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DATA REPOSITORY TABLES

Table DR1. Helium isotopic data and calculation of extraterrestrial (ET) ^{3}He flux in the Monte dei Corvi Beach section.

Table DR2. Multiproxy data from the MCB section.

Table DR3. Geochemical composition of bulk carbonate rock samples from the MCB section.

Table DR4. Magnetic susceptibility and calcium carbonate data from Monte dei Corvi section.

Table DR1. Helium isotopic data and calculation of extraterrestrial (ET) ^{3}He flux in the Monte dei Corvi Beach section									
Sample MCB m level	3He pcc/g	3He/4He ratio	ET 3He fraction	ET 3He pcc/g	ET 3He flux fmol/cm ² /k.y.	Sample MCB m level	analysis number	ET 3He pcc/g	ET 3He flux fmol/cm ² /k.y.
106	0.0648	0.0497	0.569	0.04	0.0039	106	3	0.073416165	0.007734917
106	0.0976	0.0812	0.736	0.07	0.0076				
106	0.1280	0.1661	0.871	0.11	0.0117				
107	0.0680	0.1184	0.819	0.06	0.0059	107	2	0.056838051	0.005988295
107	0.0688	0.1355	0.842	0.06	0.0061				
108	0.0337	0.0696	0.692	0.02	0.0025	108	3	0.054282118	0.005719009
108	0.0498	0.0550	0.610	0.03	0.0032				
108	0.1338	0.1160	0.815	0.11	0.0115				
109	0.0382	0.0770	0.722	0.03	0.0029	109	2	0.028297356	0.002981329
109	0.0438	0.0634	0.662	0.03	0.0031				
110	0.0322	0.1039	0.794	0.03	0.0027	110	3	0.058633224	0.006177429
110	0.0880	0.1337	0.840	0.07	0.0078				
110	0.0896	0.1457	0.853	0.08	0.0081				
111	0.0804	0.1141	0.812	0.07	0.0069	111	2	0.072117825	0.007598128
111	0.0958	0.1216	0.824	0.08	0.0083				
111	0.1334	0.2240	0.904	0.12	0.0127				
112	0.0671	0.0894	0.760	0.05	0.0054	112	1	0.051029668	0.00537634
113	0.0431	0.0617	0.653	0.03	0.0030	113	3	0.03080412	0.003245434
113	0.0465	0.0536	0.600	0.03	0.0029				
113	0.0579	0.0576	0.628	0.04	0.0038				
113.5	0.0620	0.1013	0.789	0.05	0.0052	113.5	2	0.055335905	0.005830033
113.5	0.0782	0.1017	0.789	0.06	0.0065				
114	0.0704	0.0988	0.783	0.06	0.0058	114	3	0.058410008	0.006153912
114	0.0757	0.0838	0.744	0.06	0.0059				
114	0.0786	0.1133	0.811	0.06	0.0067				
114.5	0.0510	0.0467	0.541	0.03	0.0029	114.5	2	0.037572967	0.00395858
114.5	0.0697	0.0674	0.682	0.05	0.0050				
115	0.0420	0.0671	0.681	0.03	0.0030	115	3	0.047780597	0.005034027
115	0.0598	0.1070	0.800	0.05	0.0050				
115	0.0800	0.1305	0.836	0.07	0.0070				
115.5	0.0376	0.0539	0.603	0.02	0.0024	115.5	2	0.048827261	0.005144301
115.5	0.0899	0.1294	0.835	0.08	0.0079				
116	0.0328	0.0296	0.275	0.01	0.0010	116	2	0.017273948	0.001819934
116	0.0455	0.0488	0.561	0.03	0.0027				
116	0.0581	0.0676	0.683	0.04	0.0042				
117	0.1149	0.0637	0.664	0.08	0.0080	117	2	0.100344476	0.010572007
117	0.1670	0.0841	0.745	0.12	0.0131				
118	0.0541	0.1020	0.790	0.04	0.0045	118	2	0.055500072	0.005847329
118	0.0793	0.1539	0.861	0.07	0.0072				
119	0.1223	0.2124	0.899	0.11	0.0116	119	2	0.114233647	0.012035331
119	0.1265	0.3373	0.937	0.12	0.0125				
119.5	0.0840	0.0755	0.716	0.06	0.0063	119.5	1	0.060167474	0.006339073
120	0.1633	0.2192	0.902	0.15	0.0155	120	4	0.35427707	0.03732562
120	0.3637	1.0602	0.980	0.36	0.0375				
120	0.3909	0.8159	0.974	0.38	0.0401				
120	0.5494	0.7049	0.970	0.53	0.0561				
120.5	0.0936	0.2164	0.901	0.08	0.0089	120.5	2	0.089406835	0.009419649

120.5	0.1049	0.2154	0.901	0.09	0.0100				
121	0.2942	0.3114	0.931	0.27	0.0289	121	2	0.28137531	0.029644899
121	0.3004	0.5515	0.961	0.29	0.0304				
121.5	0.5439	1.1036	0.981	0.53	0.0562	121.5	2	0.54810855	0.057747151
121.5	0.5734	1.1533	0.981	0.56	0.0593				
122	0.3801	0.8971	0.976	0.37	0.0391	122	2	0.393024597	0.041407949
122	0.4278	0.7119	0.970	0.41	0.0437				
122	1.3809	3.2186	0.993	1.37	0.1445				
122.5	0.3613	0.7256	0.971	0.35	0.0369	122.5	2	0.394033122	0.041514204
122.5	0.4433	1.6106	0.987	0.44	0.0461				
123	0.3217	0.4283	0.950	0.31	0.0322	123	1	0.305597382	0.032196867
123.5	0.2788	0.3350	0.936	0.26	0.0275	123.5	1	0.260952158	0.027493174
124	0.2130	0.3977	0.946	0.20	0.0212	124	2	0.214553095	0.022604701
124	0.2406	0.3961	0.946	0.23	0.0240				
124.5	0.3162	0.2084	0.897	0.28	0.0299	124.5	2	0.402939249	0.042452528
124.5	0.5515	0.4032	0.947	0.52	0.0550				
125	0.4373	0.4341	0.951	0.42	0.0438	125	3	0.463318785	0.048813943
125	0.4522	0.4758	0.955	0.43	0.0455				
125	0.5589	0.7227	0.970	0.54	0.0571				
125.5	0.2908	0.3393	0.937	0.27	0.0287	125.5	2	0.286904218	0.030227409
125.5	0.3217	0.3375	0.937	0.30	0.0317				
126	0.2519	0.5921	0.964	0.24	0.0256	126	3	0.25713057	0.027090542
126	0.2524	0.5476	0.961	0.24	0.0256				
126	0.2962	0.6198	0.965	0.29	0.0301				
126.5	0.1989	0.3651	0.941	0.19	0.0197	126.5	2	0.27462283	0.028933477
126.5	0.3699	1.0045	0.979	0.36	0.0381				
127	0.2981	0.6062	0.965	0.29	0.0303	127	2	0.290853339	0.030643477
127	0.3068	0.5164	0.959	0.29	0.0310				
127	0.7587	1.1523	0.981	0.74	0.0785				
127	1.3314	1.9078	0.989	1.32	0.1387				
127.5	0.1992	0.3496	0.939	0.19	0.0197	127.5	2	0.224260369	0.023627432
127.5	0.2728	0.5147	0.958	0.26	0.0275				
128	0.1275	0.3520	0.939	0.12	0.0126	128	1	0.119793702	0.012621122
128.5	0.1121	0.2912	0.926	0.10	0.0141	128.5	2	0.104671025	0.014205353
128.5	0.1147	0.2663	0.920	0.11	0.0143				
129	0.1109	0.2323	0.908	0.10	0.0137	129	2	0.146483717	0.019879933
129	0.2030	0.4030	0.947	0.19	0.0261				
129.5	0.1566	0.2894	0.926	0.15	0.0197	129.5	2	0.178302213	0.024198157
129.5	0.2232	0.4096	0.948	0.21	0.0287				
130	0.0818	0.0898	0.761	0.06	0.0085	130	2	0.069510625	0.009433585
130	0.0946	0.1133	0.811	0.08	0.0104				
130.5	0.0978	0.3407	0.937	0.09	0.0124	130.5	2	0.126540347	0.017173333
130.5	0.1683	0.5278	0.959	0.16	0.0219				
131	0.0652	0.1421	0.849	0.06	0.0075	131	4		
131	0.0738	0.2602	0.918	0.07	0.0092				
131	0.1016	0.3533	0.939	0.10	0.0130				
131	0.1435	0.1037	0.793	0.11	0.0154				
132	0.1234	0.3410	0.937	0.12	0.0157	132	2	0.124595171	0.016909345
132	0.1423	0.3493	0.939	0.13	0.0181				
133	0.0511	0.1299	0.835	0.04	0.0058	133	2	0.098923181	0.013425289

133	0.1654	0.3459	0.938	0.16	0.0211				
136	0.1664	0.1504	0.858	0.14	0.0194	136	1	0.142702338	0.019366746
137	0.0779	0.2521	0.915	0.07	0.0076	137	1	0.071245557	0.007633452
138	0.0754	0.1379	0.845	0.06	0.0068	138	2	0.091674885	0.009822309
138	0.1323	0.2231	0.904	0.12	0.0128				
140	0.1308	0.1246	0.828	0.11	0.0116	140	1	0.108284656	0.011601927
142	0.0891	0.1070	0.800	0.07	0.0076	142	1	0.071273088	0.007636402

Table DR2. Multiproxy data from the MCB section

MCB m samp	$\delta^{13}\text{C}$ %	$\delta^{18}\text{O}$ %	CaCO ₃ %	MS SI raw	LOI %
110	-0.322155689	0.755161677	51.738	12.66666667	6.611410948
110.05	-0.290155689	0.627161677	59.384	11.96666667	8.137599408
110.1	0.039844311	0.797161677	49.824	13.16666667	6.318390399
110.15	-0.256155689	0.734161677	53.927	13.1	4.607843137
110.2	-0.262155689	0.597161677	54.844	12.3	4.156908665
110.25	-0.131155689	0.638161677	59.339	12.06666667	3.368176539
110.3	-0.172155689	0.674161677	55.432	12.13333333	4.153481013
110.35	-0.085155689	0.684161677	54.174	11.76666667	5.083107847
110.4	0.058844311	0.626161677	48.819	13.1	6.127305175
110.45	-0.311155689	0.609161677	48.45	13.16666667	5.003971406
110.5	-0.295155689	0.733161677	45.901	13.16666667	5.493087558
110.55	-0.259155689	0.598161677	43.213	13.16666667	5.063291139
110.6	-0.228155689	0.513161677	46.468	13.6	4.575416828
110.65	-0.121155689	0.519161677	46.188	13.83333333	5.575505576
110.7	0.443844311	0.638161677	45.684	15.36666667	6.720898702
110.75	-0.137155689	0.684161677	48.107	10.96666667	9.64106121
110.8	-0.262155689	0.299161677	50.373	10.33333333	9.306348383
110.85	-0.117155689	0.483161677	54.679	11.4	3.912028026
110.9	-0.201155689	0.391161677	58.619	13.36666667	3.969578928
110.95	-0.165155689	0.391161677	58.147	11.83333333	3.124404649
111	0.035844311	0.336161677	57.735	12	4.250600628
111.05	0.005844311	0.773161677	49.213	15.03333333	4.07773729
111.1	-0.310155689	0.357161677	54.696	13.43333333	5.448392555
111.15	-0.349155689	0.366161677	54.102	14.36666667	4.143380227
111.2	-0.109155689	0.594161677	52.265	14.36666667	4.810495627
111.25	-0.160155689	0.690161677	57.885	12.86666667	4.054054054
111.3	-0.172155689	0.672161677	62.132	10.66666667	3.67866375
111.35	0.164844311	0.523161677	59.968	11.7	3.749406739
111.4	0.118844311	0.794161677	61.208	11.96666667	3.736869296
111.45	-0.010155689	0.022161677	64.144	9.766666667	3.335996804
111.5	0.206844311	0.678161677	51.067	12.36666667	8.032675289
111.55	0.135844311	0.756161677	55.127	12.7	6.100698273
111.6	0.002844311	0.541161677	57.024	12.93333333	5.516102395
111.65	-0.174155689	0.124161677	49.147	15.33333333	5.134514436
111.7	-0.092155689	0.338161677	51.008	15.1	4.761022601
111.75	-0.012155689	0.305161677	53.363	14.13333333	4.283548143
111.8	0.145844311	0.496161677	51.125	14.96666667	5.604173679
111.85	-0.166155689	0.767161677	44.084	15.2	7.306696263
111.9	-0.213155689	0.877161677	46.422	15.8	6.380027739
111.95	-0.074155689	0.554161677	49.679	14.46666667	4.567508784
112	-0.195155689	0.316161677	52.108	15.96666667	3.557567917
112.05	-0.076155689	0.440161677	55.794	20.63333333	3.485041375
112.1	0.034844311	0.513161677	56.072	15.43333333	4.120879121
112.15	-0.445155689	-0.223838323	39.279	21.63333333	10.43478261
112.2	-0.154155689	0.283161677	48.495	18.36666667	9.943748866
112.25	-0.107155689	0.563161677	50.297	14.86666667	8.720014008
112.3	-0.157155689	0.361161677	55.008	16.46666667	5.855319149
112.35	-0.165155689	0.414161677	50.273	20.03333333	4.420493596
112.4	-0.339155689	0.428161677	48.726	18.2	5.506813515
112.45	-0.167155689	0.378161677	51.724	19.23333333	4.962812711
112.5	-0.034155689	0.091161677	50.093	15.4	5.014547322
112.55	-0.112155689	0.473161677	57.083	19.7	5.813193991
112.6	0.083844311	0.446161677	57.089	16.3	6.334682386
112.65	-0.063155689	0.538161677	56.897	15.36666667	7.105022831
112.7	-0.119155689	0.364161677	66.438	14.53333333	3.973013493
112.75	0.108844311	0.769161677	65.17	12.96666667	3.617998163
112.8	0.141844311	0.643161677	60.362	16.53333333	4.214751631
112.85	0.121844311	0.362161677	64.27	16.06666667	3.386809269
112.9	0.043844311	0.493161677	61.84	14.7	3.81852552
112.95	0.007844311	0.384161677	61.71	16.33333333	3.728813559
113	0.074844311	0.512161677	61.677	11.43333333	3.722670869
113.05	0.146844311	0.786161677	63.508	18.03333333	3.367975366
113.1	0.119844311	0.456161677	61.267	16.83333333	3.510298811

113.15	-0.033155689	0.463161677	61.267	15.066666667	3.090881132
113.2	0.013844311	0.499161677	63.448	14.066666667	4.300131637
113.25	-0.122155689	0.665161677	62.054	12.53333333	4.006378314
113.3	-0.032155689	0.515161677	65.032	16.466666667	4.140127389
113.35	-0.020155689	0.364161677	66.318	16.466666667	3.980190756
113.4	0.112844311	0.513161677	62.398	16.233333333	3.509352756
113.45	0.146844311	0.833161677	62.35	17.033333333	4.230148772
113.5	-0.021155689	0.559161677	51.452	14.166666667	7.470588235
113.55	0.125844311	0.503161677	59.583	14.833333333	4.377238361
113.6	0.328844311	0.726161677	60.878	14.966666667	4.053808398
113.65	0.019844311	0.430161677	65.505	14.066666667	4.349710983
113.7	-0.185155689	0.676161677	47.414	15.966666667	7.807652534
113.75	0.159344311	0.675161677	49.233	15.4	8.761232349
113.8	-0.008155689	0.335161677	54.986	18.533333333	4.945928753
113.85	0.081844311	0.195161677	60.424	16.266666667	4.298259128
113.9	0.152844311	0.859161677	53.527	15.6	7.013574661
113.95	-0.265155689	0.613161677	52.586	17.333333333	7.738814994
114	-0.076155689	0.581161677	57.607	14.966666667	5.849889625
114.05	-0.269155689	0.520161677	52.603	19.366666667	5.056710775
114.1	-0.238155689	0.311161677	53.884	21.433333333	4.283333333
114.15	-0.182155689	0.517161677	54.918	17	4.408060453
114.2	-0.016155689	0.499161677	53.981	17.933333333	5.910041841
114.25	-0.036155689	0.451161677	55.442	14.7	5.246179966
114.3	-0.233155689	0.663161677	47.976	20.666666667	7.514644351
114.35	-0.337155689	0.285161677	46.057	17.833333333	9.423835833
114.4	-0.267155689	0.484161677	49.801	21.866666667	6.876538867
114.45	0.135844311	-0.008838323	50.745	23.733333333	4.267939815
114.5	-0.207155689	0.384161677	50.374	17.4	4.800489222
114.55	-0.131155689	0.427161677	59.682	18.5	4.821372115
114.6	-0.285155689	0.656161677	61.319	17.366666667	5.312108746
114.65	-0.487155689	0.698161677	48.003	18.033333333	7.299135871
114.7	-0.260155689	0.667161677	59.041	18.4	4.971196928
114.75	-0.117155689	0.437161677	37.563	13.833333333	5.865102639
114.8	-0.140155689	0.431161677	56.326	16.6	4.530438886
114.85	-0.079155689	0.258161677	58.329	16.766666667	4.32108027
114.9	-0.139155689	0.463161677	60.92	15.866666667	3.694449402
114.95	-0.045155689	0.524161677	63.358	17	3.700906344
115	0.023844311	0.567161677	64.396	13.133333333	3.083264633
115.05	0.095844311	0.787161677	53.282	18.766666667	4.879725086
115.1	-0.042155689	0.686161677	54.247	18.8	5.679630343
115.15	0.267844311	0.502161677	61.953	17.333333333	4.151992586
115.2	0.324844311	0.759161677	65.808	15	3.419419997
115.25	0.286844311	0.824161677	49.076	15.266666667	7.290492296
115.3	0.209844311	0.650161677	36.998	17.933333333	9.978150036
115.35	0.377844311	0.676161677	66.931	16.966666667	3.416728902
115.4	0.437844311	0.477161677	66.567	16.633333333	3.601964708
115.45	0.492844311	0.604161677	73.069	14.033333333	4.809650634
115.5	0.341844311	0.245161677	64.338	13.7	4.349275121
115.55	0.180844311	0.428161677	68.426	16.8	4.122602617
115.6	0.050844311	0.349161677	63.026	15.7	4.61406518
115.65	0.133844311	0.597161677	38.129	18.966666667	5.109994803
115.7	-0.030155689	0.412161677	62.134	19.033333333	4.418290565
115.75	0.013844311	0.068161677	58.764	15	4.711347047
115.8	0.121844311	0.381161677	60.017	18.966666667	4.631886884
115.85	0.107844311	0.506161677	62.266	19.166666667	4.506437768
115.9	0.263844311	0.884161677	64.269	16.6	4.280155642
115.95	-0.172155689	0.416161677	64.356	15.666666667	6.834425253
116	-0.186155689	0.598161677	63.832	11.266666667	6.666666667
116.05	-0.079155689	0.538161677	62.504	13.466666667	7.431069267
116.1	-0.061155689	0.434161677	63.448	11.866666667	7.591623037
116.15	0.313844311	0.333161677	66.995	17.933333333	3.260869565
116.2	0.159844311	0.395161677	60.772	14.5	3.848248321
116.25	0.245844311	0.564161677	59.887	14.966666667	3.967350038
116.3	0.112844311	0.463161677	56.948	20.366666667	4.866743917
116.35	0.221844311	0.529161677	56.981	19.166666667	5.124327957
116.4	0.201844311	0.481161677	57.733	20.833333333	5.390366893

116.45	0.338844311	0.712161677	57.568	23.033333333	5.085069776
116.5	0.386844311	0.775161677	68.502	12.966666667	3.996138996
116.55	0.179844311	0.427161677	67.947	16.766666667	4.137079345
116.6	0.158844311	0.615161677	67.82	16.3	4.049568489
116.65	0.228844311	0.490161677	56.189	17.433333333	4.214751631
116.7	-0.086155689	-0.218838323	53.76	18.066666667	4.166666667
116.75	0.031844311	0.374161677	63.473	14.566666667	3.424889793
116.8	0.102844311	0.391161677	63.958	17.2	3.088859611
116.85	0.404844311	0.162161677	64.1	24.4	4.198097737
116.9	0.137844311	0.469161677	63.358	22.1	3.999357533
116.95	0.298844311	0.623161677	61.44	21.333333333	3.536311885
117	0.293844311	0.567161677	58.258	17.466666667	3.308162531
117.05	0.284844311	0.613161677	62.071	19.8	10.52100162
117.1	0.152844311	0.380161677	66.108	19.4	3.738454772
117.15	0.298844311	0.412161677	67.319	20.6	3.955500618
117.2	0.125844311	0.544161677	63.479	19.966666667	3.611500701
117.25	0.353844311	0.676161677	66.634	14.866666667	2.920774005
117.3	0.331844311	0.522161677	64.593	17.833333333	3.166823751
117.35	0.331344311	0.603661677	54.977	28.566666667	4.919323101
117.4	0.404844311	0.729161677	58.237	26.366666667	4.51561249
117.45	0.195844311	0.382161677	63.112	23.3	3.886059234
117.5	0.134844311	0.611161677	60.577	19.5	3.562164966
117.55	0.157844311	0.292161677	67.712	23	3.454298467
117.6	0.107844311	0.627161677	62.4	25.1	3.8005923
117.65	0.171844311	0.488161677	51.576	18.9	4.829258436
117.7	0.153844311	0.663161677	58.366	16.4	5.419990615
117.75	0.005844311	0.450161677	55.799	13.8	4.562928297
117.8	-0.154155689	0.457161677	50.661	21.066666667	5.538842683
117.85	0.048844311	0.350161677	47.513	27.1	5.706051873
117.9	-0.029155689	0.650161677	50.874	28.3	5.562933451
117.95	-0.208155689	0.372161677	50.02	24.666666667	5.257784584
118	-0.216155689	0.402161677	48.739	20.2	4.213207917
118.05	0.089844311	0.431161677	52.251	27.333333333	4.491436561
118.1	-0.066155689	0.150161677	50.662	25.333333333	4.610894942
118.15	-0.003155689	0.114161677	48.21	21.266666667	3.857566766
118.2	0.038844311	0.430161677	51.192	18	3.981264637
118.25	-0.121155689	0.367161677	52.464	15.433333333	5.520328236
118.3	-0.456155689	0.338161677	44.13	20.533333333	8.455696203
118.35	-0.441155689	0.086161677	38.429	16.866666667	8.965003723
118.4	-0.264155689	0.232161677	52.516	17.4	7.231302625
118.45	-0.137155689	0.472161677	50.704	20.5	4.595588235
118.5	-0.154155689	0.100161677	56.468	14.933333333	4.265572015
118.55	-0.311155689	0.279161677	64.493	16.366666667	3.765281174
118.6	-0.080155689	0.346161677	58.714	17.8	4.135398371
118.65	-0.060155689	0.381161677	57.118	17.333333333	4.703437854
118.7	-0.133155689	0.354161677	57.333	17.033333333	3.915042003
118.75	-0.094155689	0.163161677	59.843	13.666666667	4.164342815
118.8	-0.152155689	0.437161677	59.33	15.2	4.041038526
118.85	-0.191155689	0.643161677	48.211	18.266666667	6.261370528
118.9	-0.226155689	0.489161677	49.326	18.633333333	5.49400516
118.95	-0.399155689	0.340161677	51.738	18.633333333	4.373865699
119	-0.341155689	0.354161677	50.663	14.433333333	4.463187489
119.05	-0.320155689	0.236161677	47.264	20.033333333	4.803022126
119.1	-0.237155689	0.376161677	50.172	17.2	4.504371018
119.15	-0.376155689	0.364161677	52.299	19.033333333	4.341949654
119.2	-0.262155689	-0.051838323	51.015	15.4	7.582846004
119.25	-0.057155689	0.027161677	53.186	13.466666667	4.864667154
119.3	0.185844311	-0.076838323	49.228	18.866666667	4.967346131
119.35	0.079844311	0.251161677	50.537	16.3	5.684251509
119.4	-0.311155689	-0.285838323	49.622	20.2	4.725609756
119.45	-0.211155689	0.284161677	44.973	20.166666667	4.689942678
119.5	-0.272155689	0.179161677	45.003	16.666666667	5.040969006
119.55	-0.021155689	0.142161677	59.199	15.266666667	3.990345937
119.6	-0.022155689	-0.117838323	51.651	20.7	4.09328891
119.65	-0.440155689	-0.258838323	49.23	25.5	4.239581454
119.7	-0.221155689	0.259161677	47.94	26.033333333	4.356435644

119.75	-0.091155689	-0.030838323	53.673	17.6	4.212707182
119.8	-0.103155689	0.145161677	46.462	21.53333333	5.541424419
119.85	-0.116155689	0.106161677	50.11	22.36666667	5.867074102
119.9	-0.033155689	0.036161677	51.906	25.46666667	4.976619906
119.95	-0.091155689	0.325161677	48.725	30.46666667	4.896095718
120	-0.174155689	0.224161677	57	22.1	4.594678218
120.05	-0.065155689	0.375161677	63.92165964	26.23333333	5.534990305
120.1	-0.151155689	0.312161677	69.09645901	22.7	3.689917462
120.15	-0.139155689	0.285161677	71.81389735	18.76666667	3.03456906
120.2	-0.016155689	0.372161677	64.37083754	24.56666667	3.664170782
120.25	0.217844311	0.263161677	65.5966223	18.93333333	3.855606759
120.3	0.003844311	0.389161677	60.81462796	27.26666667	5.381339528
120.35	0.143844311	0.427161677	65.35979257	21.2	5.203703704
120.4	0.095844311	0.443161677	64.4323675	30.2	4.651162791
120.45	-0.015155689	0.248161677	61.61500968	25.33333333	4.050179211
120.5	0.199844311	0.281161677	64.58081681	18.8	4.322631167
120.55	0.087844311	0.245161677	68.47808265	20.53333333	4.993128722
120.6	-0.163155689	0.312161677	65.37053829	22.03333333	1.644490955
120.65	0.038844311	0.272161677	60.67333766	27.63333333	4.479701353
120.7	0.002844311	0.099161677	64.4711995	26.16666667	14.26841923
120.75	0.026844311	0.463161677	54.19170291	22.66666667	5.305971529
120.8	-0.072155689	0.350161677	56.83606849	27.7	5.122253172
120.85	-0.242155689	-0.010838323	56.98454307	31.7	6.232686981
120.9	0.015844311	0.538161677	63.32090426	15	4.012169614
120.95	0.079844311	0.450161677	62.18882134	19.26666667	4.598597038
121	0.036844311	0.307161677	60.85930317	13.4	4.975028813
121.05	0.055844311	-0.000838323	61.30257259	17.2	4.963768116
121.1	0.133844311	0.394161677	58.44972277	21.63333333	4.991201408
121.15	-0.020155689	0.388161677	59.31232872	28.9	4.090647206
121.2	0.469844311	1.587161677	57.89043422	31.33333333	5.649919542
121.25	0.190844311	0.103161677	59.02553288	21.13333333	4.584580838
121.3	-0.049155689	0.424161677	56.8021968	28.46666667	7.343102899
121.35	-0.065155689	0.337161677	56.85742428	28.06666667	5.942219304
121.4	-0.119155689	0.439161677	59.5900261	31.06666667	5.094309205
121.45	-0.002155689	0.879161677	54.10539115	29.93333333	4.472371096
121.5	-0.067155689	0.385161677	65.49207538	19.3	3.990656025
121.55	-0.097155689	0.407161677	72.25123311	22.76666667	3.246107983
121.6	0.015844311	0.478161677	79.04353913	23.2	3.48924934
121.65	0.089844311	0.336161677	66.77823678	21.5	3.28023971
121.7	0.073844311	0.624161677	67.94016345	26.03333333	3.583943931
121.75	0.172844311	0.418161677	65.46363491	17.8	4.690522244
121.8	-0.090155689	0.117161677	59.66439071	24.46666667	4.255319149
121.85	0.150844311	0.458161677	60.6209508	25.73333333	4.594348222
121.9	0.143844311	0.475161677	61.42567336	23.63333333	3.485617597
121.95	0.037844311	0.408161677	59.71757977	24.6	3.900096061
122	0.037844311	0.581161677	72.46443843	19.56666667	4.35286329
122.05	0.074844311	0.501161677	64.63740275	23.3	4.690866899
122.1	-0.022155689	0.310161677	56.02054477	26.93333333	5.858511422
122.15	0.056844311	0.573161677	58.09511412	28.13333333	5.616338439
122.2	-0.326155689	0.241161677	57.13910301	29.73333333	4.957620342
122.25	-0.179155689	0.369161677	55.91454685	23.2	4.793608522
122.3	0.120844311	0.434161677	61.99427844	26.06666667	5.408046913
122.35	-0.010155689	0.341161677	59.7894869	27.66666667	4.676799733
122.4	0.059844311	0.413161677	61.77302438	30.8	6.112749918
122.45	0.199844311	0.466161677	64.33171055	25.6	4.83368835
122.5	0.108844311	0.351161677	66.48757384	20.2	5.007473842
122.55	0.111844311	0.422161677	61.42552359	22.13333333	4.991420995
122.6	0.206844311	0.371161677	61.22741593	25.36666667	3.723021583
122.65	0.224844311	0.110161677	68.65946258	25.3	5.117524546
122.7	0.027844311	0.478161677	63.07816716	28.2	5.713308245
122.75	-0.128155689	0.251161677	64.71762894	23.6	5.633802817
122.8	-0.010155689	0.432161677	57.92667185	32.23333333	5.641101569
122.85	0.058844311	0.502161677	55.11611499	30.83333333	5.245659402
122.9	0.143844311	0.637161677	59.20685221	32.36666667	4.292497626
122.95	0.023844311	0.477161677	54.06593589	17.86666667	5.367118915
123	-0.438155689	-0.175838323	47.74090432	15.5	6.480596444

123.05	0.004844311	0.438161677	49.65694115	17.66666667	5.885867941
123.1	0.171844311	0.589161677	60.21665549	21.83333333	5.373081042
123.15	0.218844311	0.369161677	58.81081975	24.8	5.353466026
123.2	0.040844311	0.565161677	53.05833436	31.3	6.22081076
123.25	-0.136155689	0.156161677	53.13062988	22.03333333	5.845410628
123.3	-0.217155689	0.350161677	51.26352157	29	6.813088301
123.35	-0.097155689	0.255161677	51.60081359	27.6	6.661826103
123.4	-0.308155689	0.342161677	58.31749181	30.66666667	6.035825545
123.45	0.046844311	0.604161677	50.85613381	23.7	6.219942289
123.5	-0.205155689	0.246161677	56.36036893	23.76666667	6.163272662
123.55	-0.204155689	0.256161677	54.15015838	30.96666667	5.632360471
123.6	-0.051155689	0.413161677	65.70534484	14.53333333	4.096520763
123.65	-0.166155689	-0.015838323	57.44728122	26.86666667	6.490688845
123.7	-0.109155689	0.420161677	63.11124705	23.43333333	4.435746902
123.75	-0.275155689	0.491161677	60.88120795	23	6.29034928
123.8	-0.247155689	0.795161677	49.70968166	32.7	7.607219096
123.85	0.058844311	0.458161677	58.03995257	19.86666667	5.758055996
123.9	0.020844311	0.911161677	59.84418943	20.66666667	5.526402099
123.95	-0.144155689	0.174161677	58.86932985	31.6	5.608679662
124	0.043844311	0.479161677	56.98996228	14.5	6.060067532
124.05	-0.216155689	0.501161677	52.47610958	18.53333333	5.303584492
124.1	-0.096155689	0.490161677	52.79838134	17.76666667	4.372533544
124.15	-0.286155689	0.424161677	52.67341513	20.56666667	6.169041451
124.2	-0.282155689	0.342161677	56.35674737	32.26666667	6.986743103
124.25	-0.253155689	0.531161677	58.10586149	18.5	6.205205583
124.3	-0.352155689	0.257161677	58.29826501	21.86666667	5.006357279
124.35	-0.113155689	0.548161677	56.59142328	32.16666667	7.586738628
124.4	-0.314155689	0.481161677	59.96614118	31.93333333	6.449991623
124.45	-0.276155689	0.525161677	52.0891693	31.16666667	6.031385895
124.5	-0.319155689	0.710161677	50.52525764	28.6	5.867253392
124.55	-0.464155689	-0.021838323	54.08642233	18.66666667	5.257460956
124.6	-0.298155689	0.660161677	37.83058164	20.2	6.1422205
124.65	-0.287155689	0.692161677	43.26913786	26.16666667	7.194374324
124.7	-0.193155689	0.722161677	51.06782299	20.36666667	5.581395349
124.75	-0.232155689	0.888161677	45.44748122	19.63333333	5.518553758
124.8	-0.084155689	0.447161677	55.52429976	25.43333333	6.619065998
124.85	-0.151155689	0.302161677	62.4604212	25.36666667	3.910711196
124.9	0.104844311	0.577161677	60.45318302	27.4	4.561541486
124.95	0.088844311	0.635161677	57.28696115	30.23333333	5.68503937
125	-0.057155689	0.482161677	47.52943586	27.16666667	5.54836855
125.05	0.087844311	0.420161677	62.39749556	28	4.46034404
125.1	-0.069155689	0.622161677	52.84044333	29.96666667	4.30425497
125.15	0.136844311	0.662161677	63.69540195	25.86666667	4.481546573
125.2	0.007844311	0.794161677	44.24415372	26.7	6.73627484
125.25	0.109844311	0.676161677	45.97267477	17.23333333	6.68545483
125.3	0.066844311	0.691161677	45.3092592	29.5	5.900927571
125.35	0.119844311	0.275161677	61.12660088	27.03333333	4.731141934
125.4	0.070844311	0.213161677	62.30840943	27.86666667	3.911932377
125.45	0.041844311	0.443161677	60.49453428	31.66666667	4.562383613
125.5	0.044844311	0.331161677	60.36690403	23.9	4.621435595
125.55	-0.093155689	0.301161677	56.88516053	35.23333333	4.902867715
125.6	-0.109155689	0.551161677	52.07397778	34.3	5.822580645
125.65	-0.145155689	0.132161677	58.31505928	28.8	4.318448884
125.7	-0.195155689	0.436161677	60.8519087	34.5	5.509099852
125.75	0.138844311	0.362161677	60.80440526	26.8	5.481972038
125.8	-0.021155689	0.531161677	56.65309712	34.23333333	5.590062112
125.85	-0.053155689	0.488161677	53.08879172	33.23333333	5.328005328
125.9	0.100844311	0.781161677	52.6674521	28.93333333	5.047204067
125.95	-0.110155689	0.459161677	58.33167045	30.1	5.495546712
126	0.349844311	0.438161677	62.446	21.4	3.011093502
126.05	0.155844311	0.590161677	64.651	27.4	3.38573156
126.1	0.362844311	0.579161677	67.438	23.06666667	3.529972969
126.15	0.241844311	0.770161677	54.881	37.03333333	4.30050904
126.2	0.089844311	0.619161677	55.665	29.8	4.440468445
126.25	0.081844311	0.389161677	63.278	21.56666667	4.033933518
126.3	0.110844311	0.478161677	63.132	31.43333333	3.558052434

126.35	0.291844311	0.550161677	62.472	29.1	3.602584814
126.4	0.173844311	0.341161677	56.262	30.33333333	3.65230095
126.45	0.125844311	0.331161677	55.019	31.13333333	4.135053111
126.5	0.186844311	0.588161677	66.926	23.86666667	3.379416283
126.55	0.309844311	0.540161677	66.167	31.16666667	3.400038858
126.6	0.372844311	0.567161677	60.121	30	4.090023804
126.65	0.296844311	0.571161677	61.059	34.56666667	4.178591872
126.7	0.329844311	0.612161677	57.57	28.53333333	4.223521767
126.75	0.272844311	0.564161677	58.991	30.6	3.977580908
126.8	0.247844311	0.181161677	63.055	29.93333333	3.51079611
126.85	0.283844311	0.377161677	66.91	31.3	3.164994811
126.9	0.281844311	0.120161677	60.487	35.36666667	3.393364929
126.95	0.397844311	0.809161677	69.508	31.33333333	3.938558488
127	0.455844311	0.629161677	62.817	19.83333333	4.071198637
127.05	0.410844311	0.502161677	57.876	27.9	4.261974585
127.1	0.534844311	0.632161677	61.139	30.86666667	3.853244838
127.15	0.414844311	0.689161677	60.038	34.2	4.254667891
127.2	0.342844311	0.744161677	57.779	29.66666667	3.926499033
127.25	0.321844311	0.637161677	54.411	25.73333333	4.789500597
127.3	0.318844311	0.760161677	55.067	31.8	4.568807339
127.35	0.382844311	0.395161677	63.283	32.23333333	4.302378428
127.4	0.388844311	0.866161677	67.816	22.36666667	3.424139236
127.45	0.369844311	0.755161677	58.338	28.6	4.144884242
127.5	0.368844311	0.510161677	61.065	24.16666667	3.938167096
127.55	0.201844311	0.267161677	59.962	29.63333333	5.203832425
127.6	0.203844311	0.570161677	54.857	32.73333333	4.763683916
127.65	0.281844311	0.380161677	56.822	29.23333333	4.572299486
127.7	0.290844311	0.626161677	58.375	26.66666667	4.89996609
127.75	0.177844311	0.510161677	63.597	13.53333333	3.877703207
127.8	0.552844311	0.801161677	65.845	13.96666667	3.067092652
127.85	0.459844311	0.601161677	66.96	14.16666667	3.863515666
127.9	0.571844311	0.955161677	68.203	13.76666667	3.390968608
127.95	0.584844311	0.675161677	67.855	13.1	4.010266282
128	0.620844311	0.482161677	63.291	11.93333333	4.318143028
128.05	0.915844311	0.287161677	63.525	16.76666667	4.305890458
128.1	0.414844311	0.250161677	62.1	16.7	4.84063745
128.15	0.572844311	0.612161677	69.574	11.73333333	3.791039362
128.2	0.532844311	0.748161677	62.558	14.2	4.322986098
128.25	0.615844311	0.699161677	59.641	11.46666667	4.709491158
128.3	0.619844311	0.841161677	65.328	13.23333333	4.086265607
128.35	0.776844311	0.477161677	63.851	13.5	4.400490647
128.4	0.632844311	0.785161677	67.078	10.6	3.11968236
128.45	0.634844311	0.860161677	68.84	9.6333333333	3.460972018
128.5	0.565844311	0.679161677	68.284	8.7	4.58901585
128.55	0.557844311	0.850161677	69.952	9.2	3.114325899
128.6	0.801844311	0.514161677	68.523	9.1	2.431718062
128.65	0.704844311	0.993161677	71.097	11.26666667	2.863875295
128.7	0.619844311	0.887161677	68.281	12.06666667	2.825773938
128.75	0.570844311	0.676161677	65.444	11.06666667	4.034427111
128.8	0.677844311	0.753161677	64.477	12.73333333	3.493761141
128.85	0.409844311	0.588161677	44.313	18.16666667	7.181942544
128.9	0.577844311	0.752161677	65.441	13.03333333	4.578179804
128.95	0.586844311	0.718161677	66.249	12	3.509956126
129	0.775844311	0.853161677	67.092	9.0333333333	4.076086957
129.05	0.584844311	0.934161677	65.606	11.03333333	3.819564466
129.1	0.590844311	0.964161677	72.89	9.5	4.108622818
129.15	0.647844311	1.158161677	71.099	9.7	3.993219062
129.2	0.535844311	0.858161677	72.254	10.3	4.511869203
129.25	0.542844311	0.792161677	67.956	7.4333333333	4.957786959
129.3	0.691844311	1.085161677	71.183	8.6333333333	3.961605585
129.35	0.622844311	0.875161677	62.326	11.76666667	4.83075353
129.4	0.486844311	0.684161677	59.532	12.46666667	4.623491416
129.45	0.504844311	0.757161677	60.974	13.43333333	5.419331912
129.5	0.400844311	0.789161677	59.148	12.66666667	5.362236167
129.55	0.433844311	1.133161677	65.317	12.6	4.669474455
129.6	0.518844311	1.182161677	67.202	11.3	5.439450329

129.65	0.519844311	1.136161677	63.209	13.433333333	5.083798883
129.7	0.418844311	0.994161677	60.489	13.433333333	3.850251103
129.75	0.424844311	1.286161677	66.851	9.8	3.403318659
129.8	0.472844311	0.980161677	72.26	10.9	3.051162791
129.85	0.518844311	0.885161677	67.107	10.766666667	4.138851802
129.9	0.448844311	0.881161677	61.566	12.366666667	4.269662921
129.95	0.273844311	0.773161677	59.314	13	5.028399599
130	0.320844311	1.018161677	60.092	11	3.611349957
130.05	0.253844311	0.714161677	58.717	12.633333333	4.592664719
130.1	0.324844311	0.351161677	60.913	11.5	4.754413564
130.15	0.353844311	0.895161677	58.988	12.7	5.164585698
130.2	0.443844311	0.488161677	63.191	12.166666667	3.950381679
130.25	0.408844311	0.946161677	64.683	10.633333333	4.340022842
130.3	0.483844311	0.892161677	68.583	10.733333333	5.563610004
130.35	0.633844311	0.951161677	74.13	7.833333333	3.778512972
130.4	0.557844311	0.946161677	73.768	9.7	4.189140597
130.45	0.538844311	1.076161677	73.989	9.1	3.680501175
130.5	0.571844311	1.141161677	77.121	6.4	4.223255814
130.55	0.548844311	1.327161677	73.035	8.666666667	5.689078187
130.6	0.465844311	1.062161677	68.128	10.633333333	4.022099448
130.65	0.523844311	0.860161677	64.235	12.533333333	4.826802953
130.7	0.387844311	0.839161677	63.972	12.1	5.254066504
130.75	0.285844311	0.762161677	59.802	11.1	3.40296496
130.8	0.419844311	0.910161677	62.356	10.633333333	4.366243076
130.85	0.467844311	0.960161677	65.992	10.933333333	4.162595271
130.9	0.531844311	1.051161677	64.058	12.466666667	4.184176868
130.95	0.527844311	1.161161677	67.377	12.266666667	4.452720207

Table DR3. Geochemical composition of bulk carbonate rock samples from the MCB section

MCB m sample	CaCO3%	LOI %	Na%	K %	Fe %	Sc	V	Cr	Co	Ni	Cu XRF	Zn	Ga	As	Se	Br	Rb	Sr XRF	Y XRF	Zr XRF	Nb XRF	Mo
113.5	51.452	7.47059	0.53	1.65	2.94	10.5	124	110	25.8	109	48.9	102	4.8	7.54	4.03	23	82	962	20.7	76.2	8.3	1.6
114.5	50.374	4.80049	0.48	1.47	2.12	8.69	102	80.6	11.9	67	21.9	69	3.7	1.71	0.89	4.5	71.2	879	17.6	74.5	8.3	1.1
115.5	64.338	4.34928	0.37	1.21	1.83	7.45	87.6	73.8	10.7	73	21.0	61	10	1.32	1.48	3.3	63.8	1050	15.0	52.4	5.9	0.9
119.5	45.003	5.04097	0.63	1.74	2.53	10.7	115	109	16.9	101	28.0	93	11	2.67	1.24	12	92.5	936	20.0	86.7	10.8	1.0
120	57	4.59468	0.53	1.50	2.38	9.46	109	95	13.1	115	22.0	77	9.1	2.25	1.29	6.9	82.3	947	18.1	68.6	7.6	1.0
120.5	64.580817	4.32263	0.33	0.92	1.60	6.53	89.5	62.2	10.3	44	25.5	50	16	1.42	<1.2	3.1	52.1	1086	16.6	49.1	5.5	0.8
121.5	65.492075	3.99066	0.36	1.16	1.76	7.12	89.7	69.2	12.4	69	28.1	56	6.4	1.18	2.66	3.5	54.8	1132	18.5	51.4	5.8	0.9
122	72.464438	4.35286	0.42	0.98	1.72	7.12	86.9	75.6	11.8	87	27.2	59	8.1	2.11	2.09	7.7	57.3	1104	16.6	46.8	5.0	0.9
122.5	66.487574	5.00747	0.51	1.20	1.87	7.76	77.7	74.4	11.7	71	26.0	59	3.4	2.02	0.92	7.9	64.1	1026	17.3	47.5	5.5	0.9
123.5	56.360369	6.16327	0.52	1.51	2.18	8.66	106	85.2	13.9	88	28.7	72.5	4.4	2.38	2.17	7.9	72.8	984	18.9	63.6	7.0	0.9
124.5	50.525258	5.86725	0.48	1.51	2.39	9.23	108	83.5	13.1	72	24.5	72	9.4	2.65	<1.5	5.2	73.5	959	17.4	79.4	8.9	0.7
125.5	50.525258	4.62144	0.42	1.37	2.13	8.43	97.7	79.9	13.3	81	24.4	65	11	2.69	1.00	4.5	69.3	987	16.6	62.7	7.1	0.8
126.5	66.926	3.37942	0.33	1.04	1.63	6.58	63.8	67.7	10.1	58	22.5	47.6	2.3	1.39	<0.9	2.7	49.3	1001	15.8	44.6	5.3	1.1
127	62.817	4.0712	0.40	1.00	1.73	7.16	68.0	69.2	10.6	69	23.5	57	9.3	1.78	<1.5	6.0	61.0	989	15.8	46.9	5.1	0.8
127.5	61.065	3.93817	0.36	1.16	1.81	7.27	78.3	66.9	13.1	63	24.3	53	2.8	2.35	<1.4	2.6	54	956	18.4	58.3	6.6	0.9
127.9	61.065	3.39097	0.28	1.03	1.55	5.95	68.4	56.1	10.6	58	21.5	46.4	1.9	3.14	0.99	1.6	48.2	1053	15.4	49.2	5.0	1.0
128.05	63.525	4.30589	0.40	1.31	1.91	8.15	81.9	81.8	14.7	95	27.7	57.1	3.8	2.49	1.02	4.5	68.4	1005	17.8	51.8	5.5	0.7
128.5	68.284	4.58902	0.34	0.86	1.37	5.38	60.2	54.5	5.97	37	13.7	42	2.0	0.85	<1	7.1	43.4	1000	12.4	36.1	3.9	0.9
129.5	59.148	5.36224	0.52	1.36	2.21	8.28	91.6	84.0	19.9	128	40.2	73	8.7	4.17	1.65	13	70.4	999	18.1	56.1	6.5	1.0
130.3	68.583	5.56361	0.37	0.80	1.19	5.23	45.8	51.4	6.18	45	12.9	39.5	1.7	1.01	<1	17	41.3	1000	16.2	30.2	3.0	0.8
130.5	77.121	4.22326	0.34	0.59	1.13	4.58	40.8	44.0	6.74	37	19.0	33	3.3	0.61	<1.1	13	34.3	990	12.8	26.3	2.6	1.0
130.85	65.992	4.1626	0.42	0.9	1.82	5.41	52.9	48.4	7.91	46	13.4	35.1	3.2	0.88	<1	7.6	48.7	905	13.3	45.1	4.7	0.9
131	67.377	3.05755	0.35	0.81	1.21	5.24	58.6	51.7	9.95	37	21.8	39	2.1	0.73	<1.0	11	39.9	1054	14.6	36.0	4.0	1.1

MCB m sample	Sb	Cs	Ba XRF	La	Ce	Nd	Sm	Eu	Gd	Tb	Tm	Yb	Lu	Hf	Ta	W	Ir (ppt Au (ppb)	Pb*	Th	U	
113.5	1.83	5.54	222	22.4	42.6	18.6	4.03	0.88	3.43	0.52	0.23	1.75	0.28	1.95	0.59	1.3	<1.9	0.8	16.2	6.46	3.97
114.5	0.65	4.60	191	21.2	38.0	18.2	3.78	0.76	2.72	0.43	0.22	1.46	0.23	1.96	0.57	1.2	<1.6	<0.6	12.2	5.92	2.89
115.5	0.57	4.26	187	17.8	31.6	15.1	3.17	0.67	2.29	0.40	0.19	1.27	0.21	1.46	0.50	1.2	<1.7	<0.7	10.1	5.10	2.41
119.5	1.08	5.80	205	26.0	47.6	23.3	4.72	0.95	2.92	0.58	0.31	1.81	0.30	2.54	0.85	0.9	<2	0.7	13.6	7.70	3.57
120	0.85	5.47	194	23.0	40.7	18.1	4.27	0.86	3.48	0.56	0.27	1.78	0.28	2.00	0.71	1.4	<2	<0.8	10.9	6.80	3.75
120.5	0.50	3.45	199	15.9	26.9	13.6	2.83	0.61	2.07	0.35	0.21	1.21	0.19	1.25	0.39	0.6	<1.4	0.4	8.7	4.16	2.08
121.5	0.47	3.76	254	16.4	28.4	13.6	2.99	0.69	2.68	0.41	0.21	1.36	0.23	1.35	0.42	0.4	<1.5	0.6	9.9	4.47	1.47
122	0.53	3.8	166	16.5	27.9	13.9	3.13	0.68	2.52	0.44	0.22	1.38	0.21	1.28	0.42	1.1	<1.6	0.8	8.6	4.42	1.71
122.5	0.52	4.32	144	18.4	31.6	15.1	3.66	0.75	2.86	0.50	0.32	1.48	0.24	1.41	0.51	1.1	<1.8	<0.6	8.9	5.15	2.20
123.5	0.69	5.09	242	20.9	37.8	17.5	4.44	0.83	3.70	0.57	0.29	1.60	0.26	1.76	0.58	0.8	<1.5	<1.04	12.4	6.5	2.57
124.5	0.72	4.82	178	22.6	40.3	17.9	4.11	0.85	2.92	0.49	0.29	1.46	0.23	2.11	0.68	2.0	<1.7	0.6	11.9	6.5	2.14
125.5	0.72	4.73	224	20.6	35.8	16.0	3.70	0.77	3.05	0.46	0.22	1.48	0.23	1.76	0.59	0.7	<1.5	<0.7	11.5	5.82	2.84
126.5	0.41	3.43	129	16.2	27.5	12.9	3.30	0.64	2.52	0.42	0.22	1.19	0.20	1.25	0.4	0.4	<1.1	0.3	8.5	4.9	1.35
127	0.55	3.96	144	17.9	29.6	15.5	3.55	0.72	2.72	0.47	0.29	1.39	0.22	1.46	0.48	2.0	<1.7	0.5	8.8	5.00	2.32
127.5	0.42	3.79	174	18.8	31.4	15.3	3.33	0.71	2.89	0.44	0.22	1.38	0.22	1.50	0.47	0.9	<1.6	0.5	9.9	6.19	1.44
127.9	0.52	3.29	145	16.6	29.3	12.9	3.43	0.62	2.56	0.42	0.18	1.16	0.19	1.38	0.42	0.8	<1.1	<0.7	10.7	6.20	1.91
128.05	0.58	4.86	211	19.6	34.2	18.1	4.34	0.80	3.56	0.56	0.30	1.56	0.24	1.47	0.52	1.0	0.1	0.8	9.4	6.18	1.76
128.5	0.31	2.91	127	13.4	22.6	10.8	2.41	0.54	2.03	0.32	0.21	1.02	0.16	1.05	0.32	0.9	<1.2	<0.5	8.5	3.57	0.91
129.5	0.88	4.75	379	19.1	33.0	15.9	3.81	0.82	3.73	0.52	0.23	1.50	0.24	1.59	0.52	0.7	<1.9	0.7	10.1	5.74	1.99
130.3	0.36	2.85	154	14.5	23.8	11.7	3.30	0.62	2.43	0.45	0.22	1.23	0.19	0.90	0.32	<1.0	<1.2	<0.9	9.9	3.51	1.25
130.5	0.27	2.40	104	11.8	18.6	8.81	2.21	0.49	1.99	0.31	0.16	1.04	0.16	0.81	0.24	<1.1	<1.3	<0.6	6.3	2.85	0.98
130.85	0.27	3.26	131	14.5	25.6	12.1	3.06	0.55	1.98	0.37	0.14	0.98	0.17	1.29	0.47	<1.1	<1.2	0.7	8.2	4.82	1.41
131	0.29	2.82	142	13.4	21.7	11.3	2.44	0.56	1.88	0.33	0.19	1.06	0.17	0.98	0.29	0.5	<1.2	<0.6	5.5	3.38	0.96

Note: CaCO3 wt.% by water calcimetry and LOI wt.% by kiln combustion at OGC; all others at Vienna by INAA or XRF where noted in ppm unless noted in ppb.

Table DR4. Magnetic susceptibility and calcium carbonate data from Monte dei Corvi section

MDC99 m level	MS SI	CaCO3	MDC99 m level	MS SI	CaCO3
197.15	6.08	70.62	199.85		7.05
197.2	5.98	75.9	199.9		4.23
197.25	5.38	73.94	199.95		4.39
197.3	4.41	85.28	200		3.94
197.35	5.18	84.78	200.05		4.05
197.4	6.09	80.59	200.1		3.42
197.45	6.47	82.95	200.15		3
197.5	5.8	73.85	200.2		2.75
197.55	4.04	75.4	200.25		2.88
197.6	3.74	79.81	200.3		2.62
197.65	3.46	83.67	200.35		2.7
197.7	4.76	78.28	200.4		3.65
197.75	3.18	86.23	200.45		4.68
197.8	2.84	83.27	200.5		6.55
197.85	3.15	85.21	200.55		9.86
197.9	2.49	85.34	200.6		6.02
197.95	2.59	81.29	200.65		6.28
198	3.05	85.6	200.7		5.58
198.05	4.79	77.32	200.75		7.36
198.1	4.4	78.66	200.8		4.73
198.15	6.21	70.04	200.85		5.96
198.2	5.51	74.61	200.9		7.04
198.25	5.14	75.1	200.95		5.37
198.3	3.6	81.7	201		4.45
198.35	3.24	84.67	201.05		3.03
198.4	4.2	80.02	201.1		3.09
198.45	4.72	78.1	201.15		3.13
198.5	5.84	73.43	201.2		4.2
198.55	4.88	75.79	201.25		5.36
198.6	4.07	79.57	201.3		5.45
198.65	4.24	82.73	201.35		5.61
198.7	3.96	78.79	201.4		9.77
198.75	2.82	85.3	201.45		6.01
198.8	2.99	84.62	201.5		5
198.85	2.8	82.96	201.55		6.07
198.9	3.04	81.43	201.6		3.67
198.95	2.53	82.57	201.65		3.09
199	2.74	86.2	201.7		2.92
199.05	3.07	87	201.75		4.54
199.1	5.95	73.59	201.8		5.48
199.15	6.32	71.08	201.85		5.92
199.2	7.03	69.39	201.9		5.08
199.25	6.83	66.63	201.95		5.79
199.3	7.13	67.65	202		7.71
199.35	9.3	66.08	202.05		4.19
199.4	7.35	67.21	202.1		5.4
199.45	16.61	67.21	202.15		3.39
199.5	7.05	68.13	202.2		4.21
199.55	14.24	69.53	202.25		3.3
199.6	7.05	67.54	202.3		4.99
199.65	6.89	69.41	202.35		5.28
199.7	5.11	76.35	202.4		6.49
199.75	6.96	75.21	202.45		5.73
199.8	5.73	73.42	202.5		6.25

MDC99 m level	MS SI	CaCO3	MDC99 m level	MS SI	CaCO3
202.55	5.23	75.35	205.35	5	86.34
202.6	5.85	76.55	205.4	4.93	85.88
202.65	5.34	73.08	205.45	3.63	86.24
202.7	6.65	75.79	205.5	5.24	82.35
202.75	3.97	78.41	205.55	5.37	75.47
202.8	4.76	89.21	205.6	7.23	68.99
202.85	3.52	83.21	205.65	6.5	71.01
202.9	4.61	81.39	205.7	8.01	71.3
202.95	4.26	81.3	205.75	5.66	74.97
203.05	4.18	82.88	205.8	5.92	78.12
203.1	5.26	78.99	205.85	5.91	70.33
203.15	5.15	77.07	205.9	5.51	76
203.2	5.11	78.29	205.95	4.32	76.65
203.25	4.77	78.67	206	5.64	79.23
203.3	9.61	77.48	206.05	5.93	84.45
203.35	5.63	75.64	206.1	5.2	73.64
203.4	7.65	75.59	206.15	4.68	78.84
203.45	5.42	74.95	206.2	4.27	84.41
203.5	5.71	78.21	206.25	5.62	75.55
203.55	4.11	85.95	206.3	6.22	73.42
203.6	4.44	88.83	206.35	7.35	75.86
203.65	4.54	85.71	206.4	5.52	83.22
203.7	4.81	84.18	206.45	4.59	79.89
203.75	4.61	81.52	206.5	6.36	79.67
203.8	6.43	75.74	206.55	4.27	81.86
203.85	7.36	71.85	206.6	5.56	79.49
203.9	6.15	72.95	206.65	4.91	78.27
203.95	6.43	71.4	206.7	5.11	82.13
204	7.56	76.13	206.75	4.14	82.53
204.05	7.03	75.49	206.8	7.39	73.39
204.1	7.59	70.37	206.85	6.48	70.36
204.15	6.79	76.32	206.9	6.3	73.77
204.2	6.28	78.03	206.95	5.29	74.63
204.25	7.46	74.67	207	5.64	80.1
204.3	9.29	61.55	207.05	6.03	76.42
204.35	14.37	37.27	207.1	5.21	71.3
204.4	12.9	45.92	207.15	4.59	83.5
204.45	6.76	74.83	207.2	4.73	87.04
204.5	7.41	76.37	207.25	5.3	89.2
204.55	6.13	77.98	207.3	6.49	89.05
204.6	5.29	84.88	207.35	7.14	89.71
204.65	5.12	82.44	207.4	5.75	88.57
204.7	7.74	76.7	207.45	5.15	89.22
204.75	6.37	76.16	207.5	4.33	85.99
204.8	6.22	75.26	207.55	4.65	81.77
204.85	6.27	76.99	207.6	8.49	70.86
204.9	5.63	79.2	207.65	6.58	74.26
204.95	6.1	76.4	207.7	7.35	80.16
205	5.05	80.64	207.75	5.69	77.85
205.05	5.53	80.09	207.8	9.33	67.63
205.1	5.46	82.43	207.85	10.52	55.93
205.15	6.78	73.38	207.9	11	51.57
205.2	4.26	86.73	207.95	7.64	69.42
205.25	4.68	85.6	208	4.24	88.57
205.3	5.15	88.36	208.05	3.79	88.1

MDC99 m level	MS SI	CaCO3	MDC99 m level	MS SI	CaCO3
208.1	5.51	81.72	210.85	7.53	64
208.15	7.79	70.67	210.9	10.37	68.98
208.2	8.46	71.96	210.95	8.25	71.44
208.25	6.92	71.97	211	13.15	74.12
208.3	7.45	75.47	211.05	5.34	74.31
208.35	6.1	76.04	211.1	8.28	78.98
208.4	10.9	66.62	211.15	3.99	80.15
208.45	6.58	72.24	211.2	6.67	81.75
208.5	6.82	75.84	211.25	1.83	85.51
208.55	6.03	79.31	211.3	3.29	89.31
208.6	8.7	78.83	211.35	2.22	87.39
208.65	5.87	79.97	211.4	3.96	89.25
208.7	6.74	79.58	211.45	2.84	86.14
208.75	4.88	81.12	211.5	6.39	83.43
208.8	9.89	66.72	211.55	4.76	79.82
208.85	9.65	55.14	211.6	7.07	74.08
208.9	9.33	61.32	211.65	7.09	69.79
208.95	4.31	82.09	211.7	9.75	75.87
209	5.36	83.46	211.75	5.41	77.17
209.05	7.54	71.05	211.8	7.4	72.67
209.1	8.26	74.52	211.85	6.56	64.12
209.15	6.04	74.45	211.9	9.1	61.6
209.2	7.29	76.75	211.95	7.33	72.25
209.25	5.19	79.99	212	5.18	87.32
209.3	6.42	82.09	212.05	3.01	86.53
209.35	3.98	83.17	212.1	5.86	87.41
209.4	8.29	71.73	212.15	3.14	85.66
209.45	3.18	87.92	212.2	5	82.49
209.5	4.12	92.83	212.25	6.03	72.64
209.55	2.84	88.04	212.3	8.59	68.25
209.6	3.56	92.19	212.35	7.85	67.44
209.65	3.95	85	212.4	7.44	69.08
209.7	7.16	76.69	212.45	6.59	71.17
209.75	6.06	75.8	212.5	7.96	69.49
209.8	7.83	74.07	212.55	7.39	69.35
209.85	7.06	69.18	212.6	8.16	68.85
209.9	12.02	71.57	212.65	5.96	72.13
209.95	3.9	85.31	212.7	6.34	74.36
210	4.84	87.25	212.75	5.15	75.13
210.05	2.53	88.69	212.8	5.88	83.45
210.1	3.72	86.65	212.85	4.81	81.06
210.15	3.34	83.47	212.9	4.35	82.15
210.2	7.11	84.92	212.95	5.72	81.65
210.25	5.21	76.36	213	3.24	88.61
210.3	9.2	76.64	213.05	2.05	91.2
210.35	4.26	78.69	213.1	2.88	91.7
210.4	5.8	83.01	213.15	2.06	90.63
210.45	3.11	84.88	213.2	4.19	86.12
210.5	4.71	86.1	213.25	5.41	79.95
210.55	3.64	83.2	213.3	7.32	73.28
210.6	7.17	79.37	213.35	4.59	80.57
210.65	6.22	72.18	213.4	5.07	83.1
210.7	11.54	60.7	213.45	4.69	82.6
210.75	7.07	69.08	213.5	7.37	73.01
210.8	11.34	66.95	213.55	6.88	71.03

MDC99 m level	MS SI	CaCO ₃
213.6	4.6	84.6
213.65	4.95	79.61
213.7	4.66	82.98
213.75	11.81	78.89
213.8	7.26	76.34
213.85	9.38	75.08
213.9	5.98	80.66
213.95	7.26	81.22
214	6.61	74.6
214.05	4.35	79.94
214.1	8.23	86.05
214.15	2.77	85.4
214.2	7.21	84.2
214.25	2.91	84.45
214.3	5.27	84.73
214.35	12.23	66.93
214.4	9.12	72.07
214.45	8.44	64.68
214.5	15.12	68.51
214.55	7.9	67.28
214.6	13.36	70.54
214.65	9.08	65.18
214.7	12.06	65.73
214.75	15.12	65.38
214.8	3.64	84.18
214.85	13.05	68.63

Note: data are from Cleaveland (2001)