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Title of article Isotopic studies of the late Archean plutonic rocks of the Wind River Range, Wyoming

Author(s) J. S. Stuckless et al.

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Table ~~1~~ A.--Uranium, thorium, and lead concentrations and the isotopic composition of lead for whole-rock samples and potassium feldspar separates (kf) from Late Archean plutonic rocks in the Wind River Range, Wyoming [Analyst: I. T. Nkomo; isotopic compositions are corrected for a mass discrimination of 0.15 percent per atomic mass unit]

Sample Name	U (ppm)	Th (ppm)	Pb (ppm)	$^{206}Pb/^{204}Pb$	$^{207}Pb/^{204}Pb$	$^{208}Pb/^{204}Pb$
LLB-1	3.08	11.24	46.54	19.371	16.115	35.398
	3.05	10.96	46.60	19.350	16.117	35.403
LLB-2	2.32	14.20	23.61	17.440	15.606	38.821
	2.36	14.20	23.80	---	---	---
LLB-3	2.12	7.67	11.78	20.732	16.180	39.573
	---	---	---	20.740	16.188	39.591
LLB-4	2.56	15.93	21.46	18.339	15.755	40.073
LLB-7	3.37	20.68	19.31	19.841	16.040	43.985
LLB-8	6.04	61.20	30.73	21.052	16.274	56.591
LLB-9	3.44	44.91	38.67	34.183	18.589	48.171
PRM-1	3.65	59.74	30.92	20.014	16.090	55.346
	3.71	62.88	33.61	19.994	16.081	55.397
PRM-2	0.95	25.46	21.38	15.541	15.280	44.352
	---	---	---	15.562	15.294	44.314
PRM-6	4.32	51.78	24.02	22.074	16.421	59.838
GPA-1	3.15	29.17	33.16	18.455	15.801	42.031
GPA-6	2.76	18.85	29.80	17.356	15.612	39.198
BW-3	2.11	36.51	25.52	17.209	15.601	48.134
BW-4	1.37	16.49	23.23	17.396	15.602	40.418
BW-5	0.94	49.50	26.78	15.510	15.272	53.085
	---	---	---	15.509	15.259	53.064
BW-7	2.48	9.50	20.66	17.726	15.686	37.703
BW-9	2.25	47.59	42.04	16.761	15.508	44.553
BW-11	2.67	23.97	18.21	20.405	16.073	47.976
BW-19	1.15	7.45	15.39	17.074	15.534	37.995
BW-24	0.44	11.40	14.52	15.260	15.225	40.431
BW-26kf	---	---	---	15.206	15.331	34.937

Table 1.--Uranium, thorium, and lead concentrations and the isotopic composition of lead for whole-rock samples and potassium feldspar separates (kf) from Late Archean plutonic rocks in the Wind River Range, Wyoming--continued

Sample Name	U (ppm)	Th (ppm)	Pb (ppm)	$^{206}Pb/^{204}Pb$	$^{207}Pb/^{204}Pb$	$^{208}Pb/^{204}Pb$
BEP-1	4.25	35.04	13.05	28.800	17.633	65.784
	4.65	35.68	12.97	28.799	17.632	65.769
	---	---	---	28.899	17.690	66.618
BEP-2	0.80	6.34	17.96	16.498	15.529	37.749
BEP-3	1.20	13.92	24.57	16.990	15.627	40.003
BEP-4	6.79	86.70	31.99	28.381	17.558	73.944
GPA-2	4.93	33.47	41.03	25.266	17.068	43.190
GPA-3	2.67	41.38	38.35	17.553	15.717	44.812
GPA-4	5.85	74.04	37.40	31.832	18.184	61.904
GPA-5	1.48	14.95	24.89	19.102	16.029	36.973
	---	---	---	19.125	16.031	37.006
GPA-7	6.43	47.76	34.25	20.934	16.362	43.097
	6.49	48.06	34.81	21.038	16.446	43.435
GPA-8	2.18	25.53	20.30	18.989	16.012	47,450
	---	---	---	18.985	15.929	47.238
GPA-9	2.68	81.11	44.76	18.539	15.880	54.164
	---	---	---	18.528	15.879	54.323
GPA-10	8.67	52.80	37.75	31.670	18.141	52.021
GPA-11	3.46	46.41	28.96	23.950	16.771	49.918
GPA-12	2.16	63.97	38.30	17.463	15.707	51.095
	---	---	---	17.481	15.748	51.058
GPA-13	0.83	19.67	15.89	18.758	15.930	47.439
PRM-7	1.92	14.54	29.30	26.036	17.183	39.633
BW-16	3.15	71.23	27.86	19.332	16.015	66.307
BW-18	1.58	41.27	25.02	16.789	15.577	50.751
GPA-2kf	---	---	---	15.436	15.380	35.013
GPA-3kf	---	---	---	16.742	15.587	36.788
GPA-4kf	---	---	---	15.215	15.314	34.969

Table 2.--Rubidium and strontium concentrations and the isotopic composition of strontium in Late Archean plutonic rocks in the Wind River Range, Wyoming [Analyst: K. Futa; isotopic compositions are normalized to a $^{86}Sr/^{88}Sr$ value of 0.1194]

Sample Name	Rb (ppm)	Sr (ppm)	$\frac{^{87}Rb}{^{86}Sr}$	$\frac{^{87}Sr}{^{86}Sr}$
BW-15	118	359	0.9517	0.7380
BW-18	89.2	311	0.8340	0.7339
BEP-2	110	230	1.577	0.7593
BEP-4	166	212	2.280	0.7874
PRM-7	212	72.1	8.759	1.0201
GPA-10	166	144	3.374	0.8241
GPA-12	157	100	4.639	0.8725
BW-5	78.7	541	0.4220	0.7174
BW-9	198	146	3.980	0.8533
BW-11	96.2	507	0.5505	0.7226
BW-22	80.3	459	0.5075	0.7201
BW-24	52.0	871	0.1730	0.7088
GPA-5	233	109	6.322	0.9804
GPA-6	114	520	0.6360	0.7268
GPA-11	172	68.7	7.426	0.9485
PRM-6	122	878	0.4030	0.7172
LLB-8	173	286	1.759	0.7686

Table 3.--Isotopic composition in parts per thousand relative to SMOW (standard mean ocean water) for whole-rock samples and quartz separates from Late Archean plutonic rocks of the Wind River Range, Wyoming [Analysts: D. B. Wenner and K. K. Cheang]

Sample name	$\delta^{18}O$ Rock	$\delta^{18}O$ Quartz	Sample name	$\delta^{18}O$ Rock	$\delta^{18}O$ Quartz
		Bears Ears pluton			
BEP-1	5.9	---	GPA-7	6.6	---
BEP-2	8.0	---	GPA-10	7.4	---
BEP-3	7.5	---	GPA-11	6.6	---
BEP-4	7.3	---	GPA-12	7.6	---
GPA-4	7.1	---	GPA-13	7.2	---
GPA-5	5.6	---	PRM-9	7.1	---
		Louis Lake batholith			
BW-3	7.7	---	LLB-4	7.3	9.3
BW-5	8.0	---	LLB-5	8.0	9.5
BW-11	6.8	---	LLB-6	7.6	---
GPA-6	7.0	---	LLB-7	7.1	---
PRM-10	7.6	9.8	LLB-8	7.4	---
PRM-11	7.3	9.3	LLB-9	7.4	---
PRM-12	7.5	---	LLB-10	7.4	---
PRM-13	6.7	9.8	LLB-11	6.9	---
PRM-14	6.8	---	LLB-12	7.8	---
LLB-1	7.6	---	LLB-13	7.9	---
LLB-2	7.4	9.5	LLB-14	7.8	---
LLB-3	7.5	---	LLB-15	7.5	---

Table 4.--Uranium, thorium, and lead concentrations and the isotopic composition of lead for zircons separated from samples of the Bears Ears pluton, Wind River Range, Wyoming [Analyst: K. R. Simmons]

Sample Name	U (ppm)	Th (ppm)	Pb (ppm)	$^{206}Pb/^{204}Pb$	$^{207}Pb/^{204}Pb$	$^{208}Pb/^{204}Pb$
RGW-79-1						
+200 mag	1470	651.9	325.9	1093.8	198.50	132.90
+200 nm	916.3	433.5	202.2	1541.4	277.87	199.05
-200 mag	1437	565.4	281.4	709.96	132.04	92.956
-200 nm	528.1	256.2	89.75	1218.2	223.34	155.64
BW-26						
+100 mag	1615	2188	623.9	71.190	24.794	59.572
+100 nm	1154	1682	489.2	95.637	29.266	61.478
-200 mag	3020	1969	572.2	66.630	23.446	59.645
-200 nm	1685	1301	678.8	114.50	31.500	76.379

Numbers for the zircon fractions correspond to mesh sizes and abbreviations are for the most magnetic (mag) and least magnetic (nm) fractions.