

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUMMARY OF REFERENCES TO MINERAL OCCURRENCES
(OTHER THAN MINERAL FUELS AND CONSTRUCTION MATERIALS)
IN THE SOLOMON QUADRANGLE, ALASKA

By

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Open-file report 78-181

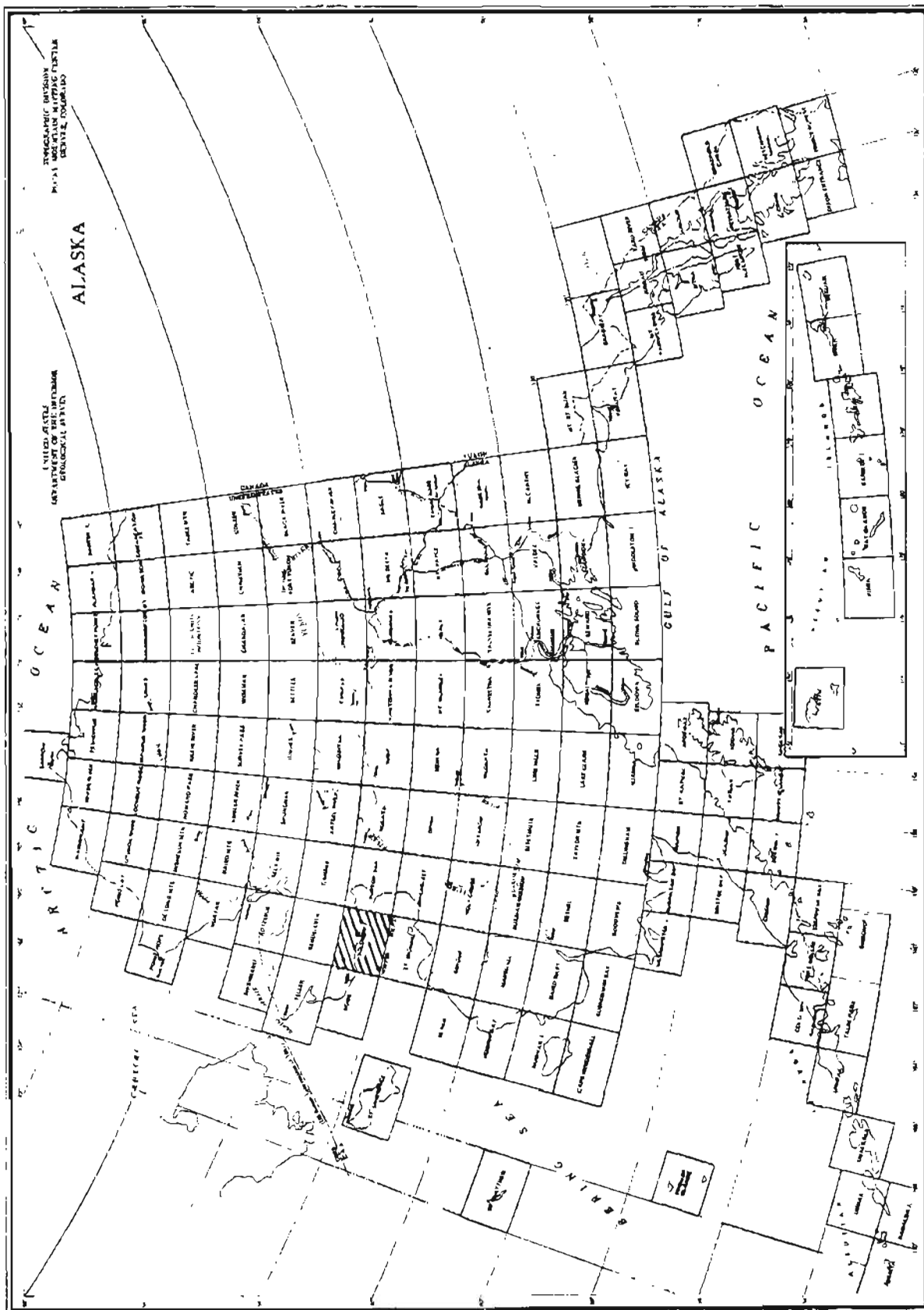
1978

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

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 Solomon quadrangle, 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 September 1, 1977, 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 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 for metallic commodities and then for nonmetallic commodities [FM is used for uranium and(or) thorium determined chemically or present as a constituent of an identified mineral other than monazite; RE is used if a mineral (other than monazite) containing any rare-earth element was identified]; the mining district (Ransome and Kerns, 1954) in which the occurrence is located; the name of the 1:250,000-scale topographic quadrangle (Solomon); coordinates (as described by Cobb and Kachadoorian, 1961, p. 3-4); the metallic mineral resources map number (MF-445) 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 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 company names and 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:

B	U.S. Geological Survey Bulletin
BMB	U.S. Bureau of Mines Bulletin
C	U.S. Geological Survey Circular
GC	Alaska Division of Geological and Geophysical Surveys (and predecessor State agencies) Geochemical Report
GR	Alaska Division of Geological and Geophysical Surveys (and predecessor State agencies) Geologic Report
IC	U.S. Bureau of Mines Information Circular
OF	U.S. Geological Survey Open-file Report (numbers with a hyphen in them are formal; numbers without a hyphen are informal and used only within the Alaskan Geology Branch of the U.S. Geological Survey)
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
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 non-metallic 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.

(Adams Cr.)

Gold

Nome district

Solomon (4.1, 12.45)

MF-445, loc. 88

64°42'N, 164°27'W

Summary: Creek heads in schist and greenstone terrane; flows across belt of limestone. 50-60 oz. of gold recovered in 1900. Magnetite and garnet in concentrates. Report of dredge being built in 1914 is probably an error.

Brooks and others, 1901, p. 101 -- Bedrock at head is schist; limestone farther downstream. Well-defined terrace about 5 ft. above creek on both sides. Gravel 4-6 ft. thick. Gold is both coarse and fine; magnetite and garnet also present. 50-60 oz. of gold (worth \$19.40 an ounce) sluiced out in 20 days on one claim in 1900.

Smith, 1910 (B 433), p. 178 -- No mining, 1907. Creek flows across belt of limestone; heads in schist and greenstone terrane. Quotation from Brooks and others, 1901, p. 101.

Eakin, 1915 (B 622), p. 370 -- New dredge built for C. E. Kimball, 1914. [This report must be in error; from maps Adams Cr. does not appear to have any dredging ground. Also there is no other mention of other than small-scale mining.]

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 178.

(Adventuress Cr.)

Gold

Kougarok district
MF-445, loc. 42

Solomon (3.2, 15.25)
64°52'N, 164°34'W

Summary: Shallow auriferous gravels; probably worked out before 1908.

Smith, 1909 (B 379), p. 331 -- Shallow gravels worked before 1908; probably exhausted. Assessment work, 1908.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Aggie Cr.)

Gold

Council district
MF-445, loc. 125

Solomon (13.25-13.5, 15.55-15.9)
64°52'-64°54'N, 163°12'-163°13'W

Summary: Tributary of Fish R. 2.9 mi. downstream from creek labeled Aggie Cr. on most maps. Placer mining in 1930's and early 1940's. Dredge operated from 1938 to 1940 or 1941; tailings conspicuous on aerial photos taken in 1950.

Smith, 1932 (B 824), p. 46 -- A little gold mined, 1929.

Smith, 1933 (B 836), p. 47 -- A little gold mined, 1930.

Smith, 1934 (B 857-A), p. 45 -- Largest open-cut mine (7 men) in district, 1932.

Smith, 1934 (B 864-A), p. 50 -- Mining, 1933.

Smith, 1936 (B 868-A), p. 52 -- Small hydraulic plant operated, 1934.

Smith, 1937 (B 880-A), p. 53 -- Small hydraulic plant operated, 1935.

Smith, 1938 (B 897-A), p. 65 -- Mining, 1936.

Smith, 1939 (B 910-A), p. 69 -- Prospecting for dredging ground, 1937; dredge to be brought in from Spruce Cr.

Smith, 1939 (B 917-A), p. 67-68, 75 -- Dredge from Spruce Cr. installed and a little mining done at mouth of creek, 1938; many large boulders.

Smith, 1941 (B 926-A), p. 63, 71 -- Dredge operated, 1939.

Smith, 1942 (B 933-A), p. 60, 68 -- Dredge operated, 1940.

Cobb, 1973 (B 1374), p. 66 -- Creek is tributary of Fish R.; flows into main stream 2.9 mi. below stream labeled Aggie Cr. on most maps. Mining in 1930's and early 1940's; dredge from 1938 to 1940 or 1941; dredge tailings very conspicuous on aerial photographs taken in 1950.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1939 (B 917-A), p. 67-68.

(Allgold Cr.)

Gold

Council district

Solomon (4.0, 15.3)

MF-445, loc. 49

64°52'N, 164°28'W

Summary: Colors of gold in prospect pits.

Smith, 1909 (B 379), p. 337 -- Colors of gold in many prospect pits.
Valley mainly in feldspathic schists.

(American Cr.)

Gold

Council district
MF-445, loc. 48

Solomon (4.3-4.35, 16.55-16.65)
64°56'N, 164°27'W

Summary: Headward part of creek in limestone-schist terrane; lower part in area of faulted limestone. Headward part of valley was captured from Kruzgamepa drainage by a tributary of the Niukluk. All placers above point of capture. Gold discovered in about 1900. Most mining in basin was on Auburn Ravine. Dredge operated on main stream near mouth of Game Cr. for part of season in 1940. No data on more recent mining, if any.

Brooks and others, 1901, p. 106-107 -- In lower part of valley is faulted limestone; upstream are black slate (with pyritiferous quartz veins) and mica schist. Contact between limestone and slate appears to be faulted. Colors of gold, but no paying prospects in 1900.

Smith, 1909 (B 379), p. 333 -- Headward part of creek in limestone and schist. Most mining in basin has been on tributaries.

Smith, 1910 (B 433), p. 46-47 -- Head of stream formerly flowed to Kruzgamepa drainage through pass at head of Crater Cr.; captured by a tributary of the Niukluk R.

p. 204 -- All placers above postulated point of capture. Headward part of drainage is in an area of limestone and schist. Only mining in basin in 1908 was in Auburn Ravine.

Moffit, 1927 (B 792), p. 21 -- Large tract under option; to be drilled to test for dredging; 1925.

Smith, 1930 (B 813), p. 42 -- Ditch construction (no mining), 1928.

Smith, 1932 (B 824), p. 47 -- Ditch construction, 1929.

Smith, 1933 (B 836), p. 49 -- Ditch construction, 1930.

Smith, 1933 (B 844-A), p. 49 -- Ditch construction, 1931.

Smith, 1934 (B 857-A), p. 46 -- Still building ditch, 1932.

Smith, 1934 (B 864-A), p. 51 -- Still building ditch, 1933.

Smith, 1936 (B 868-A), p. 53 -- Still building ditch, 1934.

Smith, 1937 (B 880-A), p. 55 -- Still building ditch, 1935.

Smith, 1938 (B 897-A), p. 63-64 -- Still working on the ditch, 1936.

Smith, 1939 (B 917-A), p. 65 -- Ground tested with a view toward dredging, 1938.

Smith, 1941 (B 926-A), p. 61 -- Dredge constructed, but not in time to operate, 1939.

Smith, 1942 (B 933-A), p. 58, 68 -- Dredge operated part of season, 1940.

Cobb, 1973 (B 1374), p. 66, 68 -- Data from Smith, 1910 (B 433), p. 46-47, 204. Dredge near mouth of Game Cr. before World War II.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 46-47, 204.

(Anaconda Cr.)

Gold(?)

Council district

Solomon(?)

NW 1/4 NW 1/4 NE 1/4 quad.(?)

Summary: Prospecting and rumors of coarse gold, 1899-1900. Anaconda Cr. is the old name for Pargon R. Reported prospecting may have been in Bendeleben quad. or on a tributary. No record of gold mining in basin.

Mendenhall, 1901, p. 212 -- Rumors that coarse gold had been found, winter of 1899-1900.

p. 217 -- Prospecting, 1899-1900. No data on results.

(Auburn Ravine) (Cr.)

Gold, Mercury

Council district

Solomon (3.8, 16.0)

MF-445, loc. 47

64°54'N, 164°29'W

Summary: Major tributary of American Cr. Bedrock is cavernous limestone into which most water is lost; schist west of creek. Gold in gravel from mouth of creek to headwater gulches. Gold is coarse and rests on clay layers in gravel rather than on bedrock. Concentrates contain garnet, magnetite, ilmenite, and sparse cinnabar. Was mining before 1910.

Smith, 1909 (B 379), p. 333-335 -- Major tributary of American Cr. Mining, 1908. Heads in low saddle against tributary of Casadepaga R. Bedrock under creek and on east side is limestone; schists form divide on west side. Creek almost always dry because of loss of water to underground channels in limestone. Gravels carry gold from mouth up to headwater gulches. All gold recovered is coarse; worth \$19.53 an ounce. Gold rests on thin clay layers rather than true bedrock. Concentrates contain garnet, magnetite, ilmenite (particles up to 1/2 inch long) and cinnabar. Many large, solution-etched blocks of limestone in gravels.

Smith, 1910 (B 433), p. 204-206 -- Same as Smith, 1909 (B 379), p. 333-335.

Malone, 1962 (IC 8131), p. 57 -- Reference to Smith, 1910 (B 433), p. 206.

Malone, 1965 (IC 8252), p. 54 -- Reference to Smith, 1909 (B 379).

Sainsbury and others, 1972 (OF 512), p. 10 -- Reference to Smith, 1909 (B 379), p. 335.

Cobb, 1973 (B 1374), p. 68 -- Mining before 1910. Concentrates contained garnet, magnetite, ilmenite, and a few grains of cinnabar.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 204-206.

(Banner Cr.)

Gold

Council district
MF-445, locs. 72, 73

Solomon (5.1-5.3, 14.45-14.55)
64°49'-64°50'N, 164°18'-164°19'W

Summary: Crosses contact between limestone and schist. Most of creek gravels had been worked at least once by 1906; no record of mining after 1907. Gold recovered was generally coarse; worth \$19.20 an ounce (gold at \$20.67 per fine ounce).

Brooks and others, 1901, p. 107 -- Mining, 1900.

p. 109 -- Some of bedrock is limestone; schist caps hill near head and divide between Banner and Ruby Creeks. Gold rather coarse; worth \$19.20 an ounce. Mining 1899-1900.

Smith, 1907 (B 314), p. 153 -- Very little work, 1906; creek gravels have been mined at least once.

Collier and others, 1908 (B 328), p. 259 -- Quotation from Brooks and others, 1901.

p. 265 -- All gravel has been handled at least once, 1906.

Smith, 1908 (B 345), p. 224-225 -- Small-scale mining about a mile above mouth, 1907; stream crosses contact between limestone and schist.

Smith, 1910 (B 433), p. 156 -- Has been mining.

p. 199 -- Quotation from Brooks and others, 1901, p. 109. Nearly mined out by 1906. 2 men mining, 1907; probably did no better than make wages. Mining near contact between limestone and schist.

Hummel, 1975 (OF 75-2) -- Reference to Brooks and others, 1901, p. 107, 109.

(Barney Cr.)

Gold

Kougarok district
MF-445, loc. 32

Solomon (2.15, 16.35)
64°56'N, 164°43'W

Summary: A little gold was mined in 1906 and possibly in 1907 or 1908.
Concentrates contained many garnets.

Smith, 1907 (B 314), p. 163 -- \$100 or \$200 in gold recovered, 1906, on
Bunny Cr.

Smith, 1909 (B 379), p. 327 -- Has been a little mining. Many garnets
and considerable magnetite in concentrates. Gold mainly in small
flakes. Exotic rock types in gravel.

(Basin Cr.)

Gold

Council district
MF-445, loc. 123

Solomon (10.2, 16.0)
64°54'N, 163°38'W

Summary: Tributary of Melsing Cr. on which there has been placer mining, including dredging in 1920 and 1927. Benson Gulch, named as site of mining, 1929-33, may be the same as Basin Cr. or may be another tributary of Melsing Cr. not shown on maps. Includes references to (Benson Gulch); see also (Melsing Cr.).

Smith, 1908 (B 345), p. 217 -- Mining at mouth, 1907. [Mining may actually have been on Melsing Cr.].

Smith and Eakin, 1911 (B 449), p. 118 -- Mining near mouth, 1908-09.

Brooks, 1922 (B 722), p. 63 -- Dredge operated, 1920.

Smith, 1930 (B 810), p. 40 -- Dredge operated, 1927.

Smith, 1930 (B 813), p. 41 -- No dredging, 1928.

Smith, 1932 (B 824), p. 46 -- Mining, Benson Gulch, 1929.

Smith, 1933 (B 836), p. 47 -- Mining, Benson Gulch, 1930.

Smith, 1933 (B 844-A), p. 49 -- Mining, Benson Gulch, 1931.

Smith, 1934 (B 857-A), p. 45 -- Mining, Benson Gulch, 1932.

Smith, 1934 (B 864-A), p. 50 -- Small open-cut mine, Benson Gulch, 1933.

Hummel, 1975 (OF 75-27 -- References to Smith and Eakin, 1911 (B 449), p. 118; Smith, 1930 (B 813), p. 41; Smith, 1932 (B 824), p. 46.

(Bear Gulch)

Gold

Nome district

Solomon (4.9, 12.05)

MF-445, loc. 92

64°41'N, 164°21'W

Summary: Was mining in early 1900's.

Smith, 1910 (B 433), p. 179 -- Has been mined; most of gravel worked over; as of 1907.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Beaver Cr.)

Gold

Nome district
MF-445, loc. 85

Solomon (1.3-1.55, 11.2-11.4)
64°38'-64°39'N, 164°48'-164°50'W

Summary: Dredge operated, 1940's. Ground was too wet for other types of mining.

Smith, 1942 (B 933-A), p. 56-57, 68 -- Dredge (moved from Monument Cr.) operated, 1940. Area had not been mined before, probably because of wet ground that could not be prospected or mined by methods available to small operators.

Cobb, 1973 (B 1374), p. 91 -- Dredging in 1940's.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1942 (B 933-A), p. 56-57.

(Ben Gulch)

Gold(?)

Council district

Solomon (6.05, 16.85)
64°57'N, 164°11'W

Summary: Gulch was staked and a little work done. No data on results.

Smith, 1910 (B 433), p. 190 -- Has been staked and a little work done.

Gravels mostly angular limestone fragments mixed with schist float.

No water in lower part of valley.

(Benson Cr.)

Copper, Gold, Silver

Kougarok district
MF-445, Locs. 6, 36

Solomon (2.3-2.7, 16.0-16.1)
64°55'N, 164°38'-164°42'W

Summary: Bedrock is limestone and schist. Near head mineralized zones in closely folded silicified limestone contain banded copper "ore" consisting of malachite, chalcopryite, quartz, and iron oxides; contains as much as 0.04 oz. gold and 0.2 oz. silver a ton; drift driven along "ore" zone, 1920 or earlier. Bench gravels in most of valley; creek has cut through them and reconcentrated gold from them; much of gold probably from lode sources in schist bands in limestone. Placer mining, probably all small scale from 1900 to as recently as 1938.

Smith, 1907 (B 314), p. 163 -- 4 men mined, 1906.

Smith, 1909 (B 379), p. 328-329 -- Bedrock is limestones and schist.

Small-scale mining, 1900-08. Through most of its course stream has cut through bench gravels; some gold reconcentrated from bench deposits, but most probably directly derived from bedrock sources.

Many heavy exotic boulders in creek gravel.

Eakin, 1915 (B 622), p. 372 -- Mining, 1914.

Cathcart, 1922 (B 722), p. 210 -- Gold can be panned almost to head;

best production from lower part of creek where bench gravels were reconcentrated. Source of gold probably is schist zones in limestone.

p. 215 -- Drift in closely folded silicified limestone that strikes N 10° E and dips 5°-10° E exposes 5 ft. of copper ore containing quartz, copper sulfide, and copper carbonate. Ore is banded (malachite, chalcopryite, quartz, and iron oxides); bands are discontinuous; seems to follow bedding in limestone. In area exposures are limestone with a few schist zones 50-100 ft. thick.

Smith, 1934 (B 864-A), p. 51 -- Small-scale mining, 1933.

Smith, 1936 (B 868-A), p. 53 -- A little work, 1934; probably not much more than wages.

Smith, 1937 (B 880-A), p. 55 -- A little mining, 1935.

Smith, 1938 (B 897-A), p. 64 -- A little mining, 1936.

Smith, 1939 (B 910-A), p. 66 -- Small-scale mining, 1937.

Smith, 1939 (B 917-A), p. 65 -- Small-scale mining, 1938.

Asher, 1969 (GC 18), p. 6-7 -- 2 parallel mineralized zones 3-5 ft. wide in highly folded limestone strike N 15°-20° W and dip 20°-30° SE. Limestone replaced by copper [sic] and silica along a shear zone; sampling where copper appeared to be most abundant showed 0.04 oz. Au and 0.20 oz. Ag a ton and 1.75% Cu.

Cobb, 1973 (B 1374), p. 79 -- Has been placer mining. Lode deposits near head.

Hummel, 1975 (OF 75-2) -- References to Smith, 1909 (B 379), p. 328-329; Cathcart, 1922 (B 722), p. 210, 215; regional data in Sainsbury and others, 1972 (OF 512), p. 9-10.

(Big Four Cr.)

Gold

Council district
MF-445, loc. 68

Solomon (6.2, 16.0)
64°54'N, 164°10'W

Summary: Bedrock in basin includes schist, greenstone, slate, and limestone. Bedrock not reached where mined 1/2 mi. above mouth. Gold on clay layers in gravel. Assessment work and small-scale mining, 1906-07.

Smith, 1907 (B 314), p. 153 -- Only assessment work, 1906.

Collier and others, 1908 (B 328), p. 264 -- Assessment work, 1906.

Smith, 1908 (B 345), p. 223 -- One man mining, 1907.

Smith, 1910 (B 433), p. 191-192 -- Bedrock in upper part of basin is feldspathic schist and greenstone with large areas underlain by slate, limestone, and chloritic schist. Bedrock not reached by placer workings where mined about 1/2 mi. above mouth. Gold on clay layers in gravel. Values reported to be better near surface than on deeper clay beds. One man mining, 1907.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 191-192.

Big Murrah

Gold, Silver, Tungsten

Nome district
MF-445, loc. 19

Solomon (5.8, 11.45)
64°39'N, 164°14'W

Summary: Only productive lode gold mine in Seward Peninsula. Mining about 1900-07, tailing cyanided in 1950-51, and a little more mining in 1953-54. Mine closed because of fire damage and unstable ground. Workings consisted of an inclined shaft and several hundred feet of drifts; had mill. Total production probably was about 10,000 fine oz. of gold. Deposit consists of quartz fissure veins in shear zones in siliceous black slate (Murrah Slate of old reports; York Slate of Sainsbury); veins 4-8 ft. thick and several hundred feet long; gold in massive quartz veins, in ribbon rock (alternate laminae of quartz and slate), and irregular quartz veinlets in slate. Ore mined averaged a little less than one ounce of gold per ton; about 6 oz. silver to 1 oz. gold; probably about 0.25% scheelite in ore; sulfides absent except for a little pyrite (one report mentions chalcopyrite, pyrrhotite, and stibnite; may have been from general area rather than from mine). Includes reference to Murrah. See also (Big Murrah Cr.).

Brooks, 1905 (B 259), p. 22 -- In 1904 workings had reached a depth of 150 ft. and a 20-stamp mill had been installed.

Brooks, 1906 (B 284), p. 6 -- Only lode deposit developed on Seward Peninsula, 1905.

Moffit, 1906 (B 284), p. 137 -- Only lode being successfully exploited on Seward Peninsula, 1905. Free gold in quartz veins in schist; little or no pyrite. 20 stamps in operation.

Smith, 1907 (B 314), p. 146-147 -- 40-45 men employed at mine and mill, 1906.

p. 155 -- Only lode mine in operation in district, 1906.

Collier and others, 1908 (B 328), p. 223 -- Mine operating, 1906. Specimen from a large vein assayed 2.56 oz. Au and 0.24 oz. Ag a ton; wall rock ran 0.16 oz. Au and 0.08 oz. Ag a ton; most of gold is free.

p. 228-231 -- Bedrock bench of siliceous graphitic schist; quartz veins in fissures that cut across bedding. In 1903 three WNW-striking nearly parallel veins were being developed by 3 tunnels, a shaft, drifts, and crosscuts. Slickensides and gouge along one lode. Lodes consist of ribbons and bands of quartz; horses of schist deformed parallel to banding in quartz. Most of gold is free; no sulfides apparent. Sample (not representative) contained 2.56 oz. Au and 0.24 oz. Ag a ton. Mill (20 stamps) does not recover all of gold.

Smith, 1908 (B 345), p. 234-236 -- Veins bounded by faults. One said to run \$10-\$14 a ton in gold [at \$20.67 an ounce]. In 1907 inclined shaft was down more than 250 ft.; several hundred feet of drifts.

Smith, 1909 (B 379), p. 292 -- Operations suspended, 1908.

Brooks, 1910 (B 442), p. 38 -- Idle, 1909.

Henshaw, 1910 (B 442), p. 360 -- Shut down except for a short time in winter, 1909.

Big Hurrah -- Continued

Smith, 1910 (B 433), p. 93 -- Veins are ribbon quartz; open spaces with terminated quartz crystals rare; visible gold.

p. 139 -- Production began in 1900.

p. 143-147 -- Lode discovered, 1900. Operated almost continually from 1903 to July 1907. Inclined shaft down more than 250 ft.; several hundred feet of drifts. 3 quartz lodes; "ribbon rock" is thin bands of quartz separated by thin partings of black, graphitic, somewhat quartzitic rock; sheared and crushed, but not so much as to lose continuity. Gold free; practically no sulfides. Quartz that runs \$10-\$14 a ton looks unmineralized. Data on mill and milling procedures.

Brooks, 1911 (B 480), p. 73 -- References to Collier and others, 1908 (B 328), p. 228-231; Smith, 1910 (B 433), p. 144-145.

Brooks, 1916 (B 642), p. 69 -- Was gold production, 1903-07.

Smith, 1917 (BMB 153), p. 55 -- Gold produced, 1903-07.

Cathcart, 1922 (B 722), p. 163 -- Operated discontinuously, 1903-08.

p. 173-174 -- Veinlets are of several ages; some veinlets are quartz, some quartz-feldspar, and some quartz-calcite; are both parallel to and cutting across bedding and schistosity of country rock; commonly less than 6 in. wide; discontinuous; pinch and swell.

p. 198 -- Only productive gold lode of Seward Peninsula.

p. 200-204 -- Idle since 1908; most underground workings inaccessible in 1920. Most of data from Smith, 1910 (B 433), p. 143-147. Big Hurrah lode system is restricted to joints in Hurrah Slate; presumably is not to be expected more than 800 ft. to SE, where slate is in (probably fault) contact with schist; probably cut off to west by postulated fault along Little Hurrah Cr. Ore was free milling; averaged less than \$20 [less than an ounce] a ton; practically no sulfides. Gold in quartz veins in which terminated quartz crystals project into voids and in ribbon rock, which is alternating thin bands of quartz and slate (reopening of veins and introduction of more quartz).

Smith, 1932 (B 824), p. 23 -- Rumors that mine might be reopened, 1929.

Smith, 1933 (B 836), p. 23 -- Rumors that mine might be reopened, 1930.

Smith, 1933 (B 844-A), p. 24 -- Same rumors in 1931 as in 1929-30.

Smith, 1934 (B 857-A), p. 22 -- Same rumors on possible reopening of mine, 1932.

Smith, 1939 (B 910-A), p. 33 -- Litigation concluded, 1937.

Smith, 1939 (B 917-A), p. 31 -- No steps toward reopening mine, 1938.

Coats, 1944 (OF 4), p. 1-2 -- Quartz veins of deposit discovered, 1900.

Mine not operated since 1907. One adit accessible in 1943; 2 parallel veins in Hurrah Slate exposed; small amount of scheelite in one; estimated to be 0.1% by volume of vein. Gold ore in bins of remains of old mill estimated to contain 0.25% by volume scheelite; not evenly distributed in ore; most pieces barren, but a few contain as much as 10% scheelite; may have occurred in one or more shoots.

p. 4 -- Scheelite probably not minable except as byproduct of gold mining; probably only a few tens of tons in mine.

Big Murrah -- Continued

Anderson, 1947 (TDM 5-R), p. 43 -- Small amount of scheelite in quartz veins.

White and others, 1952 (C 196), p. 1-2, 4 -- Had been considered as geologically possible source for uranium. Investigation showed eU less than 0.001%. Significant minerals present are gold, chalcopyrite, pyrrhotite, and stibnite in quartz vein in Carboniferous black slate.

Berg and Cobb, 1967 (B 1246), p. 126-127 -- Discovered in 1900; yielded at least 10,000 fine oz. of gold. Deposit consists of 3 principal northwestward-striking southwestward-dipping quartz fissure veins in brittle black siliceous slate; veins are 4-8 ft. wide and several hundred feet long. Mainly white vitreous quartz carrying sparsely disseminated minute particles of gold and small amounts of pyrite and scheelite. In some of high-grade ore gold formed masses an inch or more in greatest dimension; most said to have averaged less than \$20 [about an ounce] per ton in gold. Gold ore in bins in 1943 averaged about 0.25% scheelite, though some pieces contained as much as 10% scheelite. Types of ore mined were: massive quartz veins; ribbon rock (alternate laminae of quartz and slate); and stringer lodes of irregular quartz veinlets in slate. Ribbon rock reported to have yielded best returns and to have constituted most of ore mined. Veins have numerous vugs containing terminated quartz crystals; probably low-temperature, shallow-depth open-space filling. Ribbon rock probably formed by replacement of slate by quartz at moderate depth and temperature.

Koschmann and Bergendahl, 1968 (P 610), p. 16 -- Lode gold mined, 1903-07. p. 19 -- Only important gold-quartz mine in Seward Peninsula. Active from 1900 to 1937 [activity after 1908 seems mainly to have been litigation and indefinite rumors of proposed resumption of mining]. Lode production from Solomon-Bluff area was 9,375 ounces; all presumably from Big Murrah [was an unknown, but probably small, production from lodes at Bluff]. Reference to Smith, 1910 (B 433), p. 144.

Asher, 1969 (GR 33), p. 2 -- Only lode gold mine in Seward Peninsula with production record.

p. 5-6 -- Mine and mill operated, 1903 to July, 1907; closed for administrative reasons. Later attempts at reopening not successful. Production, 1903-05, estimated at \$100,000 [about 4,840 fine oz. of gold]. In about 1951 some of surface material at top of lode was excavated and sluiced. In 1951-52 old tailings were cyanided. In 1953-54 old workings were rehabilitated and some new workings driven and a new mill built. Fire damage in 1954; ground movement in and around shaft in fall of 1954; mine closed permanently. Underground workings consisted of 60° inclined shaft 250 ft. deep and 1,800 ft. of drifts and crosscuts.

p. 12-14 -- Data on deposit from Smith, 1910 (B 433), and Cathcart, 1922 (B 722). Data on details of 1953-54 work from private report by mining engineer (Hellerich) in 1954. About 500 tons of ore mined. Average across 45 inches in a sublevel was about \$15.81. In 70-ft. level assays ran 0.08 to 5.2 oz. Au and 0.5 to 17.2 oz. Ag a ton; in general ore ran ratio of 1 oz. Au to 6 oz. Ag.

Big Hurrah -- Continued

p. 21, 29 -- Summary data from above.

Sainsbury and others, 1972 (OF 511), p. 5 -- Lode gold has been produced; no deposits of such size as to indicate that large tonnages of ore might be produced.

Cobb, 1973 (B 1374), p. 89 -- Reference to Berg and Cobb, 1967 (B 1246), p. 126-127.

Hummel, 1975 (OF 75-2) -- References to Smith, 1910 (B 433), p. 143-147; Cathcart, 1922 (B 722), p. 173-174, 179 [general regional data], 198, 200-204; Coats, 1944 (OF 4), p. 1-2, 4; Anderson, 1947 (TDM 5-R), p. 43.

Sainsbury, 1975 (USBM OF 73-75), p. 72 -- Auriferous quartz veins; correlation with area of richer placer deposits.

p. 95-96 -- Mine operated for several years between 1906 and 1911; tailings were later cyanided and yielded considerable gold. Mine developed along NW-striking vein of banded quartz in York (formerly Hurrah) Slate. Vein is complex; at surface as much as 6 ft. wide; at a depth of less than 200 ft. is intersected by 2 thinner veins which dip less steeply to SW. All veins are auriferous and were mined. Notable amounts of scheelite in quartz. Additional mining in 1950's; fire destroyed shaft timber and headframe and mine was not reopened. Reserves of unmined ore still in mine.

(Big Hurrah Cr.)

Antimony, Gold, Silver, Tungsten

Nome district

Solomon (5.2-6.1, 11.3-11.55)

MF-445, locs. 17, 100

64°38'-64°39'N, 164°12'-164°19'W

Summary: Country rock is limestone, schist, and slate; quartz veins exposed in and near Big Hurrah Cr. contain gold, silver, stibnite, and other sulfides. Creek has cut down 10-30 ft. below old valley floor, leaving benches on both sides of creek. Bench gravels auriferous. Creek gravels some of richest in district, especially immediately downstream from Big Hurrah lode mine; gold from lodes and reconcentrated from bench gravels. Scheelite in placer concentrates; estimated to amount to about 3-1/2 lbs. scheelite per cubic yard of concentrate. Mining from 1900 to World War II or later; dredges operated, 1911, 1918-26. See also Big Hurrah, Quigley, Silver.

Brooks and others, 1901, p. 102 -- Country rock is various kinds of schist; limestone on divides. Mining near mouth, 1900; 4-5 ft. of gravel on clay false bedrock; many garnets, but not much magnetite. Gold generally fine, but one nugget worth \$10 was found.

Purington, 1905 (B 263), p. 209 -- Gold worth \$18.39 an ounce.

Collier and others, 1908 (B 328), p. 223 -- Quartz and pyrite stringer in bedrock of placers a mile below Big Hurrah lode mine contains 0.02 oz. Au a ton and a trace of Ag.

p. 227-228 -- Has produced more gold than any other tributary of Solomon R. [as of 1903]. Creek flows in narrow canyon incised 100 ft. in old broad valley floor; gravel deposits of old valley are left as bench deposits 10-30 ft. above creek. Bedrock is schist and limestone; strike generally parallel to creek; cut by quartz veins both parallel to and across bedding. Creek gravels derived partly from bedrock and partly from bench gravels. Gold discovered and mining begun in 1900. Mining, 1903, in both creek and bench gravels. Many specimens of quartz contain free gold; traced to site of Big Hurrah lode mine.

p. 232 -- Vein about a mile above mouth contains 1 oz. Au a ton and a trace of silver.

Smith, 1908 (B 345), p. 222 -- Mining, 1907.

Smith, 1909 (B 379), p. 291 -- Mining, 1908.

Henshaw, 1910 (B 442), p. 360 -- Ditch operated, 1909. [Probably was mining.]

Smith, 1910 (B 433), p. 156 -- Has been source of considerable gold production.

p. 180-182 -- Highest gold tenor of any of creeks in area. Bedrock is schist, slate, and limestone; igneous rocks in divide at head. Mining, 1900-07, with considerable decrease in 1907. Several large nuggets with attached quartz. Fine sand on auriferous gravel is tailings from Big Hurrah mill. In 1907 most mining was of creek gravels; bench gravels also have been mined.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Chapin, 1914 (B 592), p. 390 -- Mining (other than dredging), 1913.

Mertie, 1918 (B 662), p. 455 -- Open-cut mining, 1916.

(Big Hurrah Cr.) -- Continued

- Cathcart, 1920 (B 712), p. 187, 189 -- A dredge and a hydraulic mine operated, 1918.
- Harrington, 1921 (B 714), p. 233 -- Dredge operated, 1919.
- Brooks, 1922 (B 722), p. 63 -- Dredge operated, 1920.
- Cathcart, 1922 (B 722), p. 184 -- Stibnite reported.
- Brooks, 1923 (B 739), p. 9 -- Dredge operated, 1921.
- Brooks and Capps, 1924 (B 755), p. 14 -- Dredge operated, 1922.
- Brooks, 1925 (B 773), p. 27 -- Dredge operated, 1923.
- Smith, 1926 (B 783), p. 18 -- Dredge operated, 1924.
- Moffit, 1927 (B 792), p. 22 -- Testing gravel on upper part of creek for dredging possibilities, 1925.
- p. 25 -- Dredge operated, 1925.
- Smith, 1929 (B 797), p. 31 -- Dredge operated, 1926.
- Smith, 1934 (B 857-A), p. 45 -- Open-cut mining, 1932.
- Smith, 1934 (B 864-A), p. 50 -- Open-cut mining, 1933.
- Smith, 1936 (B 868-A), p. 52 -- Small-scale open-cut mining, 1934.
- Smith, 1937 (B 880-A), p. 56 -- Open-cut mining, 1935.
- Smith, 1942 (B 933-A), p. 62 -- Small-scale mining, 1940.
- Coats, 1944 (OF 4), p. 3-4 -- A little scheelite in concentrates; estimated at 0.87 lb. in 1/4 yard of concentrate; difficult to separate from magnetite, ilmenite, and garnet in concentrate. Scheelite content of gravel and tailings piles estimated at considerably less than 0.1 pound per cubic yard; amount in grains larger than a mm apparently is negligible.
- Anderson, 1947 (TDM 5-R), p. 11 -- Small stibnite lens 1/4 mi. below Quigley prospect.
- Berg and Cobb, 1967 (B 1246), p. 128 -- Stibnite lens similar to, but smaller than, that at Quigley prospect.
- Koschmann and Bergendahl, 1968 (P 610), p. 19 -- References to Smith, 1910 (B 433) and Collier and others, 1908 (B 328); all historical or regional geologic data.
- Asher, 1969 (GR 33), p. 2 -- Antimony vein west of Big Hurrah mine.
- p. 5 -- \$120,606 worth of gold mined, 1912, 1916-24, 1933, 1935, 1937, 1939-41.
- p. 14 -- Stibnite in silicified brecciated zone in Hurrah Slate. Zone is about 10 ft. wide; strikes N 12° E, dips 44° W; disseminated sulfides (mainly pyrite); stibnite (blades 3 in. long and disseminated material) in band 12-18 in. wide along footwall. Sulfide-bearing quartz veins nearby; some carry a little gold.
- Cobb, 1973 (B 1374), p. 91 -- Has been mining, including a dredge. Richest material probably was from below Big Hurrah mine. Scheelite common in concentrates.
- Hummel, 1975 (OF 75-2) -- References to Smith, 1910 (B 433), p. 180-182; Coats, 1944 (OF 4), p. 3-4; Anderson, 1947 (TDM 5-R), p. 11; Asher, 1969 (GR 33), p. 2, 5, 14.
- Sainsbury, 1975 (USBM OF 73-75), p. 72 -- Notably rich placers; auriferous quartz veins and gold-bearing antimony-lead-silver veins nearby.

(Birch Cr.)

Gold

Council district
MF-445, loc. 82

Solomon (6.5, 14.75) approx.
64°50'N, 164°07'W approx.

Summary: Tributary of Big Four Cr. on which there was mining in 1906.

Smith, 1907 (B 314), p. 153 -- Mining, 1906.

Collier and others, 1908 (B 328), p. 264 -- Tributary of Big Four Cr.

Mining below Shea Cr., 1906.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328),
p. 264.

(Bobs Cr.)

Gold

Kougarok district
MF-445, loc. 31

Solomon (2.05, 16.2)
64°55'N, 164°43'W

Summary: Mining in 1906. Concentrates contained gold, magnetite, and garnet. All of ground frozen.

Smith, 1907 (B 314), p. 163 -- Mining on one claim on upper part of creek, 1906.

Smith, 1909 (B 379), p. 327-328 -- Fine gold, magnetite, and garnet in concentrates. All of ground frozen. Ditch building, but no mining, 1908.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 327-328.

(Bonanza Cr.)

Gold(?)

Council district

Solomon (6.05, 16.85) approx.
64°57'N, 164°11'W approx.

Summary: Country rock is schist in headwaters and limestone farther downstream. Has been some prospecting, but very little (if any) productive mining. See also (Ben Gulch).

Smith, 1907 (B 314), p. 152 -- "A little work has been done on Bonanza Creek, but it was not visited."

Collier and others, 1908 (B 328), p. 264 -- Same as Smith, 1907 (B 314), p. 152.

Smith, 1910 (B 433), p. 190 -- Heads in schist area; in lower part of course flows across limestone. Has been some prospecting, but very little mining.

(Boulder Cr.)

Gold

Council district

Solomon (4.5, 15.2)

MF-445, loc. 50

64°52'N, 164°24'W

Summary: Gold distributed through 18-24 inches of gravel. Some nuggets worth \$12, but most much smaller. Gold worth \$18 an ounce (gold at \$20.67 per fine oz.). Mining, 1899-1900 and 1907.

Brooks and others, 1901, p. 107 -- Mining, 1900.

p. 109 -- Gold in 18 in. to 2 ft. of gravel on bedrock. Mining, 1899-1900.

Collier and others, 1908 (B 328), p. 258-259 -- Quotation from Brooks and others, 1901.

Smith, 1910 (B 433), p. 198 -- Preparations for development near mouth, 1907. Creek gravels already mined said to have been very rich.

Present mining at about the same elevation as the bench along the north side of Canyon Cr. Gold bright; some nuggets worth about \$12 (gold worth \$18 an ounce), but most worth less than 50 cents.

Gravels shallow, but carried gold almost from surface to bedrock.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 198.

Brookins

Antimony

Council district

Solomon (7.7, 16.0)

MF-445, loc. 17

64°55'N, 163°58'W

Summary: Stringers and lenses (largest one foot thick) of stibnite in mica schist. Exploration consisted of an 8-foot shaft and a 60-foot tunnel. No production.

Anderson, 1947 (TDM 5-R), p. 12 -- On Foster Cr. 8-ft. shaft and 60-ft. tunnel to explore stibnite lenses. Workings caved. Largest piece of stibnite float 6 in. in diameter. Widest lens in workings reported to have been 1 ft. thick. Elsewhere in area are tiny stringers and pockets of stibnite in the folds of contorted mica schist. More development work reported to have been done in 1943.

Berg and Cobb, 1967 (B 1246), p. 114 -- Antimony lode consisting of stibnite lenses and stringers in mica schist. Largest lens (up to a foot thick) explored by 8-ft. shaft and 60-ft. tunnel.

Hummel, 1975 (OF 75-2) -- Reference to Anderson, 1947 (TDM 5-R), p. 12.

Bunker Hill

Copper, Gold

Council district
MF-445, loc. 20

Solomon (9.4, 10.65)
64°36'N, 163°45'W

Summary: Quartz vein at contact between limestone and schist; carries a little chalcopryite, pyrite, and gold (assay of 3.87 oz. gold per ton reported); stained with secondary iron and copper minerals. Vein exposed by shallow trenches for a width of 5-1/2 feet and a length of 20 feet.

Cathcart, 1922 (B 722), p. 182 -- Copper minerals near head of Eldorado Cr.

p. 188 -- Quartz vein about 5-1/2 ft. wide; strikes N 5° E; dips steeply W. Hanging wall schist, footwall limestone. Central 18 in. of vein is barren. Mineralized parts contain a little chalcopryite and pyrite and azurite and malachite stains. Assay of \$80 [about 3.87 fine oz.] in gold to the ton reported by owner. Only development is 2 trenches 2 ft. deep and 20 ft. long.

Anderson, 1947 (TDM 5-R), p. 19 -- Reference to above.

Wedge and others, 1952 (OF 51), p. 39 -- Contains chalcopryite and copper carbonates in addition to gold.

Berg and Cobb, 1967 (B 1246), p. 113 -- Northward-striking vertical quartz vein at contact between limestone and schist; exposed by shallow trenches for a width of 5-1/2 ft. and a length of 20 ft. Vein, stained with secondary iron and copper minerals, carries sparse chalcopryite, pyrite, and gold, mostly near borders. Said to assay 3.9 oz. gold per ton.

Hummel, 1975 (OF 75-2) -- Reference to Cathcart, 1922 (B 722), p. 188.

(Burnt Cr.)

FM, RE

Council district

Solomon (18.15, 13.0)
64°43'N, 162°35'W

Summary: Sample of allanite-rich syenite boulder contained 0.059% U_3O_8 and 1.05% ThO_2 . Occurrence similar to that near Eagle Cr.
See also (Eagle Cr.).

Miller and others, 1976 (OF 76-710), p. 6, 8 -- Allanite-rich syenite float occurs as isolated boulders on a ridge. A sample from a large boulder contained 392 ppm U (0.059% U_3O_8) and 9,200 ppm Th (1.05% ThO_2). Similar to occurrence on knoll near Eagle Cr.

(Butte Cr.)

Gold

Nome district

Solomon (5.0-5.15, 12.45-12.6)

MF-445, loc. 95

64°43'N, 164°19'-164°20'W

Summary: Follows contact between limestone and underlying schist upstream from productive placer ground on South Fork. Creek and bench gravels were mined, 1908 and earlier. Includes references to (Butte Cr., South Fork).

Smith, 1908 (B 345), p. 222 -- Has been a little mining, especially on South Fork. Creek follows contact between limestone and underlying schist for a considerable distance above the productive ground. Apparently barren quartz veins near contact.

Smith, 1909 (B 379), p. 291 -- Mining, 1908.

Smith, 1910 (B 433), p. 183 -- Has been mining, but there was none in 1908 except on South Fork, a short distance above junction. Country rock is schist and limestone. Mining in 1907 had been on benches NW of South Fork. Creek gravels in lower part of creek have been thoroughly worked over. Bench gravels rest on schist bedrock; about 8 ft. thick; surface of bench about 20-25 ft. above level of South Fork; gravels frozen.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 183.

(Cahill Cr.)

Gold

Council district

Solomon (4.1, 14.5)

MF-445, loc. 75

64°49'N, 164°27'W

Summary: Gold, which may have been reconcentrated from bench of Lower Willow Cr., found in lower half mile of creek. No record of mining.

Smith, 1910 (B 433), p. 202 -- Gold found only in lower half mile. May have been reconcentrated from bench of Lower Willow Cr.

Hummel, 1975 (OF 75-2) -- Reference to above.

(California Cr.)

Gold

Council district
MF-445, loc. 106

Solomon (8.4, 11.0)
64°37'N, 163°53'W

Summary: Small-scale placer mining reported, 1928-30, 1933. Dredge operated for parts of 1939 and 1940 seasons.

Smith, 1930 (B 813), p. 41 -- A little placer mining, 1928.

Smith, 1932 (B 824), p. 47 -- A little placer mining, 1929.

Smith, 1933 (B 836), p. 49 -- A little placer mining, 1930.

Smith, 1934 (B 864-A), p. 51 -- A little gold recovered, 1933.

Smith, 1941 (B 926-A), p. 66, 71-72 -- Dredge brought in from Nome district; operated for a short time at end of season, 1939.

Smith, 1942 (B 933-A), p. 61-62, 68 -- Dredge operated part of season, 1940.

Cobb, 1973 (B 1374), p. 69 -- Placer gold has been mined.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1942 (B 933-A), p. 61-62.

(Camp Cr.)

Gold

Council district
MF-445, locs. 13, 115

Solomon (7.45-8.0, 15.0-16.5)
64°51'-64°56'N, 163°56'-164°00'W

Summary: Quartz vein near head carries visible free gold. Sporadic placer mining reported from 1905 to 1940. Most placer mining was in flats of Niukluk R. near mouth of Camp Cr. Dredges operated 1915-18, 1939-40. Smaller scale mining may well have been on Camp Cr.

Moffit, 1906 (B 284), p. 138 -- Mining, 1905.

Smith, 1907 (B 314), p. 151 -- A little mining, 1906.

p. 155 -- Lode near head reported to consist of a quartz vein carrying visible free gold.

Collier and others, 1908 (B 328), p. 256 -- Mining, 1904. Auriferous gravel 50-100 ft. wide, 3 ft. thick; said to carry \$0.75-\$1.00 a yard; beneath 3 ft. overburden.

Smith, 1908 (B 345), p. 217 -- Hydraulic mining, 1907 [may have been on Niukluk].

Smith, 1909 (B 379), p. 295 -- A little mining, 1908.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 117 -- Productive creek.

p. 121-122 -- Quotation from Collier and others, 1908 (B 328), p. 256. Only desultory work in last 2-3 years [as of 1909].

Chapin, 1914 (B 592), p. 392 -- Mining, 1913.

Smith, 1917 (BMB 142), p. 28 -- New dredge began operating, 1915.

Mertie, 1918 (B 662), p. 452 -- Dredge operated, 1916.

Cathcart, 1920 (B 712), p. 187 -- Dredge operated, 1918.

Smith, 1941 (B 926-A), p. 71-72 -- Dredge operated, 1939. (Actually in Niukluk flats near mouth of Camp Cr., see p. 63].

Smith, 1942 (B 933-A), p. 60, 68 -- Dredge operated in Niukluk flats near mouth of Camp Cr., 1940.

Berg and Cobb, 1967 (B 1246), p. 113 -- Quartz vein carries visible free gold.

Cobb, 1973 (B 1374), p. 81 -- Placer gold present.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 256.

(Canyon Cr., trib. Casadepaga R.) Gold

Council district
MF-445, loc. 51

Solomon (4.55-4.75, 15.1)
64°51'N, 164°22-164°24'W

Summary: Creek has cut about 10 ft. below old valley floor; bedrock is schist with a few narrow limestone reefs and numerous quartz veins. Much of mining was of bench gravels about 12 ft. thick and as much as 200 ft. or more wide. Gold throughout gravel, but concentrated on bedrock or in crevices in it. Creek gravels also auriferous. Intermittent mining, 1900-18; dredge operated, 1916-18.

Brooks and others, 1901, p. 107 -- Mining, 1900.

p. 109 -- Creek has cut down into mica schist. For a mile above mouth creek was choked with ice in 1900. A little work being done 2 mi. above mouth; 3 ft. of gravel on bedrock.

Smith, 1907 (B 314), p. 153 -- Assessment work only, 1906.

Collier and others, 1908 (B 328), p. 259 -- Quotation from Brooks and others, 1901.

p. 265 -- Assessment work only, 1906.

Smith, 1908 (B 345), p. 224 -- Most of pay is in bench gravels about 10 ft. above stream. Gold bright, some pieces with attached quartz. Bedrock where there is mining is chlorite schist with numerous quartz veins. Mining, 1907.

Smith, 1909 (B 379), p. 337 -- Mining on lower part of creek,

Henshaw, 1910 (B 442), p. 360 -- Mining, 1909; hampered by water shortage.

Smith, 1910 (B 433), p. 189 -- Has been mining from bench(es).

p. 197-199 -- Present channel is cut about 10 ft. below an old valley floor; bed of creek covered by large slabs of unrounded rock. Bedrock exposed in channel walls; covered by veneer of gravel seldom more than 2-3 ft. thick. Practically all production has been from bench along north side of creek or from places where side streams reconcentrated gold from bench gravels. Bench gravels about 12 ft. thick and as much as 200 ft. or more wide; gold throughout, but best values are on bedrock or in crevices in it. Bedrock schist with a few narrow limestone reefs. Gold seems to be localized in bench from Sunshine Cr. to a short distance above Boulder Cr. Mining, 1907-08.

Smith, 1917 (BMB 153), p. 55 -- Dredge moved in from Solomon R., 1916.

Mertie, 1918 (B 662), p. 452 -- Dredge operated, 1916.

Cathcart, 1920 (B 712), p. 187 -- Dredge operated, 1918.

Cobb, 1973 (B 1374), p. 66 -- Has been bench mining.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 197-199.

(Canyon Cr., trib. Iron Cr.)

Gold

Kougarok district
MF-445, loc. 27

Solomon (1.6, 15.05)
64°51'N, 164°47'W

Summary: Colors of gold reported. Most of valley in feldspathic and chloritic schists; some slate and limestone near head. See also (El Patron Cr.)

Brooks and others, 1901, p. 116 -- Colors said to have been found.
Smith, 1909 (B 379), p. 329-330 -- Most of valley in feldspathic and chloritic schists; black quartzitic slates and limestone near head.
No workable deposits have been found except on a small tributary (El Patron Cr.).
Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 329-330.

(Cape Darby)

Monazite, RE, Tungsten

Council district

Solomon (16,75, 7,25)

MF-445, loc. 136

64°24'N, 162°48'W

Summary: Sample from sea cliff contained allanite, monazite, scheelite, fluorite, iron-rich minerals, zircon, epidote, and biotite.

West, 1953 (C 300), p. 4-5 (sample 2921) -- Sample from sea cliff (concentration ratio - 1,200:1) contained allanite, monazite, scheelite, fluorite, hematite, ilmenite, magnetite, zircon, epidote, and biotite.

Overstreet, 1967 (P 530), p. 111-112 -- Reference to above.

(Carson Cr.)

Copper

Council district
MF-445, loc. 24

Solomon (18.4, 9.35)
64°31'N, 162°34'W

Summary: Malachite, azurite, and minor chalcocite partially replaced schist. Explored in a small way in early 1900's.

Smith and Eakin, 1911 (B 449), p. 134-135 -- 3 mi. north of Carson Cr. on east coast of Darby Peninsula. Short open cut excavated some time before 1909. Copper mainly as carbonate; a little chalcocite. Deposit appears to be replacement of schist rather than a vein. Rocks much slickensided. Mineralization slight.

Cathcart, 1922 (B 722), p. 181 -- Reference to above.

Anderson, 1947 (TDM 5-R), p. 20 -- Reference to Smith and Eakin, 1911 (B 449).

Wedge and others, 1952 (OF 51), p. 38 -- In schist is "a replacement copper prospect containing malachite and chalcocite."

West, 1953 (C 300), p. 3 -- Has been lode prospecting.

Berg and Cobb, 1967 (B 1246), p. 113-114 -- Low-grade copper deposits explored about 1900 by a small open cut and a short tunnel. Malachite, azurite, and minor chalcocite have partly replaced schist country rock. Nearby there is superficial copper staining in brecciated limestone.

(Casadepaga R.)

Gold

Council district

Solomon (4.55-6.35, 13.85-16.25)

MF-445, locs. 53-57, 78, 81

64°46'-64°56'N, 164°09'-164°24'W

Summary: Country rock limestone and schist; many quartz veins, some of which are auriferous. River heads in broad valley filled with gravel into which stream is entrenched 30-150 ft. Broad terraces with gold-bearing bench gravels. Tributaries have concentrated gold from bench gravels in their lower courses and in gravels of main river below mouths of tributaries. Gold discovered, 1898. Mining on tributaries and bars of main stream before 1913. Dredges operated, 1913-14, 1925-29, and 1934-37. Smaller scale mining in intervening years. Includes references to (Koksuktapaga R.).

Brooks and others, 1901, p. 69 -- Production, 1900, was \$15,000 [about 725 fine oz.] in gold.

p. 107 -- First prospected in 1898; many claims staked, 1899.

In 1900 production from basin was about \$15,000; mainly from tributaries.

Smith, 1907 (B 314), p. 147 -- One of main productive tributaries of Niukluk R.

p. 152-154 -- Prospecting of river gravel near Penelope Cr.

Gold in some bars is on surface rather than on true or false bedrock.

Small-scale mining of low bench gravels, 1906.

Collier and others, 1908 (B 328), p. 236 -- Has been mining.

p. 257-258 -- Bedrock is limestone and schist cut by many quartz veins and stringers, some of which are auriferous. River is in broad valley with deep gravel fill into which it has trenched 30-150 ft.; well-marked gravel terraces and benches; in upper part of course gravels are on broad, rock-cut benches on both banks. Most mining in basin has been on tributaries where they cut gravel terraces and benches; placers formed by reconcentrating gold from older gravels that are probably too lean to mine [as of about 1904]. Historical data quoted from Brooks and others, 1901.

p. 264 -- A little bar mining and what was essentially prospecting on benches, 1906.

Smith, 1908 (B 345), p. 223 -- Most mining in 1907 was on tributaries; a little on a low bench above mouth of Bonanza Cr.

Henshaw, 1910 (B 442), p. 360 -- Mining near Ruby Cr., 1909.

Smith, 1910 (B 433), p. 184-189 -- Prospecting as far upstream as Goose Cr. in 1898. As of 1907 all work in basin was small scale and most was on tributaries. Meager prospecting of benches; some carry gold. Minor production at mouth of Fool Cr. [opposite Little Dixie Cr.]. Values near mouths of Dawson and Dixon Creeks, 1907. Near Dry Gulch bench gravels may be 50 ft. thick; prospect pits only 8-10 ft. deep; colors most of the way down, concentrated mainly on clay layers; some ground runs \$2-\$5 a yard. Few signs of mining or prospecting stream gravels above Dry Gulch. Bench gravels auriferous between Goose and Canyon Creeks. Desultory prospecting in other places; results not known.

(Casadepaga R.) -- Continued

Chapin, 1914 (B 592), p. 387, 392 -- Dredge operated near mouth of Ruby Cr., 1913.

Eakin, 1915 (B 622), p. 371 -- Dredge operated, 1914.

Mertie, 1918 (B 662), p. 455 -- Open-cut mining, 1916.

Cathcart, 1920 (B 712), p. 189 -- Hydraulic mining, 1918.

Moffit, 1927 (B 792), p. 24 -- Dredge operated, 1925.

Smith, 1929 (B 797), p. 30 -- Dredge operated, 1926.

Smith, 1930 (B 810), p. 34-35, 40 -- Dredge operated near mouth of Canyon Cr., 1927.

Smith, 1930 (B 813), p. 41, 47 -- Dredge operated near mouth of Canyon Cr., 1928.

Smith, 1932 (B 824), p. 46-47, 53 -- Dredge operated, 1929.

Smith, 1936 (B 868-A), p. 52 -- Mining between Banner and Ruby Creeks, 1934.

Smith, 1937 (B 880-A), p. 56, 61 -- New dredge operated above mouth of Ruby Cr., 1935.

Smith, 1938 (B 897-A), p. 65-66, 71 -- Mining, including a dredge, 1936.

Smith, 1939 (B 910-A), p. 69-70, 76 -- Mining, including a dredge, 1937.

Dredge did not have a good season; plan to move it to Monument Cr. [Nome quad.].

Koschmann and Bergendahl, 1968 (P 610), p. 19 -- Gold discovered, 1898.

Cobb, 1973 (B 1374), p. 64 -- Productive placers developed, winter of 1899-1900.

p. 66 -- Placers developed in early 1900's were mainly stream placers on tributaries and bench placers along Casadepaga and tributaries; deposits near mouths of tributaries were mainly reconcentrations of gold from bench gravels.

p. 68 -- Was successful dredging before World War II.

Hummel, 1975 (OF 75-2) -- References to Smith, 1910 (B 433), p. 184-189;

Chapin, 1914 (B 592), p. 392; Smith, 1932 (B 824), p. 46-47; Smith,

1936 (B 868-A), p. 52; Smith, 1939 (B 910-A), p. 69-790.

(Chickamin Gulch)

Gold

Kougarok district
MF-445, loc. 38

Solomon (2.7, 15.55)
64°53'N, 164°38'W

Summary: Small gulch in bench deposit on canyon wall of Iron Cr. Fine gold in sand with a few pebbles resting on solution-pitted limestone surface. No record of productive mining.

Smith, 1909 (B 379), p. 341-342 -- Gulch is only a small notch in canyon wall of Dome Cr. [local name for part of Iron Cr.], where a bench deposit consists of sand with a few pebbles beneath angular rock fragments and resting on a solution-pitted limestone surface. Fine, bright gold in bench deposits; no productive mining reported; getting water to deposit would be difficult.

(Chukajak Cr.)

Gold(?)

Koyuk district

Solomon

NE 1/4 NE 1/4 NE 1/4 quad.

Summary: Prospectors reported finding coarse gold, 1899-1900. Further work was discouraging.

Mendenhall, 1901, p. 190 -- Prospecting, 1899-1900.

p. 212 -- Coarse gold reportedly found, 1899-1900; further work "did not fulfill the promise of this first find." Data from prospectors.

p. 218 -- Same as p. 212.

Smith and Eakin, 1910 (B 442), p. 341 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 115 -- Quotation from Mendenhall, 1901, p. 212.

(Clear Cr. area)

FM, Niobium, RE, Tin, Tungsten

Koyuk district

Solomon (19.7-20.9, 15.25-16.85)

MF-445, locs. 127-133

64°50'-64°56'N, 162°11'-162°21'W

Summary: Concentrate samples from tributaries of Clear and Vulcan Creeks contained pyrite, cassiterite, rutile, zircon, topaz, allanite, sphene, scheelite, uraniferous niobate minerals, and many other oxide and rock-making minerals.

Wedow and others, 1952 (OF 51), p. 45 -- Stream concentrates from an area of granitic rock contain minor amounts of a uranium-niobate minerals, topaz, and traces of cassiterite.

West, 1953 (C 300), p. 6-7 -- Concentrate samples contained pyrite, hematite, ilmenite, magnetite, cassiterite, rutile, anatase, hornblende, garnet, zircon, topaz, kyanite, epidote, allanite, staurolite, biotite, sphene, uraniferous niobate minerals, apatite, and scheelite.

Cobb, 1973 (B 1374), p. 81 -- Reference to West, 1953 (C 300).

(Coca Cola Cr.)

Gold

Council district

Solomon (8.5, 11.0) approx.
64°37'N, 163°53'W approx.

Summary: Near California Cr. A little placer gold recovered, 1933.

Smith, 1934 (B 864-A), p. 51 -- A little placer gold recovered, 1933.
Near California Cr. about 7 mi. west of Bluff.

(Dane Cr.)

Gold(?)

Kougarok district

Solomon (0.6, 16.0) approx.
64°54'N, 164°55'W approx.

Summary: Thin gravel. Map shows auriferous gravel, but text description does not state that any gold was found.

Smith, 1909 (B 379), p. 320 -- Thin gravels. In lower part of course stream flows on a gravel plain. Low pass at head of east fork was probably once a channel for ice or water. [No text mention of presence of gold, but map (Pl. X) shows presence of auriferous gravel.]

(Daniels Cr.)

Copper, Gold, Mercury, Silver,
Tungsten

Council district
MF-445, locs. 21, 110

Solomon (9.4-9.5, 10.1-10.25)
64°34'-64°35'N, 163°44'-163°45'W

Summary: Country rock is limestone crossed by a band of chloritic schist. 3 lodes extend from shore inland for about a mile; contain free gold (with alloyed silver) and sparse sulfides in quartz veins in shear zones; in richest material gold is concentrated near margins of veins. Sulfides mainly arsenopyrite and pyrite; chalcopyrite reported in one report. Lodes explored by many pits, trenches, shallow shafts, and an adit in sea cliff. A little ore was mined and milled in an arrastre and small mill, but production was negligible. Placer deposits (derived from lodes) were mined from Daniels Cr., two levels of beaches near mouth, and from offshore channel of creek. Bedrock in creek is cavernous limestone with most of gold in sink holes, collapsed caverns, and solution channels; gold in holes with bottoms below sea water probably not recoverable. Much cinnabar and a little scheelite in concentrates. Gold discovered in beach at mouth of creek in 1899; in creek and lodes in 1900. Beach one of richest ever found. Mining continued until as recently as 1956. Offshore channel mined with scraper working through slot cut in sea ice. Total placer production (mainly before World War II) was probably about 87,000-88,000 fine ounces of gold. Includes references to: (Bluff), Consolidated, Eskimo, Idaho, Labay & Megan, Sea Gull, (Topkok Beach).

Brooks and others, 1901, p. 69 -- Production in 1900 worth \$200,000 [about 9,675 fine oz.] in gold from creek and \$600,000 [about 29,000 fine oz.] from beach.

p. 102-106 -- Up to 1900 development in area was mainly at Daniels Cr. and the beach at its mouth. Bedrock limestone and schist interbedded with limestone. Quartz veins in schist contain pyrite, chalcopyrite, and a trace of gold. Placer gold discovered 1899. Beach claims staked and mined, 1900. Beach placer extended 500 ft. west and 50 ft. east of mouth of Daniels Cr., 3-4 ft. of gravel on clay and beneath about a foot of barren sand. Gravel mainly schist; some finer pieces of limestone. Heavy minerals with gold include magnetite, ilmenite, and much cinnabar. Daniels Cr. rises in coastal plain; gold probably was concentrated from coastal-plain deposits by creek and then further concentrated by wave action. Near mouth of creek gold is in fine gravel on clay; pay streak is locally cemented by manganese oxide.

Brooks, 1904 (B 225), p. 54 -- Ditch 12 mi. long was completed, 1903.
Brooks, 1905 (B 259), p. 22-23 -- Hydraulicking, 1904; water shortage.
Moffit, 1906 (B 284), p. 139 -- Mining, 1905. Much cinnabar in creek concentrates.

Collier and others, 1908 (B 328), p. 283-293 -- Total production from area through 1904 exceeds \$1,000,000 [about 48,375 fine oz.], nearly all from Daniels Cr. and beach. Bedrock is limestone and schist (some

(Daniels Cr.) -- Continued

may be altered intrusive rock). Most of the mineralization is in schist near contacts with limestone. At mouth of creek an old beach deposit lies about 10 ft. above present beach. Gold discovered in 1899 at mouth of Daniels Cr. By July, 1900, about \$600,000 in gold [about 29,000 fine oz.] had been taken from a stretch of beach 1,000 ft. long; one of richest beach placers ever mined. Old beach and creek gravels were also mined. Gravels carry sulfide minerals as well as gold. Gold locally derived, probably from veins in schist close to or along contacts with limestone; such veins are exposed in sea cliffs. Veins are quartz and calcite with pyrite, arsenopyrite, and some chalcopyrite. Richest stream placers are in [residual] clay on solution-pitted and etched limestone rather than in gravel. Beach gravels mainly schist. Heavy minerals with gold include magnetite, limonite, ilmenite, and cinnabar.

Smith, 1908 (B 345), p. 247 -- Quotation from Moffit, 1906 (B 284), p. 139.

Henshaw, 1910 (B 442), p. 360 -- Mining from crevices and potholes in limestone, 1909.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Brooks, 1911 (B 480), p. 74 -- Data on veins from Collier and others, 1908 (B 328), p. 291-292.

p. 93 -- Cinnabar abundant in concentrates; bedrock source has not been found.

Smith and Eakin, 1911 (B 449), p. 123-125, 128-129 -- Data summarized or quoted from Collier and others, 1908 (B 328), p. 283-293. In 1907 several shafts as much as 50 ft. deep were sunk on quartz veins near Bluff; some ore crushed in an arrastra.

Brooks, 1913 (B 542), p. 41 -- Some work done on Consolidated group of claims near Topkok, 1912.

Chapin, 1914 (B 592), p. 391 -- Only mining in area was one man working a bench deposit with pumped sea water, 1913.

Mertie, 1918 (B 662), p. 435 -- Labay & Meegan claims cover Sea Gull, Idaho, and Esquimeaux lodes, which are mineralized zones in schist and quartz. Developments (all on Idaho) consist of a total of about 300 ft. of shafts, tunnel, winze, and crosscut; other prospect shafts are mostly caved [as of 1916].

Mertie, 1918 (B 662), p. 455 -- Open-cut placer mining, 1916.

Brooks, 1921 (B 714), p. 39 -- Cinnabar in gold placers.

Harrington, 1921 (B 714), p. 236 -- Lode mine said to have operated during winter; ore milled during summer, 1919.

Brooks, 1922 (B 722), p. 65 -- Lode mine operated during winter; ore milled in spring, 1920.

Cathcart, 1922 (B 722), p. 182 -- Scheelite in placers.

p. 185-197 -- Cinnabar in placers. Country rock is limestone with bands of schist, some of which may be altered igneous rock. 3 lodes (exposed only in sea cliff and in excavations) extend north from cliff for at least 4,000 ft. Lodes are 60 to 165 ft. wide at cliff and widen to 100-200 ft. inland; also increase in width with depth. Lodes are essentially quartz-mica schist with many quartz veins and veinlets; arsenopyrite and pyrite present, as well as free gold.

(Daniels Cr.) -- Continued

Lodes explored by pits, 14 shafts 30-100 ft. deep (total 657 ft.), and a tunnel, winze, and crosscut. Only oxidized ore was milled. In 1920 only one shaft was still open. Lodes are bounded by faults along one or both walls; some marked by gouge. In some veins terminated quartz crystals project into voids. Cinnabar in lodes, Cinnabar and scheelite in placer concentrates. Little gold in Daniels Cr. upstream from lodes.

p. 235 -- Arsenopyrite in lodes.

Smith, 1929 (B 797), p. 26 -- Mining on beach at mouth of creek, 1926.

Small stampede also; occasioned by finding some rich placer ground near Bluff; not much production.

Smith, 1930 (B 810), p. 35 -- Mining beach deposits, 1927.

Smith, 1930 (B 813), p. 41 -- A little placer mining, 1928; none in beach deposits.

Smith, 1932 (B 824), p. 47 -- A little placer mining, 1929.

Smith, 1933 (B 836), p. 49 -- A little placer mining, 1930.

Smith, 1933 (B 844-A), p. 49-50 -- Placer mining, 1931; larger scale than in 1928-30.

Smith, 1934 (B 857-A), p. 46 -- Placer mining, 1932; gold penetrated far into bedrock.

Smith, 1934 (B 864-A), p. 51 -- Placer mining, 1933.

Smith, 1936 (B 868-A), p. 50 -- Placer mining, 1934. Stream and bench deposits. Bottom of main pit is below sea level.

Smith, 1937 (B 880-A), p. 55 -- Placer mining (30 men), 1935.

Smith, 1938 (B 897-A), p. 66 -- Placer mining (30 men), 1936.

Smith, 1939 (B 910-A), p. 68 -- Sea bottom off mouth of Daniels Cr. was mined with a scraper through a slot in the ice; much gold recovered; 1937.

Smith, 1939 (B 917-A), p. 31 -- Property examinations of lode prospects, 1938.

p. 70 -- Sea-bottom mining [see above] not reported for winter of 1937-38.

Smith, 1941 (B 926-A), p. 66 -- Sea-bottom mining in winter; other placer mining in summer, 1939.

Smith, 1942 (B 933-A), p. 61 -- Sea-bottom mining in winter; other placer mining in summer, 1940.

Anderson, 1947 (TDM 5-R), p. 33 -- Cinnabar in placer concentrates from creek and beach.

Malone, 1962 (IC 8131), p. 7 -- Cinnabar recognized in beach placers as early as 1900.

p. 55 -- Placer cinnabar present in creek and beach deposits.

Herreid, 1965 (GR 10), p. 2-3 -- Schist and quartzite boulders in placer cuts. Marble and schist country rock; marble dark gray and carbonaceous near contacts with schist.

p. 5-7 -- Placer gold discovered at mouth of creek in 1899; nearby lodes staked in 1900. Present creek channel and a buried old channel west of present channel have been mined from mouth inland for about 2,500 ft. where a fault cuts marble; sample of sheared marble assayed 0.03 oz. Au and 0.03 oz. Ag a ton. Lodes crop out on bluff 1,000 ft. east of mouth of Daniels Cr. and extend inland for

(Daniels Cr.) -- Continued

4,700 ft.; cross Daniels Cr. 3,500 ft. above mouth. Lodes are bands of quartz-mica schist which in places carry arsenopyrite and pyrite; sample across 20 ft. of Seagull lode assayed \$14.70 a ton [1964 prices]. Scheelite can be panned from material on dumps of old shafts and pits. "There appears to be a considerable quantity of \$1-\$2 ore along with an unknown amount of \$6-\$14 ore."

p. 9-10 -- Placer deposits probably associated with nearby lodes. Quartz-sulfide veins occur only in schist. Older veins parallel foliation; younger veins generally are in joints or faults that cut across foliation. Younger veins are less common; contain free gold and sulfides. Older veins contain only occasional rusty specks that may represent limonitized sulfide grains.

p. 14-15 -- Assay data on samples from lodes. Except for one sample of arsenopyrite, all assays show from \$0.19 to \$14.70 a ton in gold (at \$35 an ounce) and silver (at \$1.29 an ounce) per ton. Malone, 1965 (IC 8252), p. 52 -- Placer cinnabar present. Quotation from Collier and others, 1908 (B 328).

p. 56 -- References to Malone, 1962 (IC 8131). Berg and Cobb, 1967 (B 1246), p. 113 -- Oxidized auriferous quartz veins in shear zones in chlorite schist. Sparse sulfides, including arsenopyrite and pyrite, disseminated in quartz veins and schist; in richer lodes sulfides and gold are concentrated in quartz near contacts with schist. Gold tenor from 0.1 to 8.5 oz. per ton. Explored by numerous pits, trenches, and shafts and other underground working; some ore mined, but little shipped. Probable source of gold in nearby placers.

Koschmann and Bergendahl, 1968 (P 610), p. 19 -- References to Collier and others, 1908 (B 328) and Smith, 1910 (B 433). All data are historical or on regional geology.

Mulligan, 1971 (RI 7555), p. 5-7 -- Gold discovered on beach at mouth of creek, 1899; practically mined out during 1900. Lodes staked and creek mining begun, 1900. Practically mined out by World War I. Deposits below sea level mined in 1930's. Lodes from sea cliffs inland for about a mile were explored by pits, trenches, and shafts, but total production was negligible. Total production from placers in area was about 89,140 fine oz., of which all but probably about 1,500-2,000 fine oz. came from Daniels Cr., its beach, and its offshore extension. Data on claim ownership.

p. 10-36 -- Where placers were mined, Daniels Cr. is underlain by cavernous limestone; much of gold was in sink holes and solution channels; probably the same situation where bedrock is below sea level and such gold could not be recovered. A little gold was mined from lodes, but dumps at shafts and near ruins of small mill are too small to indicate much stoping. Material mined apparently was from residual concentrations, as was the material from some placer pits. [Rest of reference is detailed data on USBM sampling programs.]

Cobb, 1973 (B 1374), p. 64 -- Rich beach deposit discovered and gold worth \$600,000 [about 29,025 fine oz.] recovered, winter of 1899-1900.

(Daniels Cr.) -- Continued

p. 68 -- By 1920 most of the 70,000-75,000 oz. of gold from area had come from alluvium of Daniels Cr. and 2 generations of beach placers. Stream placer formed in collapsed cavern in limestone. Scheelite reported. Gold lodes in schist are source of placer gold. Mining as recently as 1956. Has been winter mining offshore from mouth of creek through a slot in the sea ice.

Hummel, 1975 (OF 75-2) -- References to Collier and others, 1908 (B 328), p. 283-293; Cathcart, 1922 (B 722), p. 186-197; Herreid, 1965 (GR 10), p. 14-15; Mulligan, 1971 (RI 7555), p. 10-12, 14-29.

(Darby Mts.)

Tin(?)

Council or Koyuk district

Solomon

NE 1/4 quad. --

Summary: Unconfirmed report of cassiterite in granite.

Collier, 1905 (B 259), p. 120, 125 -- Lode cassiterite reported. Prospector showed Collier a specimen of granite containing possibly 10% by weight. Said to have been found in region north of Cape Darby.

(Dawson Cr.) (Gulch)

Gold

Council district
MF-445, loc. 70

Solomon (6,15, 16,1)
64°55'N, 164°11'W.

Summary: Upper part of creek flows on limestone; schist with minor inter-bedded limestone near mouth. Crosses bench of Casadepaga R. Was a little mining near mouth, mainly in 1907. Gold in creek placer derived from basin and from bench of Casadepaga R.; bench mining was in bench of Casadepaga.

Brooks and others, 1901, p. 107 -- Development work, 1900. Gold and garnet on mica schist bedrock.

Collier and others, 1908 (B 328), p. 258 -- Quotation from Brooks and others, 1901.

Smith, 1908 (B 345), p. 223 -- Bench gravels mined, 1907.

Smith, 1910 (B 433), p. 186 -- Fine gold on mica schist bedrock where creek crosses bench of Casadepaga R.

p. 192 -- Small-scale mining of creek and bench gravels at mouth, 1907. Creek gravels derived from basin of Dawson Cr. and from bench deposits of Casadepaga R. Upper part of Dawson Cr. flows on limestone; near mouth is micaceous schist with small inter-laminated layers of limestone.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 192.

(Discovery Cr.)

Gold

Kougarok district

Solomon (2.25, 15.5-15.65)

MF-445, loc. 34

64°53'N, 164°42'W

Summary: Only work was near mouth. Gold (none mined) reported on some tributaries.

Smith, 1909 (B 379), p. 330 -- Only work has been near mouth where bedrock is black slate. Middle part of basin in feldspathic schist; headwaters in limestone, where workable placers might be expected. Small placers on some of tributaries, but none worked [as of 1908].

(Dividend Cr.)

Gold

Kougarok district
MF-445, loc. 44

Solomon (3.2, 15.1)
64°52'N, 164°34'W ..

Summary: Was placer mining before 1908.

Smith, 1909 (B 379), p. 331 -- Has been mining. Tributary of Telegram
[Iron] Cr. from west.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Dixon Cr.)

Gold

Council district

Solomon (5,85, 15,8)

MF-445, loc. 67

64°54'N, 163°13'W

Summary: Creek roughly follows contact between limestone and chloritic schist. About \$15,000 [about 725 fine oz.] in gold, some coarse, recovered in early 1900's.

Brooks and others, 1901, p. 107-108 -- Mining, 1899; production worth a few thousand dollars. No mining, 1900.

Smith, 1907 (B 314), p. 153 -- Creek roughly follows contact between schist and limestone. Has been some development work [as of 1906].

Collier and others, 1908 (B 328), p. 258 -- Quotation from Brooks and others, 1901.

p. 264 -- Same as Smith, 1907 (B 314), p. 153.

Smith, 1910 (B 433), p. 192 -- Follows contact between limestone and chloritic schist. About \$15,000 [about 725 fine oz] in gold recovered between 1900 and 1907(?). Some of gold coarse.

(Dome Cr., Left Fork)

Copper, Gold

Kougarok district
MF-445, locs. 8, 37

Solomon (2.6-2.8, 15.6-15.75)
64°53'-64°54'N, 164°37'-164°39'W

Summary: Small cut near headwaters in 1907 or earlier exposed small quartz lens with azurite and a little malachite. Stream crosses 3 limestone bands separated by 2 schist bands; much underground flow where bedrock is limestone. About 950-975 fine oz. of gold recovered from placers before 1908.

Smith, 1908 (B 345), p. 243 -- Azurite (practically no malachite) near upper branches of Left Fork. Very little exploration as of 1907.

Smith, 1909 (B 379), p. 330-331 -- Bedrock is 3 limestone bands separated by 2 schist bands. In canyon in lower part of stream course water is in underground channels where bedrock is limestone. Good placer ground in lower part of valley where shattered limestone forms natural riffles. Good ground worked over before 1908. Production was probably about \$20,000 [about 967 fine oz.] in gold.

Cathcart, 1922 (B 722), p. 216 -- Copper carbonates exposed in small cut in limestone; small quartz lens. Appears to be a vein-type deposit.

Asher, 1969 (GC 18), p. 6 -- Reference to Cathcart, 1922 (B 722).

Hummel, 1975 (OF 75-2) -- Reference to Cathcart, 1922 (B 722), p. 216.

(Dry Cr.)

Gold

Council district
MF-445, loc. 66

Solomon (5.8, 15.7)
64°54'N, 164°14'W

Summary: Stream crosses bench from which gold was reconcentrated. Gold on clay false bedrock. A little mining, 1900, 1907.

Brooks and others, 1901, p. 107-108 -- Mining, 1900. Small channel incised in terrace of [Casadepaga R.]. Gold concentrated on clay seam; usually fine; one \$2 nugget was recovered.

Collier and others, 1908 (B 328), p. 258 -- Quotation from Brooks and others, 1901.

Smith, 1910 (B 433), p. 193 -- Flows across bench of Casadepaga R. Gold in creek probably reconcentrated from bench. One man mined, 1907; probably did not much better than a grub stake.

(Dutch Cr.) (Gulch)

Gold

Council district
MF-445, loc. 120

Solomon (10.05, 17.3)
64°59'N, 163°39'W

Summary: Sporadic mining, 1900-18, all probably on a small scale.
Gold in both creek and bench gravels. Includes references to
(Snowball Cr.).

Brooks and others, 1901, p. 113 -- Unsuccessful attempts at mining, 1900.
Moffit, 1906 (B 284), p. 138 -- Mining, 1905.

Smith, 1907 (B 314), p. 150-151 -- Has been mining [as of 1906].

Collier and others, 1908 (B 328), p. 244 -- Has been gold production.

p. 251 -- Has been mining; not much gold produced.

Smith, 1908 (B 345), p. 217 -- Mining, 1907.

Smith and Eakin, 1911 (B 449), p. 120 -- Values reported in both creek
and bench gravels. Has been very little mining, and that on claims
adjacent to Ophir Cr.

Chapin, 1914 (B 592), p. 392 -- Mining, 1913.

Eakin, 1915 (B 622), p. 371 -- Hydrauliclicking, 1914.

Cathcart, 1920 (B 712), p. 189 -- Open-cut mining, 1918.

Hummel, 1975 (OF 75-2) -- Reference to Smith and Eakin, 1911 (B 449), p.
120.

(Eagle Cr., Darby Mts.)

FM, RE

Council district

Solomon (16.8, 12.7)

64°42'N, 162°16'W

Summary: Allanite-bearing syenite float near pulaskite dikes contains as much as 2% rare-earth elements and averages of 0.156% U_3O_8 and 0.91% ThO_2 .

Miller and others, 1976 (OF 76-710), p. 3-7 -- Abundant frost-heaved float of mineralized syenite float contains 20%-40% large (as much as 1.25 cm, or 0.5 in.) brownish-black allanite crystals. No rock found in place, but pieces of float as much as 30 cm (12 in.) across occur in a zone 9-14 m (30-45 ft.) wide extending some 60 m (200 ft.) across top of a knoll. Zone is along east margin of a pulaskite dike which extends 900 m (3,000 ft.) along ridge crest and is offset as much as 15 m by faulting in 2 places. Allanite-bearing syenite float found in several places other than on knoll along eastern margin of dike. Allanite-bearing float marked by larger pieces of float of unmineralized syenite and monzonite. In addition to allanite, mineralized rock contains K-feldspar, plagioclase, nepheline, hornblende, biotite, and, as accessories, zircon, apatite, and sphene. Allanite-bearing float along margin of another pulaskite dike. Samples of mineralized float averaged 1,325 ppm U (0.156% U_3O_8) and 7,990 ppm Th (0.91% ThO_2). Samples of pulaskite dike contained 7 times background in U and 4 times background in Th. In some samples of mineralized rock rare-earth elements (particularly cerium group) may exceed 2%.

(Eagle Cr.; near Iron Cr.)

Lead

Kougarok district
MF-445, loc. 5

Solomon (2.8, 16.65)
64°57'N, 164°38'W.

Summary: Disseminated finely crystalline galena in quartz float.

Asher, 1969 (GC 18), p. 6 -- On ridge 2 mi. SE of mouth of Iron Cr.
finely crystalline galena is disseminated in quartz float. Source
of material not found.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Easy Cr.)

Gold

Kougarok district
MF-445, loc. 35

Solomon (2.4, 16.2)
64°55'N, 164°41'W

Summary: Bedrock near mouth is dark limestone with numerous sulfide-bearing veins. Bedrock elsewhere in basin is schist and limestone. Was profitable, small-scale placer mining before 1910. Auriferous sulfides in concentrates. Old channel, probably of Iron Cr., in bench deposits prospected and mined in a small way in 1908. See also (Iron Cr.).

Smith, 1907 (B 314), p. 163 -- Mining, 1906; good values in lower portion.

Smith, 1909 (B 379), p. 328 -- Bedrock is limestone and schist. In lower part of basin shattered dark limestone contains numerous veins, some with sulfides, which are also common in concentrates. Sulfides contain a few cents to the ton in gold. Has been profitable small-scale mining.

p. 340-341 -- Old channel in bench deposit seems to be related to Iron Cr. rather than to Easy Cr.

Henshaw, 1910 (B 442), p. 364 -- Mining near mouth, 1909.

(Eldorado Cr.)

Gold, Mercury

Council district
MF-445, loc. 109

Solomon (9.35, 10.4)
64°35'N, 163°46'W ..

Summary: Bedrock with a narrow belt of schist (probable source area of placer gold); mining for 3,000 ft. downstream from schist belt, in what appears to have been a filled sink in limestone, and from a residual deposit on schist. Gold discovered before 1902; most mining between 1928 and 1933; small dredge operated in 1964. Total production probably about 1,000 fine oz.

Collier and others, 1908 (B 328), p. 283 -- Gold has been found.

p. 288 -- Gold found before 1902.

p. 293 -- Has been mining; placer similar to that on Daniels Cr., but probably less rich and less extensive.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 123, 125 -- Data from Collier and others, 1908 (B 328), p. 283, 293.

Cathcart, 1922 (B 722), p. 196 -- Cinnabar in placers; has not been traced to source.

Smith, 1930 (B 813), p. 41 -- A little placer mining, 1928.

Smith, 1932 (B 824), p. 47 -- A little placer mining, 1929.

Smith, 1933 (B 836), p. 49 -- A little placer mining, 1930.

Smith, 1933 (B 844-A), p. 50 -- A little placer mining, 1931.

Smith, 1934 (B 864-A), p. 51 -- A little placer mining, 1933.

Herreid, 1965 (GR 10), p. 5-6 -- Small dredge operated, 1964.

p. 9 -- Placer on or near band of schist.

Mulligan, 1971 (RI 7555), p. 7-8 -- Production probably similar to that from Swede Cr. (Maybe 1,000 fine oz.). Source of gold probably was a narrow schist belt.

p. 12-13 -- Placer gold evidently derived from schist belt that creek crosses; mining was for 3,000 ft. downstream from schist belt; bedrock limestone. Evidence that a sink-hole filling and a small residual deposit on schist were also mined.

p. 30-31 -- Summary of above.

Cobb, 1973 (B 1374), p. 68-69 -- Small dredge operated, 1964.

Hummel, 1975 (OF 75-2) -- References to Cathcart, 1922 (B 722), p. 196; Herreid, 1965 (GR 10), p. 5-6; Mulligan, 1971, p. 12-13 [mistakenly cited as p. 912-913].

(Elkhorn Cr.)

Gold

Council district
MF-445, loc. 114

Solomon (7.6-7.85, 16.35-16.5)
64°55'-64°56'N, 163°57'-163°59'W

Summary: Most of course incised in terrace of Niukluk R.; bedrock schist and interbedded limestone. Mining (other than dredging), 1900-07, 1913. Dredge operated, 1914-18. Total production not known; probably was well over 10,000 fine oz. Some of gold very coarse; nugget worth \$55 (gold at \$20.67 an ounce) recovered in 1900.

Brooks and others, 1901, p. 69 -- Production in 1900 was \$30,000 [about 1,450 fine oz.] in gold.

p. 110 -- Much of course incised in terrace of Niukluk R. Bedrock is schist and limestone that strike transverse to stream. Near mouth 2-1/2 ft. of gravel overlies 6 in. of clay and disintegrated bedrock. Pay streak patchy. Some of gold very coarse (nugget worth \$55 found); worth \$19.12 an ounce.

Moffit, 1906 (B 284), p. 138 -- Mining, 1905.

Smith, 1907 (B 314), p. 152 -- Mining, 1906, from mouth upstream for 2 mi. At mouth 4 ft. of cross-bedded sand and gravel (fan of Elkhorn Cr.?) underlies 6 ft. of clay, muck, and vegetation.

Collier and others, 1908 (B 328), p. 236 -- Has been mining.

p. 256-257 -- Quotation from Brooks and others, 1901, p. 110. Total production [through 1903?] was \$110,000-\$120,000 [about 5,320-5,800 fine oz.].

p. 263 -- A little mining near mouth, 1906.

Smith, 1908 (B 345), p. 217 -- A little mining near mouth, first part of season, 1907.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 117, 122-123 -- Data summarized or quoted from Collier and others, 1908 (B 328).

Chapin, 1914 (B 592), p. 392 -- Mining, 1913.

Eakin, 1915 (B 622), p. 371 -- Dredge operated, 1914; moved in from Goose Cr.

Smith, 1917 (BMB 142), p. 28 -- Dredge operated, 1915.

Mertie, 1918 (B 662), p. 452 -- Dredge operated, 1916.

Cathcart, 1920 (B 712), p. 187 -- Dredge operated, 1918.

Koschmann and Bergendahl, 1968 (P 610), p. 17 -- Has been placer gold production.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 256-257.

(El Patron Cr.)

Gold

Kougarok district

Solomon (1.75, 15.2)

MF-445, loc. 28

64°52'N, 164°46'W

Summary: Placer near contact between limestone and schist was mined on a small scale, 1906-08. Concentrates contained gold, magnetite, ilmenite, and garnet.

Smith, 1907 (B 314), p. 163 -- One man mined, 1906.

Smith, 1909 (B 379), p. 330 -- One man mined, 1908. Placer is near contact between limestone and schist. Gold coarse and little rounded. Concentrates contain magnetite, ilmenite, and garnet.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 330.

(Etchepuk R.)

Mica

Council district

Solomon

SW 1/4 NW 1/4 NE 1/4 quad.

Summary: Large flakes of mica in pegmatite near head of Etchepuk R.

Anderson, 1947 (TDM 5-R), p. 46 -- Large flakes of mica in pegmatite near head of river in Darby Mts.

(Fish R.)

Gold(?), Lead, Mercury, Silver

Council district

Solomon (12.35-13.2, 15.2-16.0) approx.

MF-445, loc. 23 in part

64°51'-64°54'N, 163°13'-163°21'W approx.

Summary: Silver-lead lode 5 or 6 mi. above mouth of Niukluk R. said to have been worked sporadically for several years; production of a few flasks of mercury annually for a few years also reported; 1915 and earlier. Schist and(or) limestone probable host for silver-lead; quartz stringers for cinnabar. Recent attempts to find this occurrence (1960's) were unsuccessful. Fine gold reported on river bars; was prospect drilling near mouth of Aggie Cr. in 1937.

Mendenhall, 1901, p. 212 -- Carries colors from mouth to beginning of flats. Opposite mouth of Anaconda Cr. [Pargon R.] pans yielded 1/2 to 1 cent each. No colors found above flats [Bendeleben quad.].

Smith and Eakin, 1911 (B 449), p. 116 -- Reference to Mendenhall, 1901, p. 212.

Mertie, 1918 (B 662), p. 446 -- Silver-lead lode 5 or 6 mi. above mouth of Niukluk said to have been worked sporadically for several years; mining reported, 1915. Cinnabar reported to be present; a few flasks said to have been produced annually for the past several years [as of 1916].

Cathcart, 1922 (B 722), p. 183 -- Reference to Mertie, 1918 (B 662), p. 446.

Smith, 1939 (B 910-A), p. 69 -- Prospect drilling near mouth of Aggie Cr., 1937.

Anderson, 1947 (TDM 5-R), p. 28, 34 -- Reference to B 449; probably means Mertie, 1918 (B 662), p. 446.

Wedow and others, 1952 (OF 51), p. 39 -- Silver-lead prospect in schist and limestone has been reported; also cinnabar, presumably in quartz stringers.

Berg and Cobb, 1967 (B 1246), p. 109 -- Lode contains cinnabar and probably argentiferous galena. Said to have been worked for a little lead-silver ore and several flasks of mercury. Recent attempts to locate this occurrence have not been successful.

Hummel, 1975 (OF 75-2) -- Reference to Mertie, 1918 (B 662), p. 446.

(Fox Cr.)

Gold

Nome district

Solomon (5.3, 12.9)

MF-445, loc. 98

64°44'N, 164°18'W

Summary: Small-scale mining near contact between limestone and schist,
1907-08.

Smith, 1908 (B 345), p. 222-223 -- Small-scale mining, 1907. Pay gravels
upstream from limestone in middle part of stream course.

Smith, 1910 (B 433), p. 184 -- Small-scale mining, 1908, near contact
between limestone and schist. Water shortage.

(Fox R.)

Gold

Council district
MF-445, loc. 113

Solomon (9.05, 13.9)
64°47'N, 163°48'W --

Summary: Bedrock is schists with interbedded limestone and greenstone sills and dikes. Stream incised 50-100 ft. into old valley floor. Prospecting and a little mining in bench gravels near IXL Gulch in early 1900's. See also (IXL Gulch).

Smith, 1907 (B 314), p. 147-148 -- Mining, 1906.

Collier and others, 1908 (B 328), p. 236-237 -- Stream has low gradient. Incised 50-100 ft. below old valley floor, leaving a system of benches. Bedrock is chloritic mica schists with interbedded limestone and graphitic schists; many greenstone sills and dikes. Prospecting and a little mining in bench near mouth of IXL Gulch. Old channel in bench nearby. No successful mining in present river channel.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 117 -- Has been a little production.

Cobb, 1973 (B 1374), p. 64 -- Was sporadic, small-scale mining.

Hummel, 1975 (OF 75-2) -- References to Collier and others, 1908 (B 328), p. 236-237; Smith and Eakin, 1911 (B 449), p. 117.

(Goldbottom Cr.)

Gold, Tungsten

Council district
MF-445, loc. 116

Solomon (8.1, 16.9)
64°57'N, 163°55'W --

Summary: Bedrock schist with interbedded crushed and crumpled limestone; some greenstone. Many quartz veins and lenses, some pyritiferous. Concentrates from near mouth of Warm Cr. contain gold, garnet, hematite, ilmenite, and scheelite. Mining, 1900-11; dredge operated, 1911. See also (Goldbottom Cr.) Bendeleben quad.

Brooks and others, 1901, p. 69 -- Production, 1900, was \$10,000 [about 485 fine oz.] in gold.

p. 110-111 -- Bedrock chiefly mica schist; some intrusive greenstone; quartz veins containing pyrite. Near mouth 5-6 ft. of gravel rests on 1 ft. of weathered chloritic schist. Gold rounded; largest nugget found was worth about \$8.

Brooks, 1905 (B 259), p. 23 -- Mining, 1904.

Smith, 1907 (B 314), p. 142, 151 -- Mining, 1906.

Collier and others, 1908 (B 328), p. 236 -- Has been mining.

p. 254-255 -- Mining began as early as 1900. Bedrock schist with interbedded crushed and crumpled limestone; some greenstone. Many quartz veins and lenses, some pyritiferous. Mining, 1903. Concentrates from near mouth of Warm Cr. contain gold, garnet, hematite, ilmenite, and scheelite.

Henshaw, 1910 (B 442), p. 363 -- Small dredge built, 1909.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 117 -- Creek has been productive.

p. 122 -- Most of data from Collier and others, 1908 (B 328), p. 255. A little mining in 1906; 2 dredges built in lower part of valley, 1909.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Koschmann and Bergendahl, 1968 (P 610), p. 17 -- Has been placer mining.

Cobb, 1973 (B 1374), p. 64 -- Rutile and scheelite reported.

Hummel, 1975 (OF 75-2) -- References to Collier and others, 1908 (B 328), p. 254-255; Smith and Eakin, 1911 (B 449), p. 117, 122.

(Gold Moon Gulch)

Gold

Council district

Solomon (5.25, 15.85)

MF-445, loc. 60

64°54'N, 164°18'W --

Summary: Follows contact between schist and cavernous limestone into which creek and ditch water disappear. Gold coarse and angular; of local derivation. Was a little mining, probably in 1907 or 1908.

Smith, 1910 (B 433), p. 197 -- Follows contact between limestone and schist. Limestone cavernous; practically no water in creek and any brought in by ditch disappears. Gold coarse, bright, and angular; much attached quartz; must be of local derivation. Nugget valued at \$15 was recovered. Has been mining [probably in 1907 or 1908].

Hummel, 1975 (OF 75-2) -- Reference to above.

(Golovnin Bay)

FM, Niobium, RE, Tungsten

Council district

Solomon (15.75, 9.5)

MF-445, loc. 135

64°31'N, 162°55'W

Summary: Concentrate from sample of slopewash that probably was derived from a mineralized zone near contact between granite and older igneous rocks contained magnetite, sphene, topaz, allanite, hematite, ilmenite, scheelite, and an unidentified uranium-titanium niobate mineral.

Wedow and others, 1952 (OF 51), p. 40 -- Concentrate contains a uranium-titanium niobate mineral, magnetite, sphene, topaz, hematite, allanite, and traces of scheelite.

West, 1953 (C 300), p. 4 (sample 2891) -- Concentrate from a slopewash sample (probably derived from mineralized zone near contact between granite and older igneous rocks) contained magnetite, sphene, topaz, allanite, hematite, ilmenite, hornblende, biotite, scheelite, and an unidentified uranium-titanium niobate mineral.

Cobb, 1973 (B 1374), p. 69 -- Summary of data in West, 1953 (C 300), p. 4 (sample 2891).

(Goose Cr.)

Gold

Council district
MF-445, locs. 58, 61

Solomon (4.8-5.3, 15.55)
64°53'N, 164°17'-164°22'W

Summary: Bedrock cavernous limestone and schist. Lower part of course cut in terrace of Casadepaga R.; benches extend up Goose Cr. In places in creek gold is on clay false bedrock; in others on clay layer on schist bedrock. Concentrates contain garnet and magnetite. First dredge installed (1909) would not even float because water was lost to cavernous limestone. Mining, 1900-19. Dredging, 1911, 1916-19.

Brooks and others, 1901, p. 107-108. Gravel 4-8 ft. thick; values in lower 2-3 ft.; 2-5 cents per pan. Mining, 1900.

Smith, 1907 (B 314), p. 153 -- 2 men mined, 1906; made little more than wages.

Collier and others, 1908 (B 328), p. 259 -- Quotation from Brooks and others, 1901.

p. 265 -- Same as Smith, 1907 (B 314), p. 153.

Smith, 1908 (B 345), p. 223-224 -- Mining, 1907.

Henshaw, 1910 (B 442), p. 360 -- Small dredge built, 1909; bedrock limestone into which all water disappears at times of low flow, so dredge could not even float, to say nothing of operate.

Smith, 1910 (B 433), p. 156 -- Productive tributary of Casadepaga.

p. 189-190 -- Auriferous benches along creek; crosses bench of Casadepaga along lower part of course. Bench mining along creek.

p. 194-197 -- Country rock above forks (a mile above mouth) is schist with bands of limestone. Near mouth bedrock not exposed; gold on clay false bedrock. In 1907 flat, bright gold was being recovered from a clay layer on schist bedrock about half a mile above mouth. Other mining was about 3 mi. above mouth in creek gravels below mouth of a small tributary. Garnet and magnetite with gold.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Chapin, 1914 (B 592), p. 387, 393 -- 2 dredges idle, 1913.

Eakin, 1915 (B 622), p. 370-371 -- Dredge of Nome, Montana & New Mexico Mining Co. idle, 1914 [reference to Goose Cr. is probably an error; Goose Cr. is in Casadepaga rather than Solomon area]. In Casadepaga area one dredge operated, 1914, and the other was moved to Elkhorn Cr.

Mertie, 1918 (B 662), p. 452 -- Dredge operated, 1916.

Cathcart, 1920 (B 712), p. 187 -- Dredge operated, 1918.

Harrington, 1921 (B 714), p. 233 -- Dredge operated, 1919.

Cobb, 1973 (B 1374), p. 66 -- Has been mining on benches.

p. 68 -- Dredge built in 1909 could not operate; water lost to cavernous limestone.

Hummel, 1975 (OF 75-2) -- References to Smith, 1910 (B 433), p. 194-197.

(Guy Cr.)

Gold(?)

Council district

Solomon (9.9, 17.6) approx.
65°00'N, 163°40'W approx.

Summary: Creek cuts limestone and only one schist zone. Least productive creek in Ophir Cr. area. May not carry gold. Called Gold Cr. on some maps.

Cathcart, 1922 (B 722), p. 207-208 -- "Guy Creek, the least productive creek of the [Ophir Creek] area, flows through the massive limestone member of the series and cuts only one schist zone."

(Hardluck Cr.)

Gold

Kougarok district

Solomon (2.8-2.9, 15.45-15.5)

MF-445, loc. 39

64°53'N, 164°37'-164°38'W

Summary: Coarse, well-rounded gold in slate-quartz-greenstone gravel. Creek heads in limestone ridge. Mining before 1910. Includes reference to (Hobo Gulch).

Smith, 1909 (B 379), p. 331 -- Heads in limestone ridge between American and Iron Creeks. Basin appears to be a remnant of an older drainage channel that was dammed by talus. Placer gravels are black slate, quartz, and greenstone fragments. Gold on bedrock on a thin clay layer. Gold is coarse and well rounded.

Henshaw, 1910 (B 442), p. 364 -- Mining near mouth, 1909.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 331.

(Hilliard Cr.)

Gold(?)

Kougarok district

Solomon (2.2, 15.95) approx.
64°54'N, 164°43'W approx.

Summary: Ground was staked, but no valuable placer deposit was found.
Creek not shown on available maps; may be the same stream as
Pajaro Cr. in Pl. X, B 379 (Smith, 1909) and Rapid Cr. of
Smith, 1907 (B 314), p. 163.

Smith, 1909 (B 379), p. 329 -- Ground has been staked and some work done.
No valuable placer deposit found.

(Independence Cr.)

Gold(?)

Kougarok district

Solomon (1.6, 14.9) approx.
64°51'N, 164°39'W approx.

Summary: Was a little work before 1909. Results discouraging. May not have been any gold.

Smith, 1909 (B 379), p. 331 -- Has been a little work, but results were not encouraging enough to continue the work.

(Iowa Cr.)

Gold(?)

Council district

Solomon (5.4, 14.0) approx.
64°42'N, 164°17'W approx.

Summary: Prospect pits and claim stakes, 1907. Practically no water in creek. Called Mud Cr. on modern maps.

Smith, 1910 (B 433), p. 200 -- Prospect pits and claim stakes, 1907; stream carried practically no water.

(Iron Cr.)

Copper, Gold, Mercury

Kougarok district
MF-445, locs. 4, 33

Solomon (2.15-3.1, 15.25-16.95)
64°52'-64°58'N, 164°35'-164°43'W

Summary: Various segments of stream known by different names. Country rock is schist and thrust plates of limestone. Several copper deposits (mainly malachite stains, but a few sulfides also) in silicified limestone near base of thrust plates or, locally, near irregular masses of chloritic schist in thrust plates. In general stream gravels were not rich, but were pretty thoroughly worked over, 1900-14, and 1938-40. Cinnabar in concentrates. Auriferous quartz vein (said to carry about 0.58 oz. gold a ton) found about 2 mi. above mouth; no report of any development. Dredge worked for 2 years or more beginning in 1939, but most mining was small scale. Includes references to: (Dome Cr.), (Telegram Cr.), (Telegraph Cr.).

Brooks and others, 1901, p. 116 -- Bedrock limestone with greenstone intrusives. Lower course in rock canyon with walls as much as a hundred feet high. Colors plentiful, but bedrock has not been reached [1900]. Quartz vein 2 mi. above mouth said to carry \$12 in gold per ton.

Brooks, 1904 (B 225), p. 53 -- Mining, 1903.

Brooks, 1905 (B 259), p. 23 -- Rich placers have been mined by shoveling in. Moffit, 1906 (B 284), p. 136 -- Mining, 1905. Nugget worth about \$650 recovered.

Smith, 1907 (B 314), p. 162-163 -- Mining at several places, 1906.

Nugget weighing over 30 oz. was recovered a short distance upstream from Left Fork [may be the same nugget referred to in Moffit, 1906 (B 284), p. 136]. Upstream from where nugget was found all gold is rusty; downstream bright and rusty gold are mixed. Smith interprets this to mean that upper valley is an old unmodified one and lower valley has been deepened by more recent erosion.

Smith, 1909 (B 379), p. 322-328 -- From mouth to Left Fork (7 mi.) is called Iron Cr.; from Left Fork to Eldorado Cr. (1 mi.) is called Dome Cr.; from Eldorado Cr. is called Telegram Cr. In 1908 no mining below Discovery Cr., but that stretch had been previously worked. Tunnel driven from Iron Cr. to Kruzgamepa R. where they are only 1,500 ft. apart; Iron Cr. is 29.65 ft. higher; planned to put sluice boxes in tunnel and run Iron Cr. gravels from above Bertha Cr. through them; gravels probably of low tenor. Before 1908 stream gravels had been worked from Easy Cr. to Canyon Cr.; not enough gold to pay. Mining between Canyon Cr. and Discovery Cr., 1908. Concentrates at mouth of Discovery Cr. contained magnetite, garnet, ilmenite, and \$1-\$2 a yard in bright, fairly coarse gold. Mining between Discovery Cr. and Left Fork; \$30-\$40 nuggets recovered. All claims between Left Fork and Eldorado Cr. have been mined, some several times; most of gold in bedrock; cinnabar (source not known) reported. Very little work in 1908; not enough water; had been good production in earlier years. Bedrock mainly complexly faulted limestone and schist; also black quartzitic slate; greenstone boulders in gravels. Work on a trench near mouth of Easy Cr. uncovered what appears to be an old channel of Iron Cr.

(Iron Cr.) -- Continued

- p. 340-341 -- Gravels in old channel appear to be only slightly auriferous. Peculiar occurrence is a line of pebbles near middle of exposed channel oriented with long axes vertical.
- p. 345 -- About 2 mi. above mouth a quartz vein is said to carry \$12 a ton in gold; in contorted and shattered limestone; abundant sulfides [which ones not stated]. A little desultory prospecting in early 1900's.
- Henshaw, 1910 (B 442), p. 363-364 -- Sluice in tunnel [Smith, 1909 (B 379), p. 322-323] was not a success. Other successful mining, 1909.
- Chapin, 1914 (B 592), p. 393 -- 70-80 men mining on Iron Cr. and tributaries, 1913.
- Eakin, 1915 (B 622), p. 372 -- Mining, 1914.
- Cathcart, 1922 (B 722), p. 217 -- Silicified limestone about a mile above mouth of Bertha Cr. contains a little sulfide and some malachite stain. Lode is about 3 ft. wide. Exposed by small open cut. Nearby a calcite vein is cut by quartz veinlets; pyrite in both calcite and quartz.
- Smith, 1939 (B 910-A), p. 66 -- A little small-scale mining and some prospecting, 1937.
- Smith, 1939 (B 917-A), p. 65 -- Small-scale mining, 1938.
- Smith, 1941 (B 926-A), p. 61, 71-72 -- Dredge built and began operation, 1939.
- Smith, 1942 (B 933-A), p. 58, 68 -- Dredge operated, 1940.
- Berg and Cobb, 1967 (B 1246), p. 118 -- Several copper deposits in limestone close to schist contacts are in Iron Cr. area.
- Sainsbury and others, 1972 (OF 512), p. 1 -- Placer gold has been produced.
- p. 9-10 -- Has been placer mining; most auriferous gravels have been worked more than once, including with a dredge on part of Dome Cr. Not a major gold-producing area. Cinnabar in placers of Dome Cr. In area copper stains are on silicified limestone at base of thrust plates or, locally, near irregular masses of chloritic schist in thrust plates.
- Cobb, 1973 (B 1374), p. 79 -- Cinnabar in concentrates from Dome Cr. Mining mainly on parts of main stream called Iron Cr. and Dome Cr.; dredge operated for a few years beginning in 1939, but most mining was by simple methods; much water lost to subsurface flow in limestone.
- Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 322-327, 345; Cathcart, 1922 (B 722), p. 217; Smith, 1941 (B 926-A), p. 61; Sainsbury and others, 1972 (OF 512).
- Sainsbury, 1975 (USBM OF 73-75), p. 70 -- Placer gold localized in area underlain by tectonically involved York Slate. Deposits not very rich, but did support dredge operation.

(IXL Gulch)

Gold

Council district
MF-445, loc. 113

Solomon (9.05, 13.9)
64°47'N, 163°48'W --

Summary: Bedrock is schist underlain by limestone (probably a lens).
Sporadic small-scale gold placer mining, 1903-13.

Smith, 1907 (B 314), p. 148 -- Mining, 1906. Country rock mainly schist and greenstone.

Collier and others, 1908 (B 328), p. 237-238 -- Bedrock is schist underlain by limestone (probably a lens). 2 oz. gold recovered from 4 cu. yds. of gravel near mouth. 2-6 ft. of gravel on bedrock. Mining, 1903.

Smith and Eakin, 1911 (B 449), p. 117 -- Data from Collier and others, 1908 (B 328), p. 237-238.

Chapin, 1914 (B 592), p. 392 -- Small-scale mining, 1913.

Cobb, 1973 (B 1374), p. 64 -- Has been small-scale mining.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 237-238.

(Jerome Cr.)

Gold

Nome district

Solomon (4.6, 10.8)

MF-445, loc. 101

64°37'N, 164°23'W

Summary: Upper part of creek flows in coastal plain gravels; lower part of creek bed cut down into bedrock of limestone with narrow bands of schist. Irregular pay streaks contain both coarse and fine gold. A little development before 1900. Mining, 1907, 1932-34; all on a small scale.

Brooks and others, 1901, p. 100 -- As of 1900 had been some development; none active in 1900.

Collier and others, 1908 (B 328), p. 225-226 -- Reference to Brooks and others, 1901, p. 100.

Smith, 1910 (B 433), p. 171 -- In upper part creek flows on gravel of coastal plain; bedrock in lower portion of creek is limestone with narrow bands of schist. Pay irregularly distributed; both coarse and fine gold. Mining near mouth, 1907.

Eakin, 1915 (B 622), p. 370 -- Prospecting for elevated beach deposits, 1914. Two at elevations of 130 and 150 ft. said to have been found.

Smith, 1934 (B 857-A), p. 45 -- Open-cut mining, 1932.

Smith, 1934 (B 864-A), p. 50 -- Open-cut mining, 1933.

Smith, 1936 (B 868-A), p. 52 -- Small-scale open-cut mining, 1934.

(Johns Cr.)

Copper, Gold

Nome district

Solomon (5.0, 13.0) approx.
64°44'N, 164°20'W approx.

Summary: Bedrock mainly schist; quartz lenses and stringers carry pyrite, minor chalcopyrite, and traces of gold. Prospecting for placer gold in 1900; production probably less than 1-1/2 ounces of gold.

Brooks and others, 1901, p. 100 -- Prospecting, 1900; total production no more than \$25. Water scarce. No well-defined pay streak.

Smith, 1910 (B 433), p. 184 -- Bedrock mainly schist. No mining, 1907. Data from Brooks and others, 1901, p. 100.

Asher, 1969 (GR 33), p. 20 -- Quartz lenses and stringers in shattered schist; pyrite and minor chalcopyrite with traces of gold and other metals.

Hummel, 1975 (OF 75-2) -- Reference to Asher, 1969 (GR 33), p. 20, fig. 2.

(Kachauik Cr. tributary)

Copper

Council district

Solomon (15.3, 13.0) approx.
64°43'N, 162°58'W approx.

Summary: More recent reference reports float of chalcopyrite-quartz vein stained and encrusted with malachite. Older reference reports that quartz veins cut schist and also contain bornite.

Wedow and others, 1952 (OF 51), p. 39 -- Chalcopyrite and bornite fracture fillings in quartz veins cutting schist in headwaters of north headwaters fork of creek; malachite in exposed portions of the vein.
West, 1953 (C 300), p. 3 -- Float contains pieces of chalcopyrite-quartz vein stained and encrusted with malachite.

(Kasson Cr.)

Gold

Nome district
MF-445, loc. 89

Solomon (4.35-4.5, 12.15)
64°42'N, 164°24'-164°26'W

Summary: Near contact between limestone and schist. Creek flows on fragmented limestone into which most water escapes. Much of gold deep (at least 20-30 ft.) in crevices (solution channels, etc.?) in limestone. Small-scale mining reported, 1900-08, 1913, 1934. Sulfide material in calcareous schist float assayed 0.07 oz. gold a ton.

Brooks and others, 1901, p. 101 -- Rises in area of mica schist, but flows mainly through limestone; creek dry even after rains in August. Mining near mouth, 1900, with rockers and water carried from Shovel Cr.

Collier and others, 1908 (B 328), p. 227 -- Creek bed is fragmented limestone into which creek water sinks, so most of creek is dry. Gold-bearing sediments on bedrock and in crevices to an unknown depth; during mining, excavations have penetrated 20 or 30 ft. Pay streak 16-100 ft. wide. Water for sluice boxes brought from Shovel Cr. by ditch 2 mi. long. Mining in 1903 for a mile above mouth.

Smith, 1908 (B 345), p. 222 -- Mining, 1907.

Smith, 1909 (B 379), p. 291 -- Mining, 1908; short season.

Smith, 1910 (B 433), p. 177-178 -- Most data from older reports. In 1907-08 there was a little mining and prospecting in lower part of creek; nothing on tributaries, the larger of which follow contact between schist and limestone.

Chapin, 1914 (B 592), p. 390 -- One man sluicing, 1913.

Smith, 1936 (B 868-A), p. 52 -- Small-scale open-cut mining, 1934.

Asher, 1969 (GR 33), p. 5 -- Has been small-scale mining.

p. 19 -- Float of limonite and disseminated sulfides in calcareous schist. Sample of sulfide material assayed 0.07 oz. gold per ton.

Cobb, 1973 (B 1374), p. 91 -- Has been mining by methods other than dredging.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 177-178.

(Koyana Cr.)

Gold, Mercury

Council district
MF-445, locs. 22, 112

Solomon (10.05, 10.15)
64°34'N, 163°40'W

Summary; Country rock limestone with a schist band in which are mineralized (with arsenopyrite and pyrite) quartz veins, at least one of which carries about 1-1/2 oz. gold to the ton; Sulfides in wall rock also. A few tons of ore was taken out in early 1900's; may not have been sold. A little mining of shallow placer deposits in early 1900's and 1928-30; total production probably less than 100 fine oz. Cinnabar in concentrates. Includes references to lode prospect 3 mi. east of Daniels Cr. See also (Daniels Cr.).

Collier and others, 1908 (B 328), p. 283 -- Gold has been found.

p. 289 -- Shallow placer deposits; not very rich.

p. 292 -- Ledge said to be 14 ft. wide and "to yield up to \$30 in gold to the ton." Ore is pyrite and arsenopyrite.

Smith and Eakin, 1911 (B 449), p. 129 -- Data from Collier and others, 1908 (B 328), p. 292. A few tons of ore has been mined and sacked.

Cathcart, 1922 (B 722), p. 185 -- Cinnabar in placer concentrates.

p. 187-188 -- Mineralized zones in schist band in limestone. Adit driven 30 ft.; at face is 8-in. quartz stringer with about a foot of iron-stained gouge on vein wall. Arsenopyrite and pyrite in vein and wall rock; largely localized along contact between quartz and schist. Only assessment work, 1915-20. No data on gold content. A little ore was taken out of another adit and shaft (ice and snow choked in 1920) on a presumably similar lode 150 yards to the east.

Smith, 1930 (B 813), p. 41 -- Placer mining, 1928.

Smith, 1932 (B 824), p. 47 -- Placer mining, 1929.

Smith, 1933 (B 836), p. 49 -- Placer mining, 1930.

Anderson, 1947 (TDM 5-R), p. 33 -- Cinnabar in concentrates.

Malone, 1962 (IC 8131), p. 55 -- Placer cinnabar present.

Herreid, 1965 (GR 20), p. 5 -- Placer prospects known.

p. 8-9 -- Quartz-sulfide (arsenopyrite and pyrite) veins in banded schist; near margin, 2 ages of veins as at Daniels Cr. Veins are probable source of placer gold.

Malone, 1965 (IC 8252), p. 52, 56 -- Placer cinnabar present.

Berg and Cobb, 1967 (B 1246), p. 113 -- Lodes similar to those at Daniels Cr. were probable source of gold in placers.

Mulligan, 1971 (RI 7555), p. 7 -- Production probably considerably less than 100 oz.

p. 12 -- Gold probably derived from schists. No evidence for much mining.

p. 30 -- Placer gold derived from erosion of gold lodes in schist.

Cobb, 1973 (B 1374), p. 68 -- Placer gold derived from gold lodes in schist.

Hummel, 1975 (OF 75-2) -- References to Collier and others, 1908 (B 328), p. 283, 289; Cathcart, 1922 (B 722), p. 185-188; Herreid, 1965 (GR 20), p. 5; Mulligan, 1971 (RI 7555), p. 12.

(Kwiniuk R.)

Copper, Mercury(?), RE, Tungsten

Council district

Solomon

MF-445, loc. 134 in part

SE 1/4 NE 1/4 quad..

Summary: Unconfirmed report of placer cinnabar. Heavy minerals in sample from a small stream that drains contact between granite and Paleozoic limestone and shale include allanite, scheelite, powellite, and chalcopyrite.

Anderson, 1947 (TDM 5-R), p. 34 -- Placer cinnabar reported to have been found by Eskimos.

West, 1953 (C 300), p. 6 (sample 2961) -- From creek that drains contact between granite and sedimentary rocks; heavy minerals are chiefly sphene, hornblende, allanite, apatite, hematite, and garnet; traces of spinel, scheelite, powellite, magnetite, rutile, epidote, pyrite, and chalcopyrite. Presence of scheelite, powellite, and chalcopyrite suggest derivation from a lode at contact between granite and Paleozoic limestone and shale.

Cobb, 1973 (B 1374), p. 69 -- Data from above references.

(Last Chance Cr., trib. American Cr.)

Copper(?), Gold(?)

Council district

Solomon (3.2-3.35, 15.55-15.65)

64°53'N, 164°33'-164°34'W

Summary: Creek was prospected for placer gold. Shaft was sunk 10 ft. on a slightly iron-stained quartz vein in limestone. One of decomposed sulfides may have been chalcopyrite.

Smith, 1909 (B 379), p. 333 -- Has been prospecting.

Cathcart, 1922 (B 722), p. 217 -- At head of Last Chance Cr. shaft was sunk 10 ft. on an outcrop of a quartz vein 5-6 ft. wide in limestone altered to schist along contact. Decomposed sulfides (probably having included chalcopyrite) in vein. Very little copper stain; most of vein appears to be slightly iron-stained bull quartz.

(Lightning Cr.)

Gold

Council district
MF-445, loc. 63

Solomon (5.75, 15.4)
64°53'N, 164°14'W

Summary: Prospecting before 1907. Gold in creek gravels probably came from terrace gravels 5-10 ft. above stream.

Smith, 1910 (B 433), p. 193 -- In 1907 was much evidence of earlier prospecting in middle part of course. Values in creek gravels probably reconcentrated from terrace gravels 5-10 ft. above stream.

(Lion Cr.)

Gold

Nome district
MF-445, loc. 100

Solomon (6.0-6.1, 11.25-11.3)
64°38'N, 164°12'W

Summary: Gold in about 4 ft. of gravel; richest on bedrock. Colors also on bedrock (20 ft. above creek) beneath a bench. Was a little small-scale mining in about 1903.

Collier and others, 1908 (B 328), p. 232 -- Mining, 1903. Gravels about 4 ft. thick; gold irregularly distributed throughout; richest on bedrock. Gravel runs \$1.70-\$2.00 a yard. Colors of gold on bedrock (20 ft. above creek) beneath a bench.

Smith, 1910 (B 433), p. 181-182 -- Has been considerable prospecting 2 mi. upstream from mouth. Data from Collier and others, 1908 (B 328), p. 232.

Asher, 1969 (GR 33), p. 5 -- Has been small-scale mining.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 232.

(Little Anvil Cr.)

Gold

Council district
MF-445, loc. 107

Solomon (8.7, 10.45)
64°35'N, 163°51'W --

Summary: Deposits similar to, but smaller than, those on Daniels Cr.
Small-scale mining reported, before 1903, 1916, 1930. Includes
references to (Silver Bow Cr.)

Collier and others, 1908 (B 328), p. 283 -- Gold has been found.

p. 293 -- Has been a little mining. Deposits similar to, but
apparently less rich and less extensive than, those on Daniels Cr.
Smith and Eakin, 1911 (B 449), p. 125 -- Data from Collier and others,
1908 (B 328), p. 293.

Mertie, 1918 (B 662), p. 455 -- Open-cut mining on Silver Bow Cr., 1916.

Smith, 1933 (B 836), p. 49 -- A little placer mining, 1930.

Cobb, 1973 (B 1374), p. 69 -- Placer gold has been mined.

(Lower Willow Cr.)

Gold

Council district
MF-445, loc. 76

Solomon (3.6-4.9, 14.3-14.4)
64°49'N, 164°21'-164°31'W

Summary: Bedrock limestone and schist. Sulfides in quartz veins along limestone-schist contact. Crosses bench on left side of Casadepaga R.; benches on both sides of Lower Willow Cr. from near water level to 30 ft. above it. Stream and bench gravels were mined; much of gold coarse. Mining, 1900-15. Dredge operated, 1911-15. Includes references to: (Koksuktapaga R., Left Fork), (Willow Cr., trib. Casadepaga R.).

Brooks and others, 1901, p. 109 -- Lower part of course cuts through wide terrace of [Casadepaga R.]; bedrock mica schist; small quartz veins. No developments, 1900 [on what is called Left Fork]. [On what is called Willow Cr.] shallow gravel was being worked with a rocker, 1900; gold coarse; bedrock limestone and (nearer head) mica schist. [There seems to be confusion between Left Fork of Koksuktapaga R., Willow Cr., and Wilson Cr. in this report.]

Moffit, 1906 (B 284), p. 137 -- Mining on Willow Cr., 1905.

Smith, 1907 (B 314), p. 153-154 -- Bedrock limestone and schists. Several small camps mined, 1906. Sulfides in quartz vein at contact between schist and limestone. Copper stains on weathered vein material on ridge between Lower Willow Cr. and Casadepaga R.

Collier and others, 1908 (B 328), p. 259 -- Quotation from Brooks and others, 1901.

p. 265-266 -- Same as Smith, 1907 (B 314), p. 153-154.

Smith, 1908 (B 345), p. 225 -- A little mining on upper part of creek, 1907.

Smith, 1909 (B 379), p. 336 -- Mining, 1906-08; production probably small. Gold in both creek and bench gravels.

Henshaw, 1910 (B 442), p. 360 -- Mining near head, 1909.

Smith, 1910 (B 433), p. 201-202 -- Flows across regional structure. Good values found near mouth of Green Gulch soon after 1900. In 1906 mining near mouth and a mile or so upstream. Below Rocky Cr. gravels have yielded coarse gold with very little fine. Below Cahill Cr. some gold is coarse (up to \$2.50 nuggets) and some fine. Benches along valley walls from near water level to 30 ft. above it. Richest bench deposits seem to be along north side between Cahill Cr. and near Rocky Cr.; gold coarser than in present stream gravels.

Smith, 1912 (B 520), p. 342 -- Dredge operated on Willow Cr., 1911.

Chapin, 1914 (B 592), p. 387, 392-393 -- Dredge and hydraulic plant operated, 1913.

Eakin, 1915 (B 622), p. 371-372 -- Dredge operated, 1914. Winter mining reported on Willow Cr. [may have been on Willow Cr., trib. Kruzgamepa R.].

Smith, 1917 (BMB 142), p. 27 -- Dredge suspended operations, 1915.

Cobb, 1973 (B 1374), p. 66 -- Has been mining on bench of Casadepaga R. at mouth and on bench of Lower Willow Cr.

p. 68 -- Has been dredging.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 201-202.

(Manila Cr.)

Gold

Nome district
MF-445, loc. 104

Solomon (4.4, 10.4)..
64°35'N, 164°25'W

Summary: Stream heads in coastal plain; has cut down to schist 3/4 mi. above mouth; limestone below forks. Has been considerable prospecting, but no valuable placers were found.

Brooks and others, 1901, p. 100 -- Have been some developments; no work in 1900.

Collier and others, 1908 (B 328), p. 225-226 -- Reference to Brooks and others, 1901, p. 100. Of interest because creek proves that there is gold in coastal plain deposits.

Smith, 1910 (B 433), p. 170 -- Heads in coastal plain; schist at forks 3/4 mi. from mouth; limestone below forks. Has been considerable prospecting, but no valuable deposits were found.

(Meddler Gulch)

Gold

Nome district
MF-445, loc. 91

Solomon (4.8, 12.1)
64°41'N, 164°22'W

Summary: Small headwater tributary of Minnesota Cr. Had been mined before 1907. In 1907 a small deposit (possibly an eluvial placer) was worked for part of the summer.

Smith, 1910 (B 433), p. 179-180 -- Bench mining, 1907; coarse gold; concentration might have been by downhill creep of weathered material. Earlier mining of creek gravels.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Melsing Cr.)

. Gold

Council district
MF-445, loc. 123

Solomon (10.0-10.2, 15.8-16.0)
64°54'N, 163°38'-163°40'W

Summary: Country rock mainly calcareous schist; some limestone. Placers in creek gravels and in deposits of low terraces. In places gold is on clay false bedrock; in others in crevices in top few feet of bedrock. Gold discovered, 1898. Mining as recently as 1938. Dredging 1911-20, 1935-38. See also (Basin Cr.).

Brooks and others, 1901, p. 112 -- Gold discovered March, 1898.

p. 114 -- Gold mined from both creek and terrace gravels.

Moffit, 1906 (B 284), p. 139 -- Mining, 1905. Gold on and in top 2 ft. of bedrock.

Smith, 1907 (B 314), p. 147 -- Productive tributary of Niukluk R.

p. 149-150 -- Less mining than usual, 1906; either drought or flood.

Collier and others, 1908 (B 328), p. 235-236 -- Gold discovered March, 1898. Mining, 1903.

p. 240-242 -- Placers in creek bottom and low terraces not far above creek. Country rock mainly calcareous mica schist; some limestone. 1/2 mi. above mouth gold on clay false bedrock; 1-1/2 mi. from mouth gold on and in bedrock; at mouth of Basin Cr. gold throughout 3-4 ft. of gravel, but is more abundant on and in bedrock. No gold above Basin Cr.

p. 260-271 -- Mining, 1906.

Smith, 1908 (B 345), p. 217 -- Mining, 1907.

Smith, 1909 (B 379), p. 294-295 -- Mining, 1908; not very profitable.

Henshaw, 1910 (B 442), p. 363 -- Mining, 1909.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 117-118 -- Some of data from Collier and others, 1908 (B 328), p. 240-242. Mining, 1906-09.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Chapin, 1914 (B 592), p. 388, 392 -- Mining, including a dredge, 1913.

Eakin, 1915 (B 622), p. 371 -- Dredge operated, 1914; also a scraper plant.

Smith, 1917 (BMB 142), p. 28 -- Dredge operated, 1915.

Mertie, 1918 (B 662), p. 452 -- Dredge operated, 1916.

Harrington, 1921 (B 714), p. 232-233 -- Dredge operated, 1919.

Brooks, 1922 (B 722), p. 63 -- Dredge operated, 1920.

Smith, 1930 (B 813), p. 41 -- Small-scale mining, 1928.

Smith, 1932 (B 824), p. 46 -- Small-scale mining, 1929.

Smith, 1933 (B 836), p. 47 -- Small-scale mining, 1930.

Smith, 1936 (B 868-A), p. 52 -- Small-scale mining on creek and tributary, 1934. Old dredge being moved from Basin Cr.

Smith, 1937 (B 880-A), p. 53, 61 -- Mining, including a dredge, 1935.

Smith, 1938 (B 897-A), p. 65, 71 -- Mining, including a dredge, 1936.

Smith, 1939 (B 910-A), p. 69, 76 -- Dredge operated, 1937.

Smith, 1939 (B 917-A), p. 67, 75 -- Dredge operated, 1938.

Smith, 1941 (B 926-A), p. 72 -- Dredge did not operate, 1939.

Koschmann and Bergendahl, 1968 (P 610), p. 17 -- Has been placer mining.

Hummel, 1975 (OF 75-2) -- References to Collier and others, 1908 (B 328), p. 240-242; Sainsbury and others, 1972 (OF 544).

(Minnesota Cr.)

Gold(?)

Nome district

Solomon (4.85, 11.95) approx.
64°41'N, 164°21'W approx.

Summary: Prospecting and assessment work only, 1907. No production.
See also: (Bear Gulch), (Meddler Gulch), (Sapphire Gulch).

Smith, 1910 (B 433), p. 179 -- Prospecting and assessment work, 1907. No gold production.

(Moonlight Cr.)

Gold

Council district
MF-445, loc. 80

Solomon (4.1, 13.8)
64°47'N, 164°27'W

Summary: Placer mining reported, 1916.

Mertie, 1918 (B 662), p. 455 -- Open-cut mining, 1916.
Hummel, 1975 (OF 75-2) -- Reference to above.

(Moonlight Divide)

Copper

Council district

Solomon (4.15, 14.0)

MF-445, loc. 14

64°48'N, 164°27'W --

Summary: Copper mineralization along contact between schist and limestone.

Smith, 1908 (B 345), p. 243 -- Copper mineralization along contact between schist and limestone. Shallow prospect pit sunk and some of the larger stringers staked.

Anderson, 1947 (TDM 5-R), p. 19-20 -- Reference to above.

Wedow and others, 1952 (OF 51), p. 38 -- Copper minerals in mineralized contact between limestone and schist.

Berg and Cobb, 1967 (B 1246), p. 113 -- Veins near contact between schist and limestone.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1908 (B 345), p. 243.

(Moran Gulch) (Cr.)

Gold

Nome district

Solomon (4.65, 10.9)

MF-445, loc. 101

64°37'N, 164°23'W --

Summary: Gravel of benches of Solomon R. mined on a small scale, 1908, 1913, 1932-33.

Smith, 1909 (B 379), p. 289 -- Mining, 1908, in bench gravels that geologically are probably part of Solomon R. benches. 3-4 ft. of gravel on decomposed schist bedrock; gravel covered by several feet of clear ice and muck.

Smith, 1910 (B 433), p. 161 -- Same as Smith, 1909 (B 379), p. 289.

Chapin, 1914 (B 592), p. 390 -- Mining, 1913.

Smith, 1934 (B 857-A), p. 45 -- Open-cut mining, 1932.

Smith, 1934 (B 864-A), p. 50 -- Small-scale open-cut mining, 1933.

(Mt. Dixon)

Copper

Council district
MF-445, loc. 9

Solomon (5.7, 16.15)
64°55'N, 164°14'W --

Summary: Copper mineralization along contact between schist and limestone.

Smith, 1908 (B 345), p. 243 -- Copper mineralization along contact between schist and limestone. No development work.

Anderson, 1947 (TDM 5-R), p. 19-20 -- Reference to above.

Wedow and Others, 1952 (OF 51), p. 38 -- Copper minerals in mineralized contact between limestone and schist.

Berg and Cobb, 1967 (B 1246), p. 113 -- Veins near contact between schist and limestone.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1908 (B 345), p. 243.

(Mud Cr.)

Gold

Council district
MF-445, loc. 124

Solomon (11.0, 15.3) approx.
64°52'N, 163°31'W approx.

Summary: Coarse, rough, spongy gold in angular schist gravel and in crevices in decomposed schist bedrock. Note: Iowa Cr. is also called Mud Cr., but all of references below are to this creek and not to Iowa Cr.

Collier and others, 1908 (B 328), p. 240 -- Mining, 1903. Coarse, spongy, rough gold in 3-4 ft. of angular schist gravel and in crevices in top 3-4 ft. of decomposed schist bedrock.

Smith and Eakin, 1911 (B 449), p. 118 -- Data from Collier and others, 1908 (B 328), p. 240.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 240.

(Mulligan Cr.)

Gold(?)

Nome district

Solomon (0.9, 12.2) approx.
64°42'N, 164°53'W approx.

Summary: Unconfirmed report of placer mining before 1900.

Brooks and others, 1901, p. 99 -- Said to have been mining [as of 1900].
Collier and others, 1908 (B 328), p. 221 -- Said to have been mining;
none in 1903.

(Mystery Cr., trib. Niukluk R.) Gold

Council district Solomon (11.0, 15.3) approx.
MF-445, loc. 124 64°52'N, 163°31'W approx.

Summary: Country rock is schist with small quartz stringers. Creek placers only; some nuggets worth \$6-\$8 (gold at \$20.67 an ounce), but most is finer. Mining from about 1906 to 1914; dredge operated, 1913-14. At site of dredging gravel was 2-15 ft. thick on clay false bedrock.

Purington, 1905 (B 263), p. 209 -- Gold worth \$18.70 an ounce.

Smith, 1907 (B 314), p. 148 -- Small-scale mining has resulted in recovery of a little gold.

Collier and others, 1908 (B 328), p. 236 -- Has been mining.

p. 240 -- Country rock schist with small quartz stringers. Creek placers only. Nuggets worth \$6-\$8 have been found, but most of gold is much finer. Gold evidently of local derivation.

Smith, 1909 (B 379), p. 295 -- Small production (drought), 1908.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 117-118 -- Reference to Collier and others, 1908 (B 328), p. 240. Mining, 1907-09.

Chapin, 1913 (B 592), p. 388, 392 -- Dredge operated, 1913. Gravels 2-15 ft. thick on clay false bedrock. Dredge sold and to be moved.

Eakin, 1915 (B 622), p. 371 -- Dredge operated, 1914.

Smith, 1917 (BMB 142), p. 28 -- Dredge idle, 1915.

Koschmann and Bergendahl, 1968 (P 610), p. 17 -- Has been placer mining.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 236, 240.

(Mystery Cr., trib. Shovel Cr.) Gold

Nome district	Solomon (4.05-4.3, 11.35)
MF-445, loc. 86	64°39'N, 164°26'-164°28'W

Summary: Bedrock decomposed schist. Both creek and bench gravels were mined. Some of gold has attached quartz; some is wire gold. Mining (probably sporadic), 1903-11, including a dredge in 1911. Annual production in early 1900's was about 1,450 fine oz. of gold.

Collier and others, 1908 (B 328), p. 226 -- Mining reported, 1903.

Smith, 1908 (B 345), p. 221 -- Mining, 1907.

Smith, 1909 (B 379), p. 291 -- Small-scale mining, 1908.

Henshaw, 1910 (B 442), p. 360 -- Ditch operated, so there probably was mining, 1909.

Smith, 1910 (B 433), p. 172-174 -- Annual production (including that from tributaries) about \$30,000 [about 1,450 fine oz.], about 1907-08.

Some from creek gravels between Problem and Puzzle Gulches, but most from bench (winter mining). Bench underlain by complex group of old channels, some of which are below present creek level. Bedrock decomposed schist. Gold coarse, some grains with attached quartz; some wire gold; reported to assay \$18.75 an ounce.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Asher, 1969 (GR 33), p. 5 -- Has been small-scale mining.

Cobb, 1973 (B 1374), p. 91 -- Has been mining by methods other than dredging.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 172-174.

(Niukluk R.)

Gold

Council district

Solomon (8,0-10.2, 15.4-16.5)

MF-445, locs. 115, 121, 122

64°52'-64°56'N, 163°38'-163°56'W

Summary; Bar and floodplain gravels of Niukluk flats carry gold; most probably came from tributaries such as Camp and Ophir Creeks. Gold probably discovered in 1865 or 1866. A little bar mining, 1900. Nearly all of the gold recovered was by dredging between 1903 and 1940. See also; (Camp Cr.), (Ophir Cr.).

Brooks and others, 1901, p. 25 -- Colors of gold found, 1866.

p. 106 -- Colors found near head and more abundantly below American Cr. Some gold has been rocked out in bars below Ophir Cr. Gravels of broad flood plain carry a little gold.

Brooks, 1905 (B 259), p. 23 -- Dredge operated near mouth of Ophir Cr., 1904.

Smith, 1907 (B 314), p. 148 -- Prospecting frozen bench gravels between Ophir and Camp Creeks. Shaft 40 ft. deep went through 26 ft. of ice or mixed sand and ice; 12 ft. of auriferous gravel at bottom.

Collier and others, 1908 (B 328), p. 235-236 -- Gold discovered on bars, 1865. Has been placer mining.

p. 238-239 -- Gold well distributed through bar gravels; somewhat richer near bedrock. Gold bright and fine. Concentrates contain pyrite, magnetite, and garnet. Some of gold may be of local derivation, but most probably came from tributaries. Dredge operated, 1903-04.

p. 263 -- Prospect shaft sunk on bench near Camp Cr., 1906.

Smith, 1908 (B 345), p. 217-219 -- Prospect drilling on Niukluk flats in 1907 found what may be an old channel of Niukluk R.; bottom is 50 or 60 ft. below sea level (250 ft. of gravel).

Harrington, 1921 (B 714), p. 232-233 -- 2 dredges operated, 1919. Plan to move one to Warm Cr.

Smith, 1936 (B 868-A), p. 52 -- Dredge under construction, 1934.

Smith, 1937 (B 880-A), p. 53, 61 -- Dredge operated near mouth of Ophir Cr., 1935.

Smith, 1938 (B 897-A), p. 65, 71 -- One or two dredges operated, 1936.

Smith, 1939 (B 910-A), p. 69, 76 -- 2 dredges operated in floodplain deposits, 1937. [one dredge is listed on p. 76 as on Ophir Cr.]

Smith, 1939 (B 917-A), p. 67-68, 75 -- 2 dredges operated on floodplain deposits, 1938 [one dredge is listed on p. 75 as on Ophir Cr.]

Smith, 1941 (B 926-A), p. 63-64, 71 -- 3 dredges operated in floodplain of Niukluk R., 1939 [on p. 71 one dredge is listed as on Camp Cr. and one as on Ophir Cr.]

Smith, 1942 (B 933-A), p. 60, 68 -- 3 dredges operated in floodplain of Niukluk R., 1940 [on p. 68 one dredge is listed as on Camp Cr.]

Cobb, 1973 (B 1374), p. 64 -- Gold may have been discovered, 1865-66, during telegraph survey.

Hummel, 1975 (OF 75-2) -- References to Collier and others, 1908 (B 328), p. 236, 238-239, 263.

(No Man Cr.)

Gold

Council district
MF-445, loc. 69

Solomon (6.2, 16.05)
64°55'N, 164°10'W --

Summary: A little mining, 1907. Gold probably derived from bench of Casadepaga R.

Smith, 1910 (B 433), p. 191 -- One miner worked for a short time, 1907.
Gold probably derived from bench of Casadepaga R.

(Nugget Cr., trib. American Cr.) Gold(?)

Council district Solomon (3.25, 15.8) approx.
64°54'N, 164°34'W approx.

Summary: Has been prospecting; no data on results.

Smith, 1909 (B 379), p. 333 -- Has been prospecting. -

(Nugget Gulch) (Cr., trib. Solomon R.) Gold

Nome district
MF-445, loc. 96

Solomon (5.35, 13.6)
64°46'N, 164°17'W

Summary: Any mining was before 1907. Gold coarse, bright, and had some attached quartz.

Smith, 1910 (B 433), p. 184 -- Gold coarse and bright with some attached quartz. No mining in 1907, but there probably had been some.

(Ophir Cr.)

Gold, Silver

Council district
MF-445, loc. 120

Solomon (9.4-10.05, 16.3-17.6)
64°55'-65°00'N, 163°39'-163°44'W

Summary: Country rock limestone and schist; many quartz veins, some carrying gold and a little silver. Gneiss and granite near extreme head of creek (Bendeleben quad.). Both stream and bench deposits, which in many places merge, have been mined. - Lowest mile of creek in Niukluk flats, artificially cut off and upper part of Ophir Cr. diverted to Niukluk R. in early 1900's. Gold penetrated deeply into bedrock where it is limestone. Concentrates contain gold, iron-oxide minerals, garnet, and pyrite; report of scheelite was probably in error. Gold discovered, 1898; by the end of 1902 well over 50,000 fine oz. had been recovered. Rich deposits were first worked by hand methods and horse-drawn scrapers and later reworked by dredges. Mining from 1899 to as recently as 1968; dredges operated from 1905 to as recently as 1968. Includes references to Wild Goose Mining & Trading Co. See also (Ophir Cr.) Bendeleben quad.

Schrader and Brooks, 1900, p. 27-28 -- "Best diggings" in Fish R. region on Ophir Cr. One claim said to have yielded \$75,000 [about 3,625 fine oz. of gold] in 1899.

Brooks and others, 1901, p. 25 -- Gold found in commercial quantities, 1898.

p. 69 -- In 1900 production from Ophir and Sweetcake Creeks was \$100,000 [about 4,825 fine oz.] in gold.

p. 111-114 -- Granite and gneiss near head; most of the rest of the valley is in schists and limestone; last mile of course is in flats of Niukluk R. Pyrite in quartz veins and disseminated in schists. Claims staked in 1898. Mining about 5 mi. above mouth in 1900; pay streak on schist bedrock beneath 2 ft. of gravel. Other mining farther upstream. Much magnetite and garnet with gold; scheelite reported [but not in later more detailed reports]. Mining on bench along middle course of creek was attempted; gold fine.

Brooks, 1903 (B 213), p. 46 -- Production in 1902 was more than \$1,000,000 (about 48,275 fine oz.) in gold.

Brooks, 1905 (B 259), p. 20 -- Winter mining in area, 1904.

p. 23 -- Largest producer on Seward Peninsula, 1904.

Purington, 1905 (B 263), p. 42 -- Data on costs, 1904.

p. 194 -- Some of gold runs 170 colors to the cent.

p. 209 -- Gold worth \$18.49 an ounce.

Moffit, 1906 (B 284), p. 137-138 -- Fairly large-scale mining, including a dredge, 1905.

Smith, 1907 (B 314), p. 147 -- Productive tributary of Niukluk R., 1906.

p. 150-151 -- Ditch 11 mi. long brings water from Pargon R.

Fairly large-scale mining, including a dredge, 1906. Practically all bonanzas on Ophir Cr. are at junctions of side streams.

Collier and others, 1908 (B 328), p. 235-236 -- Gold discovered March, 1898. Has been mining.

(Ophir Cr.) -- Continued

- p. 242-250 -- Both creek and bench placers; creek-bed placers pretty well mined out by 1903. Over 1,000 were working on Ophir Cr. and tributaries, 1903. Country rock limestone and schist; many quartz veins, many of which contain gold and a little silver. At extreme head of creek [Bendeleben quad.] are gneiss and granite. At many places stream and bench deposits merge. Lower mile of creek in Niukluk flats; artificially diverted to Niukluk a mile above mouth of Ophir Cr.; gravels all auriferous; probably could be dredged. Above cut-off gold has penetrated deeply into fissures in limestone bedrock, but little if any into schist bedrock.
- p. 261-263 -- Same as Smith, 1907 (B 314), p. 150-151.
- Smith, 1908 (B 345), p. 216-217 -- Mining, including 2 dredges, 1907.
- Smith, 1909 (B 379), p. 293-294 -- Mining, 1908. Dry-land dredge installed near mouth.
- Henshaw, 1910 (B 442), p. 360-363 -- Much prospect drilling and shaft sinking, 1909. Mining, including a dredge and a dry-land dredge. Dredging does not recover all values where bedrock is limestone with an uneven surface.
- Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).
- Smith and Eakin, 1911 (B 449), p. 117-121 -- Much of data from Collier and others, 1908 (B 328). Dredge mined near mouth of creek in Niukluk flats; then was moved upstream before 1908. Many of rich placers were formed by reconcentration of former bench deposits. Schist adjacent to quartz stringers near mouth carries gold.
- p. 128 -- Samples of schist adjacent to quartz veins near mouth of creek yielded free gold when crushed in a mortar and panned.
- Smith, 1912 (B 520), p. 342 -- 2 dredges operated, 1911.
- Chapin, 1914 (B 592), p. 388, 391-392 -- 3 dredges operated, 1913.
- Eakin, 1915 (B 622), p. 371 -- 2 dredges operated, 1914.
- Smith, 1917 (BMB 142), p. 28 -- 2 dredges and 2 hydraulic plants operated, 1915.
- Smith, 1917 (BMB 153), p. 56 -- Dredge moved from Mystery Cr. to Ophir Cr., 1916.
- Mertie, 1918 (B 662), p. 452-453, 455 -- Mining, including 3 dredges, 1916. Hydroelectric plant being installed.
- Cathcart, 1920 (B 712), p. 187, 189 -- 2 dredges, hydraulic elevator, and hydraulic plant operated, 1918.
- Harrington, 1919 (B 714), p. 233 -- 2 dredges operated, 1919; one operated by electric power generated by ditch water.
- Brooks, 1922 (B 722), p. 63 -- 2 dredges operated, 1920.
- Cathcart, 1922 (B 722), p. 206-207 -- Source of gold in placers was quartz veins in schist and limestone; some quartz veinlets carry gold, probably all free; sulfide is pyrite; no minable lodes formed.
- Brooks, 1923 (B 739), p. 9 -- 3 dredges operated, 1921.
- Brooks and Capps, 1924 (B 755), p. 14 -- 3 dredges operated, 1922.
- Brooks, 1925 (B 773), p. 19 -- Reference to Collier and others, 1908 (B 328), p. 247.
- p. 27 -- 3 dredges operated, 1923.
- Smith, 1926 (B 783), p. 18 -- 2 dredges operated, 1924.

(Ophir Cr.) -- Continued

- Moffitt, 1927 (B 792), p. 21 -- Property (including a dredge) of Wild Goose Mining & Trading Co. was idle in 1925; sold. --
p. 24 -- Dredge operated, 1925.
- Smith, 1929 (B 797), p. 30 -- 2 dredges operated, 1926.
- Smith, 1930 (B 810), p. 40 -- 2 dredges operated, 1927.
- Smith, 1930 (B 813), p. 40, 47 -- Mining, including 2 dredges, 1928.
- Smith, 1932 (B 824), p. 46, 53 -- Mining, including 2 dredges, 1929.
- Smith, 1933 (B 836), p. 47, 54 -- Mining, including 2 dredges, 1930.
- Smith, 1933 (B 844-A), p. 49, 54 -- Mining, including 2 dredges, 1931.
- Smith, 1934 (B 857-A), p. 45, 51 -- Mining, including 2 dredges, 1932. One dredge was near mouth in Niukluk lowland.
- Smith, 1934 (B 864-A), p. 50, 57 -- Mining, including 2 dredges, 1933.
- Smith, 1936 (B 868-A), p. 51-52, 59 -- Mining, including 2 dredges, 1934.
- Smith, 1937 (B 880-A), p. 53, 61 -- Mining, including 2 dredges, 1935.
- Smith, 1938 (B 897-A), p. 65, 71 -- Mining, including one or two dredges, 1936.
- Smith, 1939 (B 910-A), p. 69, 76 -- 2 dredges operated, 1937. [One of those listed on p. 76 was in floodplain of Niukluk R.]
- Smith, 1939 (B 917-A), p. 75 -- [Dredge reported as on Ophir Cr. was in floodplain of Niukluk at mouth of Ophir Cr., 1938].
- Smith, 1941 (B 926-A), p. 63, 71 -- [Dredge operated in flats of Niukluk R., 1939].
- Koschmann and Bergendahl, 1968 (P 610), p. 17 -- Rich gravel discovered, 1896-97. Has been placer gold production.
- Cobb, 1973 (B 1374), p. 64 -- Most important placer gold stream in Council area. Workable placers discovered, 1897. Richest deposits were worked by hand methods and horse-drawn scrapers and then reworked by dredges; one dredge still working in 1968. Concentrates contain gold, magnetite, ilmenite, garnet, pyrite, and hematite.
- Hummel, 1975 (OF 75-2) -- References to Collier and others, 1908 (B 328), p. 244; Smith and Eakin, 1911 (B 449), p. 117-121.

(Oversight Cr.)

Gold

Kougarok district
MF-445, loc. 43

Solomon (3.25, 15.2)
64°52'N, 164°34'W

Summary: Was profitable mining before 1908.

Smith, 1909 (B 379), p. 331 -- Economically profitable placer mining before 1908.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Pajara Cr.)

Gold

Nome district
MF-44S, loc. 84

Solomon (10.5-1.4, 11.6-11.9)
64°40'N, 164°49'-164°52'W

Summary: Gold dredging in 1940's. Solomon C-6 map (1956 printing) shows large area of tailings and an airstrip.

Cobb, 1973 (B 1374), p. 91 -- Dredging in 1940's.

Hummel, 1975 (OF 75-2) -- Reference to Territorial Dept. Mines, Rept. Commissioner, biennium ended Dec. 31, 1946, p. 38 [Casa de Paga Gold Co. had gold dredge employing 9 men, 1946].

(Penelope Cr.)

Gold

Council district
MF-445, loc. 62

Solomon (5.6, 15.25)
64°52'N, 164°15'W

Summary: All mining on lower part of creek. Bedrock schist. About a mile above mouth a shaft passed through 69 ft. of gravel and slide rock and 24 ft. of clay (probably an old channel). Gravel may average about \$2 in gold (old price) a cubic yard. Mining, 1900-07.

Brooks and others, 1901, p. 107-108 -- Mining on lower part of creek, 1900; bedrock had not been reached.

Moffit, 1906 (B 284), p. 137 -- Mining, 1905.

Smith, 1907 (B 314), p. 153 -- Mining, 1906.

Collier and others, 1908 (B 328), p. 259 -- Quotation from Brooks and others, 1901.

p. 265 -- Mining, 1906.

Smith, 1908 (B 345), p. 223 -- Bedrock schist. Mining, 1907.

Smith, 1910 (B 433), p. 193-194 -- All production from lower part of creek.

About a mile above mouth a shaft reached bedrock at a depth of over 90 ft.; old channel(?); no definite pay streak. 29 ft. of washed gravel and slide rock on bedrock, then 24 ft. of clay, then 40 ft. of rounded creek gravel; all gravel auriferous. Gravel would average (a guess only) about \$2 a yard.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 193-194.

(Penny Cr., trib. Iron Cr.)

Gold

Kougarok district
MF-445, loc. 41

Solomon (3.1, 15.35)
64°52'N, 164°35'W

Summary: Was mining before 1908.

Smith, 1909 (B 379), p. 331 -- Has been mining before 1908.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Penny Cr., trib. Solomon R.)

Copper, Gold, Silver

Nome district

Solomon (4.65-4.8, 11.25-11.65)

MF-445, loc. 94

64°38'-64°40'N, 164°22'-164°23'W

Summary: Bedrock in upper and lower parts of course is schist; limestone between; crosses broad terrace of Solomon R. A little sporadic small-scale mining, 1900 to as recently as 1934. Much of gold in broken limestone. Near head of creek limestone separated from schist by fault along which there has been silicification; a few disseminated copper minerals (mainly malachite). Samples contained 0.02-0.08 oz. gold and 0.02-0.04 oz. silver a ton.

Brooks and others, 1901, p. 101-102 -- Most of course in broad terrace of Solomon R.; bedrock schist and limestone. Where being mined in 1900 clay layer overlay limestone bedrock; gold (coarse; one \$18 nugget) on and in clay and top foot of bedrock.

Collier and others, 1908 (B 328), p. 227 -- Creek incised 20 ft. into older valley floor about 200 ft. wide. 2 mi. above mouth of creek 4 ft. of broken limestone bedrock and overlying clay bed were excavated along with 2 ft. of gravel. Mining much hampered by lack of water.

Smith, 1908 (B 345), p. 222 -- A little mining, 1907.

Smith, 1910 (B 433), p. 179 -- Bedrock in upper and lower parts of course is schist; in middle part is limestone. Quotation from Collier and others, 1908 (B 328), p. 227, and data from Brooks and others, 1901, p. 101-102. Mining at mouth, 1907.

Chapin, 1914 (B 592), p. 390 -- A little mining, 1913.

Smith, 1936 (B 868-A), p. 52 -- Small-scale open-cut mining, 1934.

Asher, 1969 (GR 33), p. 20 -- Near head of creek the base of limestone separated from schist by fault contact is silicified; a few disseminated copper minerals, mainly malachite. Samples contained 0.02-0.08 oz. Au and 0.02-0.04 oz. Ag a ton.

Cobb, 1973 (B 1374), p. 91 -- Has been mining by methods other than dredging.

Hummel, 1975 (OF 75-2) -- References to Smith, 1910 (B 433), p. 179; Asher, 1969 (GR 33), p. 20, fig. 5.

(Post Cr.)

Gold

Council district
MF-445, loc. 11

Solomon (7.6, 17.5)
64°00'N, 163°59'W

Summary: Quartz vein reported to be about 8 ft. thick at a contact between schist and limestone and to contain free gold. Panning of crushed material said to have indicated about 1.7 oz. gold per ton.

Smith, 1907 (B 314), p. 155 -- Quartz vein about 8 ft. thick at contact of schist and limestone reported to contain free gold is about half a mile SE of Post Cr. Panning of crushed material said to indicate that vein would run nearly \$35 a ton [gold at \$20.67 an ounce].

Berg and Cobb, 1967 (B 1246), p. 113 -- 8-ft. quartz vein reportedly assayed about 1.7 oz. Au per ton; is at a schist-limestone contact.

(Problem Gulch) (Cr.)

Gold

Nome district
MF-445, loc. 86

Solomon (4.0, 11.35)
64°39'N, 164°28'W

Summary: Bedrock mica schist. In creek 2-3 ft. of gravel and top 2 ft. of disintegrated schist were mined. Bench gravels on both sides of creek carry gold. Mining (not continuous), 1900-16.

Brooks and others, 1901, p. 101 -- Bedrock mica schist; 2-3 ft. of gravel and top 2 ft. of disintegrated schist are mined. Benches on both sides of creek contain gold.

Collier and others, 1908 (B 328), p. 226 -- Mining, 1900. Same data as in Brooks and others, 1901, p. 101.

Smith, 1910 (B 433), p. 173 -- Mystery Cr. and Problem and Puzzle Gulches have annual total production of about \$30,000 [about 1,450 fine oz.] in gold.

p. 175 -- Data mainly from Brooks and others, 1901, p. 101. Very little work in 1907 (Water shortage). Shaft 45 ft. deep passed through 40 ft. of stratified fine sand; wash gravel on top; gold content (if any) of sand not known.

Mertie, 1918 (B 662), p. 455 -- Open-cut mining, 1916.

Cobb, 1973 (B 1374), p. 91 -- Has been mining by methods other than dredging.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 173, 175.

(Puckmummie Cr.)

Gold

Council district
MF-445, loc. 71

Solomon (6.9, 16.85)
64°57'N, 164°04'W

Summary: Colors of gold widely distributed, but no pay gravels discovered.

Smith, 1910 (B 433), p. 190 -- Short creek that flows into Casadepaga a short distance above its junction with the Niukluk. Prospected in upper part and about a mile above mouth. Colors in every pan, but no pay gravels discovered. Gravels only 2-3 ft. thick; of local origin except in lower part of creek where gravels of Niukluk are being reworked.

(Puzzle Gulch)

Gold

Nome district
MF-445, loc. 86

Solomon (4.2, 11.4)
64°39'N, 164°27'W

Summary: Was mining in early 1900's. Gold very coarse; some pieces with attached quartz; some wire gold; of local origin.

Smith, 1910 (B 433), p. 173 -- Total annual production from Mystery Cr. and Problem and Puzzle Gulches is about \$30,000 [about 1,450 fine oz.] in gold.

p. 175 -- One man working, 1907. Gold very coarse, some with attached quartz. Some wire gold. Gold of local origin. Report that old channel at lower elevation than present creek was discovered.

Cobb, 1973 (B 1374), p. 91 -- Has been mining.

{Quartz Cr., trib. Goose Cr.}

Gold

Council district
MF-445, loc. 59

Solomon (5.2, 15.65)
64°53'N, 164°18'W

Summary: At site of mining (near confluence with Goose Cr.) bedrock is schist; limestone further upstream. Gold coarse, some with attached quartz. Much garnet and magnetite in concentrates. Gold on bedrock and 2 ft. into crevices in bedrock. Mining, 1900 to 1907 or 1908.

Brooks and others, 1901, p. 107-109 -- Bedrock schist with thin-bedded limestone. Gravel about 3 ft. thick; averages about 8 cents per pan in gold. Gold worth \$18.60 an ounce. Much garnet and magnetite in concentrates.

Collier and others, 1908 (B 328), p. 258-259 -- Quotation from Brooks and others, 1901.

Smith, 1908 (B 345), p. 224 -- Mining, 1907. At site of mining bedrock is schist; belt of limestone upstream. Depth to bedrock is 3-10 ft. Gold on bedrock and in fissures in bedrock; in places 2 ft. bedrock must be mined. Tributary follows contact between schist and limestone, which is cavernous; gold coarse, some pieces with attached quartz.

Smith, 1910 (B 433), p. 196-197 -- Mining a short distance above junction with Goose Cr. Gravels of present channel and in banks where incised in gravel of an older valley. Data essentially as in Smith, 1908 (B 345), p. 224.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 294 [says only that Quartz Cr. is a tributary of Goose Cr.], 196-197.

(Quartz Cr., trib. Solomon R.)

Gold

Nome district

Solomon (5.0, 11.4)

MF-445, loc. 101

64°39'N, 164°20'W

Summary: Mining near mouth in bench gravels of Solomon R., 1907-08.

Smith, 1910 (B 433), p. 180 -- Mining at mouth, 1907-08, in bench gravels of Solomon R.

Quigley

Antimony

Nome district
MF-445, loc. 17

Solomon (5.4, 11.5)
64°39'N, 164°17'W

Summary: Lens of nearly pure stibnite as much as 18 inches thick in a quartz vein 4 feet thick in black slate. Other smaller concentrations of stibnite in vein. Explored by a 12-foot shaft and several trenches. 4 tons of ore shipped in 1914. Includes references to: Gray Eagle, (Last Chance Cr., trib. Big Hurrah Cr.).

Collier and others, 1908 (B 328), p. 223 -- Ore rich in antimony said to have come from a vein on Last Chance Cr.; only traces of gold and silver.

p. 232 -- Specimen of ore rock in antimony yielded only traces of gold and silver. Another specimen [may not have been from same place] contained 0.24 oz. Au and 1.10 oz. Ag per ton.

Mertie, 1918 (B 662), p. 439 -- Country rock schist. Has been mining on a stringer of stibnite about 18 in. wide. Little or no quartz. Stibnite is 63.7% Sb, no Pb or Zn, only a trace of As. 5 tons ore mined, 1915-16; 3 tons shipped. [Called Gray Eagle in this reference.]

Cathcart, 1922 (B 722), p. 204 -- 12-ft. shaft sunk and several trenches dug in 4-ft. quartz vein which carries stibnite. No work since about 1916; working caved in 1920. Said to be a foot of stibnite in center of vein and nests of stibnite in the rest of the vein.

Anderson, 1947 (TDM 5-R), p. 11 -- Stibnite lens about a foot thick in a 4-ft. zone of schist and quartz. Small nests of stibnite elsewhere in zone.

White and others, 1952 (C 196), p. 4 -- Stibnite in quartz veins in Carboniferous slate.

Berg and Cobb, 1967 (B 1246), p. 127-128 -- Four-foot quartz vein in black slate contained a lens of nearly pure stibnite as much as 18 in. thick. Smaller concentrations of stibnite elsewhere in vein, which strikes northeastward and dips northwestward. Explored by shaft and several trenches; 4 tons of ore shipped in 1914.

Hummel, 1975 (OF 75-2) -- Reference to Mertie, 1918 (B 662), p. 439.

(Rabbit Cr., trib. Iron Cr.)

Gold

Kougarok district
MF-445, Loc. 30

Solomon (2.2, 15.95)
64°54'N, 164°43'W

Summary: Has been a little small-scale mining. Gold fine, flaky, and bright.

Smith, 1907 (B 314), p. 163 -- Little more than assessment work, 1906.
Smith, 1909 (B 379), p. 329 -- Creek staked; has been some work. Gold fine, flaky, and bright.

(Rabbit Cr., E. of Solomon)

Gold

Nome district
MF-445, loc. 102

Solomon (4.95, 10.9)
64°37'N, 164°20'W

Summary: Fine gold in prospect holes in sand on bedrock or in upper part of decomposed bedrock. In some places gravel appears to be beach gravel and in others to be stream gravel.

Smith, 1909 (B 379), p. 284-285 -- Prospect holes to schist bedrock found fine gold in sand on bedrock or in upper part of decomposed bedrock. Gravel above sand in some holes seems to be beach gravel and in others to be creek gravel. Gold does not appear to have traveled far from bedrock source.

Smith, 1910 (B 433), p. 212-213 -- Same as above.

(Rapid Cr.)

Gold

Kougarok district

Solomon (2.2, 15.95) approx.
64°54'N, 164°43'W approx.

Summary: Creek has been staked; little more than assessment work in 1906. Creek not shown on available maps. May be the same as stream called Pajaro Cr. on maps and the same as Hillard Cr. of Smith, 1909 (B 379), p. 329.

Smith, 1907 (B 314), p. 163 -- Creek staked; little more than assessment work in 1906.

(Ready Bullion Cr.)

Gold

Kougarok district

Solomon (3.05, 15.2)

MF-445, loc. 45

64°52'N, 164°36'W

Summary: Has been probably profitable mining of shallow gravels.

Smith, 1909 (B 379), p. 331 -- Shallow, probably profitable gravels worked out before 1908.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Richter Cr.)

Gold

Council district
MF-445, loc. 118

Solomon (9.05, 16.25) approx.
64°55'N, 163°47'W approx.

Summary: Gold placers seemed to be exhausted; negligible output in 1906.

Smith, 1907 (B 314), p. 151 -- Creek seems to be exhausted; output negligible, 1906.

Collier and others, 1908 (B 328), p. 263 -- Placers nearly exhausted, 1906.

(Ridgeway Cr.)

Gold

Council district
MF-445, loc. 77.

Solomon (4.3-4.45, 14.15-14.3)
64°49'N, 164°25'-164°26'W

Summary: Gold (some nuggets) for at least a mile above mouth. Not enough water for efficient mining.

Smith, 1910 (B 433), p. 202 -- Carries gold for at least a mile above mouth; some nuggets. Mining difficult because of small supply of water. No mining in 1908.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Rock Cr., Fish R. drainage)

Gold

Council district

Solomon (13.25-13.5, 15.55-15.9)
approx.(?)

MF-445, loc. 125(?)

64°52'-64°54'N, 163°12'-163°13'W
approx.(?)

Summary: Tributary of Aggie Cr. Promising placer ground discovered,
1926. Small-scale mining reported, 1928-30.

Smith, 1929 (B 797), p. 26 -- Discovery of promising placer ground on Rock
Cr., tributary of Aggie Cr., reported, 1926.

Smith, 1930 (B 813), p. 41 -- Prospecting and a little mining, 1928.

Distribution of gold irregular; no continuous pay streak.

Smith, 1932 (B 824), p. 46 -- A little mining, 1929.

Smith, 1933 (B 836), p. 47 -- A little mining, 1930.

Cobb, 1973 (B 1374), p. 66 -- Tributary of Aggie Cr. Has been placer
mining.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1929 (B 797), p. 26.

(Rock Cr., near Iron Cr.)

Gold

Kougarok district
MF-445, loc. 25

Solomon (1.05, 15.9)
64°54'N, 164°51'W

Summary: Western branch of Slate Cr. Was mining before 1908. See also
(Slate Cr.)

Smith, 1909 (B 379), p. 320 -- Western branch of Slate Cr. Had been
mining before 1908.

Cobb, 1973 (B 1374), p. 79 -- Has been placer mining.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 320.

(Rock Cr., trib. Solomon R.)

Gold

Nome district

Solomon (4.7-4.85, 10.7-10.8)

MF-445, loc. 103

64°37'N, 164°21'-164°23'W

Summary: Schist bedrock; much greenstone float; quartz pebbles and slate fragments in gravel. Some of gold may have been derived from veins in drainage and some from coastal-plain deposits. Mining, all on a small scale, 1903, 1913, 1932-34.

Smith, 1910 (B 433), p. 170-171 -- Mining, 1903; none in 1907-08. Bedrock schist; much greenstone float; slate fragments and quartz pebbles in gravel. Most of gold is fine, but some is coarse. Some could have been derived from nearby veins and some from coastal-plain deposits.

Chapin, 1914 (B 592), p. 390 -- A little mining, 1913.

Smith, 1934 (B 857-A), p. 45 -- Small-scale open-cut mining, 1932.

Smith, 1934 (B 864-A), p. 50 -- Small-scale open-cut mining, 1933.

Smith, 1936 (B 868-A), p. 52 -- Small-scale open-cut mining, 1934.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 170-171.

(Rock Cr., trib. Tubutulik R.)

RE

Koyuk district
MF-445, loc. 126

Solomon (19.75, 17.45)
64°58'N, 162°20'W

Summary: Allanite in concentrate sample.

West, 1953 (C 300), p. 6-7 -- Concentrate sample (concentration ratio about 2,250:1) contained allanite, hematite, ilmenite, magnetite, anatase, garnet, topaz, kyanite, epidote, and sphene.

(Rocky Cr.)

Gold

Kougarok district
MF-445, loc. 29

Solomon (2.1, 15.8)
64°54'N, 164°43'W

Summary: Creek was completely staked. Probably was a little small-scale mining, but not much production.

Smith, 1907 (B 314), p. 163 -- Completely staked; little more than assessment work, 1906.

Smith, 1909 (B 379), p. 329 -- Ground staked; some work has been done.
No valuable placers.

(Rover Cr.)

Gold(?)

Council district

Solomon (4.8. 14.0)
64°48'N, 164°22'W

Summary: A little desultory work near mouth. If there was any production it was very small.

Smith, 1910 (B 433), p. 202 -- Has been some desultory work on lower part of stream; production must have been small [if there was any]. No bedrock exposed in upper part of valley; large blocks of schist and greenstone in creek.

(Ruby Cr.)

Gold

Council district
MF-445, loc. 79

Solomon (4.95-5.6, 14.05-14.25)
64°48'-64°49'N, 164°15'-164°20'W

Summary: Bedrock mainly schist; limestone near head. Garnetiferous greenstone pebbles common in gravel. Magnetite and much garnet in concentrates. Mining, 1900-07; most of creek gravels carefully worked from mouth to a mile above Iowa Cr. Small dredge operated, 1931-32. Has also been some production from bench deposits.

Brooks and others, 1901, p. 107 -- Developments, 1900.

p. 109-110 -- Bedrock schist with many small quartz veins along schistosity and joints; limestone at head of creek. Garnetiferous greenstone pebbles common, but none found in place. In 1900 much prospecting and preliminary work. Coarse gold (said to assay \$19.35 an ounce) in 2-3 ft. of gravel; many garnets and a little black sand. Moffit, 1906 (B 284), p. 137 -- Mining, 1905.

Smith, 1907 (B 314), p. 154 -- Mining, 1906; gravels worked thoroughly and creek said to have been exhausted.

Collier, 1908 (B 328), p. 260 -- Quotation from Brooks and others, 1901.

p. 266 -- Same as Smith, 1907 (B 314), p. 154.

Smith, 1908 (B 345), p. 225 -- Mining in 1907 was at junction of Ruby Cr. and Casadepaga R. Signs of old mining entire length of Ruby Cr.

Smith, 1910 (B 433), p. 156 -- Bench placers have been productive.

p. 199-201 -- Has been most productive creek in Casadepaga drainage. Mining, 1900-07; none in 1908. Creek gravels carefully mined from mouth to a mile above Iowa [Mud] Cr. Quotation from Brooks and others, 1901, p. 109-110.

Smith, 1933 (B 836), p. 48 -- A little development work and mining near mouth, 1930.

Smith, 1933 (B 844-A), p. 48, 55 -- Small dredge operated, 1931.

Smith, 1934 (B 857-A), p. 45, 51 -- Dredge operated, 1932.

Smith, 1936 (B 868-A), p. 52 -- Mining (not a dredge), 1934.

Cobb, 1973 (B 1374), p. 66, 68 -- Much garnet in concentrates. Was dredging before World War II.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 201.

(Ryan Cr.)

Gold

Council district
MF-445, loc. 105

Solomon (9.05, 10.3)
64°35'N, 163°48'W

Summary: Was a very little production of placer gold, probably mainly before 1907. Bedrock is limestone with sink holes and a thin band of schist.

Collier and others, 1908 (B 328), p. 283 -- Gold has been found.

p. 293 -- Has been a little mining [before 1907]. Deposit similar to, but probably less rich and less extensive than that on Daniels Cr.

Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 123, 125 -- Data from Collier and others, 1908 (B 328), p. 283, 293.

Herreid, 1965 (GR 10), p. 5 -- Placer prospects known.

Mulligan, 1971 (RI 7555), p. 7-8 -- Production probably was considerably less than 100 oz.

p. 13 -- A little mining; limestone bedrock has prominent sink holes downstream from a thin band of schist. Concentrate samples from creek and detrital cover over schist by USBM contained no gold.

(San Jose Cr.)

Gold(?)

Nome district

Solomon (0.4, 13.0) approx.
64°44'N, 164°57'W approx.

Summary: Unconfirmed report of placer gold mining.

Brooks and others, 1901, p. 99 -- Gold reported.

Collier and others, 1908 (B 328), p. 221 -- Some mining said to have been done, none in 1903.

(Sapphire Gulch)

Gold

Nome district
MF-445, loc. 93

Solomon (4.8, 11.95)
64°41'N, 164°22'W

Summary: Has been placer mining.

Smith, 1910 (B 433), p. 179 -- Has been exploited and a large portion of creek gravels turned over. Tributary of Minnesota Cr.

(Sherrette Cr.)

Copper, Gold

Kougarok district
MF-445, locs. 7, 46

Solomon (2.8-3.1, 15.95-16.6)
64°54'-64°56'N, 164°35'-164°38'W

Summary: Stream rises in area of limestone east of Iron Cr. Lower part of course in gravel plain between Kruzgamepa and Niukluk drainages. No mining near headwaters; prospecting in gravel plain area found fine gold distributed through gravel and on clay layers in gravel; concentrates mainly magnetite and ilmenite with very little garnet and some iron and copper sulfides and copper carbonates. Prospect holes near head of creek on a copper showing similar to that at Wheeler prospect; mineralized quartz and schist on dumps. See also Wheeler (Sherrette Cr.).

Smith, 1909 (B 379), p. 331-333 -- Upper part of valley in limestone ridge east of Iron Cr.; lower part in gravel plain that forms divide between Kruzgamepa and Niukluk drainages. No placer mining in upper part of valley. Has been prospecting of stream gravels in lower part of course and of nearby gravel plain deposits. Many exotic boulders (particularly granite) as well as material from upper Sherrette Cr. In some places fine (but visible) gold is distributed through gravels; in others gold is on thin clay layers. Concentrates contain about equal parts magnetite and ilmenite, very little garnet, and some iron and copper sulfides and copper carbonates.

Chapin, 1914 (B 592), p. 393 -- Assessment work, 1913.

Cathcart, 1922 (B 722), p. 181 -- Copper minerals near head of creek.
p. 215 -- 3 shallow pits on a copper showing. Mineralization similar to that at Wheeler prospect on Sherrette Cr. Mineralized quartz and schist on dumps.

Smith, 1939 (B 917-A), p. 65 -- Testing of ground near Sherrette Cr. for possible dredging, 1938.

Anderson, 1947 (TDM 5-R), p. 21 -- Several copper lodes along contact between limestone and schist near head of creek have been prospected.

Asher, 1969 (GC 18), p. 6 -- Reference to Cathcart, 1922 (B 722).

Cobb, 1973 (B 1374), p. 79 -- Iron and copper sulfides in concentrates.

Hummel, 1975 (OF 75-2) -- References to Cathcart, 1944 (B 722), p. 215; general data, Sainsbury and others, 1972 (OF 512).

(Shoal Cr.)

Gold

Kougarok district
MF-445, loc. 40

Solomon (3.0, 15.4)
64°52'N, 164°36'W

Summary: Shallow placer ground. Probably worked out by 1908.

Smith, 1909 (B 379), p. 331 -- Economically profitable shallow placer ground was mined before 1908. Probably worked out. Assessment work, 1908.

Hummel, 1975 (OF 75-2) -- Reference to above.

(Shovel Cr.)

Gold

Nome district
MF-445, loc. 90

Solomon (4.3-4.6, 11.1-11.8)
64°38'-64°40'N, 164°23'-164°26'W

Summary: Thin but wide paystreak mined, mainly by dredges, from about 1907 to 1928. Total production (probably including some tributaries) was probably about 20,000 fine oz. of gold. Bedrock limestone, slate, and schist; placer gold penetrated crevices in schist for 2-3 ft.

Brooks and others, 1901, p. 101 -- Little or no mining except on tributaries, 1900.

Brooks, 1905 (B 259), p. 22 -- Ditches in operation, 1904.

Collier and others, 1908 (B 328), p. 226 -- All mining on tributaries, 1903. Country rock is limestone and schists; greenstone intrusives near head.

Smith, 1908 (B 345), p. 221 -- Mining, 1907, up to mouth of Mystery Cr.

Smith, 1909 (B 379), p. 286 -- Mining, 1908.

Smith, 1910 (B 433), p. 156 -- Creek has been productive.

p. 171-173 -- Geology complicated; limestone, slate, schist. Gravels thin, but paystreak 200-400 ft. wide. Where bedrock is schist 2-3 ft. must be taken up to recover gold in crevices. Mining, 1907-08. Most of gold mined in basin was from tributaries.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Chapin, 1914 (B 592), p. 387, 390-391 -- Hydraulicking and one dredge operated, 1913. Dry-land dredge at mouth of West Cr. did not operate, 1912-13.

Cathcart, 1920 (B 712), p. 187 -- Dredge operated, 1918.

Brooks, 1922 (B 722), p. 63 -- Dredge operated, 1920.

Brooks, 1923 (B 739), p. 9 -- Dredge operated, 1921.

Brooks and Capps, 1924 (B 755), p. 14 -- Dredge operated, 1922.

Brooks, 1925 (B 773), p. 27 -- Dredge operated, 1923.

Smith, 1926 (B 783), p. 18 -- Dredge operated, 1924.

Moffit, 1927 (B 792), p. 25 -- Dredge operated, 1925.

Smith, 1929 (B 797), p. 31 -- Dredge operated, 1926.

Smith, 1930 (B 810), p. 34, 40 -- Dredge operated, 1927.

Smith, 1930 (B 813), p. 41, 48 -- Dredge operated, 1928.

Smith, 1932 (B 824), p. 46 -- Dredge being dismantled to move to Spruce Cr. east of Solomon.

Smith, 1939 (B 917-A), p. 69-70 -- Land acquired for possible future dredging, 1938.

Koschmann and Bergendahl, 1968 (P 610), p. 19 -- Has been placer mining.

Ahsar, 1969 (GR 33), p. 5 -- Production, 1912-15, 1917-21, 1923-27, totaled \$408,006 in value [about 19,740 fine oz. of gold].

Cobb, 1973 (B 1374), p. 91 -- Has been dredging. 4 men doing small-scale mining, 1967. --

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 171-173.

(Sidney Cr.)

Gold(?)

Kougarok district

Solomon (2.2, 15.95) approx.
64°54'N, 164°43'W approx.

Summary: Ground has been staked and some work done. Map indicates presence of auriferous gravel, but there is no text statement that gold is present.

Smith, 1909 (B 379), p 329 -- Ground has been staked and some work done. Shown as auriferous on Pl. X.

Silver

Gold, Silver, Tungsten

Nome district
MF-445, loc. 16

Solomon (5.45, 11.65)
64°40'N, 164°17'W

Summary: At least 2 quartz veins 1/2 to 3 ft. thick in Hurrah (York) Slate, which grades into micaceous schist or phyllite at prospect. Veins contain as much as 1.48 oz. gold and 0.70 oz. silver per ton (sample from dump contained 2.2 oz. gold per ton) and a little scheelite. Work on prospect was in early 1900's and 1930s; inclined shaft, possibly as much as 800 ft. of workings off of it, and many surface pits and trenches. Mill installed some time after 1938; no data on its operation. Includes references to Flynn.

Cathcart, 1922 (B 722), p. 198 -- Arsenopyrite in a green chloritic rock.
p. 204 -- Inclined shaft said to be 60 ft. deep and many smaller shafts and trenches. Quartz on dumps, but no vein exposed in 1920. Country rock is Hurrah Slate. Green mineralized rock containing arsenopyrite and chlorite on dump. Much of quartz is ribbon rock; iron stained, but no visible sulfides. No work had been done for 5 years [as of 1920]. No data on gold content of mineralized material, but prospect is called a gold quartz vein.

Smith, 1939 (B 917-A), p. 31 -- Some work, 1938.

Smith, 1941 (B 926-A), p. 28 -- Prospecting, 1939.

Anderson, 1947 (TDM 5-R), p. 43 -- Small amount of scheelite in quartz vein.

Berg and Cobb, 1967 (B 1246), p. 127 -- Small amount of scheelite in quartz veins reported.

Asher, 1969 (GR 33), p. 15-18 -- Country rock is Hurrah Slate, which grades from hard, quartzitic black slate to micaceous schist or phyllite. At least 2 quartz veins present; both contain free gold and one also contains arsenopyrite. Veins are from 6 in. to 3 ft. thick. Explored by several shafts and many pits and trenches. Said to have been about 800 ft. of working from bottom of an old inclined (26°) shaft 40 ft. deep. Much of work was in early 1900's and 1930's. Small mill installed some time after 1938; no data on milling operation. Samples assayed as much as 1.48 oz. Au and 0.70 oz. Ag a ton. Grab sample from a dump contained 2.2 oz. Au a ton.

p. 21 -- Suggestion for further exploration.

p. 29 -- At least 2 veins that strike NW and are continuous on surface for several hundred feet. Gold values are 0.5-1.0 oz. per ton.

Hummel, 1975 (OF 75-2) -- References to Cathcart, 1922 (B 722), p. 198, 204; Anderson, 1947 (TDM 5-R), p. 43; Asher, 1969 (GR 33), p. 15-18.

(Slate Cr.)

Gold

Kougarok district
MF-445, locs. 1, 25

Solomon (1.1-1.15, 15.75-15.9)
64°54'N, 164°51'W

Summary: Country rock is greenstone cut by altered dikes, at least one of which contains a quartz-calcite stockwork that contains a little free gold. A little placer gold (probably only a few thousand dollars worth) mined from creek gravels in early 1900's. Gold probably derived from lodes like that described above. Colors of gold in bench gravels between Slate and Willow Creeks. Includes references to Osmun.

Brooks and others, 1901, p. 117 -- As much gold as 25 cents per pan.
Gold bright and flat.

Collier and others, 1908 (B 328), p. 267-268 -- Gold bright and flat.
As much as 25 cents in gold per pan. Mining, 1901-04. Colors of gold in bench gravels between Slate and Willow Creeks.

Smith, 1909 (B 379), p. 320-321 -- Narrow pay streak above mouth of Rock Cr. mined, 1908. Production to date worth only a few thousand dollars. Gold worth about \$18.25 an ounce.

Chapin, 1914 (B 592), p. 405-406 -- Country rock is greenstone cut by altered dikes in which feldspar is altered to sericite and kaolin. One dike 3 ft. thick was fractured; filled with ferruginous calcite that partially replaced vein fragments and walls. Later fractures filled with quartz and calcite veinlets. Small amounts of gold panned from crushed material. Small surface cut is only development, 1913. Another dike 10 ft. thick contains quartz, epidote, chlorite, albite, calcite, and a colorless amphibole. Greenstone completely recrystallized; hornblende, chlorite, epidote, garnet, pyrite, albite, rutile, and sphene present.

Cathcart, 1922 (B 722), p. 256 -- Quotation from Chapin, 1914 (B 592), p. 405.

Berg and Cobb, 1967 (B 1246), p. 118 -- Gold prospect consists of a quartz-calcite stringer lode in fractured and altered fine-grained dikes cutting greenstone. Lode contains little gold; explored by a small open cut about 1913.

Cobb, 1973 (B 1374), p. 79 -- Placer mining before 1915. Some of gold was derived from an altered dike (Chapin, 1914 (B 592), p. 405.)

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 320-321.

(Solomon R.)

Gold, Tungsten

Nome district

Solomon (4.5-5.4, 10.3-13.1)

MF-445, locs. 97, 99, 101

64°35'-64°45'N, 164°17'-164°24'W

Summary: Basin underlain mainly by schist and limestone, in some (possibly most) places in fault contact (schist as used in reports cited below includes Hurrah-(York) Slate). First placer claims staked near mouth of Big Hurrah Cr. in 1899. Mining, mainly by dredges, continued until as recently as about 1963. Bench gravels and some stream deposits were mined by other methods also. Value of gold produced was probably well over \$2,500,000; data are incomplete and such that values can not be converted to ounces. Dredge concentrates from about a mile below mouth of Shovel Cr. contained about 22 oz. gold and 9.1 lbs. scheelite per cubic yard.

Brooks and others, 1901, p. 69 -- Production in 1900 was \$10,000 [about 485 fine oz.] in gold.

p. 99-100 -- Discovery claim staked in June, 1899. In 1900 production from entire basin was about \$10,000. At mouth of Big Hurrah Cr. bedrock is mica schist; gold worked down into top foot or more. A little mining in 1899 and very little in 1900. A little mining near head, 1900.

Brooks, 1904 (B 225), p. 53 -- 2 steam dredges operated, 1903. Other kinds of placer mining in basin.

Brooks, 1905 (B 259), p. 22 -- 2 dredges operated, 1904. Ditches being built to mine bench gravels.

Purington, 1905 (B 263), p. 164-166 -- Details of the 2 dredges and their operations.

p. 209 -- Gold worth \$18.60 an ounce.

Moffit, 1906 (B 284), p. 136-137 -- Mechanized mining, including a new dredge, 1905.

Smith, 1907 (B 314), p. 146 -- Mining, including a dredge, 1906.

Collier and others, 1908 (B 328), p. 224-225 -- Dredge operated 3 mi. from mouth, 1903-04. Pay streak about 200 ft. wide and 9-1/2 ft. thick; most pay in base of gravel, in a clay layer on bedrock, and in top foot of bedrock. Another dredge operated at mouth of Big Hurrah Cr., 1903. Mining by other methods on benches and in river flood plain. Where bedrock is limestone as much as 4 ft. must be taken up.

Smith, 1908 (B 345), p. 221-223 -- Mining, including a dredge, 1907.

Smith, 1909 (B 379), p. 286-291 -- 3 dredges operated, 1908. Other mining, including a dry-land dredge, in river and bench gravels.

[Note: Much of reference is detailed descriptions of dredges and their operation.]

Henshaw, 1910 (B 442), p. 359 -- 2 dredges operated near mouth of Shovel Cr., 1909.

Smith, 1910 (B 433), p. 156-170 -- Gold discovered in 1899 near mouth of Big Hurrah Cr. near contact between schist and limestone. Below Shovel Cr. structure is complex; chloritic and calcareous schist and limestone; contact between schist and limestone may be a fault. At mouth of Jerome Cr. concentrates contain much magnetite and

(Solomon R.) -- Continued

- ilmenite and a little garnet. At mouth of Shovel Cr. bedrock is schist with some limestone; most values on clay-layer on bedrock. Between Big Hurrah Cr. and East Fork most of country rock is schist. In 1908 3 dredges operated in river gravels and there were many smaller operations in river and on low benches. [Most of this reference is detailed descriptions of mining equipment and methods.]
- Smith, 1912 (B 520), p. 342 -- 5 dredges operated, 1911.
- Chapin, 1914 (B 592), p. 387, 390-391 -- 3 hydraulic plants and 7 dredges operated, 1913.
- Eakin, 1915 (B 622), p. 370 -- 9 dredges operated in district, 1914. At least 4 reported to have run out of dredging ground.
- Smith, 1917 (BMB 153), p. 55-56 -- Dredging, 1916. One dredge was moved to Canyon Cr., trib. Casadepaga R.
- Mertie, 1918 (B 662), p. 452, 454 -- 4 dredges and 1 deep placer mine, 1916.
- Cathcart, 1920 (B 712), p. 187 -- 3 dredges operated, 1918.
- Harrington, 1921 (B 714), p. 233 -- 3 dredges operated, 1919.
- Brooks, 1922 (B 722), p. 63 -- Dredge operated, 1920.
- Brooks, 1923 (B 739), p. 9 -- Dredge operated, 1921.
- Brooks and Capps, 1924 (B 755), p. 14 -- Dredge operated, 1922.
- Brooks, 1925 (B 773), p. 27 -- Dredge operated, 1923.
- Smith, 1926 (B 783), p. 18 -- Dredge operated, 1924.
- Moffit, 1927 (B 792), p. 25 -- Dredge operated, 1925.
- Smith, 1929 (B 797), p. 26, 31 -- New dredge built; 2 older ones remodeled or repaired; all 3 operated, 1926.
- Smith, 1930 (B 810), p. 34, 40 -- 3 dredges operated, 1927.
- Smith, 1930 (B 813), p. 41, 48 -- 2 dredges operated, 1928.
- Smith, 1932 (B 824), p. 46, 53 -- 1 dredge mining near Coal Cr., 1929.
- Smith, 1933 (B 836), p. 47, 54 -- Dredge mined near Coal Cr., 1930.
- Ground shallow; considerable seasonal frost in places.
- Smith, 1933 (B 844-A), p. 47-48, 55 -- Dredge operated, 1931.
- Smith, 1934 (B 857-A), p. 45, 51 -- Mining, including a dredge, 1932.
- Smith, 1934 (B 864-A), p. 50 -- Open-cut mining, 1933. Dredge that had worked near mouth of Coal Cr. was dismantled; to be moved to Kougarak R.
- Smith, 1936 (B 868-A), p. 52 -- Small-scale open-cut mining, 1934.
- Smith, 1937 (B 880-A), p. 56 -- A few open-cut mines on river and tributaries, 1935.
- Smith, 1938 (B 897-A), p. 65-66, 71 -- Old dredge reconditioned; began mining, 1936.
- Smith, 1939 (B 910-A), p. 69-70, 77 -- Dredge operated, 1937. Good season.
- Smith, 1939 (B 917-A), p. 69-70, 75 -- Dredge had a good season, 1938.
- Also some small-scale open-cut mining in valley.
- Smith, 1941 (B 926-A), p. 65-66, 71 -- Dredge operated, 1939. Another dredge being built. Other mining in valley also.
- Smith, 1942 (B 933-A), p. 62, 68 -- 2 dredges had very successful season, 1940.
- Coats, 1944 (OF 4), p. 1 -- Gold placers discovered, 1899.
- p. 4 -- Sample of concentrates from Lee Bros. dredge, about a mile below Shovel Cr. contained about 22 oz. gold and 9.1 lbs. scheelite per cubic yard. Dredge operated, 1943.

(Solomon R.) -- Continued

- Koschmann and Bergendahl, 1968 (P 610), p. 19 -- References to Collier and others, 1908 (B 328) and Smith, 1910 (B 433); historical and regional geologic data only.
- Asher, 1969 (GR 33), p. 4-5 -- Historical data from old U.S.G.S. reports. Value of production, 1907, 1912-17, 1920-23, 1926-32, 1934-60, totaled \$2,424,797. [Total production was greater; there was mining in other years also. From data given cannot calculate ounces of gold.]
- Cobb, 1973 (B 1374), p. 90-91 -- First placer claims staked near mouth of Big Hurrah Cr., 1899. Most mining was by dredging; last dredge was dismantled about 1963. Sample of dredge concentrate from below mouth of Shovel Cr. contained 22 oz. gold and 9.1 lbs. scheelite per cubic yard.
- Hummel, 1975 (OF 75-2) -- Smith, 1910 (B 433), p. 155-169; Smith, 1933 (B 836), p. 47, 54; Smith, 1942 (B 933-A), p. 62; Coats, 1944 (OF 4), p. 4; Asher, 1969 (GR 33), p. 20-21, fig. 5 [general data].
- Sainsbury, 1975 (USBM OF 73-75), p. 72 -- Notably rich placers in lower reaches of Solomon R.

(Spruce Cr., trib. Casadepaga R.) Copper, Gold

Council district
MF-445, locs. 10, 64

Solomon (5.9-6.0, 15.3-15.5)
64°52'-64°53'N, 164°12'-164°13'W

Summary: Copper sulfides and carbonates in a siliceous rock that looks like replaced limestone at contact between limestone and schist. In 1899 and for a few years thereafter a little placer gold was mined. Production was probably less than 500 fine oz.

Brooks and others, 1901, p. 107-108 -- 40-50 oz. of gold was mined in 1899.

Collier and others, 1908 (B 328), p. 258-259 -- Quotation from Brooks and others, 1901.

Smith, 1908 (B 345), p. 238 -- Work has been done on reportedly auriferous veins near contact between much folded limestone and schist.

p. 243 -- Quartz veins near contact of limestone and schist. Siliceous rock at contact looks like replaced limestone, copper sulfide and carbonates in this rock rather than in younger cross-cutting quartz veins.

Smith, 1910 (B 433), p. 193 -- Data from Brooks and others, 1901, p. 107-108. No mining, 1907; evidence of earlier mining, particularly about 3/4 mi. above mouth; gold reported to have been coarse, some with quartz attached. Production as of 1907 had been about \$8,000-\$10,000 [about 385-385 fine oz.] in gold. At mouth creek flows on bedrock rather than in floodplain deposits of Casadepaga R.

Cathcart, 1922 (B 722), p. 181 -- Reference to Smith, 1908 (B 345), p. 243.

Anderson, 1947 (TDM 5-R), p. 19 -- Reference to Cathcart, 1922 (B 722). [Description is headed "Spruce Creek, tributary to Bering Sea east of Solomon," but obviously means the Spruce Cr. tributary to Casadepaga R.]

Wedow and others, 1952 (OF 51), p. 38 -- Copper minerals in contact between limestone and schist reported.

Berg and Cobb, 1967 (B 1246), p. 113 -- Near schist-limestone contact.

Hummel, 1975 (OF 75-2) -- References to Smith, 1908 (B 345), p. 238, 243; Smith, 1910 (B 433), p. 193.

(Spruce Cr., E. of Solomon)

Gold

Nome district

Solomon (6.3-6.5, 10.2-10.6)

MF-445, loc. 105

64°35'-64°36'N, 164°08'-164°10'W

Summary: Small stream that rises in highland and flows across coastal plain. A little gold on clay layer on bedrock was mined before 1910. Considerable production from coastal plain sediments mined by a dredge from 1930 to 1937, when profitable ground was mined out.

Collier and others, 1908 (B 328), p. 233 -- Small stream that heads in highland and flows across coastal plain to a lagoon connected with Bering Sea. Has been some prospecting; gravels said to be auriferous.

Smith, 1910 (B 433), p. 203-204 -- Has been some mining below mouth of Beaton Cr. Gravel coarse and not well rounded; of local origin; mainly schist with numerous greenstone boulders. Gold on clay layer on bedrock.

Smith, 1932 (B 824), p. 46 -- Dredge being moved in from Shovel Cr., 1929

Smith, 1933 (B 836), p. 47, 54 -- Dredge operated, 1930. Valley in coastal plain sediments.

Smith, 1933 (B 844-A), p. 47-48, 55 -- Dredge operated, 1931. Ground about 11 ft. deep; patches of permafrost.

Smith, 1934 (B 857-A), p. 44, 51 -- Dredge operated, 1932; major producer in district.

Smith, 1934 (B 864-A), p. 50, 57 -- Dredge operated, 1933; source of most of placer-gold production from district.

Smith, 1936 (B 868-A), p. 52, 59 -- Dredge was principal gold producer in area, 1934.

Smith, 1937 (B 880-A), p. 55-56, 62 -- Dredge was principal gold producer in area, 1935. Some of ground mined is beach gravel, but most is stream gravel.

Smith, 1938 (B 897-A), p. 65, 71 -- Dredge operated, 1936.

Smith, 1939 (B 910-A), p. 69-70, 77 -- Dredge mined out profitable ground, 1937; being moved to Aggie Cr.

Cobb, 1973 (B 1374), p. 91 -- Has been dredging.

Hummel, 1975 (OF 75-2) -- References to Smith, 1910 (B 433), p. 203-204; Smith, 1939 (B 910-A), p. 69-70.

Stepovich

Antimony, Gold, Lead, Silver

Nome district

Solomon (5.65, 1.6) approx.
64°40'N, 164°15'W approx.

Summary: Gold-bearing antimony-lead-silver veins on ridge north of Big Hurrah Cr. Possibly this may be the same as the Quigley prospect or one of the occurrences reported as on Big Hurrah Cr.

Sainsbury, 1975 (USBM OF 73-75), p. 72 -- Gold-bearing antimony-lead-silver veins on ridge north of Big Hurrah Cr.; correlative with area of richer placer gold deposits.

(Sunshine Cr.)

Gold

Council district
MF-445, loc. 52

Solomon (4.8, 15.15-15.2)
64°52'N, 164°22'W

Summary: A little mining reported in early 1900's, 1918, 1934. Placer deposit formed by reconcentration of bench gravel.

Smith, 1910 (B 433), p. 197 -- Good values reported; creek not thoroughly prospected.

p. 199 -- Placer formed by reconcentration of bench gravel.

Has been but little mining.

Cathcart, 1920 (B 712), p. 189 -- Open-cut mining, 1918.

Smith, 1936 (B 868-A), p. 52 -- Mining, 1934.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 197, 199.

(Swede Cr.) (Gulch)

Gold, Mercury

Council district
MF-445, loc. 111

Solomon (9.85, 10.1)
64°34'N, 163°42'W-

Summary: Country rock is limestone and a belt of schist near head of creek. Gold placer deposit is similar to, but much smaller and less rich than, that on Daniels Cr. Gold derived from veins in schist belt. Cinnabar in concentrates. Cinnabar lodes in limestone near mouth of creek consist of irregular masses the largest of which was 7 ft. in maximum dimension. Chip sample across largest mass assayed 2.36% mercury. Explored by 2 adits and a vertical shaft; no record of production. See also (Daniels Cr.).

- Collier and others, 1908 (B 328), p. 288-289 -- Gold found, sometime between 1900 and 1902. Shallow, not particularly rich placer.
- Smith and Eakin, 1910 (B 442), p. 343 -- Preliminary to Smith and Eakin, 1911 (B 449).
- Smith and Eakin, 1911 (B 449), p. 123 -- Gold found sometime between 1900 and 1902.
- Cathcart, 1922 (B 722), p. 196 -- Cinnabar in placers; has not been traced to source.
- Smith, 1930 (B 813), p. 41 -- Placer mining, 1928.
- Smith, 1932 (B 824), p. 47 -- Placer mining, 1929.
p. 80 -- Prospecting and development of mercury-bearing lode. Ore reported to be low grade.
- Smith, 1933 (B 836), p. 49 -- Placer mining, 1930.
p. 81 -- Tunnel being driven on mercury-bearing leads, 1930.
- Smith, 1933 (B 844-A), p. 50 -- Placer mining, 1931.
p. 79 -- Lode exploration continued, 1931.
- Smith, 1934 (B 857-A), p. 46 -- Mining, 1932; cracks in limestone have been followed down more than 20 ft. without reaching limit to which gold has worked down.
p. 74-75 -- Continued lode exploration for mercury; no minable concentrations found yet; 1932.
- Smith, 1934 (B 864-A), p. 51 -- A little placer gold produced, 1933.
- Smith, 1941 (B 926-A), p. 66 -- Placer mining, 1939.
- Anderson, 1947 (TDM 5-R), p. 33 -- 2 short tunnels and a few small shafts. Tunnels apparently started in pockets of cinnabar ore; mainly in barren limestone. Hematite-stained zones in limestone contain 0.04%-0.14% Hg. Small pocket of ore in cliff face adjacent to a tunnel; chip samples of best material assayed 6.76% Hg; chip sample including lower grade material assayed 2.36% Hg; cinnabar-bearing body no more than 7 ft. long.
- Malone, 1962 (IC 8131), p. 8, 52, 55 -- Lode staked, 1922; explored during next few years by 2 adits (one 70 ft. long, one 20 ft. long) and a vertical shaft 55 ft. deep. Furnacing equipment procured in 1942 was never set up. No recorded production. Mercury deposits said to be in quartzite, which strikes N 60° E and dips 15° NW. 2 mineralized seams; lower one has not been prospected. Cinnabar in creek gravels.

(Swede Cr.) (Gulch) -- Continued

Herreid, 1965 (GR 10), p. 5 -- Placer gold has been mined.

p. 8-9 -- Placer gold mined from bluff upstream for 600 ft.

Data on cinnabar lode occurrence quoted from Anderson, 1947 (TDM 5-R), p. 33.

Malone, 1965 (IC 8252), p. 32 -- No production from lode.

p. 52 -- Same data as Malone, 1962 (IC 8131).

p. 56 -- References to Malone, 1962 (IC 8131).

Berg and Cobb, 1967 (B 1246), p. 113 -- Quicksilver lode consists of irregular masses of cinnabar in limestone. Masses as much as 7 ft. in maximum dimension, but most are much smaller. Chip sample across largest mass assayed 2.36% Hg. Deposit explored by 2 short tunnels and a few shallow shafts; no record of production.

Mulligan, 1971 (RI 7555), p. 6-8 -- Reported production less than 1,000 oz. gold; may well have been greater. Mining between 1918 and World War II. Schist belt crosses head of creek.

p. 12 -- Gold probably derived from schist. Placer working shallow and of limited extent. Scant traces of gold in detrital cover.

p. 15 -- Shaft and 2 adits 400 ft. E of mouth of creek; mercury prospect. Cinnabar is a minor constituent of iron-stained lenses 5-10 in. thick and a few feet long along 2 bedding-plane faults. Rotary kiln and other equipment shipped to Bluff, but never hauled to Swede Cr.

p. 30 -- Placer gold derived from gold lodes in schist.

Cobb, 1973 (B 1374), p. 68 -- Cinnabar lode was source of placer cinnabar in creek.

Hummel, 1975 (OF 75-2) -- References to Herreid, 1965 (GR 20), p. 5, 8; Mulligan, 1971 (RI 7555), p. 12.

(Sweetcake Cr.)

Gold

Council district
MF-445, loc. 119

Solomon (9.3-9.45, 16.4-16.75)
64°56'-64°57'N, 163°44'-163°45'W

Summary: Bedrock limestone and schist (some probably altered intrusive rock). Much mineralized quartz and calcite in gravel. Values all within about a mile of mouth. Most of production was between 1898 and 1906; probably 2,000 to 3,000 fine oz. of gold. Small-scale mining, 1913, 1928, 1935-36.

Brooks and others, 1901, p. 69 -- In 1900 production from Ophir and Sweetcake Creeks was \$100,000 [about 4,835 fine oz.] in gold.

p. 112-113 -- Gold discovered, 1898. Bedrock schist and limestone; some of schist probably is altered intrusive rock. Much mineralized quartz and calcite in gravel. In 1898 about \$36,000 [about 1,740 fine oz.] in gold was taken out of one claim. Pans taken on bedrock run 40-50 cents.

Moffit, 1906 (B 284), p. 138 -- Mining, 1905.

Smith, 1907 (B 314), p. 150-151 -- Mining, 1906. Values do not extend much more than a mile above mouth.

Collier and others, 1908 (B 328), p. 244 -- Gold has been mined.

p. 250-251 -- Gold discovered, 1898; about \$36,000 [about 1,740 fine oz.] in gold recovered from one claim; pay streak confined to a narrow strip in creek bed. Richest gravel exhausted by 1903. Gravel contains much mineralized quartz and calcite; all seems to be locally derived.

p. 262 -- Mining, 1906; all values seem to be within about 1 mile of mouth.

Smith and Eakin, 1911 (B 449), p. 119 -- Reference to Collier and others, 1908 (B 328), p. 250-251. Little production since 1903 [as of 1909].

Chapin, 1914 (B 592), p. 392 -- Mining, 1913.

Smith, 1930 (B 813), p. 40-41 -- Prospecting; a little gold also mined; 1928.

Smith, 1937 (B 880-A), p. 53 -- Small-scale open-cut mining, 1935.

Smith, 1938 (B 897-C), p. 65 -- Small-scale open-cut mining, 1936.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 250-251.

(Thorp(e) Cr.) (Gulch)

Gold

Council district

Solomon (6.0, 15.65)

MF-445, loc. 65

64°53'N, 164°12'W-

Summary: A little mining in 1900. Schist and limestone exposed at head of gulch. Bedrock not reached at site of mining, where creek crosses bench of Casadepaga R.

Brooks and others, 1901, p. 107-108 -- Mining, 1900; bedrock had not been reached, but 4 men were making wages. Schist and limestone exposed at head of gulch.

Collier and others, 1908 (B 328), p. 258 -- Quotation from Brooks and others, 1901.

Smith, 1910 (B 433), p. 192 -- Data from Brooks and others, 1901, p. 107-108. Some coarse gold has been found. Mining where creek crosses bench of Casadepaga R. Magnetite in concentrates.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1910 (B 433), p. 192.

(Tubutulik R.)

Gold

Koyuk district

Solomon

NE 1/4 NE 1/4 quad.

Summary: Colors in surface gravels of river bars found as early as 1900. Only reported mining was in 1918; could have been anywhere in basin. See also (Tubutulik R.) Bendeleben quad.

Mendenhall, 1901, p. 212 -- Colors in surface gravels of bars as far upstream as granite area [north of quadrangle boundary].

Smith and Eakin, 1910 (442), p. 341-342 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 115-116 -- Quotation from Mendenhall, 1901, p. 212. In 1909 there was no evidence of recent mining; no prospectors in region. On the basis of the known geology the Tubutulik basin does not seem likely to have much in the way of gold deposits.

Cathcart, 1920 (B 712), p. 189 -- Open-cut mining, 1918.

(Uncle Sam Mtn.)

Gold(?)

Nome district

Solomon (5.5, 11.0)

64°38'N, 164°16'W

Summary: Quartz veins in slaty rock. No visible sulfides. Was explored by a shaft that was not accessible in 1920. No data on possible gold content.

Smith, 1910 (B 433), p. 147 -- Prospect pits on much deformed quartz veins in quartzitic schist and black, slaty schist. Quartz is iron-stained, but without visible sulfides.

Cathcart, 1922 (B 722), p. 198-199 -- Shaft has been sunk on quartz vein in Hurrah Slate. Shaft filled with ice to within 15 ft. of top; the rest is timbered. No work for many years (as of 1920). From material on dump it appears that vein was 2-3 ft. wide. Quartz exhibits comb structure; cavities lined with terminated crystals. No sulfides seen in quartz or slate. Specks of limonite in slate probably represent decomposed sulfides.

(Venetia Cr.)

Gold

Nome district
MF-445, loc. 83

Solomon (1.1-1.5, 13.9-14.45)
64°48'-64°49'N, 164°48'-164°52'W

Summary: Country rock is limestone and chloritic schist; many small quartz veins. Mining was upstream from a narrow gorge near mouth; pay streak 10-50 ft. wide. Gold in thin creek gravel or in bedrock crevices 2-3 ft. deep. Production, 1900-03, was about 290 fine oz.; nuggets were sold to jewelers.

Brooks and others, 1901, p. 99 -- Mining in 1900. Bedrock 2-3 ft. deep.

Gold coarse and in pumpkin-seed-shaped grains.

Brooks, 1904 (B 225), p. 53 -- Mining, 1903.

Brooks, 1905 (B 259), p. 22 -- Small-scale mining, 1904.

Collier and others, 1908 (B 328), p. 221-222 -- Gold discovered, 1900.

Production through 1903 was about \$6,000 [about 290 fine oz.] in gold. Gold mostly fine; a few small nuggets, most of which were sold by jewelers. Gold said to be worth \$19.40 an ounce. Lower 2 mi. of course is a narrow gorge 100 ft. deep. Mining for 3 mi. above gorge. Country rock is limestone and chloritic schist; many small quartz veins. Pay streak 10-50 ft. wide in floodplain 100-200 ft. wide. On some claims gold is in gravel; in others practically all is in crevices in top 3-4 ft. of bedrock.

Smith, 1909 (B 379), p. 337-338 -- No mining for several years as of 1908. Data in Collier and others, 1908 (B 328), p. 221-222, summarized.

Sainsbury and others, 1972 (OF 512), p. 9 -- Placer gold has been mined.

Cobb, 1973 (B 1374), p. 91 -- Mining, 1900-03; a few thousand dollars in gold recovered.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 221-222.

(Vulcan Cr.)

Gold(?)

Koyuk district

Solomon

NE 1/4 NE 1/4 NE 1/4 quad.

Summary: Prospecting, 1899-1900.

Mendenhall, 1901, p. 190 -- As of August, 1900, claims had been staked.

p. 212 -- Prospecting, 1899-1900.

p. 218 -- Prospecting, 1899-1900.

(Walla Walla Cr.)

Gold

Council district

Solomon (19.0, 11.0) approx.
64°36'N, 162°29'W approx.

Summary: Limonite-stained joints and fracture planes in slate near contact with igneous rocks. Analysis showed trace of gold. Open cut and 100-ft.-long adit. Location given above may be as much as 5 mi. off.

Smith and Eakin, 1911 (B 449), p. 129 -- Rich specimens reported to have been found [in slate] near head of creek east of contact between igneous rocks and black slates. No distinct vein or lead; limonite staining on joints and fracture planes. Development consists of open cut about 25 ft. long and adit about 100 ft. long, all in barren rock. Analysis of rock from open cut showed a trace of gold.

(Warm Cr.)

Gold, Silver, Tungsten

Council district
MF-445, locs. 116, 117

Solomon (8.1-8.5, 16.8-16.9)
64°57'N, 163°51'-163°55'W

Summary: Country rock is limestone and schist with some greenstone; mineralized quartz veins in several places. Rough, stained gold at base of gravel and in crevices in bedrock. Concentrates contain gold, ilmenite, scheelite, garnet, hematite, and rutile. Concentrate sample from which free gold had been removed contained 22.4 oz. gold and 4.2 oz. silver a ton. Mining from 1903 (possibly 1900) to 1922; intermittent dredging, 1910-22.

Brooks and others, 1901, p. 110-111 -- Tributary of Goldbottom Cr. Bedrock schist and some intrusive greenstone. Has been a little mining. Gold in 6 ft. of gravel on mica schist bedrock.

Moffit, 1906 (B 284), p. 138 -- Mining, 1905.

Smith, 1907 (B 314), p. 151 -- Small-scale mining, 1906.

Collier and others, 1908 (B 328), p. 254-256 -- Mining, 1903. Country rock limestone and schist with some greenstone. Mineralized quartz veins in several places. Gold in basal foot of 7 ft. of mostly barren gravel and in crevices in bedrock. Production, 1900-03, was about \$100,000 [about 4,840 fine oz.] in gold. Gold rough and iron-stained. Concentrates contain ilmenite, scheelite, garnet, hematite, and rutile; assay of sample from which free gold had been removed showed 22.40 oz. Au and 4.20 oz. Ag a ton. Plan to work claims near mouth with a dredge.

Smith, 1908 (B 345), p. 217 -- Mining, 1907.

Smith, 1909 (B 379), p. 295 -- Small production, 1908.

Smith and Eakin, 1910 (B 442), p. 363 -- Preliminary to Smith and Eakin, 1911 (B 449).

Smith and Eakin, 1911 (B 449), p. 122 -- Data from Collier and others, 1908 (B 328), p. 255-256. 2 dredges installed, 1909, but too late in season to do much mining.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Chapin, 1914 (B 592), p. 388, 392 -- Dredge operated, 1913.

Eakin, 1915 (B 622), p. 371 -- Dredge operated, 1914; also other mining.

Smith, 1917 (BMB 142), p. 28 -- Dredge idle, 1915.

Smith, 1917 (BMB 153), p. 56 -- Dredge operated part of season, 1916.

Mertie, 1918 (B 662), p. 452 -- Dredge operated, 1916.

Cathcart, 1920 (B 712), p. 189 -- Open-cut mining, 1918.

Brooks, 1923 (B 739), p. 9 -- Dredge may have operated, 1921.

Brooks and Capps, 1924 (B 755), p. 14 -- Dredge operated, 1922.

Cobb, 1973 (B 1374), p. 64 -- Rutile and scheelite present.

Hummel, 1975 (OF 75-2) -- Reference to Collier and others, 1908 (B 328), p. 254-256.

(West Cr.)

Copper, Gold

Nome district

Solomon (3.8-4.2, 11.9-12.0)

MF-445, locs. 15, 87

64°41'N, 164°26' = 164°30'W

Summary: Creek flows across strike of schist and limestone bedrock. Gold increases in coarseness upstream. Concentrates contain gold, garnet, magnetite, pyrite, chalcopyrite, and arsenopyrite. Nonfloat mining, 1900-11, 1932-34. Quartz veins in sheared chloritic schist about 2 mi. above mouth contain sulfide minerals (pyrite, marcasite, and possibly sulfides of copper, arsenic, and antimony); wall rock contains less than 1/2 oz. gold per ton. Explored by 600-700 ft. of underground workings; no production. Includes reference to Alden.

Brooks and others, 1901, p. 101 -- Tributary of Shovel Cr. Rocks in drainage basin are limestone and schists. Gold in 3-4 ft. of gravel on bedrock; gold becomes coarser upstream. A nugget worth \$3.60 was found with quartz embedded in schist. Concentrates contain gold, garnet, magnetite, pyrite, chalcopyrite, and arsenopyrite.

Collier and others, 1908 (B 328), p. 226 -- Creek flows across strike of schist and limestone bedrock. Gold increases in coarseness toward head. Concentrates contain gold, garnet, magnetite, pyrite, chalcopyrite, and arsenopyrite. Mining, 1903.

Smith, 1908 (B 345), p. 221-222 -- Mining, 1907.

p. 238 -- About 2 mi. above mouth somewhat shattered quartz veins in slickensided chloritic schist contain a little pyrite and marcasite. Footwall schist of one vein said to carry \$8-\$10 a ton in gold [at \$20.67 an ounce]. 600 or 700 ft. of underground workings, but no production.

Smith, 1909 (B 379), p. 286, 288 -- Dry-land dredge operated, 1908. Most of pay on decomposed layer several inches above bedrock.

Smith, 1910 (B 433), p. 93 -- Quartz vein near head shows comb structure and contains perfectly formed crystals of sulfide minerals. [Sulfides may be those of copper, iron, arsenic and antimony; probably carry gold values. Reference is somewhat ambiguous.]

p. 148 -- Same data as in Smith, 1908 (B 345), p. 238.

p. 175-177 -- Most of data from Brooks and others, 1901, p. 101, and Collier and others, 1908 (B 328), p. 226. Mining, 1907. Small bucket dredge on tracks operated a short distance above mouth; most of gold on clay false bedrock above schist and limestone true bedrock. Farther upstream most of values are in cracks and crevices in limestone.

Smith, 1912 (B 520), p. 342 -- Dredge operated, 1911.

Cathcart, 1922 (B 722), p. 198 -- Arsenopyrite in schist country rock.

p. 205 -- Quotation from Smith, 1910 (B 433), p. 148.

Smith, 1934 (B 857-A), p. 45 -- Small-scale placer mining, 1932.

Smith, 1934 (B 864-A), p. 50 -- Small-scale open-cut mining, 1933.

Smith, 1936 (B 868-A), p. 52 -- Small-scale open-cut mining, 1934.

Berg and Cobb, 1967 (B 1246), p. 127 -- Early prospectors drove several hundred feet of underground workings on white quartz veins in

(West Cr.) -- Continued

weathered chlorite schist. Veins contain small stringers and vugs of pyrite and possibly marcasite, chalcopyrite, and stibnite; wall rocks reported to carry \$8-\$10 a ton in gold.

Asher, 1969 (GR 33), p. 5 -- Has been small-scale mining.

p. 19 -- Pyritiferous quartz on dump at a caved adit; grab sample assayed 0.04 oz. Au a ton; Composite sample of quartz fragments assayed 0.11 oz. Au and 0.01 oz. Ag. References to Smith, 1910 (B 433), p. 148; Cathcart, 1922 (B 722), p. 198.

Cobb, 1973 (B 1374), p. 91 -- Has been placer mining by methods other than dredging.

Hummel, 1975 (OF 75-2) -- References to Smith, 1910 (B 433), p. 93, 148, 175-177; Asher, 1969 (GR 33), p. 19.

Wheeler (Iron Cr.)

Copper

Kougarok district
MF-445, loc. 2 (?)

Solomon (1.9, 15.8) (?)
64°54'N, 164°45'W (?)

Summary: Claims at heads of several small tributaries of Iron Cr. from west. Tunnel 60 ft. long and shaft 80 ft. deep. At surface 9 ft. of quartz contains several malachite stringers. Material from shaft contains small amounts of chalcopyrite and bornite; malachite on surface. Several tons of ore reported to have been shipped before 1916. Description is very similar to that of Wheeler (Sherrette Cr.); possibly Mertie's description of location is in error and that he meant east (rather than west) of Iron Cr.

Mertie, 1918 (B 662), p. 441 -- Claims at the heads of several small tributaries of Iron Cr. on west side below mouth of Canyon Cr. Tunnel 60 ft. long and shaft 80 ft. deep. Outcrops nearby show about 9 ft. of quartz with malachite stains and several malachite stringers. Ore from shaft contains small amounts of chalcopyrite and bornite; malachite on surface. In 1916 shaft was filled with water and tunnel was frozen. Several tons of ore reported to have been shipped.

Anderson, 1947 (TDM 5-R), p. 21 -- Reference to Mertie, 1918 (B 662).
Berg and Cobb, 1967 (B 1246), p. 118 -- Data from Mertie, 1918 (B 662), p. 441.

Wheeler (Kruzgamepa R.)	Copper, Gold, Lead, Silver, Zinc
Kougarok district	Solomon (2.6, 17.15)
MF-445, loc. 3	64°58'N, 164°39'W

Summary: On both sides of Kruzgamepa R. near mouth of Iron Cr. Deposits (probably at least partly formed by replacement) is in slightly recrystallized limestone with interbedded schist (may be juxtaposed by faulting). Greenstone (possibly intrusive) along some contacts. Deposits consist of small lenticular masses of argentiferous galena, pyrite, and minor sphalerite and chalcopyrite in quartz-calcite gangue; pyrite and sporadic secondary copper minerals in schist. A little ore was mined from 2 lenses before 1922; assays indicated 14%-23% lead and 14.5-20 oz. silver per ton. Sporadic exploration from about 1903 to possibly about 1920 and prospect drilling in early 1970's. Includes reference to sulfides near mouth of Iron Cr.

Smith, 1908 (B 345), p. 246-247 -- Across Kruzgamepa R. from mouth of Iron Cr. are lenses of high-grade galena in limestone with a band of feldspathic schist that probably was derived from an igneous rock. Galena appears to be replacement deposit in limestone. Near mouth of Iron Cr. galena lens about 4 ft. thick in limestone was mined out (no ore shipped); greenstone float nearby. Another pit encountered galena and some copper-stained material.

Smith, 1909 (B 379), p. 343-344 -- Quotation from Smith, 1908 (B 345), p. 246-247. Further exploration south of river; mainly pyrite with small gold content.

Mertie, 1918 (B 662), p. 446 -- Reference to Smith, 1908 (B 345), p. 246-247.

Cathcart, 1922 (B 722), p. 182-183 -- Galena and sphalerite on Kruzgamepa R. at mouth of Iron Cr.

p. 210-211 -- Openings on both sides of Kruzgamepa R. on or near contacts between limestone and schist; greenstone (apparently an intrusive) along one contact. Another contact is a zone of shearing [description and section (fig. 14) would fit a thrust contact, but Cathcart does not so state]; mineralization is pyrite (mainly in schist) and galena and pyrite in quartz and calcite gangue (mainly in limestone). Sphalerite accompanies galena and pyrite in one place. A little ore has been mined. Assays show 14.2%-22.87% Pb and 14.5-20 oz. Ag per ton. Ore is in discontinuous masses in shear zone; not very encouraging.

Anderson, 1947 (TDM 5-R), p. 28 -- Reference to Cathcart, 1922 (B 722).

Berg and Cobb, 1967 (B 1246), p. 115, 118 -- A little silver-lead ore was mined before 1922. Deposit (probably at least partly formed by replacement) is in slightly recrystallized limestone interbedded with quartz-mica schist; consists of argentiferous galena, pyrite, and minor sphalerite and chalcopyrite in quartz-calcite gangue. Near limestone-schist contact marked by pyrite disseminated in schist and sporadic secondary copper minerals. Country rock tightly folded in a zone about 20 ft. wide. Greenstone (possibly intrusive) in a few places along contact. Ore came from 2 lenticular masses of argentiferous galena that were probably a few 10's of feet long; assayed

(Wheeler (Kruzgamepa R.) -- Continued

- 14%-23% Pb and 14.5-20 oz. Ag per ton.
- Asher, 1969 (GC 18), p. 5-6 -- Reference to Cathcart, 1922 (B 722), p. 210-211. Assays of samples collected by Territorial Dept. Mines and by owners showed as much as 0.30 oz. Au and 20 oz. Ag a ton and 22.87% Pb.
- Sainsbury and others, 1972 (OF 512), p. 10 -- Reference to Smith, 1909 (B 379). Minerals present include pyrite, galena, boulangierite(?), sphalerite, and gold in altered zones in schist or limestone. Prospect drilling, 1971, and planned for 1972.
- Hummel, 1975 (OF 75-2) -- References to Cathcart, 1922 (B 722), p. 182-183, 210-212 [212 should be 211]; Asher, 1969 (GC 18), p. 5-6.

Wheeler (Sherrette Cr.)

Copper, Gold, Silver

Kougarok district

Solomon (2.7, 16.1)

MF-445, loc. 6

64°55'N, 164°38'W

Summary: Silicified zone 5 ft. thick in limestone with thin bands of chloritic schist at base of a thrust plate (schist beneath) contains pyrite, chalcopyrite, bornite, and secondary minerals. Explored by an adit 200 ft. long, a shaft reported to be 90 ft. deep, and several pits. About 25 tons of ore mined; assay returns showed 17.18%-35.68% copper and up to 1.8 oz. gold and 5.2 oz. silver per ton.

Smith, 1908 (B 345), p. 242-243 -- Limestone underlain by schist. Copper mineralization near contact. Inclined shaft south of mineralized zone 5 ft. thick; chloritic schist footwall, hanging wall poorly defined. Copper minerals chiefly malachite with some chalcopyrite and bornite. Very narrow stringers; no commercial ore has been found.

Smith, 1909 (B 379), p. 343 -- Quotation from Smith, 1908 (B 345), p. 242-243. No further exploration, 1908.

Mertie, 1918 (B 662), p. 441-442 -- Quotation from Smith, 1908 (B 345), p. 242-243.

Cathcart, 1922 (B 722), p. 212 -- 90-ft. shaft sunk and an adit driven (not accessible in 1920). Sulfides (chalcopyrite and some pyrite) in quartz that has replaced limestone; banding conformable with bedding of limestone.

p. 214-215 -- Several pits and a 200-ft. adit that connects with a 90-ft. shaft. In shaft malachite near surface; malachite-stained schist between 25 and 60 ft.; barren limestone below 60 ft. [shaft said to be 90 ft.; detailed description adds up to 65 ft.]. Only mineralized rock in place is in open cut at collar of shaft; folded, marmorized, in places schistose limestone; bleached along some zones; schist infolded in limestone is malachite stained and contains quartz stringers. Assay returns on shipments to smelter indicated 17.18%-35.68% Cu, 0-1.82 oz. Au a ton; 0.33-5.16 oz. Ag a ton. Total ore shipped was 24-1/2 tons. Reference to Smith, 1908 (B 345), p. 242-243.

Anderson, 1947 (TDM 5-R), p. 21 -- Reference to Cathcart, 1922 (B 722).

Berg and Cobb, 1967 (B 1246), p. 118 -- 5-foot-thick quartz-calcite stringer lode containing malachite and subordinate chalcopyrite, bornite, pyrite, and limonite; at contact between limestone and schist. About 25 tons of ore mined before 1920 assayed 17.2%-35.7% Cu, 7.6% Fe, and up to 5.2 oz. Ag and 1.8 oz. Au per ton. Workings consisted of a 200-ft. adit, a 90-ft. shaft, and several pits.

Asher, 1969 (GC 18), p. 6-7 -- Reference to Cathcart, 1922 (B 722), p. 214. Also given are data from an unpublished TDM report that add little to Cathcart's data.

Sainsbury and others, 1972 (OF 512), p. 1 -- Small amount of copper [sic] was shipped.

p. 9 -- At base of thrust plate of carbonate rocks; silica accompanied by visible pyrite and chalcopyrite, replaced carbonate.

Wheeler (Sherrette Cr.) -- Continued

Silicification selectively followed strong vertical joint system; thin bands of chloritic schist in marble were preferentially replaced. Dragfolds indicate eastward transport of thrust plate.

Hummel, 1975 (OF 75-2) -- References to Cathcart, 1922 (B 722), p. 212, 214-215; Sainsbury and others, 1972 (OF 512), p. 9-10 [should be p. 9 only], and map.

(Willow Cr., trib. Kruzgamepa R.) Gold

Kougarok district Solomon (1.5, 15.85)
MF-445, loc. 26 64°54'N, 164°49'W

Summary: A little mining, 1901-04 and possibly 1914. Gold of local origin, probably related to a limestone-schist contact. Bench gravels between Slate and Willow Creeks are auriferous.

Brooks and others, 1901, p. 116 -- Near mouth creek flows through rock canyon about 50 ft. deep; bench on either side covered with gravel. Creek gravels contain gold; some pans yielded 25 cents.

Collier and others, 1908 (B 328), p. 267-268 -- Same data as in Brooks and others, 1901, p. 116. A little gold recovered annually, 1901-04. Colors of gold in high gravel bench between Slate and Willow Creeks.

Smith, 1909 (B 379), p. 321 -- Quotation from Brooks and others, 1901, p. 116. No productive mining, 1908. Gold seems to be of local origin and related to limestone-schist contact.

Eakin, 1915 (B 622), p. 372 -- Winter mining, 1914 [mining may have been on Lower Willow Cr.].

Cobb, 1973 (B 1374), p. 79 -- Placer mining before 1915.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 321.

(Wilson Cr.)

Gold

Council district
MF-445, loc. 74

Solomon (3.8, 14.55)
64°49'N, 164°30'W

Summary: Was mining in early 1900's. Some of gold may have been concentrated from low benches. See also (Lower Willow Cr.).

Brooks and others, 1901, p. 107 -- Mining, 1900. [There seems to be some confusion between Wilson Cr., Willow Cr., and Left Fork of Koksuktapaga R. in this report.]

Smith, 1909 (B 379), p. 336-337 -- Flows near contact between schist and limestone. Placers nearly exhausted; no mining for several years (as of 1908). Gold may have been in part derived from low benches.

Hummel, 1975 (OF 75-2) -- Reference to Smith, 1909 (B 379), p. 336-337.

Unnamed occurrence

Copper, Gold

Nome district

Solomon (5.65, 11.6)

MF-445, loc. 18

64°40'N, 164°15'W

Summary: About 3/4 mi. northwest of Big Hurrah mine. Prospect shafts and open cuts exposed quartz containing free gold, pyrite, arsenopyrite, chalcopyrite, and pyrrhotite. Country rock is Hurrah (York) Slate. Samples of material from dump contained no more than 0.17 oz. gold a ton and 0.04% copper.

Collier and others, 1908 (B 328), p. 231 -- Quartz veins about 3/4 mi. NW of Big Hurrah mine. Exposed in prospect shaft. Free gold in quartz "ribbon rock."

Cathcart, 1922 (B 722), p. 199-200 -- Prospecting 1/2 mi. N. of mouth of creek on N. side of Big Hurrah Cr. 1/4 mi. below Little Hurrah Cr. 3 shafts and several open cuts; all caved in 1920. Country rock is Hurrah Slate. Considerable pyrite and pyrrhotite in quartz on a dump; some arsenopyrite present; chalcopyrite recognized on a polished surface. Vein seems to be different structurally (no ribbon rock) and mineralogically (presence of pyrrhotite and chalcopyrite) from other lodes in area. [This reference and Collier and others, 1908 (B 328), p. 231, do not agree on presence or absence of ribbon rock. Possibly there are 2 separate occurrences, but this seems unlikely.]

Anderson, 1947 (TDM 5-R), p. 19 -- Reference to Cathcart, 1922 (B 722).

Asher, 1969 (GR 33), p. 18-19 -- Reference to Cathcart, 1922 (B 722), p. 199-200. Samples collected by Asher from dump contained no more than 0.17 oz. Au a ton and 0.04% Cu.

Hummel, 1975 (OF 75-2) -- References to Cathcart, 1922 (B 722), p. 199-200; Asher, 1969 (GR 33), p. 18-19.

Unnamed occurrence

Tin

Council district

Solomon (19.65, 10.6)
64°35'N, 162°24'W

Summary: Trace of cassiterite in sample of gravel from small creek.

Berryhill, 1962, p. 5-6, 11 (sample 25) -- Trace of cassiterite in sample of creek gravels taken about 50 ft. inland from beach; creek has small drainage basin.

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 or other deposit that was mined or prospected.

Adams & Wik -- see (Goose Cr.)
 Alaska Gold Dredging Co. -- see (Goldbottom Cr.), (Lower Willow Cr.),
 (Warm Cr.)
 Alaska Homestake Gold Mining Co. -- see (Daniels Cr.)
 Alaska Mercury Corp. -- see (Swede Cr.)
 Alaska Placer Co. -- see (Niukluk R.), (Ophir Cr.)

 Alden -- see (West Cr.)
 American Creek Dredging Co. -- see (American Cr.)
 Auric Offshore Mining Co. -- see (Daniels Cr.)
 (Benson Gulch) -- see (Basin Cr.)
 Black Chief Mining Co. -- see (Daniels Cr.)

 Blackhawk -- see (Daniels Cr.)
 Blue Goose (Mining Co.) -- see (Ophir Cr.)
 (Bluff) -- see (Daniels Cr.)
 (Bunny Cr.) -- see (Barney Cr.)
 Burness-Iverson-Johnson -- see (Big Hurrah Cr.)

 (Butte Cr., South Fork) -- see (Butte Cr.)
 (Cache Cr.) -- see (Spruce Cr., E. of Solomon)
 Camp Creek Dredging Co. -- see (Camp Cr.)
 Canyon Creek Gold Mining Co. -- see (Canyon Cr., trib. Casadepaga R.)
 Casa De Paga Gold Co. -- see (Beaver Cr.), (Casadepaga R.)

 Casadepaga Gold Dredging Co. -- see (Lower Willow Cr.)
 Casadepaga Mining Co. -- see (Casadepaga R.)
 (Casadepaga R., Left Fork) -- see (Lower Willow Cr.)
 Casa Gold Mines Co. -- see (Casadepaga R.)
 Coal Creek Dredge -- see (Solomon R.)

 Connor, Erichinger & Hanot -- see (Casadepaga R.)
 Consolidated -- see (Daniels Cr.)
 Council Dredging Co. -- see (Aggie Cr.), (Camp Cr.), (Niukluk R.)
 Davie -- see (Daniels Cr.)
 (Dome Cr.) -- see (Iron Cr.)

 Elkhorn -- see (Elkhorn Cr.), (Niukluk R.)
 Eskimo -- see (Daniels Cr.)
 Eskimo (Gold) Dredging Co. -- see (Solomon R.)
 Eskimo Gold Mining Co. -- see (Solomon R.)
 Esquimeaux -- see (Daniels Cr.)

 Esquimo Dredging Co. -- see (Solomon R.)
 Esterbrook -- see (Solomon R.)
 Flodin -- see (Canyon Cr., trib. Casadepaga R.)
 Flodin Gold Mining & Dredging Co. -- see (Solomon R.)
 Flodin Mining & Dredging Co. -- see (Big Hurrah Cr.)

Flower(s) -- see (Solomon R.)
 Flume Dredging Co. -- see (Basin Cr.), (Melsing Cr.), (Ophir Cr.)
 Flynn -- see Silver
 Galvin -- see (Daniels Cr.)
 G & O (Dredging Co.) -- see (Elkhorn Cr.), (Niuluk R.)

 Garrod & Overbaugh -- see (Warm Cr.)
 Garrod & Pfaffle -- see (Warm Cr.)
 Glass Dredging Co. -- see (Melsing Cr.)
 Goldbottom Dredging Co. -- see (Goose Cr.)
 (Gold Cr.) -- see (Guy Cr.)

 Goldsmith Dredging Co. -- see (Solomon R.)
 Goode -- see Silver
 Goose Creek -- see (Goose Cr.)
 Gray Eagle -- see Quigley
 Haney, H. J., Mining Co. -- see (Big Hurrah Cr.)

 Hanson -- see (Koyana Cr.)
 Hill -- see (Koyana Cr.)
 (Hobo Gulch) -- see (Hardluck Cr.)
 Homestake -- see (Daniels Cr.)
 Hot Air -- see Silver

 Hunter & Walker -- see (Daniels Cr.)
 Hurrah -- see Big Hurrah
 Hurrah Quartz Mining Co. -- see Big Hurrah
 Idaho -- see (Daniels Cr.)
 Inland Dredging Co. -- see (Aggie Cr.)

 (Iron Cr., Left Fork) -- see (Dome Cr., Left Fork)
 Iverson (& Johnson) -- see (Big Hurrah Cr.)
 Keenan -- see (Daniels Cr.)
 Kimball -- see (Adams Cr.), (Melsing Cr.), (Shovel Cr.), (Solomon R.)
 Kimball & Saupe -- see (Melsing Cr.), (Ophir Cr.)

 (Koksuktapaga R.) -- see (Casadepaga R.)
 (Koksuktapaga R., Left Fork) -- see (Lower Willow Cr.)
 Labay & Meegan -- see (Daniels Cr.)
 Lane Investment Co. -- see Big Hurrah
 (Last Chance Cr., trib. Big Hurrah Cr.) -- see Quigley

 Lee Bros. (Dredging Co.) -- see (Solomon R.)
 Libby, Melsing, Mordaunt & Blake -- see (Melsing Cr.)
 Lomen Reindeer & Trading Co. -- see (Solomon R.)
 Lubbe -- see (Mystery Cr., trib. Shovel Cr.)
 (Lulu Cr.) -- see (Benson Cr.)

Lylles -- see (Koyana Cr.)
 Mahan & Slack -- see (California Cr.)
 Margraf & Kowalski -- see (Big Hurrah Cr.) --
 Megan, Megan & Somerville -- see (Daniels Cr.)
 Megan, Somerville & Megan -- see (Daniels Cr.)

Melsing Creek Dredge -- see (Basin Cr.)
 Moody Mining Co. -- see (Canyon Cr., trib. Casadepaga R.)
 Mordaunt, Libby, Nelson & Blake -- see (Casadepaga R.)
 Mulligan -- see (West Cr.)
 Newburg & Flower -- see (Solomon R.)

Nome, Montana & New Mexico (Consolidated Mining Co.) - see (Goose Cr.),
 (Solomon R.)
 Nome, Montana & New Mexico Mining Co. -- see (Goose Cr.)
 Northern Light Mining Co. -- see (Niukluk R.), (Ophir Cr.)
 North(ern) Star Dredging Co. -- see (Niukluk R.), (Ophir Cr.)
 Nylen, Hultberg and others -- see (Shovel Cr.)

Ophir Gold Dredging Co. -- see (Ophir Cr.)
 Oro Dredging Co. -- see (Elkhorn Cr.), (Goose Cr.)
 Osmun -- see (Slate Cr.)
 Peck -- see (Casadepaga R.)
 Roberts -- see (Big Hurrah Cr.)

Ruby Dredging Cr. -- see (Casadepaga R.), (Ruby Cr.)
 Scott -- see (Iron Cr.)
 Scott-Newburg -- see (Solomon R.)
 Sea Gull -- see (Daniels Cr.)
 Seward Dredging Co. -- see (Solomon R.)

Shamrock -- see Silver
 Shovel Creek Dredging Co. -- see (Shovel Cr.), (Solomon R.)
 Shovel Creek Mining Co. -- see (Shovel Cr.)
 Sievertsen (& Johnson) -- see (Solomon R.)
 (Silver Bow Cr.) -- see (Little Anvil Cr.)

Sivertsen & Johnson Mining & Dredging Co. -- see (Solomon R.)
 (Snowball Cr.) -- see (Dutch Cr.)
 Solomon (River) Dredging Co. -- see (Solomon R.)
 Solomon Valley Dredge Co. -- see (Solomon R.)
 Southern Cross -- see Silver

Spruce Creek Dredging Co. -- see (Spruce Cr., E. of Solomon)
 Star Dredging Co. -- see (Mystery Cr., trib. Shovel Cr.)
 Sullivan Mining Co., Crabtree and others -- see (Daniels Cr.)
 Sullivan, Ryan and others -- see (Daniels Cr.)
 Swede Creek Mining Co. -- see (Swede Cr.)

(Telegram Cr.) -- see (Iron Cr.)
(Telegraph Cr.) -- see (Iron Cr.)
Three Friends Mining Co. -- see (Solomon R.)
(Topkok Beach) -- see (Daniels Cr.) --
Topkok Chief Mining Co. -- see (Daniels Cr.)

Topkok Ditch Co. -- see (Daniels Cr.)
Tucker -- see (Daniels Cr.)
Uplift Mining Co. -- see (Camp Cr.), (Niukluk R.)
Warm Creek Dredging Co. -- see (Warm Cr.)
Whiterock -- see (Daniels Cr.)

Wild Goose Mining Co. -- see (Dutch Cr.), (Ophir Cr.)
Wild Goose (Mining & Trading) Co. -- see (Ophir Cr.)
(Willow Cr., trib. Casadepaga R.) -- see (Lower Willow Cr.)
Willow Dredging Co. -- see (Lower Willow Cr.)

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