

Via Federal Express

June 8, 2017

State of West Virginia
Department of Environmental Protection
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: SWN Production Company, LLC
Operator ID: 494512924
Regulatory Filings: WR-34, WR-35 & WR-36 Filing

To Whom It May Concern:

Please find enclosed forms WR-34 No Discharge, **WR-35 Well Operator's** Report of Well Work and WR-36 Well Operator's Report of Initial Gas-Oil Ratio for the following wells:

Brooke Co. Parks 1H (API 47-09-00166)
Brooke Co. Parks 6H (API 47-09-00167)
Brooke Co. Parks 10H (API 47-09-00168)
Brooke Co. Parks 210H (API 47-09-00165)

If you have any questions or require additional information, please contact me via email at denise_grantham@swn.com or telephone at (832) 796-6139.

Sincerely,

Denise Grantham

Denise Grantham
Regulatory Technician
West Virginia Division

/dg
Encl.

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Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

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API 47-009-00166 County BROOKE District BUFFALO
Quad STEUBENVILLE EAST Pad Name BROOKE COUNTY PARKS -BRK-PAD1 Field/Pool Name PANHANDLE FIELD
Farm name BROOKE CO. PARKS COMMISSION Well Number BROOKE COUNTY PARKS BRK 1H
Operator (as registered with the OOG) SWN PRODUCTION COMPANY, LLC
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,456,769.745 Easting 538,446.602
Landing Point of Curve Northing 4,456,828.926 Easting 538,029.912
Bottom Hole Northing 4,458,888.789 Easting 537,363.398

Elevation (ft) 1,205.60' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
SOBM

Date permit issued 12/10/2015 Date drilling commenced 10/30/2016 Date drilling ceased 11/06/2016
Date completion activities began 02/12/2017 Date completion activities ceased 03/28/2017
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 250' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1126' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 316' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

NAME: Eric Blend
DATE: 11-8-17

Reviewed by:
01/05/2018

API 47-009 - 00166 Farm name BROOKE CO. PARKS COMMISSION Well number BROOKE COUNTY PARKS BRK 1H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24	20	126	NEW	J-55/94#		Y
Surface	17.5	13.375	356	NEW	H-40/48#		Y; 26 BBLS
Coal	SURFACE					228' / 270'	
Intermediate 1	12.25	9.625	1701	NEW	J-55/36#		Y; 28 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	13574	NEW	HCP-110/20#		Y
Tubing		2.375	6334	NEW	P-110/4.7#		N
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	150	17		150	SURFACE	24
Surface	CLASS A	380	15.60	1.20	456	SURFACE	8
Coal	SURFACE						
Intermediate 1	CLASS A	650	15.60	1.20	780	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	851/1614	15.60	1.23/1.19	1046.73/1920.66	SURFACE	24
Tubing							

Drillers TD (ft) 13,574' Loggers TD (ft) 13,574'
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure _____

Kick off depth (ft) 5431'

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

SURFACE: 7 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 24 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 181 CENTRALIZERS - EVERY THIRD JOINT FROM SURFACE TO TOP OF CURVE, THEN EVERY JOINT UNTIL TD

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47-009 - 00166 Farm name BROOKE CO. PARKS COMMISSION Well number BROOKE COUNTY PARKS BRK 1H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	SEE	ATTACHMENT	1		
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Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
		SEE	ATTACHMENT	2				

Please insert additional pages as applicable.

API 47- 009 - 00166

Farm name BROOKE CO. PARKS COMMISSION Well number BROOKE COUNTY PARKS BRK 1H

PRODUCING FORMATION(S)	DEPTHS	
<u>MARCELLUS</u>	<u>5912.07'</u> TVD	<u>6271.76'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

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Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1500 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 1681 mcfpd Oil 234 bpd NGL _____ bpd Water 233 bpd
GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	<u>0</u>		<u>0</u>		
	<u>SEE</u>	<u>ATTACHMENT</u>	<u>3</u>		

Please insert additional pages as applicable.

Drilling Contractor SWN DRILLING COMPANY
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Logging Company BAKER HUGHES
Address 9110 GORGANS MILL RD City THE WOODLANDS State TX Zip 77380

Cementing Company SCHLUMBERGER WELL SERVICES
Address 110 SCHLUMBERGER DRIVE City SUGAR LAND State TX Zip 77478

Stimulating Company US WELL SERVICES
Address 770 S POST OAK LN #405 City HOUSTON State TX Zip 77056

Please insert additional pages as applicable.

Completed by DENISE GRANTHAM Telephone 832-796-6139
Signature Denise Grantham Title REGULATORY TECHNICIAN Date 6/8/2017

Well Name:

BROOKE COUNTY PARKS BRK 1H

47009001660000

LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	N/A	N/A	250.00	250.00	
Top of Salt Water	1126.00	1126.00	N/A	N/A	
Pittsburgh Coal	316.00	316.00	321.00	321.00	
Big Injun (ss)	1425.00	1421.35	1632.00	1626.76	
Berea (siltstone)	1976.00	1967.20	5495.21	5360.63	
Rhinestreet (shale)	5495.21	5360.63	5765.45	5609.14	
Cashaqua (shale)	5765.45	5609.14	5829.16	5661.95	
Middlesex (shale)	5829.16	5661.95	5896.53	5714.02	
Burket (shale)	5896.53	5714.02	5926.77	5735.55	
Tully (ls)	5926.77	5735.55	5952.00	5753.14	
Mahantango (shale)	5952.00	5753.14	6271.76	5912.07	
Marcellus (shale)	6271.76	5912.07	N/A	N/A	GAS

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**BROOKE COUNTY PARKS BRK 1H
PERF SUMMARY**

STAGE NUM	# SHOTS PER STG	Perf Top MD	Perf Bottom MD	Perf Date
1	78	13,358	13,465	2/12/2017
2	42	13,218	13,325	2/13/2017
3	42	13,078	13,185	2/13/2017
4	42	12,938	13,045	2/13/2017
5	42	12,798	12,905	2/14/2017
6	42	12,658	12,765	2/14/2017
7	42	12,518	12,625	2/14/2017
8	42	12,378	12,485	2/14/2017
9	42	12,238	12,345	2/14/2017
10	42	12,098	12,205	2/15/2017
11	42	11,958	12,065	2/15/2017
12	42	11,818	11,925	2/15/2017
13	42	11,678	11,785	2/16/2017
14	42	11,538	11,645	2/16/2017
15	42	11,398	11,505	2/18/2017
16	42	11,258	11,365	2/19/2017
17	42	11,118	11,225	2/19/2017
18	42	10,978	11,085	2/19/2017
19	42	10,838	10,945	2/20/2017
20	42	10,698	10,805	2/20/2017
21	42	10,558	10,665	2/20/2017
22	42	10,418	10,525	2/20/2017
23	42	10,278	10,385	2/20/2017
24	42	10,138	10,245	2/21/2017
25	42	9,998	10,105	2/21/2017
26	42	9,858	9,965	2/21/2017
27	42	9,718	9,825	2/22/2017
28	42	9,578	9,685	2/23/2017
29	42	9,433	9,540	2/23/2017
30	42	9,298	9,405	2/23/2017
31	42	9,158	9,265	2/23/2017
32	42	9,018	9,125	2/23/2017
33	42	8,878	8,985	2/24/2017
34	33	8,738	8,845	2/24/2017
35	42	8,598	8,705	2/24/2017
36	42	8,458	8,565	2/25/2017
37	42	8,318	8,425	2/25/2017
38	42	8,178	8,285	2/25/2017
39	42	8,038	8,145	2/25/2017
40	42	7,898	8,005	2/26/2017
41	42	7,758	7,865	2/26/2017
42	42	7,618	7,722	2/26/2017
43	42	7,478	7,585	2/26/2017
44	42	7,338	7,445	2/27/2017
45	42	7,198	7,305	2/27/2017
46	42	7,062	7,165	2/27/2017
47	42	6,918	7,025	2/27/2017
48	42	6,778	6,885	2/27/2017
49	42	6,638	6,745	2/28/2017
50	42	6,498	6,605	2/28/2017
51	42	6,358	6,465	2/28/2017

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BROOKE COUNTY PARKS BRK 1H
FRAC STAGE SUMMARY

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STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/other
1	2/12/2017	54	8,416	8,690	5,150	7,905	9,376	
2	2/13/2017	90	7,291	8,318	4,420	498,040	7,562	
3	2/13/2017	95	7,680	8,951	4,145	498,920	7,684	
4	2/13/2017	97	7,738	8,479	4,402	498,540	7,620	
5	2/14/2017	99	7,601	8,207	4,499	498,200	7,228	
6	2/14/2017	95	7,636	8,121	4,556	500,000	7,252	
7	2/14/2017	92	7,847	8,736	4,503	498,700	7,704	
8	2/14/2017	93	7,816	8,469	4,002	499,820	7,337	
9	2/14/2017	85	8,061	9,276	4,467	498,300	8,711	
10	2/15/2017	97	7,551	8,218	4,556	500,000	7,268	
11	2/15/2017	98	7,854	8,461	4,306	499,180	7,563	
12	2/15/2017	98	7,863	8,243	4,377	500,540	7,612	
13	2/16/2017	97	7,848	8,264	4,424	500,000	7,188	
14	2/16/2017	92	7,322	8,819	4,506	500,260	7,282	
15	2/18/2017	97	7,612	8,150	4,449	499,160	7,130	
16	2/19/2017	98	7,458	8,079	4,513	500,940	7,101	
17	2/19/2017	90	7,919	9,205	4,245	499,500	7,434	
18	2/19/2017	95	7,622	8,618	4,306	500,600	7,081	
19	2/20/2017	98	7,475	7,725	4,435	504,200	7,129	
20	2/20/2017	96	7,523	7,803	4,495	506,360	7,094	
21	2/20/2017	95	7,477	8,572	4,513	507,560	7,085	
22	2/20/2017	98	7,264	8,136	4,374	503,820	6,987	
23	2/20/2017	94	7,851	8,558	4,442	503,000	7,055	
24	2/21/2017	95	7,978	8,923	4,756	506,020	7,089	
25	2/21/2017	95	7,642	9,012	4,413	504,000	7,045	
26	2/21/2017	78	8,260	8,959	4,392	165,940	6,103	
27	2/22/2017	94	7,334	8,343	4,249	510,000	7,588	
28	2/23/2017	96	7,076	8,090	4,817	505,420	7,153	
29	2/23/2017	91	6,170	6,516	5,189	502,520	7,991	
30	2/23/2017	94	7,489	8,998	4,209	505,740	6,972	
31	2/23/2017	100	7,309	8,032	4,481	500,000	6,995	
32	2/23/2017	100	7,494	7,750	4,671	501,080	6,915	
33	2/24/2017	100	7,464	8,340	4,649	502,660	6,942	
34	2/24/2017	100	7,325	7,811	4,492	502,030	6,906	
35	2/24/2017	99	7,550	9,102	4,892	500,990	6,813	
36	2/25/2017	97	7,151	7,735	5,082	502,680	7,533	
37	2/25/2017	99	7,705	9,044	4,631	503,320	6,890	
38	2/25/2017	100	7,191	8,376	4,427	496,530	6,774	
39	2/25/2017	93	7,061	9,495	4,302	501,410	8,541	
40	2/26/2017	96	7,061	7,539	4,284	502,240	7,505	
41	2/26/2017	96	7,189	7,685	4,789	503,560	7,184	
42	2/26/2017	99	6,991	7,342	4,642	498,530	6,774	
43	2/26/2017	99	6,928	7,160	4,381	496,220	6,776	
44	2/27/2017	100	7,166	8,029	4,553	496,870	6,816	
45	2/27/2017	99	7,134	8,322	4,628	499,120	6,828	
46	2/27/2017	101	7,092	7,406	5,207	504,660	6,627	
47	2/27/2017	100	7,029	7,639	5,726	500,860	6,653	
48	2/27/2017	100	6,753	7,349	4,717	500,540	6,652	
49	2/28/2017	99	6,651	7,088	4,485	475,620	7,166	
50	2/28/2017	100	6,599	6,963	4,585	500,630	6,651	
51	2/28/2017	99	6,380	7,224	4,339	500,530	6,587	

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Hydraulic Fracturing Fluid Product Component Information Disclosure

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Job Start Date:	2/12/2017
Job End Date:	3/1/2017
State:	West Virginia
County:	Brooke
API Number:	47-009-00166-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	BROOKE COUNTY PARKS BRK 1H
Latitude:	40.26050800
Longitude:	-80.54787100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,939
Total Base Water Volume (gal):	15,227,334
Total Base Non Water Volume:	0

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Southwestern Energy	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	82.55475	
Sand	U.S. Well Services, LLC	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	16.06512	
HCL Acid (12.6%-17.5%)	U.S. Well Services, LLC	Bulk Acid					
			Water	7732-18-5	87.40000	1.05560	
			Hydrogen Chloride	7647-01-0	17.50000	0.24543	
WFRA-2000	U.S. Well Services, LLC	Friction Reducer					
			Water	7732-18-5	60.00000	0.04102	
			2-Propenoic acid, polymer with 2 propenamide	9003-06-9	30.00000	0.02051	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01682	
AI-303	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene glycol	107-21-1	40.00000	0.00033	
			Cinnamaldehyde	104-55-2	20.00000	0.00012	
			Formic acid	64-18-6	20.00000	0.00012	

		Butyl cellosolve	111-76-2	20.00000		0.00011	
		Polyether	80828-78-6	10.00000		0.00006	
		Acetophenone,thiourea,formaldehyde polymer	68527-49-1	5.00000		0.00003	

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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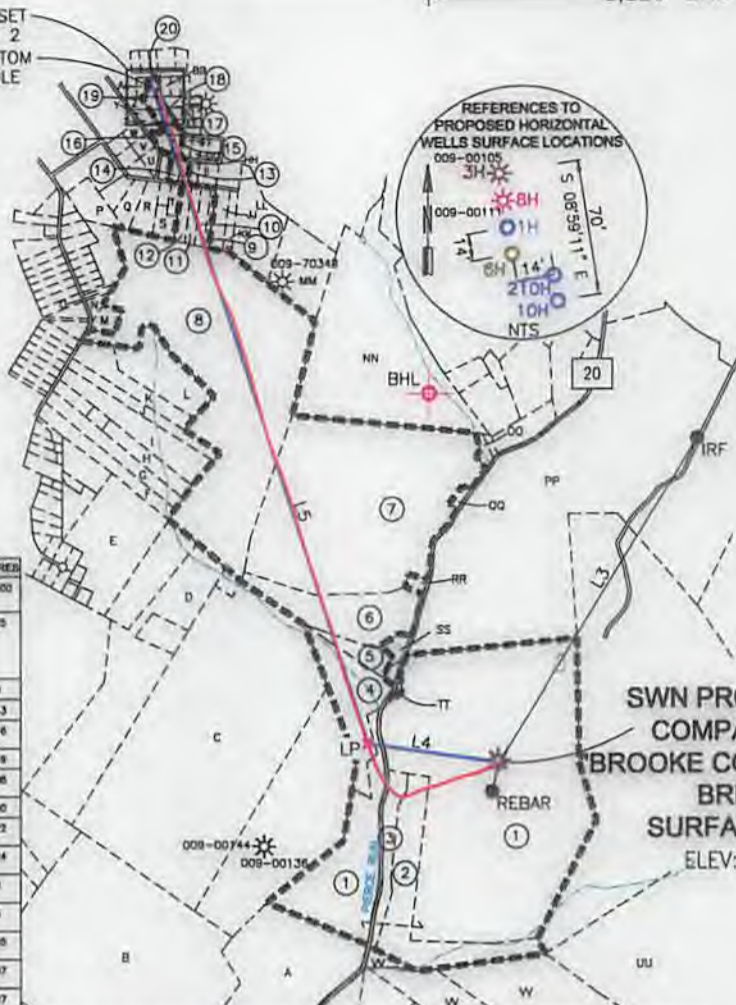
THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4109

NOTES ON SURVEY

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

SEE INSET SHEET 2 BOTTOM HOLE



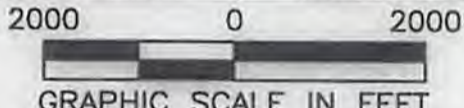
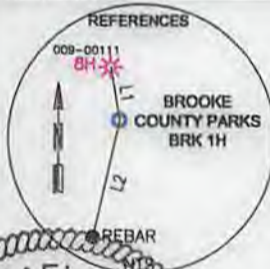
GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US FT

SWN PRODUCTION COMPANY, LLC
BROOKE COUNTY PARKS BRK 1H
SURFACE HOLE
ELEV: 1,206'

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	(S) BROOKE CO. PARKS COMMISSION (R) RICHARD P. GIST, VIRGINIA GIST ABBLIT, ANN GIST LEVIN	05-03-828-0084-0000	135.00
2	(S) WESTWING INDUSTRIES (R) CLARENCE PAUL & EDNA LARSON (R) TERRY P. & SHARON M. PASNETTI (R) THOMAS P. & NINA PASNETTI	05-03-828-0083-0000	13.25
3	(S) WESTWING INDUSTRIES	05-03-828-0082-0000	3.00
4	(S) ROBERT J. H. & NICOLE C. KNORR	05-03-828-0059-0000	21.43
5	(S) ROBERT J. H. & NICOLE C. KNORR (R) ROBERT L. KNORR JR. & RUBY F. KNORR	05-03-828-0057-0002	3.846
6	(S) WENDY J. H. & JACQUE EATON	05-03-828-0057-0000	28.88
7	(S) CHARLES EDWARD & ELSIE ELLEN SCHUBACH (R) CHARLES EDWARD SCHUBACH & ELSIE HELEN SCHUBACH	05-03-828-0055-0000	65.06
8	(S) JAMES ROBERT & KAREN L. HONEY	05-03-828-0046-0000	79.00
9	(S) LARRY J. HOOD & VALERIE S. HOOD (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0022-0000	0.722
10	(S) LARRY J. HOOD (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0023-0000	1.424
11	(S) MARY ELLEN NELSON (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0024-0000	1.40
12	(S) DONALD E. & DENISE A. NELSON (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0025-0000	1.55
13	(S) TODD GARREY STENDER (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0017-0000	0.505
14	(S) DENARD PATTERSON (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0018-0000	0.507
15	(S) KENNETH LEWISTERS, JR. (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0006-0000	0.487
16	(S) SHIRLEY A. HUBERTH (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0005-0000	0.878
17	(S) KELORES ELLIOTT (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0043-0000	0.854
18	(S) BROCK R. HIGGINS (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0042-0000	0.771
19	(S) RICHARD R. ELLIOTT, JR. (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0041-0000	0.7975
20	(S) DOUG TEMPLE (R) SANDRA ELIZABETH CHAPMAN MALDY	05-03-8238-0040-0000	1.048

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 09°15'20" W	14.11'	SHL TO REF. PNT.	BRK #09-00111
L2	S 13°08'59" W	309.96'	SHL TO REF. PNT.	REBAR SET
L3	N 32°00'06" E	3930.89'	SHL TO REF. PNT.	REBAR FOUND
LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L4	N 81°54'29" W	1380.65'		SHL TO LP
L5	N 17°55'55" W	7102.93'		LP TO BHL

SURFACE HOLE LOCATION (SHL):	SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,769.745 EASTING: 538,446.602	UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,769.745 EASTING: 538,446.602
LANDING POINT LOCATION (LPL):	LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,828.926 EASTING: 538,029.912	UTM (NAD83, ZONE 17, METERS): NORTHING: 4,456,828.206 EASTING: 538,030.223
BOTTOM HOLE LOCATION (BHL):	BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,458,888.789 EASTING: 537,363.398	UTM (NAD83, ZONE 17, METERS): NORTHING: 4,458,927.386 EASTING: 537,339.664



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



P.S. 2270 *[Signature]* 5/2/17

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)	BROOKE COUNTY PARKS OPERATOR'S WELL #: BRK 1H API WELL #: 47 009 00166 STATE COUNTY PERMIT
	WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>	

WATERSHED: BUFFALO CREEK	ELEVATION: 1,205.60'
DISTRICT: BUFFALO	COUNTY: BROOKE
SURFACE OWNER: BROOKE CO. PARKS COMMISSION	QUADRANGLE: STEUBENVILLE EAST
OIL & GAS ROYALTY OWNER: RICHARD P. GIST, VIRGINIA GIST ABBLIT, ANN GIST LEVIN	ACREAGE: 135.00
	ACREAGE: 397.70
DRILL <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/>	
CONVERT <input type="checkbox"/> PLUG & ABANDON <input type="checkbox"/> CLEAN OUT & REPLUG <input type="checkbox"/> OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) AS-DRILLED	ESTIMATED DEPTH: 3,940' TVD 13,695' TMD
TARGET FORMATION: MARCELLUS	

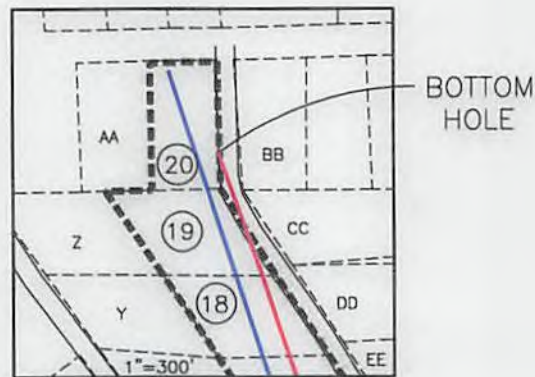
WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	DESIGNATED AGENT: DEE SOUTHALL
ADDRESS: P.O. BOX 1300	ADDRESS: P.O. BOX 1300
CITY: JANE LEW STATE: WV ZIP CODE: 26378	CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND: ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ✱ EXISTING / PRODUCING WELLHEAD ✕ ABANDONED WELL ✕ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR - - - - - LEASE BOUNDARY - - - - - PROPOSED PATH - - - - - AS-DRILLED PATH - - - - - ABANDONED PATH	REVISIONS: DATE: 05-11-2017 SHEET 1 OF 2 DRAWN BY: K POTH SCALE: 1" = 2000' DRAWING NO: 050-5525 WELL LOCATION PLAT
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THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

TRACT	ADJOINER	PARCEL
A	STARVAGGI INDUSTRIES	05-03-B33-0025-0000
B	MICHAEL WHITOC & PATRICIA GRAHAM	05-03-B28-0043-0000
C	WILLIAM HERVEY III	05-03-B28-0045-0002
D	FREDERICK L. & CATHY JO HERVEY	05-03-B28-0045-0001
E	KENNETH & JANE C. DIGHT	05-03-B28F-0036-0000
F	MARY K. MILLER	05-03-B28B-0039-0000
G	MARY K. MILLER	05-03-B28B-0040-0000
H	NEAL SMITH	05-03-B28B-0041-0000
I	NEAL SMITH	05-03-B28B-0043-0000
J	NEAL SMITH	05-03-B28B-0044-0000
K	JOHN BARLOW	05-03-B28B-0045-0001
L	JOHN W. BARLOW	05-03-B28-0068-0000
M	GARY LISH & BONNIE LISH	05-03-B28B-0047-0000
N	KERRY M. & JANICE F. JACKSON	05-03-B28B-0048-0000
O	TERRY CLYDE PATTERSON	05-03-B28B-0049-0000
P	MILDRED CRAFT	05-03-B23P-0050-0000
Q	TIM & LISA HALSTEAD	05-03-B23R-0029-0000
R	ADAM FLETCHER & LISA FLETCHER	05-03-B23R-0028-0000
S	DAVID NELSON	05-03-B23R-0075-0000
T	RUTH L. BROWN	05-03-B23R-0026-0000
U	EDWARD G. PATTERSON	05-03-B23R-0033-0000
V	ANGELO IARUSSI	05-03-B23R-0034-0000
W	GERALD & MEGAN NICOLE MCCLAIN	05-03-B23R-0035-0000
X	ROBERT CLAY MCADOO	05-03-B23R-0004-0000
Y	JASPER PROVENZANO	05-03-B23R-0003-0000
Z	ROSS A. TENNANT	05-03-B23R-0002-0000
AA	BOBBIE JEAN MERCER	05-03-B23R-0039-0000
BB	RALPH MORGAN	05-03-B23R-0050-0000
CC	LOUIS & JUDITH TEMPLE	05-03-B23R-0049-0000
DD	BERNARD ELLIOT JR.	05-03-B23R-0048-0000
EE	RODNEY R. HUGGINS	05-03-B23R-0044-0000
FF	STEPHEN & KELLI MEADE	05-03-B23R-0007-0000
GG	JOHN & SHARON EDWARDS	05-03-B23R-0008-0000
HH	CATHY JO HERVEY	05-03-B23R-0016-0000
II	FRED P. & LORETTA A. MCDONALD	05-03-B23R-0015-0000
JJ	DORSEN & PATTY MCCONNAUGHY	05-03-B23R-0021-0000
KK	DEBORAH K. LEFANTI	05-03-B23R-0020-0000
LL	FREDERICK & CATHY JO HERVEY	05-03-B28-0048-0000
MM	JAMES & KAREN HERVEY	05-03-B28-0049-0000
NN	CARMELLA BUCY	05-03-B28-0050-0000
OO	CORINNA A. COEN	05-03-B28-0053-0000
PP	BROOKE COUNTY COURT	05-03-B28-0066-0000
QQ	ERIC HANCHER & CHARLOTTE GLASURE	05-03-B28-0054-0000
RR	DONALD EATON JR.	05-03-B28-0056-0000
SS	BERNARD F. KNORR JR.	05-03-B28-0057-0001
TT	BERNARD J. III & NICOLE C. KNORR	05-03-B28-0059-0000
UU	BROOKE COUNTY COURT	05-03-B28-0061-0000
VV	BROOKE COUNTY PARK COMMISSION	05-03-B28-0060-0000



01/05/2018

COMPANY:
SWN **SWN** ^{RT} ^A ^{V+}
Production Company, LLC Production Company™

REVISIONS:	DATE: 05-11-2017
	SHEET 1 OF 2
	DRAWN BY: K POTH
	SCALE: 1" = 2000'
	DRAWING NO: 050-5525
	WELL LOCATION PLAT