

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

API 47-069-00190 County OHIO District LIBERTY
Quad VALLEY GROVE Pad Name GLENN DIDRIKSEN-OHI-PAD1 Field/Pool Name PANHANDLE
Farm name GLENN DIDRIKSEN Well Number GLENN DIDRIKSEN OHI 210
Operator (as registered with the OOG) SWN PRODUCTION COMPANY LLC
Address P.O. 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 4440478.640 Easting 534507.250
Landing Point of Curve Northing 4440491.677 Easting 535027.686
Bottom Hole Northing 4438841.157 Easting 536032.119

Elevation (ft) 1382.2 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 06/03/2015 Date drilling commenced 06/15/2015 Date drilling ceased 08/23/2015
Date completion activities began 10/26/2015 Date completion activities ceased 11/20/2015
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 232' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 775' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 663' Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N
APPROVED

NAME: Jackie Johnston
DATE: 9/22/14

SEP 16 2016
Reviewed by: _____
10/28/2016

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CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24	20	126'	N	F-25/ 94#		Y
Surface	17.5	13.375	755'	N	J-55/48#		Y
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	2330'	N	J-55/ 36#		Y
Intermediate 2							
Intermediate 3							
Production	8.75 TO 8.50	5.5	13518'	N	HCP-110/20#		Y
Tubing		2.375	6965'	N	P-110/4.70#		N
Packer type and depth set		N/A					

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	A	24	15.6	1.19	28.56	GROUT TO SURFACE	24
Surface	A	2482	15.6	1.19	2954	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	A	860	15.6	1.19	1023	35 BBLS TO SURFACE	8
Intermediate 2							
Intermediate 3							
Production	A	2670	15.6	1.23	3284	SURFACE	24
Tubing							

Drillers TD (ft) 13518'

Loggers TD (ft) 13518'

Deepest formation penetrated MARCELLUS

Plug back to (ft) NA

Plug back procedure NA

Kick off depth (ft) 5930'

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 _____

ALL CASING STRINGS RAN WITH A CENTRALIZER AT A MINIMUM OF 1 PER EVERY 3RD JOINT OF CASING

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 _____

RECEIVED
 Glenn Didriksen
 SEP 16 2015
 10/28/2016

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PERFORATION RECORD

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

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	ATTACHED					

Please insert additional pages as applicable.

RECORDED
 INDEXED
 SEP 16 2016
 10/28/2016

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PRODUCING FORMATION(S)	DEPTHS	
MARCELLUS	6425'	TVD 6957' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2034 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 2834 mcfpd Oil 278 bpd NGL _____ bpd Water 113 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	
	0		0		
		SEE ATTACHED			

Please insert additional pages as applicable.

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

Logging Company JW WIRELINE COMPANY
Address 515 N SAM HOUSTON PKWY EAST STE 640 City HOUSTON State TX Zip 77060

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

Stimulating Company DOWELL SCHLUMBERGER
Address 1121 BUSCHONG ST City HOUSTON State TX Zip 77039

Please insert additional pages as applicable.

Completed by ELIZABETH GEE Telephone 832-796-7632
Signature  Title SR. REGULATORY ANALYST Date 02/11/2016 7/15/2014

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

10/28/2016