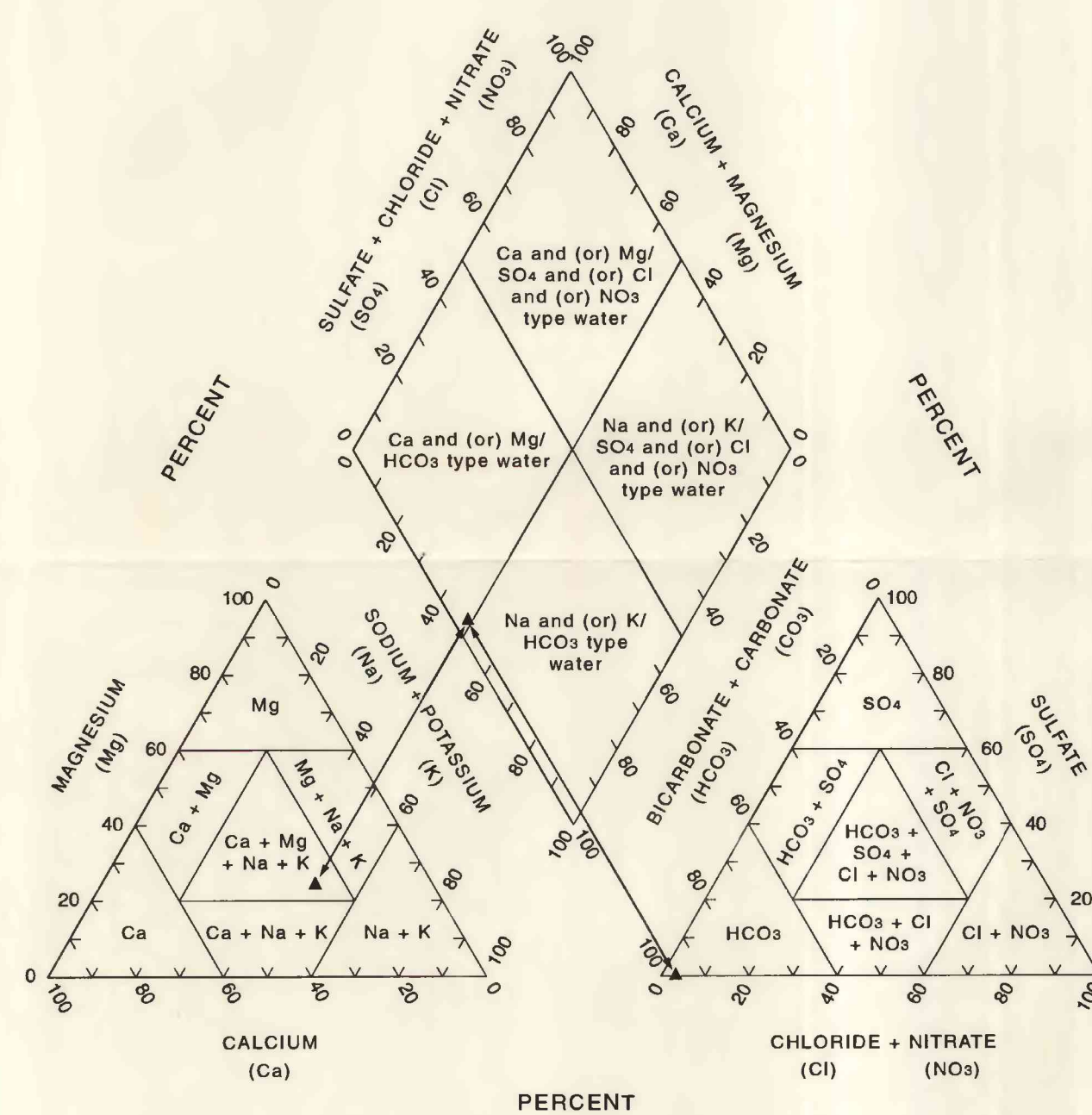


a. Concentrations of Dissolved Solids in Ground Water

Wells and springs having anomalous or unusual water types

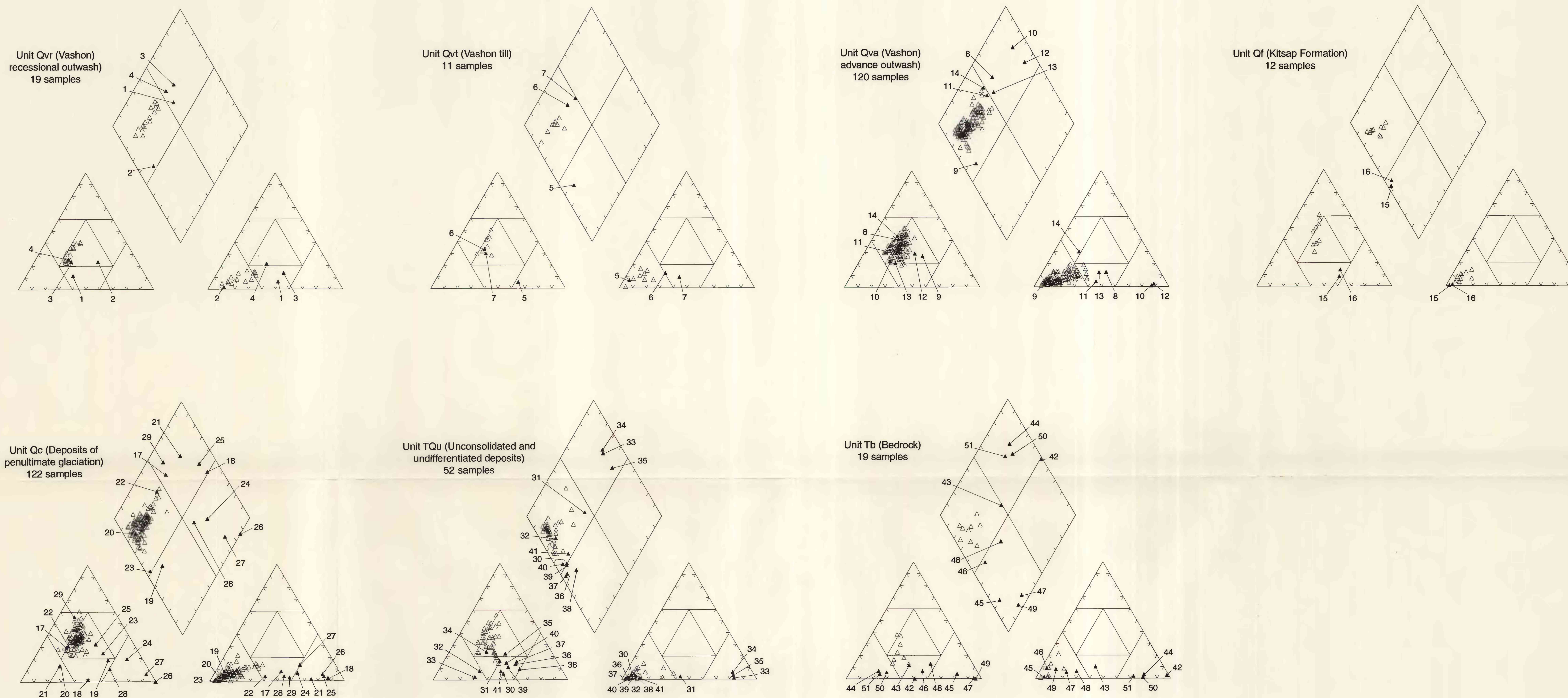
Number	Local well number	Water type	Dissolved solids, in milligrams per liter	Comments <sup>1</sup>
1	17N/01W-34M01	Unit Qvr Ca, Na/HCO <sub>3</sub> , Cl	138	Cl=24
2	18N/01E-19J01S	Na, Ca, Mg/HCO <sub>3</sub>	141	Na=19
3	18N/01W-22K01	Ca, Na, Mg/HCO <sub>3</sub> , NO <sub>3</sub>	160	NO <sub>3</sub> =9.3
4	19N/01E-31C04	Ca, Mg, Na/HCO <sub>3</sub> , SO <sub>4</sub> , NO <sub>3</sub>	158	SO <sub>4</sub> =21, NO <sub>3</sub> =6.0
Unit Qvt				
5	16N/01E-18C02	Na/HCO <sub>3</sub>	169	Na=40
6	18N/01W-07C01	Ca, Mg, Na/HCO <sub>3</sub> , NO <sub>3</sub>	106	NO <sub>3</sub> =3.1
7	18N/02W-02A03	Ca, Mg, Na/HCO <sub>3</sub> , Cl	116	Cl=12, NO <sub>3</sub> =3.5
Unit Qva				
8	17N/01E-07D03	Mg, Ca/HCO <sub>3</sub> , NO <sub>3</sub>	162	NO <sub>3</sub> =7.9
9	17N/01W-08L02	Na, Ca, Mg/HCO <sub>3</sub>	101	Na=14
10	17N/01W-16E02	Ca, Mg, Na/HCO <sub>3</sub>	169	NO <sub>3</sub> =19
11	17N/02W-22H02	Ca, Mg, Na/HCO <sub>3</sub> , NO <sub>3</sub>	108	NO <sub>3</sub> =5.1
12	18N/01W-05E03	Na, Ca, Mg/Cl	247	Cl=100
13	18N/01W-11F05	Ca, Na, Mg/HCO <sub>3</sub> , NO <sub>3</sub>	112	NO <sub>3</sub> =5.6
14	18N/01W-19M05	Mg, Ca/HCO <sub>3</sub> , SO <sub>4</sub>	155	SO <sub>4</sub> =30
Unit Qf				
15	18N/02W-04J08	Na, Ca/HCO <sub>3</sub>	233	Na=51
16	19N/02W-14J01	Na, Ca/HCO <sub>3</sub>	210	Na=38
Unit Qc				
17	17N/01E-13M02	Ca, Mg/HCO <sub>3</sub> , NO <sub>3</sub>	153	NO <sub>3</sub> =9.9
18	17N/01W-34L01	Ca, Na/Cl	413	Cl=210
19	18N/01W-31R02	Na, Ca/HCO <sub>3</sub>	156	Na=23
20	18N/03W-01K04	Ca/HCO <sub>3</sub>	101	Ca=16
21	18N/03W-04R03	Ca/Cl	314	Cl=140
22	18N/03W-24J03	Ca, Mg/HCO <sub>3</sub> , NO <sub>3</sub>	70	NO <sub>3</sub> =2.9
23	19N/01W-07N02	Na, Ca, Mg/HCO <sub>3</sub>	245	Na=46
24	19N/01W-10F04	Na/Cl	493	Cl=180
25	19N/01W-10L02	Na, Mg, Ca/Cl	646	Cl=330, Na=98
26	19N/01W-10C02	Na/Cl	725	Cl=340, Na=260
27	19N/02W-21C02	Na/Cl, HCO <sub>3</sub>	361	Cl=120, Na=120
28	19N/02W-27D03	Na/Cl, HCO <sub>3</sub>	432	Cl=130, Na=97
29	20N/01W-33N01	Mg, Ca/Cl, HCO <sub>3</sub>	305	Cl=110,
Unit TQu				
30	17N/01W-32P02	Na, Ca/HCO <sub>3</sub>	132	Na=20
31	17N/01W-34E01D1	Ca, Na/HCO <sub>3</sub> , Cl	206	Cl=47
32	18N/02W-18L01	Ca/HCO <sub>3</sub>	95	Ca=13
33	18N/02W-24H01	Ca/Cl	370	Cl=180
34	19N/01W-05R05	Ca, Na, Mg/Cl	968	Cl=490, Na=100
35	19N/01W-06L01	Na, Ca, Mg/Cl	1140	Cl=580, Na=190
36	19N/01W-07R01	Na, Ca/HCO <sub>3</sub>	180	Na=28
37	19N/01W-32B01	Na, Ca/HCO <sub>3</sub>	522	Na=110, Alk=464
38	19N/02W-16C02D1	Na, Ca/HCO <sub>3</sub>	136	Na=23
39	19N/02W-21Q04	Na, Ca/HCO <sub>3</sub>	131	Na=18
40	19N/02W-22D02	Na, Ca/HCO <sub>3</sub>	138	Na=17
41	20N/02W-33Q02	Na, Ca/HCO <sub>3</sub>	147	Na=21
Unit Tb				
42	16N/02W-05R01	Na, Ca/Cl	1010	Cl=600, Na=200, Ca=170
43	17N/01W-21K01	Ca, Na/HCO <sub>3</sub> , Cl	239	Cl=52, Na=35
44	17N/01W-34L02	Ca/Cl	372	Cl=170
45	17N/02W-30E03	Na/HCO <sub>3</sub>	112	Na=32
46	17N/02W-35C01	Na, Ca/HCO <sub>3</sub>	128	Na=24
47	17N/03W-15A01	Na/HCO <sub>3</sub>	113	Na=32
48	18N/03W-07L02	Na, Ca/HCO <sub>3</sub>	94	Na=17
49	18N/03W-18A01	Na/HCO <sub>3</sub>	102	Na=30
50	18N/03W-24J02	Ca/Cl	387	Cl=180
51	18N/03W-25A02	Ca/Cl	485	Cl=210

<sup>1</sup>Comments show concentrations, in milligrams per liter, of constituents that account for anomalies or unusual water types.



Example of a trilinear diagram, showing water types represented in each area. Numbers are percentages. See text for further explanation.

The percentages of cations and anions in each sample are plotted on the accompanying trilinear, or Piper, diagrams. Each analysis is plotted in three places on a diagram. A separate diagram is shown for each geohydrologic unit identified in the study. Each area of the diagram corresponds to a specific water type, as shown in the above example. The example also shows a sodium-calcium-magnesium-bicarbonate type from well 19N/01W-07N02. The majority of analyses in each unit fall in the same general area and define a characteristic water type for the unit. Anomalous or unusual water types and samples of interest are noted by number on the trilinear diagram and are listed to the right.



Trilinear Diagrams Showing Percentages of Major Ions in Ground Water