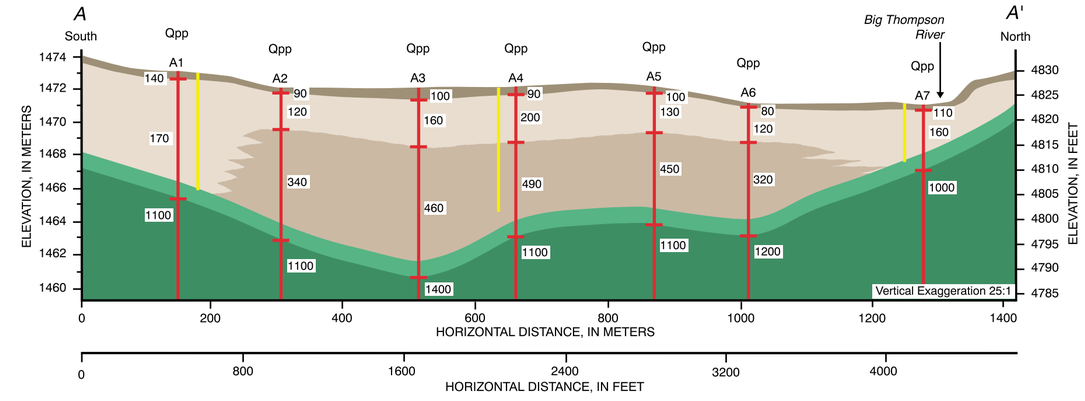
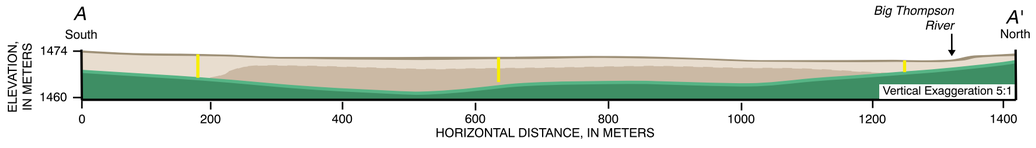
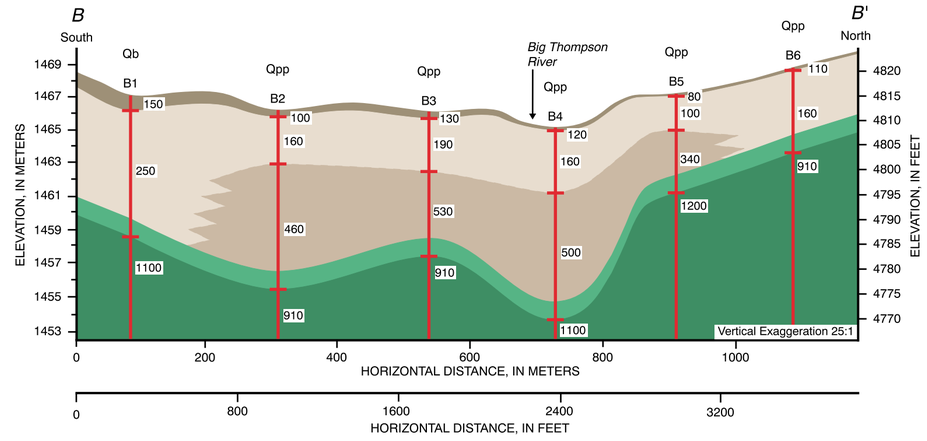
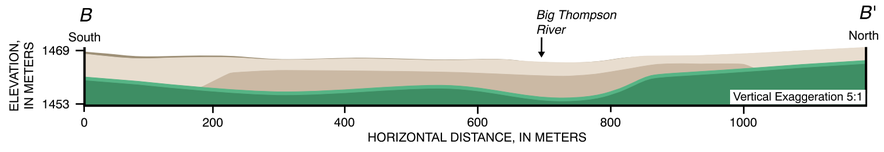
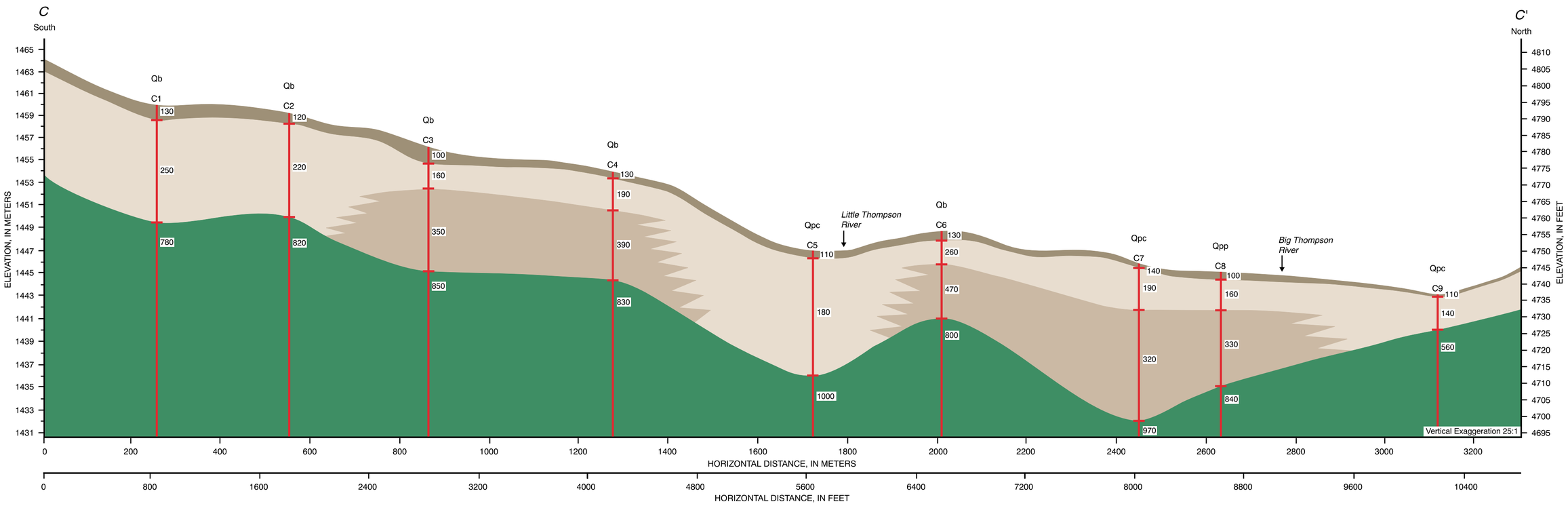
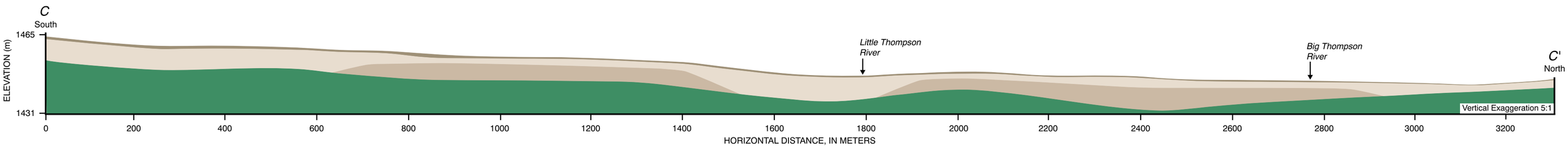






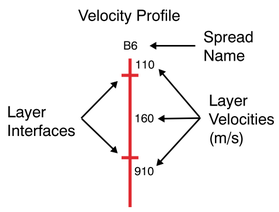






EXPLANATION

Velocity Profile



Drill Hole

The bottom corresponds to the depth to bedrock that was determined with drilling.

Geologic Layers

- Soil
- Alluvium with low *S*-wave velocities
- Alluvium with high *S*-wave velocities
- Weathered bedrock for cross sections *A-A'* and *B-B'*
- Bedrock

Notes

1. The locations of the cross sections are shown in plate 1. The velocities and the thicknesses in the velocity profiles are listed in table 1.

2. There are three cross sections with vertical exaggerations of 25:1; these show geologic details but with a distorted persective. There are three cross sections with vertical exaggerations of 5:1; these show the layers with almost the correct perspetive but without details.

3. For all cross sections with a vertical exaggeration of 25:1, the horizontal and vertical scales are identical. Likewise, for all cross sections with a vertical exaggeration of 5:1, the horizontal and vertical scales are identical. Thus, cross sections with the same vertical exaggeration may be readily compared.

4. Above each velocity profile is an abbreviation for the alluvium:

Abbreviation	Alluvium
Qpp	Post-Piney Creek
Qpc	Piney Creek
Qb	Broadway

The assignment of an alluvium to a velocity profile is based on the location of the spread, which is shown in plate 1.

5. The geologic layers in the cross sections are interpreted from the velocity profiles, not the alluvium and bedrock shown in plate 1.

Velocity profiles and cross sections *A-A'*, *B-B'*, and *C-C'* across the Big Thompson River valley, Colorado

by

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2000

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