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Supplemental Material

Table S1. Sample descriptions, locations, and all major- and trace-element data. See “notes” tab in Excel file for more details.

Table S2. Complete $^{40}\text{Ar}/^{39}\text{Ar}$ data. See “notes” tab in Excel file for more details.

Figure S1. Photographs of lava-sample outcrops.

Figure S2. Plateau and isochron figures for all $^{40}\text{Ar}/^{39}\text{Ar}$ experiments.

Figure S3. Chondrite-normalized (McDonough and Sun, 1995) REE plots of eruptive products from Akutan Island, sorted by geologic unit.

The magmatic evolution, eruptive history, and effects of glacial ice on long-lived Akutan volcano, eastern Aleutian Islands, By M. Coombs and B. Jicha

Figure DR1. Photos of select sample locations, sorted by unit.

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Figure DR1A. Ancestral Akutan undivided

12AKMC025; Ancestral Akutan, gabbro (aag) 2319 $\pm$ 150 ka. Sample location in square, shown in lower figure.

12AKMC025; Ancestral Akutan, gabbro (aag) 2319 $\pm$ 150 ka

14AKMC051 (2219 +/- 34 ka) Ancestral Akutan, undivided (aau). Dike swarm just west of Cascade Bight vent.

14AKMC050 (2076 +/- 9) Ancestral Akutan, undivided (aau)

14AKMC038; Ancestral Akutan, undivided (dike; no date)

14AKMC053 (2323 +/- 41 ka) Ancestral Akutan, undivided (aau). Upper Cascade Bight valley.

14AKMC056 (1221 $\pm$ 52 ka) Ancestral Akutan, undivided (aau). Due east of Akutan Peak

12AKMC006 (1252 $\pm$ 11 ka) Ancestral Akutan, undivided (aau)

Figure DR1B. Lavas of Open Bight eruptive episode (lob)

12AKMC010 (752 $\pm$ 17 ka) Lavas of Open Bight eruptive episode (lob). Sits above breccia of aau, and below massive lavas of presumably llv.

12AKMC026 (765 $\pm$ 4 ka) Lavas of Open Bight eruptive episode (lob). Above Hot Springs valley.

Figure DR1C. Lavas of Long Valley volcano (llv)

14AKMC072 (no date) Lavas of Long Valley volcano (llv). Aphyric lava, beyond helicopter

14AKMC073 (640 +/- 34 ka) Lavas of Long Valley volcano (llv)

12AKMC027 (522 +/- 8 ka) Lavas of Long Valley volcano (Ilv).

12AKMC009 (tried, no date). Lavas of Long Valley volcano (Ilv). Above Open Bight

14AKMC071 - (no date) Lavas of Long Valley volcano (llv).

14AKMC072 (no date) Lavas of Long Valley volcano (llv).

14AKMC075 (660 +/- 40 ka) Lavas of Long Valley volcano (llv). Lava flow in upper Open Bight valley

14AKMC076 (678 +/- 36 ka) Lavas of Long Valley volcano (llv). Lava flow in upper Long Valley

14AKMC035 (537 $\pm$ 2 ka); 14AKMC036 (634 $\pm$ 18 ka); Lavas of Long Valley volcano (llv). Northwest flank of Akutan edifice. 36 is down around corner.

14AKMC070 - (no date, no chem). Breccia of Long Valley volcano (blv).

12AKBJ005 (664 $\pm$ 10 ka) Lavas of Long Valley volcano (llv). North of Long Valley.

14AKMC065 (634 $\pm$ 29 ka) Lavas of Long Valley volcano (llv). Lava flow at extreme right of photo, below 14AKMC064

365- ka lava (365I). Only outcrop of this unit and timeframe;
only known amphibole bearing rock

14AKMC064 (365 +/- 8 ka) — Ice-marginal lava flow below and NW of Flat Top. Sample 14AKMC065 is below.

Figure DR1D. Basalts and plug of Lava Peak (blp, plp)

12AKMC028; 12AKBJ018; 12AKMC029 - Lava Peak section

12AKMC028 (596 +/- 16 ka) Basalts of Lava Peak (blp)

12AKBJ018 (no date) Plug of Lava Peak (plp)

12AKBJ018 (no date) Plug of Lava Peak (plp)

Figure DR1E. Basalts of early, middle, and late Flat Top

12AKMC004 (114 +/- 8 ka) Basalts of young Flat Top (byf); Flat Top summit

12AKMC004 (114 +/- 8 ka) Basalts of young Flat Top (byf); Flat Top summit

12AKMC002 (111 +/- 11 ka) Basalts of young Flat Top (byf)

12AKMC002 (111 +/- 11 ka) Basalts of young Akutan (byf); 12AKBJ001 (118 +/- 15 ka) and 12AKBJ002 (121 +/- 13 ka) Basalts of middle Flat Top (bmf); 12AKMC003 (no date) CFE xenolith. Below Flat Top Peak

12AKBJ001 (118 +/- 15 ka) Basalts of middle Flat Top (bmf)

14AKMC078 (no date) Flat Top plug in foreground

12AKMC021 (133 +/- 22 ka) Basalts of early Flat Top (bef). Near top of thin Flat Top lavas

12AKMC021 (133 +/- 22 ka) Basalts of early Flat Top (bef). Near top of thin Flat Top lavas

12AKMC022 (148 +/- 10 ka) Basalts of early Flat Top (bef)

12AKBJ016 (155 +/- 8 ka) Basalts of early Flat Top (bef)

14AKMC062 - Basalts of middle Flat Top
(bmf)

14AKMC062 - Basalts of middle Flat Top (bmf)

Figure DR1F. Lavas, plug, and breccia of Cascade Bight vent

14AKMC048 - Cascade Bight breccia

14AKMC046; breccia from Cascade Bight

14AKMC037 (65 +/- 4 ka) Lavas of Cascade Bight volcano (lcb)

14AKMC045 (64 +/- 5 ka) Lavas of Cascade Bight volcano (lcb)

14AKMC039 (53 +/- 9 ka) Lavas of Cascade Bight volcano (lcb)

12AKMC032 (43 +/- 8 ka) Lavas of Cascade Bight volcano (lcb)

Figure DR1G. Lavas of the early Akutan edifice

14AKMC049 (236 $\pm$ 9 ka), Akutan's southeast flank, Lavas of early Akutan edifice (lea)

14AKMC044 (255 $\pm$ 9 ka), Akutan's southeast flank, Lavas of early Akutan edifice (lea)

12AKMC001 Lavas of early Akutan edifice (lea) northeast flank of Akutan edifice

12AKMC005; 12AKMC001; 12AKBJ003; 12AKBJ004; north flank of Akutan edifice

12AKMC024 (285 $\pm$ 8 ka) — Lavas of early Akutan edifice (lea)

12AKMC030 (265 $\pm$ 6 ka) Lavas of early Akutan edifice (lea)

12AKMC020 (248 $\pm$ 19 ka) -- Lavas of early Akutan edifice (lea)

12AKMC020 (248 $\pm$ 19 ka) -- Lavas of early Akutan edifice (lea)

14AKMC058 (no date) Lavas of early Akutan edifice (lea)

14AKMC058 (no date) Lavas of early Akutan edifice (lea)

14AKMC067 - Lava knob in Flat Bight valley (267 +/- 11 ka). Lavas of early Akutan edifice (lea)

14AKMC067 - Lava knob in Flat Bight valley (267 +/- 11 ka). Lavas of early Akutan edifice (lea). Photos is taken from above view seen in upper photo.

12AKBJ020 (no date) Lavas of early Akutan edifice (lea). Lava on lower ESE flank of Akutan edifice

14AKMC079 (no date) Lavas of early Akutan edifice (lea)

Figure DR1H. Lavas of the Black Cap eruptive episode

12AKMC019 (118+/-26 ka) Lavas of Black Cap (lbc)

12AKMC019 1-m-wide scoriaceous zone in lava, S 110 degrees, dip 85 N.

14AKMC052 (122 $\pm$ 9 ka) Lavas of Black Cap (lbc)

14AKMC040 (no date) Lavas of Black Cap

12AKBJ015 (120 +/- 5 ka) Lavas of Black cap (lbc)

12AKBJ019 (118 +/- 26 ka) Lavas of Black Cap (lbc)

12AKMC018 (base; 114 $\pm$ 7 ka) Lavas of Black Cap (lbc); 12AKBJ014 (top; 13 $\pm$ 7 ka) Andesites of the old caldera rim (aoc)

12AKMC018 (114 $\pm$ 7 ka) Lavas of Black Cap (lbc)

Figure DR1I. Lavas of the young Akutan edifice

14AKMC077 (78 $\pm$ 8 ka)— Lava from near base of western Akutan edifice. Lavas of young Akutan edifice (Iya)

14AKMC077 (78 $\pm$ 8 ka)— Lava from near base of western Akutan edifice. Lavas of young Akutan edifice (Iya)

14AKMC047 (71 +/- 6 ka) Lavas of the young Akutan edifice (Iya). This lava is exposed under Cascade Bight lavas

12AKMC033 (no date) Big Plag basaltic andesite of SE flank (bpba)

14AKMC042 (no date); Big Plag basaltic andesite of SE flank (bpba)

14AKMC043 (no date); Big Plag basaltic andesite of SE flank (bpba)

14AKMC043 (no date); Big Plag basaltic andesite of SE flank (bpba)

14AKMC041 (no date) Hi-P2O5 basaltic andesite of SE flank, hpba

14AKMC059 (74 $\pm$ 7 ka) Hi-P2O5 basaltic andesite of SE flank (hpba)

14AKMC059 (74 $\pm$ 7 ka) Hi-P2O5 basaltic andesite of SE flank (hpba)

14AKMC060 (no date) High-P2O5 basaltic andesite of SE flank (hpba)

14AKMC068 (foreground) and 14AKMC069 (45 +/- 2 ka; mid-ground).
 Lavas of young Akutan (Iya). Likely the same dacite lava flow, low on Akutan's east flank.

12AKBJ012 (no date) Lavas of young Akutan edifice (lya); 12AKMC017 (no date) Andesite of east caldera rim (aec)

12AKMC017 (no date) Andesite of east caldera rim (aec)

12AKMC013 (no date) Lavas of the young Akutan edifice (Iya)

12AKMC013 (no date) Lavas of the young Akutan edifice (Iya)

12AKMC015; 12AKBJ007 (no dates) Lavas of the young Akutan edifice. There is an apparent unconformity between these (and the upsampled units immediately above them) and overlying 12AKBJ008.

12AKBJ006; 12AKMC013 - Lower west caldera wall; Samples are likely of same flow

Figure DR1J. Andesites of the old caldera rim (aoc)

12AKBJ014 (13 +/- 7 ka) Andesites of the old caldera rim (aoc)

12AKBJ014 (13 +/- 7 ka) Andesites of the old caldera rim (aoc)

12AKBJ008 (uppermost lava; 9 +/- 4 ka) Andesites of the old caldera rim (aoc);
12AKMC016 (no date). Xenolith in scoria agglutinate above lava (Akutan Tephra?)

14AKMC057 (no date) Andesites of the old caldera rim (aoc). Though to be 13-9 ka

Figure DR1K. Holocene units

12AKMC012 (no date) Akutan Peak plug (pap). Looking south

12AKMC012 (no date) Akutan Peak plug (pap). Looking north.

12AKBJ011 (no date) Basaltic andesite of Akutan Peak (baap)

12AKMC011 (no date) High-TiO₂ basaltic andesite of the caldera rim (htcr). Topmost lava in southwest caldera wall

12AKMC011 (no date) High-TiO₂ basaltic andesite of the caldera rim (htcr). Topmost lava in southwest caldera wall

14AKMC054 - (Holocene, no date) Andesite of the east caldera rim (aec), under Akutan tephra

14AKMC055 -- Agglutinate on north rim (Akutan tephra)

12AKMC016 - xenolith from rim agglutinate (Akutan tephra)

12AKMC034 various xenoliths from surface fall (Akutan tephra)

12AKMC034 various xenoliths from surface fall (Akutan tephra)

12AKMC034 various xenoliths from surface fall (Akutan tephra)

12AKMC034 various xenoliths from surface fall (Akutan tephra)

12AKMC034 various xenoliths from surface fall (Akutan tephra)

12AKBK009 (glassy clast); 12AKBJ010 (scoria); both from coarse fall

12AKBK009 (glassy clast); 12AKBJ010 (scoria); both from coarse fall

UW106B24.AGE >>> 12AKMC030 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

264.6 ± 5.8

TOTAL FUSION

259.3 ± 7.1

NORMAL ISOCHRON

251.4 ± 17.2

INVERSE ISOCHRON

251.9 ± 17.1

MSWD

(PROBABILITY)

0.93 (47%)

Sample Info

groundmass

UW106C24

Jicha, Brian

IRR = UW106

J = 0.00072960 ±

0.00000044

UW106B24.AGE >>> 12AKMC030 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

264.6 ± 5.8

TOTAL FUSION

259.3 ± 7.1

NORMAL ISOCHRON

251.4 ± 17.2

INVERSE ISOCHRON

251.9 ± 17.1

MSWD

(PROBABILITY)

0.44 (82%)

SPREADING FACTOR

38.3%

40AR/36AR

INTERCEPT

346.5 ± 60.3

Sample Info

groundmass

UW106C24

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B23.AGE >>> 12AKMC029 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

605.3 ± 15.4

TOTAL FUSION

560.3 ± 24.8

NORMAL ISOCHRON

607.6 ± 32.4

INVERSE ISOCHRON

607.4 ± 32.3

MSWD

(PROBABILITY)

0.44 (85%)

Sample Info

groundmass

UW106B23

Jicha, Brian

IRR = UW106

J = 0.00072960 ±

0.00000044

UW106B23.AGE >>> 12AKMC029 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

605.3 ± 15.4

TOTAL FUSION

560.3 ± 24.8

NORMAL ISOCHRON

607.6 ± 32.4

INVERSE ISOCHRON

607.4 ± 32.3

MSWD

(PROBABILITY)

0.53 (76%)

SPREADING FACTOR

30.1%

40AR/36AR

INTERCEPT

297.6 ± 12.8

Sample Info

groundmass

UW106B23

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B22.AGE >>> 12AKMC028 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

596.5 ± 15.8

TOTAL FUSION

574.2 ± 17.8

NORMAL ISOCHRON

609.8 ± 28.3

INVERSE ISOCHRON

609.8 ± 28.2

MSWD

(PROBABILITY)

0.37 (92%)

Sample Info

groundmass

UW106B22

Jicha, Brian

IRR = UW106

J = 0.00072960 ±

0.00000044

UW106B22.AGE >>> 12AKMC028 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

596.5 ± 15.8

TOTAL FUSION

574.2 ± 17.8

NORMAL ISOCHRON

609.8 ± 28.3

INVERSE ISOCHRON

609.8 ± 28.2

MSWD

(PROBABILITY)

0.23 (97%)

SPREADING FACTOR

41.9%

40AR/36AR

INTERCEPT

293.8 ± 8.5

Sample Info

groundmass

UW106B22

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B21.AGE >>> 12AKMC027 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

521.9 ± 7.7

TOTAL FUSION

530.8 ± 8.1

NORMAL ISOCHRON

524.1 ± 11.2

INVERSE ISOCHRON

524.3 ± 11.1

MSWD

(PROBABILITY)

0.48 (79%)

Sample Info

groundmass

UW106B21

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B21.AGE >>> 12AKMC027 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

521.9 ± 7.7

TOTAL FUSION

530.8 ± 8.1

NORMAL ISOCHRON

524.1 ± 11.2

INVERSE ISOCHRON

524.3 ± 11.1

MSWD

(PROBABILITY)

0.52 (72%)

SPREADING FACTOR

55.9%

40AR/36AR

INTERCEPT

297.0 ± 5.4

Sample Info

groundmass

UW106B21

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B20.AGE >>> 12AKMC026 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

765.2 ± 4.2

TOTAL FUSION

761.1 ± 7.2

NORMAL ISOCHRON

765.4 ± 4.6

INVERSE ISOCHRON

765.5 ± 4.6

MSWD

(PROBABILITY)

0.12 (99%)

Sample Info

groundmass

UW106B19

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B20.AGE >>> 12AKMC026 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

765.2 ± 4.2

TOTAL FUSION

761.1 ± 7.2

NORMAL ISOCHRON

765.4 ± 4.6

INVERSE ISOCHRON

765.5 ± 4.6

MSWD

(PROBABILITY)

0.12 (97%)

SPREADING FACTOR

68.6%

40AR/36AR

INTERCEPT

297.6 ± 6.1

Sample Info

groundmass

UW106B19

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B19.AGE >>> 12AKMC024 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

284.6 ± 7.7

TOTAL FUSION

281.3 ± 8.8

NORMAL ISOCHRON

285.7 ± 13.5

INVERSE ISOCHRON

286.7 ± 13.7

MSWD

(PROBABILITY)

0.81 (59%)

Sample Info

groundmass

UW106B19

Jicha, Brian

IRR = UW106

J = 0.00072960 ±

0.00000044

UW106B19.AGE >>> 12AKMC024 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

284.6 ± 7.7

TOTAL FUSION

281.3 ± 8.8

NORMAL ISOCHRON

285.7 ± 13.5

INVERSE ISOCHRON

286.7 ± 13.7

MSWD

(PROBABILITY)

0.91 (50%)

SPREADING FACTOR

54.1%

40AR/36AR

INTERCEPT

297.3 ± 7.2

Sample Info

groundmass

UW106B19

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B18.AGE >>> 12AKMC023 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

286.0 ± 9.7

TOTAL FUSION

285.3 ± 13.3

NORMAL ISOCHRON

286.5 ± 12.1

INVERSE ISOCHRON

286.3 ± 12.2

MSWD

(PROBABILITY)

0.14 (100%)

Sample Info

groundmass

UW106B18

Jicha, Brian

IRR = UW106

J = 0.00072960 ±

0.00000044

UW106B18.AGE >>> 12AKMC023 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

286.0 ± 9.7

TOTAL FUSION

285.3 ± 13.3

NORMAL ISOCHRON

286.5 ± 12.1

INVERSE ISOCHRON

286.3 ± 12.2

MSWD

(PROBABILITY)

0.16 (99%)

SPREADING FACTOR

75.3%

$^{40}\text{Ar}/^{36}\text{Ar}$

INTERCEPT

298.0 ± 18.9

Sample Info

groundmass

UW106B18

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B17.AGE >>> 12AKMC022 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

148.4 ± 9.6

TOTAL FUSION

126.6 ± 15.8

NORMAL ISOCHRON

150.2 ± 18.3

INVERSE ISOCHRON

150.3 ± 18.1

MSWD

(PROBABILITY)

0.93 (47%)

Sample Info

groundmass

UW106B17

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B17.AGE >>> 12AKMC022 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

148.4 ± 9.6

TOTAL FUSION

126.6 ± 15.8

NORMAL ISOCHRON

150.2 ± 18.3

INVERSE ISOCHRON

150.3 ± 18.1

MSWD

(PROBABILITY)

1.12 (35%)

SPREADING FACTOR

19.2%

40AR/36AR

INTERCEPT

297.9 ± 5.7

Sample Info

groundmass

UW106B17

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B16.AGE >>> 12AKMC021 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

132.7 $\pm$ 21.7

TOTAL FUSION

88.8 $\pm$ 38.5

NORMAL ISOCHRON

143.8 $\pm$ 30.5

INVERSE ISOCHRON

143.8 $\pm$ 30.3

MSWD

(PROBABILITY)

0.27 (97%)

Sample Info

groundmass

UW106B16

Jicha, Brian

IRR = UW106

J = 0.00072960 $\pm$

0.00000044

UW106B16.AGE >>> 12AKMC021 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

132.7 ± 21.7

TOTAL FUSION

88.8 ± 38.5

NORMAL ISOCHRON

143.8 ± 30.5

INVERSE ISOCHRON

143.8 ± 30.3

MSWD

(PROBABILITY)

0.14 (99%)

SPREADING FACTOR

8.1%

40AR/36AR

INTERCEPT

297.4 ± 2.2

Sample Info

groundmass

UW106B16

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B15.AGE >>> 12AKMC020 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

248.0 ± 19.1

TOTAL FUSION

216.2 ± 31.9

NORMAL ISOCHRON

253.3 ± 36.0

INVERSE ISOCHRON

253.0 ± 35.7

MSWD

(PROBABILITY)

0.46 (87%)

Sample Info

groundmass

UW106B15

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B15.AGE >>> 12AKMC020 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

248.0 ± 19.1

TOTAL FUSION

216.2 ± 31.9

NORMAL ISOCHRON

253.3 ± 36.0

INVERSE ISOCHRON

253.0 ± 35.7

MSWD

(PROBABILITY)

0.53 (78%)

SPREADING FACTOR

8.1%

40AR/36AR

INTERCEPT

298.1 ± 2.7

Sample Info

groundmass

UW106B15

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B14.AGE >>> 12AKMC019 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

117.8 ± 26.1

TOTAL FUSION

111.5 ± 32.4

NORMAL ISOCHRON

123.3 ± 37.4

INVERSE ISOCHRON

125.7 ± 35.2

MSWD

(PROBABILITY)

0.60 (80%)

Sample Info

groundmass

UW106B14

Jicha, Brian

IRR = UW106

J = 0.00072960 ±

0.00000044

UW106B14.AGE >>> 12AKMC019 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

117.8 ± 26.1

TOTAL FUSION

111.5 ± 32.4

NORMAL ISOCHRON

123.3 ± 37.4

INVERSE ISOCHRON

125.7 ± 35.2

MSWD

(PROBABILITY)

0.63 (75%)

SPREADING FACTOR

11.8%

40AR/36AR

INTERCEPT

296.7 ± 6.3

Sample Info

groundmass

UW106B14

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106B13.AGE >>> 12AKMC018 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

114.0 ± 7.5

TOTAL FUSION

98.2 ± 16.4

NORMAL ISOCHRON

115.1 ± 7.6

INVERSE ISOCHRON

115.4 ± 7.5

MSWD

(PROBABILITY)

0.84 (56%)

Sample Info

groundmass

UW106B13

Jicha, Brian

IRR = UW106

J = 0.00072960 ±

0.00000044

UW106B13.AGE >>> 12AKMC018 >>> UW106B PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

114.0 ± 7.5

TOTAL FUSION

98.2 ± 16.4

NORMAL ISOCHRON

115.1 ± 7.6

INVERSE ISOCHRON

115.4 ± 7.5

MSWD

(PROBABILITY)

0.30 (96%)

SPREADING FACTOR

60.9%

40AR/36AR

INTERCEPT

295.2 ± 3.1

Sample Info

groundmass

UW106B13

Jicha, Brian

IRR = UW106

$J = 0.00072960 \pm$

0.00000044

UW106A9.AGE >>> 12AKMC010 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

752.3 ± 17.3

TOTAL FUSION

738.7 ± 28.9

NORMAL ISOCHRON

758.1 ± 21.6

INVERSE ISOCHRON

758.6 ± 21.6

MSWD

(PROBABILITY)

$0.42 \text{ (89\%)}$

Sample Info

groundmass

UW106A9

Jicha, Brian

IRR = UW106

$J = 0.00073610 \pm$

0.00000055

UW106A9.AGE >>> 12AKMC010 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

752.3 ± 17.3

TOTAL FUSION

738.7 ± 28.9

NORMAL ISOCHRON

758.1 ± 21.6

INVERSE ISOCHRON

758.6 ± 21.6

MSWD

(PROBABILITY)

0.33 (92%)

SPREADING FACTOR

50.6%

40AR/36AR

INTERCEPT

297.3 ± 2.7

Sample Info

groundmass

UW106A9

Jicha, Brian

IRR = UW106

$J = 0.00073610 \pm$

0.00000055

UW106A7.AGE >>> 12AKMC008 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

1386.6 ± 12.7

TOTAL FUSION

1371.0 ± 16.6

NORMAL ISOCHRON

1398.8 ± 21.8

INVERSE ISOCHRON

1400.0 ± 21.8

MSWD

(PROBABILITY)

0.78 (60%)

Sample Info

groundmass

UW106A7

Jicha, Brian

IRR = UW106

$J = 0.00073610 \pm$

0.00000055

UW106A7.AGE >>> 12AKMC008 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

1386.6 ± 12.7

TOTAL FUSION

1371.0 ± 16.6

NORMAL ISOCHRON

1398.8 ± 21.8

INVERSE ISOCHRON

1400.0 ± 21.8

MSWD

(PROBABILITY)

0.57 (76%)

SPREADING FACTOR

42.8%

40AR/36AR

INTERCEPT

287.8 ± 14.4

Sample Info

groundmass

UW106A7

Jicha, Brian

IRR = UW106

$J = 0.00073610 \pm$

0.00000055

UW110E26.AGE >>> 12AKMC007 >>> UW110E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

581.2 $\pm$ 13.7

TOTAL FUSION

520.5 $\pm$ 15.7

NORMAL ISOCHRON

584.4 $\pm$ 42.3

INVERSE ISOCHRON

584.6 $\pm$ 42.0

MSWD

(PROBABILITY)

0.72 (61%)

Sample Info

groundmass

UW110E26

Andersen, Nathan

IRR = UW110

J = 0.00074650 $\pm$

0.00000060

UW110E26.AGE >>> 12AKMC007 >>> UW110E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

581.2 ± 13.7

TOTAL FUSION

520.5 ± 15.7

NORMAL ISOCHRON

584.4 ± 42.3

INVERSE ISOCHRON

584.6 ± 42.0

MSWD

(PROBABILITY)

0.89 (47%)

SPREADING FACTOR

28.0%

40AR/36AR

INTERCEPT

297.5 ± 12.3

Sample Info

groundmass

UW110E26

Andersen, Nathan

IRR = UW110

$J = 0.00074650 \pm$

0.00000060

UW106A5.AGE >>> 12AKMC006 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

1252.2 $\pm$ 10.7

TOTAL FUSION

1223.8 $\pm$ 13.7

NORMAL ISOCHRON

1263.6 $\pm$ 24.5

INVERSE ISOCHRON

1263.1 $\pm$ 24.4

MSWD

(PROBABILITY)

0.39 (85%)

Sample Info

groundmass

UW106A5

Jicha, Brian

IRR = UW106

J = 0.00073610 $\pm$

0.00000055

UW106A5.AGE >>> 12AKMC006 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

1252.2 ± 10.7

TOTAL FUSION

1223.8 ± 13.7

NORMAL ISOCHRON

1263.6 ± 24.5

INVERSE ISOCHRON

1263.1 ± 24.4

MSWD

(PROBABILITY)

0.27 (90%)

SPREADING FACTOR

37.9%

40AR/36AR

INTERCEPT

288.1 ± 21.3

Sample Info

groundmass

UW106A5

Jicha, Brian

IRR = UW106

$J = 0.00073610 \pm$

0.00000055

UW106A2.AGE >>> 12AKMC002 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

98.8 ± 18.7

TOTAL FUSION

70.6 ± 36.7

NORMAL ISOCHRON

103.0 ± 26.1

INVERSE ISOCHRON

104.1 ± 24.8

MSWD

(PROBABILITY)

0.80 (60%)

Sample Info

groundmass

UW106A2

Jicha, Brian

IRR = UW106

J = 0.00073610 ±

0.00000055

UW106A2.AGE >>> 12AKMC002 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

98.8 ± 18.7

TOTAL FUSION

70.6 ± 36.7

NORMAL ISOCHRON

103.0 ± 26.1

INVERSE ISOCHRON

104.1 ± 24.8

MSWD

(PROBABILITY)

0.87 (53%)

SPREADING FACTOR

8.1%

40AR/36AR

INTERCEPT

297.7 ± 3.1

Sample Info

groundmass

UW106A2

Jicha, Brian

IRR = UW106

$J = 0.00073610 \pm$

0.00000055

UW106A1.AGE >>> 12AKMC001 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

203.8 ± 16.9

TOTAL FUSION

174.5 ± 24.3

NORMAL ISOCHRON

204.6 ± 27.4

INVERSE ISOCHRON

205.1 ± 26.9

MSWD

(PROBABILITY)

0.71 (64%)

Sample Info

groundmass

UW106A1

Jicha, Brian

IRR = UW106

J = 0.00073610 ±

0.00000055

UW106A1.AGE >>> 12AKMC001 >>> UW106A PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

203.8 ± 16.9

TOTAL FUSION

174.5 ± 24.3

NORMAL ISOCHRON

204.6 ± 27.4

INVERSE ISOCHRON

205.1 ± 26.9

MSWD

(PROBABILITY)

0.85 (51%)

SPREADING FACTOR

17.3%

$^{40}\text{Ar}/^{36}\text{Ar}$

INTERCEPT

298.3 ± 4.9

Sample Info

groundmass

UW106A1

Jicha, Brian

IRR = UW106

$J = 0.00073610 \pm$

0.00000055

UW106D40.AGE >>> 12AKBJ019 >>> UW106D PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

116.3 ± 16.7

TOTAL FUSION

114.1 ± 21.5

NORMAL ISOCHRON

120.5 ± 27.6

INVERSE ISOCHRON

119.0 ± 26.4

MSWD

(PROBABILITY)

0.58 (79%)

Sample Info

groundmass

UW106D40

Jicha, Brian

IRR = UW106

$J = 0.00069840 \pm$

0.00000042

UW106D40.AGE >>> 12AKBJ019 >>> UW106D PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

116.3 ± 16.7

TOTAL FUSION

114.1 ± 21.5

NORMAL ISOCHRON

120.5 ± 27.6

INVERSE ISOCHRON

119.0 ± 26.4

MSWD

(PROBABILITY)

0.65 (71%)

SPREADING FACTOR

28.4%

40AR/36AR

INTERCEPT

296.9 ± 14.4

Sample Info

groundmass

UW106D40

Jicha, Brian

IRR = UW106

$J = 0.00069840 \pm$

0.00000042

UW106D38.AGE >>> 12AKBJ015 >>> UW106D PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

120.5 ± 5.1

TOTAL FUSION

118.8 ± 6.6

NORMAL ISOCHRON

120.4 ± 6.1

INVERSE ISOCHRON

120.8 ± 6.1

MSWD

(PROBABILITY)

0.26 (98%)

Sample Info

groundmass

UW106D38

Jicha, Brian

IRR = UW106

J = 0.00069840 ±

0.00000042

UW106D38.AGE >>> 12AKBJ015 >>> UW106D PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

120.5 ± 5.1

TOTAL FUSION

118.8 ± 6.6

NORMAL ISOCHRON

120.4 ± 6.1

INVERSE ISOCHRON

120.8 ± 6.1

MSWD

(PROBABILITY)

0.30 (95%)

SPREADING FACTOR

58.8%

40AR/36AR

INTERCEPT

294.8 ± 7.5

Sample Info

groundmass

UW106D38

Jicha, Brian

IRR = UW106

$J = 0.00069840 \pm$

0.00000042

UW106C34.AGE >>> 12AKBJ008 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

14.6 ± 8.1

TOTAL FUSION

14.2 ± 9.7

NORMAL ISOCHRON

16.1 ± 12.5

INVERSE ISOCHRON

17.0 ± 10.6

MSWD

(PROBABILITY)

0.41 (90%)

Sample Info

groundmass

UW106C34

Jicha, Brian

IRR = UW106

$J = 0.00071690 \pm$

0.00000036

UW106C34.AGE >>> 12AKBJ008 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

14.6 ± 8.1

TOTAL FUSION

14.2 ± 9.7

NORMAL ISOCHRON

16.1 ± 12.5

INVERSE ISOCHRON

17.0 ± 10.6

MSWD

(PROBABILITY)

0.44 (85%)

SPREADING FACTOR

9.9%

40AR/36AR

INTERCEPT

295.6 ± 11.7

Sample Info

groundmass

UW106C34

Jicha, Brian

IRR = UW106

$J = 0.00071690 \pm$

0.00000036

UW106C31.AGE >>> 12AKBJ005 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

663.6 ± 10.4

TOTAL FUSION

661.0 ± 11.7

NORMAL ISOCHRON

664.7 ± 19.9

INVERSE ISOCHRON

665.9 ± 19.6

MSWD

(PROBABILITY)

0.59 (76%)

Sample Info

groundmass

UW106C31

Jicha, Brian

IRR = UW106

J = 0.00071690 ±

0.00000036

UW106C31.AGE >>> 12AKBJ005 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

663.6 ± 10.4

TOTAL FUSION

661.0 ± 11.7

NORMAL ISOCHRON

664.7 ± 19.9

INVERSE ISOCHRON

665.9 ± 19.6

MSWD

(PROBABILITY)

0.68 (67%)

SPREADING FACTOR

54.9%

40AR/36AR

INTERCEPT

297.0 ± 11.6

Sample Info

groundmass

UW106C31

Jicha, Brian

IRR = UW106

$J = 0.00071690 \pm$

0.00000036

UW106C30.AGE >>> 12AKBJ004 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

199.2 ± 19.8

TOTAL FUSION

97.6 ± 29.6

NORMAL ISOCHRON

207.2 ± 29.0

INVERSE ISOCHRON

207.5 ± 28.8

MSWD

(PROBABILITY)

0.77 (57%)

Sample Info

groundmass

UW106C30

Jicha, Brian

IRR = UW106

J = 0.00071690 ±

0.00000036

UW106C30.AGE >>> 12AKBJ004 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

199.2 ± 19.8

TOTAL FUSION

97.6 ± 29.6

NORMAL ISOCHRON

207.2 ± 29.0

INVERSE ISOCHRON

207.5 ± 28.8

MSWD

(PROBABILITY)

0.82 (51%)

SPREADING FACTOR

14.5%

40AR/36AR

INTERCEPT

297.0 ± 3.9

Sample Info

groundmass

UW106C30

Jicha, Brian

IRR = UW106

$J = 0.00071690 \pm$

0.00000036

UW106C29.AGE >>> 12AKBJ003 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

190.1 $\pm$ 8.6

TOTAL FUSION

189.5 $\pm$ 9.3

NORMAL ISOCHRON

201.9 $\pm$ 17.4

INVERSE ISOCHRON

202.2 $\pm$ 17.4

MSWD

(PROBABILITY)

0.71 (66%)

Sample Info

groundmass

UW106C29

Jicha, Brian

IRR = UW106

J = 0.00071690 $\pm$

0.00000036

UW106C29.AGE >>> 12AKBJ003 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

190.1 ± 8.6

TOTAL FUSION

189.5 ± 9.3

NORMAL ISOCHRON

201.9 ± 17.4

INVERSE ISOCHRON

202.2 ± 17.4

MSWD

(PROBABILITY)

0.43 (86%)

SPREADING FACTOR

32.0%

40AR/36AR

INTERCEPT

293.5 ± 6.4

Sample Info

groundmass

UW106C29

Jicha, Brian

IRR = UW106

$J = 0.00071690 \pm$

0.00000036

UW106C28.AGE >>> 12AKBJ002 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

121.5 ± 12.9

TOTAL FUSION

106.7 ± 19.8

NORMAL ISOCHRON

122.0 ± 19.2

INVERSE ISOCHRON

121.9 ± 19.1

MSWD

(PROBABILITY)

0.25 (97%)

Sample Info

groundmass

UW106C28

Jicha, Brian

IRR = UW106

J = 0.00071690 ±

0.00000036

UW106C28.AGE >>> 12AKBJ002 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

121.5 ± 12.9

TOTAL FUSION

106.7 ± 19.8

NORMAL ISOCHRON

122.0 ± 19.2

INVERSE ISOCHRON

121.9 ± 19.1

MSWD

(PROBABILITY)

0.30 (94%)

SPREADING FACTOR

18.4%

40AR/36AR

INTERCEPT

298.4 ± 4.9

Sample Info

groundmass

UW106C28

Jicha, Brian

IRR = UW106

$J = 0.00071690 \pm$

0.00000036

UW106C27.AGE >>> 12AKBJ001 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

118.1 ± 14.9

TOTAL FUSION

4.0 ± 40.9

NORMAL ISOCHRON

119.8 ± 28.1

INVERSE ISOCHRON

119.7 ± 28.0

MSWD

(PROBABILITY)

0.09 (100%)

Sample Info

groundmass

UW106C27

Jicha, Brian

IRR = UW106

J = 0.00071690 ±

0.00000036

UW106C27.AGE >>> 12AKBJ001 >>> UW106C PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

118.1 ± 14.9

TOTAL FUSION

4.0 ± 40.9

NORMAL ISOCHRON

119.8 ± 28.1

INVERSE ISOCHRON

119.7 ± 28.0

MSWD

(PROBABILITY)

0.11 (99%)

SPREADING FACTOR

9.6%

40AR/36AR

INTERCEPT

298.2 ± 5.6

Sample Info

groundmass

UW106C27

Jicha, Brian

IRR = UW106

$J = 0.00071690 \pm$

0.00000036

UW120E42A.AGE >>> 14AKMC076 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

682.8 ± 28.0

TOTAL FUSION

956.0 ± 40.2

NORMAL ISOCHRON

615.9 ± 92.7

INVERSE ISOCHRON

616.1 ± 89.4

MSWD

(PROBABILITY)

0.85 (49%)

Sample Info

groundmass

4

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E42.AGE >>> 14AKMC076 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

674.9 $\pm$ 47.9

TOTAL FUSION

774.2 $\pm$ 63.2

NORMAL ISOCHRON

621.2 $\pm$ 115.0

INVERSE ISOCHRON

621.9 $\pm$ 113.2

MSWD

(PROBABILITY)

0.36 (97%)

Sample Info

groundmass

2

Jicha, Brian

IRR = UW120

J = 0.00184310 $\pm$

0.00000147

UW120E42A.AGE >>> 14AKMC076 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

682.8 ± 28.0

TOTAL FUSION

956.0 ± 40.2

NORMAL ISOCHRON

615.9 ± 92.7

INVERSE ISOCHRON

616.1 ± 89.4

MSWD

(PROBABILITY)

0.99 (40%)

SPREADING FACTOR

4.9%

40AR/36AR

INTERCEPT

301.2 ± 3.5

Sample Info

groundmass

4

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E42.AGE >>> 14AKMC076 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

674.9 ± 47.9

TOTAL FUSION

774.2 ± 63.2

NORMAL ISOCHRON

621.2 ± 115.0

INVERSE ISOCHRON

621.9 ± 113.2

MSWD

(PROBABILITY)

0.30 (98%)

SPREADING FACTOR

7.5%

40AR/36AR

INTERCEPT

300.5 ± 3.9

Sample Info

groundmass

2

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E43A.AGE >>> 14AKMC075 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

660.7 ± 56.2

TOTAL FUSION

698.3 ± 78.6

NORMAL ISOCHRON

596.9 ± 90.3

INVERSE ISOCHRON

596.8 ± 89.4

MSWD

(PROBABILITY)

0.83 (58%)

Sample Info

groundmass

5

Jicha, Brian

IRR = UW120

J = 0.00184310 ±

0.00000147

UW120E43.AGE >>> 14AKMC075 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

659.4 $\pm$ 55.8

TOTAL FUSION

649.2 $\pm$ 79.5

NORMAL ISOCHRON

664.5 $\pm$ 84.4

INVERSE ISOCHRON

664.8 $\pm$ 83.6

MSWD

(PROBABILITY)

0.30 (99%)

Sample Info

groundmass

3

Jicha, Brian

IRR = UW120

J = 0.00184310 $\pm$

0.00000147

UW120E43A.AGE >>> 14AKMC075 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

660.7 ± 56.2

TOTAL FUSION

698.3 ± 78.6

NORMAL ISOCHRON

596.9 ± 90.3

INVERSE ISOCHRON

596.8 ± 89.4

MSWD

(PROBABILITY)

0.55 (80%)

SPREADING FACTOR

7.3%

40AR/36AR

INTERCEPT

300.3 ± 1.9

Sample Info

groundmass

5

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E43.AGE >>> 14AKMC075 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

659.4 ± 55.8

TOTAL FUSION

649.2 ± 79.5

NORMAL ISOCHRON

664.5 ± 84.4

INVERSE ISOCHRON

664.8 ± 83.6

MSWD

(PROBABILITY)

0.33 (98%)

SPREADING FACTOR

10.4%

40AR/36AR

INTERCEPT

298.4 ± 2.2

Sample Info

groundmass

3

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E44A.AGE >>> 14AKMC074 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

584.0 ± 42.7

TOTAL FUSION

602.4 ± 48.9

NORMAL ISOCHRON

531.2 ± 74.1

INVERSE ISOCHRON

531.8 ± 73.6

MSWD

(PROBABILITY)

0.67 (72%)

Sample Info

groundmass

6

Jicha, Brian

IRR = UW120

J = 0.00184310 ±

0.00000147

UW120E44.AGE >>> 14AKMC074 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

578.1 $\pm$ 39.8

TOTAL FUSION

591.1 $\pm$ 49.0

NORMAL ISOCHRON

556.4 $\pm$ 59.0

INVERSE ISOCHRON

557.4 $\pm$ 58.6

MSWD

(PROBABILITY)

0.37 (95%)

Sample Info

groundmass

4

Jicha, Brian

IRR = UW120

J = 0.00184310 $\pm$

0.00000147

UW120E44A.AGE >>> 14AKMC074 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

584.0 ± 42.7

TOTAL FUSION

602.4 ± 48.9

NORMAL ISOCHRON

531.2 ± 74.1

INVERSE ISOCHRON

531.8 ± 73.6

MSWD

(PROBABILITY)

0.36 (92%)

SPREADING FACTOR

11.1%

40AR/36AR

INTERCEPT

301.2 ± 3.1

Sample Info

groundmass

6

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E44.AGE >>> 14AKMC074 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

578.1 ± 39.8

TOTAL FUSION

591.1 ± 49.0

NORMAL ISOCHRON

556.4 ± 59.0

INVERSE ISOCHRON

557.4 ± 58.6

MSWD

(PROBABILITY)

0.30 (96%)

SPREADING FACTOR

16.4%

40AR/36AR

INTERCEPT

300.0 ± 3.0

Sample Info

groundmass

4

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E45A.AGE >>> 14AKMC073 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

574.3 ± 35.2

TOTAL FUSION

665.0 ± 42.8

NORMAL ISOCHRON

549.7 ± 115.3

INVERSE ISOCHRON

548.8 ± 114.1

MSWD

(PROBABILITY)

0.44 (78%)

Sample Info

groundmass

7

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E45.AGE >>> 14AKMC073 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

639.5 ± 34.2

TOTAL FUSION

652.5 ± 42.8

NORMAL ISOCHRON

607.1 ± 65.7

INVERSE ISOCHRON

607.4 ± 65.3

MSWD

(PROBABILITY)

0.53 (85%)

Sample Info

groundmass

5

Jicha, Brian

IRR = UW120

J = 0.00184310 ±

0.00000147

UW120E45A.AGE >>> 14AKMC073 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

574.3 ± 35.2

TOTAL FUSION

665.0 ± 42.8

NORMAL ISOCHRON

549.7 ± 115.3

INVERSE ISOCHRON

548.8 ± 114.1

MSWD

(PROBABILITY)

0.53 (66%)

SPREADING FACTOR

7.4%

40AR/36AR

INTERCEPT

300.2 ± 7.3

Sample Info

groundmass

7

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120E45.AGE >>> 14AKMC073 >>> UW120E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

639.5 ± 34.2

TOTAL FUSION

652.5 ± 42.8

NORMAL ISOCHRON

607.1 ± 65.7

INVERSE ISOCHRON

607.4 ± 65.3

MSWD

(PROBABILITY)

0.45 (89%)

SPREADING FACTOR

9.6%

40AR/36AR

INTERCEPT

300.0 ± 2.5

Sample Info

groundmass

5

Jicha, Brian

IRR = UW120

$J = 0.00184310 \pm$

0.00000147

UW120F50.AGE >>> 14AKMC066 >>> UW120F PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

671.9 $\pm$ 93.2

TOTAL FUSION

706.3 $\pm$ 112.3

NORMAL ISOCHRON

594.1 $\pm$ 124.0

INVERSE ISOCHRON

600.2 $\pm$ 119.6

MSWD

(PROBABILITY)

1.13 (34%)

Sample Info

groundmass

7

Jicha, Brian

IRR = UW120

J = 0.00181980 $\pm$

0.00000164

UW120F50.AGE >>> 14AKMC066 >>> UW120F PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

671.9 ± 93.2

TOTAL FUSION

706.3 ± 112.3

NORMAL ISOCHRON

594.1 ± 124.0

INVERSE ISOCHRON

600.2 ± 119.6

MSWD

(PROBABILITY)

0.96 (47%)

SPREADING FACTOR

9.8%

40AR/36AR

INTERCEPT

300.5 ± 2.3

Sample Info

groundmass

7

Jicha, Brian

IRR = UW120

$J = 0.00181980 \pm$

0.00000164

UW121E30A.AGE >>> 14AKMC061 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

114.1 $\pm$ 20.5

TOTAL FUSION

114.9 $\pm$ 23.7

NORMAL ISOCHRON

114.3 $\pm$ 38.5

INVERSE ISOCHRON

114.5 $\pm$ 36.2

MSWD

(PROBABILITY)

0.46 (90%)

Sample Info

groundmass

16

Jicha, Brian

IRR = UW121

J = 0.00132020 $\pm$

0.00000125

UW121E30.AGE >>> 14AKMC061 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

125.4 ± 24.2

TOTAL FUSION

131.6 ± 26.6

NORMAL ISOCHRON

89.6 ± 75.8

INVERSE ISOCHRON

89.9 ± 70.4

MSWD

(PROBABILITY)

0.26 (97%)

Sample Info

groundmass

14

Jicha, Brian

IRR = UW121

J = 0.00132020 ±

0.00000125

UW121E30A.AGE >>> 14AKMC061 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

114.1 ± 20.5

TOTAL FUSION

114.9 ± 23.7

NORMAL ISOCHRON

114.3 ± 38.5

INVERSE ISOCHRON

114.5 ± 36.2

MSWD

(PROBABILITY)

0.53 (84%)

SPREADING FACTOR

6.0%

40AR/36AR

INTERCEPT

298.5 ± 4.5

Sample Info

groundmass

16

Jicha, Brian

IRR = UW121

$J = 0.00132020 \pm$

0.00000125

UW121E30.AGE >>> 14AKMC061 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

125.4 ± 24.2

TOTAL FUSION

131.6 ± 26.6

NORMAL ISOCHRON

89.6 ± 75.8

INVERSE ISOCHRON

89.9 ± 70.4

MSWD

(PROBABILITY)

0.14 (99%)

SPREADING FACTOR

3.9%

40AR/36AR

INTERCEPT

304.8 ± 12.6

Sample Info

groundmass

14

Jicha, Brian

IRR = UW121

$J = 0.00132020 \pm$

0.00000125

UW120G55.AGE >>> 14AKMC056 >>> UW120G PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

1220.8 $\pm$ 52.5

TOTAL FUSION

1476.0 $\pm$ 87.1

NORMAL ISOCHRON

1197.0 $\pm$ 97.7

INVERSE ISOCHRON

1197.9 $\pm$ 97.4

MSWD

(PROBABILITY)

0.78 (60%)

Sample Info

groundmass

8

Jicha, Brian

IRR = UW120

J = 0.00180070 $\pm$

0.00000162

UW120G55.AGE >>> 14AKMC056 >>> UW120G PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

1220.8 ± 52.5

TOTAL FUSION

1476.0 ± 87.1

NORMAL ISOCHRON

1197.0 ± 97.7

INVERSE ISOCHRON

1197.9 ± 97.4

MSWD

(PROBABILITY)

0.94 (46%)

SPREADING FACTOR

11.7%

40AR/36AR

INTERCEPT

299.1 ± 1.9

Sample Info

groundmass

8

Jicha, Brian

IRR = UW120

$J = 0.00180070 \pm$

0.00000162

UW121E31A.AGE >>> 14AKMC053 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2338.0 ± 52.1

TOTAL FUSION

2387.3 ± 57.3

NORMAL ISOCHRON

2325.0 ± 124.4

INVERSE ISOCHRON

2327.2 ± 124.4

MSWD

(PROBABILITY)

0.50 (83%)

Sample Info

groundmass

1

Jicha, Brian

IRR = UW121

J = 0.00132020 ±

0.00000092

UW121E31.AGE >>> 14AKMC053 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2298.4 ± 65.8

TOTAL FUSION

2309.2 ± 73.9

NORMAL ISOCHRON

2264.4 ± 100.9

INVERSE ISOCHRON

2265.3 ± 100.5

MSWD

(PROBABILITY)

0.27 (98%)

Sample Info

groundmass

15

Jicha, Brian

IRR = UW121

J = 0.00132020 ±

0.00000092

UW121E31A.AGE >>> 14AKMC053 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2338.0 ± 52.1

TOTAL FUSION

2387.3 ± 57.3

NORMAL ISOCHRON

2325.0 ± 124.4

INVERSE ISOCHRON

2327.2 ± 124.4

MSWD

(PROBABILITY)

0.59 (74%)

SPREADING FACTOR

23.2%

40AR/36AR

INTERCEPT

299.1 ± 5.3

Sample Info

groundmass

1

Jicha, Brian

IRR = UW121

$J = 0.00132020 \pm$

0.00000092

UW121E31.AGE >>> 14AKMC053 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2298.4 ± 65.8

TOTAL FUSION

2309.2 ± 73.9

NORMAL ISOCHRON

2264.4 ± 100.9

INVERSE ISOCHRON

2265.3 ± 100.5

MSWD

(PROBABILITY)

0.21 (98%)

SPREADING FACTOR

39.5%

40AR/36AR

INTERCEPT

300.4 ± 4.3

Sample Info

groundmass

15

Jicha, Brian

IRR = UW121

$J = 0.00132020 \pm$

0.00000092

UW121E33A.AGE >>> 14AKMC051 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2225.8 ± 45.8

TOTAL FUSION

2236.8 ± 51.3

NORMAL ISOCHRON

2185.5 ± 102.4

INVERSE ISOCHRON

2185.9 ± 102.5

MSWD

(PROBABILITY)

0.67 (74%)

Sample Info

groundmass

2

Jicha, Brian

IRR = UW121

J = 0.00132020 ±

0.00000092

UW121E33.AGE >>> 14AKMC051 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2211.0 ± 50.3

TOTAL FUSION

2218.0 ± 54.3

NORMAL ISOCHRON

2179.8 ± 111.9

INVERSE ISOCHRON

2179.6 ± 111.6

MSWD

(PROBABILITY)

0.38 (93%)

Sample Info

groundmass

16

Jicha, Brian

IRR = UW121

J = 0.00132020 ±

0.00000092

UW121E33A.AGE >>> 14AKMC051 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2225.8 ± 45.8

TOTAL FUSION

2236.8 ± 51.3

NORMAL ISOCHRON

2185.5 ± 102.4

INVERSE ISOCHRON

2185.9 ± 102.5

MSWD

(PROBABILITY)

0.70 (70%)

SPREADING FACTOR

18.8%

40AR/36AR

INTERCEPT

299.9 ± 3.0

Sample Info

groundmass

2

Jicha, Brian

IRR = UW121

$J = 0.00132020 \pm$

0.00000092

UW121E33.AGE >>> 14AKMC051 >>> UW121E PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

2211.0 ± 50.3

TOTAL FUSION

2218.0 ± 54.3

NORMAL ISOCHRON

2179.8 ± 111.9

INVERSE ISOCHRON

2179.6 ± 111.6

MSWD

(PROBABILITY)

0.40 (91%)

SPREADING FACTOR

20.2%

40AR/36AR

INTERCEPT

299.8 ± 4.1

Sample Info

groundmass

16

Jicha, Brian

IRR = UW121

$J = 0.00132020 \pm$

0.00000092

UW106D39.AGE >>> 12AKBJ016 >>> UW106D PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

155.0 $\pm$ 7.8

TOTAL FUSION

151.4 $\pm$ 10.6

NORMAL ISOCHRON

156.9 $\pm$ 12.4

INVERSE ISOCHRON

157.4 $\pm$ 12.4

MSWD

(PROBABILITY)

0.60 (78%)

Sample Info

groundmass

UW106D39

Jicha, Brian

IRR = UW106

J = 0.00069840 $\pm$

0.00000042

UW106D39.AGE >>> 12AKBJ016 >>> UW106D PROJECT

Ar-Ages in Ka

WEIGHTED PLATEAU

155.0 ± 7.8

TOTAL FUSION

151.4 ± 10.6

NORMAL ISOCHRON

156.9 ± 12.4

INVERSE ISOCHRON

157.4 ± 12.4

MSWD

(PROBABILITY)

0.66 (71%)

SPREADING FACTOR

42.9%

40AR/36AR

INTERCEPT

296.0 ± 10.9

Sample Info

groundmass

UW106D39

Jicha, Brian

IRR = UW106

$J = 0.00069840 \pm$

0.00000042

The magmatic evolution, eruptive history, and effects of glacial ice on long-lived Akutan volcano, eastern Aleutian Islands, By M. Coombs and B. Jicha

Figure DR3. Chondrite-normalized (McDonough and Sun, 1995) REE plots of eruptive products from Akutan Island, sorted by geologic unit.