

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

API 47-069-00203 County OHIO District LIBERTY
Quad VALLEY GROVE Pad Name WILLIAM RODGERS OHI PAD1 Field/Pool Name PANHANDLE FIELD WET
Farm name WILLIAM I. RODGERS & DOUG W. RODGERS Well Number WILLIAM RODGERS OHI 405H
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 4,439,726.490 Easting 539,870.798
Landing Point of Curve Northing 4,440,187.415 Easting 540,532.611
Bottom Hole Northing 4,441,955.340 Easting 539,774.208

Elevation (ft) 1280 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 11/13/2015 Date drilling commenced 12/12/2015 Date drilling ceased 08/29/2017
Date completion activities began 10/06/2017 Date completion activities ceased 12/10/2017
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 334 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 794 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 665 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed

C. H. O. 5.10.18

Reviewed by: _____

API 47- 069 - 00203

Farm name WILLIAM I. RODGERS & DOUG W. RODGERS Well number WILLIAM RODGERS OHI 405H

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	28	20	126	NEW	J-55/94#		Y
Surface	17.5	13.375	457	NEW	J-55/54.50#		Y
Coal	SEE INTERMEDIATE						
Intermediate 1	12.25	9.625	2099	NEW	J-55/40#		Y
Intermediate 2							
Intermediate 3							
Production	8.75	5.5	13927	NEW	P-110/20#		Y
Tubing		2.375	7514	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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	435	15.60	1.20	522	SURFACE	8
Coal	SEE INTERMEDIATE						
Intermediate 1	CLASS A	760	15.60	1.19	904.4	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	1,070/1,715	15.60	1.22/1.19	1,305.4/2,040.85	SURFACE	24
Tubing							

Drillers TD (ft) 13927 Loggers TD (ft) 13927
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6325

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- 069 - 00203 Farm name WILLIAM I. RODGERS & DOUG W. RODGERS Well number WILLIAM RODGERS OHI 405H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	SEE	ATTACHMENT	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	ATTACHMENT	2				

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Please insert additional pages as applicable.

API 47- 069 - 00203 Farm name WILLIAM I. RODGERS & DOUG W. RODGERS Well number WILLIAM RODGERS OHI 405H

PRODUCING FORMATION(S)	DEPTHS	
MARCELLUS	6529	7497
	TVD	MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1380 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 4289 mcfpd Oil 335 bpd NGL _____ bpd Water 299 bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

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

Logging Company WEATHERFORD
Address 11909 FM 529 RD City HOUSTON State TX Zip 77041

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

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

Please insert additional pages as applicable.

Completed by ELIZABETH GEE Telephone 832-796-7632
Signature  Title REGULATORY ANALYST Date 02/27/2018

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

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Perf Summary

Attachment 1

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	9/28/2017	13,739	13,811	60
2	10/5/2017	13,634	13,706	42
3	10/6/2017	13,529	13,601	66
4	10/6/2017	13,424	13,496	66
5	10/6/2017	13,319	13,391	66
6	10/7/2017	13,214	13,286	66
7	10/7/2017	13,109	13,181	66
8	10/7/2017	13,004	13,076	66
9	10/8/2017	12,899	12,971	66
10	10/8/2017	12,794	12,866	66
11	10/8/2017	12,689	12,761	66
12	10/8/2017	12,584	12,656	66
13	10/9/2017	12,479	12,551	66
14	10/9/2017	12,374	12,446	66
15	10/9/2017	12,269	12,341	66
16	10/10/2017	12,164	12,236	66
17	10/10/2017	12,059	12,131	66
18	10/10/2017	11,954	12,026	66
19	10/10/2017	11,849	11,921	66
20	10/11/2017	11,744	11,816	66
21	10/12/2017	11,639	11,711	66
22	10/12/2017	11,534	11,606	66
23	10/12/2017	11,429	11,501	66
24	10/13/2017	11,324	11,396	66
25	10/13/2017	11,219	11,291	66
26	10/13/2017	11,114	11,186	66
27	10/13/2017	11,009	11,081	66
28	10/14/2017	10,904	10,976	66
29	10/14/2017	10,799	10,871	66
30	10/14/2017	10,694	10,766	66
31	10/15/2017	10,589	10,661	66
32	10/15/2017	10,484	10,556	66
33	10/16/2017	10,379	10,451	66
34	10/16/2017	10,274	10,346	66
35	10/16/2017	10,169	10,241	66
36	10/16/2017	10,064	10,136	66
37	10/16/2017	9,959	10,031	66
38	10/17/2017	9,854	9,926	66
39	10/17/2017	9,749	9,821	66
40	10/17/2017	9,644	9,716	66
41	10/17/2017	9,536	9,611	66
42	10/18/2017	9,434	9,506	66

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Perf Summary
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STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
43	10/18/2017	9,329	9,401	66
44	10/18/2017	9,224	9,296	66
45	10/18/2017	9,119	9,191	66
46	10/19/2017	9,014	9,086	66
47	11/11/2017	8,909	8,981	66
48	11/11/2017	8,804	8,876	66
49	11/12/2017	8,699	8,771	66
50	11/12/2017	8,594	8,666	66
51	11/13/2017	8,489	8,561	66
52	11/13/2017	8,384	8,456	66
53	11/13/2017	8,279	8,351	66
54	11/13/2017	8,174	8,246	66
55	11/14/2017	8,069	8,141	66
56	11/14/2017	7,964	8,036	66
57	11/14/2017	7,859	7,931	66
58	11/15/2017	7,754	7,826	66
59	11/15/2017	7,649	7,721	66
60	11/15/2017	7,544	7,616	66

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Stim Summary

Attachment 2

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/ other
1	9/28/2017	90	7,632	7,840	4,631	421,200	9,692	
2	10/5/2017	87	7,685	8,042	5,162	420,000	7,928	
3	10/6/2017	88	7,815	8,096	4,498	420,360	7,726	
4	10/6/2017	88	7,732	8,009	4,941	420,480	7,888	
5	10/6/2017	86	7,817	8,126	5,119	421,980	7,648	
6	10/7/2017	88	7,639	8,083	4,854	423,400	7,506	
7	10/7/2017	88	7,697	8,124	5,010	420,360	7,530	
8	10/7/2017	89	7,696	8,097	4,882	421,880	8,350	
9	10/8/2017	88	7,694	7,947	5,228	423,600	7,482	
10	10/8/2017	88	7,910	8,916	5,002	422,180	7,364	
11	10/8/2017	90	7,421	8,040	5,289	421,440	7,418	
12	10/8/2017	89	7,786	8,161	5,432	420,560	7,248	
13	10/9/2017	86	7,799	8,163	5,189	424,320	7,366	
14	10/9/2017	82	7,643	8,189	5,074	426,630	7,052	
15	10/9/2017	87	7,808	8,102	4,762	422,480	7,094	
16	10/10/2017	86	7,714	8,353	4,909	420,080	7,272	
17	10/10/2017	86	7,818	8,309	5,176	422,320	8,488	
18	10/10/2017	89	7,842	8,629	5,453	415,440	7,082	
19	10/10/2017	85	7,745	8,186	4,979	418,920	7,766	
20	10/11/2017	85	7,945	8,652	5,265	418,000	7,014	
21	10/12/2017	85	7,962	8,614	5,285	419,300	7,216	
22	10/12/2017	88	7,829	8,366	4,909	423,780	6,998	
23	10/12/2017	79	7,884	10,253	4,981	406,680	8,170	
24	10/13/2017	87	7,784	8,314	4,981	422,460	7,588	
25	10/13/2017	60	8,423	8,966	4,576	422,240	12,920	
26	10/13/2017	85	7,753	8,546	5,114	420,200	7,040	
27	10/13/2017	86	7,600	8,169	5,047	419,920	7,176	
28	10/14/2017	85	7,772	8,303	5,039	419,840	7,210	
29	10/14/2017	86	7,353	7,639	5,267	418,040	6,856	
30	10/14/2017	83	7,742	8,368	5,304	418,160	6,902	
31	10/15/2017	87	7,504	8,318	4,892	361,020	8,604	
32	10/15/2017	86	7,545	8,107	5,277	424,280	6,812	
33	10/16/2017	86	7,585	8,501	5,070	414,860	6,782	
34	10/16/2017	88	7,612	8,195	5,058	423,420	6,902	
35	10/16/2017	88	7,661	8,373	5,093	423,600	6,944	
36	10/16/2017	84	7,416	8,131	5,395	415,040	6,804	
37	10/16/2017	82	7,352	7,804	5,201	418,840	6,750	

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Stim Summary

Attachment 2

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/ other
38	10/17/2017	90	7,572	8,511	5,076	421,300	6,958	
39	10/17/2017	88	7,758	8,660	5,499	422,240	6,930	
40	10/17/2017	68	8,231	8,824	5,112	391,520	8,122	
41	10/17/2017	59	8,431	9,069	4,518	406,520	8,590	
42	10/18/2017	88	7,446	8,304	4,908	419,760	6,860	
43	10/18/2017	88	7,298	8,753	4,998	417,600	6,640	
44	10/18/2017	89	7,413	8,070	4,827	428,200	6,550	
45	10/18/2017	87	6,909	8,799	5,284	486,600	7,112	
46	10/19/2017	85	7,882	8,945	5,127	423,600	7,188	
47	11/11/2017	87	7,673	8,071	5,279	423,500	6,790	
48	11/11/2017	85	7,565	7,944	5,154	420,720	6,514	
49	11/12/2017	89	7,745	8,550	4,745	425,560	6,508	
50	11/12/2017	88	7,619	7,966	5,210	423,080	6,684	
51	11/13/2017	86	7,709	8,355	4,856	421,360	6,506	
52	11/13/2017	87	7,600	8,161	4,733	419,900	6,546	
53	11/13/2017	86	7,554	8,087	5,271	416,620	6,574	
54	11/13/2017	88	7,682	8,440	4,682	421,620	6,472	
55	11/14/2017	87	7,523	8,497	4,929	423,380	6,542	
56	11/14/2017	86	7,188	7,668	5,367	422,320	6,442	
57	11/14/2017	85	7,302	7,791	5,488	419,320	6,348	
58	11/15/2017	84	7,320	8,098	5,219	421,640	6,394	
59	11/15/2017	88	7,374	8,478	5,009	418,580	6,360	
60	11/15/2017	87	7,349	7,796	4,545	426,898	7,686	

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Attachment 3

Well Name: William Rodgers OHI 405H 47069002030000

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	334.00	334.00	
Top of Salt Water	794.00	794.00	NA	NA	
Pittsburgh Coal	665.00	665.00	670.00	670.00	
Pottsville (ss)	794.00	794.00	927.00	927.00	
Mauch Chunk (shale)	927.00	927.00	1707.00	1707.00	
Raven Cliff (ss)	1164.00	1164.00	1403.00	1403.00	
Maxton (ss)	1566.00	1566.00	1620.00	1620.00	
Greenbriar (ls)	1707.00	1707.00	1813.00	1813.00	
Big Injun (ss)	1813.00	1813.00	2038.00	2038.00	
Berea (siltstone)	2373.00	2373.00	2417.00	2417.00	
Rhinestreet (shale)	6432.00	5897.00	6789.00	6191.00	
Cashaqua (shale)	6789.00	6191.00	6892.00	6266.00	
Middlesex (shale)	6892.00	6266.00	7027.00	6346.00	
Burket (shale)	7027.00	6346.00	7057.00	6362.00	
Tully (ls)	7057.00	6362.00	7119.00	6394.00	
Mahantango (shale)	7119.00	6394.00	7497.00	6529.00	
Marcellus (shale)	7497.00	6529.00	NA	NA	GAS

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/5/2017
Job End Date:	11/15/2017
State:	West Virginia
County:	Ohio
API Number:	47-069-00203-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	William Rodgers OHI 405H
Latitude:	40.10689500
Longitude:	-80.53217900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,519
Total Base Water Volume (gal):	9,009,992
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Southwestern Energy	Carrier/Base Fluid	Water	7732-18-5	100.00000	84.00250	
Sand	U.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	14.09626	
HCL Acid (12.6%-17.5%)	U.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.40000	1.46527	
			Hydrogen Chloride	7647-01-0	17.50000	0.34067	
WFRA-2000	U.S. Well Services, LLC	Friction Reducer	Water	7732-18-5	60.00000	0.04026	
			2-Propenoic acid, polymer with 2 propenamide	9003-06-9	30.00000	0.02013	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01651	
BIOC11139A	Nalco Champion	Anti-Bacterial Agent	Benzyl-(C12-C16 Alkyl)-Dimethyl-Ammonium Chloride	68424-85-1	30.00000	0.00551	
			Glutaraldehyde	111-30-8	10.00000	0.00184	
			Ethanol	64-17-5	5.00000	0.00072	

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SCAL16486A	Nalco Champion	Scale Inhibitor					
			Ethylene Glycol	107-21-1	30.00000	0.00259	
			Amine Triphosphate	Proprietary	30.00000	0.00232	
WFRA-1000	J.S. Well Services, LLC	Friction Reducer					
			2-Propenoic acid, polymer with 2-propenamide	9003-06-9	30.00000	0.00238	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.00195	
AI-303	J.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene glycol	107-21-1	40.00000	0.00048	
			Cinnamaldehyde	104-55-2	20.00000	0.00017	
			Formic acid	64-18-6	20.00000	0.00017	
			Butyl cellosolve	111-76-2	20.00000	0.00015	
			Polyether	60828-78-6	10.00000	0.00008	
			Acetophenone,thiourea,formaldehyde polymer	68527-49-1	5.00000	0.00004	

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

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

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

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

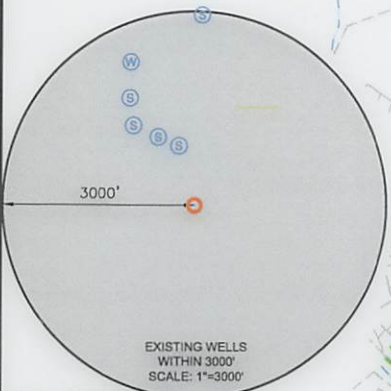
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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
600 MARKETPLACE AVENUE, SUITE 200
BRIDGEPORT, WV 26330
304-933-3119

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,439,726.490 EASTING: 539,870.798
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,440,187.415 EASTING: 540,532.611
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,441,955.340 EASTING: 539,774.208

PERMIT SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,439,726.490 EASTING: 539,870.798
PERMIT LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,440,200.992 EASTING: 540,536.784
PERMIT BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,441,966.516 EASTING: 539,767.702



WELL RESTRICTIONS

1. NO OCCUPIED DWELLINGS > 2500 SQ. FT. WITHIN 625 FEET OF CENTER OF PAD.
2. NO AGRICULTURE BUILDINGS > 2500 SQ. FT. WITHIN 625 FEET OF CENTER OF PAD.
3. WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 969 FEET OF PROPOSED WELL.
4. PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 800 FEET OF THE LIMITS OF DISTURBANCE.
5. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
6. NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

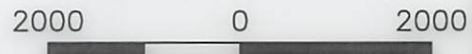
NOTES ON SURVEY

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.

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. 991

Dennis E. Miller



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

WILLIAM RODGERS OHI
OPERATOR'S WELL #: 405H
API WELL #: 47 STATE 069 COUNTY 00203 PERMIT

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

WATERSHED: WHEELING CREEK ELEVATION: 1280.0

DISTRICT: LIBERTY COUNTY: OHIO QUADRANGLE: VALLEY GROVE

SURFACE OWNER: WILLIAM I RODGERS & DOUGLAS W RODGERS ACREAGE: 143±

OIL & GAS ROYALTY OWNER: WILLIAM I RODGERS & DOUGLAS W RODGERS ACREAGE: 143±

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

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY) ASDRILLED

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6545 TVD 13,391 TMD

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

LEGEND:	— SURVEYED BOUNDARY	REVISIONS:	DATE: 02-21-2018
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	— DRILLING UNIT		
⊙ EXISTING / PRODUCING WELLHEAD	==== LEASE BOUNDARY		
LPL ⊙ LANDING POINT LOCATION	— ASDRILLED PATH		
⊙ EXISTING WATER WELL	— PROPOSED PATH		
⊙ EXISTING SPRING			



CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
 600 MARKETPLACE AVENUE, SUITE 200
 BRIDGEPORT, WV 26330
 304-933-3119

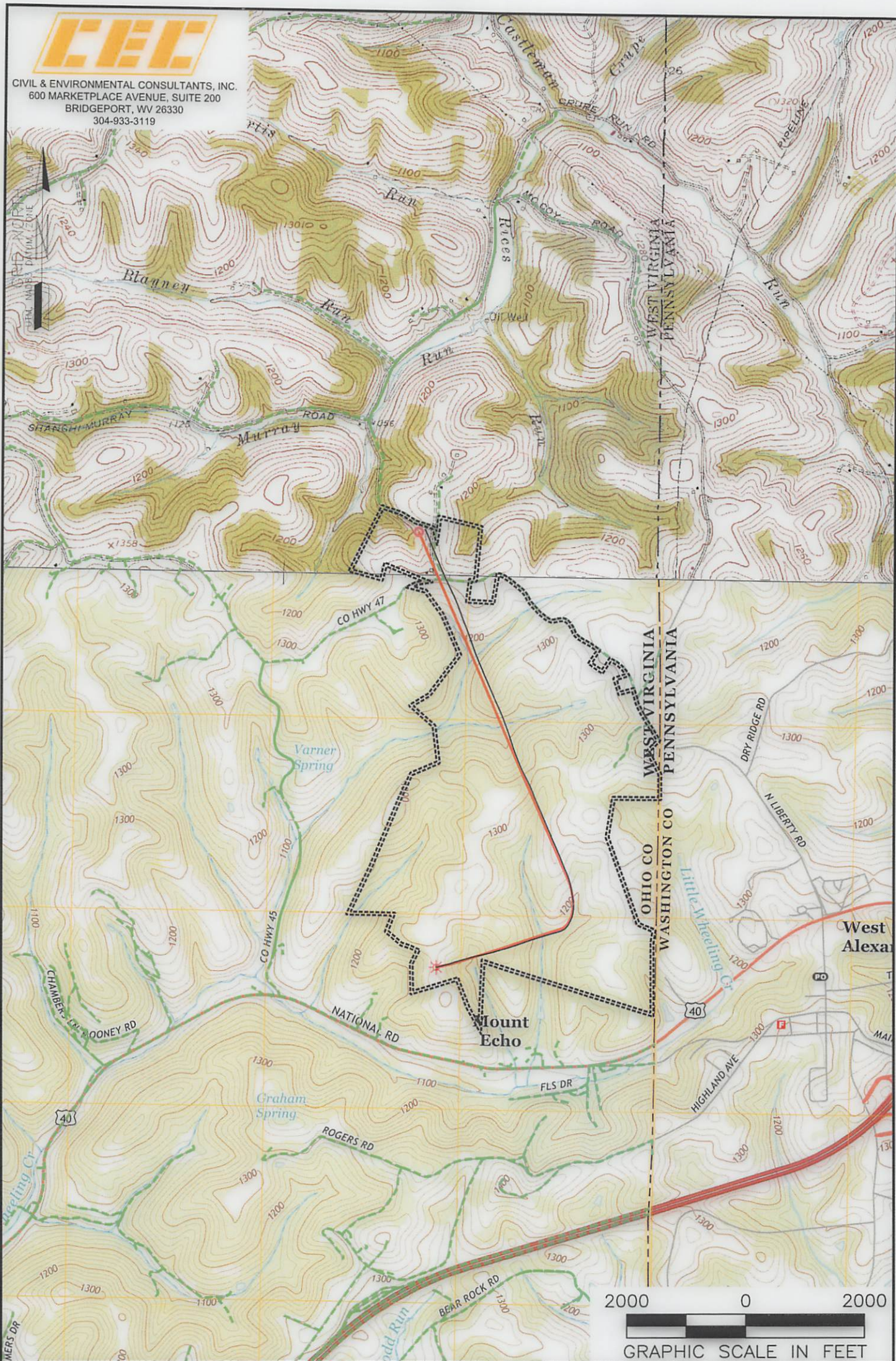
WELL BORE TABLE FOR SURFACE OWNERS			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
1	William I. Rodgers & Douglas Wayne Rodgers (S/R)	3-L12-1	143.09
2	TUNNEL RIDGE, LLC (S) LOIS MILLER (R) ALICE ANDERSON (R)	3-L12-4.6	60.00
3	RAYMOND MILLER C/O HILDA E. MILLER (S) HILDA E. MILLER (R)	3-L12-2	44.15
4	JEFFREY S. OCH & DANA R. OCH (S) HILDA E. MILLER (R)	3-L12-2.1	44.15
5	JEFFREY S. OCH & DANA R. OCH (S/R)	3-L9-18	49.80
6	THELMA A. MILLER LIFE ESTATE (S/R) CARL E. MILLER JR., REMAINDERMAN (S/R)	3-L9-15	54.91
7	THELMA A. MILLER LIFE ESTATE (S/R) CARL E. MILLER JR., REMAINDERMAN (S/R)	3-L9-15.3	42.38
8	THELMA A. MILLER LIFE ESTATE (S/R) CARL E. MILLER JR., REMAINDERMAN (S/R)	3-L9-15.4	60.91
9	DANIEL LEE HENRY & DIANE L. HENRY	3-L9-6.5	30.28
10	DAVID E. MCNABB & BRENDA L. MCNABB (S/R)	3-L9-6.8	15.66
11	MICHAEL E. FISHER & SUSAN K. FISHER (S/R)	3-L9-6.6	29.65

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	WILLIAM I. RODGERS	3-L12-5.1	17.16
B	TODD M. MAXWELL	3-L12-27	11.74
C	CATHY J. CALDWELL & JERRY W. CALDWELL	3-L12-6	5.52
D	MARION S. MAZGAJ & MILDRED J. MAZGAJ	3-L11-62	52.63
E	JAMES R. CREIGHTON & MARTHA E. CREIGHTON	3-L11-29	70.05
F	TIMMY B. MINCH & AMY LYNN MINCH	3-L9-12	109.75
G	WILLIAM H. BALL & LARRY G. BALL	3-L9-11	44.69
H	WILLIAM E. NOBLE	3-L9-14	47.28
I	DOROTHY BALL	3-L9-6.2	0.24
J	WILLIAM H. BALL & DOROTHY M. BALL	3-L9-6.3	2.01
K	LARRY G. BALL	3-L8-42	51.77
L	ROBERT F. REASS & N. C. REASS	3-L9-1	173.90
M	RODNEY L. PLANTS & JESSICA L. PLANTS (S/R)	3-L9-2	112.08
N	MARK S. MIKESINOVICH	3-L9-6.9	44.33
O	JOHN A. SCHULTZ	3-L9-6.10	53.71
P	ROBERT L. COOK & FLORENCE A. COOK	3-L9-6	13.28
Q	NANCY C. BALL	3-L9-6.1	0.81
R	NANCY C. BALL	3-L916	1.26
S	NANCY C. BALL	3-L9-6.11	6.43
T	MARTHA E. M. SHALER	3-L9-15.1	1.09
U	LEWIS E. NICHOLSON & SUSAN L. NICHOLSON	3-L9-17	20.38
V	KEVIN R. WURTZBACHER & J. A. WURTZBACHER	3-L9-17.3	1.09
W	WILLIAM R. WURTZBACHER & JEAN W. WURTZBACHER	6-L9-17.1	4.25
X	WILLIAM R. WURTZBACHER & JEAN W. WURTZBACHER	230-008-00-00-0001-00	70.32
Y	LARRY LEE RODGERS	230-008-00-00-0004-03	21.26
Z	TUNNEL RIDGE LLC	3-L12-3	23.59
AA	TUNNEL RIDGE LLC	230-007-00-00-0012-05	7.55
BB	HILDA E. MILLER	230-007-00-00-0012-00	6.935
CC	DILLIE JACK M. & J.	3-L12-4.1	9.624

REVISIONS:	COMPANY:			
	OPERATOR'S		WILLIAM RODGERS OHI	
	WELL #:		405H	
	DISTRICT:	COUNTY:	STATE:	DATE: 02-21-2018
	LIBERTY	OHIO	WV	DRAWN BY: K.E.S.
				SCALE: N/A
				DRAWING NO: 171-944
				WELL LOCATION PLAT 2



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LEGEND:

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

WELL OPERATOR:
 SWN PRODUCTION COMPANY, LLC

ADDRESS:
 P.O. BOX 1300 JANE LEW, WV 26378

SURFACE OWNER:
 WILLIAM I RODGERS & DOUGLAS W RODGERS

WELL (FARM) NAME:
 WILLIAM RODGERS OHI

COUNTY - CODE
 OHIO - 069

USGS 7 1/2 QUADRANGLE MAP NAME
 VALLEY GROVE, WV

WELL # SERIAL #
 405H XXXX

DISTRICT;
 LIBERTY