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Supplementary table 2: Representative electron microprobe analyses of amphibole of the Pedra Branca Suite.

Classification	Tonalite														
Sample	AMR – 124 A (1)														
Analyses	C1_1	C1_2	C1_3	C2_4	C2_5	C2_6	C3_7	C3_8	C3_9	C4_10	C4_11	C4_12	C5_12	C5_13	C5_14
SiO ₂	42.25	42.16	42.34	42.61	42.50	42.50	43.02	42.62	42.99	42.71	42.45	42.86	42.96	39.58	42.94
TiO ₂	1.54	1.52	1.47	1.39	1.49	1.53	1.45	1.49	1.18	1.50	1.07	1.50	1.37	0.65	1.45
Al ₂ O ₃	9.67	9.44	9.51	9.33	8.99	9.49	9.09	9.47	9.44	9.61	10.43	9.23	9.34	13.64	9.36
Fe ₂ O ₃	3.73	3.34	3.72	3.64	3.59	3.05	3.05	4.88	3.42	3.75	3.88	2.67	2.85	2.99	2.97
FeO	16.90	16.95	17.02	16.56	16.91	17.41	17.04	16.29	16.76	16.54	16.17	17.79	17.44	17.61	17.12
MnO	0.16	0.31	0.22	0.23	0.11	0.12	0.21	0.26	0.14	0.17	0.21	0.18	0.26	0.33	0.08
MgO	8.72	8.83	8.56	8.92	8.81	8.76	8.76	8.68	8.83	8.67	8.59	8.56	8.77	6.86	8.66
CaO	11.59	11.73	11.57	11.61	11.54	11.73	11.57	11.61	11.62	11.48	11.54	11.53	11.66	11.65	11.40
Na ₂ O	1.70	1.59	1.63	1.59	1.62	1.65	1.45	1.44	1.47	1.50	1.53	1.73	1.64	1.69	1.55
K ₂ O	1.10	1.08	1.11	1.00	1.06	1.16	1.03	1.05	1.01	1.01	1.08	1.05	1.08	1.54	1.08
Cl	0.70	0.73	0.66	0.47	0.62	0.60	0.56	0.63	0.65	0.65	0.61	0.61	0.60	1.02	0.65
H ₂ O	1.78	1.77	1.79	1.83	1.79	1.81	1.81	1.81	1.79	1.79	1.81	1.80	1.81	1.67	1.79
Subtotal	99.93	99.63	99.65	99.27	99.17	99.83	99.06	100.2	99.36	99.37	99.41	99.53	99.93	99.41	99.04

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O=Cl	0.16	0.16	0.15	0.11	0.14	0.14	0.13	0.14	0.15	0.15	0.14	0.14	0.13	0.23	0.15
Total	99.77	99.46	99.50	99.17	99.03	99.69	98.93	100.1	99.22	99.22	99.27	99.40	99.79	99.18	98.90

Number of cations per formula unit based on twenty three oxygen atoms

Si	6.469	6.483	6.500	6.537	6.549	6.510	6.610	6.491	6.585	6.541	6.491	6.580	6.567	6.146	6.599
Al ^{IV}	1.531	1.517	1.500	1.463	1.451	1.490	1.390	1.509	1.415	1.459	1.509	1.420	1.433	1.854	1.401
Al ^{VI}	0.214	0.195	0.221	0.223	0.180	0.222	0.256	0.190	0.290	0.275	0.370	0.249	0.249	0.643	0.293
Ti	0.177	0.175	0.169	0.160	0.173	0.176	0.168	0.171	0.135	0.172	0.124	0.173	0.157	0.076	0.168
Fe ⁺³	0.430	0.386	0.430	0.421	0.416	0.351	0.352	0.560	0.394	0.432	0.447	0.309	0.328	0.350	0.343
Fe ⁺²	2.164	2.180	2.185	2.125	2.178	2.230	2.189	2.075	2.147	2.119	2.068	2.283	2.230	2.287	2.200
Mn	0.021	0.040	0.028	0.030	0.015	0.015	0.028	0.034	0.018	0.022	0.027	0.023	0.033	0.044	0.010
Mg	1.991	2.024	1.958	2.040	2.024	1.999	2.006	1.971	2.015	1.980	1.959	1.960	1.997	1.589	1.985
Ca	1.900	1.933	1.904	1.908	1.906	1.924	1.905	1.895	1.907	1.883	1.890	1.897	1.910	1.938	1.878
Na	0.504	0.473	0.486	0.473	0.483	0.490	0.433	0.424	0.437	0.444	0.454	0.515	0.485	0.508	0.462
K	0.216	0.211	0.217	0.196	0.207	0.226	0.202	0.205	0.197	0.197	0.211	0.206	0.211	0.305	0.212
Cl	0.183	0.189	0.171	0.122	0.162	0.156	0.146	0.163	0.168	0.169	0.159	0.159	0.155	0.268	0.169
OH	1.817	1.811	1.829	1.878	1.838	1.844	1.854	1.837	1.832	1.831	1.841	1.841	1.845	1.732	1.831
Al total	1.745	1.712	1.722	1.686	1.632	1.712	1.645	1.699	1.705	1.735	1.879	1.670	1.682	2.497	1.694

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Fe/(Fe+Mg)*	0.526	0.528	0.534	0.517	0.522	0.531	0.529	0.521	0.520	0.522	0.520	0.544	0.535	0.601	0.528
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*Fe = Fe + Mn.

Fe²⁺ and Fe³⁺ was calculated using excel spreadsheets based on structural formula using 13 CNK (see section 3.3.1)

