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SERVICES

Exploration
Rock Property Measurements
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Results from Downhole Temperature Profile Readings: SEL 26/2005.

Beaconsfield, Lisle, Oatlands 2, Rocherlea and
Weymouth.

Prepared for KUTh Energy Ltd

April 2009 - Final Report

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Executive summary

This report provides results obtained from precision temperature logging undertaken in March and April of 2009, of five of KUTh's heat flow holes within tenement SEL26/2005.

All five holes (Beaconsfield, Lisle, Oatlands 2, Rocherlea and Weymouth) are considered to have reached equilibration. The geothermal gradients are displayed in the enclosed figures, and the logged temperatures are listed in the appendix.

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1.0 Introduction

During March and April of 2009, five of the completed geothermal exploration holes drilled by KUTh Energy were sampled for temperature.

Temperatures were logged using a thermistor, a type of resistor that relies on the change in resistance to measure temperature change. Each hole was sampled at 1 metre increments. Results are presented in the following report as graphs of geothermal gradients (Figures 1 to 5) and tables of temperature recorded per metre.

The results presented for all four holes listed are the results from the second logging runs of these holes, and are considered to be equilibrated. It is therefore expected that the results presented here are an accurate representation of the actual thermal conditions of the holes.

The results provided in this report are based on data collected from the field sampling. Detailed analysis of the thermal properties of the areas sampled will be provided in a separate report for all four holes listed incorporating the data obtained from the conductivity analysis. The temperature profile data aids in the selection and sampling of appropriate lithological intervals for conductivity analysis.

2.0 Results

The results provide recorded temperatures for each metre of the successfully logged holes.

The gradient profiles for each of the logged holes can be seen as average temperature gradients over 2m, 4m and 10m in Figures 1 to 5. The variable nature of the gradient profile can be indicative of unconfined aquifer flows disturbing the thermal profile of the well, as seen in the results for the Oatlands 2 well.

The corresponding preliminary geothermal gradients for selected sections are displayed in Table 1

Table 1. Geothermal gradient (°C/km) values for selected depth profiles

Depth (m)	Beaconsfield	Lisle	Oatlands 2	Rocherlea	Weymouth
50 - 150	34.194	10.833	- 8.731	25.819	23.286
150 - BoH	34.979	17.140	48.860	20.773	20.581

Figure 1 Beaconsfield Geothermal Gradient

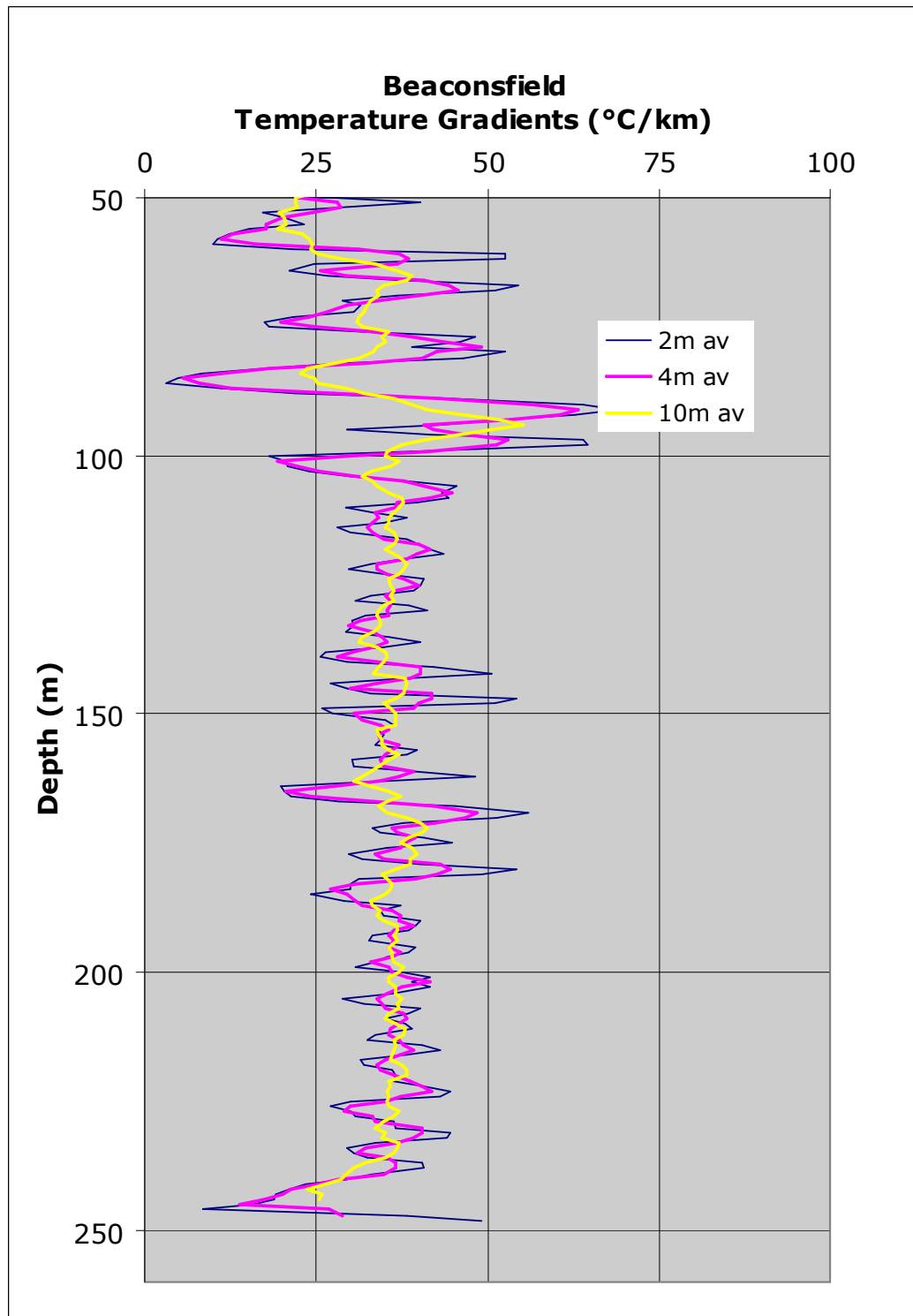


Figure 2 Lisle Geothermal Gradient

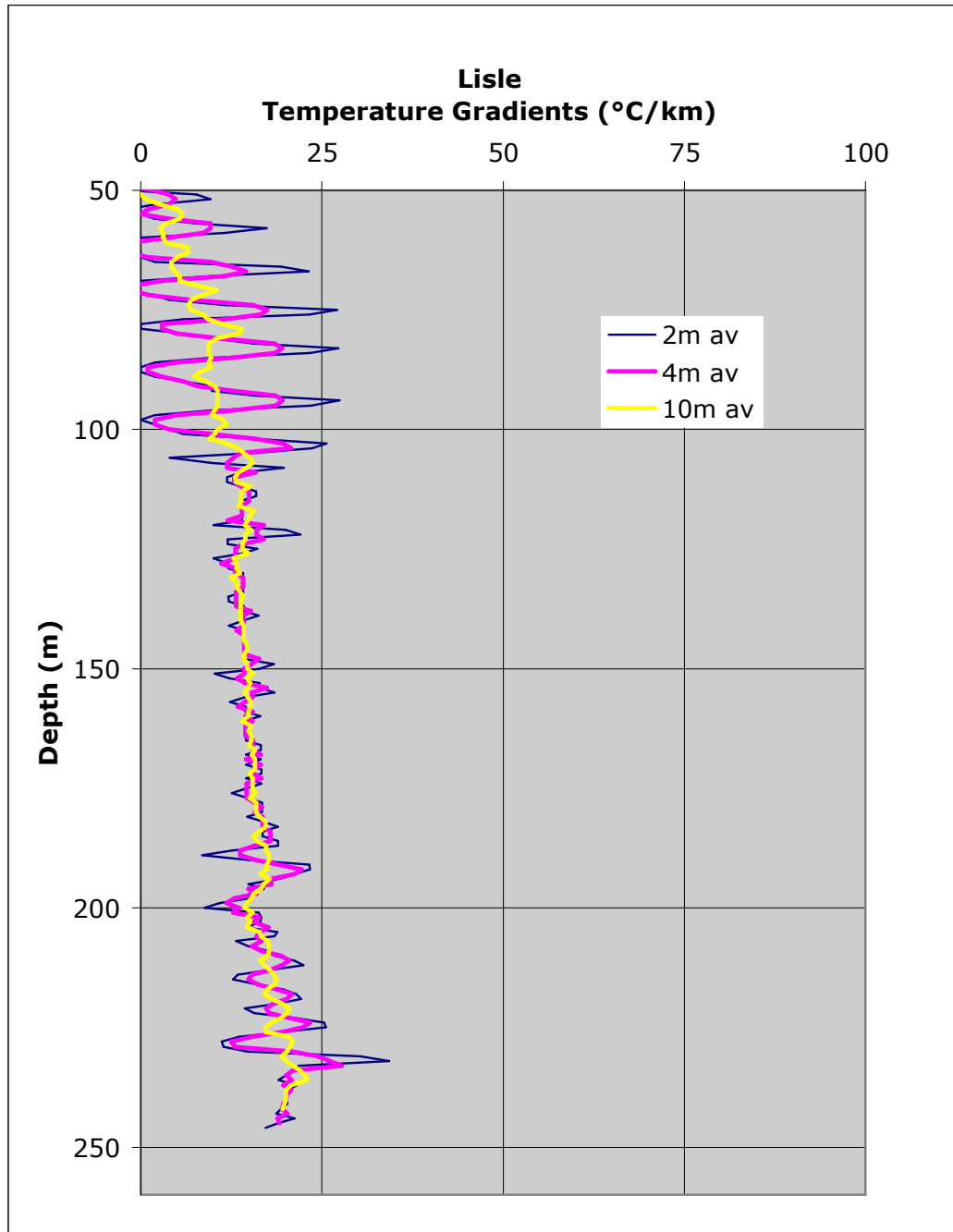


Figure 3 Oatlands 2 Geothermal Gradient

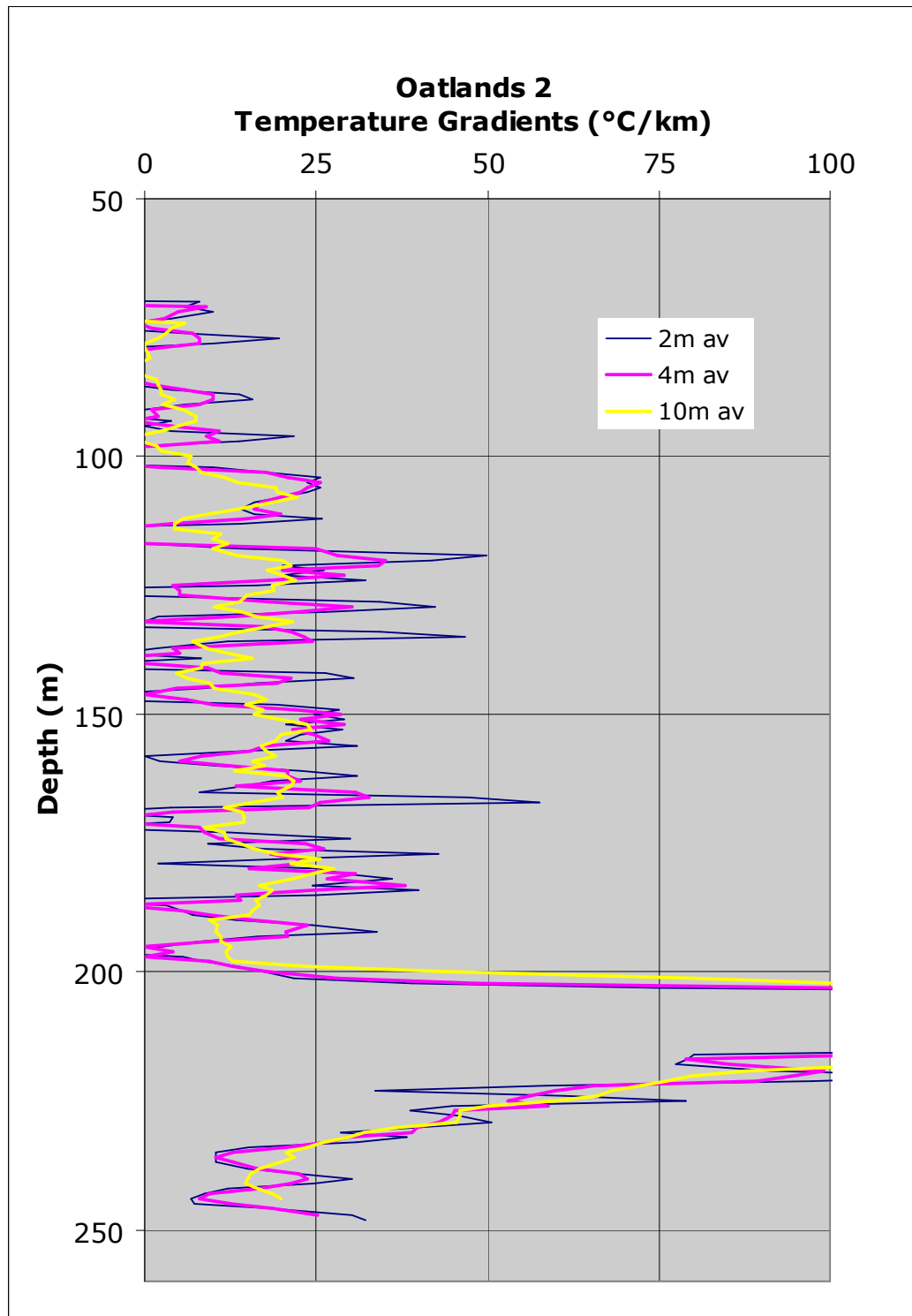


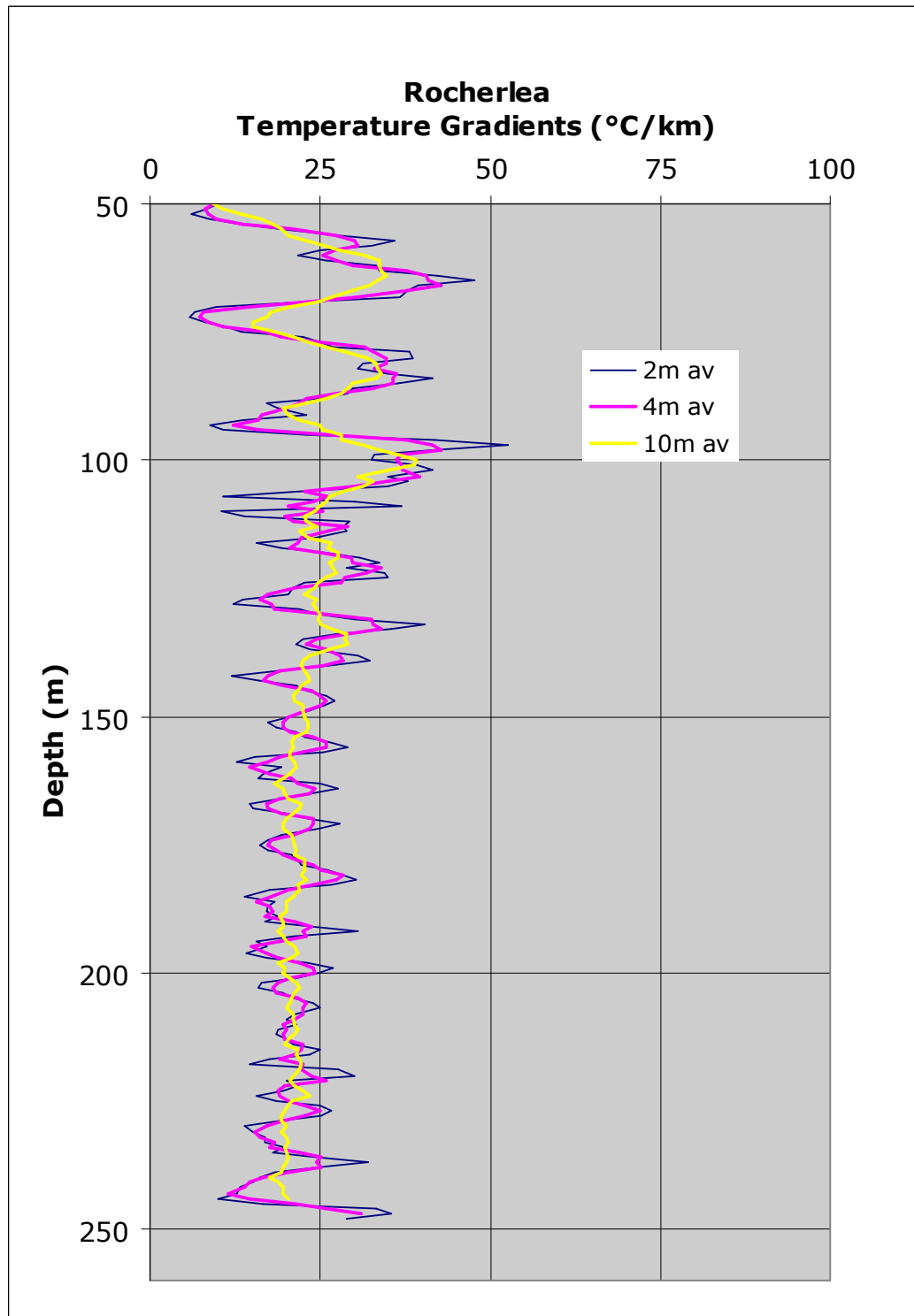
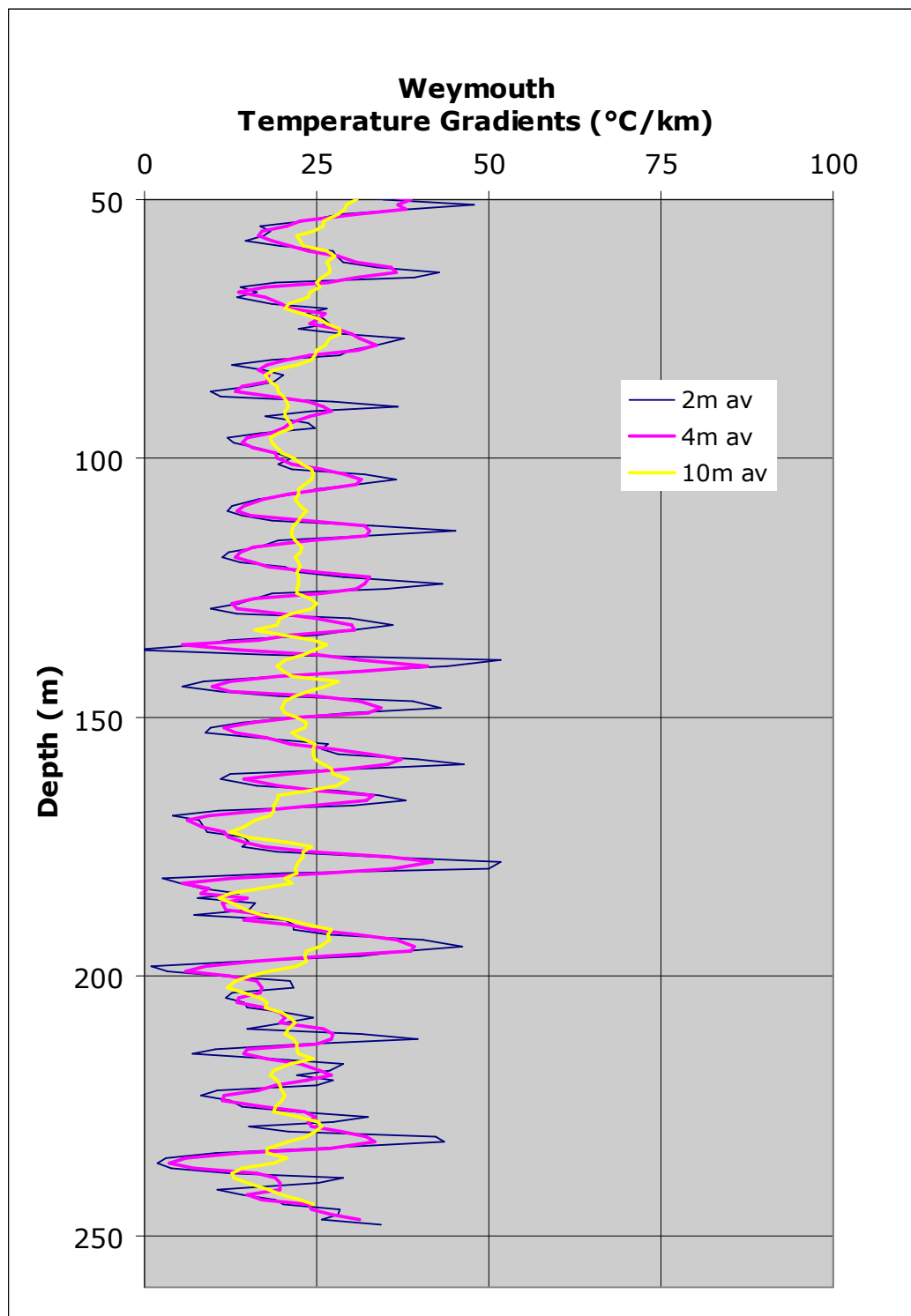
Figure 4 Rocherlea Geothermal Gradient

Figure 5 Weymouth Geothermal Gradient



Appendix 1:

Tables of recorded down hole temperature

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Beaconsfield - Depth vs. Temperature results

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
1	23.497	43	15.196	85	16.435	127	18.000
2	23.413	44	15.251	86	16.435	128	18.029
3	23.334	45	15.308	87	16.441	129	18.061
4	23.186	46	15.325	88	16.457	130	18.106
5	23.010	47	15.335	89	16.485	131	18.144
6	22.855	48	15.375	90	16.546	132	18.170
7	22.672	49	15.376	91	16.613	133	18.204
8	22.496	50	15.385	92	16.684	134	18.231
9	22.377	51	15.431	93	16.738	135	18.262
10	22.234	52	15.465	94	16.787	136	18.302
11	22.239	53	15.488	95	16.824	137	18.343
12	21.470	54	15.499	96	16.847	138	18.372
13	21.357	55	15.529	97	16.907	139	18.396
14	21.264	56	15.546	98	16.974	140	18.424
15	21.188	57	15.559	99	17.036	141	18.455
16	21.073	58	15.571	100	17.052	142	18.508
17	16.066	59	15.580	101	17.073	143	18.556
18	15.468	60	15.590	102	17.093	144	18.585
19	15.198	61	15.624	103	17.114	145	18.610
20	15.149	62	15.695	104	17.141	146	18.644
21	15.113	63	15.729	105	17.174	147	18.676
22	15.078	64	15.744	106	17.217	148	18.752
23	15.068	65	15.771	107	17.265	149	18.778
24	15.045	66	15.798	108	17.303	150	18.804
25	15.041	67	15.846	109	17.354	151	18.833
26	15.039	68	15.907	110	17.383	152	18.874
27	15.046	69	15.948	111	17.412	153	18.905
28	15.046	70	15.981	112	17.449	154	18.942
29	15.049	71	16.006	113	17.489	155	18.975
30	15.052	72	16.044	114	17.519	156	19.011
31	15.056	73	16.066	115	17.545	157	19.042
32	15.058	74	16.087	116	17.579	158	19.090
33	15.063	75	16.101	117	17.621	159	19.119
34	15.073	76	16.123	118	17.659	160	19.151
35	15.080	77	16.165	119	17.705	161	19.180
36	15.086	78	16.220	120	17.746	162	19.230
37	15.093	79	16.257	121	17.780	163	19.276
38	15.102	80	16.298	122	17.812	164	19.299
39	15.116	81	16.362	123	17.840	165	19.316
40	15.131	82	16.390	124	17.882	166	19.340
41	15.158	83	16.419	125	17.921	167	19.359
42	15.183	84	16.425	126	17.963	168	19.396

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
169	19.449	209	20.925	249	22.267		
170	19.508	210	20.964				
171	19.552	211	21.001				
172	19.583	212	21.042				
173	19.618	213	21.068				
174	19.652	214	21.106				
175	19.700	215	21.149				
176	19.742	216	21.192				
177	19.770	217	21.225				
178	19.801	218	21.255				
179	19.834	219	21.290				
180	19.881	220	21.328				
181	19.942	221	21.363				
182	19.980	222	21.400				
183	20.005	223	21.444				
184	20.040	224	21.490				
185	20.065	225	21.531				
186	20.088	226	21.550				
187	20.123	227	21.585				
188	20.163	228	21.610				
189	20.192	229	21.646				
190	20.233	230	21.682				
191	20.272	231	21.720				
192	20.311	232	21.771				
193	20.349	233	21.808				
194	20.378	234	21.839				
195	20.415	235	21.867				
196	20.456	236	21.900				
197	20.492	237	21.932				
198	20.527	238	21.980				
199	20.559	239	22.013				
200	20.588	240	22.046				
201	20.634	241	22.072				
202	20.671	242	22.093				
203	20.712	243	22.114				
204	20.755	244	22.132				
205	20.784	245	22.152				
206	20.813	246	22.163				
207	20.848	247	22.169				
208	20.893	248	22.239				

Lisle - Depth vs. Temperature results.

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
1	13.075	43	12.293	85	12.514	127	13.014
2	13.148	44	12.281	86	12.518	128	13.026
3	13.302	45	12.278	87	12.518	129	13.038
4	13.380	46	12.274	88	12.518	130	13.050
5	13.417	47	12.266	89	12.518	131	13.066
6	13.433	48	12.262	90	12.522	132	13.078
7	13.433	49	12.258	91	12.530	133	13.094
8	13.425	50	12.254	92	12.542	134	13.106
9	13.417	51	12.254	93	12.550	135	13.122
10	13.409	52	12.270	94	12.573	136	13.130
11	13.400	53	12.274	95	12.604	137	13.147
12	13.388	54	12.274	96	12.620	138	13.159
13	13.384	55	12.270	97	12.624	139	13.175
14	13.380	56	12.274	98	12.624	140	13.191
15	13.372	57	12.274	99	12.624	141	13.203
16	13.368	58	12.289	100	12.628	142	13.216
17	13.360	59	12.308	101	12.632	143	13.232
18	13.352	60	12.312	102	12.640	144	13.244
19	13.343	61	12.309	103	12.663	145	13.260
20	13.331	62	12.305	104	12.691	146	13.272
21	13.323	63	12.301	105	12.711	147	13.289
22	13.307	64	12.305	106	12.723	148	13.301
23	13.291	65	12.301	107	12.719	149	13.317
24	13.282	66	12.309	108	12.742	150	13.338
25	13.266	67	12.339	109	12.758	151	13.350
26	13.250	68	12.355	110	12.770	152	13.358
27	13.234	69	12.359	111	12.782	153	13.375
28	13.222	70	12.355	112	12.794	154	13.391
29	13.193	71	12.351	113	12.810	155	13.407
30	12.659	72	12.351	114	12.826	156	13.428
31	12.510	73	12.355	115	12.842	157	13.436
32	12.467	74	12.359	116	12.854	158	13.453
33	12.428	75	12.378	117	12.870	159	13.465
34	12.405	76	12.413	118	12.881	160	13.481
35	12.389	77	12.425	119	12.897	161	13.498
36	12.370	78	12.425	120	12.909	162	13.510
37	12.351	79	12.425	121	12.917	163	13.527
38	12.343	80	12.425	122	12.949	164	13.539
39	12.331	81	12.436	123	12.961	165	13.556
40	12.320	82	12.444	124	12.973	166	13.568
41	12.312	83	12.468	125	12.985	167	13.589
42	12.301	84	12.499	126	13.006	168	13.601

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
169	13.618	209	14.261	249			
170	13.634	210	14.279	250			
171	13.647	211	14.298				
172	13.668	212	14.321				
173	13.680	213	14.342				
174	13.697	214	14.357				
175	13.713	215	14.369				
176	13.726	216	14.383				
177	13.739	217	14.402				
178	13.755	218	14.422				
179	13.772	219	14.445				
180	13.789	220	14.466				
181	13.806	221	14.482				
182	13.818	222	14.495				
183	13.839	223	14.514				
184	13.856	224	14.537				
185	13.873	225	14.564				
186	13.890	226	14.588				
187	13.911	227	14.603				
188	13.927	228	14.616				
189	13.936	229	14.626				
190	13.944	230	14.638				
191	13.966	231	14.655				
192	13.991	232	14.699				
193	14.012	233	14.724				
194	14.033	234	14.743				
195	14.050	235	14.766				
196	14.063	236	14.783				
197	14.084	237	14.804				
198	14.093	238	14.826				
199	14.114	239	14.845				
200	14.115	240	14.866				
201	14.132	241	14.885				
202	14.147	242	14.906				
203	14.165	243	14.924				
204	14.180	244	14.944				
205	14.194	245	14.966				
206	14.218	246	14.982				
207	14.231	247	15.000				
208	14.244	248					

Oatlands 2 - Depth vs. Temperature results.

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
1	17.781	43	14.568	85	12.692	127	13.074
2	17.712	44	14.540	86	12.688	128	13.098
3	17.615	45	14.505	87	12.688	129	13.143
4	17.652	46	14.479	88	12.696	130	13.183
5	17.316	47	14.439	89	12.715	131	13.195
6	17.226	48	14.410	90	12.727	132	13.187
7	17.125	49	14.314	91	12.727	133	13.195
8	17.052	50	14.267	92	12.727	134	13.179
9	16.951	51	14.176	93	12.719	135	13.264
10	16.849	52	14.117	94	12.735	136	13.272
11	16.753	53	14.107	95	12.719	137	13.289
12	16.561	54	14.079	96	12.743	138	13.276
13	16.457	55	14.047	97	12.763	139	13.281
14	16.369	56	14.007	98	12.771	140	13.293
15	16.289	57	13.984	99	12.763	141	13.264
16	16.201	58	13.893	100	12.751	142	13.276
17	16.130	59	13.844	101	12.716	143	13.317
18	15.900	60	13.822	102	12.723	144	13.338
19	15.829	61	13.806	103	12.735	145	13.350
20	15.777	62	13.789	104	12.759	146	13.354
21	15.719	63	13.771	105	12.787	147	13.335
22	15.668	64	13.753	106	12.806	148	13.338
23	15.603	65	13.736	107	12.838	149	13.374
24	15.583	66	13.715	108	12.854	150	13.394
25	15.465	67	13.671	109	12.878	151	13.424
26	15.404	68	12.806	110	12.886	152	13.452
27	15.350	69	12.660	111	12.906	153	13.465
28	15.306	70	12.672	112	12.918	154	13.510
29	15.254	71	12.676	113	12.958	155	13.510
30	15.210	72	12.684	114	12.946	156	13.551
31	15.166	73	12.695	115	12.922	157	13.572
32	15.130	74	12.692	116	12.898	158	13.580
33	15.084	75	12.688	117	12.894	159	13.572
34	15.044	76	12.680	118	12.898	160	13.584
35	14.958	77	12.699	119	12.922	161	13.593
36	14.889	78	12.719	120	12.998	162	13.630
37	14.832	79	12.719	121	13.006	163	13.655
38	14.769	80	12.711	122	13.038	164	13.667
39	14.730	81	12.707	123	13.058	165	13.684
40	14.666	82	12.703	124	13.078	166	13.683
41	14.627	83	12.696	125	13.122	167	13.778
42	14.601	84	12.692	126	13.110	168	13.798

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
169	13.786	209	15.722	249	18.231		
170	13.779	210	15.981				
171	13.794	211	16.158				
172	13.786	212	16.244				
173	13.770	213	16.387				
174	13.811	214	16.638				
175	13.830	215	16.818				
176	13.829	216	16.911				
177	13.864	217	16.978				
178	13.915	218	17.069				
179	13.904	219	17.133				
180	13.919	220	17.252				
181	13.955	221	17.374				
182	13.976	222	17.447				
183	14.027	223	17.491				
184	14.025	224	17.514				
185	14.106	225	17.613				
186	14.075	226	17.672				
187	14.080	227	17.703				
188	14.081	228	17.749				
189	14.090	229	17.795				
190	14.095	230	17.851				
191	14.117	231	17.874				
192	14.144	232	17.908				
193	14.185	233	17.950				
194	14.177	234	17.970				
195	14.201	235	17.981				
196	14.182	236	17.991				
197	14.184	237	18.002				
198	14.193	238	18.012				
199	14.201	239	18.032				
200	14.220	240	18.057				
201	14.235	241	18.092				
202	14.264	242	18.107				
203	14.313	243	18.117				
204	14.414	244	18.124				
205	14.636	245	18.130				
206	14.985	246	18.138				
207	15.196	247	18.167				
208	15.480	248	18.199				

Rocherlea - Depth vs. Temperature results.

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
1	17.843	43	16.009	85	16.988	127	18.121
2	17.823	44	16.038	86	17.015	128	18.131
3	17.831	45	16.054	87	17.048	129	18.146
4	17.827	46	16.061	88	17.073	130	18.175
5	17.765	47	16.068	89	17.098	131	18.195
6	17.707	48	16.077	90	17.107	132	18.235
7	17.667	49	16.087	91	17.135	133	18.276
8	17.637	50	16.097	92	17.153	134	18.306
9	17.608	51	16.107	93	17.163	135	18.331
10	17.578	52	16.114	94	17.171	136	18.351
11	15.870	53	16.119	95	17.184	137	18.373
12	15.614	54	16.131	96	17.217	138	18.398
13	15.600	55	16.146	97	17.268	139	18.434
14	15.592	56	16.169	98	17.322	140	18.462
15	15.525	57	16.202	99	17.351	141	18.487
16	15.521	58	16.241	100	17.387	142	18.500
17	15.515	59	16.267	101	17.416	143	18.510
18	15.513	60	16.291	102	17.466	144	18.532
19	15.515	61	16.310	103	17.499	145	18.554
20	15.520	62	16.342	104	17.536	146	18.578
21	15.537	63	16.377	105	17.575	147	18.606
22	15.544	64	16.410	106	17.606	148	18.632
23	15.562	65	16.461	107	17.619	149	18.657
24	15.580	66	16.505	108	17.627	150	18.679
25	15.597	67	16.540	109	17.679	151	18.698
26	15.616	68	16.581	110	17.701	152	18.714
27	15.634	69	16.613	111	17.701	153	18.735
28	15.658	70	16.627	112	17.729	154	18.757
29	15.685	71	16.633	113	17.759	155	18.780
30	15.694	72	16.640	114	17.785	156	18.810
31	15.698	73	16.644	115	17.817	157	18.838
32	15.708	74	16.656	116	17.834	158	18.861
33	15.723	75	16.667	117	17.848	159	18.869
34	15.742	76	16.683	118	17.872	160	18.886
35	15.768	77	16.712	119	17.899	161	18.908
36	15.796	78	16.733	120	17.934	162	18.919
37	15.831	79	16.766	121	17.966	163	18.940
38	15.855	80	16.809	122	17.992	164	18.969
39	15.892	81	16.843	123	18.035	165	18.995
40	15.928	82	16.872	124	18.062	166	19.016
41	15.955	83	16.904	125	18.081	167	19.033
42	15.982	84	16.942	126	18.104	168	19.045

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
169	19.064	209	19.905	249	20.740		
170	19.085	210	19.927	250	20.756		
171	19.110	211	19.948				
172	19.141	212	19.965				
173	19.160	213	19.985				
174	19.179	214	20.005				
175	19.194	215	20.027				
176	19.212	216	20.055				
177	19.229	217	20.074				
178	19.253	218	20.090				
179	19.273	219	20.103				
180	19.298	220	20.145				
181	19.325	221	20.163				
182	19.354	222	20.185				
183	19.386	223	20.207				
184	19.407	224	20.224				
185	19.421	225	20.238				
186	19.435	226	20.261				
187	19.458	227	20.288				
188	19.470	228	20.314				
189	19.492	229	20.338				
190	19.507	230	20.352				
191	19.525	231	20.366				
192	19.555	232	20.383				
193	19.586	233	20.400				
194	19.597	234	20.417				
195	19.618	235	20.439				
196	19.631	236	20.453				
197	19.646	237	20.488				
198	19.666	238	20.517				
199	19.693	239	20.537				
200	19.720	240	20.554				
201	19.742	241	20.570				
202	19.763	242	20.584				
203	19.775	243	20.596				
204	19.795	244	20.609				
205	19.814	245	20.616				
206	19.837	246	20.642				
207	19.862	247	20.682				
208	19.887	248	20.713				

Weymouth - Depth vs. Temperature results.

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
1	18.808	43	14.353	85	15.431	127	16.351
2	18.753	44	14.377	86	15.450	128	16.367
3	18.725	45	14.402	87	15.461	129	16.378
4	18.670	46	14.433	88	15.469	130	16.387
5	18.531	47	14.456	89	15.483	131	16.405
6	18.405	48	14.481	90	15.524	132	16.446
7	18.282	49	14.517	91	15.557	133	16.477
8	18.149	50	14.541	92	15.573	134	16.507
9	18.010	51	14.587	93	15.592	135	16.527
10	17.745	52	14.636	94	15.621	136	16.531
11	17.442	53	14.664	95	15.641	137	16.543
12	17.289	54	14.693	96	15.654	138	16.528
13	17.138	55	14.710	97	15.665	139	16.580
14	16.992	56	14.727	98	15.680	140	16.632
15	14.436	57	14.747	99	15.698	141	16.668
16	13.988	58	14.761	100	15.718	142	16.693
17	13.910	59	14.776	101	15.740	143	16.707
18	13.850	60	14.801	102	15.757	144	16.710
19	13.835	61	14.831	103	15.783	145	16.718
20	13.849	62	14.856	104	15.821	146	16.732
21	13.875	63	14.888	105	15.857	147	16.757
22	13.888	64	14.924	106	15.883	148	16.810
23	13.882	65	14.974	107	15.907	149	16.843
24	13.870	66	15.002	108	15.926	150	16.869
25	13.879	67	15.012	109	15.940	151	16.886
26	13.896	68	15.030	110	15.952	152	16.898
27	13.928	69	15.044	111	15.964	153	16.905
28	13.954	70	15.057	112	15.980	154	16.915
29	13.986	71	15.081	113	16.001	155	16.939
30	14.006	72	15.110	114	16.046	156	16.969
31	14.025	73	15.128	115	16.091	157	16.990
32	14.055	74	15.162	116	16.110	158	17.025
33	14.077	75	15.182	117	16.130	159	17.069
34	14.117	76	15.206	118	16.143	160	17.118
35	14.128	77	15.240	119	16.155	161	17.131
36	14.136	78	15.282	120	16.166	162	17.143
37	14.154	79	15.308	121	16.183	163	17.153
38	14.178	80	15.341	122	16.207	164	17.176
39	14.234	81	15.365	123	16.227	165	17.210
40	14.276	82	15.378	124	16.265	166	17.244
41	14.306	83	15.390	125	16.314	167	17.286
42	14.335	84	15.413	126	16.335	168	17.304

Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)	Depth (m)	Temp (°C)
169	17.308	209	18.060	249	18.904		
170	17.313	210	18.078	250	18.927		
171	17.323	211	18.090				
172	17.330	212	18.140				
173	17.341	213	18.169				
174	17.359	214	18.186				
175	17.372	215	18.190				
176	17.387	216	18.200				
177	17.410	217	18.227				
178	17.455	218	18.258				
179	17.514	219	18.281				
180	17.555	220	18.302				
181	17.554	221	18.336				
182	17.560	222	18.352				
183	17.565	223	18.357				
184	17.577	224	18.369				
185	17.592	225	18.382				
186	17.592	226	18.397				
187	17.625	227	18.427				
188	17.622	228	18.462				
189	17.639	229	18.481				
190	17.663	230	18.492				
191	17.682	231	18.523				
192	17.706	232	18.577				
193	17.736	233	18.610				
194	17.787	234	18.626				
195	17.828	235	18.631				
196	17.863	236	18.633				
197	17.891	237	18.635				
198	17.892	238	18.640				
199	17.893	239	18.660				
200	17.899	240	18.698				
201	17.915	241	18.710				
202	17.941	242	18.719				
203	17.958	243	18.738				
204	17.967	244	18.757				
205	17.981	245	18.779				
206	17.996	246	18.814				
207	18.011	247	18.835				
208	18.037	248	18.865				