

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

Thursday, October 17, 2024 WELL WORK PERMIT Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC **POST OFFICE BOX 12359**

SPRING, TX 773914954

Re:

Permit approval for MICHAEL SOUTHWORTH MSH 210H

47-051-02522-00-00

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

Operator's Well Number: MICHAEL SOUTHWORTH ME Farm Name: BARRY A. & KIMBERLY S. I

Horizontal 6A New Drill

U.S. WELL NUMBER: 47-051-02522-00-00

Date Issued: 10/17/2024

Promoting a healthy environment.

API Number: 4705102522

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

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

4705102522

API NO. 47-051

OPERATOR WELL NO. Michael Southworth MSH 210H

Well Pad Name: Michael Southworth MSH Pad

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

		5	/	/
1) Well Operator: SWN Pro-	duction Co., LLC	494512924	051-Marshal 6	-Sandhi 648-Valley Grove
		Operator ID	County 1	District Quadrangle
2) Operator's Well Number: M	lichael Southworth M	SH 210H Well Pa	d Name: Michael	Southworth MSH Pad
3) Farm Name/Surface Owner	Barry A. & Kimberly S.	Litman Public Roa	nd Access: Walnu	it Grove Road
4) Elevation, current ground:	1271' EI	evation, proposed	post-construction	. 1071
5) Well Type (a) Gas x	Oil		erground Storage	, 12/1
Other		Onde	arground Storage	
(b)If Gas Sh	allow x	Deep		
Но	orizontal x			
6) Existing Pad: Yes or No Yes	es			
7) Proposed Target Formation (s), Depth(s), Antici	pated Thickness a	nd Expected Press	puro(c).
Target Formation- Marcellus, Down-Dip we	ell to the South, Target Top T	/D- 6505', Target Base TVI	D- 6557', Anticipated Thickr	ness- 52', Associated Pressure- 4263
8) Proposed Total Vertical Dep				
9) Formation at Total Vertical I	Depth: Marcellus	/		
10) Proposed Total Measured D	Depth: 19581'	<i></i>		
11) Proposed Horizontal Leg Le	ength: 9366.77'	1		
12) Approximate Fresh Water S	trata Depths:	632'		
13) Method to Determine Fresh		earby Water well	(Edith Folmer)	
(4) Approximate Saltwater Dep		Profile on BW Fo	(califi olifiar)	
5) Approximate Coal Seam De			90	
6) Approximate Depth to Possi	ble Void (coal min	e, karst, other): N	one that we are	aware of.
7) Does Proposed well location irectly overlying or adjacent to	contain coal seams		No	RECEIVED Office of Oil and Gas
(a) If Yes, provide Mine Info:	Name: Ohio C	ounty Mine		SEP 16 2024
	Depth: 734'			WV Department of
	Seam: Pittsbu	rgh		Environmental Protection
	Owner: Ohio C	ounty Coal Reso	urces/ACNR Inc.	

Strader Gower

API NO. 47-7051 0 5 1 0 2 5 2 2

OPERATOR WELL NO. Michael Southworth MSH 210H
Well Pad Name: Michael Southworth MSH Pad

18)

CASING AND TUBING PROGRAM

TYPE		NI			I -	T	
	Size (in)	New or Used	<u>Grade</u>	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#	764'	764' /	879 sx/CTS
Coal	See	Surface	Casing			701 7	0/9 \$2/013
Intermediate	9 5/8"	New	J-55	36#	2011'	2011' /	772 00/070
Production	5 1/2"	New	P-110 HP	20#	19581'		773 sx/CTS
Tubing				20#	19361	19581' /	Tail 3561sx/ 100' Inside Intermediate
Liners							

TYPE		337.111	Wall		A mtinimutu 1		I = = = = =
	Size (in)	Wellbore Diameter (in)	Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield
Conductor	20"	30"	0.25	2120	81	Class A	(cu. ft./k) 1.20/30% Excess
Fresh Water	13 3/8"	17.5"	0.330	1730	633	Class A	1.20/30% Excess
Coal	See	Surface	Casing			01033 /	1.20/30 /0 EXCESS
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					10000	Class A	1.19/10-15% Excess
Liners							

PACKERS

Kind:	RECEIVED Office of Oil and Gas
Sizes:	SEP 1 6 2024
Depths Set:	WV Department of Environmental Protection

Strader Gower
9/10/2024

OPERATOR WELL NO. Michael Southworth MSH 210H
Well Pad Name: Michael Southworth MSH Pad

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): 16.88
- 22) Area to be disturbed for well pad only, less access road (acres): 9.67
- 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 ***

RECEIVED
Office of Oil and Gas

SEP 16 2024

WV Department of Environmental Protection

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	All the second s	
INTERVAL	SCHLUMBERGER PRODUCT NAME	BJ PRODUCT NAME	NEXTIER PRODUCT NAME	PRODUCT USE	CHEMICAL NAME	CAS-Numbe
SURFACE (FRESHWATER)	$>\!\!<$	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
up to 3%	S001	A-7P	0110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
COAL PROTECTION	$>\!\!<$	INTEGRA SEAL	0600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
up to 3%	S001	A-7P	CJIIO	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
	D020	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	0047	FP 28L	> <	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
INTERMEDIATE	$>\!\!<$	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	CemNet	> <	> <	LOST CIRC MATERIAL	COATED FIBERGLASS FIBERS	PROPRIETAR
	SUGAR	SUGAR	CJ795	CMT RETARDER	SUCROSE	57-50-1
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
	><	$>\!<$	CJIII	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
	> <	55-IIW	0880	SURFACTANT	NONIONIC SURFACTANT	6540-99-4
	DO47	FP 28L	$\geq <$	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	>	$\geq \leq$	OX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
	><	$\geq \leq$	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATICAMIDE POLYMER	PROPRIETARY
	0255	$\geq \leq$	> <	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETARY
DDODUOTION			CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
PRODUCTION	$\geq <$	FL-66	0301	LOW TEMP FLUID LOSS ADD	POWDERED POLYSACCHARIDE	PROPRIETARY
		BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301	> <	VISCOSI FIER/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
	D065	\times	X	DISPERSANT	SODIUM POLYNAPHTHALENE SULFONATE	8068-51-6 RECEIVED
	D800		X	CEMENT RETARDER	SODIUM	ffice of Oil and (
				(Mid-Temperature)	LIGNOSULFONATE	SEP 16 202

Southwestern Energy Company Proposed Drilling Program Well: MICHAEL SOUTHWORTH MSH 210H **Drilling Rig:** SDC 41 Field: **PANHANDLE FIELD WET** Formation: Marcellus Shale County: MARSHALL State: Southwestern Energy SHL (NAD83): 40.012753 Latitude -80.61480162 Longitude BHL (NAD83): 39.986095 Latitude -80.593344 Longitude **KB Elev:** 1,298 ft MSL KB Height: 26 ft AGL GL Elev: 1,272 ft MSL NO COAL VOID EXPECTED 136 ' to 784 ' Air/Mist PROD TOC @ 2,011 ' MD 784 ' to 2,031 ' **TUBULAR DETAIL** Air/Mist Casing Size Weight Grade Planned Interval **Casing String** (in) (Min) (Min) From To Conductor 20 94.0# J-55 0' 136' 2,031 to 6,033 t Surface/Coal 13.375 54.4 # J-55 0' 764 Air/Mist Intermediate 9.625 36.0# J-55 0' 2,011 Production 5.5 20.0# P-110 HP 0' 19,581 **CEMENT DETAIL** Sacks Class Density Conductor 173 A 19.3 Surface 879 Α 15.6 Intermediate 773 Α 15.6 Production 3561 Α 14.5-15.0 TD at 6,033 ' KOP at 6,033 ' MD Freshwater Depth - 632 'TVD 6,033 to 7,260 t Coal Depth - 734 'TVD 12.0-12.5 ppg Saltwater Depth - 1,403 ' TVD TVD - 6,537 ' TMD - 19,581 ' TD at 19,581 'MD 6,406 ' TVD Target Center 6,537 'TVD LP at 7,260 ' MD Onondaga 6,558 'TVD 7,260 ' to 19,581 ' SHL Onondaga 6,427 'TVD Created by: Colin Kollker on 09/05/2024 12.5-13.5 ppg RECEIVED Office of Oil and Gas

SEP 16 2024

Strader Gower
9/10/2024

WW-9 (4/16)

API Number 47 - 051

Operator's Well No. Michael Southworth MSH 210H STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Co., LLC	OP Code 494512924
Watershed (HUC 10) Grandstaff Run of Wheeling Creek Quadrangle	
Do you anticipate using more than 5,000 bbls of water to complete the proposed with will a pit be used? Yes No	well work? Yes No No
If so, please describe anticipated pit waste:	
Will a synthetic liner be used in the pit? Yes No V	so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	
Land Application Underground Injection (UIC Permit Number Various A Reuse (at API Number At the next anticpiated well Off Site Disposal (Supply form WW-9 for disposal loc Other (Explain recovery and solidification on site	
Will closed loop system be used? If so, describe: Yes- See Attachment 3A	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater -If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base Additives to be used in drilling medium? Attachment 3B	r, oil based, etc. Air drill to KOP, fluid drill with SOBM from KOP to TD
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, lim	
-Landfill or offsite name/permit number? Meadowfill SWF-1032, Short Creek SWF-APEX SANITARY LANGTILL Ub-U8438, Brooke Co SWF-1013, FIMS Permittee shall provide written notice to the Office of Oil and Gas of any load of dr West Virginia solid waste facility. The notice shall be provided within 24 hours of where it was properly disposed.	353100
I certify that I understand and agree to the terms and conditions of the GE on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department o provisions of the permit are enforceable by law. Violations of any term or condit law or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am application form and all attachments thereto and that, based on my inquiry of obtaining the information, I believe that the information is true, accurate, and openalties for submitting false information, including the possibility of fine or impris	f Environmental Protection. I understand that the ion of the general permit and/or other applicable familiar with the information submitted on this f those individuals immediately responsible for the permitted.
Company Official (Typed Name) Brittany Woody	SEP 16 2024
Company Official Title Staff Regulatory Specialist	WV Department of Environmental Protection
Subscribed and sworn before me this 37 day of March My commission expires 6/33/2024	Notary Public Notary Public, State Of West Virginia Elizabeth Blankenship 941 Simpson Rur Road Weston WV 26452 My commission expires June 23, 2024

Operator's Well No. Michael Southworth MSH 210H

Proposed Revegetation Treat	ment: Acres Dist	urbed_16.88	Prevegetation p	Н
Lime _as determined by pH tes	Tons/acre or	to correct to pH 9.67		
Fertilizer type 10-2				
Fertilizer amount 60	00/500	lbs/acre		
Mulch_ Hay/Straw	/	Tons/acre		
		Seed Mixtur	<u>res</u>	
Ten	mporary		Perma	nent
Seed Type Attachment 3C	lbs/acre		Seed Type	lbs/acre
(aps(s) of road, location, pit a rovided). If water from the pit		for land application (united, include dimensions	less engineered plans includ (L x W x D) of the pit, and	ling this info have been dimensions (L x W), and area
Taps(s) of road, location, pit a rovided). If water from the pit reage, of the land application notocopied section of involve	d 7.5' topographic	e sheet.	less engineered plans includ (L x W x D) of the pit, and	ling this info have been dimensions (L x W), and area
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hotocopied section of involve	d 7.5' topographic	sheet.	less engineered plans includ (L x W x D) of the pit, and	RECEIVED Office of Oil and G

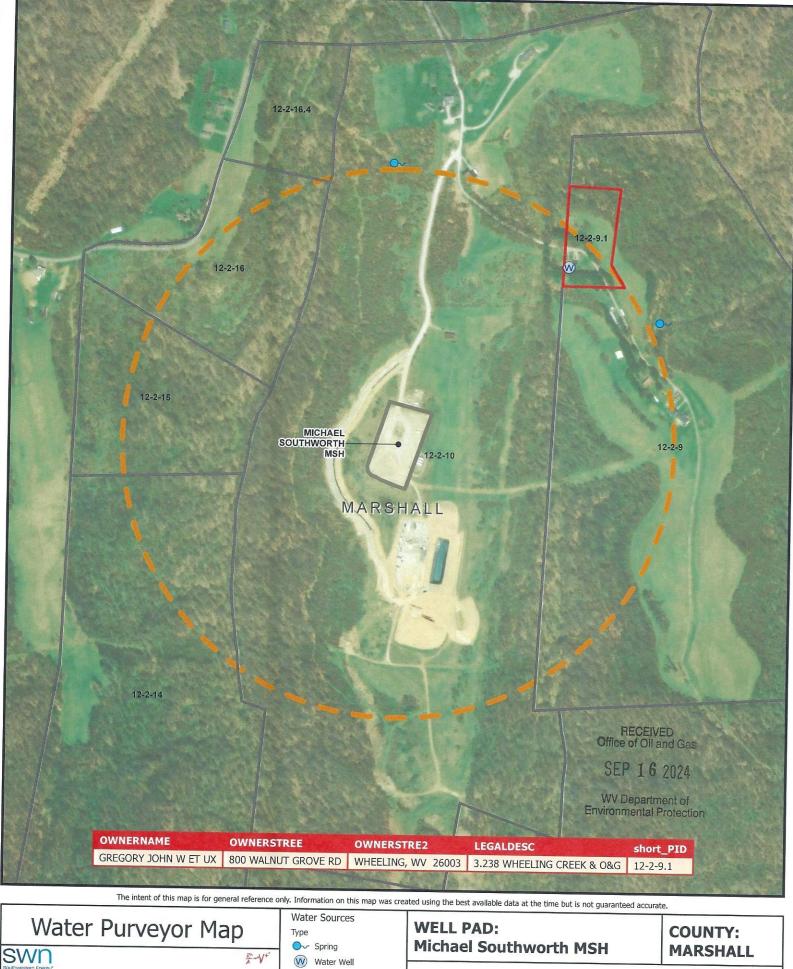
MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN 47 0 5 1 0 2 5 2 2

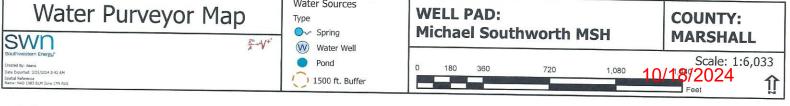


SWN Production Company, LLC 1300 Fort Pierpont Drive, Suite 201 Morgantown, West Virginia 26508

API NO. 47-XXX-XXXXX WELL NAME: Michael Southworth MSH 210H Valley Grove QUAD Sandhill DISTRICT MARSHALL COUNTY, WEST VIRGINIA

Submitted by:		
Name: Brittany Woody Suttony Woody	Date: 3/25/2024	
Title: Staff Regulatory Specialist	SWN Production Co., LLC	
Approved by:		
Name: STRADS GOWER	Date: 4/17 2024	
Title: Olld Gas Inspector		
Approved by:		
Name:	Date:	RECEIVED Office of Oil and Gas
Title:		SEP 16 2024
		WV Department of Environmental Protection
SWN PRODUCTION COMPANY, LLC -	- CONFIDENTIAI	





BOTTOM HOLE 2,805' -

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

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,429,243.772 EASTING: 532,874.344

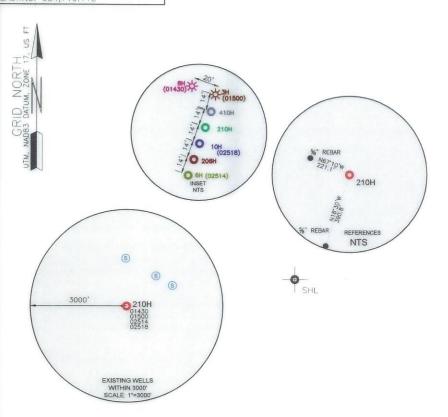
LANDING POINT (LPL):

IORTHING: 4,429,706.563 ASTING: 533,166.404

BOTTOM HOLE LOCATION (BHL): JTM (NAD83, ZONE 17, N JORTHING: 4,426,293.129 ASTING: 534,719.113

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 10'10'09" E	1692.16	SHL TO LANDMARK	5/8" REBAR FOUND
L2	N 45°06'11" E	1128.54	SHL TO LANDMARK	5/8" REBAR FOUND
L4	S 27°27'58" E	1008.10'	LPL TO AZL1	
L6	S 23"14'03" E	789.04'	AZL2 TO AZL3	
L8	S 26'59'39" E	102.11'	AZL5 TO AZL6	
L9	S 28'01'03" E	332.95'	AZL6 TO AZL7	
LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L3	N 32*15'19" E	1795.41	2788.40'	SHL TO LPL
L5	S 25°21'03" E	211.67	211.71'	AZL1 TO AZL2
L7	S 24*36'14" E	137.22'	137.23'	AZL3 TO AZL4
L10	S 24'20'40" E	367.04	367.27'	AZL7 TO AZL8

Latitude: 40°00'00'



WELL RESTRICTIONS

THERE ARE TWO COUPIED DWELLINGS > 2500 SQ FT. WITHIN 625
FEET OF CENTER OF PAD.
NO ACRICULTURE 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 300 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

1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR
BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR
TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.

2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE
PARCELS SHOWN HEREON.

4. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

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

David L Jacks P.S. 708

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

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

No. 708
**
STATE OF SOLUTION OF THE STATE OF SOLUTION OF THE STATE OF SOLUTION OF THE SOLUTION DEGREE OF ACCURACY:

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

1/200

47 API WELL #:

OPERATOR'S WELL #:

STATE

051 COUNTY

0

SCALE

IN

MICHAEL SOUTHWORTH MSH

210H

02522 PERMIT

DISTRICT: SANDHILL

WASTE DISPOSAL

PRODUCTION X

DFFP

GAS X

LIQUID INJECTION

2000

SWN

GRAPHIC

STORAGE

SHALLOW X

WATERSHED: GRANDSTAFF RUN OF WHEELING CREEK (HUC-10) COUNTY: MARSHALL

ELEVATION: 1271.0' QUADRANGLE: VALLEY GROVE, WV

ACREAGE: ±159.776

Production Company, LLC Production Company™

SURFACE OWNER: BARRY A. & KIMBERLY S. LITMAN

OIL & GAS ROYALTY OWNER: BARRY A. & KIMBERLY S. LITMAN

STATE:

REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

26508

DESIGNATED AGENT: BRITTANY WOODY

ACREAGE: ±159.776

DRILLX CONVERT

DRILL DEEPER

CLEAN OUT & REPLUG

OTHER CHANGE (SPECIFY)

PERFORATE NEW FORMATION

PLUG & ABANDON

10/18/2024

TARGET FORMATION: MARCELLUS

ESTIMATED DEPTH: 6,537 TVD 19,581 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC

ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200 WV ZIP CODE:

ADDRESS: 1300 FORT PIERPONT ROAD, SUITE 200 CITY: MORGANTOWN

STATE: WV ZIP CODE:

LEGEND:

CITY:

PROPOSED SURFACE HOLE / BOTTOM HOLE EXISTING / PRODUCING WELLHEAD

LANDING POINT LOCATION EXISTING WATER WELL EXISTING SPRING

MORGANTOWN

SURVEYED BOUNDARY - DRILLING UNIT PROPOSED PATH

REVISIONS: DATE: 09-06-2024 DRAWN BY: N. MANO SCALE: DRAWING NO:
WELL LOCATION PLAT

4 BACKUPS\1-02-24 DJ\SWN\MICHAEL SOUTHWORTH MSH\WELL PLAT\210H\FINAL\9-6-24\SOUTHWORTH MSH 210H 09-06-24.DWC SEPTEMBER 06 2024 07:45AM

PROPERTY NUMBER 2501163677 PAD ID 3001155600

5,065

HOLE

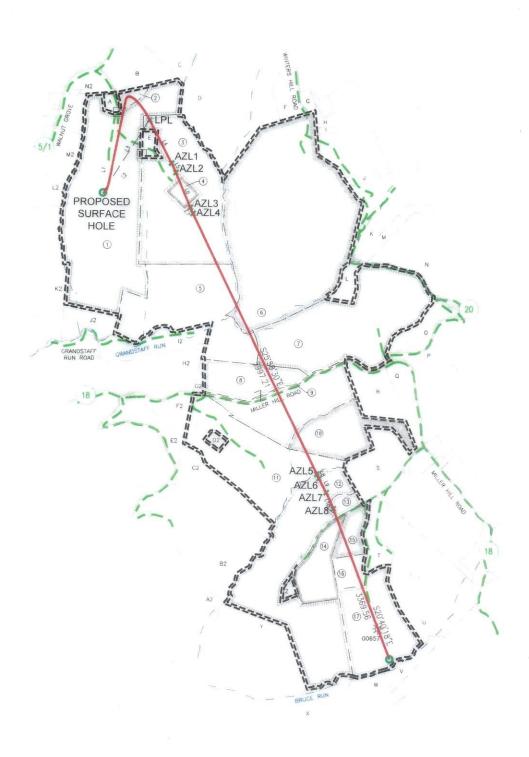
80°35'00"

2000

FFFT

JACKSON SURVEYING INC. 2413 EAST PIKE ST. # 112





David I Jack



470510210/18/2024

REVISIONS: COMPANY: SWN Production Company, LLC Production Company™ OPERATOR'S MICHAEL SOUTHWORTH MSH WELL #: 210H DRAWN BY: N. MANO SCALE: N/A DRAWING NO: WELL LOCATION PLAT DISTRICT: SANDHILL COUNTY: STATE: MARSHALL

JACKSON SURVEYING INC. 2413 EAST PIKE ST. # 112

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

ADJOINING OWNERS TABLE					
TRACT	SURFACE OWNER	TAX PARCE			
A	RADCLIFFE JOHN D & ANNA M	12-2-10.1			
В	VELLENOWETH SCOTT U ET UX	12-2-1.1			
C	BLATT THERESA L	12-2-23			
D	BAIRD FAMILY TRUST	12-2-2			
E	GREGORY JOHN W ET UX	12-2-9.1			
F	MCFARLAND DANIEL W & VICKI L	12-2-24			
G	MCFARLAND DANIEL W JR	12-2-4.1			
Н	HUNTER RODNEY J	12-3-14			
1	HUNTER MARILYN DARLENE	12-3-14.2			
J	MCFARLAND BRIAN MATTHEW	12-3-12.1			
K	GANTZER GREGORY	12-3-12			
L	PARKER PETER	12-2-6			
M	GANTZER GREGORY	12-3-11.1			
N	MCVICKER R G JR	12-3-11			
0	TOTH JOHN J SR & ALICE J REVOCABLE TRUST	12-8-11			
Р	TOTH JOHN J SR & ALICE J REVOCABLE TRUST	12-8-12			
Q	GODDARD THERESA M	12-8-9			
R	GODDARD THERESA M	12-8-8			
S	SCHULTZ CHARLES E & CLAUDIA M - TOD	12-8-6			
T	ALAMINSKI LUCINDA RUTH	12-8-31.3			
U	GRAY ZANDE C	12-8-30			
V	STORCH JOSEPH WILLIAM ET UX	12-11-7			
W	GRAY DONALD G - TOD & GRAY WYATT MATTHEW	12-11-8			
×	TEMPLE TERRY L & BEVERLY J - TOD	12-11-4			
Y	TOLAND SONDRA J & WILLIAM E	12-9-17			
Z	TOLAND DAVID ET UX	12-8-33.2			
A2	MERINAR CALVIN C - LIFE	12-9-18			
B2	MERINAR CALVIN C - LIFE	12-9-16			
C2	MERINAR CALVIN C - LIFE	12-8-34			
D2	RICHEY DUSTIN & FELICIA FRANCIS	12-8-35.1			
E2	MERINAR JAMES MARTIN ET UX	12-9-15.1			
F2	MERINAR CALVIN C - LIFE	12-9-15			
G2	TOTH JOHN J SR & ALICE - TRUST	12-8-4.1			
H2	PORTER CARLA S	12-9-13			
12	G F P CORP	12-2-7			
J2	G F P CORP	12-2-12			
К2	WV BRIGHTMONT LLC	12-2-14			
L2	EDGE WILLIAM F JR - TOD ET AL	12-2-14			
M2	EDGE WILLIAM F JR - TOD ET AL	12-2-16			
N2	LITMAN JAMES M & LUCY A	12-2-16.1			

	WELL BORE TRACTS	
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	LITMAN BARRY A & KIMBERLY S (S)	12-2-10
TRACT	SURFACE OWNER (S)	TAX PARCEL
2	LITMAN BARRY A (S)	12-2-10.2
3	REINEKE RICHARD S (S)	12-2-9
4	REINEKE RICHARD S (S)	12-2-9.2
5	TDL&G LLC (S)	12-2-8
6	TUBAUGH NORMA HUNTER ET AL (S)	12-2-5
7	TOTH JOHN J SR & ALICE J REVOCABLE TRUST (S)	12-8-1
8	TOTH JOHN J SR & ALICE - TRUST (S)	12-8-4
9	W VA DEPT OF HIGHWAYS (S)	MILLER HILL RO
10	CORNELL SALLY SEIBERT & ROBERT (S)	12-8-5
11	RICHEY RANDY ET UX (S)	12-8-35
12	TO LAND WILLIAM EUGENE ET AL (S)	12-8-33
13	TOLAND CARRIE M (S)	12-8-33.1
14	TOLAND MARGARET (S)	12-8-32
15	JOHNSON LONI M & JAMES A (S)	12-8-31.1
16	WINTERS BEVERLY DIANE (S)	12-8-31.2
17	WINTERS BEVERLY DIANE (S)	12-11-6

*Highlighted Parcels may be impacted during drilling.

COMPANY: REVISIONS: SWN Production Company™ Production Company, LLC DATE: 09-06-2024 OPERATOR'S MICHAEL SOUTHWORTH MSH WELL #: 210H DRAWN BY: N. MANO SCALE: N/A DRAWING NO: WELL LOCATION PLAT DISTRICT: STATE: COUNTY: SANDHILL MARSHALL

Operator's Well No. MICHAEL SOUTHWORTH MSH 210H

WW-6A1 (5/13)

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"

*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

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WV Department of

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:

Andrew M. Smith

July M. Sritt

Its: Landman

Page 1 of

EXHIBIT "A" Michael Southworth MSH 210H Marshall County, West Virginia

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

Tract #	Tax Parcel	Lease Number	Lessor	Lessee	Royalty	Book/Page	% Interest
1	12-2-10	728963/005	Salvation Army	Chesapeake Appalachia, L.L.C.	18.00%	723/10	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		27/166	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		725102/001	Robert B. Elliott, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	12.50%	676/179	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		728963/001	Mable L. Riggle, a widow	Chesapeake Appalachia, L.L.C.	18.00%	722/602	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		25/582	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		728963/003	Gregory Williams, single man	Chesapeake Appalachia, L.L.C.	18.00%	723/376	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		27/166	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		728963/002	Elm Grove United Methodist Church	Chesapeake Appalachia, L.L.C.	18.00%	722/606	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		27/166	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	

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EXHIBIT "A" Michael Southworth MSH 210H Marshall County, West Virginia

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

				, v. v. o, 12, by 50010 110	duction compai	ly, LLC, Operator	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		728963/004	Dolores E. Williams, divorced and not remarried	Chesapeake Appalachia, L.L.C.	18.00%	723/382	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		27/166	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
/2	12-2-10.2	728963/005	Salvation Army	Chesapeake Appalachia, L.L.C.	18.00%	723/10	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.	20.0070	27/166	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		725102/001	Robert B. Elliott, a married man dealing in his sole and separate property	Chesapeake Appalachia, L.L.C.	12.50%	676/179	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		728963/001	Mable L. Riggle, a widow	Chesapeake Appalachia, L.L.C.	18.00%	722/602	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		25/582	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		728963/003	Gregory Williams, single man	Chesapeake Appalachia, L.L.C.	18.00%	723/376	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		27/166	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
							- 1

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Michael Southworth MSH 210H Marshall County, West Virginia

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			, , , , , , , , , , , , , , , , , , , ,	action compan	y, LLC, Operator	
	728963/002	Elm Grove United Methodist Church	Chesapeake Appalachia, L.L.C.	18.00%	722/606	0.00%
		Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		27/166	
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
	728963/004	Dolores E. Williams, divorced and not remarried	Chesapeake Appalachia, L.L.C.	18.00%	723/382	0.00%
		Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		27/166	
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
12-2-9	724960/000	Richard S. Reineke and Charlene R. Reineke, his wife	Chesapeake Appalachia, L.L.C.	18.00%	676/341	0.00%
		Chesapeake Appalachia, L.L.C.	Statoilhydro USA Onshore Properties		21/565	0.00%
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
12-2-9.2	724960/000	Richard S. Reineke and Charlene R. Reineke, his wife	Chesapeake Appalachia, L.L.C.	12.50%	676/341	0.00%
		Chesapeake Appalachia, L.L.C.	Statoilhydro USA Onshore Properties		21/565	
		Chesapeake Appalachia, L.L.C.	Inc. SWN Production Company, LLC		33/110	
		Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		728963/004 12-2-9 724960/000 12-2-9.2 724960/000	T28963/002 Elm Grove United Methodist Church Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. T28963/004 Dolores E. Williams, divorced and not remarried Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. 12-2-9 T24960/000 Richard S. Reineke and Charlene R. Reineke, his wife Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. 12-2-9.2 724960/000 Richard S. Reineke and Charlene R. Reineke, his wife Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc.	728963/002 Elm Grove United Methodist Church Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. 728963/004 Dolores E. Williams, divorced and not remarried Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. 728963/004 Dolores E. Williams, divorced and not remarried Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. SWN Production Company, LLC 12-2-9 724960/000 Richard S. Reineke and Charlene R. Reineke, his wife Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. Statoilhydro USA Onshore Properties Inc. SWN Production Company, LLC Chesapeake Appalachia, L.L.C. Statoilhydro USA Onshore Properties Inc. SWN Production Company, LLC	T28963/002 Elm Grove United Methodist Church Chesapeake Appalachia, L.L.C. Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. T28963/004 Dolores E. Williams, divorced and not remarried Chesapeake Appalachia, L.L.C. Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC	Chesapeake Appalachia, LL.C. Chesapeake Appalachia, LL.C. Statoil USA Onshore Properties Inc. 728963/004 Dolores E. Williams, divorced and not remarried Chesapeake Appalachia, LL.C. Statoil USA Onshore Properties Inc. 728963/004 Dolores E. Williams, divorced and not remarried Chesapeake Appalachia, LL.C. Statoil USA Onshore Properties Inc. Chesapeake Appalachia, LL.C. Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC Statoilly Statoil USA Onshore Properties Inc. SWN Production Company, LLC SWN Production Company, LL

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EXHIBIT "A" Michael Southworth MSH 210H Marshall County, West Virginia

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

Æ	12.2.0	720105/05-		A20 15 90			J1
/3	12-2-8	730186/000	John W. Gregory and Donna R. Gregory, his wife	Great Lakes Energy Partners, L.L.C.	12.50%	653/367	0.00%
			Great Lakes Energy Partners, L.L.C.	Range Resources - Appalachia, LLC		19/443	
			Range Resources - Appalachia, LLC	Chesapeake Appalachia, L.L.C.		23/368	
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		24/363	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
/6	12-2-5	724871/000	Norma Tubaugh, wife, Dawnisa Tubaugh, daughter, Clarence W. Tubaugh, son, and Gary W. Glessner, grandson	Chesapeake Appalachia, L.L.C.	12.50%	673/538	0.00%
		Chesapeake Appalachia, L.L.C.	Statoilhydro USA Onshore Properties		675/279		
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
,			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
7	12-8-1	Pending	Sandhill Land Ventures, LP	SWN Production Company, LLC	18.00%	1178/52	0.00%
/ 8	12-8-4	727778/000	John Joseph Toth, Sr., a/k/a John J. Toth Sr. and Alice Joann Toth, husband and wife	Chesapeake Appalachia, L.L.C.	18.75%	710/390	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
-19	Miller Hill Road	747371/000	West Virginia Department of Transportation, Division of Highways	SWN Production Company, LLC	20.00%	955/69	0.00%
10	12-8-5	732584/000	Sally Seibert Cornell and Robert Cornell, her husband	NPAR, LLC	18.75%	700/464	0.00%
			NPAR, LLC	Chesapeake Appalachia, L.L.C. and Statoil USA Onshore Properties Inc.		25/637	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
and the second			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	

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EXHIBIT "A"

Michael Southworth MSH 210H

Marshall County, West Virginia

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/11 732585/000 Larry R. Richey, also known as Randy Richey, and Helen E. Richey, TriEnergy Holdings, LLC 12-8-35 14.00% his wife 691/90 0.00% TriEnergy Holdings, LLC NPAR, LLC 23/74 NPAR, LLC Chesapeake Appalachia, L.L.C. 25/637 Chesapeake Appalachia, L.L.C. SWN Production Company, LLC 33/110 12 12-8-33 Pending Linda K. Canann, a widow TH Exploration, LLC 15.00% 1129/413 0.00% TH Exploration, LLC SWN Production Company, LLC 51/595 Pending David E. Toland, Jr., a single man TH Exploration, LLC 15.00% 1137/653 0.00% TH Exploration, LLC SWN Production Company, LLC 51/595 748871/004 Bonnie Dougherty, a single woman SWN Production Company, LLC 18.00% 1025/187 0.00% Brenda Midcap F/K/A Brenda Cain, a married woman dealing in SWN Production Company, LLC 18.00% 1035/497 her sole and separate property 0.00% 748871/006 Carrie Margaret Toland, a widow SWN Production Company, LLC 18.00% 1029/97 0.00% 748871/005 Charles Seamon, a married man dealing in his sole and separate SWN Production Company, LLC 18.00% 1025/641 0.00% Pending Darla Kroes, married, dealing in her separate property SWN Production Company, LLC 18.00% 1165/590 0.00% 748871/008 Donald J. Toland, a married man dealing in his sole and separate SWN Production Company, LLC 18.00% 1073/38 property 0.00% 748871/003 Edith Debolt, a married woman dealing in her sole and separate SWN Production Company, LLC 18.00% 1024/506 property 0.00% Pending Family Tree Corporation SWN Production Company, LLC 18.00% 1177/87 0.00% Pending Master Mineral Holdings I, LP, a Texas Limited Partnership SWN Production Company, LLC 18.00% 1188/166 0.00% 748871/002 Paul Dougherty, a single man SWN Production Company, LLC 18.00% 1024/501 0.00% 733623/001 Ronald Toland, a single man AB Resources LLC 16.00% 764/621 0.00%

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EXHIBIT "A"

Michael Southworth MSH 210H Marshall County, West Virginia

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	4.5.5				
	AB Resources LLC	Chevron U.S.A., Inc.		29/277	
	Chevron U.S.A., Inc.	Statoil USA Onshore Properties Inc.		30/494	
	Chevron U.S.A., Inc.	Chesapeake Appalachia, L.L.C.		30/532	
*0	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
E-1077799401	Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
Pending	Sandra Ferry	SWN Production Company, LLC	18.00%	1165/595	0.000
Pending	Sandy Diane Maddox and Randall Maddox, wife and husband	SWN Production Company, LLC	18.00%	1165/585	0.00%
748871/001	Time, bodgierty, a single woman	SWN Production Company, LLC	18.00%	1024/511	0.00%
Pending	The Jeff Toland Trust, U/A dated November 21, 2022	SWN Production Company, LLC	18.00%	45.444 FS-5 S-644-190-000	0.00%
733624/001	Linda Jako and John Jako, her husband	AB Resources LLC	16.00%	1166/280	0.00%
	AB Resources LLC	Chevron U.S.A., Inc.	10.00%	764/625	0.00%
	Chevron U.S.A., Inc.	Statoil USA Onshore Properties Inc.		29/277	
	Chevron U.S.A., Inc.	Chesapeake Appalachia, L.L.C.		30/494	
	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		30/532	
	Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/110	
733612/001	Joseph C. Pierce, Jr., and Marie A. Pierce, his wife	Chevron U.S.A., Inc.	16.00%	33/424	
	Chevron U.S.A., Inc.	Statoil USA Onshore Properties Inc.	10.00%	780/262	0.00%
	Chevron U.S.A., Inc.	Chesapeake Appalachia, L.L.C.		30/494	
	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		30/532	
	Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/110	
733608/001	Carrie Margaret Toland, a widow	Chevron U.S.A., Inc.	16.000/	33/424	
	Chevron U.S.A., Inc.	Statoil USA Onshore Properties Inc.	16.00%	781/490	0.00%
	Chevron U.S.A., Inc.	Chesapeake Appalachia, L.L.C.		30/494	
	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		30/532	
	Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/110	
733618/001	William E. Toland and Sondra J. Toland, his wife	Chevron U.S.A., Inc.	15 000/	33/424	
	Chevron U.S.A., Inc.	Statoil USA Onshore Properties Inc.	16.00%	787/237	0.00%
	Chevron U.S.A., Inc.	Chesapeake Appalachia, L.L.C.		30/494	
	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		30/532	
	Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/110	
		30010 Froduction Company, LLC		33/424	

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SEP 16 2024

EXHIBIT "A" Michael Southworth MSH 210H Marshall County, West Virginia

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

13	12-0-33.1	733730/000	g v ana, a widow	Chevron U.S.A., Inc.	16.00%	781/495	0.00
			Chevron U.S.A., Inc.	Statoil USA Onshore Properties Inc.	20.0070	30/494	0.00
			Chevron U.S.A., Inc.	Chesapeake Appalachia, L.L.C.			
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		30/532	
_			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/110	
14	12-8-32	751318/004	Todd Taylor, Single	American Petroleum Partners		33/424	
			American Petroleum Partners Operating, LLC	Operating, LLC SWN Production Company, LLC		1053/504 48/263	0.00
		Pending	Tammi Adams	SWN Production Company, LLC			15903600000
		Pending	Lori Taylor Slane, f/k/a, Lori Albers, married, dealing in her	SWN Production Company, LLC		1168/282	0.00
		5	separate property	ormany, ELC		1168/276	0.00
		Pending	Edward Taylor	SWN Production Company, LLC		1168/613	0.00
		751318/005	Master Mineral Holding I, L.P., a Texas Limited Partnership	American Petroleum Partners		18-17-51-188	0.00
	American B.V. I	Operating, LLC		912/109	0.00		
		751319/001	American Petroleum Partners Operating, LLC	SWN Production Company, LLC		51/321	
		751318/001	Darrell D. Taylor and Beverly Sue Taylor, husband and wife	American Petroleum Partners Operating, LLC		926/121	0.00
		751318/003	American Petroleum Partners Operating, LLC	SWN Production Company, LLC		48/263	
		751318/002	George Daniel Taylor and Suzette L. Taylor, husband and wife	American Petroleum Partners		927/327	0.009
			American Petroleum Partners Operating, LLC	Operating, LLC		52.7527	0.00
				SWN Production Company, LLC		48/263	
		731310/003	Georganne L. Taylor, a widow	American Petroleum Partners		927/343	0.009
			American Petroleum Partners Operating, LLC	Operating, LLC			
			James Randall Taylor, Jr., a married man dealing in his sole and	SWN Production Company, LLC		48/263	
			separate property	American Petroleum Partners		976/495	0.00%
			American Petroleum Partners Operating, LLC	Operating, LLC SWN Production Company, LLC			
			Milissa Taylor, single	American Petroleum Partners		48/263	
				Operating, LLC		978/612	0.00%
4-			American Petroleum Partners Operating, LLC	SWN Production Company, LLC		48/263	
15	12-8-31.1		Shelley Klamut f/k/a Shelley Edge and f/k/a Shelly Edge and Nicholas P. Klamut, her husband	SWN Production Company, LLC	18.00%	875/469	0.00%
16	12-8-31.2		Beverly Diane Winters	American Petroleum Partners	10.000/	0.10/2-	
				Operating, LLC	18.00%	910/27	0.00%
			American Petroleum Partners Operating, LLC			48/381	

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EXHIBIT "A" Michael Southworth MSH 210H Marshall County, West Virginia

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

/17	12-11-6	750019/000	Beverly Diane Winters	American Petroleum Partners	18.00%	910/27	0.00%
		American Petroleum Partners Operating, LLC	Operating, LLC SWN Production Company, LLC		48/381	3.00%	
			John W. Gregory & Donna R. Gregory, his wife	Chesapeake Appalachia, L.L.C.	16.00%	695/327	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		23/479	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	

*Potentially Impacted Parcel - Parcel that may be impacted during drilling

End of Exhibit "A"

Office of Oil and Gas

SEP 16 2024

SWN Production Company, LLC 1300 Fort Pierpont Dr, Ste 201 Morgantown, WV 26508



September 9, 2024

Tel: 304 884 1610 Fax: 304 471 2497 www.swn.com

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

RE: SWN's proposed New Well: Michael Southworth MSH 210H in Marshall County, West Virginia, Drilling under Walnut Grove Road, and Miller Hill 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 Walnut Grove Road, and Miller Hill 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,

Andrew M. Smith, RPL

Landman

SWN Production Company, LLC

Anha M. Suits

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SEP 16 2024

Horizontal Natural Gas Well Work Permit Application Notice By Publication

Notice	is	hereby	given	
			PI A CII	

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: Moundsville Daily Echo			
Public Notice Date: March 24, 2024 & April	4, 2024		
The following applicant intends to apply for a surface excluding pipelines, gathering lines are any thirty day period.	a horizontal na nd roads or uti	atural well wor	k permit which disturbs three acres or more on the nation two hundred ten thousand gallons of water in
Applicant: SWN Production Company, LLC		Well Nun	nber: Michael Southworth MSH 210H
Address: 1300 Fort Pierpont Dr., Suite 201			
Morgantown, WV 26508			
Business Conducted: Natural gas production	n.		
Location –			
State: West Virginia		County:	Marshall
Control of the second	4.420.044	Quadrangle:	Valley Grove
Watershed: Grandstaff Run of Wheeling	_10000000000000000000000000000000000000		
Applicant: SWN Production Company, LLC Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Business Conducted: Natural gas production Location — State: West Virginia District: Sandhill UTM Coordinate NAD83 Northing: UTM coordinate NAD83 Easting:	n. 4,429,244 532,874	Well Nun	nber: Michael Southworth MSH 210H

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to <u>DEP.comments@wv.gov</u>.

Submitting Comments:

Comments may be submitted online at https://apps.dep.wv.gov/oog/comments/comments.cfm, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well members and operator when using this option.

Office of Oil and Gas

Regardless of format for comment submissions, they must be received no later than thirty days after the permit 16 2024 application is received by the Office of Oil and Gas.

WV Department of Environmental Protection

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

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

Date of Notic	ce Certification:	API No. 47- 051	
	111		No. Michael Southworth MSH 210H
			Michael Southworth MSH Pad
Notice has b	oeen given:	:	
Pursuant to the below for the		§ 22-6A, the Operator has provided the required p	parties with the Notice Forms liste
State: County:	West Virginia	UTM NAD 83 Easting: 532,87	4.344
District:	051-Marshall Sandhill	Northing: 4,429,2	43.772
Quadrangle:	Valley Grove	Public Road Access: Walnut	Grove Road
Watershed:	Grandstaff Run of Wheeling Creek	Generally used farm name: Michae	Southworth MSH
area and a second	Crandstan Run of Wheeling Creek		
it has provided information red of giving the strequirements of Virginia Code	d the owners of the surface descriquired by subsections (b) and (c), so surface owner notice of entry to supply subsection (b), section sixteen of	every permit application filed under this section shall contain the following information: (14) A cerbed in subdivisions (1), (2) and (4), subsection ection sixteen of this article; (ii) that the requirementary pursuant to subsection (a), section ten of the first article were waived in writing by the surface proof of and certify to the secretary that the fit.	tification from the operator that (1) (b), section ten of this article, the ent was deemed satisfied as a result article six-a; or (iii) the notic
Pursuant to W that the Opera	Vest Virginia Code § 22-6A, the Optotor has properly served the require	perator has attached proof to this Notice Certificated parties with the following:	ion
*PLEASE CHEC	CK ALL THAT APPLY		OOG OFFICE USE ONLY
	CE OF SEISMIC ACTIVITY or	NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	NOT REQUIRED
2. NOTI	CE OF ENTRY FOR PLAT SURV	EY or NO PLAT SURVEY WAS CONDUC	TED RECEIVED
3. NOTI	CE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or	☐ RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY SURFACE OWN (PLEASE ATTACH)	NER
4. NOTIO	CE OF PLANNED OPERATION	DECEMENT	☐ RECEIVED
5. PUBL	IC NOTICE	RECEIVED Office of Oil and (LI RECEIVED
■ 6. NOTIC	CE OF APPLICATION	SEP 16 202 W Department	24 RECEIVED
		Environmental Prote	ction

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.

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:

SWN Production Co., LLC

By:

Brittany Woody

Its:

Staff Regulatory

Telephone:

304-884-1610

Address:

1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Facsimile:

304-884-1690

Email:

Brittany Woody@swn.com

NOTARY SEXT.

Official Seal

Notary Public, State Of West Virginia

Elizabeth Blankenship

941 Simpson Run Road

Weston WV 26452

My commission expires June 23, 2024

Subscribed and sworn before me this

Notary Public

day of Marc

My Commission Expires

Oil and Gas Privacy Notice:

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

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SEP 16 2024

WW-6A (9-13) 47 0 5 1 0 2 5 2 2 API NO. 47-051

OPERATOR WELL NO. Michael Southworth MSH 210H
Well Pad Name: Michael Southworth MSH Pad

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

Noti	ice Time Requirement: notice shall be provided no la	ater than the filing date of normit and the
Date	e of Notice: Date Permit Application File	
V	PERMIT FOR ANY WELL WORK CONSTRUCTION	OF APPROVAL FOR THE N OF AN IMPOUNDMENT OR PIT
Deliv	very method pursuant to West Virginia Code § 22-	6A-10(b)
	PERSONAL Z REGISTERED NAIL MAIL	METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION
sedim the su oil an descri operat more well w impour have a provid propos subsecrecord provis: Code I	tent control plan required by section seven of this article by face of the tract on which the well is or is proposed to be digas leasehold being developed by the proposed well whole in the erosion and sediment control plan submitted plator or lessee, in the event the tract of land on which the vector or lessee, in the event the tract of the surface tract work, if the surface tract is to be used for the placement, andment or pit as described in section nine of this article water well, spring or water supply source located within the water for consumption by humans or domestic animal sed well work activity is to take place. (c)(1) If more than the control of this section hold interests in the lands, the apply so of the sheriff required to be maintained pursuant to section of this article to the contrary notice to a line holder.	and the application, the applicant for a permit for any well work or for a stor pit as required by this article shall deliver, by personal service or by ceipt or signature confirmation, copies of the application, the erosion and and the well plat to each of the following persons: (1) The owners of record of the located; (2) The owners of record of the surface tract or tracts overlying the ork, if the surface tract is to be used for roads or other land disturbance as pursuant to subsection (c), section seven of this article; (3) The coal owner, well proposed to be drilled is located [sic] is known to be underlain by one or cor tracts overlying the oil and gas leasehold being developed by the proposed construction, enlargement, alteration, repair, removal or abandonment of any (5) Any surface owner or water purveyor who is known to the applicant to an one thousand five hundred feet of the center of the well pad which is used to so, and (6) The operator of any natural gas storage field within which the in three tenants in common or other co-owners of interests described in plicant may serve the documents required upon the person described in the ation eight, article one, chapter eleven-a of this code. (2) Notwithstanding any is not notice to a landowner, unless the lien holder is the landowner. W. Va. also provide the Well Site Safety Plan ("WSSP") to the surface owner and any string as provided in section 15 of this rule.
	plication Notice WSSP Notice E&S Plan No	
SUR	RFACE OWNER(s)	☐ COAL OWNER OR LESSEE
	Barry A. Litman & Kimberly S. Litman	Name: ACNR inc
	SS: 202 Elliots Lane	Address: 46226 National Road
	ı, WV 26003	St. Clairsville, OH 43950
Vame:		RECEIVED
Addres	SS:	Description of Ollege 10
		Name: Since of Oil and Gas
SUR	FACE OWNER(s) (Road and/or Other Disturbance)	Address: SEP 16 2024
lame:	V 11 DESCRIPTION V	EIGHDEACE OWNED OF WATER AND
ddres	S:	SURFACE OWNER OF WATER WELL WV Department of
		AND/OR WATER PURVEYOR(s) Name: See Attachment 13A Environmental Protection
lame:	AND STATE OF	
ddres	S:	Address:
SURI ame:	FACE OWNER(s) (Impoundments or Pits)	OPERATOR OF ANY NATURAL GAS STORAGE FIELD Name: Address:
adress	5:	*Please attach additional forms if necessary

OPERATOR WELL NO. Michael Southworth MSH 210H

Well Pad Name: Michael Southworth MSH Pad

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

SEP 16 2024

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 was provided 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)

API NO. 47-

OPERATOR WELL NO. Michael Southworth MSH 210H

Well Pad Name: Michael Southworth MSH Pad

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

RECEIVED Office of Oil and Gas

SEP 16 2024

WV Department of Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to **Environmental Protection**

10/18/2024

WW-6A (8-13) API NO. 47-651 5 1 0 2 5 2 OPERATOR WELL NO. Michael Southworth MSH 210H Well Pad Name: Michael Southworth MSH Pad

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.

RECEIVED
Office of Oil and Gas

SEP 16 2024

WW-6A (8-13)

OPERATOR WELL NO. Michael Southworth MSH 210H Well Pad Name: Michael Southworth MSH Pad

Notice is hereby given by:

Well Operator: SWN Production Co., LLC

Telephone: 304-884-1610

Email: Brittany_Woody@swn.com

Address: 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Facsimile: 304-884-1690

Oil and Gas Privacy Notice:

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

The Property of the Property

Official Seal Notary Public, State Of West Virginia
Elizabeth Blankenship
941 Simpson Run Road
Weston WV 26452
My commission expires June 23, 2024 Notary Public, State Of West Virginia

Subscribed and sworn before me this

day of March 202

Notary Public

My Commission Expires

RECEIVED Office of Oil and Gas

SEP 16 2024

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

entry	e Requirement:	Notice shall be prov	ided at least s	SEVEN (7)	days but no more th	an FORTY-	FIVE (45) days prior to	
Date of Not		Date of Plan						
Delivery me	ethod pursuant	to West Virginia Co	de § 22-6A-	10a				
☐ PERSO	NAL	REGISTERED	П мет	HOD OE DI	CI IVEDV THAT D	FOLUBBO		
SERVI		MAIL	DECI	TIOD OF DE	ELIVERY THAT R	EQUIRES A	L .	
ъ .					GNATURE CONFI			
but no more beneath such owner of min and Sedimen Secretary, when able the su	than forty-five don't ract that has file that has file that has file that the control Manual hich statement shurface owner to o	ays prior to such entred a declaration purs g such tract in the could and the statutes and all include contact in the tating btain copies from the	ry to: (1) The uant to section that tax record rules related	surface own on thirty-six, rds. The noti	article. Such notice her of such tract; (2) article six, chapter ice shall include a si	to any owner twenty-two contacts that	de notice of planned entry vided at least seven days er or lessee of coal seams of this code; and (3) any copies of the state Erosion hay be obtained from the ecretary's web site, to	
Notice is her	eby provided to	:						
■ SURFA	CE OWNER(s)			■ co/	AL OWNED OF TH	EGGEE		
Name: James				COAL OWNER OR LESSEE Name: ACNR Inc				
Address: 122	4 Walnut Grove Road				46226 National Road			
Wheeling, WV 260				St. Clairsville				
Name:					, 011 10000			
Address:				■ MIN	ERAL OWNER(s)			
					obert B . Elliott			
Name:				and States of Children and a second	1081 West Alexander Roa	ıd		
Address:				Valley Grove				
				*please atta	ch additional forms if ne	cessary		
Notice is he Pursuant to W a plat survey State:	reby given: Vest Virginia Cocon the tract of lan West Virginia	de § 22-6A-10(a), no and as follows:				l operator is	planning entry to conduct	
County:	Marshall		-	Approx. Latit	tude & Longitude:	40.019920, -80	615190	
District:	Sandhill		-	Public Road	Access:	Walnut Grove		
Quadrangle:	Valley Grove			Watershed:	1.0	Grandstaff Run	of Wheeling Creek	
	, 0.0.0			senerally use	ed farm name:	Michael Southw	orth MSH	
Charleston, W obtained from	V 25304 (304-9) the Secretary by		Sarunent of E	invironmenta	il Protection headqu		ploration and production ed at 601 57 th Street, SE, zontal drilling may be RECEIVED Office of Oil and Gas	
Well Operator	eby given by:	0.020		8.22				
Telephone:		ON COMPANY, LLC		Address:	1300 Fort Pierpont Dr., S	Suite 201	SEP 16 2024	
Email:	304-884-1610 Brittany_Woody@s	wn com		Faccion !1.	Morgantown, WV 26508		WV Department of	
necession and the second	Ermany_vvoody@s	WII.COITI		Facsimile:	304-884-1690		Environmental Protection	
Oil and Cas	Drive ov Notice							

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.

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

entry	e Requirement: Notice s	hall be provided at least	t SEVEN (7)	lays but no more th	an FORTY-	FIVE (45) days prior to
		Date of Planned Entry				
Delivery me	thod pursuant to West	Virginia Code § 22-6A	-10a			
☐ PERSO	NAL REGIS	TERED ME	THOD OF D			
SERVI			THOD OF DE	ELIVERY THAT R	EQUIRES A	
	111111111111111111111111111111111111111			NATURE CONFI		
but no more beneath such owner of mir and Sedimen Secretary, wh	than forty-five days prior tract that has filed a decl	to such entry to: (1) The laration pursuant to sect act in the county tax records statutes and rules related de contact information.	e surface own ion thirty-six, ords. The noti	er of such tract; (2) article six, chapter ce shall include a st	shall be prove to any owned twenty-two of tatement that	r or lessee of coal seams of this code; and (3) any copies of the state Erosion
Notice is her	eby provided to:					
☐ SURFAC	CE OWNER(s)			L OWNER OR LE	CCCE	
Name:	88.99					
			Address:			
			■ MIN	ERAL OWNER(s)		
			Name: M	Able L. Riggle		
Address:			Address: Cameron, W	1284 Dry Ridge Road		
			ouricion, vvi	ch additional forms if ne		
Notice is her Pursuant to W a plat survey of State: County: District: Quadrangle:	est Virginia Code § 22-6 on the tract of land as foll West Virginia Marshall Sandhill	ows.	Approx. Latit Public Road A Watershed:	ude & Longitude:	40.019920, -80.6 Walnut Grove	of Wheeling Creek
Charleston, W obtained from	state Erosion and Sedime ed from the Secretary, at V 25304 (304-926-0450 the Secretary by visiting eby given by:	nt Control Manual and the WV Department of). Copies of such docur www.dep.wv.gov/oil-ar	nents or addit	i Protection headquional information re lefault.aspx.	earters, locate	at 601 57 th Street, SE, zontal drilling may be RECEIVED Office of Oil and Gas
Email:	Brittany_Woody@swn.com		Facsimile:	Morgantown, WV 26508		SEP 16 2024
	Privacy Notice:		raconnue:	304-884-1690		WV Department of Environmental Protection

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.

Operator Well No. Michael Southworth MSH

4705102522

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 providentry	d at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to
Date of Notice: 3/1/2024 Date of Plann	
Delivery method pursuant to West Virginia Cod	§ 22-6A-10a
☐ PERSONAL ■ REGISTERED	\square METHOD OF DELIVERY THAT REQUIRES A
SERVICE MAIL	RECEIPT OR SIGNATURE CONFIRMATION
but no more than forty-five days prior to such entry beneath such tract that has filed a declaration pursua owner of minerals underlying such tract in the coun and Sediment Control Manual and the statutes and r Secretary, which statement shall include contact infenable the surface owner to obtain copies from the s	to filing a permit application, the operator shall provide notice of planned entry quired pursuant to this article. Such notice shall be provided at least seven days of (1) The surface owner of such tract; (2) to any owner or lessee of coal seams at to section thirty-six, article six, chapter twenty-two of this code; and (3) any of tax records. The notice shall include a statement that copies of the state Erosic les related to oil and gas exploration and production may be obtained from the rimation, including the address for a web page on the Secretary's web site, to cretary.
Notice is hereby provided to:	
\square SURFACE OWNER(s)	☐ COAL OWNER OR LESSEE
Name:	
Address:	Name:Address:
Name:	
Address:	■ MINERAL OWNER(s)
	Name: Pikewood Energy Corporation
Name:Address:	Address: 4000 Combs Farm Drive
	Worgantown VVV 26508
	*please attach additional forms if necessary
State: Wood Vieninia	is hereby given that the undersigned well operator is planning entry to conduct
County: Marshall District: Sandhill	Approx. Latitude & Longitude: 40.019920, -80.615190
District: Sandhill Ouadrangle: Valley Grove	Public Road Access: Walnut Grove Watershed: Grandstaff Pun of Maceline Coult
Quadrangle: Valley Grove	Watershed: Grandstaff Run of Wheeling Creek Generally used farm name: Michael Southworth MSH
Copies of the state Erosion and Sediment Control Ma may be obtained from the Secretary, at the WV Dena	ual and the statutes and rules related to oil and gas exploration and production ment of Environmental Protection headquarters, located at 601 57 th Street, SE, ch documents or additional information related to horizontal drilling may be ov/oil-and-gas/pages/default aspx
Notice is hereby given by:	RECEIVED Office of Oil and Gas
Well Operator: SWN PRODUCTION COMPANY, LLC	
Telephone: 304-884-1610	
Email: Brittany_Woody@swn.com	Facsimile: 304-884-1690 Furious of Fundament of
Oil and Gas Privacy Notice:	Environmental Protection

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.

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

Notice Time entry	Requirement:	Notice shall be prov	rided at least SEV	EN (7)	days but no more th	an FORTY-J	FIVE (45) days	prior to
		Date of Plan						. 155
Delivery met	thod pursuant	to West Virginia Co	ode § 22-6A-10a					
☐ PERSON		REGISTERED	☐ METHOD	OF DE	ELIVERY THAT R	EOUIRES A		
SERVIC	Œ	MAIL	RECEIPT	OR SIG	NATURE CONFI	RMATION		
but no more the beneath such to owner of mine and Sediment Secretary, while enable the surr	han forty-five d tract that has fil erals underlying Control Manua ich statement sh face owner to o	ode § 22-6A-10(a), P duct any plat surveys ays prior to such enti- ed a declaration purs g such tract in the cou- all and the statutes and hall include contact in btain copies from the	ry to: (1) The surfictions to section this lanty tax records. If the section the section that the section is the section included the s	ace own irty-six, The notic	er of such tract; (2) article six, chapter ce shall include a st	shall be prove to any owner twenty-two of catement that	ided at least sever or lessee of coafthis code; and copies of the sta	ten days al seams (3) any ate Erosion
	eby provided to):						
☐ SURFAC				☐ COA	L OWNER OR LE	ESSEE		
Name:			N	lame:				
Address:			. A	ddress:				
Name:			and the second s					
Address:				MIN	ERAL OWNER(s)			
			N	ame Gre	egory Williams			
Name:			A	ddress:	egory Williams 11317 Simpson Ave			
Address:			Mi	ilford, DE 19	9963			
			*p	lease attac	ch additional forms if ne	cessary		
State: County: District:	est Virginia Coon the tract of lan West Virginia Marshall Sandhill	10 0021-0	Appro Public Water	ox. Latit c Road Arshed:	ude & Longitude: Access:	40.019920, -80.6 Walnut Grove		conduct
Quadrangle: _\	Valley Grove		Gener	rally use	ed farm name:	Michael Southwo		
Charleston, WV	Z 25304 (304-9	d Sediment Control Metary, at the WV Dep 226-0450). Copies of visiting www.dep.w	Manual and the staper partment of Environments	tutes and	d rules related to oi	and gas exp	loration and pro	
Notice is here	by given by						Office of Cit	/ED
Well Operator:	U.S. 70-90	ON COMPANY, LLC	Λda	lress:	1000 5 5		Office of Oil	
Telephone:	304-884-1610	,	Auc	11 COO.	1300 Fort Pierpont Dr., S	uite 201	SEP 16	2024
Email:	Brittany_Woody@s	wn.com	Face	simile:	Morgantown, WV 26508 304-884-1690			
			1 40.		004-004-1090		W Departm	ent of
Oil and Gas P	Privacy Notice	e:					Environmental F	rotection

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.

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 prov	ided at least SE	VEN (7)	days but no more th	an FORTY-]	FIVE (45) days prior to
Date of Notic	ce: 3/1/2024	Date of Plan	ned Entry: 3/8/	2024			() mys prior to
Delivery met	thod pursuant	to West Virginia Co	ode § 22-6A-10a	ı			
☐ PERSO	NAL 🔳	REGISTERED	□ METUC)D OE DI			
SERVIC		MAIL	DECEID		ELIVERY THAT R	EQUIRES A	
					GNATURE CONFI		
but no more the beneath such to owner of mine and Sediment Secretary, which enable the surface of the surface o	han forty-five d tract that has fil erals underlying Control Manua ich statement sl face owner to o	ays prior to such entried a declaration purs g such tract in the could and the statutes and hall include contact in the topics from the	ry to: (1) The su uant to section to inty tax records. I rules related to	rface own hirty-six, The noti	article. Such notice her of such tract; (2) article six, chapter ice shall include a si	shall be prove to any owner twenty-two of tatement that	de notice of planned entry rided at least seven days r or lessee of coal seams f this code; and (3) any copies of the state Erosion ay be obtained from the ecretary's web site, to
	eby provided to):					
☐ SURFAC	E OWNER(s)				AL OWNER OR LE	CCEE	
Name:							
Address:				Address:			16,6.19
Name:							
Address:				■ MIN	ERAL OWNER(s)		
				Name: Eli	m Grove United Methodist (Church	
Address:				Address:	125 Kruger St		
71dd1655.				vinceling vvv	20003		
				*please atta	ch additional forms if ne	cessary	
α	est Virginia Coon the tract of lan	as tollows.					lanning entry to conduct
			App	lic Road	tude & Longitude:	40.019920, -80.6	315190
District.	Caranin		Wat	tershed:	Access:	Walnut Grove	
Quadrangle:	Valley Grove		Gen		ed farm name:	Michael Southwo	of Wheeling Creek
Copies of the st may be obtained Charleston, WV	tate Erosion and d from the Secr V 25304 (304-9	d Sediment Control N	Manual and the spartment of Environment	tatutes an	d rules related to oi	l and gas exp	loration and production d at 601 57 th Street, SE, contal drilling may be
Notice is here	hy given ha						RECEIVED Office of Oil and Gas
Well Operator:	SWN PRODUCTION	N COMPANY LLC	A	ddmae			
Telephone:	304-884-1610	OSIMIFAINT, LLG	A	ddress:	1300 Fort Pierpont Dr., S	uite 201	SEP 16 2024
Email:	Brittany_Woody@s	wn.com	Fa	csimile:	Morgantown, WV 26508 304-884-1690		WV Department of
Oil and Gas P	Privacy Notice	e:					Environmental Protection

Oil and Gas Privacy Notice:

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WW-6A4 (1/12)

Operator Well No. $_^{\text{M.SOUTHWORTH MSH 210H}}$

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 I Date of Notice	Requirement: Notice shall be provided at least one of the control of the provided at least one of the p	ast TEN (10) days prior to filing a t Application Filed : _9/12/2021	permit application.
Delivery me	thod pursuant to West Virginia Code § 22	-6A-16(b)	
☐ HAND	CERTIFIED MAIL		
DELIVE		FSTFD	
receipt request drilling a horiz of this subsect subsection may	. Va. Code § 22-6A-16(b), at least ten days ped or hand delivery, give the surface owner contal well: <i>Provided</i> , That notice given put ion as of the date the notice was provided to be waived in writing by the surface owner, facsimile number and electronic mail address.	notice of its intent to enter upon the rsuant to subsection (a), section to the surface owner: <i>Provided, how</i> . The notice, if required, shall include:	ne surface owner's land for the purpose of n of this article satisfies the requirements never, That the notice requirements of this ude the name, address, telephone number,
Notice is her	eby provided to the SURFACE OWN	ER(s):	
	itman & Kimberly S. Litman	` /	
Address: 202 E	liotts Lane	Address:	
Wheeling WV 2600	03		
the surface ow State: County: District: Quadrangle:	est Virginia Code § 22-6A-16(b), notice is laner's land for the purpose of drilling a horize WV Marshall Sandhill Valley Grove, WV		
Watershed:	Grandstaff Run of Wheeling Creek		
Pursuant to W facsimile num related to hori	Shall Include: Vest Virginia Code § 22-6A-16(b), this no ber and electronic mail address of the oper zontal drilling may be obtained from the Science of Street, SE, Charleston, WV 25304 (304)	erator and the operator's authorized ecretary, at the WV Department of	ed representative. Additional information f Environmental Protection headquarters,
Notice is her	eby given by:		
•	SWN Production Company, LLC	Authorized Representative:	Bob Laine
Address:	1300 Fort Pierpont Dr., Suite 201	Address:	1300 Fort Pierpont Dr., Suite 201
	Morgantown, WV 26508		Morgantown, WV 26508
Telephone:	570-575-6203	Telephone:	570-575-6203
Email:	bob_laine@swn.com	Email:	bob_laine@swn.com
Facsimile:		Facsimile:	
			

Oil and Gas Privacy Notice:

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WW-6A5 (1/12)

Operator Well No. M. SOUTHWORTH MSH 2

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

Notice Time R Date of Notice	Requirement: notice shall be provided no : 03/26/2024	later than the filing plication Filed : 09/		application.
Delivery meth	od pursuant to West Virginia Code § 22	2-6A-16(c)		
		HAND DELIVERY		
return receipt rethe planned op required to be pure to be pure to the drilling of a hour damages to the	equested or hand delivery, give the surfact peration. The notice required by this subprovided by subsection (b), section ten of prizontal well; and (3) A proposed surfact surface affected by oil and gas operations	the owner whose land besection shall incluse this article to a surface use and compenses to the extent the data	I will be used for de: (1) A copy ace owner whos sation agreement amages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter. Sted in the records of the sheriff at the time
(at the address Name: Barry A. Lit	by provided to the SURFACE OWNER listed in the records of the sheriff at the timen & Kimberly S. Litman	me of notice):		
Address: 202 Elli Wheeling WV 26003		Addres	S:	
operation on the State: County: District: Quadrangle:	oy given: est Virginia Code § 22-6A-16(c), notice is ne surface owner's land for the purpose of wv Marshall Sandhill Valley Grove, WV Grandstaff Run of Wheeling Creek	Cdrilling a horizonta UTM NAD 8 Public Road	l well on the tra Easting: Northing:	
This Notice She Pursuant to We to be provided thorizontal well surface affected information rel	rall Include: est Virginia Code § 22-6A-16(c), this notice by W. Va. Code § 22-6A-10(b) to a sur; and (3) A proposed surface use and cond by oil and gas operations to the extent lated to horizontal drilling may be obtain ocated at 601 57th Street, SE, Charles	arface owner whose inpensation agreementhe damages are connected from the Secretary	e land will be unt containing arompensable und cary, at the WV	code section; (2) The information required used in conjunction with the drilling of a n offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10">www.dep.wv.gov/oil-and-damages-number-10"
Well Operator:		Address:	1300 Fort Pierpont [
Felephone: Email:	570-575-6203	Facsimile:	Morgantown, WV 26	5508
unan.	bob_laine@swn.com	racsimile:	-	

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.

Attachment VI Frac Additives

HCL	Product Use	Chemical Name	CAS Number
TICL	Solvent	Hydrochloric Acid	7647-01-0
FCTI CLOS		Water	7732-18-5
FSTI-CI-02	Corrosion Inhibitor		111-76-2
		Ethylene glycol	107-21-1
		N,N-Dimethylformamide	68-12-2
		benzyl chloridequaternized	72480-70-7
		Cinnamaldehyde	104-55-2
		Isopropyl alcohol	67-63-0
		Poly(oxy-1,2-ethanediyl), .alpha(nonylphenyl)omegahydroxy-	
		1-Decanol	9016-45-9
		1-Octanol	112-30-1
		Triethyl phosphate	111-87-5
Ferriplex 80	Iron Control	Sodium Erythorbate	78-40-0
Tolicide 4Frac	Biocide		6381-77-7
NATURAL PROPERTY OF THE SECOND	Diocide	Tetrakis(Hydroxymethyl) Phosphonium Sulfate	55566-30-8
		Quaternary ammonium compounds	68424-85-1
		Ethanol	64-17-5
Plexslick 930		Water	7732-18-5
FIEXSHICK 930	Friction Reducer	Hydrotreated Petroleum Distillate	64742-47-8
		Water	7732-18-5
		copolymer of 2-propenamide	69418-26-4
		Oleic Acid Diethanolamide	93-83-4
		Alcohol Ethoxylate Surfactants	68551-12-2
		Ammonium Chloride	12125-02-9
		Sodium Chloride	
Plexaid 655NM	Scale Inhibitor	ORGANIC PHOSPHONIC ACIDS SALTS	7647-14-5
		Water	15827-60-8
Plexslick V996	Friction Reducer	Hydrotreated Petroleum Distillate	7732-18-5
		Water	64742-47-8
		copolymer of 2-propenamide	7732-18-5
		Alcohol Ethoxylate Surfactants	69418-26-4
		Sodium Chloride	68551-12-2
Plexaid 655WG	Scale Inhibitor		7647-14-5
	Scale minipitor	ORGANIC PHOSPHONIC ACIDS SALTS	15827-60-8
		Water	7732-18-5
Clearal 270		Glycerin	67-56-1
Jediai 270		Glutaraldehyde	111-30-8
		Didecyldimethylammonium Chloride	7173-51-5
		Quaternary Ammonium compounds, Benzyl-C12-C16-alkyldimethyl, Chlorides	68424-85-1
		Ethanol	64-17-5
		Water	7732-18-5
timSTREAM SC 398 CW	Scale Inhibitor	Ethylene glycol	107-21-1
		CHEMSTREAM-Polymer-10001	
		CHEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-1000:
		Water	CHEMSTREAM-Polymer-10002
timSTREAM FR 9800	Friction Reducer	Chemstream-Alkane-00001	7732-18-5
		Chemstream-Polymer-00001	Chemstream-Alkane-00001
		Ethoxylated alcohols (C12-16)	Chemstream-Polymer-00001
		Water	68551-12-2
timSTREAM FR 2800			7732-18-5
MISTREAMT IN 2000		Distillates (petroleum), hydrotreated light	64742-47-8
		Alcohols, C11-14-iso, C13-rich, ethoxylated	78330-21-9
imCTDEANA ED OZOE		Water	7732-18-5
imSTREAM FR 9725		Distillates (petroleum), hydrotreated light	64742-47-8
	A	Ammonium Chloride	12125-02-9
		<i>W</i> ater	7732-18-5
imSTREAM SC 398 C	Scale Inhibitor (CHEMSTREAM-Polymer-10001	
		CHEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-10001
		Vater	CHEMSTREAM-Polymer-10002
of 7/5/2023			7732-18-5 RECEIVED

SEP 16 2024



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Office of the District Engineer/Manager District Four Post Office Box 4220 · Clarksburg, West Virginia 26302 · (304) 842-1500

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

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

May 3, 2024

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

Subject: DOH Permit for the Michael Southworth Well Pad, Marshall County
Michael Southworth MSH 210H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2011-0026 which has been issued to SWN Production Company, LLC for access to the State Road for a well site located off Marshall County Route 5/1 SLS MP 0.193.

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

Very Truly Yours,

Lacy D. Pratt

Central Office O&G Coordinator

acy D. Pratt

RECEIVED
Office of Oil and Gas

SEP 16 2024

WV Department of Environmental Protection

Cc: Brittany Woody SWN Production

SWN Production Company, LLC

OM, D-6

File

OPERATOR: SWN Production Co., LLC	WELL NO: Michael Southworth MSH 210H
PAD NAME: Michael Southworth MSH Pad	
REVIEWED BY:	SIGNATURE BILLIAM MOON
	8

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions	** Pad Built 2/11/2011	
At Least Perennia	100 Feet from Pad and LOD (including any E&S Control Feature) t I Stream, Lake, Pond, Reservoir or Wetland; OR	to any
D)	EP Waiver and Permit Conditions	
At Least Naturally	300 Feet from Pad and LOD (including any E&S Control Feature) to Producing Trout Stream; OR	o any
DI	EP Waiver and Permit Conditions	
At Least Groundw	1000 Feet from Pad and LOD (including any E&S Control Feature) ater Intake or Public Water Supply; OR	to any
D	EP Waiver and Permit Conditions	
At Least 2 Drilled; C	250 Feet from an Existing Water Well or Developed Spring to Well R	Being
Su	rface Owner Waiver and Recorded with County Clerk, OR	
DI	EP Variance and Permit Conditions	
At Least 6	25 Feet from an Occupied Dwelling Structure to Center of the Pad;	OR
	rface Owner Waiver and Recorded with County Clerk, OR	
	P Variance and Permit Conditions	
At Least 6 of the Pad	25 Feet from Agricultural Buildings Larger than 2500 Square Feet to OR	o the C recei VED Office of Oil and Gas
Sur	face Owner Waiver and Recorded with County Clerk, OR	SEP 16 2024
		WV Department of Environmental Protection