

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

API 47-069-00228 County OHIO District RICHLAND  
Quad TILTONSVILLE, OH Pad Name EDWARD DREMAK-OHI-PAD1 Field/Pool Name PANHANDLE FIELD WET  
Farm name ANDREW JOHN EVICK Well Number EDWARD DREMAK OHI 405  
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 4,445,423.86 Easting 529,679.27  
Landing Point of Curve Northing 4,445,824.09 Easting 530,295.82  
Bottom Hole Northing 4,451,091.91 Easting 528,777.32

Elevation (ft) 1,087.7' 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 11/8/2018 Date drilling commenced 02/01/2019 Date drilling ceased 02/17/2019  
Date completion activities began 04/11/2019 Date completion activities ceased 6/19/2019  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A RECEIVED  
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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug **AUG 30 2019**  
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Freshwater depth(s) ft 259' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 750' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 270' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

**Reviewed**  
*C-782 10-16-19*

Reviewed by:  
SB 10-16-19

API 47-069 - 00228 Farm name ANDREW JOHN EVICK Well number EDWARD DREMAK OHI 405

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	J-55/48#	232'	Y
Coal	SURFACE						
Intermediate 1	12.25	9.625	1,760	NEW	J-55/36#		Y
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	24,726	NEW	HCP-110/20#		Y
Tubing		2.375	6,617	NEW	L-80/4.7#		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	440	15.60	1.20	528	SURFACE	8
Coal	SURFACE						
Intermediate 1	CLASS A	714	15.60	1.19	849.66	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4,729	15.60	1.19	5627.51	SURFACE	24
Tubing							

Drillers TD (ft) 24,726' Loggers TD (ft) 24,726'  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5,774'

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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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>MARCELLUS</u>	<u>5,748'</u>	<u>TVD</u>	<u>6,500'</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 1,288 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas 3,435 mcfpd Oil 863 bpd NGL \_\_\_\_\_ bpd Water 1,784 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 <sub>2</sub> 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 RD City THE WOODLAND State TX Zip 77380

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

Stimulating Company SWN WELL SERVICES  
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Please insert additional pages as applicable.

Completed by DENISE GRANTHAM Telephone 832-796-6139  
Signature *Denise Grantham* Title REGULATORY TECHNICIAN Date 8/29/2018

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

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# SOUTHWESTERN ENERGY

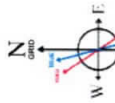
Location: Ohio County, WV  
 Slot: Slot #405H  
 Field: Edward Dremak OHI 405H  
 Well: Edward Dremak OHI 405H PWB  
 Facility: Edward Dremak OHI Pad

Pilot reference wellpath is Edward Dremak OHI 405H PWP Rev-B.0  
 Grid System: NAD83 / UTM Zone 17 North, US feet  
 True vertical depths are referenced to SDC 40 (RKB)  
 Measured depths are referenced to SDC 40 (RKB)  
 Scale: True distance  
 Depths are in feet  
 SDC 40 (RKB) to Mean Sea Level: -1114 feet  
 Mean Sea Level to Ground level (At Slot, Slot #405H): -1088 feet  
 Coordinates are in feet referenced to Slot



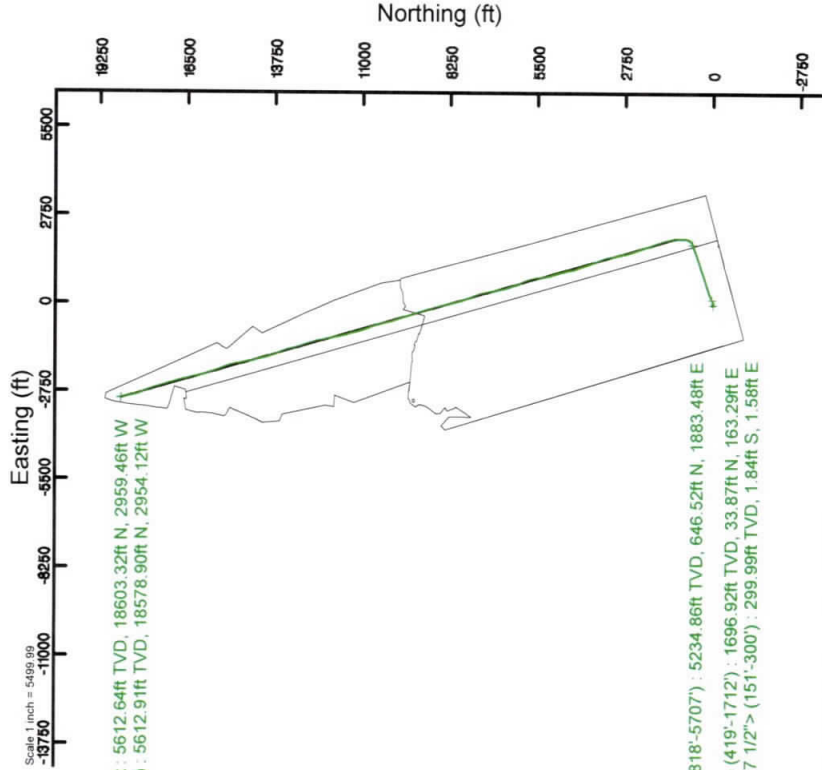
## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Edward Dremak OHI Pad	1737740.826	14584704.331	40°09'31.223"N	80°39'06.011"W
Slot #405H	47.76	1737788.570	40°09'31.126"N	80°39'05.396"W
Local E (ft)	47.76			
Local N (ft)				
Comment	As built has cellar elevation, 1088 is GL			
Mean Sea Level to Ground level (At Slot, Slot #405H)	26ft			
SDC 40 (RKB) to Mean Sea Level	-1088ft			
Comments	1114ft			
API 47-069-00228-0000				
BH Job # 109617530				
Rig SDC 40				
Duration: 02/07/2019 - 02/14/2019				



User specified Dip: 67.46° Field: 62530.0°  
 Magnetic North is 8.02 degrees West of True North (at 10/16/2019)  
 Grid North is 0.22 degrees East of True North  
 To correct azimuth from Magnetic to Grid subtract 8.24 degrees

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BH AT Curve <8 1/2"> (5783°-24701') : 5612.91ft TVD, 18578.90ft N, 2954.12ft W  
 Projection to Bit : 5612.64ft TVD, 18603.32ft N, 2959.46ft W

Premier MWD <17 1/2"> (151°-300') : 0.31° Inc, 300.00ft MD, 299.99ft TVD, -2.07ft VS  
 13.375in Casing Surface : 0.22° Inc, 356.00ft MD, 355.99ft TVD, -2.31ft VS

Premier MWD <12 1/4"> (419°-1712') : 11.47° Inc, 1712.00ft MD, 1696.92ft TVD, 7.67ft VS  
 9.625in Casing Intermediate : 11.48° Inc, 1780.00ft MD, 1763.57ft TVD, 11.70ft VS

Premier MWD <8 3/4"> (1818°-5707') : 5234.86ft TVD, 646.52ft N, 1883.48ft E  
 Premier MWD <12 1/4"> (419°-1712') : 1696.92ft TVD, 33.87ft N, 163.29ft E  
 Premier MWD <17 1/2"> (151°-300') : 299.99ft TVD, 1.84ft S, 1.58ft E

Premier MWD <8 3/4"> (1818°-5707') : 29.05° Inc, 5707.00ft MD, 5234.86ft TVD, 341.18ft VS

Projection to Bit : 90.62° Inc, 24726.00ft MD, 5612.64ft TVD, 18837.25ft VS  
 BH AT Curve <8 1/2"> (5783°-24701') : 90.62° Inc, 24701.00ft MD, 5612.91ft TVD, 18812.29ft VS

Scale 1 inch = 3000

Scale 1 inch = 3000

Vertical Section (ft)  
 Azimuth 350.92° with reference 0.00 N, 0.00 E

**EDWARD DREMAK OHI 405H  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	4/5/2019	24,642	24,547	42
2	4/11/2019	24,514	24,407	42
3	4/11/2019	24,374	24,271	42
4	4/12/2019	24,234	24,127	42
5	4/12/2019	24,094	23,987	42
6	4/12/2019	23,954	23,847	42
7	4/12/2019	23,809	23,707	42
8	4/12/2019	23,674	23,567	42
9	4/13/2019	23,534	23,427	42
10	4/13/2019	23,400	23,287	42
11	4/13/2019	23,254	23,147	42
12	4/13/2019	23,114	23,007	42
13	4/14/2019	22,968	22,867	42
14	4/14/2019	22,834	22,727	42
15	4/14/2019	22,694	22,587	42
16	4/14/2019	22,550	22,447	42
17	4/15/2019	22,414	22,338	33
18	4/15/2019	22,274	22,167	42
19	4/15/2019	22,130	22,027	42
20	4/17/2019	21,994	21,887	42
21	4/17/2019	21,854	21,747	42
22	4/17/2019	21,714	21,607	42
23	4/18/2019	21,574	21,466	42
24	4/18/2019	21,438	21,327	42
25	4/18/2019	21,294	21,187	42
26	4/19/2019	21,154	21,047	42
27	4/19/2019	21,016	20,907	42
28	4/19/2019	20,874	20,770	42
29	4/19/2019	20,734	20,627	42
30	4/19/2019	20,590	20,487	42
31	4/20/2019	20,454	20,347	42
32	4/20/2019	20,314	20,207	42
33	4/20/2019	20,174	20,067	42
34	4/20/2019	20,034	19,929	42
35	4/21/2019	19,894	19,787	42
36	4/21/2019	19,752	19,647	42
37	4/21/2019	19,614	19,510	42
38	4/21/2019	19,474	19,367	42
39	4/22/2019	19,332	19,227	42
40	4/22/2019	19,194	19,089	42
41	4/22/2019	19,054	18,947	42
42	4/22/2019	18,914	18,807	42

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STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
43	4/22/2019	18,774	18,672	42
44	4/23/2019	18,634	18,527	42
45	4/23/2019	18,494	18,387	42
46	4/23/2019	18,354	18,247	42
47	4/23/2019	18,218	18,107	42
48	4/24/2019	18,074	17,967	42
49	4/24/2019	17,930	17,827	42
50	4/24/2019	17,794	17,687	42
51	4/25/2019	17,654	17,547	42
52	4/25/2019	17,514	17,407	42
53	4/25/2019	17,374	17,267	42
54	4/25/2019	17,231	17,127	42
55	4/26/2019	17,094	16,992	42
56	4/26/2019	16,954	16,847	42
57	4/26/2019	16,814	16,707	42
58	4/27/2019	16,674	16,567	42
59	4/27/2019	16,529	16,427	42
60	4/27/2019	16,394	16,287	42
61	4/27/2019	16,254	16,147	42
62	4/28/2019	16,114	16,007	42
63	4/28/2019	15,974	15,872	42
64	4/28/2019	15,834	15,727	42
65	4/28/2019	15,694	15,587	42
66	4/29/2019	15,554	15,447	42
67	4/29/2019	15,414	15,302	42
68	4/29/2019	15,274	15,167	42
69	4/29/2019	15,134	15,027	42
70	4/30/2019	14,994	14,887	42
71	4/30/2019	14,857	14,747	42
72	4/30/2019	14,714	14,607	42
73	4/30/2019	14,574	14,467	42
74	5/1/2019	14,439	14,327	42
75	5/1/2019	14,294	14,187	42
76	5/1/2019	14,154	14,047	42
77	5/1/2019	14,014	13,907	42
78	5/2/2019	13,874	13,774	42
79	5/2/2019	13,734	13,627	42
80	5/2/2019	13,594	13,487	42
81	5/3/2019	13,454	13,344	42
82	5/3/2019	13,306	13,207	42
83	5/3/2019	13,174	13,067	42
84	5/3/2019	13,034	12,927	42

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STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
85	5/4/2019	12,892	12,787	42
86	5/4/2019	12,754	12,647	42
87	5/4/2019	12,614	12,507	42
88	5/4/2019	12,472	12,367	42
89	5/5/2019	12,336	12,227	42
90	5/5/2019	12,196	12,087	42
91	5/6/2019	12,054	11,947	42
92	5/6/2019	11,914	11,807	42
93	5/6/2019	11,774	11,667	42
94	5/7/2019	11,634	11,530	42
95	5/7/2019	11,494	11,387	42
96	5/7/2019	11,354	11,247	42
97	5/7/2019	11,214	11,104	42
98	5/8/2019	11,074	10,967	42
99	5/8/2019	10,934	10,827	42
100	5/8/2019	10,794	10,687	42
101	5/8/2019	10,657	10,547	42
102	5/8/2019	10,514	10,408	42
103	5/8/2019	10,374	10,267	42
104	5/9/2019	10,232	10,127	42
105	5/9/2019	10,094	9,990	42
106	5/9/2019	9,954	9,847	42
107	5/9/2019	9,814	9,707	42
108	5/9/2019	9,674	9,570	42
109	5/10/2019	9,534	9,427	42
110	5/10/2019	9,394	9,287	42
111	5/10/2019	9,254	9,145	42
112	5/10/2019	9,115	9,007	42
113	5/10/2019	8,974	8,904	42
114	5/10/2019	8,834	8,727	42
115	5/11/2019	8,697	8,587	84
116	5/11/2019	8,554	8,447	42
117	5/11/2019	8,414	8,307	42
118	5/11/2019	8,271	8,167	42
119	5/11/2019	8,134	8,027	42
120	5/12/2019	7,994	7,887	42
121	5/12/2019	7,852	7,747	42
122	5/12/2019	7,714	7,607	42
123	5/13/2019	7,577	7,467	42
124	5/13/2019	7,434	7,327	42
125	5/13/2019	7,294	7,187	42
126	5/13/2019	7,152	7,047	42



EDWARD DREMAK OHI 405H  
ATTACHMENT 1  
PERF REPORT

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
127	5/14/2019	7,014	6,908	42
128	5/14/2019	6,874	6,767	42
129	5/14/2019	6,734	6,627	42

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STIM REPORT**

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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	4/11/2019	71	7,997	8,745	4,487	276,044	9,956	0
2	4/11/2019	83	7,886	5,044	4,365	285,040	8,814	0
3	4/11/2019	90	8,010	4,005	4,830	278,880	9,745	0
4	4/12/2019	83	8,134	3,627	4,602	282,956	8,996	0
5	4/12/2019	84	8,031	3,981	3,779	281,104	8,612	0
6	4/12/2019	83	8,217	3,997	4,466	283,516	7,395	0
7	4/12/2019	86	7,852	3,893	4,822	275,170	7,282	0
8	4/13/2019	83	8,166	3,819	4,423	275,388	7,330	0
9	4/13/2019	84	8,144	3,899	4,660	280,822	8,442	0
10	4/13/2019	85	7,821	3,770	4,421	300,840	8,573	0
11	4/13/2019	79	7,655	4,032	4,689	283,290	6,392	0
12	4/13/2019	80	8,107	4,033	4,340	276,450	7,071	0
13	4/14/2019	83	8,115	4,106	4,696	282,770	6,814	0
14	4/14/2019	84	8,055	3,934	4,642	285,410	7,747	0
15	4/14/2019	91	8,065	4,345	4,670	280,283	6,869	0
16	4/14/2019	81	8,206	3,873	4,352	277,457	6,119	0
17	4/15/2019	83	8,076	4,505	4,694	277,457	6,389	0
18	4/15/2019	85	7,866	4,035	4,654	283,270	7,965	0
19	4/15/2019	86	8,077	4,432	4,462	278,081	7,553	0
20	4/17/2019	89	7,769	4,298	5,244	278,895	5,411	0
21	4/17/2019	85	8,280	4,286	4,307	281,569	6,596	0
22	4/17/2019	87	8,106	5,050	4,555	282,965	5,856	0
23	4/18/2019	91	8,219	4,690	4,787	284,570	7,110	0
24	4/18/2019	84	7,916	4,128	4,591	279,730	5,423	0
25	4/18/2019	88	8,246	4,432	4,764	278,540	5,682	0
26	4/19/2019	87	8,220	5,063	4,618	278,665	5,856	0
27	4/19/2019	87	7,897	4,450	4,326	271,585	5,828	0
28	4/19/2019	86	8,124	3,611	4,223	284,100	5,414	0
29	4/19/2019	83	8,018	3,520	4,481	284,635	6,010	0
30	4/19/2019	86	8,256	5,313	4,416	271,845	5,519	0
31	4/20/2019	83	8,112	5,427	4,316	274,120	5,255	0
32	4/20/2019	96	8,313	4,876	5,543	282,140	6,113	0
33	4/20/2019	89	8,243	4,014	4,218	282,140	5,525	0
34	4/20/2019	87	8,272	4,837	4,326	278,800	5,440	0
35	4/21/2019	81	8,010	5,010	4,543	280,190	5,659	0
36	4/21/2019	74	8,117	5,268	4,318	282,060	7,109	0
37	4/21/2019	80	8,339	4,753	4,439	276,640	5,343	0
38	4/21/2019	86	8,307	4,019	4,406	282,855	5,024	0
39	4/22/2019	79	8,061	5,126	4,516	277,685	5,116	0
40	4/22/2019	84	7,816	5,606	4,626	281,730	5,950	0
41	4/22/2019	91	8,116	5,279	4,437	280,275	5,737	0
42	4/22/2019	79	8,151	4,516	4,563	274,420	4,518	0
43	4/22/2019	86	8,230	4,091	4,579	291,488	4,443	0
44	4/23/2019	77	8,366	5,018	4,642	281,125	4,366	0
45	4/23/2019	86	7,967	5,460	4,469	278,530	5,773	0
46	4/23/2019	74	7,859	5,517	6,560	165,940	6,815	0
47	4/24/2019	87	8,097	4,926	4,746	282,966	6,359	0
48	4/24/2019	87	7,855	5,536	4,422	283,468	5,989	0
49	4/24/2019	81	7,934	5,609	4,394	286,090	6,725	0
50	4/24/2019	93	8,208	4,932	4,629	275,660	6,110	0
51	4/25/2019	94	8,443	5,111	4,892	279,630	5,407	0
52	4/25/2019	95	7,910	5,673	4,779	275,485	5,162	0
53	4/25/2019	88	8,398	4,781	4,759	280,177	5,397	0

**EDWARD DREMAK OHI 405H  
ATTACHMENT 2  
STIM REPORT**

RECEIVED  
Office of Oil and Gas  
**AUG 30 2019**  
WV Department of  
Environmental Protection

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/othr
54	4/25/2019	91	8,437	5,024	4,646	282,850	5,370	0
55	4/26/2019	77	8,423	4,777	4,301	290,980	5,956	0
56	4/26/2019	88	7,986	5,189	4,695	277,315	5,890	0
57	4/26/2019	90	8,506	4,985	4,689	272,400	5,320	0
58	4/27/2019	88	8,294	4,821	4,765	290,200	4,971	0
59	4/27/2019	89	8,287	5,705	4,572	286,388	4,713	0
60	4/27/2019	89	8,196	4,884	4,578	284,710	5,460	0
61	4/28/2019	96	7,626	4,623	4,820	276,550	4,740	0
62	4/28/2019	91	7,877	5,702	4,783	276,830	5,099	0
63	4/28/2019	90	8,154	5,786	4,721	277,595	4,544	0
64	4/28/2019	93	8,226	4,710	4,752	276,850	4,459	0
65	4/29/2019	82	8,305	4,799	4,550	288,750	6,605	0
66	4/29/2019	69	8,254	5,929	4,581	291,330	9,292	0
67	4/29/2019	87	8,112	5,986	4,692	283,050	4,659	0
68	4/29/2019	92	7,896	5,013	4,651	272,002	4,397	0
69	4/29/2019	89	7,915	4,831	4,689	285,460	4,573	0
70	4/30/2019	88	8,447	4,825	4,747	291,070	4,652	0
71	4/30/2019	92	7,530	5,968	4,687	273,720	4,354	0
72	4/30/2019	91	7,943	5,283	4,781	288,730	4,354	0
73	5/1/2019	88	7,826	5,353	4,652	284,570	4,494	0
74	5/1/2019	92	7,880	5,439	4,697	279,535	4,720	0
75	5/1/2019	92	7,986	5,222	4,689	280,588	4,262	0
76	5/1/2019	93	7,723	5,207	4,772	279,058	4,304	0
77	5/2/2019	92	7,761	5,626	5,418	286,736	4,451	0
78	5/2/2019	95	7,809	4,798	4,701	282,366	4,629	0
79	5/2/2019	93	7,679	5,428	4,583	282,690	4,142	0
80	5/2/2019	91	7,787	4,833	4,766	285,470	4,002	0
81	5/3/2019	91	8,124	5,448	4,434	278,320	4,883	0
82	5/3/2019	97	7,986	5,438	4,722	281,622	5,452	0
83	5/3/2019	97	7,666	5,649	4,708	284,180	4,323	0
84	5/4/2019	97	7,742	5,667	4,495	281,588	4,303	0
85	5/4/2019	86	7,545	5,020	4,740	270,252	4,288	0
86	5/4/2019	89	6,773	5,006	4,655	274,966	4,747	0
87	5/4/2019	88	7,668	5,214	4,521	297,020	4,428	0
88	5/5/2019	96	7,772	5,245	4,521	275,498	4,308	0
89	5/5/2019	92	7,454	5,420	4,510	274,724	4,761	0
90	5/5/2019	89	7,281	4,706	4,846	282,214	4,621	0
91	5/6/2019	90	7,249	4,715	4,851	283,950	4,927	0
92	5/6/2019	88	7,546	5,455	4,635	279,290	4,354	0
93	5/7/2019	91	7,457	5,227	4,681	279,290	4,235	0
94	5/7/2019	89	7,370	4,950	4,470	276,954	4,509	0
95	5/7/2019	90	7,685	5,106	4,657	281,429	4,690	0
96	5/7/2019	99	7,389	5,603	5,107	281,956	4,228	0
97	5/8/2019	99	7,498	5,569	4,718	283,022	4,153	0
98	5/8/2019	99	7,573	5,406	5,203	284,573	4,364	0
99	5/8/2019	91	7,219	4,905	4,905	280,519	4,351	0
100	5/8/2019	91	7,281	5,204	4,638	276,755	4,521	0
101	5/8/2019	94	7,324	4,950	4,631	280,469	4,305	0
102	5/8/2019	95	7,200	5,231	4,591	282,731	4,236	0
103	5/9/2019	91	7,299	5,214	4,685	280,606	4,532	0
104	5/9/2019	95	7,283	5,235	4,572	275,544	4,639	0
105	5/9/2019	89	7,085	5,035	4,720	279,950	3,757	0
106	5/9/2019	90	7,173	4,946	4,677	277,713	3,869	0



EDWARD DREMAK OHI 405H

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/othr
107	5/9/2019	92	7,504	5,703	4,583	379,613	5,118	0
108	5/10/2019	95	7,359	5,210	4,688	285,011	4,976	0
109	5/10/2019	91	7,067	5,025	4,566	279,750	3,655	0
110	5/10/2019	90	7,124	5,147	4,702	275,538	3,669	0
111	5/10/2019	90	6,970	4,995	4,744	285,860	3,434	0
112	5/10/2019	92	6,876	4,863	4,489	284,080	4,173	0
113	5/10/2019	91	6,849	4,616	4,488	284,080	4,019	0
114	5/10/2019	93	7,366	4,749	4,266	276,070	4,988	0
115	5/11/2019	64	6,938	4,172	4,238	234,160	9,237	0
116	5/11/2019	91	6,642	5,086	4,768	287,074	4,259	0
117	5/11/2019	89	7,247	5,056	4,532	278,701	4,255	0
118	5/11/2019	92	7,246	5,405	4,854	274,701	5,481	0
119	5/12/2019	91	6,807	5,313	4,310	275,224	3,984	0
120	5/12/2019	88	6,603	4,940	4,868	277,586	3,796	0
121	5/12/2019	97	6,758	5,205	5,196	272,558	4,046	0
122	5/13/2019	98	6,612	5,358	4,541	282,078	3,869	0
123	5/13/2019	89	6,507	5,178	4,312	272,850	3,375	0
124	5/13/2019	89	7,137	5,845	4,685	279,457	3,581	0
125	5/13/2019	96	6,898	5,320	4,638	279,610	3,863	0
126	5/14/2019	95	6,994	5,338	4,863	278,960	3,981	0
127	5/14/2019	88	6,941	5,532	4,875	283,900	3,413	0
128	5/14/2019	95	6,922	5,447	5,083	280,751	4,131	0
129	5/15/2019	95	6,732	5,594	4,765	279,500	4,127	0

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Well Name: Edward Dremak OHI 405H 470690002280000

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	259.00	259.00	
Top of Salt Water	750.00	750.00	NA	NA	
Pittsburgh Coal	270.00	270.00	276.00	276.00	
Pottsville (ss)	374.00	374.00	459.00	459.00	
Mauch Chunk (shale)	477.00	477.00	1300.00	1300.00	
Raven Cliff (ss)	777.00	777.00	912.00	912.00	
Maxton (ss)	1068.00	1068.00	1232.00	1232.00	
Greenbriar (ls)	1300.00	1300.00	1369.00	1369.00	
Big Injun (ss)	1369.00	1369.00	1576.00	1576.00	
Rhonestreet (shale)	5932.00	5431.00	6019.00	5502.00	
Cashaqua (shale)	6019.00	5502.00	6114.00	5575.00	
Middlesex (shale)	6114.00	5575.00	6173.00	5616.00	
Burket (shale)	6173.00	5616.00	6198.00	5633.00	
Tully (ls)	6198.00	5633.00	6278.00	5684.00	
Mahantango (shale)	6278.00	5684.00	6500.00	5748.00	
Marcellus (shale)	6500.00	5748.00	NA	NA	GAS

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/11/2019
Job End Date:	5/15/2019
State:	West Virginia
County:	Ohio
API Number:	47-069-00228-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Edward Dremak OHI 405
Latitude:	40.15864601
Longitude:	-80.65149898
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,717
Total Base Water Volume (gal):	28,852,160
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
Sand	SWN Well Services	Proppant					
				Listed Below			
SCAL16486A	Nalco	Scale Inhibitor					
				Listed Below			

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Econo-CI200	SWN Well Services	Corrosion Inhibitor											
					Listed Below								
SWN FRW-13LA	SWN Well Services	Friction Reducer											
					Listed Below								
HCL	SWN Well Services	Solvent											
					Listed Below								
BIOC11219A	Nalco	Biocide											
					Listed Below								
Ecopol-FEAC	SWN Well Services	Iron Control											
					Listed Below								
Base Water	Operator	Base Fluid											
					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	84.58790	Density = 8.345
Crystalline Silica, quartz	14808-60-7	100.00000	12.70199	
Water	7732-18-5	85.00000	1.97125	
Petroleum Distillates, Hydrotreated	64742-47-8	25.00000	0.51171	
Hydrochloric Acid	7647-01-0	15.00000	0.09435	
Ammonium Chloride	12125-02-9	2.00000	0.04094	
Alcohols, C-12-1, ethoxylated	68551-12-2	1.50000	0.03070	

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					93-83-4		1.50000	0.03070
		Oleic Acid						
		Diethanolamide						
		Methanol			67-56-1		60.00000	0.01425
		Benzyl-(C12-C16 Alky)- Dimethyl-Ammonium			68424-85-1		30.00000	0.00713
		Chloride Glutaraldehyde			111-30-8		10.00000	0.00238
		Ethylene glycol			107-21-1		30.00000	0.00186
		Amine Triphosphate			Proprietary		30.00000	0.00186
		Acetic Acid			64-19-7		37.50000	0.00126
		Methanol			67-56-1		80.00000	0.00077
		Citric Acid			77-92-9		22.50000	0.00075
		Oxyalkylated fatty acid			68951-67-7		9.67400	0.00009
		Fatty acids			61790-12-3		5.02700	0.00005
		Modified thiourea polymer			68527-49-1		4.74600	0.00005
		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

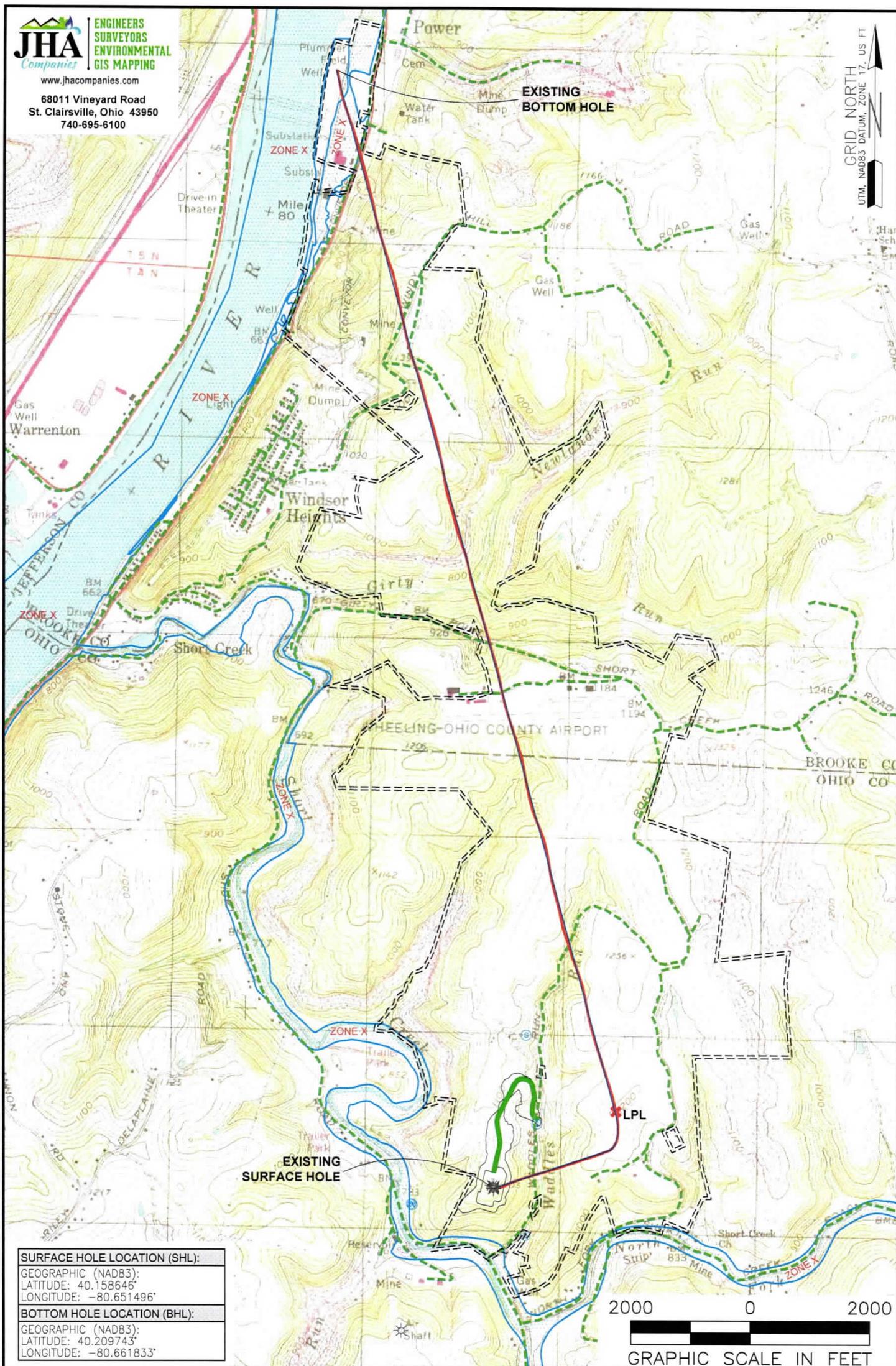
\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

\*\*\* 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

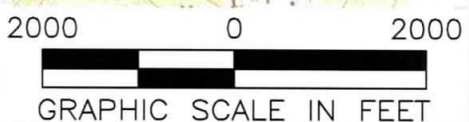
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.  
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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<b>SURFACE HOLE LOCATION (SHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.158646°
LONGITUDE: -80.651496°
<b>BOTTOM HOLE LOCATION (BHL):</b>
GEOGRAPHIC (NAD83):
LATITUDE: 40.209743°
LONGITUDE: -80.661833°



**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
- ADSRILLED PATH

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC	<b>WELL (FARM) NAME:</b> EDWARD DREMAK OHI	<b>WELL #</b> 405H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	<b>COUNTY:</b> OHIO	<b>CODE:</b> 069	<b>DISTRICT:</b> RICHLAND
<b>SURFACE OWNER:</b> ANDREW JOHN EVICK	<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b> TILTONSVILLE, OH		



(2,000' SCALE) BOTTOM HOLE LATITUDE: 40°15'00"

(2,000' SCALE) SURFACE HOLE LATITUDE: 40°10'00"

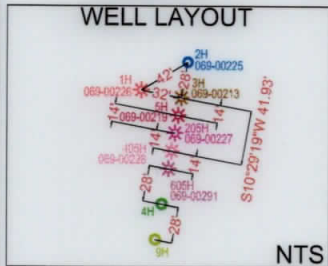
10286'

7402'



www.jhacompanies.com

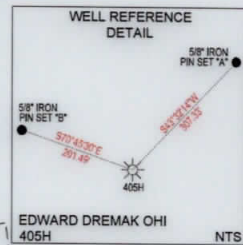
68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100



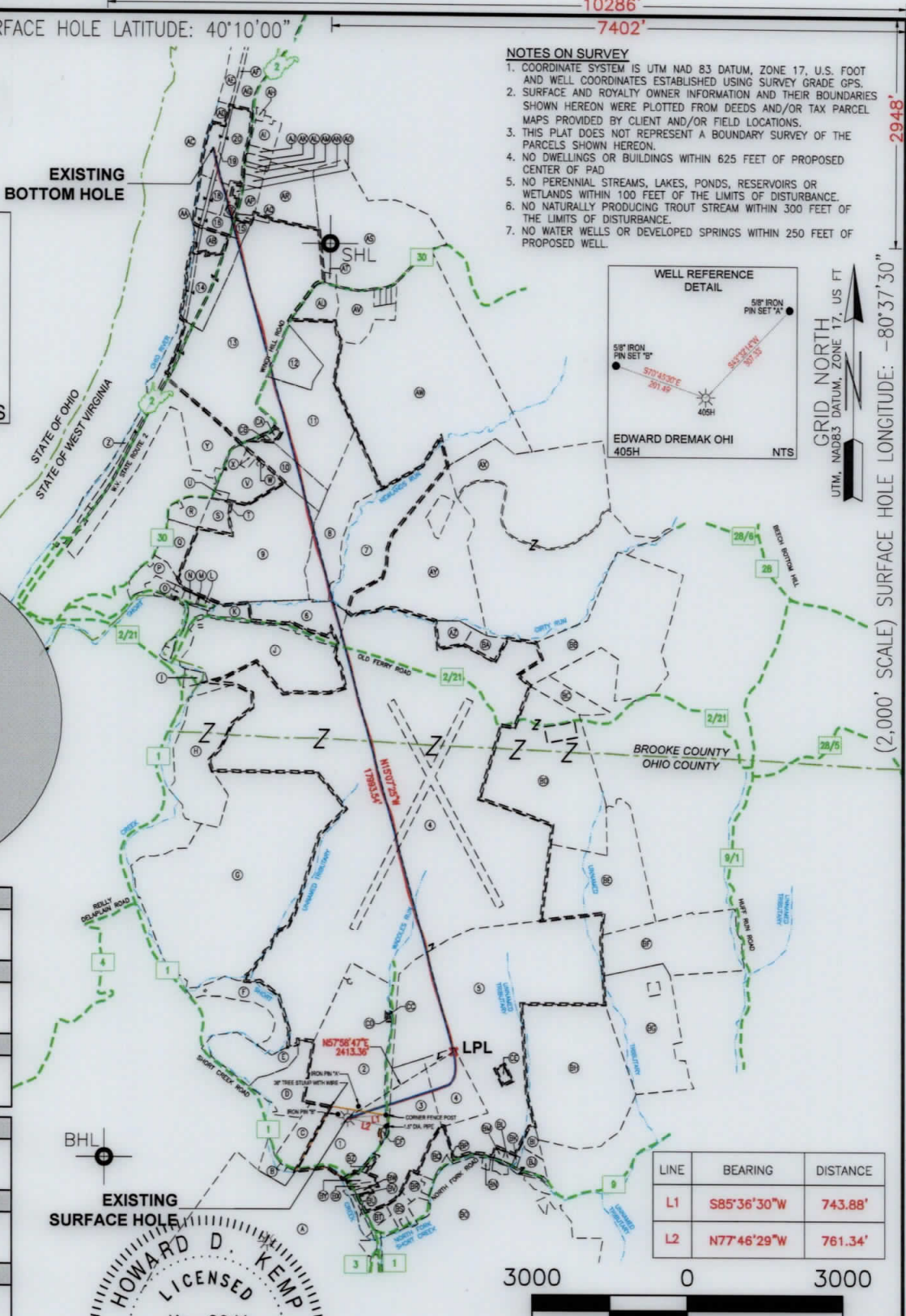
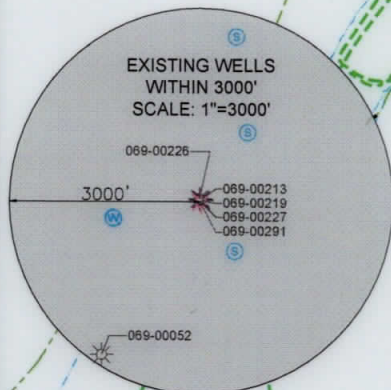
EXISTING  
BOTTOM HOLE

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.



GRID NORTH  
UTM, NAD83 DATUM, ZONE 17, US FT  
SURFACE HOLE LONGITUDE: -80°37'30"



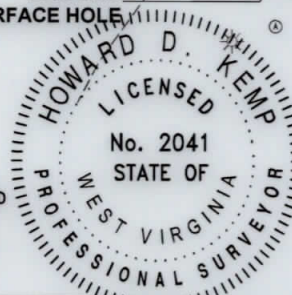
SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4445423.86 EASTING: 529679.27
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4445824.09 EASTING: 530295.82
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4451091.91 EASTING: 528777.32

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4445423.83 EASTING: 529679.01
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4445819.07 EASTING: 530293.92
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4451092.37 EASTING: 528772.74

Table with 3 columns: LINE, BEARING, DISTANCE. L1: S85°36'30\"/>

3000 0 3000

GRAPHIC SCALE IN FEET



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

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 SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)

EDWARD DREMAK OHI
OPERATOR'S WELL #: 405H
API WELL #: 47 STATE 069 COUNTY 00228 PERMIT

WELL TYPE: OIL [ ] WASTE DISPOSAL [ ] PRODUCTION [x] DEEP [ ] GAS [x] LIQUID INJECTION [ ] STORAGE [ ] SHALLOW [x]
WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,087.7'
DISTRICT: RICHLAND COUNTY: OHIO QUADRANGLE: TILTONSVILLE, OH
SURFACE OWNER: ANDREW JOHN EVICK ACREAGE: ±34.19
OIL & GAS ROYALTY OWNER: EDWARD W. & JOANNE V. DREMAK ACREAGE: ±34.19
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: 5,812' TVD 24,726' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 2C1 ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND:
PROPOSED SURFACE HOLE / BOTTOM HOLE
EXISTING / PRODUCING WELLHEAD
LPL\* LANDING POINT LOCATION
EXISTING WATER WELL
EXISTING SPRING
SURVEYED BOUNDARY
LEASE BOUNDARY
ASDRILLED PATH
PROPOSED PATH

REVISIONS:
DATE: 03-27-2019
API NO: 47-069-00228
DRAWN BY: D. REED
SCALE: 1\"/>



WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	ANDREW JOHN EVCK (S) EDWARD W. & JOANNE V. DREMAK (R)	04-R5-54
TRACT	SURFACE OWNER	TAX PARCEL
2	ANDREW JOHN EVCK	04-R5-49
3	WINDSOR COAL COMPANY	04-R5-8.1
4	THE BOARD OF COMMISSIONERS OF THE COUNTY OF OHIO	04-R5-10
5	THE BOARD OF COMMISSIONERS OF THE COUNTY OF OHIO	04-R5-55
6	BARRY L. & PATRICIA A. GREATHOUSE	03-946-0018.0000
7	BARRY L. & PATRICIA A. GREATHOUSE	03-941-0032.0000
8	CHARLES BELL ESTATE	03-941-0031.0000
9	LAWRENCE R. MOORE & ROSEMARY KINDER	03-941-0021.0004
10	ROSEMARY KINDER MOORE	03-941-0030.0000
11	ROSEMARY KINDER MOORE	03-941-0035.0000
12	MICHAEL A. & LINDA S. WOLEN (SURVIVORSHIP)	03-941-0036.0000
13	WINDSOR COAL COMPANY	03-941-0005.0000
14	WINDSOR COAL COMPANY	01-BB41-0003.0000
15	WEST PENN POWER COMPANY	01-BB41-0017.0000
16	WEST PENN POWER COMPANY	01-BB41-0010.0000
17	WEST PENN POWER COMPANY	01-BB41-0013.0000
18	OHIO POWER COMPANY	01-BB41-0001.0000
19	THE BROOKE COUNTY COMMISSION	01-BB41-0008.0000
20	ALLEGHENY ENERGY SUPPLY COMPANY, LLC	01-BB36-0030.0000

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	ALLIANCE RESOURCE GP, LLC	04-R5-6
B	ALLIANCE RESOURCE GP, LLC	04-R5-52
C	ALLIANCE RESOURCE GP, LLC	04-R5-53
D	WINDSOR COAL COMPANY, LLC	04-R5-50
E	JOHN W. METZ	04-R5-46
F	BURNT MILL ACRES, LLC	04-R5-13
G	S.E.W. TRUST	04-R5-9
H	RODNEY K. & NEDRA C. MCCONNELL	04-R2-20
I	RODNEY K. & NEDRA C. MCCONNELL	03-946-0014.0000
J	HENRY W. ZEDLER, JUDITH K. ZEDLER & MARGARET L. BURGGRAF	03-946-0015.0000
K	JOAN GARRETT	03-946-0017.0000
L	SIDNEY W., JR. & VICKI MOZINGO	03-946-0007.0000
M	SIDNEY W., JR. & VICTORIA L. MOZINGO	03-946-0005.0001
N	SIDNEY W., JR. & VICTORIA L. MOZINGO	03-946-0005.0000
O	ALEX & DARLA ANN MUSHET	03-946-0004.0000
P	EVERT RUNYAN	03-941-0018.0000
Q	WINDSOR COAL COMPANY	03-941-0020.0000
R	WINDSOR HEIGHTS VILLAGE	08-W41N-0139.0000
S	NEIL A. & JANICE C. ABRAHAMSON	03-941-0024.0000
T	NEIL A. & JANICE C. ABRAHAMSON	03-941-0021.0005
U	NEIL A. & JANICE C. ABRAHAMSON	03-941-0025.0000
V	LAWRENCE R. & ROSEMARY MOORE	03-941-0021.0001
W	HAMMOND PUBLIC SERVICE DISTRICT	03-941-0021.0002
X	STANLEY RAE KRUPINSKI & MEREDITH KINDER MOORE	03-941-0021.0003
Y	WINDSOR COAL COMPANY	03-941-0021.0000
Z	WINDSOR COAL COMPANY	01-BB41-0005.0000
AA	OHIO FRANKLIN REAL ESTATE COMPANY	01-BB41-0004.0000
AB	OHIO FRANKLIN REAL ESTATE COMPANY	01-BB41-0002.0000
AC	STATE OF WEST VIRGINIA (OHIO RIVER)	OHIO RIVER
AD	BUSINESS DEVELOPMENT CORPORATION OF THE NORTHERN PANHANDLE	01-BB36-0002.0000
AE	BUSINESS DEVELOPMENT CORPORATION OF THE NORTHERN PANHANDLE	01-BB36-0023.0000
AF	BUSINESS DEVELOPMENT CORPORATION OF THE NORTHERN PANHANDLE	01-BB36-0024.0000
AG	BUSINESS DEVELOPMENT CORPORATION OF THE NORTHERN PANHANDLE	01-BB36-0001.0000
AH	RALPH PLANTS	01-BB36-0003.0000
AI	WINDSOR COAL COMPANY	01-BB36-0025.0000
AJ	WINDSOR COAL COMPANY	01-BB36-0026.0000
AK	WEST PENN POWER COMPANY	01-BB36-0027.0000
AL	WEST PENN POWER COMPANY	01-BB36-0028.0000
AM	WEST PENN POWER COMPANY	01-BB41-0006.0000
AN	WEST PENN POWER COMPANY	01-BB41-0014.0000
AO	MONONGAHELA POWER COMPANY	01-BB41-0012.0000
AP	WEST PENN POWER COMPANY	01-BB41-0007.0000
AQ	WEST PENN POWER COMPANY	01-BB41-0016.0000
AR	WINDSOR COAL COMPANY	03-941-0007.0000
AS	WINDSOR COAL COMPANY	03-941-0039.0000
AT	SYLVESTER & MARY KELLER	03-941-0038.0000
AU	DONNA MARIE PEREZ	03-941-0037.0000
AV	RAY PAUL NICOLDAN	03-941-0042.0000
AW	ROBERT J., JR. & LINDA MILLER	03-941-0047.0000
AX	BARRY L. & PATRICIA A. GREATHOUSE	03-941-0082.0000
AY	BARRY L. & PATRICIA A. GREATHOUSE	03-941-0083.0000
AZ	BARRY L. & PATRICIA A. GREATHOUSE	03-946-0019.0000
BA	STACY ANN GREATHOUSE & PATRICIA ANN GREATHOUSE	03-946-0041.0000
BB	DANNY GENE BRITT & MARGARET VIRGINIA	03-946-0027.0000
BC	TRACY GILBERT	03-946-0022.0001
BD	BRUCE D. BONAR (I) & WILLIAM BONAR (I)	03-946-0020.0000
BE	MARC SEAMON	04-R5-2
BF	SHORT CREEK COAL COMPANY (C/O RAYLE COAL COMPANY)	04-R5-17.3
BG	SHORT CREEK COAL COMPANY (C/O RAYLE COAL COMPANY)	04-R5-17
BH	MARC SEAMON	04-R5-37
BI	SHORT CREEK CEMETERY ASSOCIATION, TRUSTEES	04-R5-57
BJ	SHORT CREEK METHODIST CHURCH	04-R5-60
BK	ROBERT L. & GWENDOLYN NOVAK	04-R5-59
BL	ERIC W. & LISA N. GADD	04-R5-55.1
BM	ERIC W. & LISA N. GADD	04-R5-55.3
BN	LUTHER R. II & D.F. SMITH	04-R5-16.1
BO	AMERICAN DISPOSAL SERVICES OF WEST VIRGINIA, INC	04-R5-15
BP	ALLIED WASTE, INC	04-R5-56.1
BQ	ALLIED WASTE, INC	04-R5-56
BR	RODNEY & A.J. SNYDER	04-R5-13
BS	ARTHUR ENNIS, PEGGY CLARK & ALMA SINCARCH	04-R5-9
BT	GORDON E. & DEBORAH P. DREMAK	04-R5-8.15
BU	OHIO COUNTY COMMISSION	04-R5-8.16
BV	TUNNEL RIDGE, LLC	04-R5-8.17
BW	TUNNEL RIDGE, LLC	04-R5-8.14
BX	TUNNEL RIDGE, LLC	04-R5-8.2
BY	SUSAN L. CAIN	04-R5-8.3
BZ	TUNNEL RIDGE, LLC	04-R5-8.18
CA	LAWRENCE & ROSEMARY MOORE	03-941-0034.0000
CB	LAWRENCE R. & ROSEMARY K. MOORE	03-941-0033.0000
CC	RICHARD L. & DEBORAH K. BLACK	04-R5-58.1
CD	RAY W. ARCHER	04-R5-58
CE	BRYAN K. & LAURA L. PETTIT	04-R5-55.4
CF	EDWARD W. & JOANNE V. DREMAK	04-R5-54.1

REVISIONS:

COMPANY:

**SWN**  
Production Company, LLC

**SWN**  $\frac{R^2}{A} \rightarrow V^{+0}$   
Production Company™

OPERATOR'S

EDWARD DREMAK OHI

WELL #:

405H

DISTRICT:  
RICHLAND

COUNTY:  
OHIO

STATE:  
WV

DATE: 03-27-2019  
API NO: 47-069-00228  
DRAWN BY: D. REED  
SCALE: N/A  
DRAWING NO: 2018-284  
WELL LOCATION PLAT

PROPERTY NUMBER 2501167764  
PAD ID 3001165800