

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm Name: Paul B. Barringer II, et al Operator Well No. PMOG 23A

LOCATION: Elevation: 1243 Quadrangle: Swandale

District: Buffalo County: Clay

Latitude: 1675 Feet South of 38 Deg. 30 Min. 00 Sec.

Longitude: 100 Feet West of 80 Deg. 55 Min. 00 Sec.

Company: Range Resources - Pine Mountain Inc
Address: P.O. Box 2136
Abingdon, Virginia 24212
Agent: Geary Legg
Inspector: Terry Urban
Date Permit Issued: 8/31/2005
Date Well Work Commenced: 1/12/2006
Date Well Work Completed: 3/08/2006
Verbal Plugging: _____
Date Permission granted on: _____
Rotary Cable _____ Rig _____
Total Depth (feet): 2255
Fresh Water Depth (ft.): 25, 51

Salt Water Depth (ft.): 1225

Is coal being mined in area (N/Y)? N
Coal Depths (ft.): N/A

Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
11 3/4	30		
8 3/4	487	487	CTS
4 1/2	2044	2044	140 sx
2 3/4		1881	
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OPEN FLOW DATA

Producing Formation: Big Lime Pay zone depth 1960-2021 (ft)

Gas: Initial open flow: _____ MCF/d Oil: Initial open flow: _____ Bbl/d

Final open flow: Trace 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 _____ 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

NOTE: ON THE BACK OF THIS FORM 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 ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Range Resources - Pine Mountain Inc.
By: [Signature]
Date: 4-11-13

Completion Data

	Stage 1		Stage 2	
Date	1/12/2006		2/16/2006	
Frac Formation(s)	Big Lime		Blg Lime	
Interval # of Perf	2016-2021 11		1960-2018 12	
BD Press	0	psi	2789	psi
Avg Treating Press	1925	psi	2595	psi
Max Treating Press	2705	psi	4114	psi
Avg Rate (dh)	19.6	bpm	14	bpm
ISIP	2280	psi		psi
5 min SIP	1877	psi		psi
Total Acid	100/15%HCl	gal	36/15%HCl	gal
Total N2	273800	scf	76500	scf
Total H2O	159	bbl	77	bbl
Total Sand	450	sx	44	sx
			Screened Out	

Geologic Data

Formation	Top (ft)*	Bottom (ft)*
Shale and Sand	0	1163
Salt Sand	1163	1347
Shale and Sand	1347	1434
Upper Maxon	1434	1447
Shale and Sand	1447	1598
Middle Maxon	1598	1652
Shale and Sand	1652	1734
Lower Maxon	1734	1770
Shale	1770	1814
Little Lime	1814	1854
Shale	1854	1868
Blue Monday	1868	1913
Big Lime	1913	2120
Shale	2120	2255
TD	2255	

* Depths 10 ft KB

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