

Division of Geological & Geophysical Surveys

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**MERCURY INJECTION CAPILLARY PRESSURE RESULTS
FROM OUTCROP SAMPLES IN THE TYONEK AREA OF
COOK INLET**

by
Andrea M. Loveland

March 2014

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RESULTS OF MERCURY-INJECTION CAPILLARY PRESSURE TESTS ON OUTCROP SAMPLES IN THE TYONEK AREA OF COOK INLET

by
Andrea M. Loveland¹

This report summarizes mercury-injection capillary pressure data for 18 outcrop samples collected from six measured sections within the Beluga, Tyonek, and West Foreland Formations near Tyonek, Alaska (figs. 1 and 2). Samples numbers correspond to measured section numbers and the sample position (meters above base of section) in a given measured section. For example, sample 09DL033–24.5b was collected 24.5 meters above the base of the measured section 09DL033. Analyses were performed by PetroTech Associates, Houston, Texas.

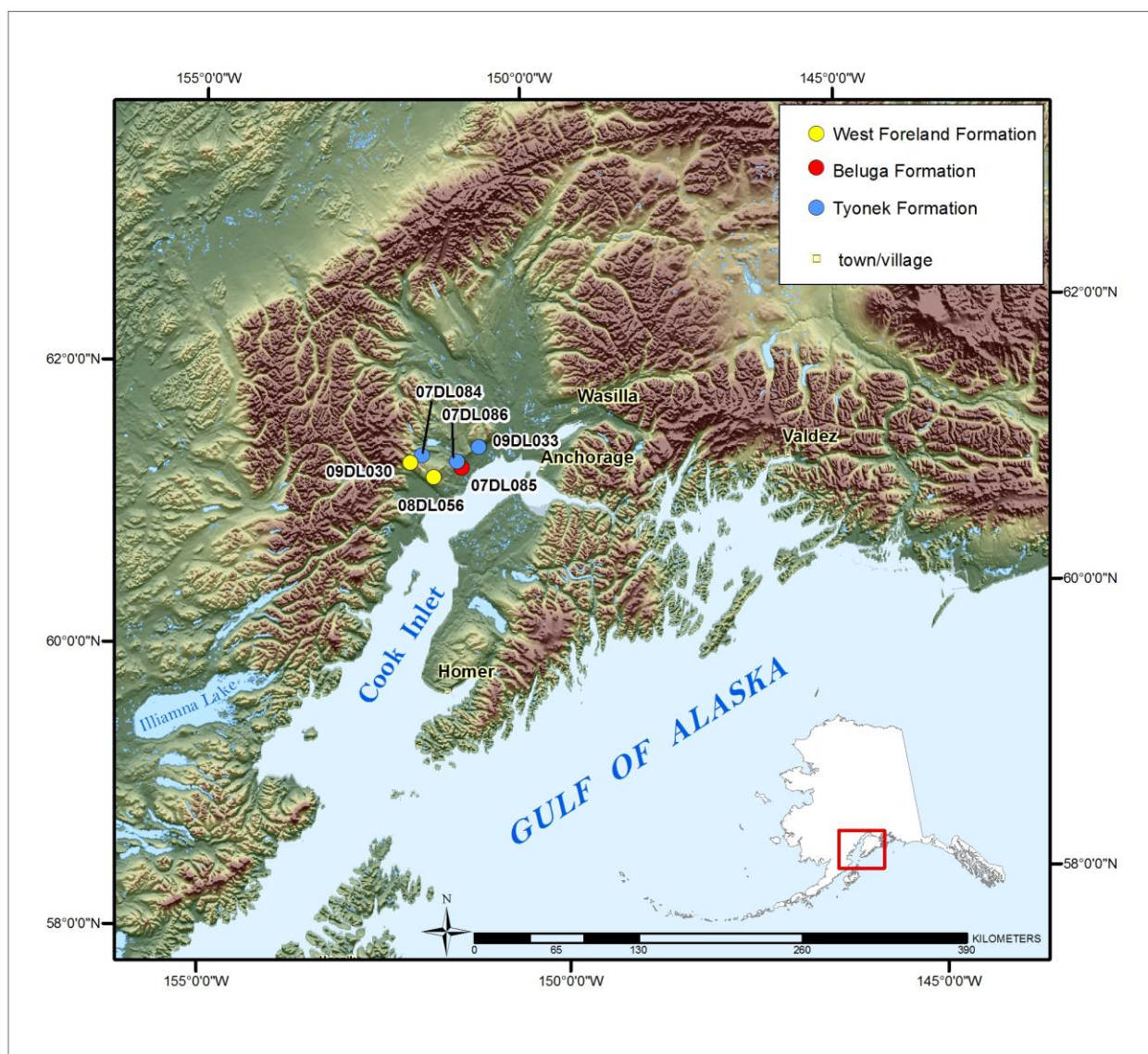


Figure 1. Map showing the locations of the measured sections from which the MICP samples were collected.

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In this report, the data are summarized as follows: 2007 data in figures 3-13 and tables 2-10; 2008 data in figures 14-17 and tables 11-16; and 2009 data in figures 18-22 and tables 17-25. Table 1 summarizes sample location data and descriptions.

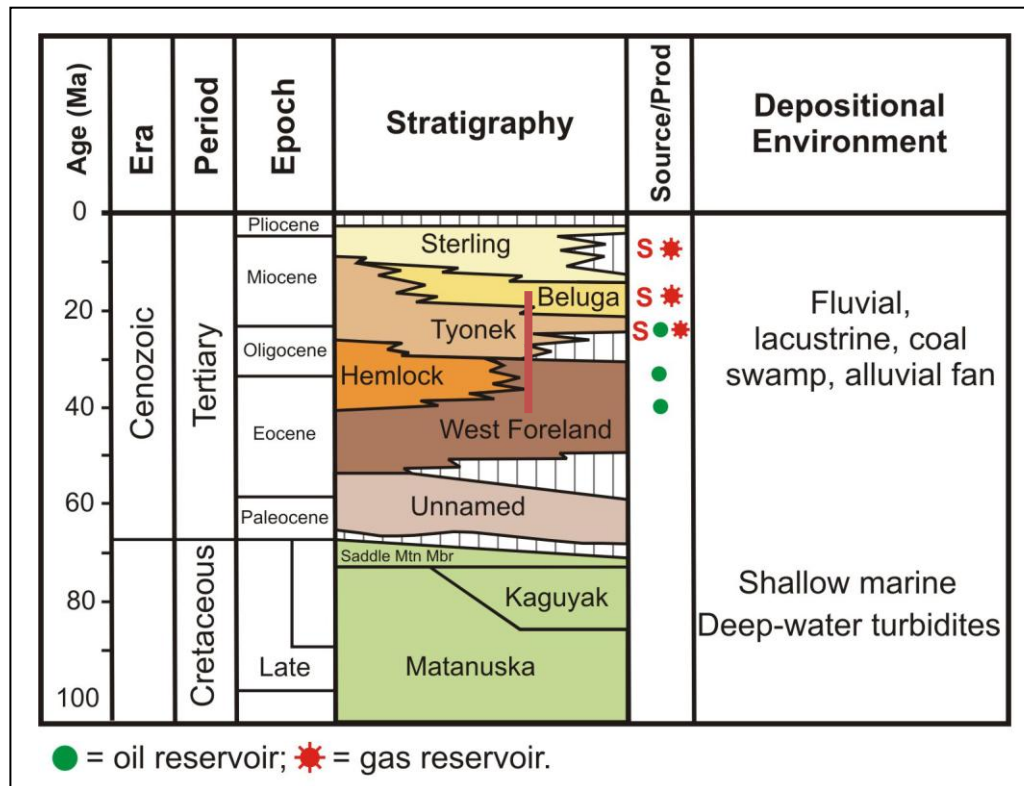


Figure 2. Simplified stratigraphic column of the Tertiary nonmarine formations in the Cook Inlet basin. The vertical red line represents the interval where MICP samples were collected. Modified from Swenson (2002).

ACKNOWLEDGMENTS

Funding for this work was provided by Benchmark Oil and Gas, Pioneer Natural Resources, Chevron North American Exploration and Production Company, and the State of Alaska.

Table 1. Summary of MICP samples.

Sample	Formation	Latitude (base of measured section)	Longitude (base of measured section)	Sample Description
07DL084 - 4.0	Tyonek Formation	61.31741	-151.75624	claystone; medium to dark gray; slightly fissile; large organic fragments on bedding surfaces; some appear fragmented by dessication
07DL085 - 0.0	Beluga Formation	61.21934	-151.17934	siltstone; light gray; moderately argillaceous; slightly oriented fabric; minor small organic particles and mica
07DL085 - 1.7	Beluga Formation	61.21934	-151.17934	siltstone; light gray; moderately argillaceous; similar to sample 07DL085 - 0.0 but with slightly more organic particles
07DL085 - 9.0b	Beluga Formation	61.21934	-151.17934	claystone; light gray; very silty; fabric locally has argillaceous siltstone appearance; scattered very fine sand grains; random fabric; scattered organics, some iron stained (altered pyrite)
07DL085 - 45.7a	Beluga Formation	61.21934	-151.17934	claystone; gray; silty to very silty; locally argillaceous siltstone; large, very thin organics on bedding surfaces; some appear as laminae; occasionally iron stained
07DL086 - 1.85	Tyonek Formation	61.26407	-151.24290	claystone; light gray; silty to locally very silty; burrowed or mixed fabric; randomly oriented; very thin organics or disrupted laminae; rare coarse to very coarse quartz and large mica embedded in clay matrix
07DL086 - 26.9	Tyonek Formation	61.26407	-151.24290	siltstone; light to medium gray; argillaceous; very thin organics; aligned and random; possible root structures
08DL056 - 0.0C	West Foreland Formation	61.15849	-151.59549	sandstone, friable to moderately hard; poorly sorted; If* to lc*; horizontal laminations; weathers tan; gray-brown on fresh surface
08DL056 - 0.3C	West Foreland Formation	61.15849	-151.59549	sandstone; friable to moderately hard; poorly sorted; If* to lc*; horizontal laminations; weathers tan; gray-brown on fresh surface
08DL056 - 2.9C	West Foreland Formation	61.15849	-151.59549	pebble conglomerate; weak horizontal stratification; cobbles scattered near base; consists mostly of angular to rounded clasts of tan to cream tuff; poorly sorted; sandy matrix resembles underlying sandstone; disorganized, variable texture from clast-support to matrix-support
08DL056 - 9.0C	West Foreland Formation	61.15849	-151.59549	poorly exposed; friable to moderately hard sandstone on mostly covered slope; most or all is medium to fine ripple cross-laminated friable sandstone
08DL056 - 29.5C	West Foreland Formation	61.15849	-151.59549	sandstone; poorly sorted; up to uvc* with granules but includes uvc*-vf*; orange-brown; resistant ledge-former; grains subround; quartz, rock frags (gray, red, white); poorly sorted
09DL030 - 0.6b	West Foreland Formation	61.26691	-151.93033	medium olive green; lvf*-uvf* sandstone with leaf fragments on parting surfaces; to siltstone; laminated; leaf impressions; visible veination on parting surfaces
09DL030 - 1.8b	West Foreland Formation	61.26691	-151.93033	chippy-weathering olive green siltstone to lvf*; grains to lc*; possibly a soil; possibly tuffaceous with quartz and biotite; also abundant carbonaceous plant fragments
09DL030 - 2.0b	West Foreland Formation	61.26691	-151.93033	lm*; moderate sorting; grains to uvf*; fines upward to lf*-vf* sandstone; through cross laminations; light green gray
09DL030 - 25.0a	West Foreland Formation	61.26691	-151.93033	"resistant tuff" differs from "tuffaceous mudstone" mainly in resistance to weathering; otherwise appears to have same texture and composition
09DL033 - 1.6c	Tyonek Formation	61.35918	-150.90815	sandstone; poorly exposed; medium gray to gray brown weathering; medium gray fresh; salt and pepper; um* at base; moderate sorting; moderately friable; locally iron stained; cobble/pebble lag at 1.9 m; 1-2 clasts thick; cobbles to 16 cm; floating pebble sand gains in places; 1 m at 4 m; through cross laminations in float blocks from above 4 m
09DL033 - 20.8c	Tyonek Formation	61.35918	-150.90815	lc* with scattered pebbles; cross stratified; grades upward to lum*
09DL033 - 24.5b	Tyonek Formation	61.35918	-150.90815	sandstone to lvc*; pebbly; cross stratified; deformed; grades upward to um*; upper part of bed appears massive

*Grain sizes
vf = very fine
lf = lower fine
um = upper medium
lum = lower upper medium
lc = lower coarse
lvc = lower very coarse
uvc = upper very coarse

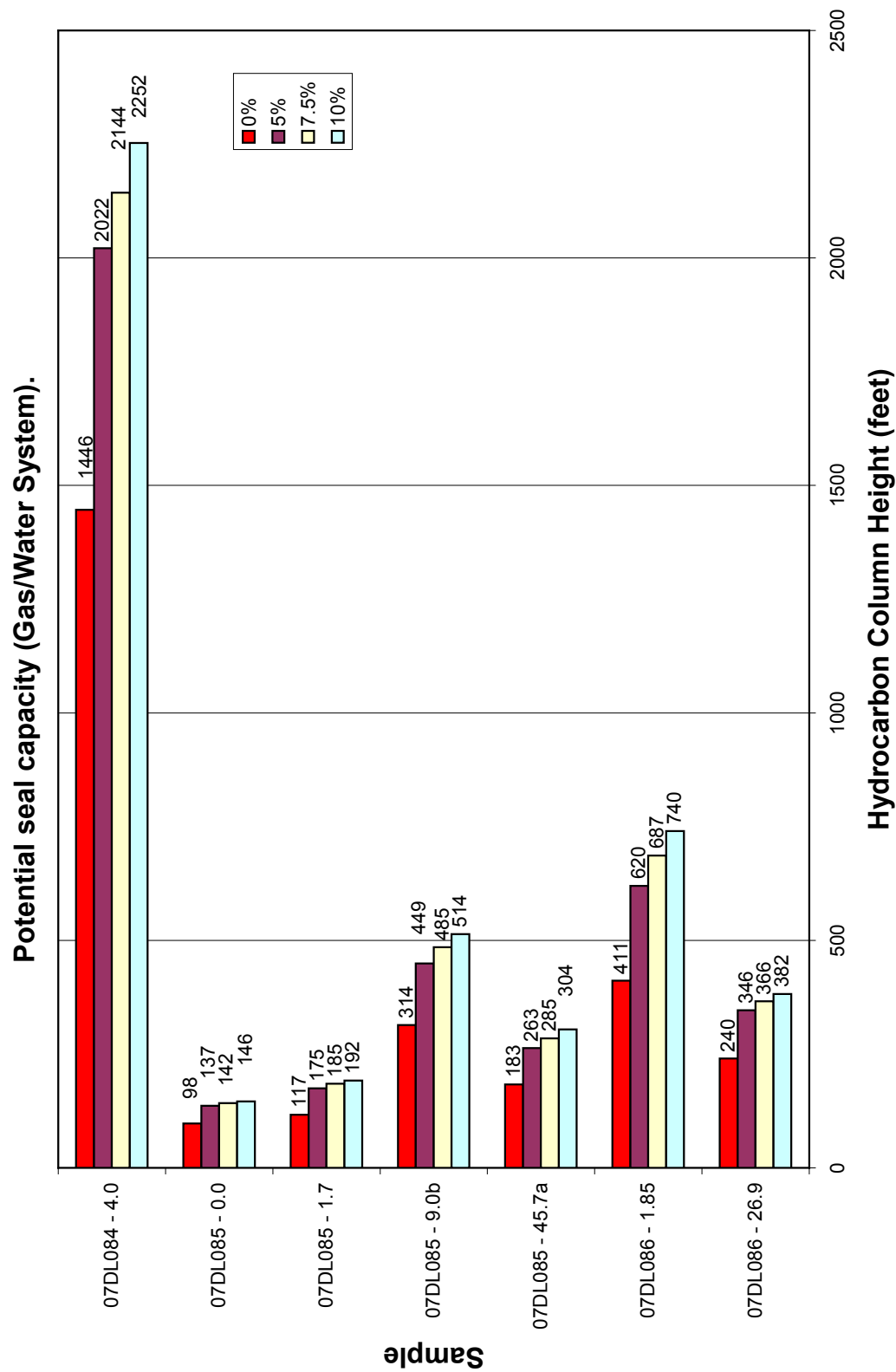


Figure 3. Potential seal capacity in a gas/water system for each sample.

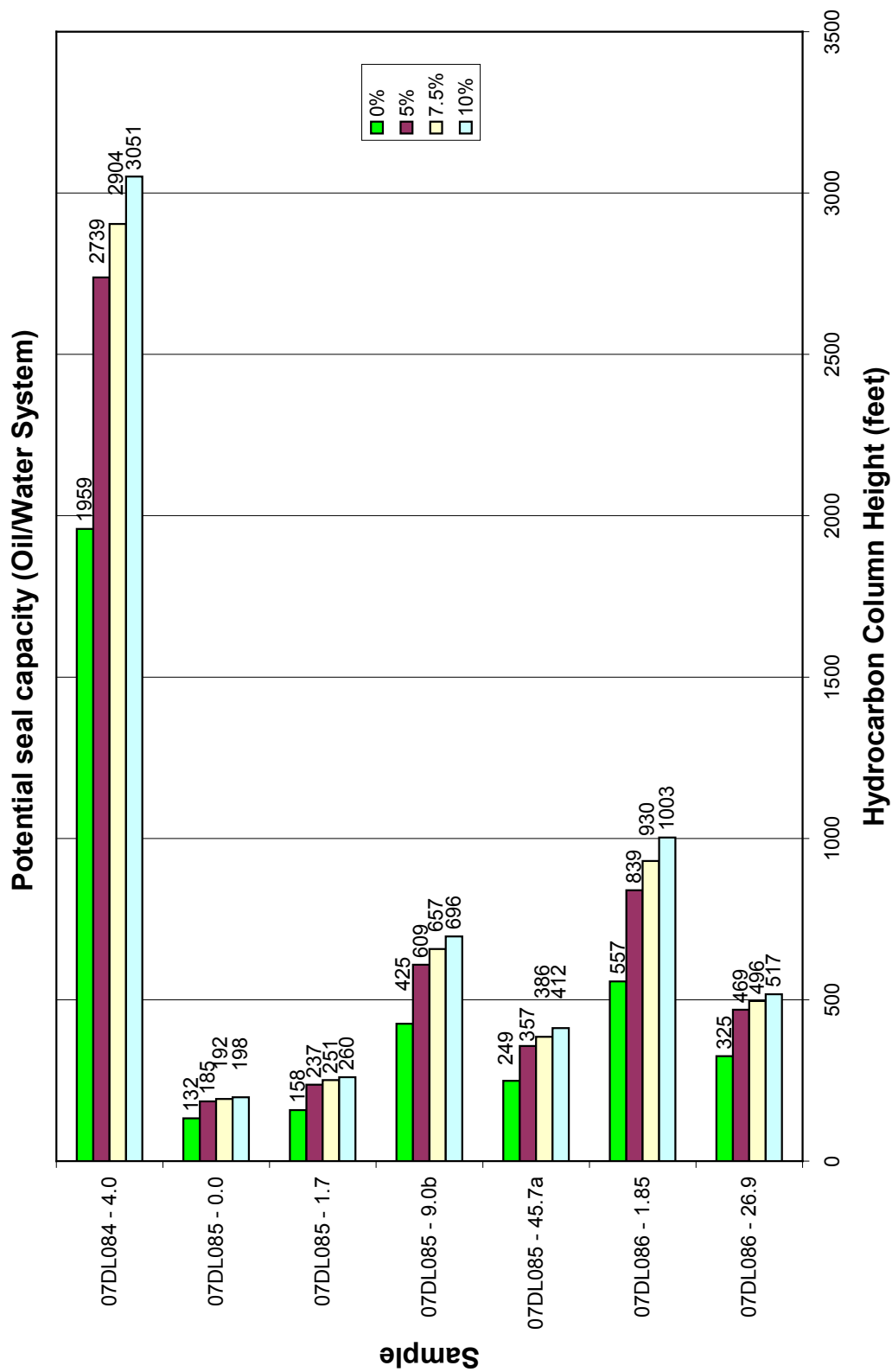


Figure 4. Potential seal capacity in an oil/water system for each sample.

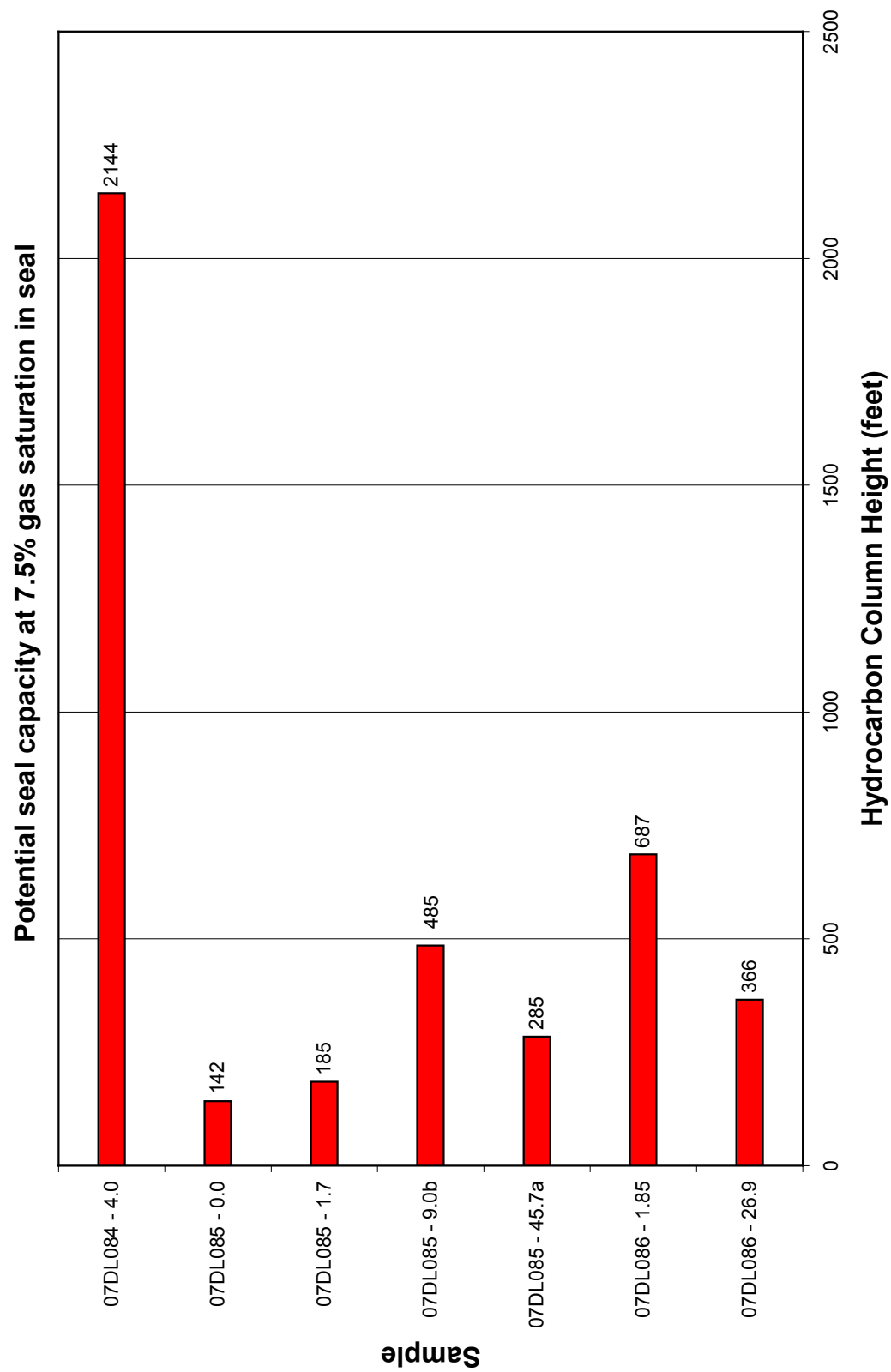


Figure 5. Chart of potential seal capacity at 7.5% gas saturation in seal for each sample.

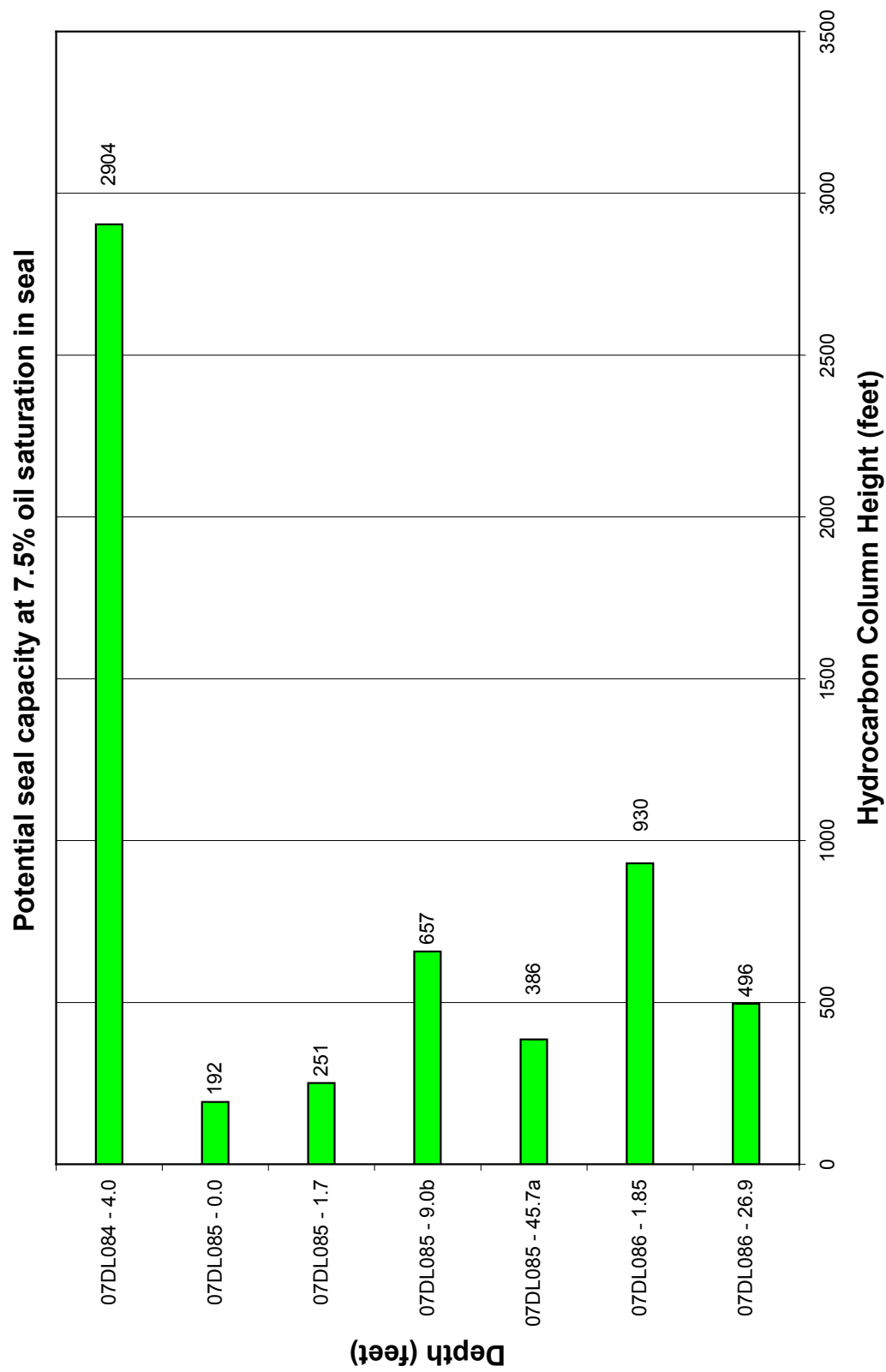


Figure 6. Chart of potential seal capacity at 7.5% oil saturation in seal for each sample.

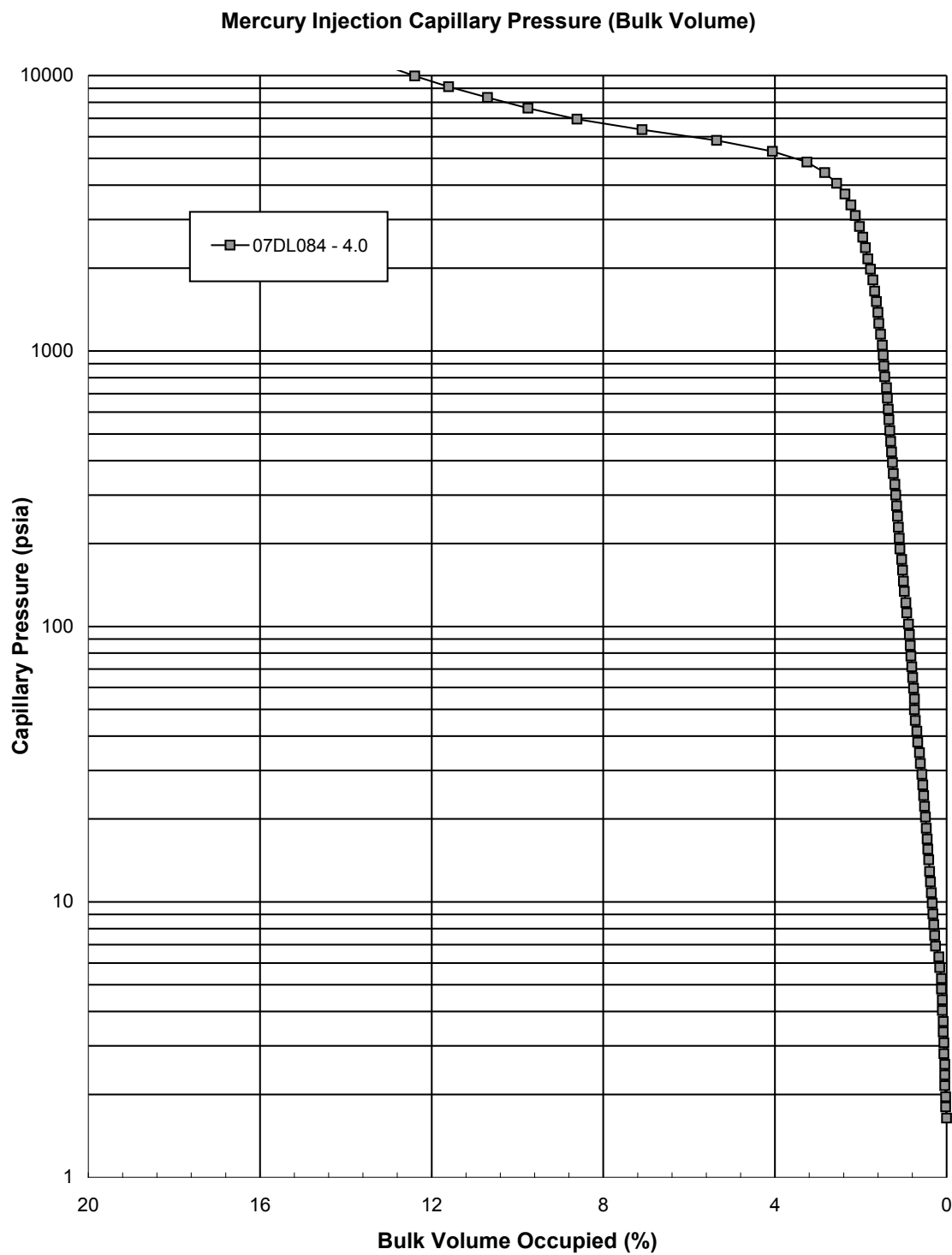


Figure 7a. MICP bulk volume for sample 07DL084 – 4.0.

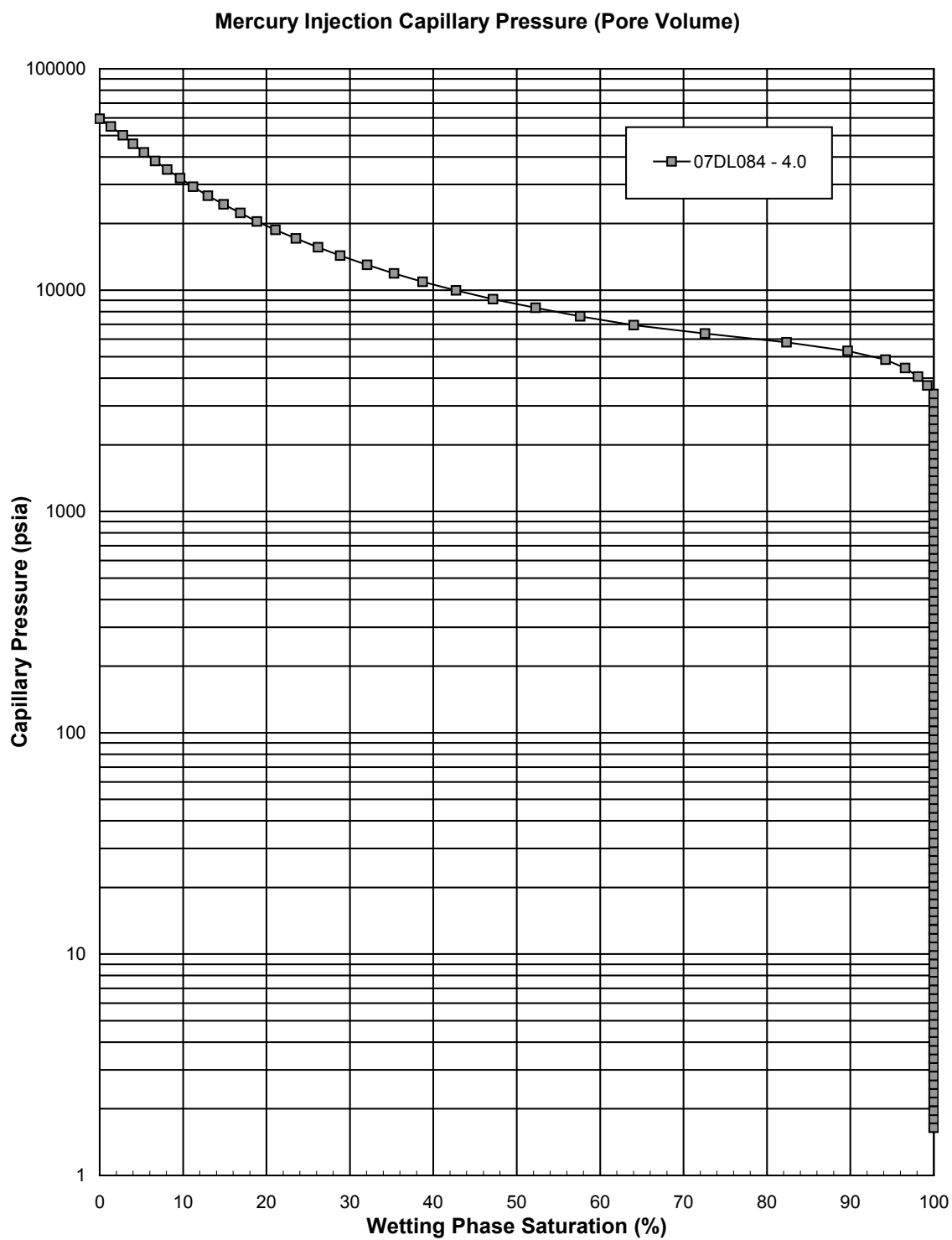


Figure 7b. MICP pore volume for sample 07DL084 – 4.0.

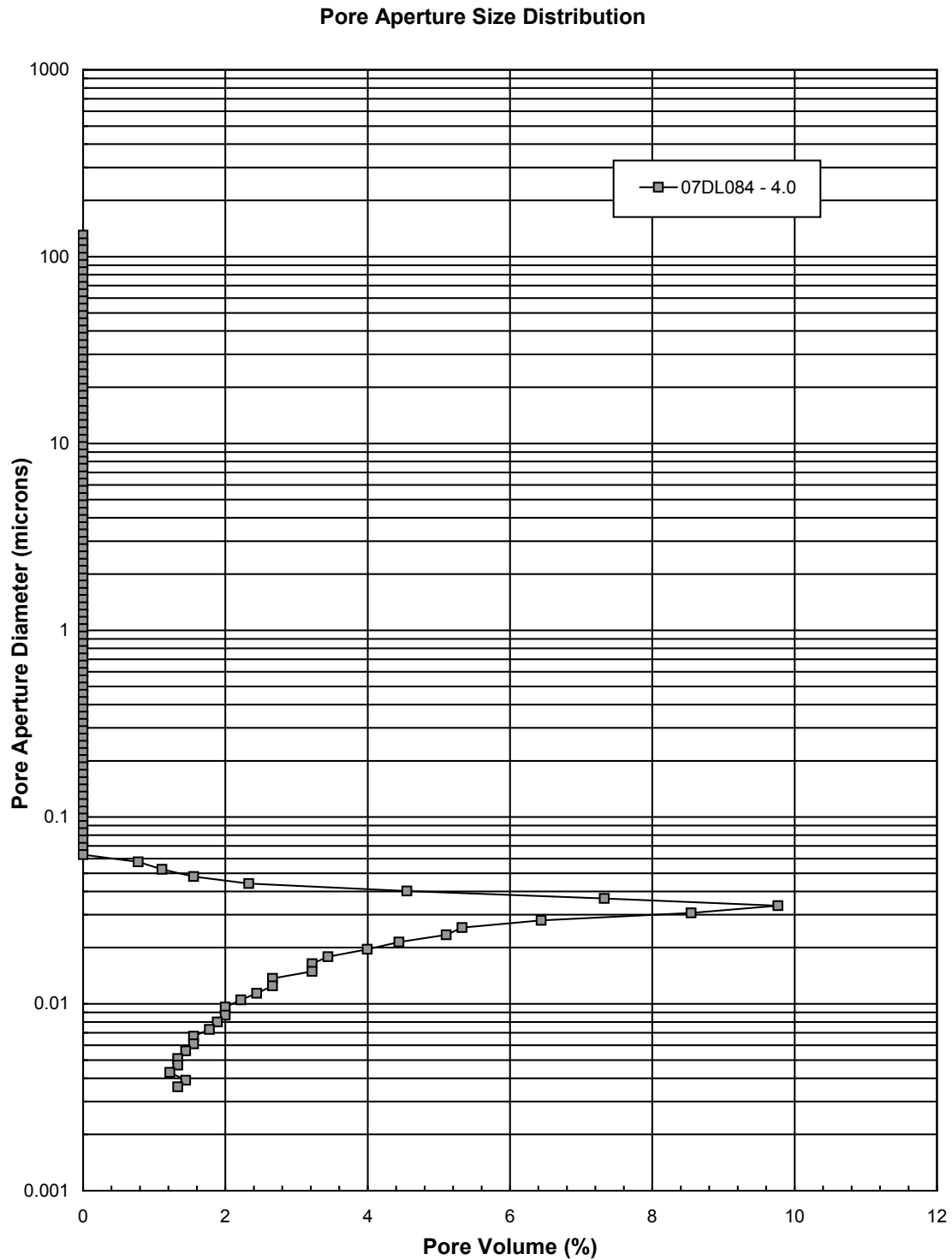


Figure 7c. Pore aperture size for sample 07DL084 – 4.0.

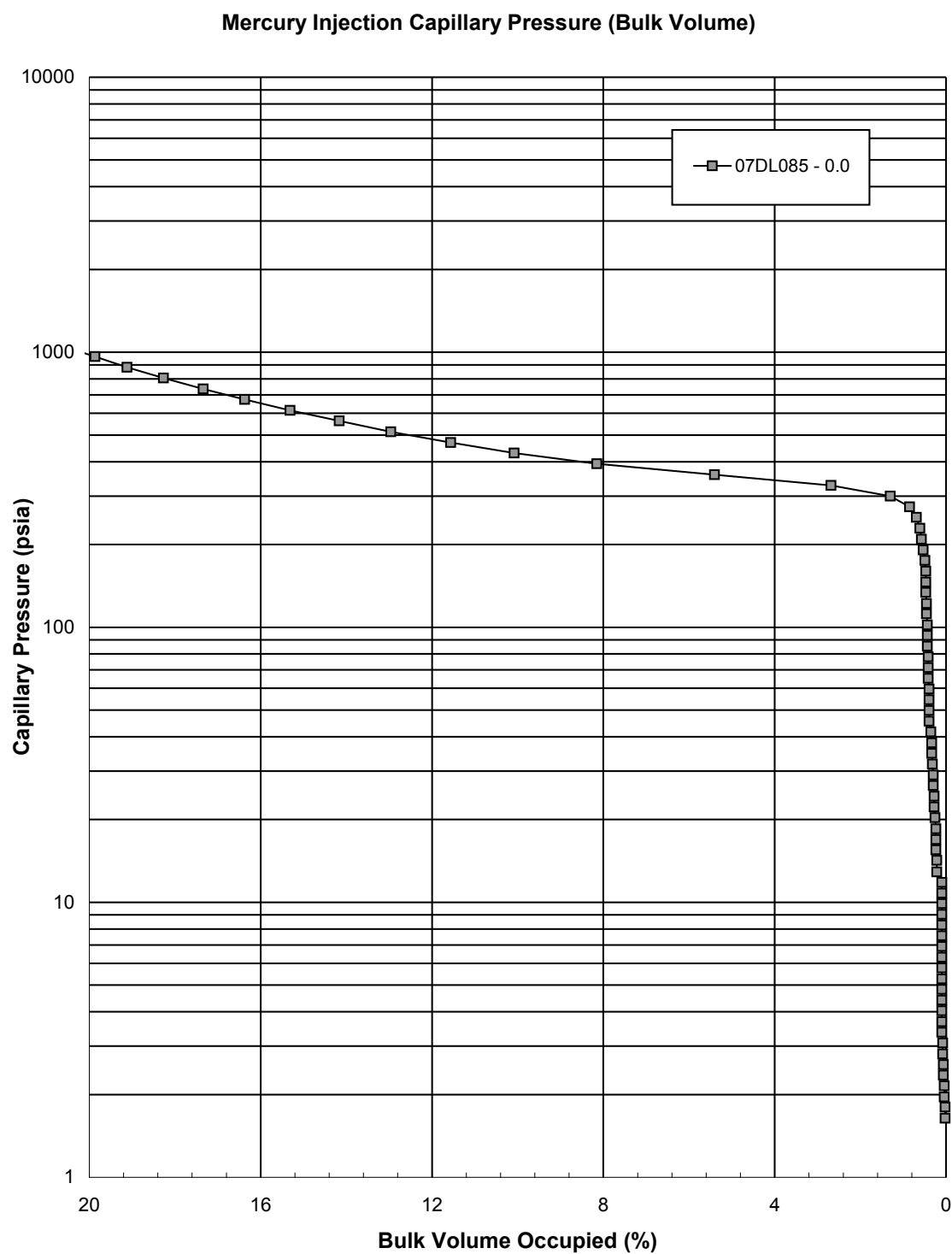


Figure 8a. MICP bulk volume for sample 07DL085 – 0.0.

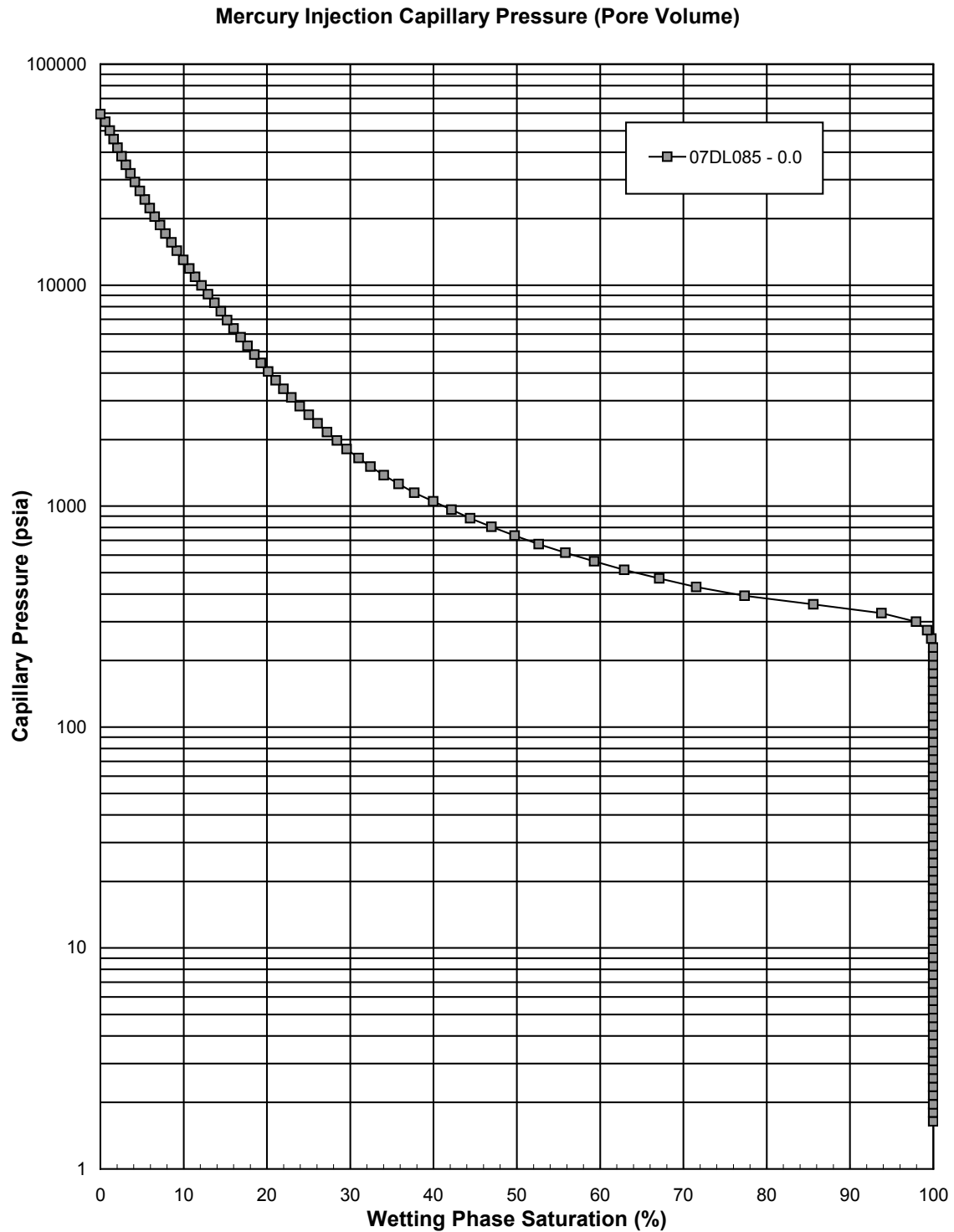


Figure 8b. MICP pore volume for sample 07DL085 – 0.0.

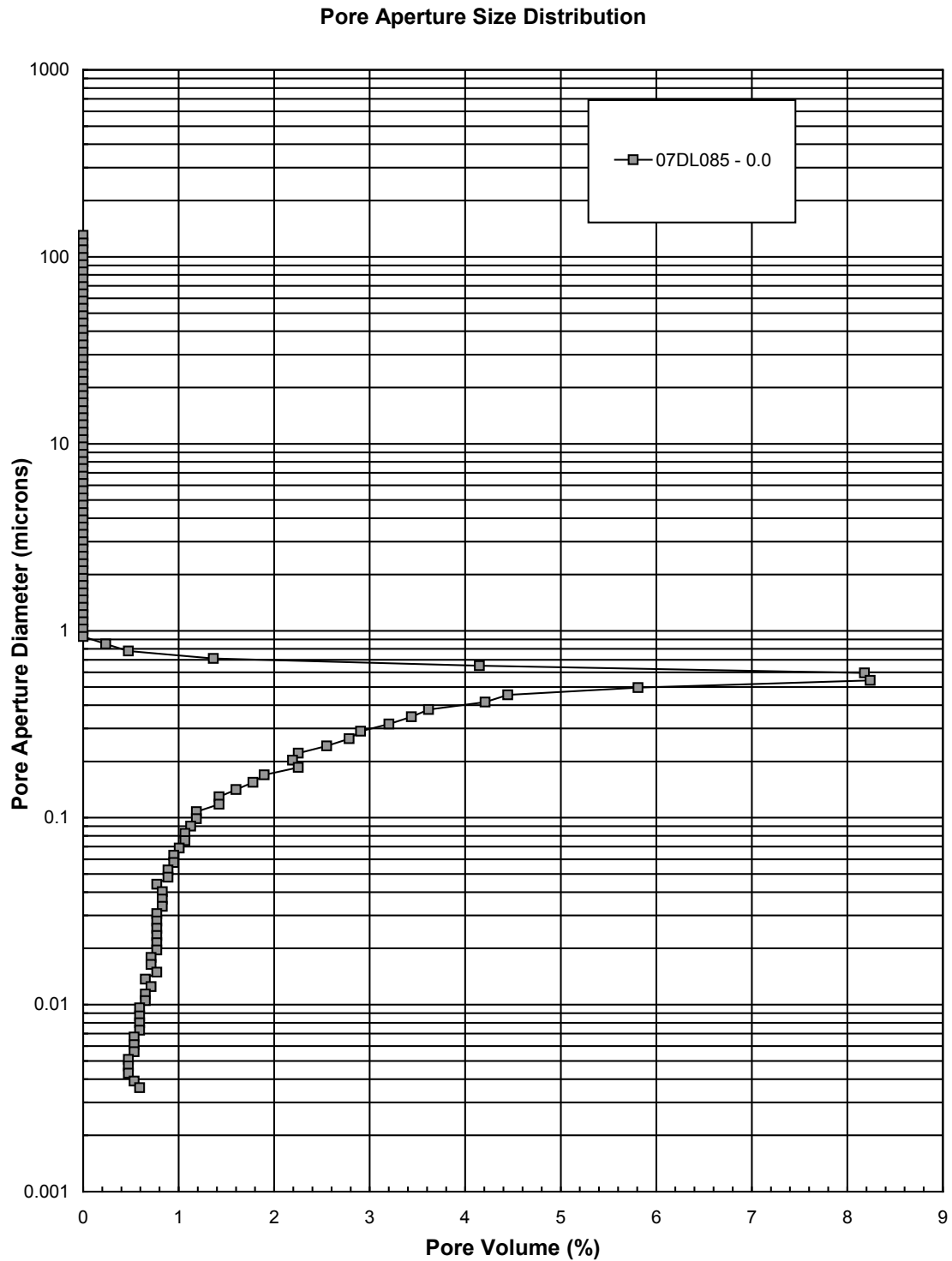


Figure 8c. Pore aperture size distribution for sample 07DL085 – 0.0.

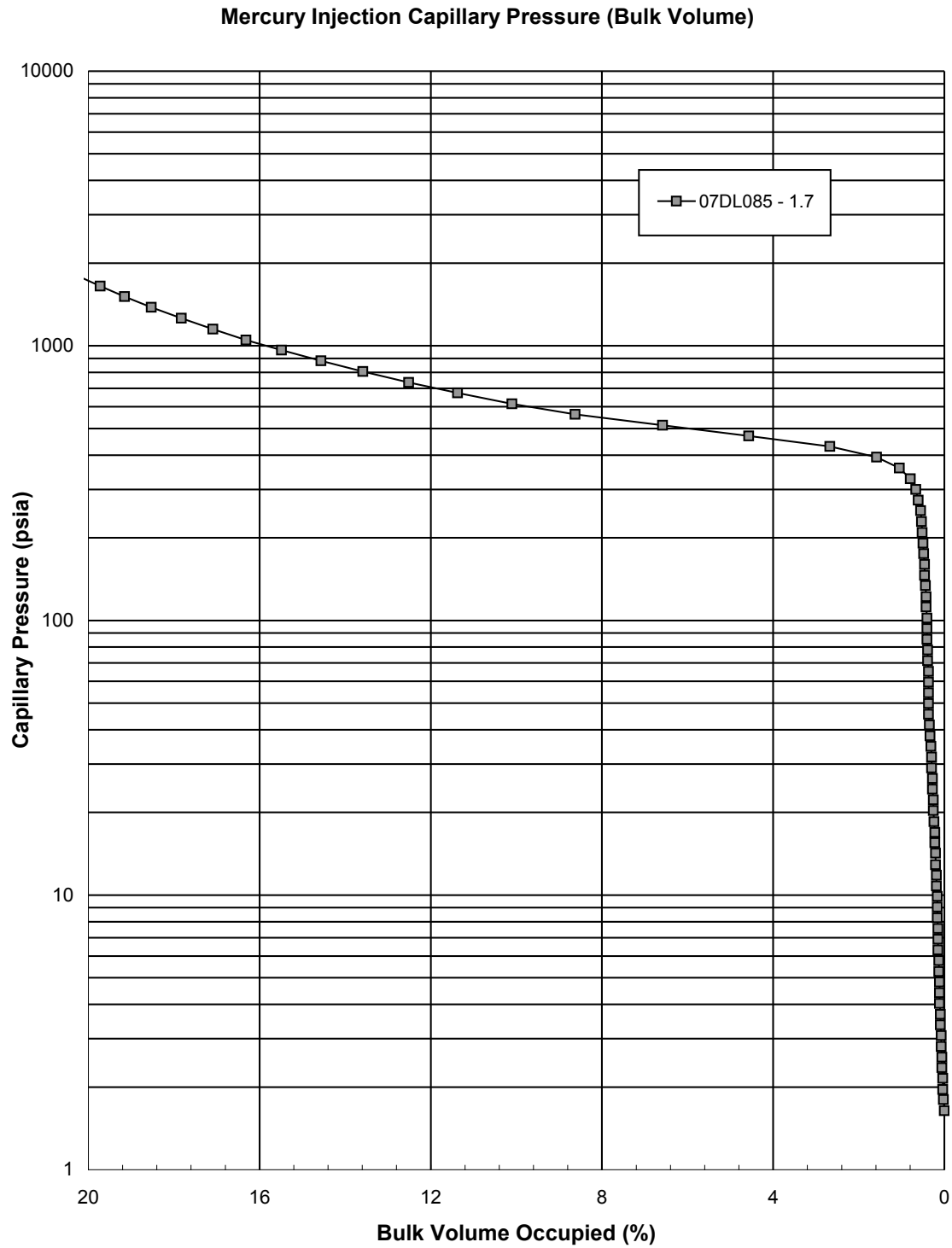


Figure 9a. MICP bulk volume for sample 07DL085 – 1.7.

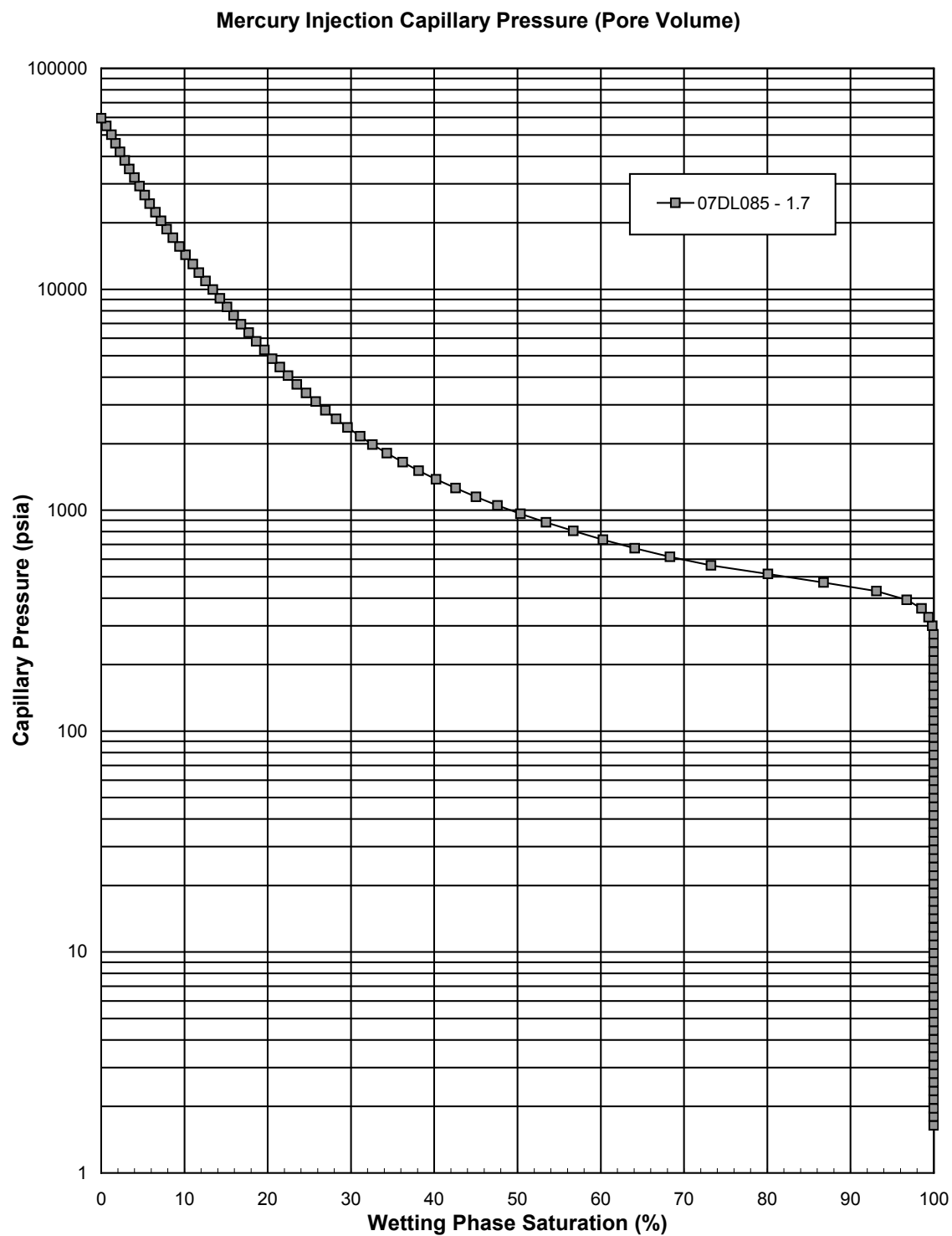


Figure 9b. MICP pore volume for sample 07DL085 – 1.7.

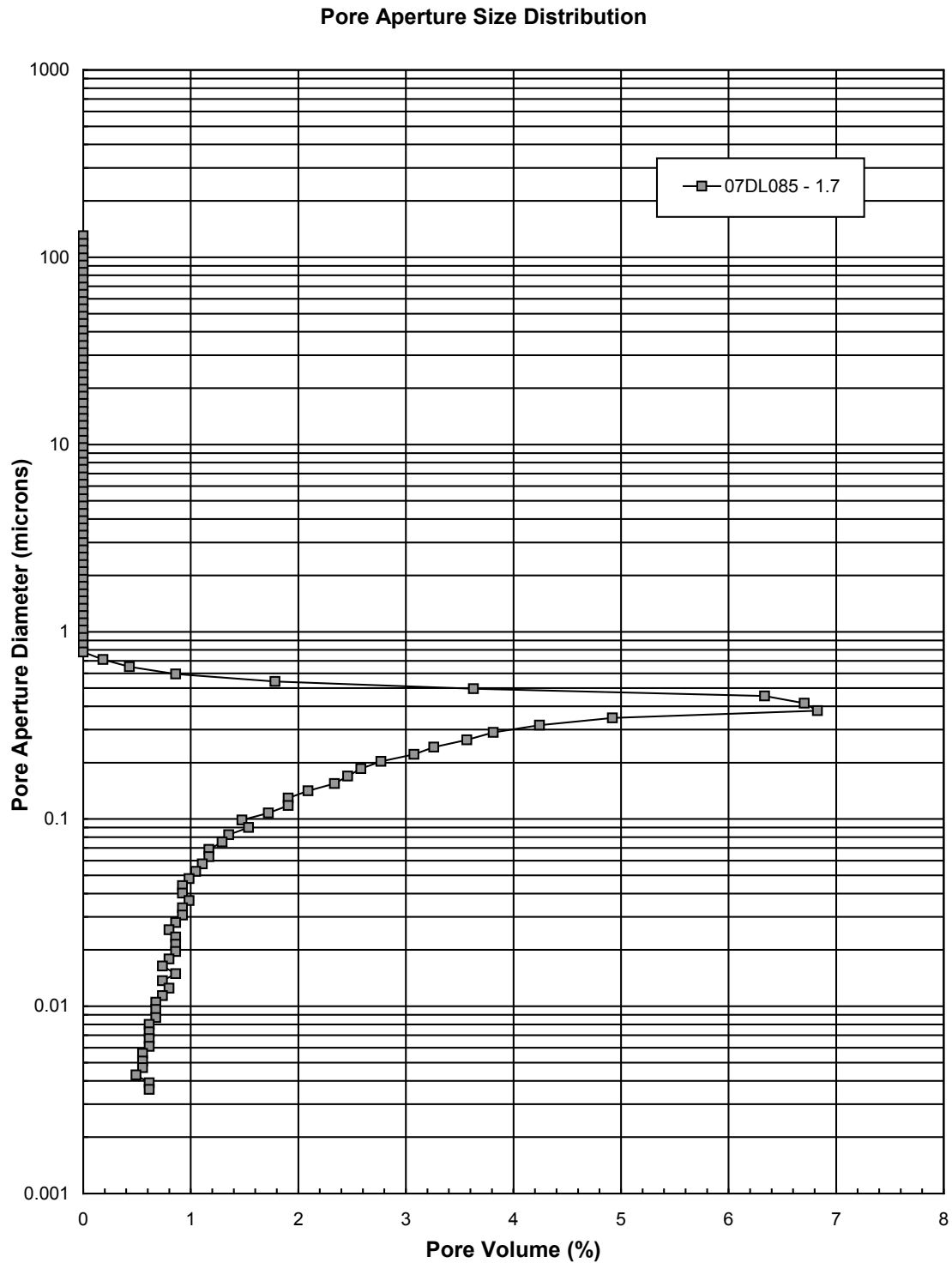


Figure 9c. Pore aperture size distribution for sample 08DL085 - 1.7.

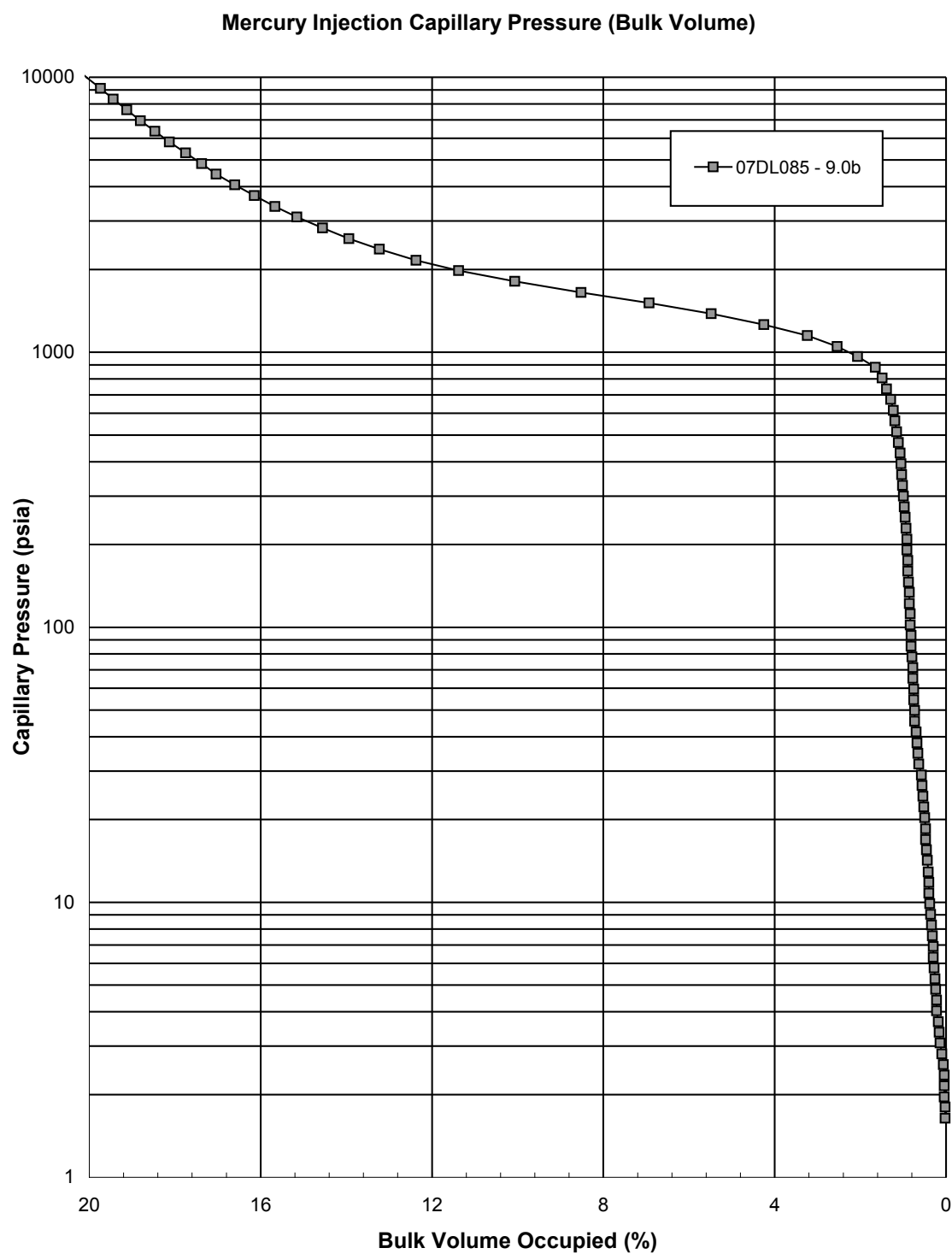


Figure 10a. MICP bulk volume for sample 07DL085 – 9.0b.

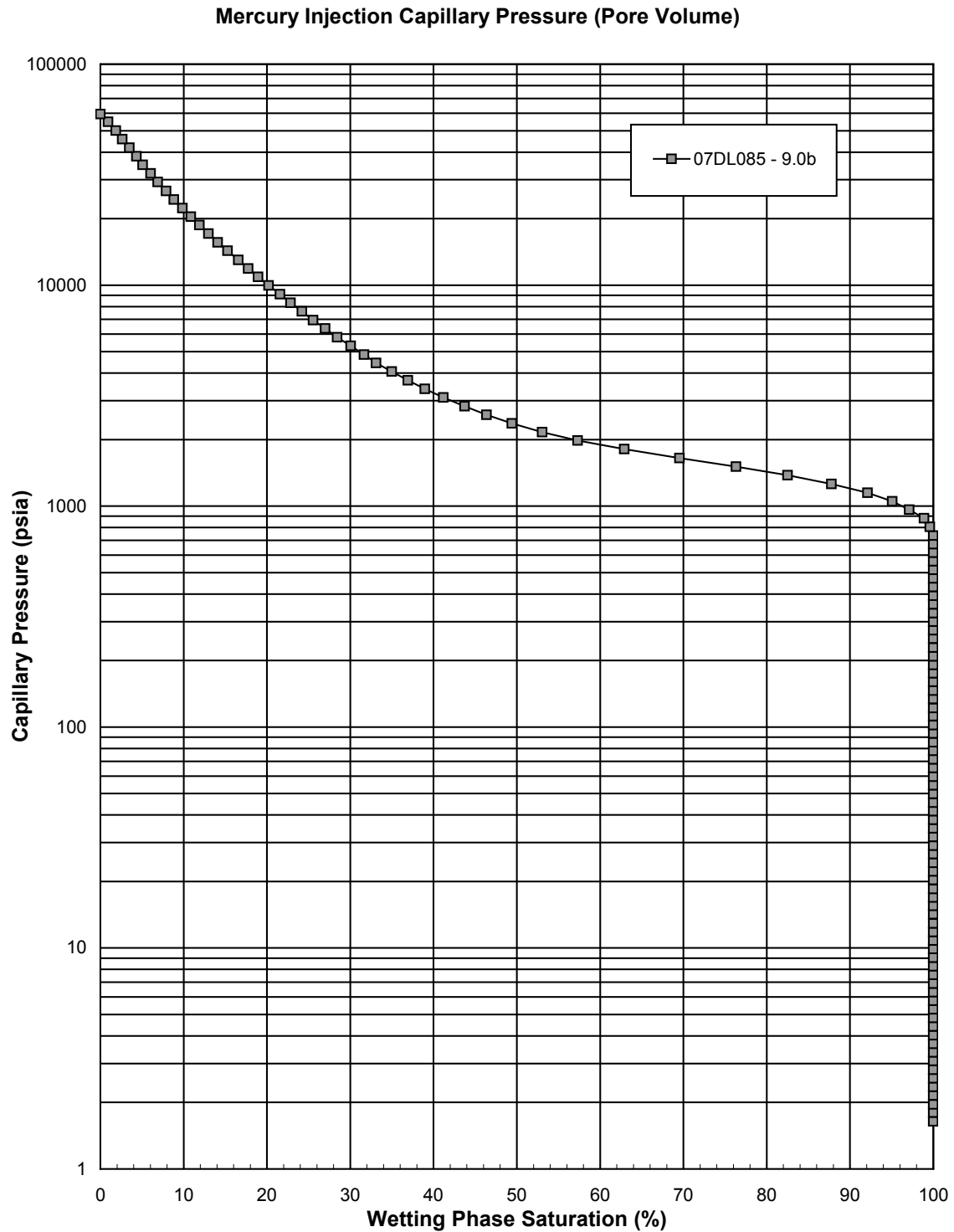


Figure 10b. MICP pore volume for sample 07DL085 – 9.0b.

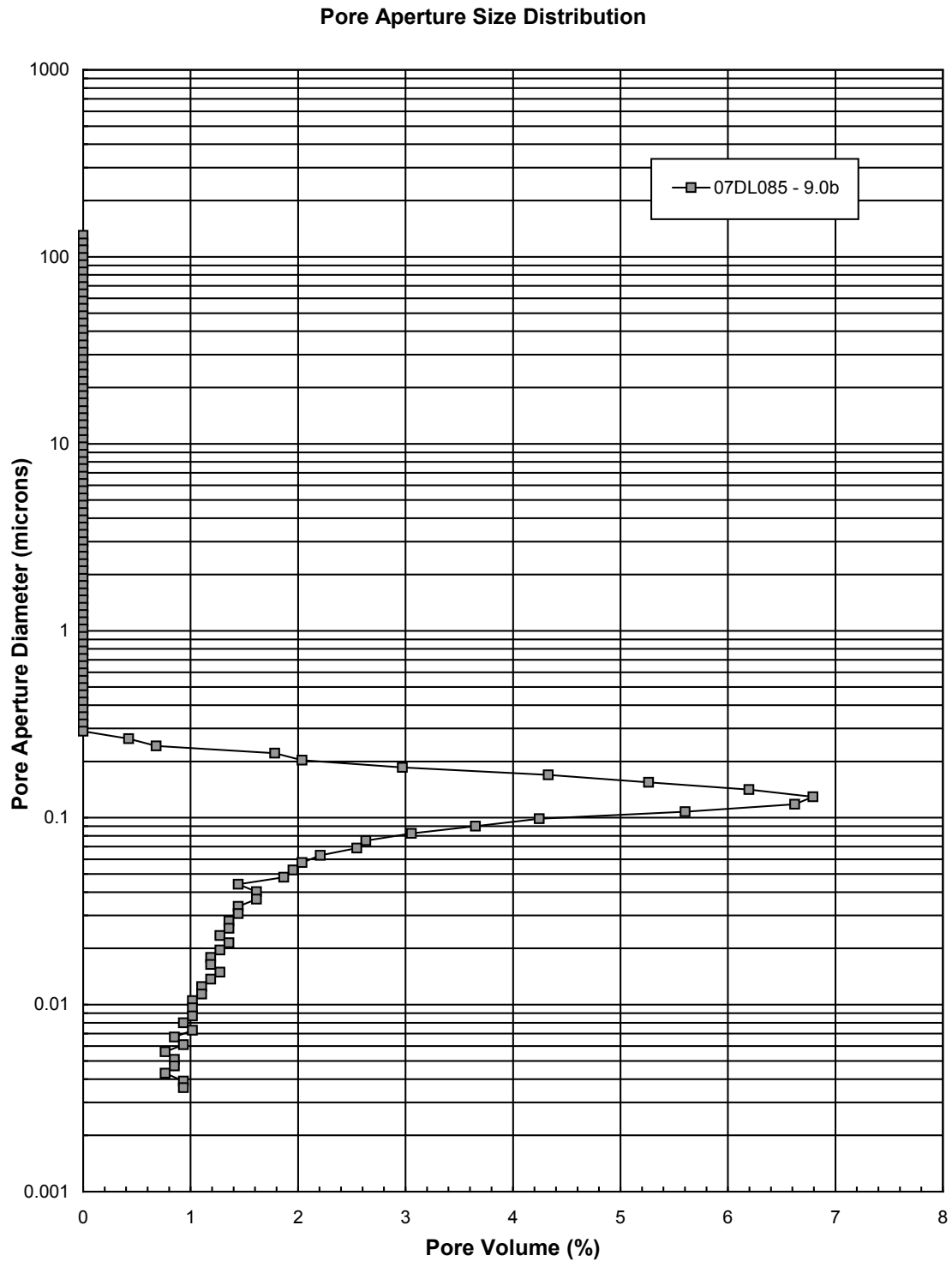


Figure 10c. Pore aperture size distribution for sample 07DL085 – 9.0b.

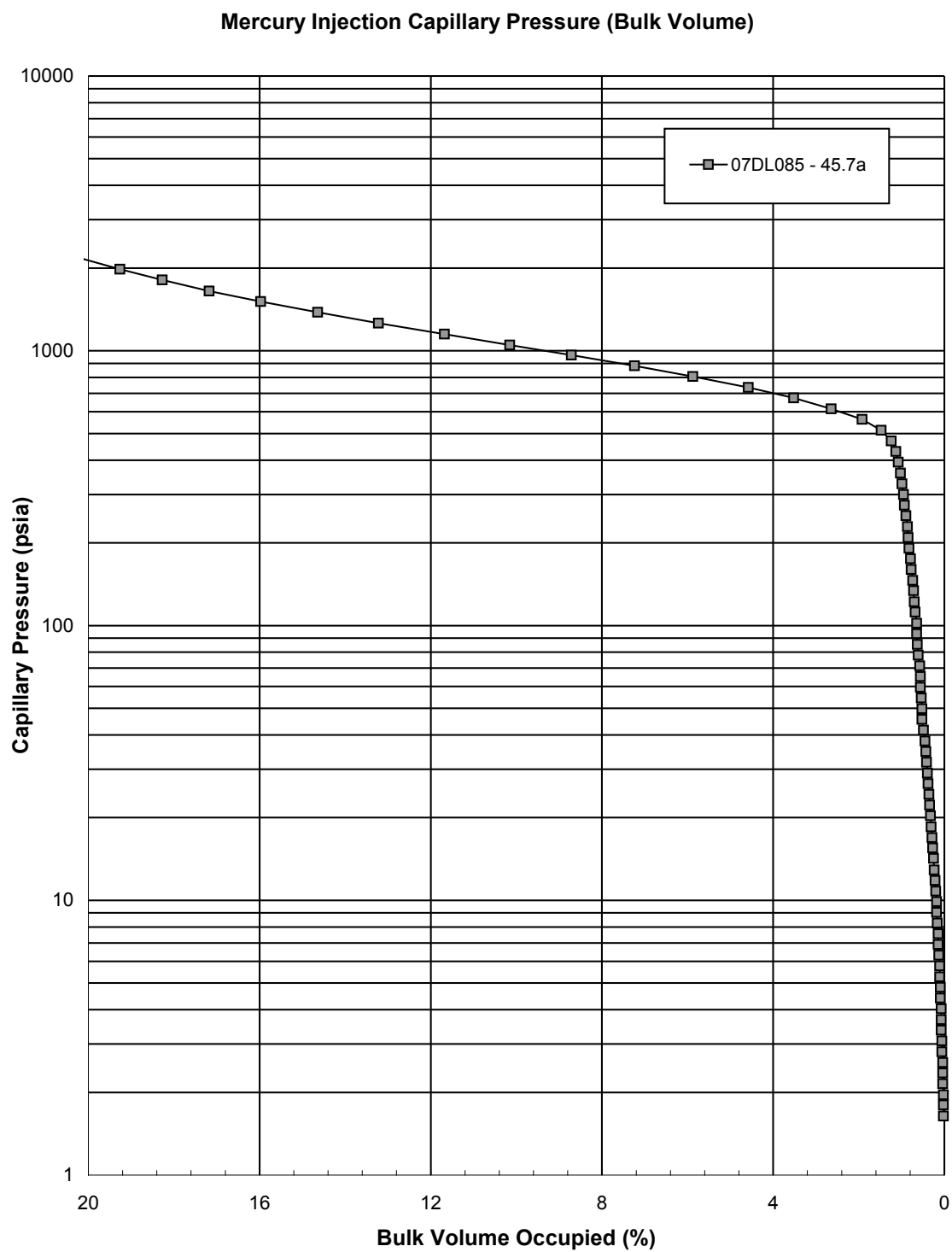


Figure 11a. MICP bulk volume for sample 07DL085 – 45.7a.

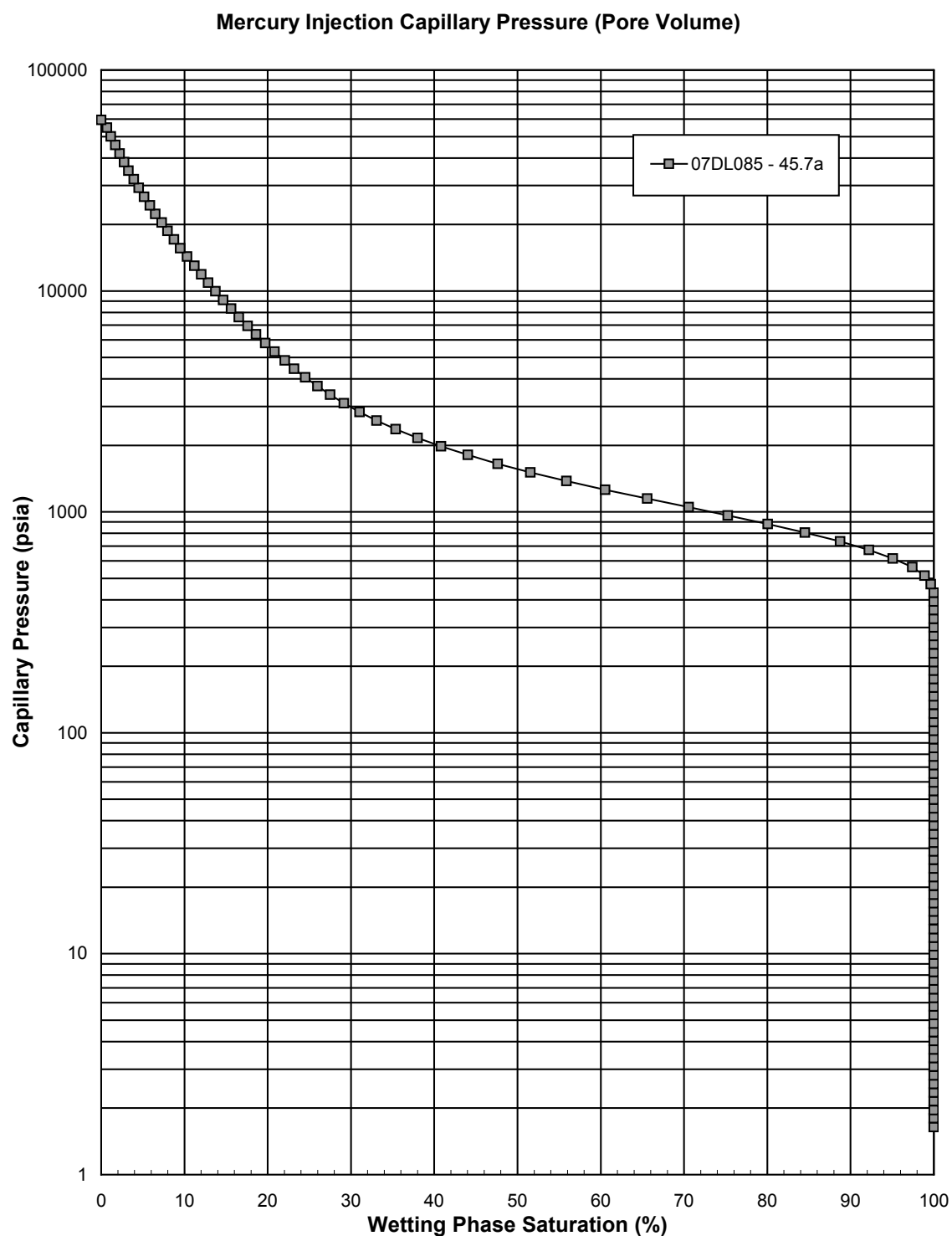


Figure 11b. MICP pore volume for sample 07DL085 – 45.7a.

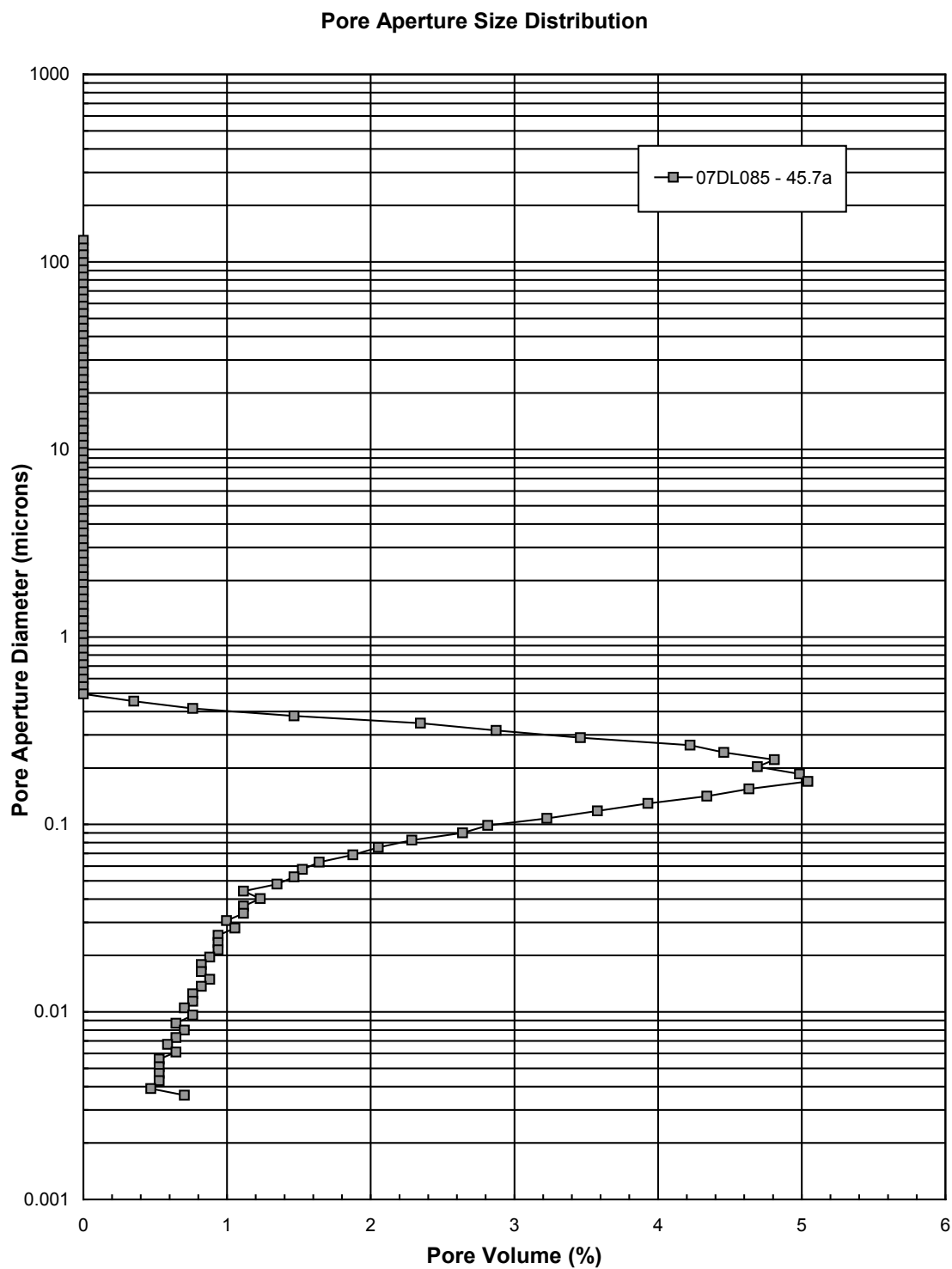


Figure 11c. Pore aperture size distribution for sample 07DL085 – 45.7a.

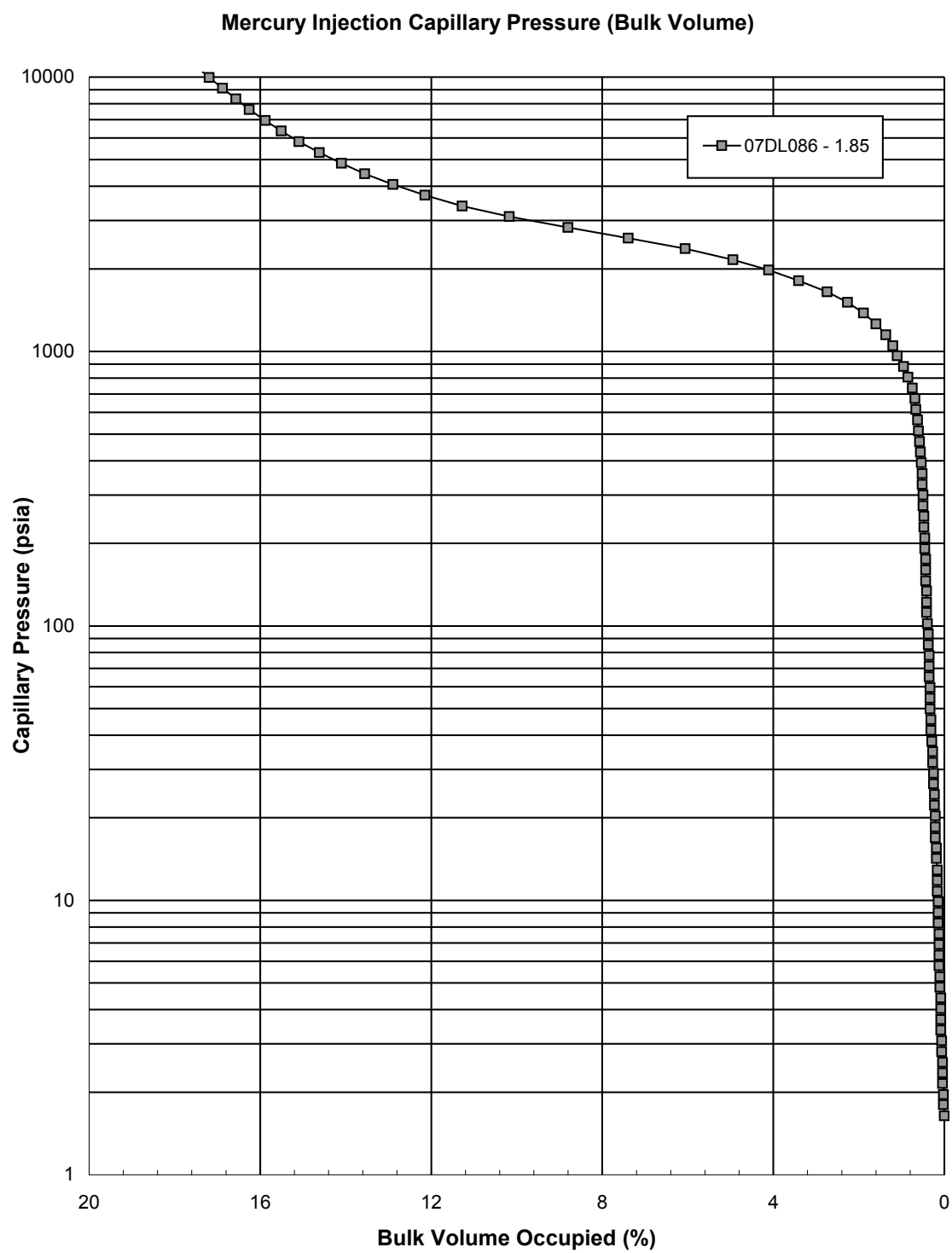


Figure 12a. MICP bulk volume for sample 07DL086 – 1.85.

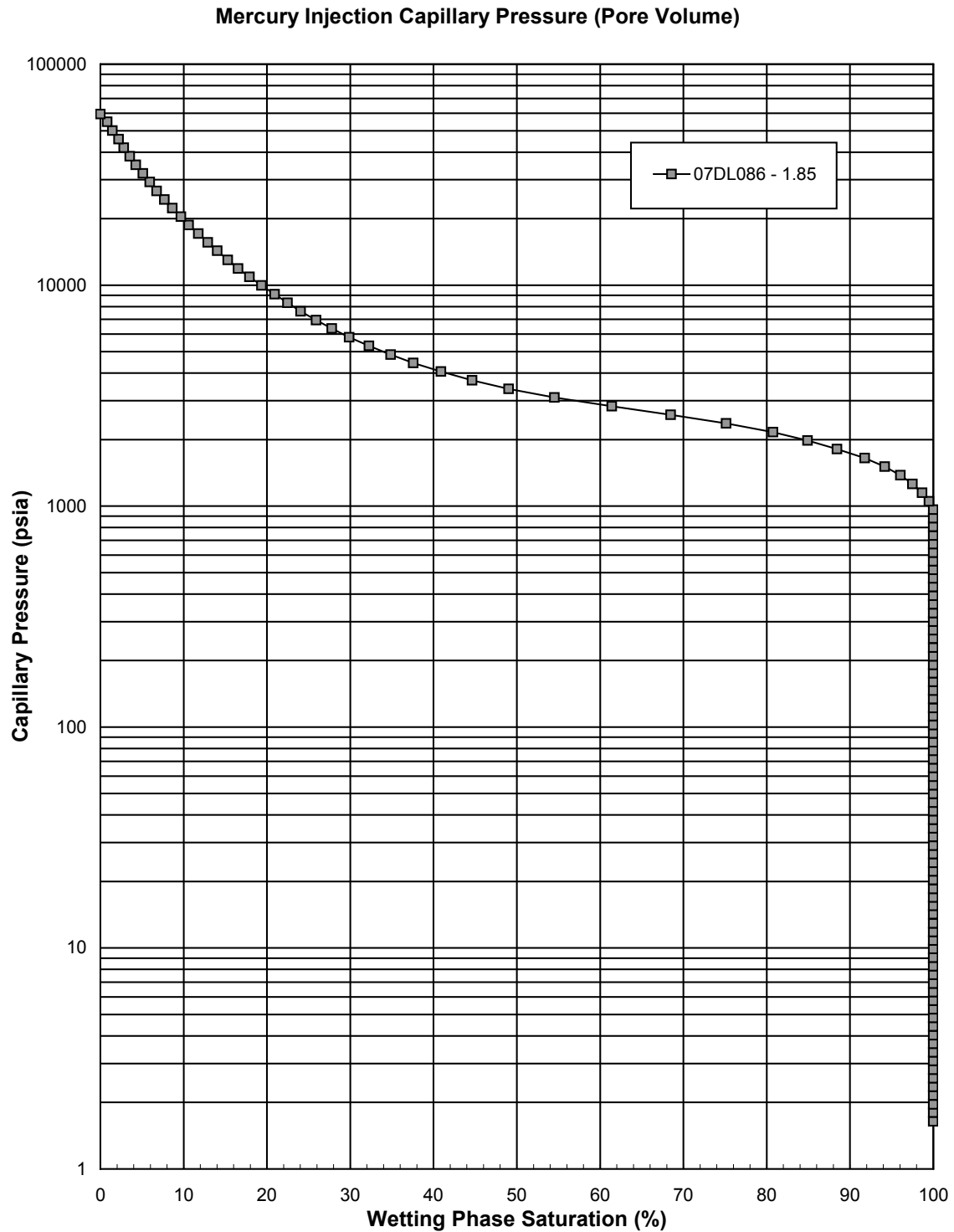


Figure 12b. MICP pore volume for sample 07086 – 1.85.

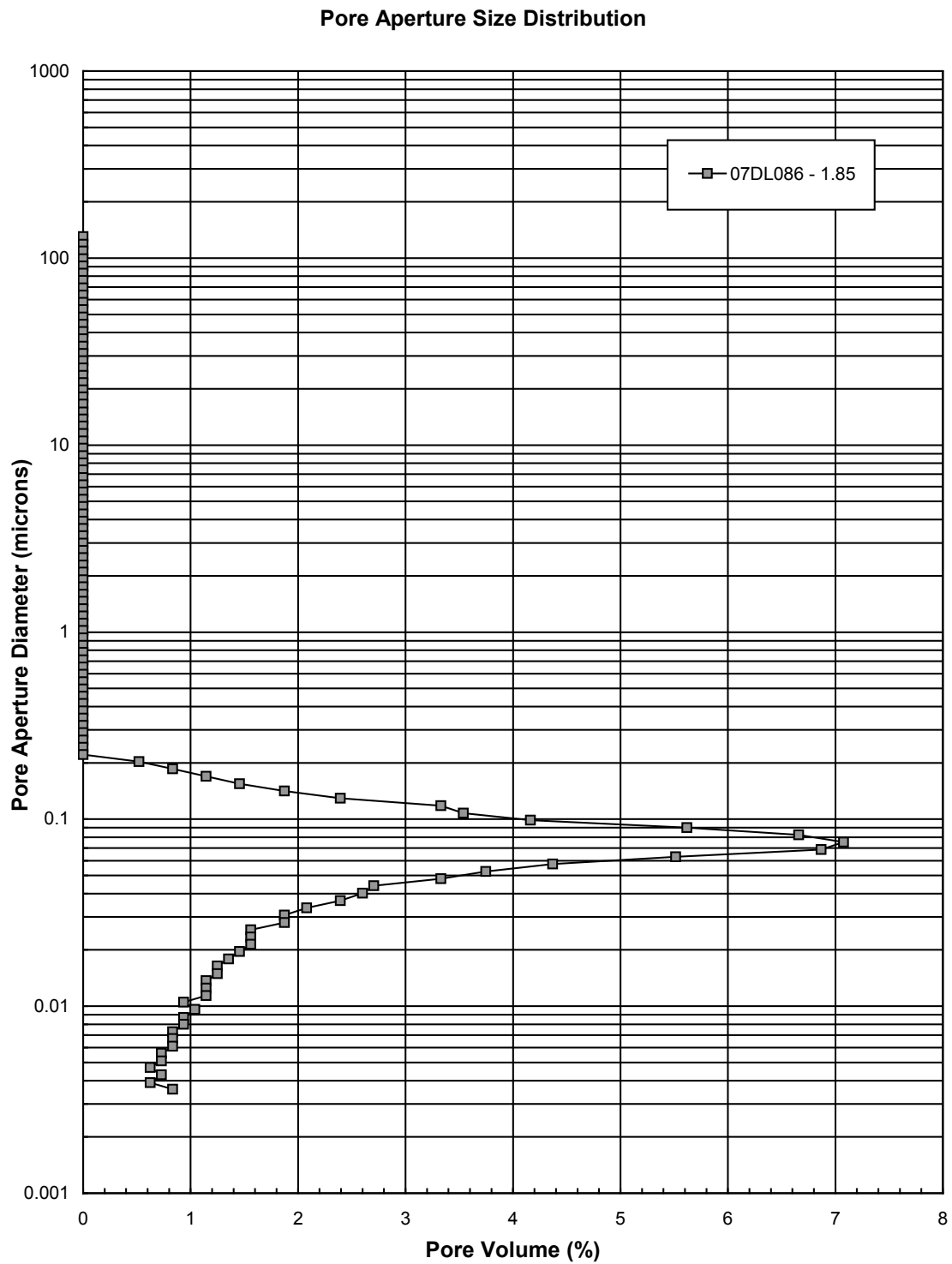


Figure 12c. Pore aperture size distribution for sample 07DL086 -1.85.

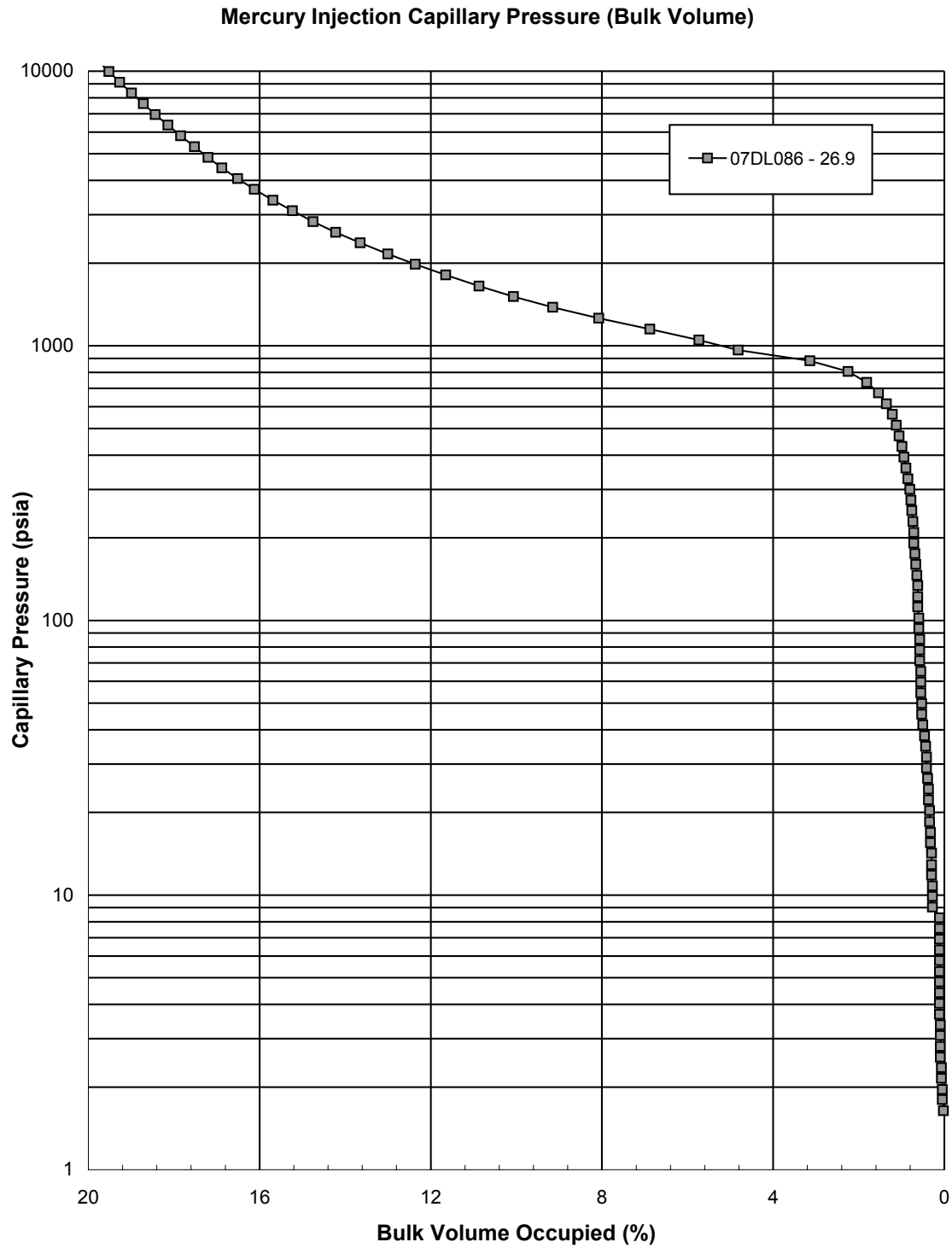


Figure 13a. MICP bulk volume for sample 07DL086 – 26.9.

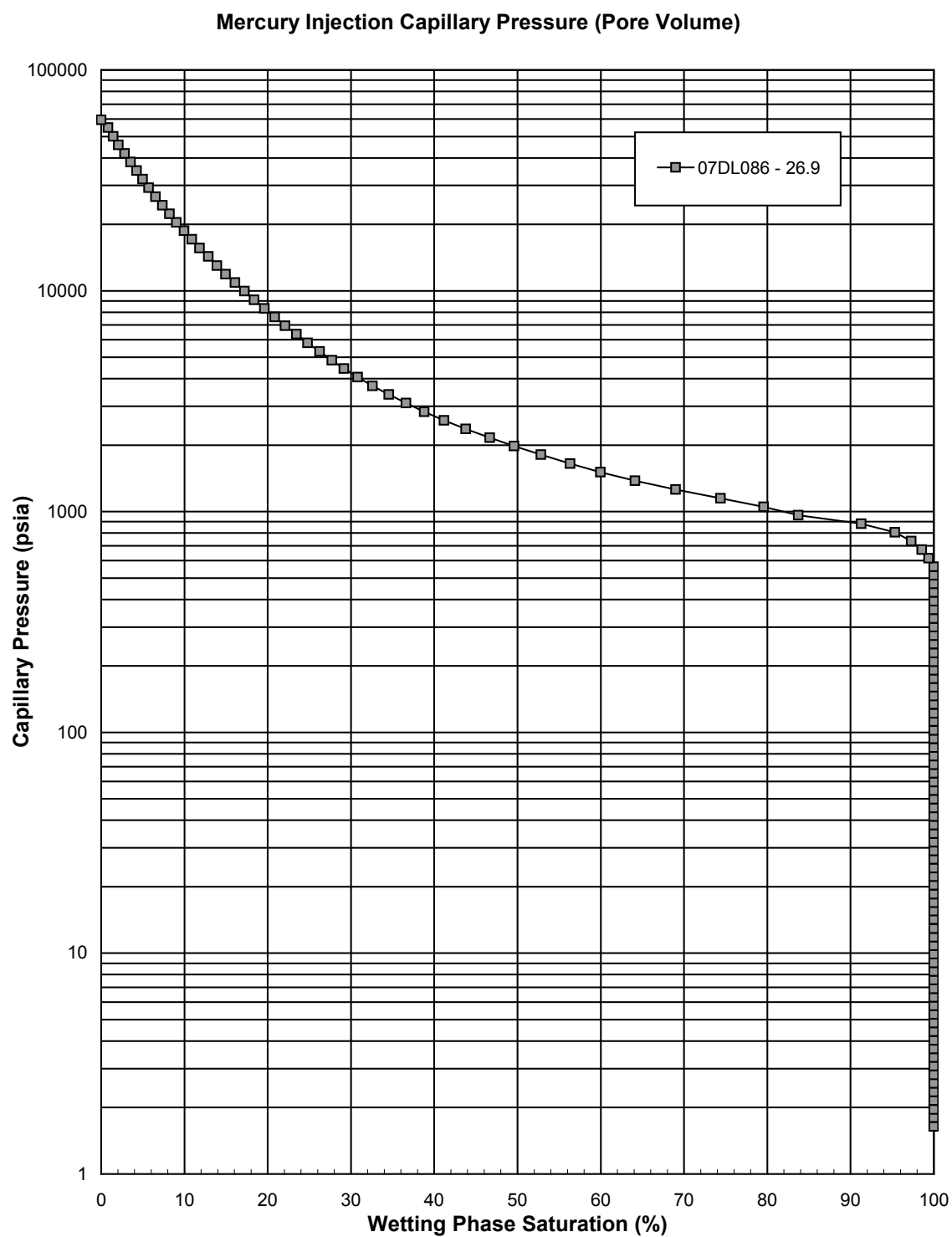


Figure 13b. MICP pore volume for sample 07DL086 – 26.9.

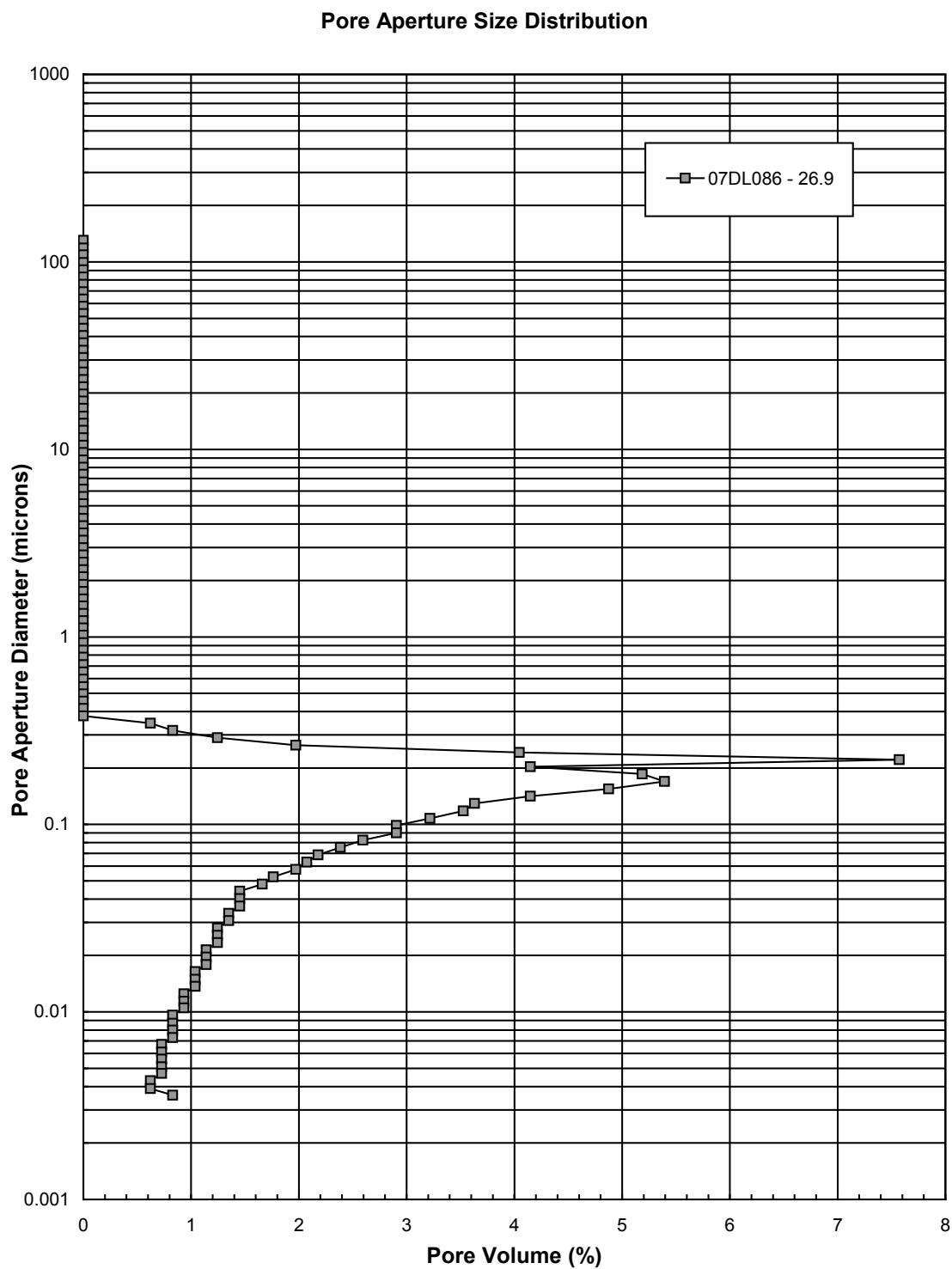


Figure 13c. Pore aperture size distribution for sample 07DL086 – 26.9.

Table 2. Summary of pore system and capillary properties.

Sample Depth (ft.)	Porosity (%)	Kair (md)	Median Aperture	Capillary Pressure at Various Mercury Saturations			
				entry	5%	7.5%	10%
07DL084 - 4.0	17.8	0.0052	0.0246	3390	4738	5024	5279
07DL085 - 0.0	33.1	0.791	0.2928	229	320	333	342
07DL085 - 1.7	30.0	0.406	0.2184	274	410	434	450
07DL085 - 9.0b	23.3	0.065	0.0914	736	1053	1137	1204
07DL085 - 45.7a	30.7	0.183	0.1362	430	617	667	713
07DL086 - 1.85	20.0	0.026	0.0640	964	1452	1609	1735
07DL086 - 26.9	22.2	0.083	0.1090	563	812	858	895

Median aperture size is diameter in microns

Table 3. Summary of height data for 2007 samples.

Data Used In Height Plots														
Changing any values in green cells will recalculate and replot seal capacity														
				Gas										
Assumed water density (g/cc) -				1.016		Surface Tension -		50 dynes/cm		Oil				
						Density -		0.28 g/cc		Surface Tension -		30 dynes/cm		
								0.1360		Density -		0.69 g/cc		
						height(ft)=		0.4267 *Capillary Pressure		height(ft)=		0.0816 *Capillary Pressure		
												0.5780 *Capillary Pressure		
Capillary pressure (psia)					Height in feet				Height in feet					
	0%	5%	7.5%	10%		0%	5%	7.5%	10%		0%	5%	7.5%	10%
07DL084 -	3390	4738	5024	5279		1446	2022	2144	2252		1959	2739	2904	3051
07DL085 -	229	320	333	342		98	137	142	146		132	185	192	198
07DL085 -	274	410	434	450		117	175	185	192		158	237	251	260
07DL085 -	736	1053	1137	1204		314	449	485	514		425	609	657	696
07DL085 -	430	617	667	713		183	263	285	304		249	357	386	412
07DL086 -	964	1452	1609	1735		411	620	687	740		557	839	930	1003
07DL086 -	563	812	858	895		240	346	366	382		325	469	496	517
Average	941	1343	1437	1517		401	573	613	647		544	776	831	877
Height @ 7.5% Saturation														
	Pc	Gas	Oil											
07DL084 -	5024	2144	2904											
07DL085 -	333	142	192											
07DL085 -	434	185	251											
07DL085 -	1137	485	657											
07DL085 -	667	285	386											
07DL086 -	1609	687	930											
07DL086 -	858	366	496											

Table 4. MICP data for sample 07DL084 - 4.0.

**Mercury Injection Capillary Pressure
07DL084 - 4.0**

<u>Sample Information</u>					
Bulk Volume =	5.439 cc	Porosity =	17.8% (mercury)		
Pore Volume =	0.9666 cc	Permeability =	0.0052 md (mercury)		
Closure = 2.23 %BV @ 3390 psia		Median Pore Aperture =	0.0246 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.00	100.0	0.00	0.0000
1.80	119	0.02	100.0	0.00	0.0000
1.96	109	0.02	100.0	0.00	0.0000
2.15	99.2	0.04	100.0	0.00	0.0000
2.35	90.8	0.04	100.0	0.00	0.0000
2.57	83.0	0.04	100.0	0.00	0.0000
2.81	75.9	0.06	100.0	0.00	0.0000
3.08	69.3	0.06	100.0	0.00	0.0000
3.37	63.3	0.08	100.0	0.00	0.0000
3.68	58.0	0.08	100.0	0.00	0.0000
4.03	52.9	0.10	100.0	0.00	0.0000
4.41	48.4	0.10	100.0	0.00	0.0000
4.82	44.3	0.12	100.0	0.00	0.0000
5.27	40.5	0.12	100.0	0.00	0.0000
5.77	37.0	0.16	100.0	0.00	0.0000
6.31	33.8	0.18	100.0	0.00	0.0000
6.90	30.9	0.26	100.0	0.00	0.0000
7.55	28.3	0.28	100.0	0.00	0.0000
8.26	25.8	0.30	100.0	0.00	0.0000
9.04	23.6	0.32	100.0	0.00	0.0000
9.89	21.6	0.33	100.0	0.00	0.0000
10.8	19.8	0.35	100.0	0.00	0.0000
11.8	18.1	0.37	100.0	0.00	0.0000
12.9	16.5	0.39	100.0	0.00	0.0000
14.2	15.0	0.41	100.0	0.00	0.0000
15.5	13.8	0.43	100.0	0.00	0.0000
16.9	12.6	0.45	100.0	0.00	0.0000
18.5	11.5	0.47	100.0	0.00	0.0000
20.3	10.5	0.49	100.0	0.00	0.0000
22.2	9.61	0.51	100.0	0.00	0.0000
24.3	8.78	0.53	100.0	0.00	0.0000
26.6	8.02	0.55	100.0	0.00	0.0000
29.0	7.36	0.57	100.0	0.00	0.0000
31.8	6.71	0.61	100.0	0.00	0.0000
34.8	6.13	0.63	100.0	0.00	0.0000
38.0	5.61	0.67	100.0	0.00	0.0000

Table 4 (cont.). MICP data for sample 07DL084 - 4.0.

**Mercury Injection Capillary Pressure
07DL084 - 4.0**

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.69	100.0	0.00	0.0000
45.5	4.69	0.73	100.0	0.00	0.0000
49.8	4.28	0.75	100.0	0.00	0.0000
54.5	3.91	0.75	100.0	0.00	0.0000
59.6	3.58	0.77	100.0	0.00	0.0000
65.2	3.27	0.79	100.0	0.00	0.0000
71.3	2.99	0.81	100.0	0.00	0.0000
78.0	2.73	0.83	100.0	0.00	0.0000
85.3	2.50	0.85	100.0	0.00	0.0000
93.4	2.28	0.87	100.0	0.00	0.0000
102	2.09	0.89	100.0	0.00	0.0000
112	1.90	0.93	100.0	0.00	0.0000
122	1.75	0.95	100.0	0.00	0.0000
134	1.59	0.99	100.0	0.00	0.0000
146	1.46	1.00	100.0	0.00	0.0000
160	1.33	1.02	100.0	0.00	0.0000
175	1.22	1.04	100.0	0.00	0.0000
191	1.12	1.08	100.0	0.00	0.0000
209	1.02	1.10	100.0	0.00	0.0000
229	0.932	1.12	100.0	0.00	0.0000
251	0.850	1.14	100.0	0.00	0.0000
274	0.779	1.16	100.0	0.00	0.0000
300	0.711	1.18	100.0	0.00	0.0000
328	0.650	1.20	100.0	0.00	0.0000
359	0.594	1.24	100.0	0.00	0.0000
393	0.543	1.26	100.0	0.00	0.0000
430	0.496	1.28	100.0	0.00	0.0000
470	0.454	1.30	100.0	0.00	0.0000
514	0.415	1.32	100.0	0.00	0.0000
563	0.379	1.34	100.0	0.00	0.0000
615	0.347	1.36	100.0	0.00	0.0000
673	0.317	1.38	100.0	0.00	0.0000
736	0.290	1.40	100.0	0.00	0.0000
806	0.265	1.44	100.0	0.00	0.0000
881	0.242	1.46	100.0	0.00	0.0000
964	0.221	1.48	100.0	0.00	0.0000
1050	0.203	1.50	100.0	0.00	0.0000
1150	0.186	1.54	100.0	0.00	0.0000
1260	0.169	1.58	100.0	0.00	0.0000
1380	0.155	1.60	100.0	0.00	0.0000
1510	0.141	1.64	100.0	0.00	0.0000
1650	0.129	1.67	100.0	0.00	0.0000

Table 4 (cont.). MICP data for sample 07DL084 - 4.0.

Mercury Injection Capillary Pressure
07DL084 - 4.0

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	1.71	100.0	0.00	0.0000
1980	0.1077	1.77	100.0	0.00	0.0000
2160	0.0988	1.83	100.0	0.00	0.0000
2370	0.0900	1.89	100.0	0.00	0.0000
2590	0.0824	1.95	100.0	0.00	0.0000
2830	0.0754	2.03	100.0	0.00	0.0000
3100	0.0688	2.13	100.0	0.00	0.0000
3390	0.0629	2.23	100.0	0.00	0.0000
3710	0.0575	2.36	99.2	0.78	0.0024
4060	0.0525	2.56	98.1	1.11	0.0032
4440	0.0480	2.84	96.6	1.55	0.0041
4850	0.0440	3.25	94.2	2.33	0.0057
5310	0.0402	4.06	89.7	4.55	0.0099
5810	0.0367	5.36	82.4	7.33	0.0147
6360	0.0335	7.09	72.6	9.77	0.0178
6950	0.0307	8.61	64.0	8.55	0.0145
7610	0.0280	9.75	57.6	6.44	0.0098
8320	0.0256	10.70	52.3	5.33	0.0075
9100	0.0234	11.60	47.2	5.11	0.0065
9960	0.0214	12.39	42.7	4.44	0.0052
10900	0.0196	13.10	38.7	4.00	0.0043
11900	0.0179	13.71	35.3	3.44	0.0034
13000	0.0164	14.28	32.1	3.22	0.0029
14300	0.0149	14.86	28.9	3.22	0.0025
15600	0.0137	15.33	26.2	2.66	0.0020
17100	0.0125	15.80	23.5	2.66	0.0018
18700	0.0114	16.23	21.1	2.44	0.0015
20400	0.0105	16.63	18.9	2.22	0.0013
22300	0.0096	16.98	16.9	2.00	0.0011
24400	0.0087	17.34	14.9	2.00	0.0010
26700	0.0080	17.67	13.0	1.89	0.0008
29300	0.0073	17.99	11.2	1.78	0.0007
32000	0.0067	18.26	9.7	1.55	0.0006
35000	0.0061	18.54	8.1	1.55	0.0005
38300	0.0056	18.80	6.7	1.44	0.0004
41900	0.0051	19.03	5.3	1.33	0.0004
45800	0.0047	19.27	4.0	1.33	0.0003
50100	0.0043	19.49	2.8	1.22	0.0003
54800	0.0039	19.74	1.3	1.44	0.0003
59500	0.0036	19.98	0.0	1.33	0.0003

Table 5. MICP data for sample 07DL085 - 0.0.

Mercury Injection Capillary Pressure
07DL085 - 0.0

Sample Information			
Bulk Volume =	5.4188 cc	Porosity =	33.1% (mercury)
Pore Volume =	1.7935 cc	Permeability =	0.791 md (mercury)
Closure = 0.61 %BV @ 229 psia		Median Pore Aperture = 0.2928 microns (diameter)	

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Volume (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.02	100.0	0.00	0.0000
1.96	109	0.04	100.0	0.00	0.0000
2.15	99.2	0.04	100.0	0.00	0.0000
2.35	90.8	0.06	100.0	0.00	0.0000
2.57	83.0	0.06	100.0	0.00	0.0000
2.81	75.9	0.08	100.0	0.00	0.0000
3.08	69.3	0.08	100.0	0.00	0.0000
3.37	63.3	0.10	100.0	0.00	0.0000
3.68	58.0	0.10	100.0	0.00	0.0000
4.03	52.9	0.10	100.0	0.00	0.0000
4.41	48.4	0.10	100.0	0.00	0.0000
4.82	44.3	0.10	100.0	0.00	0.0000
5.27	40.5	0.10	100.0	0.00	0.0000
5.77	37.0	0.10	100.0	0.00	0.0000
6.31	33.8	0.10	100.0	0.00	0.0000
6.90	30.9	0.10	100.0	0.00	0.0000
7.55	28.3	0.10	100.0	0.00	0.0000
8.26	25.8	0.10	100.0	0.00	0.0000
9.04	23.6	0.10	100.0	0.00	0.0000
9.89	21.6	0.10	100.0	0.00	0.0000
10.8	19.8	0.10	100.0	0.00	0.0000
11.8	18.1	0.10	100.0	0.00	0.0000
12.9	16.5	0.22	100.0	0.00	0.0000
14.2	15.0	0.22	100.0	0.00	0.0000
15.5	13.8	0.24	100.0	0.00	0.0000
16.9	12.6	0.24	100.0	0.00	0.0000
18.5	11.5	0.24	100.0	0.00	0.0000
20.3	10.5	0.26	100.0	0.00	0.0000
22.2	9.61	0.28	100.0	0.00	0.0000
24.3	8.78	0.28	100.0	0.00	0.0000
26.6	8.02	0.30	100.0	0.00	0.0000
29.0	7.36	0.30	100.0	0.00	0.0000
31.8	6.71	0.32	100.0	0.00	0.0000
34.8	6.13	0.34	100.0	0.00	0.0000
38.0	5.61	0.34	100.0	0.00	0.0000

Table 5 (cont.). MICP data for sample 07DL085 - 0.0.

Mercury Injection Capillary Pressure 07DL085 - 0.0					
Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.36	100.0	0.00	0.0000
45.5	4.69	0.39	100.0	0.00	0.0000
49.8	4.28	0.39	100.0	0.00	0.0000
54.5	3.91	0.39	100.0	0.00	0.0000
59.6	3.58	0.39	100.0	0.00	0.0000
65.2	3.27	0.41	100.0	0.00	0.0000
71.3	2.99	0.41	100.0	0.00	0.0000
78.0	2.73	0.41	100.0	0.00	0.0000
85.3	2.50	0.43	100.0	0.00	0.0000
93.4	2.28	0.43	100.0	0.00	0.0000
102	2.09	0.43	100.0	0.00	0.0000
112	1.90	0.45	100.0	0.00	0.0000
122	1.75	0.45	100.0	0.00	0.0000
134	1.59	0.47	100.0	0.00	0.0000
146	1.46	0.47	100.0	0.00	0.0000
160	1.33	0.47	100.0	0.00	0.0000
175	1.22	0.49	100.0	0.00	0.0000
191	1.12	0.53	100.0	0.00	0.0000
209	1.02	0.57	100.0	0.00	0.0000
229	0.932	0.61	100.0	0.00	0.0000
251	0.850	0.69	99.8	0.24	0.0108
274	0.779	0.85	99.3	0.47	0.0206
300	0.711	1.30	97.9	1.36	0.0524
328	0.650	2.68	93.8	4.15	0.1482
359	0.594	5.41	85.6	8.18	0.2639
393	0.543	8.15	77.4	8.24	0.2423
430	0.496	10.08	71.5	5.81	0.1570
470	0.454	11.56	67.1	4.45	0.1111
514	0.415	12.96	62.9	4.21	0.0957
563	0.379	14.17	59.3	3.62	0.0738
615	0.347	15.31	55.8	3.44	0.0661
673	0.317	16.38	52.6	3.20	0.0552
736	0.290	17.34	49.7	2.90	0.0461
806	0.265	18.27	46.9	2.79	0.0398
881	0.242	19.12	44.4	2.55	0.0340
964	0.221	19.87	42.1	2.25	0.0271
1050	0.203	20.60	40.0	2.19	0.0255
1150	0.186	21.35	37.7	2.25	0.0225
1260	0.169	21.98	35.8	1.90	0.0172
1380	0.155	22.57	34.0	1.78	0.0148
1510	0.141	23.10	32.4	1.60	0.0123
1650	0.129	23.58	31.0	1.42	0.0102

Table 5 (cont.). MICP data for sample 07DL085 - 0.0.

Mercury Injection Capillary Pressure 07DL085 - 0.0					
Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	24.05	29.6	1.42	0.0089
1980	0.1077	24.44	28.4	1.19	0.0070
2160	0.0988	24.84	27.2	1.19	0.0066
2370	0.0900	25.21	26.1	1.13	0.0054
2590	0.0824	25.57	25.0	1.07	0.0048
2830	0.0754	25.92	23.9	1.07	0.0044
3100	0.0688	26.26	22.9	1.01	0.0037
3390	0.0629	26.58	22.0	0.95	0.0033
3710	0.0575	26.89	21.0	0.95	0.0030
4060	0.0525	27.19	20.2	0.89	0.0025
4440	0.0480	27.48	19.3	0.89	0.0023
4850	0.0440	27.74	18.5	0.77	0.0019
5310	0.0402	28.02	17.7	0.83	0.0018
5810	0.0367	28.29	16.8	0.83	0.0017
6360	0.0335	28.57	16.0	0.83	0.0015
6950	0.0307	28.82	15.2	0.77	0.0013
7610	0.0280	29.08	14.5	0.77	0.0012
8320	0.0256	29.34	13.7	0.77	0.0011
9100	0.0234	29.59	12.9	0.77	0.0010
9960	0.0214	29.85	12.2	0.77	0.0009
10900	0.0196	30.11	11.4	0.77	0.0008
11900	0.0179	30.34	10.7	0.71	0.0007
13000	0.0164	30.58	10.0	0.71	0.0006
14300	0.0149	30.84	9.2	0.77	0.0006
15600	0.0137	31.05	8.5	0.65	0.0005
17100	0.0125	31.29	7.8	0.71	0.0005
18700	0.0114	31.51	7.2	0.65	0.0004
20400	0.0105	31.72	6.5	0.65	0.0004
22300	0.0096	31.92	5.9	0.59	0.0003
24400	0.0087	32.12	5.3	0.59	0.0003
26700	0.0080	32.32	4.7	0.59	0.0003
29300	0.0073	32.51	4.1	0.59	0.0002
32000	0.0067	32.69	3.6	0.53	0.0002
35000	0.0061	32.87	3.1	0.53	0.0002
38300	0.0056	33.05	2.5	0.53	0.0002
41900	0.0051	33.20	2.1	0.47	0.0001
45800	0.0047	33.36	1.6	0.47	0.0001
50100	0.0043	33.52	1.1	0.47	0.0001
54800	0.0039	33.70	0.6	0.53	0.0001
59500	0.0036	33.90	0.0	0.59	0.0001

Table 6. MICP data for sample 07DL085 - 1.7.

Mercury Injection Capillary Pressure

07DL085 - 1.7

Sample Information					
Bulk Volume =	5.7613 cc	Porosity =	30.0% (mercury)		
Pore Volume =	1.7291 cc	Permeability =	0.406 md (mercury)		
Closure = 0.61 %BV @ 274 psia		Median Pore Aperture =	0.2184 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Volume (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.00	100.0	0.00	0.0000
1.80	119	0.02	100.0	0.00	0.0000
1.96	109	0.04	100.0	0.00	0.0000
2.15	99.2	0.04	100.0	0.00	0.0000
2.35	90.8	0.06	100.0	0.00	0.0000
2.57	83.0	0.06	100.0	0.00	0.0000
2.81	75.9	0.07	100.0	0.00	0.0000
3.08	69.3	0.07	100.0	0.00	0.0000
3.37	63.3	0.09	100.0	0.00	0.0000
3.68	58.0	0.09	100.0	0.00	0.0000
4.03	52.9	0.11	100.0	0.00	0.0000
4.41	48.4	0.11	100.0	0.00	0.0000
4.82	44.3	0.11	100.0	0.00	0.0000
5.27	40.5	0.13	100.0	0.00	0.0000
5.77	37.0	0.13	100.0	0.00	0.0000
6.31	33.8	0.15	100.0	0.00	0.0000
6.90	30.9	0.15	100.0	0.00	0.0000
7.55	28.3	0.15	100.0	0.00	0.0000
8.26	25.8	0.17	100.0	0.00	0.0000
9.04	23.6	0.17	100.0	0.00	0.0000
9.89	21.6	0.17	100.0	0.00	0.0000
10.8	19.8	0.18	100.0	0.00	0.0000
11.8	18.1	0.18	100.0	0.00	0.0000
12.9	16.5	0.20	100.0	0.00	0.0000
14.2	15.0	0.20	100.0	0.00	0.0000
15.5	13.8	0.22	100.0	0.00	0.0000
16.9	12.6	0.22	100.0	0.00	0.0000
18.5	11.5	0.24	100.0	0.00	0.0000
20.3	10.5	0.26	100.0	0.00	0.0000
22.2	9.61	0.26	100.0	0.00	0.0000
24.3	8.78	0.28	100.0	0.00	0.0000
26.6	8.02	0.28	100.0	0.00	0.0000
29.0	7.36	0.29	100.0	0.00	0.0000
31.8	6.71	0.29	100.0	0.00	0.0000
34.8	6.13	0.31	100.0	0.00	0.0000
38.0	5.61	0.33	100.0	0.00	0.0000

Table 6 (cont.). MICP data for sample 07DL085 - 1.7.

Mercury Injection Capillary Pressure 07DL085 - 1.7					
Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.35	100.0	0.00	0.0000
45.5	4.69	0.37	100.0	0.00	0.0000
49.8	4.28	0.37	100.0	0.00	0.0000
54.5	3.91	0.37	100.0	0.00	0.0000
59.6	3.58	0.37	100.0	0.00	0.0000
65.2	3.27	0.37	100.0	0.00	0.0000
71.3	2.99	0.39	100.0	0.00	0.0000
78.0	2.73	0.39	100.0	0.00	0.0000
85.3	2.50	0.41	100.0	0.00	0.0000
93.4	2.28	0.41	100.0	0.00	0.0000
102	2.09	0.41	100.0	0.00	0.0000
112	1.90	0.42	100.0	0.00	0.0000
122	1.75	0.42	100.0	0.00	0.0000
134	1.59	0.44	100.0	0.00	0.0000
146	1.46	0.46	100.0	0.00	0.0000
160	1.33	0.46	100.0	0.00	0.0000
175	1.22	0.48	100.0	0.00	0.0000
191	1.12	0.50	100.0	0.00	0.0000
209	1.02	0.52	100.0	0.00	0.0000
229	0.932	0.53	100.0	0.00	0.0000
251	0.850	0.55	100.0	0.00	0.0000
274	0.779	0.61	100.0	0.00	0.0000
300	0.711	0.66	99.8	0.18	0.0071
328	0.650	0.79	99.4	0.43	0.0154
359	0.594	1.05	98.5	0.86	0.0278
393	0.543	1.59	96.7	1.78	0.0525
430	0.496	2.67	93.1	3.63	0.0981
470	0.454	4.57	86.8	6.33	0.1584
514	0.415	6.58	80.1	6.70	0.1524
563	0.379	8.63	73.2	6.83	0.1393
615	0.347	10.10	68.3	4.92	0.0946
673	0.317	11.37	64.1	4.24	0.0732
736	0.290	12.52	60.3	3.81	0.0605
806	0.265	13.59	56.7	3.57	0.0510
881	0.242	14.56	53.4	3.26	0.0435
964	0.221	15.49	50.4	3.08	0.0370
1050	0.203	16.32	47.6	2.77	0.0322
1150	0.186	17.09	45.0	2.58	0.0258
1260	0.169	17.83	42.6	2.46	0.0224
1380	0.155	18.53	40.2	2.34	0.0195
1510	0.141	19.15	38.1	2.09	0.0161
1650	0.129	19.73	36.2	1.91	0.0136

Table 6 (cont.). MICP data for sample 07DL085 - 1.7.

Mercury Injection Capillary Pressure

07DL085 - 1.7

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	20.30	34.3	1.91	0.0119
1980	0.1077	20.81	32.6	1.72	0.0101
2160	0.0988	21.26	31.1	1.48	0.0082
2370	0.0900	21.72	29.6	1.54	0.0073
2590	0.0824	22.12	28.2	1.35	0.0062
2830	0.0754	22.51	26.9	1.29	0.0054
3100	0.0688	22.86	25.8	1.17	0.0043
3390	0.0629	23.21	24.6	1.17	0.0040
3710	0.0575	23.54	23.5	1.11	0.0035
4060	0.0525	23.85	22.4	1.05	0.0030
4440	0.0480	24.15	21.5	0.98	0.0026
4850	0.0440	24.43	20.5	0.92	0.0023
5310	0.0402	24.70	19.6	0.92	0.0020
5810	0.0367	25.00	18.6	0.98	0.0020
6360	0.0335	25.27	17.7	0.92	0.0017
6950	0.0307	25.55	16.8	0.92	0.0016
7610	0.0280	25.81	15.9	0.86	0.0013
8320	0.0256	26.05	15.1	0.80	0.0011
9100	0.0234	26.31	14.3	0.86	0.0011
9960	0.0214	26.56	13.4	0.86	0.0010
10900	0.0196	26.82	12.5	0.86	0.0009
11900	0.0179	27.06	11.7	0.80	0.0008
13000	0.0164	27.28	11.0	0.74	0.0007
14300	0.0149	27.54	10.1	0.86	0.0007
15600	0.0137	27.76	9.4	0.74	0.0006
17100	0.0125	28.00	8.6	0.80	0.0005
18700	0.0114	28.22	7.9	0.74	0.0005
20400	0.0105	28.43	7.2	0.68	0.0004
22300	0.0096	28.63	6.5	0.68	0.0004
24400	0.0087	28.83	5.8	0.68	0.0003
26700	0.0080	29.02	5.2	0.62	0.0003
29300	0.0073	29.20	4.6	0.62	0.0002
32000	0.0067	29.39	4.0	0.62	0.0002
35000	0.0061	29.57	3.4	0.62	0.0002
38300	0.0056	29.74	2.8	0.55	0.0002
41900	0.0051	29.90	2.3	0.55	0.0002
45800	0.0047	30.07	1.7	0.55	0.0001
50100	0.0043	30.22	1.2	0.49	0.0001
54800	0.0039	30.40	0.6	0.62	0.0001
59500	0.0036	30.58	0.0	0.62	0.0001

Table 7. MICP data for sample 07DL085 - 9.0b.

Mercury Injection Capillary Pressure
07DL085 - 9.0b

<u>Sample Information</u>					
Bulk Volume =	5.1882 cc	Porosity =	23.3% (mercury)		
Pore Volume =	1.2106 cc	Permeability =	0.0649 md (mercury)		
Closure = 1.39 %BV @ 736 psia		Median Pore Aperture =	0.0914 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Volume (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.02	100.0	0.00	0.0000
1.96	109	0.04	100.0	0.00	0.0000
2.15	99.2	0.04	100.0	0.00	0.0000
2.35	90.8	0.04	100.0	0.00	0.0000
2.57	83.0	0.06	100.0	0.00	0.0000
2.81	75.9	0.10	100.0	0.00	0.0000
3.08	69.3	0.14	100.0	0.00	0.0000
3.37	63.3	0.16	100.0	0.00	0.0000
3.68	58.0	0.18	100.0	0.00	0.0000
4.03	52.9	0.22	100.0	0.00	0.0000
4.41	48.4	0.22	100.0	0.00	0.0000
4.82	44.3	0.24	100.0	0.00	0.0000
5.27	40.5	0.26	100.0	0.00	0.0000
5.77	37.0	0.28	100.0	0.00	0.0000
6.31	33.8	0.30	100.0	0.00	0.0000
6.90	30.9	0.30	100.0	0.00	0.0000
7.55	28.3	0.32	100.0	0.00	0.0000
8.26	25.8	0.34	100.0	0.00	0.0000
9.04	23.6	0.36	100.0	0.00	0.0000
9.89	21.6	0.38	100.0	0.00	0.0000
10.8	19.8	0.40	100.0	0.00	0.0000
11.8	18.1	0.40	100.0	0.00	0.0000
12.9	16.5	0.42	100.0	0.00	0.0000
14.2	15.0	0.44	100.0	0.00	0.0000
15.5	13.8	0.46	100.0	0.00	0.0000
16.9	12.6	0.48	100.0	0.00	0.0000
18.5	11.5	0.48	100.0	0.00	0.0000
20.3	10.5	0.50	100.0	0.00	0.0000
22.2	9.61	0.52	100.0	0.00	0.0000
24.3	8.78	0.54	100.0	0.00	0.0000
26.6	8.02	0.56	100.0	0.00	0.0000
29.0	7.36	0.58	100.0	0.00	0.0000
31.8	6.71	0.64	100.0	0.00	0.0000
34.8	6.13	0.66	100.0	0.00	0.0000
38.0	5.61	0.68	100.0	0.00	0.0000

Table 7 (cont.). MICP data for sample 07DL085 - 9.0b.

Mercury Injection Capillary Pressure
07DL085 - 9.0b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.70	100.0	0.00	0.0000
45.5	4.69	0.73	100.0	0.00	0.0000
49.8	4.28	0.73	100.0	0.00	0.0000
54.5	3.91	0.75	100.0	0.00	0.0000
59.6	3.58	0.75	100.0	0.00	0.0000
65.2	3.27	0.77	100.0	0.00	0.0000
71.3	2.99	0.77	100.0	0.00	0.0000
78.0	2.73	0.79	100.0	0.00	0.0000
85.3	2.50	0.81	100.0	0.00	0.0000
93.4	2.28	0.81	100.0	0.00	0.0000
102	2.09	0.83	100.0	0.00	0.0000
112	1.90	0.83	100.0	0.00	0.0000
122	1.75	0.85	100.0	0.00	0.0000
134	1.59	0.85	100.0	0.00	0.0000
146	1.46	0.87	100.0	0.00	0.0000
160	1.33	0.89	100.0	0.00	0.0000
175	1.22	0.89	100.0	0.00	0.0000
191	1.12	0.91	100.0	0.00	0.0000
209	1.02	0.91	100.0	0.00	0.0000
229	0.932	0.93	100.0	0.00	0.0000
251	0.850	0.95	100.0	0.00	0.0000
274	0.779	0.97	100.0	0.00	0.0000
300	0.711	0.99	100.0	0.00	0.0000
328	0.650	1.01	100.0	0.00	0.0000
359	0.594	1.03	100.0	0.00	0.0000
393	0.543	1.05	100.0	0.00	0.0000
430	0.496	1.07	100.0	0.00	0.0000
470	0.454	1.11	100.0	0.00	0.0000
514	0.415	1.15	100.0	0.00	0.0000
563	0.379	1.19	100.0	0.00	0.0000
615	0.347	1.23	100.0	0.00	0.0000
673	0.317	1.29	100.0	0.00	0.0000
736	0.290	1.39	100.0	0.00	0.0000
806	0.265	1.49	99.6	0.42	0.0061
881	0.242	1.65	98.9	0.68	0.0091
964	0.221	2.07	97.1	1.78	0.0215
1050	0.203	2.54	95.1	2.04	0.0237
1150	0.186	3.24	92.1	2.97	0.0297
1260	0.169	4.25	87.8	4.33	0.0394
1380	0.155	5.48	82.5	5.26	0.0439
1510	0.141	6.93	76.3	6.20	0.0477
1650	0.129	8.52	69.5	6.79	0.0485

Table 7 (cont.). MICP data for sample 07DL085 - 9.0b.

Mercury Injection Capillary Pressure 07DL085 - 9.0b					
Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	10.07	62.9	6.62	0.0414
1980	0.1077	11.38	57.3	5.60	0.0330
2160	0.0988	12.37	53.1	4.24	0.0236
2370	0.0900	13.23	49.4	3.65	0.0174
2590	0.0824	13.94	46.3	3.06	0.0139
2830	0.0754	14.56	43.7	2.63	0.0110
3100	0.0688	15.15	41.2	2.55	0.0094
3390	0.0629	15.67	39.0	2.21	0.0076
3710	0.0575	16.14	36.9	2.04	0.0064
4060	0.0525	16.60	35.0	1.95	0.0056
4440	0.0480	17.04	33.1	1.87	0.0049
4850	0.0440	17.38	31.7	1.44	0.0035
5310	0.0402	17.75	30.1	1.61	0.0035
5810	0.0367	18.13	28.4	1.61	0.0032
6360	0.0335	18.47	27.0	1.44	0.0026
6950	0.0307	18.81	25.6	1.44	0.0024
7610	0.0280	19.12	24.2	1.36	0.0021
8320	0.0256	19.44	22.8	1.36	0.0019
9100	0.0234	19.74	21.6	1.27	0.0016
9960	0.0214	20.06	20.2	1.36	0.0016
10900	0.0196	20.35	18.9	1.27	0.0014
11900	0.0179	20.63	17.7	1.19	0.0012
13000	0.0164	20.91	16.6	1.19	0.0011
14300	0.0149	21.21	15.3	1.27	0.0010
15600	0.0137	21.49	14.1	1.19	0.0009
17100	0.0125	21.75	13.0	1.10	0.0007
18700	0.0114	22.00	11.9	1.10	0.0007
20400	0.0105	22.24	10.9	1.02	0.0006
22300	0.0096	22.48	9.8	1.02	0.0005
24400	0.0087	22.72	8.8	1.02	0.0005
26700	0.0080	22.94	7.9	0.93	0.0004
29300	0.0073	23.17	6.9	1.02	0.0004
32000	0.0067	23.37	6.0	0.85	0.0003
35000	0.0061	23.59	5.1	0.93	0.0003
38300	0.0056	23.77	4.3	0.76	0.0002
41900	0.0051	23.97	3.5	0.85	0.0002
45800	0.0047	24.17	2.6	0.85	0.0002
50100	0.0043	24.35	1.9	0.76	0.0002
54800	0.0039	24.56	0.9	0.93	0.0002
59500	0.0036	24.78	0.0	0.93	0.0002

Table 8. MICP data for sample 07DL085 - 45.7a.

Mercury Injection Capillary Pressure
07DL085 - 45.7a

<u>Sample Information</u>					
Bulk Volume =	4.6102 cc	Porosity =	30.7% (mercury)		
Pore Volume =	1.4139 cc	Permeability =	0.0183 md (mercury)		
Closure = 1.13 %BV @ 430 psia		Median Pore Aperture =	0.1362 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Volume (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.02	100.0	0.00	0.0000
1.96	109	0.02	100.0	0.00	0.0000
2.15	99.2	0.04	100.0	0.00	0.0000
2.35	90.8	0.04	100.0	0.00	0.0000
2.57	83.0	0.04	100.0	0.00	0.0000
2.81	75.9	0.05	100.0	0.00	0.0000
3.08	69.3	0.05	100.0	0.00	0.0000
3.37	63.3	0.07	100.0	0.00	0.0000
3.68	58.0	0.07	100.0	0.00	0.0000
4.03	52.9	0.07	100.0	0.00	0.0000
4.41	48.4	0.09	100.0	0.00	0.0000
4.82	44.3	0.09	100.0	0.00	0.0000
5.27	40.5	0.11	100.0	0.00	0.0000
5.77	37.0	0.11	100.0	0.00	0.0000
6.31	33.8	0.13	100.0	0.00	0.0000
6.90	30.9	0.14	100.0	0.00	0.0000
7.55	28.3	0.14	100.0	0.00	0.0000
8.26	25.8	0.16	100.0	0.00	0.0000
9.04	23.6	0.18	100.0	0.00	0.0000
9.89	21.6	0.18	100.0	0.00	0.0000
10.8	19.8	0.20	100.0	0.00	0.0000
11.8	18.1	0.22	100.0	0.00	0.0000
12.9	16.5	0.23	100.0	0.00	0.0000
14.2	15.0	0.25	100.0	0.00	0.0000
15.5	13.8	0.27	100.0	0.00	0.0000
16.9	12.6	0.29	100.0	0.00	0.0000
18.5	11.5	0.31	100.0	0.00	0.0000
20.3	10.5	0.32	100.0	0.00	0.0000
22.2	9.61	0.34	100.0	0.00	0.0000
24.3	8.78	0.36	100.0	0.00	0.0000
26.6	8.02	0.38	100.0	0.00	0.0000
29.0	7.36	0.40	100.0	0.00	0.0000
31.8	6.71	0.41	100.0	0.00	0.0000
34.8	6.13	0.43	100.0	0.00	0.0000
38.0	5.61	0.45	100.0	0.00	0.0000

Table 8 (cont.). MICP data for sample 07DL085 - 45.7a.

Mercury Injection Capillary Pressure 07DL085 - 45.7a					
Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.49	100.0	0.00	0.0000
45.5	4.69	0.52	100.0	0.00	0.0000
49.8	4.28	0.52	100.0	0.00	0.0000
54.5	3.91	0.54	100.0	0.00	0.0000
59.6	3.58	0.56	100.0	0.00	0.0000
65.2	3.27	0.56	100.0	0.00	0.0000
71.3	2.99	0.57	100.0	0.00	0.0000
78.0	2.73	0.61	100.0	0.00	0.0000
85.3	2.50	0.63	100.0	0.00	0.0000
93.4	2.28	0.65	100.0	0.00	0.0000
102	2.09	0.65	100.0	0.00	0.0000
112	1.90	0.68	100.0	0.00	0.0000
122	1.75	0.70	100.0	0.00	0.0000
134	1.59	0.72	100.0	0.00	0.0000
146	1.46	0.74	100.0	0.00	0.0000
160	1.33	0.77	100.0	0.00	0.0000
175	1.22	0.79	100.0	0.00	0.0000
191	1.12	0.83	100.0	0.00	0.0000
209	1.02	0.84	100.0	0.00	0.0000
229	0.932	0.86	100.0	0.00	0.0000
251	0.850	0.90	100.0	0.00	0.0000
274	0.779	0.93	100.0	0.00	0.0000
300	0.711	0.95	100.0	0.00	0.0000
328	0.650	0.99	100.0	0.00	0.0000
359	0.594	1.02	100.0	0.00	0.0000
393	0.543	1.08	100.0	0.00	0.0000
430	0.496	1.13	100.0	0.00	0.0000
470	0.454	1.24	99.6	0.35	0.0088
514	0.415	1.47	98.9	0.76	0.0173
563	0.379	1.92	97.4	1.47	0.0299
615	0.347	2.64	95.1	2.35	0.0451
673	0.317	3.52	92.2	2.87	0.0496
736	0.290	4.58	88.7	3.46	0.0549
806	0.265	5.88	84.5	4.22	0.0603
881	0.242	7.24	80.1	4.46	0.0594
964	0.221	8.71	75.2	4.81	0.0579
1050	0.203	10.15	70.6	4.69	0.0546
1150	0.186	11.68	65.6	4.99	0.0499
1260	0.169	13.22	60.5	5.04	0.0459
1380	0.155	14.64	55.9	4.63	0.0386
1510	0.141	15.97	51.6	4.34	0.0334
1650	0.129	17.18	47.6	3.93	0.0281

Table 8 (cont.). MICP data for sample 07DL085 - 45.7a.

Mercury Injection Capillary Pressure
07DL085 - 45.7a

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	18.27	44.0	3.58	0.0224
1980	0.1077	19.26	40.8	3.23	0.0190
2160	0.0988	20.12	38.0	2.82	0.0156
2370	0.0900	20.93	35.4	2.64	0.0126
2590	0.0824	21.63	33.1	2.29	0.0104
2830	0.0754	22.26	31.0	2.05	0.0086
3100	0.0688	22.84	29.1	1.88	0.0070
3390	0.0629	23.34	27.5	1.64	0.0057
3710	0.0575	23.81	26.0	1.52	0.0048
4060	0.0525	24.26	24.5	1.47	0.0042
4440	0.0480	24.67	23.2	1.35	0.0035
4850	0.0440	25.01	22.1	1.11	0.0027
5310	0.0402	25.39	20.8	1.23	0.0027
5810	0.0367	25.73	19.7	1.11	0.0022
6360	0.0335	26.07	18.6	1.11	0.0020
6950	0.0307	26.38	17.6	1.00	0.0017
7610	0.0280	26.70	16.5	1.06	0.0016
8320	0.0256	26.99	15.6	0.94	0.0013
9100	0.0234	27.27	14.7	0.94	0.0012
9960	0.0214	27.56	13.7	0.94	0.0011
10900	0.0196	27.83	12.8	0.88	0.0009
11900	0.0179	28.08	12.0	0.82	0.0008
13000	0.0164	28.33	11.2	0.82	0.0007
14300	0.0149	28.60	10.3	0.88	0.0007
15600	0.0137	28.85	9.5	0.82	0.0006
17100	0.0125	29.09	8.7	0.76	0.0005
18700	0.0114	29.32	8.0	0.76	0.0005
20400	0.0105	29.54	7.3	0.70	0.0004
22300	0.0096	29.77	6.5	0.76	0.0004
24400	0.0087	29.97	5.9	0.65	0.0003
26700	0.0080	30.18	5.2	0.70	0.0003
29300	0.0073	30.38	4.5	0.65	0.0002
32000	0.0067	30.56	3.9	0.59	0.0002
35000	0.0061	30.76	3.3	0.65	0.0002
38300	0.0056	30.92	2.8	0.53	0.0002
41900	0.0051	31.08	2.2	0.53	0.0001
45800	0.0047	31.24	1.7	0.53	0.0001
50100	0.0043	31.41	1.2	0.53	0.0001
54800	0.0039	31.55	0.7	0.47	0.0001
59500	0.0036	31.77	0.0	0.70	0.0001

Table 9. MICP data for sample 07DL086 - 1.85.

Mercury Injection Capillary Pressure
07DL086 - 1.85

<u>Sample Information</u>					
Bulk Volume =	5.6468 cc	Porosity =	20.0% (mercury)		
Pore Volume =	1.1290 cc	Permeability =	0.0257 md (mercury)		
Closure = 1.10 %BV @ 964 psia		Median Pore Aperture =	0.0640 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Volume (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.00	100.0	0.00	0.0000
1.80	119	0.02	100.0	0.00	0.0000
1.96	109	0.02	100.0	0.00	0.0000
2.15	99.2	0.04	100.0	0.00	0.0000
2.35	90.8	0.04	100.0	0.00	0.0000
2.57	83.0	0.04	100.0	0.00	0.0000
2.81	75.9	0.06	100.0	0.00	0.0000
3.08	69.3	0.06	100.0	0.00	0.0000
3.37	63.3	0.08	100.0	0.00	0.0000
3.68	58.0	0.08	100.0	0.00	0.0000
4.03	52.9	0.08	100.0	0.00	0.0000
4.41	48.4	0.08	100.0	0.00	0.0000
4.82	44.3	0.10	100.0	0.00	0.0000
5.27	40.5	0.10	100.0	0.00	0.0000
5.77	37.0	0.12	100.0	0.00	0.0000
6.31	33.8	0.12	100.0	0.00	0.0000
6.90	30.9	0.12	100.0	0.00	0.0000
7.55	28.3	0.12	100.0	0.00	0.0000
8.26	25.8	0.15	100.0	0.00	0.0000
9.04	23.6	0.15	100.0	0.00	0.0000
9.89	21.6	0.15	100.0	0.00	0.0000
10.8	19.8	0.17	100.0	0.00	0.0000
11.8	18.1	0.17	100.0	0.00	0.0000
12.9	16.5	0.17	100.0	0.00	0.0000
14.2	15.0	0.19	100.0	0.00	0.0000
15.5	13.8	0.19	100.0	0.00	0.0000
16.9	12.6	0.21	100.0	0.00	0.0000
18.5	11.5	0.21	100.0	0.00	0.0000
20.3	10.5	0.21	100.0	0.00	0.0000
22.2	9.61	0.23	100.0	0.00	0.0000
24.3	8.78	0.23	100.0	0.00	0.0000
26.6	8.02	0.25	100.0	0.00	0.0000
29.0	7.36	0.25	100.0	0.00	0.0000
31.8	6.71	0.27	100.0	0.00	0.0000
34.8	6.13	0.27	100.0	0.00	0.0000
38.0	5.61	0.29	100.0	0.00	0.0000

Table 9 (cont.). MICP data for sample 07DL086 - 1.85.

Mercury Injection Capillary Pressure
07DL086 - 1.85

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.31	100.0	0.00	0.0000
45.5	4.69	0.31	100.0	0.00	0.0000
49.8	4.28	0.33	100.0	0.00	0.0000
54.5	3.91	0.33	100.0	0.00	0.0000
59.6	3.58	0.33	100.0	0.00	0.0000
65.2	3.27	0.35	100.0	0.00	0.0000
71.3	2.99	0.35	100.0	0.00	0.0000
78.0	2.73	0.35	100.0	0.00	0.0000
85.3	2.50	0.37	100.0	0.00	0.0000
93.4	2.28	0.37	100.0	0.00	0.0000
102	2.09	0.39	100.0	0.00	0.0000
112	1.90	0.42	100.0	0.00	0.0000
122	1.75	0.42	100.0	0.00	0.0000
134	1.59	0.42	100.0	0.00	0.0000
146	1.46	0.44	100.0	0.00	0.0000
160	1.33	0.44	100.0	0.00	0.0000
175	1.22	0.44	100.0	0.00	0.0000
191	1.12	0.46	100.0	0.00	0.0000
209	1.02	0.46	100.0	0.00	0.0000
229	0.932	0.48	100.0	0.00	0.0000
251	0.850	0.48	100.0	0.00	0.0000
274	0.779	0.50	100.0	0.00	0.0000
300	0.711	0.50	100.0	0.00	0.0000
328	0.650	0.52	100.0	0.00	0.0000
359	0.594	0.52	100.0	0.00	0.0000
393	0.543	0.54	100.0	0.00	0.0000
430	0.496	0.56	100.0	0.00	0.0000
470	0.454	0.58	100.0	0.00	0.0000
514	0.415	0.60	100.0	0.00	0.0000
563	0.379	0.62	100.0	0.00	0.0000
615	0.347	0.66	100.0	0.00	0.0000
673	0.317	0.69	100.0	0.00	0.0000
736	0.290	0.75	100.0	0.00	0.0000
806	0.265	0.85	100.0	0.00	0.0000
881	0.242	0.96	100.0	0.00	0.0000
964	0.221	1.10	100.0	0.00	0.0000
1050	0.203	1.20	99.5	0.52	0.0060
1150	0.186	1.37	98.6	0.83	0.0083
1260	0.169	1.60	97.5	1.14	0.0104
1380	0.155	1.89	96.0	1.46	0.0121
1510	0.141	2.26	94.2	1.87	0.0144
1650	0.129	2.74	91.8	2.39	0.0171

Table 9 (cont.). MICP data for sample 07DL086 - 1.85.

Mercury Injection Capillary Pressure
07DL086 - 1.85

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	3.41	88.4	3.33	0.0208
1980	0.1077	4.11	84.9	3.54	0.0208
2160	0.0988	4.94	80.7	4.16	0.0231
2370	0.0900	6.06	75.1	5.62	0.0268
2590	0.0824	7.39	68.5	6.66	0.0303
2830	0.0754	8.80	61.4	7.08	0.0295
3100	0.0688	10.17	54.5	6.87	0.0254
3390	0.0629	11.27	49.0	5.52	0.0190
3710	0.0575	12.15	44.6	4.37	0.0137
4060	0.0525	12.89	40.9	3.75	0.0107
4440	0.0480	13.56	37.6	3.33	0.0088
4850	0.0440	14.10	34.9	2.71	0.0066
5310	0.0402	14.62	32.3	2.60	0.0057
5810	0.0367	15.09	29.9	2.39	0.0048
6360	0.0335	15.51	27.8	2.08	0.0038
6950	0.0307	15.88	25.9	1.87	0.0032
7610	0.0280	16.26	24.0	1.87	0.0028
8320	0.0256	16.57	22.5	1.56	0.0022
9100	0.0234	16.88	20.9	1.56	0.0020
9960	0.0214	17.19	19.4	1.56	0.0018
10900	0.0196	17.48	17.9	1.46	0.0015
11900	0.0179	17.75	16.5	1.35	0.0014
13000	0.0164	18.00	15.3	1.25	0.0011
14300	0.0149	18.25	14.0	1.25	0.0010
15600	0.0137	18.48	12.9	1.14	0.0009
17100	0.0125	18.71	11.8	1.14	0.0008
18700	0.0114	18.94	10.6	1.14	0.0007
20400	0.0105	19.12	9.7	0.94	0.0006
22300	0.0096	19.33	8.6	1.04	0.0005
24400	0.0087	19.52	7.7	0.94	0.0004
26700	0.0080	19.70	6.8	0.94	0.0004
29300	0.0073	19.87	5.9	0.83	0.0003
32000	0.0067	20.04	5.1	0.83	0.0003
35000	0.0061	20.20	4.3	0.83	0.0003
38300	0.0056	20.35	3.5	0.73	0.0002
41900	0.0051	20.49	2.8	0.73	0.0002
45800	0.0047	20.62	2.2	0.62	0.0002
50100	0.0043	20.76	1.5	0.73	0.0002
54800	0.0039	20.89	0.8	0.62	0.0001
59500	0.0036	21.05	0.0	0.83	0.0002

Table 10. MICP data for sample 07DL086 - 26.9.

Mercury Injection Capillary Pressure
07DL086 - 26.9

<u>Sample Information</u>			
Bulk Volume =	7.7496 cc	Porosity =	22.2% (mercury)
Pore Volume =	1.0523 cc	Permeability =	0.0834 md (mercury)
Closure = 1.22 %BV @ 563 psia		Median Pore Aperture =	0.1090 microns (diameter)

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Volume (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.05	100.0	0.00	0.0000
1.96	109	0.05	100.0	0.00	0.0000
2.15	99.2	0.07	100.0	0.00	0.0000
2.35	90.8	0.07	100.0	0.00	0.0000
2.57	83.0	0.09	100.0	0.00	0.0000
2.81	75.9	0.09	100.0	0.00	0.0000
3.08	69.3	0.09	100.0	0.00	0.0000
3.37	63.3	0.09	100.0	0.00	0.0000
3.68	58.0	0.11	100.0	0.00	0.0000
4.03	52.9	0.11	100.0	0.00	0.0000
4.41	48.4	0.11	100.0	0.00	0.0000
4.82	44.3	0.11	100.0	0.00	0.0000
5.27	40.5	0.11	100.0	0.00	0.0000
5.77	37.0	0.11	100.0	0.00	0.0000
6.31	33.8	0.11	100.0	0.00	0.0000
6.90	30.9	0.11	100.0	0.00	0.0000
7.55	28.3	0.11	100.0	0.00	0.0000
8.26	25.8	0.11	100.0	0.00	0.0000
9.04	23.6	0.28	100.0	0.00	0.0000
9.89	21.6	0.28	100.0	0.00	0.0000
10.8	19.8	0.28	100.0	0.00	0.0000
11.8	18.1	0.30	100.0	0.00	0.0000
12.9	16.5	0.30	100.0	0.00	0.0000
14.2	15.0	0.30	100.0	0.00	0.0000
15.5	13.8	0.32	100.0	0.00	0.0000
16.9	12.6	0.32	100.0	0.00	0.0000
18.5	11.5	0.34	100.0	0.00	0.0000
20.3	10.5	0.34	100.0	0.00	0.0000
22.2	9.61	0.37	100.0	0.00	0.0000
24.3	8.78	0.37	100.0	0.00	0.0000
26.6	8.02	0.39	100.0	0.00	0.0000
29.0	7.36	0.41	100.0	0.00	0.0000
31.8	6.71	0.41	100.0	0.00	0.0000
34.8	6.13	0.44	100.0	0.00	0.0000
38.0	5.61	0.46	100.0	0.00	0.0000

Table 10 (cont.). MICP data for sample 07DL086 - 26.9.

Mercury Injection Capillary Pressure
07DL086 - 26.9

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.50	100.0	0.00	0.0000
45.5	4.69	0.53	100.0	0.00	0.0000
49.8	4.28	0.53	100.0	0.00	0.0000
54.5	3.91	0.55	100.0	0.00	0.0000
59.6	3.58	0.55	100.0	0.00	0.0000
65.2	3.27	0.55	100.0	0.00	0.0000
71.3	2.99	0.57	100.0	0.00	0.0000
78.0	2.73	0.57	100.0	0.00	0.0000
85.3	2.50	0.57	100.0	0.00	0.0000
93.4	2.28	0.60	100.0	0.00	0.0000
102	2.09	0.60	100.0	0.00	0.0000
112	1.90	0.62	100.0	0.00	0.0000
122	1.75	0.62	100.0	0.00	0.0000
134	1.59	0.62	100.0	0.00	0.0000
146	1.46	0.64	100.0	0.00	0.0000
160	1.33	0.67	100.0	0.00	0.0000
175	1.22	0.69	100.0	0.00	0.0000
191	1.12	0.71	100.0	0.00	0.0000
209	1.02	0.71	100.0	0.00	0.0000
229	0.932	0.73	100.0	0.00	0.0000
251	0.850	0.76	100.0	0.00	0.0000
274	0.779	0.78	100.0	0.00	0.0000
300	0.711	0.80	100.0	0.00	0.0000
328	0.650	0.85	100.0	0.00	0.0000
359	0.594	0.89	100.0	0.00	0.0000
393	0.543	0.94	100.0	0.00	0.0000
430	0.496	0.99	100.0	0.00	0.0000
470	0.454	1.05	100.0	0.00	0.0000
514	0.415	1.12	100.0	0.00	0.0000
563	0.379	1.22	100.0	0.00	0.0000
615	0.347	1.35	99.4	0.62	0.0120
673	0.317	1.54	98.5	0.83	0.0143
736	0.290	1.81	97.3	1.24	0.0198
806	0.265	2.25	95.3	1.97	0.0282
881	0.242	3.14	91.3	4.05	0.0539
964	0.221	4.82	83.7	7.57	0.0912
1050	0.203	5.73	79.6	4.15	0.0482
1150	0.186	6.88	74.4	5.19	0.0519
1260	0.169	8.07	69.0	5.39	0.0490
1380	0.155	9.15	64.1	4.88	0.0406
1510	0.141	10.07	60.0	4.15	0.0319
1650	0.129	10.87	56.3	3.63	0.0259

Table 10 (cont.). MICP data for sample 07DL086 - 26.9.

Mercury Injection Capillary Pressure
07DL086 - 26.9

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	11.65	52.8	3.53	0.0220
1980	0.1077	12.36	49.6	3.22	0.0189
2160	0.0988	13.00	46.7	2.90	0.0161
2370	0.0900	13.65	43.8	2.90	0.0138
2590	0.0824	14.22	41.2	2.59	0.0118
2830	0.0754	14.75	38.8	2.39	0.0099
3100	0.0688	15.23	36.6	2.18	0.0081
3390	0.0629	15.69	34.5	2.07	0.0072
3710	0.0575	16.12	32.6	1.97	0.0062
4060	0.0525	16.51	30.8	1.76	0.0050
4440	0.0480	16.88	29.1	1.66	0.0044
4850	0.0440	17.20	27.7	1.45	0.0035
5310	0.0402	17.52	26.2	1.45	0.0032
5810	0.0367	17.84	24.8	1.45	0.0029
6360	0.0335	18.14	23.4	1.35	0.0025
6950	0.0307	18.44	22.1	1.35	0.0023
7610	0.0280	18.71	20.9	1.24	0.0019
8320	0.0256	18.99	19.6	1.24	0.0018
9100	0.0234	19.27	18.4	1.24	0.0016
9960	0.0214	19.52	17.2	1.14	0.0013
10900	0.0196	19.77	16.1	1.14	0.0012
11900	0.0179	20.02	14.9	1.14	0.0011
13000	0.0164	20.25	13.9	1.04	0.0009
14300	0.0149	20.48	12.9	1.04	0.0008
15600	0.0137	20.71	11.8	1.04	0.0008
17100	0.0125	20.92	10.9	0.93	0.0006
18700	0.0114	21.12	10.0	0.93	0.0006
20400	0.0105	21.33	9.0	0.93	0.0005
22300	0.0096	21.51	8.2	0.83	0.0004
24400	0.0087	21.70	7.4	0.83	0.0004
26700	0.0080	21.88	6.5	0.83	0.0004
29300	0.0073	22.06	5.7	0.83	0.0003
32000	0.0067	22.22	5.0	0.73	0.0003
35000	0.0061	22.38	4.3	0.73	0.0002
38300	0.0056	22.54	3.5	0.73	0.0002
41900	0.0051	22.71	2.8	0.73	0.0002
45800	0.0047	22.87	2.1	0.73	0.0002
50100	0.0043	23.00	1.5	0.62	0.0001
54800	0.0039	23.14	0.8	0.62	0.0001
59500	0.0036	23.32	0.0	0.83	0.0002

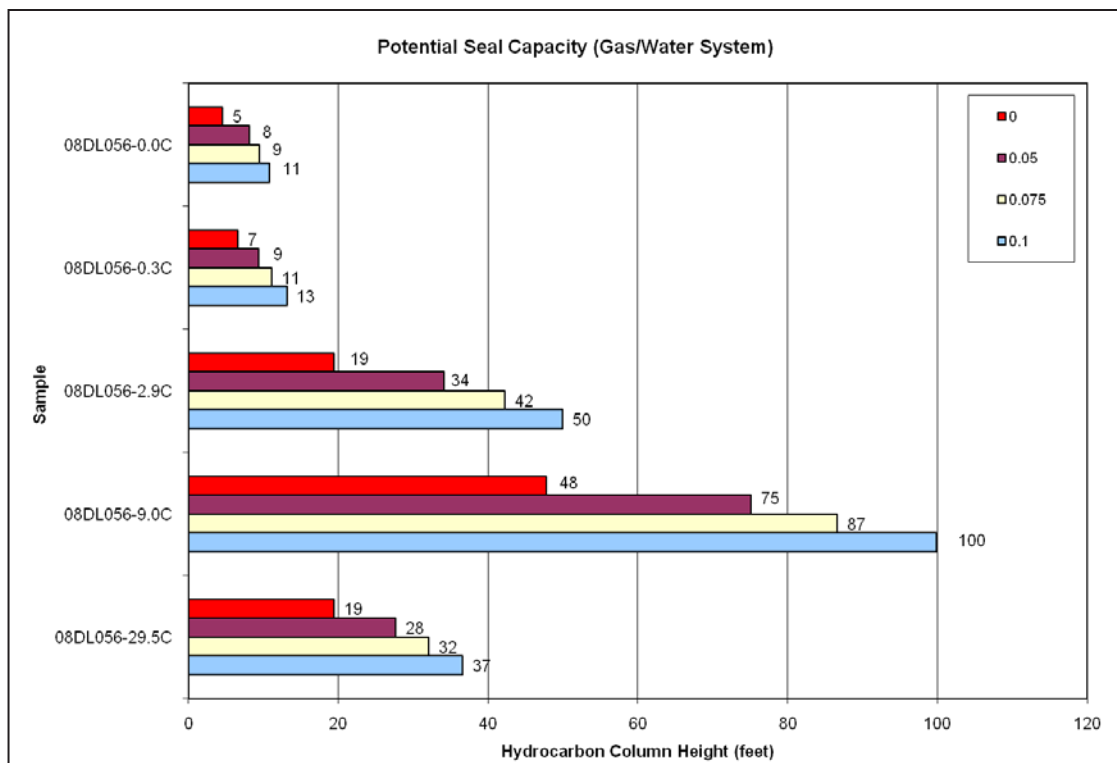


Figure 14a. Potential seal capacity in a gas/water system.

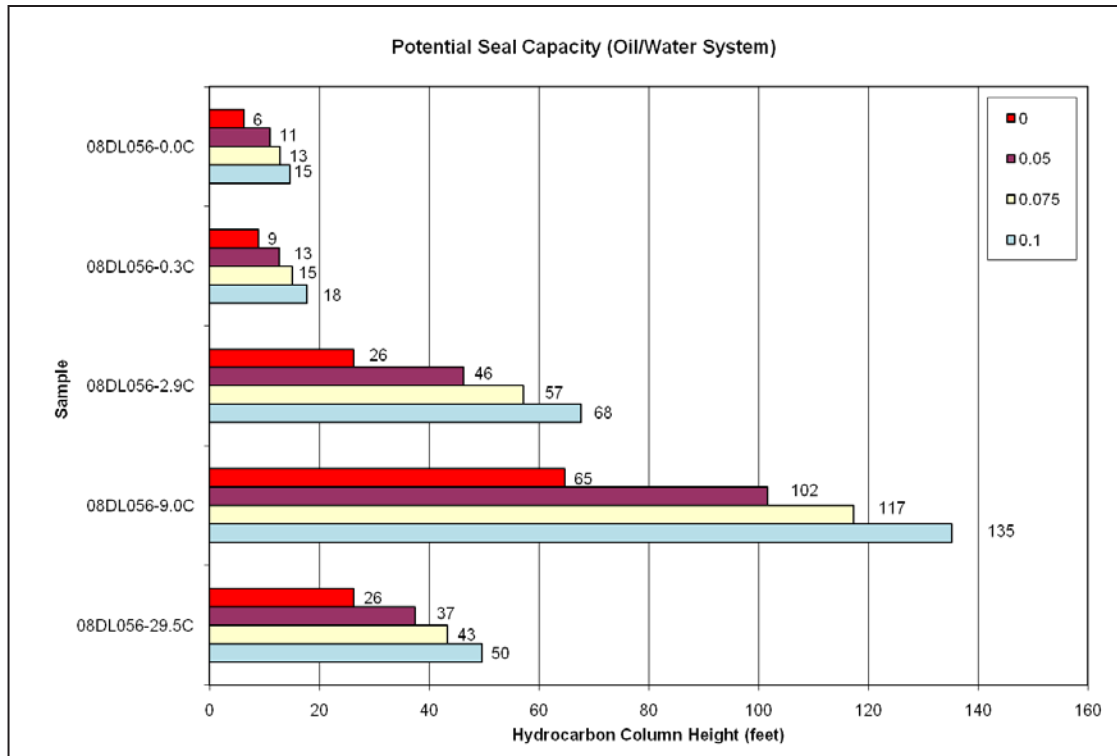


Figure 14b. Potential seal capacity in an oil/water system.

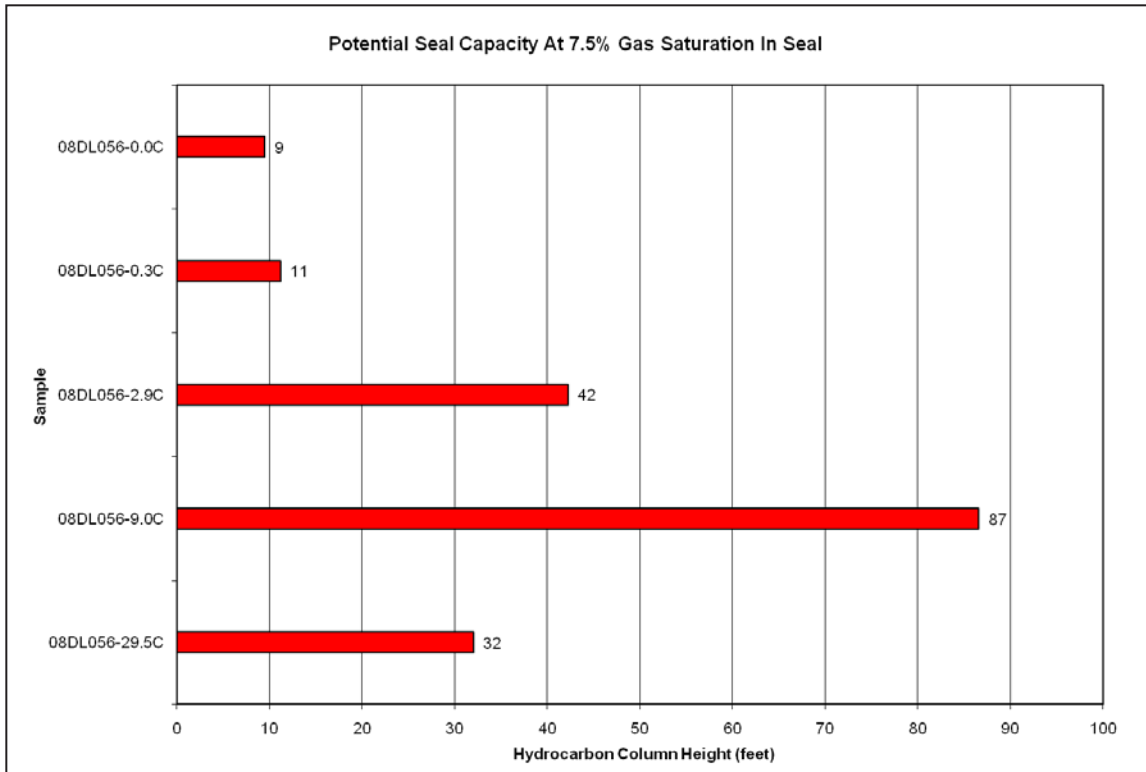


Figure 15a. Chart of potential seal capacity at 7.5% gas saturation in seal for each sample.

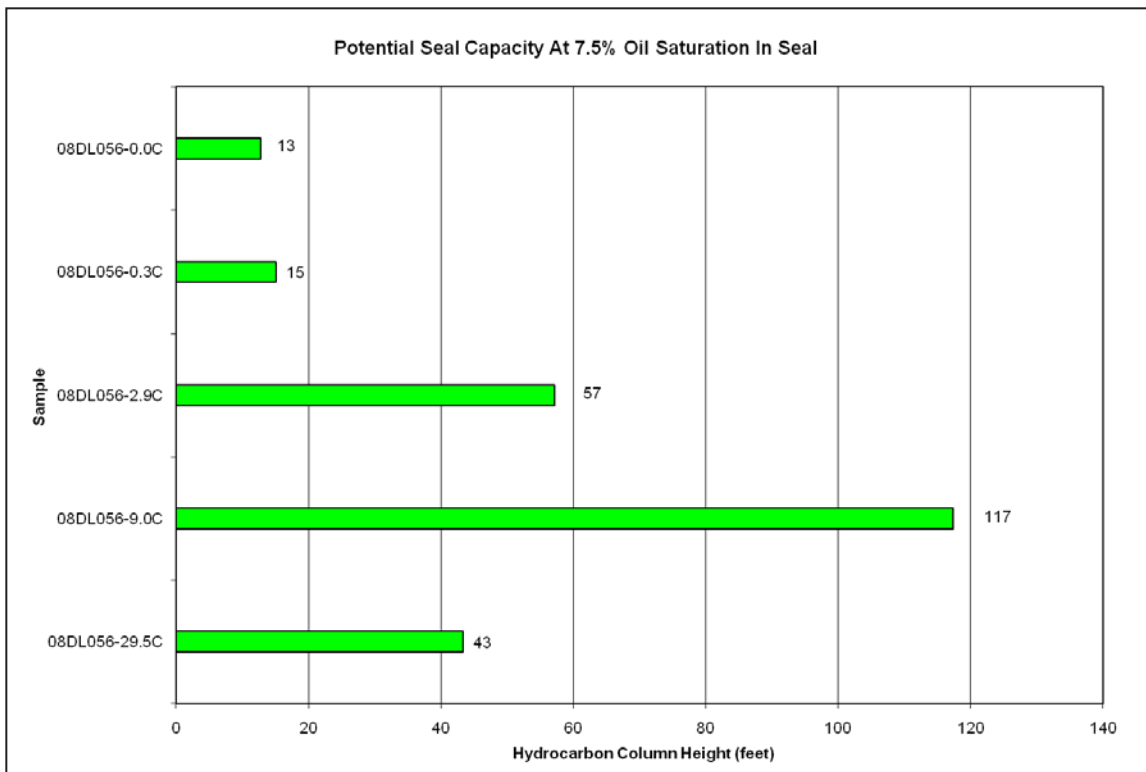


Figure 15b. Chart of potential seal capacity at 7.5% oil saturation in seal for each sample.

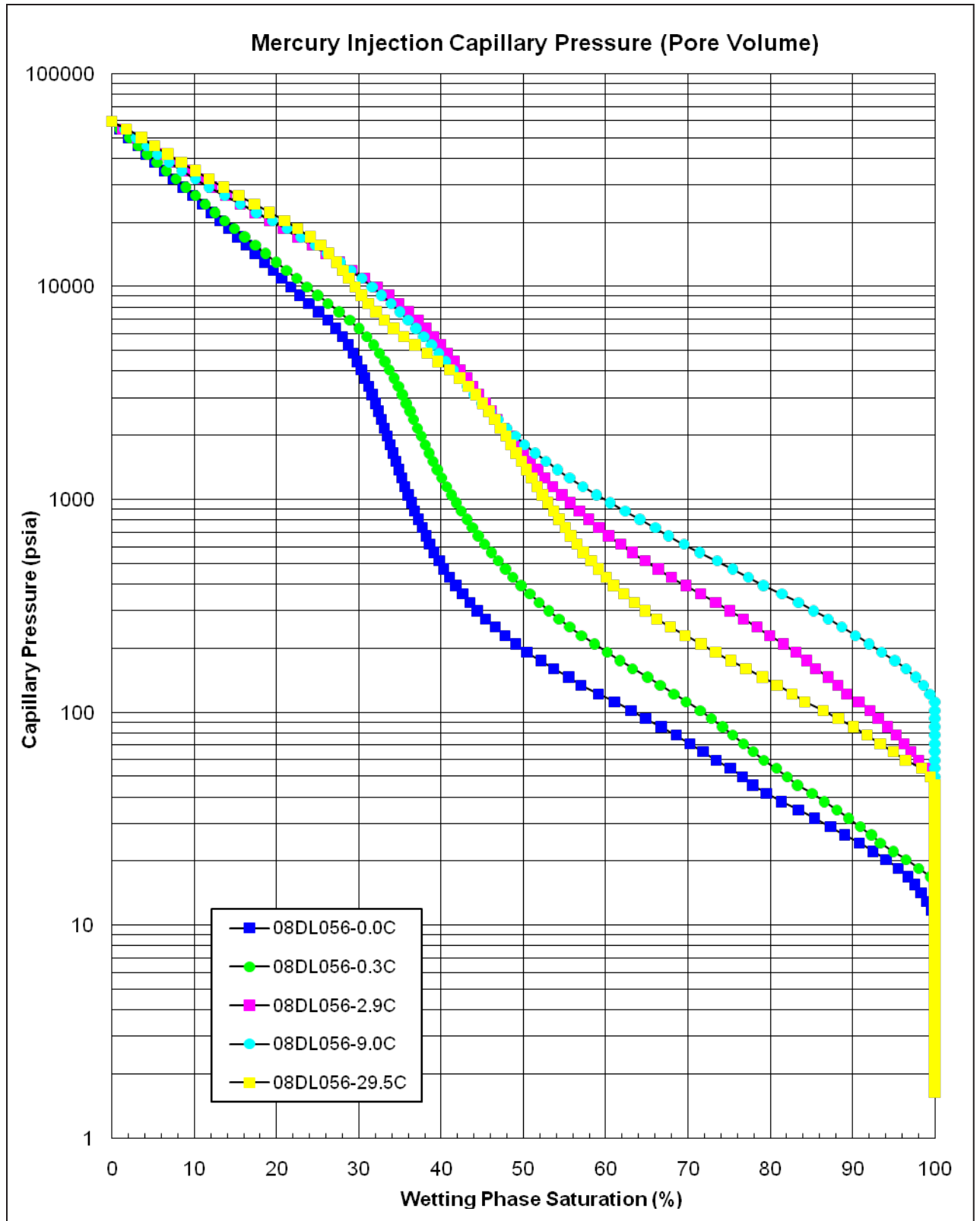


Figure 16. MICP pore volume for all 2008 samples.

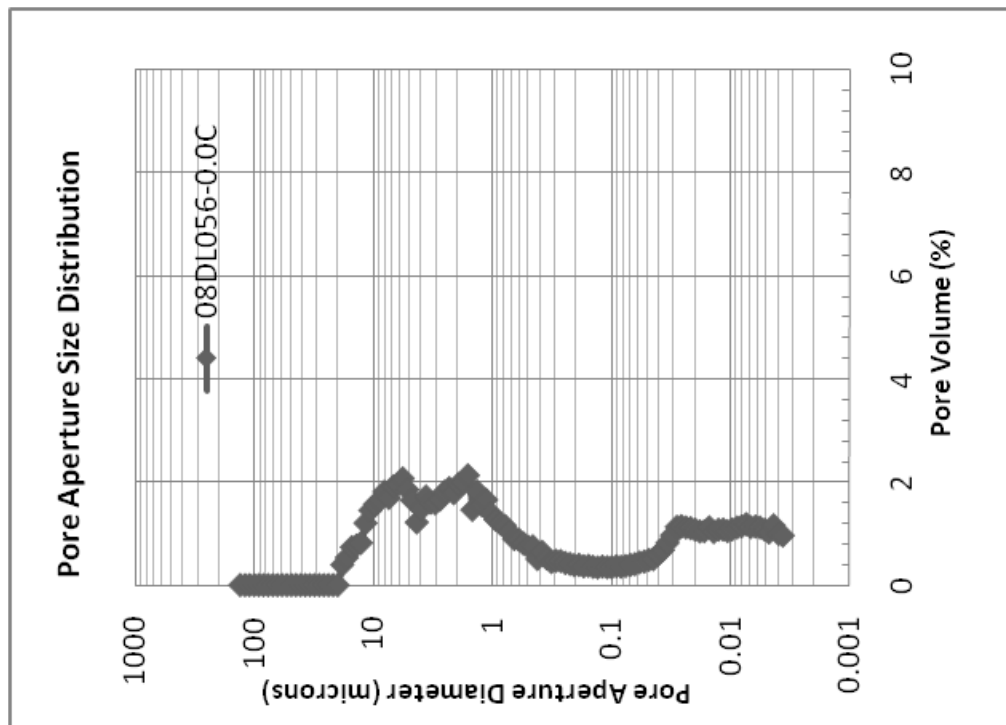


Figure 17a. Pore aperture size distribution for sample 08 DL056-0.0C.

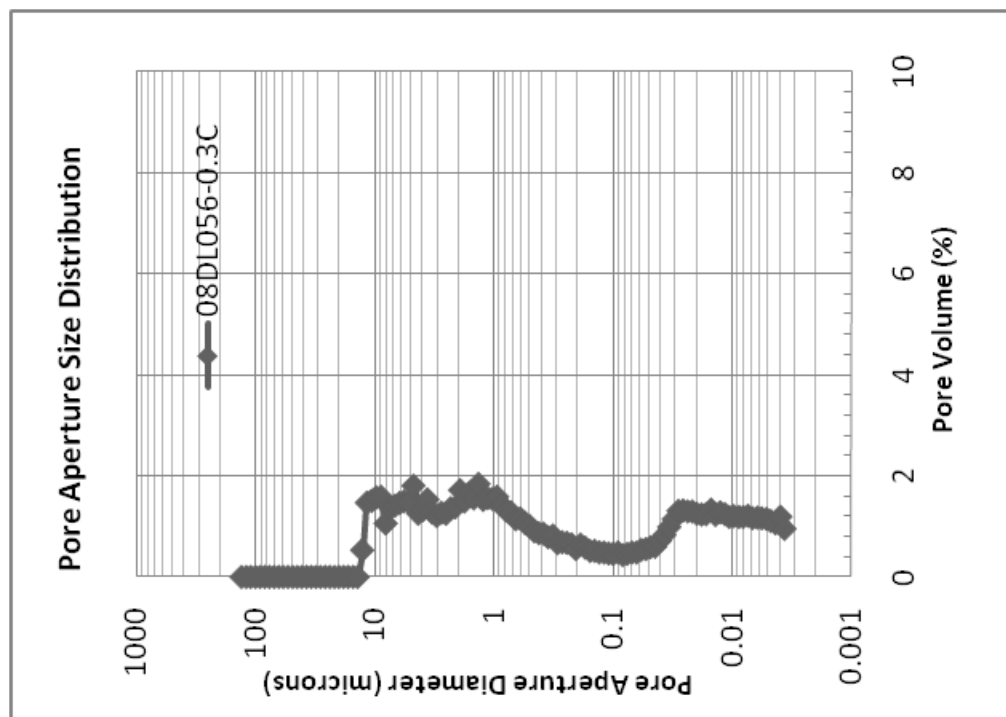


Figure 17b. Pore aperture size distribution for sample 08 DL056-0.3C.

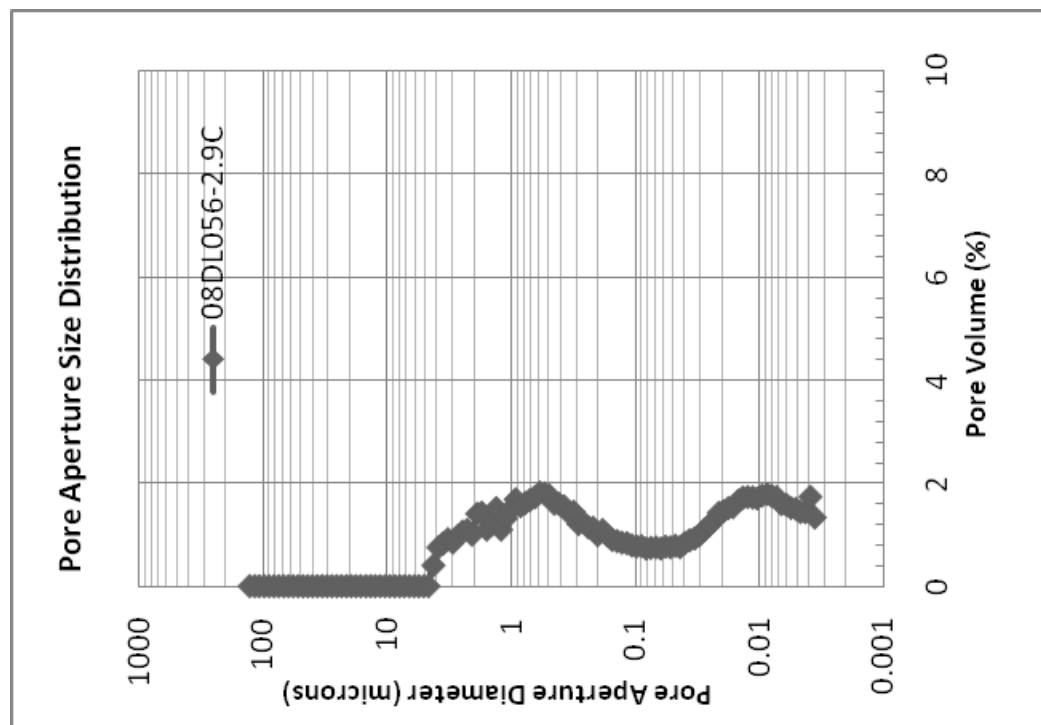


Figure 17c. Pore aperture size distribution for sample 08 D056-2.9C.

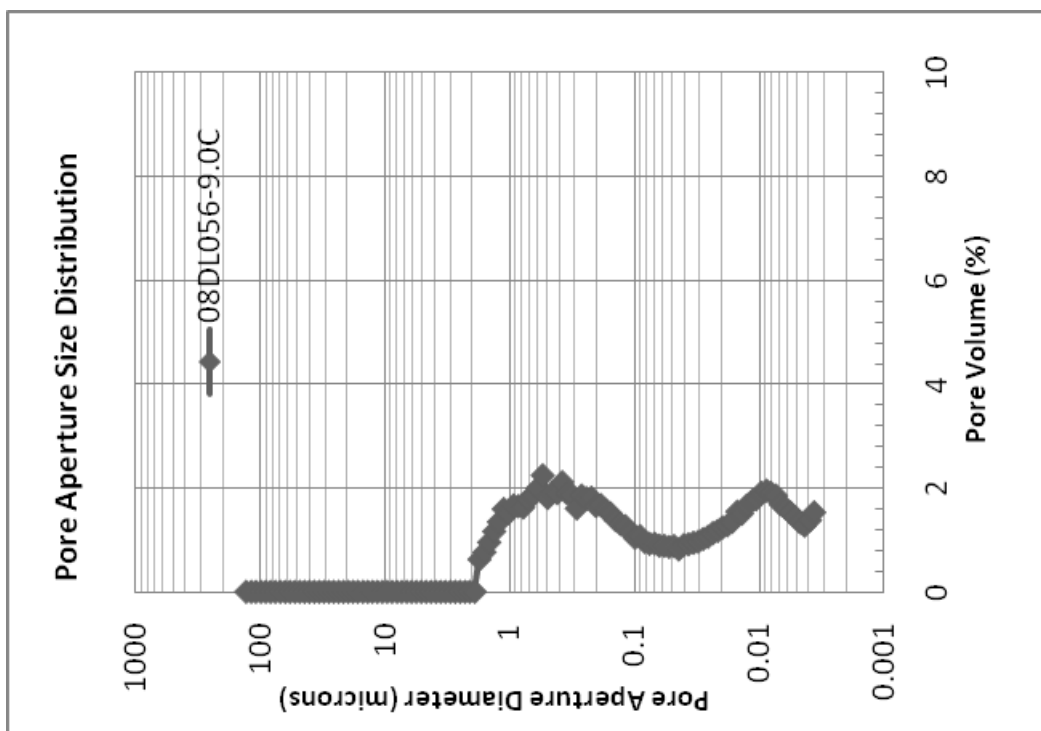


Figure 17d. Pore aperture size distribution for sample 08 DL05 6-9.0C.

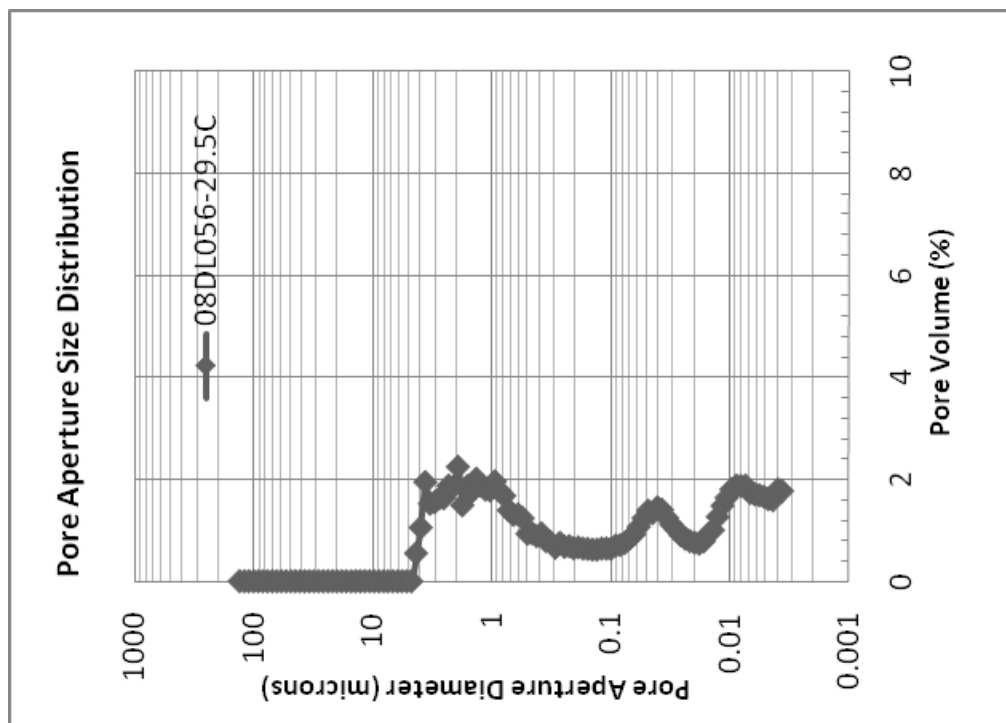


Figure 17e. Pore aperture size distribution for sample 08 D056-29.5C.

Table 11. Summary of height data for 2008 samples.

Data Used In Height Plots

Changing any values in green cells will recalculate and replot seal capacity

Gas		Oil			
Assumed water density (g/cc) -	1.016	Surface Tension -	30 dynes/cm		
Surface Tension -	0.28 g/cc	Density -	0.69 g/cc		
height(ft)=	0.1360	height(ft)=	0.0816		
	0.4267 *Capillary Pressure		0.5780 *Capillary Pressure		
		Height in feet			
		0%	5%	7.5%	10%
08DL056-0.0C		5	8	9	11
08DL056-0.3C		7	9	11	13
08DL056-2.9C		19	34	42	50
08DL056-9.0C		48	75	87	100
08DL056-29.5C		19	28	32	37
Average		20	31	36	42
		27	42	49	57

Height @ 7.5% Saturation

	Pc	Gas	Oil
08DL056-0	22.2	9	13
08DL056-0	26.2	11	15
08DL056-2	99	42	57
08DL056-9	203	87	117
08DL056-2	75.1	32	43

Table 12. MICP data for sample 08DL056 0.0C.

Mercury Injection Capillary Pressure
08DL056 - 0.0C

<u>Sample Information</u>					
Bulk Volume =	5.6001 cc	Porosity =	20.7% (mercury)		
Pore Volume =	1.1589 cc	Permeability =	12.3 md (mercury)		
Closure = 1.00 %BV @ 10.8 psia		Median Pore Aperture =	1.0914 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.03	100.0	0.00	0.0000
1.96	109	0.06	100.0	0.00	0.0000
2.15	99.2	0.08	100.0	0.00	0.0000
2.35	90.8	0.12	100.0	0.00	0.0000
2.57	83.0	0.15	100.0	0.00	0.0000
2.81	75.9	0.17	100.0	0.00	0.0000
3.08	69.3	0.20	100.0	0.00	0.0000
3.37	63.3	0.23	100.0	0.00	0.0000
3.68	58.0	0.26	100.0	0.00	0.0000
4.03	52.9	0.30	100.0	0.00	0.0000
4.41	48.4	0.34	100.0	0.00	0.0000
4.82	44.3	0.38	100.0	0.00	0.0000
5.27	40.5	0.43	100.0	0.00	0.0000
5.77	37.0	0.53	100.0	0.00	0.0000
6.31	33.8	0.57	100.0	0.00	0.0000
6.90	30.9	0.64	100.0	0.00	0.0000
7.55	28.3	0.70	100.0	0.00	0.0000
8.26	25.8	0.78	100.0	0.00	0.0000
9.04	23.6	0.85	100.0	0.00	0.0000
9.89	21.6	0.92	100.0	0.00	0.0000
10.8	19.8	1.00	100.0	0.00	0.0000
11.8	18.1	1.08	99.6	0.40	0.3974
12.9	16.5	1.19	99.1	0.54	0.4878
14.2	15.0	1.35	98.3	0.74	0.5685
15.5	13.8	1.51	97.6	0.77	0.5925
16.9	12.6	1.68	96.7	0.82	0.5872
18.5	11.5	1.93	95.5	1.21	0.7547
20.3	10.5	2.23	94.1	1.46	0.8089
22.2	9.61	2.55	92.5	1.57	0.8286
24.3	8.78	2.89	90.8	1.65	0.7852
26.6	8.02	3.27	89.0	1.82	0.7906
29.0	7.36	3.62	87.3	1.69	0.7060
31.8	6.71	4.02	85.4	1.93	0.6880
34.8	6.13	4.42	83.4	1.96	0.6549
38.0	5.61	4.85	81.4	2.08	0.6495

Table 12 (cont.). MICP data for sample 08DL056 0.0C.

Mercury Injection Capillary Pressure
08DL056 - 0.0C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	5.24	79.5	1.86	0.5167
45.5	4.69	5.58	77.9	1.65	0.4239
49.8	4.28	5.83	76.6	1.22	0.2846
54.5	3.91	6.14	75.1	1.48	0.3154
59.6	3.58	6.49	73.4	1.73	0.3387
65.2	3.27	6.82	71.8	1.60	0.2863
71.3	2.99	7.15	70.2	1.59	0.2612
78.0	2.73	7.50	68.6	1.67	0.2487
85.3	2.50	7.87	66.7	1.82	0.2491
93.4	2.28	8.26	64.8	1.89	0.2332
102	2.09	8.63	63.1	1.79	0.2081
112	1.90	9.04	61.1	1.97	0.1968
122	1.75	9.45	59.1	2.00	0.1996
134	1.59	9.89	57.0	2.14	0.1783
146	1.46	10.20	55.5	1.46	0.1221
160	1.33	10.57	53.7	1.83	0.1305
175	1.22	10.89	52.1	1.56	0.1039
191	1.12	11.24	50.4	1.66	0.1038
209	1.02	11.53	49.0	1.40	0.0777
229	0.932	11.79	47.8	1.28	0.0638
251	0.850	12.04	46.6	1.21	0.0548
274	0.779	12.28	45.4	1.16	0.0503
300	0.711	12.49	44.4	1.03	0.0396
328	0.650	12.68	43.5	0.90	0.0321
359	0.594	12.86	42.6	0.88	0.0285
393	0.543	13.03	41.8	0.81	0.0239
430	0.496	13.18	41.0	0.75	0.0202
470	0.454	13.34	40.3	0.76	0.0189
514	0.415	13.44	39.8	0.51	0.0115
563	0.379	13.58	39.1	0.65	0.0132
615	0.347	13.68	38.6	0.52	0.0100
673	0.317	13.78	38.2	0.45	0.0078
736	0.290	13.87	37.7	0.47	0.0075
806	0.265	13.97	37.2	0.47	0.0067
881	0.242	14.06	36.8	0.43	0.0058
964	0.221	14.15	36.4	0.41	0.0050
1050	0.203	14.23	36.0	0.39	0.0045
1150	0.186	14.31	35.6	0.39	0.0039
1260	0.169	14.38	35.2	0.37	0.0034
1380	0.155	14.46	34.8	0.38	0.0031
1510	0.141	14.53	34.5	0.36	0.0027
1650	0.129	14.60	34.1	0.34	0.0024

Table 12 (cont.). MICP data for sample 08DL056 0.0C.

Mercury Injection Capillary Pressure
08DL056 - 0.0C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	14.68	33.8	0.36	0.0022
1980	0.1077	14.75	33.4	0.35	0.0021
2160	0.0988	14.82	33.1	0.35	0.0019
2370	0.0900	14.90	32.7	0.37	0.0018
2590	0.0824	14.97	32.4	0.36	0.0016
2830	0.0754	15.05	32.0	0.37	0.0016
3100	0.0688	15.13	31.6	0.39	0.0015
3390	0.0629	15.21	31.2	0.41	0.0014
3710	0.0575	15.31	30.7	0.44	0.0014
4060	0.0525	15.40	30.3	0.46	0.0013
4440	0.0480	15.50	29.8	0.49	0.0013
4850	0.0440	15.61	29.3	0.50	0.0012
5310	0.0402	15.73	28.7	0.60	0.0013
5810	0.0367	15.87	28.0	0.68	0.0014
6360	0.0335	16.04	27.2	0.82	0.0015
6950	0.0307	16.24	26.2	0.97	0.0016
7610	0.0280	16.48	25.1	1.14	0.0017
8320	0.0256	16.71	23.9	1.15	0.0016
9100	0.0234	16.95	22.8	1.12	0.0014
9960	0.0214	17.17	21.7	1.11	0.0013
10900	0.0196	17.40	20.6	1.08	0.0011
11900	0.0179	17.61	19.6	1.05	0.0010
13000	0.0164	17.83	18.5	1.05	0.0010
14300	0.0149	18.06	17.4	1.12	0.0009
15600	0.0137	18.28	16.4	1.03	0.0008
17100	0.0125	18.50	15.3	1.08	0.0007
18700	0.0114	18.72	14.2	1.08	0.0007
20400	0.0105	18.94	13.2	1.05	0.0006
22300	0.0096	19.16	12.1	1.09	0.0006
24400	0.0087	19.39	11.0	1.12	0.0005
26700	0.0080	19.63	9.8	1.14	0.0005
29300	0.0073	19.88	8.6	1.19	0.0005
32000	0.0067	20.11	7.5	1.13	0.0004
35000	0.0061	20.35	6.4	1.14	0.0004
38300	0.0056	20.58	5.2	1.12	0.0003
41900	0.0051	20.80	4.2	1.08	0.0003
45800	0.0047	21.01	3.1	1.03	0.0003
50100	0.0043	21.25	2.0	1.16	0.0003
54800	0.0039	21.46	1.0	1.00	0.0002
59500	0.0036	21.66	0.0	0.97	0.0002

Table 13. MICP data for sample 08DL056 0.3C.

Mercury Injection Capillary Pressure
08DL056 - 0.3C

Sample Information			
Bulk Volume =	6.7321 cc	Porosity =	20.1% (mercury)
Pore Volume =	1.3520 cc	Permeability =	8.17 md (mercury)
Closure = 1.09 %BV @ 15.5 psia		Median Pore Aperture =	0.5569 microns (diameter)

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.04	100.0	0.00	0.0000
1.80	119	0.06	100.0	0.00	0.0000
1.96	109	0.07	100.0	0.00	0.0000
2.15	99.2	0.07	100.0	0.00	0.0000
2.35	90.8	0.14	100.0	0.00	0.0000
2.57	83.0	0.22	100.0	0.00	0.0000
2.81	75.9	0.26	100.0	0.00	0.0000
3.08	69.3	0.29	100.0	0.00	0.0000
3.37	63.3	0.32	100.0	0.00	0.0000
3.68	58.0	0.35	100.0	0.00	0.0000
4.03	52.9	0.38	100.0	0.00	0.0000
4.41	48.4	0.41	100.0	0.00	0.0000
4.82	44.3	0.45	100.0	0.00	0.0000
5.27	40.5	0.49	100.0	0.00	0.0000
5.77	37.0	0.54	100.0	0.00	0.0000
6.31	33.8	0.57	100.0	0.00	0.0000
6.90	30.9	0.60	100.0	0.00	0.0000
7.55	28.3	0.63	100.0	0.00	0.0000
8.26	25.8	0.66	100.0	0.00	0.0000
9.04	23.6	0.69	100.0	0.00	0.0000
9.89	21.6	0.74	100.0	0.00	0.0000
10.8	19.8	0.79	100.0	0.00	0.0000
11.8	18.1	0.84	100.0	0.00	0.0000
12.9	16.5	0.93	100.0	0.00	0.0000
14.2	15.0	1.01	100.0	0.00	0.0000
15.5	13.8	1.09	100.0	0.00	0.0000
16.9	12.6	1.20	99.5	0.53	0.3772
18.5	11.5	1.49	98.0	1.47	0.9158
20.3	10.5	1.79	96.5	1.50	0.8345
22.2	9.61	2.11	94.9	1.57	0.8265
24.3	8.78	2.42	93.4	1.58	0.7527
26.6	8.02	2.64	92.3	1.06	0.4591
29.0	7.36	2.91	90.9	1.36	0.5667
31.8	6.71	3.19	89.5	1.41	0.5023
34.8	6.13	3.48	88.1	1.46	0.4856
38.0	5.61	3.78	86.6	1.49	0.4668

Table 13 (cont.). MICP data for sample 08DL056 0.3C.

Mercury Injection Capillary Pressure
08DL056 - 0.3C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	4.08	85.1	1.48	0.4110
45.5	4.69	4.44	83.3	1.80	0.4612
49.8	4.28	4.69	82.1	1.25	0.2904
54.5	3.91	4.95	80.7	1.32	0.2801
59.6	3.58	5.26	79.2	1.53	0.3003
65.2	3.27	5.52	77.9	1.27	0.2267
71.3	2.99	5.76	76.7	1.20	0.1969
78.0	2.73	6.01	75.5	1.27	0.1893
85.3	2.50	6.26	74.2	1.25	0.1706
93.4	2.28	6.53	72.9	1.35	0.1672
102	2.09	6.81	71.5	1.37	0.1595
112	1.90	7.15	69.8	1.71	0.1711
122	1.75	7.45	68.3	1.49	0.1487
134	1.59	7.78	66.6	1.65	0.1379
146	1.46	8.09	65.1	1.55	0.1292
160	1.33	8.46	63.3	1.83	0.1310
175	1.22	8.77	61.7	1.52	0.1013
191	1.12	9.08	60.2	1.55	0.0971
209	1.02	9.39	58.6	1.54	0.0856
229	0.932	9.70	57.1	1.58	0.0790
251	0.850	9.99	55.6	1.42	0.0645
274	0.779	10.25	54.3	1.31	0.0568
300	0.711	10.51	53.1	1.28	0.0491
328	0.650	10.74	51.9	1.14	0.0406
359	0.594	10.97	50.8	1.15	0.0372
393	0.543	11.18	49.7	1.06	0.0313
430	0.496	11.38	48.7	1.01	0.0272
470	0.454	11.56	47.8	0.90	0.0225
514	0.415	11.74	46.9	0.86	0.0196
563	0.379	11.91	46.1	0.85	0.0174
615	0.347	12.06	45.3	0.78	0.0150
673	0.317	12.23	44.5	0.81	0.0140
736	0.290	12.36	43.8	0.67	0.0106
806	0.265	12.50	43.1	0.69	0.0098
881	0.242	12.63	42.5	0.67	0.0090
964	0.221	12.76	41.8	0.64	0.0077
1050	0.203	12.87	41.3	0.55	0.0064
1150	0.186	13.00	40.6	0.64	0.0064
1260	0.169	13.12	40.1	0.58	0.0052
1380	0.155	13.22	39.5	0.51	0.0043
1510	0.141	13.32	39.0	0.51	0.0040
1650	0.129	13.42	38.5	0.48	0.0035

Table 13 (cont.). MICP data for sample 08DL056 0.3C.

Mercury Injection Capillary Pressure
08DL056 - 0.3C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	13.52	38.1	0.48	0.0030
1980	0.1077	13.61	37.6	0.46	0.0027
2160	0.0988	13.70	37.1	0.46	0.0025
2370	0.0900	13.80	36.7	0.49	0.0023
2590	0.0824	13.89	36.2	0.43	0.0020
2830	0.0754	13.98	35.8	0.46	0.0019
3100	0.0688	14.07	35.3	0.48	0.0018
3390	0.0629	14.17	34.8	0.48	0.0017
3710	0.0575	14.28	34.3	0.53	0.0017
4060	0.0525	14.39	33.7	0.55	0.0016
4440	0.0480	14.51	33.1	0.59	0.0015
4850	0.0440	14.63	32.5	0.60	0.0015
5310	0.0402	14.77	31.8	0.71	0.0015
5810	0.0367	14.93	31.0	0.83	0.0017
6360	0.0335	15.13	30.0	0.98	0.0018
6950	0.0307	15.36	28.9	1.14	0.0019
7610	0.0280	15.62	27.6	1.30	0.0020
8320	0.0256	15.89	26.3	1.31	0.0018
9100	0.0234	16.14	25.0	1.29	0.0017
9960	0.0214	16.40	23.7	1.29	0.0015
10900	0.0196	16.65	22.4	1.25	0.0013
11900	0.0179	16.90	21.2	1.23	0.0012
13000	0.0164	17.15	20.0	1.24	0.0011
14300	0.0149	17.42	18.6	1.33	0.0010
15600	0.0137	17.66	17.4	1.22	0.0009
17100	0.0125	17.92	16.1	1.27	0.0008
18700	0.0114	18.16	14.9	1.24	0.0008
20400	0.0105	18.40	13.7	1.18	0.0007
22300	0.0096	18.64	12.5	1.20	0.0006
24400	0.0087	18.88	11.3	1.18	0.0006
26700	0.0080	19.12	10.1	1.18	0.0005
29300	0.0073	19.36	8.9	1.21	0.0005
32000	0.0067	19.59	7.8	1.16	0.0004
35000	0.0061	19.83	6.6	1.17	0.0004
38300	0.0056	20.06	5.4	1.16	0.0004
41900	0.0051	20.29	4.3	1.14	0.0003
45800	0.0047	20.51	3.2	1.11	0.0003
50100	0.0043	20.72	2.1	1.06	0.0002
54800	0.0039	20.96	1.0	1.19	0.0003
59500	0.0036	21.15	0.0	0.95	0.0002

Table 14. MICP data for sample 08DL056 2.9C.

Mercury Injection Capillary Pressure
08DL056 - 2.9C

Sample Information			
Bulk Volume =	6.4697 cc	Porosity =	17.6% (mercury)
Pore Volume =	1.1380 cc	Permeability =	na
Closure = 2.50 %BV @ 45.5 psia		Median Pore Aperture =	0.129 microns (diameter)

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.03	100.0	0.00	0.0000
1.80	119	0.04	100.0	0.00	0.0000
1.96	109	0.05	100.0	0.00	0.0000
2.15	99.2	0.05	100.0	0.00	0.0000
2.35	90.8	0.11	100.0	0.00	0.0000
2.57	83.0	0.17	100.0	0.00	0.0000
2.81	75.9	0.19	100.0	0.00	0.0000
3.08	69.3	0.21	100.0	0.00	0.0000
3.37	63.3	0.25	100.0	0.00	0.0000
3.68	58.0	0.29	100.0	0.00	0.0000
4.03	52.9	0.35	100.0	0.00	0.0000
4.41	48.4	0.39	100.0	0.00	0.0000
4.82	44.3	0.43	100.0	0.00	0.0000
5.27	40.5	0.47	100.0	0.00	0.0000
5.77	37.0	0.53	100.0	0.00	0.0000
6.31	33.8	0.58	100.0	0.00	0.0000
6.90	30.9	0.64	100.0	0.00	0.0000
7.55	28.3	0.69	100.0	0.00	0.0000
8.26	25.8	0.76	100.0	0.00	0.0000
9.04	23.6	0.82	100.0	0.00	0.0000
9.89	21.6	0.87	100.0	0.00	0.0000
10.8	19.8	0.94	100.0	0.00	0.0000
11.8	18.1	1.01	100.0	0.00	0.0000
12.9	16.5	1.08	100.0	0.00	0.0000
14.2	15.0	1.16	100.0	0.00	0.0000
15.5	13.8	1.21	100.0	0.00	0.0000
16.9	12.6	1.28	100.0	0.00	0.0000
18.5	11.5	1.38	100.0	0.00	0.0000
20.3	10.5	1.46	100.0	0.00	0.0000
22.2	9.61	1.56	100.0	0.00	0.0000
24.3	8.78	1.67	100.0	0.00	0.0000
26.6	8.02	1.76	100.0	0.00	0.0000
29.0	7.36	1.85	100.0	0.00	0.0000
31.8	6.71	1.97	100.0	0.00	0.0000
34.8	6.13	2.10	100.0	0.00	0.0000
38.0	5.61	2.22	100.0	0.00	0.0000

Table 14 (cont.). MICP data for sample 08DL056 2.9C.

Mercury Injection Capillary Pressure
08DL056 - 2.9C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	2.36	100.0	0.00	0.0000
45.5	4.69	2.50	100.0	0.00	0.0000
49.8	4.28	2.57	99.6	0.40	0.0936
54.5	3.91	2.70	98.8	0.75	0.1597
59.6	3.58	2.84	98.0	0.83	0.1624
65.2	3.27	3.00	97.1	0.91	0.1629
71.3	2.99	3.15	96.3	0.85	0.1388
78.0	2.73	3.32	95.3	0.97	0.1442
85.3	2.50	3.51	94.2	1.06	0.1450
93.4	2.28	3.70	93.1	1.09	0.1350
102	2.09	3.87	92.1	1.00	0.1159
112	1.90	4.12	90.7	1.41	0.1406
122	1.75	4.37	89.3	1.43	0.1429
134	1.59	4.56	88.2	1.10	0.0914
146	1.46	4.77	87.0	1.19	0.0992
160	1.33	5.04	85.5	1.51	0.1081
175	1.22	5.23	84.4	1.10	0.0730
191	1.12	5.46	83.1	1.31	0.0821
209	1.02	5.72	81.6	1.49	0.0825
229	0.932	6.02	79.9	1.69	0.0843
251	0.850	6.29	78.4	1.55	0.0706
274	0.779	6.58	76.8	1.62	0.0702
300	0.711	6.87	75.1	1.67	0.0644
328	0.650	7.17	73.4	1.72	0.0616
359	0.594	7.49	71.5	1.82	0.0586
393	0.543	7.81	69.7	1.80	0.0529
430	0.496	8.12	68.0	1.76	0.0475
470	0.454	8.40	66.4	1.60	0.0401
514	0.415	8.68	64.8	1.60	0.0363
563	0.379	8.95	63.2	1.55	0.0316
615	0.347	9.20	61.8	1.42	0.0273
673	0.317	9.45	60.4	1.44	0.0249
736	0.290	9.66	59.2	1.21	0.0191
806	0.265	9.88	57.9	1.24	0.0177
881	0.242	10.08	56.8	1.14	0.0152
964	0.221	10.28	55.7	1.13	0.0136
1050	0.203	10.45	54.7	0.99	0.0115
1150	0.186	10.64	53.6	1.09	0.0109
1260	0.169	10.82	52.6	0.98	0.0089
1380	0.155	10.97	51.7	0.90	0.0075
1510	0.141	11.13	50.8	0.87	0.0067
1650	0.129	11.27	50.0	0.84	0.0060

Table 14 (cont.). MICP data for sample 08DL056 2.9C.

Mercury Injection Capillary Pressure
08DL056 - 2.9C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	11.42	49.1	0.84	0.0052
1980	0.1077	11.56	48.4	0.79	0.0047
2160	0.0988	11.70	47.6	0.77	0.0043
2370	0.0900	11.83	46.8	0.78	0.0037
2590	0.0824	11.96	46.1	0.73	0.0033
2830	0.0754	12.09	45.3	0.74	0.0031
3100	0.0688	12.22	44.6	0.75	0.0028
3390	0.0629	12.35	43.9	0.73	0.0025
3710	0.0575	12.48	43.1	0.77	0.0024
4060	0.0525	12.62	42.3	0.75	0.0021
4440	0.0480	12.75	41.6	0.78	0.0021
4850	0.0440	12.89	40.8	0.75	0.0018
5310	0.0402	13.03	40.0	0.84	0.0018
5810	0.0367	13.19	39.1	0.89	0.0018
6360	0.0335	13.35	38.1	0.92	0.0017
6950	0.0307	13.53	37.2	0.99	0.0017
7610	0.0280	13.72	36.1	1.09	0.0017
8320	0.0256	13.92	34.9	1.18	0.0017
9100	0.0234	14.15	33.6	1.27	0.0016
9960	0.0214	14.40	32.2	1.42	0.0017
10900	0.0196	14.65	30.7	1.46	0.0015
11900	0.0179	14.92	29.2	1.52	0.0015
13000	0.0164	15.19	27.7	1.53	0.0014
14300	0.0149	15.48	26.0	1.66	0.0013
15600	0.0137	15.78	24.3	1.72	0.0013
17100	0.0125	16.08	22.6	1.73	0.0012
18700	0.0114	16.39	20.9	1.72	0.0011
20400	0.0105	16.69	19.2	1.70	0.0010
22300	0.0096	16.99	17.4	1.76	0.0009
24400	0.0087	17.31	15.6	1.79	0.0009
26700	0.0080	17.61	13.9	1.75	0.0008
29300	0.0073	17.92	12.1	1.73	0.0007
32000	0.0067	18.20	10.5	1.59	0.0006
35000	0.0061	18.47	9.0	1.58	0.0005
38300	0.0056	18.74	7.4	1.52	0.0005
41900	0.0051	19.00	5.9	1.50	0.0004
45800	0.0047	19.26	4.5	1.44	0.0004
50100	0.0043	19.51	3.1	1.44	0.0003
54800	0.0039	19.81	1.3	1.73	0.0004
59500	0.0036	20.05	0.0	1.33	0.0003

Table 15. MICP data for sample 08DL056 9.0C.

Mercury Injection Capillary Pressure
08DL056 - 9.0C

<u>Sample Information</u>					
Bulk Volume =	3.8702 cc	Porosity =	16.4% (mercury)		
Pore Volume =	0.6350 cc	Permeability =	na		
Closure = 1.82 %BV @ 112 psia		Median Pore Aperture =	0.1162 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.01	100.0	0.00	0.0000
1.80	119	0.03	100.0	0.00	0.0000
1.96	109	0.04	100.0	0.00	0.0000
2.15	99.2	0.06	100.0	0.00	0.0000
2.35	90.8	0.07	100.0	0.00	0.0000
2.57	83.0	0.09	100.0	0.00	0.0000
2.81	75.9	0.11	100.0	0.00	0.0000
3.08	69.3	0.12	100.0	0.00	0.0000
3.37	63.3	0.13	100.0	0.00	0.0000
3.68	58.0	0.15	100.0	0.00	0.0000
4.03	52.9	0.16	100.0	0.00	0.0000
4.41	48.4	0.18	100.0	0.00	0.0000
4.82	44.3	0.19	100.0	0.00	0.0000
5.27	40.5	0.21	100.0	0.00	0.0000
5.77	37.0	0.22	100.0	0.00	0.0000
6.31	33.8	0.24	100.0	0.00	0.0000
6.90	30.9	0.25	100.0	0.00	0.0000
7.55	28.3	0.27	100.0	0.00	0.0000
8.26	25.8	0.28	100.0	0.00	0.0000
9.04	23.6	0.30	100.0	0.00	0.0000
9.89	21.6	0.32	100.0	0.00	0.0000
10.8	19.8	0.33	100.0	0.00	0.0000
11.8	18.1	0.35	100.0	0.00	0.0000
12.9	16.5	0.39	100.0	0.00	0.0000
14.2	15.0	0.42	100.0	0.00	0.0000
15.5	13.8	0.44	100.0	0.00	0.0000
16.9	12.6	0.47	100.0	0.00	0.0000
18.5	11.5	0.49	100.0	0.00	0.0000
20.3	10.5	0.52	100.0	0.00	0.0000
22.2	9.61	0.54	100.0	0.00	0.0000
24.3	8.78	0.57	100.0	0.00	0.0000
26.6	8.02	0.61	100.0	0.00	0.0000
29.0	7.36	0.65	100.0	0.00	0.0000
31.8	6.71	0.70	100.0	0.00	0.0000
34.8	6.13	0.76	100.0	0.00	0.0000
38.0	5.61	0.82	100.0	0.00	0.0000

Table 15 (cont.). MICP data for sample 08DL056 9.0C.

Mercury Injection Capillary Pressure
08DL056 - 9.0C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.88	100.0	0.00	0.0000
45.5	4.69	0.95	100.0	0.00	0.0000
49.8	4.28	0.98	100.0	0.00	0.0000
54.5	3.91	1.03	100.0	0.00	0.0000
59.6	3.58	1.08	100.0	0.00	0.0000
65.2	3.27	1.14	100.0	0.00	0.0000
71.3	2.99	1.21	100.0	0.00	0.0000
78.0	2.73	1.28	100.0	0.00	0.0000
85.3	2.50	1.35	100.0	0.00	0.0000
93.4	2.28	1.47	100.0	0.00	0.0000
102	2.09	1.62	100.0	0.00	0.0000
112	1.90	1.82	100.0	0.00	0.0000
122	1.75	1.92	99.4	0.62	0.0625
134	1.59	2.04	98.6	0.77	0.0638
146	1.46	2.20	97.7	0.96	0.0796
160	1.33	2.39	96.5	1.17	0.0832
175	1.22	2.61	95.1	1.35	0.0899
191	1.12	2.87	93.5	1.60	0.0999
209	1.02	3.12	92.0	1.52	0.0846
229	0.932	3.39	90.4	1.67	0.0835
251	0.850	3.67	88.7	1.65	0.0752
274	0.779	3.93	87.1	1.63	0.0708
300	0.711	4.22	85.3	1.79	0.0689
328	0.650	4.53	83.4	1.86	0.0665
359	0.594	4.86	81.4	2.01	0.0647
393	0.543	5.23	79.2	2.25	0.0661
430	0.496	5.52	77.4	1.81	0.0489
470	0.454	5.84	75.4	1.92	0.0481
514	0.415	6.15	73.5	1.90	0.0433
563	0.379	6.50	71.4	2.12	0.0432
615	0.347	6.81	69.5	1.90	0.0366
673	0.317	7.11	67.6	1.87	0.0323
736	0.290	7.38	66.0	1.61	0.0255
806	0.265	7.68	64.2	1.86	0.0266
881	0.242	7.98	62.4	1.81	0.0241
964	0.221	8.27	60.5	1.82	0.0219
1050	0.203	8.54	58.9	1.66	0.0192
1150	0.186	8.82	57.2	1.68	0.0168
1260	0.169	9.08	55.6	1.58	0.0143
1380	0.155	9.32	54.1	1.51	0.0126
1510	0.141	9.55	52.7	1.39	0.0107
1650	0.129	9.77	51.4	1.31	0.0094

Table 15 (cont.). MICP data for sample 08DL056 9.0C.

Mercury Injection Capillary Pressure
08DL056 - 9.0C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	9.97	50.2	1.27	0.0079
1980	0.1077	10.16	49.0	1.15	0.0068
2160	0.0988	10.33	48.0	1.04	0.0058
2370	0.0900	10.51	46.9	1.08	0.0051
2590	0.0824	10.67	45.9	0.96	0.0044
2830	0.0754	10.82	45.0	0.93	0.0039
3100	0.0688	10.97	44.1	0.93	0.0035
3390	0.0629	11.12	43.2	0.89	0.0031
3710	0.0575	11.26	42.3	0.89	0.0028
4060	0.0525	11.40	41.4	0.87	0.0025
4440	0.0480	11.55	40.5	0.88	0.0023
4850	0.0440	11.68	39.7	0.82	0.0020
5310	0.0402	11.83	38.8	0.90	0.0020
5810	0.0367	11.98	37.9	0.92	0.0018
6360	0.0335	12.13	36.9	0.95	0.0017
6950	0.0307	12.29	36.0	0.97	0.0016
7610	0.0280	12.46	35.0	1.02	0.0015
8320	0.0256	12.63	33.9	1.06	0.0015
9100	0.0234	12.82	32.8	1.13	0.0015
9960	0.0214	13.01	31.6	1.18	0.0014
10900	0.0196	13.22	30.3	1.24	0.0013
11900	0.0179	13.43	29.1	1.28	0.0013
13000	0.0164	13.65	27.7	1.35	0.0012
14300	0.0149	13.90	26.2	1.55	0.0012
15600	0.0137	14.15	24.7	1.51	0.0012
17100	0.0125	14.42	23.0	1.67	0.0011
18700	0.0114	14.71	21.2	1.75	0.0011
20400	0.0105	15.00	19.5	1.79	0.0011
22300	0.0096	15.31	17.5	1.91	0.0010
24400	0.0087	15.63	15.6	1.96	0.0009
26700	0.0080	15.94	13.7	1.91	0.0008
29300	0.0073	16.25	11.8	1.86	0.0007
32000	0.0067	16.52	10.1	1.69	0.0006
35000	0.0061	16.79	8.5	1.61	0.0005
38300	0.0056	17.04	7.0	1.53	0.0005
41900	0.0051	17.27	5.5	1.44	0.0004
45800	0.0047	17.49	4.2	1.34	0.0003
50100	0.0043	17.70	2.9	1.28	0.0003
54800	0.0039	17.93	1.5	1.38	0.0003
59500	0.0036	18.18	0.0	1.53	0.0003

Table 16. MICP data for sample 08DL056 29.5C.

Mercury Injection Capillary Pressure
08DL056 - 29.5 C

Sample Information			
Bulk Volume =	4.9206 cc	Porosity =	22.5% (mercury)
Pore Volume =	1.1061 cc	Permeability =	2.35 md (mercury)
Closure = 1.84 %BV @ 45.5 psia		Median Pore Aperture =	0.1457 microns (diameter)

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.04	100.0	0.00	0.0000
1.96	109	0.05	100.0	0.00	0.0000
2.15	99.2	0.07	100.0	0.00	0.0000
2.35	90.8	0.09	100.0	0.00	0.0000
2.57	83.0	0.11	100.0	0.00	0.0000
2.81	75.9	0.12	100.0	0.00	0.0000
3.08	69.3	0.14	100.0	0.00	0.0000
3.37	63.3	0.16	100.0	0.00	0.0000
3.68	58.0	0.18	100.0	0.00	0.0000
4.03	52.9	0.20	100.0	0.00	0.0000
4.41	48.4	0.22	100.0	0.00	0.0000
4.82	44.3	0.24	100.0	0.00	0.0000
5.27	40.5	0.25	100.0	0.00	0.0000
5.77	37.0	0.28	100.0	0.00	0.0000
6.31	33.8	0.30	100.0	0.00	0.0000
6.90	30.9	0.32	100.0	0.00	0.0000
7.55	28.3	0.34	100.0	0.00	0.0000
8.26	25.8	0.36	100.0	0.00	0.0000
9.04	23.6	0.38	100.0	0.00	0.0000
9.89	21.6	0.40	100.0	0.00	0.0000
10.8	19.8	0.43	100.0	0.00	0.0000
11.8	18.1	0.46	100.0	0.00	0.0000
12.9	16.5	0.52	100.0	0.00	0.0000
14.2	15.0	0.57	100.0	0.00	0.0000
15.5	13.8	0.61	100.0	0.00	0.0000
16.9	12.6	0.67	100.0	0.00	0.0000
18.5	11.5	0.74	100.0	0.00	0.0000
20.3	10.5	0.79	100.0	0.00	0.0000
22.2	9.61	0.85	100.0	0.00	0.0000
24.3	8.78	0.93	100.0	0.00	0.0000
26.6	8.02	1.02	100.0	0.00	0.0000
29.0	7.36	1.09	100.0	0.00	0.0000
31.8	6.71	1.22	100.0	0.00	0.0000
34.8	6.13	1.36	100.0	0.00	0.0000
38.0	5.61	1.47	100.0	0.00	0.0000

Table 16 (cont.). MICP data for sample 08DL056 29.5C.

Mercury Injection Capillary Pressure
08DL056 - 29.5 C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	1.67	100.0	0.00	0.0000
45.5	4.69	1.84	100.0	0.00	0.0000
49.8	4.28	1.96	99.5	0.55	0.1275
54.5	3.91	2.19	98.4	1.05	0.2238
59.6	3.58	2.63	96.5	1.94	0.3812
65.2	3.27	2.97	94.9	1.52	0.2715
71.3	2.99	3.32	93.4	1.55	0.2538
78.0	2.73	3.68	91.8	1.63	0.2427
85.3	2.50	4.05	90.1	1.63	0.2227
93.4	2.28	4.47	88.3	1.87	0.2314
102	2.09	4.88	86.4	1.85	0.2149
112	1.90	5.38	84.2	2.24	0.2244
122	1.75	5.72	82.7	1.49	0.1490
134	1.59	6.13	80.8	1.86	0.1552
146	1.46	6.53	79.1	1.75	0.1459
160	1.33	6.98	77.1	2.01	0.1437
175	1.22	7.40	75.2	1.87	0.1247
191	1.12	7.80	73.4	1.79	0.1122
209	1.02	8.20	71.6	1.78	0.0988
229	0.932	8.63	69.7	1.96	0.0978
251	0.850	9.03	67.9	1.77	0.0805
274	0.779	9.41	66.2	1.67	0.0727
300	0.711	9.72	64.8	1.39	0.0535
328	0.650	10.01	63.5	1.30	0.0464
359	0.594	10.30	62.2	1.31	0.0423
393	0.543	10.58	61.0	1.23	0.0363
430	0.496	10.79	60.0	0.93	0.0251
470	0.454	11.00	59.1	0.94	0.0236
514	0.415	11.20	58.2	0.88	0.0201
563	0.379	11.41	57.3	0.94	0.0191
615	0.347	11.58	56.5	0.79	0.0152
673	0.317	11.76	55.7	0.77	0.0132
736	0.290	11.90	55.1	0.66	0.0104
806	0.265	12.07	54.3	0.75	0.0107
881	0.242	12.22	53.6	0.67	0.0090
964	0.221	12.38	53.0	0.69	0.0083
1050	0.203	12.52	52.3	0.64	0.0075
1150	0.186	12.67	51.6	0.66	0.0066
1260	0.169	12.81	51.0	0.64	0.0058
1380	0.155	12.95	50.4	0.63	0.0053
1510	0.141	13.09	49.8	0.62	0.0048
1650	0.129	13.23	49.1	0.62	0.0044

Table 16 (cont.). MICP data for sample 08DL056 29.5C.

Mercury Injection Capillary Pressure
08DL056 - 29.5 C

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	13.37	48.5	0.64	0.0040
1980	0.1077	13.52	47.9	0.64	0.0038
2160	0.0988	13.66	47.2	0.63	0.0035
2370	0.0900	13.82	46.5	0.70	0.0033
2590	0.0824	13.98	45.8	0.71	0.0032
2830	0.0754	14.14	45.1	0.75	0.0031
3100	0.0688	14.33	44.2	0.84	0.0031
3390	0.0629	14.54	43.3	0.92	0.0032
3710	0.0575	14.78	42.2	1.07	0.0033
4060	0.0525	15.05	41.0	1.24	0.0035
4440	0.0480	15.36	39.6	1.38	0.0036
4850	0.0440	15.66	38.3	1.33	0.0032
5310	0.0402	15.99	36.8	1.45	0.0031
5810	0.0367	16.30	35.4	1.40	0.0028
6360	0.0335	16.58	34.2	1.25	0.0023
6950	0.0307	16.83	33.1	1.11	0.0019
7610	0.0280	17.06	32.1	1.02	0.0015
8320	0.0256	17.26	31.2	0.90	0.0013
9100	0.0234	17.45	30.3	0.83	0.0011
9960	0.0214	17.62	29.5	0.79	0.0009
10900	0.0196	17.79	28.8	0.76	0.0008
11900	0.0179	17.96	28.0	0.74	0.0007
13000	0.0164	18.13	27.3	0.78	0.0007
14300	0.0149	18.34	26.3	0.93	0.0007
15600	0.0137	18.57	25.3	1.00	0.0008
17100	0.0125	18.85	24.1	1.26	0.0008
18700	0.0114	19.18	22.6	1.48	0.0009
20400	0.0105	19.55	21.0	1.63	0.0010
22300	0.0096	19.95	19.2	1.80	0.0009
24400	0.0087	20.37	17.3	1.87	0.0009
26700	0.0080	20.79	15.4	1.87	0.0008
29300	0.0073	21.21	13.5	1.88	0.0007
32000	0.0067	21.59	11.8	1.73	0.0006
35000	0.0061	21.98	10.1	1.70	0.0006
38300	0.0056	22.35	8.4	1.69	0.0005
41900	0.0051	22.72	6.8	1.65	0.0005
45800	0.0047	23.08	5.2	1.61	0.0004
50100	0.0043	23.44	3.6	1.59	0.0004
54800	0.0039	23.84	1.8	1.80	0.0004
59500	0.0036	24.24	0.0	1.77	0.0004

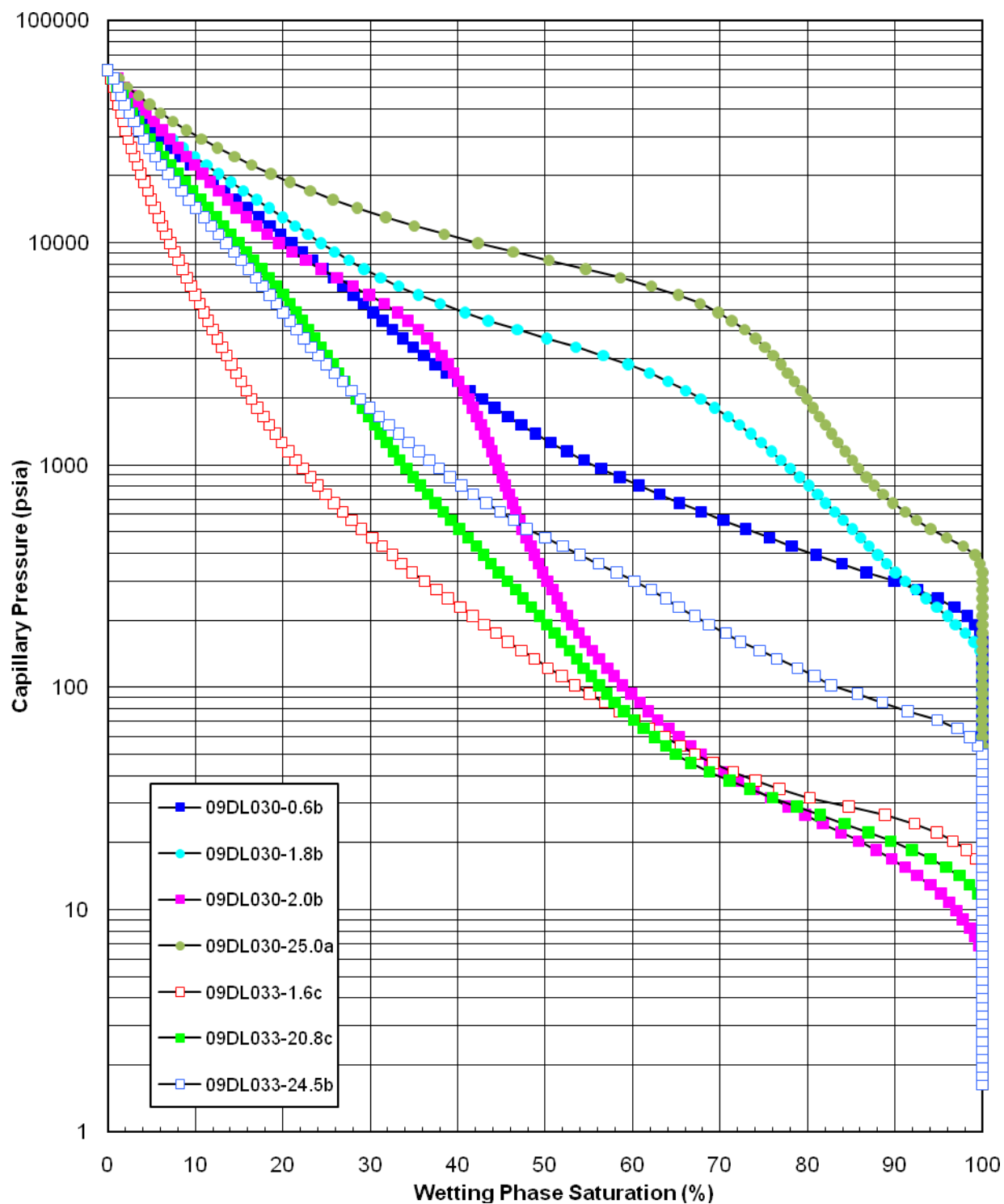


Figure 18. MICP pore volume for 2009 samples.

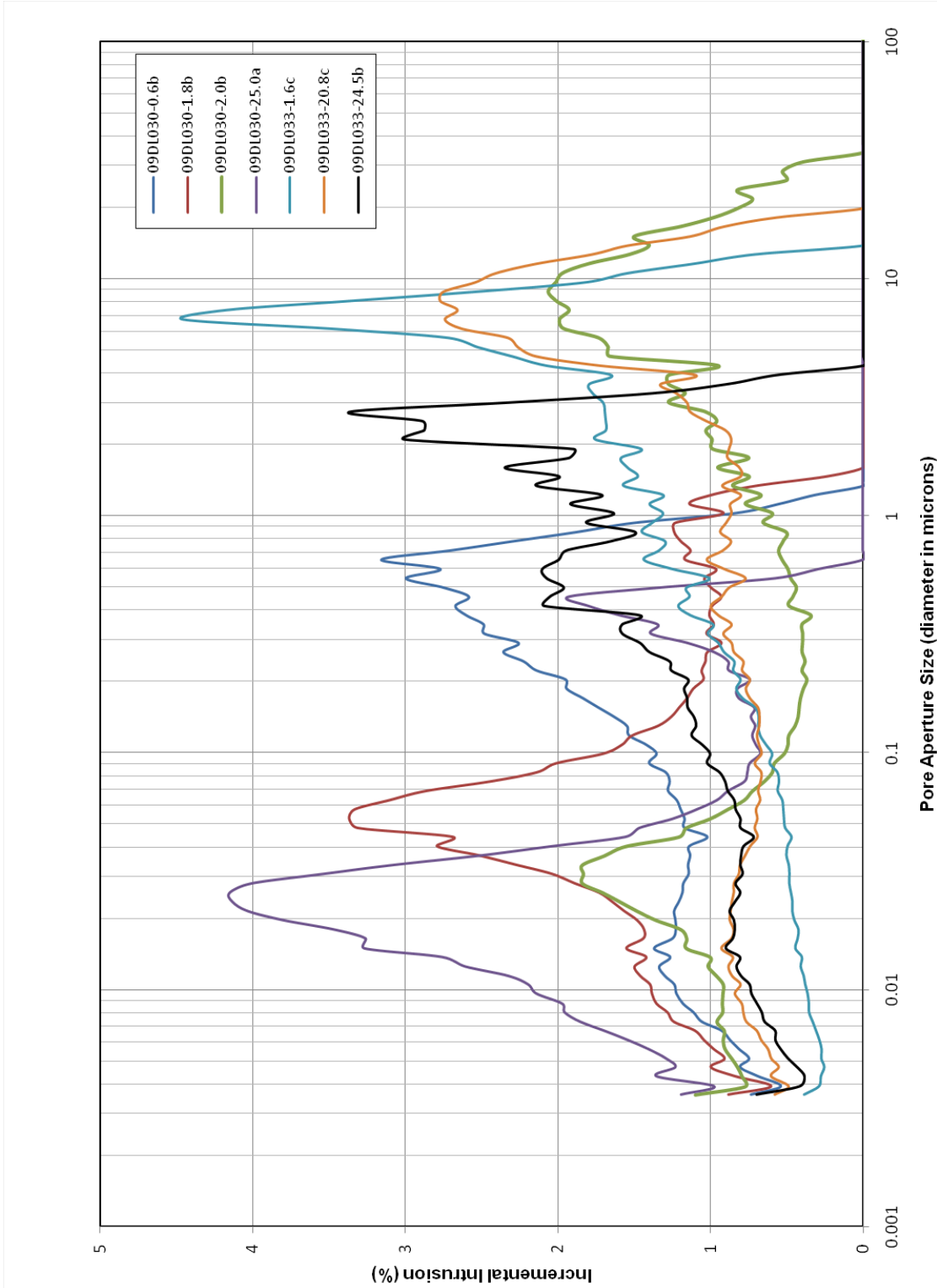


Figure 19. Pore aperture size distribution for 2009 samples.

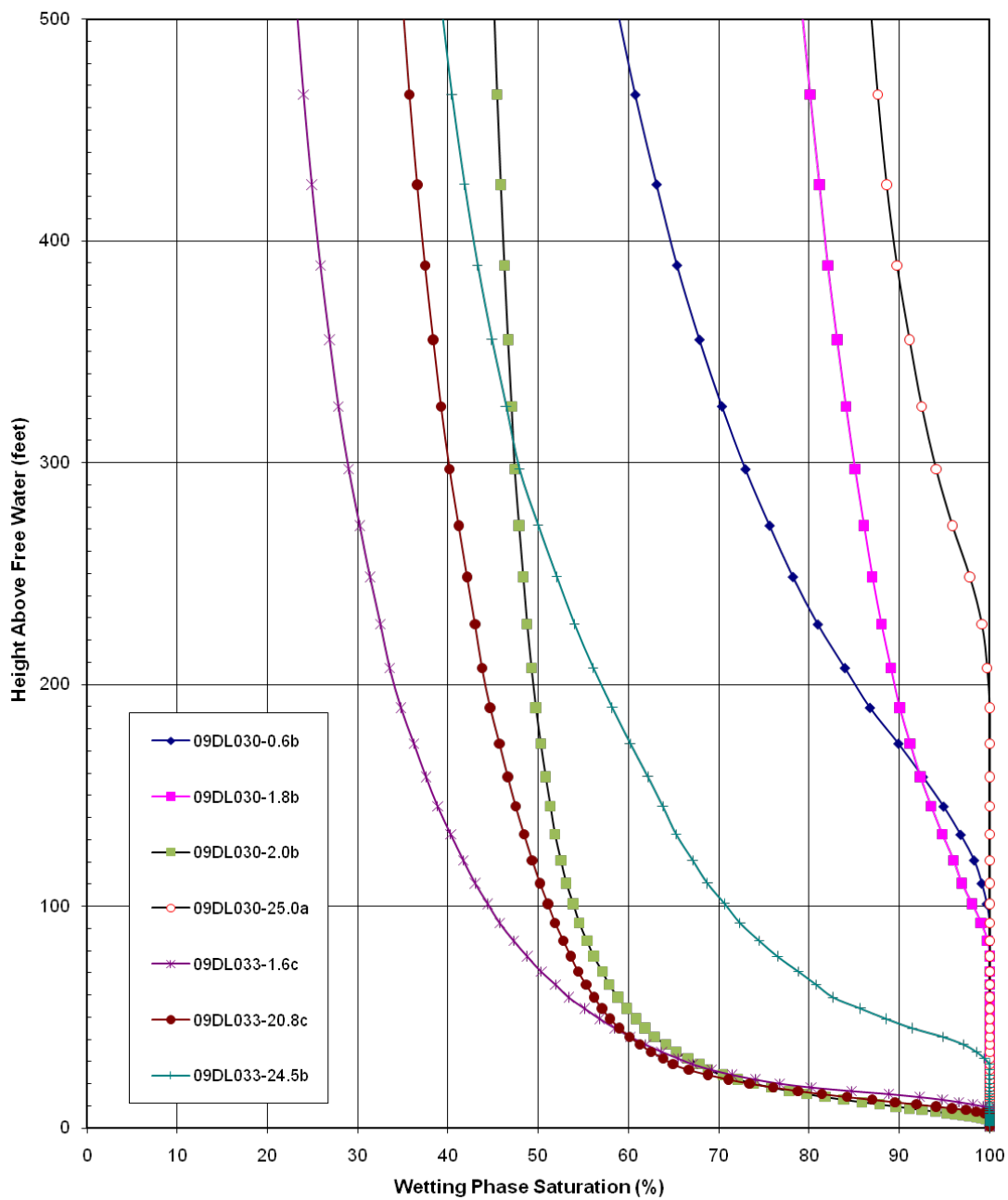


Figure 20. Saturation profile for an oil/water system.

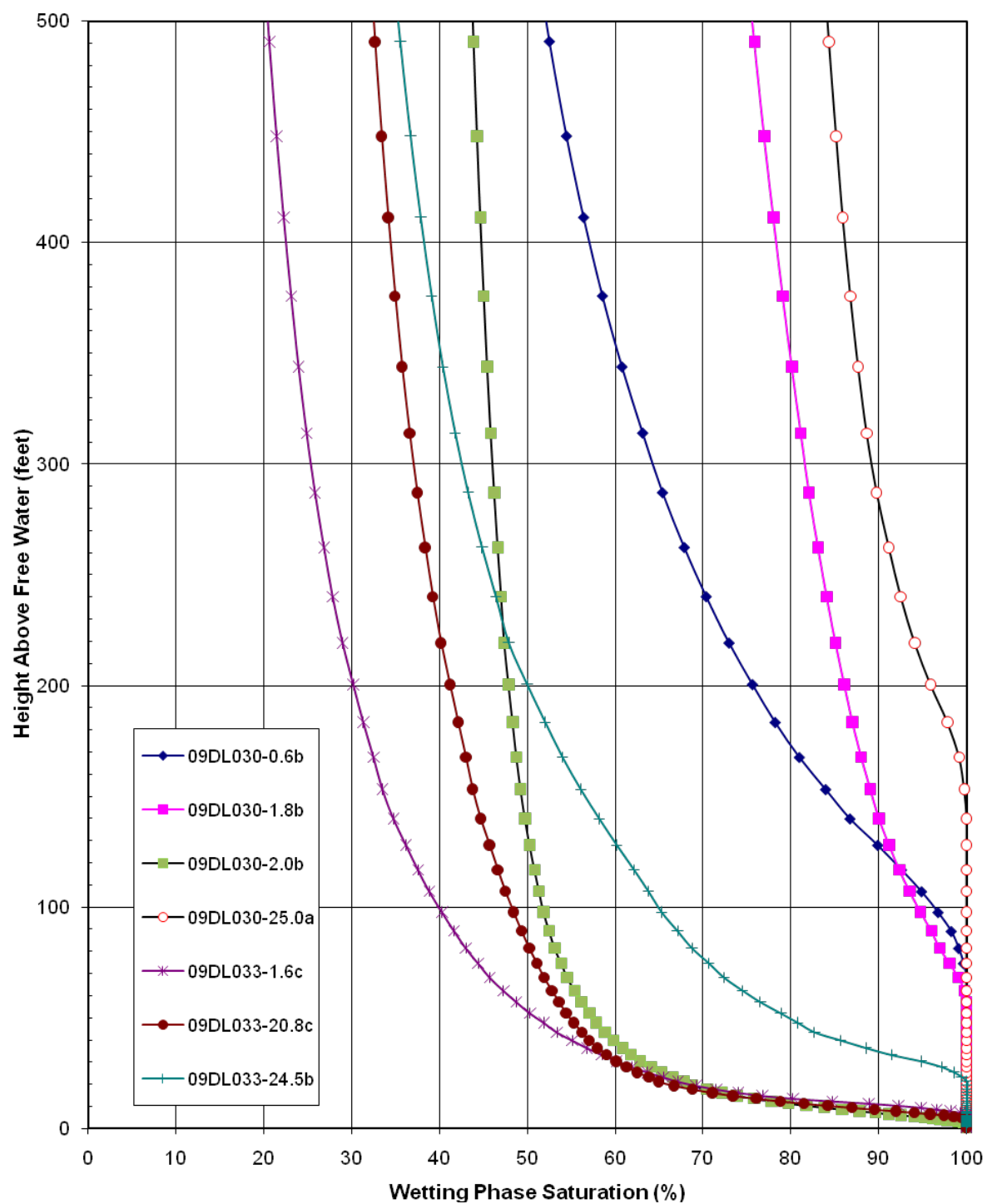


Figure 21. Saturation profile for a gas/water system.

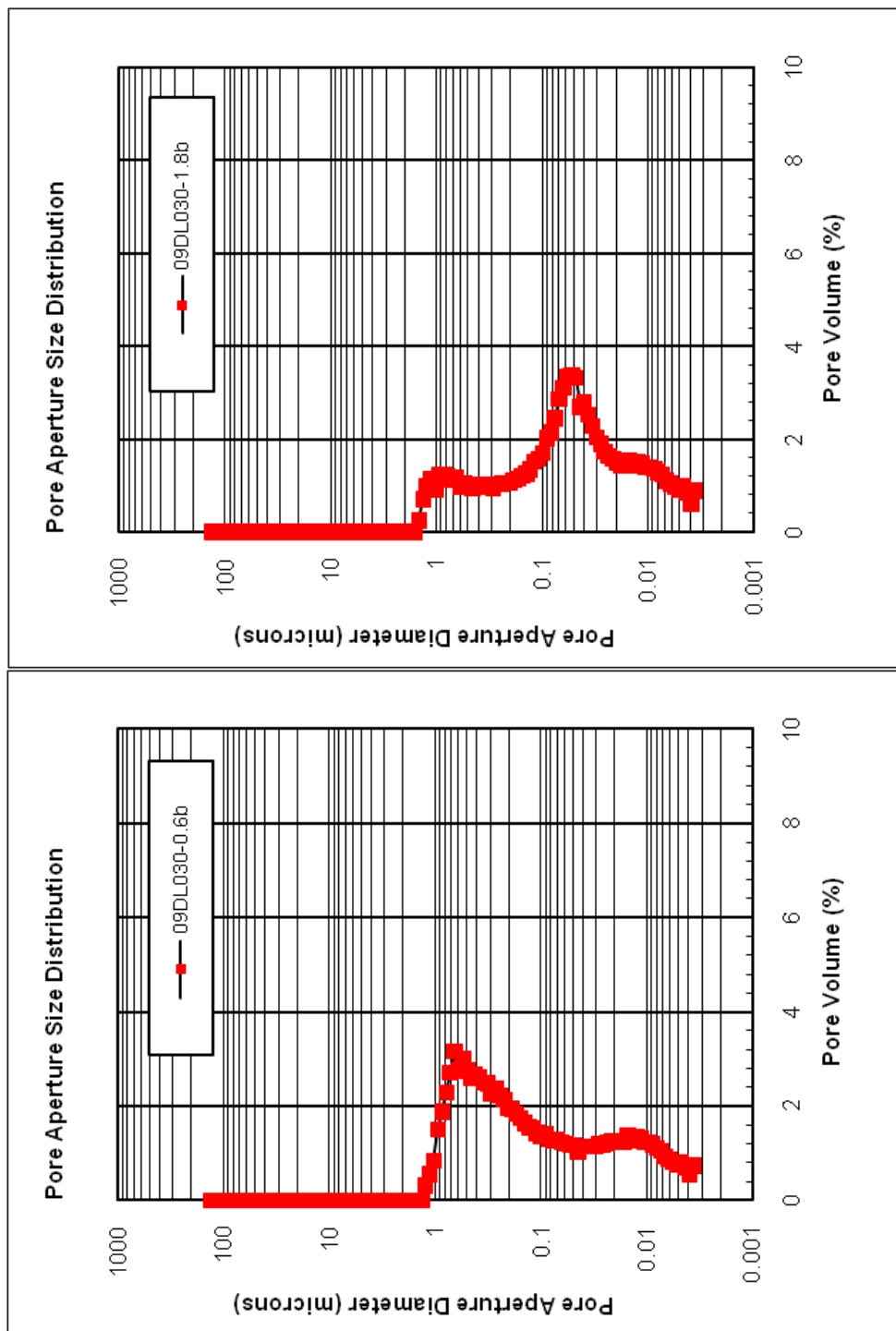


Figure22a. Pore size distribution for sample 09DL030-0.6b and 09DL030-1.8b.

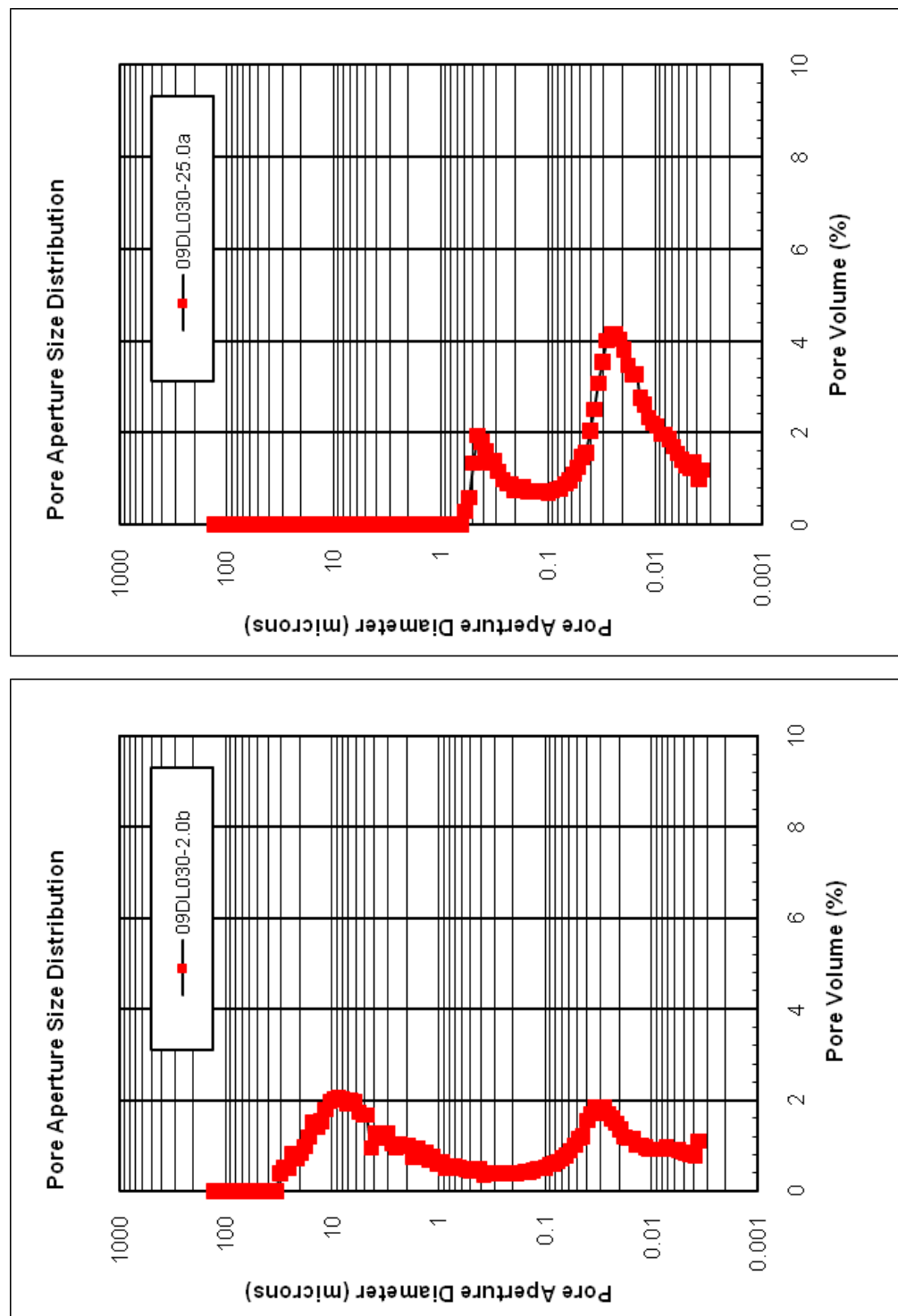


Figure 22b. Pore size distribution for sample 09DL030-2.0b and 09DL030-25.0a.

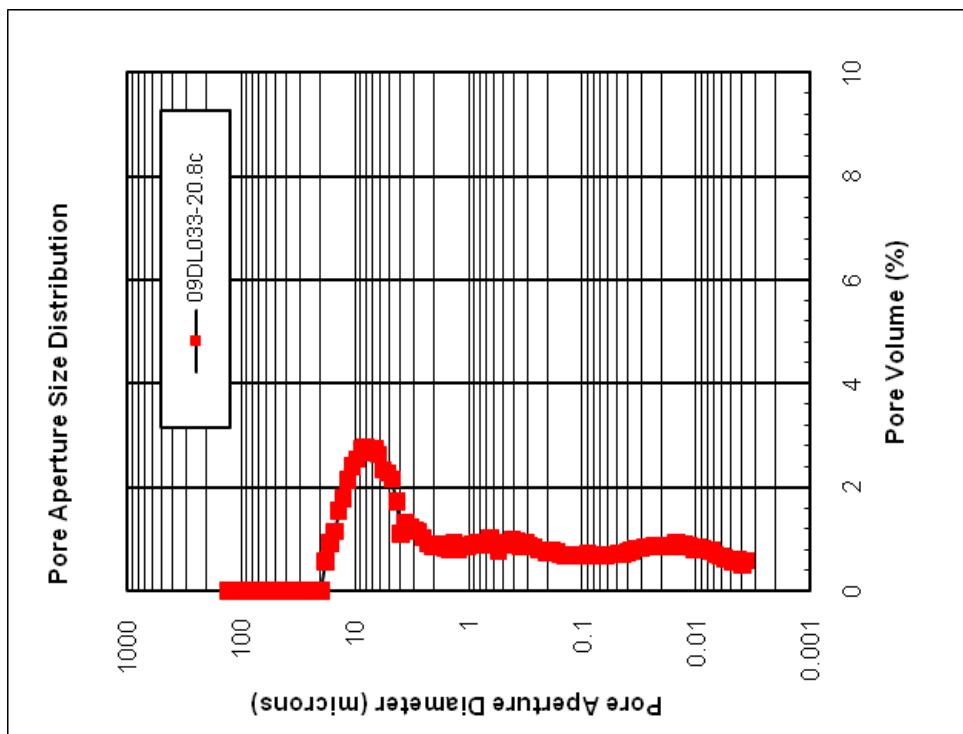
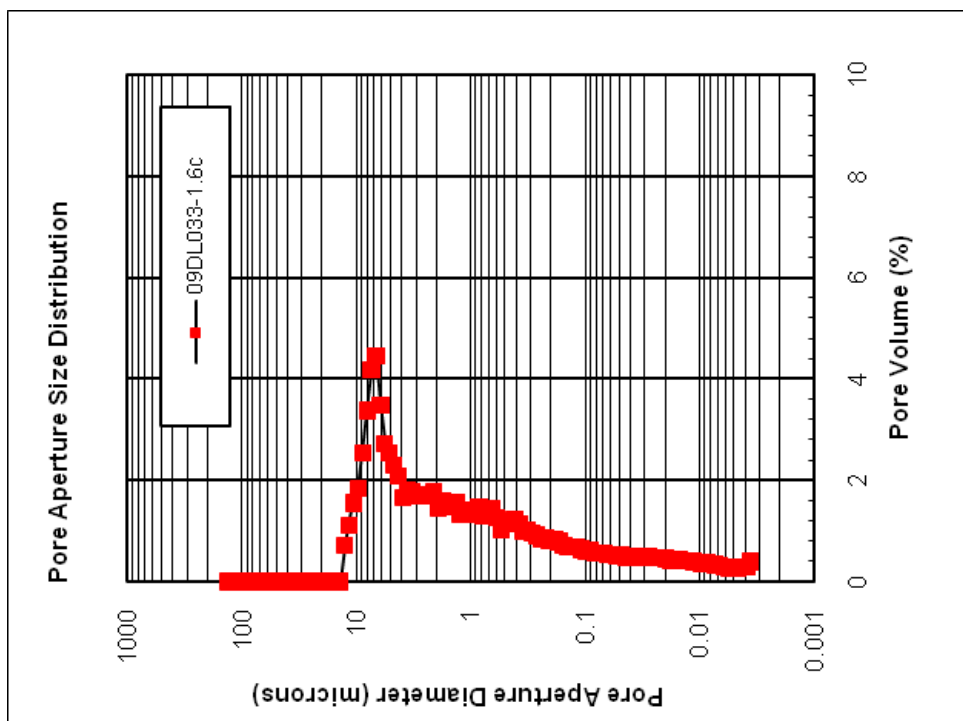


Figure 22c. Pore size distribution for sample 09DL033-1.6c and 09DL033-20.8c.

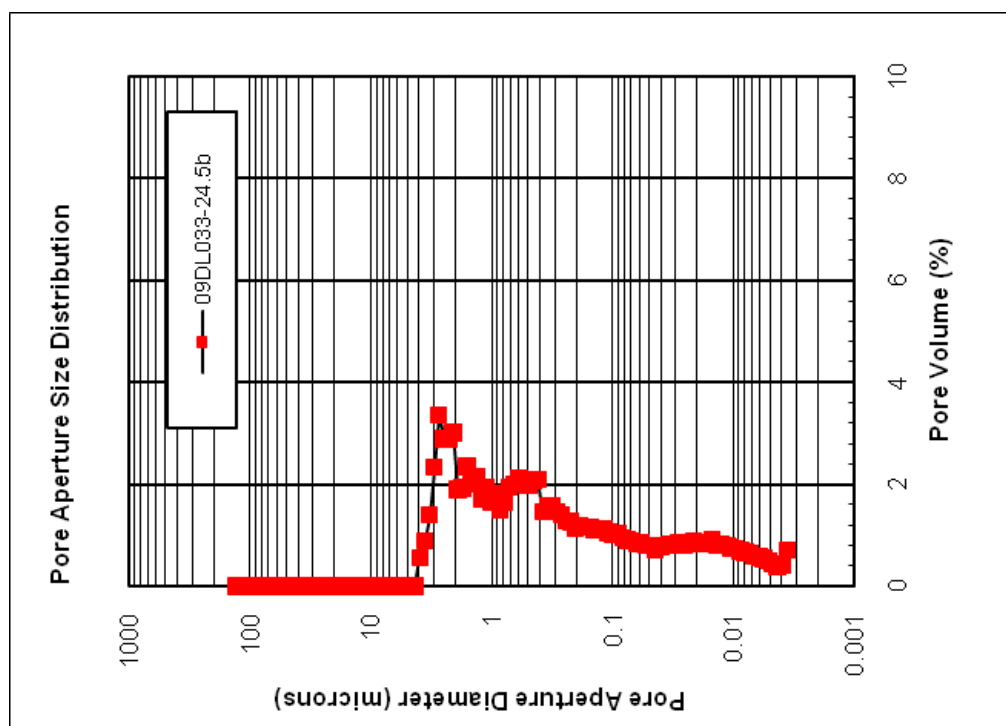


Figure 22d. Pore size distribution for sample 09DL033-24.5b.

Table 17 Summary of pore system and capillary properties.

Sample	Mercury Derived		Median Aperture	Air/Mercury Capillary Entry Pressure (psia)	Pore Structure	Aperture Size at Peak Locations		
	Porosity (%)	K _{air} (md)				First	Second	Third
09DL030-0.6b	27.2	0.363	0.1641	160	moderately bimodal	0.650	0.0149	-
09DL030-1.8b	27.1	0.180	0.0572	134	moderately trimodal	0.85	0.0525	0.0149
09DL030-2.0b	18.7	19.7	0.7450	6	bimodal	8.78	0.0307	-
09DL030-25.0a	25.6	0.057	0.0254	328	moderately bimodal	0.454	0.0256	-
09DL033-1.6c	17.2	14.3	1.7180	16	unimodal, broad tail	6.71	-	-
09DL033-20.8c	15.0	14.7	1.0978	11	weakly trimodal	8.02	0.650	0.0149
09DL033-24.5b	12.0	0.919	0.4540	50	weakly trimodal	2.73	0.594	0.0149

aperture size in microns

dominant peak

Table 18. Summary of height data for 2009 sample 09DL030-25.0a

Data Used In Height Plots											
Changing any values in green cells will recalculate and replot seal capacity											
				Gas				Oil			
Assumed water density (g/cc) -				Surface Tension -				Surface Tension -			
				Density -				Density -			
				0.1360				0.0816			
				height(ft)=				height(ft)=			
				0.4267 *Capillary Pressure				0.5780 *Capillary Pressure			

Table 19. MICP data for sample 09DL030 - 0.6b.

Mercury Injection Capillary Pressure
09DL030 - 0.6b

<u>Sample Information</u>					
Bulk Volume =	6.1984 cc	Porosity =	27.2% (mercury)		
Pore Volume =	1.6892 cc	Permeability =	0.363 md (mercury)		
Closure = 0.82 %BV @ 160 psia		Median Pore Aperture =	0.1641 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.01	100.0	0.00	0.0000
1.80	119	0.02	100.0	0.00	0.0000
1.96	109	0.02	100.0	0.00	0.0000
2.15	99.2	0.03	100.0	0.00	0.0000
2.35	90.8	0.04	100.0	0.00	0.0000
2.57	83.0	0.04	100.0	0.00	0.0000
2.81	75.9	0.05	100.0	0.00	0.0000
3.08	69.3	0.06	100.0	0.00	0.0000
3.37	63.3	0.06	100.0	0.00	0.0000
3.68	58.0	0.09	100.0	0.00	0.0000
4.03	52.9	0.11	100.0	0.00	0.0000
4.41	48.4	0.12	100.0	0.00	0.0000
4.82	44.3	0.13	100.0	0.00	0.0000
5.27	40.5	0.14	100.0	0.00	0.0000
5.77	37.0	0.16	100.0	0.00	0.0000
6.31	33.8	0.16	100.0	0.00	0.0000
6.90	30.9	0.18	100.0	0.00	0.0000
7.55	28.3	0.19	100.0	0.00	0.0000
8.26	25.8	0.20	100.0	0.00	0.0000
9.04	23.6	0.23	100.0	0.00	0.0000
9.89	21.6	0.24	100.0	0.00	0.0000
10.8	19.8	0.26	100.0	0.00	0.0000
11.8	18.1	0.27	100.0	0.00	0.0000
12.9	16.5	0.28	100.0	0.00	0.0000
14.2	15.0	0.29	100.0	0.00	0.0000
15.5	13.8	0.30	100.0	0.00	0.0000
16.9	12.6	0.32	100.0	0.00	0.0000
18.5	11.5	0.33	100.0	0.00	0.0000
20.3	10.5	0.34	100.0	0.00	0.0000
22.2	9.61	0.36	100.0	0.00	0.0000
24.3	8.78	0.37	100.0	0.00	0.0000
26.6	8.02	0.38	100.0	0.00	0.0000
29.0	7.36	0.39	100.0	0.00	0.0000
31.8	6.71	0.41	100.0	0.00	0.0000
34.8	6.13	0.43	100.0	0.00	0.0000
38.0	5.61	0.49	100.0	0.00	0.0000

Table 19 (cont.). MICP data for sample 09DL030 - 0.6b.

Mercury Injection Capillary Pressure
09DL030 - 0.6b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.51	100.0	0.00	0.0000
45.5	4.69	0.53	100.0	0.00	0.0000
49.8	4.28	0.54	100.0	0.00	0.0000
54.5	3.91	0.54	100.0	0.00	0.0000
59.6	3.58	0.55	100.0	0.00	0.0000
65.2	3.27	0.56	100.0	0.00	0.0000
71.3	2.99	0.57	100.0	0.00	0.0000
78.0	2.73	0.58	100.0	0.00	0.0000
85.3	2.50	0.60	100.0	0.00	0.0000
93.4	2.28	0.62	100.0	0.00	0.0000
102	2.09	0.63	100.0	0.00	0.0000
112	1.90	0.65	100.0	0.00	0.0000
122	1.75	0.68	100.0	0.00	0.0000
134	1.59	0.72	100.0	0.00	0.0000
146	1.46	0.75	100.0	0.00	0.0000
160	1.33	0.82	100.0	0.00	0.0000
175	1.22	0.90	99.7	0.32	0.0213
191	1.12	1.05	99.1	0.56	0.0347
209	1.02	1.28	98.3	0.85	0.0470
229	0.932	1.69	96.8	1.49	0.0747
251	0.850	2.20	94.9	1.88	0.0855
274	0.779	2.83	92.6	2.29	0.0996
300	0.711	3.56	89.9	2.71	0.1041
328	0.650	4.42	86.7	3.16	0.1129
359	0.594	5.18	84.0	2.77	0.0895
393	0.543	5.99	81.0	3.00	0.0882
430	0.496	6.74	78.2	2.75	0.0744
470	0.454	7.45	75.6	2.59	0.0647
514	0.415	8.18	73.0	2.67	0.0608
563	0.379	8.88	70.4	2.60	0.0531
615	0.347	9.56	67.9	2.49	0.0479
673	0.317	10.24	65.4	2.49	0.0429
736	0.290	10.85	63.1	2.26	0.0359
806	0.265	11.50	60.8	2.36	0.0337
881	0.242	12.10	58.5	2.23	0.0297
964	0.221	12.69	56.4	2.14	0.0258
1050	0.203	13.22	54.4	1.95	0.0227
1150	0.186	13.75	52.5	1.95	0.0195
1260	0.169	14.25	50.6	1.84	0.0167
1380	0.155	14.72	48.9	1.74	0.0145
1510	0.141	15.16	47.3	1.63	0.0126
1650	0.129	15.59	45.7	1.55	0.0111

Table 19 (cont.). MICP data for sample 09DL030 - 0.6b.

Mercury Injection Capillary Pressure
09DL030 - 0.6b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	16.01	44.2	1.54	0.0096
1980	0.1077	16.39	42.8	1.42	0.0084
2160	0.0988	16.76	41.4	1.36	0.0075
2370	0.0900	17.14	40.0	1.40	0.0067
2590	0.0824	17.50	38.7	1.30	0.0059
2830	0.0754	17.84	37.4	1.27	0.0053
3100	0.0688	18.19	36.2	1.28	0.0047
3390	0.0629	18.52	34.9	1.22	0.0042
3710	0.0575	18.85	33.7	1.20	0.0037
4060	0.0525	19.17	32.6	1.17	0.0034
4440	0.0480	19.49	31.4	1.17	0.0031
4850	0.0440	19.77	30.4	1.02	0.0025
5310	0.0402	20.08	29.2	1.14	0.0025
5810	0.0367	20.39	28.1	1.14	0.0023
6360	0.0335	20.70	26.9	1.15	0.0021
6950	0.0307	21.01	25.8	1.15	0.0019
7610	0.0280	21.33	24.6	1.18	0.0018
8320	0.0256	21.66	23.4	1.19	0.0017
9100	0.0234	21.99	22.2	1.21	0.0016
9960	0.0214	22.32	21.0	1.24	0.0014
10900	0.0196	22.66	19.7	1.23	0.0013
11900	0.0179	23.00	18.5	1.23	0.0012
13000	0.0164	23.34	17.3	1.25	0.0011
14300	0.0149	23.71	15.9	1.37	0.0011
15600	0.0137	24.05	14.6	1.27	0.0010
17100	0.0125	24.42	13.3	1.34	0.0009
18700	0.0114	24.77	12.0	1.30	0.0008
20400	0.0105	25.11	10.7	1.24	0.0007
22300	0.0096	25.44	9.5	1.23	0.0006
24400	0.0087	25.77	8.3	1.18	0.0006
26700	0.0080	26.07	7.2	1.11	0.0005
29300	0.0073	26.36	6.2	1.06	0.0004
32000	0.0067	26.61	5.2	0.93	0.0003
35000	0.0061	26.85	4.3	0.87	0.0003
38300	0.0056	27.07	3.5	0.82	0.0002
41900	0.0051	27.27	2.8	0.75	0.0002
45800	0.0047	27.49	2.0	0.81	0.0002
50100	0.0043	27.68	1.3	0.69	0.0002
54800	0.0039	27.83	0.7	0.54	0.0001
59500	0.0036	28.03	0.0	0.74	0.0002

Table 20. MICP data for sample 09DL030 - 1.8b.

Mercury Injection Capillary Pressure
09DL030 - 1.8b

Sample Information	
Bulk Volume = 5.5466 cc	Porosity = 27.1% (mercury)
Pore Volume = 1.5016 cc	Permeability = 0.180 md (mercury)
Closure = 0.75 %BV @ 134 psia	Median Pore Aperture = 0.0572 microns (diameter)

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.04	100.0	0.00	0.0000
1.96	109	0.05	100.0	0.00	0.0000
2.15	99.2	0.06	100.0	0.00	0.0000
2.35	90.8	0.08	100.0	0.00	0.0000
2.57	83.0	0.09	100.0	0.00	0.0000
2.81	75.9	0.10	100.0	0.00	0.0000
3.08	69.3	0.11	100.0	0.00	0.0000
3.37	63.3	0.12	100.0	0.00	0.0000
3.68	58.0	0.13	100.0	0.00	0.0000
4.03	52.9	0.14	100.0	0.00	0.0000
4.41	48.4	0.15	100.0	0.00	0.0000
4.82	44.3	0.16	100.0	0.00	0.0000
5.27	40.5	0.17	100.0	0.00	0.0000
5.77	37.0	0.18	100.0	0.00	0.0000
6.31	33.8	0.18	100.0	0.00	0.0000
6.90	30.9	0.19	100.0	0.00	0.0000
7.55	28.3	0.20	100.0	0.00	0.0000
8.26	25.8	0.21	100.0	0.00	0.0000
9.04	23.6	0.22	100.0	0.00	0.0000
9.89	21.6	0.23	100.0	0.00	0.0000
10.8	19.8	0.23	100.0	0.00	0.0000
11.8	18.1	0.24	100.0	0.00	0.0000
12.9	16.5	0.25	100.0	0.00	0.0000
14.2	15.0	0.26	100.0	0.00	0.0000
15.5	13.8	0.27	100.0	0.00	0.0000
16.9	12.6	0.28	100.0	0.00	0.0000
18.5	11.5	0.29	100.0	0.00	0.0000
20.3	10.5	0.31	100.0	0.00	0.0000
22.2	9.61	0.32	100.0	0.00	0.0000
24.3	8.78	0.33	100.0	0.00	0.0000
26.6	8.02	0.34	100.0	0.00	0.0000
29.0	7.36	0.36	100.0	0.00	0.0000
31.8	6.71	0.38	100.0	0.00	0.0000
34.8	6.13	0.40	100.0	0.00	0.0000
38.0	5.61	0.43	100.0	0.00	0.0000

Table 20 (cont.). MICP data for sample 09DL030 - 1.8b.

Mercury Injection Capillary Pressure
09DL030 - 1.8b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.47	100.0	0.00	0.0000
45.5	4.69	0.52	100.0	0.00	0.0000
49.8	4.28	0.53	100.0	0.00	0.0000
54.5	3.91	0.53	100.0	0.00	0.0000
59.6	3.58	0.54	100.0	0.00	0.0000
65.2	3.27	0.55	100.0	0.00	0.0000
71.3	2.99	0.56	100.0	0.00	0.0000
78.0	2.73	0.58	100.0	0.00	0.0000
85.3	2.50	0.59	100.0	0.00	0.0000
93.4	2.28	0.61	100.0	0.00	0.0000
102	2.09	0.63	100.0	0.00	0.0000
112	1.90	0.66	100.0	0.00	0.0000
122	1.75	0.69	100.0	0.00	0.0000
134	1.59	0.75	100.0	0.00	0.0000
146	1.46	0.81	99.8	0.24	0.0201
160	1.33	1.00	99.1	0.70	0.0503
175	1.22	1.27	98.1	1.00	0.0665
191	1.12	1.58	96.9	1.14	0.0712
209	1.02	1.83	96.0	0.92	0.0510
229	0.932	2.16	94.8	1.23	0.0616
251	0.850	2.50	93.5	1.24	0.0564
274	0.779	2.82	92.3	1.20	0.0521
300	0.711	3.13	91.2	1.13	0.0436
328	0.650	3.44	90.0	1.17	0.0417
359	0.594	3.71	89.1	0.97	0.0312
393	0.543	3.99	88.0	1.04	0.0307
430	0.496	4.26	87.0	1.00	0.0270
470	0.454	4.51	86.1	0.93	0.0233
514	0.415	4.78	85.1	0.99	0.0226
563	0.379	5.05	84.1	1.01	0.0206
615	0.347	5.32	83.1	0.98	0.0189
673	0.317	5.60	82.1	1.03	0.0177
736	0.290	5.85	81.1	0.93	0.0148
806	0.265	6.12	80.1	1.02	0.0146
881	0.242	6.40	79.1	1.04	0.0138
964	0.221	6.69	78.0	1.06	0.0128
1050	0.203	6.97	77.0	1.05	0.0122
1150	0.186	7.28	75.9	1.12	0.0112
1260	0.169	7.59	74.7	1.16	0.0105
1380	0.155	7.92	73.5	1.21	0.0101
1510	0.141	8.26	72.2	1.26	0.0097
1650	0.129	8.62	70.9	1.35	0.0096

Table 20 (cont.). MICP data for sample 09DL030 - 1.8b.

Mercury Injection Capillary Pressure
09DL030 - 1.8b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	9.03	69.4	1.52	0.0095
1980	0.1077	9.46	67.8	1.58	0.0093
2160	0.0988	9.92	66.1	1.70	0.0095
2370	0.0900	10.46	64.1	2.01	0.0096
2590	0.0824	11.04	61.9	2.14	0.0097
2830	0.0754	11.70	59.5	2.44	0.0102
3100	0.0688	12.48	56.6	2.86	0.0106
3390	0.0629	13.32	53.5	3.10	0.0107
3710	0.0575	14.22	50.2	3.33	0.0104
4060	0.0525	15.13	46.8	3.37	0.0096
4440	0.0480	16.02	43.5	3.31	0.0087
4850	0.0440	16.75	40.8	2.69	0.0066
5310	0.0402	17.51	38.0	2.79	0.0061
5810	0.0367	18.19	35.5	2.51	0.0050
6360	0.0335	18.80	33.2	2.27	0.0041
6950	0.0307	19.35	31.2	2.04	0.0035
7610	0.0280	19.86	29.3	1.89	0.0029
8320	0.0256	20.33	27.6	1.73	0.0024
9100	0.0234	20.78	25.9	1.65	0.0021
9960	0.0214	21.20	24.4	1.57	0.0018
10900	0.0196	21.60	22.9	1.48	0.0016
11900	0.0179	21.99	21.4	1.44	0.0014
13000	0.0164	22.38	20.0	1.44	0.0013
14300	0.0149	22.80	18.4	1.55	0.0012
15600	0.0137	23.18	17.0	1.42	0.0011
17100	0.0125	23.59	15.5	1.50	0.0010
18700	0.0114	23.99	14.0	1.46	0.0009
20400	0.0105	24.36	12.6	1.40	0.0008
22300	0.0096	24.74	11.3	1.39	0.0007
24400	0.0087	25.11	9.9	1.36	0.0006
26700	0.0080	25.45	8.6	1.29	0.0006
29300	0.0073	25.79	7.4	1.24	0.0005
32000	0.0067	26.09	6.3	1.11	0.0004
35000	0.0061	26.37	5.2	1.04	0.0003
38300	0.0056	26.64	4.2	0.98	0.0003
41900	0.0051	26.88	3.3	0.91	0.0003
45800	0.0047	27.15	2.3	1.00	0.0003
50100	0.0043	27.38	1.5	0.84	0.0002
54800	0.0039	27.54	0.9	0.61	0.0001
59500	0.0036	27.78	0.0	0.89	0.0002

Table 21. MICP data for sample 09DL030 - 2.0b.

Mercury Injection Capillary Pressure
09DL030 - 2.0b

Sample Information			
Bulk Volume =	4.9975 cc	Porosity =	18.7% (mercury)
Pore Volume =	0.9346 cc	Permeability =	19.7 md (mercury)
Closure = 0.70 %BV @ 6.31 psia		Median Pore Aperture = 0.7450 microns (diameter)	

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.03	100.0	0.00	0.0000
1.80	119	0.04	100.0	0.00	0.0000
1.96	109	0.07	100.0	0.00	0.0000
2.15	99.2	0.11	100.0	0.00	0.0000
2.35	90.8	0.14	100.0	0.00	0.0000
2.57	83.0	0.18	100.0	0.00	0.0000
2.81	75.9	0.21	100.0	0.00	0.0000
3.08	69.3	0.24	100.0	0.00	0.0000
3.37	63.3	0.27	100.0	0.00	0.0000
3.68	58.0	0.30	100.0	0.00	0.0000
4.03	52.9	0.36	100.0	0.00	0.0000
4.41	48.4	0.41	100.0	0.00	0.0000
4.82	44.3	0.46	100.0	0.00	0.0000
5.27	40.5	0.53	100.0	0.00	0.0000
5.77	37.0	0.61	100.0	0.00	0.0000
6.31	33.8	0.70	100.0	0.00	0.0000
6.90	30.9	0.78	99.6	0.39	0.6648
7.55	28.3	0.87	99.1	0.53	0.8134
8.26	25.8	0.97	98.6	0.50	0.7106
9.04	23.6	1.12	97.8	0.82	1.0548
9.89	21.6	1.26	97.0	0.72	0.8522
10.8	19.8	1.41	96.2	0.82	0.8999
11.8	18.1	1.59	95.2	0.97	0.9732
12.9	16.5	1.81	94.0	1.19	1.0842
14.2	15.0	2.09	92.5	1.50	1.1548
15.5	13.8	2.36	91.1	1.40	1.0794
16.9	12.6	2.64	89.6	1.53	1.0923
18.5	11.5	2.98	87.8	1.80	1.1232
20.3	10.5	3.34	85.8	1.97	1.0952
22.2	9.61	3.72	83.8	2.02	1.0607
24.3	8.78	4.11	81.8	2.07	0.9835
26.6	8.02	4.48	79.7	2.01	0.8747
29.0	7.36	4.84	77.8	1.93	0.8035
31.8	6.71	5.21	75.8	1.99	0.7111
34.8	6.13	5.58	73.9	1.96	0.6546
38.0	5.61	5.90	72.1	1.74	0.5429

Table 21 (cont.). MICP data for sample 09DL030 - 2.0b.

Mercury Injection Capillary Pressure
09DL030 - 2.0b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	6.22	70.5	1.67	0.4644
45.5	4.69	6.53	68.8	1.66	0.4262
49.8	4.28	6.70	67.8	0.95	0.2215
54.5	3.91	6.94	66.6	1.27	0.2705
59.6	3.58	7.18	65.3	1.28	0.2504
65.2	3.27	7.40	64.1	1.17	0.2085
71.3	2.99	7.63	62.9	1.27	0.2090
78.0	2.73	7.83	61.8	1.03	0.1544
85.3	2.50	8.01	60.9	0.96	0.1315
93.4	2.28	8.20	59.8	1.03	0.1272
102	2.09	8.38	58.8	0.99	0.1152
112	1.90	8.57	57.8	0.99	0.0987
122	1.75	8.71	57.1	0.75	0.0750
134	1.59	8.89	56.1	0.95	0.0794
146	1.46	9.02	55.4	0.75	0.0623
160	1.33	9.18	54.5	0.86	0.0611
175	1.22	9.31	53.9	0.67	0.0447
191	1.12	9.45	53.1	0.77	0.0483
209	1.02	9.56	52.5	0.60	0.0331
229	0.932	9.69	51.8	0.66	0.0328
251	0.850	9.78	51.3	0.50	0.0229
274	0.779	9.88	50.8	0.52	0.0228
300	0.711	9.98	50.3	0.55	0.0213
328	0.650	10.08	49.7	0.53	0.0190
359	0.594	10.17	49.2	0.49	0.0159
393	0.543	10.26	48.8	0.48	0.0140
430	0.496	10.34	48.3	0.44	0.0118
470	0.454	10.43	47.9	0.46	0.0115
514	0.415	10.52	47.4	0.49	0.0110
563	0.379	10.58	47.0	0.34	0.0070
615	0.347	10.66	46.6	0.40	0.0077
673	0.317	10.73	46.2	0.40	0.0068
736	0.290	10.81	45.8	0.40	0.0063
806	0.265	10.88	45.4	0.40	0.0057
881	0.242	10.95	45.1	0.38	0.0051
964	0.221	11.03	44.7	0.40	0.0048
1050	0.203	11.10	44.3	0.37	0.0043
1150	0.186	11.17	43.9	0.39	0.0039
1260	0.169	11.25	43.5	0.41	0.0037
1380	0.155	11.32	43.1	0.42	0.0035
1510	0.141	11.40	42.6	0.43	0.0033
1650	0.129	11.49	42.2	0.45	0.0032

Table 21 (cont.). MICP data for sample 09DL030 - 2.0b.

Mercury Injection Capillary Pressure
09DL030 - 2.0b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	11.58	41.7	0.49	0.0030
1980	0.1077	11.67	41.2	0.49	0.0029
2160	0.0988	11.77	40.7	0.52	0.0029
2370	0.0900	11.88	40.1	0.58	0.0028
2590	0.0824	11.99	39.5	0.60	0.0027
2830	0.0754	12.11	38.9	0.65	0.0027
3100	0.0688	12.24	38.2	0.73	0.0027
3390	0.0629	12.39	37.4	0.78	0.0027
3710	0.0575	12.55	36.5	0.89	0.0028
4060	0.0525	12.74	35.5	1.00	0.0029
4440	0.0480	12.96	34.3	1.16	0.0031
4850	0.0440	13.18	33.1	1.21	0.0029
5310	0.0402	13.47	31.6	1.55	0.0034
5810	0.0367	13.79	29.9	1.70	0.0034
6360	0.0335	14.13	28.0	1.84	0.0033
6950	0.0307	14.47	26.2	1.83	0.0031
7610	0.0280	14.82	24.3	1.84	0.0028
8320	0.0256	15.14	22.6	1.71	0.0024
9100	0.0234	15.43	21.0	1.59	0.0020
9960	0.0214	15.71	19.6	1.48	0.0017
10900	0.0196	15.96	18.2	1.36	0.0014
11900	0.0179	16.19	17.0	1.19	0.0012
13000	0.0164	16.40	15.9	1.16	0.0011
14300	0.0149	16.62	14.7	1.16	0.0009
15600	0.0137	16.81	13.7	1.00	0.0008
17100	0.0125	17.00	12.7	1.02	0.0007
18700	0.0114	17.17	11.7	0.96	0.0006
20400	0.0105	17.35	10.8	0.92	0.0005
22300	0.0096	17.52	9.9	0.92	0.0005
24400	0.0087	17.69	9.0	0.92	0.0004
26700	0.0080	17.86	8.0	0.92	0.0004
29300	0.0073	18.04	7.1	0.96	0.0004
32000	0.0067	18.21	6.2	0.91	0.0003
35000	0.0061	18.38	5.3	0.92	0.0003
38300	0.0056	18.55	4.3	0.90	0.0003
41900	0.0051	18.71	3.5	0.86	0.0002
45800	0.0047	18.86	2.7	0.82	0.0002
50100	0.0043	19.01	1.9	0.79	0.0002
54800	0.0039	19.16	1.1	0.77	0.0002
59500	0.0036	19.36	0.0	1.10	0.0002

Table 22. MICP data for sample 09DL030 - 25.0a.

Mercury Injection Capillary Pressure
09DL030 - 25.0a

Sample Information			
Bulk Volume =	5.6618 cc	Porosity =	25.7% (mercury)
Pore Volume =	1.4523 cc	Permeability =	0.057 md (mercury)
Closure = 0.96 %BV @ 328 psia		Median Pore Aperture =	0.0254 microns (diameter)

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.03	100.0	0.00	0.0000
1.96	109	0.04	100.0	0.00	0.0000
2.15	99.2	0.05	100.0	0.00	0.0000
2.35	90.8	0.05	100.0	0.00	0.0000
2.57	83.0	0.05	100.0	0.00	0.0000
2.81	75.9	0.12	100.0	0.00	0.0000
3.08	69.3	0.16	100.0	0.00	0.0000
3.37	63.3	0.19	100.0	0.00	0.0000
3.68	58.0	0.21	100.0	0.00	0.0000
4.03	52.9	0.23	100.0	0.00	0.0000
4.41	48.4	0.24	100.0	0.00	0.0000
4.82	44.3	0.25	100.0	0.00	0.0000
5.27	40.5	0.27	100.0	0.00	0.0000
5.77	37.0	0.28	100.0	0.00	0.0000
6.31	33.8	0.29	100.0	0.00	0.0000
6.90	30.9	0.31	100.0	0.00	0.0000
7.55	28.3	0.32	100.0	0.00	0.0000
8.26	25.8	0.33	100.0	0.00	0.0000
9.04	23.6	0.35	100.0	0.00	0.0000
9.89	21.6	0.36	100.0	0.00	0.0000
10.8	19.8	0.38	100.0	0.00	0.0000
11.8	18.1	0.39	100.0	0.00	0.0000
12.9	16.5	0.40	100.0	0.00	0.0000
14.2	15.0	0.41	100.0	0.00	0.0000
15.5	13.8	0.42	100.0	0.00	0.0000
16.9	12.6	0.43	100.0	0.00	0.0000
18.5	11.5	0.45	100.0	0.00	0.0000
20.3	10.5	0.46	100.0	0.00	0.0000
22.2	9.61	0.48	100.0	0.00	0.0000
24.3	8.78	0.49	100.0	0.00	0.0000
26.6	8.02	0.51	100.0	0.00	0.0000
29.0	7.36	0.52	100.0	0.00	0.0000
31.8	6.71	0.54	100.0	0.00	0.0000
34.8	6.13	0.56	100.0	0.00	0.0000
38.0	5.61	0.58	100.0	0.00	0.0000

Table 22 (cont.). MICP data for sample 09DL030 - 25.0a.

Mercury Injection Capillary Pressure
09DL030 - 25.0a

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.61	100.0	0.00	0.0000
45.5	4.69	0.63	100.0	0.00	0.0000
49.8	4.28	0.64	100.0	0.00	0.0000
54.5	3.91	0.64	100.0	0.00	0.0000
59.6	3.58	0.65	100.0	0.00	0.0000
65.2	3.27	0.66	100.0	0.00	0.0000
71.3	2.99	0.66	100.0	0.00	0.0000
78.0	2.73	0.67	100.0	0.00	0.0000
85.3	2.50	0.68	100.0	0.00	0.0000
93.4	2.28	0.69	100.0	0.00	0.0000
102	2.09	0.70	100.0	0.00	0.0000
112	1.90	0.71	100.0	0.00	0.0000
122	1.75	0.72	100.0	0.00	0.0000
134	1.59	0.73	100.0	0.00	0.0000
146	1.46	0.74	100.0	0.00	0.0000
160	1.33	0.76	100.0	0.00	0.0000
175	1.22	0.77	100.0	0.00	0.0000
191	1.12	0.78	100.0	0.00	0.0000
209	1.02	0.80	100.0	0.00	0.0000
229	0.932	0.82	100.0	0.00	0.0000
251	0.850	0.84	100.0	0.00	0.0000
274	0.779	0.87	100.0	0.00	0.0000
300	0.711	0.91	100.0	0.00	0.0000
328	0.650	0.96	100.0	0.00	0.0000
359	0.594	1.04	99.7	0.29	0.0094
393	0.543	1.18	99.1	0.58	0.0170
430	0.496	1.52	97.8	1.33	0.0359
470	0.454	2.02	95.9	1.93	0.0482
514	0.415	2.48	94.1	1.80	0.0409
563	0.379	2.89	92.5	1.59	0.0325
615	0.347	3.23	91.1	1.35	0.0259
673	0.317	3.59	89.7	1.39	0.0240
736	0.290	3.88	88.6	1.15	0.0183
806	0.265	4.13	87.6	0.97	0.0139
881	0.242	4.36	86.7	0.88	0.0118
964	0.221	4.58	85.9	0.88	0.0106
1050	0.203	4.77	85.1	0.74	0.0086
1150	0.186	4.98	84.3	0.82	0.0082
1260	0.169	5.19	83.5	0.81	0.0074
1380	0.155	5.37	82.8	0.71	0.0059
1510	0.141	5.56	82.0	0.73	0.0056
1650	0.129	5.74	81.3	0.71	0.0050

Table 22 (cont.). MICP data for sample 09DL030 - 25.0a.

Mercury Injection Capillary Pressure
09DL030 - 25.0a

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	5.92	80.6	0.72	0.0045
1980	0.1077	6.10	79.9	0.70	0.0041
2160	0.0988	6.28	79.2	0.67	0.0037
2370	0.0900	6.47	78.5	0.74	0.0035
2590	0.0824	6.66	77.7	0.76	0.0034
2830	0.0754	6.86	77.0	0.78	0.0032
3100	0.0688	7.08	76.1	0.88	0.0033
3390	0.0629	7.33	75.1	0.96	0.0033
3710	0.0575	7.61	74.0	1.09	0.0034
4060	0.0525	7.93	72.8	1.25	0.0036
4440	0.0480	8.30	71.3	1.47	0.0039
4850	0.0440	8.70	69.8	1.56	0.0038
5310	0.0402	9.22	67.7	2.04	0.0044
5810	0.0367	9.86	65.2	2.51	0.0050
6360	0.0335	10.65	62.1	3.08	0.0056
6950	0.0307	11.56	58.6	3.54	0.0060
7610	0.0280	12.58	54.6	4.01	0.0061
8320	0.0256	13.65	50.4	4.15	0.0058
9100	0.0234	14.70	46.3	4.13	0.0053
9960	0.0214	15.74	42.3	4.03	0.0047
10900	0.0196	16.71	38.5	3.80	0.0040
11900	0.0179	17.60	35.0	3.47	0.0035
13000	0.0164	18.43	31.8	3.26	0.0030
14300	0.0149	19.27	28.5	3.27	0.0025
15600	0.0137	19.97	25.7	2.76	0.0021
17100	0.0125	20.64	23.1	2.61	0.0017
18700	0.0114	21.24	20.8	2.32	0.0015
20400	0.0105	21.80	18.6	2.20	0.0013
22300	0.0096	22.35	16.5	2.14	0.0011
24400	0.0087	22.85	14.5	1.97	0.0009
26700	0.0080	23.35	12.5	1.96	0.0009
29300	0.0073	23.83	10.7	1.85	0.0007
32000	0.0067	24.26	9.0	1.70	0.0006
35000	0.0061	24.65	7.4	1.54	0.0005
38300	0.0056	25.01	6.0	1.41	0.0004
41900	0.0051	25.34	4.7	1.29	0.0004
45800	0.0047	25.66	3.5	1.23	0.0003
50100	0.0043	26.00	2.2	1.35	0.0003
54800	0.0039	26.25	1.2	0.97	0.0002
59500	0.0036	26.56	0.0	1.19	0.0003

Table 23. MICP data for sample 09DL033 - 1.6c.

Mercury Injection Capillary Pressure
09DL033 - 1.6c

<u>Sample Information</u>					
Bulk Volume =	3.2872 cc	Porosity =	17.2% (mercury)		
Pore Volume =	1.0782 cc	Permeability =	14.29 md (mercury)		
Closure = 0.85 %BV @ 15.5 psia		Median Pore Aperture =	1.7180 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.03	100.0	0.00	0.0000
1.80	119	0.04	100.0	0.00	0.0000
1.96	109	0.06	100.0	0.00	0.0000
2.15	99.2	0.07	100.0	0.00	0.0000
2.35	90.8	0.09	100.0	0.00	0.0000
2.57	83.0	0.10	100.0	0.00	0.0000
2.81	75.9	0.12	100.0	0.00	0.0000
3.08	69.3	0.13	100.0	0.00	0.0000
3.37	63.3	0.15	100.0	0.00	0.0000
3.68	58.0	0.16	100.0	0.00	0.0000
4.03	52.9	0.18	100.0	0.00	0.0000
4.41	48.4	0.20	100.0	0.00	0.0000
4.82	44.3	0.22	100.0	0.00	0.0000
5.27	40.5	0.25	100.0	0.00	0.0000
5.77	37.0	0.25	100.0	0.00	0.0000
6.31	33.8	0.30	100.0	0.00	0.0000
6.90	30.9	0.32	100.0	0.00	0.0000
7.55	28.3	0.36	100.0	0.00	0.0000
8.26	25.8	0.38	100.0	0.00	0.0000
9.04	23.6	0.41	100.0	0.00	0.0000
9.89	21.6	0.46	100.0	0.00	0.0000
10.8	19.8	0.50	100.0	0.00	0.0000
11.8	18.1	0.56	100.0	0.00	0.0000
12.9	16.5	0.64	100.0	0.00	0.0000
14.2	15.0	0.75	100.0	0.00	0.0000
15.5	13.8	0.85	100.0	0.00	0.0000
16.9	12.6	0.98	99.3	0.71	0.5100
18.5	11.5	1.17	98.2	1.11	0.6947
20.3	10.5	1.43	96.6	1.55	0.8612
22.2	9.61	1.75	94.8	1.83	0.9635
24.3	8.78	2.18	92.2	2.54	1.2118
26.6	8.02	2.76	88.9	3.38	1.4693
29.0	7.36	3.48	84.7	4.17	1.7385
31.8	6.71	4.24	80.2	4.46	1.5917
34.8	6.13	4.84	76.8	3.48	1.1608
38.0	5.61	5.31	74.0	2.72	0.8500

Table 23. MICP data for sample 09DL033 - 1.6c.

Mercury Injection Capillary Pressure 09DL033 - 1.6c					
Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	5.74	71.5	2.53	0.7026
45.5	4.69	6.13	69.2	2.30	0.5904
49.8	4.28	6.49	67.1	2.08	0.4830
54.5	3.91	6.77	65.5	1.66	0.3522
59.6	3.58	7.08	63.7	1.80	0.3525
65.2	3.27	7.39	61.9	1.77	0.3169
71.3	2.99	7.68	60.2	1.71	0.2798
78.0	2.73	7.97	58.5	1.70	0.2530
85.3	2.50	8.26	56.8	1.69	0.2314
93.4	2.28	8.55	55.1	1.69	0.2085
102	2.09	8.85	53.4	1.76	0.2043
112	1.90	9.10	51.9	1.46	0.1456
122	1.75	9.37	50.3	1.59	0.1589
134	1.59	9.64	48.8	1.55	0.1289
146	1.46	9.89	47.3	1.48	0.1232
160	1.33	10.16	45.7	1.57	0.1123
175	1.22	10.39	44.4	1.31	0.0876
191	1.12	10.63	43.0	1.40	0.0876
209	1.02	10.85	41.7	1.31	0.0730
229	0.932	11.09	40.3	1.38	0.0692
251	0.850	11.34	38.9	1.45	0.0660
274	0.779	11.56	37.6	1.30	0.0566
300	0.711	11.79	36.2	1.34	0.0515
328	0.650	12.04	34.8	1.44	0.0514
359	0.594	12.25	33.5	1.25	0.0404
393	0.543	12.43	32.5	1.01	0.0297
430	0.496	12.63	31.4	1.16	0.0313
470	0.454	12.82	30.2	1.14	0.0285
514	0.415	13.03	29.0	1.21	0.0276
563	0.379	13.22	27.9	1.13	0.0231
615	0.347	13.39	26.9	0.99	0.0190
673	0.317	13.57	25.9	1.02	0.0176
736	0.290	13.73	24.9	0.95	0.0151
806	0.265	13.89	24.0	0.91	0.0131
881	0.242	14.03	23.1	0.85	0.0113
964	0.221	14.18	22.3	0.85	0.0103
1050	0.203	14.32	21.5	0.81	0.0094
1150	0.186	14.46	20.7	0.83	0.0083
1260	0.169	14.60	19.9	0.79	0.0072
1380	0.155	14.72	19.2	0.71	0.0059
1510	0.141	14.84	18.5	0.69	0.0053
1650	0.129	14.95	17.8	0.69	0.0049

Table 23. MICP data for sample 09DL033 - 1.6c.

Mercury Injection Capillary Pressure
09DL033 - 1.6c

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	15.07	17.1	0.68	0.0042
1980	0.1077	15.18	16.5	0.64	0.0038
2160	0.0988	15.28	15.9	0.60	0.0033
2370	0.0900	15.39	15.2	0.61	0.0029
2590	0.0824	15.49	14.7	0.56	0.0026
2830	0.0754	15.58	14.1	0.55	0.0023
3100	0.0688	15.68	13.6	0.56	0.0021
3390	0.0629	15.77	13.0	0.53	0.0018
3710	0.0575	15.86	12.5	0.53	0.0016
4060	0.0525	15.95	12.0	0.52	0.0015
4440	0.0480	16.04	11.5	0.51	0.0014
4850	0.0440	16.12	11.0	0.47	0.0012
5310	0.0402	16.20	10.5	0.50	0.0011
5810	0.0367	16.29	10.0	0.50	0.0010
6360	0.0335	16.37	9.5	0.49	0.0009
6950	0.0307	16.46	9.0	0.49	0.0008
7610	0.0280	16.54	8.5	0.49	0.0007
8320	0.0256	16.62	8.1	0.48	0.0007
9100	0.0234	16.70	7.6	0.47	0.0006
9960	0.0214	16.78	7.1	0.47	0.0005
10900	0.0196	16.86	6.7	0.45	0.0005
11900	0.0179	16.93	6.2	0.43	0.0004
13000	0.0164	17.01	5.8	0.43	0.0004
14300	0.0149	17.08	5.4	0.45	0.0003
15600	0.0137	17.15	5.0	0.40	0.0003
17100	0.0125	17.22	4.6	0.41	0.0003
18700	0.0114	17.29	4.2	0.39	0.0002
20400	0.0105	17.35	3.8	0.38	0.0002
22300	0.0096	17.42	3.4	0.37	0.0002
24400	0.0087	17.48	3.1	0.36	0.0002
26700	0.0080	17.54	2.7	0.36	0.0002
29300	0.0073	17.60	2.4	0.33	0.0001
32000	0.0067	17.65	2.1	0.31	0.0001
35000	0.0061	17.70	1.8	0.29	0.0001
38300	0.0056	17.75	1.5	0.27	0.0001
41900	0.0051	17.79	1.2	0.28	0.0001
45800	0.0047	17.84	1.0	0.26	0.0001
50100	0.0043	17.89	0.7	0.28	0.0001
54800	0.0039	17.94	0.4	0.29	0.0001
59500	0.0036	18.00	0.0	0.39	0.0001

Table 24. MICP data for sample 09DL033 - 20.8c.

Mercury Injection Capillary Pressure
09DL033 - 20.8c

Sample Information	
Bulk Volume = 6.5335 cc	Porosity = 15.0% (mercury)
Pore Volume = 0.9782 cc	Permeability = 14.73 md (mercury)
Closure = 0.93 %BV @ 10.8 psia	Median Pore Aperture = 1.0978 microns (diameter)

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.04	100.0	0.00	0.0000
1.96	109	0.06	100.0	0.00	0.0000
2.15	99.2	0.09	100.0	0.00	0.0000
2.35	90.8	0.11	100.0	0.00	0.0000
2.57	83.0	0.14	100.0	0.00	0.0000
2.81	75.9	0.17	100.0	0.00	0.0000
3.08	69.3	0.21	100.0	0.00	0.0000
3.37	63.3	0.24	100.0	0.00	0.0000
3.68	58.0	0.28	100.0	0.00	0.0000
4.03	52.9	0.31	100.0	0.00	0.0000
4.41	48.4	0.35	100.0	0.00	0.0000
4.82	44.3	0.38	100.0	0.00	0.0000
5.27	40.5	0.43	100.0	0.00	0.0000
5.77	37.0	0.48	100.0	0.00	0.0000
6.31	33.8	0.53	100.0	0.00	0.0000
6.90	30.9	0.57	100.0	0.00	0.0000
7.55	28.3	0.63	100.0	0.00	0.0000
8.26	25.8	0.70	100.0	0.00	0.0000
9.04	23.6	0.77	100.0	0.00	0.0000
9.89	21.6	0.85	100.0	0.00	0.0000
10.8	19.8	0.93	100.0	0.00	0.0000
11.8	18.1	1.02	99.4	0.57	0.5670
12.9	16.5	1.15	98.5	0.91	0.8316
14.2	15.0	1.32	97.4	1.14	0.8740
15.5	13.8	1.55	95.8	1.54	1.1859
16.9	12.6	1.82	94.1	1.78	1.2704
18.5	11.5	2.14	91.9	2.14	1.3384
20.3	10.5	2.50	89.5	2.41	1.3390
22.2	9.61	2.88	87.0	2.55	1.3404
24.3	8.78	3.30	84.2	2.75	1.3111
26.6	8.02	3.71	81.4	2.77	1.2057
29.0	7.36	4.11	78.8	2.66	1.1087
31.8	6.71	4.52	76.0	2.74	0.9797
34.8	6.13	4.91	73.4	2.63	0.8775
38.0	5.61	5.26	71.1	2.33	0.7281

Table 24 (cont.). MICP data for sample 09DL033 - 20.8c.

Mercury Injection Capillary Pressure
09DL033 - 20.8c

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	5.60	68.8	2.27	0.6293
45.5	4.69	5.92	66.7	2.15	0.5500
49.8	4.28	6.18	64.9	1.72	0.4011
54.5	3.91	6.35	63.8	1.10	0.2348
59.6	3.58	6.55	62.5	1.33	0.2607
65.2	3.27	6.73	61.3	1.22	0.2187
71.3	2.99	6.90	60.1	1.16	0.1896
78.0	2.73	7.07	59.0	1.14	0.1695
85.3	2.50	7.23	58.0	1.03	0.1411
93.4	2.28	7.36	57.1	0.90	0.1116
102	2.09	7.49	56.2	0.87	0.1008
112	1.90	7.62	55.3	0.88	0.0882
122	1.75	7.76	54.4	0.89	0.0890
134	1.59	7.88	53.6	0.81	0.0678
146	1.46	8.00	52.8	0.80	0.0670
160	1.33	8.14	51.9	0.92	0.0661
175	1.22	8.26	51.1	0.80	0.0536
191	1.12	8.39	50.2	0.87	0.0545
209	1.02	8.52	49.3	0.87	0.0481
229	0.932	8.65	48.4	0.90	0.0450
251	0.850	8.79	47.5	0.94	0.0426
274	0.779	8.92	46.6	0.87	0.0378
300	0.711	9.06	45.7	0.92	0.0355
328	0.650	9.22	44.7	1.03	0.0367
359	0.594	9.35	43.8	0.91	0.0294
393	0.543	9.47	43.0	0.77	0.0227
430	0.496	9.60	42.1	0.88	0.0238
470	0.454	9.74	41.2	0.93	0.0232
514	0.415	9.89	40.2	1.00	0.0227
563	0.379	10.03	39.2	0.95	0.0194
615	0.347	10.16	38.4	0.86	0.0166
673	0.317	10.30	37.4	0.92	0.0158
736	0.290	10.43	36.6	0.86	0.0137
806	0.265	10.56	35.7	0.85	0.0121
881	0.242	10.67	34.9	0.79	0.0105
964	0.221	10.79	34.1	0.79	0.0096
1050	0.203	10.90	33.4	0.75	0.0087
1150	0.186	11.02	32.6	0.77	0.0077
1260	0.169	11.13	31.9	0.75	0.0068
1380	0.155	11.23	31.2	0.69	0.0058
1510	0.141	11.34	30.5	0.68	0.0052
1650	0.129	11.44	29.8	0.68	0.0049

Table 24 (cont.). MICP data for sample 09DL033 - 20.8c.

Mercury Injection Capillary Pressure
09DL033 - 20.8c

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	11.54	29.1	0.70	0.0044
1980	0.1077	11.65	28.4	0.68	0.0040
2160	0.0988	11.75	27.8	0.67	0.0037
2370	0.0900	11.85	27.1	0.71	0.0034
2590	0.0824	11.95	26.4	0.67	0.0030
2830	0.0754	12.05	25.7	0.67	0.0028
3100	0.0688	12.16	25.0	0.69	0.0026
3390	0.0629	12.26	24.4	0.68	0.0023
3710	0.0575	12.36	23.6	0.70	0.0022
4060	0.0525	12.47	23.0	0.70	0.0020
4440	0.0480	12.58	22.2	0.71	0.0019
4850	0.0440	12.68	21.5	0.69	0.0017
5310	0.0402	12.79	20.8	0.74	0.0016
5810	0.0367	12.91	20.0	0.78	0.0016
6360	0.0335	13.03	19.2	0.81	0.0015
6950	0.0307	13.15	18.4	0.82	0.0014
7610	0.0280	13.28	17.5	0.85	0.0013
8320	0.0256	13.40	16.7	0.85	0.0012
9100	0.0234	13.53	15.8	0.86	0.0011
9960	0.0214	13.66	15.0	0.87	0.0010
10900	0.0196	13.80	14.1	0.88	0.0009
11900	0.0179	13.92	13.2	0.85	0.0009
13000	0.0164	14.05	12.4	0.86	0.0008
14300	0.0149	14.19	11.4	0.93	0.0007
15600	0.0137	14.32	10.6	0.86	0.0007
17100	0.0125	14.45	9.7	0.88	0.0006
18700	0.0114	14.58	8.8	0.86	0.0005
20400	0.0105	14.70	8.0	0.81	0.0005
22300	0.0096	14.83	7.2	0.84	0.0004
24400	0.0087	14.95	6.4	0.80	0.0004
26700	0.0080	15.07	5.6	0.79	0.0003
29300	0.0073	15.18	4.8	0.77	0.0003
32000	0.0067	15.29	4.1	0.70	0.0003
35000	0.0061	15.39	3.5	0.67	0.0002
38300	0.0056	15.48	2.8	0.63	0.0002
41900	0.0051	15.57	2.2	0.60	0.0002
45800	0.0047	15.65	1.7	0.56	0.0001
50100	0.0043	15.74	1.1	0.61	0.0001
54800	0.0039	15.82	0.6	0.49	0.0001
59500	0.0036	15.90	0.0	0.58	0.0001

Table 25. MICP data for sample 09DL033 - 24.5b.

Mercury Injection Capillary Pressure
09DL033 - 24.5b

<u>Sample Information</u>					
Bulk Volume =	6.2266 cc	Porosity =	12.0% (mercury)		
Pore Volume =	0.7504 cc	Permeability =	0.919 md (mercury)		
Closure = 0.73 %BV @ 49.8 psia		Median Pore Aperture =	0.4540 microns (diameter)		

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1.64	130	0.02	100.0	0.00	0.0000
1.80	119	0.03	100.0	0.00	0.0000
1.96	109	0.04	100.0	0.00	0.0000
2.15	99.2	0.05	100.0	0.00	0.0000
2.35	90.8	0.06	100.0	0.00	0.0000
2.57	83.0	0.07	100.0	0.00	0.0000
2.81	75.9	0.08	100.0	0.00	0.0000
3.08	69.3	0.09	100.0	0.00	0.0000
3.37	63.3	0.10	100.0	0.00	0.0000
3.68	58.0	0.11	100.0	0.00	0.0000
4.03	52.9	0.12	100.0	0.00	0.0000
4.41	48.4	0.13	100.0	0.00	0.0000
4.82	44.3	0.14	100.0	0.00	0.0000
5.27	40.5	0.14	100.0	0.00	0.0000
5.77	37.0	0.15	100.0	0.00	0.0000
6.31	33.8	0.16	100.0	0.00	0.0000
6.90	30.9	0.17	100.0	0.00	0.0000
7.55	28.3	0.18	100.0	0.00	0.0000
8.26	25.8	0.19	100.0	0.00	0.0000
9.04	23.6	0.20	100.0	0.00	0.0000
9.89	21.6	0.22	100.0	0.00	0.0000
10.8	19.8	0.23	100.0	0.00	0.0000
11.8	18.1	0.25	100.0	0.00	0.0000
12.9	16.5	0.26	100.0	0.00	0.0000
14.2	15.0	0.28	100.0	0.00	0.0000
15.5	13.8	0.29	100.0	0.00	0.0000
16.9	12.6	0.31	100.0	0.00	0.0000
18.5	11.5	0.33	100.0	0.00	0.0000
20.3	10.5	0.35	100.0	0.00	0.0000
22.2	9.61	0.38	100.0	0.00	0.0000
24.3	8.78	0.40	100.0	0.00	0.0000
26.6	8.02	0.43	100.0	0.00	0.0000
29.0	7.36	0.45	100.0	0.00	0.0000
31.8	6.71	0.50	100.0	0.00	0.0000
34.8	6.13	0.54	100.0	0.00	0.0000
38.0	5.61	0.58	100.0	0.00	0.0000

Table 25. MICP data for sample 09DL033 - 24.5b.

Mercury Injection Capillary Pressure
09DL033 - 24.5b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
41.6	5.13	0.62	100.0	0.00	0.0000
45.5	4.69	0.69	100.0	0.00	0.0000
49.8	4.28	0.73	100.0	0.00	0.0000
54.5	3.91	0.79	99.4	0.56	0.1199
59.6	3.58	0.90	98.5	0.89	0.1752
65.2	3.27	1.07	97.2	1.39	0.2487
71.3	2.99	1.35	94.8	2.33	0.3821
78.0	2.73	1.75	91.5	3.37	0.5024
85.3	2.50	2.10	88.6	2.89	0.3962
93.4	2.28	2.45	85.7	2.88	0.3555
102	2.09	2.81	82.7	3.01	0.3496
112	1.90	3.04	80.8	1.90	0.1898
122	1.75	3.27	78.8	1.93	0.1929
134	1.59	3.55	76.5	2.35	0.1959
146	1.46	3.79	74.5	1.99	0.1662
160	1.33	4.05	72.4	2.14	0.1531
175	1.22	4.26	70.6	1.71	0.1142
191	1.12	4.49	68.7	1.92	0.1200
209	1.02	4.68	67.1	1.64	0.0909
229	0.932	4.90	65.3	1.82	0.0908
251	0.850	5.08	63.8	1.49	0.0679
274	0.779	5.28	62.1	1.65	0.0719
300	0.711	5.52	60.2	1.95	0.0749
328	0.650	5.76	58.2	2.00	0.0713
359	0.594	6.01	56.1	2.10	0.0679
393	0.543	6.26	54.0	2.08	0.0611
430	0.496	6.50	52.0	1.96	0.0531
470	0.454	6.74	50.0	2.06	0.0514
514	0.415	6.99	47.9	2.09	0.0475
563	0.379	7.17	46.4	1.47	0.0299
615	0.347	7.36	44.8	1.58	0.0304
673	0.317	7.55	43.3	1.58	0.0273
736	0.290	7.73	41.8	1.46	0.0233
806	0.265	7.90	40.4	1.40	0.0200
881	0.242	8.05	39.1	1.27	0.0169
964	0.221	8.20	37.9	1.26	0.0152
1050	0.203	8.34	36.7	1.15	0.0134
1150	0.186	8.48	35.5	1.18	0.0118
1260	0.169	8.62	34.4	1.16	0.0105
1380	0.155	8.76	33.2	1.15	0.0096
1510	0.141	8.89	32.1	1.11	0.0085
1650	0.129	9.02	31.0	1.10	0.0078

Table 25. MICP data for sample 09DL033 - 24.5b.

Mercury Injection Capillary Pressure
09DL033 - 24.5b

Capillary Pressure (psia)	Pore Aperture Diameter (microns)	Cumulative Bulk Vol. (%)	Wetting Phase Saturation (%)	Incremental Wetting Phase Change (%)	Saturation Change per psia
1810	0.1179	9.16	29.9	1.13	0.0070
1980	0.1077	9.29	28.8	1.06	0.0062
2160	0.0988	9.41	27.8	1.00	0.0056
2370	0.0900	9.53	26.8	1.02	0.0049
2590	0.0824	9.64	25.9	0.94	0.0043
2830	0.0754	9.75	25.0	0.91	0.0038
3100	0.0688	9.86	24.1	0.89	0.0033
3390	0.0629	9.96	23.2	0.85	0.0029
3710	0.0575	10.06	22.4	0.84	0.0026
4060	0.0525	10.16	21.6	0.81	0.0023
4440	0.0480	10.25	20.8	0.80	0.0021
4850	0.0440	10.34	20.1	0.72	0.0018
5310	0.0402	10.44	19.3	0.79	0.0017
5810	0.0367	10.53	18.5	0.80	0.0016
6360	0.0335	10.63	17.7	0.81	0.0015
6950	0.0307	10.72	16.9	0.79	0.0013
7610	0.0280	10.83	16.0	0.84	0.0013
8320	0.0256	10.92	15.2	0.81	0.0011
9100	0.0234	11.02	14.4	0.84	0.0011
9960	0.0214	11.13	13.5	0.88	0.0010
10900	0.0196	11.23	12.7	0.85	0.0009
11900	0.0179	11.33	11.8	0.84	0.0008
13000	0.0164	11.44	11.0	0.86	0.0008
14300	0.0149	11.54	10.1	0.90	0.0007
15600	0.0137	11.64	9.3	0.81	0.0006
17100	0.0125	11.74	8.4	0.83	0.0006
18700	0.0114	11.84	7.6	0.80	0.0005
20400	0.0105	11.93	6.9	0.75	0.0004
22300	0.0096	12.02	6.1	0.73	0.0004
24400	0.0087	12.10	5.4	0.70	0.0003
26700	0.0080	12.18	4.8	0.67	0.0003
29300	0.0073	12.26	4.1	0.65	0.0002
32000	0.0067	12.33	3.6	0.58	0.0002
35000	0.0061	12.40	3.0	0.58	0.0002
38300	0.0056	12.46	2.4	0.54	0.0002
41900	0.0051	12.52	1.9	0.49	0.0001
45800	0.0047	12.57	1.5	0.43	0.0001
50100	0.0043	12.62	1.1	0.39	0.0001
54800	0.0039	12.67	0.7	0.42	0.0001
59500	0.0036	12.75	0.0	0.70	0.0001