

CB

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

Received
Office of Oil & Gas
JAN 15 2015

API 47-041-02573 County Lewis District Freeman's Creek
Quad Vadis Pad Name _____ Field/Pool Name Fink Storage
Farm name M.C. Marsh Well Number AW-90
Operator (as registered with the OOG) Dominion Transmission Inc.
Address 445 W Main St. City Clarksburg State WV Zip 26301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4326388.90 Easting 528575.97
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1002.6 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)
Brine

Date permit issued 8/12/14 (Rework) Date drilling commenced 12/03/1900 (original) Date drilling ceased 12/29/1900 (original)
Date completion activities began 10/27/2014 Date completion activities ceased 10/28/2014
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

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

Freshwater depth(s) ft NA Open mine(s) (Y/N) depths NO
Salt water depth(s) ft NA Void(s) encountered (Y/N) depths NO
Coal depth(s) ft 445-451 Cavern(s) encountered (Y/N) depths NO
Is coal being mined in area (Y/N) NO

Reviewed by:
01/23/2015

API 47-041 - 02573 Farm name M.C. Marsh Well number AW-90

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							
Surface							
Coal	7.875"	7"	1985'	existing			N
Intermediate 1	6.5"	5-1/2"	2076'	existing	K55, 17#/ft		Y
Intermediate 2							
Intermediate 3							
Production	4.892"	3-1/2"	2270.5'	NEW	J55, 9.2#/ft		Y
Tubing							
Packer type and depth set							

Comment Details circulated 3.5 bbls of cement on the 3.5" cement job, 5-1/2" csg was squeezed to surface in 1962

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							
Surface							
Coal							
Intermediate 1							
Intermediate 2		105				surface	
Intermediate 3							
Production	Class A	112/70	15.4/15.9	1.25/1.19	223.3	surface	168 hours
Tubing							

Drillers TD (ft) 2345' Loggers TD (ft) 2345'
 Deepest formation penetrated Gantz Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) _____

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 Centralizers ran on 3-1/2" tbg: 1 at shoe, 1 at top of first joint.
and top of js 2,3,4,6,9,12,15,18,21,24,27,30,30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS 60 quarts on 12/4/1940

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS 2270.5'-2345'

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Gantz</u>	<u>2296-2323</u> TVD	<u>2296-2323</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

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

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ 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		
Pittsburgh Coal	445	451	445	451	
Dunkard Sand	900	925	900	925	
Gas Sand	1227	1287	1227	1287	
Salt Sand	1314	1390	1314	1390	
Maxon	1724	1800	1724	1800	
Little Lime	1865	1883	1865	1883	
Big Lime	1895	1959	1895	1959	
Injun Sand	1959	2060	1959	2060	
Gantz Sand	2296	2322	2296	2322	gas at 2312'

Please insert additional pages as applicable.

Drilling Contractor Key Energy
Address _____ City Buckhannon State WV Zip _____

Logging Company Baker Atlas
Address _____ City Buckhannon State WV Zip _____

Cementing Company Halliburton
Address _____ City Homer City State PA Zip _____

Stimulating Company NA
Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Matthew Goralczyk Telephone 304-627-3354
Signature Matthew E Goralczyk Title Engineer III Date 12/29/2014

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry JAN 15 2015

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