TABLE DR1. NEW $^{40}Ar/^{39}Ar$ GEOCHRONOLOGY DATA

Sample	Lab*	Sampler[†]	Mt.[§]	Longitude[#]	Latitude[#]	J value	±1σ (%)	Step	T (K)** *P (W)*	$^{40}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}Ar (%)	$^{40}Ar^*$ (%)	K/Ca	$^{39}Ar_K$ (x10^{-15} mol)	Age[††] (Ma)	±1σ[§§] (Ma)
GFZ080603-1	MIT	FM	bt	-117.6015	35.4666	0.0033500	0.20	A	0.7	4.438	112.286	6.2	40.7	17.40	37.731	10.88	1.04
								B	1	4.288	117.024	7.0	41.1	20.52	41.871	10.63	0.93
								C	1.39	2.994	256.663	10.6	61.4	33.09	42.533	11.1	0.56
								D	1.9	2.499	464.563	13.8	74.4	39.46	45.801	11.22	0.38
								E	2.5	2.726	346.747	9.9	68.6	27.54	35.638	11.29	0.55
								F	3.4	2.919	272.300	3.4	62.7	28.07	13.262	11.05	1.50
								G	5	3.162	219.531	6.0	57.3	30.16	25.65	10.94	0.92
								H	12	2.758	309.005	43.1	65.2	13.53	163.151	10.85	0.29
LV030710-4[##]	NMT	JA	pl	-117.4079	35.4850	0.0023488	0.06	4	N.A.	3.265	4.435	N.A.	64.0	0.30	2.00	8.823	0.342
			pl					3	N.A.	4.475	7.523	N.A.	54.5	0.22	2.20	10.302	0.368
			pl					9	N.A.	4.582	7.628	N.A.	53.9	0.29	2.24	10.422	0.322
			pl					5	N.A.	4.606	7.635	N.A.	55.0	0.23	2.37	10.691	0.306
			pl					6	N.A.	15.79	45.351	N.A.	16.0	0.27	2.41	10.703	0.549
			pl					7	N.A.	6.373	13.233	N.A.	41.1	0.26	3.79	11.064	0.294
			sn					11	N.A.	3.159	1.731	N.A.	83.8	28.90	19.9	11.147	0.052
			sn					14	N.A.	3.709	3.58	N.A.	71.5	21.52	29.3	11.165	0.055
			sn					8	N.A.	3.021	1.241	N.A.	87.9	23.46	9.33	11.178	0.085
			sn					15	N.A.	2.985	1.097	N.A.	89.2	12.55	14.3	11.211	0.068
			sn					13	N.A.	2.735	0.24	N.A.	97.4	49.26	15.1	11.216	0.053
			sn					1	N.A.	3.207	1.824	N.A.	83.2	42.25	21.5	11.234	0.05
			sn					10	N.A.	2.792	0.412	N.A.	95.7	31.19	30.2	11.242	0.032
			sn					12	N.A.	2.949	0.936	N.A.	90.6	43.52	14.2	11.249	0.06
			sn					2	N.A.	2.967	0.985	N.A.	90.2	16.50	17.0	11.273	0.049
LV030710-5	NMT	JA	pl	-117.4010	35.4825	0.0023482	0.08	A	*3*	845.9	2852.	11.2	0.5	0.04	3.00	18.0	15.0
								B	*5*	296.4	993.8	23.1	1.2	0.05	3.20	15.0	5.3
								C	*7*	10.63	23.21	41.5	42.0	0.06	4.93	18.91	0.38
								D	*9*	5.761	7.122	72.7	76.2	0.06	8.35	18.6	0.28
								E	*11*	7.057	11.87	82.9	63.6	0.05	2.75	19.05	0.55
								F	*15*	7.593	16.21	91.1	56.9	0.03	2.19	18.44	0.73
								G	*20*	7.839	18.6	95.6	62.3	0.02	1.21	21.0	1.2
								H	*25*	6.966	14.5	97.8	74.6	0.02	0.596	22.3	1.5
								I	*30*	10.72	25.17	99.2	54.8	0.02	0.367	25.2	2.5
								J	*35*	10.84	31.49	100.0	38.8	0.02	0.216	18.1	3.8

TABLE A1. (CONTINUED)

Sample	Lab*	Sampler†	Mt.§	Longitude#	Latitude#	J value	±1σ (%)	Step	T (K)** *P (W)*	$^{40}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}Ar (%)	$^{40}Ar^*$ (%)	K/Ca	$^{39}Ar_K$ (x10^{-15} mol)	Age†† (Ma)	±1σ§§ (Ma)
LV030710-7	NMT	JA	gm	-117.4144	35.4970	0.0023344	0.06	A	*3*	31.23	102.9	1.7	2.8	0.93	1.78	3.66	1.0
								B	*5*	17.83	51.22	15.0	15.3	1.00	13.9	11.44	0.35
								C	*7*	12.88	34.52	32.5	21.4	0.54	18.4	11.55	0.24
								D	*9*	10.97	28.2	59.7	25.4	0.26	28.4	11.72	0.19
								E	*11*	9.96	25.13	69.7	30.4	0.08	10.57	12.75	0.31
								F	*15*	11.25	29.59	83.1	24.5	0.17	13.96	11.57	0.27
								G	*20*	11.56	31.51	93.8	23.0	0.10	11.19	11.21	0.3
								H	*25*	11.35	30.55	96.8	25.7	0.07	3.21	12.31	0.48
								I	*30*	11.38	30.72	98.9	25.7	0.07	2.13	12.32	0.65
								J	*35*	11.49	31.36	100.0	25.3	0.06	1.20	12.3	1.0
LV031510	NMT	JA	gm	-117.4063	35.5020	0.0023332	0.06	A	*3*	93.18	310.2	0.7	1.7	0.57	1.62	6.7	2.3
								B	*5*	38.29	116.8	6.7	9.9	0.77	14.2	15.97	0.68
								C	*7*	5.070	1.046	32.5	94.9	0.80	61.3	20.117	0.048
								D	*9*	4.705	0.362	82.8	98.8	0.86	119.	19.423	0.034
								E	*11*	4.785	0.731	93.6	96.4	1.00	25.7	19.271	0.063
								F	*15*	5.199	1.973	96.1	89.9	0.69	5.95	19.55	0.21
								G	*20*	5.708	3.223	97.2	84.5	0.63	2.57	20.16	0.45
								H	*25*	6.008	4.451	98.1	79.2	0.62	2.11	19.9	0.54
								I	*30*	6.588	6.065	99.0	73.8	0.63	2.14	20.33	0.56
								J	*35*	8.043	11.05	100.0	60.2	0.62	2.40	20.25	0.53
LV040910	NMT	JA	gm	-117.3586	35.5113	0.0023432	0.06	A	*3*	53.77	171.1	1.2	6.0	2.30	2.54	13.6	1.3
								B	*5*	21.43	56.46	10.1	22.2	2.70	19.5	20.0	0.35
								C	*7*	11.08	21.48	25.1	42.8	2.30	33.0	19.92	0.16
								D	*9*	10.01	18.44	58.7	45.9	1.10	73.6	19.28	0.13
								E	*11*	10.46	20.17	72.6	43.5	0.71	30.4	19.12	0.15
								F	*15*	12.78	27.59	85.7	36.6	0.68	28.7	19.68	0.2
								G	*20*	12.13	25.41	92.2	38.7	0.56	14.4	19.73	0.22
								H	*25*	12.42	26.18	95.3	38.3	0.54	6.79	20.01	0.3
								I	*30*	12.79	27.48	97.9	37.1	0.50	5.54	19.97	0.33
								J	*35*	14.54	33.89	100.0	31.6	0.53	4.66	19.33	0.44

TABLE A1. (CONTINUED)

Sample	Lab*	Sampler†	Mt.§	Longitude#	Latitude#	J value	±1σ (%)	Step	T (K)** *P (W)*	$^{40}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}Ar (%)	$^{40}Ar^*$ (%)	K/Ca	$^{39}Ar_K$ (x10^{-15} mol)	Age†† (Ma)	±1σ§§ (Ma)
LV051210-5	NMT	JA	pl	-117.3352	35.4256	0.0023424	0.07	A	*3*	715.1	2400.	5.3	0.9	0.09	2.21	27.0	13.0
								B	*5*	93.36	304.5	9.1	4.2	0.08	1.56	16.4	2.2
								C	*7*	6.280	7.881	14.9	72.7	0.07	2.45	19.25	0.53
								D	*9*	10.47	22.86	39.7	42.0	0.06	10.3	18.57	0.31
								E	*11*	29.40	86.34	56.3	15.6	0.06	6.92	19.35	0.65
								F	*15*	9.376	18.18	79.5	51.1	0.05	9.68	20.25	0.35
								G	*20*	9.854	21.00	89.8	44.5	0.06	4.29	18.55	0.48
								H	*25*	5.171	4.465	96.6	90.7	0.05	2.83	19.81	0.77
								I	*30*	5.151	5.187	98.3	87.3	0.05	0.708	19.0	1.6
								J	*35*	5.109	4.23	100.0	92.4	0.05	0.693	20.0	1.6
LV051210-6	NMT	JA	gm	-117.3189	35.4272	0.0023472	0.06	A	*3*	238.7	802.2	1.0	0.7	0.39	0.931	7.5	5.2
								B	*5*	32.17	98.27	6.5	10.3	0.24	5.09	13.93	0.72
								C	*7*	4.375	5.818	17.1	64.7	0.23	9.90	11.95	0.18
								D	*9*	3.335	2.371	51.0	83.7	0.26	31.6	11.768	0.081
								E	*11*	3.242	2.006	70.0	84.6	0.44	17.7	11.555	0.096
								F	*15*	3.758	3.901	84.8	72.8	0.31	13.8	11.54	0.13
								G	*20*	4.995	8.981	91.9	54.1	0.11	6.68	11.43	0.25
								H	*25*	6.433	14.44	95.2	42.0	0.08	3.05	11.43	0.48
								I	*30*	8.146	20.41	97.4	33.3	0.07	2.04	11.51	0.68
								J	*35*	8.929	23.48	100.0	29.5	0.07	2.44	11.16	0.59
SD060810-1	NMT	FM	gm	-117.6055	35.4656	0.0023474	0.07	A	*3*	88.39	299.5	3.2	- 0.1	1.40	4.64	- 0.4	1.7
								B	*5*	50.55	160.0	26.8	6.5	2.00	34.5	13.89	0.86
								C	*7*	29.74	89.33	54.1	11.5	0.50	39.8	14.44	0.49
								D	*9*	12.29	32.10	75.2	25.0	0.15	30.9	13.01	0.23
								E	*11*	5.263	8.713	90.6	54.1	0.26	22.4	12.01	0.15
								F	*15*	5.077	8.152	95.9	54.9	0.34	7.74	11.76	0.33
								G	*20*	7.325	14.67	97.4	42.8	0.28	2.25	13.2	1.1
								H	*25*	8.843	19.54	98.4	36.5	0.26	1.51	13.6	1.6
								I	*30*	9.574	22.83	99.2	31.1	0.26	1.176	12.6	2.1
								J	*35*	9.740	23.49	100.0	30.3	0.27	1.102	12.4	2.2
SD120905-1	NMT	FM	gm	-117.6192	35.4560	0.0007459	0.07	A	625	8414.	28249.	0.3	0.8	1.20	0.246	87.0	59.0
								B	700	48.31	144.9	12.0	11.5	0.85	10.5	7.46	0.33
								C	750	31.89	88.99	21.6	17.7	0.69	8.69	7.6	0.28
								D	800	34.16	96.65	27.7	16.6	0.53	5.41	7.63	0.33
								E	875	33.85	94.87	40.9	17.5	0.43	11.9	7.95	0.23
								F	975	37.51	108.1	53.5	15.2	0.37	11.3	7.66	0.26
								G	1075	52.91	158.9	67.6	11.4	0.40	12.7	8.12	0.36
								H	1250	85.04	266.0	86.0	7.8	0.18	16.4	8.95	0.52
								I	1700	86.69	265.5	100.0	9.7	0.20	12.6	11.34	0.54

TABLE A1. (CONTINUED)

Sample	Lab*	Sampler†	Mt.§	Longitude#	Latitude#	J value	±1σ (%)	Step	T (K)** *P (W)*	$^{40}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}Ar (%)	$^{40}Ar^*$ (%)	K/Ca	$^{39}Ar_K$ (x10^{-15} mol)	Age†† (Ma)	±1σ§§ (Ma)
SD120905-2	NMT	FM	gm	-117.6405	35.4477	0.0007480	0.10	A	625	24388.	80807.	0.0	2.1	2.70	0.038	583.	157.0
								B	700	42.15	125.5	3.5	12.3	0.46	3.65	6.97	0.41
								C	750	14.25	27.91	7.6	42.7	0.53	4.37	8.19	0.21
								D	800	8.914	12.23	9.3	60.4	0.52	1.76	7.25	0.32
								E	875	6.177	2.401	34.2	90.0	0.45	26.3	7.497	0.037
								F	975	5.867	1.686	63.9	92.8	0.54	31.4	7.341	0.029
								G	1075	6.938	5.163	83.7	78.7	0.87	20.9	7.358	0.046
								H	1250	14.96	32.47	95.7	36.7	0.34	12.7	7.41	0.13
								I	1700	33.27	91.24	100.0	19.4	0.26	4.51	8.72	0.31
SD040910-1	NMT	FM	gm	-117.5948	35.4587	0.0023431	0.06	A	*3*	42.76	160.7	0.3	-10.7	0.29	0.464	-19.5	2.6
								B	*5*	38.24	121.2	2.4	8.2	0.06	3.41	13.3	1.2
								C	*7*	14.43	38.03	9.1	22.8	0.40	10.8	13.85	0.38
								D	*9*	5.043	7.271	23.0	62.4	0.16	22.5	13.26	0.16
								E	*11*	4.309	4.427	38.2	74.6	0.20	24.6	13.52	0.14
								F	*15*	3.461	1.800	70.1	87.5	0.42	51.6	12.728	0.068
								G	*20*	3.364	1.589	87.2	87.7	0.76	27.6	12.39	0.1
								H	*25*	3.705	2.507	94.2	81.9	0.58	11.2	12.76	0.22
								I	*30*	4.170	4.050	98.0	73.4	0.47	6.22	12.86	0.39
								J	*35*	5.062	6.758	100.0	62.6	0.38	3.22	13.34	0.76

Notes: Isotopic ratios corrected for blank, radioactive decay, and mass discrimination, not corrected for interfering reactions. Decay constants and isotopic abundances after Steiger and Jäger (1977). Decay Constant (λ_K (total)) = 5.543e-10/a

*samples analyzed at either Massachusetts Institute of Technology (MIT) or New Mexico Tech (NMT).

†Samples collected by FM = Francis Monastero; or JA = Joseph Andrew.

§Mt = Material analyzed: biotite (bt), groundmass (gm), hornblende (hb), plagioclase (pl) or sanidine (sn)

#Coordinates based on North American Datum of 1983

**Most samples were analyzed via step-heating, this is reported in either temperature in Kelvin or by the Watts of laser power. The power values are in italics.

††Ages calculated relative to FC-2 Fish Canyon Tuff interlaboratory standard: 28.02 Ma for samples analyzed at NMT and 28.34 Ma for samples analyzed at MIT

§§Errors quoted for individual analyses include analytical error only, without interfering reaction or J uncertainties.

##This sample contained sanidine and was analyzed by laser fusion, several of the picked fractions were plagioclase, these were excluded from age calculations

TABLE DR2: U-Pb GEOCHRONOLOGY DATA

				Composition				Isotopic Ratios									Dates (Ma)						
Sample	Longitude[†]	Latitude[†]	Fx[§]	Th/U[#]	Pb* (pg)[††]	Pb_c (pg)[§§]	Pb*/Pb_c[##]	$^{206}Pb/^{204}Pb$[†††]	$^{206}Pb/^{238}U$[§§§]	±2σ (%)	$^{207}Pb/^{235}U$[§§§]	±2σ (%)	$^{207}Pb/^{206}Pb$[§§§]	±2σ (%)	Corr. coef.	$^{206}Pb/^{238}U$[###]	±2σ (%)	$^{207}Pb/^{235}U$[###]	±2σ (%)	$^{207}Pb/^{206}Pb$[###]	±2σ (%)	Disc. (%)[††††]
LV051810-8	-117.4751	35.4488	z1	0.46	0.67	0.42	1.58	114	0.0009949	0.49	0.0062752	8.03	0.04574	7.68	0.729	6.410	0.03	6.352	0.51	- 15.8	186	141
			z2	0.52	0.88	0.73	1.21	90	0.0010046	0.85	0.0067234	15.41	0.04854	14.70	0.842	6.473	0.06	6.804	1.04	125.5	346	95
			z3	0.44	0.35	0.55	0.64	57	0.0010065	1.39	0.0063600	21.73	0.04583	20.65	0.791	6.485	0.09	6.437	1.39	- 11.4	499	157
LV050810-4	-117.4456	35.4361	z1	0.47	0.30	0.45	0.66	58	0.0010473	1.24	0.0062858	20.45	0.04353	19.46	0.813	6.748	0.08	6.362	1.30	-137.2	482	105
			z2	0.60	0.24	0.41	0.58	52	0.0009913	1.37	0.0070434	20.54	0.05153	19.46	0.803	6.387	0.09	7.127	1.46	264.6	447	98
			z4	0.52	0.20	0.51	0.39	42	0.0010070	1.98	0.0068976	30.19	0.04968	28.67	0.780	6.488	0.13	6.980	2.10	179.9	668	96
JDW-22	-117.5294	35.4625	z7	0.64	1.90	3.24	0.59	52	0.0011998	1.19	0.0079728	18.93	0.04820	18.01	0.786	7.730	0.09	8.063	1.52	108.9	425	93
			z24	0.50	1.95	7.05	0.28	35	0.0012097	2.56	0.0095815	33.27	0.05745	31.30	0.788	7.793	0.20	9.683	3.21	508.7	688	98
			z25	0.25	1.21	3.94	0.31	38	0.0011866	2.07	0.0058443	43.74	0.03572	42.09	0.804	7.645	0.16	5.917	2.58	-652.2	1157	101
			z26	0.41	5.24	12.68	0.41	43	0.0012114	1.61	0.0089045	22.68	0.05331	21.41	0.803	7.804	0.13	9.001	2.03	342.1	485	98
			z28	0.37	2.59	3.58	0.72	63	0.0011879	0.99	0.0070102	17.77	0.04280	16.99	0.808	7.653	0.08	7.093	1.26	-179.1	424	104
JDW-20	-117.4894	35.4411	z4	0.77	2.49	2.56	0.97	73	0.0011370	0.76	0.0070157	12.70	0.04475	12.10	0.803	7.325	0.06	7.099	0.90	- 69.1	296	111
			z5	0.47	1.69	1.75	0.96	76	0.0011468	0.73	0.0073894	11.43	0.04673	10.86	0.798	7.389	0.05	7.475	0.85	35.5	260	79
			z23	0.83	3.77	1.83	2.06	132	0.0011507	0.40	0.0072675	6.11	0.04580	5.83	0.717	7.414	0.03	7.353	0.45	- 12.7	141	159
			z21	0.52	1.71	2.66	0.64	57	0.0011557	0.98	0.0073469	17.36	0.04611	16.63	0.749	7.446	0.07	7.433	1.29	3.2	401	-132
LV050710	-117.4162	35.4828	z5	0.49	3.19	4.25	0.75	63	0.0016116	1.02	0.0106026	14.57	0.04771	13.79	0.785	10.381	0.11	10.709	1.55	85.1	327	88
			z8	0.40	1.86	2.60	0.72	62	0.0016148	0.93	0.0099583	15.46	0.04473	14.73	0.797	10.401	0.10	10.061	1.55	- 70.5	360	115
			z9	0.23	3.54	7.40	0.48	49	0.0015962	1.37	0.0090666	26.46	0.04120	25.38	0.796	10.281	0.14	9.165	2.41	-275.4	646	104
			z10	0.40	1.91	5.61	0.34	39	0.0016251	1.94	0.0107687	30.78	0.04806	29.25	0.802	10.468	0.20	10.876	3.33	102.2	692	90
			z4	0.51	2.66	4.45	0.60	54	0.0016287	1.30	0.0117280	17.54	0.05223	16.55	0.773	10.490	0.14	11.839	2.06	295.3	378	96
LV031410-B	-117.4314	35.4805	z1	0.38	1.65	3.62	0.45	47	0.0017067	1.45	0.0108419	16.80	0.04607	15.81	0.705	10.993	0.16	10.949	1.83	1.4	381	-679
			z11	0.51	3.76	15.55	0.24	33	0.0017211	2.86	0.0117268	28.56	0.04942	26.69	0.685	11.085	0.32	11.838	3.36	167.7	623	93
			z12	0.36	1.18	0.80	1.49	113	0.0016853	0.55	0.0111675	6.09	0.04806	5.72	0.694	10.855	0.06	11.276	0.68	102.2	135	89
			z13	0.39	1.22	1.23	0.99	81	0.0016914	0.69	0.0107471	7.72	0.04608	7.25	0.707	10.894	0.07	10.854	0.83	2.0	175	-447
			z14	0.28	1.09	2.64	0.41	46	0.0016593	1.58	0.0098463	19.54	0.04304	18.45	0.712	10.688	0.17	9.949	1.93	-165.5	459	106
CINCO	-118.0418	35.3150	z2b	0.45	5.94	3.98	1.49	110	0.0017660	0.69	0.0115673	7.71	0.04753	7.27	0.658	11.374	0.08	11.678	0.90	74.7	173	85
			z3b	0.36	4.66	7.33	0.64	58	0.0017514	1.15	0.0118858	16.03	0.04924	15.16	0.767	11.280	0.13	11.997	1.91	158.3	355	93
			z5b	0.37	2.00	4.05	0.49	49	0.0017533	1.47	0.0115114	22.20	0.04764	21.04	0.801	11.293	0.17	11.622	2.57	80.3	500	86
			z7b	0.38	11.79	3.89	3.03	207	0.0017540	0.25	0.0113774	3.71	0.04707	3.53	0.742	11.297	0.03	11.487	0.42	51.5	84	78
			z8b	0.57	4.14	4.51	0.92	73	0.0017620	0.79	0.0107009	13.61	0.04405	12.98	0.809	11.348	0.09	10.808	1.46	-108.1	319	111
			z9b	0.41	3.14	4.10	0.77	66	0.0017685	0.90	0.0112248	14.55	0.04605	13.84	0.807	11.391	0.10	11.334	1.64	-0.7	334	1827
			z10b	0.41	8.91	5.31	1.68	122	0.0017703	0.43	0.0115586	6.48	0.04738	6.16	0.777	11.402	0.05	11.669	0.75	67.1	147	83
			z11b	0.37	4.86	4.19	1.16	91	0.0017423	0.75	0.0100740	11.08	0.04195	10.45	0.856	11.222	0.08	10.178	1.12	-230.5	263	105
			z12b	0.37	3.60	8.96	0.40	44	0.0017521	1.62	0.0113693	25.82	0.04708	24.54	0.801	11.285	0.18	11.479	2.95	52.3	586	78
			z13b	0.41	4.38	8.33	0.53	51	0.0017324	1.35	0.0091088	24.96	0.03815	23.85	0.828	11.158	0.15	9.207	2.29	-475.9	632	102
			z14b	0.49	3.61	7.05	0.51	49	0.0018442	1.31	0.0130735	19.09	0.05144	18.06	0.799	11.878	0.16	13.189	2.50	259.4	415	95

TABLE A2 (continued)

Notes: All analyses used the EARTHTIME tracer solution using the chemical abrasion thermal ionization mass spectrometry method.

[†] sample coordinates in degrees using North American Datum 1983.

[§] Fx = analysis number for single crystal zircon fractions.

[#] Th contents calculated from radiogenic 208Pb and the $^{207}Pb/^{206}Pb$ date of the sample, assuming concordance between U-Th and Pb systems.

[††] Total mass of radiogenic Pb.

[§§] Total mass of common Pb.

[##] Ratio of radiogenic Pb (including ^{208}Pb) to common Pb.

[†††] Measured ratio corrected for fractionation and spike contribution only.

[§§§] Measured ratios corrected for fractionation, tracer and blank.

[###] Isotopic dates calculated using the decay constants λ^{238} = 1.55125E-10 and λ^{235} = 9.8485E-10 (Jaffey et al. 1971).

[††††] % Discordance = 100 - (100 * ($^{206}Pb/^{238}U$ date) / ($^{207}Pb/^{206}Pb$ date)).

TABLE DR3. $^{40}Ar/^{39}Ar$ GEOCHRONOLOGY DATA FROM SMITH ET AL. (2002)

Sample	Lab*	Sampler†	Mt.§	Longitude#	Latitude#	J value	±1σ (%)	Step	T (K)** P (W)	$^{40}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}Ar (%)	$^{40}Ar^*$ (%)	K/Ca	$^{39}Ar_K$ (x10^{-15} mol)	Age†† (Ma)	±1σ§§ (Ma)
LM96-15	MIT	ES	bt	-117.5735	35.4534	0.0021410	0.86	1	775	94.43	34971.	0.1	-15.9	16.54	5.554	-58.93	27.0
								2	900	47.92	7941.	0.5	- 2.2	8.24	29.94	- 4.10	3.66
								3	950	13.24	427.4	1.1	27.9	15.02	50.01	14.24	0.91
								4	1000	16.86	825.5	2.2	14.2	20.08	81.86	9.19	1.865
								5	1050	14.25	545.9	3.9	20.5	24.25	129.2	11.27	0.895
								6	1100	6.592	68.18	6.9	53.6	37.79	230.4	13.61	0.6
								7	1150	4.137	21.31	11.9	63.1	50.54	376.2	10.08	0.29
								8	1200	3.487	6.764	17.1	83.4	56.02	393.7	11.22	0.135
								9	1250	3.414	6.493	22.0	83.4	47.00	374.7	10.98	0.125
								10	1350	3.299	5.677	46.3	84.5	46.16	1853.	10.75	0.1
								11	1550	3.401	8.110	99.6	79.2	26.11	4054.	10.39	0.095
								12	1925	10.66	206.4	100.0	46.3	11.45	27.82	18.96	1.36
LM96-16	MIT	ES	bt	-117.5552	35.4275	0.0021665	1.37	1	775	39.48	3385.	0.1	35.8	84.60	1.127	54.45	17.68
								2	950	42.94	4262.	0.5	31.7	10.22	5.528	52.38	8.87
								3	1050	31.97	3018.	1.6	12.7	4.56	13.85	15.84	3.75
								4	1100	5.010	22.31	3.1	73.7	6.77	18.23	14.38	2.13
								5	1150	3.444	0.072	5.9	99.7	17.49	35.55	13.38	0.535
								6	1200	2.446	1.086	13.2	94.4	45.22	92.75	9.03	0.26
								7	1250	2.264	1.495	26.1	91.2	65.23	162.8	8.07	0.36
								8	1350	2.543	4.705	57.0	78.3	5.45	391.2	7.78	0.16
								9	1550	2.561	4.834	99.5	78.1	3.44	537.9	7.81	0.165
								10	1925	6.305	27.13	100.0	79.8	9.78	6.77	19.57	4.24
LM96-16	MIT	ES	hb	-117.5552	35.4275	0.0021665	1.37	1	975	82.10	16818.	1.9	26.3	0.74	8.447	82.36	10.43
								2	1100	22.70	876.7	3.5	49.7	0.81	6.72	43.57	6.81
								3	1150	6.873	0.191	4.6	99.8	0.97	4.798	26.63	11.81
								4	1175	7.037	45.66	5.1	72.7	0.94	2.244	19.9	17.82
								5	1200	3.839	4.474	5.2	90.9	1.21	0.699	13.61	49.06
								6	1225	10.90	3.006	5.7	99.2	0.81	1.833	41.8	9.54
								7	1250	14.55	5.354	6.0	100.0	0.58	1.509	56.01	11.19
								8	1275	14.74	388.3	6.5	47.2	0.35	2.026	27.0	22.53
								9	1300	13.80	3.525	7.2	99.4	0.12	3.373	52.87	6.57
								10	1350	7.386	95.18	15.9	48.4	0.05	38.04	13.93	1.495
								11	1550	3.568	16.28	95.3	62.1	0.05	346.9	8.65	0.67
								12	1925	14.53	107.7	100.0	84.9	0.13	20.72	47.59	1.55

TABLE A3. (CONTINUED)

Sample	Lab*	Sampler†	Mt.§	Longitude#	Latitude#	J value	±1σ (%)	Step	T (K)** *P (W)*	$^{40}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}Ar (%)	$^{40}Ar^*$ (%)	K/Ca	$^{39}Ar_K$ (x10^{-15} mol)	Age†† (Ma)	±1σ§§ (Ma)
LM96-17	MIT	ES	hb	-117.5378	35.4325	0.0021413	0.86	1	975	82.17	20707.	2.4	9.4	2.00	23.22	29.51	3.63
								2	1100	35.84	4090.	16.9	5.9	2.93	141.2	8.15	1.135
								3	1150	24.02	1072.	19.9	45.1	2.41	28.85	41.37	2.0
								4	1175	23.79	1092.	20.9	43.0	1.46	9.279	39.06	4.32
								5	1200	26.95	1252.	21.6	49.0	1.06	7.438	50.35	5.83
								6	1225	29.77	1690.	22.4	43.7	0.79	7.574	49.52	1.62
								7	1250	27.55	846.2	23.3	67.1	0.41	8.760	70.0	7.75
								8	1275	20.45	707.7	24.9	50.0	0.18	15.38	39.03	2.30
								9	1300	13.81	295.8	27.4	54.2	0.10	24.17	28.69	2.08
								10	1350	3.604	8.410	49.0	80.8	0.06	209.9	11.22	0.680
								11	1550	2.819	4.269	98.7	84.0	0.05	482.6	9.14	0.605
								12	1800	16.54	483.5	99.8	47.8	0.07	10.67	30.26	4.21
								13	1900	29.64	553.6	100.0	81.4	1.02	1.871	90.86	27.0
LM96-2	MIT	ES	bt	-117.5468	35.4485	0.0021665	1.37	1	775	87.18	24453.	0.4	4.9	3.82	8.896	16.72	7.49
								2	950	22.71	10.92	0.5	99.4	38.71	2.531	86.11	16.9
								3	1050	45.09	6371.	1.3	7.4	7.69	17.21	12.96	4.88
								4	1100	7.158	97.30	4.5	43.9	19.79	67.98	12.24	0.67
								5	1150	3.165	10.35	10.6	69.4	39.49	134.2	8.57	0.31
								6	1200	2.595	4.779	17.3	78.9	50.41	144.0	8.00	0.18
								7	1250	2.564	4.393	25.0	80.1	49.09	167.0	8.02	0.16
								8	1350	2.498	4.637	62.5	77.9	19.34	812.5	7.6	0.135
								9	1550	2.677	6.596	99.5	72.7	13.52	803.0	7.6	0.14
								10	1925	6.297	235.83	100.0	-75.7	4.41	11.10	-18.74	8.52
LM96-2	MIT	ES	hb	-117.5468	35.4485	0.0021413	0.86	1	975	128.8	57814.	2.6	- 3.0	5.65	5.242	-14.93	6.35
								2	1100	123.2	47199.	6.5	8.1	10.10	7.589	38.25	11.1
								3	1150	8.881	122.5	8.8	54.1	9.01	4.689	18.47	5.59
								4	1175	9.217	167.0	10.2	41.9	3.93	2.638	14.86	7.1
								5	1250	21.41	1288.	11.8	17.0	7.89	3.321	14.04	17.3
								6	1325	13.59	470.5	15.3	24.7	6.91	6.818	12.92	4.345
								7	1400	3.964	17.55	89.6	66.9	21.66	147.6	10.23	0.62
								8	1550	5.382	59.01	98.1	39.8	9.67	16.93	8.26	3.63
								9	1700	15.39	921.6	99.0	-14.9	1.76	1.834	- 8.9	21.6
								10	1925	34.04	1265.	100.0	67.7	3.71	1.920	86.93	12.1

TABLE A3. (CONTINUED)

Sample	Lab*	Sampler†	Mt.§	Longitude#	Latitude#	J value	±1σ (%)	Step	T (K)** *P (W)*	$^{40}Ar/^{39}Ar$	$^{36}Ar/^{39}Ar$ (x 10^{-3})	^{39}Ar (%)	$^{40}Ar^*$ (%)	K/Ca	$^{39}Ar_K$ (x10^{-15} mol)	Age†† (Ma)	±1σ§§ (Ma)
GFZ-85	MIT	ES	bt	-117.6112	35.4562	0.0016500	3.83	1	1050	66.21	0.169	0.6	99.9	91.92	15.80	186.9	6.80
								2	1100	80.65	7.293	0.8	97.3	16.44	3.308	219.7	7.92
								3	1150	150.2	502.1	0.9	1.2	23.58	4.114	5.355	0.205
								4	1200	13.34	33.96	3.5	24.8	40.22	64.18	9.816	0.375
								5	1250	4.778	3.215	40.3	80.1	286.40	909.9	11.358	0.434
								6	1300	4.731	3.072	72.4	80.8	446.39	796.9	11.344	0.433
								7	1350	5.249	4.926	91.8	72.3	491.45	480.2	11.256	0.43
								8	1550	5.736	7.163	100.0	63.1	425.93	202.2	10.742	0.41
LM1132	MIT	ES	bt	-117.5085	35.3857	0.0016200	0.91	1	950	49.91	2.534	1.8	98.5	93.06	16.1	138.2	1.21
								2	1050	7.703	0.001	5.1	100.0	107.62	29.5	22.375	0.202
								3	1100	4.458	14.98	9.0	0.7	12.16	35.1	0.094	0.024
								4	1150	3.510	4.893	14.6	58.8	18.72	50.4	6.021	0.055
								5	1200	3.184	3.896	22.3	63.8	28.57	69.6	5.932	0.054
								6	1250	3.168	4.759	33.8	55.6	24.08	103.	5.141	0.047
								7	1300	3.119	3.952	53.2	62.6	13.55	175.	5.694	0.052
								8	1350	3.198	4.087	82.1	62.2	18.05	260.	5.809	0.053
								9	1550	3.445	3.721	100.0	68.1	17.89	161.	6.842	0.062

Notes: Isotopic ratios corrected for blank, radioactive decay, and mass discrimination, not corrected for interfering reactions. Decay constants and isotopic abundances after Steiger and Jäger (1977). Decay Constant (λ_K (total)) = 5.543e-10/a

*samples analyzed at Massachusetts Institute of Technology (MIT).

†Samples collected by ES = Smith et al. (2002) or FM = Francis Monastero

§Mt = Material analyzed: biotite (bt) and hornblende (hb).

#Coordinates based on North American Datum of 1983.

**Most samples were analyzed via step-heating, this is reported in either temperature in Kelvin or by the Watts of laser power. The power values are in italics.

††Ages calculated relative to FC-2 Fish Canyon Tuff sanidine and plagioclase interlaboratory standard at 28.34 Ma

§§Errors quoted for individual analyses include analytical error only, without interfering reaction or J uncertainties.

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