

Table 7-2 Summary of Tephrochronology Analyses

EAST CONTRACT

Brightwater Conveyance System

Boring No.	Sample Top Depth (ft)	Elevation (ft) ^a	Analyzed by	Sample Description	Results of Petrographic Analysis	Results of Geochemical Analysis	Age ^b (ybp)	Interpreted Geologic Unit	Remarks
BRIGHTWATER TUNNEL 1									
E-339	133.0	158.5	Richard Stewart, University of Washington	Gray, fine-medium sand with organics	Contains green biotite and hornblende, mostly glassy pumice.				
E-339	135.0	156.5	Andrei Sarna-Wojcicki, U.S. Geological Survey	Gray, fine-medium sand with organics	Unaltered tephra	Probable correlation with pumice 95SR446 of Sourdough Ridge, Mount Rainier, WA	386,000 +/- 11	Marine isotope stage 11 nonglacial deposits	
E-339	136.5	155.0	Richard Stewart, University of Washington	Light gray, sandy silt and fine sand, occasional organics	Contains green biotite and hornblende, mostly glassy pumice.				
E-349	48.0	184.3	Andrei Sarna-Wojcicki, U.S. Geological Survey	Light gray, silty fine sand	Unaltered tephra	Tephra similar in composition to sample E-339-135 and E-349-52			

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E-349	52.0	180.3	Andrei Sarna-Wojcicki, U.S. Geological Survey	White, fine sand and silt	Unaltered tephra	Probable correlation with pumice 95SR446 of Sourdough Ridge, Mount Rainier, WA	386,000 +/- 11	Marine isotope stage 11 nonglacial deposits	Originally reported as 152-ft bgs

Notes:

a) Vertical datum = Metro. All locations surveyed to +/- 0.1 foot accuracy with the exception of some off alignment borings (noted as scaled on the log) which were estimated.

a) Age date from geochemical correlation by Andrei Sarna-Wojcicki with identified sample age dated by Thomas Sisson and Marvin Lanphere, U.S. Geological Survey using 40Ar/39Ar. Results reported as plateau 2-sigma. Isochron 2-sigma age = 386,000 +/- 39 ybp.