

WR-35
Rev (9-11)

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

DATE: 05/13/2013
API #: 47-103-02767

Farm name: Kathy Longwell Operator Well No.: Kathy Longwell Unit 1H

LOCATION: Elevation: 1,428 ft. Quadrangle: SHL - Hundred 7.5', BHL - Littleton 7.5'

District: Church County: Wetzel
Latitude: 3,660 Feet South of 39 Deg. 40 Min. 00.0 Sec.
Longitude 10,355 Feet West of 80 Deg. 27 Min. 30 Sec.

Company: Grenadier Energy Partners, LLC

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
CT Corporation 707 Virginia Street East 15th Floor Charleston, WV 25301				
Agent: <u>Dianna Stamper</u>	<u>26"</u>	<u>40'</u>	<u>40'</u>	<u>Grouted In</u>
Inspector: <u>Derek Haught</u>	<u>16"</u>	<u>432'</u>	<u>432'</u>	<u>427 cu. ft (CTS)</u>
Date Permit Issued: <u>05/31/2012</u>	<u>11-3/4"</u>	<u>1723'</u>	<u>1723'</u>	<u>966 cu. ft (CTS)</u>
Date Well Work Commenced: <u>08/08/2012</u>	<u>8-5/8"</u>	<u>2724'</u>	<u>2724'</u>	<u>713 cu.ft (CTS)</u>
Date Well Work Completed: <u>04/05/2013</u>	<u>5-1/2"</u>	<u>14,182'</u>	<u>14,182'</u>	<u>2409 cu. ft (CTS)</u>
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>7,820'</u> (See note on Page #)				
Total Measured Depth (ft): <u>14,210'</u>				
Fresh Water Depth (ft.): <u>Est. 165'</u>				
Salt Water Depth (ft.): <u>N/A</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>N/A</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				


OPEN FLOW DATA (If more than two producing formations please include additional data on a separate sheet)

Producing formation Marcellus Shale Pay zone depth (ft) 8,463' - 14,059'
Gas: Initial open flow 8092 MCF/d Oil: Initial open flow -- Bbl/d
Final open flow -- MCF/d Final open flow -- Bbl/d
Time of open flow between initial and final tests -- Hours
Static rock Pressure 4700 psig (surface pressure) after 168 Hours

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Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.


Signature

5-14-13
Date

103.02767

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes
Photo Density-Compensated Neutron-GR, Dual Laterolog-GR, Compensated Sonic-GR

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

Perforations: Total Perforated Interval (8,463' - 14,059' MD)

Fluid: 144,557 bbl Slickwater pumped in 15 Stages

Sand: 3,322,419 lbs 100 mesh sand, 3,214,939 lbs 40/70 sand

Plug Back Details Including Plug Type and Depth(s): Cement Kickoff Plugs for Horizontal - 7,820' to 6,400' w/ 412 sx of cement (3 plugs)

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

See attachment

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Note: The Longwell 1H well had a pilot hole drilled into the Onondaga, logged, and then plugged back to kick off and drill horizontally. The TVD listed above for this report is the depth of the pilot hole. The deepest depth of the horizontal was 7,693' in the Marcellus. The TMD given is for the horizontal.

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Longwell 1H Tops		
Formation	Top	Bottom
Red Rocks	1617	n/a
Five Coals	1737	n/a
Freeport Coal	2021	n/a
Salt Sand	2143	2291
Big Lime	2291	2389
Big Injun	2389	2900
Gordon	3222	3570
Benson	5514	6698
Rhinestreet Sh	6698	7210
Sonya Sh	7215	7415
Genesee Sh	7415	7493
Geneseo Sh	7493	7527
Tully	7527	7531
Hamilton Sh	7531	7675
Marcellus Sh	7675	7721
Onondaga	7721	n/a

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