Table DR1: Bedrock apatite U-Th/He dating.

Sample	4-He [mol]	238-U [mol]	235-U [mol]	232-Th [mol]	147-Sm [mol]	F_t-factor	Uncor. Age [Ma]	Corr. Age [Ma]	Mean ± stdev.
6EUT 1	2.763E-15	3.981E-13	2.945E-15	5.003E-13	5.838E-12	0.742	3.95	5.32	
6EUT 1	4.316E-15	6.039E-13	4.467E-15	9.842E-13	8.928E-12	0.781	3.83	4.90	
6EUT 1	2.296E-15	5.370E-13	3.972E-15	7.139E-13	6.294E-12	0.73	2.43	3.33	**4.5±1**
6EUT 2	3.182E-14	1.175E-12	8.687E-15	3.267E-12	3.032E-11	0.728	11.89	16.33	
6EUT 2	2.658E-14	1.119E-12	8.280E-15	3.600E-12	2.487E-11	0.72	9.96	13.84	
6EUT 2	1.942E-14	1.363E-12	1.008E-14	3.872E-12	3.334E-11	0.71	6.23	8.77	
6EUT 2	4.390E-14	2.402E-12	1.776E-14	7.276E-12	5.548E-11	0.771	7.83	10.16	
6EUT 2	3.529E-14	1.840E-12	1.361E-14	5.058E-12	4.323E-11	0.754	8.51	11.29	**12.1±3**
6EUT 3	1.028E-13	4.067E-12	3.008E-14	1.152E-11	1.015E-10	0.779	11.04	14.17	
6EUT 3	1.155E-13	2.447E-12	1.810E-14	7.180E-12	6.443E-11	0.778	20.27	26.05	
6EUT 3	2.463E-14	1.240E-12	9.174E-15	3.603E-12	3.216E-11	0.706	8.58	12.15	
6EUT 3	1.482E-13	2.243E-12	1.659E-14	5.764E-12	6.088E-11	0.723	29.66	41.02	
6EUT 4	1.973E-14	2.452E-12	1.813E-14	6.410E-12	6.416E-11	0.758	3.61	4.76	
6EUT 4	2.699E-14	2.843E-12	2.103E-14	7.254E-12	8.480E-11	0.77	4.24	5.51	
6EUT 4	2.992E-14	5.247E-12	3.881E-14	1.544E-11	1.119E-10	0.777	2.48	3.20	
6EUT 4	1.500E-14	1.941E-12	1.436E-14	5.286E-12	5.089E-11	0.717	3.41	4.76	**4.6±1**
6EUT 5	4.154E-15	4.153E-13	3.072E-15	6.902E-13	2.672E-11	0.779	4.54	5.83	
6EUT 5	5.109E-15	4.540E-13	3.358E-15	9.042E-13	2.944E-11	0.773	4.89	6.33	
6EUT 5	2.472E-15	3.038E-13	2.247E-15	7.037E-13	2.107E-11	0.716	3.35	4.68	
6EUT 5	3.418E-15	3.179E-13	2.351E-15	6.497E-13	1.957E-11	0.762	4.68	6.15	**5.8±0.7**
6EUT 9	9.284E-15	6.637E-13	4.909E-15	2.157E-12	2.268E-11	0.788	5.66	7.18	
6EUT 9	1.466E-14	8.338E-13	6.167E-15	3.571E-12	2.608E-11	0.807	6.38	7.91	
6EUT 9	1.890E-14	1.015E-12	7.504E-15	3.636E-12	4.099E-11	0.813	7.14	8.78	**8.0±0.8**
6EUT10	6.531E-15	9.617E-13	7.113E-15	2.367E-12	3.010E-11	0.813	3.06	3.76	
6EUT10	4.231E-15	6.200E-13	4.586E-15	1.670E-12	2.113E-11	0.77	2.96	3.84	
6EUT10	4.557E-15	6.471E-13	4.786E-15	2.249E-12	2.579E-11	0.761	2.74	3.60	
6EUT10	5.102E-15	5.118E-13	3.785E-15	1.197E-12	1.463E-11	0.793	4.60	5.80	**4.3±1**
6EUT11	6.879E-16	6.419E-14	4.748E-16	3.908E-13	6.862E-12	0.775	2.84	3.66	
6EUT11	4.011E-15	4.256E-13	3.148E-15	9.077E-13	2.390E-11	0.77	4.12	5.35	
6EUT11	2.068E-15	2.134E-13	1.579E-15	8.189E-13	2.564E-11	0.743	3.02	4.07	
6EUT11	2.290E-15	2.511E-13	1.857E-15	1.443E-12	2.436E-11	0.75	2.52	3.36	**4.1±0.9**
6EUT40	1.131E-14	7.890E-13	5.835E-15	9.906E-13	1.119E-11	0.748	8.17	10.93	
6EUT40	3.945E-15	4.393E-13	3.249E-15	5.665E-13	4.803E-12	0.716	5.15	7.20	
6EUT40	1.632E-14	1.182E-12	8.743E-15	1.407E-12	9.451E-12	0.774	8.14	10.52	
6EUT40	1.292E-14	7.475E-13	5.529E-15	1.514E-12	1.046E-11	0.811	8.73	10.77	**9.9±1.8**
6EUT41	1.849E-14	4.981E-13	3.684E-15	1.285E-12	3.797E-11	0.725	14.56	20.08	
6EUT41	1.956E-14	5.065E-13	3.746E-15	1.317E-12	3.730E-11	0.715	15.21	21.27	
6EUT41	4.403E-14	8.658E-13	6.404E-15	2.650E-12	7.875E-11	0.748	18.24	24.38	**21.9±2**
6EUT42	3.606E-14	7.322E-13	5.416E-15	2.309E-12	5.945E-11	0.732	17.90	24.45	
6EUT42	4.241E-14	9.070E-13	6.709E-15	2.459E-12	7.639E-11	0.814	17.70	21.75	
6EUT42	7.547E-14	1.296E-12	9.588E-15	3.930E-12	1.304E-10	0.795	20.48	25.76	**24.0±2**

Note: Apatite degassed in furnace at 1100°C for 15 minutes. Ft- alpha correction factor after Farley (1996), grain size weighted Ft factor for multiple grain aliquots.