

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

API 47-009-00258 County BROOKE District BUFFALO
Quad BETHANY Pad Name KATHY MAYHEW BRK PAD Field/Pool Name PANHANDLE FIELD WET
Farm name KATHY LYNN & MICHAEL MAYHEW, ET AL Well Number KATHY MAYHEW BRK 206H
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 4449164.68 Easting 532116.76
Landing Point of Curve Northing 4448986.63 Easting 531713.25
Bottom Hole Northing 4446961.71 Easting 532536.53

Elevation (ft) 1,281.2' 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 9/14/2018 Date drilling commenced 8/10/2019 Date drilling ceased 8/20/2019
Date completion activities began 10/28/2019 Date completion activities ceased 11/25/2019
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 370' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 622' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 454' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

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API 47- 009 - 00258 Farm name KATHY LYNN & MICHAEL MAYHEW, ET AL Well number KATHY MAYHEW BRK 206H

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	529	NEW	J-55/54.50#	361.4; 401.9	Y
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	1805	NEW	J-55/36#		Y, 40 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	13705	NEW	P-110/20#		Y
Tubing		2.875	6580	NEW	P-110/6.50#		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	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	517	15.60	1.20	620.4	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	721	15.60	1.19	857.99	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2,334	15.60	1.19	2,777.46	SURFACE	24
Tubing							

Drillers TD (ft) 13,705' Loggers TD (ft) 13,705'
 Deepest formation penetrated Marcellus Shale Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5,630'

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 _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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API 47- 009 - 00258 Farm name KATHY LYNN & MICHAEL MAYHEW, ET AL Well number KATHY MAYHEW BRK 206H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	SEE	ATTACHMEN	1		

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	ATTACHMEN	2				

Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>MARCELLUS</u>	<u>5,963'</u> TVD	<u>6,385'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 705 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 3,647 mcfpd Oil 557 bpd NGL _____ bpd Water 960 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	<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 GROGANS MILL ROAD City THE WOODLANDS State TX Zip 77380

Cementing Company SCHLUMBERGER WELL SERVICES
Address 1080 US-33 City WESTON State WV Zip 26452

Stimulating Company SWN WELL SERVICES
Address PO BOX 12359 City SPRING State TX Zip 77391

Please insert additional pages as applicable.

Completed by BOBBY WILLIS Telephone 832-796-2884
Signature _____ Title SENIOR REGULATORY ANALYST Date 1/27/2020

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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SOUTHWESTERN ENERGY

Location: Brooke County, WV

Field: Brooke

Facility: Kathy Mayhew BRK Pad Wellbore:

Slot: Slot 206H

Well: Kathy Mayhew BRK 206H

Well: Kathy Mayhew BRK 206H PWB

True vertical wellpath is Kathy Mayhew BRK 206H PWB Rev-A.0

Measured depths are referenced to SDC 41 (RKB)

SDC 41 (RKB) to Mean Sea Level: 1307.2 feet

Mean Sea Level to Ground level (At Slot: Slot 206H): -1281.2 feet

Coordinates are in feet referenced to Slot

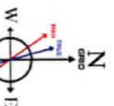


Location Information			
Facility Name	Kathy Mayhew BRK Pad	Grid East (US ft)	Grid North (US ft)
Local N (ft)	-55.79	1745786.403	14597023.540
Local E (ft)	-20.06	1745786.403	14596967.776
Slot 206H			
SDC 41 (RKB) to Ground level (At Slot: Slot 206H)			
Mean Sea Level to Ground level (At Slot: Slot 206H)			
SDC 41 (RKB) to Mean Sea Level			
Latitude	40°11'32.682"N	Longitude	80°37'21.416"W
Latitude	40°11'32.132"N	Longitude	80°37'21.677"W
26ft			
-1281.2ft			
1307.2ft			

Comments

API: 47-009-00258-0000
 BH Job #: 109938697A
 Rig: SDC 41
 Duration: 08/15/2019 - 08/18/2019

Users specified Dip: 67.47° Field: 52482 nT
 Magnetic North is 8.13 degrees West of True North (at 14/Aug/2019)
 To correct azimuth from Magnetic to Grid subtract 8.37 degrees



GyroData Continuous Gyro <17 1/2"> (100-477): 100.00ft TVD, 0.02ft N, 0.07ft W
 GyroData Continuous Gyro <12 1/4"> (569-750): 568.99ft TVD, 0.58ft S, 0.37ft E
 GyroData MWD <12 1/4"> (849-1743): 848.80ft TVD, 6.70ft S, 8.48ft E
 GyroData MWD <8 3/4"> (1840-5428): 1836.94ft TVD, 27.19ft N, 44.90ft W
 BH AT Curve <8 1/2"> (5508-13680): 5292.71ft TVD, 36.97ft S, 1225.97ft W

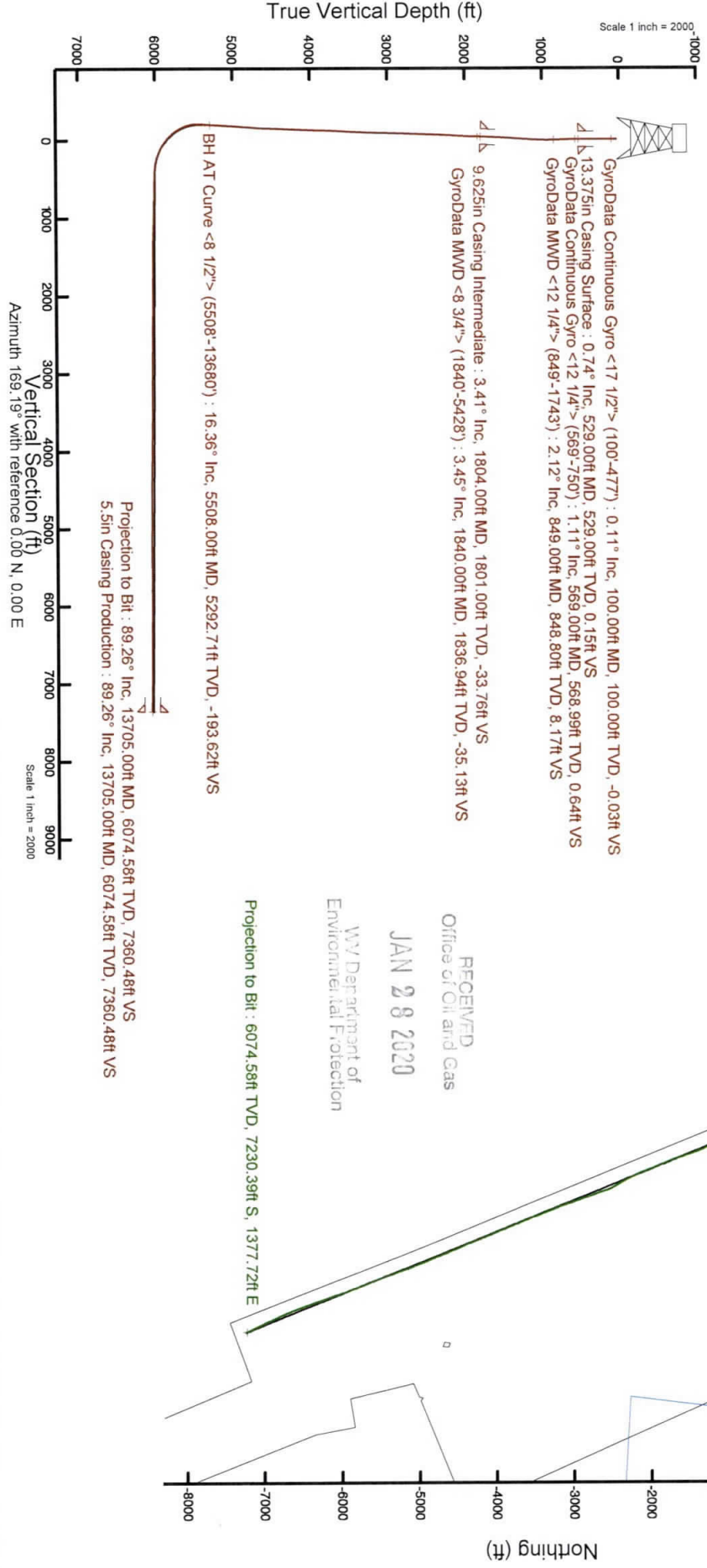
GyroData Continuous Gyro <17 1/2"> (100-477): 0.11° Inc, 100.00ft MD, 100.00ft TVD, -0.03ft VS
 GyroData Continuous Gyro <12 1/4"> (569-750): 0.15ft VS
 GyroData Continuous Gyro <12 1/4"> (569-750): 1.11° Inc, 569.00ft MD, 568.99ft TVD, 0.64ft VS
 GyroData MWD <12 1/4"> (849-1743): 2.12° Inc, 849.00ft MD, 848.80ft TVD, 8.17ft VS

9.625in Casing Intermediate: 3.41° Inc, 1804.00ft MD, 1801.00ft TVD, -33.76ft VS
 GyroData MWD <8 3/4"> (1840-5428): 3.45° Inc, 1840.00ft MD, 1836.94ft TVD, -35.13ft VS

BH AT Curve <8 1/2"> (5508-13680): 16.36° Inc, 5508.00ft MD, 5292.71ft TVD, -193.62ft VS

Projection to Bit: 89.26° Inc, 13705.00ft MD, 6074.58ft TVD, 7360.48ft VS
 5.5in Casing Production: 89.26° Inc, 13705.00ft MD, 6074.58ft TVD, 7360.48ft VS

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 Projection to Bit: 6074.58ft TVD, 7230.39ft S, 1377.72ft E



Vertical Section (ft)
 Azimuth 169.19° with reference 0.00 N, 0.00 E

Scale 1 inch = 2000

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/29/2019
Job End Date:	11/14/2019
State:	West Virginia
County:	Brooke
API Number:	47-009-00258-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Kathy Mayhew BRK 206
Latitude:	40.19225890
Longitude:	-80.62268812
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,052
Total Base Water Volume (gal):	10,206,898
Total Base Non Water Volume:	0

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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
Ecopol-FEAC	SWN Well Services	Iron Control					
SCAL16486A	Naico	Scale Inhibitor		Listed Below			
				Listed Below			

HCL	SWN Well Services	Solvent											
					Listed Below								
Base Water	Operator	Base Fluid											
					Listed Below								
Sand	SWN Well Services	Proppant											
					Listed Below								
Econo-CI200	SWN Well Services	Corrosion Inhibitor											
					Listed Below								
SWN FRW-11LC	SWN Well Services	Friction Reducer											
					Listed Below								
BIOC11219A	Nalco	Biocide											
					Listed Below								
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.													
			Water		7732-18-5	100.00000	85.46498	Density = 8.345					
			Crystalline Silica, quartz		14808-60-7	100.00000	14.10680						
			Water		7732-18-5	85.00000	0.32340						
			Hydrochloric Acid		7647-01-0	15.00000	0.04502						
			Petroleum Distillates, Hydrotreated		64742-47-8	25.00000	0.02333						
			Methanol		67-56-1	60.00000	0.01615						
			Benzyl-(C12-C16 Alky)-Dimethyl-Ammonium		68424-85-1	30.00000	0.00807						
			Chloride Glutaraldehyde		111-30-8	10.00000	0.00269						

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				Ammonium Chloride	12125-02-9	2.00000	0.00187
				Ethylene glycol	107-21-1	30.00000	0.00174
				Amine Triphosphate	Proprietary	30.00000	0.00174
				Oleic Acid Diethanolamide	93-83-4	1.50000	0.00140
				Alcohols, C12-1, ethoxylated	68551-12-2	1.50000	0.00140
				Acetic Acid	64-19-7	37.50000	0.00060
				Methanol	67-56-1	80.00000	0.00037
				Citric Acid	77-92-9	22.50000	0.00036
				Oxyalkylated fatty acid	68951-67-7	9.67400	0.00004
				Fatty acids	61790-12-3	5.02700	0.00002
				Modified thiourea polymer	68527-49-1	4.74600	0.00002
				Potassium acetate	127-08-2	0.02200	0.00000
				Formaldehyde	50-00-0	0.00400	0.00000

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

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

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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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**KATHY MAYHEW BRK 206H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	9/29/2019	13,660	13,569	36
2	10/29/2019	13,536	13,357	36
3	10/29/2019	13,324	13,145	36
4	10/29/2019	13,111	12,932	36
5	10/31/2019	12,899	12,720	36
6	10/31/2019	12,682	12,507	36
7	11/1/2019	12,474	12,295	36
8	11/1/2019	12,262	12,083	36
9	11/1/2019	12,049	11,870	36
10	11/2/2019	11,837	11,658	36
11	11/2/2019	11,624	11,445	36
12	11/3/2019	11,409	11,233	36
13	11/4/2019	11,200	11,021	36
14	11/4/2019	10,987	10,808	36
15	11/5/2019	10,772	10,596	36
16	11/5/2019	10,562	10,383	36
17	11/5/2019	10,350	10,167	72
18	11/6/2019	10,132	9,959	36
19	11/7/2019	9,925	9,746	36
20	11/7/2019	9,713	9,534	36
21	11/7/2019	9,500	9,321	36
22	11/8/2019	9,283	9,109	36
23	11/8/2019	9,076	8,897	36
24	11/9/2019	8,867	8,684	36
25	11/9/2019	8,651	8,472	36
26	11/9/2019	8,438	8,259	36
27	11/10/2019	8,226	8,043	72
28	11/12/2019	8,014	7,835	36
29	11/12/2019	7,798	7,622	36
30	11/12/2019	7,589	7,410	36
31	11/13/2019	7,376	7,197	36
32	11/13/2019	7,164	6,987	36
33	11/13/2019	6,952	6,771	36
34	11/14/2019	6,741	6,560	36

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KATHY MAYHEW BRK 206H

ATTACHMENT 2

STIM REPORT

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/othe
1	10/29/2019	80	7,429	8,005	4,250	240,509	5,149	0
2	10/29/2019	92	7,548	4,848	4,350	420,734	7,331	0
3	10/29/2019	96	7,504	4,794	4,774	424,757	7,171	0
4	10/30/2019	96	7,881	4,944	4,395	418,730	7,459	0
5	10/31/2019	94	7,304	6,312	4,508	417,078	7,366	0
6	10/31/2019	93	7,610	4,824	4,513	417,656	6,820	0
7	11/1/2019	88	7,997	5,071	4,345	418,075	7,226	0
8	11/1/2019	92	7,540	5,525	4,345	419,250	6,812	0
9	11/2/2019	92	7,855	5,619	4,222	417,160	6,765	0
10	11/2/2019	89	7,619	5,494	4,411	417,885	7,008	0
11	11/3/2019	83	8,028	5,546	4,051	416,125	6,987	0
12	11/3/2019	91	7,350	5,768	4,351	418,875	6,707	0
13	11/4/2019	91	7,635	5,366	4,406	420,330	6,970	0
14	11/5/2019	82	7,774	5,783	4,536	420,960	7,229	0
15	11/5/2019	95	7,403	5,401	4,291	418,735	6,845	0
16	11/5/2019	95	7,428	5,700	4,165	419,290	6,461	0
17	11/6/2019	71	6,598	5,069	4,488	417,395	11,472	0
18	11/6/2019	95	7,336	5,522	4,114	419,620	6,568	0
19	11/7/2019	81	8,184	5,032	4,356	420,295	6,539	0
20	11/7/2019	91	7,492	5,011	4,281	421,836	6,318	0
21	11/8/2019	93	7,307	5,404	4,225	417,775	6,884	0
22	11/8/2019	95	7,313	5,124	4,312	420,885	6,749	0
23	11/8/2019	90	7,499	5,470	4,114	419,605	6,899	0
24	11/9/2019	88	6,895	5,214	4,398	418,965	8,659	0
25	11/9/2019	80	7,697	5,354	4,005	415,315	7,003	0
26	11/10/2019	72	7,960	5,121	4,446	417,695	8,404	0
27	11/11/2019	82	6,698	5,108	4,271	421,041	8,913	0
28	11/12/2019	95	7,104	5,024	4,321	417,255	6,709	0
29	11/12/2019	95	6,590	5,141	4,356	414,646	6,614	0
30	11/13/2019	95	6,519	5,264	4,205	419,365	6,563	0
31	11/13/2019	93	6,606	4,188	4,487	417,173	6,777	0
32	11/13/2019	96	6,820	5,436	4,277	419,340	7,345	0
33	11/13/2019	91	6,701	5,679	4,167	419,743	7,008	0
34	11/14/2019	82	5,339	5,420	4,311	415,093	8,089	0

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Well Name: Kathy Mayhew BRK 206H

47009002580000

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	0.00	0.00	370.00	370.00	
Pittsburgh Coal	454.00	454.00	459.00	459.00	
Top of Salt Water	622.00	622.00	NA	NA	
Pottsville (ss)	622.00	622.00	745.00	745.00	
Raven Cliff (ss)	940.00	939.00	1111.00	1110.00	
Maxton (ss)	1212.00	1210.00	1457.00	1455.00	
Big Lime (ls)	1457.00	1455.00	1596.00	1594.00	
Big Injun (ss)	1596.00	1594.00	1751.00	1749.00	
Berea (siltstone)	2042.00	2038.00	2149.00	2144.00	
Rhinestreet (shale)	5677.00	5452.00	5937.00	5688.00	
Cashagua (shale)	5937.00	5688.00	5999.00	5739.00	
Middlesex (shale)	5999.00	5739.00	6083.00	5803.00	
Burket (shale)	6083.00	5803.00	6106.00	5818.00	
Tully (ls)	6106.00	5818.00	6192.00	5874.00	
Mahantango (shale)	6192.00	5874.00	6385.00	5963.00	
Marcellus (shale)	6385.00	5963.00	NA	NA	GAS

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LATITUDE: 40°12'30" BOTTOM HOLE ← 9799'

LATITUDE: 40°12'30" SURFACE HOLE ← 11055'



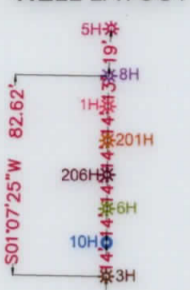
www.jhacompanies.com
68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100

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

NOTES ON SURVEY

- COORDINATE 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/OR FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- 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 THE LIMITS OF DISTURBANCE.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.

WELL LAYOUT



NTS

WELL REFERENCE DETAIL



KATHY MAYHEW
BRK 206H

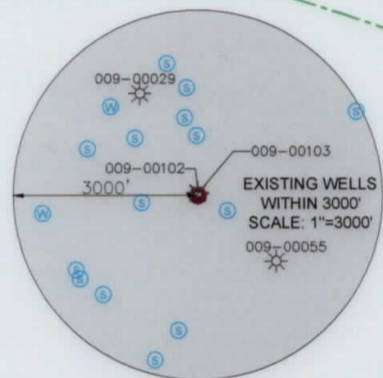
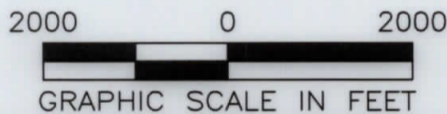
LINE	BEARING	DISTANCE
L1	N22°55'20"E	1919.51'
L2	N03°59'43"W	2537.53'

BROOKE COUNTY
OHIO COUNTY

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4449164.68 EASTING: 532116.76
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448986.63 EASTING: 531713.25
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4446961.71 EASTING: 532536.53
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4449164.68 EASTING: 532116.76
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4448966.86 EASTING: 531730.11
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4446960.04 EASTING: 532537.77

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. 2041



SWN Production Company, LLC **SWN** Production Company™

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)	OPERATOR'S WELL #: KATHY MAYHEW BRK 206H API WELL #: 47 STATE COUNTY PERMIT
	WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input checked="" type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>	WATERSHED: UPPER OHIO SOUTH DISTRICT: BUFFALO COUNTY: BROOKE SURFACE OWNER: KATHY LYNN & MICHAEL MAYHEW, ET AL OIL & GAS ROYALTY OWNER: KATHY LYNN & MICHAEL MAYHEW, ET AL

DRILL <input checked="" 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	TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,075' TVD 13,705' TMD
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WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508	DESIGNATED AGENT: BRITTANY WOODY ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508
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LEGEND: ● EXISTING BOTTOM HOLE ☼ EXISTING / PRODUCING WELLHEAD LPL* EXISTING LANDING POINT LOCATION ● PROPOSED SURFACE HOLE / BOTTOM HOLE LPL* PROPOSED LANDING POINT LOCATION — ACCESS ROAD - - - PUBLIC ROAD [] FLOOD PLAIN [] LEASE BOUNDARY — AS DRILLED PATH - - - PROPOSED PATH	REVISIONS: DATE: 01-15-2020 DRAWN BY: R. GRIMES SCALE: 1" = 2000' DRAWING NO: 2018-341 WELL LOCATION PLAT
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WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	KATHY LYNN & MICHAEL MAYHEW, ET AL (S/R)	03-B42-0027.0000
TRACT	SURFACE OWNER	TAX PARCEL
2	JAY G. COLLINS & BARBARA J. COLLINS	03-B41-0080.0000
3	MARY RUTH WOOD	03-B41-0084.0000
4	DALE T. & MARY R. WOOD	03-B46-0046.0000
5	BETSY D. TUSTIN	03-B47-0002.0001
6	MARK A. WADE & MARY IVA SMITH	03-B47-0004.0000
7	MARK A. WADE & MARY IVA SMITH WADE	04-R6-0011-0000-000
8	WINDSOR COAL COMPANY	04-R6-0012-0000-000

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	LUTHER GRIZZEL	03-B42-0030.0000
B	LUTHER GRIZZEL	03-B42-0031.0000
C	LUTHER GRIZZEL	03-B42-0029.0000
D	ELIZABETH ELLEN FLUHARTY	03-B47-0018.0000
E	JAMES LAMONT	03-B47-0001.0000
F	ROBERT FINSLEY, JR.	03-B47-0001.0001
G	JOSEPH S. & JANE M. BUREK	03-B47-0019.0000
H	JOHN E. SHARIER, III	03-B47-0003.0000
I	DAVID A. & CRYSTAL G. DUNN (SURV)	03-B47-0007.0000
J	DAVID A. & CRYSTAL G. DUNN (SURV)	03-B47-0006.0000
K	JACK KLEIN & JENNIFER GEORGE (SURV)	03-B47-0008.0000
L	JODY L. & JANIE L. BRITTON (SURV)	03-B47-0009.0000
M	MANUFACTURERS LIGHT & HEAT COMPANY	03-B47-0050.0000
N	CHRISTIAN FAITH FELLOWSHIP TRUSTEES	03-B47-0004.0001
O	ROXIE MCCAULEY	03-B47-0016.0000
P	PATRICK E. & DONNA M. KING (SURV)	03-B47-0015.0000
Q	ALBERT H. POSTLEWAIT, JR. & CINDY S. POSTLEWAIT	04-R6-0018-0001-0000
R	DALE M. SAMPSON	03-L1-0002-0000-0000
S	DALE M. SAMPSON	04-R6-0013-0000-0000
T	CHARLES B. DAVIS, JR. & MADONA DAVIS	04-R6-0014-0000-0000
U	WAYNE E. SHOOK	04-R6-0015-0000-0000
V	SHORT CREEK COAL CO	04-R6-0017-0003-0000
W	GARY WAYNE HERCULES	04-R6-0016-0000-0000
X	MARTHA HERCULES	04-R6-0007-0000-0000
Y	FLORENCE E. & JOHN M. WHITE	04-R6-0010-0000-0000
Z	TIMOTHY E. & J.M. KERNS	04-R6-0008-0001-0000
AA	MELISSA KERNS; CHRISTINA A. KERNS LE-TIMOTHY & JEANETTE KERNS	03-B46-0040.0001
AB	JEFFREY A. HORNICK	03-B47-0005.0000
AC	ERIC J. TUSTIN	03-B46-0029.0001
AD	JAMES B. & MELISSA D. GEBHARDT	03-B46-0029.0000
AE	DANNY GENE & VIRGINIA MARGARET BRITT (SURV)	03-B46-0027.0000
AF	BARRY L. & PATRICIA A. GREATHOUSE (SURV)	03-B41-0082.0000
AG	JAY GLEN COLLINS	03-B41-0080.0000
AH	ROBERT J., JR. & LINDA MILLER	03-B41-0047.0000
AI	WILLIAM & DAWNA MILLER (SURV)	03-B41-0061.0000
AJ	JOSEPH P., SR & ROBIN M. SCRIP (SURV)	03-B41-0080.0002
AK	SANDRA W. BUTLER	03-B41-0071.0000
AL	SANDRA W. BUTLER	03-B41-0078.0000
AM	JAY G. COLLINS	03-B41-0079.0000
AN	SHAWN M. SINES	03-B41-0085.0000
AO	HENRY MIKELS; BONNIE J. BURKETT (SURV)	03-B41-0086.0001
AP	JASON D. & MARY E. WHITE (SURV)	03-B41-0086.0000
AQ	ROBERT D., II & LESLIE C. HILDEBRAND (SURV)	03-B42-0063.0000
AR	FRANK G. & KELLY L. AINSCOUGH (SURV)	03-B42-0071.0000
AS	HENRY HEINZROTH	03-B42-0032.0000

REVISIONS:

COMPANY:

SWN
Production Company, LLC

SWN *R-V+0*
Production Company™

OPERATOR'S KATHY MAYHEW

DATE: 01-15-2020

WELL #: BRK 206H

DRAWN BY: R. GRIMES

DISTRICT:
BUFFALO

COUNTY:
BROOKE

STATE:
WV

SCALE: N/A

DRAWING NO: 2018-341

WELL LOCATION PLAT