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Gold analytical results and gold signatures from the Fairbanks mining district, Fairbanks and Livengood quadrangles, Alaska

By

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INTRODUCTION

Geochemical studies of Alaskan gold deposits were begun in 1984 as a joint study by the U.S. Geological Survey and the State of Alaska Division of Geological and Geophysical Surveys. The objectives of the study are (1) to characterize the deposits, (2) to determine relationships of gold in placer deposits to possible lode sources, (3) to identify possible sources of gold in placer deposits, (4) to study processes of placer formation, (5) to contribute to existing knowledge of the principles of prospecting for placer deposits, and (6) to determine if minerals associated with placer deposits might suggest economic deposits of other metals. The purpose of this report is to release both the analytical data and gold signatures for placer and lode gold samples collected from placer and lode gold deposits of the Fairbanks mining district in Alaska. Gold signatures comprise the alloy proportions and ratios of gold, silver, and copper, and the content of trace elements (Antweiler and Campbell, 1976).

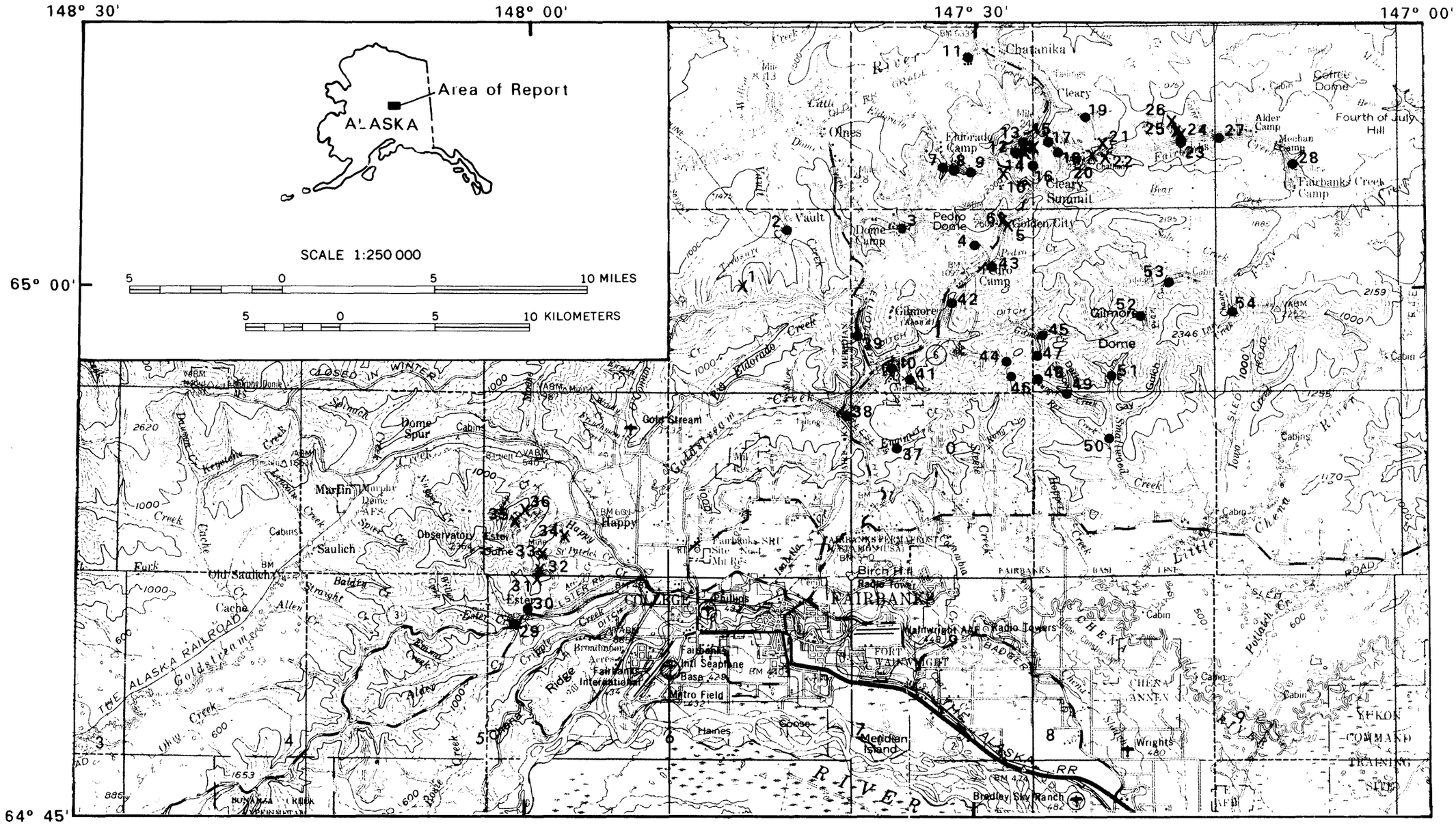
SAMPLING AND ANALYTICAL PROCEDURE

Placer and lode gold samples were obtained from most of the active claims in the Fairbanks mining district. At some localities, miners provided us with ample sample amounts for analysis and at other localities the samples were collected by the USGS. To determine whether differences in composition could be correlated with physical attributes, some of the samples were sorted based on physical appearances. Some were sieved into two or more size ranges; others were separated by color; and some were separated on the basis of other physical characteristics, e.g., rounded, angular, blocky, delicate, etc. Descriptive information, when available, is included in table 1. If no descriptive information is provided, the samples were generally small, and no sorting of individual grains was attempted prior to analysis.

A total of 333 emission spectrographic analyses using a technique described by Mosier (1975) were made on samples from 54 mines and prospects. These are the numbered sites on the sample locality map (fig. 1) and correspond to the locality index (table 1). The elements analyzed and their lower limits of determination are listed on table 2. Spectrographic results were obtained by visual comparison of spectra derived from the sample against spectra obtained from standards made from pure oxides, graphite, and 99.999 percent pure metallic gold. Pure Al_2O_3 was added to the standards and samples as a codistillation agent. Standard concentrations are geometrically spaced over any given order of magnitude of concentration as follows: 100, 50, 20, 10, and so forth. Samples whose concentrations are estimated to fall between those values are assigned values of 70, 30, 15, and so forth. Standard concentrations are based on a 5-mg gold sample weight. Because of the nature of native gold, it is often difficult to weigh exact 5-mg samples and in many instances there is less than 5-mg of gold available for analysis. Therefore, the reported concentration values (table 2) are corrected to reflect a 5-mg sample weight by the following formula:

$$\text{reported concentration value} = \text{determined value} \times \frac{5\ \text{mg}}{\text{sample weight in mg}}.$$

As a result, samples in table 3 that have a sample weight >5 mg may show values below the lower limit of determination listed in Table 2.



Base from the U. S. Geological Survey, 1956

FIG 1 LOCALITIES OF SAMPLES FROM THE FAIRBANKS MINING DISTRICT, FAIRBANKS AND LIVENGOOD QUADRANGLES, ALASKA

EXPLANATION

●3--Locality where placer sample were collected.

X7--Locality where lode gold sample were collected.

Locality Index

1	Scrafford Mine
2	Vault Creek
3	Dome Creek
4	Steamboat Creek
5	Rainbow Lode
6	Skoogy Gulch, vein
7	Louis Creek
8	Last Chance Creek, I
9	Last Chance Creek, II
10	Newsboy Mine
11	Cleary Creek, lower
12	Cleary Creek, upper I
13	Cleary Creek, upper II
14	Cleary Hill Lode I
15	Cleary Hill Lode II
16	Bedrock Creek
17	Chatham Creek, lower
18	Chatham Creek, upper
19	Wolf Creek
20	Christina Vein
21	American Eagle Vein
22	McCarty Mine
23	Straight Moose Creek
24	Blue Bow Lode
25	Hi Yu Mine, Tailings
26	Hi Yu Mine
27	Fairbank Creek
28	Fairbank Creek, near Meehan
29	Ester Creek
30	Eva Creek
31	Ryan Lode
32	Lookout Shear Zone
33	St Patrick Lode
34	Grant Mine
35	Clipper Mine
36	Adler Lode
37	Engineer Creek
38	Goldstream Creek, lower
39	Fox Creek
40	Goldstream Creek, middle
41	First Chance Creek
42	Pedro Creek
43	Pedro Creek at Pedro Monument
44	Evening Star Creek
45	Gilmore Creek, above Hill Creek
46	Nugget Creek, upper
47	Hill Creek
48	Nugget Creek, middle
49	Nugget Creek, lower
50	Smallwood Creek
51	Victoria Creek
52	Yellow Pup Creek
53	Fish Creek
54	Last Chance Gulch

The trace-element content of natural gold varies greatly from grain to grain as well as from deposit to deposit and this creates a problem in determining the precision of the analytical technique. However, studies using artificial melts show that the precision of the analytical method far exceeds the natural variance of trace elements in native gold (Mosier, 1975).

RELIABILITY OF GOLD ANALYSES

Differences in the composition of native gold from different geological settings can be readily distinguished using the analytical procedures mentioned above if enough analyses are made to ascertain the magnitude of natural variations in gold samples. In this study, five or more spectrographic analyses for a single sample site were found to be desirable in obtaining a reliable signature. However, in the context of many other analyses from this district, a single analysis is still of value.

The composition of native gold varies considerably (for example, see Gay, 1963; Jones and Fleischer, 1969). Variations in composition are present even from point to point within the same grain (Desborough, 1970). Native gold in oxidized zones and in associated placers generally contains lesser amounts of silver and other elements compared with the native gold in the corresponding primary deposits; within some specific deposits, single particles of native gold are relatively homogeneous, but in other deposits the native gold is heterogeneous (Boyle, 1979). Even when heterogeneous, gold compositional data are useful in characterizing conditions of ore deposition and are often locally distinctive for mines, districts, or regions. Moreover, they are useful in determining the relationships of gold in placer deposits to possible lode sources, and in meeting the other objectives stated in the introductory section of this report.

The natural variability of composition for Ag and Cu in gold from a single locality was determined by repeatedly analyzing portions of individual nuggets (Mosier, 1975; Antweiler and Campbell, 1987). The silver content of one such nugget ranged from 4.7 to 8.1 percent in four analyses with a mean silver content of 5.7 percent, and a standard deviation (S.D.) of ±1.6 percent and the copper content of this nugget ranged from .048 to .08 percent with a mean copper content of .062 percent, and a standard deviation of ±.0144 percent. Replicate analyses of portions of another nugget from the same locality showed silver content ranging from 18.9 to 19.8 percent, a mean silver content of 19.3 percent, and a standard deviation of ±0.56 percent; and copper content ranging from .038 to .055 percent, a mean of .047 percent, and a standard deviation of ±.012 percent. These results indicate considerable natural variability. Another nugget from the same locality was washed with hydrofluoric acid to remove surface coatings, then heated to 1300 °C for 30 minutes to homogenize silver and copper content. Analyses of ten 5-mg portions of that nugget each time showed excellent precision; 10 percent silver (S.D.=0), and 0.05 percent copper (S.D.=0). Without acid washing and heat treating, ten 5-mg portions ranged in silver content from 1.5 to 15 percent and in copper content from .015 to .05 percent indicating their natural variation (Mosier, 1975). The concentration of other elements in nuggets from the locality ranged somewhat more widely than copper and silver, even after the homogenization treatment. Significantly, however, the mean values for most elements, including copper and silver from 10 analyses of the natural sample, were almost the same as the mean values for those elements on the homogenized sample, except for elements removed by the acid and heat treatment.

Accuracy is much more difficult to determine than precision because homogeneous gold samples with known amounts of impurities are not readily available. However, standards prepared with known amounts of copper and silver show the method to be accurate within a factor of two for determination of those elements (Mosier, 1975).

One test for reliability of the method is comparison of fineness on samples from localities where large lots of gold have been analyzed for the U.S. Mint or banks or by commercial refiners. Compilations of gold fineness data have been made by Smith (1941) and by Metz and Hawkins (1981). Also, the First National Bank in Fairbanks made available to us records of gold purchases from 1903 to 1937 from many Alaskan placer deposits. These compilations show excellent agreement for some areas with each other, and poor agreement in other areas. The U.S. Geological Survey data, although acquired by analyses of relatively small samples, agree as well as the data from those sources and are therefore reliable to the extent permitted by natural variation of gold composition.

DESCRIPTION OF DATA TABLES

The analytical results for lode and placer gold (table 3) are given in weight percent and are presented by site numbers and gold type which are keyed to table 1. The USGS-assigned sample number is given under "Sample." When sufficient gold was available from a particular site, multiple analyses were made and the results are listed. For this study, fineness is defined as:

$$\text{fineness} = \frac{\text{Au wt\%}}{\text{Au wt\%} + \text{Ag wt\%}} \times 1{,}000.$$

The gold value was determined by difference, that is:

$$\text{Au\%} = 100\text{-}(\text{Ag\%} + \text{X\%}),$$

where X% is the sum of elements other than gold and silver. If an element was not detected at the lower limit of detection, "--" was entered. The actual weight in milligrams of the gold sample analyzed is given under "smpl. wt." The values under r = Au/Ag, Au/Cu, Ag/Cu, and r/Cu are alloy ratios that are part of the gold signature (Antweiler and Campbell, 1976). Because the corrected values shown in table 3 are computer-generated data, these results often carry more digits than are significant. The analysts did not determine these values to the accuracy suggested by the extra numbers.

OTHER PUBLICATIONS

Other U.S. Geological Survey publications showing principally analytical results, geochemical signatures, mineralogical data, and sample locality maps of placer/lode gold and heavy-mineral concentrates from other gold mining districts in Alaska are:

1. Mosier, E.L., and Lewis, J.S., 1986, Analytical results, geochemical signatures, and sample locality map of lode gold, placer gold, and heavy-mineral concentrates from the Koyukuk-Chandalar mining district, Alaska: U.S. Geological Survey Open-File Report 86-345, 172 p., 1 pl.
2. Cathrall, J.B., Antweiler, J.C., and Mosier, E.L., 1987, Occurrence of platinum in gold samples from the Tolovana and Rampart mining districts, Livengood quadrangle, Alaska: U.S. Geological Survey Open-File Report 87-330, 12 pages, 1 pl.

3. McDanal, S.K., Cathrall, J.B., Mosier, E.L., Antweiler, J.C., and Tripp, R.B., 1988, Analytical results, geochemical signatures, mineralogical data, and sample locality map of placer gold and heavy-mineral concentrates from the Manley Hot Springs, Tofty, Eureka, and Rampart mining districts, Tanana and Livengood quadrangles, Alaska: U.S. Geological Survey Open-File Report 88-443, 54 p.
4. Cathrall, J.B., McDanal, S.K., VanTrump, G., Mosier, E.L., and Tripp, R.B., 1988, Analytical results, geochemical signatures, mineralogical data, and sample locality map of lode gold, placer gold, and heavy-mineral concentrates from the Tolovana mining district, Livengood quadrangle, Alaska: U.S. Geological Survey Open-File Report 88-578, 32 p.
5. Cathrall, J.B., Tripp, R.B., McDanal, S.K., Mosier, E.L., and VanTrump, G., 1988, Analytical results, geochemical signatures, mineralogical data, and sample locality map of placer gold and heavy-mineral concentrates from the Circle mining district, Circle quadrangle, Alaska: U.S. Geological Survey Open-File Report 88-676, 48 p., 1 pl.
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8. Cathrall, J.B., Antweiler, J.C., VanTrump, G., and Mosier, E.L., 1989, Gold, platinum, and silver analytical results and gold signature from the Bonnifield mining district, Fairbanks and Healy quadrangle, Alaska: U.S. Geological Survey Open-File Report 89-461, 25 p.

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Boyle, R.W., 1979, The geology of gold and its deposits: Geological Survey of Canada Bulletin 280, 584 p.

Desborough, G.A., 1970, Silver depletion indicated by microanalyses of gold from placer occurrences, Western United States: Economic Geology, v. 65, no. 3, p. 304-311.

Gay, N.C., 1963, A review of geochemical characteristics of gold in ore deposits: University of Witwatersrand, Economical Geological Research Unit Information Circular 12, 70 p.

Jones, R.S., and Fleischer, Michael, 1969, Gold in minerals and the composition of native gold: U.S. Geological Survey Circular 612, 17 p.

Metz, Paul A., and Hawkins, D.B., 1981, A summary of gold fineness values for Alaska Placer deposits: School of Mineral Industry, University of Alaska, Fairbanks, Alaska 99701, MIRL Report 45.

Mosier, E.L., 1975, Use of emission spectroscopy for the semiquantitative analysis of trace elements and silver in native gold, in Ward, F.N., ed., New and refined methods of trace analysis useful in geochemical exploration: U.S. Geological Survey Bulletin 1408, p. 97-105.

Smith, P.S., 1941, Fineness of gold from Alaska placers: U.S. Geological Survey Bulletin 910-C, p. 147-272.

TABLE 1.--Index for site, type of sample, locality name, and sample description for lode gold and placer gold from the Fairbanks mining district, Fairbanks and Livengood quadrangles, Alaska

Site type	Locality name	Sample description
1.01	Scafford mine	Unsorted gold.
2.01	Vault Creek	Minus 20-, plus 60-mesh gold; nuggety, 3-D.
2.02	--Do-------	Minus 20-, plus 60-mesh gold; flat but not thin.
2.03	--Do-------	Minus 60-, plus 100-mesh gold.
3.01	Dome Creek	Unsorted gold.
3.02	--Do-------	Plus 35-mesh gold; rusty color.
3.03	--Do-------	Minus 35-mesh gold; shiny.
3.04	--Do-------	Unsorted gold, rusty color.
4.01	Steamboat Creek	Gold treated with HNO_3.
4.02	--Do----------	Gold not treated with HNO_3.
5.01	Rainbow Lode	Unsorted gold.
5.02	--Do--------	Plus 35-mesh gold.
5.03	--Do--------	Unsorted gold mixed with heavy-mineral-concentrate grains.
5.04	--Do--------	Unsorted gold; very shiny
6.01	Skoogy Gulch, vein	Unsorted gold.
6.02	--Do----------	Gold with some quartz inclusions.
7.01	Louis Creek	Unsorted gold.
8.01	Last Chance Creek, I	Unsorted gold.
9.01	Last Chance Creek, II	Unsorted gold.
10.01	Newsboy Mine	Sulfide-rich gold ore.
10.02	--Do--------	Gold from quartz vein.
10.03	--Do--------	Gold from tailings pile.
11.01	Cleary Creek, lower	Unsorted gold.
11.02	--Do----------	Silver colored botryoidal mass-amalgam?
12.01	Cleary Creek, upper I	Unsorted gold.
12.02	--Do----------	White colored gold.
12.03	--Do----------	Plus 20-mesh gold.
13.01	Cleary Creek, upper II	Minus 20-mesh gold.
13.02	--Do----------	Clean crystalline lode-like gold.
13.03	--Do----------	Plus 20-mesh gold; quartz.
13.04	--Do----------	Plus 20-mesh gold; mixed with heavy-mineral concentrate; stained black and red.
13.05	--Do----------	Plus 20-mesh gold.
14.01	Cleary Hill Lode, I	Plus 20-mesh gold.
14.02	--Do----------	Minus 20-, plus 60-mesh gold.
14.03	--Do----------	Minus 60-, plus 100-mesh gold.
14.04	--Do----------	Minus 100-, plus 160-mesh gold.
14.05	--Do----------	Minus 160-mesh gold; mixed with heavy-mineral concentrate.
15.01	Cleary Hill Lode, II	Unsorted gold.
15.02	--Do----------	Minus 20-, plus 60-mesh gold.
15.03	--Do----------	Minus 60-, plus 100-mesh gold.
15.04	--Do----------	Minus100-, plus 160-mesh gold.
16.01	Bedrock Creek	Crystalline gold; some parts white-amalgam?
17.01	Chatham Creek, lower	Unsorted gold.
18.01	Chatham Creek, upper	Unsorted gold.

TABLE 1.--continued

19.01	Wolf Creek	Unsorted gold.
20.01	Christina Vein	Minus 60-mesh gold.
20.02	--Do----------	Plus 60-mesh gold.
20.03	--Do----------	Unsorted gold.
21.01	American Eagle Vein	Unsorted clean-looking gold.
21.02	--Do----------	Unsorted gold mixed with heavy-mineral concentrate.
22.01	McCarty Mine	Minus 100-mesh gold.
22.02	--Do--------	Plus 100-mesh gold.
22.03	--Do--------	Unsorted gold.
23.01	Straight Moose Creek	Minus 20-mesh gold; crinkly.
23.02	--Do----------	Plus 20-mesh gold; hackly, ragged, crystalline, little worn.
23.03	--Do----------	Minus 100-mesh gold.
23.04	--Do----------	Minus 100-mesh gold mixed with heavy-mineral concentrate.
24.01	Blue Bow Lode	Unsorted gold.
25.01	Hi Yu Mine, Tailings	Unsorted gold.
26.01	Hi Yu Mine	Unsorted gold mixed with heavy-mineral concentrate
27.01	Fairbanks Creek	Unsorted gold.
27.02	--Do----------	Unsorted gold mixed with heavy-mineral concentrate.
28.01	Fairbanks Creek, near Meehan	Unsorted gold.
29.01	Ester Creek	Unsorted gold.
30.01	Eva Creek	Unsorted gold mixed with heavy-mineral concentrate with possible sulfides.
31.01	Ryan Lode	Unsorted gold.
32.01	Lookout Shear Zone	Unsorted gold.
33.01	St. Patrick Lode	Unsorted gold.
33.02	--Do----------	Unsorted gold amalgamated lode gold; gold color.
33.03	--Do----------	Unsorted amalgamated lode gold; white.
33.04	--Do----------	Unsorted gold mixed with heavy-mineral concentrate.
33.05	--Do----------	Plus 60-mesh gold.
33.06	--Do----------	Unsorted gold mixed with heavy-mineral concentrate, some black staining.
34.01	Grant Mine	Unsorted gold from mine dump.
34.02	--Do------	Unsorted gold from quartz vein.
35.01	Clipper Mine	Plus 20-mesh gold.
35.02	--Do--------	Plus 20-mesh gold; bright shiny, fairly clean.
35.03	--Do--------	Gold spheres.
35.04	--Do--------	Minus 20-, plus 60-mesh gold.
35.05	--Do--------	Minus 60-mesh gold mixed with some heavy-mineral concentrate.
36.01	Adler Lode	Unsorted gold.
37.01	Engineer Creek	Minus 20-, plus 60-mesh gold; 3-D grains, some little worn, others well worn.
37.02	--Do----------	Minus 60-mesh gold.
38.01	Goldstream Creek, lower	Unsorted gold.

TABLE 1--Continued

39.01	Fox Creek	Minus 35-mesh gold; delicate blocky grains.
39.02	--Do-----	Blocky nuggety grains.
39.03	--Do-----	Plus 35-mesh gold.
40.01	Goldstream Creek, middle	Unsorted gold.
41.01	First Chance Creek	Wires and 3-D gold.
42.01	Pedro Creek	Minus 20-mesh gold.
42.02	--Do-------	Plus 20-mesh gold.
43.01	Pedro Creek at Pedro Monument	Unsorted gold.
44.01	Evening Star Creek	Plus 20-mesh gold.
44.02	--Do----------	Minus 20-, plus 60-mesh gold.
44.03	--Do----------	Minus 60-, plus 100-mesh gold.
44.04	--Do----------	Minus 100-, plus 160-mesh gold.
44.05	--Do----------	Minus 160-mesh gold.
45.01	Gilmore Creek, above Hill Creek	Very fine gold.
45.02	--Do----------	Plus 35-mesh gold.
46.01	Nugget Creek, upper	Minus 20-, plus 60-mesh gold.
46.02	--Do----------	Minus 60-mesh gold.
47.01	Hill Creek	Plus 20-mesh gold.
47.02	--Do------	Minus 20-, plus 60-mesh gold.
47.03	--Do------	Minus 60-, plus 100-mesh gold.
47.04	--Do------	
48.01	Nugget Creek, middle	Minus 20-, plus 60-mesh gold.
48.02	--Do----------	Minus 60-, plus 100-mesh gold.
48.03	--Do----------	Minus 100-mesh gold.
49.01	Nugget Creek, lower	Plus 35-mesh gold, not worn.
49.02	--Do----------	Minus 35-mesh gold.
50.01	Smallwood Creek	Plus 20-mesh gold.
50.02	--Do----------	Minus 20-, plus 60-mesh gold.
50.03	--Do----------	Minus 100-mesh gold.
51.01	Victoria Creek	Plus 35-mesh gold.
51.02	--Do---------	Minus 35-mesh gold.
52.01	Yellow Pup Creek	Minus 60-mesh gold.
52.02	--Do----------	Plus 60-mesh gold.
52.03	--Do---------- heavy-mineral concentrate.	Unsorted gold mixed with
53.01	Fish Creek	Wires and intricate shapes of gold.
53.02	--Do------	Plus 20-mesh gold; mostly flat.
53.03	--Do------	Plus 20-mesh gold; crystalline.
53.04	--Do------	Minus 20-, plus 60-mesh gold; flat.
53.05	--Do------	Minus 60-mesh gold.
53.06	--Do------	Plus 20-mesh gold; flat very shiny.
53.07	--Do------	Possible silver nugget?
54.01	Last Chance Gulch	Unsorted gold.

TABLE 2.--Lower limits of determination for the spectrographic analyses of gold based on a 5-mg sample

Elements	Lower determination limit
	Percent
Silver (Ag)	0.001
Copper (Cu)	.0005
Zinc (Zn)	.005
Gallium (Ga)	.0002
Lead (Pb)	.0002
Arsenic (As)	.005
Antimony (Sb)	.002
Cadmium (Cd)	.0002
Bismuth (Bi)	.0002
Indium (In)	.0005
Mercury (Hg)	.002
Tellurium (Te)	.005
Nickel (Ni)	.0005
Cobalt (Co)	.0005
Tin (Sn)	.0005
Molybdenum (Mo)	.0005
Germanium (Ge)	.0005
Platinum (Pt)	.001
Palladium (Pd)	.0002
Barium (Ba)	.0005
Strontium (Sr)	.01
Zirconium (Zr)	.0005
Vanadium (V)	.001
Chromium (Cr)	.001
Yttrium (Y)	.0005
Lanthanum (La)	.002
Scandium (Sc)	.0005
Niobium (Nb)	.001
Boron (B)	.0005
Tantalum (Ta)	.005
Beryllium (Be)	.0001
Tungsten (W)	.005
Manganese (Mn)	.0001
Iron (Fe)	.001
Magnesium (Mg)	.0005
Calcium (Ca)	.001
Titanium (Ti)	.001
Silicon (Si)	.0002

TABLE 3.--Analytical results for lode gold, placer gold, and gold signatures from the Fairbanks mining district, Fairbanks and Livengood quadrangles, Alaska

[Fine = fineness, where fineness = $\frac{Au\%}{Au\% + Ag\%} \times 1{,}000$; Au% = 100 - (Ag% + X%) X = sum of elements other than gold and silver; smpl. wt = sample weight in milligrams; all element and X values are given in percent; Cd, Ge, In, Sc, and Ta analyzed, but not detected; -- = not detected; analyst: E.L. Mosier. See table 1 for locality name and sample description which corresponds with site locality and analysis.]

Sample	SiteType	Au %	Fineness	Ag %	Sum X %	Cu %	Zn %	Pb %	As %	Sb %	Cd %	Bi %	Hg %	Te %
3099	1.01	76.8	866	11.9	11.2702	.0179	--	.0357	1.1905	.8333	--	.0357	5.9524	--
3328A	2.01	91.7	921	7.8	.4761	.0168	--	.0017	--	--	--	--	.3363	--
3328B	2.01	90.3	908	9.1	.5738	.0091	--	.0018	--	.0018	--	--	.1821	--
3328C	2.01	89.1	897	10.2	.6593	.0072	--	.0051	--	.0051	--	--	.0717	--
3328MA	2.02	92.5	929	7.1	.4393	.0101	--	.0101	--	.0030	--	.0010	.1012	--
3328MB	2.02	92.1	926	7.3	.5608	.0157	--	.0021	.0052	--	--	--	.1572	--
3328MC	2.02	93.3	937	6.3	.4723	.0089	--	.0027	.0027	.0027	--	--	.0893	--
3328NA	2.03	86.1	890	10.6	3.2797	.0106	--	.2123	.0074	.0021	--	.0743	.1062	--
3328NB	2.03	91.4	928	7.1	1.5589	.0101	--	.2024	.0304	--	--	.0005	.1012	--
3328NC	2.03	85.4	878	11.8	2.7980	.0118	--	.0118	.0059	.0118	--	.3555	.1185	--
3112A	3.01	89.1	901	9.8	1.1262	.0147	--	.0295	.0147	.0098	--	.0005	.0491	--
3112B	3.01	89.1	899	10.0	.9250	.0200	--	.0150	.0040	.0070	--	--	.0500	--
3112C	3.01	84.8	851	14.8	.3861	.0148	--	.0099	--	.0069	--	--	.0493	--
3112RA	3.02	83.4	848	15.0	1.5961	.0150	--	.0500	.0040	.0500	--	.0003	.0500	--
3112RB	3.02	84.1	845	15.5	.4636	.0155	--	.0206	--	.0309	--	.0002	.0309	--
3112RC	3.02	88.8	897	10.2	1.0118	.0204	--	.0204	.0041	.0031	--	.0005	.0204	--
3112SA	3.03	90.3	907	9.3	.3767	.0186	--	.0019	.0037	.0046	--	--	.0139	--
3112SB	3.03	89.5	900	10.0	.4816	.0200	--	.0200	.0300	.0020	--	.0070	.0300	--
3112SC	3.03	85.4	859	14.1	.5007	.0141	--	.0141	--	.0066	--	.0009	.0281	--
3112T	3.04	83.7	848	15.0	1.2890	.0150	--	.2000	.0150	.0050	--	.0007	.1000	--
3028A	4.01	85.6	858	14.2	.1723	.0219	--	.0164	--	.0055	--	.0016	.0219	--
3028B	4.01	79.9	803	19.6	.5490	.0206	--	.0309	.0052	.0155	--	.0015	.1031	--
3028C	4.01	96.5	974	2.5	1.0069	.0576	--	.0346	.0115	.0115	--	.0081	.0576	--
3028D	4.01	86.7	870	13.0	.3126	.0324	--	.0108	--	.0076	--	.0016	.1620	--
3028E	4.01	87.4	876	12.3	.3150	.0167	--	.0333	--	.0167	--	.0033	.0500	--
3028XA	4.02	90.6	911	8.8	.5420	.0309	--	.2058	.0206	.0072	--	.0003	.1029	--
3028XB	4.02	76.2	772	22.5	1.2294	.0199	--	.6631	.0398	.0663	--	.0040	.1326	--
3098A	5.01	88.5	901	9.7	1.7053	.0292	--	.0682	.6823	.1949	--	.0975	.0097	--
3098B	5.01	88.7	899	10.0	1.3279	.0200	--	.0300	.5000	.1000	--	.1000	.0050	--
3098C	5.01	88.6	899	10.0	1.4229	.0300	--	.0500	.5000	.1500	--	.1000	.0050	--
3098XA	5.02	89.6	900	10.0	.4162	.0500	--	.0100	.1000	.0300	--	.0150	.0070	--
3098XB	5.02	89.9	903	9.6	.5005	.0481	--	.0192	.1923	.0192	--	.0048	.0019	--
3098XC	5.02	90.1	908	9.2	.6950	.0183	--	.1376	.1835	.0459	--	.0275	.0028	--
3098YA	5.03	86.8	899	9.8	3.4242	.0196	--	.0489	.9785	.1468	--	.0978	.0020	.0049
3098YB	5.03	83.7	878	11.6	4.6663	.0233	--	.0814	1.7442	.1744	--	.1163	.0023	.0081
3098YC	5.03	80.1	880	10.9	8.9188	.0313	--	.1563	3.1250	.1563	--	.2344	.0031	.0234
3142A	5.04	85.2	915	7.9	6.8243	.0170	--	.0340	.1134	.0113	--	.0227	5.6689	--
3142B	5.04	76.7	821	16.7	6.5285	.0223	--	.0223	.1116	.0167	--	.0558	5.5804	--
3142C	5.04	81.4	877	11.4	7.1665	.0229	--	.1144	.1716	.0172	--	.0572	5.7208	--
3142D	5.04	83.0	892	10.0	7.0320	.0200	--	.3000	.3000	.0400	--	.1400	3.0000	--
3126A	6.01	88.3	891	10.8	.9184	.0216	--	.0216	.0541	.0076	--	.0076	.0216	--
3126B	6.01	85.8	878	11.9	2.3565	.0238	--	.5938	.1188	.0083	--	.0119	.0238	--
3126C	6.01	88.4	895	10.4	1.2074	.0156	--	.0729	.1042	.0104	--	.0104	.0208	--
3126D	6.01	88.3	895	10.4	1.3421	.0156	--	.2075	.1037	.0104	--	.0104	.0207	--
3126QA	6.02	83.6	864	13.2	3.1858	.0396	.0132	.9235	.3958	.0923	--	.1319	.0264	--
3126QB	6.02	83.2	847	15.0	1.7572	.0300	--	.2000	.3000	.0200	--	.0700	.0200	--
3126QC	6.02	84.4	854	14.5	1.1874	.0193	--	.1927	.1927	.0289	--	.0963	.0193	--
3126QD	6.02	82.8	844	15.3	1.8975	.0306	.0102	.3061	.3061	.0204	--	.0510	.0306	--
3036A	7.01	78.9	814	18.0	3.1044	.0019	--	.0002	.0038	.0047	--	--	.0189	--
3036B	7.01	80.2	847	14.5	5.3436	.0048	--	.0965	.0193	.0483	--	.0019	.0965	--

Fairbanks Gold Data--Continued

Sample	SiteType	Ni %	Co %	Sn %	Mo %	Ba %	Sr %	Zr %	V %	Cr %	Y %	La %	Sc %	Nb %	B %
3099	1.01	--	--	.0119	--	.2381	--	.0083	--	--	--	.0595	--	--	--
3328A	2.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3328B	2.01	.0009	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3328C	2.01	.0015	--	--	--	--	--	--	--	--	--	--	--	--	--
3328MA	2.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3328MB	2.02	.0010	--	--	--	--	--	--	--	--	--	--	--	--	--
3328MC	2.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3328NA	2.03	.0005	--	.2123	--	.0021	--	1.0616	.0032	--	.0106	.0053	--	--	--
3328NP	2.03	--	.0010	.2024	.0010	.0007	--	.0506	--	--	.0051	.0101	--	--	--
3328NC	2.03	--	--	.8294	--	.0006	--	.0592	--	--	.0059	.0178	--	.0012	--
3112A	3.01	.0029	--	--	--	.0010	--	--	--	--	--	--	--	--	--
3112B	3.01	.0010	--	--	--	.0015	--	--	--	--	--	--	--	--	--
3112C	3.01	.0005	--	--	--	--	--	--	--	--	--	--	--	--	--
3112RA	3.02	.0005	--	--	--	.0010	--	--	--	--	--	--	--	--	.0003
3112RB	3.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3112RC	3.02	.0051	--	--	--	.0007	--	.0004	--	--	--	--	--	--	--
3112SA	3.03	.0014	--	--	--	--	--	--	--	--	--	--	--	--	--
3112SB	3.03	.0100	--	--	--	.0010	--	--	--	--	--	--	--	--	.0002
3112SC	3.03	.0005	--	--	--	.0007	--	--	--	--	--	--	--	--	.0005
3112T	3.04	.0030	.0007	.0020	--	.0015	--	.0020	--	--	--	--	--	--	.0001
3028A	4.01	--	--	.0077	--	--	--	--	--	--	--	--	--	--	--
3028B	4.01	--	--	.0206	.0005	--	--	.0015	--	--	--	--	--	--	--
3028C	4.01	--	--	.0173	.0012	--	--	--	--	--	.0012	.0023	--	--	--
3028D	4.01	--	--	.0108	--	--	--	--	--	--	--	--	--	--	--
3028F	4.01	--	--	.0117	--	--	--	.0017	--	--	--	--	--	--	--
3028XA	4.02	--	--	.0103	.0010	--	--	.0021	--	--	--	--	--	--	--
3028XB	4.02	--	--	.0265	.0020	--	--	.0013	--	--	--	--	--	--	--
3098A	5.01	--	.0005	--	.0010	--	--	--	--	--	.0004	--	--	--	--
3098B	5.01	--	.0010	--	--	--	--	--	--	--	.0004	--	--	--	--
3098C	5.01	--	--	--	.0005	--	--	--	--	--	.0004	--	--	--	--
3098XA	5.02	--	--	--	.0005	--	--	--	--	--	--	--	--	--	--
3098XB	5.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3098XC	5.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3098YA	5.03	.0020	.0029	--	.0010	.0005	--	.0005	--	--	.0020	--	--	--	--
3098YB	5.03	.0012	.0023	--	.0006	.0006	--	.0006	--	--	.0012	--	--	--	--
3098YC	5.03	.0031	.0109	--	.0016	.0008	--	.0016	--	--	.0047	--	--	.0023	--
3142A	5.04	--	--	.1134	--	.0011	--	--	--	--	--	--	--	--	--
3142B	5.04	--	--	.2232	--	--	--	--	--	--	--	--	--	--	--
3142C	5.04	--	--	.2288	--	.0006	--	--	--	--	.0011	--	--	--	--
3142D	5.04	--	--	1.0000	--	.0020	--	.0030	--	--	.0100	--	--	--	--
3126A	6.01	--	--	--	--	.0011	--	.0076	--	--	--	--	--	--	--
3126B	6.01	--	--	--	--	.0012	--	.0024	--	--	--	--	--	--	--
3126C	6.01	--	--	--	--	.0010	--	.0031	--	--	--	--	--	--	--
3126D	6.01	--	.0005	.0519	--	.0007	--	.0031	--	--	--	--	--	--	--
3126QA	6.02	--	--	.0066	--	.0007	--	--	--	.0020	--	--	--	--	--
3126QB	6.02	--	--	--	--	.0007	--	--	--	.0015	--	--	--	--	--
3126QC	6.02	--	--	--	--	.0005	--	--	--	.0010	--	--	--	--	--
3126QD	6.02	--	--	--	--	.0005	--	--	--	.0010	--	--	--	--	--
3036A	7.01	--	--	--	--	.0009	--	--	--	--	--	--	--	--	.0009
3036B	7.01	--	--	--	--	.0019	--	--	--	--	--	--	--	--	.0019

Fairbanks Gold Data--Continued

Sample	SiteType	Be %	W %	Mn %	Fe %	Mg %	Ca %	Ti %	Si %	Smpl Wt	r=Au/Ag	Au/Cu	Ag/Cu	r/Cu
3099	1.01	--	--	.2381	1.1905	.0119	.2381	.0179	1.1905	.42	6.5	4,302	667	361
3328A	2.01	--	--	.0008	.0785	.0006	.0022	.0056	.0336	4.46	11.7	5,452	467	695
3328B	2.01	--	--	.0014	.1821	.0009	.0018	.0091	.1821	5.49	9.9	9,917	1,000	1,089
3328C	2.01	--	--	.0010	.3074	.0020	.0020	.0512	.2049	4.88	8.7	12,422	1,429	1,212
3328MA	2.02	--	--	.0010	.1012	.0020	.0020	.0051	.2024	4.94	13.1	9,137	700	1,290
3328MB	2.02	--	--	.0010	.1572	.0021	.0021	.0073	.2096	4.77	12.6	5,858	467	798
3328MC	2.02	--	--	.0009	.0893	.0018	.0018	.0045	.2679	5.60	14.9	10,447	700	1,672
3328NA	2.03	--	.0531	.0053	.3185	.0212	.1062	.0053	1.0616	4.71	8.1	8,111	1,000	764
3328NB	2.03	--	--	.0071	.3036	.0152	.1012	.0101	.5061	4.94	12.9	9,026	700	1,274
3328NC	2.03	--	.0059	.0059	.5924	.0178	.0355	.1185	.5924	4.22	7.2	7,204	1,000	608
3112A	3.01	--	--	.0049	.4912	.0098	.0049	.0020	.4912	5.09	9.1	6,044	667	615
3112B	3.01	--	--	.0015	.3000	.0100	.0050	.0100	.5000	5.00	8.9	4,454	500	445
3112C	3.01	--	--	.0015	.1972	.0049	.0010	.0015	.0986	5.07	5.7	5,734	1,000	388
3112RA	3.02	--	--	.0050	.7000	.0100	.0030	.0070	.7000	5.00	5.6	5,560	1,000	371
3112RB	3.02	--	--	.0010	.3093	.0021	.0015	--	.0515	4.85	5.4	5,437	1,000	352
3112RC	3.02	--	--	.0051	.7143	.0051	.0051	.0031	.2041	4.90	8.7	4,350	500	426
3112SA	3.03	--	--	.0028	.2788	.0028	.0009	.0008	.0465	5.38	9.7	4,860	500	523
3112SB	3.03	--	--	.0015	.2000	.0070	.0020	.0009	.1500	5.00	9.0	4,476	500	448
3112SC	3.03	--	--	.0019	.2814	.0047	.0019	.0047	.1407	5.33	6.1	6,071	1,000	431
3112T	3.04	--	--	.0070	.7000	.0150	.0020	.0200	.2000	5.00	5.6	5,581	1,000	372
3028A	4.01	--	.0044	.0022	.0547	.0011	.0077	.0055	.0219	4.57	6.0	3,912	650	275
3028B	4.01	--	.0041	.0052	.1546	.0103	.0515	.0206	.1031	4.85	4.1	3,873	950	198
3028C	4.01	--	.0081	.0035	.1152	.0035	.5760	.0173	.0806	4.34	38.1	1,675	44	661
3028D	4.01	--	.0043	.0022	.0324	.0022	.0108	.0032	.0324	4.63	6.7	2,677	400	207
3028E	4.01	--	--	.0033	.0500	.0033	.0250	.0167	.0833	3.00	7.1	5,241	740	425
3028XA	4.02	--	.0051	.0051	.0720	.0015	.0154	.0103	.0514	4.86	10.2	2,936	287	332
3028XB	4.02	--	.0066	.0066	.1326	.0020	.0398	.0199	.0663	3.77	3.4	3,832	1,133	170
3098A	5.01	--	.0049	.0019	.4873	.0007	.0292	--	.0975	5.13	9.1	3,028	333	311
3098B	5.01	--	.0040	.0015	.5000	.0010	.0300	.0050	.0300	5.00	8.9	4,434	500	443
3098C	5.01	--	.0040	.0020	.5000	.0010	.0300	--	.0500	5.00	8.9	2,953	333	295
3098XA	5.02	--	--	.0007	.1500	.0010	.0020	--	.0500	5.00	9.0	1,792	200	179
3098XB	5.02	--	--	.0010	.1442	.0005	.0019	--	.0673	5.20	9.3	1,870	200	194
3098XC	5.02	--	--	.0009	.1835	.0005	.0018	.0009	.0917	5.45	9.8	4,912	500	535
3098YA	5.03	--	.0098	.0020	1.9569	.0015	.0978	--	.0489	5.11	8.9	4,435	500	453
3098YB	5.03	--	.0058	.0023	2.3256	.0017	.1163	--	.0581	4.30	7.2	3,599	500	310
3098YC	5.03	--	.1563	.0031	4.6875	.0031	.2344	.0016	.0781	3.20	7.3	2,565	350	234
3142A	5.04	--	.0113	.0011	.2268	.0023	.0340	--	.5669	4.41	10.7	5,012	467	632
3142B	5.04	--	.0112	.0017	.3348	.0033	.0335	--	.1116	4.48	4.6	3,438	750	205
3142C	5.04	--	.0229	.0034	.5721	.0034	.1144	.0011	.1144	4.37	7.1	3,557	500	311
3142D	5.04	--	--	.0100	1.0000	.0040	1.0000	.0030	.2000	2.50	8.3	4,148	500	415
3126A	6.01	.0001	--	.0016	.5411	.0054	.0108	--	.2165	4.62	8.2	4,078	500	377
3126B	6.01	.0002	--	.0024	1.1876	.0083	.0178	--	.3563	4.21	7.2	3,611	500	304
3126C	6.01	.0001	--	.0021	.7292	.0073	.0208	.0010	.2083	4.80	8.5	5,656	667	543
3126D	6.01	.0001	--	.0016	.7261	.0031	.0311	--	.1556	4.82	8.5	5,674	667	547
3126QA	6.02	--	--	.0264	1.3193	.0026	.0066	.0011	.1979	3.79	6.3	2,113	333	160
3126QB	6.02	--	--	.0050	1.0000	.0030	.0070	--	.1000	5.00	5.5	2,775	500	185
3126QC	6.02	--	--	.0029	.4817	.0029	.0048	--	.1445	5.19	5.8	4,378	750	303
3126QD	6.02	--	--	.0051	1.0204	.0031	.0102	--	.1020	4.90	5.4	2,705	500	177
3036A	7.01	--	--	.0019	.1894	.0189	.0189	.0028	2.8409	5.28	4.4	41,661	9,500	2,315
3036B	7.01	--	--	.0048	.1931	.0193	.0193	.0097	4.8263	5.18	5.5	16,613	3,000	1,147

Fairbanks Gold Data--Continued

Sample	SiteType	Au %	Fineness	Ag %	Sum %	Cu %	Zn %	Pb %	As %	Sb %	Cd %	Bi %	Hg %	Te %
3036C	7.01	74.6	796	19.1	6.3125	.0053	--	.0742	.0212	.0074	--	.0005	.0212	--
3036D	7.01	88.7	908	9.0	2.2754	.0095	--	.0019	.0067	.1426	--	--	.0951	--
3036F	7.01	86.2	873	12.5	1.2880	.0067	--	.0019	.0192	.0096	--	.0014	.0481	--
3035A	8.01	83.1	836	16.3	.6837	.0025	--	.0013	.0125	.0125	--	.0018	.0750	--
3044A	9.01	73.9	744	25.4	.6576	.0059	--	.1695	--	.0169	--	.0059	.1695	--
3117SA	10.01	79.5	895	9.4	11.1832	.0936	.0187	.1873	.9363	.1873	--	.0936	1.8727	--
3117SB	10.01	79.3	892	9.6	11.1446	.0956	.0191	.2868	.6692	.4780	--	.0143	1.9120	--
3117SC	10.01	78.2	889	9.7	12.0619	.0975	.0068	.6823	.9747	.4873	--	.0292	1.9493	--
3117SD	10.01	78.3	891	9.6	12.1356	.0956	.0143	.9560	.9560	.4780	--	.0096	1.9120	--
3117QA	10.02	82.1	842	15.4	2.5010	.0205	--	.0513	.0513	.0072	--	.0010	2.0534	--
3117QB	10.02	81.5	873	11.8	6.6304	.0177	--	.0827	.1182	.0083	--	.0118	5.9102	--
3117QC	10.02	80.4	851	14.0	5.5112	.0281	--	.2809	.4213	.0562	--	.0056	2.8090	--
3117A	10.03	76.4	828	15.9	7.6983	.1057	.0106	2.1142	.3171	.1057	--	.0106	3.1712	--
3117B	10.03	75.5	827	15.8	8.7867	.2101	.0053	.7353	.3151	.1050	--	.0105	5.2521	--
3117C	10.03	77.5	832	15.7	6.8008	.0731	.0052	1.0438	.5219	.1566	--	.0104	3.1315	--
3117D	10.03	77.1	836	15.2	7.7815	.1010	.0071	.7071	.5051	.1515	--	.0202	5.0505	--
3067A	11.01	82.3	847	14.9	2.8069	.0129	--	.0646	--	.0065	--	.0006	2.5840	--
3067B	11.01	82.4	848	14.8	2.8484	.0118	--	.0827	.0059	.0118	--	.0004	2.3641	--
3067IDD	11.02	84.8	910	8.4	6.7838	.0010	--	.1569	.0105	.0523	--	.0002	6.2762	--
3120A	12.01	79.8	803	19.6	.5245	.0098	--	.1965	.0049	.0196	--	.0147	.0982	--
3120B	12.01	79.7	803	19.5	.7814	.0098	--	.0098	.0039	.0098	--	.0020	.1953	--
3120C	12.01	85.3	857	14.3	.4073	.0286	--	.0286	--	.0286	--	.0019	.0667	--
3120WA	12.02	82.6	846	15.0	2.3672	.0050	--	.0100	.0040	.0070	--	.0010	2.0000	--
3120WB	12.02	84.9	864	13.3	1.7895	.0062	--	.0178	.0133	.0044	--	.0013	.8881	--
3120WC	12.02	79.4	806	19.0	1.5816	.0190	--	.0190	--	.0143	--	.0029	.9524	--
3120XA	12.03	87.5	889	11.0	1.5762	.0110	--	.0055	--	.0164	--	.0022	1.0965	--
3120XB	12.03	89.2	899	10.0	.7970	.0100	--	.0200	.0040	.0200	--	.0015	.2000	--
3120XC	12.03	86.1	871	12.8	1.1321	.0170	--	.0426	.0426	.0256	--	.0009	.0596	--
3134A	13.01	78.9	810	18.5	2.6762	.0138	--	.0461	.0092	.0065	--	.0018	1.8450	--
3134B	13.01	83.4	842	15.7	.9484	.0157	--	.3138	.0157	.0314	--	.0073	.0314	--
3134C	13.01	80.6	811	18.8	.5725	.0141	--	.0282	.0066	.0188	--	.0005	.0659	--
3134LA	13.02	87.5	878	12.2	.3495	.0523	--	.0087	--	.0174	--	.0009	.0348	--
3134LB	13.02	86.6	869	13.0	.4152	.0372	--	.0186	--	.0130	--	.0004	.0558	--
3134QA	13.03	78.4	795	20.2	1.4470	.0101	--	.0071	.0706	.0050	--	.0002	.0302	--
3134QP	13.03	77.4	795	20.0	2.6312	.0070	--	.0030	.0050	.0050	--	.0010	.0700	--
3134SA	13.04	83.1	835	16.4	.5409	.0218	--	.0011	--	.0055	--	--	.0109	--
3134SB	13.04	87.2	875	12.5	.2689	.0417	--	.0042	--	.0058	--	--	.0042	--
3134SC	13.04	89.1	899	10.0	.8782	.0300	--	.0200	--	.0020	--	--	.0150	--
3134XA	13.05	88.4	894	10.4	1.1474	.0209	--	.0010	.0042	.0052	--	.0002	.1044	--
3134XB	13.05	87.5	883	11.6	.9339	.0174	--	.1160	.0081	.0116	--	.0017	.0081	--
3134XC	13.05	82.7	835	16.3	.9681	.0163	--	.0163	.0054	.0033	--	.0005	.0163	--
3341A	14.01	90.1	914	8.5	1.3354	.0061	--	.2433	.6083	.1217	--	.0061	.0182	--
3341B	14.01	91.0	918	8.2	.8803	.0035	--	.0233	.3497	.0117	--	--	.0233	--
3341C	14.01	92.6	936	6.4	1.0062	.0182	.0091	.0182	.4545	.0273	--	--	.0182	--
3341NA	14.02	91.1	924	7.4	1.4651	.0053	.0053	.0213	.5319	.0074	--	--	.0074	--
3341NB	14.02	88.5	928	6.9	4.5766	.0098	.0491	.1965	1.9646	.0688	--	.0029	.0069	--
3341NC	14.02	89.3	919	7.9	2.8824	.0034	--	.0337	1.1236	.0225	--	--	.0112	--
3341A	14.03	88.9	952	4.5	6.6079	.0027	--	.1349	4.4964	.0450	--	.0027	.0090	--
3341B	14.03	90.7	949	4.9	4.4184	.0029	--	.2913	2.9126	.0971	--	.0049	.0097	--
3341C	14.03	92.4	939	6.0	1.5874	.0026	.0043	.1286	.8576	.0600	--	.0026	.0129	--

Fairbanks Gold Data--Continued

Sample	SiteType	Ni %	Co %	Sn %	Mo %	Ba %	Sr %	Zr %	V %	Cr %	Y %	La %	Sc %	Nb %	B %
3036C	7.01	.0011	--	--	--	.0074	--	.0053	.0021	.0053	--	.0074	.0005	.0011	.0053
3036D	7.01	--	--	--	--	.0014	--	--	--	--	--	--	--	--	.0010
3036E	7.01	--	--	--	--	.0010	--	--	--	--	--	--	--	--	.0014
3035A	8.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3044A	9.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3117SA	10.01	.0028	.0005	4.6816	--	.0019	.0187	.0140	.0014	--	.0009	--	.0005	--	.0001
3117SB	10.01	.0019	.0005	4.7801	--	.0019	.0191	.0143	--	--	.0007	--	--	--	.0001
3117SC	10.01	.0049	.0007	4.8733	--	.0019	.0195	.0097	--	--	.0010	.0019	.0005	--	.0003
3117SD	10.01	--	--	4.7801	--	.0019	.0287	.0287	--	--	.0010	.0048	.0005	--	.0003
3117QA	10.02	--	--	.0021	--	.0010	--	--	--	--	--	--	--	--	.0002
3117QB	10.02	--	--	.0024	--	.0008	--	--	--	--	--	--	--	--	.0001
3117QC	10.02	--	--	.0562	--	.0028	--	--	--	--	--	--	--	--	--
3117A	10.03	--	--	.7400	--	.0016	--	--	--	--	--	--	--	--	.0002
3117B	10.03	--	--	1.0504	--	.0016	--	.0004	--	--	--	--	--	--	.0002
3117C	10.03	--	--	.7307	--	.0010	--	.0005	--	--	--	--	--	--	.0002
3117D	10.03	--	--	--	--	.0015	--	--	--	--	--	--	--	--	.0002
3067A	11.01	--	--	.0013	--	--	--	--	--	--	--	--	--	--	--
3067B	11.01	.0006	--	.0059	--	--	--	--	--	--	--	--	--	--	.0005
3067IDD	11.02	--	--	.0209	--	--	--	--	--	--	--	--	--	--	--
3120A	12.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	.0005
3120B	12.01	--	--	--	--	.0010	--	--	--	--	--	--	--	--	--
3120C	12.01	--	--	--	--	.0010	--	--	--	--	--	--	--	--	--
3120WA	12.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3120WB	12.02	--	--	--	--	.0013	--	--	--	--	--	--	--	--	--
3120WC	12.02	--	--	--	--	.0029	--	.0095	--	--	--	--	--	--	--
3120XA	12.03	.0219	--	--	--	.0022	--	.0022	--	--	.0005	--	--	--	--
3120XB	12.03	.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
3120XC	12.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3134A	13.01	.0018	--	.0018	--	--	--	--	--	--	--	--	--	--	--
3134B	13.01	--	--	--	--	.0021	--	--	--	--	--	--	--	--	--
3134C	13.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3134LA	13.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3134LB	13.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3134QA	13.03	--	--	.0015	--	--	--	--	--	--	--	--	--	--	--
3134QB	13.03	--	--	--	--	.0010	--	.0007	--	--	--	--	--	--	--
3134SA	13.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3134SB	13.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3134SC	13.04	--	--	--	--	--	--	--	--	--	--	--	--	--	.0007
3134XA	13.05	.0010	--	--	--	.0021	--	--	--	--	--	--	--	--	--
3134XB	13.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3134XC	13.05	.0016	--	--	--	.0008	--	--	--	--	--	--	--	--	--
3341A	14.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3341B	14.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3341C	14.01	--	--	--	--	.0018	--	--	--	--	--	--	--	--	--
3341NA	14.02	.0005	--	--	--	--	--	--	--	--	--	--	--	--	--
3341NB	14.02	.0069	--	--	--	--	--	.0049	--	--	--	--	--	--	--
3341NC	14.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3341A	14.03	.0045	.0018	--	--	--	--	--	--	--	--	--	--	--	--
3341B	14.03	.0029	.0015	--	--	--	--	--	--	--	--	--	--	--	--
3341C	14.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Fairbanks Gold Data--Continued

Sample	SiteType	Be %	W %	Mn %	Fe %	Mg %	Ca %	Ti %	Si %	Smpl Wt	r=Au/Ag	Au/Cu	Ag/Cu	r/Cu
3036C	7.01	--	--	.0016	.2119	.0742	.0318	.5297	5.2966	4.72	3.9	14,088	3,600	739
3036D	7.01	--	--	.0007	.0951	.0095	.0095	.0014	1.9011	5.26	9.8	9,331	950	1,033
3036E	7.01	--	--	.0014	.1923	.0192	.0192	.0048	.9615	5.20	6.9	12,809	1,857	1,025
3035A	8.01	--	--	.0007	.1750	.0125	.0075	.0075	.3750	2.00	5.1	33,226	6,500	2,045
3044A	9.01	--	--	.0017	.0847	.0085	.0127	.0127	.1695	.59	2.9	12,461	4,286	490
3117SA	10.01	--	.0468	.0187	1.8727	.0094	.1404	.0468	.9363	5.34	8.5	849	100	91
3117SB	10.01	--	.0143	.0478	1.9120	.0096	.1912	.0067	.6692	5.23	8.3	829	100	87
3117SC	10.01	--	.0068	.0487	1.9493	.0097	.1949	.0292	.6823	5.13	8.0	802	100	82
3117SD	10.01	--	.0287	.0287	1.9120	.0191	.1912	.0191	.6692	5.23	8.2	819	100	86
3117QA	10.02	--	--	.0010	.1027	.0021	.0010	.0009	.2053	4.87	5.3	3,998	750	260
3117QB	10.02	--	--	.0012	.2364	.0024	.0018	--	.2364	4.23	6.9	4,599	667	389
3117QC	10.02	--	--	.0562	.8427	.0197	.0843	.0056	.8427	1.78	5.7	2,864	500	204
3117A	10.03	--	--	.0021	.5285	.0074	.0529	.0021	.5285	4.73	4.8	723	150	46
3117B	10.03	--	--	.0105	.5252	.0074	.0315	.0009	.5252	4.76	4.8	359	75	23
3117C	10.03	--	--	.0209	.5219	.0073	.0522	.0016	.5219	4.79	5.0	1,061	214	68
3117D	10.03	--	--	.0152	.5051	.0071	.2020	.0030	.5051	4.95	5.1	763	150	50
3067A	11.01	--	--	.0003	.0646	.0039	.0026	.0011	.0646	3.87	5.5	6,373	1,150	429
3067B	11.01	--	--	.0008	.1773	.0059	.0024	.0010	.1773	4.23	5.6	6,969	1,250	472
3067IDD	11.02	--	--	.0001	.1046	.0010	--	.0031	.1569	4.78	10.1	81,115	8,000	9,693
3120A	12.01	--	--	.0001	.0196	.0098	.0020	.0008	.1473	5.09	4.1	8,127	2,000	414
3120B	12.01	--	--	.0002	.0488	.0098	.0029	--	.4883	5.12	4.1	8,160	2,000	418
3120C	12.01	--	--	.0002	.0476	.0095	.0029	.0014	.1905	5.25	6.0	2,986	500	209
3120WA	12.02	--	--	.0002	.0300	.0070	.0030	--	.3000	5.00	5.5	16,527	3,000	1,102
3120WB	12.02	--	--	.0018	.1776	.0444	.0089	.0027	.6217	5.63	6.4	13,655	2,143	1,025
3120WC	12.02	--	--	.0007	.0667	.0095	.0067	.0019	.4762	5.25	4.2	4,167	1,000	219
3120XA	12.03	--	--	.0011	.1645	.0164	.0110	.0055	.2193	4.56	8.0	7,976	1,000	727
3120XB	12.03	--	--	.0015	.0200	.0100	.0030	.0020	.5000	5.00	8.9	8,920	1,000	892
3120XC	12.03	--	--	.0001	.0852	.0043	.0017	.0009	.8518	5.87	6.7	5,054	750	396
3134A	13.01	--	--	.0009	.2768	.0092	.0018	--	.4613	5.42	4.3	5,700	1,333	309
3134B	13.01	--	--	.0007	.2092	.0052	.0021	--	.3138	4.78	5.3	5,313	1,000	339
3134C	13.01	--	--	.0009	.1412	.0094	.0019	.0019	.2825	5.31	4.3	5,706	1,333	303
3134LA	13.02	--	--	.0002	.0523	.0035	.0052	--	.1742	2.87	7.2	1,673	233	137
3134LB	13.02	--	--	.0004	.0929	.0056	.0037	.0019	.1859	2.69	6.7	2,329	350	179
3134QA	13.03	--	--	.0007	.3024	.0071	.0020	.0020	1.0081	4.96	3.9	7,776	2,000	386
3134QB	13.03	--	--	.0015	.5000	.0200	.0100	.0070	2.0000	5.00	3.9	11,053	2,857	553
3134SA	13.04	--	--	.0011	.3275	.0055	.0022	.0016	.1638	4.58	5.1	3,805	750	232
3134SB	13.04	--	--	.0006	.1250	.0017	.0025	--	.0833	6.00	7.0	2,094	300	167
3134SC	13.04	--	--	.0015	.3000	.0070	.0020	--	.5000	5.00	8.9	2,971	333	297
3134XA	13.05	--	--	.0010	.2088	.0522	.0104	.0052	.7307	4.79	8.5	4,235	500	406
3134XB	13.05	--	--	.0006	.1740	.0081	.0023	.0058	.5800	4.31	7.5	5,026	667	433
3134XC	13.05	--	--	.0011	.3268	.0218	.0054	.0076	.5447	4.59	5.1	5,061	1,000	310
3341A	14.01	--	--	.0002	.2433	.0018	.0012	--	.0852	4.11	10.6	14,820	1,400	1,740
3341B	14.01	--	--	.0003	.2331	.0012	.0012	--	.2331	4.29	11.1	26,015	2,333	3,189
3341C	14.01	--	--	.0003	.2727	.0014	.0009	.0018	.1818	5.50	14.6	5,095	350	801
3341NA	14.02	--	--	.0007	.3191	.0053	.0213	.0074	.5319	4.70	12.2	17,125	1,400	2,300
3341NB	14.02	--	--	.0049	.9823	.0982	.1965	.0020	.9823	5.09	12.9	9,014	700	1,311
3341NC	14.02	--	--	.0003	.5618	.0011	.0011	--	1.1236	4.45	11.3	26,478	2,333	3,367
3341A	14.03	--	--	.0009	1.7986	.0018	.0018	.0180	.0899	5.56	19.8	32,951	1,667	7,328
3341B	14.03	--	--	.0146	.9709	.0015	.0019	.0097	.0971	5.15	18.7	31,150	1,667	6,417
3341C	14.03	--	--	.0006	.4288	.0013	.0017	.0006	.0858	5.83	15.4	35,916	2,333	5,983

Fairbanks Gold Data--Continued

Sample	SiteType	Au %	Fineness	Ag %	Sum X %	Cu %	Zn %	Pb %	As %	Sb %	Cd %	Bi %	Hg %	Te %
3341QA	14.04	89.9	979	1.9	8.1824	.0049	--	.1459	4.8638	.0681	--	.0010	--	--
3341QB	14.04	87.9	948	4.8	7.2151	.0029	--	.1938	4.8450	.0678	--	.0029	.0068	--
3341QC	14.04	90.2	962	3.5	6.2920	.0035	--	.1773	3.5461	.0591	--	--	.0024	--
3341RA	14.05	88.8	969	2.9	8.3002	.0143	.0669	.2868	4.7801	.0956	--	.0019	.0019	--
3341RB	14.05	86.7	953	4.2	9.0365	.0059	.0170	.2547	4.2445	.0849	--	.0025	.0042	--
3341RC	14.05	89.1	970	2.8	8.0653	.0047	.0466	.2799	4.6642	.0933	--	.0019	.0047	--
3342A	15.01	92.6	940	5.9	1.4890	.0025	--	.0085	.5932	.0169	--	--	.0169	--
3342B	15.01	92.4	932	6.7	.9125	.0029	--	.0673	.0673	.0192	--	--	.0481	--
3342C	15.01	93.4	941	5.9	.7138	.0025	--	.0084	.0253	.0126	--	--	.0421	--
3342NA	15.02	92.1	942	5.6	2.2401	.0034	--	.1129	.3386	.0226	--	--	.0226	--
3342NB	15.02	89.1	942	5.5	5.3512	.0077	.5531	.2212	1.1062	.1106	--	.0055	.0221	--
3342NC	15.02	89.8	943	5.5	4.7039	.0076	--	.0764	2.1834	.0328	--	--	.0164	--
3342PA	15.03	89.1	954	4.3	6.5909	.0043	.0172	.4288	4.2882	.2573	--	.0086	.0172	--
3342PB	15.03	89.5	942	5.5	4.9537	.0055	--	.0776	3.3259	.0554	--	.0017	.0222	--
3342PC	15.03	89.7	944	5.3	4.9936	.0053	.0107	.2132	3.1983	.1066	--	.0021	.0213	--
3342QA	15.04	87.4	952	4.4	8.1972	.0176	--	.6173	4.4092	.2646	--	.0062	.0044	--
3342QB	15.04	87.2	946	4.9	7.9018	.0198	.0049	.4941	4.9407	.1976	--	.0030	.0148	--
3342QC	15.04	86.9	931	6.5	6.6519	.0046	--	.2773	4.6211	.1848	--	.0028	.0185	--
3342RA	15.05	89.0	947	4.9	6.0952	.0148	.0099	.6903	2.9586	.1972	--	.0069	.0148	--
3342RB	15.05	90.2	930	6.8	2.9787	.0029	--	.1465	1.9531	.0488	--	.0020	.0293	--
3342RC	15.05	91.1	954	4.4	4.5419	.0044	.0088	.2636	2.6362	.1757	--	.0044	.0176	--
3123A	16.01	85.0	854	14.6	.4829	.0146	--	.0291	.0049	.0049	--	.0010	.1456	--
3123B	16.01	87.7	886	11.3	1.0436	.0113	--	.0225	.0079	.0056	--	.0011	.3378	--
3123C	16.01	82.0	842	15.4	2.5504	.0206	--	.0514	.0051	.0154	--	.0031	2.0576	--
3103A	17.01	85.6	862	13.7	.6417	.0183	--	.0183	.0046	.0046	--	.0005	.0274	--
3103B	17.01	82.9	839	16.0	1.1552	.0106	--	.5319	.1064	.0106	--	--	.0532	--
3103C	17.01	89.3	899	10.0	.6889	.0300	--	.0300	.0050	.0070	--	.0030	.0300	--
3103D	17.01	84.2	845	15.4	.3188	.0103	--	.0103	.0072	.0031	--	.0002	.0206	--
3139A	18.01	88.8	896	10.3	.9066	.0442	--	.1475	.0295	.0295	--	.0103	.0737	--
3139B	18.01	83.5	845	15.3	1.2011	.0153	--	.3058	.0153	.0076	--	.0306	.0459	--
3158	19.01	83.4	846	15.2	1.4689	.0227	--	.0303	.0061	.0227	--	.0015	.7576	--
3110A	20.01	78.7	829	16.2	5.0794	.1080	--	1.6199	.3240	.1080	--	.0011	.0216	--
3110B	20.01	87.4	897	10.1	2.4879	.1008	--	.0504	.5040	.0302	--	.0005	.0202	--
3110C	20.01	81.0	849	14.4	4.6497	.1919	--	.6718	.9597	.2879	--	.0014	.0480	--
3110XA	20.02	82.2	844	15.2	2.5502	.0304	--	.2028	.2028	.0507	--	.0020	.0152	--
3110XB	20.02	81.3	839	15.6	3.1559	.2079	--	.2079	.7277	.2079	--	.0010	.0104	--
3110XC	20.02	80.2	843	15.0	4.7538	.2000	--	.1500	2.0000	.1500	--	--	.0150	--
3337	20.03	88.7	903	9.5	1.7891	.1362	.0409	.6812	.2044	.2725	--	.0014	.0272	--
3124A	21.01	82.8	847	15.0	2.2455	.0050	--	.1000	.0500	.0200	--	.0070	.0200	--
3124B	21.01	80.9	831	16.4	2.7150	.0055	--	.1094	.0547	.0219	--	.0164	.0219	--
3124C	21.01	84.6	867	13.0	2.4237	.0043	--	.1295	.0432	.0173	--	.0086	.0173	--
3124D	21.01	79.3	807	19.0	1.6942	.0047	--	.0949	.0474	.0474	--	.0095	.0190	--
3124QA	21.02	80.5	836	15.8	3.6516	.0105	--	.1055	.1582	.0527	--	.0105	.0527	--
3124QB	21.02	81.5	857	13.6	4.9988	.0136	--	.2033	.2033	.0949	--	.0136	.0271	--
3133A	22.01	75.2	784	20.7	4.1829	.0310	--	.2066	.2066	.2066	--	.0072	3.0992	--
3133B	22.01	73.1	782	20.4	6.4044	.0511	--	.3067	.2045	.2045	--	.0072	5.1125	--
3133C	22.01	76.6	799	19.3	4.1354	.0289	--	.1445	.1927	.1927	--	.0048	2.8902	--
3133D	22.01	79.5	836	15.6	4.8562	.0521	--	.2083	.5208	.2083	--	.0052	3.1250	--
3133X	22.02	76.1	802	18.8	5.1050	.0875	--	.3750	1.2500	.2500	--	.0038	1.2500	--
3133NA	22.03	83.1	889	10.4	6.5391	.0207	--	.1035	.0518	.0207	--	.0021	6.2112	--

Fairbanks Gold Data--Continued

Sample	SiteType	Ni %	Co %	Sn %	Mo %	Ba %	Sr %	Zr %	V %	Cr %	Y %	La %	Sc %	Nb %	B %
3341QA	14.04	.0097	.0049	--	--	--	--	.0029	--	--	.0005	--	--	--	--
3341QB	14.04	.0097	.0029	--	--	--	--	.0010	--	--	--	--	--	--	--
3341QC	14.04	.0083	.0035	--	--	--	--	.0012	--	--	--	--	--	--	--
3341RA	14.05	.0048	.0048	.0191	--	--	--	.0096	--	--	.0007	.0019	--	--	.0003
3341RB	14.05	.0059	.0042	--	--	--	--	.0085	--	--	.0017	.0042	--	--	--
3341RC	14.05	.0047	.0047	--	--	--	--	.0140	--	--	.0019	.0047	--	--	--
3342A	15.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3342B	15.01	--	--	--	--	.0029	--	--	--	--	--	--	--	--	--
3342C	15.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3342NA	15.02	.0011	.0008	--	--	.0079	--	--	--	--	--	--	--	--	--
3342NB	15.02	.0011	.0006	--	--	--	--	--	--	--	--	--	--	--	--
3342NC	15.02	.0033	.0016	--	--	.0055	--	--	--	--	--	--	--	--	.0003
3342PA	15.03	.0086	.0017	--	--	--	--	--	--	--	--	--	--	--	--
3342PB	15.03	.0055	.0011	--	--	.0022	--	--	--	--	--	--	--	--	--
3342PC	15.03	.0053	.0011	--	--	--	--	--	--	--	--	--	--	--	--
3342QA	15.04	.0176	.0044	--	--	--	--	.0018	--	--	--	--	--	--	--
3342QB	15.04	.0148	.0020	--	--	--	--	.0015	--	--	--	--	--	--	--
3342QC	15.04	.0046	.0006	--	--	--	--	.0006	--	--	--	--	--	--	--
3342RA	15.05	.0069	.0015	--	--	--	--	.0010	--	--	--	--	--	--	--
3342RB	15.05	.0010	--	--	.0007	--	--	--	--	--	--	--	--	--	--
3342RC	15.05	.0062	.0009	--	--	--	--	.0006	--	--	--	--	--	--	--
3123A	16.01	--	--	--	--	.0007	--	--	--	--	--	--	--	--	--
3123B	16.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3123C	16.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3103A	17.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	.0002
3103B	17.01	.0011	--	.1064	--	.0021	--	--	--	--	--	--	--	--	.0011
3103C	17.01	--	--	--	--	.0015	--	--	--	--	--	--	--	--	.0005
3103D	17.01	.0010	--	--	--	.0005	--	--	--	--	--	--	--	--	.0002
3139A	18.01	--	--	--	--	.0010	--	--	--	--	--	--	--	--	--
3139B	18.01	.0031	.0015	.2294	--	--	--	.0031	--	--	--	--	--	--	.0008
3158	19.01	.0455	--	.0023	--	.0008	--	.0008	--	.0758	--	--	--	--	--
3110A	20.01	.0076	--	.1080	--	.0005	--	.0022	--	.0032	--	--	--	--	--
3110B	20.01	.0050	--	.0302	--	--	--	.0020	--	.0020	.0015	.0020	--	--	--
3110C	20.01	.0096	--	.1440	--	.0005	--	.0029	--	.0048	--	.0096	--	--	--
3110XA	20.02	--	--	--	--	.0005	--	--	--	--	--	--	--	--	.0010
3110XB	20.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3110XC	20.02	--	--	--	--	.0020	--	--	--	--	--	--	--	--	.0010
3337	20.03	--	--	.0010	--	--	--	.0068	--	--	--	.0041	--	--	--
3124A	21.01	--	--	--	--	.0005	--	.0200	--	--	--	--	--	--	--
3124B	21.01	--	--	--	--	.0005	--	.0219	--	--	.0011	.0055	--	--	--
3124C	21.01	--	--	--	--	.0006	--	.0173	--	--	--	.0026	--	--	--
3124D	21.01	--	--	--	--	--	--	.0190	--	--	.0007	.0047	--	--	--
3124QA	21.02	--	--	--	--	.0005	--	.0527	--	--	.0005	.0053	--	--	.0007
3124QB	21.02	--	--	.1355	--	.0014	--	.1355	--	--	.0014	.0203	--	--	--
3133A	22.01	--	--	.0072	--	--	--	--	--	--	--	--	--	--	--
3133B	22.01	--	--	.0010	--	--	--	--	--	--	--	--	--	--	--
3133C	22.01	--	--	.0010	--	--	--	--	--	--	--	--	--	--	--
3133D	22.01	--	--	.0010	--	--	--	--	--	--	--	--	--	--	--
3133X	22.02	.0025	--	.0038	--	--	--	--	--	--	--	--	--	--	--
3133NA	22.03	--	--	.0016	--	--	--	--	--	--	--	--	--	--	--

Fairbanks Gold Data--Continued

Sample	SiteType	Re %	W %	Mn %	Fe %	Mg %	Ca %	Ti %	Si %	Smpl Wt	r=Au/Ag	Au/Cu	Ag/Cu	r/Cu
3341QA	14.04	--	.0097	.0195	2.9183	.0019	.0146	.0195	.0973	5.14	46.2	18,478	400	9,498
3341QB	14.04	--	--	.0291	1.9380	.0019	.0145	.0019	.0969	5.16	18.2	30,251	1,667	6,244
3341QC	14.04	--	--	.0118	2.3641	.0024	.0177	.0118	.0827	4.23	25.4	25,426	1,000	7,170
3341RA	14.05	--	.0048	.0029	2.8681	.0019	.0191	.0191	.0956	5.23	31.0	6,195	200	2,160
3341RB	14.05	--	.0042	.0025	4.2445	.0025	.0170	.0424	.0849	5.89	20.4	14,594	714	3,438
3341RC	14.05	--	.0047	.0047	2.7985	.0019	.0187	.0187	.0933	5.36	31.9	19,111	600	6,829
3342A	15.01	--	--	.0003	.2542	.0008	.0017	.0006	.5932	5.90	15.6	36,414	2,333	6,138
3342B	15.01	--	--	.0003	.0288	.0010	.0010	.0007	.6731	5.20	13.7	32,017	2,333	4,757
3342C	15.01	--	--	.0004	.0253	.0008	.0013	.0059	.5892	5.94	15.9	36,984	2,333	6,277
3342NA	15.02	--	--	.0011	1.1287	.0011	.0011	.0339	.5643	4.43	16.3	27,205	1,667	4,821
3342NB	15.02	--	--	.0011	1.1062	.0011	.0011	.0011	2.2124	4.52	16.1	11,509	714	2,081
3342NC	15.02	--	--	.0055	1.0917	.0764	.1092	.0022	1.0917	4.58	16.5	11,756	714	2,154
3342PA	15.03	--	--	.0009	1.2864	.0043	.0017	.0086	.2573	5.83	20.8	20,783	1,000	4,847
3342PB	15.03	--	--	.0008	1.1086	.0033	.0055	.0055	.3326	4.51	16.1	16,146	1,000	2,913
3342PC	15.03	--	--	.0011	1.0661	.0053	.0160	.0213	.3198	4.69	16.8	16,823	1,000	3,156
3342QA	15.04	.0001	--	.0013	2.6455	.0044	.0088	.0176	.1764	5.67	19.8	4,955	250	1,124
3342QB	15.04	.0001	--	.0049	1.9763	.0049	.0099	.0148	.1976	5.06	17.6	4,410	250	893
3342QC	15.04	--	--	.0009	1.3863	.0028	.0065	.0018	.1386	5.41	13.4	18,801	1,400	2,906
3342RA	15.05	--	--	.0020	1.9724	.0020	.0049	.0148	.1972	5.07	18.0	6,015	333	1,220
3342RB	15.05	--	--	.0049	.6836	.0015	.0020	.0049	.0977	5.12	13.2	30,783	2,333	4,503
3342RC	15.05	--	--	.0044	1.3181	.0018	.0026	.0088	.0879	5.69	20.7	20,726	1,000	4,717
3123A	16.01	--	--	.0007	.0680	.0097	.0097	--	.1942	5.15	5.8	5,834	1,000	401
3123B	16.01	--	--	.0008	.0788	.0079	.0056	.0011	.5631	4.44	7.8	7,787	1,000	692
3123C	16.01	--	--	.0005	.0720	.0103	.0051	--	.3086	4.86	5.3	3,986	750	258
3103A	17.01	--	--	.0046	.0914	.0091	.0046	.0008	.4570	5.47	6.2	4,685	750	342
3103B	17.01	--	--	.0021	.1064	.0074	.0021	.0009	.2128	4.70	5.2	7,791	1,500	488
3103C	17.01	--	--	.0010	.0700	.0070	.0030	.0009	.5000	5.00	8.9	2,977	333	298
3103D	17.01	--	--	.0010	.0514	.0051	.0021	--	.2058	4.86	5.5	8,189	1,500	531
3139A	18.01	--	--	.0029	.2212	.0147	.0147	.0221	.2950	3.39	8.6	2,006	233	194
3139B	18.01	--	--	.0229	.2294	.0153	.0306	.0153	.2294	3.27	5.5	5,461	1,000	357
3158	19.01	--	--	.0303	.3030	.0106	.0076	--	.1515	3.30	5.5	3,669	667	242
3110A	20.01	--	--	.0540	2.1598	.0054	.0054	.0108	.5400	4.63	4.9	729	150	45
3110B	20.01	--	--	.0202	1.5121	.0030	.0020	--	.2016	4.96	8.7	867	100	86
3110C	20.01	--	--	.0960	1.9194	.0048	.0048	.0048	.2879	5.21	5.6	422	75	29
3110XA	20.02	--	--	.0071	1.0142	.0051	.0010	.0030	1.0142	4.93	5.4	2,703	500	178
3110XB	20.02	--	--	.0208	.7277	.0031	.0021	--	1.0395	4.81	5.2	391	75	25
3110XC	20.02	--	--	.0200	1.5000	.0100	.0050	.0009	.7000	5.00	5.3	401	75	27
3337	20.03	--	--	.0020	.2725	.0014	.0014	--	.1362	3.67	9.3	651	70	68
3124A	21.01	--	--	.0100	1.5000	.0020	.0100	.0010	.5000	5.00	5.5	16,551	3,000	1,103
3124B	21.01	--	--	.0328	1.6411	.0022	.0109	.0033	.7659	4.57	4.9	14,784	3,000	901
3124C	21.01	--	--	.0086	1.2953	.0043	.0086	.0026	.8636	5.79	6.5	19,599	3,000	1,513
3124D	21.01	--	--	.0047	.9488	.0028	.0066	.0095	.4744	5.27	4.2	16,723	4,000	881
3124QA	21.02	--	--	.0053	1.0549	.0053	.0158	.0105	2.1097	4.74	5.1	7,634	1,500	482
3124QB	21.02	.0001	--	.0203	2.0325	.0095	.0271	.0271	2.0325	3.69	6.0	6,011	1,000	444
3133A	22.01	--	--	.0010	.2066	.0021	.0021	--	.2066	4.84	3.6	2,425	667	117
3133B	22.01	--	--	.0015	.3067	.0020	.0020	--	.2045	4.89	3.6	1,431	400	70
3133C	22.01	--	--	.0014	.4817	.0019	.0029	--	.1927	5.19	4.0	2,650	667	138
3133D	22.01	--	--	.0021	.5208	.0021	.0021	--	.2083	4.80	5.1	1,527	300	98
3133X	22.02	--	--	.0025	1.2500	.0038	.0013	--	.6250	4.00	4.1	870	214	46
3133NA	22.03	--	--	.0003	.0207	.0010	.0021	--	.1035	4.83	8.0	4,014	500	388

Fairbanks Gold Data--Continued

Sample	SiteType	Au %	Fineness	Ag %	Sum %	Cu %	Zn %	Pb %	As %	Sb %	Cd %	Bi %	Hg %	Te %
3133NB	22.03	78.2	838	15.2	6.6066	.0505	--	.1515	.0707	.0505	--	.0030	6.0606	--
3133NC	22.03	80.2	853	13.8	6.0170	.0460	--	.1381	.0921	.0460	--	.0028	5.5249	--
3133ND	22.03	79.6	848	14.2	6.2434	.0473	--	.1420	.0663	.0947	--	.0028	5.6818	--
3135A	23.01	90.1	912	8.7	1.1720	.0610	--	.0017	.0044	--	--	.0004	.0174	--
3135B	23.01	81.5	840	15.6	2.8973	.0104	--	.0311	.0041	--	--	.1037	.0207	--
3135C	23.01	83.2	847	15.0	1.8020	.0200	--	.0100	.0100	.0100	--	--	.0100	--
3135XA	23.02	85.4	868	13.0	1.5237	.0261	--	.1304	.0174	.0130	--	.0002	.0130	--
3135XB	23.02	89.6	908	9.1	1.3002	.0182	--	.0027	.0036	.0045	--	.0002	.0091	--
3135M	23.03	88.6	896	10.2	1.2039	.0205	--	.0307	.0072	.0072	--	.0051	.1025	--
3135S	23.04	85.8	899	9.6	4.6111	.0206	--	.1374	.0412	.0069	--	.0014	.0687	--
3181	24.01	67.2	689	30.3	2.5401	.0152	--	.0152	--	--	--	--	2.2727	--
3132A	25.01	84.0	854	14.4	1.5905	.0479	--	.0958	.1916	.0479	--	.0029	.4789	--
3132B	25.01	82.7	846	15.0	2.3080	.2000	--	.2000	.2000	.0700	--	.0020	.3000	--
3132C	25.01	86.8	890	10.7	2.5385	.0535	--	.3212	.2141	.0749	--	.0016	.2141	--
3132D	25.01	88.0	900	9.7	2.2156	.0487	--	.2924	.1949	.1462	--	.0015	.1949	--
3336A	26.01	87.5	888	11.1	1.4425	.0553	--	.1106	.3319	.1106	--	.0006	.0221	--
3336B	26.01	90.4	945	5.3	4.3286	.1062	.0212	.7431	.5308	.3185	--	.0106	.0053	--
3032A	27.01	80.9	813	18.5	.6064	.0079	--	.0562	.0337	.0169	--	.0008	.0225	--
3032B	27.01	77.4	784	21.4	1.1814	.0055	--	.0164	.0055	.0110	--	.0008	.0164	--
3032C	27.01	81.0	819	17.9	1.1169	.0064	--	.0090	.0064	.0128	--	.0003	.0256	--
3032D	27.01	78.5	794	20.3	1.1476	.0051	--	.0305	.0102	.0203	--	.0015	.0203	--
3032E	27.01	84.6	855	14.4	1.0865	.0069	--	.0099	.0198	.0099	--	.0005	.0198	--
3032XA	27.02	78.5	804	19.2	2.3139	.0048	--	.0287	.0192	.0287	--	.0192	.0192	--
3032XB	27.02	79.5	835	15.7	4.7170	.0098	--	.0295	.0197	.0098	--	--	.0295	--
3032XC	27.02	79.2	822	17.1	3.6469	.0067	--	.0143	.0143	.0095	--	--	.0190	--
3032XD	27.02	79.9	820	17.5	2.6043	.0068	--	.0681	.0292	.0146	--	.0002	.0097	--
3032XE	27.02	76.2	799	19.2	4.5218	.0048	--	.0192	.0144	.0096	--	.0002	.0144	--
3068A	28.01	68.0	738	24.1	7.9632	.0051	--	.5123	.0051	.0154	--	.0015	3.0738	--
3068B	28.01	78.2	827	16.3	5.4462	.0096	--	.0962	.0048	.0192	--	.0019	4.8077	--
3068C	28.01	82.0	883	10.8	7.1526	.0098	--	1.4764	.0039	.0295	--	.0015	4.9213	--
3102A	29.01	84.7	851	14.8	.4565	.0099	--	.0099	.0069	.0049	--	.0002	.0692	--
3102B	29.01	84.1	846	15.3	.5206	.0102	--	.0153	.0051	.0072	--	.0020	.1022	--
3102C	29.01	90.1	904	9.5	.3158	.0095	--	.0029	.0048	.0029	--	.0014	.0954	--
3102D	29.01	84.6	852	14.7	.7401	.0147	--	.0196	--	.0068	--	.0015	.1468	--
3130A	30.01	89.1	903	9.6	1.2960	.0137	--	.0412	.6868	.0687	--	.0275	.0962	--
3130B	30.01	86.7	889	10.8	2.4525	.0162	--	.0540	1.0799	.0540	--	.0216	.0756	--
3130S	30.01	78.8	878	10.9	10.2373	.0218	--	.0437	6.5502	.1092	--	.0437	.1092	--
3104	31.01	78.5	882	10.5	11.0360	.0225	--	.2252	7.5075	.0105	--	.0045	.1051	--
3128	31.01	78.7	833	15.8	5.5069	.0789	--	3.1546	1.1041	.0789	--	.0237	.0789	--
3125A	32.01	83.2	887	10.6	6.2203	.0074	.0053	5.3079	.5308	.0106	--	.0032	.2123	--
3125Y	32.01	81.8	862	13.1	5.0611	.0262	--	4.3706	.1748	.0612	--	.0017	.0874	--
3090	33.01	75.1	816	16.9	7.9686	.2415	.0242	.0725	.2415	.0362	--	.0012	4.8309	--
3090HA	33.02	87.6	897	10.0	2.4430	.0200	--	.0050	.0500	.0150	--	--	2.0000	--
3090HB	33.02	87.1	923	7.3	5.6031	.0521	--	.0313	.5208	.1042	--	.0021	2.0833	--
3090HC	33.02	88.0	926	7.0	5.0282	.0300	--	.0300	1.0000	.5000	--	.0002	2.0000	--
3090HD	33.02	88.1	926	7.0	4.9142	.0300	.0150	.0700	.3000	.3000	--	.0015	3.0000	--
3090WA	33.03	85.2	905	8.9	5.8234	.0446	.0134	.0179	.1339	.0446	--	.0009	4.4643	--
3090WB	33.03	80.9	853	14.0	5.1062	.0186	--	.0279	.0931	.0466	--	.0005	4.6555	--
3090WC	33.03	84.1	894	10.0	5.8799	.0200	.0300	.1000	.1500	.0700	--	.0020	5.0000	--
3090WD	33.03	84.7	902	9.2	6.0898	.0276	--	.0276	.0184	.0184	--	.0014	5.5249	--

Fairbanks Gold Data--Continued

Sample	SiteType	Ni %	Co %	Sn %	Mo %	Ba %	Sr %	Zr %	V %	Cr %	Y %	La %	Sc %	Nb %	B %
3133NB	22.03	--	--	.0101	--	--	--	--	--	--	--	--	--	--	--
3133NC	22.03	--	--	.0046	--	--	--	--	--	--	--	--	--	--	.0005
3133ND	22.03	--	--	.0142	--	--	--	--	--	--	--	--	--	--	--
3135A	23.01	.0009	--	--	--	.0013	--	--	--	--	--	--	--	--	.0004
3135B	23.01	.0016	--	--	--	.0021	--	.0005	--	--	--	--	--	--	--
3135C	23.01	.0070	.0005	--	--	.0005	--	--	--	--	--	--	--	--	--
3135XA	23.02	.0026	--	--	--	.0013	--	--	--	.0009	--	--	--	--	--
3135XB	23.02	.0009	--	--	--	.0005	--	--	--	--	--	--	--	--	.0005
3135M	23.03	.0010	--	.0307	--	--	--	--	--	--	--	--	--	--	--
3135S	23.04	.0275	.0010	.0687	--	.0007	--	.0096	.0027	.0206	.0010	.0137	--	--	--
3101	24.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3132A	25.01	.0019	--	.1916	--	--	--	.0005	--	--	--	--	--	--	.0010
3132B	25.01	.0100	.0150	.3000	--	--	--	.0020	--	--	--	--	--	--	.0010
3132C	25.01	.0054	.0107	.7495	--	--	--	.0054	--	--	.0005	--	--	--	.0011
3132D	25.01	.0049	--	.4873	--	--	--	.0068	--	--	.0007	--	--	--	.0010
3336A	26.01	.0022	--	--	--	.0332	--	.0221	--	.0017	.0111	.0055	--	--	.0022
3336B	26.01	.0106	.0021	.0212	--	.1062	--	.0531	.0016	.0053	.0053	.0212	--	.0011	.0011
3032A	27.01	--	--	--	--	--	--	--	--	--	--	--	--	--	.0022
3032B	27.01	.0005	--	--	--	.0008	--	--	--	--	--	--	--	--	.0055
3032C	27.01	.0009	--	--	--	.0006	--	--	--	--	--	--	--	--	.0013
3032D	27.01	.0007	--	--	.0010	.0010	--	--	--	--	--	--	--	--	.0020
3032E	27.01	.0007	--	--	--	.0007	--	--	--	--	--	--	--	--	.0015
3032XA	27.02	.0007	--	--	--	.0029	--	.0010	.0010	.0048	--	--	--	--	.0048
3032XB	27.02	.0010	--	--	--	.0020	--	--	--	--	--	--	--	--	.0069
3032XC	27.02	.0007	--	--	--	.0010	--	--	.0008	--	--	--	--	--	.0190
3032XD	27.02	--	--	--	--	.0015	--	--	--	--	--	--	--	--	.0015
3032XE	27.02	.0014	--	--	--	.0019	--	.0010	.0010	--	--	--	--	--	.0019
3068A	28.01	.0031	.0010	.0717	--	.0010	--	.0020	.0020	.0051	--	--	--	--	.0015
3068B	28.01	.0010	--	.0048	--	.0010	--	--	--	--	--	--	--	--	--
3068C	28.01	.0010	--	.1969	--	--	--	--	--	--	.0005	--	--	--	--
3102A	29.01	--	--	--	--	.0007	--	--	--	--	--	--	--	--	.0001
3102B	29.01	.0020	--	--	--	.0010	--	--	--	--	--	--	--	--	.0001
3102C	29.01	--	--	--	--	.0007	--	--	--	--	--	--	--	--	.0001
3102D	29.01	--	--	--	--	.0010	--	--	--	--	--	--	--	--	.0002
3130A	30.01	--	--	--	--	.0014	--	--	--	--	--	--	--	--	--
3130B	30.01	--	--	--	--	.0011	--	--	--	--	--	--	--	--	--
3130S	30.01	--	--	--	--	.0015	--	--	--	--	--	--	--	--	--
3104	31.01	--	.0008	--	--	.0008	--	--	--	--	--	--	--	--	--
3128	31.01	--	--	--	--	.0024	--	--	--	.0013	--	--	--	--	--
3125A	32.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3125Y	32.01	--	--	--	--	--	--	--	--	.0007	--	--	--	--	--
3090	33.01	.0024	--	.0242	--	.0012	--	--	--	--	--	--	--	--	--
3090HA	33.02	--	--	.0500	--	--	--	--	--	--	--	--	--	--	--
3090HB	33.02	.0031	--	.1563	--	--	--	.0052	--	--	--	--	--	--	--
3090HC	33.02	.0020	.0005	.1000	--	.0005	--	.0150	--	--	--	--	--	--	--
3090HD	33.02	--	--	.1500	--	.0007	--	.0100	--	--	--	--	--	--	--
3090WA	33.03	.0004	--	.0179	--	.0006	--	--	--	--	--	--	--	--	--
3090WB	33.03	--	--	.0093	--	--	--	--	--	--	--	--	--	--	.0002
3090WC	33.03	--	--	.0020	--	--	--	--	--	--	--	--	--	--	--
3090WD	33.03	.0006	--	.0046	--	--	--	.0005	--	--	--	--	--	--	--

Fairbanks Gold Data--Continued

Sample	SiteType	Be %	W %	Mn %	Fe %	Mg %	Ca %	Ti %	Si %	Smpl Wt	r=Au/Ag	Au/Cu	Ag/Cu	r/Cu
3133NP	22.03	--	--	.0010	.1010	.0015	.0051	--	.1010	4.95	5.2	1,549	300	102
3133NC	22.03	--	--	.0009	.0645	.0018	.0028	--	.0921	5.43	5.8	1,741	300	126
3133ND	22.03	--	--	.0009	.0947	.0009	.0028	--	.0947	5.28	5.6	1,680	300	118
3135A	23.01	--	--	.0026	.4355	.0174	.0131	.0061	.6098	5.74	10.3	1,478	143	170
3135B	23.01	--	--	.0519	2.0747	.0519	.0104	.0156	.5187	4.82	5.2	7,861	1,500	505
3135C	23.01	--	--	.0070	1.5000	.0050	.0020	.0200	.2000	5.00	5.5	4,160	750	277
3135XA	23.02	--	--	.0043	.8696	.0043	.0043	.0013	.4348	5.75	6.5	3,275	500	251
3135XB	23.02	--	--	.0045	.2727	.0273	.0455	.0009	.9091	5.50	9.9	4,928	500	542
3135M	23.03	--	--	.0154	.7172	.0205	.0205	.0205	.2049	4.88	8.6	4,321	500	422
3135S	23.04	--	.0687	.1374	2.7473	.0687	.2060	.2747	.6868	3.64	8.9	4,163	467	433
3181	24.01	--	--	.0023	.0758	.0076	--	--	.1515	.33	2.2	4,432	2,000	146
3132A	25.01	--	--	.0479	.2874	.0029	.0479	.0010	.1437	5.22	5.8	1,755	300	122
3132B	25.01	--	--	.1000	.7000	.0050	.0500	.0030	.1500	5.00	5.5	413	75	28
3132C	25.01	--	--	.0749	.5353	.0032	.1071	.0054	.1606	4.67	8.1	1,621	200	151
3132D	25.01	--	--	.0975	.4873	.0029	.0975	.0049	.1462	5.13	9.0	1,807	200	185
3336A	26.01	--	--	.0332	.5531	.0022	.0011	.0332	.1106	4.52	7.9	1,582	200	143
3336B	26.01	--	.0159	.0531	2.1231	.0021	.0106	.0531	.1062	4.71	17.0	851	50	160
3032A	27.01	--	--	.0034	.2247	.0056	.0056	.0022	.2247	4.45	4.4	10,280	2,357	554
3032B	27.01	--	--	.0022	.3289	.0110	.0077	.0016	.7675	4.56	3.6	14,125	3,900	661
3032C	27.01	--	--	.0064	.3836	.0128	.0090	.0026	.6394	3.91	4.5	12,665	2,800	707
3032D	27.01	--	--	.0102	.5081	.0102	.0152	.0030	.5081	4.92	3.9	15,454	4,000	760
3032E	27.01	--	--	.0050	.2970	.0099	.0069	.0050	.6931	5.05	5.9	12,200	2,071	850
3032XA	27.02	--	--	.0048	.4789	.0670	.0958	.0958	1.4368	5.22	4.1	16,397	4,000	856
3032XB	27.02	.0005	--	.0098	2.9528	.0689	.0984	.0020	1.4764	5.08	5.1	8,081	1,600	513
3032XC	27.02	--	--	.0067	2.8517	.0190	.0143	.0048	.6654	5.26	4.6	11,909	2,571	696
3032XD	27.02	--	--	.0049	.4864	.0146	.0195	.0019	1.9455	5.14	4.6	11,732	2,571	670
3032XE	27.02	--	--	.0096	2.8846	.0192	.0288	.0673	1.4423	5.20	4.0	15,859	4,000	825
3068A	28.01	.0001	--	.0102	3.0738	.0205	.0307	.1025	1.0246	4.88	2.8	13,266	4,700	551
3068B	28.01	--	--	.0029	.1923	.0067	.0048	.0048	.2885	5.20	4.8	8,134	1,700	498
3068C	28.01	--	--	.0049	.2953	.0069	.0030	.0049	.1969	5.08	7.6	8,333	1,100	770
3102A	29.01	--	--	.0020	.1482	.0030	.0020	.0020	.1976	5.06	5.7	8,574	1,500	578
3102B	29.01	--	--	.0020	.1534	.0072	.0031	.0051	.2045	4.89	5.5	8,229	1,500	537
3102C	29.01	--	--	.0007	.0477	.0048	.0019	--	.1431	5.24	9.4	9,447	1,000	990
3102D	29.01	--	--	.0007	.0489	.0049	.0049	.0010	.4892	5.11	5.8	5,763	1,000	393
3130A	30.01	--	--	.0014	.2747	.0021	.0137	--	.0687	3.64	9.3	6,486	700	675
3130B	30.01	--	--	.0011	1.0799	.0032	.0108	.0011	.0540	4.63	8.0	5,355	667	496
3130S	30.01	--	--	.0033	3.2751	.0033	.0109	--	.0655	2.29	7.2	3,611	500	331
3104	31.01	--	--	.0015	3.0030	.0015	.0030	--	.1502	3.33	7.5	3,483	467	331
3128	31.01	--	--	.0032	.7886	.0032	.0315	--	.1577	3.17	5.0	998	200	63
3125A	32.01	--	--	.0016	.0318	.0011	.0021	--	.1062	4.71	7.8	11,192	1,429	1,054
3125Y	32.01	--	--	.0087	.2622	.0017	.0044	--	.0612	5.72	6.2	3,120	500	238
3090	33.01	--	--	.0362	1.2077	.0024	.0362	.0024	1.2077	2.07	4.4	311	70	18
3090HA	33.02	--	--	.0015	.2000	.0005	.0010	--	.1000	5.00	8.8	4,378	500	438
3090HB	33.02	--	--	.0104	1.5625	.0021	.0073	.0208	1.0417	4.80	11.9	1,672	140	229
3090HC	33.02	--	.0050	.0100	1.0000	.0100	.0200	.0050	.3000	5.00	12.6	2,932	233	419
3090HD	33.02	--	.0100	.0150	.7000	.0020	.0050	.0050	.3000	5.00	12.6	2,936	233	419
3090WA	33.03	--	--	.0089	.6250	.0027	.0009	.0009	.4464	5.60	9.5	1,910	200	214
3090WB	33.03	--	--	.0003	.0652	.0009	.0009	.0009	.1862	5.37	5.8	4,346	750	311
3090WC	33.03	--	--	.0030	.3000	.0010	.0010	.0009	.2000	5.00	8.4	4,206	500	421
3090WD	33.03	--	--	.0028	.1842	.0009	.0009	.0008	.2762	5.43	9.2	3,066	333	333

Fairbanks Gold Data--Continued

Sample	SiteType	Au %	Fineness	Ag %	Sum X %	Cu %	Zn %	Pb %	As %	Sb %	Cd %	Bi %	Hg %	Te %
3091A	33.04	81.5	844	15.0	3.5473	.0200	.0100	.5000	1.0000	.3000	--	.0100	.0500	--
3091B	33.04	84.0	856	14.2	1.8882	.0189	--	.2830	.4717	.1887	--	.0066	.0660	--
3091C	33.04	83.8	848	15.0	1.2450	.0150	--	.3000	.2000	.2000	--	.0050	.0700	--
3091XA	33.05	81.9	834	16.3	1.7146	.0163	--	.2179	.1089	.1089	--	.0054	.0545	--
3091XB	33.05	82.7	847	15.0	2.2725	.0200	--	.5000	.5000	.2000	--	.0100	.0300	--
3091XC	33.05	82.3	852	14.3	3.4620	.0190	--	.9506	.1426	.6654	--	.0143	.0475	--
3091IA	33.06	76.3	880	10.4	13.2820	.0519	--	1.0373	5.1867	.7261	--	.0156	.0207	--
3091IB	33.06	77.3	888	9.8	12.8485	.0294	.0049	.9804	4.9020	.9804	--	.0196	.0196	--
3091IC	33.06	78.8	897	9.0	12.2336	.0270	--	.9009	4.5045	.9009	--	.0180	.0180	--
3339	34.01	90.1	925	7.4	2.5338	.0221	--	1.0294	.7353	.2206	--	.0029	.0441	--
3340A	34.02	92.1	940	5.9	1.9403	.0118	.0236	.1182	.8274	.0355	--	.0059	.0591	--
3340B	34.02	90.8	936	6.2	2.9810	.0088	.0044	.0885	1.7699	.0442	--	.0044	.0442	--
3340C	34.02	92.3	940	5.9	1.8467	.0118	--	.1769	.8255	.0590	--	.0059	.0590	--
3343A	35.01	85.3	941	5.3	9.4366	.0106	.0531	5.3079	1.5924	1.0616	.0074	.1062	.0212	--
3343B	35.01	92.4	947	5.2	2.4456	.0052	--	.5187	.5187	.3112	.0073	.0104	.0311	--
3343C	35.01	89.4	940	5.7	4.9354	.0079	--	.5669	.3401	.2268	.0079	.0170	.0227	--
3343NA	35.02	90.5	918	8.1	1.4091	.0058	--	.5774	.0081	.5774	.0081	.0231	.0577	--
3343NB	35.02	92.1	924	7.5	.3715	.0054	--	.1075	.0161	.1075	.0075	.0011	.0538	--
3343NC	35.02	92.0	928	7.1	.9491	.0051	--	.2024	.1518	.3036	.0071	.0015	.0506	--
3343PA	35.03	89.8	916	8.2	1.9513	.0059	.3521	.0587	.8216	.0235	.0059	--	.0352	--
3343PB	35.03	91.0	927	7.2	1.7755	.0031	--	1.0267	.0719	.3080	--	.0051	.0513	--
3343PC	35.03	87.0	919	7.7	5.3368	.0110	.0330	2.1978	1.0989	.7692	.0110	.0549	.0220	--
3343QA	35.04	90.1	923	7.5	2.3484	.0054	--	1.0753	.0108	1.0753	.0108	.0215	.0538	--
3343QB	35.04	89.9	916	8.3	1.8641	.0059	--	.8274	.0177	.8274	.0118	.0236	.0591	--
3343QC	35.04	90.8	917	8.2	1.0008	.0059	--	.5882	.0353	.2353	.0118	.0082	.0588	--
3343R	35.05	86.8	900	9.6	3.5670	.0069	.0137	2.0604	.6868	.2060	.0137	.0275	.0687	--
3106A	36.01	85.1	857	14.2	.6710	.0190	--	.0009	.1898	--	--	.0002	.0285	--
3106B	36.01	86.8	889	10.8	2.3872	.0325	--	.0008	1.0823	--	--	--	.0216	--
3106C	36.01	84.5	855	14.3	1.1908	.0191	--	.0014	.1908	--	--	--	.0191	--
3106D	36.01	89.0	908	9.0	1.9932	.0256	--	.0013	.6410	--	--	--	.0192	--
3329A	37.01	91.6	919	8.1	.3614	.0115	--	.0230	--	.0115	--	.0173	.0230	--
3329B	37.01	91.3	915	8.4	.2952	.0181	--	.0024	--	.0024	--	.0006	.1205	--
3329C	37.01	91.6	919	8.1	.2430	.0232	--	.0081	--	.0081	--	.0232	.0232	.0116
3329D	37.02	92.3	925	7.5	.2295	.0214	--	.0021	--	.0032	--	.0160	.0534	--
3329N	37.02	88.6	897	10.1	1.2330	.0217	--	.0072	--	.0029	--	.0435	.0435	--
3143A	38.01	76.2	870	11.4	12.3858	.0457	--	.0228	--	--	--	.0342	11.4155	--
3143B	38.01	81.5	907	8.4	10.1564	.0419	--	1.9553	--	.0084	--	.0559	2.7933	--
3119A	39.01	85.1	858	14.1	.7715	.0470	--	.0470	--	.0019	--	.0047	.2820	--
3119B	39.01	84.1	852	14.6	1.2178	.0293	--	.1953	--	.0020	--	.0029	.4883	--
3119C	39.01	84.1	850	14.8	1.1171	.0494	--	.0988	.0040	.0030	--	.0069	.2964	--
3119NA	39.02	84.9	855	14.4	.6550	.0480	--	.0480	--	--	--	.0010	.0672	--
3119NB	39.02	88.9	901	9.8	1.2531	.0686	--	.0147	--	--	--	--	.9804	--
3119NC	39.02	85.3	857	14.3	.3956	.0190	--	.1426	--	.0029	--	--	.0190	--
3119XA	39.03	88.3	895	10.4	1.3297	.0518	--	.0155	--	--	--	--	.2070	--
3119XB	39.03	84.8	853	14.6	.5375	.0684	--	.0293	--	.0098	--	--	.0195	--
3119XC	39.03	89.6	901	9.8	.6248	.0491	--	.0196	--	--	--	--	.0491	--
3065A	40.01	79.5	802	19.7	.7830	.0092	--	.0183	--	.0064	--	.0009	.2747	--
3065B	40.01	76.0	770	22.7	1.3095	.0103	--	.0309	--	.0072	--	.0007	.7216	--
3157A	41.01	93.2	936	6.3	.4385	.0633	--	.0090	.0036	.0027	--	.0045	.1808	--
3157B	41.01	90.1	904	9.5	.4255	.0952	--	.0029	--	.0019	--	.0010	.1905	--

Fairbanks Gold Data--Continued

Sample	SiteType	Ni %	Co %	Sn %	Mo %	Ba %	Sr %	Zr %	V %	Cr %	Y %	La %	Sc %	Nb %	B %
3091A	33.04	.0010	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3091B	33.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3091C	33.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3091XA	33.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3091XB	33.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3091XC	33.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3091IA	33.06	.0104	--	--	--	.0005	--	.0016	--	--	--	--	--	--	--
3091IB	33.06	.0049	.0098	--	--	.0005	--	.0015	--	--	--	--	--	--	--
3091IC	33.06	.0005	--	--	--	.0005	--	.0009	--	--	--	--	--	--	--
3339	34.01	--	--	--	--	.0029	--	--	--	--	--	--	--	--	--
3340A	34.02	.0006	--	--	--	--	--	--	--	.0024	--	--	--	--	--
3340B	34.02	.0018	.0004	--	--	.0009	--	--	--	.0018	--	--	--	--	--
3340C	34.02	.0018	--	--	--	--	--	--	--	.0018	--	--	--	--	--
3343A	35.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343B	35.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343C	35.01	.0017	--	--	--	--	--	--	--	--	--	--	--	--	--
3343NA	35.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343NB	35.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343NC	35.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343PA	35.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343PB	35.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343PC	35.03	.0005	.0005	--	--	--	--	--	--	--	--	.0022	--	--	--
3343QA	35.04	--	--	--	--	--	--	--	--	--	--	.0022	--	--	--
3343QB	35.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343QC	35.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3343R	35.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3106A	36.01	--	--	--	--	.0007	--	--	--	--	--	--	--	--	.0003
3106B	36.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	.0001
3106C	36.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3106D	36.01	--	--	--	--	.0009	--	.0006	--	.0013	--	--	--	--	--
3329A	37.01	--	--	--	--	.0008	--	--	--	--	--	--	--	--	--
3329B	37.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3329C	37.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3329D	37.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3329N	37.02	--	--	--	--	.0014	--	.0725	--	.0014	.0004	--	--	--	--
3143A	38.01	--	--	.1142	--	--	--	.0114	--	--	--	--	--	--	--
3143B	38.01	.0140	.0279	1.9553	--	.0056	--	.0279	--	.0084	.0028	.0084	--	--	--
3119A	39.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3119B	39.01	.0010	.0005	--	--	.0005	--	--	--	--	--	--	--	--	--
3119C	39.01	.0049	.0020	.1976	--	.0010	--	--	--	--	--	--	--	--	--
3119NA	39.02	.0019	--	--	.0010	.0005	--	--	--	--	--	--	--	--	--
3119NB	39.02	.0069	--	--	--	--	--	--	--	--	--	--	--	--	--
3119NC	39.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3119XA	39.03	.0021	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3119XB	39.03	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3119XC	39.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3065A	40.01	.0014	--	.0018	--	--	--	--	--	--	--	--	--	--	--
3065B	40.01	.0010	--	.0052	--	--	--	--	--	--	--	--	--	--	--
3157A	41.01	--	--	--	--	.0005	--	.0005	--	--	--	--	--	--	--
3157B	41.01	--	--	.0048	--	.0005	--	--	--	--	--	--	--	--	--

Fairbanks Gold Data--Continued

Sample	SiteType	Be %	W %	Mn %	Fe %	Mg %	Ca %	Ti %	Si %	Smpl Wt	r=Au/Ag	Au/Cu	Ag/Cu	r/Cu
3091A	33.04	--	--	.0020	1.5000	.0010	.0020	.0009	.1500	5.00	5.4	4,073	750	272
3091B	33.04	--	--	.0014	.6604	.0009	.0019	--	.1887	5.30	5.9	4,450	750	314
3091C	33.04	--	--	.0020	.3000	.0010	.0020	--	.1500	5.00	5.6	5,584	1,000	372
3091XA	33.05	--	--	.0011	.1089	.0011	.0022	--	1.0893	4.59	5.0	5,015	1,000	307
3091XB	33.05	--	--	.0100	.5000	.0005	.0020	--	.5000	5.00	5.5	4,136	750	276
3091XC	33.05	--	--	.0010	.1901	.0010	.0048	--	1.4259	5.26	5.8	4,328	750	304
3091IA	33.06	--	--	.0021	5.1867	.0021	.0021	.0009	1.0373	4.82	7.4	1,472	200	142
3091IB	33.06	--	--	.0029	4.9020	.0020	.0069	.0015	.9804	5.10	7.9	2,630	333	268
3091IC	33.06	--	--	.0027	4.5045	.0014	.0018	.0008	1.3514	5.55	8.7	2,914	333	323
3339	34.01	--	--	.0015	.4412	.0015	.0029	--	.0294	3.40	12.3	4,085	333	556
3340A	34.02	--	--	.0236	.5910	.0012	.0012	.0024	.2364	4.23	15.6	7,796	500	1,319
3340B	34.02	--	--	.0265	.8850	.0009	.0044	.0062	.0885	5.65	14.7	10,263	700	1,657
3340C	34.02	--	--	.0236	.5896	.0012	.0024	.0059	.0825	4.24	15.6	7,823	500	1,327
3343A	35.01	--	--	.0011	.7431	.0003	.0011	--	.5308	4.71	16.1	8,031	500	1,513
3343B	35.01	--	--	.0003	.5187	.0003	.0052	--	.5187	4.82	17.8	17,808	1,000	3,433
3343C	35.01	--	--	.0002	.3401	.0003	.0023	--	3.4014	4.41	15.8	11,264	714	1,987
3343NA	35.02	--	--	.0003	.0231	.0012	.0115	--	.1155	4.33	11.2	15,676	1,400	1,939
3343NB	35.02	--	--	.0002	.0161	.0003	.0022	--	.0538	4.65	12.2	17,131	1,400	2,276
3343NC	35.02	--	--	.0002	.1518	.0010	.0030	--	.0709	4.94	13.0	18,172	1,400	2,565
3343PA	35.03	--	--	.0018	.5869	.0004	.0008	--	.0587	4.26	10.9	15,308	1,400	1,863
3343PB	35.03	--	--	.0003	.1027	.0003	.0007	--	.2053	4.87	12.7	29,557	2,333	4,113
3343PC	35.03	--	--	.0011	1.0989	.0016	.0011	--	.0330	4.55	11.3	7,914	700	1,029
3343QA	35.04	--	--	.0005	.0161	.0016	.0215	--	.0538	4.65	12.0	16,763	1,400	2,227
3343QB	35.04	--	--	.0006	.0118	.0018	.0177	--	.0591	4.23	10.9	15,205	1,400	1,838
3343QC	35.04	--	--	.0008	.0353	.0012	.0024	--	.0176	4.25	11.0	15,430	1,400	1,874
3343R	35.05	--	--	.0007	.4121	.0004	.0014	--	.0687	3.64	9.0	12,641	1,400	1,315
3106A	36.01	--	--	.0009	.2846	.0028	.0009	--	.1423	5.27	6.0	4,485	750	315
3106B	36.01	--	--	.0011	1.0823	.0022	.0016	--	.1623	4.62	8.0	2,673	333	247
3106C	36.01	--	--	.0010	.4771	.0029	.0019	--	.4771	5.24	5.9	4,428	750	309
3106D	36.01	--	--	.0128	.8974	.0064	.0019	--	.3846	3.90	9.9	3,472	350	387
3329A	37.01	--	--	.0006	.0346	.0012	.0017	.0058	.2304	4.34	11.4	7,949	700	986
3329B	37.01	--	--	.0006	.0181	.0012	.0024	.0084	.1205	4.15	10.8	5,050	467	599
3329C	37.01	--	--	.0006	.0232	.0012	.0023	.0023	.1160	4.31	11.3	3,950	350	486
3329D	37.02	--	--	.0003	.0214	.0011	.0016	.0021	.1068	4.68	12.3	4,319	350	578
3329N	37.02	--	--	.0007	.2899	.0043	.0043	.0145	.7246	3.45	8.7	4,077	467	402
3143A	38.01	--	--	.0114	.2283	.0114	.0114	.0228	.4566	2.19	6.7	1,669	250	146
3143B	38.01	--	.0112	.0559	1.3966	.2793	.0559	.0559	1.3966	1.79	9.7	1,944	200	232
3119A	39.01	--	--	.0009	.1880	.0094	.0019	.0008	.1880	5.32	6.0	1,812	300	129
3119B	39.01	--	--	.0015	.1953	.0049	.0020	.0015	.2930	5.12	5.7	2,872	500	196
3119C	39.01	--	--	.0010	.1482	.0049	.0015	.0010	.2964	5.06	5.7	1,701	300	115
3119NA	39.02	--	--	.0010	.1919	.0048	.0010	.0010	.2879	5.21	5.9	1,770	300	123
3119NB	39.02	--	--	.0002	.0294	.0020	.0010	.0029	.1471	5.10	9.1	1,296	143	132
3119NC	39.02	--	--	.0002	.0665	.0019	.0010	--	.1426	5.26	6.0	4,489	750	315
3119XA	39.03	--	--	.0010	.5176	.0052	.0010	.0104	.5176	4.83	8.5	1,706	200	165
3119XB	39.03	--	--	.0020	.1953	.0068	.0098	.0008	.1953	5.12	5.8	1,241	214	85
3119XC	39.03	--	--	.0010	.1965	.0029	.0098	.0020	.2947	5.09	9.1	1,823	200	186
3065A	40.01	--	--	.0014	.1832	.0046	.0046	.0018	.2747	5.46	4.0	8,684	2,150	441
3065B	40.01	--	--	.0015	.2062	.0072	.0052	.0031	.3093	4.85	3.4	7,373	2,200	325
3157A	41.01	--	.0090	.0018	.0633	.0090	.0090	.0181	.0633	5.53	14.7	1,473	100	233
3157B	41.01	--	.0067	.0003	.0476	.0029	.0048	--	.0667	5.25	9.5	946	100	99

Fairbanks Gold Data--Continued

Sample	SiteType	Au %	Fineness	Ag %	Sum X %	Cu %	Zn %	Pb %	As %	Sb %	Cd %	Bi %	Hg %	Te %
3157C	41.01	89.8	902	9.7	.4446	.0681	--	.0195	--	.0029	--	.0195	.0681	--
3157D	41.01	90.5	908	9.1	.3796	.0456	--	.0274	--	.0027	--	.0182	.0456	--
3160A	42.01	84.6	857	14.2	1.1835	.0473	--	.0284	--	.0047	--	.4726	.0473	--
3160B	42.01	89.6	899	10.0	.4215	.0301	--	.0100	.0040	.0050	--	.0015	.1002	--
3160C	42.01	85.4	858	14.2	.4231	.0189	--	.0472	.0038	.0047	--	.0066	.0660	--
3160XA	42.02	86.5	872	12.7	.7169	.0170	--	.0042	.0042	--	--	.0013	.0594	--
3160XB	42.02	90.5	913	8.6	.8532	.0431	--	.0060	.0034	.0026	--	.0004	.0431	--
3160XC	42.02	89.9	910	8.9	1.1970	.0179	--	.0063	--	--	--	.0002	.0446	--
3034A	43.01	86.1	863	13.6	.2366	.0090	--	.0009	--	--	--	.0009	.0358	--
3034B	43.01	82.6	829	17.0	.4074	.0046	--	.0232	--	.0077	--	.0046	.1084	--
3332A	44.01	96.6	967	3.3	.0567	.0167	--	.0006	--	.0022	--	--	.0222	--
3332B	44.01	96.5	966	3.4	.1131	.0169	--	.0006	--	.0023	--	--	.0226	--
3332NA	44.02	94.9	951	4.9	.1833	.0049	--	.0049	--	--	--	.0098	.0684	--
3332NB	44.02	93.7	938	6.1	.1560	.0086	--	.0025	--	--	--	.0002	.0614	--
3332NC	44.02	97.4	976	2.4	.1867	.0119	--	.0024	.0059	--	--	.0059	.0831	--
3332PA	44.03	96.6	968	3.2	.2186	.0075	--	.0054	--	--	--	.0215	.0751	--
3332PB	44.03	96.1	964	3.6	.2891	.0119	--	.0119	--	--	--	.0239	.0835	--
3332PC	44.03	97.0	973	2.7	.2839	.0090	--	.0045	--	--	--	.0180	.0629	--
3332QA	44.04	97.4	978	2.2	.4202	.0110	--	.0055	.0055	--	--	.0221	.0773	--
3332QB	44.04	95.5	962	3.8	.7175	.0125	--	.0075	--	--	--	.0375	.0750	--
3332R	44.05	94.4	951	4.9	.7387	.0147	--	.0245	--	--	--	.0490	.1471	--
3092A	45.01	94.4	954	4.5	1.0604	.0271	--	.0181	--	.0063	--	.0903	.0903	.0045
3092B	45.01	91.9	932	6.7	1.3601	.0481	--	.0144	--	.0067	--	.0962	.1923	--
3092C	45.01	88.7	927	7.0	4.3179	.0500	--	.0200	--	.0020	--	1.5000	2.0000	.0200
3092XA	45.02	94.3	946	5.4	.3178	.0322	--	.0161	--	--	--	.0075	.1073	--
3092XB	45.02	94.8	950	5.0	.2217	.0500	--	.0100	--	--	--	.0100	.0200	--
3092XC	45.02	92.6	933	6.7	.6739	.0477	--	.0477	--	.0019	--	.2863	.0668	--
3333	46.01	94.8	952	4.8	.4398	.0048	--	.0096	--	.0029	--	.0191	.0669	--
3333NA	46.02	93.1	939	6.1	.7780	.0085	--	.0061	.0610	.0037	--	.0244	.0610	--
3333NB	46.02	92.7	942	5.7	1.5548	.0080	--	.0342	.0571	.0023	--	.0228	.0571	--
3334A	47.01	97.3	976	2.4	.3201	.0119	--	.0036	--	.0119	--	.1188	.0238	--
3334B	47.01	92.2	929	7.1	.7716	.0030	--	.0020	--	--	--	.1008	.0302	--
3334C	47.01	97.8	980	2.0	.1270	.0102	--	.0010	--	--	--	.0051	.0102	--
3334NA	47.02	96.7	970	3.0	.2924	.0099	--	.0020	--	--	--	.0010	.0690	--
3334NB	47.02	97.9	982	1.8	.2994	.0092	--	.0014	--	--	--	.0018	.0460	--
3334NC	47.02	95.1	953	4.7	.2132	.0140	--	.0014	--	.0047	--	.0093	.0653	--
3334QA	47.03	97.0	975	2.5	.4670	.0125	--	.0037	.0062	--	--	.0374	.0873	--
3334QB	47.03	95.7	965	3.5	.7881	.0117	--	.0035	--	--	--	.0351	.0820	--
3334R	47.04	92.5	934	6.6	.8882	.0219	--	.0044	--	--	--	.0307	.2193	--
3335A	48.01	96.1	964	3.6	.3150	.0120	--	.0060	--	.0024	--	.0839	.0600	--
3335B	48.01	93.1	934	6.6	.3258	.0093	--	.0066	--	.0040	--	.0661	.0661	--
3335NA	48.02	93.3	936	6.3	.3263	.0091	--	.0027	--	.0045	--	.0634	.0453	--
3335NB	48.02	95.4	957	4.3	.3399	.0086	--	.0043	--	.0026	--	.0257	.0600	--
3335NC	48.02	94.3	952	4.7	.9958	.0066	--	.0047	--	.0019	--	.0660	.0472	--
3335PA	48.03	96.2	966	3.4	.4136	.0114	--	.0057	--	.0023	--	.0343	.0801	--
3335PB	48.03	91.9	939	6.0	2.1320	.0280	--	.0080	--	--	--	.0280	.1200	--
3331A	49.31	94.1	943	5.7	.1990	.0227	--	.0017	--	--	--	.0023	.0794	--
3331B	49.01	91.4	920	7.9	.7298	.0226	--	.0034	--	.0113	--	.0226	.0339	--
3331C	49.01	98.0	984	1.6	.3451	.0328	--	.0016	--	--	--	.0246	.0820	--
3331NA	49.02	87.3	875	12.5	.2225	.0250	--	.0087	--	.0038	--	.0087	.0250	--

Fairbanks Gold Data--Continued

Sample	SiteType	Ni %	Co %	Sn %	Mo %	Ba %	Sr %	Zr %	V %	Cr %	Y %	La %	Sc %	Nb %	B %
3157C	41.01	--	--	--	--	.0010	--	.0005	--	--	--	--	--	--	--
3157D	41.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3160A	42.01	--	--	.0028	--	.0009	--	--	--	--	.0014	.0189	--	--	--
3160B	42.01	.0010	--	--	--	.0007	--	--	--	--	--	--	--	--	--
3160C	42.01	.0009	--	--	--	.0009	--	--	--	--	--	--	--	--	--
3160XA	42.02	.0042	.0004	.0042	--	.0013	--	--	--	--	--	--	--	--	--
3160XB	42.02	--	--	.0060	--	.0009	--	--	--	--	--	--	--	--	--
3160XC	42.02	.0089	.0006	--	--	.0006	--	--	--	--	--	--	--	--	--
3034A	43.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3034B	43.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3332A	44.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3332B	44.01	.0011	--	--	--	--	--	--	--	--	--	--	--	--	--
3332NA	44.02	--	--	--	--	.0015	--	--	--	--	--	--	--	--	--
3332NB	44.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3332NC	44.02	.0024	--	--	--	--	--	--	--	--	.0006	--	--	--	--
3332PA	44.03	--	--	--	--	--	--	--	--	.0016	.0107	--	--	--	--
3332PB	44.03	--	--	--	--	--	--	.0239	--	--	.0012	.0239	--	--	--
3332PC	44.03	.0006	--	.0090	--	--	--	.0090	--	--	.0018	.0027	--	--	--
3332QA	44.04	--	--	--	--	--	--	.0331	--	--	.0221	.0033	--	.0166	--
3332QB	44.04	--	--	--	--	--	--	.1250	--	.0125	.0250	.0250	--	--	--
3332R	44.05	--	.0049	--	--	--	--	.0343	--	--	.0735	.0343	--	--	--
3092A	45.01	--	--	--	.0009	.0009	--	.0181	--	.0009	.0009	.0090	--	.0008	.0001
3092B	45.01	--	--	--	.0014	.0005	--	--	--	.0010	--	--	--	.0010	--
3092C	45.01	--	--	--	--	.0005	--	--	--	.0009	.0005	.0070	--	--	--
3092XA	45.02	--	--	--	--	.0008	--	--	--	--	--	--	--	--	--
3092XB	45.02	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3092XC	45.02	--	--	--	--	.0007	--	--	--	--	--	--	--	--	--
3333	46.01	--	--	--	--	.0143	--	.0048	--	--	.0019	.0019	--	--	--
3333NA	46.02	--	--	--	--	--	--	.0366	--	--	.2439	--	--	.0610	--
3333NB	46.02	--	--	--	--	.0011	--	.0571	--	--	.5708	.0228	--	.0571	--
3334A	47.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3334B	47.01	.0007	--	.0007	--	.0010	--	--	--	--	--	--	--	--	--
3334C	47.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3334NA	47.02	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3334NB	47.02	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3334NC	47.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3334QA	47.03	--	--	--	--	.0006	--	.0249	--	--	--	--	--	.0125	--
3334QB	47.03	--	--	--	--	--	--	.0234	--	--	.0351	--	--	--	--
3334R	47.04	--	--	--	--	--	--	--	--	--	.0877	--	--	--	--
3335A	48.01	--	--	--	--	--	--	--	--	--	.0006	--	--	--	--
3335B	48.01	.0013	--	--	--	--	--	.0013	--	--	.0013	--	--	--	--
3335NA	48.02	--	--	--	--	--	--	.0018	--	--	.0453	.0453	--	.0181	--
3335NB	48.02	--	--	--	--	--	--	.0172	--	--	.0858	--	--	.0172	--
3335NC	48.02	--	--	--	--	.0005	--	.0472	--	--	.4717	--	--	.0472	--
3335PA	48.03	--	--	--	--	--	--	.0114	--	--	.0801	--	--	.0343	--
3335PB	48.03	--	--	--	--	--	--	.1200	--	--	.8000	--	--	.4000	--
3331A	49.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3331B	49.01	.0008	--	--	--	.0008	--	--	--	--	--	--	--	--	--
3331C	49.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3331NA	49.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Fairbanks Gold Data--Continued

Sample	SiteType	Be %	W %	Mn %	Fe %	Mg %	Ca %	Ti %	Si %	Smpl Wt	r=Au/Ag	Au/Cu	Ag/Cu	r/Cu
3157C	41.01	--	--	.0005	.0486	.0068	.0097	.0049	.1946	5.14	9.2	1,319	143	136
3157D	41.01	--	--	.0005	.0456	.0046	.0046	.0018	.1825	5.48	9.9	1,984	200	217
3160A	42.01	--	--	.0007	.0662	.0095	.0095	.0009	.4726	5.29	6.0	1,791	300	126
3160B	42.01	--	--	.0005	.0501	.0100	.0050	.0030	.2004	4.99	8.9	2,979	333	297
3160C	42.01	--	--	.0005	.0660	.0094	.0047	.0047	.1887	5.30	6.0	4,528	750	320
3160XA	42.02	--	--	.0008	.1698	.0127	.0042	.0085	.4244	5.89	6.8	5,098	750	400
3160XB	42.02	--	--	.0006	.1293	.0086	.0043	.0013	.6034	5.80	10.5	2,100	200	244
3160XC	42.02	--	--	.0018	.6250	.0179	.0089	.0179	.4464	5.60	10.1	5,033	500	564
3034A	43.01	--	--	--	.0538	.0054	.0054	--	.1254	2.79	6.3	9,614	1,520	706
3034B	43.01	--	--	.0003	.0774	.0108	.0077	.0077	.1548	3.23	4.8	17,779	3,667	1,044
3332A	44.01	--	--	.0006	.0033	.0011	.0011	.0011	.0078	4.50	29.0	5,797	200	1,739
3332B	44.01	--	--	.0002	.0034	.0006	.0011	.0564	.0079	4.43	28.5	5,700	200	1,683
3332NA	44.02	--	--	.0002	.0195	.0020	.0010	.0029	.0684	5.12	19.4	19,442	1,000	3,982
3332NB	44.02	--	--	.0004	.0123	.0018	.0012	.0061	.0614	4.07	15.3	10,896	714	1,774
3332NC	44.02	--	--	.0002	.0083	.0018	.0012	.0036	.0594	4.21	41.0	8,204	200	3,454
3332PA	44.03	--	--	.0002	.0161	.0021	.0011	.0021	.0751	4.66	30.0	12,857	429	3,994
3332PB	44.03	--	--	.0004	.0179	.0024	.0012	.0036	.0835	4.19	26.9	8,056	300	2,250
3332PC	44.03	--	--	.0009	.0450	.0027	.0009	.0270	.0899	5.56	36.0	10,788	300	3,999
3332QA	44.04	--	.0552	.0008	.0331	.0022	.0331	.0221	.0773	4.53	44.1	8,822	200	3,996
3332QB	44.04	--	.0750	.0050	.1250	.0050	.0125	.0500	.1250	2.00	25.5	7,643	300	2,038
3332R	44.05	--	.1471	.0034	.0490	.0049	.0490	.0049	.0980	1.02	19.2	6,416	333	1,309
3092A	45.01	--	.1805	.0027	.1354	.0045	.1805	.0181	.2708	5.54	20.9	3,488	167	773
3092B	45.01	--	.4808	.0014	.1442	.0288	.1442	.0067	.1923	5.20	13.7	1,912	140	284
3092C	45.01	--	.0100	.0020	.1500	.0200	.0300	.0050	.5000	5.00	12.7	1,774	140	253
3092XA	45.02	--	--	.0005	.0322	.0054	.0054	.0032	.1073	4.66	17.6	2,930	167	546
3092XB	45.02	--	--	.0002	.0200	.0030	.0050	.0030	.1000	5.00	19.0	1,896	100	379
3092XC	45.02	--	--	.0005	.0668	.0067	.0048	.0010	.1431	5.24	13.9	1,942	140	291
3333	46.01	--	--	.0143	.0669	.0029	.0096	.0287	.1912	5.23	19.8	19,828	1,000	4,148
3333NA	46.02	--	--	.0122	.0366	.0037	.0122	.0244	.1829	4.10	15.3	10,909	714	1,789
3333NB	46.02	--	.0799	.0342	.1142	.0023	.1712	.0342	.2283	4.38	16.2	11,605	714	2,033
3334A	47.01	--	--	.0006	.0238	.0036	.0012	.0024	.1188	4.21	41.0	8,193	200	3,449
3334B	47.01	--	--	.0030	.1008	.0050	.0101	.0101	.5040	4.96	13.1	30,478	2,333	4,319
3334C	47.01	--	--	.0005	.0152	.0015	.0020	.0102	.0711	4.92	48.1	9,628	200	4,737
3334NA	47.02	--	--	.0010	.0493	.0020	.0049	.0049	.1479	5.07	32.7	9,810	300	3,316
3334NB	47.02	--	--	.0006	.0919	.0018	.0018	.0064	.1379	5.44	53.2	10,647	200	5,792
3334NC	47.02	--	--	.0005	.0187	.0014	.0019	.0028	.0933	5.36	20.4	6,798	333	1,458
3334QA	47.03	--	--	.0012	.1247	.0037	.0025	.0249	.1247	4.01	38.9	7,783	200	3,121
3334QB	47.03	--	--	.0082	.0820	.0035	.2342	.0351	.2342	4.27	27.2	8,173	300	2,326
3334R	47.04	--	--	.0022	.3070	.0088	.0439	.0307	.1316	1.14	14.1	4,220	300	641
3335A	48.01	--	--	.0002	.0240	.0012	.0024	.0024	.1199	4.17	26.7	8,014	300	2,228
3335B	48.01	--	--	.0004	.0265	.0013	.0026	.0066	.1323	3.78	14.1	10,051	714	1,520
3335NA	48.02	--	--	.0002	.0181	.0009	.0018	.0063	.0634	5.52	14.7	10,304	700	1,625
3335NB	48.02	--	--	.0003	.0172	.0009	.0017	.0129	.0858	5.83	22.2	11,120	500	2,593
3335NC	48.02	--	--	.0283	.0660	.0009	.0472	.0189	.1415	5.30	20.0	14,278	714	3,027
3335PA	48.03	--	--	.0011	.0343	.0017	.0023	.0343	.0801	4.37	28.0	8,404	300	2,448
3335PB	48.03	--	.0800	.0040	.2000	.0040	.0600	.0800	.2000	1.25	15.3	3,281	214	547
3331A	49.01	--	--	.0006	.0079	.0011	.0017	.0023	.0794	4.41	16.6	4,151	250	732
3331B	49.01	--	--	.0008	.0566	.0057	.0023	.0034	.5656	4.42	11.5	4,038	350	510
3331C	49.01	--	--	.0008	.0328	.0016	.0033	.0016	.1639	3.05	59.8	2,989	50	1,824
3331NA	49.02	--	--	.0006	.0188	.0019	.0025	.0025	.1250	4.00	7.0	3,491	500	279

Fairbanks Gold Data--Continued

Sample	SiteType	Au %	Fineness	Ag %	Sum %	Cu %	Zn %	Pb %	As %	Sb %	Cd %	Bi %	Hg %	Te %
3331NB	49.02	88.5	886	11.3	.1791	.0227	--	.0057	--	.0034	--	.0113	.0340	--
3331NC	49.02	91.0	914	8.6	.4238	.0246	--	.1229	--	.0061	--	.0123	.0614	--
3344A	50.01	94.7	949	5.0	.2926	.0101	--	.0101	--	.0020	.0101	.0151	.0151	--
3344B	50.01	96.4	966	3.4	.1852	.0079	--	.0079	--	--	.0113	.0225	.0169	--
3344NA	50.02	96.1	963	3.7	.1928	.0123	--	.0025	--	--	.0123	.0002	.0614	--
3344NB	50.02	96.4	966	3.4	.2393	.0112	--	.0337	--	--	.0112	.0225	.0562	--
3344NC	50.02	96.7	968	3.2	.1402	.0106	--	.0074	--	--	.0106	.0011	.0213	--
3344Q	50.03	94.9	956	4.4	.6767	.0147	--	.0147	.0073	.0044	--	.0733	.0293	--
3330	51.01	84.6	850	14.9	.5227	.0104	--	.0045	--	.0149	.0007	.0149	.0075	--
3330NA	51.02	93.8	941	5.8	.3985	.0125	--	.0167	--	--	--	.0833	.0167	--
3122A	52.01	89.4	899	10.0	.6470	.0200	--	.0500	.0050	.0020	--	.0700	.0700	--
3122B	52.01	86.5	874	12.5	.9596	.0250	--	.0375	--	.0025	--	.1875	.0625	--
3122C	52.01	88.5	900	9.8	1.6417	.0197	--	.0984	--	.0020	--	.1969	.9843	.0148
3122XA	52.02	80.7	815	18.3	.9787	.0183	--	.0064	--	.0018	--	.0027	.0091	--
3122XB	52.02	87.2	895	10.2	2.5170	.0154	--	.0512	--	--	--	.0512	.0072	--
3122XC	52.02	89.7	904	9.5	.7676	.0142	--	.0095	.0047	--	--	.0474	.0066	--
3122S	52.03	84.6	889	10.6	4.8319	.0529	--	.3171	.0042	.0317	--	.2114	.1057	--
3111A	53.01	87.2	894	10.3	2.4840	.0309	--	.0051	.5144	.0051	--	.0051	.0072	--
3111C	53.01	70.5	710	28.7	.7489	.0192	--	.0029	--	.1437	--	.0287	.0287	--
3111XA	53.02	86.5	867	13.3	.1814	.0178	--	.0009	--	--	--	.0004	.0044	--
3111XC	53.02	87.9	892	10.7	1.3686	.0214	--	.0321	--	--	--	.0011	.0021	--
3111RA	53.03	63.4	642	35.3	1.3006	.0012	--	.0006	--	.0235	--	--	.0235	--
3111RB	53.03	58.3	586	41.2	.5096	.0014	--	.0010	--	.0137	--	--	.0069	--
3111RC	53.03	76.0	770	22.7	1.3094	.0106	--	.0011	--	--	--	--	.0045	--
3111SA	53.04	89.5	900	10.0	.4807	.0300	--	.0300	--	.0020	--	.0300	.1000	--
3111SB	53.04	90.6	908	9.1	.3050	.0392	--	.0065	--	--	--	.0065	.0196	--
3111T	53.05	88.0	904	9.4	2.6038	.0313	--	.3125	--	.0938	--	.1562	.0625	--
3111XP	53.06	96.7	972	2.8	.5246	.0278	--	.0139	--	--	--	.1389	.0093	--
3111B	53.07	49.0	498	49.4	1.6169	.0020	--	.0015	--	.0692	--	.0005	.0198	--
3105A	54.01	84.9	854	14.5	.6176	.0483	--	.0483	--	.0019	--	.0483	.0068	--
3105B	54.01	89.5	898	10.2	.2990	.0305	--	.0005	--	--	--	.0010	.0030	--
3105C	54.01	80.9	815	18.4	.6996	.0276	--	.0006	.0064	--	--	.0005	.0064	--
3105D	54.01	88.9	893	10.7	.4205	.0321	--	.0321	--	--	--	.0748	.0053	--

Fairbanks Gold Data--Continued

Sample	SiteType	Ni %	Co %	Sn %	Mo %	Ba %	Sr %	Zr %	V %	Cr %	Y %	La %	Sc %	Nb %	B %
3331NB	49.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3331NC	49.02	--	--	--	--	--	--	.0012	--	--	.0006	--	--	--	--
3344A	50.01	.0010	--	--	--	--	--	--	--	--	--	--	--	--	--
3344B	50.01	.0006	--	--	--	--	--	--	--	--	--	--	--	--	--
3344NA	50.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3344NB	50.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3344NC	50.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3344Q	50.03	--	--	.0103	--	--	--	.0147	--	--	--	--	--	--	--
3330	51.01	--	--	--	--	.0007	--	--	--	--	--	--	--	--	--
3330NA	51.02	--	--	--	--	.0004	--	--	--	--	--	--	--	--	--
3122A	52.01	.0050	--	--	--	.0010	--	--	--	--	--	--	--	--	--
3122B	52.01	--	--	--	--	.0025	--	--	--	--	--	--	--	--	--
3122C	52.01	.0020	--	--	--	.0015	--	--	--	--	--	--	--	--	--
3122XA	52.02	--	--	--	--	.0009	--	.0006	.0009	--	--	--	--	--	--
3122XB	52.02	--	--	--	--	.0015	--	--	.0010	.0020	--	--	--	--	--
3122XC	52.02	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--
3122S	52.03	.0021	.0011	.0211	--	.0016	--	.0211	.0016	.0159	.0053	.0211	--	--	.0011
3111A	53.01	.2058	.0031	--	--	.0015	--	--	--	--	--	--	--	--	--
3111C	53.01	--	--	--	--	.0010	--	--	--	--	--	--	--	--	--
3111XA	53.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3111XC	53.02	.0107	--	--	--	.0011	--	--	--	--	--	--	--	--	--
3111RA	53.03	--	--	--	--	.0012	--	--	--	--	--	--	--	--	--
3111RB	53.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3111RC	53.03	.0045	--	--	--	.0030	--	--	--	--	--	--	--	--	--
3111SA	53.04	--	--	--	--	.0015	--	--	--	--	--	--	--	--	--
3111SP	53.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3111T	53.05	.0047	--	--	.0022	--	--	--	--	.4688	--	--	--	--	--
3111XB	53.06	--	--	--	--	.0014	--	--	--	--	--	--	--	--	--
3111B	53.07	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3105A	54.01	--	--	.1931	--	.0005	--	--	--	--	--	--	--	--	.0001
3105B	54.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	.0001
3105C	54.01	.0092	.0046	--	--	.0014	--	--	--	--	--	--	--	--	.0001
3105D	54.01	--	--	--	--	.0005	--	--	--	--	--	--	--	--	--

Fairbanks Gold Data--Continued

Sample	SiteType	Be %	W %	Mn %	Fe %	Mg %	Ca %	Ti %	Si %	Smpl Wt	r=Au/Ag	Au/Cu	Ag/Cu	r/Cu
3331NB	49.02	--	--	.0006	.0170	.0011	.0023	.0017	.0794	4.41	7.8	3,902	500	344
3331NC	49.02	--	--	.0025	.0246	.0018	.0369	.0061	.1229	4.07	10.6	3,703	350	431
3344A	50.01	--	--	.0003	.1512	.0020	.0020	.0030	.0706	4.96	18.8	9,391	500	1,863
3344B	50.01	--	--	.0003	.0338	.0023	.0023	.0008	.0788	4.44	28.5	12,234	429	3,621
3344NA	50.02	--	--	.0002	.0369	.0018	.0012	.0025	.0614	4.07	26.1	7,824	300	2,123
3344NB	50.02	--	--	.0003	.0225	.0011	.0011	.0008	.0787	4.45	28.6	8,579	300	2,545
3344NC	50.02	--	--	.0003	.0319	.0011	.0011	.0016	.0532	4.70	30.3	9,087	300	2,847
3344Q	50.03	--	--	.0022	.1466	.0073	.0293	.0293	.2933	3.41	21.6	6,474	300	1,472
3330	51.01	--	--	.0010	.1493	.0075	.0104	.0022	.2985	3.35	5.7	8,093	1,429	542
3330NA	51.02	--	--	.0006	.0833	.0042	.0058	.0083	.1667	6.00	16.1	7,501	467	1,286
3122A	52.01	--	--	.0010	.2000	.0150	.0050	.0030	.2000	5.00	8.9	4,468	500	447
3122B	52.01	--	--	.0009	.1875	.0375	.0375	.0038	.3750	4.00	6.9	3,462	500	277
3122C	52.01	--	--	.0010	.0984	.0197	.0049	.0015	.1969	5.08	9.0	4,497	500	457
3122XA	52.02	--	--	.0009	.4570	.0091	.0046	.0091	.4570	5.47	4.4	4,416	1,000	242
3122XB	52.02	.0001	--	.0154	.5123	.1025	.0154	1.0246	.7172	4.88	8.5	5,676	667	554
3122XC	52.02	--	--	.0047	.4744	.0095	.0047	.0014	.1898	5.27	9.5	6,306	667	665
3122S	52.03	--	--	.0529	2.1142	.0529	1.0571	.2114	.5285	4.73	8.0	1,601	200	151
3111A	53.01	--	--	.0031	.5144	.0514	.0051	.1029	1.0288	4.86	8.5	2,826	333	275
3111C	53.01	--	--	.0003	.0287	.0144	.0014	.0010	.4789	5.22	2.5	3,681	1,500	128
3111XA	53.02	--	--	.0003	.0622	.0044	.0013	.0009	.0888	5.63	6.5	4,870	750	366
3111XC	53.02	--	--	.0021	.3205	.2137	.0107	.0053	.7479	4.68	8.2	4,116	500	385
3111RA	53.03	--	--	.0006	.0588	.0118	.0012	.0018	1.1765	4.25	1.8	53,894	30,000	1,527
3111RB	53.03	--	--	.0004	.0687	.0027	.0014	.0014	.4121	3.64	1.4	42,429	30,000	1,030
3111RC	53.03	--	--	.0023	.4545	.0303	.0303	.0106	.7576	3.30	3.3	7,162	2,143	315
3111SA	53.04	--	--	.0002	.0700	.0050	.0020	.0100	.2000	5.00	9.0	2,984	333	298
3111SB	53.04	--	--	.0002	.0261	.0091	.0020	--	.1958	3.83	9.9	2,312	233	253
3111T	53.05	--	.0313	.0156	.9375	.0094	.3125	.0094	.1562	1.60	9.4	2,817	300	300
3111XB	53.06	--	--	.0002	.0463	.0065	.0019	.0008	.2778	5.40	34.8	3,481	100	1,253
3111B	53.07	--	--	.0003	.0296	.0099	.0010	.0010	1.4822	5.06	1.0	24,782	25,000	502
3105A	54.01	--	--	.0002	.0483	.0097	.0193	--	.1931	5.18	5.9	1,759	300	122
3105B	54.01	--	--	.0002	.0508	.0071	.0020	--	.2033	4.92	8.8	2,937	333	289
3105C	54.01	--	--	.0009	.1381	.0276	.0138	.0018	.4604	5.43	4.4	2,928	667	159
3105D	54.01	--	--	.0002	.0534	.0053	.0021	.0009	.2137	4.68	8.3	2,774	333	260