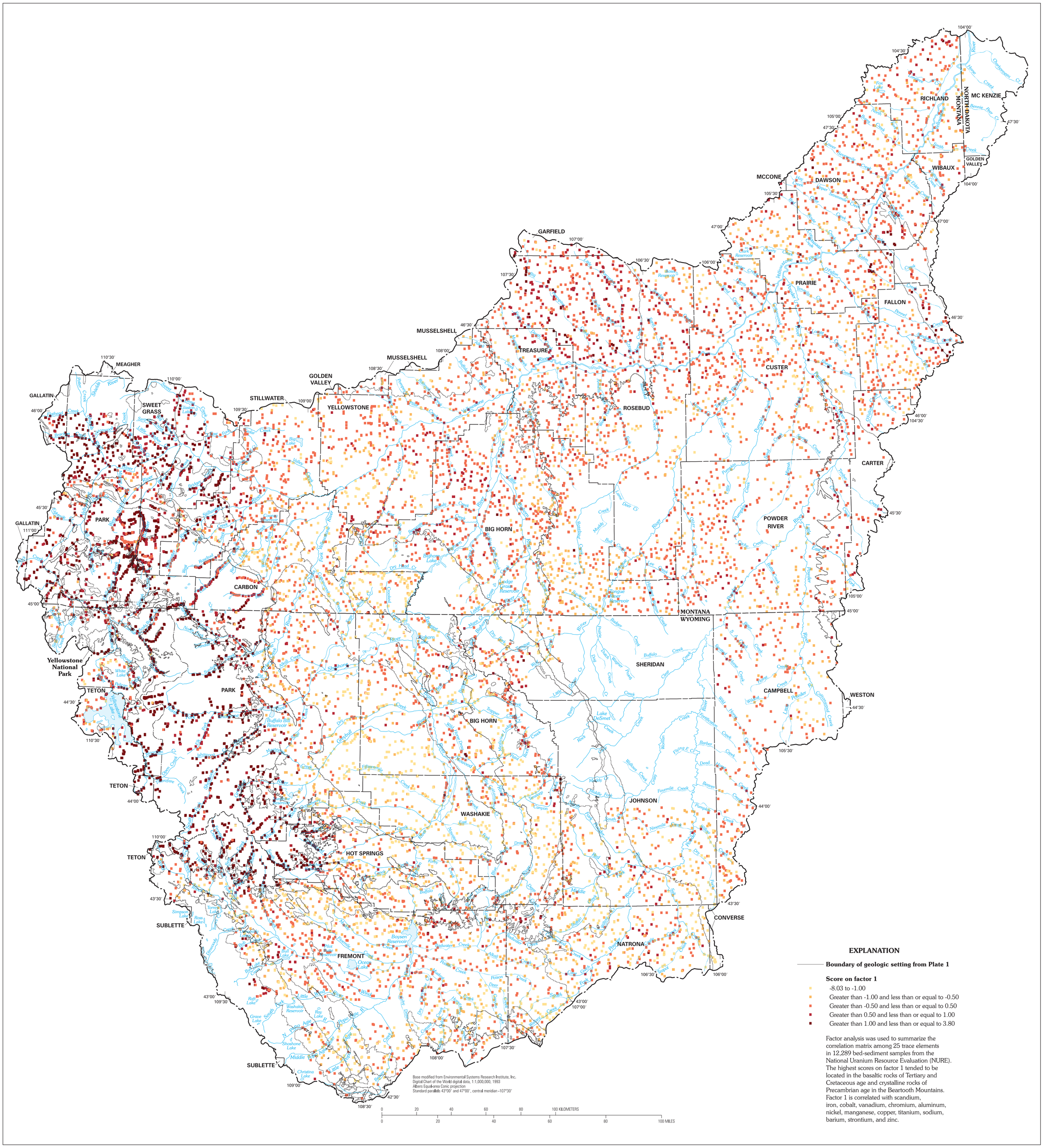
WATER-RESOURCES INVESTIGATIONS REPORT 99-4185
Scores on the basaltic rocks factor for bed-sediment samples–PLATE 2
David A. Peterson, and Ronald B. Zelt, 1999, Element concentrations in bed sediment of the Yellowstone River Basin, Montana, North Dakota, and Wyoming–A retrospective analysis



EXPLANATION

Boundary of geologic setting from Plate 1

Score on factor 1

- -8.03 to -1.00
- Greater than -1.00 and less than or equal to -0.50
- Greater than -0.50 and less than or equal to 0.50
- Greater than 0.50 and less than or equal to 1.00
- Greater than 1.00 and less than or equal to 3.80

Factor analysis was used to summarize the correlation matrix among 25 trace elements in 12,289 bed-sediment samples from the National Uranium Resource Evaluation (NURE). The highest scores on factor 1 tended to be located in the basaltic rocks of Tertiary and Cretaceous age and crystalline rocks of Precambrian age in the Beartooth Mountains. Factor 1 is correlated with scandium, iron, cobalt, vanadium, chromium, aluminum, nickel, manganese, copper, titanium, sodium, barium, strontium, and zinc.

MAP SHOWING FACTOR 1 SCORES FOR BED-SEDIMENT SAMPLES, YELLOWSTONE RIVER BASIN

By
David A. Peterson and Ronald B. Zelt