

**Mercury Injection Capillary Pressure Analysis**  
**Core I.D. 31, C-92-J/94-P-10, 1178.37m**

*In situ* Klinkenberg Permeability = 0.0133 md  
*In situ* Porosity = 2.8 %

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	100.0	0.0	0.000	0.8	1.1	0.0	100.0	0.0	100.0	-5.0
3.3	65	100.0	0.0	0.000	1.0	1.4	0.0	100.0	0.0	100.0	-5.0
4.3	50	100.0	0.0	0.000	1.3	1.8	0.0	100.0	0.0	100.0	-5.0
5.5	39	100.0	0.0	0.000	1.7	2.4	0.0	100.0	0.0	100.0	-5.0
7.2	30	100.0	0.0	0.000	2.2	3.1	0.0	100.0	0.0	100.0	-5.0
9.3	23	100.0	0.0	0.000	2.9	4.0	0.0	100.0	0.0	100.0	-5.0
12.0	18	100.0	0.0	0.000	3.7	5.2	0.0	100.0	0.0	100.0	-5.0
15.5	14	100.0	0.0	0.000	4.8	6.7	0.0	100.0	0.0	100.0	-5.0
20	11	100.0	0.0	0.000	6.2	8.7	0.0	100.0	0.0	100.0	-5.0
25	8.6	100.0	0.0	0.000	8.0	11.2	0.0	100.0	0.0	100.0	-5.0
35	6.1	99.2	0.8	0.000	9.9	14.0	0.0	100.0	0.0	100.0	-5.0
45	4.8	98.7	0.5	0.000	14	20	0.0	18.3	0.0	94.9	-5.0
55	3.9	98.4	0.3	0.000	18	25	0.0	18.0	0.0	91.8	-6.7
75	2.9	97.2	1.2	0.000	22	31	0.0	17.8	0.0	90.0	-6.3
95	2.3	95.7	1.5	0.001	30	42	0.1	17.1	0.0	83.4	-5.3
120	1.8	92.8	2.9	0.002	38	53	0.2	16.3	0.0	75.4	-4.5
150	1.4	91.4	1.4	0.001	48	67	0.6	14.7	0.0	61.7	-3.6
200	1.1	88.7	2.7	0.003	60	84	0.9	13.9	0.0	55.6	-3.2
260	0.82	84.8	3.9	0.006	80	112	1.6	12.6	0.1	45.5	-2.6
350	0.61	79.9	4.9	0.010	103	145	2.9	10.7	0.3	33.2	-2.0
430	0.50	75.6	4.3	0.015	139	196	5.1	8.6	1.0	21.5	-1.3
550	0.39	70.8	4.8	0.023	171	240	7.5	7.0	2.2	14.1	-0.8
725	0.30	67.4	3.5	0.029	219	308	10.7	5.3	4.6	8.3	-0.3
925	0.23	64.6	2.8	0.036	288	405	13.4	4.3	7.2	5.4	0.1
1200	0.18	61.9	2.7	0.045	368	517	15.8	3.5	10.0	3.7	0.4
1550	0.14	58.1	3.8	0.061	477	671	18.3	2.9	13.4	2.4	0.7
2000	0.11	53.0	5.1	0.089	617	867	22.2	2.1	19.6	1.3	1.2
2600	0.08	48.8	4.2	0.119	796	1119	27.9	1.2	31.1	0.4	1.9
3350	0.06	46.0	2.8	0.145	1034	1454	33.2	0.6	43.9	0.1	2.6
4300	0.05	42.7	3.2	0.183	1333	1874	36.9	0.4	54.3	0.0	3.1
5550	0.04	40.9	1.8	0.211	1711	2405	41.4	0.1	68.4	0.0	4.0
7200	0.03	39.0	1.9	0.248	2208	3104	44.1	0.1	77.7	0.0	4.7
9300	0.02	37.0	1.9	0.298	2864	4027	47.0	0.0	88.2	0.0	6.0
					3700	5201	50.0	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 = 0.0186 0.3464 psi/ft  
Oil/gas-Brine height assumes brine density gradient = 0.4525 0.4525 psi/ft  
Swi assumed for relative permeability = 37.0 37.0 %  
Sorw assumed for relative permeability = 0 0 %  
*In situ* Gas/Oil & Brine Density (g/cc)= 0.043/0.80 1.045 g/cc

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