER
7/17/2025

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(04/15)

4705102559
API NO. 47- 051 -
OPERATOR WELL NO. Serafin Ortiz MSH 6H
Well Pad Name: Serafin Ortiz MSH

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	136'	136'	CTS
Fresh Water	13 3/8"	New	J-55	54.4#	795'	795'	916 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	2112'	2112'	812 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	26,607'	26,607'	Tail 4979sx/ 100' Inside Intermediate
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.20/30% Excess
Fresh Water	13 3/8"	17.5"	0.330	1730	633	Class A	1.20/30% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.352	3520	1768	Class A	1.19/40% Excess
Production	5 1/2"	8 3/4"-8 1/2"	0.361	14360	10500	Class A	1.19/10-15% Excess
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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Strader Cowan
STRADER COWAN
7/17/2025

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface or run external casing packer/cementing stage tool above void interval and perform 2 stage cementing operation dependent upon depth of void. Run casing not less than 20' below void nor more than 75' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. In some instances, additional toe prep may be performed by pumping additional water in the toe of the well prior to perforating and pumping Stage 1 to ensure that the toe guns/toe sleeves are fully open prior to pumping stage 1. The well is produced through surface facilities consisting of high pressure production units, horizontal separation units, water and oil storage tanks. Max press and anticipated max rate- 12,500 psi @ 100 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 8.2

22) Area to be disturbed for well pad only, less access road (acres): 3.87

23) Describe centralizer placement for each casing string:

All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing.

24) Describe all cement additives associated with each cement type:

See Attachment ***

25) Proposed borehole conditioning procedures:

All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.

*Note: Attach additional sheets as needed.

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4705102559

CEMENT ADDITIVES						
INTERVAL	SCHLUMBERGER PRODUCT NAME	BJ PRODUCT NAME	NEXTIER PRODUCT NAME	PRODUCT USE	CHEMICAL NAME	CAS-Number
SURFACE (FRESHWATER) <small>up to 35'</small>	XXXXXX	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	S001	A-7P	0110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
COAL PROTECTION <small>100 to 25'</small>	XXXXXX	INTEGRA SEAL	0600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
INTERMEDIATE	D020	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	0047	FP 28L	XXXXXX	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	XXXXXX	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	CemNet	XXXXXX	XXXXXX	LOST CIRC MATERIAL	COATED FIBERGLASS FIBERS	PROPRIETARY
	SUGAR	SUGAR	CJ795	CMT RETARDER	SUCROSE	57-50-1
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
PRODUCTION	XXXXXX	XXXXXX	CJ111	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
	XXXXXX	55-IIW	0880	SURFACTANT	NONIONIC SURFACTANT	6540-99-4
	D047	FP 28L	XXXXXX	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	XXXXXX	XXXXXX	OX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
	XXXXXX	XXXXXX	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATICAMIDE POLYMER	PROPRIETARY
	0255	XXXXXX	XXXXXX	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETARY
	XXXXXX	XXXXXX	CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
	XXXXXX	FL-66	0501	LOW TEMP FLUID LOSS ADD	POWDERED POLYSACCHARIDE	PROPRIETARY
	XXXXXX	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301	XXXXXX	VISCOFIER/ANTI- SETTLING AGENT	REFINED POLYMER/ CHRYSTALLINE SILICA	PROPRIETARY
	D198	R-3	XXXXXX	CEMENT RETARDER	LIGNIN	8068-51-6
	SUGAR	SUGAR	CJ795	CEMENT RETARDER	SUCROSE	57-50-1
	D065	XXXXXX	XXXXXX	DISPERSANT	SODIUM POLYNAPHTHALENE SULFONATE	8068-51-6
	D800	XXXXXX	XXXXXX	CEMENT RETARDER (Mid-Temperature)	SODIUM LIGNOSULFONATE	8061-51-6

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Expand Energy**Proposed Drilling Program****Well:** SERAFIN ORTIZ MSH 6H**Drilling Rig:** EDC 41**Field:** PANHANDLE FIELD WET**Formation:** Marcellus Shale**County:** MARSHALL**State:** WV**SHL (NAD83):** 40.101549 Latitude -80.542425 Longitude**BHL (NAD83):** 40.122256 Latitude -80.563357 Longitude**KB Elev:** 1,305 ft MSL**KB Height:** 26 ft AGL**GL Elev:** 1,279 ft MSL

COAL VOID EXPECTED

PROD TOC @ 2,112' MD

TUBULAR DETAIL					
Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Conductor	20	94.0 #	J-55	0'	136'
Surface/Coal	13.375	54.4 #	J-55	0'	795'
Intermediate	9.625	36.0 #	J-55	0'	2,112'
Production	5.5	20.0 #	P-110 HP	0'	26,607'

CEMENT DETAIL

	Sacks	Class	Density
Conductor	173	A	19.3
Surface	916	A	15.6
Intermediate	812	A	15.6
Production	4979	A	14.5-15.0

136' to 815'

Air/Mist

815' to 2,132'

Air/Mist

2,132' to 5,622'

Air/Mist

TD at 5,622'

5,622' to 6,686'

12.0-12.5 ppg

6,686' to 26,607'

12.5-13.5 ppg

KOP at 5,622' MD

Freshwater Depth - 390' TVD

Coal Void Depth - 765' TVD

Saltwater Depth - 1,242' TVD

TVD - 6,456'

TMD - 26,607'

TD at 26,607' MD

6,456' TVD

6,284' TVD Target Center

LP at 6,686' MD

SHL Onondaga 6,295' TVD

Onondaga 6,467' TVD

Created by: Sebastian Ziaja on 05/27/2025

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Strader Lower
STRADER LOWER
9/17/2025

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4705102559



Brittany Woody
Staff Regulatory Specialist

June 9, 2025

Mr. Charles Brewer
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Proposed New Well: Serafin Ortiz MSH 6H

Dear Mr. Brewer:

Expand has reviewed the area of the above mentioned well and discovered no shallow wells within 500' of the lateral. This well is situated on the Ortiz's property, in Union District, Marshall County, West Virginia.

If you have any questions or desire additional information, please me at 304-209-5688.

Thank you.

Sincerely,

A handwritten signature in blue ink that reads "Brittany Woody".

Brittany Woody
Staff Regulatory Specialist
Expand Energy

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Expand Energy Corporation

1300 Fort Pierpont Dr., Suite 201 / Morgantown, WV 26508
O: 304-209-5688 / m: 304-997-2598 / Brittany.Woody@expandenergy.com

10/24/2025

WW-9
(4/16)

API Number 47 - 051 - 4705102559
Operator's Well No. Serafin Ortiz MSH 6H

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 494533012

Watershed (HUC 10) Upper Ohio- Wheeling Quadrangle Moundsville

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
- ☒ Underground Injection (UIC Permit Number Various Approved Facilities)
- ☒ Reuse (at API Number At the next anticipated well)
- ☐ Off Site Disposal (Supply form WW-9 for disposal location)
- ☒ Other (Explain recovery and solidification on site)

Will closed loop system be used? If so, describe: Yes- See Attachment 3A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air drill to KOP, fluid drill with SOBM from KOP to TD

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base

Additives to be used in drilling medium? Attachment 3B

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) _____

-Landfill or offsite name/permit number? Meadowfill SWF- 1032, Short Creek SWF-1034, Carbon Limestone MSWL018781, Wetzel County 1021

Apex Sanitary Landfill 06-08438, Brooke Co SWF-1013, FMS 353100

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 August 1, 2005, 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 Brittany Woody

Company Official (Typed Name) Brittany Woody

Company Official Title Staff Regulatory Specialist



Subscribed and sworn before me this 23 day of June, 20 25

Elizabeth Blankenship Notary Public

My commission expires 6/23/2029

10/24/2025

Expand Operating LLCProposed Revegetation Treatment: Acres Disturbed 8.2 Prevegetation pH _____Lime as determined by pH test min.2 Tons/acre or to correct to pH 3.87Fertilizer type 10-20-20Fertilizer amount 600/500 lbs/acreMulch Hay/Straw Tons/acreSeed Mixtures**Temporary****Permanent**

Seed Type lbs/acre

Seed Type lbs/acre

Attachment 3C

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, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: STRADER GOWER 

Comments: _____

Title: Oil & Gas Inspector Date: 7/17/2025Field Reviewed? (☒) Yes (☐) No

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Attachment 3A

CLOSED LOOP SYSTEM

The closed loop system is designed to eliminate the use of reserve pits by providing a higher level of solids control processing and using steel pits for capture of drill cuttings. The cuttings are then processed to achieve landfill requirements before hauling to approved landfills. The liquids are processed to recycle into the active mud system or to transfer to onsite temporary storage as needed.

The closed loop system consists of a Shale Gas Separator, several banks of solids shakers, high speed centrifuges (1 or 2) used to process the fluid portion of the mud system to remove low gravity solids, low speed centrifuge used for barite recovery in highly weighted liquid drilling systems, a dewatering system (for air intervals and if freshwater mud systems are in use) used to further clean liquids by flocculation and additional mechanical separation, associated open top tanks for processing liquids and capturing solids for disposal, and transfer pumps to move fluids through the processes. There is an area adjacent to the cuttings tanks (Red Zone) where a track hole is utilized to recover the processed cuttings for loading into containers for haul off to an approved landfill site. (See attached schematic of a generic closed loop system layout)

Below are discussions of the processes used when drilling the air interval or liquids interval.

AIR DRILLING INTERVALS

During air drilling operations, flow from the rig will pass down the flowline to the Shale Gas Separator where gas and liquids/solids are separated. Gas is sent to the flare scrubber tank and is flared at the flare stack. Solids and fluids pass across a shaker system to separate solids from liquids. Solids pass into the cuttings tanks where they are captured for drying and hauloff to an approved landfill site. Liquids fall into a shaker tank and are collected by a centrifugal pump to be processed by the high speed centrifuge to further separate liquids and solids. Solids are then dumped into the cuttings tank for drying and hauloff. Liquids are further processed to remove additional low gravity solids before being reused or transferred to onsite storage.

LIQUIDS DRILLING (FRESHWATER, BRINE, SOBM)

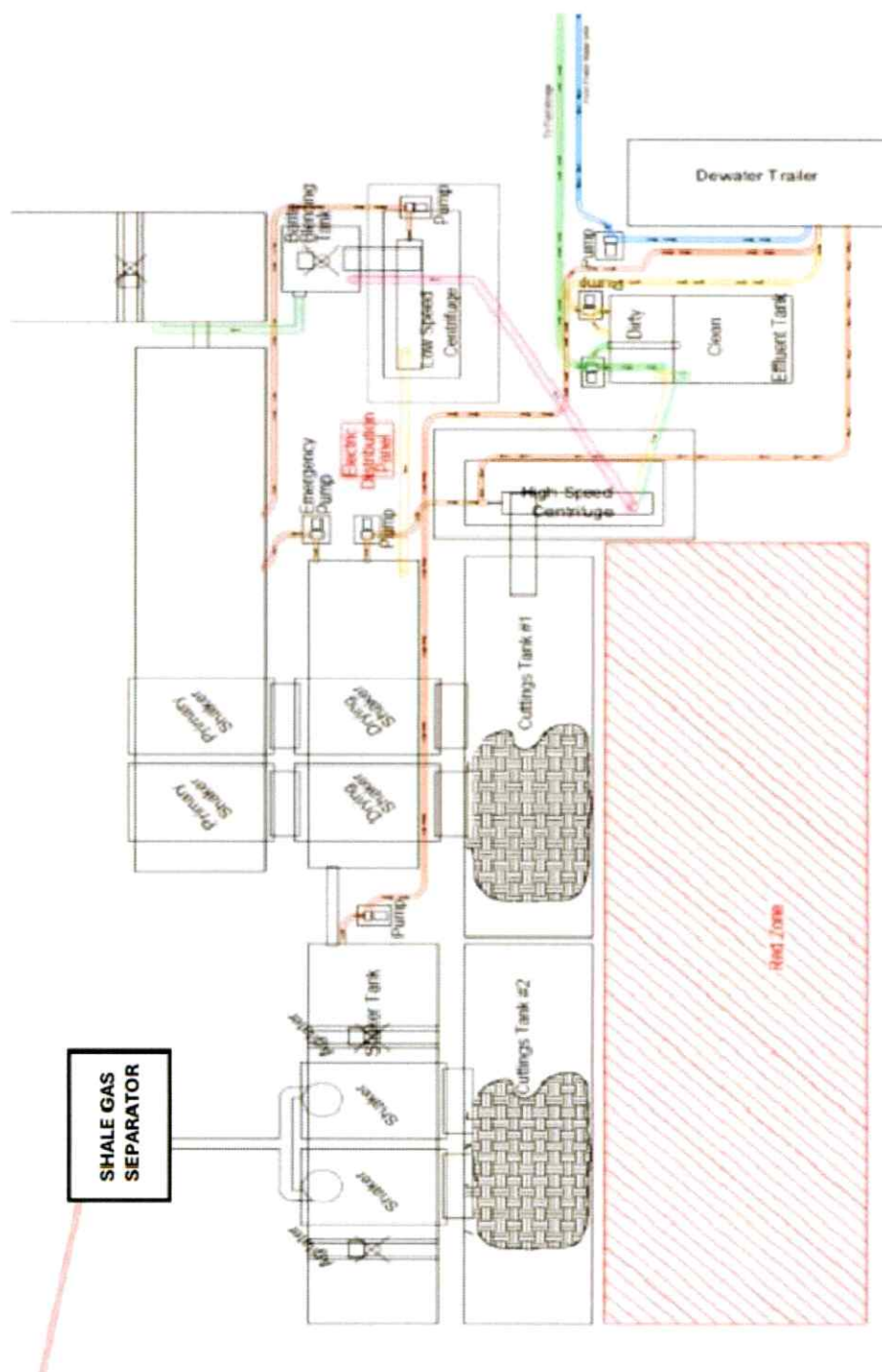
When drilling is converted to liquids drilling, the Shale Gas Separator and associated shaker tank are bypassed, and the liquids system is processed over the primary and drying shaker systems. Cuttings drop into the cuttings tank for additional processing. Any recoverable associated liquids attached to the cutting are recovered out the tank and processed through the low gravity (high speed) and barite recovery centrifuges (low speed) to further remove low gravity solids and to recover barite for reuse in the mud systems.

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3.10.2025
10/24/2025

expand

Solids Control Layout



Drilling Mediums

Surface/Coal (if present)/Freshwater Intervals

Air

Freshwater (if needed based on conditions)

Intermediate/Coal (if present)

Air

Freshwater (if needed based on conditions)

Brine (if needed, base fluid for mud systems)

Production Hole:

Air

Synthetic Oil (Base Fluid for mud system)

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers



WVD Seeding Specification

To Order Seed contact John Dubowski office 304-209-5741 cell 346-773-6078 john.dubowski@expandenergy.com (please allow 7 to 10 days for delivery)

NON-ORGANIC PROPERTIES

Seed Mixture: ROW Mix	SWN Supplied	
Orchardgrass	40%	
Timothy	15%	
Annual Ryegrass	15%	
Brown Top Millet	5%	
Red Top	5%	
Medium Red Clover	5%	All legumes are innoculated at 5x normal rate
White Clover	5%	
Birdsfoot Trefoil	5%	
Rough Bluegrass	5%	
Apply @ 100lbs per acre April 16th- Oct. 14th		Apply @ 200lbs per acre Oct. 15th- April 15th PLUS 50lbs per acre of Winter Wheat

SOIL AMENDMENTS

10-20-20 Fertilizer	*Apply @ 500lbs per Acre
Pelletized Lime	Apply @ 2 Tons per Acre
*unless otherwise dictated by soil test results	

Seeding Calculation Information:

1452' of 30' ROW/LOD is One Acre
871' of 50' ROW/LOD is One Acre
622' of 70' ROW/LOD is One Acre

Synopsis:

Every 622 linear feet in a 70' ROW/LOD, you should be using (2) 50lb bags of seed, (4) 50lb bags of fertilizer and (80) 50lb bags of Lime (2x seed in winter months + 50lb Winter Wheat/ac).

Special Considerations:

Landowner Special Considerations including CREP program participants require additional guidance that is not given here. Discuss these requirements with Expand supervision at the beginning of the project to allow time for special seed delivery.

ORGANIC PROPERTIES

Seed Mixture: Expand Production Organic Mix	Expand Supplied
Organic Timothy	50%
Organic Red or White Clover	50%
OR	
Organic Perennial Ryegrass	50%
Organic Red or White Clover	50%
Apply @ 100lbs per acre April 16th- Oct. 14th	Apply @ 200lbs per acre Oct. 15th- April 15th
Organic Fertilizer @ 200lbs per Acre	Pelletized Lime @ 2 Tons per Acre

WETLANDS (delineated as jurisdictional wetlands)

Seed Mixture: Wetland Mix	Expand Supplied
VA Wild Ryegrass	20%
Annual Ryegrass	20%
Fowl Bluegrass	20%
Cosmos 'Sensation'	10%
Redtop	5%
Golden Tickseed	5%
Maryland Senna	5%
Showy Tickseed	5%
Fox Sedge	2.5%
Soft Rush	2.5%
Woolgrass	2.5%
Swamp Verbena	2.5%
Apply @ 25lbs per acre April 16th- Oct. 14th	Apply @ 50lbs per acre Oct. 15th- April 15th
NO FERTILIZER OR LIME INSIDE WETLAND LIMITS	

4705102559

MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN

4705102559



Expand Energy
1300 Fort Pierpont Drive, Suite 201
Morgantown, West Virginia 26508

API NO. 47-XXX-XXXXX
WELL NAME: Serafin Ortiz MSH 6H
Moundsville QUAD
Union DISTRICT
MARSHALL COUNTY, WEST VIRGINIA

Submitted by:

Name: Brittany Woody

Brittany Woody

Date: 6/9/2025

Title: Staff Regulatory Specialist

Expand Energy

Approved by:

Name: STRADER GOWER

Date: 7/17/2025

Title: Oil & Gas Inspector

Approved by:

Name: _____

Date: _____

Title: _____

RECEIVED
Office Of Oil and Gas

SEP 16 2025

WV Department of
Environmental Protection

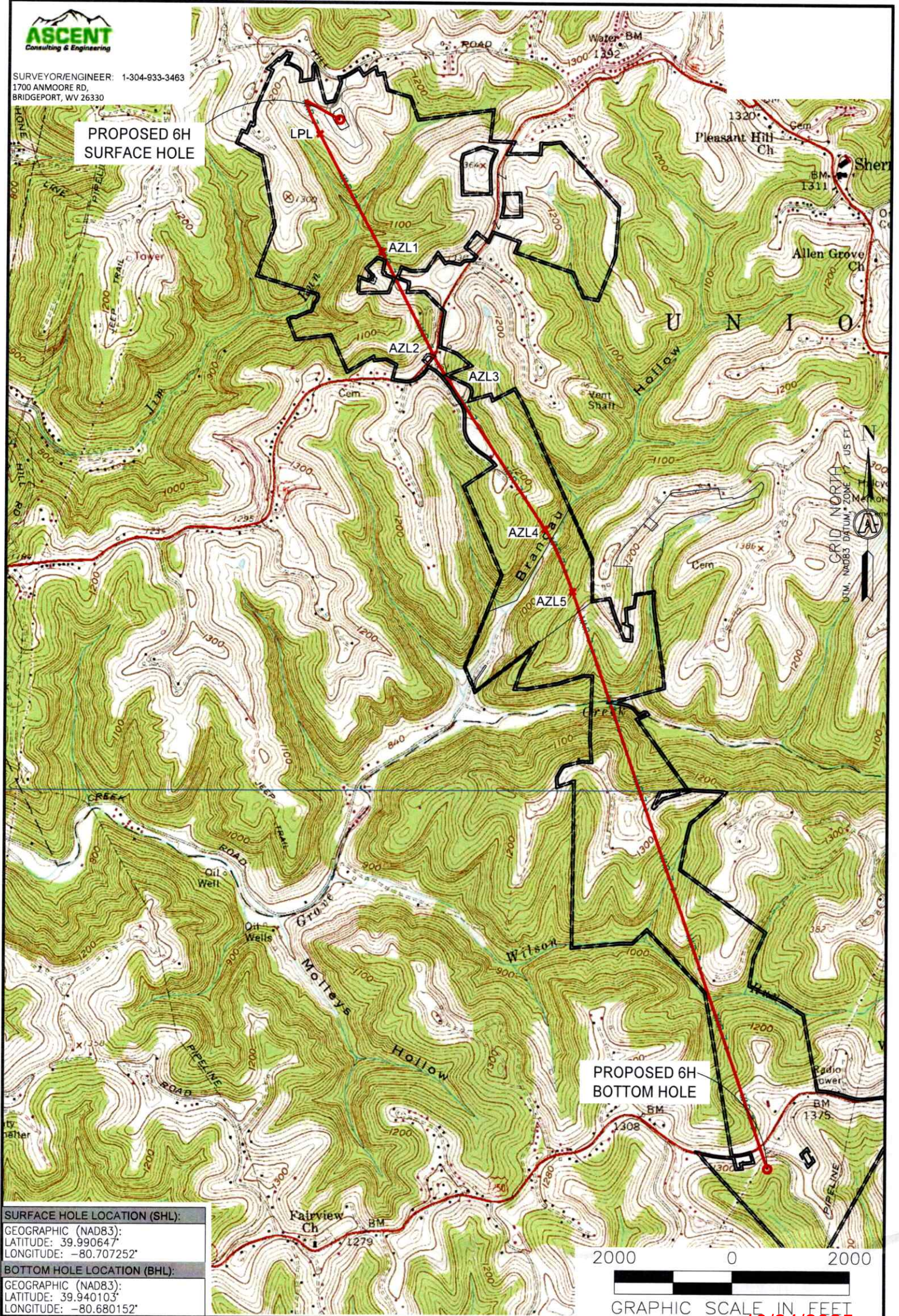
Expand Energy – CONFIDENTIAL

10/24/2025



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

PROPOSED 6H
SURFACE HOLE



SURFACE HOLE LOCATION (SHL):

GEOGRAPHIC (NAD83):
LATITUDE: 39.990647°
LONGITUDE: -80.707252°

BOTTOM HOLE LOCATION (BHL):

GEOGRAPHIC (NAD83):
LATITUDE: 39.940103°
LONGITUDE: -80.680152°

NOTES ON SURVEY

1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- FLOOD PLAIN
- ACCESS ROAD
- PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- LEASE BOUNDARY
- PROPOSED PATH

WELL OPERATOR:
SWN PRODUCTION COMPANY, LLC

ADDRESS:
1300 FORT PIERPONT DRIVE, SUITE 201

SURFACE OWNER:
FRANK J. & LORI A. LONGWELL

WELL (FARM) NAME:
SERAFIN ORTIZ MSH

COUNTY - CODE
MARSHALL - 51

USGS 7 1/2 QUADRANGLE MAP NAME
MOUNDSVILLE, WV

WELL #
6H

SERIAL #
XXXX

DISTRICT;
UNION

LATITUDE: 40°00'00"

SURFACE HOLE 11,368'

LATITUDE: 39°57'30"

BOTTOM HOLE 3780'



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

SURFACE HOLE LOCATION (SHL):

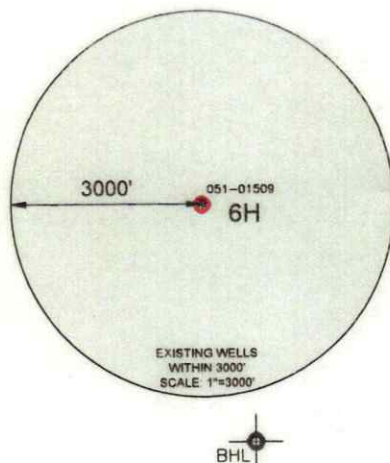
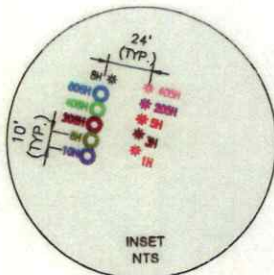
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,426,760.132
EASTING: 524,992.273

LANDING POINT (LPL):

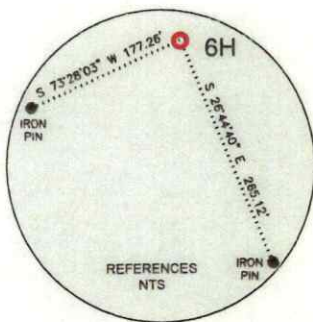
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,426,682.929
EASTING: 524,886.203

BOTTOM HOLE LOCATION (BHL):

UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,421,158.235
EASTING: 527,326.037



LONGITUDE: 80°40'00" SURFACE HOLE 3.406' BOTTOM HOLE 6.639'



LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 24°32'25" W	340.94'	SHL TO MONUMENT	IRON ROD
L2	N 01°02'25" E	694.18'	SHL TO MONUMENT	IRON ROD
L3	S 53°57'04" W	430.42'	SHL TO LPL	SHL TO LPL

LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L3	S 53°57'04" W	430.42'	1,309.47'	SHL TO LPL
L4	S 28°16'28" E	2,346.57'	2,346.71'	LPL TO AZL1
L5	S 26°55'54" E	2,015.26'	2,015.26'	AZL1 TO AZL2
L6	S 31°13'54" E	544.03'	544.32'	AZL2 TO AZL3
L7	S 33°24'47" E	3,098.62'	3,098.62'	AZL3 TO AZL4
L8	S 24°26'48" E	1,202.21'	1,205.93'	AZL4 TO AZL5
L9	S 19°03'23" E	10,702.73'	10,702.73'	AZL5 TO BHL

WELL RESTRICTIONS

1. NO OCCUPIED DWELLINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
2. NO AGRICULTURE BUILDINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
3. NO WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 250 FEET OF PROPOSED WELL.
4. PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
5. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
6. NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON UTM, NAD83 DATUM, ZONE 17, US FT.
2. WELL LAT/LONG ESTABLISHED BY DIRECT GPS NAD '83.
3. BOUNDARIES SHOWN ARE TAKEN FROM TAX MAPS, DEEDS, AND FIELD SURVEY. THIS DRAWING IS NOT REPRESENTATIVE OF A FULL BOUNDARY SURVEY.
4. SURFACE OWNER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF OHIO COUNTY IN OCTOBER OF 2021.
5. WELLS SHOWN ARE TAKEN FROM RECORDS OF WVDEP.

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



P.S. 983

06-12-2025



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

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25034

MINIMUM
DEGREE OF
ACCURACY: 1/200
PROVEN
SOURCE OF
ELEVATION: SURVEY
GRADE GPS
(NAVD 88, US FT)

COMPANY:

expand

SERAFIN ORTIZ MSH

OPERATOR'S WELL #: 6H

API WELL #: 47 51 02559
STATE COUNTY PERMIT

WELL TYPE: OIL ☐ WASTE DISPOSAL ☐ PRODUCTION ☒ DEEP ☐ GAS ☒ LIQUID INJECTION ☐ STORAGE ☐ SHALLOW ☒
WATERSHED: UPPER OHIO-WHEELING ELEVATION: 1,279
DISTRICT: UNION COUNTY: MARSHALL QUADRANGLE: MOUNDSVILLE 7.5', WV
SURFACE OWNER: FRANK J. & LORI A. LONGWELL ACREAGE: ±44.949
OIL & GAS ROYALTY OWNER: SERAFIN T. ORTIZ, AS TRUSTEE OF THE SERAFIN T. ORTIZ TRUST AGREEMENT DATED JULY 31, 1996 ACREAGE: ±44.949
DRILL ☒ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒ PLUG OFF OLD FORMATION ☐ PERFORM NEW FORMATION ☒
CONVERT ☐ PLUG & ABANDON ☐ CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY) 10/24/2025
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,456 TVD 26,607 TMD

WELL OPERATOR: EXPAND OPERATING, LLC

DESIGNATED AGENT: BRITTANY WOODY

ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201

ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201

CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- EXISTING WATER WELL
- EXISTING SPRING

- SURVEYED BOUNDARY
- DRILLING UNIT
- LEASE BOUNDARY
- PROPOSED PATH

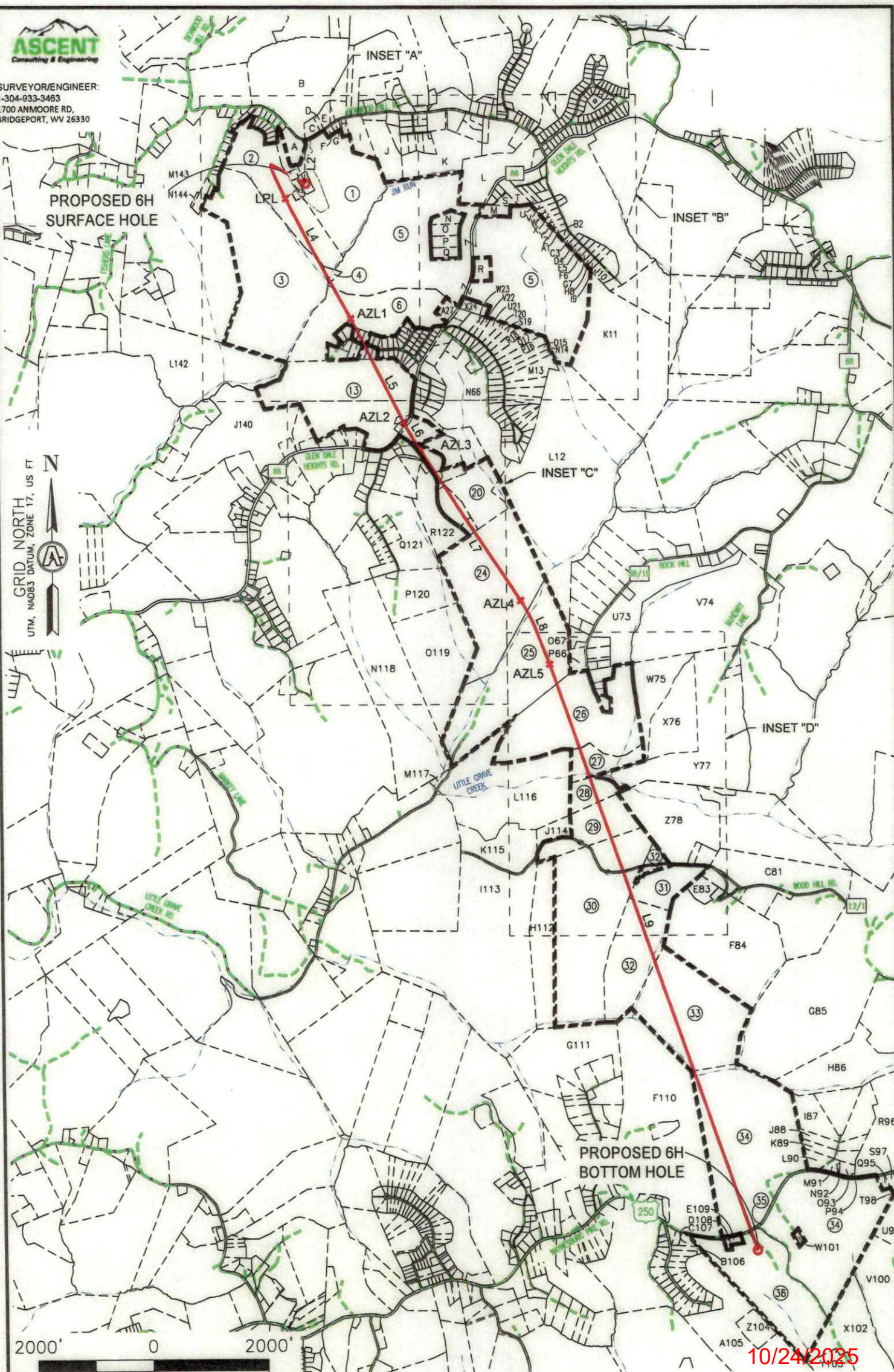
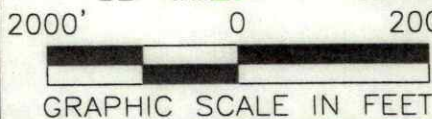
REVISIONS:

DATE: 06-12-2025
FILE NO:
DRAWN BY: TMF
SCALE: 1" = 2000'
DRAWING NO: 3048
WELL LOCATION PLAT 1



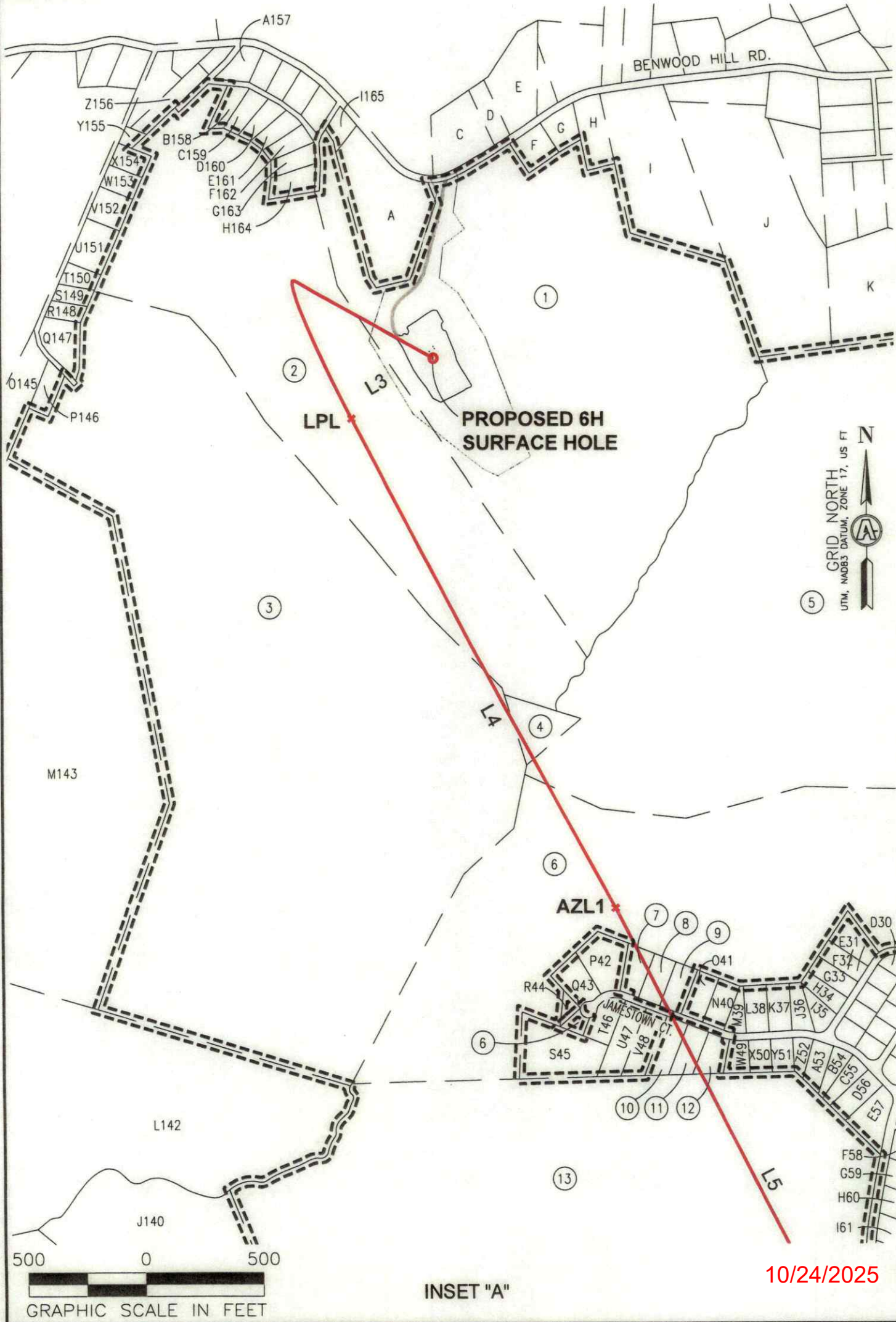
SURVEYOR/ENGINEER:
1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

PROPOSED 6H
SURFACE HOLE



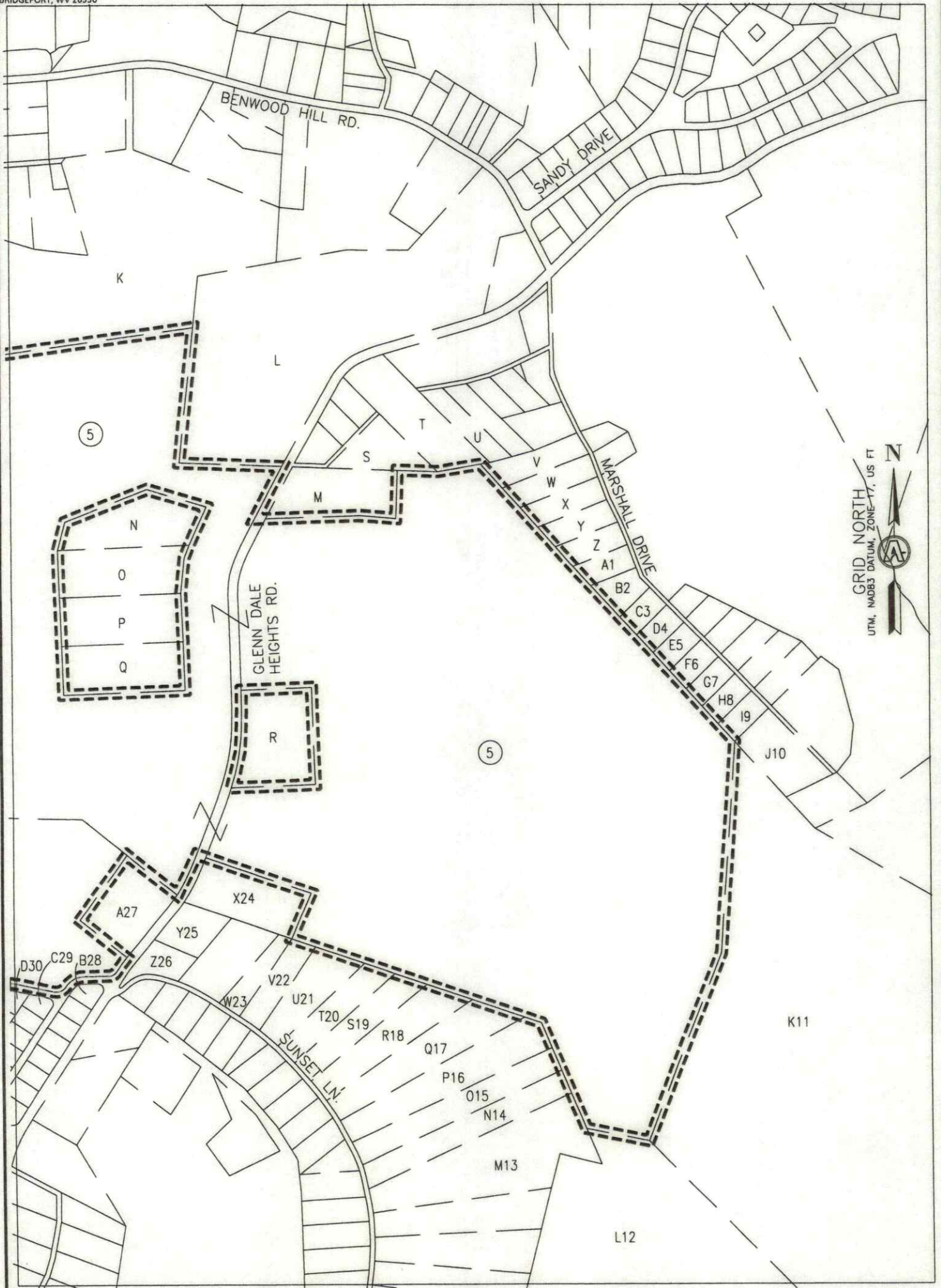


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BRIDGEPORT, WV 26330





SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330



GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US FT

500 0 500
GRAPHIC SCALE IN FEET

INSET "B"

10/24/2025

REVISIONS:

COMPANY:

expand

OPERATOR'S

SERAFIN ORTIZ MSH

DATE: 06-12-2025

WELL #:

6H

DRAWN BY: TMF

DISTRICT:
UNION

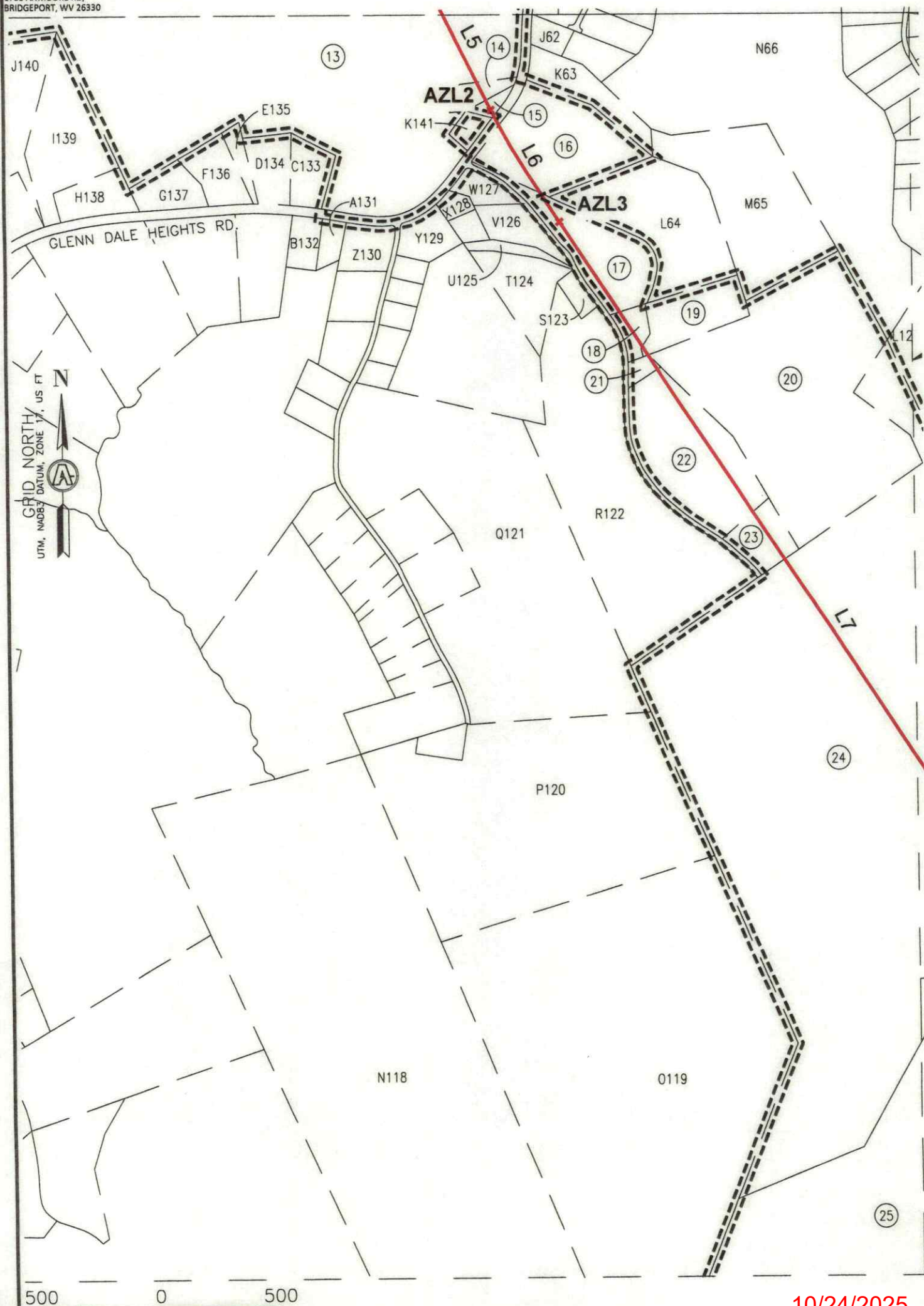
COUNTY:
MARSHALL

STATE:
WV

SCALE: 1"=500'

DRAWING NO: 3048

WELL LOCATION PLAT 3



10/24/2025

INSET "C"

REVISIONS:

COMPANY:



OPERATOR'S

SERAFIN ORTIZ MSH

DATE: 06-12-2025

WELL #:

6H

DRAWN BY: TMF

DISTRICT:
UNION

COUNTY:
MARSHALL

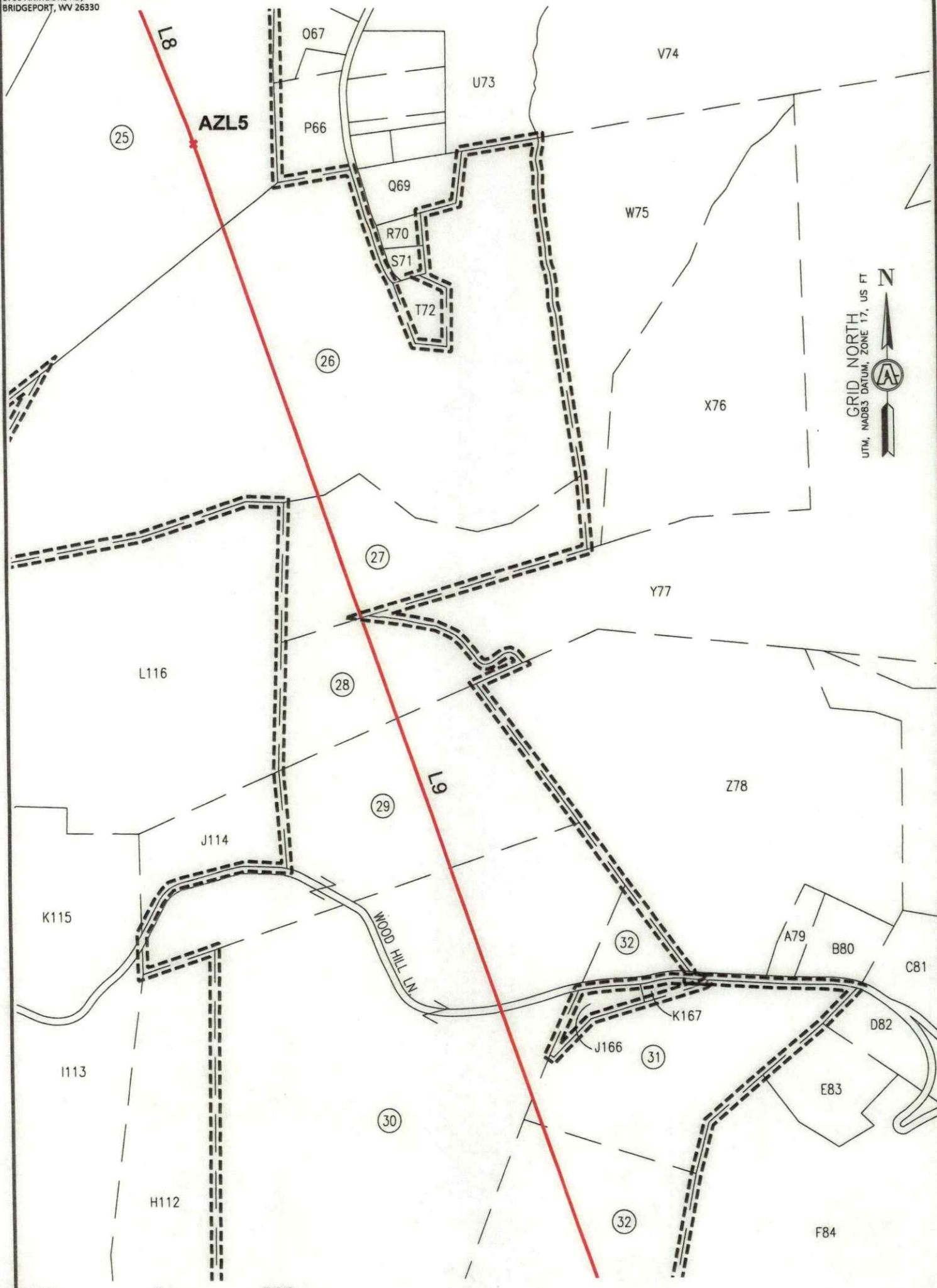
STATE:
WV

SCALE: 1"=500'

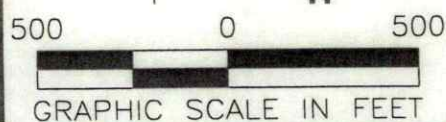
WELL LOCATION PLAT 4



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330



GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US FT



INSET "D"

10/24/2025

REVISIONS:	COMPANY:			
	OPERATOR'S			DATE: 06-12-2025
	WELL #:			DRAWN BY: TMF
	DISTRICT:			SCALE: 1"=500'
	UNION			DRAWING NO: 3048
	COUNTY:			WELL LOCATION PLAT 5
MARSHALL			STATE:	
			WV	



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

WELL BORE TRACTS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	LONGWELL FRANK J & LORI A(S) / SERAFIN T. ORTIZ, AS TRUSTEE OF THE SERAFIN T. ORTIZ TRUST AGREEMENT DATED JULY 31, 1996 (R)	13-6-49
TRACT	SURFACE OWNER (S)	TAX PARCEL
2	HAUGHT GEORGE ET UX	13-6-51.1
3	LIPINSKI ERIC R & LORIE A	13-6-51
4	HAUGHT GEORGE ET UX	13-6-50.1
5	COOK DAVID J & ALICE M - TOD	13-6-50
6	DEFIBAUGH RONALD L & SANDRA	13-11-27.1
7	PRICE AMANDA D	13-11C-42
8	SCHMIDT ROBERT R ET UX	13-11C-43
9	BEUCKE DONALD W ET UX - TOD	13-11C-44
10	CUNNINGHAM GERALD E ET UX	13-11C-36
11	THORNTON LEE M & FAITH DUNN	13-11C-35
12	PATRICK BRENT & JENNIFER	13-11C-34
13	STEPHENS JAMES J & JAMES DANIEL	13-11-25
14	STEPHENS BEVERLY J - LIFE	13-11-25.4
15	STEPHENS BEVERLY J - LIFE	13-11-26.1
16	PRENAT DOROTHY KAY	13-11-30
17	MARKEY-TEKELY VICKIE IRREV TR & MARKEY SEAN IRREV TRUST	13-11-31
18	BAKER JOSEPH H	13-11-34.2
19	BAKER JOSEPH H	13-11-32.3
20	MILLER WILLIAM S & SANDRA M	13-11-32
21	KLAGES MARTHA M EST	13-11-34.1
22	MILLER WILLIAM S & SANDRA M	13-11-34
23	YOUNG DENNIS W JR & HOSKINS-YOUNG CHANTEL	13-11-33
24	LONGWELL FRANK & LORI	13-10-1
25	DOBBS JULIE A	13-13-1
26	MURPHY BONNIE L IRREVOCABLE TR	13-13-5
27	WEAVER GEORGE F II ET UX	13-13-25
28	DOLGOVSKIJ MICHELE	13-13-4
29	HELLER FRANKLIN C II ET AL	14-4-2
30	HELLER FRANKLIN C II ET UX	14-4-3
31	HELLER FRANKLIN C II ET UX	14-4-4.2
32	HELLER FRANKLIN C II ET UX	14-4-4
33	HELLER FRANKLIN C II ET UX	14-4-8
34	RIGGS RALPH EST	14-7-38
35	STATE OF WEST VIRGINIA, DEPARTMENT OF TRANSPORTATION	WAYNESBURG PIKE RD.
36	LAMBIE RICHARD F JR & JANE DAFOE - TOD	14-7-38.3

10/24/2025

REVISIONS:	COMPANY:		
	OPERATOR'S	SERAFIN ORTIZ MSH	
	WELL #:	6H	
	DISTRICT:	COUNTY:	STATE:
	UNION	MARSHALL	WV
			DATE: 06-12-2025
			DRAWN BY: TMF
			SCALE: N/A
			DRAWING NO: 3048
			WELL LOCATION PLAT 7



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	SWN PRODUCTION COMPANY LLC	13-6-49.2
B	VAN SCYOC PATRICK A & FAITH M	13-6-17
C	WILT VINCENT E	13-6-18
D	TOLER MARGARET - LIFE	13-6-19
E	HUTCHISON JAMES A & HOLLY M	13-6-20
F	NIXON MADISON M	13-6-49.1
G	NIXON MADISON M	13-6-48
H	VANDYNE ZACHARY D	13-6-47
I	CRALL MICHAEL D & LISA DAWN	13-6-46
J	O'NEAL CYNTHIA	13-6-45
K	HULL GAYLERD F & SHARON	13-6-23.11
L	CALDWELL CHRISTIAN A	13-7-1.1
M	KELLER BRIAN J & JANET	13-6-50.5
N	BURKE ANDREA M & JAMES D	13-6-50.6
O	COOK DAVID J & ALICE - TOD	13-6-50.8
P	COOK STEVEN M & SHANNON R	13-6-50.3
Q	COOK SUZANNE	13-6-50.4
R	KELLER WILLIAM J - TOD	13-6-50.2
S	HECKMAN FLORA BELLE - TOD	13-7C-18
T	VANNEST ALEX M & HOWARD ALLIE R	13-7C-17
U	FINNEGAN GEORGE ROBERT	13-7C-16
V	COX MARY FRANCES EST	13-7C-10
W	HARBISON WALTER L ET UX	13-7C-9
X	HARBISON WALTER L ET UX	13-7C-8
Y	RENZELLA PATRICIA R	13-7C-7
Z	DEL RE MARVIN E ET UX	13-7C-6
A1	GUMP MARTIN L	13-7C-5
B2	PEACE NATHANIEL O & ELAINE M	13-7C-4
C3	PEACE NATHANIEL O & ELAINE M	13-7C-3
D4	NOVICK RYAN J & ALEXANDRA P	13-7C-2
E5	ELSON LINDA S & SAMUEL F	13-7C-1
F6	SEACHRIST MARGARET TURNER - TOD	13-7-44
G7	SEACHRIST MARGARET TURNER - TOD	13-7-45
H8	YOUNG CAROL L	13-7-51
I9	YOUNG CAROL L	13-7-50
J10	ALLEN RICHARD C ET UX	13-7-52
K11	VARGO CINDY L ET AL	13-10-3
L12	MARSHALL LAND LLC	13-10-2
M13	MOOSMAN MATTHEW G	13-10A-14
N14	WARD DEREK J	13-10A-13
O15	HUNTER WILLIAM D & MARLENE - TOD	13-10A-12
P16	HILL PATRICIA J	13-10A-11
Q17	HILL PATRICIA J	13-10A-10
R18	HILL PATRICIA J	13-10A-9
S19	HALL JUSTIN & MADELYN HOPKINS	13-10A-8
T20	HULL GAYLERD E	13-10A-7
U21	BRANNAN BRICIE GREER	13-10A-6
V22	MCCLURE DEVAN & LINDSEY CAIN	13-10A-5
W23	FECAT WALTER J JR ET UX	13-10A-4
X24	BRAUTIGAN RANDY & KAYLA	13-6-50.7
Y25	HENDRICKSON WILMA C	13-10A-2
Z26	HENDRICKSON WILMA C	13-10A-1
A27	DEFIBAUGH RONALD L	13-11-27.8
B28	SADA DAVID JUDE & MARY LYNN	13-11C-22
C29	HILT EDWARD D	13-11C-21
D30	STEWART TREVOR R & GUZEK ANDREA	13-11C-11
E31	MANIAR BHARAT C ET UX - TOD	13-11C-10
F32	BENNETT RACHEL L & JESSE R	13-11C-9
*HIGHLIGHTED PARCELS MAY BE IMPACTED DURING DRILLING.		

10/24/2025

REVISIONS:

COMPANY:



OPERATOR'S

SERAFIN ORTIZ MSH

DATE: 06-12-2025

WELL #:

6H

DRAWN BY: TMF

DISTRICT:
UNION

COUNTY:
MARSHALL

STATE:
WV

SCALE: N/A
DRAWING NO: 3048
WELL LOCATION PLAT 7



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD.
BRIDGEPORT, WV 26330

TRACT	SURFACE OWNER	TAX PARCEL
G33	LEONARD SHEREE	13-11C-8
H34	NEAL KERRY R & LACEY M	13-11C-7
I35	GARRETT PATRICK A ET UX	13-11C-6
J36	ROBERTS SAMUEL C	13-11C-50
K37	CONNER FRANCES A - TOD	13-11C-49
L38	HAWK ROBERT & CHARLOTTE	13-11C-48
M39	ROBBINS DAVID M & MARCIE M	13-11C-47
N40	ZORN PAMELA M	13-11C-46
O41	DOUGHERTY KARA MCGILTON	13-11C-45
P42	FAULSTICK CHAD M	13-11C-41
Q43	DERROW CLINT D & BRITTANY N	13-11C-40
R44	DERROW CLINT D & BRITTANY N	13-11C-51
S45	MARSHALL CO SEWERAGE DIST	13-11-27.4
T46	ANGLEMYER STEVE & VERONICA	13-11C-39
U47	HILLBERRY JILL C	13-11C-38
V48	BIRCH BRITTANY JO & ROBERT M	13-11C-37
W49	FECAT FREDERICK R ET UX	13-11C-33
X50	DOYLE PATRICK J ET UX	13-11C-32
Y51	STORM H WILLIAM ET UX	13-11C-31
Z52	MILLER THOMAS W & MARY C	13-11C-30
A53	MILLER THOMAS W JR & MICHELLE M	13-11C-5
B54	HARDMAN PAMELA K	13-11C-4
C55	FECAT ZACHARY J	13-11C-3
D56	FECAT ZACHARY J	13-11C-2
E57	J & T ENTERPRISES	13-11C-1
F58	RICHARDSON GREIGH G & LAURA A	13-11E-1
G59	RICHARDSON GREIGH G & LAURA A	13-11E-2
H60	JURA JOHN F ET UX - TOD	13-11E-3
I61	MEEKER JOANN ELLEN & JAMES R	13-11E-4
J62	MEEKER JAMES R & JOANN ELLEN	13-11E-5
K63	JOHNSON RICHARD BLAINE	13-11-29
L64	MARKEY-TEKELY VICKIE IRREV TR & MARKEY SEAN IRREV TRUST	13-11-32.1
M65	PRENAT DOROTHY KAY	13-11-28
N66	MULDREW PATRICIA A - TOD	13-11-27
O67	CONNER SHARON	13-10-45.5
P68	FLOWERS DIANA L & GARLAND W	13-10-45.4
Q69	ELLIOTT MELISSA R & CHARLES R	13-13-5.1
R70	MURPHY BONNIE L - TOD	13-13-5.2
S71	MURPHY BONNIE L - TOD	13-13-5.3
T72	KASTEN ANITA SELLERS ET VIR	13-13-5.4
U73	ROTH JACOB S	13-10-43.8
V74	ROTH FAYE E	13-10-42
W75	ROTH FAYE E	13-13-5.5
X76	WEAVER GEORGE & SANDRA IRREVOCABLE TRUST	13-13-6
Y77	WEAVER GEORGE & SANDRA IRREVOCABLE TRUST	13-13-7
Z78	MASON MICHAEL E EST	14-4-5
A79	MASON MICHAEL E EST & TASHA L	14-4-5.3
B80	HELLER FRANKLIN C II ET UX	14-4-5.1
C81	MASON ROLAND B	14-4-6
D82	HELLER FRANKLIN C II ET UX	14-4-6.2
E83	HELLER FRANKLIN C II ET UX	14-4-7.1
F84	HELLER FRANKLIN C II ET UX	14-4-7
G85	CONKLE BRENT A & AUDRA R	14-4-9
H86	BURKETT NATHAN NEIL JR	14-4-10
I87	DOYLE RICHARD L ET UX - VANSYOC DOUGLAS M & KRISTEN L	14-4-40.5
J88	DOYLE RICHARD L ET UX - VANSYOC DOUGLAS M & KRISTEN L	14-4-40.7
K89	MERCER CURTIS D - TOD	14-4-40.10
L90	PETTIT RONALD A & MARY	14-4-40
M91	BLAKE JAMES H & APRIL D	14-4-40.2

*HIGHLIGHTED PARCELS MAY BE IMPACTED DURING DRILLING.

10/24/2025

REVISIONS:

COMPANY:

expand

OPERATOR'S

SERAFIN ORTIZ MSH

DATE: 06-12-2025

WELL #:

6H

DRAWN BY: TMF

DISTRICT:
UNION

COUNTY:
MARSHALL

STATE:
WV

SCALE: N/A

DRAWING NO: 3048

WELL LOCATION PLAT 7



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

TRACT	SURFACE OWNER	TAX PARCEL
N92	WENDT CHARLES W & DAISY V	14-4-40.1
O93	WENDT CHARLES W & DAISY V	14-4-41
P94	MANUFACTURERS LIGHT & HEAT	14-4-41.1
Q95	PAN HANDLE FARMERS MUTUAL INS CO OF W VA	14-7-38.4
R96	GUZEK DANIEL D	14-4-38
S97	MOBLEY ROBERT B	14-5-47
T98	MOBLEY ROBERT B	14-5-46
U99	DOYEL DONNA S - TOD & DEBORAH L HUMMEL	14-5-44
V100	WRIGHT KEYSTONE TRUST	14-5-48
W101	RIGGS DONALD GREGORY	14-7-38.5
X102	SCHWING JERRY E ET UX	14-7-39
Y103	SCHWING TRAVIS W & MELISSA E	14-7-40
Z104	MILLER PHILLIP H & TRACY D	14-7-41.3
A105	TOMS RUN LLC	14-7-41
B106	SANTONAS JACOB W & JADE A	14-7A-29
C107	BLANKENSHIP EDWARD J & VALERIE L	14-7A-30
D108	HANLEY MARY L	14-7-38.2
E109	LAMBIE RICHARD F JR	14-7-38.1
F110	MASON DALE F & SANDRA L	14-4-43
G111	FRANCIS RONDA & HAROLD LEE	14-3-10
H112	HELLER FRANKLIN C II ET AL	14-3-9
I113	HELLER FRANKLIN C II & MARTHA ET AL	14-3-8
J114	HELLER FRANKLIN C II ET AL	14-4-1
K115	HELLER FRANKLIN C II ET AL	14-3-7
L116	DOLGOVSKIJ MICHELE	13-13-3
M117	SCHULTZ TIMOTHY E & CHARLA A	13-13-2
N118	CATO MICHAEL S ET UX	13-12-39
O119	BAKER ELDON	13-12-40
P120	BAKER ELDON W	13-12-40.1
Q121	RICHMOND JAMES DAVID	13-11-44
R122	STEPHENS JERALD L ET UX	13-11-44.1
S123	MARKEY-TEKELY VICKIE IRREV TR & MARKEY SEAN IRREV TRUST	13-11-35
T124	MARKEY-TEKELY VICKIE IRREV TR & MARKEY SEAN IRREV TRUST	13-11-44.2
U125	MARKEY-TEKELY VICKIE IRREV TR & MARKEY SEAN IRREV TRUST	13-11-32.2
V126	LOGSTON RICHARD S & MIMI S	13-11-36
W127	MAGERS WILLIAM L & MARY SUE	13-11-36.3
X128	LOGSTON RICHARD S & MIMI S	13-11-36.1
Y129	LEITT PAMELA J REVOCABLE LIVING TRUST	13-11-38
Z130	RICHMOND TIMOTHY A & TERESA L	13-11-39
A131	CALDWELL ALBERT L ET UX	13-11-47.2
B132	CALDWELL ALBERT L ET UX	13-11-47.1
C133	MILLER NEIL D ET UX	13-11-25.3
D134	MILLER NEIL D	13-11-25.2
E135	SCHRACK JUSTIN A & JAMES C	13-11-25.1
F136	SCHRACK JUSTIN A & JAMES C	13-11-24
G137	HICKS MICHAEL J	13-11-24.1
H138	TERRY PATRICIA EST	13-11-23
I139	TERRY PATRICIA EST	13-11-22.7
J140	OTTE MARK D ET UX	13-11-22
K141	STEPHENS BEVERLY J	13-11-26
L142	JONES MICHAEL BRENT	13-6-55
M143	FISHER EARL M ET AL	13-6-53
N144	VANSCYOC ARMOND RAY JR	13-6-53.2
O145	VANSCYOC ARMOND RAY JR	13-6B-32
P146	MELISSINOS KYRIAKI EST	13-6B-33
Q147	KOONTZ CARL E	13-6B-31
R148	KOONTZ CARL E	13-6B-30
S149	KOONTZ CARL E	13-6B-29
T150	MERINAR & KOONTZ CO	13-6B-28
*HIGHLIGHTED PARCELS MAY BE IMPACTED DURING DRILLING.		

10/24/2025

REVISIONS:	COMPANY:		
	OPERATOR'S	SERAFIN ORTIZ MSH	DATE: 06-12-2025
	WELL #:	6H	DRAWN BY: TMF
	DISTRICT:	COUNTY:	SCALE: N/A
	UNION	MARSHALL	DRAWING NO: 3048
		STATE:	WV
			WELL LOCATION PLAT 7



SURVEYOR/ENGINEER: 1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

TRACT	SURFACE OWNER	TAX PARCEL
U151	CARNEY DANIEL P ET UX	13-6B-27
V152	CARNEY DANIEL P ET UX	13-6B-26
W153	CARNEY DANIEL P ET UX	13-6B-25
X154	BAKER JAMES F	13-6B-24
Y155	BAKER JAMES F	13-6B-23.1
Z156	RICH JOSEPH A ET UX ESTS	13-6B-23
A157	JONES ALEXA M	13-6B-20
B158	HAUGHT GEORGE & MARY	13-6B-19
C159	JAMES ROBERT A JR & WENDY L	13-6B-18
D160	JONES DAKOTA M & ELISHA GLENDENING	13-6B-15
E161	SIMMONS MICHAEL J	13-6B-14
F162	MCDADE ROBERT D	13-6B-11
G163	HAUGHT GEORGE ET UX	13-6B-10
H164	HAUGHT GEORGE ET UX	13-6B-9
I165	HAUGHT GEORGE WILLIAM II & SHEILA A	13-6-49.3
J166	HELLER FRANKLIN C II & MARTHA J & FRANKLIN C III	14-4-4.3
K167	HELLER FRANKLIN C II & MARTHA JEAN	14-4-4.1
*HIGHLIGHTED PARCELS MAY BE IMPACTED DURING DRILLING.		

10/24/2025

REVISIONS:	COMPANY:				
	OPERATOR'S			SERAFIN ORTIZ MSH	
	WELL #:			6H	
	DISTRICT:		COUNTY:	STATE:	DATE: 06-12-2025
	UNION		MARSHALL	WV	DRAWN BY: TMF
					SCALE: N/A
					DRAWING NO: 3048
					WELL LOCATION PLAT 7

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Exhibit "A"				

*Co-tenancy utilization - At least 75% of the royalty owners have consented to the lawful use or development of the oil or natural gas mineral property on the tract. The interests of the remaining co-tenants will be secured pursuant to the Co-tenancy Modernization and Majority Protection Act.

*Horizontal well unit utilization - Subject to unitization filing with the West Virginia Oil and Gas Conservation Commission.

*Potentially Impacted Parcels - Parcels that may be impacted during drilling.

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

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: EXPAND OPERATING, LLC

By: _____

Its: SR. STAFF LANDMAN

<div>EXHIBIT "A"</div> <div>Sandra Ortiz MSH 6H</div> <div>Marshall County, West Virginia</div> <div>Attached to and made a part of the State of West Virginia Oil and Gas Permit Forms, WW-6A1, by Expand Operating LLC, Operator</div>						
#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG	% INTEREST NOT LEASED BY SWN PRODUCTION COMPANY, LLC
1	13-6-49	Sandra T. Ortiz and Martha G. Ortiz, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	683/84 331/10 *See letter	0.00%
2	13-6-51.1	George Haight and Mary Haight, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	756/43 331/10 *See letter	0.00%
3	13-6-51	Royalty Owner (subject to unitization filing dated 08/01/2025)	N/A	N/A	N/A	39.81%
		Antia L. Clark, widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1171/446 *See letter	
		Antonia Derra Howarth, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1171/456 *See letter	
		Christopher L. Howarth, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1174/313 *See letter	
		Edward A. Chesick, Jr. and Patty L. Chesick, his wife	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1613/255 *See letter	
		James B. Howarth, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1171/451 *See letter	
		James H. Cunningham, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	968/167 *See letter	
		Janine Crowley, f/k/a Janine Howarth Bruce, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1208/562 *See letter	
		John F. Cunningham, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	968/162 *See letter	
		Judith McNabb, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	968/152 *See letter	
		Linda Lee Dawson, widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/245 *See letter	
		Perry J. Polinsky, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/250 *See letter	
		Richard A. Polinsky and Barbara D. Polinsky, his wife	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/245 *See letter	
		Richard W. Chesick, a/k/a Rick Chesick	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1205/54 *See letter	
		Robert C. Polinsky, a widower	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/255 *See letter	
		Susan Ann Phillips, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/260 *See letter	
		Tammy J. Iams, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1207/612 *See letter	
		Thomas J. Iams, a/k/a Thomas J. Iams, Jr., single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/270 *See letter	
		William Lantz and Carolyn D. Lantz, husband and wife	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	968/157 *See letter	
		William D. Polinsky, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/240 *See letter	
		Elmore Cross, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	678/66 331/10 *See letter	
		Judy Penick, a married woman doing business in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	678/72 331/10 *See letter	
		Alynn Robin Burkhardt, a married woman doing business in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	678/75 331/10 *See letter	
		Charles E. Borchart, a married man doing business in his sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	678/69 331/10 *See letter	
		Jeffrey A. Borchart	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	678/517 331/10 *See letter	
4	13-6-50.1	Royalty Owner (subject to unitization filing dated 08/01/2025)	N/A	N/A	N/A	37.04%
		Angela Burns, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	757/283 331/10 *See letter	
		Antonia Derra Howarth, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	752/221 331/10 *See letter	
		Christopher Howarth, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	752/27 331/10 *See letter	
		Geraldine Chesick, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	724/235 331/10 *See letter	
		Gilbert E. Clark, Jr. and Anita Clark, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	749/440 331/10 *See letter	
		James Duke, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	757/291 331/10 *See letter	
		James H. Cunningham, a married man dealing in his sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	722/880 331/10 *See letter	
		James Howarth, a married man dealing in his sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	752/22 331/10 *See letter	
		Janine Howarth Bruce, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	753/490 331/10 *See letter	
		John F. Cunningham, a married man dealing in his sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	722/584 331/10 *See letter	
		Judith McNabb, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	749/445 331/10 *See letter	
		Linda Lee Dawson, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	760/4 331/10 *See letter	
		Michael Duke, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	757/298 331/10 *See letter	
		William Lantz and Carolyn D. Lantz, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	757/594 331/10 *See letter	
		Perry J. Polinsky, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/250 *See letter	
		Richard A. Polinsky and Barbara D. Polinsky, his wife	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/245 *See letter	
		Robert C. Polinsky, a widower	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/255 *See letter	
		Susan Ann Phillips, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/260 *See letter	
		Tammy J. Iams, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1207/612 *See letter	
		Thomas J. Iams, a/k/a Thomas J. Iams, Jr., single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/270 *See letter	
		William D. Polinsky, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1013/240 *See letter	
5	13-6-50	David J. Cook, married, dealing in his sole and separate interest	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	684/547 331/10 *See letter	0.00%
		Ruth Ann Keller, married, dealing in her sole and separate interest	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	683/433 331/10 *See letter	
6	13-11-27.1	Timothy O. Blaney and Elizabeth B. Blaney, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	684/541 331/10 *See letter	0.00%
		Rodney D. Blaney and Wanda F. Blaney, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	684/558 331/10 *See letter	
7	13-11C-42	William C. Beasley and Rita G. Beasley, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	720/261 331/10 *See letter	0.00%
8	13-11C-43	Robert R. Schmidt and Connie Sue Schmidt, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	720/281 331/10 *See letter	0.00%
9	13-11C-44	Donald W. Beusck and Ellen K. Beusck, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	720/285 331/10 *See letter	0.00%
10	13-11C-36	Gerald E. Cunningham and Maria M. Cunningham, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	718/235 331/10 *See letter	0.00%
11	13-11C-35	Arlie W. Carpenter, a single man	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	724/447 331/10 *See letter	0.00%
		Linda Sue Miller, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	726/271 331/10 *See letter	
12	13-11C-34	Evelyn R. Johnson, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	752/477 331/10 *See letter	0.00%
13	13-11-25	James D. Stephens, married, dealing in his separate property, and James J. Stephens, married, dealing in his separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1152/429 *See letter	0.00%
14	13-11-23.4	John M. Stephens and Beverley J. Stephens, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	721/242 331/10 *See letter	0.00%
15	13-11-26.1	John M. Stephens and Beverley J. Stephens, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	721/242 331/10 *See letter	0.00%

10/24/2025

EXHIBIT "A" Serafin Ortiz MSH 6H Marshall County, West Virginia						
Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by Expand Operating LLC, Operator						
#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG	% INTEREST NOT LEASED BY SWN PRODUCTION COMPANY, LLC
16	13-11-30	Royalty Owner (subject to limitation filing dated 08/01/2025)	N/A	N/A	N/A	26.65%
		Alfetta J. Rucker, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	779/424 331/10 *See letter	
		Alwanda Latta Cookley, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	777/334 331/10 *See letter	
		Arthur William Oakland, Jr., widower	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	777/328 331/10 *See letter	
		Benedict Clement Frohnagel and Nita J. Frohnagel, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	781/83 331/10 *See letter	
		Bessie Ganto Clark, widow, appearing herein by and through Fred Harrison, her Agent and Attorney in Fact, by Power of Attorney unrecorded in Lake County, FL	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	781/110 331/10 *See letter	
		Betty Leigh Pearce, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	781/111 331/10 *See letter	
		Bryan S. Ronesburg and Johnnie Lynn Ronesburg, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	745/552 331/10 *See letter	
		Cathy Rae Benisford, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	784/226 331/10 *See letter	
		Clifford Denis and Susanna M. Denis, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	781/109 331/10 *See letter	
		Cody Duhon Hilson, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	740/162 331/10 *See letter	
		David Eugene Clark and Nellie Joann Clark, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	781/117 331/10 *See letter	
		Donald Edward Sobrey, a widower	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	775/466 331/10 *See letter	
		Dottie Hersman, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	781/102 331/10 *See letter	
		Douglas E. Courtwright and Jessamine Courtwright, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	779/436 331/10 *See letter	
		Elaie Nazam, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	777/316 331/10 *See letter	
		Floyd R. Clark and Edna Dianne Clark, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	739/84 331/10 *See letter	
		Frances Courtwright, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	784/227 331/10 *See letter	
		Fred J. Marco, widower	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	777/322 331/10 *See letter	
		Gene Ringle and Doris Ringle (fka Doris Nickleson), husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/110 331/10 *See letter	
		George N. McElvain, a married man dealing in his sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/254 331/10 *See letter	
		Gregory Stausser and Margaret Stausser, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	745/6 331/10 *See letter	
		Harry Clifford Borge, Jr., single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/408 331/10 *See letter	
		Harold S. Clark, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/343 331/10 *See letter	
		James A. Swain and Mary Ann Swain, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/344 331/10 *See letter	
		Jay Leroy Rine and Carol Jean Rine, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	784/221 331/10 *See letter	
		Jerry R. Ruthers and Jacquelynne E. Ruthers, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/246 331/10 *See letter	
		Joseph B. Dodd and Sherry Lee Dodd, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/342 331/10 *See letter	
		Joseph L. Chambers and Anna M. Chambers, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/378 331/10 *See letter	
		Joseph W. Allen, widower	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/377 331/10 *See letter	
		Judy Carol Nierardo, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/409 331/10 *See letter	
		Karen Courtwright, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/343 331/10 *See letter	
		Karen Jean Chambers, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/245 331/10 *See letter	
		Leona McElvain, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	745/442 331/10 *See letter	
		Linda M. Ross, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/9 331/10 *See letter	
		Mary Lou Clark, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	784/224 331/10 *See letter	
		Mary Lou Sheldson, fka Mary Lou Dyer, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/380 331/10 *See letter	
		Mary P. Davis, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	775/472 331/10 *See letter	
		Nita G. Zerovs, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	748/15 331/10 *See letter	
		Norma Jean Rogers, a married woman dealing in her sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	780/408 331/10 *See letter	
		Paul Wayne Rine and Joyce L. Rine, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	781/96 331/10 *See letter	
		Robert W. Benisford, single	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	782/379 331/10 *See letter	
		Roger Clark, a married man dealing in his sole and separate property	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	779/430 331/10 *See letter	
		Ruth Ann Hall, divorced	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	777/346 331/10 *See letter	
		Violet P. Standiford, widow	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	784/220 331/10 *See letter	
		Deborah Leticia Lugo, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1205/589 *See letter	
		Patricia S. Borge	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1231/588 *See letter	
		Monica A. McElvain	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1231/641 *See letter	
		Kathryn L. Atwell	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1231/597 *See letter	
		Phyllis Ruth Clark, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1231/120 *See letter	
		Robert N. McElvain, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1231/650 *See letter	
		Timothy L. Hewitt, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1203/177 *See letter	
		Bonnie Maxine Kidd, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1202/426 *See letter	
		Wanda Lee Hill, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1231/417 *See letter	
17	13-11-31	Lawrence E. Markey and Nita J. Markey, and Vickie Lynn Markey-Tekely, Trustee of the Vickie Markey-Tekely 07-02-2004 Irrevocable Trust, and Sean Vincent Markey, Trustee of the Sean Markey 07-02-2004 Irrevocable Trust	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	705/163 331/10 *See letter	0.00%
18	13-11-34.2	Joseph H. Baker, a single man	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	722/308 331/10 *See letter	0.00%
19	13-11-32.3	Joseph H. Baker, a single man	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	722/308 331/10 *See letter	0.00%
20	13-11-32	William S. Miller and Sandra M. Miller, husband and wife	Cheapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	688/566 331/10 *See letter	0.00%

10/24/2025

EXHIBIT "A" Sandra Ortiz MSH 6H Marshall County, West Virginia						
Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by Expand Operating LLC, Operator						
#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG	% INTEREST NOT LEASED BY SWN PRODUCTION COMPANY, LLC
21	13-11-34-1	Sandra M. Miller, f/k/a Sandra Marie Klages Miller, a married woman dealing in her sole and separate property	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	608/611 331/10 *See letter	0.00%
22	13-11-34	William S. Miller and Sandra M. Miller, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	608/566 331/10 *See letter	0.00%
23	13-11-33	James A. Flanagan and Betty S. Flanagan, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	705/186 331/10 *See letter	0.00%
24	13-10-1	Frank Longwell and Lori Longwell, husband and wife	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1152/558 *See letter	0.00%
25	13-13-1	Royalty Owner (subject to unitization filing dated 08/01/2025) Agneta Ann Lange, divorced	N/A TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	N/A At least 1/8th per WV Code 22-6-8	N/A 925/178 401/52 471 53/49	48.06%
		Daniel L. Dobbs, a/c/a Daniel Lee Dobbs and Julie A. Dobbs, husband and wife	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th per WV Code 22-6-8	913/44 401/52 471	
		Thomas B. Jefferson and Amy Jefferson, husband and wife	SWN Production Company, LLC TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th per WV Code 22-6-8	53/49 927/181 401/52 471	
		George Philip Woodruff, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	53/49 *See letter 1233/477 *See letter	
26	13-13-3	Royalty Owner (subject to unitization filing dated 08/01/2025) Julie Mayne Jakubczek and Donald K. Jakubczek, wife and husband	N/A TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	N/A At least 1/8th per WV Code 22-6-8	N/A 942/69 42/29 471 53/49 *See letter	15.00%
		Julia Ann Stern, a widow	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	925/174 401/52 471 53/49	
		Karvin Randeel Sellers, AKA Randeel Sellers, divorced and unmarried	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	907/181 401/52 471 53/49 *See letter	
		Kelly Lee Brown, divorced and unmarried	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	924/96 42/29 471 53/49 *See letter	
		Larry W. Cumberland, a widower	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	949/375 42/29 471 53/49 *See letter	
		Neil Wayne Durfee, a single man	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	1033/472 471 53/49 *See letter	
		Sandra Pyles Seyler, a married woman dealing in her sole and separate property	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	913/500 401/52 471 53/49 *See letter	
		Sharon Pyles Cole	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	925/176 401/52 471 53/49 *See letter	
		Stone Hill Minerals Holdings, LLC	Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	1125/481 471 53/49 *See letter	
		Suzetta Cumberland Canterbury, a married woman dealing in her sole and separate property	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	907/159 401/52 471 53/49 *See letter	
		Terrl R. Durfee Langston, a widow	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	943/322 42/29 471 53/49 *See letter	
		Timothy David Durfee and Rebecca A. Durfee, husband and wife	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	924/95 42/29 471 53/49 *See letter	
		Brendley E. Sellers, a married man dealing in his sole and separate property	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	913/498 401/52 471 53/49 *See letter	
		Darryl Pyles, a married man dealing in his sole and separate property	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	913/504 401/52 471 53/49 *See letter	
		Dennis Michael Pyles, a single man	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	913/502 401/52 471 53/49 *See letter	
		Eric P. Sellers, single	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	907/181 401/52 471 53/49 *See letter	
		Gary Pyles and Dawn Ann Pyles, husband and wife	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC SWN Production Company, LLC	At least 1/8th per WV Code 22-6-8	913/518 401/52 471 53/49 *See letter	
		EQT Production Company, EQT Chap LLC, EQT Amona LLC, & EQT TGH, Exploration LLC	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1223/439 *See letter	
		Anita M. Sellers Kasten & Robert M. Kasten, wife and husband	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1219/448 *See letter	
		Bonnie L. Murphy, Trustee of the Bonnie L. Murphy Irrevocable Trust, Dated December 21, 2010	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1209/490 *See letter	
		Five Star 2022	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1177/441 *See letter	
		Five Star 2022	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1186/675 *See letter	
		Glenda Gail Sellers, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1223/530 *See letter	
		Joe Roger Durfee	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1219/1 *See letter	
27	13-13-25	George F. Weaver, II and Shelly L. Weaver, husband and wife	EQT Production Company SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1185/342 53/49 *See letter	0.00%
28	13-13-4	Michela Dolgovskij, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th per WV Code 22-6-8	1253/278 *See letter	0.00%

EXHIBIT "A"
Seaford Oils MSH-01
Marshall County, West Virginia

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-661, by Expand Operating LLC, Operator

#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG	% INTEREST NOT LEASED BY SWN PRODUCTION COMPANY, LLC
29	14-4.2	Royalty Owner (subject to limitation filed dated 08/01/2025)	N/A	N/A	N/A	28.15%
		Barbara A. Enter, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/328	*See letter
		Becky Sue Mason, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/443	*See letter
		Bradley Mason, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/437	*See letter
		Bridget K. Rice, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/367	*See letter
		Christina L. Burch, as Attorney-in-Fact for Wanda F. Mason, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1233/251	*See letter
		Danny W. Cochran, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/650	*See letter
		Diane McCordle, a/k/a Diane Mason-McCordle	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/630	*See letter
		Doris Lovering, a/k/a Doris Mason-Lovering	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/307	*See letter
		Douglas Greig Partzold, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/431	*See letter
		Heather DeRha Homes, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/471	*See letter
		John Cody Skutch, a/k/a Cody Skutch, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/490	*See letter
		Jonathan R. Mason, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/389	*See letter
		Joseph Thomas Miller, a single person	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1183/907	*See letter
		Kathy L. Mason, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/483	*See letter
		Kay J. Hammel, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/407	*See letter
		Leonard Z. Mason, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1233/233	*See letter
		Lisa Ann Miller, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1187/79	*See letter
		Lois J. Nibert, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/321	*See letter
		Lorna C. Mason, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1233/191	*See letter
		Lorna Louise Bernard, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/333	*See letter
		Lorraine Dettah, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1179/667	*See letter
		Marcia Chamberlin, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/664	*See letter
		Margaret Rose Mizell, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/360	*See letter
		Martha James, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1233/342	*See letter
		Natale Michelle Combs, f/k/a Natalie Michelle Miller, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1184/496	*See letter
		Patricia Ann Pachtold, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/396	*See letter
		Paula Bell, a/k/a Paula Pachtold Bell, a single woman	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/437	*See letter
		Philip W. Reilly, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/429	*See letter
		Ralph Marvin Bonar, by Richard L. Bonar, Attorney-In-Fact	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/364	*See letter
		Rodney Mason, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1233/200	*See letter
		Rosemary J. Patton, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1233/388	*See letter
		Sara J. Bowman, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/374	*See letter
		Thomas D. Stillwe, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1229/476	*See letter
		Tanya Joseph Miller, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1181/736	*See letter
		Todd Thomas Maize, a/k/a Todd Maize	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
		Todd Mason, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
		Cindula Lee Mabie, a married woman dealing in her sole and separate property	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
		Karen Mason Fitzgerald, a married man dealing in his sole and separate property	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
		Terry Jay Peters, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1062/427	*See letter
		Vanessa Mason, a single woman	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
		Krystal Federici, f/k/a Krystal Mason, a married woman dealing in her sole and separate property	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
		Valerie Pachtold Noel, a/k/a Valerie Pachtold	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
		David Alan Mason, a single man	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1030/491	*See letter
30	14-4.3	Royalty Owner (subject to limitation filed dated 08/01/2025)	N/A	N/A	N/A	22.50%
		Alice Madlen Penninger, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1150/208	*See letter
		Barbara J. Tomaszewski, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1127/497	*See letter
		Brenda K. Coffield and William E. Coffield, wife and husband	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1171/209	*See letter
		Reverence Minerals Headwater I, LP	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1190/312	*See letter
		Marilyn Dent, a married woman dealing in her sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1175/467	*See letter
		Karen E. Wolfe and James B. Wolfe, wife and husband	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1150/215	*See letter
		Terry Dent, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1197/490	*See letter
		Terry L. Pettit, single	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1150/229	*See letter
		Woodhill Minerals, LLC	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1167/487	*See letter
		Chyd F. Conner and Karen Sue Conner, husband and wife	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1155/43	*See letter
		Deborah A. Cordery, married, dealing in her separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1150/222	*See letter
		Deborah J. Lancaster, married, dealing in her separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1180/201	*See letter
		Denise L. Schollert, single	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1150/236	*See letter
		EQT Production Company, EQT Chap LLC, EQT Aurora LLC, & EQT TGH, Exploration LLC	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1223/639	*See letter
		Erin Howard Cochran, a single man	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	950/202	*See letter
		James Cochran, a married man dealing in his sole and separate property	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	920/625	*See letter
		Lloyd E. Yabo, a widower	Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	920/649	*See letter
		Melba Eileen Huddleston, a widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	943/520	*See letter
		Stone Hill Minerals Holdings, LLC	TH Exploration, LLC Chevron U.S.A. Inc. EQT Amona LLC	At least 1/8th ner WV Code 22-6-8	40/122	*See letter
		Susan N. Goodrich, widow	SWN Production Company, LLC Expand Operating, LLC	At least 1/8th ner WV Code 22-6-8	1186/63	*See letter

10/24/2025

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by Expand Operating LLC, Operator

10/24/2025

4705102559



June 9, 2025

Mr. Charles Brewer
WV DEP Office of Oil & Gas
601 57th St., SE
Charleston, WV 25304

RE: SWN's proposed New Well: Serafin Ortiz MSH 6H in Marshall County, West Virginia, Drilling under Jamestown Court Road, Grandview Road, Wood Hill Road, and Waynesburg Pike Road.

Dear Mr. Brewer:

Expand Operating LLC (Expand Energy) is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to Expand's right to drill under Jamestown Court Road, Grandview Road, Wood Hill Road, and Waynesburg Pike Road. Please be advised that Expand has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Respectfully,

Expand Operating LLC

A handwritten signature in blue ink, appearing to read "Gavin Nadeau".

Gavin Nadeau, RPL
Staff Landman

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Office Of Oil and Gas

SEP 16 2025

WV Department of
Environmental Protection

10/24/2025

4705102559



SWN Production Company, LLC
P O Box 12359
Spring, Texas 77391-2359
www.swn.com

June 13, 2025

Mr. Charles Brewer
Assistant Chief
Office of Oil and Gas
WVDEP
601 57th St SE,
Charleston, WV 25304

Dear Mr. Brewer:

Effective as of October 1, 2024, Expand Operating LLC ("EXEO") and SWN Production Company, LLC ("SWNPC"), both being subsidiaries of Expand Energy Corporation, entered into a Management Services Agreement whereby SWNPC authorized EXEO to perform and act as its agent for the purpose of performing certain management services (the "Agreement"). Such Agreement was provided to your office prior to this letter. By entering into the Agreement, it was the intent of SWNPC (i) to grant EXEO the right to extract, produce and market SWNPC's oil and gas, among other rights, and (ii) that the Agreement satisfy the requirements of West Virginia Code §22-6-8(c).

Best regards,

A handwritten signature in black ink, appearing to read "David Wildes".

David Wildes
Managing Counsel – Southwest Appalachia
SWN Production Company, LLC

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Office Of Oil and Gas
SEP 16 2025
WV Department of
Environmental Protection

10/24/2025

4705102559

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 9/15

API No. 47- 051 -

Operator's Well No. Serafin Ortiz MSH 6H

Well Pad Name: Serafin Ortiz MSH

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>524992.273</u>
County:	<u>051- Marshall</u>		Northing:	<u>4426760.132</u>
District:	<u>Union</u>	Public Road Access:		<u>Grand View Road</u>
Quadrangle:	<u>Moundsville</u>	Generally used farm name:		<u>Serafin Ortiz MSH</u>
Watershed:	<u>Upper Ohio- Wheeling</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p> <p style="text-align: center;">RECEIVED Office Of Oil and Gas SEP 16 2025 WV Department of Environmental Protection</p>	<p style="text-align: center;">OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p>
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Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

10/24/2025

Certification of Notice is hereby given:

THEREFORE, I Brittany Woody, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all 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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Expand Operating LLC

By: Brittany Woody

Its: Staff Regulatory Specialist

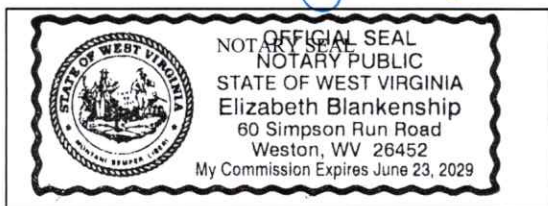
Telephone: 304-884-1610

Address: 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Facsimile: 304-884-1690

Email: Brittany.Woody@expandenergy.com



Subscribed and sworn before me this 23 day of June 2025
Elizabeth Blankenship Notary Public
My Commission Expires 6/23/2029

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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Office Of Oil and Gas
SEP 16 2025
WV Department of
Environmental Protection

10/24/2025

WW-6A
(9-13)

API NO. 47- 051 -
OPERATOR WELL NO. Serafin Ortiz MSH 6H
Well Pad Name: Serafin Ortiz MSH

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION**

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 9/15 **Date Permit Application Filed:** 9/15

Notice of:

- ☒ PERMIT FOR ANY WELL WORK ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- ☐ PERSONAL SERVICE ☒ REGISTERED MAIL ☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

☒ Application Notice ☒ WSSP Notice ☒ E&S Plan Notice ☒ Well Plat Notice is hereby provided to:

☒ SURFACE OWNER(s)

Name: Frank & Lori Longwell
Address: 1696 Marshall Street
Benwood, WV 26031
Name: _____
Address: _____

☐ SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: _____
Address: _____
Name: _____
Address: _____

☐ SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

☒ COAL OWNER OR LESSEE

Name: Marshall Land, LLC
Address: PO Box 261
Julian WV 25529

☐ COAL OPERATOR

Name: _____
Address: _____

☒ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: See Attachment 13A
Address: _____

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

RECEIVED
Office Of Oil and Gas
SEP 16 2025
WV Department of
Environmental Protection

10/24/2025

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

10/24/2025

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

10/24/2025

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

WW-6A
(8-13)

4705102559

API NO. 47-051

OPERATOR WELL NO. Serafin Ortiz MSH 6H

Well Pad Name: Serafin Ortiz MSH

Notice is hereby given by:

Well Operator: Expand Operating LLC

Telephone: 304-884-1610

Email: Brittany.Woody@expandenergy.com

Brittany Woody

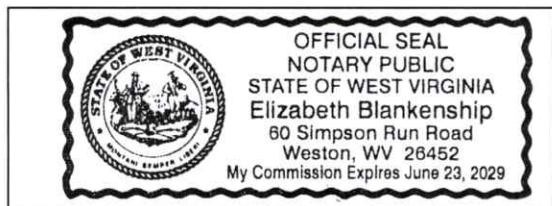
Address: 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Facsimile: 304-884-1690

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



Subscribed and sworn before me this 23 day of June 2025.

Elizabeth Blankenship Notary Public

My Commission Expires 6/23/2029

RECEIVED
Office Of Oil and Gas
SEP 16 2025
WV Department of
Environmental Protection

10/24/2025

Serafin Ortiz MSH Pad - Water Purveyors w/in 1500'

Sources

Landowner

Faith M & Patrick A Van Scyoc

Address

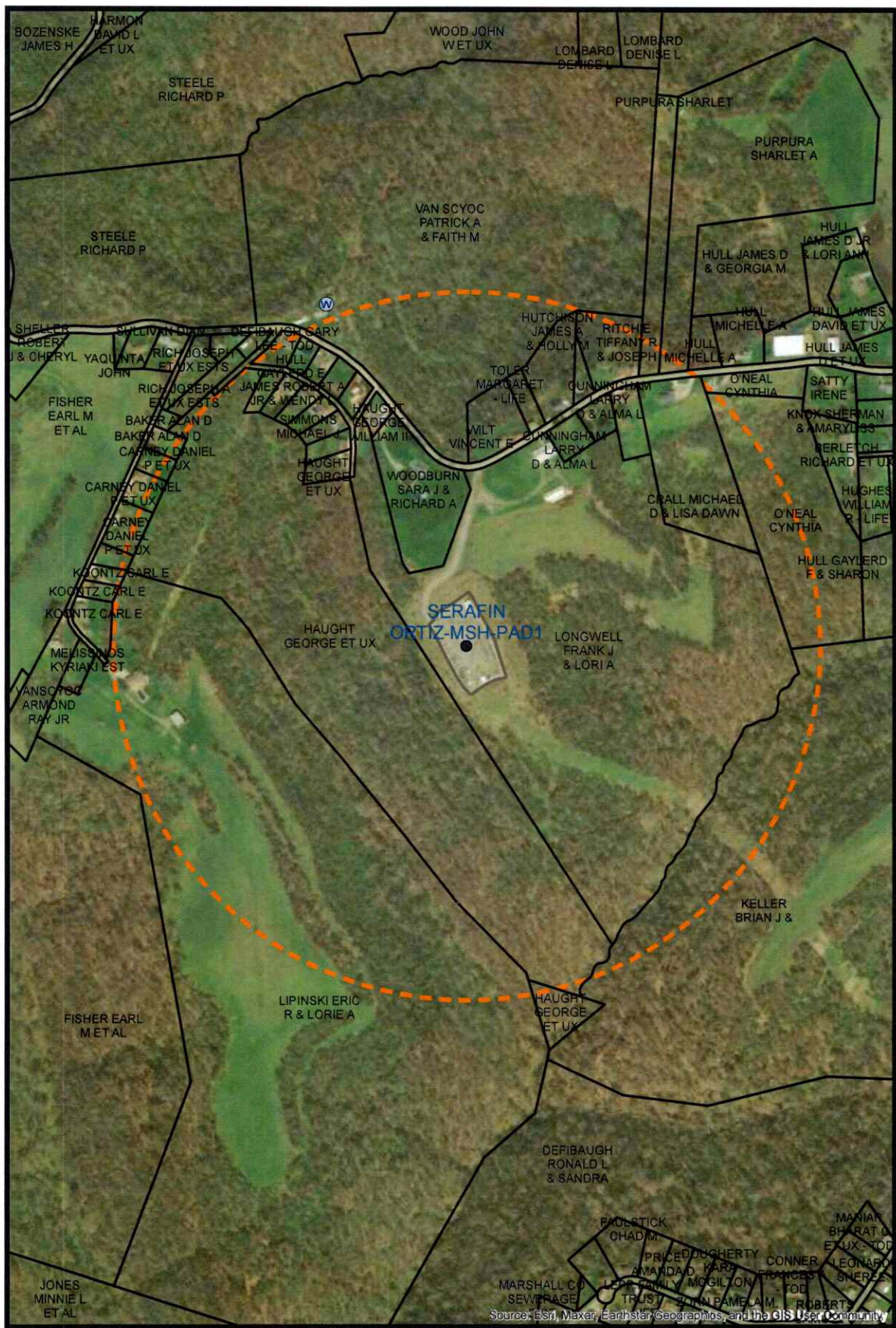
1952 Benwood Hill Road, Benwood WV 26031 1 well

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10/24/2025



The intent of this map is for general reference only. Information on this map was created using the best available data at the time but is not guaranteed accurate.

Structure Proximity Map		Well Pad: Serafin Ortiz	County: Wetzel
Map by: youngst	Date: 6/15/2023	1 inch = 464 feet 0 165 330 660 990 1320 Feet 	
Nad 83 UTM Zone 17	EXPAND		
Water Sources Spring Water Well Pond			

10/24/2025

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 5/23/25 **Date of Planned Entry:** 5/29/25

Delivery method pursuant to West Virginia Code § 22-6A-10a

☐ PERSONAL SERVICE ☒ REGISTERED MAIL ☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

☒ SURFACE OWNER(s)

Name: Frank & Lori Longwell
Address: 1696 Marshall Street
Benwood, WV 26031
Name: _____
Address: _____
Name: _____
Address: _____

☒ COAL OWNER OR LESSEE

Name: Marshall Land , LLC
Address: PO Box 261
Julian, WV 25529

☒ MINERAL OWNER(s)

Name: Frank J. & Lori A. Longwell
Address: 1696 Marshall Street
Benwood WV 26031

*please attach additional forms if necessary

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Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: WV
County: Marshall
District: Union
Quadrangle: Moundsville

Approx. Latitude & Longitude: 39.990571° -80.707151°
Public Road Access: Grand View Road
Watershed: Upper Ohio South
Generally used farm name: Serafin Ortiz MSH

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Expand Operating LLC
Telephone: 304-884-1610
Email: brittany.woody@expandenergy.com

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Facsimile: 304-209-5688

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

10/24/2025

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

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☐ **PERSONAL SERVICE** ☒ **REGISTERED MAIL** ☐ **METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION**

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Notice is hereby provided to:

☐ **SURFACE OWNER(s)**

Name: _____
Address: _____

Name: _____
Address: _____

Name: _____
Address: _____

☐ **COAL OWNER OR LESSEE**

Name: _____
Address: _____

☒ **MINERAL OWNER(s)**

Name: George & Mary Haught
Address: 11 Rothmore Dr
Benwood WV 26031

*please attach additional forms if necessary

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Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: WV
County: Marshall
District: Union
Quadrangle: Moundsville

Approx. Latitude & Longitude: 39.990571° -80.707151°
Public Road Access: Grand View Road
Watershed: Upper Ohio South
Generally used farm name: Serafin Ortiz MSH

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Expand Operating LLC
Telephone: 304-884-1610
Email: brittany.woody@expandenergy.com

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Facsimile: 304-209-5688

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The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

10/24/2025

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 07/02/2025

Date Permit Application Filed: 9/15

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

☐ HAND

DELIVERY

☒ CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: Frank & Lori Longwell

Address: 1696 Marshall Street

Benwood, WV 26031

Name: _____

Address: _____

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Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia

County: Marshall

District: Union

Quadrangle: Moundsville, WV

Watershed: Upper Ohio-Wheeling

UTM NAD 83 Easting: 524,992.273

Northing: 4,426, 760.132

Public Road Access: Benwood Hill Road

Generally used farm name: SERAFIN ORTIZ MSH

WV Department of
Environmental Protection

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Expand Energy Company, LLC

Address: 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Telephone: (304) 209-5685

Email: steve.pauley@expandenergy.com

Facsimile: _____

Authorized Representative: Steven Pauley

Address: 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Telephone: (304) 209-5685

Email: steve.pauley@expandenergy.com

Facsimile: _____

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

10/24/2025

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 07/02/2025

Date Permit Application Filed: 9/15

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☒ CERTIFIED MAIL
RETURN RECEIPT REQUESTED

☐ HAND
DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: Frank & Lori Longwell

Address: 1696 Marshall Street

Benwood, WV 26031

Name:

Address:

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WV Department of
Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia

County: Marshall

District: Union

Quadrangle: Moundsville, WV

Watershed: Upper Ohio-Wheeling

UTM NAD 83 Easting: 524,992.273

Northing: 4,426,760.132

Public Road Access: Benwood Hill Road

Generally used farm name: SERAFIN ORTIZ MSH

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Expand Energy Company, LLC

Telephone: (304) 209-5685

Email: steve.pauley@expandenergy.com

Address: 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Facsimile:

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10/24/2025



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**WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION**

1900 Kanawha Boulevard East • Building Five • Room 109
Charleston, West Virginia 25305-0440 • (304) 558-0444

Michael J. DeMers
Deputy Secretary of Transportation

Stephen T. Rumbaugh, P.E.
Secretary of Transportation
Commissioner of Highways

May 20, 2025

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Serafin Ortiz Well Pad, Marshall County
Serafin Ortiz MSH 6H Well Site Serafin Ortiz MSH 10H Well Site
Serafin Ortiz MSH 206H Well Site Serafin Ortiz MSH 406H Well Site
Serafin Ortiz MSH 606H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2011-0669 which has been transferred to Expand Operating, LLC for access to the State Road for a well site located off Marshall County Route 2/4 SLS MP 2.16.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Lacy D. Pratt
Central Office O&G Coordinator

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Environmental Protection

Cc: Brittany Woody
Expand Operating, LLC
OM, D-6
File

Product Name	Product Use	Chemical Name	CAS Number
HCL	Solvent	Hydrochloric Acid	7647-01-0
		Water	7732-18-5
FSTI-CI-02	Corrosion Inhibitor	2-Butoxyethanol	111-76-2
		Ethylene glycol	107-21-1
		N,N-Dimethylformamide	68-12-2
		benzyl chloridequaternized	72480-70-7
		Cinnamaldehyde	104-55-2
		Isopropyl alcohol	67-63-0
		Poly(oxy-1,2-ethanediyl), .alpha.-(nonylphenyl)- .omega.-hydroxy-	9016-45-9
		1-Decanol	112-30-1
		1-Octanol	111-87-5
Triethyl phosphate		Triethyl phosphate	78-40-0
Ferriplex 80	Iron Control	Sodium Erythorbate	6381-77-7
Tolicide 4Frac	Biocide	Tetrakis(Hydroxymethyl) Phosphonium Sulfate	55566-30-8
		Quaternary ammonium compounds	68424-85-1
		Ethanol	64-17-5
		Water	7732-18-5
Plexsick 930	Friction Reducer	Hydrotreated Petroleum Distillate	64742-47-8
		Water	7732-18-5
		copolymer of 2-propenamide	69418-26-4
		Oleic Acid Diethanolamide	93-83-4
		Alcohol Ethoxylate Surfactants	68551-12-2
		Ammonium Chloride	12125-02-9
		Sodium Chloride	7647-14-5
Plexaid 655NM	Scale Inhibitor	ORGANIC PHOSPHONIC ACIDS SALTS	15827-60-8
		Water	7732-18-5
Plexsick V996	Friction Reducer	Hydrotreated Petroleum Distillate	64742-47-8
		Water	7732-18-5
		copolymer of 2-propenamide	69418-26-4
		Alcohol Ethoxylate Surfactants	68551-12-2
		Sodium Chloride	7647-14-5
Plexaid 655WG	Scale Inhibitor	ORGANIC PHOSPHONIC ACIDS SALTS	15827-60-8
		Water	7732-18-5
		Glycerin	67-56-1
Clearal 270	Biocide	Glutaraldehyde	111-30-8
		Didecyltrimethylammonium Chloride	7173-51-5
		Quaternary Ammonium compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
		Water	7732-18-5
StimSTREAM SC 398 CW	Scale Inhibitor	Ethylene glycol	107-21-1
		CHEMSTREAM-Polymer-10001	CHEMSTREAM-Polymer-10001
		CHEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-10002
		Water	7732-18-5
StimSTREAM FR 9800	Friction Reducer	Chemstream-Alkane-00001	Chemstream-Alkane-00001
		Chemstream-Polymer-00001	Chemstream-Polymer-00001
		Ethoxylated alcohols (C12-16)	68551-12-2
		Water	7732-18-5
StimSTREAM FR 2800	Friction Reducer	Distillates (petroleum), hydrotreated light	64742-47-8
		Alcohols, C11-14-iso, C13-rich, ethoxylated	78330-21-9
		Water	7732-18-5
StimSTREAM FR 9725	Friction Reducer	Distillates (petroleum), hydrotreated light	64742-47-8
		Ammonium Chloride	12125-02-9
		Water	7732-18-5
StimSTREAM SC 398 C	Scale Inhibitor	CHEMSTREAM-Polymer-10001	CHEMSTREAM-Polymer-10001
		CHEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-10002
		Water	7732-18-5

As of 7/5/2023

4705102559

OPERATOR: Expand Operating LLC

WELL NO: Serafin Ortiz MSH 6H

PAD NAME: Serafin Ortiz MSH

REVIEWED BY: _____

SIGNATURE: Bethany Woody

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

****Pad Built 12/7/11**

- ☐ At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
- ☐ DEP Waiver and Permit Conditions
- ☐ At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
- ☐ DEP Waiver and Permit Conditions
- ☐ At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
- ☐ DEP Waiver and Permit Conditions
- ☒ At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
- ☐ Surface Owner Waiver and Recorded with County Clerk, OR
- ☐ DEP Variance and Permit Conditions
- ☐ At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
- ☐ Surface Owner Waiver and Recorded with County Clerk, OR
- ☐ DEP Variance and Permit Conditions
- ☐ At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
- ☐ Surface Owner Waiver and Recorded with County Clerk, OR
- ☐ DEP Variance and Permit Conditions

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