

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

API 47-069-00260 County OHIO District LIBERTY  
Quad BETHANY, WV Pad Name BENJAMIN HONECKER OHI PAD 1 Field/Pool Name PANHANDLE FIELD WET  
Farm name JANET L. HONECKER AND ELIZABETH H. HESTICK Well Number BENJAMIN HONECKER OHI 3H  
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 4,445,002.78 Easting 533,112.59  
Landing Point of Curve Northing 4,445,196.15 Easting 532,939.50  
Bottom Hole Northing 4,447,500.99 Easting 532,057.99

Elevation (ft) 1103.9' 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 2/26/2018 Date drilling commenced 9/27/2018 Date drilling ceased 10/21/2018  
Date completion activities began 1/5/2019 Date completion activities ceased 2/21/2019  
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 324' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 392' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 267' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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Reviewed by:  
  
5-28-19

WR-35  
Rev. 8/23/13

API 47-069 - 00260 Farm name JANET L. HONECKER AND ELIZABETH H. HESTICK Well number BENJAMIN HONECKER OHI 3H

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	383	NEW	J-55/54.5#	262.6 / 303.4	Y; 6 BBLS
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	1,715	NEW	J-55/36#		Y; 40 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	14,653	NEW	HCP-110/20#		Y
Tubing		2,375	6,320	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 <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	422	15.60	1.20	506.4	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	662	15.60	1.19	787.78	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2,744	15.60	1.19	3,265.36	SURFACE	24
Tubing							

Drillers TD (ft) 14,653' Loggers TD (ft) 14,653'  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5,100'

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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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/6/2019
Job End Date:	2/12/2019
State:	West Virginia
County:	Ohio
API Number:	47-069-00260-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Benjamin Honecker OHI 3H
Latitude:	40.15472500
Longitude:	-80.61120300
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,885
Total Base Water Volume (gal):	15,680,258
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
Fresh Water	Operator	Base Fluid					
			Water	7732-18-5	100.00000	87.55959	Density = 8.330
	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	1.01743	

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EXCELERATE LX-1	Halliburton	Friction Reducer											
							Listed Below						
Nalco Scale	NALCO	Scale Inhibitor											
							Listed Below						
LP-65 MC	Halliburton	Scale Inhibitor											
							Listed Below						
SAND-PREMIUM WHITE-40/70, BULK	Halliburton	Proppant											
							Listed Below						
BE-9W	Halliburton	Biocide											
							Listed Below						
SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676)	Halliburton	Proppant											
							Listed Below						
HYDROCHLORIC ACID	Halliburton	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	11.38267							
			Hydrochloric acid	7647-01-0	7.50000	0.07092							

	Polyacrylate	Proprietary	30.00000	0.02665	
	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02665	
	Propylene glycol	57-55-6	60.00000	0.01103	
	Fatty acid ester	Proprietary	5.00000	0.00888	
	Ammonium chloride	12125-02-9	30.00000	0.00448	
	Ethoxylated fatty acid	Proprietary	5.00000	0.00444	Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
	Sodium chloride	7647-14-5	5.00000	0.00444	
	Methanol	67-56-1	60.00000	0.00283	
	Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00184	
	Benzyl-(C12-C16 Alkyl)-Dimerthyl-Ammonium Chloride	68424-85-1	30.00000	0.00142	
	Glutaraldehyde	111-30-8	10.00000	0.00047	
	Organic phosphonate	Proprietary	60.00000	0.00009	
	Diammonium phosphate	7783-28-0	5.00000	0.00001	

\* 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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## PERF REPORT

STAGE NUM	Perf Date	Perf Bottom MI	Perf Top MD2	# SHOTS PER STG
1	1/4/2019	14,588	14,490	36
2	1/10/2019	14,471	14,409	42
3	1/10/2019	14,391	14,329	42
4	1/10/2019	14,311	14,249	42
5	1/11/2019	14,231	14,169	42
6	1/11/2019	14,151	14,089	42
7	1/12/2019	14,071	14,009	42
8	1/12/2019	13,991	13,929	42
9	1/12/2019	13,911	13,849	42
10	1/13/2019	13,831	13,769	42
11	1/13/2019	13,751	13,689	42
12	1/14/2019	13,671	13,607	42
13	1/14/2019	13,591	13,529	42
14	1/14/2019	13,511	13,449	42
15	1/14/2019	13,431	13,369	42
16	1/15/2019	13,351	13,289	42
17	1/15/2019	13,271	13,209	42
18	1/16/2019	13,191	13,129	42
19	1/16/2019	13,111	13,049	42
20	1/16/2019	13,029	12,969	42
21	1/16/2019	12,949	12,889	42
22	1/17/2019	12,871	12,809	42
23	1/17/2019	12,791	12,729	42
24	1/18/2019	12,711	12,649	42
25	1/18/2019	12,631	12,569	42
26	1/18/2019	12,551	12,489	42
27	1/19/2019	12,471	12,409	42
28	1/19/2019	12,391	12,329	42
29	1/19/2019	12,311	12,249	42
30	1/19/2019	12,231	12,169	42
31	1/20/2019	12,151	12,089	42
32	1/22/2019	12,071	12,009	42
33	1/24/2019	11,991	11,929	42
34	1/24/2019	11,911	11,849	42
35	1/24/2019	11,831	11,769	42
36	1/25/2019	11,749	11,689	42
37	1/25/2019	11,671	11,609	42
38	1/25/2019	11,591	11,529	42
39	1/26/2019	11,511	11,449	42
40	1/26/2019	11,429	11,369	42
41	1/26/2019	11,351	11,289	42
42	1/26/2019	11,271	11,209	42
43	1/27/2019	11,191	11,129	42
44	1/27/2019	11,111	11,049	42
45	1/27/2019	11,031	10,969	42
46	1/27/2019	10,951	10,889	42

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STAGE NUM	Perf Date	Perf Bottom MI	Perf Top MD2	# SHOTS PER STG
47	1/28/2019	10,871	10,809	42
48	1/28/2019	10,791	10,729	42
49	1/28/2019	10,711	10,649	42
50	1/29/2019	10,631	10,569	42
51	1/29/2019	10,534	10,489	42
52	1/29/2019	10,471	10,409	42
53	1/30/2019	10,391	10,329	42
54	1/30/2019	10,311	10,249	42
55	1/31/2019	10,231	10,169	42
56	1/31/2019	10,149	10,089	42
57	2/1/2019	10,071	10,009	42
58	2/1/2019	9,991	9,929	42
59	2/1/2019	9,911	9,849	42
60	2/2/2019	9,831	9,769	42
61	2/2/2019	9,751	9,689	42
62	2/2/2019	9,671	9,609	42
63	2/3/2019	9,591	9,529	42
64	2/3/2019	9,511	9,449	42
65	2/3/2019	9,431	9,369	42
66	2/3/2019	9,351	9,289	42
67	2/3/2019	9,271	9,209	42
68	2/4/2019	9,191	9,129	42
69	2/4/2019	9,111	9,049	42
70	2/4/2019	9,031	8,969	42
71	2/4/2019	8,951	8,889	42
72	2/4/2019	8,871	8,809	42
73	2/5/2019	8,791	8,731	42
74	2/5/2019	8,711	8,649	42
75	2/5/2019	8,631	8,569	42
76	2/5/2019	8,551	8,489	42
77	2/5/2019	8,471	8,409	42
78	2/5/2019	8,391	8,329	42
79	2/6/2019	8,311	8,249	42
80	2/6/2019	8,231	8,169	42
81	2/6/2019	8,151	8,089	42
82	2/7/2019	8,071	8,009	42
83	2/7/2019	7,991	7,929	42
84	2/7/2019	7,911	7,849	42
85	2/7/2019	7,831	7,769	42
86	2/8/2019	7,751	7,689	42
87	2/8/2019	7,671	7,609	42
88	2/8/2019	7,591	7,529	42
89	2/8/2019	7,511	7,449	42
90	2/8/2019	7,431	7,369	42
91	2/9/2019	7,351	7,289	42
92	2/9/2019	7,271	7,209	42

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STAGE NUM	Perf Date	Perf Bottom MI	Perf Top MD2	# SHOTS PER STG
93	2/9/2019	7,191	7,129	42
94	2/9/2019	7,111	7,049	42
95	2/9/2019	7,031	6,989	30
96	2/9/2019	6,951	6,889	42
97	2/10/2019	6,871	6,810	42
98	2/10/2019	6,791	6,729	42
99	2/10/2019	6,711	6,649	42
100	2/11/2019	6,631	6,569	42
101	2/11/2019	6,511	6,489	42
102	2/9/2019	6,471	6,409	42
103	2/11/2019	6,391	6,329	42
104	2/12/2019	6,309	6,249	42
105	2/12/2019	6,229	6,169	42

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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	1/5/2019	78	8,638	8,026	9,026	202,480	6,037	0
2	1/10/2019	74.2	8,350	5,439	4,261	144,685	7,119	0
3	1/10/2019	82.2	7,517	6,073	4,631	162,210	6,246	0
4	1/11/2019	89.7	8,075	4,856	4,597	163,480	4,478	0
5	1/11/2019	92.3	8,376	4,943	4,502	154,950	4,401	0
6	1/11/2019	92.1	8,337	5,160	4,507	158,490	3,788	0
7	1/12/2019	80.9	8,248	5,239	4,299	162,690	4,764	0
8	1/12/2019	90	8,306	4,937	4,757	161,610	3,908	0
9	1/13/2019	89.9	8,052	4,976	4,422	169,490	3,866	0
10	1/13/2019	91.6	8,194	5,464	4,418	167,100	3,984	0
11	1/13/2019	98.9	8,348	4,699	4,647	166,500	3,893	0
12	1/14/2019	96.4	8,448	4,937	4,766	161,780	3,951	0
13	1/14/2019	96.1	8,005	4,991	4,701	166,302	4,123	0
14	1/14/2019	99.5	8,291	5,010	4,458	165,000	3,982	0
15	1/15/2019	89.5	7,956	4,915	4,542	164,948	4,024	0
16	1/15/2019	94.6	8,221	5,092	4,731	179,199	3,388	0
17	1/15/2019	95.7	8,511	5,124	4,704	157,000	3,903	0
18	1/16/2019	96.2	8,198	5,221	4,614	164,140	3,823	0
19	1/16/2019	91.4	8,211	4,802	4,507	163,560	3,724	0
20	1/17/2019	90.7	8,327	5,319	4,725	163,270	4,035	0
21	1/17/2019	94	8,211	5,554	4,654	161,110	3,752	0
22	1/17/2019	90.4	8,189	5,283	4,902	161,110	3,754	0
23	1/17/2019	88.6	8,096	5,423	4,391	158,700	3,833	0
24	1/18/2019	87.7	8,204	5,664	4,414	160,360	3,674	0
25	1/18/2019	95	8,220	5,671	4,751	163,050	3,633	0
26	1/18/2019	87.4	8,011	5,764	4,743	162,640	3,869	0
27	1/19/2019	92.9	8,040	5,530	4,727	161,560	3,814	0
28	1/19/2019	84.4	8,165	5,394	4,643	159,770	3,608	0
29	1/19/2019	94.1	8,235	5,866	4,207	160,020	3,534	0
30	1/19/2019	90.5	8,199	5,542	4,606	159,720	3,829	0
31	1/20/2019	96.9	8,127	5,772	4,770	163,870	3,884	0
32	1/24/2019	89.3	8,142	5,418	4,600	158,240	3,979	0
33	1/24/2019	92.5	8,025	5,760	4,634	161,930	3,546	0
34	1/24/2019	88.8	7,747	5,492	4,680	163,130	3,550	0
35	1/24/2019	89.9	8,116	5,880	4,710	157,721	3,927	0
36	1/25/2019	87.7	7,880	6,026	4,627	163,070	3,543	0
37	1/25/2019	91.2	7,987	5,818	4,815	164,310	3,508	0
38	1/25/2019	90	7,813	5,626	4,732	159,415	3,787	0
39	1/26/2019	86.1	7,859	6,024	4,932	161,685	3,792	0
40	1/26/2019	88.4	7,983	5,549	4,661	161,490	3,447	0
41	1/26/2019	98.4	8,097	4,995	4,419	159,970	3,526	0
42	1/26/2019	94.1	8,020	5,302	4,777	159,370	3,659	0
43	1/27/2019	95.8	8,021	5,549	4,734	158,360	3,613	0
44	1/27/2019	90.4	8,012	5,793	4,830	161,340	3,287	0
45	1/27/2019	90.1	8,083	5,682	4,582	159,589	3,650	0
46	1/28/2019	86.3	8,003	5,456	4,785	159,300	3,671	0
47	1/28/2019	92.1	7,746	5,718	4,774	160,150	3,456	0
48	1/28/2019	87	7,548	5,723	4,632	160,080	3,415	0
49	1/28/2019	95	7,820	5,294	3,410	160,029	3,470	0
50	1/29/2019	98	8,208	5,454	4,475	162,080	3,408	0
51	1/29/2019	91	7,942	5,763	4,822	161,400	3,749	0

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## 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
52	1/30/2019	86.9	8,158	5,641	4,705	160,131	3,776	0
53	1/30/2019	79	7,089	6,239	4,741	161,230	4,063	0
54	1/31/2019	86	7,792	5,675	4,636	164,810	3,676	0
55	1/31/2019	92	7,943	5,447	4,799	163,808	3,655	0
56	2/1/2019	88.3	7,886	5,905	4,693	163,446	3,497	0
57	2/1/2019	95	7,717	5,798	4,661	160,001	3,562	0
58	2/1/2019	94.5	8,037	5,742	4,823	161,702	4,549	0
59	2/1/2019	91.8	8,134	5,447	4,808	161,800	3,540	0
60	2/2/2019	96	7,856	5,607	4,879	160,543	3,512	0
61	2/2/2019	93	7,916	5,733	4,655	160,020	3,358	0
62	2/2/2019	99.4	7,789	4,983	4,747	161,546	3,214	0
63	2/3/2019	91.8	8,136	5,700	4,751	160,378	3,322	0
64	2/3/2019	97	7,930	5,613	4,859	159,070	3,202	0
65	2/3/2019	91	7,984	5,539	4,736	163,970	3,285	0
66	2/3/2019	94.4	7,804	5,049	4,942	159,530	3,286	0
67	2/3/2019	97.1	7,839	5,689	4,622	161,015	3,248	0
68	2/4/2019	90.5	7,981	5,684	4,892	158,822	3,236	0
69	2/4/2019	100	7,938	5,754	4,981	159,120	3,213	0
70	2/4/2019	88	7,942	5,698	4,750	158,980	3,204	0
71	2/4/2019	89.6	7,846	5,829	4,719	167,086	3,365	0
72	2/5/2019	89.9	7,903	6,084	4,703	161,387	3,227	0
73	2/5/2019	100	7,752	5,657	4,822	159,880	3,215	0
74	2/5/2019	94.5	8,033	5,802	3,824	160	3,282	0
75	2/5/2019	97.8	7,776	5,640	4,963	160,670	3,184	0
76	2/5/2019	99	7,862	5,661	4,748	160,570	3,322	0
77	2/6/2019	99.2	7,557	5,891	4,797	160,280	3,150	0
78	2/6/2019	96.7	8,041	5,969	4,946	160,340	3,148	0
79	2/6/2019	96.3	7,872	5,099	4,704	159,900	3,131	0
80	2/6/2019	93.3	7,879	5,969	4,657	158,020	3,144	0
81	2/7/2019	93.7	7,777	5,609	4,523	160,240	3,135	0
82	2/7/2019	98.8	8,261	5,483	3,141	158,720	3,062	0
83	2/7/2019	100	7,889	5,842	3,698	159,860	3,191	0
84	2/7/2019	99.9	7,564	5,879	4,649	159,130	3,193	0
85	2/7/2019	91.7	7,448	6,378	4,651	157,280	3,103	0
86	2/8/2019	96.2	7,582	5,774	4,725	158,850	3,132	0
87	2/8/2019	98.9	7,222	8,457	4,914	160,000	3,159	0
88	2/8/2019	100	7,450	5,356	4,759	160,380	3,097	0
89	2/8/2019	99.6	7,565	5,962	5,053	164,050	3,122	0
90	2/9/2019	100.4	7,771	5,182	4,830	162,690	3,106	0
91	2/9/2019	99.3	7,280	5,455	3,856	163,650	3,490	0
92	2/9/2019	100	7,211	5,588	4,727	161,110	3,153	0
93	2/9/2019	99	7,369	5,483	4,655	161,340	3,125	0
94	2/10/2019	99.6	7,167	5,348	4,702	161,530	3,067	0
95	2/10/2019	100.1	7,221	5,614	4,873	160,260	3,104	0
96	2/10/2019	100	7,354	5,349	4,773	161,810	3,067	0
97	2/10/2019	100.1	7,373	5,304	4,714	160,940	3,100	0
98	2/10/2019	100.4	7,572	5,496	4,573	159,490	3,086	0
99	2/10/2019	100.5	7,085	5,600	4,556	165,200	3,003	0
100	2/11/2019	100.5	7,185	4,533	4,779	161,110	3,473	0
101	2/11/2019	97.9	8,085	5,618	4,859	161,650	3,078	0
102	2/11/2019	100.7	7,338	5,987	4,669	162,040	3,023	0

## Benjamin Honecker OHI 3H

## 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
103	2/12/2019	97.9	7,676	5,908	4,548	164,270	3,070	0
104	2/12/2019	99.6	7,098	6,092	4,743	158,596	2,920	0
105	2/12/2019	98.6	6,985	6,200	4,332	150,000	2,985	0





Southwestern Energy®

Well Name: Benjamin Honecker OHI 3H

Attachment 3

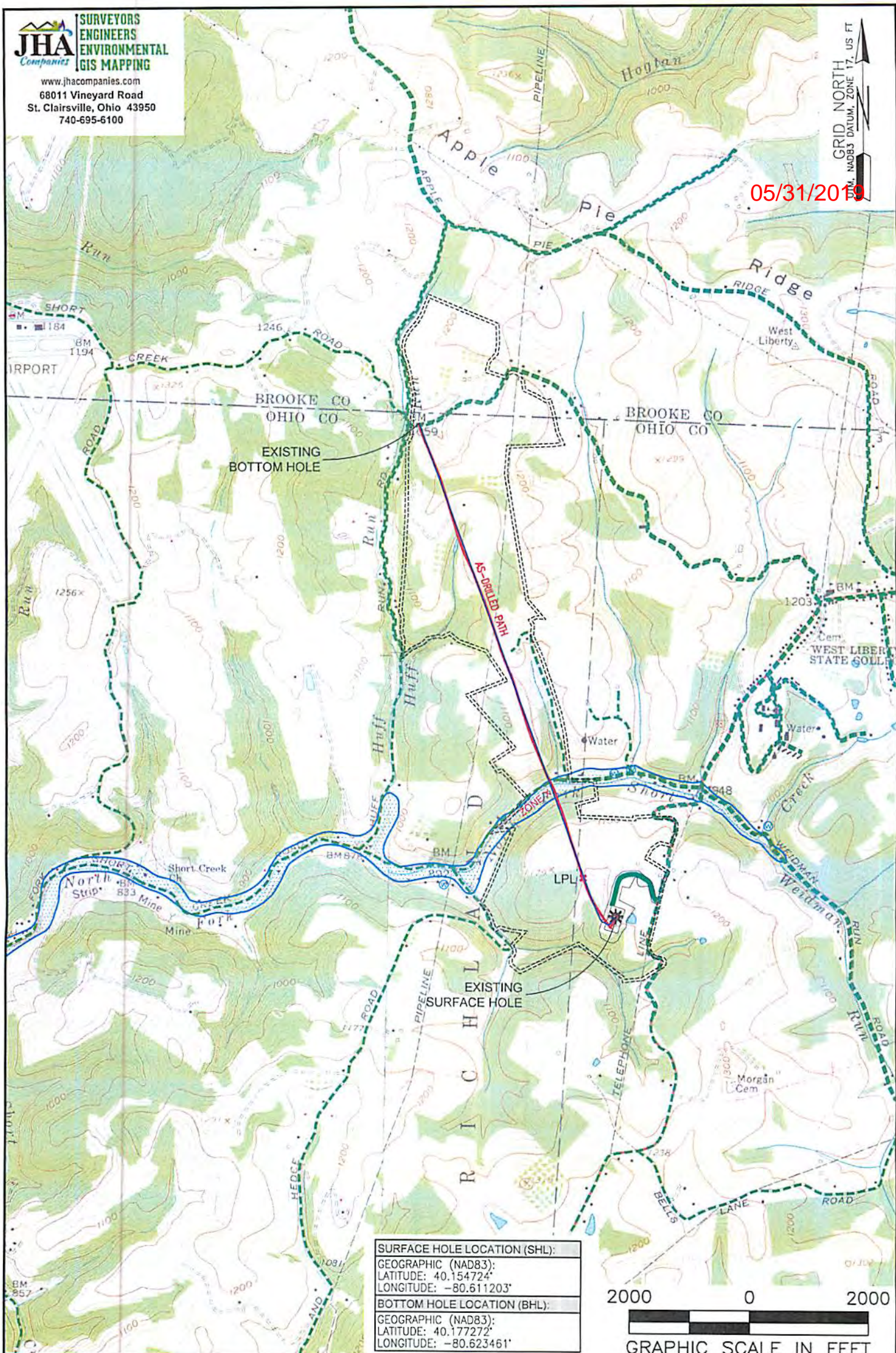
LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	0.00	0.00	324.00	324.00	
Pittsburgh Coal	267.00	267.00	277.00	277.00	
Top of Salt Water	392.00	392.00	NA	NA	
Pottsville (ss)	398.00	398.00	746.00	746.00	
Raven Cliff (ss)	746.00	746.00	1149.00	1149.00	
Maxton (ss)	1149.00	1149.00	1432.00	1432.00	
Big Injun (ss)	1432.00	1432.00	5509.00	5412.00	
Rhinestreet (shale)	5433.00	5412.00	5642.00	5598.00	
Cashaqua (shale)	5642.00	5598.00	5704.00	5647.00	
Middlesex (shale)	5704.00	5647.00	5799.00	5715.00	
Burket (shale)	5799.00	5715.00	5825.00	5732.00	
Tully (ls)	5825.00	5732.00	5912.00	5784.00	
Mahantango (shale)	5912.00	5784.00	6116.00	5874.00	
Marcellus (shale)	6116.00	5874.00	NA	NA	GAS

05/31/2019

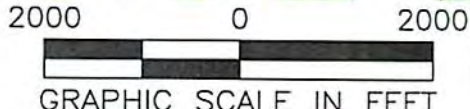
RECEIVED  
Office of Oil and Gas  
MAY 22 2019  
WV Department of  
Environmental Protection



05/31/2019



<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.154724°
LONGITUDE: -80.611203°
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.177272°
LONGITUDE: -80.623461°



**NOTES ON SURVEY**

1. 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.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

**LEGEND:**

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- ☼ EXISTING / PRODUCING WELLHEAD
- LPL\* LANDING POINT LOCATION
- 🌊 FLOOD PLAN
- ACCESS ROAD
- - - PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- ===== LEASE BOUNDARY
- PROPOSED PATH
- ASDRILLED PATH

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC	<b>WELL (FARM) NAME:</b> BENJAMIN HONECKER OHI	<b>WELL #</b> 3H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	<b>COUNTY - CODE</b> OHIO - 069	<b>DISTRICT:</b> LIBERTY	<b>API NO:</b> 47-069-00260
<b>SURFACE OWNER:</b> JANET L. HONECKER AND ELIZABETH H. HESTICK	<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b> BETHANY, WV & TILTONSVILLE, OH-WV		



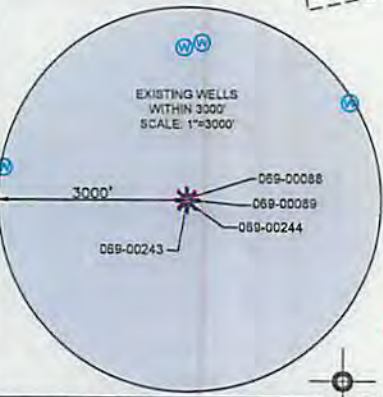
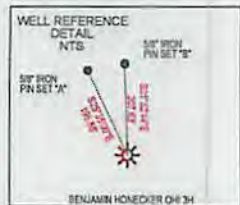


www.jhacompanies.com  
68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100

NOTES ON SURVEY

1. COORDINATE SYSTEM IS UTM NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. 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.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD
5. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
6. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF THE LIMITS OF DISTURBANCE.
7. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.

05/31/2019



EXISTING BOTTOM HOLE

SHL

BROOKE CO. OHIO CO.

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

LONGITUDE: -80°35'00" SURFACE HOLE  
11340'

LONGITUDE: -80°35'00" BOTTOM HOLE

BHL

EXISTING SURFACE HOLE

LINE	BEARING	DISTANCE
L1	N40°25'17"W	1041.72'
L2	S29°10'55"E	868.01'

<b>SURFACE HOLE LOCATION (SHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4445002.78 EASTING: 533112.59
<b>LANDING POINT LOCATION (LPL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4445196.15 EASTING: 532939.50
<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4447500.99 EASTING: 532057.99
<b>SURFACE HOLE LOCATION (SHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4445002.80 EASTING: 533112.59
<b>LANDING POINT LOCATION (LPL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4445133.95 EASTING: 532968.81
<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4447502.96 EASTING: 532062.36

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



2000 0 2000

GRAPHIC SCALE IN FEET

COMPANY: **SWN** Production Company, LLC

(+) 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: GRADE GPS (NAVD 88, US FT)

BENJAMIN HONECKER OHI  
OPERATOR'S WELL #: 3H  
API WELL #: 47 069 00260  
STATE COUNTY PERMIT

WELL TYPE: OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS  LIQUID INJECTION  STORAGE  SHALLOW

WATERSHED: UPPER OHIO SOUTH  
DISTRICT: LIBERTY COUNTY: OHIO  
SURFACE OWNER: JANET L. HONECKER AND ELIZABETH H. HESTICK  
OIL & GAS ROYALTY OWNER: JANET L. HONECKER AND ELIZABETH H. HESTICK  
ELEVATION: 1103.9'  
QUADRANGLE: BETHANY, WV  
ACREAGE: ±102.0  
ACREAGE: ±102.0

DRILL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION

CONVERT  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) AS-DRILLED  
TARGET FORMATION: MARCELLUS  
ESTIMATED DEPTH: 5,908' TVD 14,653' TMD

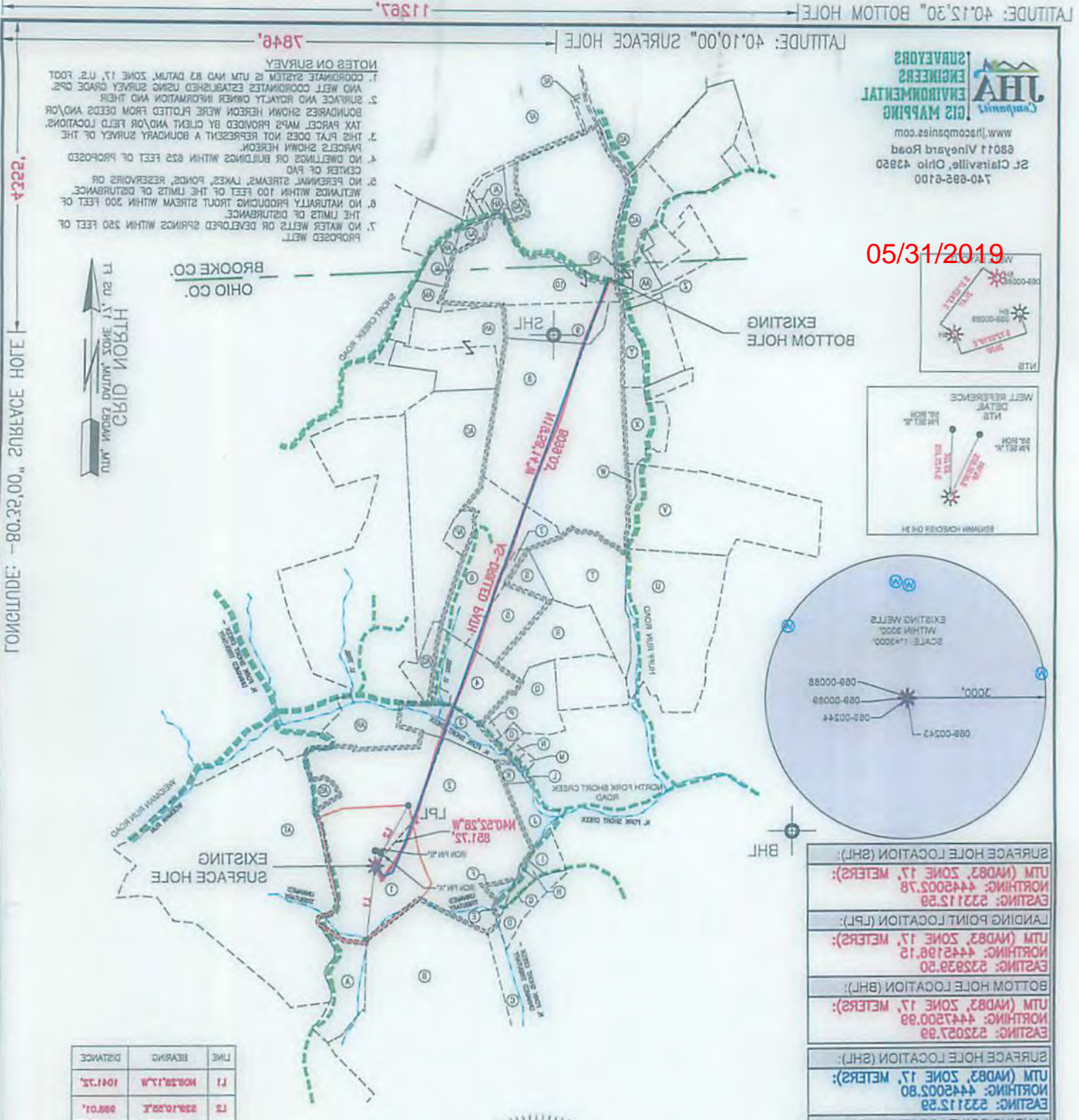
WELL OPERATOR: SWN PRODUCTION COMPANY, LLC  
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201  
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508  
DESIGNATED AGENT: BRITTANY WOODY  
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201  
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND:	REVISIONS:	DATE: 03-14-2019
○ PROPOSED SURFACE HOLE / BOTTOM HOLE		API NO: 47-069-00260
⊙ EXISTING / PRODUCING WELLHEAD	— SURVEYED BOUNDARY	DRAWN BY: D. REED
LPL* LANDING POINT LOCATION	===== LEASE BOUNDARY	SCALE: 1" = 2000'
⊙ EXISTING WATER WELL	— AS-DRILLED PATH	DRAWING NO: 2017-221
⊙ EXISTING SPRING	— PROPOSED PATH	WELL LOCATION PLAT



05/31/2019

**JHA**  
**ENVIRONMENTAL**  
**GIS MAPPING**  
 www.jhacompanies.com  
 6801 Vineyard Road  
 St. Clairsville, Ohio 42950  
 740-693-8100



**PROFESSIONAL SURVEYOR**  
 STATE OF WEST VIRGINIA  
 LICENSED  
 No. 2041  
 HOWARD D. KEMP

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. 2, 2041

**LEGEND:**  
 ● PROPOSED SURFACE HOLE / BOTTOM HOLE  
 \* EXISTING / PRODUCING WETHEAD  
 \* EXISTING WATER WELL  
 \* EXISTING SPRING  
 --- SURVEYED BOUNDARY  
 = LEASE BOUNDARY  
 --- ASURVEYED PATH  
 --- PROPOSED PATH

**WELL LOCATION DATA:**  
 SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): EASTING: 233112.59, NORTHING: 4442002.78  
 LANDING POINT LOCATION (L.P.): UTM (NAD83, ZONE 17, METERS): EASTING: 232939.50, NORTHING: 4442189.15  
 BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): EASTING: 232027.99, NORTHING: 4442002.99  
 SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): EASTING: 233112.59, NORTHING: 4442002.80  
 LANDING POINT LOCATION (L.P.): UTM (NAD83, ZONE 17, METERS): EASTING: 232989.81, NORTHING: 4442133.92  
 BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): EASTING: 232082.36, NORTHING: 4442002.99

**WELL TYPE:** OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS  LIQUID INJECTION  STORAGE  SHALLOW

**WATERSHED:** UPPER OHIO SOUTH

**DISTRICT:** LIBERTY

**COUNTY:** OHIO

**SURFACE OWNER:** JANET L. HONECKER AND ELIZABETH H. HESTICK

**OIL & GAS ROYALTY OWNER:** JANET L. HONECKER AND ELIZABETH H. HESTICK

**ACREAGE:** ±102.0

**ACREAGE:** ±102.0

**QUADRANGLE:** BETHANY, WV

**ELEVATION:** 1103.9'

**WELL OPERATOR:** SWN PRODUCTION COMPANY, LLC

**DESIGNATED AGENT:** BRITTANY WOODY

**ADDRESS:** 1300 FORT PIERPONT DRIVE, SUITE 201

**CITY:** MORGANTOWN

**STATE:** WV

**ZIP CODE:** 26508

**DATE:** 03-14-2019

**APL NO.:** 47-069-00260

**DRAWN BY:** D. REED

**SCALE:** 1" = 2000'

**DRAWING NO.:** 2017-221



**WELL LOCATION PLAT**



WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS			
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	JANET L. HONECKER (LIFE ESTATE), AND ELIZABETH H. HESTICK (REMAINDER)	03-L04-0124.0000	50.287
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
2	JANET L. HONECKER (LIFE ESTATE), AND ELIZABETH H. HESTICK (REMAINDER)	03-L01-0042.0000	97.703
3	TOWN OF WEST LIBERTY	09-WL09-0001.0000	12.47
4	ELIZABETH M. DAVIS	04-R06-0014.0002	20.06
5	ELIZABETH M. DAVIS	04-R06-0014.0003	15.339
6	MADONA DAVIS	04-R06-0014.0000	36.693
7	SUZANNE D. CLUTTER AND CHAD D. CLUTTER	04-R06-0014.0006	1.09
8	WINDSOR COAL COMPANY	04-R06-0012.0000	115.22
9	MARK A. WADE AND MARY IVA SMITH WADE	04-R06-0011.0000	17.11
10	MARK A. WADE AND MARY IVA SMITH WADE	03-B47-0004.0000	100.39

05/31/2019

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	PAUL M. MCKAY & DEBORAH A. MCKAY	03-B42-0055.0000	14.64
B	PAUL M. MCKAY & DEBORAH A. MCKAY	03-B42-0055.0000	159.15
C	PAUL M. MCKAY & DEBORAH A. MCKAY	03-B42-0055.0000	12.33
D	JOHN C. RATCLIFFE	04-R09-0022.0021	6.35
E	JOHN P. GRIFFITH	04-R09-0024.0001	0.70
F	FRANK W. PATTERSON ETAL.	04-R09-0023.0001	1.57
G	JOHN P. GRIFFITH	04-R09-0024.0000	2.47
H	PHILLIP E. COSS & SHIRLEY A. COSS	04-R09-0021.0000	1.00
I	PHILLIP E. COSS & SHIRLEY A. COSS	04-R09-0021.0001	4.94
J	MARVIN BURKHART & BETTY BURKHART	04-R06-0035.0000	7.16
K	CALVARY BAPTIST CHURCH	04-R06-0035.0001	2.09
L	CALVARY BAPTIST CHURCH	04-R06-0028-0004	0.44
M	STEVEN W. WHITMIRE & E.K. WHITMIRE	04-R06-0028.0005	0.98
N	STEVEN W. WHITMIRE & E.K. WHITMIRE	04-R06-0028.0001	0.99
O	CINDY LOU CANTWELL	04-R06-0030.0000	2.00
P	CINDY LOU CANTWELL	04-R06-0031.0000	1.36
Q	JAMES E. O'DONNELL & PAULINE O'DONNELL	04-R06-0027.0003	15.66
R	ELIZABETH M. DAVIS	04-R06-0014.0004	20.339
S	SUZANNE D. CLUTTER AND CHAD D. CLUTTER	04-R06-0014.0005	5.00
T	WAYNE E. SHOOK	04-R06-0015.0000	32.80
U	SHORT CREEK COAL CO.	04-R06-0017.0004	61.53
V	SHORT CREEK COAL CO.	04-R06-0017.0003	61.53
W	GARY WAYNE HERCULES	04-R06-0016.0000	1.25
X	MARTHA HERCULES	04-R06-0007.0000	13.22
Y	WANDA L. WHITE	04-R06-0010.0000	4.27
Z	TIMOTHY E. & J.M. KERNS	04-R06-0008.0001	1.25
AA	MELISSA KERNS; CHRISTINA A. LE; TIMOTHY & JEANETTE KERNS	03-B46-0040.0000	5.47
AB	JEFFREY A. HORNICK	03-B47-0005.0000	2.20
AC	ERIC J. TUSTIN	03-B46-0029.0001	14.70
AD	BETSY D. TUSTIN	03-B47-0002.0001	54.03
AE	JOHN E. SHARIER III	03-B47-0003.0000	2.00
AF	JOSEPH S. & JANE M. BUREK	03-B47-0019.0000	117.68
AG	DAVID A & CRYSTAL G. DUNN	03-B47-0007.0000	3.46
AH	DAVID A & CRYSTAL G. DUNN	03-B47-0006.0000	0.38
AI	JODY L & JANIE L. BRITTON	03-B47-0009.0000	0.68
AJ	CHRISTIAN FAITH FELLOWSHIP TRUSTEES	03-B47-0004.0001	2.27
AK	ROXIE FOSTER	03-B47-0016.0000	1.95
AL	PATRICK E & DONNA M. KING	03-B47-0015.0000	3.37
AM	ALBERT H. POSTLEWAIT, JR. AND CINDY S. POSTLEWAIT	04-R06-0018.0001	4.354
AN	DALE M. SAMPSON	03-L01-0002.0000	36.553
AO	DALE M. SAMPSON	04-R06-0013.0000	50.03
AP	CHAS B. DAVIS & MADONA DAVIS	04-R06-0014.0001	3.98
AQ	DALE M. SAMPSON	04-R06-0032.0000	5.85
AR	DALE M. SAMPSON	03-L01-0024.0000	77.86
AS	DEBRA HAMSTEAD & DAVID HAMSTEAD	03-L01-0042.0001	2.56
AT	JANET L. HONECKER & ELIZABETH HONECKER	03-L04-0103.0000	158.99


REVISIONS:	COMPANY:	 	
	OPERATOR'S	BENJAMIN HONECKER OHI	
	WELL #:	3H	
	DISTRICT:	COUNTY:	STATE:
	LIBERTY	OHIO	WV
			DATE: 03-14-2019
			API NO: 47-069-00260
			DRAWN BY: D. REED
			SCALE: N/A
			DRAWING NO: 2017-221
			WELL LOCATION PLAT



05/31/2019

WELL BORE TABLE FOR SURFACE \ ROYALTY OWNERS			
TRACT	SURFACE OWNER (S) \ ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	JANET L. HONECKER (LIFE ESTATE), AND ELIZABETH H. HESTICK (REMAINDER)	03-L04-0124-0000	50.287
2	JANET L. HONECKER (LIFE ESTATE), AND ELIZABETH H. HESTICK (REMAINDER)	03-L01-0042-0000	97.703
3	TOWN OF WEST LIBERTY	08-W08-0001-0000	12.47
4	ELIZABETH M. DAVIS	04-R08-0014-0002	20.08
5	ELIZABETH M. DAVIS	04-R08-0014-0003	12.239
6	MADONA DAVIS	04-R08-0014-0000	28.893
7	SUZANNE D. CLUTTER AND CHAD D. CLUTTER	04-R08-0014-0008	1.08
8	WINDSOR COAL COMPANY	04-R08-0012-0000	112.22
9	MARK A. WADE AND MARY IVA SMITH WADE	04-R08-0011-0000	17.11
10	MARK A. WADE AND MARY IVA SMITH WADE	03-B47-0004-0000	100.29

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	PAUL M. MCKAY & DEBORAH A. MCKAY	03-B42-0022-0000	14.84
B	PAUL M. MCKAY & DEBORAH A. MCKAY	03-B42-0022-0000	128.12
C	PAUL M. MCKAY & DEBORAH A. MCKAY	03-B42-0022-0000	12.32
D	JOHN C. RATCLIFFE	04-R09-0022-0021	8.22
E	JOHN P. GRIFFITH	04-R09-0024-0001	0.70
F	FRANK W. PATTERSON ETAL.	04-R09-0023-0001	1.27
G	JOHN P. GRIFFITH	04-R09-0024-0000	2.47
H	PHILLIP E. COSS & SHIRLEY A. COSS	04-R09-0021-0000	1.00
I	PHILLIP E. COSS & SHIRLEY A. COSS	04-R09-0021-0001	4.94
J	MARVIN BURKHART & BETTY BURKHART	04-R08-0022-0000	7.18
K	CALVARY BAPTIST CHURCH	04-R08-0022-0001	2.08
L	CALVARY BAPTIST CHURCH	04-R08-0028-0004	0.44
M	STEVEN W. WHITMIRE & E.K. WHITMIRE	04-R08-0028-0002	0.98
N	STEVEN W. WHITMIRE & E.K. WHITMIRE	04-R08-0028-0001	0.98
O	CINDY LOU CANTWELL	04-R08-0030-0000	2.00
P	CINDY LOU CANTWELL	04-R08-0031-0000	1.38
Q	JAMES E. O'DONNELL & PAULINE O'DONNELL	04-R08-0027-0003	12.88
R	ELIZABETH M. DAVIS	04-R08-0014-0004	20.229
S	SUZANNE D. CLUTTER AND CHAD D. CLUTTER	04-R08-0014-0002	2.00
T	WAYNE E. SHOOK	04-R08-0012-0000	22.80
U	SHORT CREEK COAL CO.	04-R08-0017-0004	81.23
V	SHORT CREEK COAL CO.	04-R08-0017-0003	81.23
W	GARY WAYNE HERCULES	04-R08-0018-0000	1.22
X	MARTHA HERCULES	04-R08-0007-0000	12.22
Y	WANDA L. WHITE	04-R08-0010-0000	4.27
Z	TIMOTHY E. & J.M. KERNS	04-R08-0008-0001	1.22
AA	MELISSA KERNS; CHRISTINA A. LE; TIMOTHY & JEANETTE KERNS	03-B48-0040-0000	2.47
AB	JEFFREY A. HORNICK	03-B47-0002-0000	2.20
AC	ERIC J. TUSTIN	03-B48-0029-0001	14.70
AD	BETSY D. TUSTIN	03-B47-0002-0001	24.02
AE	JOHN E. SHARIER III	03-B47-0002-0000	2.00
AF	JOSEPH S. & JANE M. BUREK	03-B47-0019-0000	117.88
AG	DAVID A & CRYSTAL G. DUNN	03-B47-0007-0000	2.48
AH	DAVID A & CRYSTAL G. DUNN	03-B47-0008-0000	0.38
AI	JODY L & JANIE L. BRITTON	03-B47-0009-0000	0.88
AJ	CHRISTIAN FAITH FELLOWSHIP TRUSTEES	03-B47-0004-0001	2.27
AK	ROXIE FOSTER	03-B47-0018-0000	1.92
AL	PATRICK E & DONNA M. KING	03-B47-0012-0000	2.27
AM	ALBERT H. POSTLEWAT, JR. AND CINDY S. POSTLEWAT	04-R08-0018-0001	4.224
AN	DALE M. SAMPSON	03-L01-0002-0000	28.222
AO	DALE M. SAMPSON	04-R08-0012-0000	20.02
AP	CHAS B. DAVIS & MADONA DAVIS	04-R08-0014-0001	2.98
AQ	DALE M. SAMPSON	04-R08-0022-0000	2.82
AR	DALE M. SAMPSON	03-L01-0024-0000	27.88
AS	DEBRA HAMSTEAD & DAVID HAMSTEAD	03-L01-0042-0001	2.28
AT	JANET L. HONECKER & ELIZABETH HONECKER	03-L04-0102-0000	128.99

		COMPANY:		REVISIONS:
OPERATOR'S: BENJAMIN HONECKER OHI		WELL #: 3H		
DATE: 03-14-2019		COUNTY: OHIO		
API NO: 47-089-00280		STATE: W		
DRAWN BY: D. REED		DISTRICT: LIBERTY		
SCALE: N/A		DRAWING NO: 2017-221		
WELL LOCATION PLAT		PROPERTY NUMBER 250118114		
PD ID 2001122804				