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west virginia department of environmental protection

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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)

Monday, January 9, 2023  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC  
POST OFFICE BOX 12359  
SPRING, TX 773914954

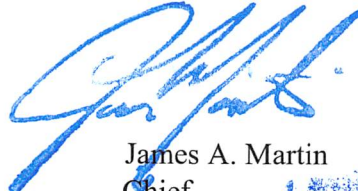
Re: Permit Modification Approval for ROTH 6H  
47-069-00349-00-00

**Freshwater Casing Depth Shortened, Surface Owner Re-Notice**

SWN PRODUCTION COMPANY, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before 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: ROTH 6H  
Farm Name: ROTH FARMS, LLC  
U.S. WELL NUMBER: 47-069-00349-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 01/09/2023

Promoting a healthy environment.

01/13/2023

*Ch# 1071133  
5000*

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 641-Tiltonsville  
Operator ID County District Quadrangle

2) Operator's Well Number: Roth OHI 6H Well Pad Name: Roth OHI

3) Farm Name/Surface Owner: Roth Farms, LLC Public Road Access: Clearview Avenue

4) Elevation, current ground: 1004.0 Elevation, proposed post-construction: 1010'

5) Well Type (a) Gas  Oil  Underground Storage

Other \_\_\_\_\_

(b) If Gas Shallow  Deep

Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Target Formation- Marcellus, Down-Dip Well to the South, Target Top TVD- 5753', Target Base TVD- 5808', Anticipated Thickness- 55', Associated Pressure- 3775

8) Proposed Total Vertical Depth: 5797'

9) Formation at Total Vertical Depth: Marcellus

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Office of Oil and Gas

10) Proposed Total Measured Depth: 26619'

DEC 21 2022

11) Proposed Horizontal Leg Length: 19499.53

12) Approximate Fresh Water Strata Depths: 422'

WV Department of Environmental Protection

13) Method to Determine Fresh Water Depths: Nearby well 47-069-00012

14) Approximate Saltwater Depths: 1119' reported in nearby wells

15) Approximate Coal Seam Depths: 170'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 200.

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

(a) If Yes, provide Mine Info: Name: Valley Camp NO 1

Depth: 170 & 811'

Seam: Pittsburgh

Owner: Valley Camp Coal

*Strader Gower*

12/12/2022

18) **CASING AND TUBING PROGRAM**

| <b>TYPE</b>  | <b>Size (in)</b> | <b>New or Used</b> | <b>Grade</b> | <b>Weight per ft. (lb/ft)</b> | <b>FOOTAGE: For Drilling (ft)</b> | <b>INTERVALS: Left in Well (ft)</b> | <b>CEMENT: Fill-up (Cu. Ft.)/CTS</b>  |
|--------------|------------------|--------------------|--------------|-------------------------------|-----------------------------------|-------------------------------------|---------------------------------------|
| Conductor    | 20"              | New                | J-55         | 94#                           | 126'                              | 126'                                | CTS                                   |
| Fresh Water  | 13 3/8"          | New                | J-55         | 54.4#                         | 467'                              | 467'                                | 585 sx/CTS                            |
| Coal         | See              | Surface            | Casing       |                               |                                   |                                     |                                       |
| Intermediate | 9 5/8"           | New                | J-55         | 36#                           | 1706'                             | 1706'                               | 634 sx/CTS                            |
| Production   | 6"               | New                | P-110 HP     | 24#                           | 0'                                | 6500'                               |                                       |
| Production   | 5 1/2"           | New                | P-110 HP     | 20#                           | 6500'                             | 26619'                              | Tail 3777sx/ 100' Inside Intermediate |
| Liners       |                  |                    |              |                               |                                   |                                     |                                       |

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

**PACKERS**

|             |  |  |  |  |
|-------------|--|--|--|--|
| Kind:       |  |  |  | RECEIVED:<br>Office of Oil and Gas<br><b>DEC 21 2022</b><br>NY Department of<br>Environmental Protection |
| Sizes:      |  |  |  |  |
| Depths Set: |  |  |  |  |

*Trader Gower*  
12/12/2022

# Southwestern Energy Company

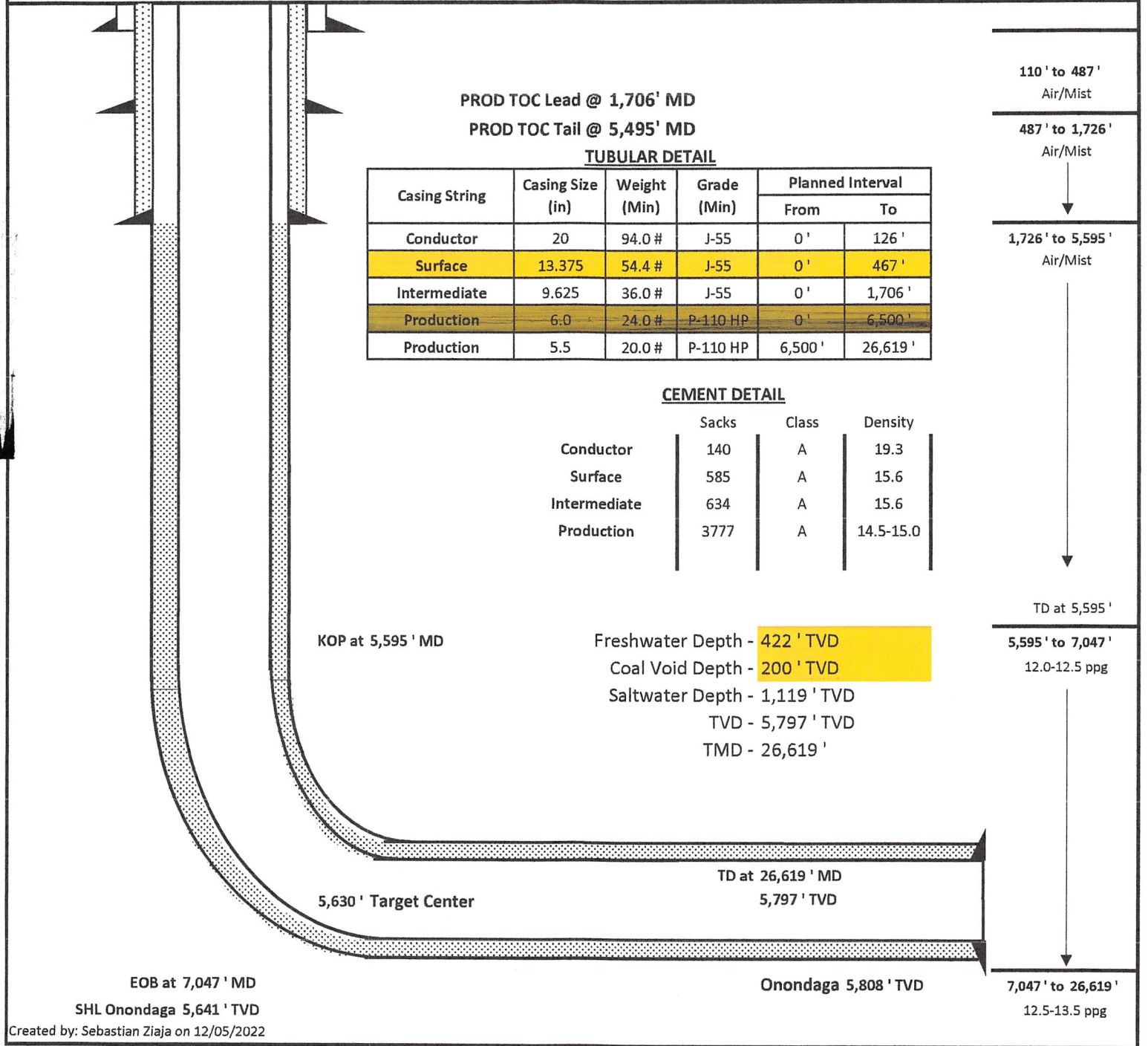
# Proposed Drilling Program

Well: ROTH OHI 6  
 Field: PANHANDLE FIELD WET  
 County: OHIO  
 SHL: 40.1511 Latitude -80.6869 Longitude  
 BHL: 40.1068 Latitude -80.6659 Longitude  
 KB Elev: 1,030 ft MSL KB: 26 ft AGL

Re-entry Rig: SDC 40  
 Prospect: Marcellus Shale  
 State: WV  
 GL Elev: 1,004 ft MSL



12/5/2022



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 DEC 21 2022

*Strader Gower*  
 12/12/2022

01/13/2023



ORIGIN ID:MGWA (304) 884-1610  
BRITANY WOODY  
SOUTHWESTERN ENERGY COMPANY  
1300 FORT PIERPONT DR  
SUITE 201  
MORGANTOWN, WV 26508  
UNITED STATES US

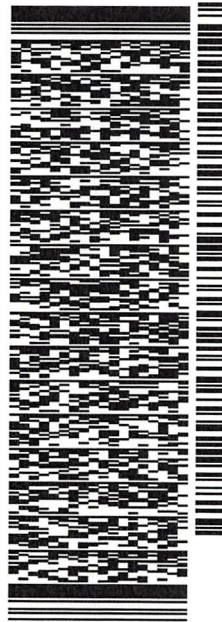
SHIP DATE: 04JAN23  
ACTWGHT: 0.50 LB  
CAD: 107421957IN/ET4530  
BILL SENDER

TO ROTH FARM, LLC

423 CLEARVIEW AVENUE

WHEELING WV 26003

(000) 000-0000 REF:1685  
INV: DEPT:  
PO:



581J1/DB09/FE2D

TRK# 7709 3704 4132  
0201

MON - 09 JAN 4:30P

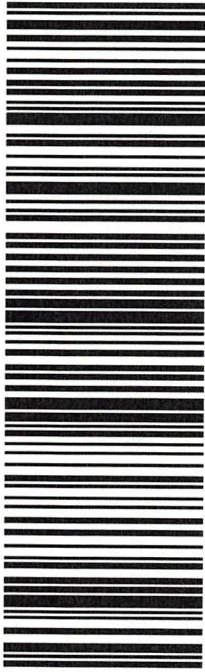
EXPRESS SAVER

ASR

26003

PIT  
WV-US

6LHLGA



**After printing this label:**

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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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December 20, 2022

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

**RE: Proposed Expedited Modification:**

*OK # 1071025  
5000*  
Roth OHI 10H - 69-00339  
Roth OHI 6H - 69-00349  
Roth OHI 206H - 69-00350  
Roth OHI 8H - 69-00348

RECEIVED  
Office of Oil and Gas  
DEC 21 2022  
WV Department of  
Environmental Protection

Dear Mr. Brewer:

Enclosed please find the required documents to modify the above mentioned wells. We would like to modify the FW Casing Depth on these wells. This well is situated on the Roth's property, in Richland District, Ohio County, West Virginia.

Enclosed you will find:

-6B  
-WBD

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

Thank you.

Sincerely,

*Brittany Woody*

Brittany Woody  
Senior Regulatory Analyst  
Southwestern Energy Production Company, LLC

*R<sup>2</sup>  
A* *W<sup>+</sup>*



Stansberry, Wade A &lt;wade.a.stansberry@wv.gov&gt;

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**Expedited Modification Horizontal H6A Well Work Permit API : (47-069-00339, 47-069-00348, 47-069-00349, 47-069-00350)**

1 message

**Stansberry, Wade A** <wade.a.stansberry@wv.gov>

Mon, Jan 9, 2023 at 10:41 AM

To: Brittany Woody &lt;Brittany\_Woody@swn.com&gt;, Liz Gee &lt;liz\_gee@swn.com&gt;, Mark Musick &lt;mmusick@assessor.org&gt;, "Gayne J. Knitowski" &lt;gayne.j.knitowski@wv.gov&gt;

I have attached a copy of the newly issued well [permit](#) number(s):

**47-061-00339 - ROTH OHI 10H**  
**47-061-00348 - ROTH 8H**  
**47-061-00349 - ROTH 6H**  
**47-061-00350 - ROTH 206H**

These will serve as your copy.

Thank you,

**Wade A. Stansberry**

**Environmental Resource Specialist 3**

**West Virginia Department of Environmental Protection**

**Office of Oil & Gas**

**601 57th St. SE**

**Charleston, WV 25304**


**(304) 926-0499 ext. 41115**


**(304) 926-0452 fax**


**[Wade.A.Stansberry@wv.gov](mailto:Wade.A.Stansberry@wv.gov)**


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**4 attachments**

 **47-069-00350 - mod.pdf**  
3013K

 **47-069-00348 - mod.pdf**  
2898K

 **47-069-00339 - mod.pdf**  
3429K

 **47-069-00349 - mod.pdf**  
2013K

**01/13/2023**