



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

Wednesday, August 28, 2024
WELL WORK PERMIT
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

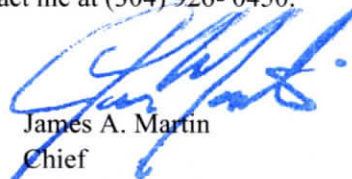
SPRING, TX 773914954

Re: Permit approval for Ruth Keller MSH 205H
47-051-02516-00-00


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.



James A. Martin
Chief

Operator's Well Number: Ruth Keller MSH 205H
Farm Name: Brian J Keller, David J & Alice 
U.S. WELL NUMBER: 47-051-02516-00-00
Horizontal 6A New Drill
Date Issued: 8/28/2024

Promoting a healthy environment.

08/30/2024

PERMIT CONDITIONS 4705102516

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.

08/30/2024

WW-6B
(04/15)

API NO. 47-051 -
OPERATOR WELL NO. Ruth Keller MSH 205H
Well Pad Name: Ruth Keller MSH

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

1) Well Operator: SWN Production Co., LLC 494512924 051-Marshall 7-Union 486-Moundsville
Operator ID County District Quadrangle

2) Operator's Well Number: Ruth Keller MSH 205H Well Pad Name: Ruth Keller MSH

3) Farm Name/Surface Owner: Brian J. Keller & David J. & Alice M. Cook Public Road Access: Glen Dale Heights Road

4) Elevation, current ground: 1327' Elevation, proposed post-construction: 1327'

5) Well Type (a) Gas x Oil Underground Storage

Other

(b)If Gas Shallow x Deep

Horizontal x

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Up-Dip well to the North, Target Top TVD- 6342', Target Base TVD- 6398', Anticipated Thickness- 56', Associated Pressure- 4159

8) Proposed Total Vertical Depth: 6,387'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 30,638'

11) Proposed Horizontal Leg Length: 23,253.62'

12) Approximate Fresh Water Strata Depths: 462'

13) Method to Determine Fresh Water Depths: Salinity Profile on Serafin Ortiz Pad

14) Approximate Saltwater Depths: 1216' Salinity Profile

15) Approximate Coal Seam Depths: 830'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 830'

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No x

(a) If Yes, provide Mine Info: Name: Depth: Seam: Owner:

St. Louis STRA PER lower 4/17/2024

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18) **CASING AND TUBING PROGRAM**

| <u>TYPE</u> | <u>Size (in)</u> | <u>New or Used</u> | <u>Grade</u> | <u>Weight per ft. (lb/ft)</u> | <u>FOOTAGE: For Drilling (ft)</u> | <u>INTERVALS: Left in Well (ft)</u> | <u>CEMENT: Fill-up (Cu. Ft.)/CTS</u> |
|--------------|------------------|--------------------|--------------|-------------------------------|-----------------------------------|-------------------------------------|---------------------------------------|
| Conductor | 20" | New | J-55 | 94# | 136' | 136' | CTS |
| Fresh Water | 13 3/8" | New | J-55 | 54.4# | 860' | 860' | 991 sx/CTS |
| Coal | See | Surface | Casing | | | | |
| Intermediate | 9 5/8" | New | J-55 | 36# | 2158' | 2158' | 824 sx/CTS |
| Production | 5 1/2" | New | P-110 HP | 20# | 30638' | 30638' | Tail 5791sx/ 100' inside Intermediate |
| Tubing | | | | | | | |
| Liners | | | | | | | |

| <u>TYPE</u> | <u>Size (in)</u> | <u>Wellbore Diameter (in)</u> | <u>Wall Thickness (in)</u> | <u>Burst Pressure (psi)</u> | <u>Anticipated Max. Internal Pressure (psi)</u> | <u>Cement Type</u> | <u>Cement Yield (cu. ft./k)</u> |
|--------------|------------------|-------------------------------|----------------------------|-----------------------------|---|--------------------|---------------------------------|
| 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 | | | | | | | |

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PACKERS

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| | | | | |
|-------------|--|--|--|--|
| Kind: | | | | |
| Sizes: | | | | |
| Depths Set: | | | | |

Steve Gandy
STRADWELL
4/17/2024

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): 6.78

22) Area to be disturbed for well pad only, less access road (acres): 4.30

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 ***

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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.

4705102516

| CEMENT ADDITIVES | | | | | | |
|----------------------|---------------------------|-----------------------|-----------------------------------|--------------------------------|-------------------------------------|-------------|
| INTERVAL | SCHLUMBERGER PRODUCT NAME | BJ PRODUCT NAME | NEXTER PRODUCT NAME | PRODUCT USE | CHEMICAL NAME | CAS-Number |
| SURFACE (FRESHWATER) | XXXXXXXXXX | INTEGRA SEAL | CJ600 | LOST CIRC MATERIAL | CELLOPHANE FLAKES | 9005-81-6 |
| | S001 | A-7P | 0110 | ACCELERATOR | CALCIUM CHLORIDE | 10043-52-4 |
| COAL PROTECTION | XXXXXXXXXX | 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 | XXXXXXXXXX | LIQUID ANTIFOAM AGENT | POLYPROPYLENE GLYCOL | 25322-69-4 |
| | XXXXXXXXXX | INTEGRA SEAL | CJ600 | LOST CIRC MATERIAL | CELLOPHANE FLAKES | 9005-81-6 |
| | CemNet | XXXXXXXXXX | XXXXXXXXXX | 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 | XXXXXXXXXX | XXXXXXXXXX | CJ111 | ACCELERATOR | SODIUM CHLORIDE | 7440-23-5 |
| | XXXXXXXXXX | 55-IIW | 0880 | SURFACTANT | NONIONIC SURFACTANT | 6540-99-4 |
| | DO47 | FP 28L | XXXXXXXXXX | LIQUID ANTIFOAM AGENT | POLYPROPYLENE GLYCOL | 25322-69-4 |
| | XXXXXXXXXX | XXXXXXXXXX | OX157011 | SOLID ANTIFOAM AGENT | FULLERS EARTH(ATTAPULGITE) | 8031-18-3 |
| | XXXXXXXXXX | XXXXXXXXXX | CJ540 | HP FLUID LOSS ADDITIVE | ALIPHATICAMIDE POLYMER | PROPRIETARY |
| | 0255 | XXXXXXXXXX | XXXXXXXXXX | MED TEMP FLUID LOSS ADDITIVE | POLYACRILIC POLYMER | PROPRIETARY |
| | XXXXXXXXXX | XXXXXXXXXX | CJ213 | RETARDER | CHRYSTALLINE SILICA | 14808-60-7 |
| | XXXXXXXXXX | FL-66 | 0501 | LOW TEMP FLUID LOSS ADD | POWDERED POLYSACCHARIDE | PROPRIETARY |
| | XXXXXXXXXX | BENTONITE | CJ020 | EXTENDER | BENTONITE | 1302-78-9 |
| | D208 | ASA-301 | XXXXXXXXXX | VISCO FIER/ANTI-SETTLING AGENT | REFINED POLYMER/CHRYSTALLINE SILICA | PROPRIETARY |
| | D198 | R-3 | XXXXXXXXXX | CEMENT RETARDER | LIGNIN | 8068-51-6 |
| | SUGAR | SUGAR | CJ795 | CEMENT RETARDER | SUCROSE | 57-50-1 |
| | D065 | XXXXXXXXXX | XXXXXXXXXX | DISPERSANT | SODIUM POLYNAPHTHALENE SULFONATE | 8068-51-6 |
| D800 | XXXXXXXXXX | XXXXXXXXXX | CEMENT RETARDER (Mid-Temperature) | SODIUM LIGNOSULFONATE | 8061-51-6 | |

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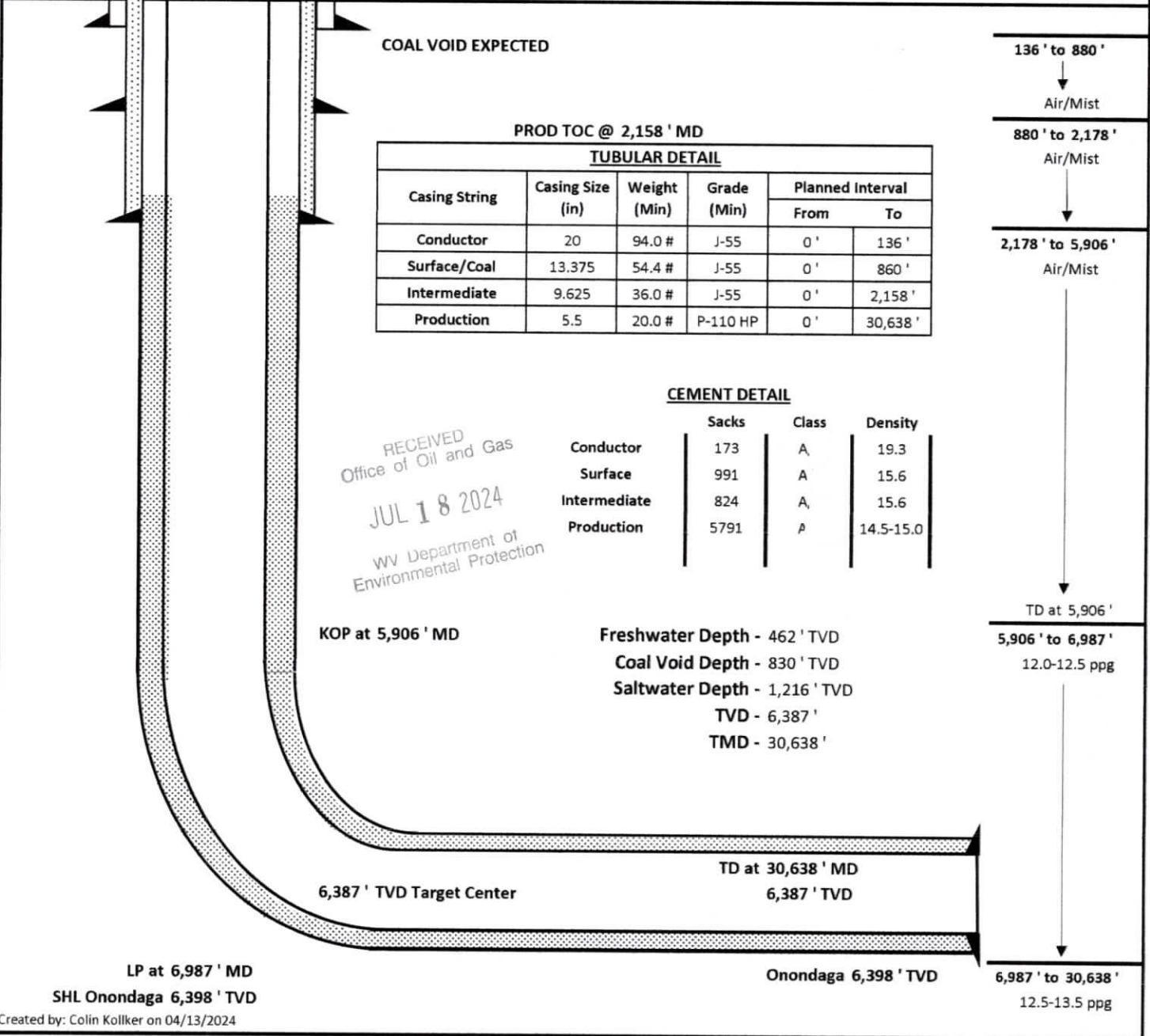
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Environmental Protection

08/30/2024

4705102516

Southwestern Energy Company | **Proposed Drilling Program**

Well: RUTH KELLER MSH 205H | Re-entry Rig: SDC 41
 Field: NORTH VICTORY FIELD WET | Prospect: Marcellus Shale | State: WV
 County: MARSHALL
 SHL (NAD83): 39.985581 Latitude -80.695842 Longitude
 BHL (NAD83): 40.047349 Latitude -80.722942 Longitude
 KB Elev: 1,353 ft MSL | KB: 26 ft AGL | GL Elev: 1,327 ft MSL



COAL VOID EXPECTED

PROD TOC @ 2,158' 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' | 860' |
| Intermediate | 9.625 | 36.0 # | J-55 | 0' | 2,158' |
| Production | 5.5 | 20.0 # | P-110 HP | 0' | 30,638' |

CEMENT DETAIL

| | Sacks | Class | Density |
|--------------|-------|-------|-----------|
| Conductor | 173 | A | 19.3 |
| Surface | 991 | A | 15.6 |
| Intermediate | 824 | A | 15.6 |
| Production | 5791 | A | 14.5-15.0 |

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136' to 880'
 ↓
 Air/Mist
 880' to 2,178'
 ↓
 Air/Mist
 2,178' to 5,906'
 ↓
 Air/Mist
 TD at 5,906'
 5,906' to 6,987'
 12.0-12.5 ppg
 6,987' to 30,638'
 12.5-13.5 ppg

KOP at 5,906' MD

Freshwater Depth - 462' TVD
 Coal Void Depth - 830' TVD
 Saltwater Depth - 1,216' TVD
 TVD - 6,387'
 TMD - 30,638'

6,387' TVD Target Center

TD at 30,638' MD
 6,387' TVD

LP at 6,987' MD

SHL Onondaga 6,398' TVD

Onondaga 6,398' TVD

Created by: Colin Kollker on 04/13/2024

*Steel Case
 STRADER lower
 4/17/2024*

08/30/2024



4705102516
SWN Production Company, LLC
1300 Fort Pierpont Dr, Ste 201
Morgantown, WV 26508
Tel: 304 884 1610
Fax: 304 471 2497
www.swn.com

April 16, 2024

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

RE: Proposed New Well: Ruth Keller MSH 205H

Dear Mr. Brewer:

SWN 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 Keller's property, in Union District, Marshall County, West Virginia.

If you have any questions or desire additional information, please me at 304-884-1613.

Thank you.

Sincerely,

Brittany Woody
Staff Regulatory Specialist
Southwestern Energy Production Company, LLC

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The Right People doing the Right Things,
wisely investing the cash flow from our
underlying assets. **08/30/2024**

WW-9
(4/16)

API Number 47 - 051 4705102516
Operator's Well No. Ruth Keller MSH 205H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Co., LLC OP Code 494512924

Watershed (HUC 10) Short Creek Ohio River 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)

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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 SOBMs 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.

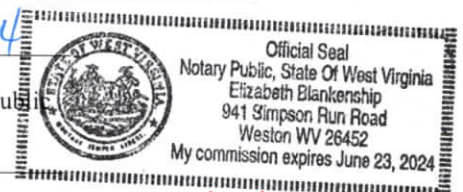
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is 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 27 day of March, 2024

Elizabeth Blankenship Notary Public

My commission expires 6/23/2024



08/30/2024

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 6.78 Prevegetation pH _____

Lime as determined by pH test min.2 Tons/acre or to correct to pH 4.30

Fertilizer type 10-20-20

Fertilizer amount 600/500 lbs/acre

Mulch Hay/Straw Tons/acre

Seed 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 *Strader Gower*

Comments: _____

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Title: Oil & Gas Inspector

Date: 4/17/2024

Field Reviewed? () Yes () No

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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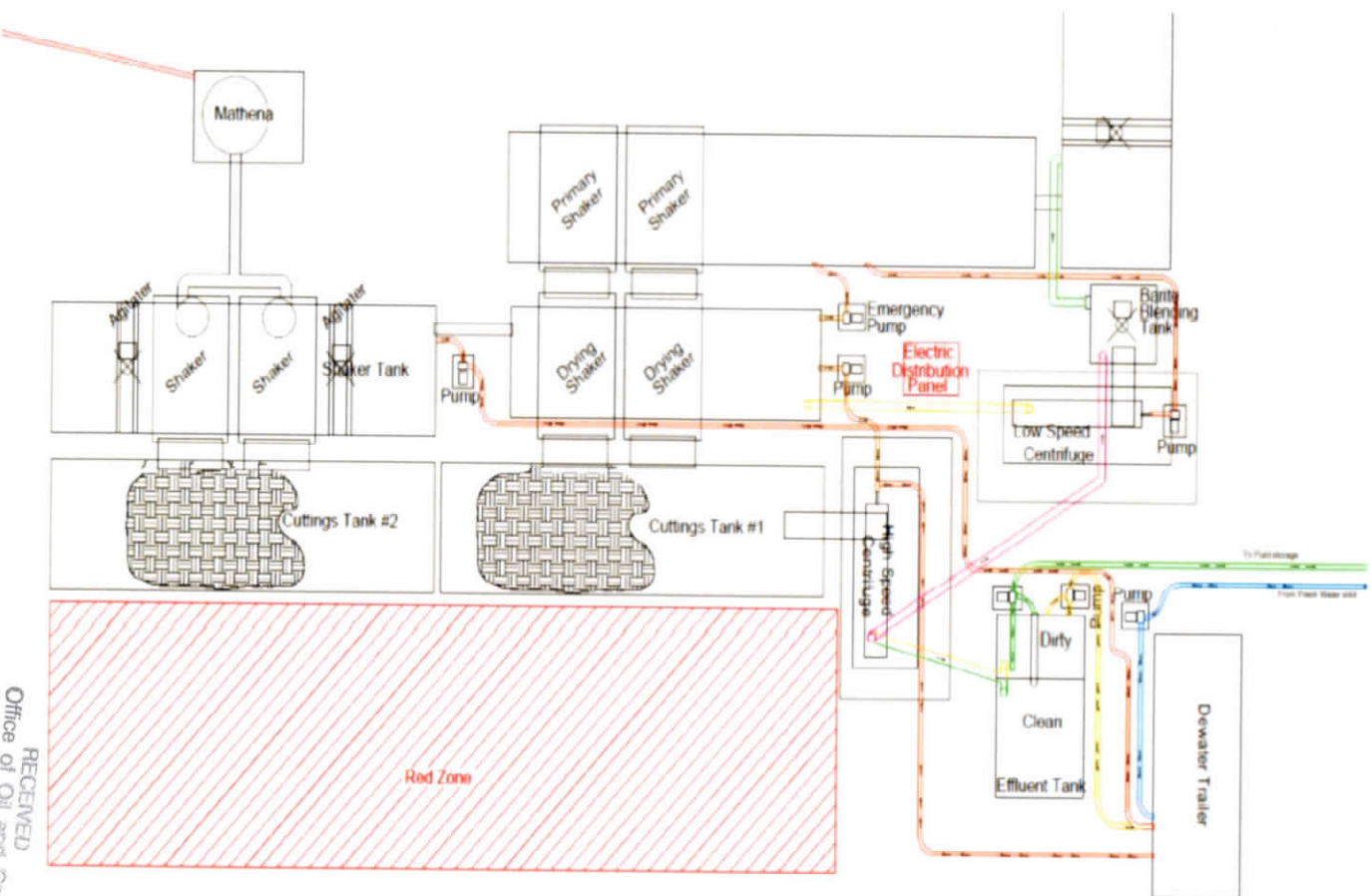
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Solids Control Layout



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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

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WVD Seeding Specification

Attachment 3C

To Order Seed contact Lyndsi Eddy Filippo office 570-996-4271 cell 501-269-5451 lyndsi_eddy@swn.com (please allow 7 to 10 days for delivery)

R_A → V₊

08/30/2024

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% |
| White Clover | 5% |
| Birdsfoot Trefoil | 5% |
| Rough Bluegrass | 5% |

All legumes are inoculated at 5x normal rate

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 SWN supervision at the beginning of the project to allow time for special seed delivery.

ORGANIC PROPERTIES

| Seed Mixture: SWN Production Organic Mix | SWN 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 | SWN 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

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NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

MARCELLUS WELL DRILLING PROCEDURES

AND

4705102516

WELL SITE SAFETY PLAN



SWN Production Company, LLC
1300 Fort Pierpont Drive, Suite 201
Morgantown, West Virginia 26508

API NO. 47-XXX-XXXXX
WELL NAME: Ruth Keller MSH 205H
Moundsville QUAD
Union DISTRICT
MARSHALL COUNTY, WEST VIRGINIA

Submitted by:

Name: Brittany Woody

Date: 3/18/2024

Brittany Woody

Title: Staff Regulatory Specialist

SWN Production Co., LLC

Approved by:

Name: STRADLER GOWER

Date: 4/17/2024

Title: Oil & Gas Inspector

Approved by:

Name: _____

Date: _____

Title: _____

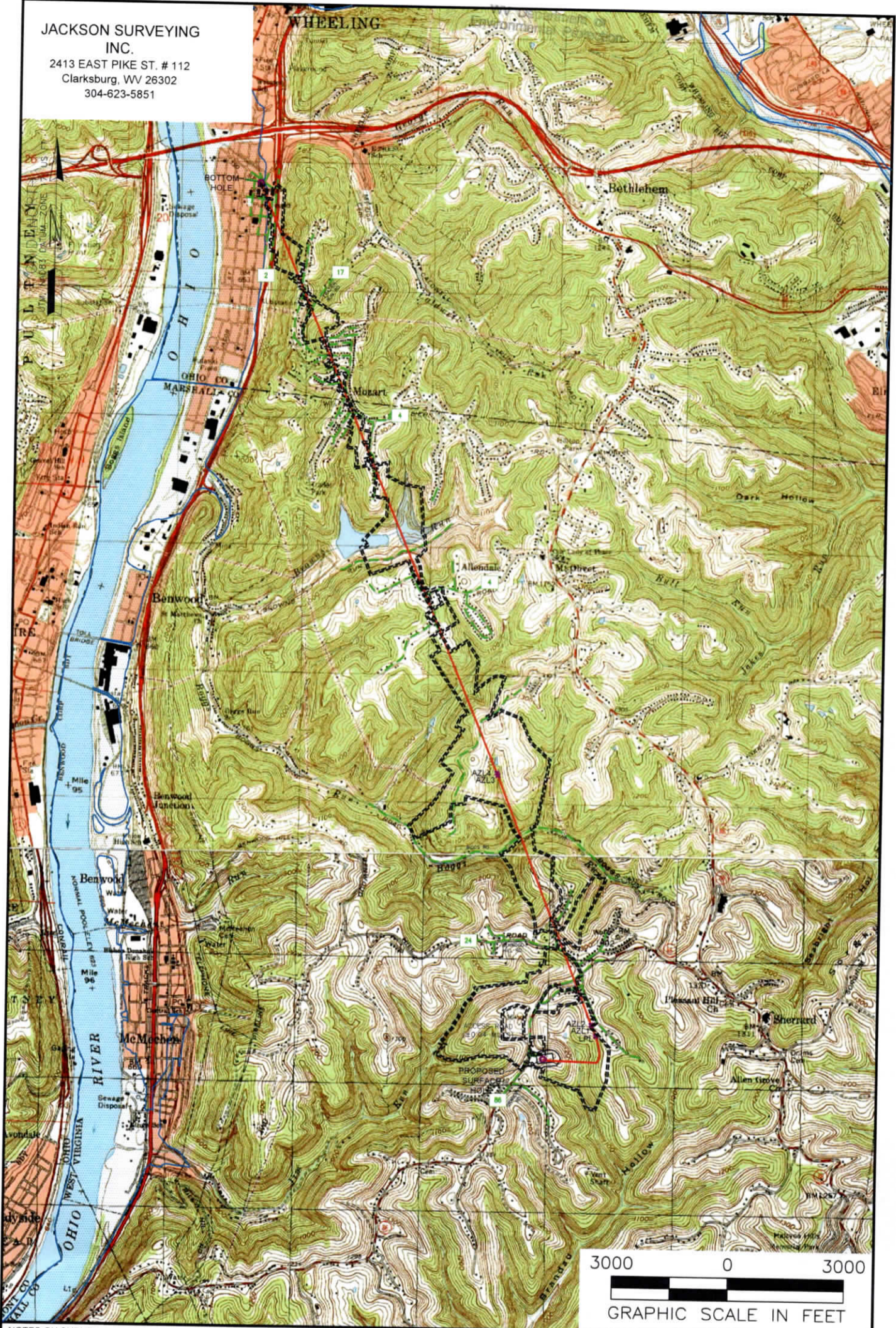
RECEIVED
Office of Oil and Gas
JUL 18 2024
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SWN PRODUCTION COMPANY, LLC – CONFIDENTIAL

08/30/2024

JUL 18 2024

JACKSON SURVEYING
INC.
2413 EAST PIKE ST. # 112
Clarksburg, WV 26302
304-623-5851



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
LPL* LANDING POINT LOCATION
FLOOD PLAIN
ACCESS ROAD
ACCESS ROAD TO PREV. SITE
LEASE BOUNDARY
PROPOSED PATH

| | | | |
|---|--|------------------------|-----------------|
| WELL OPERATOR: SWN PRODUCTION COMPANY, LLC | WELL (FARM) NAME: RUTH KELLER MSH | WELL # 205H | SERIAL # |
| ADDRESS: P.O. BOX 1300 JANE LEW, WV 26378 | COUNTY - CODE MARSHALL - 103 | DISTRICT; UNION | |
| SURFACE OWNER: BRIAN J. KELLER & DAVID J. & ALICE M. COOK (TOD) | USGS 7 1/2 QUADRANGLE MAP NAME WILEVILLE, WV | | |

Latitude: 40°00'00"

SURFACE HOLE 8166'

Latitude: 40°05'00"

BOTTOM HOLE 4088'

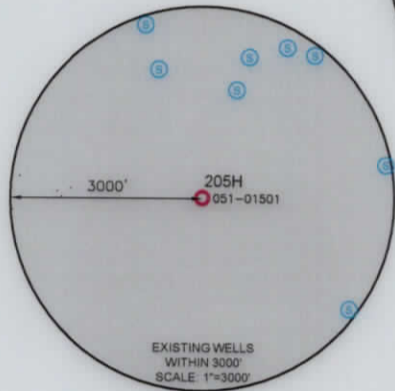
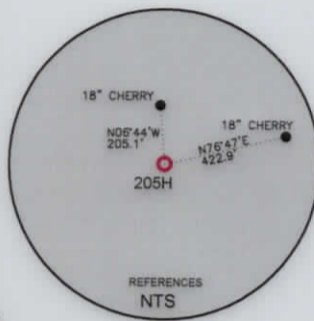
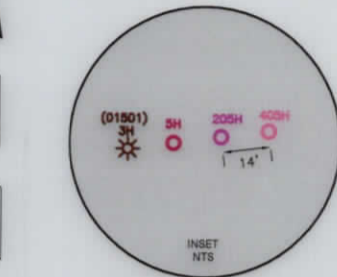
JACKSON SURVEYING INC.

2413 EAST PIKE ST. # 112
Clarksburg, WV 26302
304-623-5851

Table with 2 columns: SURFACE HOLE LOCATION (SHL), LANDING POINT (LPL), BOTTOM HOLE LOCATION (BHL). Each row contains UTM coordinates (NORTHING, EASTING).

Table with 5 columns: LINE, BEARING, DISTANCE, DESCRIPTION, MONUMENT. Contains survey data for lines L1 through L6 and L3.

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



WELL RESTRICTIONS

- 1. THERE ARE TWO 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. NO 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.

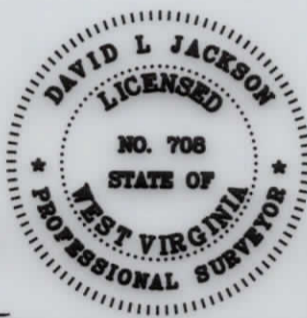
NOTES ON SURVEY

- 1. 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.

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. 708

David L Jackson



COMPANY: SWN Production Company, LLC

(+) 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 SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)

RUTH KELLER MSH
OPERATOR'S WELL #: 205H
API WELL #: 47 STATE 051 COUNTY 02516 PERMIT

WELL TYPE: OIL [] WASTE DISPOSAL [] PRODUCTION [] DEEP [] GAS [X] LIQUID INJECTION [] STORAGE [] SHALLOW [X]
WATERSHED: SHORT CREEK OHIO RIVER (HUC-10) ELEVATION: 1327.1'
DISTRICT: UNION COUNTY: MARSHALL QUADRANGLE: MOUNDSVILLE, WV
SURFACE OWNER: BRIAN J. KELLER & DAVID J. & ALICE M. COOK (TOD) ACREAGE: ±173.061
OIL & GAS ROYALTY OWNER: BRIAN J. KELLER & DAVID J. & ALICE M. COOK (TOD) ACREAGE: ±173.061
DRILL [X] DRILL DEEPER [] REDRILL [] FRACTURE OR STIMULATE [X] PLUG OFF OLD FORMATION [] PERFORATE NEW FORMATION []
CONVERT [] PLUG & ABANDON [] CLEAN OUT & REPLUG [] OTHER CHANGE [] (SPECIFY) 08/30/2024
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,387 TVD 30,638 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200 ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

Table with 2 columns: LEGEND (PROPOSED SURFACE HOLE / BOTTOM HOLE, EXISTING / PRODUCING WELLHEAD, LPL, EXISTING WATER WELL, EXISTING SPRING, SURVEYED BOUNDARY, DRILLING UNIT, LEASE BOUNDARY, PROPOSED PATH) and REVISIONS (DATE: 04-16-2024, DRAWN BY: N. MANO, SCALE: 1" = 2000', DRAWING NO., WELL LOCATION PLAT)

Longitude: 80°40'00"
Longitude: 80°42'30"
Longitude: 80°40'00"
Longitude: 80°40'00"

JACKSON SURVEYING
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 2413 EAST PIKE ST. # 112
 Clarksburg, WV 26302
 304-623-5851



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. 708 *David L Jackson*

47-051 08/30/2024

| | | | |
|------------|------------|-----------------|----------------------|
| REVISIONS: | COMPANY: | | |
| | | | |
| | OPERATOR'S | RUTH KELLER MSH | DATE: 04-16-2024 |
| | WELL #: | 205H | DRAWN BY: N. MANO |
| | DISTRICT: | UNION | SCALE: N/A |
| | COUNTY: | MARSHALL | DRAWING NO: |
| | STATE: | WV | WELL LOCATION PLAT 2 |

JACKSON SURVEYING
 INC.
 2413 EAST PIKE ST. # 112
 Clarksburg, WV 26302
 304-623-5851



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. 708

David L Jackson

08/30/2024

| | | | |
|------------|------------|----------|----------------------|
| REVISIONS: | COMPANY: | | |
| | | | |
| | OPERATOR'S | | DATE: 04-16-2024 |
| | WELL #: | | DRAWN BY: N. MANO |
| | DISTRICT: | COUNTY: | SCALE: N/A |
| | UNION | MARSHALL | DRAWING NO: |
| | | STATE: | WV |
| | | | WELL LOCATION PLAT 3 |

JACKSON SURVEYING

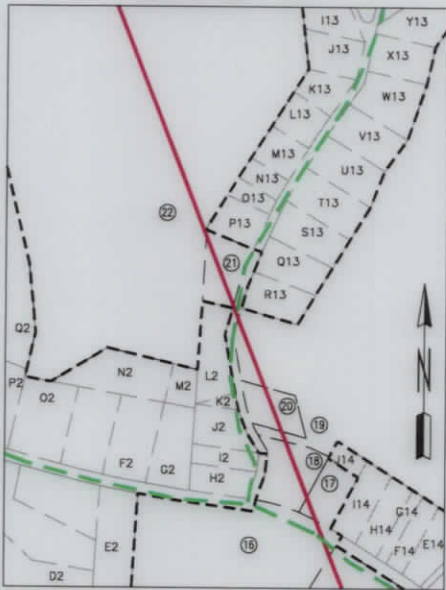
INC.

2413 EAST PIKE ST. # 112

Clarksburg, WV 26302

304-623-5851

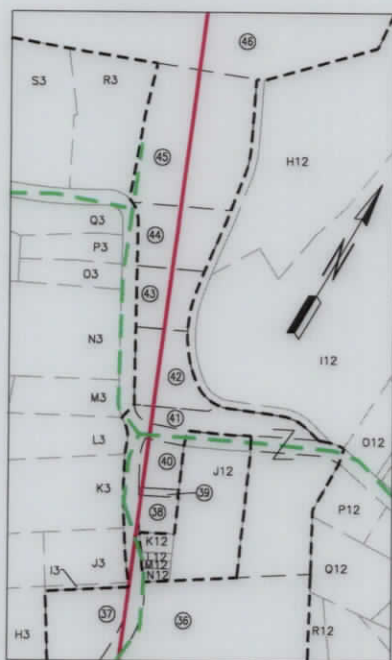
DETAIL "A"



DETAIL "C"



DETAIL "B"



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. 708

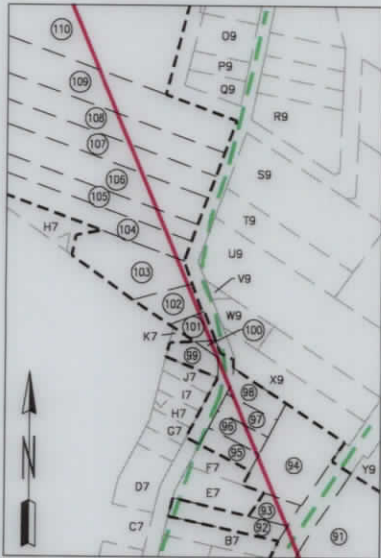
David L Jackson

47-00-0266 08/30/2024

| | | | | |
|------------|--|----------|-----------------|----------------------|
| REVISIONS: | COMPANY: | | | DATE: 04-16-2024 |
| | <div style="display: flex; justify-content: space-around;"> </div> | | | |
| | OPERATOR'S | | RUTH KELLER MSH | SCALE: N/A |
| | WELL #: | | 205H | DRAWING NO: |
| | DISTRICT: | COUNTY: | STATE: | WELL LOCATION PLAT 4 |
| | UNION | MARSHALL | WV | |

JACKSON SURVEYING
 INC.
 2413 EAST PIKE ST. # 112
 Clarksburg, WV 26302
 304-623-5851

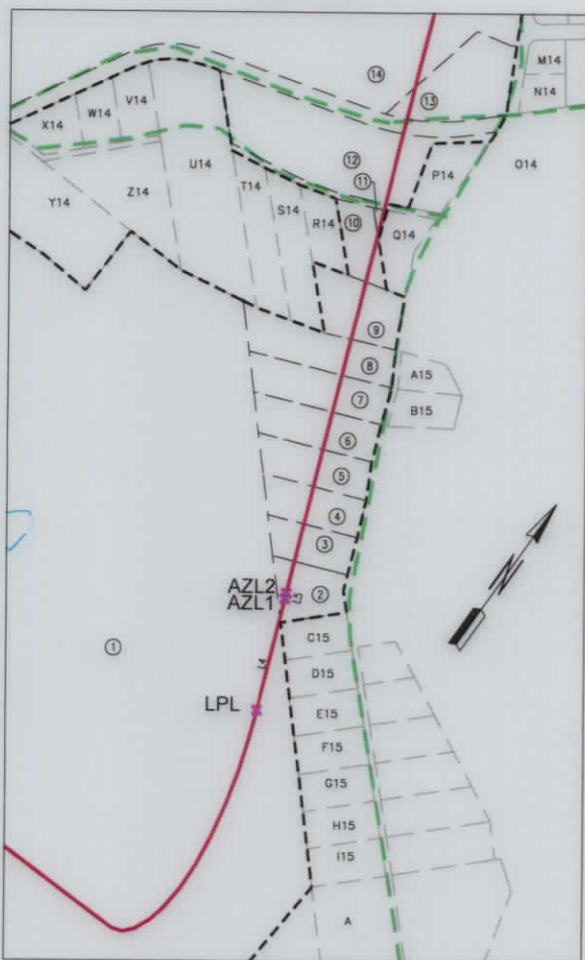
DETAIL "D"



DETAIL "E"



DETAIL "F"



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. 708

David L Jackson

08/30/2024

47-051-02516

| | | | |
|------------|------------|-----------------|----------------------|
| REVISIONS: | COMPANY: | | |
| | OPERATOR'S | RUTH KELLER MSH | |
| | WELL #: | 205H | |
| | DISTRICT: | COUNTY: | STATE: |
| | UNION | MARSHALL | WV |
| | | | DATE: 04-16-2024 |
| | | | DRAWN BY: N. MANO |
| | | | SCALE: N/A |
| | | | DRAWING NO: |
| | | | WELL LOCATION PLAT 5 |

WW-6A1
(5/13)

Operator's Well No. RUTH KELLER MSH 205H

**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" | | | | |

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JUL 18 2024
WV Department of
Environmental Protection

*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: SWN Production Company, LLC
 By: 
 Its: STAFF LANDMAN

EXHIBIT "A"
Ruth Keller MSH 205H
Marshall County, West Virginia

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

| # | TMP | LESSOR | LESSEE | ROYALTY | BK/PG | % INTEREST NOT LEASED BY SWN PRODUCTION COMPANY, LLC |
|-----|-------------------|--|---|---|---|--|
| 1) | 13-0006-0050-0000 | Ruth Ann Keller, married, dealing in her sole and separate interest David J. Cook, married | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 14.00% | 683/433 33/110 | 0.00% |
| 2) | 13-007C-0004-0000 | John W. Millhouse and Evelyn M. Millhouse, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 720/241 33/110 | 0.00% |
| 3) | 13-007C-0005-0000 | Robert L. Nimcoosky and Sherrill L. Nimcoosky, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 720/241 33/110 | 0.00% |
| 4) | 13-007C-0006-0000 | Marvin E. DeRre and Deborah DeRre, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 720/245 33/110 | 0.00% |
| 5) | 13-007C-0007-0000 | Patricia R. Renzella, wife of Nicholas S. Renzella | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 718/174 33/110 | 0.00% |
| 6) | 13-007C-0008-0000 | Walter L. Harbison and Marguerite Harbison, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 720/273 33/110 | 0.00% |
| 7) | 13-007C-0009-0000 | Walter L. Harbison and Marguerite Harbison, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 720/273 33/110 | 0.00% |
| 8) | 13-007C-0010-0000 | Shelley L. Tuskey, a married woman dealing in her sole and separate property Amy J. Gamble Sherry L. Gamble Charles Ray Meredith Cynthia M. Gamble, f/k/a Cynthia M. Angelichio | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% | 721/609 33/110 721/613 33/110 721/617 33/110 722/552 33/110 722/556 33/110 | 0.00% |
| 9) | 13-007C-0011-0000 | J. Keith Bonenberger and Mary S. Bonenberger, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 718/178 33/110 | 0.00% |
| 10) | 13-007C-0013-0000 | Archie Dale Marple, a widower (Life Tenant), and Edward L. Conway and Karen Sue Conway, husband and wife (Remainderman) | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 730/26 33/110 | 0.00% |
| 11) | 13-007C-0012-0001 | Archie Dale Marple, a widower (Life Tenant), and Edward L. Conway and Karen Sue Conway, husband and wife (Remainderman) | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 17.00% | 730/26 33/110 | 0.00% |
| 12) | 13-007C-0022-0000 | Shelley L. Tuskey, a married woman dealing in her sole and separate property Amy J. Gamble Sherry L. Gamble Charles Ray Meredith Charles Gamble Cynthia M. Gamble, f/k/a Cynthia M. Angelichio Douglas I. Gamble Donna Sue Kirch, f/k/a Donna Sue Gamble Martha Ann Migliorini, f/k/a Martha Ann Gamble | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% 18.00% | 721/621 33/110 721/625 33/110 721/629 33/110 721/633 33/110 722/560 33/110 722/564 33/110 733/22 33/110 733/27 33/110 733/32 33/110 | 0.00% |
| 13) | 11-0007-0001-0004 | Sharlet A. Purpusa, f/k/a Sharlet A. Renzella, a married woman dealing in her sole and separate property | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% | 726/303 33/424 | 0.00% |
| 14) | 13-0007-0001-0001 | Christian A. Caldwell | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 14.00% | 692/484 33/110 | 0.00% |
| 15) | 13-0006-0011-0002 | George Jeffrey Hull and Sandra J. Hull, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% | 718/484 33/110 | 0.00% |
| 16) | 13-0006-0031-0000 | James D. Hull and Georgia Mae Hull, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% | 718/618 33/110 | 0.00% |
| 17) | 13-0006-0029-0007 | Keith R. Fultz and Sandra K. Fultz, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% | 718/247 33/110 | 0.00% |
| 18) | 13-0006-0029-0004 | Kenneth L. Hillbery and Arissa I. Hillbery, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% | 726/406 33/110 | 0.00% |
| 19) | 13-0006-0029-0000 | Mark C. Simon | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 14.00% | 692/128 33/110 | 0.00% |
| 20) | 13-006A-0019-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) Evelene E. Starns, married, dealing in her sole and separate property Charles David Millhouse, married, dealing in his sole and separate property Harry Edward Millhouse, married, dealing in his sole and separate property Kenneth Eugene Millhouse, married, dealing in his sole and separate property Dennis Lee Millhouse, married, dealing in his sole and separate property Edward F. Jamison, Jr., a married man dealing in his sole and separate property Shauna Kay Millhouse Knox Barry, a married woman dealing in her sole and separate property Sheila Jo Millhouse Pail, a married woman dealing in her sole and separate property Sherril Lynn Millhouse Yoho, a married woman dealing in her sole and separate property | N/A Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | N/A 18.00% | N/A 727/106 33/110 733/111 33/110 733/87 33/110 733/93 33/110 733/99 33/110 1182/39 1187/548 1187/561 1187/541 969/621 692/266 33/110 692/266 33/110 720/313 33/110 1186/144 1186/144 1186/144 720/565 | 50.00% |
| 21) | 13-006A-0007-0000 | Gregory G. Porter, Sr. and Paula Porter, husband and wife | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% | 969/621 33/110 | 0.00% |
| 22) | 13-0006-0028-0006 | Lloyd T. Hall and Lorna K. Hall, his wife, as joint tenants with right of survivorship | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 12.50% | 692/266 33/110 | 0.00% |
| 23) | 13-0006-0028-0000 | Lloyd T. Hall and Lorna K. Hall, his wife, as joint tenants with right of survivorship | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 12.50% | 692/266 33/110 | 0.00% |
| 24) | 13-0005-0022-0000 | Suzanne M. Kubancik | Chesapeake Appalachia, L.L.C. SWN Production Company, LLC | 18.00% | 720/313 33/110 | 0.00% |
| 25) | 13-0005-0021-0000 | CNOX Gas Company, LLC | SWN Production Company, LLC | 18.00% | 1186/144 | 0.00% |
| 26) | 13-0005-0014-0000 | CNOX Gas Company, LLC | SWN Production Company, LLC | 18.00% | 1186/144 | 0.00% |
| 27) | 13-0005-0028-0000 | Stanley M. Kubancik and Tabitha Lynn Kubancik, husband and wife | Chesapeake Appalachia, L.L.C. | 18.00% | 720/565 | 0.00% |

4705102516

| Item | Key | Owner | Company | Share | Value | Percentage |
|------|-------------------|--|--|--------|----------|------------|
| 28) | 13-0005-0013-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) Bounty Minerals, LLC | SWN Production Company, LLC | N/A | 33,110 | 36.00% |
| | | Trustees of First Presbyterian Church | TH Exploration, LLC | 20.00% | 965,505 | |
| | | | American Petroleum Partners Operating, LLC | | 43,497 | |
| | | | SWN Production Company, LLC | | 48,263 | |
| | | | SWN Production Company, LLC | 18.00% | 1188,276 | |
| | | | TH Exploration, LLC | 20.00% | 965,505 | |
| | | | American Petroleum Partners Operating, LLC | | 43,497 | |
| | | | SWN Production Company, LLC | | 48,263 | |
| | | | SWN Production Company, LLC | 18.00% | 1129,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,437 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,645 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,229 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,477 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,577 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,436 | |
| 29) | 13-0001-0055-0000 | Royalty Owner A. R. Walker, widower Susan Reese, single Pat Lacock, single Margaret Ann Boys, fka Margaret Fish, married Brett Snyder, married Laurel Snyder, fka Laurel Dotterweich, single Kurt E. Snyder, married Trustees of First Presbyterian Church, fka First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | N/A | N/A | N/A | 0.00% |
| 30) | 13-0001-0056-0002 | Royalty Owner A. R. Walker, widower Christine Mainer, fka Ann Christine Smith, married Brett Snyder, married Catherine Polezel, fka Catherine Smith, married Christopher F. Singleton Joseph Edward Stewart, married Julie Ann Howard, single Kelly Adele Hatz, married Kurt E. Snyder, married Laura Elizabeth Stewart, single Laurel Snyder, fka Laurel Dotterweich, single Margaret Ann Boys, fka Margaret Fish, married Mary Joetta Scenna (a/k/a Jody Scenna) Mary Hall, fka Mary Smith, married Michael Reeves Mabry Patrick J. Smith, Jr., married Pat Lacock, single Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop Sidney Y. Merritt fka Sidney Yvette Golderman Susan Reese, single Theresa Lynn Hambrick, married Theresa Marcopulos fka Theresa Rose Huff, married Trustees of First Presbyterian Church, fka First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | N/A | N/A | N/A | 3.38% |
| | | | SWN Production Company, LLC | 18.00% | 1129,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,421 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,378 | |
| | | | SWN Production Company, LLC | 17.00% | 1134,429 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,224 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,61 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,69 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,81 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,57 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,53 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,47 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,29 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,195 | |
| | | | SWN Production Company, LLC | 16.00% | 1131,676 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,450 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,684 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,645 | |
| | | | SWN Production Company, LLC | 18.00% | 1165,605 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,438 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,437 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,45 | |
| | | | SWN Production Company, LLC | 16.00% | 1131,668 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,436 | |
| 31) | 13-0001-0056-0004 | Royalty Owner A. R. Walker, widower Christine Mainer, fka Ann Christine Smith, married Brett Snyder, married Catherine Polezel, fka Catherine Smith, married Christopher F. Singleton Joseph Edward Stewart, married Julie Ann Howard, single Kelly Adele Hatz, married Kurt E. Snyder, married Laura Elizabeth Stewart, single Laurel Snyder, fka Laurel Dotterweich, single Margaret Ann Boys, fka Margaret Fish, married Mary Joetta Scenna (a/k/a Jody Scenna) Mary Hall, fka Mary Smith, married Michael Reeves Mabry Patrick J. Smith, Jr., married Pat Lacock, single Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop Sidney Y. Merritt fka Sidney Yvette Golderman Susan Reese, single Theresa Lynn Hambrick, married Theresa Marcopulos fka Theresa Rose Huff, married Trustees of First Presbyterian Church, fka First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | N/A | N/A | N/A | 3.38% |
| | | | SWN Production Company, LLC | 18.00% | 1129,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,421 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,378 | |
| | | | SWN Production Company, LLC | 17.00% | 1134,429 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,224 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,61 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,69 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,81 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,57 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,53 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,47 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,29 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,195 | |
| | | | SWN Production Company, LLC | 16.00% | 1131,676 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,450 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,684 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,645 | |
| | | | SWN Production Company, LLC | 18.00% | 1165,605 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,438 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,437 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,45 | |
| | | | SWN Production Company, LLC | 16.00% | 1131,668 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,436 | |
| 32) | 13-0001-0056-0003 | Royalty Owner Adviance Cathleen Jones Alicia Mainer Rose, fka Alicia Rose Mainer Brett Snyder, a married man dealing in his sole and separate property Catherine Polezel fka Catherine Louise Smith, a married woman Christopher F. Singleton Joseph Edward Stewart, a married man dealing in his sole and separate property Julie Howard a/k/a Julie Ann Howard Kelly Adele Hatz, a married woman dealing in her sole and separate property Kurt Snyder, a married man dealing in his sole and separate property Laura Elizabeth Stewart, a single woman Laurel Snyder, a single woman Margaret Ann Boys a/k/a Margaret Fish Mary Jo Scenna, a/k/a Mary Jody Singleton Scenna, a/k/a Jody Singleton, a/k/a Mary Joetta Singleton, a married woman dealing in her sole and separate property Mary Ruth Hall Michael Reeves Mabry Patrick J. Smith, Jr., a married man dealing in his sole and separate property Pat Lacock, a single woman Most Reverend Mark E. Brennan, Bishop of the Roman Catholic Diocese of Wheeling-Charleston, his successors and assigns, for the benefit of Our Lady of Peace Parish Sidney Y. Merritt fka Sidney Yvette Golderman Susan Reese, a single woman Theresa Hambrick a/k/a Theresa Lynn Hambrick Theresa Marcopulos fka Theresa Rose Huff, a married woman dealing in her sole and separate property Trustees of First Presbyterian Church, a West Virginia Church, fka First United Presbyterian Church | N/A | N/A | N/A | 14.58% |
| | | | SWN Production Company, LLC | 16.00% | 1191,453 | |
| | | | SWN Production Company, LLC | 16.00% | 1191,464 | |
| | | | SWN Production Company, LLC | 18.00% | 1188,148 | |
| | | | SWN Production Company, LLC | 17.00% | 1173,526 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,224 | |
| | | | SWN Production Company, LLC | 18.00% | 1172,325 | |
| | | | SWN Production Company, LLC | 18.00% | 1187,399 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,207 | |
| | | | SWN Production Company, LLC | 18.00% | 1187,478 | |
| | | | SWN Production Company, LLC | 18.00% | 1173,517 | |
| | | | SWN Production Company, LLC | 18.00% | 1187,500 | |
| | | | SWN Production Company, LLC | 18.00% | 1187,489 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,195 | |
| | | | SWN Production Company, LLC | 16.00% | 1172,703 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,450 | |
| | | | SWN Production Company, LLC | 18.00% | 1172,338 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,14 | |
| | | | SWN Production Company, LLC | 18.00% | 1179,120 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,438 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,220 | |
| | | | SWN Production Company, LLC | 18.00% | 1191,661 | |
| | | | SWN Production Company, LLC | 16.00% | 1173,535 | |
| | | | SWN Production Company, LLC | 18.00% | 1173,544 | |
| 33) | 13-0001-0056-0006 | Royalty Owner Adviance Cathleen Jones Alicia Mainer Rose, fka Alicia Rose Mainer Brett Snyder, a married man dealing in his sole and separate property Catherine Polezel fka Catherine Louise Smith, a married woman Christopher F. Singleton Kelly Adele Hatz, a married woman dealing in her sole and separate property Kurt Snyder, a married man dealing in his sole and separate property Laura Elizabeth Stewart, a single woman Margaret Ann Boys a/k/a Margaret Fish | N/A | N/A | N/A | 21.37% |
| | | | SWN Production Company, LLC | 16.00% | 1191,453 | |
| | | | SWN Production Company, LLC | 16.00% | 1191,464 | |
| | | | SWN Production Company, LLC | 18.00% | 1191,515 | |
| | | | SWN Production Company, LLC | 18.00% | 1191,529 | |
| | | | SWN Production Company, LLC | 18.00% | 1188,627 | |
| | | | SWN Production Company, LLC | 18.00% | 1188,417 | |
| | | | SWN Production Company, LLC | 18.00% | 1191,684 | |
| | | | SWN Production Company, LLC | 18.00% | 1188,242 | |
| | | | SWN Production Company, LLC | 18.00% | 1187,489 | |

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|----|-------------------|---|--|--------|----------|
| | | Mary Jo Scenna, a/k/a Mary Jody Singleton Scenna, a/k/a Jody Singleton, a/k/a Mary Jousita Singleton, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1188.249 |
| | | Mary Ruth Hall | SWN Production Company, LLC | 16.00% | 1186.739 |
| | | Patrick J. Smith, Jr., a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1188.256 |
| | | Pat Lacock, a single woman | SWN Production Company, LLC | 18.00% | 1191.399 |
| | | Sidney Y. Merritt, E/k/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1191.877 |
| | | Susan Reese, a single woman | SWN Production Company, LLC | 18.00% | 1191.407 |
| | | Theresa Marcopulos, E/k/a Theresa Rose Huff, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1188.410 |
| | | Trustees of First Presbyterian Church, a West Virginia Church, E/k/a First United Presbyterian Church | SWN Production Company, LLC | 18.00% | 1188.276 |
| 34 | 13-0001-0076-0000 | Royalty Owner | N/A | N/A | N/A |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129.378 |
| | | Christine Mainer, E/k/a Ann Christine Smith, married | SWN Production Company, LLC | 18.00% | 1134.421 |
| | | Brett Snyder, married | SWN Production Company, LLC | 18.00% | 1154.38 |
| | | Catherine Polese, E/k/a Catherine Smith, married | SWN Production Company, LLC | 18.00% | 1134.429 |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177.24 |
| | | Joseph Edward Stewart, married | SWN Production Company, LLC | 18.00% | 1153.61 |
| | | Julie Ann Howard, single | SWN Production Company, LLC | 18.00% | 1153.69 |
| | | Kelly Adele Hatz, married | SWN Production Company, LLC | 18.00% | 1158.81 |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154.57 |
| | | Laura Elizabeth Stewart, single | SWN Production Company, LLC | 18.00% | 1153.53 |
| | | Laurel Snyder, E/k/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154.29 |
| | | Margaret Ann Boys, E/k/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1175.195 |
| | | Mary Jonetta Scenna (a/k/a Jody Scenna) | SWN Production Company, LLC | 18.00% | 1131.676 |
| | | Mary Hall, E/k/a Mary Smith, married | SWN Production Company, LLC | 18.00% | 1174.450 |
| | | Michael Reeves Mabey | SWN Production Company, LLC | 18.00% | 1131.684 |
| | | Patrick J. Smith, Jr., married | SWN Production Company, LLC | 18.00% | 1165.605 |
| | | Pat Lacock, single | SWN Production Company, LLC | 18.00% | 1134.645 |
| | | Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop | SWN Production Company, LLC | 18.00% | 1165.605 |
| | | Sidney Y. Merritt, E/k/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1134.437 |
| | | Theresa Lynn Hambrick, married | SWN Production Company, LLC | 18.00% | 1153.45 |
| | | Theresa Marcopulos, E/k/a Theresa Rose Huff, married | SWN Production Company, LLC | 18.00% | 1131.668 |
| | | Trustees of First Presbyterian Church, E/k/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1158.436 |
| 35 | 13-0001-0075-0000 | Royalty Owner | N/A | N/A | N/A |
| | | Bounty Minerals, LLC | TH Exploration, LLC | 20.00% | 965.305 |
| | | | American Petroleum Partners Operating, LLC | | 43.497 |
| | | | SWN Production Company, LLC | | 48.263 |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129.378 |
| | | Brett Snyder, married | SWN Production Company, LLC | 18.00% | 1154.38 |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154.57 |
| | | Laurel Snyder, E/k/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154.47 |
| | | Margaret Ann Boys, E/k/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1154.29 |
| 36 | 13-0001-0074-0000 | Royalty Owner | N/A | N/A | 20.00% |
| | | Bounty Minerals, LLC | TH Exploration, LLC | 20.00% | 965.305 |
| | | | American Petroleum Partners Operating, LLC | | 43.497 |
| | | | SWN Production Company, LLC | | 48.263 |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129.378 |
| | | Brett Snyder, married | SWN Production Company, LLC | 18.00% | 1154.38 |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154.57 |
| | | Laurel Snyder, E/k/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154.47 |
| | | Margaret Ann Boys, E/k/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1154.29 |
| 37 | 13-0001-0058-0000 | CNX Gas Company, LLC, by Timothy Sarnick, President | SWN Production Company, LLC | 18.00% | 1156.144 |
| 38 | 13-01DD-0002-0000 | Royalty Owner | N/A | N/A | 3.38% |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129.378 |
| | | Christine Mainer, E/k/a Ann Christine Smith, married | SWN Production Company, LLC | 18.00% | 1134.421 |
| | | Brett Snyder, married | SWN Production Company, LLC | 18.00% | 1154.38 |
| | | Catherine Polese, E/k/a Catherine Smith, married | SWN Production Company, LLC | 18.00% | 1134.429 |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177.24 |
| | | Joseph Edward Stewart, married | SWN Production Company, LLC | 18.00% | 1153.61 |
| | | Julie Ann Howard, single | SWN Production Company, LLC | 18.00% | 1153.69 |
| | | Kelly Adele Hatz, married | SWN Production Company, LLC | 18.00% | 1158.81 |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154.57 |
| | | Laura Elizabeth Stewart, single | SWN Production Company, LLC | 18.00% | 1153.53 |
| | | Laurel Snyder, E/k/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154.47 |
| | | Margaret Ann Boys, E/k/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1175.195 |
| | | Mary Jonetta Scenna (a/k/a Jody Scenna) | SWN Production Company, LLC | 18.00% | 1131.676 |
| | | Mary Hall, E/k/a Mary Smith, married | SWN Production Company, LLC | 18.00% | 1174.450 |
| | | Michael Reeves Mabey | SWN Production Company, LLC | 18.00% | 1131.684 |
| | | Patrick J. Smith, Jr., married | SWN Production Company, LLC | 18.00% | 1165.605 |
| | | Pat Lacock, single | SWN Production Company, LLC | 18.00% | 1134.645 |
| | | Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop | SWN Production Company, LLC | 18.00% | 1165.605 |
| | | Sidney Y. Merritt, E/k/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1134.437 |
| | | Theresa Lynn Hambrick, married | SWN Production Company, LLC | 18.00% | 1153.45 |
| | | Theresa Marcopulos, E/k/a Theresa Rose Huff, married | SWN Production Company, LLC | 18.00% | 1131.668 |
| | | Trustees of First Presbyterian Church, E/k/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1158.436 |
| 39 | 13-01DD-0007-0001 | Royalty Owner | N/A | N/A | 3.38% |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129.378 |
| | | Christine Mainer, E/k/a Ann Christine Smith, married | SWN Production Company, LLC | 18.00% | 1134.421 |
| | | Brett Snyder, married | SWN Production Company, LLC | 18.00% | 1154.38 |
| | | Catherine Polese, E/k/a Catherine Smith, married | SWN Production Company, LLC | 18.00% | 1134.429 |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177.24 |
| | | Joseph Edward Stewart, married | SWN Production Company, LLC | 18.00% | 1153.61 |
| | | Julie Ann Howard, single | SWN Production Company, LLC | 18.00% | 1153.69 |
| | | Kelly Adele Hatz, married | SWN Production Company, LLC | 18.00% | 1158.81 |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154.57 |
| | | Laura Elizabeth Stewart, single | SWN Production Company, LLC | 18.00% | 1153.53 |
| | | Laurel Snyder, E/k/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154.47 |
| | | Margaret Ann Boys, E/k/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1175.195 |
| | | Mary Jonetta Scenna (a/k/a Jody Scenna) | SWN Production Company, LLC | 18.00% | 1131.676 |
| | | Mary Hall, E/k/a Mary Smith, married | SWN Production Company, LLC | 18.00% | 1174.450 |
| | | Michael Reeves Mabey | SWN Production Company, LLC | 18.00% | 1131.684 |
| | | Patrick J. Smith, Jr., married | SWN Production Company, LLC | 18.00% | 1165.605 |
| | | Pat Lacock, single | SWN Production Company, LLC | 18.00% | 1134.645 |
| | | Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop | SWN Production Company, LLC | 18.00% | 1165.605 |
| | | Sidney Y. Merritt, E/k/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1134.437 |
| | | Theresa Lynn Hambrick, married | SWN Production Company, LLC | 18.00% | 1153.45 |
| | | Theresa Marcopulos, E/k/a Theresa Rose Huff, married | SWN Production Company, LLC | 18.00% | 1131.668 |
| | | Trustees of First Presbyterian Church, E/k/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1158.436 |

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|-----|-------------------|---|--|--------|----------|---------|
| 40) | 13-01DD-0001-0000 | Royalty Owner | N/A | N/A | N/A | 3.38% |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129/378 | |
| | | Christine Mainer, Ek/a Ann Christine Smith, married | SWN Production Company, LLC | 18.00% | 1134/421 | |
| | | Brett Snyder, married | SWN Production Company, LLC | 18.00% | 1154/38 | |
| | | Catherine Polonsi, Ek/a Catherine Smith, married | SWN Production Company, LLC | 18.00% | 1134/429 | |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177/24 | |
| | | Joseph Edward Stewart, married | SWN Production Company, LLC | 18.00% | 1153/61 | |
| | | Julie Ann Howard, single | SWN Production Company, LLC | 18.00% | 1153/69 | |
| | | Kelly Adele Hatz, married | SWN Production Company, LLC | 18.00% | 1158/81 | |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154/57 | |
| | | Laura Elizabeth Stewart, single | SWN Production Company, LLC | 18.00% | 1153/53 | |
| | | Laurel Snyder, Ek/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154/47 | |
| | | Margaret Ann Boys, Ek/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1154/29 | |
| | | Mary Jossita Scenna (a/k/a Jody Scenna) | SWN Production Company, LLC | 18.00% | 1154/29 | |
| | | Mary Hall, Ek/a Mary Smith, married | SWN Production Company, LLC | 18.00% | 1175/195 | |
| | | Michael Reeves Mabry | SWN Production Company, LLC | 18.00% | 1131/676 | |
| | | Patrick J. Smith, Jr., married | SWN Production Company, LLC | 18.00% | 1174/450 | |
| | | Pat Laock, single | SWN Production Company, LLC | 18.00% | 1131/684 | |
| | | Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop | SWN Production Company, LLC | 18.00% | 1134/645 | |
| | | Sidney Y. Merritt Ek/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1165/605 | |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1134/437 | |
| | | Theresa Lynn Hambrick, married | SWN Production Company, LLC | 18.00% | 1153/45 | |
| | | Theresa Marcopulos Ek/a Theresa Rose Huff, married | SWN Production Company, LLC | 18.00% | 1131/668 | |
| | | Trustees of First Presbyterian Church, Ek/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1158/416 | |
| 41) | 13-0001-0071-0000 | Royalty Owner | N/A | N/A | N/A | 14.58% |
| | | Adriane Cathleen Jones | SWN Production Company, LLC | 16.00% | 1191/453 | |
| | | Alicia Mainer Rose, Ek/a Alicia Rose Mainer | SWN Production Company, LLC | 16.00% | 1191/464 | |
| | | Brett Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1188/148 | |
| | | Catherine Polonsi Ek/a Catherine Louise Smith, a married woman | SWN Production Company, LLC | 17.00% | 1173/526 | |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177/24 | |
| | | Joseph Edward Stewart, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172/329 | |
| | | Julie Howard a/k/a Julie Ann Howard | SWN Production Company, LLC | 18.00% | 1187/399 | |
| | | Kelly Adele Hatz, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175/297 | |
| | | Kurt Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1187/478 | |
| | | Laura Elizabeth Stewart, a single woman | SWN Production Company, LLC | 18.00% | 1173/517 | |
| | | Laurel Snyder, a single woman | SWN Production Company, LLC | 18.00% | 1187/500 | |
| | | Margaret Ann Boys a/k/a Ek/a Margaret Fish | SWN Production Company, LLC | 18.00% | 1187/489 | |
| | | Mary Jo Scenna, a/k/a Mary Jody Singleton Scenna, a/k/a Jody Singleton, a/k/a Mary Jossita Singleton, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175/195 | |
| | | Mary Ruth Hall | SWN Production Company, LLC | 16.00% | 1172/703 | |
| | | Michael Reeves Mabry | SWN Production Company, LLC | 18.00% | 1174/439 | |
| | | Patrick J. Smith, Jr., a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172/338 | |
| | | Pat Laock, a single woman | SWN Production Company, LLC | 18.00% | 1177/14 | |
| | | Most Reverend Mark E. Brennan, Bishop of the Roman Catholic Diocese of Wheeling-Charleston, his successors and assigns, for the benefit of Our Lady of Peace Parish | SWN Production Company, LLC | 18.00% | 1179/120 | |
| | | Sidney Y. Merritt Ek/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174/438 | |
| | | Susan Reese, a single woman | SWN Production Company, LLC | 18.00% | 1175/220 | |
| | | Theresa Hambrick a/k/a Theresa Lynn Hambrick | SWN Production Company, LLC | 18.00% | 1153/45 | |
| | | Theresa Marcopulos Ek/a Theresa Rose Huff, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1171/535 | |
| | | Trustees of First Presbyterian Church, a West Virginia Church, Ek/a First United Presbyterian Church | SWN Production Company, LLC | 18.00% | 1173/544 | |
| 42) | 13-0001-0070-0000 | CNOX Gas Company, LLC, by Timothy Surnick, President | SWN Production Company, LLC | 18.00% | 1156/153 | 0.00% |
| 43) | 13-0001-0069-0000 | Maureen Mentes, a widow | SWN Production Company, LLC | 18.00% | 1130/493 | 0.00% |
| | | Janet Schultz, married, dealing in her separate property | SWN Production Company, LLC | 18.00% | 1130/499 | |
| | | Ronald Bradovich, single | SWN Production Company, LLC | 18.00% | 1130/502 | |
| 44) | 13-0001-0068-0000 | Douglas E. Miller | SWN Production Company, LLC | 18.00% | 1129/387 | 0.00% |
| 45) | 13-0001-0016-0000 | Royalty Owner | N/A | N/A | N/A | 3.38% |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129/378 | |
| | | Christine Mainer, Ek/a Ann Christine Smith, married | SWN Production Company, LLC | 18.00% | 1134/421 | |
| | | Brett Snyder, married | SWN Production Company, LLC | 18.00% | 1154/38 | |
| | | Catherine Polonsi, Ek/a Catherine Smith, married | SWN Production Company, LLC | 18.00% | 1134/429 | |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177/24 | |
| | | Joseph Edward Stewart, married | SWN Production Company, LLC | 18.00% | 1153/61 | |
| | | Julie Ann Howard, single | SWN Production Company, LLC | 18.00% | 1153/69 | |
| | | Kelly Adele Hatz, married | SWN Production Company, LLC | 18.00% | 1158/81 | |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154/57 | |
| | | Laura Elizabeth Stewart, single | SWN Production Company, LLC | 18.00% | 1153/53 | |
| | | Laurel Snyder, Ek/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154/47 | |
| | | Margaret Ann Boys, Ek/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1154/29 | |
| | | Mary Jossita Scenna (a/k/a Jody Scenna) | SWN Production Company, LLC | 18.00% | 1175/195 | |
| | | Mary Hall, Ek/a Mary Smith, married | SWN Production Company, LLC | 18.00% | 1131/676 | |
| | | Michael Reeves Mabry | SWN Production Company, LLC | 18.00% | 1174/450 | |
| | | Patrick J. Smith, Jr., married | SWN Production Company, LLC | 18.00% | 1131/684 | |
| | | Pat Laock, single | SWN Production Company, LLC | 18.00% | 1134/645 | |
| | | Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop | SWN Production Company, LLC | 18.00% | 1165/605 | |
| | | Sidney Y. Merritt Ek/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174/438 | |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1134/437 | |
| | | Theresa Lynn Hambrick, married | SWN Production Company, LLC | 18.00% | 1153/45 | |
| | | Theresa Marcopulos Ek/a Theresa Rose Huff, married | SWN Production Company, LLC | 18.00% | 1131/668 | |
| | | Trustees of First Presbyterian Church, Ek/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1158/436 | |
| 46) | 13-0001-0037-0000 | Royalty Owner | N/A | N/A | N/A | 25.00% |
| | | Rebecca Catharine Fondren Cochran | SWN Production Company, LLC | 18.00% | 1159/7 | |
| | | Margaret Louise Fondren Duncan | SWN Production Company, LLC | 18.00% | 1158/107 | |
| | | Meredith Stein Ferrill | SWN Production Company, LLC | 18.00% | 1131/182 | |
| | | Francis William Fondren | SWN Production Company, LLC | 18.00% | 1160/526 | |
| | | John Edmund Fondren | SWN Production Company, LLC | 18.00% | 1155/461 | |
| | | Joan Stein Fulton | SWN Production Company, LLC | 18.00% | 1152/746 | |
| | | Kristi Miserendino, Ek/a Kristi Stein, married, dealing herein with her separate property | SWN Production Company, LLC | 18.00% | 1131/692 | |
| | | Lillian M. Oliver Revocable Trust U/A dated 9/17/1998 | SWN Production Company, LLC | 18.00% | 1131/176 | |
| | | Oswald Joseph Pizi, a/k/a Jerry Pizi, widower | SWN Production Company, LLC | 18.00% | 1130/487 | |
| | | Lucia Stein Frech | SWN Production Company, LLC | 18.00% | 1152/352 | |
| | | Christin L. Stein | SWN Production Company, LLC | 18.00% | 1150/289 | |
| | | Eric Stein | SWN Production Company, LLC | 18.00% | 1135/277 | |
| | | William D. Stein | SWN Production Company, LLC | 18.00% | 1168/702 | |
| 47) | 13-0001-0007-0000 | CNOX Gas Company, LLC | SWN Production Company, LLC | 18.00% | 1156/144 | 0.00% |
| 48) | 13-001K-0019-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 49) | 13-001K-0018-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 50) | 13-001K-0017-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 51) | 13-001K-0016-0000 | Michael Sobota, Jr. and Mary Ann Sobota, husband and wife, as joint tenants with right of survivorship | American Petroleum Partners Operating, LLC | 18.00% | 923/558 | 0.00% |
| | | | SWN Production Company, LLC | 18.00% | 48/263 | 0.00% |
| 52) | 13-001K-0015-0000 | Michael Sobota, Jr. and Mary Ann Sobota, husband and wife, as joint tenants with right of survivorship | American Petroleum Partners Operating, LLC | 18.00% | 923/558 | 0.00% |
| | | | SWN Production Company, LLC | 18.00% | 48/263 | 0.00% |

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|------|-----------------------|--|--|--------|----------|---------|
| 33) | 13-001K-0014-0000 | Erna M. Tatar, a widow, Lile Tamart, Karen M. Karnava, Dk.a Karen M. Tatar, a married woman dealing in her sole and separate property, and Remainderman | SWN Production Company, LLC | 18.00% | 1186.725 | 0.00% |
| 34) | 13-001K-0013-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 35) | 13-001K-0012-0000 | Lucas D. Sessler, a single man | American Petroleum Partners Operating, LLC | 18.00% | 924206 | 0.00% |
| 36) | 13-001K-0017-0000 | David A. Dove, a married man dealing in his sole and separate property | SWN Production Company, LLC | 16.00% | 48263 | 0.00% |
| 37) | 13-001K-0009-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | SWN Production Company, LLC | 16.00% | 1187113 | 0.00% |
| 38) | 13-001K-0007-0000 | Sandra Ann Tomplin, a single woman | N/A | N/A | N/A | 100.00% |
| 39) | 13-001K-0006-0000 | Shawn T. Sampson and Melvnda D. Sampson, husband and wife, as joint tenants with right of survivorship | SWN Production Company, LLC | 16.00% | 1175188 | 0.00% |
| 40) | 13-001K-0001-0000 | Shawn T. Sampson and Melvnda D. Sampson, husband and wife | SWN Production Company, LLC | 18.00% | 1175822 | 0.00% |
| 41) | 13-001B-0026-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | SWN Production Company, LLC | 18.00% | 1175622 | 0.00% |
| 42) | 13-001B-0027-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 43) | 13-001B-0028-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 44) | 13-001B-0029-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 45) | 13-001B-0030-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 46) | 13-001B-0031-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 47) | 13-001B-0036-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 48) | 13-001B-0037-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 49) | 13-001B-0037-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 50) | 13-001B-0038-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 51) | 13-001A-0213-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 52) | 13-001A-0214-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 53) | 13-001A-0211-0000 | Edward S. Nolan, a single man | SWN Production Company, LLC | 18.00% | 1179241 | 0.00% |
| 54) | 13-001A-0209-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 55) | 13-001A-0210-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 56) | 10-0W93-0023-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 57) | 10-0W93-0019-0001 | Jacob Mull and Madalyn Hull, husband and wife | SWN Production Company, LLC | 18.00% | 1064338 | 0.00% |
| 58) | 10-0W93-0201-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 50.00% |
| 59) | 10-0W93-0201-0000 | Joyce A. Lyrio-Takis, a single woman | SWN Production Company, LLC | 18.00% | 1065384 | 50.00% |
| 60) | 10-0W93-0200-0000 | Joyce A. Lyrio-Takis, a single woman | N/A | N/A | N/A | 50.00% |
| 61) | 10-0W93-0195-0000 | Christopher T. Harms | SWN Production Company, LLC | 18.00% | 1065384 | 0.00% |
| 62) | 10-0W93-0078-0000 | City of Wheeling, a municipal corporation, by Robert Harro, City Manager | SWN Production Company, LLC | 17.00% | 1057231 | 0.00% |
| 63) | 10-0W93-0194-0001 | Alex S. Nisperly, a single man | SWN Production Company, LLC | 18.00% | 1046533 | 0.00% |
| 64) | 10-0W93-0186-0001 | Tyler David Dickey aka Tyler D. Dickey, a single man | SWN Production Company, LLC | 16.00% | 1061571 | 0.00% |
| 65) | 10-0W93-0187-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | SWN Production Company, LLC | 16.00% | 1047779 | 0.00% |
| 66) | 10-0W93-0185-0000 | Mary J. Welton, unmarried | N/A | N/A | N/A | 100.00% |
| 67) | 10-0W93-0118-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | SWN Production Company, LLC | 18.00% | 1056236 | 0.00% |
| 68) | 10-0W93-0119-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 69) | 10-0W93-0116-0000 | William C. Ulrich and Josh M. Haley-Ulrich, husband and wife | N/A | N/A | N/A | 100.00% |
| 70) | 10-0W93-0116-0000 | Daniel L. Dobbs and Julie A. Dobbs, husband and wife | SWN Production Company, LLC | 16.00% | 1059767 | 0.00% |
| 71) | 10-0W93-0117-0002 | William C. Ulrich and Josh M. Haley-Ulrich, husband and wife | SWN Production Company, LLC | 16.00% | 1059767 | 0.00% |
| 72) | 10-0W93-0032-0000 | Daniel L. Dobbs and Julie A. Dobbs, husband and wife | American Petroleum Partners Operating, LLC | 18.00% | 935306 | 0.00% |
| 73) | 10-0W93-0032-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | SWN Production Company, LLC | 16.00% | 993705 | 0.00% |
| 74) | 10-0W93-0033-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 75) | 10-0W93-0037-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 76) | 10-0W93-0036-0000 | Shelley L. Showalter and Shyla B. Showalter | N/A | N/A | N/A | 100.00% |
| 77) | 10-0W93-0038-0000 | Sammal A. Miklas, a single man | SWN Production Company, LLC | 16.00% | 1064838 | 0.00% |
| 78) | 10-0W93-0039-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 79) | 10-0W93-0040-0000 | Linda Jean King, a widow | SWN Production Company, LLC | 18.00% | 1062540 | 0.00% |
| 80) | 10-0W93-0014-0000 | Robert R. Custer, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1062515 | 0.00% |
| 81) | 10-0W93-0013-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 82) | 10-0W93-0013-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 83) | 10-0W93-0012-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 84) | 10-0W93-0012-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 85) | 10-0W93-0011-0000 | Brian M. White and Dana E. White, husband and wife | SWN Production Company, LLC | 18.00% | 1057747 | 0.00% |
| 86) | 10-0W93-0010-0000 | James D. Kozomnik, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1059727 | 0.00% |
| 87) | 10-0W93-0009-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 88) | 10-0W93-0008-0000 | Joseph A. Zombek and Debra A. Zombek, husband and wife | SWN Production Company, LLC | 18.00% | 1065412 | 0.00% |
| 89) | 10-0W93-0007-0000 | Benjamin M. Justice and Brooke R. Justice, husband and wife | SWN Production Company, LLC | 18.00% | 1066296 | 0.00% |
| 90) | 10-0W93-0007-0000 | Deborah Ann Shamky, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1057517 | 0.00% |
| 91) | 10-0W93-0003-0000 | Maureen Lee Wagner, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1057668 | 0.00% |
| 92) | 10-0W93-0003-0000 | West Virginia Department of Transportation, Division of Highways | SWN Production Company, LLC | 20.00% | 1065582 | 0.00% |
| 93) | STATE RT 2, US RT 250 | West Virginia Department of Transportation, Division of Highways | SWN Production Company, LLC | 20.00% | 1065582 | 0.00% |
| 94) | STATE RT 2, US RT 250 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 95) | 10-0W78-0420-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 96) | 10-0W78-0407-0000 | Bharat Maniar and Ila Maniar, husband and wife | SWN Production Company, LLC | 16.00% | 1059352 | 0.00% |
| 97) | 10-0W78-0501-0000 | Bharat Maniar and Ila Maniar, husband and wife | SWN Production Company, LLC | 16.00% | 1059352 | 0.00% |
| 98) | 10-0W78-0409-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 99) | 10-0W78-0408-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 100) | 10-0W78-0380-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| 101) | 13-006A-0008-0000 | George J. Stevey, Jr., a married man dealing in his sole and separate property | Chenapeake Appalachia, L.L.C. | 17.00% | 723587 | 0.00% |
| 102) | 13-006A-0008-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | SWN Production Company, LLC | 18.00% | 33310 | 0.00% |
| 103) | 13-0001-0056-0007 | Royalty Owner | N/A | N/A | N/A | 21.37% |
| 104) | 13-0001-0056-0007 | Adrienne Cathleen Jones | SWN Production Company, LLC | 16.00% | 1191453 | 0.00% |
| 105) | 13-0001-0056-0007 | Alicia Mainer Rose, Dk.a Alicia Rose Mainer | SWN Production Company, LLC | 16.00% | 1191464 | 0.00% |
| 106) | 13-0001-0056-0007 | Heri Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1191515 | 0.00% |
| 107) | 13-0001-0056-0007 | Catherine Polod Dk.a Catherine Louise Smith, a married woman | SWN Production Company, LLC | 18.00% | 1191529 | 0.00% |
| 108) | 13-0001-0056-0007 | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1188627 | 0.00% |
| 109) | 13-0001-0056-0007 | Kelly Adele Hatz, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1188437 | 0.00% |
| 110) | 13-0001-0056-0007 | Kurt Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1191484 | 0.00% |
| 111) | 13-0001-0056-0007 | Laura Elizabeth Stewart, a single woman | SWN Production Company, LLC | 18.00% | 1188242 | 0.00% |
| 112) | 13-0001-0056-0007 | Margaret Ann Hoyts a.k.a. B.a. Margaret Fish | SWN Production Company, LLC | 18.00% | 1187489 | 0.00% |
| 113) | 13-0001-0056-0007 | Mary Jo Scenna, a.k.a. Mary Jody Singleton Scenna, a.k.a. Jody Singleton, a.k.a. Mary Jo Scenna, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1188249 | 0.00% |
| 114) | 13-0001-0056-0007 | Mary Ruth Huff | SWN Production Company, LLC | 16.00% | 1186339 | 0.00% |
| 115) | 13-0001-0056-0007 | Patrick J. Smith, Jr., a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1188256 | 0.00% |
| 116) | 13-0001-0056-0007 | Pat Lacoock, a single woman | SWN Production Company, LLC | 18.00% | 1191399 | 0.00% |
| 117) | 13-0001-0056-0007 | Sidney Y. Merritt Dk.a Sidney Yvette Goldkorn | SWN Production Company, LLC | 18.00% | 1191577 | 0.00% |
| 118) | 13-0001-0056-0007 | Susan Reese, a single woman | SWN Production Company, LLC | 18.00% | 1191407 | 0.00% |
| 119) | 13-0001-0056-0007 | Theresa Maropoli Dk.a Theresa Ross Huff, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1188410 | 0.00% |
| 120) | 13-0001-0056-0007 | Trustees of First Presbyterian Church, a West Virginia Church, Dk.a First United Presbyterian Church | SWN Production Company, LLC | 18.00% | 1188276 | 0.00% |
| 121) | 13-0001-0056-0000 | Royalty Owner | N/A | N/A | N/A | 14.58% |
| 122) | 13-0001-0056-0000 | Adrienne Cathleen Jones | SWN Production Company, LLC | 16.00% | 1191453 | 0.00% |
| 123) | 13-0001-0056-0000 | Alicia Mainer Rose, Dk.a Alicia Rose Mainer | SWN Production Company, LLC | 16.00% | 1191464 | 0.00% |

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| | | Brett Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1188.148 | |
| | | Catherine Poloud Ek a Catherine Louise Smith, a married woman | SWN Production Company, LLC | 17.00% | 1173.526 | |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177.24 | |
| | | Joseph Edward Stewart, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172.329 | |
| | | Julie Howard a/k/a Julie Ann Howard | SWN Production Company, LLC | 18.00% | 1187.399 | |
| | | Kelly Adelle Hatz, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175.207 | |
| | | Kurt Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1187.478 | |
| | | Laura Elizabeth Stewart, a single woman | SWN Production Company, LLC | 18.00% | 1173.517 | |
| | | Laurel Snyder, a single woman | SWN Production Company, LLC | 18.00% | 1187.500 | |
| | | Margaret Ann Hoyt a/k/a Margaret Fish | SWN Production Company, LLC | 18.00% | 1187.489 | |
| | | Mary Jo Scenna, a/k/a Mary Jody Singleton Scenna, a/k/a Jody Singleton, a/k/a Mary Josetta Singleton, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175.195 | |
| | | Mary Ruth Hall | SWN Production Company, LLC | 16.00% | 1172.703 | |
| | | Michael Reeves Mabry | SWN Production Company, LLC | 18.00% | 1174.450 | |
| | | Patrick J. Smith, Jr., a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172.318 | |
| | | Pat Laock, a single woman | SWN Production Company, LLC | 18.00% | 1177.14 | |
| | | Most Reverend Mark E. Brennan, Bishop of the Roman Catholic Diocese of Wheeling-Charleston, his successors and assigns, for the benefit of Our Lady of Peace Parish | SWN Production Company, LLC | 18.00% | 1179.120 | |
| | | Sidney Y. Merritt Ek a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 | |
| | | Susan Reese, a single woman | SWN Production Company, LLC | 18.00% | 1175.220 | |
| | | Theresa Handrick a/k/a Theresa Lynn Handrick | SWN Production Company, LLC | 18.00% | 1191.661 | |
| | | Theresa Marcopulos Ek a Theresa Rose Huff, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1173.535 | |
| | | Trustees of First Presbyterian Church, a West Virginia Church, Ek a First United Presbyterian Church | SWN Production Company, LLC | 18.00% | 1175.544 | |
| I3) | 13-0001-0058-0001 | CNN Gas Company, LLC, by Timothy Sumrick, President | SWN Production Company, LLC | 18.00% | 1150.144 | 0.00% |
| J3) | 13-0001-0071-0001 | Royalty Owner | N/A | N/A | N/A | 14.58% |
| | | Adrienne Cathleen Jones | SWN Production Company, LLC | 16.00% | 1191.453 | |
| | | Alicia Mainer Rose, Ek a Alicia Rose Mainer | SWN Production Company, LLC | 16.00% | 1191.464 | |
| | | Brett Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1188.148 | |
| | | Catherine Poloud Ek a Catherine Louise Smith, a married woman | SWN Production Company, LLC | 17.00% | 1173.526 | |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177.24 | |
| | | Joseph Edward Stewart, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172.329 | |
| | | Julie Howard a/k/a Julie Ann Howard | SWN Production Company, LLC | 18.00% | 1187.399 | |
| | | Kelly Adelle Hatz, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175.207 | |
| | | Kurt Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1187.478 | |
| | | Laura Elizabeth Stewart, a single woman | SWN Production Company, LLC | 18.00% | 1173.517 | |
| | | Laurel Snyder, a single woman | SWN Production Company, LLC | 18.00% | 1187.500 | |
| | | Margaret Ann Hoyt a/k/a Margaret Fish | SWN Production Company, LLC | 18.00% | 1187.489 | |
| | | Mary Jo Scenna, a/k/a Mary Jody Singleton Scenna, a/k/a Jody Singleton, a/k/a Mary Josetta Singleton, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175.195 | |
| | | Mary Ruth Hall | SWN Production Company, LLC | 16.00% | 1172.703 | |
| | | Michael Reeves Mabry | SWN Production Company, LLC | 18.00% | 1174.450 | |
| | | Patrick J. Smith, Jr., a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172.318 | |
| | | Pat Laock, a single woman | SWN Production Company, LLC | 18.00% | 1177.14 | |
| | | Most Reverend Mark E. Brennan, Bishop of the Roman Catholic Diocese of Wheeling-Charleston, his successors and assigns, for the benefit of Our Lady of Peace Parish | SWN Production Company, LLC | 18.00% | 1179.120 | |
| | | Sidney Y. Merritt Ek a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 | |
| | | Susan Reese, a single woman | SWN Production Company, LLC | 18.00% | 1175.220 | |
| | | Theresa Handrick a/k/a Theresa Lynn Handrick | SWN Production Company, LLC | 18.00% | 1191.661 | |
| | | Theresa Marcopulos Ek a Theresa Rose Huff, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1173.535 | |
| | | Trustees of First Presbyterian Church, a West Virginia Church, Ek a First United Presbyterian Church | SWN Production Company, LLC | 18.00% | 1175.544 | |
| K3) | 13-0001-0059-0000 | Royalty Owner | N/A | N/A | N/A | 14.58% |
| | | Adrienne Cathleen Jones | SWN Production Company, LLC | 16.00% | 1191.453 | |
| | | Alicia Mainer Rose, Ek a Alicia Rose Mainer | SWN Production Company, LLC | 16.00% | 1191.464 | |
| | | Brett Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1188.148 | |
| | | Catherine Poloud Ek a Catherine Louise Smith, a married woman | SWN Production Company, LLC | 17.00% | 1173.526 | |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177.24 | |
| | | Joseph Edward Stewart, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172.329 | |
| | | Julie Howard a/k/a Julie Ann Howard | SWN Production Company, LLC | 18.00% | 1187.399 | |
| | | Kelly Adelle Hatz, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175.207 | |
| | | Kurt Snyder, a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1187.478 | |
| | | Laura Elizabeth Stewart, a single woman | SWN Production Company, LLC | 18.00% | 1173.517 | |
| | | Laurel Snyder, a single woman | SWN Production Company, LLC | 18.00% | 1187.500 | |
| | | Margaret Ann Hoyt a/k/a Margaret Fish | SWN Production Company, LLC | 18.00% | 1187.489 | |
| | | Mary Jo Scenna, a/k/a Mary Jody Singleton Scenna, a/k/a Jody Singleton, a/k/a Mary Josetta Singleton, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 18.00% | 1175.195 | |
| | | Mary Ruth Hall | SWN Production Company, LLC | 16.00% | 1172.703 | |
| | | Michael Reeves Mabry | SWN Production Company, LLC | 18.00% | 1174.450 | |
| | | Patrick J. Smith, Jr., a married man dealing in his sole and separate property | SWN Production Company, LLC | 18.00% | 1172.318 | |
| | | Pat Laock, a single woman | SWN Production Company, LLC | 18.00% | 1177.14 | |
| | | Most Reverend Mark E. Brennan, Bishop of the Roman Catholic Diocese of Wheeling-Charleston, his successors and assigns, for the benefit of Our Lady of Peace Parish | SWN Production Company, LLC | 18.00% | 1179.120 | |
| | | Sidney Y. Merritt Ek a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 | |
| | | Susan Reese, a single woman | SWN Production Company, LLC | 18.00% | 1175.220 | |
| | | Theresa Handrick a/k/a Theresa Lynn Handrick | SWN Production Company, LLC | 18.00% | 1191.661 | |
| | | Theresa Marcopulos Ek a Theresa Rose Huff, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1173.535 | |
| | | Trustees of First Presbyterian Church, a West Virginia Church, Ek a First United Presbyterian Church | SWN Production Company, LLC | 18.00% | 1175.544 | |
| D4) | 13-001K-0020-0000 | Lada L. Cox, Trustee of the Lyda Cox Family Trust dated July 13, 2019 | SWN Production Company, LLC | 18.00% | 1179.100 | 0.00% |
| N4) | 13-001K-0033-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| O4) | 13-001K-0036-0000 | Adam D. Campbell and Stacey L. Kusik Campbell, husband and wife | SWN Production Company, LLC | 16.00% | 1175.576 | 0.00% |
| J5) | 13-001A-0162-0000 | Edward S. Nolan, a single man | SWN Production Company, LLC | 18.00% | 1179.241 | 0.00% |
| N5) | 10-0W93-0022-0000 | Daniel Glenn Terrell and Stacy Lynn Terrell, husband and wife | SWN Production Company, LLC | 18.00% | 1062.152 | 0.00% |
| O5) | 10-0W93-0021-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| Z5) | 10-0W99-0073-0000 | James H. Kash and Denise A. Kash, husband and wife | SWN Production Company, LLC | 18.00% | 1060.161 | 0.00% |
| G6) | 10-0W89-0116-0001 | Paula J. Peters, a married woman dealing in her sole and separate property | SWN Production Company, LLC | 16.00% | 1058.312 | 0.00% |
| H6) | 10-0W89-0186-0000 | Richard L. McCarrill and Jenny L. McCarrill, husband and wife | SWN Production Company, LLC | 16.00% | 1062.865 | 0.00% |
| I6) | 10-0W89-0117-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| B7) | 10-0W85-0031-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| E7) | 10-0W85-0020-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| F7) | 10-0W85-0033-0000 | Kyle J. Regan and Emily Regan, husband and wife | SWN Production Company, LLC | 16.00% | 1057.523 | 0.00% |
| J7) | 10-0W85-0015-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| K7) | 10-0W85-0014-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| L8) | 10-0W78-0050-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| O9) | 10-0W78-0040-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| I9) | 10-0W78-0041-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| L9) | 10-0W79-0018-0000 | West Virginia Department of Transportation, Division of Highways | SWN Production Company, LLC | 20.00% | 1065.82 | 0.00% |
| U9) | 10-0W85-0043-0000 | Paula J. Calvert | SWN Production Company, LLC | 18.00% | 1065.471 | 0.00% |
| V9) | 10-0W85-0042-0002 | Paula J. Calvert | SWN Production Company, LLC | 18.00% | 1065.471 | 0.00% |
| W9) | 10-0W85-0042-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| X9) | 10-0W85-0041-0000 | Joshua T. Grandstaff, a single man | SWN Production Company, LLC | 16.00% | 1058.641 | 0.00% |
| K10) | 10-0W89-0188-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| L10) | 10-0W89-0184-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| M10) | 10-0W89-0184-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| P10) | 10-0W89-0079-0000 | Deborah L. Callahan, a single woman | SWN Production Company, LLC | 18.00% | 1058.525 | 0.00% |
| V10) | 10-0W89-0224-0000 | Kenneth Kuchner, a single man | SWN Production Company, LLC | 18.00% | 1066.671 | 0.00% |

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|-----|-------------------|---|-----------------------------|--------|----------|---------|
| W10 | 10-0W93-0023-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| X10 | 10-0W93-0024-0000 | Edwin F. Noll & Judith L. Noll, husband and wife | N/A | N/A | N/A | 100.00% |
| Y10 | 10-0W93-0025-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | SWN Production Company, LLC | 16.00% | 1062177 | 0.00% |
| Z10 | 10-0W93-0026-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| A11 | 10-0W93-0027-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| B11 | 10-0W93-0028-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| X11 | 13-0010-0026-0001 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| Z11 | 13-0010-0027-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| A12 | 13-0010-0044-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| B12 | 13-0010-0005-0000 | Royalty Owner (subject to unitization filing dated July 3, 2024) | N/A | N/A | N/A | 100.00% |
| C12 | 13-0010-0011-0000 | Ronald M. Callisie Chad M. Callisie Kelly L. Callisie | N/A | N/A | N/A | 100.00% |
| | | Royalty Owner | SWN Production Company, LLC | 18.00% | 1179,642 | |
| | | | SWN Production Company, LLC | 18.00% | 1179,630 | 0.00% |
| | | | SWN Production Company, LLC | 18.00% | 1179,636 | |
| | | | N/A | N/A | N/A | |
| K12 | 13-01DD-0003-0000 | Royalty Owner A. R. Walker, widower Christine Mainer, Fk a Ann Christine Smith, married Brett Snyder, married Catherine Polesel, Fk a Catherine Smith, married Christopher F. Singleton Joseph Edward Stewart, married Julie Ann Howard, single Kelly Adle Hatz, married Kurt E. Snyder, married Laura Elizabeth Stewart, single Laurel Snyder, Fk a Laurel Dotterweich, single Margaret Ann Hoy, Fk a Margaret Fish, married Mary Joetta Scenna (a.k.a. Jody Scenna) Mary Hall, Fk a Mary Smith, married Michael Reeves Mabey Patrick J. Smith, Jr., married Pat Laock, single Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop Sidney Y. Merritt Fk a Sidney Yvette Golderman Susan Reese, single Theresa Lynn Hambrick, married Theresa Maropoulos Fk a Theresa Rose Huff, married Trustees of First Presbyterian Church, Fk a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | N/A | N/A | N/A | 3.38% |
| | | | SWN Production Company, LLC | 18.00% | 1129,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,421 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,38 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,429 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,24 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,61 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,69 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,81 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,57 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,53 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,47 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,29 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,195 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,676 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,450 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,684 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,645 | |
| | | | SWN Production Company, LLC | 18.00% | 1165,605 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,438 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,437 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,45 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,668 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,436 | |
| L12 | 13-01DD-0004-0000 | Royalty Owner A. R. Walker, widower Christine Mainer, Fk a Ann Christine Smith, married Brett Snyder, married Catherine Polesel, Fk a Catherine Smith, married Christopher F. Singleton Joseph Edward Stewart, married Julie Ann Howard, single Kelly Adle Hatz, married Kurt E. Snyder, married Laura Elizabeth Stewart, single Laurel Snyder, Fk a Laurel Dotterweich, single Margaret Ann Hoy, Fk a Margaret Fish, married Mary Joetta Scenna (a.k.a. Jody Scenna) Mary Hall, Fk a Mary Smith, married Michael Reeves Mabey Patrick J. Smith, Jr., married Pat Laock, single Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop Sidney Y. Merritt Fk a Sidney Yvette Golderman Susan Reese, single Theresa Lynn Hambrick, married Theresa Maropoulos Fk a Theresa Rose Huff, married Trustees of First Presbyterian Church, Fk a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | N/A | N/A | N/A | 3.38% |
| | | | SWN Production Company, LLC | 18.00% | 1129,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,421 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,38 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,429 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,24 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,61 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,69 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,81 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,57 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,53 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,47 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,29 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,195 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,676 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,450 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,684 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,645 | |
| | | | SWN Production Company, LLC | 18.00% | 1165,605 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,438 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,437 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,45 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,668 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,436 | |
| M12 | 13-01DD-0005-0000 | Royalty Owner A. R. Walker, widower Christine Mainer, Fk a Ann Christine Smith, married Brett Snyder, married Catherine Polesel, Fk a Catherine Smith, married Christopher F. Singleton Joseph Edward Stewart, married Julie Ann Howard, single Kelly Adle Hatz, married Kurt E. Snyder, married Laura Elizabeth Stewart, single Laurel Snyder, Fk a Laurel Dotterweich, single Margaret Ann Hoy, Fk a Margaret Fish, married Mary Joetta Scenna (a.k.a. Jody Scenna) Mary Hall, Fk a Mary Smith, married Michael Reeves Mabey Patrick J. Smith, Jr., married Pat Laock, single Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop Sidney Y. Merritt Fk a Sidney Yvette Golderman Susan Reese, single Theresa Lynn Hambrick, married Theresa Maropoulos Fk a Theresa Rose Huff, married Trustees of First Presbyterian Church, Fk a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | N/A | N/A | N/A | 3.38% |
| | | | SWN Production Company, LLC | 18.00% | 1129,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,421 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,38 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,429 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,24 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,61 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,69 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,81 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,57 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,53 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,47 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,29 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,195 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,676 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,450 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,684 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,645 | |
| | | | SWN Production Company, LLC | 18.00% | 1165,605 | |
| | | | SWN Production Company, LLC | 18.00% | 1174,438 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,437 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,45 | |
| | | | SWN Production Company, LLC | 18.00% | 1131,668 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,436 | |
| N12 | 13-01DD-0006-0000 | Royalty Owner A. R. Walker, widower Christine Mainer, Fk a Ann Christine Smith, married Brett Snyder, married Catherine Polesel, Fk a Catherine Smith, married Christopher F. Singleton Joseph Edward Stewart, married Julie Ann Howard, single Kelly Adle Hatz, married Kurt E. Snyder, married Laura Elizabeth Stewart, single Laurel Snyder, Fk a Laurel Dotterweich, single Margaret Ann Hoy, Fk a Margaret Fish, married Mary Joetta Scenna (a.k.a. Jody Scenna) | N/A | N/A | N/A | 3.38% |
| | | | SWN Production Company, LLC | 18.00% | 1129,378 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,421 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,38 | |
| | | | SWN Production Company, LLC | 18.00% | 1134,429 | |
| | | | SWN Production Company, LLC | 18.00% | 1177,24 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,61 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,69 | |
| | | | SWN Production Company, LLC | 18.00% | 1158,81 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,57 | |
| | | | SWN Production Company, LLC | 18.00% | 1153,53 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,47 | |
| | | | SWN Production Company, LLC | 18.00% | 1154,29 | |
| | | | SWN Production Company, LLC | 18.00% | 1175,195 | |

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|---|-------------------|--|--|--------|----------|--------|
| | | Mary Hall, f/a Mary Smith, married | SWN Production Company, LLC | 18.00% | 1131.676 | |
| | | Michael Reeves Mabey | SWN Production Company, LLC | 18.00% | 1174.450 | |
| | | Patrick J. Smith, Jr., married | SWN Production Company, LLC | 18.00% | 1131.684 | |
| | | Pat Lacoek, single | SWN Production Company, LLC | 18.00% | 1134.645 | |
| | | Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop | SWN Production Company, LLC | 18.00% | 1165.605 | |
| | | Sidney Y. Merritt f/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 | |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1134.437 | |
| | | Theresa Lynn Hambrick, married | SWN Production Company, LLC | 18.00% | 1153.45 | |
| | | Theresa Marcopolou f/a Theresa Rose Huff, married | SWN Production Company, LLC | 18.00% | 1131.668 | |
| | | Trustees of First Presbyterian Church, f/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1158.436 | |
| 812) | 13-0001-0076-0001 | Royalty Owner | N/A | N/A | N/A | 3.38% |
| | | A. R. Walker, widower | SWN Production Company, LLC | 18.00% | 1129.378 | |
| | | Christine Mainer, f/a Ann Christine Smith, married | SWN Production Company, LLC | 18.00% | 1134.421 | |
| | | Hrett Snyder, married | SWN Production Company, LLC | 18.00% | 1154.378 | |
| | | Catherine Polaski, f/a Catherine Smith, married | SWN Production Company, LLC | 18.00% | 1134.429 | |
| | | Christopher F. Singleton | SWN Production Company, LLC | 18.00% | 1177.24 | |
| | | Joseph Edward Stewart, married | SWN Production Company, LLC | 18.00% | 1153.61 | |
| | | Jolie Ann Howard, single | SWN Production Company, LLC | 18.00% | 1153.69 | |
| | | Kelly Adde Hatz, married | SWN Production Company, LLC | 18.00% | 1158.81 | |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154.57 | |
| | | Laura Elizabeth Stewart, single | SWN Production Company, LLC | 18.00% | 1153.53 | |
| | | Laurel Snyder, f/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154.47 | |
| | | Margaret Ann Hoy, f/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1154.29 | |
| | | Mary Josetta Seema (a/k/a Jody Seema) | SWN Production Company, LLC | 18.00% | 1175.195 | |
| | | Mary Hall, f/a Mary Smith, married | SWN Production Company, LLC | 18.00% | 1131.676 | |
| | | Michael Reeves Mabey | SWN Production Company, LLC | 18.00% | 1174.450 | |
| | | Patrick J. Smith, Jr., married | SWN Production Company, LLC | 18.00% | 1131.684 | |
| | | Pat Lacoek, single | SWN Production Company, LLC | 18.00% | 1134.645 | |
| | | Roman Catholic Diocese of Wheeling - Charleston, represented by Mark E. Brennan, Bishop | SWN Production Company, LLC | 18.00% | 1165.605 | |
| | | Sidney Y. Merritt f/a Sidney Yvette Golderman | SWN Production Company, LLC | 18.00% | 1174.438 | |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1134.437 | |
| | | Theresa Lynn Hambrick, married | SWN Production Company, LLC | 18.00% | 1153.45 | |
| | | Theresa Marcopolou f/a Theresa Rose Huff, married | SWN Production Company, LLC | 18.00% | 1131.668 | |
| | | Trustees of First Presbyterian Church, f/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1158.436 | |
| 112) | 13-0001-0077-0000 | Bounty Minerals, LLC | TH Exploration, LLC | 20.00% | 965.305 | |
| | | | American Petroleum Partners Operating, LLC | | 43.497 | |
| | | A. R. Walker, widower | SWN Production Company, LLC | | 48.263 | |
| | | Susan Reese, single | SWN Production Company, LLC | 18.00% | 1129.378 | |
| | | Pat Lacoek, single | SWN Production Company, LLC | 18.00% | 1134.437 | |
| | | Margaret Ann Hoy, f/a Margaret Fish, married | SWN Production Company, LLC | 18.00% | 1134.645 | 0.00% |
| | | Hrett Snyder, married | SWN Production Company, LLC | 18.00% | 1154.29 | |
| | | Laurel Snyder, f/a Laurel Dotterweich, single | SWN Production Company, LLC | 18.00% | 1154.38 | |
| | | Kurt E. Snyder, married | SWN Production Company, LLC | 18.00% | 1154.47 | |
| | | Trustees of First Presbyterian Church, f/a First United Presbyterian Church, represented by Susan Hunter as Clerk of the Session | SWN Production Company, LLC | 18.00% | 1154.57 | |
| 172) | 13-0005-0013-0000 | Royalty Owner (subject to unitization filing dated July 1, 2024) | SWN Production Company, LLC | 18.00% | 1158.436 | |
| | | Bounty Minerals, LLC | N/A | N/A | N/A | 40.00% |
| | | | TH Exploration, LLC | 20.00% | 965.305 | |
| | | | American Petroleum Partners Operating, LLC | | 43.497 | |
| | | | SWN Production Company, LLC | | 48.263 | |
| P13) | 13-006A-0006-0000 | Marion R. Bulfin, III and Antonia M. Bulfin, his wife | Chesapeake Appalachia, L.L.C. | 18.00% | 781.84 | |
| | | | SWN Production Company, LLC | | 38.35 | |
| | | Connie Williams and Jack S. Williams, Jr., her husband | Chesapeake Appalachia, L.L.C. | 18.00% | 781.135 | 0.00% |
| | | | SWN Production Company, LLC | | 38.35 | |
| | | Lee A. Bulfin, and Deirdre A. Bulfin, his wife | Chesapeake Appalachia, L.L.C. | 18.00% | 789.616 | |
| | | | SWN Production Company, LLC | | 33.110 | |
| R13) | 13-006A-0018-0000 | Mark C. Simco, married, dealing in his sole and separate interest | Chesapeake Appalachia, L.L.C. | 14.00% | 629.128 | 0.00% |
| | | | SWN Production Company, LLC | | 33.110 | |
| 114) | 13-0006-0029-0010 | Robert K. Johnson and Patricia L. Johnson, his wife | Chesapeake Appalachia, L.L.C. | 18.00% | 717.550 | 0.00% |
| | | | SWN Production Company, LLC | | 33.110 | |
| Q14) | 13-007C-0012-0000 | Cliffon R. Haight and Susan R. Haight, husband and wife | Chesapeake Appalachia, L.L.C. | 17.00% | 726.387 | 0.00% |
| | | | SWN Production Company, LLC | | 33.110 | |
| R14) | 13-007C-0014-0000 | Gerald G. Cunningham and Darlene L. Cunningham, husband and wife | Chesapeake Appalachia, L.L.C. | 17.00% | 719.406 | 0.00% |
| | | | SWN Production Company, LLC | | 33.110 | |
| C15) | 13-007C-0003-0000 | John W. Millhouse and Evelyn M. Millhouse, husband and wife | Chesapeake Appalachia, L.L.C. | 17.00% | 720.241 | 0.00% |
| | | | SWN Production Company, LLC | | 33.110 | |
| D15) | 13-007C-0002-0000 | Debra J. Doyle, f/a Deborah J. Stipetich Debon, a married woman dealing in her sole and separate property, and Helen J. Merinau, a married woman dealing in her sole and separate property | Chesapeake Appalachia, L.L.C. | 17.00% | 720.265 | 0.00% |
| | | | SWN Production Company, LLC | | 33.110 | |
| *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. | | | | | | |
| *Potentially Impacted Parcels - Parcels that may be impacted during drilling. | | | | | | |
| *Horizontal well unit utilization - Subject to unitization filing with the West Virginia Oil and Gas Commission. | | | | | | |
| END OF EXHIBIT "A" | | | | | | |

4705102516



SWN Production Company, LLC
 1300 Fort Pierpont Dr, Ste 201
 Morgantown, WV 26508
 Tel: 304 884 1610
 Fax: 304 471 2497
 www.swn.com

April 1, 2024

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

RE: SWN's proposed New Well: Ruth Keller MSH 205H in Marshall County, West Virginia, Drilling under Meadow Drive, Glen Dale Heights Road, Benwood Hill Road, Pleasant Drive, Boggs Run Road, Marshall County Road, Foxfire Drive, Virginia Park Road, Allendale Road, N. Kettler Ave, Ark Ave, Stein Abe, Fraizer Run Road, Incline Ave, and 36h Street.

Dear Mr. Brewer:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Meadow Drive, Glen Dale Heights Road, Benwood Hill Road, Pleasant Drive, Boggs Run Road, Marshall County Road, Foxfire Drive, Virginia Park Road, Allendale Road, N. Kettler Ave, Ark Ave, Stein Abe, Fraizer Run Road, Incline Ave, and 36h Street. Please be advised that SWN has attempted to lease all mineral owners under said route as it relates to the above-referenced well and unit. In several instances, SWN successfully obtained leases of the acreage underlying the road. Any remaining unleased roadway acreage has been included in SWN's pending forced-pooling (unitization) application which will be filed with the WV OGCC for the Ruth Keller North Unit. We expect that all roadway acreage will be effectively under SWN's operational control following the issuance of an Order by the OGCC after the planned hearing.

Respectfully:

SWN Production Company, LLC

Gavin Nadeau, RPL
 Staff Landman

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The Right People doing the Right Things,
 wisely investing the cash flow from our
 underlying assets into the future.[®]

06/30/2024

4705102516

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

Date of Notice Certification: 7/16

API No. 47- 051 -
Operator's Well No. Ruth Keller MSH 205H
Well Pad Name: Ruth Keller 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>525,970.848</u> |
| County: <u>051-Marshall</u> | Northing: <u>4,426,201.436</u> |
| District: <u>Union</u> | Public Road Access: <u>Glen Dale Heights Road</u> |
| Quadrangle: <u>Moundsville</u> | Generally used farm name: <u>Ruth Keller MSH</u> |
| Watershed: <u>Short Creek Ohio River</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.

| | | |
|---|--|--|
| 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: *PLEASE CHECK ALL THAT APPLY | | OOG OFFICE USE ONLY |
| <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED | | <input type="checkbox"/> RECEIVED/ NOT REQUIRED |
| <input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED | | <input checked="" type="checkbox"/> RECEIVED |
| <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 <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) | | <input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED |
| <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION | | <input checked="" type="checkbox"/> RECEIVED |
| <input checked="" type="checkbox"/> 5. PUBLIC NOTICE | | <input checked="" type="checkbox"/> RECEIVED |
| <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION | | <input checked="" type="checkbox"/> RECEIVED |

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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 notified 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.

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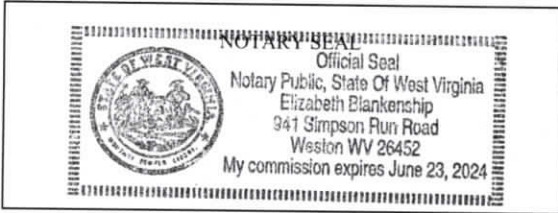
4705102516

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: | <u>SWN Production Co., LLC</u> | Address: | <u>1300 Fort Pierpont Dr., Suite 201</u> |
| By: | <u>Brittany Woody</u> | | <u>Morgantown, WV 26508</u> |
| Its: | <u>Staff Regulatory Specialist</u> | Facsimile: | <u>304-884-1690</u> |
| Telephone: | <u>304-884-1610</u> | Email: | <u>Brittany_Woody@swn.com</u> |

Brittany Woody



Subscribed and sworn before me this 27 day of March 2024.
Elizabeth Blankenship Notary Public
 My Commission Expires 6/23/2024

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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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: 7/16 **Date Permit Application Filed:** 7/16

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: David Cook
 Address: 1456 Sunset Lane
Glen Dale, WV 26038
 Name: Brian Keller
 Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

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: None
 Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
 Address: _____

*Please attach additional forms if necessary

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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 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

08/30/2024

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

Office of Oil and Gas
JUL 18 2024
WV Department of Environmental Protection

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.**

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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.

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WW-6A
(8-13)

API NO. 4705102516
OPERATOR WELL NO. Ruth Keller MSH 205H
Well Pad Name: Ruth Keller MSH

Notice is hereby given by:

Well Operator: SWN Production Co., LLC
Telephone: 304-884-1610
Email: Brittany_Woody@swn.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 deprivacyofficer@wv.gov.



Subscribed and sworn before me this 27 day of March 2024.
Elizabeth Blankenship Notary Public
My Commission Expires 6/23/2024

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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.

Water Purveyor Map



10 By: deans
Updated: 2/28/2024 7:55 AM



Water Sources

- Type
- Spring
- Water Well
- Pond
- 1500 ft Buffer

**WELL PAD:
RUTH KELLER MSH PAD 1**

**COUNTY:
MARSHALL**

08/30/2024

Scale: 1:6,033

0 180 360 720 1,080 1,440

4705102516

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: 3/1/2024 **Date of Planned Entry:** 3/7/2024

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: David Cook
 Address: 1456 Sunset Lane
Glen Dale WV 26038

Name: Brian J. Keller
 Address: 4255 Glen Dale Heights Road
Glen Dale WV 26038

Name: _____
 Address: _____

COAL OWNER OR LESSEE

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

MINERAL OWNER(S)

Name: Brian J. Keller
 Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

*please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
JUL 18 2024
WV Department of
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: <u>West Virginia</u> | Approx. Latitude & Longitude: <u>39.986010, -80.697140</u> |
| County: <u>Marshall</u> | Public Road Access: <u>Glen Dale Heights Road</u> |
| District: <u>Union</u> | Watershed: <u>Upper Ohio South</u> |
| Quadrangle: <u>Moundsville</u> | Generally used farm name: <u>Ruth Keller MSH</u> |

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: <u>SWN PRODUCTION COMPANY, LLC</u> | Address: <u>1300 Fort Pierpont Dr., Suite 201</u> |
| Telephone: <u>304-884-1610</u> | <u>Morgantown, WV 26508</u> |
| Email: <u>Brittany_Woody@swn.com</u> | Facsimile: <u>304-884-1690</u> |

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.

08/30/2024

**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: 3/1/2024 **Date of Planned Entry:** 3/7/2024

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

- 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: _____

Name: _____
Address: _____

MINERAL OWNER(s)

Name: David J. Cook & Alice M. Cook
Address: 1456 Sunset Lane
Glen Dale, WV 26038

RECEIVED
Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

*please attach additional forms if necessary

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: <u>West Virginia</u> | Approx. Latitude & Longitude: <u>39.986010, -80.697140</u> |
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| District: <u>Union</u> | Watershed: <u>Upper Ohio South</u> |
| Quadrangle: <u>Moundsville</u> | Generally used farm name: <u>Ruth Keller MSH</u> |

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Notice is hereby given by:

| | |
|---|---|
| Well Operator: <u>SWN PRODUCTION COMPANY, LLC</u> | Address: <u>1300 Fort Pierpont Dr., Suite 201</u> |
| Telephone: <u>304-884-1610</u> | <u>Morgantown, WV 26508</u> |
| Email: <u>Brittany_Woody@swn.com</u> | Facsimile: <u>304-884-1690</u> |

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08/30/2024

WW-6A4
(1/12)

**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: 04/19/2024 **Date Permit Application Filed:** *file*

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

- HAND DELIVERY
- CERTIFIED MAIL RETURN RECEIPT REQUESTED

RECEIVED
Office of Oil and Gas

JUL 18 2024

WV Department of
Environmental Protection

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: Brain Keller
Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

Name: _____
Address: _____

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: | <u>WV</u> | UTM NAD 83 Easting: | <u>525,970.848</u> |
| County: | <u>Marshall</u> | UTM NAD 83 Northing: | <u>4,426,201.436</u> |
| District: | <u>Union</u> | Public Road Access: | <u>Grandview Road</u> |
| Quadrangle: | <u>Moundsville, WV</u> | Generally used farm name: | <u>Ruth Keller</u> |
| Watershed: | <u>Short Creek Ohio River</u> | | |

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: SWN Production Company, LLC
Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Telephone: 570-575-6203
Email: bob_laine@swn.com
Facsimile: _____

Authorized Representative: Bob Laine
Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Telephone: 570-575-6203
Email: bob_laine@swn.com
Facsimile: _____

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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: 04/19/2024 **Date Permit Application Filed:** 7/18

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

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED 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: Brain Keller
Address: 4255 Glen Dale Heights Road
Glen Dale, WV 26038

Name: _____
Address: _____

RECEIVED
Office of Oil and Gas
JUL 18 2024
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: <u>WV</u> | UTM NAD 83 Easting: <u>525,970.848</u> |
| County: <u>Marshall</u> | Northing: <u>4,426,201.436</u> |
| District: <u>Union</u> | Public Road Access: <u>Grandview Road</u> |
| Quadrangle: <u>Moundsville, WV</u> | Generally used farm name: <u>Ruth Keller</u> |
| Watershed: <u>Short Creek Ohio River</u> | |

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: SWN Production Company, LLC
Telephone: 570-575-6203
Email: bob_laine@swn.com

Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Facsimile: _____

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08/30/2024

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

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

Date of Notice: 04/19/2024

Date Permit Application Filed: 7/16

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: David Cook

Address: 1456 Sunset Lane

Glen Dale, WV 26038

Name: _____

Address: _____

JUL 18 2024

RECEIVED
Office of Oil and Gas
WV Department of
Environmental Protection

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| | |
|--|--|
| State: <u>WV</u> | UTM NAD 83 Easting: <u>525,970.848</u> |
| County: <u>Marshall</u> | Northing: <u>4,426,201.436</u> |
| District: <u>Union</u> | Public Road Access: <u>Grandview Road</u> |
| Quadrangle: <u>Moundsville, WV</u> | Generally used farm name: <u>Ruth Keller</u> |
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Notice is hereby given by:

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Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Telephone: 570-575-6203
Email: bob_laine@swn.com
Facsimile: _____

Authorized Representative: Bob Laine
Address: 1300 Fort Pierpont Dr., Suite 201
Morgantown, WV 26508
Telephone: 570-575-6203
Email: bob_laine@swn.com
Facsimile: _____

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08/30/2024

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: 04/19/2024 **Date Permit Application Filed:**

RECEIVED
Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

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

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

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Glen Dale, WV 26038

Name: _____
Address: _____

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| | | |
|--|--|--------------------------------|
| State: <u>WV</u> | UTM NAD 83 | Easting: <u>525,970.848</u> |
| County: <u>Marshall</u> | | Northing: <u>4,426,201.436</u> |
| District: <u>Union</u> | Public Road Access: <u>Grandview Road</u> | |
| Quadrangle: <u>Moundsville, WV</u> | Generally used farm name: <u>Ruth Keller</u> | |
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705102516

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Office of the District Engineer/Manager
District Four

Post Office Box 4220 · Clarksville, West Virginia 26302 · (304) 842-1500

Alanna J. Keller, P.E.
Deputy Secretary of Transportation
Deputy Commissioner of Highways

Jimmy Wriston, P. E.
Secretary of Transportation
Commissioner of Highways

April 2, 2024

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 Ruth Keller Well Pad, Marshall County
Ruth Keller MSH 205H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2011-0385 which has been issued to SWN Production Company, LLC for access to the State Road for a well site located off West Virginia Route 86, MP 4.61 in Marshall County

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

Cc: Brittany Woody
SWN Production Company, LLC
OM, D-6
File

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Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

Attachment VI Frac Additives

| 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 | 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 |
| Plexslick 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 |
| Plexslick 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 |
| | | Didecyldimethylammonium 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

RECEIVED
Office of Oil and Gas

JUL 18 2024

WV Department of
Environmental Protection

08/30/2024

OPERATOR: SWN Production Co., LLC WELL NO: Ruth Keller MSH 205H

PAD NAME: Ruth Keller MSH

REVIEWED BY: _____

SIGNATURE: *Brittany Woody*

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

**Pad Built 1/19/12*

Well Restrictions

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

RESERVED
Office of Oil and Gas
JUL 18 2024
WV Department of
Environmental Protection

RUTH KELLER WELL PAD AS-BUILT AND EROSION & SEDIMENT CONTROL IMPROVEMENT PLAN

UNION DISTRICT, MARSHALL COUNTY, WEST VIRGINIA
WEGEE CREEK - OHIO RIVER WATERSHED

**WVDEP OOG
ACCEPTED AS-BUILT**

WJK 8/23/2024

LOCATION COORDINATES:

ACCESS ROAD ENTRANCE
LATITUDE: 39.885908 LONGITUDE: -80.697106 (NAD 83)
N 4426830.44 E 528689.23 (UTM ZONE 17 METERS)

CENTROID OF PAD
LATITUDE: 39.885829 LONGITUDE: -80.695655 (NAD 83)
N 4426806.56 E 528584.24 (UTM ZONE 17 METERS)

EVACUATION GATHERING AREA
LATITUDE: 39.885890 LONGITUDE: -80.696987 (NAD 83)
N 4426836.12 E 528572.17 (UTM ZONE 17 METERS)

GENERAL DESCRIPTION:

THE ACCESS ROAD(S) AND WELL PAD HAVE BEEN CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

FLOODPLAIN NOTES:

THE SITE IS LOCATED WITHIN FEMA FLOOD ZONE "X" PER FEMA FLOOD MAP #40401C0080E.

MISS UTILITY STATEMENT:

MISS UTILITY SHALL BE NOTIFIED IF ANY ADDITIONAL EXCAVATION IS NECESSARY.

PROJECT CONTACTS:

OPERATOR:
SOUTHWESTERN ENERGY
179 INNOVATION DRIVE
JANE LEM, WV 26278
PHONE: (304) 817-1416

SHAWN JACKSON - FIELD PLANNING SUPERVISOR
OFFICE: (304) 854-1818 CELL: (304) 641-3804

AS-BUILT ENGINEER/SURVEYOR:
NAVITUS ENGINEERING, INC.
CYNTHIA S. KUMP, PE - PROJECT MANAGER/ENGINEER
OFFICE: (888) 662-4185 CELL: (240) 686-8747

NOTES:

- ALL IMP'S MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL ALL AREAS WITHIN THE LIMIT OF DISTURBANCE ARE COMPLETE AND PERMANENTLY STABILIZED. MAINTENANCE MUST INCLUDE INSPECTION OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RAINFALL EVENT IN EXCESS OF 0.5" AND ON A WEEKLY BASIS.
- THE CONSTRUCTION SITE SHOULD BE STABILIZED AS SOON AS POSSIBLE AFTER COMPLETION. ESTABLISHMENT OF FINAL STABILIZATION MUST BE INITIATED NO LATER THAN 7 DAYS AFTER REACHING FINAL GRADE. FINAL STABILIZATION MEANS THAT ALL SOIL-DISTURBING ACTIVITIES ARE COMPLETED AND THAT EITHER A PERMANENT VEGETATIVE COVER WITH A DENSITY OF 70% OR GREATER HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY HARD COVER SUCH AS PAVEMENT OR BUILDINGS. IT SHOULD BE NOTED THAT THE 70% REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT JUST A PERCENT OF THE SITE.
- ALL PERMANENT SEDIMENT CONTROL MEASURES CAN BE REMOVED AFTER THE SITE IS PERMANENTLY STABILIZED AND APPROVAL IS RECEIVED FROM THE WVDEP.
- ANY AREAS DISTURBED BY REMOVAL OF CONTROLS SHALL BE REPAIRED, STABILIZED, AND PERMANENTLY SEEDDED.
- THE AS-BUILT INFORMATION SHOWN HEREON REFLECTS FIELD DATA COLLECTED RELATING TO THE FINAL GRADING OF THE DISTURBED AREA AS OF JANUARY 11, 2018. NAVITUS ENGINEERING IS NOT RESPONSIBLE FOR ANY CHANGES MADE TO THE SITE AFTER THE ABOVE MENTIONED DATES.
- THE EXISTING CONTAINMENT BERM AROUND THE WELL PAD SHALL BE REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS.
- THE EXISTING EGRESSSES TO THE WELL PAD SHALL HAVE THE MOUNTABLE BERMS REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS.

MOUNDSVILLE USGS 7.5 QUAD MAPS



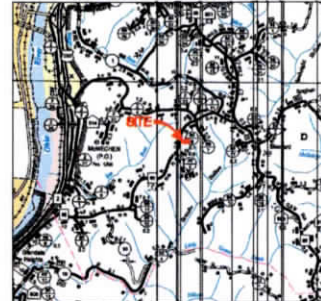
2000 0 2000
SCALE: 1" = 2000'

WEST VIRGINIA COUNTY MAP



(NOT TO SCALE)

WVDOH COUNTY ROAD MAP



5000 0 5000
SCALE: 1" = 5000'

AS-BUILT CERTIFICATIONS:

THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CES 36-8.

MISS Utility of West Virginia
1-800-245-4848
West Virginia State Law
(Section XIV: Chapter 24-C)
Requires that you call two
business days before you dig in
the state of West Virginia.
IT'S THE LAW!!

SHEET INDEX:

- 1 - COVER SHEET
- 2 - LEGEND
- 3-4 VICINITY MAP
- 5 - OVERALL PLAN SHEET INDEX
- 6 - ACCESS ROAD & WELL PAD AS-BUILT PLAN
- 7 - ACCESS ROAD AS-BUILT PROFILES & WELL PAD AS-BUILT SECTIONS
- 8-9 - WELL PAD AS-BUILT SECTIONS
- 10-11 - CONSTRUCTION DETAILS
- 12 - WELL PAD RECLAMATION PLAN

| RUTH KELLER LIMITS OF DISTURBANCE AREA (AC) | | | |
|---|-------------|--------------|-------------|
| Total Site | Permitted | Modification | Total |
| Access Road | 0.50 | 0.00 | 0.50 |
| Well Pad | 4.30 | 0.00 | 4.30 |
| Topsoil Stockpiles | 1.77 | 0.21 | 1.98 |
| Total Affected Area | 6.57 | 0.21 | 6.78 |
| Impacts to Wv. RL 85 RW | | | |
| Access Road | 0.03 | 0.00 | 0.03 |
| Total Affected Area | 0.03 | 0.00 | 0.03 |
| Impacts to Ruth Ann Keller & David K. Cook TM 13-6-02 | | | |
| Access Road | 0.16 | 0.00 | 0.16 |
| Well Pad | 0.18 | 0.00 | 0.18 |
| Total Affected Area | 0.34 | 0.00 | 0.34 |
| Impacts to Ruth Ann Keller & David K. Cook TM 13-6-99 | | | |
| Access Road | 0.31 | 0.00 | 0.31 |
| Well Pad | 4.12 | 0.00 | 4.12 |
| Topsoil Stockpiles | 1.77 | 0.21 | 1.98 |
| Total Affected Area | 6.20 | 0.21 | 6.41 |

| Well Name | Elev. | WV North NAD 27 | WV North NAD 83 | UTM (METERS) Zone 17 | NAD 83 Lat. & Long DMS | NAD 83 Lat. & Long DD |
|---|----------|----------------------------|----------------------------|-----------------------------|--|-----------------------------------|
| Ruth Keller MSH 3H ST 1 (Drilled) PW 47-051-01501 | 1,327.42 | N 44292.25 E 1894638.18 | N 44328.79 E 1833462.50 | N 4426500.27 E 529262.38 | LAT 39 59-08.0670 LONG -80 41-45.2815 | LAT 39 5908.74 LONG -80.699912 |

| MATERIAL QUANTITIES WELL PAD SITE: RUTH KELLER | | |
|---|----------|------|
| Item Description | Quantity | Unit |
| 1.0 Erosion & Sediment Control | | |
| 1.1 18" Compost Filter Sock | 136 | LF |
| 2.0 Unclassified Earthwork | | |
| 2.1 Well Pad Sump Area Reclamation | | |
| 2.1.1 Excavation (Cut to Compact Fill) | 0 | CY |
| 2.1.2 Excavation (Export to Stockpile) | 14 | CY |
| 3.0 Stone and Aggregate Surfacing | | |
| 3.1 Rip-Rap | | |
| 3.1.1 R-3 (3-6" Stone, 9" Depth) | 32 | TONS |
| 3.1.2 Geotextile Fabric (US 200 or Equal) | 65 | SY |

REPRODUCTION NOTE

THESE PLANS WERE CREATED TO BE PLOTTED ON 24"X36" (ANSI D) PAPER. HALF SCALE DRAWINGS ARE ON 11"X17" (ANSI E) PAPER.

THESE PLANS WERE CREATED FOR COLOR PLOTTING AND ANY REPRODUCTIONS IN GRAY SCALE OR COLOR MAY RESULT IN A LOSS OF INFORMATION AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.

NAVITUS
ENERGY ENGINEERING
Telephone: (888) 662-4115 | www.NavitusEng.com

| REVISION | DATE |
|----------|------|
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SWN
Southwestern Energy
THIS DOCUMENT
WAS PREPARED FOR
SOUTHWESTERN ENERGY

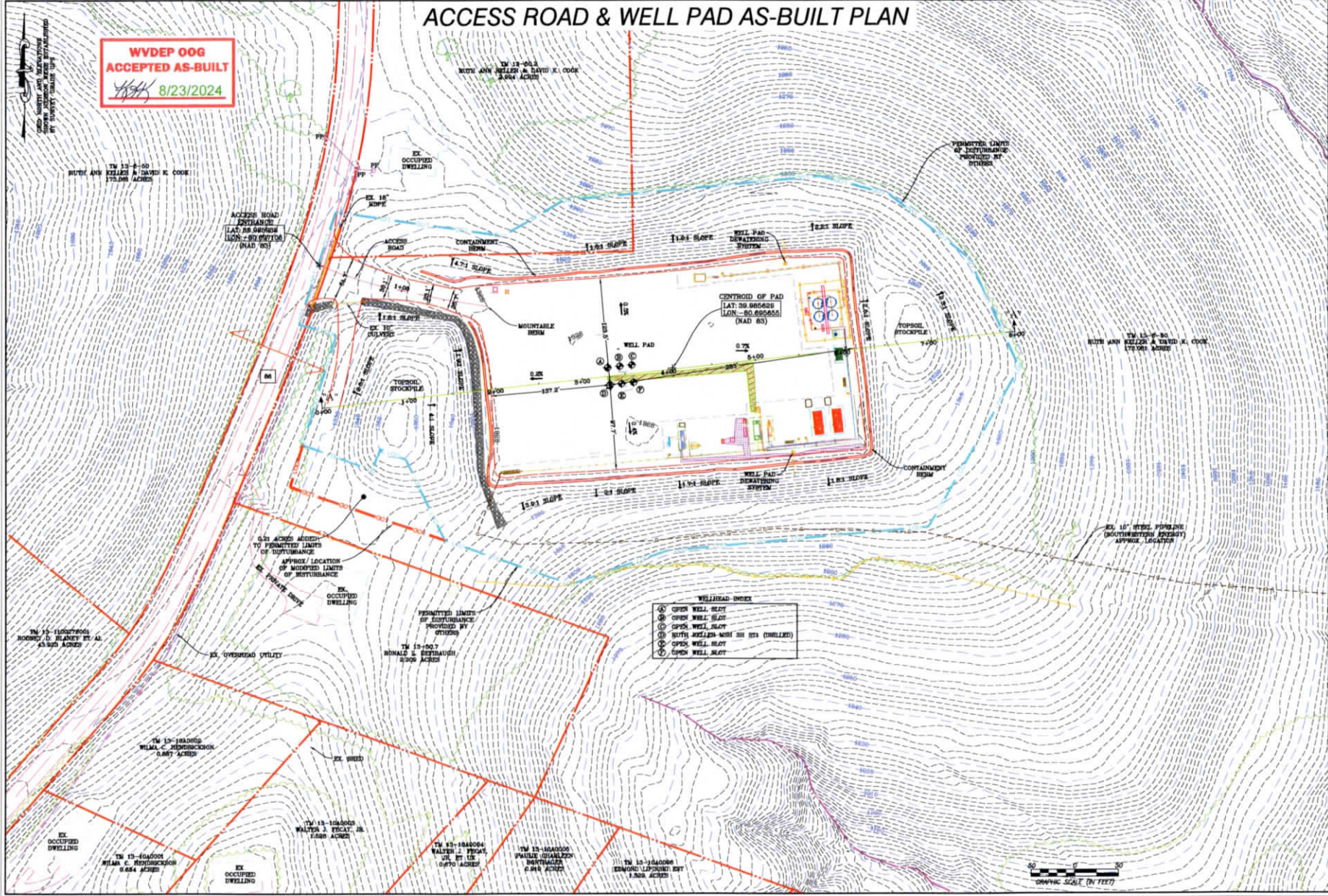
COVER SHEET
RUTH KELLER
WELL PAD
UNION DISTRICT
MARSHALL COUNTY, WEST VIRGINIA



DATE: 02/05/2018
SCALE AS SHOWN
SHEET 1 OF 12

ACCESS ROAD & WELL PAD AS-BUILT PLAN

**WVDEP OOG
ACCEPTED AS-BUILT**
8/23/2024



NAVITUS
ENERGY ENGINEERING

| REVISION | DATE |
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SWN
Southwestern Energy
THIS DOCUMENT
WAS PREPARED FOR
SOUTHWESTERN ENERGY

ACCESS ROAD & WELL PAD AS-BUILT PLAN
RUTH KELLER
WELL PAD
UNION DISTRICT
MARSHALL COUNTY, WEST VIRGINIA



DATE: 02/05/2018
SCALE: 1" = 60'
SHEET 6 OF 12

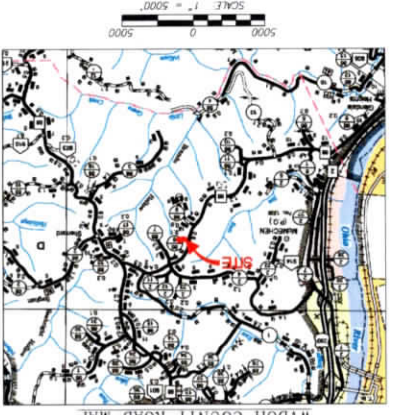
2025102516

REPRODUCTION NOTE
 THESE PLANS WERE CREATED TO BE PLOTTED ON 22"x34" (ANSI D) PAPER. HALF SCALE DRAWINGS ARE ON 11"x17" (ANSI B) PAPER.
 THESE PLANS WERE CREATED FOR COLOR PLOTTING AND ANY REPRODUCTIONS IN GRAY SCALE OR COLOR MAY RESULT IN A LOSS OF INFORMATION AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.

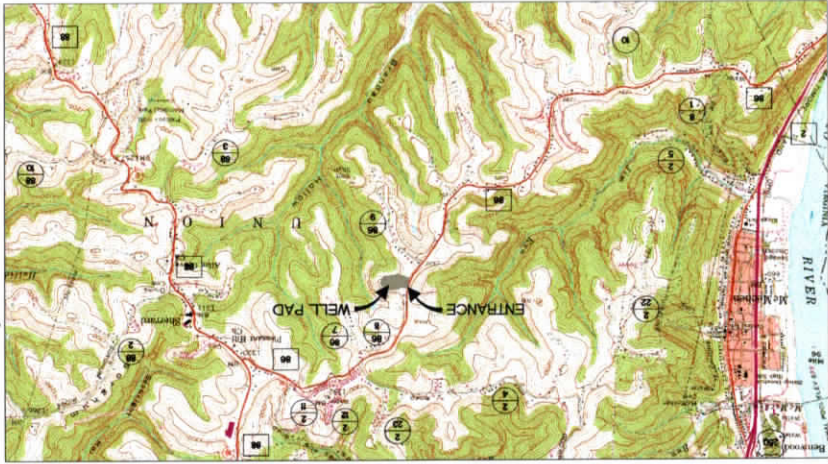
Steel Case
 4/17/2024

AS-BUILT CERTIFICATIONS:
 THE DRAWINGS, CONSTRUCTION NOTES, AND REFERENCE DIAGRAMS ATTACHED HERETO HAVE BEEN PREPARED IN ACCORDANCE WITH THE WEST VIRGINIA CODE OF STATE RULES, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS CRS 35-8.

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 West Virginia State Law
 (Section XIV, Chapter 24-C)
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- NOTES:**
1. ALL BHP'S MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL ALL AREAS WITHIN THE LIMIT OF DISTURBANCE ARE COMPLETE AND PERMANENTLY STABILIZED. MAINTENANCE MUST INCLUDE INSPECTION OF ALL EROSION AND SEDIMENT CONTROLS AFTER EACH RAINFALL EVENT IN EXCESS OF 0.5" AND ON A WEEKLY BASIS.
 2. THE CONSTRUCTION SITE SHOULD BE STABILIZED AS SOON AS POSSIBLE AFTER COMPLETION OF FINAL STABILIZATION MEASURES THAT ALL SOIL-DISTURBING ACTIVITIES ARE COMPLETED, AND THAT EITHER A PERMANENT VEGETATIVE COVER WITH A DENSITY OF 70% OR GREATER HAS BEEN ESTABLISHED OR THAT THE SURFACE HAS BEEN STABILIZED BY HARD COVER SUCH AS PAVEMENT OR BUILDINGS. IT SHOULD BE NOTED THAT THE 70% REQUIREMENT REFERS TO THE TOTAL AREA VEGETATED AND NOT JUST A PERCENT OF THE SITE.
 3. ALL PERMANENT SEDIMENT CONTROL MEASURES CAN BE REMOVED AFTER THE SITE IS PERMANENTLY STABILIZED AND APPROVAL IS RECEIVED FROM THE WDEP.
 4. ANY AREAS DISTURBED BY REMOVAL OF CONTROLS SHALL BE REPAIRED, STABILIZED, AND PERMANENTLY SEEDED.
 5. THE AS-BUILT INFORMATION SHOWN HEREON REFLECTS FIELD DATA COLLECTED RELATING TO THE FINAL GRADING OF THE DISTURBED AREA AS OF JANUARY 11, 2018. NAVIUS ENGINEERING IS NOT RESPONSIBLE FOR ANY CHANGES MADE TO THE SITE AFTER THE ABOVE MENTIONED DATE.
 6. THE EXISTING CONTAINMENT BERM AROUND THE WELL PAD SHALL BE REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS.
 7. THE EXISTING EGRESS TO THE WELL PAD SHALL HAVE THE MOUNTAIN BERMS REPAIRED AS NECESSARY TO ENSURE 100% CONTAINMENT OF ALL FLUIDS PRIOR TO DRILLING OPERATIONS.



WEST VIRGINIA STATE PLANE COORDINATE SYSTEM
 NORTH ZONE, NAD83
 ELEVATION BASED ON NAVD83
 POINT IDENTIFIED BY SURVEY OR GPS & ORIS
 POST-PROCESSING

**RUTH KELLER WELL PAD
 AS-BUILT AND EROSION & SEDIMENT
 CONTROL IMPROVEMENT PLAN**
 UNION DISTRICT, MARSHALL COUNTY, WEST VIRGINIA
 WEGEE CREEK - OHIO RIVER WATERSHED

RECEIVED
 Office of Oil and Gas
 JUL 18 2024
 WV Department of Environmental Protection

- LOCATION COORDINATES:**
- ACCESS ROAD ENTRANCE
 LATITUDE 39.985938 LONGITUDE -80.697106 (NAD 83)
 N 4426240 44 E 525660 23 (UTM ZONE 17 METERS)
 - CENTROID OF PAD
 LATITUDE 39.985629 LONGITUDE -80.696556 (NAD 83)
 N 4426206 56 E 525944 24 (UTM ZONE 17 METERS)
 - EVAUATION GATHERING AREA
 LATITUDE 39.985999 LONGITUDE -80.696967 (NAD 83)
 N 4426261 12 E 525872 17 (UTM ZONE 17 METERS)

GENERAL DESCRIPTION:

THE ACCESS ROAD(S) AND WELL PAD HAVE BEEN CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

FLOODPLAIN NOTES:

THE SITE IS LOCATED WITHIN FEMA FLOOD ZONE "X" PER FEMA FLOOD MAP #4051C0080E.

PROJECT CONTACTS:

OPERATOR
 SOUTHWESTERN ENERGY
 179 INNOVATION DRIVE
 JANE LEE, WR 25378
 PHONE (304) 517-1416
 SHAWN JACKSON - FIELD PLANNING SUPERVISOR
 OFFICE (304) 664-1618 CELL (304) 641-3204
 NAVIUS ENGINEERING, INC.
 CRUIS & KUMP, PE - PROJECT MANAGER/ENGINEER
 OFFICE (888) 662-4186 CELL (540) 666-6747

MISS UTILITY STATEMENT:

MISS UTILITY SHALL BE NOTIFIED IF ANY ADDITIONAL EXCAVATION IS NECESSARY.

AS-BUILT ENGINEER/SURVEYOR:

NAVIUS ENGINEERING, INC.
 CRUIS & KUMP, PE - PROJECT MANAGER/ENGINEER
 OFFICE (304) 664-1618 CELL (304) 641-3204

RUTH KELLER LIMITS OF DISTURBANCE AREA (LOD)

| Item | Permitted Modification | Total |
|--|------------------------|-------|
| Access Road | 0.50 | 0.50 |
| Well Pad | 4.30 | 4.30 |
| Topsoil Stockpiles | 1.77 | 1.98 |
| Total Affected Area | 6.57 | 6.78 |
| Impacts to WV, Rt. 88 R/W | | |
| Access Road | 0.03 | 0.03 |
| Total Affected Area | 0.03 | 0.03 |
| Impacts to Ruth Ann Keller & David K. Cook TM 13-50.2 | | |
| Access Road | 0.16 | 0.16 |
| Well Pad | 0.18 | 0.18 |
| Total Affected Area | 0.34 | 0.34 |
| Impacts to Ruth Ann Keller & David K. Cook TM 13-6-50 | | |
| Access Road | 0.31 | 0.31 |
| Well Pad | 4.12 | 4.12 |
| Topsoil Stockpiles | 1.77 | 1.98 |
| Total Affected Area | 6.20 | 6.41 |

Well Name

| Well Name | Elev. | WV North | WV North | UTM (METERS) | NAD 83 Lat & Long | DMS | DD |
|----------------------------------|----------|------------|------------|--------------|-------------------|------------------|----|
| Ruth Keller MSH 3H ST1 (Drilled) | 1,377.62 | N 54232 25 | N 54328 79 | N 4426200 37 | LAT 39.99-08.0670 | LONG -80.6969674 | |

As-Drilled Location

| As-Drilled Location | UTM (METERS) | NAD 83 Lat & Long | DMS | DD |
|----------------------------------|--------------|-------------------|------------------|----|
| Ruth Keller MSH 3H ST1 (Drilled) | N 4426200 37 | LAT 39.99-08.0670 | LONG -80.6969674 | |

MATERIAL QUANTITIES

| Item Description | Quantity | Unit |
|---|----------|------|
| 1.0 Erosion & Sediment Control | 136 | LF |
| 2.0 Unclassified Earthwork | | |
| 2.1 Well Pad Sump Area Reclamation | 0 | CY |
| 2.1 Excavation (cut to Compact Fill) | 14 | CY |
| 2.1 Excavation (Export to Stockpile) | | |
| 3.0 Stone and Aggregate Surfacing | | |
| 3.1 Rip-Rap | 32 | TONS |
| 3.1.1 R-3 (3-6" Stone, 9" Depth) | | |
| 3.1.2 Geotextile Fabric (US 200 or Equal) | 65 | SY |

COVER SHEET

RUTH KELLER
 WELL PAD
 UNION DISTRICT
 MARSHALL COUNTY, WEST VIRGINIA

SWN
 Southwestern Energy

NAVITUS
 ENERGY ENGINEERING
 Telephone: (888) 662-4186 | www.NavitusEng.com

DATE: 02/05/2018
 SCALE AS SHOWN
 SHEET 1 OF 12

