

Mercury Injection Capillary Pressure Analysis
Core I.D. 138, A-25-I/94-P-10, 1118.78m

In situ Klinkenberg Permeability = 0.931 md
In situ Porosity = 10.3 %

Mercury Injection Capillary Pressure (psia)	Approx. Pore Entry Diameter (um)	Cumulative Wetting Phase Saturation (% pore vol)	Pore Size Distribution Frequency	Cumulative Surface Area (m2/g)	Approx. Gas-Water Height Above Free Water Level (ft)	Approx. Oil-Water Height Above Free Water Level (ft)	Honarpour <i>et al.</i> Imbibition Carbonate		Corey Calculated		
							Oil Relative Permeability (%)	Water Relative Permeability (%)	Oil or Gas Relative Permeability (%)	Water Relative Permeability (%)	Log Oil/Brine Kro/Krw Ratio
2.0	107	100.0	0.0	0.000	0.1	0.1	0.0	100.0	0.0	100.0	-5.0
2.5	86	99.4	0.6	0.000	0.8	1.1	0.0	100.0	0.0	100.0	-5.0
3.3	65	98.7	0.7	0.000	1.0	1.4	0.0	28.7	0.0	97.6	-5.0
4.3	50	98.0	0.8	0.000	1.3	1.8	0.0	28.2	0.0	94.9	-5.0
5.5	39	97.6	0.4	0.000	1.7	2.4	0.1	27.8	0.0	91.9	-6.7
7.2	30	97.4	0.2	0.000	2.2	3.1	0.1	27.6	0.0	90.4	-6.4
9.3	23	97.0	0.4	0.000	2.9	4.0	0.1	27.4	0.0	89.6	-6.2
12.0	18	96.7	0.3	0.000	3.7	5.2	0.1	27.2	0.0	88.2	-6.0
15.5	14	96.3	0.4	0.000	4.8	6.7	0.1	27.0	0.0	87.1	-5.8
20	11	95.5	0.9	0.000	6.2	8.7	0.2	26.8	0.0	85.6	-5.6
25	8.6	94.3	1.2	0.001	8.0	11.2	0.3	26.3	0.0	82.5	-5.2
35	6.1	92.4	1.9	0.001	9.9	14.0	0.4	25.7	0.0	78.4	-4.8
45	4.8	89.4	3.0	0.002	14	20	0.7	24.6	0.0	71.9	-4.3
55	3.9	84.6	4.7	0.004	18	25	1.4	22.9	0.0	62.7	-3.6
75	2.9	67.5	17.1	0.014	22	31	3.0	20.5	0.1	50.0	-2.9
95	2.3	51.8	15.7	0.025	30	42	13.3	12.7	1.3	19.4	-1.2
120	1.8	36.3	15.5	0.039	38	53	29.3	7.2	6.2	6.3	0.0
150	1.4	29.7	6.6	0.032	48	67	51.3	3.3	19.1	1.3	1.2
200	1.1	22.8	6.9	0.042	60	84	62.4	2.1	28.2	0.5	1.7
260	0.82	19.0	3.9	0.050	80	112	75.2	1.2	40.9	0.2	2.4
350	0.61	15.9	3.1	0.058	103	145	82.9	0.7	49.7	0.1	2.9
430	0.50	14.2	1.6	0.063	139	196	89.3	0.5	57.8	0.0	3.3
550	0.39	12.7	1.5	0.069	171	240	92.9	0.4	62.4	0.0	3.6
725	0.30	11.5	1.2	0.076	219	308	96.2	0.3	67.1	0.0	3.9
925	0.23	10.8	0.7	0.081	288	405	98.9	0.2	70.8	0.0	4.2
1200	0.18	9.6	1.2	0.091	368	517	100.5	0.2	73.2	0.0	4.4
1550	0.14	8.8	0.8	0.100	477	671	103.2	0.1	77.1	0.0	4.7
2000	0.11	8.2	0.7	0.110	617	867	104.9	0.1	79.7	0.0	4.9
2600	0.08	7.4	0.8	0.125	796	1119	106.5	0.1	82.1	0.0	5.2
3350	0.06	6.4	1.0	0.149	1034	1454	108.3	0.0	84.9	0.0	5.5
4300	0.05	5.6	0.8	0.174	1333	1874	110.6	0.0	88.5	0.0	6.0
5550	0.04	4.8	0.9	0.210	1711	2405	112.4	0.0	91.5	0.0	6.6
7200	0.03	4.3	0.5	0.236	2208	3104	114.5	0.0	94.9	0.0	7.5
9300	0.02	3.5	0.8	0.290	2864	4027	115.6	0.0	96.8	0.0	8.4
					3700	5201	117.5	0.0	100.0	0.0	15.0

All Hg calculations assume air-mercury T=484 dyne/cm, contact angle=140deg.
Oil/Gas-Brine Pc assumes insitu o/g-brine Tcos0= 64.0000 22.0000 dynes/cm
Oil/gas-Brine height assumes o/g density gradient = 0.0186 0.3464 psi/ft
Oil/gas-Brine height assumes brine density gradient = 0.4525 0.4525 psi/ft
Swi assumed for relative permeability = 3.5 3.5 %
Sorw assumed for relative permeability = 0 0 %
In situ Gas/Oil & Brine Density (g/cc)= 0.043/0.80 1.045 g/cc

Mercury Injection Capillary Pressure Analysis
Core I.D. 138, A-25-I/94-P-10, 1118.78m

