

MARINE GEOLOGICAL STUDIES IN THE EASTERN
IRISH SEA AND ADJACENT ESTUARIES, WITH
SPECIAL REFERENCE TO SEDIMENTATION IN
LIVERPOOL BAY AND RIVER MERSEY.

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VOLUME TWO

Thesis submitted to the University of Liverpool
for the degree of Doctor of Philosophy in
Geology in December 1966.

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VOLUME II

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APPENDIX I

LIST OF ECHO TRACES

<u>Number</u>	<u>Date</u>	<u>Survey Area and Line Code</u>
1	4.3.64	River Mersey, 4.0-4.E-4.9-1.84
2	4.3.64	River Mersey, 1.84-1.8-1.7-1.6-1.0-1.1- Princes stage
3	5.3.64	River Mersey, 2.0-2.87-Princes stage
4	6.3.64	River Mersey, Victoria tower - Wallasey stage - Princes stage
5	13.5.64	Liverpool Bay, P9-P14
6	13.5.64	Liverpool Bay, N23-N14
7	15.5.64	Liverpool Bay, M7-M15
8	15.5.64	Liverpool Bay, M15-L17-L3
9	19.5.64	Liverpool Bay, K5-K19
10	19.5.64	Liverpool Bay, K19-J18-J4
11	19.5.64	Liverpool Bay, J4-H7-H11
12	20.5.64	Liverpool Bay, H11-H20
13	20.5.64	Liverpool Bay, H20-G15-H18-H16-West Rhy1 buoy-N.v. patch buoy-G13-G7-F8
14	20.5.64	Liverpool Bay, F8-F14-E13-E9
15	21.5.64	Liverpool Bay, K7-M3
16	21.5.64	Liverpool Bay, M3-N8-N13-N14
17	21.5.64	Liverpool Bay, N14-P9-P4
18	21.5.64	Liverpool Bay, J2 buoy-Horse buoy-D11 D8-E7-E9-C8-R1 buoy-B6-Rip Rap buoy
19	22.5.64	Liverpool Bay, E12-E22-F21
20	22.5.64	Liverpool Bay, F21-West Rhy1 buoy-F19-g-h-j-F17-a-b-c-d-F15-F14
21	22.5.64	Liverpool Bay, F14-e-f (in Queens channel)
22	22.5.64	Outer channel, f (in Queens channel) - Q2 buoy-B2 buoy-Princes stage
23	17.6.64	Liverpool Bay, T11-T1
24	17.6.64	Liverpool Bay, T1-S1-S6-T11
25	17.6.64	Liverpool Bay, S3-a (on echo survey (D))-c (on echo survey (D))
26	18.6.64	Liverpool Bay, line R-Q14-R6-R1-Q2-interlines R and Q
27	18.6.64	Liverpool Bay, Q2-Q14

28	18.6.64	Liverpool Bay, Q6 buoy-c (on echo survey (D))
29	18.6.64	Liverpool Bay, c-f (on echo survey (D))
30	14.7.64	Liverpool Bay, x-s (on echo survey (C))
31	14.7.64	Liverpool Bay, f-k (on echo survey (D))
32	14.7.64	Liverpool Bay, k-p (on echo survey (D))
33	6.8.64	River Mersey survey
34	6.8.64	River Mersey survey
35	24.8.64	River Mersey survey
36	4.9.64	River Dee, welshmans channel-Hilbre swash
37	4.9.64	Liverpool Bay, D5-E5
38	13.10.64	River Dee, Hilbre swash
39		Copy of echo trace by F.T. Howell covering his geophysical surveys 15, 16 and 17 in Liverpool Bay
40- 45	24.2.65	Sand wave survey, Group Alpha
46- 57	10.3.65	Sand wave survey, Group Beta
58- 72	11.3.65	Sand wave survey, Group Gamma
73- 75	11.5.65	Sand wave survey, Eastham Channel
76	5.4.65	Bar Light Liverpool - Douglas Head I.O.M.
77	6.4.65	Douglas Head I.O.M. - Bar Light Liverpool
78	9.4.65	Bar Light Liverpool - Douglas Head I.O.M.
79	10.4.65	Douglas Head I.O.M. - Bar Light Liverpool
80	28.4.65	Bar Light Liverpool - 5°W meridian, towards Dublin
81	29.4.65	5°W meridian, from Dublin - Bar Light Liverpool
82	3.5.65	Bar Light Liverpool - 5°W meridian, towards Dublin
83	3.5.65	Bar Light Liverpool - Belfast
84	6.5.65	Belfast - Bar Light Liverpool
85	7.5.65	Bar Light Liverpool - Belfast
86	8.5.65	Belfast - Bar Light Liverpool
87	7.5.65	Bar Light Liverpool - 5°W meridian, towards Dublin

88	8.5.65	5 ⁰ W meridian, from Dublin - Bar Light Liverpool
89	12.5.65	Bar Light Liverpool - 5 ⁰ W meridian, towards Dublin
90	13.5.65	Dublin - Bar Light Liverpool
91	10.5.65	Bar Light Liverpool - Belfast
92	11.5.65	Belfast - Bar Light Liverpool
93	12.5.65	Bar Light Liverpool - Belfast
94	13.5.65	Belfast - Bar Light Liverpool
95	20.5.65	Liverpool Bay, interline between E and D,k-y
96	20.5.65	Liverpool Bay, F14-F21
97	14.5.65	River Mersey, Garston Channel
98	14.5.65	Bar Light Liverpool - Belfast
99	15.5.65	Belfast - Bar Light Liverpool
100	17.5.65	Bar Light Liverpool - Belfast
101	18.5.65	Belfast - Bar Light Liverpool
102	19.5.65	Bar Light Liverpool - Dublin
103	21.6.65	Sand wave survey - Group Alpha
104	22.6.65	River Mersey, Garston channel
105	26.7.65	Sand wave survey, Pluckington Bank
106	27.7.65	Sand wave survey, Pluckington Bank
107	28.7.65	Sand wave survey, Pluckington Bank
108	2.8.65	Sand wave survey, Pluckington Bank
109	12.7.65	Sand wave survey, Group Alpha
110	13.7.65	Sand wave survey, Group Epsilon
111	14.7.65	Sand wave survey, Group Zeta
112	14.7.65	Sand wave survey, Group Eta
113	15.7.65	Sand wave survey, Group Delta
114	13.4.66	Outer channel, Askew spit Q18 buoy-C13 buoy
115	28.4.66	Sand wave survey, Group Beta
116	29.4.66	Sand wave survey, Group Gamma
117	4.5.66	Liverpool Bay, Rock channel
118	13.5.66	Outer channel, Askew spit Q13 buoy-C17 buoy

119	13.5.66	Liverpool Bay, Askew spit - Zebra flats
120	13.5.66	Liverpool Bay, Formby channel
121	10.6.66	Outer channel, Askew spit Q13 buoy- C15 buoy
122	10.6.66	Liverpool Bay and Outer channel survey
123	13.6.66	Sand wave survey, Group Alpha
124	16.6.66	River Mersey 9.5-8a.2/Sm2
125	29.6.66	River Mersey and Outer channel survey, made in conjunction with Transit Sonar survey
126	30.6.66	Outer channel and Liverpool Bay survey, made in conjunction with Transit Sonar survey
127	29.6.66) 30.6.66)	Original Transit Sonar records of Liverpool Bay, River Mersey and Outer channel areas
128	27.7.65	Roll 1 Irish Sea special survey
129	27.7.65	Roll 2 Irish Sea special survey
130	9.8.65	Roll 1 Irish Sea special survey
131	9.8.65	Roll 2 Irish Sea special survey
132	9.8.65	Roll 3 Irish Sea special survey
133	6.5.66	River Mersey "fill in" survey runs

APPENDIX II

SAMPLE LOCATIONS

<u>Sample No.</u>	<u>Location</u>	<u>Decca Hi-Fix</u>		<u>National Grid</u>
		<u>Pattern I</u>	<u>Pattern II</u>	
		<u>Red</u>	<u>Green</u>	
B1			SH783826	
B2			SH783827	
B3			SH784827	
B4			SH796822	
B5			SH796822	
B6			SH796823	
B7			SH826817	
B8			SH826818	
B9			SH827819	
B10			SH843801	
B11			SH844801	
B12			SH845801	
B13			SH858789	
B14			SH858790	
B15			SH859791	
B16			SJ907787	
B17			SJ907787	
B18			SJ907788	
B19			SJ941786	
B20			SJ941788	
B21			SJ940789	
B22			SJ985807	
B23			SJ984808	
B24			SJ983809	
B25			SJ047833	
B26			SJ047834	
B27			SJ046836	
B28			SJ117853	
B29			SJ116854	
B30			SJ116857	
B31			SD341191	
B32			SD339192	
B33			SD336194	
B34			SD328180	
B35			SD327181	
B36			SD325182	
B37			SD318164	
B38			SD317165	
B39			SD312167	

B40		SD306171
B41		SD298129
B42		SD297130
B43		SD294132
B44		SD290134
B45		SD274081
B46		SD272082
B47		SD271082
B48		SD268082
B49		SD266083
B50		SD272065
B51		SD271064
B52		SD268062
B53		SD265061
B54		SD263059
B55		SJ307991
B56		SJ304990
B57		SJ303988
B58		SJ301987
B59		SJ214894
B60		SJ212896
B61		SJ210899
B62		SJ257917
B63		SJ255919
B64		SJ255923
B65		SJ289938
B66		SJ288940
B67		SJ286943
B68		SJ284946
B69	} South Shore, Blackpool	
B70		
B71		
B72		
B73		SJ131584
B74		SJ137614
B75		SJ121645
B76		SH628796
B77		SH528800
B78		SH534821
B79		SH532814
B80		SJ315966
B81		SJ317966
B82		SJ318967
B83		SJ323968
B84		SJ307975

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B128

SJ310978
SJ313981
SJ297990
SJ301992
SJ304994
SD293007
SD298009
SD296025
SD296020
SD291006
SD275049
SD277050
SD280053
SD278031
SD283035
SD289040
SD256065
SD264066
SD269067
SD261085
SD268083
SD271083
SD270089
SD267102
SD273099
SD276098
SD274106
SD277104
SD278103
SD285122
SD287121
SD289119
SD296145
SD300142
SD303140
SD302159
SD307157
SD310154
SD312172
SD316170
SD318168
SD324182
SD326181
SD327180

B129-
 B155
 B156
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 B176
 B177
 B178
 B179
 B180
 B181
 B182
 B183
 B184 - B231 not used
 B232
 B233
 B234
 64M1 4.01
 M2 4.E
 M3 4.9
 M4 1.84
 M5 1.8
 M6 1.7
 M7 1.6
 M8 1.01
 M9 1.1
 M10 4.1
 M11 4.2

SJ304944
 SD283022
 SJ297944
 SJ297944
 SJ297942
 SJ282936
 SJ283935
 SJ284934
 SJ268926
 SJ270925
 SJ271923
 SJ254920
 SJ255918
 SJ256917
 SJ238920
 SJ240915
 SJ241912
 SJ220917
 SJ224909
 SJ227905
 SJ203903
 SJ208899
 SJ213893
 SJ194877
 SJ200878
 SJ207880
 SJ205863
 SJ207864
 SJ209865
 SJ220851
 SJ219851
 SJ217849
 SJ33659035
 SJ32858990
 SJ32908995
 SJ31309445
 SJ31359450
 SJ31459460
 SJ31659470
 SJ32409515
 SJ32309510
 SJ33559030
 SJ33459025

M12	4.3			SJ33409020
M13	4.6			SJ32958995
M14	1.2			SJ32159500
M15	1.3			SJ32059495
M16	2.05			SJ33009370
M17	2.1			SJ32959365
M18	2.88			SJ31759290
M19	2.78			SJ31909300
M20	2.7			SJ32009305
M21	2.6			SJ32209320
M22	2.5			SJ32359325
M23	2.4			SJ32509340
M24	4.7			SJ33059000
M25	4.6			SJ33109005
M26	4.5			SJ33209010
M27	4.4			SJ33309015
M28	4.34			SJ33359020
M29	3.3			SJ33009185
M30	3.4			SJ32909180
M31	3.5			SJ32809170
M32	3.6			SJ32659165
M33	3.2			SJ33109190
M34	2.2			SJ32809355
M35	2.3			SJ32659345
M36	J.4	11940	14367	
M37	K.5	11892	17387	
M38	H.6	12302	12185	
M39	H.5	13145	11096	
M40	G.4	13185	08755	
M41	F.4	11858	07435	
M42	F.3	12232	06957	
M43	E.3	10310	05862	
M44	D.3	08482	04850	
M45	C.3	06690	03706	
M46	B.2	04917	02128	
M47	A.3	03119	01074	
M48	1.5			SJ31759475
M49	1.4			SJ31909485
M50	3.7			SJ32559160
M51	3.8			SJ32459150
M52	5.9			SJ33258825
M53	5.8			SJ33358835
M54	5.5			SJ33708860
M55	5.4			SJ33858865
M56	5.3			SJ33958870

M57	5.6			SJ33608850
M58	5.7			SJ33508840
M59	6.4			SJ34558725
M60	6.5			SJ34458715
M61	P.9	11556	28542	
M62	P.10	10220	36690	
M63	P.11	09320	45620	
M64	P.12	08675	54840	
M65	P.13	08220	64150	
M66	P.14	08004	69091	
M67	N.23			SH75108505
M68	N.22	07910	66000	
M69	N.21	08010	63070	
M70	N.20	08050	62200	
M71	N.19	08090	61110	
M72	N.18	08270	57210	
M73	N.17	08750	48530	
M74	N.16	09660	37740	
M75	N.15	10600	30910	
M76	N.14	11900	24640	
M77A)	P.8	13450	21480	
M77B)				
M78	M.7	18500	13250	
M79	1a.6			SJ31859445
M80	1a.4			SJ32109460
M81	1a.2			SJ32359480
M82	1b.6			SJ31959415
M83	1b.2			SJ32459445
M84	1b.4			SJ32209430
M85	1c.4			SJ32309400
M86	1d.4			SJ32409370
M87	1c.2			SJ32609415
M88	6.3			SJ34708730
M89	6.1			SJ34908745
M90	6.0			SJ35008750
M91	6.2			SJ34758740
M92	9.1			SJ38808430
M93	9.2			SJ38508410
M94	9.3			SJ38208390
M95	9.4			SJ37958375
M96	9.5			SJ36758350
M97	9.6			SJ37358335
M98	9.7			SJ37058315
M99	9.8			SJ36808300
M100	8.44			SJ36858490

M101	8.5			SJ36658480
M102	8.6			SJ36458465
M103	8.7			SJ36208450
M104	8.8			SJ36008435
M105	8.9			SJ35808420
M106	7.7			SJ35158575
M107	7.6			SJ35358585
M108	7.5			SJ35508595
M109	M.8	12300	21210	
M110	M.9	10750	27260	
M111	M.10	09680	34030	
M112	M.11	08770	44810	
M113	M.12	08060	55700	
M114	M.13	07900	59590	
M115	M.14	07750	63440	
M116	M15	07620	67610	
M117	L.17	07400	66290	
M118	L.16	07540	61830	
M119	L.15	07670	58000	
M120	L.14	07740	56060	
M121	L.13	07820	54150	
M122	L.12	08090	48500	
M123	L.11	08350	43970	
M124	L.10	08610	40320	
M125	L.9	08940	36520	
M126	L.8	09770	29550	
M127	L.7	11090	22920	
M128	L.6	11950	19970	
M129	L.5	12970	17330	
M130	L.4	14180	14840	
M131	L.3	15370	12830	
M132	K.6	11530	18780	
M133	K.7	11060	20190	
M134	K.8	10620	21790	

M135	K.9	10260	23330
M136	K.10	25000	09920
M137	K.11	08480	36510
M138	K.12	17800	47360
M139	K.13	07630	51090
M140	K.14	07560	52920
M141	K.15	07480	54800
M142	K.16	07420	56770
M143	K.17	07320	60000
M144	K.18	07250	62140
K145	K.19	07200	63900
M146	J.18	07070	58910
M147	J.17	07170	55230
M148	J.16	07230	53390
M149	J.15	07290	51500
M150	J.14	07360	49610
M151	J.13	07430	47720
M152	J.12	07510	45780
M153	J.11	07600	43960
M154	J.10	07700	42000
M155	J.9	07900	38390
M156	J.8	18480	31050
M157	J.7	09130	25700
M158	J.6	10080	20760
M159	J.5	10890	17780
M160	H.7	11450	13560
M161	H.8	11130	14240
M162	H.9	10840	14920
M163	H.10	10390	16140
M164	H.11	09870	17820
M165	G.8	09570	15080
M166	H.12	18820	22700
M167	H.13	08370	26120
M168	H.14	08000	29810

M169	H.15	07620	35270
M170	H.16	07130	46410
M171	H.17	07070	48300
M172	H.18	07000	50230
M173	H.19	06910	53890
M174	H.20	06840	56400
M175	G.15	06660	51080
M176	G.13	06960	39910
M177	G.12	07400	30650
M178	G.11	08040	23310
M179	G.10	08510	19880
M180	G.9	08800	18260
M181	G.7	10650	12270
M182	F.8	09650	10860
M183	F.9	09110	12320
M184	F.10	08680	13760
M185	F.11	08310	15440
M186	F.12	08000	17120
M187	F.13	07760	18830
M188	F.14	07390	22350
M189	E.12	06950	18020
M190	E.11	07120	16270
M191	E.10	07310	14600
M192	E.9	07680	12350
M193	N.10	14620	16820
M194	M.6	13785	17290
M195	F.5	14310	16120
M196	F.4	15250	14060
M197	F.3	15825	12320
M198	N.8	15845	13110
M199	N.9	15380	14860
M200	N.11	14130	18000
M201	N.12	13650	19200

M202	N.13	12760	21800
M203	P.7	14510	18400
M204	P.6	15400	15840
M205	P.5	15740	14530
M206	P.4	15855	13850
M207	D.11	06370	12870
M208	D.10	06550	11150
M209	D.9	06760	09600
M210	D.8	07060	08090
M211	E.7	08300	09870
M212	E.8	07900	11340
M213	C.8	05360	09630
M214	B.6	04000	04660
M215	F.21	06400	48280
M216	F.19	06550	40820
M217	F.17	06700	35300
M218	F.15	07120	25920
M219	S.3	13340	26860
M220	S.4	12100	32710
M221	S.5	11090	39050
M222	S.6	10290	45670
M223	T.11	10350	47760
M224	T.10	10720	44440
M225	T.9	11120	41190
M226	T.8	11590	37900
M227	T.7	12080	34810
M228	T.6	12630	31840
M229	T.5	13230	29000
M230	T.4	13840	26320
M231	T.3	14430	23930
M232	T.2	15000	21650
M233	T.1	15450	19600
M234	S.1	15635	17750

M235	S.2	14640	21940	
M236	Q.6	13650	22500	
M237	Q.7	12880	25200	
M238	Q.8	12190	28070	
M239	Q.9	11550	31210	
M240	Q.10	10980	34420	
M241	Q.11	10500	37760	
M242	Q.12	10090	41210	
M243	Q.13	09730	44770	
M244	Q.14	09410	48340	
M245	R.6	10210	43380	
M246	R.5	11060	36600	
M247	R.4	12170	30310	
M248	R.3	13500	24630	
M249	R.2	14880	19840	
M250	R.1	15795	16000	
M251	Q.2	15905	14300	
M252	Q.3	15650	15940	
M253	Q.4	15150	17830	
M254	Q.5	14420	20140	
M255	1c.6			SJ32009380
M256	2a.6			SJ32259285
M257	2a.2.8			SJ32759315
M258A	2b.4			SJ32659275
M258B	2b.4.1			
M259	2b.6			SJ32409255
M260A	2c.6			SJ32459220
M260B	2c.6			
M261	2c.4			SJ32759240
M262	2c.2			SJ32959255
M263	2d.3.8			SJ32809205
M264	2d.6			SJ32559195
M265	2d.2			SJ33009225
M266	6a.2			SJ35008710
M267	6a.4			SJ34758700

M268	6a.6	SJ34558685
M269	6a.8	SJ34308670
M270	6b.8	SJ34458640
M271	6b.2	SJ35258695
M272	6b.4	SJ35008675
M273	6b.6	SJ34758655
M274	7.4	SJ35658605
M275	7.3	SJ35858615
M276	7.2	SJ36008625
M277	7.1	SJ36158635
M278	7.03	SJ36308645
M279	7a.2	SJ36258605
M280	7a.4	SJ35908580
M281	7a.6	SJ35608560
M282	7a.8	SJ35208535
M283	7b.8	SJ35408510
M284	7b.6	SJ35808535
M285	7b.4	SJ36158560
M286	7b.2	SJ36558585
M287	7c.4	SJ36458540
M288	7c.6	SJ36008515
M289	7c.8	SJ35608490
M290	7d.8	SJ35858465
M291	7d.6	SJ36258490
M292	6c.8	SJ34658615
M293	6c.6	SJ34958635
M294	6c.4	SJ35208650
M295	6d.4	SJ35458625
M296	6d.6	SJ35108605
M297	6d.8	SJ34808585
M298	5a.8	SJ33508805
M299	5a.6	SJ33758820
M300	5a.4	SJ33958835
M301	5b.4	SJ34108805

M302	5b.6	SJ33908795
M303	5b.8	SJ33708780
M304	5c.8	SJ33858755
M305	5c.6	SJ34058770
M306	5c.4	SJ34258780
M307	5c.2	SJ34508795
M308	5d.3.4	SJ34408750
M309	5d.6	SJ34208740
M310	5d.8	SJ34008725
M311	5d.2	SJ34658765
M312	5b.2	SJ34308820
M313	5a.2	SJ34208850
M314	5.2	SJ34058875
M315	4d.2	SJ33958905
M316	6c.2	SJ35503670
M317	6d.2	SJ35758645
M318	7c.2	SJ36808565
M319	7d.4	SJ36708515
M320	10.9	SJ37158135
M321	near M99 between Garston and Eastham line	SJ36658305
M322	3a.4	SJ33009145
M323	3a.6	SJ32859135
M324	3b.6	SJ32909105
M325	3b.4	SJ33059110
M326	3b.2	SJ33209125
M327	3c.2	SJ33259090
M328	3c.8	SJ32859060
M329	3c.4	SJ33159080
M330	3c.6	SJ32959070
M331	1d.2	SJ32709385
M332	2a.2	SJ32859320
M333	2a.4	SJ32559305
M334	2b.2	SJ32959290

M335	4d.8			SJ33308865
M336	4c.8			SJ33258900
M337	4b.8			SJ33208935
M338	4a.8			SJ33058965
M339	3d.8			SJ32859025
M340	3b.8			SJ32709095
M341	3a.8			SJ32659125
M342	2d.8			SJ32309160
M343	2c.8			SJ32209205
M344	3.1			SJ33209195
M345	2b.8			SJ32109240
M346	2a.8			SJ32009270
M347	1d.8			SJ31759325
M348	1a.0			SJ32609495
M349	2a.0			SJ33109340
M350	2d.0			SJ33209235
M351	3a.2			SJ33159155
M352	4c.2			SJ33908940
M353	4b.2			SJ33808970
M354	4b.4			SJ33608960
M355	4d.4			SJ33708895
M356	4d.6			SJ33508885
M357	4c.6			SJ33508915
M358	4c.4			SJ33658930
M359	4b.6			SJ33408950
M360	4a.6			SJ33258975
M361	4a.4			SJ33408985
M362	4a.2			SJ33608995
M363	3d.6			SJ33009035
M364	3d.2			SJ33359055
M365	F.22	63220	53480	
M366	G.16	65520	56260	
M367	H.20	68250	56900	

M368	J.19	70210	60610	
M369	E.24	60530	51000	
M370	E.23	60780	48710	
M371	D.21	57730	46140	
M372	E.22	61080	45830	
M373	D.20	57860	42500	
M374	D.19	58050	38870	
M375	E.21	61680	40250	
M376	E.16	65190	25330	
M377	E.17	64470	27220	
M378	E.18	63780	29190	
M379	D.17	58770	29430	
M380	F.16	68270	31480	
M381	N.2			SD26551410
M382	N.7			SD26001565
M383	P.3			SD26551760
M384	Q.1			SD25701885
M385	N.6			SD27501635
M386	N.5			SD28851715
M387	M.1			SD29301565
M388	P.2			SD29401910
M389	P.1			SD30751990
M390	N.3			SD31651865
M391	N.4			SD30301790
M392	G.14	67890	45490	
M393	F.20	64810	43720	
M394	E.20	62230	36440	
M395	F.18	66180	37860	
M396	E.19	62910	32870	
M397	C.19	54160	31820	
M398	C.18	53710	28090	
M399	C.17	53680		
M400	C.16	53650	24350	

M401	D.16	59190	25660	
M402	B.3	04982	02586	
M403	1c.E			SJ31459345
M404	1c.8			SJ31709360
M405	1b.8			SJ31659395
M406	1a.E			SJ31309410
M407	1.E			SJ31059435
M408	3b.0			SJ33409130
M409	3a.0			SJ33309165
M410	3.0			SJ33309200
M411	2c.0			SJ33209270
M412	2b.0			SJ33159305
M413	1b.0			SJ32759465
M414	1c.0			SJ32909435
M415	1d.0			SJ33009405
M416	1b.E			SJ31409380
M417	K.4	13346	14705	
M418	K.3	14695	12532	
M419	L.2			SD25301125
M420	L.1			SD27651280
M421	K.1			SD26401010
M422	K.2	15561	11188	
M423	J.1	15770	09669	
M424	J.2	15200	10512	
M425	J.3	13595	12461	
M426	H.4	14590	10082	
M427	H.3	14556	09622	
M428	H.2	15055	09200	
M429	H.1	15561	08783	
M430	G.1	14950	07600	
M431	G.2	14427	07959	
M432	G.3	13851	08364	
M433	G.6	11505	10852	

M434	G.5	12371	09757
M435	F.7	10421	09584
M436	X.1	08960	09715
M437	C.7	56180	08010
M438	C.6	05778	06495
M439	D.6	07814	06392
M440	D.5	08169	05794
M441	E.5	09561	07444
M442	F.5	11600	08021
M443	F.6	11200	08495
M444	E.6	09050	08371
M445	B.8	42650	07900
M446	A.8	30890	74710
M447	B.7	41995	06280
M448	A.7	25710	38440
M449	B.5	04230	03992
M450	B.4	04551	02879
M451	C.5	06071	05050
M452	D.7	07610	06905
M453	B.17	48560	24770
M454	A.13	42780	22640
M455	RD1.4		
M456	A.12	41690	20720
M457	A.10.5	39540	16950
M458	A.10.5	39540	16950
M459	RD1.2.3		
M460	C.2	07111	03421
M461	D.2	08992	04498
M462	E.2	11046	05647
M463	E.4	10208	06556
M464	D.4	08468	05305
M465	C.4	06513	04158
M466	A.2	03629	01023

SJ15808535

SJ17908665

M467	3d.F			SJ32659010
M468	3d.0			SJ33509055
M469	3c.0			SJ33409100
M470	4a.0			SJ33759005
M471	A.4	02830	01377	
M472	A.5	02558	01748	
M473	RD1.2			SJ18408690
M474	RD2.2			SJ18708530
M475	RD2.3			SJ17408455
M476	RD3.2			SJ19708395
M477	RD3.1			SJ21058480
M478	RD4.1			SJ21958335
M479	RD4.2			SJ20458255
M480	RD4.3			SJ19058175
M481	RD4.4			SJ17758095
M482	RD3.4			SJ16958235
M483	RD3.3			SJ18308315
M484	RD1.3			SJ17058610
M485	B.16	48440	22870	
M486	RD1.5			SJ14408460
M487	RD2.4			SJ16058370
M488	RD2.5			SJ14758285
M489	RD1.6			SJ13208390
M490	A.11	40800	19110	
M491	RD2.1			SJ20058605
M492	Hilbre Swash	35650	17400	
M493	D.18	58440	33210	
M494	E.15	66320	23600	
M495	D.15	59690	21910	
M496	C.13	53410	19790	
M497	B.12	45650	15230	
M498	C.11	53980	14829	
M499	D.14	61370	18400	

M500	E.13	68510	19820	
M501	E.14	67330	21667	
M502	C.14	53510	20630	
M503	C.15	53520	22490	
M504	B.15	47630	21090	
M505	B.14	46950	19090	
M506	B.13	46210	17150	
M507	B.11	44860	13330	
M508	A.10	38420	15096	
M509	C.10	54280	13086	
M510	C.9	54700	11330	
M511	D.13	62710	16595	
M512	C.12	53855	16867	
M513	D.12	63700	14700	
M514	B.9	43890	09738	
M515	B.10	44200	11500	
M516	1d.E			SJ31509310
M517	2a.E			SJ31709250
M518	2.E			SJ31609280
M519	2b.E			SJ31859220
M520	2c.E			SJ31959195
M521	2d.E			SJ32109165
M522	A.6	02485	02329	
M523	1a.8			SJ31559425
M524	3.E			SJ32259140
M525	3.9			SJ32359145
M526	3a.E			SJ32459115
M527	3b.E			SJ32609080
M528	3c.E			SJ32659050
M529	10.8			SJ37508160
M530	11.8			SJ38608040
M531	11.9			SJ38258020
M532	11.E			SJ37857995
M533	10.E			SJ36908115

M534	10.0			SJ40158330
M535	10.1			SJ39908310
M536	11.1			SJ41208210
M537	11.0			SJ41558230
M538	10.8			SJ39508285
M539	10.5			SJ38508220
M540	10.6			SJ38158200
M541	8a.2			SJ37058105
M542	10.7			SJ37858180
M543	11.2			SJ40858185
M544	11.3			SJ40458160
M545	11.4			SJ40108135
M546	12.4			SJ41708050
M547	12.3			SJ42058070
M548	12.2			SJ42458095
M549	12.1			SJ42858120
M550	12.0			SJ43258145
M551	10.3			SJ39208265
M552	8.1			SJ37558540
M553	8.0			SJ37808550
M554	7b.0			SJ36958610
M555	7a.0			SJ36608625
M556	9.0			SJ39058450
M557	Ro.14	03545	02028	
M558	Ro.13	03155	01940	
M559	Ro.12	02790	01855	
M560	Ro.1	02079	00605	
M561	Ro.2	02105	00798	
M562	Ro.3	02171	00995	
M563	Co.1	12455	13600	
M564	Co.2	12300	13525	
M565	Co.3	12135	13450	
M566	Co.4	11965	13380	
M567	Co.5	11795	13300	

M568	Co.10	12820	10120	
M569	Co.9	12975	10180	
M570	Co.8	13160	10240	
M571	Co.7	13320	10295	
M572	Co.6	13455	10375	
M573	Co.11	11935	06530	
M574	Co.12	11720	06460	
M575	Co.15	11245	06955	
M576	Co.14	11405	06790	
M577	Co.13	11580	06625	
M578	6d.0			SJ36008660
M579	6a.0			SJ35208725
M580	5d.0			SJ34858775
M581	5c.0			SJ34658805
M582	5.0			SJ34258895
M583	4d.0			SJ34158920
M584	4b.0			SJ33958980
M585	5a.0			SJ34358865
M586	5b.0			SJ34508830
M587	6b.0			SJ35458705
M588	6c.0			SJ35708685
M589	10.4			SJ38858245
M590	11.7			SJ39008065
M591	11.6			SJ39358090
M592	11.5			SJ39758110
M593	12.5			SJ41258025
M594	12.6			SJ40908000
M595	12.7			SJ40457975
M596	12.8			SJ40057950
M597	Co.20	07599	04505	
M598	Co.19	07668	04400	
M599	Co.18	07732	04302	
M600	Co.17	07760	04170	

M601	Co.16	07890	04110	
M602	Co.25	03900	01820	
M603	Co.24	03999	01765	
M604	Co.23	04190	01739	
M605	Co.22	04300	01678	
M606	Co.21	04430	01623	
M607	4b.E			SJ33108925
M608	5b.9			SJ33558775
M609	5d.E			SJ33808710
M610	6.E			SJ33958685
M611	6.9			SJ34008695
M612	7.8			SJ35008560
M613	7.9			SJ34858550
M614	7.E			SJ34608540
M615	7b.E			SJ35008490
M616	Sm.5			SJ38558140
M617	Sm.4			SJ37958230
M618	9a.6			SJ37758265
M619	Sm.3			SJ37508295
M620	Sm.2			SJ37058380
M621	Sm.1			SJ36608445
M622	8a.3			SJ36308395
M623	Se.1			SJ35958400
M624	Se.2			SJ36058380
M625	Se.3			SJ36158350
M626	Se.4			SJ36208325
M627	Se.5			SJ36458225
M628	Se.6			SJ36608195
M629	Se.7			SJ36858160
M630	5c.E			SJ33608740
M631	Sg.1			SJ36408630
M632	Sg.2			SJ37008595
M633	Sg.3			SJ37608555
M634	Sg.4			SJ38058510

M635	Sg.5			SJ38458470
M636	Sg.6			SJ39108405
M637	Se.8			SJ37708075
M638	Sg.8			SJ40158240
M639	Sg.7			SJ39708300
M640	5.1			SJ34158885
M641	4c.0			SJ34008950
M642	9a.0			SJ39558390
M643	9a.1			SJ39308370
M644	8a.1			SJ37758490
M645	Ss.1			SJ37408485
M646	8a.2			SJ37258455
M647	8b.1			SJ38108450
M648	8b.2			SJ37608415
M649	9a.4			SJ83588305
M650	9a.5			SJ38058290
M651	9a.7			SJ37408245
M652	9a.9			SJ36808205
M653	near middle Patch buoy	67010	41900	
M654	4a.E			SJ32908955
M655	4c.E			SJ33058995
M656	4d.E			SJ33108855
M657	5.E			SJ33158820
M658	5a.E			SJ33258790
M659	7a.E			SJ34858515
M660	7c.E			SJ35208460
M661	7d.E			SJ35408435
M662	8.E			SJ35558405
M663	9a.E			SJ36458185
M664	9a.8			SJ37108225
M665	8a.0			SJ38208510
M666	9a.2			SJ38958350
M667	12.9			SJ39707925

M668	13.1			SJ40307875
M669	9a.3			SJ38708325
M670	5b.E			SJ33358760
M671	19.1			SJ48758320
M672a) M672b)	19.2			SJ48958290
M673	19.3			SJ49108270
M674	19.4			SJ49258245
M675	14.3			SJ42507825
M676	14.4			SJ42957760
M677	12.E			SJ39307900

M678		14600	27000
M679		14800	31500
M680		14800	35000
M681		14800	38000
M682		14800	40000
M683		14800	42000
M684		14800	43500
M685		14600	45000
M686		14800	46000
M687		14800	47000
M688		14300	50400
M689		13700	54030
M690		13000	57630
M691		12400	60373
M692		11800	62750
M693		11800	61265
M694		11800	59358
M695		11800	55860
M696		11800	50010
M697		11800	41970
M698		11808	31229

I. 678 - M698 Special I.O.M. Survey, samples from Eastern Irish Sea

M699	Ro.23	05305	06800
M700	Ro.22	04876	06069
M701	Ro.21	04400	05305
M702	Ro.20	04178	04932
M703	Ro.19	03922	04567
M704	Ro.18	03718	04262
M705	Ro.17	03448	03845
M706	Ro.16	03200	03507
M707	Ro.15	02970	03138
M708	Ro.9	01600	01612
M709	Ro.4	02259	01218
M710	Ro.5	02410	01492
M711	Ro.6	02550	01790
M712	Ro.7	02695	02078
M713	Ro.8	02872	02400
M714	Ro.10	01850	01750
M715	Ro.11	02150	01705
M716	Co.11	11909	06198
M717	Fo.10	11900	06192
M718	Fo.9	12195	06500
M719	Fo.8	12404	06750
M720	Fo.7	12572	06545
M721	F.2	12958	06759
M722	Fo.5	13732	06558
M723	Fo.4	14129	06998
M724	Fo.3	14620	07603
M725	Fo.2	14919	08119
M726	Fo.1	15000	08655
M727	F.1	13263	06419
M728	Fo.6	13030	06411
M729	E.1	11261	05363
M730	18.5		
M731	18.4		

SJ49107965

SJ48858000

M732	18.3			SJ48658035
M733	18.2			SJ48468070
M734	18.1			SJ48158105
M735	17.3			SJ46758040
M736	17.4			SJ47107985
M737	16.4			SJ45108005
M738	16.3			SJ44908045
M739	16.2			SJ44658085
M740	17.1			SJ46008155
M741	17.2			SJ46408100
M742	17.6			SJ47857895
M743	14.1			SJ41707960
M744	15.1			SJ43058040
M745	16.5			SJ45357970
M746	(not on line)	10010	57983	
M747	Q.12	10085	41227	
M748	15.3			SJ44157820
M749	15.4			SJ44457815
M750	16.6			SJ45657865
M751	17.5			SJ47607880
M752	16.1			SJ44408125
M753	15.2			SJ43457980
M754	14.2			SJ42107895
M755	13.2			SJ40407815

|

APPENDIX III

SAMPLES FROM NORWEST SAND

AND BALLAST CO. LTD.

For reasons of commercial security the exact position and descriptive details of samples from the Norwest Sand and Ballast Co. have been withheld. The following list, however, enables cross reference to be made to the original records.

<u>Sample No. as used in this thesis</u>	<u>Norwest Sand & Ballast Records</u>	
	<u>Date</u>	<u>Sample No.</u>
1 - 12	30.5.61	1 - 12
13 - 15	18.5.61	1 - 3
16 - 40	7.5.61	1 - 25
41 - 55	13.10.61	1 - 15
56 - 108	7 & 8.6.62	1 - 53
109 - 117	30.1.58	1 - 9
118 - 125	13.7.54	1 - 8
126 - 129	9.8.54	1 - 4
130 - 144	9 & 10.8.56	5 - 19
145 - 154	23.4.56	20 - 29
155 - 164	4.5.56	30 - 39
165 - 181	10 & 11.9.56	40 - 56
182 - 211	3.6.64	1 - 30
212 - 222	4.8.64	1 - 12
223 - 246	19.10.64	1 - 24
247 - 265	4.7.65	1 - 19

APPENDIX IV

SAMPLE COMPOSITION CODES

In order to make the observations on each sample more suitable for mass treatment a system of coding has been applied to condense the information. The original records are available in note form (See Note in press to Mersey Docks and Harbour Board), and reference should be made to these for full details.

This appendix gives the values of the lithological code (see Diag. 6:3) for the complete sample collection, together with the percentage composition of each of the three components used (gravel, sand or mud) and a simple descriptive code to indicate in what form the lithological components are present.

The lithological code of Diag. is controlled by the following percentage composition requirements.

<u>Code No.</u>	<u>Percentage Composition</u>
1	Sand is more than 90% of total
2	Mud is more than 90% of total
3	Gravel is more than 90% of total
4	Gravel is less than 20% of total, there is 10% or less difference between sand and mud
5	Sand is less than 20% of total, there is 10% or less difference between gravel and mud
6	Mud is less than 20% of total, there is 10% or less difference between gravel and sand
7	Gravel is less than 20% of total, there is more than 10% difference between sand and mud
8	Gravel is less than 20% of total, there is more than 10% difference between mud and sand
9	Sand is less than 20% of total, there is more than 10% difference between gravel and mud
10	Sand is less than 20% of total, there is more than 10% difference between mud and gravel
11	Mud is less than 20% of total, there is more than 10% difference between sand and gravel
12	Mud is less than 20% of total, there is more than 10% difference between gravel and sand

- 13 Gravel is 20-30% of total, there is more sand than mud
- 14 Gravel is 20-30% of total, there is more mud than sand
- 15 Sand is 20-30% of total, there is more gravel than mud
- 16 Sand is 20-30% of total, there is more mud than gravel
- 17 Mud is 20-30% of total, there is more gravel than sand
- 18 Mud is 20-30% of total, there is more sand than gravel
- 19 The compositional values shall not vary by more than 10%, the maximum value is 40% and the minimum value is 30%

The following symbols are used in the descriptive code:-

GRAVEL St - Stone
 (G) Sh - Shell
 R - Rubble (To include mostly
 artificial material)

SAND L - Layered or lensed
 (S) H - In any other form

MUD So - Soft or fluid
 (M) St - Stiff or plastic
 F - Fragmented (To include balls,
 fragments, flakes, pellets,
 blebs, and faecae.
 L - Layered or lensed
 M - Mixed

COMPOSITION OF SAMPLES

Key:-

Tr - Trace
 NT - Near total

<u>Sample No.</u>	<u>Lithology</u>	<u>% Comp.</u>			<u>Descriptive Code</u>		
		<u>Gravel</u>	<u>Sand</u>	<u>Mud</u>	<u>Gravel</u>	<u>Sand</u>	<u>Mud</u>
B1	11	86	14	-	St	H	-
B2	1	Tr	NT	-	ShSt	H	-
B3	1	Tr	NT	-	Sh&St	H	-
B4	3	100	-	-	St	-	-
B5	11	90	10	-	St	H	-
B6	11	75	25	-	St	H	-
B7	1	Tr	NT	-	St	H	-
B8	11	71	29	-	ShSt	H	-
B9	1	-	100	-	-	H	-
B10	11	84	16	-	ShSt	H	-
B11	1	2	98	-	StSh	H	-
B12	1	Tr	NT	-	Sh	H	-
B13	11	66	34	-	ShSt	H	-
B14	6	45	55	-	St	H	-
B15	1	2	98	-	St	H	-
B16	6	47	53	-	St	H	-
B17	6	53	47	-	St	H	-
B18	3	NT	Tr	-	St	H	-
B19	11	83	17	-	St	H	-
B20	12	32	68	-	St	H	-
B21	12	25	75	-	St	H	-
B22	12	23	77	-	St	H	-
B23	1	9	91	-	ShSt	H	-
B24	12	14	86	-	St	H	-
B25	1	-	100	-	-	H	-
B26	1	Tr	NT	-	Sh&st	H	-
B27	1	-	100	-	-	H	-
B28	11	62	38	-	ShSt	H	-

B29	12	36	64	Tr	St	H	M
B30	1	Tr	NT	-	Sh&St	H	-
B31	1	Tr	NT	-	Sh	H	-
B32	1	8	92	-	RSh	H	-
B33	1	9	90	1	Sh	H	F
B34	12	14	86	-	Sh	H	-
B35	1	2	98	-	Sh	H	-
B36	7	3	56	41	Sh	H	L&M&So
B37	1	-	100	-	-	H	-
B38	1	1	99	-	RSh	H	-
B39	1	1	99	-	Sh	H	-
B40	1	1	99	-	Sh	H	-
B41	1	-	100	-	-	H	-
B42	1	1	99	-	RSh	H	-
B43	1	Tr	NT	-	Sh	H	-
B44	1	Tr	NT	-	Sh	H	-
B45	1	Tr	NT	-	-	H	-
B46	1	Tr	NT	-	R	H	-
B47	1	Tr	NT	-	Sh	H	-
B48	1	-	100	-	-	H	-
B49	1	-	100	-	-	H	-
B50	1	-	100	-	-	H	-
B51	1	Tr	NT	-	Sh	H	-
B52	1	Tr	NT	-	Sh	H	-
B53	1	-	100	-	-	H	-
B54	1	-	100	-	-	H	-
B55	1	-	100	-	-	H	-
B56	1	-	100	-	-	H	-
B57	1	-	100	-	-	H	-
B58	1	-	100	-	-	H	-
B59	1	-	100	-	-	H	-
B60	1	-	NT	Tr	-	H	M&So

B61	1	-	96	4	-	H	M&So
B62	1	9	91	-	StSH	H	-
B63	1	5	95	-	ShSt	H	-
B64	1	Tr	92	8	Sh	H	M
B65	1	-	100	-	-	H	-
B66	1	11	89	-	ShSt	H	-
B67	1	5	95	-	Sh&St	H	-
B68	8	8	28	64	St	H	Sf
B69	1	Tr	NT	-	R	H	-
B70	11	57	43	-	ShSt	H	-
B71	1	Tr	NT	-	Sh	H	-
B72	1	Tr	NT	-	Sh	H	-
B73	1	1	96	3	St	H	M
B74	1	1	94	5	St	H	M
B75	1	1	94	5	St	H	M
B76	11	65	35	Tr	St	H	M
B77	1	-	NT	Tr	-	H	M
B78	1	Tr	NT	-	Sh	H	-
B79	1	Tr	NT	-	Sh	H	-
B80	1	-	100	-	-	H	-
B81	1	-	95	5	-	H	L&M
B82	1	Tr	NT	-	Sh	H	-
B83	1	1	99	-	Sh&St	H	-
B84	1	-	100	-	-	H	-
B85	1	-	100	-	-	H	-
B86	1	8	92	-	R&Sh&St	H	-
B87	1	Tr	NT	-	Sh	H	-
B88	1	-	100	-	-	H	-
B89	1	Tr	NT	-	R&Sh	H	-
B90	1	-	100	-	-	H	-
B91	1	Tr	NT	-	Sh	H	-
B92	1	-	100	-	-	H	-
B93	1	Tr	NT	Tr	ShSt	H	M
B94	1	-	NT	Tr	-	H	SoM

B95	7		80	20	-	H	F&L&M&So
B96	1	Tr	NT	-	Sh	H	-
B97	1	Tr	NT	-	Sh	H	-
B98	1	-	99	1	-	H	SoM
B99	1	Tr	NT	-	Sh	H	-
B100	1	Tr	NT	-	Sh	H	-
B101	1	Tr	NT	-	Sh	H	-
B102	1	Tr	NT	-	Sh	H	-
B103	1	-	100	-	-	H	-
B104	1	Tr	NT	-	Sh	H	-
B105	1	-	100	-	-	H	-
B106	1	-	100	-	-	H	-
B107	8	-	16	84	-	H	Sf
B108	1	-	100	-	-	H	-
B109	1	-	100	-	-	H	-
B110	1	-	100	-	-	H	-
B111	1	-	97	3	-	H	So
B112	1	Tr	NT	-	Sh	H	-
B113	1	1	99	-	Sh	H	-
B114	1	Tr	NT	-	Sh	H	-
B115	1	Tr	NT	-	Sh	H	-
B116	1	3	97	-	Sh	H	-
B117	1	1	99	-	Sh	H	-
B118	1	1	99	-	Sh	H	-
B119	1	Tr	NT	-	Sh	H	-
B120	1	Tr	NT	-	Sh	H	-
B121	1	1	99	-	Sh	H	-
B122	1	8	92	-	Sh	H	-
B123	1	Tr	NT	-	Sh	H	-
B124	1	Tr	NT	-	Sh	H	-
B125	1	Tr	NT	-	Sh	H	-
B126	1	Tr	NT	Tr	Sh	H	-
B127	1	2	98	-	StSh	H	-

B128	12	20	80	-	StSh	H	-
B129	1	-	100	-	-	H	-
B130	1	-	100	-	-	H	-
B131	1	-	100	-	-	H	-
B132	1	-	100	-	-	H	-
B133	1	-	100	-	-	H	-
B134	1	-	100	-	-	H	-
B135	1	-	100	-	-	H	-
B136	1	Tr	NT	-	Sh&St	H	-
B137	1	1	99	-	Sh&St	H	-
B138	1	Tr	NT	-	Sh&St	H	-
B139	1	-	100	-	-	H	-
B140	1	-	100	-	-	H	-
B141	1	Tr	NT	-	Sh&St	H	-
B142	1	2	98	-	Sh&St	H	-
B143	1	Tr	NT	Tr	Sh&St	H	M
B144	1	3	97	-	ShSt	H	-
B145	1	2	98	-	ShSt	H	-
B146	1	Tr	NT	-	ShSt	H	-
B147	1	Tr	NT	-	ShSt	H	-
B148	12	38	62	-	ShSt	H	-
B149	12	10	90	-	ShSt	H	-
B150	12	26	74	-	StSh	H	-
B151	12	27	73	-	ShSt s	H	-
B152	12	36	64	-	ShSt	H	-
B153	11	59	39	2	ShSt	H	M
B154	11	64	33	3	ShSt	H	M
B155	6	50	50	Tr	ShSt	H	M
B156	7	-	86	14	-	H	L&M
B157	1	2	98	-	Sh&St	H	-
B158	6	46	53	1	StSh	H	M
B159	1	1	99	-	Sh&St	H	-
B160	1	-	92	8	-	H	F

B161	1	1	99	-	StSh	H	-
B162	1	4	96	-	ShSt	H	-
B163	1	Tr	NT	-	Sh	H	-
B164	1	Tr	NT	-	Sh	H	-
B165	6	52	48	-	ShSt	H	-
B166	1	Tr	NT	-	Sh	H	-
B167	12	28	72	-	StSh	H	-
B168	1	1	99	-	Sh&St	H	-
B169	1	Tr	NT	-	Sh	H	-
B170	1	Tr	NT	-	Sh	H	-
B171	1	Tr	NT	-	Sh	H	-
B172	1	Tr	NT	-	Sh	H	-
B173	1	Tr	NT	Tr	Sh	H	M
B174	1	Tr	NT	Tr	Sh	H	M
B175	1	Tr	NT	Tr	Sh	H	M
B176	7	-	83	17	-	H	F&M
B177	1	Tr	NT	Tr	Sh	H	M
B178	1	Tr	NT	Tr	Sh	H	FM
B179	1	Tr	NT	Tr	Sh	H	M
B180	1	-	NT	Tr	-	H	FM
B181	1	Tr	NT	Tr	Sh	H	M
B182	1	Tr	NT	-	Sh	H	-
B183	1	-	100	-	-	H	-
B1/30	12	14	86	-	St	H	-
B31/58	1	Tr	NT	-	Sh	H	-
B59/68	1	-	100	-	-	H	-
B232	6	46	54	-	ShSt	H	-
B233	11	83	17	-	ShSt	H	-
B234	4	-	54	46	-	H	Sf
M1	8	Tr	42	58	R	H	M
M2	8	Tr	18	82	R	H	FM
M3	8	-	12	88	-	H	FM
M4	1	5	95	-	St	H	-
M5	1	-	100	-	-	H	-

M6	12	22	76	2	R&ShSt	H	FM
M7	12	18	82	-	ShSt	H	-
M8	10	48	17	35	ShSt	H	FM
M9	1	-	92	8	-	H	FM
M10	8	-	36	64	-	H	M
M11	8	-	24	76	-	H	M
M12	8	5	29	66	St	H	M
M13	8	-	26	74	-	H	M
M14	8	-	28	72	-	H	M
M15	11	81	19	Tr	ShSt	H	M
M16	8	-	38	62	-	H	M
M17	7	-	56	44	-	H	ML
M18	1	-	99	1	-	H	SoM
M19	1	-	97	3	-	H	MSo
M20	1	Tr	99	1	Sh	H	M&So
M21	1	4	95	1	ShSt	H	M
M22	3	100	-	-	RSt	-	-
M23	15	40	25	35	R&Sh&St	H	M
M24	10	70	11	19	St	H	FM
M25	10	50	17	33	St	H	FM
M26	8	Tr	40	60	Sh	H	LM
M27	8	Tr	36	64	RSh	H	M&So
M28	8	4	12	84	R&ShSt	H	M
M29	7	Tr	58	42	Sh	H	M
M30	7	-	62	38	-	H	FM
M31	7	Tr	58	42	Sh	H	FM
M32	8	Tr	12	88	ShSt	H	FM
M33	8	-	28	72	-	H	FM
M34	1	2	90	8	Sh	H	SoF
M35	7	-	60	40	-	H	SoL
M36	1	Tr	92	8	Sh	H	SoF
M37	7	4	86	10	Sh	H	FM
M38	7	-	90	10	-	H	SoM
M39	11	56	39	5	R&ShSt	H	M&So

M40	1	-	NT	Tr	-	H	M
M41	1	Tr	93	7	St	H	MF
M42	18	26	52	22	ShSt	H	Sf
M43	7	-	80	20	-	H	ML
M44	8	7	16	77	St	H	M
M45	12	22	78	-	ShSt	H	-
M46	11	58	42	-	R&ShSt	H	-
M47	12	40	60	-	ShSt	H	-
M48	11	83	17	-	ShSt	H	-
M49	11	75	25	-	ShSt	H	-
M50	7	-	75	25	-	H	MF
M51	9	16	8	76	ShSt	H	M
M52	1	-	95	5	-	H	LN&So
M53	5	42	9	49	RSt	H	E&Sf
M54	5	50	3	47	St	H	M&Sf
M55	7	5	55	40	StSh	H	MF
M56	8	4	21	75	ShSt	H	M
M57	8	-	30	70	-	H	MF
M58	3	96	1	3	St	H	M
M59	8	-	18	82	-	H	M
M60	16	32	30	38	ShSt	H	M
M61	8	8	35	57	RSh	H	F
M62	1	8	92	-	Sh&StR	H	-
M63	12	35	65	Tr	ShSt	H	F
M64	1	Tr	NT	-	Sh	H	-
M65	1	Tr	NT	-	StSh	H	-
M66	1	8	92	-	ShSt	H	-
M67	1	Tr	NT	Tr	Sh	H	M
M68	12	10	90	Tr	ShSt	H	M
M69	1	Tr	NT	-	Sh	H	-
M70	1	Tr	NT	-	Sh	H	-
M71	1	1	99	-	StSh	H	-
M72	1	Tr	NT	Tr	ShSt	H	M

M73	1	Tr	NT	-	Sh	H	-
M74	12	13	87	-	StSh	H	-
M75	1	Tr	NT	-	Sh	H	-
M76	1	Tr	NT	Tr	Sh	H	MF
M77A	1	Tr	91	9	Sh	H	SoM
M77B	1	Tr	92	8	RSh	H	M&So
M78	1	1	99	-	Sh&St	H	-
M79	12	21	79	-	RSt&Sh	H	-
M80	3	93	7	-	RSt&Sh	H	-
M81	8	-	10	90	-	H	F&So
M82	1	9	91	-	Sh&St	H	-
M83	8	Tr	14	86	Sh	H	F&L
M84	11	63	37	-	RSt	H	-
M85	11	61	39	-	ShSt	H	-
M86	3	91	9	-	R&ShSt	H	-
M87	8	Tr	28	72	StSh	H	M
M88	1	Tr	NT	-	RSt	H	F
M89	2	-	6	94	-	H	M&Sf
M90	2	-	8	92	-	H	M&Sf
M91	1	-	100	-	-	H	-
M92	7	2	86	12	R	H	MF
M93	12	14	82	4	ShSt	H	FM&So
M94	7	3	65	32	St	H	MF
M95	1	-	97	3	-	H	M&So
M96	7	Tr	82	18	R&Sh	H	SoF
M97	1	-	100	-	-	H	-
M98	1	-	NT	Tr	-	H	F
M99	1	-	NT	Tr	-	H	F
M100	2	-	8	92	-	L	M&Sf
M101	7	Tr	78	22	Sh	H	FS&M
M102	2	-	2	98	-	L	FSf
M103	7	Tr	90	10	R&ShSt	H	MF
M104	2	-	Tr	NT	-	H	Sf

M105	7	Tr	88	12	Sh	H	F&So
M106	2	-	Tr	NT	-	H	Sf
M107	12	26	74	Tr	R&ShSt	H	MF
M108	12	33	67	-	R&ShSt	H	-
M109	1	1	91	8	Sh	H	M
M110	12	20	80	Tr	RSh	H	So
M111	18	37	41	22	ShSt	H	M
M112	1	Tr	NT	-	Sh	H	-
M113	1	1	99	-	Sh	H	-
M114	1	-	100	-	-	H	-
M115	12	40	60	Tr	ShSt	H	M
M116	11	86	9	5	ShSt	H	LM
M117	11	64	36	-	ShSt	H	-
M118	6	45	53	2	ShSt	H	FM
M119	1	Tr	NT	Tr	Sh	H	MF
M120	1	Tr	NT	-	Sh	H	-
M121	1	2	98	-	Sh	H	-
M122	12	30	70	-	ShSt	H	-
M123	12	28	72	-	ShSt	H	-
M124	12	12	88	Tr	ShSt	H	SoM
M125	11	57	43	-	ShSt	H	-
M126	1	Tr	NT	-	Sh	H	-
M127	7	2	79	19	RSh	H	ML
M128	7	5	85	10	Sh	H	L&M
M129	1	4	96	-	ShR	H	-
M130	1	Tr	NT	Tr	Sh	H	F
M131	1	Tr	NT	Tr	Sh	H	F
M132	12	8	87	5	RSh	H	FM
M133	1	2	98	-	Sh	H	-
M134	1	2	98	-	RSh	H	-
M135	1	2	98	-	Sh	H	-
M136	1	Tr	NT	-	Sh	H	-
M137	12	25	75	-	ShSt	H	-

M138	12	11	89	-	ShSt	H	-
M139	1	Tr	NT	-	Sh	H	-
M140	1	Tr	NT	-	Sh	H	-
M141	1	-	100	-	-	H	-
M142	1	-	NT	Tr	-	H	F
M143	1	8	92	-	St	H	-
M144	12	38	56	6	ShSt	H	F
M145	7	3	89	8	StSh	H	M
M146	1	9	91	-	ShSt	H	-
M147	1	Tr	NT	-	Sh&St	H	-
M148	1	Tr	NT	Tr	ShSt	H	F
M149	1	-	100	-	-	H	-
M150	1	Tr	NT	Tr	Sh	H	F
M151	1	7	93	-	St	H	-
M152	12	22	70	-	ShSt	H	-
M153	12	25	75	-	ShSt	H	-
M154	11	73	27	-	ShSt	H	-
M155	12	33	67	-	ShSt	H	-
M156	12	43	57	-	ShSt	H	-
M157	1	-	100	-	-	H	-
M158	1	-	100	-	-	H	-
M159	1	4	96	Tr	RSh	H	F
M160	1	20	70	10	RSh	H	LF
M161	1	Tr	NT	Tr	Sh	H	F
M162	1	Tr	NT	Tr	Sh	H	F
M163	1	Tr	NT	Tr	Sh	H	F
M164	1	Tr	NT	Tr	Sh	H	F
M165	7	4	88	8	Sh	H	SoF
M166	1	Tr	NT	Tr	Sh	H	F
M167	12	16	84	-	R&ShSt	H	-
M168	1	6	94	-	ShSt	H	-
M169	12	18	82	-	ShSt	H	-
M170	1	Tr	NT	-	Sh	H	-

M171	1	Tr	NT	-	Sh	H	-
M172	6	50	50	-	ShSt	H	-
M173	1	Tr	NT	Tr	Sh	H	F
M174	7	2	90	8	ShSt	H	F
M175	1	-	100	-	-	H	-
M176	11	65	35	-	ShSt	H	-
M177	1	2	98	-	ShSt	H	-
M178	12	15	80	5	RSh&St	H	-
M179	1	6	91	3	ShSt	H	F
M180	1	2	90	8	Sh	H	F
M181	1	-	100	-	-	H	-
M182	1	4	92	4	ShSt	H	F
M183	7	5	83	12	ShSt	H	F&SoM
M184	7	8	84	8	ShSt	H	F&M&So
M185	1	-	100	-	-	H	-
M186	1	Tr	NT	Tr	Sh	H	F
M187	1	Tr	NT	-	Sh	H	-
M188	1	-	100	-	-	H	-
M189	1	2	98	-	Sh&St	H	-
M190	7	8	76	16	RSh&St	H	M
M191	1	2	98	-	Sh	H	-
M192	1	Tr	NT	-	Sh	H	-
M193	1	Tr	94	6	RSh	H	So
M194	1	-	100	-	-	H	-
M195	1	-	100	-	-	H	-
M196	1	1	94	5	Sh	H	FM
M197	1	1	94	5	Sh	H	FM
M198	1	1	97	2	Sh	H	FM
M199	1	Tr	95	5	Sh	H	F&M
M200	7	5	55	40	RSh&St	H	MF
M201	1	3	96	1	StSh	H	F&M
M202	1	-	100	-	-	H	-
M203	1	-	100	-	-	H	-

M204	1	-	100	-	-	H	-
M205	1	-	100	-	-	H	-
M206	1	Tr	NT	Tr	Sh	H	F&M
M207	1	2	98	Tr	StSh	H	F&M
M208	1	Tr	NT	-	Sh	H	-
M209	1	Tr	NT	-	R	H	-
M210	1	-	100	-	-	H	-
M211	1	-	NT	Tr	-	H	FM
M212	7	-	88	12	-	H	F&M
M213	1	-	100	-	-	H	-
M214	1	-	92	8	-	H	MF
M215	1	-	100	-	-	H	-
M216	1	-	100	-	-	H	-
M217	1	-	100	-	-	H	-
M218	1	-	100	-	-	H	-
M219	12	12	86	2	StSh	H	M
M220	1	8	92	-	StSh	H	-
M221	12	22	76	2	ShSt	H	FM
M222	1	-	100	-	-	H	-
M223	12	10	90	-	RSh&St	H	-
M224	12	16	84	-	StSh	H	-
M225	12	26	71	3	StSh	H	FM
M226	12	14	80	6	ShSt	H	FM
M227	12	25	72	3	ShSt	H	M
M228	1	Tr	NT	-	Sh	H	-
M229	1	Tr	NT	-	Sh	H	-
M230	1	Tr	NT	-	Sh	H	-
M231	1	Tr	NT	-	Sh	H	-
M232	1	Tr	NT	-	Sh	H	-
M233	1	Tr	NT	-	Sh	H	-
M234	1	Tr	NT	-	Sh	H	-
M235	1	Tr	NT	-	Sh	H	-
M236	1	Tr	NT	Tr	Sh	H	FM

M237	8	8	41	51	ShSt	H	Sf
M238	1	2	97	1	Sh&StR	H	M
M239	12	15	85	-	R&Sh&St	H	-
M240	12	18	75	7	R&Sh	H	F
M241	12	31	69	Tr	R	H	F
M242	1	1	99	-	StSh	H	-
M243	1	2	98	-	StSh	H	-
M244	1	1	99	-	Sh	H	-
M245	1	2	98	-	Sh	H	-
M246	12	22	78	Tr	R&Sh&St	H	F
M247	12	20	80	Tr	ShSt	H	M
M248	1	3	96	1	ShSt	H	F&M
M249	1	Tr	NT	-	Sh	H	-
M250	1	Tr	NT	-	Sh	H	-
M251	1	Tr	NT	-	Sh	H	-
M252	1	Tr	NT	-	Sh	H	-
M253	1	-	100	-	-	H	-
M254	1	-	100	-	-	H	-
M255	12	10	89	1	R	H	M
M256	8	Tr	12	88	R	H	M
M257	10	62	15	23	RSt&Sh	H	M
M258A	}	8	18	82	-	H	M&So
M258B		-	-	-	-	H	M&So
M259	12	31	69	Tr	R&Sh&St	H	M
M260A	1	Tr	NT	Tr	Sh&St	H	M
M260B	8	-	26	74	-	H	M&So
M261	8	Tr	28	72	St	H	So
M262	2	-	9	91	-	H	M&So
M263	8	Tr	35	65	St	H	L&M&So
M264	1	Tr	99	1	St	H	FM
M265	8	-	11	89	-	H	M&So
M266	1	-	NT	Tr	-	H	F
M267	7	4	86	10	R&Sh&St	H	M

M268	2	Tr	4	96	Sh	H	M
M269	1	Tr	NT	Tr	ShSt	H	M
M270	8	9	11	80	St	H	SoM
M271	8	Tr	28	72	Sh	H	F&LM
M272	1	Tr	NT	Tr	Sh	H	F
M273	12	18	80	2	St	H	M
M274	1	-	100	-	-	H	-
M275	7	-	83	17	-	H	FM
M276	7	-	75	25	-	H	FM
M277	1	Tr	99	1	Sh	H	F
M278	2	-	Tr	NT	-	H	M
M279	1	-	92	8	-	H	MF
M280	1	-	NT	Tr	-	H	M
M281	12	16	84	-	R&ShSt	H	-
M282	1	-	NT	Tr	-	H	FM
M283	1	Tr	NT	-	Sh	H	-
M284	1	9	91	-	RSt	H	-
M285	1	-	98	2	-	H	F
M286	1	-	NT	Tr	-	H	F
M287	7	-	64	36	-	H	M
M288	1	-	NT	Tr	-	H	L
M289	1	-	100	-	-	H	-
M290	1	-	100	-	-	H	-
M291	2	-	6	94	-	H	LSf
M292	7	-	72	28	-	H	So
M293	12	31	61	8	RSt&Sh	H	MF
M294	7	-	60	40	-	L	M&So
M295	7	-	85	15	-	H	MF
M296	11	49	42	9	R&Sh&St	H	MF
M297	2	3	Tr	97	RSt	H	SoM
M298	2	-	Tr	NT	-	H	M&Sf
M299	2	-	3	97	-	H	M&So
G1	7	-	88	12	-	H	M

M300	1	-	NT	Tr	-	H	MSo
M301	12	27	65	8	RSt&Sh	H	MF
M302	8	9	32	59	StR	H	SoM
M303	8	Tr	42	58	R	H	SoM
M304	2	-	1	99	-	H	Sf
M305	8	Tr	42	58	R	H	M&Sf
M306	12	29	63	8	R&Sh&St	H	M
M307	7	-	64	36	-	H	M
M308	1	-	NT	Tr	-	H	MSo
M309	6	53	47	Tr	R&Sh&St	H	M
M310	9	13	1	86	R&St	H	FM
M311	1	-	NT	Tr	-	H	M
M312	7	-	84	16	-	H	M
M313	1	-	NT	Tr	-	H	M
M314	1	-	NT	Tr	-	H	M
M315	1	-	98	2	-	H	M
M316	1	-	92	8	-	H	SoM
M317	1	-	NT	Tr	-	H	FM
M318	1	-	NT	Tr	-	H	FM
M319	7	-	74	26	-	H	M
M320	7	-	86	14	-	H	M
M321	1	-	NT	Tr	-	H	So
M322	7	17	42	41	R&Sh&St	H	SoM
M323A	12	14	86	Tr	R&Sh&St	H	So
M323B	8	Tr	42	58	Sh&St	H	SoM
M324	9	27	9	64	St	H	SoM
M325	2	-	6	94	-	H	SoM
M326	11	59	41	Tr	R&ShSt	H	SoM
M327	8	Tr	16	84	R	H	SoM
M328	9	31	4	65	ShSt	H	M
M329	10	82	5	13	Sh&St	H	M
M330	8	1	28	71	R&Sh&St	H	M
M331	2	3	4	93	St	H	SoM

M332	8	-	10	90	-	H	SoM
M333	2	Tr	9	91	RSh	H	SoM
M334	2	-	6	94	-	H	SoM
M335	2	-	6	94	-	H	SoM
M336	2	-	8	92	-	H	SoM
M337	2	-	8	92	-	H	SoM
M338	10	72	1	27	RSt	H	SoM
M339	8	-	10	90	-	H	SoM
M340	9	35	10	55	ShSt	H	SoM
M341	8	Tr	10	90	ShSt	H	SoM
M342	8	-	12	88	-	H	SoM
M343	8	Tr	10	90	R	H	SoM
M344	8	Tr	14	86	ShR	H	So
M345	8	-	14	86	-	H	SoM
M346	8	-	10	90	-	H	SoM
M347	1	-	NT	Tr	-	H	SoF
M348	2	-	2	98	-	H	SoM
M349	8	-	16	84	-	H	SoM
M350	2	Tr	4	96	R	H	So
M351	8	-	16	84	-	H	SoM
M352	1	-	NT	Tr	-	H	M
M353	1	-	96	4	-	H	LF&M
M354	11	70	30	Tr	RSt&Sh	H	M
M355	1	-	97	3	-	H	ML
M356	8	-	38	62	-	H	M
M357	10	46	16	38	RSt	H	M
M358	4	4	48	48	RSt	H	M
M359	7	7	73	20	RSt	L	M
M360	7	9	75	16	RSt	H	M
M361	7	-	88	12	-	H	M
M362	1	-	94	6	-	H	ML
M363	7	9	75	16	RSt	H	SoM
M364	7	2	62	36	RSt	H	M

M365	1	2	98	Tr	ShSt	H	M
M366	1	Tr	NT	Tr	Sh	H	M
M367	12	21	79	Tr	ShSt	H	M
M368	1	4	96	Tr	ShSt	H	M
M369	1	-	100	-	-	H	-
M370	1	Tr	NT	-	Sh	H	-
M371	1	Tr	NT	Tr	Sh	H	FM
M372	1	Tr	NT	-	Sh	H	-
M373	1	Tr	NT	-	Sh	H	-
M374	1	Tr	NT	-	Sh&St	H	-
M375	1	1	99	-	ShSt	H	-
M376	1	Tr	NT	-	Sh	H	-
M377	1	Tr	NT	-	Sh	H	-
M378	11	60	22	18	ShSt	H	So
M379	1	Tr	NT	-	StSh	H	-
M380	11	62	37	1	ShSt	H	M
M381	12	9	86	5	Sh	H	F&M
M382	7	5	88	7	Sh	H	F&M
M383	12	8	87	5	Sh	H	F&M
M384	1	Tr	NT	Tr	Sh	H	M
M385	7	10	75	15	Sh	H	FM
M386	1	Tr	94	6	Sh	H	ScM
M387	1	Tr	NT	-	Sh	H	-
M388	1	Tr	NT	-	Sh	H	-
M389	1	Tr	NT	-	Sh	H	-
M390	7	Tr	84	16	Sh	H	M
M391	8	Tr	10	90	Sh	H	M
M392	1	Tr	NT	-	Sh	H	-
M393	1	-	100	-	-	H	-
M394	1	Tr	97	3	Sh	H	MF
M395	1	-	100	-	-	H	-
M396	1	-	100	-	-	H	-
M397	3	100	-	-	ShSt	-	-

M398	1	-	100	-	-	H	-
M399	1	-	100	-	-	H	-
M400	1	-	100	-	-	H	-
M401	1	-	100	-	-	H	-
M402	1	Tr	NT	Tr	Sh&St	H	So
M403	1	9	91	-	ShSt	H	-
M404	1	-	NT	Tr	-	H	So
M405	1	-	100	-	-	H	-
M406	1	Tr	NT	-	Sh	H	-
M407	1	8	92	-	ShSt	H	-
M408	4	Tr	52	48	RSt	H	So
M409	4	2	46	52	RSt	H	So
M410	2	-	8	92	-	H	So
M411	2	-	4	96	-	H	So
M412	2	-	9	91	-	H	M&So
M413	2	-	4	96	-	H	F&MSo
M414	8	-	14	86	-	L	L&M&So
M415	8	9	14	77	St	H	Sf
M416	1	5	95	-	StSh	H	-
M417	1	Tr	NT	-	Sh	H	-
M418	1	Tr	NT	Tr	Sh	H	M
M419	1	Tr	NT	Tr	Sh	H	M
M420	7	1	83	16	Sh	H	SoM
M421	1	-	91	9	-	H	SoM
M422	1	Tr	NT	Tr	Sh	H	M
M423	1	Tr	NT	Tr	Sh	H	M
M424	1	Tr	NT	Tr	Sh	H	M
M425	1	Tr	NT	-	Sh	H	-
M426	1	Tr	NT	-	Sh	H	-
M427	1	-	100	-	-	H	-
M428	8	Tr	22	78	Sh	H	F&LM
M429	1	-	100	-	-	H	-
M430	1	Tr	NT	-	Sh	H	-

M431	1	-	100	-	-	H	-
M432	1	Tr	NT	Tr	Sh	H	F
M433	7	Tr	90	10	Sh	H	FL
M434	7	-	88	12	-	H	FM&L
M435	1	-	100	-	-	H	-
M436	1	7	92	1	Sh	H	F&M
M437	1	3	97	-	StSh	H	-
M438	1	-	100	-	-	H	-
M439	1	-	100	-	-	H	-
M440	1	Tr	NT	-	Sh	H	-
M441	1	Tr	NT	-	Sh	H	-
M442	1	Tr	NT	-	Sh	H	-
M443	1	-	100	-	-	H	-
M444	1	Tr	NT	Tr	Sh	H	L&So
M445	1	-	NT	Tr	-	H	M
M446	1	-	NT	Tr	-	H	M
M447	1	Tr	NT	-	Sh	H	-
M448	1	Tr	NT	-	Sh	H	-
M449	1	Tr	NT	-	Sh	H	-
M450	1	2	98	-	StSh	H	-
M451	1	Tr	NT	Tr	Sh	H	F
M452	1	Tr	NT	-	Sh	H	-
M453	1	Tr	NT	Tr	Sh	H	F
M454	1	5	93	2	Sh&St	H	MF
M455	1	Tr	NT	-	Sh	H	-
M456	1	Tr	NT	Tr	Sh	H	M
M457	7	Tr	80	20	Sh	H	LM
M458	7	4	74	22	RSh&St	H	FM
M459	1	Tr	NT	Tr	Sh	H	FM
M460	1	-	NT	Tr	-	H	M
M461	2	-	8	92	-	H	LM
M462	1	-	98	2	-	H	LF
M463	1	-	100	-	-	H	-

M464	1	Tr	NT	Tr	Sh	H	F
M465	1	Tr	NT	-	Sh	H	-
M466	1	7	92	1	Sh	H	F
M467	8	Tr	16	84	Sh	L	M
M468	7	-	86	14	-	L	FM
M469	2	Tr	6	94	Sh	H	F
M470	8	Tr	38	62	Sh	H	M
M471	1	Tr	NT	-	Sh	H	-
M472	1	Tr	NT	-	Sh	H	-
M473	1	Tr	NT	-	Sh	H	-
M474	1	Tr	NT	-	Sh	H	-
M475	1	Tr	NT	-	Sh	H	-
M476	1	Tr	NT	-	Sh	H	-
M477	3	96	4	1	Sh&St	H	FM
M478	1	Tr	NT	Tr	Sh	H	F
M479	1	Tr	NT	-	Sh	H	-
M480	1	Tr	NT	-	Sh	H	-
M481	1	-	100	-	-	H	-
M482	1	-	NT	Tr	-	H	F
M483	1	-	100	-	-	H	-
M484	1	-	100	-	-	H	-
M485	1	-	100	-	-	H	-
M486	12	22	76	2	Sh	H	F
M487	1	4	94	2	Sh	H	F
M488	12	10	89	1	Sh	H	M
M489	7	-	84	16	-	H	M
M490	1	-	100	-	-	H	-
M491	12	11	84	5	Sh	H	FM
M492	1	Tr	NT	Tr	Sh	H	F
M493	1	-	NT	Tr	-	H	M
M494	1	2	98	-	Sh	H	-
M495	1	2	98	-	Sh	H	-
M496	1	1	99	-	Sh	H	-
M497	1	-	96	4	-	H	FM

M498	1	3	95	2	Sh	H	FM
M499	1	1	98	1	Sh	H	FM
M500	1	2	98	-	StSh	H	-
M501	1	1	99	-	Sh	H	-
M502	1	1	99	-	Sh	H	-
M503	1	Tr	NT	Tr	Sh	H	M
M504	1	Tr	NT	-	Sh	H	-
M505	1	3	97	-	Sh&St	H	-
M506	1	2	98	-	StSh	H	-
M507	1	2	98	-	Sh	H	-
M508	1	1	99	-	Sh	H	-
M509	1	-	100	-	-	H	-
M510	1	3	96	1	Sh	H	MF
M511	1	-	100	-	-	H	-
M512	1	Tr	NT	-	StSh	H	-
M513	1	Tr	NT	-	-	H	-
M514	1	Tr	NT	-	Sh	H	-
M515	1	Tr	NT	-	Sh	H	-
M516	12	20	80	-	ShSt	H	-
M517	3	100	-	-	St	-	-
M518	11	57	43	-	ShSt	H	-
M519	3	100	-	-	St	-	-
M520	11	66	34	-	ShSt	H	-
M521	12	16	84	-	ShSt	H	-
M522	1	-	100	-	-	H	-
M523	1	-	99	1	-	H	FM
M524	4	-	54	46	-	H	FM
M525	8	-	28	72	-	H	FM
M526	8	-	32	68	-	H	FM
M527	1	1	98	1	Sh&St	H	MF
M528	8	Tr	34	66	Sh	H	FM
M529	1	-	NT	Tr	-	H	F&So

M530	7	-	78	22	-	H	L&So
M531	1	-	100	-	-	H	-
M532	2	-	Tr	NT	-	H	Sf
M533	2	-	8	92	-	H	M
M534	2	-	2	98	-	H	M
M535	1	-	100	-	-	H	-
M536	1	-	NT	Tr	-	H	F
M537	8	-	27	73	-	H	M
M538	1	-	NT	Tr	-	H	L&M
M539	4	-	45	55	-	H	FL
M540	8	-	25	75	-	H	SoL
M541	7	6	64	30	St	H	F
M542	1	-	100	-	-	H	-
M543	1	-	NT	Tr	-	H	M&So
M544	8	-	30	70	-	H	MF
M545	1	-	100	-	-	H	-
M546	1	-	NT	Tr	-	H	L
M547	7	-	67	33	-	H	MF
M548	1	-	93	7	-	H	M
M549	1	-	100	-	-	H	-
M550	8	-	28	72	-	H	M
M551	1	2	96	2	St	H	F&So
M552	1	-	97	3	-	H	F
M553	2	-	6	94	-	H	M
M554	8	-	18	82	-	H	M&Sf
M555	2	-	8	92	-	H	M&So
M556	Rock flooring no sample				-	-	-
M557	1	-	100	-	-	H	-
M558	1	-	100	-	-	H	-
M559	1	-	100	-	-	H	-
M560	1	-	NT	Tr	-	H	FSo
M561	4	Tr	50	50	RSh	H	SoF
M562	1	Tr	NT	-	Sh	H	-

M563	1	5	95	-	ShSt	H	-
M564	7	Tr	87	13	R	H	L&SoF
M565	1	-	NT	Tr	-	H	M
M566	8	-	28	72	-	H	F
M567	8	-	22	78	-	H	M
M568	1	Tr	NT	Tr	R	H	F&M
M569	1	-	100	-	-	H	-
M570	1	-	NT	Tr	-	H	M
M571	1	-	NT	Tr	-	H	F
M572	10	73	5	22	St	H	M
M573	9	15	3	82	ShSt	H	M
M574	2	-	2	98	-	H	M
M575	8	-	17	83	-	H	M
M576	1	-	95	5	-	H	SoM
M577	3	96	4	Tr	St	H	MF
M578	8	-	24	76	-	H	LM
M579	8	-	30	70	-	H	MF
M580	7	-	63	37	-	H	F
M581	2	-	9	91	-	H	M
M582	1	-	NT	Tr	-	H	N
M583	1	-	94	6	-	H	SoM
M584	1	-	92	8	-	H	M
M585	2	-	8	92	-	H	M
M586	1	-	98	2	-	H	SoF
M587	7	-	70	30	-	H	ML
M588	8	-	22	78	-	H	FM
M589	1	-	95	5	-	H	F
M590	1	-	NT	Tr	-	H	SoM
M591	1	-	96	4	-	H	FM
M592	1	-	100	-	-	H	-
M593	1	-	100	-	-	H	-
M594	1	-	100	-	-	H	-
M595	1	-	100	-	-	H	-

M596	1	-	100	-	-	H	-
M597	7	Tr	80	20	Sh	H	L
M598	2	-	8	92	-	H	L
M599	8	-	40	60	-	H	L
M600	7	-	70	30	-	H	L
M601	8	Tr	80	20	Sh	L	M
M602	1	Tr	NT	-	Sh	H	-
M603	12	15	85	-	Sh&St	H	-
M604	11	80	15	5	R&ShSt	H	M
M605	2	-	8	92	-	H	F&MSo
M606	8	5	8	87	RSt	H	So
M607	8	10	24	66	ShR	H	LM
M608	7	Tr	62	38	St	H	FM
M609	8	-	36	64	Sh	H	F&M
M610	7	-	58	42	Sh	H	F&M
M611	8	-	10	90	-	H	F&M
M612	4	-	50	50	-	H	LM
M613	8	-	10	90	-	H	FM
M614	4	-	52	48	-	H	LM
M615	2	-	4	96	-	H	So
M616	1	-	97	3	-	H	F
M617	1	-	99	1	-	H	F
M618	12	17	83	Tr	St	H	F
M619	4	Tr	50	50	ShSt	L	F&L
M620	4	Tr	50	50	Sh	L	F&So
M621	2	-	2	98	-	L	Sf
M622	1	-	93	7	-	L	MF
M623	1	-	99	1	-	H	F
M624	1	-	99	1	-	H	F
M625	1	-	93	7	-	H	LF
M626	1	-	99	1	-	H	F
M627	1	-	98	2	-	H	F
M628	2	-	4	96	-	H	L

M629	1	-	99	1	-	H	FM
M630	7	-	62	38	-	H	FM
M631	4	-	50	50	-	L	L
M632	7	Tr	72	28	St	L	FL
M633	8	-	18	82	-	H	FL
M634	8	-	28	72	-	H	FL
M635	7	-	87	13	-	H	SoF
M636	7	-	87	13	-	H	SoF
M637	1	-	96	4	-	H	SoF
M638	1	-	NT	Tr	-	H	SoM
M639	8	-	30	70	-	H	SoF
M640	8	-	17	83	-	H	SoF
M641	7	-	56	44	-	H	LM
M642	2	-	6	94	-	H	So
M643	1	-	100	-	-	H	-
M644	7	-	87	13	-	H	F&M
M645	8	-	12	88	-	H	F&LM
M646	8	-	36	64	-	H	F&M&L&So
M647	1	-	100	-	-	H	-
M648	7	-	63	37	-	H	F&LSo
M649	1	-	100	-	-	H	-
M650	7	-	64	36	-	H	FM
M651	7	-	57	43	-	H	SoF
M652	1	-	100	-	-	H	-
M653	1	-	100	-	-	H	-
M654	8	-	22	78	-	H	LM
M655	2	-	6	94	-	L	LM
M656	7	-	76	24	-	L	LM
M657	2	-	4	96	-	H	LM
M658	8	-	28	72	-	H	FL
M659	8	-	16	84	-	H	LM
M660	8	-	24	76	-	H	M
M661	8	-	26	74	-	H	M

M662	2	-	6	94	-	H	M
M663	8	12	21	67	St	H	F&LM
M664	8	-	56	44	-	H	F
M665	8	-	16	84	-	H	M
M666	1	-	NT	Tr	-	H	F
M667	1	-	100	-	-	H	-
M668	1	-	100	-	-	H	-
M669	7	Tr	70	30	Sh	H	F
M670	2	-	6	94	-	H	M
M671	1	-	100	-	-	H	-
M672A	8	-	44	56	-	L	LM
M672B	1	-	97	3	-	H	MF
M673	1	-	100	-	-	H	-
M674	7	-	80	20	-	H	ML
M675	7	-	90	10	-	H	M
M676	7	-	90	10	-	H	M
M677	2	-	Tr	NT	-	H	SfM
M678	1	Tr	NT	Tr	Sh	H	M
M679	12	9	87	4	Sh	H	M
M680	7	-	88	12	-	H	M
M681	1	Tr	98	2	Sh	H	M
M682	1	Tr	NT	Tr	Sh	H	M
M683	1	Tr	NT	Tr	Sh	H	M
M684	1	6	92	2	StSh	H	MF
M685	12	15	84	1	ShSt	H	MF
M686	12	16	84	Tr	StSh	H	M
M687	12	23	77	-	StSh	H	-
M688	6	45	55	-	ShSt	H	-
M689	11	79	21	Tr	ShSt	H	M
M690	12	16	84	Tr	Sh&St	H	MF
M691	12	43	57	Tr	ShSt	H	MF
M692	1	9	91	-	Sh&St	H	-
M693	11	73	27	-	StSh	H	-

M694	6	49	51	-	StSh	H	-
M695	12	34	66	-	StSh	H	-
M696	12	19	80	1	R&ShSt	H	M
M697	12	22	74	4	ShSt	H	F&M
M698	1	2	97	1	R&StSh	H	FM
M699	1	Tr	NT	-	Sh	H	-
M700	1	-	99	1	-	H	SoF
M701	4	-	50	50	-	H	SoF
M702	7	-	87	13	-	H	SoF
M703	1	-	99	1	-	H	M
M704	4	-	50	50	-	H	MF
M705	7	2	60	38	Sh	H	SoF
M706	1	1	98	1	Sh	H	F
M707	1	1	99	Tr	Sh	H	F
M708	3	99	1	-	ShSt	H	-
M709	1	5	95	Tr	StSh	H	F
M710	1	1	99	Tr	Sh	H	F
M711	1	1	99	-	Sh	H	-
M712	1	Tr	NT	-	Sh	H	-
M713	1	Tr	NT	-	Sh	H	-
M714	1	Tr	NT	-	Sh	H	-
M715	1	Tr	NT	-	Sh	H	-
M716	7	-	76	24	-	L	LM
M717	1	Tr	NT	-	Sh	H	-
M718	7	-	87	13	-	H	L&MF
M719	4	-	48	52	-	L	LM
M720	2	-	4	96	-	H	M
M721	1	Tr	NT	-	Sh	H	-
M722	8	-	32	68	-	H	ML
M723	2	-	4	96	-	H	ScM
M724	7	6	86	8	Sh	H	F&M&So
M725	1	Tr	NT	-	Sh	H	-
M726	77	Tr	83	12	Sh	H	SoL

M727	1	Tr	98	2	Sh	H	F
M728	2	-	Tr	NT	-	M	So
M729	2	-	Tr	NT	-	L	So
M730	1	-	98	2	-	H	SoF
M731	1	-	98	2	-	H	SoF
M732	1	-	NT	Tr	-	H	M
M733	1	Tr	NT	Tr	Sh	H	M
M734	8	Tr	22	78	R	H	SoM
M735	1	Tr	NT	Tr	R	H	M
M736	1	-	NT	Tr	-	H	MF
M737	1	Tr	NT	-	R	H	-
M738	1	Tr	NT	-	R	H	-
M739	1	Tr	NT	-	R	H	-
M740	2	-	2	98	-	H	SoM
M741	1	-	98	2	-	H	SoF
M742	1	-	NT	Tr	-	H	F
M743	1	-	NT	Tr	-	H	F
M744	1	Tr	NT	-	R	H	-
M745	1	Tr	NT	-	R	H	-
M746	12	39	58	3	ShSt	H	F
M747	6	45	50	5	ShSt	H	F
M748	8	-	10	90	-	H	SfM
M749	2	-	6	94	-	H	SfM
M750	2	-	9	91	-	H	LSf
M751	2	Tr	9	91	RSt	H	FM
M752	2	-	4	96	-	H	So
M753	1	-	NT	Tr	-	H	SoF
M754	7	-	88	12	-	L	SoL
M755	2	-	2	98	-	H	SfM

APPENDIX V

TIME - DIAM. - PHI CONVERSION CHART

<u>Time</u> <u>(seconds)</u>	<u>Diam. in</u> <u>mm.</u>	ϕ <u>minus</u> <u>values</u>
4.75	2.05	- 1.04
5.0	1.86	- 0.92
5.25	1.70	- 0.77
5.5	1.56	- 0.63
5.75	1.45	- 0.53
6.0	1.35	- 0.45
6.25	1.27	- 0.36
6.5	1.20	- 0.29
6.75	1.13	- 0.18
7.0	1.08	- 0.11
7.1	1.03	<u>- 0.05</u>
		<u>plus</u> <u>values</u>
7.2	0.98	+ 0.03
7.4	0.94	+ 0.11
7.7	0.90	0.17
7.9	0.85	0.23
8.1	0.80	0.32
8.5	0.75	0.42
8.9	0.70	0.52
9.1	0.67	0.58
9.4	0.64	0.66
9.7	0.61	0.73
10.0	0.59	0.78
10.5	0.55	0.88
11.0	0.51	0.97
11.5	0.49	1.04
12.0	0.47	1.10
12.5	0.45	1.16
13.0	0.430	1.22

<u>Time</u>	<u>Diam.</u>	ϕ
13.5	0.415	1.28
14.0	0.400	1.33
14.5	0.385	1.39
15.0	0.370	1.44
16.0	0.350	1.53
17.0	0.330	1.62
18.0	0.310	1.70
19.0	0.300	1.75
20.0	0.285	1.82
21.0	0.275	1.86
22.0	0.265	1.92
23.0	0.255	1.96
24.0	0.245	2.03
25.0	0.238	2.07
26.0	0.232	2.10
27.0	0.225	2.16
28.0	0.219	2.19
29.0	0.214	2.23
30.0	0.208	2.28
31.0	0.204	2.31
32.0	0.200	2.34
33.0	0.195	2.37
34.0	0.190	2.41
35.0	0.185	2.44
36.0	0.181	2.48
37.0	0.178	2.51
38.0	0.175	2.54
39.0	0.171	2.57
40.0	0.168	2.60
41.0	0.165	2.63
42.0	0.163	2.65
43.0	0.160	2.67

<u>Time</u>	<u>Diam</u>	<u>Ø</u>
44.0	0.157	2.70
45.0	0.155	2.72
46.0	0.153	2.75
48.0	0.149	2.77
50.0	0.145	2.80
52.0	0.142	2.83
54.0	0.138	2.86
56.0	0.135	2.89
58.0	0.131	2.93
60.0	0.128	2.96
62.0	0.126	2.99
64.0	0.123	3.02
66.0	0.120	3.05
68.0	0.117	3.08
70.0	0.115	3.11
72.0	0.113	3.13
74.0	0.111	3.15
76.0	0.108	3.18
78.0	0.106	3.22
80.0	0.104	3.28
84.0	0.101	3.32
88.0	0.097	3.35
92.0	0.094	3.40
96.0	0.091	3.44
100.0	0.088	3.50
104.0	0.086	3.53
108.0	0.083	3.59
112.0	0.081	3.63
116.0	0.079	3.68
120.0	0.077	3.71
124.0	0.075	3.75

<u>Time</u>	<u>Diam</u>	<u>ϕ</u>
128.0	0.073	3.78
132.0	0.0715	3.82
136.0	0.0700	3.85
140.0	0.068	3.89
144.0	0.065	3.94
148.0	0.063	3.97
152.0	0.061	4.03
156.0	0.060	4.06
160.0	0.059	4.08
164.0	0.057	4.12
168.0	0.056	4.16
172.0	0.054	4.20
176.0	0.052	4.26
180.0	0.051	4.29
184.0	0.049	4.36
188.0	0.048	4.39
192.0	0.047	4.42
196.0	0.046	4.45
200.0	0.045	4.50

N.B. This table is for use with 1 metre
Sedimentation tube with fitted
diffuser.

Sf = 0.7
Sp.Gr. = 2.65
Water = 20°C
Samples = 5.0 grms.

APPENDIX VI

GRAVEL SAMPLE ANALYSES (weight % composition)

<u>Sample No.</u>	<u>Particle Sizes in Inches</u>				
	<u>1.5</u> <u>(38mm)</u>	<u>0.75</u> <u>(19mm)</u>	<u>0.38</u> <u>(9.5mm)</u>	<u>0.19</u> <u>(4.8mm)</u>	<u>0.097</u> <u>(2.4mm)</u>
B1	-	22	35	18	25
B4	-	56	29	13	2
B5	-	20	7	36	36
B6	-	43	27	15	15
B8	-	38	8	21	33
B10	63	18	12	4	3
B13	-	31	34	22	13
B14	-	23	46	15	16
B16	-	93	1	1	5
B17	-	24	26	17	33
B18	19	-	11	31	39
B19	17	55	25	3	Tr
B20	-	-	38	9	53
B21	-	-	12	28	60
B22	-	62	32	5	1
B24	-	100	-	-	-
B28	44	56	-	-	-
B29	100	-	-	-	-
B1/30	-	-	28	28	44
B34	analysis not completed				
B66	-	-	33	37	30
B70	-	29	28	25	18
B76	-	29	26	25	20
B128	shell only				
B148	-	27	33	22	18
B149	-	-	42	42	16
B150	-	34	9	23	34
B151	-	7	38	27	28
B152	-	27	37	18	18

B153	-	36	19	24	21
B154	-	33	38	13	16
B155	-	27	25	24	24
B158	-	34	28	18	20
B165	40	12	29	11	8
B167	40	10	40	10	Tr
B232	-	27	12	28	33
B233	-	2	26	33	39
M6	-	-	46	30	24
M7	-	47	6	26	21
M8	97.8	Tr	Tr	Tr	Tr
M15	45	17	17	12	9
M23	analysis not completed				
M24	100	-	-	-	-
M25	100	-	-	-	-
M39	31	30	18	10	11
M42	-	22	25	25	28
M45	-	21	25	24	30
M46	-	15	28	25	32
M47	-	40	14	18	28
M48	20	10	26	15	29
M49	-	23	36	23	18
M51	-	100	-	-	-
M53	77	-	9	9	3
M58	100	-	-	-	-
M60	-	18	42	25	15
M62	-	-	37	34	29
M63	-	-	26	40	34
M68	-	-	30	35	35
M74	-	-	15	56	29
M79	-	-	27	34	39
M80	32	27	22	11	8
M84	-	25	28	27	20
M85	-	22	25	28	25

M86	44	31	15	6	4
M93	-	-	52	30	18
M107	-	-	10	31	59
M108	-	-	26	29	45
M110	-	5	30	35	30
M111	-	-	33	37	30
M115	12	-	59	19	10
M116	-	22	35	15	28
M117	35	16	28	13	8
M118	-	-	23	40	37
M122	-	35	28	20	17
M123	-	-	55	27	18
M124	-	-	16	63	21
M125	-	13	24	31	32
M137	-	34	24	22	20
M138	-	-	48	26	26
M144	-	-	33	49	18
M152	-	-	42	42	16
M153	-	-	34	36	30
M154	52	16	17	9	6
M155	-	34	46	13	7
M156	-	-	17	47	36
M160	analysis not completed				
M167	-	-	13	22	65
M169	-	-	31	41	28
M172	-	-	20	30	50
M176	41	34	12	7	6
M178	-	20	17	24	39
M219	-	-	6	37	57
M221	-	15	16	22	47
M223	-	-	-	mostly	3/16
M224	-	-	2	28	70
M225	-	-	23	33	44

M226	-	-	14	35	51
M227	-	-	38	33	29
M239	-	-	33	33	33
M240	-	-	59	22	19
M241	-	15	27	37	21
M246	-	40	18	18	24
M247	-	-	-	5	95
M255	-	23	31	31	15
M257	73	8	9	6	4
M259	-	21	28	22	29
M270	-	95	approximately 5		
M273	90	4	2	2	2
M281	-	-	31	31	38
M293	-	62	-	19	19
M296	-	13	15	29	43
M301	-	25	25	26	24
M306	-	40	18	27	15
M309	38	-	25	18	19
M310	-	97	1	1	1
M322	-	-	48	21	31
M323A	-	14	23	36	27
M324	83	14	-	-	3
M326	-	7	6	17	70
M328	-	46	14	14	26
M329	NT	-	Tr	Tr	Tr
M338	85	-	10	3	2
M340	-	61	19	10	10
M354	56	20	9	7	8
M357	76	8	8	6	2
M367	-	22	27	24	27
M378	-	84	-	8	8
M380	-	28	21	27	24
M385	-	-	NT	Tr	Tr

M397	-	64	36	-	-
M477	48	18	10	11	13
M486	analysis not completed				
M488	analysis not completed				
M491	analysis not completed				
M516	-	-	53	20	27
M517	100	-	-	-	-
M518	47	3	19	15	16
M519	-	100	-	-	-
M520	-	26	10	22	42
M521	-	-	18	42	40
M572	-	NT	Tr	Tr	-
M573	-	-	30	47	23
M577	69	10	15	4	2
M603	-	2	31	30	37
M604	-	45	29	16	10
M607	-	-	-	all	3/16
M618	analysis not completed				
M639	analysis not completed				
M663	98	-	-	1	1
M664	analysis not completed				
M685	-	-	30	27	43
M686	-	-	13	21	66
M687	27	-	1	10	62
M688	-	69	-	8	23
M689	75	-	7	10	8
M690	-	-	29	42	29
M691	-	57	17	12	14
M693	78	1	8	5	8
M694	-	-	23	45	32
M695	-	-	-	9	91
M696	-	-	26	26	48

M697	-	-	20	39	41
M708	64	18	12	5	1
M746	-	-	19	31	50
M747	-	-	20	49	31

In the above table NT = near total, Tr = trace.

In the cases where the analysis of gravel samples is recorded as incomplete, this is because the gravel is of shell or pellet material and reference should be made to the original records for complete details.

APPENDIX VII

SAND SAMPLE SIEVE ANALYSES - VALUES IN ϕ

	2	5	16	25	50	75	84	95	98 Percentiles	
1/4A	0.0	1.83	0.93	2.00	2.30	2.52	2.56	2.67	0.0	} Test samples
1/8A	0.0	1.85	2.01	2.18	2.43	2.59	2.65	2.80	0.0	
1/16A	0.0	1.84	2.01	2.18	2.43	2.56	2.61	2.69	0.0	
1/32A	0.0	1.86	2.04	2.18	2.43	2.56	2.61	2.69	0.0	
1/64A	0.0	1.88	2.10	2.24	2.51	2.65	2.70	2.86	0.0	
1/128A	0.0	1.87	2.10	2.24	2.51	2.69	2.75	2.98	0.0	
1/256A	0.0	1.92	2.15	2.28	2.52	2.69	2.74	2.91	0.0	
aA	0.0	1.86	2.08	2.22	2.50	2.65	2.72	2.87	0.0	
bA	0.0	1.86	2.08	2.22	2.50	2.65	2.73	2.87	0.0	
B	0.0	2.36	2.60	2.68	2.88	3.12	3.23	3.62	0.0	
aC	0.0	1.94	2.17	2.29	2.51	2.64	2.70	2.86	0.0	
bC	0.0	1.94	2.17	2.29	2.51	2.65	2.72	2.87	0.0	
B2	0.0	1.55	1.96	2.07	2.28	2.50	2.60	2.72	0.0	
c B5	0.0	-0.75	-0.65	-0.62	-0.53	-0.18	-0.01	-2.16	0.0	
c B8	0.0	-0.69	-0.57	-0.53	-0.18	0.98	1.80	2.23	0.0	
B11	0.0	1.72	2.02	2.12	2.34	2.48	2.55	2.67	0.0	
c B14	0.0	1.27	1.80	1.87	2.10	2.30	2.42	2.65	0.0	
c B17	0.0	-0.62	-0.40	-0.14	0.32	0.75	0.97	1.90	0.0	
c B20	0.0	-0.61	-0.39	0.02	0.84	1.95	2.07	2.36	0.0	
c B23	0.0	1.08	1.80	1.90	2.09	2.26	2.37	2.59	0.0	
B26	0.0	0.88	1.28	1.50	1.90	2.12	2.22	2.43	0.0	
c B29	0.0	1.39	1.79	1.87	2.00	2.19	2.27	2.48	0.0	
c B32	0.0	1.10	2.14	2.37	2.60	2.70	2.75	2.94	0.0	
c B35	0.0	1.67	2.17	2.34	2.53	2.70	2.75	2.94	0.0	
B39	0.0	1.34	1.86	2.03	2.39	2.65	2.72	2.89	0.0	
B43	0.0	1.75	1.92	2.00	2.18	2.41	2.51	2.67	0.0	
B48	0.0	1.94	2.05	2.14	2.29	2.50	2.53	2.60	0.0	
B53	0.0	1.93	2.08	2.15	2.35	2.57	2.62	2.76	0.0	
B57	0.0	1.83	1.99	2.06	2.26	2.52	2.58	2.71	0.0	
B60	0.0	1.85	2.03	2.10	2.28	2.55	2.62	2.81	0.0	

c B63	0.0	1.45	2.24	2.43	2.69	2.90	3.00	3.17	0.0
c B67	0.0	2.01	2.39	2.51	2.69	2.87	2.97	3.19	0.0
B129	0.0	1.78	1.98	2.10	2.36	2.62	2.72	3.04	0.0
B130	0.0	1.85	2.06	2.17	2.45	2.66	2.74	3.06	0.0
B131	0.0	1.87	2.09	2.19	2.45	2.64	2.73	3.00	0.0
B132	0.0	1.81	2.06	2.17	2.45	2.65	2.71	3.00	0.0
B133	0.0	1.50	1.86	1.97	2.22	2.53	2.62	2.83	0.0
B134	0.0	1.75	1.95	2.06	2.31	2.55	2.64	2.87	0.0
B135	0.0	1.81	2.00	2.11	2.35	2.57	2.66	2.92	0.0
B136	0.0	1.70	1.95	2.06	2.32	2.56	2.65	2.90	0.0
B137	0.0	1.45	1.85	1.97	2.20	2.48	2.58	2.80	0.0
B138	0.0	1.23	1.86	2.03	2.34	2.60	2.69	2.95	0.0
B139	0.0	1.58	2.03	2.17	2.55	2.70	2.80	3.10	0.0
B140	0.0	1.60	2.07	2.22	2.53	2.69	2.77	3.08	0.0
B141	0.0	1.64	1.93	2.14	2.46	2.70	2.83	3.12	0.0
B142	0.0	1.13	1.85	2.00	2.33	2.62	2.69	2.97	0.0
B143	0.0	1.73	2.03	2.17	2.50	2.70	2.83	3.10	0.0
B144	0.0	1.10	1.75	1.87	2.17	2.50	2.64	2.95	0.0
B145	0.0	1.28	1.85	1.95	2.27	2.60	2.70	3.00	0.0
B146	0.0	1.35	1.89	2.03	2.34	2.65	2.76	3.08	0.0
B147	0.0	1.38	1.97	2.13	2.45	2.68	2.78	3.04	0.0
B148	0.0	-4.80	-3.30	-0.95	1.50	2.50	2.67	3.04	0.0
c B148	0.0	-0.68	-0.54	-0.50	2.06	2.60	2.75	3.11	0.0
B149	0.0	-4.80	-3.30	1.15	2.07	2.55	2.70	3.04	0.0
c B149	0.0	0.95	1.70	1.90	2.25	2.64	2.78	3.08	0.0
B150	0.0	-4.80	-3.30	1.30	2.22	2.65	2.80	3.15	0.0
c B150	0.0	0.48	1.78	1.95	2.37	2.70	2.86	3.14	0.0
B151	0.0	-4.80	-3.30	-0.72	2.05	2.56	2.70	3.05	0.0
c B151	0.0	-0.14	1.40	1.85	2.30	2.67	2.80	3.08	0.0
B152	0.0	-4.80	-3.30	1.10	2.22	2.75	2.82	3.15	0.0
c B152	0.0	0.45	1.78	1.99	2.49	2.79	2.87	3.10	0.0
c B153	0.0	-0.57	0.05	0.93	1.93	2.40	2.66	3.07	0.0
c B154	0.0	-0.52	0.64	1.35	2.16	2.66	2.85	3.20	0.0

c B155	0.0	-0.54	0.04	0.74	1.80	2.25	2.54	2.97	0.0
M5	0.0	1.96	2.20	2.30	2.50	2.67	2.73	2.90	0.0
c 115	0.0	-0.59	-0.38	0.15	1.05	1.49	1.85	2.50	0.0
M21	0.0	1.00	1.44	1.54	1.84	1.95	2.05	2.38	0.0
c M39	0.0	-0.50	0.73	1.28	2.25	2.70	2.84	3.17	0.0
c M41	0.0	1.50	2.11	2.23	2.51	2.70	2.82	3.12	0.0
c M45	0.0	-0.65	-0.54	-0.50	0.91	1.32	1.49	2.20	0.0
c 147	0.0	-0.53	0.02	0.58	2.04	2.42	2.55	2.71	0.0
c M48	0.0	-0.66	-0.55	-0.50	0.07	1.26	1.92	2.65	0.0
M73	0.0	1.29	1.62	1.79	1.92	2.09	2.15	2.37	0.0
M78	0.0	1.76	1.97	2.12	2.47	2.69	2.78	3.04	0.0
c M93	0.0	0.31	1.31	1.68	2.12	2.60	2.71	3.12	0.0
M99	0.0	1.55	1.77	1.82	1.93	2.09	2.16	2.45	0.0
M129	0.0	1.30	1.84	1.92	2.19	2.50	2.62	2.84	0.0
M130	0.0	2.05	2.45	2.56	2.79	3.00	3.06	3.25	0.0
c 1152	0.0	0.40	1.24	1.50	1.89	2.10	2.17	2.42	0.0
1161	0.0	1.72	1.88	1.94	2.07	2.24	2.32	2.55	0.0
M171	0.0	1.87	2.05	2.12	2.30	2.53	2.60	2.74	0.0
1185	0.0	1.17	1.50	1.72	1.89	2.07	2.14	2.42	0.0
M192	0.0	1.55	1.84	1.92	2.14	2.39	2.50	2.67	0.0
M196	0.0	1.86	2.41	2.67	2.89	3.08	3.15	3.31	0.0
M205	0.0	1.77	1.93	2.00	2.14	2.34	2.45	2.70	0.0
M210	0.0	1.80	1.96	2.04	2.24	2.42	2.50	2.69	0.0
c 1218	0.0	0.54	1.12	1.35	1.88	2.11	2.20	2.47	0.0
M252	0.0	1.25	1.54	1.78	1.94	2.15	2.25	2.57	0.0
M283	0.0	2.04	2.17	2.25	2.46	2.70	2.83	3.14	0.0
M303	0.0	2.34	2.71	3.09	3.74	3.76	3.78	3.82	0.0
1316	0.0	2.72	2.98	3.12	3.74	3.76	3.78	3.82	0.0
M355	0.0	2.04	2.24	2.39	2.64	2.94	3.14	3.54	0.0
B113/ 157	0.0	2.13	2.50	2.60	2.80	3.04	3.15	3.45	0.0)
D	0.0	-1.30	-0.84	-0.61	1.27	2.30	2.45	2.66	0.0)
E	0.0	0.25	0.55	0.70	1.03	1.25	1.38	1.70	0.0)
F	0.0	1.87	2.05	2.14	2.36	2.57	2.62	2.86	0.0)
sF	0.0	1.85	2.00	2.10	2.29	2.53	2.60	2.74	0.0)

} Test samples

Prefix c denotes that value has been adjusted for removal of 2.0 mm material from cumulative curve.

APPENDIX VIII

SAND SAMPLE SEDIMENTATION TUBE ANALYSES

VALUES IN ϕ

percentiles

nos B one to B fifty one;

60%	2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
-0.53;	-0.47;	-0.13;	0.23;	0.55;	0.68;	1.12;	2.03;	2.20;	2.20;	1
1.82;	1.92;	1.96;	2.07;	2.23;	2.48;	2.54;	2.75;	2.91;	2.91;	2
1.53;	1.82;	1.86;	1.96;	2.19;	2.48;	2.60;	2.76;	2.85;	2.85;	3
-1.03;	-0.90;	-0.60;	-0.45;	-0.25;	0.11;	0.44;	1.75;	2.14;	2.14;	5
-1.02;	-0.73;	-0.48;	-0.29;	0.20;	1.79;	2.06;	2.39;	2.63;	2.63;	6
1.01;	1.12;	1.27;	1.33;	1.53;	1.70;	1.83;	2.13;	2.34;	2.34;	7
-1.02;	-0.80;	-0.48;	-0.34;	0.03;	0.36;	0.71;	1.48;	1.89;	1.89;	8
1.92;	1.96;	2.07;	2.10;	2.28;	2.44;	2.60;	2.77;	2.95;	2.95;	9
0.30;	0.55;	1.10;	1.33;	1.70;	2.03;	2.19;	2.48;	2.70;	2.70;	10
1.86;	1.92;	1.96;	2.07;	2.19;	2.37;	2.48;	2.70;	2.77;	2.77;	11
1.92;	2.07;	2.16;	2.23;	2.34;	2.54;	2.67;	2.76;	2.86;	2.86;	12
-0.50;	-0.34;	0.23;	0.48;	0.81;	1.34;	1.53;	1.94;	2.18;	2.18;	13
0.78;	1.56;	1.72;	1.80;	1.93;	2.20;	2.33;	2.55;	2.65;	2.65;	14
1.53;	1.70;	1.92;	2.03;	2.16;	2.31;	2.37;	2.60;	2.72;	2.72;	15
-0.31;	-0.11;	0.35;	0.56;	0.78;	1.10;	1.26;	1.55;	1.77;	1.77;	16
-0.39;	-0.63;	-0.29;	0.07;	0.32;	0.58;	0.70;	0.90;	1.09;	1.09;	17
0.75;	1.08;	1.25;	1.42;	1.66;	1.86;	1.96;	2.18;	2.36;	2.36;	19
-0.67;	-0.50;	-0.05;	0.36;	0.81;	1.64;	1.92;	2.19;	2.3;	2.3;	20
-0.60;	-0.50;	0.03;	1.29;	1.82;	2.09;	2.22;	2.48;	2.57;	2.57;	21
1.50;	1.72;	1.79;	1.84;	1.96;	2.17;	2.30;	2.46;	2.58;	2.58;	22
1.16;	1.51;	1.63;	1.70;	1.82;	2.14;	2.31;	2.51;	2.64;	2.64;	23
1.02;	1.42;	1.78;	1.89;	2.10;	2.30;	2.37;	2.62;	2.75;	2.75;	24
1.62;	1.66;	1.71;	1.75;	1.85;	1.96;	2.09;	2.36;	2.43;	2.43;	25
1.06;	1.17;	1.33;	1.45;	1.72;	1.93;	2.03;	2.32;	2.43;	2.43;	26
1.36;	1.54;	1.66;	1.73;	1.90;	2.16;	2.30;	2.56;	2.68;	2.68;	27
1.14;	1.23;	1.33;	1.47;	1.66;	1.85;	2.09;	2.33;	2.43;	2.43;	28
1.70;	1.75;	1.82;	1.86;	1.96;	2.19;	2.31;	2.43;	2.63;	2.63;	29
1.62;	1.66;	1.96;	2.03;	2.19;	2.44;	2.54;	2.67;	2.79;	2.79;	30
0.14;	0.48;	1.10;	1.41;	1.75;	2.14;	2.33;	2.57;	2.69;	2.69;	1/30
1.75;	2.03;	2.07;	2.23;	2.34;	2.60;	2.72;	2.85;	2.93;	2.93;	31
1.33;	1.82;	2.03;	2.10;	2.34;	2.60;	2.75;	2.87;	2.98;	2.98;	32
1.96;	2.10;	2.23;	2.37;	2.54;	2.76;	2.82;	2.96;	3.10;	3.10;	33
1.62;	1.92;	2.10;	2.19;	2.34;	2.60;	2.75;	2.89;	3.02;	3.02;	34
1.82;	1.92;	1.96;	2.10;	2.34;	2.65;	2.76;	2.87;	2.98;	2.98;	35
2.07;	2.16;	2.28;	2.37;	2.57;	2.80;	2.86;	2.99;	3.11;	3.11;	36
1.96;	2.03;	2.10;	2.16;	2.31;	2.57;	2.70;	2.85;	2.98;	2.98;	37
1.75;	1.92;	1.96;	2.10;	2.23;	2.54;	2.70;	2.86;	2.98;	2.98;	38
1.33;	1.70;	1.86;	1.96;	2.33;	2.48;	2.63;	2.80;	2.91;	2.91;	39
2.07;	2.10;	2.19;	2.31;	2.48;	2.76;	2.85;	2.99;	3.08;	3.08;	40
1.82;	1.86;	1.92;	1.96;	2.10;	2.31;	2.41;	2.60;	2.76;	2.76;	41
1.86;	1.86;	1.92;	2.07;	2.19;	2.37;	2.51;	2.67;	2.79;	2.79;	42
1.70;	1.82;	1.86;	1.92;	2.07;	2.31;	2.44;	2.63;	2.75;	2.75;	43
1.86;	1.92;	2.03;	2.07;	2.19;	2.44;	2.57;	2.75;	2.93;	2.93;	44
1.96;	2.10;	2.19;	2.28;	2.41;	2.57;	2.67;	2.82;	2.93;	2.93;	45
1.75;	1.82;	1.92;	2.03;	2.23;	2.41;	2.51;	2.72;	2.83;	2.83;	46
1.86;	1.92;	1.96;	2.03;	2.16;	2.41;	2.48;	2.67;	2.77;	2.77;	47
1.92;	2.03;	2.07;	2.10;	2.23;	2.44;	2.57;	2.75;	2.82;	2.82;	48
1.82;	1.86;	1.92;	1.96;	2.16;	2.37;	2.48;	2.70;	2.86;	2.86;	49
1.92;	1.96;	2.03;	2.10;	2.31;	2.54;	2.63;	2.79;	2.88;	2.88;	50
1.92;	1.96;	2.03;	2.07;	2.16;	2.37;	2.51;	2.75;	2.85;	2.85;	51

nos B fifty two to B ninty nine;

50%	2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
1.92;	1.92;	2.03;	2.07;	2.10;	2.28;	2.44;	2.60;	2.77;	2.89;	52
1.92;	1.92;	2.03;	2.03;	2.16;	2.23;	2.44;	2.57;	2.76;	2.85;	53
1.92;	1.96;	2.03;	2.10;	2.10;	2.28;	2.48;	2.60;	2.76;	2.86;	54
1.92;	1.96;	2.03;	2.10;	2.10;	2.23;	2.44;	2.60;	2.77;	2.86;	55
1.92;	1.96;	2.03;	2.10;	2.19;	2.31;	2.60;	2.70;	2.86;	2.99;	56
1.86;	2.03;	2.10;	2.19;	2.10;	2.34;	2.48;	2.70;	2.78;	2.78;	57
1.82;	1.92;	1.96;	2.03;	2.10;	2.44;	2.60;	2.77;	2.88;	2.88;	58
1.86;	1.86;	1.92;	2.03;	2.10;	2.44;	2.60;	2.70;	2.83;	3.02;	31/58
1.82;	1.92;	2.03;	2.16;	2.37;	2.60;	2.70;	2.83;	3.02;	3.02;	59
1.70;	1.86;	1.92;	1.96;	2.10;	2.31;	2.41;	2.60;	2.76;	2.76;	60
1.86;	1.82;	1.96;	2.07;	2.23;	2.41;	2.54;	2.70;	2.80;	2.80;	61
1.33;	1.92;	1.96;	2.03;	2.16;	2.44;	2.63;	2.79;	2.89;	2.89;	62
1.53;	1.70;	1.92;	2.07;	2.23;	2.48;	2.63;	2.77;	2.89;	2.89;	63
2.57;	1.92;	2.07;	2.16;	2.34;	2.70;	2.79;	2.99;	3.12;	3.12;	63
1.75;	2.63;	2.75;	2.80;	3.05;	3.27;	3.34;	3.50;	3.60;	3.60;	64
0.30;	1.92;	2.03;	2.07;	2.19;	2.41;	2.54;	2.79;	2.89;	2.89;	65
1.96;	0.97;	1.75;	1.82;	2.07;	2.44;	2.65;	2.85;	3.02;	3.02;	66
0.30;	2.07;	2.31;	2.44;	2.63;	2.79;	2.88;	3.03;	3.26;	3.26;	67
1.70;	0.97;	1.82;	2.19;	2.44;	2.77;	2.87;	3.11;	3.32;	3.32;	68
1.66;	1.92;	2.03;	2.16;	2.54;	2.60;	2.76;	2.95;	3.13;	3.13;	59/68
1.58;	1.92;	1.96;	2.03;	2.10;	2.34;	2.57;	2.77;	2.89;	2.89;	69
1.66;	1.82;	1.89;	1.97;	2.20;	2.41;	2.53;	2.77;	2.88;	2.88;	70
1.62;	1.96;	2.07;	2.16;	2.31;	2.54;	2.70;	2.86;	2.98;	2.98;	71
1.70;	1.92;	1.96;	2.03;	2.10;	2.44;	2.65;	2.80;	2.95;	2.95;	72
1.22;	1.66;	2.03;	2.10;	2.34;	2.76;	2.95;	3.41;	3.70;	3.70;	73
1.44;	1.33;	1.53;	1.70;	1.96;	2.37;	2.75;	3.31;	3.71;	3.71;	74
-0.53;	1.75;	1.92;	2.10;	2.44;	2.82;	3.05;	3.49;	3.67;	3.67;	75
2.28;	-0.42;	0.11;	0.52;	1.12;	1.77;	2.08;	2.30;	3.07;	3.07;	76
1.62;	2.31;	2.41;	2.51;	2.72;	2.85;	2.93;	3.11;	3.30;	3.30;	77
1.10;	2.03;	2.10;	2.10;	2.28;	2.54;	2.65;	2.83;	2.96;	2.96;	78
1.86;	1.92;	2.03;	2.10;	2.28;	2.54;	2.65;	2.83;	2.96;	2.96;	79
1.86;	1.37;	1.49;	1.63;	1.94;	2.23;	2.36;	2.59;	2.70;	2.70;	80
1.92;	1.96;	2.03;	2.16;	2.37;	2.57;	2.70;	2.87;	3.08;	3.08;	80
1.92;	2.07;	2.16;	2.28;	2.48;	2.75;	2.83;	3.29;	3.71;	3.71;	81
2.31;	2.03;	2.07;	2.10;	2.28;	2.54;	2.70;	2.86;	2.98;	2.98;	82
2.03;	1.75;	1.96;	2.07;	2.31;	2.57;	2.67;	2.82;	2.93;	2.93;	83
1.92;	2.34;	2.44;	2.57;	2.79;	2.96;	3.11;	3.38;	3.62;	3.62;	84
1.70;	2.07;	2.10;	2.23;	2.34;	2.57;	2.67;	2.72;	2.96;	2.96;	85
2.31;	2.03;	2.07;	2.16;	2.28;	2.51;	2.63;	2.82;	2.95;	2.95;	86
2.03;	2.37;	2.51;	2.65;	2.88;	3.13;	3.30;	3.56;	3.74;	3.74;	87
1.92;	2.19;	2.31;	2.37;	2.57;	2.77;	2.86;	3.04;	3.28;	3.28;	88
2.31;	1.86;	1.96;	2.07;	2.23;	2.48;	2.60;	2.77;	2.86;	2.86;	89
2.16;	2.19;	2.28;	2.34;	2.48;	2.70;	2.77;	2.96;	3.15;	3.15;	90
1.82;	2.10;	2.19;	2.28;	2.44;	2.63;	2.75;	2.86;	2.99;	2.99;	91
2.10;	2.07;	2.19;	2.28;	2.44;	2.63;	2.75;	2.86;	2.99;	2.99;	92
1.86;	1.96;	2.03;	2.10;	2.23;	2.44;	2.60;	2.76;	2.86;	2.86;	92
1.92;	1.96;	2.07;	2.19;	2.34;	2.57;	2.67;	2.86;	2.99;	2.99;	93
1.92;	1.96;	2.03;	2.10;	2.28;	2.57;	2.70;	2.93;	3.07;	3.07;	94
1.96;	2.03;	2.10;	2.19;	2.34;	2.63;	2.77;	2.96;	3.08;	3.08;	95
2.10;	2.19;	2.23;	2.34;	2.48;	2.72;	2.82;	2.96;	3.10;	3.10;	96
1.92;	1.96;	2.07;	2.16;	2.31;	2.51;	2.63;	2.79;	2.87;	2.87;	97
2.07;	2.16;	2.28;	2.37;	2.60;	2.82;	2.93;	3.18;	3.44;	3.44;	98
2.03;	2.10;	2.16;	2.23;	2.34;	2.57;	2.70;	2.83;	2.96;	2.96;	99

nos B one hundred to B one hundred and forty nine;

50%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
1.92;	1.96;	2.03;	2.07;	2.23;	2.44;	2.60;	2.70;	2.87;	100
2.10;	2.19;	2.26;	2.37;	2.57;	2.61;	2.96;	3.20;	3.42;	101
2.03;	2.10;	2.19;	2.28;	2.46;	2.70;	2.80;	3.02;	3.22;	102
1.92;	1.96;	2.03;	2.07;	2.23;	2.37;	2.54;	2.75;	2.86;	103
1.90;	2.07;	2.19;	2.34;	2.60;	2.77;	2.86;	3.08;	3.20;	104
1.96;	2.03;	2.07;	2.10;	2.28;	2.48;	2.60;	2.77;	2.89;	105
1.86;	1.92;	1.96;	2.03;	2.16;	2.37;	2.57;	2.75;	2.81;	106
1.82;	2.15;	2.32;	2.45;	2.74;	3.10;	3.30;	3.77;	4.04;	107
2.03;	2.10;	2.16;	2.28;	2.48;	2.70;	2.80;	2.99;	3.12;	108
1.86;	1.92;	2.03;	2.07;	2.19;	2.44;	2.60;	2.76;	2.87;	109
1.75;	1.86;	1.96;	2.03;	2.10;	2.41;	2.57;	2.72;	2.83;	110
1.96;	2.07;	2.16;	2.23;	2.48;	2.70;	2.80;	2.99;	3.15;	111
1.86;	1.92;	1.96;	2.03;	2.19;	2.41;	2.48;	2.65;	2.78;	112
1.92;	1.90;	2.03;	2.10;	2.28;	2.44;	2.60;	2.80;	2.94;	113
2.31;	2.37;	2.51;	2.63;	2.80;	2.96;	3.08;	3.29;	3.52;	114
1.96;	2.03;	2.10;	2.19;	2.37;	2.57;	2.67;	2.83;	2.99;	115
1.82;	1.92;	1.96;	2.03;	2.10;	2.28;	2.37;	2.60;	2.70;	116
2.19;	2.31;	2.44;	2.60;	2.78;	2.99;	3.09;	3.30;	3.44;	117
1.92;	2.03;	2.16;	2.23;	2.44;	2.67;	2.76;	2.87;	3.02;	118
1.92;	2.03;	2.07;	2.10;	2.23;	2.41;	2.60;	2.77;	2.84;	119
2.31;	2.37;	2.48;	2.63;	2.81;	3.06;	3.18;	3.44;	3.74;	120
1.22;	1.53;	1.75;	1.86;	2.10;	2.34;	2.51;	2.75;	2.84;	121
1.82;	1.75;	1.96;	2.10;	2.28;	2.48;	2.60;	2.78;	2.87;	122
2.34;	2.41;	2.57;	2.65;	2.80;	3.02;	3.12;	3.34;	3.47;	123
1.86;	1.96;	2.07;	2.23;	2.41;	2.67;	2.76;	2.89;	3.00;	124
1.75;	1.92;	2.03;	2.10;	2.31;	2.57;	2.70;	2.87;	2.99;	125
2.26;	2.31;	2.41;	2.46;	2.75;	2.93;	3.03;	3.37;	3.62;	126
1.86;	1.92;	2.03;	2.16;	2.48;	2.70;	2.80;	2.93;	3.05;	127
1.35;	1.82;	1.92;	2.03;	2.23;	2.60;	2.72;	2.86;	2.90;	128
1.82;	1.92;	1.96;	2.07;	2.19;	2.44;	2.57;	2.80;	2.99;	129
1.92;	2.03;	2.07;	2.16;	2.34;	2.57;	2.70;	2.86;	3.05;	130
2.03;	2.07;	2.16;	2.23;	2.37;	2.60;	2.72;	2.91;	3.13;	131
1.82;	1.86;	2.03;	2.10;	2.23;	2.41;	2.63;	2.86;	3.05;	132
1.82;	1.86;	1.96;	2.07;	2.19;	2.41;	2.57;	2.76;	2.91;	133
1.70;	1.75;	1.82;	1.86;	1.96;	2.31;	2.46;	2.72;	2.83;	134
1.80;	1.92;	2.03;	2.07;	2.23;	2.44;	2.60;	2.81;	2.97;	135
1.33;	1.70;	1.75;	1.86;	2.10;	2.44;	2.60;	2.78;	2.96;	136
1.70;	1.86;	1.92;	1.96;	2.16;	2.41;	2.54;	2.76;	2.87;	137
1.10;	1.44;	1.75;	2.03;	2.28;	2.51;	2.67;	2.84;	3.11;	138
1.44;	1.82;	1.90;	2.07;	2.34;	2.60;	2.75;	2.93;	3.12;	139
1.33;	1.86;	1.96;	2.03;	2.26;	2.60;	2.75;	2.93;	3.08;	140
1.44;	1.82;	1.90;	2.07;	2.23;	2.44;	2.63;	2.93;	3.13;	141
1.82;	1.96;	2.07;	2.19;	2.34;	2.63;	2.78;	3.02;	3.29;	142
1.82;	1.82;	2.03;	2.10;	2.31;	2.60;	2.75;	2.89;	3.15;	143
0.97;	1.36;	1.50;	1.58;	1.73;	2.25;	2.45;	2.70;	2.87;	144
1.44;	1.70;	1.82;	1.92;	2.10;	2.41;	2.65;	2.87;	3.05;	145
1.82;	1.92;	1.96;	2.07;	2.19;	2.54;	2.70;	2.94;	3.15;	146
1.70;	1.75;	1.86;	1.92;	2.10;	2.51;	2.70;	2.96;	3.14;	147
0.28;	1.22;	1.82;	1.96;	2.19;	2.51;	2.72;	3.02;	3.40;	148
1.70;	1.86;	1.96;	2.07;	2.28;	2.51;	2.70;	2.96;	3.16;	149

nos 150 one hundred and fifty to 234 two hundred and thirty four;

	<u>2%</u>	<u>5%</u>	<u>16%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>84%</u>	<u>95%</u>	<u>98%</u>	<u>Sample No.</u>
37										
	0.20	0.70	1.02	1.02	2.07	2.51	2.70	2.93	3.12	150
	0.70	1.33	1.62	1.92	2.10	2.54	2.77	3.04	3.22	151
	-0.11	0.97	1.02	1.02	2.07	2.44	2.70	2.93	3.15	152
	-0.32	-0.45	0.70	1.22	1.70	2.23	2.54	2.91	3.12	153
	-0.11	0.30	1.10	1.55	1.90	2.51	2.60	3.02	3.29	154
	-0.45	-0.11	0.97	1.33	1.65	2.51	2.54	3.01	3.20	155
	2.19	2.20	2.34	2.46	2.72	2.90	3.06	3.35	3.55	156
	1.92	1.90	2.07	2.16	2.31	2.51	2.63	2.83	3.02	157
	0.27	0.55	1.10	1.33	1.82	2.28	2.57	3.00	3.28	158
	1.92	2.03	2.10	2.19	2.57	2.63	2.75	2.95	3.11	159
	2.41	2.57	2.70	2.77	2.94	3.16	3.31	3.50	3.61	160
	2.16	2.19	2.51	2.41	2.57	2.78	2.67	3.08	3.29	161
	1.33	1.75	1.62	1.92	2.07	2.41	2.57	2.76	2.61	162
	2.16	2.54	2.44	2.60	2.61	3.00	3.13	3.34	3.49	163
	2.03	2.10	2.20	2.37	2.57	2.76	2.63	2.99	3.09	164
	0.55	0.97	1.53	1.70	1.92	2.10	2.28	2.46	2.63	165
	2.16	2.19	2.28	2.37	2.57	2.80	2.86	3.05	3.20	166
	1.70	1.66	1.92	2.03	2.10	2.51	2.44	2.70	2.63	167
	1.66	2.07	2.16	2.23	2.41	2.63	2.75	2.69	3.03	168
	2.19	2.26	2.31	2.41	2.60	2.60	2.89	3.05	3.25	169
	2.10	2.16	2.23	2.31	2.44	2.70	2.83	3.11	3.33	170
	1.66	1.92	2.03	2.07	2.16	2.37	2.51	2.67	2.81	171
	1.92	1.90	2.03	2.10	2.28	2.48	2.63	2.80	2.97	172
	1.62	1.92	2.03	2.10	2.28	2.48	2.60	2.83	3.00	173
	1.75	1.82	1.86	1.90	2.07	2.28	2.41	2.65	2.77	174
	1.82	1.86	1.92	1.96	2.16	2.41	2.60	2.77	2.89	175
	1.66	2.03	2.10	2.19	2.34	2.67	2.80	2.97	3.33	176
	1.62	1.66	1.92	1.96	2.07	2.34	2.44	2.65	2.76	177
	1.92	1.96	2.03	2.10	2.19	2.48	2.63	2.60	2.96	178
	1.92	2.03	2.07	2.16	2.34	2.60	2.72	2.99	3.32	179
	1.82	1.86	1.96	2.07	2.16	2.41	2.54	2.72	2.69	180
	2.26	2.31	2.37	2.48	2.65	2.81	2.93	3.30	3.44	181
	2.07	2.10	2.19	2.26	2.48	2.76	2.84	3.09	3.29	182
	1.66	2.03	2.10	2.19	2.41	2.67	2.78	2.99	3.14	183
	-0.92	-0.45	0.70	1.04	1.62	1.96	2.19	2.46	2.70	232
	-0.97	-0.05	-0.69	-0.60	-0.45	-0.24	-0.05	0.32	0.78	233
	2.07	2.13	2.16	2.28	2.41	2.61	2.76	3.09	3.53	234

nos one to fifty two,

50%	2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
2.70	2.55	2.74	2.62	3.00	3.34	3.40	3.70	4.01	1	
1.53	2.07	2.57	2.63	2.81	3.20	3.40	3.76	4.02	2	
1.02	2.19	2.31	2.42	2.72	3.06	3.31	3.67	3.94	3	
1.92	2.10	2.21	2.56	2.54	2.66	2.82	3.01	3.25	4	
1.94	1.96	2.07	2.16	2.34	2.62	2.72	2.85	3.03	5	
0.00	1.10	1.21	1.30	1.45	1.71	1.89	2.21	2.42	6	
0.42	0.74	1.09	1.21	1.42	1.73	1.87	2.32	2.51	7	
1.33	2.10	2.52	2.76	3.11	3.33	3.52	3.70	4.04	8	
0.97	2.36	2.61	2.74	2.95	3.29	3.47	3.71	4.01	9	
2.31	2.37	2.57	2.67	2.89	3.17	3.33	3.56	3.81	10	
2.09	2.23	2.34	2.44	2.77	3.07	3.29	3.65	3.93	11	
1.44	1.79	2.19	2.36	2.65	2.98	3.20	3.64	3.90	12	
1.44	2.06	2.29	2.51	2.78	3.16	3.32	3.69	4.02	13	
2.23	2.47	2.57	2.71	2.92	3.17	3.32	3.59	4.01	14	
-0.66	-0.37	0.13	0.41	0.78	1.20	1.42	1.97	2.58	15	
2.10	2.69	2.79	3.01	3.23	3.41	3.55	3.78	4.02	16	
2.23	2.37	2.51	2.70	2.93	3.20	3.39	3.71	3.89	17	
1.53	1.82	2.03	2.13	2.41	2.72	2.82	3.04	3.34	18	
2.03	2.05	2.10	2.16	2.31	2.59	2.75	2.89	3.15	19	
1.70	1.74	1.79	1.84	1.93	2.05	2.17	2.50	2.63	20	
1.33	1.39	1.45	1.51	1.59	1.74	1.84	2.22	2.52	21	
0.56	0.97	1.53	1.62	2.41	2.96	3.18	3.64	3.96	23	
0.66	1.33	2.27	2.42	2.71	3.03	3.25	3.68	4.04	24	
1.26	1.95	2.24	2.38	2.57	2.88	3.14	3.68	4.02	25	
1.75	1.86	1.96	2.07	2.54	2.87	3.12	3.67	3.95	26	
0.97	1.22	1.61	2.05	2.46	2.89	3.19	3.63	4.02	27	
0.97	1.61	1.93	2.05	2.48	2.89	3.09	3.51	4.00	28	
0.57	1.10	1.53	1.96	2.44	2.89	3.13	3.64	3.96	29	
1.53	1.86	2.07	2.16	2.53	2.97	3.26	3.69	4.03	30	
0.70	1.53	1.82	1.96	2.41	2.83	3.11	3.70	3.96	31	
0.97	1.57	2.05	2.14	2.39	2.78	2.98	3.53	4.00	32	
1.62	2.07	2.43	2.68	2.94	3.29	3.40	3.71	4.04	33	
1.92	2.03	2.10	2.23	2.51	2.82	3.01	3.36	3.56	34	
1.44	1.92	2.28	2.41	2.65	2.96	3.13	3.69	4.03	35	
1.75	2.07	2.15	2.23	2.46	2.77	2.85	3.07	3.34	36	
1.66	1.92	2.07	2.23	2.44	2.75	2.85	3.14	3.40	37	
-0.11	2.23	2.37	2.46	2.77	3.04	3.14	3.43	3.64	38	
-0.45	-0.11	0.78	1.44	2.03	2.51	2.72	3.01	3.22	39	
1.96	2.03	2.10	2.19	2.37	2.65	2.79	3.05	3.25	40	
1.92	1.96	2.03	2.07	2.31	2.60	2.76	2.98	3.22	41	
-0.45	-0.11	0.57	1.22	2.19	2.82	3.02	3.43	3.71	42	
2.07	2.10	2.19	2.34	2.60	2.80	2.95	3.32	3.47	43	
1.92	2.16	2.33	2.59	2.80	3.14	3.35	3.71	3.97	44	
0.30	0.66	0.97	1.04	1.16	1.44	1.62	2.53	2.96	45	
-0.42	-0.25	0.30	0.52	0.86	1.20	1.70	2.43	2.76	46	
-0.45	-0.29	0.40	1.02	1.74	2.18	2.40	2.73	2.85	47	
-0.00	-0.59	-0.39	-0.22	0.21	1.02	1.33	2.28	2.76	48	
-0.94	-0.66	-0.13	0.23	0.54	0.80	1.03	1.99	2.43	49	
0.27	2.07	2.13	2.21	2.51	2.86	2.96	3.53	3.81	50	
2.25	2.31	2.42	2.53	2.75	3.05	3.22	3.57	3.80	52	

nos M fifty five to M one hundred and twelve;

50:	2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
	1.86;	2.16;	2.34;	2.46;	2.69;	3.01;	3.18;	3.65;	3.81;	55
	1.96;	2.03;	2.13;	2.28;	2.66;	3.04;	3.31;	3.75;	4.05;	56
	1.92;	2.16;	2.31;	2.48;	2.74;	3.01;	3.18;	3.44;	3.64;	57
	1.96;	2.18;	2.32;	2.46;	2.73;	3.11;	3.34;	3.72;	4.04;	59
	0.28;	0.78;	2.09;	2.30;	2.77;	3.28;	3.45;	3.80;	4.04;	60
	0.84;	1.07;	1.33;	1.50;	1.74;	1.98;	2.13;	2.36;	2.59;	61
	0.42;	1.05;	1.46;	1.58;	1.71;	1.87;	1.98;	2.21;	2.33;	62
	-0.11;	0.97;	1.44;	1.58;	1.82;	2.03;	2.16;	2.54;	2.74;	63
	1.62;	1.70;	1.73;	1.82;	1.89;	2.05;	2.16;	2.31;	2.31;	64
	1.66;	1.73;	1.82;	1.84;	2.00;	2.10;	2.31;	2.50;	2.64;	65
	1.44;	1.58;	1.70;	1.79;	1.89;	2.19;	2.31;	2.54;	2.66;	66
	1.86;	1.92;	1.96;	2.05;	2.18;	2.34;	2.50;	2.65;	2.71;	67
	0.03;	0.80;	1.40;	1.58;	1.83;	2.04;	2.10;	2.39;	2.49;	68
	1.84;	1.92;	1.96;	2.03;	2.13;	2.31;	2.43;	2.64;	2.75;	69
	1.72;	1.76;	1.82;	1.87;	2.02;	2.17;	2.28;	2.46;	2.59;	70
	0.37;	0.93;	1.16;	1.27;	1.54;	1.77;	1.89;	2.13;	2.31;	71
	1.62;	1.66;	1.73;	1.79;	1.89;	2.08;	2.18;	2.45;	2.63;	72
	1.30;	1.38;	1.46;	1.52;	1.71;	1.84;	1.86;	2.33;	2.44;	73
	0.55;	1.04;	1.27;	1.37;	1.50;	1.67;	1.76;	2.16;	2.35;	74
	0.97;	1.04;	1.10;	1.22;	1.44;	1.62;	1.70;	1.89;	2.13;	75
	1.66;	1.70;	1.82;	1.86;	1.96;	2.34;	2.54;	2.77;	2.89;	76
	1.86;	2.03;	2.07;	2.19;	2.37;	2.65;	2.80;	3.02;	3.20;	77a
	1.92;	2.10;	2.19;	2.31;	2.54;	2.80;	2.87;	3.11;	3.32;	77b
	1.70;	1.86;	1.96;	2.03;	2.23;	2.57;	2.75;	2.91;	3.14;	78
	-0.20;	0.20;	0.69;	0.80;	1.06;	1.41;	1.62;	2.05;	2.34;	79
	0.97;	1.44;	2.03;	2.37;	2.77;	3.11;	3.36;	3.73;	3.94;	81
	1.10;	1.22;	1.33;	1.44;	1.53;	1.75;	1.92;	2.10;	2.31;	82
	1.53;	1.96;	2.28;	2.51;	2.79;	3.22;	3.31;	3.78;	3.97;	83
	-0.49;	-0.31;	0.20;	0.42;	0.68;	0.91;	1.08;	1.71;	2.09;	84
	-0.74;	-0.45;	0.03;	0.39;	0.75;	1.49;	2.03;	2.48;	2.67;	85
	1.86;	2.10;	2.44;	2.65;	2.88;	3.22;	3.40;	3.80;	3.96;	87
	2.34;	2.41;	2.54;	2.65;	2.77;	3.01;	3.14;	3.42;	3.56;	88
	0.70;	1.75;	1.80;	1.90;	2.19;	2.57;	2.70;	3.02;	3.22;	91
	1.70;	1.73;	1.82;	1.92;	2.07;	2.23;	2.37;	2.67;	2.79;	92
	1.44;	1.62;	2.23;	2.34;	2.54;	2.65;	3.05;	3.40;	3.55;	93
	1.53;	1.62;	2.23;	2.34;	2.54;	2.60;	2.96;	3.29;	3.47;	94
	2.15;	2.23;	2.34;	2.44;	2.72;	2.99;	3.18;	3.53;	3.60;	95
	1.22;	1.62;	1.70;	1.82;	2.03;	2.28;	2.54;	2.96;	3.29;	96
	1.67;	1.62;	1.80;	1.90;	2.07;	2.28;	2.41;	2.80;	3.02;	97
	1.62;	1.80;	1.92;	1.90;	2.07;	2.34;	2.51;	2.72;	2.83;	98
	1.62;	1.67;	1.70;	1.75;	1.80;	2.03;	2.16;	2.34;	2.54;	99
	1.70;	1.82;	2.03;	2.10;	2.26;	2.60;	2.80;	3.13;	3.67;	101
	2.07;	2.19;	2.31;	2.37;	2.57;	2.79;	2.95;	3.22;	3.35;	103
	2.19;	2.20;	2.37;	2.40;	2.72;	2.93;	3.10;	3.34;	3.47;	105
	-0.50;	-0.29;	0.69;	1.04;	1.39;	1.60;	1.97;	2.39;	2.60;	107
	-0.60;	-0.59;	-0.11;	0.50;	1.22;	1.62;	1.70;	2.20;	2.55;	108
	2.23;	2.31;	2.37;	2.48;	2.65;	2.83;	2.95;	3.12;	3.42;	109
	0.70;	1.22;	1.33;	1.53;	1.70;	1.92;	2.07;	2.34;	2.60;	110
	0.70;	1.44;	1.62;	1.70;	1.86;	1.96;	2.23;	2.44;	2.63;	111
	1.67;	1.70;	1.75;	1.82;	1.92;	2.07;	2.16;	2.34;	2.54;	112

nos M one hundred and thirteen to M one hundred and sixty three;

50;

<u>2%</u>	<u>5%</u>	<u>16%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>84%</u>	<u>95%</u>	<u>98%</u>	<u>Sample No.</u>
1.48;	1.62;	1.73;	1.82;	1.89;	2.07;	2.19;	2.41;	2.60;	113
1.86;	1.92;	1.96;	2.03;	2.19;	2.34;	2.41;	2.60;	2.77;	114
1.62;	1.82;	1.92;	1.96;	2.16;	2.34;	2.44;	2.72;	2.86;	115
-0.67;	-0.45;	0.13;	0.42;	0.69;	0.97;	1.10;	1.49;	1.72;	117
-0.63;	-0.26;	1.16;	1.57;	1.85;	2.19;	2.36;	2.62;	2.72;	118
1.86;	1.96;	2.07;	2.16;	2.28;	2.41;	2.57;	2.75;	2.85;	119
1.82;	1.89;	1.96;	2.03;	2.10;	2.37;	2.51;	2.67;	2.77;	120
1.70;	1.82;	1.92;	1.96;	2.10;	2.28;	2.41;	2.60;	2.72;	121
-0.25;	0.07;	1.01;	1.18;	1.60;	1.82;	2.03;	2.44;	2.57;	122
1.10;	1.70;	1.82;	1.92;	2.03;	2.16;	2.28;	2.54;	2.65;	123
0.27;	1.33;	1.62;	1.75;	1.92;	2.07;	2.16;	2.44;	2.65;	124
-0.45;	0.27;	1.33;	1.44;	1.70;	1.92;	2.07;	2.34;	2.44;	125
1.53;	1.62;	1.70;	1.75;	1.82;	1.96;	2.07;	2.16;	2.34;	126
1.33;	1.44;	1.53;	1.70;	1.82;	2.03;	2.16;	2.63;	2.82;	127
1.96;	2.16;	2.23;	2.34;	2.54;	2.80;	2.95;	3.35;	3.61;	128
1.62;	1.75;	1.82;	1.86;	2.07;	2.41;	2.60;	2.89;	3.17;	129
2.10;	2.23;	2.31;	2.41;	2.65;	2.86;	2.99;	3.25;	3.37;	130
2.03;	2.10;	2.19;	2.34;	2.60;	2.85;	2.98;	3.28;	3.35;	131
1.53;	1.70;	1.75;	1.82;	1.92;	2.23;	2.41;	2.77;	3.07;	132
0.78;	1.10;	1.22;	1.44;	1.75;	1.96;	2.10;	2.37;	2.51;	133
0.95;	1.16;	1.26;	1.37;	1.62;	1.84;	2.07;	2.39;	2.63;	134
0.78;	1.02;	1.14;	1.28;	1.57;	1.86;	2.00;	2.33;	2.56;	135
1.73;	1.81;	1.87;	1.93;	2.05;	2.19;	2.29;	2.51;	2.63;	136
-0.59;	-0.14;	0.92;	1.08;	1.31;	1.66;	1.94;	2.34;	2.49;	137
1.00;	1.39;	1.49;	1.61;	1.79;	1.97;	2.14;	2.38;	2.54;	138
1.75;	1.82;	1.86;	1.96;	2.07;	2.23;	2.34;	2.51;	2.63;	139
2.03;	2.07;	2.10;	2.16;	2.28;	2.41;	2.51;	2.67;	2.77;	140
1.75;	1.92;	1.96;	2.07;	2.19;	2.41;	2.54;	2.72;	2.82;	141
1.86;	1.92;	1.96;	2.03;	2.10;	2.34;	2.48;	2.65;	2.77;	142
1.70;	1.82;	1.92;	2.03;	2.10;	2.37;	2.48;	2.67;	2.83;	143
0.28;	1.10;	1.70;	1.82;	2.03;	2.34;	2.48;	2.70;	2.77;	144
0.28;	0.77;	1.85;	2.14;	2.60;	2.99;	3.23;	3.64;	3.99;	145
0.97;	1.53;	1.82;	1.92;	2.03;	2.19;	2.34;	2.60;	2.75;	146
1.33;	1.62;	1.75;	1.82;	1.86;	2.07;	2.23;	2.54;	2.67;	147
1.22;	1.44;	1.75;	1.86;	2.03;	2.23;	2.41;	2.60;	2.76;	148
1.96;	2.03;	2.10;	2.16;	2.28;	2.44;	2.54;	2.70;	2.77;	149
2.03;	2.07;	2.10;	2.16;	2.28;	2.48;	2.57;	2.76;	2.85;	150
0.78;	1.33;	1.53;	1.82;	1.96;	2.16;	2.28;	2.51;	2.65;	151
-0.11;	0.49;	1.10;	1.44;	1.73;	2.03;	2.18;	2.39;	2.55;	152
0.28;	0.99;	1.51;	1.72;	1.89;	2.07;	2.17;	2.47;	2.57;	153
-0.45;	-0.15;	1.37;	1.60;	1.94;	2.19;	2.33;	2.53;	2.63;	154
1.44;	1.70;	1.82;	1.86;	1.96;	2.16;	2.28;	2.54;	2.77;	155
-0.29;	0.03;	0.70;	1.35;	1.60;	1.90;	2.09;	2.50;	2.77;	156
1.33;	1.44;	1.53;	1.62;	1.75;	1.92;	2.07;	2.28;	2.44;	157
1.75;	1.82;	1.86;	1.92;	1.96;	2.10;	2.16;	2.37;	2.51;	158
1.22;	1.44;	1.53;	1.62;	1.75;	1.86;	1.96;	2.31;	2.60;	159
1.22;	1.44;	1.62;	1.75;	1.96;	2.23;	2.41;	2.75;	2.86;	160
1.82;	1.86;	1.92;	1.96;	2.07;	2.19;	2.31;	2.54;	2.65;	161
1.86;	1.92;	1.96;	2.03;	2.16;	2.28;	2.41;	2.60;	2.72;	162
1.92;	1.96;	2.07;	2.10;	2.23;	2.37;	2.51;	2.67;	2.75;	163

nos. from one hundred and sixty four to two hundred and fourteen;

	<u>2%</u>	<u>5%</u>	<u>16%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>84%</u>	<u>95%</u>	<u>98%</u>	<u>Sample No.</u>
	1.52	2.07	2.10	2.23	2.37	2.60	2.70	2.80	2.80	164
	1.53	1.75	1.90	2.10	2.37	2.60	2.72	2.85	2.93	165
	0.20	0.57	1.44	1.62	1.82	2.05	2.19	2.40	2.57	166
	-0.45	-0.31	0.55	0.80	1.04	1.50	1.75	2.10	2.33	167
	0.70	1.10	1.22	1.33	1.44	1.70	1.80	2.20	2.51	168
	0.07	0.66	1.22	1.50	1.90	2.10	2.25	2.54	2.71	169
	1.50	1.92	1.90	2.07	2.23	2.41	2.54	2.70	2.70	170
	1.50	2.03	2.10	2.10	2.31	2.51	2.63	2.76	2.85	171
	-0.67	-0.50	-0.25	0.17	1.14	1.62	1.84	2.27	2.40	172
	1.33	1.62	1.70	1.75	1.92	2.10	2.20	2.51	2.65	173
	1.33	1.70	1.62	1.92	2.07	2.20	2.44	2.65	2.75	174
	1.50	2.07	2.10	2.19	2.31	2.51	2.65	2.82	3.07	175
	-0.59	-0.05	1.02	1.33	1.67	1.94	2.15	2.41	2.54	176
	1.10	1.53	1.60	2.10	2.34	2.60	2.72	2.85	3.11	177
	0.70	0.97	1.22	1.39	1.70	2.05	2.31	2.79	2.98	178
	0.87	1.33	1.52	1.75	1.92	2.16	2.34	2.48	2.75	179
	2.05	2.10	2.15	2.20	2.44	2.70	2.79	2.87	2.96	180
	1.60	1.92	2.05	2.10	2.23	2.44	2.60	2.79	2.82	181
	1.75	1.90	2.07	2.10	2.20	2.46	2.60	2.77	2.80	182
	1.55	1.52	1.75	1.92	2.07	2.48	2.67	2.95	3.00	183
	0.75	1.53	1.55	1.70	1.92	2.16	2.41	2.66	3.05	184
	1.44	1.53	1.62	1.70	1.82	2.03	2.16	2.37	2.54	185
	1.33	1.62	1.75	1.82	1.95	2.16	2.23	2.44	2.60	186
	1.22	1.44	1.55	1.70	1.66	2.10	2.31	2.57	2.72	187
	1.22	1.53	1.62	1.75	1.92	2.07	2.16	2.34	2.60	188
	0.70	1.10	1.33	1.53	1.75	2.03	2.16	2.41	2.60	189
	1.22	1.62	1.90	2.03	2.23	2.41	2.65	2.87	2.97	190
	1.52	1.75	1.82	1.66	2.03	2.16	2.34	2.57	2.70	191
	1.70	1.62	1.66	1.96	2.10	2.34	2.46	2.65	2.75	192
	1.62	2.07	2.19	2.26	2.48	2.77	2.89	3.11	3.32	193
	2.10	2.10	2.23	2.41	2.60	2.77	2.89	3.11	3.22	195
	2.07	2.19	2.31	2.44	2.67	2.93	3.02	3.17	3.34	196
	1.44	1.92	2.07	2.20	2.65	2.99	3.15	3.40	3.59	197
	1.53	1.70	1.80	1.90	2.10	2.41	2.63	2.95	3.17	198
	2.07	2.10	2.19	2.20	2.51	2.77	2.88	3.07	3.17	199
	1.22	1.53	1.92	2.10	2.31	2.65	2.77	2.98	3.12	200
	1.53	1.75	1.85	1.96	2.10	2.41	2.60	2.82	2.93	201
	1.33	1.44	1.62	1.82	2.03	2.34	2.54	2.80	2.93	202
	2.19	2.28	2.37	2.46	2.67	2.80	2.86	3.02	3.13	203
	1.82	1.96	2.03	2.10	2.28	2.44	2.57	2.72	2.82	204
	1.79	1.61	1.67	1.94	2.10	2.32	2.46	2.73	2.85	205
	1.44	1.62	1.70	1.82	2.03	2.37	2.54	2.82	2.99	206
	1.51	1.63	1.87	1.92	2.09	2.40	2.51	2.71	2.81	207
	1.50	1.55	1.61	1.68	1.83	2.03	2.20	2.40	2.62	208
	1.82	1.66	1.92	2.03	2.16	2.34	2.44	2.65	2.77	209
	1.53	1.75	1.82	1.92	2.07	2.31	2.41	2.65	2.79	210
	1.60	1.90	2.03	2.10	2.23	2.44	2.57	2.75	2.83	211
	1.53	1.62	1.70	1.82	1.92	2.07	2.23	2.54	2.72	212
	1.66	1.92	2.03	2.10	2.23	2.44	2.54	2.70	2.83	213
	2.05	2.07	2.10	2.19	2.34	2.57	2.67	2.83	2.91	214

nos 11 two hundred and fifteen to two hundred and sixty two,

	2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
0.75	0.55	1.14	1.35	1.64	1.89	2.11	2.30	2.50	2.60	215
1.50	1.50	1.79	1.60	2.00	2.34	2.47	2.72	2.72	2.79	216
1.50	1.60	1.73	1.75	1.91	2.00	2.10	2.50	2.50	2.50	217
0.25	0.63	1.00	1.30	1.67	1.92	2.00	2.32	2.32	2.52	218
-0.53	-0.11	0.60	1.30	1.60	2.10	2.29	2.50	2.50	2.72	219
0.47	0.63	1.20	1.28	1.41	1.64	1.63	1.97	2.19	2.19	220
-0.92	-0.45	0.70	0.97	1.33	1.60	2.07	2.51	2.72	2.72	221
1.50	1.35	1.47	1.56	1.73	2.03	2.16	2.42	2.60	2.60	222
-0.16	0.42	0.64	0.99	1.14	1.44	1.66	1.56	2.00	2.00	223
-0.67	-0.45	0.25	0.75	1.00	1.49	1.75	2.00	2.21	2.21	224
-0.45	-0.11	0.55	0.97	1.33	1.60	2.07	2.48	2.79	2.79	225
-0.92	-0.45	0.20	0.55	0.97	1.53	1.92	2.46	2.93	2.93	226
-0.45	0.20	0.55	0.97	1.44	1.92	2.16	2.67	2.60	2.60	227
0.26	0.97	1.22	1.44	1.70	1.96	2.07	2.48	2.60	2.60	228
0.99	1.10	1.19	1.30	1.46	1.73	1.94	2.30	2.40	2.40	229
1.10	1.22	1.44	1.53	1.70	1.80	2.07	2.41	2.54	2.54	230
0.97	1.10	1.22	1.33	1.53	1.62	2.07	2.48	2.75	2.75	231
0.70	1.22	1.44	1.62	1.66	2.19	2.37	2.75	2.86	2.86	232
1.33	1.44	1.70	1.75	1.86	2.19	2.41	2.63	2.75	2.75	233
1.70	1.75	1.86	1.92	2.03	2.19	2.37	2.72	2.83	2.83	234
0.97	1.33	1.53	1.70	1.82	2.10	2.23	2.65	2.77	2.77	235
0.70	1.10	1.33	1.53	1.82	2.10	2.31	2.70	2.93	2.93	236
1.53	1.70	1.75	1.82	2.03	2.44	2.60	2.77	2.95	2.95	237
1.62	1.75	1.86	1.96	2.10	2.37	2.57	2.65	3.04	3.04	238
-0.51	-0.31	0.39	0.69	1.04	1.53	1.75	2.15	2.58	2.58	239
-0.29	0.11	0.66	0.64	1.22	1.56	1.72	2.13	2.31	2.31	240
0.39	0.78	1.14	1.36	1.73	1.99	2.16	2.39	2.51	2.51	241
1.26	1.33	1.39	1.44	1.53	1.66	1.72	1.95	2.10	2.10	242
0.75	0.68	1.02	1.00	1.22	1.53	1.62	1.60	2.00	2.00	243
1.45	1.52	1.57	1.62	1.73	1.87	2.01	2.29	2.45	2.45	244
1.35	1.44	1.51	1.56	1.64	1.77	1.84	2.06	2.10	2.10	245
-0.33	0.47	1.19	1.47	1.73	2.04	2.23	2.62	2.79	2.79	246
-0.21	0.14	0.61	0.62	1.19	1.59	1.65	2.33	2.55	2.55	247
1.10	1.44	1.62	1.62	1.96	2.16	2.31	2.65	2.60	2.60	248
1.44	1.70	1.75	1.60	1.96	2.19	2.34	2.60	2.76	2.76	249
1.75	1.62	2.03	2.10	2.37	2.63	2.76	2.95	3.07	3.07	250
1.33	1.53	1.62	1.70	1.92	2.26	2.41	2.67	2.60	2.60	251
1.33	1.44	1.53	1.62	1.82	2.03	2.10	2.44	2.60	2.60	252
1.70	1.62	1.80	1.96	2.07	2.23	2.34	2.54	2.60	2.60	253
1.60	1.96	2.07	2.16	2.34	2.54	2.65	2.60	2.93	2.93	254
1.16	1.25	1.36	1.46	1.62	1.64	2.00	2.26	2.51	2.51	255
1.10	1.53	2.10	2.23	2.44	2.80	2.96	3.38	3.63	3.63	256
0.55	0.70	1.22	1.75	2.51	3.07	3.35	3.70	4.03	4.03	257
1.53	1.75	1.96	2.19	2.65	2.96	3.22	3.59	3.77	3.77	258
1.44	1.86	2.10	2.37	2.67	2.99	3.17	3.53	3.73	3.73	258a
0.66	0.60	0.93	1.01	1.11	1.28	1.41	1.53	1.60	1.60	259
0.97	1.06	1.14	1.19	1.31	1.48	1.56	1.78	1.94	1.94	260a
1.62	1.82	2.03	2.10	2.41	2.82	3.05	3.59	4.03	4.03	260b
2.07	2.23	2.34	2.48	2.77	3.11	3.33	3.65	3.69	3.69	261
2.34	2.44	2.57	2.77	3.02	3.35	3.52	3.85	4.03	4.03	262

nos in two hundred and sixty three to three hundred and eighteen;

	Sample									
	2%	5%	16%	25%	50%	75%	84%	95%	98%	No.
1.22	1.53	1.92	2.19	2.03	3.14	3.35	3.71	3.99	263	
1.70	1.52	1.92	2.03	2.19	2.57	2.76	3.17	3.51	264	
0.27	1.33	2.10	2.05	3.01	3.54	3.52	3.60	4.00	265	
1.70	1.90	2.03	2.07	2.19	2.46	2.65	2.90	3.17	266	
1.53	1.44	1.75	1.96	2.46	3.02	3.29	3.59	3.75	267	
2.03	2.10	2.31	2.41	2.63	2.96	3.24	3.62	3.93	268	
1.20	1.55	1.44	1.56	1.77	1.93	2.19	2.55	3.29	269	
2.19	2.54	2.45	2.65	2.94	3.33	3.50	3.81	4.04	270	
2.19	2.20	2.34	2.44	2.67	2.96	3.12	3.45	3.69	271	
1.51	1.41	1.49	1.55	1.69	1.84	1.96	2.30	2.55	272	
0.97	1.22	1.35	1.55	1.82	2.23	2.44	3.00	3.39	273	
1.52	1.60	1.66	1.73	1.84	2.07	2.22	2.54	2.67	274	
2.16	2.19	2.31	2.51	2.72	2.97	3.16	3.55	3.85	275	
2.19	2.23	2.34	2.44	2.63	2.76	2.93	3.16	3.40	276	
2.23	2.20	2.37	2.51	2.67	2.89	3.02	3.31	3.56	277	
2.23	2.23	2.31	2.41	2.57	2.80	2.93	3.30	3.52	279	
2.19	2.12	2.20	2.34	2.46	2.70	2.80	3.03	3.34	280	
0.14	0.46	1.13	1.26	1.44	1.70	1.82	2.09	2.33	281	
2.41	2.44	2.54	2.65	2.81	3.05	3.18	3.45	3.61	282	
1.92	1.96	2.03	2.10	2.26	2.48	2.65	2.83	3.03	283	
1.00	1.20	1.46	1.65	1.75	1.89	2.03	2.43	2.64	284	
2.19	2.15	2.25	2.34	2.54	2.72	2.81	3.11	3.25	285	
1.10	2.1	2.26	2.37	2.57	2.76	2.84	3.03	3.29	286	
2.23	2.53	2.65	2.77	2.99	3.29	3.43	3.79	4.04	287	
1.70	1.72	1.86	1.92	2.07	2.34	2.51	2.89	3.20	288	
2.19	2.25	2.31	2.37	2.60	2.77	2.86	3.12	3.31	289	
1.92	1.96	2.07	2.16	2.26	2.51	2.67	2.86	3.09	290	
2.10	2.15	2.31	2.43	2.60	3.14	3.37	3.75	3.96	292	
-0.45	0.27	1.33	1.44	1.62	2.03	2.31	2.72	2.84	293	
1.75	1.62	1.66	1.96	2.16	2.37	2.67	2.96	3.30	294	
1.66	1.66	1.92	1.96	2.10	2.51	2.44	2.72	2.84	295	
-0.40	-0.11	0.55	1.14	1.41	1.74	1.89	2.30	2.65	296	
2.07	2.71	2.51	2.92	3.17	3.43	3.56	3.84	4.03	G1	
1.75	1.66	1.92	1.96	2.07	2.41	2.60	2.80	2.86	300	
-0.11	0.56	1.19	1.36	1.62	1.89	2.05	2.54	2.76	301	
1.10	1.22	2.31	2.57	2.60	3.17	3.42	3.76	4.00	302	
1.66	2.19	2.26	2.41	2.65	2.99	3.22	3.60	3.80	303	
1.33	1.62	2.07	2.25	2.60	2.96	3.22	3.60	3.85	305	
-0.25	0.03	0.91	1.10	1.43	1.79	1.96	2.43	2.76	306	
2.20	2.34	2.46	2.51	2.79	3.05	3.22	3.49	3.67	307	
2.37	2.46	2.54	2.65	2.86	3.13	3.33	3.54	3.75	308	
-0.45	-0.11	1.10	1.24	1.57	1.86	2.05	2.41	2.66	309	
2.25	2.31	2.41	2.51	2.72	2.88	2.99	3.30	3.47	311	
1.92	2.51	2.63	2.75	2.91	3.20	3.34	3.59	3.72	312	
2.44	2.46	2.60	2.70	2.86	3.03	3.18	3.42	3.59	313	
2.44	2.51	2.60	2.70	2.83	3.04	3.15	3.37	3.52	314	
2.51	2.54	2.65	2.79	2.96	3.17	3.33	3.50	3.63	315	
2.34	2.37	2.60	2.70	2.86	3.11	3.26	3.49	3.73	316	
2.44	2.46	2.57	2.70	2.86	3.10	3.12	3.49	3.64	317	
2.19	2.23	2.31	2.41	2.60	2.77	2.86	3.08	3.29	318	

nos M three hundred and nineteen to three hundred and seventy eight;

2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
2.00;	2.09;	2.77;	2.05;	3.00;	3.36;	3.52;	3.02;	4.00;	319
1.90;	2.31;	2.37;	2.45;	2.67;	2.96;	3.12;	3.50;	3.50;	320
2.10;	2.19;	2.23;	2.25;	2.41;	2.70;	2.78;	2.53;	3.13;	321
0.00;	1.53;	2.10;	2.54;	2.63;	2.99;	3.17;	3.01;	3.02;	322
0.42;	0.55;	0.70;	0.57;	1.10;	1.39;	1.58;	2.10;	2.48;	323a
0.69;	0.97;	1.33;	1.07;	2.07;	2.80;	2.82;	3.22;	3.47;	323b
1.70;	1.96;	2.10;	2.20;	2.48;	2.80;	2.95;	3.33;	3.52;	324
-1.04;	-0.67;	-0.49;	-0.42;	-0.29;	-0.05;	0.15;	0.37;	0.56;	326
1.96;	2.43;	2.55;	2.87;	2.92;	3.24;	3.39;	3.71;	4.05;	327
0.75;	1.22;	1.53;	1.62;	2.34;	2.77;	2.96;	3.38;	3.61;	330
2.19;	2.37;	2.51;	2.65;	2.86;	3.22;	3.38;	3.69;	3.63;	332
1.22;	1.70;	2.23;	2.44;	2.77;	3.07;	3.28;	3.64;	3.84;	333
0.55;	1.22;	2.10;	2.28;	2.65;	2.89;	3.08;	3.53;	3.77;	339
0.75;	1.22;	2.07;	2.41;	2.72;	3.04;	3.25;	3.60;	3.83;	340
1.22;	1.53;	2.10;	2.31;	2.70;	2.99;	3.18;	3.65;	3.97;	341
1.70;	2.16;	2.34;	2.44;	2.75;	2.98;	3.14;	3.51;	3.60;	342
1.92;	2.31;	2.44;	2.54;	2.72;	2.98;	3.15;	3.60;	3.90;	343
2.10;	2.62;	2.76;	2.89;	3.06;	3.32;	3.48;	3.84;	4.00;	344
2.19;	2.31;	2.37;	2.48;	2.70;	2.96;	3.14;	3.47;	3.73;	345
2.19;	2.28;	2.37;	2.51;	2.77;	3.02;	3.20;	3.50;	3.69;	346
1.96;	2.03;	2.10;	2.16;	2.37;	2.57;	2.70;	2.85;	2.96;	347
2.67;	2.74;	2.85;	2.92;	3.14;	3.41;	3.55;	3.81;	4.00;	349
1.86;	2.28;	2.54;	2.75;	3.10;	3.39;	3.56;	3.80;	4.02;	351
2.28;	2.34;	2.44;	2.57;	2.75;	2.96;	3.11;	3.40;	3.71;	352
2.16;	2.19;	2.31;	2.44;	2.67;	2.91;	3.05;	3.34;	3.47;	353
-0.63;	-0.50;	-0.29;	0.14;	0.42;	0.70;	0.92;	1.19;	1.96;	354
1.22;	2.00;	2.10;	2.19;	2.41;	2.77;	2.88;	3.22;	3.43;	355
0.55;	1.53;	2.19;	2.37;	2.65;	2.93;	3.15;	3.53;	3.75;	356
0.29;	0.55;	1.62;	1.92;	2.23;	2.86;	3.14;	3.53;	3.71;	357
0.97;	1.53;	2.03;	2.28;	2.54;	2.93;	3.12;	3.52;	3.72;	358
0.55;	0.97;	1.75;	2.03;	2.41;	2.77;	2.98;	3.40;	3.65;	359
1.70;	1.82;	2.07;	2.25;	2.51;	2.89;	3.12;	3.52;	3.72;	360
1.70;	2.07;	2.19;	2.44;	2.70;	2.96;	3.17;	3.53;	3.73;	361
1.82;	2.19;	2.41;	2.51;	2.75;	3.02;	3.17;	3.50;	3.65;	362
1.22;	1.75;	2.10;	2.31;	2.57;	2.86;	3.07;	3.42;	3.56;	363
2.31;	2.37;	2.51;	2.63;	2.96;	3.30;	3.45;	3.73;	3.94;	364
-0.45;	0.14;	0.55;	0.69;	0.85;	1.13;	1.33;	1.91;	2.28;	365
1.82;	1.92;	2.03;	2.10;	2.28;	2.48;	2.57;	2.75;	2.86;	366
1.22;	1.70;	1.82;	1.92;	2.10;	2.23;	2.37;	2.60;	2.75;	367
1.75;	1.96;	2.07;	2.16;	2.31;	2.54;	2.70;	2.80;	2.96;	368
0.75;	1.62;	1.75;	1.86;	2.07;	2.28;	2.41;	2.60;	2.75;	369
1.70;	1.92;	2.03;	2.10;	2.31;	2.51;	2.63;	2.79;	2.89;	370
1.70;	1.92;	2.03;	2.10;	2.28;	2.60;	2.76;	2.96;	3.11;	371
1.70;	1.73;	1.75;	1.82;	1.96;	2.19;	2.34;	2.51;	2.75;	372
2.03;	2.00;	2.16;	2.23;	2.37;	2.63;	2.75;	2.87;	3.01;	373
0.66;	0.76;	0.95;	1.08;	1.28;	1.55;	1.69;	2.19;	2.75;	374
1.82;	2.07;	2.10;	2.19;	2.31;	2.57;	2.63;	2.76;	2.83;	375
1.82;	1.92;	2.03;	2.10;	2.23;	2.44;	2.60;	2.75;	2.86;	376
1.96;	2.10;	2.19;	2.28;	2.37;	2.67;	2.77;	2.88;	2.99;	377
2.07;	2.10;	2.16;	2.28;	2.51;	2.77;	2.89;	3.11;	3.31;	378

nos N three hundred and seventy nine to four hundred and thirty two;

50%	2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
1.10;	1.10;	1.44;	1.70;	1.62;	2.07;	2.41;	2.60;	2.82;	3.01;	379
-0.31;	-0.49;	-0.37;	-0.15;	0.07;	0.07;	0.23;	0.39;	1.09;	2.10;	380
1.46;	1.54;	2.19;	2.34;	2.72;	3.04;	3.28;	3.58;	3.77;	3.77;	381
1.39;	1.73;	1.54;	1.96;	2.19;	2.54;	2.79;	3.05;	3.29;	3.29;	382
1.44;	1.75;	1.92;	2.03;	2.41;	2.60;	3.02;	3.44;	3.71;	3.71;	383
1.33;	1.70;	1.96;	2.10;	2.41;	2.76;	2.86;	3.12;	3.44;	3.44;	384
1.53;	1.75;	1.94;	2.13;	2.44;	2.83;	3.05;	3.38;	3.60;	3.60;	385
1.95;	2.10;	2.28;	2.37;	2.72;	2.96;	3.14;	3.37;	3.51;	3.51;	386
1.75;	2.16;	2.31;	2.43;	2.76;	3.04;	3.20;	3.44;	3.54;	3.54;	387
1.33;	1.70;	1.86;	1.96;	2.16;	2.41;	2.65;	2.86;	3.04;	3.04;	388
1.62;	1.75;	1.84;	1.92;	2.03;	2.28;	2.48;	2.65;	2.80;	2.80;	389
2.25;	2.44;	2.54;	2.75;	2.95;	3.29;	3.44;	3.80;	4.00;	4.00;	390
2.37;	2.55;	2.66;	2.75;	2.96;	3.29;	3.44;	3.83;	4.03;	4.03;	391
1.96;	2.05;	2.10;	2.16;	2.31;	2.57;	2.67;	2.79;	2.86;	2.86;	392
1.62;	1.52;	1.92;	1.96;	2.07;	2.23;	2.34;	2.57;	2.72;	2.72;	393
1.32;	1.92;	2.05;	2.10;	2.34;	2.65;	2.75;	2.83;	2.99;	2.99;	394
1.67;	1.79;	1.86;	1.96;	2.07;	2.23;	2.34;	2.51;	2.67;	2.67;	395
1.44;	1.70;	1.88;	1.96;	2.09;	2.28;	2.41;	2.67;	2.76;	2.76;	396
1.92;	2.03;	2.10;	2.23;	2.37;	2.63;	2.76;	2.89;	2.99;	2.99;	398
2.16;	2.19;	2.28;	2.34;	2.44;	2.70;	2.79;	2.90;	3.11;	3.11;	399
1.70;	1.92;	1.96;	2.07;	2.23;	2.48;	2.60;	2.60;	2.93;	2.93;	400
1.94;	2.03;	2.09;	2.16;	2.31;	2.57;	2.70;	2.85;	2.99;	2.99;	401
1.86;	1.94;	2.03;	2.10;	2.19;	2.41;	2.57;	2.75;	2.82;	2.82;	402
1.53;	1.75;	1.92;	2.03;	2.10;	2.37;	2.51;	2.72;	2.83;	2.83;	403
2.07;	2.10;	2.16;	2.23;	2.41;	2.65;	2.77;	2.93;	3.04;	3.04;	404
2.19;	2.25;	2.34;	2.41;	2.60;	2.76;	2.83;	2.96;	3.07;	3.07;	405
1.96;	2.10;	2.19;	2.23;	2.37;	2.57;	2.70;	2.82;	2.91;	2.91;	406
1.33;	1.82;	2.03;	2.10;	2.28;	2.43;	2.63;	2.82;	2.96;	2.96;	407
0.57;	1.31;	2.29;	2.71;	2.96;	3.31;	3.50;	3.85;	4.03;	4.03;	408
1.62;	2.03;	2.30;	2.62;	3.03;	3.29;	3.52;	3.81;	4.04;	4.04;	409
2.70;	2.76;	2.92;	3.01;	3.24;	3.43;	3.60;	3.85;	4.04;	4.04;	412
2.72;	2.76;	2.95;	2.95;	3.12;	3.29;	3.45;	3.76;	4.04;	4.04;	414
-0.11;	0.26;	0.97;	1.33;	1.92;	2.57;	2.86;	3.41;	3.85;	3.85;	415
2.10;	2.16;	2.23;	2.34;	2.43;	2.70;	2.79;	2.96;	3.15;	3.15;	416
2.07;	2.13;	2.19;	2.26;	2.41;	2.67;	2.78;	2.96;	3.08;	3.08;	417
2.05;	2.10;	2.31;	2.44;	2.72;	2.93;	3.14;	3.43;	3.65;	3.65;	418
1.75;	2.10;	2.26;	2.41;	2.75;	3.05;	3.16;	3.45;	3.72;	3.72;	419
2.41;	2.54;	2.72;	2.83;	3.05;	3.33;	3.44;	3.62;	3.85;	3.85;	420
1.75;	2.10;	2.25;	2.41;	2.67;	2.98;	3.14;	3.61;	3.86;	3.86;	421
1.96;	2.07;	2.19;	2.31;	2.65;	2.96;	3.13;	3.44;	3.75;	3.75;	422
1.92;	2.07;	2.23;	2.37;	2.75;	2.98;	3.12;	3.38;	3.49;	3.49;	423
1.75;	1.52;	1.92;	2.07;	2.34;	2.75;	2.86;	3.16;	3.40;	3.40;	424
2.03;	2.10;	2.19;	2.31;	2.54;	2.76;	2.84;	3.08;	3.25;	3.25;	425
1.44;	1.62;	1.75;	1.82;	2.05;	2.26;	2.41;	2.75;	2.94;	2.94;	426
1.96;	2.03;	2.10;	2.19;	2.34;	2.54;	2.70;	2.86;	3.00;	3.00;	427
1.60;	2.73;	2.92;	3.01;	3.24;	3.39;	3.67;	3.81;	4.04;	4.04;	428
2.16;	2.19;	2.26;	2.46;	2.67;	2.83;	2.99;	3.26;	3.44;	3.44;	429
2.10;	2.23;	2.31;	2.37;	2.55;	2.76;	2.89;	3.09;	3.26;	3.26;	430
1.86;	1.92;	1.96;	2.07;	2.23;	2.60;	2.75;	2.95;	3.06;	3.06;	431
1.62;	1.52;	2.03;	2.10;	2.31;	2.57;	2.72;	2.95;	3.15;	3.15;	432

nos four hundred and thirty three to four hundred and eighty five,

	<u>2%</u>	<u>5%</u>	<u>16%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>84%</u>	<u>95%</u>	<u>98%</u>	<u>Sample No.</u>
	0.97	1.44	1.72	1.92	2.03	2.37	2.05	2.71	3.12	433
	2.23	2.00	2.72	2.51	3.02	3.29	3.55	3.71	3.52	434
	1.53	2.07	2.16	2.25	2.41	2.60	2.70	2.61	2.96	435
	1.70	1.66	2.03	2.10	2.31	2.45	2.65	2.66	3.09	436
	0.97	1.44	1.62	1.72	1.92	2.23	2.34	2.57	2.76	437
	1.82	1.35	1.92	1.96	2.07	2.23	2.37	2.60	2.75	438
	1.70	1.72	1.62	1.92	2.07	2.28	2.41	2.65	2.76	439
	1.70	1.66	1.96	2.07	2.19	2.41	2.54	2.75	2.87	440
	1.66	1.96	2.07	2.10	2.26	2.60	2.75	2.93	3.05	441
	1.53	1.62	1.70	1.72	1.92	2.19	2.41	2.70	2.85	442
	2.10	2.16	2.23	2.31	2.51	2.70	2.80	2.87	3.14	443
	1.53	1.75	1.62	1.96	2.16	2.37	2.46	2.67	2.73	444
	2.07	2.10	2.16	2.26	2.46	2.67	2.76	2.69	3.02	445
	2.19	2.23	2.34	2.44	2.65	2.63	2.93	3.11	3.29	446
	1.53	1.53	1.70	1.62	1.96	2.16	2.26	2.51	2.65	447
	2.07	2.10	2.19	2.31	2.46	2.70	2.51	2.57	3.06	448
	1.72	1.32	1.66	1.92	2.07	2.23	2.37	2.57	2.72	449
	1.22	1.44	1.62	1.70	1.66	2.10	2.31	2.60	2.75	450
	1.72	1.62	1.66	1.96	2.10	2.31	2.41	2.63	2.75	451
	1.53	1.82	1.92	2.03	2.26	2.51	2.60	2.76	2.87	452
	1.72	1.62	1.66	1.96	2.10	2.34	2.51	2.63	3.05	453
	1.53	1.62	1.72	1.66	2.07	2.37	2.57	2.60	2.91	454
	1.53	1.62	1.70	1.72	1.66	2.03	2.26	2.57	2.67	455
	2.19	2.23	2.31	2.41	2.60	2.61	2.93	3.15	3.56	456
	2.19	2.41	2.51	2.57	2.76	3.00	3.16	3.47	3.69	457
	1.62	2.28	2.37	2.54	2.76	2.97	3.12	3.47	3.70	458
	1.44	1.62	1.70	1.75	1.82	2.07	2.26	2.54	2.75	459
	1.66	1.96	2.03	2.07	2.23	2.57	2.60	3.20	3.44	460
	2.07	2.10	2.19	2.31	2.44	2.70	2.63	3.12	3.34	462
	1.66	1.92	2.03	2.07	2.23	2.46	2.65	2.83	2.93	463
	1.70	1.72	1.82	1.66	1.96	2.26	2.44	2.72	2.60	464
	1.62	1.70	1.72	1.66	2.03	2.34	2.51	2.76	2.83	465
	1.33	1.72	1.62	1.96	2.16	2.41	2.57	2.76	2.91	466
	0.97	1.32	2.03	2.39	2.68	3.06	3.31	3.76	4.04	467
	2.23	2.33	2.55	2.75	3.00	3.32	3.49	3.60	4.04	468
	1.10	1.62	2.23	2.37	2.76	3.06	3.26	3.56	3.70	470
	1.92	1.96	2.03	2.10	2.23	2.44	2.54	2.72	2.81	471
	1.72	1.62	1.92	2.03	2.16	2.34	2.44	2.65	2.60	472
	2.03	2.16	2.23	2.37	2.57	2.76	2.81	2.99	3.13	473
	1.53	1.62	1.70	1.75	1.92	2.10	2.19	2.34	2.46	474
	1.96	2.03	2.10	2.19	2.34	2.65	2.76	2.94	3.11	475
	1.92	1.96	2.03	2.10	2.23	2.44	2.57	2.76	2.67	476
	1.82	1.96	2.03	2.10	2.23	2.48	2.67	2.89	3.09	478
	1.62	1.75	1.82	1.86	1.96	2.19	2.31	2.60	2.60	479
	1.70	1.75	1.62	1.86	1.96	2.16	2.31	2.51	2.70	480
	2.46	2.57	2.72	2.80	2.96	3.16	3.34	3.47	3.76	481
	1.92	2.05	2.10	2.19	2.34	2.57	2.72	2.89	3.02	482
	1.70	1.75	1.84	1.94	2.03	2.19	2.37	2.60	2.63	483
	1.62	1.70	1.78	1.86	2.03	2.16	2.25	2.54	2.67	484
	1.22	1.39	1.57	1.70	1.86	2.07	2.37	2.67	2.80	485

nos. four hundred and eighty six to five hundred and forty;

50;

2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
0.13;	0.22;	1.04;	1.16;	1.33;	1.62;	1.76;	2.19;	2.40;	486
1.92;	2.07;	2.10;	2.19;	2.34;	2.60;	2.75;	2.99;	3.14;	487
1.60;	1.94;	2.03;	2.07;	2.19;	2.60;	2.75;	2.95;	3.06;	488
2.77;	2.79;	2.67;	2.97;	3.21;	3.43;	3.59;	3.60;	4.04;	489
1.66;	1.92;	1.96;	2.03;	2.16;	2.34;	2.48;	2.72;	2.63;	490
2.20;	2.31;	2.37;	2.51;	2.72;	2.93;	3.05;	3.33;	3.51;	491
1.22;	1.44;	1.62;	1.70;	1.82;	2.03;	2.19;	2.43;	2.67;	492
2.07;	2.16;	2.26;	2.34;	2.57;	2.77;	2.87;	3.10;	3.16;	493
0.87;	0.97;	1.10;	1.22;	1.70;	1.92;	2.07;	2.37;	2.65;	494
0.75;	1.10;	1.22;	1.33;	1.62;	1.92;	2.07;	2.37;	2.51;	495
1.92;	2.07;	2.16;	2.23;	2.34;	2.57;	2.70;	2.83;	2.87;	496
2.25;	2.31;	2.37;	2.48;	2.63;	2.84;	2.96;	3.22;	3.40;	497
1.75;	1.90;	2.03;	2.07;	2.23;	2.48;	2.60;	2.80;	2.96;	498
1.75;	1.22;	1.66;	1.92;	2.10;	2.31;	2.41;	2.65;	2.75;	499
1.25;	1.70;	1.75;	1.62;	1.92;	2.10;	2.28;	2.51;	2.67;	500
1.35;	1.70;	1.22;	1.66;	2.03;	2.23;	2.31;	2.51;	2.65;	501
1.62;	1.92;	2.03;	2.10;	2.20;	2.51;	2.67;	2.80;	2.87;	502
1.90;	2.16;	2.23;	2.31;	2.44;	2.51;	2.63;	2.97;	3.12;	503
1.53;	1.75;	1.92;	2.07;	2.20;	2.51;	2.65;	2.86;	2.99;	504
0.70;	1.22;	1.53;	1.75;	2.10;	2.44;	2.65;	2.65;	2.94;	505
1.62;	1.66;	1.62;	1.96;	2.07;	2.34;	2.51;	2.77;	2.85;	506
1.35;	1.62;	2.03;	2.19;	2.44;	2.72;	2.63;	3.11;	3.30;	507
2.26;	2.31;	2.37;	2.48;	2.72;	2.86;	2.96;	3.12;	3.16;	508
2.16;	2.25;	2.31;	2.37;	2.57;	2.77;	2.67;	3.03;	3.15;	509
1.96;	2.03;	2.07;	2.10;	2.28;	2.46;	2.60;	2.76;	2.69;	510
2.03;	2.10;	2.23;	2.31;	2.44;	2.65;	2.76;	2.89;	3.00;	511
1.75;	1.62;	1.92;	2.03;	2.19;	2.46;	2.65;	2.67;	3.03;	512
1.70;	1.75;	1.62;	1.66;	1.92;	2.10;	2.19;	2.41;	2.54;	513
1.92;	2.03;	2.10;	2.23;	2.44;	2.75;	2.64;	3.06;	3.34;	514
1.92;	2.03;	2.10;	2.19;	2.37;	2.63;	2.76;	2.93;	3.14;	515
0.52;	1.22;	2.03;	2.10;	2.31;	2.60;	2.72;	2.84;	2.90;	516
-0.45;	-0.11;	1.22;	1.62;	2.10;	2.54;	2.65;	2.61;	2.69;	518
-0.52;	-0.45;	0.22;	1.10;	1.62;	2.16;	2.37;	2.72;	2.64;	520
-0.92;	-0.45;	1.53;	1.70;	1.92;	2.23;	2.34;	2.65;	2.60;	521
1.75;	1.62;	1.66;	1.92;	2.07;	2.31;	2.46;	2.70;	2.66;	522
2.16;	2.19;	2.23;	2.34;	2.57;	2.75;	2.60;	2.93;	2.99;	523
2.20;	2.34;	2.41;	2.54;	2.86;	3.22;	3.45;	3.69;	4.04;	524
0.97;	1.51;	2.16;	2.33;	2.73;	3.04;	3.28;	3.76;	4.04;	525
2.10;	2.27;	2.38;	2.52;	2.81;	3.22;	3.45;	3.86;	4.04;	526
1.53;	1.62;	1.70;	1.75;	1.82;	1.96;	2.16;	2.57;	2.81;	527
2.48;	2.57;	2.67;	2.80;	2.98;	3.32;	3.49;	3.80;	4.04;	528
2.00;	2.09;	2.19;	2.34;	2.51;	2.76;	2.86;	3.03;	3.22;	529
2.19;	2.23;	2.44;	2.60;	2.82;	3.05;	3.20;	3.52;	3.73;	530
2.03;	2.07;	2.16;	2.31;	2.51;	2.80;	2.88;	3.13;	3.32;	531
2.03;	2.07;	2.10;	2.23;	2.34;	2.54;	2.65;	2.80;	2.89;	535
1.84;	1.89;	1.96;	2.05;	2.19;	2.41;	2.54;	2.76;	2.86;	536
1.22;	1.82;	2.10;	2.34;	2.78;	3.22;	3.43;	3.74;	3.92;	537
1.82;	1.82;	1.96;	2.07;	2.23;	2.50;	2.72;	3.01;	3.17;	538
1.62;	1.70;	1.75;	1.84;	2.00;	2.19;	2.34;	2.67;	2.82;	539
1.82;	1.84;	1.86;	1.92;	2.05;	2.28;	2.46;	2.77;	3.04;	540

→

nos M five hundred and forty one to six hundred;

50;									Sample
<u>2%</u>	<u>5%</u>	<u>16%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>84%</u>	<u>95%</u>	<u>98%</u>	<u>No.</u>
0.68;	1.10;	1.44;	1.62;	2.26;	2.48;	2.72;	3.21;	3.60;	541
1.86;	1.89;	1.96;	2.07;	2.28;	2.50;	2.63;	2.80;	2.93;	542
1.92;	2.00;	2.07;	2.31;	2.56;	2.79;	2.95;	3.17;	3.32;	543
1.86;	2.49;	2.74;	2.86;	2.99;	3.35;	3.52;	3.81;	4.04;	544
2.10;	2.19;	2.31;	2.41;	2.60;	2.85;	2.99;	3.30;	3.47;	545
2.10;	2.19;	2.30;	2.48;	2.72;	3.00;	3.15;	3.47;	3.68;	546
1.96;	2.03;	2.10;	2.23;	2.56;	2.90;	3.22;	3.42;	3.62;	547
2.43;	2.48;	2.59;	2.75;	2.96;	3.18;	3.37;	3.62;	3.78;	548
2.03;	2.07;	2.13;	2.23;	2.46;	2.77;	2.89;	3.19;	3.34;	549
2.66;	2.71;	2.83;	2.95;	3.22;	3.43;	3.54;	3.81;	4.04;	550
0.88;	1.22;	1.44;	1.62;	1.82;	2.05;	2.28;	2.67;	2.95;	551
1.70;	1.73;	1.79;	1.84;	2.03;	2.21;	2.36;	2.77;	2.99;	552
2.41;	2.69;	2.87;	3.00;	3.13;	3.34;	3.47;	3.87;	4.04;	554
1.75;	1.79;	1.84;	1.92;	2.05;	2.23;	2.34;	2.53;	2.59;	557
1.96;	2.00;	2.03;	2.10;	2.23;	2.41;	2.56;	2.75;	2.80;	558
1.86;	1.92;	1.96;	2.07;	2.19;	2.36;	2.48;	2.64;	2.75;	559
1.84;	1.92;	1.96;	2.07;	2.19;	2.43;	2.59;	2.77;	2.88;	560
1.62;	1.70;	1.82;	1.92;	2.07;	2.34;	2.44;	2.75;	2.82;	561
1.46;	1.50;	1.55;	1.62;	1.74;	1.90;	2.09;	2.44;	2.64;	562
1.22;	1.39;	1.53;	1.70;	1.82;	2.03;	2.13;	2.41;	2.65;	563
1.50;	1.66;	1.75;	1.92;	2.13;	2.34;	2.48;	2.75;	2.85;	564
2.10;	2.16;	2.26;	2.41;	2.60;	2.79;	2.88;	3.07;	3.10;	565
2.31;	2.33;	2.44;	2.57;	2.77;	2.95;	3.11;	3.39;	3.52;	566
2.40;	2.50;	2.61;	2.72;	2.94;	3.18;	3.35;	3.71;	4.04;	567
1.66;	1.70;	1.75;	1.86;	2.03;	2.23;	2.41;	2.72;	2.85;	568
1.00;	1.70;	1.79;	1.84;	2.03;	2.23;	2.43;	2.72;	2.84;	569
1.90;	2.05;	2.07;	2.13;	2.30;	2.57;	2.71;	2.89;	3.02;	570
2.07;	2.09;	2.16;	2.25;	2.37;	2.65;	2.77;	2.98;	3.14;	571
2.31;	2.36;	2.44;	2.57;	2.79;	3.10;	3.31;	3.60;	3.74;	575
2.10;	2.19;	2.26;	2.37;	2.54;	2.75;	2.92;	3.03;	3.29;	576
2.40;	2.22;	2.74;	2.87;	3.07;	3.30;	3.43;	3.67;	4.04;	578
2.71;	2.60;	2.66;	2.95;	3.25;	3.46;	3.60;	3.69;	4.04;	579
2.50;	2.44;	2.50;	2.76;	3.03;	3.35;	3.52;	3.77;	4.04;	580
2.74;	2.70;	2.87;	3.01;	3.25;	3.44;	3.60;	3.62;	4.04;	582
2.77;	2.50;	2.94;	3.03;	3.22;	3.39;	3.52;	3.63;	4.04;	583
2.51;	2.56;	2.74;	2.92;	3.11;	3.39;	3.54;	3.78;	4.04;	584
2.51;	2.60;	2.77;	2.88;	3.07;	3.34;	3.50;	3.77;	3.99;	586
1.10;	2.46;	2.62;	2.96;	3.22;	3.46;	3.56;	3.93;	4.04;	587
1.94;	2.06;	2.26;	2.54;	2.55;	3.30;	3.45;	3.78;	4.04;	588
1.92;	1.94;	2.03;	2.10;	2.29;	2.44;	2.57;	2.75;	2.89;	589
2.07;	2.15;	2.26;	2.41;	2.75;	3.04;	3.22;	3.50;	3.66;	590
0.75;	1.75;	1.86;	1.96;	2.19;	2.57;	2.76;	3.02;	3.22;	591
1.70;	1.73;	1.82;	1.92;	2.07;	2.23;	2.37;	2.67;	2.79;	592
1.44;	1.62;	2.23;	2.34;	2.54;	2.85;	3.05;	3.39;	3.52;	593
1.53;	1.62;	2.23;	2.34;	2.54;	2.80;	2.96;	3.29;	3.47;	594
2.10;	2.16;	2.25;	2.37;	2.57;	2.87;	3.09;	3.56;	4.00;	595
2.10;	2.19;	2.26;	2.34;	2.51;	2.86;	3.02;	3.49;	3.79;	596
2.03;	2.07;	2.16;	2.23;	2.37;	2.65;	2.77;	3.00;	3.44;	597
2.34;	2.47;	2.56;	2.73;	2.94;	3.23;	3.36;	3.70;	4.04;	599
2.23;	2.28;	2.37;	3.46;	2.70;	2.97;	3.15;	3.51;	3.62;	600

nos N six hundred and one to six hundred and fifty eight;

									Sample
									No.
2%	5%	16%	25%	50%	75%	84%	95%	98%	
2.10;	2.10;	2.23;	2.41;	2.67;	2.66;	3.00;	3.43;	3.00;	601
1.52;	1.06;	1.92;	2.03;	2.10;	2.31;	2.48;	2.72;	3.00;	602
1.10;	1.33;	1.70;	1.75;	1.66;	2.16;	2.20;	2.51;	2.70;	603
-0.42;	-0.11;	0.20;	0.22;	0.97;	1.44;	1.00;	2.27;	2.09;	604
-0.11;	0.22;	2.34;	2.57;	2.77;	3.11;	3.31;	3.71;	4.04;	607
2.23;	2.33;	2.45;	2.66;	2.91;	3.24;	3.40;	3.72;	4.04;	608
2.41;	2.21;	2.55;	2.77;	2.97;	3.20;	3.39;	3.60;	3.30;	609
2.21;	2.67;	2.70;	2.09;	3.12;	3.45;	3.00;	3.61;	3.94;	610
2.23;	2.20;	2.37;	2.46;	2.75;	3.05;	3.29;	3.63;	3.70;	611
2.51;	2.24;	2.70;	2.60;	2.94;	3.22;	3.36;	3.71;	4.04;	612
2.63;	2.02;	2.76;	2.63;	3.02;	3.29;	3.42;	3.69;	3.94;	613
2.60;	2.62;	2.93;	3.06;	3.19;	3.31;	3.41;	3.91;	4.04;	614
1.92;	1.90;	2.07;	2.16;	2.20;	2.51;	2.70;	2.90;	3.16;	616
1.70;	1.73;	1.75;	1.62;	1.66;	2.07;	2.16;	2.41;	2.63;	617
2.63;	2.09;	2.96;	3.04;	3.17;	3.40;	3.96;	4.00;	4.04;	618
1.24;	1.30;	1.36;	1.42;	1.52;	1.70;	1.61;	2.03;	2.19;	619
1.62;	1.62;	2.03;	2.28;	2.57;	2.90;	3.12;	3.63;	4.04;	620
2.54;	2.00;	2.67;	2.61;	2.96;	3.16;	3.35;	3.68;	4.04;	622
2.51;	2.34;	2.44;	2.54;	2.75;	2.96;	3.09;	3.35;	3.50;	623
1.66;	1.90;	2.03;	2.16;	2.31;	2.63;	2.83;	3.13;	3.34;	624
1.70;	1.62;	1.66;	1.96;	2.26;	2.60;	2.75;	2.96;	3.13;	625
2.16;	2.23;	2.26;	2.34;	2.57;	2.76;	2.91;	3.15;	3.36;	626
2.03;	2.07;	2.10;	2.19;	2.34;	2.60;	2.77;	3.09;	3.33;	627
2.19;	2.23;	2.34;	2.41;	2.63;	2.34;	3.02;	3.34;	3.53;	629
2.57;	2.65;	2.77;	2.69;	3.11;	3.37;	3.51;	3.76;	4.00;	630
1.62;	1.66;	1.92;	1.96;	2.07;	2.23;	2.37;	2.60;	3.02;	631
1.62;	1.62;	1.66;	1.96;	2.19;	2.69;	3.28;	3.77;	4.04;	632
2.60;	2.61;	3.02;	3.13;	3.25;	3.43;	3.51;	3.63;	4.00;	633
2.27;	2.29;	2.67;	2.76;	2.97;	3.24;	3.42;	3.63;	4.00;	634
2.44;	2.46;	2.57;	2.67;	2.60;	3.02;	3.15;	3.49;	3.73;	635
2.26;	2.34;	2.44;	2.57;	2.75;	2.97;	3.13;	3.42;	3.50;	636
1.44;	1.53;	1.62;	1.70;	1.62;	2.16;	2.48;	2.93;	3.06;	637
2.19;	2.20;	2.31;	2.37;	2.46;	2.75;	2.61;	2.90;	3.06;	638
1.75;	1.66;	1.90;	2.07;	2.26;	2.63;	2.69;	3.33;	3.59;	639
2.21;	2.27;	2.67;	2.77;	2.99;	3.28;	3.40;	3.72;	3.87;	640
2.00;	2.63;	2.54;	3.05;	3.22;	3.41;	3.51;	3.94;	4.00;	641
1.20;	1.62;	1.75;	1.62;	1.92;	2.19;	2.34;	2.72;	2.96;	643
2.31;	2.34;	2.46;	2.65;	2.64;	3.12;	3.35;	3.75;	3.91;	644
2.60;	2.64;	2.73;	2.60;	2.60;	3.20;	3.30;	3.69;	4.01;	645
2.24;	2.64;	2.73;	2.79;	2.90;	3.20;	3.40;	3.76;	4.00;	646
1.22;	1.62;	1.70;	1.75;	1.66;	1.96;	2.10;	2.41;	2.57;	647
2.25;	2.26;	2.34;	2.46;	2.72;	2.93;	3.05;	3.30;	3.50;	648
1.62;	1.70;	1.75;	1.62;	1.92;	2.16;	2.31;	2.72;	2.69;	649
2.03;	2.19;	2.20;	2.34;	2.63;	2.91;	3.13;	3.67;	3.63;	650
1.62;	1.70;	1.75;	1.62;	1.90;	2.19;	2.34;	2.77;	3.00;	651
2.44;	2.21;	2.60;	2.67;	2.66;	3.11;	3.30;	3.61;	3.69;	652
1.62;	1.70;	1.75;	1.62;	1.96;	2.25;	2.37;	2.60;	2.61;	653
2.51;	2.65;	2.70;	2.64;	3.15;	3.37;	3.52;	3.66;	4.04;	654
2.27;	2.20;	2.62;	2.70;	3.02;	3.30;	3.49;	3.60;	4.04;	656
2.27;	2.62;	2.66;	2.71;	3.00;	3.31;	3.44;	3.75;	4.04;	658

nce of six hundred and fifty nine to seven hundred and twelve,

2%	5%	16%	25%	50%	75%	84%	95%	98%	Sample No.
2.77	2.70	2.44	2.91	3.19	3.30	3.52	3.94	4.04	659
2.50	2.73	2.50	2.53	3.17	3.37	3.50	3.85	4.04	660
2.2	2.7	2.52	3.05	3.21	3.40	3.51	3.66	4.04	661
0.70	1.21	1.55	1.50	2.61	3.1	3.41	3.50	4.04	663
1.0	1.53	2.05	2.10	2.26	2.70	2.63	3.10	3.40	664
0.5	0.7	1.10	1.55	1.02	2.51	2.70	3.10	3.56	666
2.18	2.1	2.2	2.41	2.60	2.76	2.54	3.0	3.31	667
2.10	2.1	2.31	2.44	2.63	2.75	2.91	3.0	3.29	668
0.6	1.22	1.70	1.50	2.20	2.72	2.95	3.51	3.69	669
1.0	2.03	2.1	2.31	2.05	2.91	3.0	3.43	3.71	671
2.41	2.5	2.37	2.71	3.01	3.30	3.5	3.72	4.04	672a
1.50	2.02	2.1	2.35	2.77	3.00	3.20	3.5	4.04	672b
2.07	2.1	2.34	2.51	2.72	3.03	3.22	3.62	3.70	673
2.5	2.55	2.57	3.07	3.17	3.49	3.66	3.74	4.04	674
2.2	2.31	2.37	2.51	2.60	3.00	3.26	3.56	3.70	675
2.7	2.0	2.92	3.11	3.34	3.5	3.60	3.73	4.04	676
0.22	0.7	0.97	1.10	1.33	1.70	1.55	2.70	2.94	678
0.27	0.70	1.22	1.4	2.1	2.57	2.91	3.2	3.60	679
2.34	2.37	2.40	2.65	2.51	2.97	3.09	3.37	3.76	680
1.70	1.02	1.60	1.50	2.16	2.41	2.57	2.75	2.63	681
1.5	1.60	1.74	1.00	1.69	2.09	2.29	2.4	2.7	682
1.52	1.5	2.05	2.10	2.25	2.37	2.54	2.7	2.67	683
0.70	0.97	1.22	1.44	1.32	2.10	2.37	2.60	3.0	684
0.50	1.10	1.35	1.44	1.62	1.66	2.07	2.51	2.77	685
-0.1	0.20	0.52	1.16	1.50	1.62	2.10	2.50	2.76	686
-0.3	0.03	0.42	0.50	0.76	1.12	1.31	1.50	1.63	687
0.0	0.37	0.60	0.91	1.2	1.71	1.83	2.14	2.60	688
-0.20	0.13	0.60	0.9	1.12	1.46	1.40	1.6	2.07	689
-0.11	0.27	0.70	1.10	1.53	1.90	2.31	2.64	3.1	690
-0.11	1.10	1.02	1.62	1.92	2.23	2.34	2.72	3.00	691
1.14	1.20	1.30	1.34	1.50	1.72	1.79	1.95	2.09	692
-0.52	-0.56	-0.15	0.07	0.32	0.73	1.04	1.72	2.09	693
-0.60	-0.41	0.40	0.63	0.90	1.24	1.46	1.90	2.51	694
-0.3	-0.34	-0.11	0.17	0.42	0.63	0.70	0.97	1.12	695
0.03	0.37	1.14	1.51	1.60	2.00	2.30	2.61	2.97	696
-0.5	0.07	0.73	1.12	1.73	2.00	2.20	2.70	2.69	697
0.0	0.42	0.62	1.00	1.07	1.61	2.03	2.45	2.6	698
1.4	1.5	1.62	1.70	1.62	2.07	2.20	2.41	2.57	699
1.50	2.07	2.10	2.15	2.31	2.54	2.6	2.80	2.65	700
2.03	2.07	2.10	2.25	2.37	2.60	2.70	2.69	3.00	701
1.5	2.03	2.10	2.10	2.31	2.60	2.72	2.91	3.00	702
1.00	1.52	1.50	2.07	2.23	2.60	2.70	2.99	3.10	703
1.70	1.7	1.60	1.90	2.16	2.41	2.60	2.60	3.00	704
1.70	1.32	1.60	1.92	2.07	2.20	2.41	2.67	2.60	705
1.02	1.70	1.7	1.62	1.90	2.19	2.34	2.60	2.70	706
1.52	1.70	1.7	1.62	2.03	2.19	2.34	2.57	2.70	707
1.55	1.62	1.70	1.75	1.92	2.16	2.31	2.54	2.6	709
1.52	1.70	1.62	1.92	2.07	2.26	2.41	2.6	2.7	710
1.52	1.70	1.75	1.62	1.92	2.10	2.33	2.51	2.63	711
1.70	1.7	1.60	1.92	2.10	2.37	2.51	2.75	2.6	712

nos 1. seven hundred and thirteen to seven hundred and fifty four,

	<u>2%</u>	<u>5%</u>	<u>16%</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>	<u>84%</u>	<u>95%</u>	<u>98%</u>	<u>Sample No.</u>
1.70	1.70	1.00	1.92	2.07	2.23	2.34	2.57	2.72	2.72	713
1.70	1.02	1.00	1.92	2.03	2.20	2.41	2.60	2.60	2.70	714
1.00	1.92	1.90	2.03	2.10	2.41	2.57	2.70	2.70	2.83	715
2.07	2.10	2.20	2.37	2.54	2.64	3.03	3.31	3.31	3.62	716
1.00	1.92	1.90	2.07	2.10	2.41	2.60	3.00	3.00	3.00	717
1.92	1.90	2.03	2.07	2.23	2.44	2.65	2.65	2.66	3.11	718
2.00	2.30	2.90	2.70	2.91	3.27	3.46	3.67	3.67	4.04	719
1.90	2.10	2.19	2.31	2.51	2.72	2.80	2.91	3.07	3.07	721
2.20	2.44	2.54	2.70	2.67	3.17	3.34	3.55	3.55	3.77	722
1.90	2.07	2.10	2.23	2.44	2.70	2.85	3.17	3.17	3.42	724
1.92	2.07	2.16	2.20	2.46	2.70	2.77	2.95	3.07	3.07	725
2.34	2.41	2.54	2.67	2.69	3.12	3.31	3.53	3.69	3.69	726
2.07	2.10	2.16	2.23	2.41	2.72	2.83	3.02	3.17	3.17	727
2.19	2.20	2.37	2.40	2.76	3.02	3.17	3.47	3.63	3.63	730
2.41	2.40	2.60	2.77	2.96	3.32	3.47	3.75	3.87	3.87	731
2.40	2.34	2.70	2.65	3.10	3.39	3.52	3.73	3.89	3.89	732
1.90	2.31	2.44	2.72	3.00	3.40	3.59	3.64	4.02	4.02	733
1.70	2.10	2.30	2.60	2.91	2.99	3.42	3.79	4.05	4.05	734
2.54	2.57	2.75	2.85	3.05	3.35	3.50	3.70	3.85	3.85	735
2.10	2.20	2.34	2.51	2.70	2.95	3.15	3.47	3.63	3.63	736
1.92	2.07	2.10	2.20	2.54	2.62	2.96	3.33	3.53	3.53	737
1.02	2.03	2.10	2.31	2.57	2.60	2.99	3.47	3.60	3.60	738
1.90	2.10	2.25	2.34	2.60	2.60	3.04	3.41	3.59	3.59	739
2.54	2.67	2.80	2.96	3.14	3.42	3.54	3.61	3.95	3.95	741
1.00	2.07	2.31	2.44	2.72	3.01	3.14	3.40	3.70	3.70	742
2.19	2.23	2.34	2.51	2.67	2.69	3.05	3.53	3.49	3.49	743
2.20	2.37	2.40	2.60	2.65	3.14	3.32	3.55	3.70	3.70	744
2.10	2.10	2.20	2.37	2.54	2.60	3.04	3.50	3.50	3.50	745
-0.52	-0.45	0.20	0.97	1.33	1.70	1.92	2.31	2.72	2.72	746
0.42	0.70	1.53	1.44	1.62	1.79	1.94	2.07	2.00	2.00	747
0.70	1.32	1.90	1.00	2.00	2.20	2.70	3.49	4.02	4.02	751
2.19	2.31	2.44	2.60	2.60	3.17	3.34	3.61	3.70	3.70	753
2.25	2.31	2.34	2.40	2.75	2.90	3.11	3.30	3.51	3.51	754

APPENDIX IX

MUD SAMPLE ANALYSES

Key:-

- a. Median diam in microns (Md)
- b. Value in microns from cumulative curve at 16%
- c. Value in microns from cumulative curve at 84%
- d. Mean diam. in microns (M_z)
- e. % of mud greater than 24 microns
- f. % of mud less than 24 microns
- g. % of mud less than 4 microns
- h. % of mud less than 2 microns
- i. % of material present at 3 microns from frequency curve
- j. Value in microns from cumulative curve at 25%
- k. Value in microns from cumulative curve at 75%
- l. Sorting coefficient (S_o)
- m. % of material present at 16 microns from frequency curve
- n. Modes in microns (M_o)

<u>Sample No.</u>	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
G1	5.5	12.5	3.5	7.16	2	98	24	4	37.1	10	4	1.58	5	3
B36	5	15	3.5	7.8	4	96	26.5	4.5	39.0	10	4	1.58	9.5	14.3
B68	6	12.5	3.5	7.3	-	100	25	4	31.1	10	4	1.58	7	7.3
B107	7.5	14	4	8.5	3.5	96.5	16	2	22.6	12	5	1.55	8.5	10.3
B156	5	11	3.5	6.5	2	98	30	5	39.2	8.5	3.5	1.56	5	3
M1	5.5	17	3.5	6.6	10.5	69.5	27	3.5	39.4	9.5	4	1.54	6	28,14,3
M2	5	10.5	3.5	6.3	3	97	30	5	39.4	13	4	1.80	2	20,3
M3	5.5	12.5	3.5	7.16	2	98	25	4.5	33.6	10	4	1.58	5	10.3
M8	5	13	3.5	7.16	3	97	32.5	5.5	45.1	10	3.5	1.69	7	10,3
M10	5.5	13	3.5	7.6	2.5	97.5	26.5	4	36.2	10.5	4	1.62	6.5	10,3
M11	5	9	3.5	5.8	-	100	30	5	47	7	3.5	1.41	5.5	14,3
M12	6.5	17.5	4	9.3	10.5	89.5	19	3	29.5	11.5	4.5	1.60	6	28,3
M13	5	11.5	3.5	6.6	2	98	27	4.5	40.6	9	4	1.50	7	14,7,3
M14	7.5	12	4	7.8	2.5	97.5	19	3.5	36.8	9.5	4.5	1.45	7	3
M16	5	14.5	3.5	7.6	9	91	27.5	5	39.4	9.5	4	1.54	5	28,7,3
M17	5.5	12.5	3.5	7.16	3	97	27.5	4.5	38.2	8.5	4	1.46	7	10,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M23	5	10	3.5	6.16	2.5	97.5	30	4.5	42.4	8	3.5	1.51	5.5	14,3
M24	5.5	13	3.5	7.3	4	96	25	4	36.2	9.5	4	1.54	6	20,3
M25	4.5	11.5	3	6.3	-	100	35	5	47	8	3.5	1.51	7.5	14,3
M26	5.5	17.5	3.5	8.8	10.5	89.5	25	4	36.8	11.5	4	1.70	10.5	28,3
M27	5	9.5	3.5	6	2.5	97.5	27.5	5	43.4	8.5	4	1.46	5.5	14,7,3
M28	5	9	3.5	5.8	-	100	27.5	4	39.8	7	4	1.32	5	14,3
M29	5.5	18	3.5	9	7	93	30	4.5	37.8	11.5	4	1.70	8.5	20,3
M30	5.5	16	3.5	8.3	10	90	25	4.5	35.8	9.5	4	1.54	5.5	28,14,3
M31	6	13.5	3.5	7.6	8.7	91.3	25	4	33.2	10	4	1.58	4.5	28,7,3
M32	5	13	3.5	7.16	6	94	30	4.5	39.4	10	4	1.58	4	20,7,3
M33	6	19.5	3.5	9.6	15.2	84.8	25	4.5	35.7	12	4	1.73	4	28,7,3
M35	6.5	16.5	3.5	8.8	3.5	96.5	25	4	32.6	13	4	1.80	8.5	14,7,3
M37	5.5	10	3	6.16	3	97	30	4	36.9	8.5	3.5	1.56	2	20,7,3
M38	6.5	19.5	3.5	9.8	14.8	85.2	22.5	4	31.4	14.5	4	1.90	7.5	28,14,7,3
M42	7	17	3.5	9.16	8.8	91.2	20	3	28.1	13	4.5	1.70	9	28,14,7,3
M43	5.5	13.5	3.5	7.5	8.3	91.7	27.5	5	37.4	9.5	4	1.54	4	28,3
M44	5	10	3.5	6.16	3	97	32	5	42.9	8	4	1.42	1.5	20,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M51	5	10.5	3	6.16	2	98	30	5.5	41.9	8.5	3.5	1.56	5	3
M63	6.5	17	3.5	9	5	95	25	3.5	33.6	12	4	1.73	12	14,7,3
M54	5	18.5	3.5	9	11.5	68.5	30	5	39.7	10.5	3.5	1.73	6.5	28,14,7,3
M56	7	21	3.5	10.5	12.5	87.5	20	3	26.1	13	4.5	1.70	7	20,3
M59	8	16	4	9.3	3	97	16	3	21.9	12	4.5	1.63	11.5	14,7,3
M60	6	19.5	3.5	9.6	12.5	87.5	25	3.5	30.2	13	4	1.80	7	28,3
M81	6.5	16.5	3.5	8.8	11	89	30	5.5	35.2	10	3.5	1.69	5.5	28,14,7,3
M83	5	13.5	3.5	7.3	3	97	30	5	41.9	10	3.5	1.69	7	7,3
M87+salt+ water	5	28	3.5	12.16	21	79	27.5	4	41.2	21	4	2.29	3	28,3
M87	6.5	22	3.5	10.6	14.5	85.5	25	5	31.2	11.5	4	1.70	2.5	28,7,3
M87+ calgen	8	29	4.5	13.8	20	80	12.5	2	16.7	13.0	5	1.61	2	28,7
M89+calt+ water	5	13.5	3.5	7.3	8	92	27.5	4.5	40.9	9	4	1.50	9.5	28,3
M89	5	12	3	6.6	2.5	97.5	33.5	7	41.5	9	3.5	1.61	6	3
M89+ calgen	7	18.5	3.5	9.6	10.5	89.5	18.5	3	24.2	14.5	4.5	1.80	10	28,14,3
M90	6	11	3.5	6.8	4.5	95.5	25	4	34.8	9	4	1.50	6.5	20,7,3
M100	6	11	3.5	6.8	3.5	96.5	22.5	3.5	31.8	9	4	1.50	2	20,3
M102	6	25	3.5	11.5	16.5	83.5	26	4.5	32.6	13	4	1.80	4.5	66,5,3
M104	6	12.5	3.5	7.3	10.5	89.5	25	5	32.4	9.5	4	1.54	1.5	38,20,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M106	5	12	3.5	6.8	-	100	30	5.5	39.2	8.5	3.5	1.56	6	10,3
M111	6.5	19.5	3.5	9.8	11	89	24	4	33.5	12	4	1.73	6	38,20,7,3
M111+ calgon	5.5	12.5	3.5	7.13	3	97	27	4.5	36.9	9.5	3.5	1.65	6.5	7,3
M111+sal+6		11.5	3.5	7	2.5	97.5	22.5	3.5	34.8	9	4	1.50	5.5	7,3
water														
M127	7.5	19.5	3.5	10.16	13	87	22.5	4	31.7	13.5	4	1.83	7	28,7,3
M128	6	56.5	3.5	22	-	100	25	4.5	34.4	13.5	4	1.83	4	66,5,3
M183	8.5	61	3.5	24.3	23.5	76.5	20	3	25	22.5	4.5	2.24	6.5	66,5,14,7,3
M190	5	10.5	3.5	6.3	3	97	32.5	5	39.7	8.5	3.5	1.56	2	20,3
M212	5.5	12	3.5	7	2.5	97.5	27.5	4.5	37.5	9.5	4	1.54	6	7,3
M237	7.5	17.5	3.5	9.5	10	90	22.5	4	33.5	12	4	1.73	9	14,7,3
M256	5	20	3.5	9.5	8	92	27.5	4	38.1	12	4	1.73	10.5	20,7,3
M257	6	11.5	3.5	7	2.5	97.5	25	4.5	33.4	11.5	4	1.70	6	7,3
M258A	6.5	18.5	3.5	9.5	11.5	88.5	20	3.5	30.2	12.5	4.5	1.67	6.5	28,3
M260B	6	15.5	3.5	8.3	3	97	22.5	3.5	31.7	10	4	1.58	11.5	14,7,3
M261	6	17	3.5	8.8	9	91	22.5	3.5	30.5	10	4	1.58	8.5	28,14,7,3
M262	5	11	3.5	6.5	2.5	97.5	25	3.5	39.9	9	4	1.50	6.5	14,7,3
M263	4.5	17.5	3.5	8.5	10	90	32.5	4	45.9	9	3.5	1.60	6	20,3
M265	6	20.5	3.5	10	8.5	91.5	26	4.5	36	13.5	4	1.84	7	38,10,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M267	6	26	3.5	11.8	17	83	25	4.5	34	14	4	1.87	5	14,7,3
M268	6	19	3.5	9.5	12	88	22.5	4	31.6	12	4	1.73	7	28,14,3
M269	14	57.5	4.5	25.3	39	61	14	2.5	20.1	40.5	5	2.84	7	66.5,20,10,3
M270	5	16.5	3.5	8.3	8.6	91.4	29	5	40.3	11	3.5	1.77	8.5	28,14,10,3
M271	5.5	14	3.5	7.6	9.0	91	27.5	5	36.4	10	3.5	1.69	4.5	28,3
M278	6	9.5	3.5	6.3	-	100	25	5	31.7	8.5	4	1.46	5.5	14,3
M287	6	17	3.5	8.8	6	94	22.5	4	32	12.5	4	1.77	9	20,10,3
M291	8	22.5	3	11.16	15	85	15	3	19.2	15.5	5	1.76	8	28,5
M292	6.5	60	3.5	23.3	22.5	77.5	22.5	3.5	30.9	20	4	2.24	6	66.5,10,3
M294	5	12.5	3.5	7	3	97	26	4	39.1	9	4	1.50	7	14,3
M297	5.5	12	3.5	7	-	100	25	4	36.6	10	4	1.58	5.5	10,3
M298	7	19	3.5	9.8	12	88	25	4.5	31.5	13	4	1.80	6.5	38,7,3
M299	6	19	3.5	9.5	12	88	27.5	4.5	35.1	12.5	4	1.77	6.5	38,7,3
M302	5	13	3.5	7.16	3	97	29	4	42.5	9	3.5	1.60	7.5	14,7,3
M303	5.5	14	3.5	7.6	3.5	96.5	27.5	4	35.9	11	4	1.66	8	10,3
M304	5.5	12	3.5	7	3	97	27.5	4	37.3	8.5	4	1.46	7	14,3
M305	7.5	57.5	4	23	28.5	71.5	16	2.5	21.8	29.5	5	2.43	1.5	66.5,28,3
M307	5	15.5	3.5	8	4	96	30	5	42.6	10	3.5	1.69	9.5	14,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M310	8.5	33	3.5	15	24.5	75.5	20	3.5	29	23.5	4.5	2.28	7.5	38,10,3
M312	5.5	14	3.5	7.6	3.5	96.5	25	4	37.3	9.5	4	1.54	8.5	14,7,3
M319	15	56.5	4.5	25.3	43	57	12.5	2	16.2	38.5	6	2.53	5.5	66.5,38,7,3
M320	5	11	3.5	6.16	3.5	96.5	30	4.5	39.4	9	3.5	1.65	2.5	20,7,3
M322	6	15	3.5	8.16	9.5	91.5	25	4.5	33.2	11	4	1.66	5	28,3
M323B	5	10	3	6	-	100	32.5	5.5	45.6	8.5	3.5	1.56	4.5	7,3
M324	7.5	25.0	3.5	12	16.5	83.5	22.5	3.5	31.4	16.5	4	2.03	9	38,14,7,3
M325	6	16.5	3.5	8.6	10	90	25	4	33	12	4	1.73	5.5	28,10,3
M327	7.0	31.5	4	14.16	22	78	17.5	3	26.2	20	4.5	2.10	7	38,14,3
M328	5.5	11.5	3.5	6.8	3	97	25	4	35.5	8.5	4	1.46	6	3
M329	5	10.5	3.5	6.3	2.5	97.5	25	4.5	39	8	4	1.41	6	14,3
M330	10.5	60	4	23.16	32	68	16	2.5	20.4	45	5	3.00	6	66.5,38,7,3
M331	7	15.5	3.5	8.6	2.5	97.5	19	3.5	29.9	12.5	4.5	1.67	10.5	7,3
M332	8	55	4	22.3	33.5	66.5	17.5	3	26.1	37	4.5	2.87	1.5	66.5,7,3
M333	5	14	3.5	7.5	3.5	96.5	26.5	4	39.1	11	4	1.66	8	10,3
M334	7	31	3.5	13.8	21	79	21	3	31.2	19.5	4	2.21	6.5	38,14,7,3
M335	5.5	18	3.5	9	12.5	87.5	35	6	48.4	12.5	3.5	1.89	6.5	28,14,3
M336	5	14	3.5	7.5	3.5	96.5	30	5	45.5	8.5	3.5	1.56	8.5	14,7,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M337	5.5	14	3.5	7.6	4.5	95.5	25	4	36.7	10	4	1.58	7	20,7,3
M338	6.5	16	4	8.8	8	92	18	3	28	11.5	4.5	1.60	7	28,3
M339	5.5	11	3.5	6.6	2	98	27	4.5	37.5	8.5	4	1.46	5	3
M340	5	11.5	3.5	6.6	3	97	32.5	5	41.9	8.5	3.5	1.56	6.5	14,3
M341	5	14.5	3.5	7.6	9.5	90.5	25	4.5	39.7	9	4	1.50	4.5	40,14,3
M342	5	14.5	3.5	7.6	3.5	96.5	27.5	4	39.5	9	4	1.50	8.5	14,3
M343	5	9.5	3.5	6	4	96	30	5	42	8	3.5	1.51	3	20,7,3
M344	7	20.5	3.5	10.3	13.5	86.5	22.5	4	34	13.5	4	1.84	7.5	28,7,3
M345	5.5	13.5	3.5	7.5	4.5	95.5	25	4.5	35	9	4	1.50	7	20,3
M346	5	10	3.5	6.16	-	100	32.5	5.5	41.9	8	3.5	1.56	4.5	3
M348	5.5	17	3.5	8.6	6	94	27.5	4	38.3	10	4	1.58	9.5	20,7,3
M349	5.5	19	3.5	9.3	12	88	25	4.5	35.7	13	4	1.84	6.5	28,10,3
M350	6	14	3.5	7.8	3.5	96.5	25	4	32.4	9.5	4	1.54	8.5	14,3
M351	5	13.5	3.5	7.3	3.5	96.5	30	5	41.6	8.5	3.5	1.56	7.5	14,3
M356	6	14	3.5	7.8	3.5	96.5	25	4.5	33.8	9.5	4	1.54	8	14,3
M357	5.5	14.5	3	7.6	3.5	96.5	27.5	5	36.2	11.5	3.5	1.81	8.5	10,3
M358	4	8	3	5	-	100	50	7.5	64.5	5	3.5	1.20	-	7,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M359	5	12.5	3	6.8	-	100	29	5	41.6	11	3.5	1.77	5.5	10,3
M360	6.5	16	3.5	8.6	10.6	89.4	20	4	29.2	12	4.5	1.63	5.5	28,3
M361	5.5	10	3.5	6.3	2.5	97.5	30	5	38	8.5	4	1.46	6	14,3
M363	6	15.5	3.5	8.3	10.2	89.8	25	3	32.4	11.5	4	1.70	5	28,3
M364	6	15.5	3.5	8.3	4	96	27.5	4	34.8	10.5	4	1.62	10	14,7,3
M378	6.5	12.5	3.5	7.5	2	98	20	3.5	28.7	9.5	4.5	1.45	8	14,6,3
M385	8	30	4.5	14.16	20.5	79.5	13.5	2.5	18.6	18.5	5.5	1.83	6.5	38,5
M390	4.5	12	3.5	6.6	3	97	30	5.5	43.6	8.5	3.5	1.56	7	14,7,3
M391	7	39	3.5	16.5	16.8	83.2	21	5	35.6	15.5	4.5	1.85	7	38,14,7,3
M408	4.5	9	3	5.5	-	100	30	6.5	46.4	12	3.5	1.85	7.5	14,7,3
M409	5	13	3.5	7.16	3.5	96.5	31	5.5	42.9	8.5	3.5	1.56	7.5	14,3
M409+ calgon	6.5	13	4	7.8	2.5	97.5	16	3	22.6	10.5	5	1.45	6	5
M409+salt water	4.5	9	3.5	5.6	2	98	35	4	55.6	6.5	3.5	1.36	5	14,3
M410	8	15	4.5	9.16	2.5	97.5	13.5	2	18	12	5.5	1.48	10	7,3
M411	7	57	3.5	22.5	17.8	82.2	22.5	4	27.3	13	4.5	1.70	4	66.5,3
M412	5	15.5	3.5	8	10.1	89.9	30	5	38.6	9.5	3.5	1.65	5.5	28,14,7,3
M413	6	11	3.5	6.8	2.5	97.5	24	4	32.3	9	4	1.50	5.5	7,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M414	5	14	3.5	7.5	12.5	97.5	30	4.5	40	10	3.5	1.69	2	28,7,3
M415	6	10.5	3.5	6.6	3	97	25	4	34.8	9	4	1.50	2	20,7,3
M420	5	10	3	6	-	100	30	5	38.1	8.5	3.5	1.56	4.5	3
M428	5.5	15.5	3.5	8.16	4	96	25	5	37.9	10.5	4	1.62	9.5	14,7,3
M433	6	14	3.5	7.8	9	91	23	4	31.7	10	4	1.58	4.5	28,7,3
M434	5.5	12.5	3.5	7.16	-	100	27.5	5	38.2	10	4	1.58	8	7,3
M458	6	15	3.5	8.16	7.1	92.9	25	4	33.3	10.5	4	1.62	7	28,14,3
M461	6	14.5	3.5	8	6.7	93.3	27.5	4.5	32.8	10	4	1.58	7	28,14,3
M467	5.5	12.5	3.5	7.15	2	98	27.5	4	38.3	9.5	3.5	1.65	8	14,7,3
M468	7.5	17	4	9.5	10	90	16	2	22.2	12	5	1.55	7.5	38,14,7,3
M469	6	13	3.5	7.5	7.5	92.5	22.5	3	32.9	9.5	4	1.54	4	28,7,3
M470	6	16	3.5	8.5	10	90	24	3	32.6	10.5	4	1.62	5.5	28,3
M497	5.5	14	3.5	8.3	10	90	22.5	4.5	33.6	9	3.5	1.60	5.5	28,14,3
M524	7.5	23.5	4	11.6	15	85	19	3.5	26.2	16.5	4.5	1.91	8.5	20,3
M525	5	9.5	3.5	6	2.5	97.5	30	5	43.2	8	3.5	1.51	5.5	14,3
M526	5.5	10.5	3.5	6.3	2	98	27.5	4.5	36.9	8.5	3.5	1.56	5	7,3
M528	6	14	3.5	7.8	8.5	91.5	27.5	4	35.8	10.5	3.5	1.73	4.5	28,7,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M530	5.5	17.5	3.5	8.8	11	89	25	4	37.3	9.5	4	1.54	6	28,14,3
M532	6.5	22	3.5	10.6	13	87	23	3.5	32.7	13	4	1.80	10.5	28,14,3
M533	6	15.5	4	8.5	9.5	90.5	18.5	3.5	24.8	9.5	4.5	1.45	5	28,3
M537	5	12.5	3.5	7	7.4	92.6	27.5	5	37.7	9	4	1.50	4	28,3
M539	5.5	11	3.5	6.6	2	98	30	4	37.1	9	4	1.50	5	7,3
M540	5.5	14.5	3.5	7.8	9	91	27.5	4.5	36	9.5	4	1.54	5	28,14,7,3
M541	5	13	3.5	7.16	-	100	30	4.5	38.5	9.5	3.5	1.65	9	14,3
M543	6	17.5	3.5	9	10.5	89.5	25	4	35.3	12	4	1.73	6	28,7,3
M547	5.5	14	3.5	7.6	8.5	91.5	25	4	38.9	10	4	1.58	4.5	20,7,3
M550	5	13	3.5	7.16	8	92	26.5	4	43.5	8.5	4	1.46	4.5	28,14,3
M553	6	12.5	3.5	7.3	8	92	26	4	35.6	9	4	1.50	4.5	28,7,3
M554	6	23	3.5	10.8	15	85	25	4	36.6	13	4	1.80	5	28,3
M555	5	16	3.5	8.16	9.5	90.5	27	5	39.6	9	4	1.50	5.5	28,7,3
M566	5	18	3.5	8.8	10	90	27.5	4	39.5	13.5	4	1.84	9.5	28,14,3
M567	7	15.5	3.5	8.6	9.5	90.5	25	4	31.1	12	4	1.73	5	28,8.5,3
M572	5.5	10	3.5	6.3	7.5	92.5	27.5	4.5	37.8	8	4	1.42	-	28,3
M573	6	12.5	3.5	7.3	3	97	25	4	35.9	9.5	4	1.54	6	7,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M574	5.5	12	3.5	7	2	98	25	4	35.3	9	4	1.50	7.5	14,3
M575	5	12	3.5	6.8	4	96	30	4.5	40.3	9	3.5	1.60	6	20,7,3
M578	5	12	3.5	6.8	3	97	30	5	41.4	8.5	3.5	1.56	7	14,3
M581	6.5	19	3.5	9.6	9.5	90.5	25	4	33.7	14	4	1.87	9.5	14,7,3
M585	5.5	13.5	3.5	7.5	7.5	92.5	25	4	36.2	9	4	1.50	4	28,3
M587	6	9	3.5	6.16	2.5	97.5	25	4	34.4	9	4	1.50	5.5	7,3
M588	6	16	3.5	8.5	2.5	97.5	25	4	34.5	12.5	5	1.77	13.5	14,7,3
M597	6	13.5	3.5	7.6	3	97	22.5	3	37.3	9.5	4	1.54	7.5	14,7,3
M598	5.5	10	3.5	6.3	2	98	25	4.5	36.3	8.5	4	1.46	5	3
M599	5	12.5	3.5	7	3	97	30	5	40.5	9	3.5	1.60	8	14,7,3
M600	7	26	3.5	12.16	17	83	25	3.5	31.2	14	4	1.87	5	7,3
M601	6	15	3.5	8.16	9	91	22.5	4	33	10	4	1.58	5.5	20,7,3
M605	6.5	19.5	4	10	13.5	86.5	16	3	27	13.5	4.5	1.73	7	38,14,3
M606	6.5	10	4	6.8	3	97	17.5	2	29.7	9	4.5	1.54	7	7,3
M607	5.5	14	3.5	7.6	6.3	93.7	27.5	4.5	37.4	11	4	1.66	4	28,14,7,3
M608	5	12	3.5	6.8	2.5	97.5	32	4	40.5	9	3.5	1.60	6	3
M609	5.5	13.5	3.5	7.5	2	98	28	4.5	37.6	9.5	3.5	1.65	8.5	14,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M610	7.5	14	4.5	8.6	13.5	86.5	12	2	18.4	10.5	5	1.50	4.5	20,5
M611	5	13.5	3.5	7.3	8.5	91.5	32.5	5	42.7	9.5	3.5	1.65	5	28,7,3
M612	6.5	15	3.5	8.3	11	89	17.5	1.5	26.8	9.5	4.5	1.56	3.5	38,7,3
M613	6	13.5	3.5	7.6	3.5	96.5	25	3.5	32.1	10.5	4	1.62	7.5	3
M614	8	32	3.5	14.5	24	76	20	3	26.2	22	4.5	2.21	5	28,7,3
M615	5	9.5	3.5	6	-	100	30	2.5	39.3	8	3.5	1.51	3.5	7,3
M619	5.5	12.5	3.5	7.16	8	92	30	4.5	37.9	9	3.5	2.60	4	28,14,3
M620	6.5	14	3.5	8	9	91	20	3	27.6	10	4.5	1.49	4.5	28,3
M621	5.5	14	3.5	7.6	5	95	27.5	5	36.8	10	4	1.58	7.5	20,3
M628	5	9	3.5	5.8	-	100	30	4	43.9	7.5	3.5	1.46	3.5	14,3
M630	6	9.5	3.5	6.3	2	98	25	4.5	33.6	8.5	4	1.46	5	14,3
M631	5.5	13	3	6.8	8.5	91.5	23	4	38.1	9	3.5	1.60	1	28,3
M632	5	10	3.5	6.1	2.5	97.5	31	4.5	41.2	8.5	3.5	1.56	6	14,7,3
M633	5.5	12	3.5	7	2	98	26	4.5	36.1	9	4	1.50	5	3
M634	5	14.5	3	7.5	5	95	27.5	5	38.8	8.5	3.5	1.56	7.5	20,3
M635	6	12	3.5	71.6	-	100	28.5	3.5	32.1	9.5	3.5	1.65	6	3
M636	5.5	11.5	3.5	6.8	2	98	30	4.5	37.2	9	3.5	1.60	4.5	3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M637	5.5	12.5	3.5	7.16	3	97	25	5	35.5	9.5	4	1.54	6.5	7,3
M640	5	9	3.5	5.8	-	100	29	4	41	8	3.5	1.51	3	7,3
M641	6	12.5	3.5	7.3	3	97	29	4.5	3.59	9.5	3.5	1.65	6.5	7,3
M642	6.5	13	3.5	7.6	7	93	18.5	3	26	10	4.5	1.49	4	28,7,3
M644	6.5	14	3.5	8	8.5	91.5	23.5	3	29.1	11	4.5	1.56	4.5	20,7,3
M646	7.5	22.5	4	11.3	15	85	16	2.5	24.9	15.5	4.5	1.85	8	38,14,7,3
M648	5	10.5	3	6.16	8.2	91.8	32.5	5	38.3	8.5	3.5	1.56	-	28,3
M650	5.5	12.5	3.5	7.16	7	93	27.5	4.5	37.5	10	3.5	1.69	3.5	28,3
M651	5.5	12	3	6.8	2.5	97.5	30	4.5	36.4	9	3.5	1.60	6	3
M654	7	19	3.5	9.8	13	87	20	3.5	28.2	12.5	4.5	1.67	6.5	38,14,7,3
M655	5	10	3.5	6.16	3	97	27.5	4.5	39.4	8	3.5	1.56	2	20,3
M656	6	15	3.5	8.16	9	91	25	4	31.6	10	4	1.58	5	20,3
M657	6	15.5	3.5	8.3	7.6	92.4	25	4	35.5	9.5	4	1.54	7.5	38,14,7,3
M658	7	21	4	10.6	13.5	86.5	17.5	2.5	27.8	12.5	4.5	1.67	4.5	20,3
M659	5.5	11	3.5	6.6	2	98	27.5	4.5	37.7	8.5	4	1.46	5	3
M660	6	11.5	3.5	7	8	92	22.5	4	30	9	4	1.50	1	38,20,3
M661	5	11.5	3.5	7.6	8	92	27	5	39.5	9	4	1.50	1	28,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M662	5.5	11.5	3.5	6.8	2.5	97.5	25	4.5	38.5	9	4	1.50	5.5	3
M663	6.5	25	3.5	11.6	16.5	83.5	22.5	4	28.8	13.5	4	1.84	5	38,3
M665	7	29	3.5	13.16	19	81	20	3	27.8	17	4.5	1.94	6	38,3
M670	6	14	3.5	7.8	9	91	21.5	3.5	31.7	10	4	1.58	5	28,3
M672A	6	13.5	3.5	7.6	8.5	91.5	22.5	3.5	33.7	9.5	4	1.54	4.5	28,7,3
M674	5	10	3.5	6.16	2	98	30	4	42.5	8.5	3.5	1.56	4.5	7,3
M675	5	23	3	10.3	15	85	31	5	39.8	12	3.5	1.85	2	28,10,3
M676	8	26	4	12.6	18	82	17.5	3	26.5	18.5	4.5	2.10	10	28,14,7,3
M677	5	12.5	3.5	7	3	97	27.5	5	39	9.5	4	1.54	6.5	3
M680	6	13	3.5	7.5	3	97	25	3.5	35.1	9.5	4	1.54	7	7,3
M716	5.5	12	3.5	7	8	92	25	4.5	36.9	9	4	1.50	4.5	28,14,3
M719	5.5	26.5	3.5	11.8	17.5	82.5	25	4	37.3	15	4	1.94	5.5	38,14,3
M720	5	12.5	3.5	7	3	97	33	5	41.4	9.5	3.5	1.65	7	14,7,3
M722	5.5	27	3.5	12	18	82	30	5	35.8	15	4	1.94	5.5	38,14,3
M723	10	53.5	4	22.3	33.5	66.5	17.5	3	20.4	35	5	2.64	6	66.5,20,3
M726	5	10.5	3.5	6.3	3	97	26.5	4.5	34.8	9	4	1.50	2	20,7,3
M728	6	14	3.5	7.8	3.5	96.5	25	6.5	29.3	9.5	4	1.54	8	14,3

	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.
M729	6.5	19	3.5	9.6	10.5	89.5	20	3	32	14.5	4.5	1.80	10.5	28,14,3
M734	6	13.5	3.5	7.6	3	97	21.5	3.5	30.6	10	4	1.58	7.5	3
M740	6	13.5	3.5	7.6	10.5	89.5	22.5	3.5	31	11	4	1.66	6	28,3
M748	7.5	18.5	4	10	6	94	16	3.5	28.5	15.5	4.5	1.86	14.5	10,3
M749	7.5	27	4	9.5	19	81	17.5	3	25.9	19	4.5	2.05	10	38,14,3
M750	12	52.5	4	22.8	38.5	61.5	26	2.5	23	34	5	2.61	9.5	66.5,14,7,3
M752	5	11	3.5	6.5	2	98	27.5	4.5	40.2	8	4	1.41	5	3
M754	6.5	17.5	3.5	9.16	9.5	90.5	23.5	4	33.8	13	4	1.80	8.5	28,14,7,3
M755	8	26.5	4	12.8	17.5	82.5	26	3	23.6	17	4.5	1.94	9	38,14,3

APPENDIX X

CODE LIST AS USED TO DESCRIBE

FAUNAL POPULATIONS

(For a description of fauna see text)

<u>Code No.</u>	<u>Binomial Nomenclature</u>
1	<i>Cardium edule</i>
2	<i>Pharus legumen</i>
3	<i>Hydrobia ulvae</i>
4	<i>Littorina littorea</i>
5	<i>Donax vittatus</i>
6	<i>Ostrea edulis</i>
7	<i>Pectinaria</i> sps. (probably two species present)
8	<i>Barnea candida</i>
9	<i>Glycimerus glycimerus</i>
10	<i>Mytilus edulis</i>
11	<i>Modiolus modiolus</i>
12	<i>Echinus esculentus</i>
13	<i>Trivia arctica</i>
14	<i>Emarginula reticulata</i>
15	<i>Venus ovata</i>
16a	<i>Venus fasciata</i>
16b	<i>Venus casina</i>
17	<i>Venus striatula</i>
18	<i>Lithothamnea</i> sps.
19a) 19b)	(Undifferentiated) spines of <i>Echinus esculentus</i> and <i>Echinocardium cordatum</i>
20a	<i>Chlamys opercularis</i>
20b	<i>Chlamys varia</i>
20c	<i>Chlamys distorta</i>
21	Polyzoan (undefined)
22	<i>Echinocyamus pusillus</i>
23	<i>Pomatoceros triqueter</i>
24	<i>Pomatoceros</i> sps.
25) 26)	<i>Turritella communis</i>

- 27) Porifera (undefined)
28)
- 29 Lima loscombi
- 30 Chlamys tigrina
- 31 Paphia rhomboidea
- 32)
33) Macoma balthica
- 34 Lutraria lutraria
- 35 Mya arenaria
- 36 Mactra stultorum
- 37 Spisula elliptica
- 38 Scrobicularia plana
- 39 Abra Alba
- 40 Spisula subtruncata
- 41a Tellina tenuis
- 41b Tellina fabula
- 42 Gari fervensis
- 43 Macoma balthica
- 44 Nucula turgida
- 45 Natica poliana
- 46 Cantharidus montagui
- 47 Gibbula cineraria
- 48 Tricola pullus
- 49 Gibbula tumida
- 50 Nassarius incrassatus
- 51 Trophon truncatus
- 52 Terbinella eligentissima
- 53 Gastropod (undefined)
- 54 Buccinum undatum
- 55 Dentalium entalis
- 56 Balanus crenatus
- 57 Calliostoma zizyphinium
- 58 Ocenebra crinacea
- 59 Flustra foliacea

60	<i>Membranipora membranipora</i>
61	<i>Aloidis gibba</i>
62	<i>Cardium crassum</i>
63	<i>Anomia ephippium</i>
64	<i>Natica catena</i>
65	<i>Cardium echinatum</i>
66	<i>Littorina saxatilis</i>
67	<i>Littorina littoralis</i>
68	<i>Lanice conchilega</i>
69	<i>Nassarius incrassatus</i>
70	<i>Balanus balanoides</i> (elongate form)

The order in which items appear in the above list is the order of identification, and the numbers relate to the reference samples which have been kept. In some cases the same species is duplicated with two or more examples, this is usually because they represent slight variations in form; or different valves of the same shell. Some species of Porifera and Polyzoa have not been identified because of the difficulty involved and shortage of time. The lack of identity does not materially affect their use in defining population distributions.

APPENDIX XI

LIST OF CODIED FAUNA FROM SAMPLES

Key:-

- d = Dominant. More than half of the faunal fragments belong to this form.
- c = Common. This form never represents more than half of the fauna present, but it is represented by many more than one or two fragments.
- p = Present. Only one or two fragments of this form are represented in the sample.

For key to the numbers used see Appendix X .

<u>Sample No.</u>	<u>Faunal Code</u>
B3	10c
B4	24c
B7	59c
B8	10d, 55p, 24p, 4p
B10	10d
B11	10c
B12	24c, 10p, 1p
B13	10c, 34p
B14	24p, 10p
B15	10p
B16	10p, 1p
B17	10c, 1c, 24p
B18	10d, 1c
B19	10d
B20	10c, 1c
B21	10p, 5p, 1p
B22	10p, 1p
B23	5d, 30c, 1c
B24	5d, 1c
B26	5c, 30p, 10p
B30	5c
B31	5d, 2c, 41p, 15p, 1p
B32	36d, 5c, 16p, 2p, 1p
B33	33c, 5c, 1c, 29p, 16p, 2p

B34	5d, 1c, 25p, 16p, 6p, 4p, 2p, 65p
B35	33c, 5c, 17p, 1p
B36	5d, 17p
B38	10p, 1p
B39	5c, 33p, 2p
B40	5c, 40p, 33p, 2p
B42	7c, 25p, 1p
B43	5c, 1c
B47	32p, 10p, 8p, 7p, 1p, 68p
B48	25d, 58c
B52	12p, 5p
B62	1d, 32p
B64	33d, 7c, 1p
B66	1d, 36p
B67	1d, 5c, 8p
B68	1d
B70	5c, 10p, 1p
B72	5p
B76	plant roots
B78	32c, 10p, 5p, 1p
B79	10p, 1p
B82	32c, 1p
B83	1p
B86	7d, 32c
B87	32d, 7p, 1p
B89	1c
B91	1p
B93	plant stems
B96	32c, 5c, 35p, 8p, 1p
B97	32c, 1c, 5p
B99	8c, 5c
B100	1c, 25p
B101	5d, 33p, 12p, 7p
B102	7c, 5c, 43p, 2p

B104	7c, 5c, 33p, 2p
B112	5p
B113	5d, 37p, 2p, 1p
B114	5d, 7c, 37p, 33p, 2p
B115	7p, 5p, 2p, 1p
B116	8p, 1p
B117	7d, 16c, 5p, 2p
B118	44c, 5c, 43p, 37p, 7p, 2p, 1p
B119	11p, 7p, 1p
B120	7c, 5c, 44p
B121	5d, 44p, 37p, 11p, 1p
B122	5d, 1c, 17p, 8p
B123	7c, 5c, 37p, 2p
B124	5d, 44p, 16p
B125	8p, 7p, 1p
B126	7c, 2c, 44p, 33p, 4p
B127	5d, 44c, 1c, 16p
B128	7d, 44c, 32c, 17c, 1c, 16p, 10p
B136	1p
B137	7c, 1c
B138	44c, 1c
B140	7c, 1c
B141	44c, 1c
B142	1c, 10p, 7p
B143	1c, 7p
B144	1d, 44p, 10p, 7p
B145	1d, 7p, 5p
B146	1d, 33p, 7p
B147	1d, 7p, 5p
B148	1d, 10p
B149	1d, 33p, 10p
B152	10c, 1c, 33p, 7p
B153	1d, 10c, 56p, 33p
B154	1c, 44p, 33p, 16p, 10p

B155	1d, 10c, 43p, 7p
B157	1d
B158	1d, 10p, 7p
B159	1c, 10p
B161	1d, 10p, 7p, 5p
B162	1d, 33p, 10p
B163	33c, 1c, 10p, 8p, 7p, 5p
B164	1c, 33p, 7p, 5p
B165	1d, 10p
B166	1d, 7c, 37p
B167	1d, 33c, 10p
B168	1d, 33p
B169	5d, 33p, 1p
B170	43d, 5p, 1p
B171	10d, 7p, 1p
B172	32d
B173	3d, 32p
B174	3d, 33p, 15p
B175	43d
B176	3d, 33p
B177	1d
B178	1d, 33c
B179	33d, 3p, 1p
B181	3d, 1c
B182	1d, 33p, 10p
B232	1d, 33c, 43c
B233	1d, 33p
M6	33d, 1c, 10p, 7p
M7	10d, 1p
M8	56d
M18	1d, 10c
M20	56d
M21	10p
M23	43d, 1p

M34	7d, 32c, 5c, 1c
M36	7d, 37p, 5p, 1p
M37	7d, 37c, 5c, 1c
M39	10d, 5c, 78p, 56p, 26p, 8p
M41	7d, 43c, 54p, 10p, 5p, 4p
M42	10c, 15p, 8p, 1p
M45	32d, 10c, 1c, 33p, 5p
M46	1d, 33c, 32c, 44p, 25p, 10p, 8p, 7p, 5p, 2p
M47	33d, 1c, 66p, 44p, 10p, 5p
M48	33d, 1c, 25p, 10p
M49	43c, 33c, 1c, 10p, 5p
M51	56d
M55	33d, 1c
M58	56d
M60	10d
M61	44d, 17c, 25p, 20p, 5p, 2p
M62	20d, 22c, 43p, 7p, 2p
M63	1d, 32c, 55p, 33p, 22p, 20p
M64	37c, 5c, 2c, 22p, 20p, 8p
M65	40c, 39c, 7c, 2c, 1p
M66	43c, 22c, 39p
M67	42d, 36c, 12p, 7p, 5p, 2p
M68	17c, 5c, 36p, 22p, 20p, 7p
M69	32p, 1p
M70	37p, 22p, 19p, 12p, 2p
M71	37d, 32c, 17p, 7p, 2p, 1p
M72	37c, 33c, 2c, 54p, 28p, 24p, 12p, 8p, 5p
M73	2c, 36p, 33p, 20p, 1p
M75	17c, 54p, 36p, 24p
M77A	7d, 36c, 37p, 8p
M77B	7d, 39c, 32c
M78	10c, 39p, 33p, 8p, 7p, 1p
M79	10d, 43c, 1c, 11p, 8p, 5p
M80	33d, 1c, 10p, 2p

M82	33c, 10c, 1c, 36p, 12p, 5p, 4p
M84	1d, 36c, 10c, 5c, 54p
M85	33d, 1c, 67p, 10p
M86	33d, 5p, 1p
M87	1c, 42p
M93	10p
M101	10p
M103	56p
M107	10c, 33p, 11p, 8p, 1p
M108	10d, 43p
M109	7d, 37c, 44p, 1p
M110	44c, 17c, 8c, 5c, 2c, 37p, 26p, 24p, 20p, 7p, 4p, 1p
M111	32c, 20c, 17c, 57p, 56p, 55p, 44p, 35p, 24p, 5p
M112	37c, 2c, 20p
M113	37c, 5c, 2c, 54p, 47p, 22p, 12p, 1p
M115	37c, 6c, 24p, 22p, 7p
M116	24c, 28p
M117	24d, 56c, 37p, 35p, 20p, 19p, 10p
M118	20c, 56p, 55p, 47p, 36p, 35p, 17p, 10p, 7p, 5p, 4p
M119	33p, 7p, 2p
M120	37p, 32p, 7p, 2p
M121	36c, 33c, 22c, 5c, 2c, 1c, 47p, 12p
M122	24d, 22p
M123	56p, 37p, 20p, 7p
M124	24d, 7p, 59p, hydrozoan p
M126	20c, 2c, 33p, 17p, 7p
M127	17c, 2c, 44p, 42p, 20p, 1p
M128	7d, 43c, 39c, 1c
M129	44c, 39c, 5c, 33p, 7p
M130	5d, 44p, 10p
M131	33c, 7c, 5c
M132	28c, 8c, 5c, 44p, 36p, 26p, 20p, 1p
M134	44c, 17c, 55p, 36p, 2p, 1p
M135	44c, 43c, 33c, 17c, 2c, 54p, 24p, 7p, 1p

M136	44c, 2c, 37p, 17p, 8p, 5p
M137	24c, 55p, 45p, 44p, 20p
M138	20d, 24p, 17p
M139	39c, 2c, 12p, 5p, 1p
M140	12d, 19c
M142	19c, 12c, 5c
M144	37c, 28c, 24c, 20c, 43p, 10p, 8p
M145	7d, 37c, 56p, 20p
M146	66p, 37p, 28p, 24p, 2p
M147	37c, 19c, 12p, 10p, 7p, 2p
M148	33c, 5c, 36p, 12p, 10p, 2p, 1p
M150	56p, 19p, 7p
M151	37d, 20c, 2c, 56p
M153	56c, 44p
M154	66p, 20p, 4p
M155	20p, 10p
M159	5d, 44c, 37c, 2p, 1p
M160	44c, 33c, 7c, 5p, 66p, 37p, 25p, 17p, 12p, 6p, 1p
M162	5d, 2p
M163	5c, 36p
M164	5d, 44p, 36p, 7p, 1p
M166	44c, 37c, 20c, 66p, 56p, 41p, 36p, 10p, 7p
M167	43c, 37c, 36c, 22c, 20c, 2c, 57p, 56p, 55p, 54p, 41p, 24p, 10p, 17p, 8p, 5p, 1p
M168	36c, 20c, 33p, 17p, 10p, 2p
M169	56p, 10p
M170	20p, 10p, 5p
M171	33p, 19p, 5p
M172	10c, 1c, 37p, 33p, 5p, 2p
M173	41p, 37p, 5p
M174	20c, 7c, 66p, 56p, 43p, 33p, 24p, 20p, 17p, 2p, 1p
M176	20c, 24p, 12p, 7p, 5p, 2p
M177	20c, 37p, 33p, 10p, 5p
M178	2d, 36c, 66p, 55p, 44p, 25p, 24p, 22p, 20p, 10p, 5p
M179	39c, 37c, 7c, 55p, 54p, 5p, 2p, 1p

M182	5d, 44p, 10p, 7p, 1p
M183	7d, 5c
M184	7d, 39c, 5p, 1p
M186	7d, 5c, 39p, 8p
M187	44c, 7c, 5c, 33p, 8p
M189	5d, 10c, 37p, 1p
M192	5d, 41p
M193	7d
M196	7d, 37c, 2c, 41p, 5p
M197	39c, 36c, 7c, 2c, 37c, 17p, 12p, 5p
M198	44c, 39c, 37c, 7c, 5c, 2c, 43p, 17p
M199	7d, 39c, 37p
M200	1c, 56p, 43p, 5p
M201	56p, 39p, 8p, 7p, 5p, 1p
M206	39c, 5c, 44p, 17p
M207	5c, 41p, 39p, 37p, 12p, 8p, 7p, 1p
M208	5d
M219	20c, 5c, 55p, 36p, 33p, 28p, 41p, 15p, 10p, 63p
M221	33c, 20c, 10c, 66p, 55p, 44p, 41p, 36p, 24p, 15p
M222	41p, 17p, 12p
M223	37c, 33c, 20c, 17c, 41p, 19p, 12p, 5p, 2p
M225	24c, 20c, 15c, 55p, 44p, 37p, 22p, 2p
M226	61c, 41c, 20c, 17c, 15c, 66p, 33p, 24p, 10p
M227	41c, 20c, 17c, 61p, 31p, 15p
M228	44c, 2c, 61p, 39p, 33p, 20p, 19p, 17p, 15p, 12p, 7p
M229	17c, 2c, 39p, 37p, 22p, 12p
M230	44c, 17c, 2c, 54p, 37p, 22p, 20p, 19p, 12p
M231	17c, 2c, 44p, 33p, 25p, 4p
M232	25c, 17c, 2c, 44p, 42p, 37p, 1p
M233	39c, 17c, 36p, 19p, 4p
M234	39c, 2c, 61p, 17p, 7p
M235	44c, 17c, 2c, 42p, 20p
M236	17c, 7c, 44p, 42p, 39p, 27p, 33p, 19p, 10p, 5p, 2p, 1p
M237	7c, 39p, 37p, 17p, 12p, 10p, 8p

M239	61c, 55c, 44c, 20c, 17c, 56p, 51p, 37p, 15p, 10p, 7p, 2p, 1p
M240	61c, 55c, 20c, 10c, 44p, 39p, 37p, 36p, 33p, 24p, 22p, 4p, 2p
M241	31p, 20p, 17p, 7p, 1p
M242	20c, 17c, 15c, 56p, 44p, 37p, 10p, 8p, 7p, 2p
M243	37c, 20c, 17c, 2c, 44p, 33p, 24p, 15p
M244	39c, 20c, 2c, 37p, 32p, 12p, 7p
M246	20c, 15c, 61p, 44p, 32p, 17p, 10p, 8p, 62p
M247	61c, 55c, 39c, 20c, 17c, 15c, 2c, 44p, 33p, 32p, 10p
M248	39c, 37c, 33c, 17c, 61p, 44p, 12p, 7p, 2p
M249	61c, 44c, 39c, 17c, 2c, 45p, 42p, 12p, 7p, 1p
M250	39c, 17c, 44p, 37p, 36p, 7p, 5p, 2p, 1p
M251	44c, 5c, 61p, 3p, 33p, 12p, 8p
M252	5c, 39p, 17p, 7p, 2p
M257	10a
M259	1d, 5c, 33p
M267	56p, 10p
M272	33p, 5p
M281	10c, 33p
M283	10d
M293	10d, 1p
M296	10d, 1c, 33p
M301	10c, 1c, 37p, 33p, 15p
M306	33c, 10c, 1c, 66p
M309	33c, 1c, 25p, 10p
M323B	33c, 1c
M326	10c, 1p
M328	56d
M329	32c, 10p, 1p
M330	56p, 1p
M333	33p, 7p
M341	56d
M349	43d

M354	33c, 1c, 10p, 8p
M365	10p, 1p
M367	39c, 10p, 8p, 7p
M370	7c, 12p, 1p
M371	7p
M372	37p
M373	46p, 43p, 7p, 5p
M374	7d, 43p, 37p
M375	56p
M376	5c, 10p, 1p
M377	5d, 41p, 10p, 8p
M378	56d, 10p
M379	35p, 10p, 1p
M380	56p, 20p, 10p, 1p
M381	44c, 7c, 5c, 61p, 43p, 37p, 33p, 22p, 17p
M382	44c, 17c, 7c, 5c, 41p, 3p, 37p, 2p
M383	39c, 37c, 7c, 5c, 44p, 41p, 20p, 12p, 2p, 1p
M384	39c, 37c, 7c, 5c, 2c, 44p, 17p, 15p, 1p
M385	44c, 39c, 37c, 33c, 7c, 5c, 61p, 41p, 36p, 17p, 2p
M386	7c, 41p, 39p, 2p
M387	7c, 5c, 37p
M388	44c, 39c, 5c, 17p, 15p, 8p, 1p
M389	44c, 5c, 15p, 8p, 7p
M390	33c, 7c, 15p
M391	33d, 7c
M392	5c, 37p, 7p, 2p
M394	39c, 12p, 7p
M397	56c, 28c
M402	5c, 56p, 39p, 7p
M403	33c, 10c, 1c, 57p
M406	10p, 1p
M407	10c, 1c, 33p
M416	1d, 10p
M417	5d, 10p

M418	5d, 7c, 44p, 43p
M419	7d, 41p, 37p, 5p
M421	5d, 7c, 8p, 2p
M422	5d, 7c, 44p
M423	5d, 7c, 44p
M424	7c, 5c, 44p
M425	5c
M426	5d, 44p, 33p, 12p, 10p, 8p, 7p, 1p
M428	7d
M430	5d, 44p, 8p, 7p, 1p
M432	5d, 44p, 33p, 20p, 8p, 7p, 1p
M433	44c, 33c, 5c, 17p, 8p, 7p, 1p
M436	7d, 43c, 5c, 1c, 44p, 41p
M437	5d, 33c, 39p, 37p, 12p, 10p, 8p, 1p
M441	5c, 37p, 8p, 7p
M442	44c, 5c, 39p, 8p, 7p
M444	7c, 39p, 10p, 5p, 1p
M447	5d
M449	5c, 15p
M450	5d, 33c, 44p, 8p, 1p
M451	5d, 1c, 39p, 8p
M452	5d, 44p, 8p, 7p, 1p
M453	12c, 5c, 10p
M454	33c, 5c, 1c, 37p, 10p, 4p
M455	10p, 8p
M456	41p, 39p, 33p
M458	7p, 5p, 2p
M459	7c, 1c, 33p, 10p, 5p, 4p
M462	56p, 43p, 7p, 1p
M464	56p
M465	5c, 44p, 1p
M466	33d, 5c, 1c, 42p, 10p, 8p
M467	56p, 10p
M470	39c, 5c, 10p, 1p

M471 56p
M472 5d, 10c, 44p, 33p, 22p, 15p, 8p, 1p
M473 33p
M474 1d, 33p, 10p, 8p, 3p
M475 1d, 10p, 8p
M476 5p, 1p
M477 56d, 55c, 10c, 42p, 33p, 8p, 1p
M478 33c, 10c, 1c, 8p
M479 33c, 10c, 5c, 1c, 8p
M486 33c, 1c, 54p, 43p, 38p, 36p, 10p, 8p, 4p
M487 10p, 8p
M488 33c, 1c, 35p, 5p
M491 33c, 7c, 1c
M492 10c, 5c, 1c, 33p, 20p, 8p, 7p
M494 5c, 38p, 10p, 8p, 1p
M496 5d, 67p, 10p, 8p
M498 5d, 33p, 8p, 1p
M499 5d, 12p
M500 5c, 1c, 10p, 8p
M501 5c, 46p, 37p, 10p, 8p
M502 5d
M503 10p, 5p
M504 33c, 5c, 10p, 8p
M505 5c, 1c, 56p, 37p, 12p, 10p
M506 5c, 37p, 10p, 8p, 1p
M508 15p, 10p, 7p
M510 5d, 39p, 8p, 7p
M512 5d
M514 5d, 11p
M515 11p
M518 33c, 10c, 11p, 1p
M520 1d, 10p
M521 1d, 10p
M525 56p, 8p

M526	1p
M527	56d, 10p
M561	39c, 37c, 10p, 5p, 1p
M562	5c, 56p, 15p, 10p, 8p, 2p, 1p
M563	10c, 5c, 39p, 37p, 32p, 8p, 1p
M573	56c, 8p, 5p
M577	56p, 8p, 5p, 1p
M597	56p, 10p
M601	33p
M602	5d, 12p, 10p, 1p
M604	1d, 33c, 10c, 5c
M606	33c, 10p, 5p, 1p
M607	1d
M609	56p
M619	56c, 10c
M620	33c, 56p
M669	33c, 56p, 10p
M673	33d
M678	61t, 44c, 37c, 19c, 16c, 25p, 5p
M679	25c, 20c, 61p, 44p, 37p, 16p
M681	2d, 44p, 16p, 7p
M682	42c, 20c, 19c, 17c, 12c, 2c, 65p, 61p, 54p, 28p, 24p
M683	42c, 19c, 12c, 2c, 37p, 20p
M684	20d, 44c, 37c, 15c, 55p, 22p
M685	20c, 56p, 44p, 17p, 5p
M686	20d, 56p, 55p, 28p, 17p, 12p, 5p
M687	20d, 62p, 61p, 54p, 44p, 24p, 17p, 9p
M688	20c, 1c, 37p, 28p, 24p, 19p
M689	10d, 24p, 20p
M690	28c, 20c, 11c, 15p
M691	20d, 15c, 56p, 28p, 16p, 12p
M692	20c, 12c, 37p, 36p, 33p, 15p, 8p, 5p
M693	44c, 11c, 10c, 37p, 1p

M694	44c, 20c, 1c, 56p, 29p, 9p, 5p
M695	37c, 20c, 19c, 1c, 56p, 44p
M696	44c, 20c, 1c, 610, 15p, 9p, 7p
M697	61c, 20c, 15c, 56p, 55p, 44p, 37p, 24p, 12p
M698	55c, 22c, 7c, 2c, 16c, 37p
M699	5d
M704	7d, 39p, 1p
M705	7d, 5c, 12p, 1p
M706	5d, 1p
M707	37c, 5c, 1c
M708	56d, 10c, 1c
M709	5d, 10c, 8c, 1c, 33p
M710	5d, 10p, 1p
M711	5c, 61p, 44p, 8p, 39p
M712	10c, 5c, 37p, 8p, 1p
M713	5d, 37p, 8p
M714	5d, 1p
M715	37c, 5p
M717	10c, 7c, 37p, 33p, 5p, 1p
M718	56c, 7c, 39p, 5p
M724	5d, 7c, 1c, 33p
M727	5c, 33p, 8p, 7p
M746	44c, 20c, 61p, 33p, 24p, 15p, 14p, 10p, 5p
M747	33c, 20c, 60p, 24p