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Map and description of the mineral deposits in the
Petersburg and Eastern Port Alexander Quadrangles,
Southeastern Alaska

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

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MAP AND DESCRIPTION OF THE MINERAL DEPOSITS IN THE
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INTRODUCTION

This report briefly describes the known deposits and principal occurrences of metallic and certain nonmetallic mineral commodities in the Petersburg and eastern Port Alexander quadrangles in southeastern Alaska. This report is part of the Alaska Mineral Resource Assessment Program (AMRAP) study for the Petersburg quadrangle and the contiguous part of the Port Alexander quadrangle that covers Kuiu Island. AMRAP is a comprehensive assessment of the mineral resources of Alaska that is being done by systematically studying 1:250,000-scale quadrangles using multidisciplinary teams of geologists, geochemists, and geophysicists. This report provides a background of current and historical mineral deposit data that will be integrated with other geological, geochemical, and geophysical data to produce the overall mineral resource assessment.

This report largely supercedes a preliminary report (Karl and others, 1980) done during the initial stages of the Petersburg AMRAP study; it also provides additional information gathered during the course of the study. However, certain analytical data in the earlier report pertaining to individual deposits, are summarized but not repeated here. Thus the earlier report remains in part a primary reference on the area and is cited in the descriptions of several mineral deposits.

This report considers only metallic mineral commodities and such non-metallic commodities as barite, radioactive minerals, rare-earth elements, and garnet. Such high-volume, low-unit-value commodities as sand and gravel, crushed stone, limestone, and building stone are excluded. All are present in quantity in the quadrangles at numerous locations and in some cases have been mined: for example, crushed stone from numerous quarries for road metal on logging roads, and marble for building stone from a quarry near Calder. However, the extensive resources of these industrial minerals largely reflect the geologic map of the quadrangles and their economic value is largely dependent on the unpredictable development of local markets.

This report is based on an extensive literature search; consultation with our colleagues within the U. S. Geological Survey and other governmental agencies, and private industry; field work in the quadrangles from 1978 to 1982; and analyses of numerous samples of rocks and mineral deposits that were collected by ourselves and other members of the Petersburg AMRAP team. Mining claim maps maintained by the Alaska Division of Geological and Geophysical Surveys

(DGGs), and summarized through 1980 in several maps prepared by the U. S. Bureau of Mines, were also used extensively to guide our field work. Mining claims are shown on the accompanying map and descriptions of deposits because they provide an important source of data on current and past mineral exploration and the mineral deposits of the area. The mining claim data reflect the DGGs records as of September 1983, but because of the schedule of claim and assessment filing and delays in posting claims, the records do not necessarily include all the valid claims as of September 1983.

Large disparities exist in the quality of information about individual deposits; the data vary from well-documented reports to vague descriptions. No attempt is made in this report to systematically evaluate economic significance of the mineral deposits. However, some information regarding their significance can often be inferred from the descriptions. A future report in the USGS Petersburg AMRAP series will provide an overall assessment of the area's mineral endowment and potential mineral resources.

The dimensional units used to describe the deposits are generally in the system used for the original measurements. Thus descriptions taken from older reports are described in the original, usually English, units. Descriptions introduced as a result of this study are generally in the metric system.

EXPLANATION FOR DEPOSIT DESCRIPTIONS

MAP NO. refers to the locality number on the map.

NAME of mine or prospect is derived from published sources or from common usage. In some cases, more than one mine, prospect, occurrence, or claim are grouped under the same map number. If the deposit does not have a generally accepted name, it is identified (in parentheses) by the name of a prominent nearby geographic feature.

LOCATION is given in latitude and longitude to the nearest minute.

CATEGORY refers to the development status of the deposit by conventional terminology. All the deposits are classified as mine, prospect, occurrence, or claim as follows:

Mine: A mineral deposit with recorded production. In some cases, ore may have been mined but not shipped. Claims may or may not be currently active on the property.

Prospect: A deposit that has been staked and in most cases explored by trenching, drilling, or underground exploration. Claims may or may not be currently active.

Claim: A deposit for which the only information consists of a claim notice, and in many cases notice of annual assessment work. These records are maintained by the Alaska Division of Geological and Geophysical Surveys at several offices in Alaska. The U. S. Bureau of Mines (1980a, 1980b) summarized these claim records through 1980 on maps that showed many of the claim boundaries; the boundaries used in this report are

mainly from that source. The claim boundaries shown in this report should be used for informational purposes only. The boundaries of claims or claim blocks can be located with precision only by field examination of claim posts and the boundaries shown in this report have no official standing. Claims filed after 1972 are not required to list the commodity or commodities being sought. In considering the mineral potential of claims, one should be aware that claims are sometimes filed on the basis of erroneous mineral identification, geologic misconception, or overly optimistic geologic speculation. Claims may also be abandoned prematurely by reason of undue pessimism. Also, it is not unknown for claims to be filed under the mining law in an attempt to acquire land for residential or recreational purposes.

Occurrence: An unexplored and non-productive mineral deposit described in the published literature in some detail or found in this study. Most are unclaimed but some may be or may have been within a mining claim or claim block.

PRINCIPAL MINERAL COMMODITY(IES) indicates the principal mineral commodity or commodities of potential commercial interest at each locality. Commodities or elements which are present in only minor amounts or which probably could be extracted only as minor byproducts are excluded although they may be noted in the description of the deposit. The commodities are arranged roughly in order of their assumed economic importance but in many cases, the data are too scanty for us to make more than a preliminary or arbitrary judgement.

BRIEF DESCRIPTION provides a condensed description of the geology and mineralogy of the deposit, and in some cases production and historical data. Our sources include the published literature, information provided by private industry, and work carried out in the Petersburg AMRAP project.

PRINCIPAL REFERENCES cite the primary sources for information used in preparing the deposit descriptions and map. In addition to these references, Cobb (1972a, 1972b, 1978a, 1978b) has prepared maps and detailed summaries of references for almost all the mineral deposits in the quadrangles. His work, although not strictly a primary source was a great help in planning the fieldwork in this study and preparing this map and the mineral deposit descriptions. Berg and Cobb (1967) also provided useful short summaries based on the published literature on almost all of the deposits in the quadrangles.

Name: (Saginaw Bay)

Location: 56° 52-54' N, 134° 09-17' W

Category: Occurrences (see also map no. 4)

Principal mineral commodity: Ba

Brief description: Barite veins up to 5 feet wide (most are much narrower) are known in at least three locations where they locally cut limestone, conglomerate, and volcanic rocks.

Principal references:

Buddington, 1925, p. 136-138.

Twenhofel and others, 1949, p. 43.

Name: (Cornwallis Point)

Location: 56° 55-56' N, 134° 10-15' W

Category: Occurrences (see also map no. 4)

Principal mineral commodities: Ba, Sr

Brief description: Barite occurs in gash veins at three localities; one vein is 1-1.5 feet wide and 200 feet long. Maximum thickness of barite is 5 feet. Many barite and witherite veins of limited extent occupy fractures in volcanic rocks. Witherite also occurs in beach pebbles.

Principal references:

Buddington, 1925, p. 72, p. 136.

Buddington and Chapin, 1929, p. 317.

Smith, 1933, p. 81-82.

Twenhofel and others, 1949, p. 40-42.

Name: (Fossil Bluffs)

Location: 56° 55' N, 134° 10' W

Category: Prospect (see also map no. 4)

Principal mineral commodity: Zn

Brief description: Sphalerite-calcite cemented, brecciated Carboniferous limestone drilled by private industry in 1979 (E. M. MacKevett, oral communication, 1980).

Principal reference:

Karl and others, 1980.

Name: (Keku Islets)

Location: 56° 51-57' N, 134° 02-15' W

Category: Claims

Principal mineral commodities: Zn, Pb, Ba

Brief description: Numerous claims and claim blocks staked beginning at least as early as 1923. Much current interest and large claim blocks of 41, 80, and 138 claims staked since early 1970's; many of these were still active through at least 1982. Several diamond-drill holes drilled in the late 1970's. Area currently seen as having potential for either volcanogenic Zn-Pb-barite massive-sulfide deposits or Mississippi Valley-type Pb-Zn-barite deposits, depending on which company or geologist is speculating on the type of deposit in the area.

Principal reference:

U. S. Bureau of Mines, 1980b.

Alaska Division of Geological and Geophysical Surveys mining claim records.

This study.

Name: (Keku Islets)

Location: 56° 56' N, 134° 08' W

Category: Occurrence

Principal mineral commodities: Zn, Ag

Brief description: Gently warped interbedded sandstone and conglomerate cut by basalt dikes. One dike is crossed by many sphalerite-filled fractures. Veinlets also occur along contacts between dike and country rock, where sphalerite fills minute cracks in pyrite and marcasite. Sparse pyrite occurs in altered basalt, but only traces in sphalerite veinlets. Very little gangue (calcite and quartz) in veinlets. Sample of sphalerite-rich vein material assayed 37.4% zinc, 0.24 oz. of silver per ton, and a doubtful trace of gold. These veins are probably genetically related to other barite veins nearby.

Principal references:

Buddington, 1925, p. 137-139.

Cobb, 1978b, p. 13.

Name: (Keku Islets)

Location: 56° N, 134° 08' W

Category: Occurrence (see also map no. 4)

Principal mineral commodities: Ba, Sr, Pb

Brief description: Small veins and veinlets containing barite and witherite occur in limestone and marble, and rarely in basalt dikes. One veinlet also contains pyrite and a few streaks of galena.

Principal references:

Buddington, 1925, p. 136-137.

Twenhofel and others, 1949, p. 40-41, p. 43-44.

Name: (Port Camden)

Location: About 56° 48' , 133° 57' W

Category: Occurrence, claims

Principal mineral commodity: Radioactive minerals

Brief description: The Tertiary Kootznahoo Formation consists of light brown, poorly sorted, dolomitic sandstone and contains clay clasts, carbonized wood fragments, and dolomitic concretions. The sandstone ranges from silty, fine-grained, and thin-bedded to medium- and coarse-grained, partly conglomeratic, and medium-to thick-bedded. Siderite, magnetite, pyrite, and apatite are present in some lithologies. All carbonized wood fragments show radioactivity when tested in place; readings range to 2 to 50 times background. One sample yields beta eU of 1300 plus-or-minus 400 ppm uranium and gamma eU of 2300 plus-or-minus 700 ppm uranium. Block of 30 claims staked in 1976 and active as of at least 1981.

Principal references:

Dickenson, 1979a.

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Port Camden)

Location: About 56° 48' N, 133° 57' W

Category: Occurrence (see also map no. 7)

Principal mineral commodity: Radioactive minerals

Brief description: Samples from a four-inch-thick bed of fine-grained Tertiary sandstone contained 11 and 12 ppm uranium. Up to 30% magnetite in the sandstone.

Principal reference:

Eakins, 1975, p. 39-44.

Name: (Gunnuk Creek)

Location: 57° 00' N, 133° 52' W

Category: Claims

Principal mineral commodity: Au

Brief description: Four lode claims staked for Au in 1968; apparently not active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Hamilton Creek)

Location: 56° 06' N, 133° 40' W

Category: Occurrence

Principal mineral commodity: Radioactive minerals

Brief description: Fragments of laminated phosphate rock occur in white calcite veins in a fine grained, light to dark gray, laminated, apatite-bearing silty dolomite. Radioactivity reaches 20 times background in a 0.5 m thick bed. One sample of more highly radioactive rock indicated beta eU of 80 plus-or-minus 24 ppm uranium.

Principal reference:

Dickinson, 1979b.

Name: (Big John Bay)

Location: 56° 46-48' N, 133° 38-40' W

Principal mineral commodity: Unknown

Brief description: One hundred claims staked in 1978-1979; apparently not active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: Northern Copper Comapny

Location: 56° 54' N, 133° 22' W

Category: Prospect

Principal mineral commodities: Cu, Zn

Brief description: Prospect active from 1900 to 1921 with several hundred feet of underground workings and considerable trenching. The prospect was restaked in 1978 and was drilled in 1978 and 1979; the results of this work have not been made public. Mineralization occurs as pods and irregular masses of magnetite, sphalerite, pyrrhotite, and chalcopyrite in a locally garnet-bearing, equigranular to pyroxene-porphyritic greenstone associated with minor coarse-grained white marble. The mineralized greenstone appears skarn-like locally. Sulfides are either interstitial to pyroxene in the greenstone or replace massive fine-grained greenstone. The mineralization apparently tends to occur at the base of a massive flat-lying greenstone layer. This greenstone is underlain by green siliceous phyllite, which is in turn underlain by black carbonaceous argillite. Sulfides frequently occur in bands parallel to the compositional layering of the greenstone. Analyses of selected sulfide-bearing samples show major Cu and Zn, less than 0.05 ppm Au and up to 5 ppm Ag.

Principal references:

Wright and Wright, 1908, p. 141-142.

Buddington, 1923, p. 70-72.

Twenhofel and others, 1949, p. 37-38.

Karl and others, 1980.

Name: (Taylor Creek)

Location: 56° 48' N, 133° 22' W

Category: Prospect

Principal mineral commodities: Pb, Zn, Cu, Ag

Brief description: Prospect known since at least 1904; has been intermittently active since and claims were active as recently as 1981. U. S. Bureau of Mines (Kerns, 1950) drilled 4 diamond drill holes in 1948 and dug 14 trenches on several areas of mineralization. Maximum assay values from drill core and outcrop samples were 4.3% Zn, 0.95% Pb, and 1.2 ounces per ton Ag. Irregular masses and disseminated grains of galena, sphalerite, pyrite, and chalcopyrite occur as replacement(?) deposits in dolomitic limestone. In the best exposures along Taylor Creek, pervasively disseminated pyrite, galena, and sphalerite occur over an area about 3 m wide by 7 m long in a brecciated zone. This zone occurs in a thinly laminated to phyllitic, light-gray and white, fine-grained dolomitic marble which overlies green crenulated muscovite-chlorite-calcite schist. Mineralization persists approximately 100 m along southwest bank of creek.

Principal references:

Wright and Wright, 1908, p. 142.

Kerns, 1950.

Karl and others, 1980.

Name: (Towers Arm)

Location: 56° 47-55' N, 133° 15-28' W

Category: Claims, prospects

Principal mineral commodities: Cu?, Pb?, Zn?

Brief description: At least 492 claims staked in 1978 and 1979 in several large scattered blocks. Numerous holes were drilled in 1978 and 1979 at several locations; results of drilling not known but apparently little drilling or surface exploration since. Target of exploration was massive-sulfide, base-metal deposits.

Principal references:

This study.

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claims records.

Name: Silver Star

Location: 56° 51' N, 133° 15' W

Category: Prospect

Principal mineral commodities: Au, Ag

Brief description: Prospect staked before 1905 and had small amounts of exploration prior to 1921. Apparently dormant since; there is no record of recent claim activity and no obvious sign of recent surface activity. Thin quartz-calcite veins with chalcopyrite, pyrite, and magnetite cut slate and greenstone which have been intruded by diorite and diabase dikes. Samples of the veins contained up to 0.4 ounces per ton of Au and 2 ounces per ton of Ag.

Principal references:

Wright and Wright, 1905, p. 60.

Buddington, 1923, p. 69.

Name: (Kane Peak)

Location: 56° 59'-57° 00' N, 133° 05'-07' W

Category: Occurrence

Principal mineral commodities: Fe?, Pt-group?, Cr?

Brief description: Kane Peak is a zoned or Alaska-type mafic-ultramafic complex with a dunite and peridotite core bordered by olivine pyroxenite, pyroxene hornblendite, and gabbro. Exposed part of body is probably near its original floor. Pyrrhotite, pentlandite, and chalcopyrite are sporadically disseminated through pyroxenite; sparse disseminated chromite occurs widely in dunite, and hornblendite locally contains titaniferous magnetite. However ore minerals are not known to reach significant quantities anywhere in the body and apparently there have never been any claims staked on Kane Peak itself (but see map no. 15).

Principal references:

Walton, 1951, p. 208-226.

Taylor, 1967.

Taylor and Noble, 1969.

Name: (Cape Strait)

Location: 56° 59' N, 133° 04' W

Category: Claims

Principal mineral commodities: Fe

Brief description: Two claims staked for Fe in 1960; apparently no more recent activity. The claims probably were staked on magnetite-bearing hornblendite of the Kane Peak mafic-ultramafic complex (see map no. 14).

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Kupreanof)

Location: Aprx. 56° 59' N, 133° 02' W

Category: Claims

Principal mineral commodities: Radioactive minerals, Au, Fe, Ag

Brief description: Two claims were staked for radioactive minerals in 1956, and one claim was staked nearby for Au, Fe, and Ag in 1960. Apparently there has been no further work after the initial staking on any of these claims and there are no other mineral deposits nearby.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Mitkof Island)

Location: Aprx. 56° 43' N, 132° 46' W

Category: Claims

Principal mineral commodity: Au

Brief description: Two lode claims staked for Au in 1957; apparently not active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Thomas Bay)

Location: 56° 59' N, 132° 47' W

Category: Prospect

Principal mineral commodity: Au

Brief description: Several parallel sheet-like quartz veins 15-20 cm thick cut gneiss in a zone about 4 m wide. The veins carry sparse disseminated pyrite, arsenopyrite, chalcopyrite, pyrrhotite, and galena. Assays of selected samples show up to 3.85 ppm Au. There was minor development prior to 1921 and the claims were active as recently as 1979.

Principal references:

Buddington, 1923, p. 68-69.

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Le Conte Bay)

Location: Vicinity 56° 48' N, 132° 29' W

Category: Occurrence

Principal mineral commodity: Au

Brief description: Gold veins were reported in schist belt prior to 1923 but no other substantiation of mineral deposits in the area. There is no record of claims in the vicinity of the bay.

Principal reference:

Buddington, 1923, p. 56.

Name: (Stikine River)

Location: About 56° 43' N, 132° 07' W

Category: Prospects

Principal mineral commodity: Au

Brief description: Fine placer gold found on bars of Stikine River in the 1860's during early exploration for gold in Alaska. Interest soon shifted to discoveries to the east in Canada. Probably one of the many early ephemeral "discoveries" that didn't pan out. No record in the literature or claim records of significant placer Au in area since turn of the century.

Principal references:

Blake, 1868, p. 10.

Spurr, 1898, p. 107.

Name: (Lovelace Creek)

Location: 56° 32-36'N, 133° 28-34' W

Category: Claims

Principal mineral commodity: Unknown

Brief description: A large block of several hundred claims staked in 1981 and active through at least 1982. See also map no. 22.

Principal reference:

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Kushneahin Lake)

Location: 56° 32' N, 133° 29' W

Category: Occurrence

Principal mineral commodities: Cu?, Mo?

Brief description: Extensive, vivid exposures of yellow-orange altered rhyolite, rhyolite tuff, and rhyolitic glass outcrop in creek bed and bluffs for at least 1 km. Briefly examined by USGS in 1982. Much disseminated pyrite locally but no obvious signs of Cu, Mo or other ore minerals. Several grab samples of most altered rhyolite and associated rocks showed 5 ppm or less Cu and Mo. Sulfides and host rocks are part of a large felsic igneous system. Surrounding area is heavily wooded but aerial reconnaissance shows widespread evidence of similar iron-stained zones over an area several kms in diameter.

Principal reference:

This study.

Name: (Kushneahin Lake)

Location: 56° 28-30' N, 133° 28-30' W

Category: Claims

Principal mineral commodities: Unknown

Brief description: Ninety lode claims staked in 1973 and active through at least 1979.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Totem Bay)

Location: 56° 28' N, 133° 26' W

Category: Claims

Principal mineral commodity: Radioactive minerals

Brief description: Nine lode claims staked for radioactive minerals in 1955; apparently no work since on these claims.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Totem Bay)

Location: 56° 27' N, 133° 26' W

Category: Claims

Principal mineral commodity: Au

Brief description: Five placer claims staked for Au in 1965 and active through 1967.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Indian Point)

Location: 56° 41' N, 133° 16' W

Category: Claims

Principal mineral commodity: Unknown

Brief description: Four lode claims staked in 1977 and active through 1978.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Castle River)

Location: 56° 40' N, 133° 15' W

Category: Occurrence, claims

Principal mineral commodities: Zn, Pb, Ag, Ba

Brief description: Outcrops of phyllitic, light greenish gray to cream, felsic metatuff intercalated with muscovite-rich siliceous phyllite occur intermittently at the high tide line for about 2 kms along the edge of a large shallow bay. Metatuff locally contains massive-sulfide layers several meters thick of abundant pyrite and sparse sphalerite(?). Grab samples of massive sulfide layers and felsic metatuff show up to 700 ppm Pb, 350 ppm Zn, 10 ppm Ag, 1500 ppm As, and 2000 ppm Ba. Nine lode claims that include map no. 30 were staked in 1979 and were active through at least 1982.

Principal references:

Buddington, 1923, p.

Karl and others, 1980.

Berg and Grybeck, 1980.

Name: (Castle River)

Location: 56° 43-45' N, 133° 13-15' W

Category: Occurrence, claims

Principal mineral commodities: Pb, Zn, Ag, Ba

Brief description: Fossiliferous, upper Triassic black carbonaceous, phyllite; locally garnet-bearing limestone; and siltstone are intercalated with silvery dark gray muscovite and quartz-rich phyllite just above mouth of small unnamed creek at northwest end of large shallow bay. Carbonaceous phyllite contains abundant pyrite, and phyllitic siliceous rocks contain lenses of massive sulfides in zone 3-4 m wide and 30-40 m long. Individual lenses up to 0.25 m wide and 1 m long contain abundant pyrite with up to 5% galena and sphalerite. Analyses of grab samples show up to 100 ppm Cu, 100 ppm Ag, and 1000 ppm As. Interpreted by Berg and Grybeck (1980) as a volcanogenic massive sulfide deposit. Nine lode claims that include map no. 29 staked in 1979 and active through at least 1982.

Principal references:

Karl and others, 1980.

Berg and Grybeck, 1980.

Name: Castle Island

Location: 56° 39' N, 133° 10' W

Category: Mine

Principal mineral commodity: Barite

Brief description: Mined from 1965 to 1980 for barite; mine now closed and all mining equipment was removed from the property in 1981. Exact production not publically reported but total production was about three-quarters of a million tons of barite, most of which was mined from 1968 to 1973. Most of deposit was originally a small island that was entirely removed by mining; much of the later mining took place underwater from an anchored barge. The barite occurred in an ore body about 300 feet long and up to 200 feet wide that extended to a maximum depth of about 150 feet below sea level. The exact stratigraphic relationships are unclear but examination of unpublished drilling data and cross sections suggests that the massive barite body occurred along the trough of a symmetrical open syncline trending about N70° W and centered on the now mined-out island, with limbs dipping about 30 to 45 degrees. Drilling also indicated a considerable tonnage of lower grade barite interbedded with "gray schist" (metafelsite?), "chert", and "graphitic schist", and indications of at least one more high-grade barite lens offshore. Mine-run material was massive white to light gray, almost pure barite that invariably contained a percent or so of sulfides as tiny disseminated grains. The few metal assays of the massive barite indicate that it typically contains 0.5-2% Zn, about 0.5% Pb, a small amount of Cu, and about 1 ounce per ton Ag. Under the reflecting microscope, the sulfides are seen to include sphalerite, galena, pyrite, pyrrhotite, bornite, tetrahedrite-tennantite, chalcopyrite, and probably other minerals, all as tiny, generally equant grains. Examination of waste dumps reveals numerous samples that show all transitions from massive barite to layered pyrite(-sphalerite-quartz)-barite rock. The association of barite, layered sulfide-barite rocks, schistose metafelsites, and black, carbonaceous, calcareous phyllite at the mine site indicate that the deposit is almost certainly part of the Triassic Zarembo-Duncan Canal belt of (dismembered) volcanogenic massive-sulfide deposits (Berg and Grybeck, 1980). (See also map no. 30.)

Principal references:

Burchard, 1914, p. 109-113.

Buddington, 1925, p. 138

Buddington and Chapin, 1929.

Karl and others, 1980.

Berg and Grybeck, 1980.

David R. Carnes, U. S. Bureau of Mines (oral communication and unpublished company data.)

Name: (Castle Islands)

Location: 56° 38-41' N, 133° 08-12' W

Category: Claims

Principal mineral commodities: Barite, Pb?, Zn?

Brief description: A barite deposit on one of the Castle Islands (map no. 31) has been known since before 1914 and at least one claim has long been patented on it. However, at least 22 more claims have been staken for barite on the surrounding islands beginning in 1954 and some of the claims remained active through at least 1975.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Divison of Geological and Geophysical Surveys mining claim records.

Name: Helen S.

Location: 56° 34' N, 133° 04' W

Category: Mine

Principal mineral commodities: Au, Zn, Pb

Brief description: Located in 1903 or earlier and worked intermittently until at least 1915. A mill was built and at least 650 feet of underground workings were driven on several quartz veins. Small amount of ore was reportedly milled with a grade of about 0.177 ounces of Au per ton but it is doubtful if there was any substantial production. Property consists of one or more patented claims. Two distinct types of deposits on property, auriferous quartz veins and layered massive sulfide minerals. Several auriferous quartz veins--which were the focus of early work--cut black slate, greenstone and felsic metavolcanic rocks. At one prospect pit, however, massive sulfides consisting of crudely banded pyrite, pyrrhotite(?), arsenopyrite, sphalerite, and galena are abundant. We interpretate this deposit as part of a discontinuous belt of upper Triassic volcanogenic massive sulfide deposits in the Duncan Canal-Zaremba Island area (Berg and Grybeck, 1980). The quartz veins may be remobilized from these massive sulfide deposits.

Principal references:

Wright and Wright, 1908, p. 184.

Buddington, 1923, p. 56-57.

Karl and others, 1980.

Berg and Grybeck, 1980.

Name: (Harvey Creek)

Location: 56° 34' N, 133° 04' W

Category: Mine

Principal mineral commodity: Au

Brief description: Prospect along creek worked during the Depression in the 1930's with a small Pelton wheel and hammer mill. Production uncertain but probably a small amount of gold recovered. Several narrow quartz veins with rare disseminated pyrite and arsenopyrite cut light greenish gray, felsic metatuff.

Principal references:

Wright and Wright, 1908,

Buddington, 1923,

Karl and others, 1980.

Name: Maid of Mexico

Location: 56° 34' N, 133° 02' W

Category: Mine

Principal mineral commodity: Au

Brief description: Quartz vein 0.6-2 m thick, averaging about 1.5 m thick, and traced for at least 600 m carries sparse disseminated sphalerite, pyrite, galena, chalcopyrite, and free gold. Veins cut (Triassic?) black carbonaceous argillite with subordinate rusty weathering, pyrite-bearing calcareous, felsic metatuff, felsic dikes, and minor limestone and mudstone. Black carbonaceous unit is overlain(?) by greenstone, greenschist, and marble. More than 1000 feet of underground workings from several adits. Property was active in 1979 and owners had cleaned out drifts in anticipation of production. Small test shipments were made as early as 1917 and the property produced ore during the 1930's. Production records not available but discussions with the present owners, the size of the dumps, and the amount of underground work indicate that the total production was probably well above the 100 ounces of Au and Ag reported in the literature. Maid of Texas prospect nearby is similar to or a continuation of the Maid of Mexico deposit.

Principal references:

Wright and Wright, 1908, p. 184.

Buddington, 1923, p. 56-57.

Karl and others, 1980.

Berg and Grybeck, 1980.

Name: (Woewodski Island)

Location: 56° 32-35' N, 132° 58' to 133° 09' N

Category: Claims

Principal mineral commodities: Au?, Pb?, Zn?

Brief description: Numerous claims staked within the area since 1953, the most extensive of which are a block of 545 claims staked beginning in 1978 and active through at least 1982.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: Hattie

Location: 56° 32' N, 133° 03' W

Category: Mine

Principal mineral commodity: Au

Brief description: White quartz veins along a zone at least 1000 feet long cut pyritic, rusty-weathering, light greenish gray, calcareous metarhyolite. The metarhyolite and quartz veins are intruded by epidote-hornblende greenstone dikes and by fresh, medium-grained diorite. Quartz veins contain sparse to rare disseminated pyrite, chalcopyrite, galena, and sphalerite, and Au and Ag values. Veins explored by about 500 feet of underground workings. Gold values in veins uncertain but probably low; best value in several grab samples of the vein collected in this study was 0.05 ppm of Au per ton. Fair sized dump on property. No reported production of Au but some may have resulted from small runs at the Helen S. mill nearby. Property apparently inactive since the early 1900's.

Principal references:

Wright and Wright, 1905, p. 59-60.

Wright and Wright, 1908, p. 182-184.

Karl and others, 1980.

Berg and Grybeck, 1980.

Name: Alaska Garnet, Wrangell Garnet

Location: 56° 35' N, 132° 22' W

Category: Mine

Principal mineral commodity: Almandine garnet

Brief description: A famous Alaskan mineral locality. Wrangell garnets have been known since the early 1900's; the locality has been visited repeatedly and garnets from this locality are in mineral collections throughout the world. Dark red, euhedral to subhedral garnet crystals up to 3 cm in diameter disseminated through a quartz-biotite schist (formed by contact metamorphism related to nearby quartz diorite stock?). Has been considered as an industrial abrasive but the deposit's relatively low grade, inaccessibility, and lack of nearby markets suggest that production of garnet as a high-volume industrial mineral is unlikely in the foreseeable future. However, the deposit has been repeatedly mined for mineralogical specimens and will probably continue to be indefinitely, if at a very modest monetary level. The garnet is unsuitable for faceting as a gem stone.

Principal references:

Wright and Wright, 1908, p. 92.

Brooks, 1911, p. 42.

Brooks, 1913, p. 51.

Bressler, 1950.

Name: (Crittenden Creek)

Location: 56° 31' N, 132° 16' W

Category: Claims

Principal mineral commodity: Unknown

Brief description: A single placer claim was staked in 1974-1975 but apparently has not been active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: Lake

Location: 56° 29' N, 132° 05' W

Category: Prospect

Principal mineral commodities: Pb, Zn, Ag

Brief description: Quartz-calcite veins, breccia fillings, and stringer veins occur along prominent fault zone 10-20 feet thick that cuts dark-colored phyllite and slate, quartzite, chlorite schist, and biotite schist west of a quartz diorite pluton. The deposits contain galena, sphalerite, pyrite, and chalcopryrite in a quartz-carbonate gangue. Average grade of seven mineralized samples is about 1% Pb, 1% Zn, and 0.12 ounces Ag per ton. Staked in about 1900; considerable surface trenching and 200-250 feet of underground workings from three adits. No or little active exploration since before 1923. One ton of ore shipped to smelter in 1920. Claims active intermittantly; most recently in 1978.

Principal references:

Wright and Wright, 1905, p. 61.

Wright and Wright, 1908, p. 189-190.

Buddington, 1923, p. 63-65.

Gault and others, 1953, p. 41-46.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Porterfield Creek)

Location: Aprx. 56° 29-31' N, 132° 06' W

Category: Claims

Principal mineral commodity: Sn

Brief description: Sixteen placer claims staked for Sn; active in 1965-1967 but apparently not since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: Groundhog Basin

Location: 56° 31' N, 132° 04' W

Category: Prospect

Principal Mineral commodities: Zn, Pb, Cu, Ag

Brief description: High-grade schist and gneiss with varying proportions of quartz, feldspar, biotite, hornblends, garnet, epidote, and pyroxene locally contain banded layers of solid sulfides and zones of disseminated sulfides including pyrite, pyrrhotite, sphalerite, galena, chalcopyrite, and magnetite, with minor tetrahedrite-tennantite, and cubanite(?). Four distinct ore "beds" have been defined, the most extensive of which is 4 feet thick and extends horizontally for about 3,700 feet through a vertical distance of about 1,500 feet. Bodies in the sulfide layers of several hundred thousand tons in size have been defined with grades of about 8% Zn, 1.5% Pb, and 1.5 ounces of Ag per ton. Bodies of disseminated sulfides of similar size have been identified with grades of about 2.5% Zn and 1% Pb. The deposits were discovered in 1904 and were extensively explored, mainly in 1916-1917 and the early 1940's by surface trenching, 450 feet of underground workings, and at least 600 feet of diamond drill holes. No production has resulted. Until recently conventional theory was that the deposits were (epigenetic) replacement deposits related to the emplacement of the Coast Range batholithic complex to the east. Modern theory suggests that the deposits are metamorphosed and locally remobilized stratiform, syngenetic massive-sulfide deposits of uncertain age. Molybdenite and fluorite occurrences in this area probably postdate the deposition of the stratiform massive-sulfide deposits. Their significance is described under map nos. 43 and 44.

Principal references:

Wright and Wright, 1908, p. 188-189

Buddington, 1923, p. 57-63.

Gault and others, 1953, p. 15-28.

This study.

Name: "Camp Six", "Huff's Prospect", and other informal names

Location: 56° 32' N, 132° 03' W

Category: Prospects

Principle mineral commodity: Mo

Brief description: Although not previously mentioned in the literature, for the last 15 years several companies have carried out extensive drilling and prospecting for molybdenum porphyry deposits in the area between Groundhog Basin and Nelson Glacier. Numerous thick rhyolite dikes and sills--locally up to 50% of the rocks that are exposed--intrude schist and gneiss. Numerous small occurrences of fluorite, molybdenite, and topaz are known. To date, no molybdenum porphyry of significant size has been defined but extensive drilling was being carried out as recently as 1980 and the area remains an attractive possibility for a porphyry deposit at depth. Unpublished K-Ar radiometric dates on samples collected by private industry indicate that the rhyolite is no older than 20 m.y. old and clearly postdates the stratiform massive-sulfide deposits at Groundhog Basin.

Principal reference:

This study and discussions with several geologists in private industry who have worked in the area.

Name: (Glacier Basin)

Location: 56° 29' N, 132° 01' W

Category: Prospect

Principal mineral commodities: Zn, Pb

Brief description: Sulfide-magnetite layers and disseminated sulfide bodies similar to and probably continuous with those in Groundhog Basin (map no. 42) occur in gneiss and schist with some interbedded amphibolite, marble, and calc-silicate rock. Four "ore beds" are known which have been traced along strike for more than 3 miles. Both solid layers and disseminated masses of ore minerals are known, chiefly sphalerite, galena and magnetite. We interpret the "ore beds" and associated disseminated sulfides as metamorphosed stratiform, syngenetic massive-sulfide deposits. The grade of the massive sulfide deposits is somewhat lower than at Groundhog Basin but many hundred thousand tons of material have been defined with about 1.6% Zn and 0.1% Pb.

In addition, quartz-fluorite veins with galena are locally present, most prominently in two small adits where narrow veins cut a rhyolite porphyry sill. The rhyolite sills are probably cogenetic with the 20 m.y. or younger bodies to the north in the vicinity of Mount Waters (map no. 43). The veins that cut the rhyolite probably correlate with the Mo-fluorite occurrences to the north and may have formed either as emanations from the rhyolite or by partial remobilization of the massive-sulfide deposits.

The deposits have been known since 1899 and two adits with a aggregate length of about 82 feet of underground workings have been driven on galena-rich veins in the porphyry sill but no production has resulted.

Principal references:

Wright and Wright, 1908, p. 188-189.

Gault and others, 1953, p. 29-40.

This study.

Name: Berg Basin

Location: 56° 27' N, 132° 01' W

Category: Prospect

Principal mineral commodities: Pb, Zn, Ag, Au

Brief description: Galena and sphalerite occur in small irregular pockets within a composite basalt dike, along the contacts of basaltic dikes with schistose country rock where rhyolite crops out nearby, and disseminated within the rhyolite. No galena or sphalerite has been found except where basaltic dikes are associated with rhyolite sills and dikes. The galena contains up to 28 ounces of Ag per ton. Also, a quartz vein reported to carry about 0.68 ounces of Au per ton crops out at the surface but a tunnel 800 feet long and several diamond drill holes totalling 742 feet failed to find a subsurface extension of gold values. No production from the deposits and apparently little or no serious exploration on the property since 1948.

Principal references:

Chapin, 1918, p. 75.

Buddington, 1923, p. 67.

Gault and others, 1953, p. 47-55.

Name: (Nelson Glacier)

Location: 56° 28-33' N, 132° 00-04' W

Category: Claims

Principal mineral commodities: Pb, Zn, Mo

Brief description: Numerous claims staked and restaked over the years within the area (as well as in the vicinity of Groundhog, Glacier, and Berg Basins, map nos. 42-45) for Pb-Zn deposits and since the early 1950's for Mo. Large block of 295 claims staked in 1963, at least part of which were active through 1982.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Berg Bay)

Location: 56° 22' N, 132° 02' W

Category: Claims

Principal mineral commodity: Unknown

Brief description: Five claims staked in 1920 and apparently not active since.

Principal reference:

U. S. Bureau of Mines, 1980a.

Name: (Port Malmesbury)

Location: 56° 15-19' N, 134° 09-12' W

Category: Claims

Principal mineral commodities: Au, Pb, Ag

Brief description: A total of 38 claims staked in 1953 at four localities for Au, Pb, and Ag; active in 1958 but apparently not since.

Principal references:

Berg and Cobb, 1967, p. 188.

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Point St. Albans)

Location: 56° 06' N, 133° 58' W

Category: Occurrence

Principal mineral commodities: Zn, Pb, Ag

Brief description: Several quartz-calcite veins and lenses up to 2 m thick contain sphalerite, galena, pyrite, arsenopyrite, and berthierite (FeSb_2S_4). The veins are exposed for approximately 20 m along the bedrock bench between the low and high tide lines, where they cut the periphery of a porphyritic hornblende diorite pluton which intrudes turbidite of the Bay of Pillars Formation. Selected samples of the veins contain up to 0.5 ppm Au, 300 ppm Ag, 360 ppm Cu, about 2% Pb and 14% Zn. One claim was staked on the deposit in 1954 but has apparently not been active since.

Principal references:

Houston and others, 1958, p. 24.

Karl and others, 1980.

Name: (Dry Pass)

Location: 56° 09' N, 133° 25-27' W

Category: Occurrences, prospects

Principal mineral commodities: Cu, Pb, Mo, W

Brief description: Several prospects or occurrences near diorite pluton. Band of magnetite about 3 feet wide follows the contact between diorite dike and marble. Samples of hornfels, marble and diorite--collected from a dump outside a short caved adit--contained variable amounts of magnetite, molybdenite, chalcopyrite, pyrrhotite, pyrite, and galena. Quartz veins near the adit contain scheelite; a 5-foot chip sample of the vein contained 1.4% WO_3 . Quartz-rich rock near marble-diorite contact also carries disseminated scheelite. Showings of molybdenite, pyrite, and chalcopyrite in diorite of Dry Pass batholith suggest possibility of porphyry deposit. Apparently little or no work on any of these prospects or occurrences in recent years.

Principal reference:

Herreid and Kaufman, 1964, p. 5, p. 8-10.

Name: (Shakan)

Location: 56° 07-09' N, 133° 24-28' W

Category: Claims

Principal mineral commodities: Cu, Fe, Mo

Brief description: Twenty-seven lode claims staked within area in 1961 and active through 1973. Some probably on deposits described under map nos. 50 and 52.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical mining claim records.

Name: (Shakan)

Location: 56° 08' N, 133° 27' W

Category: Prospects

Principal mineral commodities: Mo, Au

Brief description: Two types of deposits occur at this locality. A quartz vein reported to carry auriferous pyrite was discovered in 1898. A small stamp mill was installed but no production is reported and no work of note has taken place since the early 1900's. The prominent deposit at the locality is the Shakan molybdenum property. A fault-breccia zone in pegmatitic hornblende diorite contains major pyrrhotite, molybdenite, and chalcopyrite and minor sphalerite and pyrite, in quartz-albite gangue. In places pyrrhotite, molybdenite, and chalcopyrite make up 30-40% of the fault zone, which was traced for at least 520 feet and is 1-10 feet wide. The deposit was discovered in 1917 and developed by a 570 foot tunnel and 14 surface cuts during and immediately after World War I. Smith (1942) estimated the resources as 10,000-20,000 tons of rock containing about 1.5% MoS₂. No activity since World War I.

Principal references:

Chapin, 1919, p. 89.

Smith, 1942, p. 167-171.

Twenhofel and others, 1946, p. 19-30.

Name: (El Capitan Passage)

Location: 56° 08' N, 133° 18' W

Category: Claims

Principal mineral commodity: Au, Pb, Ag

Brief description: Two claims staked for Au, Pb, and Ag in 1962; active in 1967 but apparently not since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Devilfish Bay)

Location: 56° 08' N, 133° 23' W

Category: Occurrences

Principal mineral commodities: Cu, Mo, U

Brief description: Magnetite, chalcopyrite, and minor molybdenite occurs in tactite inclusions in granodiorite and in tactite in marble and graywacke-siltstone. One sample of the tactite contained 8 ppm U. Only work done in area was small scale trenching.

Principal references:

Herreid and Kaufman, 1964, p. 4.

Eakins, 1975, p. 54-57.

Name: (Devilfish Bay)

Location: 56° 04-06' N, 133° 20-24' W

Category: Claims

Principal mineral commodities: Au and unknown

Brief description: Two large overlapping claim blocks staked in area. Block of nine lode Au claims staked in 1969 but apparently not active since. Block of 54 claims for unstated commodity staked in 1978 and active through at least 1981.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Bell Island)

Location: 56° 19' N, 133° 17' W

Category: Claim

Principal mineral commodity: Au

Brief description: One placer gold claim staked in 1967 but apparently not active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Salmon Bay)

Location: 56° 15-19' N, 133° 07-10' W

Category: Occurrences, claims

Principal mineral commodities: U, Th, rare earth minerals

Brief description: Steeply dipping carbonate veins, some highly radioactive, occur at three localities in hematitically altered, hornfelsed Silurian graywacke unit. The graywacke is locally cut by deformed and sheared felsic dikes and undeformed basalt dikes. The veins contain fluorite, monazite, and a variety of rare-earth fluorocarbonate minerals; some are highly radioactive. Veins are up to 4 feet thick, but most are narrower, and can be traced for a few hundred feet to where they usually are obscured by vegetation or disappear into the water. The mineralogy of the veins is varied and includes red hematite, specular hematite, magnetite, pyrite, marcasite, chalcopyrite, thorite, monazite, zircon, parisite, and bastnaesite in gangue of dolomite-ankerite, alkali feldspar, chert, quartz, chalcedony, chlorite, epidote, sericite, kaolinite, fluorite, muscovite, apatite, topaz, and garnet. Maximum radioactivity of radioactive veins as measured by U.S.G.S. is 0.095 eU ; average is 0.03 eU and highest uranium content is 0.3%. The rare-earth carbonate veins contain an average of 0.79% combined rare-earth oxides; one high-grade grab sample contained 5% rare-earth oxides. Only traces of rare earths are present in the radioactive veins. Grab samples of veins and felsic dikes taken during our work commonly contain more than 1000 ppm La, and several, contain 1000 ppm Mo. At least 34 claims were staked on the veins in 1951-1952 and some have been restaked as recently as 1977.

Principal references:

White and others, 1952, p. 16.

Wedow and others, 1953, p. 6, p. 9-10, p. 13.

Houston and others, 1958, p. 6-23.

Overstreet, 1967, p. 108.

Eakins, 1975, p. 50-54.

Karl and others, 1980.

Name: (Blashke Islands)

Location: 56° 08' N, 132° 54' W

Category: Occurrences

Principal mineral commodities: Cu, Ni, Cr, Pt-group elements

Brief description: A zoned or Alaskan-type mafic-ultramafic body about 2.5 km in diameter intrudes Silurian graywacke and pyroclastic rocks. The body consists of a core of dunite encircled by a continuous ring of olivine pyroxenite outside of which is a nearly complete ring of gabbro. Chromite is a sparse, but ubiquitous accessory in the dunite core. Disseminated sulfides, mainly pyrrhotite and chalcopyrite, occur near the boundary between pyroxenite and gabbro. There is a large aggregate tonnage of material containing 1-2% sulfides. Analyses of sulfide-bearing gabbro indicate as much as 0.016% Cu, 0.05% Ni, and less than 0.1 ounce per ton Pt-group elements. Other rock analyses show 0.004 ounces per ton Au, 0.04 ounces per ton Pd, and a trace of Pt. Rock samples collected by Clark and Greenwood (1972) contained an average of 0.011 ppm of both Pt and Pd with maxima of 0.020 ppm of each. Apparently no claims have ever been staked on the body.

Principal references:

Kennedy and Walton, 1946, p. 76-78.

Walton, 1951, p. 16-205.

Taylor, 1967, p. 97-121.

Clark and Greenwood, 1972, p. C159.

Name: (St. John Harbor)

Location: 56° 25' N, 132° 57' W

Category: Prospect

Principal mineral commodities: Cu, Pb, Zn

Brief description: An old prospect on which a short adit was driven for gold. Recent work reveals a prominent exposure of several layers of massive pyrite in a face along the creek bank. The pyritiferous zone extends for at least 250 m along the creek and has an aggregate thickness of 10 m; one layer 1.5 m thick contains 50-75% pyrite in a siliceous matrix. Minor sphalerite, chalcopyrite, and galena have apparently been remobilized within the massive sulfide layers into lenses, bands, and knots in the pyrite. Grab samples of a massive pyrite layer show 0.20 to 5.50 ppm Au, up to 2.0% Cu, 1% Zn, 1% Pb, 20 ppm Ag, and more than 5000 ppm Ba. The massive pyrite layers are interbedded with reddish to greenish gray siliceous metavolcanic rocks. The footwall is muscovite phyllite with some black limestone; the hanging wall is light greenish gray phyllitic to schistose rhyolite tuff(?) -all are intruded by Tertiary(?) andesite dikes. Interpreted by Berg and Grybeck (1980) as a Triassic volcanogenic massive-sulfide deposit, one of several in the Duncan Canal-Zarembo Island area.

Principal references:

Buddington, 1923, p. 69.

Karl and others, 1980.

Berg and Grybeck, 1980.

Name: (St. John Harbor)

Location: 56° 24-26' N, 133° 56-57' W

Category: Claims

Principal mineral commodities: Cu, Pb, Zn

Brief description: Block of 34 claims staked in 1978 and active through at least 1982. Said to be some drilling within the area in the last few years for massive sulfide deposits.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

This study.

Name: (Snow Passage)

Location: 56° 18-20' N, 132° 56-58' W

Category: Claims

Principal mineral commodities: Unknown

Brief description: At least 10 claims staked in 1981 and active through 1982.

Principal reference:

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Snow Passage)

Location: 56° 17' N, 132° 57' W

Category: Occurrence

Principal mineral commodity: Fluorite

Brief description: Sparse fluorite occurs as veins in Tertiary volcanic rocks over an area at least 100 m in diameter. The fluorite occurs as fillings in narrow, vuggy fracture zones and also coats chalcedony-encrusted fragments in a narrow breccia zone.

Principal reference:

Buddington, 1923, p. 75.

This study.

Name: (Zarembo Island)

Location: 56° 22' N, 132° 55' W

Category: Occurrence

Principal mineral commodities: Pb, Zn, Cu

Brief description: Medium-grained, hypidiomorphic granular quartz diorite is exposed in a rock quarry adjacent to a logging road. The diorite is cut by spherulitic felsic dikes which are in turn cut by andesite dikes. Mineralization consists of narrow hydrothermal veins and lenses in an altered shear zone about 1.5 m wide in the quartz diorite. Sulfides in the veins include chalcopyrite, bornite, galena, sphalerite, arsenopyrite, and magnetite. Analyses of selected grab samples of vein material show major Pb, Zn, and Cu consistent with the hand specimen mineralogy, less than 0.05 ppm Au, up to 50 ppm Ag, up to 15 ppm Sn, and up to 3 ppm W.

Principal reference:

Karl and others, 1980.

Name: (Zarembo Island)

Location: 56° 23' N, 132° 54' W

Category: Occurrence

Principal mineral commodities: Zn, Pb, Cu

Brief description: Deposit is exposed on the north wall of a rock quarry adjacent to a logging road. The deposit consists of three massive sulfide layers in orange-weathering greenish-gray metarhyolite. The most prominent exposure of the sulfides is a 1.5 m thick layer that crops out for about 15 m and is truncated at both ends by faults. Selected portions of the massive sulfide layers contain up to 30% sulfides, mainly sphalerite, with minor pyrite, chalcopyrite and galena in a fine-grained siliceous matrix. Analyses of selected grab samples contain up to 0.55 ppm Au, about 8% Zn, 0.25% Pb, 0.39% Cu, 30 ppm or less Ag, and up to 5000 ppm Ba. The occurrence forms a wedge-shaped, fault-bounded outcrop about 10 m by 30 m in size that abuts steeply-dipping Tertiary basalt, diabase, and rhyolite dikes.

Principal references:

Karl and others, 1980.

Berg and Grybeck, 1980.

Name: (Round Point)

Location: 56° 17' N, 132° 42' W

Category: Prospect

Principal mineral commodities: Pb, Zn, Cu

Brief description: Short examination of property during this study with company geologist. Exposure in creek bed consists of rusty-weathering, light greenish-gray felsic metavolcanic rocks with small lenses, pods, and layers up to 0.3 m thick that contain disseminated sulfides. Sulfides are mainly pyrite, and possibly sphalerite and chalcopyrite. Analyses of grab samples show less than 5 ppm Cu, 50-150 ppm Pb, 200-11,000 ppm Zn, and 150-5,000 ppm Ba. The felsic metavolcanic rocks are interbedded with light gray, silicified limestone and dark gray argillite.

Principal reference:

This study.

Name: (Round Point)

Location: 56° 15-18' N, 132° 40-50' W

Category: Claims

Principal mineral commodities: Zn, Pb, Cu

Brief description: More than 600 claims staked since 1978, presumably for volcanogenic massive-sulfide deposits. At least some active through 1981.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Deep Bay)

Location: 56° 23' N, 132° 38' W

Category: Claim

Principal mineral commodity: Unknown

Brief description: Single placer claim staked in 1972 and active through 1975.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Deep Bay)

Location: 56° 24' N, 132° 38' W

Category: Claims

Principal mineral commodity: Unknown

Brief description: Three lode claims staked in 1973 and active through 1975.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: Exchange

Location: 56° 25' N, 132° 32' W

Category: Prospect

Principal mineral commodity: Au

Brief description: A 4-5'-thick quartz vein in granite contains sparse pyrite and is reported to carry moderate values in Au. The property was staked in 1900 and developed by surface trenches and a crosscut 45 feet long. No record of production. Two of the claims were restaked in 1974 and were active through 1982.

Principal references:

Wright and Wright, 1908, p. 185.

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Elephants Nose)

Location: 56° 26' N, 132° 28' W

Category: Claim

Principal mineral commodity: Radioactive minerals

Brief description: One lode claim staked for radioactive minerals in 1955; apparently not active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Chicagof Peak)

Location: 56° 21' N, 132° 20' W

Category: Claims

Principal mineral commodity: W

Brief description: Three lode claims staked for W in 1967; apparently not active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Chicagof Peak)

Location: 56° 22' N, 132° 17' W

Category: Claims

Principal mineral commodity: Fe

Brief description: Two lode claims staked for Fe in 1960 and active through 1968.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Steamer Point)

Location: 56° 13-14' N, 132° 41-43' W

Category: Claims

Principal mineral commodity: Unknown

Brief description: Thrity-four lode claims staked in 1978 and active through at least 1981.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Keating Ridge)

Location: 56° 08-08' N, 132° 37-38'

Category: Claims

Principal mineral commodity: Unknown

Brief description: Forty-seven lode claims staked in 1978 and active through at least 1981.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Map No. 75

Name: (Steamer Bay)

Location: About 56° 08' N, 132° 39' W

Category: Claims

Principal mineral commodity: Unknown

Brief description: Twenty-two claims staked in 1972-1973; apparently not active since.

Principal references:

U. S. Bureau of Mines 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Turn Island)

Location: 56° 14' N, 132° 20' W

Category: Claim

Principal mineral commodity: Unknown

Brief description: One lode claim staked and 1979 and active through 1982.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Found Island)

Location: 56° 07' N, 132° 04' W

Category: Claim

Principal mineral commodity: Au

Brief description: One lode claim staked for Au in 1962 and active through 1977.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

Name: (Fisherman Chuck)

Location: 56° 03' N, 132° 12' W

Category: Claims

Principal mineral commodity: Radioactive minerals

Brief description: Two claims staked for radioactive minerals in 1956;
apparently not active since.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim
records.

Name: (Niblack Islands)

Location: About 56° 03' N, 132° 07' W

Category: Claims

Principal mineral commodity: Cu

Brief description: Ten claims staked for Cu in 1956 at five locations on the islands; apparently not active since. A brief examination during this study revealed no obvious signs of mineral deposits on the islands.

Principal references:

U. S. Bureau of Mines, 1980a.

Alaska Division of Geological and Geophysical Surveys mining claim records.

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