



west virginia department of environmental protection

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

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

Wednesday, October 30, 2024
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359

SPRING, TX 773914954

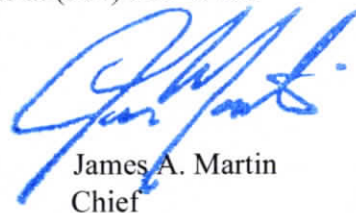
Re: Permit Modification Approval for Riter WTZ 5H
47-103-03645-00-00

Performing sidetrack

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: Riter WTZ 5H
Farm Name: Harry Riter Jr. & Violet R Menas
U.S. WELL NUMBER: 47-103-03645-00-00
Horizontal 6A New Drill
Date Modification Issued: 10/30/2024

Promoting a healthy environment.

11/01/2024

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 103-Wetzel 1-Center 468-Littleton
Operator ID County District Quadrangle

2) Operator's Well Number: Riter Wtz 5H Well Pad Name: Riter Wtz pad

3) Farm Name/Surface Owner: Harry Riter, Jr. & Violet R. Menas Public Road Access: C.R. 8

4) Elevation, current ground: 1409' Elevation, proposed post-construction: 1408'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow Deep _____
Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Up-Dip well to the North, Target Top TVD- 7594', Target Base TVD- 7637', Anticipated Thickness- 43', Associated Pressure- 4963

8) Proposed Total Vertical Depth: 7619'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 29,530'

11) Proposed Horizontal Leg Length: 20,246.06'

12) Approximate Fresh Water Strata Depths: 417'

13) Method to Determine Fresh Water Depths: Nearby Well Vernon Johnson Wtz 10H API 47-103-02714

14) Approximate Saltwater Depths: 1898'- Salinity Profile

15) Approximate Coal Seam Depths: 1281'

16) Approximate Depth to Possible Void (coal mine, karst, other): None that we are aware of.

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

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

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Riter WTZ 5H ST

The subject was drilled to a depth of 14,025'. While drilling the lateral at 14,025' a part of our BHA failed, leaving our bit and part of our BHA in the hole. Discussions with Fishing Experts yielded that this part would be un-fishable. We attempted to open hole sidetrack in the lateral approximately 700' back from the fish, this was unsuccessful.

Attempt to Open Hole Sidetrack in the Curve

- We would like to back up to approximately 8,500' in the curve and sidetrack.
- Our best chance at successfully sidetracking will be this point and going right of the Original Wellbore.
- To do so safely we will need to land out curve approximately 85' right of our original land point.
- From that point we would be able to slowly bring back our lateral to the original plan and plan to TD at our original Bottom Hole Location.
- Landing at this point and paralleling our old wellbore till we get back to the original plan will keep us out of any leases not already within the lease.
- Due to the increase in curve our Measured Depth at TD will be 29,536'.

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18) **CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	136'	136'	CTS
Fresh Water	13 3/8"	New	J-55	54.4#	467'	467'	533 sx/CTS
Coal	See	Interm	Casing				
Intermediate	9 5/8"	New	J-55	36#	2999'	2999'	1224 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	29530'	29530'	Tail 5364sx/100' Inside Intermediate
Tubing							
Liners							

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

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

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

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

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

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 30

22) Area to be disturbed for well pad only, less access road (acres): 12.59

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.

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*Note: Attach additional sheets as needed.

September 9, 2024

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

RE: Proposed New Well: Riter WTZ 5H

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 Riter's property, in Center District, Wetzel County, West Virginia.

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

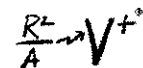
Thank you.

Sincerely,



Brittany Woody
Staff Regulatory Specialist
Southwestern Energy Production Company, LLC

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Southwestern Energy Company

Proposed Drilling Program

Well: RITER WTZ 5H
 Field: VICTORY FIELD WET
 County: WETZEL

Drilling Rig: SDC 41
 Formation: Marcellus Shale
 State: WV



SHL (NAD83): 39.702841 Latitude -80.569477 Longitude
 BHL (NAD83): 39.742044 Latitude -80.608896 Longitude
 KB Elev: 1,437 ft MSL KB Height: 26 ft AGL

GL Elev: 1,411 ft MSL

NO COAL VOID EXPECTED

PROD TOC @ 2,999' MD

TUBULAR DETAIL					
Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Conductor	20	94.0 #	J-55	0'	136'
Surface	13.375	54.4 #	J-55	0'	467'
Intermediate/Coal	9.625	36.0 #	J-55	0'	2,999'
Production	5.5	20.0 #	P-110 HP	0'	29,530'

CEMENT DETAIL

	Sacks	Class	Density
Conductor	173	A	19.3
Surface	533	A	15.6
Intermediate	1224	A	15.6
Production	5384	A	14.5-15.0

136' to 487'

Air/Mist

487' to 3,019'

Air/Mist

3,019' to 7,909'

Air/Mist

TD at 7,909'

7,909' to 9,271'

12.0-12.5 ppg

9,271' to 29,530'

12.5-13.5 ppg

KOP at 7,909' MD

Freshwater Depth - 417' TVD

Coal Depth - 1,281' TVD

Saltwater Depth - 1,898' TVD

TVD - 7,619'

TMD - 29,530'

7,619' TVD Target Center

TD at 29,530' MD

7,619' TVD

LP at 9,271' MD

SHL Onondaga 7,635' TVD

Onondaga 7,635' TVD

Created by: Colin Kollker on 09/09/2024

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Stephen Mccoy
 Digitally signed by Stephen Mccoy
 Date: 2024.09.10 09:24:04 -04'00'

September 9, 2024

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

RE: SWN's proposed New Well: Riter WTZ 5H in Wetzel County, West Virginia, Drilling under Low Gap Run Road, Woodchuck Lane, and Amos Hollow 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 Low Gap Run Road, Woodchuck Lane, and Amos Hollow 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.

Sincerely,



Ian R. Nicas
Staff Landman
SWN Production Company, LLC

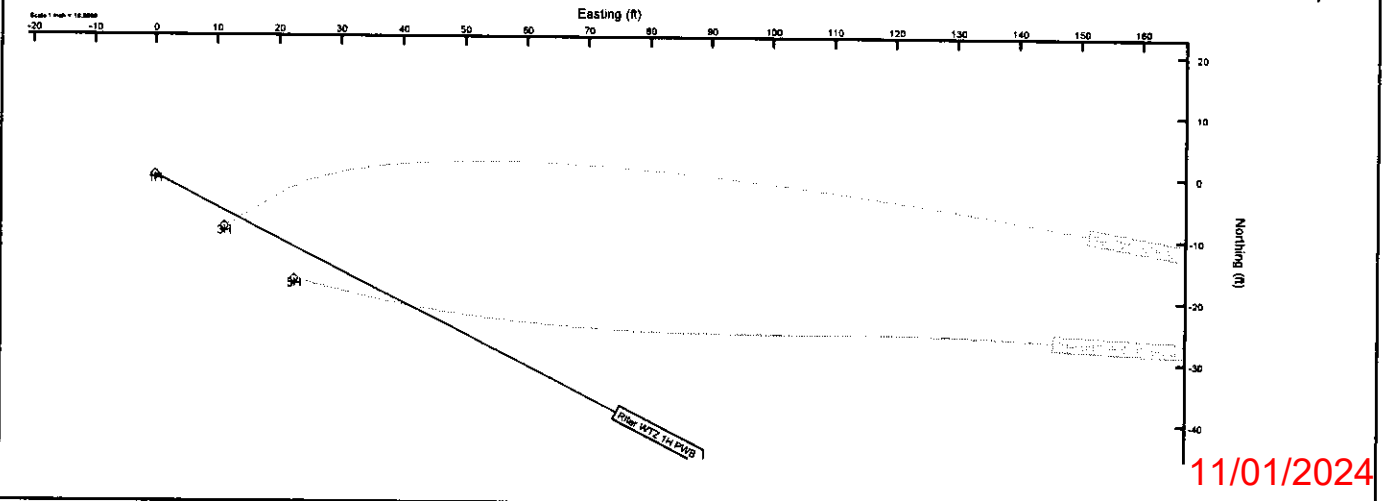
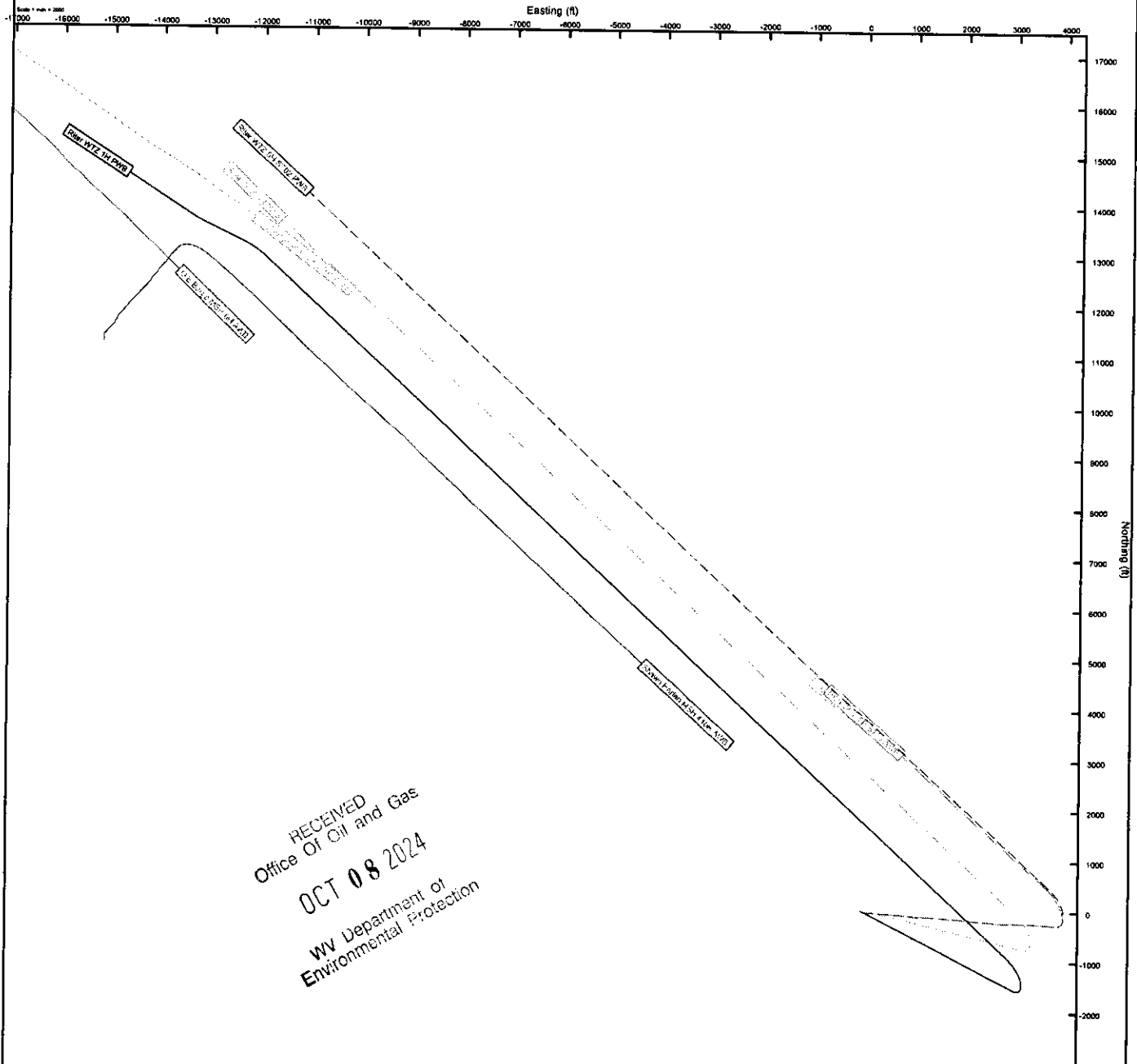
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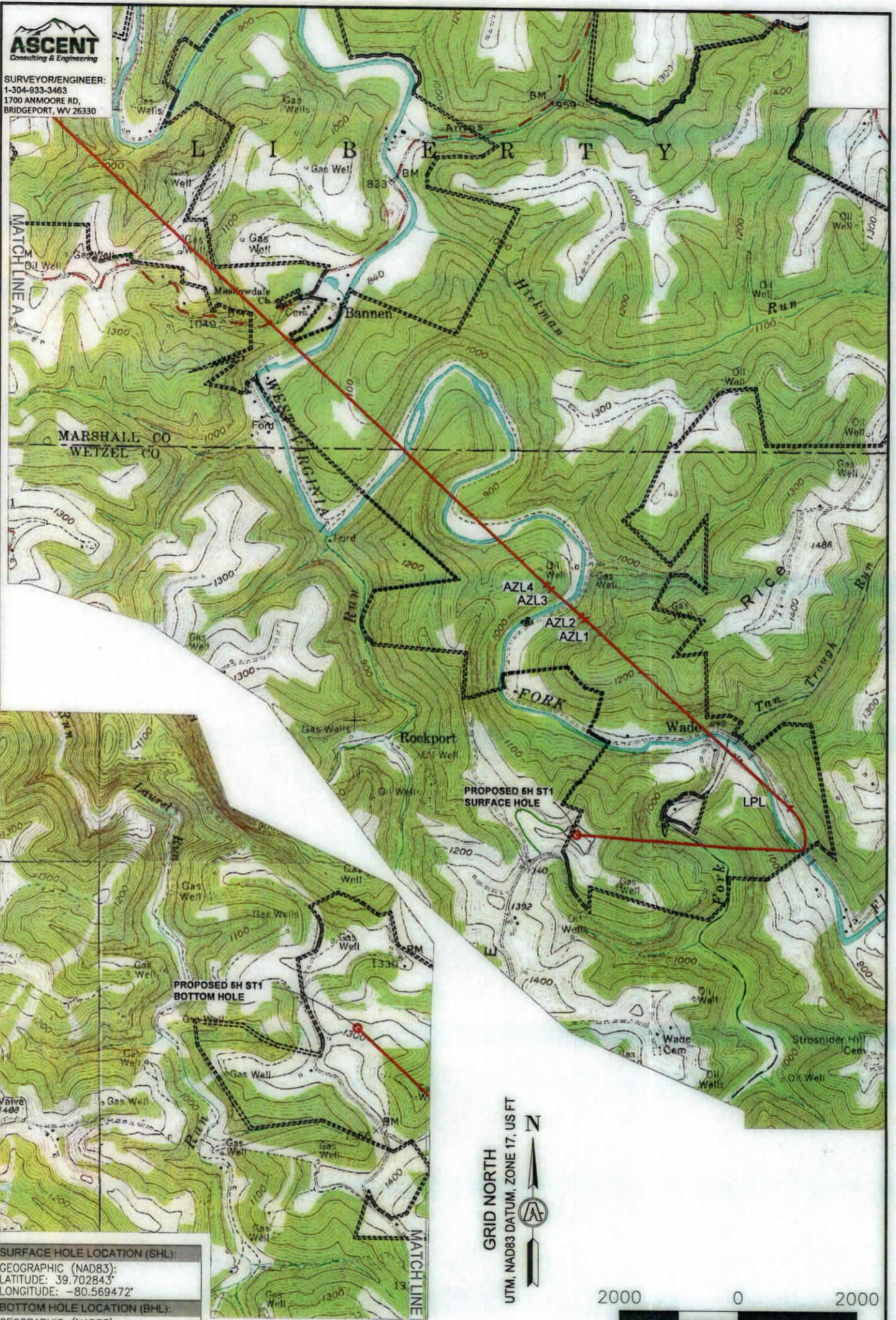
The Right People doing the Right Things,
wisely investing the cash flow from our
underlying Assets, will create Value+®

11/01/2024





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



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



SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83):
LATITUDE: 39.702843°
LONGITUDE: -80.569472°

BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83):
LATITUDE: 39.742044°
LONGITUDE: -80.608896°

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

11/01/2024

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: RITER WTZ	WELL # 5H ST1	SERIAL # XXXX
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201	COUNTY - CODE WETZEL - 103	DISTRICT: CENTER	
SURFACE OWNER: HARRY RITER, JR. & VIOLET R. MENAS	USGS 7 1/2 QUADRANGLE MAP NAME LITTLETON, WV-PA		

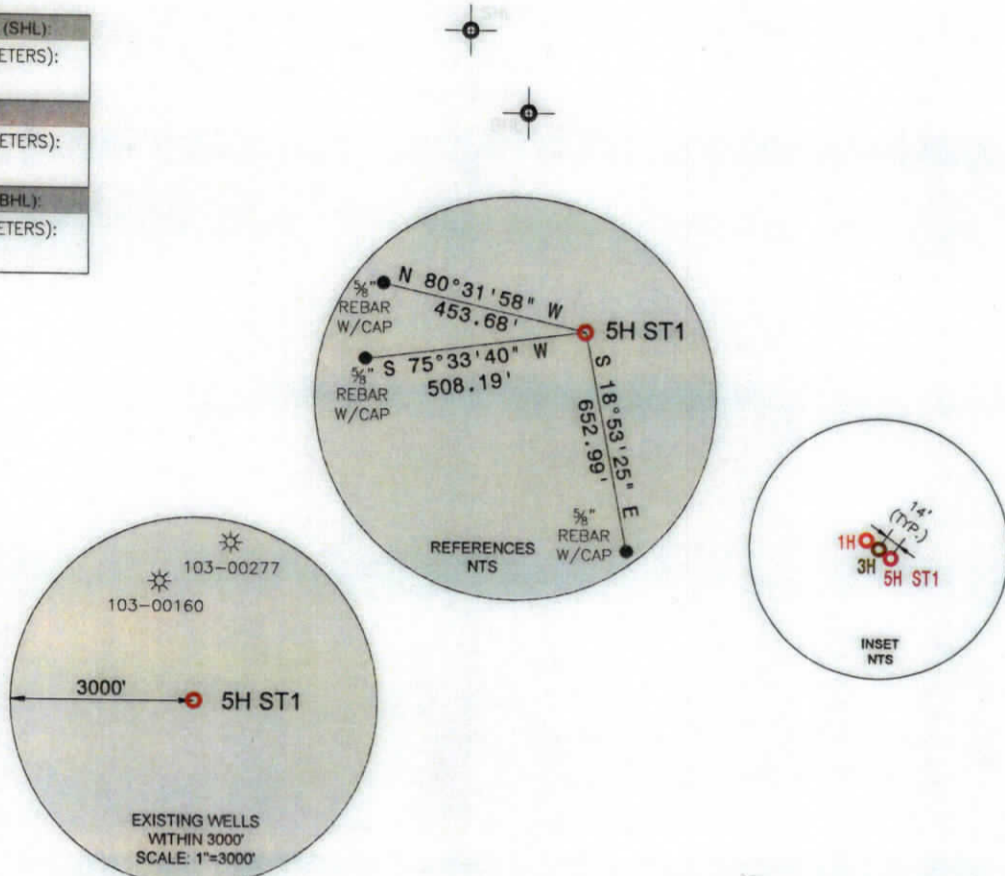


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1700 ANMOORE RD,
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SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,394,865.110 EASTING: 536,908.636
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,395,014.502 EASTING: 538,043.835
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,399,200.415 EASTING: 533,509.884

Latitude: 39°42'30" SURFACE HOLE 7,821'
Latitude: 39°45'00" BOTTOM HOLE 7,186'

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



Longitude: 80°35'00"
Longitude: 80°32'30"

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 89°54'24" E	408.38'	SHL TO MONUMENT	POST
L2	S 09°59'04" E	1,258.03'	SHL TO MONUMENT	POST

LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L3	N 82°30'11" E	3,756.51'	4721.15'	SHL TO LPL
L4	N 47°40'07" W	4,846.76'	4,846.76'	LPL TO AZL1
L5	N 48°31'41" W	97.79'	97.79'	AZL1 TO AZL2
L6	N 49°22'59" W	686.07'	686.07'	AZL2 TO AZL3
L7	N 48°12'40" W	123.83'	123.84'	AZL1 TO AZL2
L8	N 47°02'31" W	14,491.60'	14,491.60'	AZL2 TO AZL3

WELL RESTRICTIONS

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

NOTES ON SURVEY

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

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

Michael R. Hyman 10-01-2024



COMPANY: **SWN** Production Company, LLC **SWN** Production Company™

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY GRADE GPS SOURCE OF ELEVATION: (NAVD 88, US FT)	OPERATOR'S WELL #: 5H ST1 API WELL #: 47 STATE 103 COUNTY 03645 PERMIT
	WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input checked="" type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>	

WATERSHED: UPPER OHIO-WHEELING ELEVATION: 1,411.17

DISTRICT: CENTER COUNTY: WETZEL QUADRANGLE: LITTLETON

SURFACE OWNER: HARRY RITER, JR. & VIOLET R. MENAS ACREAGE: ±63.55

OIL & GAS ROYALTY OWNER: CONSOL ENERGY ATTN: CASEY SAUNDERS ACREAGE: ±63.55

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

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,619 TVD 29,530 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITANY WOODY **11/01/2024**

ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201

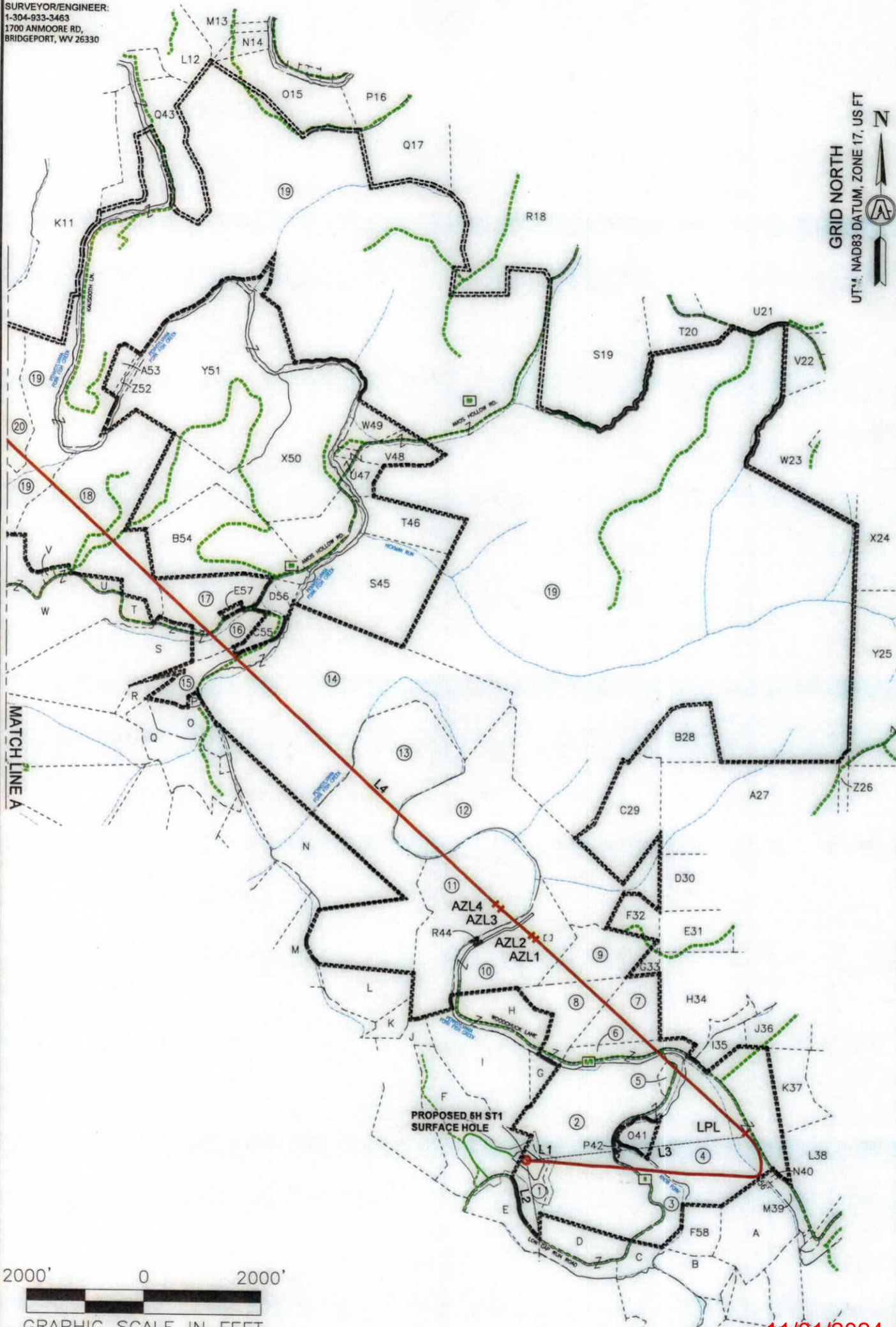
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND: PROPOSED SURFACE HOLE / BOTTOM HOLE EXISTING / PRODUCING WELLHEAD LPL LANDING POINT LOCATION EXISTING WATER WELL EXISTING SPRING SURVEYED BOUNDARY DRILLING UNIT LEASE BOUNDARY PROPOSED PATH	REVISIONS: DATE: 10-01-2024 DRAWN BY: TMF SCALE: 1" = 2000' DRAWING NO: 2549 WELL LOCATION PLAT
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SURVEYOR/ENGINEER:
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BRIDGEPORT, WV 26330

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



11/01/2024

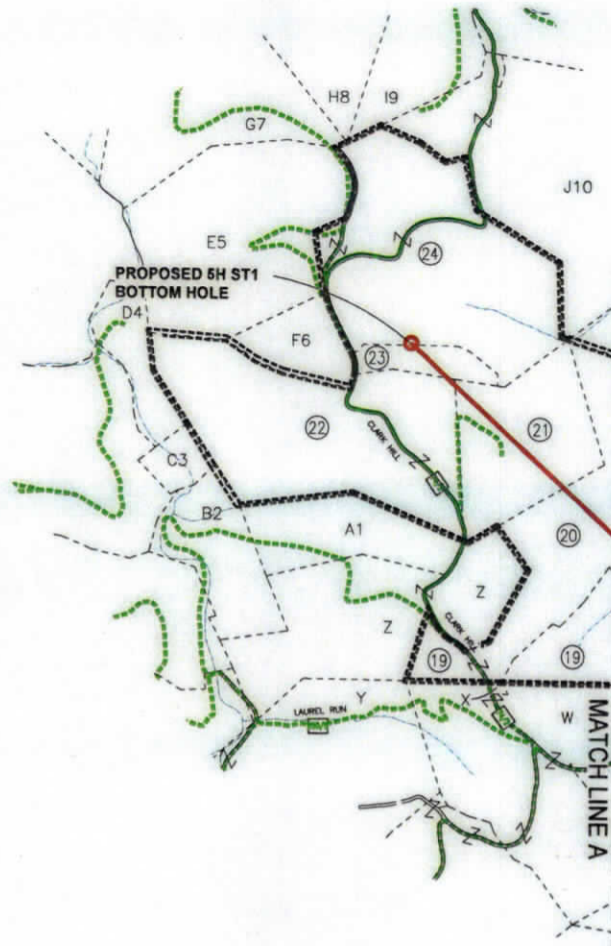
REVISIONS:	COMPANY:
	SWN Production Company, LLC
	SWN <i>R-V+</i> Production Company™
	OPERATOR'S: RTER WTZ
	WELL #: 5H ST1
	DISTRICT CENTER: _____
	COUNTY: WETZEL
	STATE: WV

DATE: 10-01-2024
DRAWN BY: TMF
SCALE: 1"=2000'
DRAWING NO: 2549
WELL LOCATION PLAT 2

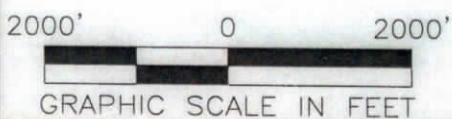


SURVEYOR/ENGINEER:
1-304-933-3463
1700 ANMOORE RD,
BRIDGEPORT, WV 26330

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



WELL BORE TRACTS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	RITER HARRY JR & MENAS VIOLET R (S) CONSOL Energy (R)	1-5-19
2	BLAKE GAY KAREN & JOSEPH F	1-6-7
3	S&R INVESTMENTS	1-6-11
4	S&R INVESTMENTS	3-1-23
5	CONSOLIDATED GAS TRANSMISSION CORPORATION	1-6-9
6	BERRY LAWRENCE C & DOROTHY J	1-6-8
7	WILLIAMS JOHN E HRS WILLIAMS JOHN EDWARD	1-6-4
8	SEIDLER BRIAN	1-6-3
9	BLACKROCK ENTERPRISES LLC	1-6-1
10	SEIDLER BRIAN	1-5-10
11	SEIDLER E DALE & NETTIE L	1-2-6.2
12	SEIDLER EARL DALE & NETTIE	1-2-6.1
13	WV STATE COMMERCE BUREAU OF NAT RESOURCE DIVISION	1-2-6
14	VELLEKOOP PETER B ET UX - TODD	7-27-13
15	GEHO ANNIE L EST	7-27-21
16	OCHSENBEIN RICHARD L	7-27-9
17	YOCUM JOSEPH LEE & MICHAEL D	7-27-5
18	HORNER DELORSE A	7-26-10
19	W VA WILDIFE RESOURCES SECTION	7-24-1
20	MORGAN JAMES E - LIFE	7-26-14
21	ROMACK VICTOR A	7-19-38
22	HORNER JOHN M & TERESA L	7-19-36
23	HORNER JOHN M & TERESA L	7-19-30.1
24	HORNER DELORSE A - LIFE	7-19-30



47-103-026-15 11/01/2024

REVISIONS:	COMPANY:			
	OPERATOR'S			
	WELL #:		RITER WTZ	
	DISTRICT:		5H ST1	
CENTER		COUNTY:	STATE:	DRAWN BY: TMF
		WETZEL	WV	SCALE: 1"=2000'
				DRAWING NO: 2549
				WELL LOCATION PLAT 3



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

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	WAYNE CARMINT REALTY LLC	3-1-25
B	S&R INVESTMENTS	3-5-1
C	S&R INVESTMENTS	1-6-10
D	GORBY STEPHEN H & BETH ANN	1-5-30
E	RITER HARRY JR MENAS VIOLET R	1-5-20
F	RITER HARRY JR MENAS VIOLET R	1-5-17
G	KOONTZ MICHAEL L KUHN SHAUN D	1-5-34
H	SEIDLER BRIAN	1-5-11
I	KOONTZ MICHAEL L KUHN SHAUN D	1-5-18
J	KOONTZ MICHAEL L KUHN SHAUN D	1-5-17.1
K	BROWN NEIL A TRUST	1-5-9
L	WV STATE OF COMM BUREAU OF NATURAL RESOURCES DIVISION	1-5-9.1
M	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	1-2-9
N	WV STATE COMMERCE BUREAU OF NAT RESOURCES DIVISION	1-2-12
O	FERDA BRIAN T ET UX	7-27-16
P	FERDA BRIAN T ET UX	7-27-16.1
Q	FERDA BRIAN T ET UX	7-27-15
R	W VA WILDLIFE RESOURCES SECTION	7-27-17
S	SCHANCK JOSEPH L	7-27-18
T	RIGGS DALENA ET VIR	7-27-3.1
U	RIGGS JOHN E & DALENA	7-27-2.1
V	DEBOLD HOWARD L ET UX	7-27-2.2
W	RIGGS JOHN E JR & DELANA	7-27-2
X	WADE SAMUEL C - TOD	7-27-2.3
Y	RICHMOND MATTHEW ALLAN	7-28-5
Z	MORGAN JAMES E - LIFE	7-28-4
A1	MORGAN JAMES E - LIFE	7-28-3
B2	MASON DIXON FARMS LLC	7-28-2
C3	BLAIR M ZACHARY	7-19-35
D4	HORNER JOHN M & TERESA L	7-19-33
E5	HORNER JOHN M & TERESA L	7-19-32
F6	CHAMBERS MARY L	7-19-31
G7	MASON DIXON FARMS LLC	7-19-1
H8	MASON DIXON FARMS LLC	7-19-8.8
I9	HORNER JOHN M & TERESA L	7-19-12
J10	GRIBBEN M PEGGY REVOCABLE LIVING TRUST	7-19-29
K11	GRIBBEN M PEGGY REVOCABLE LIVING TRUST	7-19-28
L12	UNDERDONK ALAN	7-16-25.1
M13	BURGE JUDITH A & VIRGINIA L BAILEY & SUELLEN MARLING - TOD	7-20-6
N14	GEHO ANNIE L EST	7-20-11
O15	BURLEY AMMON ET UX	7-20-12
P16	BURLEY AMMON	7-20-18
Q17	BURLEY AMMON A	7-20-24
R18	BURLEY AMON A	7-20-37
S19	GRESHAW JASON M & MARY L	7-25-2
T20	BROWN ANDREW C III	7-25-6
U21	HARRINGTON CLYDE F	7-25-7
V22	W VA DEPT OF COMMERCE DIV OF NATURAL RESOURCES	7-25-9
W23	CONAWAY THOMAS EARL JR & CAROLYN K STOW	7-25-12
X24	CONAWAY THOMAS E	7-23-1
Y25	PRENDERGAST MICHAEL J & SUELLEN LEMLEY	7-23-26
Z26	LONG LONNY DAVID & LINDA SUE	1-3-2.1
A27	ABEREGG D W EST & ABEREGG WILLIAM D ETAL L/E ABEREGG DA	1-3-2
B28	WADE MICHAEL CLAY & MCELLAND LAWRENCE W - TOD ET AL	7-24-6
C29	WILLIAMS KATHERINE E TRUST	1-3-1
D30	WILLIAMS LONNIE L	1-3-7
E31	WILLIAMS JOHN EDWARD	1-3-8
F32	CONSOLIDATED GAS TRANSMISSION CORP	1-3-5
G33	UNKNOWN	1-6-2
H34	MCGUFFIE ARCH	1-6-5

*HIGHLIGHTED PARCELS MAY BE IMPACTED DURING DRILLING.

TRACT	SURFACE OWNER	TAX PARCEL
I35	MILLER HARVEY	3-1-7
J36	MILLIKEN KEVIN R ETAL	3-1-8
K37	PHILLIPS JR CHARLES R	3-1-22
L38	WAYNE CARMINT REALTY LLC	3-1-29
M39	WAYNE CARMINT REALTY LLC	3-1-28
N40	WAYNE CARMINT REALTY LLC	3-1-27
O41	SHOWALTER THOMAS HRS	3-1-24
P42	CONSOLIDATED GAS TRANS CORP	3-1-36
Q43	FROMHART BRAD ET UX - LIFE	7-20-41
R44	SEIDLER E DALE & NETTIE L	1-5-10.1
S45	VELLEKOOP PETER B ET UX - TOD	7-27-11
T46	VELLEKOOP PETER B ET UX - TOD	7-27-10.1
U47	VELLEKOOP PETER B ET UX - TOD	7-28-6.2
V48	VELLEKOOP PETER B ET UX - TOD	7-26-6.1
W49	GEDEON DANIEL D ET UX	7-26-6
X50	YOCUM JOSEPH LEE & MICHAEL D	7-26-9
Y51	CONSOLIDATED GAS SUPPLY CORP	7-26-8
Z52	BUTLER JOHN M & LISA A	7-26-11.1
A53	HUNDRED RESOURCES INC	7-26-11
B54	YOCUM JOSEPH LEE & MICHAEL D	7-27-4
C55	BURGE DELORES E ET AL	7-27-10
D56	HIGH PHILIP D	7-27-8
E57	MEADOWDALE UNITED METH CH CEM	7-27-6
F58	S&R INVESTMENTS	3-1-25

*HIGHLIGHTED PARCELS MAY BE IMPACTED DURING DRILLING.

47-103-11/01/2024

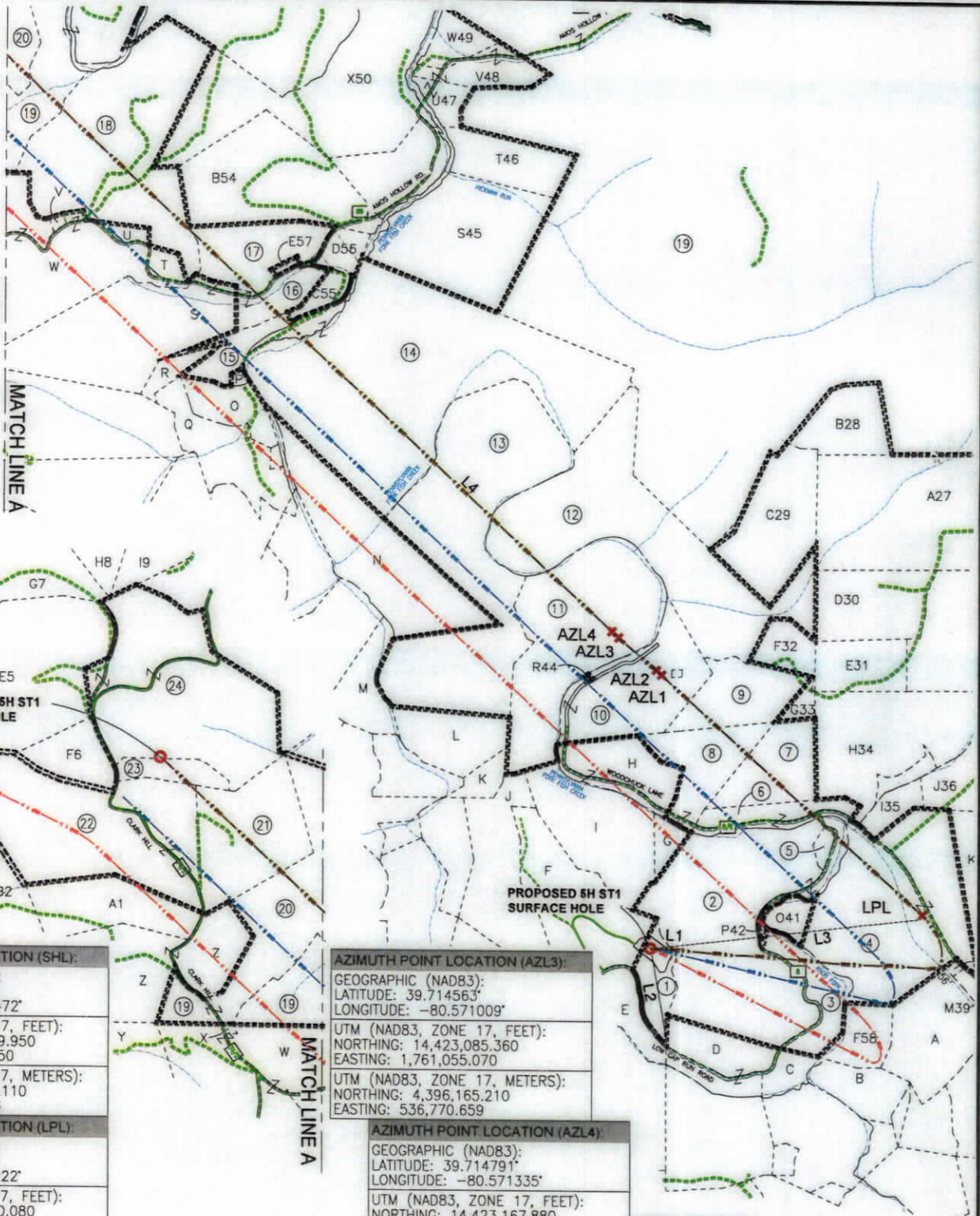
REVISIONS:

COMPANY:			
OPERATOR'S		RITER WTZ	
WELL #:		5H ST1	
DISTRICT:		COUNTY:	STATE:
CENTER		WETZEL	WV
DATE:		10-01-2024	
DRAWN BY:		TMF	
SCALE:		N/A	
DRAWING NO:		2549	
WELL LOCATION PLAT		4	



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

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



SURFACE HOLE LOCATION (SHL):	
GEOGRAPHIC (NAD83):	LATITUDE: 39.702843°
	LONGITUDE: -80.569472°
UTM (NAD83, ZONE 17, FEET):	NORTHING: 14,418,819.950
	EASTING: 1,761,507.750
UTM (NAD83, ZONE 17, METERS):	NORTHING: 4,394,865.110
	EASTING: 536,908.636

LANDING POINT LOCATION (LPL):	
GEOGRAPHIC (NAD83):	LATITUDE: 39.704139°
	LONGITUDE: -80.556222°
UTM (NAD83, ZONE 17, FEET):	NORTHING: 14,419,310.080
	EASTING: 1,765,232.150
UTM (NAD83, ZONE 17, METERS):	NORTHING: 4,395,014.502
	EASTING: 538,043.835

AZIMUTH POINT LOCATION (AZL1):	
GEOGRAPHIC (NAD83):	LATITUDE: 39.713150°
	LONGITUDE: -80.568905°
UTM (NAD83, ZONE 17, FEET):	NORTHING: 14,422,573.970
	EASTING: 1,761,649.120
UTM (NAD83, ZONE 17, METERS):	NORTHING: 4,396,009.338
	EASTING: 536,951.726

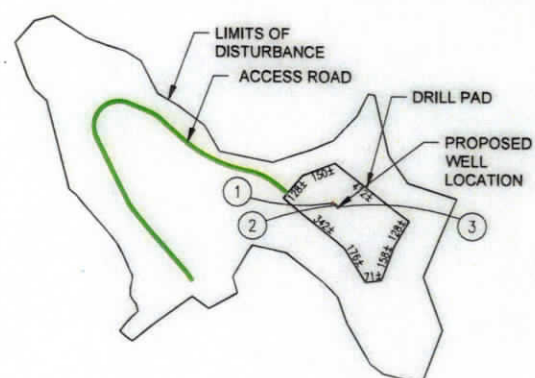
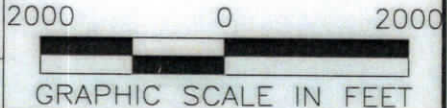
AZIMUTH POINT LOCATION (AZL2):	
GEOGRAPHIC (NAD83):	LATITUDE: 39.713329°
	LONGITUDE: -80.569164°
UTM (NAD83, ZONE 17, FEET):	NORTHING: 14,422,638.730
	EASTING: 1,761,575.850
UTM (NAD83, ZONE 17, METERS):	NORTHING: 4,396,029.077
	EASTING: 536,929.393

AZIMUTH POINT LOCATION (AZL3):	
GEOGRAPHIC (NAD83):	LATITUDE: 39.714563°
	LONGITUDE: -80.571009°
UTM (NAD83, ZONE 17, FEET):	NORTHING: 14,423,085.360
	EASTING: 1,761,055.070
UTM (NAD83, ZONE 17, METERS):	NORTHING: 4,396,165.210
	EASTING: 536,770.659

AZIMUTH POINT LOCATION (AZL4):	
GEOGRAPHIC (NAD83):	LATITUDE: 39.714791°
	LONGITUDE: -80.571335°
UTM (NAD83, ZONE 17, FEET):	NORTHING: 14,423,167.880
	EASTING: 1,760,962.740
UTM (NAD83, ZONE 17, METERS):	NORTHING: 4,396,190.362
	EASTING: 536,742.517

BOTTOM HOLE LOCATION (BHL):	
GEOGRAPHIC (NAD83):	LATITUDE: 39.742044°
	LONGITUDE: -80.608896°
UTM (NAD83, ZONE 17, FEET):	NORTHING: 14,433,043.360
	EASTING: 1,750,357.010
UTM (NAD83, ZONE 17, METERS):	NORTHING: 4,399,200.415
	EASTING: 533,509.884

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



GRID NORTH
INSET
N.T.S.

COMPANY:		
SWN Production Company, LLC		SWN Production Company™
OPERATOR'S RITER WTZ		
WELL #: 5H ST1		
DISTRICT: CENTER	COUNTY: WETZEL	STATE: WV

SWN PRODUCTION COMPANY, LLC
SURFACE HOLES
1. "RITER WTZ 1H"
2. "WELL NAME 3H"
3. "WELL NAME 5H ST1"

11/01/2024

47-103-03145

REVISIONS:	DATE: 10-01-2024
	DRAWN BY: TMF
	SCALE: 1" = 2000'
	DRAWING NO: 2549
	INTERNAL WELL PLAT

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

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

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

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

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WV Department of
Environmental Protection

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

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

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

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

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

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


Well Operator: SWN Production Company, LLC
 By: 
 Its: Staff Landman

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, L.L.C., Operator
Riter W TZ SH ST01
Marshall and Wetzel County, West Virginia

Tract #	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Interest Not Leased by Southwestern Production Company, LLC
1	1-5-19	Green Dot Farm, Inc., a West Virginia corporation	SWN Production Company, LLC	19.00%	283A/574	0.00%
2	1-6-7	William B. Francik and Pamela S. Francik, husband and wife, as JTWR0S Statoil USA Onshore Properties, Inc. EQT Production Company Thomas J. Iacoboni, A married Man dealing in His sole and Separate Property Statoil USA Onshore Properties, Inc. EQT Production Company TH Exploration II, LLC TH Exploration, Inc. EQT Production Company	Statoil USA Onshore Properties, Inc. EQT Production Company SWN Production Company, LLC Statoil USA Onshore Properties, Inc. EQT Production Company SWN Production Company, LLC TH Exploration, Inc. EQT Production Company SWN Production Company, LLC	18.00% 18.00% 18.00%	164A/256 175A/707 279A/35 164A/248 175A/707 279A/35 252A/110 258A/333 279A/35	0.00%
3	1-6-11	Stone Hill Mineral Holdings TH Exploration, Inc.	TH Exploration, Inc. SWN Production Company, LLC	18.000%	261A/890 49/615	0.00%
4	3-1-23	Stone Hill Mineral Holdings TH Exploration, Inc.	TH Exploration, Inc. SWN Production Company, LLC	18.000%	261A/890 49/615	0.00%
5	1-6-9	William B. Francik and Pamela S. Francik, husband and wife, as JTWR0S Statoil USA Onshore Properties, Inc. EQT Production Company Thomas J. Iacoboni, A married Man dealing in His sole and Separate Property Statoil USA Onshore Properties, Inc. EQT Production Company TH Exploration II, LLC TH Exploration, Inc. EQT Production Company	Statoil USA Onshore Properties, Inc. EQT Production Company SWN Production Company, LLC Statoil USA Onshore Properties, Inc. EQT Production Company SWN Production Company, LLC TH Exploration, Inc. EQT Production Company SWN Production Company, LLC	18.00% 18.00% 18.00%	164A/256 175A/707 279A/35 164A/248 175A/707 279A/35 252A/110 258A/333 279A/35	0.00%
6	1-6-8	Royalty Owner(s) (subject to unitization filing dated February 28, 2024)	N/A	N/A	N/A	100%
7	1-6-4	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC	12.50%	166A/931	0.00%
8	1-6-3	Morris Mountaineer Oil and Gas, LLC Antero Resources Corporation Stone Hill Minerals Holdings, LLC TH Exploration, LLC Gore-Morris Trust, by WesBanco Bank, Inc., as Successor Trustee Antero Resources Corporation Blackrock Enterprises, LLC Antero Resources Corporation EQT Production Company	Antero Resources Corporation SWN Production Company, LLC TH Exploration, LLC SWN Production Company, LLC Antero Resources Corporation SWN Production Company, LLC Antero Resources Corporation EQT Production Company SWN Production Company, LLC	20.00% 20.00% 20.00% 20.00%	257A/400 272A/588 261A/890 49/615 257A/394 272A/588 273A/383 324A/748 343A/154	0.00%
9	1-6-1	Morris Mountaineer Oil and Gas, LLC Antero Resources Corporation Piney Holdings, Inc. Antero Resources Corporation EQT Production Company Piney Holdings, Inc. Gore-Morris Trust, by WesBanco Bank, Inc., as Successor Trustee Antero Resources Corporation Blackrock Enterprises, LLC Antero Resources Corporation EQT Production Company	Antero Resources Corporation SWN Production Company, LLC Antero Resources Corporation EQT Production Company SWN Production Company, LLC SWN Production Company, LLC Antero Resources Corporation SWN Production Company, LLC Antero Resources Corporation EQT Production Company SWN Production Company, LLC	20.00% 20.00% 20.00% 20.00%	257A/400 272A/588 293A/417 231A/59 279A/35 355A/631 257A/394 272A/588 273A/383 324A/748 343A/154	0.00%
10	1-5-10	Nettie L. Seidler Antero Resources Corporation Antero Resources Corporation EQT Production Company Piney Holdings, Inc. Antero Resources Corporation Antero Resources Corporation EQT Production Company	Antero Resources Corporation EQT Production Company EQT Production Company SWN Production Company, LLC Antero Resources Corporation EQT Production Company EQT Production Company SWN Production Company, LLC	18.00%	212A/235 231A/59 231A/158 279A/35 189A/56 231A/59 231A/158 279A/35	0.00%
11	1-2-6.2	Chesapeake Appalachia, LLC	SWN Production Company, LLC	12.50%	166A/931	0.00%
12	1-2-6.1	Chesapeake Appalachia, LLC	SWN Production Company, LLC	12.50%	166A/931	0.00%
13	1-2-6	Chesapeake Appalachia, LLC	SWN Production Company, LLC	12.50%	166A/931	0.00%
14	7-27-13	Ralph W. Evans and Nellie F. Evans, his wife; Brooks B. Evans and Sara E. Evans, his wife; Harold P. Evans and Maude Evans, his wife The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation	The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Columbia Natural Resources, LLC	12.50%	299/327 422/204 642/281	0.00%

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Office Of Oil and Gas
OCT 08 2024
WV Department of Environmental Protection

11/01/2024

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, L.L.C., Operator
Riter WTZ 5H
Marshall and Wetzel County, West Virginia

Tract #	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Interest Not Leased by Southwestern Production Company, LLC
		Columbia Natural Resources, LLC Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoilhydro USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		650/63 662/322 675/279 33/110 33/424	
15	7-27-21	Kathryn Gillingham, widow; Lucy V. Smith, widow; and Madge Moore and Albert W. Moore, wife and husband The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Columbia Natural Resources, LLC Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Columbia Natural Resources, LLC Chesapeake Appalachia, LLC Statoilhydro USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)	12.50%	371/525 422/204 642/281 650/63 662/322 675/279 33/110 33/424	0.00%
16	7-27-9	Josephine Faust, et al The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. Chesapeake Appalachia, LLC	Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC	12.50%	375/545 422/204 662/322 675/279 33/110 33/424 36/422	0.00%
17	7-27-5	I.D. Franklin and Bessie J. Franklin, husband and wife The Manufacturers Light and Heat Company Union Gasoline & Oil Corporation The Prestion Oil Company The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. Chesapeake Appalachia, LLC	The Manufacturers Light and Heat Company Union Gasoline & Oil Corporation The Prestion Oil Company The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC	12.50%	342/448 220/353 2/136 2/225 422/204 662/322 675/279 33/110 33/424 36/422	0.00%
18	7-26-10	Lorraine E. Parriott, acting as Trustee for the Parriott Family Trust dated July 23, 1996, and Lorraine E. Parriott Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. Chesapeake Appalachia, LLC SWN Exchange Titleholder LLC	Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC SWN Production Company, LLC	12.50%	669/23 675/279 33/110 33/424 36/422 19/624	0.00%
19	7-24-1 (Subtract 1)	J.N. Pyles and Iva B. Pyles, his wife; E. C. Pyles, single; J.B. Whitlatch and Edna Whitlatch, his wife; Robert E. Loper and Lovernia L. Loper, his wife; Paul G. Benedum and Willeen Benedum, his wife; Maxine L. Jaworek and Walter A. Jaworek, her husband; Eleanor M. Hinerman and Emmett Hinerman, her husband; Elizabeth H. Paul and Philip D. Paul, her husband; Lester Hicks and Josephine Hicks, his wife; Virginia Neal and F.S. Neal, her husband The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Columbia Natural Resources, LLC Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. Nancy B. Divita, married dealing in her sole and separate property	The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Columbia Natural Resources, LLC Statoilhydro USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC	12.50%	299/336 Refiled 299/465 422/204 642/281 650/63 662/322 675/279 33/110 33/424 1084/279	0.00%
19	7-24-1 Subtract 2	Debbie Coleman, a single woman Chesapeake Appalachia, LLC Linda Turner and Dennis Turner, her husband Chesapeake Appalachia, LLC Gary Scott, a single man Chesapeake Appalachia, LLC Chestnut Holdings, a Florida corporation Chesapeake Appalachia, LLC Olive M. Martin SASP and Barry A. Martin SASP Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC	17.00%	742/200 33/110 742/523 33/110 742/533 33/110 723/625 33/110 687/95 33/110	0.00%

RECEIVED
Office of Oil and Gas
OCT 08 2024
WV Department of Environmental Protection

11/01/2024

EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, L.L.C., Operator
 Riter Wtz 5H
 Marshall and Wetzel County, West Virginia

Tract #	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Interest Not Leased by Southwestern Production Company, LLC
		O. E. Burge and Sarah Lou Burge, his wife and Stephen Burge, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	18.75%	708/137	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Charles Albert Sloan, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	709/101	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Imogene Verna Chambers aka Verna Imogene Chambers, a widow	Chesapeake Appalachia, LLC	12.50%	716/360	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Lawrence Leroy Frye, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	17.00%	715/481	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Alma Lovene Sampson, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	716/322	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Lawrence Leroy Frye, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	715/481	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Bonnie Ann Perry, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	716/151	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		David Lee Frye, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	716/141	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Rickie Gene Frye, a married man dealing in his sole and separate property	Chesapeake Appalachia, LLC	12.50%	716/146	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Pamela S. Cunningham, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	12.50%	717/007	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Dorothy Lynn Newell, a married woman dealing in her sole and separate property	Chesapeake Appalachia, LLC	17.00%	715/535	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Wanda M. Frazee aka Wanda Marie Frazee fka Wanda M. Maxwell fka Wanda Marie Maxwell fka Wanda M. Maxwell, a widow	Chesapeake Appalachia, LLC	17.00%	722/495	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		David Scott and Janet May Scott, his wife	Chesapeake Appalachia, LLC	17.00%	742/528	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Juanita Pearl McCracken, a single woman, by her guardian, Erin Bitz Simpson	Chesapeake Appalachia, LLC	17.00%	742/116	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Basil F. McCracken and Dorothy McCracken, his wife	Chesapeake Appalachia, LLC	12.50%	742/158	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Stephanie Bitz, a single woman	Chesapeake Appalachia, LLC	12.50%	742/513	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Erin Simpson, f/k/a Erin Bitz and Matt Simpson, her husband	Chesapeake Appalachia, LLC	12.50%	742/518	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Anna Lucy McCracken, a single woman	Chesapeake Appalachia, LLC	17.00%	744/90	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Rolland Dean McCracken aka Rolland D. McCracken, a single man, by his Attorney-in-Fact, Rebecca Jo Kuzba	Chesapeake Appalachia, LLC	17.00%	747/228	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Martha McCracken, a widow	Chesapeake Appalachia, LLC	17.00%	747/234	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Erma Jean Carr, a widow	Chesapeake Appalachia, LLC	17.00%	758/372	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Harold Carr and Loraine Carr, his wife	Chesapeake Appalachia, LLC	17.00%	758/366	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Alton Carr, a single man	Chesapeake Appalachia, LLC	17.00%	758/354	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Beatrice Criss, a single woman	Chesapeake Appalachia, LLC	17.00%	758/348	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Delorice Boyd and Robert Boyd, her husband	Chesapeake Appalachia, LLC	17.00%	758/378	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Barbara K. O'Brien a/k/a Barbara K. O'Brian, a married woman dealing in her sole and separate property	SWN Production Company, LLC	17.00%	1037/274	
		Robert Bissett, divorced	SWN Production Company, LLC	15.00%	942/504	
		Connie J. Brown, a widow	SWN Production Company, LLC	15.00%	931/427	
		Mary Lee Miller, a single woman	SWN Production Company, LLC	15.00%	952/113	
		Rena Koltan, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	916/509	
		Tabitha L. Allen, n/k/a Tabitha L. Marling, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	931/424	
		Loretta Rohm, a single woman	SWN Production Company, LLC	15.00%	919/151	
		Chester Guzek, widower, Life Estate and Amy Jo Simpson, a married woman dealing in her sole and separate property, Remainderman, and Chester Craig Guzek, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	916/501	
		Terry Cumpston, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	916/512	

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EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, L.L.C., Operator
Riter WTZ SH
Marshall and Wetzel County, West Virginia

Tract #	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Interest Not Leased by Southwestern Production Company, LLC
		Wanda M. Woodruff, a.k.a. Wanda Mae Woodruff, a widow	SWN Production Company, LLC	15.00%	916/516	
		Norma L. Williams, married and dealing in her sole and separate property	SWN Production Company, LLC	15.00%	919/157	
		Rose Anne Sloan, a single woman	SWN Production Company, LLC	15.00%	916/514	
		Theo Sue Mager, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	916/499	
		Maria Bell, a single woman	SWN Production Company, LLC	15.00%	916/519	
		Joseph Grof, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	916/489	
		Sondra Kay English, a widow	SWN Production Company, LLC	15.00%	916/493	
		Donna Cunningham, n/k/a				
		Donna D. Sims, married and dealing in her sole and separate property	SWN Production Company, LLC	15.00%	916/487	
		Ralph P. Pasquino, Jr., a married man	SWN Production Company, LLC	13.00%	916/495	
		Linda Suzette Sills and Michael J. Sills, her husband	SWN Production Company, LLC	12.50%	916/497	
		Anne Campbell Gleine, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	919/155	
		Glen Kermit Wendt, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	916/491	
		William Grof, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	925/535	
		Richard Bissett, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	925/537	
		Debra Lynn Frye, n/k/a Debra Lynn Johnson, a divorced woman	SWN Production Company, LLC	15.00%	933/301	
		Lucille R. Young, a widow	SWN Production Company, LLC	15.00%	932/71	
		Angel Marie Frye, a/k/a Angel Frye Messenger, a single woman	SWN Production Company, LLC	15.00%	944/285	
		Terry Riter, a single man	SWN Production Company, LLC	15.00%	935/237	
		Chad Chaplin, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	935/226	
		Ralph Chaplin, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	935/228	
		Mary Martha Leichter, married, dealing in her sole and separate property	SWN Production Company, LLC	18.00%	935/289	
		Gary F. Cheon, a married man dealing in his sole and separate property	SWN Production Company, LLC	18.00%	945/411	
		Violet Rose Menas, a widow	SWN Production Company, LLC	15.00%	945/426	
		Frederick Komorowski, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	945/430	
		Nazarene Church of Moundsville	SWN Production Company, LLC	17.00%	Pending	
		Austin Frye, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	951/279	
		Austin Frye, Power of Attorney for Vernon Glen Frye, a single man	SWN Production Company, LLC	15.00%	951/271	
		Austin Frye, Power of Attorney for Charles Arnold Frye, a single man	SWN Production Company, LLC	15.00%	951/275	
		James R. Chaplin, a married man dealing in his sole and separate property	SWN Production Company, LLC	15.00%	955/555	
		Robert McCracken, married, SASP	Chesapeake Appalachia, LLC	15.00%	955/204	
		Harry Riter, Jr., a single man	SWN Production Company, LLC	15.00%	952/100	
		Marlene DeMarco, a widow	SWN Production Company, LLC	18.00%	955/342	
		Constance Kay Hans, a married woman dealing in her sole and separate property	SWN Production Company, LLC	13.00%	960/273	
		Laura Miller, a married woman dealing in her sole and separate property	SWN Production Company, LLC	15.00%	Pending	
		Merl Chaplin, a married man dealing in his sole and separate property	SWN Production Company, LLC	16.00%	961/185	
		Floyd Kevin Chaplin, a married man dealing in his sole and separate property	SWN Production Company, LLC	17.00%	1010/190	
		Dana Sue Magers, a married woman dealing in her sole and separate property	SWN Production Company, LLC	17.00%	1010/276	
		Crystal L. Bohrer, a/k/a Crystal Bohrer, a married woman dealing in her sole and separate property	SWN Production Company, LLC	16.00%	1010/644	
		Pamela S. Rushman, a/k/a Pam Rushman, a married woman dealing in her sole and separate property	SWN Production Company, LLC	16.00%	1010/634	
		Jane Smith, Power of Attorney for Edith Postlethwaite	SWN Production Company, LLC	17.00%	1032/509	
		Carol S. Holmes, Trustee of the JoClare H. Holmes Truste, dated July 15, 1997	SWN Production Company, LLC	17.00%	1037/453	
		Martha J. Sego, a married woman dealing in her sole and separate property	SWN Production Company, LLC	17.00%	1035/175	
		Phyllis E. Bogzevitz a/k/a Phyllis Bognevitz, a married woman dealing in her sole and separate property	SWN Production Company, LLC	17.00%	1035/185	
		Rodney M. Cheon	SWN Production Company, LLC	18.00%	1047/462	
		Larry W. Cheon	SWN Production Company, LLC	18.00%	1047/465	
		Archie J. Chaplin, a single man	SWN Production Company, LLC	18.00%	1053/220	
		Elmer David Parks and Helen J. Parks, his wife	SWN Production Company, LLC	17.00%	1023/374	
20	7-26-14 Subtract 2	Jack Cooper Wallace, divorced		17.00%	950/51	0.00%
		Dan Foster Wallace, a married man dealing in his sole and separate property	SWN Production Company, LLC	17.00%	950/46	
		Pamela Sue Wallace, a widow	SWN Production Company, LLC	17.00%	950/56	
		Heirs or Devises of Martha L. Gillet, deceased	SWN Production Company, LLC	17.00%	1067/548	

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EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, L.L.C., Operator
Riter Wtz 5H
Marshall and Wetzel County, West Virginia

Tract #	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Interest Not Leased by Southwestern Production Company, LLC
7-26-14 Subtract 1		Mildred Pyle Strausser and Earl Strausser, her husband The Manufacturers Light and Heat Company Union Gasoline & Oil Corporation The Preston Oil Company The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. Chesapeake Appalachia, LLC SWN Exchange Titleholder LLC	The Manufacturers Light and Heat Company Union Gasoline & Oil Corporation The Preston Oil Company The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC SWN Production Company, LLC	12.50%	353/83 220/353 2/136 2/225 422/204 662/322 675/279 33/110 33/424 36/422 19/624	
		Mildred Pyle Strausser and Earl Strausser, her husband The Manufacturers Light and Heat Company Union Gasoline & Oil Corporation The Preston Oil Company The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. Chesapeake Appalachia, LLC SWN Exchange Titleholder LLC	The Manufacturers Light and Heat Company Union Gasoline & Oil Corporation The Preston Oil Company The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC SWN Production Company, LLC	12.50%	353/83 220/353 2/136 2/225 422/204 662/322 675/279 33/110 33/424 36/422 19/624	
21	7-19-38	John C. Richards Sonia M. Richards	SWN Production Company, LLC SWN Production Company, LLC	16.00% 16.00%	919/148 919/418	0.00%
22	7-19-36	Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. SWN Exchange Titleholder LLC	Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC) SWN Production Company, LLC		662/322 675/279 36/422 33/424 19/624	0.00%
23	7-19-30.1	Sydney Clark Merritt, f/k/a Sydney Ann Clark, a married woman dealing in her sole and separate property Chesapeake Appalachia, LLC Charles L Ackerman, a married man dealing in his sole and separate property Chesapeake Appalachia, LLC Charlotte Ackerman, a single woman Chesapeake Appalachia, LLC Arthur Manning Clark, a single man Chesapeake Appalachia, LLC Mary D. Garret, a widow Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC	12.50% 12.50% 12.50% 12.50% 12.50%	658/490 33/110 663/305 33/110 662/624 33/110 665/297 33/110 690/223 33/110	0.00%
24	7-19-30	Sydney Clark Merritt, f/k/a Sydney Ann Clark, a married woman dealing in her sole and separate property Chesapeake Appalachia, LLC Charles L Ackerman, a married man dealing in his sole and separate property Chesapeake Appalachia, LLC Charlotte Ackerman, a single woman Chesapeake Appalachia, LLC Arthur Manning Clark, a single man Chesapeake Appalachia, LLC Mary D. Garret, a widow Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC	12.50% 12.50% 12.50% 12.50% 12.50%	658/490 33/110 663/305 33/110 662/624 33/110 665/297 33/110 690/223 33/110	0.00%
B54 (Adjacent Parcel/Possible Wellbore)	7-27-4	J.D. Franklin and Bessie J. Franklin, husband and wife The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Columbia Natural Resources, LLC Columbia Gas Transmission Corporation Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties Inc.	The Manufacturers Light and Heat Company Columbia Gas Transmission Corporation Columbia Natural Resources, LLC Chesapeake Appalachia, LLC Statoilhydro USA Onshore Properties Inc. SWN Production Company, LLC SWN Exchange Titleholder LLC (now SWN Production Company LLC)		209/168 422/204 642/281 650/63 662/322 675/279 33/110 33/424	0.00%
C55 (Adjacent Parcel/Possible Wellbore)	7-27-10	Flora Grathwell (Flo Grathwell) and Sam Grathwell, her husband; Georgia Snyder and B.L. Snyder, her husband; John P. Franklin and Lucille Franklin, his wife	The Manufacturers Light and Heat Company		371/581	0.00%

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 Riter W TZ 5H
 Marshall and Wetzel County, West Virginia

Tract #	Tax Parcel	Lessor	Lessee	Royalty	Book/Page	Interest Not Leased by Southwestern Production Company, LLC
		The Manufacturers Light and Heat Company	Columbia Gas Transmission Corporation		422/204	
		Columbia Gas Transmission Corporation	Columbia Natural Resources, LLC		642/281	
		Columbia Natural Resources, LLC	Chesapeake Appalachia, LLC		650/63	
		Columbia Gas Transmission Corporation	Chesapeake Appalachia, LLC		662/322	
		Chesapeake Appalachia, LLC	Statoilhydro USA Onshore Properties Inc.		675/279	
		Chesapeake Appalachia, LLC	SWN Production Company, LLC		33/110	
		Statoil USA Onshore Properties Inc.	SWN Exchange Titleholder LLC (now SWN Production Company LLC)		33/424	

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11/01/2024

September 9, 2024

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

RE: SWN's proposed New Well: Riter WTZ 5H in Wetzel County, West Virginia, Drilling under Low Gap Run Road, Woodchuck Lane, and Amos Hollow 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 Low Gap Run Road, Woodchuck Lane, and Amos Hollow 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.

Sincerely,



Ian R. Nicas
Staff Landman
SWN Production Company, LLC

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