
Volume 135A

Chapter 10

Table 13

Table 13. Physical properties data, Holes 840A, 840B, and 840C.

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/(m · °K))	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840A-										
IH-1, 10-12	0.10								1842	C
IH-1, 10-12	0.10								2024	C
IH-1, 40-41	0.40	13.10								
IH-1, 46-47	0.46			1.62	2.73	67.3	74.1	2.1	1598	C
IH-1, 135-136	1.35	11.40								
IH-1, 136-137	1.36			1.76	2.82	62.9	57.7	1.7	1603	C
IH-2, 13-15	1.68								1580	C
IH-2, 15-16	1.70	13.10								
IH-2, 105-106	2.60			1.83	2.80	57.7	47.6	1.4	1547	C
IH-2, 135-136	2.90	19.20								
IH-3, 5-6	3.10	44.50							1651	C
IH-3, 8-9	3.13			2.03	2.91	58.9	42.4	1.4		
IH-3, 55-56	3.60			2.03	2.92	50.3	34.0	1.0		
IH-3, 64-65	3.69			2.48	3.06	42.1	21.0	0.7		
IH-CC, 10-11	3.89				2.11	2.95	48.3	30.6	0.9	
135-840B-										
IX-1, 41-43	0.41			1.89	2.76	54.4	41.9	1.20	1630	C
IX-1, 76-78	0.76								1573	C
IX-CC, 20-22	1.55			2.19	2.86	43.0	25.2	0.76	1670	C
10X-1, 18-18	86.28		1.0775							
10X-1, 36-38	86.46		1.1070	1.59	2.59	68.9	79.4	2.22		
11X-1, 31-33	96.01			1.59	2.46	65.6	72.8	1.91		
11X-1, 44-46	96.14			1.64	2.71	65.6	69.1	1.90	1601	C
11X-1, 60-60	96.30		0.9996							
11X-1, 63-65	96.33								1569	C
11X-1, 90-90	96.60		0.9653							
11X-2, 34-36	97.54			1.63	2.62	66.6	72.4	2.00	1587	C
11X-2, 74-76	97.94			1.64	2.71	69.2	76.1	2.24	1762	C
11X-2, 90-90	98.10		1.2062							
12X-1, 44-46	105.84			1.71	2.72	61.5	58.6	1.60	1588	A
12X-1, 60-60	106.00		1.0633							
12X-2, 58-60	107.48								1747	C
12X-2, 60-62	107.50			1.66	2.72	66.6	69.5	2.00	1498	A
12X-2, 110-110	108.00		1.1215							
12X-4, 21-23	108.69								1723	C
12X-4, 100-102	109.48			1.67	2.79	69.5	74.5	2.28	1734	C
12X-5, 10-12	110.08			1.69	2.69	66.5	67.4	1.99	1789	A
12X-5, 10-12	110.08								1782	C
12X-5, 46-48	110.44								1640	A
12X-5, 46-48	110.44			2.04	2.61	39.6	24.8	0.66		
12X-5, 66-68	110.64			1.64	2.75	67.9	73.6	2.11	1786	A
12X-5, 143-145	111.41			1.64	2.81	68.2	74.1	2.15	1905	C
12X-5, 143-145	111.41								1966	A
12X-5, 30-30	111.70		1.1162							
12X-6, 73-75	112.21			1.84	2.75	63.5	54.6	1.74	2431	A
12X-6, 73-75	112.21								2442	A
12X-6, 73-75	112.21								2511	B
12X-6, 73-75	112.21								2500	B
12X-CC, 7-9	112.62			2.02	2.74	50.7	34.6	1.03	2650	A
12X-CC, 7-9	112.62								2643	A
12X-CC, 7-9	112.62								2678	B
12X-CC, 7-9	112.62								2696	B
12X-CC, 21-23	112.76								2367	C
13X-1, 26-28	115.36			1.70	2.68	69.5	72.1	2.27	1935	A
13X-1, 26-28	115.36								1952	A
13X-1, 26-28	115.36								1983	B
13X-1, 26-28	115.36								2009	B
13X-1, 97-99	116.07			1.64	2.73	69.3	75.9	2.25	1927	A
13X-1, 97-99	116.07								1960	A
13X-1, 97-99	116.07								1908	B
13X-1, 97-99	116.07								1917	B
13X-1, 125-125	116.35		1.0861							
13X-2, 28-28	116.88		1.1829							
13X-2, 69-71	117.29			1.75	2.63	63.5	59.3	1.74	1983	A
13X-2, 69-71	117.29								2025	B
13X-2, 90-90	117.50		1.1154							
13X-3, 68-70	118.78			1.64	2.77	70.4	78.3	2.38	1978	A
13X-3, 68-70	118.78								1979	A
13X-3, 68-70	118.78								1963	B
13X-3, 68-70	118.78								1970	B
13X-3, 90-90	119.00		1.1053							
13X-3, 101-103	119.11			1.71	2.68	66.9	67.1	2.02	2015	C
22X-CC, 4-6	201.74			1.63	2.70	69.3	77.5	2.26	1685	C

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/(m · °K))	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _P (m/s)	V _P dir. ^a
135-840B- (cont.)										
24X-1, 6-8	221.06			1.67	2.40	61.3	60.3	1.59	1892	C
24X-1, 64-66	221.64			1.65	2.73	71.5	79.5	2.51	1980	A
24X-1, 64-66	221.64								2007	B
24X-1, 69-69	221.69		1.0379							
24X-1, 109-109	222.09		1.2282							
24X-1, 131-141	222.31		0.9490							
24X-CC, 27-29	222.74			2.19	2.82	49.6	30.3	0.99	2689	C
24X-CC, 27-29	222.74								2671	C
26X-1, 17-19	240.57			1.77	2.75	64.2	59.0	1.79	1953	C
26X-1, 17-19	240.57								1961	C
26X-1, 17-19	240.57								1972	B
26X-1, 17-19	240.57								1990	B
26X-1, 17-19	240.57								1974	A
26X-1, 17-19	240.57								1998	A
26X-1, 51-53	240.91			1.82	2.53	59.0	49.6	1.44	2032	B
26X-1, 51-53	240.91								2074	B
26X-1, 51-53	240.91								2082	A
26X-1, 51-53	240.91								2091	A
26X-1, 51-53	240.91								2069	C
26X-1, 51-53	240.91								2072	C
28X-1, 17-19	259.87			1.68	2.67	66.9	69.1	2.02	2289	C
28X-1, 17-19	259.87								2317	C
28X-1, 17-19	259.87								2323	B
28X-1, 17-19	259.87								2330	B
28X-1, 17-19	259.87								2284	A
28X-1, 17-19	259.87								2315	A
28X-1, 42-44	260.12								2103	C
28X-1, 42-44	260.12								2088	C
28X-1, 42-44	260.12								2088	A
28X-1, 42-44	260.12								2088	A
28X-1, 42-44	260.12								2096	B
28X-1, 42-44	260.12								2105	B
28X-1, 59-61	260.29			1.72	2.76	66.7	66.2	2.01	2181	C
28X-1, 59-61	260.29								2188	C
28X-1, 59-61	260.29								2185	B
28X-1, 59-61	260.29								2184	B
28X-1, 59-61	260.29								2163	A
28X-1, 59-61	260.29								2207	A
28X-1, 100-100	260.70		1.0305							
28X-1, 137-139	261.07			1.84	2.67	73.1	68.6	2.72		
28X-2, 35-35	261.55		1.0339							
28X-2, 80-82	262.00			1.64	2.68	72.3	82.8	2.61	2052	C
28X-2, 80-82	262.00								2063	C
28X-2, 80-82	262.00								2005	A
28X-2, 80-82	262.00								2019	A
28X-2, 80-82	262.00								2016	B
28X-2, 80-82	262.00								2008	B
29X-1, 12-14	269.52			1.69	2.66	71.9	77.3	2.56	2013	C
29X-1, 12-14	269.52								2043	C
29X-1, 12-14	269.52								2043	B
29X-1, 12-14	269.52								2042	B
29X-1, 12-14	269.52								1994	A
29X-1, 12-14	269.52								2025	A
29X-1, 32-38	269.72		1.2427							
30X-1, 35-40	279.45		1.0313							
30X-1, 68-70	279.78			1.72	2.58	63.6	61.1	1.74	2360	C
30X-1, 68-70	279.78								2360	C
30X-1, 68-70	279.78								2344	B
30X-1, 68-70	279.78								2367	B
30X-1, 68-70	279.78								2347	A
30X-1, 68-70	279.78								2357	A
31X-1, 1-10	288.81		1.0213							
31X-1, 42-44	289.22			1.97	2.98	66.2	52.3	1.96	2033	C
31X-1, 42-44	289.22								2049	C
31X-1, 42-44	289.22								2014	A
31X-1, 42-44	289.22								1981	A
31X-1, 42-44	289.22								2015	B
31X-1, 42-44	289.22								2015	B
32X-1, 10-12	298.60			1.78	2.79	66.9	62.4	2.02	2154	C
32X-1, 10-12	298.60								2142	C
32X-1, 10-12	298.60								2173	C
33X-1, 4-6	308.24			1.80	2.74	61.2	53.5	1.58	2487	C
33X-1, 4-6	308.24								2486	C
33X-1, 4-6	308.24								2499	B

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	Thermal TC (W/m ² K)	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840B- (cont.)										
									2496	B
33X-1, 4-6	308.24								2406	A
33X-1, 4-6	308.24								2430	A
33X-1, 4-6	308.24									
33X-1, 68-74	308.88		1.0865						2194	A
33X-1, 114-116	309.34			1.79	2.74	61.6	54.6	1.60	2187	A
33X-1, 114-116	309.34								2207	B
33X-1, 114-116	309.34								2204	B
33X-1, 114-116	309.34								2188	A
34X-1, 43-45	318.23			1.75	2.75	62.9	58.1	1.70	2200	A
34X-1, 43-45	318.23								2284	B
34X-1, 43-45	318.23								2300	B
34X-1, 43-45	318.23								2133	A
34X-1, 125-127	319.05			1.78	2.60	57.6	49.4	1.36	2111	A
34X-1, 125-127	319.05								2124	B
34X-1, 125-127	319.05								2148	B
34X-1, 125-127	319.05									
35X-1, 8-18	327.58		1.0573						2376	A
35X-1, 56-58	328.06			2.16	2.79	49.9	31.0	1.00	2380	A
35X-1, 56-58	328.06								2427	B
35X-1, 56-58	328.06								2418	B
35X-1, 56-58	328.06								2209	A
35X-1, 56-58	328.06			1.88	2.72	57.3	45.5	1.34	2240	A
35X-1, 127-129	328.77								2240	A
35X-1, 127-129	328.77								2290	B
35X-1, 127-129	328.77								2303	B
35X-1, 127-129	328.77								2184	A
35X-1, 127-129	328.77								2186	A
35X-2, 85-87	329.85			2.09	2.83	49.4	32.1	0.98	2181	B
35X-2, 85-87	329.85								2183	B
35X-2, 85-87	329.85								2039	A
35X-2, 85-87	329.85			1.84	2.66	60.5	50.8	1.53	2042	A
35X-2, 146-148	330.46								2065	B
35X-2, 146-148	330.46								2061	B
35X-2, 146-148	330.46								2069	A
35X-2, 146-148	330.46								2051	A
35X-3, 8-9	330.58									
35X-3, 57-59	331.07									
36X-1, 8-18	332.48		1.1152						2163	A
36X-1, 26-28	332.66			1.90	2.66	58.5	46.2	1.41	2154	A
36X-1, 26-28	332.66								2150	B
36X-1, 26-28	332.66								2153	B
36X-1, 26-28	332.66								2268	A
36X-1, 26-28	332.66			1.81	2.54	57.0	47.7	1.33	2289	A
36X-1, 100-102	333.40								2330	B
36X-1, 100-102	333.40								2349	B
36X-1, 100-102	333.40								1788	A
36X-1, 100-102	333.40								2043	A
36X-1, 110-112	333.50								2057	A
37X-1, 2-4	337.42			1.90	2.71	68.4	58.6	2.16	2053	B
37X-1, 2-4	337.42								2059	B
37X-1, 2-4	337.42									
37X-1, 2-4	337.42									
37X-1, 4-11	337.44		1.1001						1916	A
37X-1, 140-142	338.80			1.77	2.50	56.0	47.9	1.27	1918	A
37X-1, 140-142	338.80								1898	B
37X-1, 140-142	338.80								1889	B
37X-1, 140-142	338.80								2413	A
37X-1, 140-142	338.80			1.92	2.58	57.7	44.5	1.37	2405	A
37X-2, 38-40	339.24								2453	B
37X-2, 38-40	339.24								2447	B
37X-2, 38-40	339.24								2117	A
37X-2, 107-109	339.93			1.82	2.68	59.9	51.0	1.50	2102	A
37X-2, 107-109	339.93								2115	B
37X-2, 107-109	339.93								2121	B
37X-2, 107-109	339.93								2217	A
37X-2, 107-109	339.93			1.85	2.59	53.5	41.9	1.15	2189	A
37X-CC, 3-5	340.04								2193	B
37X-CC, 3-5	340.04								2215	B
37X-CC, 3-5	340.04								1888	A
37X-CC, 3-5	340.04								1896	A
38X-1, 24-26	347.34			1.64	2.63	75.3	89.4	3.06	2171	A
38X-1, 24-26	347.34			1.86	2.55	52.3	40.4	1.10	2115	A
38X-1, 61-63	347.71								2200	B
38X-1, 61-63	347.71								2239	B
38X-1, 61-63	347.71									
38X-1, 61-63	347.71									
38X-1, 122-128	348.32		1.0947						1879	A
38X-1, 125-127	348.35			1.87	2.63	53.7	41.6	1.16		

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/(m · °K))	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840B- (cont.)										
38X-1, 125-127	348.35								1918	A
39X-1, 8-10	356.88			1.84	2.57	55.2	44.3	1.23	1989	A
39X-1, 8-10	356.88								1962	A
39X-1, 8-10	356.88								1983	B
39X-1, 8-10	356.88								1954	B
39X-1, 26-28	357.06								1910	A
39X-1, 26-28	357.06								1915	A
39X-1, 47-49	357.27			1.85	2.42	53.6	42.3	1.15	1940	A
39X-1, 47-49	357.27								1951	A
39X-1, 60-62	357.40								1946	A
39X-1, 60-62	357.40								1938	A
39X-1, 100-110	357.90		1.1180							
39X-2, 8-10	358.35			1.82	2.28	52.7	42.2	1.11	2082	A
39X-2, 8-10	358.35								2102	A
39X-2, 8-10	358.35								2058	B
39X-2, 8-10	358.35								2058	B
39X-2, 86-88	359.13			1.89	2.76	62.4	51.1	1.66	2017	A
39X-2, 86-88	359.13								2033	A
39X-2, 86-88	359.13								1993	B
39-2, 86-88	359.13								2000	B
40X-1, 35-30	366.75		0.8663							
40X-1, 37-39	366.87			1.78	2.49	59.2	51.5	1.45	2038	A
40X-1, 37-39	366.87								2001	A
40X-1, 37-39	366.87								2134	B
40X-1, 37-39	366.87								2139	B
40X-1, 125-127	367.75			1.90	2.87	55.5	42.6	1.25	2190	A
40X-1, 125-127	367.75								2182	A
40X-1, 125-127	367.75								2202	B
40X-1, 125-127	367.75								2224	B
40X-CC, 3-5	367.81								2105	C
40X-CC, 3-5	367.81								2087	C
41X-1, 28-30	376.48			1.99	2.86	55.0	39.5	1.22	2260	A
41X-1, 28-30	376.48								2230	A
41X-1, 28-30	376.48								2230	B
41X-1, 28-30	376.48								2256	B
41X-1, 64-76	376.84		1.0219							
41X-2, 15-17	377.24			1.93	2.78	60.3	47.0	1.52	2183	A
41X-2, 15-17	377.24								2210	A
41X-2, 15-17	377.24								2274	B
41X-2, 15-17	377.24								2274	B
41X-2, 15-17	377.24								2215	B
41X-CC, 1-3	377.75								2180	A
41X-CC, 1-3	377.75			1.73	2.45	60.1	55.4	1.51	2137	A
42X-1, 2-47	385.82								2303	B
42X-1, 9-11	385.89								2793	C
42X-1, 9-11	385.89			2.13	2.78	42.9	26.0	0.75	2777	C
42X-1, 9-11	385.89								2769	B
42X-1, 9-11	385.89								2741	B
42X-1, 9-11	385.89								2752	A
42X-1, 9-11	385.89								2712	A
42X-1, 15-25	385.95		1.4035							
42X-1, 45-47	386.25			1.73	2.69	62.2	58.2	1.64	2361	C
42X-1, 45-47	386.25								2344	C
42X-1, 45-47	386.25								2287	B
42X-1, 45-47	386.25								2289	A
42X-1, 45-47	386.25								2304	A
42X-3, 58-60	389.38			1.74	2.46	57.2	50.9	1.33	2162	C
42X-3, 58-60	389.38								2134	C
42X-3, 58-60	389.38								2119	B
42X-3, 58-60	389.38								2173	B
42X-3, 58-60	389.38								2053	A
42X-3, 58-60	389.38								2080	A
43X-1, 13-15	395.63			1.80	2.82	63.2	56.0	1.72	2396	C
43X-1, 13-15	395.63								2384	C
43X-1, 13-15	395.63								2324	B
43X-1, 13-15	395.63								2342	B
43X-1, 13-15	395.63								2265	A
43X-1, 13-15	395.63								2247	A
43X-1, 100-110	396.50		1.2004							
43X-2, 21-23	397.21			2.12	2.74	41.9	25.4	0.72	2866	C
43X-2, 21-23	397.21								2871	C
43X-2, 21-23	397.21								2777	A
43X-2, 21-23	397.21								2799	A
43X-2, 21-23	397.21								2808	B
43X-2, 21-23	397.21								2813	B

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/[m · °K])	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _P (m/s)	V _P dir. ^a
135-840B- (cont.)										
43X-2, 57-66	397.57		1.0263							
44X-1, 57-64	405.47		1.0240							
44X-1, 77-79	405.67			1.77	2.62	64.6	59.9	1.82	2442	B
44X-1, 77-79	405.67								2431	B
44X-1, 77-79	405.67								2350	A
44X-1, 77-79	405.67								2341	A
45X-1, 39-41	414.59			1.92	2.54	52.4	38.9	1.10	2561	C
45X-1, 39-41	414.59								2547	C
45X-1, 39-41	414.59								2467	B
45X-1, 39-41	414.59								2449	B
45X-1, 39-41	414.59								2460	A
45X-1, 39-41	414.59								2458	A
45X-1, 45-55	414.65		1.1976							
45X-2, 102-112	416.72		1.1952							
45X-2, 126-128	419.96			1.89	2.71	60.1	48.3	1.51	2098	C
45X-2, 126-128	416.96								2091	C
45X-2, 126-128	416.96								2120	B
45X-2, 126-128	416.96								2086	A
46X-1, 19-21	424.09			1.91	2.56	50.6	37.2	1.03	2637	C
46X-1, 19-21	424.09								2608	C
46X-1, 19-21	424.09								2755	B
46X-1, 19-21	424.09								2713	B
46X-1, 19-21	424.09								2716	A
46X-1, 19-21	424.09								2713	A
46X-1, 78-90	424.68		1.3251							
46X-1, 92-94	424.82			1.88	2.64	60.6	49.4	1.54	2179	C
46X-1, 92-94	424.82								2242	B
46X-1, 92-94	424.82								2258	B
46X-1, 92-94	424.82								2196	A
46X-1, 92-94	424.82								2184	A
46X-1, 130-133	425.20								2503	C
46X-1, 130-133	425.20								2635	B
46X-1, 130-132	425.20								2612	A
47X-1, 55-57	434.05			1.71	2.69	68.9	70.2	2.22	2599	C
47X-1, 55-57	434.05								2562	B
47X-1, 55-57	434.05								2435	A
47X-2, 101-111	434.51		1.1766							
47X-2, 88-90	435.79			1.90	2.72	57.0	44.5	1.33		
47X-3, 87-89	437.28								2330	C
47X-3, 87-89	437.28								2387	B
47X-3, 87-89	437.28								2458	B
47X-3, 87-89	437.28								2367	A
47X-3, 87-89	437.28								2386	A
47X-3, 87-89	437.28								2386	A
48X-1, 55-57	443.35			1.80	2.71	64.3	57.9	1.80	2452	A
48X-1, 55-57	443.35								2503	A
48X-1, 55-57	443.35								2543	B
48X-1, 55-57	443.35								2568	B
48X-2, 118-120	445.48			1.98	2.47	49.7	34.7	0.99	2638	B
48X-2, 118-120	445.48								2640	B
48X-2, 118-120	445.48								2699	A
48X-2, 118-120	445.48								2680	A
48X-3, 76-78	445.56			1.71	2.44	56.8	51.5	1.31	2456	A
48X-3, 76-78	446.56								2420	A
48X-3, 76-78	446.56								2377	B
48X-3, 76-78	446.56								2423	B
49X-1, 4-6	452.44			1.93	2.48	61.3	48.3	1.58	2478	A
49X-1, 4-6	452.44								2501	A
49X-1, 4-6	452.44								2554	B
49X-1, 4-6	452.44								2533	B
49X-2, 25-33	454.15		1.0447							
49X-2, 42-44	454.32			2.03	2.59	52.5	36.1	1.11	2721	A
49X-2, 42-44	454.32								2682	A
49X-2, 42-44	454.32								2834	B
49X-2, 42-44	454.32								2849	B
49X-2, 69-71	454.59								2361	A
49X-2, 69-71	454.59								2300	A
49X-2, 141-143	455.31			1.93	2.74	55.0	41.2	1.22	2086	A
49X-2, 141-143	455.31								2056	A
49X-3, 42-50	455.82		1.1354							
49X-3, 52-54	455.92			1.82	2.64	58.7	49.2	1.42	2252	A
49X-3, 52-54	455.92								2249	A
49X-3, 52-54	455.92								2385	B
49X-3, 52-54	455.92								2361	B
50X-1, 30-31	462.40								2323	A

Table 13 (continued).

Core section interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/[m · °K])	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840B- (cont.)										
									2354	A
50X-1, 30-31	462.40			1.83	2.43	52.6	41.9	1.11	2390	A
50X-1, 33-35	462.43								2358	A
50X-1, 33-35	462.43								2406	B
50X-1, 33-35	462.43								2439	B
50X-1, 33-35	462.43		1.4738						2586	A
50X-1, 48-60	462.58			1.94	2.26	48.9	34.8	0.96	2582	A
50X-2, 34-36	463.94								2645	B
50X-2, 34-36	463.94								2637	B
50X-2, 34-36	463.94								2154	A
50X-2, 34-36	463.94			1.73	2.73	67.1	65.7	2.04	2120	A
50X-3, 78-80	465.88								2184	B
50X-3, 78-80	465.88								2180	B
50X-3, 78-80	465.88								2069	A
50X-3, 78-80	465.88		1.1478						2137	A
50X-3, 90-100	465.88			1.89	2.58	63.6	52.8	1.75	2380	A
50X-4, 91-92	467.51								2372	A
50X-4, 91-92	467.51			1.84	2.71	62.7	53.7	1.68	2386	A
50X-4, 94-96	467.54								2407	B
50X-4, 94-96	467.54								2407	B
50X-4, 94-96	467.54								2518	A
50X-4, 94-96	467.54			1.78	2.51	56.0	47.6	1.27	2525	A
50X-4, 94-96	467.54								2559	B
51X-1, 84-86	472.54								2525	B
51X-1, 84-86	472.54								2122	A
51X-1, 84-86	472.54								2119	A
51X-2, 20-21	473.40			1.77	2.62	62.8	57.2	1.69	2439	A
51X-2, 20-21	473.40			1.91	2.63	55.7	42.7	1.26	2431	A
51X-2, 20-21	474.01								2487	B
51X-2, 81-83	474.01								2495	B
51X-2, 81-83	474.01								2629	A
51X-2, 81-83	474.01		1.1369						2639	A
51X-2, 114-122	474.34			1.96	2.59	49.2	34.7	0.97	2625	B
51X-3, 40-42	475.10								2633	B
51X-3, 40-42	475.10								2404	A
51X-3, 40-42	475.10								2397	A
51X-3, 40-42	475.10			1.91	2.73	60.3	48.0	1.52	2467	B
51X-4, 55-57	476.75								2459	B
51X-4, 55-57	476.75								2413	A
51X-4, 55-57	476.75								2444	A
51X-4, 55-57	476.75		1.2333						2406	B
51X-5, 1-10	477.71			1.99	2.67	47.5	32.4	0.91	2402	B
51X-5, 44-46	478.14								2363	A
51X-5, 44-46	478.14								2346	A
51X-5, 44-46	478.14								2524	A
51X-5, 44-46	478.14								2558	B
51X-CC, 2-4	479.01								2524	A
51X-CC, 2-4	479.01			1.85	2.72	54.8	43.7	1.21	2558	B
52X-1, 66-68	482.06								2334	A
52X-1, 66-68	482.06		1.1498						2372	A
52X-1, 74-80	482.14			1.97	2.71	49.8	35.0	0.99	2323	A
52X-2, 6-7	482.96								2326	A
52X-2, 6-7	482.96			1.81	2.76	62.8	55.4	1.69	2438	B
52X-2, 110-112	484.00								2387	B
52X-2, 110-112	484.00								2630	A
52X-2, 110-112	484.00								2615	A
52X-2, 110-112	484.00		1.1493						2747	B
52X-3, 35-42	484.75			2.01	2.64	54.0	38.0	1.18	2685	B
52X-3, 56-58	484.96								2198	A
52X-3, 56-58	484.96								2178	A
52X-3, 56-58	484.96								2598	A
52X-3, 107-109	485.47								2618	A
52X-3, 107-109	485.47			1.97	2.64	50.1	35.2	1.00	2648	B
52X-4, 20-22	486.10								2671	B
52X-4, 20-22	486.10								2390	A
52X-4, 20-22	486.10								2381	A
52X-4, 20-22	486.10								2738	A
52X-5, 8-9	487.48								2658	A
52X-5, 8-9	487.48			2.00	2.44	51.6	36.0	1.07	2744	B
52X-5, 51-53	487.91								2783	B
52X-5, 51-53	487.91									
52X-5, 51-53	487.91									
52X-5, 51-53	487.91									
52X-5, 54-64	487.94		1.2893							

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/m · °K)	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840B- (cont.)										
52X-6, 28-38	488.68		1.1894							
52X-6, 70-72	489.60			1.78	2.43	58.5	51.0	1.41	1905	A
52X-6, 70-72	489.60								1916	A
52X-6, 70-72	489.60								2476	B
52X-6, 70-72	489.60								2468	B
52X-CC, 6-8	490.80								2078	C
52X-CC, 6-8	490.80								2070	C
53X-1, 6-8	491.06								3002	A
53X-1, 26-28	491.26								2969	A
53X-1, 26-28	491.26								2516	B
53X-1, 26-28	491.26								2523	B
53X-1, 114-116	492.14								2794	C
53X-1, 114-116	492.14								2756	C
53X-1, 116-125	492.16		1.0702							
53X-2, 41-43	492.91			1.93	2.48	51.2	37.4	1.05	2676	A
53X-2, 41-43	492.91								2649	A
53X-2, 41-43	492.91								2700	B
53X-2, 41-43	492.91								2685	B
53X-3, 18-24	494.18		1.3392							
53X-3, 25-27	494.25			1.76	2.31	57.3	49.9	1.34	2125	A
53X-3, 25-27	494.25								2038	A
53X-3, 25-27	494.25								2185	B
53X-3, 25-27	494.25								2213	B
53X-3, 34-36	494.34								1860	C
53X-3, 34-36	494.34								1982	C
53X-4, 23-25	495.73			1.93	2.75	53.2	39.4	1.14		
53X-4, 61-63	496.11			1.82	2.59	56.0	45.9	1.27	2235	A
53X-4, 61-63	496.11								2232	A
53X-4, 61-63	496.11								2277	B
53X-4, 61-63	496.11								2292	B
53X-4, 90-92	496.40								2166	C
53X-4, 90-92	496.40								2182	C
53X-4, 111-113	496.61								2128	C
53X-4, 111-113	496.61								2118	C
53X-4, 129-131	496.79								2003	C
53X-4, 129-131	496.79								2041	C
53X-4, 143-145	496.93								1950	C
53X-4, 143-145	496.93								1954	C
53X-5, 5-7	497.05			1.72	2.38	71.7	74.7	2.53	1922	A
53X-5, 5-7	497.05								1915	A
53X-5, 5-7	497.05								2077	B
53X-5, 5-7	497.05								2004	B
53X-5, 21-23	497.21								1983	C
53X-5, 21-23	497.21								1998	C
54X-1, 36-38	501.06			1.80	2.57	60.2	52.1	1.51	2296	A
54X-1, 36-38	501.06								2226	A
54X-1, 36-38	501.06								2302	B
54X-1, 36-38	501.06								2265	B
54X-2, 2-4	502.13								2071	A
54X-2, 2-4	502.13								2058	A
54X-2, 107-109	503.18			1.87	2.50	53.5	41.5	1.15	2240	A
54X-2, 107-109	503.18								2205	A
54X-2, 107-109	503.18								2263	B
54X-2, 107-109	503.18								2182	B
54X-2, 110-120	503.30		1.1383							
54X-3, 77-79	504.34			1.91	2.72	51.6	38.2	1.07	2428	A
54X-3, 77-79	504.34								2409	A
54X-3, 77-79	504.3								2388	B
54X-3, 77-79	504.34								2389	B
55X-1, 117-119	511.57			1.60	2.30	66.1	73.0	1.95	1941	A
55X-1, 117-119	511.57								1903	A
55X-1, 117-119	511.57								1927	B
55X-1, 117-119	511.57								1943	B
55X-2, 67-69	512.54			1.58	2.35	68.7	80.6	2.20	2116	A
55X-2, 67-69	512.54								2097	A
55X-2, 67-69	512.54								2020	B
55X-2, 67-69	512.54								2067	B
55X-2, 100-113	512.90		1.0226							
55X-3, 79-81	513.83			1.95	2.67	61.2	47.4	1.58	2429	A
55X-3, 79-81	513.83								2417	A
55X-3, 79-81	513.83								2486	B
55X-3, 79-81	513.83								2433	B
55X-4, 20-22	514.68								2372	C
55X-4, 20-22	514.68								2369	C

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/[m · °K])	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840B- (cont.)										
				1.89	2.59	60.6	49.1	1.54	2203	A
55X-4, 78-80	515.26								2183	A
55X-4, 78-80	515.26								2305	B
55X-4, 78-80	515.26								2309	B
55X-4, 78-80	515.26									
55X-4, 112-119	516.02		1.2229							
56X-1, 14-25	520.14		1.0382							
56X-1, 33-35	520.53			1.66	2.74	64.6	66.0	1.82	2077	C
56X-1, 33-35	520.53								2114	B
56X-1, 33-35	520.53								2112	B
56X-1, 33-35	520.53								2100	A
56X-1, 33-35	520.53								2492	B
56X-1, 85-88	521.05			1.94	2.77	55.5	41.5	1.25	2468	B
56X-1, 85-88	521.05								2463	A
56X-1, 85-88	521.05								2448	A
56X-1, 85-88	521.05								2435	B
56X-1, 85-88	521.05								2453	B
56X-2, 54-56	522.20			2.01	2.22	61.6	45.9	1.61	2297	A
56X-2, 54-56	522.20								2353	A
56X-2, 54-56	522.20									
56X-2, 54-56	522.20									
56X-2, 54-56	522.20									
56X-3, 84-95	523.44		1.0372							
56X-3, 97-99	524.06			1.93	2.36	58.5	44.9	1.41	2444	A
56X-3, 97-99	524.06								2386	A
56X-3, 97-99	524.06								2462	B
56X-3, 97-99	524.06								2454	B
56X-3, 97-99	524.06								2356	A
56X-4, 3-5	524.62			1.76	3.36	66.6	63.4	2.00	2350	A
56X-4, 3-5	524.62								2362	B
56X-4, 3-5	524.62								2351	B
56X-4, 3-5	524.62								2066	A
56X-4, 3-5	524.62			1.62	2.72	65.8	71.3	1.93	2068	A
57X-1, 90-92	530.50								2120	B
57X-1, 90-92	530.50								2124	B
57X-1, 90-92	530.50									
57X-1, 90-92	530.50									
57X-1, 90-92	530.50									
57X-2, 17-29	531.27		1.2086							
57X-2, 31-33	531.41			1.86	2.19	60.3	49.8	1.52	2779	B
57X-2, 31-33	531.41								2740	B
57X-2, 31-33	531.41								2625	A
57X-2, 31-33	531.41								2612	A
57X-2, 31-33	531.41								2538	A
57X-3, 71-73	533.25			2.02	3.44	52.2	35.9	1.09	2499	A
57X-3, 71-73	533.25								2668	B
57X-3, 71-73	533.25								2652	B
57X-3, 71-73	533.25									
57X-3, 71-73	533.25									
57X-4, 34-50	534.44		1.0746							
57X-4, 98-100	534.92			1.74	2.48	65.4	62.5	1.89	2314	B
57X-4, 98-100	534.92								2216	B
57X-4, 98-100	534.92								2164	A
57X-4, 98-100	534.92								2120	A
57X-4, 98-100	534.92								2558	C
57X-5, 15-17	535.52			1.81	2.59	59.6	51.1	1.48	2521	C
57X-5, 15-17	535.52								2554	B
57X-5, 15-17	535.52								2561	B
57X-5, 15-17	535.52								2498	A
57X-5, 15-17	535.52								2463	A
57X-5, 15-17	535.52			1.80	2.69	63.1	55.9	1.71	2561	B
58X-1, 3-5	539.33								2594	B
58X-1, 3-5	539.33								2428	A
58X-1, 3-5	539.33								2450	A
58X-1, 3-5	539.33									
58X-1, 3-5	539.33									
58X-2, 131-133	541.99									
58X-2, 135-144	542.15		1.0713							
58X-3, 141-143	543.59			1.84	2.47	56.8	46.1	1.32	2439	C
58X-3, 141-143	543.59								2390	C
58X-3, 141-143	543.59								2456	B
58X-3, 141-143	543.59								2441	B
58X-3, 141-143	543.59								2442	A
58X-3, 141-143	543.59								2399	A
58X-3, 141-143	543.59								2229	A
58X-4, 109-111	544.77			1.83	2.71	62.4	53.6	1.66	2210	A
58X-4, 109-111	544.77								2421	A
58X-4, 109-111	544.77								2421	B
58X-4, 109-111	544.77								2355	B
58X-4, 109-111	544.77								2386	C
58X-4, 109-111	544.77									
58X-4, 118-126	544.98		1.0713							
58X-5, 95-96	546.07			1.58	2.44	70.9	85.0	2.44	2021	C
58X-5, 95-95	546.07								2069	A
58X-5, 95-95	546.07								2073	A
58X-5, 95-95	546.07								2037	B
58X-5, 95-95	546.07								2039	B

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/m · °K)	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840B- (cont.)										
59X-1, 54-63	549.54		1.1136							
59X-1, 64-66	549.64			1.80	2.46	56.3	47.2	1.29	2562	B
59X-1, 64-66	549.64								2561	B
59X-1, 64-66	549.64								2501	A
59X-1, 64-66	549.64								2493	A
59X-2, 78-80	551.28			2.01	2.49	47.0	31.5	0.89	2770	A
59X-2, 78-80	551.28								2809	A
59X-2, 78-80	551.28								2769	B
59X-2, 78-80	551.28								2752	B
59X-3, 10-19	552.10		1.1617							
60X-1, 4-6	558.74				2.55	49.5	34.0	0.98	2757	A
60X-1, 4-6	558.74								2745	A
60X-1, 4-6	558.74								2785	B
60X-1, 4-6	558.74								2761	B
60X-2, 1-12	560.21		1.0488							
60X-2, 108-110	561.28			2.09	2.54	45.9	29.0	0.85	2722	A
60X-2, 108-110	561.28								2741	A
60X-2, 108-110	561.28								2852	B
60X-2, 108-110	561.28								2842	B
60X-3, 133-135	563.03			1.93	2.61	56.0	42.4	1.27	2075	A
60X-3, 133-135	563.03								2044	A
60X-3, 133-135	563.03								2202	B
60X-3, 133-135	563.03								2202	B
60X-4, 56-58	563.76			1.74	2.40	61.4	56.7	1.59	2061	A
60X-4, 56-58	563.76								2175	B
60X-4, 56-58	563.76								2154	B
60X-5, 140-142	566.05			2.05	2.52	48.6	32.1	0.95	2583	A
60X-5, 140-142	566.05								2693	A
60X-5, 140-142	566.05								2670	B
60X-5, 140-142	566.05								2633	B
60X-6, 62-64	566.07			1.67	2.41	60.5	58.9	1.53	2131	A
60X-6, 62-64	566.77								2140	A
60X-6, 62-64	566.77								2261	B
60X-6, 62-64	566.77								2273	B
60X-6, 65-75	566.85		1.1328							
61X-1, 122-124	569.52			1.90	2.51	54.4	41.5	1.19	2303	A
61X-1, 122-124	569.52								2291	A
61X-1, 122-124	569.52								2137	B
61X-1, 122-124	569.52								2172	B
61X-2, 38-50	570.18		1.1951							
61X-2, 90-92	570.70			1.67	2.29	64.6	65.4	1.82	1987	A
61X-2, 90-92	570.70								1944	A
61X-2, 90-92	570.70								2032	B
61X-2, 90-92	570.70								2039	B
61X-3, 29-31	571.59			1.94	2.55	54.7	40.6	1.21	2304	B
61X-3, 29-31	571.59								2257	B
61X-3, 29-31	571.59								2205	A
61X-3, 29-31	571.59								2217	A
61X-4, 0-10	573.18		1.0139							
61X-4, 54-56	573.34			2.00	2.56	51.9	36.1	1.08	2424	B
61X-4, 54-56	573.34								2438	B
61X-4, 54-56	573.34								2365	A
61X-4, 54-56	573.34								2362	A
61X-5, 49-51	574.79			1.92	2.53	51.6	37.9	1.06	2460	A
61X-5, 49-51	574.79								2529	A
61X-5, 49-51	574.79								2496	B
61X-5, 49-51	574.79								2516	B
62X-1, 15-17	578.15			1.89	2.61	61.9	50.5	1.63	2447	A
62X-1, 15-17	578.15								2465	A
62X-1, 15-17	578.15								2460	B
62X-1, 15-17	578.15								2454	B
62X-1, 23-30	578.93		1.2193							
62X-2, 45-47	579.95			2.06	2.38	54.2	36.8	1.18	2725	B
62X-2, 45-47	579.95								2734	B
62X-2, 45-47	579.95								2794	A
62X-2, 45-47	579.95								2790	A
62X-3, 22-24	581.22			1.82	2.88	71.1	66.8	2.46	2453	B
62X-3, 22-24	581.22								2475	B
62X-3, 22-24	581.22								2226	A
62X-3, 22-24	581.22								2301	A
62X-4, 3-5	582.53			1.97	2.64	55.4	40.3	1.24	2735	B
62X-4, 3-5	582.53								2682	B
62X-4, 3-5	582.53								2607	A
62X-4, 3-5	582.53								2624	A

Table 13 (continued).

Core, section, interval (cm)	Depth (mbsf)	Su (kPa)	TC (W/m · °K)	Bulk density (g/cm ³)	Grain density (g/cm ³)	Porosity (%)	Water content (%)	Void ratio	V _p (m/s)	V _p dir. ^a
135-840B- (cont.)										
62X-5, 1-3	584.01			1.72	2.49	67.6	67.5	2.09	2178	A
62X-5, 1-3	584.01								2177	A
62X-5, 1-3	584.01								2304	B
62X-5, 1-3	584.01								2250	B
62X-5, 5-14	584.50		1.1003							
62X-6, 80-82	586.30			1.70	2.60	65.0	64.5	1.86	2216	A
62X-6, 80-82	586.30								2215	A
62X-6, 80-82	586.30								2324	B
62X-6, 80-82	586.30								2319	B
63X-1, 29-31	587.99			1.92	2.63	55.5	41.9	1.25	2600	A
63X-1, 29-31	587.99								2630	A
63X-1, 29-31	587.99								2679	B
63X-1, 29-31	587.99								2674	B
63X-1, 48-58	588.18		1.1300							
63X-2, 47-49	589.67			1.74	2.47	62.0	57.5	1.63	2479	C
63X-2, 47-49	589.67								2532	C
63X-2, 47-49	589.67								2510	B
63X-2, 47-49	589.67								2463	B
63X-3, 57-66	589.77		1.1080							
63X-3, 14-16	590.84			1.60	2.46	69.4	80.2	2.27	2244	C
63X-3, 14-16	590.84								2188	B
135-840C-										
1H-2, 10-12	40.00			1.66	2.25	61.9	61.5	1.6		
1H-2, 93-95	40.83			1.81	2.58	57.5	48.2	1.4		
1H-2, 127-129	41.17			1.73	2.67	67.5	66.4	2.1		
1H-2, 140-142	41.30								1609.6	A
2H-1, 4-6	47.54			2.05	2.38	32.9	19.6	0.5		
2H-1, 18-20	47.68			1.55	2.48	66.5	78.0	2.0		
2H-CC, 1-3	48.03			1.67	2.54	64.7	65.9	1.8		
3H-1, 3-5	57.03			1.67	2.46	65.6	67.3	1.9	1637.1	A
3H-1, 59-61	57.59			1.63	2.51	69.1	76.7	2.2		
3H-2, 6-8	58.56								1906.3	C
3H-2, 115-117	59.65			1.62	2.51	63.9	68.2	1.8	1731.4	C
3H-3, 4-6	59.90			1.87	2.57	51.4	39.4	1.1	1585.8	A
3H-4, 130-132	62.66			1.80	2.64	54.2	44.6	1.2		
4H-1, 28-29	66.78			1.57	2.52	68.0	79.4	2.1	1566.7	A
4H-1, 53-55	67.03			1.43	2.42	73.4	110.6	2.8	2121.8	C
4H-2, 100-102	69.00			1.73	2.71	62.7	59.2	1.7	1568.5	A
4H-3, 35-37	69.85			1.64	2.65	67.8	73.6	2.1	1500.1	A
4H-3, 110-111	70.60			1.57	2.49	69.5	83.3	2.3	1619.8	C
4H-3, 132-134	70.82			1.43	2.42	73.3	110.4	2.7		
4H-4, 13-15	71.13			1.54	2.43	70.2	87.8	2.4	1666.9	C
4H-4, 51-53	71.51			1.74	2.60	63.0	59.1	1.7		
4H-4, 97-99	71.97			1.54	2.55	63.2	72.6	1.7	1539.5	C
4H-4, 126-128	72.26			1.36	2.23	80.7	154.2	4.2	1600.8	C
5H-1, 86-88	124.86			1.68	2.67	62.3	61.2	1.6	1544.5	C
5H-1, 131-133	125.31			1.72	2.65	60.8	56.9	1.5	1575.3	C
5H-2, 68-70	126.18			1.53	2.38	68.0	83.6	2.1		
6H-3, 64-66	137.14			1.59	2.58	63.0	68.6	1.7	1648.2	C
7H-1, 20-22	143.20			1.70	2.61	63.4	62.0	1.7		
7H-2, 57-59	145.07			1.74	2.49	58.6	52.6	1.4	1518.2	A
7H-3, 10-12	146.10			1.79	2.59	57.0	48.5	1.3	1535.7	C
7H-3, 35-37	146.35			1.62	2.50	65.7	70.8	1.9	1534.3	A
8H-1, 106-108	153.56			1.62	2.36	62.9	66.2	1.7	1615	C
8H-1, 109-110	153.59			1.43	2.13	83.4	147.4	5.0	2165.3	A
9H-1, 26-28	162.26			1.57	2.55	67.5	78.8	2.1		
9H-1, 123-124	163.23			1.75	2.58	64.3	60.2	1.8	1794.6	A
10H-1, 35-36	171.85			2.17	2.75	40.2	23.4	0.7		
10H-1, 52-53	172.02			1.81	2.59	58.8	49.7	1.4		
10H-7, 5-6	175.90			1.52	2.40	70.3	89.8	2.4		
10H-CC, 3-5	176.53			1.65	2.30	64.9	67.4	1.9		
11H-1, 60-61	181.60			1.46	2.44	76.6	116.0	3.3		
11H-1, 86-88	181.86			1.48	2.27	79.0	121.1	3.8		
12H-1, 45-47	190.95			1.61	2.46	68.6	77.8	2.2		
12H-2, 45-47	192.45			1.40	2.32	80.7	143.6	4.2		
12H-3, 45-47	193.95			1.53	2.36	72.8	94.9	2.7		
13H-1, 67-68	250.67			1.71	2.63	61.8	59.0	1.6		
13H-5, 35-37	253.00			1.62	2.52	68.5	76.6	2.2		

Notes: Su = undrained vane shear strength, TC = thermal conductivity, V_p = compressional P-wave (logger) velocity, and V_p dir. = velocity direction, where A is the vertical velocity along the core, B is the horizontal velocity parallel to the cut core face, and C is the horizontal velocity perpendicular to the core face. The complete table is given in back-pocket microfiche.