

TABLE S5: TEMORA 2 LA-ICPMS U-Pb ZIRCON GEOCHRONOLOGY

Zircon #	Composition					Ages											% Disc.
	U (ppm)	206Pb/204Pb	U/Th	206Pb/207Pb	2σ (%)	207Pb/235U	2σ (%)	206Pb/238U	2σ (%)	Error Corr.	206Pb/238U	2σ (Ma)	207Pb/235U	2σ (Ma)	206Pb/207Pb (Ma)		
Temora 2 no CA Run 1																	
TEM-1	88	308674	3.33	17.67	5.0	0.535	6.5	0.06864	4.2	0.644	427.9	17.4	435.3	23.0	474.2	110.2	9.8
TEM-2	1984	41775	1.46	18.01	2.5	0.520	3.6	0.06799	2.5	0.707	424.0	10.3	425.3	12.4	432.0	56.2	1.8
TEM-3	211	84894	3.91	18.38	3.2	0.507	4.4	0.06755	3.0	0.683	421.4	12.3	416.1	15.1	386.9	72.4	-8.9
TEM-4	556	24198	2.89	17.60	4.8	0.540	5.3	0.06896	2.4	0.444	429.9	9.8	438.4	19.0	483.4	105.5	11.1
TEM-5	190	17194	1.67	18.46	2.8	0.518	4.0	0.06936	2.8	0.698	432.3	11.6	423.7	13.8	377.5	64.0	-14.5
TEM-6	155	18099	4.57	17.92	3.1	0.533	4.3	0.06927	2.9	0.684	431.8	12.3	433.6	15.2	443.1	69.8	2.5
TEM-7	124	32424	3.44	17.64	3.8	0.523	5.1	0.06694	3.4	0.663	417.7	13.7	427.1	17.9	477.9	84.9	12.6
TEM-8	1333	55825	1.47	18.01	1.5	0.510	3.0	0.06663	2.6	0.869	415.8	10.5	418.3	10.3	431.8	33.1	3.7
TEM-9	365	122329	1.99	18.25	1.9	0.505	3.7	0.06681	3.2	0.861	416.9	12.9	414.9	12.6	403.5	42.2	-3.3
TEM-10	379	131674	2.01	18.13	1.9	0.522	3.1	0.06870	2.5	0.797	428.3	10.3	426.6	10.8	417.0	42.0	-2.7
TEM-11	200	9518	4.13	19.02	2.8	0.501	3.7	0.06915	2.4	0.651	431.0	10.2	412.4	12.7	309.7	64.7	-39.2
TEM-13	283	5567	1.94	18.18	3.3	0.507	4.9	0.06686	3.6	0.736	417.2	14.5	416.3	16.7	411.2	74.1	-1.5
TEM-14	460	141229	4.03	17.91	2.3	0.525	3.3	0.06823	2.3	0.708	425.5	9.6	428.6	11.6	445.4	52.0	4.5
TEM-15	472	32072	2.14	18.27	3.0	0.508	4.6	0.06733	3.5	0.764	420.1	14.3	417.0	15.8	400.0	66.6	-5.0
Temora 2 no CA Run 1 (discordant)																	
TEM-12	90	6390	1.28	18.83	8.0	0.889	60.5	0.12149	60.0	0.991	739.1	419.1	646.0	291.3	332.7	181.9	-122.2
Temora 2 no CA Run 2																	
TEM 1	110	49162	3.91	18.305	2.4	0.488	3.9	0.0648	3	0.774	404.8	11.7	403.5	12.9	396.1	54.8	-2.2
TEM 10	144	52641	1.88	18.525	2.9	0.5012	4.2	0.0674	3.1	0.722	420.3	12.4	412.5	14.4	369.3	66	-13.8
TEM 11	899	125663	2.19	18.093	1.5	0.5172	2.8	0.0679	2.3	0.839	423.5	9.5	423.2	9.6	422.1	33.7	-0.3
TEM 12	435	64074	1.85	18.307	2.2	0.5162	3	0.0686	2	0.678	427.5	8.4	422.6	10.4	395.8	49.6	-8.0
TEM 13	131	32596	3.86	18.16	2.7	0.5033	4.1	0.0663	3.1	0.759	413.9	12.4	413.9	13.9	413.9	59.4	NA
TEM 14	68	46718	2.36	18.511	4.9	0.5062	6.7	0.068	4.6	0.679	424	18.8	415.9	23	371	111.4	-14.3
TEM 15	272	258570	2.03	18.017	2.9	0.496	4.2	0.0649	3	0.715	405	11.8	409	14.2	431.5	65.6	6.1
TEM 16	642	183024	2.1	17.924	2	0.516	3	0.0671	2.3	0.759	418.7	9.3	422.5	10.5	443	43.9	5.5
TEM 17	297	98274	2.17	18.078	1.9	0.5132	3.5	0.0673	3	0.844	420	12.1	420.6	12.1	424	42	0.9
TEM 18	1541	1707168	1.69	18.103	2	0.5505	3.1	0.0723	2.4	0.767	450	10.4	445.3	11.2	420.8	44.5	-6.9
TEM 19	116	62264	4.21	18.34	4.1	0.4966	5.3	0.0661	3.4	0.639	412.5	13.5	409.4	17.9	391.8	91.6	-5.3
TEM 2	115	20551	3.76	18.646	3.7	0.4974	4.6	0.0673	2.7	0.592	419.8	11.1	409.9	15.6	354.5	84.1	-18.4
TEM 20	133	193361	2.93	18.161	2.6	0.5054	4.5	0.0666	3.6	0.814	415.6	14.7	415.3	15.2	413.7	58.1	-0.5
TEM 21	173	187120	4.47	18.303	2.3	0.5006	3.4	0.0665	2.5	0.737	415	10.1	412.1	11.5	396.3	51.6	-4.7
TEM 22	130	41218	4.19	18.257	2.9	0.5028	4	0.0666	2.7	0.683	415.6	10.9	413.6	13.4	402	64.6	-3.4
TEM 23	477	366736	2.31	18.088	1.8	0.5039	3	0.0661	2.4	0.789	412.8	9.4	414.3	10.1	422.8	40.9	2.4
TEM 24	166	65799	2.95	18.388	3.2	0.4988	3.9	0.0666	2.3	0.579	415.4	9.1	410.9	13.2	385.9	71.5	-7.6
TEM 25	471	419441	3.05	18.191	2.7	0.5141	3.9	0.0679	2.8	0.719	423.2	11.4	421.2	13.3	410.1	59.9	-3.2
TEM 26	697	210138	2.14	17.842	2.5	0.5182	3.5	0.0671	2.4	0.699	418.6	9.8	424	12	453.3	55.2	7.7
TEM 27	152	35093	2.33	18.187	2.7	0.5043	3.7	0.0666	2.5	0.677	415.4	10	414.6	12.5	410.5	60.6	-1.2
TEM 28	157	56860	2.16	18.359	3.4	0.4969	4.6	0.0662	3.1	0.676	413.2	12.6	409.6	15.7	389.4	76.7	-6.1
TEM 29	324	1159095	2.9	18.188	2.5	0.5129	3.8	0.0677	2.9	0.754	422.2	11.8	420.4	13.2	410.5	56.3	-2.9
TEM 3	93	2042540	2.93	18.082	4.3	0.5056	6.1	0.0663	4.3	0.708	414	17.4	415.5	20.9	423.5	96.4	2.2
TEM 30	161	96164	2.09	18.074	2.9	0.508	4.6	0.0666	3.6	0.778	415.7	14.4	417.1	15.8	424.5	64.7	2.1
TEM 4	117	52883	2.58	18.146	2.9	0.4956	4.4	0.0653	3.3	0.758	407.5	13.2	408.7	14.8	415.6	64.2	1.9
TEM 5	178	30481	2.01	18.122	3.7	0.5075	4.5	0.0667	2.5	0.557	416.4	10	416.7	15.3	418.5	83	0.5
TEM 6	194	230392	2.11	18.193	2.4	0.5017	3.6	0.0662	2.7	0.746	413.4	10.8	412.9	12.3	409.8	54.1	-0.9
TEM 7	135	21274	3.47	18.536	3.5	0.5065	4.1	0.0681	2.2	0.526	424.9	8.9	416.1	14.1	367.9	79.1	-15.5
TEM 8	296	138532	3.26	18.489	2.5	0.4961	3.6	0.0666	2.6	0.716	415.4	10.5	409.1	12.2	373.6	57	-11.2
TEM 9	129	27664	2.6	18.742	3.2	0.5016	3.9	0.0682	2.3	0.59	425.4	9.5	412.8	13.3	342.9	71.8	-24.1
Zircon #	Composition					Ages											% Disc.
	U (ppm)	206Pb/204Pb	U/Th	206Pb/207Pb	2σ (%)	207Pb/235U	2σ (%)	206Pb/238U	2σ (%)	Error Corr.	206Pb/238U	2σ (Ma)	207Pb/235U	2σ (Ma)	206Pb/207Pb (Ma)		
Temora 2 CA Run 1																	
TEM-1	295	3978	2.93	18.910	2.8	0.4931	4.2	0.06766	3.1	0.741	422.0	12.6	407.0	14.0	322.8	63.5	-30.7
TEM-2	177	9978	3.42	18.105	3.2	0.5039	4.2	0.06619	2.7	0.638	413.2	10.7	414.3	14.3	420.7	72.1	1.8
TEM-3	260	3892	4.08	18.886	3.1	0.4835	4.5	0.06625	3.3	0.730	413.5	13.1	400.5	14.8	325.7	69.3	-27.0
TEM-4	225	5386	3.12	17.995	6.1	0.5133	6.7	0.06702	2.9	0.431	418.2	11.8	420.6	23.2	434.3	135.6	3.7
TEM-5	395	45450	2.58	17.965	2.0	0.5282	4.0	0.06885	3.4	0.856	429.2	14.1	430.6	13.9	438.0	45.5	2.0
TEM-6	364	32428	2.96	18.204	2.8	0.5224	4.4	0.06901	3.4	0.775	430.2	14.3	426.8	15.4	408.4	62.5	-5.3
TEM-7	143	6081	2.42	17.953	5.8	0.5023	7.7	0.06543	5.1	0.660	408.5	20.0	413.2	26.0	439.5	128.2	7.0
TEM-8	331	3012	2.10	19.635	2.5	0.4670	3.5	0.06653	2.4	0.701	415.2	9.8	389.1	11.2	236.6	57.1	-75.5
TEM-9	445	14338	2.29	18.332	2.8	0.4985	4.7	0.06631	3.7	0.797	413.9	14.9	410.7	15.8	392.8	63.2	-5.4
TEM-10	296	9956	1.67	18.687	2.6	0.5075	3.5	0.06882	2.4	0.682	429.0	10.0	416.8	12.0	349.6	58.2	-22.7
TEM-11	197	11441	1.65	18.691	3.4	0.4936	4.6	0.06694	3.1	0.684	417.7	12.7	407.3	15.4	349.2	75.9	-19.6
TEM-12	416	35825	2.30	18.276	2.7	0.4966	4.8	0.06585	3.9	0.828	411.1	15.7	409.4	16.1	399.7	59.9	-2.8
TEM-13	222	9813	1.83	17.556	2.9	0.5233	5.3	0.06666	4.4	0.831	416.0	17.6	427.3	18.4	489.0	64.7	14.9
TEM-14	372	6866	2.16	19.010	4.7	0.4742	5.6	0.06541	3.1	0.550	408.4	12.2	394.1	18.4	310.7	106.9	-31.4
TEM-15	153	9851	2.98	18.132	4.0	0.5027	5.3	0.06614	3.4	0.654	412.9	13.8	413.6	17.9	417.4	89.0	1.1
Temora 2 CA Run 2																	
TEM 1	111	30198	2.31	17.885	4	0.5206	5.6	0.0676	4	0.707	421.5	16.1	425.6	19.5	447.9	88	5.9
TEM 10	146	21580	3.01	18.386	3.9	0.4984	5										

TEM 2	321	143336	2.22	18.311	3	0.5129	4.1	0.0682	2.7	0.663	425	11.1	420.4	14	395.3	68.1	-7.5
TEM 20	106	20118	2.98	18.484	5.7	0.5104	6.7	0.0685	3.6	0.537	426.8	15	418.7	23.1	374.2	127.9	-14.1
TEM 21	159	28577	3.84	18.508	4.3	0.4966	5.4	0.0667	3.2	0.594	416.1	12.9	409.4	18.1	371.3	97.3	-12.1
TEM 22	372	37491	1.91	18.324	2.6	0.4999	3.4	0.0665	2.2	0.636	414.8	8.7	411.6	11.5	393.7	58.9	-5.4
TEM 23	105	5000	2.56	19.717	9.8	0.4709	10.6	0.0674	4.2	0.392	420.3	17	391.8	34.6	226.9	226.4	-85.2
TEM 24	255	45882	1.64	18.113	2.2	0.5122	3.3	0.0673	2.4	0.728	420	9.7	419.9	11.3	419.7	50.2	-0.1
TEM 25	85	5000	3.54	18.757	9.9	0.4881	10.9	0.0664	4.5	0.41	414.6	17.9	403.6	36.2	341.1	224.8	-21.5
TEM 26	486	115805	2.31	18.301	2.7	0.5032	4	0.0668	3	0.735	417	12	413.9	13.7	396.5	61.4	-5.2
TEM 27	314	46965	3.07	18.331	3.6	0.4922	5.8	0.0655	4.5	0.78	408.8	17.8	406.4	19.3	392.9	80.8	-4.0
TEM 28	389	116446	3.53	18.101	2.7	0.501	3.3	0.0658	1.9	0.568	410.8	7.4	412.4	11.1	421.1	60.3	2.4
TEM 29	640	252685	1.7	18.194	3	0.5112	3.8	0.0675	2.3	0.61	420.9	9.4	419.2	12.9	409.8	66.7	-2.7
TEM 3	347	41970	3.12	18.178	3.3	0.4973	4.3	0.0656	2.7	0.641	409.6	10.9	409.9	14.4	411.7	73.5	0.5
TEM 30	377	124650	3.49	17.929	2.8	0.4842	6.2	0.063	5.6	0.898	393.7	21.4	400.9	20.7	442.4	61.2	11.0
TEM 4	218	145740	2.07	17.951	3.3	0.5075	4.4	0.0661	3	0.676	412.7	11.9	416.8	15.1	439.7	72.5	6.1
TEM 5	517	330791	2.87	18.437	2.9	0.4972	3.8	0.0665	2.5	0.653	415.1	9.9	409.8	12.8	379.9	64.6	-9.3
TEM 6	118	22302	3.38	18.359	4.9	0.4992	6.6	0.0665	4.3	0.657	415	17.3	411.1	22.2	389.5	110.9	-6.5
TEM 7	309	147241	1.84	18.315	3	0.5029	4.3	0.0668	3	0.716	417	12.3	413.6	14.4	394.8	66.6	-5.6
TEM 8	340	33874	2.58	18.388	2.7	0.5002	4	0.0667	2.9	0.728	416.5	11.8	411.8	13.6	385.9	61.7	-7.9
TEM 9	289	64312	1.93	18.12	3.4	0.5069	4.3	0.0667	2.7	0.622	415.9	10.9	416.4	14.8	418.8	76	0.7