

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

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Thursday, September 3, 2020 WELL WORK PERMIT Horizontal 6A / New Drill

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

Permit approval for JOHN GOOD JR BRK 3H Re: 47-009-00321-00-00

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:

JOHN GOOD JR BRK 3H Farm Name: JOHN PRATHER GOOD JR IRF

47-009-00321-00-00

U.S. WELL NUMBER:

Horizontal 6A New Drill

Date Issued: 9/3/2020

API Number:	_

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

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

API Number:	

PERMIT CONDITIONS

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.

WW-6B (04/15) API NO. 47-009 OPERATOR WELL NO. John Good Jr. BRK 3H
Well Pad Name: John Good Jr. BRK

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

1) Well Operator: SWN Produ	uction Co., LLC	494512924	009- Brooke	L	247- Bethany 62 <u>0</u>
		Operator ID	County	District	Quadrangle
2) Operator's Well Number: Jo	hn Good Jr. BRI	K 3H Well Pac	i Name: John	Good Jr. E	BRK
3) Farm Name/Surface Owner:	John Prather Good Jr. Irrevoo	Public Roa	d Access: McA	Adoo Ridge	e Road
4) Elevation, current ground:	1154' E	levation, proposed	post-constructi	on: 1154'	
5) Well Type (a) Gas x	Oil	Unde	erground Storag	ge	
Other					····
(b)If Gas Sha	llow <u>x</u>	Deep			
	rizontal <u>×</u>		\mathcal{A}	Der	7
6) Existing Pad: Yes or No Yes	3		. ()	15/5/	7-10-20
 Proposed Target Formation(s Target Formation- Marcellus, Up-Dip well t 		•	•	` '	Associated Pressure- 3848
8) Proposed Total Vertical Dept	h: 5905'				
9) Formation at Total Vertical D	epth: Marcellus	3			
10) Proposed Total Measured D	epth: 16825'				
11) Proposed Horizontal Leg Le	ength: 10498.75	5'			
12) Approximate Fresh Water S	trata Depths:	326'			
13) Method to Determine Fresh	Water Depths:	Salinity Profile An	alysis; Logs or	n pad	
14) Approximate Saltwater Dep	ths: 448' Salinity	y Profile			
15) Approximate Coal Seam De	pths: 308"				
16) Approximate Depth to Possi	ble Void (coal m	ine, karst, other): _	None that we a	are aware	of.
17) Does Proposed well location directly overlying or adjacent to		ms Yes	No	<u>x</u>	
(a) If Yes, provide Mine Info:	Name:				
, , , , , , , , , , , , , , , , , , ,	Depth:		***************************************		RECEIVED
	Seam:	and the second s			ce of Oil and Gas
	Owner:			J	UL 28 2020
		4	***************************************		

WV Department of Environmental Protection WW-6B (04/15)

API NO. 47- 009

OPERATOR WELL NO. John Good Jr. BRK 3H

Well Pad Name: John Good Jr. BRK

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	<u>Grade</u>	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	J-55	94#	125'	125'	CTS
Fresh Water	13 3/8"	New	H-40	48#	380'	380'	431 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	1660'	1660'	656 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	16,825'	16,825'	Tail 3497sx/ 100' Inside Intermediate
Tubing							
Liners							

C. 1890 7.10.20

TYPE	Size (in)	Wellbore Diameter (in)	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/50% Excess
Tubing							
Liners							

PACKERS

Kind:		
Sizes:		
Depths Set:		RECEIVED Office of Oil and Gas

JUL 28 2020

WV Department of Environmental Protection WW-6B (10/14)

47000900321

OPERATOR WELL NO. John Good Jr. BRK 3H
Well Pad Name: John Good Jr. BRK

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

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

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

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. In some instances, additional toe prep may be performed by pumping additional water in the toe of the well prior to perforating and pumping Stage 1 to ensure that the toe guns/toe sleeves are fully open prior to pumping stage 1. The well is produced through surface facilities consisting of high pressure production unites, horizontal separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 100 barrels a minute.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 21.91
- 22) Area to be disturbed for well pad only, less access road (acres): 8.63
- 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.

RECEIVED

Office of Oil and Gas

JUL 28 2020

WV Department of Environmental Protection

*Note: Attach additional sheets as needed.

			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	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
COAL PROTECTION	><	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
up to 3%	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
	D020	BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D047	FP 28L	\times	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
INTERMEDIATE	><	INTEGRA SEAL	CJ600	LOST CIRC MATERIAL	CELLOPHANE FLAKES	9005-81-6
	CemNet	><	><	LOST CIRC MATERIAL	COATED FIBERGLASS FIBERS	PROPRIETARY
	SUGAR	SUGAR	CJ795	CMT RETARDER	SUCROSE	57-50-1
	S001	A-7P	CJ110	ACCELERATOR	CALCIUM CHLORIDE	10043-52-4
	\sim	><	CJ111	ACCELERATOR	SODIUM CHLORIDE	7440-23-5
	><	SS-11W	CJ880	SURFACTANT	NONIONIC SURFACTANT	6540-99-4
	D047	FP 28L	X	LIQUID ANTIFOAM AGENT	POLYPROPYLENE GLYCOL	25322-69-4
	><	> <	CJX157011	SOLID ANTIFOAM AGENT	FULLERS EARTH(ATTAPULGITE)	8031-18-3
		\supset	CJ540	HP FLUID LOSS ADDITIVE	ALIPHATIC AMIDE POLYMER	PROPRIETARY
PRODUCTION	D255	\supset	X	MED TEMP FLUID LOSS ADDITIVE	POLYACRILIC POLYMER	PROPRIETARY
		> <	CJ213	RETARDER	CHRYSTALLINE SILICA	14808-60-7
		FL-66	CJ501	LOW TEMP FLUID LOSS ADD	POWDERED POLYSACCHARIDE	PROPRIETARY
1		BENTONITE	CJ020	EXTENDER	BENTONITE	1302-78-9
	D208	ASA-301	X	VISCOSIFIER/ANTI- SETTLING AGENT	REFINED POLYMER/ CHRYSTALLINE SILICA	PROPRIETARY
	D198	R-3		CEMENT RETARDER	LIGNIN	8068-51-6
	SUGAR	SUGAR	CJ795	CEMENT RETARDER	SUCROSE	57-50-1

Proposed Drilling Program Southwestern Energy Company Re-entry Rig: TBD Well: JOHN GOOD JR BRK 3 Prospect: Marcellus Shale Field: PANHANDLE FIELD WET County: BROOKE State: SHL: 40.2237 Latitude -80.5804 Longitude Southwestern Energy 40.2525 Latitude -80.5930 Longitude BHL: KB Elev: 1,179 ft MSL KB: 26 ft AGL GL Elev: 1,153 ft MSL 125 ' to 400 ' Air/Mist PROD TOC Lead @ 1,760 ' MD PROD TOC Tail @ 5,000 ' MD 400 ' to 1,680 ' Air/Mist TUBULAR DETAIL Casing Size Planned Interval Weight Grade Casing String (Min) (Min) (in) From 20 94.0# J-55 0' 125' 1,680 to 5,015 Conductor Air/Mist Surf/Coal 13.375 48.0# H-40 0' 380 ' Intermediate 9.625 36.0# J-55 0' 1,660 Production 16,825 5.5 20.0# P-110 HP 0' CEMENT DETAIL Sacks Class Density Conductor: 151 19.3 431 15.6 Surface: A Intermediate: 656 A 16 Production: 3497 A 15.6 TD at 5,015 ' Freshwater Depth - 326 'TVD 5,015 'to 6,325 ' KOP at 5,015 'MD 12.0-12.5 ppg Coal Depth - 308 'TVD Saltwater Depth - 448 'TVD TVD - 5,905 ' TMD - 16,825 ' TD at 16,825 ' MD 5,760 'TVD 5,905 ' Target Center 6,325 'to 16,825 ' EOB at 5,905 'TVD 12.5-13.5 ppg Created by: C R Hall on 06/15/2020

John Good Jr. BRK 3H AOR

API	Operator	Status	Latitude	Longitude	Vertical TD	Producing Formation	Producing Zones Not Perforated
47-09-00113	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.223907	-80.580720		MARCELLUS	
47-09-00124	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.223944	-80.580734		MARCELLUS	
47-09-00188	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.223796	-80.580680		MARCELLUS	
47-09-00189	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.223811	-80.580611		MARCELLUS	
47-09-00196	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.223833	-80.580693		MARCELLUS	
47-09-00197	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.223848	-80.580624		MARCELLUS	
47-09-00198	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.223870	-80.580707		MARCELLUS	

WW-9 (4/16)

API Number 47 - 009

Operator's Well No. John Good Jr. BRK 3H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name SWN Production Co., LLC	OP Code 494512924
Watershed (HUC 10) Upper Ohio South	Quadrangle Bethany & Steubenville East
Do you anticipate using more than 5,000 bbls of water to con	nplete the proposed well work? Yes V No
Will a pit be used? Yes No V	
If so, please describe anticipated pit waste:	
Will a synthetic liner be used in the pit? Yes	No If so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	- 20 20 - 2 - 4 20 20 4 - 20 20 4 - 20 20 4 - 20 20 20 20 20 20 20 20 20 20 20 20 20
Underground Injection (UIC Peri Reuse (at API Number At the next a	mit Number Various Approved Facilities
Off Site Disposal (Supply form W	
Other (Explain_recovery and solidi	
Will closed loop system be used? If so, describe: Yes- See	Attachment 3A
Drilling medium anticipated for this well (vertical and horizo	ontal)? Air, freshwater, oil based, etc. Air drill to KOP, fluid drill with SOBM from KOP to TD
-If oil based, what type? Synthetic, petroleum, etc	Synthetic Oil Base
Additives to be used in drilling medium? Attachment 3B	
Drill cuttings disposal method? Leave in pit, landfill, remove	ed offsite, etc. landfill
-If left in pit and plan to solidify what medium will l	
and the second s	WF-1032, Short Creek SWF-1034, Carbon Limestone MSWL018781, Wetzel County 1021
Apex Sanitary Landtill Ub-U8438, Brooke Co S	SVVF-1013,
	d Gas of any load of drill cuttings or associated waste rejected at any ed within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the West provisions of the permit are enforceable by law. Violations law or regulation can lead to enforcement action. I certify under penalty of law that I have persona application form and all attachments thereto and that, bas obtaining the information, I believe that the information is penalties for submitting false information, including the possi Company Official Signature Company Official (Typed Name) Brittany Woody Company Official Title Senior Regulatory Analyst	d conditions of the GENERAL WATER POLLUTION PERMIT issued Virginia Department of Environmental Protection. I understand that the of any term or condition of the general permit and/or other applicable. Ily examined and am familiar with the information submitted on this sed on my inquiry of those individuals immediately responsible for true, accurate, and complete. I am aware that there are significant ibility of fine or imprisonment. NOTARY PUBLIC OFFICIAL SEAL JESSICA L. VANGILDER State of West Virginia My Comm. Expires Jul 20, 2020 SWN Production Company, LLC 179 Innovation Dr. Jane Lew, WV 26378
Subscribed and sworn before me this 16th day of Jessica 2. Van 2.	Suly . 20 20 Notary Public
My commission expires 7- 20-20	

Operator's Well No. John Good Jr. BRK 3H

roposed Revegetation Treatment: Acres Disturbed 21.91	Prevegetation pl	-1
Limeas determined by pH test min.2 Tons/acre or to correct to pH8.63		
Fertilizer type 10-20-20		
Fertilizer amount 600/500 lbs/acre		
Mulch Hay/Straw Tons/acre		
Seed Mixtu	<u>ıres</u>	
Temporary	Perma	nent
Seed Type Ibs/acre Attachment 3C	Seed Type	lbs/acre
Attach: Maps(s) of road, location, pit and proposed area for land application (underlied). If water from the pit will be land applied, include dimension creage, of the land application area.		
Maps(s) of road, location, pit and proposed area for land application (urovided). If water from the pit will be land applied, include dimension creage, of the land application area. Thotocopied section of involved 7.5' topographic sheet.	ns (L x W x D) of the pit, and	l dimensions (L x W), an
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Attachment 3A

CLOSED LOOP SYSTEM

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

The closed loop system consists of several sets of a shale gas separator (often called a 'methana'), several banks of solids shakers, high speed centrifuges (1 or 2) used to process the fluid portion of the mud system to remove low gravity solids, low speed centrifuge used for barite recovery in high weight liquid drilling systems, a dewatering system (for air intervals and if freshwater mud systems are in use) used to further clean liquids by flocculation and additional mechanical separation, associated open top tanks for processing liquids and capturing solids for disposal, and transfer pumps to move fluids through the processes. There is an area adjacent to the cuttings tanks (Red Zone) where a track hole is utilized to recover the processed cuttings for loading into containers for hauloff. (See attached schematic of a generic closed loop system layout)

Below are discussions of the processes used when drilling the air interval or liquids interval.

AIR DRILLING INTERVALS

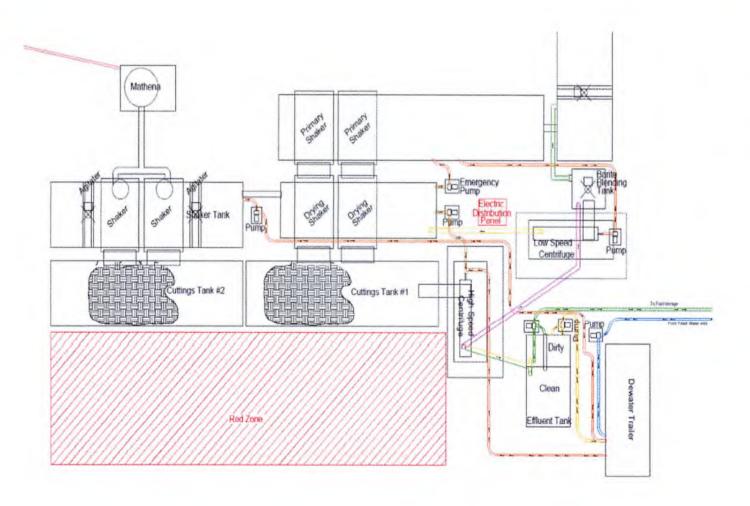
During air drilling operations, flow from the rig will pass down the flowline to the Shale Gas Separater (sometimes called a methane) where gas and liquids/solids are separated. Gas is sent to the flare scrubber tank and is flared at the flare stack. Solids and fluids pass across a shaker system to separate solids from liquids. Solids pass into the cuttings tanks where they are captured for drying and hauloff to an approved landfill site. Liquids fall into a shaker tank and are collected by a centrifugal pump to be processed by the high speed centrifuge to further separate liquids and solids. Solids are then dumped into the cuttings tank for drying and hauloff. Liquids are further processed to remove additional low gravity solids before being reused or transferred to onsite storage.

LIQUIDS DRILLING (FRESHWATER, BRINE, SOBM)

When drilling is converted to liquids drilling, the shale gas separator and associated shaker tank are bypassed, and the liquids system is processed over the primary and drying shaker systems. Cuttings drop into the cuttings tank for additional processing. Any recoverable associated liquids attached to the cutting are recovered out the tank and processed through the low gravity (high speed) and barite recovery centrifuges (low speed) to further remove low gravity solids and to recover barite for reuse in the mud systems.

Solids Control Layout





Attachment 3B

Drilling Mediums

Air Freshwater (if needed based on conditions) Intermediate/Coal (if present): Air Production Hole: Air Synthetic Oil (Base Fluid for mud system) Barite Calcium Chloride Lime Organophilic Bentonite Primary and Secondary Emulsifiers Gilsonite Calcium Carbonate

Friction Reducers

Attachment 3C



WVD Seeding Specification



To Order Seed contact Lyndsi Eddy Flippo office 570-996-4271 cell 501-269-5451 lyndsi_eddy@swn.com

*unless otherwise dictated by soil test results

(please allow 7 to 10 days for delivery)

NON-ORGANIC PROPERTIES			
Seed Mixture: ROW Mix	swi	N Supplied	
Orchardgrass	40%		
Timothy	15%		
Annual Ryegrass	15%		
Brown Top Millet	5%		
Red Top	5%		
Medium Red Clover	5%	All legumes are	
White Clover	5%	innoculated at 5x normal	
Birdsfoot Trefoil	5%	rate	
Rough Bluegrass	5%		
Apply @ 100lbs per acre April 16th- Oct. 14th		Apply @ 200lbs per acre Oct. 15th- April 15th PLUS bs per acre of Winter Wheat	

SOIL AIVIENDIVIENTS	
10-20-20 Fertilizer	*Apply @ 500lbs per Acre
Pelletized Lime	Apply @ 2 Tons per Acre

Seeding Calculation Information:

1452' of 30' ROW/LOD is One Acre 871' of 50' ROW/LOD is One Acre 622' of 70' ROW/LOD is One Acre

Synopsis:

Every 622 linear feet in a 70' ROW/LOD, you should be using (2) 50lb bags of seed, (4) 50lb bags of fertilizer and (80) 50lb bags of Lime (2x seed in winter months + 50lb Winter Wheat/ac).

Special Considerations:

Landowner Special Considerations including CREP program participants require additional guidance that is not given here. Discuss these requirements with SWN supervision at the beginning of the project to allow time for special seed delivery.

Seed Mixture: SWN Production Or	rganic Mix	SWN Supplied
Organic Timothy	50%	
Organic Red or White Clover	50%	
OR		
Organic Perennial Ryegrass	50%	
Organic Red or White Clover	50%	
Apply @ 100lbs per acre		Apply @ 200lbs per acre
April 16th- Oct. 14th		Oct. 15th- April 15th
Organic Fertilizer @ 200lbs per Ac	re	Pelletized Lime @ 2 Tons per Acre

Seed Mixture: Wetland Mix	SWN Supplied
VA Wild Ryegrass	20%
Annual Ryegrass	20%
Fowl Bluegrass	20%
Cosmos 'Sensation'	10%
Redtop	5%
Golden Tickseed	5%
Maryland Senna	5%
Showy Tickseed	5%
Fox Sedge	2.5%
Soft Rush	2.5%
Woolgrass	2.5%
Swamp Verbena	2.5%
Apply @ 25lbs per acre	Apply @ 50lbs per acre
April 16th- Oct. 14th	Oct. 15th- April 15th

MARCELLUS WELL DRILLING PROCEDURES AND WELL SITE SAFETY PLAN

Scanned Uploaked to Q. 7/25/20_WS

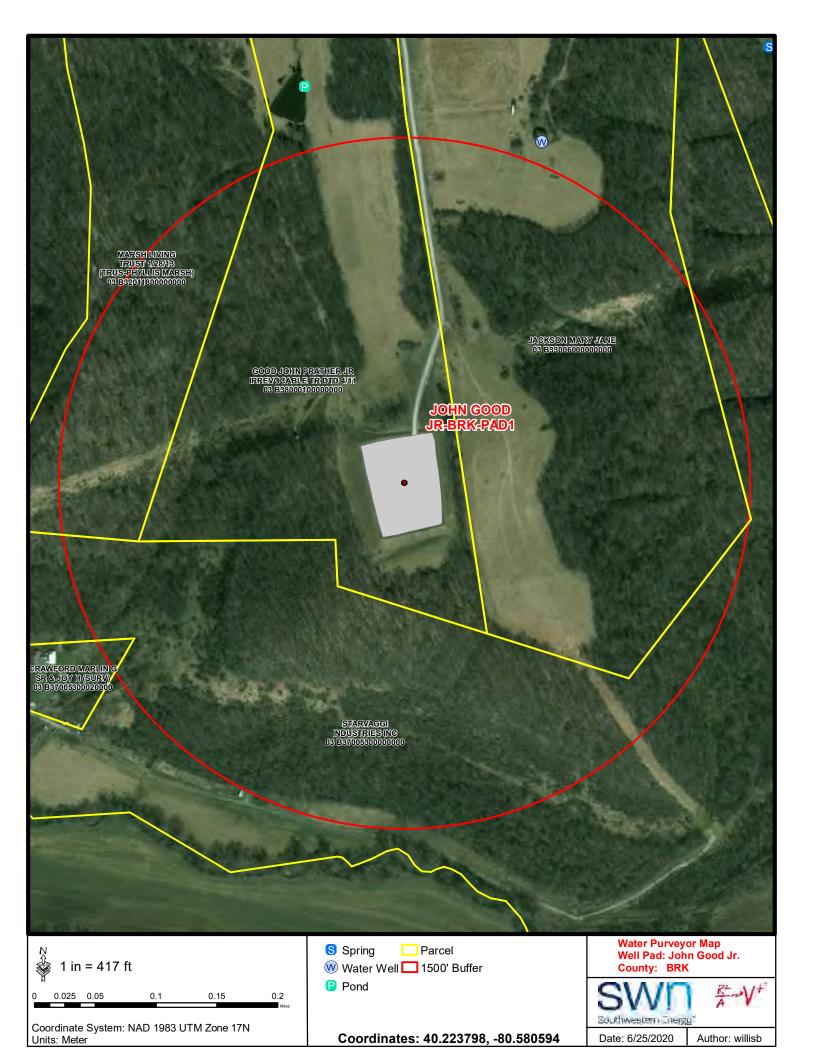


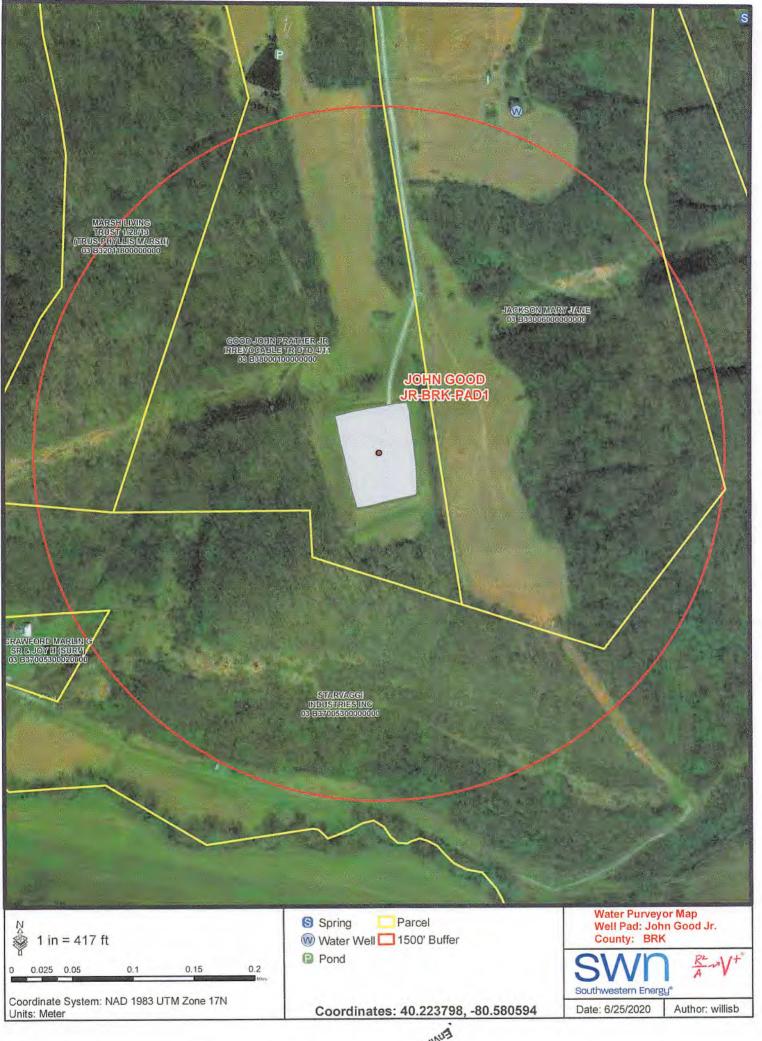
SWN Production Company, LLC 1300 Fort Pierpont Drive, Suite 201 Morgantown, West Virginia 26508

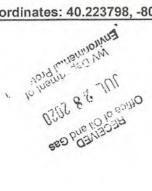
API NO. 47-XXX-XXXXX
WELL NAME: John Good Jr. BRK 3H
Bethany & Steubenville East QUAD
Buffalo DISTRICT
Brooke COUNTY, WEST VIRGINIA

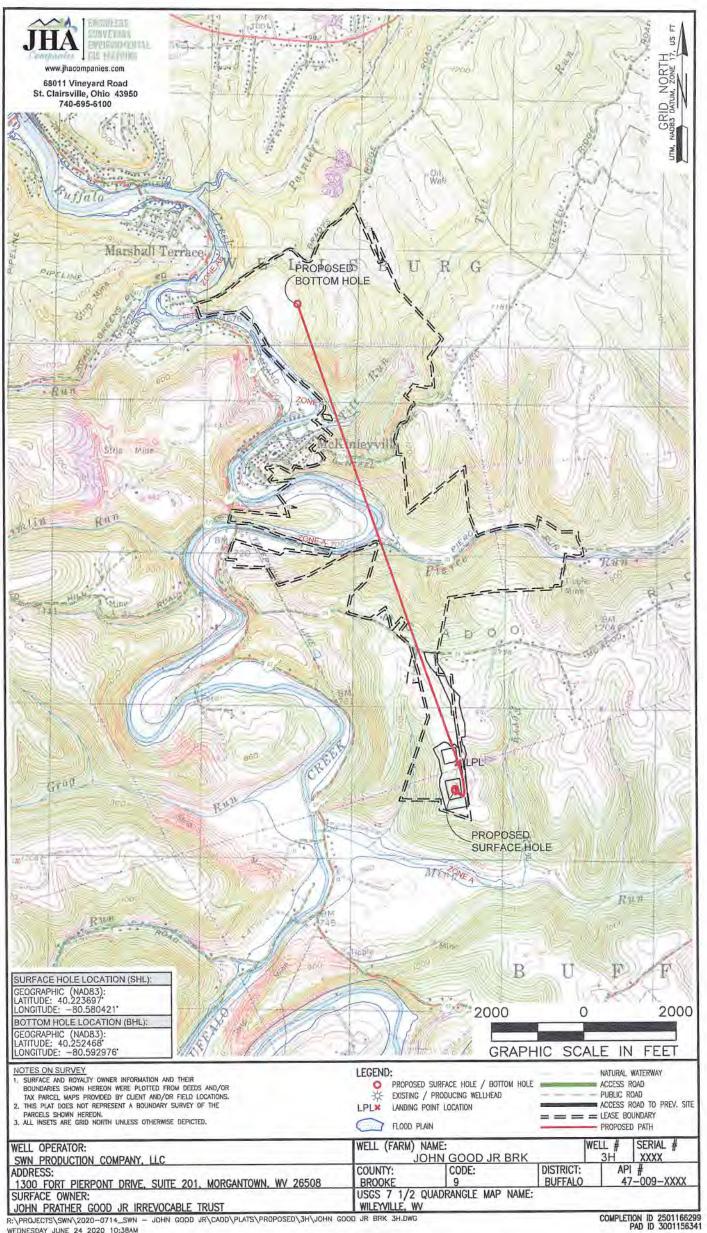
Submitted by:	
Name: Brittany Woody Shittany Moody	Date: <u>6/22/2020</u>
Title: Senior Regulatory Analyst	SWN Production Co., LLC
Approved by: Name: Bac C- 1880 Title: Dil & la Superior	Date: 7:10:20
Approved by:	
Name:	Date:
Title:	

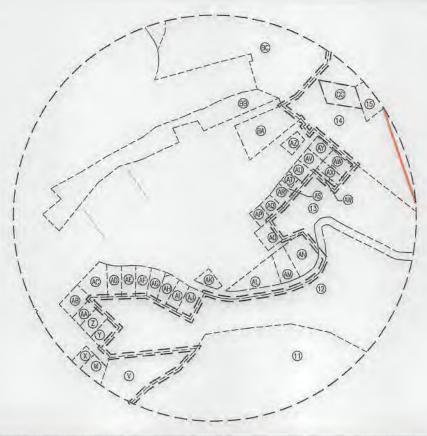
SWN PRODUCTION COMPANY, LLC - CONFIDENTIAL











	WELL BORE TABLE FOR SURFACE/ROYALTY OWNERS	
RACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	JOHN PRATHER GOOD JR IRREVOCABLE TRUST (S)/(R)	03-838-001.0
RACT	SURFACE OWNER	TAX PARCEL
2	BRIAN BIRDASALL	03-B32-120.0
3	CRAIG & COURTNEY HAVELKA	03-832-121.0
4	TRAVIS A MILLER	03-832-122.0
5	CARLE LEWIS & DELCIE MAYJONES	03-832-124.0
6	EDWARD J. MARKER	03-B32-126.0
7	JAMES 5. & ADRIENE N. ALLEN (SURVIVOR)	03-832-098.0
8	STARVAGGI INDUSTRIES INC.	03-833-054.0
9	MARK & GEORGIA FEDAK	03-832-099.0
10	SAMUEL HERVEY HUBBARD	03-B32-097.0
11	SAMUEL HERVEY HUBBARD	03-832-095.0
12	ALBERT & LOTTIE STEWART	03-B32H-050,0
13	STARVAGGI INDUSTRIES INC.	03-833-054.0
14	STARVAGGI INDUSTRIES INC.	03-B32H-041.0
15	TIMOTHYJ, ARACICH	03-B32H-008.0
16	MILDRED MANI & MILES BAUER	03-827-026.0
17	STARVAGGI INDUSTRIES INC.	03-827-027.0
	ADJOINING OWNERS TABLE	
RACT	SURFACE OWNER	TAX PARCEL
A	MARY JANE JACKSON ETAL	03-833-060.0
В	STARVAGGI INDUSTRIES INC	03-B37-053.0
C	RICHARD RODGERS, CHERI SHARP, EDWARED O'DYER, ETAL	03-837-048.0
D	JOHN PRATHER GOOD III & LAURIE THOMAS (SURVIVOR)	03-832-119.0
E	BRADFORD L. JONES & SHARON E. SNYDER (SURVIVOR)	03-B32-123.0
F	DAVID PIERCE	03-832-125.0
G	JOHN P. GOOD III & KENNETH D. JOHNSTON	03-832-117.0
H	JAMIE L. & LESLIE OHLER (SURVIVOR)	03-832-099.1
1	MATTHEW P, TOMSHACK	03-B32-099.4
j	JERY B. & PAMELA S. MERCER (SURVIVOR)	03-832-099.3
K	LLOYD T. & JUDITH KAY VAN HORN	03-B32-106.0
L	LLOYD T. & JUDITH KAY VAN HORN	03-832-104.0
-	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS AND	190,440,4530
M	MARK & GEORGIA FEDAK	UNKOWN
N	MARK & GEORGIA FEDAK (SURVIVOR)	03-832-103.0
0	MARK & GOERGIA FEDAK	03-832-102.0
P	MARK & GEORGIA FEDAK (SURVIVOR)	03-B32-100.0
Q	MARK & GEORGIA FEDAK	03-832-101,0
R	MARK A. & GEORGIA M FEDAK	03-B32-199.0
S	HARRY & JUDITH ICKES (SURVIVOR)	03-832-133,0
T	SAMUEL HERVEY HUBBARD	03-832-096.0
U	MICHAEL & DELA SEREVICZ	03-832-090.0
٧	JAMES E. & ANNETTE M. BEST (SURVIVOR)	03-832-201.0
W	JOHN L. SR & LUCILLE M BEST	03-832-095.0
X	TERRY LYNN BEST	03-832-094.0
Y	JADON LEWIS & MARY HELEN LISTON (SURVIVOR)	03-832G-019.0
Z	SUANDRA LANCASTER	03-B32G-020.0
AA	HEIDI NOLAN	03-B32G-021.0
AB	HEIDI NOLAN	03-B3ZG-022.0
AC	MEŁVIN A. COLLEY JR & KATHY L. STEWART (SURVIVOR)	03-B32G-03 L0
AD	DENNIS F. MCQUILLAN JR	03-B32G-032.0
AE	GARY PRATZ, CONNIE MORRIS, & KAREN MACKAY	03-832G-033,0
AF	JONATHAN M. MCGOLDRICK	03-8326-034.0
AG	HELEN V. TENNANT	03-B32G-035.0
AH	ALBERT & LOTTIE J. STEWART	03-B32G-037.0
AL	ALLEN L & TERESA A. MORRIS (SURVIVOR)	03-B32H-046.0

INSET I

-	ADJOINING OWNERS TABLE	
TRACT	SURFACE OWNER	TAX PARCEL
AJ	MARY, LAURA, & HELEN KRUGER	03-B32H-047.0
AK	ALBERT & LOTTIE STEWART	03-B32H-031.0
AL	LUCILLE MOZINGO	03-B32H-037.0
AM	RONALD L. MCMASTERS JR	03-B32H-038.0
AN	DAVID HAMILTON	03-B32H-039.0
AO	SCOTT A. & FAITH L. LAW	03-B32H-036.0
AP	RICHARD P. & CLEO M TAYLOR	03-B32H-027.0
AQ	RICHARD P. & CLEO M TAYLOR	03-B32H-026.0
AR	RICHARD P. & CLEO M TAYLOR	03-B32H-025.0
AS	JAMIE JORDAN	03-832H-025.1
AT	JAMIE ALAN JORDAN	03-B32H-024.0
AU	JAMIE ALAN JORDAN	03-B32H-023,0
AV	JAMIE ALAN JORDAN	03-832H-022.0
AW	WILLIAM E. JORDAN	03-B32H-D20.0
AX	JAMIE ALAN JORDAN	03-B32H-019.0
AY	JEFFREY RAY JR & STACIA JOANETTE JORDAN	03-B32H-021.0
AZ	CLYDE& CAROL JORDAN	03-B32H-018.0
BA	CLYDE & CAROL JORDAN (SURVIVOR)	03-B32H-041.1
BB	STARVAGGI INDUSTRIES INC	03-B32G-063.0
BC	TERRY & CHARLOTTE STEWART	03-B32H-001.0
BD	SYLVIA TAYLOR	03-B32-083.0
BE	SYLVIA TAYLOR	03-832-084.0
BF	SYLVIA TAYLOR & TERENCE SPERRINGER	03-832-086.0
BG	SYLVIA TAYLOR	03-B32-085.0
вн	GLORIA PRAMESA	03-832-049.0
BI	RICHARD E. HARRISON JR	03-B32-048.0
Bi	MILDRED MANI, MILES & ERIK BAUER	03-827-021.0
BK	MILDRED MANI REVOCABLE TRUST	03-B27-028.0
BL	MICHAEL W. SOMON	03-827-025.0
BM	CHAD ALAN & TIFFANY NICOLE GRAHAM	03-827-022.0
BN	KATHRYN A, DEGARMO (KATHRYNA, YOUNG)	03-B33-020.4
BO	THOMAS M & DEBORAH J. OLDAKER	03-833-001.0
BP	NAOMI BARNHARDT	03-833-003.0
	ERIC SCOTT	03-833-004.0
BQ	GARYA, JR & ANDREA MORRIS	03-B33-D05.0
BR		03-B33-006.0
BS	CAROL ANN WISNER BEAR TRAM PROPERTIES LLC	03-833-010.2
BT	STARVAGGI INDUSTRIES INC	03-833-055.0
BU		03-833-055.1
BV	SCOTT & HOLLYSTEWART STARVAGGI INDUSTRIES INC	03-833-041.0
BW		03-B33-051.0
BX	CHARLES J. DIXON	03-838-048.0
BY	LAWRENCE MCIAUGHLIN I) (L/E GROVER LEE HAUGHT)	03-833-048.0
BZ	CARL & SOPHIA DEGARMO	11 PM T 1 M T S 1 LU
CA	PELUCHETE FAMILY TRUST	03-833-052.0
CB	PELUCHETE FAMILY TRUST	03-B33-053.0
CC	DEBRA K. PELAEZ	03-833-071:0
CD	GREG, REGINA, CHRISTOPHER, & JOSHUA ZOLMAN	03-833-069.0
CE	SYLVIA ELIZABETH BARR & JOSEPH BEAVER	03-833-056,0
CF	JOHN PRATHER GOOD JR IRREVOCABLE TRUST	03-833-057.0
CG	TRINA ARACICH	03-B92H-007.0

REVISIONS:	COMPANY:	SWN Production Company, LLC	Pro	duction Company™
	OPERATOR'S WELL #: 47-00	JOHN GOO 1-00331-1466 3H		DATE: 06-24-2020 API NO: 47-009-XXXXX DRAWN BY:R. GRIMES
	DISTRICT: BUFFALO	COUNTY: BROOKE	STATE: WV	SCALE: N/A DRAWING NO:2020-071 WELL LOCATION PLAT

WW-6A1 (5/13) Operator's Well No.

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 I 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

RECEIVED
Office of Oil and Gas

JUL 28 2020

Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas WV Department of Environmental Protection

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

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

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

Well Operator:	SWN Production Co., LLC	
Ву:		
Its:	Gary Nuckolls, Staff Landman	

Page 1 of

EXHIBIT A

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator John Good Jr BRK 3H

Brooke County, West Virginia

#	ТМР	LESSOR	LESSEE	ROYALTY	BK/PG
1)	03-B38-001.0	John Prather Good, Jr.	Range Resources- Appalachia, LLC Chesapeake Appalachia, LLC	1/8+	10/274 10/552
			SWN Production Company, LLC		30/480
2)	03-B32-120.0	Janice M. Welch and Donald L. Welch	Chesapeake Appalachia, LLC	1/8+	18/529
			SWN Production Company, LLC		30/480
3)	03-B32-121.0	Craig Anthony Havelka and Courtney Renee Havelka	Chesapeake Appalachia, LLC	1/8+	18/589
			SWN Production Company, LLC		30/480
4)	03-B32-122.0	William Darrell Embrey, Jr and Marcia Jo Embrey	Chesapeake Appalachia, LLC	1/8+	18/304
			SWN Production Company, LLC		30/480
5)	03-B32-124.0	Carle Lewis Jones and Delcie May Jones	Chesapeake Appalachia, LLC	1/8+	13/391
			SWN Production Company, LLC		30/480
6)	03-B32-126.0	James P. Lewis Revocable Trust	SWN Production Company, LLC	1/8+	34/592
		Rebecca Lewis Binder, single	SWN Production Company, LLC	1/8+	34/644
		George Markley Lewis, a married man, dealing herein with his separate property	SWN Production Company, LLC	1/8+	34/577
		Margaret Lewis Stevens, a married woman, delaing herein with her separate property	SWN Production Company, LLC	1/8+	34/573
		Peery Brittain Lewis, Jr., a married man, dealing herein with his separate	SWN Production Company, LLC	1/8+	34/640
		David Markley Lewis, single	SWN Production Company, LLC	1/8+	34/636
		Golden Eagle Resources II, LLC	SWN Production Company, LLC	1/8+	40/586
7)	03-B32-098.0	James P. Lewis Revocable Trust	SWN Production Company, LLC	1/8+	34/592
		Rebecca Lewis Binder, single	SWN Production Company, LLC	1/8+	34/644

EXHIBIT A

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator John Good Jr BRK 3H

Brooke County, West Virginia

		George Markley Lewis, a married man, dealing herein with his separate property	SWN Production Company, LLC	1/8+	34/577
		Margaret Lewis Stevens, a married woman, delaing herein with her separate property	SWN Production Company, LLC	1/8+	34/573
		Peery Brittain Lewis, Jr., a married man, dealing herein with his separate property	SWN Production Company, LLC	1/8+	34/640
		David Markley Lewis, single	SWN Production Company, LLC	1/8+	34/636
		Golden Eagle Resources II, LLC	SWN Production Company, LLC	1/8+	40/586
3)	03-B33-054.0	Golden Eagle Resources II, LLC	SWN Production Company, LLC	1/8+	40/607
))	03-B32-099.0	James P. Lewis Revocable Trust	SWN Production Company, LLC	1/8+	34/592
		Rebecca Lewis Binder, single	SWN Production Company, LLC	1/8+	34/644
		George Markley Lewis, a married man, dealing herein with his separate property	SWN Production Company, LLC	1/8+	34/577
		Margaret Lewis Stevens, a married woman, delaing herein with her separate property	SWN Production Company, LLC	1/8+	34/573
		Peery Brittain Lewis, Jr., a married man, dealing herein with his separate property	SWN Production Company, LLC	1/8+	34/640
		David Markley Lewis, single	SWN Production Company, LLC	1/8+	34/636
		Golden Eagle Resources II, LLC	SWN Production Company, LLC	1/8+	40/586
10)	03-B32-097.0	Samuel Hervey Hubbard	Chesapeake Appalachia, LLC	1/8+	12/647
			SWN Production Company, LLC		30/480
11)	03-B32-096.0	Samuel Hervey Hubbard	Chesapeake Appalachia, LLC	1/8+	11/720
			SWN Production Company, LLC		30/480
12)	03-B32H-050.0	Young Brothers, LLC	SWN Production Company, LLC	1/8+	33/691
		Kasler Oil & Gas Development, LLC	SWN Production Company, LLC	1/8+	33/696

EXHIBIT A

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator John Good Jr BRK 3H

Brooke County, West Virginia

13)	03-B33-054.0	Golden Eagle Resources II, LLC	SWN Production Company, LLC	1/8+	40/607
14)	03-B32H-041.0	Golden Eagle Resources II, LLC	SWN Production Company, LLC	1/8+	40/607
15)	03-B32H-008.0	Timothy W. Aracich and Dianna M. Aracich	Chesapeake Appalachia, LLC	1/8+	13/209
			SWN Production Company, LLC		30/480
16)	03-B27-026.0	Mildred Mani	Great Lakes Energy Partners, L.L.C.	1/8+	9/526
			Range Resources- Appalachia, LLC		20/773
			Chesapeake Appalachia, LLC		10/552
			SWN Production Company, LLC		30/480
		Miles Bauer	Great Lakes Energy Partners, L.L.C.	1/8+	9/596
			Range Resources- Appalachia, LLC		20/773
			Chesapeake Appalachia, LLC		10/552
			SWN Production Company, LLC		30/480
17)	03-B27-027.0	Cornelia Jean Waugh	Chesapeake Appalachia, LLC	1/8+	14/595
			SWN Production Company, LLC		30/480



SWN Production Company, LLC

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

June 26, 2020

Ms. Laura Adkins WV DEP Office of Oil & Gas 601 57th St., SE Charleston, WV 25304

RE: SWN's proposed New Well: John Good Jr. BRK 1H & John Good Jr. BRK 3H in Brooke County, West Virginia, Drilling under Laurel Avenue, Genteel Ridge Road, McAdoo Ridge Road, and Pierce Run Road.

Dear Ms. Adkins:

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 Laurel Avenue, Genteel Ridge Road, McAdoo Ridge Road, and Pierce Run Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,

Gary Nuckolls Staff Landman

SWN Production Company, LLC

R2 wV+°

RECEIVED/

RECEIVED

RECEIVED

☐ RECEIVED

NOT REQUIRED

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

Date of Notic	ce Certification:		API No. 47		
				Well No. John	
			Well Pad N	ame: John Go	ood Jr. BRK
Notice has l	0				
	ne provisions in West Virginia Code tract of land as follows:	s § 22-6A, the Operator has pro	ovided the req	uired parties v	vith the Notice Forms listed
State:	West Virginia	UTM NAD 83	Easting:	535698.03	
County:	009- Brooke	UTWINAD 83	Northing:	4452670.32	
District:	Buffalo	Public Road Acc	cess:	McAdoo Ridge R	oad
Quadrangle:	Bethany & Steubenville East	Generally used t	farm name:	John Good Jr.	
Watershed:	Upper Ohio South				
Virginia Code	of subsection (b), section sixteen e § 22-6A-11(b), the applicant shall have been completed by the applica	tender proof of and certify to			
that the Ope	West Virginia Code § 22-6A, the Crator has properly served the requireCK ALL THAT APPLY		this Notice C	ertification	OOG OFFICE USE ONLY
☐ I. NO	TICE OF SEISMIC ACTIVITY of	r NOTICE NOT REQUI			RECEIVED/ NOT REQUIRED
■ 2. NO	TICE OF ENTRY FOR PLAT SUR	VEY or NO PLAT SURV	EY WAS CO	ONDUCTED	RECEIVED

NOTICE OF ENTRY FOR PLAT SURVEY

☐ WRITTEN WAIVER BY SURFACE OWNER

WAS CONDUCTED or

(PLEASE ATTACH)

■ 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE

Required Attachments:

■ 5. PUBLIC NOTICE

6. NOTICE OF APPLICATION

4. NOTICE OF PLANNED OPERATION

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: Senior Regulatory Analyst

Telephone: 304-884-1610

Address: 1300 Fort Pierpont Dr., Suite 201

Morgantown, WV 26508

Facsimile: 304-884-1690

Email: Brittany_Woody@swn.com

JESSICA L. VANGILLER
State of West Virginia
My Comm. Expires Jul 20, 2020
SWN Production Company, LLC
179 Innovation Dr. Jane Lew, WV 26378

Subscribed and sworn before me this

J.5

My Commission Expires

1-20-20

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 deepprivacyofficer@wv.gov,

WW-6A (9-13) API NO. 47- 009 OPERATOR WELL NO. John Good Jr. BRK3H
Well Pad Name: John Good Jr. BRK

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: Date Permit Application Filed: Notice of:	HX.
PERMIT FOR ANY WELL WORK CONSTRUCTION O	PPROVAL FOR THE F AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-6A-	10(b)
. H.	HOD OF DELIVERY THAT REQUIRES A EIPT OR SIGNATURE CONFIRMATION
the surface of the tract on which the well is or is proposed to be lo oil and gas leasehold being developed by the proposed well work described in the erosion and sediment control plan submitted purs operator or lessee, in the event the tract of land on which the well more coal seams; (4) The owners of record of the surface tract or well work, if the surface tract is to be used for the placement, con impoundment or pit as described in section nine of this article; (5 have a water well, spring or water supply source located within or provide water for consumption by humans or domestic animals; a	In the well plat to each of the following persons: (1) The owners of record of cated; (2) The owners of record of the surface tract or tracts overlying the lift the surface tract is to be used for roads or other land disturbance as uant to subsection (c), section seven of this article; (3) The coal owner, proposed to be drilled is located [sic] is known to be underlain by one or tracts overlying the oil and gas leasehold being developed by the proposed struction, enlargement, alteration, repair, removal or abandonment of any of Any surface owner or water purveyor who is known to the applicant to be thousand five hundred feet of the center of the well pad which is used to ind (6) The operator of any natural gas storage field within which the
subsection (b) of this section hold interests in the lands, the applic records of the sheriff required to be maintained pursuant to sectio provision of this article to the contrary, notice to a lien holder is n	ree tenants in common or other co-owners of interests described in cant may serve the documents required upon the person described in the n eight, article one, chapter eleven-a of this code. (2) Notwithstanding any ot notice to a landowner, unless the lien holder is the landowner. W. Va. provide the Well Site Safety Plan ("WSSP") to the surface owner and any as provided in section 15 of this rule.
subsection (b) of this section hold interests in the lands, the application records of the sheriff required to be maintained pursuant to section provision of this article to the contrary, notice to a lien holder is not Code R. § 35-8-5.7.a requires, in part, that the operator shall also	cant may serve the documents required upon the person described in the n eight, article one, chapter eleven-a of this code. (2) Notwithstanding any of notice to a landowner, unless the lien holder is the landowner. W. Va. provide the Well Site Safety Plan ("WSSP") to the surface owner and any g as provided in section 15 of this rule.
subsection (b) of this section hold interests in the lands, the application of the sheriff required to be maintained pursuant to section provision of this article to the contrary, notice to a lien holder is in Code R. § 35-8-5.7.a requires, in part, that the operator shall also water purveyor or surface owner subject to notice and water testing. Application Notice WSSP Notice E&S Plan Notice	eant may serve the documents required upon the person described in the neight, article one, chapter eleven-a of this code. (2) Notwithstanding any of notice to a landowner, unless the lien holder is the landowner. W. Va. provide the Well Site Safety Plan ("WSSP") to the surface owner and any as provided in section 15 of this rule. The Well Plat Notice is hereby provided to:
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API NO. 47-009

OPERATOR WELL NO. John Good Jr. BRK 3H

Well Pad Name: John Good Jr. BRK

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

Not	ice Time Require	ment: notice shall be pr	ovided no later tha	n the filing date of permit application.	
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	e of Notice:	Date Permit Appl	ication Filed: [A		
Not	ice of:		V		
1	PERMIT FOR A	NY D CERT	TFICATE OF APP	ROVAL FOR THE	
	WELL WORK			AN IMPOUNDMENT OR PIT	
	WEDE WORK	CONC	STRUCTION OF T	arim ourself our i	
Deli	ivery method pur	suant to West Virginia	Code § 22-6A-10	(b)	
	PERSONAL	✓ REGISTERED	☐ METH	OD OF DELIVERY THAT REQUIRES A	
	SERVICE	MAIL		PT OR SIGNATURE CONFIRMATION	
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Nan	ne:			Name: Starvaggi Industries, Inc.	
Add	ress:			Address: 401 Pennsylvania Ave	
_				Weirton, WV 26062	
Nan				COAL OPERATOR	
Add	ress:		_	Name:	
DS	TOE A CE OWNED	R(s) (Road and/or Other	Dicturbanco	Address:	
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OS!	URFACE OWNER	R(s) (Impoundments or I	Pits)	Name:	
Nan	ne:			Address:	
Add	lress:				
				*Please attach additional forms if necessary	

API NO. 47-009

OPERATOR WELL NO. John Good Jr. BRK 3H

Well Pad Name: John Good Jr. BRK

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 www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12. Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

API NO. 47-009

OPERATOR WELL NO. John Good Jr. BRK 3H

Well Pad Name: John Good Jr. BRK

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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.

WW-6A (8-13)

API NO. 47-009

OPERATOR WELL NO. John Good Jr. BRK 3H

Well Pad Name: John Good Jr. BRK

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.

4700900321

API NO. 47- 009

OPERATOR WELL NO. John Good Jr. BRK 3H

Well Pad Name: John Good Jr. BRK

hereby given by:

perator: SWN Production Co., LLC

none: 304-884-1610 ail: 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.

NOTARY PUBLIC OFFICIAL SEAL
JESSICA L. VANGILDER
State of West Virginia
My Comm. Expires Jul 20, 2020
SWN Production Company, LLC
179 Innovation Dr. Jane Lew, WV 26376

Subscribed and sworn before me this 116 day of July, 2020.

Notary Public

My Commission Expires 1-20-2

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

Notice Time	Requirement:	Notice shall be prov	rided at least SEVEN (7) day	ys but no more tha	n FORTY-FIVE (45) days prior to		
Date of Notic	ce: 5/13/2020	Date of Plan	nned Entry: 5/20/2020				
Delivery met	hod pursuant	to West Virginia C	ode § 22-6A-10a				
☐ PERSO	NAL 🔳	REGISTERED	☐ METHOD OF DEL	IVERY THAT RE	EQUIRES A		
SERVIC	Œ	MAIL	RECEIPT OR SIGN	NATURE CONFIR	RMATION		
on to the surfi but no more t beneath such owner of min and Sediment Secretary, wh enable the sur	ace tract to cond han forty-five d tract that has fil erals underlying Control Manua ich statement st face owner to o	duct any plat surveys ays prior to such ent led a declaration pur g such tract in the co al and the statutes an hall include contact obtain copies from the	s required pursuant to this ar- try to: (1) The surface owner suant to section thirty-six, ar- sunty tax records. The notice of rules related to oil and gas information, including the ar-	ticle. Such notice s of such tract; (2) rticle six, chapter t e shall include a sta s exploration and p	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any atement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to		
Notice is her	eby provided to	0:					
■ SURFAC	CE OWNER(s)	i	COA	LOWNER OR LE	SSEE		
Name: John P.	Good Jr. Irrevocable	Trust	Name: Cor	solidation Coal Company	Attn: Casey Saunders		
Address: 1204	McAdoo Ridge Road		Address:	Address: 1000 Consol Energy Drive			
Wellsburg, WV 260	070		Canonsburg, F	Canonsburg, PA 15317			
Name:					*		
Address:				ERAL OWNER(s)			
				n P. Good Jr. Irrevocable			
Name:				1204 McAdoo Ridge Road			
Address:			Wellsburg, W		to have condi-		
			piease attac	h additional forms if ne	ccessary		
				e undersigned wel	l operator is planning entry to conduct 40.223798, -80.580551		
County:	Brooke		Public Road A	The second secon	McAdoo Ridge Road		
District:	Buffalo		Watershed:	100033	Middle Buffalo Creek		
Quadrangle:	Bethany		Generally use	d farm name:	John Good Jr.		
	state Erosion at	nd Sediment Contro	l Manual and the statutes an	d rules related to o	il and gas exploration and production		
may be obtain Charleston, V obtained from Notice is he	ned from the Se VV 25304 (304 the Secretary l reby given by	-926-0450). Copies by visiting <u>www dep</u>	of such documents or addit b.wv.gov/oil-and-gas/pages/o	ional information r lefault.aspx.	uarters, located at 601 57 th Street, SE, related to horizontal drilling may be		
may be obtain Charleston, V obtained from Notice is he Well Operato	ned from the Se VV 25304 (304 the Secretary l reby given by	-926-0450). Copies by visiting www dep	of such documents or addit	ional information r default.aspx. 1300 Fort Pierpont Dr.,	related to horizontal drilling may be		
may be obtain Charleston, V obtained from	ned from the Se VV 25304 (304 the Secretary l reby given by	-926-0450). Copies by visiting <u>www dep</u>	of such documents or addit b.wv.gov/oil-and-gas/pages/o	ional information r lefault.aspx.	related to horizontal drilling may be		

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

	equirement:	Notice shall be prov	ded at least SEVEN (7) da	ys but no more than	FORTY-	FIVE (45) days prior to
entry Date of Notice	5/13/2020	Date of Pla	ned Entry: 5/20/2020			
Delivery meth	od pursuant i	to West Virginia C	de § 22-6A-10a			
☐ PERSON.	AT I	REGISTERED	☐ METHOD OF DEL	IVERY THAT RE	OURES A	
SERVICE		MAIL	RECEIPT OR SIGN			
on to the surface but no more that beneath such the owner of miner and Sediment C Secretary, whice enable the surface	te tract to cond an forty-five d act that has fil als underlying Control Manua th statement sl ace owner to o	duct any plat surveys ays prior to such en- led a declaration pur g such tract in the co- al and the statutes are hall include contact obtain copies from the	I rules related to oil and ga aformation, including the a	rticle. Such notice s r of such tract; (2) t rticle six, chapter to e shall include a sta s exploration and pr	hall be pro- o any owner wenty-two of tement that roduction mage on the S	vided at least seven days er or lessee of coal seams of this code; and (3) any copies of the state Erosion hay be obtained from the
Notice is herek	y provided to	0:			7	JUL 2 8 2020
SURFACE	E OWNER(s)		■ COA	LOWNER OR LES	SEE	JUL DO
Name:			Name: Sta	rvaggi Industries, Inc.	*	WV Department of
Address:				Address: 401 Pennsylvania Avenue WV Departmental Prote		
Name:				20002		
Address:			☐ MIN	ERAL OWNER(s)		
			Address:			
Address.				h additional forms if nec	cessary	
a plat survey or State: County:	st Virginia Co			ude & Longitude:	operator is 40.223798, -8 McAdoo Ridge Middle Buffalo	e Road
Quadrangle: 1	Bethany		Generally use	ed farm name:	John Good Jr.	
may be obtaine Charleston, WV	d from the Sec / 25304 (304	cretary, at the WV I -926-0450). Copies	Manual and the statutes an epartment of Environments of such documents or addit wv.gov/oil-and-gas/pages/	d Protection headquional information re	arters, loca	ited at 601 57th Street, SE,
Notice is here	hy given hy	1.				
Well Operator:		FION COMPANY, LLC	Address	1300 Fort Pierpont Dr., 5	Suite 201	
Telephone:	304-884-1610	TOTA CONFACT, LLC	11001033	Morgantown, WV 26508		
	304-004-1010			Morganiown, VVV 20000		
Email:	Brittany_Woody@	Day on the last	Facsimile:	304-884-1690		

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

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

District: Buffalo Quadrangle: Bethany WV & Steubenville East OH Watershed: Upper Ohio South This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarter located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.asp: Notice is hereby given by: Well Operator: SWN Production Company, LLC Authorized Representative: Reid Croft	Notice T Date of N				st TEN (10) days prior to filing a Application Filed:	permit application.	
Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail retureceipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of this subsection as of the date the notice was provided to the surface owner. Provided, however, That the notice requirements of this subsection as of the date the notice was provided to the surface owner. Provided, however, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Notice is hereby provided to the SURFACE OWNER(s): Name: John P. Good Jr. Irrevocatile Toust Address: 1204 McAgoo Rigge Road Wellsburg, WV 20070 Notice is hereby given: Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: County: Brooke UTM NAD 83 Sacing: 535,698.03 Northing: 4452,670.32 District: Buffalo Public Road Access: Mododo Rigge Road Oudardragle: Bethamy WA & Steubenville East OH Generally used farm name: John P. Good Jr BRK Watershed: Upper Ohio South This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available facisinile number and electronic mail address of the operator and the operator's authorized representative. Additional informatic related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarter located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.ww.gov/oil-and-gas/pages/default.asp. Notice is hereby given by: Well Operator: Sweh	Delivery	metho	d pursuant to West Virg	inia Code § 22-6	A-16(b)		
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receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose drilling a horizontal well: Provided. That notice given pursuant to subsection (a), section ten of this article satisfies the requirement of this subsection as of the date the notice was provided to the surface owner: Provided, however. That the notice requirements of the subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Notice is hereby provided to the SURFACE OWNER(s): Name: Address: Name: Address: Name: Address:	DEL	IVER	I KETUKN K	ECEIFT REQUE	SIED		
Name: John P. Good Jr. Irrevocable Trust Address: 1204 McAdoo Ridge Road Wellsburg, WV 26070 Notice is hereby given: Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virginia Code § 12-6A-16(b), this notice state of land as follows: Ounty: Brooke District: Buffalo Public Road Access: McAdoo Ridge Road Quadrangle: Bethany WV & Steubenville East OH Generally used farm name: John P. Good Jr BRK This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional informatic related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarted located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.asp: Notice is hereby given by: Well Operator: SWN Production Company, LLC Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Telephone: 304-231-8329 Telephone: 304-231-8329 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com Name: Address: 304-201-8509	receipt re drilling a of this su subsectio and if ava	quested horizo bsectio n may ailable,	for hand delivery, give the ntal well: <i>Provided</i> , That n as of the date the notice be waived in writing by the facsimile number and elections.	e surface owner r notice given pur was provided to t e surface owner, ctronic mail addre	notice of its intent to enter upon the suant to subsection (a), section to the surface owner: <i>Provided, how</i> . The notice, if required, shall includes of the operator and the operator.	the surface owner's land for the purpose of en of this article satisfies the requirements wever, That the notice requirements of this ude the name, address, telephone number,	
Address: 1204 McAdoo Ridge Road Wellsburg, WV 26070 Notice is hereby given: Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virginia UTM NAD 83 Easting: 535,698.03 County: Brooke Public Road Access: McAdoo Ridge Road Quadrangle: Belffalo Public Road Access: McAdoo Ridge Road Quadrangle: Belfalo Pupper Ohio South Watershed: Upper Ohio South This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarter located at 601 57 th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.asp: Notice is hereby given by: Well Operator: SWN Production Company, LLC Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Telephone: 304-231-8329 Telephone: 304-231-8329 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com Address: 304-231-8329 Email: Reid_Croft@SWN.com				d'ACE OJINI			
Notice is hereby given: Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virginia UTM NAD 83 Easting: 535,698.03 County: Brooke UTM NAD 83 Northing: 4,452,670.32 District: Buffalo Public Road Access: McAdoo Ridge Road Quadrangle: Bethany WV & Steubenville East OH Generally used farm name: John P. Good Jr BRK Watershed: Upper Ohio South This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional informatic related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarter located at 601 57 the Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.asp: Notice is hereby given by: Well Operator: SWN Production Company, LLC Authorized Representative: Reid Croft Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Telephone: 304-231-8329 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com				V			
Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows: State: West Virginia County: Brooke District: Buffalo Quadrangle: Bethany W & Steubenville East OH Watershed: Upper Ohio South This Notice Shall Include: Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional informatic related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarter located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.asp: Notice is hereby given by: Well Operator: SVN Production Company, LLC Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Telephone: 304-231-8329 Telephone: 304-231-8329 Telephone: 304-231-8329 Telephone: 304-231-8329 Reid_Croft@SWN.com							
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Well Operator: SWN Production Company, LLC Authorized Representative: Reid Croft Address: 1300 Fort Pierpont Dr., Suite 201 Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com Email: Reid_Croft@SWN.com	Pursuant facsimile related to	to We number horizo	st Virginia Code § 22-6/ er and electronic mail ado ental drilling may be obta	dress of the oper ined from the Sec	ator and the operator's authorize cretary, at the WV Department o	ed representative. Additional information f Environmental Protection headquarters,	
Well Operator: SWN Production Company, LLC Authorized Representative: Reid Croft Address: 1300 Fort Pierpont Dr., Suite 201 Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com Email: Reid_Croft@SWN.com	Notice is	herel	ov given by:				
Address: 1300 Fort Pierpont Dr., Suite 201 Address: 1300 Fort Pierpont Dr., Suite 201 Morgantown, WV 26508 Morgantown, WV 26508 Telephone: 304-231-8329 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com Email: Reid_Croft@SWN.com			Dr: SWN Production Company, LLC		Authorized Representative:	The state of the s	
Morgantown, W 26508 Morgantown, W 26508 Telephone: 304-231-8329 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com Email: Reid_Croft@SWN.com	Address:						
Telephone: 304-231-8329 Telephone: 304-231-8329 Email: Reid_Croft@SWN.com Email: Reid_Croft@SWN.com					-	Morgantown, WV 26508	
Email: Reid_Croft@SWN.com Email: Reid_Croft@SWN.com	Telephon	e:			Telephone:	304-231-8329	
	V 4.3/ 7% 30 A 10					Reid_Croft@SWN.com	
a disconnection							
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WW-6A5 (1/12)

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 provide: 06/30/2020 Date Pern	nit Application Filed:	
Delivery met	hod pursuant to West Virginia Co	de § 22-6A-16(c)	
■ CERTI	FIED MAIL	☐ HAND	
	RN RECEIPT REQUESTED	DELIVERY	
eturn receipt the planned of equired to be brilling of a lamages to the d) The notice of notice.	requested or hand delivery, give the operation. The notice required by the provided by subsection (b), section norizontal well; and (3) A proposed the surface affected by oil and gas ope	surface owner whose land will be used his subsection shall include: (1) A co- ten of this article to a surface owner wh surface use and compensation agreen- trations to the extent the damages are co- ven to the surface owner at the address	plication, an operator shall, by certified mail for the drilling of a horizontal well notice of by of this code section; (2) The information cose land will be used in conjunction with the tent containing an offer of compensation for impensable under article six-b of this chapter. listed in the records of the sheriff at the time
at the address	s listed in the records of the sheriff at		
James John P /	Good Jr. Irrevocable Trust	Name:	
ddress: 1204	McAdoo Ridge Road	Address:	
Address: 1204 Wellsburg, WV 26	McAdoo Ridge Road 070 eby given:	Address:	
Address: 1204 Wellsburg, WV 26 Votice is here Pursuant to W peration on tate: County: District:	McAdoo Ridge Road 070 eby given: Vest Virginia Code § 22-6A-16(c), no	Address:	535,698.03 4,452,670.32 McAdoo Ridge Road
ddress: 1204 Wellsburg, WV 26 Notice is here ursuant to W peration on tate: 'ounty; District: Duadrangle:	McAdoo Ridge Road o70 eby given: Vest Virginia Code § 22-6A-16(c), no the surface owner's land for the purp West Virginia Brooke Buffalo	Address: Address: Ditice is hereby given that the undersigner Display the street of drilling a horizontal well on the street of the street	tract of land as follows: 535,698,03 4,452,670,32 McAdoo Ridge Road
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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 deepprivacyofficer@wv.gov.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION Division of Highways

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

September 3, 2019

Byrd E. White, III Secretary of Transportation/ Commissioner of Highways

Jimmy Wriston, P. E. Deputy Secretary/ Deputy Commissioner

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 John Good Jr. Pad, Brooke County John Good Jr. BRK 3H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2011-0595 which has been issued to Southwestern Energy for access to the State Road for a well site located off Brooke County Route 24 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.

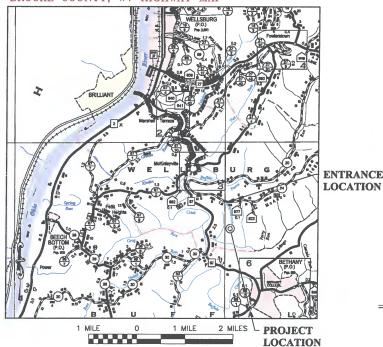
Regional Maintenance Engineer Central Office O&G Coordinator

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

File

Product Use Mixture	Chemical Name Ethylene glycol	107-25 d
iviixture		107-21 1
		111-76-2
		64-18 6
		Proprietary
		68527-49 1
Breaker		7727-54-0
Biocide		111-30-8
	Quaternary Ammonium Compounds, Benzyl-C12-16-Alkyldimethyl, Chlorides Ethanol	68424-85-1 64-17-5
Biocide	Methanol	67-56-1
		68424-85-1
Tracer	Ceramic Proppant	66402-68-4
Scale Inhibitor	Amine Triphosphate	Proprietary
	Ethylene Glycol	107-21-1
Biocide	Hydrogen Peroxide	7722-84-1
	Acetic Acid	64-19-7
	Peroxyacetic Acid	79-21-0
Corrosion Inhibitor	Methanol	67-56-1
	Oxyalkylated fatty acid	68951-67-7
	Fatty acids	61790-12-3
	Modified thiourea polymer	68527-49-1
	Water	7732-18-5
	Hydrochloric acid	7547-01-0
	Potassium acetate	127-08-2
	Formaldehyde	50-00-0
Iran Control	Acetic Acid	64-19-7
	Citric Acid	77-92-9
	Water	7732-18-5
Friction Reducer	Polyacylate	Proprietary
	Hydrotreated light petroleum distillate	64742-47-8
Friction Reducer	Distillates (petroleum) hydrotreated light	64674-47-8
	Ethylene Glycol	107-21-1
	Alcohols, C12-16, Exoxylated propoxylated	68213-24-1
	Fatty Alcohols ethoxylated	Proprietary
	Water	7732-18-5
Friction Reducer	Proprietary	Proprietary
	Hydrotreated light netroleum distillate	64742-47-8
Trought to be a control	The state of the s	Proprietary
Coala Inhibitor		67-56-1
acate miniotor		Proprietary
Connection tubilities		N/A
	The state of the s	7647-01-0
Hydrocholic Acid		7732-18-5
A DOMESTIC AND ADDRESS OF THE PARTY OF THE P	The state of the s	
Scale Inhibitor		Proprietary 12125-02-9
	C. C	
Viscosifying Agent		64742-47-8
Friction Reducer		Proprietary
		64742-47-8
		7647-14-5
	Alcohols, C12-16, Exoxylated	68551-12-2
		93-83-4
		12125-02-9
Friction Reducer	Petroleum Distillate	64742-47-8
	Sadium Chlaride	7647-14-5
	Ammonium Chloride	12125-02-9
		93-83-4
Friction Reducer	Petroleum Distillate	64742-47-8
	Ammonium Chloride	12125-02-9
	Oleic Acid Diethanolamide	93-83-4
	Alcohols, C12-16, Exoxylated	68551-12-2
	Water	7732-15-5
Anionic Friction Reducer	Hydrotreated light distillate (petroleum)	64742-47-8
		9003-06 9
Scale Inhibitor	Diethylenetriamine penta (methylene phosphonic acid)	15827-30-8
no data available	Copolymer of 2-propenaminde	69418-26-4
	Distillates (petroleum), hydotreated light	64742-47-8
	Ammonium chloride ((NH4)Cl)	12125-02-9
	Oleic Acid Diethnolamide	93-83-4
Biocidal product	Tetrakis (hydroxymethyl) phosphonium sulphate Acrylic acid terpolymer containing carboxylate phosphonate and sulfonate	55566-30-8
	groups	397256-50-
Patricial Baldings	Hydrotreated light petroleum distillate	64742-47-8
Friction Reducer		
Friction Reducer	Ethoxylated alcohol	Proprietary
Friction Reducer		The same of the
	Poly (oxy-1.2-ethanediyl) alpha, tridecylomegahydroxy-, branched	69011-36-5
Scale Control		The same of the
	Breaker Blocide Biocide Tracer Scale Inhibitor Biocide Corrosion Inhibitor Iron Control Friction Reducer Friction Reducer Friction Reducer Scale Inhibitor Uscosifying Agent Friction Reducer Friction Reducer Scale Inhibitor Friction Reducer Scale Inhibitor Viscosifying Agent Friction Reducer Friction Reducer	Cinnamalehyde Butyl cellosolve Formic acid Polyether Acetophenne, thioures, formaldehyde polymer Breaker Ammonium persulface Blocide Glutardiehyde Gusternary Ammonium Compounds, Bearyl-C12-16-Alkyldimethyl, Chlorides Ethanol Blocide Methanol Gusternary Ammonium Compounds, Bearyl-C12-16-Alkyldimethyl, Chlorides Ethanol Blocide Methanol Gusternary Ammonium Compounds, Bearyl-C12-16-Alkyldimethyl, Chlorides Ethanol Blocide Hydrogen Peroxide Acetic Acid Hydrogen Peroxide Acetic Acid Peroxyacetic Acid Peroxyacetic Acid Peroxyacetic Acid Peroxyacetic Acid Peroxyacetic Acid Postassium acetate Formaldehyde Acetic Acid Postassium acetate Formaldehyde Friction Reducer Polyacylate Hydrocrasted light petroleum distillate Friction Reducer Polyacylate Friction Reducer Priction Reducer Prictio

BROOKE COUNTY, WV HIGHWAY MAP



HIGHWAY MAP SCALE

- ENTRANCE

SOUTHWESTERN ENERGY AS-BUILT PLANS FOR THE JOHN GOOD JR. BRK PAD "A"

Southwestern Energy®

SOUTHWESTERN ENERGY 179 Chesapeake Drive Jane Lew, WV 26378 (304) 884-1610

BROOKE COUNTY, WV JANUARY 2016

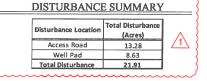
PROJECT COORDINATES

AS-BUILT ACCESS ROAD BEGINNING WV83-N Latitude = N 40.231833° WV83-N Longitude = W 80.582250° UTM 83-17 Northing = 14611429.470 ft. UTM 83-17 Easting = 1757011.518 ft.

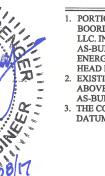
AS-BUILT CENTER OF WELL PAD WV83-N Latitude = N 40.223944° WV83-N Longitude = W 80.580722° UTM 83-17 Northing = 14608558.652 ft. UTM 83-17 Easting = 1757451.564 ft.

JOHN GOOD JR BRK PAD "A" WELLS

EXISTING WELL 5H: API# 47-009-00124 EXISTING WELL 8H: API# 47-009-00113







SHEET INDEX

SHEET	DESCRIPTION
1	TITLE SHEET
2-3	EVACUATION ROUTE/PREVAILING WINDS
4	AS-BUILT OVERVIEW
5-7	AS-BUILT ACCESS ROAD PLAN & PROFILE
8	AS-BUILT WELL PAD PLAN
9	AS-BUILT WELL PAD PROFILE & SECTIONS
10	RECLAMATION PLAN
11	RECLAMATION GENERAL NOTES
12	RECLAMATION DETAILS
12	DETAILS

PROJECT NOTES

- 1. PORTIONS OF THE ORIGINAL AS-BUILT SURVEY OF THIS SITE PROVIDED BY BOORD, BENCHECK & ASSOCIATES, INC (BBA) TO CHESAPEAKE APPALACHIA, LLC. IN JUNE 2012 HAVE BEEN INCORPORATED INTO THESE PLANS. THE BBA AS-BUILT SURVEY WAS PROVIDED TO THRASHER BY SOUTHWESTERN ENERGY IN JANUARY 2016 AND INCLUDED CONTOURS, ROAD EDGES, WELL HEAD LOCATIONS, EROSION AND SEDIMENT CONTROLS, ETC.
- 2. EXISTING ROAD EDGES, WELL PAD EDGE, GAS PRODUCTION EQUIPMENT, ABOVE GROUND PIPING, STORM WATER FEATURES, ETC. WERE VERIFIED AND AS-BUILT BY THRASHER IN DECEMBER 2015 AND JANUARY 2016.
- THE COORDINATE SYSTEM USED FOR THIS PROJECT IS UTM WITH NAD83 DATUM, ZONE 17, US FOOT; CENTRAL MERIDIAN 81dW.

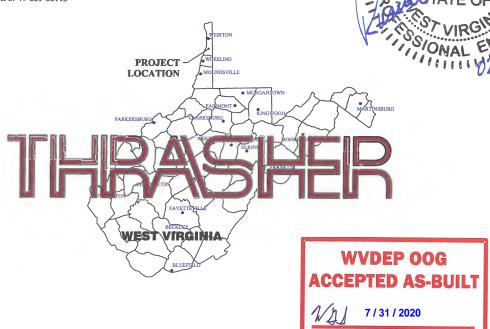
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	10000				LOCATION

ONE CALL UTILITY SYSTEM CONTACT INFO

VICINITY MAP SCALE



CONTRACTOR SHALL NOTIFY THE ONE-CALL SYSTEM OF THE INTENDED EXCAVATION OR DEMOLITION NOT LESS THAN FORTY-EIGHT (48) HOURS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL FEDERAL OR STATE HOLIDAYS, NOR MORE THAN TEN (10) WORK DAYS PRIOR TO THE BEGINNING OF SUCH WORK.



REVISION NUMBER	REVISED SHEETS	BY	DATE	DESCRIPTION
1	1, 8, & 13	JFW	2/8/17	ADDRESSED AS—BUILT COMMENTS PER WVDEP OFFICE OF OIL & GAS: ADDED WELL PAD BERM & SUMP LABELS, NOTES & DETAILS. ADDED DISTURBANCE SUMMARY.



600 WHITE OAKS BOULEVARD - BRIDGEPORT, WV 26330 PHONE (304) 624-4108 • FAX (304) 624-7831

