

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 206H

47-051-02521-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin

Chief

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

U.S. WELL NUMBER: 47-051-02521-00-00

Horizontal 6A New Drill Date Issued: 10/17/2024

Promoting a healthy environment.

API Number: 4705102521

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.

API NO. 47-051

OPERATOR WELL NO. Michael Southworth MSH 206H

Well Pad Name: Michael Southworth MSH Pad

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

			/		
1) Well Operator: SWN Prod	uction Co., LLC	494512924	051-Marshal	6-Sandhi	648-Valley Grove
		Operator ID	County		Quadrangle
2) Operator's Well Number: Mi	chael Southworth M	SH 206H Well Pag	d Name: Micha	ael Southwo	orth MSH Pad
3) Farm Name/Surface Owner:				NAME OF TAXABLE PARTY OF TAXABLE PARTY.	
4) Elevation, current ground:	1271' EI	evation, proposed	post-construction	on: 1271'	
5) Well Type (a) Gas x	Oil		erground Storag		
Other			8		7000
(b)If Gas Sha	allow x	Deep			3999
Но	rizontal x		- 200		
6) Existing Pad: Yes or No Ye	S				
7) Proposed Target Formation(s Target Formation- Marcellus, Down-Dip wel), Depth(s), Antici	ipated Thickness a VD- 6414', Target Base TVI	nd Expected Pr D- 6466', Anticipated TI	essure(s): nickness- 52', Ass	ociated Pressure- 4203
8) Proposed Total Vertical Dept	h: 6446'	ANTO CONTRACTOR OF THE PARTY OF		16000	
9) Formation at Total Vertical D	Depth: Marcellus	1			
10) Proposed Total Measured D	epth: 12910'	(1300	<u> </u>	
11) Proposed Horizontal Leg Le	ength: 5877 .92'	1			
12) Approximate Fresh Water S	trata Depths:	632'			Pror:
13) Method to Determine Fresh		learby water well	(Edith Folmar)	\	Office of Oil and Gas
14) Approximate Saltwater Dept			•	/	SEP 16 2024
15) Approximate Coal Seam De			<u> </u>		WV Denort
16) Approximate Depth to Possi		ne, karst, other):	lone that we a	re aware o	- Protection
17) Does Proposed well location directly overlying or adjacent to	contain coal seam an active mine?	Yes X	No.		
(a) If Yes, provide Mine Info:	Name: Ohio	County Mine			
	Depth: 734'				
	Seam: Pittsbu	urgh	200		
	1	County Coal Reso	ources/ACNR I	nc.	
					/

Strader Gower 9/10/2024

API NO. 47-051 0 5 1 0 2 5 2 1

OPERATOR WELL NO. Michael Southworth MSH 206H
Well Pad Name: Michael Southworth MSH Pad

18)

CASING AND TUBING PROGRAM

TYPE	1	NI					_
	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	<u>CEMENT:</u> <u>Fill-up</u> (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	0/9 \$2/013
Intermediate	9 5/8"	New	J-55	36#	2011'	2011' /	773 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	12910'	12910'	Tail 2199sx/ 100' Inside Intermediate
Tubing					.2010	12310	Tall 21995X/ TOU Inside Intermediate
Liners							

		Wall		A		
Size (in)	Wellbore Diameter (in)	Thickness (in)	Burst Pressure (psi)	Max. Internal	Cement Type	Cement Yield (cu. ft./k)
20"	30"	0.25	2120	81	Class A	1.20/30% Excess
13 3/8"	17.5"	0.330	1730	633		1.20/30% Excess
See	Surface	Casing			0100071	1.20/00 /8 EXCESS
9 5/8"	12 1/4"	0.352	3520	1768	Class A	1.19/40% Excess
5 1/2"	8 3/4"-8 1/2"	0.361	14360			1.19/10-15% Excess
				10000	Old33 A	7.10/10-13 /6 EXCESS
					4	
	20" 13 3/8" See 9 5/8"	20" 30" 13 3/8" 17.5" See Surface 9 5/8" 12 1/4"	Diameter (in) Thickness (in)	Size (in) Wellbore Diameter (in) Thickness (in) Burst Pressure (psi) 20" 30" 0.25 2120 13 3/8" 17.5" 0.330 1730 See Surface Casing 9 5/8" 12 1/4" 0.352 3520	Size (in) Wellbore Diameter (in) Thickness (in) Burst Pressure (psi) Max. Internal Pressure (psi) 20" 30" 0.25 2120 81 13 3/8" 17.5" 0.330 1730 633 See Surface Casing 9 5/8" 12 1/4" 0.352 3520 1768	Size (in) Wellbore Diameter (in) Thickness (in) Burst Pressure (psi) Amax. Internal Pressure (psi) Cement Type 20" 30" 0.25 2120 81 Class A 13 3/8" 17.5" 0.330 1730 633 Class A See Surface Casing 9 5/8" 12 1/4" 0.352 3520 1768 Class A

PACKERS

Kind:	
Sizes:	RECEIVED Office of Oil and Gas
Depths Set:	
T-1.0 5 6.1	SEP 16 2024

WV Department of Environmental Protection

Strader Gower
9/10/2024

API NO. 47-050 5 102521

OPERATOR WELL NO. Michael Southworth MSH 206H
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 ***

25) Proposed borehole conditioning procedures:

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

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*Note: Attach additional sheets as needed.

	T		CEMENT	ADDITIVES		
INTERVAL	SCHLUMBERGER PRODUCT NAME	BJ PRODUCT NAME	NEXTIER PRODUCT NAME	PRODUCT USE	CHEMICAL NAME	CAS-Number
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	$\geq \leq$	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	> <	\times	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
	$\geq \leq$	$>\!\!<$	CJIII	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
_	> <	55-IIW	0880	SURFACTANT	NONIONIC SURFACTANT	6540-99-4
	DO47	FP 28L	$>\!\!<$	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	$\geq \leq$	$\geq \leq$	OX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
	><	$\geq <$	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATICAMIDE POLYMER	PROPRIETAR
	0255	$\geq \leq$	><	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETAR
	><	$>\!<$	CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
PRODUCTION	><	FL-66	0501	LOW TEMP FLUID	POWDERED POLYSACCHARIDE	PROPRIETAR
		BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301		VISCOSI FIER/ANTI- SETTLING AGENT	REFINED POLYMER/ CHRYSTALLINE SILICA	PROPRIETAR
	D198	R-3		CEMENT RETARDER	LIGNIN	9069 54 0
	SUGAR	SUGAR				8068-51-6
-			00730	CEMENT RETARDER	SUCROSE	57-50-1
	D065	\times	\times	DISPERSANT	SODIUM POLYNAPHTHALENE SULFONATE	8068-51-6
	D800		X	CEMENT RETARDER Mid-Temperature)	SODIUM LIGNOSULFONATE	8061-51-6

Office of Oil and Gas

SEP 16 2024

Southwestern Energy Company **Proposed Drilling Program** Well: MICHAEL SOUTHWORTH MSH 206H **Drilling Rig: SDC 41** Field: **PANHANDLE FIELD WET** Formation: Marcellus Shale County: MARSHALL State: WV Southwestern Energy SHL (NAD83): 40.012681 Latitude -80.614836 Longitude BHL (NAD83): 39.996362 Latitude -80.611849 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 5,942 ' Surface/Coal 13.375 54.4# J-55 0' 764 ' Air/Mist Intermediate 9.625 36.0# J-55 2,011 0' Production 5.5 20.0# P-110 HP 0' 12,910 **CEMENT DETAIL** Sacks Class Density Conductor 173 Α 19.3 Surface 879 A 15.6 Intermediate 773 Α 15.6 Production 2199 Α 14.5-15.0 TD at 5,942 ' KOP at 5,942 'MD Freshwater Depth - 632 'TVD 5,942 'to 7,030 ' Coal Depth - 734 'TVD 12.0-12.5 ppg Saltwater Depth - 1,403 ' TVD TVD - 6,446 ' TMD - 12,910' TD at 12,910 'MD 6,388 ' TVD Target Center 6,446 'TVD LP at 7,030 ' MD Onondaga 6,466 'TVD 7,030 ' to 12,910 ' SHL Onondaga 6,408 'TVD 12.5-13.5 ppg Created by: Colin Kollker on 09/05/2024

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SEP 16 2024

WV Department of Environmental Protection Strader Gower

API Number 47 - 051

Operator's Well No. Michael Southworth MSH 206H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable aw or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware=hat there are significant office of Oil and Gas Company Official Signature Company Official Signature SEP 16 2024 Wy Department of Environmental Protection Wy Department of Environmental Protection Wy Department of Environmental Protection Official Saal Notary Public, Stale Of West Virginia Elizabeth Blankenship 94 My Septiment Road Weston Wy 26452 Wy Company Official Saal Notary Public, Stale Off West Virginia Elizabeth Blankenship 94 My Septiment Road Weston Wy 26452 Wy Company Official Saal Notary Public, Stale Official Sa	
Watershed (FIUC 10) Grandstaff Run of Wheeling Creek Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No If so, please describe anticipated pit waste: Will a synthetic liner be used in the pit? Yes No If so, what mil.? Proposed Disposal Method For Treated Pit Wastes: Land Application Proposed Disposal Method For Treated Pit Wastes: Land Application Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Off Sire Disposal (Supply form WW-) for disposal Journal of Proposed Facilities Will closed loop system be used? If so, describe: Yes-See Attachment 3A Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Additives to be used in drilling medium? Attachment 33 Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. If foil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base Jif left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) Japan Samtary Landfill or offsite name/permit number? Meadown Wert Louge Short	Operator Name SWN Production Co., LLC OP Code 494512924
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No	Watershad (ULIC 10) Grandetoff Dun of What I'm O
Will a synthetic liner be used in the pit? Yes No VI If so, what ml.? Proposed Disposal Method For Treated Pit Wastes: Land Application Londerground Injection (UIC Permit Number Various Approved Facilities Victorial Application Victorial Victo	
Will a synthetic liner be used in the pit? Yes No If so, what ml.? Proposed Disposal Method For Treated Pit Wastes: Land Application Underground Injection (UIC Permit Number Various Approved Facilities) Reuse (at API Number Athen next undergoaded well Off Site Disposal (Supply form WW-9 for disposal location) 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, oil based, etc. More accounts of the seed in drilling medium? If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base / Additives to be used in drilling medium? Allachment 3B Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. landfill If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) Landfill or offsite name/permit number? Meadowsis Synthetic Oil 3Canton Limestone MSWI-018781, Weteol County 1021 Apex Sanitary Landfill Un-US435, Brooke Co SWY-1013, FMS 3531UU Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and onditions of the GENERAL WATER POLLUTION PERMIT issued an August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the rovisions of the permit are enforceable by law. Violations of any term or condition of the general permit and mediately responsible for braining the information, I believe that the information is true, accurate, and complete. I am appendicable provision for the applicable Company Official Signature Market Permit Per	
Proposed Disposal Method For Treated Pit Wastes: Land Application Underground Injection (UIC Permit Number Various Approved Facilities Reuse (at API Number Attre next antispiated well Off Site Disposal (Supply form WW-9 for disposal location) 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, oil based, etc. Pathology System be used in drilling medium? Attachment 38 Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Inandfill -If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) -Landfill or offsite name/permit number? Meadowill Swy-1022. Short Creek Swy-1034 Carbon Undotone MSW/018781. Wetterl County 1021 Apex Sanitary Landfill Ub-1043-38, Istooke Lo SVVF-10113, FMS 35310U Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable awo or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information is bubmitted on this policien form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for bubmitting false information, including the possibility of fine or imprisonment. Office of Oil and Gas SEP 16 2024 West Vinginal Title Staff Regulatory Specialist	If so, please describe anticipated pit waste:
Proposed Disposal Method For Treated Pit Wastes: Land Application Underground Injection (UIC Permit Number Various Approved Facilities Reuse (at API Number At the next intoplated well Off Site Disposal (Supply form WW-9 for disposal location) 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, oil based, etc. Additives to be used in drilling medium? Attachment 3B Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill or offsite name/permit number? Meadowlill SWF-1032, Short Creek SWF-1034, Castern Injection MSWI-018781, Weteral County 1021 Apex Sanitary Landfill Ub-048-38, Brooke Co SWV10113, FN/S 35-31UU Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued and August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Periotection. I understand that the avortisons of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable are or regulation orm and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for beautiful of the permit of Environmental Periotection. I understand that the avortisons of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable are or regulation form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for beat permit and/or other applicable and permitted on this policies of the permit of Envir	Will a synthetic liner be used in the pit? Yes No If so, what ml.?
Reuse (at API Number Atternational Company of the State Post Anticipated well of Stite Disposal (Supply form WW-9 for disposal location) Other (Explain_recovery and solidification on site Will closed loop system be used? If so, describe: Yes-See Altachment 3A Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Anticipated well of this well (vertical and horizontal)? Air, freshwater, oil based, etc. Anticipated will be used in drilling medium. Attachment 3B Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Innoffill —If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) —Landfill or offsite name/permit number? Meadou/fill SWF- 1032. Short Creek SWF- 1034. Carbon Limeatone MSWL018781. Wetsel County 1021 APEX Sanitary Landfill Ub-Ub438, Brooke Co SWF- 1013, FMS 3551UU Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed. I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. Lunderstand that the rovisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable are or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this pplication form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for behavior and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for possibility of fine or imprisonment. Office of Oil and Gas SEP 16 2024	Proposed Disposal Method For Treated Pit Wastes:
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Company Official Title Staff Regulatory Specialist WV Department of Environmental Protection Ubscribed and sworp before me this day of Movch A control of the company of	021 10 /11/4
ubscribed and sworp before me this	WV Department
Official Seal Notary Public, State Of West Virginia Elizabeth Blankenship 941 State Of West Virginia Westorn WV 26452 My commission expires, lune 23 2004	company Official Title_Staff Regulatory Specialist Environmental Protection
	DUDSCIDED AND SWOEN before me this down of 1 / / / / /

Operator's Well No. Michael Southworth MSH 206H

Proposed Revegetation Treatment: Acres Disturbed 16.88	Prevegetation p	оН
Lime _as determined by pH test min.2 Tons/acre or to correct to pH		
Fertilizer type 10-20-20		
Fertilizer amount_600/500lbs/a	ocre	
Mulch Hay/Straw Tons/acre	2	
Seed M	<u> Iixtures</u>	
Temporary	Perm	anent
Seed Type Ibs/acre Attachment 3C	Seed Type	lbs/acre
Attach: Maps(s) of road, location, pit and proposed area for land application rovided). If water from the pit will be land applied, include dimensions of the land applied.	n (unless engineered plans inclusions (L x W x D) of the pit, and	ding this info have been
Maps(s) of road, location, pit and proposed area for land application rovided). If water from the pit will be land applied, include dimenscreage, of the land application area. hotocopied section of involved 7.5' topographic sheet.	sions (L x W x D) of the pit, and	d dimensions (L x W), and
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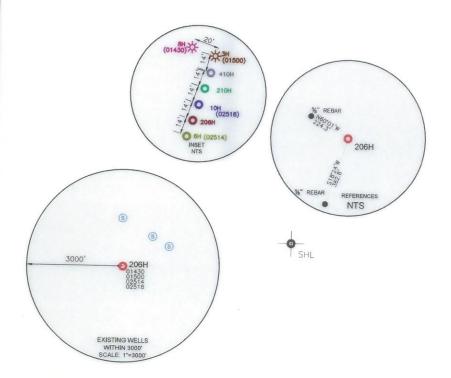
MARCELLUS WELL DRILLING PROCEDURES AND 4705102521 WELL SITE SAFETY PLAN



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

API NO. 47-XXX-XXXXX WELL NAME: Michael Southworth MSH 206H Valley Grove QUAD Sandhill DISTRICT MARSHALL COUNTY, WEST VIRGINIA

Submitted by:		
Name: Brittany Woody Suttany Woody	Date: <u>3/25/2024</u>	
Title: Staff Regulatory Specialist	SWN Production Co., LLC	
Approved by:		
Name: STRADER GOWER	Date: 4/17/2024	
Title: Oil & GAS Inspector		RECEIVED Office of Oil and Gas
Approved by:		SEP 16 2024
Name:	Date:	WV Department of Environmental Protection
Title:		
SWN PRODUCTION COMPANY. LLC -	- CONFIDENTIAL	



WELL RESTRICTIONS

DTM (NAD83, ZONE 17, METERS) IORTHING: 4,427,425.533 ASTING: 533,134.250

THERE ARE TWO OCCUPIED DWELLINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.

NO AGRICULTURE BUILDINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.

NO WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 250 FEET OF PROPOSED WELL.

NO PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.

NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE.

NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE.

NOTES ON SURVEY

WELL TYPE: OIL

DRILLX

ADDRESS:

LPL*

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

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

David I Jacks

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

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

NO. 708
STATE OF
VIRGINIAN
MINIMUM DEGREE OF ACCURACY:

1/200

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

DFFP

2000 0 2000 GRAPHIC SCALE IN FEET

80°35'00'

COMPANY SWN Production Company, LLC Production Company™

MICHAEL SOUTHWORTH MSH OPERATOR'S WELL #: 206H

1270.9'

QUADRANGLE: VALLEY GROVE, WV

47

ACREAGE: ±159.776

ELEVATION:

051 02521 STATE COUNTY PERMIT LIQUID INJECTION STORAGE

PRODUCTION WASTE DISPOSAL WATERSHED: GRANDSTAFF RUN OF WHEELING CREEK (HUC-10) DISTRICT: SANDHILL

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

COUNTY: MARSHALL SURFACE OWNER: BARRY A. & KIMBERLY S. LITMAN

PROPOSED PATH

ACREAGE: ±159.776 REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION

CONVERT PLUG & ABANDON

DRILL DEEPER

CLEAN OUT & REPLUG

OTHER CHANGE (SPECIFY)

GAS X

10/18/2024 ESTIMATED DEPTH: 6,446 TVD 12,910 TMD

ZIP CODE:

DRAWING NO

TARGET FORMATION: MARCELLUS WELL OPERATOR: SWN PRODUCTION COMPANY, LLC

EXISTING / PRODUCING WELLHEAD

LANDING POINT LOCATION

DESIGNATED AGENT: BRITTANY WOODY

API WELL #:

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

CITY: STATE: MORGANTOWN ZIP CODE: WV 26508 LEGEND: SURVEYED BOUNDARY PROPOSED SURFACE HOLE / BOTTOM HOLE o 井

1300 FORT PIERPONT ROAD, SUITE 200

= = = LEASE BOUNDARY

REVISIONS: DATE: 09-06-2024 DRAWN BY: N. MANO CALF:

EXISTING WATER WELL EXISTING SPRING \2024 BACKUPS\1-02-24 DJ\SWN\MICHAEL SOUTHWORTH MSH\WELL PLAT\206H\FINAL\9-6-24\SOUTHWORTH MSH 206H 9-6-24.DWG

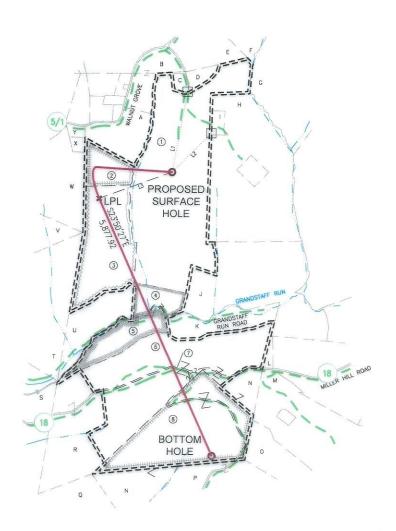
WELL LOCATION PLAT PROPERTY NUMBER 2501163528

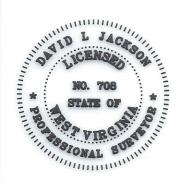
26508

PAD ID 3001155600

SHALLOW X

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





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

David L 10/18/2024 **REVISIONS:** COMPANY: SWN Production Company, LLC Production Company™ OPERATOR'S DATE: 09-06-2024 MICHAEL SOUTHWORTH MSH WELL #: 206H DRAWN BY: N. MANO
SCALE: N/A
DRAWING NO:
WELL LOCATION PLAT 2 COUNTY: MARSHALL DISTRICT: STATE: SANDHILL WV

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

	ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARC	
A	EDGE WILLIAM F JR - TOD ET AL	12-2-16	
В	LITMAN JAMES M & LUCY A	12-2-16.1	
C	RADCLIFFE JOHN D & ANNA M	12-2-10.1	
D	LITMAN BARRY A	12-2-10.2	
E	VELLENOWETH SCOTT U ET UX	12-2-1.1	
F	BLATT THERESA L	12-2-23	
G	BAIRD FAMILY TRUST	12-2-2	
Н	REINEKERICHARDS	12-2-9	
1	GREGORY JOHN W ET UX	12-2-9.1	
J	TDL&G LLC	12-2-8	
K	G F P CORP	12-2-8	
L	TOTH JOHN J SR & ALICE - TRUST	12-8-4.1	
M	RICHEY RANDY ET UX	12-8-35	
N	MERINAR CALVIN C - LIFE	12-9-15	
0	MERINAR CALVIN C - LIFE	12-9-15	
P	MERINAR CALVIN C - LIFE	12-9-16	
Q	FISHER CHARLES B & CARLA S	12-9-16	
R	GRAY JOHN ALVIN EST	12-9-11	
S	ISALY ROBERT A SR EST	12-9-9	
T	EDGE WILLIAM JR & BARBARA ANN-TOD & DAVID WAYNE EDGE		
U	ISALY ROBERT A SR EST	12-9-8	
V	WHEELING POWER COMPANY	12-2-13	
W	WV BRIGHTMONT LLC	12-9-8.1	
X	GIZA ALEXANDER C & CHRISTOPHER C	12-1-16	
Y	GIZA ALEXANDER C & CHRISTOPHER C	12-1-16.2	

	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	EDGE WILLIAM F JR - TOD ET AL (S)	12-2-15
3	WV BRIGHTMONT LLC (S)	12-2-14
4	GFPCORP(S)	12-2-14
5	GIBSON WILLIAM E (S)	12-9-12
6	PORTER CARLA S (S)	12-9-13
7	W VA DEPT OF HIGHWAYS (S)	MILLER HILL RD
8	MERINAR JAMES MARTIN ET UX (S)	12-9-15.1
	(-)	12-5-15.1

10/18/2024

REVISIONS: 47.05.02.52	COMPANY:	SWN Production Company, LLC	SV Production Co	Marian M
	OPERATOR'S	MICHAEL SOUTHWORT	H MSH	DATE: 09-06-2024
	WELL #:	206H		DRAWN BY: N. MANO
	DISTRICT: SANDHILL	COUNTY: MARSHALL	STATE: WV	SCALE: N/A DRAWING NO: WELL LOCATION PLAT 3

 Z^{2} BACKUPS\1-02-24 DJ\SWN\MICHAEL SOUTHWORTH MSH\WELL PLAT\206H\FINAL\9-6-24\SOUTHWORTH MSH 206H 9-6-24.DWG FRIDAY SEPTEMBER 06 2024 08:15AM

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"

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

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WV Division of Natural Resources WV Division of Highways

SEP 16 2024

U.S. Army Corps of Engineers U.S. Fish and Wildlife Service

WV Department of Environmental Protection

County Floodplain Coordinator

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

Well Operator: SWN Production Company, LLC

By:

Andrew M. Smith

Aula M. Snitts

Its:

Landman

Page 1 of 6

EXHIBIT "A" Michael Southworth MSH 206H 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	Number 728963/005	Lessor Salvation Army	Lessee	Royalty	Book/Page	% Interest Not Leased by SWN
				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	3,110,30,710,000
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
	7	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	
		200	Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	

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EXHIBIT "A" Michael Southworth MSH 206H

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

			, and and das Pe	erinic Form, WW-6A1, by SWN Pro	oduction Com	ipany, LLC, Opera	tor
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
	728963/0		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	12-2-15	725595/001	William F. Edge, Jr. and Barbara Ann Edge, husband and wife	Chesapeake Appalachia, L.L.C.	14.00%	684/583	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		22/361	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
		725595/002	David Wayne Edge and Theresa T. Edge, Husband and Wife	Chesapeake Appalachia, L.L.C.	14.00%	684/584	0.00%
			Chesapeake Appalachia, L.L.C.	Statoil USA Onshore Properties Inc.		22/361	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
3	12-2-14	732583/000	Chester A. Giza, a widower	TriEnergy Holdings, LLC	18.75%	697/483	0.00%
			TriEnergy Holdings, LLC	NPAR, LLC		24/180	
			AB Resources, LLC and NPAR, LLC	Chief Exploration & Development LLC and Radler 2000 Limited Partnership		24/490	
			NPAR, LLC, Chief Exploration and Development, LLC, Radler 2000 Limited Partnership, and Enerplus Resources (USA) Corporation	Chesapeake Appalachia, L.L.C. and Statoil USA Onshore Properties, Inc.		756/332	
			Chevron U.S.A. Inc.	Statoil USA Onshore Properties Inc.		30/494	
			Chevron U.S.A. Inc.	Chesapeake Appalachia, L.L.C.		30/532	

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EXHIBIT "A" Michael Southworth MSH 206H 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

						10 80 50	
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
			Statoil USA Onshore Properties Inc.	SWN Production Company, LLC		33/424	
4	12-2-12	731805/001	Paula Jean Walton, Married and dealing in her sole and separate property	SWN Production Company, LLC	18.00%	736/646	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/002	Martha L. Greaves, married and dealing in her sole and separate property	Chesapeake Appalachia, L.L.C.	18.00%	739/134	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/003	Nancy Marie Norman and Arch Norman, Wife and Husband	Chesapeake Appalachia, L.L.C.	18.00%	739/139	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/004	Harold Joseph Brock and Joanna Brock, Husband and Wife	Chesapeake Appalachia, L.L.C.	18.00%	739/147	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/005	Robert A. Brock and Wilma Brock, husband and wife	Chesapeake Appalachia, L.L.C.	18.00%	739/152	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/006	Janice E. Stift and Ralph Strift, Jr., Wife and Husband	Chesapeake Appalachia, L.L.C.	18.00%	740/167	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/007	James Elwood Leasure, Divorced and unremarried	Chesapeake Appalachia, L.L.C.	18.00%	740/172	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/008	Bernice Virginia Brock, Widow and unremarried	Chesapeake Appalachia, L.L.C.	18.00%	741/178	0.00%
			Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
		731805/009	Mary P. Leasure Daniels, Widow and unremarried	Chesapeake Appalachia, L.L.C.	18.00%	742/470	0.00%

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EXHIBIT "A" Michael Southworth MSH 206H 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

					1 // / -	
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
	731805/010	Ronald Walton, Jr., Divorced and unremarried	Chesapeake Appalachia, L.L.C.	18.00%	745/16	0.00%
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
	731805/011	Linda Michelle Sturm and Earl F. Sturm, III, Wife and Husband	Chesapeake Appalachia, L.L.C.	18.00%	745/21	0.00%
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
	731805/012	Patricia Eileen Ritchea, Divorced and unremarried	Chesapeake Appalachia, L.L.C.	18.00%	749/465	0.00%
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
	731805/013	Iluminada A. Leasure, Widow and unremarried	Chesapeake Appalachia, L.L.C.	18.00%	754/277	0.00%
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
	731805/014	Carole Ann Smith, in her own right and as Trustee for Ernie Leasure under the Last Will and Testament of Ruth Marie Leasure	Chesapeake Appalachia, L.L.C.	18.00%	763/373	0.00%
		Chesapeake Appalachia, L.L.C.	SWN Production Company, LLC		33/110	
5 12-9-12	751244/001	William E. Gibson, married, dealing in her separate property	SWN Production Company, LLC	18.00%	1080/511	0.00%
	751244/002	Eric M. Gordon, Esq., as Special Commissioner on behalf of Leota Campbell Ferrell and her Unknown or Missing Heirs and	SWN Production Company, LLC	18.00%	1106/576	0.00%

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EXHIBIT "A"

Michael Southworth MSH 206H

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

6	12-9-13	730188/000	Hilda A. Porter, single																	
4		10	The state of the s	Great Lakes Energy Partners, L.L.C.	15.50%	655/559	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														
17	Miller Hill Road	Pending	West Virginia Department of Transportation, Division of High	nways SWN Production Company, LLC	20.00%	1187/287	0.00%													
/8	12-9-15.1	730193/000	James M. Merinar and Belinda J. Merinar, his wife	Great Lakes Energy Partners, L.L.C.	14.00%	655/81	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														

End of Exhibit "A"

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SEP 16 2024



4705102521

SWN Production Company, LLC

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

September 9, 2024

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

RE: SWN's proposed New Well: Michael Southworth MSH 206H in Marshall County, West Virginia, Drilling under 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 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

anhe M. Suitt

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SEP 16 2024

WV Department of Environmental Protection

R2 NY+

WW-PN (11-18-2015)

Horizontal Natural Gas Well Work Permit Application Notice By Publication

Notice is hereby given:

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 ut	atural well wor	k permit which disturbs three acres or more of n two hundred ten thousand gallons of water in
Applicant: SWN Production Company, LLC		Well Nun	nber: Michael Southworth MSH 206H
Address: 1300 Fort Pierpont Dr., Suite 201			
Morgantown, WV 26508			
Business Conducted: Natural gas production	n.		
Location –			
State: West Virginia		County:	Marshall
District: Sandhill		Quadrangle:	Valley Grove
UTM Coordinate NAD83 Northing:	4,429,236		
UTM coordinate NAD83 Easting:	532,871		
Watershed: Grandstaff Run of Wheeling	Creek		

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 number, and operator when using this option.

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

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 Noti	ce Certification:	API No.	17 051	
				hael Southworth MSH 206H
				el Southworth MSH Pad
Notice has	been given:			
Pursuant to th	ne provisions in West Virginia Code	§ 22-6A, the Operator has provided the	required parties	with the Notice Forms listed
State:	tract of land as follows: West Virginia			
County:	051-Marshall	UTM NAD 83 Easting:	532,871.448	
District:	Sandhill	Northing	4,429,235.747	
Quadrangle:	And the second s	Public Road Access:	Walnut Grove R	load
Watershed:	Valley Grove	Generally used farm name	Michael Southw	orth MSH
watersneu.	Grandstaff Run of Wheeling Creek			
it has provide information re of giving the requirements Virginia Code	ed the owners of the surface described and control of the surface described and control of the surface owner notice of entry to such as surface owner notice of entry to such as subsection (b), section sixteen of subsection (b).	every permit application filed under a shall contain the following information: ibed in subdivisions (1), (2) and (4), su ection sixteen of this article; (ii) that the urvey pursuant to subsection (a), section of this article were waived in writing be tender proof of and certify to the secreta int.	(14) A certificat absection (b), se requirement was at ten of this art	ion from the operator that (in action ten of this article, the sedeemed satisfied as a resulticle six-a; or (iii) the notice
Pursuant to V	West Virginia Code § 22-6A, the Operator has properly served the require	perator has attached proof to this Notice ed parties with the following:	Certification	
*PLEASE CHE	CK ALL THAT APPLY			OOG OFFICE USE ONLY
☐ 1. NOT	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BECASEISMIC ACTIVITY WAS CONDU		RECEIVED/ NOT REQUIRED
■ 2. NOT	TICE OF ENTRY FOR PLAT SURV	YEY or ☐ NO PLAT SURVEY WAS (CONDUCTED	☐ RECEIVED
■ 3. NOT	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED BECANOTICE OF ENTRY FOR PLAT SUR WAS CONDUCTED or		RECEIVED/ NOT REQUIRED
		WRITTEN WAIVER BY SURFA (PLEASE ATTACH)	ACE OWNER	
■ 4. NOT	ICE OF PLANNED OPERATION			☐ RECEIVED
■ 5. PUBI	LIC NOTICE	RECEIV Office of Oil	ED and Gas	☐ RECEIVED
■ 6. NOT	ICE OF APPLICATION	SEP 16		RECEIVED
		WV Departr Environmental	nent of	

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

NOTA DV CEAT NOTARY OF EATSoal Notary Public, State Of West Virginia
Elizabeth Elankenship
941 Simpson Run Road
Weston WV 26452
My commission expires June 23, 2024

Subscribed and sworn before me this

My Commission Expires

Notary Public

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.

> RECEIVED Office of Oil and Gas

SEP 16 2024

4705102521

WW-6A (9-13)

API NO. 47- 051

OPERATOR WELL NO. Michael Southworth MSH 206H
Well Pad Name: Michael Southworth MSH Pad

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

Notice Time Requi	rement: notice shall be provi	ided no later than the filing date of permit application	
Date of Notice:	Date Permit Applica	tion Filed: 912	•
PERMIT FOR WELL WORK		CATE OF APPROVAL FOR THE RUCTION OF AN IMPOUNDMENT OR PIT	
Delivery method pu	ursuant to West Virginia Co		
☐ PERSONAL	12000 M		
SERVICE	✓ REGISTERED MAIL	☐ METHOD OF DELIVERY THAT REQUIRES RECEIPT OR SIGNATURE CONFIRMATION	A N
sediment control plan the surface of the trace oil and gas leasehold I described in the erosic operator or lessee, in t more coal seams; (4) I well work, if the surfa impoundment or pit as have a water well, spri provide water for cons proposed well work ac subsection (b) of this s records of the sheriff in provision of this article Code R. § 35-8-5.7.a.	required by section seven of the ton which the well is or is proposed in and sediment control plan such event the tract of land on which the event the tract of land on which event the tract of land on which event is to be used for the place tract is to be used for the place described in section nine of the ing or water supply source local numption by humans or domesticativity is to take place. (c)(1) If section hold interests in the land equired to be maintained pursue to the contrary, notice to a litereguires, in part, that the operator	oundment or pit as required by this article shall deliver, by universal receipt or signature confirmation, copies of the applicanticle, and the well plat to each of the following person posed to be located; (2) The owners of record of the surface well work, if the surface tract is to be used for roads or abmitted pursuant to subsection (c), section seven of this a high the well proposed to be drilled is located [sic] is known face tract or tracts overlying the oil and gas leasehold being accement, construction, enlargement, alteration, repair, remois article; (5) Any surface owner or water purveyor who is ted within one thousand five hundred feet of the center of it animals; and (6) The operator of any natural gas storage more than three tenants in common or other co-owners of ds, the applicant may serve the documents required upon the ant to section eight, article one, chapter eleven-a of this conholder is not notice to a landowner, unless the lien holde for shall also provide the Well Site Safety Plan ("WSSP") the water testing as provided in section 15 of this rule.	oblication, the erosion and as: (1) The owners of record of the tract or tracts overlying the other land disturbance as rticle; (3) The coal owner, who to be underlain by one or ag developed by the proposed oval or abandonment of any sknown to the applicant to the well pad which is used to field within which the interests described in the person described in the ode. (2) Notwithstanding any
		Plan Notice Well Plat Notice is hereby provided	d to:
☑ SURFACE OWNER	R(s)		
Name: Barry A. Litman & K	imberly S. Litman	☐ COAL OWNER OR LESSEE Name: ACNR Inc	RECEIVED Office of Oil and Gas
Address: 202 Elliots Lane		Address: 46226 National Road	
Wheeling, WV 26003		St. Clairsville, OH 43950	SEP 16 2024
Name:		COAL OPERATOR	
Address:		Name:	W Department of
	A Second	Addraga	
SURFACE OWNER	R(s) (Road and/or Other Distu	Address:	2
Name:			
Address:		SURFACE OWNER OF WATER WE	LL
		AND/OR WATER PURVEYOR(s)	
Vame:		Name: See Attachment 13A	e-11000000
Address:		Address:	
	NA CONTRACTOR OF THE PARTY OF T		
SURFACE OWNER	(s) (Impoundments or Pits)	OPERATOR OF ANY NATURAL GA	S STORAGE FIELD
Name:		Name:	
Address:		Address:	
		*Please attach additional forms if necessar	

4705102521

API NO. 47- 051

OPERATOR WELL NO. Michael Southworth MSH 206H
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 visiting and 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 parking used for human or domestic animal consumption. The center of well parking used for human or domestic animal consumption. 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

API NO. 47-051 5 1 0 2 5 2 1
OPERATOR WELL NO. Michael Southworth MSH 206H
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 as so 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

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

API NO. 47-051 0 5 1 0 2 5 2
OPERATOR WELL NO. Michael Southworth MSH 206H
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

API NO. 47

OPERATOR WELL NO. Michael Southworth MSH 206H

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.

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

day of March 2021

Notary Public

My Commission Expires

RECEIVED Office of Oil and Gas

SEP 16 2024

4705102521

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

entry	Requirement: Notice shall be provi	ded at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to					
Date of Notice		ned Entry: <u>3/8/2024</u>					
Delivery meth	od pursuant to West Virginia Co	de § 22-6A-10a					
☐ PERSON.	AL REGISTERED	METHOD OF DELIVERY THAT REQUIRES					
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		RECEIPT OR SIGNATURE CONFIRMATION					
but no more that beneath such tra owner of miner and Sediment C Secretary, whice enable the surfa	an forty-five days prior to such entract that has filed a declaration pursuals underlying such tract in the countrol Manual and the statutes and the statement shall include contact in the countrol was a statement of the statement of the statement of the statement of the countrol was a statement of the statement	required pursuant to this article. Such notice shall provide notice of planned entry required pursuant to this article. Such notice shall be provided at least seven days y to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams and to section thirty-six, article six, chapter twenty-two of this code; and (3) any nty tax records. The notice shall include a statement that copies of the state Erosic rules related to oil and gas exploration and production may be obtained from the formation, including the address for a web page on the Secretary's web site, to secretary.					
Notice is hereb	y provided to:						
SURFACE	OWNER(s)	COAL OWNER OR LESSEE					
Name: James & C.	arol Litman	Name: ACNR Inc					
Address: 1224 W	alnut Grove Road	Address: 46226 National Road					
Wheeling, WV 26003		St. Clairsville, OH 43950					
Name:							
Address:		■ MINERAL OWNER(s)					
		Name: Robert B. Elliott					
Name:		Address: 1081 West Alexander Road					
Address:		Valley Grove, WV 26060					
		*please attach additional forms if necessary					
NT 10 1 1 1							
Notice is here	by given:						
Pursuant to Wes	st Virginia Code § 22-6A-10(a), no	tice is hereby given that the undersigned well operator is planning entry to conduct					
a plat survey on	the tract of failu as follows:						
G -	Vest Virginia	Approx. Latitude & Longitude: 40.019920, -80.615190					
n –	larshall	Public Road Access: Walnut Grove					
SERVICE A CONTROL PROPERTY PROPERTY AND A CONTROL OF THE CONTROL O	andhill	Watershed: Grandstaff Run of Wheeling Creek					
Quadrangle: va	alley Grove	Generally used farm name: Michael Southworth MSH					
Charleston, WV	25304 (304-926-0450). Copies of	Manual and the statutes and rules related to oil and gas exploration and production partment of Environmental Protection headquarters, located at 601 57 th Street, SE, such documents or additional information related to horizontal drilling may be v.gov/oil-and-gas/pages/default.aspx.					
		RECEIVED					
Notice is herek		Office of Oil and Gas					
Well Operator: Telephone:	SWN PRODUCTION COMPANY, LLC	Address: 1300 Fort Pierpont Dr., Suite 201 SEP 16 2024					
2							
Eman.	Brittany_Woody@swn.com	Facsimile: 304-884-1690 WV Department of Environmental Protection					
Oil and Car D	· BT /*	Total i lotacial					

Oil and Gas Privacy Notice:

 $Operator\ Well\ N_0.\ \ {\mbox{Michael Southworth MSH}}$ 4705102521

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

Notice Time Re	equirement:	Notice shall be provi	ded at leas	t SEVEN (7)	days but no more th	nan FORTY-F	TIVE (45) days prior to	
Date of Notice:	3/1/2024	Date of Plan						
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Notice is hereby	provided to	:						
SURFACE (AL OWNER OR LE			
Address:				Name:Address:				
Name:								
				■ MIN	ERAL OWNER(s)			
Address:				Name: MADIe L. Riggle Address: 1284 Dry Ridge Road Cameron, WV 26033				
				*please attac	ch additional forms if ne	rcecary		
State: Wes County: Mars District: Sand	Virginia Cod ne tract of lan nt Virginia shall	e § 22-6A-10(a), not d as follows:		y given that the Approx. Latith Public Road Awatershed:	ne undersigned well		anning entry to conduct 5190 Wheeling Creek	
Charleston, WV 2	5304 (304-9)	Sediment Control Metary, at the WV Dep 26-0450). Copies of visiting www.dep.wv	such docum	nents or additi	ii Protection headqu	l and gas explo arters, located elated to horize	oration and production at 601 57 th Street, SE, ontal drilling may be	
Telephone: 30	NN PRODUCTION 94-884-1610	N COMPANY, LLC		Address:	1300 Fort Pierpont Dr., S Morgantown, WV 26508	suite 201	RECEIVED Office of Oil and Gas	
Bri	ttany_Woody@sw	/n.com		Facsimile:	304-884-1690		SEP 16 2024	
	nd Gas procenal informati	esses vour personal in				hone number, a	WV Department of Environmental Protection as part of our regulatory ourse 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

4705102521

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

Notice Time	e Requireme	ent: Notice shall be prov	vided at least SE	VEN (7)	days but no more th	an FORTY-F	TIVE (45) days prior to	
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Notice is he	reby provide	d to:						
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Name:								
Address:			-	Name:Address:				
Address:				■ MIN	ERAL OWNER(s)			
Report of the second					rewood Energy Corporation			
Name:				Address: 4000 Combs Farm Drive				
Address:				Morgantown WV 26508				
				*please attac	ch additional forms if ne	cessary		
Notice is he	reby given:							
Pursuant to V	Vest Virginia	Code § 22-6A-10(a), no	otice is hereby oi	ven that th	10 un donnieu - 1 11		anning entry to conduct	
	on the tract of	f land as follows:	otice is hereby gi	ven mai n	ie undersigned well	operator is pl	anning entry to conduct	
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County:	Marshall		Pub	lic Road		Walnut Grove	15190	
District:	Sandnill		Wa	tershed:		Grandstaff Run of	Who alian Count	
Quadrangle:	Valley Grove		Ger	nerally use	ed farm name:	Michael Southwor		
Charleston, W	/V 25304 (30	and Sediment Control I Secretary, at the WV De 04-926-0450). Copies of by visiting <u>www.dep.v</u>	of such document	ronmenta	Protection headqu			
Notice is he							RECEIVED	
Well Operator		CTION COMPANY, LLC		1 1			RECEIVED Office of Oil and Gas	
Telephone:	304-884-1610		A	ddress:	1300 Fort Pierpont Dr., S	uite 201		
Email:					Morgantown, WV 26508		SEP 16 2024	
	Brittany_Wood	y@swn.com	Fa	acsimile:	304-884-1690		WV Department of	
Oil and Gas	Privacy No	tice:					Environmental Protection	

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

entry	Requirement: Notice shall be provi	ded at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to					
	200000	ned Entry: 3/8/2024					
Delivery me	thod pursuant to West Virginia Co	de § 22-6A-10a					
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but no more to beneath such owner of min- and Sediment Secretary, wh	han forty-five days prior to such entrements that has filed a declaration pursuerals underlying such tract in the councertool Manual and the statutes and	for to filing a permit application, the operator shall provide notice of planned entry required pursuant to this article. Such notice shall be provided at least seven days to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams and to section thirty-six, article six, chapter twenty-two of this code; and (3) any noty tax records. The notice shall include a statement that copies of the state Erosion rules related to oil and gas exploration and production may be obtained from the formation, including the address for a web page on the Secretary's web site, to secretary.					
Notice is here	eby provided to:						
☐ SURFAC	CE OWNER(s)	☐ COAL OWNER OR LESSEE					
Name:							
Address:		Name:Address:					
Address:							
		MINERAL OWNER(s)					
Name:		Name: Gregory Williams					
Address:		Address: 11317 Simpson Ave Milford, DE 19963					
		*please attach additional forms if necessary					
Notice is her Pursuant to We	eby given: est Virginia Code § 22-6A-10(a), not n the tract of land as follows:	ce is hereby given that the undersigned well operator is planning entry to conduct					
G	West Virginia	A T 1 0 v					
	Marshall	D 111 -					
	Sandhill						
Quadrangle:	Valley Grove	Generally used farm name: Michael Southworth MSH					
Charleston, WV	tate Erosion and Sediment Control M	anual and the statutes and rules related to oil and gas exploration and production artment of Environmental Protection headquarters, located at 601 57th Street, SE, such documents or additional information related to the					
Notice is here	hv given by	RECEIVED					
Well Operator:	SWN PRODUCTION COMPANY, LLC	Office of Oil and Gas					
Telephone:	304-884-1610	Address: 1300 Fort Pierpont Dr., Suite 201 SEP 16 2024					
Email:	Brittany_Woody@swn.com	Facsimile: 204 904 4000					
		WV Department of Environmental Protection					
Oil and Gas I	Privacy Notice:	Environmental Protection					

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

entry	Kequiremen	t: Notice shall be prov	ded at least SEVEN (7)	days but no more th	han FORTY-FIVE	(45) days prior to
Date of Notic	ce: 3/1/2024		ned Entry: 3/8/2024			(43) days prior to
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SERVIC	E	MAIL	RECEIPT OR SI	GNATURE CONF	IRMATION	
but no more the beneath such to owner of mine and Sediment of Secretary, whi	nan forty-five tract that has to crals underlyin Control Manu ch statement	days prior to such ent filed a declaration pur- ng such tract in the co-	ior to filing a permit apprequired pursuant to this y to: (1) The surface own ant to section thirty-six, nty tax records. The not rules related to oil and get formation, including the	article. Such notice ner of such tract; (2 article six, chapter ice shall include a s	or shall provide not e shall be provided b) to any owner or le twenty-two of this statement that copie	at least seven days essee of coal seams code; and (3) any s of the state Erosion
Notice is here	by provided	to:				
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And the second s		Watershed:	and the second s		ling Creek	
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Charleston, WV	25304 (304-	-926-0450) Conies o	anual and the statutes an artment of Environmenta such documents or addit 7.gov/oil-and-gas/pages/	ii Protection headqu	il and gas exploration uarters, located at 6 related to horizontal	01 57 th Street, SE, drilling may be
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ell Operator:	SWN PRODUCT	ION COMPANY, LLC	Address:	1300 Fort Pioment D	Cuite 004	SED = -
Elli April	and the second s			1300 Fort Pierpont Dr., S Morgantown, WV 26508		SEP 16 2024
elephone:	304-884-1610					
elephone: mail:	Brittany_Woody@	gswn.com	Facsimile:	304-884-1690		WV Department of Environmental Protection

4705102521

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 Ro Date of Notice:	equirement: Notice shall be provided at O3/26/2024 Date Perm	least TEN (10) days prior to filing a nit Application Filed: 09/12/2024	permit application.
Delivery metho	od pursuant to West Virginia Code § 22	2-6A-16(b)	
☐ HAND	CERTIFIED MAIL		
DELIVER	Y RETURN RECEIPT REQ	UESTED	
receipt requeste drilling a horizon of this subsection subsection may	d or hand delivery, give the surface owner ontal well: <i>Provided</i> , That notice given per as of the date the notice was provided	er notice of its intent to enter upon the pursuant to subsection (a), section te to the surface owner: <i>Provided, hower.</i> The notice, if required, shall incl	an operator shall, by certified mail return ne surface owner's land for the purpose of n of this article satisfies the requirements over, That the notice requirements of this ude the name, address, telephone number, r's authorized representative.
	by provided to the SURFACE OW	NER(s):	
	n & Kimberly S. Litman	Name:	
Address: 202 Ellii Wheeling WV 26003		Address:	
- Vilicening VVV 20000	<u>'</u>		
the surface own State: County: District: State own Note: State of the surface own State own S	st Virginia Code § 22-6A-16(b), notice is er's land for the purpose of drilling a hor www. Marshall Sandhill /alley Grove, WV		well operator has an intent to enter upon llows: 532,871.448 4,429,235.747 Walnut Grove Michael Southworth
Watershed: 6	Grandstaff Run of Wheeling Creek	<u>_</u>	
facsimile numb related to horize	est Virginia Code § 22-6A-16(b), this rear and electronic mail address of the operated drilling may be obtained from the	perator and the operator's authorize Secretary, at the WV Department o	ess, telephone number, and if available, ed representative. Additional information f Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.
Notice is here	by given by:		
	SWN Production Company, LLC	Authorized Representative:	Bob Laine
	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:

WW-6A5 (1/12)

Operator Well No. M. SOUTHWORTH MSH 2

4705102521

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

Notice Time Date of Notic	Requirement: notice shall be provided te: 03/26/2024 Date Permit	Application Filed: 09		application.
Delivery met	hod pursuant to West Virginia Code	§ 22-6A-16(c)		
CERTIF	FIED MAIL] HAND		
	RN RECEIPT REQUESTED	DELIVERY		
return receipt the planned of required to be drilling of a lamages to the (d) The notice of notice.	requested or hand delivery, give the superation. The notice required by this provided by subsection (b), section ternorizontal well; and (3) A proposed superations affected by oil and gas operates required by this section shall be give	rface owner whose land subsection shall include of this article to a surface use and compensions to the extent the denote the surface owner.	d will be used for ide: (1) A copy face owner whos sation agreement amages are com	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 nt containing an offer of compensation for pensable under article six-b of this chapter. sted in the records of the sheriff at the time
	eby provided to the SURFACE OWN is listed in the records of the sheriff at the			
	nan & Kimberly S. Litman	,		
Address: 202 E	Elliotts Lane	Addres	SS:	
Wheeling WV 260	03			
	Vest Virginia Code § 22-6A-16(c), notice the surface owner's land for the purpos WV Marshall Sandhill Valley Grove, WV Grandstaff Run of Wheeling Creek	e of drilling a horizont UTM NAD Public Road	al well on the tra Easting: Northing:	
Pursuant to Woo be provide norizontal we surface affect nformation re	d by W. Va. Code § 22-6A-10(b) to all; and (3) A proposed surface use and ed by oil and gas operations to the extelated to horizontal drilling may be oblocated at 601 57 th Street, SE, Ch	a surface owner whose compensation agreement the damages are contained from the Secretary	e land will be usent containing arompensable under stary, at the WV	code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-damages-number-10 or by visiting www.dep.wv.gov/oil-and-damages-number-10 or by visiting
Well Operator	SWN Production Company, LLC	Address:	1300 Fort Pierpont I	Dr., Suite 201
Гelephone:	570-575-6203		Morgantown, WV 26	6508
Email:	bob laine@swn.com	Facsimile		

Oil and Gas Privacy Notice:



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 206H 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

Lacy D. Prott

Cc: Brittany Woody

SWN Production Company, LLC

OM, D-6

File

RECEIVED Office of Oil and Gas

SEP 16 2024

Attachment VI Frac Additives

HCL	Product Use Solvent	Chemical Name	CAS Number
	Solvent	Hydrochloric Acid	7647-01-0
FSTI-CI-02	C: 1.111:	Water	7732-18-5
1311 01-02	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	Tetrakis(Hydroxymethyl) Phosphonium Sulfate	6381-77-7
		Quaternary ammonium compounds	55566-30-8
		Ethanol	68424-85-1
			64-17-5
Plexslick 930	Friction Reducer	Water	7732-18-5
	rriction Reducer	Hydrotreated Petroleum Distillate	64742-47-8
		Water	7732-18-5
		copolymer of 2-propenamide	69418-26-4
		Oleic Acid Diethanolamide	93-83-4
		Alcohol Ethoxylate Surfactants	68551-12-2
		Ammonium Chloride	12125-02-9
		Sodium Chloride	7647-14-5
Plexaid 655NM	Scale Inhibitor	ORGANIC PHOSPHONIC ACIDS SALTS	
		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
	Scare minipitor	ORGANIC PHOSPHONIC ACIDS SALTS	15827-60-8
		Water	7732-18-5
Clearal 270	Dissil	Glycerin	67-56-1
iculai 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
	(9)	CHEMSTREAM-Polymer-10001	
		CHEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-1000:
		Water	CHEMSTREAM-Polymer-10002
timSTREAM FR 9800		Chemstream-Alkane-00001	7732-18-5
		Chemstream-Polymer-00001	Chemstream-Alkane-00001
		Ethoxylated alcohols (C12-16)	Chemstream-Polymer-00001
		Water	68551-12-2
imSTREAM FR 2800			7732-18-5
		Distillates (petroleum), hydrotreated light	64742-47-8
		Alcohols, C11-14-iso, C13-rich, ethoxylated	78330-21-9
imSTDEANAED 0735	The second secon	Nater	7732-18-5
imSTREAM FR 9725	Friction Reducer [Distillates (petroleum), hydrotreated light	64742-47-8
	A	Ammonium Chloride	12125-02-9
	V	Vater	7732-18-5
mSTREAM SC 398 C	Scale Inhibitor C	HEMSTREAM-Polymer-10001	
		HEMSTREAM-Polymer-10002	CHEMSTREAM-Polymer-10001
		Vater	CHEMSTREAM-Polymer-10002
of 7/5/2023			7732-18-5

RECEIVED Office of Oil and Gas

SEP 16 2024

WV Department of Environmental Police

10/18/2024

OPERATOR: SWN Production Co., LLC	WELL NO: Michael Southworth MSH 206H
PAD NAME: Michael Southworth MSH Pad	
REVIEWED BY:	SIGNATURE: Bulttany Moody

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions	** Pad Built 2/11/2011	
At Least 100 Feet from Perennial Stream, La	om Pad and LOD (including any E&S Control Featur ake, Pond, Reservoir or Wetland; OR	re) to any
DEP Waiver a	and Permit Conditions	
At Least 300 Feet fro Naturally Producing	om Pad and LOD (including any E&S Control Featur Trout Stream; OR	re) to any
DEP Waiver a	and Permit Conditions	
At Least 1000 Feet fi Groundwater Intake	rom Pad and LOD (including any E&S Control Featu or Public Water Supply; OR	ire) to any
DEP Waiver a	and Permit Conditions	
At Least 250 Feet fro Drilled; OR	om an Existing Water Well or Developed Spring to W	ell Being
Surface Owne	er Waiver and Recorded with County Clerk, OR	
	e and Permit Conditions	
At Least 625 Feet from	m an Occupied Dwelling Structure to Center of the P	ad: OR
	r Waiver and Recorded with County Clerk, OR	,
	and Permit Conditions	
At Least 625 Feet from of the Pad; OR	m Agricultural Buildings Larger than 2500 Square Fe	eet to the Center
Surface Owner	r Waiver and Recorded with County Clerk, OR	RECEIVED Office of Oil and Gas
	and Permit Conditions	SEP 16 2024
		WV Department of Environmental Protection