

APPENDIX C

DATA TABLES

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N.B. in Tables C 01–10 ‘Batch’ identifies chemistry batch number recorded at the NERC Isotope Geosciences Laboratory (NIGL). The ‘Standard ID’ identifies the mean value provided by replicate analysis of NBS 987 (accepted $^{87}\text{Sr}/^{86}\text{Sr} = 0.710250$) that was used to normalise data collected during each analytical period (cf. Chapter 3, Table 3.01). Coordinates are given (Eastings and Northings) based on the OS British National Grid (BNG).

Table C 01: Results for G-BASE vegetation samples (Wood and Leaf).

G-BASE number	Eastings	Northings	Type	Sample ID	Batch	Subsample	Sr (mg/kg)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
461013	463666	223587	Wood	Wd_1013	P501	—	12.5	0.711394	0.000005	162
461021	457451	226852	Wood	Wd_1021	P492	—	2.70	0.708857	0.000007	162
461070	466457	223105	Wood	Wd_1070	P501	—	22.7	0.710413	0.000006	162
461072	469441	221529	Wood	Wd_1072	P501	—	15.6	0.709244	0.000007	162
461084	456820	225600	Wood	Wd_1084	P513	B	3.28	0.709241	0.000011	168
461084	456820	225600	Wood	Wd_1084	N620	A	3.46	0.709247	0.000021	161
461084	456820	225600	Leaf	Lf_1084	N620	—	22.7	0.709255	0.000014	161
461091	470273	222970	Wood	Wd_1091	P501	—	14.1	0.709891	0.000006	162
461093	455961	226156	Wood	Wd_1093	P492	A	1.83	0.709261	0.000005	162
461093	455961	226156	Wood	Wd_1093	P513	B	1.85	0.709272	0.000007	168
461099	470962	218977	Wood	Wd_1099	P492	—	25.3	0.709772	0.000005	162
461107	465423	222419	Wood	Wd_1107	P488	—	12.1	0.710341	0.000009	161
461109	468089	217854	Wood	Wd_1109	P513	B	4.70	0.709444	0.000007	168
461109	468089	217854	Wood	Wd_1109	P488	A	4.76	0.709433	0.000007	161
461124	466206	221827	Wood	Wd_1124	P501	—	8.02	0.710667	0.000011	162
461131	467107	219328	Wood	Wd_1131	P501	—	10.4	0.709586	0.000012	162
461150	451420	221784	Wood	Wd_1150	P513	B	3.05	0.708756	0.000008	168
461150	451420	221784	Wood	Wd_1150	P488	A	3.18	0.708745	0.000024	161
461152	465909	220640	Wood	Wd_1152	P501	—	13.1	0.710054	0.000011	162
461161	463660	220415	Wood	Wd_1161	P501	—	12.8	0.709924	0.000010	162
461166	466674	220912	Wood	Wd_1166	P501	—	11.3	0.709493	0.000012	162
461197	463151	222790	Wood	Wd_1197	P501	—	12.2	0.710502	0.000011	162
461199	453390	226680	Wood	Wd_1199	P513	—	7.38	0.708499	0.000007	168

Table C 01 (cont.): Results for G-BASE vegetation samples (Wood and Leaf).

G-BASE number	Eastings	Northings	Type	Sample ID	Batch	Subsample	Sr (mg/kg)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
461204	475417	213517	Wood	Wd_1204	P543a	—	6.71	0.709175	0.000006	174
461258	470698	215949	Wood	Wd_1258	P513	B	19.5	0.709470	0.000008	168
461258	470698	215949	Wood	Wd_1258	N620	A	18.9	0.709441	0.000028	161
461258	470698	215949	Leaf	Lf_1258	N620	—	117	0.709546	0.000012	161
461259	464822	215720	Wood	Wd_1259	P492	—	13.7	0.709095	0.000009	162
461276	473993	215321	Wood	Wd_1276	P492	—	14.2	0.708777	0.000007	162
461277	460853	221593	Wood	Wd_1277	N620	—	10.1	0.710400	0.000015	161
461277	460853	221593	Leaf	Lf_1277	N620	—	40.3	0.710469	0.000010	161
461288	466947	214448	Wood	Wd_1288	P492	—	6.62	0.709578	0.000012	162
461296	475417	213517	Wood	Wd_1296	P543a	Field duplicate (461204)	5.78	0.709217	0.000005	174
461300	469821	217971	Wood	Wd_1300	P501	—	6.40	0.709265	0.000011	162
461476	482494	206863	Wood	Wd_1476	P543a	—	11.8	0.707846	0.000005	174
461481	482494	206863	Wood	Wd_1481	P543a	Field duplicate (461476)	22.6	0.70788	0.000006	174
461492	470739	208734	Wood	Wd_1492	P513	B	3.68	0.708731	0.000007	168
461492	470739	208734	Wood	Wd_1492	N620	A	4.53	0.708711	0.000030	161
461492	470739	208734	Leaf	Lf_1492	N620	—	28.2	0.708775	0.000010	161
461505	476290	209047	Wood	Wd_1505	P492	—	9.07	0.708442	0.000012	162
461510	474208	205163	Wood	Wd_1510	P488	—	8.65	0.708383	0.000010	161
461513	476261	203278	Wood	Wd_1513	P492	—	9.97	0.707929	0.000013	162
461518	479361	202418	Wood	Wd_1518	P488	—	11.2	0.707924	0.000009	161
461521	479224	207138	Wood	Wd_1521	P492	—	29.1	0.708319	0.000013	162
461523	470275	210839	Wood	Wd_1523	P492	—	6.46	0.708790	0.000010	162
461545	476912	202147	Wood	Wd_1545	P488	—	6.07	0.708037	0.000012	161

Table C 01 (cont.): Results for G-BASE vegetation samples (Wood and Leaf).

G-BASE number	Eastings	Northings	Type	Sample ID	Batch	Subsample	Sr (mg/kg)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
461545	476912	202147	Leaf	Lf_1545	N620	—	38.0	0.708102	0.000011	161
461548	480308	209980	Wood	Wd_1548	N620	—	18.2	0.708746	0.000012	161
461548	480308	209980	Leaf	Lf_1548	N620	—	106	0.708821	0.000015	161
461568	482326	208990	Wood	Wd_1568	P492	—	22.8	0.707904	0.000012	162
461571	483386	208646	Wood	Wd_1571	P492	—	8.13	0.707917	0.000012	162
461578	473973	210592	Wood	Wd_1578	P488	—	7.95	0.708787	0.000008	161
461581	471983	207843	Wood	Wd_1581	P492	—	5.66	0.709028	0.000010	162
461588	475062	208381	Wood	Wd_1588	P488	—	6.09	0.708787	0.000005	161
461598	476190	203090	Wood	Wd_1598	N620	—	10.5	0.707896	0.000021	161
461598	476190	203090	Leaf	Lf_1598	N620	—	53.5	0.707942	0.000013	161
461599	475573	204511	Wood	Wd_1599	P492	—	11.7	0.70796	0.000011	162

Table C 02: Results for G-BASE stream water samples (Water).

G-BASE number	Eastings	Northings	Type	Sample ID	Batch	Subsample	Sr* (mg/l)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
405907	516900	414700	Water	GBASE_405907	P506	—	0.711	0.708792	0.000013	162
406357	522600	404600	Water	GBASE_406357	P506	—	0.383	0.709435	0.000007	162
406815	531660	392510	Water	GBASE_406815	P506	—	0.523	0.709443	0.000008	162
410091	509110	388090	Water	GBASE_410091	P506	—	0.813	0.709127	0.000007	162
411116	554000	364550	Water	GBASE_411116	P545	—	0.502	0.708497	0.000008	174
411156	548500	368390	Water	GBASE_411156	P506	—	0.258	0.708268	0.000007	162
411472	517600	377210	Water	GBASE_411472	P506	—	0.918	0.708494	0.000007	162
411527	531700	367160	Water	GBASE_411527	P506	—	0.259	0.708236	0.000007	162

* G-BASE stream water Sr concentration obtained from the BGS Geochemistry Database (Johnson *et al.* 2005).

Table C 02 (cont): Results for G-BASE stream water samples (Water).

G-BASE number	Eastings	Northings	Type	Sample ID	Batch	Subsample	Sr* (mg/l)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
411694	546300	382600	Water	GBASE_411694	P506	—	0.259	0.708832	0.000008	162
422762	512650	343250	Water	GBASE_422762	P545	—	0.928	0.709282	0.000009	174
422994	522200	333870	Water	GBASE_422994	P545	—	0.647	0.709482	0.000008	174
423320	533730	321890	Water	GBASE_423320	P545	—	1.27	0.709506	0.000006	174
423906	522370	313410	Water	GBASE_423906	P545	—	1.01	0.709233	0.000009	174
427989	513780	300920	Water	GBASE_427989	P545	—	0.424	0.709056	0.000008	174
429198	464170	242800	Water	GBASE_429198	P506	—	0.281	0.708555	0.000007	162
430222	493650	247120	Water	GBASE_430222	P506	—	0.592	0.708882	0.000007	162
432846	470060	236900	Water	GBASE_432846	P506	—	0.429	0.708882	0.000007	162
440061	542310	331980	Water	GBASE_440061	P545	—	1.55	0.709144	0.000007	174
440222	543150	311220	Water	GBASE_440222	P545	—	1.31	0.709624	0.000007	174
440374	553550	322030	Water	GBASE_440374	P542	—	2.52	0.709159	0.000009	174
440435	552650	311780	Water	GBASE_440435	P542	—	1.62	0.709153	0.000006	174
441321	602630	334070	Water	GBASE_441321	P506	—	0.321	0.708464	0.000008	162
442324	595790	323710	Water	GBASE_442324	P506	—	0.312	0.708597	0.000008	162
442639	553210	302530	Water	GBASE_442639	P542	—	1.34	0.709155	0.000014	174
442987	563380	292360	Water	GBASE_442987	P542	—	0.627	0.708640	0.000008	174
443148	594910	308490	Water	GBASE_443148	P506	—	0.309	0.708411	0.000012	162
443958	604490	315450	Water	GBASE_443958	P506	—	0.320	0.708414	0.000009	162
444015	611740	304280	Water	GBASE_444015	P506	—	0.292	0.708516	0.000009	162
461013	463666	223587	Water	GBASE_461013	P536	—	0.336	0.710103	0.000008	172
461021	457451	226852	Water	GBASE_461021	P491	—	0.181	0.709233	0.000008	161

* G-BASE stream water Sr concentration obtained from the BGS Geochemistry Database (Johnson *et al.* 2005).

Table C 02 (cont): Results for G-BASE stream water samples (Water).

G-BASE number	Eastings	Northings	Type	Sample ID	Batch	Subsample	Sr* (mg/l)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
461049	483296	225836	Water	GBASE_461049	P506	—	0.258	0.710018	0.000005	162
461070	466457	223105	Water	GBASE_461070	P536	—	0.330	0.710339	0.000007	172
461074	464094	224883	Water	GBASE_461074	P506	—	0.284	0.709338	0.000008	162
461084	456820	225600	Water	GBASE_461084	P491	—	0.205	0.709047	0.000008	161
461093	455961	226156	Water	GBASE_461093	P491	—	0.164	0.709042	0.000008	161
461099	470962	218977	Water	GBASE_461099	P491	—	0.539	0.709440	0.000009	161
461107	465423	222419	Water	GBASE_461107	P491	—	0.525	0.710517	0.000007	161
461109	468089	217854	Water	GBASE_461109	P491	—	0.343	0.709410	0.000008	161
461131	467107	219328	Water	GBASE_461131	P538	—	0.749	0.709101	0.000010	172
461137	467107	219328	Water	GBASE_461137	P538	Field duplicate (461131)	—	0.709111	0.000007	172
461150	451420	221784	Water	GBASE_461150	P491	—	0.155	0.708563	0.000006	161
461197	463151	222790	Water	GBASE_461197	P536	—	0.694	0.710110	0.000007	172
461199	453390	226680	Water	GBASE_461199	P491	—	0.132	0.708554	0.000009	161
461204	475417	213517	Water	GBASE_461204	P538	—	0.549	0.708918	0.000008	172
461258	470698	215949	Water	GBASE_461258	P491	—	0.868	0.709413	0.000011	161
461259	464822	215720	Water	GBASE_461259	P491	—	0.255	0.708901	0.000011	161
461276	473993	215321	Water	GBASE_461276	P491	—	0.434	0.708921	0.000009	161
461277	460853	221593	Water	GBASE_461277	P491	—	0.687	0.710150	0.000012	161
461288	466947	214448	Water	GBASE_461288	P491	—	0.251	0.708918	0.000010	161
461296	475417	213517	Water	GBASE_461296	P538	Field duplicate (461204)	—	0.708922	0.000005	172
461300	469821	217971	Water	GBASE_461300	P536	—	0.574	0.709331	0.000005	172
461476	482494	206863	Water	GBASE_461476	P538	—	0.669	0.707839	0.000005	172

* G-BASE stream water Sr concentration obtained from the BGS Geochemistry Database (Johnson *et al.* 2005).

Table C 02 (cont): Results for G-BASE stream water samples (Water).

G-BASE number	Eastings	Northings	Type	Sample ID	Batch	Subsample	Sr* (mg/l)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
461481	482494	206863	Water	GBASE_461481	P538	Field duplicate (461476)	—	0.707833	0.000007	172
461492	470739	208734	Water	GBASE_461492	P491	—	0.472	0.708766	0.000019	161
461505	476290	209047	Water	GBASE_461505	P491	—	0.345	0.708581	0.000011	161
461510	474208	205163	Water	GBASE_461510	P491	—	1.31	0.708234	0.000009	161
461513	476261	203278	Water	GBASE_461513	P455	—	0.451	0.707791	0.000005	149
461518	479361	202418	Water	GBASE_461518	P491	—	0.748	0.707863	0.000006	161
461521	479224	207138	Water	GBASE_461521	P491	—	1.40	0.708091	0.000005	161
461523	470275	210839	Water	GBASE_461523	P491	—	0.424	0.708702	0.000006	161
461545	476912	202147	Water	GBASE_461545	P455	—	0.355	0.707772	0.000006	149
461548	480308	209980	Water	GBASE_461548	P491	—	0.578	0.708602	0.000006	161
461568	482326	208990	Water	GBASE_461568	P455	—	1.31	0.707910	0.000006	149
461571	483386	208646	Water	GBASE_461571	P455	—	1.34	0.707846	0.000007	149
461578	473973	210592	Water	GBASE_461578	P491	—	0.362	0.708699	0.000006	161
461581	471983	207843	Water	GBASE_461581	P491	—	0.325	0.708598	0.000009	161
461588	475062	208381	Water	GBASE_461588	P491	—	0.338	0.708898	0.000008	161
461599	475573	204511	Water	GBASE_461599	P455	—	0.674	0.707873	0.000006	149

* G-BASE stream water Sr concentration obtained from the BGS Geochemistry Database (Johnson *et al.* 2005).

Table C 03: Results for leachates of G-BASE surface soil samples (Soil).

G-BASE number	Lab ID (LOI Split)	Eastings	Northings	Type	Sample ID	Batch	Bulk Sr* (mg/kg)	Leachable Sr (mg/kg)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
460003	11693-0003	457477	226751	Soil	GBASE_460003A	P496	63.2	0.442	0.712715	0.000006	162
460038	11693-0038	456891	225382	Soil	GBASE_460038A	P496	62.3	0.565	0.710097	0.000011	162
460065	11693-0065	471331	218827	Soil	GBASE_460065A	P496	78.3	0.639	0.712822	0.000007	162
460091	11693-0091	455888	226229	Soil	GBASE_460091A	P496	60.2	0.378	0.712115	0.000007	162
460093	11693-0093	465117	222510	Soil	GBASE_460093A	P496	83.4	0.456	0.716155	0.000007	162
460135	11693-0135	452411	221687	Soil	GBASE_460135A	P496	80.9	0.433	0.711459	0.000007	162
460157	11693-0157	453303	226648	Soil	GBASE_460157A	P496	76.3	0.528	0.709731	0.000007	162
460191	11693-0191	468129	217403	Soil	GBASE_460191A	P496	62.7	0.443	0.713631	0.000006	162
460316	11693-0316	474170	215120	Soil	GBASE_460316A	P496	64.5	0.613	0.712218	0.000006	162
460318	11693-0318	464873	215457	Soil	GBASE_460318A	P496	53.1	0.342	0.713083	0.000007	162
460322	11693-0322	467209	214679	Soil	GBASE_460322A	P496	76.8	0.476	0.712393	0.000007	162
460364	11693-0364	470281	215480	Soil	GBASE_460364A	P496	79.3	0.666	0.711491	0.000007	162
460393	11693-0393	460200	221560	Soil	GBASE_460393A	P496	65.4	0.378	0.714495	0.000006	162
460432	11693-0432	483874	202609	Soil	GBASE_460432A	P497	61.7	0.310	0.710543	0.000006	162
460520	11694-0020	482450	203654	Soil	GBASE_460520A	P497	48.9	0.339	0.709500	0.000006	162
460527	11694-0027	481540	204109	Soil	GBASE_460527A	P497	419	1.05	0.708358	0.000006	162
460669	11694-0169	480713	205192	Soil	GBASE_460669A	P497	113	0.867	0.709030	0.000006	162
460765	11694-0265	476167	209104	Soil	GBASE_460765A	P496	159	1.09	0.708985	0.000006	162
460805	11694-0304	472168	207802	Soil	GBASE_460805A	P496	111	0.710	0.708965	0.000007	162
460808	11694-0306	470228	207709	Soil	GBASE_460808A	P496	61.9	0.678	0.710554	0.000008	162
460814	11694-0309	474117	205437	Soil	GBASE_460814A	P496	101	1.58	0.709016	0.000022	162
460824	11694-0319	478514	201461	Soil	GBASE_460824A	P497	153	0.94	0.708473	0.000015	162

* G-BASE surface soil Sr concentration obtained from the BGS Geochemistry Database (Johnson *et al.* 2005).

Table C 03 (cont.): Results for leachates of G-BASE surface soil samples (Soil).

G-BASE number	Lab ID (LOI Split)	Eastings	Northings	Type	Sample ID	Batch	Bulk Sr* (mg/kg)	Leachable Sr (mg/kg)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
460825	11694-0320	477432	202867	Soil	GBASE_460825A	P497	125	1.74	0.708709	0.000016	162
460834	11694-0326	480164	209560	Soil	GBASE_460834A	P496	153	2.60	0.708882	0.000008	162
460835	11694-0327	473624	210727	Soil	GBASE_460835A	P496	80.2	0.521	0.711460	0.000007	162
460837	11694-0329	482315	209359	Soil	GBASE_460837A	P496	94.1	1.89	0.709003	0.000007	162
460858	11694-0349	476710	201790	Soil	GBASE_460858A	P496	258	1.25	0.708351	0.000006	162
460865	11694-0355	483319	208462	Soil	GBASE_460865A	P496	180	1.77	0.708733	0.000008	162
460870	11694-0360	475352	208406	Soil	GBASE_460870A	P496	183	0.485	0.709181	0.000006	162
460871	11694-0361	470762	211672	Soil	GBASE_460871A	P497	60.1	0.402	0.712992	0.000006	162
460876	11694-0365	475200	204608	Soil	GBASE_460876A	P497	107	1.59	0.709091	0.000014	162
460877	11694-0366	479188	200456	Soil	GBASE_460877A	P497	297	0.936	0.707723	0.000009	162
460896	11694-0383	476890	203218	Soil	GBASE_460896A	P497	83.1	0.969	0.709320	0.000013	162
460899	11694-0386	478781	207542	Soil	GBASE_460899A	P497	82.5	1.13	0.709056	0.000006	162
460900	11694-0387	479171	202628	Soil	GBASE_460900A	P497	140	0.938	0.708917	0.000006	162

* G-BASE surface soil Sr concentration obtained from the BGS Geochemistry Database (Johnson *et al.* 2005).

Table C 04: Results for GEMAS vegetation samples (Grass).

GEMAS number	Eastings	Northings	Type	Sample ID	Batch	Sr (mg/kg)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
51	372626	120507	Grass	GEMAS_051_Grass	P513	8.76	0.708926	0.000007	168
54	416257	121603	Grass	GEMAS_054_Grass	P513	14.1	0.707658	0.000007	168
56	472676	181599	Grass	GEMAS_056_Grass	P529	10.3	0.708111	0.000007	172
63	427941	173297	Grass	GEMAS_063_Grass	P529	15.6	0.707480	0.000007	172
64	379806	177826	Grass	GEMAS_064_Grass	P529	9.46	0.708596	0.000008	172
67	481274	221609	Grass	GEMAS_067_Grass	P513	8.18	0.709694	0.000007	168
68	537537	223561	Grass	GEMAS_068_Grass	P513	15.2	0.707761	0.000007	168
71	620686	276407	Grass	GEMAS_071_Grass	P543a	17.3	0.710260	0.000006	174
72	582385	272444	Grass	GEMAS_072_Grass	P513	7.40	0.708479	0.000009	168
73	523707	277612	Grass	GEMAS_073_Grass	P513	17.2	0.709969	0.000009	168
79	523502	332753	Grass	GEMAS_079_Grass	P513	7.18	0.709928	0.000010	168
80	572289	325351	Grass	GEMAS_080_Grass	P513	9.05	0.708348	0.000009	168
81	611977	320387	Grass	GEMAS_081_Grass	P513	10.6	0.710084	0.000010	168
135	518952	376285	Grass	GEMAS_135_Grass	P513	11.1	0.708835	0.000007	168
136	554086	364433	Grass	GEMAS_136_Grass	P513	24.5	0.709697	0.000008	168

Table C 05: Results for vegetation samples (Wood) collected from the Clay-with-flints and Chalk escarpment zone.

Sample ID	Eastings	Northings	Type	Batch	Sr (mg/kg)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
WhtLf_B	480654	205672	Wood	P529	10.5	0.708025	0.000006	172
WhtLf_C	481752	204387	Wood	P529	4.70	0.707717	0.000007	172
WhtLf_F	483330	204695	Wood	P529	3.63	0.707630	0.000010	172
WhtLf_G	483330	204695	Wood	P529	4.23	0.707616	0.000007	172
WhtLf_H	482409	203580	Wood	P529	5.88	0.709426	0.000006	172
WhtLf_I	484759	203471	Wood	P529	3.64	0.709534	0.000006	172
WhtLf_J	483481	202240	Wood	P529	5.47	0.709761	0.000006	172

Table C 06: Results for vegetation samples (Grass) collected in Keyworth (Nottinghamshire) during the Eyjafjallajökull eruptions in Iceland.

Collection date	Site	Eastings	Northings	Type	Sample ID	Batch	Sr (mg/kg)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
16/04/2010	Keyworth	462005	331809	Grass	Kw_Grass_160410	P543a	13.3	0.709991	0.000007	174
24/04/2010	Keyworth	462005	331809	Grass	Kw_Grass_240410	P584	11.1	0.710041	0.000006	Peak-jumping*
03/05/2010	Keyworth	462005	331809	Grass	Kw_Grass_030510	P543a	11.6	0.710062	0.000010	174
13/05/2010	Keyworth	462005	331809	Grass	Kw_Grass_130510	P584	11.8	0.710126	0.000006	Peak-jumping*
20/05/2010	Keyworth	462005	331809	Grass	Kw_Grass_200510	P543a	10.7	0.710074	0.000006	174

*Peak-jumping standards indicate that it is not necessary to normalise data collected in dynamic mode (see below).

Run	Sample ID	$^{87}\text{Sr}/^{86}\text{Sr}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$
Triton1-780	NBS987	0.710255	0.000004
Triton1-780	NBS987	0.710258	0.000004
Triton1-780	NBS987	0.710255	0.000005

Table C 07: Results for rainwater samples (Rain) provided by the Rural Heavy Metals Monitoring Network (CEH).

Sample ID	Site	Eastings	Northings	Collection Date	Type	Batch	Sr* (µg/l)	⁸⁷ Sr/ ⁸⁶ Sr _{normalised}	⁸⁷ Sr/ ⁸⁶ Sr ± 2SE	Standard ID
EE53406	Wytham	446200	208202	23/01/2008	Rain	P547	1.48	0.709575	0.000007	174
EE54024	Wytham	446200	208202	20/02/2008	Rain	P547	4.10	0.709675	0.000007	174
EE54612	Wytham	446200	208202	19/03/2008	Rain	P547	1.53	0.709519	0.000006	174
EE54921	Wytham	446200	208202	16/04/2008	Rain	P547	3.36	0.709171	0.000007	174
EF03107	Wytham	446200	208202	14/05/2008	Rain	P547	8.88	0.709674	0.000006	174
EF03322	Wytham	446200	208202	11/06/2008	Rain	P547	0.839	0.709103	0.000007	174
EF03705	Wytham	446200	208202	09/07/2008	Rain	P547	0.977	0.708839	0.000007	174
EF03918	Wytham	446200	208202	06/08/2008	Rain	P547	0.570	0.708383	0.000009	174
EF38301	Wytham	446200	208202	03/09/2008	Rain	P547	0.741	0.708835	0.000008	174
EF38513	Wytham	446200	208202	01/10/2008	Rain	P547	0.853	0.708825	0.000009	174
EF38705	Holme Moss	409500	403999	23/10/2008	Rain	P542	1.49	0.709205	0.000008	174
EF38710	Bow Beat	328199	647301	27/10/2008	Rain	P542	0.859	0.709165	0.000010	174
EF38715	Heigham Holmes	644099	320500	24/10/2008	Rain	P542	1.99	0.709102	0.000009	174
EF38716	Wytham	446200	208202	29/10/2008	Rain	P542	1.27	0.708592	0.000012	174
EF38717	Cockley Beck	324699	501501	02/11/2008	Rain	P542	4.29	0.709277	0.000006	174
EF38718	Monkswood	520100	279901	29/10/2008	Rain	P542	0.860	0.709031	0.000008	174
EF38719	Inverpolly	218700	908800	03/11/2008	Rain	P542	4.92	0.709216	0.000010	174
EF38720	Banchory	367600	798500	04/11/2008	Rain	P542	4.63	0.709333	0.000009	174
EF38723	Lough Navar	17606	520888	04/11/2008	Rain	P542	1.78	0.709165	0.000008	174
EF38902	Penallt	352300	209500	04/11/2008	Rain	P542	1.88	0.709764	0.000009	174
EF38903	Aucencorth Moss	322098	656201	22/10/2008	Rain	P542	1.15	0.709142	0.000010	174

*Rainwater Sr concentration provided by CEH Rural Heavy Metals Monitoring Network (Malcolm pers. comm.).

Table C 07 (cont.): Results for rainwater samples (Rain) provided by the Rural Heavy Metals Monitoring Network (CEH).

Sample ID	Site	Eastings	Northings	Collection Date	Type	Batch	Sr* ($\mu\text{g/l}$)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
EF38904	Beacon Hill	451900	314100	06/11/2008	Rain	P542	1.08	0.709274	0.000010	174
EF38909	Yarner Wood	278900	078800	04/11/2008	Rain	P542	1.35	0.709201	0.000009	174
EF38912	Cwmystwyth	277100	274200	12/11/2008	Rain	P542	3.15	0.709177	0.000010	174
EF38921	Detling	580100	159701	20/11/2008	Rain	P542	2.55	0.709366	0.000008	174
EF39102	Wytham	446200	208202	26/11/2008	Rain	P547	0.997	0.708943	0.000007	174
EF94708	Wytham	446200	208202	24/12/2008	Rain	P547	6.51	0.707341	0.000009	174
EF94919	Wytham	446200	208202	21/01/2009	Rain	P547	2.45	0.708825	0.000009	174

*Rainwater Sr concentration provided by CEH Rural Heavy Metals Monitoring Network (Malcolm pers. comm.).

Table C 08: Results for rainwater samples (Rain) collected in Keyworth (Nottinghamshire) during the Eyjafjallajökull eruptions in Iceland.

Collection date	Type	Rainfall depth* (mm)	Eastings	Northings	Sample ID	Batch	Sr ($\mu\text{g/l}$)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
25/04/2010	Rain	2.0	462005	331809	Kw_250410	P536	—	0.708765	0.000007	172
30/04/2010	Rain	4.8	462005	331809	Kw_300410	P538	2.36	0.709094	0.000010	172
01/05/2010	Rain	2.5	462005	331809	Kw_010510	P538	0.673	0.709111	0.000011	172
04/05/2010	Rain	2.0	462005	331809	Kw_040510	P538	3.08	0.709076	0.000010	172
06/05/2010	Rain	0.4	462005	331809	—	—	—	—	—	—
07/05/2010	Rain	0.1	462005	331809	—	—	—	—	—	—
10/05/2010	Rain	5.2	462005	331809	Kw_100510	P538	3.89	0.709028	0.000010	172
12/05/2010	Rain	6.3	462005	331809	Kw_120510	P538	2.39	0.709032	0.000009	172

*Meteorological data provided by the British Geological Survey (Shepherd pers. comm.).

Table C 09: Results for archaeological faunal dental enamel and dentine.

Sample ID	Species	Sample type	Batch	Sr ($\mu\text{g/g}$)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
BIE_01_M2_A	Cattle	Serial enamel	P540	153	0.710280	0.000008	174
BIE_01_M2_B	Cattle	Serial enamel	P545	142	0.710212	0.000009	174
BIE_01_M3_A	Cattle	Serial enamel	P540	128	0.710138	0.000007	174
BIE_01_M3_A	Cattle	Serial enamel	P545	146	0.710276	0.000008	174
BIE_02_M2_A	Cattle	Serial enamel	P540	198	0.710207	0.000007	174
BIE_02_M2_B	Cattle	Serial enamel	P540	161	0.710419	0.000009	174
BIE_02_M3_A	Cattle	Serial enamel	P540	157	0.710448	0.000008	174
BIE_02_M3_B	Cattle	Serial enamel	P540	154	0.710439	0.000012	174
BIE_06_M2_A	Sheep/goat	Serial enamel	P540	207	0.711267	0.000007	174
BIE_06_M2_B	Sheep/goat	Serial enamel	P540	174	0.711325	0.000006	174
BIE_06_M3_A	Sheep/goat	Serial enamel	P540	183	0.711380	0.000011	174
BIE_06_M3_B	Sheep/goat	Serial enamel	P545	218	0.710729	0.000009	174
BIE_06_M3_C	Sheep/goat	Serial enamel	P540	198	0.709375	0.000007	174
BIE_08_M2_A	Sheep/goat	Serial enamel	P540	164	0.709445	0.000008	174
BIE_08_M2_B	Sheep/goat	Serial enamel	P545	166	0.709929	0.000006	174
BIE_08_M2_C	Sheep/goat	Serial enamel	P540	166	0.710291	0.000008	174
BIE_08_M3_A	Sheep/goat	Serial enamel	P540	189	0.710282	0.000009	174
BIE_08_M3_B	Sheep/goat	Serial enamel	P545	160	0.710198	0.000009	174
BIE_08_M3_C	Sheep/goat	Serial enamel	P540	149	0.710268	0.000008	174
BIE_08_M3_Dentine	Sheep/goat	Dentine	P540	451	0.709038	0.000008	174
BIFF_01_M2_A	Cattle	Serial enamel	P534	112	0.709636	0.000012	172
BIFF_01_M2_B	Cattle	Serial enamel	P534	167	0.709870	0.000009	172
BIFF_01_M2_Bulk	Cattle	Bulk enamel	P534	120	0.709947	0.000008	172

Table C 09 (cont.): Results for archaeological faunal dental enamel and dentine.

Sample ID	Species	Sample type	Batch	Sr (µg/g)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
BIFF_01_M2_C	Cattle	Serial enamel	P534	159	0.710368	0.000010	172
BIFF_01_M3_A	Cattle	Serial enamel	P534	158	0.710314	0.000011	172
BIFF_01_M3_B	Cattle	Serial enamel	P534	161	0.710374	0.000007	172
BIFF_01_M3_Bulk	Cattle	Bulk enamel	P534	126	0.710391	0.000007	172
BIFF_01_M3_C	Cattle	Serial enamel	P534	154	0.710358	0.000007	172
BIFF_02_M2_A	Sheep/goat	Serial enamel	P534	204	0.709038	0.000006	172
BIFF_02_M2_B	Sheep/goat	Serial enamel	P534	199	0.709471	0.000007	172
BIFF_02_M2_Bulk	Sheep/goat	Bulk enamel	P534	183	0.709687	0.000007	172
BIFF_02_M2_C	Sheep/goat	Serial enamel	P534	214	0.710472	0.000006	172
BIFF_02_M2_Dentine	Sheep/goat	Dentine	P534	520	0.709934	0.000008	172
BIFF_02_M3_A	Sheep/goat	Serial enamel	P534	195	0.710554	0.000008	172
BIFF_02_M3_B	Sheep/goat	Serial enamel	P534	250	0.710361	0.000009	172
BIFF_02_M3_Bulk	Sheep/goat	Bulk enamel	P534	191	0.710475	0.000007	172
BIFF_02_M3_C	Sheep/goat	Serial enamel	P534	249	0.710641	0.000008	172
BIFF_04_M2_A	Cattle	Serial enamel	P540	209	0.709824	0.000010	174
BIFF_04_M2_A2	Cattle	Serial enamel	P545	242	0.709955	0.000006	174
BIFF_04_M2_B	Cattle	Serial enamel	P545	266	0.710167	0.000008	174
BIFF_04_M2_C	Cattle	Serial enamel	P540	231	0.709595	0.000007	174
BIFF_04_M2_C2	Cattle	Serial enamel	P545	224	0.709514	0.000010	174
BIFF_04_M3_A	Cattle	Serial enamel	P540	258	0.710068	0.000007	174
BIFF_04_M3_B	Cattle	Serial enamel	P545	185	0.709622	0.000008	174
BIFF_04_M3_C	Cattle	Serial enamel	P540	190	0.710446	0.000008	174
BIFF_05_M2_A	Sheep/goat	Serial enamel	P540	222	0.710156	0.000008	174

Table C 09 (cont.): Results for archaeological faunal dental enamel and dentine.

Sample ID	Species	Sample type	Batch	Sr ($\mu\text{g/g}$)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
BIFF_05_M2_B	Sheep/goat	Serial enamel	P540	272	0.710727	0.000009	174
BIFF_05_M3_A	Sheep/goat	Serial enamel	P540	236	0.710309	0.000007	174
BIFF_05_M3_B	Sheep/goat	Serial enamel	P545	286	0.710322	0.000007	174
BIFF_05_M3_C	Sheep/goat	Serial enamel	P540	218	0.710579	0.000009	174
IB_01_M2_A	Cattle	Serial enamel	P548	117	0.710552	0.000007	174
IB_01_M2_B	Cattle	Serial enamel	P548	124	0.710353	0.000007	174
IB_01_M3_A	Cattle	Serial enamel	P548	116	0.710318	0.000007	174
IB_01_M3_B	Cattle	Serial enamel	P548	123	0.710488	0.000006	174
IB_02_M2_A	Sheep/goat	Serial enamel	P548	308	0.709323	0.000007	174
IB_02_M2_B	Sheep/goat	Serial enamel	P548	257	0.709180	0.000006	174
IB_02_M2_Dentine	Sheep/goat	Dentine	P548	432	0.708285	0.000007	174
IB_02_M3_A	Sheep/goat	Serial enamel	P548	241	0.709085	0.000006	174
IB_02_M3_B	Sheep/goat	Serial enamel	P548	194	0.708736	0.000007	174
IB_02_M3_C	Sheep/goat	Serial enamel	P548	149	0.708276	0.000009	174
WC_01_M2_A	Cattle	Serial enamel	P548	114	0.707963	0.000006	174
WC_01_M2_B	Cattle	Serial enamel	P548	105	0.707942	0.000007	174
WC_01_M2_C	Cattle	Serial enamel	P548	89.8	0.708108	0.000007	174
WC_02_M2_A	Sheep/goat	Serial enamel	P548	176	0.708194	0.000006	174
WC_02_M2_B	Sheep/goat	Serial enamel	P548	196	0.707770	0.000006	174
WC_02_M2_C	Sheep/goat	Serial enamel	P548	137	0.708064	0.000008	174
WC_02_M2_Dentine	Sheep/goat	Dentine	P548	273	0.707958	0.000006	174
WC_02_M3_A	Sheep/goat	Serial enamel	P548	146	0.708086	0.000007	174
WC_02_M3_B	Sheep/goat	Serial enamel	P548	168	0.707955	0.000009	174
WC_02_M3_C	Sheep/goat	Serial enamel	P548	142	0.707883	0.000008	174

Table C 10: Results for archaeological human dental enamel and dentine.

Sample ID	Species	Type	Batch	Sr (µg/g)	$^{87}\text{Sr}/^{86}\text{Sr}_{\text{normalised}}$	$^{87}\text{Sr}/^{86}\text{Sr} \pm 2\text{SE}$	Standard ID
ODC_Sk525_E	Human	Enamel	P532	45.8	0.709164	0.000012	172
ODC_Sk531_E	Human	Enamel	P532	83.5	0.709057	0.000007	172
ODC_Sk560_E	Human	Enamel	P532	75.6	0.708631	0.000008	172
ODC_Sk562_E	Human	Enamel	P532	72.0	0.710409	0.000007	172
ODC_Sk565_E	Human	Enamel	P532	164	0.713208	0.000010	172
ODC_Sk574_E	Human	Enamel	P532	118	0.709761	0.000008	172
ODC_Sk576_E	Human	Enamel	P532	88.2	0.709175	0.000006	172
ODC_Sk578_D	Human	Dentine	P532	134	0.708655	0.000008	172
ODC_Sk578_E	Human	Enamel	P532	89.2	0.709287	0.000006	172