

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

API 47-069-00253 County OHIO District LIBERTY  
Quad BETHANY Pad Name ROY RIGGLE OHI PAD Field/Pool Name PANHANDLE  
Farm name ROY & DEBRA R RIGGLE Well Number ROY RIGGLE OHI 6H  
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 4,444,681.297 Easting 540,546.543  
Landing Point of Curve Northing 4,444,365.490 Easting 540,275.169  
Bottom Hole Northing 4,442,811.181 Easting 540,842.976

Elevation (ft) 1,251.9' 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

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Date permit issued 12/28/2017 Date drilling commenced 03/27/2018 Date drilling ceased 05/05/2018  
Date completion activities began 06/09/2018 Date completion activities ceased 07/18/2018  
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 508' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 761' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 628' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by

*[Signature]* 11-28-18

Reviewed by:

*[Signature]* 11-28-18

API 47-069 - 00253 Farm name ROY & DEBRA R RIGGLE Well number ROY RIGGLE OHI 6H

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	681'	NEW	J-55/54.50#		Y, 35 BBLs
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	2072'	NEW	J-55/36#		Y, 24 BBLs
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	12,429'	NEW	HCP-110/20#		Y
Tubing		2.375	6,896'	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	682	15.60	1.20	818.4	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	774	15.60	1.19	921.06	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2,242	15.60	1.19	2,667.98	SURFACE	24
Tubing							

Drillers TD (ft) 12,429' Loggers TD (ft) 12,429'  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5,940'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature

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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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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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>MARCELLUS</u>	<u>6,451'</u> TVD	<u>6,854'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow

OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 2,929 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas 5,560 mcfpd Oil 634 bpd NGL \_\_\_\_\_ bpd Water 537 bpd  
 GAS MEASURED BY  Estimated  Orifice  Pilot

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

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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 17021 ALDINE WESTFIELD City HOUSTON State TX Zip 77073

Cementing Company SCHLUMBERGER WELL SERVICES  
 Address 1080 US HWY 33 EAST City WESTON State WV Zip 26452

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 STAFF REGULATORY ANALYST Date 10/09/2018

**Roy Riggle OHI 6H  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	6/5/2018	12,337	12,251	36
2	6/10/2018	12,218	12,111	42
3	6/11/2018	12,078	11,971	42
4	6/11/2018	11,938	11,831	42
5	6/12/2018	11,798	11,691	42
6	6/13/2018	11,658	11,551	42
7	6/13/2018	11,518	11,411	42
8	6/13/2018	11,378	11,271	42
9	6/13/2018	11,238	11,131	42
10	6/14/2018	11,098	10,991	42
11	6/14/2018	10,958	10,851	42
12	6/14/2018	10,818	10,711	42
13	6/14/2018	10,678	10,571	42
14	6/15/2018	10,538	10,431	42
15	6/15/2018	10,398	10,291	42
16	6/15/2018	10,258	10,151	42
17	6/15/2018	10,118	10,011	42
18	6/16/2018	9,978	9,871	42
19	6/16/2018	9,838	9,731	42
20	6/16/2018	9,698	9,591	42
21	6/16/2018	9,558	9,451	42
22	6/17/2018	9,418	9,311	42
23	6/17/2018	9,278	9,171	42
24	6/17/2018	9,138	9,031	42
25	6/17/2018	8,998	8,891	42
26	6/18/2018	8,858	8,751	42
27	6/18/2018	8,718	8,611	42
28	6/18/2018	8,578	8,471	42
29	6/18/2018	8,438	8,331	42
30	6/19/2018	8,298	8,191	42
31	6/19/2018	8,158	8,051	42
32	6/19/2018	8,018	7,911	42
33	6/19/2018	7,878	7,771	42
34	6/20/2018	7,738	7,631	42
35	6/20/2018	7,598	7,491	42
36	6/20/2018	7,458	7,354	42
37	6/21/2018	7,318	7,211	42
38	6/21/2018	7,173	7,071	42
39	6/21/2018	7,038	6,931	42

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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/othr
1	6/10/2018	90	7,341	7,911	4,484	402,780	6,469	0
2	6/11/2018	90	7,413	6,128	4,425	500,220	7,310	0
3	6/11/2018	89	7,458	2,805	4,405	500,710	7,023	0
4	6/12/2018	89	7,368	6,870	4,747	500,600	7,080	0
5	6/12/2018	86	7,338	5,681	4,753	500,750	7,179	0
6	6/13/2018	86	7,127	6,575	4,743	500,120	7,096	0
7	6/13/2018	90	7,311	5,169	4,793	499,670	6,956	0
8	6/13/2018	90	7,297	6,370	5,024	500,200	7,038	0
9	6/14/2018	90	7,297	6,545	5,027	500,360	7,212	0
10	6/14/2018	89	7,522	5,984	4,554	499,860	7,075	0
11	6/14/2018	89	7,194	6,149	4,777	500,650	6,912	0
12	6/14/2018	90	7,435	6,845	5,112	500,090	7,253	0
13	6/15/2018	89	7,184	5,981	5,010	500,790	7,002	0
14	6/15/2018	87	7,862	5,837	4,727	501,950	6,765	0
15	6/15/2018	89	7,585	6,106	5,079	500,370	6,993	0
16	6/15/2018	88	7,206	6,267	5,158	500,650	6,952	0
17	6/16/2018	87	7,242	6,543	4,913	500,650	7,500	0
18	6/16/2018	88	7,086	6,749	4,719	500,360	6,827	0
19	6/16/2018	89	7,186	6,200	4,805	498,930	6,939	0
20	6/16/2018	89	7,531	6,307	4,622	500,100	6,984	0
21	6/16/2018	87	7,115	7,069	4,932	500,440	6,953	0
22	6/17/2018	89	7,304	5,941	4,557	499,560	7,529	0
23	6/17/2018	90	7,168	6,358	4,643	499,480	6,899	0
24	6/17/2018	88	7,206	6,653	4,676	501,670	6,536	0
25	6/17/2018	89	7,081	6,896	4,826	500,120	6,547	0
26	6/18/2018	88	7,057	6,937	5,046	501,570	6,790	0
27	6/18/2018	87	7,209	6,265	4,613	500,680	6,275	0
28	6/18/2018	88	7,095	6,561	4,810	500,010	6,485	0
29	6/18/2018	89	6,817	6,875	5,025	501,740	6,690	0
30	6/19/2018	88.2	6,961	6,532	4,930	498,840	6,414	0
31	6/19/2018	88.6	7,319	6,832	4,730	499,190	6,603	0
32	6/19/2018	89.1	6,928	6,453	4,917	500,010	6,476	0
33	6/19/2018	89.3	7,097	7,189	4,902	500,620	6,450	0
34	6/20/2018	88.5	6,698	6,605	5,284	501,620	6,441	0
35	6/20/2018	89.4	6,564	6,271	4,772	501,900	6,608	0
36	6/20/2018	87.7	6,980	6,410	4,883	501,000	6,386	0
37	6/21/2018	88.7	6,487	6,346	4,614	498,920	6,196	0
38	6/21/2018	89.1	6,744	6,634	4,839	501,480	6,390	0
39	6/21/2018	88.6	6,806	6,298	4,639	500,440	6,469	0

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Well Name: Roy Riggle OHI 6H

47069002530000

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	508.00	508.00	
Top of Salt Water	761.00	761.00	NA	NA	
Pittsburgh Coal	628.00	628.00	633.00	633.00	
Pottsville (ss)	751.00	751.00	860.00	860.00	
Raven Cliff (ss)	1257.00	1257.00	1377.00	1377.00	
Maxton (ss)	1469.00	1469.00	1810.00	1810.00	
Big Injun (ss)	1810.00	1810.00	1959.00	1959.00	
Berea (siltstone)	2320.00	2320.00	5819.00	5819.00	
Rhinstreet (shale)	5819.00	5819.00	6244.00	6085.00	
Cashaqua (shale)	6266.00	6104.00	6338.00	6165.00	
Middlesex (shale)	6338.00	6165.00	6447.00	6250.00	
Burket (shale)	6447.00	6250.00	6474.00	6269.00	
Tully (ls)	6474.00	6269.00	6537.00	6312.00	
Mahantango (shale)	6537.00	6312.00	6854.00	6451.00	
Marcellus (shale)	6854.00	6451.00	NA	NA	GAS

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# Hydraulic Fracturing Fluid Product Component Information Disclosure



Job Start Date:	6/10/2018
Job End Date:	6/21/2018
State:	West Virginia
County:	Ohio
API Number:	47-069-00253-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Roy Riggle OHI 6H
Latitude:	40.15150200
Longitude:	-80.52393900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,497
Total Base Water Volume (gal):	11,125,611
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	82.13909	
Sand	J.S. Well Services, LLC	Proppant	Crystalline Silica, quartz	14808-60-7	100.00000	17.19052	
HCL Acid (12.6%-17.5%)	J.S. Well Services, LLC	Bulk Acid	Water	7732-18-5	87.40000	0.45446	
			Hydrogen Chloride	7647-01-0	17.50000	0.10566	
WFRA-2000	J.S. Well Services, LLC	Friction Reducer	Water	7732-18-5	60.00000	0.04489	
			2-Propenoic acid, polymer with 2 propenamide	9003-06-9	30.00000	0.02244	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01840	
BIOC11219A	Nalco Champion	Anti-Bacterial Agent	Methanol	64-17-5	60.00000	0.01108	
			Benzyl-(C12-C16 Alkyl)-Dimethyl-Ammonium Chloride	68424-85-1	30.00000	0.00704	
			Glutaraldehyde	111-30-8	10.00000	0.00235	

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SCAL16486A	Nalco Champion	Scale Inhibitor					
			Ethylene Glycol	107-21-1	30.00000	0.00163	
			Amine Triphosphate	Proprietary	30.00000	0.00146	
AI-303	U.S. Well Services, LLC	Acid Corrosion Inhibitors					
			Ethylene glycol	107-21-1	40.00000	0.00023	
			Cinnamaldehyde	104-55-2	20.00000	0.00008	
			Formic acid	64-18-6	20.00000	0.00008	
			Butyl cellosolve	111-76-2	20.00000	0.00007	
			Polyether	60828-78-6	10.00000	0.00004	
			Acetophenone, thiourea, formaldehyde polymer	68527-49-1	5.00000	0.00002	
LT FLUSH SYSTEM I	U.S. Well Services, LLC	Other					
			Mineral oil, petroleum distillates, hardtreated light naphthenic	64742-53-6	100.00000	0.00045	

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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# SOUTHWESTERN ENERGY

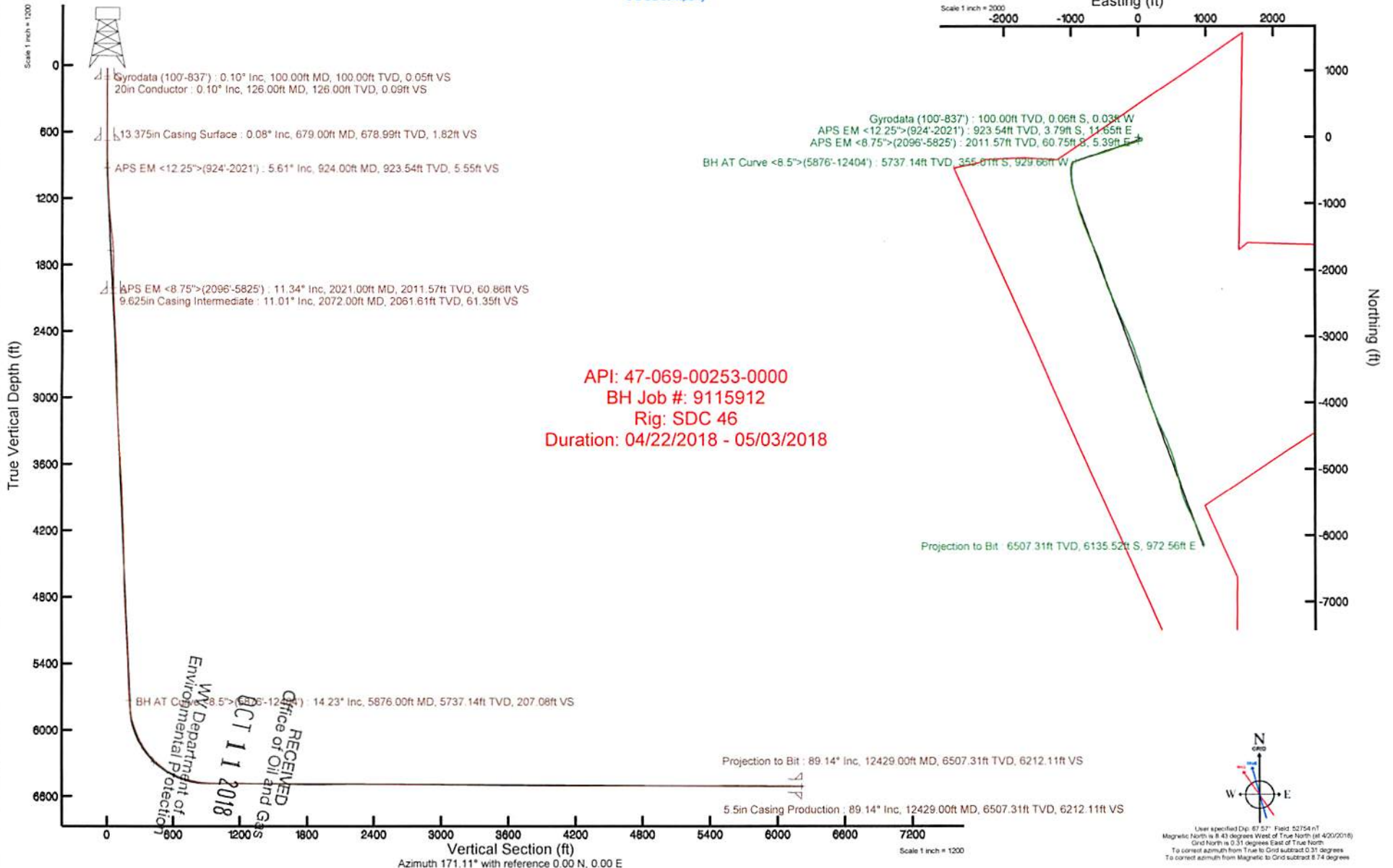
Location: Ohio County, WV  
 Field: Ohio  
 Facility: Roy Riggle OHI Pad

Slot: Slot #06  
 Well: Roy Riggle OHI 6H  
 Wellbore: Roy Riggle OHI 6H PWB



Plot reference wellpath is Roy Riggle OHI 6H PWB Rev# 0	Grid System: NAD83 / UTM, Zone 17 North, US feet
True vertical depths are referenced to SDC 46 (KB)	* = Wellpath was transformed from a different geoidic datum
Measured depths are referenced to SDC 46 (KB)	North Reference: Grid north
SDC 46 (KB) to Mean Sea Level: 1278.33 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: Slot #06): -1252.33 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: BoreLogic on 2018-05-14
	Datshaver: SWA, Pennsylvania

Location Information					
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Roy Riggle OHI Pad		1773447.520	14582274.947	40°09'05.569"N	80°31'26.123"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot #06	-16.39	-4.38	1773443.140	14582258.560	40°09'05.407"N
SDC 46 (KB) to Ground level (At Slot: Slot #06)				26ft	
Mean Sea Level to Ground level (At Slot: Slot #06)				-1252.33ft	
SDC 46 (KB) to Mean Sea Level				1278.33ft	



REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Thomsuzc
Scale	0.999620	Report Generated	5/15/2018 at 7:38:41 AM
Convergence at slot	0.31° East	Database/Source file	WA_Pennsylvania/Roy_Riggle_OHI_6H_AWP_Proj__12429_MD.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-16.39	-4.38	1773443.14	14582258.56	40°09'05.407"N	80°31'26.181"W
Facility Reference Pt			1773447.52	14582274.95	40°09'05.569"N	80°31'26.123"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

WELLPATH DATUM			
Calculation method	Minimum curvature	SDC 46 (KB) to Facility Vertical Datum	1278.33ft
Horizontal Reference Pt	Slot	SDC 46 (KB) to Mean Sea Level	1278.33ft
Vertical Reference Pt	SDC 46 (KB)	SDC 46 (KB) to Ground Level at Slot (Slot #06)	26.00ft
MD Reference Pt	SDC 46 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	171.11°

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

WELLPATH DATA (162 stations) † = interpolated/extrapolated station																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	
0.00†	0.000	209.020	0.00	0.00	0.00	0.00	1773443.14	14582258.56	40°09'05.407"N	80°31'26.181"W	0.00	0.000	0.00	0.00	0.00	
26.00	0.000	209.020	26.00	0.00	0.00	0.00	1773443.14	14582258.56	40°09'05.407"N	80°31'26.181"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.100	209.020	100.00	0.05	-0.06	-0.03	1773443.11	14582258.50	40°09'05.407"N	80°31'26.181"W	0.06	209.020	0.14	0.14	-204.03	
125.00	0.100	193.710	125.00	0.09	-0.10	-0.05	1773443.09	14582258.46	40°09'05.406"N	80°31'26.181"W	0.11	205.951	0.11	0.00	-61.24	
150.00	0.220	216.910	150.00	0.14	-0.16	-0.08	1773443.06	14582258.40	40°09'05.406"N	80°31'26.182"W	0.18	207.415	0.54	0.48	92.80	
175.00	0.170	215.820	175.00	0.20	-0.22	-0.13	1773443.01	14582258.34	40°09'05.405"N	80°31'26.182"W	0.26	210.350	0.20	-0.20	-4.36	
200.00	0.130	208.700	200.00	0.25	-0.28	-0.17	1773442.97	14582258.28	40°09'05.404"N	80°31'26.183"W	0.33	210.829	0.18	-0.16	-28.48	
225.00	0.160	206.010	225.00	0.30	-0.34	-0.20	1773442.94	14582258.22	40°09'05.404"N	80°31'26.183"W	0.39	210.241	0.12	0.12	-10.76	
250.00	0.200	204.160	250.00	0.37	-0.41	-0.23	1773442.91	14582258.15	40°09'05.403"N	80°31'26.184"W	0.47	209.358	0.16	0.16	-7.40	
275.00	0.230	196.440	275.00	0.45	-0.50	-0.26	1773442.88	14582258.07	40°09'05.402"N	80°31'26.184"W	0.56	207.805	0.17	0.12	-30.88	
300.00	0.160	219.790	300.00	0.52	-0.57	-0.30	1773442.84	14582257.99	40°09'05.402"N	80°31'26.184"W	0.64	207.570	0.42	-0.28	93.40	
325.00	0.300	203.070	325.00	0.60	-0.66	-0.35	1773442.79	14582257.90	40°09'05.401"N	80°31'26.185"W	0.74	207.744	0.62	0.56	-66.88	
350.00	0.310	212.930	350.00	0.70	-0.77	-0.41	1773442.73	14582257.79	40°09'05.400"N	80°31'26.186"W	0.88	207.795	0.21	0.04	39.44	
375.00	0.310	214.490	375.00	0.80	-0.89	-0.48	1773442.66	14582257.67	40°09'05.399"N	80°31'26.187"W	1.01	208.586	0.03	0.00	6.24	
400.00	0.290	214.800	400.00	0.90	-0.99	-0.56	1773442.58	14582257.57	40°09'05.397"N	80°31'26.188"W	1.14	209.280	0.08	-0.08	1.24	
425.00	0.300	219.600	425.00	0.99	-1.10	-0.64	1773442.50	14582257.46	40°09'05.396"N	80°31'26.189"W	1.27	210.085	0.11	0.04	19.20	
450.00	0.400	206.000	450.00	1.10	-1.23	-0.72	1773442.42	14582257.33	40°09'05.395"N	80°31'26.190"W	1.42	210.271	0.52	0.40	-54.40	
475.00	0.450	216.760	475.00	1.24	-1.38	-0.81	1773442.33	14582257.18	40°09'05.394"N	80°31'26.191"W	1.60	210.435	0.38	0.20	43.04	
500.00	0.340	221.170	500.00	1.36	-1.52	-0.92	1773442.22	14582257.04	40°09'05.392"N	80°31'26.193"W	1.77	211.231	0.46	-0.44	17.64	
525.00	0.250	213.180	525.00	1.44	-1.62	-1.00	1773442.14	14582256.94	40°09'05.391"N	80°31'26.194"W	1.90	211.672	0.39	-0.36	-31.96	
550.00	0.200	206.530	550.00	1.52	-1.70	-1.05	1773442.09	14582256.86	40°09'05.390"N	80°31'26.194"W	2.00	211.601	0.23	-0.20	-26.60	
575.00	0.320	221.100	574.99	1.60	-1.79	-1.11	1773442.03	14582256.77	40°09'05.390"N	80°31'26.195"W	2.11	211.809	0.54	0.48	58.28	
600.00	0.190	233.890	599.99	1.67	-1.87	-1.19	1773441.95	14582256.69	40°09'05.389"N	80°31'26.196"W	2.22	212.502	0.56	-0.52	51.16	
625.00	0.230	213.730	624.99	1.72	-1.94	-1.25	1773441.89	14582256.62	40°09'05.388"N	80°31'26.197"W	2.31	212.904	0.33	0.16	-80.64	
650.00	0.270	233.420	649.99	1.79	-2.01	-1.33	1773441.81	14582256.55	40°09'05.387"N	80°31'26.198"W	2.41	213.412	0.38	0.16	78.76	
675.00	0.140	249.940	674.99	1.82	-2.06	-1.41	1773441.74	14582256.50	40°09'05.387"N	80°31'26.199"W	2.49	214.292	0.57	-0.52	66.08	
700.00	0.530	110.530	699.99	1.88	-2.11	-1.33	1773441.81	14582256.45	40°09'05.386"N	80°31'26.198"W	2.49	212.120	2.57	1.56	-557.64	
725.00	1.320	97.980	724.99	2.02	-2.19	-0.93	1773442.21	14582256.37	40°09'05.386"N	80°31'26.193"W	2.38	203.037	3.24	3.16	-50.20	
750.00	1.940	94.050	749.98	2.20	-2.26	-0.22	1773442.92	14582256.30	40°09'05.385"N	80°31'26.184"W	2.27	185.677	2.52	2.48	-15.72	
775.00	2.600	93.620	774.96	2.42	-2.33	0.76	1773443.90	14582256.23	40°09'05.384"N	80°31'26.171"W	2.45	161.847	2.64	2.64	-1.72	

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# Actual Wellpath Report

Roy Riggle OHI 6H AWP Proj: 12429 MD  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

WELLPATH DATA (162 stations)															
MD (ft)	Inclination [°]	Azimuth [°]	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist (ft)	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
800.00	3.290	94.630	799.93	2.71	-2.42	2.04	1773445.18	14582256.14	40°09'05.383"N	80°31'26.154"W	3.17	139.828	2.77	2.76	4.04
825.00	3.870	99.120	824.88	3.14	-2.61	3.59	1773446.73	14582255.95	40°09'05.381"N	80°31'26.134"W	4.44	126.032	2.58	2.32	17.96
837.00	4.040	98.930	836.85	3.39	-2.74	4.41	1773447.55	14582255.82	40°09'05.380"N	80°31'26.124"W	5.19	121.881	1.42	1.42	-1.58
924.00	5.610	97.790	923.54	5.55	-3.79	11.65	1773454.79	14582254.77	40°09'05.369"N	80°31'26.031"W	12.25	108.042	1.81	1.80	-1.31
972.00	6.010	107.850	971.29	7.35	-4.88	16.37	1773459.50	14582253.68	40°09'05.358"N	80°31'25.970"W	17.08	106.613	2.28	0.83	20.96
1065.00	5.600	97.620	1063.82	10.83	-6.98	25.50	1773468.63	14582251.59	40°09'05.337"N	80°31'25.853"W	26.44	105.303	1.19	-0.44	-11.00
1157.00	5.930	112.310	1155.36	14.57	-9.38	34.35	1773477.47	14582249.19	40°09'05.313"N	80°31'25.739"W	35.60	105.270	1.64	0.36	15.97
1250.00	6.640	118.250	1247.80	20.31	-13.75	43.53	1773486.65	14582244.82	40°09'05.269"N	80°31'25.621"W	45.65	107.526	1.03	0.76	6.39
1337.00	6.450	133.210	1334.24	27.20	-19.47	51.52	1773494.64	14582239.09	40°09'05.212"N	80°31'25.518"W	55.08	110.705	1.97	-0.22	17.20
1430.00	6.640	150.080	1426.64	36.34	-27.71	58.01	1773501.13	14582230.86	40°09'05.130"N	80°31'25.435"W	64.29	115.533	2.07	0.20	18.14
1523.00	6.340	164.480	1519.05	46.46	-37.32	62.07	1773505.18	14582221.26	40°09'05.035"N	80°31'25.384"W	72.42	121.017	1.77	-0.32	15.48
1616.00	4.560	198.060	1611.65	54.86	-45.78	62.29	1773505.41	14582212.79	40°09'04.952"N	80°31'25.382"W	77.31	126.315	3.85	-1.91	36.11
1709.00	5.160	244.500	1704.35	59.35	-51.10	57.37	1773500.49	14582207.48	40°09'04.899"N	80°31'25.445"W	76.83	131.692	4.16	0.65	49.94
1798.00	8.260	256.880	1792.73	60.97	-54.28	47.53	1773490.65	14582204.30	40°09'04.868"N	80°31'25.572"W	72.15	138.791	3.82	3.48	13.91
1891.00	11.660	264.120	1884.32	60.97	-56.76	31.67	1773474.80	14582201.83	40°09'04.845"N	80°31'25.777"W	64.99	150.838	3.89	3.66	7.78
1984.00	12.040	259.970	1975.34	60.67	-59.41	12.77	1773455.90	14582199.17	40°09'04.819"N	80°31'26.020"W	60.77	167.869	1.00	0.41	-4.46
2021.00	11.340	259.330	2011.57	60.86	-60.75	5.39	1773448.53	14582197.83	40°09'04.807"N	80°31'26.115"W	60.99	174.926	1.92	-1.89	-1.73
2096.00	10.860	256.100	2085.17	61.70	-63.82	-8.71	1773434.43	14582194.77	40°09'04.777"N	80°31'26.297"W	64.41	187.772	1.05	-0.64	-4.31
2165.00	11.740	252.500	2152.83	63.32	-67.49	-21.72	1773421.43	14582191.10	40°09'04.741"N	80°31'26.465"W	70.90	197.836	1.63	1.28	-5.22
2258.00	17.510	252.670	2242.78	66.80	-74.51	-44.11	1773399.04	14582184.08	40°09'04.673"N	80°31'26.754"W	86.59	210.628	6.20	6.20	0.18
2351.00	19.950	251.380	2330.85	71.53	-83.74	-72.51	1773370.66	14582174.85	40°09'04.584"N	80°31'27.120"W	110.77	220.888	2.66	2.62	-1.39
2443.00	21.320	253.920	2416.95	76.28	-93.39	-103.45	1773339.73	14582165.21	40°09'04.490"N	80°31'27.519"W	139.37	227.928	1.78	1.49	2.76
2536.00	19.000	251.240	2504.25	80.99	-102.94	-134.04	1773309.15	14582155.66	40°09'04.397"N	80°31'27.914"W	169.01	232.476	2.68	-2.49	-2.88
2629.00	16.520	253.080	2592.81	85.43	-111.66	-161.03	1773282.17	14582146.94	40°09'04.312"N	80°31'28.262"W	195.95	235.262	2.73	-2.67	1.98
2721.00	15.020	254.290	2681.34	88.68	-118.69	-185.02	1773258.19	14582139.91	40°09'04.244"N	80°31'28.571"W	219.82	237.319	1.67	-1.63	1.32
2814.00	13.460	256.360	2771.48	91.00	-124.51	-207.14	1773236.08	14582134.10	40°09'04.188"N	80°31'28.857"W	241.68	238.990	1.76	-1.68	2.23
2907.00	13.510	256.830	2861.92	92.71	-129.54	-228.23	1773214.99	14582129.07	40°09'04.139"N	80°31'29.129"W	262.43	240.423	0.13	0.05	0.51
2999.00	13.790	256.320	2951.32	94.43	-134.58	-249.35	1773193.88	14582124.03	40°09'04.091"N	80°31'29.401"W	283.35	241.644	0.33	0.30	-0.55
3092.00	13.590	255.080	3041.68	96.50	-140.01	-270.68	1773172.56	14582118.60	40°09'04.038"N	80°31'29.676"W	304.75	242.649	0.38	-0.22	-1.33
3185.00	13.440	253.640	3132.10	99.05	-145.87	-291.65	1773151.64	14582112.75	40°09'03.981"N	80°31'29.946"W	326.06	243.425	0.40	-0.16	-1.55

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

WELLPATH DATA (162 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
3280.00	13.290	251.000	3224.53	102.41	-152.53	-312.53	1773130.73	14582106.08	40°09'03.916"N	80°31'30.216"W	347.76	243.984	0.66	-0.16	-2.78
3373.00	14.500	252.100	3314.81	106.11	-159.59	-333.71	1773109.55	14582099.03	40°09'03.848"N	80°31'30.489"W	369.91	244.441	1.33	1.30	1.18
3466.00	15.020	249.600	3404.74	110.33	-167.37	-356.09	1773087.19	14582091.25	40°09'03.772"N	80°31'30.778"W	393.46	244.825	0.88	0.56	-2.69
3558.00	15.640	247.350	3493.47	115.66	-176.30	-378.71	1773064.58	14582082.32	40°09'03.685"N	80°31'31.070"W	417.73	245.036	0.93	0.67	-2.45
3651.00	16.310	244.670	3582.88	122.34	-186.72	-402.08	1773041.21	14582071.91	40°09'03.583"N	80°31'31.371"W	443.32	245.091	1.07	0.72	-2.88
3744.00	15.490	245.280	3672.32	129.42	-197.50	-425.16	1773018.14	14582061.14	40°09'03.478"N	80°31'31.669"W	468.80	245.084	0.90	-0.88	0.66
3837.00	15.210	248.400	3762.00	135.50	-207.18	-447.79	1772995.52	14582051.46	40°09'03.384"N	80°31'31.961"W	493.40	245.171	0.94	-0.30	3.35
3929.00	13.970	251.210	3851.04	140.06	-215.20	-469.52	1772973.80	14582043.44	40°09'03.305"N	80°31'32.242"W	516.49	245.376	1.55	-1.35	3.05
4022.00	12.470	255.200	3941.57	143.03	-221.38	-489.86	1772953.47	14582037.26	40°09'03.245"N	80°31'32.504"W	537.56	245.680	1.89	-1.61	4.29
4115.00	13.540	253.740	4032.18	145.46	-227.00	-510.02	1772933.32	14582031.65	40°09'03.191"N	80°31'32.764"W	558.25	246.007	1.20	1.15	-1.57
4207.00	14.640	250.710	4121.42	148.94	-233.85	-531.33	1772912.01	14582024.79	40°09'03.124"N	80°31'33.039"W	580.52	246.244	1.44	1.20	-3.29
4300.00	14.810	255.140	4211.36	152.30	-240.79	-553.91	1772889.44	14582017.87	40°09'03.057"N	80°31'33.330"W	603.99	246.506	1.22	0.18	4.76
4393.00	13.050	254.880	4301.63	154.67	-246.57	-575.54	1772867.82	14582012.08	40°09'03.001"N	80°31'33.609"W	626.14	246.809	1.89	-1.89	-0.28
4485.00	13.810	255.960	4391.11	156.78	-251.95	-596.22	1772847.15	14582006.71	40°09'02.949"N	80°31'33.876"W	647.27	247.092	0.87	0.83	1.17
4578.00	15.800	260.960	4481.02	157.81	-256.63	-619.50	1772823.88	14582002.03	40°09'02.904"N	80°31'34.176"W	670.55	247.498	2.54	2.14	5.38
4671.00	16.220	260.940	4570.41	157.89	-260.66	-644.83	1772798.56	14581998.00	40°09'02.865"N	80°31'34.503"W	695.52	247.990	0.45	0.45	-0.02
4764.00	15.520	256.820	4659.87	158.86	-265.55	-669.77	1772773.63	14581993.12	40°09'02.819"N	80°31'34.824"W	720.49	248.373	1.43	-0.75	-4.43
4860.00	14.790	253.720	4752.53	161.39	-271.91	-694.04	1772749.37	14581986.75	40°09'02.757"N	80°31'35.137"W	745.40	248.606	1.14	-0.76	-3.23
4952.00	13.750	251.600	4841.69	164.71	-278.65	-715.68	1772727.73	14581980.01	40°09'02.691"N	80°31'35.416"W	768.02	248.726	1.26	-1.13	-2.30
5045.00	12.920	244.780	4932.19	169.46	-286.57	-735.58	1772707.84	14581972.10	40°09'02.614"N	80°31'35.673"W	789.43	248.715	1.91	-0.89	-7.33
5138.00	14.190	245.820	5022.60	175.39	-295.67	-755.38	1772688.04	14581963.00	40°09'02.525"N	80°31'35.929"W	811.19	248.624	1.39	1.37	1.12
5231.00	15.470	252.040	5112.51	180.35	-304.17	-777.58	1772665.85	14581954.51	40°09'02.443"N	80°31'36.215"W	834.96	248.636	2.19	1.38	6.69
5323.00	15.680	253.100	5201.13	184.02	-311.56	-801.15	1772642.29	14581947.11	40°09'02.371"N	80°31'36.519"W	859.60	248.749	0.38	0.23	1.15
5416.00	15.640	250.330	5290.68	188.11	-319.44	-824.98	1772618.47	14581939.24	40°09'02.294"N	80°31'36.827"W	884.67	248.833	0.81	-0.04	-2.98
5509.00	13.720	253.990	5380.64	191.83	-326.70	-847.39	1772596.07	14581931.99	40°09'02.224"N	80°31'37.116"W	908.19	248.917	2.29	-2.06	3.94
5602.00	12.860	255.320	5471.15	194.24	-332.36	-868.00	1772575.47	14581926.32	40°09'02.169"N	80°31'37.381"W	929.46	249.048	0.98	-0.92	1.43
5695.00	13.830	249.850	5561.64	197.45	-338.82	-888.45	1772555.03	14581919.87	40°09'02.106"N	80°31'37.645"W	950.86	249.125	1.71	1.04	-5.88
5787.00	14.300	248.240	5650.88	202.13	-346.82	-909.33	1772534.16	14581911.88	40°09'02.028"N	80°31'37.915"W	973.22	249.123	0.66	0.51	-1.75
5825.00	14.260	247.900	5687.71	204.24	-350.32	-918.02	1772525.47	14581908.38	40°09'01.994"N	80°31'38.027"W	982.59	249.113	0.24	-0.11	-0.89
5876.00	14.230	248.190	5737.14	207.08	-355.01	-929.66	1772513.84	14581903.69	40°09'01.948"N	80°31'38.177"W	995.14	249.100	0.15	-0.06	0.57

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# Actual Wellpath Report

Roy Riggle OHI 6H AWP Proj: 12429MD  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

WELLPATH DATA (162 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5964.00	14.320	237.300	5822.44	213.89	-364.91	-948.86	1772494.64	14581893.79	40°09'01.851"N	80°31'38.425"W	1016.61	248.965	3.05	0.10	-12.37
6062.00	17.950	204.630	5916.75	231.42	-385.23	-965.39	1772478.11	14581873.48	40°09'01.651"N	80°31'38.639"W	1039.42	248.246	9.82	3.70	-33.34
6154.00	22.890	193.470	6002.98	259.81	-415.55	-975.48	1772468.03	14581843.17	40°09'01.352"N	80°31'38.771"W	1060.30	246.926	6.81	5.37	-12.13
6247.00	26.930	189.520	6087.31	296.54	-453.93	-983.18	1772460.34	14581804.81	40°09'00.973"N	80°31'38.873"W	1082.91	245.218	4.70	4.34	-4.25
6340.00	34.010	182.940	6167.44	342.05	-500.74	-988.00	1772455.51	14581758.01	40°09'00.511"N	80°31'38.938"W	1107.65	243.123	8.41	7.61	-7.08
6433.00	42.950	177.390	6240.19	399.13	-558.50	-987.90	1772455.62	14581700.27	40°08'59.940"N	80°31'38.941"W	1134.84	240.519	10.30	9.61	-5.97
6526.00	48.050	174.530	6305.36	465.20	-624.63	-983.15	1772460.36	14581634.17	40°08'59.287"N	80°31'38.884"W	1164.80	237.571	5.91	5.48	-3.08
6618.00	56.340	170.410	6361.72	537.78	-696.58	-973.49	1772470.02	14581562.24	40°08'58.575"N	80°31'38.765"W	1197.05	234.414	9.68	9.01	-4.48
6711.00	66.820	167.650	6405.93	619.39	-776.74	-957.86	1772485.65	14581482.12	40°08'57.782"N	80°31'38.569"W	1233.21	230.961	11.57	11.27	-2.97
6804.00	72.860	165.620	6437.97	706.38	-861.62	-937.66	1772505.84	14581397.26	40°08'56.942"N	80°31'38.315"W	1273.42	227.420	6.81	6.49	-2.18
6896.00	77.250	164.850	6461.69	794.77	-947.55	-915.00	1772528.48	14581311.37	40°08'56.092"N	80°31'38.029"W	1317.23	223.999	4.84	4.77	-0.84
6989.00	85.900	164.000	6475.30	886.06	-1036.09	-890.32	1772553.16	14581222.87	40°08'55.216"N	80°31'37.717"W	1366.07	220.673	9.34	9.30	-0.91
7082.00	90.220	163.970	6478.45	978.26	-1125.40	-864.68	1772578.79	14581133.59	40°08'54.332"N	80°31'37.393"W	1419.23	217.536	4.65	4.65	-0.03
7175.00	89.780	160.980	6478.45	1070.20	-1214.08	-836.68	1772606.78	14581044.95	40°08'53.454"N	80°31'37.039"W	1474.46	214.573	3.25	-0.47	-3.22
7267.00	89.510	159.200	6479.02	1160.50	-1300.57	-805.35	1772638.09	14580958.48	40°08'52.598"N	80°31'36.641"W	1529.73	211.767	1.96	-0.29	-1.93
7360.00	88.430	158.130	6480.69	1251.29	-1387.18	-771.52	1772671.91	14580871.91	40°08'51.740"N	80°31'36.211"W	1587.30	209.082	1.63	-1.16	-1.15
7453.00	88.460	157.160	6483.21	1341.70	-1473.16	-736.17	1772707.25	14580785.96	40°08'50.888"N	80°31'35.762"W	1646.86	206.552	1.04	0.03	-1.04
7546.00	88.340	156.780	6485.81	1431.85	-1558.72	-699.80	1772743.61	14580700.44	40°08'50.041"N	80°31'35.299"W	1708.60	204.178	0.43	-0.13	-0.41
7639.00	88.210	155.340	6488.61	1521.62	-1643.67	-662.08	1772781.31	14580615.51	40°08'49.200"N	80°31'34.820"W	1772.01	201.940	1.55	-0.14	-1.55
7731.00	88.460	157.110	6491.28	1610.49	-1727.83	-625.01	1772818.37	14580531.39	40°08'48.366"N	80°31'34.348"W	1837.40	199.887	1.94	0.27	1.92
7824.00	88.370	158.560	6493.86	1700.97	-1813.92	-589.93	1772853.43	14580445.33	40°08'47.513"N	80°31'33.902"W	1907.44	198.016	1.56	-0.10	1.56
7917.00	88.370	159.090	6496.50	1791.80	-1900.60	-556.35	1772887.00	14580358.68	40°08'46.655"N	80°31'33.476"W	1980.36	196.316	0.57	0.00	0.57
8009.00	90.520	163.220	6497.39	1882.38	-1987.65	-526.65	1772916.69	14580271.67	40°08'45.793"N	80°31'33.099"W	2056.23	194.840	5.06	2.34	4.49
8102.00	91.660	165.270	6495.62	1974.69	-2077.13	-501.40	1772941.93	14580182.22	40°08'44.908"N	80°31'32.780"W	2136.79	193.571	2.52	1.23	2.20
8195.00	91.200	163.360	6493.30	2067.01	-2166.63	-476.27	1772967.05	14580092.75	40°08'44.022"N	80°31'32.463"W	2218.36	192.398	2.11	-0.49	-2.05
8288.00	90.400	159.490	6492.00	2158.66	-2254.76	-446.65	1772996.66	14580004.66	40°08'43.149"N	80°31'32.088"W	2298.58	191.205	4.25	-0.86	-4.16
8380.00	90.520	158.800	6491.26	2248.65	-2340.73	-413.90	1773029.40	14579918.72	40°08'42.298"N	80°31'31.672"W	2377.04	190.028	0.76	0.13	-0.75
8473.00	90.000	158.090	6490.84	2339.39	-2427.23	-379.73	1773063.55	14579832.26	40°08'41.442"N	80°31'31.238"W	2456.75	188.892	0.95	-0.56	-0.76
8566.00	90.060	156.830	6490.79	2429.76	-2513.12	-344.09	1773099.19	14579746.40	40°08'40.591"N	80°31'30.785"W	2536.57	187.796	1.36	0.06	-1.35
8658.00	89.510	156.370	6491.14	2518.82	-2597.55	-307.55	1773135.71	14579662.00	40°08'39.755"N	80°31'30.320"W	2615.70	186.752	0.78	-0.60	-0.50

WV Department of  
Environmental Protection

OCT 11 2018

Office of Oil and Gas



# Actual Wellpath Report

Roy Riggle OHI 6H AWP Proj: 12429'MD  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

WELLPATH DATA (162 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
8751.00	89.570	157.220	6491.89	2608.93	-2683.03	-270.91	1773172.34	14579576.56	40°08'38.908"N	80°31'29.854"W	2696.67	185.766	0.92	0.06	0.91
8844.00	89.480	156.510	6492.66	2699.07	-2768.54	-234.37	1773208.86	14579491.07	40°08'38.061"N	80°31'29.389"W	2778.45	184.839	0.77	-0.10	-0.76
8937.00	90.120	157.010	6492.98	2789.17	-2854.00	-197.67	1773245.54	14579405.65	40°08'37.215"N	80°31'28.923"W	2860.83	183.962	0.87	0.69	0.54
9029.00	89.200	156.690	6493.53	2878.33	-2938.59	-161.50	1773281.70	14579321.10	40°08'36.377"N	80°31'28.463"W	2943.02	183.146	1.06	-1.00	-0.35
9122.00	88.740	159.350	6495.20	2968.89	-3024.80	-126.70	1773316.48	14579234.91	40°08'35.523"N	80°31'28.021"W	3027.46	182.399	2.90	-0.49	2.86
9215.00	89.420	159.870	6496.69	3060.01	-3111.96	-94.31	1773348.87	14579147.78	40°08'34.660"N	80°31'27.610"W	3113.39	181.736	0.92	0.73	0.56
9307.00	89.820	158.740	6497.30	3150.06	-3198.03	-61.80	1773381.37	14579061.76	40°08'33.808"N	80°31'27.197"W	3198.62	181.107	1.30	0.43	-1.23
9401.00	89.260	161.400	6498.06	3242.31	-3286.38	-29.76	1773413.39	14578973.43	40°08'32.933"N	80°31'26.790"W	3286.52	180.519	2.89	-0.60	2.83
9493.00	89.320	161.880	6499.20	3333.05	-3373.69	-0.78	1773442.36	14578886.15	40°08'32.069"N	80°31'26.423"W	3373.69	180.013	0.53	0.07	0.52
9586.00	89.170	163.140	6500.42	3424.99	-3462.39	27.17	1773470.30	14578797.50	40°08'31.191"N	80°31'26.070"W	3462.49	179.550	1.36	-0.16	1.35
9678.00	89.170	166.320	6501.76	3516.40	-3551.12	51.39	1773494.51	14578708.80	40°08'30.313"N	80°31'25.764"W	3551.49	179.171	3.46	0.00	3.46
9771.00	89.510	164.050	6502.83	3608.89	-3641.01	75.17	1773518.28	14578618.94	40°08'29.423"N	80°31'25.464"W	3641.79	178.817	2.47	0.37	-2.44
9864.00	89.630	163.890	6503.53	3701.17	-3730.39	100.85	1773543.95	14578529.59	40°08'28.538"N	80°31'25.139"W	3731.76	178.451	0.22	0.13	-0.17
9957.00	89.420	164.420	6504.30	3793.48	-3819.86	126.24	1773569.33	14578440.16	40°08'27.653"N	80°31'24.819"W	3821.94	178.107	0.61	-0.23	0.57
10050.00	89.720	162.400	6504.99	3885.63	-3908.98	152.79	1773595.87	14578351.07	40°08'26.771"N	80°31'24.483"W	3911.96	177.762	2.20	0.32	-2.17
10143.00	89.850	159.630	6505.34	3977.18	-3996.91	183.04	1773626.11	14578263.18	40°08'25.900"N	80°31'24.099"W	4001.10	177.378	2.98	0.14	-2.98
10235.00	89.940	158.940	6505.51	4067.23	-4082.96	215.58	1773658.64	14578177.16	40°08'25.048"N	80°31'23.686"W	4088.65	176.978	0.76	0.10	-0.75
10328.00	89.850	158.460	6505.68	4158.06	-4169.61	249.37	1773692.41	14578090.54	40°08'24.190"N	80°31'23.257"W	4177.06	176.577	0.53	-0.10	-0.52
10421.00	90.000	156.950	6505.80	4248.52	-4255.65	284.65	1773727.68	14578004.53	40°08'23.338"N	80°31'22.809"W	4265.16	176.173	1.63	0.16	-1.62
10514.00	90.120	155.330	6505.71	4338.36	-4340.70	322.26	1773765.28	14577919.51	40°08'22.496"N	80°31'22.331"W	4352.65	175.754	1.75	0.13	-1.74
10607.00	90.150	154.950	6505.49	4427.77	-4425.09	361.36	1773804.36	14577835.16	40°08'21.660"N	80°31'21.833"W	4439.82	175.331	0.41	0.03	-0.41
10700.00	89.970	155.330	6505.39	4517.18	-4509.47	400.46	1773843.45	14577750.81	40°08'20.824"N	80°31'21.335"W	4527.21	174.925	0.45	-0.19	0.41
10792.00	89.880	159.640	6505.51	4606.57	-4594.43	435.68	1773878.65	14577665.88	40°08'19.982"N	80°31'20.888"W	4615.05	174.583	4.69	-0.10	4.68
10885.00	90.770	159.950	6504.98	4697.76	-4681.71	467.80	1773910.76	14577578.64	40°08'19.118"N	80°31'20.480"W	4705.02	174.294	1.01	0.96	0.33
10977.00	90.250	161.350	6504.16	4788.23	-4768.51	498.28	1773941.23	14577491.87	40°08'18.259"N	80°31'20.094"W	4794.47	174.035	1.62	-0.57	1.52
11070.00	90.280	163.040	6503.73	4880.10	-4857.05	526.72	1773969.65	14577403.37	40°08'17.382"N	80°31'19.734"W	4885.52	173.811	1.82	0.03	1.82
11163.00	90.280	166.600	6503.28	4972.52	-4946.79	551.06	1773993.99	14577313.66	40°08'16.494"N	80°31'19.427"W	4977.39	173.644	3.83	0.00	3.83
11256.00	90.220	166.470	6502.87	5065.23	-5037.23	572.72	1774015.64	14577223.25	40°08'15.599"N	80°31'19.154"W	5069.68	173.513	0.15	-0.06	-0.14
11348.00	90.220	164.830	6502.52	5156.80	-5126.36	595.52	1774038.43	14577134.16	40°08'14.717"N	80°31'18.867"W	5160.83	173.374	1.78	0.00	-1.78
11441.00	90.030	168.250	6502.32	5249.49	-5216.79	617.16	1774060.07	14577043.76	40°08'13.823"N	80°31'18.594"W	5253.17	173.253	3.68	-0.20	3.68



REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

WELLPATH DATA (162 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
11534.00	90.060	168.380	6502.24	5342.38	-5307.86	636.00	1774078.90	14576952.73	40°08'12.922"N	80°31'18.358"W	5345.83	173.167	0.14	0.03	0.14
11626.00	90.060	163.170	6502.15	5433.95	-5397.01	658.60	1774101.49	14576863.61	40°08'12.039"N	80°31'18.073"W	5437.04	173.043	5.66	0.00	-5.66
11719.00	90.120	158.530	6502.00	5525.44	-5484.84	689.10	1774131.97	14576775.82	40°08'11.170"N	80°31'17.687"W	5527.96	172.839	4.99	0.06	-4.99
11812.00	90.000	155.050	6501.90	5615.54	-5570.30	725.74	1774168.61	14576690.39	40°08'10.323"N	80°31'17.221"W	5617.38	172.577	3.74	-0.13	-3.74
11905.00	89.510	154.420	6502.30	5704.76	-5654.40	765.44	1774208.28	14576606.32	40°08'09.490"N	80°31'16.716"W	5705.97	172.291	0.86	-0.53	-0.68
11997.00	89.480	154.760	6503.11	5792.96	-5737.50	804.91	1774247.74	14576523.25	40°08'08.667"N	80°31'16.213"W	5793.68	172.014	0.37	-0.03	0.37
12090.00	89.570	155.770	6503.88	5882.42	-5821.96	843.82	1774286.64	14576438.82	40°08'07.830"N	80°31'15.718"W	5882.79	171.753	1.09	0.10	1.09
12182.00	89.510	157.580	6504.62	5971.51	-5906.44	880.25	1774323.05	14576354.38	40°08'06.993"N	80°31'15.255"W	5971.67	171.523	1.97	-0.07	1.97
12275.00	89.540	158.190	6505.39	6062.04	-5992.59	915.26	1774358.05	14576268.26	40°08'06.140"N	80°31'14.810"W	6062.08	171.316	0.66	0.03	0.66
12368.00	89.200	158.390	6506.42	6152.72	-6078.99	949.66	1774392.43	14576181.89	40°08'05.285"N	80°31'14.373"W	6152.72	171.121	0.42	-0.37	0.22
12404.00	89.140	157.760	6506.94	6187.79	-6112.38	963.10	1774405.87	14576148.51	40°08'04.954"N	80°31'14.202"W	6187.79	171.046	1.76	-0.17	-1.75
12429.00	89.140	157.760	6507.31	6212.11	-6135.52	972.56	1774415.33	14576125.38	40°08'04.725"N	80°31'14.082"W	6212.12	170.993	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Roy Riggle OHI 6H AWB Ref Wellpath: Roy Riggle OHI 6H AWP Proj: 12429'MD									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	26.00	126.00	100.00	26.00	126.00	0.00	0.00	-0.10	-0.05
17.5in Open Hole	126.00	699.00	573.00	126.00	698.99	-0.10	-0.05	-2.11	-1.33
13.375in Casing Surface	26.00	679.00	653.00	26.00	678.99	0.00	0.00	-2.06	-1.41
12.25in Open Hole	699.00	2092.00	1393.00	698.99	2081.24	-2.11	-1.33	-63.64	-7.98
9.625in Casing Intermediate	26.00	2072.00	2046.00	26.00	2061.61	0.00	0.00	-62.76	-4.28
8.75in Open Hole	2092.00	5891.00	3799.00	2081.24	5751.68	-63.64	-7.98	-356.43	-933.06
8.5in Open Hole	5891.00	12429.00	6538.00	5751.68	6507.31	-356.43	-933.06	-6135.52	972.56
5.5in Casing Production	26.00	12429.00	12403.00	26.00	6507.31	0.00	0.00	-6135.52	972.56

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Roy Riggle 6H LP Rev-7	6480.00	-1052.19	-876.38	1772567.09	14581206.77	40°08'55.056"N	80°31'37.539"W	point
Roy Riggle 6H BHL Rev-5	6510.00	-6150.76	962.14	1774404.91	14576110.15	40°08'04.575"N	80°31'14.217"W	point

WELLPATH COMPOSITION - Ref Wellbore: Roy Riggle OHI 6H AWB      Ref Wellpath: Roy Riggle OHI 6H AWP Proj: 12429'MD				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	575.00	Gyrodata standard - Continuous gyro	02_Gyrodata Cont. Gyro <17.5"> (100'-575')	Roy Riggle OHI 6H AWB
575.00	837.00	Gyrodata standard - Continuous gyro	03_Gyrodata Cont. Gyro <12.25"> (575')(600'-837')	Roy Riggle OHI 6H AWB
837.00	2021.00	BHI NaviTrak (Axial)	04_APS EM <12.25"> (837')(924'-2021')	Roy Riggle OHI 6H AWB
2021.00	5825.00	BHI NaviTrak (Axial)	05_APS EM <8.75"> (2021')(2096'-5825')	Roy Riggle OHI 6H AWB
5825.00	12404.00	BHI AutoTrak Curve (Short)	06_BH AT Curve <8.5">(5876'-12404')	Roy Riggle OHI 6H AWB
12404.00	12429.00	Blind Drilling (std)	Projection to bit	Roy Riggle OHI 6H AWB

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 Environmental Protection

REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot #06
Area	Ohio County, WV	Well	Roy Riggle OHI 6H
Field	Ohio	Wellbore	Roy Riggle OHI 6H AWB
Facility	Roy Riggle OHI Pad		

COMMENTS
<p><b>Wellpath general comments</b>                      API: 47-069-00253-0000                      BH Job #: 9115912                      Rig: SDC 46                      Duration: 04/22/2018 - 05/03/2018</p>

RECEIVED  
Office of Oil and Gas  
OCT 11 2018  
WV Department of  
Environmental Protection

Latitude: 40°10'00" SURFACE HOLE 6,691'

Latitude: 40°10'00" BOTTOM HOLE 5,751'

JACKSON SURVEYING INC.

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

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

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS
TRACT SURFACE OWNER (S) / ROYALTY OWNER (R) TAX PARCEL ACRES
1 ROY RIGGLE AND DEBRA R. RIGGLE (S/R) 03-L6-0014-0000 171.18125

LINE BEARING DISTANCE DESCRIPTION MONUMENT
L1 N 43°24'11" E 1961.12' SHL TO LANDMARK
L2 S 80°34'02" W 1024.58' SHL TO LANDMARK

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,444,681.297
EASTING: 540,546.543

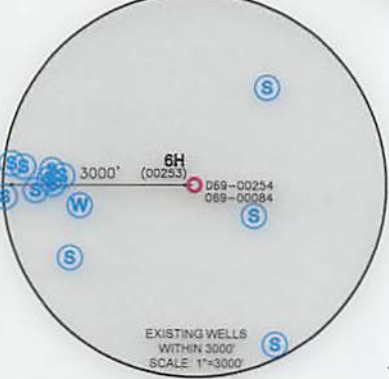
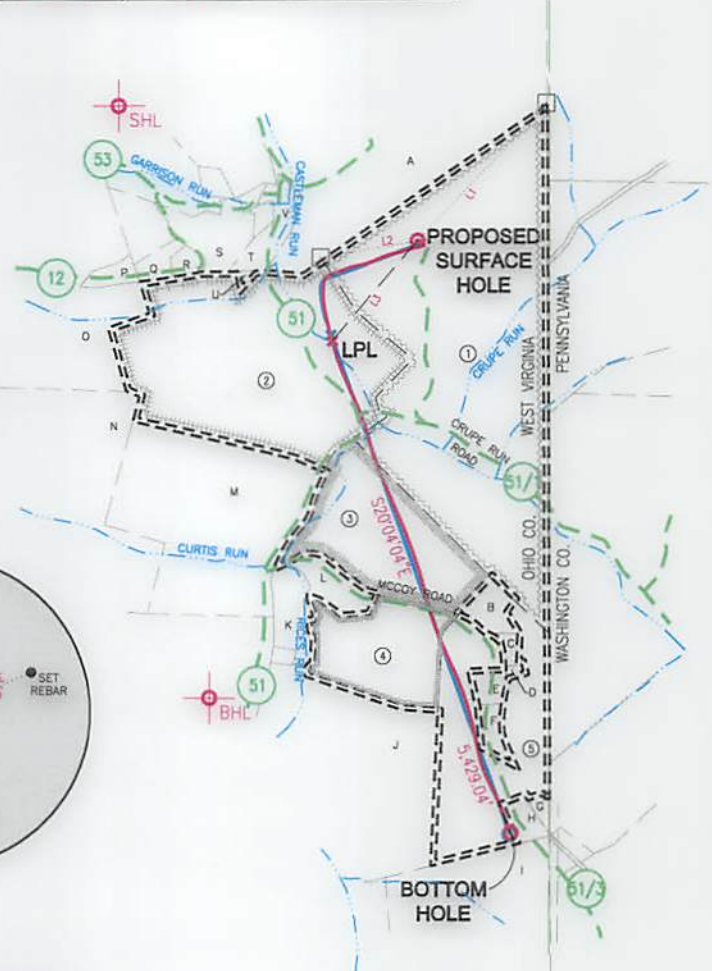
LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,444,365.490
EASTING: 540,275.169

BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,442,811.181
EASTING: 540,842.976

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,444,681.253
EASTING: 540,546.584

LANDING POINT (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,444,383.527
EASTING: 540,271.303

BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,442,807.259
EASTING: 540,839.698



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. NO WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 250 FEET OF PROPOSED WELL.

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.



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 ELEVATION: GRADE GPS (NAVD 88, US FT)

COMPANY: SWN Production Company, LLC
ROY RIGGLE OHI
OPERATOR'S WELL #: 6H
API WELL #: 47 STATE COUNTY PERMIT

WELL TYPE: OIL [ ] WASTE DISPOSAL [ ] PRODUCTION [X] DEEP [ ] GAS [X] LIQUID INJECTION [ ] STORAGE [ ] SHALLOW [X]
WATERSHED: CASTLEMAN RUN
DISTRICT: LIBERTY COUNTY: OHIO
SURFACE OWNER: ROY & DEBRA R. RIGGLE
OIL & GAS ROYALTY OWNER: ROY & DEBRA R. RIGGLE
ELEVATION: 1,251.9'±
QUADRANGLE: BETHANY, WV-PA
ACREAGE: ±171.18

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

LEGEND: PROPOSED SURFACE HOLE / BOTTOM HOLE, EXISTING / PRODUCING WELLHEAD, LPL x LANDING POINT LOCATION, EXISTING WATER WELL, EXISTING SPRING, SURVEYED BOUNDARY, DRILLING UNIT, LEASE BOUNDARY, ASDRILLED PATH, PROPOSED PATH
REVISIONS:
DATE: 09-19-2018
DRAWN BY: N. MANO
SCALE: 1" = 2000'
DRAWING NO:
WELL LOCATION PLAT

МЕМБЕРСКА ГЕБЕЛЕНСЬКА № 18 30.18 01.2325M 2/1-05-18 01/2M/BOA БИРТЕ/МЕТТ БУЛЪ /БН/БАУ/ЗМА БИРТЕ/БН МЕТТ БУЛЪ 8-18-18 DMC БРОБЕНСЬКА ИМБЕРС 3201182212 БУД ID 30011821M

EXCISING ZERING  
EXCISING WATER WELL  
ГЪЛЪ \*  
EXCISING \ БРОДИНСКИ МЕТТЕНЮ  
EXCISING SURFACE HOLE \ BOLLOW HOLE  
ГЕБЕНД:

СТА: УМЕ ГЕМ  
ADDRESS: B.O. BOX 1300  
METS OFFICE: ZMI BPOДУКЦИОН КОМПАНИ ГТС  
ОБЛАСТ: АУМ ГЕМ  
ADDRESS: B.O. BOX 1300  
DESIGNATED USE: WILDLIFE WOODY

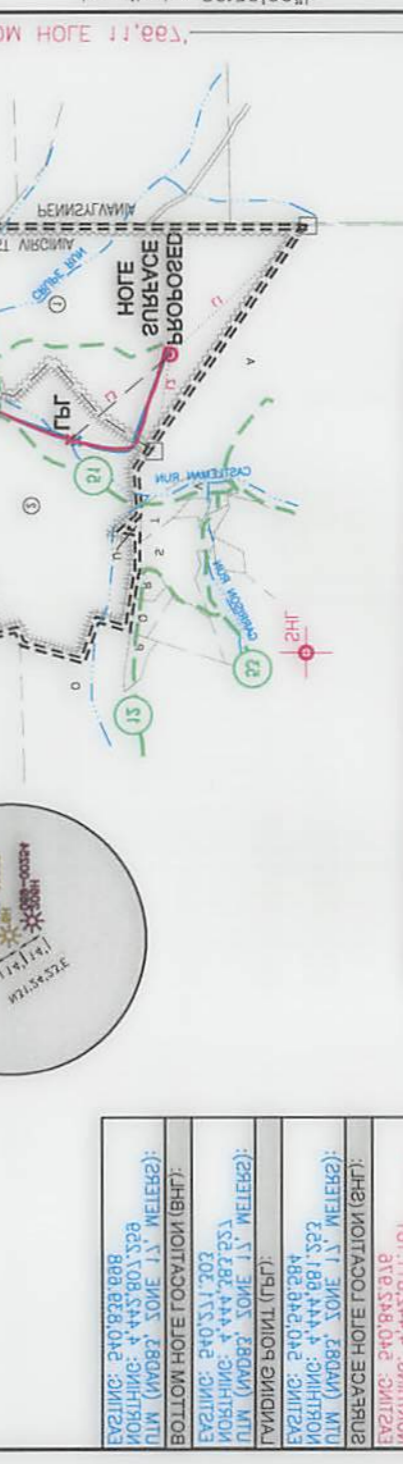
УБЕДЕЛ ПОБРАТИОН: ИАСЕТИТУ  
COINERT  
DRILL  
OIL & GAS  
DIGITAL  
WATERHEAT  
WELL TYPE: OIL  
ESTIMATED DEPTH: 8'201, ЛАД 13'458, ЛМД  
ОДИЕР ШИНСЕ  
ОДИЕР ОДИ  
ОДИЕР ОДИ

WELL DEPTH: 8'201, LAD 13'458, LMD  
DESIGNATED USE: WILDLIFE WOODY  
WELL TYPE: OIL  
WATERHEAT  
WELL TYPE: OIL

WELL TYPE: OIL  
WATERHEAT  
WELL TYPE: OIL

PROFESSIONAL SURVEYORS  
STATE OF MISSOURI  
NO. 108  
ZMI  
BPOДУКЦИОН ГТС  
BPOДУКЦИОН КОМПАНИ

WELL RESTRICTIONS  
1. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
2. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
3. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
4. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
5. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
6. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
7. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
8. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
9. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ  
10. NO OCCURRED DIMENSIONS > 3200 20 L1' ИЛИНИ 652 LEEF ОЛ



LINE	BEARING	DISTANCE	SURFACE LENGTH	2HG IO ГЪ
G2	2 40.40.51. W	1288.08	1842.35.	2HG IO ГЪ
G3	2 80.24.05. W	1054.98	2HG IO ГИДИМАК	2HG IO ГИДИМАК
G4	И 42.34.11. E	1881.15.	2HG IO ГИДИМАК	2HG IO ГИДИМАК
G5	BEARING <th>DISTANCE</th> <th>DESCRIPTION</th> <th>COMPONENT</th>	DISTANCE	DESCRIPTION	COMPONENT



LINE	BEARING	DISTANCE	DESCRIPTION	COMPONENT
2	WEST	WEST	WEST	WEST
3	WEST	WEST	WEST	WEST
4	WEST	WEST	WEST	WEST
5	WEST	WEST	WEST	WEST
6	WEST	WEST	WEST	WEST
7	WEST	WEST	WEST	WEST
8	WEST	WEST	WEST	WEST
9	WEST	WEST	WEST	WEST
10	WEST	WEST	WEST	WEST
11	WEST	WEST	WEST	WEST
12	WEST	WEST	WEST	WEST
13	WEST	WEST	WEST	WEST
14	WEST	WEST	WEST	WEST
15	WEST	WEST	WEST	WEST
16	WEST	WEST	WEST	WEST
17	WEST	WEST	WEST	WEST
18	WEST	WEST	WEST	WEST
19	WEST	WEST	WEST	WEST
20	WEST	WEST	WEST	WEST
21	WEST	WEST	WEST	WEST
22	WEST	WEST	WEST	WEST

WELL LOCATION MAP  
DISTANCE: 80.20,00"  
SURFACE HOLE 2'22.1"  
WELL LOCATION MAP  
DISTANCE: 80.20,00"  
SURFACE HOLE 8'88.1"

**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	TIMOTHY ALAN RYAN	03-L6-00004-0000	142.00
B	JASON MICHAEL & CRYSTAL LOUISE WILHELM	03-L6-00020-0006	3.71
C	SHIRLEY J. SCHLEICHER	03-L6-00020-0005	1.023
D	FRED C. SCHLEICHER & S. J. SCHLEICHER	03-L6-00020-0001	0.367
E	JACK C. KNUTH JR. & A. M. KNUTH	03-L6-00020-0003	1.07
F	JAMES T. BROUNCE, SR., & PATRICIA BROUNCE	03-L6-00020-0004	2.20
G	BRITTANY E. SMITH & DUSTIN W. HUTSON	03-L9-00019-0000	1.088
H	SCOTT A. WILHELM	03-L6-00020-0007	2.566
I	DAVID J. HALL & CYNTHIA J. HALL	03-L9-00003-0000	92.18
J	DELMAR K. LOEW & VIRGINIA G. LOEW	03-L6-00018-0002	77.073
K	LEWIS I. RODGERS	03-L6-00017-0003	8.454
L	DOUGLAS W. RODGERS	03-L6-00017-0002	5.695
M	WILLIAM I. RODGERS (LIFE) & LEWIS I. RODGERS (REMAINDER)	03-L6-00015-0000	67.40
N	HELEN L. TOMINACK & JOHN I. TOMINACK, JR.	03-L5-00010-0000	215.5
O	GARY KESTNER & TERRY KESTNER	03-L5-00009-0000	95.981
P	RICHARD C. COWAN, SR. & C.A. WILLIAMS	03-L6-00021-0000	2.219
Q	PATRICK J. MONTGOMERY & BRENDA LEE MONTGOMERY	03-L6-00011-0001	2.15
R	RICHARD M. KELLY & JEANNETTE L. KELLY	03-L6-00012-0000	1.575
S	ROBERT L. GEAR & TAMMY Y. GEAR	03-L6-00009-0000	8.98
T	JOYCE ANN STRAUSS	03-L6-00008-0000	2.1375
U	JOYCE ANN STRAUSS	03-L6-00013-0001	0.25
V	CHAD W. HIXENBAUGH	03-L6-00005-0000	3.00

REVISIONS:	COMPANY:	 	
	OPERATOR'S	ROY RIGGLE OHI	
	WELL #:	6H	
	DISTRICT:	COUNTY:	STATE:
	LIBERTY	OHIO	WV
			DATE: 09-19-2018
			DRAWN BY: N. MANO
			SCALE: N/A
			DRAWING NO:
			WELL LOCATION PLAT 2

JACKSON SURVEYING  
 INC.  
 P. O. Box 1480  
 677 W. Main St.  
 Clarksburg, WV 26302  
 304-653-2851

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	TIMOTHY ALAN RYAN	03-L8-0004-0000	142.00
B	JASON MICHAEL & CRYSTAL LOUISE WILHELM	03-L8-0020-0006	3.71
C	SHIRLEY J. SCHLEICHER	03-L8-0020-0002	1.023
D	FRED C. SCHLEICHER & S. J. SCHLEICHER	03-L8-0020-0001	0.387
E	JACK C. KNUTH JR. & A. M. KNUTH	03-L8-0020-0003	1.07
F	JAMES T. BROUNCE, SR., & PATRICIA BROUNCE	03-L8-0020-0004	2.20
G	BRITTANY E. SMITH & DUSTIN W. HUTSON	03-L9-0019-0000	1.088
H	SCOTT A. WILHELM	03-L8-0020-0007	2.88
I	DAVID J. HALL & CYNTHIA J. HALL	03-L9-0003-0000	92.18
J	DELMAR K. LOEW & VIRGINIA G. LOEW	03-L8-0018-0002	27.073
K	LEWIS I. RODGERS	03-L8-0017-0003	8.424
L	DOUGLAS W. RODGERS	03-L8-0017-0002	2.882
M	WILLIAM I. RODGERS (LIFE) & LEWIS I. RODGERS (REMAINDER)	03-L8-0012-0000	87.40
N	HELEN L. TOMINACK & JOHN I. TOMINACK, JR.	03-L2-0010-0000	212.2
O	GARY KESTNER & TERRY KESTNER	03-L2-0009-0000	92.981
P	RICHARD C. COWAN, SR. & C.A. WILLIAMS	03-L8-0021-0000	2.219
Q	PATRICK J. MONTGOMERY & BRENDA LEE MONTGOMERY	03-L8-0011-0001	2.12
R	RICHARD M. KELLY & JEANNETTE L. KELLY	03-L8-0012-0000	1.222
S	ROBERT L. GEAR & TAMMY Y. GEAR	03-L8-0009-0000	8.98
T	JOYCE ANN STRAUSS	03-L8-0008-0000	2.1222
U	JOYCE ANN STRAUSS	03-L8-0013-0001	0.22
V	CHAD W. HIXENBAUGH	03-L8-0002-0000	2.00

		COMPANY:	REVISIONS:
DATE: 09-19-2018	ROY RIGGLE OHI	OPERATOR'S	
DRAWN BY: N. MANO	OH	WELL #:	
SCALE: N/A	COUNTY: OHIO	DISTRICT:	
DRAWING NO:	STATE: WV	LIBERTY	
WELL LOCATION PLAT 2			

WEDNESDAY SEPTEMBER 19 2018 07:23AM  
 2:1-02-18 01/2WN/ROY RIGGLE/WELL PLAT 2/BH/FINAL/SWN RIGGLE OH WELL PLAT 2-18-18/DWG  
 PROPERTY NUMBER 2501182323  
 PAD ID 2001182323