

## Data Repository item 2003034

TABLE DR1. NOMENCLATURE AND AGE OF THE RORAIMA UNIT SINCE 1875

Reference	Nomenclature	Remarks
Brown and Sawkings (1875), Guyana	Sandstone Formation	First reference to the giant table mountains of sandstone
Dalton (1912), Venezuela	Roraima Series, referred to the Roraima Mountain (in Brazil-Venezuela-Guyana triple junction), Mesozoic	First use of the name Roraima
Connolly (1925), Guyana	Kaiteurian Series, Mesozoic	Introduced the name Kaiteur Series
Paiva (1939), Brazil	Roroimã or Kaieteur Sandstone, Torridonian (Late Neoproterozoic)	First to propose a Precambrian age, based on correlation with the Lavras Series of Brazil
Gansser (1954), Brazil, Guyana, Venezuela and Colômbia	Roraima Formation (Upper, Middle and Lower members), post-Jurassic Uailã Formation, pre-Roraima	Correlation of sandstones of SW Venezuela and Colombian Llanos to the Upper Roraima Member. Introduction of a pre-Roraima unit
Ramos (1956), Brazil	Quinô and Roraima Formations (Late Cretaceous) and Suapi Formation (Early Devonian)	First recognition of an unconformity within the Pacaraima sedimentary rocks
Barbosa and Ramos (1959), Brazil	Roraima Formation, Late Triassic and Kaiteur Formation, Cambro-Ordovician	Accepted the unconformity of Ramos above and introduced the name Kaieteur to Brazil
Bouman (1959), Brazil	Roraima Formation, Quinô, Suapi and Arai Members, Mesozoic	Proposed stratigraphy lacks the upper part of the sequence
McCandless (1962), Venezuela	Cinaruco Formation	Introduced the Cinaruco Formation for Roraima-like deformed sandstone sequences of Venezuela
Civirieux (1966), Venezuela	La Esmeralda Formation	Used for deformed sedimentary rocks of uncertain stratigraphic position and age
Amaral (1970), Brazil	Roraima Formation (Araí, Maú and Cotingo Members), Stenian Uailan Formation, Stenian	Same Gansser's (1954) concept, with two formations separated by an unconformity
Reid (1972), Venezuela	Roraima Group (Uairén, Cuquenán, Uaimapué and Matauí Formations)	First use of the group concept
Yáñez (1972), Venezuela	Roraima Group (Ayuan-tepui, Canaima and Guaiquinima Formations)	Stratigraphic subdivision and nomenclature in Venezuela, but with no priority over Reid (1972) names
Putte (1972), Venezuela	Roraima Formation subdivided in eleven members (Arutani, Manare, Orquidea, Piedritas, La Bonita, Rio Negro, Carrao, La Vieja, Canaima, Ayuantepui, and La Cumbre)	
Braun and Ramgrab (1972), Brazil	Roraima Formation (Pacaraima and Tafelberg Members) Kaieteur Formation (Quinô, Suapi and Arai Members)	Another recognition of an unconformity within the sedimentary rocks of the Pacaraima Plateau
Keats (1973), Guyana	Roraima Formation divided into 12 units and members	Suggested a total thickness of 3400 m
Amaral (1974), Brazil	Roraima Formation (gabbro intrusions, Cotingo, Maú and Arai members) and Uailan Formation	Inclusion of the younger gabbros in the Roraima Formation and recognition of a pre-Roraima unit: the Uailan Formation
Reid (1974), Venezuela	Same stratigraphy as Reid (1972), Paleoproterozoic	Proposed West African kimberlites as the source for the Roraima (Uairén) diamonds
Montalvão et al. (1975), Brazil	Roraima Group (Arai, Suapi and Quinô Formations), 2470 m	First dating in Brazil of gabbroic intrusives into the Roraima Group
Pinheiro et al. (1976), Brazil	Tunuí Group (undivided)	Introduced Tunuí Group for western, folded Roraima-like deposits
Fernandes et al. (1977), Brazil	Tunuí Group (undivided), Calimian or older	Minimum age of the Tunuí Group determined by Rb-Sr on felsic intrusives
Veiga et al. (1979), Brazil	Urupi Formation, Paleoproterozoic	Named the Roraima-like deposits in the Amazonas State
Galvis et al. (1979), Colombia	Roraima Formation and La Pedrera Formation	Introduced La Pedrera for Roraima-like deposits along Traira River and used Roraima for those at Caparro-Naquén Mountain
Pinheiro et al. (1981), Brazil	Roraima Group (Tucuxumã, Aliquelau, Linepenome, and Urutanim Formations)	Nomenclature for the northwest Roraima State
Santos and D'Antona	Roraima Group (Arai, Suapi, Quinô,	Restablished names proposed by

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(1984), Brazil	Uailã and Matauí Formations), Paleoproterozoic.	Bouman (1959); partial integration of the nomenclature between Brazil and Venezuela
Reis et al. (1985), Brazil	Roraima Group as above, but subdivided Suapi Formation into the Verde, Pauré, Carmã and Nicarã Members, Paleoproterozoic	Same as above, but lacks the upper Matauí unit
Ghosh (1985), Venezuela	Roraima Group (Uairén, Cuquenán, Uaimapué and Matauí Formations)	First to recognize five main environments of deposition. Proposed that the ages of the Roraima decreases from east to the west
Santos (1985), Brazil	Roraima Group (Arai, Suapi, Quinô, Uailã, Serra do Sol and Matauí Formations), Paleoproterozoic	Introduced the Serra do Sol Formation and proposed an unconformity above the Quinô Formation
Castro and Barrocas (1986), Brazil	Roraima Group	Application of depositional systems to map the northeast of the Roraima State
Borges and D'Antona (1988), Brazil	Roraima Group, divided the Arai Formation of Tepequem Mountain into the Cabo Sobral, Funil and Paiva Members	Correlation of deposits at the Tepequem Mountain with the Arai Formation
Pinheiro et al. (1988), Brazil	Divided the Arai Formation into Upper and Lower Members, Paleoproterozoic	Introduced Roraima Supergroup
Reis et al. (1988), Brazil	Same stratigraphy as Pinheiro et al. (1988) but divided the Suapi Group into Nicarã, Pauré and Verde Formations, Paleoproterozoic	
Briceño et al. (1989), Venezuela	Roraima Group	Introduced the Ichún Formation for the acid tuffs of Venezuela
Renzone (1990), Colombia	Tunui Group (Shanon, Piedras, and Ima Formations)	First subdivision of the Tunuí Group
Reis et al. (1991), Brazil	Recognized sandstones younger than the Roraima Supergroup at Surucucus Mountain	Cobbles of the Surucucus Granite found in conglomerate at Surucucus Mountain
Nixon et al. (1992), Venezuela	Roraima Group	Proposed the Guaniamo kimberlitic dikes and sills as the primary source of the Roraima Group diamonds
Meyer and McCallum (1993), Venezuela	Roraima Group	Suggested other Proterozoic kimberlites will be discovered as the source for Roraima diamonds
Cox et al. (1993), Venezuela	Roraima Group, Moriche Formation (including Cinaruco and La Esmeralda Formations)	Introduced the Moriche Formation for deformed sandstones
Carrillo (1993), Colômbia-Brazil	Prefers "Precambrian sedimentary rocks of Guainia" instead of Roraima and Tunuí Formations	Proposed an age of < 1200 Ma for the Tunuí Group based on correlation to the Piraparaná Formation
Alberdi and Contreras (1995), Venezuela	Introduced the Capas de Abarén (Matauí) and Urico (Uaimapué) Formations in upper part of the Roraima Group	First to describe an erosional surface between Matauí (Abarén) and Uaimapué (Urico) Formations
Reis and Yáñez (2001), Brazil and Venezuela	Roraima Supergroup (Arai, Uaimapué and Matauí formations) and Suapi Group (Uiramutã, Verde, Pauré, Cuquenã, Quinô Formations), Paleoproterozoic.	Important integration of the nomenclature between Brazil and Venezuela

Additional references for Table DR1:

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TABLE DR2. ZIRCON AND BADDELEYITE U-PB SHRIMP DATA FOR THE BASEMENT ROCKS (CG8 AND RG34), ARAI FORMATION (SP1), SURUCUCUS FORMATION (NR15), ARACÁ FORMATION (CG30), UAIMAPUÉ FORMATION (HC165 AND HC377), CIPÓ (NR531) AND MANGA BRAVA GABBROS (RG184)

Spot	U ppm	Th ppm	Th/U	Pb ppm	f206 (%)	Isotopic ratios				Ages (Ma)			Conc. (%)
						$\frac{^{206}\text{Pb}}{^{238}\text{U}}$	$\frac{^{207}\text{Pb}}{^{235}\text{U}}$	$\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$	$\frac{^{208}\text{Pb}}{^{206}\text{Pb}}$	$\frac{^{206}\text{Pb}}{^{238}\text{U}}$	$\frac{^{207}\text{Pb}}{^{235}\text{U}}$	$\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$	
<i>Marauá Tonalite – Cauaburi Complex – Sample CG8</i>													
b21-1	209	207	0.992	79	0.021	0.3175±1.58	4.7608±1.74	0.1087±0.55	0.2814±0.60	1778±25	1778±15	1778±10	100
b1-1	856	193	0.225	268	0.018	0.3103±1.50	4.6872±1.56	0.1095±0.26	0.0641±0.58	1742±23	1765±13	1792±5	97
b10-1	353	163	0.463	111	0.014	0.2951±1.55	4.4114±1.67	0.1084±0.46	0.1329±0.70	1667±23	1714±14	1773±8	94
b11-1	150	115	0.769	54	0.125	0.3165±1.62	4.7826±1.88	0.1096±0.78	0.2155±0.91	1772±25	1782±16	1793±14	99
b13-1	206	126	0.610	71	0.000	0.3120±1.58	4.7276±1.71	0.1099±0.51	0.1764±0.65	1750±24	1772±14	1798±9	97
b14-1	230	163	0.707	81	0.014	0.3112±1.58	4.6976±1.74	0.1095±0.57	0.2012±0.69	1747±24	1767±15	1791±10	98
b15-1	214	151	0.703	76	0.043	0.3137±1.58	4.7504±1.76	0.1098±0.59	0.2060±0.72	1759±24	1776±15	1796±11	98
b17-1	105	43	0.406	34	0.000	0.3089±1.66	4.6445±1.91	0.1090±0.75	0.1183±1.14	1735±25	1757±16	1783±14	97
b8-1	285	144	0.506	94	0.000	0.3073±1.55	4.5321±1.66	0.1070±0.43	0.1458±0.59	1727±23	1737±14	1749±8	99
b9-1	267	146	0.549	93	0.056	0.3203±1.56	4.8246±1.71	0.1092±0.52	0.1554±0.75	1791±24	1789±14	1787±10	100
b7-1	326	165	0.506	114	0.009	0.3272±1.58	4.9571±1.71	0.1099±0.48	0.1390±0.74	1825±25	1812±14	1798±9	102
<i>Ururicaá Rhyodacite – Surumu Group – Sample RG34</i>													
a1-1	64	54	0.852	26	0.170	0.3429±1.62	5.7127±2.22	0.1208±1.33	0.2406±1.56	1900±27	1933±19	1969±24	97
a1-2	198	167	0.840	83	0.052	0.3569±1.27	6.0093±1.49	0.1221±0.65	0.2443±0.75	1968±22	1977±13	1987±12	99
a2-1	94	54	0.577	38	0.328	0.3686±1.45	6.1437±2.02	0.1209±1.23	0.1596±1.97	2023±25	1996±18	1970±22	103
a3-1	147	106	0.719	60	0.040	0.3568±1.33	5.9653±1.63	0.1212±0.77	0.2065±0.99	1967±23	1971±14	1975±14	100
a4-1	133	78	0.588	52	0.130	0.3507±1.35	5.8134±1.67	0.1202±0.82	0.1664±1.2	1938±23	1948±14	1959±15	99
a5-1	161	113	0.701	66	0.079	0.3606±1.31	6.0048±1.57	0.1208±0.73	0.2006±0.94	1985±22	1977±14	1968±13	101
a6-1	346	257	0.742	143	0.071	0.3585±1.21	6.0597±1.35	0.1226±0.46	0.2114±0.58	1975±21	1984±12	1994±8	99
a7-1	163	106	0.651	68	0.053	0.3674±1.31	6.2032±1.57	0.1225±0.72	0.1877±0.99	2017±23	2005±14	1992±13	101
a8-1	156	107	0.690	63	0.320	0.3538±1.33	5.9322±1.72	0.1216±0.94	0.1882±1.32	1953±22	1966±15	1980±17	99
a10-1	133	88	0.659	53	0.207	0.3542±1.31	5.9394±0.55	0.1216±0.53	0.1841±0.42	1955±23	1967±15	1980±16	99
a11-1	70	41	0.589	28	0.087	0.3560±1.36	5.9664±1.71	0.1216±0.88	0.1720±1.23	1963±27	1971±19	1979±24	99
a12-1	153	125	0.818	65	0.000	0.3663±1.58	6.2723±2.18	0.1242±1.32	0.2329±1.97	2012±23	2015±13	2017±11	100
a12-2	153	81	0.532	60	0.000	0.3594±1.33	6.2239±1.53	0.1256±0.61	0.1536±0.73	1979±23	2008±13	2037±11	97
a13-1	429	355	0.827	179	0.115	0.3565±1.33	6.0428±1.53	0.1230±0.61	0.2320±0.87	1965±20	1982±12	1999±8	98
a14-1	135	108	0.800	55	0.000	0.3496±1.19	5.8856±1.33	0.1221±0.46	0.2341±0.55	1933±23	1959±14	1987±12	97
a23-1	85	67	0.796	35	0.108	0.3603±1.36	6.0106±1.59	0.1210±0.66	0.2282±0.79	1983±25	1977±17	1971±20	101
a15-1	53	38	0.720	22	0.984	0.3467±1.49	5.9774±1.97	0.1250±1.12	0.2087±1.35	1919±28	1973±26	2029±39	95
a71-1	66	46	0.695	27	0.273	0.3585±1.68	5.9183±2.94	0.1197±2.21	0.1964±2.98	1975±27	1964±19	1952±24	101
<i>Uiramutã Sandstone – Arai Formation – Sample SP1</i>													
a72-1	249	94	0.377	100	0.000	0.3759±0.71	6.6952±0.94	0.1292±0.59	0.1076±0.92	2057±12	2072±8	2087±10	99
a71-1	172	41	0.238	81	1.015	0.4302±0.83	8.9283±1.43	0.1505±1.07	0.0733±4.37	2307±16	2331±13	2352±18	98
a32-1	399	18	0.044	150	0.032	0.3823±0.60	6.7863±0.80	0.1287±0.46	0.0122±0.43	2087±11	2084±7	2081±8	100
a35-1	156	41	0.262	63	0.000	0.3868±0.85	7.0300±1.14	0.1318±0.67	0.0738±1.36	2108±15	2115±10	2122±12	99
a74-1	128	55	0.433	65	0.001	0.4727±0.92	8.7991±1.29	0.1350±0.80	0.1175±1.54	2495±19	2317±12	2164±14	115
a75-1	114	35	0.309	46	0.000	0.3853±0.97	6.8697±1.33	0.1293±0.80	0.0868±1.50	2101±17	2095±12	2089±14	101
a38-1	114	121	1.066	53	0.000	0.3759±0.99	6.6522±1.39	0.1284±0.85	0.3052±0.93	2057±17	2066±12	2076±15	99
a42-1	212	159	0.750	94	0.017	0.3838±0.77	6.9721±1.08	0.1317±0.66	0.2159±0.74	2094±14	2108±10	2121±11	99
a41-1	60	52	0.864	28	0.000	0.3970±1.34	7.1461±1.86	0.1306±1.09	0.2491±1.34	2155±25	2130±17	2105±20	102
a40-1	120	69	0.574	55	0.092	0.4094±0.98	7.4562±1.45	0.1321±0.95	0.1606±1.51	2212±18	2168±13	2126±17	104
a43-1	112	26	0.230	47	0.093	0.4073±1.03	7.4668±1.47	0.1330±0.92	0.0621±2.67	2202±19	2169±13	2138±16	103
a44-1	126	49	0.386	51	0.000	0.3758±0.94	6.7696±1.30	0.1306±0.78	0.1125±1.30	2057±17	2082±11	2107±14	98
a46-1	34	10	0.286	15	0.000	0.4129±1.91	7.3950±2.58	0.1299±1.56	0.0809±3.07	2228±35	2160±23	2096±28	106
a48-1	67	42	0.631	31	0.179	0.4030±1.31	7.3950±2.09	0.1331±1.47	0.1765±2.02	2183±24	2160±19	2139±26	102
a61-1	55	72	1.293	40	0.032	0.5456±1.42	14.0586±1.89	0.1869±1.08	0.3583±1.27	2807±32	2754±18	2715±18	103
a60-1	94	83	0.885	46	0.000	0.4110±1.10	7.5830±1.49	0.1338±0.87	0.2506±1.04	2220±21	2183±13	2149±15	103
a59-1	47	30	0.634	21	0.000	0.3943±1.45	7.2612±2.00	0.1336±1.21	0.1874±1.64	2143±26	2144±18	2145±21	100
a64-1	99	27	0.273	42	0.000	0.4024±1.05	7.3858±1.42	0.1331±0.84	0.0774±1.68	2180±19	2159±13	2139±15	102
a63-1	125	107	0.862	57	0.054	0.3868±0.95	7.0448±1.36	0.1321±0.86	0.2486±1.03	2108±17	2117±12	2126±15	99
a69-1	161	53	0.330	70	0.091	0.4156±0.83	7.4741±1.19	0.1304±0.76	0.0739±2.11	2240±16	2170±11	2104±13	106
a58-1	88	63	0.717	39	0.066	0.3877±1.11	6.9245±1.71	0.1295±1.17	0.2041±1.58	2112±20	2102±15	2092±21	101

a49-1	179	78	0.436	78	0.081	0.4018±0.85	7.2071±1.26	0.1301±0.82	0.1264±1.52	2177±16	2137±11	2099±15	104
a59-1	47	30	0.634	21	0.000	0.3943±1.45	7.2612±2.01	0.1336±1.22	0.1874±1.64	2143±26	2144±18	2145±21	100
a2-1	28	11	0.404	13	0.185	0.4140±2.64	7.8257±3.55	0.1371±2.06	0.1200±4.41	2233±50	2211±32	2191±36	102
a19-1	111	77	0.689	49	0.163	0.3985±2.06	7.2863±2.52	0.1326±1.22	0.1411±2.38	2162±38	2147±22	2133±21	101
a17-1	219	170	0.773	103	0.000	0.4038±1.95	7.3796±2.15	0.1325±0.69	0.2226±0.98	2186±36	2159±19	2132±12	103

*Conglomerate – Serra Surucucus Formation – Sample NR15*

a2-1	45	24	0.53	13	0.233	0.2593±1.82	3.4328±2.97	0.0960±2.12	0.1484±3.08	1486±24	1512±23	1548±40	96
a5-1	274	203	0.74	81	0.003	0.2631±1.19	3.4877±1.43	0.0961±0.65	0.2166±0.71	1506±16	1524±11	1550±12	97
a6-1	133	99	0.75	40	0.065	0.2673±1.32	3.5076±1.76	0.0952±1.01	0.2211±1.07	1527±18	1529±14	1531±19	100
a7-1	154	107	0.69	42	0.000	0.2455±1.30	3.2898±1.63	0.0972±0.84	0.2074±0.96	1415±17	1479±13	1571±16	90
a10-1	497	214	0.43	131	0.015	0.2502±1.14	3.3113±1.31	0.0960±0.52	0.1242±0.76	1440±15	1484±10	1547±10	93
a10-2	579	242	0.42	151	0.031	0.2483±1.13	3.2776±1.28	0.0957±0.47	0.1200±0.71	1430±15	1476±10	1543±9	93
a10-3	581	236	0.41	146	0.000	0.2397±1.12	3.1756±1.23	0.0961±0.41	0.1188±0.59	1385±14	1451±10	1550±8	89
a5-2	274	205	0.75	80	0.017	0.2577±1.22	3.4334±1.47	0.0966±0.69	0.2168±0.75	1478±16	1512±12	1560±13	95
a5-3	281	208	0.74	87	0.000	0.2698±1.88	3.5488±2.01	0.0954±0.68	0.2155±0.63	1540±21	1543±11	1536±13	100
a5-4	253	193	0.76	76	0.044	0.2639±1.20	3.5163±1.44	0.0967±0.66	0.2259±0.71	1510±16	1531±11	1560±12	97
a5-5	276	198	0.72	83	0.048	0.2669±1.21	3.5497±1.44	0.0964±0.66	0.2099±0.73	1525±16	1538±11	1556±12	98
a5-6	287	216	0.75	87	0.020	0.2662±1.19	3.5225±1.44	0.0960±0.67	0.2233±0.69	1522±16	1532±11	1547±13	98
a9-1	152	111	0.73	43	0.148	0.2494±1.37	3.3245±1.75	0.0967±0.94	0.2101±1.04	1435±18	1487±14	1561±18	92
a5-10	299	216	0.72	91	0.000	0.2718±1.33	3.6095±1.51	0.0963±0.55	0.2123±0.62	1550±18	1552±12	1554±10	100
a5-11	252	194	0.77	77	0.000	0.2676±1.35	3.5535±1.55	0.0963±0.60	0.2248±0.66	1529±18	1539±12	1554±11	98
a5-12	350	240	0.68	107	0.000	0.2743±1.32	3.6646±1.47	0.0969±0.50	0.2014±0.58	1563±18	1564±12	1565±9	100
a5-9	323	231	0.72	97	0.015	0.2681±1.33	3.5717±1.51	0.0966±0.58	0.2071±0.66	1531±18	1543±12	1560±11	98
a6-2	126	93	0.73	38	0.058	0.2688±1.49	3.5723±1.98	0.0964±1.14	0.2155±1.23	1535±20	1543±16	1556±21	99
a5-7	293	212	0.72	88	0.038	0.2666±1.35	3.5166±1.56	0.0957±0.62	0.2110±0.69	1524±18	1531±12	1541±12	99
a5-8	293	218	0.75	91	0.005	0.2747±1.34	3.6536±1.54	0.0965±0.61	0.2158±0.67	1564±19	1561±12	1557±11	100

*Muscovite quartzite – Aracá Formation – Sample CG30*

c1-1	266	136	0.513	99	0.129	0.3395±1.26	5.449±1.59	0.1164±0.82	0.1461±1.26	1884±21	1893±14	1902±15	99
c2-1	80	95	1.176	35	0.000	0.3466±1.65	5.787±2.19	0.1211±1.26	0.3460±1.26	1919±27	1945±19	1972±22	97
c3-1	231	3	0.012	79	0.066	0.3506±1.29	6.024±1.62	0.1246±0.83	0.0026±0.45	1938±22	1979±14	2023±15	96
c3-2	32	31	0.964	16	0.219	0.4018±2.24	7.731±3.46	0.1395±2.38	0.2732±2.76	2177±41	2200±31	2221±41	98
c11-1	578	227	0.392	211	1.205	0.3295±1.16	5.347±1.66	0.1177±1.04	0.1176±2.28	1836±19	1876±14	1921±19	96
c12-1	151	94	0.621	64	0.303	0.3754±1.38	6.850±1.87	0.1324±1.10	0.1699±1.71	2055±24	2092±17	2130±19	96
c13-1	152	64	0.423	57	0.085	0.3516±1.39	5.753±1.82	0.1187±1.01	0.1195±1.71	1942±23	1939±16	1936±18	100
c14-1	438	160	0.366	151	0.232	0.3232±1.19	5.493±1.46	0.1233±0.71	0.1090±1.49	1805±19	1900±13	2004±13	90
c15-1	245	100	0.408	88	0.226	0.3353±1.30	5.478±1.79	0.1185±1.08	0.1125±2.17	1864±21	1897±15	1933±19	96
c6-1	37	36	0.971	19	0.344	0.4174±2.29	8.067±3.35	0.1402±2.17	0.2786±2.49	2248±43	2239±30	2229±38	101
c16-1	298	109	0.365	195	0.075	0.5631±1.24	18.708±1.37	0.2409±0.46	0.1054±1.31	2880±29	3027±13	3126±7	92
c16-2	351	214	0.609	230	0.197	0.5256±1.21	18.403±1.35	0.2539±0.47	0.1842±0.86	2723±27	3011±13	3209±7	85
c17-1	362	88	0.243	129	0.081	0.3451±1.22	5.908±1.45	0.1242±0.66	0.0728±1.65	1911±20	1962±13	2017±12	95
c4-1	287	272	0.947	108	0.000	0.3117±1.25	5.182±1.50	0.1206±0.68	0.2751±0.75	1749±19	1850±13	1965±12	89
c18-1	468	254	0.542	173	0.036	0.3369±1.18	5.480±1.38	0.1180±0.58	0.1574±0.82	1872±19	1897±12	1926±10	97
c18-2	539	205	0.380	190	0.105	0.3346±1.16	5.434±1.38	0.1178±0.63	0.0994±1.32	1860±19	1890±12	1923±11	97
c5-1	57	45	0.800	27	0.062	0.4074±1.81	8.020±2.61	0.1428±1.67	0.2250±2.23	2203±34	2233±24	2261±29	97
c21-1	206	165	0.800	81	0.059	0.3369±1.32	5.387±1.68	0.1160±0.88	0.2343±1.01	1872±21	1883±14	1895±16	99
c20-1	284	317	1.117	121	0.019	0.3449±1.29	5.487±1.64	0.1154±0.86	0.3192±0.82	1910±21	1899±14	1886±16	101
c19-1	319	133	0.416	118	0.071	0.3475±1.23	5.588±1.49	0.1167±0.71	0.1172±1.22	1922±20	1914±13	1906±13	101
c19-2	197	106	0.538	69	0.054	0.3237±1.33	5.206±1.73	0.1166±0.95	0.1352±1.51	1808±21	1854±15	1905±17	95
c25-1	342	146	0.428	126	0.052	0.3458±1.22	5.563±1.47	0.1167±0.68	0.1190±1.14	1915±20	1910±13	1906±12	100
c7-1	286	4	0.013	102	0.075	0.3672±1.25	6.398±1.53	0.1264±0.75	0.0020±0.55	2016±22	2032±13	2048±13	98
c.7-2	17	16	0.907	9	0.000	0.4060±2.88	8.342±3.90	0.1490±2.29	0.2628±2.75	2196±54	2269±35	2335±39	94
c9-1	116	55	0.477	42	0.338	0.3344±1.52	5.289±2.45	0.1147±1.75	0.1329±3.11	1859±24	1867±21	1875±31	99

*Uailã red tuff – Uaimapuê Formation – Sample HC165*

g5-1	187	111	0.612	109	0.000	0.6795±0.80	25.8684±0.88	0.2761±0.36	0.1655±1.15	3343±21	3326±16	3341±6	100
g14-1	710	140	0.204	243	0.002	0.3982±0.31	7.4204±0.39	0.1352±0.23	0.0562±0.65	2161±6	2149±14	2166±4	100
g15-1	254	21	0.086	79	0.020	0.3601±0.46	6.0862±0.65	0.1226±0.45	0.0247±1.44	1982±8	1962±14	1994±8	99
g11-1	292	157	0.557	87	0.082	0.3487±1.25	5.6261±1.41	0.1170±0.65	0.1588±0.89	1928±21	1922±9	1911±12	101
g16-1	101	74	0.756	31	0.203	0.3625±1.45	6.0184±1.82	0.1204±1.10	0.2186±1.13	1994±25	1976±16	1962±20	102
g17-1	172	62	0.375	56	0.150	0.3815±1.30	6.9929±1.52	0.1329±0.78	0.1082±1.14	2083±23	2113±11	2137±14	97

g18-1	354	291	0.850	108	0.093	0.3554±1.18	5.8059±1.30	0.1185±0.54	0.2358±0.58	1960±20	1952± 8	1933±10	101
g19-1	131	71	0.561	39	0.007	0.3495±1.37	5.5651±1.64	0.1155±0.90	0.1605±1.15	1932±23	1921±12	1887±16	102
g20-1	222	189	0.881	63	0.237	0.3272±1.25	5.1380±1.51	0.1139±0.84	0.2574±0.73	1825±20	1844±10	1862±15	98
g21-1	219	98	0.461	67	0.060	0.3544±1.36	5.9635±1.59	0.1220±0.82	0.1320±0.99	1956±23	1973±11	1986±15	98
g13-1	144	103	0.735	47	0.152	0.3795±1.33	6.6872±1.61	0.1278±0.91	0.2082±0.94	2074±24	2070±18	2068±16	100
g12-1	113	132	1.215	34	0.034	0.3551±1.47	5.8665±1.72	0.1198±0.91	0.3384±0.88	1959±25	1955±19	1954±16	100

*Uailã green tuff – Uaimapué Formation – Sample HC377*

a1-1	283	57	0.209	90	0.206	0.3692±1.96	6.3046±2.10	0.1239±0.75	0.0615±1.26	2026±34	2047±15	2013±13	101
a9-1	214	84	0.405	62	0.169	0.3379±1.88	5.3279±2.00	0.1144±0.70	0.1139±1.14	1860±31	1891±20	1870±13	100
a8-1	277	194	0.723	77	0.028	0.3496±1.79	5.5305±1.84	0.1147±0.41	0.2028±0.79	1814±30	1923±12	1876± 7	103
a7-1	120	41	0.354	35	0.116	0.3325±2.49	5.1683±2.62	0.1127±0.80	0.0997±1.62	1893±40	1886±41	1844±14	100
a5-1	336	195	0.599	99	0.023	0.3414±2.01	5.3458±2.83	0.1136±1.99	0.1710±0.74	1895±33	1889±36	1857±36	102
a4-2	249	159	0.661	72	0.013	0.3250±1.86	5.1387±1.97	0.1147±0.65	0.1846±0.86	1876±29	1863±31	1875±12	97
a4-1	561	489	0.900	165	0.046	0.3346±1.89	5.2829±2.03	0.1145±0.75	0.2620±0.52	1895±31	1870±33	1872±13	99
a3-1	645	263	0.420	194	0.013	0.3417±1.84	5.3671±1.93	0.1139±0.58	0.1166±0.65	1933±30	1899±31	1863±11	102
a8-2	215	115	0.556	61	0.076	0.3315±0.81	5.2164±0.91	0.1141±0.41	0.1577±1.03	1851±13	1843±15	1866± 7	99
a12-1	752	397	0.545	214	0.162	0.3286±0.93	5.2040±1.15	0.1149±0.67	0.1512±0.50	1846±15	1854±17	1878±12	98
a3-2	228	84	0.380	64	0.048	0.3273±0.86	5.1874±1.00	0.1153±0.50	0.1100±0.91	1832±14	1836±16	1885± 9	97
a2-2	370	203	0.568	104	0.036	0.3366±0.80	5.3271±0.87	0.1148±0.35	0.1633±0.63	1820±13	1859±14	1877± 6	100
a9-2	358	267	0.770	104	0.027	0.3346±0.90	5.3193±1.05	0.1153±0.53	0.2215±1.21	1885±15	1870±17	1885±10	99
a4-3	850	826	1.004	246	0.019	0.3396±0.87	5.4602±0.99	0.1166±0.48	0.2853±0.47	1870±14	1872±16	1905± 9	99
a2-1	268	150	0.581	77	0.017	0.3417±1.80	5.3866±1.87	0.1143±0.49	0.1669±0.70	1861±30	1866±31	1869± 9	101

*Manga Brava Sill – Avanavero Suite – Sample RG184 (zircon)*

a4-1	1182	1500	1.312	323	0.021	0.3182±0.98	4.7896±1.03	0.1092±0.27	0.3731±0.26	1781±15	1791±16	1785± 5	100
a2-1	1577	1890	1.238	424	0.023	0.3129±1.04	4.6969±1.06	0.1089±0.24	0.3522±0.23	1755±16	1760±16	1781± 4	99
a5-1	2115	2442	1.194	582	0.001	0.3202±0.96	4.8176±0.85	0.1091±0.20	0.3407±1.18	1791±15	1784±15	1785± 4	100
a3-1	550	374	0.703	149	0.020	0.3156±0.98	4.7613±1.05	0.1094±0.39	0.2005±0.47	1768±15	1789±16	1790± 7	99

*Cipó Sill – Avanavero Suite – Sample NR531 (baddeleyite)*

h1-1	1063	13	0.012	395	2.293	0.3490±1.43	5.1814±2.29	0.1077±1.57	na	1930±24	1850±20	1760±30	110
h3-1	2425	38	0.016	849	0.257	0.3620±1.20	5.4538±1.47	0.1093±0.70	na	1991±21	1893±13	1787±13	111
h1-2	899	41	0.046	308	2.214	0.3270±0.72	4.8924±1.78	0.1085±1.56	na	1824±12	1801±15	1774±28	103
h3-2	1677	18	0.011	575	0.909	0.3461±1.01	5.2295±1.46	0.1096±1.03	na	1916±17	1857±12	1792±17	107
h1-3	1227	83	0.068	407	1.267	0.3264±1.19	4.8574±1.84	0.1079±1.26	na	1821±19	1795±15	1764±23	103
h1-4	1284	37	0.029	406	0.773	0.3206±1.14	4.7418±1.67	0.1073±1.63	na	1793±18	1775±14	1754±20	102
h3-3	2780	32	0.012	942	0.211	0.3505±1.04	5.3980±1.39	0.1117±0.79	na	1937±17	1885±12	1827±14	106
h3-4	3181	47	0.015	1058	0.253	0.3444±1.08	5.1688±1.45	0.1088±0.84	na	1908±18	1847±12	1780±15	107
h5-1	733	21	0.029	396	11.230	0.3972±0.87	2.1785±0.75	0.0398±0.73	na	2156±16	1174±52	0±49	∞
h4-1	979	13	0.014	337	3.911	0.3168±0.52	3.8890±2.32	0.1085±1.81	na	1774± 8	1611±19	1405±42	126

Notes: Isotopic ratios in % (1σ).

All Pb in ratios are radiogenic component. Sample NR531(baddeleyite) corrected for <sup>208</sup>Pb. Other samples for <sup>204</sup>Pb.

conc. = concordance, as  $100 \{ t^{206}\text{Pb} / t^{238}\text{U} \} / \{ t^{207}\text{Pb} / t^{206}\text{Pb} \}$

f206 = (common <sup>206</sup>Pb) / (total measured <sup>206</sup>Pb) based on measured <sup>204</sup>Pb (zircon) or <sup>208</sup>Pb (baddeleyite).

Uncertainties are 1σ; na= not applicable