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Analytical results for stream sediments, pan concentrates from stream sediments, and rock samples collected from the Stensgar Mountain quadrangle, Stevens County, Washington

by

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INTRODUCTION

The Stensgar Mountain quadrangle is located in Stevens County, Wash., 70 km north-northwest of Spokane and 10 km west of Valley (fig. 1). The northeast-trending magnesite belt, of Weaver (1920, p. 319) passes through the quadrangle. Magnesite is not presently an economic commodity in the area. Small deposits of barite, copper minerals and antimony also occur in the quadrangle (Campbell and Loofbourow, 1962). Gold was found at the Wells Fargo mine during this study.

The quadrangle contains a section of Middle Proterozoic Deer Trail Group at least 4,000 m thick, a section of Middle to Late Proterozoic Windermere Group as much as 1,700 m thick, and Lower Cambrian Addy Quartzite and Old Dominion Limestone totalling 2,600 m thick (fig. 2; Evans, 1986). The Deer Trail Group consists of, from oldest to youngest: (1) Togo Formation (slate, siltite, quartzite), (2) Edna Dolomite, (3) McHale Slate, (4) Stensgar Dolomite, and (5) Buffalo Hump Formation (slate, quartzite, conglomerate). The Windermere Group consists of the Huckleberry Formation (basal conglomerate member and upper member of metabasalt and metatuff), and Monk Formation (slate, conglomerate, dolomite). Gabbro and metabasalt feeder dikes for the flows of the Huckleberry Formation caused minor contact metamorphism where they intruded the Deer Trail Group and conglomerate of the Huckleberry Formation. Lower Cambrian Addy Quartzite was deposited unconformably on the Proterozoic rocks and was subsequently covered by a thick section of Old Dominion Limestone, most of which is not present in the quadrangle. All of the rocks were subjected to low-grade burial metamorphism, which decreases in grade and intensity upwards. The entire section of the Deer Trail Group appears to lie within a Mesozoic duplex thrust (fig. 2), with the Lane Mountain thrust as the floor thrust and the Stensgar Mountain thrust as the

roof thrust. Low-grade dynamothermal metamorphism accompanied thrusting and greatly affected the entire section of the Deer Trail Group and the conglomerate member of the Huckleberry Formation. The younger units were only slightly affected.

Aeromagnetic data (U.S. Geological Survey, 1974) suggest that the Deer Trail Group may be underlain by part of a granite pluton that is exposed in the adjacent Waitts Lake quadrangle to the east (F.K. Miller, unpub. mapping, 1979). The scattered mineralization in the Stensgar Mountain quadrangle may have been introduced by small hydrothermal systems driven by heat from the pluton.

ANALYTICAL DATA

In 1980, samples were collected from streams from 41 sites (41 silt and 13 pan-concentrate samples) and 66 rock samples were collected from outcrops and mine dumps that contain hematite, pyrite, quartz veins, or other indications of possible alteration such as black iron and manganese oxide staining or bleaching. Sample sites are shown on figure 2.

The rock and stream-sediment samples were analyzed for 32 elements (Ag, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, La, Mg, Mn, Mo, Nb, Ni, Pb, Sb, Sc, Sn, Sr, Ti, Th, V, W, Y, Zn, and Zr) by spectrographic methods (Grimes and Marranzino, 1968). The results are reported to the nearest number in the series 1, 1.5, 2, 3, 5, 7, 10, etc. Precision of reported spectrographic values is plus or minus one step in the series at the 83-percent confidence level and plus or minus two steps at the 96-percent confidence level (Motooka and Grimes, 1976). Concentrations determined for the major elements (Fe, Mg, Ca, and Ti) are given in weight percent; all other concentrations are given in parts per million (ppm). Analysts were R.T. Hopkins and D.J. Grimes of the U.S. Geological Survey.

Gold analyses of rock, stream-sediment, and panned-concentrate samples by atomic absorption (Ward and others, 1969) were performed by C.R. Eaton and A.L. Gruzensky of the U.S. Geological Survey. Atomic absorption mercury analyses of rock and stream-sediment samples (Vaughn and McCarthy, 1964) were performed by J.D. Sharkey and A.L. Gruzensky of the U.S. Geological Survey. Uranium analyses of rock samples by fluorimetry (Centanni and others, 1956) were performed by L.J. Sherlock of the U.S. Geological Survey.

Table 1 lists the lower limits of determination (reporting value) for each element. The lower limits of determination for gold in atomic-absorption analyses of panned-concentrates are variable (0.05-12.0) and generally higher than for rocks or silt because of the small size of some samples. Table 2 lists the lithologies of the rock samples. Tables 3, 4, and 5 contain the analytical results for rock, stream sediment and panned-concentrate samples, respectively. The letter N following a number means that the element was not detected at the limit shown; L means that the element was detected but below the lowest reporting value; and G, that the concentration of the element exceeded the value shown.

DISCUSSION

Geochemical sampling was confined largely to the Deer Trail Group south of Huckleberry Creek (fig. 2) because glacial till covers much of the northeastern part of the quadrangle and because the Windermere Group and Lower Cambrian rocks to the west are not altered. Outcrops are generally scarce, as the area is covered by thick regolith and dense forest. However, roadcut exposures suggest that there are no broad zones of altered rock in the quadrangle. Except at the Wells Fargo mine, mine tunnels in the quadrangle are caved, but mineralized samples are usually available on mine dumps.

Rocks of the Deer Trail Group contain anomalous quantities of Au, Ag, As, Ba, Cu, Hg, Mn, Pb, Sb, U, and Zn at threshold values of 0.05, 0.5, 200, 1,500, 500, 0.5, 1,500, 150, 100, 0.95 and 200 ppm, respectively. Some uranium values are statistically anomalous but are within normal crustal abundances (Finch and others, 1973, p. 459) and not indicative of uranium enrichment in these rocks.

Exceptionally high values of Au (22.4 ppm), Ag (70 ppm), As (7,000 ppm), Pb (>20,000 ppm), Sb, (>10,000 ppm), and zinc (>10,000 ppm) occur at the Wells Fargo mine. High values of Hg (>10 ppm), Ag (2,000 ppm), Cu (20,000 ppm), Pb (>20,000), and Sb (3,000 ppm) were found at the Double Eagle quarries. Anomalous amounts of Cu (20,000 ppm or more) were detected at the Edna, Wabash Detroit, and Admiral mines and at two unnamed prospects near the center of section 16 and in the SW1/4 sec. 30, T. 31 N., R. 39 E.. The prospect in section 16 also has high Ag (700 ppm) and As (>10,000 ppm). The prospect in section 30 also nas high in As (10,000 ppm), Ba (5,000 ppm), and Hg (10 ppm). These highly anomalous localities probably are not parts of broad mineralized zones.

Veins rich in Ag (15 ppm max), Ba (>5,000 ppm max), and Mn (>5,000 ppm max) occur in the southeastern part of the quadrangle. Low gold values (0.1 ppm) and anomalous concentrations of Ag and Pb occur in rocks close to the Lane Mountain Thrust. Low gold (0.25 ppm) and silver (2 ppm) values and anomalous concentrations of As, Ba, Pb, Sb, and Zn occur in hydrothermally altered dolomite at the Red Marble quarry.

Gold concentrations of 2.6 and 57 ppm were obtained from two panned-concentrate samples. The lower value is from a sample taken from a branch of the North Fork Deer Creek (574) and could reflect gold mineralization near the

Red Marble Quarry. The higher value is from a sample collected on the North Fork Huckleberry Creek (581). No altered or mineralized rock was observed in this drainage. The gold value possibly reflects leakage of gold-bearing hydrothermal fluids along the fault parallel to Huckleberry Creek, but because the mass of the non-magnetic fraction analyzed was very small, the gold value more likely represents a spurious value.

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Table 1.--Lower limits of detection for spectrographic and atomic absorption (Au) analyses. [Values for Fe, Mg, Ca, and Ti are given in weight percent; values for other elements are given in parts per million].

Element	Rock and silt
Ag	.5
Au (spectrographic)	10
Au (atomic absorption-rock and stream sediment)	0.05
As	200
B	10
Ba	20
Be	1
Bi	10
Ca	.05
Cd	20
Co	5
Cr	10
Cu	5
Fe	0.05
La	20
Mg	.02
Mn	10
Mo	5
Nb	20
Ni	5
Pb	10
Sb	100
Sc	5
Sn	10
Sr	100
Ti	.002
V	10
W	50
Y	10
Zn	200
Zr	10
Th	100

TABLE 2

Sample No.	Lithology
DAF611	pyritiferous quartz vein
DAF612	hematitic quartz vein
DAF613	pyritiferous dolomite
DAF614	quartz vein with clay pods
DAF615	quartz vein with vugs
DAF616	quartz vein with chalcopyrite
DAF617	quartz vein with zones of black oxides
DAF618	quartz vein cut by hematite veins
DAF619	dolomite with hematite staining
DAF620	silica boxwork with hematite
DAF621	sericite-quartz vein with pyrite and chalcopyrite
DAF622	pyritiferous quartz vein
DAF623	pyrite vein
DAF624	pyritiferous dolomite (Stensgar dolomite)
DAF625	pyritiferous quartz vein
DAF626	pyritiferous quartz vein
DAF627	pyritiferous and hematitic dolomite (Stensgar dolomite)
DAF628	quartz veins and granitic dikes with pyrite, galena, bornite, azurite, and malachite
DAF629	hematitic quartzite breccia
DAF630	quartz vein with yellow oxide staining
DAF631	malachite veins in dolomite (Stensgar Dolomite)
DAF632	hematitic quartz vein
DAF633	hematitic quartz vein
DAF634	quartz vein with black and brown oxide veins
DAF635	quartzite breccia with black oxide cement
DAF636	yellow, brown, and red friable altered siltstone (Edna Dolomite)
DAF637	black oxide stained quartz breccia
DAF638	quartz vein with brown and black oxide staining
DAF639	quartz vein with black oxide veins
DAF640	quartz vein with black oxide veins
DAF641	black oxide veined quartzite (Togo Formation)
DAF642	hematitic quartz vein
DAF643	silica boxwork with clay pods
DAF644	quartz vein with red, brown and black oxide staining
DAF645	quartz vein with black oxide veins
DAF646	quartz vein with clay pods
DAF647	quartz vein with clay pods
DAF648	quartz vein with brown and black oxide staining
DAF649	quartz vein with red and black oxide staining
DAF650	quartz vein with red, brown, and black oxide staining
DAF651	quartz vein with yellow-brown oxide veins
DAF652	quartz vein with yellow-brown oxide veins
DAF653	quartz vein with clay pods
DAF654	silica boxwork with red and yellow oxides

DAF655	dolomite with hematitic veins
DAF656	quartz vein with yellow-brown oxide veins
DAF657	quartzite with pods of black and brown oxide veins
DAF658	quartz vein
DAF659	quartz vein with galena and stibnite
DAF660	quartzite with pyrite, galena, and stibnite
DAF661	quartz vein with bornite, malachite, azurite, and barite
DAF662	quartz vein with malachite, azurite, and tennantite
DAF663	quartz vein with malachite and chalcopyrite
DAF664	quartz vein
DAF665	friable quartzite with bright yellow and brown matrix
DAF666	yellow-stained siltstone (Togo Formation)
DAF667	quartz vein with chalcopyrite and malachite
DAF668	quartz vein with brown and black oxide staining
DAF669	light gray siltstone (Togo Formation)
DAF670	yellow-brown altered zone in dolomite (Stensgar Dolomite)
DAF671	quartz phyllite with malachite veins
DAF672	quartz vein in altered dolomite (Edna Dolomite)
DAF673	black pyritiferous dolomite (Monk Formation)
DAF674	orange Addy Quartzite
DAF675	quartz porphyry dike
DAF676	clay-rich matrix from Addy Quartzite, Lane Mountain silica mine

Table 3.--Analyses of rock samples

ROWNO	SAMPLE	FE	MG	CA	TI	MN	AG	AS	AU	B	BA
1	DAF611	3.00	2.00	10.00	0.100	1000.	0.5N	200.N	10.N	1000.	2000.
2	DAF612	5.00	0.20	0.10	0.015	300.	0.5N	200.N	10.N	20.	50.
3	DAF613	7.00	1.00	5.00	0.700	700.	0.5N	200.N	10.N	70.	300.
4	DAF614	0.30	0.02	0.05L	0.010	300.	0.5N	200.N	10.N	10.N	50.
5	DAF615	0.50	0.02	0.05L	0.007	150.	0.5N	200.N	10.N	10.N	30.
6	DAF616	15.00	0.30	0.70	0.015	200.	7.0	200.L	10.N	10.L	30.
7	DAF617	2.00	0.50	0.05L	0.050	200.	0.5N	200.N	10.N	30.	50.
8	DAF618	2.00	0.05	0.05L	0.070	70.	0.5N	200.N	10.N	100.	30.
9	DAF619	2.00	5.00	0.05	0.150	1000.	0.5N	200.N	10.N	15.	30.
10	DAF620	1.50	0.50	0.15	0.150	1000.	0.5N	200.N	10.N	70.	100.
11	DAF621	10.00	3.00	1.50	1.000	700.	2.0	500.	10.N	500.	500.
12	DAF622	20.00	0.70	1.00	0.070	300.	0.5N	200.N	10.N	10.L	50.
13	DAF623	3.00	7.00	15.00	0.050	500.	0.7	200.N	10.N	70.	150.
14	DAF624	7.00	2.00	1.50	1.000	500.	0.5	200.N	10.N	200.	1500.
15	DAF625	2.00	0.50	0.20	0.150	200.	30.0	300.	10.N	20.	150.
16	DAF626	5.00	1.00	0.05	0.030	700.	0.5N	200.N	10.N	20.	30.
17	DAF627	10.00	3.00	10.00	0.050	1500.	3.0	200.N	10.N	30.	100.
18	DAF628	7.00	2.00	5.00	0.030	1000.	5.0	2000.	10.N	30.	300.
19	DAF629	15.00	0.02	0.10	0.020	700.	0.5N	200.N	10.N	30.	100.
20	DAF630	1.00	0.02L	0.05N	0.003	700.	0.5L	200.N	10.N	10.N	30.
21	DAF631	0.20	0.20	0.10	0.150	300.	2000.0	700.	10.N	100.	100.
22	DAF632	2.00	0.02L	0.05N	0.015	300.	5.0	200.N	10.N	100.	100.
23	DAF633	10.00	0.02	0.05N	0.150	3000.	1.0	200.N	10.N	100.	200.
24	DAF634	15.00	0.10	0.05L	0.100	5000.G	0.5N	200.	10.N	70.	200.
25	DAF635	1.00	0.02	0.05N	0.020	5000.G	5.0	200.N	10.N	10.	5000.G
26	DAF636	3.00	0.15	0.05	0.150	5000.	0.5N	200.N	10.N	100.	500.
27	DAF637	20.00	0.02N	0.05N	0.150	1500.	0.5N	200.N	10.N	10.N	70.
28	DAF638	5.00	0.02	0.05N	0.030	500.	0.5N	200.N	10.N	150.	100.
29	DAF639	1.00	0.02L	0.05N	0.005	5000.G	15.0	200.N	10.N	10.	5000.
30	DAF640	1.50	0.02L	0.05	0.020	5000.G	0.5N	200.N	10.N	10.	300.
31	DAF641	10.00	0.02	0.05	0.200	5000.G	15.0	200.N	10.N	150.	3000.
32	DAF642	1.00	0.02	0.05N	0.070	500.	0.5N	200.N	10.N	20.	100.
33	DAF643	1.50	0.02	0.05L	0.030	700.	0.5N	200.N	10.N	15.	70.
34	DAF644	5.00	0.02L	0.05L	0.030	2000.	0.5	500.	10.N	20.	150.
35	DAF645	15.00	0.02L	0.05L	0.015	5000.G	3.0	200.N	10.N	10.	1000.
36	DAF646	3.00	0.07	0.05L	0.050	2000.	0.5N	200.N	10.N	15.	150.
37	DAF647	0.50	0.02	0.05L	0.015	150.	0.5N	200.N	10.N	10.L	20.
38	DAF648	5.00	0.10	0.05N	0.070	3000.	0.5L	200.N	10.N	100.	150.
39	DAF649	1.00	0.03	0.05N	0.030	5000.G	0.5N	200.N	10.N	10.	150.
40	DAF650	0.50	0.05	0.05L	0.020	500.	1.0	200.N	10.N	10.	150.
41	DAF651	1.00	0.02	0.05N	0.015	500.	0.5N	200.N	10.N	10.L	150.
42	DAF652	2.00	0.02	0.05N	0.015	500.	0.5N	200.N	10.N	10.L	100.
43	DAF653	0.30	0.02	0.05N	0.015	700.	0.5N	200.N	10.N	20.	100.
44	DAF654	1.50	0.07	0.05L	0.050	1000.	0.5N	200.N	10.N	20.	5000.G
45	DAF655	0.50	0.05	0.05L	0.030	300.	0.5N	200.N	10.N	150.	200.
46	DAF656	2.00	0.07	0.15	0.700	700.	0.5N	200.N	10.N	100.	300.
47	DAF657	1.50	0.05	0.05L	0.015	2000.	0.5N	200.	10.N	15.	500.
48	DAF658	5.00	0.15	0.10	0.070	300.	3.0	1500.	10.L	100.	700.
49	DAF659	1.00	0.02L	0.05N	0.020	20.	70.0	7000.	10.N	10.L	150.
50	DAF660	7.00	0.15	0.10	0.020	50.	30.0	3000.	15.	20.	1500.

Table 3.--Continued

ROWNO	SAMPLE	BE	BI	CD	CO	CR	CU	LA	MO	NB	NI
1	DAF611	1.0	10.N	20.N	15.	30.	300.	20.L	5.N	20.N	20.
2	DAF612	1.0	10.N	20.N	50.	15.	500.	20.L	5.N	20.N	100.
3	DAF613	1.0L	10.N	20.N	20.	100.	100.	20.N	5.N	20.N	70.
4	DAF614	1.0L	10.N	20.N	5.	10.N	10.	20.	5.N	20.N	7.
5	DAF615	1.0L	10.N	20.N	5.	10.N	5.	20.L	5.N	20.N	7.
6	DAF616	1.0L	10.N	20.N	50.	10.L	20000.G	20.N	5.	20.N	300.
7	DAF617	1.0L	10.N	20.N	7.	20.	200.	20.L	5.N	20.N	30.
8	DAF618	1.0	10.N	20.N	5.	20.	70.	20.L	5.N	20.N	15.
9	DAF619	1.0L	10.N	20.N	20.	30.	50.	20.L	5.N	20.N	20.
10	DAF620	1.5	10.N	20.N	10.	50.	30.	20.L	5.N	20.N	30.
11	DAF621	1.0L	10.N	20.N	50.	70.	300.	20.L	5.N	20.N	70.
12	DAF622	1.0N	10.N	20.N	50.	10.	100.	30.	5.N	20.N	30.
13	DAF623	1.0N	10.N	20.N	7.	20.	70.	20.L	5.N	20.N	15.
14	DAF624	1.0	10.N	20.N	70.	300.	150.	20.	5.N	20.N	100.
15	DAF625	1.0L	10.	20.N	50.	30.	7000.	20.L	5.N	20.N	70.
16	DAF626	1.0	10.N	20.N	5.L	20.	70.	20.L	5.N	20.N	70.
17	DAF627	1.0L	10.N	20.N	50.	70.	500.	20.N	5.N	20.N	20.
18	DAF628	1.0N	10.N	20.N	15.	10.	20000.	20.L	5.N	20.N	70.
19	DAF629	1.0L	10.N	20.N	7.	20.	100.	20.	5.N	20.N	10.
20	DAF630	1.0N	10.N	20.N	15.	10.N	30.	20.	5.N	20.N	30.
21	DAF631	1.0L	10.N	70.	5.	30.	20000.	20.	5.N	20.N	7.
22	DAF632	1.0	10.N	20.N	5.	30.	70.	30.	5.N	20.N	7.
23	DAF633	5.0	10.N	20.N	100.	50.	200.	30.	5.N	20.N	50.
24	DAF634	3.0	10.N	20.N	700.	50.	1000.	30.	30.	20.N	300.
25	DAF635	1.0N	10.N	20.N	150.	30.	150.	50.	5.N	20.N	5.
26	DAF636	2.0	10.N	20.N	15.	20.	30.	20.	5.N	20.N	15.
27	DAF637	3.0	10.N	20.N	50.	20.	20.	20.L	5.N	20.N	70.
28	DAF638	2.0	10.N	20.N	15.	20.	50.	20.L	5.N	20.N	5.
29	DAF639	1.0	10.N	20.N	100.	15.	150.	30.	5.N	20.N	10.
30	DAF640	1.0L	10.N	20.N	700.	20.	200.	20.L	5.N	20.N	200.
31	DAF641	2.0	10.N	20.N	1000.	50.	1500.	30.	7.	20.N	300.
32	DAF642	1.0L	10.N	20.N	7.	15.	20.	20.L	5.N	20.N	7.
33	DAF643	1.0	10.N	20.N	10.	15.	20.	20.L	5.N	20.N	7.
34	DAF644	1.5	10.N	20.N	20.	30.	50.	20.L	5.N	20.N	20.
35	DAF645	3.0	10.N	20.N	1500.	20.	500.	20.	5.N	20.N	200.
36	DAF646	1.5	10.N	20.N	30.	20.	50.	20.	5.L	20.N	20.
37	DAF647	1.0L	10.N	20.N	5.	10.N	7.	20.L	5.N	20.N	10.
38	DAF648	1.5	10.N	20.N	50.	20.	30.	30.	5.	20.N	70.
39	DAF649	1.0L	10.N	20.N	70.	10.L	150.	30.	5.	20.N	100.
40	DAF650	1.0L	10.N	20.N	10.	10.N	5.L	20.L	5.N	20.N	5.L
41	DAF651	1.0	10.N	20.N	5.	10.N	5.L	20.L	5.N	20.N	10.
42	DAF652	1.0L	10.N	20.N	15.	10.N	20.	20.L	5.L	20.N	10.
43	DAF653	1.0L	10.N	20.N	10.	10.L	20.	30.	5.N	20.N	5.
44	DAF654	1.0	10.N	20.N	15.	10.	500.	20.L	5.N	20.N	10.
45	DAF655	1.0L	10.N	20.N	5.L	10.N	20.	20.L	5.N	20.N	10.
46	DAF656	1.0L	10.N	20.N	15.	20.	15.	20.L	5.N	20.N	20.
47	DAF657	1.0L	10.N	20.N	5.L	15.	700.	30.	5.N	20.N	10.
48	DAF658	1.0	10.N	20.	5.	20.	700.	20.	5.N	20.N	20.
49	DAF659	1.0L	10.N	200.	5.L	10.N	700.	50.	5.N	20.N	5.
50	DAF660	1.0L	10.N	50.	5.L	10.N	300.	30.	5.N	20.N	5.

Table 3.--Continued

ROW NO	SAMPLE	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR
1	DAF611	30.	100.N	15.	10.N	100.L	100.	50.N	20.	200.N	50.
2	DAF612	100.	100.N	5.L	10.N	100.N	15.	50.N	10.	200.N	10.L
3	DAF613	10.	100.N	20.	10.N	100.	200.	50.N	30.	200.N	70.
4	DAF614	10.N	100.N	5.N	10.N	100.N	10.L	50.N	10.L	200.N	10.L
5	DAF615	10.N	100.N	5.N	10.N	100.N	10.L	50.N	10.N	200.N	10.L
6	DAF616	150.	150.	5.L	30.	100.N	10.L	50.N	10.L	700.	10.L
7	DAF617	10.N	100.N	5.L	10.N	100.N	10.	50.N	10.	200.N	20.
8	DAF618	10.N	100.N	5.L	10.N	100.L	10.	50.N	15.	200.N	150.
9	DAF619	10.L	100.N	5.	10.N	100.N	30.	50.N	15.	200.N	30.
10	DAF620	15.	100.N	7.	10.N	100.N	50.	50.N	20.	200.N	70.
11	DAF621	20.	100.L	30.	10.N	100.	200.	50.N	30.	200.N	70.
12	DAF622	10.N	100.N	7.	10.N	100.	20.	50.N	15.	200.N	10.L
13	DAF623	1000.	100.	5.	10.N	200.	30.	50.N	10.	200.N	15.
14	DAF624	10.	100.N	50.	10.N	100.	300.	50.N	30.	200.N	70.
15	DAF625	10.L	500.	7.	10.N	100.N	50.	50.N	10.L	200.	15.
16	DAF626	10.	100.N	5.	10.N	100.N	30.	50.N	20.	200.	10.
17	DAF627	50.	100.	5.	10.N	100.	50.	50.N	10.	500.	15.
18	DAF628	150.	700.	5.N	30.	150.	15.	50.N	10.	200.	10.N
19	DAF629	70.	100.N	10.	10.N	100.N	30.	50.N	15.	300.	20.
20	DAF630	10.N	100.N	5.L	10.N	100.N	10.L	50.N	10.N	200.N	10.L
21	DAF631	20000.G	3000.	5.L	10.N	100.N	30.	50.N	10.	1500.	30.
22	DAF632	30.	100.N	5.	10.N	100.N	20.	50.N	30.	200.N	1000.
23	DAF633	200.	100.N	15.	10.N	100.N	30.	50.N	30.	200.	70.
24	DAF634	30.	100.N	15.	10.N	100.N	20.	50.N	50.	200.N	100.
25	DAF635	50.	100.N	5.N	10.N	100.N	20.	50.N	10.L	200.N	15.
26	DAF636	10.	100.N	7.	10.N	100.N	50.	50.N	20.	200.N	150.
27	DAF637	10.N	100.N	20.	10.N	100.N	70.	50.N	30.	200.N	20.
28	DAF638	10.	100.N	5.	10.N	100.N	10.	50.N	30.	200.N	30.
29	DAF639	70.	100.N	5.N	10.N	100.N	10.	50.N	10.	200.N	10.L
30	DAF640	50.	100.N	5.	10.N	100.N	15.	50.N	10.	300.	15.
31	DAF641	150.	100.N	30.	10.N	100.	100.	50.N	100.	300.	150.
32	DAF642	20.	150.	5.L	10.N	100.N	30.	50.N	150.	200.N	20.
33	DAF643	10.	100.N	5.	10.N	100.N	15.	50.N	20.	200.N	15.
34	DAF644	300.	100.L	7.	10.N	100.N	20.	50.N	15.	700.	10.
35	DAF645	10.N	100.N	15.	10.N	100.N	10.	50.N	100.	300.	20.
36	DAF646	20.	100.N	15.	10.N	100.N	50.	50.N	15.	200.N	50.
37	DAF647	10.	100.N	5.N	10.N	100.N	10.L	50.N	10.N	200.N	10.
38	DAF648	10.L	100.N	10.	10.N	100.N	50.	50.N	30.	200.N	70.
39	DAF649	70.	100.N	5.L	10.N	100.N	10.L	50.N	10.	200.N	30.
40	DAF650	10.N	100.N	5.N	10.N	100.N	10.L	50.N	10.L	200.N	20.
41	DAF651	10.L	100.N	5.L	10.N	100.N	10.	50.N	10.L	200.N	15.
42	DAF652	10.L	100.N	5.	10.N	100.N	10.L	50.N	10.L	200.N	20.
43	DAF653	10.	100.N	5.N	10.N	100.N	10.L	50.N	10.L	200.N	10.
44	DAF654	50.	100.N	5.L	10.N	2000.	10.	50.N	15.	200.N	50.
45	DAF655	15.	100.N	5.L	10.N	100.N	10.	50.N	10.L	200.N	10.L
46	DAF656	10.	100.N	15.	10.N	100.N	100.	50.N	15.	200.N	100.
47	DAF657	10.L	100.	5.L	10.N	100.N	15.	50.N	10.	200.N	10.L
48	DAF658	2000.	3000.	10.	10.N	100.N	30.	50.N	15.	2000.	50.
49	DAF659	20000.G	10000.G	5.N	10.N	100.N	10.L	50.N	15.	10000.G	10.
50	DAF660	5000.	10000.	5.N	10.N	100.N	10.L	50.N	10.N	3000.	10.L

Table 3.--Continued

ROWNO	SAMPLE	TH	AU-AA	HG	U
1	DAF611	100.N	0.15	0.22	0.21
2	DAF612	100.N	0.06	0.16	0.19
3	DAF613	100.N	0.05L	0.35	0.14
4	DAF614	100.N	0.05L	0.18	0.12
5	DAF615	100.N	0.05L	0.08	0.08
6	DAF616	100.N	0.05L	0.22	0.13
7	DAF617	100.N	0.05N	0.06	0.14
8	DAF618	100.N	0.05L	0.10	0.26
9	DAF619	100.N	0.05L	0.12	0.34
10	DAF620	100.N	0.05L	0.22	0.37
11	DAF621	100.N	0.15	0.60	1.1
12	DAF622	100.N	0.07	0.14	0.13
13	DAF623	100.N	0.07	0.26	0.34
14	DAF624	100.N	0.07	0.26	0.22
15	DAF625	100.N	0.25	2.50	0.30
16	DAF626	100.N	0.05N	0.30	0.32
17	DAF627	100.N	0.05N	1.50	0.96
18	DAF628	100.N	0.05L	5.00	0.08
19	DAF629	100.N	0.05N	0.22	0.66
20	DAF630	100.N	0.05N	0.08	0.21
21	DAF631	100.N	0.07	10.00G	1.8
22	DAF632	100.N	0.05N	0.06	0.26
23	DAF633	100.N	0.05N	0.06	0.18
24	DAF634	100.N	0.05N	0.06	0.27
25	DAF635	100.N	0.05L	0.12	0.16
26	DAF636	100.N	0.05N	0.06	0.80
27	DAF637	100.N	0.05N	0.04	0.96
28	DAF638	100.N	0.05N	0.06	0.80
29	DAF639	100.N	0.05N	0.90	0.12
30	DAF640	100.N	0.05N	0.26	0.51
31	DAF641	100.N	0.05N	0.18	2.4
32	DAF642	100.N	0.05N	0.02L	0.53
33	DAF643	100.N	0.05N	0.02L	4.6
34	DAF644	100.N	0.05N	0.02L	4.0
35	DAF645	100.N	0.05N	0.02	1.3
36	DAF646	100.N	0.05N	0.12	2.6
37	DAF647	100.N	0.05N	0.06	0.38
38	DAF648	100.N	0.05N	0.10	1.4
39	DAF649	100.N	0.05L	0.06	0.80
40	DAF650	100.N	0.05N	0.18	0.10
41	DAF651	100.N	0.05N	0.08	0.80
42	DAF652	100.N	0.05N	0.12	4.8
43	DAF653	100.N	0.05N	0.06	0.80
44	DAF654	100.N	0.05N	0.08	0.62
45	DAF655	100.N	0.05N	0.12	0.24
46	DAF656	100.N	0.05N	0.06	0.19
47	DAF657	100.N	0.05N	0.75	0.35
48	DAF658	100.N	2.78	0.80	0.80
49	DAF659	100.N	0.45	3.00	0.06
50	DAF660	100.N	22.40	0.90	0.27

Table 3.--Continued

ROWNO	SAMPLE	FE	MG	CA	TI	MN	AG	AS	AU	B	BA
51	DAF661	5.00	0.15	0.05	0.002L	30.	50.0	10000.	10.N	10.L	5000.G
52	DAF662	1.50	0.03	2.00	0.002L	100.	700.0	10000.G	10.L	10.L	3000.
53	DAF663	5.00	0.70	2.00	0.020	700.	3.0	200.	10.N	30.	150.
54	DAF664	2.00	0.50	0.05L	0.010	300.	0.5	200.N	10.N	10.	70.
55	DAF665	2.00	0.07	0.70	0.500	700.	2.0	200.N	10.N	10.	500.
56	DAF666	2.00	2.00	2.00	0.700	700.	0.5N	200.N	10.N	10.	500.
57	DAF667	2.00	0.03	0.05L	0.015	200.	3.0	200.N	10.N	10.	5000.G
58	DAF668	0.20	0.02	0.05N	0.020	300.	0.5N	200.N	10.N	10.L	100.
59	DAF669	7.00	0.10	0.05N	1.000	1000.	0.5N	200.N	10.N	100.	100.
60	DAF670	3.00	0.50	0.07	0.500	3000.	0.5N	200.N	10.N	150.	3000.
61	DAF671	15.00	0.02L	0.05	0.050	300.	0.5N	7000.	10.N	70.	100.
62	DAF672	3.00	0.70	10.00	0.010	5000.	3.0	200.N	10.N	30.	100.
63	DAF673	0.7	10.0	20.0	0.07	500	0.5N	200.N	10.N	10.	50
64	DAF674	0.1	0.07	0.15	0.1	20	1.0	200.N	10.N	30.	20
65	DAF675	0.5	0.07	0.05L	0.015	70	0.4L	200	10.N	300	1000
66	DAF676	2.0	0.3	0.07	0.3	70	0.5N	200.N	10.N	500.	150

Table 3.--Continued

ROWNO	SAMPLE	BE	BI	CD	CO	CR	CU	LA	MO	NB	NI
51	DAF661	1.0L	10.N	20.N	5.L	10.N	20000.G	20.L	5.N	20.N	5.
52	DAF662	1.0L	20.	70.	15.	10.N	20000.G	20.	5.N	20.N	20.
53	DAF663	1.0	10.N	20.N	100.	10.N	20000.	20.L	5.N	20.N	150.
54	DAF664	1.0L	10.N	20.N	20.	10.N	300.	30.	5.N	20.N	30.
55	DAF665	1.0	10.N	20.N	10.	100.	500.	20.	5.N	20.N	15.
56	DAF666	1.0L	10.N	20.N	15.	50.	70.	20.L	5.N	20.N	20.
57	DAF667	1.0	10.N	20.N	5.L	10.N	20000.	20.L	5.N	20.N	10.
58	DAF668	1.0	10.N	20.N	5.	10.L	200.	20.L	5.N	20.N	7.
59	DAF669	1.5	10.N	20.N	30.	70.	2000.	20.L	5.N	20.N	70.
60	DAF670	1.5	10.N	20.N	10.	70.	100.	20.L	5.N	20.N	20.
61	DAF671	5.0	10.N	20.N	20.	70.	70.	50.	5.N	20.N	50.
62	DAF672	1.0L	10.N	20.N	5.	10.N	7000.	20.L	5.N	20.N	5.
63	DAF673	1.0L	10.N	20.N	5.N	10.	5.L	20.	5.N	20.N	5.L
64	DAF674	1.0L	10.N	20.N	5.L	10.N	5.	20.	5.N	20.N	7.
65	DAF675	7.0	10.N	20.N	5.N	10.L	5.L	20.	5.N	20.N	5.
66	DAF676	2.0	10.N	20.N	7.	100	30	100.	5.N	20.L	15.

Table 3.--Continued

ROWNO	SAMPLE	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR
51	DAF661	700.	5000.	5.N	10.N	1000.	10.N	50.N	10.N	200.L	10.N
52	DAF662	300.	10000.G	5.N	10.N	100.L	10.N	50.N	10.	1500.	10.L
53	DAF663	50.	100.L	5.L	10.N	100.N	10.L	50.N	10.L	200.N	10.
54	DAF664	20.	100.L	5.N	10.N	100.N	10.	50.N	10.	200.N	10.N
55	DAF665	70.	150.	7.	10.N	100.L	20.	50.N	30.	200.N	200.
56	DAF666	30.	100.N	15.	10.N	300.	70.	50.N	20.	200.N	100.
57	DAF667	10.L	300.	5.L	10.N	300.	10.	50.N	10.N	200.N	10.N
58	DAF668	20.	100.L	5.N	10.N	100.N	10.L	50.N	10.N	200.N	10.
59	DAF669	15.	100.N	30.	10.N	100.N	200.	50.N	50.	300.	150.
60	DAF670	20.	100.N	15.	10.N	100.N	100.	50.N	20.	200.N	100.
61	DAF671	1500.	100.L	20.	10.N	100.N	70.	50.N	30.	300.	100.
62	DAF672	70.	100.N	5.L	10.N	100.N	10.N	50.N	50.	200.N	10.L
63	DAF673	30.	100.N	5.L	10.N	300.	20.	50.N	15	200.N	20.
64	DAF674	10.	100.N	5.N	10.N	100.N	10.	50.N	10.L	200.N	100.
65	DAF675	200.	100.N	5.L	15.	100.N	10.L	50.N	10.	200.N	30.
66	DAF676	30.	100.N	20.	10.N	200.	70.	50.N	30.	200.N	200.

Table 3.--Continued

ROWNO	SAMPLE	TH	AU-AA	HG	U
51	DAF661	100.N	0.25	10.00G	0.24
52	DAF662	100.N	4.00	10.00G	0.29
53	DAF663	100.N	0.05N	0.90	0.24
54	DAF664	100.N	0.09	0.70	0.21
55	DAF665	100.N	0.10	0.90	1.4
56	DAF666	100.N	0.09	0.16	0.50
57	DAF667	100.N	0.08	2.00	0.16
58	DAF668	100.N	0.05N	0.26	0.24
59	DAF669	100.N	0.05N	0.14	0.72
60	DAF670	100.N	0.05L	0.18	0.26
61	DAF671	100.N	0.05N	0.35	1.4
62	DAF672	100.N	0.05N	0.35	0.66
63	DAF673	100.N	0.05N	0.02L	
64	DAF674	100.N	0.05N	0.02	
65	DAF675	100.N	0.05N	0.04	
66	DAF676	100.N	0.05N	0.45	

Table 4.--Analysis of stream-sediment (silt) samples

ROWNO	SAMPLE	FE	MG	CA	TI	MN	AG	AS	AU	B	BA
1	DAF570	2.00	0.70	0.70	0.700	700.	0.5L	200.N	10.N	70.	500.
2	DAF571	2.00	0.70	0.70	0.700	700.	0.5	200.N	10.N	100.	700.
3	DAF572	1.50	0.50	0.70	0.300	500.	0.5N	200.N	10.N	50.	700.
4	DAF573	2.00	0.70	0.70	0.700	700.	0.5N	200.N	10.N	100.	500.
5	DAF574	3.00	1.50	0.70	0.700	700.	0.5N	200.N	10.N	100.	700.
6	DAF575	2.00	1.00	0.70	0.500	700.	0.5N	200.N	10.N	100.	700.
7	DAF576	3.00	0.70	0.70	0.500	1000.	0.5N	200.N	10.N	150.	700.
8	DAF577	1.50	0.30	0.70	0.500	500.	0.5N	200.N	10.N	70.	500.
9	DAF578	2.00	0.30	0.50	0.300	1000.	0.5N	200.N	10.N	50.	500.
10	DAF579	3.00	0.50	0.70	0.500	3000.	0.5N	200.N	10.N	100.	500.
11	DAF580	3.00	0.70	1.00	0.700	700.	0.5N	200.N	10.N	70.	500.
12	DAF581	3.00	0.70	1.00	1.000	1000.	0.5N	200.N	10.N	100.	500.
13	DAF582	3.00	0.70	0.70	1.000	1000.	0.5N	200.N	10.N	100.	500.
14	DAF583	2.00	0.50	0.70	0.700	500.	0.5N	200.N	10.N	70.	500.
15	DAF584	2.00	0.50	0.70	0.500	500.	0.5N	200.N	10.N	70.	500.
16	DAF585	3.00	1.00	1.00	1.000	700.	0.5N	200.N	10.N	100.	700.
17	DAF586	3.00	0.70	0.70	0.700	700.	0.5N	200.N	10.N	100.	500.
18	DAF587	5.00	1.00	1.00	0.700	1000.	0.5N	200.N	10.N	70.	500.
19	DAF588	3.00	0.70	0.70	0.500	700.	0.5N	200.N	10.N	70.	500.
20	DAF589	3.00	0.70	0.70	0.500	700.	0.5N	200.N	10.N	70.	500.
21	DAF590	2.00	0.70	0.70	0.500	700.	0.5N	200.N	10.N	70.	300.
22	DAF591	2.00	0.70	0.70	0.500	500.	0.5N	200.N	10.N	70.	500.
23	DAF592	2.00	0.50	0.70	0.300	700.	0.5N	200.N	10.N	50.	500.
24	DAF593	2.00	0.70	0.70	0.500	700.	0.5N	200.N	10.N	100.	500.
25	DAF594	3.00	0.70	0.70	0.500	700.	0.5N	200.N	10.N	70.	500.
26	DAF595	5.00	1.00	0.70	0.700	700.	0.5N	200.N	10.N	100.	700.
27	DAF596	2.00	0.50	0.70	0.200	500.	0.5N	200.N	10.N	50.	700.
28	DAF597	3.00	0.50	0.70	0.500	700.	0.5N	200.N	10.N	50.	500.
29	DAF598	3.00	0.50	0.70	0.500	700.	0.5N	200.N	10.N	70.	700.
30	DAF599	1.50	0.70	1.00	0.300	500.	0.5N	200.N	10.N	50.	500.
31	DAF600	3.00	1.00	0.70	0.500	500.	0.5N	200.N	10.N	70.	500.
32	DAF601	3.00	0.70	0.70	0.500	500.	0.5N	200.N	10.N	70.	300.
33	DAF602	5.00	1.50	1.00	0.700	700.	0.5L	200.N	10.N	50.	300.
34	DAF603	5.00	1.50	0.70	0.700	700.	0.5N	200.N	10.N	30.	300.
35	DAF604	2.00	0.50	0.70	0.700	700.	0.5N	200.N	10.N	50.	300.
36	DAF605	2.00	0.50	0.50	0.500	700.	0.5N	200.N	10.N	100.	500.
37	DAF606	2.00	0.50	0.70	0.300	1500.	0.5N	200.N	10.N	70.	700.
38	DAF607	3.00	0.50	0.70	0.700	700.	0.5N	200.N	10.N	70.	300.
39	DAF608	1.50	0.50	0.70	0.200	300.	2.0	200.N	10.N	50.	200.
40	DAF609	3.00	0.70	1.00	0.700	1500.	0.5N	200.N	10.N	70.	700.
41	DAF610	2.00	0.50	0.50	0.500	700.	0.5N	200.N	10.N	50.	500.

Table 4.--Continued

ROWNO	SAMPLE	BE	BI	CD	CO	CR	CU	LA	MO	NB	NI
1	DAF570	1.5	10.N	20.N	15.	70.	70.	30.	5.N	20.N	30.
2	DAF571	1.5	10.N	20.N	15.	70.	70.	30.	5.N	20.N	30.
3	DAF572	1.5	10.N	20.N	15.	70.	50.	30.	5.N	20.N	30.
4	DAF573	1.5	10.N	20.N	15.	70.	50.	30.	5.N	20.N	20.
5	DAF574	1.5	10.N	20.N	20.	100.	50.	30.	5.N	20.N	50.
6	DAF575	1.5	10.N	20.N	10.	70.	50.	20.	5.N	20.N	20.
7	DAF576	1.5	10.N	20.N	15.	70.	50.	30.	5.N	20.N	30.
8	DAF577	1.0	10.N	20.N	10.	50.	30.	30.	5.N	20.N	20.
9	DAF578	1.0	10.N	20.N	10.	50.	50.	30.	5.N	20.N	20.
10	DAF579	1.5	10.N	20.N	20.	70.	50.	20.	5.N	20.N	30.
11	DAF580	1.5	10.N	20.N	20.	100.	100.	30.	5.N	20.N	30.
12	DAF581	1.5	10.N	20.N	20.	70.	70.	30.	5.N	20.N	30.
13	DAF582	1.5	10.N	20.N	20.	100.	70.	30.	5.N	20.N	50.
14	DAF583	1.0	10.N	20.N	10.	70.	50.	30.	5.N	20.N	20.
15	DAF584	1.5	10.N	20.N	10.	70.	70.	20.	5.N	20.N	30.
16	DAF585	1.5	10.N	20.N	10.	70.	50.	30.	5.N	20.N	50.
17	DAF586	1.0	10.N	20.N	15.	70.	50.	20.	5.N	20.N	30.
18	DAF587	1.5	10.N	20.N	20.	70.	70.	30.	5.N	20.N	30.
19	DAF588	1.5	10.N	20.N	15.	50.	50.	30.	5.N	20.N	30.
20	DAF589	1.5	10.N	20.N	15.	50.	30.	20.	5.N	20.N	20.
21	DAF590	1.5	10.N	20.N	15.	50.	50.	20.	5.N	20.N	20.
22	DAF591	1.5	10.N	20.N	15.	50.	50.	20.	5.N	20.N	20.
23	DAF592	1.5	10.N	20.N	15.	50.	20.	20.	5.N	20.N	30.
24	DAF593	1.0	10.N	20.N	10.	70.	50.	30.	5.N	20.N	20.
25	DAF594	1.5	10.N	20.N	15.	70.	50.	30.	5.N	20.N	20.
26	DAF595	1.5	10.N	20.N	20.	70.	50.	30.	5.N	20.N	20.
27	DAF596	1.0	10.N	20.N	7.	30.	20.	20.	5.N	20.N	15.
28	DAF597	1.5	10.N	20.N	15.	70.	50.	20.	5.N	20.N	30.
29	DAF598	1.5	10.N	20.N	10.	50.	30.	20.	5.N	20.N	20.
30	DAF599	1.0	10.N	20.N	7.	50.	15.	20.L	5.N	20.N	15.
31	DAF600	1.0	10.N	20.N	15.	70.	70.	20.	5.N	20.N	30.
32	DAF601	1.5	10.N	20.N	15.	70.	50.	30.	5.N	20.N	30.
33	DAF602	1.5	10.N	20.N	15.	70.	50.	30.	5.N	20.N	30.
34	DAF603	1.0	10.N	20.N	15.	70.	50.	20.	5.N	20.N	30.
35	DAF604	1.0	10.N	20.N	15.	50.	30.	20.	5.N	20.N	15.
36	DAF605	1.5	10.N	20.N	15.	70.	50.	20.	5.N	20.N	20.
37	DAF606	1.5	10.N	20.N	10.	30.	30.	20.	5.N	20.N	15.
38	DAF607	1.5	10.N	20.N	15.	70.	50.	20.	5.L	20.N	30.
39	DAF608	1.5	10.N	20.N	7.	30.	20.	30.	5.N	20.N	15.
40	DAF609	1.5	10.N	20.N	15.	50.	70.	20.	5.N	20.N	30.
41	DAF610	1.0	10.N	20.N	10.	30.	30.	20.	5.N	20.N	15.

Table 4.--Continued

ROWNO	SAMPLE	PB	SB	SC	SN	SR	V	W	Y	ZN	ZR
1	DAF570	30.	100.N	15.	10.N	150.	150.	50.N	30.	200.N	200.
2	DAF571	50.	100.N	15.	10.N	200.	100.	50.N	30.	200.N	150.
3	DAF572	20.	100.N	10.	10.N	150.	100.	50.N	20.	200.N	100.
4	DAF573	50.	100.N	15.	10.N	200.	100.	50.N	20.	200.N	150.
5	DAF574	50.	100.N	15.	10.N	150.	150.	50.N	30.	200.N	200.
6	DAF575	50.	100.N	10.	10.N	200.	70.	50.N	20.	200.N	150.
7	DAF576	50.	100.N	15.	10.N	150.	100.	50.N	30.	200.N	200.
8	DAF577	30.	100.N	10.	10.N	150.	70.	50.N	20.	200.N	100.
9	DAF578	30.	100.N	10.	10.N	150.	100.	50.N	20.	200.N	100.
10	DAF579	20.	100.N	15.	10.N	200.	100.	50.N	30.	200.L	150.
11	DAF580	30.	100.N	15.	10.N	200.	150.	50.N	30.	200.N	150.
12	DAF581	30.	100.N	15.	10.N	300.	150.	50.N	30.	200.N	200.
13	DAF582	30.	100.N	15.	10.N	200.	150.	50.N	30.	200.N	200.
14	DAF583	50.	100.N	15.	10.N	200.	100.	50.N	30.	200.N	100.
15	DAF584	20.	100.N	15.	10.N	150.	100.	50.N	20.	200.N	100.
16	DAF585	30.	100.N	15.	10.N	300.	150.	50.N	30.	200.N	150.
17	DAF586	30.	100.N	15.	10.N	150.	100.	50.N	20.	200.N	100.
18	DAF587	30.	100.N	15.	10.N	200.	100.	50.N	30.	200.N	150.
19	DAF588	30.	100.N	15.	10.N	150.	100.	50.N	30.	200.N	150.
20	DAF589	15.	100.N	15.	10.N	150.	100.	50.N	20.	200.N	100.
21	DAF590	20.	100.N	15.	10.N	150.	100.	50.N	20.	200.N	100.
22	DAF591	20.	100.N	10.	10.N	150.	100.	50.N	20.	200.N	100.
23	DAF592	20.	100.N	10.	10.N	150.	70.	50.N	20.	200.N	150.
24	DAF593	30.	100.N	15.	10.N	150.	100.	50.N	30.	200.N	150.
25	DAF594	20.	100.N	15.	10.N	150.	100.	50.N	30.	200.N	150.
26	DAF595	30.	100.N	15.	10.N	150.	100.	50.N	30.	200.N	150.
27	DAF596	15.	100.N	10.	10.N	150.	70.	50.N	20.	200.N	100.
28	DAF597	30.	100.N	10.	10.N	150.	100.	50.N	20.	200.N	150.
29	DAF598	20.	100.N	10.	10.N	150.	100.	50.N	30.	200.N	100.
30	DAF599	20.	100.N	7.	10.N	150.	70.	50.N	15.	200.N	70.
31	DAF600	30.	100.N	15.	10.N	150.	100.	50.N	20.	200.N	100.
32	DAF601	30.	100.N	10.	10.N	100.	100.	50.N	20.	200.N	100.
33	DAF602	20.	100.N	15.	10.N	200.	150.	50.N	20.	200.N	200.
34	DAF603	20.	100.N	15.	10.N	200.	100.	50.N	20.	200.N	150.
35	DAF604	15.	100.N	10.	10.N	200.	100.	50.N	20.	200.N	200.
36	DAF605	20.	100.N	15.	10.N	200.	70.	50.N	30.	200.N	150.
37	DAF606	15.	100.N	7.	10.N	150.	70.	50.N	20.	200.N	100.
38	DAF607	20.	100.N	15.	10.N	200.	100.	50.N	30.	200.N	150.
39	DAF608	20.	100.N	10.	10.N	150.	50.	50.N	30.	200.N	70.
40	DAF609	20.	100.N	15.	10.N	200.	100.	50.N	20.	200.N	150.
41	DAF610	15.	100.N	7.	10.N	150.	70.	50.N	15.	200.N	70.

Table 4.--Continued

ROWNO	SAMPLE	TH	AU-AA	HG
1	DAF570	100.N	0.05N	1.00
2	DAF571	100.N	0.05N	0.40
3	DAF572	100.N	0.05L	0.45
4	DAF573	100.N	0.05N	0.26
5	DAF574	100.N	0.05N	0.08
6	DAF575	100.N	0.05N	0.30
7	DAF576	100.N	0.05N	0.70
8	DAF577	100.N	0.05N	0.70
9	DAF578	100.N	0.05N	0.40
10	DAF579	100.N	0.05L	0.30
11	DAF580	100.N	0.05N	0.35
12	DAF581	100.N	0.05N	0.35
13	DAF582	100.N	0.05N	0.35
14	DAF583	100.N	0.05N	0.30
15	DAF584	100.N	0.05L	0.35
16	DAF585	100.N	0.05N	0.18
17	DAF586	100.N	0.05N	0.30
18	DAF587	100.N	0.05N	0.22
19	DAF588	100.N	0.05N	0.40
20	DAF589	100.N	0.05L	0.30
21	DAF590	100.N	0.05N	0.50
22	DAF591	100.N	0.05N	0.90
23	DAF592	100.N	0.05N	0.60
24	DAF593	100.N	0.05N	0.16
25	DAF594	100.N	0.05N	0.18
26	DAF595	100.N	0.05N	0.26
27	DAF596	100.N	0.05N	0.35
28	DAF597	100.N	0.05N	0.35
29	DAF598	100.N	0.05N	0.40
30	DAF599	100.N	0.05N	0.28
31	DAF600	100.N	0.05N	0.26
32	DAF601	100.N	0.05N	0.22
33	DAF602	100.N	0.05N	0.18
34	DAF603	100.N	0.05L	0.40
35	DAF604	100.N	0.05L	0.18
36	DAF605	100.N	0.05L	0.22
37	DAF606	100.N	0.05L	0.35
38	DAF607	100.N	0.05L	0.40
39	DAF608	100.N	0.05N	0.50
40	DAF609	100.N	0.05N	0.26
41	DAF610	100.N	0.05N	0.26

TABLE 5.--Gold analyses of pan-concentrate samples

Sample Number	Magnetic fraction		Para-magnetic fraction		Non-magnetic fraction	
	Au	Sample wt. in grams	Au	Sample wt. in grams	Au	Sample wt. in grams
DAF570	0.12N	4.02	0.05N	10.00	10.00N	0.05
DAF571	0.05N	10.00	0.05N	10.00	1.90N	0.26
DAF572	0.08N	6.10	0.05N	9.40	0.60N	0.84
DAF573	0.09N	5.36	0.05N	10.00	0.90N	0.55
DAF574	0.27N	1.88	0.08N	5.93	2.60	0.38
DAF575	0.10N	5.09	0.05N	9.20	0.55N	0.93
DAF576	0.10N	4.96	0.07N	6.95	3.10N	0.16
DAF578	0.14N	3.45	0.05N	9.88	4.50N	0.11
DAF580	0.36N	1.40	0.05N	10.00	0.45N	0.11
DAF581	0.11N	4.45	0.05N	10.00	57.00	0.28
DAF582	0.17N	2.88	0.05N	10.00	3.60N	0.14
DAF587	0.05N	10.00	0.05N	10.00	4.50N	0.11
DAF591	0.23N	2.15	0.05N	9.21	12.00N	0.05

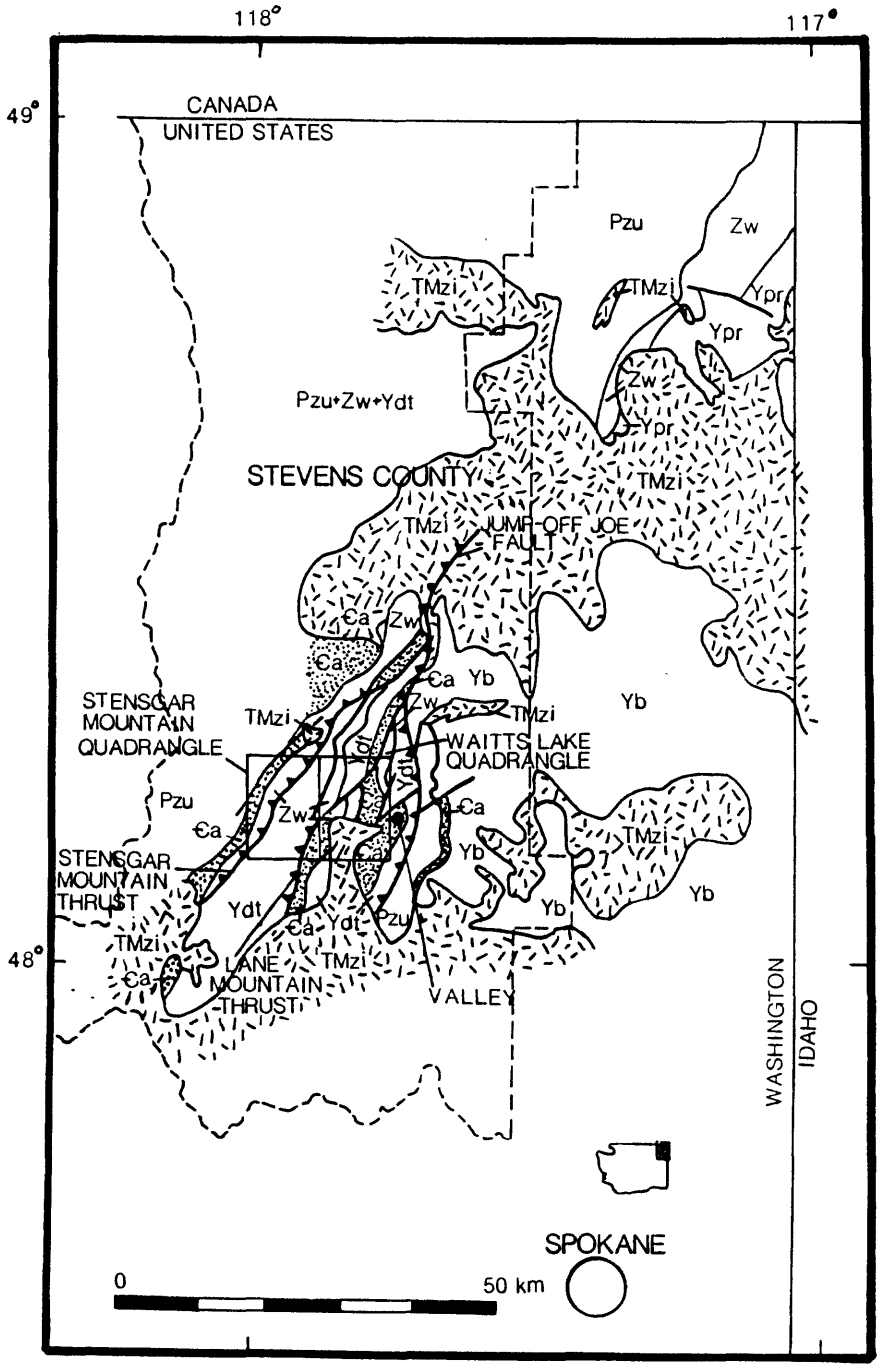

Figure 1. Index map showing major geologic units and structures in northeast Washington (modified from Miller and Clark, 1975, fig. 8). TMzi, Tertiary and Mesozoic rocks; Pzu, Paleozoic rocks, undivided; €a, Addy Quartzite; Zw, Windermere Group; Ydt, Deer Trail Group; Ypr, Priest River Group; Yb, Belt Supergroup.

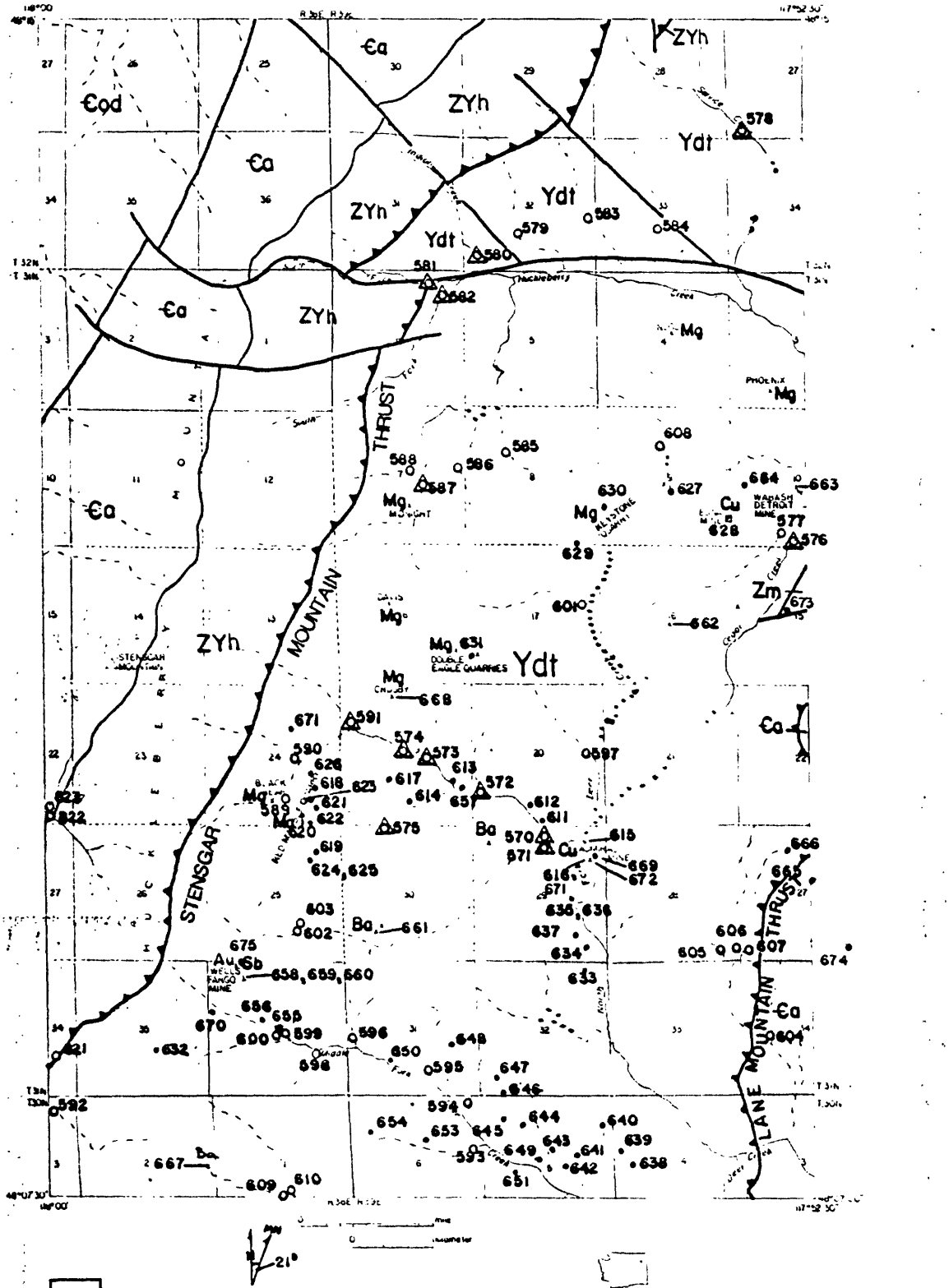

Figure 2. Generalized geologic map of the Stensgar Mountain quadrangle showing localities and occurences of magnesite, barite, copper, antimony, and gold. Sample numbers are preceded by DAF in tables.