

Constant Composition Expansion at 243°F
Pressure-Volume Relations
PENCOR ID No. 36126-53: 18,142 ft Depth

Pressure (psia)	Relative Volume (V/V _{sat})	Oil Density (g/cm ³)	Relative Liquid Volume (%)	Oil Compressibility (ΔV/V/Δpsi) x 10 ⁶	Y-Function (P _{sat} ^{0.7} P/PV _{sat} ^{0.7})
11,856	Reservoir	0.584			
10,000		0.570			
9,500		0.565		16.75	
9,000		0.560		17.86	
8,500		0.552		18.88	
8,000		0.549		21.42	
7,500		0.543		22.54	
7,000		0.536		26.60	
6,504	Saturation	1.000	77.7	28.17	
6,495		1.001	9.22		
6,475		1.002	31.23		
6,450		1.003	39.76		
6,400		1.005	50.10		
6,300		1.009	55.49		
6,200		1.013	56.82		3.64
6,100		1.018	57.80		3.63
6,000		1.023	59.96		3.63
5,500		1.052	59.75		3.50
5,000		1.090	59.37		3.36
4,500		1.139	58.57		3.20
4,000		1.208	57.60		3.02
3,500		1.303	57.11		2.83
3,000		1.442	55.39		2.64
2,500		1.645	54.10		2.48
2,000		1.982	53.45		2.29
1,500		2.573	50.99		2.12
1,000		3.812	49.63		1.96

Notes:

- ☐ Relative Volume (V/V_{sat}) is the fluid volume at the indicated pressure and temperature relative to the saturated fluid volume.
- ☐ Density (lb/ft³) = Density (g/cm³) x 62.428
- ☐ Compressibility is the average compressibility between the indicated and the next highest pressure.
- ☐ Relative Liquid Volume % is the volume of liquid relative to volume at saturation pressure.

Constant Composition Expansion at 243°F Data Presentation Figures

