

117°00' 55' 50' 45' 40' 35' 116°30' 48°05' 48°00' 55' 50' 45' 40' 35'

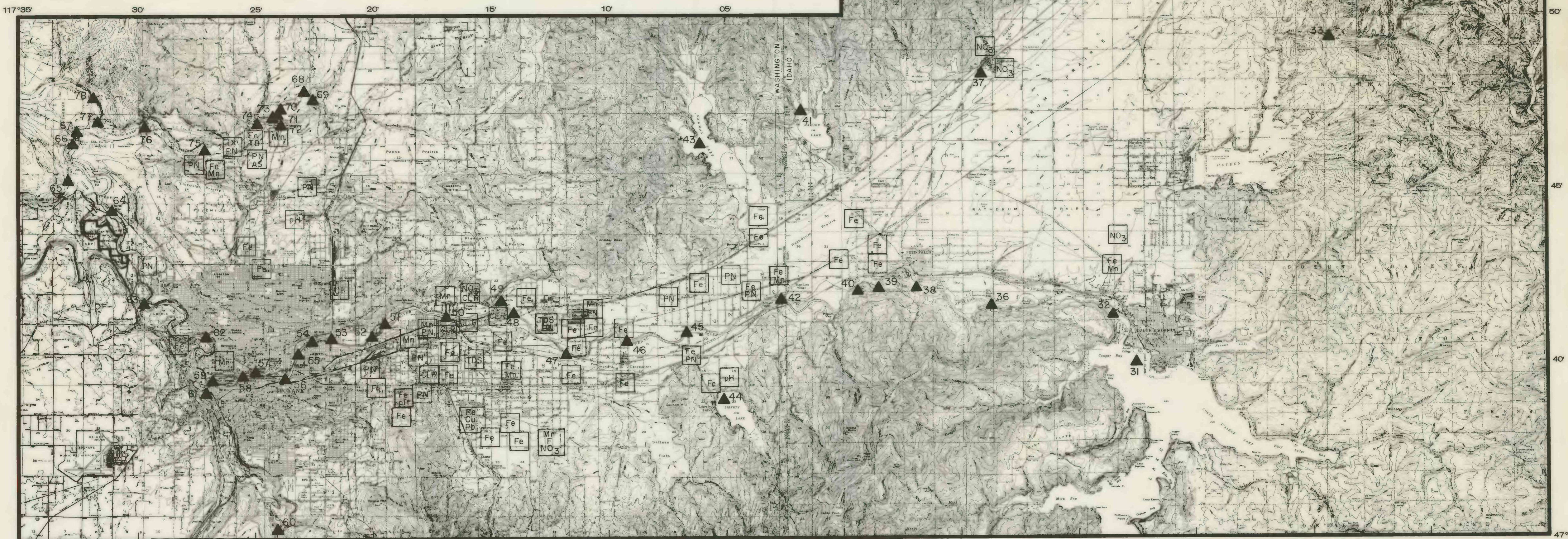
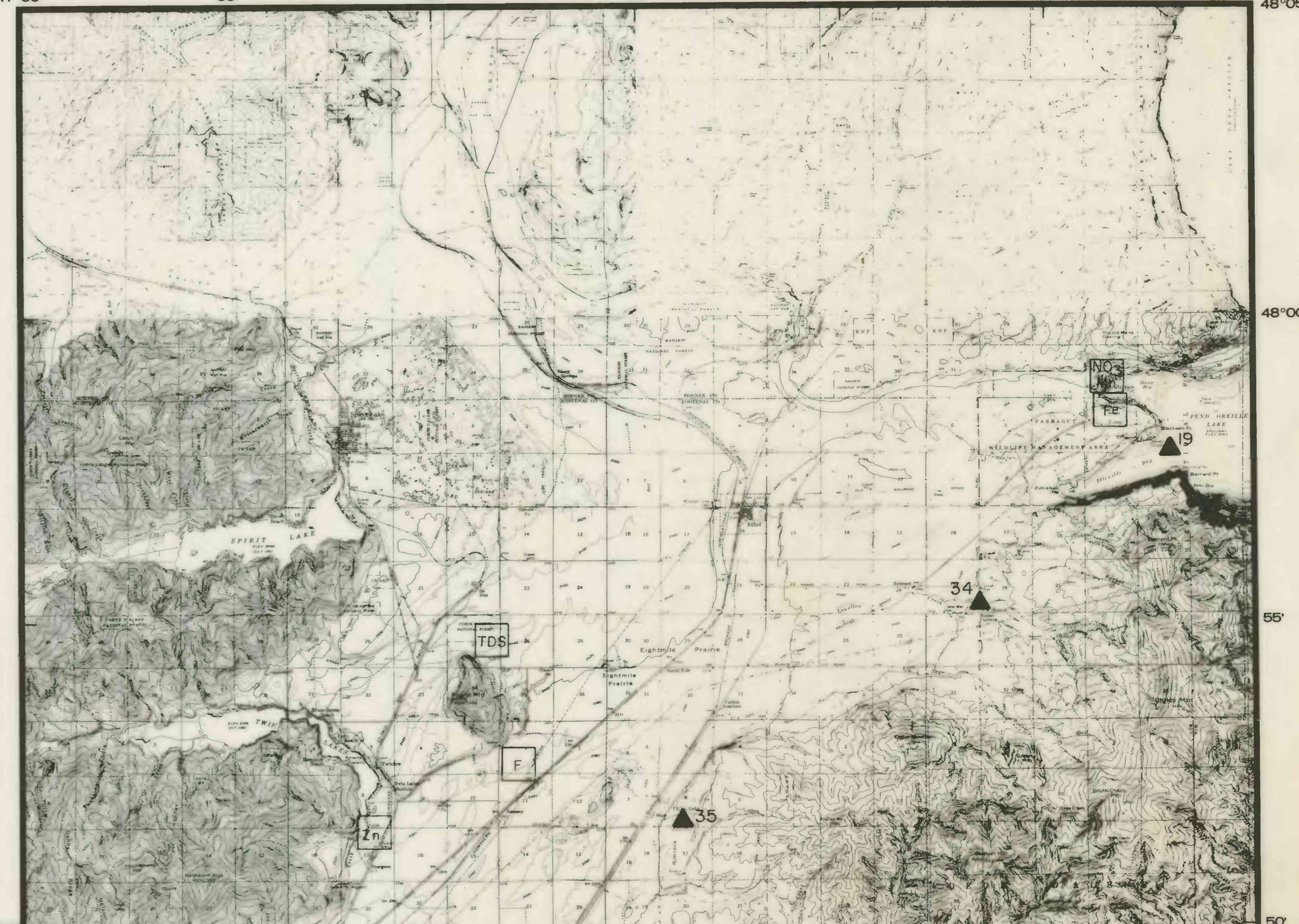
EXPLANATION

- 41 ▲ Surface-water quality site and location number.
 Fe Locations where ground-water quality has exceeded chemical standard at least once.
 Fe = Iron
 Mn = Manganese
 Cl = Chloride
 F = Fluoride
 NO₃ = Nitrate
 TDS = Total dissolved solids
 pH = pH
 CLR = Color
 TB = Turbidity
 As = Arsenic
 Cu = Copper
 Pb = Lead
 Zn = Zinc
 TX = Toxaphene
 PN = Phenols

- The method of reporting each constituent is according to standard U.S. Geological Survey practice and is shown in the headings of Table 4. Endrin, lindane, and toxaphene are not included in table 4. These three constituents are reported as concentration in "whole sample".
- National Interim Primary Drinking Water Regulations (U.S. Environmental Protection Agency, 1975). Primary regulations are those which deal with constituents that may affect the health of consumers.
- National Proposed Secondary Water Regulations (U.S. Environmental Protection Agency, 1977). Secondary regulations are those which deal with the esthetic qualities of drinking water. These are guidelines only.
- The maximum contaminant level (MCL) for fluoride is dependent upon the annual average of the maximum daily air temperatures for the location in which the water-supply system is situated; from 1.4 mg/L (26.3 to 32.5°C) to 2.4 mg/L (5 to 12.0°C).
- Although the MCL for turbidity applies only to surface water the relatively high turbidities in water from the aquifer warrant inclusion of turbidity in this summary. The MCL is 1 JTU, but a maximum of 5 JTU's may be allowed. A total of 13 samples had turbidities from 2 to 5 JTU's. Only those samples which exceeded 5 JTU's are included in this summary as exceeding the MCL.
- The available data for endrin and toxaphene are from analyses with minimum detection levels of 0.002 and 0.060 mg/L, respectively. These minimum detection levels are greater than the MCL's for endrin and toxaphene. All values listed as less than the minimum detection levels are assumed to be less than the MCL's.
- Chemical standards for phenols are not included in the primary or secondary regulations. Because of the frequent use of phenol by industries situated above the aquifer, the available phenol data is included and referenced to the Public Health Service (1962) recommended limit of 0.001 mg/L.

Summary of ground-water-quality data

Constituent ¹	Number of sites tested	Number of samples tested	Chemical standards		Number of sites exceeding chemical standard	Number of samples exceeding chemical standard	Maximum value observed
			Maximum contaminant level ² (EPA 1975)	Proposed secondary level ³ (EPA 1977)			
Iron	212	758	--	0.3 mg/L	40	58	78 mg/L
Manganese	200	700	--	0.05 mg/L	12	12	1.6 mg/L
Sulfate	168	596	--	250 mg/L	0	0	210 mg/L
Chloride	364	1,115	--	250 mg/L	1	4	>1,000 mg/L
Fluoride ⁴	210	706	2.0 mg/L	--	2	2	3.2 mg/L
Nitrate	247	940	10. mg/L	--	6	11	28 mg/L
Total dissolved solids	364	1,087	--	500 mg/L	3	3	539 mg/L
pH	229	918	--	<6.5 or >8.5	3	3	Range 6.2 to 9.4
Color	128	484	--	15 platinum cobalt units	5	5	21 units
Turbidity ⁵	139	462	1 to 5 JTU	--	1	1	10 JTU
Foaming Agents (detergents)	25	77	--	0.5 mg/L	0	0	0.1 mg/L
Arsenic	89	185	0.05 mg/L	--	1	1	0.064 mg/L
Barium	3	3	1. mg/L	--	0	0	0.070 mg/L
Cadmium	112	336	0.010 mg/L	--	0	0	0.006 mg/L
Chromium	93	186	0.05 mg/L	--	0	0	0.03 mg/L
Copper	97	210	--	1 mg/L	1	1	5.2 mg/L
Lead	110	235	0.05 mg/L	--	1	1	0.42 mg/L
Mercury	99	196	0.002 mg/L	--	0	0	0.0002 mg/L
Selenium	3	3	0.01 mg/L	--	0	0	<0.010 mg/L
Silver	3	3	0.05 mg/L	--	0	0	<0.005 mg/L
Zinc	97	395	--	5 mg/L	1	1	7.5 mg/L
Endrin ⁶	17	17	0.0002 mg/L	--	0	0	<0.002 mg/L
Lindane	17	17	0.004 mg/L	--	0	0	<0.001 mg/L
Toxaphene ⁶	17	17	0.005 mg/L	--	1	1	0.060 mg/L
Phenols ⁷	24	77	0.00 mg/L	--	16	18	15 mg/L



Base from U.S. Geological Survey, Blanchard, (40ft), Edgema, (20ft), Careywood, Cocolalla, (40ft), 1968, Idaho, 1:24,000. Clayton (25ft), 2 1950; Deer Park, 1949; Medical Lake, Spokane, 1950, (40ft), Washington; Mt. Spokane, (50ft), 1950; Greenacres, (40ft), 1949, Washington-Idaho; Spirit Lake, Athol, 1961; Coeur D'Alene, 1957, (40ft); Lane, (80ft), 1957, Idaho, 1:62,500.

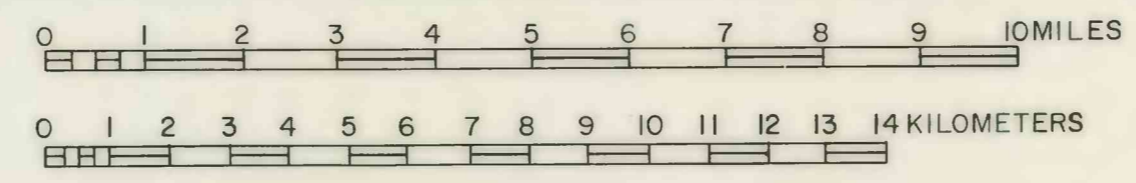


PLATE 10.-- Map of Spokane Valley-Rathdrum Prairie aquifer showing surface-water-quality sites, summary of ground-water-quality data, and locations where ground-water-quality has exceeded chemical standards.