

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

By
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Open-File Report 80-87

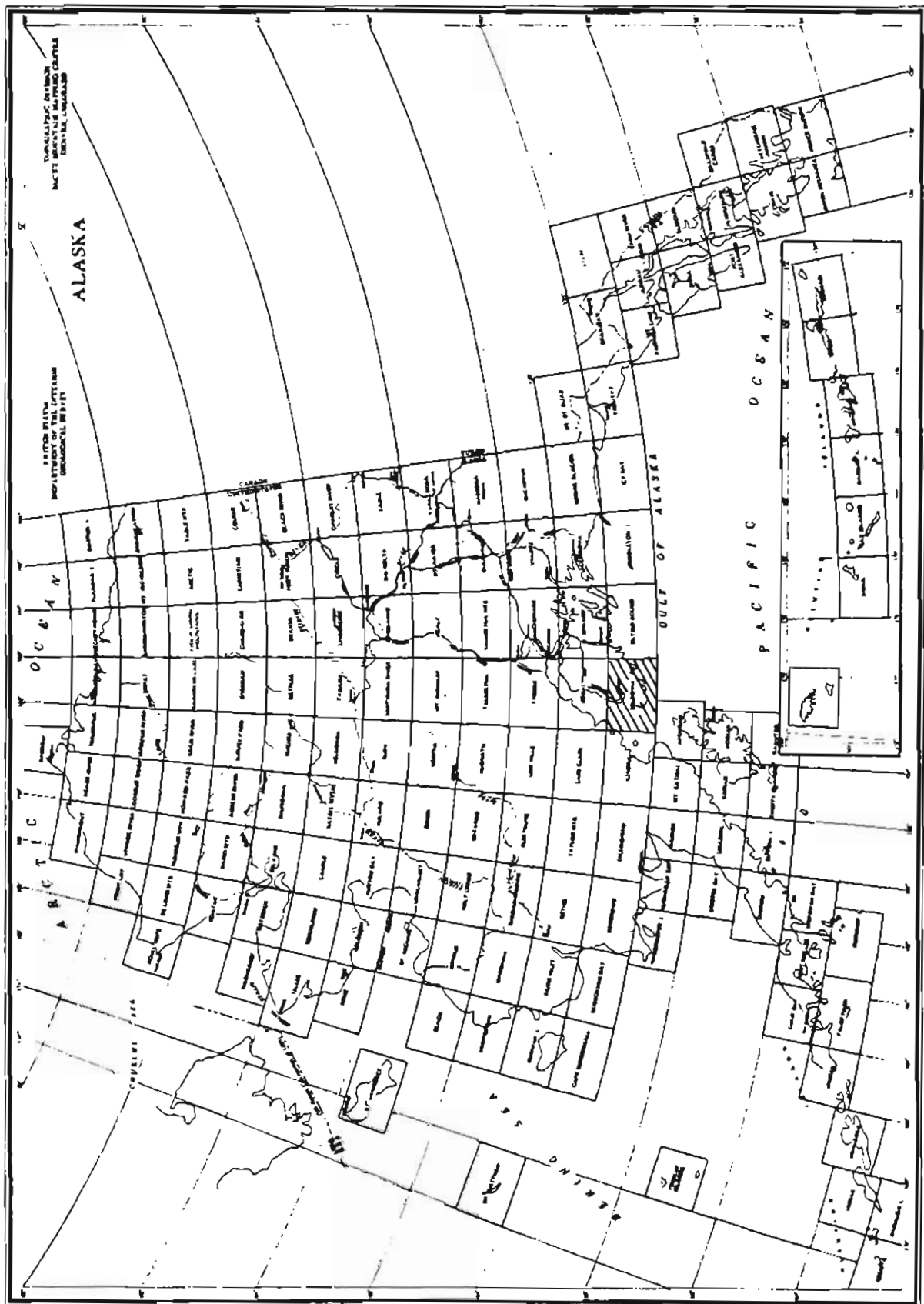
1979

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 Seldovia 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 September 1, 1979, are summarized. Certain, mainly statistical, reports such as the annual Mineral 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 (OF 77-169A), p. 55). 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 and in these introductory paragraphs.



Summaries of References

For each mineral occurrence there is a page that gives the name of the occurrence; the mineral commodities present (listed alphabetically); the mining district (Ransome and Kerns, 1954 (IC 7679)) in which the occurrence is located; the name of the 1:250,000-scale topographic quadrangle (Seldovia); coordinates (as described by Cobb and Kachadoorian, 1961 (B 1139), p. 3-4); the metallic mineral resources map number (MF 397) [Cobb, 1972] and the occurrence number on the map if the occurrence is shown; and the latitude and longitude of the occurrence. Numerical coordinates become progressively less accurate as their numbers increase because of the lack of scale stability of the base maps on which I plotted localities; all, however, are probably accurate within about 0.1 inch (about 0.4 mile).

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 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 usually are given if such names appear in the reports summarized. If a part of a proper name is not always used, that part of the name is shown in parentheses. If a deposit does not have a proper name, but is near a named geographic feature, the name of that feature is shown in parentheses in lieu of a proper name.

Citations are given in standard bibliographic format with the excep-

tion that references to reports and maps in numbered publication series also show, in parentheses, an abbreviation for the report or map series and the report or map number. Abbreviations used are:

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

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 avoid ambiguities.

Alaska Hills (Mines Corp.)

Gold

Homer district
MF-397, loc. 20

Seldovia (21.1, 10.3)
59°34'N, 150°38'W

Summary: Quartz veins 6-30 in. thick in graywacke and slate of Valdez Gp. contain arsenopyrite, pyrite, and gold. Developed by 4 adits and associated workings (total length more than 950 ft.). In workings the principal vein is displaced by a fault and narrows to stringers in slate; most of mine in graywacke. Production reported 1924-28, 1933-39; through 1931 was more than 1,935 fine oz. of gold; no data on later production. Silver undoubtedly present, but not mentioned in reports. Includes references to: Alaska Hills Mining Co., Paystreak.

Smith, 1926 (B 783), p. 8 -- Gold production from Paystreak claim reported, 1924.

Moffit, 1927 (B 792), p. 11 -- Production reported, 1925.

Smith, 1929 (B 797), p. 12 -- Production reported, 1926; good season.

Smith, 1930 (B 810), p. 16 -- Production reported, 1927.

Smith, 1930 (B 813), p. 17 -- Work closed early in 1928 season because a slide destroyed several of the buildings. Some prospecting and other work at neighboring prospects.

Smith, 1932 (B 824), p. 21 -- Assessment work only, 1929.

Pilgrim, 1933 p. 46-48 -- Discovered 1918, restaked 1923. Developed by 4 tunnels and other workings with a total length of about 950 ft. Vein stoped between uppermost level and surface and between 2 levels; slide rock below outcrop of main vein mined. Production through 1931 worth more than \$40,000 [1,935 fine oz.] in gold. 2 veins are white crystalline quartz that carries considerable metallic sulfides [which ones not specified]; 6 to 30 in. wide. Principal vein displaced by a fault in main workings; narrows and becomes scattered stringers in last 60 ft. of main tunnel, where country rock is slate; rest of level in graywacke. Description of milling equipment.

Smith, 1934 (B 864-A), p. 21 -- One of 2 principal producing mines in area, 1933.

Smith, 1936 (B 868-A), p. 23 -- One of 2 principal producing mines in area, 1934.

Smith, 1937 (B 880-A), p. 26 -- One of 2 principal producing mines in area, 1935.

Capps, 1938 (B 897-A), p. 29-30 -- Only assessment work, 1936; little work done since Pilgrim's visit in 1931. Most of data from Pilgrim, 1933 (above). [This is variance with data in 3 references immediately above].

Smith, 1939 (B 910-A), p. 29 -- Mining, 1937.

Smith, 1941 (B 926-A), p. 25 -- Mining, 1939.

Berg and Cobb, 1967 (B 1246), p. 77 -- Minable ore was found.

Richter, 1970 (B 625-B), p. B3 -- About 900 ft. of underground workings (exclusive of raises, stopes, and shafts); produced about \$45,000 worth of gold, 1924-31.

p. B6 -- Data summarized from p. B9-B10.

p. B9-B10 -- In 1967 surface plant had burned or collapsed. One adit caved at portal. Another about 110 ft. long in massive graywacke;

Alaska Hills (Mines Corp.) -- Continued

Richter, 1970 -- Continued

no veins exposed in it.; vein quartz with arsenopyrite and pyrite on tailing pile; grab sample assayed 0.3 ppm gold. Old main workings could not be found; probably in area covered by snow when visited by Richter. Most of description quoted from Pilgrim, 1933.

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 11 -- References to Pilgrim, 1933, and Richter, 1970 (P 625-B). In graywacke of Valdez Gp.

Alley

Gold(?)

Homer district

Seldovia (11.05-11.25, 5.9-6.2)
59°20'59°21'N, 151°45'-151°46'W

Summary: Claims staked on quartz veinlets that reportedly fill fractures in chert; assay of \$6 a ton in gold (at \$20.67) reported.

Grant and Higgins, 1910 (B 442), p. 176-177 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 232 -- Claims located on rusty-weathering fracture areas in chert country rock. Fractures filled with quartz veinlets; assay from one claim said to have shown \$6 a ton in gold[gold at \$20.67].

Berg and Cobb, 1967 (B 1246), p. 78 -- Data from above [not specifically cited].

(Anchor Point)

Gold, Platinum(?)

Homer district
MF-397, loc. 31

Seldovia (10.0-10.1, 13.25-13.5)
59°45'-59°46'N, 151°52'W

Summary: Mined intermittently from 1889 to as recently as 1911; all small scale, using rockers or sluice boxes; ditch 2 mi. long reported. Gold all fine and derived from erosion of glaciofluvial deposits; ultimate source in crystalline rocks far to east; gold in thin layer of gravel about 2 ft. below surface of beach. Rumors of presence of platinum not confirmed.

Moffit, 1906 (B 277), p. 44 -- A few ounces of fine gold, probably derived from bluffs, is recovered annually. Hydraulic plant installed several years ago was a failure; much money had been spent on ditches and buildings.

Atwood, 1909 (B 379), p. 147-148 -- In 1906 a few men were mining using rockers or small sluice boxes; reported to be making "fair wages." Gold very fine and deposit exceedingly shallow.

Grant and Higgins, 1910 (B 442), p. 171 -- Data quoted from Atwood, 1909 (B 379), p. 147-148.

Brooks, 1911 (P 70), p. 156 -- Gold discovered in 1890. Deposits appear to be small in extent and not very rich. Some hand mining; in 1890 3 men gained about \$7 a day in gold.

p. 163 -- Gold probably derived from either Kenai Fm. or from overlying gravels; ultimate source probably metamorphic rocks to east. Gold taken out with rockers; attempt to use larger scale methods not successful.

Brooks, 1912 (B 520), p. 37 -- Some beach mining, 1911.

Johnson, 1912 (B 520), p. 132 -- Beach placers present.

p. 141 -- Placer gold discovered, 1889.

p. 161 -- Worked with rockers and sluice boxes in 1911.

Martin and others, 1915 (B 587), p. 110-111 -- Data same as above; 2 men working in 1911. Ditch 2 miles long.

Gill, 1922 (B 742), p. 49 -- Unverified [and probably incorrect] report of platinum being found in a sample of beach sand.

Brooks, 1925 (B 773), p. 23 -- Was beach mining as early as 1891.

Barnes and Cobb, 1959 (B 1058-F), p. 227 -- Reference to Martin and others, 1915 (B 587).

Cobb, 1973 (B 1374), p. 36 -- Placer gold mined from beach intermittently from 1889 to as recently as 1911. Ditch 2 mi. long brought water for sluicing fine gold from a thin layer of beach gravel about 2 ft. below the surface. Gold derived from glaciofluvial deposits. Rumors of presence of platinum not confirmed.

MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 22 -- Reference to Martin and others, 1915 (B 587).

(Aurora)

Gold(?)

Homer district

Seldovia (16.9, 12.1)
59°41'N, 151°06'W

Summary: Three short tunnels driven in fractured graywacke near contact with a porphyry dike in early 1900's; some pyrite in material on a dump, but no other sign of mineralization. Considerable surface improvements at one time, but probably no more than assessment work was ever accomplished.

Moffit, 1906 (B 277), p. 47-48 -- Country rock cut by porphyry dikes; some parts highly pyritiferous and carry a little gold. Were extensive preparations for mining, but no more than assessment work has been done for last two years. Mill brought in, but not set up.

Grant and Higgins, 1910 (B 442) -- No activity in 1909.

Martin and others, 1915 (B 587), p. 232-233 -- Three tunnels driven for unknown, but probably short, distance into wall of canyon of a glacial stream; country rock fractured graywacke near contact with 20-ft. porphyry dike. Small amounts of disseminated pyrite in some of material on dump; no other evidence of mineralization. Had been considerable surface improvements.

(Clam Cove)

Zeolites

Redoubt district

Seldovia (0.6, 15.3) approx.
59°53'N, 152°56'W approx.

Summary: Heulandite and laumontite in sedimentary rocks (including volcanic ash) of Jurassic and Tertiary age.

Madonna, 1975 (AOF 87), p. 16-20, 27 -- Heulandite in siltstone and a thin, lenticular bed of carbonaceous ash stone as much as 2 ft. thick in Kenai Fm. [Tertiary]. Heulandite and laumontite, probably not in economic concentrations, in sandstone and siltstone of Naknek and/or Chinitna Fms. [Jurassic].

(Claim Point)

Chromite

Homer district
MF-397, loc. 1

Seldovia (10.6, 3.75)
59°12'N, 151°49'W

Summary: Banded dunite body (intrusive into graywacke and related rocks according to older ideas or as a klippe on rocks of the McHugh complex (Cretaceous?) according to some current ideas) somewhat more than one-quarter sq. mi. in surface extent above low-tide level contains bands, lenses, and disseminations of chromite. About 2,000 tons of chromite ore mined during World War I from the Reef mine, 2 lenses that crop out mainly between high- and low-tide levels; ore ran 40%-49% Cr_2O_3 with chrome:iron ratios of 2.6 to 3.9. Largest body (Bluff deposit) contains 250,000 tons or somewhat more of material with about 17.8% Cr_2O_3 . Total resource above low-tide level estimated to be about 260,000 tons of material with average 17.8% Cr_2O_3 content that could be concentrated to about 75,000 tons with 45% Cr_2O_3 . Probably there are other deposits under water and in covered areas on land. One sample analyzed contained a trace of nickel, probably in olivine. Includes references to: Bluff, (Port Chatham), Reef.

Grant and Higgins, 1910 (B 442), p. 168-169 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 237-238 -- Claims staked on peridotite that has fairly pure chromite in bands and "veinlike forms;" thickest band noted is 10 in. thick; about a quarter of a thickness of 3-10 ft. of rock is chromite.

Brooks, 1918 (B 662), p. 22 -- Reference to above.

Mertie, 1919 (B 692), p. 265-267 -- Lenses of chromite in peridotite. One lens near shore mined in 1917; production was 800 tons of ore that contained 40%-49% Cr_2O_3 ; about as much more in sight above half tide. Lens is about 100 ft. long and has maximum width of 20 ft. Other lenses of high-grade ore are no more than 3 ft. thick; lower grade lenses are 5-20 ft. thick.

Gill, 1920 (B 712), p. 100-111, 124-125 -- Preliminary to Gill, 1922 (B 742).

Martin, 1920 (B 712), p. 23, 34 -- Mine operated, 1918; production greater than in 1917. Considerable surface improvements.

Brooks, 1921 (B 714), p. 40 -- Chromite was mined during war; deposit will be mined when a market can be found.

Gill, 1922 (B 742), p. 1-2 -- Nearly a thousand tons of ore mined in each of 1917 and 1918; entire Alaskan production.

p. 13 -- Deposit at Reef mine about 135 ft. long and from 3 ft. to 47 ft. 5 in. thick; thickest part probably doubled by faulting; includes rocky material in bands in banded ore.

p. 16-29 -- Chromite deposit formed by settling of crystals early in differentiation of a highly magnesian magma. Banded ore probably formed by masses of chromite or chromite-rich dunite being swept along by flow of viscous magma. Apparently there are 14 separate bodies of potentially minable ore (10% or more Cr_2O_3); some are probably faulted segments of larger bodies. Chromite is in bands or composite layers from a fraction of an inch to 40 or more ft. thick and from 3 or 4 in.

(Claim Point) - Continued

Gill, 1922 - Continued

to more than 200 ft. long. Each of the 14 bodies is described in detail. Material shipped in 1917 ran 46%-49% Cr_2O_3 ; material shipped in 1918 was held to about 40% Cr_2O_3 because of contract specifications. Exportable ore (allowing for two-thirds recovery in concentrating process) estimated to be 32,300 tons above tide level and 12,600 tons below tide level.

p. 44-45 -- Resource data repeated. Data on possible mining and beneficiation methods.

Guild, 1942 (B 931-G), p. 139-143 -- Intrusive has above-sea-level area of somewhat more than one-fourth sq. mi. About 1,000 tons of ore (46%-49% Cr_2O_3) mined in 1917 and 1,000 tons (averaging 40% Cr_2O_3) mined in 1918; lower tenor in 1918 because of change in specifications by purchaser. No production since (as of March 1941). Chromite is in a dunite body which is serpentized along border and intrusive into graywacke and related rocks considered to be of probable Paleozoic age.

p. 147-152 -- Intrusive body practically all dunite; cut by a few olivine pyroxene dikelets; serpentized along shore of mainland and along contact with older rocks at the two places the contact is exposed. Chromite forms bands in dunite; from a fraction of an inch to several feet wide and from a few to a hundred or more feet long; generally strike about N 75° E and are vertical or dip steeply southward. Both preconsolidation and postconsolidation faults; displacements small. Most of chromite bodies sampled contain from 55% to 83% chromite with from 32.3% to 47.6% Cr_2O_3 ; Cr:Fe ratios from 2.9 to 3.5; a few samples are not in these ranges. Chromite grains are disseminated ore average less than 1 mm in diameter.

p. 156-162 -- Nearly half of exposed bedrock, including several ore bodies, is below high-tide level. Nearly all chromite production for Alaska has been from Reef mine. Deposit consists of 2 parallel lenses of chromite 150 and 110 ft. long and 20-25 ft. wide at center, tapering toward ends; strike N 80°-85° E, dip steeply south; cut by cross faults on which displacement was mainly vertical; channel samples contained 22%-80% chromite; Cr:Fe ratios from 2.6 to 3.9; most of ore above low-tide level has been mined. Largest deposit is Bluff ore body, which is incompletely exposed by trenches, stripping, and a 33-ft. adit; body at least 200 ft. long and at least 50 ft. wide near adit; analyses of channel samples showed that most of the ore would require concentrating; chromite ran 24% to 79% with Cr:Fe ratios from 2.7 to 4.1. Other deposits described in less detail. Total resource above low tide estimated at 5,600 tons of shipping ore and 58,450 tons of concentrating ore; total chromite 32,100 tons.

Bain, 1946 (IC 7379), p. 69-70 -- About 2,000 tons of metallurgical-grade chrome ore shipped during World War I. Later U.S.G.S. and U.S.B.M. investigations showed the presence of 263,000 tons of 17.8% Cr_2O_3 ore; not mined. No notable amount of metallurgical-grade ore.

(Claim Point) - Continued

- Sanford and Cole, 1946 (RI 4419) -- Geologic data from Guild, 1942 (B 931-G). Details of U.S.B.M. drilling, trenching, and sampling program during World War II. 440 ft. of crosscuts driven in or toward largest chromite deposit on Bluff No. 1 claim by owners. Analysis of one sample showed a trace of nickel, apparently occurring "as a silicate in the olivine." Beneficiation tests by U.S.B.M. on sample with 28.2% Cr_2O_3 described; preparation of high-grade concentrate is feasible.
- Twenhöfel, 1953 (C 252), p. 10-11 -- Most of known ore is in a single banded and disseminated deposit estimated to contain about 250,000 tons of indicated ore carrying 17%-18% Cr_2O_3 , and about 2,000 tons of inferred ore averaging 42% Cr_2O_3 .
- Berg and Cobb, 1967 (B 1246), p. 78-79 -- Estimated chromite resources include 272,700 long tons of material containing 16%-26% Cr_2O_3 with Cr:Fe ratio of 2.7.
- Bird, 1977 (OF 77-236), samples 248, 249 -- Microprobe analyses of chromite and olivine.
- MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 1 -- References to Guild, 1942 (B 931-G) and Sanford and Cole, 1949 (RI 4419). Magmatic deposit of chromite in layers, lenses, and disseminations in layered dunite.
- MacKevett and others, 1978 (OF 78-1-E), p. 17 -- According to recent studies ultramafic body is interpreted at a klippe thrust over McHugh complex (Cretaceous?). Resource is about 260,000 tons at 17.8% Cr_2O_3 that could be concentrated to about 75,000 tons at 45% Cr_2O_3 . Additional deposits under water and younger rocks likely.

Frank

Gold

Homer district
MF-397, loc. 22

Seldovia (21.45, 10.25)
59°34'N, 150°35'W

Summary: Quartz veins in slate and graywacke of Valdez Gp. contain arsenopyrite, pyrite, and a little gold. About 100 ft. of underground workings, now caved. No record of production.

Pilgrim, 1933, p. 40 — Body of quartz between slate and graywacke is as much as 5 ft. wide and contains arsenopyrite and pyrite; trends N 60° E. Another quartz vein 8-14 in. wide exposed in 51 ft. of drifts at end of a 60-ft.-long crosscut tunnel; strikes N 52° E and dips 79° N; cuts across cleavage of slate country rock. [No data on gold content.]

Richter, 1970 (P 625-B), p. 86 -- Data as given above.

p. B11 -- Data from above; adit near high-tide level caved in 1967. Grab sample (from dump) of vein quartz with minor arsenopyrite contained 0.04 ppm gold.

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 13 -- Combined with Rosness & Larson. References to above. Country rock Valdez Gp.

Glass & Heifner

Gold, Lead, Silver, Zinc

Homer district
MF-397, loc. 19

Seldovia (20.65, 10.0)
59°33'N, 150°41'W

Summary: Three quartz veins in graywacke and slate of Valdez Gp. contain arsenopyrite, sphalerite, galena, gold, and silver; from a few inches to as much as 5 ft. thick; feather out when in slate. Assays of samples show as much as 72 ppm (2.099 oz. per ton) gold and 0.25 oz. per ton silver. Mine consists of several hundred ft. of underground workings, surface excavations; has mill, which was operated in 1967 and probably later; amount of production not reported. Includes references to: (Little Cr.), Mount.

Pilgrim, 1933, p. 44-46 -- Originally located and development work begun in 1924. At least 4 quartz veins in slate and graywacke are from 6 in. to 6 ft. wide and contains arsenopyrite, sphalerite, and galena. Assays of samples taken across 14 in. of a vein in a 50-ft. tunnel showed 0.32 oz. gold and 0.15 oz. silver per ton for oxidized material. Other veins are exposed by open cuts and a 15-ft. shaft; assays of samples from one of the veins indicated 0.02 to 0.20 oz. gold and 0.10 to 0.25 oz. silver per ton. In one open cut the quartz contains visible gold.

Capps, 1938 (B 897-A), p. 32 -- Over 400 ft. of tunnels and raises driven in 1932-34 did not disclose ore valuable enough to justify a mill. Only assessment work since 1934 [as of 1936].

Richter, 1970 (P 625-B), p. B3 -- By fall of 1967 small mill had been constructed and some ore mined.

p. B6 -- 3 veins 1 to 4 ft. thick exposed over lengths of 100 to 300 ft. in graywacke and slate; strike N 80°-90° W and dip 40°-85° N.

p. B8-B9 -- References to earlier work. Property idle 1934-65. Mill installed and surface mining begun in 1967 [amount of production not given]. Where veins extend into slate from graywacke they feather out. Principal vein is sporadically exposed for 350 ft. in surface workings and for 125 ft. underground. Vein, locally sheeted with horizons of graywacke in the quartz, is from less than one foot to as much as 5 ft. wide. Principal sulfide is arsenopyrite. 2 random samples across vein contained 72 and 0.2 ppm gold. The next largest vein apparently is similar; relatively abundant native gold (some visible) in one pit exposing vein; samples across 2.1 ft. of vein assayed 2 ppm gold.

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 10 -- References to Pilgrim, 1933, and Richter, 1970 (P 625-B). Country rock is part of Valdez Gp.

Goyne

Gold, Lead, Silver

Homer district
MF-397, loc. 26

Seldovia (22.35, 9.35)
59°31'N, 150°30'W

Summary: Quartz veins and lenses in and along margin of segmented Tertiary granodiorite dike that is as much as 100 ft. thick and cuts slate of Valdez Gp. Principal vein exposed about 100 ft. horizontally and 110 ft. vertically in workings; as much as 1.1 ft. thick; contains arsenopyrite, galena, gold, and silver; report of tellurium not confirmed. Picked sample reported to have assayed 158.16 oz. gold and 58.92 oz. silver per ton. Shipment of about 3-1/2 tons of ore returned 4.10 oz. gold and 1.72 oz. silver per ton. No other production reported. Total length of underground workings about 600 ft.

Pilgrim, 1933, p. 36-37 -- Two parallel quartz veins, one along or close to contact between graywacke and slate and the other wholly in graywacke, contain arsenopyrite, galena, and visible gold. Contact vein sheeted in places; as much as 57 in. wide in tunnel; other vein as much as 48 in. wide. Gold and silver seem to be associated with galena more than with arsenopyrite. Shipment of several tons of sorted ore returned 4.10 oz. gold and 1.72 oz. silver per ton. Veins strike about west and dip steeply south. Property developed by tunnel 51 ft. long.

Capps, 1938 (B 897-A), p. 30-31 -- 2 adits and many open cuts on showings of vein quartz at or near the contact of a vertical dike that is 20 to 35 ft. thick, strikes N 63° W, and cuts black slate that strikes N 38° W and dips 70° SW. Lower adit (300 ft. long) encountered 6-in. quartz vein in dike and (at face) a 1-ft. quartz vein with abundant sulfides (mainly arsenopyrite) and, reportedly, "a satisfactory gold content." Upper adit (150 ft. long) is mainly in dike and cuts 3 quartz veins 2 to 16 in. thick. Open cuts expose lenses or stringers of quartz along north wall of dike; quartz bodies extend SW across dike, but only fingers of quartz extend into slate south of dike; quartz bodies irregular and 1 in. to 3 ft. thick. Commercial assay of picked sample from surface showed 158.16 oz. gold and 58.92 oz. silver per ton and 0.72% tellurium; tellurium not confirmed by USGS analyses of samples. Shipment of 6,710 lbs. ore from upper tunnel yielded 4.10 oz. gold and 1.72 oz. silver per ton. Exploration to date [1936] has not shown enough ore in sight to justify a mill.

Berg and Cobb, 1967 (B 1246), p. 77 -- Movable ore was found.

Richter, 1970 (P 625-B), p. B3-B6 -- About 600 ft. of underground workings; between 1931 and 1934 produced less than \$1,000 worth of gold. Dike, as much as 100 ft. thick, is one of the coarsest granodiorite intrusives in the area. Average attitude of vein is N 85° E strike and 75° S dip; 100 ft. long and has maximum width of 1.1 ft.

p. B11-B12 -- Exploration and development work consisted of 2 adits about 25 and 135 ft. above sea level and a number of pits and

Goyne -- Continued

Richter, 1970 -- Continued

trenches that traced a series of mineralized quartz veins in a granodiorite dike from sea level to top of ridge at elevation of about 1,000 ft. Most of work before 1934; unsuccessful attempt to work deposit some time after World War II. Country rock is black slate intruded by irregular, locally segmented granodiorite dike from 30 to probably as much as 100 ft. thick. Slaty cleavage generally strikes about north and is vertical; near dike it is generally concordant with dike which has a general strike of east and dips 65° - 85° S. Quartz veins, in places with abundant arsenopyrite, confined to dike or, locally, to dike-slate contact; narrow and discontinuous; in general parallel trend of dike; where veins trend into slate they pinch or feather out. Principal vein exposed in both adits and along raise connecting them; width 0.9 ft. in upper adit and 1.1 ft. in lower adit; horizontal extent in upper adit 70 ft. and about 100 ft. in lower adit; adits about 110 ft. apart vertically. Random channel samples across vein contained 200 ppm and 40 ppm gold.

MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 17 -- References to above. Country rock Valdez Gp. cut by Tertiary dike.

Hatcher

Copper, Gold, Lead, Silver, Zinc

Homer district
MF-397, loc. 24

Seldovia (22.15, 10.35)
59°34'N, 150°31'W

Summary: Old prospects on quartz veins in mainly graywacke of Valdez Gp. Veins as much as 6 ft. thick; at least one contains pyrite, arsenopyrite, small amounts of galena, sphalerite, and chalcopyrite, and free gold; silver in assays. Explored by short tunnels. No record of any production. See also Nukalaska Mining Co.

Pilgrim, 1933 p. 42-44 -- Quartz vein 4 ft. thick above 3 ft. of graywacke and 4 ft. of fractured graywacke cemented by quartz contains pyrite, arsenopyrite, and traces of galena, sphalerite, and chalcopyrite; assay of a specimen showed 0.01 oz. gold and 0.20 oz. silver per ton. Country rocks graywacke; vein terminated against slate in tunnel which was driven 30 ft. Vein strikes N 77° E and dips 70° N. Nearby another vein of massive quartz is 6 ft. wide, strikes N 85° W, dips 85° S, and is between walls of massive graywacke; explored by a short tunnel near sea level and by a 60-ft. tunnel 85 ft. higher, where vein is 2 ft. wide; in one exposure at elevation of 170 ft. vein is 4 ft. wide and contains visible gold; sample returned assay of \$20 [a little less than an ounce] per ton in gold. Hatcher also held a group of 3 claims several thousand feet to the south where an apparently barren quartz vein was followed by a tunnel for 20 ft.

Richter, 1970 (P 625-B), p. B6 -- 2 veins. One is vertical, strikes N 70° W, is 200 ft. long and 4 ft. wide, and is in graywacke, conglomerate, and slate. Other vein strikes N 80° W and dips 70° N, is at least 20 ft. long and 3 ft. wide, and is in graywacke and conglomerate.

p. B11 -- Some data from Pilgrim, 1933. 2 adits near high tide visible in June 1967. Data on veins given here are summarized on p. B6. MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 15 -- References to above. Country rock Valdez Gp.

Johnston & Degan

Gold, Lead, Silver

Homer district
MF-397, loc. 25

Seldovia (22.3, 9.55)
59°31'N, 150°30'W

Summary: Country rock graywacke, conglomerate, and slate of Valdez Gp.
Quartz veins, at least one sheeted, as much as 40 in. wide.
Some contain galena, arsenopyrite, and pyrite. Sample assayed 0.98 oz. gold and 1.0 oz. silver per ton. Little exploratory work.
Prospect could not be found in 1967.

Pilgrim, 1933, p. 34-36 -- Claims between Quartz and Surprise Bays. Several quartz veins in graywacke near contact with conglomerate; most have no visible sulfides. At an elevation of about 950 ft. a vein with a general NE strike is 12-40 in. wide and is intersected by 3 cross veins that terminate against the main vein; the main vein in places contains sulfides and as much as 0.98 oz. gold and 1.0 oz. silver per ton. One of the cross veins is 36 in. wide and contains galena, arsenopyrite, and pyrite; another of the cross veins is 2 ft. wide and sheeted, containing sulfides. Exploration consists of surface trenches.

Capps, 1938 (B 897-A), p. 28 -- Incorporated into Sonny Fox holdings. Has been no recent work.

Richter, 1970 (P 625-B), p. B14 -- Could not be found in 1967; probably covered by slide debris or snow. Data from Pilgrim, 1933, summarized.

MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 16 -- Reference to Pilgrim, 1933. Country rock Valdez Gp.

Kusturin & Johanson

Copper, Gold(?)

Homer district
MF-397, loc. 29

Seldovia (25.2, 11.55)
59°38'N, 150°10'W

Summary: Quartz veins cutting slate and graywacke of Valdez Gp. contain small amounts of pyrite, chalcopyrite, and graphite; gold, if present, not reported. Little work has been done on prospect; all in early 1900's. See also (Two Arm Bay).

Grant and Higgins, 1910 (B 442), p. 173-174 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 229 -- Nine claims staked on 3 quartz veins from 2 to 6 ft. thick; one strikes N 27° E; dips 40° W, and is 71 in. thick; carries small amounts of pyrite, chalcopyrite, and graphite [no data on gold content, if any]. Little work has been done on prospect.

Berg and Cobb, 1967 (B 1246), p. 77 -- Data from above [not specifically cited] combined with those for (Two Arm Bay).

MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 20 -- Reference to above. Country rock is slate and graywacke of Valdez Gp.

Mills & Trimble

Copper, Gold, Nickel(?), Silver

Homer district
MF-397, loc. 3

Seldovia (12.95, 4.8)
59°16'N, 151°33'W

Summary: Rocks of Valdez Gp. and Tertiary felsic dikes cut by quartz veins and veinlets that contain arsenopyrite, chalcopyrite, and pyrite; gold, silver, copper, and nickel reported. Several small openings made in early 1900's.

Grant and Higgins, 1910 (B 442), p. 175-176 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 231 -- Country rock is graywacke, chert, limestone, tuff, and greenstone [of Valdez Gp.] cut by acidic dikes. Quartz veins about a foot wide contain arsenopyrite, chalcopyrite, and pyrite; gold, silver, copper, and nickel reported. In one place a zone of altered fractured dike rock is about 30-50 ft. wide, strikes generally north, dips 60°-70° W, and contains quartz veinlets; several small openings have been made in this zone.

Berg and Cobb, 1967 (B 1246), p. 78 -- Data from above [not specifically cited].

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 3 -- Reference to Martin and others, 1915 (B 587), p. 231. Deposit in quartz veins and veinlets that cut Valdez Gp. and Tertiary felsic dikes.

Morris, Sheridan, Kuppler & Lee

Copper, Gold(?)

Homer district

Seldovia (23.15, 10.4)

MF-397, loc. 32

59°34'N, 150°24'W

Summary: Large pieces of quartz float contain chalcopyrite; lode source not found. In same general area granitic dikes and quartz veins contain iron sulfides. Minor activity in early 1900's.

Grant and Higgins, 1910 (B 442), p. 174 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 229-230 -- Large pieces of quartz float carry chalcopyrite; lode source not found. In same general area the same men staked claims on granitic dikes and quartz veins in slate and graywacke; dikes contain pyrite and pyrrhotite and the veins pyrite. Little physical exploration. [Probably near Rosness & Larson].

Cobb, 1973 (B 1347), p. 37 -- Reference to above.

Nuka Bay Mines Co.

Gold, Silver

Homer district
MF-397, loc. 21

Seldovia (21.2, 10.05)
59°33'N, 150°37'W

Summary: Quartz veins as much as 2 ft. wide in graywacke, argillite, and slate of Valdez Gp. contain sulfides (mainly arsenopyrite and pyrite and pyrite). One channel sample assayed 304 ppm (8.867 oz. per ton) gold; others were considerably lower in gold content; contained as much as 0.25 oz. per ton silver. Exploration consisted of 2 shallow shafts, open cuts, and an adit (410 ft. of workings) that did not encounter the veins it was designed to undercut. No record of production, but a mill was once on the property.

Smith, 1932 (B 824), p. 21 -- About 95 feet of tunnel driven in 1929; mill not operated.

Pilgrim, 1933, p. 48-50 -- 3 quartz veins in graywacke are as much as 3 ft. wide (including some brecciated graywacke). Highest vein strikes about W and dips 65°-75° S; 3 channel samples across 2-3 feet contained 0.16-4.54 oz. gold and 0.20-0.25 oz. silver per ton; explored by open cuts and a timbered shaft [depth not given]. Next lower vein strikes N 83° W, dips 85° N; vein exposed for 180 ft.; cut off at one end by a fault with slate on the other side; sample of quartz from an open cut assayed 0.02 oz. gold and 0.10 oz. silver per ton. Lowest vein strikes N 61° E and dips 85° N; vein exposed for 180 ft.; cut off at one end by a fault with slate on the other side; sample of quartz from an open cut assayed 0.02 oz. gold and 0.10 oz. silver per ton. Lowest vein strikes N 61° E and dips 85° SE; contains much graywacke breccia; no work done on this vein. Tunnel driven nearly 400 ft. did not intersect target veins. Small mill on property.

Capps, 1938 (B 897-A), p. 30 -- No work since Pilgrim's visit. 52-ft. cross-cut driven from tunnel shows small quartz vein that strikes N 66° E and dips 70° S. Except for some quartz near the portal, the tunnel is in hard, barren graywacke.

Richter, 1970 (P 625-B), p. B6 -- Table summarizes some of data given on p. B10-B11.

p. B10-B11 -- Between 1,120 and 1,400 ft. above sea level. Apparently all work was before 1931. At elevation of about 1,400 ft. quartz vein that strikes N 85° W, dips 82° N, and is exposed for 15 ft. in open cut in front of a caved adit; in thin-bedded graywacke and slate; iron stained and contains irregular lenses and stringers of sulfides (mainly arsenopyrite and pyrite); 1-ft. channel sample across part of vein with about 5% sulfides assayed 8.8 ppm gold. At elevation of about 1,180 ft. quartz vein in thin-bedded graywacke and argillite strikes N 85° W and dips 76° W; explored by now-flooded shaft which appears to be about 30 ft. deep. Vein exposed for about 20 ft. on surface; 1-2 ft. wide, locally with lenses of country rock in it; random channel sample across 2 ft. of vein (including some massive arsenopyrite) assayed 304 pp (8.867 oz. per ton) gold. Nearby a 5-ft. shaft was sunk on a 0.5-ft. vein that is vertical and strikes N 80° W; minor amounts of sulfides on dump. At elevation of about 1,120 ft. an exploratory adit with about 410 ft. of workings was driven in thick-bedded dense graywacke containing lenses of argillite;

Nuka Bay Mines Co. -- Continued

Richter, 1970 (P 625-B) -- Continued

encountered 2 quartz veins (one appears to end in a stockwork) without appreciable sulfides; 1-ft. channel sample of one vein assayed 0.8 ppm gold. Adit apparently driven to undercut veins in shafts; one vein evidently did not extend down to adit level and the projection of the other was not reached.

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 12 -- References to Pilgrim, 1933, and Richter, 1970. Country rock Valdez Gp.

(Nuka Bay, North Arm)

Gold, Silver

Homer district
MF-397, loc. 23

Saldovia (22.0, 10.15)
59°33'N, 150°32'W

Summary: Quartz stringers in slate of Valdez Gp. contain specks of pyrite; one contains (on the basis of one assay) 0.08 oz. gold and 0.30 oz. silver per ton.

Pilgrim, 1933, p. 44 -- Quartz stringers in brown-stained outcrop of slate more than 10 ft. wide; grab sample of quartz assayed 0.08 oz. gold and 0.30 oz. silver per ton. Nearby a tunnel was driven 26 ft. on a 5-ft. quartz vein with scattered specks of pyrite.

MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 14 -- Reference to above. In Valdez Gp.

Nukalaska Mining Co.

Copper, Gold, Lead

Homer district
MF-397, loc. 17

Seldovia (20.8, 9.25)
59°31'N, 150°40'W

Summary: Quartz vein 10-18 in. thick along footwall of 12-ft. Tertiary quartz diorite dike in graywacke and slate of Valdez Gp. carries arsenopyrite, pyrite, chalcopyrite, visible gold, tetrahedrite, chalcocite, and covellite. About 900 ft. of workings plus stopes; mill was on property. Concentrates amounted to about one ton for every 100 tons of ore mined; carried 22-51 oz. gold per ton. Material mined in 1936 yielded \$100 per ton in gold, even though much diluted with wall rock. Mine operated from 1934 or 1935 to 1940. No data on silver content of ore; some undoubtedly present.

Capps, 1938 (B 897-A), p. 27-29 -- Discovered in about 1926; relocated 1931-32; development in 1934-35; mining in 1936. Description of mill and surface improvements. Concentrates amount to about one ton for every 100 tons of ore mined; carry \$775 to \$1,774 a ton in gold [22 to 51 fine oz. per ton]. Adit driven into cliff 200 ft. below outcrop hit vein at 230 ft.; cross-cuts driven 175 ft. westward and 200 ft. eastward; rich shoot in western crosscut is source of all ore mined. In 1936 ore shoot was 140 ft. wide and was being stoped 80 ft. upward. Second ore shoot found on surface not yet reached in workings. Vein strikes about E and dips 80° S; is parallel to and along footwall of a 12-ft. quartz diorite dike; country rock is ENE-striking slate and graywacke; vein is from 10 to 18 in. thick and more or less oxidized. Spurs that branch into dike are lower grade than main vein. Dike and vein displaced by small NW-trending faults. Ore is somewhat banded quartz with visible arsenopyrite, pyrite, chalcopyrite, galena, and free gold; microscopic examination revealed tetrahedrite, chalcocite, and covellite; rumors of tellurides not confirmed. Material mined in 1936 yielded \$100 per ton in gold, even though two-thirds of mill feed was country rock.

Smith, 1939 (B 910-A), p. 29 -- Mining, 1937.

Smith, 1939 (B 917-A), p. 28 -- Fire destroyed part of buildings, hampering mining, 1938.

Smith, 1941 (B 926-A), p. 25 -- Snow slides damaged some of surface equipment, winter of 1938-39, but long tunnel was extended about 350 ft. in 1939.

Berg and Cobb, 1967 (B 1246), p. 76-77 -- Substantial amount of ore milled yielded an average of \$100 per ton (gold probably at \$35).

Richter, 1970 (P 625-B), p. B3 -- About 900 ft. of workings (exclusive of raises, stopes, and shafts); about \$35,000 worth of gold produced 1934-40.
p. B6 -- Data also on p. B8.

p. B8 -- In 1967 all that was left of surface improvements was an aerial tram, the remains of another, and a small bunkhouse cabled to a narrow ledge. Workings inaccessible because of caved timbers at portal. Mine operated from 1934 or 1935 to 1940; short-lived attempt to reactivate mine after World War II. Most of data quoted from Capps, 1938 (B 897-A).
MacKevett and Holloway, 1977 (OF 77-169-A), p. 54, loc. 8 -- References to Capps, 1938 (B 897-A), and Richter, 1970 (P 625-B). In slate and graywacke of Valdez Gp. cut by Tertiary felsic dikes.

(Port Dick)

Copper, Gold, Silver, Zinc

Homer district

Seldovia (15.3-16.2, 5.5-5.8)

MF-397, locs. 14, 15

59°18'-59°19'N, 151°11'-151°18'W

Summary: Quartz veins in metasedimentary and metavolcanic rocks of Valdez Gp. cut by Tertiary granitic dikes contain chalcopyrite, pyrite, arsenopyrite, sphalerite, and a little gold and silver. Several hundred feet of tunnels driven between 1899 and 1907; no record of production. At one place pyrrhotite and chalcopyrite impregnated chert of Valdez Gp.

Brooks, 1909 (B 379), p. 30 -- Brooks received a sample of pyritiferous quartz from Port Dick; contained 0.123 oz. gold and 1.32 oz. silver (value \$3.24) per ton. No data on dimensions or occurrence of ore body.

Grant and Higgins, 1910 (B 442), p. 174-175 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 230-231 -- Country rock graywacke, slate, chert, tuff, and greenstone cut by fine-grained biotite granite dikes. [At loc. 14, MF-397] several hundred feet of tunnels were run in 1899 and 1904-07 on quartz veins that strike about WNW and dip steeply (more commonly to N) and are generally about 2 ft. or less thick and carry arsenopyrite, chalcopyrite, pyrite, and sphalerite. [At loc. 15, MF-397] fractured chert is impregnated by pyrrhotite and chalcopyrite; was a little excavation.

Berg and Cobb, 1967 (B 1246), p. 77 -- Data from above [not specifically cited].

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, locs. 5, 6 -- References to above. Country rock metasedimentary and metavolcanic rocks of Valdez Gp. cut by Tertiary plutons.

(Red Mtn.)

Chromite, Cobalt, Nickel

Homer district
MF-397, locs. 4-13

Seldovia (13.2-13.75, 6.25-6.95)
59°21'-59°23'N, 151°28'-151°32'W

Summary: Ultramafic body underlies area of about 7 sq. mi.; mainly dunite (serpentinized at margins) with persistent bands of pyroxenite and less persistent bands, lenses, and disseminations of chromite, nearly all in the dunite. According to older ideas the ultramafic body intruded graywacke and related rocks; a current hypothesis is that the ultramafic body is a klippe thrust over the McHugh complex (Cretaceous?). A test shipment (source not specified) of ten tons in 1931 was reported. Largest chromite deposit (Star No. 4) is 3 lenses of chromite in dunite; resource estimated at 60,000 tons of shipping ore and 8,000 tons of concentrating ore; total chromite content of 64,000 tons; chrome:iron ratio 2.3 to 3.5; about 15,000 tons of ore mined and shipped in or soon after 1954 with average of about 46% Cr_2O_3 . Chrome Queen deposit much smaller; about 6,650 tons of 40%-42% Cr_2O_3 ore mined 1942-44. Total resource of these and many other individual deposits estimated to be 67,500 tons of shipping ore and 112,250 tons of concentrating ore; total chromite content 118,500 tons. Analyses of olivine samples showed small amounts (no more than 0.26%) of nickel and 0.03% cobalt.

Grant and Higgins, 1910 (B 442), p. 168-169 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 237-238 -- Dunite body about 2 mi. in diameter in possibly Triassic cherts and tuffs contains small grains of chromite which in places are segregated into bands from a fraction of an inch to a foot (most 1-3 in.) thick. In one place a 20-ft. thickness of country rock is about 1/5 chromite bands.

Brooks, 1918 (B 662), p. 22 -- Reference to above.

Mertie, 1919 (B 692), p. 265-267 -- Lenses of chromite in peridotite; largest lens seen is not more than 75 ft. long and is 8 ft. thick at center; probably contains not over 1,000 tons of ore. Many other smaller deposits and perhaps some as large or larger. Much less accessible than deposits at Claim Point.

Gill, 1920 (B 712), p. 101, 111-120, 122-123 -- Preliminary to Gill, 1922 (B 742).

Martin, 1920 (B 712), p. 23, 34 -- Prospecting and plans for future mining, 1918.

Brooks, 1921 (B 714), p. 40 -- Apparently large chromite deposit.

Brooks, 1922 (B 722), p. 24 -- Reported in 1920 that deposit was developed and that some ore was produced during development work.

Gill, 1922 (B 742), p. 6-14 -- Deposits of chromite in a dunite body with elliptical outcrop area about 4 mi. long and 2 mi. wide (surface area about 7 sq. mi.). Contact with enclosing slate and graywacke country rock fractured and slickensided and marked by a serpentinized zone from a few hundred feet to nearly half a mile wide. Continuity of chromite and pyroxenite bands in dunite and their attitudes suggest that they were emplaced by magmatic flowage rather than as a result of simple crystal

(Red Mtn.) -- Continued

Gill, 1922 (B 742) -- Continued

settling and subsequent regional deformation. Most abrupt ends of well-exposed chromite bands seem to have been cut off by faults; one 3-ft. band has been offset about 20 ft.; most faults are probably of no greater magnitude, as heavy bands of pyroxenite can be traced great distances without perceptible dislocation. The largest chromite ore body (Star Chrome No. 4) extends for more than 600 ft. and is 6-11 ft. thick; extends at least another 500 ft. as separate stringers as much as a foot thick. In most places banded ore passes into massive ore or feathers out into dunite.

p. 16-17 -- Most chromite appears to be of magmatic origin. One body has been recrystallized; it has lower Cr_2O_3 content, even though of high specific gravity, and is slightly magnetic.

p. 30-45 -- Descriptions of individual chromite occurrences both in bedrock and as major areas covered with float. Possible mining methods, etc., discussed. Exportable ore (allowing for two-thirds recovery in concentrating process) conservatively estimated as 195,600 tons.

Smith, 1933 (B 844-A), p. 79-80 -- 10 tons of ore estimated to run about 54% Cr_2O_3 shipped in 1931. Preliminary surveys for road made.

Smith, 1934 (B 857-A), p. 75 -- No news that activity of 1931 was continued in 1932.

Smith, 1934 (B 864-A), p. 81 -- Only prospecting and assessment work on chrome prospects on Kenai Peninsula, 1933.-

Smith, 1936 (B 868-A), p. 83 -- Only assessment work and prospecting on chrome claims of Kenai Peninsula, 1934

Smith, 1937 (B 880-A), p. 87-88 -- Only a little prospecting and assessment work on chrome properties on Kenai Peninsula, 1935.

Smith, 1938 (B 897-A), p. 98 -- Only a little prospecting and assessment work on chrome properties on Kenai Peninsula, 1936.

Guild, 1942 (B 931-G), p. 140-152 -- Area underlain by ultramafic rocks is roughly elliptical; 4 mi. long, 2 mi. wide; area about 7 sq. mi.; relief 970 to 3,470 ft. above sea level. U.S.G.S. party spent 11 weeks in 1940 studying deposits. Chromite in dunite body intrusive into graywacke and related rocks considered to be probably Paleozoic in age; pyroxenite and garnet pyroxenite make up 10% of intrusive, which is serpentized along margins. Pyroxenite in layers from a fraction of an inch to about 200 ft. thick in dunite; no chromite ore bodies in pyroxenite. Pyroxenite much less serpentized than dunite. Small area underlain by garnet pyroxenite; contains grains of chromite, but no ore bodies. Thin mafic dikes cut banding of other rocks. Serpentinite derived from dunite generally sheared; small ore bodies broken up; no large ore bodies. Pyroxenite and chromite-rich layers parallel. Both preconsolidation and post-consolidation faults; displacements small. Chromite in bands varying in size from streaks to bodies several hundred feet long and from 1 to 50 ft. thick. Samples ran from 42% to 90% chromite (24.4% to 52.1% Cr_2O_3), with Cr:Fe ratios from 2.6 to 3.6; at least 90% of ore contains chromite within these limits. In disseminated ore chromite grains average less than 1 mm in diameter. Spectrographic analysis of one sample showed 0.02 oz. platinum per ton of chromite concentrate; no platinum in other samples analyzed.

(Red Mtn.) -- Continued

Guild, 1942 (B 931-G) -- Continued

p. 156 -- Resource estimated to be 67,500 tons of shipping ore and 112,250 tons of concentrating ore; total chromite content 118,500 tons.

p. 163-175 -- Data on transportation problems and claim ownership. Fairly detailed descriptions of individual deposits. Largest body of high-grade ore is on Star No. 4 claim; ore can be traced almost continuously for more than 1,100 ft., but is only 1 ft. thick for more than half that distance; 2 apparently not connected lenses of ore are near and parallel to main lens. Main ore body is 625 ft. long; about 500 ft. more than a foot thick; maximum thickness is 9.8 ft.; layering strikes N 10° W and dips 70°-35° W (with minor variations); cut by several faults with offsets of no more than 12 ft.; opened by shallow inclined shaft; channel sample ran 43%-90% chromite; Cr:Fe ratios 2.3 to 3.5; resource estimated to be 60,000 tons of shipping ore and 8,000 tons of concentrating ore with total chromite content of 64,000 tons. All other deposits much smaller; there has been some trenching, but most exposures are natural. Placer claims have been staked on stream gravels of Windy R., but no work has been done on them; doubtful that placer chromite can be recovered commercially.

Bain, 1946 (IC 7379), p. 69-70 -- Road built from Jakolof Bay to one of mines where exploration was begun by U.S.B.M. and completed by Chrome Queen Mining Co. 5,000 tons of 42% plus ore mined in 1942-43 and 1,650 tons of 40% ore mined in 1944; delivered to local deposit of Metals Reserve Co. [a pile near Jakolof Bay]. No ore shipped by Red Mountain Chromite, Inc. Reserve estimates were 30,400 tons of 44% ore if mined alone or 47,130 tons of 41.74% ore by sorting plus 44,044 tons of 19.14% ore for milling. Exploration failed to disclose any notable amounts of metallurgical-grade crude ore.

Rutledge, 1946 (RI 3885) -- Data on claim ownership. Data on geology and mineralogy mainly from Guild, 1942 (B 931-G). Cr:Fe ratio of first 1,500 long tons of ore produced by Chrome Queen Mining Co. was 2.63; average 43.0% Cr_2O_3 . Analyses of samples of olivine show 0.25% nickel and 0.03% cobalt. Detailed descriptions of U.S.B.M. drilling, trenching, and sampling program immediately before and during World War II. Chrome Queen claim was mined in 1942-44; 4,972 long tons produced 1942-43 ran 41.42% Cr_2O_3 with Cr:Fe ratio of 2.59; 1,647 tons delivered in 1944 ran 42% Cr_2O_3 with Cr:Fe ratio of 2.64. Operations on Star No. 4 claim (site of largest chromite deposit) resulted in 490-ft. adit and 195 ft. of drifting, but no production; camp dismantled in fall of 1943. Sampling of stream gravels did not show any significant concentration of chromite. Analyses for nickel of 14 rock samples indicated small amounts (no more than 0.26%) in dunite; considerably less in pyroxenite. Beneficiation tests showed that a marketable chrome product could be obtained from feed with 28.2% Cr_2O_3 . Tests of various methods for recovery of the nickel in olivine met with some success.

Moxham and Nelson, 1952 (C 207), p. 5 -- Reference to Rutledge, 1946 (RI 3885). No radioactive anomaly associated with pile of chrome ore [from Chrome Queen mine].

Twenhofel, 1953 (C 252), p. 10-11 -- Most of data from Guild, 1942 (B 931-G) and Rutledge, 1946 (RI 3885). Two principal deposits are estimated to

(Red Mtn.) -- Continued

Twenhofel, 1953 (C 252) -- Continued

contain 16,000 tons of indicated ore averaging 40%-45% Cr_2O_3 , 13,000 tons of indicated ore averaging 25% Cr_2O_3 , 12,000 tons of inferred ore averaging 40% Cr_2O_3 , and 64,000 tons of inferred ore containing 20% Cr_2O_3 ; the other nine deposits are estimated to contain a few thousand tons of inferred ore averaging 40%-45% Cr_2O_3 and as much as 100,000 tons of inferred ore containing 15%-25% Cr_2O_3 .

Wells and others, 1957 (RI 5377) -- Mainly a report on ore dressing. Most other data from earlier reports. Since 1954 about 15,000 tons of ore containing an average of about 46% Cr_2O_3 has been mined from Star 4 deposit for delivery to General Services Administration stockpile at Grants Pass, Oregon.

Berg and Cobb, 1967 (B 1246), p. 78-79 -- 2 major deposits contain 80,800 long tons of material containing 25%-43% Cr_2O_3 with Cr:Fe ratio of about 3 and 16,000 long tons of lower grade material. Other 5 deposits sampled probably total less than 20,000 long tons of material with 11%-49% Cr_2O_3 . Analysis of samples of olivine showed 0.25% nickel and 0.03% cobalt.

Bird, 1977 (OF 77-236), samples 181-247 -- Microprobe analyses of chromite and olivine.

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 4 -- References to Guild, 1942 (B 931-G), and Rutledge, 1946 (RI 3885). Magmatic deposit. Claims and shallow workings on chromite in a large layered ultramafic (mainly dunite) mass.

Bird, 1978 (OF 78-119), p. 8-9, 12-15, 18, 24, 29, figs. 5, 7, 12 -- Detailed chemical and mineralogical data; alpine peridotite.

MacKevett and others, 1978 (OF 78-1-E), p. 17 -- According to recent studies the ultramafic body is interpreted as a klippe thrust over McHugh complex (Cretaceous?). Reportedly contains about 50,000 tons of shipping ore at 41% Cr_2O_3 .

Rock

Copper, Gold(?), Zinc

Homer district
MF-397, loc. 2

Seldovia (12.2, 4.0)
59°13'N, 151°37'W

Summary: Minor exploration in early 1900's of quartz veins as much as 44 in. thick in rocks of Valdez Gp. and Tertiary granitic dikes. Metallic minerals reported are arsenopyrite, chalcopyrite, pyrrhotite, and a little sphalerite; no data on possible precious-metal content.

Grant and Higgins, 1910 (B 442), p. 176 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 232 -- Quartz vein in graywacke is 22 to 28 in. thick, strikes N 19° W, and dips 60° N; carries arsenopyrite, chalcopyrite, pyrrhotite, and a little sphalerite; minor excavation in early 1900's; in some excavations what appears to be the same vein is 36 and 44 in. thick. [No data on precious-metal content, if any.] Other veins in area are in metasedimentary and metavolcanic rocks and altered granitic dikes; no data on content of metallic minerals.

Berg and Cobb, 1967 (B 1246), p. 77 -- Data from above [not specifically cited].

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 2 -- Reference to above. Country rock graywacke and argillite of Valdez Gp. cut by Tertiary granitic dikes.

Rosness & Larson

Gold, Silver

Homer district
MF-397, loc. 22

Seldovia (21.45, 10.25)
59°34'N, 150°35'W

Summary: Slate and graywacke of Valdez Gp. cut by pyritized felsic dikes 2 to 20 ft. wide. Quartz veins and stockworks carry minor arsenopyrite and pyrite and as much as 26 ppm (0.757 oz. per ton) gold and 0.40 oz. silver per ton. Developed by surface excavations and several short adits, one with winze at end; adit driven to undercut surface showings was not successful. Had small mill. A small amount of gold (probably worth about \$15,000) produced, 1931-33; probably has been no work since then.

Pilgrim, 1933, p. 41-42 -- Country rock slaty graywacke intruded by an acidic dike 39 ft. wide (strike N 30° W, dip 68° W) which contains a little pyrite and, on the basis of one assay, \$0.28 worth of gold per ton. Several quartz veins striking generally NW or W and dipping steeply are as much as several feet thick and several-foot-wide zones of lenticular quartz stringers in graywacke. Short tunnels have been driven and open cuts excavated on several quartz veins and quartz-rich zones and a tunnel planned to undercut a surface showing has been driven 105 ft. Ore from surface showing about at high-tide level put through a small mill and gold [amount not given] recovered. Assays indicate as much as 0.64 oz. gold and 0.40 oz. silver per ton.

Capps, 1938 (B 897-A), p. 32 -- Not visited by Capps. Data from Pilgrim [above] and local sources. Tunnels, each on a different quartz vein, reported to be 28 ft. (with a 27-ft. winze), 110 ft., and 105 ft. long. Mill not operated in 1936.

Berg and Cobb, 1967 (B 1246), p. 77 -- Minal ore has been found.

Richter, 1970 (P 625-B), p. B3 -- About 170 ft. of underground workings; mill capacity 4 tons per day; production 1931-33; estimated value of gold produced \$15,000 [price of gold not given; probably \$20.67].

p. B6 -- Summary of data on p. B11.

p. B11 -- Many of data from Pilgrim, 1933. 30-ft. adit with water-filled winze at end follows stockwork of parallel quartz veins in thin-bedded graywacke; veins 0.1 to 0.5 ft. wide, strike N 30° W and dip 67° S, following bedding in graywacke. Composite sample across 4 veins assayed 26 ppm gold. Vein quartz on dump outside caved adit 200 ft. to NW contains minor arsenopyrite and pyrite; sample assayed 0.05 ppm gold. 120-ft. adit driven to undercut veins exposed on surface is in slate; did not encounter the veins. A few hundred feet north of workings are 3 light-colored pyritized dikes that trend N 20° W and dip steeply SW; dikes are 20, 15, and 2 ft. wide; probably the area staked [by Morris, Sheridan, Kupler & Lee] before 1909.

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 13 -- Combined with Frank. References to Pilgrim, 1933, and Richter, 1970 (P 625-B). Country rock Valdez Gp. cut by Tertiary felsic dikes.

Sather

Copper, Gold, Lead, Silver, Zinc

Homer district
MF-397, loc. 16

Seldovia (21.15, 8.4)
59°27'N, 150°38'W

Summary: Quartz veins in slate of Valdez Gp. intruded by Tertiary dikes contain pyrite, sphalerite, chalcopyrite, galena, and as much as 0.80 oz. gold and 1.40 oz. silver per ton. Explored by 2 tunnels 27 and 60 ft. long. No activity since some time around 1931 except, probably, for some assessment work. No record of any production.

Pilgrim, 1933, p. 38-39 -- Country rock is slate intruded by a dike of light-colored igneous rock along which a quartz vein (a stockwork in places) extends for about 700 ft. roughly parallel to the shoreline. Tunnels have been driven on veins [probably other ones] that crop out at sea level. The eastern tunnel is 27 ft. long; it passes through the exposed vein and intersects, but does not completely penetrate, another vein said to be 6 ft. thick in a surface exposure. The vein near sea level strikes N 57° W, dips 85° E, and varies in width from a few inches to 42 in.; carries pyrite, sphalerite, chalcopyrite, and galena; assay of a sample showed 0.80 oz. gold and 1.40 oz. silver per ton. The vein at the end of the tunnel assayed only traces of gold and silver. The other tunnel, 700 ft. to the west, is 60 ft. long and at the face penetrates a vein the footwall of which strikes N 21° W and dips 73° W and is granitic dike rock; 30 in. of quartz with much slate breccia penetrated (not full thickness of vein); carries only traces of gold and silver. Surface samples of long vein next to dike and parallel to the shoreline carried as much as \$8.75 a ton in gold [at \$20.67].

Capps, 1938 (B 897-A), p. 32 -- Data from above.

Richter, 1970 (P 625-B), p. B14 -- Reference to above.

MacKevett and Holloway, 1977 (OF 77-169A), p. 54, loc. 7 -- Reference to Pilgrim, 1933. Country rock Valdez Gp. intruded by Tertiary felsic dikes.

(Seldovia)

Graphite

Homer district

Seldovia (11.55, 7.85) approx.
59°26'N, 151°42'W approx.

Summary: Work at graphite prospect in 1918 reported. No other data.
[Cobb has seen small segregations of graphite in small road cut
near airport.]

Martin, 1920 (B 712), p. 34 -- "Some work was done at a graphite prospect
at Seldovia." Entire reference. As of 1918.

(Shelter Cove)

Gold

Homer district
MF-397, loc. 18 approx.

Seldovia (21.25, 9.3) approx.
59°31'N, 150°37'W approx.

Summary: Several quartz veins 4 ft. or less in width in graywacke of Valdez Gp.; some with associated graywacke and/or gouge. Arsenopyrite and pyrite in one mineralized zone. Gold assays reported from 0.02 ppm to \$51 per ton (gold at \$20.67; about 85 ppm).

Pilgrim, 1933, p. 50 -- Reported that late in season of 1930 Frank Skinner discovered 2 veins said to be 20 ft. apart and to have widths of 12 in. and 4 ft. Sample from smaller vein said to have assayed \$51 per ton [equivalent to 2.47 oz. gold per ton].

Richter, 1970 (P 625-B), p. B6 -- Data summarized from p. B13.

p. B13, locs. 11, 12 -- [May be the same as locality described by Pilgrim (above); if not, in same general area]. Vein quartz occurrences in massive graywacke. One is mixed with fractured graywacke in zone 4 ft. wide which strikes N 80° E and dips 70° S; footwall is lenses of arsenopyrite and pyrite; 2-ft. channel sample assayed 0.62 ppm gold. Other is 2 ft. of quartz with thin gouge zones in middle and along north wall; strikes N 80° E and is vertical; channel sample assayed 0.02 ppm gold.

Skinner

Copper, Gold, Lead, Silver, Zinc

Homer district
MF-397, loc. 18

Seldovia (12.25, 9.4)
59°31'N, 150°37'W

Summary: Quartz veins and stockworks in slate and graywacke of Valdez Gp. contain sulfides (arsenopyrite, pyrite, chalcopyrite, pyrrhotite, sphalerite, and galena), gold (assays as high as 4 oz. per ton reported), and some silver. One vein (on places a stockwork) reported to have been traced 2,600 ft. on surface. Lodes contain from a few inches to several feet of quartz. Explored by 2 adits 50 ft. long and one 300 ft. long. Ore would require concentrating and smelting. No record of production. No work more recent than 1934 reported; prospect could not be found in 1967. Includes reference to Lang. See also: (Shelter Cove), Tidewater.

Pilgrim, 1933, p. 50-51 -- Frank Lang prospect in 1924 consisted of vein 6-14 in. wide (strike N 35° E, dip 60° NW) in graywacke; sample across 14 in. assayed \$18.80 in gold and 0.25 oz. silver per ton. In 1925 described as 10-ft. tunnels on each of 2 quartz veins separated by 14 ft. of country rock; veins 2 and 2-1/2 ft. wide; samples assayed \$9.20 and \$11.20 a ton in gold and silver. Description as of 1931 was of a tunnel driven 88 ft. S 45° W on a quartz-graywacke breccia vein 6-24 in. wide carrying arsenopyrite; wall rock slaty graywacke with cleavage striking S 30° E; 39-ft. crosscut in graywacke 27 ft. from portal. Sample from pile of about 8 tons of vein quartz assayed 0.38 oz. gold and 0.30 oz. silver per ton.

Capps, 1938 (B 897-A), p. 27 -- Data also on p. 31-32.

p. 31-32 -- Quartz veins and stockworks in graywacke and slate carry considerable quantities of sulfides (arsenopyrite, pyrite, chalcopyrite, pyrrhotite, sphalerite, and galena). One stockwork (strike N 35° W, dip 65° SW) with from 4 in. to 2 ft. of quartz is followed for 50 ft. by a tunnel; no work for several years [as of 1936]. Another vein (in places a stockwork of quartz stringers separated by slate inclusions) is said to have been traced on the surface for 2,600 ft.; developed by a 300-ft. tunnel at an elevation of 400 ft. and a 50-ft. tunnel at an elevation of 75 ft.; strikes about NE and dips steeply NW; average thickness at least 3 ft.; assays as high as 4 oz. gold per ton reported; ore would probably require concentration and smelting.

Berg and Cobb, 1967 (B 1246), p. 77 -- Largest individual lode in area; data from Capps, 1938 (B 897-A) [not specifically cited].

Richter, 1970 (P 625-B), p. B13-B14 -- In 1967 could find no sign of prospect or significant mineralization. Data from Pilgrim, 1933, and Capps, 1938 (B 897-A) quoted or summarized. Richter considers Lang and Skinner prospects to be the same in spite of discrepancies in descriptions.

MacKevett and Holloway, 1977 (OF 77-169-A), p. 54, loc. 9 -- References to Pilgrim, 1933, and Capps, 1938 (B 897-A). In Valdez Gp.

Sonny Fox

Copper, Gold, Lead, Silver, Zinc

Homer district
MF-397, loc. 28

Seldovia (22.55, 9.85)
59°32'N, 150°28'W

Summary: Quartz veins as much as 5 ft. thick in rocks of Valdez Gp. Mined practically continuously from 1926 to 1940. Discovery vein developed by 2 adits 40 ft. apart vertically connected by a raise; ore ran about \$7.60 per ton in gold and silver (prices as of 1931 or earlier). Most mining was on Lucky Lady vein, which is 10 in. to 5 ft. (average about 2 ft.) thick and opened by more than 800 ft. of drifts, plus raises and stopes; contains arsenopyrite, pyrite, sphalerite, chalcopyrite, galena, visible gold, and native silver and native copper. Some remarkably rich gold specimens assayed many thousand dollars per ton; one smelter shipment of 5 tons returned more than \$530 per ton. Total production probably worth about \$70,000 (at values for years mined). Includes references to: Babcock & Downey, Sonny Fox Mining Co.

Smith, 1930 (B 813), p. 17 -- Gold production from Babcock & Downey mine reported, 1928.

Smith, 1932 (B 824), p. 20-21 -- Largest production in Nuka Bay area, 1929. Sulfide ore; oxidized as far as mine has been developed. Larger mill to be ordered and installed in 1930.

Pilgrim, 1933, p. 31-34 -- Mining since 1926; principal gold producer in Nuka Bay area; to Aug. 1, 1931, property had produced about 1,000 tons of ore said to have averaged about \$25 [about 1.21 fine oz. gold] per ton. Discovery vein is 6-18 in. wide; sample across outcrop assayed \$7.60 a ton in gold and silver; vein developed by 60-ft. and 40-ft. tunnels 40 ft. apart vertically connected by a raise. Second vein traced for several hundred feet by short tunnel and open cuts; strikes N 10° E, dips 65° W; part of full width of vein (11 ft.) is solid quartz and part interlayered quartz and slate; footwall poorly defined; assays of \$8.60 to \$40 per ton reported. A third vein of iron-stained quartz exposed in a 60-ft. tunnel consists of 2-4 ft. of iron-stained quartz; strikes N 75° W, dips 73° N; cut off by a fault at face of tunnel. Fourth vein (Lucky Lady) is principal producer of property; branches in a 100-ft. tunnel with one branch trending E and the other NE; a few inches to 4 ft. of white crystalline quartz contains considerable arsenopyrite, small amounts of galena and sphalerite, and some free gold; mined from open cut, 2 tunnels, and stope(s) between them. A large lode of quartz and graywacke breccia is 22 ft. wide; contains pyrite and arsenopyrite, but only traces of gold and silver. Average value of concentrate from mill said to be \$128 per ton. Description of mill and surface improvements.

Smith, 1933 (B 836), p. 20 -- Largest producer in Nuka Bay area, 1930. New mill installed and considerable surface improvement work.

Smith, 1933 (B 844-A), p. 20 -- Principal producer in Nuka Bay area, 1931.

Smith, 1934 (B 857-A), p. 20 -- Principal producer in area, 1932.

Smith, 1934 (B 864-A), p. 21 -- One of the 2 principal producing mines in area, 1933.

Smith, 1936 (B 868-A), p. 23 -- One of the 2 principal producing mines in area, 1934.

Sonny Fox -- Continued

- Smith, 1937 (B 880-A), p. 26 -- One of principal producing mines in area, 1935.
- Capps, 1938 (B 897-A), p. 26-28 -- Original discovery in 1924; mining began in 1926 and has been carried on since then [as of 1936]. Description of mill and surface improvements. The first mining consisted of open cut and two tunnels, between which the vein was stoped. Present workings on a vein near camp consist of two levels with more than 800 ft. of drifts, plus raises and stopes. Vein strikes generally NE and dips about 60° SE; considerable variation in strike and dip within short distances. Vein is from 10 in. to 5 ft. wide; averages about 2 ft. White quartz, locally banded; most abundant metallic mineral is arsenopyrite; also some pyrite, sphalerite, chalcopyrite, and galena; visible free gold. Some remarkably rich specimens assay many thousand dollars per ton; one shipment of 5 tons to smelter returned a net of more than \$530 per ton. Native silver and native copper in one sample examined by Capps.
- Smith, 1939 (B 910-A), p. 29 -- Mining, 1937.
- Smith, 1941 (B 926-A), p. 25 -- Mining, 1939.
- Berg and Cobb, 1967 (B 1246), p. 76-77 -- Shipment of 5 tons gave net return of \$530 per ton.
- Richter, 1970 (P 625-B), p. B3 -- About 1,000 ft. of underground workings (exclusive of raises, stopes, and shafts); probably about \$70,000 worth of gold produced 1926-40.
- p. B6 -- Data from Pilgrim, 1933, and Capps, 1938 (B 897-A).
- p. B8 -- Most of data quoted from Pilgrim, 1933, and Capps, 1938 (B 897-A). Most of workings not accessible in 1967; mill in ruins, but most of camp building serviceable.
- MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 19 -- References to Pilgrim, 1933, Capps, 1938 (B 897-A), and Richter, 1970 (P 625-B). Country rock Valdez Gp.

Tidewater

Gold

Homer district
MF-397, loc. 27

Seldovia (22.4, 9.2)
59°30'N, 150°29'W

Summary: Thin sheeted quartz vein in massive graywacke of Valdez Gp. brecciated along hanging wall contains lenses of arsenopyrite; sample assayed 6.5 ppm (about 1.88 oz. per ton) gold. Short tunnel almost completely flooded at high tide since 1964 earthquake. Includes reference to Skinner prospect at Surprise Bay.

Pilgrim, 1933, p. 30-31 -- Lode made up of quartz, fractured graywacke, and considerable gouge. Tunnel driven 42 ft. on lode; 12 in. of lode material at face, but very little quartz; stringers extend into graywacke wall rock. Assays reported to have showed \$38.90 and \$18 per ton in gold.

Richter, 1970 (P 625-B), p. B6 -- Data on p. B13 summarized.

p. B13 -- Adit reported by Pilgrim as 42 ft. long now only 25 ft. long because of slumping of cliff face; since 1964 earthquake is almost completely flooded at high tide. Vein (strike N 80° E, dip 72° S) consists of 0.5 ft. sheeted quartz with scattered lenses of arsenopyrite along footwall and as much as 4 ft. of barren quartz stockwork in hanging wall. Country rock massive graywacke strongly brecciated along hanging wall. Channel sample across 0.5 ft. of iron-stained quartz assayed 6.5 ppm gold.

MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 18 -- References to above. In Valdez Gp.

(Two Arm Bay)

Gold

Homer district
MF-397, loc. 30

Seldovia (25.45, 12.75)
59°42'N, 150°07'W

Summary: Apparently barren quartz veins and auriferous granite dikes cut slate and graywacke of Valdez Gp. Sample across a dike carried \$1.80 a ton in gold (at \$20.67). See also Kusturin & Johanson.

Grant and Higgins, 1910 (B 442), p. 173 -- Preliminary to Martin and others, 1915 (B 587).

Martin and others, 1915 (B 587), p. 229 -- A few granite dikes cut graywacke and slate. Sample across one carried \$1.80 a ton in gold [at \$20.67]. Apparently barren quartz veins nearby.

Berg and Cobb, 1967 (B 1246), p. 77 -- Nonproductive gold lode.

MacKevett and Holloway, 1977 (OF 77-169A), p. 55, loc. 21 -- Reference to above. Country rock slate and graywacke of Valdez Gp.

Synonyms, Owners and Operators, and Claim Names

Alaska Commercial Co. -- see (Port Dick)
Alaska Hills Mining Co. -- see Alaska Hills
Anderson -- see (Red Mtn.)
Anderson & Anderson -- see (Claim Point)
Aurora Gold Mines Co. -- see (Aurora)
Babcock & Downey -- see Sonny Fox
Babcock & Martin -- see (Red Mtn.)
Barrister Lode -- see (Red Mtn.)
Bear -- see Goyne
Bessie B. -- see (Red Mtn.)
Big Bend -- see (Red Mtn.)
Big Chrome -- see (Red Mtn.)
Big Meadow -- see (Red Mtn.)
Big Parade -- see (Red Mtn.)
Blair -- see: Nukalaska Mining Co., Sather
Blodgett -- see (Red Mtn.)
Bluff -- (Claim Point)
Burman & Carlson -- see Glass & Heifner
Case & Harrington -- see Alaska Hills
Cawing Crow -- see (Red Mtn.)
Charles Francis -- see (Red Mtn.)
Cherokee Chief -- see (Red Mtn.)
Chrome Queen (Mining Co.) -- see (Red Mtn.)
Clarberg -- see (Red Mtn.)
Cliffside Lode -- see (Red Mtn.)
Cramer & Martin -- see (Red Mtn.)
Double R. -- see (Red Mtn.)
Edith -- see (Red Mtn.)
Fairweather -- see Alaska Hills
Golden Horn -- see Goyne
Goliath -- see (Red Mtn.)
Grubstake -- see Johnston & Degan
Harrington -- see Nuka Bay Mines Co.
Horseshoe -- see (Red Mtn.)
Juneau -- see (Red Mtn.)
Kearns & Cooper -- see (Red Mtn.)
Lang -- see Skinner
Lass (& Whitney) -- see (Red Mtn.)
Letcha -- see (Red Mtn.)
Linder & Ballan -- see (Red Mtn.)
(Little Cr.) -- see Glass & Heifner
Mammoth -- see (Red Mtn.)
Markle -- see (Red Mtn.)
McCray -- see (Claim Point)
Merle -- see (Red Mtn.)
Mount -- see Glass & Heifner
Nooka -- see Nuka Bay Mines Co.
North Gold -- see Hatcher

Omega -- see (Red Mtn.)
Patterson & Ogle -- see Goyne
Paystreak -- see Alaska Hills
(Port Chatham) -- see (Claim Point)
Port Dick Mining & Power Co. -- see (Port Dick)
Question Mark -- see (Red Mtn.)
Rapp -- see (Claim Point)
Ray -- see (Red Mtn.)
Red Mountain Chromite, Inc. -- see (Claim Point), (Red Mtn.)
Reef -- see (Claim Point)
Rolph -- see Sather
Rosness, Larson & Ehmswiler -- see Rosness & Larson
Rutledge -- see (Red Mtn.)
Sea Level -- see Hatcher
Skeen -- see Alaska Hills, (Red Mtn.)
Sonny Fox Mining Co. -- see Johnston & Degan, Sonny Fox
Star Chrome -- see (Red Mtn.)
Star Four -- see (Red Mtn.)
Suddath, Quackenbush & Madison -- see Tidewater
Surprise -- see Goyne
(Surprise Bay) -- see Tidewater
Utopia -- see Hatcher
Whitney & Lass -- see (Claim Point), (Red Mtn.)
Widow Maker -- see (Red Mtn.)

References Cited

- Atwood, W. W., 1909, Mineral resources of southwestern Alaska: U.S. Geological Survey Bulletin 379, p. 108-152.
- Bain, H. F., 1946, Alaska's minerals as a basis for industry: U.S. Bureau of Mines Information Circular 7379, 89 p.
- Barnes, F. F., and Cobb, E. H., 1959, Geology and coal resources of the Homer district, Kenai coal field, Alaska: U.S. Geological Survey Bulletin 1058-F, p. 217-260.
- Berg, H. C., and Cobb, E. H., 1967, Metalliferous lode deposits of Alaska: U.S. Geological Survey Bulletin 1246, 254 p.
- Bird, M. L., 1977, Electron-microprobe analyses of chromite and olivine from alpine ultramafic complexes: U.S. Geological Survey Open-file Report 77-236, 69 p. (unnumbered).
- Bird, M. L., 1978, Electron-microprobe study of chromatites associated with alpine ultramafic complexes and some genetic implications: U.S. Geological Survey Open-file Report 78-119, 53 p.
- Brooks, A. H., 1909, The mining industry in 1908: U.S. Geological Survey Bulletin 379, p. 21-62.
- Brooks, A. H., 1911, The Mount McKinley region, Alaska, with descriptions of the igneous rocks and of the Bonnifield and Kantishna districts, by L. M. Prindle: U.S. Geological Survey Professional Paper 70, 234 p.
- Brooks, A. H., 1912, The mining industry in 1911: U.S. Geological Survey Bulletin 520, p. 17-44.
- Brooks, A. H., 1918, The Alaskan mining industry in 1916: U.S. Geological Survey Bulletin 662, p. 11-62.
- Brooks, A. H., 1921, The future of Alaska mining: U.S. Geological Survey Bulletin 714, p. 5-57.
- Brooks, A. H., 1922, The Alaskan mining industry in 1920: U.S. Geological Survey Bulletin 722, p. 7-67.
- Brooks, A. H., 1925, Alaska's mineral resources and production, 1923: U.S. Geological Survey Bulletin 773, p. 3-52.

- Capps, S. R., 1938, Lode mining in the Nuka Bay district, in Smith, P. S., Mineral industry of Alaska in 1936: U.S. Geological Survey Bulletin 897-A, p. 25-32.
- Cobb, E. H., 1972, Metallic minerals resources map of the Seldovia quadrangle, Alaska: U.S. Geological Survey Miscellaneous Field Studies Map MF-397, 1 sheet, scale 1:250,000.
- Cobb, E. H., 1973, Placer deposits of Alaska: U.S. Geological Survey Bulletin 1374, 213 p.
- Cobb, E. H., and Kachadoorian, Reuben, 1961, Index of metallic and nonmetallic mineral deposits of Alaska compiled from published reports of Federal and State agencies through 1959: U.S. Geological Survey Bulletin 1139, 363 p.
- Gill, A. C., 1920, Preliminary report on the chromite of Kenai Peninsula: U.S. Geological Survey Bulletin 712, p. 99-129.
- Gill, A. C., 1922, Chromite of Kenai Peninsula, Alaska: U.S. Geological Survey Bulletin 742, 52 p.
- Grant, U. S., and Higgins, D. F., 1910, Preliminary report on the mineral resources of the southern part of Kenai Peninsula: U.S. Geological Survey Bulletin 442, p. 166-178.
- Guild, P. W., 1942, Chromite deposits of Kenai Peninsula, Alaska: U.S. Geological Survey Bulletin 931-G, p. 139-175.
- Johnson, B. L., 1912, Gold deposits of the Seward-Sunrise region, Kenai Peninsula: U.S. Geological Survey Bulletin 520, p. 131-173.
- MacKevett, E. M., Jr., and Holloway, C. D., 1977, Map showing metaliferous and selected nonmetalliferous mineral deposits in the eastern part of southern Alaska: U.S. Geological Survey Open-file Report 77-169A, 1 sheet + 99 p. tabular material, scale 1:1,000,000.
- MacKevett, E. M., Jr., Singer, D. A., and Holloway, C. D., 1978, Maps and tables describing metalliferous mineral resource potential of southern Alaska: U.S. Geological Survey Open-file Report 78-1-E, 45 p. + maps, scale 1:1,000,000.
- Madonna, J. H., 1975, Zeolite deposits of possible economic significance on the northern Alaska Peninsula: Alaska Division of Geological and Geophysical Surveys Open-file Report AOF-87, 27 p.

Martin, G. C., 1920, The Alaskan mining industry in 1918: U.S. Geological Survey Bulletin 712, p. 11-52.

Martin, G. C., Johnson, B. L., and Grant, U. S., 1915, Geology and mineral resources of Kenai Peninsula, Alaska: U.S. Geological Survey Bulletin 587, 243 p.

Mertie, J. B., Jr., 1919, Chromite deposits in Alaska: U.S. Geological Survey Bulletin 692, p. 265-267.

Moffit, F. H., 1906, Gold fields of the Turnagain Arm region: U.S. Geological Survey Bulletin 277, p. 7-52.

Moffit, F. H., 1927, Mineral industry of Alaska in 1925: U.S. Geological Survey Bulletin 792, p. 1-39.

Moxham, R. M., and Nelson, A. E., 1952, Reconnaissance for radioactive deposits in the southern Cook Inlet region, Alaska, 1949: U.S. Geological Survey Circular 207, 7 p.

Pilgrim, E. R., 1933, Nuka Bay district, in Stewart, B. D., Mining investigations and mine inspection in Alaska, biennium ending March 31, 1933: Juneau, Alaska, p. 26-51.

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. Bureau of Mines Information Circular 7679, 91 p.

Richter, D. H., 1970, Geology and lode-gold deposits of the Nuka Bay area, Kenai Peninsula, Alaska: U.S. Geological Survey Professional Paper 625-B, p. B1-B16.

Rutledge, F. A., 1946, Exploration of Red Mountain chromite deposits, Kenai Peninsula, Alaska: U.S. Bureau of Mines Report of Investigations 3885, 26 p.

Sanford, R. S., and Cole, J. W., 1949, Investigation of Claim Point chromite deposits, Kenai Peninsula, Alaska: U.S. Bureau of Mines Report of Investigations 4419, 11 p.

Smith, P. S., 1926, Mineral industry of Alaska in 1924: U.S. Geological Survey Bulletin 783, p. 1-30.

- Smith, P. S., 1929, Mineral industry of Alaska in 1926: U.S. Geological Survey Bulletin 797, p. 1-50.
- Smith, P. S., 1930, Mineral industry of Alaska in 1927: U.S. Geological Survey Bulletin 810, p. 1-64.
- Smith, P. S., 1930, Mineral industry of Alaska in 1928: U.S. Geological Survey Bulletin 813, p. 1-72.
- Smith, P. S., 1932, Mineral industry of Alaska in 1929: U.S. Geological Survey Bulletin 824, p. 1-81.
- Smith, P. S., 1933, Mineral industry of Alaska in 1930: U.S. Geological Survey Bulletin 836, p. 1-83.
- Smith, P. S., 1933, Mineral industry of Alaska in 1931: U.S. Geological Survey Bulletin 844-A, p. 1-82.
- Smith, P. S., 1934, Mineral industry of Alaska in 1932: U.S. Geological Survey Bulletin 857-A, p. 1-91.
- Smith, P. S., 1934, Mineral industry of Alaska in 1933: U.S. Geological Survey Bulletin 864-A, p. 1-94.
- Smith, P. S., 1936, Mineral industry of Alaska in 1934: U.S. Geological Survey Bulletin 868-A, p. 1-91.
- Smith, P. S., 1937, Mineral industry of Alaska in 1935: U.S. Geological Survey Bulletin 880-A, p. 1-95.
- Smith, P. S., 1938, Mineral industry of Alaska in 1936: U.S. Geological Survey Bulletin 897-A, p. 1-107.
- Smith, P. S., 1939, Mineral industry of Alaska in 1937: U.S. Geological Survey Bulletin 910-A, p. 1-113.
- Smith, P. S., 1939, Mineral industry of Alaska in 1938: U.S. Geological Survey Bulletin 917-A, p. 1-113.
- Smith, P. S., 1941, Mineral industry of Alaska in 1939: U.S. Geological Survey Bulletin 926-A, p. 1-106.
- Twenhofel, W. S., 1953, Potential Alaskan mineral resources for proposed electrochemical and electrometallurgical industries in the upper Lynn Canal area, Alaska: U.S. Geological Survey Circular 252, 14 p.
- Wells, R. R., Sterling, F. T., Erspamer, E. G., and Stickney, W. A., 1957, Laboratory concentration of chromite ores, Red Mountain district, Kenai Peninsula, Alaska: U.S. Bureau of Mines Report of Investigations 5377, 22 p.