

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

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Office of Oil and Gas
FEB 24 2022

WV Department of
Environmental Protection

API 47-009-00287 County BROOKE District BUFFALO
Quad BETHANY, WV & STEUBENVILLE EAST, OH Pad Name ROBERT BONE BRK PAD Field/Pool Name PANHANDLE FIELD WET
Farm name ROBERT BONE Well Number ROBERT BONE BRK 10H
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 4,452,141.91 Easting 533,831.43
Landing Point of Curve Northing 4,452,270.75 Easting 534,351.64
Bottom Hole Northing 4,446,342.36 Easting 536,472.55

Elevation (ft) 1,147.6 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 9/8/2020 Date drilling commenced 6/16/2021 Date drilling ceased 7/10/2021
Date completion activities began 10/10/2021 Date completion activities ceased 12/2/2021
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 345 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 628 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 865 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed

Reviewed by:
MSK 3/4/2022
03/25/2022

API 47-009 - 00287 Farm name ROBERT BONE Well number ROBERT BONE BRK 10H

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	420'	NEW	J-55/54.50#	249.6'; 291.5'	Y, 50 BBLs
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	1,650'	NEW	J-55/36#		Y, 40 BBLs
Intermediate 2	12.25	9.625					
Intermediate 3							
Production	8.75	5.5	27,266'	NEW	P-110HP/20#		Y, 134 BBLs
Tubing		2.875	6,612'	NEW	P-110/6.5#		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	386	15.60	1.20	463.2	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	683	15.60	1.19	812.77	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4,944	15.60	1.30	6,427.2	SURFACE	24
Tubing							

Drillers TD (ft) 27,266' Loggers TD (ft) 27,266'
 Deepest formation penetrated _____ Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5,345'

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 _____

API 47- 009 - 00287 Farm name ROBERT BONE Well number ROBERT BONE BRK 10H

PRODUCING FORMATION(S)	DEPTHS	
<u>MARCELLUS</u>	<u>5,815'</u> TVD	<u>6,316'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2,167 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 6,845 mcfpd Oil 763 bpd NGL _____ bpd Water 547 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 _____ Zip 77391

Please insert additional pages as applicable.

Completed by BOBBY WILLIS Telephone 832-796-2884
Signature  Title SENIOR REGULATORY ANALYST Date 2/23/2022

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

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/11/2021
Job End Date:	11/19/2021
State:	West Virginia
County:	Brooke
API Number:	47-009-00287-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	ROBERT BONE BRK 10
Latitude:	40.21901413
Longitude:	-80.60238774
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,000
Total Base Water Volume (gal):	34,865,972
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
Base Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	88.92481	Density = 8.345
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	85.00000	0.27269	

			Water	7732-18-5	85.00000	0.27269	
			Water	7732-18-5	85.00000	0.27269	
PLEXSLICK 930	SWN Well Services	Friction Reducer		Listed Below			
Tolicide 4Frac	SWN Well Services	Biocide		Listed Below			
Plexaid 655	SWN Well Services	Scale Inhibitor		Listed Below			
Sand	SWN Well Services	Proppant		Listed Below			
Ferriplex 80	SWN Well Services	Iron Control		Listed Below			
FSTI-CI-02	SWN Well Services	Corrosion Inhibitor		Listed Below			
HCL	SWN Well Services	Solvent		Listed Below			
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.							
			Crystalline Silica, quartz	14808-60-7	100.00000	10.71739	
			Hydrochloric Acid	7647-01-0	15.00000	0.03694	

**ROBERT BONE BRK 10H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
1	10/1/2021	27,179	27,090	36
2	10/11/2021	27,056	26,879	36
3	10/12/2021	26,846	26,669	36
4	10/12/2021	26,636	26,461	36
5	10/13/2021	26,426	26,249	36
6	10/13/2021	26,216	26,038	36
7	10/14/2021	26,005	25,828	36
8	10/14/2021	25,795	25,618	36
9	10/14/2021	25,585	25,408	36
10	10/15/2021	25,375	25,198	36
11	10/15/2021	25,165	24,988	36
12	10/16/2021	24,955	24,778	36
13	10/16/2021	24,745	24,568	36
14	10/17/2021	24,535	24,357	36
15	10/17/2021	24,324	24,147	36
16	10/17/2021	24,114	23,937	36
17	10/18/2021	23,904	23,727	36
18	10/18/2021	23,694	23,517	36
19	10/19/2021	23,484	23,307	36
20	10/19/2021	23,274	23,097	36
21	10/20/2021	23,064	22,887	36
22	10/20/2021	22,854	22,676	36
23	10/21/2021	22,643	22,466	36
24	10/21/2021	22,433	22,256	36
25	10/22/2021	22,223	22,046	36
26	10/22/2021	22,013	21,836	36
27	10/22/2021	21,803	21,626	36
28	10/23/2021	21,593	21,416	36
29	10/23/2021	21,383	21,206	36
30	10/23/2021	21,173	20,995	60
31	10/25/2021	20,962	20,785	36
32	10/25/2021	20,752	20,575	36
33	10/25/2021	20,542	20,365	36
34	10/26/2021	20,332	20,155	36
35	10/26/2021	20,122	19,945	36
36	10/26/2021	19,912	19,735	36
37	10/27/2021	19,702	19,525	36
38	10/27/2021	19,492	19,314	36
39	10/27/2021	19,281	19,104	36
40	10/28/2021	19,071	18,894	36
41	10/28/2021	18,861	18,684	36
42	10/29/2021	18,651	18,474	36
43	10/29/2021	18,441	18,264	36
44	10/30/2021	18,231	18,054	36
45	10/30/2021	18,021	17,844	36
46	10/30/2021	17,811	17,633	36
47	10/31/2021	17,600	17,423	36
48	10/31/2021	17,390	17,213	36
49	11/1/2021	17,180	17,003	36
50	11/1/2021	16,970	16,793	36
51	11/2/2021	16,760	16,583	36

**ROBERT BONE BRK 10H
ATTACHMENT 1
PERF REPORT**

STAGE NUM	Perf Date	Perf Bottom MD	Perf Top MD2	# SHOTS PER STG
52	11/2/2021	16,550	16,373	36
53	11/2/2021	16,340	16,163	36
54	11/3/2021	16,130	15,952	36
55	11/3/2021	15,919	15,742	36
56	11/4/2021	15,709	15,532	36
57	11/4/2021	15,499	15,322	36
58	11/5/2021	15,289	15,112	36
59	11/5/2021	15,079	14,902	36
60	11/5/2021	14,869	14,692	36
61	11/5/2021	14,659	14,487	36
62	11/6/2021	14,449	14,271	36
63	11/6/2021	14,233	14,061	36
64	11/7/2021	14,028	13,851	36
65	11/7/2021	13,818	13,641	36
66	11/8/2021	13,608	13,431	36
67	11/8/2021	13,398	13,221	36
68	11/9/2021	13,188	13,011	36
69	11/9/2021	12,978	12,801	36
70	11/10/2021	12,768	12,590	36
71	11/10/2021	12,557	12,380	36
72	11/10/2021	12,347	12,170	36
73	11/11/2021	12,137	11,960	36
74	11/11/2021	11,927	11,750	36
75	11/12/2021	11,717	11,540	36
76	11/12/2021	11,507	11,330	36
77	11/13/2021	11,297	11,120	36
78	11/13/2021	11,087	10,910	36
79	11/13/2021	10,876	10,699	36
80	11/14/2021	10,666	10,489	36
81	11/14/2021	10,456	10,279	36
82	11/15/2021	10,246	10,069	36
83	11/15/2021	10,036	9,859	36
84	11/15/2021	9,826	9,649	36
85	11/16/2021	9,616	9,439	36
86	11/16/2021	9,406	9,229	36
87	11/16/2021	9,195	9,018	36
88	11/17/2021	8,985	8,808	36
89	11/17/2021	8,775	8,598	36
90	11/17/2021	8,565	8,388	36
91	11/17/2021	8,355	8,178	36
92	11/17/2021	8,145	7,968	36
93	11/17/2021	7,935	7,758	36
94	11/18/2021	7,725	7,548	36
95	11/18/2021	7,515	7,337	36
96	11/18/2021	7,304	7,127	36
97	11/18/2021	7,094	6,917	36
98	11/18/2021	6,884	6,707	36
99	11/18/2021	6,674	6,497	36

ROBERT BONE BRK 10H

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	10/11/2021	73.9	8,373	8,210	3,725	132,840	5,742	0
2	10/11/2021	67.1	8,254	5,134	3,891	359,600	9,067	0
3	10/12/2021	59.6	8,248	5,811	3,860	223,180	8,249	0
4	10/12/2021	66.2	9,043	5,884	4,543	363,200	9,887	0
5	10/13/2021	66.9	8,530	3,253	4,236	358,980	9,902	0
6	10/13/2021	85.9	9,016	5,591	4,381	358,640	9,906	0
7	10/14/2021	85.6	8,987	5,097	4,256	357,680	9,303	0
8	10/14/2021	84.3	8,982	6,207	4,496	363,260	9,239	0
9	10/15/2021	85.1	8,807	6,490	4,512	358,680	8,904	0
10	10/15/2021	86.9	8,835	5,424	4,411	359,460	9,115	0
11	10/16/2021	85.9	8,674	6,706	4,465	363,320	8,979	0
12	10/16/2021	78.2	8,845	5,953	4,372	356,000	9,156	0
13	10/16/2021	77.3	8,859	5,971	4,302	354,340	8,721	0
14	10/17/2021	80.7	8,764	6,275	4,652	359,220	9,524	0
15	10/17/2021	91.3	8,804	5,909	4,688	355,140	8,802	0
16	10/18/2021	89	8,775	6,033	4,189	364,440	9,326	0
17	10/18/2021	90.6	8,925	5,574	4,535	355,100	8,829	0
18	10/18/2021	86.4	8,740	5,578	4,290	356,420	8,697	0
19	10/19/2021	91.9	8,951	5,388	4,335	355,800	8,757	0
20	10/19/2021	91.2	8,848	5,820	4,267	357,220	8,842	0
21	10/20/2021	97.3	8,992	5,442	4,937	362,780	9,084	0
22	10/21/2021	88.8	8,595	5,468	4,967	356,900	8,465	0
23	10/21/2021	95.1	8,754	6,533	5,135	352,990	8,990	0
24	10/21/2021	89.1	8,463	5,468	4,250	366,200	8,987	0
25	10/22/2021	98	8,819	5,084	4,611	323,140	8,657	0
26	10/22/2021	90.8	8,563	4,877	4,208	359,600	8,699	0
27	10/23/2021	96.7	8,596	5,125	4,626	366,620	8,790	0
28	10/23/2021	98.5	8,892	6,335	4,993	360,240	8,654	0
29	10/23/2021	76.5	8,528	4,934	4,210	360,020	9,249	0
30	10/24/2021	81.7	8,571	6,450	4,142	358,400	12,800	0
31	10/25/2021	97.6	8,851	4,861	4,309	358,660	8,745	0
32	10/25/2021	94.7	7,988	5,105	4,487	356,840	8,987	0
33	10/26/2021	96.1	8,196	5,680	4,164	366,100	8,704	0
34	10/26/2021	98.5	8,425	4,987	4,697	364,940	8,473	0
35	10/26/2021	90.7	8,094	5,501	4,243	359,420	8,559	0
36	10/27/2021	97.7	8,101	5,577	4,162	366,460	8,518	0
37	10/27/2021	98.6	8,134	5,331	4,564	359,280	8,869	0
38	10/27/2021	87.8	7,949	5,063	4,034	366,100	8,725	0
39	10/28/2021	75.2	7,764	4,681	4,360	362,420	11,148	0
40	10/28/2021	85.3	7,269	5,001	4,250	355,120	10,581	0
41	10/29/2021	90.4	8,018	5,050	4,441	355,800	8,461	0
42	10/29/2021	97.6	8,303	5,286	4,594	360,320	9,047	0
43	10/29/2021	92.2	8,277	5,445	4,063	356,430	8,443	0
44	10/30/2021	90.5	8,246	5,714	4,532	358,180	8,255	0
45	10/30/2021	93.5	7,908	6,121	4,054	362,500	8,317	0
46	10/31/2021	78.9	7,681	5,274	4,725	356,600	9,324	0
47	10/31/2021	92.4	8,158	5,604	4,031	358,280	8,434	0
48	11/1/2021	90.6	7,744	5,740	4,732	354,340	8,296	0
49	11/1/2021	96.1	7,925	5,460	4,085	361,940	8,199	0
50	11/1/2021	96.3	7,705	5,322	4,178	357,280	7,924	0
51	11/2/2021	93.1	7,410	5,625	4,465	359,100	9,281	0
52	11/2/2021	92.8	7,828	5,335	4,087	351,240	7,684	0
53	11/3/2021	93.5	7,354	5,160	4,745	355,180	8,039	0

ROBERT BONE BRK 10H

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/other
54	11/3/2021	95	7,576	4,907	4,100	361,380	8,202	0
55	11/4/2021	93	7,583	5,102	5,120	356,880	7,679	0
56	11/4/2021	94.5	7,649	5,125	3,984	361,120	7,894	0
57	11/4/2021	94.9	7,622	5,654	4,154	352,660	7,736	0
58	11/5/2021	94.5	7,219	5,039	5,044	362,380	8,054	0
59	11/5/2021	95	7,720	4,835	4,101	361,980	7,840	0
60	11/5/2021	94.4	7,596	4,957	4,374	357,180	7,602	0
61	11/6/2021	94	7,188	5,234	4,453	362,100	7,988	0
62	11/6/2021	93.7	7,640	5,057	4,105	356,280	7,765	0
63	11/7/2021	94	7,377	7,025	4,710	356,300	7,947	0
64	11/7/2021	94.5	7,276	5,324	5,119	362,110	8,064	0
65	11/7/2021	95.5	7,447	5,550	4,364	357,060	7,678	0
66	11/8/2021	95.1	7,417	4,851	4,194	360,560	7,850	0
67	11/9/2021	95	7,403	5,428	4,330	353,970	7,826	0
68	11/9/2021	99.5	7,350	5,584	4,400	358,860	7,895	0
69	11/9/2021	94.5	7,355	5,123	4,203	358,480	7,906	0
70	11/10/2021	99.9	7,119	5,419	4,351	355,040	7,914	0
71	11/10/2021	99.5	6,871	4,801	4,472	356,440	8,024	0
72	11/11/2021	99.9	7,159	5,341	4,398	360,060	8,228	0
73	11/11/2021	99.5	6,918	4,958	4,126	357,320	8,193	0
74	11/12/2021	99.2	6,813	4,007	4,184	360,040	8,124	0
75	11/12/2021	97	6,848	5,301	4,423	354,530	7,733	0
76	11/12/2021	98	6,698	5,400	4,338	356,430	8,148	0
77	11/13/2021	98.1	6,777	4,965	4,216	352,980	7,274	0
78	11/13/2021	99.2	6,522	5,482	4,278	360,100	8,019	0
79	11/14/2021	98.1	6,683	5,157	4,216	352,460	7,723	0
80	11/14/2021	98.1	6,610	5,054	4,216	356,060	7,842	0
81	11/14/2021	99	6,428	4,954	4,308	355,300	7,880	0
82	11/15/2021	99.2	6,424	3,650	4,365	350,640	8,177	0
83	11/15/2021	99	6,543	4,946	4,236	353,910	7,951	0
84	11/16/2021	99	6,406	5,399	4,326	357,860	8,046	0
85	11/16/2021	99	6,471	5,030	4,325	355,520	7,713	0
86	11/16/2021	99.5	6,688	5,006	4,121	357,940	7,669	0
87	11/16/2021	99	6,299	5,359	4,102	353,220	7,623	0
88	11/17/2021	98.6	6,229	5,160	4,100	350,360	7,695	0
89	11/17/2021	99.7	6,322	5,236	4,321	357,280	7,685	0
90	11/17/2021	98.2	6,091	4,969	4,213	356,880	7,605	0
91	11/17/2021	99.9	6,364	5,169	4,079	357,300	8,003	0
92	11/17/2021	98.5	6,219	5,251	4,236	355,140	7,524	0
93	11/17/2021	100	6,236	5,306	4,265	356,400	7,648	0
94	11/18/2021	100	6,103	4,701	4,206	356,240	7,926	0
95	11/18/2021	99.4	6,061	4,985	4,196	360,720	7,656	0
96	11/18/2021	99.3	6,085	5,000	4,356	359,600	7,450	0
97	11/18/2021	98.1	6,073	5,148	4,238	357,800	7,549	0
98	11/18/2021	96.5	7,318	5,104	4,201	355,580	7,710	0
99	11/19/2021	99.4	5,678	5,007	4,268	356,240	7,298	0



Well Name: Robert Bone BRK 10H 47009002870000

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	345.00	345.00	
Top of Salt Water	628.00	628.00	NA	NA	
Pittsburgh Coal	865.00	865.00	867.50	867.50	
Pottsville (ss)	392.00	392.00	514.00	514.00	
Raven Cliff (ss)	764.00	764.00	935.00	935.00	
Maxton (ss)	1117.00	1117.00	1384.00	1384.00	
Big Injun (ss)	1384.00	1384.00	1573.00	1573.00	
Berea (siltstone)	1895.00	1895.00	5584.00	5297.00	
Rhinstreet (shale)	5584.00	5297.00	5856.00	5533.00	
Cashaqua (shale)	5856.00	5533.00	5922.00	5584.00	
Middlesex (shale)	5922.00	5584.00	6014.00	5651.00	
Burket (shale)	6014.00	5651.00	6038.00	5668.00	
Tully (ls)	6038.00	5668.00	6124.00	5722.00	
Mahantango (shale)	6124.00	5722.00	6316.00	5815.00	
Marcellus (shale)	6316.00	5815.00	NA	NA	GAS

LATITUDE: 40°15'00" SURFACE HOLE (2000' SCALE)

5374'

LATITUDE: 40°12'30" BOTTOM HOLE (2000' SCALE)

8448'

JHA ENGINEERS SURVEYORS ENVIRONMENTAL GIS MAPPING
www.jhacompanies.com
68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100

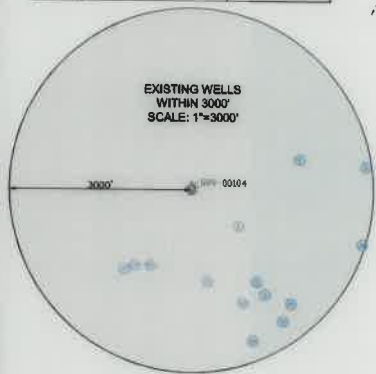
NOTES ON SURVEY

- 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.

3000 0 3000

GRAPHIC SCALE IN FEET

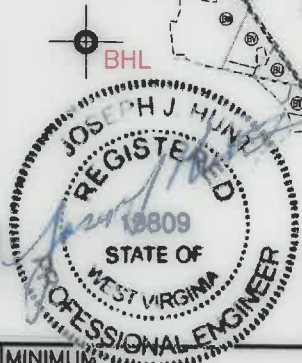
LINE	BEARING	DISTANCE
L1	N 56°25'13" E	854.64'
L2	S 77°24'20" E	2,095.57'



SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452141.91 EASTING: 533831.43
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452270.75 EASTING: 534351.84
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4446342.36 EASTING: 536472.55
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452141.89 EASTING: 533831.48
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4452261.19 EASTING: 534352.97
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4446342.44 EASTING: 536473.62

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.E. 19809



COMPANY: **SWN** Production Company, I.L.C. **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 SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)	OPERATOR'S WELL #: ROBERT BONE BRK 10H API WELL #: 47 009 00287 STATE COUNTY PERMIT
	WELL TYPE: OIL WASTE DISPOSAL PRODUCTION X DEEP GAS X LIQUID INJECTION STORAGE SHALLOW X WATERSHED: UPPER OHIO SOUTH DISTRICT: BUFFALO COUNTY: BROOKE SURFACE OWNER: ROBERT BONE OIL & GAS ROYALTY OWNER: ROBERT BONE DRILL DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE X (SPECIFY) AS-DRILLED TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,145' TVD	ELEVATION: 1,147.6' QUADRANGLE: BETHANY, WV ACREAGE: ±81.99 ACREAGE: ±81.99

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: (O) EXISTING BOTTOM HOLE (S) EXISTING / PRODUCING WELL HEAD (LPL) EXISTING LANDING POINT LOCATION (BHL) PROPOSED SURFACE HOLE / BOTTOM HOLE (LPL) PROPOSED LANDING POINT LOCATION (W) EXISTING WATER WELL (S) EXISTING SPRING (---) SURVEYED BOUNDARY (---) LEASE BOUNDARY (---) AS-DRILLED PATH (---) PROPOSED PATH	REVISIONS: DATE: 02-16-2022 API NO: 47-069-00287 DRAWN BY: R.GRIMES SCALE: 1" = 3000' DRAWING NO: 2017-219 WELL LOCATION PLAT
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LONGITUDE: 80°32'30" BOTTOM HOLE (2000' SCALE)
15220'
11298'
LONGITUDE: 80°35'00" SURFACE HOLE (2000' SCALE)

03/25/2022

