



---

west virginia department of environmental protection

---

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

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

Friday, July 15, 2022  
WELL WORK PERMIT  
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC  
POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for SHANNON FIELDS OHI 1H  
47-069-00344-00-00

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: SHANNON FIELDS OHI 1H  
Farm Name: SHANNON FIELDS, LLC  
U.S. WELL NUMBER: 47-069-00344-00-00  
Horizontal 6A New Drill  
Date Issued: 7/15/2022

Promoting a healthy environment.

07/15/2022

**PERMIT CONDITIONS 4706900344**

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. 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.

API Number: \_\_\_\_\_

# PERMIT CONDITIONS

4706900344

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](mailto:DEPOOGNotify@wv.gov).

WW-6B  
(04/15)

API NO. 47-009

OPERATOR WELL NO. Shannon Fields OHI 1H

Well Pad Name: Shannon Fields OHI

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 069-Ohio 005-Rich 674-Wheeling  
Operator ID County District Quadrangle

2) Operator's Well Number: Shannon Fields OHI 1H Well Pad Name: Shannon Fields OHI

3) Farm Name/Surface Owner: Shannon Fields, LLC Public Road Access: Boggs Hill Road (Country Route 15/1)

4) Elevation, current ground: 1232' Elevation, proposed post-construction: 1230'

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

Other

(b) If Gas Shallow x Deep

Horizontal x

6) Existing Pad: Yes or No No

MRK 1/24/2022

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- 5990', Target Base TVD- 6049', Anticipated Thickness- 59', Associated Pressure- 3932

8) Proposed Total Vertical Depth: 6028'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 25,099'

11) Proposed Horizontal Leg Length: 17306.34'

12) Approximate Fresh Water Strata Depths: 351'

13) Method to Determine Fresh Water Depths: Deepest Nearby Water Well and 47069-00155

14) Approximate Saltwater Depths: 601' Salinity Profile

15) Approximate Coal Seam Depths: 503'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 503'

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:

RECEIVED  
Office of Oil and Gas  
JUN 02 2022  
47069-00155  
WV Department of  
Environmental Protection

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	126'	126' ✓	CTS
Fresh Water	13 3/8"	New	H-40	48#	555'	555' ✓	534 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	1845'	1845' ✓	809 sx/CTS
Production	6"	New	P-110 HP	24#	0'	5000'	
Production	5 1/2"	New	P-110 HP	20#	5000'	25,099' ✓	Tall 3316x/ 100' inside intermediate
Liners							

*MJK 1/24/2022*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.20/30% Excess
Fresh Water	13 3/8"	17.5"	0.380	2730	633	Class A	1.20/30% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/40% Excess
Production	5 1/2"	8 3/4"-8 1/2"	0.361	14360	10500	Class A	1.19/5% Excess
Tubing							
Liners							

RECEIVED  
Office of Oil and Gas  
**JUN 02 2022**  
WV Department of  
Environmental Protection

PACKERS

Kind:				
Sizes:				
Depths Set:				

WW-6B  
(10/14)

API NO. 47- 009 - \_\_\_\_\_  
 OPERATOR WELL NO. Shannon Fields OHI 1H  
 Well Pad Name: Shannon Fields OHI

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 unites, horizontal separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 100 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 20.94

22) Area to be disturbed for well pad only, less access road (acres): 17.00

23) Describe centralizer placement for each casing string:

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

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

See Attachment \*\*\*

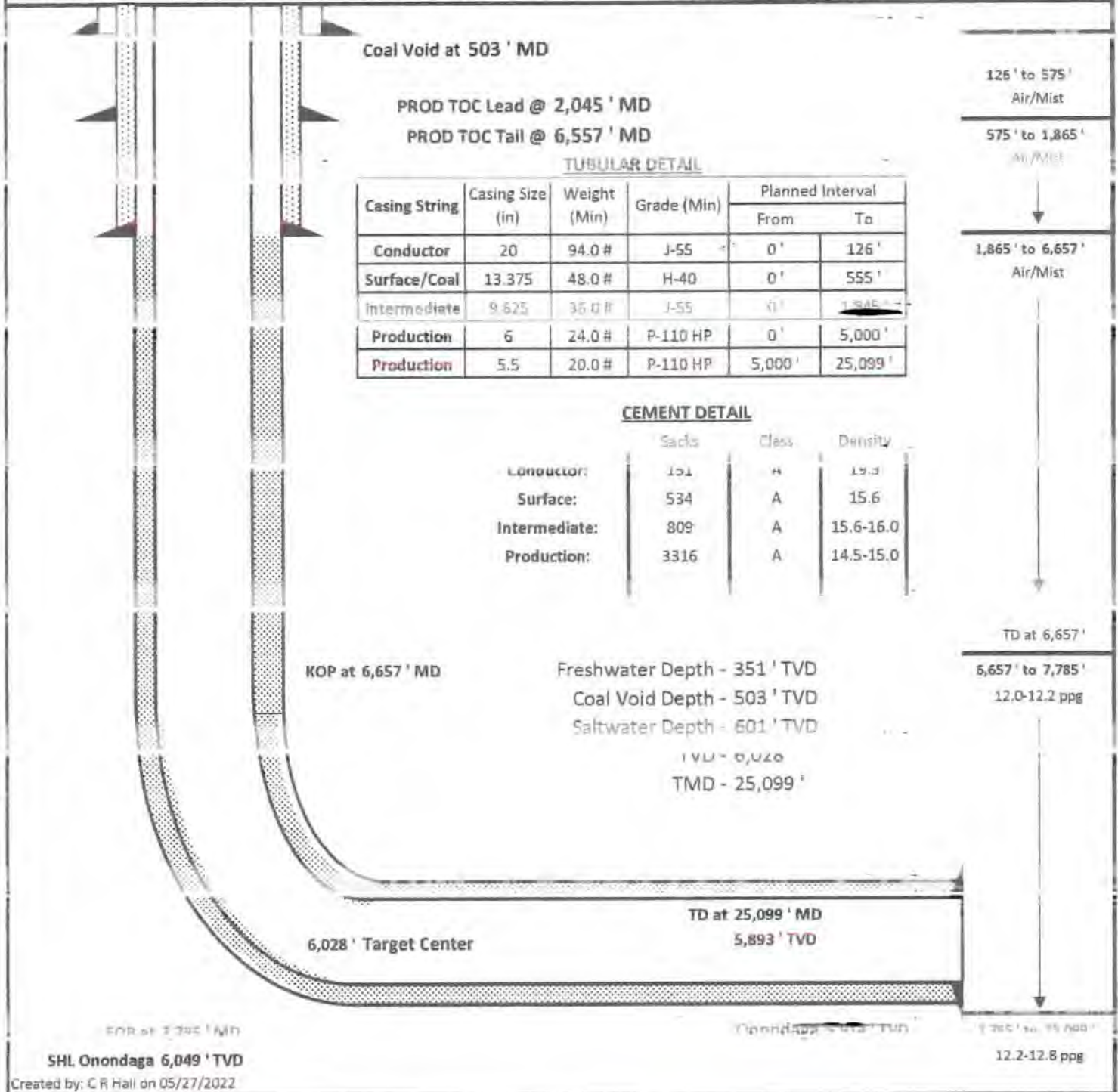
25) Proposed borehole conditioning procedures:

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

\*Note: Attach additional sheets as needed.

CEMENT ADDITIVES						
INTERVAL	SCHLUMBERGER PRODUCT NAME	BJ PRODUCT NAME	NEXTEER PRODUCT NAME	PRODUCT USE	CHEMICAL NAME	CAS-Number
SURFACE (FRESHWATER) <i>up to 3%</i>	<del>XXXXXXXXXX</del>	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
COAL PROTECTION <i>up to 3%</i>	<del>XXXXXXXXXX</del>	INTEGRA SEAL	CJ600	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
	D047	FP 28L	<del>XXXXXXXXXX</del>	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	<del>XXXXXXXXXX</del>	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	CemNet	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	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	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJ111	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
	<del>XXXXXXXXXX</del>	SS-11W	CJ880	SURFACTANT	NONIONIC SURFACTANT	6540-99-4
	D047	FP 28L	<del>XXXXXXXXXX</del>	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATIC AMIDE POLYMER	PROPRIETARY
	D255	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETARY
	<del>XXXXXXXXXX</del>	<del>XXXXXXXXXX</del>	CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
	<del>XXXXXXXXXX</del>	FL-66	CJ501	LOW TEMP FLUID LOSS ADD	POWDERED POLYSACCHARIDE	PROPRIETARY
	<del>XXXXXXXXXX</del>	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301	<del>XXXXXXXXXX</del>	VISCOSIFIER/ANTI- SETTLING AGENT	REFINED POLYMER/ CHRYSTALLINE SILICA	PROPRIETARY
	D198	R-3		CEMENT RETARDER	LIGNIN	8068-51-6
	SUGAR	SUGAR	CJ795	CEMENT RETARDER	SUCROSE	57-50-1

<b>Southwestern Energy Company</b>		<b>Proposed Drilling Program</b>	
Well:	SHANNON FIELDS OHI 1	Re-entry Rig:	SDC 41
Field:	PANHANDLE FIELD WET	Prospect:	Marcellus Shale
County:	OHIO	State:	WV
SHL:	40.0884 Latitude -80.6578 Longitude		
BHL:	40.1278 Latitude -80.6976 Longitude		
KB Elev:	1,257 ft MSL	KB: 25 ft AGL	GL Elev: 1,232 ft MSL



Created by: C R Hall on 05/27/2022

MJK 1/24/2022

07/15/2022



4706900344

WW-9  
14/164

API Number 47-069

Operator's Well No. Shannon Fields OH 1H

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

FLUIDS, CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Co., LLC

Oil Code 494512924

Watershed (HUC) 10 Upper Ohio South

County Wheeling

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 water

with a synthetic liner to be used in the pit? Yes  No

Proposed Disposal Method for Treated Pit Wastes

- Land Application
  - Underground Injection (UIC) Permit Number Various Approved Facilities
  - Reuse for API Number At the next anticipated well
  - On Site Disposal (Supply form W-10 water disposal treatment)
  - Other (Specify) recovery and solidification on site

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

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Attach to KOP file and with 30RM form 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, sand, etc.)

-Landfill or offsite reuse permit number: Meadowfill SWF-1032, Short Creek SWF-1034, Carbon Limestone MSWL018781, Wetzel County 1021

Apex Sanitary Landfill 06-08438, Brooke Co SWF-TU13,

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 by the Department of Environmental Protection of the State of West Virginia. 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 training and experience of those individuals (immediately responsible) for obtaining the information, I believe that the information is true, accurate, and complete. I understand that there are legal consequences for providing false information, including the possibility of criminal or civil penalties.

Company Official Signature *Brittany Woody*

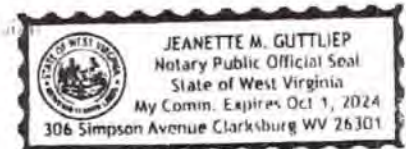
Company Official (Typed Name) Brittany Woody

Company Official Title Senior Regulatory Analyst

Subscribed and sworn before me this 16 day of June, 2022

*Jeanette M. Guttliet*

My commission expires *10/1/2024*



07/15/2022

SWN Production Co., LLC

Proposed Revegetation Treatment: Acres Disturbed 20.94 Prevegetation pH \_\_\_\_\_

Lime as determined by pH test min.2 Tons/acre or to correct to pH 17.00

Fertilizer type 10-20-20

Fertilizer amount 600/500 lbs/acre

Mulch Hay/Straw Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type lbs/acre

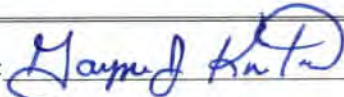
Seed Type lbs/acre

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: 

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

Title: Oil & Gas Inspector

Date: 1/24/2022

Field Reviewed? (  ) Yes (  ) No

## Attachment 3A

## CLOSED LOOP SYSTEM

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

The closed loop system consists of several sets of a shale gas separator (often called a 'methana'), 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 high weight 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 hauloff. (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 (sometimes called a methane) 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.



4706900344

**Attachment 3B**  
**Drilling Mediums**

**Surface/Coal(if present)/Freshwater Intervals:**

Air

Freshwater (if needed based on conditions)

**Intermediate/Coal (if present):**

Air

**Production Hole:**

Air

Synthetic Oil (Base Fluid for mud system)

Barite

Calcium Chloride

Lime

Organophilic Bentonite

Primary and Secondary Emulsifiers

Gilsonite

Calcium Carbonate

Friction Reducers



# WVD Seeding Specification



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

## NON-ORGANIC PROPERTIES

Seed Mixture: ROW Mix	SWN Supplied
Orchardgrass	40%
Timothy	15%
Annual Ryegrass	15%
Brown Top Millet	5%
Red Top	5%
Medium Red Clover	5%
White Clover	5%
Birdfoot Trefoil	5%
Rough Bluegrass	5%

Apply @ 100lbs per acre April 16th- Oct. 14th  
 Apply @ 200lbs per acre Oct. 15th- April 15th PLUS 50lbs per acre of Winter Wheat  
 All legumes are innoculated at 5x normal rate

## SOIL AMENDMENTS

10-20-20 Fertilizer  
 Pelletized Lime  
 \* Apply @ 500lbs per Acre  
 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:

Downer 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

NO FERTILIZER OR LIME INSIDE WETLAND LIMITS

4706900344

May 26, 2020

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

**RE:** Proposed New Well: Shannon Fields OHI 1H


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 Fields' property, in Richland District, Ohio County, West Virginia.

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

Thank you.

Sincerely,



Brittany Woody  
Senior Regulatory Analyst  
Southwestern Energy Production Company, LLC



4706900344

# MARCELLUS WELL DRILLING PROCEDURES AND 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: Shannon Fields OHI 1H**  
**Wheeling QUAD**  
**Richland DISTRICT**  
**Ohio COUNTY, WEST VIRGINIA**

Submitted by:

Name: Brittany Woody

*Brittany Woody*

Date: 12/14/2021

Title: Senior Regulatory Analyst

SWN Production Co., LLC

Approved by:

Name: *Wayne J. King*

*Wayne J. King*

Date: 1/24/2022

Title: Inspector

Approved by:

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

SWN PRODUCTION COMPANY, LLC – CONFIDENTIAL

07/15/2022

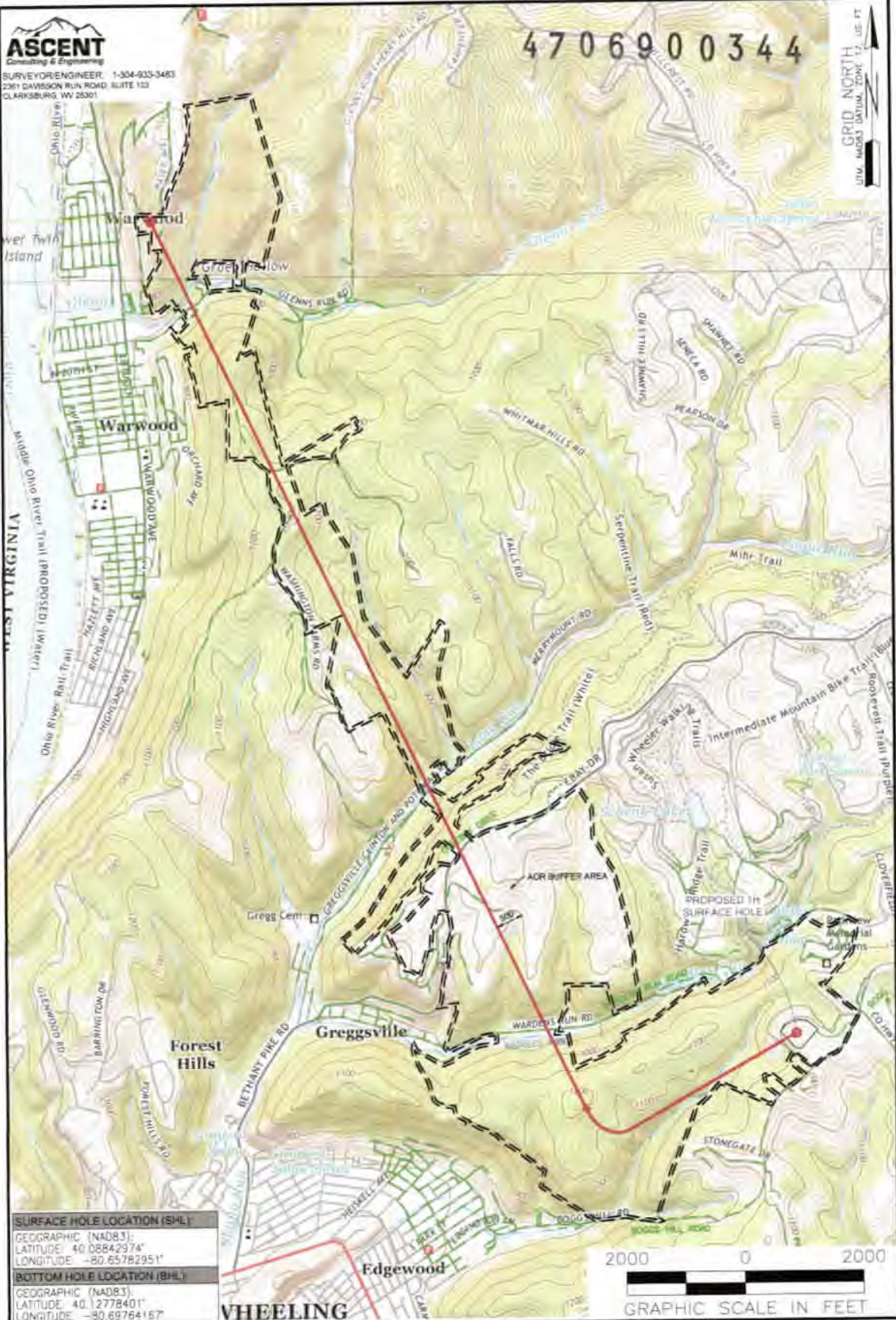




SURVEYOR/ENGINEER: 1-304-933-3463  
 2261 DAVISSON RUN ROAD, SUITE 103  
 CLARKSBURG, WV 25301

4706900344

GRID NORTH 12 US FT  
 1276.4683 DATUM: NAD 83



<b>SURFACE HOLE LOCATION (SHL)</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.08842974°
LONGITUDE: -80.65782951°
<b>BOTTOM HOLE LOCATION (BHL)</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.12778401°
LONGITUDE: -80.69764167°

**NOTES ON SURVEY:**

1. SURFACE AND BOTTOM HOLE LOCATIONS SHOWN ARE THE  
 2. SURFACE AND BOTTOM HOLE LOCATIONS SHOWN ARE THE  
 3. THE SURFACE AND BOTTOM HOLE LOCATIONS SHOWN ARE THE  
 4. THE SURFACE AND BOTTOM HOLE LOCATIONS SHOWN ARE THE  
 5. THE SURFACE AND BOTTOM HOLE LOCATIONS SHOWN ARE THE

**LEGEND:**

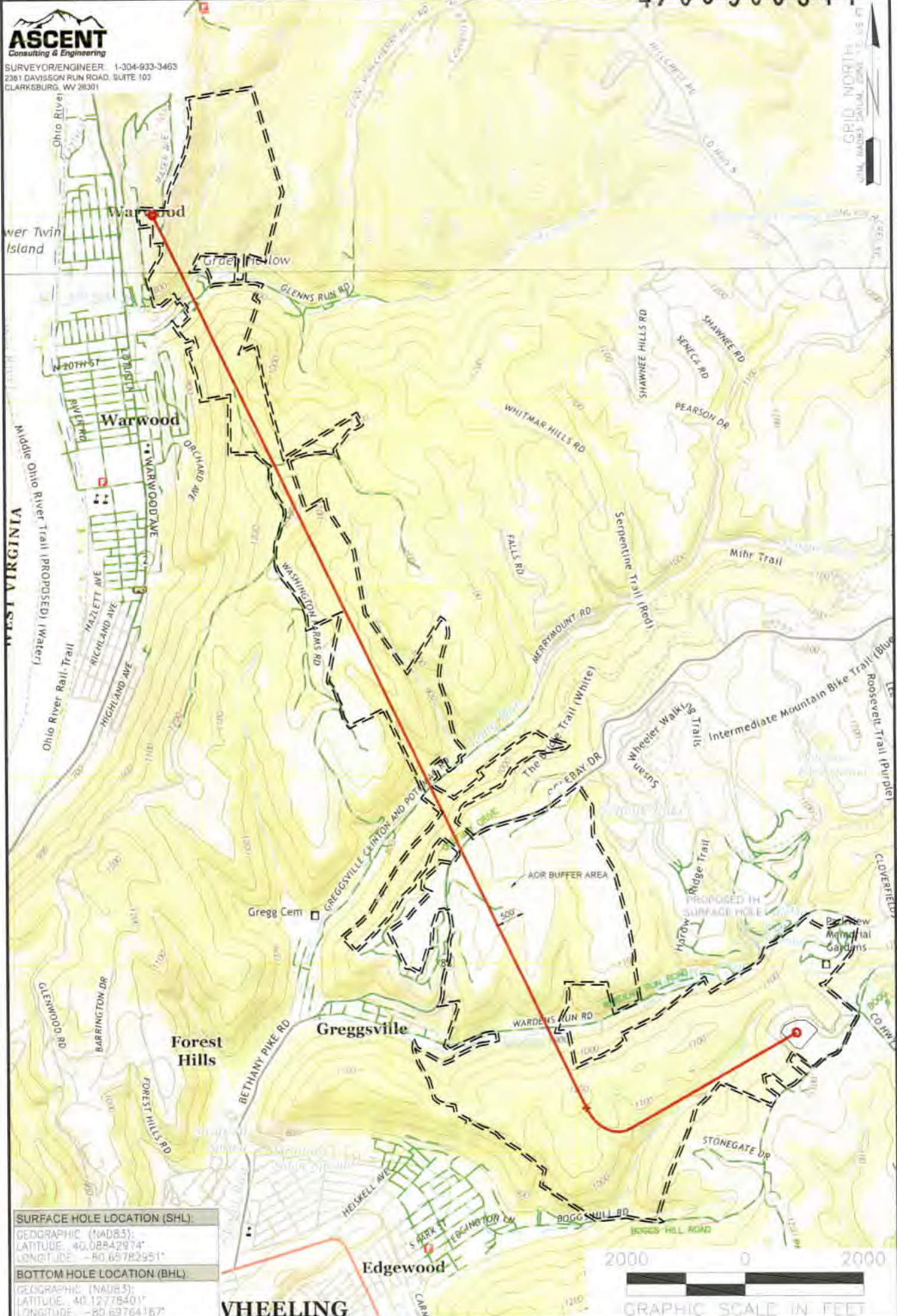
- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELL HEAD
- LPL\* LANDING POINT LOCATION
- FLOOD PLAN
- ACCESS ROAD
- PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- LEASE BOUNDARY
- PROPOSED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: SHANNON FIELDS OHI	WELL # 1H	SERIAL # XXXX
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201	COUNTY - CODE: OHIO - 35	DISTRICT: RICHLAND	
SURFACE OWNER: SHANNON FIELDS, LLC	USGS 7 1/2 QUADRANGLE MAP NAME: WHEELING, WV		

07/15/2022



SURVEYOR/ENGINEER: 1-304-933-3463  
 2381 DAVISSON RUN ROAD, SUITE 103  
 CLARKSBURG, WV 26301



**SURFACE HOLE LOCATION (SHL):**  
 GEOGRAPHIC (NAD83):  
 LATITUDE: 40.08842974°  
 LONGITUDE: -80.65782951°

**BOTTOM HOLE LOCATION (BHL):**  
 GEOGRAPHIC (NAD83):  
 LATITUDE: 40.12778401°  
 LONGITUDE: -80.69764167°



NOTE: L&P SURVEY  
 1. ALL DISTANCES ARE IN FEET UNLESS OTHERWISE NOTED.  
 2. ALL ANGLES ARE IN DEGREES UNLESS OTHERWISE NOTED.  
 3. ALL BEARINGS ARE TRUE UNLESS OTHERWISE NOTED.  
 4. ALL CURVES ARE CIRCULAR UNLESS OTHERWISE NOTED.  
 5. ALL CURVE DATA IS GIVEN AS BEARING, DISTANCE, BEARING, DISTANCE, BEARING, DISTANCE.  
 6. ALL CURVE DATA IS GIVEN AS BEARING, DISTANCE, BEARING, DISTANCE, BEARING, DISTANCE.  
 7. ALL CURVE DATA IS GIVEN AS BEARING, DISTANCE, BEARING, DISTANCE, BEARING, DISTANCE.

- LEGEND:**
- PROPOSED SURFACE HOLE / BOTTOM HOLE
  - \* EXISTING / PRODUING WELLHEAD
  - \* LPL LANDING POINT LOCATION
  - FLOOD PLAN
  - ALLIANCE
  - PARK ROAD
  - ACCESS ROAD TO PREV. SITE
  - LEASE BOUNDARY
  - PROPOSED PATH

07/15/2022

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: SHANNON FIELDS OHI	WELL # 1H	SERIAL # XXXX
ADDRESS: 1300 CORT PIERPONT DRIVE, SUITE 201	COUNTY - CODE OHIO - 55	DISTRICT: RICHLAND	
SURFACE OWNER: SHANNON FIELDS, LLC	USGS 7 1/2 QUADPANGLE MAP NAME WHEELING, WV		

LATITUDE: 40°10'00"

BOTTOM HOLE 8,665'

LATITUDE: 40°07'30"

SURFACE HOLE 9,182'



SURVEYOR/ENGINEER: 1-304-933-3463  
2361 DAVISSON RUN ROAD, SUITE 103  
CLARKSBURG, WV 26301

**SURFACE HOLE LOCATION (SHL)**

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,437,628.221  
EASTING: 529,169.889

**LANDING POINT (LPL)**

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,437,229.786  
EASTING: 526,046.516

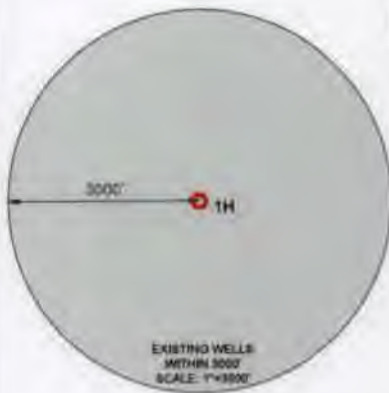
**BOTTOM HOLE LOCATION (BHL)**

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,441,983.959  
EASTING: 525,761.063

PROPOSED 1H  
BOTTOM HOLE



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



2500 0 2500

GRAPHIC SCALE IN FEET

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 77°06'50" W	745.02'	SHL TO LANDMARK	STONE FOUND
L2	N 27°47'54" E	953.17'	SHL TO LANDMARK	CONCRETE MONUMENT
L3	S 70°28'18" W	3,910.55'	SHL TO LPL	SHL TO LPL

**WELL RESTRICTIONS:**

- NO REQUIRED WELLING = 3000 SQ FT WITHIN 525 FEET OF CENTER OF PAD
- NO WINDMILL BUILDING = 2000 SQ FT WITHIN 525 FEET OF CENTER OF PAD
- NO WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 200 FEET OF PROPOSED WELL LPL
- PERMANENT STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF INTERFERENCE.
- NO NATURALLY PRODUCING FLOOD STREAM WITHIN 300 FEET OF LIMITS OF INTERFERENCE.
- NO GROUND INTAKE OF PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD LIMITS OF INTERFERENCE. 1 & 2 CONTROL OF PUBLIC WATER SUPPLY.

**NOTES ON SURVEY**

- DES TO WELLS AND CORNERS ARE BASED ON STATE PLANE WY NORTH YRNG MAP '83.
- WELL LAT/LONG ESTABLISHED BY DIRECT GPS WAD '83.
- BOUNDARIES SHOWN ARE TAKEN FROM TAX MAPS, DEEDS, AND FIELD SURVEY. THIS DRAWING IS NOT REPRESENTATIVE OF A FULL BOUNDARY SURVEY.
- SURFACE OWNER INFORMATION TAKEN FROM THE REASSESSOR AND COUNTY CLERK RECORDS OF OHIO COUNTY IN OCTOBER OF 2021.
- WELLS SHOWN ARE TAKEN FROM RECORDS OF WADFP.

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 983 *Michael R. Hyman*



COMPANY: **SWN** Production Company, LLC

**SWN** <sup>PL-V</sup> Production Company™

**STATE OF WEST VIRGINIA** (+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

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

MINIMUM DEGREE OF ACCURACY: 1/200

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

SHANNON FIELDS OHI  
OPERATOR'S WELL #: 1H  
API WELL #: 47 STATE 69 COUNTY 00344 PERMIT

WELL TYPE: OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS  LIQUID INJECTION  STORAGE  SHALLOW

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1232.0'

DISTRICT: RICHLAND COUNTY: OHIO QUADRANGLE: WHEELING 7.5', WV

SURFACE OWNER: SHANNON FIELDS, LLC ACREAGE: ±35.07

OIL & GAS ROYALTY OWNER: SHANNON FIELDS, LLC ACREAGE: ±35.07

DRILL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION

CONVERT  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) **07/15/2022**

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,028 TVD 25,099 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITANY WOODY

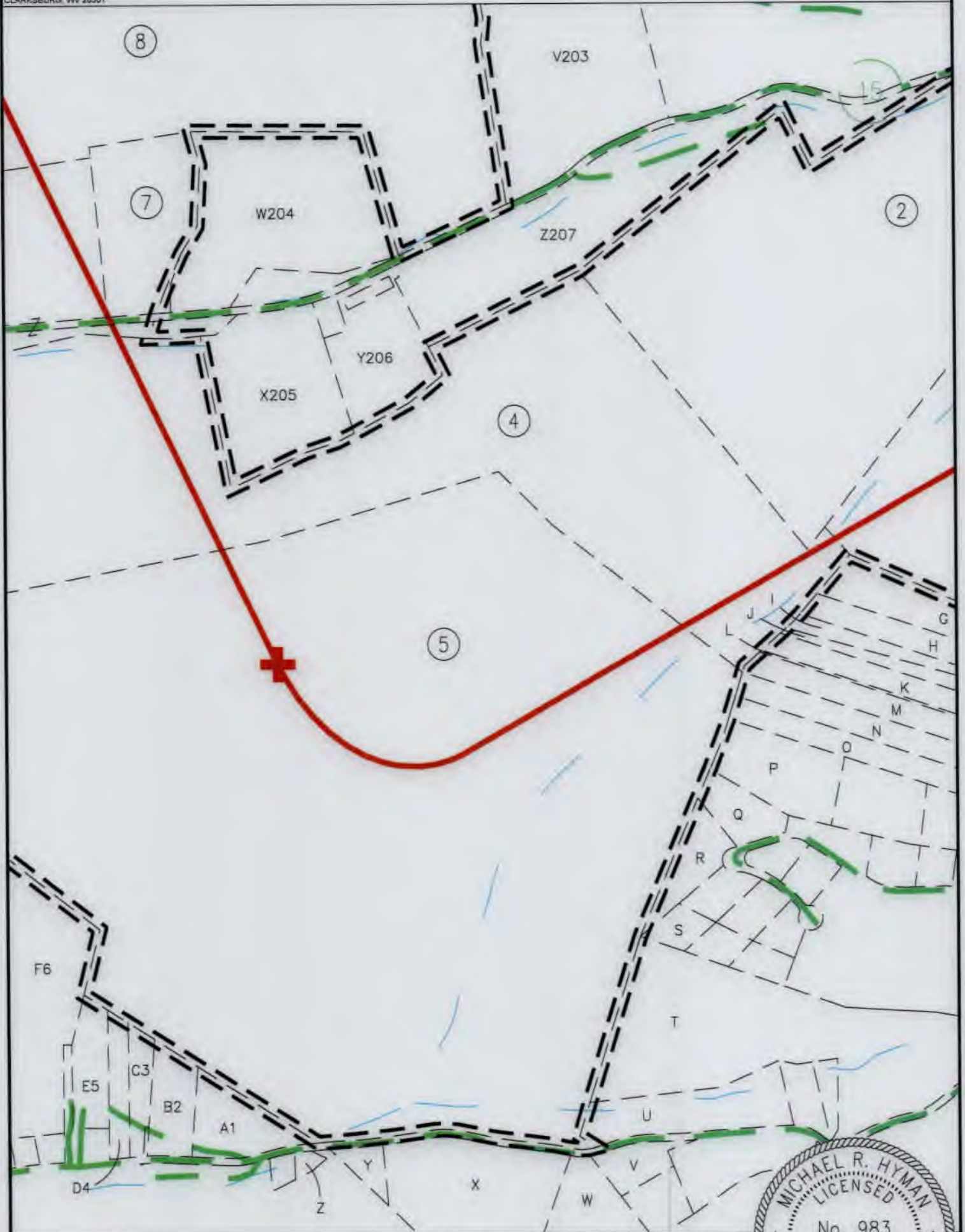
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201

CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND:

REVISIONS: DATE: 05-09-2022

DRAWN BY: NBG  
SCALE: 1" = 2500'  
DRAWING NO: ACE-2326  
WELL LOCATION PLAT



**INSET "A"**  
SCALE: 1"=500'

P.S. 983

REVISIONS:


COMPANY:

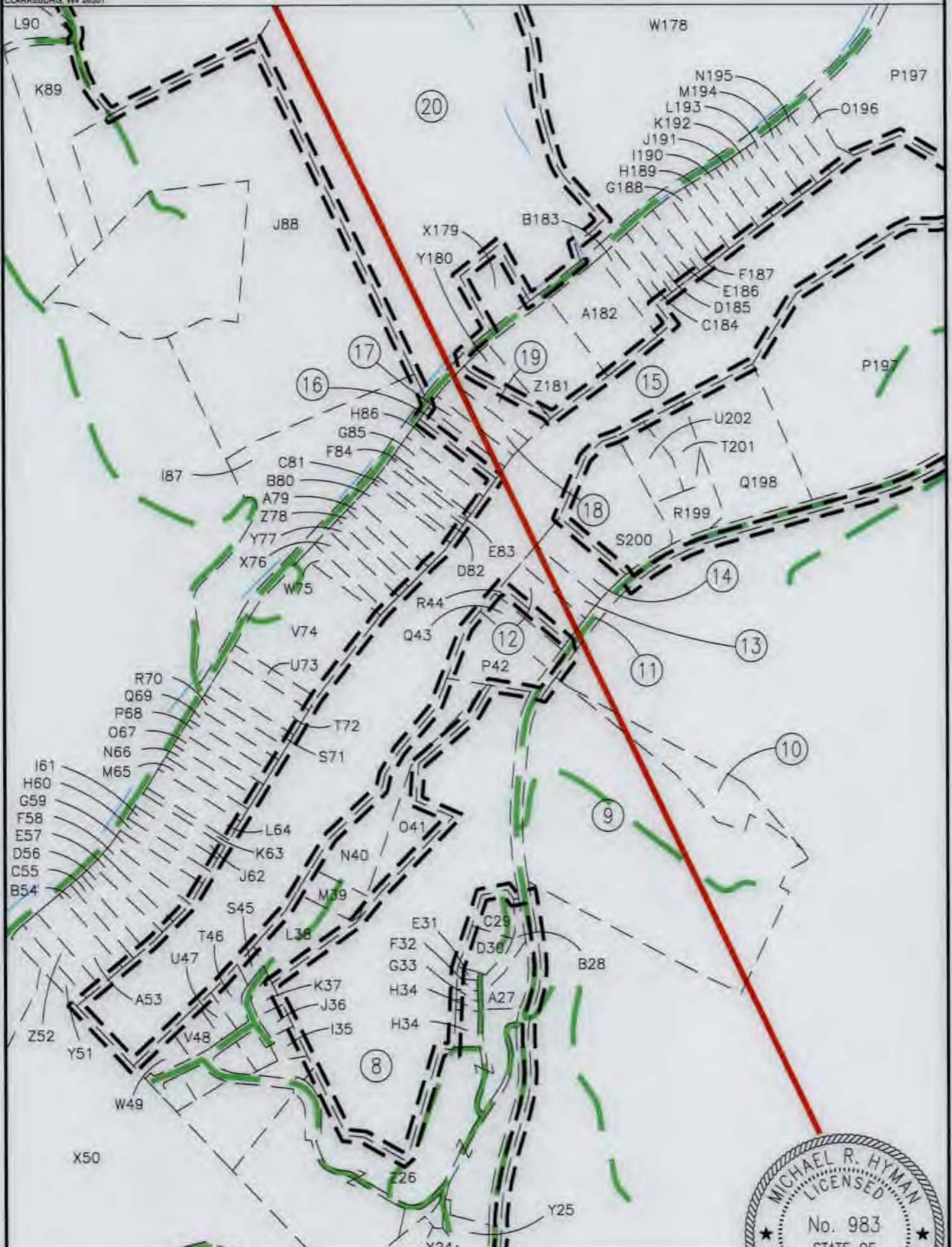
**SWN**  
Production Company, LLC

**SWN** *S-V+*  
Production Company™

OPERATOR'S SHANNON FIELDS OHI		DATE: 05-09-2022
WELL #: 47-061-00344 1H		DRAWN BY: NBG
DISTRICT: RICHLAND	COUNTY: OHIO	SCALE: N/A
STATE: WV		DRAWING NO: ACE-2326
		WELL LOCATION PLAT



SURVEYOR/ENGINEER: 1-304-933-3463  
 2361 DAVISSON RUN ROAD, SUITE 103  
 CLARKSBURG, WV 26301



**INSET "B"**  
 SCALE: 1"=500'

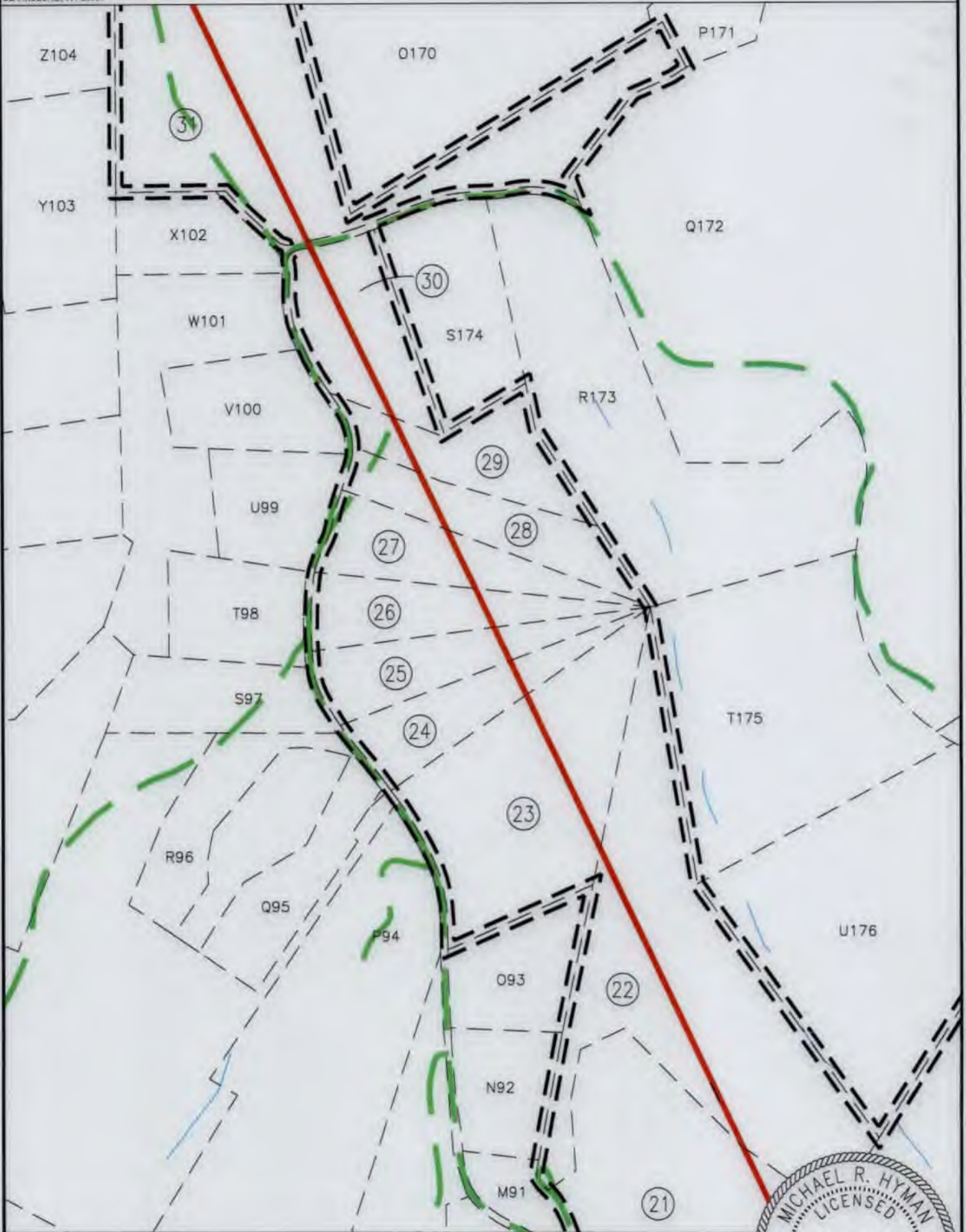
P.S. 863



REVISIONS:	COMPANY:		
	OPERATOR'S	SHANNON FIELDS OHI	
	WELL #:	47-061-00244	1H
	DISTRICT:	RICHLAND	COUNTY: OHIO
			STATE: WV
			DATE: 05-09-2022
			DRAWN BY: NBG
			SCALE: N/A
			DRAWING NO: ACE-2326
			WELL LOCATION PLAT



SURVEYOR/ENGINEER: 1-304-933-2463  
 2361 DAVISSON RUN ROAD, SUITE 103  
 CLARKSBURG, WV 26301



**INSET "C"**  
 SCALE: 1"=500'



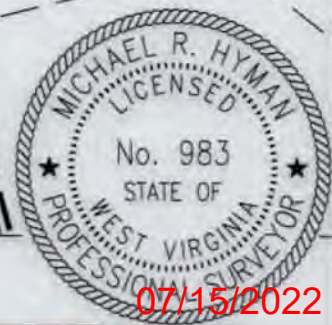
P.S. 983

REVISIONS:	COMPANY:		DATE: 05-09-2022
	OPERATOR'S: SHANNON FIELDS OHI		DRAWN BY: NBG
	WELL #: 47-061-00344 1H		SCALE: N/A
	DISTRICT: RICHLAND	COUNTY: OHIO	DRAWING NO: ACE-2326
		STATE: WV	WELL LOCATION PLAT



**INSET "D"**  
SCALE: 1"=500'

P.S. 983



REVISIONS:	COMPANY:			DATE: 05-09-2022
	OPERATOR'S			SHANNON FIELDS OHI
	WELL #:		47-064-00344 1H	SCALE: N/A
	DISTRICT:	COUNTY:	STATE:	DRAWING NO: ACE-2326
RICHLAND	OHIO	WV	WELL LOCATION PLAT	



SURVEYOR/ENGINEER: 1-304-933-3453  
 2381 DAVISSON RUN ROAD, SUITE 103  
 CLARKSBURG, WV 26301

WELL BORE TABLE FOR SURFACE/ROYALTY OWNERS

TRACT	SURFACE OWNER ( S )/ROYALTY OWNER ( R )	TAX PARCEL
1	SHANNON FIELDS LLC	4-R17-23.2
TRACT	SURFACE OWNER (S)	TAX PARCEL
2	PARK VIEW MEMORIAL GARDENS INC	4-R17-8
3	BENEKE NADA E ET AL	4-R17-19
4	WHEELING PARK COMMISSION	4-R17-6.1
5	WHEELING PARK COMMISSION	6-T1-2
6	VINEYARD CHRISTIAN FELLOWSHIP WHEELING TRUSTEES	10-W27-1
7	WHEELING HOSPITAL INC	10-W27-1.1
8	ELM HILL HOLDINGS LLC	4-R14-14
9	NUTTING ROBERT M	4-R14-7
10	NUTTING ROBERT M	4-R14-14.2
11	WV DOT	ROUTE 88
12	WEST RENTALS INC	4-R14-9
13	SHANLEY MILTON & DOROTHY	4-R14-9.1
14	CHURILLA RICHARD & P	4-R14-10
15	WHEELING PARK COMMISSION	10-W17A-1
16	ARCHER BYRON F JR & M L	4-R13M-3
17	MICKER DEBORAH A	4-R13M-2
18	WEST RENTALS INC	4-R13M-1
19	WEST RENTALS INC	4-R13M-1.1
20	POLACK E PHILLIPS M D	4-R13-15
21	HOFF ROBERT H	4-R13-17.1
22	PEACE SYLVIA A - TOD	4-R13-25
23	POLACK EDWARD P	4-R13-1.18
24	FERNS MICHAEL D SR & LINDA K	4-R13-16.4
25	JUNE PAMELA B & WHITLINGER STEVEN W	4-R13-16.5
26	COLEMAN JOSEPH F & M A	4-R13-16.2
27	BATES NANCY A MARCONI LORNA	4-R13-16.1
28	GRÜBLER J & BODNAR K	4-R13-16.3
29	MYERS MICHAEL & STEPHANIE	4-R13-16.6
30	FLETCHER SCOTT A FLETCHER MELISSA D	4-R13-16
31	PRATHER JOHN R	4-R10-47
32	NORTH FORK LANDFILL INC	4-R10-43
33	BOWER JASON	4-R10L-22
34	KLEEH JAMES L & M L	4-R10G-16
35	KLEEH JAMES L & MARILYN	4-R10L-34
36	NORTH FORK LANDFILL INC	4-R10-43
37	NORTH FORK LANDFILL INC	4-R10G-17
38	ROHRIG ROBERT F & KATHLEEN S	4-R10G-8
39	SARKIS SJ; ROHRIG RF; ROHRIG JR; ROHRIG RF TTEE	4-R10G-7
40	SARKIS SJ; ROHRIG RF; ROHRIG JR; ROHRIG RF TTEE	4-R10G-6
A	HUFFNER EARL P	4-R17-24.1
B	MULL JAMES B	4-R17-24
C	MINCH ROBERT WILLIAM JR MINCH HERBERT PAUL	4-R17-57
D	LEWIS RUTH CARTER REVOCABLE TRUST	4-R17-23
E	BENEKE NADA E	4-R17-22
F	JOHN THOMAS & MICHELLE	4-R17-20
G	OLEARY CRAIG V & EMMA L	4-R17-17
H	SCHREIBER JEREMY A PHILBRICK ELIZABETH	4-R17-16
I	HEMPELMAN GUNTHER F & M E	4-R17-14
J	COLUMBIA GAS TRANSMISSION CORP	4-R17-15
K	HEMPELMAN GUNTHER & M E	4-R17-13
L	BURKLAND CARL D III & JOLIN H	4-R17-13.1
M	BURKLAND CARL D III & JOLIN H	4-R17-12
N	FISHER HARRY S & BARBARA J	4-R17-11
O	FISHER HARRY S & BARBARA J	4-R17-11.1
P	LENKEY ATTILA A	4-R17-10.1
Q	MAJUCK RONALD & ANASTASIA	6-T2J-11
R	WONDERLY CHERYL LYNN	6-T2J-13
S	SHINN LOWELL C	6-T2J-20.6
T	PACHUTA KAREN A & VARONE K J	6-T2-3
U	MOSKAL STEVEN M ESTATE	6-T2-4
V	WALTER MATTHEW C	6-T1-3
W	RCK 2 GROUP LLC 1/2 VOGRIN MICHELLE L 1/2	10-W41-74
X	DOBBS DANIEL I & JULIE A	6-T1-13
Y	CARROLL DONALD L & CARROLL D ANN M	10-W41-57
Z	FISHER STEPHEN G & TEMPLIN G	10-W41-56
A1	THOMAS DONALD HANKE	10-W41-46
B2	KOVALICK ROBERT J JR	10-W41-45
C3	MCGINLEY JOSEPH R & KELLY K	10-W41-44.2

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
D4	MCGINLEY JOSEPH R & KELLY K	10-W41-44.1
E5	MCGINLEY JOSEPH R & KELLY K	10-W41-44
F6	SNIDER JAMES & CINDY	10-W34-18.2
G7	WHEELING PARK COMMISSION	10-W34-29
H8	WHEELING PARK COMMISSION	10-W34-28
I9	SNIDER JAMES R	10-W34-27
J10	WINEMAN LONNIE J & K B	10-W34-26
K11	WINEMAN LONNIE J	10-W34-25
L12	YOUNG DANIEL R & CHELSEA R	10-W34-25.1
M13	TAMS LLC	10-W33-331.9
O15	PHILLIPSON SANDIN E	6-T1-1
P16	GC&P DEVELOPMENT LLC	10-W26-90
Q17	LOHR LINDA J	10-W26-89
R18	GACS L P	10-W26-90.1
S19	LLL LLC	4-R17-6
T20	SEABRIGHT JACK & DANIELLE	4-R17-6.4
U21	SEABRIGHT JACK & DANIELLE	4-R17-6.2
V22	SEABRIGHT JACK A & DANIELLE L	4-R17-6.3
W23	GILSON THOMAS A & STEPHANIE S	10-W26-50
X24	MCCARTHY T CARROLL JR	4-R16-1.5
Y25	HEISEL BARBARA ELLEN	4-R16-1.4
Z26	WEST RENTALS INC	4-R16-1
A27	SUNRISE VALLEY REALTY LLC	4-R16-1.24
B28	LINDSAY MARK E & JULIE K	4-R16-1.26
C29	POPPENS TIMOTHY A; SLABAUGH DIANA H; MCPHAIL SHARI; WILLIAMS CURTIS A III	4-R13-27
D30	ELLWOOD DAVID B & DIXIE L -TOD; STEWART GRADY P & CYNTHIA E; BIENIEK PETER P III; KLATT ROBERT H; ROBINSON JASON R & MORGAN K; HUGHES SCOTT B & TERESA J	4-R13-26
E31	GIUSTINI ANTHONY LOUIS AND VIEILLE ANNE-LAURE	4-R16-2.3
F32	IRVINE TERRY L & CYNTHIA P	4-R16-2.4
G33	WEST RENTALS INC	4-R16-2.1
H34	GIUSTINI ANTHONY L & VIEILLE ANNE-LAURE	4-R16-2.2
I35	NORLE LIVING TRUST	4-R16-1.25
J36	PAYNE LORE B	4-R16-1.12
K37	TAYLOR R JAMES & DEBORAH K	4-R16-1.13
L38	JOHN M STASKY TRUST UNDER AGREEMENT	4-R16-1.28
M39	ROBERTS ARTHUR C & MARY L -TOD	4-R16-1.1
N40	MICHALSKI JOHN & SUSAN	4-R16-1.23
O41	JOHN M STASKY TRUST UNDER AGREEMENT	4-R16-1.28
P42	WRIGHT DEBORAH D & JOHN E IV	4-R14-8
Q43	TOWNSEND TAMMY J	4-R14-9.3
R44	JOHNSON RONALD B	4-R14-9.2
S45	TAYLOR R JAMES & DEBORAH K	4-R16-1.13
T46	DEEM STEVEN C & NORMA J	4-R16-1.22
U47	KALISZ WILLIAM & CATHERINE A	4-R16-1.21
V48	MENDEL MARTHA J	4-R16-1.19
W49	QBECHY MARY KATHERINE	4-R16-1.18
X50	BAUER ROBB V AND KATHY	10-W21-43
Y51	BURGER RAYMOND P KAREN E	4-R13R-25
Z52	BECK ISABELLE M	4-R13R-24
A53	CARMICHAEL GERALD L JR	4-R13R-22
B54	FINSLEY HENRY M	4-R13R-21
C55	KETTLER JARED E	4-R13R-20
D56	WEISENBORN STEPHANIE L	4-R13R-19
E57	ALTMAN SHARON LOUISE C/O WESBANCO TRUST DEPT	4-R13R-18
F58	DUPLAGA MICHAEL F III	4-R13R-17
G59	GROUX FRED E JR	4-R13R-16
H60	SMITH JOHN B & R B	4-R13R-15
I61	HUGHES KIMBERLY A & HUGHES BERNARD F	4-R13R-14
J62	MANNING JAMES C	4-R13R-13
K63	MANNING JAMES C	4-R13R-12
L64	WEISENBORN DALE A & S L	4-R13R-11
M65	BALL MATTHEW	4-R13R-10
N66	BOWMAN ROBERT E & BARBARA A	4-R13R-9
O67	MANNING LAWRENCE R & LESLIE A	4-R13R-8
P68	PARRE ANGELO JR & KELLY J	4-R13R-7
Q69	MOSCA ROBERT L E	4-R13R-6
R70	MOSCA ROBERT J & L E	4-R13R-5
S71	TRABERT TERRI L ET AL	4-R13R-4
T72	BACHMANN PETER	4-R13R-3

07/15/2022

REVISIONS:	COMPANY:		
	OPERATOR'S:	SHANNON FIELDS OHI	
	WELL #:	47-068-0024-4	1H
	DISTRICT:	RICHLAND	COUNTY: OHIO
			STATE: WV
			DATE: 05-09-2022
			DRAWN BY: NBG
			SCALE: N/A
			DRAWING NO: ACE-2326
			WELL LOCATION PLAT





SURVEYOR/ENGINEER: 1-304-933-3463  
 2361 DAVISSON RUN ROAD, SUITE 103  
 CLARKSBURG, WV 26301

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
U73	SCHUNK CHRISTOPHER & JESSICA	4-R13R-1
V7A	JARVIS DOWNING & EMCH INC	4-R13R-27
W75	LEMLEY LARRY D	4-R13R-14
X76	HOLT NED S & CHRISTINE L	4-R13M-13
Y77	HARTMANN SHARON J	4-R13M-12
Z78	HARTMANN SHARON J	4-R13M-12.1
A79	COLUMBIA GAS TRANSMISSION CORP	4-R13M-11
B80	RITNER ROBERT L & TRACI L	4-R13M-10
C81	OLEKSIAK CASSIE M & DANIEL J	4-R13M-9.1
D82	OLEKSIAK CASSIE M & DANIEL J	4-R13M-8
E83	OLEKSIAK CASSIE M & DANIEL J	4-R13M-7
F84	FLICK-MOOS SUZANNE M & MOOS CHRISTOPHER J	4-R13M-7.1
G85	FLICK-MOOS SUZANNE M MOOS CHRISTOPHER J	4-R13M-6
H86	OLEKSIAK DANIEL J & CASSIE M	4-R13M-4
I87	WEST RENTALS INC	4-R13-1
J88	CARR NANCY P & ROBERT E JR-TOD	4-R13-17
K89	FIRST CLASS REALTY LLC	4-R13-17.1
L90	KEPPE MARK A & LISA M	4-R13-12
M91	POLACK EDWARD P	4-R13-1.19
N92	POLACK EDWARD P	4-R13-1.18
O93	ANDREINI MARY BETH	4-R13-1.20
P94	MUELLER KARL & CYNTHIA	4-R13-21
Q95	SOLOVINKA DAVID A & KELLY A	4-R13-18.2
R96	FIGARETTI CHRISTOPHER J & FIGARETTI KRISTEN	4-R13-18.5
S97	ANDREINI LAURA J REVOCABLE TRUST	4-R13-18.1
T98	GOVINDAN ANNA M & SRINIVASAN	4-R13-22.3
U99	LINDERT DAVID J	4-R13-22.2
V100	KAPPEL CHARL D	4-R13-22.1
W101	MCDERMOTT ERIN	4-R13-22.4
X102	DEVINE DANIEL FRANCIS AND RENSHAW JEAN ANNE	4-R10-48
Y103	PRATHER JOHN R & BETH A	10-W10-171
Z104	CITY OF WHEELING	10-W8-348
A105	JONES TERRY	10-W8-357
B106	CUTLIP KATHERINE E	10-W8-358
C107	PLANTS VIVIAN A	10-W8-359
D108	CITY OF WHEELING	10-W8-330
E109	MILLER CLARENCE	4-R10-49
F110	LOUGH THOMAS & MARY	4-R10L-33
G111	TREIBER JOHN J	4-R10L-23
H112	BOWER JASON	4-R10L-22
I113	BENNETT CLIFFORD D & S V	4-R10L-19
J114	BENNETT CLIFFORD D & S V	4-R10L-18
K115	VOGEL DANIEL J & DENA M	4-R10L-16
L116	MCLAUGHLIN H III, DAVIS TRISTA M	4-R10L-15
M117	MONTELEONE DAVID P	4-R10G-16.5
N118	DODD CHAS WILSON & RUTH A	4-R10G-16.4
O119	WELSHHANS DIANA MAE	4-R10L-36
P120	WELSHHANS DIANA MAE	4-R10L-35
Q121	NORTH FORK LANDFILL INC	10-W6-112
R122	H3 LLC	4-R10G-15.1
S123	MIKLAVIC THOMAS J & JENNIFER R	4-R10G-14.2
T124	ROHRIG ROBERT F & KATHLEEN S	4-R10G-14
U125	THOMPSON CHARLES E & M J	4-R10G-14.1
V126	ROHRIG ROBERT F & KATHLEEN S	4-R10G-14
W127	ROHRIG ROBERT F & KATHLEEN S	4-R10G-12
X128	ROHRIG ROBERT F & KATHLEEN S	4-R10G-10
Y129	GLUMP JO ANN	10-W4-76
Z130	HARRIMAN DANIEL E & HARRIMAN MICHAEL E	10-W4-77
A131	GOLIATH REALTY & INVESTMENT LLC	10-W4-78
B132	COOK ROBERT M	10-W4-79
C133	WILSON VIVIAN L C/O KULPA VIVIAN L	10-W4-80
D134	EDWARDS WAYNE & ETTA	10-W4-82
E135	H3 LLC	10-W4-85
F136	BECKER GARY W VARGO MARY S (LIFE)	10-W4-86
G137	DANEHART JOANN	10-W4-87
H138	MIRIDOKS MICHAEL L	10-W4-88
I139	SARKIS SJ; ROHRIG RF; ROHRIG JR; ROHRIG RF TTEE	4-R10G-4
J140	ROHRIG WILLIAM H IV & S J	10-W4-118
K141	ALIG JOSEPH E	10-W4-118.5
L142	JOHNSON BARON M JR & C J	10-W4-118.3

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL
M143	CUPP DAVID J	10-W4-118.6
N144	BALDAUF LEIGH ANN C/O GOSSETT LEIGH ANN	10-W4-128
O145	GWENNAP ROBT	10-W4-129
P146	GROB PHYLLIS L - TOD	10-W4-130
Q147	MAUCK RONALD E	10-W4-131
R148	SPEIDEL BEVERLY A ESTATE	10-W4-132
S149	ANDERSON CARLAS E JR ANDERSON RICHEL R	10-W4-133
T150	GREINER MARTHA J TR GREINER MARTHA J IRREV TRUST	10-W4-134
U151	MILLER ROBERT D - TOD	2-CV7-42.1
V152	PEKLINSKY JENNIFER S & ANDREW	2-CV7-41
W153	TYSON DAVID DUANE & LINDA	2-CV7-39
X154	KREITZER RAYMOND F & A B	2-CV7-38
Z155	KLOSS HELEN LUCY	2-CV7-37
A156	CONNIFF ROBERT B; CONNIFF JOHN L	2-CV7-36
B157	FOX SUSAN C	2-CV7-34
C158	HANEY WM D & DARLENE	2-CV7-32
D159	MCLAUGHLIN DENNIS & S	4-R7-30
E160	WARWOOD LAND CO LLC	4-R7-31
F161	SARKIS SJ; ROHRIG RF; ROHRIG JR; ROHRIG RF TTEE	4-R10-19
G162	PERSINGER PAMELA M	4-R10-15
H163	NORTH FORK LANDFILL INC	4-R10-16
I164	NORTH FORK LANDFILL INC	4-R10-17
J165	ROHRIG CATHERINE A	4-R10-43.8
K166	NORTH FORK LANDFILL INC C/O SARKIS SUSAN	4-R10-7
L167	VAN SICKLE JUDITH ANN	4-R10-6.3
M168	HEBERLIG RICHARD EDWARD JR	4-R10-6.1
N169	KLATT D R IRREV TRUST C/O FREY J I	4-R10-3
O170	MYERS WILBERT E III	4-R10-2
P171	KLATT D R IRREV TRUST C/O FREY J L	4-R10-44
Q172	NEITZEL IRENE S	4-R10-44.1
R173	PRATHER JOHN R	4-R13-1.11
S174	MYERS MICHAEL & STEPHANIE	4-R13-16.7
T175	HUPP SARA STEPHENS	4-R13-1.17
U176	HUPP MOLLY H 1/2 INT & SCHEINHOLTZ DAVID J 1/2 INT	4-R13-1.13
V177	HUPP SARA	4-R13-1.14
W178	POLACK EDWARD P	4-R14-95
X179	POLACK WENDY B	4-R13-15.1
Y180	WEST RENTALS INC	4-R13M-1.2
Z181	THURSTON BONNIE BOWMAN	4-R13M-1.3
A182	THURSTON BONNIE L	4-R14J-16
B183	CLARK MARY LADONNA	4-R14J-14
C184	CLARK MARY LADONNA	4-R14J-13
D185	TODD HOWARD R JR	4-R14J-12
E186	CHIAZZA PETER P & AUDREY D	4-R14J-11
F187	SYRYLO RONALD & M	4-R14J-10
G188	ZAVOLTA RONALD W	4-R14J-9
H189	BALTZ LEE E & J L	4-R14J-6
I190	RICE STEVEN A AND JUDITH A	4-R14J-7
J191	TAYLOR JOANE L	4-R14J-8
K192	BLAZER ROBERT J	4-R14J-5
L193	WOODGARD BRANDON M & JANET L	4-R14J-4
M194	DUVAL THOMAS & ALLAMONG MARY F	4-R14J-3
N195	PANEPINTO MARK D & MINDY D	4-R14J-2
O196	PELICHETTE JOHN M & C L	4-R14J-1
P197	CITY OF WHEELING	4-R14-15
Q198	SCHULTZ JEFFREY S	4-R14-13
R199	GREER PETER S	4-R14-12
S200	WALTER DEBORAH & GERALD	4-R14-11
T201	GREER PETER S	4-R14-11.2
U202	WALTER DEBORAH & GERALD	4-R14-11.1
V203	WHEELING PARK COMMISSION	4-R14-14.1
W204	KEY ANIMAL HOSPITAL INC	10-W27-2
X205	FOREST BROOK CONDOS	10-W27-3
Y206	CHERRY BROOK CONDOS	10-W27-6
Z207	GACS LP	10-W27A-1
A208	HINEBAUGH SAM	4-R17-8.1
B209	TAYLOR KENDRA L	4-R17-59.1
C210	EDDY DONALD R & M M	4-R17-59.2
D211	CARTER RICHARD P	4-R17-59.3

07/15/2022

REVISIONS:	COMPANY:		
	OPERATOR'S	SHANNON FIELDS OHI	
	WELL #:	47-061-00344	1H
	DISTRICT:	RICHLAND	COUNTY: OHIO
			STATE: WV
			DATE: 05-09-2022
			DRAWN BY: NBC
			SCALE: N/A
			DRAWING NO: ACE-2326
			WELL LOCATION PLAT

WW-6A1  
(5/13)

Operator's Well No. SHANNON FIELDS OHI 1H

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
----------------------	-----------------------	-----------------------	---------	-----------

SEE EXHIBIT "A"


\*Co-tenancy utilization - At least 7 mineral owners in tract and 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.

**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: GAVIN NADEAU, RPL  
LANDMAN



4706900344

EXHIBIT "A"							
Thomas Park (TP) II							
Dade County, West Virginia							
Attachments and maps are part of the State of West Virginia Oil and Gas Lease, WPAAL, by TPW Production Company, LLC, Grantor							
#	TRP	LESSOR	LESSEE	ROYALTY	SEGS	% INTEREST NOT LEASED BY TPW PRODUCTION COMPANY, LLC	
11	14-01-11007-0001	Henry F. Carr and Robert E. Carr, wife and husband	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94780 94781		
		Thomas E. Carr	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94782 94783		
		Edward Phillip Frank	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94784 94785		
		Tiffany Adge	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94786 94787		
		Thomas B. Green, Trustee of The Arthur Todd Trust, IV Special Asset Trust	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94788 94789		1.00%
		Molly Ann Hays	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94790 94791		
		David J. Shewchick	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94792 94793		
		Marta B. Phillips and Allison B. Taylor, as Co-Trustees of the Edward Isaac Phillips Trust Dated February 9, 1991	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94794 94795		
		Barry S. Hays	TPW Production Company, LLC	10.75%	94796		
12	14-01-11007-0002	Henry F. Carr and Robert E. Carr, wife and husband	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94797 94798		
		Thomas E. Carr	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94799 94800		
		Edward Phillip Frank	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94801 94802		
		Tiffany Adge	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94803 94804		
		Thomas B. Green, Trustee of The Arthur Todd Trust, IV Special Asset Trust	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94805 94806		1.00%
		Molly Ann Hays	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94807 94808		
		David J. Shewchick	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94809 94810		
		Marta B. Phillips and Allison B. Taylor, as Co-Trustees of the Edward Isaac Phillips Trust Dated February 9, 1991	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94811 94812		
		Barry S. Hays	TPW Production Company, LLC	10.75%	94813		
13	14-01-11007-0003	Henry F. Carr and Robert E. Carr, wife and husband	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94814 94815		
		Thomas E. Carr	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94816 94817		
		Edward Phillip Frank	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94818 94819		
		Tiffany Adge	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94820 94821		
		Thomas B. Green, Trustee of The Arthur Todd Trust, IV Special Asset Trust	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94822 94823		1.00%
		Molly Ann Hays	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94824 94825		
		David J. Shewchick	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94826 94827		
		Marta B. Phillips and Allison B. Taylor, as Co-Trustees of the Edward Isaac Phillips Trust Dated February 9, 1991	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94828 94829		
		Barry S. Hays	TPW Production Company, LLC	10.75%	94830		
14	14-01-11007-0004	Henry F. Carr and Robert E. Carr, wife and husband	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94831 94832		
		Thomas E. Carr	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94833 94834		
		Edward Phillip Frank	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94835 94836		
		Tiffany Adge	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94837 94838		
		Thomas B. Green, Trustee of The Arthur Todd Trust, IV Special Asset Trust	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94839 94840		1.00%
		Molly Ann Hays	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94841 94842		
		David J. Shewchick	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94843 94844		
		Marta B. Phillips and Allison B. Taylor, as Co-Trustees of the Edward Isaac Phillips Trust Dated February 9, 1991	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94845 94846		
		Barry S. Hays	TPW Production Company, LLC	10.75%	94847		
15	14-01-11007-0005	Henry F. Carr and Robert E. Carr, wife and husband	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94848 94849		
		Thomas E. Carr	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94850 94851		
		Edward Phillip Frank	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94852 94853		
		Tiffany Adge	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94854 94855		
		Thomas B. Green, Trustee of The Arthur Todd Trust, IV Special Asset Trust	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94856 94857		1.00%
		Molly Ann Hays	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94858 94859		
		David J. Shewchick	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94860 94861		
		Marta B. Phillips and Allison B. Taylor, as Co-Trustees of the Edward Isaac Phillips Trust Dated February 9, 1991	American Petroleum Pattern Operating, LLC TPW Production Company, LLC	10.75% 10.75%	94862 94863		
		Barry S. Hays	TPW Production Company, LLC	10.75%	94864		

07/15/2022





4706900344

SWN Production Company, LLC  
1300 Fort Pierpont Dr, Ste 201  
Morgantown, WV 26508  
Tel: 304 884 1810  
Fax: 304 471 2497  
www.swn.com

May 25, 2022

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

**RE:** SWN's proposed New Well: Shannon Fields OHI 1H in Ohio County, West Virginia, Drilling under Maser Avenue, Glenns Run Road, Washington Farms Road, Greggsville Clinton and Potomoc Road, Oglebay Drive, and Wardens Run Road.

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 Maser Avenue, Glenns Run Road, Washington Farms Road, Greggsville Clinton and Potomoc Road, Oglebay Drive, and Wardens Run Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Respectfully,

**SWN Production Company, LLC**

Gavin Nadeau, RPL  
Landman

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

Date of Notice Certification: 06/11

API No. 47- 009 - 00334  
Operator's Well No. Shannon Fields OHI 1H  
Well Pad Name: Shannon Fields OHI

**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	Eastings:	<u>529,169.889</u>
County:	<u>069-Ohio</u>		Northing:	<u>4,437,628.221</u>
District:	<u>Richland</u>	Public Road Access:	<u>Boggs Hill Road (Country Route 15/1)</u>	
Quadrangle:	<u>Wheeling</u>	Generally used farm name:	<u>Shannon Fields</u>	
Watershed:	<u>Lower Ohio South</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 ~~the~~ 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		<b>OOG OFFICE USE ONLY</b>
<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

**Required Attachments:**

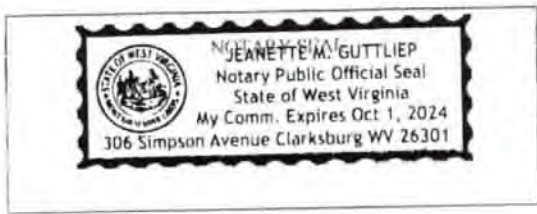
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

WW-6AC  
(1/12)

**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>Senior Regulatory Analyst</u>	Facsimile:	<u>304-884-1690</u>
Telephone:	<u>304-884-1810</u>	Email:	<u>Brittany_Woody@swn.com</u>



Subscribed and sworn before me this 10 day of June 2022  
Jeanette M. Guttliet Notary Public  
 My Commission Expires 10/01/2024

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov)



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: 4/1 Date Permit Application Filed: 4/1

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: SWN Production CO., LLC Attn: Bob Laine  
 Address: 1300 Fort Pierpont Dr., Suite 201  
Morgantown, WV 26508  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

COAL OWNER OR LESSEE  
 Name: H3, LLC  
 Address: 1483 Johns Creek Road  
Milton, WV 25541

COAL OPERATOR  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
 Name: See Attachment  
 Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

\*Please attach additional forms if necessary

**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

WW-6A  
(8-13)

4706900344  
API NO. 47-009  
OPERATOR WELL NO. Shannon Fields OHI 1H  
Well Pad Name: Shannon Fields OHI

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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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

07/15/2022

WW-6A  
(8-13)

### **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.

WV-53  
(8-13)

4706900344  
AP# 47-009  
OPERATOR WELL NO. Shannon Fields OH 1R  
Well Pad Name: Shannon Fields OH

Notice is hereby given by:

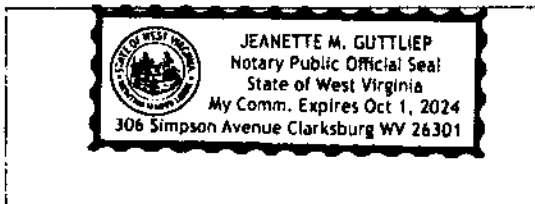
Well Operator: SWN Production Co., LLC  
Telephone: 304-884-1610  
Email: Brittany\_Woody@swn.com

*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 of your personal information, please contact DEP's Chief Privacy Officer at [depo@wv.gov](mailto:depo@wv.gov)



Subscribed and sworn before me this 10 day of June 2022  
Jeanette M. Guttliet Notary Public  
My Commission Expires 10/01/2024

07/15/2022

4706900344

04 R17002300030000	RICHARD CARTER	226 BOGGS HILL RD	WHEELING WV 26003	1
--------------------	----------------	-------------------	-------------------	---

07/15/2022

4706900344

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:** 10/5/2021 **Date of Planned Entry:** 10/12/2021

**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: Shannon Field, LLC  
 Address: 10288 Amberwood Court  
 Cincinnati, OH 45241  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: H3, LLC  
 Address: 1483 Johns Creek Rd  
 Milton, WV 25541

MINERAL OWNER(s)

Name: Shannon Field, LLC  
 Address: 10288 Amberwood Court  
 Cincinnati, OH 45241  
 \*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:	West Virginia	Approx. Latitude & Longitude:	40.088496, -80.8567667
County:	Ohio	Public Road Access:	Boggs Hill Road (Country Route 15/1)
District:	Richland	Watershed:	Upper Ohio- Wheeling
Quadrangle:	Wheeling	Generally used farm name:	Shannon Field

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 57<sup>th</sup> 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](http://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
Telephone:	304-884-1610		Morgantown, WV 26508
Email:	Brittany_Woody@swn.com	Facsimile:	304-884-1690

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

07/15/2022





**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:** 12/05/2021      **Date Permit Application Filed:** 6/11

**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: H3, LLC  
Address: 1483 Johns Creek Rd  
Milton, West Virginia 25541

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>West Virginia</u>	UTM NAD 83 Easting:	<u>529,169,887</u>
County:	<u>Ohio</u>	Northing:	<u>4,437,628,222</u>
District:	<u>Richland District</u>	Public Road Access:	<u>Boggs Hill Road</u>
Quadrangle:	<u>Wheeling</u>	Generally used farm name:	<u>Shannon Fields-OHI</u>
Watershed:	<u>Upper Ohio South</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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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 Drive, Suite 201  
Morgantown, WV 26508  
Telephone: 304-884-1714  
Email: michael\_yates@swn.com  
Facsimile: \_\_\_\_\_

Authorized Representative: Michael Yates  
Address: 1300 Fort Pierpont Drive, Suite 201  
Morgantown, WV 26508  
Telephone: 304-884-1714  
Email: michael\_yates@swn.com  
Facsimile: \_\_\_\_\_

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

07/15/2022

WW-6A5  
(1/12)

**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:** 12/06/2021      **Date Permit Application Filed:** 12/11

**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: Shannon Field, LLC                                      Name: \_\_\_\_\_  
Address: 10288 Amberwood Court                                      Address: \_\_\_\_\_  
Cincinnati, OH 45241                                      \_\_\_\_\_

**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>West Virginia</u>	UTM NAD 83	Easting:	<u>529,169,887</u>
County:	<u>Ohio</u>		Northing:	<u>4,437,828,222</u>
District:	<u>Richland District</u>	Public Road Access:	<u>Boggs Hill Road</u>	
Quadrangle:	<u>Wheeling</u>	Generally used farm name:	<u>Shannon Fields-OHI</u>	
Watershed:	<u>Upper Ohio South</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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: SWN Production Company, LLC                                      Address: 1300 Fort Pierpont Drive, Suite 201  
Telephone: 304-884-1714                                      Morgantown, WV 26508  
Email: michael\_yates@swn.com                                      Facsimile: \_\_\_\_\_

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

07/15/2022

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:** 12/08/2021      **Date Permit Application Filed:** 1/11

**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: H3, LLC  
Address: 1483 Johns Creek Rd  
Milton, WV 25541

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**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>West Virginia</u>	UTM NAD 83	Easting:	<u>529,169,887</u>
County:	<u>Ohio</u>		Northing:	<u>4,437,628,222</u>
District:	<u>Richland District</u>	Public Road Access:	<u>Boggs Hill Road</u>	
Quadrangle:	<u>Wheeling</u>	Generally used farm name:	<u>Shannon Fields-OHI</u>	
Watershed:	<u>Upper Ohio South</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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

Well Operator: SWN Production Company, LLC  
Telephone: 304-884-1714  
Email: michael\_yales@swn.com

Address: 1300 Fort Pierpont Drive, Suite 201  
Morgantown, WV 26508  
Facsimile: \_\_\_\_\_

**Oil and Gas Privacy Notice:**

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
**Division of Highways**

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • (304) 558-3505

D. Alan Reed, P.E.  
State Highway Engineer

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

March 10, 2022

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

Subject: DOH Permit for the Shannon Fields Pad, Ohio County  
Shannon Fields OHI 1H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2022-0043 which has been issued to Southwestern Energy for access to the State Road for a well site located off Ohio County Route 15/1 SLS MP 3.41.

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 October 1, 2018. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

A handwritten signature in cursive script that reads "Gary K. Clayton".

Gary K. Clayton, P.E.  
Regional Maintenance Engineer  
Central Office O&G Coordinator

Cc: Brittany Woody  
Southwestern Energy  
CH, OM, D-6  
File

Product Name	Product Use	Chemical Name	CAS Number
AI-303 (U.S. Well Services)	Mixture	Ethylene glycol	107-21-1
		Cinnamaldehyde	104-55-2
		Butyl cellosolve	111-76-2
		Formic acid	64-18-6
		Polyether	Proprietary
		Acetophenone, thiourea, formaldehyde polymer	68527-49-1
AP ONE (U.S. Well Services)	Breaker	Ammonium persulfate	7727-54-0
Bactron K-139 (Champion Technologies)	Biocide	Glutaraldehyde	111-30-8
		Quaternary Ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
Bactron K-219 (Champion Technologies)	Biocide	Methanol	67-56-1
		Quaternary Ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides	68424-85-1
CarboNRT	Tracer	Ceramic Proppant	66402-68-4
EC6486A (Nalco Champion)	Scale Inhibitor	Amine Triphosphate	Proprietary
		Ethylene Glycol	107-21-1
EC6734A (Champion Technologies)	Biocide	Hydrogen Peroxide	7722-84-1
		Acetic Acid	64-19-7
		Peroxyacetic Acid	79-21-0
Econo-CI200 (SWN Well Services)	Corrosion Inhibitor	Methanol	67-56-1
		Dxyalkylated fatty acid	68951-67-7
		Fatty acids	61790-12-3
		Modified thiourea polymer	68527-49-1
		Water	7732-18-5
		Hydrochloric acid	7647-01-0
		Potassium acetate	127-08-2
Formaldehyde	50-00-0		
Ecopol-FEAC (SWN Well Services)	Iron Control	Acetic Acid	64-19-7
		Citric Acid	77-92-9
		Water	7732-18-5
FDP-S1176-15 (Halliburton)	Friction Reducer	Polyacrylate	Proprietary
		Hydrotreated light petroleum distillate	64742-47-8
FLOJET DR900 LPP (SWN Well Services)	Friction Reducer	Distillates (petroleum) hydrotreated light	64674-47-8
		Ethylene Glycol	107-21-1
		Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
		Fatty Alcohols ethoxylated	Proprietary
		Water	7732-18-5
FLOJET DRP 1130X (SWN Well Services)	Friction Reducer	Proprietary	Proprietary
FR-76 (Halliburton)	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Inorganic Salt	Proprietary
GYPTRON T-390 (Champion Technologies)	Scale Inhibitor	Methanol	67-56-1
		Nonylphenol Ethoxylate	Proprietary
HAI-150E (Halliburton)	Corrosion Inhibitor	No hazardous substance	N/A
HCL (SWN Well Services)	Hydrochloric Acid	Hydrochloric Acid	7647-01-0
		Water	7732-18-5
LP-65 MC (Halliburton)	Scale Inhibitor	Organic phosphonate	Proprietary
		Ammonium Chloride	12125-02-9
OPTI-FLEX (U.S. Well Services)	Viscosifying Agent	Distillates, petroleum, hydrotreated light	64742-47-8
Plexslick 930	Friction Reducer	Copolymer of 2-propenamide	Proprietary
		Hydrotreated Distillate	64742-47-8
		Sodium Chloride	7647-14-5
		Alcohols, C12-16, Exoxylated	68551-12-2
		Oleic Acid Diethanolamide	93-83-4
		Ammonium Chloride	12125-02-9
Plexslick 953	Friction Reducer	Petroleum Distillate	64742-47-8
		Sodium Chloride	7647-14-5
		Ammonium Chloride	12125-02-9
		N,N-bis (2-hydroxyethyl) oleamide	93-83-4
Plexslick 957	Friction Reducer	Petroleum Distillate	64742-47-8
		Ammonium Chloride	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
		Alcohols, C12-16, Exoxylated	68551-12-2
		Water	7732-15-5
WFRA-2000 (U.S. Well Services)	Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8
		Propenoic acid, polymer with propenamide	9003-06-9
Plexaid 655 NM	Scale Inhibitor	Diethylenetriamine penta (methylene phosphonic acid)	15827-30-8
Plexslick 922	no data available	Copolymer of 2-propenamide	69418-26-4
		Distillates (petroleum), hydrotreated light	64742-47-8
		Ammonium chloride ((NH4)Cl)	12125-02-9
		Oleic Acid Diethanolamide	93-83-4
Tolcide P550A	Biocidal product	Tetrakis (hydroxymethyl) phosphonium sulphate	53566-30-8
		Acrylic acid terpolymer containing carboxylate phosphonate and sulfonate groups	397256-50-7
LD-2950	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8
		Ethoxylated alcohol	Proprietary
		Poly (oxy-1,2-ethanediyl) alpha.-tridecyl-omega.-hydroxy-, branched	69011-36-5
Legend LD-7750W	Scale Control	Methanol	67-56-1
		Phosphonic Acid Salt	Proprietary
MC MX 8-4743	Specialty Product	Sodium Nitrate	7631-99-4

OPERATOR: SWN Production Co., LLC WELL NO: Shannon Fields OHI 1H

PAD NAME: Shannon Fields OHI

REVIEWED BY: \_\_\_\_\_

SIGNATURE: *Brittany Woody*

### WELL RESTRICTIONS CHECKLIST

#### HORIZONTAL 6A WELL

#### 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

4706900344



NO.	DESCRIPTION	QUANTITY	UNIT
1	GENERAL NOTES	1	SET
2	CONSTRUCTION PLAN AS SHOWN	1	SET
3	EARTHWORK	1	SET
4	CONSTRUCTION PLAN AS SHOWN	1	SET
5	CONSTRUCTION PLAN AS SHOWN	1	SET
6	CONSTRUCTION PLAN AS SHOWN	1	SET
7	CONSTRUCTION PLAN AS SHOWN	1	SET
8	CONSTRUCTION PLAN AS SHOWN	1	SET
9	CONSTRUCTION PLAN AS SHOWN	1	SET
10	CONSTRUCTION PLAN AS SHOWN	1	SET
11	CONSTRUCTION PLAN AS SHOWN	1	SET
12	CONSTRUCTION PLAN AS SHOWN	1	SET
13	CONSTRUCTION PLAN AS SHOWN	1	SET
14	CONSTRUCTION PLAN AS SHOWN	1	SET
15	CONSTRUCTION PLAN AS SHOWN	1	SET
16	CONSTRUCTION PLAN AS SHOWN	1	SET
17	CONSTRUCTION PLAN AS SHOWN	1	SET
18	CONSTRUCTION PLAN AS SHOWN	1	SET
19	CONSTRUCTION PLAN AS SHOWN	1	SET
20	CONSTRUCTION PLAN AS SHOWN	1	SET
21	CONSTRUCTION PLAN AS SHOWN	1	SET
22	CONSTRUCTION PLAN AS SHOWN	1	SET
23	CONSTRUCTION PLAN AS SHOWN	1	SET
24	CONSTRUCTION PLAN AS SHOWN	1	SET
25	CONSTRUCTION PLAN AS SHOWN	1	SET
26	CONSTRUCTION PLAN AS SHOWN	1	SET
27	CONSTRUCTION PLAN AS SHOWN	1	SET
28	CONSTRUCTION PLAN AS SHOWN	1	SET
29	CONSTRUCTION PLAN AS SHOWN	1	SET
30	CONSTRUCTION PLAN AS SHOWN	1	SET



PROJECT NO.	2326
DATE	03/09/2022
SCALE	AS SHOWN
CLIENT	CONSTRUCTION PLANS FOR SWN PRODUCTION COMPANY, LLC SHANNON FIELDS PAD, OHIO COUNTY, WV
DRAWN BY	AS SHOWN
CHECKED BY	AS SHOWN
DATE	03/09/2022
SHEET NO.	1

**SOUTHWESTERN PRODUCTION COMPANY, LLC  
PROPOSED CONSTRUCTION PLANS FOR  
SHANNON FIELDS PAD  
OHIO COUNTY, WV  
FEBRUARY 2022**

LOCAL EMERGENCY SERVICES	PHONE NUMBER
LOCAL FIRE DEPARTMENT	81
LOCAL POLICE DEPARTMENT	911
LOCAL EMERGENCY ROOM	304-253-2000
LOCAL HOSPITAL	304-253-2000
LOCAL TOWNSHIP	304-253-2000
LOCAL COUNTY CENTER	304-253-2000

LOCATION COORDINATES	COORDINATE
ACCESS ROAD CORNER	1101013.30 W
WEST CORNER	1101013.30 W
EAST CORNER	1101013.30 W
NORTH CORNER	1101013.30 W
SOUTH CORNER	1101013.30 W
WEST CORNER	1101013.30 W
EAST CORNER	1101013.30 W
NORTH CORNER	1101013.30 W
SOUTH CORNER	1101013.30 W

LIMITS OF DISTURBANCE BY PROPERTY	ACRES
PROPERTY OWNER	20.94
PROPERTY ADDRESS	SHANNON FIELDS, LLC
PROPERTY SIZE	33.34 ACRES
DISTURBED AREA	3.34 ACRES

EARTH WORK SUMMARY	QUANTITY	UNIT
TOTAL CUT	11,200	CY
TOTAL FILL	5,200	CY
EXCESS (UNBALANCED) MATERIAL	10,000	CY
WASTE	10,000	CY
TOPSOIL ASSUMED BY LAND (CY)	14,800	CY



- DRIVING DIRECTIONS**
1. HEAD NORTH ON HIGHWAY 101 TO 2.7 MILES
  2. TURN LEFT ONTO GREAT RD. 0.3 MILES
  3. TURN LEFT ONTO GREAT RD. 0.3 MILES
  4. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 4.8 MILES
  5. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 2.7 MILES
  6. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  7. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  8. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  9. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  10. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  11. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  12. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  13. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  14. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  15. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  16. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  17. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  18. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  19. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
  20. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES

**CONTRACT ADMINISTRATION**  
SOUTHWESTERN PRODUCTION COMPANY  
ATTENTION: PROJECT MANAGER  
10000 W. MAIN ST., SUITE 100  
MORGANTOWN, WV 26505  
PHONE: 304-844-1971  
FAX: 304-844-1972  
EMAIL: PROJECTMANAGER@SPC.COM

**CONTRACT ADMINISTRATION**  
SOUTHWESTERN PRODUCTION COMPANY  
ATTENTION: PROJECT MANAGER  
10000 W. MAIN ST., SUITE 100  
MORGANTOWN, WV 26505  
PHONE: 304-844-1971  
FAX: 304-844-1972  
EMAIL: PROJECTMANAGER@SPC.COM

**CONTRACT ADMINISTRATION**  
SOUTHWESTERN PRODUCTION COMPANY  
ATTENTION: PROJECT MANAGER  
10000 W. MAIN ST., SUITE 100  
MORGANTOWN, WV 26505  
PHONE: 304-844-1971  
FAX: 304-844-1972  
EMAIL: PROJECTMANAGER@SPC.COM

**APPROVED WVDEP OOG 3/18/2022**

**SHEET INDEX**

NO.	DESCRIPTION
1	GENERAL NOTES
2	CONSTRUCTION PLAN AS SHOWN
3	EARTHWORK
4	CONSTRUCTION PLAN AS SHOWN
5	CONSTRUCTION PLAN AS SHOWN
6	CONSTRUCTION PLAN AS SHOWN
7	CONSTRUCTION PLAN AS SHOWN
8	CONSTRUCTION PLAN AS SHOWN
9	CONSTRUCTION PLAN AS SHOWN
10	CONSTRUCTION PLAN AS SHOWN
11	CONSTRUCTION PLAN AS SHOWN
12	CONSTRUCTION PLAN AS SHOWN
13	CONSTRUCTION PLAN AS SHOWN
14	CONSTRUCTION PLAN AS SHOWN
15	CONSTRUCTION PLAN AS SHOWN
16	CONSTRUCTION PLAN AS SHOWN
17	CONSTRUCTION PLAN AS SHOWN
18	CONSTRUCTION PLAN AS SHOWN
19	CONSTRUCTION PLAN AS SHOWN
20	CONSTRUCTION PLAN AS SHOWN
21	CONSTRUCTION PLAN AS SHOWN
22	CONSTRUCTION PLAN AS SHOWN
23	CONSTRUCTION PLAN AS SHOWN
24	CONSTRUCTION PLAN AS SHOWN
25	CONSTRUCTION PLAN AS SHOWN
26	CONSTRUCTION PLAN AS SHOWN
27	CONSTRUCTION PLAN AS SHOWN
28	CONSTRUCTION PLAN AS SHOWN
29	CONSTRUCTION PLAN AS SHOWN
30	CONSTRUCTION PLAN AS SHOWN

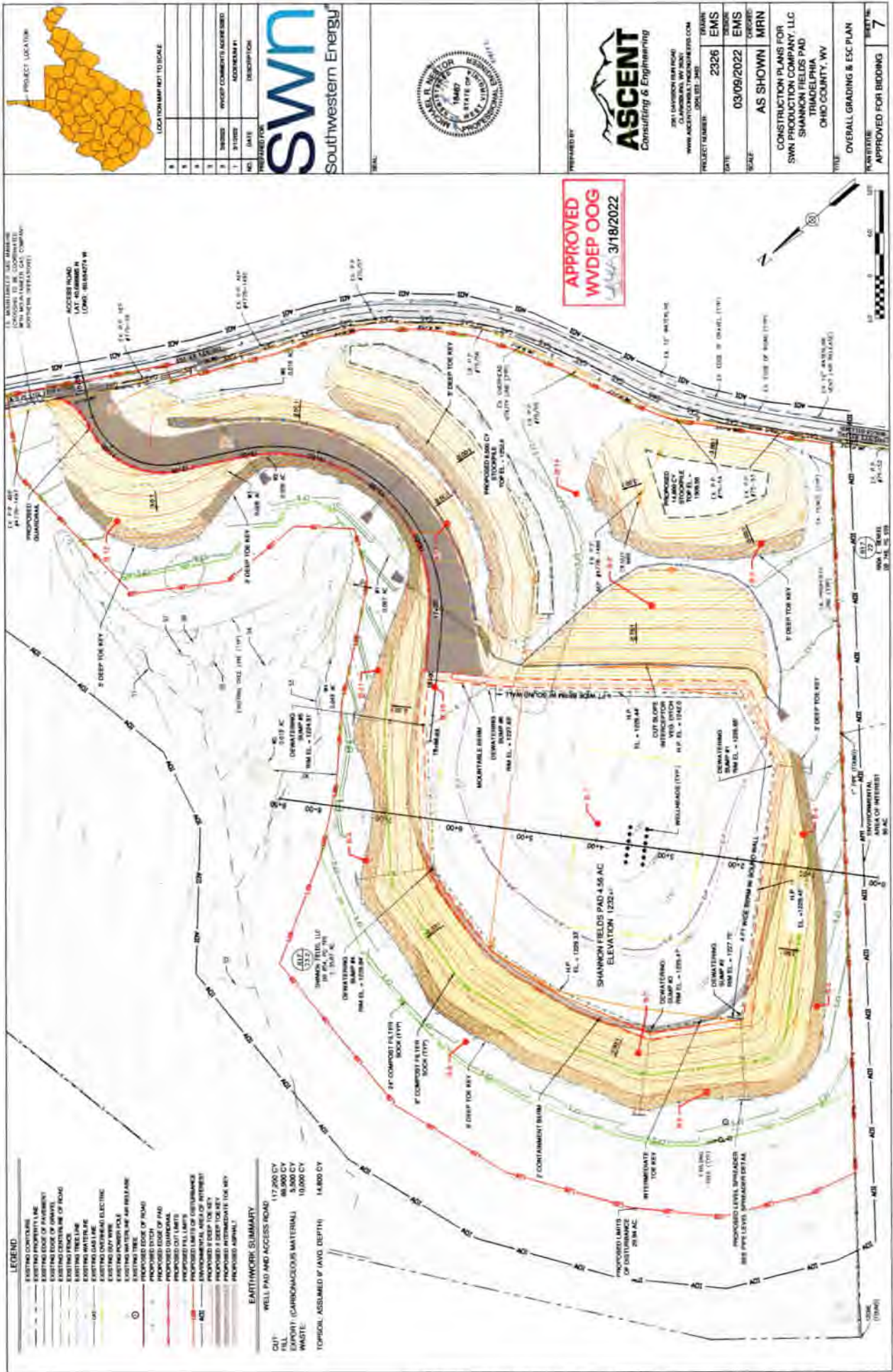
**SWN QUICK ESTIMATE**

ITEM	DESCRIPTION	QUANTITY	UNIT
1	GENERAL NOTES	1	SET
2	CONSTRUCTION PLAN AS SHOWN	1	SET
3	EARTHWORK	1	SET
4	CONSTRUCTION PLAN AS SHOWN	1	SET
5	CONSTRUCTION PLAN AS SHOWN	1	SET
6	CONSTRUCTION PLAN AS SHOWN	1	SET
7	CONSTRUCTION PLAN AS SHOWN	1	SET
8	CONSTRUCTION PLAN AS SHOWN	1	SET
9	CONSTRUCTION PLAN AS SHOWN	1	SET
10	CONSTRUCTION PLAN AS SHOWN	1	SET
11	CONSTRUCTION PLAN AS SHOWN	1	SET
12	CONSTRUCTION PLAN AS SHOWN	1	SET
13	CONSTRUCTION PLAN AS SHOWN	1	SET
14	CONSTRUCTION PLAN AS SHOWN	1	SET
15	CONSTRUCTION PLAN AS SHOWN	1	SET
16	CONSTRUCTION PLAN AS SHOWN	1	SET
17	CONSTRUCTION PLAN AS SHOWN	1	SET
18	CONSTRUCTION PLAN AS SHOWN	1	SET
19	CONSTRUCTION PLAN AS SHOWN	1	SET
20	CONSTRUCTION PLAN AS SHOWN	1	SET
21	CONSTRUCTION PLAN AS SHOWN	1	SET
22	CONSTRUCTION PLAN AS SHOWN	1	SET
23	CONSTRUCTION PLAN AS SHOWN	1	SET
24	CONSTRUCTION PLAN AS SHOWN	1	SET
25	CONSTRUCTION PLAN AS SHOWN	1	SET
26	CONSTRUCTION PLAN AS SHOWN	1	SET
27	CONSTRUCTION PLAN AS SHOWN	1	SET
28	CONSTRUCTION PLAN AS SHOWN	1	SET
29	CONSTRUCTION PLAN AS SHOWN	1	SET
30	CONSTRUCTION PLAN AS SHOWN	1	SET

**DRIVING DIRECTIONS**

1. HEAD NORTH ON HIGHWAY 101 TO 2.7 MILES
2. TURN LEFT ONTO GREAT RD. 0.3 MILES
3. TURN LEFT ONTO GREAT RD. 0.3 MILES
4. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 4.8 MILES
5. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 2.7 MILES
6. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
7. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
8. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
9. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
10. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
11. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
12. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
13. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
14. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
15. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
16. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
17. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
18. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
19. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES
20. TAKE THE EXIT OFF ON TO THE RIGHT TOWARD WASHINGTON 0.3 MILES

4706900344



07/15/2022



SOUTHWESTERN PRODUCTION COMPANY, LLC  
 PROPOSED CONSTRUCTION PLANS FOR  
 SHANNON FIELDS PAD  
 OHIO COUNTY, WV  
 NOVEMBER 2021

47 06 900 344

SHEET INDEX

1	COVER
2	GENERAL NOTE
3	EVAUATION PLAN WITHOUT US&S MAP
4	EVAUATION PLAN WITH US&S MAP
5	EXISTING CONDITIONS
6	PROPOSED LOCATIONS
7	WELL PAD LAYOUT & ELEC PLAN
8	CONCRETE FOUNDATION PLAN
9	ACCESS ROAD PLAN & PROFILE
10-12	WELL PAD PADLAME PLAN
13	WELL PAD SERVICE PLAN
14	WELL PAD SERVICE PLAN
15	WELL PAD SERVICE PLAN
16	WELL PAD SERVICE PLAN
17	WELL PAD SERVICE PLAN
18	WELL PAD SERVICE PLAN
19	WELL PAD SERVICE PLAN
20	WELL PAD SERVICE PLAN
21	WELL PAD SERVICE PLAN
22	WELL PAD SERVICE PLAN
23	WELL PAD SERVICE PLAN
24	WELL PAD SERVICE PLAN
25	WELL PAD SERVICE PLAN
26	WELL PAD SERVICE PLAN
27	WELL PAD SERVICE PLAN
28	WELL PAD SERVICE PLAN
29	WELL PAD SERVICE PLAN
30	WELL PAD SERVICE PLAN
31	WELL PAD SERVICE PLAN
32	WELL PAD SERVICE PLAN
33	WELL PAD SERVICE PLAN
34	WELL PAD SERVICE PLAN
35	WELL PAD SERVICE PLAN
36	WELL PAD SERVICE PLAN
37	WELL PAD SERVICE PLAN
38	WELL PAD SERVICE PLAN
39	WELL PAD SERVICE PLAN
40	WELL PAD SERVICE PLAN
41	WELL PAD SERVICE PLAN
42	WELL PAD SERVICE PLAN
43	WELL PAD SERVICE PLAN
44	WELL PAD SERVICE PLAN

**SWM QUICK ESTIMATE**

ITEM DESCRIPTION	QTY	COST EST.
VEGETATION & DEMOLITION QUANTITIES TO TOP OF MAIN ROAD	13	3
CONSTRUCTION LAIOUT	15	1
CHANGE & REVISIONS	AC	24.5
TOPSOIL STRIPPING, STOCKPILING, AND RESTORATION (AVALOVED BY DEED)	CY	16,000
GRAVEL	CY	112,200
GRAVEL	CY	5,500
GRAVEL	CY	181
GRAVEL	CY	78,000
GRAVEL	CY	2,000
GRAVEL	CY	1,000
GRAVEL	CY	1,300
GRAVEL	CY	4,025
GRAVEL	CY	1,277
GRAVEL	CY	21,160
GRAVEL	CY	415
GRAVEL	CY	400
GRAVEL	CY	270
GRAVEL	CY	4,800
GRAVEL	CY	1
GRAVEL	CY	77
GRAVEL	CY	820
GRAVEL	CY	1,180
GRAVEL	CY	12
GRAVEL	CY	600
GRAVEL	CY	11
GRAVEL	CY	1,025
GRAVEL	CY	12
GRAVEL	CY	310
GRAVEL	CY	8
GRAVEL	CY	475
GRAVEL	CY	4

- DRIVING DIRECTIONS**
- 1) HEAD NORTH ON ROUTE 100 TOWARD HERRINGTON, 0.3 MILES
  - 2) TURN RIGHT ONTO HERRINGTON RD, 0.8 MILES
  - 3) TURN RIGHT ONTO CHEAT RD, 0.8 MILES
  - 4) TURN LEFT TO MERGE ONTO HWY 79 TOWARD P, 0.6 MILES
  - 5) MERGE ONTO HWY 79, 0.1 MILES
  - 6) TAKE THE EAST ONRAMP ON TOWARD WASHINGTON, 0.2 MILES
  - 7) TAKE THE EAST ONRAMP ON TOWARD WASHINGTON, 0.2 MILES
  - 8) TAKE THE RIGHT ONRAMP ON TOWARD WASHINGTON, 0.2 MILES
  - 9) TAKE THE RIGHT ONRAMP ON TOWARD WASHINGTON, 0.2 MILES
  - 10) TURN RIGHT ONTO WASHINGTON AVENUE, 0.2 MILES
  - 11) TURN LEFT ONTO WASHINGTON ROAD, 0.2 MILES
  - 12) TURN RIGHT ONTO WASHINGTON ROAD, 0.2 MILES
  - 13) TURN RIGHT TO STAY ON WASHINGTON LANE, 1.1 MILES
  - 14) CONTINUE ONTO BRIDGE HILL ROAD, 1.4 MILES



**PROJECT MANAGER:**  
 JERRY DORSEY  
 200 DAVENPORT ROAD  
 CLARKSBURG, WV 26301  
 PH: 304-786-3400  
 FAX: 304-786-1871  
 EMAIL: JERRY.DORSEY@SWN.COM

**ENGINEER:**  
 WEST VIRGINIA TRADING & ENGINEERING  
 2901 DAVENPORT ROAD  
 CLARKSBURG, WV 26301  
 PH: 304-786-3400  
 FAX: 304-786-1871  
 EMAIL: INFO@WVTE.COM

**LOCAL EMERGENCY SERVICES:**  
 FIRE: 911  
 POLICE: 911  
 HAZARDOUS MATERIAL: 911  
 WASTE: 911

**LOCAL EMERGENCY SERVICES**

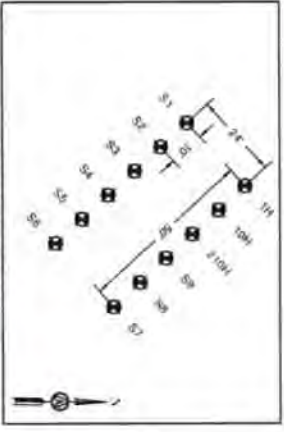
TYPE	NUMBER
FIRE	911
POLICE	911
HAZARDOUS MATERIAL	911
WASTE	911

**LIMITS OF DISTURBANCE BY PROPERTY:**

PROPERTY #	PROPERTY OWNER	ACRES DISTURBED
SHANNON FIELDS PAD	SOUTHWESTERN PRODUCTION COMPANY, LLC	20.94

**EARTH WORK SUMMARY**

TOTAL CUT	117,200 CY
TOTAL FILL	86,000 CY
EXCESS (CUMULATIVE DEFICIT)	55,000 CY
WASTE	10,000 CY
TOTAL ASBLAKE (PAV. DEPTH)	14,000 CY



**Southwestern Energy**

SWN

**ASCENT**  
 Consulting & Engineering

PROJECT NUMBER	2326
DATE	11/17/2021
SCALE	AS SHOWN
TITLE	CONSTRUCTION PLANS FOR SHANNON FIELDS PAD OHIO COUNTY, WV
DATE	11/17/2021
SCALE	AS SHOWN
TITLE	CONSTRUCTION PLANS FOR SHANNON FIELDS PAD OHIO COUNTY, WV

*Handwritten signature and date: JLD 12/4/2022*