

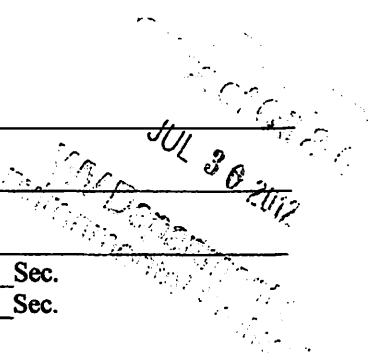
State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas  
Well Operator's Report of Well Work

DATE: 7/24/2012  
API #: 47-085-09918

Farm name: Heartwood Forestland Fund IV Operator Well No.: 2-H

LOCATION: Elevation: 907' GL Quadrangle: Macfarlan

District: Murphy County: Ritchie  
Latitude: 8,040 Feet South of 39 Deg. 7 Min. 30 Sec.  
Longitude 11,500 Feet West of 81 Deg. 10 Min. 00 Sec.



Company: Viking Intl. Resources Company, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 100 Reno, Ohio 45773	20"	80'	76'	grouted to surface (65sks.)
Agent: Lloyd Todd				
Inspector: David Cowan	13 3/8"	422'	422'	383.5 cu. ft. (325 sks.)
Date Permit Issued: 4/18/2011				
Date Well Work Commenced: 5/26/2011	9 5/8"	3,458'	3,458'	1,357 cu. ft.
Date Well Work Completed: 9/28/2011				(1,150 sks.)
Verbal Plugging: N/A	7"	4,998'	4,998'	501.5 cu. ft.
Date Permission granted on: N/A				(425 sks.)
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>	4 1/2"	N/A	8,554'	656.5 cu. ft.
Total Vertical Depth (ft): 5,778'				(521 sks.)
Total Measured Depth (ft): 8,557'				
Fresh Water Depth (ft.): Surface - 200'				
Salt Water Depth (ft.): @ 1,000'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): N/A				
Void(s) encountered (N/Y) Depth(s) N/A				

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

Producing formation Marcellus Shale Pay zone depth (ft) 5,770'  
Gas: Initial open flow 1,100 MCF/d Oil: Initial open flow -0- Bbl/d  
Final open flow 700 MCF/d Final open flow Trace Bbl/d  
Time of open flow between initial and final tests (7 days) 168 Hours  
Static rock Pressure 1,075 psig (surface pressure) after 2 Hours

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.

*Tom Smith*  
Signature

7/24/2012  
Date

11/02/2012

Were core samples taken? Yes \_\_\_\_\_ No

Were cuttings caught during drilling? Yes  No \_\_\_\_\_

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list (Offset to pilot well P #: 47-085-09833)  
 Only electric logs run were a Radial Bond Log, Gamma Ray, and Casing Collar Locator.

**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:				Marcellus Shale completed in eight stages. (Slick-Water w/Sand)			
Stage #	Perforations (75 holes/stage)	Total Fluid	Total Sand	Stage #	Perforations (75 holes/stage)	Total Fluid	Total Sand
1	8238' - 8482'	11,512 bbls.	369,545 lbs.	6	6690' - 6890'	8,800 bbls.	381,069 lbs.
2	7936' - 8160'	11,222 bbls.	387,205 lbs.	7	6386' - 6567'	8,650 bbls.	366,234 lbs.
3	7608' - 7857'	10,389 bbls.	299,553 lbs.	8	6027' - 6246'	10,565 bbls.	418,682 lbs.
4	7288' - 7534'	9,763 bbls.	395,085 lbs.				
5	6940' - 7191'	9,100 bbls.	399,092 lbs.	JOB TOTAL: Total Stages = Eight (8)			
Plug Back Details Including Plug Type and Depth(s):				Total Fluid = 80,001 bbls.			
All composite frac plugs drilled out using coil tubing unit.				Total Sand = 3,016,465 lbs.			

Formations Encountered: \_\_\_\_\_ Top Depth \_\_\_\_\_ / \_\_\_\_\_ Bottom Depth \_\_\_\_\_  
 Surface: \_\_\_\_\_

As reported above, the HF # 2-H Well is a 50' offset well to the HF # 1 well, All formations depths down to 5,200' are essentially the same.

HF # 2-H	VD	MD	(Pilot Well Formation Depths)
Top of curve	= 5,200'	5,200'	Second Salt Sand 1280' - 1438'
Top of Marcellus	= 5,730.5'	5,802'	Maxton Stray 1596' - 1644'
Bottom of Curve	= 5,771.6'	5,960'	Maxton Sandstone 1696' - 1762'
TOTAL DEPTH	= 5,766'	8,557'	Greenbrier Limestone 1762' - 1894'
			Big Injun Sandstone 1900' - 1965'
			Berea Sandstone 2322' - 2326'
			Gantz 2430' - 2444'
			Gordon (5th Sand) 2712' - 2722'
			Upper Olentangy Shale 4363' - 5352'
			Lower Olentangy Shale 5352' - 5727'
			Marcellus Shale 5727' - 5800'
			Orandaga Limestone 5800' - 5936'