

Table 1. Sr, Nd and Pb isotope data for ACEX composite sediment core

Pot	Sample 302-2A-	depth (mcd)	Age model Z ^a (Ma)	Sr87/86 residue	2 σ error	Nd	Sm	147/144Nd residue	143/144Nd residue	2 σ error	eNd(0)	eNd(t)	T _{DM}	Pb ^b ppm	U ^b ppm	Th ^b ppm	238U/204Pb ^c mu	232Th/204Pb ^c kappa	206/204 measured isotope ratios	207/204 measured isotope ratios	208/204 measured isotope ratios	206/204 age corrected residues ^d	207/204 age corrected residues ^d	208/204 age corrected residues ^d	208/206	
302-13	302-2a-1X1W-2-3cm	1.25	0.09											492	2.16	10.21	0.27	1.32	18.871	15.671	38.405	18.871	15.671	38.405	2.035	
302-1	1X 1W 12-13 cm	1.35	0.09	0.71831	0.00001	23.4	4.2	0.1086	0.512065	0.000010	-11.2	-11.2	1.6	23.34	2.11	9.76	5.61	26.72	18.755	15.608	38.649	18.755	15.608	38.649	2.061	
302-17	1X 1W 22-23cm	1.45	0.10																18.243	15.558	38.162	18.243	15.558	38.162	2.092	
302-14	1X 1W 32-33cm	1.55	0.11	0.71697	0.00001														18.438	15.579	38.403	18.438	15.579	38.403	2.083	
302-18	1X 1W 42-43cm	1.65	0.11																18.536	15.577	38.523	18.536	15.577	38.523	2.078	
302-15	1X 1W 62-63cm	1.85	0.13	0.71701	0.00001														18.532	15.583	38.631	18.532	15.583	38.631	2.085	
302-16	1X 1W 92-93cm	2.15	0.15																18.324	15.572	38.288	18.324	15.572	38.288	2.089	
302-2	11X 2W 75-76 cm	50.69	3.5	0.71592	0.00001	26.6	4.8	0.1088	0.512090	0.000010	-10.7	-10.7	1.5	14.13	2.78	10.11	12.18	45.68	18.505	15.564	38.609	18.499	15.564	38.602	2.087	
302-3	23X 2W 22-23 cm	101.55	7.0	0.71679	0.00002	36.6	9.1	0.1497	0.512089	0.000012	-10.7	-10.7	2.5	12.85	2.93	10.53	14.13	52.32	18.544	15.578	38.638	18.529	15.577	38.620	2.084	
302-4	34X 2W 22-23 cm	150.72	12.3	0.71637	0.00002	35.7	6.8	0.1159	0.512119	0.000011	-10.1	-10.0	1.6	37.16	2.29	10.32	3.82	17.73	18.477	15.568	38.555	18.470	15.567	38.545	2.087	
35x	35X 2W 18-19cm	154.45	14.0	0.7163	0.00002									14.76	2.40	10.59	10.10	45.80	18.566	15.580	38.654	18.544	15.579	38.622	2.083	
37x	37X 2W 27-28cm	164.28	19.2	0.71620	0.00018									18.38	2.65	11.09	8.94	38.54	18.553	15.589	38.661	18.526	15.587	38.625	2.085	
38x	38X 2W 27-28cm	167.16	20.7	0.714138	0.00001	33.1	6.6	0.1196	0.512087	0.000010	-10.8	-10.6	1.7	19.72	2.54	10.44	8.00	33.80	18.565	15.590	38.761	18.539	15.589	38.726	2.089	
40x	40X 2W 27-28cm	174.85	24.8	0.71483	0.00001									23.03	2.87	12.08	7.73	33.49	18.542	15.581	38.668	18.512	15.579	38.627	2.087	
42x	42X 2W 27-28cm	184.26	29.7	0.71485	0.00002	40.7	8.2	0.1218	0.512093	0.000010	-10.6	-10.3	1.8	22.77	2.59	11.99	7.06	33.62	18.492	15.574	38.628	18.459	15.573	38.578	2.090	
302-5	43X 2W 22-23 cm	189.20	32.3	0.71427	0.00001	36.6	7.1	0.1170	0.512072	0.000010	-11.0	-10.7	1.7	24.92	2.26	12.64	5.64	32.38	18.448	15.563	38.629	18.420	15.561	38.577	2.094	
302-5 dupl	43X 2W 22-23 cm dup.	189.20	32.3	0.71396	0.00002																					
302-22	44X 3W 60-61 cm	189.58	32.5											21.44	8.07	13.37	23.36	39.81								
302-6	44X 1W 76-77 cm	192.75	34.2	0.71026	0.00002	36.4	6.9	0.1150	0.512105	0.000010	-10.4	-10.0	1.6	24.06	1.70	11.33	4.38	30.08	18.485	15.573	38.617	18.462	15.572	38.566	2.089	
302-6 dupl	44X 1W 76-77 cm dup.	192.75	34.2	0.710168																						
302-7	44X 2W 95-96 cm	194.44	35.1	0.71380	0.00001	49.8	10.2	0.1243	0.512171	0.000010	-9.1	-8.8	1.7	29.69	8.88	16.57	18.55	35.64	18.556	15.582	38.627	18.455	15.577	38.565	2.090	
302-23	44X 1W 106-107 cm	194.44	35.1											29.85	5.27	12.28	10.96	26.27								
302-24	45X 1W 3-4 cm	195.96	35.9	0.71525	0.00001									19.90	7.97	12.47	24.85	40.01								
302-8	45X 1W 57-58 cm b	196.5	36.2	0.71278	0.00002	41.1	10.7	0.1570	0.512188	0.000010	-8.8	-8.6	2.6	18.20	22.17	12.04	75.61	0.00	18.934	15.612	38.675	18.508	15.592	38.675	2.090	
302-8 dupl	45X 1W 57-58 cm dup. b	196.5	36.2	0.71223	0.00001									18.20	22.17	12.04	75.61	42.25	18.892	15.599	38.618	18.466	15.579	38.543	2.087	
302-8 b	45X 1W 57-58 cm b	196.5	36.2											18.20	22.17	12.04	75.61	0.00	18.848	15.598	38.620	18.422	15.579	38.620	2.096	
302-8 b dupl	45X 1W 57-58 cm b	196.5	36.2											18.20	22.17	12.04	75.61	0.00								
302-8 c	45X 1W 57-58 cm dup. b	196.5	36.2											19.10	21.62	13.83	70.25	46.24								
302-25	45X 1W 110-111 cm	197.03	36.2											19.24	17.56	14.06	56.64	46.66								
302-9	46X 2W 131-132 cm	199.81	36.6	0.71503	0.00002	20.7	3.9	0.1137	0.512081	0.000009	-10.9	-10.5	1.6													
302-9 dup	46X 2W 131-132 cm dup.	199.81	36.6											24.11	9.89	9.06	25.44	24.00	18.802	15.597	38.694	18.657	15.591	38.651	2.072	
302-10	46X 2W 132-133 cm	199.82	36.6	0.71455	0.00001	14.9	2.9	0.1181	0.512111	0.000008	-10.3	-9.9	1.7	22.24	25.66	10.32	71.61	29.64	18.898	15.597	38.607	18.490	15.578	38.554	2.085	
302-11	48X 2W 21-22 cm	208.41	37.7	0.71942	0.00001	16.2	3.0	0.1117	0.512058	0.000045	-11.3	-10.9	1.6	24.58	7.81	9.14	19.71	23.75	18.820	15.604	38.735	18.705	15.598	38.690	2.068	
302-20	51X 2W 6-7 cm	220.00	39.1	0.71793	0.00003									13.46	5.37	6.77	24.78	32.14	18.752	15.582	38.644	18.601	15.575	38.582	2.074	
302-20 dupl	51X 2W 6-7 cm	220.00	39.1																							
302-21	54X 1W 22-23 cm	230.22	40.3	0.71377	0.00009									6.42	6.67	3.01	64.47	29.89	18.878	15.597	38.685	18.474	15.579	38.625	2.091	
302-12	56X 2W 95-96 cm	241.18	41.6	0.71688	0.00001	19.8	3.8	0.1155	0.512217	0.000007	-8.2	-7.8	1.4	7.86	11.19	5.66	88.32	46.00	19.060	15.612	38.703	18.488	15.586	38.608	2.088	
302-12 dupl	56X 2W 95-96 cm dup.	241.18	41.6																							
302-19	58X 2W 60-61 cm	252.00	42.9	0.718393	0.00003									7.18	6.38	4.41	55.09	39.16	19.032	15.606	38.744	18.664	15.589	38.661	2.071	
302-19 dupl	58X 2W 60-61 cm dup.	252.00	42.9	0.718529	0.00003																					

a. model age from Poinier and Hillaire-Marcel (2009, 2011)

b. concentrations from Table A1

c. Mu and kappa ratios calculated from U, Th and Pb concentrations

d. age corrected lead isotope ratios calculated using above mu and kappa values and decay constants for U235, U238 and Th 232