

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: 10/16/2012  
API #: 47-033-03797 *W*

Farm name: Stuart, Marsha L., Et Al Operator Well No.: E. Stuart 4

LOCATION: Elevation: 1343' GL Quadrangle: Brownston 7.5

District: Elk County: Harrison  
Latitude: 10,700 Feet South of 39 Deg. 12 Min. 30 Sec.  
Longitude 9,850 Feet West of 80 Deg. 12 Min. 30 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
120 Genesis Boulevard Bridgeport, WV 26330	11 3/4"	22'	0	---
Agent: <u>Bob Williamson</u>	8 5/8"	1341'	1341'	386
Inspector: <u>Tim Bennett</u>	4 1/2"	4647'	4647'	634
Date Permit Issued: <u>03/23/2009</u>				
Date Well Work Commenced: <u>8/19/2009</u>				
Date Well Work Completed: <u>8/19/2009</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>4685'</u>				
Total Measured Depth (ft): <u>4685'</u>				
Fresh Water Depth (ft.): <u>165'</u>				
Salt Water Depth (ft.): <u>None Reported</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>98-102, 287-71, 520-25, 892-96, 1037-40</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 separate sheet)

Producing formation Bayard Pay zone depth (ft) 2644  
Gas: Initial open flow 750 MCF/d Oil: Initial open flow ----- Bbl/d  
Final open flow 193 MCF/d Final open flow ----- Bbl/d  
Time of open flow between initial and final tests ----- Hours  
Static rock Pressure 150 psig (surface pressure) after 72 Hours

Second producing formation 5th Sand (commingled) Pay zone depth (ft) 2584  
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

10/16/2012  
Date

10/19/2012

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

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

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list JW Wireline GR/CCL from 3200 - 1800.

**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:**

8/19/2009: MIRU JW Wireline & run GR/CCL log from 3200-1800. Set SBP @ 2680' & RU BJ & bullhead 20% HCl in front of treated water & pressure test casing to 3486 psi. Held OK. Bleed off pressure & RU JW & perforate 12 holes from 2644-50 @ 2 SPF. RU BJ pumped a 30 Q N2 assist X-link with 15,989 lbs of 20/40 sand & 323 bbls treated fluid & 120.6 MSCF of N2. Break at 4117 psi & avg treating foam rate was 24 BPM & ATP was 2914 psi. Well screened out. RDMO BJ & JW. 8/20/2009: RU EC Rig & clean sand to below perms. Set CBP at 2610'. Spot tubing for 2nd zone. BJ RU & spot 12 bbls acid over upper zone. EC pulled tbg & RU JW & perf 2584-92 w/16 holes. RDMO BJ. 8/25/2009: RU Universal & pumped a 30 Q N2 assist X-link with 216 sx of 20/40 sand & 575 bbls treated fluid & 120.0 MSCF of N2. Break at 2278 psi & avg treating foam rate was 18.9 BPM & ATP was 2754 psi. Plug Back Details Including Plug Type and Depth(s): BP's at 2680 & 2610 were drilled out & hole cleaned to original TD.

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		

See Attached WR-35 & "Well Log" from original completion of this well (47-033-3797).

Stuart #4

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	13 (4569-4572)	0	600	500	85

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	1614	
Little Lime	1614	1639	1/2" Stream H2O @ 165'
sand, shale	1639	1673	Coal 98-102;267-271
Big Lime	1673	1749	Coal 520-525;892-896
Big Injun	1749	1835	Coal 1037-1040
sand, shale	1835	2034	
antz	2034	2052	gas chk @ 1883' No Show
sand, shale	2052	2073	
ft	2073	2128	
sand, shale	2128	2137	gas chk @ 2069' No Show
30 ft	2137	2167	
sand, shale	2167	2301	gas chk @ 2224' No Show
Gordon	2301	2329	
sand, shale	2329	2449	gas chk @ 2349' No Show
4th	2449	2532	
sand, shale	2532	2574	gas chk @ 2537' No Show
5th	2574	2612	
sand, shale	2612	2642	
Bayard	2642	2654	
sand, shale	2654	2932	
Speechley	2932	3344	gas chk @ 3291' No Show
sand, shale	3344	3411	
Balltown	3411	3760	gas chk @ 3664' No Show
sand, shale	3760	3782	
Bradford	3782	3880	gas chk @ 3850' No Show
sand, shale	3880	4276	
Riley	4276	4446	gas chk @ 4417' No Show
sand, shale	4446	4548	gas chk @ 4508' No Show
Benson	4548	4544	gas chk @ 4603' 40/10-1"H2O
sand, shale	4544	4700	Drillers TD No Show
		4685	DC's 12/10-1"H2O
			Logger TD

10/19/2012