					Relative Isotopic Abundances										Derived Results								
Lab ID#	Watts	Irrad.	J (X 10^{-3})	± 1σ	^{40}Ar	±1σ	^{39}Ar	±1σ	^{38}Ar	±1σ	^{37}Ar	±1σ	^{36}Ar	±1σ	^{39}Ar Mol × 10^{-14}	^{39}Ar % of total	%(^{36}Ar)$_{Ca}$	Ca/K	±1σ	%^{40}Ar*	Age (Ma)	±1σ	w/±J ±1σ
LJ-3																							
4496-01A	0.1	51F	21.80	0.12	0.000	0.017	0.000	0.004	0.000	0.005	0	0	0.001	0.002	0.00	0.0	0.0	0	0	242.1	1669	2825	2825.50
4496-01B	0.2	51F	21.80	0.12	0.32	0.02	0.000	0.004	0.000	0.005	0	0	0.0006	0.0015	0.00	0.0	0.0	0	0	42.6		13765	13765.49
4496-01C	0.3	51F	21.80	0.12	280	2	18.47	0.15	0.629	0.010	5.27	0.06	0.602	0.009	1.94	7.9	0.2	0.559	0.008	36.6	206	7	7.50
4496-01D	*0.4*	*51F*	*21.80*	*0.12*	*309.3*	*1.6*	*58.3*	*0.4*	*0.743*	*0.010*	*15.93*	*0.13*	*0.096*	*0.004*	*6.13*	*25.0*	*4.3*	*0.536*	*0.005*	*91.3*	*181.0*	*1.7*	*1.95*
4496-01E	*0.5*	*51F*	*21.80*	*0.12*	*208.1*	*1.3*	*42.0*	*0.3*	*0.524*	*0.005*	*22.7*	*0.2*	*0.035*	*0.002*	*4.41*	*18.0*	*16.9*	*1.062*	*0.012*	*95.9*	*178.0*	*1.8*	*2.00*
4496-01F	*0.6*	*51F*	*21.80*	*0.12*	*113.8*	*1.7*	*23.1*	*0.3*	*0.297*	*0.006*	*21.2*	*0.3*	*0.0100*	*0.0010*	*2.43*	*9.9*	*54.9*	*1.80*	*0.04*	*98.8*	*182*	*4*	*3.81*
4496-01G	*0.8*	*51F*	*21.80*	*0.12*	*115*	*2*	*23.4*	*0.5*	*0.345*	*0.009*	*32.8*	*0.7*	*0.021*	*0.002*	*2.46*	*10.0*	*39.9*	*2.74*	*0.08*	*96.7*	*178*	*5*	*5.37*
4496-01H	*1.1*	*51F*	*21.80*	*0.12*	*80.6*	*1.4*	*16.5*	*0.2*	*0.266*	*0.008*	*31.3*	*0.4*	*0.018*	*0.002*	*1.73*	*7.1*	*43.8*	*3.73*	*0.07*	*96.2*	*176*	*4*	*4.38*
4496-01I	1.4	51F	21.80	0.12	51.0	0.5	10.71	0.17	0.193	0.005	22.40	0.16	0.014	0.004	1.13	4.6	42.4	4.10	0.07	95.5	171	5	4.80
4496-01J	1.9	51F	21.80	0.12	65.9	0.8	13.50	0.11	0.249	0.006	37.0	0.5	0.034	0.002	1.42	5.8	28.0	5.37	0.08	89.0	163	3	3.18
4496-01K	2.5	51F	21.80	0.12	39.7	0.3	7.98	0.09	0.131	0.005	33.0	0.3	0.0236	0.0018	0.84	3.4	36.1	8.10	0.11	88.8	167	3	3.40
4496-01L	3.3	51F	21.80	0.12	31.2	0.4	6.02	0.08	0.119	0.004	37.1	0.7	0.033	0.005	0.63	2.6	29.5	12.1	0.3	78.3	154	10	9.63
4496-01M	7.5	51F	21.80	0.12	93.6	0.9	13.48	0.11	0.316	0.006	171.6	1.7	0.165	0.005	1.42	5.8	26.9	25.0	0.3	61.9	163	5	4.80
																100.0		**0.681**	**0.004**				
LJ-3 2																							
4496-02A	0.3	51F	21.80	0.12	480	2	29.67	0.18	1.252	0.011	9.51	0.11	1.115	0.006	3.12	5.9	0.2	0.628	0.008	31.5	190	5	5.06
4496-02B	0.4	51F	21.80	0.12	195.8	1.6	29.8	0.3	0.499	0.007	6.84	0.12	0.146	0.004	3.13	5.9	1.2	0.449	0.009	78.3	192	3	3.35
4496-02C	0.4	51F	21.80	0.12	244.8	1.3	44.8	0.3	0.598	0.007	11.59	0.08	0.081	0.003	4.70	8.9	3.7	0.507	0.004	90.6	185.0	1.7	1.96
4496-02D	*0.5*	*51F*	*21.80*	*0.12*	*527.7*	*1.0*	*106.0*	*0.3*	*1.353*	*0.011*	*41.5*	*0.4*	*0.0793*	*0.0011*	*11.14*	*21.1*	*13.5*	*0.767*	*0.007*	*96.2*	*179.1*	*0.7*	*1.20*
4496-02E	*0.6*	*51F*	*21.80*	*0.12*	*386.5*	*1.7*	*79.28*	*0.11*	*1.012*	*0.010*	*58.2*	*0.2*	*0.041*	*0.004*	*8.33*	*15.7*	*36.5*	*1.438*	*0.006*	*98.0*	*178.8*	*1.0*	*1.40*
4496-02F	*0.8*	*51F*	*21.80*	*0.12*	*259.4*	*0.3*	*53.37*	*0.08*	*0.66*	*0.04*	*70.4*	*0.4*	*0.0281*	*0.0020*	*5.61*	*10.6*	*64.8*	*2.587*	*0.015*	*98.9*	*179.9*	*0.6*	*1.14*
4496-02G	*1.1*	*51F*	*21.80*	*0.12*	*198*	*2*	*41.1*	*0.5*	*0.731*	*0.010*	*80.1*	*0.9*	*0.036*	*0.002*	*4.31*	*8.2*	*57.2*	*3.82*	*0.06*	*97.7*	*176*	*3*	*3.07*
4496-02H	1.4	51F	21.80	0.12	111.1	1.5	23.7	0.3	0.470	0.008	51.4	0.6	0.020	0.002	2.49	4.7	65.6	4.25	0.07	98.2	173	3	3.49
4496-02I	1.9	51F	21.80	0.12	159.5	1.3	33.76	0.19	0.669	0.009	84.0	0.5	0.0618	0.0018	3.55	6.7	35.1	4.88	0.04	92.6	164.5	1.8	2.03
4496-02J	2.5	51F	21.80	0.12	102.3	1.5	21.1	0.4	0.367	0.008	64.0	1.0	0.046	0.002	2.22	4.2	35.8	5.93	0.14	91.5	167	4	4.21
4496-02K	3.3	51F	21.80	0.12	80.8	1.2	16.4	0.2	0.286	0.007	85.6	1.3	0.055	0.004	1.72	3.3	39.8	10.23	0.20	87.8	163	4	4.32
4496-02L	5.5	51F	21.80	0.12	83.5	1.4	16.4	0.2	0.296	0.007	162	3	0.092	0.004	1.73	3.3	45.4	19.3	0.4	82.2	158	5	4.75
4496-02M	8.0	51F	21.80	0.12	42.4	1.1	8.2	0.2	0.131	0.006	50.8	1.1	0.036	0.003	0.86	1.6	36.1	12.2	0.4	83.8	164	7	7.36
																100.0		**0.882**	**0.003**				
LJ-4																							
4494-01A	8.0	51F	21.80	0.12	432	4	29.1	0.6	1.017	0.009	7.89	0.11	0.942	0.005	3.06	7.4	0.2	0.532	0.014	35.8	198	7	7.30
4494-01B	*0.4*	*51F*	*21.80*	*0.12*	*422.8*	*1.2*	*82.77*	*0.15*	*1.117*	*0.012*	*16.93*	*0.11*	*0.175*	*0.003*	*8.70*	*21.1*	*2.5*	*0.401*	*0.003*	*88.1*	*168.8*	*0.9*	*1.24*
4494-01C	*0.6*	*51F*	*21.80*	*0.12*	*500.5*	*1.7*	*107.2*	*0.3*	*1.388*	*0.009*	*51.6*	*0.4*	*0.090*	*0.003*	*11.27*	*27.4*	*14.9*	*0.944*	*0.007*	*95.5*	*167.3*	*0.9*	*1.24*
4494-01D	*0.8*	*51F*	*21.80*	*0.12*	*200.7*	*1.4*	*42.5*	*0.2*	*0.587*	*0.007*	*47.4*	*0.3*	*0.044*	*0.002*	*4.46*	*10.9*	*27.8*	*2.189*	*0.017*	*95.3*	*169.0*	*1.6*	*1.82*
4494-01E	*1.1*	*51F*	*21.80*	*0.12*	*117.5*	*1.8*	*23.9*	*0.4*	*0.411*	*0.007*	*40.1*	*0.8*	*0.054*	*0.002*	*2.51*	*6.1*	*19.1*	*3.28*	*0.08*	*89.0*	*164*	*4*	*3.99*
4494-01F	1.4	51F	21.80	0.12	106.1	1.4	20.4	0.2	0.445	0.006	38.4	0.4	0.0702	0.0018	2.14	5.2	14.1	3.69	0.06	83.2	163	3	3.41
4494-01G	1.9	51F	21.80	0.12	192	2	33.4	0.3	0.790	0.010	85.1	1.4	0.212	0.006	3.51	8.5	10.4	4.99	0.09	70.8	154	3	3.46
4494-01H	2.5	51F	21.80	0.12	146.5	1.2	22.7	0.2	0.509	0.008	80.2	1.0	0.1985	0.0013	2.38	5.8	10.4	6.94	0.10	64.2	157	3	2.83
4494-01I	3.3	51F	21.80	0.12	102.7	0.5	16.78	0.04	0.380	0.008	156.8	0.5	0.156	0.003	1.76	4.3	25.9	18.32	0.07	66.7	155	3	2.82
4494-01J	4.8	51F	21.80	0.12	90.8	0.9	12.59	0.18	0.320	0.007	109.1	0.7	0.155	0.003	1.32	3.2	18.2	17.0	0.3	58.8	160	5	4.82
																100.0		**0.539**	**0.002**				
LJ-4 2																							
4494-02A	0.1	51F	21.80	0.12	0.04	0.02	0.001	0.006	0.001	0.004	0.0	0.0	0.0000	0.0016	0.00	0.0	0.0	8	110	169.2	1852	11221	11221.11
4494-02B	*0.2*	*51F*	*21.80*	*0.12*	*0.04*	*0.03*	*0.000*	*0.004*	*0.000*	*0.005*	*0.0*	*0.0*	*0.000*	*0.007*	*0.00*	*0.0*	*0.1*	*4*	*12*	*4367.6*		*0*	*0.00*
4494-02C	*0.3*	*51F*	*21.80*	*0.12*	*181.3*	*1.0*	*14.82*	*0.10*	*0.436*	*0.007*	*4.52*	*0.08*	*0.324*	*0.003*	*1.56*	*5.2*	*0.4*	*0.598*	*0.012*	*47.4*	*215*	*4*	*4.11*
4494-02D	*0.4*	*51F*	*21.80*	*0.12*	*264.7*	*0.8*	*47.91*	*0.15*	*0.648*	*0.007*	*11.65*	*0.07*	*0.130*	*0.004*	*5.03*	*16.9*	*2.3*	*0.477*	*0.003*	*85.8*	*177.5*	*1.3*	*1.62*
4494-02E	*0.5*	*51F*	*21.80*	*0.12*	*249.5*	*1.5*	*53.2*	*0.2*	*0.648*	*0.008*	*19.62*	*0.18*	*0.043*	*0.002*	*5.58*	*18.7*	*11.8*	*0.723*	*0.007*	*95.5*	*168.2*	*1.4*	*1.66*
4494-02F	*0.6*	*51F*	*21.80*	*0.12*	*169.2*	*1.1*	*36.59*	*0.18*	*0.448*	*0.007*	*21.9*	*0.2*	*0.0192*	*0.0008*	*3.84*	*12.9*	*29.4*	*1.170*	*0.014*	*97.6*	*169.4*	*1.4*	*1.69*
4494-02G	*0.8*	*51F*	*21.80*	*0.12*	*162.9*	*1.4*	*35.2*	*0.3*	*0.459*	*0.006*	*32.4*	*0.2*	*0.0219*	*0.0019*	*3.70*	*12.4*	*38.3*	*1.807*	*0.018*	*97.6*	*169*	*2*	*2.24*
4494-02H	*1.1*	*51F*	*21.80*	*0.12*	*117.1*	*0.8*	*25.13*	*0.18*	*0.379*	*0.005*	*35.9*	*0.3*	*0.0196*	*0.0018*	*2.64*	*8.8*	*47.4*	*2.80*	*0.03*	*97.4*	*170.3*	*1.8*	*2.03*

(cont'd)

Lab ID#	Watts	Irrad.	J (X 10^{-3})	± 1σ	Relative Isotopic Abundances ^{40}Ar	±1σ	^{39}Ar	±1σ	^{38}Ar	±1σ	^{37}Ar	±1σ	^{36}Ar	±1σ	Derived Results ^{39}Ar Mol × 10^{-14}	^{39}Ar % of total	%(^{36}Ar)$_{Ca}$	Ca/K	±1σ	%^{40}Ar*	Age (Ma)	±1σ	w/±J ±1σ
4494-02I	*1.4*	*51F*	*21.80*	*0.12*	*69.0*	*0.7*	*14.69*	*0.12*	*0.269*	*0.006*	*28.2*	*0.4*	*0.018*	*0.002*	*1.54*	*5.2*	*40.3*	*3.76*	*0.06*	*95.4*	*168*	*3*	*2.87*
4494-02J	1.9	51F	21.80	0.12	82.0	0.9	17.10	0.15	0.367	0.007	41.2	0.4	0.040	0.003	1.80	6.0	26.3	4.72	0.06	89.3	161	3	3.10
4494-02K	2.5	51F	21.80	0.12	60.3	0.7	12.28	0.16	0.245	0.006	50.2	0.8	0.050	0.003	1.29	4.3	25.9	8.01	0.17	81.9	152	4	3.84
4494-02L	3.3	51F	21.80	0.12	37.1	0.5	7.21	0.08	0.122	0.006	36.18	0.12	0.039	0.002	0.76	2.5	23.9	9.84	0.11	76.4	149	5	4.83
4494-02M	7.5	51F	21.80	0.12	117.9	1.0	19.86	0.19	0.376	0.007	208.3	1.5	0.188	0.004	2.09	7.0	28.6	20.6	0.2	66.4	150	3	3.35
																100.0		**0.621**	**0.003**				

NOTES:

Samples were irradiated for 28.7 hours in the central thimble facility of the now-decommissioned Omega West reactor of the Los Alamos National Laboratories. Sanidine from the Pahranagat Lakes Tuff of Nevada was used as the neutron fluence monitor with a reference age of 22.782 Ma (Best *et al*., 1995; Renne *et al*., 1998). Analyses in italics are included in the step-heating age plateau for each sample.

Nucleogenic production ratios:

(^{36}Ar/^{37}Ar)$_{Ca}$	2.582	± 0.06	× 10^{-4}
(^{39}Ar/^{37}Ar)$_{Ca}$	6.7	± 0.3	× 10^{-4}
(^{38}Ar/^{37}Ar)$_{Ca}$	1.4		× 10^{-4}
(^{40}Ar/^{39}Ar)$_{K}$	8	± 7	× 10^{-4}
(^{38}Ar/^{39}Ar)$_{K}$	1.077		× 10^{-2}
(^{36}Ar/^{38}Ar)$_{Cl}$	3.2		× 10^{2}
^{37}Ar/^{39}Ar to Ca/K	1.96		

Isotopic constants and decay rates:

λ(^{40}K$_{\varepsilon}$) /yr	5.81	± 0.17	× 10^{-11}
λ(^{40}K$_{\beta-}$) /yr	4.962	± 0.086	× 10^{-10}
λ(^{37}Ar) /d	1.975		× 10^{-2}
λ(^{39}Ar) /d	7.068		× 10^{-6}
λ(^{36}Cl) /d	6.308		× 10^{-9}
(^{40}Ar/^{36}Ar)$_{Atm}$	295.5	± 0.5	
(^{40}Ar/^{38}Ar)$_{Atm}$	1575	± 2	
^{40}K/K$_{Total}$	0.01167		

Best, M.G., Christiansen, E.H., Deino, A.L., Grommé, C.S., and Tingey, D.G, 1995, Correlation and emplacement of a l arge, zoned, discontinuously exposed ash-flow sheet: ^{40}Ar/^{39}Ar c hronology, paleomagnetism, and petrology of the Pahranagat Formation, Nevada: Jour. Geophys. Res 100:B12:24593–24609.

Renne, P.R., Deino, A.L., Walter, R.C., Turrin, B.D., Swisher, C.C., Becker, T.A., Curtis, G.H., Sharp, W.D., and Jaouni, A-R., 1994, Intercalibration of astronomical and radioisotopic time: Geology 22:783–786.