

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 #: 47-033-03159

Farm name: Haron, Ray A. Operator Well No.: Haron 1

LOCATION: Elevation: 1322' GL Quadrangle: Clarksburg

District: Simpson County: Harrison
Latitude: 7.580 Feet South of 38 Deg. 17 Min. 30 Sec.
Longitude 3.420 Feet West of 80 Deg. 15 Min. 00 Sec.

Company: Petroleum Development Corporation

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>120 Genesis Boulevard</u> <u>Bridgeport, WV 26330</u>	<u>11 3/4"</u>	<u>17'</u>	<u>Pulled</u>	
Agent: <u>Bob Williamson</u>	<u>8 5/8"</u>	<u>1179'</u>	<u>1179'</u>	<u>354</u>
Inspector: <u>Tim Bennett</u>	<u>4 1/2"</u>	<u>4684'</u>	<u>4684'</u>	<u>820</u>
Date Permit Issued: <u>04/30/2009</u>				
Date Well Work Commenced: <u>06/18/2009</u>				
Date Well Work Completed: <u>06/18/2009</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>4718'</u>				
Total Measured Depth (ft): <u>4718'</u>				
Fresh Water Depth (ft.): <u>88', 361'</u>				
Salt Water Depth (ft.): <u>920', 950'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>290', 697', 770'</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 5th Sand Pay zone depth (ft) 2518
Gas: Initial open flow 188 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 442 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 48 Hours
Static rock Pressure 330 psig (surface pressure) after 24 Hours

Second producing formation 4th Sand (commingled) Pay zone depth (ft) 2302
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

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
Perforated the Benson with 13 shots (4611'-15'). Performed gelled H2O frac w/N2
assist using 608 bbl of sand laden fluid (15,000# of 80/100 sand and 50,000# of
20/40 sand). Also used 71,000 scf of N2.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
KB - GL			0	10	
sand, shale			10	1406	1/2" stream H2O @ 86'; 3/4" stream
little lime			1406	1422	H2O @ 361'; 1 3/4" stream H2O @
sand, shale, redrock			1422	1467	920'; 2 3/4" stream H2O @ 950'
big lime			1467	1524	coal @ 190'; 697'; 770'
big injun			1524	1630	
sand, shale			1630	1966	gas @ 1675'; 4/10 = 1"w/H2O
50 foot			1966	2014	
sand, shale			2014	2017	
30 foot			2017	2034	
sand, shale			2034	2130	gas @ 2080'; 4/10 = 1"w/H2O
gordon stray			2130	2136	
sand, shale			2136	2146	
gordon			2146	2160	
sand, shale			2160	2302	gas @ 2267'; 4/10 = 1"w/H2O
4th sand			2302	2325	
sand, shale			2325	2353	
4th 'A'			2353	2389	
sand, shale			2389	2501	gas @ 2424'; 2/10 = 7"w/H2O
5th sand			2501	2526	
sand, shale			2526	3090	gas @ 2612'; 2/10 = 7"w/H2O
speechley			3090	3206	
sand, shale			3206	3293	
balltown			3293	3403	gas @ 3304'; 40/10 = 2"w/H2O
sand, shale			3403	4374	gas @ 3584'; 42/10 = 2"w/H2O
riley			4374	4440	gas @ 4054'; 36/10 = 2"w/H2O
sand, shale			4440	4592	gas @ 4364'; 40/10 = 2"w/H2O
benson			4592	4616	gas @ 4582'; 30/10 = 2"w/H2O
sand, shale			4616	4718	TD logger
				4735	TD driller
					gas @ 4643'; 40/10 = 2"w/H2O
					gas @ TD; 62/10 = 2" w/H2O

(Attach separate sheets as necessary)

PETROLEUM DEVELOPMENT CORPORATION

Well Operator

By: 

Date: 4/22/85

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic
detailed geological record of all formations, including
coal, encountered in the drilling of a well."

10/19/2012