



TABLE 3  
PRESSURE-VOLUME RELATION  
OF  
A 9762 Scf/Sep Bbl RESERVOIR FLUID AT 142 °F  
(Constant Composition Expansion)

Pressure, (psig)	Relative Volume	Density, (g/cc)	Y-Function (1)	Retrograde Liquid Volume		Gas Deviation Factor, Z	Gas Expansion Factor, (4)
				% of HC Pore Volume (2)	Bbls / MMscf (3)		
10000	0.98062	0.48746	N/A	N/A	N/A	1.59076	2.07016
9500	0.99223	0.48175	N/A	N/A	N/A	1.52924	2.04577
9289	0.99769	0.47912	N/A	N/A	N/A	1.50356	2.03450
9202 Psat	1.00000	0.47801	N/A	0.00%	0.000	1.49294	2.02978
8854	1.00923	N/A	4.24999	Trace	Trace	N/A	N/A
8277	1.02587	N/A	4.31284	Trace	Trace	N/A	N/A
7530	1.05089	N/A	4.35474	Trace	Trace	N/A	N/A
7191	1.06393	N/A	4.36527	2.14%	10.484	N/A	N/A
6574	1.09105	N/A	4.38096	2.67%	13.128	N/A	N/A
6039	1.11940	N/A	4.37587	2.91%	14.279	N/A	N/A
5576	1.14893	N/A	4.35484	3.17%	15.555	N/A	N/A
5175	1.17945	N/A	4.32406	3.43%	16.850	N/A	N/A
4532	1.24306	N/A	4.22588	4.03%	19.781	N/A	N/A
4052	1.30923	N/A	4.09539	4.77%	23.396	N/A	N/A
3400 Pres	1.47827	N/A	3.55267	6.87%	33.700	N/A	N/A
2979	1.58746	N/A	3.53854	8.22%	40.354	N/A	N/A
2007	2.31036	N/A	2.71603	11.84%	58.121	N/A	N/A
1567	3.04177	N/A	2.36424	12.18%	59.794	N/A	N/A
1295	3.77588	N/A	2.17498	11.97%	58.768	N/A	N/A

(1) Y - Function = Dimensionless Compressibility =  $(P_{sat} - P_i) * [P_i * (RV_i - 1)]^{-1}$

(2) Retrograde liquid volume at the indicated pressure and reservoir temperature as a percent of the hydrocarbon pore volume at the dew point pressure and reservoir temperature.

(3) Retrograde liquid volume at the indicated pressure and reservoir temperature (Bbls) per volume of gas (MMscf) at the dew point pressure and reservoir temperature.

(4) Gas Expansion Factor = the volume of surface gas at standard conditions (Mscf) produced from one barrel of undersaturated gas at the indicated pressure and reservoir temperature.

Relative Volume = volume at indicated pressure per volume at the saturation pressure.

Psat = Saturation (Retrograde Dew Point) pressure at reservoir temperature.

Pres = Current static reservoir pressure.

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