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

By

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

These summaries of references are designed to aid in library research on metallic and nonmetallic (other than mineral fuels and construction materials) mineral occurrences in the Anchorage quadrangle, Alaska. All references to most reports of the Geological Survey, the U.S. Bureau of Mines, and the State of Alaska Division of Geological and Geophysical Surveys and its predecessor State and Territorial agencies released before January 1, 1979, 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. Also not included are data on many claims about which little more than their locations is known (for example, MacKevett and Holloway, 1977 (OF77-169A), p. 8-10). These omissions should not be interpreted as a judgment on my part that the claims are not valid mineral occurrences, but only that there are insufficient data to describe any mineral deposit that might be present.

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.
Mabel -- Continued

Chapin, 1919 (B 714), p. 204 -- Mine operated, 1919; mainly tests and development; about 490 ft. of crosscut and drifts driven.
Brooks, 1923 (B 739), p. 25 -- Development [or mining], 1921.
Brooks and Capps, 1924 (B 755), p. 31 -- Some development and test mill runs, 1922.
          p. 41 -- Mining, milling, and driving workings to block out ore, 1923.
Smith, 1926 (B 783), p. 8 -- Mining, 1924.
Moffit, 1927 (B 792), p. 11 -- Mining, 1925.
Smith, 1929 (B 797), p. 12 -- One of principal producing mines in district, 1926.
Smith, 1930 (B 813), p. 16 -- Mining, 1928.
Smith, 1932 (B 824), p. 19 -- Work on about the same scale as the year before, 1929.
Ray, 1933 (B 849-C), p. 220-222 -- As of 1931 mine had been worked intermittently since 1912; production probably worth more than $100,000 [about 4,840 fine oz. of gold]; ore probably averaged more than $30 a ton. Has own mill and cyaniding plant. Developed by two drifts and several winzes below lower drift. Proved ore largely mined out. Gold associated with pyrite, arsenopyrite, tetrahedrite, galena, and minor amounts of chalcopyrite and sphalerite. Vein pinches and swells; much disturbed by faults, which have broken ground into many small blocks; some of ore shoots terminated by faults. At one place what appears to be a single vein extending across a fault is probably sections of two veins (one mineralized and the other barren) juxtaposed by chance. Future exploration likely to be expensive because of lack of data on faulting.
Smith, 1933 (B 836), p. 18 -- Production reported, 1930.
Smith, 1933 (B 844-A), p. 17-18. -- Production reported, 1931.
Smith, 1938 (B 897-A), p. 21 -- No mining, 1936.
Smith, 1939 (B 917-A), p. 23 -- Production reported, 1938.
Smith, 1941 (B 926-A), p. 21 -- Production reported, 1939.
Smith, 1942 (B 933-A), p. 19-20 -- Production reported, 1940.
Ray, 1954 (B 1004), p. 68-70 -- Staked, 1911; intermittent mining and development to 1917; almost continuous production, 1917-30; small production, 1937-39; some development, 1946-47; closed down in 1947. Vein strikes northward and dips 23°-66° (more commonly 35°-45°) W. Offset by 2 normal faults that strike 125° and dip 74° NE; right lateral displacements; net offsets 150 and 100 ft. Most of mining south of major fault. Vein is from a few inches to as much as 10 ft. wide; quartz may follow either wall, be in middle of vein, consist of narrow stringers between walls, or make up entire vein; pinches, swells, and splits. Some of movement in fissure containing vein was (on basis of drag and offset of aplite dikes) reverse. Extensive workings are nearly all below main level; some water problems. Development would be expensive and difficult.
This report also refers to this deposit in general discussions of regional geology and ore deposition; those references are not summarized here.
MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 18 -- References to Ray, 1933 (B 849-C), and Ray, 1954 (B 1004).
Mammoth Copper, Gold

Willow Creek district Anchorage (5.65, 13.6)
MF-409, loc. 10 61° 46'N, 149° 19'W

Summary: Quartz body 28-30 ft. wide contains gold (tenor low for district), pyrite, chalcopyrite, and copper carbonates. Several hundred feet of workings; quartz was faulted away about 30 ft. from entrance of tunnel; rest of workings followed a slip zone (with gouge) in quartz diorite looking for extension of quartz. Not successful, as only a small fragment was found in a raise.

Capps, 1915 (B 607), p. 71-72 -- Large body of quartz 28-30 ft. wide, striking about E, and dipping 68° N. Faulted away about 30 ft. from entrance to tunnel. Workings consist of about 285 ft. of tunnel, crosscuts, and a raise, most of which were driven trying to find an extension of the quartz body; one small, isolated piece found in raise. Most of workings on slip zone with gouge in quartz diorite. [Gold] tenor of quartz is low for the district; some pyrite, chalcopyrite, and copper carbonates.
Capps, 1916 (B 642), p. 199 -- Since last visited by Capps (1913) about 100 ft. of underground workings have been added.
MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 9 -- Reference to Capps, 1915 (B 607).
Marion Twin

Willow Creek district

MF-409, loc. 15

Copper, Gold, Lead

Anchorage (5.8, 14.3)

61°49'N, 149°18'W

Summary: Thin, gently dipping quartz vein carries considerable free gold, and some pyrite, galena, and chalcopyrite; in shear zone in quartz diorite; ore plays out where vein rolls upward; has been post-mineralization faulting along vein. Small-scale mining during a few years between 1928 and 1935. See also Lonesome (owned by same company at times).

Smith, 1932 (B 824), p. 18-19 -- Mining, 1929; some selected ore shipped to smelter yielded high returns.

Smith, 1933 (B 836), p. 17 -- Extensive prospecting and mining of a few tons of ore for mill test at mill [at Lonesome], 1930. Veins are narrow, but carry ore with high gold content.

Smith, 1934 (B 857-A), p. 17 -- Considerable damage from snowslides during winter of 1931-32.

Smith, 1934 (B 844-A), p. 18 -- No work, 1933.

Capps and Tuck, 1935 (B 864-B), p. 109 -- When visited by Survey party in 1933 principal exposures were covered by snow. One opening showed a quartz vein 2-10 in. thick dipping 45° SW [strike not given] which contained free gold and minor galena and chalcopyrite. Vein well defined with distinct walls; in a fissure in quartz diorite; has been post-mineralization faulting along vein. In 1929-30 a few tons of rich ore was mined; some sent to smelter and some to company's mill on Little Susitna R. [Lonesome mine].

Smith, 1936 (B 864-A), p. 18-19 -- Work, 1934; company apparently plans to concentrate its efforts here rather than at Hatcher [Lonesome].


Smith, 1938 (B 897-A), p. 21 -- No mining, 1936; company reported to have sold its holdings in district.

Ray, 1954 (B 1004), p. 76 -- Has been some production; 1928-31, 1935. Last work was in 1937. Gold recovered from a flat vein segment dipping gently NW; where exposed in open cut (source of all ore mined) vein is 1-1/2 in. wide and consists of coarsely crystalline quartz containing pyrite, galena, and free gold. Vein rolls upward and becomes a barren shear zone; prospecting beyond roll was not successful.

Marmot Gold (?)

Willow Creek district Anchorage (6.25, 14.55)
MF-409, loc. 19 61°50'N, 149°15'W

Summary: Some work reported, winter of 1919-20. No data on mode of occurrence of ore minerals, if any. Probably eventually became part of Fern property.

Chapin, 1921 (B 714), p. 204 -- "The recently formed Giant Gold Mining Co. is developing the Marmot group of claims, on Archangel Creek. Supplies and equipment were sledded into the property in the fall, and work was continued during the winter." Entire reference.

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 16 -- Reference to above.
(Marshall Cr.) Gold

Willow Creek district Anchorage (12.75, 14.1) approx.
61°48'N, 148°28'W approx.

Summary: Fine gold, probably not of local derivation, present. Stream below Chickaloon; name not currently in use, so exact location cannot be determined.

Martin Copper, Gold, Lead
Willow Creek district Anchorage (5.9, 13.85)
MF-409, loc. 13 61°47’N, 149°17’W

Summary: Site of first lode discovery in district, 1906. Veins in shear zones in quartz diorite; some probably continuous with veins at neighboring Independence mine. 2 major veins separated by a transverse fault. Attempt to undercut veins with long tunnel from other side of ridge did not find veins; probably displaced by faults exposed in Gold Bullion mine. Veins contain quartz, gold (both free and in sulfides), pyrite, chalcopyrite, and a little galena. Mining from about 1911 to about 1920, during which it was one of the major mines of the district. Closed and surface plant dismantled sometime in 1920’s.

Katz, 1911 (B 480), p. 148 -- Vein about 16 in. thick and similar to that at Carle [Independence] has been stripped for about 500 ft. along outcrop. Slope adit partly filled with water.
Brooks, 1912 (B 520), p. 29 -- Assessment and other work, 1911. Some ore milled at a neighboring property.
Brooks, 1913 (B 542), p. 39 -- Mining and milling, 1912.
Brooks, 1914 (B 592), p. 65 -- Mining, 1913.
Capps, 1915 (B 607), p. 50 -- Located in 1906; first lode location in area. Mill began crushing ore in September, 1912.
  p. 60-64 -- More than 250 ft. of tunnels with drifts and stopes, numerous other short tunnels, and open cuts and pits. Principal veins are the Homestake (6-24 in. thick), which may be continuous with the Granite Mountain vein of the [Independence] mine to the north, and the higher Skyscraper vein (18 in. to 8 ft. thick). Both are quartz veins in joints or shear zones in quartz diorite. Gold is both free milling and associated with sulfides, including pyrite, chalcopyrite, and a little galena. Gouge and clayey material associated with veins. Some ore has also been mined from a third vein. In 1911 some ore was milled at Alaska Gold Quartz Mining Co. [Independence] mill; mine’s own mill was installed in 1912 and enlarged and a cyanide plant added in 1914. Recovery from ore from Homestake vein averaged about a fine ounce per ton.
Smith, 1917 (BMB 142), p. 43-44 -- Mainly data on aerial tram and mill.
Martin, 1919 (B 692), p. 32 -- Mining, 1917.
Chapin, 1920 (B 712), p. 174 -- Development and milling, 1918. 9 tunnels with aggregate length of about 3,400 ft. plus connecting winzes and stopes.
Martin, 1920 (B 712), p. 34 -- Mining, 1918.
Brooks and Martin, 1921 (B 714), p. 77 -- Mining, 1919.
Martin -- Continued

Chapin, 1921 (B 714), p. 204 -- Mine, mill, and cyanide plant operated, 1919.
Brooks and Capps, 1924 (B 755), p. 30 -- One of mines being developed and explored by Kelly Mines Co. in 1922.
Brooks, 1925 (B 773), p. 40 -- Part of consolidated properties being developed by Kelly Mines Co. from Willow Cr. side of divide, 1923.
Smith, 1929 (B 797), p. 12 -- New company formed to develop mine, 1926.
Smith, 1932 (B 824), p. 19 -- Property examination by private engineers, 1929.
Ray, 1933 (B 849-C), p. 215-216 -- Site of first lode-gold discovery in district, 1906. Two veins: Skyscraper, which is probably continuous with upper vein of Independence mine; and Homestake. Skyscraper vein strikes about N10°E and dips 45° NW; Homestake strikes about N. 10° E and dips 30°-42° [direction not given]; veins separated by a transverse fault. Attempt was made to intersect veins with a tunnel driven 1,200 ft. from west side of ridge [from Brooklyn Development Co. (Kelly-Willow)]; passed beyond projected location of veins, which probably are displaced by faults (probably those in Gold Bullion mine). As of 1931 mines had been closed for several years and camp and surface plant dismantled.
Smith, 1938 (B 897-A), p. 20 -- One of group of properties consolidated in 1936 by Bralaska Mining Co.
Ray, 1954 (B 1004), p. 31-32 -- Some of ore mined came from within a major regional fault.
  p. 83 -- Was a major producer of district, but has been long abandoned [as of 1950].
MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 10 -- Reference to Ray, 1933 (B 849-C).
Mary Ann Gold(?)

Willow Creek district Anchorage (6.85, 14.45)
MF-409, loc. 30 61°49'N, 149°10'W

Summary: In 1919 a tunnel was being driven to intersect a vein that had been traced on surface. No data on possible gold content.

Chapin, 1921 (B 714), p. 205 -- Tunnel being driven to intersect a vein that has been traced along surface. [No data on gold content, if any.]
MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 22 -- Reference to above.
(Matanuska R.) Gold
Willow Creek district Anchorage
N 1/2 quad.

Summary: Fine colors of gold along river.

Mendenhall, 1900, p. 322 -- "All along the Matanuska itself fine colors are found, but these are not significant, since the stream rises in the gravels of the Copper River Plateau."
Maverick Copper(?), Gold Willow Creek district Anchorage (7.4, 14.0) MF-409, loc. 34 61°48'N, 149°06'W

Summary: Quartz vein 2 ft. thick. Gold assumed to be present; chalcopyrite possibly there also.

Chapin, 1921 (B 714), p. 206 -- Quartz vein 2 ft. thick reported to be similar in appearance to upper Gold Mint vein [Lonesome mine]. [Upper Gold Mint vein contains pyrite, chalcopyrite, and free gold. Assumed that Maverick vein contains gold and possibly chalcopyrite.]

McCoy Gold

Willow Creek district  Anchorage (6.6, 14.45)
MF-409, loc. 29  61°49'N, 149°12'W

Summary: Open cuts exposed quartz veins, one of which is said to be as much as 9 ft. thick and to carry much gold. Includes reference to Babcock-McCoy. Probably included in Homebuilder and/or Idamar.

Capps, 1914 (B 592), p. 266 -- Preliminary to Capps, 1915 (B 607).
Capps, 1915 (B 607), p. 76 -- Quartz veins prospected by many open cuts, only some of which reached undisturbed bedrock. Largest vein reported to be 7 ft. thick. Reported to strike NW and dip SW. [No data on possible gold content.]
Vein reported to be 9-10 ft. thick and to contain much gold in places.
Capps, 1919 (B 692), p. 185 -- Crosscut being driven in 1917 to undercut an auriferous vein that ranges from a few inches to 9 ft. in thickness.
Summary: Sample of float contained a little scheelite and a trace of cinnabar.

Jasper, 1967 (GC 14), p. 30 -- Float material contains magnetite, a little scheelite, pyrite, ilmenite, and a trace of cinnabar.

Anchorage district  Anchorage (12.65-14.0, 8.2-11.05)  
MF-409, locs. 95-109  
61°26'-61°37'N, 148°20'-148°32'W

Summary: Country rock slate, graywacke, and greenstone with quartz diorite stock near head [see Knik R., Glacier Fork) sheet]. Placer gold discovered in about 1906 and mined on a small scale intermittently since then; total production probably worth no more than a few thousand dollars. Gold probably ultimately derived from sources in Metal Cr. basin; possibly quartz veins such as those exposed near mouth of creek; proximate source probably glacial deposits. Concentrates contain a little native silver; production of platinum metals reported, but source of metals not known. Many concentrate samples contain fairly abundant scheelite.


Paige and Knopf, 1907 (B 327), p. 67 -- Report that prospectors had discovered gold on Metal Cr.; claimed $7 or $8 a day to the shovel [per man/day].

Brooks, 1910 (B 442), p. 42 -- Prospecting, 1909; results said to be encouraging.

Brooks, 1911 (P 70), p. 165 -- Same as Brooks, 1910 (B 442), p. 42.

Brooks and Capps, 1924 (B 755), p. 32 -- A little placer gold recovered incidental to development in 1922.

Smith, 1926 (B 783), p. 25 -- Platinum recovered from placer gold concentrates, 1924.

Landes, 1927 (B 792), p. 71 -- Has been desultory gold placer mining for about 20 years [as of 1925]. Gold on bedrock well below high-water mark; mining during low-water periods in fall. Colors can be panned anywhere along lower Metal Cr.; gold reported to become coarser upstream; country rock slate and graywacke near mouth; greenstone farther upstream; granite (diorite?) reported from headwaters. Gold probably derived from lodes in or near granite.

Moffit, 1927 (B 792), p. 33 -- Platinum recovered, 1924.

Smith, 1929 (B 797), p. 40 -- Platinum has been found.

Smith, 1930 (B 810), p. 53 -- Platinum has been recovered in the past.

Smith, 1930 (B 813), p. 60 -- Platinum has been recovered in the past.

Smith, 1938 (B 897-A), p. 84 -- Platinum has been recognized.

Richter, 1967 (GR 25), p. 2 -- Gold discovered in about 1906; intermittent small-scale mining since then; total production worth probably not more than a few thousand dollars. Platinum metals reported to be in concentrates; no data on amount and nature of platinum metals.

p. 8-10 -- Gold in lower part of stream course; probably derived from source in basin (may have been small quartz veins such as those exposed near mouth), deposited in glacial lake, and further concentrated by present stream.) Source of platinum not discovered. Native silver in one sample. Gold generally well rounded and less than 1 mm in diameter.
Miller Gold(?)

Willow Creek district Anchorage (6.1, 13.0) approx.
61°44'N, 149°14'W approx.

Summary: Tunnel driven 30 ft. along an altered alaskite dike. Unspecified sulfides present. No data on possible gold tenor of material.

Katz, 1911 (B 480), p. 149 -- Large mass of quartz with scattered pyrite crystals and no known gold values in what is probably a brecciated fault zone. The exposed wall appears to be brecciated and altered quartz diorite(?).

Capps, 1915 (B 607), p. 74 -- Tunnel driven 30 ft. along an altered alaskite dike that in places carries considerable sulfides [which ones not specified]. Wall rock coarsely crystalline gneiss. "Nothing definite was learned of the value of the ore, as assays are said to have given conflicting returns."
(Miners R.) Copper(?) Nickel

Prince William Sound district Anchorage (21.4, 1.7) approx.
MF-409, loc. 65 61°04'N, 147°29'W

Summary: Pyrrhotitized diorite in zones as much as 2 in. thick. Reported to carry "considerable" values in nickel and cobalt. Minor physical exploration. Unpublished assay data confirm presence of nickel and copper, but not cobalt. No copper mineral reported. Includes reference to (Miners Bay).

Grant, 1906 (B 284), p. 86 -- Zones of pyrrhotitized diorite from 1/4 to 2 in. wide in an overall zone about 10 ft. wide; pyrrhotite also in pegmatitic veins. Pyrrhotite was considered to carry "considerable" values in nickel and cobalt, but assays of samples of the best material that could be found showed neither cobalt nor nickel. Explored by a tunnel 8 ft. long.

Grant and Higgins, 1910 (B 443), p. 77 -- Same as above. Work done since 1905 said to have been encouraging.

Moffit and Fellows, 1950 (B 963-B), p. 77 -- Two copper prospects in Miners Bay area.

MacKevett and Holloway, 1977 (OF 77-169A), p. 7, loc. 53 -- Reference to Grant and Higgins, 1910 (B 443).
Mitchell & Myers Gold, Lead

Prince William Sound district Anchorage (15.4, 0.65)
MF-409, loc. 57 61°01'N, 148°11'W

Summary: Shattered acidic dike cemented by quartz contains gold, arsenopyrite, galena, and pyrite. Samples of dike contain as much as 0.34 oz. a ton gold; quartz richer. Very little development.

Johnson, 1914 (B 502), p. 227-228 -- Acidic dike 60-67 in. thick shattered and cemented by quartz; strike N 50° E, dip 53°-75° W. Quartz stringers as much as 8 in. thick. 3-ft.-wide quartz vein nearby strikes N 51° W and dips 60° E. Metallic minerals are gold, arsenopyrite, galena, and pyrite in quartz-calcite gangue. Assays of samples of dike reported to run $1.40-$7.00 [gold at $20.67]; higher assays on quartz reported. Explored by a few open cuts.

MacKevett and Holloway, 1977 (OF 77-169A), p. 7, loc. 46 -- Reference to above.
Mogul Gold

Willow Creek district Anchorage (6.8, 14.7)
MF-409, loc. 32 61°50'N, 149°10'W

Summary: Gouge zone in quartz diorite with one (or more) quartz vein that is said to yield high gold assays; unspecified sulfides also present. Only development is 3 open cuts across vein.

Capps, 1915 (B 607), p. 74 -- Staked in 1912. Quartz vein and gouge zone exposed by three open cuts; country rock quartz diorite. Quartz vein exposed in all pits is 1-4 in. thick; in one pit this vein is separated from another that is 12 in. thick by 18 in. of altered diorite. Vein quartz drusy; much iron oxide, and some sulfides [which not specified]. High assays in gold reported.

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 22 -- Reference to above.
Mohawk (Mining Co.)                      Gold
Willow Creek district                    Anchorage (6.3, 14.2)
MF-409, loc. 20                           61°48'N, 149°15'W

Summary: Quartz vein as much as 30 in. thick along gouge zone in diorite contains arsenopyrite and (determined by assay) gold. Developed by tunnel 160 ft. long.

Capps, 1919 (B 692), p. 183 -- Vein developed by tunnel 160 ft. long; a second tunnel 30 ft. long did not penetrate loose surficial material. Vein is white banded quartz in a gouge zone in diorite; carries some arsenopyrite and (by assay) gold. Vein pinches and swells; maximum thickness of quartz is 30 in.; strikes N 35° W and dips 45° SW.

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 17 -- Reference to above.
Moose Creek
Willow Creek district
MF-409, loc. 37

Summary: Country rock is hornblenic gneissic quartz diorite; deposit capped by a rusty gossan. Heavily mineralized zone 25-30 ft. thick with disseminated sulfides on both sides; has been traced on surface for 7,000 ft. Sulfides include pyrite, pyrrhotite, chalcopyrite, and sphalerite in irregular masses, veins, and disseminated grains. Assays show as much as 0.08 oz. a ton gold, 1.2 oz. a ton silver, 5.6% copper, and (one sample only) 0.03% nickel. Explored by open cuts and an adit at least 33 ft. long. No record of production. Includes references to Northwestern.

Brooks, 1918 (B 662), p. 47 -- "A low-grade deposit of chalcopyrite ore has been found on Moose Creek, ----."

Capps, 1919 (B 692), p. 183-184 -- Country rock is gneissic phase of diorite of Talkeetna Mts.; locally highly hornblenic. Developed by 33-ft. tunnel, open cuts, and strippings. Rusty gossan on surface. Mineral deposit formed by replacement of country rock by sulfides, chiefly pyrrhotite, pyrite, and chalcopyrite; sphalerite also present. Deposit parallel to gneissic banding (N 60°-75° W, dip 65° S to vertical). Heavily mineralized zone is 25-30 ft. thick; disseminated sulfides extend to both sides. Principal sulfides occur either in segregated masses or in masses containing all three. Beneath gossan sulfides are unoxidized. Assays of samples indicate 0.04-0.08 oz. a ton gold, 0.8-1.2 oz. a ton silver, trace to 4.6% copper, and (one assay only) 0.03% nickel.

Chapin, 1921 (B 714), p. 206 -- Data abstracted from a private report. 11 claims located in 1914-15. Ore deposit is 30-100 ft. wide, strikes about N 75° E and dips about 80° SE. Does not appear to have a well-defined wall, but gradually merges into quartz diorite country rock. Open cut has been made 25 ft. diagonally across deposit, which there consists of pyrite, pyrrhotite, chalcopyrite, and sphalerite carrying gold and silver. Said to have been traced for 7,000 ft. along surface, but has not been explored at depth. Copper, gold, and silver contents said to be low.


Jasper, 1965 (GC 4), p. 4 -- Chalcopyrite associated with magnetite; adit has been driven 50-75 ft.

Berg and Cobb, 1967 (B 1246), p. 34 -- Staked in 1914. In quartz diorite; consists of disseminated grains, masses, and veins of sulfides in a zone 30-100 ft. wide; reportedly traced for 7,000 ft. on surface. One massive sulfide body 25 ft. wide and at least 80 ft. long exposed in open cuts. Metallic minerals include pyrite, pyrrhotite, chalcopyrite, and sphalerite; small amounts of gold and silver. Assays showed 0.04-0.08 oz. gold.
Moose Creek -- Continued

and 0.8-1.2 oz. silver per ton, as much as 5.6% copper, and, in one sample, 0.03% nickel. In addition to open cuts a short tunnel was driven. No recorded production.

(Mt. Eklutna) Chromite

Anchorage district Anchorage (5.4, 7.1)
MF-409, loc. 39 61°24'N, 149°22'W

Summary: Poor exposures of chromite; probably generally similar to Highway prospect. See also Myers.

Rose, 1966 (GR 18), p. 11 -- Poor exposures; apparently the same as other occurrences of chromite in general area [for example, Highway]. May be source of the chromite on Peters Cr. reported by Martin, 1920 [(B 712), p. 23, 34].

Clark and Bartsch, 1971 (OF 484), p. 8 -- Reference to above.

Myers
Copper, Lead, Zinc

Anchorage district Anchorage (5.1, 7.4)
MF-409, loc. 38 61°25'N, 149°24'W

Summary: Country rock greenstone and silicified rhyolite. 3-ft. wide zone impregnated with scattered crystals and small masses of arsenopyrite, pyrite, sphalerite, and galena; also a vein less than 2 in. thick in rusty gouge contains calcite and scattered bits of sphalerite, galena, and chalcopyrite. Includes references to copper, lead, and zinc on Mt. Eklutna and to prospect between Peters and Eklutna Creeks.

Landes, 1927 (B 792), p. 71 -- Country rock is greenstone and associated rhyolite; silicified. Vertical zone about 3 ft. wide is impregnated with scattered crystals and small masses of arsenopyrite, pyrite, sphalerite, and galena. Also a distinct vein less than 2 in. wide between walls (each about 6 in. thick) of rusty gouge; contains calcite and scattered bits of sphalerite, galena, and chalcopyrite. Not enough base-metal minerals exposed to encourage development work.
Rose, 1966 (GR 18), p. 12 -- Reference to above.
Berg and Cobb, 1967 (B 1246), p. 19 -- Data from Landes, 1927 (B 792) [not specifically cited].
Clark and Bartsch, 1971 (OF 484), p. 8 -- Data from Landes, 1927 (B 792).
MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 28 -- Reference to Landes, 1927 (B 792).
Newman & Miller Gold

Willow Creek district Anchorage (5.8, 14.2)
MF-409, loc. 15 61°48'N, 149°18'W

Summary: Quartz vein, said to be very rich in gold, exposed by open cut. Includes reference to Miller-Newman.

Brooks, 1925 (B 773), p. 42 -- New find of reportedly very rich quartz vein 4-10 in. thick; exposed by open cut 60 ft. long; 1923.
Nugget Gold

Willow Creek district Anchorage (5.7, 13.85) approx. 61°47'N, 149°19'W approx.

Summary: Property between Gold Bullion and Kelly-Willow. Operated by Willow Creek Mines Co. in 1916.

Opal Gold
Willow Creek district Anchorage (6.55, 14.35)
MF-409, loc. 28 61°49'N, 149°13'W

Summary: Two auriferous veins of quartz and gouge in altered diorite. Explored by surface excavations and 300 ft. of underground workings. One vein is richer in free gold than the other, which also contains pyrite. No record of production.

Chapin, 1921 (B 714), p. 205 -- 2 parallel veins that strike N 50° E and dip 50° NW were traced by pits for 2 claim lengths. Veins 3-5 ft. thick; made up of quartz and gouge in altered diorite. Both veins contain gold; lower one also contains pyrite. Tunnel started in 1919.
Brooks and Capps, 1924 (B 755), p. 31 -- Development, but no production, 1922.
Brooks, 1925 (B 773), p. 42 -- Developed by 300 ft. of workings; maximum width of 2 ft. of quartz at breast on main adit. Vein carries free gold; tenor said to be high in places. Vein faulted; much gouge. Another vein in workings is of lower tenor. Data as of 1923.
MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 20 -- References to Chapin, 1921 (B 714), and Brooks, 1925 (B 773).
Osceola Gold

Prince William Sound district Anchorage (17.95, 2.15) approx.(?)
61°06'N, 147°53'W approx.(?)

Summary: Vein explored by tunnel about 400 ft. long, 1916-17. Gold assumed to be present, though not specifically so stated.

Johnson, 1918 (B 662), p. 189 -- "A 120-foot tunnel was driven during the year [1916] on the Osceola vein, on College Fiord."

Johnson, 1919 (B 692), p. 150 -- Drifting continued, 1917. Main tunnel said to have been extended to total length of about 400 ft. Operations being carried on only part of summer.
Panhandle Gold

Willow Creek district
MF-409, loc. 4

Anchorage (5.05, 13.9)
61°47'N, 149°24'W

Summary: Quartz vein with horses of quartz diorite country rock. Apparently same lode as at War Baby. A little development in 1918-19.

Chapin, 1920 (B 712), p. 173-174 -- Taken under option by Willow Creek Mines, 1918; just west of War Baby and apparently on the same lode. Development begun, 1918.

Chapin, 1921 (B 714), p. 202 -- Some development work, 1919. Quartz vein with horses of country rock strikes N 85° W, dips 38° N. Not much work has been done on it.

MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 4 -- Reference to Chapin, 1921 (B 714).
Paymaster
Prince William Sound district
MF-409, loc. 58

Gold
Anchorage (16.05, 1.75)
61°05'N, 148°07'W

Summary: According to the locator, a quartz vein 1.5-3 ft. thick contains gold. Assay or pan samples as rich as about 4.25 oz. a ton reported.

Johnson, 1914 (B 592), p. 225 -- Data from locator. Vein 1.5-3 ft. thick strikes about north and can be traced for 200-300 ft. Pans and assays of gold from $18 to $88 a ton reported [gold at $20.67].

Prospects (including several probably short adits) near terminus of glacier exposed quartz veins in greenstone, greenstone, and a little interbedded shale; veins carry pyrite, galena, and chalcopyrite; gold assays as high as $38 (about 1.84 fine oz.) a ton reported. Some ore may have been mined, but not shipped, in 1917. Chromite and jade reported to have been found in basin; locations uncertain. Includes reference to Jessie B. See also (Mt. Eklutna).

Capps, 1916 (B 642), p. 192-193 -- 2 prospects near terminus of glacier. Country rock is greenstone and greenstone tuff with small amounts of interbedded shale. At lower prospect adit 37 ft. long driven along a quartz vein no more than 2 in. thick that strikes N 60° W and dips 75° SW; intersected by 2 similar quartz veins that strike N 77° W and dip 60° N (one vein as much as 8 in. thick). Little mineralization seen; pyrite and lesser amounts of galena and chalcopyrite reported; assay of $12.60 a ton in gold [at $20.67] reported. At higher prospect several tunnels (probably hidden by snow when visited by Capps) driven on quartz veins (one at least 10 in. thick); assays said to show $38 a ton in gold [at $20.67]; small amount of pyrite.

Capps, 1919 (B 692), p. 186 -- Quartz vein 2-5 ft. thick reported to carry gold; copper carbonate stained. Ore said to have been mined and stacked during development, 1917. [This is called Jessie B. in this reference; probably the same occurrence(s) described above.]

Martin, 1920 (B 712), p. 23 -- Discovery of chromite on Peters Cr. reported, 1918.

p. 34 -- Discovery of chrome ore reported, 1918.


p. 13 -- Local prospector reports finding jade in Peters Cr. drainage; location and geologic occurrence not known.

Berg and Cobb, 1967 (B 1246), p. 18 -- Data from Capps, 1916 (B 642) [not specifically cited].


Clark and Yount, 1972 (MF-351), sheet 1 -- Reference to Capps, 1916 (B 642).

(Peters Cr., trib. Willow Cr.) Copper, Gold, Silver

Willow Creek district Anchorage (5.75-6.1, 15.5-15.6) approx. 61°53'N, 149°16'-149°18'W approx.

Summary: Float contains small amounts of chalcopyrite, bornite, gold, and silver. Country rock quartz diorite.

Capps and Tuck, 1935 (B 864-B), p. 110 -- Pieces of quartz float contained trace to small amounts of gold and silver; one piece contained small amounts of chalcopyrite and bornite. Country rock quartz diorite.
Summary: In two poorly defined mineralized zones about 400 ft. apart is chromite occurring as stringers, small pods, and elliptical segregations of disseminated material in shattered dunite. Trenched by USBM in 1942. Calculated grades, based on weighted average analysis for each trench, are 6.8% Cr₂O₃ for one zone and 6.9% Cr₂O₃ for the other. Higher zone may be in talus blocks rather than in bedrock in place. USBM considered deposits too small and too low grade to be minable under conditions in 1940's. Includes references to (Pioneer Peak).

Barnes, 1947 (OF 54), p. 5 -- Rocks exposed along creek between 800- and 1,500-ft. contours consist largely of basic intrusive rocks, including pyroxenite that is locally chromite bearing.

Bjorklund and Wright, 1948 (RI 4356) -- Staked in 1940. Two poorly defined mineralized zones about 400 ft. apart. Chromite in stringers, small pods, and elliptical segregations of disseminated material in shattered dunite. Trenched by USBM in 1942. No massive high-grade chromite found; calculated grades, based on weighted average analysis for each trench, are 6.8% Cr₂O₃ for one zone and 6.9% Cr₂O₃ for the other. Too small and too low grade to be minable under conditions prevailing in 1940's.

Rose, 1966 (GR 18), p. 9-11 -- Reference to Bjorklund and Wright, 1948 (RI 4356). Occurrences similar to those at Highway prospect. Lower zone strikes about N 50° W, dips 37°-78° NE; traced about 50 ft. in outcrops and trenches; best exposure assayed 7.5% Cr₂O₃ across 13.5 ft. In higher zone chromite bands strike about N 10° W, dip 35° NE; traced about 30 ft. in trenches; maximum width of 30 ft. Blocks of diorite and dunite may have moved downslope as talus rather than being in place.

Berg and Cobb, 1967 (B 1246), p. 20 -- Data from Bjorklund and Wright, 1948 (RI 4356) [not specifically cited].

Clark and Bartsch, 1971 (OF 475), p. 2 -- Reference to Bjorklund and Wright, 1948 (RI 4356).

MacKevett and Holloway, 1977 (OF 77-169A), p. 6, loc. 32 -- References to Bjorklund and Wright, 1948 (RI 4356) and Rose, 1966 (GR 18).
(Poorman Cr.) Gold

Nelchina district Anchorage (22.45, 17.95)
MF-409, loc. 90 62°00'N, 147°17'W

Summary: Prospecting and a little placer mining, 1914. Ground about 6 ft. deep. Gold flaky; some small nuggets.

Chapin, 1915 (B 622), p. 128-129 -- Preliminary to Chapin, 1918 (B 668).
Chapin, 1918 (B 668), p. 62 -- Prospecting and a little placer gold production, 1914. Bedrock in lower part of stream course [in Talkeetna Mountainsquad.] is conglomerate, shale, and sandstone; in upper part is andesitic lava and tuff. Placer ground about 6 ft. deep. Gold flaky; some small nuggets.

Molybdenum

Anchorage district
MF-409, loc. 114
61°03'N, 149°47'W

Summary: Trace of molybdenite in float concentrate.

Jasper, 1967 (GC 14), p. 31 -- Trace of molybdenite in concentrate from float.
(Purches Cr.) Copper, Gold, Silver

Willow Creek district Anchorage (4.9-5.4, 14.1-14.3) approx.
MF-409, loc. 7 (in part) 61°48'-61°49'N, 149°21'-149°25'W approx.

Summary: Bull quartz vein contains a little chalcopyrite and small amounts of gold and silver. Quartz float contains small amounts of gold and silver.

Capps and Tuck, 1935 (B 864-B), p. 110 -- 2 occurrences. One (at 61°49'W, 149°21'W, approx.) is a 1-ft.-wide vein of bull quartz that dips 30° S 20° W and can be traced for several hundred feet. Contains a little chalcopyrite; sample assayed 0.16 oz. a ton gold and 0.2 oz. a ton silver. Other (at 61°48'N, 149°25'W, approx.) is quartz float containing pyrite, 0.01 oz. a ton gold, and 0.2 oz. a ton silver.
Q. & Q. Gold(?)

Prince William Sound district Anchorage
SE 1/4 quad.

Summary: 150-ft. tunnel driven in 1918. This may be the Cann & Minor prospect, the Griset & Benson prospect, or neither.

Martin, 1920 (B 712), p. 33 -- "At the Q. & Q. property, on College Fiord, a 150-foot tunnel was driven in 1918." Entire reference.
Rae Copper, Gold, Lead
Willow Creek district Anchorage (6.2, 13.65)
MF-409, loc. 23 61°47'N, 149°15'W

Summary: Gouge or other clayey material in fault or shear zone in gneis-
sic quartz diorite contains quartz carrying free gold, chalco-
pyrite, galena, and copper carbonates. Exposed by open cuts.
Not enough data to evaluate as an ore deposit.

Capps, 1915 (B 607), p. 77 -- Country rock is somewhat gneissic quartz
diorite cut by a fault or shear zone. Open cuts expose oxidized
altered zone 8-18 in. thick of clay or gouge with some quartz con-
taining free gold, chalcopyrite, pyrite, galena, and copper carbon-
ates. Not enough work to prove or disprove the presence of valuable
ore bodies.

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 19 -- Reference to
above.
Rae-Wallace (Mining Co.)

**Gold**

Willow Creek district  
**Anchorage (6.3, 13.9)**

MF-409, loc. 22  
**61°47'N, 149°15'W**

**Summary:** At least two quartz veins as much as 3 ft. thick contain free gold, pyrite, and arsenopyrite. Has been production (amount not known). Several hundred feet of workings. No activity reported since 1929. Includes references to: Ray-Wallace (Mining Co.), Rosenthal.

Brooks, 1915 (B 622), p. 48 -- Development work reported, 1914.
Capps, 1915 (B 607), p. 74-75 -- 2 tunnels (total length 125 ft.) driven on a quartz vein 1-3 ft. thick that strikes N 40° W and dips 10° SW. Vein carries visible free gold and finely disseminated pyrite. Vein is so close to mountain top that amount of mineralized material is small. Gold reported to be irregularly distributed with rich ore and almost barren quartz next to each other.
Capps, 1916 (B 642), p. 198-199 -- Has been recent work. Ore mined on property awaiting transportation to mill. Property acquired by Alaska Free Gold Mining Co. [owner of Martin], 1915.
Capps, 1919 (B 692), p. 183 -- In 1917 old tunnel was extended to length of 330 ft. New crosscut being driven to undercut vein. Another vein (exposed by open cuts) contains as much as 6 in. of quartz and a foot or more of crushed and oxidized vein matter; strikes about E and dips 55° S; contains pyrite and arsenopyrite; analysis did not confirm presence of tellurides. [no data on possible gold content.]
Brooks and Capps, 1924 (B 755), p. 31 -- Long crosscut being run, 1922; mill operated intermittently.
Smith, 1932 (B 824), p. 19 -- A little ore mined, 1929.
Anchorage district

Anchorage (3.1, 0.05) approx.
61°00'N, 149°38'W

Summary: By inference there was some mining before 1906; some activity reported in 1937-38, but no definite statement that there was mining.

Paige and Knopf, 1907 (B 314), p. 120 -- Hydraulic plant not working in 1906.
Smith, 1939 (B 910-A), p. 43 -- Hydraulic pipe being brought in, 1937.
Smith, 1939 (B 917-A), p. 41 -- Development reported, 1938.
(Raven Cr.) Gold

Anchorage district Anchorage
W 1/2 SE 1/4 SW 1/4 quad.

Summary: Colors reported; very little work done.

Park, 1933 (B 849-G), p. 406 -- "A few prospect pits have been sunk on Raven Creek, and some colors were reported to have been obtained. Eight claims were staked in 1929, but the owner was killed in an accident, and no work has been done since then."

MacKevett and Holloway, 1977 (OF 77-169A), p. 8, loc. 70 -- Reference to above.
Reed & Fiske

Willow Creek district Anchorage (6.1, 14.3) approx.
MF-409, loc. 20 61°49'N, 149°16'W approx.

Summary: Quartz vein (assumed to be auriferous) on divide between Fairangel and Fishhook Creeks. Averages 4 ft. in width; open cuts indicate length of 300 ft. In places contains granite breccia and gouge or clay. Probably was later relocated under a different name.

Katz, 1911 (B 480), p. 148 -- Open cuts on divide between Fairangel and Fishhook Creeks indicate a quartz vein continuous for 300 ft. and averaging 4 ft. in width. In some places includes granite breccia and has gouge or clay along walls. [Assumed to carry gold because preceding sentence states that quartz from which gold can be panned is all around Fishhook Creek basin.]

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 17 -- Reference to above.
(Reed Cr.) Copper, Molybdenum, Tungsten

Willow Creek district Anchorage (6.8-7.0, 14.5-15.0) approx.
MF-409, locs. 33, 85 61°50'-61°51'N, 149°10'-149°11'W

Summary: Low-grade molybdenum-copper mineralization, probably in a pegmatite dike in tonalite; adit driven in 1917 or earlier now largely covered by talus. Float concentrate contained a little scheelite.

Martin, 1919 (B 692), p. 23 -- Work on molybdenite prospect reported, 1917. [Called Reid Cr. in this reference.]
Smith, 1942 (B 926-C), p. 189 -- Reference to above. Martin probably meant "Reed Cr.," which would put the reported occurrence within 3 mi. of the Talkeetna mine, where molybdenite is known.
Jasper, 1967 (GC 14), p. 3 -- Low-grade molybdenum-copper mineralization at head of creek; on steep talus-covered slope; old adit driven before 1917 now largely covered by talus; width and character of deposit has not been reported.
p. 26 -- Float concentrate sample contained some scheelite.
Reiter & Olson
Antimony, Copper, Gold(?), Lead

Prince William Sound district
Anchorage (15.55, 1.35)

MF-409, loc. 56
61°04'N, 148°10'W

Summary: Quartz veins, at least some in graywacke, contain stibnite, chalcopyrite, and galena; no data on possible gold content. Information supplied by one of locators.

Johnson, 1914 (B 592), p. 228 -- Data from one of locators. Vein 8 in. to 3 ft. wide can be traced for about 200 ft. Nearby are 6 parallel veins in graywacke; quartz 6-30 in. thick. Veins contain stibnite, chalcopyrite, and galena [no data on possible gold content].

(Rusaw Cr.)

Willow Creek district
MF-409, loc. 49

Anchorage (21.3, 13.4) approx.
61°44'N, 147°26'W

Summary: Disseminated chalcopyrite and magnetite in basic segregation in quartz diorite. See also (Sheep Mtn.).

Jasper, 1965 (GC 4), p. 4 -- "...disseminated chalcopyrite and magnetite in a small, more basic segregation in a quartz diorite mass."
Berg and Cobb, 1967 (B 1246), p. 34 -- [Copper] deposits probably similar to those on Sheep Mtn. have been reported.
MacKevett and Holloway, 1977 (OF 77-169A), p. 6, loc. 38 -- Reference to Jasper, 1956 (GC 4).
San Juan Gold

Willow Creek district Anchorage (6.25, 13.85)
MF-409, loc. 23 61°57'N, 149°15'W

Summary: Encouraging assays reported from samples of pegmatitic material. Minor exploration by open cuts.

Capps, 1915 (B 607), p. 77-78 -- Pegmatitic rock with large crystals of quartz and feldspar in ledge 9 ft. wide. Encouraging assays [of gold] reported. Not similar to ore in the rest of the district. Explored by open cuts only.
(Schoonoven Cr.) Gold

Willow Creek district Anchorage (13.15-16.5, 14.6-16.9) approx.
MF-409, loc. 87 61°50'N, 148°18'-148°25'W approx.

Summary: Gold prospects in and below canyon in Tertiary Chickaloon Fm. cut by diabase intrusive bodies. Stream now called Boulder Cr. No record of commercial production.

Mendenhall, 1900, p. 322 -- Best placer gold prospects in area; all in and below canyon. "Within the canyon the stream flows through a portion of the Matanuska sediments most affected by the diabase intrusions, and these probably have a genetic relation to the gold content." [Bedrock is Tertiary Chickaloon Fm.]

MacKevett and Holloway, 1977 (OF 77-169A), p. 7, loc. 60 -- Reference to above.
Schroff-O'Neil Copper, Gold, Lead, Zinc
Willow Creek district Anchorage (5.8, 14.3)
MF-409, loc. 15 61°49'N, 149°18'W

Summary: Erosional remnant of quartz vein nearly mined out, 1950. Vein contains coarsely crystalline quartz, gold [showing a preference for tellurides nagyagite, altaite, and coloradoite(?)], galena in large cubes, pyrite, sphalerite, chalcopyrite, and tetrahedrite. Ore may have been localized by intersection with barren copper-stained quartz vein.

Ray, 1954 (B 1004), p. 43-44 -- Nagyagite (sulphotelluride of lead and gold) is an important mineral; free gold shows a preference for it, especially in richer ore; some of deposition appear to be contemporaneous.

p. 73 -- Altaite (another telluride) also present.

p. 75-76 -- Coarsely crystalline quartz vein 1-6 in. thick, mostly vuggy, on pass between Craigie and Fishhook Creeks; strikes 070° and dips 21°-34° NW. Most of erosional remnant was mined out in 1950. Crossed by barren copper-stained quartz vein; ore deposition apparently was localized by intersection. Vein contains abundant coarse gold, common large cubes of galena, pyrite, sphalerite, chalcopyrite, tetrahedrite, and the tellurides nagyagite, altaite, and coloradoite(?).

MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 12 -- Reference to above.
(Sheep Mtn.) Copper, Gold, Gypsum

Willow Creek district Anchorage (20.45-21.0, 14.75-15.1)
MF-409, loc. 48, in part 61°49'-61°50'N, 147°28'-147°32'W

Summary: Sheep Mtn. is made up of Lower Jurassic greenstone intruded by many mafic dikes and at least one body of unaltered Jurassic granite. Hydrothermal alteration of greenstone, particularly along joints and shears, has formed pods and stringers of gypsi-ferous material that also contains considerable alunite and quartz-sericite rock. In 6 deposits the indicated and inferred reserves (as of 1953) were calculated as 659,000 short tons of material averaging 25%-30% gypsum. About 50 tons of this material has been mined and calcined. Also produced about 55 tons of clay used for making fire brick and as boiler liner. Farther east small, irregular quartz, calcite, and epidote veins in shat-tered greenstone contain chalcopyrite, malachite, azurite, and possibly bornite and chalcocite. A large area on the south flank of Sheep Mtn. is stained dark red from oxidation of pyrite in greenstone. Samples of pyritic greenstone assayed a trace of gold.

Brooks, 1913 (B 542), p. 39 -- Bornite reported; mountain made up of green-stones and other volcanic rocks and at least one granitic intrusive.
Martin and Mertie, 1914 (B 592), p. 281-282 -- Mountain consists of Jurassic volcanic rocks with some interbedded sandstone and shale; intruded by at least one granitic mass. Volcanic rocks much sheared and altered and traversed by calcite veins. A zone approximately parallel to bed- ding contains disseminated sulfides (mainly chalcopyrite) through a thickness of about 5 ft.; malachite and azurite staining. Also present are veins of quartz, calcite, chalcopyrite, and secondary copper min-erals. Float samples also contain bornite and chalcocite; some appear to represent sulfide replacement of basic igneous rocks; epidote in gangue.

Brooks, 1915 (B 622), p. 47 -- Reference to above.
Capps, 1927 (B 791), p. 73 -- Data from Martin and Mertie, 1914 (B 592), p. 281-282.

Eckhart, 1953 (B 989-C) -- Country rock is a thick section of Jurassic vol-canic rocks intruded by many mafic dikes; granitic mass reported in older references not found in this investigation. Volcanic rocks hydro-thermally altered to greenstone, which in places has been further altered to irregular masses of gypsiiferous rock and quartz-sericite rock. Small pods and stringers of gypsum intricately cut greenstone; calcite and quartz stringers also present; many stringers follow joints and shears in greenstone. Gypsiiferous rock composed of varying amounts of gypsum, quartz, alunite, and kaolin minerals; pyrite cubes and antigorite and/or chrysotile occasionally present. Near-surface samples of gypsiiferous rock contained an average of 25%-30% gypsum; some contained as much as 50%. 6 of the largest and most accessible deposits were calculated to contain an aggregate of about 311,000 short tons of indicated gypsiiferous rock; 4 of the deposits contain about 348,000 short tons of inferred
gypsiferous material. Production has been 50 tons of calcined material and about 55 tons of clay used in the manufacture of fire brick and as boiler lining.

Rutledge and others, 1953 (RI 4932), p. 34-39, 47 -- Mainly data on ownership of deposits and data on ceramic clay associated with gypsiferous material.

... p. 126-129 -- Repetition of data on ownership. Geologic data from Eckhart, 1953 (B 989-C). Gypsum particles all minus-100-mesh; most minus-200-mesh; accompanying alunite particles larger. Conclusion; "The Sheep Mountain deposits of gypsiferous material cannot be used as a source of low-cost, high-grade gypsum for cement production."

Production has been about 50 tons of calcined gypsiferous material.

Jasper, 1965 (GC 4), p. 4 -- East of Yellow Jacket Gulch bornite has replaced hornblende in gabbro; grab samples contained as much as 3% copper. Calcite-quartz veins and a shear zone also contain copper sulfides. Similar mineralization farther east.

Berg and Cobb, 1967 (B 1246), p. 34 -- Copper deposit prospected early in century consists of small, irregular quartz, calcite, and epidote veins in shattered greenstone; contains chalcopyrite, malachite, azurite, and possibly bornite and chalcocite. Several square miles of south flank of Sheep Mtn. stained dark red from oxidation of pyrite in greenstone. Samples of pyritic greenstone assayed a trace of gold.

MacKevett and Holloway, 1977 (OF 77-169A), p. 6, loc. 37 -- Strongly altered zones in Lower Jurassic Talkeetna Fm. contain gypsum, alunite, and pyrophyllite; near apparently unaltered Jurassic granite; minor anomalous concentrations of Cu and Au associated with some of the alteration zones and in nearby veins.

... p. 9, loc. 113 -- Reference to Eckhart, 1953 (B 989-C).
Sherry Gold(?)

Willow Creek district Anchorage (6.6, 14.65)
MF-409, loc. 31 61°50'N, 149°12'W

Summary: 120-ft. adit said to show small quartz vein at face, 1923. Probably the same as Snowbird.

Brooks, 1925 (B 773), p. 43 -- "Mike Sherry has a prospect on the west side of Reed Creek valley about a mile north of Homebuilder. He is reported to have an adit in 120 feet, of which 30 feet was driven this year [1923]. This adit is said to show a small quartz vein at the face."
Simonton & Mills

Prince William Sound district
MF-409, loc. 59

Anchorage (15.95, 1.55)
61°05'N, 148°07'W

Summary: Quartz veins in graywacke and slate contain gold, galena, pyrite, and chalcopyrite. Very little physical exploration.

Johnson, 1914 (B 592), p. 226 -- A northward-striking vertical quartz vein 6 in. to 5.75 ft. thick in graywacke with some slate has been traced about 200 ft. Joined by another quartz vein about 4 ft. thick. Ore minerals are gold, galena, pyrite, and chalcopyrite. Surface stripping only development.

Singletary-O'Neil                            Gold(?)
Prince William Sound district               Anchorage(?)
                                SW 1/4 SE 1/4 quad.(?)

Summary: Probably a gold prospect; on Harriman Fiord; some work reported, 1912. May be in Seward quad.

Brooks, 1913 (B 542), p. 37 -- "Some work has also been done on the Singletary-O'Neil property, on Harriman Fiord." [may be in Seward quad.]
Smith Gold

Willow Creek district Anchorage (5.5, 14.5)
MF-409, loc. 17 61°50'N, 149°20'W

Summary: Quartz in shear zone in quartz diorite reported to carry gold.

Capps and Tuck, 1935 (B 864-B), p. 110 -- Small tunnel and pits expose shear zone 2-3 ft. wide in quartz diorite; dips 25° S 80° W; contains sheared diorite, gouge, and quartz that is reported to carry gold.

MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 14 -- Reference to above.
Smith & Sutherland

Willow Creek district

Gold(?)

Anchorage (6.3, 13.9) approx.

61°47'N, 149°15'W

Summary: Caved tunnel reported on claims in Sidney Cr. basin. No data on possible presence of gold.

Capps, 1919 (B 692), p. 185 -- 4 claims in southeastern part of Sidney Cr. basin. Reported that 40-ft. tunnel driven on property has caved, 1917.
Snowbird Gold
Willow Creek district Anchorage (6.6, 14.65)
MF-409, loc. 31 61°50'N, 149°12'W

Summary: About 2,000 ft. of crosscut and drifts explored 4 shear zones in quartz diorite, two of which contained gold in quartz lenses in gouge and sheared quartz diorite. A little ore mined and milled in 1950.

Ray, 1954 (B 1004), p. 73-75 -- First prospected, 1921; further work just before and just after World War II. About 2,000 ft. of crosscuts and drifts driven, aerial tram and mill installed, and a little ore mined and milled, 1950. Workings encountered 4 shear zones in quartz diorite; zones strike generally northeastward and dip 52°-70° NW. 2 shear zones barren; one yielded a few good assays, but was nearly barren overall; fourth was more encouraging, but bad ground was met as a raise was being put up. Shear zones with gold in them contain lenses of quartz in gouge and sheared quartz diorite.

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 23 -- Reference to above.
Snow King

Willow Creek district

MF-409, loc. 31

Anchorage (6.4, 14.55)

61°50'N, 149°12'W

Summary: Work in 1919 reported. Vein said to have been stripped for 4,000 ft. No data on mineralogy or possible gold content.

Chapin, 1921 (B 714), p. 205 -- Work to open up a quartz vein that is said to have been stripped for 4,000 ft., 1919. [No data on possible gold content.]

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 23 -- Reference to above.
(South Cr.) Gold

Nelchina district Anchorage (22.1, 17.75)
MF-409, loc. 89 61°59'N, 147°19'W

Summary: Placer gold reported and claims staked, 1913. Prospecting, 1914.

Martin and Mertie, 1914 (B 592), p. 278 -- Gold reported and claims staked, 1913.
Chapin, 1915 (B 622), p. 129 -- Preliminary to Chapin, 1918 (B 668).
Chapin, 1918 (B 668), p. 62 -- Prospecting, 1914.
Stiles Copper, Gold, Lead

Willow Creek district Anchorage (6.45, 13.85)
MF-409, loc. 24 61°47'N, 149°13'W

Summary: Quartz vein(s) parallel to large aplite dike carry gold, azurite, chalcocite(?), iron oxide, and galena. Assays of several thousand dollars a ton reported. Veins strike E to N 13° E and are 15 in. to 3 ft. thick. Exposed in open cuts, an adit, and a crosscut. Work reported in about 1914-15 and 1931. No data on production, if any. Includes reference to Shough.

Brooks, 1913 (B 542), p. 39 -- Report of discovery (by A. C. Shough) of auriferous quartz vein, 1912. [Said to be on east side of upper Little Susitna basin; other references place it on west side.]


Capps, 1915 (B 607), p. 75-76 -- Quartz vein with maximum thickness of 15 in. strikes N 13° E and dips 62° W; in pinkish decayed dioritic country rock. Remarkably high assays (several thousand dollars a ton) reported; little or no free gold; principal visible metallic minerals are azurite, chalcocite(?), iron oxide, and galena. A similar vein no more than 12 in. thick with variable strike and dip encountered in a crosscut driven to undercut first vein. A third vein about 3 ft. thick is exposed in an open cut; strikes E and dips 68° N. Prospect is just east of a fault zone (in diorite) that may have been a conduit for mineralizing solutions. Not enough work has been done to evaluate fully the property.

Capps, 1916 (B 642), p. 199 -- Vigorous prospecting, 1914-15. Tunnel (total length 150 ft.) being driven on vein with moderate amounts of gold; objective is a fault zone exposed on surface. Where ground-sluiced off, zone is 60 ft. wide and is said to carry several dollars a ton in gold.

Ray, 1933 (B 849-C), p. 226-227 -- Reference to Capps, 1915 (B 607), p. 75-76. In 1931 adit was being driven to crosscut a large aplite dike in hope of finding a vein supposed to parallel it on north side. Adit had been driven about 270 ft.; last 100 ft. in aplite. Dike shows evidence of hydrothermal alteration. Largest and most persistent aplite dike in district; can be traced for more than 6 mi.

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 18 -- References to Capps, 1915 (B 607) and Ray, 1933 (B 849-C).
Summary: Small quartz vein in argillite and graywacke near irregular intrusive body of quartz diorite reported to have been worked in 1931. Rich float (presumably rich in gold) reported.

Park, 1933 (B 849-G), p. 420-421 -- Small vein reported to have been worked in 1931. Rich [in gold] float reported. Country rock is banded argillite and graywacke intruded and distorted by irregular mass of quartz diorite. Vein strikes N 30° W and dips 60° W.
Talkeetna (Gold Mining Co.)  
Gold, Molybdenum
Willow Creek district  
Anchorage (6.2, 14.5)
MF-409, loc. 19  
61°50'N, 149°15'W

Summary: Country rock is coarse quartz diorite. Ore deposits are quartz veins along fractures and an alaskite dike. Free gold and sulfides (mainly pyrite) in veins; molybdenite also present. Some of ore very rich. Developed by several hundred feet of workings, but mine was not one of the major producers of district. Staked in 1909 and explored for a few years; mining reported 1917 to 1922 or 1923. Includes references to: Consolidated Mining Co., Matanuska Gold Mining Co. See also Fern.

Katz, 1911 (B 480), p. 148 -- "Vein" is an aplitic or pegmatitic dike in places 9 ft. thick in "granite" and carries a few scattered black minerals, hornblende, and tourmaline; shattered and cemented by quartz; 8-in. quartz vein along hanging wall. Specks of sulfide minerals visible in quartz; values in gold associated with quartz and, reportedly, in decomposed wall rock. Developed by 2 small open cuts in 1910; tunnel planned for 1910-11.

Brooks, 1912 (B 520), p. 29 -- Development, 1911; open cuts and a 40-ft. adit.
Capps, 1915 (B 607), p. 50 -- Property staked in 1909 and prospected vigorously until the company was involved in litigation; no production as of 1914.

p. 72-73 -- Country rock is coarse gray quartz diorite cut by aplite dikes (locally called quartzite) and younger quartz veins. Explored by open cuts and over 200 ft. of tunnels. Ore deposits are quartz veins [that probably follow conjugate fractures] and along an alaskite dike. The veins not following the dike contain considerable gold (average nearly 5 fine oz. a ton) and sulfide, principally pyrite, much of which has been leached from cubical cavities; veins 1-12 in. thick. No data given on gold content of vein (as much as 30 in. thick) that follows alaskite dike; another alaskite dike contains disseminated pyrite, but very little gold.

Brooks, 1918 (B 662), p. 48 -- 4 adits (total length about 140 ft.) driven in 1916; also some open cuts.
Capps, 1919 (B 692), p. 182 -- Considerable surface improvements. Mining in 1917. More than 160 ft. of underground workings. Veins pinch and swell; main vein from 2 in. to 3 ft. thick.

p. 186 -- Molybdenite in upper basin of Fairangel Cr. [undoubtedly refers to Talkeetna].
Martin, 1919 (B 692), p. 32 -- Mining, 1917.
Chapin, 1920 (B 712), p. 176 -- Mining and milling, 1918.
Martin, 1920 (B 712), p. 34 -- Mining, 1918.
Brooks and Martin, 1921 (B 714), p. 77 -- Mining, 1919.
Chapin, 1921 (B 714), p. 204 -- Mining, 1919. Work restricted to one tunnel extending about 300 ft. along a vein that is 5-18 in. wide for 200 ft. and then widens to 5-8 ft.; contains quartz, gouge, and visible gold. Ore very rich in spots; workable ore in definite pay shoots.
Thorpe Gold, Silver

Willow Creek district Anchorage (4.75, 13.05)
MF-409, loc. 1 61°45'N, 149°25'W

Summary: Only productive mine in Willow Creek area that is in mica schist rather than quartz diorite. Quartz veins in shear zones that cut across foliation and bedding of schist; as much as 3 ft. thick. Staked before 1924; mining reported, 1924-25, 1942-43; probably was some at other times also; amount of production not known. Gold higher in silver content than that from other mines in area; assays as high as $25.92 [gold at $20.67] reported. These and other similar veins in schist were the probable sources of placer gold in Grubstake and Willow Creeks. Includes references to Elder & Thorpe.

Smith, 1926 (B 783), p. 8 -- Gold produced, 1924.
Moffit, 1927 (B 792), p. 11 -- Small gold production, 1925. Mine is of interest because it is the only one in the district that is in mica schist rather than in quartz diorite.
Smith, 1932 (B 824), p. 19 -- "The work done during 1929 on the Thorpe property consisted almost entirely in digging numerous open cuts on the surface in order to trace out the course of the veins." [This reference may be to a Thorpe prospect near the head of Craigie Cr. that is shown on pl. 1, Ray, 1954 (B 1004), but is not discussed in any report available to me.]
Ray, 1933 (B 849-C), p. 228 -- Quartz stringers from a fraction of an inch to 3-1/2 ft. thick parallel to foliation of mica schist; exposed in open cuts and shallow tunnels. Assays of $8.25 to $25.92 reported; tenor not consistent along strike. Gold contains more silver than that from mines in quartz diorite [all the others in the general area.]
These and similar veins in neighborhood were sources of placer gold in Grubstake and Willow Creeks.
Smith, 1942 (B 933-A), p. 21 -- According to local reports a company took over the old Thorpe mine, installed a mill and tram, and did underground development work in 1940.
Ray, 1954 (B 1004), p. 78-79 -- Only productive gold quartz vein in area in mica schist rather than in quartz diorite. Vein as much as 3 ft. wide in shear zone that strikes 130° and dips 53° NE (intersects foliation and bedding of schist at about 60°). Another nearly parallel shear zone reported to have high gold values; very little quartz visible. Shear zones have different attitudes from those of productive veins in quartz diorite. Developed by several hundred feet of workings. Located before 1930; mining as recently as 1942-43.
Berg and Cobb, 1967 (B 1246), p. 31, 34 -- Data from Ray, 1954 (B 1004) summarized [not specifically cited].
MacKeveit and Holloway, 1977 (OF 77-169A), p. 4, loc. 1 -- References to Ray, 1933 (B 849-C) and Ray, 1954 (B 1004).
(Thunder Bird Cr.) Chromite

Anchorage district Anchorage (5.9, 7.6)
MF-409, loc. 40 61°26'N, 149°18'W

Summary: Chromite occurrence apparently similar to others in Eklutna area. See also Highway.
Rose, 1966 (GR 18), p. 11 -- Exposures not good; apparently similar to other chromite occurrences in Eklutna area.
Clark and Bartsch, 1971 (OF 484), p. 8 -- Reference to above.
(Upper Willow Cr.) Copper, Gold
Willow Creek district Anchorage (5.55-5.65, 14.6-14.7)
MF-409, locs. 73, 74 61°46'-61°47'N, 149°19'-149°20'W
Summary: Traces of chalcopyrite and gold in float concentrates.
Walters, Brasslin & Atkinson
Gold, Lead, Zinc

Prince William Sound district
Anchorage (16.45, 1.15)

MF-409, loc. 60
61°03'N, 148°04'W

Summary: Thin quartz vein in slate and graywacke contains much arsenopyrite and also galena, gold, and sphalerite. Assays as high as about 4.25 oz. a ton reported. Explored by 77 ft. of underground workings and surface excavations. No record of production.

Johnson, 1914 (B 592), p. 225-226 -- Vertical quartz vein 2-8 in. thick strikes N 11°-40° E. In slate and graywacke. Explored by adit and crosscut (total length 77 ft.) and surface excavations. One wall bounded by gouge; the other frozen. Considerable arsenopyrite; also galena, gold, and sphalerite. Oxidized at outcrop. Assays said to range from $23 to $88 a ton [gold at $20.67].

MacKevett and Holloway, 1977 (OF 77-169A), p. 7, loc. 49 -- Reference to above.
War Baby

Willow Creek district Anchorage (5.0, 13.75)
MF-409, loc. 3 61°47'N, 149°24'W

Summary: Located in 1918 and development begun. Mined (with interruptions) from 1919 to 1940; operated with Lucky Shot after 1923. One of major mines of district; no data on amount of production. Ore from stope mined through 1927 averaged about 2.18 fine oz. gold a ton. Lode is an offset continuation of lode at Lucky Shot. Company shipped concentrates containing copper in 1927; some or all may have been from War Baby, or all may have been from Lucky Shot. See also Lucky Shot.

Chapin, 1920 (B 712), p. 173-174 -- Mineralized zone about 33 ft. thick contains 4 or 5 parallel quartz veins that strike N 80° E and dip 17°-62° NW. Footwall of zone is altered granite with 9 in. of quartz; above are 3 quartz veins 1-5 in. thick in 30-ft. interval of quartz diorite. Hanging wall is NW-dipping fissure parallel to veins. To SW, on what appears to be the same lode, a zone of altered granite 3-4 ft. thick contains a quartz vein 15 in. thick and quartz stringers. Development work, 1918.

Martin, 1920 (B 712), p. 34-35 -- Development work carried on and a small mill erected, 1918.

Brooks and Martin, 1921 (B 714), p. 77 -- Mining, 1919.

Chapin, 1921 (B 714), p. 202 -- First production in 1919. 2 short openings on vein; crosscut being driven to intersect vein at depth.


p. 40-41 -- Operated with Lucky Shot, 1923. 3 levels with about 1,115 ft. of adits and drifts.

Smith, 1926 (B 783), p. 8 -- Mining, 1924; largest producer in district.

Moffit, 1927 (B 792), p. 11 -- Production, 1925; less than Lucky Shot or Fern.

Smith, 1929 (B 797), p. 12 -- Willow Creek Mines (Inc.) one of principal producers in district, 1926. [Some production was probably from War Baby.]


p. 46 -- Company shipped concentrates containing copper, 1927. [Some or all may have come from War Baby.]

Smith, 1930 (B 813), p. 16 -- Mining by lessees, 1922.

Smith, 1932 (B 824), p. 18 -- Development work at Lucky Shot and/or War Baby and mill construction, 1929.

Ray, 1933 (B 849-C), p. 212-213 -- Claims first located in 1918; mined from 1922 through 1927. Workings terminate westward against fault that separates War Baby from Lucky Shot. Production from War Baby was from a single stope about 175 by 250 feet and in places 10-12 ft. wide; average gold content of ore mined said to have been $45 [about 2.18 fine oz.] a ton. Other mineralized material too low grade to mine.

Smith, 1934 (B 864-A), p. 18 -- Supplied some ore to company mill, 1933.
War Baby -- Continued

Smith, 1936 (B 868-A), p. 18 -- Mining, 1934. Shaft deepened and crosscut driven to intercept Lucky Shot vein.
Smith, 1938 (B 897-A), p. 19-20 -- Mining, 1936. Winze sunk 500 ft. below old adit level and drift run from bottom toward Lucky Shot. Exploration drilling between War Baby and Gold Bullion [no data on results].
Capps, 1940 (B 907), p. 176 -- Producing mine, 1936.
Smith, 1941 (B 926-A), p. 19 -- Mining, 1940. [Mining in 1938-39 probably reported with that of Lucky Shot.]
MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 3 -- References to Ray, 1933 (B 849-C), and Ray, 1954 (B 1004).
Webfoot

Willow Creek district
MF-409, loc. 20

Summary: Large tonnage of low-grade gold "ore" in a vein with 2-1/2 to 4 ft. of quartz explored by open cuts and about 300 ft. of drifts. Work reported in about 1910, 1918-1922, 1947-48. No record of production. Includes reference to Conroy.

Katz, 1911 (B 480), p. 148-149 -- One or more quartz veins exposed by a little stripping, 1910. Deposit not similar to that at adjoining Talkeetna prospect [which is called Matanuska Gold Mining Co. in this reference].

Capps, 1919 (B 692), p. 185 -- Developed by stripping along vein, which is said to have an average width of several feet of quartz and to carry encouraging amounts of gold.

Chapin, 1920 (B 712), p. 176 -- Development work, 1918. Vein reported to be exposed by surface stripping for a claim length.

Chapin, 1921 (B 714), p. 204 -- Development work, winter of 1919-20.

Brooks and Capps, 1924 (B 755), p. 31 -- Development, but no production, 1922.

Ray, 1954 (B 1004), p. 78 -- Believed to have been staked in about 1917; 2 patented claims. Large tonnage of low-grade material in a vein with 2-1/2 to 4 ft. of quartz, some of which is banded. Vein strikes about due north and dips 33°-40° W. Explored by open cuts and about 300 ft. of drifts. Some development, 1947-48; idle, 1948-50.

MacKevett and Holloway, 1977 (OF 77-169A), p. 5, loc. 17 -- References to Katz, 1911 (B 480), and Ray, 1954 (B 1004).
(Wells Bay) Copper

Prince William Sound Anchorage (22.1, 0.75)
MF-409, loc. 66  61°01'N, 147°24'W

Summary: Non productive copper prospect; has been considerable work.
No data on mineralogy or mode of occurrence of deposit.

Moffit and Fellows, 1950 (B 963-B), p. 77 -- Mineralized areas of sulfides
of copper and other metals found at many places on mainland between
Long Bay and Port Wells. None has produced any ore. "Considerable
work has been done on claims at the head of Wells Bay and on Long
Bay."

Berg and Cobb, 1967 (B 1246), p. 71 -- Nonproductive sulfide deposit on which
considerable work has been done.

MacKevett and Holloway, 1977 (OF 77-169A), p. 7, loc. 54 -- Reference to
Moffit and Fellows, 1950 (B 963-B). Probably in volcanic rocks of
Valdez Group or in Tertiary intrusive rocks.
(Wet Gulch) Gold(?)
Willow Creek district Anchorage (4.3, 13.35) approx. 61°46'N, 149°30'W

Summary: Placer gold claims; assessment work, 1950.

Wheeler, Betts & Dimmick

Gold

Willow Creek district

Anchorage (4.95, 13.15)

MF-409, loc. 2

61°45'N, 149°24'W

Summary: Quartz vein in graphitic mica schist reported to carry good gold values; no visible free gold.

Jasper, 1962, p. 79-81 -- Prospecting, 1962. Auger-hole sampling led uphill to rediscovery of quartz vein 17 in. thick in two old open cuts. Vein below zone of surface creep appears to strike N 30° W and to dip 55° SW (across schistosity of graphitic mica schist country rock). No visible gold, but sample across vein carried high gold values. Vein contains quartz, pyrite, cryptocrystalline hematite, and bands of schist. Vein reported to have been traced in auger holes for several thousand feet.

MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 2 -- Reference to above.
Willow Creek district
MR-409, locs. 68, 69

Summary: Has been placer mining here and on Grubstake Gulch. Claims staked as early as 1897; mining as recently as 1969. Gold derived from quartz veins in mica schist bedrock, mainly in basin of Grubstake Cr. Both creek and bench gravels have been mined.

Paige and Knopf, 1907 (B 327), p. 65-66 -- Staked in 1898; about $4,000 recovered. Recent [as of 1906] prospecting discovered commercial quantities of gold in a bench about 75 ft above creek bed near Wet Gulch.
Brooks, 1911 (P 70), p. 165 -- Only easterly tributary of Susitna River on which commercial gold placers have been found. [Valdez Cr. (Healy quad.) is evidently not considered an easterly tributary.]
Katz, 1911 (B 480), p. 139 -- Placer prospects on Grubstake and Willow Creeks principal mining interest until 1906, when first lode location in area was made.
  p. 150-151 -- Most of data from Paige and Knopf, 1907 (B 327). Project to mine bench gravels downstream from Wet Gulch apparently was abandoned.
Brooks, 1912 (B 520), p. 37 -- Mining, 1911 [may have been on Grubstake Gulch].
Brooks, 1913 (B 542), p. 44 -- Mining, 1912 [may have been on Grubstake Gulch].
Brooks, 1915 (B 622), p. 47-48 -- Has been placer mining; some gold recovered incidental to prospecting, 1914.
Capps, 1915 (B 607), p. 52-55 -- Most placer mining in basin has been on Grubstake Cr. and on Willow Cr. at mouth of Grubstake. Gold in benches near Wet Gulch has not been mined on any appreciable scale. Historical data same as in earlier reports.
Brooks, 1922 (B 722), p. 41-42 -- Total placer production has been worth about $30,000 [about 1,450 fine oz. of gold]; began in 1897; none for the last 10 years [as of 1920]. [This production figure probably includes that from Grubstake Cr.].
Ray, 1933 (B 849-C), p. 188 -- Placer gold discovered in district in 1897; several thousand dollars worth recovered between 1897 and 1905 from Grubstake Gulch and Willow Creek; very little since then. Derived from quartz veins in schist.
  p. 228 -- Gold derived from quartz veins in mica schist, including those at Clyde Thorpe lode property.
(Willow Cr.) -- Continued

Smith, 1939 (B 910-A), p. 43-44 -- For a number of years [as of 1937] there has been small placer-gold production; area underlain by schist. Smith, 1939 (B 917-A), p. 41 -- Same statement as in Smith, 1939 (B 910-A).

Capps, 1940 (B 907), p. 176 -- Has been placer mining; data from older reports.

Moxham and Nelson, 1952 (C 184), p. 5 -- Panned concentrate samples contained as much as 0.004% eU.


Jasper, 1966 (GC 7), p. 3 -- Past efforts at placer mining have not been successful.

Cobb, 1973 (B 1374), p. 19 -- Grubstake Gulch and part of Willow Cr. immediately below mouth of gulch have probably accounted for well over half the placer gold from the Willow Creek district. Gold derived from quartz veins in mica schist country rock; most probably from basin of Grubstake Cr. Claims staked as early as 1897; mining still in progress in 1969.

Wolverine Copper, Gold

Willow Creek district Anchorage (5.25, 14.1)
MF-409, loc. 4 61°48'N, 149°23'W

Summary: Quartz veins in shear zones in quartz diorite carry gold (as much as 3.6 oz. a ton, but commonly less than 0.5 oz. a ton), pyrite, arsenopyrite, and a little chalcopyrite. Small pod of bornite in quartz diorite near a vein. Explored by about 475 ft. of underground workings and surface excavations. No known production.

Jasper, 1962, p. 75-79, 84 -- 3 claims explored over the last 35 years [as of 1962] by about 475 ft of underground workings, open-cuts, and trenches. Workings have exposed 4 faults and 16 shear zones. Country rock is quartz diorite cut by a granite dike. Shear zones with general easterly strikes and northward dips contain quartz veins as much as 16 in. wide; quartz also is in narrow stringers in silicified quartz diorite. Total sulfides estimated to make up less than 2% of quartz veins; sulfides are pyrite, arsenopyrite, and minor chalcopyrite. Small pod of bornite found in country rock near a quartz vein. Assays of samples ran as high as 3.6 oz. a ton gold; most ran well below 0.5 oz. a ton.

MacKevett and Holloway, 1977 (OF 77-169A), p. 4, loc. 4 -- Reference to above.
Unnamed occurrence
Willow Creek district
MF-409, loc. 46

Chromite
Anchorage (11.4, 11.0)
61°37'N, 148°38'W

Summary: Chromite-rich layers \( \frac{1}{2} \) to 1 in. thick at the bases of "bed" 6-12 in. thick in olivine cumulate comprise about 5% of exposure; not economic.

Clark, 1972 (OF 522), p. 5 -- Chromite-rich layers \( \frac{1}{2} \) to 1 in. thick (30%-60% opaque minerals) at the bases of beds 6-12 in. thick in olivine cumulate. Chromite-rich layers comprise about 5% of total outcrop. Concentration of chromite not economic.

MacKevett and Holloway, 1977 (OF 77-169A), p. 6, loc. 35 -- Reference to above.
Summary: Thin vein (average thickness 7 in.) of shattered quartz contains galena, pyrite, and limonite. Assays show 0.01 oz. a ton gold, 1.4 oz. a ton silver, and 1.12% lead. Vein exposed by an open cut.

Park, 1933 (B 849-G), p. 421 -- Shattered quartz vein 1 in. to 2 ft. (average about 7 in.) thick in banded argillite and graywacke strikes N 50° W and dips 40° W; contains galena, pyrite, and limonite. Sample assayed 0.01 oz. a ton gold, 1.4 oz. a ton silver, and 1.12% lead. Vein exposed in an open cut.
Unnamed occurrence
Anchorage district
MF-409, loc. 92

Lead
Anchorage (8.75, 10.25)
61°35'N, 148°57'W

Summary: Float concentrate contained traces of galena.

Unnamed occurrence  Talc (soapstone)
Willow Creek district  Anchorage (5.25, 12.8)
                     61°44'N, 149°22'W

Summary: Talc (soapstone) associated with serpentinite in shear zone in Upper Paleozoic metamorphic rocks.

MacKevett and Holloway, 1977 (OF 77-169A), p. 10, loc. 143 -- "Talc (soapstone) associated with serpentinite in a shear zone that cuts Upper Paleozoic metamorphic rocks."
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. Many descriptions of some groups of deposits give information applicable to most or all of the individual occurrences, so the names of all the prospects or mines and their owners and operators are in this section with a notation to refer to the description of the entire group, which commonly is a geographic location and therefore shown in parentheses.
Agra -- see Agostino
Alaska Crow Creek Mining Co. -- see (Crow Cr.)
Alaska Free Gold -- see Martin
Alaska Free Gold Mining Co. -- see Gold Cord, Martin, Rae-Wallace
Alaska Gold Exploration & Development Co. -- see Agostino

Alaska Gypsum Products Co. -- see (Sheep Mtn.)
Alaska Gypsum Queen Corp -- see (Sheep Mtn.)
Alaska Hoosier Co. -- see (Willow Cr.)
Alaska Gold Quartz (Mining Co.) -- see Independence
Alaskan Wonder -- see Simonton & Mills

Alaska-Pacific Consolidated Mining Co. -- see Independence
Alaska Placer Gold Mining Co. -- see (Alfred Cr.)
Anchorage Gold Mines Co. -- see Lane
Anchorage Gypsum Products Co. -- see (Sheep Mtn.)
Anna -- see Agostino

Austin -- see Snow King
Babcock-McCoy -- see McCoy
Barnes -- see Agostino
Bartholf, B., & Bartholf, C. -- see Gold Cord
Bartholf, C. -- see Rae-Wallace

Bartholf, W. -- see Gold Bullion
Bartholf, W., & Bartholf, E. -- see (Willow Cr.)
Bartholf, Horning & Black -- see Gold Cord
Big Mogul -- see (Pioneer Cr.)
Black -- see Paymaster

(Boulder Cr.) -- see (Schoonoven Cr.)
Bralaska Mining Co. -- see Independence, Martin
Brooklyn (Development Co.) -- see Kelly-Willow
Brooklyn-Willow Creek Gold Mining Co. -- see Kelly-Willow
Brown -- see (Wet Gulch)

Bruno Agostino (Mining Co.) -- see Agostino
Bullion -- see Gold Bullion
Burr -- see Mary Ann
(Caribou Cr.) -- see (Alfred Cr.)
Carle -- see Independence

Conroy -- see Webfoot
Conroy & Marion -- see (Jim Cr.)
Consolidated Gold Mines -- see Alaska-Willow Creek, Newman & Miller, Talkeetna
Consolidated (Mining Co.) -- see Talkeetna
Conwest Exploration Co. -- see Lucky Shot

Crow Creek Consolidated Mining Co. -- see (Crow Cr.)
Crow Creek Gold Corp. -- see Agostino, Jewel
Crow Creek Mining Co. Inc. -- see Agostino
Danich -- see Gullysack
Dodson -- see Fern
Doheny & Thomson -- see Gold Bullion
Dolores -- see Grimes
Eagle -- see Agostino, Jap
(Eagle Cr.) -- see Eagle River
Edlund -- see Agostino

Elder & Thorpe -- see Thorpe
Eldorado -- see Martin
Erickson -- see (Crow Cr.)
Eureka -- see Griset & Benson
Evening Star -- see Rae-Wallace

Fairangel -- see Talkeetna
Fennimore -- see (Sheep Mtn.)
Fern & Goodell -- see Fern
Fern Gold Leasing Co. -- see Fern
Fern Gold Mining Co. -- see Fern

Fern, Taulman & Goodell -- see Arch
Fiske & Reed -- see Reed & Fiske
Free Gold (Mining Co.) -- see Martin
Gaikema & Conroy -- see Fern, Webfoot
Gem -- see Little Gem

Giant Gold Mining Co. -- see Marmot
Gilbert -- see (Grubstake Gulch)
Girdwood -- see (Crow Cr.)
Glacier -- see Lane
Gold Center -- see Kelly-Willow

Gold Bullion Mining Co. -- see Gold Bullion
Gold Dust -- see Gold Bullion
Golden Bear Mining Co. -- see Gold Cord
Golden Top -- see Kempf
Golden Wonder -- see Gold Bullion

Gold King -- see Brassel Bros.
Gold Mint -- see Lonesome
Gold Top Syndicate -- see Kempf
Hanson -- see Wolverine
Hanson & Richter -- see Homebuilder

Hartung & Murphy -- see Bailey
Hatcher -- see Little Gem, Lonesome
Herning -- see (Grubstake Gulch), (Willow Cr.)
Hi Grade -- see High Grade
Hill -- see (Grubstake Gulch), (Willow Cr.)

Hill & Cope -- see Lonesome
Hillis -- see Fern
Holland -- see Little Willie
Holmgren -- see Jewel
Holmgren-Erickson -- see (Crow Cr.)
Homestake -- see Martin
Horning, Bartholf, Miller & Rock -- see Lucky Shot, War Baby
Hornung & Bartholf -- see Gold Cord
Hottentot -- see Bahrenberg
Independence Gold Mines Co. -- see Independence

Independence (Gold) Mining Co. -- see Independence
Independent -- see Independence
Jennings -- see Rae
Jessie B. -- see (Peters Cr., trib. Knik Arm)
Johnson -- see Lonesome

Kelly (Mines) Co. -- see Independence, Kelly-Willow, Martin
Klondike & Boston Co. -- see (Grubstake Gulch), (Willow Cr.)
Klondike Boston (Mining) Co. -- see (Grubstake Gulch), (Willow Cr.)
Kloss and associates -- see High Grade
Kloss & Snyder -- see High Grade

Larsen -- see Idamar
Leona -- see Brassel Bros.
Lindblad -- see (Crow Cr.)
Little Gem Gold Mining Co. -- see Little Gem, Webfoot
Long & Holland -- see Little Willie

Loveland-Alaska Mining Co. -- see Mabel
Mabel Mining (, Milling & Power) Co. -- see Mabel
Marion Twin (Gold) Mining Co. -- see Lonesome, Marion Twin
Mary -- see Jap
Matanuska (Gold Mining Co.) -- see Talkeetna

Mayflower -- see Eagle River
McCallie -- see Moose Creek
McDougall -- see Fern
Miller-Newman -- see Newman & Miller
(Miners Bay) -- see (Miners R.)

Mint -- see Lonesome
Monarch-Jewel -- see Agostino, Jewel
Monarch (Mining Co.) -- see Agostino
Moon -- see Rae-Wallace
Morning Star -- see Rae-Wallace

Morris & Herndon -- see (Willow Cr.)
Murphy & Hartung -- see Bailey
New Bullion -- see Gold Bullion
North Homestake -- see Martin
Northwestern -- see Moose Creek

Nutter-Dawson (Mining) Co. -- see (Crow Cr.)
Oregon -- see Stiles
Patchell -- see Bahrenberg
Pearl -- see Lane
Pioneer -- see (Pioneer Cr.)
(Pioneer Peak) -- see (Pioneer Cr.)
Rapp & Till -- see Gold Bullion
Ray-Wallace (Mining Co.) -- see Rae-Wallace
Ready Bullion -- see Gold Bullion
Red Hills -- see Fern

(Reid Cr.) -- see (Reed Cr.)
Renshaw -- see Gold Cord
Richter -- see Homebuilder
Rosenthal -- see Rae-Wallace
Ruth -- see Agostino

Rutland -- see Fern
Ryan and associates -- see Highway
Shough -- see Stiles
Skarstad (& Laubner) -- see Opal
Skinner, Johnson & Ohlson -- see (Pioneer Cr.)

Smith (& Swan) -- see Gold Cord
South Homestake -- see Martin
Spruce -- see Griset & Benson
Staser -- see Agostino
Stella -- see Agostino

Styles -- see Agostino, Stiles
Sumner & Andrulli -- see (Metal Cr.)
Sun -- see Rae-Wallace
Tar Flat -- see Black & Hogan
Teddy -- see Lane

Thomas -- see Martin
Tony -- see Agostino
Treasure Box -- see Bahrenberg
Trickster -- see Rae-Wallace
(Twin Peaks) -- see (Eklutna Cr.)

Wadman -- see (Crow Cr.)
(West Twin Peak) -- see (Eklutna Cr.)
Willow Creek Mines (, Inc.) -- see Gold Bullion, Lucky Shot, Panhandle, War Baby
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