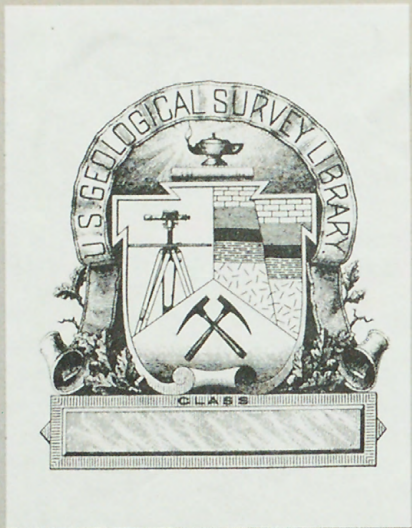


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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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SUMMARY OF REFERENCES TO MINERAL OCCURRENCES
(OTHER THAN MINERAL FUELS AND
CONSTRUCTION MATERIALS)
IN THE CHARLEY RIVER AND COLEEN QUADRANGLES,
ALASKA

TM
TW 9791



OPEN-FILE REPORT 76-632

This report is preliminary and has not
been edited or reviewed for conformity
with Geological Survey standards and
nomenclature

Menlo Park, California
1976

274761

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

SUMMARY OF REFERENCES TO MINERAL OCCURRENCES

(OTHER THAN MINERAL FUELS AND CONSTRUCTION MATERIALS)

IN THE CHARLEY RIVER AND COLEEN QUADRANGLES,

ALASKA

By

untington
Edward H. Cobb, 1916 -

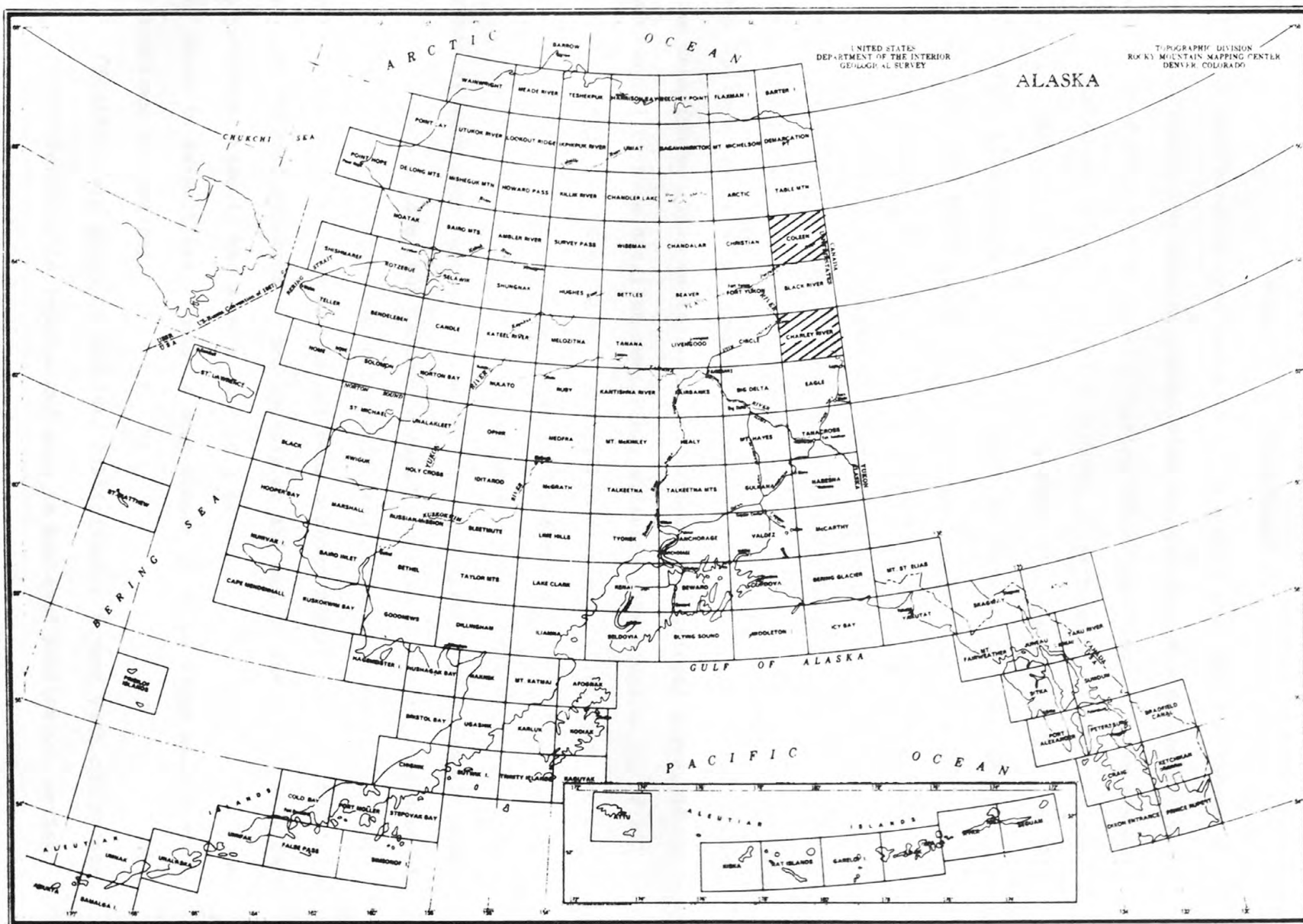
Open-file Report 76- 632

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and has not been edited or
reviewed for conformity with
Geological Survey standards
and nomenclature.

Introduction

These summaries of references are designed to aid in library research on metallic and nonmetallic (other than mineral fuels and construction materials) mineral occurrences in the Charley River and Coleen quadrangles in east-central Alaska. All references to reports of the Geological Survey, to most reports of the U.S. Bureau of Mines, and to most reports of the State of Alaska Division of Geological and Geophysical Surveys and its predecessor State and Territorial agencies released before January 1, 1976, are summarized. Certain, mainly statistical, reports such as the annual Minerals Yearbook of the U.S. Bureau of Mines and the biennial and annual reports of the State of Alaska Division of Geological and Geophysical Surveys and its predecessor State and Territorial agencies are not included.

This report is divided into three parts: a section made up of summaries of references arranged alphabetically first by quadrangle and second by occurrence name; a section that lists synonyms for names in the first section, claim names, and the names of operators and owners of mines and prospects; and a section that lists, by author, all references summarized in the first section.



Summaries of References

For each mineral occurrence there is a page that gives the name of the occurrence; the mineral commodities present listed alphabetically [FM is used for uranium and(or) thorium determined chemically or present as a constituent of an identified mineral other than monazite; platinum includes all members of the platinum group]; the mining district (Ransome and Kerns, 1954) in which the occurrence is located; the name of the 1:250,000-scale topographic quadrangle; coordinates (as described by Cobb and Kachadoorian, 1961, p. 3-4); the metallic mineral resources map number (Cobb, 1972, in the reference list for each quadrangle) and the occurrence number on that map if the occurrence is shown; and the latitude and longitude of the occurrence. These data, presented at the top of the page, are followed by a short, general summary of the published information on the occurrence. This is followed (continued on additional pages, if necessary) by more detailed summaries, arranged chronologically, of all references to the occurrence. Material in brackets is interpretive or explanatory and is not in the summarized reference.

Proper names of mines, prospects, and other mineral occurrences are given if such names appear in the reports summarized. If a deposit does not have such a name, but is near a named geographic feature, the name of that feature is shown in parentheses in lieu of a proper name. If a deposit has no proper name and is not near a named geographic feature, it is titled "Unnamed occurrence" and appears at the end of the list. If a part of a proper name is not always used in a reference, that part of the name is shown in parentheses. This is most common in place names with minor variations in spelling.

Citations are given 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 report or map number. 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
I	U.S. Geological Survey Miscellaneous Geologic Investigations Map
MF	U.S. Geological Survey Miscellaneous Field Studies Map
P	U.S. Geological Survey Professional Paper
TDM	Alaska Territorial Department of Mines Pamphlet
USBM OF	U.S. Bureau of Mines Open-file Report

Summaries are as I made them while reading the cited reports. I made no attempt to use complete sentences and did not edit for grammatical consistency, although I have tried to edit out ambiguities.

References cited only in these introductory paragraphs are:

- Cobb, E. H., and Kachadoorian, Reuben, 1961, Index of metallic and nonmetallic mineral deposits of Alaska compiled from published reports of Federal and State agencies through 1959: U.S. Geol. Survey Bull. 1139, 363 p.
- Ransome, A. L., and Kerns, W. H., 1954, Names and definitions of regions, districts, and subdistricts in Alaska (used by the Bureau of Mines in statistical and economic studies covering the mineral industry of the Territory): U.S. Bur. Mines Inf. Circ. 7679, 91 p.

(Alder Cr.)

Gold

Circle district

Charley R. (2.25, 4.75) approx.
65°16'N, 143°42'W approx.

Summary: Has been placer gold mining; probably not much.

Mertie, 1942 (B 917-D), p. 250 -- Some placer ground was worked; tributary of Webber Cr.

(Alice Gulch)

Gold

Circle district
MF-390, loc. 4

Charley R. (4.65, 5.1)
65°17'N, 143°22'W

Summary: Tributary of Mineral Cr. (tributary of Woodchopper Cr.) where there has been productive mining. None reported more recently than 1912.

Brooks, 1907 (B 314), p. 203 -- Tributary of Mineral Cr. Has been productive (as of 1906).

Prindle and Mertie, 1912 (B 520), p. 209-210 -- Quotation from B 314, p. 203. Also mining in 1911.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Mining, 1912.

Prindle, 1913 (B 538), p. 75 -- Quotation from B 314, p. 203.

Cobb, 1973 (B 1374), p. 122 -- Has been mining.

(Ben Cr.)

Gold

Circle district

Charley R. (7.35, 4.85) approx.
65°17'N, 143°00'W approx.

Summary: Small placer deposits have been found.

Mertie, 1942 (B 917-D), p. 250 -- Small placer deposits have been found.

(Boulder Cr.)

Gold

Circle district
MF-390, loc. 5

Charley R. (6.1-6.15, 5.1-5.2)
65°02'N, 143°10'W

Summary: Tributary of Coal Cr. where there has been small-scale placer mining. Prospecting or mining reported 1912-13 and 1935-36.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Prospecting or mining, 1912.

Chapin, 1914 (B 592), p. 360 -- Winter mining, 1913.

Mertie, 1938 (B 897-C), p. 252 -- Small-scale drift mining, 1935-36.

Mertie, 1942 (B 917-D), p. 250-251 -- Tributary of Coal Cr. from SE; gold placers are present.

(Coal Cr.)

Gold, Monazite

Circle district

Charley R. (5.6-6.5, 4.9-5.65)

MF-390, loc. 5

65°17'-65°19'N, 143°07'-143°14'W

Summary: Stream heads in area of metamorphic rocks and greenstone; then flows north completely across a belt of Upper Cretaceous and Tertiary conglomerate and other terrestrial rock types (Brabb and Churkin, 1969). No placers south of conglomerate belt; abrupt drop in value at north edge. Placers largely were proximally derived from conglomerate, which in turn was derived from older metamorphic rocks. Gold placers discovered in or before 1902 and mined intermittently until as recently as 1968. Dredge began operating, 1935 and continued until at least 1940. Monazite in concentrates.

Brooks, 1903 (B 213), p. 48 -- Three claims being developed, 1902.

Prindle, 1906 (B 295), p. 23 -- Mining, 1905. Most of mining in valley was on Colorado Cr. Bedrock is Kenai [Tertiary] sandstone and conglomerate. Cretaceous slates, and Rampart [Paleozoic] slates and greenstones.

Brooks, 1907 (B 314), p. 202-203 -- Placer mining, 1906.

Brooks, 1909 (B 379), p. 54 -- Mining, 1908.

Ellsworth and Parker, 1911 (B 480), p. 172 -- Hydraulic mining, 1910.

Prindle and Mertie, 1912 (B 520), p. 201 -- Mining, 1911.

p. 208-209 -- In lower part of stream course gold was derived from Tertiary conglomerates. Gold also discovered south of Tertiary belt in area of Paleozoic greenstone and sedimentary rocks; ground 7 ft. deep and productive gravels more than 100 ft. wide. Many garnets and pieces of garnetiferous schist in gravel, suggesting that at least some of gold came from pre-Ordovician schist at head of creek.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Prospecting or mining, 1912.

Prindle, 1913 (B 538), p. 76 -- About the same as B 520, p. 208-209.

Chapin, 1914 (B 592), p. 360 -- Mining, 1913.

Brooks, 1915 (B 622), p. 61 -- Mining, 1914.

Brooks, 1916 (B 642), p. 63 -- Mining, 1915.

Mertie, 1930 (B 816), p. 165-166 -- No mining in 1925, but has been intermittent mining in many places in recent years. Bedrock, from mouth upstream, is Lower Cretaceous black slate, lower Mississippian chert and chert conglomerate, Upper Cretaceous and Eocene rocks. Upper claims in area of Cretaceous-Eocene conglomerate, from which gold probably was reconcentrated. Lower claims in black slate area; gold probably of local derivation.

Smith, 1936 (B 868-A), p. 39 -- Extensive prospecting, 1934.

Smith, 1937 (B 880-A), p. 42-43 -- Dredge construction, 1935; also some mining.

Mertie, 1938 (B 897-C), p. 251-254 -- Bedrock (from mouth upstream) is Lower Cretaceous black slate to Boulder Cr.; Mississippian chert and

(Coal Cr.) - Continued

- chert conglomerate for 3 mi.; Tertiary conglomerate, grit, sandstone, and shale (the proximate source of most of the placer gold) for 3 or 4 mi.; undifferentiated Paleozoic rocks and Birch Creek Schist; and granitic rocks in extreme headwaters. After thorough prospect drilling a dredge was built and began mining in 1936; at least 2 mi. along creek is dredgable; pay streak 400-800 ft. wide. Ground is frozen and is thawed with cold water before dredging.
- Smith, 1938 (B 897-A), p. 49, 71-72 -- New dredge began operating, 1936.
- Smith, 1939 (B 910-A), p. 49, 76 -- Dredge operated, 1937.
- Smith, 1939 (B 917-A), p. 47, 74 -- Dredge operated, 1938.
- Smith, 1941 (B 926-A), p. 43, 70 -- Dredge operated, 1939.
- Mertie, 1942 (B 917-D), p. 246-251 -- Heads in granitic rocks and flows north completely across belt of Tertiary rocks; no placers above Tertiary belt; sharp cut off in values near north limit of Tertiary belt except near postulated Tertiary lobe now eroded away.
- p. 254 -- Mean of 16 assays is .897 Au, .096 Ag, and .007 dross.
- Smith, 1942 (B 933-A), p. 40, 67 -- Dredge operated, 1940.
- Bates and Wedow, 1953 (C 202), p. 10 -- Placer monazite present.
- Overstreet, 1967 (P 530), p. 109 -- Reference to C 202, p. 10.
- Cobb, 1973 (B 1374), p. 119 -- Gold may have been reconcentrated from Tertiary conglomerates formed largely by erosion of nearby metamorphic rocks.
- Lyle, 1973 (AOF-28), p. 5 -- Gold placers discovered, 1910 [really in 1902 or earlier]; worked as recently as 1968.

(Colorado Cr.)

Gold, Lead (?)

Circle district

Charley R. (5.5, 4.6) approx.
65°16'N, 143°15'W approx.

Summary: Tributary of Coal Cr. on which there was placer mining in 1905 and possibly at other times. Unconfirmed report of the discovery of a galena-bearing quartz vein. See also (Coal Cr.)

Prindle, 1906 (B 295), p. 23 -- Site of most active mining in Coal Cr. valley in 1905.

Brooks, 1907 (B 314), p. 202-203 -- Has been placer mining (as of 1906).
Discovery of a galena-bearing quartz vein reported; no data on dimensions of vein or if it "carries values."

Mertie, 1938 (B 897-C), p. 252 -- Has been small-scale placer mining.

(Dome Cr., trib. Washington Cr.) Gold

Eagle district

Charley R. (11.75, 0.75) approx.
65°02'N, 142°25'W approx.

Summary: Has been placer mining near head of creek.

Mertie, 1938 (B 897-C), p. 204 -- "A third locality where some mining is known to have been done --- is at the head of ---- Dome Cr."

(Dome Cr., trib. Woodchopper Cr.) Gold

Circle district

Charley R. (4.9, 5.6) approx.
65°19'N, 143°20'W approx.

Summary: Small gold placer; gold probably derived from Tertiary rocks, of which a small remnant is left. Tertiary rocks are now dated as Upper Cretaceous to Pliocene (?) (Brabb and Churkin, 1969).

Mertie, 1942 (B 917-D), p. 248 -- Small gold placer was probably derived from "a small and almost completely eroded body of Tertiary rocks ..."

(Drayham Cr.)

Gold

Circle district

Charley R. (7.25, 1.5) approx.
65°05'N, 143°00'W approx.

Summary: Placer gold has been found.

Mertie, 1942 (B 917-D), p. 250 -- Placer gold has been found.

Lyle, 1973 (AOF-28), p. 5 -- Reported Drayham Cr. had some gold.

(Eagle Cr.)

Gold

Eagle district

Charley R. (13.0, 3.1) approx.
65°08'N, 142°15'W approx.

Summary: Tributary of Washington Cr. in belt of Tertiary rocks; placer gold has been found. Probably prospecting rather than mining. Tertiary rocks are now considered to be Upper Cretaceous to Pliocene (Brabb and Churkin, 1969).

Brooks, 1907 (B 314), p. 201 -- Placer gold has been found.

Prindle and Mertie, 1912 (B 520), p. 208 -- Quotation from B 314, p. 201.

Prindle, 1913 (B 538), p. 76 -- Quotation from B 314, p. 201.

Mertie, 1938 (B 897-C), p. 204 -- Reference to B 314, p. 201. Placers in or just north of area where bedrock consists of Tertiary rocks from which gold presumably was derived. [Later mapping shows that creek is entirely in Tertiary belt.]

Mertie, 1942 (B 917-D), p. 250 -- A little placer gold was found.

(Flat Cr.)

Gold (?)

Circle district

Charley R.

SE 1/4 SW 1/4 quad.

Summary: Gold prospect in 1914 was reported. No data on results.

Brooks, 1915 (B 622), p. 64 -- Prospecting in 1914.

Lyle, 1973 (AOF-28), p. 5 -- Gold prospects reported in 1914.

(Fourth of July Cr.)

Gold, Mercury (?), Platinum, Silver

Eagle district
MF-390, loc. 8

Charley R. (14.7-15.0, 2.4-2.7)
65°07'-65°08'N, 141°53'-142°01'W

Summary: Upper basin entirely in Upper Cretaceous to Pliocene (?) conglomerate and other terrestrial rocks (Brabb and Churkin, 1969) derived from erosion of older metamorphic rocks. Conglomerate is auriferous and probably the proximate source of much (or possibly all) of placer gold; placers in area immediately downstream underlain by conglomerate and related rocks. Bench deposits on NW side of valley are auriferous. Platinum metals and silver alloyed with gold; report of mercury is questionable. Gold discovered in 1898; mining (mainly hydraulic) with a few interruptions until as recently as 1973. Includes reference to Fourth of July Placers Co.

Brooks, 1903 (B 213), p. 48 -- Mining, 1902.

Brooks, 1905 (B 259), p. 29 -- Mining, 1904.

Prindle, 1906 (B 284), p. 126 -- Activity [probably mining], 1905.

Prindle, 1906 (B 295), p. 23 -- Mining, 1905.

Brooks, 1907 (B 314), p. 188 -- Productive creek in 1906.

p. 200 -- Bedrock said to be limestone and slate with some conglomerate that is the source of the gold. Placers are 10-20 ft. deep.

Brooks, 1908 (B 345), p. 50 -- Mining, 1907.

Ellsworth and Parker, 1911 (B 480), p. 172 -- Production of about \$6,000 in 1910.

Prindle and Mertie, 1912 (B 520), p. 201 -- Mining, 1911.

p. 206-208 -- Carboniferous limestone from mouth upstream to about 6 mi. below head; above that bedrock is all Tertiary conglomerate. Gold in placers derived from conglomerate; placers only where bedrock is conglomerate. Where mined depth to bedrock is about 9 ft., most of gold close to bedrock. Gold worth \$18.89 to \$18.91 an ounce. Mining, 1911.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Work in 1912.

Prindle, 1913 (B 538), p. 77-79 -- Same as B 520, p. 206-208 -- Total production through 1911 worth about \$50,000.

Chapin, 1914 (B 592), p. 360 -- Mining, 1913.

Brooks, 1918 (B 662), p. 56 -- Preparations for installing hydraulic plant, 1916.

Smith, 1926 (B 783), p. 14 -- Mining, 1924.

Smith, 1929 (B 797), p. 23 -- Mining, 1926.

Mertie, 1930 (B 816), p. 164-165 -- Lower part of creek cuts across Tahkandit (Permian) Limestone; upper part (where mining is being carried on) is in Upper Cretaceous-Eocene conglomerate. Pay streak is about 500 ft. wide; gravel is 10-15 ft. thick and covered by 2-7 ft. of muck. Gold in lower foot of gravel and top 2 ft. of bedrock. Hydraulic mining, 1925. One company owns nearly 3 mi. of claims along creek.

Smith, 1930 (B 810), p. 29 -- Mining, 1927.

(Fourth of July Cr.) - Continued

- Smith, 1930 (B 813), p. 34 -- Mining, 1928.
Smith, 1932 (B 824), p. 39 -- Mining, 1929.
Smith, 1933 (B 836), p. 38 -- Mining, 1930.
Smith, 1933 (B 844-A), p. 40 -- Mining, 1931.
Smith, 1934 (B 857-A), p. 38 -- Mining, 1932.
Smith, 1934 (B 864-A), p. 42 -- Mining, 1933.
Smith, 1936 (B 868-A), p. 44 -- Mining, 1934.
Smith, 1937 (B 880-A), p. 47 -- Mining, 1935.
Mertie, 1938 (B 897-C), p. 201-204 -- Upper valley in Tertiary rocks; lower valley in probably Permian limestone; at site of mining is Tertiary conglomerate. Pay streak 400-500 ft. wide; bedrock overlain by 6-15 ft. gravel and 2-7 ft. muck. Gold mainly on and in top 2 ft. of bedrock. Gold is .892 Au, .099 Ag (mean of 22 assays, some of which were considerably higher). Auriferous bench placers along W side of valley have been prospected but not mined.
Smith, 1938 (B 897-A), p. 55 -- Mining, 1936.
Smith, 1939 (B 910-A), p. 57 -- Mining, 1937.
Smith, 1939 (B 917-A), p. 56 -- Mining, 1938; largest operation in district.
Smith, 1941 (B 926-A), p. 54 -- Mining, 1939; largest operation in district.
Mertie, 1942 (B 917-A), p. 246-250 -- All of course except near mouth is in belt of Tertiary rocks. Sharp cut off in values at north edge of belt. Gold derived from Tertiary rocks; Mertie panned gold from mortared bedrock. Placers in main headwater fork only.
 p. 254 -- Mean of 24 assays is .892 Au, .099 Ag, and .009 dross.
 p. 257-259 -- Gold contains alloyed platinum metals; 0.23% Pt and Ir and a trace of Pd in one specimen.
Smith, 1942 (B 933-A), p. 49 -- Mining, 1940. Largest operation in district.
Mertie, 1969 (P 630), p. 90 -- Same analytical data as B 917-D, p. 258. U.S. Mint claimed Pt metals as seignorage, so operators had to have them separated before sale of gold.
Cobb, 1973 (B 1374), p. 125-126 -- Placer gold discovered, 1898. Platinum alloyed with gold. Ultimate source of gold is quartz veins in metamorphic rocks; proximate source is Tertiary conglomerate.
Lyle, 1973 (AOF-28), p. 5-6 -- Silver, platinum, and mercury present in placer. Mining in 1973. [Report of mercury is suspect as mercury is not mentioned in much more complete descriptions of deposits.]

(Grouse Cr.)

Gold (?)

Circle district

Charley R. (4.8, 5.5) (?)
65°19'N, 143°21'W (?)

Summary: Prospects reported, 1906. Location of creek not known; may be the stream now called Moore Cr.

Brooks, 1907 (B 314), p. 203 -- Prospects reported, 1906.

Prindle, 1913 (B 538), p. 75 -- Quotation from B 314.

(Irish Gulch)

Gold

Circle district

Charley R.

SE 1/4 SW 1/4 quad. (?)

Summary: Placer gold has been found; no record of mining. Location of gulch not known.

Mertie, 1942 (B 917-D), p. 250 -- Some gold was found.

Lyle, 1973 (AOF-28), p. 5 -- Noncommercial quantities of placer gold have been found.

(Iron Cr.)

Gold

Circle district
MF-390, loc. 3

Charley R. (4.35, 5.2)
65°18'N, 143°25'W

Summary: Tributary of Woodchopper Cr. on which placer gold was mined intermittently for many years. Gold coarse and high grade.

Brooks, 1907 (B 314), p. 203 -- Prospects are reported.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Gold has been found.

Prindle, 1913 (B 538), p. 75 -- Quotation from B 314, p. 203.

Mertie, 1930 (B 816), p. 165 -- Mining, 1925. Pay streak spotted and irregular; gold coarse and high grade; one sample assayed \$18.75 an ounce.

Mertie, 1938 (B 897-C), p. 256 -- Small-scale mining has been carried on intermittently for many years.

Mertie, 1942 (B 917-D), p. 250 -- Has been mining.

(Mineral Cr.)

Gold

Circle district
MF-390, loc. 4

Charley R. (4.65-4.7, 5.0-5.15)
65°17'N, 143°22'W

Summary: Tributary of Woodchopper Cr. where creek and bench placers were mined until as recently as 1925. Creek crosses contact from Tertiary rocks to older rocks. Gold 925 fine. Tertiary rocks are now considered to be Upper Cretaceous to Pliocene (?) (Brabb and Churkin, 1969).

Prindle, 1906 (B 295), p. 23 -- Most of work in Woodchopper Cr. valley in 1905 was on Mineral Cr.

Brooks, 1907 (B 314), p. 203-204 -- Productive tributary of Woodchopper Cr. Bedrock [Tertiary] conglomerate. 3 benches on south side of valley. 2-5 ft. of gravel (mainly well-rounded chert and quartz) beneath as much as 30 ft. of muck. Pay streaks in parallel channels 12-14 ft. wide. Gold also in weathered, iron-stained conglomerate bedrock. Creek staked in 1898. Production in 1906 was worth about \$18,000.

Prindle and Mertie, 1912 (B 520), p. 201 -- Has been placer gold production.

p. 209-210 -- Quotation from B 314, p. 203-204. Also, mining, 1911.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Mining, 1912.

Prindle, 1913 (B 538), p. 74-75 -- Quotation from B 314, p. 203-204.

Mertie, 1930 (B 816), p. 165 -- Mining, 1925. Creek crosses contact between Mississippian chert conglomerate and Cretaceous-Eocene conglomerate. Pay streak 100 ft. wide; gravel and muck about 10 ft. thick.

Mertie, 1938 (B 897-C), p. 255-257 -- Until dredge was installed on Woodchopper Cr. in 1937, Mineral Cr. had been the source of most of the gold from Woodchopper basin. Mineral Cr. crosses contact between Mississippian (downstream) and Tertiary (upstream) rocks. Both creek and bench placers. Most of mining was near mouth of Alice Gulch. Bullion assayed .925 Au, .073 Ag.

Mertie, 1942 (B 917-D), p. 250 -- Has been worked for gold.

p. 254 -- Fineness .925 Au, .071 Ag, .004 dross.

Cobb, 1973 (B 1374), p. 122 -- Supported thriving mining industry, mainly before World War I.

(Nugget Cr.) (Gulch)

Gold

Eagle district

Charley R. (12.5, 3.5) approx.
65°11'N, 142°18'W approx.

Summary: Tributary of Washington Cr. Coarse gold on Lower Cretaceous slate bedrock. Gold probably of local origin.

Brooks, 1907 (B 314), p. 201 -- Localized accumulations of coarse gold on bedrock. Gold appears to have its source in Cretaceous slates.
Prindle and Mertie, 1912 (B 520), p. 208 -- Quotation from B 314, p. 201.
Prindle, 1913 (B 538), p. 76 -- Quotation from B 314, p. 201.
Mertie, 1938 (B 897-C), p. 204 -- Reference to B 314, p. 201. Coarse gold localized on Lower Cretaceous bedrock.
Mertie, 1942 (B 917-D), p. 250 -- Tributary of Washington Cr. on which gold has been found.

(Rose Cr.)

Gold

Circle district

Charley R. (6.25, 5.4) approx. (?)
65°18'N, 143°08'W approx. (?)

Summary: Prospecting or mining in 1912 was reported. Tributary of
Coal Cr. Name not shown on available maps.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Tributary of Coal Cr.
on which prospecting or mining in 1912 was reported.

(Ruby Cr.)

Gold

Eagle district
MF-390, loc. 7

Charley R. (14.4, 2.15)
65°07'N, 142°03'W

Summary: Bedrock is Cretaceous to Tertiary conglomerate and other terrestrial rocks (Brabb and Churkin, 1969). Gold in about 20 in. of gravel next to bedrock, which is 12-15 ft. deep. Mining (probably little more than prospecting), 1911-13.

Prindle and Mertie, 1912 (B 520), p. 208 -- Bedrock is Tertiary conglomerate. Depth to bedrock 12-15 ft.; gold in about 20 in. of gravel next to bedrock. Mining in 1911.

Prindle, 1913 (B 538), p. 79 -- Mining, 1912; other data same as B 520, p. 208.

Chapin, 1914 (B 592), p. 360 -- New productive ground found, but not extensively prospected, in 1913.

(Sam(s) Cr.)

Gold (?)

Circle district

Charley R. (6.6-7.35, 4.3-4.9) approx.
65°15'N, 143°05'W approx.

Summary: Small placer deposits have been found on tributaries. Reports of mining on Sam Cr. probably refer to Ben Cr. or Sawyer Cr. Sam Cr. crosses belt of Tertiary rocks (considered to be Upper Cretaceous to Pliocene in Brabb and Churkin, 1969) thought (by Mertie) to be proximate source of most of placer gold in area. See also (Ben Cr.), (Sawyer Cr.).

Brooks, 1907 (B 314), p. 202-203 -- Has yielded a little placer gold.

Ellsworth and Parker, 1911 (B 480), p. 172 -- 16 men working or prospecting, 1910.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Work, 1912.

Mertie, 1942 (B 917-D), p. 246 -- Small amounts of gold present; stream crosses belt of Tertiary rocks.

p. 250 -- Small placer deposits on tributaries (Ben and Sawyer Creeks); none on main stream.

(Sawyer Cr.)

Gold

Circle district
MF-390, loc. 6

Charley R. (6.65, 4.3) approx.
65°14'N, 143°06'W approx.

Summary: Small placer deposit on tributary of Sam Cr.

Mertie, 1942 (B 917-D), p. 250 -- Small placer deposit has been found;
tributary of Sam Cr.

(Surprise Cr.)

Gold

Eagle district

Charley R. (12.75, 3.25) approx.
65°10'N, 142°15'W approx.

Summary: Placer gold, presumably derived from Tertiary conglomerate, was found about 1906 and mined intermittently on a small scale for a few years. Conglomerate now considered to be Upper Cretaceous to Pliocene (Brabb and Churkin, 1969).

Brooks, 1907 (B 314), p. 201 -- Placer gold has been found. Gold appears to have been derived from conglomerate.

Ellsworth and Parker, 1911 (B 480), p. 172 -- 2 men mining, 1910.

Prindle and Mertie, 1912 (B 520), p. 208 -- Quotation from B 314, p. 201.

Prindle, 1913 (B 538), p. 76 -- Quotation from B 314, p. 201.

Mertie, 1938 (B 897-C), p. 204 -- Reference to B 314, p. 201. In or just north of area where bedrock is Tertiary rocks from which the gold presumably was derived. Placers said to have been discovered in 1907 and for several years thereafter worked intermittently.

Mertie, 1942 (B 917-D), p. 250 -- Tributary of Washington Cr. on which placer gold has been found.

(Tatonduk R.)

Iron

Black district
MF-390, loc. 2

Charley R. (21.0-22.0, 0.5-1.5)
65°00'-65°04'N, 141°01'-141°08'W

Summary: Redbed unit of Precambrian Tindir Group is about 2,200 to 2,600 ft. thick. Includes much hematitic and siliceous shale and conglomerate. Contains about 5 to 27 percent Fe_2O_3 (Berg and Cobb) or 4.73 to 24.7 percent soluble iron (Kimball). Iron in the form of fine hematite; very little magnetite. Material not amenable to magnetitic or simple gravity separation.

Mertie, 1933 (B 836), p. 375-380 -- Unit C [of Precambrian Tindir Group] consists of about 2,200 to 2,600 ft. of red beds, including argillite, shale, slate, conglomerate, lavas, and dolomitic rocks. Much of cement is hematite. Some beds are almost completely altered to hematite. Analyses of 4 samples showed 3.84% to 26.68% Fe_2O_3 ; most of the rest is SiO_2 and CaO . Beds in a monoclinial sequence that dips about 30° W; dip less regular in some places; cut by at least one low-angle thrust fault.

Berg and Cobb, 1967 (B 1246), p. 198 -- Hematitic and siliceous red beds in the Precambrian Tindir Group contain 5-27 percent Fe_2O_3 .

Kimball, 1969 (USBM OF 1-69) -- Cambrian or Precambrian red beds are dominantly hematitic tuffaceous shales and conglomerates having an estimated thickness of 1,800 ft. and an exposure area greater than 6 sq. mi. Nearly 800 ft. of stratigraphic thickness was chip sampled in discontinuous sections that assayed 4.73 to 24.7 percent soluble iron [term not defined]. A 133-ft. thickness assayed 20.10% soluble iron and a 200-ft. thickness assayed 21.85% soluble iron; highest assays for significant thicknesses of material. Iron is in the form of fine hematite; material not amenable to magnetic or simple gravity separation.

(Washington Cr.)

Gold (?)

Eagle district

Charley R. (11.5-13.0, 0.75-3.5) approx.
65°02'-65°12'N, 142°15'-142°25'W approx.

Summary: Bedrock is Mesozoic shale, argillite, and quartzite. Precambrian basalt and red beds. Cretaceous and Tertiary sandstone and conglomerate and Precambrian metamorphic rocks near head (Brabb and Churkin, 1969). Probably are traces of gold, derived from conglomerates (according to Mertie), in main stream, but all productive mining was on tributaries. See also: (Eagle Cr.), (Nugget Gulch), (Surprise Cr.).

Brooks, 1905 (B 259), p. 29 -- Rich placers found in upper basin, 1904. One nugget was worth \$168.

Prindle, 1906 (B 295), p. 23 -- Mining, 1905; one nugget worth \$167.50 was found. Bedrock is Kenai [Tertiary] sandstone and conglomerate, Cretaceous slates, and Rampart [Paleozoic] slates and greenstones.

Brooks, 1907 (B 314), p. 200-202 -- Bedrock is Cretaceous shale or slate, Devonian (?) greenstone and chert, and Tertiary conglomerate, sandstone, and shale. All gold production to date (1906) from tributaries.

Prindle and Mertie, 1912 (B 520), p. 208 -- Quotation from B 314, p. 200-201.

Prindle, 1913 (B 538), p. 76 -- Quotation from B 314, p. 200-201.

Mertie, 1942 (B 917-D), p. 246 -- Gold, not in workable placers, has been found. Creek drains part of belt of Tertiary conglomerates.
p. 250 -- A little placer ground was found on 3 tributaries (Eagle and Surprise Creeks and Nugget Gulch), but no important commercial placers were found on Washington Cr. itself.

(Webber Cr.)

Gold (?)

Circle district

Charley R.

NW 1/4 SW 1/4 quad.

Summary: No commercial placers on Webber Cr. See also (Alder Cr.).

Mertie, 1942 (B 917-D), p. 246 -- No extensive placer deposits.

p. 250 -- Placer ground was worked on Alder Cr., a tributary from the east. Webber Cr. has no commercial placers.

(Woodchopper Cr.)

Gold, Monazite, Platinum

Circle district
MF-390, loc. 3

Charley R. (4.2-4.7, 5.15-5.5)
65°18'-65°19'N, 143°21'-143°26'W

Summary: Headwaters in area underlain by Precambrian (?) and Paleozoic (?) metamorphic rocks intruded by a Mesozoic (?) granitic pluton; creek flows across belt of Upper Cretaceous to Pliocene (?) conglomerate and related terrestrial rocks (Brabb and Churkin, 1969). Gold placers are in or immediately downstream from conglomerate belt. Proximal source of most of gold probably is conglomerate; ultimate source is older metamorphic rocks. Platinum metals are alloyed with gold; monazite is also present. Gold was discovered in 1902 or earlier and continued, with interruptions to as recently as 1964, when a dredge that had begun operating in 1937 was shut down. See also: (Iron Cr.), (Mineral Cr.).

Brooks, 1903 (B 213), p. 48 -- Development work, 1902.

Brooks, 1904 (B 225), p. 57-58 -- Small-scale mining, 1903.

Brooks, 1905 (B 259), p. 29 -- Mining, 1904.

Purington, 1905 (B 263), p. 208 -- Gold worth \$18.32 an ounce.

Prindle, 1906 (B 284), p. 126 -- Mining, 1905.

Prindle, 1906 (B 295), p. 23 -- Mining, 1905; most of work in valley was on Mineral Cr. Bedrock is Kenai [Tertiary] sandstone and conglomerate, Cretaceous slates, and Rampart [Paleozoic] slates and greenstones.

Brooks, 1907 (B 314), p. 188 -- Productive creek, 1906.

p. 203 -- Bedrock is massive greenstone, black slate and limestone, and friable conglomerate. Placer gold production (as of 1906) from tributaries in conglomerate belt.

Brooks, 1908 (B 345), p. 50 -- Mining, 1907.

Brooks, 1909 (B 379), p. 54 -- Mining, 1908.

Ellsworth, 1910 (B 442), p. 239 -- Gold output for 1909 reported to be about \$20,000.

Ellsworth and Parker, 1911 (B 480), p. 172 -- Gold output for 1910 estimated at about \$19,000.

Prindle and Mertie, 1912 (B 520), p. 201 -- Mining, 1911.

p. 209-210 -- Quotation from B 314, p. 203. Also, gold has been discovered above mouth of Mineral Cr. Depth to conglomerate bedrock about 22 ft., about 11 ft. of which is gravel. Many granite boulders in gravel.

Ellsworth and Davenport, 1913 (B 542), p. 213 -- Mining, 1912.

Prindle, 1913 (B 538), p. 74-75 -- Same as B 520, p. 209-210.

Chapin, 1914 (B 592), p. 360 -- 20 men mining on creek and tributaries, 1913.

Brooks, 1915 (B 622), p. 61-62 -- Preparations for installing a hydraulic plant, 1914.

Brooks, 1916 (B 642), p. 63 -- Mining, 1915.

Mertie, 1930 (B 816), p. 165 -- Little active mining, 1925; 3 men drifting and prospecting above mouth of Iron Cr.

(Woodchopper Cr.) - Continued

- Smith, 1933 (B 836), p. 37 -- Mining, 1930.
- Smith, 1934 (B 864-A), p. 42 -- Mining, 1933.
- Smith, 1936 (B 868-A), p. 44 -- Mining, 1934.
- Mertie, 1938 (B 897-C), p. 254-256 -- Valley assymetrical with SE wall steep. Bedrock (from mouth upstream) is Middle Devonian lava flows; Lower Cretaceous black slate for about a mile; wedge of crystalline limestone; Mississippian chert and chert conglomerate for about a mile; Tertiary conglomerate and related rocks (proximate source of much of placer gold); and older rocks in headwater areas. All mining in or downstream from area of Tertiary rocks. Dredge built 1936-37; began operating in 1937. At least 2 mi. of dredging ground is available. Gravel is 11-30 ft. thick and is overlain by 5-20 ft. of muck.
- Smith, 1938 (B 897-A), p. 49 -- Dredge construction, 1936.
- Smith, 1939 (B 910-A), p. 49, 76-77 -- New dredge began operating, 1937.
- Smith, 1939 (B 917-A), p. 47, 74 -- Dredge operated, 1938.
- Smith, 1941 (B 926-A), p. 43, 70 -- Dredge operated, 1939.
- Mertie, 1942 (B 917-D), p. 246-250 -- Rises in granite and crosses belt of Tertiary rocks. No placers above Tertiary belt and little if any extension downstream from belt.
- p. 254 -- Mean of 6 assays shows .932 Au, .062 Ag, and .006 dross.
- p. 257-259 -- Platinum metals alloyed with gold; 0.42% Pt and a trace of Ir in one specimen.
- Smith, 1942 (B 933-A), p. 40, 67 -- Dredge operated, 1940.
- Bates and Wedow, 1953 (C 202), p. 10 -- Placer monazite present.
- Overstreet, 1967 (P 530), p. 109 -- Reference to C 202, p. 10.
- Mertie, 1969 (P 630), p. 90 -- Same analytical data as B 917-D, p. 258.
- U.S. Mint claimed Pt metals as seignorage, so operators had to have them separated before sale of gold.
- Cobb, 1973 (B 1374), p. 119 -- Dredge closed down in 1964. Gold deposits may have been reconcentrated from Tertiary conglomerates formed largely by erosion of nearby metamorphic rocks.
- p. 122 -- Gold contains alloyed platinum.
- Lyle, 1973 (AOF-28), p. 5 -- 230 acres patented in 1955 for placer gold mining.

Unnamed occurrence

Copper

Circle district

Charley R. (10.0, 1.4)

MF-390, loc. 1

65°03'N, 142°39'W

Summary: Chalcopyrite and secondary copper minerals in quartz and carbonate veins in greenschist, greenstone, and thin carbonate layers.

Clark and Foster, 1971 (B 1315), p. 14 -- Malachite- and azurite (?) - stained chalcopyrite-bearing quartz and carbonate vein material. Small mineralized veins cut greenschist, greenstone, and thin carbonate layers. Vein material estimated to be less than 3% of rock exposed.

(Pass Cr.)

GOLD

Sheenjek district

Coleen

SE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ quad.

Summary: Gold in Pleistocene deposits; not minable.

Cobb, 1973 (B 1374), p. 172 -- Pleistocene deposits on Pass Cr. contain a little gold, but not in minable concentrations.

(Porcupine R.)

NICKEL

Sheenjek district
MF-403, loc. 1

Coleen (15.8, 3.1) approx.
76°10'N, 141°40'W approx.

Summary: Nickeliferous alum collected from a seep on bank of Porcupine R.

Joesting, 1942 (TDM 1), p. 19 -- Nickel-bearing alum from seep on bank of Porcupine R. opposite mouth of Salmontrout R.

Berg and Cobb, 1967 (B 1246), p. 238 -- Nickeliferous alum collected from a seep near Old Rampart.

(Rapid R. tributary)

FM

Sheenjek district
MF-403, loc. 2

Coleen (18.8, 10.0)
67°33'N, 141°12'W

Summary: Uranium-bearing mineral in stream-gravel concentrate tentatively identified as altered rutile.

White, 1952 (C 185), p. 8 -- A stream-gravel concentrate contained 0.052% eU in heavy-mineral fraction (concentration ratio 2,700:1). A mineral that contains uranium was tentatively identified as altered rutile, although the optical properties resembled those of eschynite.
Cobb, 1973 (B 1374), p. 172 -- Reference to C 185.

(Sunag(h)un Cr.)

FM

Sheenjek district
MF-403, loc. 3-5

Coleen (19.6-20.0, 9.0-9.3)
67°30'N, 141°01'-141°05'W

Summary: Samples contained several uranium-bearing minerals including one tentatively identified as clarkeite.

White, 1952 (C 185), p. 8-9 -- Concentrates from stream gravels and fresh bedrock contained 0.010-0.060% eU. Clarkeite(?), hematite, 3 unidentified minerals and coating on pyrite contained uranium. Not considered to be commercial source of uranium ore.

Cobb, 1973 (B 1374), p. 172 -- Reference to C 185.

Synonyms, Claim Names, Operators, and Owners

Many mines and prospects have undergone changes in both their own names and in the names of their operators and owners. All names that appear in the cited references appear in this summary either in the first section as occurrence names or in this as synonyms. Descriptions of placer deposits commonly give little information on the location of individual mines or claims, so the names of all operators and owners of placer mines and claims are in this section with a notation to refer to the description of the stream that was mined or prospected. There are no synonyms for occurrences in the Coleen quadrangle.

Charley River quadrangle

Adamic -- see (Coal Cr.)
Alluvial Golds, Inc. -- see (Woodchopper Cr.)
Alluvial Placers, Inc. -- see (Woodchopper Cr.)
Anna May -- see (Woodchopper Cr.)
Aztec -- see (Woodchopper Cr.)

Bauer -- see (Fourth of July Cr.)
Bennett -- see (Woodchopper Cr.)
Bodacious -- see (Woodchopper Cr.)
Charles -- see (Woodchopper Cr.)
Coal Creek Hydraulic Mining Assn. -- see (Coal Cr.)

Comet -- see (Woodchopper Cr.)
Cordova -- see (Woodchopper Cr.)
Ellington -- see (Fourth of July Cr.)
Emily Assn. -- see (Coal Cr.)
Florence -- see (Woodchopper Cr.)

Forrest Assn. -- see (Coal Cr.)
Fourth of July Placers Co -- see (Fourth of July Cr.)
Gladys -- see (Woodchopper Cr.)
Golden Eagle Bench Assn. -- see (Coal Cr.)
Gold Medal -- see (Woodchopper Cr.)

Gold Placers, Inc. -- see (Coal Cr.)
Gold Star -- see (Woodchopper Cr.)
Herbert -- see (Woodchopper Cr.)
Holstrom -- see (Woodchopper Cr.)
Hunkey Dory -- see (Woodchopper Cr.)

Joe -- see (Woodchopper Cr.)
July Creek Mining Co. -- see (Fourth of July Cr.)
July Creek Placer Co. -- see (Fourth of July Cr.)
Kelly -- see (Woodchopper Cr.)
Malstrom Assn. -- see (Coal Cr.)

Mary Flow -- see (Woodchopper Cr.)
McDonald -- see (Coal Cr.)
Seward Assn. -- see (Woodchopper Cr.)
Sioux -- see (Woodchopper Cr.)
Slaven Assn. -- see (Coal Cr.)

Snowbird -- see (Woodchopper Cr.)
Slate -- see (Woodchopper Cr.)
Sunshine -- see (Woodchopper Cr.)
Valdez -- see (Woodchopper Cr.)

References Cited

References are listed, by quadrangle, in standard format alphabetically by author and, secondarily, chronologically if an author prepared more than one report or map. This section was prepared by stacking bibliography cards in a document protector and duplicating them on an office copying machine. This procedure makes retyping unnecessary, but has the disadvantages that the edges of cards reproduce as horizontal lines between entries and that margins and spacing are not constant.

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