

TABLE DR1. SILICIC ASH-FLOW TUFFS AND LAVAS ALONG THE HOTSPOT TRACK

Tuff or Lava	Type*	Rock Comp. ¹	Ash-flow Initials ²	Lavas in Fig. 2 ² *	Age (Ma)	Error	Date Type	Volcanic Field ³	References ⁴	Comments ⁵
extracaldera lavas	-	SRP	---	-	<0.4	---	K-Ar	YP	[12]	multiple flows
Plateau Rhyolite	I, af	SRP	---	mr	<0.6	---	K-Ar	YP	[12]	multiple flows
Tuff of Bluff Point	af	SRP	---	---	0.16	.002	K-Ar	YP	[27]	---
Lava Creek Tuff	af	SRP	LC	---	0.60	0.01	Ar/Ar san	YP	[24]	---
Mt. Jackson Rhyolite	-	SRP	---	---	0.6-1.2	nr	K-Ar	YP	[12]	multiple flows
Lewis Canyon Rhyolite	-	SRP	---	---	0.93	nr	K-Ar	YP	[12]	---
Island Park Rhyolite	-	SRP	---	1.20	---	interp	YP	ts	domes	
Mesa Falls Tuff	af	SRP	MF	---	1.30	0.01	Ar/Ar san	YP	[24]	---
Big Bend Ridge Rhyolite	I, af	SRP	---	---	1.35	0.25	interp	YP	ts	multiple flows
Blue Creek flow	-	SRP	---	---	1.80	nr	K-Ar	YP	[12]	---
Huckleberry Ridge Tuff	af	SRP	HR	---	2.06	0.01	Ar/Ar san	YP	[24]	---
Snake River Butte flow	-	SRP	---	mr	2.00	nr	K-Ar	YP	[12]	Below Huckleberry Ridge Tuff
(dacitic) pumice lapilli at E. Gros Ventre Buttes	p	0	---	0	7.40	0.1	interp	---	[17]	Jackson Hole, WY area
rhyolite near Teton Pass	-	0	---	0	8.06	0.08	K-Ar	---	[17]	Jackson Hole, WY area
obsidian pipes near Teton Pass	-	0	---	0	8.48	0.08	K-Ar	---	[17]	Jackson Hole, WY area
rhyolite of July Creek	-	SRP?	---	---	2.10	0.2	K-Ar/Sp	H?	[20]	---
Rhyolite of Long Hollow	-	SRP?	---	---	3.50	0.4	FT zir	H?	[20]	---
rhyolite (229m in borehole 3)	-	SRP?	---	---	3.50	0.3	FT zir	H?	[20]	---
rhyolite of Sheridan Reservoir	-	SRP?	---	mr	4.00	0.4	K-Ar/Sp	H?	[20]	---
tuff of Kilgore	af	SRP	K	---	4.45	0.05	K-Ar wr	H	[19]	Mean of 4 dates
rhyolite of Lidy Spring	-	SRP?	---	mr	5.40	0.1	K-Ar wr	H	[20]	---
rhyolite of Kelly Mtn.	-	SRP?	---	---	5.70	0.1	K-Ar wr	H	[20]	---
rhyolite of Willow Creek	-	SRP?	---	---	5.90	0.1	K-Ar wr	H	[20]	---
rhyolite of Spring Creek	-	SRP	---	---	5.90	0.3	K-Ar wr	H	[20]	---
Connant Creek/Elkhorn Sprgs. Tuff	af	SRP	CC	---	5.58	0.07	Ar/Ar san	H	[21]	Grades to tuff of Elkhorn Springs; same composition.
tuff of Wolverine Creek	af	SRP	WC	---	5.58	0.07	corr.	H	ts	---
rhyolite of Reno Gulch	-	SRP?	---	---	6.20	0.5	FT zir	H	[20]	---
rhyolite of Ching Creek	-	SRP?	---	---	6.30	0.3	K-Ar/Sp	H	[20]	---
Walcott Tuff	af	SRP	W	---	6.20	0.1	pmag	H	ts	Walcott lies within Chron C3An.1r; R polarity and K-Ar dates
tuff of Blacktail Cr.	af	SRP	BC	---	6.62	0.03	Ar/Ar san	H	[21]	---
rhyolite of Opal Mtn	-	SRP?	---	---	6.90	0.7	K-Ar/Sp	H?	[20]	---
rhyolite of Hawley Spring	-	SRP?	---	mr	7.20	0.1	K-Ar/Sp	H?	[20]	---
tuff of Newby Ranch	af?	SRP?	---	---	8.60	0.5	FT zir	P?	[20]	---
INEL-1 @ 1482 m	af	SRP?	---	---	8.80	---	FT zir	P?	[20]	---
INEL-1 @ 3060 m	-	SRP?	---	---	11.30	---	FT zir	TF?	[20]	=INEL 1482 m?
tuff of Kyle Canyon	af	SRP?	---	---	9.90	0.9	FT zir	TF?	[20]	=INEL 3060 m?
tuff of Lost River Sinks	af	SRP?	---	---	12.40	0.9	FT zir	TF?	[20]	---
Rhyolite of west Pocatello	-	0	---	mr	7.90	0.4	K-Ar wr	P?	[16]	whole rock (vitrophyre) date
Rhyolite of 2-and-1/2-Mile Creek	-	0	---	mr	9.10	0.3	K-Ar bi	P?	[16]	---
Rhyolite of Stevens' Peak	-	SRP	---	---	9.80	0.9	K-Ar	P?	[16]	---
Arbon Valley Tuff	af	0	AV	---	10.20	0.06	Ar/Ar san	P	[16]	Mean of reported dates
Jim Sage Volcanic member	I	SRP?	---	mr	9.20	0.5	K-Ar	TF?	[38]	Correlated to tuff dated in Blacktail Dear Creek section, MT [xx]
tuff of McMullen Creek 4?	af	SRP	MC4	---	8.60	0.2	K-Ar	TF	[1]; [2]; [37]	---
tuff of McMullen Creek 3	af	SRP	MC3	---	na	---	na	TF	[37]	---
tuff of McMullen Creek 2	af	SRP	MC2	---	na	---	na	TF	[37]	---
tuff of Appendixitus Hill	af	SRP?	AH	---	9.23	0.02	Ar/Ar san	P?	[21]	---
tuff of McMullen Creek 1	af	SRP	MC1	---	9.35	0.05	corr.	TF	ts	---
tuff of Wooden Shoe Butte	af	SRP	WSB	---	10.13	0.03	---	TF	[26]; [37]	---
tuff of Steer Basin	af	SRP	SB	---	10.50	0.2	interp.	TF	ts	---
tuff of Ibez Hollow	af	SRP	IH	---	11.93	0.03	---	BJ?	[25]; [26]	---
rhyolite along w. Frank Goose Mtn	I?	un	---	mr	12.80	0.4	---	---	[1]; [2]	---
Magic Reservoir Volcanics	ls	0	---	o	3.0-5.6	---	---	M.R	[13]	---

TABLE DR1. SILICIC ASH-FLOW TUFFS AND LAVAS ALONG THE HOTSPOT TRACK

Tuff or Lava	Rock Type*	Rock Comp. [†]	Ash-flow Initials [‡]	Lavas in Fig. 2 [*]	Age (Ma)	Error	Date	Volcanic Field ^{**}	References ^{††}	Comments ^{§§}
City of Rocks rhyolite Knob tuff	I?	SRP?	---	---	9.15	0.13	K-Ar	TF?	[13]	NSRP; Danskin Mountains Rhyolites; [9]
Gwen Springs tuff rhyolite of Thorn Creek	af	SRP?	---	---	---	---	K-Ar	TF?	---	NSRP; Danskin Mountains Rhyolites; [9]
Cold Springs rhyolite VI	I?	SRP?	---	---	10.10	0.3	K-Ar	TF?	[13]	NSRP; Danskin Mountains Rhyolites; [9]
Cold Springs rhyolite V	I?	SRP?	---	---	---	---	---	TF?	---	NSRP; Danskin Mountains Rhyolites; [9]
Cold Springs rhyolite IV	I?	SRP?	---	---	---	---	---	TF?	---	NSRP; Danskin Mountains Rhyolites; [9]
Cold Springs rhyolite III	I?	SRP?	---	---	---	---	---	TF?	---	NSRP; Danskin Mountains Rhyolites; [9]
Cold Springs rhyolite II	I?	SRP?	---	---	10.30	0.3	---	TF?	[9]	NSRP; Danskin Mountains Rhyolites; [9]
rhyolite of High Spring tuff of Dive Creek	af	SRP?	---	---	---	---	---	TF?	---	NSRP; Danskin Mountains Rhyolites; [9]
rhyolite of Rattlesnake Spring rhyolite of Frenchmen Spring	I?	SRP?	---	---	---	---	---	TF?	---	NSRP; Danskin Mountains Rhyolites; [9]
Rhyolite of Henry Mtn tuff of Bennett Mtn.	I?	SRP?	---	---	---	---	---	BJ?	---	NSRP; Bennett Mountain Rhyolites; [9]
rhyolite of Windy Gap rhyolite of reverse polarity	I?	SRP?	---	---	11.00	0.6	---	BJ?	[1]	NSRP; Bennett Mountain Rhyolites; [9]
rhyolite of normal polarity rhyolite of Willow Creek	I?	SRP?	---	---	---	---	---	BJ?	---	NSRP; Bennett Mountain Rhyolites; [9]
Picabo-B	af	SRP	---	---	8.98	0.12	K-Ar	P	[13]	NSRP
Picabo-A	af	SRP	---	---	9.00	---	interp.	P	ts	NSRP
Lake Hills-4	af	SRP	---	---	9.07	0.04	K-Ar	TF?	[13]	NSRP
Lake Hills-3	af	SRP	---	---	9.60	0.6	interp.	TF?	ts	NSRP
Lake Hills-2	af	SRP	---	---	10.10	0.6	interp.	TF?	ts	NSRP
Lake Hills-1	af	SRP	---	---	10.70	0.6	interp.	BJ?	ts	NSRP
Lake Hills-0	af	SRP	---	---	11.19	0.05	K-Ar	BJ?	[13]	NSRP
tuff of Little Jacks, top tuff of Little Jacks, 2nd from top	I?	SRP	---	mr	9.60	2.0	---	Little Jacks	[1]	Little Jacks volcanic center; [7]
tuff of Little Jacks, unnamed unit	I?	SRP	---	mr	10.00	1.5	---	Little Jacks	[1]	Little Jacks volcanic center; [7]
tuff of Browns Creek	I?	un	---	mr	<11.22	0.52	K-Ar	unknown	[5]	Little Jacks volcanic center; [7]
Three Creek rhyolite	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Dorsey Creek rhyolite	---	SRP?	---	mr	8.11	0.30	---	post-BJ	[5]	---
Lower rhyolite at Poison Creek	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Sheep Creek rhyolite	---	SRP?	---	mr	9.88	0.46	---	post-BJ	[5]	---
Brunneau Jasper rhyolite	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Indian Batt rhyolite	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Lower rhyolite at Louse Creek	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Long Draw rhyolite	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Cedar Tree rhyolite	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Trigero Homestead Rhyolite	---	SRP?	---	---	---	---	---	post-BJ	[5]	---
Marys Creek Rhyolite	af	SRP	XV	---	10.52	0.2	Interp.	BJ	[26]	Described in [6]
CPT XV	af	SRP	XIII	---	10.94	0.03	Ar/Ar	BJ	[25][26]	Described in [6]
unnamed rhyolite	I-	SRP?	XII	---	11.10	0.2	interp.	BJ	[25]	Described in [6]
CPT XII	af	SRP	XI	---	11.18	0.1	interp.	BJ	[25]	Described in [6]
CPT XI	af	SRP	X	---	11.31	0.1	interp.	BJ	[25]	Described in [6]
CPT X	af	SRP	IX	---	11.45	0.1	interp.	BJ	[25]	Described in [6]
CPT IX	af	SRP	VII	---	11.59	0.1	interp.	BJ	[25]	Described in [6]
CPT VII	af	SRP	V	---	11.90	0.1	interp.	BJ	[25]	Described in [6]
CPT V	af	SRP	III	---	12.12	0.05	Ar/Ar	BJ	[25][26]	Described in [6]
CPT III	af	SRP	WD	---	12.67	0.03	Ar/Ar	BJ	[25][26]	Described in [6]
Whiskey Draw Rhyolite	af	SRP?	RD	---	13?	---	Strat.	OH?	[3]	---
tuff of Rattlesnake Draw	I	SRP?	---	mr	15.80	nr	K-Ar	pre-BJ	[11]	---
Jarbridge Rhyolite										---

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Tuff or Lava	Type*	Rock	Ash-flow Comp. ^t	Lavas in Initials ^s	Age Fig. 2 ^o (Ma)	Error (Ma)	Date	Volcanic Type	Field**	References ^{tt}	Comments ^{ss}
tuff of the Badlands	I?	SRP	---	mr	12.00	---	K-Ar	OH	[10]	---	---
lower Lobes Tuff	I?	SRP	---	mr	13.80	---	K-Ar	OH	[10]	---	---
upper Lobes Tuff	I?	SRP	---	mr	13.90	---	K-Ar	OH	[10]	---	---
Swisher Mtn. Tuff	af?	SRP	SM	---	13.80	---	K-Ar	OH	[10]	---	---
Mink Creek	af	SRP	MC	---	15.5	1.5	interp.	OH?	ts	Overslies ~17 Ma basalt and latite sequence [10]	[10]
Flint Creek	af	SRP?	FL	---	15.5	1.5	interp.	OH?	ts	[1], [2], [10]; whole rock and mineral dates	[10]
rhyolite of Silver City Range	I?	SRP?	---	mr	16.00	0.3	K-Ar	---	ts		
Tuff of Birch Creek	af	BC?	BC	---	15.00	---	strat. est.	LO	[29]	---	---
Tuff of Crowley Lake	af?	per?	inc	---	15.00	---	strat. est.	LO	[29]	---	---
Wild Cat	af?	BC?	inc	---	15.00	---	strat. est.	LO	[29]	---	---
Dinner Creek	af	BC	inc	---	15.30	---	K-Ar?	LO	[29]	---	---
Tuff of Spring Creek	af	BC?	inc	---	15.40	---	K-Ar?	LO	[29]	---	---
Leslie Gulch	af	per?	LG	---	15.50	---	K-Ar?	LO	[29]	---	---
ring dome	I	o	---	---	13.80	0.3	K-Ar san	MCD	[28]	---	---
Tuff of Whitehorse Creek	af	per	WHC	---	15.00	0.3	K-Ar san	MCD	[28]	---	---
Tuff of Hoppin Peaks	af	per	HP	---	16.20	0.5	Interp.	MCD	ts	[28] report 16.5 ± 0.4 Ma (old constants) = 16.9 ± 0.4 Ma (new constants.)	---
Tuff of Long Ridge mbr 5	af	per	inc	---	16.30	0.3	K-Ar san	MCD	[28]	[28] report 15.9 ± 0.3 Ma (old constants.) = 16.3 ± 0.3 Ma (new constants.)	---
Tuff of Long Ridge mbrs 2/3	af	per	---	---	16.30	0.5	Interp.	MCD	ts	[28] report 17.6 ± 1.0 (old constants) = 18.1 ± 1.0 Ma (new constants.)	---
Tuff of Double H	af	per	inc	---	16.35	0.5	Interp.	MCD	ts	[28] report 17.6 ± 1.0 Ma (K-Ar)	---
Tuff of Trout Creek Mts.	af	per	inc	---	16.40	0.5	Interp.	MCD	[28]	[28] report 16.2 ± 0.2 Ma (K-Ar)	---
rhyolite	I	un	---	---	16.40	0.5	Interp.	MCD	ts	[29] report 16.1 ± 0.2 Ma	---
Tuff of Oregon Canyon	af	per	OC	---	16.44	0.02	Ar/Ar san	MCD	[34]		
Tuff of Fly Canyon	af?	FC	---	---	16.08	0.02	Ar/Ar san	HR	[34]	---	---
Soldier Meadow Tuff	af	per	inc	---	16.12	0.03	Ar/Ar san	HR	[34]	[23] report 15.1 ± 0.5 Ma	---
Canon rhyolite	I	per	---	---	16.13	0.07	Ar/Ar san	HR	[34]		---
Tuff of Trough Mountain	af	per	inc	---	16.20	---	Interp.	HR	ts; [23]		---
Tuff of Big Mountain	af	sub	inc	---	16.25	---	Interp.	HR	ts; [23]		---
Tuff of Indian Spring	af	per?	inc	---	16.30	---	Interp.	HR	ts; [23]		---
Summit Lake Tuff	af	sub	inc	---	16.36	0.03	Ar/Ar san	HR	[34]	Recalculated w/ new constants	---
Idaho Canyon Tuff	af	per	inc	---	16.48	0.04	Ar/Ar san	HR	[34]	[23] report 15.5 ± 0.5 Ma	---
Tuff of Crane Creek	af	per	inc	---	16.10	0.5	K-Ar san	HR	[23]		---
Tuff of the Mesa	af	per	M	---	16.60	---	Strat.	HR	[23]	Intercalated with Steens Mtn. Basalt	---

*Rock Type: I - lava or dome; af - ash-flow tuff; pumice lapilli tuff

†Rock Comp: BC - BC-type; SRP - SRP-type; o - other; per - peralkaline, sub - subalkaline; un - unknown. Queried when uncertain

‡ "inc" = included in Figure 2 but not identified by initials.

§"mr" = metaluminous rhyolite; "o" = other silicic volcanic rocks; these marked units are included in Figure 2

**Initials for major volcanic field is the same as in Figure 1

††Source for age dates; see Table DR4 for numbered references. ts = this study

†††"NSRP" = north of Snake River Plain (not included in Figure 2); see Table DR4 for numbered references.

TABLE DR2. HOTSPOT ASH-FALL TUFFS: NAMES, AGES, AND DATA SOURCES

Ash Bed*	Initials*	Ash Type	Age (Ma)	Error [†] (Ma)	Age Date Method [‡]	Source for Ash Bed Name	Source for age date
Natural Trap?	NT?	SRP	0.10	.050	interp	[14]	[35]; this study
Natural Trap?	NT?	SRP	0.15	.050	interp	[14]	[35]; this study
Hebgen Narrows	HN	SRP	0.39	.100	interp	[14]	This study
Lava Creek B	LCB	SRP	0.60	.010	Ar/Ar	[15]	[24]
Indian Cove	IC	SRP	0.70	.100	interp	This study	[22]; this study
Mesa Falls	MF	SRP	1.30	.010	Ar/Ar	[15]	[24]
Huckleberry Ridge	HR	SRP	2.06	.030	Ar/Ar	[15]	[24]
---	---	SRP	3.50	.200	interp	---	[36]
Kilgore	K	SRP	4.45	.100	Ar/Ar	tuff of Kilgore; [20]	[21]
Santee	SNT	SRP	5.10	.100	FT zircon	composition similar to Kilgore; possibly an older	[4]
Conant Cr.-Wolverine Cr.	CC-WC	SRP	5.58	.100	Ar/Ar	Conant Creek Tuff; [8]	[21]
Walcott	W	SRP	6.20	.050	interp/pmag	Walcott Tuff; [32]	this study; in Chron C3An.1r
Blacktail Cr.	BTC	SRP	6.62	.030	Ar/Ar	tuff of Blacktail Creek; [20]	[21]
Cub River	CR	SRP	7.02	.100	interp	[26]	[26]
Faust	F	SRP	7.49	.037	Ar/Ar	[26]	[26]
---	---	SRP	7.73	.800	interp	---	This study
Rush Valley	RV	SRP	7.90	.500	interp	[26]	[26]
Inkom	IKM	SRP	8.30	.500	interp	[26]	[26]
---	---	SRP	8.43	.100	interp	---	This study
---	---	SRP	8.51	.200	interp	---	This study
---	---	SRP	8.67	.100	interp	---	This study
---	---	SRP	8.70	.300	K-Ar	Not named: a tuff of McMullen Creek cooling unit.	[1]
---	---	SRP	8.84	.200	interp	---	This study
---	---	SRP	8.88	.200	interp	---	This study
---	---	SRP	8.89	.200	interp	---	This study
---	---	SRP	8.97	.100	interp	---	This study
---	---	SRP	8.97	.300	interp	---	This study
---	---	SRP	9.10	.200	interp	---	This study
McMullen Cr. 1	MC1	SRP	9.16	.040	Ar/Ar	tuff of McMullen Cr. unit 1; [37]	Correlation to tuff dated by [18] [26]
Mink Cr.	MNK	SRP	9.24	.500	interp	[26]	[26]
---	---	SRP	9.36	.200	interp	---	This study
---	---	SRP	9.37	.300	interp	---	This study
Lonergan Cr.	LNC	SRP	9.41	.300	interp	---	This study
---	---	SRP	9.47	.200	interp	---	This study
Opal Canyon 6	OC6	SRP	9.52	.200	interp	[26]	[26]
---	---	SRP	9.56	.100	interp	---	This study
---	---	SRP	9.66	.500	interp	---	This study
Section 26	S26	SRP	9.70	.100	interp	[26]	[26]
---	---	SRP	9.73	.200	interp	---	This study
---	---	SRP	9.76	.500	interp	---	This study
---	---	SRP	9.78	.100	interp	---	This study
---	---	SRP	9.81	.100	interp	---	This study
Hazen	HAZ	SRP	9.81	.200	interp	[26]	[26]
---	---	SRP	9.90	.200	interp	---	This study
---	---	SRP	10.01	.500	interp	---	This study
Wooden Shoe Butte	WSB	SRP	10.13	.030	Ar/Ar	tuff of Wooden Shoe Butte; [39]	[25]; [26] [26]
Opal Canyon 3	OC3	SRP	10.19	.100	interp	[26]	[26]
Rawlins	RAW	SRP	10.25	.100	interp	---	This study
---	---	SRP	10.29	.100	interp	---	This study
---	---	SRP	10.31	.100	interp	---	This study
---	---	SRP	10.36	.100	interp	---	This study
---	---	SRP	10.42	.200	interp	---	This study
Cougar Point XVj	XVj	SRP	10.45	.200	interp	Cougar Point Tuff unit XV; [6]	[26]
---	---	SRP	10.49	.100	interp	---	This study
Opal Canyon 2	OC2	SRP	10.54	.200	interp	[26]	[26]
---	---	SRP	10.65	.200	interp	---	This study
Ibex Peak 19	IP19	SRP	10.74	.100	interp	[26]	[26]
Cougar Point XIII	XIII	SRP	10.94	.030	Ar/Ar	Cougar Point Tuff unit XIII; [6]	[25]; [26]
---	---	SRP	10.98	.100	interp	---	This study
---	---	SRP	11.01	.100	interp	---	This study
Cougar Point XII	XII	SRP	11.19	.100	interp	Cougar Point Tuff unit XII; [6]	[26]
---	---	SRP	11.29	.100	interp	---	This study
Cougar Point XI	XI	SRP	11.31	.100	interp	Cougar Point Tuff unit XI; [6]	[26]
---	---	SRP	11.33	.100	interp	---	---
Cougar Point IX	IX	SRP	11.59	.100	interp	Cougar Point Tuff unit IX; [6]	[26]
Logan Ranch	LGR	SRP	11.79	.100	interp	[26]	This study
Cougar Point VII	VII	SRP	11.80	.100	interp	Cougar Point Tuff unit VII; [6]	Ibex Peak 8 of [26]
Ibex Hollow	IH	SRP	11.93	.030	Ar/Ar	[26]; informal name for associated ash-flow tuff	[26]
---	---	SRP	12.01	.100	interp	---	This study
White Basin	WB	SRP	12.09	.100	interp	[26]	[26]
---	---	SRP	12.09	.100	interp	---	This study
Cougar Point V	V	SRP	12.07	.040	Ar/Ar	Cougar Point Tuff unit V; [6]	[26]
---	---	SRP	12.17	.100	interp	---	This study
Banded	BND	SRP	12.14	.100	interp	[26]	[26]
---	---	SRP	12.28	.100	interp	---	This study

TABLE DR2. HOTSPOT ASH-FALL TUFFS: NAMES, AGES, AND DATA SOURCES

Ash Bed*	Initials*	Ash Type	Age (Ma)	Error† (Ma)	Age Date Method‡	Source for Ash Bed Name	Source for age date
---	---	SRP	12.29	.100	interp	---	This study
Pictograph	PIC	SRP	12.34	.100	interp	[26]	[26]
Cougar Point III	III	SRP	12.67	.032	Ar/Ar	Cougar Point Tuff unit III; [6]	[26]
---	---	SRP	12.80	.100	interp	---	This study
---	---	SRP	12.94	.100	interp	---	This study
Grant Claim	GRT	SRP	12.96	.040	interp	[26]	[26]
---	---	SRP	12.96	.200	interp	---	This study
---	---	SRP	13.04	.100	interp	---	This study
---	---	SRP	13.24	.100	interp	---	This study
Worthington Mine	WM	SRP	13.25	.750	interp	[26]	[26]
Hurlbut	HUR	SRP	13.50	.100	interp	[30]	This study
---	---	SRP	13.54	.100	interp	---	This study
---	---	SRP	13.55	.100	interp	---	This study
---	---	SRP	13.57	.200	interp	---	This study
---	---	SRP	13.59	.200	interp	---	This study
---	---	SRP	13.65	.200	interp	---	This study
---	---	SRP	13.66	.200	interp	---	This study
---	---	SRP	13.70	.200	interp	---	This study
---	---	SRP	13.72	.200	interp	---	This study
Rawhide Ranch	RH	SRP	13.73	.200	interp	[26]	[26]
Lovelock	LVK	SRP	13.78	.100	interp	This study	This study
---	---	SRP	13.85	.200	interp	---	This study
---	---	SRP	13.87	.200	interp	---	This study
---	---	SRP	13.89	.040	interp	---	This study
---	---	SRP	13.90	.200	interp	---	This study
---	---	SRP	13.96	.100	interp	---	This study
---	---	SRP	13.98	.100	interp	---	This study
---	---	SRP	14.00	.200	interp	---	This study
Shimek	SK	SRP	14.04	.100	interp	[33]	This study
---	---	SRP	14.04	.100	interp	---	This study
---	---	SRP	14.08	.100	interp	---	This study
---	---	SRP	14.12	.100	interp	---	This study
---	---	SRP	14.15	.100	interp	---	This study
---	---	SRP	14.66	.100	interp	---	This study
---	---	SRP	14.70	.200	interp	---	This study
Obliterator	OBL	SRP	14.93	.080	interp	[26]	[26]
---	---	SRP	15.01	.200	interp	---	This study
---	---	SRP	15.05	.200	interp	---	This study
---	---	SRP	15.16	.100	interp	---	This study
Virgin Valley 12	VV12	SRP	15.18	.030	interp	[26]	[26]
Paradise Valley 1	PV1	SRP	15.17	.050	interp	[26]	[26]
Huntington Cr. 2	HC2	SRP	15.21	.250	interp	[26]	[26]
Huntington Cr. 1	HC1	SRP	15.21	.250	interp	[26]	[26]
Antonne Wash	AW	BC	15.24	.250	interp	[26]	[26]
---	---	BC	15.27	.250	interp	---	This study
---	---	BC	15.36	.250	interp	---	This study
---	---	BC?	15.41	.250	interp	---	This study
Virgin Valley 8	VV8	BC	15.42	.250	interp	---	This study
---	---	BC	15.46	.250	interp	---	This study
---	---	BC	15.47	.250	interp	---	This study
---	---	BC	15.48	.250	interp	---	This study
---	---	BC	15.50	.250	interp	---	This study
---	---	BC	15.51	.250	interp	---	This study
---	---	BC	15.53	.250	interp	---	This study
---	---	per	15.54	.250	interp	---	This study
---	---	BC	15.54	.250	interp	---	This study
Sheep Cr. #3	SC3	BC	15.55	.250	interp	[31]	This study
---	---	BC	15.56	.250	interp	---	This study
---	---	BC	15.57	.250	interp	---	This study
Virgin Valley 1	VV1	BC	15.60	.250	interp	[26]	This study
---	---	BC	15.61	.200	interp	---	This study
---	---	BC	15.63	.100	interp	---	This study
---	---	BC	15.65	.200	interp	---	This study
---	---	BC	15.76	.100	interp	---	This study
---	---	BC	15.81	.100	interp	---	This study
---	---	BC	15.84	.100	interp	---	This study
---	---	per	15.92	.100	interp	---	This study
---	---	BC?	15.92	.100	interp	---	This study
---	---	BC?	15.99	.200	interp	---	This study
Peacock	PEA	per	16.00	.250	interp	[26]	This study

*Only ash beds identified in two or more sections are named. Queried when correlation to type ash bed is uncertain.

† $\pm 1\sigma$; errors for interpolation dates follow [26].‡ Ar/Ar = $^{40}\text{Ar}/^{39}\text{Ar}$ laser fusion date; interp - interpolation between dated ash beds following [26]; pmag = magnetopolarity (Walcott ash bed)

TABLE DR3. GLASS SHARD COMPOSITION OF COMPOSITE SEQUENCE

Ash Bed	Age	Type ^t	Sample	XRFD (ppmw)				Sample	Electron Probe (wt%)				
				Rb [3]§	Sr [1]	Zr [7]	Mn/Fe [~0.0004]		Fe ₂ O ₃ * [.025]	CaO [.004]	K ₂ O [0.1]	Cl [.004]	
NT?	0.10	SRP	---	---	---	---	---	bur-	50.6	1.30	0.46	5.00	.105
NT?	0.15	SRP	---	---	---	---	---	s28-	112.9	1.45	0.46	4.99	.107
HN	0.39	SRP	hbn92-01	182	7	224	.025	gun	340	1.45	0.48	5.15	.096
LCB	0.60	SRP	lava ck-oc	180	4	226	.024	lc-oc-	92-3	1.65	0.52	5.10	.135
IC	0.70	SRP	---	---	---	---	---	ind	830-860	1.55	0.64	4.68	.145
MF	1.30	SRP	bur-547.8	246	3	137	.024	bur-	547.8	---	0.50	5.09	---
HR	2.06	SRP	bur-760.8	181	10	221	.023	dee93-	245	1.70	0.57	4.94	.144
---	3.50	SRP	glf92-01	168	34	259	.023	---	---	0.00	---	---	---
K	4.45	SRP	rir93-02	156	21	273	.025	rir93-	02	1.40	0.51	4.94	.061
SNT	5.10	SRP	rir93-09	156	16	273	.023	oqm93-	16	1.51	0.56	5.06	.094
CC-WC	5.58	SRP	acb92-6a	166	15	177	.025	acb92-6a		1.30	0.48	5.46	.125
W	6.20	SRP	clk93-37	159	22	245	.030	clk93-37		1.17	0.45	5.69	.107
BTC	6.62	SRP	rv88-18	193	20	200	.030	rv88-	18a	1.23	0.45	5.78	.130
CR	7.02	SRP	rv88-2	210	16	185	.025	rv88-	2	1.13	0.44	5.57	.097
F	7.49	SRP	rv88-15a	198	16	234	.020	rv88-	15a	1.29	0.44	6.03	.077
---	7.73	SRP	rv88-14	165	37	380	.025	rv88-	14	1.72	0.55	5.51	.019
RV	7.90	SRP	rv88-12a	181	19	319	.022	rv88-	12a	1.82	0.51	5.74	.025
IKM	8.30	SRP	rv89-11	177	37	381	.017	rv89-	11	1.72	0.62	5.70	.041
---	8.43	SRP	rv89-9	168	42	453	.017	rv89-	9	1.99	0.71	5.71	.034
---	8.51	SRP	---	---	---	---	---	btd95-	835	2.39	0.77	5.24	.040
---	8.67	SRP	rv88-11	164	43	427	.016	rv88-	11	1.98	0.67	5.67	.038
---	8.70	SRP	tc90-31	160	42	422	.021	tc90-	31	1.97	0.65	5.84	.016
---	8.84	SRP	---	---	---	---	---	btd96-	897	1.68	0.56	7.48	.082
---	8.88	SRP	---	---	---	---	---	btd96-	896	2.01	0.74	5.51	.040
---	8.89	SRP	---	---	---	---	---	btd96-	899	1.47	0.51	6.15	.067
---	8.97	SRP	---	---	---	---	---	btd94-	638	2.04	0.65	5.23	.039
---	8.97	SRP	i92-211a	209	10	237	.015	i92-211a		1.57	0.50	5.89	.069
---	9.10	SRP	i88-71	222	8	229	.015	i88-	71	1.48	0.60	5.62	.070
MC1	9.16	SRP	hhs92-224	199	22	257	.015	btd94-	637	1.74	0.48	5.47	.064
MNK	9.24	SRP	rv88-10	158	49	456	.018	rv88-	10	2.17	0.54	5.49	.036
---	9.36	SRP	epb92-75	176	42	413	.016	epb92-	75	2.00	0.78	6.63	.037
---	9.37	SRP	---	---	---	---	---	as93-	258	2.36	0.72	6.09	.028
LNC	9.41	SRP	qd1-67	167	54	548	.016	qd1-67		2.53	0.83	5.90	.028
---	9.47	SRP	qd4-c	164	59	535	.016	qd4-c		2.56	0.97	5.76	.027
OC6	9.52	SRP	epb92-77	170	42	389	.016	epb92-	77	2.05	0.94	6.39	.040
---	9.56	SRP	tc90-23	166	39	346	.018	tc90-	23	1.85	0.71	5.45	.039
---	9.66	SRP	rv88-4	152	57	466	.018	rv88-	4	2.43	0.87	4.93	.039
S26	9.70	SRP	tc90-22	160	52	482	.019	tc90-	22	2.29	0.60	5.16	.030
---	9.73	SRP	qg-13	157	66	322	.020	qg-13		1.89	0.87	6.07	.061
---	9.76	SRP	rv88-1	161	55	499	.018	rv88-	1	2.09	0.88	5.18	.022
---	9.78	SRP	---	---	---	---	---	btd96-	893	1.69	0.82	5.63	.063
---	9.81	SRP	---	---	---	---	---	btd95-	832	2.50	0.85	5.34	.024
HAZ	9.81	SRP	qe-6	180	44	445	.015	qe-6		2.20	0.54	5.97	.016
---	9.90	SRP	i88-68	183	36	377	.014	i88-	68	1.95	0.91	6.07	.024
---	10.01	SRP	rv88-0	180	26	314	.016	rv93-	240	1.76	0.76	5.72	.065
WSB	10.13	SRP	tc90-19	179	36	424	.016	tc90-	19	2.03	0.59	5.97	.027
OC3	10.19	SRP	epb92-22	168	48	449	.015	epb92-	22	2.28	0.56	5.95	.023
RAW	10.25	SRP	tc90-18	172	52	525	.016	tc90-	18	2.34	0.64	5.61	.024
---	10.29	SRP	---	---	---	---	---	btd95-	829	2.36	0.74	5.80	.023
---	10.31	SRP	---	---	---	---	---	btd95-	828	2.46	0.81	5.44	.025
---	10.36	SRP	tc90-17	173	50	476	.015	tc90-	17	2.33	0.79	5.64	.027
---	10.42	SRP	i88-67	172	40	472	.015	i88-	67	2.58	0.83	6.02	.023
XVj	10.45	SRP	i88-61	179	35	475	.015	buf94-	710	2.50	0.80	5.78	.027
---	10.49	SRP	tc90-14	175	42	435	.015	tc90-	14	2.10	0.73	5.59	.028
OC2	10.54	SRP	i88-60	173	38	450	.016	i88-	66	2.52	0.69	5.94	.026
---	10.65	SRP	tc90-13	186	30	419	.016	tc90-	13	2.20	0.65	5.79	.024
IP19	10.74	SRP	tc89-34a	171	48	469	.014	tc89-34a		2.48	0.72	5.46	.021
XIII	10.94	SRP	tc89-31a	186	26	356	.015	tc89-31a		2.08	0.61	5.60	.041
---	10.98	SRP	tc89-30a	180	28	399	.016	tc89-30a		2.15	0.80	5.52	.040
---	11.01	SRP	tc89-29b	184	30	397	.015	tc89-29b		2.11	0.63	5.65	.027
XII	11.19	SRP	tc89-28a	183	44	428	.015	tc89-28a		2.23	0.64	5.62	.020
---	11.29	SRP	epb92-28a	226	20	344	.016	epb92-28a		1.96	0.60	5.15	.042
XI	11.31	SRP	tc89-27c	195	18	342	.015	tc89-27c		1.92	0.00	5.87	.039
---	11.33	SRP	tc89-27a	204	16	306	.015	tc89-27b		1.81	0.76	5.99	.040
IX	11.59	SRP	tc89-25a	201	26	334	.015	tc89-25a		1.83	0.57	6.17	.031
LGR	11.79	SRP	i90-8	178	49	450	.017	i90-	8	2.24	0.58	6.26	.025
VII	11.80	SRP	tc89-24a	183	46	419	.016	tc89-24a		2.03	0.54	5.91	.022
IH	11.93	SRP	tc89-21a	195	31	383	.017	tc89-21a		2.10	0.56	6.28	.031
---	12.01	SRP	wb93-315	---	---	---	---	---	---	0.82	---	---	---
WB	12.09	SRP	tc89-19b	213	29	310	.015	tc89-19b		1.56	0.70	6.52	.032
---	12.09	SRP	---	---	---	---	---	htc93-	452	1.83	0.61	5.77	.053
V	12.07	SRP	tc89-18a	197	25	290	.017	tc89-18a		1.88	0.00	6.15	.051
---	12.17	SRP	i88-46	191	30	346	.016	i88-102		1.94	0.52	6.23	.036
BND	12.14	SRP	tc89-17a	201	41	340	.015	tc89-17a		1.77	0.58	6.40	.035

TABLE DR3. GLASS SHARD COMPOSITION OF COMPOSITE SEQUENCE

Ash Bed	Age	Type ^a	Sample	XRFD (ppmw)				Sample	Electron Probe (wt%)			
				Rb [3] ^b	Sr [1]	Zr [7]	Mn/Fe [~.0004]		Fe ₂ O ₃ ^c [.025]	CaO [.004]	K ₂ O [0.1]	Cl [.004]
---	12.28	SRP	tc89-16a	220	26	309	.017	tc89-16	1.56	0.59	6.61	.033
---	12.29	SRP	epb92-40	280	37	270	.018	epb92-40	1.74	0.57	4.17	.051
PIC	12.34	SRP	tc89-15	218	24	318	.015	tc89-15	1.62	0.66	6.71	.035
III	12.67	SRP	tc89-12	229	9	221	.020	tc89-12	1.47	0.52	6.79	.069
---	12.80	SRP	---	---	---	---	---	---	0.56	---	---	---
---	12.94	SRP	---	---	---	---	---	btd95-824	1.97	0.55	6.50	.062
GRT	12.96	SRP	tc89-20a	203	9	271	.019	tc89-20a	1.68	0.52	7.03	.057
---	12.96	SRP	i88- 33	226	7	259	.016	i88- 33	1.64	0.00	6.35	.061
---	13.04	SRP	tc90-32a	197	14	303	.018	tc90-32a	1.81	0.58	7.12	.055
---	13.24	SRP	tc90-49	207	5	293	.020	tc90-49	1.66	0.53	7.32	.060
WM	13.25	SRP	wb93-311	262	11	203	.016	wb93-311	1.41	0.52	5.54	.076
HUR	13.50	SRP	sv92- 57	170	47	450	.017	sv92- 57	2.59	0.56	6.14	.038
---	13.54	SRP	sv92- 62	167	58	446	.017	sv92- 62	2.66	0.52	6.06	.034
---	13.55	SRP	---	---	---	---	---	btd95-823	1.95	0.50	6.61	.044
---	13.57	SRP	tc90-47	196	7	322	.020	tc90-47	1.87	0.81	6.78	.051
---	13.59	SRP	tc90-46	208	10	283	.018	tc90-46	1.68	0.84	7.22	.051
---	13.65	SRP	tc90-45	190	31	371	.019	tc90-45	2.10	0.56	7.00	.037
---	13.66	SRP	tc90-44	183	35	344	.016	tc90-44	1.96	0.60	6.96	.035
---	13.70	SRP	tc90-43	203	38	288	.017	tc90-43	1.73	0.51	7.16	.057
---	13.72	SRP	tc90-42	265	6	195	.017	tc90-42	1.27	0.62	7.28	.085
RH	13.73	SRP	sv92- 99	241	9	192	.016	tc90-41	1.14	0.59	7.21	.066
LVK	13.78	SRP	sv92- 95a	224	3	274	.016	sv92- 95a	1.88	0.64	6.24	.081
---	13.85	SRP	i88- 27	227	18	206	.016	i88- 27	1.38	0.49	6.77	.073
---	13.87	SRP	i92- 74	290	1	183	.017	i92- 74	1.38	0.51	6.86	.110
---	13.89	SRP	tc90-40	261	3	245	.016	tc90-40	1.62	0.51	7.24	.099
---	13.90	SRP	htc93-447	172	33	468	.014	htc93-447	1.90	0.58	6.99	.047
---	13.96	SRP	tc90-39	206	16	271	.015	tc90-39	1.67	0.51	7.13	.059
---	13.98	SRP	tc90-38	217	20	291	.015	tc90-38	1.41	0.55	7.14	.054
---	14.00	SRP	---	---	---	---	---	i92-176	1.49	0.65	7.05	.108
SK	14.04	SRP	tc92-145	190	31	332	.014	---	---	0.52	---	---
---	14.04	SRP	sv93-272a	181	19	289	.015	sv93-272a	1.83	0.53	6.78	.063
---	14.08	SRP	tc92-135	192	34	373	.017	tc92-135	2.18	0.54	6.85	.034
---	14.12	SRP	---	---	---	---	---	btd95-826	1.75	0.65	7.42	.090
---	14.15	SRP	sv93-271	186	20	294	.015	sv93-271	1.81	0.58	6.89	.063
---	14.66	SRP	htc93-445	177	26	363	.016	htc93-445	1.93	0.63	7.08	.037
---	14.70	SRP	---	---	---	---	---	rg-160	1.96	0.57	5.58	.041
OBL	14.93	SRP	sv93-269	187	6	303	.016	sv93-269	1.88	0.56	6.26	.066
---	15.01	SRP	htc93-443	176	23	433	.016	htc93-443	2.06	0.61	6.83	.033
---	15.05	SRP	htc93-442	191	15	317	.014	htc93-442	1.47	0.56	6.90	.044
---	15.16	SRP	htc93-441	154	41	543	.019	htc93-441	2.68	0.55	6.52	.028
VV12	15.18	SRP	tb92-1	188	21	378	.017	---	0.62	---	---	---
PV1	15.17	SRP	buf94-618	172	25	446	.017	buf94-618	2.32	0.51	6.16	.040
HC2	15.21	SRP	buf94-617	164	27	473	.019	buf94-617	2.52	0.78	6.23	.045
HC1	15.21	SRP	htc93-439	166	24	423	.019	htc93-439	2.38	0.67	6.84	.045
AW	15.24	BC	buf94-616	150	11	440	.017	buf94-616	2.35	0.00	6.14	.075
---	15.27	BC	buf94-615	161	24	502	.021	buf94-615	2.69	0.69	6.18	.034
---	15.36	BC	---	---	---	---	---	grc96-982	2.49	0.66	5.42	.037
---	15.41	BC?	buf94-614	69	77	396	.028	buf94-614	2.64	0.63	5.03	.051
VV8	15.42	BC	buf94-613	153	24	568	.022	buf94-613	2.95	0.70	5.80	.032
---	15.46	BC	buf94-612	143	32	653	.024	buf94-612	3.60	0.61	5.65	.028
---	15.47	BC	---	---	---	---	---	grc96-980	3.06	0.84	5.07	.032
---	15.48	BC	---	---	---	---	---	rg- 19gray	3.22	0.74	5.92	.029
---	15.50	BC	grc96-979	139	37	673	.024	grc96-979	3.41	0.89	5.00	.031
---	15.51	BC	---	---	---	---	---	buf94-609	3.42	0.77	5.38	.030
---	15.53	BC	buf94-608	139	42	670	.025	buf94-608	3.77	0.79	5.67	.029
---	15.54	per	buf94-607	177	2	435	.020	buf94-607	1.79	0.86	7.13	.122
---	15.54	BC	buf94-606	134	52	659	.025	buf94-606	3.81	0.90	5.65	.031
SC3	15.55	BC	buf94-605	137	46	628	.024	buf94-605	3.52	1.00	5.66	.032
---	15.56	BC	buf94-604	111	95	530	.025	buf94-604	5.30	1.00	4.64	.034
---	15.57	BC	buf94-603	118	78	534	.026	buf94-603	4.34	0.91	5.03	.027
VV1	15.60	BC	buf94-601	121	88	465	.025	buf94-601	4.18	1.58	4.80	.024
---	15.61	BC	grc96-976	149	30	555	.022	grc96-976	2.89	1.22	5.03	.034
---	15.63	BC	---	---	---	---	---	buf94-704	2.44	1.21	6.98	.055
---	15.65	BC	---	---	---	---	---	grc96-984	4.53	0.42	4.07	.032
---	15.76	BC	buf94-619	127	7	589	.020	buf94-619	2.50	0.71	5.93	.059
---	15.81	BC	buf94-600	127	16	535	.020	buf94-600	2.64	1.32	6.49	.126
---	15.84	BC	buf94-599	120	10	561	.019	buf94-599	2.48	0.44	6.94	.054
---	15.92	per	buf94-620	252	0	942	.061	buf94-620	3.21	0.64	6.94	.172
---	15.92	BC?	buf94-623	75	19	381	.034	buf94-623	2.18	0.44	5.49	.066
---	15.99	BC?	---	---	---	---	---	rg-165	2.86	0.47	5.28	.036
PEA	16.00	per	buf94-596	211	1	589	.063	buf94-596	2.01	0.69	6.93	.113

^aSee Table DR2 for name of ash bed.^bSRP = SRP-type; BC = BC-type; per = peralkaline; queried if uncertain.^cNumbers in brackets are the estimated analytical precisions (1sigma)

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