

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

API 47-069-00211 County OHIO District TRIADELPHIA
Quad VALLEY GROVE, WV Pad Name DEBORAH CRAIG-OHI-PAD1 Field/Pool Name PANHANDLE FIELD WET
Farm name CRAIG, DEBORAH ANN Well Number DEBORAH CRAIG OHI 8H
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 4,433,140.508 Easting 535,440.885
Landing Point of Curve Northing 4,432,896.853 Easting 535,499.480
Bottom Hole Northing 4,430,703.200 Easting 536,989.007

Elevation (ft) 1329.3 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 2/16/2017 Date drilling commenced 5/07/2017 Date drilling ceased 7/10/2017
Date completion activities began 8/17/2017 Date completion activities ceased 10/07/2017
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

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Freshwater depth(s) ft 560' Open mine(s) (Y/N) depths N WV Department of Environmental Protection
Salt water depth(s) ft 812' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 687' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed

[Signature] 2-7-18

Reviewed by:

[Signature]

03/02/2018

API 47-069 - 00211 Farm name CRAIG, DEBORAH ANN Well number DEBORAH CRAIG OHI 8H

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	20	20	126	NEW	J-55/94#		Y
Surface	17.5	13.375	733	NEW	J-55/54.5#		Y, 49 BBLS
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	2151	NEW	J-55/36#		Y, 33 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	15729	NEW	HCP-110/20#		Y
Tubing		2.375	6911	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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	605	15.6	1.20	726	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	1264	15.60	1.19	1504.16	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	905/1910	15.60	1.21/1.19	1086/2272.9	SURFACE	24
Tubing							

Drillers TD (ft) 15729' Loggers TD (ft) 15729'

Deepest formation penetrated MARCELLUS Plug back to (ft) N/A

Plug back procedure _____

Kick off depth (ft) 5420'

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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WV Department of
Environmental Protection

API 47- 069 - 00211 Farm name CRAIG, DEBORAH ANN Well number DEBORAH CRAIG OHI 8H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>MARCELLUS</u>	<u>6548.76'</u> TVD	<u>6952.25'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2013 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 5514 mcfpd Oil 418 bpd NGL _____ bpd Water 334 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 WEATHERFORD
Address 2000 ST. JAMES PLACE City HOUSTON State TX Zip 77056

Cementing Company SCHLUMBERGER WELL SERVICES
Address 110 SCHLUMBERGER DRIVE 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 DENISE GRANTHAM Telephone 832-796-6139
Signature *Denise Grantham* Title REGULATORY TECHNICIAN Date 1/3/2018

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Department of Conservation

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

03/02/2018

DEBORAH CRAIG OHI 8H
PERF SUMMARY

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	8/17/2017	15,552	15,624	72
2	8/17/2017	15,447	15,519	72
3	8/18/2017	15,342	15,414	72
4	8/18/2017	15,237	15,311	72
5	8/18/2017	15,132	15,204	72
6	8/19/2017	15,027	15,099	72
7	8/19/2017	14,922	14,994	72
8	8/19/2017	14,817	14,889	72
9	8/20/2017	14,712	14,784	72
10	8/20/2017	14,607	14,679	72
11	8/21/2017	14,502	14,574	72
12	8/21/2017	14,397	14,469	72
13	8/21/2017	14,292	14,364	72
14	8/21/2017	14,187	14,259	72
15	8/22/2017	14,082	14,154	72
16	8/22/2017	13,977	14,049	72
17	8/22/2017	13,872	13,944	72
18	8/23/2017	13,767	13,839	72
19	8/23/2017	13,662	13,734	72
20	8/23/2017	13,557	13,629	72
21	8/24/2017	13,452	13,524	72
22	8/24/2017	13,347	13,419	72
23	8/24/2017	13,242	13,314	72
24	8/24/2017	13,137	13,209	72
25	8/25/2017	13,032	13,104	72
26	8/26/2017	12,927	12,999	72
27	8/25/2017	12,822	12,894	72
28	8/26/2017	12,717	12,789	72
29	8/26/2017	12,612	12,684	72
30	8/27/2017	12,507	12,579	72
31	8/27/2017	12,402	12,474	72
32	8/28/2017	12,297	12,369	72
33	8/28/2017	12,192	12,264	72
34	8/28/2017	12,087	12,159	72
35	8/29/2017	11,982	12,054	72
36	8/29/2017	11,877	11,949	72
37	8/29/2017	11,772	11,844	72
38	8/30/2017	11,667	11,739	72
39	8/30/2017	11,562	11,634	72
40	8/30/2017	11,457	11,529	72
41	8/31/2017	11,352	11,424	72
42	8/31/2017	11,247	11,319	72
43	9/1/2017	11,142	11,214	72
44	9/1/2017	11,037	11,109	72
45	9/1/2017	10,932	11,004	72
46	9/1/2017	10,827	10,899	72
47	9/2/2017	10,722	10,794	72
48	9/2/2017	10,617	10,689	72
49	9/2/2017	10,512	10,584	72
50	9/3/2017	10,407	10,479	72
51	9/3/2017	10,302	10,374	72
52	9/4/2017	10,197	10,269	72
53	9/4/2017	10,092	10,164	72
54	9/5/2017	9,987	10,059	72
55	9/5/2017	9,882	9,954	72
56	9/6/2017	9,777	9,849	72
57	9/7/2017	9,672	9,744	72
58	9/8/2017	9,567	9,639	72
59	9/8/2017	9,462	9,534	72
60	9/8/2017	9,357	9,429	72
61	9/9/2017	9,252	9,324	72
62	9/10/2017	9,147	9,219	72
63	9/10/2017	9,042	9,114	72
64	9/10/2017	8,937	9,009	72
65	9/11/2017	8,832	8,904	72
66	9/11/2017	8,727	8,799	72
67	9/11/2017	8,622	8,694	72
68	9/11/2017	8,517	8,589	72
69	9/12/2017	8,412	8,484	72
70	9/13/2017	8,307	8,379	72
71	9/13/2017	8,202	8,274	72
72	9/14/2017	8,097	8,169	72
73	9/14/2017	7,992	8,064	72
74	9/14/2017	7,887	7,959	72
75	9/14/2017	7,782	7,854	72
76	9/15/2017	7,677	7,749	72
77	9/15/2017	7,572	7,644	72
78	9/15/2017	7,467	7,539	72
79	9/15/2017	7,362	7,434	72
80	9/15/2017	7,257	7,329	72
81	9/16/2017	7,152	7,224	72
82	9/16/2017	7,047	7,119	72
83	9/16/2017	6,942	7,014	72

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DEBORAH CRAIG OH 8H
FRAC STAGE SUMMARY

STAGE NUM	Stim 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
1	8/17/2017	84	7,931	8,427	4,515	412,640	11,082	
2	8/17/2017	82	8,015	8,739	4,866	418,760	9,086	
3	8/18/2017	85	7,534	7,880	4,691	419,800	7,862	
4	8/18/2017	85	7,554	8,741	4,930	420,960	7,998	
5	8/18/2017	82	8,018	8,607	4,947	420,960	8,544	
6	8/19/2017	84	7,915	8,607	4,855	418,160	7,794	
7	8/19/2017	83	7,793	8,306	4,757	415,240	8,004	
8	8/19/2017	84	7,712	8,501	4,645	421,040	7,882	
9	8/20/2017	88	7,734	7,940	5,104	421,400	7,590	
10	8/20/2017	76	7,665	8,614	4,832	419,500	7,806	
11	8/21/2017	86	7,530	8,167	4,693	420,040	7,710	
12	8/21/2017	84	7,531	8,298	4,756	421,000	7,672	
13	8/21/2017	84	7,670	8,231	4,791	423,200	10,098	
14	8/21/2017	80	6,896	8,340	4,656	417,400	7,420	
15	8/22/2017	85	7,172	7,655	4,701	422,000	7,578	
16	8/22/2017	85	7,515	8,381	4,668	422,240	7,440	
17	8/22/2017	85	7,479	8,723	4,769	417,800	7,486	
18	8/23/2017	84	7,389	8,031	4,931	411,740	7,360	
19	8/23/2017	85	7,346	8,220	4,765	421,140	7,694	
20	8/23/2017	83	7,375	8,519	4,868	420,240	7,224	
21	8/24/2017	85	7,490	8,068	4,862	421,140	7,224	
22	8/24/2017	70	8,089	9,196	4,766	421,800	12,968	
23	8/24/2017	85	7,370	7,762	5,094	419,360	7,564	
24	8/24/2017	85	7,447	8,253	4,739	422,420	7,222	
25	8/25/2017	85	7,541	8,133	5,038	422,040	7,374	
26	8/26/2017	84	7,415	8,634	4,854	424,360	7,424	
27	8/25/2017	87	7,977	8,740	4,719	420,480	7,372	
28	8/26/2017	83	7,658	8,969	4,719	418,040	7,464	
29	8/26/2017	84	7,433	7,609	4,576	421,600	8,210	
30	8/27/2017	59	8,279	9,449	4,852	25,000	7,550	
31	8/27/2017	83	7,206	7,543	4,536	421,400	7,432	
32	8/28/2017	66	8,049	8,639	4,792	126,500	12,308	
33	8/28/2017	84	6,960	7,171	4,747	413,160	7,614	
34	8/28/2017	74	7,897	8,663	4,716	396,320	9,132	
35	8/29/2017	83	6,974	7,402	4,853	421,600	8,034	
36	8/29/2017	84	7,044	7,287	4,720	414,080	7,284	
37	8/29/2017	83	7,069	7,373	4,755	430,840	7,238	
38	8/30/2017	61	8,500	8,779	4,551	395,880	7,470	
39	8/30/2017	85	7,370	8,471	5,136	428,760	7,104	
40	8/30/2017	88	7,423	7,696	4,834	420,720	7,632	
41	8/31/2017	87	7,097	7,526	4,801	420,920	7,176	
42	8/31/2017	91	7,288	8,008	5,052	427,520	7,698	
43	9/1/2017	90	7,349	8,116	4,929	426,260	7,248	
44	9/1/2017	88	7,122	7,641	4,850	422,160	7,202	
45	9/1/2017	92	7,257	8,019	4,891	419,200	7,208	
46	9/1/2017	91	7,459	8,616	5,126	421,680	7,250	
47	9/2/2017	88	7,169	7,853	4,731	419,560	7,066	
48	9/2/2017	91	7,011	7,571	5,076	427,520	7,214	
49	9/2/2017	90	7,031	7,622	5,285	422,840	7,130	
50	9/3/2017	89	7,264	8,574	4,492	425,140	7,020	
51	9/3/2017	89	7,715	8,798	4,607	434,480	10,074	
52	9/4/2017	89	7,016	7,221	4,899	418,600	7,096	
53	9/4/2017	89	6,943	7,422	4,890	422,840	7,120	
54	9/5/2017	90	7,014	7,830	5,183	416,320	7,196	
55	9/5/2017	89	7,023	7,390	5,141	419,460	6,994	
56	9/6/2017	85	7,274	8,946	4,999	426,280	7,032	
57	9/7/2017	89	7,080	8,245	4,959	430,560	6,902	
58	9/8/2017	57	7,541	8,907	4,511	412,240	12,128	
59	9/8/2017	87	7,106	8,061	4,490	423,440	7,386	
60	9/8/2017	90	6,907	7,431	4,733	416,280	7,066	
61	9/9/2017	90	7,020	7,634	4,972	425,240	6,976	
62	9/10/2017	88	6,899	7,236	4,972	424,280	6,960	
63	9/10/2017	85	7,344	8,934	4,703	421,500	6,948	
64	9/10/2017	88	7,383	8,651	4,754	414,120	7,048	
65	9/11/2017	82	6,938	7,372	4,853	415,080	6,748	
66	9/11/2017	82	7,036	7,425	5,141	420,420	6,780	
67	9/11/2017	90	7,102	8,129	5,085	422,900	6,930	
68	9/11/2017	86	7,088	8,484	4,799	420,720	6,620	
69	9/12/2017	82	7,428	8,593	5,096	443,520	7,504	
70	9/13/2017	83	7,024	7,755	4,955	420,340	6,434	
71	9/13/2017	85	6,951	7,599	5,048	418,180	6,522	
72	9/14/2017	85	6,685	7,563	4,991	418,040	6,688	
73	9/14/2017	89	6,849	7,607	5,084	418,720	6,660	
74	9/14/2017	86	6,832	7,013	4,743	417,760	6,696	
75	9/14/2017	83	6,559	7,074	4,963	420,080	7,302	
76	9/15/2017	88	6,689	7,518	4,972	419,340	6,704	
77	9/15/2017	90	6,902	8,318	5,072	418,540	6,646	
78	9/15/2017	90	6,842	7,183	5,061	420,820	6,772	
79	9/15/2017	84	6,785	8,218	5,275	422,680	6,474	
80	9/15/2017	84	6,474	7,767	4,517	421,680	6,614	
81	9/16/2017	90	6,651	8,252	4,844	419,340	6,350	
82	9/16/2017	76	7,931	8,686	4,635	423,980	12,286	
83	9/16/2017	88	6,734	7,267	4,588	420,480	6,328	

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Well Name:

DEBORAH CRAIG OHI 8H

47069002110000

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	N.A.	N.A.	560.00	560.00	
Top of Salt Water	812.00	812.00	N.A.	N.A.	
Pittsburgh Coal	687.00	687.00	689.00	689.00	
Big Injun (ss)	1940.00	1940.00	2054.00	2054.00	
Berea (siltstone)	2404.00	2404.00	2447.00	2447.00	
Rhinestreet (shale)	5940.00	5913.00	6265.08	6199.81	
Cashaqua (shale)	6265.08	6199.81	6363.20	6276.77	
Middlesex (shale)	6363.20	6276.77	6483.19	6360.67	
Burket (shale)	6483.19	6360.67	6516.63	6382.11	
Tully (ls)	6516.63	6382.11	6575.92	6417.43	
Mahantango (shale)	6575.92	6417.43	6952.25	6548.76	
Marcellus (shale)	6952.25	6548.76	N.A.	N.A.	GAS

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Division of Oil and Gas
Extraordinary Production

Latitude: 40°05'00" SURFACE HOLE 331'

JACKSON SURVEYING INC.

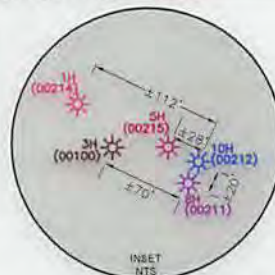
P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,433,140.429 EASTING: 535,440.863
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,432,943.613 EASTING: 535,472.297
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,430,655.558 EASTING: 537,020.242

Latitude: 40°02'30"

BOTTOM HOLE 6955'

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS			
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	DEBORAH ANN CRAIG (S/R)	06-113-16	84.63
SURFACE OWNER			
2	WM. A. LANGMYER & M.J. LANGMYER (S)	06-113-17.2	21.61
3	LLOYD E. BEHRENS JR. & S.L. BEHRENS (S)	06-113-15	96.95
4	WILLIAM LANGMYER & MARY J. LANGMYER (S)	06-113-14.1	3.60
5	ROBERT LEECH (S)	06-113-17	22.06
6	NELLIE M. FISHER (LIFE EST.) (S)	06-114-05	90.081
7	WHEELING CREEK WATERSHED PROTECTION & FLOOD PROTECTION COMM (S)	06-114-06	251.16
8	JAMES A. MITCHAM & B.A. MITCHAM (S)	06-119-1.14	59.522
9	JAMES A. MITCHAM & B.A. MITCHAM (S)	06-119-1.12	25.00



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



LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	S 12°47'17" E	3053.26'	SHL TO LANDMARK	SPIKE FOUND
L2	N 80°18'36" W	1107.74'	SHL TO LANDMARK	FENCE POST FOUND
L3	S 13°31'19" E	822.18'	CURVE LENGTH	SHL TO LP

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,433,140.508 EASTING: 535,440.885
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,432,896.853 EASTING: 535,499.480
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,430,703.200 EASTING: 536,989.007



WELL RESTRICTIONS

- NO OCCUPIED DWELLINGS > 2500 SQ FT WITHIN 625 FEET OF CENTER OF PAD.
- NO AGRICULTURE BUILDINGS > 2500 SQ FT, WITHIN 625 FEET OF CENTER OF PAD.
- WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 250 FEET OF PROPOSED WELL.
- PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
- 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

- 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.
- 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. 708

David L. Jackson



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

COMPANY: **SWN** Production Company, LLC

OPERATOR'S WELL #:	8H
API WELL #:	47 069 00211
STATE	OHIO
COUNTY	VALLEY GROVE, WV
PERMIT	

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

WATERSHED: TARYARD RUN OF MIDDLE WHEELING CREEK ELEVATION: 1339.3'

DISTRICT: TRIADDELPHIA COUNTY: OHIO QUADRANGLE: VALLEY GROVE, WV

SURFACE OWNER: DEBORAH ANN CRAIG ACREAGE: ±84.63

OIL & GAS ROYALTY OWNER: DEBORAH ANN CRAIG ACREAGE: ±84.63

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: 6,704 TVD 15,729 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:	REVISIONS:	DATE: 09-08-2017
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	— DRILLING UNIT	FILE NO.:
⊙ EXISTING / PRODUCING WELLHEAD	--- LEASE BOUNDARY	DRAWN BY: N. MANO
LPL* LANDING POINT LOCATION	--- ASDRILLED PATH	SCALE: 1" = 2000'
⊙ EXISTING WATER WELL	--- PROPOSED PATH	DRAWING NO.:
⊙ EXISTING SPRING		WELL LOCATION PLAT



**JACKSON SURVEYING
INC.**

P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

ADJOINING OWNERS TABLE

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	DEBORAH ANN CRAIG	06-T8-50	1.924
B	ROBERT E. CROW JR.	06-T13-17.1	1.41
C	ROI ANN CRAIG	06-T14-5.1	6.883
D	JACK & ROSE MITCHAM, LE: JAMES A. & BERNICE MITCHAM	06-T19-1.13	9.234
E	MARY E. & PAUL T. HELT	06-T19-1.3	8.348
F	JAMES A. & BERNICE A. MITCHAM	06-T19-1.18	1.717
G	JAMES A. & BERNICE A. MITCHAM	06-T19-1.15	0.93
H	JAY MICHAEL IRWIN	06-T19-14.1	0.281
I	ROBERT A. & MARIECA J. MITCHAM	06-T19-1.19	0.288
J	LOUIS & SHARON WHITECOTTEN-LE P.L. HENDERSON & D.A. WHITECOTTON	06-T19-1.9	1.779
K	SUSAN E. OBERLE	06-T19-1.22	1.24
L	STEPHEN P. SCHMITT	06-T18-16.2	1.8
M	STEPHEN P. SCHMITT	06-T18-13.1	1.47
N	JOHN SCHMITT	06-T18-13.3	1.673
O	GARY R. & W.C. HUGHES	06-T18-11.4	0.659
P	GEORGE W. & JUDITH D. HELDEFFER	06-T18-9.1	1.8
Q	E.R. DIETRICH	06-T13-18.2	0.83
R	E.R. DIETRICH	06-T13-18.1	0.409
S	JOSEPH M. RODAK	06-T13-14.2	8.117

03/02/2018

REVISIONS:	COMPANY:	 	
	OPERATOR'S	DEBORAH CRAIG OHI	
	WELL #:	8H	
	DISTRICT:	COUNTY:	STATE:
	TRIADELPHIA	OHIO	WV
			DATE: 09-08-2017
			FILE NO:
			DRAWN BY: N. MANO
			SCALE: N/A
			DRAWING NO:
			WELL LOCATION PLAT 2