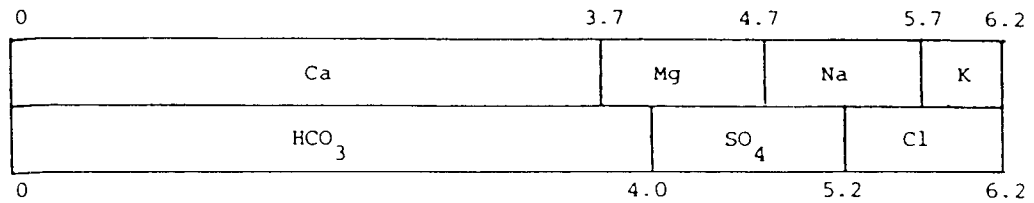


11.5 Draw a milliequivalents-per-liter bar graph for the following water analysis:

calcium hardness = 185 mg/l      alkalinity = 200 mg/l  
 magnesium hardness = 50 mg/l      sulfate ion = 58 mg/l  
 sodium ion = 23 mg/l      chloride ion = 36 mg/l  
 potassium ion = 20 mg/l      pH = 7.7

11.5 Calcium hardness =  $185/50.0 = 3.7$  meq/l  
 Magnesium hardness =  $50/50.0 = 1.0$   
 Sodium =  $23/23.0 = 1.0$   
 Potassium =  $20/39.1 = 0.51$   
 Alkalinity =  $200/50.0 = 4.0$   
 Sulfate =  $58/48.0 = 1.21$   
 Chloride =  $36/35.5 = 1.01$

All alkalinity is in the form of bicarbonate ion since the pH is between 4.5 and 8.3.



BC-10