

WR-35  
Rev (8-10)

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

DATE: 2-24-2011

API #: 47-4104007

Farm name: Yochym, Charles Gregory

Operator Well No.: Mullooy1

LOCATION: Elevation: 1398

Quadrangle: Roanoke

District: Courthouse

County: Lewis

Latitude: 39 Feet South of 00 Deg. 00 Min.      Sec.

Longitude 80 Feet West of 25 Deg. 00 Min.      Sec.

Company:

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Patroleum Development Corp. 120 Genesis Blvd. Bridgeport, WV 26330				
Agent: <b>Bob Williamson</b>				
Inspector: <b>Tim Bennett</b>				
Date Permit Issued: <b>12/17/2007</b>				
Date Well Work Commenced: <b>3-2-2007</b>				
Date Well Work Completed: <b>6-17-2008</b>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig				
Total Vertical Depth (ft):				
Total Measured Depth (ft):				
Fresh Water Depth (ft.): <b>None</b>				
Salt Water Depth (ft.): <b>None</b>				
Is coal being mined in area (N/Y)?				
Coal Depths (ft.): <b>595, 1072, 1100'</b>				
Void(s) encountered (N/Y) Depth(s)				

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

Producing formation 3rd Sand Pay zone depth (ft) 2758-2761'

Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow T/L @ 41 MCF/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ Hours

Static rock Pressure 380 psig (surface pressure) after 24 Hours

Second producing formation Gordon Pay zone depth (ft) 2647-52'

Gas: Initial open flow CO-mingled 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

2/25/2011  
Date

03/02/2012

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

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

Were N/Y/N Electrical, N/Y/N Mechanical, N/Y/N or Geophysical logs recorded on this well?

**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:

06-17-2008: MIRU Universal & Superior Wireline. Set RBP at 2810' and perforate 3rd SS with 9 holes at 2758-61'. RU Universal and treat well. Well broke at 2364psi then gel frac with an 80 bbl pad, 257 bbl treating fluid with 20,000# 20/40 sand. Stage sand at 1# increments from 1-4 PPG. MTP=2875psi, ATP = 2700psi. ISIP = 1558psi, 5 min = 1479 psi. RIH and set RBP at 2700'. Perforate the Gordon with 10 holes from 2647'-52'. RU Universal and break zone at 2092psi. Gel frac the Gordon with 64 bbl pad, 305 bbls treating fluid, 30,000# of 20/40 sand, and flush. Stage sand at 1PPG increments from 1-4PPG. MTP = 2884psi, ATP = 2623psi. SD, ISIP = 1654psi, 5min SIP = 1576 psi. RDMO.

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

06-18-2008: RU Arvilla Well Service and sand pump to 2700'. Retrieve 1st plug, and RIH and hit sand at 2795'. Sand pump to 2810' and retrieve 2nd plug. Clean well to original TD 4740' and remove frac valve and install production valve and turn to production. RDMO.

06-19-2008: Turn well in line with 24hr SIP = 380psi and flowing 41 MCFD into pipeline.

Mullooly #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1st	Benson	11(4725-4727.5)	100	450	500	63.6
2nd	Balltown	10(3663-3669)	100	450	750	65.6
3rd	Balltown	11(3576-3578.5)	100	450	750	36.4

W E L L L O G

FORMATION

TOP FEET BOTTOM FEET

KB - GL	0	10
sand, shale, RR	10	1924
Little Lime	1924	1936
sand, shale	1936	1979
Big Lime	1979	2102
Big Injun	2102	2153
sand, shale	2153	2354
Gantz	2354	2399
sand, shale	2399	2439
50 ft	2439	2504
sand, shale	2504	2531
30 ft	2531	2574
sand, shale	2574	2588
Gordon	2588	2651
sand, shale	2651	2749
3rd	2749	2770
sand, shale	2770	2927
5th	2927	2979
sand, shale	2979	3286
Speechley	3286	3467
sand, shale	3467	3531
Balltown	3531	3800
sand, shale	3800	3854
Bradford	3854	3983
sand, shale	3983	4505
Riley	4505	4590
sand, shale	4590	4704
Benson	4704	4741
sand, shale	4741	4844
	4844	4844
		4842

REMARKS: FRESH & SALT  
WATER, COAL, OIL & GAS

Coal 595-598; 693-695  
Coal 1072-1075; 1100-1102

gas chk @ 2005' No Show  
gas chk @ 2226' No Show

gas chk @ 2697' 10\10-1"H2O

gas chk @ 2916' 10\10-1"H2O

gas chk @ 3291' 10\10-1"H2O

gas chk @ 3600' 10\10-1"H2O

gas chk @ 4099' 20\10-1"H2O

gas chk @ 4315' 15\10-1"H

gas chk @ 4687' 12\10-1"H2O

gas chk @ 4718' 50\10-1"H2O

Driller TD 56\10-1"H2O  
Collars 40/10-1"H2O  
Logger TD