

**Mercury Injection Capillary Pressure Analysis**  
**Core I.D. 38, C-74-A/94-P-15, 1172.62m**

*In situ* Klinkenberg Permeability = 0.0819 md  
*In situ* Porosity = 5.1 %

Mercury Injection Capillary Pressure (kPa)	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 (m)	Approx. Oil-Water Height Above Free Water Level (m)	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
13.8	107	100.0	0.0	0.000	0.0	0.0	0.0	100.0	0.0	100.0	-5.0
17.2	86	100.0	0.0	0.000	0.2	0.3	0.0	100.0	0.0	100.0	-5.0
22.8	65	100.0	0.0	0.000	0.3	0.4	0.0	100.0	0.0	100.0	-5.0
29.6	50	100.0	0.0	0.000	0.4	0.6	0.0	100.0	0.0	100.0	-5.0
37.9	39	100.0	0.0	0.000	0.5	0.7	0.0	100.0	0.0	100.0	-5.0
49.6	30	100.0	0.0	0.000	0.7	0.9	0.0	100.0	0.0	100.0	-5.0
64.1	23	100.0	0.0	0.000	0.9	1.2	0.0	100.0	0.0	100.0	-5.0
82.7	18	100.0	0.0	0.000	1.1	1.6	0.0	100.0	0.0	100.0	-5.0
107	14	100.0	0.0	0.000	1.5	2.0	0.0	100.0	0.0	100.0	-5.0
138	11	100.0	0.0	0.000	1.9	2.6	0.0	100.0	0.0	100.0	-5.0
172	8.6	100.0	0.0	0.000	2.4	3.4	0.0	100.0	0.0	100.0	-5.0
241	6.1	98.7	1.3	0.000	3.0	4.3	0.0	100.0	0.0	100.0	-5.0
310	4.8	98.2	0.6	0.000	4	6	0.0	27.9	0.0	94.9	-5.0
379	3.9	97.8	0.4	0.000	5	8	0.0	27.6	0.0	92.6	-6.9
517	2.9	96.5	1.3	0.001	7	9	0.1	27.3	0.0	91.0	-6.5
655	2.3	95.4	1.1	0.001	9	13	0.2	26.6	0.0	86.1	-5.7
827	1.8	88.0	7.4	0.006	12	16	0.3	25.9	0.0	82.1	-5.2
1,034	1.4	85.8	2.2	0.003	15	20	1.8	21.9	0.0	58.5	-3.4
1,379	1.1	78.5	7.4	0.010	18	26	2.5	20.7	0.0	52.5	-3.0
1,793	0.82	70.3	8.2	0.021	24	34	5.9	17.1	0.3	35.9	-2.1
2,413	0.61	60.9	9.3	0.037	32	44	11.2	13.5	1.0	22.4	-1.4
2,965	0.50	53.6	7.4	0.053	42	60	19.3	9.9	2.8	12.1	-0.6
3,792	0.39	43.5	10.1	0.080	52	73	27.2	7.5	5.6	6.9	-0.1
4,999	0.30	32.9	10.6	0.118	67	94	40.3	4.7	12.4	2.7	0.7
6,378	0.23	25.8	7.2	0.151	88	124	56.8	2.5	24.5	0.8	1.5
8,274	0.18	20.1	5.7	0.185	112	158	69.5	1.4	36.8	0.2	2.2
10,687	0.14	16.6	3.4	0.212	146	205	80.6	0.7	49.5	0.1	2.9
13,790	0.11	14.8	1.8	0.230	188	264	87.7	0.4	58.6	0.0	3.4
17,927	0.08	13.1	1.8	0.253	243	341	91.5	0.3	63.8	0.0	3.7
23,098	0.06	10.8	2.2	0.290	315	443	95.4	0.2	69.2	0.0	4.1
29,649	0.05	8.4	2.4	0.341	406	571	100.0	0.1	76.7	0.0	4.7
38,267	0.04	6.9	1.5	0.383	521	733	100.0	0.0	85.2	0.0	5.6
49,644	0.03	5.6	1.3	0.430	673	946	100.0	0.0	91.1	0.0	6.5
64,124	0.02	4.7	0.9	0.471	873	1227	100.0	0.0	96.3	0.0	8.1
					1128	1585	100.0	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 = 0.4212 7.8360 kPa/m  
Oil/gas-Brine height assumes brine density gradient = 10.2358 10.2358 kPa/m  
Swi assumed for relative permeability = 4.7 %  
Sorw assumed for relative permeability = 0 %  
*In situ* Gas/Oil & Brine Density (g/cc)= 0.043/0.80 1.045 g/cc

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