A new calibrated strategy for in-situ U–Th–Pb dating of bastnasite by Xenotime

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Supplementary Information

Table S-1 Mathematical equation for U–Th–Pb data correction between standards and samples (xenotime XN01 or concordant bastnasite K-9 as the primary standard).

$$R_{cor}^{sam} = R_{mea}^{sam} * R_{ref}^{std} * \{1/R_{mea1}^{std} * 【1-(t^{sam}-t_{mea1}^{std})/(t_{mea2}^{std}-t_{mea1}^{std})】 + 1/R_{mea2}^{std} * (t^{sam}-t_{mea1}^{std})/(t_{mea2}^{std}-t_{mea1}^{std})\}$$

Note: R_{mea}^{sam} is the measured isotopic ratio of sample at time of t^{sam}, R_{cor}^{sam} is the corrected isotopic ratio of the sample, R_{ref}^{std} is the reference isotopic ratio of the primary standard, and R_{mea1}^{std} and R_{mea2}^{std} are the measured isotopic ratios of primary standard at times of t_{mea1}^{std} and t_{mea2}^{std}, respectively.

U–Pb and Th–Pb isotopic ratios are corrected with standard-sample bracketing method. Xenotime XN01 or concordant bastnasite K-9 was used as external standard, which was analyzed three times every 10 or 15 analyses of bastnasite samples (i.e. 2 NIST612 + 3 XN01 + 10~15 samples (K-9 or other bastnasite samples) + 3 XN01 + 2 NIST612 or 2 NIST612 + 3 XN01 + 3 K-9 + 10~15 samples + 3 XN01 + 3 K-9 + 2 NIST612). A short integrating time (~25 s) of external standard and samples were selected to correct the Pb/U and Pb/Th fractionation and instrumental mass discrimination using ICPMSDataCal software. The U–Pb and Th–Pb isotopic ratios of samples were calculated using a linear interpolation (with time) for every ten or fifteen analyses according to the variations of standard. Similar description of mathematical equation and the uncertainty calculation can

be found in Luo et al.[17, 25], Tang et al.[30] and Liu et al.[35].

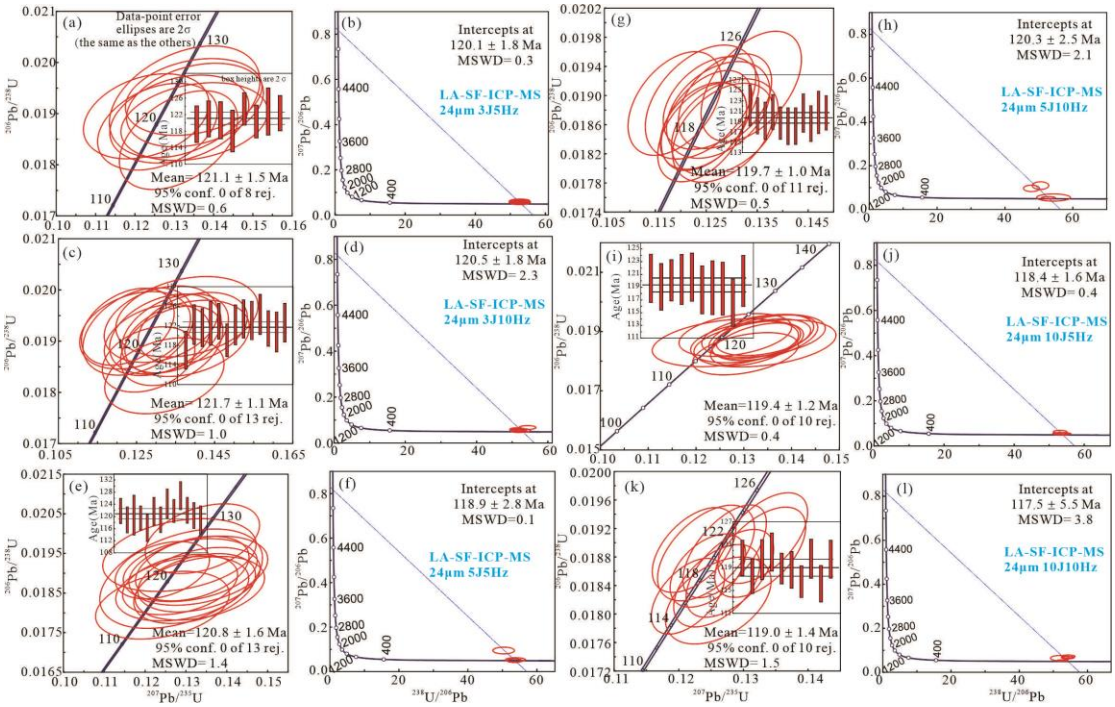

Figure S-1 *In-situ* U–Pb ages of bastnasite K-9 calibrated by xenotime XN01 using a spot size of 24 μm and without adding nitrogen.

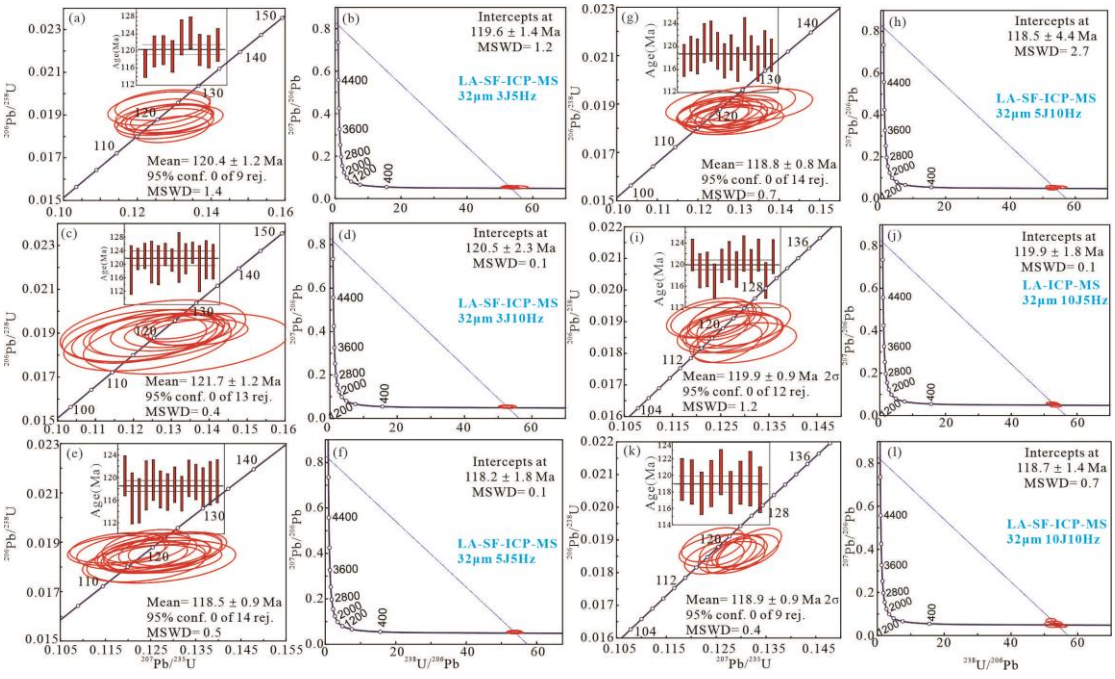

Figure S-2 *In-situ* U–Pb ages of bastnasite K-9 calibrated by xenotime XN01 using a spot size of 32 μm and without adding nitrogen.

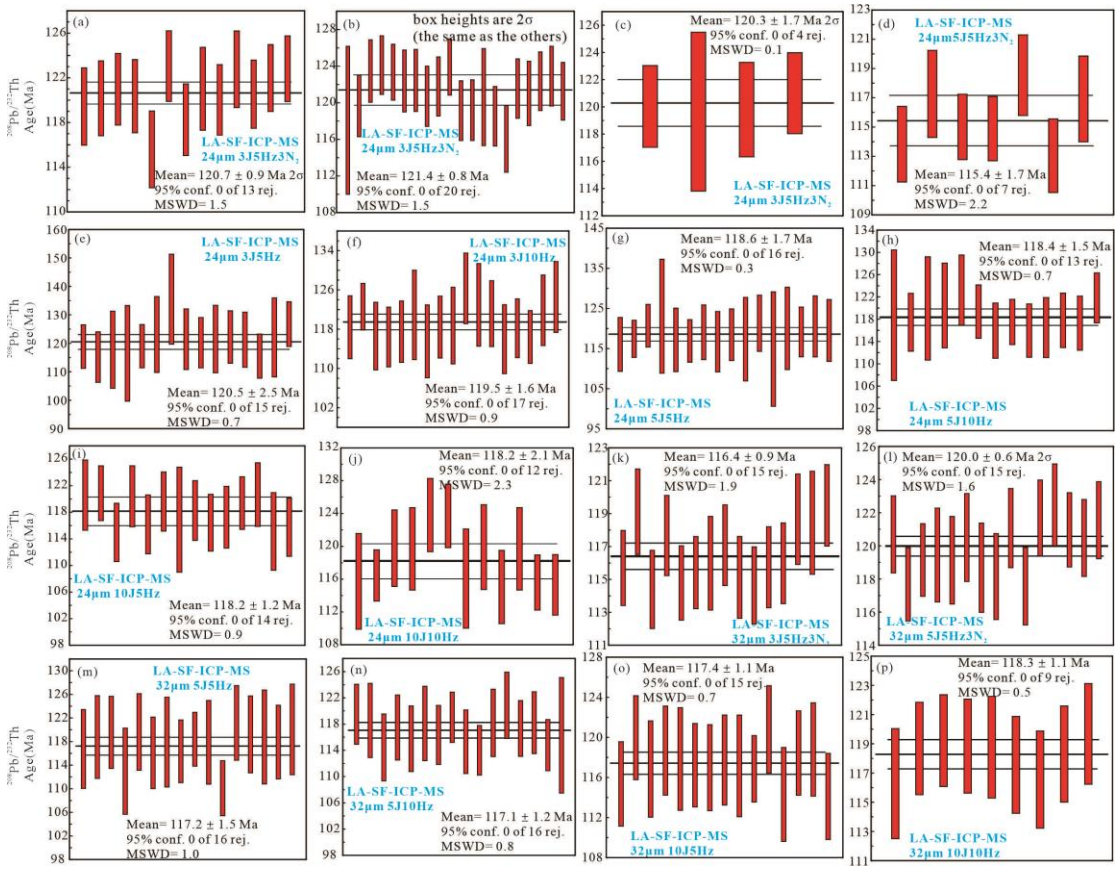

Figure S-3 *In-situ* Th–Pb ages of bastnasite K-9 calibrated by xenotime XN01.

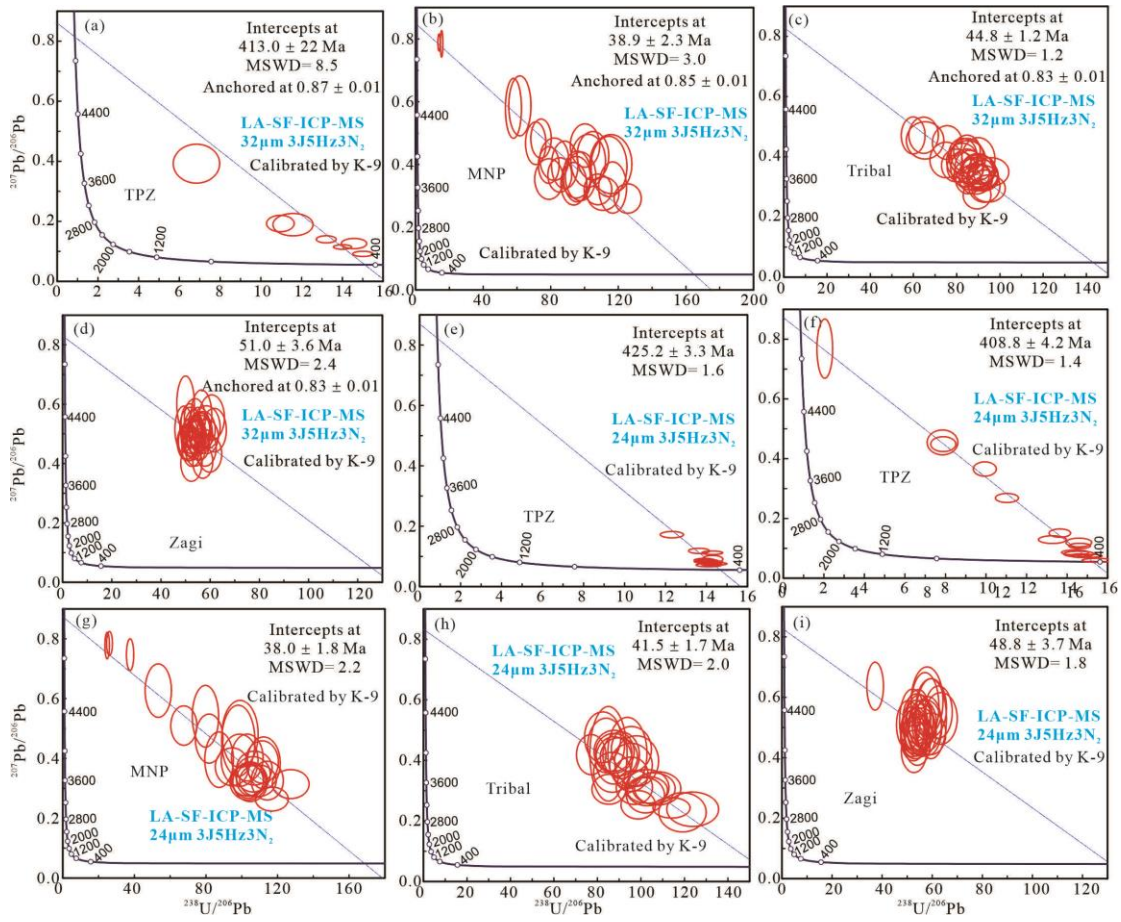

Figure S-4 *In-situ* U–Pb ages of four typical bastnasite samples using K-9 as primary standard in three normal ablation settings by LA-SF-ICP-MS.

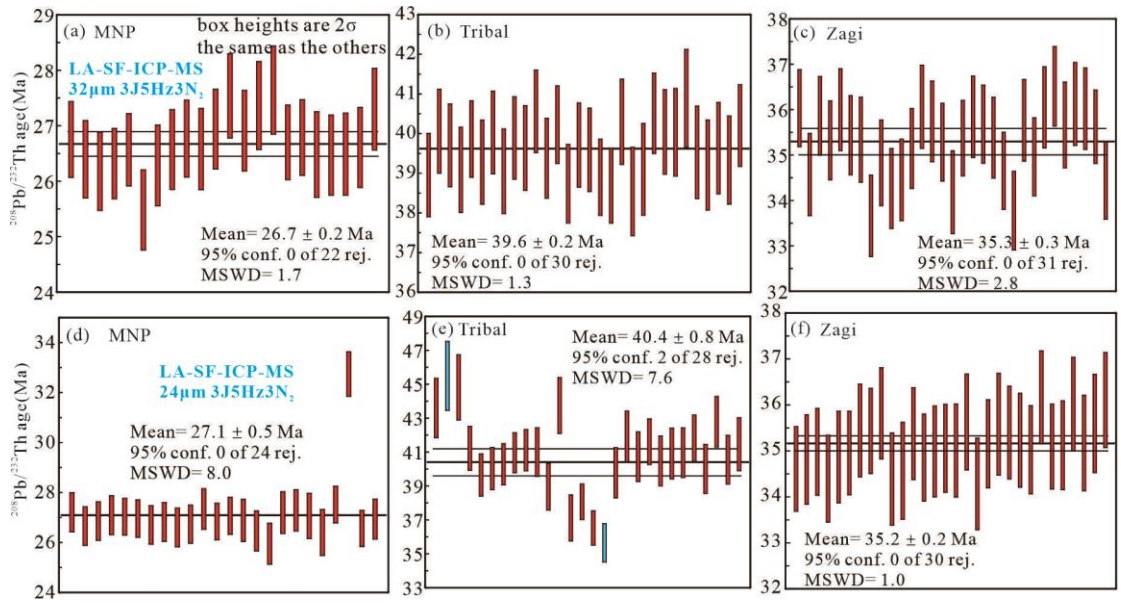

Figure S-5 *In-situ* Th–Pb ages of four typical bastnasite samples using K-9 as the primary standard in three normal ablation settings by LA-SF-ICP-MS

Table S-2 K-9 calibrated by XN01

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
16μm3J5Hz3N2																							
20304D10	116.3	T-W			1729.3		52.96	1.16	0.0625	0.0024	0.0022	0.1623	0.0059	0.0054	0.0189	0.0004	0.0003	0.48			700.0	75.9	152.8
20304D11	116.3	T-W			1747.0		53.65	1.31	0.0515	0.0017	0.0015	0.1323	0.0047	0.0043	0.0186	0.0005	0.0004	0.59			264.9	64.8	126.1
20304D12	116.3	T-W			1751.6		53.51	1.08	0.0705	0.0039	0.0037	0.1846	0.0103	0.0099	0.0187	0.0004	0.0002	0.24			942.6	108.2	172.0
20304D13	116.3	T-W			1710.4		54.36	1.06	0.0529	0.0014	0.0012	0.1341	0.0039	0.0033	0.0184	0.0004	0.0002	0.49			324.1	51.8	127.7
20304D14	116.3	T-W			1257.3		53.18	1.21	0.0707	0.0031	0.0029	0.1830	0.0090	0.0085	0.0188	0.0004	0.0003	0.36			950.0	85.2	170.6
20304D19	116.3	T-W			1575.1		51.43	1.13	0.0990	0.0043	0.0040	0.2661	0.0121	0.0114	0.0194	0.0004	0.0003	0.37			1605.9	75.5	239.6
20304D21	116.3	T-W			1708.6		53.96	1.21	0.0529	0.0019	0.0017	0.1344	0.0052	0.0047	0.0185	0.0004	0.0003	0.46			324.1	69.4	128.1
20304D23	116.3	T-W			1103.9		53.70	1.15	0.0611	0.0021	0.0018	0.1567	0.0058	0.0053	0.0186	0.0004	0.0003	0.45			642.6	64.8	147.8
20304D24	116.3	T-W			1167.4		55.52	1.20	0.0617	0.0023	0.0021	0.1517	0.0055	0.0049	0.0180	0.0004	0.0003	0.47			661.1	72.2	143.4
20304D26	116.3	T-W			1220.9		54.12	1.44	0.0562	0.0021	0.0019	0.1428	0.0052	0.0048	0.0185	0.0005	0.0004	0.66			461.2	108.3	135.5
20304D27	116.3	T-W			1308.7		55.00	1.44	0.0556	0.0017	0.0014	0.1391	0.0049	0.0044	0.0182	0.0005	0.0004	0.67			435.2	62.0	132.3
20304D28	116.3	T-W			1226.2		54.67	1.55	0.0502	0.0017	0.0015	0.1266	0.0049	0.0045	0.0183	0.0005	0.0004	0.68			211.2	70.4	121.1
20304D5	116.3	T-W			1597.1		54.34	1.43	0.0689	0.0034	0.0033	0.1774	0.0080	0.0075	0.0184	0.0005	0.0004	0.51			1000.0	100.0	165.9
20304D7	116.3	T-W			1655.0		54.31	1.25	0.0741	0.0024	0.0021	0.1888	0.0061	0.0054	0.0184	0.0004	0.0003	0.61			1061.1	52.8	175.6
20304D8	116.3	T-W			1645.0		54.69	1.29	0.0552	0.0018	0.0016	0.1401	0.0057	0.0053	0.0183	0.0004	0.0003	0.48			431.5	64.8	133.2
20304D20	116.6	Mean			1678.9		54.08	1.51	0.0487	0.0017	0.0015	0.1235	0.0044	0.0040	0.0185	0.0005	0.0004	0.73			131.6	76.8	118.3
20304D25	116.6	Mean			897.8		54.98	1.23	0.0495	0.0018	0.0017	0.1242	0.0047	0.0043	0.0182	0.0004	0.0003	0.48			172.3	75.0	118.9
20304D29	116.6	Mean			1187.7		55.55	1.30	0.0495	0.0015	0.0013	0.1227	0.0042	0.0037	0.0180	0.0004	0.0003	0.58			172.3	61.1	117.5
20304D6	116.6	Mean			1604.9		54.72	1.15	0.0496	0.0017	0.0015	0.1240	0.0037	0.0031	0.0183	0.0004	0.0003	0.56			172.3	72.2	118.7
20304D9	116.6	Mean			1618.2		54.46	1.16	0.0486	0.0016	0.0014	0.1233	0.0040	0.0036	0.0184	0.0004	0.0003	0.51			131.6	68.5	118.1
16μm3J10Hz3N2																							
20306B19	118.2	T-W			1045.5		50.16	1.36	0.1487	0.0075	0.0072	0.3731	0.0153	0.0142	0.0199	0.0005	0.0004	0.59			2175.9	64.7	321.9
20306B9	118.2	T-W			1416.1		49.20	1.47	0.1231	0.0086	0.0084	0.3235	0.0148	0.0140	0.0203	0.0006	0.0005	0.59			1900.0	73.5	284.6
20306B13	118.2	T-W			726.9		50.32	1.66	0.1066	0.0081	0.0080	0.2874	0.0260	0.0256	0.0199	0.0007	0.0006	0.33			1681.2	135.8	256.5
20306B12	118.2	T-W			2022.0		53.27	1.90	0.0798	0.0042	0.0041	0.2115	0.0141	0.0137	0.0188	0.0007	0.0006	0.50			1184.9	105.6	194.8
20306B6	118.2	T-W			1918.2		54.72	1.85	0.0746	0.0028	0.0026	0.1932	0.0093	0.0088	0.0183	0.0006	0.0006	0.66			1061.1	83.3	179.3
20306B7	118.2	T-W			1827.3		53.68	1.76	0.0698	0.0041	0.0040	0.1724	0.0082	0.0077	0.0186	0.0006	0.0005	0.64			831.5	67.6	161.5
20306B15	118.2	T-W			1198.0		53.09	1.61	0.0617	0.0041	0.0040	0.1620	0.0064	0.0059	0.0188	0.0006	0.0005	0.72			687.1	64.8	152.5

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20306B28	118.2	T-W			1150.8		52.11	1.89	0.0627	0.0021	0.0018	0.1660	0.0143	0.0141	0.0192	0.0007	0.0006	0.39			733.3	337.9	155.9
20306B23	118.2	T-W			2079.9		53.37	1.73	0.0621	0.0017	0.0014	0.1589	0.0062	0.0057	0.0187	0.0006	0.0005	0.80			661.1	55.7	149.7
20306B24	118.2	T-W			1808.9		52.91	1.57	0.0620	0.0024	0.0022	0.1548	0.0058	0.0053	0.0189	0.0006	0.0005	0.74			587.1	75.9	146.1
20306B25	118.2	T-W			2662.5		51.11	1.64	0.0604	0.0018	0.0016	0.1605	0.0060	0.0054	0.0196	0.0006	0.0006	0.83			594.5	64.8	151.1
20306B5	118.2	T-W			1923.4		53.70	2.04	0.0573	0.0024	0.0022	0.1498	0.0085	0.0082	0.0186	0.0007	0.0006	0.63			487.1	92.6	141.7
20306B11	118.2	T-W			2336.8		52.73	1.73	0.0571	0.0016	0.0014	0.1453	0.0049	0.0043	0.0190	0.0006	0.0006	0.97			442.6	10.2	137.7
20306B14	118.2	T-W			1220.2		52.33	1.88	0.0544	0.0017	0.0015	0.1409	0.0064	0.0060	0.0191	0.0007	0.0006	0.76			338.9	77.8	133.9
20306B10	118.2	T-W			2045.5		52.53	1.74	0.0539	0.0013	0.0010	0.1394	0.0049	0.0044	0.0190	0.0006	0.0006	0.94			342.7	48.1	132.5
20306B22	118.2	T-W			1098.6		51.96	1.89	0.0515	0.0016	0.0014	0.1384	0.0062	0.0059	0.0192	0.0007	0.0006	0.78			283.4	56.5	131.6
20306B8	118.2	T-W			2008.7		54.49	2.12	0.0515	0.0021	0.0020	0.1279	0.0058	0.0054	0.0184	0.0007	0.0007	0.84			216.7	52.8	122.2
20306B26	118.2	T-W			2185.8		53.08	2.01	0.0514	0.0014	0.0011	0.1304	0.0053	0.0049	0.0188	0.0007	0.0007	0.91			216.7	66.7	124.5
20306B21	118.2, 119.1	Mean, T-W			1271.4		54.52	1.74	0.0502	0.0015	0.0013	0.1244	0.0051	0.0047	0.0183	0.0006	0.0005	0.74			164.9	74.1	119.1
20306B27	118.2, 119.1	Mean, T-W			2460.0		53.88	1.79	0.0490	0.0012	0.0010	0.1252	0.0046	0.0042	0.0186	0.0006	0.0005	0.88			146.4	46.3	119.8
20306B20	118.2, 119.1	Mean, T-W			1291.6		52.09	1.86	0.0486	0.0016	0.0015	0.1284	0.0056	0.0053	0.0192	0.0007	0.0006	0.79			200.1	74.1	122.7
16μm5J5Hz3N2																							
20306C21	117.5	T-W			847.6		47.66	1.16	0.1506	0.0085	0.0082	0.4431	0.0215	0.0205	0.0210	0.0005	0.0004	0.41			2353.4	93.2	372.5
20306C22	117.5	T-W			852.9		48.69	1.17	0.1508	0.0074	0.0070	0.4318	0.0244	0.0235	0.0205	0.0005	0.0004	0.34			2355.3	79.6	364.4
20306C11	117.5	T-W			942.4		51.58	1.13	0.0887	0.0052	0.0050	0.2406	0.0134	0.0129	0.0194	0.0004	0.0003	0.29			1398.5	108.2	218.9
20306C7	117.5	T-W			616.8		52.02	1.28	0.0551	0.0024	0.0022	0.1460	0.0057	0.0053	0.0192	0.0005	0.0004	0.53			416.7	90.7	138.4
20306C28	117.5	T-W			1090.3		52.49	1.71	0.0698	0.0031	0.0029	0.1843	0.0102	0.0098	0.0191	0.0006	0.0005	0.54			924.1	86.0	171.7
20306C27	117.5	T-W			1206.1		52.51	1.57	0.0497	0.0015	0.0013	0.1310	0.0054	0.0051	0.0190	0.0006	0.0005	0.67			183.4	61.1	125.0
20306C19	117.5	T-W			709.2		52.70	1.40	0.0764	0.0052	0.0050	0.2002	0.0143	0.0139	0.0190	0.0005	0.0004	0.31			1105.6	131.5	185.3
20306C20	117.5	T-W			976.3		53.00	1.43	0.0582	0.0017	0.0015	0.1515	0.0055	0.0050	0.0189	0.0005	0.0004	0.68			538.9	53.7	143.2
20306C24	117.5	T-W			662.1		53.02	1.37	0.0781	0.0033	0.0030	0.2047	0.0085	0.0079	0.0189	0.0005	0.0004	0.54			1150.0	76.7	189.1
20306C8	117.5	T-W			1132.3		53.04	1.17	0.0582	0.0017	0.0014	0.1514	0.0050	0.0044	0.0189	0.0004	0.0003	0.55			538.9	53.7	143.1
20306C5	117.5	T-W			782.8		53.08	1.40	0.0556	0.0021	0.0019	0.1440	0.0057	0.0053	0.0188	0.0005	0.0004	0.59			435.2	71.3	136.6
20306C25	117.5	T-W			837.4		53.42	1.39	0.0692	0.0029	0.0027	0.1820	0.0071	0.0066	0.0187	0.0005	0.0004	0.58			905.6	73.9	169.8
20306C9	117.5	T-W			917.1		53.59	1.30	0.0523	0.0019	0.0017	0.1340	0.0042	0.0037	0.0187	0.0005	0.0004	0.69			298.2	69.4	127.7
20306C23	117.5	T-W			1302.9		53.59	1.08	0.0758	0.0028	0.0025	0.1946	0.0056	0.0048	0.0187	0.0004	0.0002	0.53			1100.0	66.7	180.5

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20306C14	117.5	T-W			1021.1		53.71	1.92	0.0552	0.0027	0.0026	0.1425	0.0062	0.0058	0.0186	0.0007	0.0006	0.80			420.4	99.1	135.3
20306C30	117.5	T-W			1402.1		54.14	1.18	0.0598	0.0017	0.0014	0.1517	0.0041	0.0034	0.0185	0.0004	0.0003	0.69			594.5	56.5	143.4
20306C12	117.5	T-W			1303.4		54.55	1.19	0.0538	0.0017	0.0014	0.1350	0.0036	0.0030	0.0183	0.0004	0.0003	0.71			361.2	61.1	128.6
20306C29	117.5	T-W			1533.7		54.90	1.47	0.0504	0.0015	0.0013	0.1261	0.0040	0.0035	0.0182	0.0005	0.0004	0.79			213.0	61.1	120.6
							16μm5J10Hz3N2																
20306D12	114.1	T-W			1222.3		50.02	1.74	0.1389	0.0113	0.0111	0.4167	0.0418	0.0413	0.0200	0.0007	0.0006	0.32			2213.3	134.1	353.7
20306D29	114.1	T-W			784.7		52.72	1.86	0.0914	0.0050	0.0048	0.2432	0.0138	0.0133	0.0190	0.0007	0.0006	0.58			1454.6	101.9	221.1
20306D28	114.1	T-W			662.9		52.86	1.56	0.0944	0.0044	0.0042	0.2460	0.0115	0.0108	0.0189	0.0006	0.0005	0.57			1516.7	83.3	223.3
20306D30	114.1	T-W			701.6		52.90	1.70	0.0751	0.0038	0.0036	0.1968	0.0111	0.0107	0.0189	0.0006	0.0005	0.52			1072.2	96.8	182.4
20306D32	114.1	T-W			1007.4		54.38	1.65	0.0695	0.0021	0.0018	0.1761	0.0066	0.0060	0.0184	0.0006	0.0005	0.76			914.5	53.7	164.7
20306D19	114.1	T-W			1574.4		54.45	1.76	0.0641	0.0017	0.0014	0.1622	0.0056	0.0050	0.0184	0.0006	0.0005	0.92			746.3	45.5	152.6
20306D24	114.1	T-W			1251.2		54.93	1.73	0.0581	0.0034	0.0033	0.1460	0.0076	0.0073	0.0182	0.0006	0.0005	0.56			531.5	91.7	138.4
20306D21	114.1	T-W			1034.6		55.31	1.73	0.0596	0.0024	0.0022	0.1502	0.0063	0.0058	0.0181	0.0006	0.0005	0.70			590.8	78.5	142.1
20306D5	114.1	T-W			1449.1		55.34	1.54	0.0597	0.0023	0.0021	0.1484	0.0062	0.0057	0.0181	0.0005	0.0004	0.60			590.8	71.3	140.5
20306D8	114.1	T-W			2219.6		55.93	1.65	0.0645	0.0020	0.0018	0.1587	0.0059	0.0053	0.0179	0.0005	0.0005	0.75			766.7	57.4	149.6
							24μm3J5Hz3N2																
20102a5	118.6	Mean	190	36696.1	726.7	50.5	54.71	1.66	0.0484	0.0019	0.0017	0.1214	0.0049	0.0045	0.0183	0.0006	0.0005	0.71	0.0059	0.0001	116.8	83.3	116.4
20102a6	118.6	Mean	212	40138.4	881.9	45.5	55.35	1.75	0.0488	0.0018	0.0017	0.1210	0.0050	0.0047	0.0181	0.0006	0.0005	0.71	0.0060	0.0001	139.0	79.6	116.0
20102a7	118.6	Mean	200	36702.2	805.7	45.6	53.71	1.57	0.0482	0.0016	0.0015	0.1241	0.0051	0.0048	0.0186	0.0005	0.0005	0.65	0.0064	0.0001	109.4	76.8	118.8
20102a18			27	1506.6	1105.6	1.4																	
20102a19			19	710.6	836.4	0.8																	
20102a20			32	2039.2	1400.2	1.5																	
20102a29	118.6	Mean	36	1433.3	1604.3	0.9	53.85	1.47	0.0482	0.0013	0.0011	0.1234	0.0043	0.0039	0.0186	0.0005	0.0004	0.73	0.0063	0.0002	109.4	53.7	118.1
20102a30	118.6	Mean	28	669.6	1374.8	0.5	53.65	1.47	0.0489	0.0014	0.0012	0.1255	0.0045	0.0041	0.0186	0.0005	0.0004	0.70	0.0065	0.0002	142.7	57.4	120.1
20102a31	118.6	Mean	40	5078.9	867.4	5.9	52.45	1.57	0.0485	0.0015	0.0013	0.1275	0.0046	0.0042	0.0191	0.0006	0.0005	0.78	0.0060	0.0001	124.2	61.1	121.8
20102a41	118.6	Mean	40	982.9	2019.2	0.5	54.33	1.64	0.0490	0.0014	0.0011	0.1243	0.0046	0.0042	0.0184	0.0006	0.0005	0.77	0.0072	0.0002	150.1	55.5	119.0
20102a42	118.6	Mean	30	762.8	1468.3	0.5	53.18	1.60	0.0493	0.0013	0.0010	0.1280	0.0048	0.0043	0.0188	0.0006	0.0005	0.76	0.0070	0.0003	164.9	45.4	122.3
20102a43	118.6	Mean	39	4263.3	1075.3	4.0	53.13	1.75	0.0484	0.0015	0.0014	0.1253	0.0051	0.0048	0.0188	0.0006	0.0005	0.77	0.0060	0.0001	116.8	69.4	119.9
20102a53	118.6	Mean	31	3847.1	717.4	5.4	54.06	1.40	0.0491	0.0019	0.0017	0.1248	0.0049	0.0045	0.0185	0.0005	0.0004	0.58	0.0057	0.0001	153.8	76.8	119.4

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20102a54	118.6	Mean	63	8027.5	1362.2	5.9	54.17	1.46	0.0489	0.0015	0.0013	0.1244	0.0042	0.0038	0.0185	0.0005	0.0004	0.74	0.0061	0.0001	146.4	63.9	119.0
20102a55	118.6	Mean	58	7323.8	1211.8	6.0	52.87	1.38	0.0555	0.0019	0.0018	0.1444	0.0052	0.0048	0.0189	0.0005	0.0004	0.64	0.0059	0.0001	435.2	70.4	137.0
20102a64	118.6	Mean	42	5429.1	864.5	6.3	53.89	1.48	0.0513	0.0026	0.0024	0.1317	0.0072	0.0069	0.0186	0.0005	0.0004	0.43	0.0060	0.0002	253.8	109.2	125.6
20102a65	118.6	Mean	48	5941.1	1114.8	5.3	54.29	1.36	0.0504	0.0016	0.0014	0.1278	0.0046	0.0041	0.0184	0.0005	0.0004	0.61	0.0060	0.0001	213.0	66.7	122.1
20102a66	118.6	Mean	61	7352.8	1428.8	5.1	55.06	1.46	0.0488	0.0015	0.0013	0.1220	0.0040	0.0036	0.0182	0.0005	0.0004	0.74	0.0061	0.0001	139.0	59.3	116.9
20102a72	118.6	Mean	44	5220.8	1040.4	5.0	54.33	1.48	0.0484	0.0015	0.0013	0.1222	0.0039	0.0035	0.0184	0.0005	0.0004	0.80	0.0060	0.0001	116.8	67.6	117.1
20102a73	118.6	Mean	182	33967.6	645.9	52.6	53.16	1.35	0.0488	0.0017	0.0015	0.1262	0.0047	0.0043	0.0188	0.0005	0.0004	0.60	0.0061	0.0001	200.1	70.4	120.7
20102a74	118.6	Mean	185	34277.2	745.2	46.0	53.12	1.30	0.0490	0.0017	0.0015	0.1269	0.0046	0.0041	0.0188	0.0005	0.0004	0.59	0.0061	0.0001	150.1	72.2	121.3
												24µm3J5Hz3N2											
20111A47	119.2	T-W	35	2248	1035.0	2.2	53.06	4.05	0.0572	0.0051	0.0050	0.1444	0.0123	0.0121	0.0188	0.0014	0.0014	0.89	0.0059	0.0004	498.2	189.8	136.9
20111A103	119.2	T-W	29	4077	456.8	8.9	52.98	1.44	0.0570	0.0028	0.0027	0.1545	0.0071	0.0067	0.0189	0.0005	0.0004	0.52	0.0059	0.0001	494.5	103.7	145.9
20111A124	119.2	T-W	41	3435	1218.5	2.8	53.18	1.74	0.0551	0.0022	0.0021	0.1457	0.0068	0.0064	0.0188	0.0006	0.0005	0.65	0.0061	0.0001	416.7	83.3	138.1
20111A143	119.2	T-W	49	3584	1244.2	2.9	50.31	1.93	0.0909	0.0078	0.0076	0.2590	0.0286	0.0283	0.0199	0.0008	0.0007	0.32	0.0069	0.0003	1443.5	159.7	233.9
20111A144	119.2	T-W	46	3616	1470.9	2.5	54.04	1.98	0.0523	0.0019	0.0018	0.1333	0.0063	0.0060	0.0185	0.0007	0.0006	0.74	0.0062	0.0001	298.2	77.8	127.1
20111A164	119.2	T-W	81	13641	671.2	20.3	52.94	1.93	0.0522	0.0024	0.0023	0.1359	0.0059	0.0056	0.0189	0.0007	0.0006	0.81	0.0061	0.0001	300.1	100.0	129.4
20111A5	118.7	Mean	48	5142	1187.2	4.3	54.64	1.23	0.0488	0.0019	0.0017	0.1251	0.0039	0.0034	0.0183	0.0004	0.0003	0.61	0.0063	0.0001	200.1	85.2	119.7
20111A6	118.7	Mean	55	5493	1477.2	3.7	53.37	1.47	0.0492	0.0016	0.0014	0.1301	0.0047	0.0043	0.0187	0.0005	0.0004	0.70	0.0061	0.0001	153.8	75.0	124.2
20111A7	118.7	Mean	56	5761	1530.4	3.8	53.10	1.14	0.0487	0.0013	0.0011	0.1269	0.0038	0.0032	0.0188	0.0004	0.0003	0.60	0.0061	0.0001	131.6	51.8	121.3
20111A26	118.7	Mean	42	4516	1051.7	4.3	54.25	1.50	0.0480	0.0018	0.0017	0.1220	0.0047	0.0044	0.0184	0.0005	0.0004	0.65	0.0060	0.0001	98.2	81.5	116.9
20111A27	118.7	Mean	53	6282	1113.4	5.6	54.49	1.49	0.0478	0.0016	0.0015	0.1237	0.0043	0.0038	0.0184	0.0005	0.0004	0.74	0.0060	0.0001	87.1	76.8	118.4
20111A46	118.7	Mean	49	5835	1073.3	5.4	54.58	1.57	0.0473	0.0023	0.0022	0.1241	0.0044	0.0040	0.0183	0.0005	0.0004	0.75	0.0062	0.0001	64.9	103.7	118.8
20111A66	118.7	Mean	42	3613	1256.0	2.9	52.59	1.48	0.0506	0.0018	0.0016	0.1324	0.0045	0.0040	0.0190	0.0005	0.0004	0.79	0.0059	0.0001	233.4	74.1	126.3
20111A67	118.7	Mean	39	3312	1205.3	2.7	52.86	1.72	0.0480	0.0019	0.0017	0.1283	0.0051	0.0047	0.0189	0.0006	0.0005	0.79	0.0059	0.0001	98.2	89.8	122.6
20111A83	118.7	Mean	52	4509	1691.1	2.7	53.97	2.67	0.0510	0.0031	0.0030	0.1305	0.0102	0.0100	0.0185	0.0009	0.0009	0.61	0.0060	0.0002	242.7	135.2	124.6
20111A84	118.7	Mean	38	3795	970.6	3.9	54.56	1.49	0.0489	0.0022	0.0020	0.1293	0.0043	0.0038	0.0183	0.0005	0.0004	0.77	0.0059	0.0001	142.7	98.1	123.4
20111A104	118.7	Mean	48	3774	1567.9	2.4	53.35	1.91	0.0507	0.0016	0.0014	0.1310	0.0054	0.0051	0.0187	0.0007	0.0006	0.84	0.0058	0.0002	233.4	63.0	125.0
20111A123	118.7	Mean	41	3507	1248.8	2.8	54.61	1.97	0.0480	0.0020	0.0018	0.1231	0.0050	0.0046	0.0183	0.0007	0.0006	0.87	0.0060	0.0001	98.2		117.9
20111A163	118.7	Mean	48	3965	1454.4	2.7	52.75	1.79	0.0482	0.0017	0.0015	0.1257	0.0051	0.0047	0.0190	0.0006	0.0006	0.80	0.0060	0.0001	109.4	75.9	120.2
20111A183	118.7	Mean	84	14433	721.6	20.0	53.29	1.77	0.0501	0.0019	0.0018	0.1305	0.0060	0.0056	0.0188	0.0006	0.0006	0.69	0.0061	0.0001	198.2	78.7	124.5

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20111A184	118.7	Mean	77	12756	711.9	17.9	54.00	1.75	0.0484	0.0021	0.0019	0.1260	0.0045	0.0041	0.0185	0.0006	0.0005	0.87	0.0061	0.0001	120.5	94.4	120.5
20111A185	118.7	Mean	86	15467	603.2	25.6	54.91	2.36	0.0507	0.0049	0.0049	0.1269	0.0112	0.0111	0.0182	0.0008	0.0007	0.46	0.0060	0.0001	233.4	198.1	121.3
24μm3J5Hz3N2																							
20112C05	120.2	T-W	17	257	489.3	0.5	45.54	1.53	0.1355	0.0152	0.0151	0.4020	0.0426	0.0421	0.0220	0.0007	0.0007	0.29	0.02661	0.01416	2170.1	196.1	343.1
20112C08	120.2	T-W	45	4734	1040.2	4.6	52.71	1.22	0.0544	0.0033	0.0032	0.1424	0.0084	0.0081	0.0190	0.0004	0.0003	0.31	0.00596	0.00012	387.1	136.1	135.2
20112C11	120.2	T-W	24	561	1071.7	0.5	51.82	1.29	0.0645	0.0041	0.0040	0.1703	0.0106	0.0103	0.0193	0.0005	0.0004	0.32	0.00594	0.00028	761.1	125.0	159.7
20112C12	120.2	T-W	110	21938	446.4	49.1	52.94	1.58	0.0553	0.0045	0.0044	0.1420	0.0101	0.0098	0.0189	0.0006	0.0005	0.37	0.00550	0.00007	433.4	181.5	134.8
20112C18	120.2	T-W	100	17985	840.6	21.4	53.31	1.33	0.0571	0.0037	0.0036	0.1473	0.0093	0.0090	0.0188	0.0005	0.0004	0.32	0.00549	0.00008	494.5	140.7	139.6
20112C19	120.2	T-W	114	20869	969.9	21.5	52.34	1.24	0.0597	0.0033	0.0032	0.1577	0.0085	0.0082	0.0191	0.0005	0.0003	0.35	0.00548	0.00008	590.8	113.9	148.6
20112C06	119.6	Mean	32	2831	932.8	3.0	52.87	1.30	0.0489	0.0031	0.0031	0.1246	0.0075	0.0072	0.0189	0.0005	0.0004	0.33	0.00595	0.00015	142.7	140.7	119.3
20112C07	119.6	Mean	46	4241	1267.0	3.3	53.55	1.24	0.0510	0.0028	0.0027	0.1322	0.0072	0.0069	0.0187	0.0004	0.0003	0.33	0.00601	0.00012	242.7	119.4	126.1
20112C13	119.6	Mean	137	26639	514.1	51.8	52.15	1.52	0.0503	0.0041	0.0041	0.1280	0.0096	0.0094	0.0192	0.0006	0.0005	0.34	0.00565	0.00008	209.3	188.9	122.3
20112C20	119.6	Mean	113	20197	963.4	21.0	53.67	1.26	0.0493	0.0032	0.0031	0.1249	0.0076	0.0074	0.0186	0.0004	0.0003	0.30	0.00552	0.00008	161.2	146.3	119.5
20112C24	119.6	Mean	64	7580	1469.8	5.2	53.61	1.20	0.0504	0.0026	0.0025	0.1281	0.0068	0.0065	0.0187	0.0004	0.0003	0.32	0.00549	0.00009	213.0	112.0	122.4
20112C25	119.6	Mean	65	7928	1458.5	5.4	53.32	1.15	0.0498	0.0026	0.0025	0.1288	0.0068	0.0065	0.0188	0.0004	0.0003	0.30	0.00551	0.00009	187.1	116.7	123.0
20112C26	119.6	Mean	70	9145	1418.3	6.4	53.72	1.22	0.0509	0.0026	0.0025	0.1300	0.0066	0.0063	0.0186	0.0004	0.0003	0.35	0.00543	0.00009	235.3	112.9	124.1
20112C30	119.6	Mean	186	35637	766.6	46.5	53.78	1.38	0.0499	0.0033	0.0032	0.1265	0.0082	0.0079	0.0186	0.0005	0.0004	0.33	0.00549	0.00007	190.8	154.6	121.0
20112C31	119.6	Mean	123	23453	458.5	51.2	53.73	1.54	0.0507	0.0041	0.0041	0.1277	0.0093	0.0091	0.0186	0.0005	0.0005	0.34	0.00551	0.00007	227.8	217.6	122.1
20112C32	119.6	Mean	192	36506	756.3	48.3	53.25	1.35	0.0488	0.0032	0.0031	0.1257	0.0079	0.0077	0.0188	0.0005	0.0004	0.33	0.00541	0.00006	139.0	140.7	120.2
24μm3J10Hz3N2																							
20306a8	117.3	T-W			1000.0		49.11	1.60	0.1023	0.0078	0.0076	0.2914	0.0204	0.0199	0.0204	0.0007	0.0006	0.42			1677.8	137.2	259.7
20306a27	117.3	T-W			1142.0		51.45	1.53	0.0795	0.0030	0.0027	0.2144	0.0106	0.0100	0.0194	0.0006	0.0005	0.54			1184.3	66.7	197.3
20306a10	117.3	T-W			1264.6		52.22	1.79	0.0532	0.0019	0.0017	0.1422	0.0057	0.0053	0.0191	0.0007	0.0006	0.82			338.9	74.1	135.0
20306a21	117.3	T-W			1798.6		52.28	1.34	0.1078	0.0063	0.0061	0.3016	0.0186	0.0180	0.0191	0.0005	0.0004	0.35			1762.7	102.3	267.7
20306a26	117.3	T-W			1442.8		52.62	1.42	0.0604	0.0024	0.0022	0.1581	0.0066	0.0061	0.0190	0.0005	0.0004	0.58			616.7	47.2	149.1
20306a19	117.3	T-W			1377.6		52.67	1.65	0.0525	0.0013	0.0011	0.1370	0.0044	0.0039	0.0190	0.0006	0.0005	0.97			309.3	46.3	130.4
20306a29	117.3	T-W			1256.0		52.99	1.68	0.0669	0.0023	0.0020	0.1740	0.0074	0.0069	0.0189	0.0006	0.0005	0.70			835.2	63.0	162.9
20306a5	117.3	T-W			1309.7		52.99	1.82	0.0528	0.0016	0.0014	0.1370	0.0056	0.0051	0.0189	0.0006	0.0006	0.82			320.4	63.9	130.4
20306a14	117.3	T-W			1663.5		53.26	1.49	0.0671	0.0027	0.0025	0.1739	0.0073	0.0068	0.0188	0.0005	0.0004	0.60			840.4	77.8	162.8

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20306a9	117.3	T-W			1196.7		53.56	1.80	0.0850	0.0039	0.0037	0.2207	0.0131	0.0126	0.0187	0.0006	0.0006	0.52			1316.7	84.4	202.5
20306a11	117.3	T-W			1226.4		53.68	1.63	0.0556	0.0019	0.0017	0.1425	0.0054	0.0049	0.0186	0.0006	0.0005	0.76			435.2	68.5	135.3
20306a13	117.3	T-W			628.6		54.00	1.69	0.0700	0.0035	0.0033	0.1786	0.0078	0.0073	0.0185	0.0006	0.0005	0.66			929.3	102.0	166.8
20306a23	117.3	T-W			1937.1		54.07	1.33	0.0490	0.0010	0.0007	0.1248	0.0033	0.0027	0.0185	0.0005	0.0004	0.89			146.4	33.3	119.4
20306a20	117.3	T-W			1782.8		54.19	1.35	0.0495	0.0010	0.0007	0.1258	0.0034	0.0028	0.0185	0.0005	0.0004	0.87			172.3	5.6	120.3
20306a22	117.3	T-W			1586.8		54.55	1.39	0.0545	0.0017	0.0014	0.1394	0.0042	0.0037	0.0183	0.0005	0.0004	0.77			390.8	63.9	132.6
20306a24	117.3	T-W			1968.1		55.04	1.22	0.0564	0.0019	0.0017	0.1412	0.0040	0.0033	0.0182	0.0004	0.0003	0.68			477.8	32.4	134.1
20306a7	117.3	T-W			1559.8		55.40	1.73	0.0516	0.0012	0.0009	0.1283	0.0044	0.0040	0.0180	0.0006	0.0005	0.88			333.4	38.9	122.6
24μm3J10Hz3N2																							
20308A11	118.0	T-W	898		898.5		50.85	1.75	0.0741	0.0081	0.0080	0.2004	0.0086	0.0080	0.0197	0.0007	0.0006	0.78			1055.6	83.3	185.4
20308A7	118.0	T-W	1004		1004.2		52.19	2.02	0.0776	0.0013	0.0006	0.2168	0.0156	0.0152	0.0192	0.0007	0.0007	0.51			1144.5	205.6	199.2
20308A32	118.0	T-W	883		882.9		52.27	1.72	0.0462	0.0017	0.0016	0.1191	0.0066	0.0064	0.0191	0.0006	0.0006	0.55			9.4	233.3	114.2
20308A38	118.0	T-W	1089		1089.4		52.36	1.81	0.0720	0.0016	0.0011	0.1899	0.0098	0.0094	0.0191	0.0007	0.0006	0.63			987.0	116.8	176.6
20308A19	118.0	T-W	867		866.6		53.25	1.88	0.0661	0.0016	0.0013	0.1720	0.0078	0.0073	0.0188	0.0007	0.0006	0.75			810.8	86.1	161.2
20308A18	118.0	T-W	985		985.1		53.34	1.88	0.0526	0.0015	0.0013	0.1362	0.0054	0.0050	0.0187	0.0007	0.0006	0.86			322.3	74.1	129.6
20308A25	118.0	T-W	860		860.2		53.41	1.87	0.0511	0.0040	0.0039	0.1326	0.0055	0.0051	0.0187	0.0007	0.0006	0.82			255.6	60.2	126.4
20308A26	118.0	T-W	1109		1108.9		53.58	1.92	0.0513	0.0019	0.0017	0.1325	0.0057	0.0054	0.0187	0.0007	0.0006	0.80			257.5	68.5	126.4
20308A12	118.0	T-W	830		830.3		53.58	1.81	0.0584	0.0014	0.0011	0.1517	0.0061	0.0057	0.0187	0.0006	0.0006	0.80			542.6	66.7	143.4
20308A30	118.0	T-W	1126		1125.8		53.71	1.64	0.0498	0.0018	0.0016	0.1282	0.0045	0.0040	0.0186	0.0006	0.0005	0.84			187.1	19.4	122.5
20308A9	118.0	T-W	1418		1417.8		54.30	1.74	0.0597	0.0024	0.0022	0.1513	0.0050	0.0044	0.0184	0.0006	0.0005	0.96			590.8	37.0	143.1
20308A33	118.0	T-W	1183		1182.9		54.40	1.67	0.0492	0.0016	0.0014	0.1247	0.0043	0.0039	0.0184	0.0006	0.0005	0.86			166.8	57.4	119.4
20308A37	118.0	T-W	1793		1793.3		55.20	1.74	0.0613	0.0014	0.0010	0.1522	0.0057	0.0052	0.0181	0.0006	0.0005	0.80			650.0	91.7	143.9
20308A10	118.0	T-W	1277		1276.5		55.49	1.99	0.0489	0.0021	0.0020	0.1214	0.0047	0.0043	0.0180	0.0006	0.0006	0.92			142.7	42.6	116.3
24μm5J5Hz3N2																							
20112D07	119.4	T-W	76	4335.0	610.7	7.1	53.44	1.21	0.0466	0.0028	0.0027	0.1181	0.0062	0.0060	0.0187	0.0004	0.0003	0.33	0.00565	0.00010	33.4	133.3	113.4
20112D13	119.4	T-W	76	1439.4	937.1	1.5	53.81	1.15	0.0473	0.0023	0.0022	0.1221	0.0056	0.0052	0.0186	0.0004	0.0003	0.35	0.00582	0.00012	64.9	107.4	116.9
20112D17	119.4	T-W	2009	25872.1	7666.8	3.4	52.92	1.26	0.0534	0.0032	0.0031	0.1388	0.0077	0.0074	0.0189	0.0005	0.0003	0.34	0.00571	0.00007	346.4	131.5	132.0
20112D18	119.4	T-W	1872	19710.5	6785.3	2.9	53.29	1.33	0.0538	0.0034	0.0033	0.1385	0.0083	0.0081	0.0188	0.0005	0.0004	0.34	0.00570	0.00007	364.9	140.7	131.7
20112D05	119.4	T-W	76	4729.7	674.3	7.0	51.21	1.15	0.0795	0.0049	0.0047	0.2179	0.0137	0.0133	0.0195	0.0004	0.0003	0.27	0.00588	0.00010	1187.0	116.7	200.2

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20112D06	119.4	T-W	84	5296.7	694.9	7.6	52.70	1.16	0.0581	0.0030	0.0029	0.1498	0.0069	0.0065	0.0190	0.0004	0.0003	0.36	0.00561	0.00009	600.0	109.2	141.7
20112D12	119.4	T-W	52	2383.6	152.2	15.7	51.62	1.70	0.0821	0.0070	0.0069	0.2064	0.0156	0.0153	0.0194	0.0006	0.0006	0.39	0.00580	0.00012	1247.2	166.7	190.5
24μm5J5Hz3N2																							
20303A26	119.0	T-W			755.3		51.70	1.61	0.0521	0.0023	0.0021	0.1379	0.0046	0.0040	0.0193	0.0006	0.0005	0.93			300.1	97.2	131.2
20303A13	119.0	T-W			672.1		51.71	1.69	0.0679	0.0044	0.0043	0.1766	0.0081	0.0076	0.0193	0.0006	0.0006	0.67			877.8	130.4	165.1
20303A20	119.0	T-W			634.9		51.97	1.46	0.0525	0.0029	0.0028	0.1370	0.0054	0.0049	0.0192	0.0005	0.0005	0.65			309.3	119.4	130.3
20303A28	119.0	T-W			818.9		52.01	1.58	0.0569	0.0022	0.0020	0.1499	0.0053	0.0048	0.0192	0.0006	0.0005	0.83			487.1	77.8	141.8
20303A21	119.0	T-W			633.9		52.56	1.42	0.0501	0.0021	0.0019	0.1325	0.0041	0.0036	0.0190	0.0005	0.0004	0.82			211.2	88.9	126.4
20303A25	119.0	T-W			824.6		52.76	1.63	0.0558	0.0023	0.0022	0.1485	0.0048	0.0042	0.0190	0.0006	0.0005	0.96			455.6	80.5	140.6
20303A22	119.0	T-W			788.3		52.91	1.55	0.0521	0.0022	0.0020	0.1363	0.0044	0.0039	0.0189	0.0006	0.0005	0.88			287.1	87.0	129.8
20303A6	119.0	T-W			1084.3		53.34	2.44	0.0548	0.0031	0.0029	0.1374	0.0063	0.0059	0.0187	0.0009	0.0008	1.00			405.6	120.4	130.7
20303A8	119.0	T-W			1363.6		53.49	2.53	0.0563	0.0031	0.0030	0.1423	0.0077	0.0074	0.0187	0.0009	0.0008	0.86			464.9	116.7	135.1
20303A14	119.0	T-W			1029.5		53.83	2.15	0.0496	0.0025	0.0023	0.1310	0.0052	0.0048	0.0186	0.0007	0.0007	0.99			176.0	111.1	125.0
20303A27	119.0	T-W			1272.2		54.44	1.87	0.0510	0.0015	0.0013	0.1265	0.0046	0.0041	0.0184	0.0006	0.0006	0.94			239.0	61.1	120.9
20303A19	119.0	T-W			474.2		54.69	1.72	0.0533	0.0025	0.0024	0.1356	0.0058	0.0054	0.0183	0.0006	0.0005	0.69			342.7	101.8	129.1
20303A7	119.0	T-W			1278.6		54.74	2.47	0.0617	0.0031	0.0030	0.1543	0.0085	0.0082	0.0183	0.0008	0.0008	0.80			664.8	99.1	145.7
20303A12	119.0	T-W			1401.6		54.93	2.02	0.0561	0.0022	0.0021	0.1370	0.0059	0.0055	0.0182	0.0007	0.0006	0.83			457.5	113.9	130.4
20303A24	119.0	T-W			1411.7		55.65	2.00	0.0566	0.0021	0.0020	0.1370	0.0053	0.0049	0.0180	0.0006	0.0006	0.91			476.0	77.8	130.3
20303A9	119.0	T-W			1416.5		56.22	2.36	0.0509	0.0020	0.0019	0.1212	0.0053	0.0050	0.0178	0.0007	0.0007	0.95			235.3	87.0	116.2
24μm5J10Hz3N2																							
20303b30	119.5	T-W			762.6		52.10	1.16	0.0516	0.0011	0.0008	0.1364	0.0033	0.0026	0.0192	0.0004	0.0003	0.86			264.9	35.2	129.8
20303b28	119.5	T-W			1037.4		52.25	1.10	0.0591	0.0026	0.0025	0.1569	0.0055	0.0049	0.0191	0.0004	0.0003	0.46			572.3	90.7	148.0
20303b25	119.5	T-W			802.3		52.32	1.33	0.0535	0.0017	0.0014	0.1421	0.0044	0.0038	0.0191	0.0005	0.0004	0.76			350.1	54.6	134.9
20303b13	119.5	T-W			903.1		52.35	1.34	0.0637	0.0030	0.0028	0.1678	0.0053	0.0047	0.0191	0.0005	0.0004	0.74			731.5	99.1	157.5
20303b14	119.5	T-W			763.2		52.55	1.31	0.0658	0.0024	0.0022	0.1732	0.0069	0.0064	0.0190	0.0005	0.0004	0.53			1200.0	73.1	162.2
20303b23	119.5	T-W			1053.2		52.72	1.32	0.0577	0.0020	0.0018	0.1506	0.0061	0.0056	0.0190	0.0005	0.0004	0.53			520.4	68.5	142.4
20303b27	119.5	T-W			658.6		52.72	1.70	0.0576	0.0059	0.0059	0.1633	0.0132	0.0129	0.0190	0.0006	0.0005	0.36			522.3	225.9	153.5
20303b24	119.5	T-W			1019.2		52.82	1.38	0.0524	0.0012	0.0009	0.1367	0.0038	0.0032	0.0189	0.0005	0.0004	0.91			305.6	38.9	130.1
20303b21	119.5	T-W			1331.1		53.25	1.48	0.0505	0.0013	0.0010	0.1297	0.0041	0.0036	0.0188	0.0005	0.0004	0.83			220.4	46.3	123.8

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20303b8	119.5	T-W			1444.9		53.62	1.23	0.0490	0.0009	0.0005	0.1260	0.0029	0.0022	0.0186	0.0004	0.0003	0.99			150.1	24.1	120.5
20303b6	119.5	T-W			1154.1		53.92	1.34	0.0503	0.0018	0.0016	0.1303	0.0035	0.0029	0.0185	0.0005	0.0004	0.88			209.3	75.9	124.4
20303b9	119.5	T-W			1425.7		53.94	1.34	0.0525	0.0018	0.0016	0.1364	0.0040	0.0034	0.0185	0.0005	0.0004	0.79			305.6	68.5	129.8
20303b11	119.5	T-W			1633.3		54.41	1.25	0.0524	0.0010	0.0006	0.1325	0.0031	0.0024	0.0184	0.0004	0.0003	0.95			301.9	27.8	126.4
24μm10J5Hz3N2																							
20304B29	119.4	T-W			771.0		41.16	1.22	0.2548	0.0125	0.0119	0.8955	0.0432	0.0410	0.0243	0.0007	0.0006	0.56			3216.7	73.5	649.3
20304B22	119.4	T-W			364.2		44.31	1.03	0.1975	0.0078	0.0072	0.6355	0.0189	0.0162	0.0226	0.0005	0.0004	0.69			2805.3	60.3	499.5
20304B19	119.4	T-W			437.8		44.59	1.53	0.1446	0.0143	0.0141	0.4871	0.0565	0.0560	0.0224	0.0008	0.0007	0.27			2283.6	168.4	402.9
20304B21	119.4	T-W			513.1		47.75	1.20	0.1285	0.0058	0.0054	0.3795	0.0136	0.0123	0.0209	0.0005	0.0004	0.62			2077.5	41.5	326.6
20304B20	119.4	T-W			413.9		48.32	1.24	0.1146	0.0073	0.0071	0.3452	0.0194	0.0187	0.0207	0.0005	0.0004	0.38			1873.8	111.4	301.1
20304B24	119.4	T-W			1252.4		48.56	1.40	0.1397	0.0115	0.0113	0.4184	0.0401	0.0396	0.0206	0.0006	0.0005	0.26			2233.3	145.2	354.9
20304B23	119.4	T-W			1319.0		49.55	1.56	0.1019	0.0083	0.0081	0.2903	0.0264	0.0260	0.0202	0.0006	0.0006	0.31			1658.9	148.2	258.8
20304B26	119.4	T-W			1129.1		49.89	1.13	0.1111	0.0089	0.0087	0.3185	0.0203	0.0197	0.0200	0.0005	0.0003	0.27			1818.2	142.3	280.8
20304B7	119.4	T-W			819.5		50.32	1.65	0.0758	0.0044	0.0042	0.2075	0.0089	0.0083	0.0199	0.0007	0.0006	0.73			1100.0	111.1	191.5
20304B12	119.4	T-W			1327.4		52.19	1.10	0.0648	0.0031	0.0029	0.1775	0.0053	0.0046	0.0192	0.0004	0.0003	0.56			768.5	94.4	165.9
20304B8	119.4	T-W			1198.0		52.72	1.35	0.0555	0.0037	0.0036	0.1428	0.0048	0.0043	0.0190	0.0005	0.0004	0.68			431.5	144.4	135.6
20304B11	119.4	T-W			1202.7		52.77	1.37	0.0505	0.0020	0.0019	0.1308	0.0034	0.0028	0.0190	0.0005	0.0004	0.99			220.4	87.0	124.8
20304B9	119.4	T-W			802.8		52.89	1.21	0.0526	0.0029	0.0028	0.1391	0.0047	0.0042	0.0189	0.0004	0.0003	0.56			309.3	122.2	132.3
20304B6	119.4	T-W			1314.1		53.00	1.28	0.0475	0.0029	0.0028	0.1253	0.0037	0.0032	0.0189	0.0005	0.0004	0.74			72.3	133.3	119.8
20304B13	119.4	T-W			1152.0		53.27	1.14	0.0594	0.0023	0.0021	0.1565	0.0038	0.0030	0.0188	0.0004	0.0003	0.78			583.4	75.9	147.6
20304B27	119.4	T-W			1067.0		53.34	1.39	0.0593	0.0038	0.0036	0.1516	0.0040	0.0033	0.0187	0.0005	0.0004	0.96			588.9	133.3	143.3
20304B5	119.4	T-W			1267.5		53.45	1.09	0.0527	0.0016	0.0014	0.1373	0.0032	0.0025	0.0187	0.0004	0.0003	0.75			322.3	59.3	130.7
24μm10J10Hz3N2																							
20304C20	116.4	T-W			653.7		36.54	1.25	0.3141	0.0156	0.0149	1.2298	0.0876	0.0856	0.0274	0.0009	0.0008	0.44			3542.6	73.1	814.2
20304C14	116.4	T-W			676.6		46.51	1.23	0.1621	0.0094	0.0091	0.4856	0.0327	0.0318	0.0215	0.0006	0.0005	0.33			2479.6	94.1	401.9
20304C19	116.4	T-W			1350.5		47.05	1.11	0.1520	0.0119	0.0117	0.4728	0.0393	0.0387	0.0213	0.0005	0.0004	0.22			2368.8	131.2	393.1
20304C6	116.4	T-W			1517.8		49.56	1.32	0.1124	0.0110	0.0109	0.3347	0.0324	0.0320	0.0202	0.0005	0.0004	0.23			1838.6	175.9	293.2
20304C13	116.4	T-W			961.7		50.41	1.19	0.1093	0.0099	0.0098	0.3157	0.0294	0.0290	0.0198	0.0005	0.0004	0.20			1787.4	164.2	278.6
20304C7	116.4	T-W			1481.8		50.65	1.05	0.0954	0.0062	0.0060	0.2612	0.0172	0.0168	0.0197	0.0004	0.0003	0.22			1535.5	118.5	235.6

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20304C23	116.4	T-W			1443.9		51.54	1.11	0.0920	0.0057	0.0055	0.2526	0.0158	0.0153	0.0194	0.0004	0.0003	0.25			1533.3	114.5	228.7
20304C24	116.4	T-W			932.0		51.90	1.06	0.0882	0.0031	0.0028	0.2345	0.0082	0.0073	0.0193	0.0004	0.0003	0.43			1387.0	65.7	213.9
20304C11	116.4	T-W			558.0		52.17	1.08	0.1040	0.0048	0.0045	0.2728	0.0112	0.0104	0.0192	0.0004	0.0003	0.36			1696.0	81.0	244.9
20304C10	116.4	T-W			1240.0		52.30	1.10	0.0998	0.0045	0.0043	0.2626	0.0129	0.0122	0.0191	0.0004	0.0003	0.31			1620.7	79.3	236.7
20304C9	116.4	T-W			1215.0		52.32	1.00	0.0916	0.0046	0.0044	0.2411	0.0124	0.0118	0.0191	0.0004	0.0002	0.23			1459.0	90.4	219.3
20304C22	116.4	T-W			1301.6		52.51	1.03	0.0843	0.0057	0.0056	0.2250	0.0174	0.0171	0.0190	0.0004	0.0002	0.16			1299.7	133.8	206.1
20304C26	116.4	T-W			849.8		53.27	1.15	0.0772	0.0049	0.0047	0.2013	0.0110	0.0106	0.0188	0.0004	0.0003	0.29			1127.8	116.2	186.2
20304C12	116.4	T-W			1284.6		53.58	1.08	0.0580	0.0017	0.0014	0.1476	0.0037	0.0029	0.0187	0.0004	0.0002	0.66			531.5	53.7	139.8
20304C28	116.4	T-W			853.1		53.77	1.07	0.0733	0.0030	0.0028	0.1883	0.0070	0.0064	0.0186	0.0004	0.0002	0.37			1033.3	77.8	175.2
20304C21	116.4	T-W			1646.8		54.13	1.04	0.0539	0.0016	0.0014	0.1370	0.0038	0.0032	0.0185	0.0004	0.0002	0.51			364.9	55.6	130.4
20304C8	116.4	T-W			1519.1		54.22	1.04	0.0583	0.0021	0.0019	0.1474	0.0035	0.0027	0.0184	0.0004	0.0002	0.62			538.9	63.9	139.6
20304C29	116.4	T-W			864.3		54.23	1.08	0.0529	0.0014	0.0012	0.1342	0.0034	0.0027	0.0184	0.0004	0.0002	0.62			324.1	51.8	127.9
24μm3J5Hz																							
20107A12	120.1	T-W	49	5416.2	1116.1	4.9	53.01	1.98	0.0569	0.0071	0.0070	0.1465	0.0167	0.0166	0.0189	0.0007	0.0006	0.30	0.0059	0.0004	487.1	274.0	138.8
20107A19	120.1	T-W	49	5259.0	1143.6	4.6	52.91	2.10	0.0590	0.0074	0.0073	0.1551	0.0181	0.0180	0.0189	0.0008	0.0007	0.32	0.0057	0.0004	568.6	272.2	146.4
20107A20	120.1	T-W	25	1262.7	970.8	1.3	52.95	2.29	0.0569	0.0085	0.0085	0.1385	0.0179	0.0177	0.0189	0.0008	0.0008	0.32	0.0058	0.0007	487.1	334.1	131.7
20107A25	120.1	T-W	28	1455.2	1121.3	1.3	52.08	1.98	0.0557	0.0066	0.0065	0.1469	0.0164	0.0162	0.0192	0.0007	0.0007	0.32	0.0058	0.0008	442.6	258.3	139.2
20107A26	120.1	T-W	46	4936.9	995.5	5.0	52.79	2.27	0.0622	0.0070	0.0070	0.1604	0.0178	0.0176	0.0189	0.0008	0.0008	0.37	0.0059	0.0004	683.3	236.1	151.1
20107A30	120.1	T-W	32	1542.5	1326.5	1.2	52.18	2.06	0.0611	0.0070	0.0070	0.1581	0.0176	0.0175	0.0192	0.0008	0.0007	0.33	0.0061	0.0007	642.6	247.0	149.1
20107A32	120.1	T-W	43	974.6	2102.0	0.5	52.18	1.81	0.0532	0.0051	0.0050	0.1415	0.0121	0.0119	0.0192	0.0007	0.0006	0.37	0.0067	0.0008	338.9	214.8	134.4
20107A5	121.1	Mean	47	3360.3	1436.8	2.3	53.35	1.97	0.0490	0.0051	0.0050	0.1257	0.0124	0.0123	0.0187	0.0007	0.0006	0.34	0.0060	0.0005	150.1	222.2	120.3
20107A6	121.1	Mean	47	3352.0	1420.9	2.4	52.78	1.89	0.0471	0.0053	0.0052	0.1229	0.0130	0.0129	0.0189	0.0007	0.0006	0.31	0.0060	0.0004	53.8	244.4	117.7
20107A7	121.1	Mean	34	2100.2	1142.1	1.8	52.93	1.97	0.0500	0.0055	0.0054	0.1313	0.0144	0.0143	0.0189	0.0007	0.0006	0.31	0.0060	0.0006	194.5	233.3	125.3
20107A11	121.1	Mean	54	5514.4	1147.3	4.8	54.11	2.31	0.0486	0.0058	0.0057	0.1311	0.0123	0.0121	0.0185	0.0008	0.0007	0.43	0.0061	0.0004	127.9	255.5	125.1
20107A13	121.1	Mean	46	3348.9	1532.7	2.2	51.75	1.64	0.0510	0.0058	0.0057	0.1350	0.0142	0.0140	0.0193	0.0006	0.0005	0.27	0.0060	0.0005	242.7	240.7	128.5
20107A18	121.1	Mean	62	6460.7	1461.4	4.4	53.07	1.75	0.0524	0.0061	0.0061	0.1351	0.0153	0.0151	0.0188	0.0006	0.0005	0.26	0.0057	0.0004	301.9	264.8	128.7
20107A24	121.1	Mean	32	1579.1	1269.3	1.2	52.00	2.41	0.0520	0.0072	0.0072	0.1327	0.0156	0.0155	0.0192	0.0009	0.0008	0.38	0.0061	0.0007	283.4	288.9	126.5
20107A31	121.1	Mean	64	6282.7	1531.1	4.1	52.17	1.82	0.0502	0.0056	0.0056	0.1353	0.0142	0.0141	0.0192	0.0007	0.0006	0.30	0.0063	0.0004	211.2	231.5	128.8
24μm3J10Hz																							

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20106c12	120.5	T-W	53	3774.9	1601.5	2.4	51.88	1.80	0.0517	0.0047	0.0047	0.1412	0.0126	0.0125	0.0193	0.0007	0.0006	0.35	0.0065	0.0004	272.3	212.0	134.1
20106c19	120.5	T-W	68	5050.1	2018.4	2.5	51.79	1.64	0.0578	0.0048	0.0047	0.1526	0.0127	0.0124	0.0193	0.0006	0.0005	0.34	0.0059	0.0003	520.4	184.2	144.2
20106c26	120.5	T-W	134	19252.4	1108.3	17.4	51.43	1.74	0.0588	0.0063	0.0062	0.1536	0.0143	0.0141	0.0194	0.0007	0.0006	0.33	0.0061	0.0002	561.1	226.8	145.1
20106c36	120.5	T-W	51	4274.7	1257.7	3.4	54.29	1.93	0.0677	0.0068	0.0067	0.1702	0.0161	0.0158	0.0184	0.0007	0.0006	0.35	0.0058	0.0003	858.9	207.4	159.6
20106c37	120.5	T-W	49	4665.4	1226.4	3.8	52.83	1.89	0.0546	0.0063	0.0062	0.1397	0.0146	0.0145	0.0189	0.0007	0.0006	0.31	0.0058	0.0003	394.5	257.4	132.8
20106c5	121.7	Mean	60	6539.4	1360.8	4.8	54.57	1.80	0.0527	0.0052	0.0052	0.1321	0.0125	0.0123	0.0183	0.0006	0.0005	0.31	0.0058	0.0003	316.7	224.0	126.0
20106c6	121.7	Mean	43	2911.6	1433.7	2.0	52.22	1.72	0.0519	0.0049	0.0048	0.1349	0.0112	0.0110	0.0192	0.0006	0.0006	0.36	0.0060	0.0004	279.7	212.9	128.5
20106c7	121.7	Mean	53	5543.8	1142.5	4.9	52.48	1.67	0.0522	0.0055	0.0054	0.1380	0.0130	0.0129	0.0191	0.0006	0.0005	0.30	0.0057	0.0004	294.5	241.6	131.2
20106c13	121.7	Mean	58	6813.8	1001.3	6.8	52.11	1.89	0.0479	0.0045	0.0044	0.1254	0.0116	0.0114	0.0192	0.0007	0.0006	0.36	0.0059	0.0003	100.1	198.1	120.0
20106c14	121.7	Mean	63	4048.8	2095.0	1.9	51.93	1.53	0.0526	0.0045	0.0044	0.1394	0.0114	0.0112	0.0193	0.0006	0.0005	0.31	0.0059	0.0004	322.3	192.6	132.5
20106c18	121.7	Mean	68	5065.6	2086.1	2.4	53.64	1.50	0.0490	0.0041	0.0040	0.1281	0.0097	0.0095	0.0186	0.0005	0.0004	0.32	0.0063	0.0003	146.4	181.5	122.4
20106c20	121.7	Mean	47	3152.3	1530.0	2.1	52.25	1.74	0.0495	0.0045	0.0045	0.1324	0.0117	0.0115	0.0191	0.0006	0.0006	0.34	0.0061	0.0004	172.3	200.0	126.2
20106c24	121.7	Mean	54	4940.5	1403.0	3.5	51.73	1.63	0.0486	0.0048	0.0047	0.1313	0.0119	0.0117	0.0193	0.0006	0.0005	0.31	0.0060	0.0003	127.9	214.8	125.3
20106c25	121.7	Mean	56	5046.5	1576.0	3.2	51.86	1.65	0.0467	0.0041	0.0041	0.1228	0.0097	0.0095	0.0193	0.0006	0.0005	0.36	0.0058	0.0003	35.3	196.3	117.6
20106c31	121.7	Mean	55	6548.3	1040.7	6.3	51.35	1.69	0.0521	0.0063	0.0062	0.1379	0.0149	0.0147	0.0195	0.0006	0.0006	0.27	0.0059	0.0003	300.1	238.9	131.2
20106c32	121.7	Mean	78	6918.1	2099.9	3.3	52.57	1.57	0.0497	0.0044	0.0043	0.1303	0.0111	0.0109	0.0190	0.0006	0.0005	0.31	0.0058	0.0003	189.0	183.3	124.4
20106c33	121.7	Mean	62	5324.1	1707.6	3.1	52.88	1.78	0.0501	0.0045	0.0044	0.1340	0.0107	0.0105	0.0189	0.0006	0.0006	0.38	0.0060	0.0003	198.2	196.3	127.7
20106c38	121.7	Mean	54	4501.4	1537.0	2.9	52.05	1.67	0.0473	0.0049	0.0049	0.1246	0.0116	0.0114	0.0192	0.0006	0.0005	0.31	0.0062	0.0003	64.9	229.6	119.3
														24μm5J5Hz									
20107A42	118.9	T-W	41	4666.0	932.1	5.0	53.51	1.81	0.0490	0.0064	0.0064	0.1376	0.0154	0.0153	0.0187	0.0006	0.0006	0.27	0.0058	0.0003	150.1	277.7	130.9
20107A48	118.9	T-W	158	28246.0	652.6	43.3	53.80	2.34	0.0534	0.0074	0.0073	0.1382	0.0165	0.0164	0.0186	0.0008	0.0008	0.34	0.0058	0.0002	342.7	285.1	131.5
20107A57	118.9	T-W	104	17385.7	424.8	40.9	50.37	2.56	0.0947	0.0123	0.0122	0.2937	0.0283	0.0280	0.0199	0.0010	0.0010	0.51	0.0060	0.0002	1524.1	246.3	261.4
20107A41	120.8	Mean	27	1294.4	1104.9	1.2	52.42	1.78	0.0487	0.0054	0.0053	0.1310	0.0134	0.0133	0.0191	0.0006	0.0006	0.30	0.0061	0.0007	200.1	172.2	125.0
20107A43	120.8	Mean	38	4244.0	823.6	5.2	53.73	1.92	0.0483	0.0067	0.0066	0.1291	0.0133	0.0132	0.0186	0.0007	0.0006	0.32	0.0058	0.0004	122.3	290.7	123.3
20107A47	120.8	Mean	79	12929.6	429.6	30.1	53.02	2.88	0.0493	0.0080	0.0079	0.1288	0.0163	0.0162	0.0189	0.0010	0.0010	0.42	0.0058	0.0002	161.2	340.7	123.0
20107A49	120.8	Mean	54	5737.9	1338.6	4.3	53.44	1.77	0.0475	0.0047	0.0046	0.1286	0.0115	0.0113	0.0187	0.0006	0.0006	0.33	0.0059	0.0003	76.0	224.0	122.8
20107A54	120.8	Mean	38	4177.2	912.0	4.6	54.97	2.11	0.0482	0.0066	0.0066	0.1242	0.0134	0.0132	0.0182	0.0007	0.0006	0.33	0.0058	0.0004	109.4	296.3	118.9
20107A55	120.8	Mean	48	6050.9	923.7	6.6	52.46	1.96	0.0462	0.0062	0.0062	0.1330	0.0139	0.0137	0.0191	0.0007	0.0007	0.33	0.0059	0.0003	9.4	292.6	126.8
20107A56	120.8	Mean	25	1671.9	968.0	1.7	53.71	1.89	0.0527	0.0052	0.0052	0.1334	0.0130	0.0128	0.0186	0.0007	0.0006	0.33	0.0058	0.0005	322.3	225.9	127.2

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20107A61	120.8	Mean	45	5583.3	885.7	6.3	51.39	1.98	0.0487	0.0065	0.0065	0.1284	0.0153	0.0152	0.0195	0.0007	0.0007	0.30	0.0060	0.0003	131.6	288.9	122.7
20107A62	120.8	Mean	33	993.5	1558.9	0.6	52.42	1.62	0.0477	0.0039	0.0038	0.1242	0.0094	0.0092	0.0191	0.0006	0.0005	0.36	0.0057	0.0007	87.1	177.8	118.9
20107A63	120.8	Mean	30	1743.2	1151.4	1.5	50.32	1.82	0.0499	0.0047	0.0047	0.1340	0.0114	0.0113	0.0199	0.0007	0.0007	0.39	0.0060	0.0005	187.1	207.4	127.7
20107A67	120.8	Mean	59	6692.6	1298.3	5.2	52.31	1.82	0.0506	0.0046	0.0046	0.1316	0.0113	0.0112	0.0191	0.0007	0.0006	0.37	0.0059	0.0003	233.4	10.2	125.5
20107A68	120.8	Mean	38	3982.8	913.7	4.4	53.09	1.87	0.0513	0.0054	0.0053	0.1332	0.0122	0.0121	0.0188	0.0007	0.0006	0.35	0.0060	0.0004	253.8	222.2	127.0
20107A69	120.8	Mean	39	4070.2	928.0	4.4	53.72	2.08	0.0523	0.0051	0.0050	0.1321	0.0122	0.0120	0.0186	0.0007	0.0007	0.39	0.0059	0.0004	298.2	220.3	126.0
24μm5J10Hz																							
20110C19	120.3	T-W	49	2310.1	1143.4	2.0	47.82	1.93	0.0964	0.0119	0.0118	0.2896	0.0418	0.0416	0.0209	0.0008	0.0008	0.26	0.0076	0.0005	1554.6	231.6	258.2
20110C20	120.3	T-W	39	2310.1	853.6	2.7	50.47	1.99	0.1091	0.0142	0.0141	0.3213	0.0426	0.0424	0.0198	0.0008	0.0007	0.28	0.0069	0.0004	1784.3	237.0	282.9
20110C25	120.3	T-W	80	5709.1	1072.6	5.3	54.30	4.06	0.0547	0.0134	0.0134	0.1708	0.0613	0.0612	0.0184	0.0014	0.0013	0.20	0.0059	0.0006	398.2	474.0	160.1
20110C30	120.3	T-W	47	3027.3	1323.8	2.3	52.81	1.65	0.0540	0.0038	0.0037	0.1408	0.0093	0.0091	0.0189	0.0006	0.0005	0.42	0.0058	0.0002	372.3	155.5	133.7
20110C5	119.7	Mean	79	5719.1	1676.9	3.4	52.29	1.69	0.0494	0.0045	0.0044	0.1338	0.0080	0.0078	0.0191	0.0006	0.0005	0.49	0.0060	0.0005	168.6	196.3	127.5
20110C6	119.7	Mean	86	6525.4	1872.6	3.5	53.18	1.53	0.0491	0.0029	0.0028	0.1273	0.0083	0.0081	0.0188	0.0005	0.0005	0.39	0.0060	0.0004	153.8	133.3	121.7
20110C7	119.7	Mean	87	6454.4	1865.2	3.5	53.60	1.61	0.0486	0.0027	0.0026	0.1251	0.0073	0.0070	0.0187	0.0006	0.0005	0.46	0.0061	0.0003	127.9	122.2	119.7
20110C11	119.7	Mean	71	4254.5	1798.7	2.4	52.85	1.48	0.0487	0.0034	0.0033	0.1287	0.0075	0.0072	0.0189	0.0005	0.0004	0.42	0.0059	0.0002	131.6	155.5	122.9
20110C12	119.7	Mean	68	4422.3	1747.7	2.5	53.81	1.41	0.0494	0.0028	0.0027	0.1245	0.0069	0.0067	0.0186	0.0005	0.0004	0.40	0.0058	0.0002	164.9	125.9	119.1
20110C13	119.7	Mean	97	10602.2	1258.7	8.4	54.08	1.62	0.0468	0.0040	0.0039	0.1283	0.0081	0.0078	0.0185	0.0006	0.0005	0.42	0.0058	0.0002	39.0	188.9	122.6
20110C18	119.7	Mean	68	4401.9	1778.9	2.5	54.07	1.62	0.0487	0.0032	0.0031	0.1242	0.0071	0.0069	0.0185	0.0006	0.0005	0.46	0.0058	0.0002	131.6	148.1	118.9
20110C24	119.7	Mean	57	4415.3	1303.2	3.4	52.94	1.63	0.0454	0.0038	0.0037	0.1188	0.0075	0.0073	0.0189	0.0006	0.0005	0.44	0.0058	0.0003			114.0
20110C26	119.7	Mean	66	5814.8	1239.2	4.7	53.85	1.57	0.0502	0.0039	0.0038	0.1286	0.0085	0.0083	0.0186	0.0005	0.0005	0.38	0.0058	0.0002	211.2	175.9	122.9
20110C31	119.7	Mean	58	5452.5	1071.3	5.1	52.88	1.79	0.0480	0.0040	0.0039	0.1239	0.0089	0.0087	0.0189	0.0006	0.0006	0.43	0.0058	0.0002	101.9	181.5	118.6
20110C32	119.7	Mean	76	6841.4	1497.1	4.6	52.92	1.45	0.0484	0.0028	0.0027	0.1260	0.0077	0.0074	0.0189	0.0005	0.0004	0.39	0.0060	0.0002	120.5	135.2	120.5
24μm10J5Hz																							
20110B13	118.4	T-W	30	2643.4	562.2	4.7	53.57	1.67	0.0536	0.0048	0.0048	0.1432	0.0109	0.0107	0.0187	0.0006	0.0005	0.36	0.0060	0.0002	353.8	171.3	135.9
20110B20	118.4	T-W	22	465.6	768.4	0.6	53.13	1.58	0.0629	0.0049	0.0048	0.1678	0.0129	0.0127	0.0188	0.0006	0.0005	0.34	0.0068	0.0006	705.6	130.5	157.5
20110B24	118.4	T-W	36	3232.1	556.1	5.8	54.26	1.57	0.0542	0.0039	0.0038	0.1368	0.0093	0.0090	0.0184	0.0005	0.0005	0.37	0.0060	0.0002	388.9	155.5	130.2
20110B30	118.4	T-W	21	1345.8	243.4	5.5	53.23	1.79	0.0549	0.0038	0.0037	0.1411	0.0100	0.0098	0.0188	0.0006	0.0006	0.43	0.0057	0.0002	405.6	147.2	134.0
20110B32	118.4	T-W	22	886.6	300.1	3.0	52.94	1.50	0.0549	0.0038	0.0037	0.1436	0.0098	0.0095	0.0189	0.0005	0.0005	0.36	0.0060	0.0002	409.3	150.0	136.2
20110B5	119.4	Mean	41	4236.7	668.1	6.3	53.04	1.66	0.0521	0.0043	0.0042	0.1341	0.0106	0.0104	0.0189	0.0006	0.0005	0.35	0.0058	0.0002	287.1	182.4	127.8

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20110B6	119.4	Mean	48	4641.1	790.9	5.9	53.64	1.64	0.0519	0.0044	0.0043	0.1307	0.0096	0.0094	0.0186	0.0006	0.0005	0.37	0.0059	0.0002	279.7	190.7	124.7
20110B7	119.4	Mean	35	1304.9	1244.3	1.0	53.18	1.43	0.0516	0.0033	0.0032	0.1341	0.0081	0.0078	0.0188	0.0005	0.0004	0.38	0.0058	0.0004	333.4	142.6	127.8
20110B11	119.4	Mean	44	3896.4	828.8	4.7	53.11	1.73	0.0522	0.0035	0.0034	0.1337	0.0090	0.0087	0.0188	0.0006	0.0005	0.44	0.0059	0.0002	294.5	119.4	127.4
20110B12	119.4	Mean	40	3767.9	703.4	5.4	52.96	1.66	0.0499	0.0039	0.0039	0.1282	0.0096	0.0094	0.0189	0.0006	0.0005	0.37	0.0058	0.0002			122.5
20110B18	119.4	Mean	41	3491.2	828.0	4.2	53.86	1.70	0.0512	0.0031	0.0030	0.1325	0.0077	0.0074	0.0186	0.0006	0.0005	0.49	0.0058	0.0002	250.1	133.3	126.3
20110B19	119.4	Mean	123	17306.1	392.6	44.1	53.70	1.90	0.0474	0.0055	0.0054	0.1262	0.0125	0.0124	0.0186	0.0007	0.0006	0.33	0.0059	0.0002	77.9	238.9	120.6
20110B25	119.4	Mean	29	2477.2	353.4	7.0	53.77	1.88	0.0519	0.0045	0.0044	0.1344	0.0121	0.0120	0.0186	0.0006	0.0006	0.35	0.0060	0.0002	283.4	194.4	128.1
20110B26	119.4	Mean	21	1052.4	507.8	2.1	54.79	1.75	0.0516	0.0035	0.0034	0.1303	0.0090	0.0088	0.0183	0.0006	0.0005	0.41	0.0057	0.0003	264.9	151.8	124.4
20110B31	119.4	Mean	19	1076.1	209.0	5.1	53.22	1.78	0.0530	0.0040	0.0039	0.1344	0.0090	0.0088	0.0188	0.0006	0.0006	0.45	0.0057	0.0002	331.5	166.6	128.1
24μm10J10Hz																							
20110A6	117.5	T-W	120	18326.2	424.0	43.2	54.33	1.64	0.0719	0.0055	0.0054	0.1832	0.0137	0.0134	0.0184	0.0006	0.0005	0.36	0.0055	0.0001	983.3	154.2	170.8
20110A7	117.5	T-W	132	20257.6	456.3	44.4	54.21	1.53	0.0669	0.0045	0.0044	0.1692	0.0115	0.0112	0.0184	0.0005	0.0004	0.36	0.0055	0.0001	835.2	134.3	158.8
20110A11	117.5	T-W	39	1606.1	1264.0	1.3	52.66	1.28	0.0537	0.0026	0.0025	0.1398	0.0055	0.0050	0.0190	0.0005	0.0004	0.53	0.0064	0.0002	366.7	105.5	132.9
20110A19	117.5	T-W	75	5467.3	1063.7	5.1	51.89	2.23	0.0642	0.0100	0.0099	0.1631	0.0276	0.0275	0.0193	0.0008	0.0008	0.24	0.0057	0.0003	750.0	336.1	153.4
20110A32	117.5	T-W	192	28427.5	564.7	50.3					0.0028	0.1428	0.0080	0.0077	0.0194	0.0006	0.0005	0.48	0.0058	0.0001	366.7	123.1	135.5
20110A5	119.0	Mean	42	1704.7	1354.3	1.3	52.92	1.36	0.0470	0.0022	0.0021	0.1224	0.0053	0.0049	0.0189	0.0005	0.0004	0.51	0.0059	0.0002	50.1	103.7	117.2
20110A12	119.0	Mean	38	1572.6	1300.2	1.2	54.36	1.40	0.0496	0.0020	0.0018	0.1259	0.0054	0.0051	0.0184	0.0005	0.0004	0.51	0.0059	0.0002	176.0	80.5	120.4
20110A13	119.0	Mean	43	4160.3	634.6	6.6	53.03	1.54	0.0484	0.0029	0.0028	0.1242	0.0061	0.0058	0.0189	0.0005	0.0005	0.53	0.0061	0.0002	116.8	138.9	118.9
20110A18	119.0	Mean	76	6558.2	1443.0	4.5	52.45	1.43	0.0507	0.0023	0.0022	0.1330	0.0057	0.0053	0.0191	0.0005	0.0004	0.57	0.0061	0.0002	227.8	98.1	126.8
20110A20	119.0	Mean	50	997.7	2014.2	0.5	53.74	1.21	0.0485	0.0018	0.0016	0.1245	0.0048	0.0044	0.0186	0.0004	0.0003	0.47	0.0058	0.0003	124.2	77.8	119.1
20110A25	119.0	Mean	44	1683.5	1448.8	1.2	53.85	1.46	0.0493	0.0023	0.0021	0.1279	0.0055	0.0052	0.0186	0.0005	0.0004	0.55	0.0060	0.0002	161.2	101.8	122.2
20110A26	119.0	Mean	44	1808.3	1537.8	1.2	54.80	1.30	0.0483	0.0020	0.0019	0.1214	0.0046	0.0043	0.0182	0.0004	0.0003	0.52	0.0057	0.0002	122.3	95.4	116.4
20110A27	119.0	Mean	44	1744.9	1492.6	1.2	52.97	1.49	0.0488	0.0022	0.0020	0.1271	0.0053	0.0049	0.0189	0.0005	0.0004	0.61	0.0059	0.0002	139.0	98.1	121.5
20110A30	119.0	Mean	65	6587.2	992.1	6.6	54.98	1.51	0.0503	0.0027	0.0026	0.1261	0.0067	0.0064	0.0182	0.0005	0.0004	0.45	0.0057	0.0001	209.3	118.5	120.6
20110A31	119.0	Mean	74	6865.9	1151.4	6.0	53.00	1.45	0.0513	0.0021	0.0020	0.1326	0.0057	0.0054	0.0189	0.0005	0.0004	0.56	0.0057	0.0002	253.8	88.9	126.4
32μm3J5Hz3N2																							
11231_175	117.3	Mean	48		736.8		55.99	1.38	0.0490	0.0013	0.0011	0.1203	0.0034	0.0029	0.0179	0.0004	0.0003	0.81			146.4	51.8	115.4
11231_130	117.3	Mean	53		874.3		55.77	1.60	0.0484	0.0015	0.0013	0.1195	0.0043	0.0039	0.0179	0.0005	0.0004	0.75			120.5	67.6	114.6
11231_131	117.3	Mean	51		843.3		55.50	1.53	0.0490	0.0017	0.0015	0.1216	0.0045	0.0041	0.0180	0.0005	0.0004	0.68			150.1	70.4	116.5

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
11231A93	117.3	Mean	67		1031.4		55.43	1.37	0.0486	0.0014	0.0012	0.1207	0.0043	0.0039	0.0180	0.0004	0.0004	0.61			127.9	61.1	115.7
11231A86	117.3	Mean	30		639.1		55.17	1.61	0.0465	0.0026	0.0025	0.1214	0.0054	0.0051	0.0181	0.0005	0.0005	0.59			33.4	116.7	116.3
11231A85	117.3	Mean	37		777.7		55.07	1.53	0.0470	0.0017	0.0015	0.1180	0.0044	0.0040	0.0182	0.0005	0.0004	0.69			55.7	68.5	113.3
11231_109	117.3	Mean	43		702.0		54.73	1.67	0.0480	0.0014	0.0012	0.1208	0.0045	0.0041	0.0183	0.0006	0.0005	0.77			101.9	61.1	115.8
11231_132	117.3	Mean	45		761.8		54.59	1.58	0.0503	0.0018	0.0016	0.1268	0.0052	0.0048	0.0183	0.0005	0.0004	0.65			209.3	74.1	121.2
11231A68	117.3	Mean	46		1089.2		54.58	1.51	0.0511	0.0017	0.0015	0.1286	0.0044	0.0039	0.0183	0.0005	0.0004	0.76			242.7	66.7	122.8
11231_153	117.3	Mean	61		106.8		54.49	1.63	0.0494	0.0015	0.0013	0.1250	0.0046	0.0042	0.0184	0.0006	0.0005	0.76			168.6	63.9	119.6
11231_176	117.3	Mean	141		433.5		54.40	1.44	0.0487	0.0016	0.0014	0.1231	0.0043	0.0039	0.0184	0.0005	0.0004	0.69			200.1	73.1	117.9
11231A28	117.3	Mean	24		1236.2		54.32	1.38	0.0489	0.0013	0.0010	0.1240	0.0038	0.0032	0.0184	0.0005	0.0004	0.77			142.7	45.4	118.7
11231A5	117.3	Mean	162		602.2		54.16	1.35	0.0507	0.0025	0.0023	0.1316	0.0050	0.0046	0.0185	0.0005	0.0004	0.56			227.8	107.4	125.5
11231_177	117.3	Mean	120		389.3		54.00	1.42	0.0493	0.0019	0.0017	0.1259	0.0043	0.0039	0.0185	0.0005	0.0004	0.69			164.9	79.6	120.4
11231A84	117.3	Mean	146		620.9		53.66	1.59	0.0483	0.0017	0.0015	0.1241	0.0052	0.0049	0.0186	0.0006	0.0005	0.65			122.3	74.1	118.8
11231A7	117.3	Mean	129		536.5		53.49	1.28	0.0476	0.0014	0.0012	0.1228	0.0042	0.0038	0.0187	0.0004	0.0003	0.60			79.7	59.3	117.6
11231A6	117.3	Mean	128		458.7		53.10	1.30	0.0491	0.0014	0.0012	0.1277	0.0044	0.0040	0.0188	0.0005	0.0004	0.62			153.8	54.6	122.0
11231A48	117.3	Mean	97		470.6		52.44	1.35	0.0474	0.0019	0.0018	0.1240	0.0041	0.0037	0.0191	0.0005	0.0004	0.70			77.9	88.9	118.7
11231A27	117.3	Mean	139		553.6		52.08	1.48	0.0478	0.0014	0.0012	0.1264	0.0045	0.0040	0.0192	0.0005	0.0005	0.75			100.1	61.1	120.8
												32μm3J5Hz3N2											
20112B06	120.4	T-W	75	13077.4	538.1	24.3	53.33	1.21	0.0621	0.0032	0.0030	0.1598	0.0079	0.0075	0.0188	0.0004	0.0003	0.36	0.00574	0.00007	675.9	110.2	150.5
20112B12	120.4	T-W	38	3920.7	961.2	4.1	53.02	1.16	0.0541	0.0030	0.0029	0.1506	0.0073	0.0069	0.0189	0.0004	0.0003	0.34	0.00591	0.00009	376.0	125.0	142.4
20112B25	120.4	T-W	36	4365.4	807.4	5.4	52.24	1.06	0.0541	0.0025	0.0023	0.1427	0.0062	0.0058	0.0191	0.0004	0.0003	0.33	0.00568	0.00008	376.0	100.9	135.5
20112B31	120.4	T-W	36	4569.0	715.4	6.4	52.03	1.08	0.0519	0.0026	0.0025	0.1411	0.0058	0.0053	0.0192	0.0004	0.0003	0.37	0.00584	0.00008	279.7	111.1	134.0
20112B05	121.4	Mean	89	15666.0	771.7	20.3	52.56	1.11	0.0521	0.0025	0.0023	0.1350	0.0060	0.0057	0.0190	0.0004	0.0003	0.35	0.00570	0.00007	300.1	103.7	128.6
20112B07	121.4	Mean	76	13126.8	624.0	21.0	52.85	1.19	0.0488	0.0025	0.0024	0.1264	0.0066	0.0063	0.0189	0.0004	0.0003	0.33	0.00573	0.00007	200.1	116.7	120.8
20112B11	121.4	Mean	17	1386.1	513.4	2.7	52.44	1.29	0.0469	0.0029	0.0028	0.1234	0.0066	0.0063	0.0191	0.0005	0.0004	0.38	0.00576	0.00011	42.7	146.3	118.2
20112B13	121.4	Mean	39	4224.4	1014.0	4.2	53.11	1.10	0.0452	0.0023	0.0022	0.1213	0.0048	0.0044	0.0188	0.0004	0.0003	0.38	0.00581	0.00008			116.2
20112B18	121.4	Mean	30	3413.6	721.1	4.7	52.27	1.09	0.0464	0.0022	0.0021	0.1219	0.0054	0.0051	0.0191	0.0004	0.0003	0.34	0.00571	0.00009	16.8	107.4	116.8
20112B19	121.4	Mean	34	4493.1	692.5	6.5	52.99	1.16	0.0498	0.0024	0.0022	0.1282	0.0061	0.0058	0.0189	0.0004	0.0003	0.34	0.00569	0.00008	187.1	105.5	122.5
20112B20	121.4	Mean	31	3762.0	633.4	5.9	53.33	1.16	0.0490	0.0025	0.0024	0.1243	0.0062	0.0059	0.0188	0.0004	0.0003	0.32	0.00574	0.00009	146.4	112.9	119.0
20112B24	121.4	Mean	34	4520.3	629.8	7.2	52.35	1.15	0.0495	0.0028	0.0027	0.1326	0.0064	0.0061	0.0191	0.0004	0.0003	0.34	0.00576	0.00008	172.3	128.7	126.5

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20112B26	121.4	Mean	25	3083.5	518.7	5.9	52.28	1.16	0.0490	0.0028	0.0027	0.1294	0.0068	0.0065	0.0191	0.0004	0.0003	0.32	0.00589	0.00010	150.1	131.5	123.6
20112B30	121.4	Mean	16	1317.9	482.4	2.7	52.58	1.21	0.0471	0.0027	0.0026	0.1224	0.0064	0.0061	0.0190	0.0004	0.0003	0.35	0.00588	0.00013	57.5	125.9	117.2
20112B32	121.4	Mean	33	4327.4	624.9	6.9	52.07	1.06	0.0499	0.0030	0.0029	0.1344	0.0062	0.0059	0.0192	0.0004	0.0003	0.31	0.00593	0.00008	190.8	132.4	128.0
														32µm5J5Hz3N2									
20102B19	121.2	T-W			712.7		52.19	1.78	0.0495	0.0013	0.0011	0.1310	0.0045	0.0040	0.0192	0.0007	0.0006	0.99			172.3	58.3	125.0
20102B29	121.2	T-W			815.4						0.0012	0.1326	0.0046	0.0041	0.0188	0.0006	0.0005	0.84			257.5	49.1	126.4
20102B52	121.2	T-W			343.4		52.58	1.65	0.0508	0.0018	0.0016	0.1314	0.0048	0.0043	0.0190	0.0006	0.0005	0.83			231.6	75.9	125.3
20102B54	121.2	T-W			737.7		52.66	1.66	0.0546	0.0040	0.0039	0.1470	0.0083	0.0080	0.0190	0.0006	0.0005	0.51			394.5	159.2	139.3
20102B5	118.8	Mean			1361.6		54.62	1.70	0.0475	0.0038	0.0037	0.1191	0.0057	0.0054	0.0183	0.0006	0.0005	0.59			76.0	177.8	114.2
20102B62	118.8	Mean			1443.4		53.51	1.21	0.0466	0.0029	0.0028	0.1209	0.0032	0.0026	0.0187	0.0004	0.0003	0.77			27.9	137.0	115.9
20102B30	118.8	Mean			500.8		54.17	1.69	0.0484	0.0012	0.0010	0.1217	0.0040	0.0035	0.0185	0.0006	0.0005	0.94			120.5	45.4	116.6
20102B42	118.8	Mean			908.4		53.72	1.38	0.0472	0.0019	0.0018	0.1256	0.0033	0.0027	0.0186	0.0005	0.0004	0.96			57.5	92.6	120.2
20102B6	118.8	Mean			1196.8		54.63	1.69	0.0483	0.0012	0.0010	0.1211	0.0040	0.0035	0.0183	0.0006	0.0005	0.93			122.3	50.0	116.1
20102B31	118.8	Mean			421.7		52.20	1.59	0.0482	0.0021	0.0020	0.1272	0.0046	0.0041	0.0192	0.0006	0.0005	0.81			109.4	100.9	121.6
20102B40	118.8	Mean			1038.0		53.02	1.22	0.0487	0.0036	0.0035	0.1262	0.0048	0.0044	0.0189	0.0004	0.0003	0.49			200.1	94.4	120.7
20102B41	118.8	Mean			639.8		54.26	1.59	0.0429	0.0034	0.0033	0.1239	0.0039	0.0034	0.0184	0.0005	0.0005	0.91			error		118.6
20102B53	118.8	Mean			1195.6		54.39	1.38	0.0496	0.0016	0.0014	0.1239	0.0032	0.0026	0.0184	0.0005	0.0004	0.96			189.0	60.2	118.6
20102B63	118.8	Mean			1016.7		54.06	1.23	0.0470	0.0018	0.0017	0.1245	0.0032	0.0026	0.0185	0.0004	0.0003	0.81			55.7	144.4	119.2
20102B67	118.8	Mean			976.9		53.82	1.43	0.0486	0.0044	0.0043	0.1247	0.0073	0.0070	0.0186	0.0005	0.0004	0.39			127.9	192.6	119.3
20102B68	118.8	Mean			1529.1		53.27	1.19	0.0483	0.0019	0.0017	0.1251	0.0030	0.0023	0.0188	0.0004	0.0003	0.88			122.3	85.2	119.6
20102B69	118.8	Mean			1036.7		54.13	1.41	0.0474	0.0030	0.0029	0.1229	0.0036	0.0030	0.0185	0.0005	0.0004	0.85			77.9	131.5	117.7
														32µm5J5Hz3N2									
20112A05	118.3	Mean	34	4713	578.8	8.1	54.05	1.08	0.0500	0.0020	0.0019	0.1269	0.0053	0.0049	0.0185	0.0004	0.0002	0.33	0.00599	0.00007	194.5	87.0	121.3
20112A06	118.3	Mean	39	4839	801.9	6.0	54.43	1.05	0.0485	0.0020	0.0018	0.1252	0.0049	0.0045	0.0184	0.0004	0.0002	0.33	0.00584	0.00006	124.2	88.9	119.8
20112A07	118.3	Mean	41	5219	931.5	5.6	54.73	1.04	0.0457	0.0030	0.0030	0.1297	0.0042	0.0037	0.0183	0.0003	0.0002	0.40	0.00591	0.00006			123.8
20112A11	118.3	Mean	16	1353	482.4	2.8	53.44	1.13	0.0492	0.0024	0.0023	0.1306	0.0057	0.0054	0.0187	0.0004	0.0003	0.35	0.00593	0.00011	166.8	102.8	124.7
20112A12	118.3	Mean	26	2482	619.8	4.0	53.26	1.11	0.0490	0.0030	0.0029	0.1287	0.0052	0.0048	0.0188	0.0004	0.0003	0.38	0.00591	0.00010	150.1	137.0	122.9
20112A13	118.3	Mean	37	4469	730.2	6.1	54.64	1.17	0.0479	0.0025	0.0024	0.1218	0.0047	0.0043	0.0183	0.0004	0.0003	0.42	0.00598	0.00010	100.1	105.5	116.7
20112A18	118.3	Mean	16	1227	510.3	2.4	54.24	1.09	0.0511	0.0022	0.0020	0.1290	0.0051	0.0047	0.0184	0.0004	0.0002	0.36	0.00589	0.00010	242.7	90.7	123.2

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20112A19	118.3	Mean	16	1358	471.0	2.9	54.35	1.08	0.0494	0.0022	0.0020	0.1237	0.0052	0.0049	0.0184	0.0004	0.0002	0.32	0.00586	0.00009	168.6	91.7	118.4
20112A20	118.3	Mean	18	2182	379.5	5.7	54.04	1.12	0.0538	0.0028	0.0027	0.1356	0.0058	0.0054	0.0185	0.0004	0.0003	0.35	0.00601	0.00008	364.9	108.3	129.1
20112A24	118.3	Mean	20	2732	348.9	7.8	54.24	1.20	0.0469	0.0026	0.0025	0.1241	0.0060	0.0057	0.0184	0.0004	0.0003	0.35	0.00583	0.00007	55.7	113.0	118.8
20112A25	118.3	Mean	35	4430	746.9	5.9	54.27	1.01	0.0465	0.0023	0.0022	0.1254	0.0047	0.0043	0.0184	0.0003	0.0002	0.31	0.00604	0.00007	33.4	166.6	119.9
20112A26	118.3	Mean	26	3234	575.7	5.6	52.92	1.05	0.0502	0.0024	0.0023	0.1308	0.0054	0.0050	0.0189	0.0004	0.0002	0.34	0.00608	0.00008	205.6	107.4	124.9
20112A30	118.3	Mean	56	7459	1099.4	6.8	53.61	1.01	0.0516	0.0018	0.0016	0.1319	0.0044	0.0039	0.0187	0.0003	0.0002	0.36	0.00600	0.00006	333.4	75.0	125.8
20112A31	118.3	Mean	26	3685	432.6	8.5	54.02	1.11	0.0490	0.0038	0.0037	0.1323	0.0054	0.0050	0.0185	0.0004	0.0003	0.36	0.00598	0.00007	146.4	170.3	126.2
20112A32	118.3	Mean	36	4847	625.2	7.8	53.37	1.08	0.0515	0.0024	0.0023	0.1320	0.0056	0.0053	0.0187	0.0004	0.0002	0.33	0.00603	0.00007	264.9	101.8	125.9
														32μm3J5Hz									
20107b18	119.6	T-W	42		1435.9		52.61	1.37	0.0577	0.0040	0.0039	0.1507	0.0101	0.0099	0.0190	0.0005	0.0004	0.32			516.7	148.1	142.5
20107b30	119.6	T-W	42		1428.6		51.98	1.36	0.0534	0.0045	0.0045	0.1450	0.0101	0.0099	0.0192	0.0005	0.0004	0.31			346.4	188.9	137.5
20107b20	119.6	T-W	80		714.6		53.21	1.63	0.0535	0.0053	0.0052	0.1388	0.0112	0.0110	0.0188	0.0006	0.0005	0.34			350.1	222.2	132.0
20107b5	119.6	T-W	48		1157.6		53.82	1.68	0.0518	0.0050	0.0050	0.1336	0.0120	0.0118	0.0186	0.0006	0.0005	0.31			276.0	222.2	127.4
20107b6	119.6	T-W	47		951.0		55.28	2.70	0.0538	0.0057	0.0057	0.1308	0.0107	0.0105	0.0181	0.0009	0.0008	0.58			364.9	238.9	124.8
20107b13	119.6	T-W	60		1444.6		53.27	1.41	0.0528	0.0037	0.0036	0.1361	0.0087	0.0084	0.0188	0.0005	0.0004	0.35			320.4	155.5	129.6
20107b25	120.4	Mean	38		1265.1		54.55	1.51	0.0474	0.0043	0.0042	0.1292	0.0083	0.0081	0.0183	0.0005	0.0004	0.37			77.9	255.5	123.4
20107b31	120.4	Mean	87		747.8		53.25	1.60	0.0469	0.0055	0.0054	0.1300	0.0108	0.0106	0.0188	0.0006	0.0005	0.32			42.7	255.5	124.1
20107b11	120.4	Mean	52		1662.9		53.11	1.49	0.0506	0.0040	0.0039	0.1293	0.0092	0.0089	0.0188	0.0005	0.0004	0.34			233.4	179.6	123.5
20107b24	120.4	Mean	83		702.5		53.78	1.67	0.0509	0.0060	0.0059	0.1275	0.0107	0.0105	0.0186	0.0006	0.0005	0.33			239.0	248.1	121.9
20107b26	120.4	Mean	30		573.6		51.82	1.72	0.0482	0.0056	0.0055	0.1259	0.0113	0.0112	0.0193	0.0006	0.0006	0.33			109.4	251.8	120.4
20107b32	120.4	Mean	95		799.4		51.38	1.54	0.0472	0.0060	0.0060	0.1268	0.0105	0.0104	0.0195	0.0006	0.0005	0.32			61.2	283.3	121.2
20107b7	120.4	Mean	34		1122.9		53.10	1.61	0.0501	0.0048	0.0047	0.1282	0.0102	0.0100	0.0188	0.0006	0.0005	0.34			211.2	194.4	122.5
20107b12	120.4	Mean	44		984.5		53.27	1.67	0.0487	0.0050	0.0049	0.1270	0.0108	0.0106	0.0188	0.0006	0.0005	0.33			200.1	166.6	121.4
20107b19	120.4	Mean	87		776.7		52.58	1.66	0.0490	0.0055	0.0055	0.1267	0.0102	0.0101	0.0190	0.0006	0.0005	0.35			146.4	244.4	121.1
														32UM3J10HZ									
20107B57	120.5	T-W	60		1885.6		52.26	1.74	0.0548	0.0052	0.0051	0.1498	0.0130	0.0128	0.0191	0.0006	0.0006	0.35			405.6	211.1	141.7
20107B62	120.5	T-W	38		1284.1		52.62	1.57	0.0545	0.0037	0.0036	0.1424	0.0090	0.0087	0.0190	0.0006	0.0005	0.42			390.8	182.4	135.2
20107B55	120.5	T-W	31		811.7		52.93	2.04	0.0537	0.0063	0.0062	0.1403	0.0150	0.0149	0.0189	0.0007	0.0007	0.33			361.2	267.6	133.3
20107B42	121.7	Mean	40		602.0		54.00	3.29	0.0517	0.0103	0.0103	0.1339	0.0221	0.0220	0.0185	0.0011	0.0011	0.36			272.3	400.0	127.6

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20107B68	121.7	Mean	28		703.1		52.54	1.37	0.0524	0.0044	0.0044	0.1371	0.0107	0.0105	0.0190	0.0005	0.0004	0.27			301.9	190.7	130.4
20107B61	121.7	Mean	111		959.3		52.15	1.60	0.0512	0.0044	0.0043	0.1351	0.0098	0.0096	0.0192	0.0006	0.0005	0.37			250.1	187.9	128.6
20107B47	121.7	Mean	93		815.6		52.95	2.72	0.0466	0.0082	0.0082	0.1217	0.0167	0.0166	0.0189	0.0010	0.0009	0.36			33.4	433.3	116.6
20107B48	121.7	Mean	52		1489.5		53.36	2.58	0.0469	0.0063	0.0062	0.1215	0.0145	0.0144	0.0187	0.0009	0.0009	0.39			42.7	301.8	116.5
20107B63	121.7	Mean	47		1346.6		51.97	1.40	0.0500	0.0033	0.0032	0.1324	0.0084	0.0081	0.0192	0.0005	0.0004	0.36			194.5	154.6	126.3
20107B67	121.7	Mean	27		719.3		52.68	1.44	0.0505	0.0044	0.0043	0.1307	0.0107	0.0105	0.0190	0.0005	0.0004	0.28			216.7	200.0	124.7
20107B41	121.7	Mean	56		1315.4		52.34	3.15	0.0474	0.0083	0.0083	0.1252	0.0200	0.0199	0.0191	0.0011	0.0011	0.37			77.9	357.4	119.7
20107B56	121.7	Mean	32		847.1		52.51	1.93	0.0495	0.0054	0.0054	0.1297	0.0128	0.0127	0.0190	0.0007	0.0006	0.34			172.3	233.3	123.8
20107B69	121.7	Mean	41		1202.6		51.74	1.30	0.0494	0.0042	0.0042	0.1307	0.0086	0.0083	0.0193	0.0005	0.0004	0.31			168.6	185.2	124.7
20107B43	121.7	Mean	55		1254.3		53.82	3.08	0.0463	0.0076	0.0076	0.1237	0.0180	0.0179	0.0186	0.0011	0.0010	0.38			13.1	351.8	118.4
20107B49	121.7	Mean	53		1539.2		52.63	2.44	0.0480	0.0063	0.0062	0.1262	0.0146	0.0144	0.0190	0.0009	0.0008	0.38			98.2	290.7	120.7
20107B54	121.7	Mean	23		730.4		52.88	2.25	0.0480	0.0059	0.0059	0.1253	0.0151	0.0150	0.0189	0.0008	0.0008	0.33			101.9	266.6	119.9
																		32Um5J5HZ					
20106a7	118.2	T-W	33	2243	1099.8	2.0	53.38	1.54	0.0536	0.0052	0.0052	0.1361	0.0094	0.0091	0.0187	0.0005	0.0005	0.37	0.0058	0.0003	353.8	223.1	129.6
20106a12	118.2	T-W	30	2020	1014.0	2.0	53.79	1.63	0.0555	0.0049	0.0049	0.1422	0.0113	0.0111	0.0186	0.0006	0.0005	0.33	0.0059	0.0003	431.5	191.6	135.0
20106a26	118.2	T-W	37	3890	802.5	4.8	54.01	1.66	0.0522	0.0047	0.0047	0.1319	0.0101	0.0099	0.0185	0.0006	0.0005	0.36	0.0059	0.0003	294.5	205.5	125.8
20106a38	118.2	T-W	32	1548	910.6	1.7	53.64	1.57	0.0523	0.0043	0.0043	0.1373	0.0101	0.0099	0.0186	0.0005	0.0005	0.34	0.0056	0.0004	298.2	187.0	130.6
20106a20	118.5	Mean	35	2645.1	968.3	2.7	53.08	1.56	0.0477	0.0050	0.0050	0.1240	0.0080	0.0077	0.0188	0.0006	0.0005	0.40	0.0064	0.0003	83.4	238.9	118.7
20106a31	118.5	Mean	22	2515.9	379.8	6.6	54.92	2.12	0.0521	0.0060	0.0059	0.1274	0.0135	0.0133	0.0182	0.0007	0.0006	0.34	0.0062	0.0003	300.1	261.1	121.7
20106a5	118.5	Mean	30	3027.2	730.5	4.1	55.12	1.86	0.0498	0.0057	0.0057	0.1235	0.0111	0.0110	0.0181	0.0006	0.0005	0.34	0.0059	0.0003	187.1	244.4	118.3
20106a6	118.5	Mean	24	2743.9	532.2	5.2	53.85	1.97	0.0509	0.0050	0.0049	0.1268	0.0115	0.0113	0.0186	0.0007	0.0006	0.37	0.0058	0.0003	235.3	220.4	121.2
20106a13	118.5	Mean	27	1940.8	870.5	2.2	53.41	1.60	0.0511	0.0036	0.0035	0.1310	0.0089	0.0087	0.0187	0.0006	0.0005	0.39	0.0059	0.0004	242.7	159.2	125.0
20106a14	118.5	Mean	45	4720.0	970.1	4.9	54.18	1.50	0.0476	0.0039	0.0038	0.1232	0.0081	0.0079	0.0185	0.0005	0.0004	0.36	0.0058	0.0002	79.7	181.5	118.0
20106a18	118.5	Mean	47	4728.9	1021.0	4.6	54.39	1.50	0.0481	0.0041	0.0040	0.1256	0.0094	0.0092	0.0184	0.0005	0.0004	0.31	0.0059	0.0002	101.9	198.1	120.1
20106a19	118.5	Mean	29	2091.3	902.4	2.3	53.80	1.42	0.0493	0.0043	0.0042	0.1263	0.0097	0.0095	0.0186	0.0005	0.0004	0.29	0.0059	0.0003	161.2	188.9	120.8
20106a24	118.5	Mean	54	6650.5	958.6	6.9	54.53	1.42	0.0510	0.0044	0.0044	0.1282	0.0103	0.0101	0.0183	0.0005	0.0004	0.27	0.0055	0.0002	239.0	202.8	122.4
20106a25	118.5	Mean	40	2861.6	1215.3	2.4	53.28	1.43	0.0457	0.0036	0.0036	0.1181	0.0089	0.0088	0.0188	0.0005	0.0004	0.30	0.0060	0.0003	error		113.3
20106a32	118.5	Mean	35	2196.5	1100.8	2.0	53.58	1.40	0.0459	0.0036	0.0036	0.1174	0.0089	0.0087	0.0187	0.0005	0.0004	0.29	0.0059	0.0003	error		112.7
20106a33	118.5	Mean	25	1570.2	792.3	2.0	54.06	1.64	0.0481	0.0041	0.0040	0.1265	0.0097	0.0095	0.0185	0.0006	0.0005	0.35	0.0059	0.0004	105.6	194.4	120.9

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20106a36	118.5	Mean	30	2410.3	607.2	4.0	53.68	1.73	0.0480	0.0050	0.0049	0.1219	0.0108	0.0107	0.0186	0.0006	0.0005	0.32	0.0059	0.0003	98.2	229.6	116.8
20106a37	118.5	Mean	25	1307.5	703.6	1.9	53.51	1.70	0.0505	0.0042	0.0041	0.1294	0.0093	0.0091	0.0187	0.0006	0.0005	0.40	0.0060	0.0004	220.4	190.7	123.5
32Um5J10HZ																							
20106b12	118.5	T-W	33	3258	734.6	4.4	53.78	1.45	0.0544	0.0046	0.0045	0.1418	0.0107	0.0105	0.0186	0.0005	0.0004	0.30	0.0059	0.0002	387.1	187.0	134.6
20106b14	118.5	T-W	30	2156	953.1	2.3	52.95	1.33	0.0458	0.0033	0.0032	0.1168	0.0068	0.0066	0.0189	0.0005	0.0004	0.35	0.0059	0.0003	error		112.2
20106b18	118.5	T-W	27	2592	686.7	3.8	55.35	1.68	0.0553	0.0045	0.0044	0.1379	0.0094	0.0092	0.0181	0.0005	0.0005	0.39	0.0057	0.0002	433.4	177.8	131.2
20106b19	118.5	T-W	62	8707	508.4	17.1	52.91	1.59	0.0575	0.0049	0.0048	0.1460	0.0113	0.0110	0.0189	0.0006	0.0005	0.34	0.0061	0.0001	509.3	180.5	138.4
20106b5	118.8	Mean	38	2827	1180.5	2.4	54.29	1.29	0.0497	0.0029	0.0028	0.1289	0.0067	0.0064	0.0184	0.0004	0.0003	0.37	0.0058	0.0002	189.0	131.5	123.1
20106b6	118.8	Mean	36	2797	1127.9	2.5	53.75	1.38	0.0516	0.0030	0.0029	0.1317	0.0074	0.0071	0.0186	0.0005	0.0004	0.38	0.0057	0.0002	333.4	95.4	125.7
20106b7	118.8	Mean	27	1951	844.4	2.3	53.97	1.40	0.0504	0.0029	0.0028	0.1283	0.0073	0.0070	0.0185	0.0005	0.0004	0.38	0.0059	0.0003	216.7	129.6	122.5
20106b13	118.8	Mean	37	4344	708.3	6.1	52.91	1.50	0.0479	0.0037	0.0036	0.1216	0.0078	0.0076	0.0189	0.0005	0.0005	0.38	0.0058	0.0002	94.5	170.3	116.6
20106b20	118.8	Mean	72	10575	598.1	17.7	52.75	1.53	0.0532	0.0041	0.0040	0.1363	0.0098	0.0096	0.0190	0.0005	0.0005	0.35	0.0059	0.0002	344.5	165.7	129.7
20106b24	118.8	Mean	32	3237	711.8	4.5	53.51	1.45	0.0494	0.0038	0.0038	0.1254	0.0084	0.0082	0.0187	0.0005	0.0004	0.34	0.0057	0.0002	168.6	175.9	119.9
20106b25	118.8	Mean	36	4153	681.0	6.1	54.33	1.39	0.0494	0.0035	0.0034	0.1272	0.0081	0.0079	0.0184	0.0005	0.0004	0.33	0.0057	0.0002	168.6	155.5	121.5
20106b26	118.8	Mean	29	1991	928.1	2.1	53.66	1.39	0.0504	0.0036	0.0035	0.1283	0.0084	0.0082	0.0186	0.0005	0.0004	0.33	0.0059	0.0002	213.0	161.1	122.5
20106b31	118.8	Mean	27	1852	853.9	2.2	54.62	1.38	0.0494	0.0036	0.0035	0.1265	0.0078	0.0076	0.0183	0.0005	0.0004	0.34	0.0060	0.0002	164.9	159.2	120.9
20106b32	118.8	Mean	30	3476	465.0	7.5	52.59	1.61	0.0506	0.0045	0.0044	0.1310	0.0106	0.0104	0.0190	0.0006	0.0005	0.33	0.0058	0.0002	220.4	6.5	125.0
20106b33	118.8	Mean	25	1067	918.3	1.2	53.70	1.37	0.0477	0.0051	0.0050	0.1242	0.0076	0.0073	0.0186	0.0005	0.0004	0.35	0.0064	0.0004	87.1	229.6	118.8
20106b36	118.8	Mean	36	3508	748.0	4.7	54.55	1.44	0.0500	0.0046	0.0045	0.1287	0.0102	0.0100	0.0183	0.0005	0.0004	0.28	0.0059	0.0002	194.5	196.3	122.9
20106b37	118.8	Mean	33	3292	686.6	4.8	53.38	1.45	0.0503	0.0036	0.0035	0.1291	0.0088	0.0085	0.0187	0.0005	0.0004	0.34	0.0057	0.0002	209.3	161.1	123.2
20106b38	118.8	Mean	23	524	1061.9	0.5	53.88	1.29	0.0484	0.0029	0.0028	0.1236	0.0073	0.0070	0.0186	0.0004	0.0003	0.33	0.0058	0.0004	120.5	129.6	118.4
32UM10J5HZ																							
20111A5	119.9	T-W	38	2705.6	1172.3	2.3	53.56	1.35	0.0446	0.0039	0.0038	0.1142	0.0052	0.0049	0.0187	0.0005	0.0004	0.47	0.0057	0.0002	error		109.8
20111A6	119.9	T-W	40	2919.4	1200.2	2.4	53.07	1.33	0.0544	0.0031	0.0029	0.1435	0.0067	0.0063	0.0188	0.0005	0.0004	0.45	0.0060	0.0002	387.1	122.2	136.2
20111A11	119.9	T-W	27	1703.2	796.7	2.1	52.36	1.39	0.0584	0.0042	0.0041	0.1532	0.0088	0.0085	0.0191	0.0005	0.0004	0.39	0.0058	0.0002	542.6	158.3	144.7
20111A7	119.9	Mean	42	3001.4	1248.9	2.4	52.43	1.26	0.0463	0.0035	0.0034	0.1228	0.0066	0.0064	0.0191	0.0005	0.0004	0.36	0.0059	0.0002	13.1	170.4	117.6
20111A12	119.9	Mean	31	1983.4	974.5	2.0	53.74	1.43	0.0497	0.0040	0.0040	0.1291	0.0073	0.0070	0.0186	0.0005	0.0004	0.40	0.0058	0.0002	189.0	164.8	123.3
20111A13	119.9	Mean	41	4182.8	827.8	5.1	53.62	1.45	0.0500	0.0036	0.0035	0.1275	0.0084	0.0082	0.0186	0.0005	0.0004	0.35	0.0058	0.0002	198.2	160.2	121.8
20111A18	119.9	Mean	44	3058.0	1334.0	2.3	54.61	1.46	0.0475	0.0028	0.0027	0.1265	0.0058	0.0055	0.0183	0.0005	0.0004	0.51	0.0058	0.0002	76.0	133.3	120.9

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]				
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U						207Pb/206Pb		207Pb/2
				ppm			Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20111A19	119.9	Mean	43	3030.4	1272.6	2.4	53.32	1.37	0.0483	0.0022	0.0020	0.1244	0.0054	0.0050	0.0188	0.0005	0.0004	0.51	0.0058	0.0002	122.3	100.0	119.0
20111A20	119.9	Mean	27	2069.5	734.8	2.8	52.89	1.55	0.0490	0.0039	0.0038	0.1298	0.0079	0.0077	0.0189	0.0006	0.0005	0.42	0.0058	0.0002	150.1	174.0	123.9
20111A24	119.9	Mean	65	8883.3	554.9	16.0	53.63	1.49	0.0487	0.0035	0.0034	0.1254	0.0077	0.0075	0.0186	0.0005	0.0004	0.39	0.0058	0.0001	200.1	100.0	120.0
20111A25	119.9	Mean	80	11614.4	633.9	18.3	52.32	1.41	0.0471	0.0037	0.0037	0.1228	0.0073	0.0071	0.0191	0.0005	0.0004	0.38	0.0060	0.0002	53.8	174.0	117.6
20111A26	119.9	Mean	23	2204.8	538.1	4.1	53.34	1.36	0.0492	0.0033	0.0032	0.1267	0.0083	0.0080	0.0187	0.0005	0.0004	0.32	0.0057	0.0002	166.8	135.2	121.1
20111A30	119.9	Mean	42	2983.8	1243.3	2.4	52.44	1.28	0.0479	0.0022	0.0021	0.1254	0.0057	0.0053	0.0191	0.0005	0.0004	0.45	0.0059	0.0002	94.5	100.0	120.0
20111A31	119.9	Mean	31	1948.9	898.4	2.2	54.56	1.54	0.0500	0.0051	0.0050	0.1297	0.0090	0.0088	0.0183	0.0005	0.0004	0.35	0.0059	0.0002	198.2	214.8	123.8
20111A32	119.9	Mean	37	2321.0	1192.0	1.9	52.57	1.36	0.0471	0.0024	0.0023	0.1259	0.0063	0.0060	0.0190	0.0005	0.0004	0.44	0.0057	0.0002	57.5	114.8	120.4
32UM10J10HZ																							
20110D7	118.7	T-W	41	2687.3	888.2	3.0	52.00	1.22	0.0691	0.0083	0.0082	0.1916	0.0187	0.0185	0.0192	0.0005	0.0003	0.19	0.0068	0.0002	901.9	246.8	178.0
20110D13	118.7	T-W	243	36999.8	614.1	60.3	55.08	1.34	0.0423	0.0037	0.0037	0.1181	0.0066	0.0063	0.0182	0.0004	0.0003	0.35	0.0054	0.0001	error	error	113.3
20110D20	118.7	T-W	53	4672.0	951.5	4.9	53.82	1.15	0.0509	0.0048	0.0047	0.1299	0.0053	0.0049	0.0186	0.0004	0.0003	0.40	0.0058	0.0002	239.0	214.8	124.0
20110D26	118.7	T-W	216	33056.9	582.8	56.7	53.20	1.31	0.0517	0.0039	0.0038	0.1334	0.0058	0.0055	0.0188	0.0005	0.0004	0.47	0.0052	0.0001	272.3	168.5	127.2
20110D32	118.7	T-W	37	1698.6	711.3	2.4	52.75	2.22	0.0525	0.0121	0.0120	0.1207	0.0326	0.0326	0.0190	0.0008	0.0007	0.15	0.0092	0.0007	305.6	461.1	115.7
20110D5	118.9	Mean	56	3595.0	1525.8	2.4	53.45	1.13	0.0494	0.0017	0.0016	0.1268	0.0042	0.0038	0.0187	0.0004	0.0003	0.49	0.0059	0.0001	164.9	75.9	121.3
20110D6	118.9	Mean	43	3524.8	921.2	3.8	53.58	1.20	0.0492	0.0028	0.0026	0.1264	0.0072	0.0070	0.0187	0.0004	0.0003	0.30	0.0059	0.0001	166.8	123.1	120.9
20110D11	118.9	Mean	44	3115.3	1065.2	2.9	54.21	1.18	0.0490	0.0018	0.0016	0.1246	0.0049	0.0045	0.0184	0.0004	0.0003	0.43	0.0059	0.0001	146.4	71.3	119.3
20110D12	118.9	Mean	54	3410.1	1395.7	2.4	53.67	1.26	0.0506	0.0023	0.0021	0.1313	0.0051	0.0047	0.0186	0.0004	0.0003	0.49	0.0059	0.0001	233.4	98.1	125.2
20110D18	118.9	Mean	51	4333.6	923.9	4.7	53.05	1.20	0.0480	0.0021	0.0019	0.1244	0.0051	0.0048	0.0189	0.0004	0.0003	0.43	0.0058	0.0001	98.2	92.6	119.0
20110D24	118.9	Mean	54	3260.1	1418.9	2.3	54.17	1.17	0.0503	0.0019	0.0017	0.1281	0.0055	0.0051	0.0185	0.0004	0.0003	0.38	0.0058	0.0001	209.3	77.8	122.4
20110D25	118.9	Mean	55	3385.6	1444.2	2.3	53.62	1.17	0.0505	0.0017	0.0015	0.1294	0.0043	0.0038	0.0186	0.0004	0.0003	0.52	0.0059	0.0001	216.7	68.5	123.6
20110D30	118.9	Mean	60	4202.7	1213.7	3.5	53.40	1.47	0.0481	0.0035	0.0035	0.1317	0.0052	0.0048	0.0187	0.0005	0.0004	0.63	0.0063	0.0002	101.9	162.9	125.6
20110D31	118.9	Mean	57	3378.8	1500.6	2.3	54.01	1.26	0.0503	0.0015	0.0013	0.1281	0.0041	0.0036	0.0185	0.0004	0.0003	0.64	0.0059	0.0001	209.3	93.5	122.4
44UM3J5HZ																							
20303C21	119.4	T-W			1174.3		51.56	1.17	0.0671	0.0060	0.0059	0.1810	0.0160	0.0157	0.0194	0.0004	0.0003	0.19			838.9	185.2	169.0
20303C6	119.4	T-W			679.9		52.21	1.48	0.0804	0.0067	0.0066	0.2145	0.0199	0.0197	0.0192	0.0005	0.0005	0.26			1242.6	157.6	197.4
20303C20	119.4	T-W			459.2		52.31	1.60	0.0664	0.0046	0.0045	0.1787	0.0120	0.0117	0.0191	0.0006	0.0005	0.40			816.7	110.2	166.9
20303C24	119.4	T-W			597.2		52.41	1.58	0.0554	0.0044	0.0044	0.1563	0.0093	0.0090	0.0191	0.0006	0.0005	0.45			431.5	169.4	147.5
20303C7	119.4	T-W			921.0		53.51	1.37	0.0546	0.0035	0.0034	0.1493	0.0081	0.0078	0.0187	0.0005	0.0004	0.39			398.2	138.9	141.3

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20303C5	120.2	Mean			469.1		52.18	1.25	0.0533	0.0028	0.0027	0.1410	0.0076	0.0073	0.0192	0.0005	0.0004	0.36			309.3	121.3	133.9
20303C23	120.2	Mean			814.0		52.24	1.40	0.0528	0.0033	0.0032	0.1408	0.0074	0.0070	0.0191	0.0005	0.0004	0.44			322.3	137.0	133.8
20303C12	120.2	Mean			781.4		52.81	1.41	0.0511	0.0035	0.0034	0.1385	0.0086	0.0083	0.0189	0.0005	0.0004	0.36			242.7	153.7	131.7
20303C22	120.2	Mean			878.0		52.38	1.50	0.0541	0.0029	0.0028	0.1403	0.0071	0.0068	0.0191	0.0005	0.0005	0.50			376.0	116.7	133.3
20303C18	120.2	Mean			1064.2		54.39	1.31	0.0519	0.0027	0.0026	0.1322	0.0069	0.0066	0.0184	0.0004	0.0003	0.37			283.4	114.8	126.0
20303C19	120.2	Mean			1170.8		54.14	1.27	0.0505	0.0025	0.0023	0.1290	0.0064	0.0061	0.0185	0.0004	0.0003	0.38			233.4	104.6	123.2
20303C17	120.2	Mean			1109.4		54.14	1.34	0.0472	0.0025	0.0024	0.1175	0.0060	0.0058	0.0185	0.0005	0.0004	0.40			16.8	183.3	112.8
20303C10	120.2	Mean			1119.4		53.45	1.42	0.0497	0.0026	0.0025	0.1292	0.0063	0.0059	0.0187	0.0005	0.0004	0.47			189.0	121.3	123.4
20303C8	120.2	Mean			1002.3		52.09	1.27	0.0482	0.0024	0.0023	0.1259	0.0064	0.0061	0.0192	0.0005	0.0004	0.39			109.4	107.4	120.4
44UM5J5HZ																							
20303d11	120.8	T-W			356.9		52.60	2.07	0.0660	0.0054	0.0053	0.1719	0.0130	0.0127	0.0190	0.0007	0.0007	0.49			807.1	170.4	161.0
20303d23	120.8	T-W			490.8		52.42	1.26	0.0636	0.0043	0.0042	0.1681	0.0111	0.0108	0.0191	0.0005	0.0004	0.29			727.8	141.8	157.7
20303d8	120.8	T-W			891.7		53.98	2.94	0.0613	0.0066	0.0065	0.1564	0.0155	0.0153	0.0185	0.0010	0.0010	0.54			650.0	228.5	147.6
20303d24	120.8	T-W			831.6		53.10	1.29	0.0570	0.0031	0.0030	0.1575	0.0070	0.0066	0.0188	0.0005	0.0004	0.45			500.0	118.5	148.5
20303d21	120.8	T-W			638.1		51.79	1.22	0.0595	0.0030	0.0029	0.1587	0.0084	0.0080	0.0193	0.0005	0.0003	0.35			587.1	112.0	149.6
20303d9	120.8	T-W			1237.7		55.03	2.60	0.0531	0.0051	0.0050	0.1376	0.0113	0.0111	0.0182	0.0009	0.0008	0.55			331.5	214.8	130.9
20303d20	120.8	T-W			1168.0		52.46	1.19	0.0537	0.0028	0.0027	0.1404	0.0063	0.0059	0.0191	0.0004	0.0003	0.40			366.7	117.6	133.4
20303d19	120.8	T-W			1078.8		50.84	1.15	0.0535	0.0023	0.0021	0.1447	0.0060	0.0056	0.0197	0.0004	0.0003	0.44			350.1	88.9	137.3
20303d7	120.8	T-W			1100.7		54.67	3.37	0.0527	0.0064	0.0063	0.1322	0.0147	0.0145	0.0183	0.0011	0.0011	0.54			322.3	274.0	126.1
20303d18	120.8	T-W			1119.6		52.42	1.24	0.0512	0.0022	0.0021	0.1365	0.0052	0.0048	0.0191	0.0005	0.0003	0.52			255.6	96.3	129.9
20303d22	120.8	T-W			1179.6		52.22	1.19	0.0514	0.0021	0.0020	0.1353	0.0054	0.0050	0.0191	0.0004	0.0003	0.46			257.5	90.7	128.9
20303d10	120.8	T-W			1153.1		53.53	2.20	0.0508	0.0040	0.0039	0.1293	0.0095	0.0093	0.0187	0.0008	0.0007	0.53			231.6	212.0	123.5
20303d12	120.8	T-W			1073.6		52.39	1.56	0.0501	0.0028	0.0027	0.1314	0.0070	0.0067	0.0191	0.0006	0.0005	0.50			211.2	124.1	125.3
20303d5	120.8	T-W			1094.3		55.34	4.27	0.0488	0.0072	0.0072	0.1208	0.0167	0.0166	0.0181	0.0014	0.0014	0.55			139.0	311.1	115.8
20303d6	120.8	T-W			1056.5		55.37	3.85	0.0484	0.0064	0.0064	0.1203	0.0149	0.0148	0.0181	0.0013	0.0012	0.55			120.5	285.1	115.3
44UM10J5HZ																							
20304A5	118.3	T-W			1043.1		51.84	1.07	0.0839	0.0043	0.0041	0.2193	0.0109	0.0104	0.0193	0.0004	0.0003	0.29			1327.8	93.1	201.3
20304A6	118.3	T-W			994.7		52.06	1.07	0.0697	0.0034	0.0032	0.1805	0.0082	0.0077	0.0192	0.0004	0.0003	0.32			953.7	92.1	168.5
20304A7	118.3	T-W			1144.7		53.02	1.06	0.0721	0.0025	0.0023	0.1845	0.0060	0.0053	0.0189	0.0004	0.0002	0.45			1020.4	57.3	171.9

Analysis date	Final U-Pb ages (Ma) [a]		Concentration [b]			Th/U	Data for Tera-Wasserburg plot [c]					Data for Wetherill plot [c]							208Pb/232Th [c]		207Pb/206Pb		207Pb/2
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U			206Pb/238U								
			ppm				Ratio	2σ*	Ratio	2σ*	2σ	Ratio	2σ*	2σ	Ratio	2σ*	2σ	rho	Ratio	2σ	Age (Ma)	2σ	Age (Ma)
20304A8	118.3	T-W			606.2		50.14	1.20	0.1182	0.0080	0.0078	0.3229	0.0209	0.0203	0.0199	0.0005	0.0004	0.29			1953.7	117.1	284.1
20304A9	118.3	T-W			895.6		51.29	1.11	0.0911	0.0058	0.0056	0.2420	0.0147	0.0143	0.0195	0.0004	0.0003	0.26			1472.2	116.7	220.1
20304A10	118.3	T-W			653.1		50.20	1.21	0.1079	0.0079	0.0077	0.2989	0.0250	0.0246	0.0199	0.0005	0.0004	0.23			1783.3	129.3	265.5
20304A11	118.3	T-W			744.3		51.79	1.10	0.0715	0.0042	0.0041	0.1875	0.0108	0.0104	0.0193	0.0004	0.0003	0.26			988.6	112.0	174.5
20304A12	118.3	T-W			793.9		47.47	1.14	0.1165	0.0072	0.0070	0.3347	0.0162	0.0154	0.0211	0.0005	0.0004	0.40			1916.7	107.4	293.2
20304A18	118.3	T-W			704.2		52.86	1.25	0.0817	0.0033	0.0031	0.2122	0.0080	0.0073	0.0189	0.0004	0.0003	0.53			1238.9	74.5	195.4
20304A19	118.3	T-W			1150.6		52.62	1.20	0.0677	0.0043	0.0042	0.1752	0.0075	0.0070	0.0190	0.0004	0.0003	0.42			857.4	132.4	163.9
20304A20	118.3	T-W			622.1		51.97	1.20	0.0860	0.0052	0.0050	0.2281	0.0124	0.0119	0.0192	0.0004	0.0003	0.33			1400.0	111.1	208.6
20304A21	118.3	T-W			666.9		46.93	1.13	0.1478	0.0076	0.0073	0.4328	0.0192	0.0180	0.0213	0.0005	0.0004	0.45			2316.4	83.2	365.1
20304A22	118.3	T-W			722.9		46.31	1.11	0.1672	0.0078	0.0074	0.4959	0.0204	0.0190	0.0216	0.0005	0.0004	0.48			2525.0	73.9	408.9
20304A23	118.3	T-W			674.7		47.39	1.58	0.1207	0.0091	0.0089	0.3675	0.0306	0.0300	0.0211	0.0007	0.0006	0.36			1961.4	130.7	317.8
20304A24	118.3	T-W			749.7		43.37	1.00	0.2116	0.0101	0.0096	0.6766	0.0270	0.0250	0.0231	0.0005	0.0004	0.47			2922.2	72.2	524.7
20304A25	118.3	T-W			655.5		49.25	1.21	0.1129	0.0060	0.0058	0.3161	0.0166	0.0159	0.0203	0.0005	0.0004	0.38			1839.2	90.7	278.9
20304A26	118.3	T-W			569.0		51.40	1.31	0.0710	0.0043	0.0042	0.1897	0.0107	0.0103	0.0195	0.0005	0.0004	0.38			947.2	114.7	176.3

Note: a Mean: weighted average 206Pb/238U age; b concentration uncertainty < 5%; c data and dates not corrected for common-Pb and only 2σ* were used; d Concordance calculated as (^{206}Pb-^{238}U age/^{207}Pb-^{238}U age)*100; Decay constants of Jaffey et al. (1971) used and a small number data were deleted due to abnormal ages, i.e., quite young or older and different from other data in the sample group. 2σ*: uncertainty has caculated as the recommendations in Horstwood et al. (2016)

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
4.7	120.6	2.6	1.9				78.9
3.8	119.1	2.9	2.3				94.4
8.5	119.4	2.4	1.6				69.4
2.9	117.5	2.3	1.4				92.0
7.3	120.1	2.7	2.0				70.4
9.1	124.1	2.7	1.9				51.8
4.3	118.4	2.6	1.9				92.4
4.6	118.9	2.6	1.8				80.5
4.4	115.1	2.5	1.7				80.2
4.2	118.0	3.2	2.6				87.1
3.9	116.2	3.0	2.4				87.8
4.0	116.9	3.3	2.8				96.5
6.4	117.5	3.1	2.5				70.9
4.6	117.6	2.7	2.0				67.0
4.7	116.8	2.8	2.1				87.7
3.6	118.1	3.3	2.7				99.9
3.9	116.2	2.6	1.9				97.7
3.4	115.0	2.7	2.0				97.9
2.8	116.8	2.4	1.7				98.4
3.2	117.3	2.5	1.7				99.4
10.5	127.3	3.5	2.8				39.5
10.7	129.7	3.9	3.3				45.6
20.2	126.8	4.2	3.7				49.5
11.5	119.9	4.3	3.8				61.5
7.5	116.7	3.9	3.5				65.1
6.7	119.0	3.9	3.4				73.7
5.1	120.3	3.6	3.1				78.9

Dates [c]							% conc [d]
35U		206Pb/238U			208Pb/232Th		
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
12.3	122.5	4.4	4.0				78.6
5.0	119.7	3.9	3.4				79.9
4.7	120.7	3.6	3.0				82.6
4.7	124.9	4.0	3.5				82.7
7.3	119.0	4.5	4.1				83.9
3.8	121.1	4.0	3.5				87.9
5.4	122.0	4.4	3.9				91.2
3.9	121.6	4.0	3.5				91.8
5.2	122.9	4.5	4.0				93.4
4.9	117.2	4.6	4.2				95.9
4.4	120.3	4.6	4.1				96.7
4.3	117.2	3.7	3.3				98.4
3.8	118.6	3.9	3.5				99.0
4.7	122.6	4.4	3.9				99.9
14.4	133.9	3.2	2.5				35.9
16.6	131.0	3.1	2.4				36.0
10.5	123.8	2.7	1.9				56.5
4.7	122.7	3.0	2.4				88.7
8.4	121.7	4.0	3.5				70.8
4.5	121.6	3.6	3.1				97.3
11.8	121.2	3.2	2.6				65.4
4.4	120.5	3.3	2.7				84.1
6.7	120.5	3.1	2.5				63.7
3.9	120.4	2.7	1.9				84.1
4.7	120.3	3.2	2.6				88.1
5.7	119.6	3.1	2.5				70.4
3.3	119.2	2.9	2.2				93.3
4.0	119.2	2.4	1.5				66.0

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
5.1	118.9	4.3	3.8				87.9
3.0	118.0	2.6	1.8				82.3
2.7	117.1	2.5	1.8				91.1
3.2	116.4	3.1	2.5				96.5
29.6	127.6	4.4	4.0				36.1
10.8	121.1	4.3	3.8				54.8
8.8	120.8	3.6	3.0				54.1
9.1	120.7	3.9	3.4				66.2
5.2	117.5	3.6	3.0				71.3
4.4	117.3	3.8	3.3				76.9
6.4	116.3	3.7	3.2				84.1
5.2	115.5	3.6	3.1				81.3
5.1	115.5	3.2	2.7				82.2
4.7	114.2	3.4	2.9				76.4
4.1	116.8	3.5	3.0	119.5	3.5	2.9	100.3
4.2	115.4	3.6	3.2	120.2	3.3	2.8	99.5
4.3	118.9	3.5	2.9				100.1
3.5	118.6	3.2	2.7				100.4
3.7	119.0	3.3	2.7				99.2
3.8	121.7	3.6	3.1	121.0	3.2	2.6	99.9
3.8	117.6	3.6	3.0				98.8
3.9	120.1	3.6	3.1				98.2
4.3	120.2	4.0	3.5	120.4	3.3	2.7	100.3
4.1	118.1	3.1	2.4	115.6	3.4	3.0	98.9

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
3.4	117.9	3.2	2.6	123.1	3.2	2.5	99.1
4.2	120.8	3.1	2.5	118.3	3.2	2.6	88.2
6.2	118.5	3.2	2.7	121.0	3.7	3.2	94.3
3.7	117.7	2.9	2.3	120.0	3.2	2.6	96.3
3.2	116.0	3.1	2.5	122.8	3.4	2.9	99.3
3.1	117.6	3.2	2.6	120.6	3.0	2.4	100.4
3.8	120.1	3.1	2.4	122.0	3.0	2.3	99.6
3.7	120.2	2.9	2.3	122.8	2.9	2.3	99.1
10.7	120.4	9.2	8.9	118.1	8.1	7.9	87.9
5.9	120.6	3.3	2.7	119.7	3.4	2.8	82.6
5.7	120.1	3.9	3.4	123.5	3.4	2.8	86.9
22.8	126.9	4.9	4.4				54.3
5.4	118.2	4.3	3.9	124.1	3.2	2.6	93.0
5.0	120.6	4.4	3.9	123.4	3.1	2.4	93.2
3.0	116.9	2.6	1.9				97.7
3.8	119.7	3.3	2.7	122.4	3.4	2.8	96.4
2.9	120.3	2.6	1.8	122.5	3.4	2.8	99.1
3.9	117.8	3.3	2.7	120.7	3.3	2.7	100.7
3.4	117.2	3.2	2.6	121.8	3.2	2.6	99.0
3.6	117.0	3.4	2.8	123.9	3.1	2.4	98.5
3.6	121.4	3.4	2.8	119.2	3.3	2.7	96.2
4.2	120.8	3.9	3.4	119.2	3.3	2.8	98.6
9.0	118.4	5.9	5.5	120.6	5.3	5.0	95.0
3.4	117.1	3.2	2.6	118.6	3.3	2.7	94.8
4.5	119.7	4.3	3.8	116.1	3.6	3.2	95.8
4.2	117.0	4.2	3.8	121.6	3.2	2.7	99.2
4.3	121.1	4.1	3.6	121.0	3.5	3.0	100.7
5.1	119.8	4.0	3.5	122.4	3.2	2.6	96.2

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
3.7	118.3	3.8	3.3	122.9	3.3	2.7	98.2
10.0	116.4	5.0	4.6	121.3	3.2	2.6	95.9
30.5	140.0	4.7	4.1				40.8
7.2	121.1	2.8	2.1	120.1	3.0	2.4	89.6
8.9	123.2	3.1	2.4	119.7	5.8	5.5	77.2
8.7	120.6	3.6	3.1				89.5
8.0	119.8	3.0	2.3				85.8
7.2	122.0	2.9	2.2				82.1
6.5	120.8	3.0	2.3	119.8	3.5	3.0	101.3
6.2	119.3	2.8	2.0	121.0	3.0	2.3	94.6
8.5	122.4	3.6	3.0				100.1
6.7	119.0	2.8	2.1				99.6
5.8	119.1	2.7	1.9				97.4
5.8	119.8	2.6	1.8				97.4
5.7	118.9	2.7	2.0				95.8
7.1	118.8	3.1	2.4				98.2
8.2	118.9	3.4	2.9				97.4
6.9	119.9	3.0	2.4				99.8
15.6	130.0	4.2	3.7				50.0
8.4	124.1	3.7	3.1				62.9
4.7	122.3	4.2	3.7				90.6
14.1	122.1	3.1	2.5				45.6
5.3	121.4	3.3	2.7				81.4
3.5	121.2	3.8	3.3				93.0
5.9	120.5	3.8	3.3				74.0
4.6	120.5	4.1	3.7				92.4
5.9	119.9	3.4	2.8				73.7

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
10.5	119.2	4.0	3.5				58.9
4.4	119.0	3.6	3.1				87.9
6.3	118.3	3.7	3.2				70.9
2.5	118.1	2.9	2.3				98.9
2.6	117.9	2.9	2.3				98.0
3.3	117.1	3.0	2.4				88.3
3.0	116.1	2.6	1.9				86.5
3.6	115.3	3.6	3.1				94.0
6.8	125.5	4.3	3.8				67.7
12.7	122.3	4.7	4.3				61.4
5.8	122.2	4.0	3.5				106.9
8.0	122.0	4.2	3.7				69.1
6.3	119.9	4.2	3.8				74.4
4.5	119.7	4.2	3.8				92.4
4.6	119.6	4.2	3.7				94.6
4.8	119.2	4.3	3.8				94.3
5.0	119.2	4.0	3.6				83.1
3.6	118.9	3.6	3.1				97.1
3.9	117.6	3.8	3.3				82.2
3.5	117.4	3.6	3.1				98.4
4.6	115.7	3.6	3.2				80.5
3.9	115.1	4.1	3.7				99.0
5.4	119.5	2.7	2.0	113.9	2.6	1.9	105.4
4.8	118.7	2.5	1.8	117.3	3.0	2.4	101.5
6.6	120.7	2.9	2.2	115.0	2.2	1.4	91.4
7.2	119.9	3.0	2.3	114.9	2.2	1.3	91.0
11.1	124.7	2.8	2.0	118.6	2.8	2.1	62.3

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
5.8	121.2	2.7	1.9	113.1	2.5	1.8	85.5
12.9	123.7	4.1	3.6	116.9	2.9	2.3	64.9
3.6	123.5	3.9	3.3				94.2
6.6	123.5	4.0	3.5				74.8
4.4	122.9	3.5	2.9				94.3
4.2	122.8	3.7	3.2				86.6
3.2	121.5	3.3	2.7				96.1
3.7	121.0	3.7	3.2				86.1
3.5	120.7	3.5	3.0				93.0
5.3	119.7	5.5	5.1				91.6
6.6	119.4	5.7	5.3				88.4
4.3	118.7	4.7	4.3				94.9
3.7	117.3	4.0	3.6				97.0
4.8	116.8	3.7	3.2				90.5
7.2	116.7	5.3	4.9				80.1
4.9	116.3	4.3	3.9				89.2
4.4	114.8	4.1	3.7				88.1
4.5	113.7	4.8	4.4				97.8
2.3	122.5	2.7	2.0				94.4
4.3	122.2	2.6	1.8				82.6
3.4	122.0	3.1	2.5				90.5
4.1	122.0	3.1	2.5				77.4
5.6	121.5	3.0	2.4				74.9
5.0	121.1	3.0	2.4				85.1
11.3	121.1	3.9	3.4				78.9
2.8	120.9	3.2	2.5				92.9
3.3	119.9	3.3	2.8				96.9

Dates [c]							
35U		206Pb/238U			208Pb/232Th		% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
2.0	119.1	2.7	2.0				98.9
2.6	118.5	2.9	2.3				95.3
3.0	118.4	2.9	2.3				91.2
2.2	117.4	2.7	2.0				92.9
22.0	154.7	4.6	3.9				23.8
10.0	143.9	3.3	2.5				28.8
38.2	143.0	4.9	4.3				35.5
9.0	133.6	3.4	2.6				40.9
14.1	132.0	3.4	2.7				43.9
28.3	131.4	3.8	3.2				37.0
20.5	128.8	4.1	3.5				49.8
15.2	127.9	2.9	2.1				45.6
7.0	126.9	4.2	3.7				66.3
4.0	122.4	2.6	1.8				73.8
3.8	121.1	3.1	2.5				89.4
2.5	121.0	3.1	2.5				97.0
3.8	120.7	2.8	2.0				91.3
2.9	120.5	2.9	2.2				100.5
2.6	119.9	2.6	1.8				81.2
2.9	119.7	3.1	2.5				83.6
2.2	119.5	2.4	1.6				91.4
39.0	174.0	6.0	5.3				21.4
21.8	137.1	3.6	2.9				34.1
26.7	135.6	3.2	2.4				34.5
24.3	128.8	3.4	2.8				43.9
22.4	126.6	3.0	2.3				45.5
13.5	126.0	2.6	1.8				53.5

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
12.4	123.9	2.7	1.9				54.2
6.0	123.0	2.5	1.6				57.5
8.3	122.4	2.5	1.7				50.0
9.8	122.1	2.6	1.7				51.6
9.7	122.0	2.3	1.4				55.7
14.2	121.6	2.4	1.5				59.0
9.0	119.9	2.6	1.8				64.4
2.6	119.2	2.4	1.5				85.3
5.5	118.8	2.4	1.5				67.8
2.8	118.0	2.3	1.4				90.5
2.4	117.8	2.3	1.3				84.4
2.4	117.8	2.3	1.5				92.1
14.7	120.5	4.5	4.1	118.9	7.6	7.4	86.8
15.8	120.7	4.8	4.4	115.3	8.9	8.7	82.4
15.8	120.6	5.2	4.8	117.8	13.5	13.4	91.6
14.4	122.6	4.7	4.2	116.6	16.8	16.7	88.1
15.4	121.0	5.2	4.8	119.1	7.6	7.4	80.1
15.3	122.4	4.8	4.4	123.2	13.3	13.2	82.1
10.6	122.4	4.2	3.8	135.6	15.8	15.6	91.1
11.1	119.7	4.4	4.0	121.5	10.6	10.5	99.5
11.7	121.0	4.3	3.9	120.3	8.8	8.6	102.8
12.8	120.7	4.5	4.1	121.6	11.9	11.7	96.3
10.9	118.1	5.0	4.7	122.3	9.2	9.0	94.4
12.6	123.4	3.9	3.4	121.4	9.7	9.5	96.0
13.5	120.3	4.0	3.5	115.6	7.7	7.5	93.5
13.9	122.8	5.7	5.3	122.2	13.9	13.8	97.1
12.6	122.4	4.3	3.8	126.8	7.9	7.6	95.0

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
11.1	123.1	4.3	3.8				91.8
11.0	123.3	3.9	3.4	118.5	6.4	6.2	85.5
12.4	124.1	4.2	3.7	122.6	4.7	4.4	85.6
13.8	117.7	4.2	3.8	116.6	6.9	6.7	73.7
12.9	120.9	4.3	3.9	116.5	6.1	5.8	91.0
11.1	117.1	3.9	3.4	117.5	6.3	6.0	92.9
9.8	122.3	4.0	3.5	121.0	9.1	8.9	95.2
11.5	121.7	3.9	3.4	115.6	7.4	7.2	92.7
10.3	122.5	4.5	4.0	118.5	6.3	6.0	102.1
10.0	122.9	3.6	3.1	118.8	7.8	7.6	92.8
8.5	119.1	3.3	2.8	126.4	7.2	6.9	97.3
10.3	122.2	4.1	3.6	123.0	8.4	8.2	96.8
10.5	123.4	3.9	3.4	121.2	6.7	6.5	98.5
8.6	123.1	3.9	3.4	116.0	7.0	6.8	104.7
13.1	124.3	4.1	3.6	118.2	6.0	5.7	94.8
9.8	121.5	3.6	3.1	116.5	5.4	5.1	97.7
9.4	120.8	4.1	3.6	121.9	7.2	6.9	94.6
10.3	122.7	3.9	3.4	124.6	7.2	7.0	102.9
13.6	119.4	4.0	3.6	116.1	6.7	6.5	91.2
14.6	118.7	5.2	4.8	117.5	4.6	4.3	90.3
22.0	126.7	6.4	6.1	120.8	5.3	5.0	48.5
11.9	121.8	4.1	3.7	123.1	14.2	14.1	97.4
11.8	118.9	4.3	3.8	117.2	7.9	7.7	96.4
14.5	120.5	6.5	6.2	117.0	5.3	5.0	97.9
10.2	119.5	4.0	3.5	119.1	6.8	6.5	97.3
12.0	116.2	4.5	4.1	116.8	7.5	7.3	97.7
12.3	121.7	4.6	4.1	118.5	6.4	6.2	96.0
11.5	118.9	4.2	3.7	117.4	10.4	10.3	93.5

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
13.7	124.2	4.8	4.4	121.4	7.0	6.8	101.3
8.3	121.8	3.8	3.2	115.0	14.3	14.1	102.5
10.1	126.8	4.6	4.1	120.1	10.2	10.1	99.3
10.0	122.1	4.3	3.8	119.2	6.2	5.9	97.3
10.8	120.3	4.2	3.8	120.6	7.6	7.4	94.7
10.8	118.9	4.6	4.2	119.6	7.7	7.5	94.4
32.8	133.4	5.4	4.9				51.7
32.5	126.5	5.0	4.6				44.7
53.1	117.6	8.8	8.5	118.8	11.7	11.6	73.5
8.1	120.9	3.8	3.3	117.5	5.2	4.9	90.4
7.0	122.1	4.0	3.5	120.0	9.3	9.1	95.8
7.3	120.1	3.5	2.9	120.5	7.6	7.4	98.7
6.4	119.2	3.6	3.1	123.3	6.3	6.0	99.6
6.5	120.8	3.4	2.8	119.4	4.8	4.4	98.3
6.0	118.7	3.1	2.5	116.0	5.0	4.6	99.7
7.1	118.1	3.5	3.0	117.6	4.1	3.6	96.4
6.2	118.1	3.5	3.0	116.0	4.8	4.4	99.4
6.6	120.6	3.7	3.2	116.6	5.4	5.1	105.8
7.5	118.6	3.5	2.9	117.8	4.9	4.5	96.5
7.8	120.8	4.1	3.6	117.3	4.8	4.5	101.8
6.7	120.7	3.3	2.7	121.9	4.5	4.1	100.2
9.5	119.2	3.7	3.2	120.6	5.3	4.9	87.8
11.0	120.2	3.6	3.0				76.3
8.1	117.7	3.4	2.9	120.9	4.1	3.7	90.4
8.7	120.0	4.0	3.6	115.0	4.4	4.0	89.5
8.4	120.6	3.4	2.9	120.4	4.6	4.2	88.5
9.3	120.4	3.8	3.3	116.2	4.4	4.1	94.2

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
8.5	119.1	3.6	3.1	119.7	4.4	4.1	95.5
7.0	120.1	3.2	2.6	116.9	7.9	7.7	94.0
7.8	120.2	3.9	3.4	118.3	4.5	4.1	94.4
8.5	120.6	3.8	3.3	116.5	4.3	3.9	98.4
6.7	118.6	3.7	3.3	117.3	4.6	4.3	93.9
11.1	118.9	4.2	3.8	119.4	4.0	3.5	98.6
10.7	118.8	4.1	3.7	120.7	4.8	4.4	92.7
7.9	116.6	3.7	3.2	115.2	5.8	5.6	93.7
7.9	120.0	4.0	3.5	115.8	4.4	4.0	93.7
11.5	117.6	3.6	3.0				68.8
9.7	117.8	3.3	2.8				74.2
4.5	121.3	3.0	2.3				91.3
24.0	123.1	5.3	4.9	115.8	5.8	5.6	80.2
6.8			3.2	116.5	3.1	2.6	0.0
4.5	120.7	3.1	2.5	119.8	4.7	4.3	103.0
4.6	117.5	3.0	2.4	119.7	5.0	4.7	97.6
5.3	120.4	3.5	3.0	123.8	4.5	4.0	101.3
4.7	121.7	3.3	2.7	123.7	3.9	3.4	96.0
4.0	118.9	2.7	2.0	116.1	6.0	5.8	99.8
4.7	118.6	3.2	2.6	119.9	5.2	4.8	97.1
3.9	116.6	2.8	2.1	115.1	4.5	4.1	100.2
4.4	120.6	3.4	2.8	119.7	5.0	4.7	99.2
5.8	116.2	3.2	2.6	115.6	3.4	2.9	96.4
4.8	120.5	3.3	2.7	115.3	3.7	3.2	95.3
2.6	114.1	2.8	2.2				98.9
3.5	114.6	3.3	2.8				100.0
3.7	115.1	3.2	2.6				98.8

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
3.5	115.3	2.9	2.2				99.6
4.6	115.8	3.4	2.9				99.6
3.6	116.0	3.2	2.7				102.4
3.8	116.7	3.6	3.1				100.8
4.3	117.0	3.4	2.8				96.5
3.5	117.0	3.2	2.7				95.3
3.8	117.2	3.5	3.0				98.0
3.5	117.4	3.1	2.5				99.6
2.9	117.6	3.0	2.4				99.1
4.1	117.9	2.9	2.3				93.9
3.5	118.3	3.1	2.5				98.3
4.4	119.0	3.5	3.0				100.2
3.4	119.4	2.8	2.2				101.5
3.6	120.3	3.0	2.3				98.6
3.3	121.8	3.1	2.5				102.6
3.7	122.6	3.5	2.9				101.5
6.6	119.8	2.7	2.0	115.7	2.3	1.4	79.6
6.1	120.4	2.6	1.9	119.1	2.6	1.9	84.6
5.1	122.2	2.5	1.6	114.4	2.4	1.6	90.2
4.8	122.7	2.6	1.7	117.7	2.4	1.6	91.6
5.1	121.5	2.6	1.8	114.8	2.3	1.4	94.5
5.7	120.8	2.7	2.0	115.4	2.2	1.3	100.0
5.7	121.8	3.0	2.3	116.0	2.8	2.2	103.1
4.0	120.2	2.5	1.7	117.1	2.4	1.7	103.4
4.6	122.2	2.6	1.7	115.1	2.5	1.8	104.6
5.2	120.5	2.6	1.9	114.7	2.3	1.6	98.4
5.3	119.8	2.6	1.8	115.8	2.5	1.7	100.7
5.4	122.0	2.7	1.9	116.0	2.5	1.7	96.5

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
5.8	122.1	2.7	2.0	118.7	2.7	2.1	98.8
5.5	121.4	2.8	2.1	118.5	3.1	2.6	103.6
5.3	122.6	2.5	1.7	119.5	2.5	1.7	95.8
3.6	122.3	4.2	3.7				97.9
3.7	119.8	3.6	3.1				94.8
3.9	121.5	3.8	3.3				96.9
7.1	121.3	3.8	3.3				87.1
4.9	117.0	3.6	3.1				102.4
2.4	119.4	2.7	2.0				103.0
3.2	117.9	3.7	3.2				101.1
2.4	118.9	3.1	2.4				99.0
3.2	116.9	3.6	3.1				100.7
3.7	122.3	3.7	3.2				100.6
4.0	120.5	2.8	2.0				99.8
3.1	117.7	3.4	2.9				99.3
2.4	117.4	3.0	2.3				99.0
2.4	118.2	2.7	2.0				99.2
6.3	118.7	3.1	2.6				99.4
2.1	119.9	2.7	1.9				100.2
2.8	118.0	3.1	2.5				100.3
4.4	118.2	2.4	1.5	120.7	2.3	1.4	97.4
4.1	117.4	2.3	1.4	117.7	2.2	1.3	98.0
3.3	116.7	2.2	1.3	119.2	2.2	1.2	94.3
4.8	119.5	2.5	1.7	119.5	2.8	2.2	95.9
4.4	119.9	2.5	1.7	119.2	2.6	1.9	97.6
3.9	116.9	2.5	1.7	120.5	2.7	1.9	100.2
4.3	117.8	2.4	1.5	118.7	2.7	2.0	95.6

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
4.4	117.5	2.3	1.5	118.2	2.6	1.9	99.2
4.9	118.2	2.4	1.6	121.1	2.4	1.5	91.6
5.1	117.8	2.6	1.9	117.6	2.3	1.5	99.1
3.9	117.7	2.2	1.2	121.7	2.3	1.3	98.2
4.5	120.7	2.4	1.5	122.5	2.5	1.6	96.7
3.5	119.1	2.2	1.3	121.0	2.2	1.3	94.7
4.5	118.2	2.4	1.6	120.5	2.3	1.4	93.7
4.7	119.7	2.4	1.6	121.6	2.3	1.4	95.0
8.7	121.4	3.2	2.5				85.2
8.8	122.8	3.2	2.6				89.3
9.8	120.0	3.7	3.2				90.9
10.6	118.7	3.7	3.2				93.2
9.4	115.6	5.6	5.3				92.6
7.5	119.9	3.2	2.6				92.5
7.3	117.1	3.2	2.7				94.9
9.5	119.9	3.6	3.1				96.6
8.0	120.2	3.4	2.8				97.4
9.5	118.8	3.7	3.2				97.4
10.1	123.2	4.1	3.6				102.4
9.3	124.3	3.7	3.2				102.5
9.0	120.3	3.6	3.1				98.2
9.6	119.9	3.8	3.3				98.7
9.1	121.5	3.8	3.3				100.3
11.3	122.2	4.1	3.6				86.2
7.8	121.4	3.6	3.1				89.8
13.3	120.7	4.6	4.2				90.5
19.7	118.3	7.2	6.9				92.7

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
9.4	121.5	3.2	2.5				93.2
8.6	122.4	3.8	3.2				95.2
15.1	120.6	6.2	5.9				103.4
13.0	119.7	5.8	5.4				102.8
7.3	122.9	3.3	2.7				97.3
9.4	121.2	3.3	2.7				97.2
18.0	122.0	7.3	7.0				101.9
11.4	121.6	4.5	4.0				98.3
7.5	123.4	3.1	2.4				98.9
16.2	118.7	6.8	6.5				100.2
13.0	121.3	5.6	5.3				100.5
13.5	120.8	5.1	4.7				100.7
8.2	119.6	3.5	2.9	116.8	6.7	6.4	92.3
9.9	118.7	3.6	3.1	118.8	7.0	6.8	87.9
8.9	118.3	3.6	3.1	119.6	6.1	5.8	94.0
8.8	119.1	3.5	2.9	113.0	7.3	7.1	91.2
7.0	120.3	3.5	3.0				101.4
12.0	116.3	4.5	4.1				95.6
9.9	115.9	3.9	3.5	119.7	6.5	6.2	98.0
10.2	118.6	4.3	3.9	116.1	6.1	5.8	97.9
7.8	119.6	3.6	3.1	118.0	7.6	7.4	95.7
7.2	117.9	3.3	2.7	116.4	5.3	5.0	99.9
8.3	117.4	3.2	2.7	118.4	4.6	4.2	97.8
8.6	118.7	3.1	2.5	117.9	7.1	6.8	98.3
9.1	117.1	3.1	2.5	110.1	4.7	4.4	95.7
8.0	119.9	3.2	2.6	121.2	6.3	6.0	105.8
7.9	119.2	3.1	2.5	119.3	6.5	6.2	105.7
8.6	118.2	3.6	3.1	118.8	8.0	7.7	97.7

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
9.7	119.0	3.8	3.4	118.0	6.2	6.0	101.8
8.2	119.4	3.8	3.3	120.1	7.7	7.4	96.6
9.3	118.8	3.2	2.6	119.5	4.6	4.2	88.2
6.0	120.6	3.0	2.4	118.6	5.7	5.4	107.5
8.2	115.4	3.5	3.0	114.5	5.1	4.8	88.0
9.8	120.7	3.6	3.1				87.2
5.7	117.7	2.8	2.1	117.5	5.0	4.6	95.5
6.3	118.8	3.0	2.4	115.8	5.0	4.7	94.6
6.3	118.4	3.1	2.5	118.1	5.7	5.4	96.6
6.8	120.7	3.4	2.9	116.4	4.5	4.1	103.6
8.6	121.1	3.5	2.9	119.1	3.8	3.4	93.3
7.4	119.4	3.2	2.6	115.4	4.8	4.5	99.5
7.1	117.6	3.0	2.4	114.1	3.8	3.4	96.7
7.4	119.0	3.1	2.5	118.2	5.1	4.8	97.1
6.8	117.0	3.0	2.3	120.9	5.0	4.7	96.7
9.4	121.4	3.7	3.2	117.4	4.2	3.8	97.1
6.6	118.9	3.0	2.4				100.1
9.0	117.1	3.1	2.5	118.3	4.7	4.4	95.3
7.7	119.6	3.2	2.7	114.8	3.9	3.5	97.1
6.4	118.5	2.8	2.2	116.3	8.8	8.6	100.1
4.5	119.3	3.0	2.4	115.4	4.2	3.8	108.7
5.6	120.3	3.0	2.4	120.0	4.2	3.8	88.4
7.5	122.0	3.2	2.6	116.9	4.8	4.5	84.3
5.7	121.8	2.9	2.2	118.7	4.4	4.1	103.6
6.3	118.9	3.2	2.6	117.9	5.1	4.8	96.4
7.3	119.1	3.2	2.6	117.2	4.2	3.8	97.8
4.9	117.0	3.1	2.6	117.0	4.3	3.9	96.8

Dates [c]							
:35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
4.6	119.8	3.1	2.4	117.8	4.5	4.1	100.6
6.9	120.7	3.5	3.0	117.2	5.1	4.7	97.4
6.7	119.1	3.3	2.7	116.9	3.3	2.8	99.3
6.4	122.0	3.3	2.7	120.8	4.3	3.9	103.8
7.3	119.7	3.1	2.4	114.3	4.7	4.3	98.9
4.8	121.8	3.0	2.3	118.5	4.2	3.8	101.5
7.9	117.1	3.3	2.8	118.8	4.7	4.3	94.6
5.4	121.5	3.1	2.5	114.1	4.3	3.9	100.9
15.8	122.8	2.9	2.2				69.0
5.7	116.0	2.8	2.2				102.3
4.4	118.7	2.5	1.8	116.3	3.8	3.3	95.7
4.9	120.1	3.0	2.3				94.4
29.5	121.1	5.1	4.7				104.6
3.4	119.5	2.5	1.7	118.7	3.2	2.6	98.5
6.3	119.2	2.7	1.9	119.2	3.1	2.6	98.6
4.1	117.8	2.6	1.8	118.9	3.2	2.7	98.8
4.3	119.0	2.8	2.1	118.8	3.5	3.0	95.0
4.3	120.4	2.7	2.0	117.6	3.3	2.8	101.1
4.6	117.9	2.6	1.8	116.6	3.3	2.8	96.3
3.4	119.1	2.6	1.8	118.3	3.3	2.8	96.4
4.3	119.6	3.3	2.7				95.2
3.2	118.3	2.8	2.1	119.7	3.4	2.9	96.7
13.5	123.8	2.8	2.1				73.3
16.5	122.3	3.5	2.9				62.0
10.1	122.1	3.7	3.2				73.1
7.9	121.8	3.7	3.1				82.6
6.9	119.4	3.1	2.4				84.5

Dates [c]							
35U	206Pb/238U			208Pb/232Th			% conc [d]
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
6.5	122.4	2.9	2.2				91.4
6.3	122.2	3.3	2.7				91.4
7.4	120.9	3.2	2.6				91.8
6.1	121.9	3.5	2.9				91.5
5.9	117.5	2.8	2.2				93.2
5.5	118.0	2.8	2.1				95.8
5.2	118.0	2.9	2.3				104.6
5.3	119.5	3.2	2.6				96.8
5.5	122.6	3.0	2.3				101.8
11.0	121.4	4.8	4.4				75.4
9.4	121.8	2.9	2.2				77.2
13.4	118.3	6.4	6.1				80.2
5.8	120.3	2.9	2.3				81.0
7.0	123.3	2.9	2.2				82.4
9.9	116.1	5.5	5.2				88.7
5.3	121.7	2.8	2.0				91.2
4.9	125.6	2.8	2.1				91.5
13.0	116.9	7.2	6.9				92.7
4.3	121.8	2.9	2.2				93.8
4.5	122.3	2.8	2.0				94.9
8.3	119.3	4.9	4.5				96.6
6.0	121.9	3.6	3.1				97.3
15.0	115.5	8.9	8.6				99.7
13.4	115.4	8.0	7.8				100.1
8.7	123.2	2.5	1.7				61.2
6.6	122.6	2.5	1.7				72.8
4.6	120.4	2.4	1.6				70.1

Dates [c]							% conc [d]
:35U		206Pb/238U			208Pb/232Th		
2σ	Age (Ma)	2σ*	2σ	Age (Ma)	2σ*	2σ	
15.6	127.3	3.0	2.3				44.8
11.7	124.5	2.7	1.9				56.6
19.2	127.1	3.1	2.4				47.9
8.9	123.3	2.6	1.8				70.6
11.7	134.4	3.2	2.5				45.8
6.1	120.8	2.9	2.2				61.8
6.1	121.4	2.8	2.1				74.1
9.9	122.9	2.8	2.1				58.9
12.8	135.9	3.3	2.5				37.2
12.9	137.7	3.3	2.5				33.7
22.3	134.6	4.5	3.9				42.4
15.1	146.9	3.4	2.5				28.0
12.3	129.6	3.2	2.5				46.5
8.8	124.2	3.2	2.5				70.4

Table S-3 other bastnasite samples calibrated by XN01

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
32μm2J4Hz3N2																							
11227a4	TPZ	440.6	129.7	7497.8	60.2	125	14.31	0.32	0.0851	0.0034	0.0031	0.8156	0.0309	0.0699	0.0019	0.0016	0.59	0.02098	0.00035	1317.6	65.7	605.6	17.3
11227a8	TPZ	440.6	151.1	8682.2	51.5	168	11.18	0.33	0.2434	0.0175	0.0171	3.1458	0.2767	0.0894	0.0029	0.0026	0.33	0.02161	0.00031	3142.3	112.0	1444.0	67.8
11227a10	TPZ	440.6	122.8	6267.6	96.9	65	11.26	0.52	0.1769	0.0159	0.0157	2.1625	0.1623	0.0888	0.0043	0.0041	0.62	0.02229	0.00051	2624.4	147.8	1169.1	52.1
11227a7	TPZ	440.6	237.2	13761.9	34.0	404	14.08	0.30	0.0839	0.0036	0.0033	0.8198	0.0354	0.0710	0.0019	0.0015	0.49	0.02170	0.00029	1300.0	77.5	607.9	19.8
11227a9	TPZ	440.6	114.3	6282.9	46.7	135	13.67	0.24	0.0781	0.0029	0.0026	0.7853	0.0276	0.0732	0.0017	0.0013	0.49	0.02186	0.00033	1150.0	67.1	588.5	15.7
11227a14	TPZ	440.6	125.0	7035.9	54.4	129	13.81	0.23	0.0746	0.0030	0.0028	0.7429	0.0293	0.0724	0.0016	0.0012	0.43	0.02203	0.00030	1057.4	71.3	564.1	17.0
11227a13	TPZ	440.6	116.1	6436.1	52.5	123	13.84	0.23	0.0714	0.0028	0.0026	0.7089	0.0252	0.0722	0.0016	0.0012	0.46	0.02236	0.00036	968.5	74.1	544.1	15.0
11227a12	TPZ	440.6	65.2	3531.1	51.9	68	14.02	0.24	0.0755	0.0028	0.0025	0.7399	0.0247	0.0713	0.0016	0.0012	0.51	0.02256	0.00043	1083.3	68.5	562.4	14.4
11227a11	TPZ	440.6	72.7	3843.8	53.1	72	13.20	0.23	0.0891	0.0055	0.0053	0.9568	0.0532	0.0758	0.0018	0.0013	0.31	0.02270	0.00031	1407.1	114.0	681.7	27.6
11227a5	TPZ	440.6	161.3	8741.4	67.7	129	13.78	0.26	0.0722	0.0023	0.0021	0.7217	0.0247	0.0726	0.0018	0.0014	0.56	0.02265	0.00031	992.3	58.8	551.6	14.6
11227a6	TPZ	440.6	142.5	7536.5	73.0	103	13.79	0.28	0.0709	0.0024	0.0021	0.7078	0.0249	0.0725	0.0018	0.0015	0.58	0.02272	0.00031	953.7	59.3	543.5	14.8
11227a22	MNP	35.9	10.9	9214.4	14.7	625	31.00	3.55	0.6751	0.0440	0.0428	3.1547	0.4467	0.0323	0.0037	0.0037	0.81	0.00129	0.00003	4678.7	94.4	1446.1	109.2
11227a23	MNP	35.9	12.6	12035.8	17.5	689	100.68	5.87	0.4372	0.0371	0.0365	0.5816	0.0509	0.0099	0.0006	0.0006	0.67	0.00131	0.00003	4042.3	124.7	465.5	32.7
11227a24	MNP	35.9	11.0	10364.6	14.0	739	109.65	5.89	0.3214	0.0294	0.0290	0.3807	0.0293	0.0091	0.0005	0.0005	0.70	0.00131	0.00004	3576.2	138.9	327.6	21.6
11227a25	MNP	35.9	7.9	7708.0	9.3	824	89.70	5.96	0.4240	0.0442	0.0437	0.5981	0.0497	0.0111	0.0008	0.0007	0.80	0.00132	0.00003	3998.2	154.9	476.1	31.6
11227a26	MNP	35.9	8.0	7805.5	9.2	845	97.97	6.99	0.3931	0.0594	0.0591	0.4719	0.0453	0.0102	0.0007	0.0007	0.74	0.00132	0.00003	3883.0	228.2	392.5	31.3
11227a27	MNP	35.9	11.5	11027.2	22.0	501	124.13	5.90	0.3340	0.0334	0.0330	0.3545	0.0296	0.0081	0.0004	0.0004	0.57	0.00132	0.00004	3635.5	151.9	308.1	22.2
11227a28	MNP	35.9	8.0	8083.3	9.5	852	98.92	7.08	0.3875	0.0444	0.0440	0.4896	0.0473	0.0101	0.0007	0.0007	0.74	0.00134	0.00003	3861.4	172.2	404.7	32.3
11227a29	MNP	35.9	8.0	7941.2	9.4	848	98.37	6.27	0.4238	0.0495	0.0491	0.5370	0.0480	0.0102	0.0007	0.0006	0.71	0.00134	0.00003	3996.0	174.1	436.5	31.7
11227a30	MNP	35.9	8.5	8460.8	9.7	874	88.49	5.38	0.4081	0.0556	0.0553	0.5742	0.0508	0.0113	0.0007	0.0007	0.69	0.00134	0.00003	3939.2	204.6	460.7	32.8
11227a31	MNP	35.9	10.6	10344.6	13.8	752	114.59	7.06	0.3310	0.0393	0.0390	0.3676	0.0337	0.0087	0.0006	0.0005	0.67	0.00135	0.00003	3621.9	181.5	317.9	25.0
11227a32	MNP	35.9	11.0	9399.5	3.4	2805	54.73	4.76	0.8941	0.9292	0.9291	1.4117	0.1351	0.0183	0.0016	0.0016	0.91	0.00137	0.00004	error	error	893.9	56.9
11227a33	MNP	35.9	10.4	8819.1	3.3	2661	60.63	5.78	0.5924	0.1046	0.1042	1.0554	0.0988	0.0165	0.0016	0.0016	1.03	0.00138	0.00003	4489.5	283.3	731.6	48.8
11227a34	MNP	35.9	10.9	9317.7	3.4	2722	54.42	5.01	0.6448	0.1348	0.1344	1.2309	0.1038	0.0184	0.0017	0.0017	1.26	0.00142	0.00003	4612.7	340.7	814.7	47.2
11227a35	MNP	35.9	11.0	9249.6	3.3	2763	55.78	4.77	0.6839	0.1356	0.1352	1.3337	0.1358	0.0179	0.0016	0.0015	0.84	0.00154	0.00004	4697.3	319.6	860.5	59.1
11227a36	MNP	35.9	8.3	8226.0	9.6	853	98.53	6.50	0.4212	0.0599	0.0596	0.5306	0.0519	0.0101	0.0007	0.0007	0.67	0.00156	0.00004	3986.7	213.2	432.2	34.4
11227a37	MNP	35.9	7.2	7324.3	9.4	783	100.33	5.70	0.4043	0.0480	0.0476	0.5120	0.0471	0.0100	0.0006	0.0006	0.62	0.00158	0.00004	3925.3	177.8	419.8	31.6
11227a38	MNP	35.9	7.7	7720.8	9.4	825	84.55	4.86	0.4468	0.0518	0.0514	0.6702	0.0579	0.0118	0.0007	0.0007	0.66	0.00158	0.00004	4074.6	172.0	520.9	35.2
32μm3J5Hz3N2																							
11231A16	TPZ	417	126.7	8328.8	23.6	353	14.35	0.43	0.1258	0.0139	0.0137	1.2147	0.1489	0.0697	0.0024	0.0021	0.25	0.01896	0.00039	2040.4	193.4	807.4	68.3

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
11231A21	TPZ	417	105.4	6905.9	17.5	395	14.75	0.30	0.0915	0.0070	0.0069	0.8460	0.0455	0.0678	0.0017	0.0014	0.38	0.01917	0.00034	1457.4	143.7	622.5	25.0
11231A30	TPZ	417	77.7	4791.8	38.8	123	13.85	0.23	0.1145	0.0059	0.0057	1.1386	0.0574	0.0722	0.0016	0.0012	0.34	0.01985	0.00035	1871.9	89.5	771.9	27.3
11231A29	TPZ	417	105.3	6121.7	40.2	152	11.42	0.76	0.1889	0.0304	0.0302	2.7401	0.6385	0.0875	0.0060	0.0058	0.29	0.02035	0.00037	2732.4	265.6	1339.4	173.3
11231A9	TPZ	417	156.3	9253.7	12.8	724	13.02	0.31	0.1400	0.0094	0.0092	1.5261	0.0957	0.0768	0.0021	0.0018	0.37	0.02109	0.00037	2227.8	113.7	941.0	38.5
11231A31	TPZ	417	193.3	10748.2	46.5	231	6.78	0.91	0.3923	0.0528	0.0525	9.7690	2.2163	0.1476	0.0200	0.0199	0.59	0.02216	0.00055	3879.9	202.8	2413.2	209.0
11231A32	TPZ	417	225.6	12433.7	44.6	279	10.88	0.51	0.1928	0.0222	0.0220	2.7146	0.4248	0.0919	0.0045	0.0043	0.30	0.02290	0.00037	2766.4	188.6	1332.5	116.1
11231A50	MNP	38.2	10.6	8311.4	3.5	2360	56.51	5.41	0.4440	0.2504	0.2503	1.3045	0.1832	0.0177	0.0017	0.0017	0.68	0.00163	0.00004	4065.2	1292.0	847.7	80.7
11231A51	MNP	38.2	11.0	10229.6	11.0	926	75.82	4.87	0.4880	0.0509	0.0504	0.8674	0.0698	0.0132	0.0009	0.0008	0.80	0.00139	0.00003	4205.4	153.1	634.1	37.9
11231A52	MNP	38.2	10.9	10269.5	10.9	942	90.07	6.35	0.4042	0.0625	0.0622	0.5620	0.0553	0.0111	0.0008	0.0008	0.72	0.00137	0.00003	3925.0	233.3	452.8	36.0
11231A54	MNP	38.2	11.2	10512.9	11.6	908	97.48	6.64	0.3685	0.0672	0.0670	0.4683	0.0467	0.0103	0.0007	0.0007	0.68	0.00137	0.00003	3787.0	278.5	390.0	32.3
11231A56	MNP	38.2	10.8	10085.7	14.9	676	109.85	6.53	0.3281	0.0405	0.0402	0.3950	0.0326	0.0091	0.0006	0.0005	0.72	0.00137	0.00002	3608.3	189.3	338.0	23.7
11231A59	MNP	38.2	12.0	10319.6	12.7	811	25.23	6.37	0.4976	0.0573	0.0568	3.8514	1.1956	0.0396	0.0100	0.0100	0.81	0.00145	0.00004	4234.3	169.2	1603.6	250.2
11231A60	MNP	38.2	10.6	9577.2	15.4	620	83.36	6.91	0.4310	0.0565	0.0561	0.7862	0.1678	0.0120	0.0010	0.0010	0.39	0.00139	0.00002	4021.3	195.6	589.0	95.4
11231A62	MNP	38.2	14.1	10075.3	6.7	1501	58.74	3.78	0.6017	0.0803	0.0798	1.2989	0.0946	0.0170	0.0011	0.0011	0.88	0.00181	0.00004	4512.2	193.8	845.2	41.8
11231A69	MNP	38.2	7.6	7194.4	10.8	666	115.64	8.39	0.4131	0.0818	0.0815	0.4179	0.0416	0.0086	0.0006	0.0006	0.73	0.00133	0.00003	3957.4	300.4	354.5	29.8
11231A71	MNP	38.2	7.8	7182.7	10.3	700	98.65	7.20	0.3764	0.0654	0.0651	0.4700	0.0463	0.0101	0.0008	0.0007	0.74	0.00137	0.00003	3817.6	264.8	391.2	32.0
11231A72	MNP	38.2	8.1	7443.2	11.4	651	94.58	6.02	0.3500	0.0569	0.0566	0.4825	0.0344	0.0106	0.0007	0.0007	0.89	0.00138	0.00003	3707.1	249.2	399.8	23.6
11231A75	MNP	38.2	8.0	7517.8	10.2	736	112.03	7.55	0.3128	0.0440	0.0437	0.3896	0.0431	0.0089	0.0006	0.0006	0.61	0.00137	0.00003	3534.5	216.5	334.1	31.5
11231A77	MNP	38.2	7.7	7186.9	10.0	715	116.78	10.05	0.4049	0.0773	0.0770	0.3876	0.0361	0.0086	0.0007	0.0007	0.92	0.00135	0.00003	3927.5	289.8	332.6	26.4
11231A78	MNP	38.2	7.3	6734.4	9.7	697	103.24	8.27	0.4137	0.0688	0.0685	0.4842	0.0546	0.0097	0.0008	0.0008	0.71	0.00136	0.00003	3961.1	250.9	400.9	37.4
11231A80	MNP	38.2	7.5	6802.2	9.5	718	62.39	5.32	0.5839	0.0771	0.0766	1.1489	0.1180	0.0160	0.0014	0.0014	0.83	0.00138	0.00003	4468.5	192.3	776.7	55.7
11231A81	MNP	38.2	9.4	8831.6	18.1	488	126.85	6.25	0.2885	0.0375	0.0373	0.3043	0.0318	0.0079	0.0004	0.0004	0.47	0.00135	0.00003	3409.6	201.4	269.8	24.8
11231A82	MNP	38.2	6.8	6384.8	9.3	686	96.16	6.71	0.3540	0.0530	0.0527	0.4638	0.0504	0.0104	0.0007	0.0007	0.64	0.00137	0.00003	3724.4	228.7	386.9	35.0
11231A83	MNP	38.2	9.2	8406.9	18.2	463	117.88	6.46	0.3201	0.0651	0.0649	0.3294	0.0341	0.0085	0.0005	0.0005	0.53	0.00137	0.00003	3572.2	317.1	289.1	26.0
11231A49	MNP	38.2	10.7	8592.4	3.5	2472	50.68	4.91	0.2967	0.3404	0.3404	1.2480	0.1764	0.0197	0.0019	0.0019	0.68	0.00157	0.00003	3453.4	1141.6	822.5	79.7
11231A53	MNP	38.2	11.5	10662.9	12.1	883	80.39	4.93	0.4047	0.0481	0.0477	0.6501	0.0521	0.0124	0.0008	0.0008	0.77	0.00139	0.00003	3926.9	177.3	508.5	32.1
11231A55	MNP	38.2	10.9	10142.8	11.2	902	86.94	5.68	0.3745	0.0454	0.0450	0.5471	0.0499	0.0115	0.0008	0.0008	0.72	0.00140	0.00003	3809.8	182.9	443.1	32.8

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
11231A57	MNP	38.2	18.1	10120.1	31.1	325	14.20	0.55	0.8097	0.0187	0.0141	7.8542	0.3173	0.0704	0.0029	0.0027	0.96	0.00185	0.00003	error	error	2214.4	36.4
11231A58	MNP	38.2	12.9	9883.3	12.6	785	15.70	0.55	0.8074	0.0329	0.0305	6.9902	0.2378	0.0637	0.0024	0.0022	1.02	0.00152	0.00003	error	error	2110.2	30.2
11231A61	MNP	38.2	14.5	10109.1	6.8	1481	56.46	3.76	0.4907	0.0600	0.0595	1.0977	0.0798	0.0177	0.0012	0.0012	0.92	0.00183	0.00003	4213.9	180.2	752.2	38.6
11231A63	MNP	38.2	10.6	8249.1	3.6	2264	56.14	5.40	0.4778	0.2425	0.2424	1.1019	0.1377	0.0178	0.0017	0.0017	0.77	0.00167	0.00004	4174.0	1074.0	754.3	66.5
11231A70	MNP	38.2	8.0	7326.7	9.8	748	79.76	6.76	0.3692	0.0547	0.0544	0.5910	0.0728	0.0125	0.0011	0.0011	0.69	0.00138	0.00003	3788.6	225.0	471.5	46.5
11231A73	MNP	38.2	8.1	7482.5	10.5	712	106.06	7.46	0.4402	0.0644	0.0641	0.5106	0.0439	0.0094	0.0007	0.0007	0.82	0.00136	0.00003	4052.3	218.8	418.9	29.5
11231A74	MNP	38.2	7.6	6877.5	10.0	690	71.84	4.80	0.4788	0.0561	0.0556	0.8387	0.0687	0.0139	0.0010	0.0009	0.82	0.00136	0.00003	4177.5	172.7	618.4	37.9
11231A76	MNP	38.2	7.3	6822.4	9.5	716	97.95	7.61	0.5553	0.4527	0.4526	0.3884	0.0529	0.0102	0.0008	0.0008	0.57	0.00136	0.00003	4395.4	2722.8	333.2	38.7
11231A79	MNP	38.2	9.2	8484.9	13.6	623	101.34	6.96	0.4602	0.0558	0.0553	0.5737	0.0458	0.0099	0.0007	0.0007	0.86	0.00138	0.00003	4120.4	179.4	460.4	29.5
11231_138	Zagi	49.1	13.0	8452.4	5.5	1536	51.84	2.98	0.4821	0.0490	0.0485	1.2070	0.0822	0.0193	0.0011	0.0011	0.84	0.00185	0.00003	4187.4	148.6	803.8	37.8
11231_139	Zagi	49.1	11.2	7135.7	4.9	1454	59.08	3.53	0.4605	0.0510	0.0505	1.0317	0.0777	0.0169	0.0010	0.0010	0.79	0.00178	0.00004	4119.4	163.6	719.8	38.9
11231_140	Zagi	49.1	10.6	6714.5	4.6	1465	55.25	2.84	0.4954	0.0459	0.0453	1.1659	0.0758	0.0181	0.0010	0.0009	0.79	0.00184	0.00003	4227.5	134.5	784.7	35.5
11231_141	Zagi	49.1	9.7	6036.1	4.2	1427	54.81	3.18	0.4608	0.0509	0.0504	1.1391	0.0876	0.0182	0.0011	0.0011	0.76	0.00181	0.00003	4120.7	163.2	772.1	41.6
11231_142	Zagi	49.1	9.5	5817.8	4.0	1447	53.37	3.19	0.5017	0.0496	0.0490	1.1975	0.0759	0.0187	0.0012	0.0011	0.94	0.00185	0.00004	4246.3	144.4	799.4	35.1
11231_143	Zagi	49.1	9.0	5473.7	3.6	1502	51.92	3.61	0.4801	0.0517	0.0512	1.1420	0.0824	0.0193	0.0014	0.0013	0.96	0.00182	0.00003	4181.3	158.4	773.4	39.1
11231_145	Zagi	49.1	8.6	4616.3	3.3	1399	53.35	3.20	0.4645	0.0542	0.0537	1.0926	0.0826	0.0187	0.0012	0.0011	0.79	0.00181	0.00004	4132.4	172.5	749.8	40.1
11231_146	Zagi	49.1	8.6	4315.1	3.0	1424	56.26	3.46	0.5156	0.0562	0.0556	1.2011	0.0749	0.0178	0.0011	0.0011	0.99	0.00172	0.00004	4286.4	159.4	801.1	34.5
11231_147	Zagi	49.1	8.1	3994.2	3.0	1331	53.65	3.26	0.4934	0.0504	0.0499	1.2409	0.0908	0.0186	0.0012	0.0011	0.83	0.00178	0.00004	4221.6	150.6	819.3	41.1
11231_148	Zagi	49.1	8.2	3584.4	2.7	1332	60.52	3.77	0.4406	0.0502	0.0497	0.9350	0.0653	0.0165	0.0011	0.0010	0.89	0.00175	0.00003	4054.0	168.2	670.3	34.3
11231_149	Zagi	49.1	6.7	3219.4	2.4	1329	57.64	3.02	0.4138	0.0455	0.0451	0.9927	0.0789	0.0174	0.0009	0.0009	0.66	0.00176	0.00003	3960.2	164.1	700.1	40.2
11231_151	Zagi	49.1	5.6	2206.6	1.8	1241	59.10	3.57	0.5013	0.0468	0.0462	1.0897	0.0778	0.0169	0.0011	0.0010	0.85	0.00179	0.00003	4244.9	136.1	748.4	37.8
11231_157	Zagi	49.1	5.4	463.1	0.7	698	53.67	3.09	0.5075	0.0697	0.0692	1.1659	0.0758	0.0186	0.0011	0.0011	0.89	0.00185	0.00004	4264.8	202.2	784.7	35.6
11231_158	Zagi	49.1	4.5	830.6	0.9	912	54.45	3.24	0.5052	0.0500	0.0495	1.2025	0.0837	0.0184	0.0011	0.0011	0.85	0.00183	0.00003	4256.5	144.7	801.7	38.6
11231_161	Zagi	49.1	6.2	1960.3	1.6	1224	52.27	3.32	0.5315	0.0561	0.0555	1.2837	0.0887	0.0191	0.0012	0.0012	0.92	0.00182	0.00003	4331.2	153.9	838.5	39.4
11231_162	Zagi	49.1	6.8	2289.8	1.8	1281	54.22	2.82	0.5004	0.0491	0.0485	1.1983	0.0901	0.0184	0.0010	0.0010	0.69	0.00176	0.00004	4242.3	143.4	799.8	41.6
11231_164	Zagi	49.1	7.6	3027.5	2.2	1347	56.59	3.58	0.5111	0.0563	0.0557	1.1301	0.0758	0.0177	0.0012	0.0011	0.94	0.00183	0.00003	4273.8	161.2	767.8	36.1
11231_165	Zagi	49.1	7.2	3433.9	2.5	1364	56.07	3.53	0.5139	0.0481	0.0475	1.1764	0.0791	0.0178	0.0012	0.0011	0.94	0.00185	0.00004	4283.3	137.2	789.7	36.9

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
11231_166	Zagi	49.1	8.2	3767.7	2.6	1431	52.01	2.73	0.4963	0.0526	0.0521	1.2567	0.0861	0.0192	0.0010	0.0010	0.77	0.00185	0.00003	4230.6	155.5	826.4	38.7
11231_167	Zagi	49.1	8.4	4171.7	3.0	1402	55.93	2.99	0.4715	0.0431	0.0424	1.1677	0.0797	0.0179	0.0010	0.0010	0.78	0.00183	0.00004	4154.6	134.6	785.6	37.3
11231_170	Zagi	49.1	10.2	5164.8	3.3	1543	49.48	2.81	0.5239	0.0637	0.0632	1.3013	0.0770	0.0202	0.0012	0.0011	0.96	0.00180	0.00003	4310.2	178.2	846.3	34.0
11231_136	Zagi	49.1	7.7	5480.6	3.6	1503	53.46	3.47	0.4069	0.0499	0.0495	1.0335	0.0924	0.0187	0.0012	0.0012	0.73	0.00174	0.00004	3934.9	183.6	720.7	46.1
11231_137	Zagi	49.1	12.4	8351.3	5.6	1490	58.39	3.88	0.5230	0.0503	0.0497	1.1764	0.0805	0.0171	0.0012	0.0011	0.97	0.00184	0.00004	4307.4	140.1	789.6	37.5
11231_144	Zagi	49.1	9.3	5009.6	3.5	1426	57.30	3.29	0.5741	0.0695	0.0690	1.2460	0.0910	0.0175	0.0010	0.0010	0.79	0.00179	0.00003	4443.8	176.0	821.6	41.1
11231_150	Zagi	49.1	6.7	2660.0	2.1	1243	58.98	4.43	0.5324	0.0596	0.0591	1.0980	0.0767	0.0170	0.0013	0.0013	1.08	0.00184	0.00003	4344.5	163.6	752.4	37.1
11231_159	Zagi	49.1	6.2	1307.3	1.2	1094	54.11	3.28	0.5634	0.0542	0.0535	1.3475	0.0800	0.0185	0.0012	0.0011	1.02	0.00188	0.00003	4416.3	139.9	866.5	34.6
11231_160	Zagi	49.1	5.0	1514.9	1.3	1157	60.99	3.98	0.5659	0.0625	0.0620	1.1504	0.0891	0.0164	0.0011	0.0011	0.84	0.00183	0.00004	4423.1	160.5	777.4	42.1
11231_163	Zagi	49.1	6.4	2685.7	2.1	1300	55.69	3.53	0.5304	0.0563	0.0558	1.2168	0.0670	0.0180	0.0012	0.0011	1.15	0.00186	0.00004	4328.1	154.8	808.3	30.7
11231_168	Zagi	49.1	8.6	4555.8	2.9	1582	51.88	2.66	0.5473	0.0513	0.0506	1.4520	0.0991	0.0193	0.0010	0.0010	0.75	0.00187	0.00004	4373.9	135.9	910.7	41.1
11231_169	Zagi	49.1	9.5	4879.1	3.0	1616	50.20	2.75	0.6111	0.0768	0.0762	1.5513	0.1037	0.0199	0.0011	0.0011	0.82	0.00185	0.00003	4534.9	182.1	951.0	41.3
11231_171	Zagi	49.1	9.4	5627.7	3.9	1446	61.86	3.85	0.5205	0.0601	0.0596	1.0710	0.0749	0.0162	0.0010	0.0010	0.89	0.00179	0.00003	4301.9	169.1	739.2	36.7
11231_100	Tribal	43.0	10.3	6194.0	12.0	518	91.71	5.10	0.2771	0.0383	0.0380	0.3955	0.0408	0.0109	0.0006	0.0006	0.54	0.00203	0.00004	3346.6	216.4	338.4	29.7
11231_101	Tribal	43.0	10.5	6117.1	11.8	517	88.07	5.30	0.3723	0.0454	0.0450	0.5843	0.0535	0.0114	0.0007	0.0007	0.66	0.00209	0.00004	3800.6	183.5	467.2	34.3
11231_102	Tribal	43.0	10.0	5907.1	11.5	512	91.97	6.22	0.3592	0.0478	0.0475	0.5052	0.0476	0.0109	0.0008	0.0007	0.72	0.00207	0.00004	3746.6	202.5	415.2	32.1
11231_103	Tribal	43.0	9.9	5866.2	11.5	512	77.01	6.07	0.3973	0.0488	0.0485	0.7110	0.0975	0.0130	0.0010	0.0010	0.58	0.00204	0.00004	3899.1	184.6	545.3	57.9
11231_104	Tribal	43.0	10.2	5926.8	13.5	440	84.90	5.27	0.4122	0.0479	0.0475	0.6385	0.0714	0.0118	0.0008	0.0007	0.55	0.00208	0.00004	3954.2	173.8	501.4	44.3
11231_105	Tribal	43.0	9.8	5818.9	13.0	446	67.06	7.14	0.4652	0.0513	0.0509	0.9590	0.1587	0.0149	0.0016	0.0016	0.64	0.00205	0.00004	4134.4	162.8	682.8	82.3
11231_106	Tribal	43.0	10.1	5897.3	13.1	451	86.96	4.83	0.4291	0.0441	0.0436	0.6767	0.0521	0.0115	0.0007	0.0006	0.72	0.00209	0.00004	4014.5	152.5	524.8	31.6
11231_107	Tribal	43.0	9.6	5640.1	13.5	419	89.21	6.59	0.3501	0.0426	0.0423	0.5254	0.0626	0.0112	0.0008	0.0008	0.62	0.00204	0.00004	3707.3	185.1	428.7	41.6
11231_108	Tribal	43.0	9.5	5574.8	13.3	420	98.29	6.63	0.3598	0.0391	0.0387	0.5024	0.0462	0.0102	0.0007	0.0007	0.73	0.00208	0.00004	3749.1	164.2	413.4	31.2
11231_115	Tribal	43.0	9.3	5533.1	13.3	417	94.51	5.53	0.3509	0.0401	0.0398	0.4806	0.0429	0.0106	0.0006	0.0006	0.66	0.00206	0.00004	3711.0	173.5	398.5	29.4
11231_116	Tribal	43.0	9.1	5373.0	13.0	414	95.19	5.80	0.3108	0.0447	0.0445	0.4344	0.0458	0.0105	0.0007	0.0006	0.58	0.00211	0.00004	3525.0	223.6	366.3	32.4
11231_117	Tribal	43.0	8.8	5248.1	12.8	411	87.68	4.71	0.3306	0.0377	0.0373	0.5292	0.0524	0.0114	0.0006	0.0006	0.54	0.00205	0.00004	3620.1	174.1	431.3	34.8
11231_118	Tribal	43.0	9.1	5407.4	13.1	414	92.49	5.95	0.3676	0.0405	0.0401	0.5509	0.0648	0.0108	0.0007	0.0007	0.55	0.00209	0.00004	3781.4	166.2	445.6	42.4
11231_119	Tribal	43.0	9.0	5444.6	12.7	430	94.38	5.92	0.3372	0.0356	0.0352	0.4881	0.0469	0.0106	0.0007	0.0007	0.65	0.00201	0.00004	3650.3	160.3	403.6	32.0

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
11231_120	Tribal	43.0	8.6	5129.6	12.1	424	87.10	6.73	0.4038	0.0497	0.0494	0.6691	0.0913	0.0115	0.0009	0.0009	0.57	0.00206	0.00004	3923.2	183.9	520.2	55.6
11231_121	Tribal	43.0	9.1	5472.9	12.8	427	91.63	5.29	0.3378	0.0359	0.0356	0.4818	0.0463	0.0109	0.0007	0.0006	0.60	0.00206	0.00004	3652.8	161.0	399.3	31.8
11231_122	Tribal	43.0	9.0	5530.0	13.2	419	86.78	6.01	0.3714	0.0524	0.0521	0.5591	0.0559	0.0115	0.0008	0.0008	0.69	0.00202	0.00004	3797.2	214.0	450.9	36.4
11231_123	Tribal	43.0	9.1	5561.0	13.2	423	97.03	6.26	0.3010	0.0373	0.0370	0.3957	0.0370	0.0103	0.0007	0.0007	0.69	0.00201	0.00004	3475.6	190.9	338.5	26.9
11231_124	Tribal	43.0	8.9	5327.0	12.9	413	94.47	5.53	0.3461	0.0418	0.0415	0.4815	0.0442	0.0106	0.0006	0.0006	0.64	0.00209	0.00004	3689.8	183.6	399.1	30.3
11231_125	Tribal	43.0	8.4	5195.6	12.4	420	91.68	6.08	0.3567	0.0411	0.0408	0.5015	0.0492	0.0109	0.0007	0.0007	0.68	0.00200	0.00005	3736.1	174.7	412.7	33.3
11231_126	Tribal	43.0	8.8	5320.0	12.7	420	90.96	6.22	0.3334	0.0421	0.0418	0.4641	0.0419	0.0110	0.0008	0.0008	0.76	0.00202	0.00005	3632.7	192.3	387.1	29.1
11231_127	Tribal	43.0	8.8	5193.9	12.4	419	77.40	5.57	0.4561	0.0463	0.0458	0.8260	0.0956	0.0129	0.0010	0.0009	0.62	0.00210	0.00004	4105.3	149.8	611.4	53.2
11231_128	Tribal	43.0	8.8	5241.5	13.9	377	86.81	6.05	0.4122	0.0466	0.0462	0.6350	0.0719	0.0115	0.0008	0.0008	0.62	0.00207	0.00004	3954.3	168.9	499.2	44.6
11231_129	Tribal	43.0	8.6	5223.8	13.9	375	93.89	4.98	0.3629	0.0387	0.0383	0.5154	0.0486	0.0107	0.0006	0.0006	0.56	0.00207	0.00005	3762.0	160.9	422.1	32.6
11231A94	Tribal	43.0	5.5	3037.4	10.1	300	61.41	4.43	0.4731	0.0495	0.0490	0.9860	0.1028	0.0163	0.0012	0.0012	0.69	0.00213	0.00005	4159.6	153.8	696.7	52.6
11231A95	Tribal	43.0	10.4	6102.1	12.4	490	66.37	5.55	0.4746	0.0486	0.0481	0.9824	0.1329	0.0151	0.0013	0.0013	0.62	0.00206	0.00005	4164.5	150.5	694.8	68.1
11231A96	Tribal	43.0	10.3	6061.1	11.9	508	84.76	5.87	0.3892	0.0481	0.0477	0.6367	0.0949	0.0118	0.0008	0.0008	0.46	0.00204	0.00004	3867.8	185.8	500.3	58.9
11231A97	Tribal	43.0	10.5	6099.6	12.3	495	81.94	5.54	0.3749	0.0443	0.0440	0.6091	0.0555	0.0122	0.0008	0.0008	0.74	0.00207	0.00005	3813.0	183.8	483.0	35.0
11231A98	Tribal	43.0	10.2	6048.8	11.8	514	92.31	6.18	0.3970	0.0584	0.0581	0.5687	0.0626	0.0108	0.0007	0.0007	0.61	0.00205	0.00004	3897.8	222.2	457.2	40.5
11231A99	Tribal	43.0	10.5	6109.9	11.8	516	84.28	5.28	0.3696	0.0408	0.0404	0.5649	0.0504	0.0119	0.0008	0.0007	0.70	0.00210	0.00004	3789.8	166.7	454.7	32.7
												24µm3J5Hz3N2											
20102a34	TPZ	428.5	79.2	4795.4	35.1	137	14.23	0.44	0.0719	0.0048	0.0047	0.6977	0.0513	0.0703	0.0024	0.0022	0.42	0.0203	0.0006	983.3	134.1	537.4	30.7
20102a11	TPZ	428.5	159.6	9196.1	91.4	101	14.07	0.30	0.1118	0.0045	0.0041	1.0978	0.0479	0.0711	0.0019	0.0015	0.48	0.0206	0.0005	1828.7	66.5	752.3	23.2
20102a58	TPZ	428.5	121.0	6852.1	55.9	123	13.66	0.34	0.1208	0.0069	0.0067	1.2250	0.0817	0.0732	0.0021	0.0018	0.37	0.0210	0.0004	1968.5	99.8	812.1	37.3
20102a9	TPZ	428.5	233.2	13227.8	141.8	93	14.26	0.24	0.0809	0.0036	0.0034	0.7789	0.0305	0.0701	0.0016	0.0012	0.42	0.0210	0.0004	1220.4	77.3	584.8	17.4
20102a13	TPZ	428.5	93.9	5172.3	84.6	61	13.92	0.30	0.0906	0.0101	0.0100	0.9205	0.1168	0.0718	0.0019	0.0016	0.17	0.0213	0.0004	1439.2	211.6	662.6	61.8
20102a47	TPZ	428.5	147.6	8558.7	70.3	122	14.07	0.29	0.0762	0.0035	0.0033	0.7437	0.0316	0.0711	0.0018	0.0014	0.48	0.0213	0.0004	1101.9	86.0	564.6	18.4
20102a69	TPZ	428.5	116.6	6745.5	26.0	260	12.29	0.41	0.1759	0.0085	0.0081	1.9601	0.0988	0.0814	0.0030	0.0027	0.66	0.0214	0.0004	2614.5	82.3	1101.9	33.9
20102a33	TPZ	428.5	129.7	7566.3	36.1	210	13.90	0.29	0.0836	0.0044	0.0042	0.8230	0.0392	0.0720	0.0019	0.0015	0.44	0.0216	0.0004	1283.6	102.8	609.7	21.8
20102a57	TPZ	428.5	148.8	8324.2	84.0	99	13.91	0.22	0.0894	0.0047	0.0044	0.8842	0.0445	0.0719	0.0016	0.0012	0.32	0.0217	0.0004	1413.0	95.8	643.2	24.0
20102a8	TPZ	428.5	265.7	14850.7	176.9	84	14.12	0.24	0.0860	0.0026	0.0022	0.8399	0.0236	0.0708	0.0016	0.0012	0.61	0.0218	0.0004	1338.9	49.7	619.1	13.0
20102a70	TPZ	428.5	99.2	5586.5	37.8	148	13.83	0.34	0.0884	0.0049	0.0047	0.8736	0.0435	0.0723	0.0021	0.0018	0.49	0.0219	0.0005	1392.3	102.0	637.5	23.6
20102a71	TPZ	428.5	217.6	12057.5	75.8	159	14.09	0.27	0.0747	0.0031	0.0028	0.7277	0.0255	0.0710	0.0017	0.0013	0.54	0.0220	0.0004	1061.1	80.6	555.2	15.0

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
20102a46	TPZ	428.5	70.1	3786.2	67.0	57	13.91	0.24	0.0740	0.0031	0.0029	0.7297	0.0256	0.0719	0.0016	0.0012	0.49	0.0225	0.0004	1042.6	79.6	556.4	15.0
20111A41	TPZ	409.6	132.2	7425.0	13.8	538	13.32	0.51	0.1267	0.0096	0.0094	1.2901	0.0738	0.0751	0.0031	0.0029	0.67	0.01248	0.00027	2053.7	137.2	841.4	32.7
20111A42	TPZ	409.6	167.3	9567.9	16.1	596	14.63	0.54	0.0795	0.0072	0.0071	0.7315	0.0612	0.0684	0.0028	0.0025	0.45	0.01566	0.00041	1184.9	177.8	557.5	35.9
20111A33	TPZ	409.6	5.4	817.6	0.5	1548	2.06	0.32	0.7573	0.0789	0.0781	47.861	8.7895	0.4857	0.0749	0.0745	0.84	0.01716	0.00028	error		3948.8	182.7
20111A34	TPZ	409.6	127.3	7646.3	19.5	393	14.47	0.49	0.0849	0.0065	0.0064	0.8206	0.0548	0.0691	0.0026	0.0023	0.50	0.01673	0.00033	1322.2	146.3	608.4	30.6
20111A35	TPZ	409.6	94.3	5725.2	18.7	306	15.53	0.52	0.0591	0.0053	0.0052	0.5227	0.0447	0.0644	0.0024	0.0022	0.39	0.01708	0.00034	568.6	192.6	426.9	29.8
20111A32	TPZ	409.6	72.5	3960.6	73.0	54	14.73	0.35	0.0750	0.0037	0.0036	0.7277	0.0319	0.0679	0.0019	0.0016	0.54	0.01813	0.00034	1133.3	95.5	555.2	18.7
20111A11	TPZ	409.6	221.2	17498.3	29.9	584	7.79	0.48	0.4509	0.0199	0.0187	8.0851	0.5670	0.1284	0.0082	0.0080	0.88	0.01874	0.00037	4088.1	61.8	2240.6	63.4
20111A31	TPZ	409.6	133.7	7546.4	58.9	128	15.23	0.40	0.0738	0.0039	0.0037	0.6867	0.0305	0.0657	0.0020	0.0017	0.59	0.01868	0.00035	1035.2	106.5	530.8	18.4
20111A13	TPZ	409.6	188.5	11926.8	102.7	116	9.84	0.43	0.3665	0.0193	0.0185	5.3955	0.4725	0.1017	0.0047	0.0044	0.50	0.02008	0.00038	3777.0	76.5	1884.1	75.0
20111A18	TPZ	409.6	123.2	7501.8	39.4	190	13.59	0.37	0.1505	0.0113	0.0111	1.5366	0.1153	0.0736	0.0023	0.0020	0.36	0.01981	0.00034	2353.7	125.9	945.1	46.1
20111A8	TPZ	409.6	87.5	5509.0	63.1	87	14.33	0.45	0.1205	0.0120	0.0118	1.1791	0.1392	0.0698	0.0024	0.0022	0.26	0.02035	0.00047	1964.8	175.6	790.9	64.9
20111A12	TPZ	409.6	134.0	9991.6	45.8	218	10.90	0.42	0.2695	0.0122	0.0115	3.4778	0.2507	0.0917	0.0038	0.0036	0.54	0.02059	0.00034	3303.4	66.7	1522.2	56.9
20111A16	TPZ	409.6	300.3	17818.1	70.2	254	14.59	0.31	0.0742	0.0037	0.0036	0.7094	0.0274	0.0686	0.0018	0.0015	0.56	0.02096	0.00039	1055.6	96.3	544.4	16.3
20111A21	TPZ	409.6	68.4	3970.3	47.5	84	14.62	0.37	0.1075	0.0070	0.0068	1.0282	0.0623	0.0684	0.0020	0.0017	0.41	0.02154	0.00041	1757.7	114.7	718.0	31.2
20111A40	TPZ	409.6	168.1	11985.8	18.6	643	7.88	0.60	0.4461	0.0313	0.0305	8.6863	1.0395	0.1268	0.0099	0.0097	0.64	0.02415	0.00049	4072.2	102.9	2305.6	109.0
20111A48	MNP	37.8	7.3	6721.7	9.4	712	99.84	8.03	0.4726	0.0885	0.0882	0.5219	0.0651	0.0100	0.0008	0.0008	0.65	0.00142	0.00003	4158.3	280.2	426.4	43.4
20111A49	MNP	37.8	10.1	7636.2	13.0	589	29.10	7.57	0.6057	0.0963	0.0959	3.3742	1.0034	0.0344	0.0090	0.0089	0.87	0.00155	0.00004	4521.9	252.2	1498.4	232.9
20111A50	MNP	37.8	11.3	10083.0	26.3	383	128.06	8.01	0.3096	0.0378	0.0375	0.2943	0.0243	0.0078	0.0005	0.0005	0.76	0.00166	0.00004	3519.1	187.0	261.9	19.1
20111A52	MNP	37.8	8.9	7798.0	13.4	584	105.07	7.65	0.3186	0.0528	0.0526	0.3679	0.0385	0.0095	0.0007	0.0007	0.70	0.00136	0.00003	3564.8	256.6	318.1	28.6
20111A54	MNP	37.8	8.7	7563.9	11.3	670	94.66	7.44	0.3697	0.0506	0.0502	0.4959	0.0532	0.0106	0.0008	0.0008	0.73	0.00136	0.00003	3790.1	206.7	408.9	36.1
20111A55	MNP	37.8	9.1	7147.2	12.4	577	32.48	5.89	0.6105	0.0567	0.0559	3.1513	0.6930	0.0308	0.0056	0.0056	0.82	0.00150	0.00006	4533.2	133.2	1445.3	169.5
20111A56	MNP	37.8	9.4	8292.3	13.6	610	106.89	7.85	0.3667	0.0457	0.0454	0.4182	0.0362	0.0094	0.0007	0.0007	0.85	0.00136	0.00003	3788.9	188.9	354.8	25.9
20111A57	MNP	37.8	10.1	8900.2	14.4	619	102.81	6.96	0.4028	0.0639	0.0636	0.4777	0.0476	0.0097	0.0007	0.0007	0.68	0.00141	0.00003	3919.5	238.6	396.5	32.7
20111A58	MNP	37.8	8.7	7517.5	11.6	647	97.67	7.39	0.4598	0.0973	0.0971	0.5255	0.0484	0.0102	0.0008	0.0008	0.82	0.00137	0.00003	4117.2	319.0	428.8	32.2
20111A60	MNP	37.8	7.3	6472.9	8.9	727	98.16	8.18	0.3961	0.0720	0.0717	0.4930	0.0639	0.0102	0.0009	0.0008	0.64	0.00138	0.00003	3894.8	276.0	407.0	43.4
20111A62	MNP	37.8	8.0	7087.7	9.6	736	78.99	5.83	0.5464	0.0857	0.0853	0.8288	0.0730	0.0127	0.0010	0.0009	0.84	0.00139	0.00003	4371.5	230.6	613.0	40.5
20111A68	MNP	37.8	7.8	6887.0	13.0	532	106.59	7.93	0.3318	0.0444	0.0442	0.4138	0.0446	0.0094	0.0007	0.0007	0.69	0.00138	0.00003	3625.6	205.2	351.6	32.0
20111A69	MNP	37.8	8.4	7409.7	10.2	730	109.02	7.06	0.3960	0.0592	0.0589	0.4693	0.0521	0.0092	0.0006	0.0006	0.58	0.00136	0.00004	3894.1	225.8	390.7	36.0
20111A71	MNP	37.8	8.9	7872.5	9.9	796	101.69	7.87	0.3266	0.0491	0.0489	0.4097	0.0477	0.0098	0.0008	0.0008	0.67	0.00137	0.00003	3601.5	231.8	348.7	34.3
20111A73	MNP	37.8	8.4	7281.7	13.5	541	104.68	7.10	0.4333	0.1781	0.1780	0.4115	0.0410	0.0096	0.0007	0.0006	0.68	0.00140	0.00004	4028.9	658.4	350.0	29.5
20111A74	MNP	37.8	9.3	8201.0	13.7	601	103.97	6.31	0.3374	0.0455	0.0452	0.4044	0.0381	0.0096	0.0006	0.0006	0.64	0.00137	0.00003	3650.9	206.7	344.9	27.5

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
20111A75	MNP	37.8	9.9	8834.5	14.0	629	102.46	6.67	0.3328	0.0480	0.0477	0.3884	0.0373	0.0098	0.0007	0.0006	0.68	0.00138	0.00003	3631.5	221.4	333.2	27.2
20111A76	MNP	37.8	12.0	7518.8	10.4	724	52.94	5.88	0.6432	0.0743	0.0737	1.6221	0.2403	0.0189	0.0021	0.0021	0.75	0.00137	0.00004	4609.0	176.5	978.8	93.1
20111A77	MNP	37.8	7.7	6813.8	10.1	673	81.26	6.08	0.4790	0.0683	0.0679	0.7165	0.0646	0.0123	0.0009	0.0009	0.83	0.00135	0.00003	4177.7	211.2	548.6	38.2
20111A78	MNP	37.8	10.3	9267.4	14.4	644	111.75	7.14	0.3958	0.0724	0.0721	0.4190	0.0394	0.0089	0.0006	0.0006	0.68	0.00132	0.00003	3893.5	278.1	355.3	28.2
20111A79	MNP	37.8	9.7	8629.4	13.8	623	116.46	7.08	0.2717	0.0330	0.0327	0.3042	0.0349	0.0086	0.0005	0.0005	0.53	0.00138	0.00003	3315.7	190.6	269.7	27.2
20111A80	MNP	37.8	10.8	9367.6	15.2	617	103.06	7.05	0.3369	0.0437	0.0434	0.4155	0.0361	0.0097	0.0007	0.0007	0.79	0.00138	0.00003	3649.1	198.5	352.8	25.9
20111A81	MNP	37.8	9.6	8789.9	14.5	608	106.34	7.54	0.3576	0.0488	0.0485	0.4174	0.0390	0.0094	0.0007	0.0007	0.76	0.00137	0.00004	3739.8	207.7	354.2	27.9
20111A82	MNP	37.8	9.6	8607.0	15.2	567	114.55	6.82	0.3361	0.0537	0.0535	0.3696	0.0377	0.0087	0.0005	0.0005	0.58	0.00134	0.00004	3645.4	246.0	319.4	28.0
20111A51	MNP	37.8	11.2	8205.2	23.0	357	37.78	1.49	0.7376	0.0369	0.0351	2.6983	0.0981	0.0265	0.0011	0.0010	1.08	0.00167	0.00004	error	error	1328.0	26.9
20111A53	MNP	37.8	10.8	9296.2	19.3	481	139.77	10.43	0.3772	0.0626	0.0623	0.3231	0.0363	0.0072	0.0005	0.0005	0.66	0.00138	0.00004	3820.7	252.5	284.3	27.9
20111A59	MNP	37.8	12.2	7844.3	24.4	322	25.99	1.26	0.7874	0.0331	0.0308	4.1355	0.2151	0.0385	0.0020	0.0019	0.93	0.00146	0.00004	error	error	1661.3	42.6
20111A61	MNP	37.8	12.2	7651.2	24.3	315	24.62	0.95	0.7835	0.0380	0.0361	4.5092	0.1599	0.0406	0.0017	0.0016	1.09	0.00139	0.00004	error	error	1732.7	29.5
20111A70	MNP	37.8	8.3	7379.0	9.6	773	85.69	6.23	0.4041	0.0775	0.0772	0.5441	0.0571	0.0117	0.0009	0.0008	0.69	0.00138	0.00003	3924.4	291.3	441.1	37.6
20111A72	MNP	37.8	8.5	7377.0	10.7	689	66.61	5.74	0.5215	0.0551	0.0546	0.9532	0.0867	0.0150	0.0013	0.0013	0.95	0.00137	0.00003	4303.4	154.5	679.8	45.1
20111A88	Tribal	40.9	5.4	3169.5	9.3	340	82.46	6.58	0.4928	0.0701	0.0697	0.7196	0.0647	0.0121	0.0010	0.0010	0.89	0.00200	0.00006	4220.1	210.2	550.4	38.2
20111A89	Tribal	40.9	4.9	2818.8	9.4	299	87.63	7.30	0.4438	0.0591	0.0587	0.6134	0.0575	0.0114	0.0010	0.0010	0.89	0.00210	0.00006	4064.5	198.4	485.7	36.2
20111A90	Tribal	40.9	5.0	2844.7	9.5	299	83.92	6.68	0.4658	0.0753	0.0750	0.6152	0.0555	0.0119	0.0010	0.0009	0.88	0.00203	0.00006	4136.7	240.3	486.9	34.9
20111A91	Tribal	40.9	4.9	2758.0	9.6	288	84.91	6.74	0.4374	0.1321	0.1319	0.5627	0.0564	0.0118	0.0010	0.0009	0.79	0.00207	0.00005	4043.1	466.7	453.3	36.6
20111A92	Tribal	40.9	4.9	2838.2	9.7	293	89.64	6.70	0.4273	0.0528	0.0524	0.5703	0.0499	0.0112	0.0009	0.0008	0.85	0.00201	0.00006	4008.3	183.5	458.2	32.2
20111A93	Tribal	40.9	4.8	2781.4	10.1	275	84.98	6.09	0.3163	0.0415	0.0412	0.4718	0.0608	0.0118	0.0009	0.0008	0.56	0.00203	0.00006	3551.6	202.2	392.4	42.0
20111A94	Tribal	40.9	4.8	2743.3	9.9	278	90.52	6.55	0.4333	0.0651	0.0648	0.5982	0.0626	0.0110	0.0008	0.0008	0.69	0.00205	0.00006	4029.3	224.9	476.1	39.8
20111A95	Tribal	40.9	4.8	2715.1	10.0	270	87.08	6.57	0.4160	0.0661	0.0658	0.5792	0.0635	0.0115	0.0009	0.0009	0.69	0.00206	0.00005	3968.2	239.2	464.0	40.8
20111A96	Tribal	40.9	4.6	2659.9	10.1	263	91.94	7.57	0.5333	0.1262	0.1259	0.6160	0.0611	0.0109	0.0009	0.0009	0.83	0.00196	0.00006	4336.1	353.8	487.4	38.4
20111A97	Tribal	40.9	4.7	2627.5	10.5	251	94.77	7.65	0.4003	0.0611	0.0608	0.5255	0.0498	0.0106	0.0009	0.0009	0.85	0.00209	0.00006	3910.2	230.3	428.8	33.1
20111A98	Tribal	40.9	4.7	2737.9	10.2	269	94.88	7.14	0.4555	0.0635	0.0631	0.5762	0.0533	0.0105	0.0008	0.0008	0.81	0.00198	0.00006	4103.4	207.2	462.0	34.4
20111A99	Tribal	40.9	4.6	2626.6	10.4	253	86.05	6.60	0.3763	0.0561	0.0558	0.5265	0.0610	0.0116	0.0009	0.0009	0.66	0.00202	0.00007	3817.0	226.2	429.5	40.6
20111A122	Tribal	40.9	10.6	7808.2	5.3	1461	84.40	7.43	0.0560	0.1614	0.1614	0.2195	0.0538	0.0118	0.0011	0.0010	0.36	0.00165	0.00005	450.0	2511.4	201.5	44.8
20111A100	Tribal	40.9	4.3	2406.5	11.2	216	97.09	7.81	0.4153	0.0709	0.0706	0.4858	0.0447	0.0103	0.0008	0.0008	0.87	0.00212	0.00007	3965.4	257.7	402.0	30.5
20111A101	Tribal	40.9	4.2	2275.4	13.2	172	104.87	7.44	0.3212	0.0436	0.0433	0.3841	0.0320	0.0095	0.0007	0.0007	0.85	0.00220	0.00009	3575.6	209.0	330.0	23.5
20111A102	Tribal	40.9	4.1	2216.5	13.3	166	101.77	7.04	0.3164	0.0375	0.0372	0.4078	0.0392	0.0098	0.0007	0.0007	0.72	0.00216	0.00008	3552.8	182.4	347.3	28.3
20111A108	Tribal	40.9	9.9	5779.7	13.0	443	94.66	5.92	0.3666	0.0477	0.0474	0.4822	0.0450	0.0106	0.0007	0.0007	0.67	0.00201	0.00005	3777.6	197.2	399.6	30.8
20111A109	Tribal	40.9	9.7	5736.0	12.8	450	98.05	5.97	0.2613	0.0394	0.0392	0.3334	0.0389	0.0102	0.0006	0.0006	0.52	0.00194	0.00005	3254.6	238.4	292.1	29.6

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]										rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb			207Pb/235U		206Pb/238U									
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
20111A110	Tribal	40.9	9.8	5878.6	12.8	458	102.32	7.75	0.3188	0.0501	0.0499	0.3623	0.0386	0.0098	0.0008	0.0007	0.71	0.00196	0.00005	3564.5	242.1	314.0	28.8
20111A111	Tribal	40.9	9.8	5781.3	12.9	448	101.63	6.71	0.2919	0.0486	0.0484	0.3650	0.0400	0.0098	0.0007	0.0006	0.60	0.00198	0.00005	3427.5	260.5	316.0	29.8
20111A112	Tribal	40.9	10.0	5748.0	12.8	448	96.65	6.41	0.3181	0.0470	0.0468	0.4078	0.0422	0.0103	0.0007	0.0007	0.64	0.00203	0.00005	3560.8	228.2	347.3	30.5
20111A113	Tribal	40.9	5.7	3257.3	10.4	313	76.97	5.21	0.4272	0.0549	0.0545	0.6658	0.0629	0.0130	0.0009	0.0009	0.72	0.00204	0.00005	4007.9	191.7	518.2	38.4
20111A114	Tribal	40.9	5.1	2870.9	9.4	306	87.44	6.47	0.4334	0.0516	0.0512	0.6353	0.0650	0.0114	0.0009	0.0008	0.72	0.00204	0.00006	4029.3	177.2	499.4	40.4
20111A115	Tribal	40.9	4.5	2629.1	11.2	235	93.81	7.01	0.4300	0.0974	0.0972	0.5211	0.0531	0.0107	0.0008	0.0008	0.73	0.00195	0.00006	4017.6	344.3	425.9	35.4
20111A116	Tribal	40.9	4.0	2059.0	18.7	110	114.27	6.40	0.2458	0.0275	0.0272	0.2792	0.0243	0.0088	0.0005	0.0005	0.64	0.00220	0.00008	3158.3	175.8	250.0	19.3
20111A117	Tribal	40.9	4.6	2843.2	17.5	163	119.48	8.38	0.2304	0.0532	0.0531	0.2144	0.0285	0.0084	0.0006	0.0006	0.53	0.00187	0.00006	3054.6	377.0	197.2	23.8
20111A118	Tribal	40.9	7.3	4553.1	13.2	346	124.33	9.23	0.2397	0.0463	0.0462	0.2334	0.0331	0.0080	0.0006	0.0006	0.52	0.00193	0.00004	3118.2	311.4	213.0	27.2
20111A119	Tribal	40.9	7.4	4702.1	12.5	375	108.29	8.25	0.3081	0.0445	0.0442	0.3451	0.0359	0.0092	0.0007	0.0007	0.73	0.00186	0.00004	3511.6	223.6	301.1	27.1
20111A120	Tribal	40.9	7.2	4718.1	8.0	591	103.16	9.35	0.1674	0.1684	0.1683	0.2589	0.0440	0.0097	0.0009	0.0009	0.53	0.00182	0.00005	2531.8	1111.7	233.8	35.5
20111A121	Tribal	40.9	7.9	5669.9	4.4	1301	101.83	10.94	0.1837	0.1515	0.1515	0.2411	0.0683	0.0098	0.0011	0.0011	0.38	0.00168	0.00005	2686.1	954.5	219.4	55.9
20111A129	Zagi	45.6	15.0	10130.3	6.8	1490	54.27	4.36	0.5373	0.0678	0.0673	1.1651	0.0987	0.0184	0.0015	0.0015	0.95	0.00182	0.00004	4347.2	184.8	784.4	46.3
20111A130	Zagi	45.6	14.9	9934.8	6.5	1522	54.80	3.59	0.5522	0.0693	0.0687	1.2563	0.1094	0.0182	0.0012	0.0012	0.75	0.00180	0.00004	4386.9	183.0	826.3	49.2
20111A131	Zagi	45.6	14.6	9732.8	6.5	1491	55.56	3.84	0.4902	0.0490	0.0484	1.1402	0.0875	0.0180	0.0013	0.0012	0.90	0.00181	0.00004	4212.0	146.4	772.6	41.5
20111A132	Zagi	45.6	14.2	9449.0	6.1	1555	50.71	3.66	0.5230	0.0669	0.0665	1.2253	0.0937	0.0197	0.0015	0.0014	0.94	0.00182	0.00004	4307.3	188.0	812.2	42.7
20111A133	Zagi	45.6	14.2	9451.7	6.3	1499	53.29	4.25	0.5022	0.0617	0.0613	1.1472	0.1008	0.0188	0.0015	0.0015	0.91	0.00179	0.00004	4247.8	180.6	775.9	47.7
20111A134	Zagi	45.6	14.3	9528.5	6.4	1484	55.24	4.22	0.5361	0.0770	0.0765	1.1423	0.0996	0.0181	0.0014	0.0014	0.88	0.00181	0.00004	4343.6	210.9	773.6	47.2
20111A135	Zagi	45.6	14.5	9487.1	6.4	1474	54.71	4.22	0.4976	0.0554	0.0549	1.1217	0.0900	0.0183	0.0014	0.0014	0.96	0.00182	0.00004	4234.3	163.5	763.8	43.1
20111A137	Zagi	45.6	14.6	9665.3	6.4	1511	56.33	4.34	0.5382	0.0665	0.0660	1.2020	0.1079	0.0178	0.0014	0.0014	0.86	0.00184	0.00004	4349.7	180.8	801.5	49.7
20111A139	Zagi	45.6	14.7	9628.1	6.3	1520	52.22	3.99	0.5504	0.0917	0.0913	1.1968	0.0931	0.0191	0.0015	0.0015	0.98	0.00179	0.00004	4382.4	244.4	799.1	43.0
20111A141	Zagi	45.6	14.7	9726.3	6.4	1529	54.13	3.91	0.4749	0.0604	0.0600	1.0881	0.0912	0.0185	0.0014	0.0013	0.86	0.00184	0.00004	4165.1	188.1	747.6	44.3
20111A142	Zagi	45.6	14.6	9882.0	6.5	1517	57.93	4.47	0.5423	0.0724	0.0719	1.1330	0.0980	0.0173	0.0014	0.0013	0.89	0.00181	0.00004	4360.3	195.5	769.2	46.6
20111A148	Zagi	45.6	14.5	9623.0	6.2	1547	52.92	4.53	0.4990	0.0602	0.0598	1.1058	0.0970	0.0189	0.0016	0.0016	0.98	0.00181	0.00004	4238.6	177.5	756.1	46.8
20111A149	Zagi	45.6	14.8	9883.6	6.5	1525	52.11	3.82	0.4931	0.0623	0.0618	1.1596	0.0935	0.0192	0.0014	0.0014	0.91	0.00181	0.00004	4220.7	186.1	781.8	44.0
20111A150	Zagi	45.6	14.5	9821.9	6.5	1502	59.05	4.53	0.5109	0.0595	0.0590	1.0609	0.0986	0.0169	0.0013	0.0013	0.83	0.00181	0.00004	4273.2	170.7	734.3	48.6
20111A154	Zagi	45.6	13.6	9177.4	6.1	1511	52.79	3.80	0.5136	0.0697	0.0693	1.1592	0.1060	0.0189	0.0014	0.0014	0.79	0.00183	0.00005	4280.8	199.7	781.6	49.8
20111A155	Zagi	45.6	12.9	8765.6	5.8	1501	52.37	3.91	0.5340	0.0709	0.0705	1.1960	0.1029	0.0191	0.0015	0.0014	0.87	0.00182	0.00004	4338.0	195.5	798.7	47.6
20111A157	Zagi	45.6	13.0	8606.7	5.8	1489	51.08	3.57	0.5102	0.0707	0.0703	1.2244	0.1056	0.0196	0.0014	0.0014	0.81	0.00188	0.00004	4270.9	204.1	811.8	48.2
20111A158	Zagi	45.6	13.0	8995.0	6.0	1504	57.19	4.19	0.5293	0.0824	0.0820	1.0984	0.1034	0.0175	0.0013	0.0013	0.78	0.00182	0.00004	4325.0	229.4	752.6	50.1
20111A159	Zagi	45.6	12.7	8519.1	5.5	1542	53.68	4.46	0.6376	0.1328	0.1325	1.2832	0.1192	0.0186	0.0016	0.0015	0.90	0.00182	0.00004	4596.0	339.6	838.3	53.0
20111A160	Zagi	45.6	12.5	8440.5	5.7	1488	58.10	4.74	0.5520	0.1123	0.1120	1.0648	0.1064	0.0172	0.0014	0.0014	0.82	0.00186	0.00004	4386.7	301.5	736.2	52.3

Analysis date	Sample	U-Pb age	Concentration [a]			Th/U	Data for Tera-Wasserburg plot [b]					207Pb/235U		206Pb/238U			rho	208Pb/232Th		207Pb/206Pb		207Pb/235U	
			Pb	Th	U		238U/206Pb		207Pb/206Pb														
		Ma	ppm				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2 σ	Age (Ma)	2 σ
20111A162	Zagi	45.6	12.4	8448.2	5.8	1452	54.44	4.31	0.5033	0.0670	0.0666	1.1245	0.1180	0.0184	0.0015	0.0015	0.75	0.00185	0.00004	4250.9	196.3	765.1	56.4
20111A128	Zagi	45.6	14.7	9742.5	6.5	1501	62.99	4.22	0.5575	0.0704	0.0699	1.2108	0.0977	0.0159	0.0011	0.0011	0.83	0.00183	0.00005	4401.0	184.4	805.6	44.9
20111A136	Zagi	45.6	14.5	9604.4	6.5	1472	56.08	4.00	0.5282	0.0611	0.0606	1.1657	0.0830	0.0178	0.0013	0.0013	1.00	0.00184	0.00004	4321.9	169.2	784.6	38.9
20111A138	Zagi	45.6	14.8	9677.0	6.6	1472	59.77	4.77	0.5956	0.0822	0.0817	1.2179	0.1040	0.0167	0.0014	0.0013	0.94	0.00186	0.00004	4497.3	199.9	808.8	47.6
20111A140	Zagi	45.6	14.5	9392.1	6.3	1487	52.80	3.88	0.4471	0.0600	0.0596	1.0504	0.0963	0.0189	0.0014	0.0014	0.80	0.00180	0.00005	4075.7	199.7	729.1	47.7
20111A151	Zagi	45.6	15.0	10066.5	6.7	1502	53.11	3.81	0.6194	0.2399	0.2397	1.1533	0.0728	0.0188	0.0014	0.0014	1.14	0.00184	0.00005	4554.1	723.5	778.8	34.3
20111A152	Zagi	45.6	14.4	9576.0	6.4	1486	56.42	4.31	0.6061	0.0953	0.0949	1.2336	0.1271	0.0177	0.0014	0.0014	0.74	0.00177	0.00004	4522.7	248.8	816.0	57.8
20111A153	Zagi	45.6	13.8	9054.1	5.9	1523	36.70	2.56	0.6742	0.0677	0.0669	2.2967	0.1286	0.0272	0.0019	0.0019	1.25	0.00181	0.00004	4676.9	151.2	1211.3	39.6
20111A156	Zagi	45.6	12.8	8660.2	5.6	1536	56.92	4.94	0.6177	0.0968	0.0964	1.2195	0.1080	0.0176	0.0015	0.0015	0.98	0.00185	0.00005	4550.4	247.5	809.6	49.4
20111A161	Zagi	45.6	12.2	8137.2	5.6	1465	61.80	5.07	0.5518	0.0720	0.0715	1.1092	0.1151	0.0162	0.0013	0.0013	0.79	0.00181	0.00005	4386.1	190.7	757.8	55.4

Note: a concentration uncertainty < 5%; b data not corrected for common-Pb; Decay constants of Jaffey et al. (1971) used and a small number data were deleted due to abnormal ages, i.e., quite young or older and different from other data in the sample group; To get a smaller MSWD value for U–Pb dating, some data of MNP were deleted due to intensive alteration, including the data which records the older mineralization stage of 30-34 Ma.

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
435.4	11.8	9.4	419.7	9.4	6.9
552.1	18.2	15.5	432.0	9.0	6.1
548.3	26.7	24.3	445.6	12.2	10.1
442.2	11.5	9.0	433.9	8.7	5.7
455.3	10.5	7.6	437.1	9.3	6.6
450.7	10.2	7.3	440.5	9.0	6.0
449.7	10.1	7.1	447.0	9.8	7.1
444.1	10.2	7.4	450.8	10.9	8.5
470.9	10.9	7.9	453.6	9.2	6.0
451.6	11.0	8.3	452.6	9.2	6.1
451.2	11.5	8.8	454.0	9.2	6.1
204.7	23.7	23.1	26.0	0.8	0.7
63.7	3.8	3.7	26.4	0.7	0.6
58.5	3.3	3.1	26.4	0.8	0.7
71.5	4.9	4.7	26.7	0.8	0.6
65.5	4.8	4.6	26.7	0.8	0.6
51.7	2.6	2.5	26.8	0.9	0.8
64.8	4.7	4.6	27.0	0.7	0.6
65.2	4.3	4.1	27.1	0.7	0.6
72.4	4.5	4.4	27.1	0.8	0.6
56.0	3.6	3.4	27.4	0.7	0.6
116.7	10.3	10.1	27.6	0.8	0.7
105.5	10.2	10.0	27.9	0.7	0.6
117.4	10.9	10.7	28.8	0.8	0.6
114.6	10.0	9.7	31.2	0.9	0.8
65.1	4.4	4.3	31.4	0.9	0.8
63.9	3.8	3.6	31.9	1.0	0.8
75.8	4.5	4.3	32.0	0.9	0.8
434.4	14.7	12.7	379.6	9.7	7.7

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
422.7	10.8	8.3	383.8	8.9	6.7
449.3	10.2	7.3	397.2	9.2	7.0
541.0	36.9	34.5	407.1	9.6	7.4
476.9	13.3	10.8	421.8	9.8	7.4
887.4	120.3	111.7	442.9	12.8	10.9
566.8	28.0	25.5	457.6	10.1	7.4
113.1	11.0	10.7	32.8	0.9	**0.7**
84.5	5.6	5.4	28.1	0.7	0.5
71.2	5.1	5.0	27.8	0.7	0.5
65.8	4.6	4.5	27.6	0.7	0.6
58.4	3.6	3.5	27.8	0.6	0.5
250.6	63.4	62.0	29.2	1.0	0.8
76.9	6.5	6.3	28.1	0.7	0.5
108.8	7.2	6.9	36.6	0.9	0.7
55.5	4.1	4.0	26.9	0.7	0.6
65.0	4.8	4.7	27.6	0.7	0.6
67.8	4.4	4.3	27.8	0.7	0.6
57.3	4.0	3.8	27.7	0.7	0.5
55.0	4.8	4.7	27.3	0.7	0.6
62.1	5.1	5.0	27.6	0.7	0.6
102.5	8.9	8.7	28.0	0.7	0.6
50.6	2.6	2.5	27.2	0.7	0.6
66.7	4.8	4.6	27.6	0.8	0.6
54.5	3.1	3.0	27.8	0.8	0.6
125.9	12.3	12.1	31.6	0.8	0.7
79.7	5.0	4.9	28.1	0.7	0.5
73.7	4.9	4.8	28.2	0.7	0.5

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
438.7	18.2	16.4	37.4	0.9	0.6
398.2	15.1	13.5	30.8	0.7	0.5
113.2	7.7	7.5	37.0	0.9	0.7
113.8	11.1	10.8	33.7	0.9	0.8
80.3	6.9	6.8	27.9	0.8	0.6
60.5	4.4	4.2	27.6	0.7	0.6
89.1	6.1	5.9	27.5	0.7	0.6
65.5	5.2	5.1	27.4	0.7	0.6
63.3	4.5	4.3	27.8	0.7	0.6
123.2	7.3	7.0	37.4	0.9	0.7
108.2	6.7	6.4	35.9	0.9	0.8
115.6	6.2	5.9	37.2	0.9	0.7
116.5	7.0	6.7	36.6	0.9	0.7
119.7	7.4	7.1	37.3	0.9	0.7
123.0	8.8	8.5	36.7	0.9	0.7
119.7	7.4	7.1	36.6	0.9	0.8
113.6	7.2	6.9	34.8	0.9	0.7
119.0	7.5	7.2	36.0	0.9	0.8
105.6	6.8	6.5	35.4	0.9	0.7
110.9	6.1	5.8	35.6	0.9	0.7
108.2	6.7	6.5	36.2	0.9	0.7
119.0	7.1	6.8	37.3	0.9	0.7
117.3	7.2	6.9	37.0	0.9	0.7
122.2	8.0	7.7	36.7	0.9	0.7
117.8	6.4	6.1	35.6	0.9	0.8
112.9	7.4	7.1	36.9	0.9	0.6
113.9	7.4	7.1	37.4	0.9	0.7

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
122.8	6.7	6.4	37.3	0.9	0.7
114.2	6.3	6.0	37.0	0.9	0.7
129.0	7.6	7.2	36.3	0.9	0.7
119.5	8.0	7.7	35.1	0.9	0.7
109.5	7.5	7.2	37.2	0.9	0.7
111.5	6.6	6.3	36.2	0.9	0.7
108.4	8.3	8.1	37.2	0.9	0.7
118.1	7.4	7.1	37.9	0.9	0.7
104.8	7.0	6.8	37.0	1.0	0.8
114.7	7.5	7.2	37.6	0.9	0.7
123.1	6.6	6.2	37.7	0.9	0.7
127.2	7.2	6.9	37.3	0.8	0.6
103.4	6.6	6.4	36.2	0.9	0.7
69.9	4.0	3.9	41.0	1.0	0.8
72.8	4.5	4.4	42.2	1.1	0.8
69.7	4.8	4.7	41.8	1.1	0.8
83.2	6.7	6.5	41.2	1.1	0.9
75.5	4.8	4.7	42.0	1.0	0.7
95.4	10.3	10.1	41.4	1.1	0.9
73.7	4.2	4.1	42.2	1.0	0.8
71.9	5.4	5.3	41.1	1.1	0.9
65.3	4.5	4.4	42.0	1.0	0.8
67.9	4.1	4.0	41.7	1.1	0.9
67.4	4.2	4.1	42.6	1.1	0.8
73.1	4.1	3.9	41.4	1.0	0.8
69.3	4.6	4.4	42.2	1.0	0.8
67.9	4.4	4.2	40.6	1.0	0.8

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
73.6	5.8	5.7	41.6	1.1	0.9
70.0	4.2	4.0	41.5	1.1	0.9
73.9	5.2	5.1	40.8	1.0	0.8
66.1	4.4	4.2	40.5	1.0	0.7
67.9	4.1	4.0	42.2	1.1	0.9
69.9	4.8	4.6	40.3	1.1	1.0
70.5	4.9	4.8	40.9	1.2	1.0
82.8	6.1	5.9	42.3	1.0	0.8
73.8	5.3	5.1	41.8	1.1	0.9
68.3	3.8	3.6	41.8	1.1	0.9
104.1	7.7	7.5	43.0	1.2	1.0
96.4	8.2	8.0	41.6	1.1	0.9
75.6	5.4	5.2	41.3	1.1	0.9
78.2	5.4	5.3	41.7	1.1	0.9
69.5	4.8	4.6	41.4	1.1	0.9
76.0	4.9	4.7	42.3	1.0	0.8
437.9	15.2	13.2	405.4	13.7	12.2
442.7	11.6	9.1	413.1	10.9	9.0
455.3	13.2	10.8	419.1	10.3	8.1
436.8	9.9	7.0	419.1	10.2	8.0
447.2	11.9	9.4	425.0	10.7	8.5
442.6	11.3	8.7	426.9	10.9	8.8
504.2	18.5	16.1	428.7	10.6	8.4
447.9	11.6	9.1	431.6	9.7	7.1
447.6	9.9	7.0	434.6	10.1	7.6
441.3	10.1	7.3	435.5	10.8	8.5
450.0	12.9	10.6	437.3	11.6	9.5
442.1	10.8	8.1	439.8	10.0	7.4

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
447.4	10.2	7.4	448.9	11.0	8.6
466.5	19.1	17.1	250.6	6.6	5.3
426.2	17.2	15.4	314.0	9.4	8.1
2552.0	393.6	323.4	343.9	7.6	5.5
430.9	15.9	14.0	335.4	8.3	6.5
402.2	14.8	13.1	342.2	8.5	6.7
423.5	11.9	9.6	363.2	8.7	6.8
778.7	49.7	45.5	375.3	9.3	7.3
410.1	12.5	10.5	374.1	9.0	6.9
624.2	28.9	26.0	401.9	9.7	7.5
457.7	14.3	12.1	396.4	9.1	6.8
434.8	15.1	13.1	407.2	11.1	9.2
565.6	23.6	21.0	411.9	9.2	6.7
427.4	11.3	8.9	419.2	10.0	7.6
426.4	12.5	10.3	430.8	10.5	8.2
769.8	60.2	55.6	482.3	12.1	9.6
64.2	5.3	5.1	28.7	0.8	0.6
217.8	56.7	55.7	31.3	0.9	0.7
50.1	3.2	3.1	33.5	0.9	0.8
61.1	4.5	4.4	27.5	0.8	0.6
67.7	5.4	5.3	27.4	0.8	0.7
195.5	35.6	34.9	30.3	1.3	1.2
60.0	4.5	4.4	27.5	0.8	0.6
62.4	4.3	4.2	28.4	0.8	0.7
65.7	5.1	4.9	27.8	0.8	0.7
65.3	5.5	5.4	27.9	0.8	0.7
81.1	6.1	6.0	28.0	0.8	0.7
60.2	4.6	4.5	27.9	0.8	0.7
58.9	3.9	3.8	27.5	0.8	0.7
63.1	5.0	4.9	27.6	0.8	0.7
61.3	4.3	4.1	28.2	0.8	0.7
61.7	3.9	3.7	27.7	0.7	0.6

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
62.6	4.2	4.1	27.9	0.7	0.6
120.6	13.5	13.3	27.7	0.8	0.7
78.8	6.0	5.9	27.2	0.8	0.7
57.4	3.8	3.7	26.7	0.8	0.7
55.1	3.5	3.3	27.9	0.8	0.7
62.2	4.4	4.2	28.0	0.8	0.6
60.3	4.4	4.3	27.7	0.8	0.7
56.0	3.4	3.3	27.0	0.8	0.7
168.4	7.1	6.5	33.8	1.0	0.8
46.0	3.5	3.4	27.9	0.8	0.7
243.4	12.3	11.5	29.4	0.9	0.8
256.6	10.7	9.7	28.1	0.8	0.7
74.8	5.6	5.4	27.9	0.8	0.7
96.1	8.4	8.2	27.7	0.8	0.7
77.7	6.3	6.2	40.3	1.4	1.3
73.1	6.2	6.1	42.4	1.4	1.3
76.4	6.2	6.0	41.1	1.4	1.3
75.5	6.1	6.0	41.8	1.3	1.1
71.5	5.5	5.3	40.6	1.4	1.3
75.4	5.5	5.4	40.9	1.4	1.3
70.8	5.2	5.1	40.8	1.4	1.2
73.6	5.7	5.5	41.6	1.3	1.1
69.7	5.8	5.7	39.6	1.4	1.2
67.7	5.6	5.4	42.3	1.4	1.2
67.6	5.2	5.1	40.0	1.3	1.2
74.5	5.8	5.7	40.7	1.5	1.3
75.9	6.8	6.6	33.4	1.1	0.9
66.1	5.4	5.3	42.7	1.6	1.5
61.2	4.4	4.3	44.4	1.9	1.8
63.0	4.5	4.3	43.7	1.8	1.6
67.7	4.4	4.2	40.5	1.2	1.0
65.4	4.1	4.0	39.1	1.2	1.0

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
62.7	4.8	4.7	39.6	1.2	1.0
63.1	4.3	4.1	40.1	1.2	1.0
66.4	4.5	4.4	40.9	1.1	1.0
83.2	5.8	5.6	41.2	1.2	1.0
73.3	5.5	5.4	41.3	1.4	1.3
68.4	5.2	5.1	39.4	1.4	1.2
56.2	3.3	3.1	44.4	1.7	1.5
53.7	3.9	3.8	37.9	1.4	1.3
51.6	3.9	3.8	39.0	1.1	0.9
59.3	4.6	4.5	37.6	1.1	0.9
62.2	5.7	5.6	36.8	1.2	1.0
63.0	6.8	6.7	33.9	1.1	0.9
117.7	9.6	9.4	36.8	1.0	0.8
116.6	7.8	7.6	36.3	1.0	0.8
115.0	8.1	7.9	36.5	1.0	0.9
125.9	9.3	9.0	36.7	1.0	0.8
119.9	9.7	9.5	36.1	1.0	0.8
115.7	9.0	8.8	36.6	1.1	0.9
116.8	9.2	8.9	36.7	1.0	0.8
113.4	8.9	8.7	37.2	1.0	0.8
122.3	9.5	9.2	36.2	1.0	0.9
118.0	8.7	8.4	37.1	1.0	0.9
110.3	8.7	8.4	36.5	1.0	0.8
120.7	10.5	10.2	36.6	1.0	0.9
122.5	9.2	8.9	36.6	1.0	0.8
108.2	8.5	8.2	36.5	1.1	0.9
121.0	8.9	8.6	36.9	1.1	1.0
121.9	9.3	9.0	36.7	1.0	0.9
125.0	8.9	8.7	38.0	1.0	0.9
111.7	8.4	8.1	36.7	1.0	0.8
119.0	10.1	9.8	36.7	1.0	0.8
110.0	9.1	8.9	37.6	1.1	0.9

Dates [b]					
206Pb/238U			208Pb/232Th		
Age (Ma)	2 σ*	2 σ	Age (Ma)	2 σ*	2 σ
117.3	9.5	9.2	37.4	1.1	0.9
101.5	7.0	6.7	36.9	1.1	1.0
113.9	8.3	8.1	37.2	1.1	0.9
107.0	8.7	8.5	37.6	1.0	0.8
120.9	9.1	8.8	36.4	1.1	0.9
120.2	8.8	8.5	37.1	1.1	0.9
113.3	8.8	8.6	35.6	1.0	0.9
173.3	12.4	11.9	36.5	1.0	0.8
112.3	9.9	9.7	37.4	1.1	1.0
103.5	8.6	8.4	36.6	1.1	0.9

Table S-4 other bastnasite samples calibrated by K-9

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
32μm3J5Hz3N2																						
11231A16	TPZ	413.0	353	14.57	0.51	0.1259	0.0139	0.0138	1.1925	0.1470	0.0686	0.0024	0.0021	0.25	0.01823	0.0004	2040.4	193.4	807.4	68.3	434.4	15.2	12.7
11231A21	TPZ	413.0	395	15.01	0.41	0.0916	0.0071	0.0070	0.8303	0.0458	0.0666	0.0018	0.0014	0.39	0.01838	0.0004	1457.4	143.7	622.5	25.0	422.7	11.4	8.3
11231A30	TPZ	413.0	123	14.01	0.36	0.1145	0.0061	0.0059	1.1239	0.0593	0.0714	0.0018	0.0014	0.38	0.01896	0.0004	1871.9	89.5	771.9	27.3	449.3	11.6	7.3
11231A29	TPZ	413.0	152	11.58	0.80	0.1889	0.0305	0.0304	2.6996	0.6306	0.0864	0.0060	0.0058	0.29	0.01944	0.0004	2732.4	265.6	1339.4	173.3	541.0	37.6	34.5
11231A9	TPZ	413.0	724	13.21	0.40	0.1401	0.0097	0.0094	1.4989	0.0979	0.0757	0.0023	0.0019	0.39	0.01956	0.0003	2227.8	113.7	941.0	38.5	476.9	14.4	10.8
11231A31	TPZ	413.0	231	6.84	0.93	0.3921	0.0531	0.0527	9.6616	2.1965	0.1462	0.0199	0.0198	0.59	0.02065	0.0005	3879.9	202.8	2413.2	209.0	887.4	120.8	111.7
11231A32	TPZ	413.0	279	10.96	0.56	0.1927	0.0224	0.0222	2.6899	0.4226	0.0913	0.0046	0.0044	0.31	0.02188	0.0004	2766.4	188.6	1332.5	116.1	566.8	28.7	25.5
11231A50	MNP	38.9	2360	55.34	5.38	0.4398	0.2482	0.2481	1.3202	0.1863	0.0181	0.0018	0.0017	0.68	0.00155	0.00004	4051.2	974.4	854.6	81.5	115.5	11.2	11.0
11231A51	MNP	38.9	926	74.28	4.95	0.4823	0.0510	0.0504	0.8751	0.0713	0.0135	0.0009	0.0009	0.79	0.00132	0.00003	4188.0	155.3	638.4	38.6	86.2	5.7	5.5
11231A52	MNP	38.9	942	88.31	6.42	0.3985	0.0620	0.0617	0.5653	0.0561	0.0113	0.0008	0.0008	0.71	0.00131	0.00003	3903.5	235.2	455.0	36.4	72.6	5.3	5.1
11231A54	MNP	38.9	908	95.69	6.73	0.3616	0.0662	0.0660	0.4682	0.0470	0.0105	0.0007	0.0007	0.68	0.00130	0.00003	3756.5	280.9	389.9	32.5	67.0	4.7	4.6
11231A56	MNP	38.9	676	107.97	6.69	0.3203	0.0399	0.0396	0.3925	0.0328	0.0093	0.0006	0.0006	0.72	0.00130	0.00002	3571.3	190.6	336.2	23.9	59.4	3.7	3.5
11231A59	MNP	38.9	811	24.85	6.29	0.4823	0.0562	0.0557	3.7911	1.1781	0.0402	0.0102	0.0102	0.81	0.00137	0.00004	4188.0	171.4	1590.9	249.7	254.4	64.4	63.0
11231A60	MNP	38.9	620	82.14	6.97	0.4167	0.0551	0.0547	0.7715	0.1650	0.0122	0.0010	0.0010	0.39	0.00132	0.00003	3972.2	197.9	580.6	94.6	78.0	6.6	6.5
11231A62	MNP	38.9	1501	57.96	3.88	0.5788	0.0780	0.0775	1.2666	0.0945	0.0173	0.0012	0.0011	0.87	0.00171	0.00004	4457.4	196.4	830.9	42.4	110.3	7.4	7.1
11231A69	MNP	38.9	666	114.52	8.67	0.3934	0.0785	0.0783	0.4013	0.0410	0.0087	0.0007	0.0006	0.72	0.00126	0.00003	3884.3	304.5	342.6	29.7	56.0	4.2	4.1
11231A71	MNP	38.9	700	97.68	7.40	0.3621	0.0634	0.0631	0.4548	0.0457	0.0102	0.0008	0.0008	0.74	0.00130	0.00003	3759.0	267.9	380.6	31.9	65.7	5.0	4.8
11231A72	MNP	38.9	651	93.65	6.24	0.3384	0.0554	0.0552	0.4686	0.0346	0.0107	0.0007	0.0007	0.88	0.00132	0.00003	3655.2	252.2	390.2	23.9	68.5	4.6	4.4
11231A75	MNP	38.9	736	110.91	7.75	0.3068	0.0435	0.0432	0.3827	0.0428	0.0090	0.0006	0.0006	0.61	0.00133	0.00003	3504.9	219.5	329.0	31.4	57.9	4.0	3.9
11231A77	MNP	38.9	715	115.61	10.16	0.4010	0.0768	0.0766	0.3835	0.0361	0.0086	0.0008	0.0007	0.92	0.00132	0.00003	3912.9	291.4	329.6	26.5	55.5	4.9	4.8
11231A78	MNP	38.9	697	102.20	8.38	0.4117	0.0688	0.0685	0.4808	0.0547	0.0098	0.0008	0.0008	0.71	0.00133	0.00003	3952.3	253.2	398.6	37.5	62.8	5.1	5.0
11231A80	MNP	38.9	718	61.76	5.38	0.5867	0.0781	0.0776	1.1492	0.1193	0.0162	0.0014	0.0014	0.82	0.00136	0.00003	4475.6	193.8	776.9	56.4	103.5	9.0	8.8
11231A81	MNP	38.9	488	125.57	6.56	0.2913	0.0383	0.0380	0.3055	0.0323	0.0080	0.0004	0.0004	0.47	0.00133	0.00003	3424.4	204.3	270.7	25.1	51.1	2.7	2.5
11231A82	MNP	38.9	686	95.19	6.85	0.3591	0.0542	0.0539	0.4673	0.0514	0.0105	0.0008	0.0007	0.64	0.00136	0.00003	3746.1	230.1	389.3	35.6	67.4	4.8	4.7
11231A83	MNP	38.9	463	116.68	6.73	0.3263	0.0667	0.0665	0.3331	0.0350	0.0086	0.0005	0.0005	0.53	0.00137	0.00003	3599.7	319.0	291.9	26.6	55.0	3.2	3.0
11231A49	MNP	38.9	2472	49.60	4.88	0.2946	0.3381	0.3381	1.2668	0.1800	0.0202	0.0020	0.0020	0.68	0.00149	0.00003	3442.3	1142.7	831.0	80.6	128.7	12.7	12.4

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
11231A53	MNP	38.9	883	78.86	5.03	0.3980	0.0478	0.0474	0.6519	0.0529	0.0127	0.0008	0.0008	0.76	0.00132	0.00003	3901.7	179.9	509.7	32.5	81.2	5.2	5.0
11231A55	MNP	38.9	902	85.40	5.77	0.3665	0.0448	0.0444	0.5452	0.0502	0.0117	0.0008	0.0008	0.71	0.00133	0.00003	3777.5	184.9	441.9	33.0	75.0	5.1	4.9
11231A57	MNP	38.9	325	13.97	0.59	0.7886	0.0222	0.0185	7.7797	0.3300	0.0716	0.0030	0.0028	0.93	0.00175	0.00003	error	error	2205.9	38.2	445.8	18.9	16.9
11231A58	MNP	38.9	785	15.45	0.60	0.7844	0.0344	0.0322	6.9023	0.2522	0.0647	0.0025	0.0023	0.97	0.00144	0.00003	error	error	2099.0	32.4	404.4	15.8	14.0
11231A61	MNP	38.9	1481	55.66	3.85	0.4732	0.0585	0.0581	1.0738	0.0798	0.0180	0.0012	0.0012	0.90	0.00173	0.00003	4160.2	182.7	740.6	39.1	114.8	7.9	7.6
11231A63	MNP	38.9	2264	55.43	5.43	0.4584	0.2329	0.2327	1.0711	0.1351	0.0180	0.0018	0.0017	0.77	0.00157	0.00004	4112.8	1090.9	739.3	66.2	115.3	11.3	11.0
11231A70	MNP	38.9	748	78.98	6.90	0.3534	0.0530	0.0527	0.5697	0.0713	0.0127	0.0011	0.0011	0.69	0.00131	0.00003	3721.9	229.0	457.8	46.1	81.1	7.1	6.9
11231A73	MNP	38.9	712	105.02	7.66	0.4276	0.0632	0.0628	0.4978	0.0437	0.0095	0.0007	0.0007	0.81	0.00131	0.00003	4009.1	221.3	410.2	29.6	61.1	4.5	4.3
11231A74	MNP	38.9	690	71.13	4.93	0.4674	0.0554	0.0550	0.8207	0.0686	0.0141	0.0010	0.0009	0.81	0.00131	0.00003	4141.7	175.3	608.4	38.2	90.0	6.2	6.0
11231A76	MNP	38.9	716	96.97	7.73	0.5473	0.4464	0.4463	0.3829	0.0524	0.0103	0.0008	0.0008	0.57	0.00132	0.00003	4375.9	2731.8	329.2	38.5	66.1	5.3	5.1
11231A79	MNP	38.9	623	100.32	7.11	0.4602	0.0563	0.0559	0.5718	0.0464	0.0100	0.0007	0.0007	0.85	0.00135	0.00003	4120.4	181.4	459.2	30.0	63.9	4.5	4.4
11231A100	Tribal	44.8	518	89.43	5.27	0.2730	0.0379	0.0377	0.3970	0.0416	0.0112	0.0007	0.0006	0.54	0.00193	0.00004	3323.8	217.9	339.4	30.2	71.7	4.2	4.0
11231A101	Tribal	44.8	517	85.88	5.43	0.3661	0.0450	0.0446	0.5851	0.0544	0.0116	0.0007	0.0007	0.66	0.00198	0.00004	3775.6	186.1	467.8	34.9	74.6	4.7	4.5
11231A102	Tribal	44.8	512	89.68	6.31	0.3527	0.0473	0.0469	0.5048	0.0483	0.0112	0.0008	0.0008	0.72	0.00197	0.00004	3720.4	204.8	415.0	32.6	71.5	5.0	4.9
11231A103	Tribal	44.8	512	75.09	6.10	0.3895	0.0482	0.0479	0.7090	0.0979	0.0133	0.0011	0.0011	0.58	0.00194	0.00004	3868.9	186.4	544.1	58.2	85.3	6.9	6.7
11231A104	Tribal	44.8	440	82.79	5.39	0.4034	0.0473	0.0469	0.6353	0.0718	0.0121	0.0008	0.0008	0.56	0.00197	0.00004	3921.9	175.6	499.4	44.6	77.4	5.0	4.9
11231A105	Tribal	44.8	446	65.39	7.08	0.4544	0.0507	0.0502	0.9521	0.1584	0.0153	0.0017	0.0016	0.64	0.00195	0.00004	4099.7	164.8	679.2	82.4	97.8	10.6	10.4
11231A106	Tribal	44.8	451	84.79	5.02	0.4185	0.0436	0.0431	0.6704	0.0529	0.0118	0.0007	0.0007	0.72	0.00198	0.00004	3976.9	154.9	520.9	32.2	75.6	4.5	4.3
11231A107	Tribal	44.8	419	86.99	6.68	0.3408	0.0419	0.0416	0.5193	0.0625	0.0115	0.0009	0.0009	0.62	0.00193	0.00004	3666.4	187.7	424.7	41.8	73.7	5.7	5.5
11231A108	Tribal	44.8	420	95.84	6.79	0.3497	0.0386	0.0382	0.4956	0.0466	0.0104	0.0007	0.0007	0.73	0.00198	0.00004	3705.5	167.4	408.7	31.6	66.9	4.7	4.6
11231A115	Tribal	44.8	417	92.12	5.68	0.3413	0.0393	0.0390	0.4755	0.0429	0.0109	0.0007	0.0006	0.66	0.00196	0.00004	3668.8	175.3	395.0	29.5	69.6	4.3	4.1
11231A116	Tribal	44.8	414	92.81	5.92	0.3025	0.0437	0.0435	0.4302	0.0456	0.0108	0.0007	0.0007	0.58	0.00201	0.00004	3483.0	229.8	363.3	32.4	69.1	4.4	4.2
11231A117	Tribal	44.8	411	85.51	4.86	0.3220	0.0369	0.0366	0.5245	0.0524	0.0117	0.0007	0.0006	0.55	0.00195	0.00004	3579.3	174.6	428.1	34.9	75.0	4.3	4.1
11231A118	Tribal	44.8	414	90.21	6.04	0.3582	0.0397	0.0393	0.5464	0.0646	0.0111	0.0007	0.0007	0.55	0.00199	0.00004	3742.3	167.6	442.7	42.4	71.1	4.8	4.6
11231A119	Tribal	44.8	430	92.07	6.01	0.3288	0.0349	0.0345	0.4846	0.0469	0.0109	0.0007	0.0007	0.65	0.00192	0.00004	3611.6	161.7	401.3	32.1	69.6	4.5	4.4
11231A120	Tribal	44.8	424	84.99	6.74	0.3940	0.0488	0.0484	0.6649	0.0911	0.0118	0.0009	0.0009	0.57	0.00197	0.00004	3886.7	185.9	517.6	55.6	75.4	6.0	5.8
11231A121	Tribal	44.8	427	89.42	5.41	0.3299	0.0353	0.0349	0.4793	0.0464	0.0112	0.0007	0.0007	0.60	0.00196	0.00004	3616.6	163.0	397.6	31.9	71.7	4.3	4.2
11231A122	Tribal	44.8	419	84.71	6.06	0.3629	0.0513	0.0510	0.5566	0.0561	0.0118	0.0008	0.0008	0.69	0.00193	0.00004	3762.0	215.1	449.3	36.6	75.7	5.4	5.2
11231A123	Tribal	44.8	423	94.74	6.35	0.2944	0.0366	0.0363	0.3943	0.0372	0.0106	0.0007	0.0007	0.69	0.00192	0.00004	3442.6	192.9	337.5	27.1	67.7	4.5	4.4

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
11231A124	Tribal	44.8	413	92.25	5.65	0.3387	0.0411	0.0407	0.4802	0.0445	0.0108	0.0007	0.0006	0.64	0.00200	0.00004	3657.1	184.1	398.2	30.5	69.5	4.3	4.1
11231A125	Tribal	44.8	420	89.55	6.16	0.3493	0.0405	0.0401	0.5007	0.0496	0.0112	0.0008	0.0007	0.68	0.00191	0.00005	3705.6	175.9	412.2	33.5	71.6	4.9	4.8
11231A126	Tribal	44.8	420	88.87	6.29	0.3267	0.0414	0.0411	0.4637	0.0424	0.0113	0.0008	0.0008	0.75	0.00194	0.00005	3601.5	194.4	386.8	29.4	72.1	5.1	4.9
11231A127	Tribal	44.8	419	75.63	5.61	0.4472	0.0457	0.0452	0.8261	0.0963	0.0132	0.0010	0.0010	0.62	0.00201	0.00004	4076.2	151.9	611.4	53.6	84.7	6.3	6.1
11231A128	Tribal	44.8	377	84.84	6.12	0.4045	0.0460	0.0456	0.6356	0.0726	0.0118	0.0008	0.0008	0.62	0.00198	0.00004	3925.9	170.1	499.6	45.1	75.5	5.4	5.3
11231A129	Tribal	44.8	375	91.78	5.17	0.3563	0.0383	0.0379	0.5163	0.0494	0.0109	0.0006	0.0006	0.56	0.00198	0.00005	3734.3	162.7	422.7	33.1	69.9	3.9	3.7
11231A94	Tribal	44.8	300	59.88	4.51	0.4708	0.0502	0.0497	1.0023	0.1078	0.0167	0.0013	0.0012	0.68	0.00203	0.00005	4152.3	157.1	705.0	54.7	106.8	8.0	7.8
11231A95	Tribal	44.8	490	64.72	5.58	0.4715	0.0492	0.0486	0.9965	0.1370	0.0155	0.0013	0.0013	0.62	0.00196	0.00005	4154.6	153.6	702.0	69.7	98.8	8.5	8.3
11231A96	Tribal	44.8	508	82.65	5.97	0.3860	0.0482	0.0478	0.6445	0.0972	0.0121	0.0009	0.0009	0.47	0.00194	0.00005	3855.3	188.0	505.1	60.0	77.5	5.6	5.4
11231A97	Tribal	44.8	495	79.90	5.64	0.3712	0.0444	0.0440	0.6152	0.0576	0.0125	0.0009	0.0009	0.73	0.00196	0.00005	3796.1	179.8	486.9	36.2	80.2	5.7	5.5
11231A98	Tribal	44.8	514	90.01	6.28	0.3924	0.0581	0.0578	0.5732	0.0642	0.0111	0.0008	0.0008	0.61	0.00195	0.00005	3880.6	223.8	460.1	41.4	71.2	5.0	4.8
11231A99	Tribal	44.8	516	82.18	5.39	0.3647	0.0407	0.0403	0.5682	0.0518	0.0122	0.0008	0.0008	0.70	0.00199	0.00004	3769.7	168.5	456.8	33.6	78.0	5.1	4.9
11231A138	Zagi	51.0	1536	50.86	3.06	0.4742	0.0485	0.0480	1.2067	0.0839	0.0197	0.0012	0.0011	0.83	0.00178	0.00003	4164.8	150.3	803.7	38.6	125.5	7.6	7.2
11231A139	Zagi	51.0	1454	58.00	3.63	0.4528	0.0504	0.0499	1.0304	0.0791	0.0172	0.0011	0.0010	0.79	0.00171	0.00004	4094.8	164.6	719.1	39.6	110.2	6.9	6.6
11231A140	Zagi	51.0	1465	54.28	2.98	0.4870	0.0455	0.0449	1.1631	0.0777	0.0184	0.0010	0.0010	0.78	0.00178	0.00003	4202.3	136.7	783.4	36.5	117.7	6.5	6.1
11231A141	Zagi	51.0	1427	53.89	3.30	0.4529	0.0503	0.0499	1.1351	0.0893	0.0186	0.0011	0.0011	0.75	0.00175	0.00003	4094.8	164.3	770.2	42.5	118.5	7.3	6.9
11231A142	Zagi	51.0	1447	52.51	3.31	0.4930	0.0491	0.0485	1.1920	0.0782	0.0190	0.0012	0.0012	0.93	0.00178	0.00004	4220.3	140.3	796.9	36.2	121.6	7.7	7.3
11231A143	Zagi	51.0	1502	51.13	3.71	0.4716	0.0513	0.0507	1.1355	0.0846	0.0196	0.0014	0.0014	0.95	0.00176	0.00003	4155.2	160.2	770.4	40.2	124.9	9.1	8.7
11231A145	Zagi	51.0	1399	52.61	3.36	0.4561	0.0536	0.0532	1.0840	0.0850	0.0190	0.0012	0.0012	0.79	0.00175	0.00004	4105.3	174.1	745.6	41.4	121.4	7.7	7.4
11231A146	Zagi	51.0	1424	55.52	3.64	0.5060	0.0558	0.0552	1.1904	0.0787	0.0180	0.0012	0.0011	0.96	0.00167	0.00004	4259.0	161.4	796.2	36.5	115.1	7.5	7.2
11231A147	Zagi	51.0	1331	52.99	3.45	0.4841	0.0502	0.0496	1.2285	0.0943	0.0189	0.0012	0.0012	0.82	0.00172	0.00004	4193.7	152.9	813.7	43.0	120.5	7.8	7.5
11231A148	Zagi	51.0	1332	59.82	4.00	0.4322	0.0498	0.0494	0.9247	0.0685	0.0167	0.0011	0.0011	0.88	0.00170	0.00004	4025.2	171.6	664.8	36.2	106.9	7.1	6.9
11231A149	Zagi	51.0	1329	57.01	3.31	0.4059	0.0453	0.0449	0.9807	0.0820	0.0175	0.0010	0.0010	0.67	0.00171	0.00004	3931.2	167.0	693.9	42.0	112.1	6.5	6.2
11231A151	Zagi	51.0	1241	58.55	3.87	0.4914	0.0471	0.0465	1.0742	0.0828	0.0171	0.0011	0.0011	0.83	0.00174	0.00003	4215.7	140.9	740.8	40.5	109.2	7.2	6.9
11231A157	Zagi	51.0	698	53.34	3.35	0.4973	0.0690	0.0685	1.1456	0.0804	0.0187	0.0012	0.0011	0.86	0.00179	0.00004	4235.2	204.8	775.2	38.1	119.7	7.5	7.2
11231A158	Zagi	51.0	912	54.12	3.48	0.4953	0.0499	0.0494	1.1819	0.0875	0.0185	0.0012	0.0011	0.84	0.00177	0.00003	4227.5	148.3	792.2	40.7	118.0	7.6	7.3
11231A161	Zagi	51.0	1224	51.99	3.50	0.5216	0.0558	0.0552	1.2627	0.0915	0.0192	0.0013	0.0013	0.90	0.00175	0.00003	4303.5	156.0	829.1	41.1	122.8	8.3	8.0
11231A162	Zagi	51.0	1281	53.93	3.05	0.4913	0.0489	0.0483	1.1792	0.0920	0.0185	0.0010	0.0010	0.69	0.00169	0.00004	4215.3	145.7	790.9	42.9	118.4	6.7	6.3
11231A164	Zagi	51.0	1347	56.32	3.76	0.5022	0.0559	0.0553	1.1127	0.0776	0.0178	0.0012	0.0012	0.93	0.00175	0.00003	4247.8	163.0	759.5	37.3	113.5	7.6	7.3

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
11231A165	Zagi	51.0	1364	55.81	3.70	0.5051	0.0480	0.0473	1.1586	0.0808	0.0179	0.0012	0.0012	0.92	0.00178	0.00004	4256.5	138.6	781.3	38.0	114.5	7.6	7.3
11231A166	Zagi	51.0	1431	51.78	2.92	0.4880	0.0523	0.0518	1.2380	0.0877	0.0193	0.0011	0.0010	0.76	0.00177	0.00003	4205.4	157.4	818.0	39.8	123.3	6.9	6.6
11231A167	Zagi	51.0	1402	55.69	3.18	0.4637	0.0430	0.0424	1.1506	0.0811	0.0180	0.0010	0.0010	0.78	0.00175	0.00004	4131.5	135.9	777.5	38.3	114.7	6.6	6.2
11231A170	Zagi	51.0	1543	49.29	2.97	0.5159	0.0634	0.0629	1.2833	0.0791	0.0203	0.0012	0.0012	0.94	0.00172	0.00003	4287.4	180.1	838.3	35.2	129.5	7.8	7.4
11231A136	Zagi	51.0	1503	52.37	3.53	0.4005	0.0493	0.0489	1.0356	0.0937	0.0191	0.0013	0.0012	0.72	0.00167	0.00003	3911.0	184.6	721.7	46.7	121.9	8.2	7.9
11231A137	Zagi	51.0	1490	57.24	3.94	0.5146	0.0498	0.0492	1.1774	0.0822	0.0175	0.0012	0.0012	0.96	0.00177	0.00004	4283.6	141.2	790.1	38.3	111.6	7.7	7.4
11231A144	Zagi	51.0	1426	56.46	3.45	0.5638	0.0688	0.0682	1.2376	0.0935	0.0177	0.0011	0.0010	0.78	0.00173	0.00003	4417.6	177.7	817.8	42.4	113.2	6.9	6.6
11231A150	Zagi	51.0	1243	61.64	4.03	0.5127	0.0599	0.0594	1.0565	0.0761	0.0162	0.0011	0.0010	0.88	0.00179	0.00004	4278.1	171.3	732.1	37.6	103.7	6.8	6.5
11231A159	Zagi	51.0	1094	58.38	4.64	0.5220	0.0594	0.0589	1.0836	0.0813	0.0171	0.0014	0.0013	1.04	0.00181	0.00003	4304.7	166.4	745.4	39.6	109.5	8.7	8.4
11231A160	Zagi	51.0	1157	53.79	3.50	0.5526	0.0541	0.0534	1.3249	0.0848	0.0186	0.0012	0.0012	0.98	0.00177	0.00004	4388.0	142.7	856.6	37.1	118.7	7.7	7.4
11231A163	Zagi	51.0	1300	60.65	4.20	0.5553	0.0621	0.0615	1.1314	0.0914	0.0165	0.0011	0.0011	0.83	0.00179	0.00004	4395.4	162.8	768.4	43.5	105.4	7.3	7.1
11231A168	Zagi	51.0	1582	55.41	3.71	0.5209	0.0560	0.0554	1.1977	0.0701	0.0180	0.0012	0.0012	1.11	0.00178	0.00004	4301.6	157.0	799.5	32.4	115.3	7.7	7.4
11231A169	Zagi	51.0	1616	51.67	2.85	0.5385	0.0512	0.0506	1.4311	0.1008	0.0194	0.0011	0.0010	0.75	0.00176	0.00003	4350.3	138.0	902.0	42.1	123.6	6.8	6.4
11231A171	Zagi	51.0	1446	50.00	2.92	0.6015	0.0763	0.0757	1.5294	0.1056	0.0200	0.0012	0.0011	0.81	0.00171	0.00003	4511.7	183.8	942.3	42.4	127.6	7.5	7.1
													24µm3J5Hz3N2									
20102a13	TPZ	425.2	61	14.30	0.41	0.0910	0.0102	0.0101	0.8979	0.1146	0.0699	0.0020	0.0017	0.19	0.01824	0.0004	1446.6	211.9	650.6	61.3	435.8	12.5	10.0
20102a11	TPZ	425.2	101	14.28	0.41	0.1121	0.0047	0.0044	1.0815	0.0500	0.0700	0.0020	0.0017	0.51	0.01809	0.0004	1833.0	70.5	744.4	24.4	436.2	12.5	10.0
20102a34	TPZ	425.2	137	14.11	0.51	0.0714	0.0048	0.0047	0.6965	0.0517	0.0709	0.0026	0.0023	0.43	0.01861	0.0006	969.4	133.3	536.7	30.9	441.3	15.9	13.7
20102a9	TPZ	425.2	93	14.32	0.37	0.0810	0.0038	0.0036	0.7749	0.0331	0.0698	0.0018	0.0014	0.48	0.01873	0.0004	1220.4	87.0	582.6	18.9	435.1	11.4	8.6
20102a8	TPZ	425.2	84	14.09	0.38	0.0860	0.0028	0.0025	0.8398	0.0279	0.0710	0.0019	0.0015	0.64	0.01966	0.0004	1338.9	55.6	619.0	15.4	442.0	11.8	9.0
20102a33	TPZ	425.2	210	13.88	0.39	0.0832	0.0044	0.0042	0.8178	0.0401	0.0721	0.0020	0.0016	0.47	0.01966	0.0005	1275.9	100.0	606.8	22.4	448.6	12.6	9.9
20102a58	TPZ	425.2	123	13.64	0.42	0.1183	0.0070	0.0067	1.1996	0.0817	0.0733	0.0022	0.0019	0.38	0.02015	0.0004	1931.5	101.9	800.4	37.7	456.2	14.0	11.5
20102a69	TPZ	425.2	260	12.31	0.46	0.1722	0.0086	0.0081	1.9114	0.0992	0.0812	0.0031	0.0028	0.65	0.02019	0.0004	2578.7	79.8	1085.1	34.6	503.5	18.9	16.5
20102a47	TPZ	425.2	122	14.51	0.39	0.0757	0.0035	0.0033	0.7139	0.0310	0.0689	0.0019	0.0015	0.50	0.02018	0.0005	1087.0	88.1	547.1	18.4	429.6	11.6	9.0
20102a70	TPZ	425.2	148	13.90	0.42	0.0870	0.0049	0.0048	0.8534	0.0437	0.0719	0.0022	0.0018	0.49	0.02053	0.0004	1361.1	105.6	626.5	24.0	447.8	13.4	11.0
20102a71	TPZ	425.2	159	14.21	0.37	0.0739	0.0032	0.0030	0.7121	0.0267	0.0704	0.0018	0.0015	0.55	0.02056	0.0004	1038.9	81.5	546.0	15.8	438.3	11.5	8.7
20102a57	TPZ	425.2	99	13.88	0.35	0.0877	0.0047	0.0045	0.8679	0.0456	0.0721	0.0018	0.0014	0.36	0.02095	0.0004	1375.9	99.2	634.4	24.8	448.5	11.2	8.2
20102a46	TPZ	425.2	57	14.32	0.35	0.0734	0.0031	0.0029	0.7018	0.0256	0.0699	0.0017	0.0013	0.51	0.02126	0.0005	1027.8	80.7	539.9	15.3	435.3	10.8	7.9
20111A33	TPZ	408.8	1548	2.05	0.32	0.7685	0.0809	0.0800	47.6704	8.7647	0.4882	0.0754	0.0750	0.84	0.00744	0.0002	error		3944.8	182.9	2562.9	395.9	324.9

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
20111A11	TPZ	408.8	584	7.89	0.51	0.4487	0.0203	0.0191	7.7960	0.5498	0.1267	0.0081	0.0079	0.88	0.01522	0.0004	4080.8	63.5	2207.7	63.5	769.1	49.4	45.1
20111A40	TPZ	408.8	643	7.85	0.62	0.4545	0.0341	0.0333	8.5944	1.0308	0.1273	0.0100	0.0098	0.64	0.01596	0.0003	4101.9	109.3	2296.0	109.1	772.6	60.9	56.2
20111A12	TPZ	408.8	218	11.03	0.47	0.2685	0.0124	0.0117	3.3621	0.2434	0.0906	0.0038	0.0035	0.54	0.01610	0.0002	3297.2	68.2	1495.6	56.7	559.3	23.6	20.9
20111A13	TPZ	408.8	116	9.94	0.46	0.3655	0.0195	0.0187	5.2294	0.4591	0.1006	0.0047	0.0044	0.50	0.01786	0.0003	3773.2	77.8	1857.4	74.8	617.9	28.9	25.8
20111A35	TPZ	408.8	306	15.46	0.59	0.0600	0.0055	0.0054	0.5196	0.0447	0.0647	0.0024	0.0022	0.40	0.01902	0.0004	611.1	196.3	424.9	29.8	404.0	15.3	13.4
20111A34	TPZ	408.8	393	14.39	0.55	0.0862	0.0068	0.0066	0.8166	0.0550	0.0695	0.0026	0.0024	0.51	0.01908	0.0003	1342.6	148.3	606.1	30.7	433.0	16.4	14.4
20111A8	TPZ	408.8	87	14.58	0.52	0.1195	0.0119	0.0118	1.1282	0.1336	0.0686	0.0024	0.0022	0.27	0.01923	0.0004	1950.0	177.9	766.9	63.7	427.7	15.2	13.1
20111A18	TPZ	408.8	190	13.64	0.43	0.1510	0.0114	0.0112	1.5088	0.1135	0.0733	0.0023	0.0020	0.37	0.01929	0.0003	2356.5	126.2	933.9	45.9	456.0	14.5	12.1
20111A21	TPZ	408.8	84	14.62	0.44	0.1082	0.0070	0.0068	1.0176	0.0619	0.0684	0.0021	0.0017	0.42	0.01957	0.0004	1768.8	115.0	712.7	31.2	426.5	12.8	10.4
20111A16	TPZ	408.8	254	14.68	0.40	0.0742	0.0038	0.0036	0.6930	0.0270	0.0681	0.0018	0.0015	0.56	0.01971	0.0003	1055.6	98.2	534.6	16.2	424.7	11.5	8.9
20111A42	TPZ	408.8	596	14.58	0.61	0.0811	0.0078	0.0077	0.7224	0.0608	0.0686	0.0029	0.0026	0.46	0.01988	0.0004	1233.3	186.0	552.1	35.8	427.7	17.9	15.9
20111A31	TPZ	408.8	128	15.14	0.48	0.0748	0.0040	0.0039	0.6853	0.0312	0.0660	0.0021	0.0018	0.60	0.02010	0.0003	1062.7	104.8	530.0	18.8	412.3	13.1	10.9
20111A32	TPZ	408.8	54	14.65	0.43	0.0761	0.0039	0.0038	0.7254	0.0325	0.0683	0.0020	0.0017	0.55	0.02025	0.0004	1098.2	100.0	553.9	19.1	425.7	12.5	10.1
20111A41	TPZ	408.8	538	13.27	0.56	0.1291	0.0105	0.0103	1.2753	0.0738	0.0753	0.0032	0.0030	0.68	0.02054	0.0004	2087.0	140.4	834.7	32.9	468.2	19.8	17.7
20111A48	MNP	38.0	712	99.09	8.25	0.4817	0.0918	0.0915	0.5154	0.0648	0.0101	0.0008	0.0008	0.65	0.00129	0.00003	4186.1	285.1	422.1	43.4	64.7	5.4	5.3
20111A50	MNP	38.0	589	127.40	8.38	0.3143	0.0396	0.0393	0.2896	0.0243	0.0078	0.0005	0.0005	0.76	0.00130	0.00003	3542.3	194.6	258.2	19.1	50.4	3.3	3.2
20111A52	MNP	38.0	383	104.77	7.90	0.3221	0.0541	0.0539	0.3606	0.0381	0.0095	0.0007	0.0007	0.70	0.00135	0.00003	3579.9	260.2	312.7	28.4	61.2	4.6	4.5
20111A54	MNP	38.0	584	94.61	7.64	0.3721	0.0516	0.0512	0.4843	0.0522	0.0106	0.0009	0.0008	0.73	0.00132	0.00003	3811.1	209.2	401.0	35.7	67.8	5.5	5.3
20111A56	MNP	38.0	670	107.09	8.10	0.3677	0.0462	0.0459	0.4069	0.0354	0.0093	0.0007	0.0007	0.85	0.00133	0.00003	3783.3	190.2	346.6	25.6	59.9	4.5	4.4
20111A57	MNP	38.0	577	103.14	7.21	0.4030	0.0641	0.0638	0.4639	0.0464	0.0097	0.0007	0.0007	0.68	0.00134	0.00003	3920.2	240.4	386.9	32.2	62.2	4.3	4.2
20111A58	MNP	38.0	610	98.10	7.60	0.4591	0.0972	0.0970	0.5092	0.0471	0.0102	0.0008	0.0008	0.82	0.00134	0.00003	4116.7	319.1	417.9	31.7	65.4	5.1	4.9
20111A60	MNP	38.0	619	98.84	8.39	0.3939	0.0714	0.0712	0.4758	0.0617	0.0101	0.0009	0.0008	0.64	0.00134	0.00003	3885.8	275.8	395.2	42.5	64.9	5.5	5.4
20111A62	MNP	38.0	647	79.75	6.02	0.5409	0.0844	0.0839	0.7966	0.0703	0.0125	0.0009	0.0009	0.84	0.00132	0.00003	4357.1	229.3	594.9	39.7	80.3	6.1	5.9
20111A68	MNP	38.0	727	109.09	8.34	0.3256	0.0434	0.0431	0.3906	0.0424	0.0092	0.0007	0.0007	0.69	0.00133	0.00003	3598.2	204.6	334.8	30.9	58.8	4.5	4.4
20111A69	MNP	38.0	736	111.36	7.47	0.3882	0.0578	0.0575	0.4431	0.0495	0.0090	0.0006	0.0006	0.58	0.00132	0.00003	3864.1	225.5	372.4	34.8	57.6	3.9	3.7
20111A71	MNP	38.0	532	103.50	8.21	0.3197	0.0480	0.0477	0.3870	0.0453	0.0097	0.0008	0.0008	0.66	0.00132	0.00003	3568.2	231.9	332.2	33.1	62.0	4.9	4.8
20111A73	MNP	38.0	730	106.16	7.44	0.4233	0.1740	0.1739	0.3888	0.0391	0.0094	0.0007	0.0006	0.68	0.00135	0.00003	3994.1	660.0	333.5	28.6	60.4	4.2	4.1
20111A74	MNP	38.0	796	105.25	6.66	0.3293	0.0445	0.0442	0.3822	0.0365	0.0095	0.0006	0.0006	0.64	0.00133	0.00003	3613.9	207.4	328.7	26.8	61.0	3.9	3.7
20111A75	MNP	38.0	541	103.54	7.00	0.3245	0.0470	0.0467	0.3672	0.0358	0.0097	0.0007	0.0006	0.67	0.00134	0.00003	3591.7	223.6	317.6	26.6	62.0	4.2	4.1

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
20111A76	MNP	38.0	601	53.40	6.02	0.6267	0.0730	0.0723	1.5336	0.2293	0.0187	0.0021	0.0021	0.75	0.00133	0.00004	4571.3	176.8	944.0	91.9	119.6	13.5	13.2
20111A77	MNP	38.0	629	81.82	6.33	0.4663	0.0669	0.0666	0.6776	0.0629	0.0122	0.0009	0.0009	0.81	0.00131	0.00003	4138.0	213.3	525.3	38.1	78.3	6.1	5.9
20111A78	MNP	38.0	724	112.32	7.53	0.3850	0.0708	0.0706	0.3963	0.0385	0.0089	0.0006	0.0006	0.67	0.00129	0.00004	3851.6	280.3	339.0	28.0	57.1	3.8	3.7
20111A79	MNP	38.0	673	116.84	7.52	0.2640	0.0326	0.0323	0.2878	0.0339	0.0086	0.0006	0.0005	0.53	0.00135	0.00004	3270.9	193.8	256.8	26.7	54.9	3.5	3.4
20111A80	MNP	38.0	644	103.21	7.41	0.3272	0.0432	0.0429	0.3931	0.0360	0.0097	0.0007	0.0007	0.76	0.00135	0.00004	3605.6	202.5	336.7	26.2	62.2	4.5	4.3
20111A81	MNP	38.0	623	106.31	7.91	0.3469	0.0482	0.0479	0.3950	0.0389	0.0094	0.0007	0.0007	0.74	0.00134	0.00004	3693.5	212.2	338.0	28.3	60.4	4.5	4.4
20111A82	MNP	38.0	617	114.31	7.33	0.3258	0.0529	0.0527	0.3499	0.0376	0.0087	0.0006	0.0005	0.58	0.00131	0.00004	3597.2	250.9	304.7	28.3	56.2	3.6	3.5
20111A49	MNP	38.0	608	28.92	7.55	0.6160	0.1001	0.0997	3.3263	0.9905	0.0346	0.0090	0.0090	0.87	0.00143	0.00006	4546.1	257.6	1487.2	232.5	219.1	57.2	56.1
20111A51	MNP	38.0	567	37.63	1.66	0.7471	0.0433	0.0417	2.6503	0.1031	0.0266	0.0012	0.0011	1.06	0.00148	0.00004	error	error	1314.7	28.7	169.1	7.5	6.9
20111A53	MNP	38.0	357	139.54	10.75	0.3805	0.0638	0.0635	0.3162	0.0357	0.0072	0.0006	0.0005	0.67	0.00136	0.00003	3835.2	255.0	279.0	27.6	46.0	3.5	3.5
20111A55	MNP	38.0	481	32.50	5.92	0.6133	0.0582	0.0574	3.0718	0.6763	0.0308	0.0056	0.0056	0.82	0.00140	0.00004	4539.9	136.3	1425.7	168.7	195.4	35.6	34.9
20111A59	MNP	38.0	322	26.14	1.34	0.7845	0.0327	0.0303	3.9993	0.2101	0.0383	0.0020	0.0019	0.92	0.00160	0.00003	error	error	1634.1	42.7	242.0	12.4	11.5
20111A61	MNP	38.0	315	24.83	1.04	0.7774	0.0361	0.0340	4.3428	0.1558	0.0403	0.0017	0.0016	1.07	0.00162	0.00004	error	error	1701.5	29.6	254.6	10.6	9.6
20111A70	MNP	38.0	773	87.37	6.54	0.3958	0.0758	0.0755	0.5138	0.0543	0.0114	0.0009	0.0008	0.69	0.00132	0.00003	3893.5	291.4	421.0	36.4	73.4	5.5	5.3
20111A72	MNP	38.0	689	67.68	5.95	0.5099	0.0538	0.0533	0.9005	0.0828	0.0148	0.0013	0.0013	0.94	0.00133	0.00003	4270.1	154.3	652.0	44.2	94.6	8.3	8.1
20111A100	Tribal	41.5	216	98.03	8.26	0.3977	0.0681	0.0678	0.4571	0.0433	0.0102	0.0009	0.0008	0.87	0.00216	0.0001	3900.5	259.3	382.2	30.2	65.4	5.5	5.4
20111A101	Tribal	41.5	172	105.97	8.00	0.3074	0.0419	0.0416	0.3612	0.0313	0.0094	0.0007	0.0007	0.85	0.00225	0.0001	3509.3	210.8	313.1	23.4	60.5	4.6	4.4
20111A102	Tribal	41.5	166	102.93	7.63	0.3026	0.0361	0.0358	0.3833	0.0381	0.0097	0.0007	0.0007	0.73	0.00222	0.0001	3483.6	184.0	329.5	27.9	62.3	4.6	4.5
20111A108	Tribal	41.5	443	95.47	6.41	0.3543	0.0463	0.0459	0.4588	0.0438	0.0105	0.0007	0.0007	0.68	0.00204	0.0001	3725.6	198.6	383.4	30.5	67.2	4.5	4.4
20111A109	Tribal	41.5	450	98.76	6.46	0.2532	0.0383	0.0381	0.3183	0.0376	0.0101	0.0007	0.0006	0.54	0.00196	0.0001	3205.3	239.0	280.6	29.0	64.9	4.2	4.1
20111A110	Tribal	41.5	458	102.94	8.16	0.3099	0.0488	0.0486	0.3471	0.0375	0.0097	0.0008	0.0008	0.72	0.00198	0.0001	3520.7	244.4	302.5	28.3	62.3	4.9	4.8
20111A111	Tribal	41.5	448	102.11	7.15	0.2845	0.0475	0.0473	0.3508	0.0390	0.0098	0.0007	0.0007	0.61	0.00200	0.0001	3388.0	262.0	305.3	29.3	62.8	4.4	4.3
20111A112	Tribal	41.5	448	96.99	6.82	0.3110	0.0462	0.0459	0.3931	0.0413	0.0103	0.0007	0.0007	0.65	0.00203	0.0000	3527.8	229.8	336.7	30.1	66.1	4.6	4.5
20111A113	Tribal	41.5	313	77.15	5.53	0.4190	0.0542	0.0538	0.6441	0.0619	0.0130	0.0009	0.0009	0.73	0.00204	0.0001	3978.7	193.4	504.8	38.2	83.0	5.9	5.8
20111A114	Tribal	41.5	306	87.53	6.80	0.4262	0.0512	0.0508	0.6166	0.0640	0.0114	0.0009	0.0009	0.73	0.00203	0.0001	4004.3	179.2	487.7	40.2	73.2	5.7	5.5
20111A115	Tribal	41.5	235	93.78	7.36	0.4242	0.0963	0.0961	0.5074	0.0525	0.0107	0.0008	0.0008	0.74	0.00193	0.0001	3997.2	345.9	416.7	35.3	68.4	5.4	5.2
20111A116	Tribal	41.5	110	114.10	6.98	0.2432	0.0276	0.0273	0.2727	0.0243	0.0088	0.0005	0.0005	0.66	0.00217	0.0001	3142.6	179.3	244.9	19.4	56.3	3.4	3.3
20111A117	Tribal	41.5	163	119.15	8.89	0.2286	0.0530	0.0528	0.2101	0.0282	0.0084	0.0006	0.0006	0.54	0.00184	0.0001	3042.3	379.8	193.6	23.6	53.9	4.0	3.9
20111A118	Tribal	41.5	346	123.83	9.75	0.2385	0.0464	0.0462	0.2295	0.0328	0.0081	0.0006	0.0006	0.54	0.00189	0.0000	3110.2	314.4	209.8	27.1	51.8	4.1	4.0

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
20111A119	Tribal	41.5	375	107.72	8.70	0.3075	0.0449	0.0447	0.3405	0.0361	0.0093	0.0007	0.0007	0.75	0.00181	0.0000	3508.3	226.2	297.5	27.4	59.6	4.8	4.7
20111A120	Tribal	41.5	591	102.49	9.72	0.1675	0.1685	0.1685	0.2563	0.0439	0.0098	0.0009	0.0009	0.55	0.00177	0.0000	2533.0	1122.5	231.7	35.5	62.6	5.9	5.8
20111A121	Tribal	41.5	1301	101.04	11.25	0.1843	0.1521	0.1521	0.2394	0.0680	0.0099	0.0011	0.0011	0.39	0.00162	0.0000	2692.3	954.3	218.0	55.7	63.5	7.1	7.0
20111A88	Tribal	41.5	340	82.43	6.81	0.4761	0.0687	0.0683	0.6805	0.0641	0.0121	0.0010	0.0010	0.86	0.00197	0.0001	4169.0	214.1	527.1	38.7	77.7	6.4	6.3
20111A89	Tribal	41.5	299	87.67	7.53	0.4284	0.0579	0.0575	0.5799	0.0565	0.0114	0.0010	0.0010	0.87	0.00208	0.0001	4012.0	201.9	464.4	36.3	73.1	6.3	6.1
20111A90	Tribal	41.5	299	84.02	6.91	0.4494	0.0733	0.0730	0.5814	0.0545	0.0119	0.0010	0.0010	0.86	0.00202	0.0001	4083.3	244.1	465.3	35.0	76.3	6.3	6.1
20111A91	Tribal	41.5	288	85.09	6.99	0.4217	0.1276	0.1275	0.5315	0.0548	0.0118	0.0010	0.0009	0.78	0.00206	0.0001	3988.6	469.3	432.8	36.3	75.3	6.2	6.0
20111A92	Tribal	41.5	293	89.90	6.98	0.4116	0.0514	0.0510	0.5384	0.0487	0.0111	0.0009	0.0008	0.84	0.00201	0.0001	3953.7	187.0	437.4	32.2	71.3	5.5	5.4
20111A93	Tribal	41.5	275	85.29	6.37	0.3044	0.0403	0.0400	0.4452	0.0583	0.0117	0.0009	0.0009	0.56	0.00203	0.0001	3494.4	204.9	373.9	41.0	75.1	5.6	5.4
20111A94	Tribal	41.5	278	90.94	6.86	0.4168	0.0630	0.0627	0.5643	0.0603	0.0110	0.0008	0.0008	0.69	0.00203	0.0001	3970.9	227.2	454.3	39.1	70.5	5.3	5.2
20111A95	Tribal	41.5	270	87.55	6.88	0.3999	0.0638	0.0635	0.5461	0.0610	0.0114	0.0009	0.0009	0.69	0.00207	0.0001	3909.0	241.1	442.5	40.1	73.2	5.7	5.6
20111A96	Tribal	41.5	263	92.52	7.89	0.5123	0.1214	0.1212	0.5806	0.0589	0.0108	0.0009	0.0009	0.83	0.00198	0.0001	4276.9	355.8	464.8	37.9	69.3	5.9	5.8
20111A97	Tribal	41.5	251	95.44	8.01	0.3842	0.0589	0.0586	0.4951	0.0481	0.0105	0.0009	0.0009	0.85	0.00212	0.0001	3850.0	231.5	408.4	32.6	67.2	5.6	5.5
20111A98	Tribal	41.5	269	95.64	7.54	0.4369	0.0611	0.0608	0.5426	0.0516	0.0105	0.0008	0.0008	0.81	0.00201	0.0001	4041.1	209.0	440.1	34.0	67.1	5.3	5.1
20111A99	Tribal	41.5	253	86.81	6.98	0.3606	0.0539	0.0536	0.4956	0.0585	0.0115	0.0009	0.0009	0.67	0.00205	0.0001	3752.8	228.1	408.7	39.7	73.8	5.9	5.8
20111A122	Tribal	41.5	1461	83.64	7.78	0.0563	0.1624	0.1624	0.2187	0.0539	0.0120	0.0011	0.0011	0.37	0.00159	0.0000	464.9	2506.4	200.8	44.9	76.6	7.1	7.0
20111A129	Zagi	48.8	1490	53.86	4.54	0.5290	0.0676	0.0671	1.1380	0.0987	0.0186	0.0016	0.0015	0.95	0.00171	0.00004	4324.0	187.2	771.6	46.9	118.6	10.0	9.7
20111A130	Zagi	48.8	1522	54.42	3.82	0.5414	0.0687	0.0682	1.2226	0.1089	0.0184	0.0013	0.0013	0.77	0.00172	0.00004	4358.3	185.5	811.0	49.8	117.4	8.2	7.9
20111A131	Zagi	48.8	1491	55.20	4.04	0.4788	0.0487	0.0481	1.1056	0.0874	0.0181	0.0013	0.0013	0.90	0.00173	0.00004	4177.5	149.3	756.0	42.1	115.7	8.5	8.2
20111A132	Zagi	48.8	1555	50.41	3.83	0.5087	0.0658	0.0653	1.1837	0.0933	0.0198	0.0015	0.0015	0.94	0.00170	0.00004	4333.3	190.2	793.1	43.4	126.6	9.6	9.3
20111A133	Zagi	48.8	1499	53.00	4.41	0.4866	0.0605	0.0600	1.1042	0.0994	0.0189	0.0016	0.0015	0.91	0.00173	0.00004	4201.2	183.1	755.4	48.0	120.5	10.0	9.8
20111A134	Zagi	48.8	1484	54.96	4.41	0.5173	0.0748	0.0744	1.0953	0.0982	0.0182	0.0015	0.0014	0.88	0.00173	0.00004	4291.7	213.1	751.1	47.6	116.2	9.3	9.0
20111A135	Zagi	48.8	1474	54.47	4.40	0.4783	0.0539	0.0534	1.0716	0.0890	0.0184	0.0015	0.0015	0.95	0.00176	0.00004	4175.6	165.9	739.5	43.6	117.3	9.5	9.2
20111A137	Zagi	48.8	1511	56.14	4.54	0.5131	0.0641	0.0636	1.1396	0.1057	0.0178	0.0014	0.0014	0.85	0.00176	0.00004	4279.4	183.3	772.3	50.2	113.8	9.2	8.9
20111A139	Zagi	48.8	1520	52.10	4.19	0.5204	0.0873	0.0869	1.1260	0.0924	0.0192	0.0015	0.0015	0.96	0.00177	0.00004	4301.9	247.0	765.9	44.1	122.6	9.9	9.6
20111A141	Zagi	48.8	1529	54.05	4.16	0.4453	0.0574	0.0569	1.0159	0.0901	0.0185	0.0014	0.0014	0.85	0.00170	0.00004	4069.6	191.7	711.9	45.4	118.2	9.1	8.8
20111A142	Zagi	48.8	1517	57.88	4.74	0.5063	0.0685	0.0680	1.0537	0.0967	0.0173	0.0014	0.0014	0.87	0.00171	0.00005	4259.7	199.2	730.7	47.8	110.4	9.0	8.8
20111A148	Zagi	48.8	1547	53.24	4.75	0.4666	0.0569	0.0565	1.0245	0.0937	0.0188	0.0017	0.0016	0.96	0.00175	0.00004	4139.2	181.3	716.2	47.0	120.0	10.7	10.4
20111A149	Zagi	48.8	1525	52.50	4.04	0.4620	0.0589	0.0584	1.0750	0.0905	0.0190	0.0015	0.0014	0.89	0.00173	0.00004	4124.4	188.9	741.2	44.3	121.6	9.4	9.1

Analysis date	Sample	Final U-Pb Age (Ma)	Th/U	Data for Tera-Wasserburg plot					207Pb/235U		206Pb/238U			rho	208Pb/232Th		Dates					
				238U/206Pb		207Pb/206Pb											207Pb/206Pb		207Pb/235U		206Pb/238U		
				Ratio	2 σ*	Ratio	2 σ*	2 σ	Ratio	2 σ	Ratio	2 σ*	2 σ		Ratio	2 σ	Age (Ma)	2sigma	Age (Ma)	2 σ	Age (Ma)	2 σ*	2 σ
20111A150	Zagi	48.8	1502	59.59	4.77	0.4797	0.0564	0.0559	0.9842	0.0941	0.0168	0.0013	0.0013	0.82	0.00173	0.00004	4180.0	173.2	695.8	48.2	107.3	8.6	8.4
20111A154	Zagi	48.8	1511	53.60	4.02	0.4864	0.0664	0.0660	1.0781	0.1004	0.0187	0.0014	0.0014	0.79	0.00174	0.00004	4200.5	201.9	742.7	49.0	119.2	8.9	8.7
20111A155	Zagi	48.8	1501	53.25	4.13	0.5067	0.0677	0.0673	1.1129	0.0976	0.0188	0.0015	0.0014	0.86	0.00173	0.00004	4260.8	196.9	759.6	46.9	119.9	9.3	9.0
20111A157	Zagi	48.8	1489	52.10	3.80	0.4862	0.0678	0.0674	1.1408	0.1000	0.0192	0.0014	0.0014	0.81	0.00176	0.00004	4199.7	200.8	772.9	47.4	122.6	8.9	8.6
20111A158	Zagi	48.8	1504	58.42	4.45	0.5054	0.0791	0.0787	1.0241	0.0978	0.0171	0.0013	0.0013	0.78	0.00170	0.00004	4257.1	231.6	715.9	49.1	109.4	8.3	8.1
20111A159	Zagi	48.8	1542	54.92	4.71	0.6100	0.1275	0.1272	1.1971	0.1128	0.0182	0.0016	0.0015	0.89	0.00174	0.00004	4532.1	342.2	799.2	52.1	116.3	10.0	9.7
20111A160	Zagi	48.8	1488	59.54	5.02	0.5293	0.1081	0.1078	0.9939	0.1007	0.0168	0.0014	0.0014	0.82	0.00176	0.00005	4325.0	303.8	700.7	51.3	107.4	9.1	8.8
20111A162	Zagi	48.8	1452	55.96	4.61	0.4845	0.0653	0.0649	1.0510	0.1119	0.0179	0.0015	0.0014	0.76	0.00175	0.00004	4194.8	199.2	729.4	55.4	114.2	9.4	9.1
20111A128	Zagi	48.8	1501	62.49	4.50	0.5510	0.0705	0.0700	1.1869	0.0984	0.0160	0.0012	0.0011	0.84	0.00175	0.00004	4383.7	187.0	794.5	45.7	102.3	7.4	7.1
20111A136	Zagi	48.8	1472	55.86	4.21	0.5056	0.0592	0.0587	1.1094	0.0828	0.0179	0.0013	0.0013	0.99	0.00173	0.00004	4257.7	172.7	757.9	39.9	114.4	8.6	8.3
20111A140	Zagi	48.8	1487	52.71	4.11	0.4210	0.0571	0.0567	0.9845	0.0943	0.0190	0.0015	0.0014	0.80	0.00179	0.00004	3986.1	203.0	695.9	48.2	121.2	9.4	9.1
20111A151	Zagi	48.8	1502	53.68	4.03	0.5828	0.2259	0.2257	1.0706	0.0713	0.0186	0.0014	0.0014	1.10	0.00174	0.00004	4465.7	728.2	739.0	35.0	119.0	8.9	8.7
20111A152	Zagi	48.8	1486	57.11	4.54	0.5715	0.0903	0.0899	1.1458	0.1202	0.0175	0.0014	0.0014	0.74	0.00174	0.00004	4438.9	231.5	775.2	56.9	111.9	8.9	8.6
20111A153	Zagi	48.8	1523	37.21	2.71	0.6371	0.0647	0.0639	2.1346	0.1260	0.0269	0.0020	0.0019	1.21	0.00178	0.00004	4594.9	153.2	1160.1	40.8	171.0	12.5	12.0
20111A156	Zagi	48.8	1536	57.97	5.17	0.5874	0.0925	0.0921	1.1356	0.1023	0.0173	0.0015	0.0015	0.98	0.00174	0.00004	4477.1	230.2	770.4	48.6	110.3	9.8	9.6
20111A138	Zagi	48.8	1472	59.59	4.98	0.5655	0.0787	0.0782	1.1503	0.1022	0.0168	0.0014	0.0014	0.92	0.00176	0.00005	4421.9	203.2	777.4	48.3	107.3	9.0	8.7
20111A161	Zagi	48.8	1465	63.42	5.38	0.5301	0.0700	0.0695	1.0360	0.1089	0.0158	0.0013	0.0013	0.79	0.00179	0.00004	4327.5	193.5	721.9	54.3	100.8	8.6	8.3

Note: data and dates not corrected for common-Pb; Decay constants of Jaffey et al. (1971) used and a small number data were deleted due to abnormal ages, i.e., quite young or older and different from other data in the sample group.

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
365.1	9.4	7.6
368.2	9.0	7.1
379.7	10.0	8.1
389.1	10.5	8.7
391.6	8.5	6.0
413.0	12.2	10.4
437.5	10.8	8.5
31.3	0.9	0.8
26.8	0.7	0.5
26.4	0.7	0.6
26.2	0.7	0.6
26.3	0.6	0.5
27.6	0.9	0.8
26.6	0.7	0.5
34.6	0.9	0.7
25.5	0.7	0.6
26.3	0.7	0.6
26.6	0.7	0.6
26.8	0.7	0.6
26.6	0.7	0.6
26.9	0.7	0.6
27.5	0.8	0.6
26.9	0.7	0.6
27.4	0.8	0.7
27.6	0.8	0.7
30.2	0.8	0.7

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
26.7	0.7	0.5
26.8	0.7	0.5
35.4	0.9	0.7
29.1	0.7	0.5
34.9	0.9	0.7
31.8	0.9	0.8
26.5	0.8	0.7
26.5	0.7	0.6
26.5	0.7	0.6
26.6	0.7	0.6
27.3	0.7	0.6
39.0	1.0	0.9
40.1	1.1	0.9
39.7	1.0	0.8
39.1	1.1	0.9
39.9	1.0	0.7
39.3	1.1	0.9
40.0	1.0	0.8
39.1	1.1	0.9
39.9	1.0	0.8
39.6	1.1	0.9
40.6	1.0	0.8
39.4	1.0	0.8
40.2	1.0	0.8
38.7	1.0	0.8
39.7	1.1	0.9
39.6	1.1	0.9
38.9	1.0	0.8
38.7	0.9	0.7

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
40.3	1.1	0.9
38.6	1.1	0.9
39.1	1.2	1.0
40.5	1.0	0.8
40.0	1.1	0.9
40.0	1.1	0.9
40.9	1.2	1.1
39.5	1.2	1.0
39.2	1.1	1.0
39.6	1.2	1.0
39.3	1.1	0.9
40.2	1.0	0.8
36.0	0.8	0.6
34.6	0.9	0.7
35.9	0.9	0.7
35.3	0.9	0.7
36.0	0.9	0.7
35.4	0.9	0.7
35.3	0.9	0.8
33.7	0.9	0.7
34.8	0.9	0.8
34.3	0.9	0.7
34.5	0.9	0.7
35.2	0.9	0.7
36.1	0.9	0.7
35.7	0.9	0.7
35.3	0.9	0.7
34.2	0.9	0.7
35.4	0.8	0.6

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
35.8	0.9	0.7
35.7	0.9	0.7
35.4	0.9	0.7
34.7	0.8	0.7
33.8	0.9	0.7
35.8	0.9	0.7
35.0	0.9	0.7
36.1	0.9	0.7
36.5	0.9	0.7
35.7	0.9	0.8
36.1	0.9	0.7
36.0	0.9	0.7
35.6	0.8	0.6
34.5	0.9	0.7
365.3	9.9	8.2
362.4	10.0	8.4
372.7	13.7	12.5
375.0	9.6	7.7
393.5	10.2	8.3
393.4	10.8	9.0
403.3	9.9	7.7
404.1	9.8	7.7
403.9	10.9	9.0
410.7	10.8	8.8
411.4	9.5	7.1
419.1	9.9	7.6
425.2	11.6	9.6
149.8	4.9	4.3

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
305.4	9.1	7.8
320.0	7.2	5.3
322.8	6.8	4.7
357.8	8.4	6.4
380.8	9.2	7.2
382.1	8.6	6.3
385.1	9.9	8.0
386.3	8.9	6.7
391.7	9.2	7.0
394.5	8.3	5.8
397.9	9.5	7.4
402.3	9.0	6.6
405.3	9.5	7.2
410.9	9.6	7.3
26.1	0.8	0.7
26.3	0.7	0.6
27.2	0.8	0.7
26.7	0.8	0.7
26.9	0.8	0.7
27.1	0.8	0.7
27.0	0.7	0.6
27.0	0.7	0.6
26.7	0.8	0.7
26.8	0.8	0.7
26.6	0.8	0.7
26.8	0.8	0.6
27.4	0.8	0.7
26.9	0.7	0.6
27.1	0.7	0.6

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
26.9	0.8	0.7
26.5	0.8	0.7
26.0	0.8	0.7
27.2	0.8	0.7
27.3	0.8	0.7
27.1	0.9	0.8
26.4	0.9	0.8
29.0	1.2	1.1
29.9	0.8	0.7
27.5	0.7	0.6
28.3	0.9	0.8
32.3	0.9	0.7
32.8	0.9	0.7
26.6	0.7	0.6
27.0	0.8	0.7
43.6	1.8	1.6
45.5	2.0	1.9
44.8	1.9	1.8
41.2	1.3	1.1
39.7	1.2	1.1
40.1	1.2	1.1
40.3	1.2	1.0
41.0	1.2	1.0
41.1	1.2	1.0
41.0	1.4	1.3
39.0	1.4	1.2
43.8	1.6	1.5
37.1	1.4	1.2
38.1	1.0	0.9

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
36.6	1.0	0.8
35.7	1.1	1.0
32.7	1.0	0.9
39.8	1.5	1.3
41.9	1.5	1.4
40.8	1.5	1.3
41.6	1.3	1.2
40.5	1.5	1.3
40.9	1.5	1.4
41.0	1.5	1.3
41.8	1.4	1.2
40.0	1.4	1.3
42.8	1.5	1.3
40.6	1.4	1.3
41.5	1.6	1.4
32.1	1.0	0.9
34.6	0.9	0.8
34.8	1.0	0.8
35.0	0.9	0.8
34.4	0.9	0.8
34.9	1.0	0.8
35.0	0.9	0.7
35.5	1.0	0.8
35.4	0.9	0.8
35.8	1.0	0.8
34.4	1.0	0.9
34.6	1.1	0.9
35.4	1.0	0.8
34.9	0.9	0.8

208Pb/232Th		
Age (Ma)	2 σ*	2 σ
35.0	1.0	0.8
35.1	1.0	0.8
35.0	1.0	0.9
35.6	1.0	0.9
34.3	1.0	0.8
35.2	1.0	0.8
35.6	1.1	1.0
35.4	1.0	0.9
35.2	1.0	0.9
35.0	1.0	0.8
36.2	1.0	0.8
35.1	0.9	0.8
35.1	1.0	0.8
36.0	1.0	0.9
35.2	1.0	0.9
35.6	1.1	0.9
36.1	1.0	0.9