

## DATA REPOSITORY

### LOCATION, GEOLOGIC SETTING, AND FT DATA FOR APATITE SAMPLES

This data repository includes a summary of location information and fission-track (FT) data for all apatite FT samples reported in this study. The data are also available in digital form by request to the authors or by anonymous FTP from: [hess.geology.yale.edu//pub/brandon/FT](http://hess.geology.yale.edu//pub/brandon/FT).

The location and geologic setting for the apatite fission-track (FT) samples are reported using the following format: *laboratory number (field number, latitude, longitude), locality description*. All FT ages were calculated using the binomial peak-fit method. The minimum age is reported below. Samples are designated as unreset and reset depending if their apatite FT minimum age is greater than or less than the depositional age of the sample. Distribution types are labeled as: R = single peak younger than deposition, MR = multiple peaks all younger than deposition, PR = multiple peaks with at least one peak younger than deposition, D = multiple peaks with all peaks older than deposition. A prefix of AR for the laboratory number indicates a reset apatite sample (types R, MR, and PR), and AD, an unreset apatite sample (type D). Reset apatite FT age from the central massif area are marked by an asterisk.

Zircon FT ages are available for some of the sandstone samples reported here (Olympic subduction complex: Brandon and Vance, 1992; Peripheral sequence: Garver and Brandon, 1994). Zircon FT results are reported according to their minimum ages; the labels ZR and ZD indicate a reset or unreset zircon FT minimum age, respectively.

#### Samples from the Olympic Subduction Complex

**AR1** (86L-1, 47° 53.89', -123° 21.35') Sandstone of the Grand Valley assemblage. Collected at Hurricane Ridge near Grand Lake at 5725 feet (1745 m). **Apatite: AR = 11.4 Ma (type R)**

**AR2** (86L-2, 47° 54.93', -123° 22.61') Sandstone collected at Hurricane Ridge in the vicinity of the Gray Wolf fault at 6300 feet (1920 m). The Gray Wolf fault separates the Grand Valley assemblage to the west from the Needles-Gray Wolf assemblage to the east (Tabor et al., 1972). The contact is not located well enough in the sample area to distinguish which unit was sampled. Brandon and Vance (1992) concluded that this sample probably corresponds to the Needles-Gray Wolf assemblage (unit Tnm of Tabor and Cady, 1978). **Apatite: AR = 8.0 Ma (type MR); Zircon: ZD = 34 Ma**

**\*AR8** (87716-1, 47° 46.57', -123° 35.65') Sandstone from coherent turbidites of the Western Olympic assemblage. Collected at summit of peak 5819, east of Queets Glacier at 5810 feet (1771 m). **Apatite: AR = 8.3 Ma (type MR); Zircon: ZR = 14.4 Ma** (the zircon FT age is from sample ZR9 which was collected nearby AR8; elevation = 1665 m)

**\*AR10** (87716-3, 47° 47.18', -123° 35.74') Sandstone of the Western Olympic assemblage. Collected from above Dodwell-Rixon Pass at 4860 feet (1482 m). **Apatite: AR = 7.0 Ma (type PR)**

**\*AR12** (87717-2, 47° 45.93', -123° 34.45') Sandstone tentatively assigned to the Western Olympic assemblage. Collected from base of the Elwha Snowfinger at 3350 feet (1021 m).

**Apatite: AR = 5.1 Ma (type PR)**

\***AR13** (87723-1, 47° 47.79', -123° 42.08') Sandstone from coherent turbidites of the Western Olympic assemblage. Collected from the summit of the middle peak of Mount Olympus at 7930 feet (2418 m). **Apatite: AR = 7.5 Ma (type PR)**

\***AR14** (87723-2, 47° 47.69', -123° 41.91') Sandstone from coherent turbidites of the Western Olympic assemblage. Collected from ridge southeast of the middle peak of Mount Olympus at 6750 feet (2058 m). **Apatite: AR = 9.0 Ma (type MR)**

\***AR15** (87723-4, 47° 47.55', -123° 39.75') Sandstone from coherent turbidites of the Western Olympic assemblage. Collected from the crest of Blizzard Pass, east of the middle peak of Mount Olympus, at 6050 feet (1845 m). **Apatite: AR = 7.7 Ma (type R)**

\***AR17** (87727-1, 47° 47.34', -123° 38.09') Sandstone from coherent turbidites of the Western Olympic assemblage. Collected at the base of Humes Glacier at 4720 feet (1439 m). **Apatite: AR = 7.1 Ma (type R), Zircon: ZR = 14.3 Ma**

\***AR18** (87728-8, 47° 47.22', -123° 37.46') Poorly exposed sandstone of the Western Olympic assemblage. Collected in creek below Humes Glacier at 3770 feet (1149 m). **Apatite: AR = 10.7 Ma (type PR)**

\***AR19** (87731-1, 47° 45.36', -123° 34.27') Bedded sandstone of the Western Olympic assemblage. Collected in the northwest part of the Elwha Basin at 2840 feet (865 m). **Apatite: AR = 9.9 Ma (type PR)**

\***AR20** (8781-2, 47° 41.35', -123° 35.36') Sandstone of the Western Olympics assemblage. Collected on the trail along the North Fork of the Quinault River near 16 Mile Shelter at 2005 feet (611 m). **Apatite: AR = 6.8 Ma (type A)**

\***AR21** (8782-1, 47° 39.61', -123° 37.96') Massive sandstone from an undifferentiated part of the Olympic subduction complex (unit Tur of Tabor and Cady, 1978) that probably belongs to the Western Olympic assemblage. Collected on the trail along the North Fork of the Quinault River above Trapper Shelter at 1310 feet (399 m). **Apatite: AR = 4.4 Ma (type MR)**

**AR22** (8782-2, 47° 33.38', -123° 40.05') Sandstone from an undifferentiated part of the Olympic subduction complex (unit Tur of Tabor and Cady, 1978) that probably belongs to the Western Olympic assemblage. Collected 2.9 km south from the North Fork Ranger Station on the west side of the road at 510 feet (155 m). **Apatite: AR = 6.0 Ma (type PR); Zircon: ZD = 32 Ma**

**AR24** (ARC88-2, 47° 58.92', -123° 31.31') Sandstone from near the contact between the Needles-Gray Wolf assemblage and the Blue Mountain unit (could be either unit). Collected

about 20 m northwest from the junction of the Little River and Nature Trails along Hurricane Ridge at 5000 feet (1524 m). **Apatite: AR = 12.6 Ma (type R)**

**AR25** (ARC88-3,  $47^{\circ} 57.86'$ ,  $-123^{\circ} 32.18'$ ) Sandstone from the Grand Valley assemblage. Collected along the Wolf Creek Trail at 2920 feet (890 m). **Apatite: AR = 12.4 Ma (type R)**

**AR26** (ARC88-4,  $47^{\circ} 55.82'$ ,  $-123^{\circ} 30.94'$ ) Siltstone from the Grand Valley assemblage. Collected along the Elwah River Trail at 1680 feet (512 m). **Apatite: AR = 11.5 Ma (type R)**

**AR29** (ARC88-7,  $47^{\circ} 44.57'$ ,  $-123^{\circ} 11.01'$ ) Sandstone of the Needles-Gray Wolf assemblage. Collected 0.8 km west of the start of the Dosewallips Trail at 1750 feet (534 m). **Apatite: AR = 4.3 Ma (type MR)**

**AR33** (ARC88-11,  $47^{\circ} 52.60'$ ,  $-123^{\circ} 08.70'$ ) Sandstone from unit Tnm of the Needles-Gray Wolf assemblage (Tabor and Cady, 1978). Collected 0.5 km west of the Hurricane Ridge fault on an old logging road west of USFS Road 2825 at 3080 feet (939 m). **Apatite: AR = 13.9 Ma (type PR); Zircon: ZD = 38 Ma**

**AR34** (ARC88-12,  $47^{\circ} 59.57'$ ,  $-124^{\circ} 02.18'$ ) Sandstone of the Western Olympic assemblage. Collected southwest of the Soleduc River at 3100 feet (945 m). **Apatite: AR = 6.8 Ma (type MR)**

**AR35** (ARC88-13,  $48^{\circ} 04.94'$ ,  $-124^{\circ} 35.04'$ ) Sandstone of the Western Olympic assemblage. Collected east of Ozette Lake on Road D5096 at 650 feet (198 m). **Apatite: AR = 24.6 Ma (type PR)**

**AR36** (ARC88-14,  $48^{\circ} 01.21'$ ,  $-124^{\circ} 35.69'$ ) Sandstone of the Western Olympic assemblage. Collected southeast of Ozette Lake from a quarry adjacent to Road DZ5000 at 410 feet (125 m). **Apatite: AR = 20.3 Ma (type PR)**

**AD37** (ARC88-15,  $47^{\circ} 53.57'$ ,  $-124^{\circ} 37.79'$ ) Massive sandstone of the Hoh assemblage. Collected at Second Beach, south of La Push. Outcrop is located at the north end of the beach in unit Ths of Rau (1979). Elevation is 0 feet (0 m). **Apatite: AD = 10.1 Ma (type D)**

**AR38** (ARC88-16,  $47^{\circ} 50.80'$ ,  $-124^{\circ} 12.15'$ ) Sandstone of the Western Olympic assemblage (unit Two of Tabor and Cady, 1978). Collected southeast of Forks on Road H3200 at 1665 feet (508 m). **Apatite: AR = 11.7 Ma (type R); Zircon: ZD = 47 Ma**

**AR39** (ARC88-17,  $47^{\circ} 49.45'$ ,  $-124^{\circ} 03.14'$ ) Bedded sandstone of the Western Olympic assemblage. Collected west of the Hoh Visitors Center, from an outcrop on Road H3903 at 960 feet (293 m). **Apatite: AR = 3.9 Ma (type MR)**

**AR40** (ARC88-18,  $47^{\circ} 48.75'$ ,  $-123^{\circ} 58.86'$ ) Sandstone of the Western Olympic assemblage.

Collected southwest of the Hoh Visitors Center above South Fork Campground on Road H1090 at 1210 feet (369 m). **Apatite: AR = 2.3 Ma (type MR)**

**AD42** (92JG62,  $47^{\circ} 38.38'$ ,  $-124^{\circ} 23.12'$ ) Sandstone from coherent turbidites of the Hoh assemblage (unit Ths of Rau, 1975). Collected along the coast north of Kalaloch at Browns Point. Elevation is 0 feet (0 m). **Apatite: AD = 15.2 Ma (type D)**

**AD43** (ARC88-21,  $47^{\circ} 25.97'$ ,  $-124^{\circ} 20.17'$ ) Sandstone from lens in coastal outcrops of the Hoh assemblage (Hogsback mélange). Elevation is 0 feet (0 m). **Apatite: AD = 15.4 Ma (type D)**

**AR44** (ARC88-22,  $47^{\circ} 29.08'$ ,  $-123^{\circ} 57.55'$ ) Sandstone from an undifferentiated part of the Olympic subduction complex (unit Tur of Tabor and Cady, 1978) that probably belongs to the Western Olympic assemblage. Collected on USFS Road 2460 west of Quinault Lake at 600 feet (183 m). **Apatite: AR = 18.4 Ma (type R); Zircon: ZD = 48 Ma**

\***AR46** (8887-1,  $47^{\circ} 49.34'$ ,  $-123^{\circ} 25.94'$ ) Sandstone of Grand Valley assemblage. Collected near trail west of Hayden Pass at 3100 feet (945 m). **Apatite: AR = 5.5 Ma (type MR), Zircon: ZR = 13.1 Ma**

\***AR47** (8888-1,  $47^{\circ} 47.32'$ ,  $-123^{\circ} 22.23'$ ) Sandstone of the Elwha assemblage. Collected from a low outcrop near trail west of Hayden Pass at 5650 feet (1723 m). **Apatite: AR = 5.7 Ma (type MR)**

\***AR48** (8889-1,  $47^{\circ} 47.66'$ ,  $-123^{\circ} 21.68'$ ) Sandstone from coherent turbidites of the Elwha assemblage (unit Tess of Tabor and Cady, 1978). Collected at 6500 feet (1982 m) on Mount Fromme from strata depositionally overlying Eocene basalts exposed there. **Apatite: AR = 7.6 Ma (type R); Zircon: ZR = 14.5 Ma**

\***AR49** (8889-2,  $47^{\circ} 47.48'$ ,  $-123^{\circ} 17.47'$ ) Sandstone of the Grand Valley assemblage (unit Tgst of Tabor and Cady, 1978). Collected from the summit of Wellesley Peak at 6758 feet (2060 m). **Apatite: AR = 6.4 Ma (type PR); Zircon: ZD = 19 Ma**

**AR50** (8892-1,  $47^{\circ} 52.55'$ ,  $-123^{\circ} 41.60'$ ) Sandstone of the Western Olympic assemblage (unit Twog of Tabor and Cady, 1978). Collected from the south side of the bridge at the confluence of Glacier Creek and Hoh River at 1340 feet (408 m). **Apatite: AR = 6.8 Ma (type R); Zircon: ZD = 27 Ma**

**AD53** (88108,  $47^{\circ} 47.21'$ ,  $-123^{\circ} 49.49'$ ) Sandstone of the Western Olympic assemblage. Collected from false summit of Hoh Peak at 5250 feet (1585 m). **Apatite: AD = 33.9 Ma (type D)**

### Samples from the Coast Range Terrane

The Coast Range terrane is made up of the Eocene Crescent Formation and the Eocene to

Lower Miocene Peripheral sequence. The samples below are listed in order of increasing stratigraphic depth. Maximum stratigraphic depth was estimated from Tabor and Cady (1978) and Snavely et al. (1980), and assumes that the Lower Miocene Clallam Formation is the highest stratigraphic unit. Depositional ages for the Peripheral sequence are from Garver and Brandon (1994) and for the Crescent basalt, Duncan (1982).

**ADP2** (Oly-2,  $48^{\circ} 15.86'$ ,  $-124^{\circ} 15.03'$ ) Sandstone of the Clallam Formation (Tabor and Cady, 1978). Collected at Slip Point, on the east side of Clallam Bay, from an outcrop of buff-weathering quartzofeldspathic medium-grain sandstone with numerous pelecypod fossils and minor interbeds of fine sandstone and pebble sandstone. Pebble clasts include bull quartz, schist, and phyllite. Maximum stratigraphic depth: 0.4 km. Depositional age: 17.7-24.1 Ma. Elevation: 0 m. **Apatite: AD = 33.5 Ma (type D); Zircon: ZD = 59 Ma**

**ADP11** (Oly-11,  $48^{\circ} 16.81'$ ,  $-124^{\circ} 20.86'$ ) Sandstone of the Pysht Formation (Snavely et al., 1980). Collected just north of the prominent quarry along Eagle Point road from a road cut of light gray- to buff-weathering, coarse sandstone with minor pebbly sandstone containing clasts of quartz, feldspar porphyry, and chert. Maximum stratigraphic depth: ~1.5 km. Depositional age: 24.1 - 28.5 Ma. Elevation: ~50 m. **Apatite: AD = 42.8 Ma (type D); Zircon: ZD = 64 Ma**

**ADP12** (Oly-12,  $48^{\circ} 16.52'$ ,  $-124^{\circ} 21.07'$ ) Sandstone of the Falls Creek unit of the Makah Formation (Snavely et al., 1980). Collected from road cut along Route 112. Maximum stratigraphic depth: ~2.3 km. Depositional age: 28.5 - 32.7 Ma. Elevation: ~100 m. **Apatite: AD = 53.3 Ma (type D); Zircon: ZD = 72 Ma**

**ADP10** (Oly-10,  $48^{\circ} 20.95'$ ,  $-124^{\circ} 32.22'$ ) Sandstone of the Third Beach member of the Makah Formation (Snavely et al., 1980). Collected from buff- to white-weathering, medium- to coarse-grain sandstone in a poorly exposed road cut along the north side of Route 112. Maximum stratigraphic depth: ~3.0 km. Depositional age: 32.7 - 34.1 Ma. Elevation: ~50 m. **Apatite: AR = 21.7 Ma (type PR); Zircon: ZD = 78 Ma**

**ADP5** (Oly-5,  $48^{\circ} 22.36'$ ,  $-124^{\circ} 34.90'$ ) Sandstone of the Dtokoah Point member of the Makah Formation (Snavely et al., 1980). Collected at Dtokoah Point from a thick lens of medium- to coarse-grain sandstone near the top of the Dtokoah Point member. Maximum stratigraphic depth: ~3.6 km. Depositional age: 34.1 - 35.0 Ma. Elevation: 0 m. **Apatite: AR = 31.1 Ma (type PR?); Zircon: ZD = 45 Ma**

**ADP8** (Oly-8,  $48^{\circ} 22.49'$ ,  $-124^{\circ} 35.40'$ ) Sandstone of the Baada Point member of the Makah Formation (Snavely et al., 1980). Collected at Baada Point from a 1 m-thick bed near the base of the Baada Point member. Maximum stratigraphic depth: ~3.8 km. Depositional age: 34.1 - 35.0 Ma. Elevation: 0 m. **Apatite: AD = 45.0 Ma (type D); Zircon: ZD = 38 Ma**

**ARP1** (Oly-1,  $48^{\circ} 06.89'$ ,  $-124^{\circ} 13.07'$ ) Sandstone of the Lyre Formation (Tabor and Cady, 1978). Collected along USFS Road 3006, immediately off of Route 102 at Beaver Creek, from a

stratigraphic position ~10 m below the top of the Lyre. The road cut exposes sandstone with minor interbedded pebbly conglomerate containing clasts of hornblende and plagioclase porphyry, basalt, bull quartz, and chert. Maximum stratigraphic depth: ~5.6 km. Depositional age: 35.0 - 40.4 Ma. Elevation: ~800 m. **Apatite: AR = 11.8 Ma (type PR); Zircon: ZD = 37 Ma**

**AR31** (ARC88-9, 47° 43.63', -123° 00.57') Medium-grained diabase from the lower member of the Crescent Formation. Collected on the northeast side of the road to the Dosewallips Ranger Station. This outcrop lies within the large diabase dike mapped by Glassley (1974) on the north side of Mount Jupiter. Sample was fresh and composed of plagioclase and pyroxene. Maximum stratigraphic depth: 7.5 km (4.9 km of overlying Crescent basalt plus 2.6 km of Peripheral sequence, mostly Blakeley Formation). Depositional age: ~54 Ma. Elevation: 91 m. **Apatite: AR = 26.6 Ma (type R)**

### References Cited

Brandon, M.T., and Vance, J.A., 1992, Tectonic evolution of the Cenozoic Olympic subduction complex, Washington State, as deduced from fission-track ages for detrital zircons. *American Journal of Science*, v. 292, p. 565-636.

Duncan, R.A., 1982, A captured island chain in the Coast Range of Oregon and Washington: *Journal of Geophysical Research*, v. 87, p. 10827-10837.

Garver, J.I., and Brandon, M.T., 1994, Erosional denudation of the British Columbia Coast Ranges as determined from fission-track ages of detrital zircon from the Tofino basin, Olympic Peninsula, Washington. *Geological Society of America Bulletin*, v. 106, p. 1398-1412.

Glassley, 1974, Geochemistry and tectonics of the Crescent volcanic rocks, Olympic Peninsula, Washington. *Geological Society of America Bulletin*, v. 85, p. 785-794.

Rau, W.W., 1975, Geologic map of the Destruction Island and Taholah quadrangles, Washington. Washington Department of Natural Resources, Geology and Earth Resources Division, Geologic Map GM-13, scale 1:62,500

Rau, W.W., 1979, Geologic map in the vicinity of the Lower Bogachiel and Hoh River Valleys, and the Washington Coast. Washington Department of Natural Resources, Geology and Earth Resources Division, Geologic Map GM-24, scale 1:62,500

Snavely, P.D., Jr., Niem, A.R., MacLeod, N.S., Pearl, J.E., and Rau, W.W., 1980, Makah Formation--A deep-marginal-basin sequence of Late Eocene and Oligocene age in the northwestern Olympic Peninsula, Washington: United States Geological Survey Professional Paper 1162-B, 28 p.

Tabor, R.W. and Cady, W.M., 1978, Geologic map of the Olympic Peninsula. United States

Geological Survey Map I-994, scale 1:125,000.

Tabor, R.W., Yeats, R.S. and Sorensen, M.L., 1972, Geologic map of the Mount Angeles Quadrangle , Clallam and Jefferson Counties, Washington. United States Geological Survey, Map GQ-958, scale 1:62500.

## FT Data for the OSC in Order of Increase Lab Sample Number

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:02 FILENAME: 86L-1.FTA  
 Lab# AR1 Field# 86L-1 Hurricane Ridge near Grand Lake, Grand Valley Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.934E+06
RELATIVE ERROR (%):	2.09
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-2s	Grain Age	Age (Ma)	--95% CI--
1	5.41E+04	( 1)	9.20E+05	( 17)	9	7 3	18.2	0.4	101.5
2	2.70E+05	( 5)	9.30E+06	( 172)	9	74 12	8.2	2.5	18.8
3	2.16E+05	( 4)	2.33E+06	( 43)	9	18 6	26.2	6.6	69.4
4	1.08E+05	( 2)	1.03E+06	( 19)	9	8 4	30.5	3.2	117.8
5	1.08E+05	( 2)	2.38E+06	( 44)	9	19 6	13.3	1.5	47.3
6	5.41E+04	( 1)	1.46E+06	( 27)	9	12 4	11.5	0.2	60.9
7	5.41E+04	( 1)	2.00E+06	( 37)	9	16 5	8.4	0.2	43.5
8	5.41E+04	( 1)	1.41E+06	( 26)	9	11 4	11.9	0.3	63.5
9	3.89E+04	( 2)	1.79E+06	( 92)	25	14 3	6.4	0.7	22.0
10	5.41E+04	( 1)	3.08E+06	( 57)	9	24 7	5.5	0.1	27.7
11	1.62E+05	( 3)	1.62E+06	( 30)	9	13 5	28.4	5.3	87.0
12	5.41E+04	( 1)	1.35E+06	( 25)	9	11 4	12.4	0.3	66.2
13	3.25E+05	( 6)	5.41E+06	( 100)	9	43 9	16.7	5.8	36.8
14	5.41E+04	( 1)	1.46E+06	( 27)	9	12 4	11.5	0.2	60.9
15	1.08E+05	( 2)	4.00E+06	( 74)	9	32 7	7.9	0.9	27.5

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:04 FILENAME: 86L-2.FTA  
 Lab# AR2 Field# 86L-2 Hurricane Ridge, W of GrayWolf flt., Grand Valley Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.588E+06
RELATIVE ERROR (%):	1.70
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	119.10      1.10
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-2s	Grain Age	Age (Ma)	--95% CI--
1	5.41E+05	( 10)	6.22E+06	( 115)	9	53 10	24.1	11.1	45.2
2	5.41E+05	( 10)	9.85E+06	( 182)	9	84 13	15.2	7.1	28.2
3	2.70E+05	( 5)	2.87E+06	( 53)	9	24 7	26.5	8.0	63.8
4	8.11E+04	( 2)	2.19E+06	( 54)	12	19 5	10.9	1.2	38.3
5	1.62E+05	( 3)	3.35E+06	( 62)	9	29 7	13.9	2.7	40.4
6	2.16E+05	( 4)	3.41E+06	( 63)	9	29 7	18.0	4.6	46.5
7	0.00E+00	( 0)	1.03E+06	( 19)	9	9 4	10.1	0.4	58.3
8	1.08E+05	( 2)	2.27E+06	( 42)	9	19 6	14.0	1.5	49.9
9	5.41E+04	( 1)	1.08E+06	( 20)	9	9 4	15.5	0.3	84.9
10	5.41E+04	( 1)	3.35E+06	( 62)	9	29 7	5.0	0.1	25.4
11	1.08E+05	( 2)	1.84E+06	( 34)	9	16 5	17.2	1.9	62.4
12	1.08E+05	( 2)	1.08E+06	( 20)	9	9 4	29.2	3.1	111.6
13	2.16E+05	( 4)	5.14E+06	( 95)	9	44 9	11.9	3.1	30.4
14	1.95E+04	( 1)	2.04E+06	( 105)	25	17 3	3.0	0.1	14.8
15	2.16E+05	( 4)	5.46E+06	( 101)	9	46 9	11.2	2.9	28.5

16	1.30E+05	( 4)	4.35E+06	( 134)	15	37	6	8.5	2.2	21.4
17	1.36E+05	( 7)	6.25E+06	( 321)	25	53	6	6.1	2.4	12.4
18	1.62E+05	( 3)	1.89E+06	( 35)	9	16	5	24.5	4.6	73.9
19	1.62E+05	( 3)	4.06E+06	( 75)	9	34	8	11.5	2.2	33.1
20	2.16E+05	( 4)	6.17E+06	( 114)	9	52	10	10.0	2.6	25.2

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:07 FILENAME: 87716-1.FTA  
 Lab# AR8 Field# 87716-1 Peak 5819, east of Queets Glr., Western Olympic Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.659E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-2s	Grain Age	--95% CI--
1	1.55E+05	( 5)	6.20E+06	( 200)	15	52 8	6.2	1.9 14.3
2	9.29E+04	( 3)	4.21E+06	( 136)	15	35 6	5.6	1.1 15.8
3	5.58E+04	( 3)	1.62E+06	( 87)	25	14 3	8.7	1.7 25.0
4	2.79E+05	( 6)	7.39E+06	( 159)	10	62 10	9.3	3.3 20.2
5	1.49E+05	( 8)	3.96E+06	( 213)	25	33 5	9.2	3.8 18.1
6	9.29E+04	( 4)	2.81E+06	( 121)	20	24 4	8.3	2.1 20.9
7	4.65E+05	( 12)	7.71E+06	( 199)	12	65 10	14.7	7.4 25.9
8	2.17E+05	( 7)	9.20E+06	( 297)	15	77 10	5.8	2.3 11.8
9	6.20E+04	( 2)	2.66E+06	( 86)	15	22 5	6.0	0.7 20.8
10	1.94E+05	( 5)	3.14E+06	( 81)	12	26 6	15.3	4.7 36.0
11	2.79E+05	( 6)	5.39E+06	( 116)	10	45 9	12.7	4.5 27.9
12	1.55E+05	( 5)	2.54E+06	( 82)	15	21 5	15.1	4.6 35.6
13	1.16E+05	( 5)	3.53E+06	( 152)	20	30 5	8.2	2.5 18.9
14	6.20E+05	( 20)	6.91E+06	( 223)	15	58 8	21.7	12.9 34.1
15	3.72E+04	( 2)	7.99E+05	( 43)	25	7 2	12.0	1.3 42.8
16	9.76E+05	( 21)	1.61E+07	( 347)	10	135 16	14.6	8.9 22.6
17	7.74E+05	( 15)	7.69E+06	( 149)	9	64 11	24.4	13.2 41.2
18	1.24E+05	( 4)	3.31E+06	( 107)	15	28 5	9.3	2.4 23.7
19	1.86E+05	( 4)	2.51E+06	( 54)	10	21 6	18.4	4.7 48.2
20	1.86E+05	( 6)	6.78E+06	( 219)	15	57 8	6.8	2.4 14.6

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:13 FILENAME: 87716-3.FTA  
 Lab# AR10 Field# 87716-3 Above Dodwell-Rixon Pass, Western Olympic Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.702E+06
RELATIVE ERROR (%):	2.19
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-2s	Grain Age	--95% CI--
1	1.16E+05	( 2)	6.39E+05	( 11)	8	5 3	46.7	4.7 199.3
2	0.00E+00	( 0)	3.56E+06	( 69)	9	30 7	2.5	0.1 13.3
3	0.00E+00	( 0)	3.53E+05	( 19)	25	3 1	9.0	0.3 51.8
4	2.79E+05	( 6)	5.72E+06	( 123)	10	47 9	12.1	4.3 26.5
5	0.00E+00	( 0)	6.51E+05	( 14)	10	5 3	12.3	0.4 72.8
6	1.39E+05	( 3)	4.65E+05	( 10)	10	4 2	75.0	12.9 277.0

7	6.20E+04	( 2)	1.15E+06	( 37)	15	10	3	14.1	1.5	50.7
8	2.32E+05	( 6)	7.98E+06	( 206)	12	66	10	7.3	2.6	15.7
9	0.00E+00	( 0)	1.63E+06	( 35)	10	13	5	4.9	0.2	26.9
10	2.32E+05	( 6)	8.36E+06	( 216)	12	69	10	6.9	2.4	14.9
11	0.00E+00	( 0)	3.72E+05	( 12)	15	3	2	14.4	0.5	86.8

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:15 FILENAME: 87717-2.FTA  
 Lab# AR12 Field# 87717-2 Base of Elwha snowfinger; maybe Western Olympic Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.833E+06
RELATIVE ERROR (%):	2.19
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	--95% CI--
1	2.32E+05	( 4)	5.23E+05	( 9)	8	4 3	112.3	24.9 385.8
2	1.86E+04	( 1)	2.42E+05	( 13)	25	2 1	21.7	0.5 126.6
3	2.32E+04	( 1)	7.90E+05	( 34)	20	6 2	8.4	0.2 43.6
4	6.20E+04	( 2)	5.27E+05	( 17)	15	4 2	31.3	3.3 122.6
5	2.32E+05	( 4)	1.45E+06	( 25)	8	12 5	41.1	10.1 114.7
6	7.43E+04	( 4)	4.28E+06	( 230)	25	34 5	4.5	1.2 11.3
7	4.65E+04	( 1)	5.58E+05	( 12)	10	4 3	23.5	0.5 139.1
8	6.20E+04	( 2)	5.27E+05	( 17)	15	4 2	31.3	3.3 122.6
9	0.00E+00	( 0)	3.53E+05	( 19)	25	3 1	9.3	0.3 53.3
10	3.72E+04	( 2)	3.72E+05	( 20)	25	3 1	26.6	2.8 102.0

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:17 FILENAME: 87723-1.FTA  
 Lab# AR13 Field# 87723-1 Middle Peak, Mount Olympus, Western Olympic Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.504E+06
RELATIVE ERROR (%):	1.74
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30 2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	--95% CI--
1	2.70E+05	( 5)	2.92E+06	( 54)	9	25 7	23.6	7.2 56.9
2	6.49E+04	( 2)	2.66E+06	( 82)	15	23 5	6.5	0.7 22.6
3	1.08E+05	( 2)	2.38E+06	( 44)	9	21 6	12.1	1.3 43.2
4	2.43E+05	( 6)	1.14E+07	( 282)	12	99 12	5.4	1.9 11.7
5	1.08E+05	( 2)	3.95E+06	( 73)	9	34 8	7.3	0.8 25.5
6	5.41E+04	( 1)	7.57E+05	( 14)	9	7 3	20.1	0.4 115.7
7	0.00E+00	( 0)	5.95E+05	( 11)	9	5 3	16.1	0.6 98.3
8	0.00E+00	( 0)	1.14E+06	( 21)	9	10 4	8.3	0.3 47.6
9	5.84E+04	( 3)	2.32E+06	( 119)	25	20 4	6.6	1.3 18.7
10	1.75E+05	( 9)	4.60E+06	( 236)	25	40 5	9.6	4.3 18.3
11	2.03E+05	( 5)	8.40E+06	( 207)	12	73 10	6.2	1.9 14.2
12	3.25E+04	( 1)	1.56E+06	( 48)	15	13 4	5.9	0.1 30.2
13	0.00E+00	( 0)	4.46E+05	( 11)	12	4 2	16.1	0.6 98.3
14	6.49E+04	( 2)	1.04E+06	( 32)	15	9 3	16.6	1.8 60.6
15	1.22E+05	( 3)	1.83E+06	( 45)	12	16 5	17.4	3.3 51.4
16	5.41E+04	( 1)	9.20E+05	( 17)	9	8 4	16.6	0.3 92.7

17 2.27E+05 ( 7) 1.22E+07 ( 375) 15 105 11 4.7 1.9 9.7

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.134E+06  
 RELATIVE ERROR (%): 2.16  
 EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
 ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 103.20 2.30  
 SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (Ns) (cm <sup>-2</sup> )	RhoI (Ni) (cm <sup>-2</sup> )	Squares	U+/-2s	Grain Age Age	Age (Ma)	--95% CI--
18	3.87E+05 ( 5)	3.87E+05 ( 5)	6	4 3	209.9	48.9	866.7
19	5.42E+05 ( 7)	2.87E+06 ( 37)	6	27 9	41.0	15.2	91.2
20	4.65E+05 ( 8)	9.93E+06 ( 171)	8	94 15	10.2	4.2	20.1
21	5.81E+04 ( 1)	9.87E+05 ( 17)	8	9 4	14.2	0.3	79.7
22	2.32E+05 ( 3)	9.76E+06 ( 126)	6	92 17	5.3	1.0	15.2
23	1.16E+05 ( 3)	1.59E+06 ( 41)	12	15 5	16.4	3.1	48.8
24	0.00E+00 ( 0)	7.74E+05 ( 20)	12	7 3	7.5	0.3	43.1
25	0.00E+00 ( 0)	8.71E+05 ( 15)	8	8 4	10.1	0.4	59.3
26	5.81E+04 ( 1)	7.55E+05 ( 13)	8	7 4	18.6	0.4	108.4
27	3.49E+05 ( 6)	1.03E+07 ( 178)	8	98 15	7.4	2.6	16.0

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:16:22 FILENAME: 87723-2.FTA

Lab# AR14 Field# 87723-2 SE of Middle Peak, Mt. Olympus; Western Olympic Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.265E+06  
 RELATIVE ERROR (%): 2.13  
 EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
 ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 103.20 2.30  
 SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (Ns) (cm <sup>-2</sup> )	RhoI (Ni) (cm <sup>-2</sup> )	Squares	U+/-2s	Grain Age Age	Age (Ma)	--95% CI--
1	2.32E+04 ( 1)	6.97E+05 ( 30)	20	6 2	8.4	0.2	44.0
2	1.74E+05 ( 3)	6.97E+05 ( 12)	8	6 4	56.9	10.0	201.0
3	4.65E+04 ( 2)	8.83E+05 ( 38)	20	8 3	12.4	1.4	44.7
4	0.00E+00 ( 0)	3.10E+05 ( 10)	15	3 2	15.8	0.6	97.5
5	1.86E+05 ( 6)	4.09E+06 ( 132)	15	37 7	10.3	3.6	22.4
6	9.29E+04 ( 3)	2.08E+06 ( 67)	15	19 5	10.3	2.0	30.0
7	0.00E+00 ( 0)	2.01E+06 ( 65)	15	18 5	2.4	0.1	12.9
8	6.20E+04 ( 2)	4.96E+05 ( 16)	15	5 2	29.3	3.1	116.1
9	6.97E+04 ( 3)	4.41E+05 ( 19)	20	4 2	36.2	6.6	117.1
10	6.97E+04 ( 3)	7.67E+05 ( 33)	20	7 2	20.9	3.9	63.6
11	9.29E+04 ( 2)	1.07E+06 ( 23)	10	10 4	20.5	2.2	77.1
12	1.63E+05 ( 7)	4.44E+06 ( 191)	20	41 6	8.2	3.2	17.0
13	4.65E+04 ( 2)	1.49E+06 ( 64)	20	14 3	7.4	0.8	25.9
14	0.00E+00 ( 0)	6.97E+05 ( 15)	10	6 3	10.4	0.4	61.1

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.228E+06  
 RELATIVE ERROR (%): 2.13  
 EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
 ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 103.20 2.30  
 SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (Ns) (cm <sup>-2</sup> )	RhoI (Ni) (cm <sup>-2</sup> )	Squares	U+/-2s	Grain Age Age	Age (Ma)	--95% CI--
15	3.10E+05 ( 10)	3.66E+06 ( 118)	15	34 6	18.7	8.6	35.2

16	1.24E+05	( 4)	9.60E+05	( 31)	15	9	3	29.1	7.2	79.3
17	6.20E+04	( 2)	9.29E+05	( 30)	15	9	3	15.6	1.7	57.1
18	4.65E+04	( 2)	4.88E+05	( 21)	20	5	2	22.2	2.4	84.6
19	1.03E+05	( 2)	2.32E+06	( 45)	9	21	6	10.4	1.1	37.1
20	2.09E+05	( 9)	4.14E+06	( 178)	20	38	6	11.2	5.0	21.4
21	9.29E+04	( 4)	1.95E+06	( 84)	20	18	4	10.8	2.8	27.6
22	6.97E+04	( 3)	4.04E+06	( 174)	20	37	6	4.0	0.8	11.2
23	0.00E+00	( 0)	1.86E+05	( 10)	25	2	1	15.6	0.6	96.7
24	6.20E+04	( 2)	6.20E+05	( 20)	15	6	3	23.3	2.5	89.3

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:27 FILENAME: 87723-4.FTA  
 Lab# AR15 Field# 87723-4 Crest of Blizzard Pass, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.276E+06
RELATIVE ERROR (%):	1.80
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30 2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (Ns) (cm^-2)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age	--95% CI--
1	0.00E+00 ( 0)	1.79E+06 ( 33)	9	16 6	5.0	0.2 27.9
2	5.41E+04 ( 1)	7.57E+05 ( 14)	9	7 4	19.1	0.4 109.9
3	0.00E+00 ( 0)	3.41E+05 ( 7)	10	3 2	24.5	0.9 161.7
4	1.08E+05 ( 2)	3.08E+06 ( 57)	9	28 7	8.9	1.0 31.2
5	6.49E+04 ( 2)	2.63E+06 ( 81)	15	24 5	6.3	0.7 21.7
6	5.41E+04 ( 1)	1.08E+06 ( 20)	9	10 4	13.4	0.3 73.4
7	1.62E+05 ( 3)	5.14E+06 ( 95)	9	47 10	7.8	1.5 22.4
8	4.33E+05 ( 8)	1.30E+07 ( 240)	9	118 16	8.0	3.4 15.7
9	1.95E+04 ( 1)	7.79E+05 ( 40)	25	7 2	6.7	0.1 34.7
10	1.62E+05 ( 3)	1.35E+06 ( 25)	9	12 5	29.5	5.5 92.2
11	5.41E+04 ( 1)	5.95E+05 ( 11)	9	5 3	24.2	0.5 145.9
12	0.00E+00 ( 0)	1.79E+06 ( 33)	9	16 6	5.0	0.2 27.9
13	4.33E+05 ( 8)	9.68E+06 ( 179)	9	88 14	10.7	4.5 21.2
14	1.62E+05 ( 3)	4.33E+06 ( 80)	9	39 9	9.3	1.8 26.8
15	1.08E+05 ( 2)	4.98E+06 ( 92)	9	45 10	5.5	0.6 19.0
16	0.00E+00 ( 0)	1.03E+06 ( 19)	9	9 4	8.8	0.3 50.4
17	0.00E+00 ( 0)	1.89E+06 ( 35)	9	17 6	4.7	0.2 26.2
18	1.08E+05 ( 2)	3.84E+06 ( 71)	9	35 8	7.1	0.8 24.9
19	1.08E+05 ( 2)	3.79E+06 ( 70)	9	35 8	7.2	0.8 25.2
20	5.41E+04 ( 1)	1.89E+06 ( 35)	9	17 6	7.7	0.2 40.0
21	5.41E+04 ( 1)	8.66E+05 ( 16)	9	8 4	16.7	0.4 94.3
22	0.00E+00 ( 0)	4.87E+05 ( 9)	9	4 3	18.9	0.7 118.5

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:31 FILENAME: 87727-1.FTA  
 Lab# AR17 Field# 87727-1 Base of Humes Glacier, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.485E+06
RELATIVE ERROR (%):	1.76
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30 2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (Ns) (cm^-2)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age	--95% CI--
-----------	-------------------	-------------------	---------	--------	-----------	------------

1	1.62E+05	( 3)	6.22E+06	( 115)	9	54	10	6.8	1.3	19.3
2	3.79E+05	( 7)	9.47E+06	( 175)	9	82	13	10.1	3.9	20.8
3	0.00E+00	( 0)	5.95E+05	( 11)	9	5	3	16.1	0.6	97.9
4	0.00E+00	( 0)	2.16E+05	( 4)	9	2	2	46.6	1.6	364.4
5	5.41E+04	( 1)	1.08E+06	( 20)	9	9	4	14.1	0.3	76.9
6	0.00E+00	( 0)	9.20E+05	( 17)	9	8	4	10.3	0.4	59.7
7	5.41E+04	( 1)	5.41E+05	( 10)	9	5	3	27.9	0.6	171.7
8	0.00E+00	( 0)	4.33E+05	( 8)	9	4	3	22.4	0.8	143.4
9	5.41E+04	( 1)	2.16E+05	( 4)	9	2	2	67.8	1.3	596.7
10	0.00E+00	( 0)	8.66E+05	( 16)	9	8	4	10.9	0.4	63.9
11	1.08E+05	( 2)	4.87E+05	( 9)	9	4	3	58.0	5.8	260.4
12	0.00E+00	( 0)	5.41E+05	( 10)	9	5	3	17.7	0.6	109.5
13	2.16E+05	( 4)	1.41E+07	( 260)	9	122	16	4.0	1.0	9.9
14	5.41E+04	( 1)	1.19E+06	( 22)	9	10	4	12.8	0.3	69.2
15	0.00E+00	( 0)	1.14E+06	( 21)	9	10	4	8.3	0.3	47.4
16	0.00E+00	( 0)	3.57E+05	( 11)	15	3	2	16.1	0.6	97.9
17	3.25E+04	( 1)	4.87E+05	( 15)	15	4	2	18.7	0.4	106.4

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:16:34 FILENAME: 87728-8.FTA

Lab# AR18 Field# 87728-8 Creek below Humes Glacier, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.328E+06
RELATIVE ERROR (%):	1.74
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (Ns) (cm^-2)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age --95% CI--
1	2.70E+05	( 5)	7.36E+06	( 136)	9    66    12    9.0    2.8    21.0
2	4.87E+04	( 1)	1.95E+05	( 4)	10    2    2    65.5    1.2    576.8
3	2.70E+05	( 5)	5.68E+06	( 105)	9    51    10    11.7    3.6    27.4
4	1.95E+04	( 1)	4.28E+05	( 22)	25    4    2    12.3    0.3    66.8
5	6.49E+05	( 4)	9.74E+05	( 6)	3    9    7    159.2    32.9    638.8
6	1.08E+05	( 2)	5.41E+05	( 10)	9    5    3    50.5    5.1    220.4
7	0.00E+00	( 0)	7.30E+05	( 9)	6    7    4    19.1    0.7    119.9
8	6.82E+05	( 7)	1.95E+06	( 20)	5    18    8    84.3    29.8    202.7
9	5.41E+04	( 1)	7.57E+05	( 14)	9    7    4    19.3    0.4    111.2
10	5.41E+04	( 1)	1.03E+06	( 19)	9    9    4    14.3    0.3    78.6
11	0.00E+00	( 0)	3.25E+05	( 6)	9    3    2    29.2    1.0    199.7
12	4.33E+05	( 8)	1.62E+06	( 30)	9    15    5    64.3    25.2    140.7
13	2.92E+05	( 3)	1.17E+06	( 12)	5    11    6    61.7    10.8    217.6

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:16:36 FILENAME: 87731-1.FTA

Lab# AR19 Field# 87731-1 Elwha Basin, probably Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.235E+06
RELATIVE ERROR (%):	1.80
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (Ns) (cm^-2)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age --95% CI--
-----------	----------------------	----------------------	---------	--------	-------------------------

1	3.25E+05	( -6)	8.66E+05	( 16)	9	8	4	88.4	28.0	231.6
2	1.08E+05	( -2)	1.35E+06	( 25)	9	12	5	20.0	2.1	74.6
3	1.62E+05	( -3)	3.25E+06	( 60)	9	30	8	12.3	2.3	35.7
4	0.00E+00	( 0)	6.49E+05	( 12)	9	6	3	13.9	0.5	83.6
5	1.62E+05	( -3)	1.89E+06	( 35)	9	17	6	21.0	3.9	63.3
6	0.00E+00	( 0)	1.46E+06	( 27)	9	13	5	6.1	0.2	34.1
7	0.00E+00	( 0)	2.06E+06	( 38)	9	19	6	4.3	0.2	23.8
8	5.41E+04	( 1)	4.06E+06	( 75)	9	37	9	3.6	0.1	17.9
9	2.70E+05	( -5)	9.47E+06	( 175)	9	87	14	6.9	2.1	15.9
10	1.14E+06	( 7)	1.17E+07	( 72)	3	108	26	23.1	8.8	49.1
11	1.08E+05	( -2)	4.60E+06	( 85)	9	42	9	5.9	0.7	20.5
12	1.62E+05	( -3)	3.14E+06	( 58)	9	29	8	12.7	2.4	37.0
13	2.16E+05	( -4)	4.87E+06	( 90)	9	45	10	10.8	2.8	27.5
14	7.79E+05	( -8)	1.36E+06	( 14)	5	13	7	133.2	48.3	332.5
15	2.92E+05	( -6)	6.04E+06	( 124)	10	56	10	11.6	4.1	25.3
16	1.62E+05	( -3)	2.54E+06	( 47)	9	23	7	15.6	3.0	46.2

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:16:39 FILENAME: 8781-2.FTA

Lab# AR20 Field# 8781-2 16 Mile Shelter, Quinault River, Western Olympic Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.009E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20      2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age	Age --95% CI--
1	9.29E+04	( -3)	6.82E+05	( 22)	15	7	3 29.4 5.4 93.4
2	0.00E+00	( 0)	1.12E+06	( 12)	5	11	6 12.3 0.4 74.1
3	0.00E+00	( 0)	5.42E+05	( 7)	6	5	4 21.5 0.7 142.1
4	0.00E+00	( 0)	7.74E+05	( 15)	9	8	4 9.8 0.3 57.5
5	2.66E+05	( -4)	5.78E+06	( 87)	7	56	12 9.9 2.5 25.2
6	1.55E+05	( -2)	3.02E+06	( 39)	6	29	9 11.4 1.2 40.9
7	3.10E+04	( -1)	7.13E+05	( 23)	15	7	3 10.2 0.2 55.2
8	3.10E+04	( -1)	2.23E+06	( 72)	15	22	5 3.3 0.1 16.5
9	0.00E+00	( 0)	6.58E+05	( 17)	12	6	3 8.6 0.3 50.0
10	1.39E+05	( -3)	1.25E+06	( 27)	10	12	5 24.0 4.5 74.4
11	0.00E+00	( 0)	4.65E+05	( 6)	6	5	4 25.3 0.9 173.5
12	9.29E+04	( -4)	5.11E+06	( 220)	20	50	7 3.9 1.0 9.8
13	2.48E+05	( -8)	7.43E+06	( 240)	15	72	10 7.0 2.9 13.8

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:16:41 FILENAME: 8782-1.FTA

Lab# AR21 Field# 8782-1 Trapper Shelter, Quinault River, undiff. Olympic Core

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	3.935E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20      2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age	Age --95% CI--
1	1.55E+05	( -2)	8.52E+05	( 11)	6	8	5 39.1 4.0 167.2

2	0.00E+00	( 0)	1.08E+06	( 14)	6	11	6	10.3	0.4	61.0
3	1.55E+05	( -2)	1.70E+06	( 22)	6	17	7	19.7	2.1	74.8
4	0.00E+00	( 0)	7.74E+05	( 10)	6	8	5	14.6	0.5	90.0
5	1.63E+05	( -7)	8.78E+06	( 378)	20	87	10	3.8	1.5	7.8
6	1.55E+05	( -2)	2.63E+06	( 34)	6	26	9	12.8	1.4	46.5
7	6.20E+04	( -2)	2.70E+06	( 87)	15	27	6	5.0	0.6	17.4
8	2.32E+05	( -2)	1.51E+06	( 13)	4	15	8	33.2	3.4	136.7
9	0.00E+00	( 0)	1.86E+06	( 16)	4	18	9	9.0	0.3	52.5
10	1.86E+05	( -2)	2.60E+06	( 28)	5	26	10	15.5	1.7	57.3
11	2.79E+05	( -3)	1.44E+07	( 155)	5	143	24	4.1	0.8	11.7
12	3.49E+05	( -3)	3.95E+06	( 34)	4	39	13	18.8	3.5	56.8
13	0.00E+00	( 0)	1.29E+06	( 25)	9	13	5	5.7	0.2	32.2
14	9.29E+04	( -1)	6.51E+05	( 7)	5	6	5	32.4	0.6	222.1

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:43 FILENAME: 8782-2.FTA  
 Lab# AR22 Field# 8782-2 North Fork Ranger Station, undiff. Olympic Core

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2): 3.972E+06  
 RELATIVE ERROR (%): 2.18  
 EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
 ZETA FACTOR AND STANDARD ERROR (yr cm^2): 103.20 2.30  
 SIZE OF COUNTER SQUARE (cm^2): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	(Ma)	--95% CI--
1	0.00E+00	( 0)	1.47E+06	( 19)	6	14	7	7.6	0.3 43.8
2	0.00E+00	( 0)	8.52E+05	( 11)	6	8	5	13.3	0.5 81.2
3	1.16E+05	( -1)	1.39E+06	( 12)	4	14	8	19.3	0.4 114.5
4	7.74E+04	( -1)	4.72E+06	( 61)	6	46	12	3.8	0.1 19.4
5	0.00E+00	( 0)	2.21E+06	( 19)	4	22	10	7.6	0.3 43.8
6	0.00E+00	( 0)	1.05E+06	( 9)	4	10	7	16.4	0.6 103.1
7	7.74E+04	( -1)	3.56E+06	( 46)	6	35	10	5.1	0.1 26.1
8	1.16E+05	( -1)	3.60E+06	( 31)	4	35	13	7.5	0.2 39.6
9	9.29E+04	( -1)	9.29E+05	( 10)	5	9	6	23.1	0.5 142.6
10	0.00E+00	( 0)	2.32E+05	( 2)	4	2	3	84.4	2.6 1008.7
11	7.74E+04	( -1)	4.03E+06	( 52)	6	40	11	4.5	0.1 22.9
12	0.00E+00	( 0)	6.97E+05	( 6)	4	7	5	25.1	0.9 171.9
13	9.29E+04	( -1)	1.67E+06	( 18)	5	16	8	12.9	0.3 71.8
14	1.55E+05	( -2)	1.86E+06	( 24)	6	18	7	18.3	2.0 68.5
15	7.74E+04	( -1)	2.09E+06	( 27)	6	21	8	8.6	0.2 46.0
16	3.10E+05	( -4)	1.32E+06	( 17)	6	13	6	49.5	11.8 146.4

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:45 FILENAME: ARC88-2.FTA  
 Lab# AR24 Field# ARC88-2 Hurricane Ridge, ?Needles-Gray Wolf or ?Blue Mtn.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2): 4.225E+06  
 RELATIVE ERROR (%): 2.18  
 EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
 ZETA FACTOR AND STANDARD ERROR (yr cm^2): 103.20 2.30  
 SIZE OF COUNTER SQUARE (cm^2): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	(Ma)	--95% CI--
1	2.17E+05	( -7)	4.21E+06	( 136)	15	39	7	11.5	4.4 23.8
2	1.86E+05	( -4)	1.67E+06	( 36)	10	15	5	25.0	6.3 67.3

3	1.30E+05	( 7)	2.45E+06	( 132)	25	23	4	11.8	4.6	24.5
4	7.43E+04	( 4)	1.43E+06	( 77)	25	13	3	11.7	3.0	30.2
5	4.96E+05	( 16)	7.34E+06	( 237)	15	68	9	14.8	8.3	24.4
6	7.43E+04	( 4)	1.21E+06	( 65)	25	11	3	13.9	3.5	36.0
7	2.56E+05	( 11)	6.85E+06	( 295)	20	63	8	8.2	4.0	14.8
8	6.97E+04	( 3)	7.20E+05	( 31)	20	7	2	22.1	4.1	67.4
9	1.30E+05	( 7)	1.97E+06	( 106)	25	18	4	14.7	5.6	30.7
10	1.86E+05	( 10)	4.91E+06	( 264)	25	45	6	8.4	3.9	15.4
11	1.86E+05	( 10)	3.44E+06	( 185)	25	32	5	12.0	5.6	22.2
12	5.58E+04	( 3)	1.47E+06	( 79)	25	14	3	8.7	1.7	25.1
13	5.58E+04	( 3)	7.99E+05	( 43)	25	7	2	15.9	3.0	47.4
14	1.30E+05	( 7)	2.34E+06	( 126)	25	22	4	12.4	4.8	25.7
15	1.55E+05	( 5)	2.70E+06	( 87)	15	25	5	12.9	4.0	30.4
16	2.48E+05	( 8)	4.77E+06	( 154)	15	44	7	11.5	4.8	22.9
17	1.86E+05	( 6)	2.26E+06	( 73)	15	21	5	18.3	6.4	40.9
18	3.10E+05	( 10)	2.23E+06	( 72)	15	21	5	30.6	13.9	58.8
19	2.48E+05	( 8)	3.22E+06	( 104)	15	30	6	17.1	7.0	34.3

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
DATE/TIME: 04-21-1997/14:16:49 FILENAME: ARC88-3.FTA  
Lab# AR25 Field# ARC88-3 Wolf Creek Trail, Grand Valley Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.268E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20      2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	Age (Ma)	--95% CI--
1	7.43E+04	( 4)	1.84E+06	( 99)	25	17	3	9.2	2.4      23.5
2	1.39E+05	( 3)	1.81E+06	( 39)	10	17	5	17.7	3.3      53.2
3	2.32E+05	( 5)	5.30E+06	( 114)	10	48	9	10.0	3.1      23.2
4	3.49E+05	( 6)	3.02E+06	( 52)	8	28	8	26.0	8.9      59.0
5	1.94E+05	( 5)	4.53E+06	( 117)	12	41	8	9.7	3.0      22.6
6	2.48E+05	( 8)	4.43E+06	( 143)	15	40	7	12.5	5.2      24.9
7	5.58E+04	( 3)	1.75E+06	( 94)	25	16	3	7.4	1.4      21.2
8	1.86E+05	( 10)	5.30E+06	( 285)	25	48	6	7.8	3.7      14.4
9	2.32E+05	( 8)	3.69E+06	( 127)	16	34	6	14.1	5.9      28.2
10	3.10E+05	( 10)	5.36E+06	( 173)	15	49	8	12.9	6.0      24.0
11	5.58E+04	( 3)	1.21E+06	( 65)	25	11	3	10.7	2.0      31.0
12	9.29E+04	( 5)	1.28E+06	( 69)	25	12	3	16.4	5.0      39.0
13	3.72E+04	( 2)	7.99E+05	( 43)	25	7	2	11.0	1.2      39.3
14	1.86E+05	( 6)	2.45E+06	( 79)	15	22	5	17.1	6.0      38.0
15	4.34E+05	( 14)	6.10E+06	( 197)	15	56	8	15.8	8.4      26.9
16	1.30E+05	( 7)	2.86E+06	( 154)	25	26	4	10.2	4.0      21.1
17	2.97E+05	( 16)	3.85E+06	( 207)	25	35	5	17.2	9.5      28.3
18	1.49E+05	( 8)	2.68E+06	( 144)	25	24	4	12.5	5.2      24.8
19	1.49E+05	( 8)	1.99E+06	( 107)	25	18	4	16.8	6.9      33.6
20	1.12E+05	( 6)	2.30E+06	( 124)	25	21	4	10.9	3.8      23.9

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
DATE/TIME: 04-21-1997/14:16:53 FILENAME: ARC88-4.FTA  
Lab# AR26 Field# ARC88-4 Elwah River, SE of Lillian R., Grand Valley Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.312E+06
RELATIVE ERROR (%):	2.18

EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
 ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 103.20 2.30  
 SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	1.55E+05	( 2)	3.87E+06	( 50)	6	35 10	9.6	1.0 33.8
2	9.29E+04	( 3)	7.74E+05	( 25)	15	7 3	27.9	5.2 87.0
3	1.74E+05	( 3)	2.90E+06	( 50)	8	26 7	14.0	2.7 41.3
4	2.71E+05	( 7)	3.56E+06	( 92)	12	32 7	17.3	6.6 36.3
5	1.16E+05	( 3)	1.55E+06	( 40)	12	14 4	17.5	3.3 52.3
6	4.65E+04	( 1)	2.04E+06	( 44)	10	18 6	5.8	0.1 29.7
7	1.39E+05	( 3)	5.86E+06	( 126)	10	53 10	5.6	1.1 15.8
8	6.20E+05	( 20)	9.67E+06	( 312)	15	87 11	14.4	8.6 22.4
9	0.00E+00	( 0)	6.97E+05	( 15)	10	6 3	10.5	0.4 61.8
10	2.79E+05	( 6)	7.43E+06	( 160)	10	67 11	8.6	3.0 18.6
11	2.79E+05	( 6)	9.85E+06	( 212)	10	89 13	6.5	2.3 13.9
12	6.20E+04	( 2)	2.76E+06	( 89)	15	25 5	5.4	0.6 18.6
13	3.72E+05	( 12)	8.52E+06	( 275)	15	77 10	9.8	4.9 17.3
14	9.29E+04	( 2)	7.43E+05	( 16)	10	7 3	29.6	3.1 117.4
15	4.65E+05	( 10)	6.27E+06	( 135)	10	57 10	16.7	7.7 31.2
16	1.55E+05	( 5)	2.42E+06	( 78)	15	22 5	14.7	4.5 34.7
17	4.65E+05	( 6)	5.27E+06	( 68)	6	48 12	20.1	7.0 44.9
18	3.72E+05	( 8)	5.95E+06	( 128)	10	54 10	14.2	5.9 28.2

======ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:16:57 FILENAME: ARC88-7.FTA  
 Lab# AR29 Field# ARC88-7 Near Dosewallips trailhead, Needles-Gray Wolf Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.398E+06  
 RELATIVE ERROR (%): 1.80  
 EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
 ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 110.30 2.20  
 SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	0.00E+00	( 0)	1.27E+06	( 39)	15	11 4	4.3	0.2 24.0
2	3.25E+04	( 1)	2.27E+06	( 70)	15	20 5	4.0	0.1 19.9
3	1.95E+04	( 1)	2.26E+06	( 116)	25	20 4	2.4	0.1 11.9
4	2.16E+05	( 4)	3.89E+06	( 72)	9	35 8	14.0	3.6 36.0
5	1.62E+05	( 3)	6.44E+06	( 119)	9	57 11	6.4	1.2 18.3
6	1.08E+05	( 2)	2.54E+06	( 47)	9	23 7	11.1	1.2 39.3
7	1.08E+05	( 2)	7.03E+05	( 13)	9	6 3	39.6	4.1 162.9
8	1.62E+05	( 3)	2.00E+06	( 37)	9	18 6	20.6	3.9 61.9
9	5.41E+04	( 1)	7.03E+05	( 13)	9	6 3	21.1	0.4 123.1
10	4.87E+05	( 9)	4.38E+06	( 81)	9	39 9	27.3	11.9 53.6
11	4.87E+05	( 9)	6.71E+06	( 124)	9	59 11	17.9	7.9 34.5
12	9.74E+04	( 3)	1.20E+06	( 37)	15	11 3	20.6	3.9 61.9
13	3.25E+04	( 1)	3.25E+05	( 10)	15	3 2	27.3	0.6 168.4
14	1.95E+04	( 1)	3.89E+05	( 20)	25	3 2	13.8	0.3 75.4
15	5.84E+04	( 3)	4.09E+06	( 210)	25	36 5	3.6	0.7 10.3
16	3.25E+04	( 1)	1.56E+06	( 48)	15	14 4	5.8	0.1 29.5
17	0.00E+00	( 0)	1.09E+06	( 56)	25	10 3	3.0	0.1 16.5
18	1.08E+05	( 2)	3.79E+06	( 70)	9	34 8	7.4	0.8 26.0
19	5.41E+04	( 1)	6.49E+05	( 12)	9	6 3	22.8	0.5 135.3
20	9.74E+04	( 3)	1.56E+06	( 48)	15	14 4	15.9	3.0 46.9
21	0.00E+00	( 0)	1.68E+06	( 31)	9	15 5	5.5	0.2 30.6
22	3.25E+05	( 6)	5.30E+06	( 98)	9	47 10	15.2	5.3 33.5

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:02 FILENAME: ARC88-11.FTA  
 Lab# AR33 Field# ARC88-11 USFS road 2825, NE Olympics, Needles-Gray Wolf Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.398E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	Age (Ma)	--95% CI--
1	3.87E+05	( 5)	2.87E+06	( 37)	6	25 8	31.5	9.4	77.9
2	9.29E+04	( 1)	1.12E+06	( 12)	5	10 6	21.4	0.4	126.7
3	0.00E+00	( 0)	1.16E+06	( 15)	6	10 5	10.7	0.4	63.0
4	5.27E+05	( 17)	8.98E+06	( 290)	15	80 10	13.4	7.6	21.7
5	6.97E+05	( 12)	2.27E+06	( 39)	8	20 6	70.1	33.2	135.0
6	3.10E+05	( 4)	4.88E+06	( 63)	6	43 11	14.9	3.8	38.7
7	5.58E+05	( 6)	2.14E+06	( 23)	5	19 8	60.1	19.7	148.1
8	9.29E+04	( 2)	1.86E+06	( 40)	10	16 5	12.2	1.3	43.7
9	1.39E+05	( 3)	1.67E+06	( 36)	10	15 5	19.8	3.7	59.7
10	3.10E+05	( 4)	7.28E+06	( 94)	6	65 14	10.0	2.6	25.6
11	1.39E+05	( 3)	3.25E+06	( 70)	10	29 7	10.2	2.0	29.6
12	5.42E+05	( 7)	6.97E+06	( 90)	6	62 13	18.0	6.9	37.8
13	3.10E+05	( 4)	5.42E+06	( 70)	6	48 12	13.4	3.4	34.7

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:04 FILENAME: ARC88-12.FTA  
 Lab# AR34 Field# ARC88-12 SW of Soleduc River, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.442E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	Age (Ma)	--95% CI--
1	1.24E+05	( 4)	8.36E+05	( 27)	15	7 3	35.0	8.6	96.9
2	2.17E+05	( 7)	2.97E+06	( 96)	15	26 5	17.1	6.5	35.8
3	4.65E+04	( 1)	6.51E+05	( 14)	10	6 3	18.5	0.4	106.8
4	3.72E+04	( 2)	5.58E+05	( 30)	25	5 2	16.4	1.8	60.0
5	1.39E+05	( 3)	1.39E+06	( 30)	10	12 4	24.0	4.5	73.4
6	1.86E+05	( 6)	3.50E+06	( 113)	15	31 6	12.5	4.4	27.3
7	5.58E+04	( 3)	1.64E+06	( 88)	25	14 3	8.2	1.6	23.6
8	1.67E+05	( 9)	6.71E+06	( 361)	25	59 7	5.8	2.6	11.0
9	2.09E+05	( 9)	2.37E+06	( 102)	20	21 4	20.5	9.0	39.9
10	3.25E+05	( 14)	2.72E+06	( 117)	20	24 5	27.7	14.5	47.8
11	4.65E+04	( 2)	1.46E+06	( 63)	20	13 3	7.8	0.9	27.4
12	9.29E+04	( 3)	1.27E+06	( 41)	15	11 3	17.6	3.3	52.4
13	6.20E+04	( 2)	3.19E+06	( 103)	15	28 6	4.8	0.5	16.5
14	6.97E+04	( 3)	6.74E+05	( 29)	20	6 2	24.8	4.6	76.2
15	1.39E+05	( 6)	2.58E+06	( 111)	20	23 4	12.7	4.4	27.8
16	5.58E+05	( 12)	1.01E+07	( 218)	10	89 13	12.8	6.4	22.5
17	9.29E+04	( 2)	6.51E+05	( 14)	10	6 3	34.8	3.6	141.2
18	1.16E+05	( 3)	9.68E+05	( 25)	12	8 3	28.7	5.3	89.6
19	4.65E+04	( 2)	1.02E+06	( 44)	20	9 3	11.2	1.2	39.9

20 2.32E+04 ( 1) 7.90E+05 ( 34) 20 7 2 7.7 0.2 40.1

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:08 FILENAME: ARC88-13.FTA  
 Lab# AR35 Field# ARC88-13 E of Ozette Lake, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.485E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-/2s	Grain Age	(Ma)	--95% CI--
1	3.10E+05	( 10)	1.73E+06	( 56)	15	15 4	41.8	18.8	81.4
2	2.32E+04	( 1)	4.65E+05	( 20)	20	4 2	13.1	0.3	72.0
3	1.16E+05	( 5)	1.53E+06	( 66)	20	13 3	18.0	5.5	43.0
4	1.63E+05	( 7)	2.67E+06	( 115)	20	23 4	14.4	5.5	30.0
5	6.97E+04	( 3)	6.04E+05	( 26)	20	5 2	27.9	5.2	86.7
6	2.32E+04	( 1)	4.65E+05	( 20)	20	4 2	13.1	0.3	72.0
7	1.45E+06	( 28)	1.14E+07	( 220)	9	99 14	29.5	19.1	43.7
8	2.56E+05	( 11)	2.83E+06	( 122)	20	25 5	21.1	10.1	38.6
9	2.79E+05	( 12)	1.25E+06	( 54)	20	11 3	51.8	25.0	96.8
10	5.58E+05	( 12)	5.90E+06	( 127)	10	51 9	22.1	11.0	39.5
11	1.03E+06	( 20)	7.49E+06	( 145)	9	65 11	32.1	18.9	51.1
12	6.51E+05	( 14)	4.41E+06	( 95)	10	38 8	34.4	17.9	59.9
13	3.41E+05	( 11)	2.94E+06	( 95)	15	26 5	27.1	12.9	50.1
14	2.79E+05	( 9)	3.04E+06	( 98)	15	26 5	21.6	9.4	42.0
15	2.09E+05	( 9)	2.46E+06	( 106)	20	21 4	20.0	8.7	38.7
16	9.29E+04	( 5)	1.08E+06	( 58)	25	9 2	20.5	6.2	49.2
17	4.34E+05	( 14)	1.67E+06	( 54)	15	15 4	60.3	30.7	108.8
18	2.71E+05	( 7)	2.17E+06	( 56)	12	19 5	29.5	11.1	63.4
19	7.23E+05	( 14)	3.46E+06	( 67)	9	30 7	48.6	25.0	86.5
20	2.32E+05	( 10)	3.42E+06	( 147)	20	30 5	16.0	7.4	29.8

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:12 FILENAME: ARC88-14.FTA

Lab# AR36 Field# ARC88-14 Quarry SE of Ozette Lake, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.529E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-/2s	Grain Age	(Ma)	--95% CI--
1	2.07E+05	( 4)	6.71E+05	( 13)	9	6 3	73.5	17.0	229.0
2	4.65E+04	( 1)	1.49E+06	( 32)	10	13 5	8.3	0.2	43.6
3	9.29E+05	( 20)	4.74E+06	( 102)	10	41 8	46.0	26.8	74.3
4	6.04E+05	( 13)	5.34E+06	( 115)	10	46 9	26.7	13.6	46.9
5	1.55E+05	( 5)	5.27E+05	( 17)	15	5 2	69.9	19.8	191.5
6	6.20E+05	( 12)	8.36E+06	( 162)	9	72 12	17.5	8.7	31.1
7	3.10E+04	( 1)	9.29E+04	( 3)	15	1 1	84.3	1.5	904.4
8	6.04E+05	( 13)	4.74E+06	( 102)	10	41 8	30.1	15.3	53.1
9	2.79E+05	( 6)	3.11E+06	( 67)	10	27 7	21.4	7.4	47.9
10	1.63E+05	( 7)	1.74E+06	( 75)	20	15 4	22.2	8.5	47.1

11	2.23E+05	( -12)	1.80E+06	( -97)	25	16	3	29.2	14.4	52.7
12	1.39E+05	( -6)	1.12E+06	( -48)	20	10	3	29.8	10.2	68.1
13	9.29E+04	( -5)	1.25E+06	( -67)	25	11	3	17.9	5.5	42.7
14	9.29E+04	( -4)	2.09E+06	( -90)	20	18	4	10.8	2.8	27.5
15	6.97E+04	( -3)	2.09E+05	( -9)	20	2	1	80.1	13.5	305.2
16	2.23E+05	( -12)	2.83E+06	( -152)	25	24	4	18.7	9.3	33.2
17	1.63E+05	( -7)	2.72E+06	( -117)	20	23	4	14.3	5.5	29.7
18	4.65E+05	( -10)	1.63E+06	( -35)	10	14	5	67.2	29.4	136.6
19	2.48E+05	( -8)	1.98E+06	( -64)	15	17	4	29.7	12.1	60.9
20	6.20E+05	( -12)	1.03E+07	( -199)	9	88	13	14.3	7.1	25.2

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:16 FILENAME: ARC88-15.FTA

Lab# AR37 Field# ARC88-15 Second Beach, south of La Push, Hoh Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.528E+06
RELATIVE ERROR (%):	1.76
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-2s	Grain Age	Age (Ma)	--95% CI--
1	2.16E+05	( -4)	2.38E+06	( -44)	9	21	6	23.5	5.9      62.1
2	0.00E+00	( 0)	4.54E+05	( -14)	15	4	2	12.7	0.5      74.9
3	1.08E+05	( -2)	1.68E+06	( -31)	9	14	5	17.3	1.9      63.1
4	9.74E+04	( -3)	3.57E+05	( -11)	15	3	2	70.3	12.2      253.0
5	3.89E+04	( -2)	1.15E+06	( -59)	25	10	3	9.1	1.0      31.9
6	8.66E+05	( -16)	7.47E+06	( -138)	9	64	11	29.2	16.1      48.6
7	1.03E+06	( -19)	1.12E+07	( -207)	9	96	14	23.1	13.5      36.7
8	3.25E+05	( -6)	6.55E+06	( -121)	9	56	10	12.7	4.5      27.7
9	1.08E+05	( -2)	7.57E+05	( -14)	9	7	3	37.9	3.9      153.6
10	5.41E+04	( -1)	1.84E+06	( -34)	9	16	5	8.4	0.2      43.7
11	1.08E+05	( -2)	2.06E+06	( -38)	9	18	6	14.1	1.5      50.7
12	0.00E+00	( 0)	1.46E+06	( -27)	9	13	5	6.5	0.2      36.5
13	1.08E+05	( -2)	4.33E+06	( -80)	9	37	8	6.7	0.7      23.3
14	1.08E+05	( -2)	2.49E+06	( -46)	9	21	6	11.7	1.3      41.4
15	5.41E+04	( -1)	7.57E+05	( -14)	9	7	3	20.2	0.4      116.3
16	5.41E+04	( -1)	2.76E+06	( -51)	9	24	7	5.6	0.1      28.5
17	5.41E+04	( -1)	9.20E+05	( -17)	9	8	4	16.7	0.4      93.1
18	5.41E+04	( -1)	7.03E+05	( -13)	9	6	3	21.7	0.5      126.7
19	0.00E+00	( 0)	7.57E+05	( -14)	9	7	3	12.7	0.5      74.9
20	2.70E+05	( -5)	1.57E+06	( -29)	9	14	5	44.1	13.0      111.6

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:17:19 FILENAME: ARC88-16.FTA

Lab# AR38 Field# ARC88-16 Southeast of Forks, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.571E+06
RELATIVE ERROR (%):	1.76
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-2s	Grain Age	Age (Ma)	--95% CI--
1	2.16E+05	( -4)	4.81E+06	( -89)	9	41	9	11.8	3.0      30.0

2	6.49E+04	( -2)	1.10E+06	( -34)	15	9	3	15.9	1.7	57.6
3	0.00E+00	( 0)	1.62E+06	( -30)	9	14	5	5.9	0.2	32.9
4	0.00E+00	( 0)	1.57E+06	( -29)	9	13	5	6.1	0.2	34.1
5	1.08E+05	( -2)	1.08E+06	( -20)	9	9	4	26.9	2.9	103.0
6	3.25E+05	( -6)	7.30E+06	( -135)	9	62	11	11.5	4.0	25.0
7	2.16E+05	( -4)	1.73E+06	( -32)	9	15	5	32.5	8.1	88.3
8	0.00E+00	( 0)	7.03E+05	( -13)	9	6	3	13.8	0.5	82.2
9	1.62E+05	( -3)	3.89E+06	( -72)	9	33	8	11.0	2.1	31.9
10	5.41E+04	( 1)	5.95E+05	( -11)	9	5	3	25.8	0.5	155.9
11	0.00E+00	( 0)	1.08E+06	( -20)	9	9	4	8.9	0.3	50.9
12	1.08E+05	( -2)	2.81E+06	( -52)	9	24	7	10.4	1.1	36.8
13	5.41E+04	( 1)	2.11E+06	( -39)	9	18	6	7.4	0.2	38.1
14	3.89E+05	( -4)	4.09E+06	( -42)	5	35	11	24.8	6.2	65.9
15	1.62E+05	( -3)	1.95E+06	( -36)	9	17	6	22.0	4.1	66.2
16	5.41E+04	( 1)	2.70E+05	( -5)	9	2	2	55.8	1.1	435.8
17	5.41E+04	( 1)	8.66E+05	( -16)	9	7	4	17.9	0.4	100.7
18	1.08E+05	( -2)	2.60E+06	( -48)	9	22	6	11.3	1.2	40.0
19	5.84E+04	( -3)	1.60E+06	( -82)	25	14	3	9.7	1.9	27.9
20	3.89E+04	( -2)	1.52E+06	( -78)	25	13	3	7.0	0.8	24.1

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
DATE/TIME: 04-21-1997/14:17:22 FILENAME: ARC88-17.FTA  
Lab# AR39 Field# ARC88-17 Lower part of Hoh River, Western Lithic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.592E+06
RELATIVE ERROR (%):	1.74
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30 2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	RhoI (Ni)	Squares	U+-/2s	Grain Age	Age (Ma)	--95% CI--
1	1.62E+05	( -3)	3.79E+06	( -70)	9 32	8 11.4	2.2 33.0
2	1.36E+05	( -7)	3.02E+06	( -155)	25 26	4 11.7	4.5 24.1
3	2.70E+05	( -5)	5.90E+06	( -109)	9 50	10 12.0	3.7 27.9
4	7.79E+04	( -4)	1.34E+06	( -69)	25 11	3 15.2	3.9 39.2
5	0.00E+00	( 0)	1.22E+07	( -125)	5 103	19 1.4	0.1 7.6
6	5.41E+04	( 1)	2.22E+06	( -41)	9 19	6 7.1	0.2 36.3
7	1.75E+05	( -9)	5.74E+06	( -295)	25 49	6 7.9	3.5 14.9
8	1.17E+05	( -6)	7.09E+06	( -364)	25 60	7 4.3	1.5 9.2
9	1.95E+04	( 1)	1.11E+06	( -57)	25 9	3 5.1	0.1 25.7
10	5.84E+04	( -3)	1.48E+06	( -76)	25 13	3 10.5	2.0 30.3
11	5.84E+04	( -3)	5.37E+06	( -276)	25 46	6 2.9	0.6 8.1
12	1.62E+05	( -3)	3.25E+06	( -60)	9 28	7 13.3	2.5 38.7
13	5.41E+04	( 1)	2.11E+06	( -39)	9 18	6 7.4	0.2 38.3
14	1.62E+05	( -3)	4.00E+06	( -74)	9 34	8 10.8	2.1 31.2
15	3.89E+04	( -2)	3.25E+06	( -167)	25 28	4 3.3	0.4 11.1
16	1.95E+04	( 1)	7.01E+05	( -36)	25 6	2 8.0	0.2 41.7
17	5.84E+04	( -3)	3.95E+06	( -203)	25 34	5 3.9	0.8 11.1
18	5.84E+04	( -3)	1.13E+06	( -58)	25 10	3 13.7	2.6 40.1
19	0.00E+00	( 0)	7.79E+05	( -24)	15 7	3 7.4	0.3 42.0
20	0.00E+00	( 0)	2.73E+05	( -14)	25 2	1 12.8	0.5 76.0
21	3.89E+04	( -2)	4.67E+06	( -240)	25 40	5 2.3	0.3 7.7

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.215E+06
RELATIVE ERROR (%):	2.16
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30

SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
22	1.55E+05	( 5)	3.78E+06	( 122)	15	35 6	9.2	2.8 21.4
23	3.49E+05	( 6)	5.87E+06	( 101)	8	54 11	13.2	4.6 29.1
24	1.39E+05	( 6)	6.37E+06	( 274)	20	59 8	4.9	1.7 10.5
25	0.00E+00	( 0)	4.03E+05	( 13)	15	4 2	11.9	0.4 71.0
26	1.55E+05	( 5)	5.45E+06	( 176)	15	50 8	6.4	2.0 14.7
27	1.12E+05	( 6)	2.70E+06	( 145)	25	25 4	9.2	3.2 20.1
28	7.74E+04	( 2)	2.90E+06	( 75)	12	27 6	6.2	0.7 21.7
29	2.48E+05	( 8)	1.86E+06	( 60)	15	17 4	29.5	12.0 60.7
30	1.24E+05	( 4)	1.06E+07	( 342)	15	98 11	2.6	0.7 6.6
31	9.29E+04	( 5)	6.67E+06	( 359)	25	62 7	3.1	1.0 7.1

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:17:27 FILENAME: ARC88-18.FTA  
Lab# AR40 Field# ARC88-18 South Fork Cmgrp., Hoh River, Western Olympic Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm <sup>2</sup> )	4.636E+06
RELATIVE ERROR (%)	1.74
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm)	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm <sup>2</sup> )	110.30 2.20
SIZE OF COUNTER SQUARE (cm <sup>2</sup> )	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	5.41E+04	( 1)	1.68E+06	( 31)	9	14 5	9.4	0.2 49.3
2	1.95E+04	( 1)	7.40E+05	( 38)	25	6 2	7.7	0.2 39.7
3	5.41E+04	( 1)	8.11E+05	( 15)	9	7 3	19.3	0.4 109.9
4	0.00E+00	( 0)	2.41E+06	( 124)	25	20 4	1.4	0.1 7.7
5	1.08E+05	( 2)	1.30E+06	( 24)	9	11 4	22.8	2.4 85.3
6	5.41E+04	( 1)	5.41E+05	( 10)	9	5 3	28.8	0.6 177.4
7	7.79E+04	( 4)	1.22E+07	( 625)	25	102 9	1.7	0.4 4.2
8	5.41E+04	( 1)	1.14E+06	( 21)	9	10 4	13.8	0.3 75.3
9	2.16E+05	( 4)	9.74E+06	( 180)	9	82 13	5.9	1.5 14.8
10	3.89E+04	( 2)	1.75E+06	( 90)	25	15 3	6.1	0.7 21.1
11	2.16E+05	( 4)	1.30E+07	( 240)	9	109 15	4.4	1.2 11.1
12	5.84E+04	( 3)	6.62E+06	( 340)	25	56 6	2.4	0.5 6.7

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:17:28 FILENAME: AD42.FTA  
Lab# AD42 Field# 92JG62 Browns Point, Hoh Assemblage (Unit Thts) Redated AD42b

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm <sup>2</sup> )	3.748E+06
RELATIVE ERROR (%)	2.13
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm)	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm <sup>2</sup> )	103.40 2.30
SIZE OF COUNTER SQUARE (cm <sup>2</sup> )	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	1.86E+05	( 4)	1.30E+06	( 28)	10	14 5	28.6	7.0 78.8
2	7.43E+05	( 16)	3.49E+06	( 75)	10	36 8	41.5	22.4 71.3
3	2.42E+05	( 13)	3.92E+06	( 211)	25	41 6	12.1	6.2 20.9
4	2.56E+05	( 11)	3.35E+06	( 144)	20	35 6	15.0	7.2 27.3

5	2.48E+05	( 8)	2.39E+06	( 77)	15	25	6	20.5	8.4	41.6
6	3.72E+05	( 12)	3.07E+06	( 99)	15	32	7	23.7	11.7	42.8
7	1.86E+05	( 10)	1.97E+06	( 106)	25	21	4	18.5	8.5	34.9
8	1.86E+05	( 4)	3.07E+06	( 66)	10	32	8	12.2	3.1	31.5
9	1.49E+05	( 8)	2.75E+06	( 148)	25	29	5	10.7	4.4	21.2
10	1.39E+05	( 6)	1.23E+06	( 53)	20	13	4	22.4	7.7	50.9
11	3.25E+05	( 14)	2.39E+06	( 103)	20	25	5	26.6	13.9	46.2
12	9.29E+05	( 20)	1.28E+07	( 275)	10	133	17	14.2	8.5	22.2
13	2.07E+05	( 4)	1.81E+06	( 35)	9	19	6	22.9	5.7	61.7
14	1.55E+05	( 5)	3.41E+06	( 110)	15	35	7	9.1	2.8	21.2
15	7.43E+04	( 4)	1.15E+06	( 62)	25	12	3	13.0	3.3	33.6
16	2.23E+05	( 12)	1.86E+06	( 100)	25	19	4	23.5	11.6	42.4
17	1.24E+05	( 4)	8.98E+05	( 29)	15	9	3	27.6	6.8	75.8
18	7.23E+05	( 14)	8.11E+06	( 157)	9	84	14	17.4	9.2	29.9
19	5.58E+04	( 3)	8.55E+05	( 46)	25	9	3	13.3	2.5	39.3
20	3.95E+05	( 17)	3.09E+06	( 133)	20	32	6	24.9	14.0	41.1

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
DATE/TIME: 04-21-1997/14:17:32 FILENAME: ARC88-21.FTA  
Lab# AD43 Field# ARC88-21 Hogsback melange of the Hoh Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.572E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20      2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	--95% CI--
1	1.86E+05	( 4)	1.35E+06	( 29)	10	11 4	33.6	8.3 92.1
2	6.97E+05	( 9)	7.98E+06	( 103)	6	68 14	20.9	9.2 40.6
3	5.58E+05	( 12)	7.34E+06	( 158)	10	63 10	18.1	9.0 32.2
4	3.41E+05	( 11)	5.82E+06	( 188)	15	50 8	14.0	6.8 25.3
5	9.29E+04	( 4)	1.35E+06	( 58)	20	11 3	16.9	4.3 43.9
6	9.29E+04	( 3)	1.73E+06	( 56)	15	15 4	13.3	2.5 38.8
7	3.72E+05	( 12)	4.55E+06	( 147)	15	39 7	19.5	9.7 34.7
8	3.25E+05	( 7)	3.25E+06	( 70)	10	28 7	24.0	9.1 51.1
9	6.20E+04	( 2)	2.17E+06	( 70)	15	18 4	7.2	0.8 25.3
10	2.71E+05	( 7)	2.05E+06	( 53)	12	18 5	31.7	11.9 68.5
11	2.17E+05	( 7)	3.41E+06	( 110)	15	29 6	15.3	5.9 32.0
12	2.79E+05	( 6)	3.49E+06	( 75)	10	30 7	19.3	6.7 43.0
13	9.29E+04	( 3)	1.70E+06	( 55)	15	15 4	13.5	2.6 39.6
14	5.58E+05	( 12)	2.79E+06	( 60)	10	24 6	47.5	23.0 88.2
15	1.86E+05	( 6)	9.91E+05	( 32)	15	8 3	45.1	15.1 106.5
16	4.26E+05	( 11)	9.53E+06	( 246)	12	81 11	10.7	5.2 19.2
17	2.32E+05	( 5)	4.18E+06	( 90)	10	36 8	13.5	4.2 31.7
18	3.61E+05	( 7)	7.13E+06	( 138)	9	61 11	12.2	4.7 25.3
19	9.29E+04	( 4)	2.58E+06	( 111)	20	22 4	8.8	2.3 22.4

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
DATE/TIME: 04-21-1997/14:17:36 FILENAME: ARC88-22.FTA  
Lab# AR44 Field# ARC88-22 W of Quinault Lake, undiff. Olympic Core

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.616E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20      2.30

SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	9.29E+04	( 3)	1.12E+06	( 36)	15	9 3	20.8	3.9 62.6
2	2.17E+05	( 7)	1.33E+06	( 43)	15	11 3	39.4	14.7 86.5
3	9.29E+04	( 3)	8.05E+05	( 26)	15	7 3	28.7	5.3 89.2
4	4.07E+05	( 7)	3.83E+06	( 66)	8	32 8	25.7	9.8 54.9
5	1.63E+05	( 7)	2.70E+06	( 116)	20	23 4	14.7	5.6 30.6
6	6.20E+04	( 2)	2.26E+06	( 73)	15	19 5	7.0	0.8 24.4
7	1.55E+05	( 3)	1.70E+06	( 33)	9	14 5	22.7	4.2 68.8
8	9.29E+04	( 2)	3.02E+06	( 65)	10	26 6	7.9	0.9 27.5
9	1.39E+05	( 6)	1.35E+06	( 58)	20	11 3	25.2	8.7 56.8

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:17:37 FILENAME: 8887-1.FTA  
Lab# AR46 Field# 8887-1 Lower part of Dose Trail, Elwha Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.372E+06  
RELATIVE ERROR (%): 1.74

EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00

ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 110.30 2.20  
SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	5.41E+04	( 1)	1.62E+06	( 30)	9	14 5	9.2	0.2 48.2
2	1.17E+05	( 6)	2.80E+06	( 144)	25	25 4	10.3	3.6 22.4
3	1.95E+04	( 1)	1.85E+06	( 95)	25	17 3	2.9	0.1 14.5
4	3.25E+04	( 1)	1.27E+06	( 39)	15	11 4	7.1	0.2 36.5
5	1.62E+05	( 3)	3.46E+06	( 64)	9	31 8	11.9	2.3 34.5
6	1.08E+05	( 2)	2.16E+06	( 40)	9	19 6	12.9	1.4 46.4
7	0.00E+00	( 0)	3.84E+06	( 71)	9	34 8	2.4	0.1 12.9
8	2.16E+05	( 4)	2.65E+06	( 49)	9	24 7	20.4	5.2 53.5
9	3.89E+04	( 2)	4.67E+05	( 24)	25	4 2	21.5	2.3 80.5
10	1.36E+05	( 7)	6.82E+06	( 350)	25	61 7	4.9	1.9 10.0
11	0.00E+00	( 0)	8.11E+05	( 15)	9	7 4	11.4	0.4 66.9
12	2.16E+05	( 4)	3.79E+06	( 70)	9	34 8	14.3	3.7 36.8

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:17:39 FILENAME: 8888-1.FTA  
Lab# AR47 Field# 8888-1 West of Hayden Pass, Elwha Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.194E+06  
RELATIVE ERROR (%): 1.80

EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00

ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 110.30 2.20  
SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	3.89E+04	( 2)	2.06E+06	( 106)	25	19 4	4.7	0.5 16.2
2	0.00E+00	( 0)	5.84E+05	( 30)	25	5 2	5.4	0.2 30.2
3	1.08E+05	( 2)	1.03E+06	( 19)	9	10 4	26.0	2.7 100.2
4	1.95E+04	( 1)	1.60E+06	( 82)	25	15 3	3.2	0.1 16.2
5	5.41E+04	( 1)	7.57E+05	( 14)	9	7 4	18.7	0.4 107.8
6	9.74E+04	( 5)	2.67E+06	( 137)	25	25 4	8.7	2.7 20.2

7	1.08E+05	( 2)	1.14E+06	( 21)	9	11	5	23.5	2.5	89.6
8	1.08E+05	( 2)	2.22E+06	( 41)	9	21	6	12.1	1.3	43.3
9	1.62E+05	( 3)	6.76E+06	( 125)	9	63	11	5.8	1.1	16.6
10	3.89E+04	( 2)	8.37E+05	( 43)	25	8	2	11.5	1.3	41.2
11	4.87E+05	( 9)	6.33E+06	( 117)	9	59	11	18.1	7.9	34.9
12	5.41E+04	( 1)	8.66E+05	( 16)	9	8	4	16.4	0.3	92.5
13	5.84E+04	( 3)	4.60E+06	( 236)	25	43	6	3.1	0.6	8.7
14	1.95E+05	( 6)	2.92E+06	( 90)	15	27	6	15.8	5.5	34.8
15	5.41E+04	( 1)	3.14E+06	( 58)	9	29	8	4.6	0.1	23.1
16	0.00E+00	( 0)	1.35E+06	( 25)	9	13	5	6.5	0.2	36.7
17	1.08E+05	( 2)	1.68E+06	( 31)	9	16	6	16.0	1.7	58.4
18	0.00E+00	( 0)	1.41E+06	( 26)	9	13	5	6.2	0.2	35.2
19	2.16E+05	( 4)	5.30E+06	( 98)	9	49	10	9.8	2.5	24.9
20	9.74E+04	( 3)	3.02E+06	( 93)	15	28	6	7.8	1.5	22.5

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:42 FILENAME: 8889-1.FTA  
 Lab# AR48 Field# 8889-1 Mount Fromme, Elwha Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.416E+06
RELATIVE ERROR (%):	1.74
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	1.08E+05	( 2)	5.41E+06	( 100)	9	48	10
2	5.41E+05	( 10)	1.73E+07	( 320)	9	153	18
3	5.36E+05	( 11)	1.66E+07	( 340)	10	146	17
4	1.62E+05	( 3)	4.17E+06	( 77)	9	37	8
5	0.00E+00	( 0)	2.06E+06	( 38)	9	18	6
6	1.62E+05	( 3)	4.38E+06	( 81)	9	39	9
7	1.08E+05	( 2)	4.49E+06	( 83)	9	40	9
8	1.62E+05	( 3)	5.90E+06	( 109)	9	52	10
9	1.08E+05	( 2)	2.38E+06	( 44)	9	21	6
10	6.49E+04	( 2)	8.44E+05	( 26)	15	7	3

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:43 FILENAME: 8889-2.FTA  
 Lab# AR49 Field# 8889-2 Wellesley Peak, Grand Valley Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.460E+06
RELATIVE ERROR (%):	1.74
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (Ni) (cm^-2)	Squares	U+/-2s	Grain Age (Ma)	--95% CI--
1	2.70E+05	( 5)	2.38E+06	( 44)	9	21	6
2	9.74E+04	( 3)	1.72E+06	( 53)	15	15	4
3	1.95E+04	( 1)	1.73E+06	( 89)	25	15	3
4	5.41E+04	( 1)	1.03E+06	( 19)	9	9	4
5	2.16E+05	( 4)	2.54E+06	( 47)	9	22	6
6	0.00E+00	( 0)	4.87E+05	( 9)	9	4	3
7	9.74E+04	( 5)	2.55E+06	( 131)	25	22	4

8	1.95E+05	( 6)	7.85E+06	( 242)	15	69	9	6.3	2.2	13.5
9	3.89E+04	( 2)	4.09E+05	( 21)	25	4	2	25.0	2.7	95.2
10	5.84E+04	( 3)	3.08E+06	( 158)	25	27	4	4.9	1.0	13.9
11	2.16E+05	( 4)	3.25E+06	( 60)	9	28	7	17.0	4.3	44.1
12	2.70E+05	( 5)	1.46E+07	( 270)	9	128	16	4.7	1.5	10.8
13	6.49E+04	( 2)	1.82E+06	( 56)	15	16	4	9.4	1.0	33.2
14	5.84E+04	( 3)	3.80E+06	( 195)	25	33	5	4.0	0.8	11.2
15	9.74E+04	( 3)	3.05E+06	( 94)	15	27	6	8.2	1.6	23.6

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:46 FILENAME: 88921.FTA  
 Lab# AR50 Field# 88921 Bridge at Hoh R. & Glacier Crk., Western Olympics Assem.

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.789E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20      2.30
SIZE OF COUNTER SQUARE (cm^2):	2.151E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	(Ma)	--95% CI--
1	2.32E+05	( 1)	1.49E+07	( 64)	2	121	31	4.4	0.1 22.3
2	1.55E+05	( 2)	8.52E+06	( 110)	6	69	14	4.8	0.5 16.6
3	2.32E+05	( 2)	8.60E+06	( 74)	4	70	17	7.2	0.8 25.0
4	0.00E+00	( 0)	2.44E+06	( 21)	4	20	9	8.3	0.3 47.3
5	7.75E+04	( 1)	1.47E+06	( 19)	6	12	5	14.8	0.3 81.4
6	1.16E+05	( 2)	5.11E+06	( 88)	8	42	9	6.0	0.7 20.9
7	1.55E+05	( 2)	6.20E+06	( 80)	6	50	11	6.6	0.7 23.1
8	0.00E+00	( 0)	1.12E+06	( 12)	5	9	5	14.7	0.5 88.4
9	1.55E+05	( 2)	4.03E+06	( 52)	6	33	9	10.2	1.1 36.1
10	0.00E+00	( 0)	1.70E+06	( 22)	6	14	6	7.9	0.3 45.0
11	1.39E+05	( 3)	2.93E+06	( 63)	10	24	6	12.4	2.4 36.0
12	1.39E+05	( 3)	2.37E+06	( 51)	10	19	5	15.2	2.9 44.9

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:47 FILENAME: 88108.FTA  
 Lab# AD53 Field# 88108 False summit of Hoh Peak, Western Olympic Assemblage

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.548E+06
RELATIVE ERROR (%):	1.74
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	110.30      2.20
SIZE OF COUNTER SQUARE (cm^2):	2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	(Ma)	--95% CI--
1	1.62E+05	( 3)	5.95E+05	( 11)	9	5	3	70.6	12.2 254.1
2	5.41E+04	( 1)	5.41E+05	( 10)	9	5	3	28.2	0.6 174.1
3	0.00E+00	( 0)	1.95E+05	( 6)	15	2	1	30.7	1.1 209.7
4	6.49E+04	( 2)	2.92E+05	( 9)	15	3	2	58.8	5.9 264.0
5	3.89E+04	( 2)	3.51E+05	( 18)	25	3	1	29.7	3.1 115.5
6	1.95E+04	( 1)	6.62E+05	( 34)	25	6	2	8.4	0.2 43.9
7	6.49E+04	( 2)	2.60E+05	( 8)	15	2	2	65.9	6.5 307.0
8	3.89E+04	( 2)	1.95E+05	( 10)	25	2	1	53.0	5.3 231.4
9	1.95E+04	( 1)	3.89E+05	( 20)	25	3	1	14.2	0.3 78.0
10	6.49E+04	( 2)	4.22E+05	( 13)	15	4	2	41.0	4.2 168.4
11	1.95E+04	( 1)	3.51E+05	( 18)	25	3	1	15.8	0.3 87.7

12 3.89E+04 ( -2) 1.95E+05 ( -10) 25 2 1 53.0 5.3 231.4

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.175E+06  
RELATIVE ERROR (%): 2.16  
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00  
ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 103.20 2.30  
SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-s	Grain Age	--95% CI--
13	3.49E+05	( -3)	5.81E+05	( -5)	4	5 5	130.5	20.0 632.8
14	1.24E+05	( -4)	2.79E+05	( -9)	15	3 2	97.1	21.5 334.6
15	7.43E+04	( -4)	3.16E+05	( -17)	25	3 1	52.0	12.4 153.8
16	7.43E+04	( -4)	2.60E+05	( -14)	25	2 1	63.0	14.7 193.3
17	6.20E+04	( -2)	1.86E+05	( -6)	15	2 1	75.0	7.1 389.9
18	6.20E+04	( -2)	3.41E+05	( -11)	15	3 2	41.5	4.2 177.2
19	2.32E+04	( -1)	3.72E+05	( -16)	20	3 2	15.3	0.3 86.2
20	3.72E+04	( -2)	3.72E+05	( -20)	25	3 2	23.0	2.4 88.2
21	5.16E+04	( -1)	2.07E+05	( -4)	9	2 2	59.1	1.1 522.9
22	5.81E+04	( -1)	4.07E+05	( -7)	8	4 3	34.4	0.7 235.4
23	0.00E+00	( 0)	4.13E+05	( -8)	9	4 3	19.5	0.7 125.1
24	0.00E+00	( 0)	3.10E+05	( -6)	9	3 2	26.3	0.9 180.6
25	0.00E+00	( 0)	3.87E+05	( -5)	6	4 3	32.0	1.1 231.1
26	6.20E+04	( -2)	2.17E+05	( -7)	15	2 1	64.5	6.2 315.7
27	0.00E+00	( 0)	3.61E+05	( -7)	9	3 2	22.4	0.8 147.9

## FT Data for Coast Range Terrane in Order of Increasing Stratigraphic Depth

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:17:50 FILENAME: OLY-2A.FTA  
 Lab# ADP2 Field# OLY-2a Clallam Fm, Peripheral Sequence, One 8 Ma grain removed

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	3.640E+06
RELATIVE ERROR (%):	2.19
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20      2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	--95% CI--
1	1.30E+05	( 7)	5.58E+05	( 30)	25	6 2	44.5	16.2 101.2
2	1.50E+06	( 29)	5.11E+06	( 99)	9	55 11	55.0	34.9 83.7
3	1.39E+06	( 27)	4.49E+06	( 87)	9	48 11	58.3	36.2 90.3
4	8.36E+05	( 18)	5.02E+06	( 108)	10	54 11	31.5	17.8 51.8
5	3.61E+05	( 7)	1.34E+06	( 26)	9	14 6	51.2	18.5 118.7
6	5.11E+05	( 11)	2.51E+06	( 54)	10	27 7	38.6	18.0 73.7
7	6.97E+05	( 15)	1.72E+06	( 37)	10	18 6	76.2	38.7 140.9
8	9.81E+05	( 19)	2.89E+06	( 56)	9	31 8	63.8	35.6 108.2
9	9.76E+05	( 21)	5.72E+06	( 123)	10	61 11	32.2	19.1 51.2
10	2.89E+06	( 56)	8.05E+06	( 156)	9	86 14	67.2	48.5 91.7
11	9.29E+05	( 30)	3.93E+06	( 127)	15	42 8	44.4	28.6 66.3
12	9.60E+05	( 31)	3.38E+06	( 109)	15	36 7	53.4	34.5 80.0
13	7.74E+05	( 25)	1.77E+06	( 57)	15	19 5	82.2	49.0 133.0
14	2.03E+05	( 7)	1.89E+06	( 65)	16	20 5	20.6	7.8 44.0
15	3.41E+05	( 11)	8.67E+05	( 28)	15	9 4	74.0	33.0 151.4
16	1.86E+06	( 36)	6.25E+06	( 121)	9	67 12	55.8	37.2 81.4
17	2.48E+05	( 8)	7.13E+05	( 23)	15	8 3	65.9	25.2 149.8
18	1.30E+05	( 7)	5.95E+05	( 32)	25	6 2	41.7	15.3 94.2
19	6.20E+05	( 20)	3.90E+06	( 126)	15	42 8	30.0	17.6 48.0
20	1.21E+06	( 26)	5.53E+06	( 119)	10	59 11	41.1	25.7 63.0
21	3.10E+05	( 4)	6.20E+05	( 8)	6	7 5	95.1	20.7 341.8
22	3.25E+06	( 42)	9.06E+06	( 117)	6	97 18	67.3	45.9 96.3
23	3.41E+05	( 11)	3.19E+06	( 103)	15	34 7	20.3	9.7 37.4
24	4.03E+05	( 13)	2.32E+06	( 75)	15	25 6	32.8	16.5 59.0
25	8.67E+05	( 28)	3.31E+06	( 107)	15	36 7	49.2	31.1 74.9
26	1.30E+06	( 42)	3.87E+06	( 125)	15	41 8	63.0	43.1 89.8
27	2.32E+06	( 40)	5.46E+06	( 94)	8	59 12	79.6	53.4 116.2
28	7.74E+05	( 25)	4.12E+06	( 133)	15	44 8	35.4	22.0 54.3
29	1.08E+06	( 35)	3.97E+06	( 128)	15	42 8	51.3	34.1 74.9
30	2.32E+06	( 75)	8.21E+06	( 265)	15	88 11	52.9	40.7 68.7
31	1.43E+06	( 46)	5.08E+06	( 164)	15	54 9	52.6	36.9 73.3
32	1.39E+06	( 45)	5.30E+06	( 171)	15	57 9	49.4	34.6 68.9
33	1.12E+06	( 24)	4.32E+06	( 93)	10	46 10	48.6	29.5 76.3
34	1.70E+06	( 33)	8.00E+06	( 155)	9	86 14	40.0	26.5 58.5
35	2.03E+05	( 7)	1.22E+06	( 42)	16	13 4	31.8	11.8 70.1
36	2.23E+05	( 12)	8.92E+05	( 48)	25	10 3	47.3	22.6 89.3
37	1.18E+06	( 38)	2.91E+06	( 94)	15	31 7	75.7	50.4 111.2
38	5.16E+05	( 10)	1.60E+06	( 31)	9	17 6	61.0	26.4 125.8
39	4.34E+05	( 14)	2.08E+06	( 67)	15	22 6	39.5	20.3 70.3
40	2.42E+06	( 78)	1.16E+07	( 376)	15	125 14	38.8	30.2 49.8
41	9.53E+05	( 41)	2.74E+06	( 118)	20	29 6	65.1	44.3 93.5
42	7.13E+05	( 23)	2.35E+06	( 76)	15	25 6	56.9	33.9 91.2
43	2.74E+06	( 53)	7.64E+06	( 148)	9	82 14	67.1	47.9 92.3
44	2.32E+05	( 8)	3.49E+05	( 12)	16	4 2	124.9	44.2 325.3
45	1.14E+06	( 22)	3.20E+06	( 62)	9	34 9	66.6	38.8 109.3
46	6.74E+05	( 29)	1.95E+06	( 84)	20	21 5	64.8	40.8 99.5

47	1.63E+05	( 7)	3.25E+05	( 14)	20	3	2	94.3	32.0	244.3
48	8.05E+05	( 26)	6.94E+06	( 224)	15	74	10	21.9	13.9	32.8
49	6.04E+05	( 26)	1.93E+06	( 83)	20	21	5	58.8	36.2	92.0

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:18:04 FILENAME: OLY-11.FTA  
 Lab# ADP11 Field# OLY-11 Pysht Fm., Peripheral Sequence, NW Olympic Peninsula

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	3.787E+06
RELATIVE ERROR (%):	2.19
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+-2s	Grain Age	Age --95% CI--
1	1.42E+06	( 61)	8.76E+06	( 377)	20	90 10	31.5	23.9 41.5
2	7.13E+05	( 23)	2.48E+06	( 80)	15	26 6	56.2	33.6 89.9
3	4.96E+05	( 16)	9.29E+05	( 30)	15	10 3	103.9	52.8 194.8
4	6.74E+05	( 29)	2.00E+06	( 86)	20	21 5	65.8	41.5 100.9
5	3.16E+06	( 102)	8.36E+06	( 270)	15	86 11	73.3	58.0 92.6
6	3.16E+05	( 17)	6.51E+05	( 35)	25	7 2	94.7	49.6 172.1
7	7.06E+05	( 38)	3.27E+06	( 176)	25	34 5	42.2	28.8 60.1
8	3.72E+05	( 20)	1.15E+06	( 62)	25	12 3	63.1	35.9 105.2
9	9.29E+05	( 18)	3.20E+06	( 62)	9	33 8	56.9	31.5 96.7
10	3.72E+05	( 20)	1.73E+06	( 93)	25	18 4	42.2	24.5 68.5
11	5.39E+05	( 29)	2.03E+06	( 109)	25	21 4	52.0	33.1 78.7
12	1.30E+05	( 7)	7.81E+05	( 42)	25	8 2	33.1	12.3 72.9
13	1.86E+06	( 80)	6.18E+06	( 266)	20	64 8	58.4	45.2 75.4
14	1.77E+06	( 57)	4.93E+06	( 159)	15	51 8	69.8	50.5 95.0
15	1.18E+06	( 38)	6.85E+06	( 221)	15	71 10	33.6	23.1 47.6
16	3.10E+05	( 10)	1.02E+06	( 33)	15	11 4	59.6	26.0 122.1
17	1.30E+06	( 56)	6.60E+06	( 284)	20	68 9	38.4	28.7 51.3
18	7.23E+05	( 14)	3.36E+06	( 65)	9	35 9	42.4	21.7 75.5
19	1.39E+05	( 6)	5.81E+05	( 25)	20	6 2	47.7	15.7 116.3
20	5.58E+04	( 3)	3.35E+05	( 18)	25	3 2	33.9	6.1 110.8
21	1.70E+06	( 55)	7.09E+06	( 229)	15	73 10	46.9	34.1 63.2
22	1.04E+06	( 56)	4.09E+06	( 220)	25	42 6	49.7	36.2 66.9
23	5.27E+05	( 17)	1.27E+06	( 41)	15	13 4	81.0	43.0 144.5
24	5.58E+04	( 3)	3.35E+05	( 18)	25	3 2	33.9	6.1 110.8
25	1.29E+06	( 25)	5.58E+06	( 108)	9	57 11	45.3	27.9 70.2
26	1.17E+06	( 63)	4.50E+06	( 242)	25	46 6	50.6	38.2 67.1
27	1.86E+05	( 8)	4.18E+05	( 18)	20	4 2	87.3	32.6 206.9
28	1.76E+06	( 34)	5.78E+06	( 112)	9	60 12	59.3	39.0 87.4
29	4.83E+05	( 26)	2.71E+06	( 146)	25	28 5	34.9	21.9 53.0
30	1.30E+05	( 7)	6.88E+05	( 37)	25	7 2	37.6	13.9 83.6
31	3.35E+05	( 18)	1.49E+06	( 80)	25	15 3	44.1	24.7 73.8
32	1.27E+06	( 41)	5.14E+06	( 166)	15	53 9	48.2	33.3 68.2
33	3.53E+05	( 19)	2.14E+06	( 115)	25	22 4	32.4	18.7 52.7
34	5.34E+05	( 23)	2.42E+06	( 104)	20	25 5	43.3	26.1 68.2
35	1.07E+06	( 23)	3.53E+06	( 76)	10	36 8	59.2	35.2 94.9
36	2.79E+05	( 15)	1.51E+06	( 81)	25	16 4	36.4	19.3 63.1
37	4.88E+05	( 21)	1.72E+06	( 74)	20	18 4	55.5	32.3 90.6
38	1.12E+05	( 6)	5.20E+05	( 28)	25	5 2	42.6	14.2 102.4
39	6.69E+05	( 36)	3.22E+06	( 173)	25	33 5	40.7	27.5 58.4
40	1.86E+06	( 20)	6.88E+06	( 74)	5	71 17	52.9	30.4 87.1
41	3.72E+04	( 2)	3.16E+05	( 17)	25	3 2	24.5	2.6 96.3
42	7.43E+05	( 16)	3.58E+06	( 77)	10	37 9	40.8	22.0 70.0
43	5.58E+04	( 3)	2.42E+05	( 13)	25	2 1	46.7	8.2 162.3

44	1.50E+06	( 29)	5.52E+06	( 107)	9	57	11	53.0	33.7	80.2
45	8.36E+05	( 27)	3.16E+06	( 102)	15	33	7	51.8	32.4	79.4
46	3.72E+05	( 12)	6.82E+05	( 22)	15	7	3	106.4	47.8	221.5
47	6.82E+05	( 22)	1.52E+06	( 49)	15	16	4	87.5	50.2	146.5
48	9.60E+05	( 31)	5.86E+06	( 189)	15	60	9	32.1	21.1	47.0
49	4.03E+05	( 13)	1.80E+06	( 58)	15	19	5	44.1	22.0	80.6
50	8.96E+05	( 27)	3.68E+06	( 111)	14	38	7	47.6	29.9	72.7

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:18:17 FILENAME: OLY-12.FTA  
 Lab# ADP12 Field# OLY-12 Falls Creek Mbr., Makah Fm., Peripheral Sequence

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	4.012E+06
RELATIVE ERROR (%):	2.11
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	--95% CI--
1	7.90E+05	( 17)	3.35E+06	( 72)	10	33 8	49.1	26.9 83.4
2	7.13E+05	( 23)	2.79E+06	( 90)	15	27 6	53.0	31.8 84.0
3	1.16E+05	( 5)	9.29E+05	( 40)	20	9 3	26.6	8.0 65.3
4	2.23E+06	( 48)	9.53E+06	( 205)	10	93 13	48.4	34.5 66.5
5	8.05E+05	( 26)	2.60E+06	( 84)	15	25 6	64.1	39.4 100.0
6	1.81E+06	( 35)	5.68E+06	( 110)	9	55 11	65.8	43.4 96.7
7	1.76E+06	( 34)	5.94E+06	( 115)	9	58 11	61.1	40.3 90.0
8	8.67E+05	( 28)	3.53E+06	( 114)	15	34 7	50.9	32.2 77.2
9	6.51E+05	( 28)	3.28E+06	( 141)	20	32 6	41.2	26.3 61.9
10	8.83E+05	( 19)	3.58E+06	( 77)	10	35 8	51.2	29.1 84.9
11	2.99E+06	( 58)	1.29E+07	( 249)	9	125 17	48.0	35.9 64.1
12	2.42E+05	( 13)	6.32E+05	( 34)	25	6 2	79.3	38.2 152.4
13	2.79E+05	( 12)	1.44E+06	( 62)	20	14 4	40.4	19.6 74.8
14	4.65E+05	( 10)	2.37E+06	( 51)	10	23 6	41.0	18.3 80.5
15	6.74E+05	( 29)	3.93E+06	( 169)	20	38 6	35.6	23.0 52.8
16	1.58E+06	( 34)	5.86E+06	( 126)	10	57 10	55.8	36.9 81.9
17	9.76E+05	( 21)	3.44E+06	( 74)	10	33 8	58.8	34.2 96.0
18	2.04E+06	( 44)	6.69E+06	( 144)	10	65 11	63.1	43.8 88.9
19	2.60E+06	( 56)	9.57E+06	( 206)	10	93 14	56.2	40.9 75.8
20	6.97E+05	( 18)	2.79E+06	( 72)	12	27 6	51.9	28.9 87.3
21	1.30E+06	( 28)	4.93E+06	( 106)	10	48 9	54.7	34.5 83.3
22	3.10E+05	( 10)	5.89E+05	( 19)	15	6 3	108.9	45.1 242.1
23	9.29E+04	( 5)	5.95E+05	( 32)	25	6 2	33.1	9.8 83.2
24	1.63E+06	( 35)	5.20E+06	( 112)	10	51 10	64.6	42.7 94.9
25	9.29E+04	( 3)	3.41E+05	( 11)	15	3 2	58.3	10.1 210.5
26	8.78E+05	( 17)	4.18E+06	( 81)	9	41 9	43.6	24.1 73.7
27	9.29E+05	( 18)	3.25E+06	( 63)	9	32 8	59.3	32.8 100.6
28	1.86E+06	( 36)	9.60E+06	( 186)	9	93 14	40.1	27.1 57.4
29	1.03E+05	( 2)	1.29E+06	( 25)	9	13 5	17.7	1.9 66.2
30	4.65E+04	( 1)	3.25E+05	( 7)	10	3 2	33.1	0.7 226.4
31	1.24E+05	( 4)	5.89E+05	( 19)	15	6 3	44.8	10.8 130.0
32	6.20E+05	( 12)	1.96E+06	( 38)	9	19 6	65.7	31.0 126.8
33	1.81E+06	( 39)	6.92E+06	( 149)	10	67 11	54.1	36.9 77.3
34	1.81E+06	( 39)	5.81E+06	( 125)	10	56 10	64.5	43.6 92.8
35	1.86E+05	( 4)	6.04E+05	( 13)	10	6 3	65.1	15.1 203.2
36	8.36E+05	( 18)	4.41E+06	( 95)	10	43 9	39.4	22.2 65.2
37	6.51E+05	( 14)	2.09E+06	( 45)	10	20 6	64.6	32.5 118.6
38	6.20E+04	( 2)	3.72E+05	( 12)	15	4 2	36.6	3.7 153.3
39	1.24E+06	( 16)	4.41E+06	( 57)	6	43 11	58.3	31.0 102.0

40	2.58E+05	( 5)	2.07E+06	( 40)	9	20	6	26.6	8.0	65.3
41	1.86E+05	( 6)	4.34E+05	( 14)	15	4	2	89.5	27.9	241.5
42	2.56E+05	( 11)	9.53E+05	( 41)	20	9	3	55.9	25.7	109.3
43	3.10E+05	( 10)	1.18E+06	( 38)	15	11	4	54.9	24.1	110.7
44	1.55E+05	( 5)	4.65E+05	( 15)	15	5	2	70.1	19.6	197.0
45	1.35E+06	( 29)	4.60E+06	( 99)	10	45	9	60.6	38.5	92.1
46	1.53E+06	( 33)	4.55E+06	( 98)	10	44	9	69.6	45.2	103.8
47	2.09E+06	( 45)	5.30E+06	( 114)	10	51	10	81.4	56.2	115.7
48	7.43E+04	( 4)	2.60E+05	( 14)	25	3	1	60.5	14.2	185.9

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:18:30 FILENAME: OLY-10.FTA  
 Lab# ARP10 Field# OLY-10 Third Beach Mbr., Peripheral Seq., NW Olympic Peninsula

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	3.749E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	--95% CI--
1	1.24E+05	( 4)	5.58E+05	( 18)	15	6 3	44.2	10.6 129.4
2	4.96E+05	( 16)	1.05E+06	( 34)	15	11 4	90.9	46.7 167.6
3	3.90E+05	( 21)	1.38E+06	( 74)	25	14 3	55.0	32.0 89.7
4	5.58E+05	( 30)	1.62E+06	( 87)	25	17 4	66.6	42.3 101.5
5	9.48E+05	( 51)	4.52E+06	( 243)	25	47 6	40.6	29.3 55.1
6	1.30E+05	( 7)	8.74E+05	( 47)	25	9 3	29.3	11.0 63.9
7	8.67E+05	( 28)	2.91E+06	( 94)	15	30 6	57.6	36.2 88.3
8	2.48E+05	( 8)	1.89E+06	( 61)	15	20 5	25.8	10.5 53.1
9	9.29E+05	( 30)	2.85E+06	( 92)	15	30 6	63.0	40.1 95.7
10	1.27E+06	( 41)	4.12E+06	( 133)	15	43 8	59.5	40.7 84.9
11	4.18E+05	( 18)	1.28E+06	( 55)	20	13 4	63.4	34.8 108.8
12	8.36E+05	( 45)	3.09E+06	( 166)	25	32 5	52.4	36.7 73.1
13	1.12E+05	( 6)	7.06E+05	( 38)	25	7 2	31.2	10.5 72.5
14	4.65E+05	( 20)	1.63E+06	( 70)	20	17 4	55.4	31.7 91.5
15	2.17E+05	( 7)	8.98E+05	( 29)	15	9 3	47.4	17.2 108.2
16	2.32E+05	( 10)	6.04E+05	( 26)	20	6 2	74.7	31.9 157.8
17	2.04E+05	( 11)	7.06E+05	( 38)	25	7 2	56.4	25.7 111.0
18	5.20E+05	( 28)	1.95E+06	( 105)	25	20 4	51.6	32.6 78.6
19	1.86E+05	( 10)	7.62E+05	( 41)	25	8 2	47.6	21.0 95.3
20	3.72E+05	( 20)	3.59E+06	( 193)	25	37 6	20.2	11.9 31.8

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:18:35 FILENAME: OLY-5.FTA  
 Lab# ARP5 Field# OLY-5 Dtokoah Mbr., Peripheral Sequence, NW Olympic Peninsula

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	3.677E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (cm^-2)	(Ni)	Squares	U+/-2s	Grain Age	--95% CI--
1	1.24E+05	( 4)	8.67E+05	( 28)	15	9 3	28.0	6.9 77.1
2	3.72E+05	( 8)	1.67E+06	( 36)	10	18 6	42.7	16.9 91.8

3	2.79E+05	( 6)	1.16E+06	( 25)	10	12	5	46.3	15.2	112.9
4	1.24E+05	( 4)	6.51E+05	( 21)	15	7	3	37.2	9.0	106.4
5	1.49E+05	( 8)	2.42E+05	( 13)	25	3	1	116.6	41.8	297.4
6	9.29E+04	( 4)	5.81E+05	( 25)	20	6	2	31.3	7.7	87.5
7	1.45E+05	( 5)	4.36E+05	( 15)	16	5	2	64.3	17.9	180.8
8	8.83E+05	( 19)	2.23E+06	( 48)	10	24	7	75.1	41.5	129.2
9	2.48E+05	( 8)	4.65E+05	( 15)	15	5	3	101.4	37.0	249.7
10	4.03E+05	( 13)	3.44E+06	( 111)	15	36	7	22.4	11.4	39.6
11	3.02E+05	( 13)	3.02E+05	( 13)	20	3	2	187.0	80.4	430.2
12	5.81E+04	( 2)	2.90E+05	( 10)	16	3	2	40.1	4.0	175.9
13	1.12E+06	( 24)	7.30E+06	( 157)	10	77	13	29.1	18.0	44.7
14	4.96E+05	( 16)	8.05E+05	( 26)	15	9	3	116.2	58.2	222.6
15	1.24E+05	( 4)	4.03E+05	( 13)	15	4	2	59.7	13.8	186.5
16	7.43E+04	( 4)	3.90E+05	( 21)	25	4	2	37.2	9.0	106.4

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:18:38 FILENAME: OLY-8.FTA  
 Lab# ADP8 Field# OLY-8 Baada Mbr., Peripheral Sequence, NW Olympic Peninsula

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	3.713E+06
RELATIVE ERROR (%):	2.18
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm^-2)	(Ns)	RhoI (Ni) (cm^-2)	Squares	U+-/2s	Grain Age (Ma)	--95% CI--
1	2.48E+05	( 8)	2.48E+05	( 8)	15	3 2	188.8 62.3
2	4.65E+05	( 8)	5.81E+05	( 10)	8	6 4	152.1 52.3
3	1.86E+05	( 4)	5.11E+05	( 11)	10	5 3	71.0 16.2
4	2.56E+05	( 11)	3.49E+05	( 15)	20	4 2	139.6 58.0
5	4.65E+05	( 15)	5.27E+05	( 17)	15	6 3	167.1 78.0
6	1.86E+05	( 4)	5.11E+05	( 11)	10	5 3	71.0 16.2
7	1.45E+05	( 5)	4.07E+05	( 14)	16	4 2	69.5 19.2
8	2.32E+05	( 4)	6.97E+05	( 12)	8	7 4	65.2 15.0
9	9.29E+04	( 4)	5.81E+05	( 25)	20	6 2	31.6 7.7
10	1.45E+05	( 5)	4.07E+05	( 14)	16	4 2	69.5 19.2
11	3.25E+05	( 7)	4.18E+05	( 9)	10	4 3	148.1 47.0
12	1.55E+05	( 5)	3.10E+05	( 10)	15	3 2	96.6 25.6
13	1.55E+05	( 5)	4.96E+05	( 16)	15	5 3	60.9 17.1
14	9.29E+04	( 4)	3.95E+05	( 17)	20	4 2	46.3 11.0
15	1.55E+05	( 5)	4.96E+05	( 16)	15	5 3	60.9 17.1
16	1.77E+06	( 38)	2.79E+06	( 60)	10	29 8	120.4 78.0
17	1.55E+05	( 3)	6.20E+05	( 12)	9	7 4	49.6 8.7
18	2.38E+06	( 41)	1.10E+07	( 189)	8	115 17	41.6 28.8
19	3.72E+05	( 8)	5.58E+05	( 12)	10	6 3	127.3 45.1
20	2.48E+05	( 8)	4.03E+05	( 13)	15	4 2	117.8 42.2

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====  
 DATE/TIME: 04-21-1997/14:18:42 FILENAME: OLY-1.FTA  
 Lab# ARP1 Field# OLY-1, Lyre Fm., Peripheral Sequence, NW Olympic Peninsula

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm^2):	3.603E+06
RELATIVE ERROR (%):	2.19
EFFECTIVE URANIUM CONTENT OF MONITOR (ppm):	39.00
ZETA FACTOR AND STANDARD ERROR (yr cm^2):	103.20 2.30
SIZE OF COUNTER SQUARE (cm^2):	2.152E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age --95% CI--	Age (Ma)
1	0.00E+00	( 0)	7.43E+04	( 4)	25	1 1	35.1	1.2 275.9
2	1.16E+05	( 5)	2.56E+05	( 11)	20	3 2	85.4	23.0 258.9
3	2.09E+05	( 9)	4.11E+06	( 177)	20	45 7	9.6	4.2 18.4
4	2.32E+05	( 5)	5.58E+05	( 12)	10	6 3	78.4	21.3 232.3
5	0.00E+00	( 0)	1.39E+05	( 6)	20	2 1	22.7	0.8 156.2
6	1.49E+05	( 8)	2.88E+06	( 155)	25	31 5	9.8	4.1 19.4
7	6.82E+05	( 22)	1.61E+06	( 52)	15	17 5	78.5	45.3 130.8
8	1.39E+05	( 6)	1.53E+06	( 66)	20	17 4	17.3	6.0 38.7
9	1.86E+05	( 10)	1.36E+06	( 73)	25	15 3	25.8	11.7 49.5
10	4.03E+05	( 13)	7.62E+06	( 246)	15	82 11	9.9	5.1 17.1

=====ZetaAge Program v. 4.7 (Brandon 4/11/97)=====

DATE/TIME: 04-21-1997/14:18:44 FILENAME: ARC88-9.FTA

Lab# AR31 Field# ARC88-9 Diabase in lower Crescent, Dosewallips River

>>NEW PARAMETERS--ZETA METHOD<<

EFFECTIVE TRACK DENSITY FOR FLUENCE MONITOR (tracks/cm<sup>2</sup>): 4.185E+06  
RELATIVE ERROR (%): 1.76

EFFECTIVE URANIUM CONTENT OF MONITOR (ppm): 39.00

ZETA FACTOR AND STANDARD ERROR (yr cm<sup>2</sup>): 110.30 2.20  
SIZE OF COUNTER SQUARE (cm<sup>2</sup>): 2.054E-06

----- GRAIN AGES IN ORIGINAL ORDER -----

Grain no.	RhoS (cm <sup>-2</sup> )	(Ns)	RhoI (cm <sup>-2</sup> )	(Ni)	Squares	U+/-2s	Grain Age --95% CI--	Age (Ma)
1	1.62E+05	( 1)	4.87E+05	( 3)	3	5 5	83.3	1.5 893.7
2	9.74E+04	( 2)	2.92E+05	( 6)	10	3 2	80.3	7.6 416.7
3	9.74E+04	( 1)	4.87E+05	( 5)	5	5 4	51.1	1.0 400.1
4	0.00E+00	( 0)	3.79E+05	( 7)	9	4 3	24.0	0.8 158.3
5	4.87E+04	( 1)	2.92E+05	( 6)	10	3 2	42.8	0.8 309.7
6	4.87E+04	( 1)	2.92E+05	( 6)	10	3 2	42.8	0.8 309.7
7	5.41E+04	( 1)	2.70E+05	( 5)	9	3 2	51.1	1.0 400.1
8	0.00E+00	( 0)	2.92E+05	( 9)	15	3 2	18.5	0.7 116.0
9	5.41E+04	( 1)	8.11E+05	( 15)	9	8 4	17.4	0.4 99.3
10	3.25E+04	( 1)	2.27E+05	( 7)	15	2 2	36.9	0.7 251.8
11	0.00E+00	( 0)	2.70E+05	( 5)	9	3 2	34.2	1.2 247.2
12	0.00E+00	( 0)	2.43E+05	( 5)	10	2 2	34.2	1.2 247.2
13	3.25E+04	( 1)	2.92E+05	( 9)	15	3 2	28.8	0.6 182.6
14	5.41E+04	( 1)	3.79E+05	( 7)	9	4 3	36.9	0.7 251.8
15	0.00E+00	( 0)	5.84E+05	( 6)	5	5 4	28.2	1.0 193.2
16	4.87E+04	( 1)	2.43E+05	( 5)	10	2 2	51.1	1.0 400.1
17	0.00E+00	( 0)	2.92E+05	( 6)	10	3 2	28.2	1.0 193.2
18	4.87E+04	( 1)	2.92E+05	( 6)	10	3 2	42.8	0.8 309.7
19	0.00E+00	( 0)	2.92E+05	( 6)	10	3 2	28.2	1.0 193.2
20	9.74E+04	( 2)	2.92E+05	( 6)	10	3 2	80.3	7.6 416.7