UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

SUMMARIES OF DATA ON AND LISTS OF REFERENCES TO METALLIC AND SELECTED NONMETALLIC MINERAL OCCURRENCES IN THE SKAGWAY QUADRANGLE, ALASKA, SUPPLEMENT TO OPEN-FILE REPORT 78-316

PART A -- SUMMARIES OF DATA TO JANUARY 1, 1980

By

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

Introduction

This report was prepared as a supplement to a 1978 report, part of which summarized data on mineral occurrences in the Skagway quadrangle, Alaska (Cobb, E. H., 1978, Summary of references to mineral occurrences (other than mineral fuels and construction materials) in the Mt. Fairweather and Skagway quadrangles, Alaska: U.S. Geological Survey Open-file Report 78-316, 128 p.). As a result of suggestions from users of the series of which the 1978 report is a part, this supplement is released in two parts; Part A, which presents summaries of data to January 1, 1980, and Part B, which consists of reference lists for each occurrence.

In Part A data from reports released between the cut-off date (November 1, 1977) for the original report and January 1, 1980 have been incorporated in rewritten or new summaries where appropriate; if there are no new data on a deposit the original summary is repeated. For each deposit the name, list of mineral commodities, and location data are in the same format as is the 1978 report. Also included is an updated list of synonyms, owner, operator, and claim names.

In Part B citations are in standard bibliographic format with the exception that references to reports and maps in numbered publication series also show, in parentheses, an abbreviation for the report or map series and the number of the report or map. Abbreviations used are:

AOF	Alaska Division of Geological and Geophysical Surveys Open-file Report
B	U.S. Geological Survey Bulletin
C	U.S. Geological Survey Circular
GC	Alaska Division of Geological and Geophysical Surveys and predecessor agencies Geochemical Report
IC	U.S. Bureau of Mines Information Circular
OF	U.S. Geological Survey Open-file Report
MF	U.S. Geological Survey Miscellaneous Field Studies Map
P	U.S. Geological Survey Professional Paper
RI	U.S. Bureau of Mines Report of Investigations

Citations to the principal references used in preparing the summaries in Part A are preceeded by an asterisk.

Because the form of citation used in the reference list for each deposit constitutes sufficient identification of each numbered report or map to allow it to be found easily in most libraries, the general reference list in this report consists only of reports without formal identifying numbers. Numbers given to Geological Survey Open-file Reports listed with complete titles are informal and are used mainly in the Branch of Alaskan Geology of the Geological Survey.

(Bear Cr.) Copper, Gold, Zinc

Juneau district Skagway (16.5-16.9, 9.7-9.95) approx.
MF-424, locs. 14, 28 59°33'N, 139°06'-139°09'W

Specimen of a quartz vein a few inches thick from ridge west of creek at 59°33'N, 136°09'W (16.5, 9.95) contained pyrite, pyrrhotite, chalcopyrite, and sphalerite. Auriferous stream gravels discovered in 1900 did not prove to be workable and claims were abandoned. Stream now called Kelsall R.

(Big Boulder Cr.) Gold

Juneau district Skagway (16.0, 8.0) approx.
59°26'N, 136°12'W approx.

Lean or small placer gold deposits.

(Cahoon Cr.) Gold

Juneau district Skagway (15.65-15.8, 6.8-6.95)
MF-424, loc. 26 59°23'N, 136°14'-136°15'W

Placer mining near mouth and then down McKinley Cr. for 2,000 ft, 1908 to about 1913. Mining near head of creek in early 1900's was not very successful. Sample of pyritiferous slate contained 0.02 ppm Au. Includes references to (Calhoun Cr.).

(Casement Glacier) Copper, Molybdenum

Juneau district Skagway (18.5, 1.2)
MF-424, loc. 8 59°03'N, 135°57'W

Molybdenite and copper carbonates in float on lateral moraines.

(Casement Glacier near Red Mtn.) Copper

Juneau district Skagway (18.35, 0.3)
59°00'N, 135°58'W

Skarn boulders on moraine contain about 5% chalcopyrite.

(Chilkat Peninsula) Copper

Juneau district Skagway (23.75, 4.05)
MF-424, loc. 19 59°12'N, 135°22'W

Chalcopyrite in greenstone/amphibolite(?)

(Clear Cr.) Gold(?)

Juneau district Skagway (16.9, 9.7) approx.
MF-424, loc. 28 59°33'N, 136°06'W approx.

Gold may have been found in 1900; if so, there could not have been much.

(Clifton) Molybdenum

Juneau district Skagway (24.7, 9.7)
MF-424, loc. 21 59°31'N, 135°13'W

About 1% molybdenite disseminated in light-colored granitic rock; locally concentrated along joints. Sometime between 1915 and 1917 a 15-ft shaft was sunk and a 30-ft tunnel driven. No production. Includes references to Combination and to molybdenite prospect north of Skagway.

(Cottonwood Cr.) Gold

Juneau district Skagway (16.15, 5.2)
MF-424, loc. 29 59°17'N, 136°12'W

Placer gold discovered in 1899. No development until 1902, and no data on how much then.

(Gable Mtn.) Copper, Silver

Juneau district Skagway (13.2, 1.2)
59°04'N, 136°32'W

Joint coatings in coarse-grained dioritic rock contain malachite and chrysocolla. Composite grab sample contained 0.1% (1,000 ppm) Cu and small amounts of Ag and Mo (molybdenum mineral not identified).

(Glacier Cr.) Copper, Gold, Lead, Silver, Zinc; Barite

Juneau district Skagway (14.4-15.15, 7.1-7.5)
MF-424, locs. 12, 24, 25 59°24'-59°25'N, 136°18'-136°23'W

Placer gold discovered in 1899 or 1900. Evidence for 2 glacial advances with stream entrenchment after each; gold in base of gravels formed during each entrenchment. Gold-bearing gravels 40-50 ft deep. Mining hampered by floods and large quantities of ground water. Probably never was much production. Lode deposits near southern boundary of a fault zone in chloritic schist that in places is several hundred feet wide consist of barite-rich lodes as much as 30 ft wide that also contain sphalerite, galena, chalcopyrite, silver (probably in argentiferous galena), probably sulfosalts, a little gold, and secondary minerals.

(Grizzly Cr.) Gold(?)

Juneau district Skagway (15.6, 7.0) approx.
59°24'N, 136°14'W approx.

Claims were staked in about 1900. No report of any other activity.

(Haines) Iron, Titanium

Juneau district Skagway (22.55, 4.65)
MF-424, loc. 18 59°15'N, 135°29'W

Pyroxenite surrounds epidote granite and in turn is surrounded (with

gradational contacts) by metabasalt. Contains probably less than 10% magnetite in grains as much as ¼ in in diameter. Ilmenite intergrown with magnetite; as much as 3.91% (Knopf) or 2.3% (Robertson) TiO_2. Some apatite present. Pyroxenite may be magmatic segregation deposit (Wright) or recrystallized basaltic rocks (Eakin). Resource estimated at several billion tons containing less than 10% magnetite. Only exploration was 100-ft tunnel driven in about 1906.

Hayes	Copper, Iron
Juneau district MF-424, loc. 9	Skagway (23.4, 1.0) 59°02'N, 135°24'W

Prospect on a cliff at the head of a talus slope that contains float of magnetite in marble and chalcopyrite and hematite in schistose marble partially altered to skarn.

Inspiration Point Mining Co.	Copper, Gold, Lead, Silver, Zinc
Juneau district MF-424, loc. 22	Skagway (25.4, 11.3) 59°37'N, 135°08'W

Quartz diorite contains small lenses and masses of argentiferous galena and probably other sulfides. Gold also reported. A few tons of ore containing values in silver, lead, zinc, and copper is said to have been produced.

Klehini R.	Gold
Juneau district MF-424, loc. 27 (in part)	Skagway (14.7-15.9, 7.6-8.0) 59°25'-59°27'N, 136°13'-136°21'W

Placer gold near mouths of Jarvis and Porcupine Creeks and probably at many other places. Very little mining, but much testing to determine if deposits of river flats were amenable to dredging (mainly in early 1930's).

(Klukwan)	Copper, Iron, Platinum, Titanium, Vanadium
Juneau district MF-424, locs. 15, 16	Skagway (18.55-19.35, 7.3-8.0) 59°24'-59°26'N, 135°50'-135°55'W

Titaniferous magnetite in pyroxenite; magmatic segregation with magnetite interstitial to pyroxene and idiomorphic against hornblende. Pyroxenite surrounded by diorite. According to Robertson, several tabular zones contain an average of about 20% magnetic iron; about 500 million tons of rock; several billion tons of rock contain about 13% magnetic iron. Accoring to Taylor and Noble, the titaniferous magnetite is fairly uniformly distributed through the pyroxenite and makes up 15-20 percent of the rock. Other constituents are small amounts of chalcopyrite, hematite, pyrite, pyrrhotite, spinel, and leucoxene. By analysis it was determined that samples contained 0.01%-0.29% (average 0.2%) vanadium and as much as 0.11% P, 0.03% S, 0.03% Ni. Scandium identified spectrographically. Fan at foot of mountain slope contains an estimated

500 million tons of broken similar material with average magnetite content of 10%. Deposits long known, but no great interest shown until after World War II. A few tons was taken from the fan for metallurgical testing, but there has been no commercial production. Of 10 samples of pyroxenite, 7 contained platinum (average 0.046 ppm) and 7 contained palladium (average 0.040 ppm).

(Marble Cr.) — Gold(?)

Juneau district — Skagway (15.6, 7.0) approx.
59°24'N, 136°14'W approx.

Claims staked in about 1900. A little gold may have been mined in 1929.

Margerie — Copper, Gold, Molybdenum, Silver, Tungsten, Zinc

Juneau district — Skagway (8.3, 0.35)
MF-424, loc. 1 — 59°01'N, 137°05'W

Quartz veins, mineralized shear zones, pyrrhotite-rich massive sulfide bodies, and sulfides disseminated in Tertiary and/or Cretaceous granodiorite and (to a lesser extent) in a complex section of Permian(?) clastic, volcanic, and carbonate rocks altered to hornfels near intrusive contacts. Metallic minerals include chalcopyrite, pyrite, arsenopyrite, sphalerite, pyrrhotite, and molybdenite accompanied by powellite-scheelite, gold, and silver. Inferred identified resource is estimated at 160 million tons containing 0.02% Cu, 0.008 oz gold and 0.13 oz silver per ton, and 0.01% W; some higher grade parts of the deposit. Includes references to (Margerie Glacier).

(McBride Glacier) — Copper, Gold, Silver

Juneau district — Skagway (17.4, 1.9)
MF-424, loc. 7 — 59°06'N, 136°04'W

Ankeritic zones virtually conformable with bedding near facies change between marble and phyllite are less than 2 ft thick and 100 ft long and contain arsenopyrite, chalcopyrite, pyrrhotite, and small amounts of gold and silver. Five-ft-wide andesite dike also contains chalcopyrite and pyrite. Samples contained as much as 0.087 oz gold per ton and 15 ppm Ag.

(McKinley Cr.) — Gold

Juneau district — Skagway (15.7-15.8, 6.7-7.1)
MF-424, loc. 26 — 59°23'-59°24'N, 136°14'-136°15'W

Tributary of Porcupine Cr. Gold discovered in 1899. Both creek and bench placers mined. Creek placers mined for 2,000 ft downstream from mouth of Cahoon Cr. Bench placer was an old channel 200 ft above present stream. Mining was hampered by large boulders; flume needed to carry water around part of creek being mined. Mining probably ceased in about 1916. Bedrock is slate with many calcite veins, some cross-cutting quartz veins; much pyrite. A sample of mineralized slate

contained $2.48 in gold per ton (gold at $20.67).

(Minnesota Ridge) Copper, Gold

Juneau district Skagway (15.6, 0.4)
MF-424, loc. 5 59°01'N, 136°16'W

Pyrite, chalcopyrite, and secondary minerals along joints in granodiorite or quartz diorite. Small outcrop in extensive snowfield. Samples contained as much as 0.10 ppm Au.

(Mt. Barnard nunatak) Copper

Juneau district Skagway (9.45, 1.65)
59°05'N, 136°54'W

Small sulfide pods in altered volcanic rocks and limestone contain traces of chalcopyrite.

(Mt. Brack) Copper, Gold, Lead, Silver, Zinc

Juneau district Skagway (15.45, 2.1)
MF-424, loc. 6 59°07'N, 136°17'W

Veins in graywacke, limestone, hornfels, siltstone, and mafic rocks are 6-8 in thick and carry sphalerite, galena, chalcopyrite, probably a sulfosalt, and as much as 70 ppm Ag and 30 ppm Au. Includes reference to (Mt. Brock).

(Mt. Ripinski) Iron

Juneau district Skagway (22.25, 5.0)
59°16'N, 135°31'W

Titaniferous magnetite associated with mafic and ultramafic rocks.

(Nugget Cr.) Gold, Silver

Juneau district Skagway (16.3-16.35, 5.3-5.55)
MF-424, loc. 30 59°18'N, 136°11'W

Bedrock slate. Placer gold discovered 1899; sporadic mining, 1902 to 1911 or 1912 and possibly in 1929. Total production was probably about 300 fine oz. One concentrate sample contained 266.60 oz gold and 68.32 oz silver per ton. All mining on claims near mouth.

(Porcupine Cr.), (R.) Copper, Gold, Lead, Zinc

Juneau district Skagway (15.6-15.85, 7.0-7.5)
MF-424, loc. 26 59°24'-59°25'N, 136°14'-136°15'W

Placer gold discovered, 1898; mined intermittently to as recently as 1968. Porcupine Cr. and its tributaries McKinley and Cahoon Creeks accounted for most of the estimated 60,000 oz of gold from the area. Bedrock mainly slate and limestone; dioritic rocks at head. Slate contains calcite and quartz veins and disseminated sulfides. Sample from apparently barren quartz veins assayed $5.28 a ton in gold (at $20.67).

Gold in creek gravels from mouth upstream to McKinley Cr., in low benches along the creek, and in old channels high above present stream. Mining of creek gravels was greatly complicated by many large boulders and by need to divert creek into large flumes; floods several times destroyed workings. Concentrates contained gold, galena, magnetite, chalcopyrite, much pyrite, and some arsenopyrite; float sample of quartz vein contained sphalerite. Includes references tp Porcupine (Gold) Mining Co.

(Rendu Glacier) — Copper, Gold, Silver, Tungsten, Zinc

Juneau district — Skagway (10.65-11.0, 0.5-0.85)
MF-424, loc. 3 (in part) — 59°02'-59°03'N, 136°47'-136°49'W

Discontinuous carbonate lenses in Devonian or Silurian clastic rocks contact metamorphosed by Cretaceous or possibly Tertiary granitic rocks. Skarn deposits of unknown extent in contact zone contain chalcopyrite, pyrrhotite, scheelite, sphalerite, silver, and gold. Very rough country; most of deposits are inaccessible. One deposit (the "massive chalcopyrite deposit"), reached by using mountaineering techniques, was sampled and estimated to contain an inferred resource of 4,300 tons containing 0.5% W, 5.0% Cu, and 7 oz Ag and 0.25 oz Au per ton. Other deposits in area could not be investigated sufficiently to estimate resources.

(Saksaia Glacier) — Copper, Lead, Silver, Zinc, Barite

Juneau distric6 — Skagway (14.2, 6.6)
MF-424, loc. 11 — 59°22'N, 136°25'W

Northwest-striking, probably fault-controlled, lode about 20 ft thick in metavolcanic rocks exposed in a nunatak. Mineral assemblage similar to that in barite lode near Glacier Cr. Includes reference to (Sakasia Glacier). See also (Glacier Cr.).

(Salmon R.), (Cr.) — Gold, Lead, Zinc

Juneau district — Skagway (13.9-16.3, 5.2-5.7)
MF-424, locs. 23, 29 — 59°17'-59°19'N, 136°11'-136°27'W

Gold in bench gravels on north side between Nugget and Cottonwood Creeks about 20-40 ft above river. Bench has average width of 1,500 ft. River bars in same general area carry colors of gold. Gold discovered in 1899; a little mining in 1904-05 was reported. A float sample of a quartz vein near head of river contained galena and sphalerite. Includes references to: (Solomon R.), (Tsirku R.).

(Skagway) — Uranium

Juneau district — Skagway (24.25, 8.85)
MF-424, loc. 20 — 59°29'N, 135°17'W

Faulted quartz diorite intruded by fine-grained andesitic dikes and a small rhyolite(?) body. Globules of clay in fracture in rhyolite(?) contain as much as 0.72% eU (1.2% U). Mineralized iron-stained,

altered rhyolite(?) contains as much as 0.22% eU. No sulfides; a few specks of purple fluorite. Very little of the radioactive material is present.

Stampede	Gold(?)
Juneau district	Skagway NW¼NW¼NW¼SE¼ quad.

Exploration of gold lode claims, 1929. Large company dropped option. Work may have been in Canada. This may be the prospect shown on several maps (e.g., Pl. 1, B 699) as being in Canada just north of Jarvis Glacier.

(Summit Cr.)	Copper, Gold, Lead, Silver
Juneau district MF-424, loc. 13	Skagway (17.1, 6.25) 59°20'N, 136°05'W

Small silver-lead veins have a maximum metal content of about $3 a ton in gold (at $20.67), about 60 oz silver a ton, and about 35% lead. One sample contained nearly 3% copper. Only slight development. Eakin considered the veins to be too small for profitable exploitation. Prospect could not be found in about 1970.

(Takhin R.)	Gold
Juneau district MF-424, loc. 31	Skagway (16.7, 4.95) approx. 59°16'N, 136°08'W approx.

Gold-bearing gravels have been found.

(Tarr Inlet)	Copper, Gold, Silver, Zinc
Juneau district MF-424, loc. 2 (in part)	Skagway (8.75-9.0, 0.15-0.3) 59°00'-59°01'N, 137°00'-137°02'W

Fault and shear zones in a body of Cretaceous quartz monzodiorite with large xenoliths of hornfelsed shale and volcanic rocks and 2 small plugs(?) of porphyritic granite contain pyrite, chalcopyrite, sphalerite, and arsenopyrite. Samples of richer parts of mineralized zones contained as much as 3,300 ppm Cu, 5,000 ppm Zn, 3,100 ppm Pb, 50 ppm Ag, and 0.15 ppm Au.

Unnamed occurrence	Copper
Juneau district MF-424, loc. 17	Skagway (21.0, 6.0) approx. 59°20'N, 135°40'W approx.

Bornite and hematite reported from prospects on ridge between Chilkoot and Chilkat valleys about 10 mi NW of Haines. The quartz veins with bornite usually also carry hematite.

Unnamed occurrence	Copper(?)
Juneau district	Skagway (19.2, 4.15) 59°13'N, 135°52'W

Chalcopyrite(?) disseminated in hornfels.

Unnamed occurrence	Molybdenum
Juneau district MF-424, loc. 10	Skagway (17.4, 3.9) 59°12'N, 136°04'W

Molybdenite disseminated in biotite granodiorite(?).

Synonyms, Owners, Operators, and Claim Names

Alaska Corp. -- see (Porcupine Cr.)
Alaska Iron (& Steel) Corp. -- see (Haines), (Klukwan)
Alaska Iron Mines, Inc. -- see (Klukwan)
Alaska Juneau Gold Mining Co. -- see Stampede
Alaska-Sunshine Mining Co. -- see (Porcupine Cr.)
Anway -- see (Cottonwood Cr.), (Nugget Cr.)
Barkdull and associates -- see (Klukwan)
Brown and associates -- see (Haines), (Klukwan)
Cahoon Creek Gold Mining Co. -- see (Cahoon Cr.), (McKinley Cr.)
Cahoon Creek Placer Mining Co. -- see (Cahoon Cr.)
(Calhoun Cr.) -- see (Cahoon Cr.)
Chisel & Chisel -- see (Haines)
Chisholm (& Clark) -- see (McKinley Cr.)
Combination -- see (Clifton)
Cranston -- see (Porcupine Cr.)
Delta -- see (Porcupine Cr.)
Finley -- see (Porcupine Cr.)
Franklin and others -- see (Haines)
Gold Nugget Mining Co. -- see (Porcupine Cr.)
Guyot & Cartwright -- see (Clifton)
Ibach -- see (Rendu Glacier)
(Kelsall R.) -- see (Bear Cr.)
Kenney Presbyterian Home -- see (Tarr Inlet)
Klukwan Iron Corp. -- see (Klukwan)
Le Fevre -- see (Klukwan)
Legal Tender -- see (Porcupine Cr.)
(Margerie Glacier) -- see Margerie
McKinley Creek Mining Co. -- see (McKinley Cr.)
Mix -- see (Porcupine Cr.)
Moneta-Porcupine Co. -- see Margerie
(Mt. Brock) -- see (Mt. Brack)
(Nunatak) -- see (Saksaia Glacier)
(Orange Point) -- see (Tarr Inlet)
Palmer, Morlan and associates -- see (Glacier Cr.), (Saksaia Glacier)
Porcupine (Gold) Mining Co. -- see (Porcupine Cr.)
Quebec Metallurgical Industries, Ltd. -- see (Klukwan)
(Sakasia Glacier) -- see (Saksaia Glacier)
Ship -- see (Rendu Glacier)
(Solomon R.) -- see (Salmon R.)
Takahashi, Upton and associates -- see (Klukwan)
(Takshanuk Mts.) -- see (Klukwan), (Mt. Ripinski)
(Tsirku R.) -- see (Salmon R.)
United Gold Mining Co. -- see (McKinley Cr.)
Woodin -- see (McKinley Cr.)
(Yokeak Cr.) -- see (Big Boulder Cr.)