

**Mercury Injection Capillary Pressure Analysis**  
**Core I.D. 196, 13-14-118-12W6, 1056.05m**

*In situ* Klinkenberg Permeability = 0.000017 md  
*In situ* Porosity = 3.1 %

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	100.0	0.0	0.000	9.9	14.0	0.0	100.0	0.0	100.0	-5.0
45	4.8	100.0	0.0	0.000	14	20	0.0	100.0	0.0	100.0	-5.0
55	3.9	100.0	0.0	0.000	18	25	0.0	100.0	0.0	100.0	-5.0
75	2.9	100.0	0.0	0.000	22	31	0.0	100.0	0.0	100.0	-5.0
95	2.3	100.0	0.0	0.000	30	42	0.0	100.0	0.0	100.0	-5.0
120	1.8	100.0	0.0	0.000	38	53	0.0	100.0	0.0	100.0	-5.0
150	1.4	100.0	0.0	0.000	48	67	0.0	100.0	0.0	100.0	-5.0
200	1.1	99.2	0.8	0.000	60	84	0.0	100.0	0.0	100.0	-5.0
260	0.82	98.3	0.9	0.001	80	112	0.0	19.3	0.0	95.5	-5.0
350	0.61	97.1	1.2	0.002	103	145	0.0	18.7	0.0	90.3	-6.3
430	0.50	96.4	0.8	0.002	139	196	0.1	18.0	0.0	83.7	-5.4
550	0.39	95.0	1.4	0.004	171	240	0.2	17.6	0.0	79.7	-4.9
725	0.30	91.3	3.6	0.009	219	308	0.3	16.8	0.0	72.8	-4.3
925	0.23	86.7	4.6	0.017	288	405	1.0	14.8	0.0	56.9	-3.3
1200	0.18	82.3	4.4	0.028	368	517	2.2	12.5	0.2	40.7	-2.4
1550	0.14	77.7	4.6	0.042	477	671	4.0	10.5	0.5	28.7	-1.7
2000	0.11	73.9	3.8	0.057	617	867	6.3	8.6	1.3	19.2	-1.2
2600	0.08	68.8	5.1	0.083	796	1119	8.6	7.1	2.4	13.4	-0.7
3350	0.06	62.0	6.8	0.128	1034	1454	12.3	5.4	5.0	7.7	-0.2
4300	0.05	55.5	6.5	0.183	1333	1874	18.2	3.5	10.9	3.3	0.5
5550	0.04	45.9	9.7	0.290	1711	2405	24.9	2.1	20.5	1.1	1.3
7200	0.03	39.7	6.1	0.377	2208	3104	37.0	0.6	45.1	0.1	2.6
9300	0.02	33.9	5.8	0.484	2864	4027	45.8	0.1	69.1	0.0	4.1
					3700	5201	55.1	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 = 33.9 %  
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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