

Table A, Part I. Electron-microprobe analyses of volcanic glass shards from tephra layers in cores 1-5, from Tulelake, CA. Values given for the oxides are in weight percent, recalculated to 100 percent on a fluid-free basis. T_o - original total before recalculation. The original analyzed values can be obtained by dividing recalculated values by T_o and multiplying by 100. Analyses are listed in sequence from highest to lowest in the cores. - Indicates that large differences in concentration of an oxide are observed between shards within a single tephra layer. For explanation of additional symbols, see footnotes at the end of each table. C. E. Meyer, U.S.G.S., Menlo Park, analyst.

Sample	Depth (m)	SiO_2	Al_2O_3	Fe_2O_3	MgO	MnO	CaO	TiO_2	Na_2O	K_2O	T_o^1
T1163A	1.73	74.26	14.33	1.82	0.31	0.06	1.20*	0.31	4.75	2.96	97.72
T1163B	"	74.32	14.23	1.86	0.32	0.05	1.23*	0.31	4.76	2.92	97.37
T2309	1.77	74.01	14.33	1.81	0.28	0.05	1.16*	0.30	5.03	3.02*	97.95
T6	2.28	74.11	14.16	1.87	0.30	0.06	1.24	0.34	5.00	2.94	97.94
T2244	2.42	74.05	14.05	1.76	0.27	0.06	1.15*	0.29	5.09	3.00	97.75
T2245	2.75	74.02	14.09	1.91	0.34	0.05	1.23*	0.34	5.07	2.96	97.94
T2252	3.15	75.22*	13.48*	1.58*	0.16*	0.05	0.92*	0.21*	4.60*	3.79*	96.15
T2279	4.96	75.75*	13.20	1.49*	0.13*	0.04	0.73*	0.18	4.27*	4.21*	95.47
T175A ^{3f} ⁴	7.16	75.48	13.71	1.59	0.21	0.06	0.99	0.22	4.45	3.30	96.58
T175B	"	75.91	13.31	1.59	0.20	0.05	0.97	0.23	4.47	3.27	96.30
T175C	"	75.27*	13.66	1.65	0.22	0.05	1.05*	0.22	4.63	3.27*	94.60
T175Df	"	75.31	13.61	1.59	0.23	0.05	1.02	0.21	4.69	3.28	94.51
T2307	7.23	75.43	13.57	1.54	0.20	0.05	1.04	0.25	4.50	3.41	95.47
T176A	"	75.44	13.62	1.53	0.21	0.06	1.02	0.22	4.53	3.36	94.07
T176Bf	"	75.80*	13.37	1.50*	0.14*	0.03	0.85*	0.17	4.31*	3.83*	94.48
T2308	7.31	75.95*	13.00	1.53*	0.06	0.04	0.48*	0.12	4.46*	4.35*	95.00
T36	8.39	75.54*	13.46	1.62	0.22	0.06	1.03*	0.23	4.58*	3.25*	96.38
T2438	9.34	76.76	12.97	1.33	0.17	0.04	0.80	0.20	4.22	3.52	94.72
T199	13.04	75.22	13.26	1.74	0.10	0.07	0.49	0.21	4.83	4.08	94.63
T2382	16.99	72.17*	14.51	2.63*	0.49*	0.05	1.73*	0.47*	4.64	3.31*	96.73
T64	17.01	70.57	14.69	3.16	0.72	0.08	2.34	0.65	4.87	2.92	96.00
T1193	32.28	73.34	14.22	2.61	0.15	0.07	1.11	0.22	4.82	3.47	94.25
T2148	33.31	77.01	12.50	1.22	0.03	0.05	0.43	0.05	4.13	4.58*	94.39
T2079	48.98	76.59	12.90	1.24	0.08*	0.06	0.60*	0.09	4.12	4.32*	95.39
T260	50.26	76.51	12.81	1.19	0.05	0.05	0.47	0.07	4.08	4.76*	95.11

Table A, Part 1 (continued)

Sample	Depth (m)	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	MnO	CaO	TiO ₂	Na ₂ O	K ₂ O	To
T2080L ⁵	50.32	67.66	15.65	4.13	1.05	0.09	2.88	0.77	4.94	2.83	95.62
T2104	52.06	76.95	12.73	1.13	0.05	0.04	0.50*	0.08	3.97	4.54*	94.61
T2104L	"	76.41	12.90	1.20	0.13	0.04	0.64	0.17	3.77	4.73	93.99
T264	52.12	76.16*	13.00	1.24	0.11*	0.05	0.62*	0.17	3.93	4.72*	95.07
T261	52.38	76.20	12.98	1.20	0.11*	0.05	0.60*	0.13	3.94	4.76*	95.06
T2024	52.96	72.53*	13.88*	2.64*	0.69*	0.06*	1.93*	0.38*	4.24*	3.66*	95.76*
T2023	53.07	63.50*	16.03	5.97*	2.02	0.10	4.61*	0.98	4.70*	2.09*	96.90
T1228	53.13	62.57	16.40	6.16*	2.35*	0.14	4.94*	0.97	4.40*	2.08*	97.97
T2036	53.14	76.13	13.05	1.22*	0.10*	0.03	0.61*	0.15	4.11	4.59*	95.87
T1227	53.16	71.32*	14.54*	2.71*	0.70*	0.06	2.13*	0.39*	4.37*	3.80*	95.49
T2037	53.36	76.91*	12.71	1.22*	0.07*	0.04	0.56*	0.09	4.04	4.55*	96.17
T2038	53.67	77.07*	12.56	1.12	0.04	0.03	0.45*	0.07	3.97	4.59*	95.90
T2038L	"	76.40	13.00	1.25	0.03	0.06	0.46	0.07	4.06	4.56*	93.98
T2039	54.17	76.54	12.89	1.15	0.07	0.04	0.57*	0.14	3.89	4.72*	94.55
T1240	54.41	76.48	12.87	1.19	0.10*	0.05	0.59*	0.12	4.06	4.54*	94.78
T2097	55.03	76.61*	12.72	1.23*	0.09*	0.05	0.54*	0.15	3.87	4.74	94.54
T2099	55.37	76.71	12.88	1.13	0.05*	0.05	0.49*	0.08	4.06	4.55*	94.66
T2099L	"	76.67	12.81	1.22	0.03	0.05	0.44	0.07	4.03	4.68*	93.87
T272	55.44	76.53	12.77	1.21	0.06	0.04	0.48*	0.11	4.00	4.80	95.52
T274	55.67	76.07	13.02	1.24	0.06	0.06	0.49	0.11	4.17	4.78	95.32
T2102	55.69	76.70	12.76	1.14	0.05	0.04	0.47*	0.07	4.02	4.74*	94.88
T2102L	55.69	76.38	12.99	1.23	0.03	0.06	0.46	0.06	4.05	4.75	94.04
T275	55.91	77.39	12.51	1.15	0.01	0.04	0.38	0.06	3.98	4.49	94.84
T276A	56.12	77.04	12.67	1.15	0.00	0.03	0.40	0.03	4.29	4.39	94.56
T276Bf	"	77.19	12.53	1.16	0.01	0.05	0.40	0.05	4.22	4.39	94.60
T277A	56.22	77.28	12.42	1.12	0.00	0.05	0.41	0.04	4.25	4.42	95.11
T277Bf	"	77.23	12.58	1.14	0.01	0.05	0.40	0.04	4.16	4.38*	94.93
T2053L	"	77.21	12.59	1.18	0.01	0.03	0.40	0.04	4.17	4.38	94.22
T2054	57.60	77.29	12.58	1.10	0.00	0.04	0.44	0.04	4.04	4.47	94.65
T2055	57.94	77.44	12.53	1.06	0.01	0.04	0.48*	0.03	3.99	4.41*	94.20
T283	58.42	75.83*	13.28	1.42*	0.07*	0.05	0.57*	0.16*	4.19*	4.44*	94.49

Table A, Part I (continued)

Sample	Depth (m)	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	MnO	CaO	TiO ₂	Na ₂ O	K ₂ O	To
T2119	59.35	77.39	12.55	1.00	0.01	0.04	0.44	0.05	4.11	4.41	94.31
T2119L	"	76.66	12.89	1.05	0.06	0.04	0.46	0.09	3.80	4.96	93.35
T2123	59.54	77.99	12.50	0.85	0.16	0.02	0.85	0.17	3.94	3.52	93.97
T2122	59.59	78.08	12.43	0.85	0.16	0.02	0.83	0.16	3.97	3.51	93.91
T295	59.69	78.07	12.66	0.85	0.16	0.03	0.84	0.19	3.64	3.56	93.78
T2120L1	59.75	76.71	12.74	1.08	0.06	0.04	0.46	0.10	3.75*	5.06*	94.44
T2120L2	"	76.77	12.76	1.02	0.06	0.04	0.46*	0.08	3.83*	4.99*	93.66
T296A	59.76	75.70	13.47	1.21	0.09	0.04	0.56*	0.14	4.16	4.63	94.24
T296B	"	76.97	12.63	1.10	0.06	0.04	0.48*	0.11	3.94	4.67*	N.D. ⁹
T296Cf	"	76.54*	13.06	1.06	0.06	0.05	0.48	0.09	3.93	4.74	N.D.
T291A	59.87	78.04	12.51	0.85	0.17	0.02	0.83	0.14	3.94	3.51	93.15
T291B	"	78.21	12.43	0.87	0.17	0.04	0.85	0.16	3.80	3.47	93.97
T1403	59.89	78.17	12.29	0.88	0.17	0.03	0.86	0.16	3.86	3.57	93.11
T1245	59.99	78.14	12.36	0.87	0.17	0.04	0.86	0.16	3.89	3.51	93.33
T310	61.55	77.29	12.67	1.05	0.00	0.04	0.45	0.05	4.00	4.43	N.D.
T2067	61.57	77.35	12.46	1.06	0.00	0.04	0.47	0.06	4.08	4.48*	94.62
T2069	62.02	77.20	12.85	1.28	0.04	0.03	0.60	0.06	3.91	4.03	93.25
T315A	62.07	76.81	12.90	1.10*	0.01	0.05	0.47*	0.03	4.32	4.30*	93.89
T315B	"	77.88	12.39	1.20	0.02	0.04	0.53*	0.07	3.76*	4.11*	94.69
T315Cf	"	76.76	13.14	1.21	0.05	0.03	0.57	0.07	4.16	4.01*	93.53
T1249	62.10	77.29	12.57	1.03	0.01	0.05	0.47*	0.07	4.20	4.31*	94.43
T317	62.17	77.15	12.78	1.05	0.02	0.05	0.50*	0.05	3.94	4.46*	95.17
T318A	62.27	76.32	13.31	1.31	0.05	0.03	0.59	0.07	4.28	4.05	93.61
T318B	"	76.93	12.86	1.28	0.04	0.04	0.59	0.05	4.08	4.13	94.67
T329A	64.59	76.50	12.45	1.66	0.02	0.05	0.54	0.12	3.60	5.06	94.28
T329B	"	77.04	12.03	1.54	0.03	0.03	0.52	0.10	3.49	5.21*	95.59
T321A	65.38	70.96	14.71	3.37	0.35	0.07	1.37	0.42	5.25	3.49	94.36
T321B	"	70.85	14.80	3.35	0.35	0.08	1.46	0.43	5.16	3.51	94.34
T1322	70.59	61.18	17.58	6.27	2.56*	0.11*	5.69	0.88*	4.26*	1.48	99.21
T432A	89.63	74.01	14.01	1.93	0.22	0.05	0.96	0.23	4.73	3.87	92.99
T432B	"	74.88	13.58	1.83	0.21	0.06	0.91	0.23	4.52	3.79	94.24

Table A, Part I (continued)

Sample	Depth (m)	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	MnO	CaO	TiO ₂	Na ₂ O	K ₂ O	To
T432C	"	74.23	14.08	1.84	0.20	0.04	0.94	0.24	4.57	3.86	93.38
T452	97.72	71.14	14.94	2.66	0.62	0.07	2.00*	0.52	5.34	2.70	93.06
T2163	97.86	72.43	14.47	2.51	0.46	0.06	1.55	0.45	5.21	2.86	94.12
T453As ⁶	99.52	72.33	14.70	2.28	0.47	0.08	1.77*	0.37	5.32	2.68*	99.13
T453Bm ⁷	"	48.29	17.15	9.96	8.96	0.20	11.71	0.86	2.70	0.09	99.13
T2387	109.95	74.82*	13.93*	1.60*	0.18*	0.08	0.99*	0.21*	4.43*	3.76*	93.80
T2388	110.53	74.28*	13.87*	2.02*	0.20	0.06	1.04*	0.24	4.85*	3.43*	94.16
T542A	125.69	77.08	13.15	0.90	0.10	0.06	0.56	0.06	4.56	3.55	92.37
T542B	"	77.31	13.35	0.87	0.09	0.05	0.55	0.08	4.17	3.53	92.44
T558	130.36	73.61	14.73	1.87	0.34	0.08	1.31	0.31	4.88	2.86*	93.83
T682	166.41	72.67	14.71	2.23	0.34	0.06	1.33	0.36	4.81	3.49	92.19
T672	167.51	75.49	13.77	1.66	0.15	0.07	1.02*	0.11	4.59*	3.14*	93.67
T693	173.80	71.02*	14.62	2.67	0.67	0.06	2.00*	0.45	4.83*	3.68*	91.97
T710	175.14	70.66	15.09	2.70*	0.70*	0.05	2.08*	0.46	4.56	3.70	93.64
T712A	175.73	70.65	15.19	2.70	0.64	0.07	1.97	0.45	4.64	3.69	93.79
T712Bf	"	70.25	15.31	2.82*	0.77	0.06	2.20*	0.46	4.53	3.60*	93.91
T704	176.10	70.51	14.66	2.78*	0.76*	0.08	2.18*	0.49	4.92	3.63	93.08
T715A	176.94	73.14*	13.90	2.22*	0.41*	0.07	1.35*	0.34	4.52	4.04*	94.35
T715B	"	71.49	14.92	2.41	0.55	0.05	1.64	0.41	4.60	3.93	94.12
T715L1	"	70.65	15.15	2.69	0.65	0.07	1.97	0.46	4.69	3.68	93.50
T715L2	"	70.79*	15.00	2.65	0.66	0.08	1.98*	0.44	4.79*	3.62*	92.07
T715L3	"	70.87*	15.50*	2.67*	0.68	0.06	1.99*	0.42	4.14*	3.68*	86.13
T726	181.20	71.90	14.85	2.31	0.39	0.06	1.34*	0.38	4.76	4.01	93.39
T726	"	71.92	14.98	2.24	0.39	0.06	1.34	0.40	4.65	4.02	93.72
T749A	191.33	74.29	13.92	1.86	0.15	0.05	0.77	0.17	4.32	4.47	93.43
T749B	"	74.25	13.69	1.88	0.15	0.06	0.77	0.18	4.60	4.42	93.46
T1894	191.35	74.53*	13.60	1.87	0.14	0.05	0.74	0.17	4.45	4.45*	90.89
T782A	204.41	77.12	13.48	0.73	0.15	0.08	0.75	0.09	4.33	3.27*	92.77
T782B	"	77.11	13.57	0.72	0.15	0.08	0.80	0.12*	4.18	3.26*	92.81
T786	206.04	74.44	13.98	1.67	0.13	0.04	0.84*	0.14	4.30	4.46	93.70
T802	213.42	77.30	13.54	0.69	0.13	0.07	0.85	0.07	3.91	3.43	94.22

Table A, Part I (continued)

Sample	Depth (m)	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	MnO	CaO	TiO ₂	Na ₂ O	K ₂ O	To
T834A	225.93	76.58	13.09	1.12	0.08	0.04	0.60	0.09	4.16	4.24*	94.04
T834B	"	76.64*	13.14	1.09	0.08	0.03	0.61	0.14*	4.15	4.13*	93.08
T834Cf	"	77.15	12.80	1.13	0.09	0.04	0.59	0.10	3.97	4.13	93.78
T887	258.78	72.36*	14.86*	2.12*	0.38*	0.03	2.26*	0.41*	3.80*	3.76*	93.65
T1417	265.21	48.97	15.56	12.97	6.19	0.24	9.64	2.18	3.63	0.62	97.45
T921	268.20	48.38	15.38	14.45	5.59	0.25	9.07	2.52	3.62	0.74	97.95
T1893	314.96	73.17	14.41	2.09	0.17	0.07	0.87	0.23	5.27	3.73	92.20
T1066	314.98	73.23	14.69	2.12	0.19	0.07	0.89*	0.21	4.91	3.68	93.53
Base of core		334.00									

¹To - Original total on analysis, before recalculation to 100 percent. Low totals indicate presence of fluids, mostly water from initial and post-depositional hydration of the glass.

²Age: ¹⁴C - radiocarbon age; est - age estimated from sedimentation rate curve derived from magnetostratigraphy and tephrostratigraphic correlations to sites at which numerical age is obtained; B - age estimate based on marine biostratigraphy; FT - fission-track age on zircons; K-Ar - potassium-argon age.

³Letters A, B, C, D following sample number - replicate analyses of the same sample or multiple samples from the same tephra layer or level in a core.

⁴Letter f following sample number - analysis of fine-sized shard fraction of tephra layer (30 to 80 micrometers). All other analyses are on coarser-sized shard fraction (80 to 150 micrometers).

⁵Letter L following sample number - analysis of pumice lapillus; L1, L2, L3, etc. - analysis of multiple lapilli from the same tephra layer.

⁶Letter s following sample number - analysis of more silicic shards from a tephra sample containing both silicic and mafic glass shards.

⁷Letter m following sample number - analysis of more mafic shards from a tephra sample containing both mafic and silicic glass shards.

⁸Of Ogle (1953).

⁹N.D. - no data.

Table A, Part II. Data on tephra samples analyzed from cores 1 -5 in Tulelake, CA. = indicates that a tephra sample in the core correlates with a specified widespread tephra layer found at other sites in the region; =? indicates tentative correlation with such a layer. Analyses are listed in sequence, from highest to lowest in the cores. For explanation of additional symbols, see footnotes at end of table.

Sample number	Depth of base (m)	T ¹ (cm)	Core No.	Age ²	Name of tephra layer, reference, homogeneity, and other comments
T1163A	1.73	s	4	7015 yr B.P. ¹⁴ C	=Basal airfall pumice at Liao Rock (Bacon, 1983); Tsoyawata Bed (Davis, 1978)
T1163B	"	"	"	"	Rather homogenous
T2309	1.77	8	4	"	"
T6	2.28	7	1	"	"
T2244	2.42	4	1	7600 yr B.P. est ²	=? unnamed airfall pumice over breccia of Munson Dome (Bacon, 1983)
T2245	2.75	4	1	8350 yr B.P. est	Like basal airfall pumice at Liao Rock
T2252	3.15	4	1	-	Zone of extremely heterogeneous shards; reworked tephra?
T2279	4.96	10	3	-	"
T175A ^{3f} ⁴	7.16	s	2	23,400 yr B.P. ¹⁴ C	=Trego Hot Springs Bed (Davis, 1973; 1983); homogenous
T175B	"	s	2	"	"
T175C	"	s	2	"	"
T175Df	"	s	2	"	"
T2307	7.23	3	2	"	"
T176A	"	3	2	"	"
T176Bf	"	3	2	-	Heterogeneous; reworked Trego Hot Springs Bed and Olema ash bed?
T2308	7.31	8	2	-	Heterogeneous; reworked Olema ash bed and Trego Hot Springs Bed?
T36	8.39	s	1	-	Heterogeneous; reworked Trego Hot Springs Bed and Olema ash bed?
T2438	9.34	s	2	26-27 ka est	=Summer Lake tephra bed E1 (Davis, 1985); very homogenous
T199	13.04	s	2	55-75 ka est	=Olema ash bed (Sarna-Wojcicki and others, 1988); very homogenous
T2382	16.99	6	1	120 ka est	=Airfall pumice at Cloudcap Road (Bacon, 1983); heterogeneous
T64	17.01	s	1	120-130 ka est, B	=DSDP-173-1-3, 4 (Sarna-Wojcicki and others, 1987);=? flow E. of Liao Rock
T1193	32.28	s	5	135-140 ka est	=Summer Lake tephra bed V, DR-25 (Davis, 1985); homogenous

Table A, Part II (continued)

Sample number	Depth of base (m)	T ¹ (cm)	Core No.	Age ²	Name of tephra layer, reference, homogeneity, and other comments
T2148	33.31	20	5	135-140 ka est	Similar to tephra at 56.44 to 57.60 m in core
T2079	48.98	10	2	155 ka est	Heterogenous, especially Ca; similar to Dibekulewe Bed at 62.27 m
T260	50.26	s	2	155-160 ka est "	Heterogenous; like T2102, T2099, T272, T274 at 55.4-55.7 m
T2080L ⁵	50.32	4	2	"	Rather homogenous; similar to Wadsworth Bed of Davis (1978)
T2104	52.06	4	2	160 ka est	Heterogenous; similar to T2099; similar to tephra of Mono Craters but older
T2104L	"	"	2	"	Homogenous; like T264, T261, T2036, T2038
T264	52.12	s	2	"	Heterogenous; like T261
T261	52.38	s	2	"	Heterogenous; like T264
T2024	52.96	s	5	-	Extremely heterogenous; mixture of several shard types
T2023	53.07	s	5	160 ± 25 ka	=Andesitic ashflow tuff, Medicine Lake; Summer Lake bed KK of Davis (985); v. hetero. "
T1228	53.13	s	5	"	Rather heterogenous; like T264, T1240
T2036	53.14	3	5	"	Extremely heterogenous; mixture of several shard types
T1227	53.16	3	5	-	Very heterogenous; like T1240; similar to tephra of Mono Craters, but older
T2037	53.36	4	5	-	Heterogenous; like T296 and similar samples
T2038	53.67	5	5	165-170 ka est	Rather homogenous; like T260, T272, T274
T2038L	"	"	5	"	Rather heterogenous; similar to tephra of Mono Craters, but older
T2039	54.17	3	5	180-190 ka est "	Rather heterogenous; like tephra of Mono Craters and Dibekulewe Bed
T1240	54.41	8	5	"	Very heterogenous; like T2037, T2036, Mono Craters ash beds
T2097	55.03	4	2	220 ka est	Heterogenous; like Mono Craters ash beds
T2099	55.37	4	2	220-230 ka est	Rather homogenous; like T2148, T2038, T260, T272, etc.
T2099L	"	"	2	"	Rather homogenous; like T272, T260, T274, T296
T272	55.44	s	2	240 ka est	

Table A, Part II (continued)

Sample number	Depth of base (m)	T ¹ (cm)	Core No.	Age ²	Name of tephra layer, reference, homogeneity, and other comments
T274	55.67	s	2	240-250 ka est	Homogenous; like T2030L, T260, T2099L, T272
T2102	55.69	4	2	"	"
T2102L	55.69	4	2	"	Rather homogenous; like T2030L, T260, T2099L, T272
T275	55.91	s	2	250 ka est	Very homogenous; like T276, 277
T276A	56.12	s	2	260 ka est	Extremely homogenous; like T276, T277
T276Bf	"	"	2	"	Homogenous, like T276A, T277A
T277A	56.22	s	2	260-270 ka est	Rather homogenous; like T276Bf, T277Bf, T276A
T277Bf	"	"	2	"	Homogenous; like T277Bf, T276Bf, T276A, T277A, T275
T2053	56.44	4	5	275 "	Very homogenous; like T276, T277, T275, etc.
T2053L	"	"	5	"	Very homogenous; like T276, T277, T2053, T275
T2054	57.60	5	5	320-325 ka est	Rather homogenous; like T310, T2038, T2053
T2055	57.94	4	5	335-340 ka est	Ca, K heterogeneous; like T310, T296, T1249, T2054
T283	58.42	s	2	355-360 ka est	Extremely heterogeneous; mixture of several shard types
T2119	59.35	6	2	390 ka est	Very homogenous; like T310, T2054
T2119L	"	"	2	"	Rather homogenous; like T2120L, CL0590, T296
T2123	59.54	12	2	0.41 Ma FT	=Rockland ash bed (Sarna-Wojciechski and others, 1985), very homog.
T2122	59.59	1	2	"	=Rockland ash bed; extremely homogenous
T295	59.69	s	2	"	"
T2120L1	59.75	s	2	0.41 Ma est.	Homogenous except K, Na; like CL-0590, T296
T2120L2	"	"	2	"	Homogenous except K, Na; like CL-0590, T296
T296A	59.76	s	2	"	Rather homogenous except Ca; like tephra of Mono Craters, but much older
T296B	"	"	2	"	Rather homogenous except Ca, K; like tephra of Mono Craters, but much older
T296Cf	"	"	2	"	Rather homogenous; like CL-0590; like Mono Craters tephra but older
T291A	59.87	s	2	0.41 Ma FT	=Rockland ash bed (Sarna-Wojciechski and others, 1985); homogenous
T291B	"	"	2	"	"

Table A, Part II (continued)

Sample number	Depth of base (m)	T ¹ (cm)	Core No.	Age ²	Name of tephra layer, reference, homogeneity, and other comments
T1403	59.89	5	2	"	"
T1245	59.99	11	5	"	=Rockland ash bed; extremely homogeneous
T310	61.55	s	2	0.55 Ma est	Extremely homogenous; like T2055, T2054, T2067, etc.
T2067	61.57	4	5	0.56 Ma est	Homogenous except K; like T2055, T310, T1249
T2069	62.02	1	5	0.61 Ma est	=Dibekulewe Bed (Davis, 1978); homogeneous
T315A	62.07	s	2	"	=Dibekulewe Bed; rather heterogeneous
T315B	"	"	2	"	Rather heterogeneous; like T315, some Mono Craters tephra, but much older
T315Cf	"	"	2	"	=Dibekulewe Bed (Davis, 1978); homogeneous except K
T1249	62.10	8	5	"	=Dibekulewe Bed; homogeneous except Ca, K
T317	62.17	s	2	"	Rather heterogeneous; like T310, Mono Craters tephra but older; mixed shards?
T318A	62.27	s	2	"	=Dibekulewe Bed (Davis, 1978); homogeneous except K
T318B	"	s	2	"	=Dibekulewe Bed; extremely homogeneous
T329A	64.59	s	2	0.62 Ma K-Ar, FT	=Lava Creek-B ash bed (Izett, 1981); homogeneous
T329B	"	"	2	".	=Lava Creek-B ash bed; homogeneous except K
T321A	65.38	s	2	0.63 Ma est	=Rye Patch Dam Bed (Davis, 1978); very homogeneous
T321B	"	s	2	"	"
T1322	70.59	2	5	0.67 Ma est	Heterogeneous; no close match
T432A	89.63	s	2	0.80 Ma est	Very homo.; like Trego Hot Springs Bed and other Crater Lake tephra
T432B	"	"	2	"	Homogenous except K; like Trego Hot Springs Bed and other Crater Lake tephra beds
T432C	"	"	2	"	Extremely homogeneous; like Trego Hot Springs Bed and other Crater Lake tephra beds
T452	97.72	3	2	0.87 Ma est	Homogenous except Ca; like T712, T715, etc.
T2163	97.86	s	2	"	Homogenous; similar to Mazama ash bed from Crater Lake, but much older

Table A, Part II (continued)

Sample number	Depth of base (m)	T ¹ (cm)	Core No.	Age ²	Name of tephra layer, reference, homogeneity, and other comments
T453As ⁶	99.52	s	2	0.88 Ma est	More silicic shard fraction; rather heterogenous; like Crater Lake tephra beds
T453Bm ⁷	"	s	2	"	More mafic shard fraction; extremely homogenous
T2387	109.95	1	2	1.04 Ma est	Extremely heterogenous; like Trego Hot Springs Bed but much older
T2388	110.53	9	2	1.06 Ma est	Very heterogenous; like 61484-43 ASW, Topsy Réservoir
T542A	125.69	1	2	1.35 Ma est	Homogenous; like 61484-45, 47 ASW, Topsy Reservoir
T542B	"	"	2	"	"
T558	130.36	s	2	1.45 Ma FT, B, M	= Rio Dell(?) ash bed (Sarna-Wojcicki and others, 1987); homogenous except K
T682	166.41	s	2	1.90 Ma est	Extremely homogenous; frothy; like Wono Bed but much older
T672	167.51	s	2	1.91 Ma est	Rather heterogenous; like Trego Hot Springs Bed but much older
T693	173.80	2	2	1.92 Ma est	Heterogenous; like T715, 712, 704
T710	175.14	s	2	1.93 Ma est	Rather homogenous; like T715, T712
T712A	175.73	s	2	"	Rather homogenous; like T715
T712Bf	"	"	2	"	Very heterogenous; like T715
T704	176.10	7	2	"	Rather heterogenous; like T712, T693, T715
T715A	176.94	12	2	"	= Bear Gulch(?) ash bed; matrix and lapilli analyzed; very heterogenous
T715B	"	"	2	"	"
T715L1	"	"	2	"	Rather homogenous; light tan pumice lapilli; like T712, etc.
T715L2	"	"	2	"	Heterogenous tan pumice lapilli; like T712, etc.
T715L3	"	"	2	"	Very heterogenous; low total; white pumice lapilli; like T712, etc.
T726	181.20	s	2	1.94 Ma est	= Bear Gulch(?) ash bed; homogenous exc. Ca; like T715, T682
T726	"	"	2	"	Rather homogenous, like T715A, etc.
T749A	191.33	s	2	1.97 Ma est	Homogenous; like T459, T786, T176; like Putah Tuff Member, but Mg, Ti differ
T749B	"	"	2	"	Extremely homogenous; like T749A, etc.

Table A, Part II (continued)

Sample number	Depth of base (m)	T ¹ (cm)	Core No.	Age ²	Name of tephra layer, reference, homogeneity, and other comments
T1894	191.35	5	2	"	Homogenous except Si, K; like T749A; similar to Putah Tuff Member, but younger
T782A	204.41	s	2	2.01 Ma est	Homogenous except K; like OAK RUN-1, T802
T782B	"	"	2	"	Homogenous except Ti, K; like OAK RUN-1, T802
T786	206.04	s	2	2.02 Ma est	Rather homogenous except Ca; like T749
T802	213.42	s	2	2.05 Ma est	Extremely homogenous; like 782, OAK RUN-1, INWOOD-1
T834A	225.93	s	2	2.31 Ma est	Homogenous except K, Ca?; like T2079, T2037 but older, like 61484-45 ASW
T834B	"	"	2	"	Rather heterogeneous; like T2079, T2037 but older, like 61484-45 ASW
T834Cf	"	"	2	"	Homogenous except K; like T318; like tephra of Mono Craters, but much older
T887	258.78	s	2	-	Extremely heterogeneous; mixture of several shard types
T1417	265.21	5	2	2.67 Ma est	Extremely homogeneous basaltic glass; like T921
T921	268.20	s	2	2.69 Ma est	Extremely homogeneous basaltic glass; like T1417, 61384-37 ASW
T1893	314.96	4	2	2.95 Ma est	=tephra layer 61384-30 at Chalk Bank Landing(?) but mag. polarity differs?; homog.
T1066	314.98	s	2	"	=tephra layer 61384-30 at Chalk Bank Landing(?), like T432 but much older; homog.
Base of core	334		2	3.03 Ma est	Age extrapolated from control above

¹T - Thickness of tephra layer; s - spot sample from a tephra layer or from disseminated tephra in clastic or biogenic sediments.

²Age: ¹⁴C - radiocarbon age; est - age estimated from sedimentation rate curve derived from magnetostratigraphy and tephrostratigraphic correlations to sites at which numerical age is obtained; B - age estimate based on marine biostratigraphy; FT - fission-track age on zircons; K-Ar - potassium-argon age.

³Letters A, B, C, D following sample number - replicate analyses of the same sample or multiple samples from the same tephra layer or level in a core.

⁴Letter f following sample number - analysis of fine-sized shard fraction of

tephra layer (30 to 80 micrometers). All other analyses are on coarser-sized shard fraction (80 to 150 micrometers).

⁵Letter L following sample number - analysis of pumice lapilli; L1, L2, L3, etc.

⁶analysis of multiple lapilli from the same tephra layer.

⁶Letter s following sample number - analysis of more silicic shards from a tephra sample containing both silicic and mafic glass shards.

⁷Letter m following sample number - analysis of more mafic shards from a tephra sample containing both mafic and silicic glass shards.

⁸Of Ogle (1953).