

TABLE DR1. Pb/U GEOCHRONOLOGIC DATA (ID-TIMS).

Grain type	Grain wt ( $\mu\text{g}$ )	$\text{Pb}_c$ ( $\mu\text{g}$ )	U (ppm)	Pb*/U ratios						Apparent ages (Ma)			% conc.		
				$\frac{^{206}\text{Pb}}{^{204}\text{Pb}}$	$\frac{^{206}\text{Pb}}{^{208}\text{Pb}}$	$\frac{^{206}\text{Pb}^*}{^{238}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{235}\text{U}}$	$\frac{^{206}\text{Pb}^*}{^{238}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{235}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{206}\text{Pb}^*}$					
<b>Sample 1 (GA220)</b>															
1Ayora	21	21	308	4130	9.9	0.23074	$\pm$ 1.10	3.2904	$\pm$ 1.20	1338	1479	1687	$\pm$ 8	79	
1Ayora	25	19	260	4045	3.1	0.20166	$\pm$ 1.16	2.8839	$\pm$ 1.26	1184	1378	1692	$\pm$ 8	70	
1Ayora	26	23	395	5588	15.0	0.21525	$\pm$ 0.57	3.1903	$\pm$ 0.66	1257	1455	1757	$\pm$ 6	72	
1Ayora	24	18	386	7494	8.8	0.24754	$\pm$ 1.46	3.8007	$\pm$ 1.51	1426	1593	1822	$\pm$ 6	78	
1Amra	32	8	192	13100	12.8	0.28485	$\pm$ 0.45	4.4983	$\pm$ 0.69	1616	1731	1873	$\pm$ 9	86	
1Acra	25	8	67	2615	5.0	0.32253	$\pm$ 1.12	5.1540	$\pm$ 1.19	1802	1845	1894	$\pm$ 7	95	
1Amra	28	15	197	6990	4.8	0.31956	$\pm$ 0.50	5.1286	$\pm$ 0.58	1788	1841	1902	$\pm$ 5	94	
1Acra	28	11	51	2525	3.6	0.30634	$\pm$ 0.85	4.9168	$\pm$ 0.94	1723	1805	1902	$\pm$ 7	91	
1Amra	35	17	86	3320	8.0	0.32585	$\pm$ 0.41	5.2415	$\pm$ 0.65	1818	1859	1906	$\pm$ 9	95	
1Amra	38	40	182	3475	4.4	0.34837	$\pm$ 0.63	5.6369	$\pm$ 0.77	1927	1922	1916	$\pm$ 7	101	
1Alra	26	6	85	8660	9.6	0.33702	$\pm$ 0.48	5.4564	$\pm$ 0.55	1872	1894	1917	$\pm$ 5	98	
1Amra	33	8	152	12300	10.4	0.33056	$\pm$ 0.57	5.3578	$\pm$ 0.62	1841	1878	1919	$\pm$ 4	96	
1Amra	31	20	176	5260	5.3	0.33515	$\pm$ 0.45	5.4510	$\pm$ 0.55	1863	1893	1926	$\pm$ 6	97	
1Alra	48	8	79	9750	3.0	0.34410	$\pm$ 0.45	5.5994	$\pm$ 0.52	1906	1916	1927	$\pm$ 4	99	
1Acra	41	7	61	7740	5.1	0.34779	$\pm$ 0.47	5.6656	$\pm$ 0.59	1924	1926	1928	$\pm$ 6	100	
1Acra	38	9	79	7110	4.1	0.35010	$\pm$ 0.78	5.7094	$\pm$ 0.86	1935	1933	1930	$\pm$ 6	100	
1Alra	37	8	84	8670	6.8	0.34894	$\pm$ 0.46	5.6914	$\pm$ 0.53	1930	1930	1931	$\pm$ 5	100	
1Alra	52	8	136	18500	8.9	0.35041	$\pm$ 0.64	5.7254	$\pm$ 0.68	1937	1935	1934	$\pm$ 4	100	
1Acra	41	5	39	6610	6.1	0.34934	$\pm$ 0.56	5.7151	$\pm$ 0.63	1931	1934	1936	$\pm$ 5	100	
1Alra	35	7	140	15800	4.9	0.35008	$\pm$ 0.45	5.7349	$\pm$ 0.50	1935	1937	1939	$\pm$ 4	100	
1Acra	36	5	19	2670	3.7	0.35351	$\pm$ 0.88	5.8550	$\pm$ 0.96	1951	1955	1958	$\pm$ 7	100	
1Acra	44	5	59	10250	4.5	0.35685	$\pm$ 0.52	6.0022	$\pm$ 0.62	1967	1976	1986	$\pm$ 6	99	
<b>Sample 3 (GA33)</b>															
1Bcra	28	7	81	4580	8.8	0.20894	$\pm$ 0.49	2.3389	$\pm$ 0.68	1223	1224	1226	$\pm$ 9	100	
1Blra	18	6	64	1360	3.4	0.20839	$\pm$ 1.30	2.3366	$\pm$ 1.51	1220	1224	1229	$\pm$ 14	99	
1Blra	18	11	144	3175	8.5	0.21310	$\pm$ 0.52	2.4287	$\pm$ 0.64	1245	1251	1261	$\pm$ 7	99	
1Blra	16	5	64	2970	3.7	0.23089	$\pm$ 0.77	2.8616	$\pm$ 0.85	1339	1372	1423	$\pm$ 7	94	
1Bcra	9	13	160	1620	7.3	0.23482	$\pm$ 0.95	3.0125	$\pm$ 1.11	1360	1411	1489	$\pm$ 10	91	
1Bmra	11	8	307	6600	13.4	0.25544	$\pm$ 0.48	3.3726	$\pm$ 0.62	1467	1498	1543	$\pm$ 7	95	
1Bcra	32	10	35	1830	12.1	0.26856	$\pm$ 0.67	3.6214	$\pm$ 0.76	1534	1554	1583	$\pm$ 6	97	
1Bcra	28	6	61	5100	13.4	0.27667	$\pm$ 0.49	3.7735	$\pm$ 0.62	1575	1587	1604	$\pm$ 7	98	

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1Bcra	20	5	26	1445	6.6	0.25122	± 1.18	3.4458	± 1.35	1445	1515	1614	± 11	90
1Bcra	31	7	26	2045	3.2	0.25871	± 0.82	3.5977	± 0.96	1483	1549	1640	± 9	90
1Bcra	31	5	26	2940	4.2	0.28294	± 0.74	4.0369	± 0.85	1606	1642	1687	± 8	95
1Blra	21	6	191	12980	14.7	0.28345	± 0.40	4.0445	± 0.47	1609	1643	1688	± 4	95
1Blra	19	7	98	4610	9.3	0.29585	± 0.47	4.2781	± 0.60	1671	1689	1712	± 7	98
1Bcra	21	5	25	1810	3.4	0.28583	± 1.07	4.1915	± 1.17	1621	1672	1738	± 8	93
1Blra	18	7	66	3310	6.7	0.30099	± 0.61	4.4201	± 0.68	1696	1716	1741	± 6	97
1Bmra	28	4	36	4490	5.5	0.30016	± 0.51	4.4231	± 0.68	1692	1717	1747	± 8	97
1Blra	21	10	43	1690	4.7	0.30877	± 0.65	4.5638	± 0.82	1735	1743	1752	± 8	99
1Bcra	19	4	20	1740	4.8	0.31206	± 0.80	4.6228	± 0.93	1751	1753	1756	± 8	100
1Blra	14	4	99	5600	19.4	0.30067	± 0.42	4.4546	± 0.54	1695	1723	1757	± 6	96
1Blra	16	7	121	8100	23.9	0.30534	± 0.40	4.5647	± 0.49	1718	1743	1773	± 5	97
1Bmra	36	4	65	9700	15.5	0.31236	± 0.39	4.6857	± 0.47	1752	1765	1779	± 5	98
1Blra	24	5	75	6570	16.1	0.30918	± 0.47	4.6754	± 0.55	1737	1763	1794	± 5	97
1Blra	9	5	234	7840	8.8	0.30496	± 0.45	4.6873	± 0.52	1716	1765	1824	± 5	94
1Blra	9	5	85	2940	7.5	0.32032	± 0.75	4.9256	± 0.82	1791	1807	1824	± 6	98
1Bcra	25	6	31	2390	5.7	0.13143	± 0.76	4.8629	± 0.84	1758	1796	1841	± 6	95
1Blra	26	3	22	4420	7.9	0.31986	± 0.67	4.9917	± 0.72	1789	1818	1851	± 5	97
1Bcra	24	7	21	1570	6.6	0.33210	± 0.99	5.1934	± 1.10	1849	1852	1855	± 8	100
1Blra	11	7	130	3480	4.9	0.27546	± 0.58	4.3864	± 0.69	1569	1710	1888	± 7	83
1Bcra	18	6	38	2255	10.1	0.32988	± 0.83	5.3227	± 0.94	1838	1873	1911	± 8	96
1Blra	21	8	64	3200	7.5	0.31866	± 0.62	5.2642	± 0.69	1783	1863	1953	± 5	91
1Blra	16	4	17	2150	3.2	0.35118	± 0.96	5.8070	± 1.03	1940	1948	1955	± 6	99
1Bcra	14	7	40	1820	7.6	0.34867	± 0.92	6.8339	± 1.00	1928	2090	2254	± 6	86
1Bmra	22	6	72	6980	4.4	0.41436	± 0.50	8.2754	± 0.56	2235	2262	2286	± 4	98

Sample 4 (GA209)

1Gce	3	13	353	699	6.9	0.14514	± 1.08	1.3937	± 1.57	874	886	918	± 22	95
1Glr	3	10	213	618	6.4	0.15294	± 1.74	1.4687	± 2.16	917	918	918	± 25	100
1Glr	3	12	244	593	3.9	0.15243	± 1.46	1.4724	± 1.97	915	919	930	± 26	98
1Glr	3	7	84	458	6.8	0.17725	± 3.59	1.8312	± 3.84	1052	1057	1067	± 27	99
1Gce	3	6	289	1745	4.7	0.18209	± 1.07	1.9133	± 1.28	1078	1086	1101	± 13	98
1Glr	3	9	115	485	7.0	0.18957	± 2.48	2.0090	± 2.74	1119	1119	1118	± 23	100
1Glr	3	13	212	656	3.0	0.20774	± 1.56	2.3129	± 2.25	1217	1216	1215	± 31	100
1Gce	3	6	114	714	5.7	0.19753	± 2.29	2.2013	± 2.51	1162	1181	1217	± 19	95
1Glr	3	9	49	239	4.5	0.21941	± 4.56	2.5470	± 5.04	1279	1286	1297	± 41	99
1Gce	3	6	28	214	2.4	0.19185	± 9.12	2.2923	± 9.48	1131	1210	1353	± 46	84
1Gce	3	8	96	496	5.7	0.21263	± 2.48	2.5619	± 2.79	1243	1290	1369	± 23	91
1Gce	3	13	199	647	6.1	0.22013	± 1.22	2.7116	± 1.56	1283	1332	1412	± 18	91
1Gce	3	12	198	694	4.8	0.23415	± 1.18	2.9090	± 1.49	1356	1384	1428	± 16	95

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1Gce	3	10	110	522	3.2	0.23683	± 1.94	2.9559	± 2.27	1370	1396	1437	± 21	95
1Gce	3	8	91	422	3.7	0.19016	± 2.90	2.4266	± 3.22	1122	1251	1479	± 25	76
1Gce	3	7	93	715	5.2	0.26515	± 2.29	3.4530	± 2.44	1516	1517	1517	± 15	100
1Gce	3	11	276	1224	5.7	0.26752	± 0.84	3.5507	± 1.00	1528	1539	1553	± 10	98
1Glr	3	5	51	484	7.3	0.25172	± 3.96	3.4609	± 4.17	1447	1518	1619	± 26	89
1Gce	3	11	229	1110	13.7	0.28970	± 0.94	4.4204	± 1.08	1640	1716	1810	± 9	91
1Gce	3	7	39	471	3.7	0.43595	± 2.98	10.2084	± 3.04	2333	2454	2556	± 12	91

**Sample 5 (GA206)**

1Clra	13	5	17	518	3.3	0.18390	± 3.69	1.9342	± 4.00	1088	1093	1102	± 28	99
1Dmra	10	8	160	2216	6.3	0.17850	± 0.68	1.9366	± 0.85	1059	1094	1164	± 10	91
1Dmra	14	21	495	3304	3.3	0.16646	± 0.61	1.8110	± 0.88	993	1049	1170	± 12	85
1Clra	9	5	122	2810	6.9	0.20523	± 0.79	2.2707	± 0.93	1203	1203	1203	± 9	100
1Dmra	11	14	160	1740	4.5	0.21885	± 0.87	2.5430	± 1.05	1276	1284	1299	± 11	98
1Clra	12	7	123	2610	8.2	0.20836	± 0.80	2.5633	± 0.90	1220	1290	1409	± 7	87
1Clra	9	6	234	4390	12.7	0.18650	± 0.62	2.2977	± 0.80	1102	1212	1412	± 9	78
1Clra	13	6	51	1630	7.5	0.23923	± 1.05	2.9675	± 1.24	1383	1399	1425	± 12	97
1Clra	12	24	303	2065	7.2	0.22530	± 0.53	2.8048	± 0.76	1310	1357	1432	± 10	91
1Clra	16	6	63	2420	3.3	0.24199	± 0.97	3.0230	± 1.08	1397	1413	1438	± 9	97
1Clra	10	4	95	3600	7.8	0.23927	± 0.72	2.9976	± 0.92	1383	1407	1444	± 10	96
1Clra	15	6	34	2395	7.2	0.25333	± 0.88	3.1918	± 1.01	1456	1455	1455	± 9	100
1Dlra	8	25	151	700	2.6	0.24630	± 0.68	3.1076	± 1.46	1419	1435	1457	± 23	97
1Clra	11	6	56	1699	4.4	0.23358	± 1.13	2.9545	± 1.29	1353	1396	1462	± 11	93
1Clra	14	4	66	3630	2.9	0.25239	± 0.60	3.1938	± 0.79	1451	1456	1463	± 9	99
1Dlra	12	10	111	1945	4.3	0.24646	± 0.63	3.1258	± 0.80	1420	1439	1467	± 9	97
1Clra	13	5	150	5820	9.1	0.25344	± 0.58	3.2158	± 0.68	1456	1461	1468	± 7	99
1Dlra	9	11	185	2386	12.9	0.25717	± 0.63	3.2638	± 0.96	1475	1473	1468	± 13	100
1Dlra	11	6	67	1884	4.2	0.25044	± 1.03	3.1791	± 1.15	1441	1452	1469	± 9	98
1Clra	12	5	286	10060	4.8	0.25526	± 0.52	3.2444	± 0.63	1466	1468	1471	± 7	100
1Clra	10	5	83	2730	5.7	0.27180	± 0.83	3.5824	± 0.94	1550	1546	1540	± 8	101
1Clra	18	4	60	4680	5.3	0.30915	± 0.55	4.6032	± 0.70	1737	1750	1766	± 8	98

**Sample 6 (GA221)**

1Blra	14	23	162	796	2.9	0.12758	± 0.69	1.1460	± 1.76	774	776	779	± 32	99
1Blra	15	70	240	398	3.7	0.12813	± 0.65	1.1528	± 1.83	777	779	782	± 34	99
1Blra	16	51	225	422	4.1	0.09986	± 1.19	0.9027	± 2.33	614	653	792	± 39	77
1Blra	18	37	528	1873	4.4	0.12360	± 0.71	1.1233	± 1.00	751	765	804	± 14	93
1Blra	18	8	139	2447	2.9	0.13223	± 0.63	1.2089	± 1.16	801	805	816	± 19	98
1Blra	55	10	359	15600	3.3	0.13515	± 0.71	1.2375	± 0.79	817	818	819	± 7	100
1Blra	18	16	117	1076	3.0	0.13529	± 0.83	1.2392	± 1.16	818	819	820	± 16	100

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1Bra	17	12	194	2373	5.0	0.13672	± 1.30	1.2534	± 1.44	826	825	822	± 12	101
1Bra	16	24	742	3906	4.1	0.13260	± 0.93	1.2281	± 1.12	803	813	843	± 12	95
1Bra	39	5	67	12100	4.5	0.42910	± 0.51	8.6373	± 0.60	2302	2301	2299	± 6	100
1Bra	21	5	43	4790	3.1	0.43294	± 0.68	8.8989	± 0.78	2319	2328	2335	± 6	99
1Bra	42	6	47	9740	6.4	0.44167	± 0.66	9.3637	± 0.74	2358	2374	2388	± 6	99
1Bra	51	7	138	29400	5.4	0.45220	± 0.65	9.6542	± 0.68	2405	2402	2400	± 4	100
1Bra	20	38	184	2088	3.9	0.36653	± 1.09	8.4180	± 1.14	2013	2277	2524	± 5	80
1Bra	46	2300	689	359	3.6	0.44557	± 0.78	10.3402	± 1.10	2376	2466	2541	± 12	93
1Bra	53	12	247	31200	7.8	0.47371	± 0.50	11.0536	± 0.55	2500	2528	2550	± 4	98
1Bra	15	8	116	6710	5.6	0.48847	± 0.53	11.6512	± 0.58	2564	2577	2587	± 4	99
1Bra	41	6	84	18800	2.5	0.49917	± 0.57	11.9890	± 0.61	2610	2604	2598	± 4	100
1Bra	24	13	47	2462	8.0	0.47476	± 0.53	11.4136	± 0.59	2504	2558	2600	± 4	96
1Bra	19	7	96	8885	5.3	0.51249	± 0.41	12.8836	± 0.47	2667	2671	2674	± 4	100
1Bra	15	7	320	22900	3.5	0.52082	± 0.70	13.3203	± 0.73	2703	2703	2703	± 4	100

Sample 7 (GA119)

1Clea	17	7	289	3300	5.9	0.07808	± 0.63	0.6030	± 1.10	485	479	453	± 19	107
1Clea	28	6	164	5600	7.8	0.07606	± 0.68	0.5909	± 0.86	473	471	466	± 11	101
1Cmra	28	23	579	3180	10.6	0.07121	± 0.52	0.5540	± 1.05	443	448	469	± 19	95
1Cira	20	7	225	3390	5.1	0.07727	± 0.61	0.6014	± 1.08	480	478	470	± 19	102
1Clea	25	18	340	2210	7.3	0.07564	± 0.58	0.5888	± 1.41	470	470	471	± 27	100
1Cmra	31	11	274	3730	7.0	0.07443	± 0.50	0.5796	± 0.93	463	464	471	± 16	98
1Clea	15	10	656	4810	12.0	0.07569	± 0.48	0.5895	± 0.82	470	471	471	± 14	100
1Clea	34	4	252	10300	11.1	0.07603	± 0.46	0.5925	± 0.57	472	472	473	± 7	100
1Clea	22	7	300	4470	5.1	0.07686	± 0.53	0.5991	± 0.85	477	477	473	± 14	101
1Clea	26	32	749	2965	5.3	0.07714	± 0.46	0.6017	± 1.07	479	478	475	± 20	101
1Cmra	23	19	472	2760	10.1	0.07460	± 0.48	0.5820	± 0.78	464	466	475	± 13	98
1Clea	31	25	771	4520	6.2	0.07701	± 0.47	0.6010	± 0.84	478	478	476	± 15	100
1Clea	26	31	425	1720	10.6	0.07732	± 0.53	0.6039	± 1.06	480	480	478	± 19	101
1Clea	21	18	274	1568	3.5	0.07666	± 0.60	0.5996	± 1.13	476	477	481	± 20	99
1Clea	18	4	273	5150	8.3	0.07588	± 0.53	0.5937	± 0.82	471	473	482	± 13	98
1Clea	24	4	271	8700	11.9	0.07823	± 0.53	0.6137	± 0.70	486	486	487	± 10	100
1Cira	21	48	507	1120	8.9	0.07997	± 0.67	0.6299	± 1.51	496	496	497	± 28	100
1Cira	12	5	1349	20800	10.8	0.10926	± 0.51	1.0771	± 1.84	668	742	972	± 7	69
1Cira	16	13	777	10300	25.6	0.16796	± 0.58	2.0222	± 1.19	1001	1123	1368	± 5	73
1Cmra	18	30	1436	19200	7.3	0.35232	± 0.51	8.0807	± 0.56	1946	2240	2521	± 4	77
1Cmra	14	10	303	10050	5.7	0.36535	± 0.45	8.6518	± 0.51	2008	2302	2575	± 4	78
1Cira	18	12	96	2960	3.6	0.33576	± 0.56	8.1807	± 0.48	1866	2251	2622	± 4	71

Sample 8 (GA132)

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1Bra	28	16	145	1260	8.2	0.07604	± 0.69	0.5910	± 1.40	472	472	467	± 25	101
1Bcea	19	20	367	1630	7.1	0.07910	± 0.63	0.6166	± 1.13	491	488	473	± 20	104
1Bra	35	6	96	2660	9.1	0.07691	± 0.75	0.5996	± 1.34	478	477	474	± 23	101
1Bcea	21	16	240	1390	5.8	0.07618	± 0.54	0.5952	± 1.18	473	474	478	± 22	99
1Bcea	26	15	179	1490	8.6	0.07878	± 0.66	0.6173	± 1.21	489	488	485	± 21	101
1Bra	33	15	220	2270	9.0	0.07621	± 0.56	0.5976	± 0.91	473	476	487	± 15	97
1Bra	29	11	174	2240	10.2	0.07778	± 0.62	0.6289	± 1.37	483	495	554	± 25	87
1Bcea	28	7	86	1820	7.2	0.08124	± 0.96	0.6633	± 1.25	504	517	575	± 16	88
1Flr	7	14	286	1430	8.2	0.16686	± 0.63	1.6987	± 1.01	995	1008	1037	± 15	96
1Flr	6	5	156	1860	6.8	0.16413	± 1.16	1.6875	± 1.42	980	1004	1057	± 16	93
1Flr	7	9	279	2040	7.8	0.18281	± 0.56	1.9382	± 0.79	1082	1094	1118	± 10	97
1Flr	5	8	122	870	6.4	0.18949	± 1.38	2.0178	± 1.87	1119	1122	1127	± 23	99
1Flr	5	6	121	1150	13.5	0.19175	± 1.40	2.0710	± 1.71	1131	1139	1155	± 18	98
1Flr	5	6	250	2495	10.1	0.19739	± 0.83	2.4163	± 1.10	1161	1247	1399	± 13	83
1Flr	6	7	99	1390	9.2	0.25909	± 1.09	3.3066	± 1.30	1485	1483	1479	± 13	100
1Flr	8	20	259	1630	15.0	0.26172	± 0.47	3.5596	± 0.72	1499	1541	1599	± 9	94
1Flr	4	5	285	4030	9.9	0.27860	± 0.70	3.8334	± 0.83	1584	1600	1620	± 8	98
1Flr	7	7	238	3580	16.0	0.24779	± 0.57	3.4500	± 0.78	1427	1516	1642	± 9	87
1Flr	5	5	138	1770	5.2	0.22219	± 1.17	3.1083	± 1.29	1293	1435	1651	± 10	78
1Flr	4	6	148	1750	8.2	0.30242	± 1.06	4.4060	± 1.16	1703	1714	1726	± 8	99
1Flr	7	13	51	530	4.5	0.30574	± 1.15	4.7322	± 2.06	1720	1773	1836	± 23	94
1Flr	5	5	87	1680	9.3	0.32514	± 1.24	5.1610	± 1.35	1815	1846	1882	± 9	96

**Sample 9 (GA190)**

1Alea	46	12	231	4060	10.1	0.07365	± 0.54	0.5741	± 0.93	458	461	473	± 16	97
1Alea	35	3	126	6150	6.3	0.07744	± 0.44	0.6042	± 0.66	481	480	476	± 11	101
1Alea	38	9	145	2880	4.6	0.07694	± 0.66	0.6009	± 0.86	478	478	477	± 11	100
1Alea	31	6	145	3450	4.6	0.07728	± 0.61	0.6035	± 0.77	480	479	478	± 10	100
1Alea	48	11	109	2230	5.3	0.07584	± 0.74	0.5923	± 1.01	471	472	478	± 14	99
1Alea	30	40	125	463	3.9	0.07713	± 0.73	0.6030	± 2.29	479	479	480	± 45	100
1Alea	29	31	470	2070	7.2	0.07560	± 0.53	0.5911	± 0.91	470	472	480	± 15	98
1Alea	31	20	313	2320	7.3	0.07761	± 0.49	0.6070	± 0.82	482	482	481	± 14	100
1Alea	35	6	135	3950	4.5	0.07762	± 0.60	0.6075	± 0.95	482	482	482	± 15	100
1Alea	35	7	294	7200	4.9	0.07871	± 0.42	0.6170	± 0.61	488	488	486	± 9	101
1Alea	42	4	184	12900	4.9	0.07552	± 0.54	0.5921	± 0.62	469	472	486	± 7	97
1Alea	35	10	117	1970	4.9	0.07854	± 0.72	0.6159	± 1.05	487	487	487	± 16	100
1Alea	28	7	126	2590	5.9	0.07701	± 0.70	0.6039	± 0.92	478	480	487	± 13	98
1Alea	41	14	498	7200	4.8	0.07899	± 0.46	0.6200	± 0.63	490	490	489	± 9	100
1Alea	22	6	258	4480	4.6	0.07856	± 0.50	0.6178	± 0.82	488	488	493	± 14	99
1Alea	33	6	78	2190	4.5	0.07806	± 0.84	0.6146	± 1.09	485	486	495	± 15	98

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1Alea	29	23	278	1710	4.8	0.07823	± 0.80	0.6201	± 1.21	486	490	511	± 19	95
1Alea	32	245	177	127	1.9	0.07786	± 1.04	0.6202	± 4.89	483	490	521	± 99	93
1Alea	27	245	201	127	1.9	0.08172	± 1.04	0.6594	± 4.87	506	514	549	± 98	92
1Alea	27	28	148	735	4.0	0.08210	± 0.77	0.6697	± 1.52	509	521	573	± 27	89
1Alea	19	6	245	7000	11.6	0.14621	± 0.49	1.3864	± 0.63	880	883	892	± 8	99
1Alea	29	97	91	569	7.1	0.33031	± 0.56	5.1325	± 1.05	1840	1842	1843	± 15	100

**Sample 10 (GA204)**

1Bcea	29	48	341	895	3.7	0.06826	± 0.56	0.5319	± 1.79	426	433	473	± 35	90
1Bcea	23	22	681	3560	4.5	0.07806	± 1.49	0.6106	± 1.71	485	484	481	± 18	101
1Bcea	24	27	2177	9300	4.4	0.07693	± 1.09	0.6018	± 1.18	478	478	481	± 9	99
1Bcea	25	8	289	4480	4.6	0.07896	± 0.69	0.6178	± 0.98	490	488	482	± 15	102
1Bcea	26	16	466	3550	4.7	0.07560	± 0.53	0.5922	± 1.00	470	472	484	± 18	97
1Bcea	24	16	673	4700	4.5	0.07343	± 0.52	0.5752	± 0.85	457	461	484	± 14	94
1Bcea	21	19	574	2940	4.2	0.07416	± 0.53	0.5810	± 1.13	461	465	485	± 21	95
1Bcea	20	8	772	9250	4.6	0.07867	± 0.52	0.6165	± 0.68	488	488	485	± 9	101
1Bcea	22	13	926	7730	4.2	0.07709	± 0.52	0.6041	± 0.66	479	480	485	± 9	99
1Bcea	25	17	608	4410	4.4	0.07625	± 0.47	0.5978	± 0.85	474	476	486	± 15	97
1Bcea	21	31	1469	4740	4.4	0.07613	± 0.46	0.5972	± 0.81	473	475	487	± 14	97

**Sample 11 (GA214)**

1Fcea	9	4	60	555	4.6	0.07598	± 1.86	0.5872	± 2.58	472	469	455	± 37	104
1Fcea	8	13	535	1520	6.4	0.07632	± 0.72	0.5900	± 1.24	474	471	455	± 21	104
1Glr	5	10	598	1162	4.7	0.05826	± 0.92	0.4529	± 2.85	365	379	467	± 27	78
1Fcea	6	7	256	1057	3.9	0.07478	± 1.38	0.5853	± 1.99	465	468	483	± 30	96
1Fcea	8	4	51	462	4.7	0.07589	± 2.42	0.5975	± 3.26	472	476	495	± 45	95
1Fcea	6	7	237	945	5.3	0.07468	± 1.48	0.5886	± 2.16	464	470	498	± 32	93
1Fcea	10	5	121	1049	4.0	0.07274	± 1.79	0.5748	± 2.32	453	461	504	± 30	90
1Fcea	7	6	199	1080	4.6	0.07554	± 1.54	0.6042	± 2.07	469	480	530	± 28	89
1Fcea	5	8	197	560	5.0	0.07544	± 2.04	0.6158	± 3.31	469	487	575	± 53	82
1Fcea	4	21	203	195	3.1	0.07858	± 2.29	0.6458	± 3.64	488	506	589	± 57	83
1Glr	8	10	237	3328	6.3	0.28872	± 0.47	5.9820	± 1.67	1635	1973	2349	± 6	70
1Glr	5	28	50	239	3.8	0.40580	± 1.81	9.3024	± 2.54	2196	2368	2520	± 28	87
1Glr	7	8	25	612	4.8	0.43475	± 2.16	10.0776	± 2.36	2327	2442	2539	± 15	92

**Sample 12 (GA201)**

1Dcea	12	19	169	538	4.7	0.07667	± 1.43	0.5996	± 3.12	476	477	481	± 57	99
1Dcea	21	13	206	1650	3.8	0.07846	± 0.62	0.6136	± 1.13	487	486	481	± 20	101
1Dcea	14	9	286	2140	4.8	0.07855	± 0.64	0.6144	± 0.99	487	486	481	± 16	101
1Dcea	9	15	139	427	3.1	0.07660	± 1.85	0.5993	± 4.05	476	477	482	± 75	99

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1Dcea	14	8	262	2180	3.4	0.07844	± 0.79	0.6146	± 1.54	487	486	485	± 28	100
1Dcea	15	10	376	2790	7.0	0.07942	± 0.55	0.6233	± 0.82	493	492	489	± 13	101
1Dcea	18	12	313	2310	4.7	0.07814	± 0.72	0.6134	± 1.01	485	486	489	± 15	99
1Dcea	11	7	126	970	5.0	0.07691	± 1.50	0.6041	± 2.16	478	480	490	± 32	97
1Dcea	17	10	136	1192	3.3	0.07817	± 0.95	0.6158	± 1.58	485	487	497	± 26	98
1Dcea	10	8	143	875	5.8	0.07867	± 1.38	0.6210	± 2.19	488	490	501	± 35	97
1Dcea	16	35	165	391	3.0	0.07884	± 0.98	0.6233	± 3.99	489	492	504	± 80	97

**Sample 13 (GA210)**

1Bcea	102	6	35	2920	14.3	0.07600	± 0.74	0.5848	± 1.33	472	468	445	± 24	106
1Bcea	25	12	29	279	3.6	0.06958	± 2.82	0.5358	± 3.43	434	436	447	± 42	97
1Bcea	18	15	404	2195	6.5	0.07298	± 0.57	0.5652	± 0.93	454	455	459	± 16	99
1Dcea	18	13	189	1207	10.2	0.07560	± 0.69	0.5861	± 1.43	470	468	461	± 26	102
1Dcea	18	8	143	1638	12.0	0.07702	± 1.01	0.6000	± 1.63	478	477	472	± 28	101
1Bcea	25	4	157	4490	15.6	0.07606	± 0.55	0.5948	± 0.89	473	474	481	± 15	98
1Dcea	19	6	125	2046	11.3	0.07937	± 1.22	0.6228	± 2.03	492	492	488	± 34	101
1Dcea	15	12	265	1589	12.9	0.07711	± 0.65	0.6077	± 1.16	479	482	497	± 20	96
1Bcea	20	11	60	498	4.6	0.07974	± 1.88	0.6287	± 3.55	495	495	498	± 63	99
1Bcea	23	11	52	503	4.6	0.07979	± 1.88	0.6340	± 3.51	495	498	515	± 62	96
1Dcea	16	10	213	1957	8.5	0.08789	± 1.19	0.7490	± 2.69	543	568	667	± 15	81
1Dlra	12	6	289	6340	36.2	0.16929	± 0.56	1.7375	± 0.72	1008	1023	1053	± 9	96
1Dlra	9	5	80	1785	7.0	0.18408	± 0.75	1.9469	± 1.02	1089	1097	1114	± 13	98
1Elra	11	11	71	861	6.7	0.19538	± 1.38	2.1487	± 1.79	1151	1165	1191	± 22	97
1Dlra	11	7	102	2190	5.1	0.19957	± 0.82	2.3315	± 0.99	1173	1222	1309	± 10	90
1Dlra	11	7	84	1770	9.5	0.22872	± 0.91	2.7631	± 1.10	1328	1346	1374	± 11	97
1Elra	11	9	93	1645	7.1	0.24590	± 0.86	3.0323	± 1.07	1417	1416	1414	± 12	100
1Elra	8	6	119	2437	11.1	0.24050	± 0.95	2.9713	± 1.26	1389	1400	1417	± 15	98
1Dlra	10	6	163	4020	5.9	0.24237	± 0.58	3.2117	± 0.78	1399	1460	1550	± 9	90
1Dlra	13	7	90	3090	4.4	0.27113	± 0.68	3.7195	± 0.91	1547	1576	1615	± 10	96
1Dlra	14	4	39	3730	4.2	0.47033	± 0.60	11.5958	± 0.68	2485	2572	2642	± 5	94

**Sample 14 (GA174)**

1Clea	11	6	1112	9800	17.6	0.07853	± 0.47	0.6117	± 0.63	487	485	472	± 9	103
1Clea	18	23	1458	8100	12.7	0.11784	± 0.58	1.0679	± 0.68	718	738	798	± 7	90
1Clea	16	15	928	7600	27.7	0.12037	± 0.58	1.0999	± 0.73	733	753	815	± 9	90
1Clea	15	10	748	9200	5.5	0.12475	± 0.46	1.1425	± 0.61	758	774	820	± 8	92
1Emra	21	24	378	2415	15.4	0.12321	± 0.47	1.1480	± 0.72	749	776	856	± 11	88
1Cmra	15	31	857	3390	12.7	0.13321	± 0.51	1.2454	± 0.91	806	821	863	± 15	93
1Clea	12	11	672	6200	27.6	0.13786	± 0.40	1.2892	± 0.59	833	841	863	± 8	96
1Clea	13	9	594	7600	10.0	0.13766	± 0.54	1.2936	± 0.65	831	843	873	± 7	95

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1Emra	14	6	629	12600	17.4	0.12776	± 0.47	1.2018	± 0.55	775	801	875	± 6	89
1Clea	14	6	611	12800	23.9	0.13198	± 0.52	1.2480	± 0.59	799	822	886	± 6	90
1Clea	16	4	184	7400	7.4	0.14318	± 0.47	1.3549	± 0.65	863	870	888	± 9	97
1Emra	16	6	322	6850	12.5	0.13430	± 0.54	1.2724	± 0.67	812	833	890	± 8	91
1Clea	16	6	292	7000	11.6	0.14621	± 0.49	1.3864	± 0.63	880	883	892	± 8	99
1Cira	13	7	486	8400	9.8	0.14584	± 0.41	1.3832	± 0.58	878	882	892	± 8	98
1Clea	16	6	477	11100	10.2	0.13270	± 0.58	1.2589	± 0.74	803	827	893	± 9	90
1Clea	14	5	365	9400	13.8	0.14623	± 0.53	1.3880	± 0.62	880	884	894	± 6	98
1Clea	10	7	369	4300	17.7	0.13549	± 0.71	1.2862	± 0.94	819	840	894	± 12	92
1Clea	15	7	745	14800	15.5	0.14461	± 0.45	1.3749	± 0.57	871	878	897	± 7	97
1Cira	12	30	555	2070	9.6	0.15116	± 0.52	1.4483	± 0.84	907	909	913	± 13	99
1Cira	10	29	816	2700	19.2	0.15532	± 0.65	1.4942	± 0.85	931	928	922	± 11	101
1Cira	14	12	1140	13350	12.0	0.15495	± 0.57	1.5784	± 0.63	929	962	1038	± 5	89
1Emra	18	6	287	11400	16.2	0.19812	± 0.47	2.1783	± 0.54	1165	1174	1191	± 5	98

Sample 15 (GA212)

1Bra	28	28	661	2642	4.7	0.06618	± 0.79	0.5061	± 1.35	413	416	431	± 23	96
1Dra	11	7	470	3260	7.8	0.06973	± 0.64	0.5337	± 0.85	435	434	433	± 12	100
1Dra	15	6	212	2420	3.5	0.07066	± 0.76	0.5411	± 1.42	440	439	434	± 25	101
1Dcra	26	32	110	401	2.9	0.06987	± 0.92	0.5351	± 2.68	435	435	434	± 53	100
1Bcra	28	7	144	2530	3.0	0.07010	± 0.72	0.5375	± 0.98	437	437	437	± 14	100
1Bra	15	6	280	3075	3.4	0.07094	± 0.62	0.5456	± 1.13	442	442	444	± 20	100
1Bcra	18	8	66	683	3.8	0.06953	± 1.79	0.5391	± 2.27	433	438	461	± 30	94
1Bcra	24	38	92	352	2.5	0.09474	± 0.94	0.8002	± 2.60	584	596	648	± 50	90
1Blea	14	7	89	1292	4.5	0.10586	± 1.23	0.9298	± 1.44	649	668	732	± 15	89
1Bra	22	12	339	3610	6.0	0.09840	± 0.55	0.8685	± 0.73	605	635	742	± 10	82
1Bcra	24	15	54	570	2.2	0.10580	± 1.16	0.9356	± 2.59	648	671	746	± 46	87
1Bra	14	9	64	733	3.9	0.11235	± 1.56	1.0181	± 2.41	686	713	798	± 36	86
1Bra	25	19	251	2660	4.9	0.13451	± 0.62	1.2214	± 0.84	814	810	802	± 11	101
1Bra	17	9	213	3122	6.7	0.12161	± 0.56	1.1052	± 0.97	740	456	804	± 16	92
1Bcra	22	9	188	3693	8.1	0.13020	± 0.58	1.1842	± 0.89	789	793	805	± 13	98
1Bcra	19	8	46	840	3.5	0.12660	± 1.47	1.1530	± 1.78	768	779	808	± 20	95
1Bra	18	20	103	791	5.5	0.13398	± 0.82	1.2216	± 1.80	811	811	811	± 31	100
1Bra	16	16	573	3605	6.8	0.10315	± 0.41	1.1107	± 0.73	633	759	1149	± 11	55
1Bra	20	6	175	6820	13.5	0.18920	± 0.49	2.3141	± 0.69	1117	1217	1398	± 9	80
1Bcra	23	13	43	1145	3.9	0.24077	± 0.84	3.5755	± 1.09	1391	1544	1761	± 12	79
1Bra	24	5	184	17600	5.9	0.34719	± 0.64	5.9378	± 0.68	1921	1967	2015	± 4	95
1Bra	14	11	232	6731	11.9	0.37527	± 0.46	7.8809	± 0.53	2054	2218	2372	± 4	87
1Bra	18	33	199	2230	8.0	0.35462	± 0.51	7.5826	± 0.60	1957	2183	2403	± 5	81
1Bcra	20	11	198	819	8.6	0.34660	± 1.45	7.5681	± 1.52	1918	2181	2438	± 7	79



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1Bra	21	22	122	3160	10.0	0.43113	± 0.46	9.4852	± 0.58	2311	2386	2451	± 6	94
1Bra	27	7	163	14200	4.2	0.36744	± 0.52	8.4508	± 0.61	2017	2281	2526	± 5	80
1Bra	36	10	299	31200	10.7	0.47416	± 0.64	11.5367	± 0.68	2502	2568	2620	± 4	95

**Sample 16 (GA200)**

1Ccea	17	23	348	670	6.9	0.04043	± 0.80	0.2842	± 2.62	255	254	240	± 54	106
1Ccea	17	29	662	1072	5.2	0.04269	± 0.61	0.3018	± 1.67	270	268	253	± 34	106
1Ccea	21	14	153	648	5.1	0.04381	± 1.11	0.3099	± 2.00	276	274	255	± 36	109
1Ccea	21	12	221	1080	6.7	0.04405	± 0.87	0.3116	± 1.76	278	275	255	± 33	109
1Ccea	15	11	476	1745	3.8	0.04020	± 0.71	0.2851	± 1.21	254	255	261	± 21	98
1Ccea	25	15	106	488	3.2	0.04206	± 1.39	0.2987	± 3.67	266	265	263	± 74	101
1Ccea	26	24	171	552	4.3	0.04536	± 0.88	0.3221	± 2.16	286	284	264	± 43	109
1Ccea	15	5	458	3200	2.4	0.04318	± 0.66	0.3073	± 0.89	273	272	268	± 13	102
1Ccea	20	10	236	1245	4.6	0.04254	± 0.85	0.3029	± 1.58	269	269	270	± 29	100
1Ccea	21	12	221	1095	5.1	0.04351	± 0.88	0.3100	± 1.74	275	274	271	± 33	101
1Ccea	15	9	270	1302	4.0	0.04379	± 0.96	0.3127	± 1.59	276	276	277	± 28	100
1Ccea	20	9	109	679	4.6	0.04335	± 1.71	0.3098	± 2.32	274	274	278	± 34	98
1Ccea	18	20	430	1060	6.2	0.04272	± 0.67	0.3073	± 1.68	270	272	293	± 33	92
1Ccea	13	7	213	1165	5.7	0.04376	± 1.30	0.3164	± 1.91	276	279	305	± 31	91
1Ccea	18	10	144	690	5.2	0.04269	± 1.38	0.3109	± 2.70	269	275	321	± 50	84
1Ccea	16	24	173	575	4.8	0.07649	± 0.83	0.5876	± 2.79	475	469	441	± 56	108
1Ccea	22	10	141	1580	4.8	0.07560	± 1.25	0.5829	± 1.60	470	466	449	± 21	105
1Ccea	24	9	264	3270	6.5	0.07609	± 0.82	0.5940	± 1.23	473	473	477	± 19	99
1Ccea	21	6	237	3450	4.6	0.06977	± 0.61	0.5449	± 0.77	435	442	477	± 10	91

**Sample 17 (GA182)**

1Dcea	17	3	157	8400	21.5	0.15546	± 0.48	1.4901	± 0.59	932	926	914	± 7	102
1Dcea	15	4	61	1990	5.0	0.15498	± 0.72	1.4916	± 0.96	929	927	923	± 12	101
4Fle	14	11	869	11100	17.2	0.15456	± 0.45	1.4958	± 0.54	926	929	934	± 6	99
1Dcea	12	3	137	5900	19.7	0.15553	± 0.69	1.5094	± 0.94	932	934	940	± 13	99
1Dcea	16	5	107	2970	7.6	0.15483	± 0.79	1.5150	± 0.91	928	936	956	± 9	97
4Fle	11	4	654	16950	20.8	0.16130	± 0.50	1.6189	± 0.60	964	978	1008	± 7	96

Note that analyses in italics have not been used in provenance interpretations.

Grain size: A = ~250 µ, B = ~175 µ, C = ~145 µ, D = ~125 µ, E = ~100 µ, F = ~80 µ, G = ~60 µ.

Grain type: c = colorless, l = light pink, m = medium pink, y = yellow, e = euhedral, o = cloudy, r = rounded prior to deposition, a = abraded in air abrasion device.

<sup>206</sup>Pb/<sup>204</sup>Pb is measured ratio, uncorrected for blank, spike, or fractionation.

<sup>206</sup>Pb/<sup>208</sup>Pb is corrected for blank, spike, and fractionation.

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Uncertainty of Pb\*/U ratios is in percent.

Uncertainty of  $^{207}\text{Pb}^*/^{206}\text{Pb}^*$  ages is in Ma.

% conc. is the percent concordance, determined by comparison of  $^{207}\text{Pb}^*/^{206}\text{Pb}^*$  and  $^{206}\text{Pb}^*/^{238}\text{U}$  ages.

Concentrations have an uncertainty of up to 25% due to uncertainty of weight of grain

Constants used:  $\zeta^{235} = 9.8485 \times 10^{-10}$ ,  $\zeta^{238} = 1.55125 \times 10^{-10}$ ,  $^{238}\text{U}/^{235}\text{U} = 137.88$ .

All uncertainties are at the 95% confidence level.

Isotope ratios are adjusted as follows:

(1) Mass dependent corrections factors of:  $0.14 \pm 0.06$  %/amu for Pb and  $0.04 \pm 0.04$  %/amu for  $\text{UO}_2$ .

(2) Pb ratios corrected for  $0.005 \pm 0.003$  ng blank with  $^{206}\text{Pb}/^{204}\text{Pb} = 18.6 \pm 0.3$ ,  $^{207}\text{Pb}/^{204}\text{Pb} = 15.5 \pm 0.3$ , and  $^{208}\text{Pb}/^{204}\text{Pb} = 38.0 \pm 0.8$ .

(3) U has been adjusted for  $0.0005 \pm 0.0005$  ng blank.

(4) Initial Pb from Stacey and Kramers (1975), with uncertainties of 1.0 for  $^{206}\text{Pb}/^{204}\text{Pb}$ , 0.3 for  $^{207}\text{Pb}/^{204}\text{Pb}$ , and 2.0 for  $^{208}\text{Pb}/^{204}\text{Pb}$ .

### Reference:

Stacey, J.S., and Kramers, J.D., 1975, Approximation of terrestrial lead isotope evolution by a two-stage model: Earth and Planetary Science Letters, v. 26, p. 207-221.

TABLE DR2. U-Pb GEOCHRONOLOGIC ANALYSES OF DETRITAL ZIRCONS (LA-MC-ICPMS)

U (ppm)	$\frac{^{206}\text{Pb}}{^{204}\text{Pb}}$	U/Th	Isotopic ratios				Apparent ages (Ma)				Disc.	
			$\frac{^{207}\text{Pb}^*}{^{235}\text{U}}$	$\pm$ (%)	$\frac{^{206}\text{Pb}^*}{^{238}\text{U}}$	$\pm$ (%)	error corr.	$\frac{^{206}\text{Pb}^*}{^{238}\text{U}}$	$\frac{^{207}\text{Pb}^*}{^{235}\text{U}}$	$\frac{^{206}\text{Pb}^*}{^{207}\text{Pb}^*}$		$\pm$ (Ma)
<b>Sample 2 (AY 6-6-02-2)</b>												
20	30203	439	6.0183	1.03	0.3698	0.71	0.69	2029	1979	1927	19	1.05
24	40228	34	5.3810	0.80	0.3460	0.68	0.84	1916	1882	1845	19	1.04
34	36976	24	5.6249	1.57	0.3479	0.55	0.35	1925	1920	1915	22	1.00
44	96375	58	5.8020	2.32	0.3573	0.96	0.41	1969	1947	1923	26	1.02
25	67553	14	5.0846	2.00	0.3255	0.61	0.31	1817	1834	1853	25	0.98
27	31477	17	8.4776	1.01	0.3954	0.78	0.77	2148	2284	2407	18	0.89
61	45060	39	6.5744	2.19	0.3143	2.17	0.99	1762	2056	2365	17	0.74
41	81169	40	6.2305	0.74	0.3780	0.46	0.62	2067	2009	1949	19	1.06
16	31934	38	5.3445	1.46	0.3411	1.28	0.88	1892	1876	1859	19	1.02
56	95693	27	6.7091	4.97	0.3882	0.62	0.13	2115	2074	2034	47	1.04
20	381737	20	8.0005	1.39	0.4375	1.28	0.93	2339	2231	2133	18	1.10
20	26596	19	6.0362	2.56	0.3731	1.46	0.57	2044	1981	1916	26	1.07
48	113283	23	6.3079	0.66	0.3880	0.45	0.69	2114	2020	1925	19	1.10
68	79856	34	6.1706	1.06	0.3769	0.66	0.62	2062	2000	1938	19	1.06
114	14301	18	5.2263	0.71	0.3127	0.61	0.86	1754	1857	1974	18	0.89
17	33597	54	6.0685	1.60	0.3605	1.41	0.88	1985	1986	1987	19	1.00
20	22788	40	11.2101	4.08	0.4824	1.09	0.27	2538	2541	2543	37	1.00
73	12678	44	6.7552	0.63	0.3995	0.59	0.93	2167	2080	1995	18	1.09
98	11547	27	6.4364	0.68	0.3743	0.64	0.94	2050	2037	2025	18	1.01
131	378221	33	11.0133	0.72	0.4752	0.46	0.63	2506	2524	2539	17	0.99
80	301765	39	6.2653	1.09	0.3538	0.86	0.79	1953	2014	2077	19	0.94
75	31137	38	7.5116	1.00	0.4081	0.59	0.59	2206	2174	2145	19	1.03
174	98359	61	6.0223	2.78	0.3591	0.86	0.31	1978	1979	1980	30	1.00
49	28112	27	10.6127	2.84	0.4858	1.17	0.41	2553	2490	2439	28	1.05
64	465092	20	6.6686	1.22	0.3814	0.74	0.61	2083	2069	2054	20	1.01
491	100934	91	2.3200	0.59	0.1460	0.58	0.98	879	1218	1884	18	0.47
173	141285	49	5.9095	1.84	0.3506	1.24	0.67	1937	1963	1989	22	0.97
86	747431	26	6.0587	3.24	0.3626	0.58	0.18	1994	1984	1974	34	1.01
195	177139	93	6.1894	7.20	0.3674	0.52	0.07	2017	2003	1988	66	1.01
83	57503	43	5.8543	0.84	0.3499	0.79	0.94	1934	1955	1976	18	0.98
252	273272	24	5.7473	1.28	0.3425	1.03	0.80	1899	1939	1981	19	0.96
86	316492	15	6.4448	0.83	0.3784	0.78	0.95	2069	2038	2008	18	1.03
134	185340	87	5.9450	0.95	0.3526	0.94	0.98	1947	1968	1990	18	0.98
67	114999	33	6.3813	4.38	0.3672	1.32	0.30	2016	2030	2044	41	0.99
156	132371	21	6.0497	6.00	0.3601	0.61	0.10	1982	1983	1984	56	1.00
200	190650	51	6.3768	1.12	0.3728	0.75	0.67	2043	2029	2015	19	1.01
144	569713	167	6.0186	1.15	0.3586	0.64	0.55	1976	1979	1982	20	1.00
112	336567	75	6.0480	1.25	0.3589	0.93	0.74	1977	1983	1989	19	0.99
189	26285	21	4.5972	0.55	0.2880	0.33	0.60	1632	1749	1892	18	0.86
144	165142	53	5.5866	10.28	0.3352	0.55	0.05	1864	1914	1969	93	0.95
80	55032	43	5.7139	1.65	0.3414	0.68	0.41	1894	1934	1976	22	0.96
80	118311	27	5.5885	8.30	0.3315	0.82	0.10	1846	1914	1990	76	0.93
95	838376	67	5.6651	1.66	0.3422	0.75	0.45	1897	1926	1957	22	0.97
96	266608	30	5.5293	2.88	0.3331	0.55	0.19	1854	1905	1962	31	0.94
149	181481	49	5.2543	1.09	0.3274	0.61	0.56	1826	1862	1901	20	0.96
120	700500	21	5.5130	0.76	0.3322	0.42	0.55	1849	1903	1962	19	0.94
140	143945	55	5.8799	3.56	0.3556	1.46	0.41	1961	1958	1955	34	1.00

83	112148	37	5.0922	2.48	0.3160	0.49	0.20	1770	1835	1909	28	0.93
63	133341	42	5.8670	1.19	0.3371	0.83	0.69	1873	1956	2046	19	0.92
136	278082	185	5.2715	1.14	0.3270	0.56	0.49	1824	1864	1910	20	0.96
127	187966	43	5.8390	4.70	0.3474	0.56	0.12	1922	1952	1984	45	0.97
176	215581	26	5.9448	9.37	0.3538	1.09	0.12	1953	1968	1984	85	0.98
236	211339	46	4.4907	0.89	0.2784	0.66	0.74	1583	1729	1911	19	0.83
72	275379	43	5.7032	0.67	0.3405	0.55	0.82	1889	1932	1978	18	0.95
87	183777	18	5.5062	4.78	0.3295	0.60	0.13	1836	1902	1974	46	0.93
134	214300	89	5.1977	5.11	0.3132	0.78	0.15	1757	1852	1961	48	0.90
152	684008	29	5.7461	10.12	0.3384	0.55	0.06	1879	1938	2002	91	0.94
29	17314	19	5.5786	2.33	0.3345	1.18	0.50	1860	1913	1970	25	0.94
123	533306	87	5.1672	1.64	0.3215	0.93	0.57	1797	1847	1904	22	0.94
169	294435	21	5.0184	0.46	0.3126	0.45	0.97	1754	1822	1902	18	0.92
75	603974	56	5.3683	2.32	0.3218	0.61	0.26	1798	1880	1971	27	0.91
54	151059	22	4.3252	2.09	0.2780	0.92	0.44	1581	1698	1846	25	0.86
84	60793	26	5.5186	6.07	0.3303	0.40	0.07	1840	1904	1974	57	0.93
116	159785	59	6.0497	7.80	0.3651	1.00	0.13	2006	1983	1959	71	1.02
75	577726	45	6.0713	1.18	0.3651	0.73	0.62	2006	1986	1965	20	1.02
159	290502	127	5.4630	2.57	0.3401	0.88	0.34	1887	1895	1903	28	0.99
79	76909	18	6.0867	2.45	0.3534	0.99	0.40	1951	1988	2027	27	0.96
162	603602	62	5.9396	0.83	0.3553	0.51	0.62	1960	1967	1974	19	0.99
261	140103	24	4.7767	0.85	0.2889	0.78	0.91	1636	1781	1955	18	0.84
139	152992	39	5.5064	1.90	0.3412	0.48	0.26	1893	1902	1911	24	0.99
106	695578	27	5.3046	1.39	0.3269	0.53	0.38	1823	1870	1921	21	0.95
86	153732	30	6.2157	1.64	0.3691	0.54	0.33	2025	2007	1988	23	1.02
236	267794	51	5.6551	1.49	0.3421	1.04	0.70	1897	1925	1955	20	0.97
22	357119	41	8.6758	4.57	0.4702	3.91	0.86	2485	2305	2149	27	1.16
56	735575	25	6.0624	0.49	0.3623	0.37	0.75	1993	1985	1976	18	1.01
132	139143	22	5.3563	9.27	0.3276	0.68	0.07	1827	1878	1935	85	0.94
44	399714	11	5.6303	1.25	0.3444	0.68	0.54	1908	1921	1935	20	0.99
59	790923	31	5.7172	1.51	0.3461	0.64	0.42	1916	1934	1953	22	0.98
196	51183	21	4.3604	1.15	0.2740	1.11	0.97	1561	1705	1886	18	0.83
206	211051	31	5.5968	1.83	0.3322	0.55	0.30	1849	1916	1988	24	0.93
144	242380	39	5.1639	0.78	0.3197	0.58	0.75	1788	1847	1913	19	0.93
161	121928	47	5.6704	0.99	0.3361	0.90	0.91	1868	1927	1991	18	0.94
116	90849	25	5.2018	9.21	0.3205	0.49	0.05	1792	1853	1922	84	0.93
337	574519	71	3.6712	2.38	0.2338	0.62	0.26	1354	1565	1862	28	0.73
335	399539	6	3.3124	0.73	0.2035	0.69	0.94	1194	1484	1927	18	0.62
109	92673	23	5.6972	2.55	0.3400	1.03	0.41	1887	1931	1979	27	0.95
124	393340	129	5.9897	3.27	0.3721	0.69	0.21	2039	1974	1907	34	1.07
50	172645	21	6.0805	2.32	0.3779	1.23	0.53	2066	1988	1906	25	1.08
139	281504	40	6.8672	6.01	0.3921	0.85	0.14	2133	2094	2057	55	1.04
90	774967	27	6.1491	1.48	0.3795	1.05	0.71	2074	1997	1919	20	1.08
134	151912	23	6.0451	2.66	0.3650	0.73	0.28	2006	1982	1958	29	1.02
108	232510	26	6.3238	0.98	0.3783	0.56	0.58	2069	2022	1974	19	1.05
86	282342	32	6.4926	0.88	0.3881	0.72	0.82	2114	2045	1976	18	1.07
104	219886	35	6.1805	1.41	0.3698	1.10	0.78	2028	2002	1974	20	1.03
96	411827	26	6.3251	0.77	0.3772	0.53	0.70	2063	2022	1980	19	1.04
20	30203	439	6.0183	1.03	0.3698	0.71	0.69	2029	1979	1927	19	1.05
24	40228	34	5.3810	0.80	0.3460	0.68	0.84	1916	1882	1845	19	1.04
34	36976	24	5.6249	1.57	0.3479	0.55	0.35	1925	1920	1915	22	1.00
44	96375	58	5.8020	2.32	0.3573	0.96	0.41	1969	1947	1923	26	1.02
25	67553	14	5.0846	2.00	0.3255	0.61	0.31	1817	1834	1853	25	0.98
27	31477	17	8.4776	1.01	0.3954	0.78	0.77	2148	2284	2407	18	0.89
61	45060	39	6.5744	2.19	0.3143	2.17	0.99	1762	2056	2365	17	0.74
41	81169	40	6.2305	0.74	0.3780	0.46	0.62	2067	2009	1949	19	1.06

16	31934	38	5.3445	1.46	0.3411	1.28	0.88	1892	1876	1859	19	1.02
56	95693	27	6.7091	4.97	0.3882	0.62	0.13	2115	2074	2034	47	1.04

Note:

\* indicates radiogenic Pb (corrected for common Pb).

All errors are reported at the 2-sigma level.

Analyses in italics are not considered further due to large uncertainty or discordance (<0.90 or >1.04).

Discordance is calculated from comparison of  $^{206}\text{Pb}^*/^{238}\text{U}$  and  $^{206}\text{Pb}^*/^{207}\text{Pb}^*$  ages.

U concentration, U/Th, and  $^{206}\text{Pb}/^{204}\text{Pb}$  have uncertainties of ~25%.

Decay constants:  $^{235}\text{U}=9.8485\times 10^{-10}$ .  $^{238}\text{U}=1.55125\times 10^{-10}$ .  $^{238}\text{U}/^{235}\text{U}=137.88$ .

Isotope ratios are corrected for Pb/U fractionation by comparison with standard zircon with an age of  $564 \pm 4$  Ma (2-sigma).

Initial Pb composition interpreted from Stacey and Kramers (1975), with uncertainties of 1.0 for  $^{206}\text{Pb}/^{204}\text{Pb}$  and 0.3 for  $^{207}\text{Pb}/^{204}\text{Pb}$ .

Reference:

Stacey, J.S., and Kramers, J.D., 1975, Approximation of terrestrial lead isotope evolution by a two-stage model: Earth and Planetary Science Letters, v. 26, p. 207-221.