Table 11. Chemical analyses of the glass phases of some Pliocene and Pleistocene rhyolite ash beds of California, Nevada, and Utah and certain tephra units of the Long Valley-Glass Mountain area of eastern California suspected to be their correlatives

[Locality descriptions given in table 12; analyses for all elements done by the instrumental neutron activation method except for Ca, which was made by atomic absorption methods; analysts for samples beginning with the letter D were D.M. McKown, R.J. Knight, and J.A. Budahn; analyst for samples with laboratory numbers composed only of numerals was G.A. Borchardt; other chemical analyses reported by Sarna-Wojcicki and others (1980); leaders (---) indicate no data; samples with identical field numbers but different laboratory numbers were analyzed during different analytical runs; some ash bed names are those used by Izett (1981) except for newly named ash beds of this report; amounts of elements in parts per million except Fe and Ca which are listed in weight percent; locality numbers same as fig. 8]

Loc. No.	Lab. No.	Field No.	Locality and sampled material	Cs	Rb	Ba	Sr	Th	U	La	Ce	Nd	Sm	Eu	Gd	Tb	Dy	Tm	Yb	Lu	Ta	Zr	Hf	Sb	Sc	Mn	Fe	Ca
Glass Mountain-U ash bed (about 1.0 m.y.):																												
4	D263925	84G101	Bishop quadrangle, Calif.; 2 m above Glass Mountain-D ash	5.3	165	30	--	19.4	6.1	24.6	56.4	23	4.3	0.04	3.9	0.65	4.2	0.42	2.6	0.40	2.6	171	3.6	1.0	2.9	264	0.56	---
Glass Mountain-D ash bed (about 1.0 m.y.):																												
4	D198714	75W42	Bishop quadrangle, Calif.; volcanic ash below Bishop Tuff	4.8	154	56	---	17.2	6.7	22.7	51.0	19	4.1	0.03	3.8	0.57	4.5	---	2.4	0.37	2.3	134	3.1	1.0	2.5	246	0.49	0.34
2	D226491	79G91	Taylor Canyon, Adobe Valley, Calif.; pumice lapilli----	5.1	156	40	---	18.8	7.5	18.5	40.5	18	3.9	.04	---	.54	3.6	0.30	2.5	.37	2.3	116	2.9	1.0	2.7	261	.46	---
5	D216898	68W155	Lake Tecopa, Calif.; volcanic ash----------------------	5.2	173	38	---	19.1	7.0	20.2	43.8	20	4.2	---	3.2	.63	3.2	.42	2.7	.37	2.4	---	3.2	1.0	2.7	294	.51	---
15	W222776	71-0-27	Ventura River, Calif.; volcanic ash--------------------	5.1	158	35	---	19.2	6.7	21.9	47.6	20	4.5	.03	4.9	.63	4.1	.40	2.6	.37	2.5	127	3.3	1.0	2.6	279	.48	---
16	D265274	85G12	Busted Butte quadrangle, Nev.; volcanic ash------------	4.9	165	44	---	18.9	6.0	23.1	50.2	20	4.6	.09	3.4	.57	3.8	---	2.4	.36	2.4	133	3.7	.8	2.7	341	.49	---
17	D265272	85G10	Death Valley, Calif.; volcanic ash---------------------	5.3	172	---	---	16.4	5.1	22.6	46.5	18	4.4	.11	3.8	.65	4.3	.42	2.7	.38	2.8	115	3.4	.8	2.7	573	.49	---
Glass Mountain-T ash bed (about 1.0 m.y.):																												
4	D263924	84G100	Bishop quadrangle, Calif.; volcanic ash 2 m below 75W42	5.6	165	65	---	19.3	6.2	23.7	54.8	20	4.2	0.07	0.47	.64	4.4	---	2.6	0.39	2.6	114	3.5	1.1	3.2	298	0.68	---
Glass Mountain-G ash bed (about 1.0 m.y.):																												
4	NASW101	BT1	Bishop quadrangle, Calif.; volcanic ash below Bishop Tuff	6.0	211	---	---	22.0	7.3	22.2	52.6	21	4.5	0.03	---	0.71	4.5	---	3.0	0.42	2.3	---	4.0	---	3.1	313	0.54	---
4	D263926	84G102	Bishop quadrangle, Calif.; 7 m below Glass Mountain-D ash	5.8	177	50	38	20.2	6.7	21.2	49.0	20	4.4	.07	4.4	.66	4.4	---	2.8	.43	2.8	108	3.7	1.1	3.2	303	.64	---
Bailey ash bed (about 1.2 m.y.):																												
7	NASW56	Pico4	South Mountain, near Ventura, Calif.; volcanic ash-----	8.1	227	---	---	26.7	9.0	20.2	45.8	19	4.4	0.04	---	0.77	5.1	---	3.7	0.50	3.0	---	4.0	---	2.7	426	0.57	---
6	703	70068	Balcom Canyon, near Ventura, Calif.; volcanic ash------	---	210	---	---	25.1	9.8	17.0	37.2	18	5.0	---	---	---	6.1	---	3.6	.72	3.5	---	4.4	---	2.3	398	.50	0.30
6	704	70069	--------do--------	---	213	---	---	25.1	10.0	16.4	36.9	19	5.0	---	---	---	6.1	---	3.5	.74	3.5	---	4.5	---	2.3	410	.51	.30
6	705	70-0-70	--------do--------	---	213	---	---	25.0	9.8	17.1	36.9	21	4.9	---	---	---	5.0	---	3.6	.72	3.5	---	4.5	---	2.3	411	.50	.30
15	W222777	70-0-26	Ventura River, Calif.; volcanic ash--------------------	7.5	197	---	---	26.0	9.1	16.9	37.4	17	4.6	.05	---	.79	5.5	0.57	3.6	.54	3.7	86	3.8	1.5	2.5	408	.48	---
South Mountain ash bed:																												
7	NASW66	Pico7	South Mountain, near Ventura, Calif.; volcanic ash-----	7.5	245	---	---	18.7	9.2	17.2	48.7	22	5.3	0.04	---	0.78	5.1	---	3.3	0.43	3.2	---	4.6	---	4.5	472	0.52	---
Last Chance Bench ash bed (about 1.8-1.9 m.y.):																												
8	D225434	79G96	Beaver, Utah area; ash above Huckleberry Ridge ash-----	4.0	137	34	---	15.8	5.6	21.9	47.0	22	3.8	0.04	3.7	0.50	2.7	---	1.9	0.28	2.0	119	3.0	0.7	2.6	256	0.48	---
8	D225435	79G97	--------do--------	3.8	130	27	---	15.4	5.4	21.6	45.1	22	3.7	.04	3.0	.49	2.7	---	1.8	.28	2.0	106	2.9	.7	2.5	253	.46	---
8	D225436	79G98	--------do--------	3.9	130	33	---	15.4	5.6	21.6	43.9	19	3.7	.06	3.5	.48	2.8	---	1.8	.29	1.9	108	2.9	.7	2.6	250	.50	---
8	D225429	79W96	--------do--------	3.9	131	23	---	15.2	5.6	21.3	45.2	20	3.7	.05	3.3	.47	2.7	---	1.9	.28	1.9	106	2.9	.7	2.6	244	.47	---
Manix-3 ash bed (about 1.9 m.y.):																												
9	NASW41	Manix1	Manix Lake area, Calif.; volcanic ash------------------	5.8	192	---	---	17.9	7.4	19.5	49.9	20	4.6	0.01	---	0.57	3.8	---	2.6	0.39	2.4	---	4.2	---	3.8	346	0.52	---
9	D229075	79G72	--------do--------	5.4	162	---	---	15.8	7.6	16.9	41.4	19	4.6	.02	3.4	.61	3.9	---	2.2	.34	2.7	---	3.4	0.9	3.2	328	.48	---
Manix-2 ash bed (about 1.9 m.y.):																												
9	NASW112	Manix4	Manix Lake area, Calif.; volcanic ash------------------	10.3	317	---	---	29.5	13.5	17.1	51.0	25	5.3	0.01	---	1.1	7.0	---	4.3	0.56	4.6	---	5.7	---	4.9	688	0.45	---
9	D216916	79G35	--------do--------	9.1	257	75	---	25.1	13.6	13.9	35.7	18	5.9	.01	4.6	1.0	5.8	---	4.0	.54	4.9	190	4.5	1.5	4.1	619	.41	0.31
9	D229074	79G71	--------do--------	9.8	257	---	---	25.3	13.7	14.5	36.5	20	6.2	.02	5.7	1.0	6.3	---	3.7	.55	5.0	---	4.5	1.5	4.2	608	.43	---
Taylor Canyon-U ash bed (about 2.1 m.y.):																												
3	D216914	79G20	Glass Mountain quadrangle, Calif.; pumice lapilli------	6.9	216	61	29	21.1	10.9	17.1	37.6	17	4.8	0.05	---	0.75	5.4	---	2.9	0.37	3.7	151	3.9	1.2	2.8	605	0.38	0.24
3	D198696	74W6	--------do--------	7.3	232	68	---	21.7	13.7	19.2	46.9	20	5.0	.05	6.9	.81	6.2	---	2.8	.43	3.9	173	4.0	1.3	2.9	602	.37	.24
Taylor Canyon-C ash bed (2.10 m.y.):																												
2	D216910	79G10	Glass Mountain quadrangle, Calif.; pumice lapilli------	7.1	225	59	22	21.5	10.9	16.6	36.2	18	4.6	0.04	5.1	0.75	4.4	---	3.0	0.43	3.8	155	3.8	1.3	2.9	584	0.38	0.23
2	D198669	74W60	--------do--------	7.2	231	63	---	22.1	10.2	16.3	40.6	18	4.3	.04	---	.73	5.5	---	2.8	.38	3.8	---	4.0	1.3	2.8	599	.37	.24
10	D216920	79G29	Waucoba Mtn. quadrangle, Calif.; volcanic ash----------	6.8	210	50	---	20.3	9.9	15.0	33.8	16	4.2	.04	---	.71	4.8	---	2.9	.36	3.6	153	3.7	1.2	2.7	551	.36	.23
10	D216917	79G25	Waucoba Mtn. quadrangle, Calif.; ash and lapilli-------	7.2	201	65	---	22.6	10.2	13.9	31.8	16	4.1	.05	---	.70	4.6	---	2.9	.39	4.1	153	3.9	1.3	3.0	583	.40	.24
3	D198715	74W80	White Mountain Peak quadrangle, Calif.; pumice blocks--	7.8	236	---	---	22.8	11.4	17.3	44.1	21	5.0	.05	6.1	.83	5.6	---	3.2	.39	4.2	180	4.2	1.4	2.9	612	.40	---
3	D198695	74W5	White Mountain Peak quadrangle, Calif.; pumice lapilli-	7.6	230	60	---	21.6	13.9	16.4	44.2	20	4.8	.04	6.5	.80	5.8	0.52	2.9	.43	4.0	179	4.1	1.4	2.8	614	.36	.24
3	D216912	79G18	--------do--------	7.3	222	50	---	21.4	10.7	16.2	36.8	19	4.6	.04	4.3	.73	4.9	---	3.1	.36	3.9	161	3.9	1.3	2.8	601	.38	.23
8	D216923	78G174	Beaver, Utah area; ash below Huckleberry Ridge ash bed	7.3	226	58	---	21.4	11.1	16.2	38.6	19	4.6	.05	3.8	.77	4.6	---	3.1	.42	3.9	159	3.9	1.3	2.8	569	.37	.23
8	D216922	78G167	--------do--------	7.2	220	55	---	21.2	10.1	16.0	36.6	18	4.5	.06	3.6	.76	4.4	---	3.0	.41	3.9	167	3.9	1.2	2.8	580	.37	.23
8	D225432	79W99	--------do--------	7.7	220	41	---	21.4	11.0	16.7	42.1	20	4.6	.04	---	.79	4.7	---	3.1	.44	3.9	160	3.9	1.4	2.8	626	.38	---
8	D225431	79W98	--------do--------	8.1	239	51	---	22.9	11.8	17.6	42.9	21	5.0	.05	4.7	.79	5.0	---	3.2	.47	4.2	172	4.1	1.4	2.9	628	.41	---
Taylor Canyon-P ash bed (about 2.1 m.y.):																												
2	D216911	79G11	Glass Mtn. quadrangle (Cowan mine), Calif.; pumice lapilli	8.1	235	54	---	22.8	12.0	15.0	35.0	17	4.7	0.05	3.8	0.82	5.4	---	3.3	0.41	4.1	177	4.0	1.4	3.0	622	0.35	0.22
3	D216913	79G17	White Mountain Peak quadrangle, Calif.; pumice lapilli--	7.9	230	53	---	22.3	11.9	14.6	33.9	18	4.6	.04	---	.79	4.9	---	3.1	.47	4.0	162	3.8	1.4	2.9	630	.36	.22
4	D198699	73W59	Black Canyon, near Bishop, Calif.; volcanic ash---------	8.6	236	63	---	24.8	13.9	15.0	39.8	17	4.3	.06	5.4	.84	6.4	0.46	3.1	.43	3.9	183	4.0	1.7	2.8	643	.35	.24
12	D216897	20679	Amargosa Valley, Nev.; volcanic ash--------------------	8.5	249	73	---	26.3	12.3	16.2	38.5	19	5.0	.06	---	.83	5.5	---	3.4	.45	4.7	174	4.2	1.5	2.9	631	.38	.22
Waucoba Road-2 ash bed:																												
10	D216919	79G28	Waucoba Mtn. quadrangle, Calif.; volcanic ash and lapilli	5.7	180	56	---	18.3	8.7	18.3	40.1	---	4.1	0.07	4.3	0.61	4.2	---	2.5	0.31	3.2	150	3.6	1.0	2.7	475	0.43	0.26
10	D198671	71W76	--------do--------	5.3	162	110	---	18.9	7.5	17.3	45.2	19	3.4	.10	---	.56	4.0	---	2.1	.29	3.2	---	3.9	0.9	2.9	504	.55	.24
Waucoba Road-1 ash bed:																												
10	D198672	71W77	Waucoba Mtn. quadrangle, Calif.; volcanic ash and lapilli	7.7	230	72	---	25.1	11.1	14.4	39.0	16	4.4	0.05	---	0.74	5.4	---	3.1	0.36	5.0	--	5.2	1.6	3.4	611	0.48	0.28
Frenchman Flat ash bed (about 2.5 m.y.):																												
11	D198711	Ue5n	Frenchman Flat, Nev.; volcanic ash in drill hole--------	5.2	169	---	---	15.7	5.4	21.8	49.0	20	4.0	0.12	3.9	0.64	4.3	0.34	2.6	0.37	2.6	---	3.1	0.6	2.4	503	0.47	0.41
13	NASW126	KM3A	Searles Lake, Calif.; volcanic ash in drill hole--------	5.8	174	---	---	17.0	4.8	23.3	50.7	19	3.9	.12	---	.66	---	---	2.9	.36	2.2	---	3.5	---	2.9	607	.51	---
14	D226493	SW979	Lathrop Wells quadrangle, Nev.; volcanic ash------------	4.7	153	34	12	14.2	5.1	19.8	38.6	17	3.5	.11	3.3	.57	3.4	.31	2.5	.36	2.3	86	2.6	.6	2.4	537	.45	---
Black Canyon-5 ash bed:																												
4	D198700	73W60	Black Canyon, near Bishop, Calif.; volcanic ash---------	6.0	172	167	76	16.8	9.4	17.4	39.5	17	3.5	0.16	---	0.52	4.1	---	2.0	0.29	2.5	147	3.3	1.2	2.4	462	0.45	0.37
18	W222775	80W19	Mountain Springs Canyon quadrangle, Calif.; volcanic ash	6.5	187	43	---	23.1	8.2	18.3	44.0	21	4.8	.04	---	.74	4.8	0.47	3.2	.48	3.2	147	3.6	1.3	2.7	370	.48	---
Black Canyon-4 ash bed:																												
4	D198701	73W61	Black Canyon, near Bishop, Calif.; volcanic ash---------	6.6	195	---	---	19.0	10.7	16.8	38.3	17	3.2	0.12	4.5	0.50	3.7	0.39	2.4	0.29	2.6	147	3.3	1.3	2.4	515	0.33	0.28
4	D198697	73W68	--------do--------	6.5	195	54	---	19.7	11.6	16.8	38.7	18	3.4	.14	3.2	.48	3.6	---	2.3	.26	2.6	146	3.3	1.3	2.3	494	.32	.30
4	D198698	73W69	--------do--------	6.8	194	51	103	18.6	9.6	16.1	38.9	14	3.0	.13	---	.47	3.5	---	2.1	.29	2.5	145	3.2	1.3	2.4	497	.33	.30

Table 12. Compilation of stratigraphic and other information for some localities of Pliocene and Pleistocene ash in California, Nevada, and Utah and rhyolite tephra units suspected to be their correlatives

[Localities listed in the order given in table 11; most sample numbers refer to collections of ash and tephra made by G.A. Izett (for example, 74G3) or by R.E. Wilcox (for example, 68W156) giving the year and sample number; locality numbers are those shown on figure 8]

Loc. No.	Sample No.	County and State	Location and quadrangle	Remarks
Glass Mountain-U ash bed				
4	84G101	Inyo, Calif.	NE1/4 sec. 23, T. 6 S., R. 32 E.; Bishop 15-minute.	Coarse-grained volcanic ash about 7 cm thick, interbedded in Pleistocene sediments below the Bishop Tuff. Exposed in a roadcut (fig. 11) adjacent to the Owens River. Same locality as that of Sarna-Wojcicki and others (1980, samples 17 and 18, p. 29; 1984, p. 26-27). Chemical composition of glass phase of pumice similar to glass of pumice of the basal air-fall unit of the Bishop Tuff. Three other tephra beds are at this outcrop including Glass Mountain-D, Glass Mountain-T, and Glass Mountain-G. Separated from underlying Glass Mountain-D ash by about 2 m of sediments.
Glass Mountain-D ash bed				
2	79G91	Inyo, Calif.	SW1/4 sec. 6, T. 1 S., R. 30 E.; Glass Mountain 15-minute.	Pumice lapilli from excavations in pumice along Adobe Creek near the mouth of Taylor Canyon. Mapped as the tuff of Taylor Canyon by Krauskopf and Bateman (1977).
5	68W155	Inyo, Calif.	NW1/4NW1/4 sec. 31, T. 22 N., R. 30 E.; Shoshone 15-minute.	Volcanic ash in sediments of Pleistocene Lake Tecopa; about 9 m stratigraphically below a Bishop ash bed. Here assigned to the Glass Mountain-D ash bed of Izett (1981).
15	71-0-27	Ventura, Calif.	Lat 34°18'10' N.; long 119°18'17" W.; Ventura 7 1/2-minute.	Volcanic ash in Pleistocene sediments of the Santa Barbara Formation (Sarna-Wojcicki and others, 1984, p. 27). Underlain by a Bailey ash at this locality. Collected by J.D. Obradovich in 1970.
16	85G12	Nye, Nevada.	Lat. 36°46'09" N.; long. 116°25'52" W.; Busted Butte 7 1/2-minute.	Volcanic ash in aeolian sand. Collected by J.W. Whitney, U.S. Geological Survey. Underlies an ash herein correlated with the Bishop Tuff (table 5, sample 85G1).
17	85G10	Inyo, Calif.	SE1/4 sec. 8, T. 22 S., R 47 E.; Bennetts Well 15-minute.	Volcanic ash, about 5 m thick, interbedded in No. 2 gravel of Hunt and Mabey (1966, p. A66). Collected by Marith Reheis, U.S. Geological Survey.
Glass Mountain-T ash bed				
4	84G100	Inyo, Calif.	NE1/4 sec. 23, T. 6 S., R. 32 E.; Bishop 15-minute.	Coarse-grained volcanic ash about 3 cm thick, interbedded in Pleistocene sediments below the Bishop Tuff. Exposed in a roadcut (fig. 11) adjacent to the Owens River. Same locality as that of Sarna-Wojcicki and others (1980, samples 17 and 18, p. 29; 1984, p. 26-27). Chemical composition of glass phase of pumice similar to glass of pumice of the basal air-fall unit of the Bishop Tuff. Three other tephra beds are at this outcrop including Glass Mountain-U, Glass Mountain-D, and Glass Mountain-G. Separated from overlying Glass Mountain-D ash by about 3 m of sediments.

Table 12. Compilation of stratigraphic and other information for some localities of Pliocene and Pleistocene ash in California, Nevada, and Utah and rhyolite tephra units suspected to be their correlatives--Continued

Loc. No.	Sample No.	County and State	Location and quadrangle	Remarks
Glass Mountain-G ash bed				
4	BT1, 84G102	Inyo, Calif.	NE1/4 sec. 23, T. 6 S., R. 32 E.; Bishop 15-minute.	Volcanic ash interbedded in Pleistocene sediments that underlie the Bishop Tuff, about 7 m below the Glass Mountain-D ash bed of Izett (1981) according to Sarna-Wojcicki and others (1980, samples 17 and 18, p. 29; 1984, p. 27-28). Glass composition nearly identical to that of the basal air-fall unit of the Bishop Tuff. At least three other tephra units occur at this outcrop, including Glass Mountain-D, Glass Mountain-T, and Glass Mountain-U.
Bailey ash bed				
6	Pico4, 70-0-68, 70-0-69, 70-0-70,	Ventura, Calif.	SE1/4 sec. 21, T. 3 N., R. 20 W.; Moorpark 7 1/2-minute.	Volcanic ash about 5 cm thick in the Pico Formation of Pliocene and Pleistocene age at Balcom Canyon near Ventura, Calif. See Sarna-Wojcicki and others (1980, 1984) for other chemical analyses of this ash. Called the Bailey ash bed by Yeats and McLaughlin (1970). Contains significantly more rubidium, manganese, and uranium than Bishop air-fall pumice.
15	70-0-26	Ventura, Calif.	Lat. 34°18'02" N.; long. 119°18'14" W.; Ventura 7 1/2-minute.	Volcanic ash bed in Pleistocene sediments assigned to either the Santa Barbara or Pico Formations (Sarna Wojcicki and others, 1984, p. 28). This ash is separated from a Glass Mountain-D ash bed by several meters of sediments. Collected by J.D. Obradovich in 1970.
South Mountain ash bed				
7	Pico7	Ventura, Calif.	NE1/4NW1/4 sec. 27, T. 3 N., R. 21 W.; Santa Paula 7 1/2-minute.	Volcanic ash about 6 mm thick in the Pico Formation of Pliocene and Pleistocene age west of South Mountain near Ventura, Calif. Locality description and chemical analysis of this ash reported by Sarna-Wojcicki and others (1980, p. 15, sample 27; 1984, p. 29-30). Named the South Mountain ash bed by Izett (1981, pl. 1, bed no. 23).
Last Chance Bench ash bed				
8	79G96, 79G97, 79G98, 79W96	Beaver, Utah.	SW1/4SW1/4 sec. 1, T. 29 S., R. 8 W.; Beaver 15-minute.	Volcanic ash about 5 cm thick interbedded in Pliocene sediments exposed along Last Chance Bench near Beaver, Utah. Separated stratigraphically from an underlying Huckleberry Ridge ash bed (formerly called Pearlette type B ash) of Izett and Wilcox (1982) by about 10 m of sediments.
Manix-3 ash bed				
9	Manix-1, 79G72	San Bernar-dino, Calif.	NW1/4SW1/4 sec. 11, T. N., R. 4 E.; Newberry 15-minute.	Volcanic ash about 8 cm thick in sediments of Pleistocene Lake Manix; ash exposed in cliff along the south side of the Mojave River. Chemical composition of the glass of this ash reported by Sarna-Wojcicki and others (1980, p. 46, sample 28; 1984). Named the Manix-3 ash bed by Izett (1981, pl. 1, bed no. 34).
Manix-2 ash bed				
9	Manix-4, 79G35, 79G71	San Bernar-dino, Calif.	NW1/4SW1/4 sec. 11, T. N., R. 4 E.; Newberry 15-minute.	Volcanic ash about 4 cm thick in sediments of ancient Lake Manix. Exposed in cliff along south side of the Mojave River; separated stratigraphically from an overlying ash bed (Manix-3) by about 13 m of sediments. Chemical composition of the glass of this ash reported by Sarna-Wojcicki and others (1980, p. 46, sample 30; 1984). Named the Manix-2 ash bed by Izett (1981 pl. 1, bed no. 35). Separated stratigraphically by several meters of sediments from an underlying, thin volcanic ash correlated by Sarna-Wojcicki and others (1980, p. 39) with the Huckleberry Ridge ash of Izett and Wilcox (1982).
Taylor Canyon-U ash bed				
3	79G20, 74W6	Mono, Calif.	NW1/4SE1/4 sec. 5, T. 3 S., R. 32 E. White Mountain Peak 15-minute.	Lapilli from air-fall pumice unit in the tuff of Taylor Canyon as mapped by Krauskopf and Bateman (1977). At pumice quarry at Blind Spring Hill (Chesterman, 1956, p. 54) north of Yellowjacket Canyon. Youngest of three superposed air-fall pumice units; no downwind ash bed correlatives of this tephra identified yet. Much less iron and more manganese, rubidium, and uranium in glass of pumice than glass of the basal air-fall unit of the Bishop Tuff. Less iron in glass than in glass of pumice of the Glass Mountain-D and Glass Mountain-G ash beds.
Taylor Canyon-C ash bed				
2	79G10, 74W60	Mono, Calif.	NW1/4NE1/4 sec. 23, T. 2 S., R. 31 E.; Glass Mountain 15-minute.	Angular pumice fragments as much as 3 cm in diameter from pumice layer at the Cowan pumice mine (fig. 9). Uppermost of two pumice units in the mine area. Unit contains a few percent of evenly distributed lithic and obsidian fragments about 2 mm in diameter. Obsidian is similar to those at Glass Mountain east of Long Valley, Calif. Sanidine separated from pumice lapilli dated by the K-Ar method method at 2.10+0.02 m.y. (Izett, 1982, p. 10215). Composition of pumice nearly identical to that of pumice of the middle of three air-fall pumice units at Blind Spring Hill near Yellowjacket Canyon.
10	79G29	Inyo, Calif.	NE1/4NE1/4 sec. 14, T. 9 S., R. 34 E.; Waucoba Mtn. 15-minute.	Ash bed, 8 cm thick interlayered with Pliocene sediments exposed in excavations adjacent to Waucoba Road. Uppermost of three tephra beds. Suspected correlative is the middle of three air-fall pumice units in the Cowan pumice mine area described below. Named the Taylor Canyon-C ash bed by Izett (1981, pl. 1, bed no. 37).
10	79G25	Inyo, Calif.	NW1/4 sec. 2, T. 9 S., R. 34 E.; Waucoba Mtn. 15-minute.	Lapilli bed about 15 cm thick in Pliocene sediments exposed along an east-trending gully. Lowest of two ash or lapilli beds exposed at this locality. Suspected source-area tephra is the middle of three air-fall pumice units in the Cowan pumice mine area described below. Named the Taylor Canyon-C ash bed by Izett (1981, pl. 1, bed no. 38).
3	74W80	Mono, Calif.	NE1/4NW1/4 sec. 17, T. 3 S., R. 32 E.; White Mountain Peak 15-minute.	Lapilli from air-fall pumice unit here assigned to the tuff of Taylor Canyon of Krauskopf and and Bateman (1977). About 2 km south of Yellowjacket Canyon. Significantly less iron and more manganese, rubidium, and uranium in glass of pumice than glass of the basal air-fall unit of the Bishop Tuff. Less iron in glass than in glass of the Glass Mountain-D and Glass Mountain-G ash beds. Suspected source-area unit for the Taylor Canyon-C ash bed of Izett (1981).
3	74W5, 79G18	Mono, Calif.	NW1/4SE1/4 sec. 5, T. 3 S., R. 32 E.; White Mountain Peak 15-minute.	Lapilli from air-fall pumice unit here assigned to the tuff of Taylor Canyon of Krauskopf and Bateman (1977); at Blind Spring Hill (Chesterman, 1956, p. 54) north of Yellowjacket Canyon. Middle of three superposed air-fall pumice units. Significantly less iron and more manganese, rubidium, and uranium in glass of pumice than glass of the basal air-fall unit of the Bishop Tuff. Less iron in glass than in glass of pumice of the Glass Mountain-D and Glass Mountain-G ash beds.
8	78G174, 78G167, 79W99, 79W98	Beaver, Utah.	SW1/4 sec. 31, T. 28 S., R. 7 W.; SE1/4 sec. 14, T. 28 S., R. 8 W.; SE1/4 sec. 19, T. 28 S., R. 7 W.; and SE1/4 sec. 26, T. 28 S., R. 8 W.; Beaver 15-minute.	Volcanic ash about 6 cm thick interbedded in Pliocene and Pleistocene sediments near Beaver, Utah. Separated stratigraphically from an overlying Huckleberry Ridge ash bed of Izett and Wilcox (1982) by about 30 m of sediments. Suspected source-area tephra is the middle of three air-fall tephra units in the Cowan pumice mine area described above.
Taylor Canyon-P ash bed				
2	79G11	Mono, Calif.	NW1/4NE1/4 sec. 23, T. 2 S., R. 31 E.; Glass Mountain 15-minute.	Lapilli from a pit excavated in pumice. Here assigned to the tuff of Taylor Canyon of Krauskopf and Bateman (1977). Lowest of three air-fall pumice units in Cowan pumice mine area.
3	79G17	Mono, Calif.	NW1/4SE1/4 sec. 5, T. 3 S., R. 32 E.; White Mtn. Peak 15-minute.	Lapilli from air-fall pumice unit here assigned to the tuff of Taylor Canyon of Krauskopf and Bateman (1977), at Blind Spring Hill (Chesterman, 1956, p. 54) north of Yellowjacket Canyon. Lowest of three superposed air-fall pumice units exposed at this locality. Significantly less iron and more manganese, rubidium, and uranium in glass of pumice than the basal air-fall unit of the Bishop Tuff; less iron in glass than in the glass of the Glass Mountain-D and Glass Mountain-G ash beds. Suspected source-area unit for the Taylor Canyon-P ash bed of Izett (1981, pl. 1, bed no. 38).
4	73W59	Inyo, Calif.	Sec. 4, T. 8., R. 34 E.; Bishop 15-minute.	Volcanic ash bed in Pliocene sediments at Black Canyon southeast of Bishop, Calif. Uppermost of six ash or lapilli pumice beds separated by sediments. Suspected source-area tephra is the lowest of three air-fall pumice units in the Cowan pumice mine area south of Benton Hot Springs, Calif. Here correlated with the Taylor Canyon-P ash beds of Izett (1981).
12	TSV20679	Nye, Nev.	Sec. 4, T. 17 S., R. 51 E.; Specter Range 15-minute.	Ash, 10 cm thick in Pliocene sediments in Amargosa Valley, in south wall of southwesternmost sepiolite pit (W.J. Carr, written commun., 1982).
Waucoba Road-2 ash bed				
10	79G28, 71W76	Inyo, Calif.	NE1/4NE1/4 sec. 14, T. 9 S., R. 34 E.; Waucoba Mtn. 15-minute.	In Pliocene sediments exposed in excavations adjacent to Waucoba Road. Middle of three ash and lapilli beds.
Waucoba Road-1 ash bed				
10	71W77	Inyo, Calif.	NE1/4NE1/4 sec. 2, T. 9 S., R. 34 E.; Waucoba Mtn. 15-minute.	In Pliocene sediments exposed in excavations adjacent to Waucoba Road. Lowermost of three ash or lapilli beds.
Frenchman Flat ash bed				
11	UE5N	Nye, Nev.	Frenchman Flat, Frenchman Lake 15-minute.	In Pliocene sediments at 195 m depth in drill hole Ue5N. Named the Frenchman Flat ash bed by Izett (1981, pl. 1, bed no. 47).
13	KM3A	San Ber-nardino, Calif.	Corner of secs. 22, 23, 26, and 27, T. 25 S., R. 43 E.; Searles Lake 15-minute.	In Pliocene sediments in a borehole in the Searles Lake area. Chemical composition of glass reported by Sarna-Wojcicki and others (1980, p. 17, sample no. 49). Here correlated with the Frenchman Flat ash bed.
14	SW979	Nye, Nev.	SE1/4 sec. 15, T. 14 S., R. 49 E.; Lathrop Wells 15-minute.	In sediments overlain by middle Pleistocene eolian sand (W.J. Carr, written commun., 1982); tentatively here correlated with the Frenchman Flat ash bed.
Black Canyon-5 ash bed				
4	73W60	Inyo, Calif.	Sec. 4, T. 8., R. 34 E.; Bishop 15-minute.	Volcanic ash bed in Pliocene sediments at Black Canyon southeast of Bishop, Calif. Second ash from the top of the ash bed sequence. Named the Black Canyon-5 ash bed by Izett (1981, pl. 1, bed no. 50).
18	80W19	Inyo, Calif.	NW1/4 sec. 12, T. 23 S., R. 39 E.; Mountain Springs Canyon 15-minute.	Volcanic ash in Pliocene(?) to Pleistocene(?) sediments near Airport Lake. Collected by J.P. Bradbury, U.S. Geological Survey.
Black Canyon-4 ash bed				
4	73W61, 73W68, 73W69	Inyo, Calif.	Sec. 4, T. 8 S., R. 34 E.; Bishop 15-minute.	Volcanic ash bed in Pliocene sediments at Black Canyon southeast of Bishop, Calif.; third ash bed from top of ash bed sequence; named the Black Canyon-4 ash bed by Izett (1981, plate 1, bed no. 51).