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GEOLOGICAL SURVEY

KNOWN MINERAL DEPOSITS OF
THE BROOKS RANGE, ALASKA

By

Donald Grybeck

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This report, one of a series under the Regional Alaska Mineral Resource Assessment Program (RAHRAP), summarizes the known mineral deposits of the Brooks Range. The Regional Alaska Mineral Resource Assessment Program is directed specifically toward an assessment of the land selected under section 17 (d)(2) of the Alaska Native Claims Settlement Act. Because the mineral potential of these areas in the Brooks Range is so poorly known, this report includes the whole of the Range and adjacent areas to facilitate projection of the geology and trends of the mineralization into the (d)(2) lands.

Compilation of Mineral Deposit Data

The map and table 1 summarize the location and details of the geology of all the known mineral occurrences in the Brooks Range. Most of the deposits indicated in this report contain metals as their significant commodities. This orientation reflects geology and (or) the status of exploration and is not a commodity bias. Hydrocarbons are unlikely in most of the area with the exception of the Arctic National Wildlife Range. There are no published reports of hydrocarbons in the (d)(2) lands. Extensive coal deposits are known along the north side of the report area but are poorly documented and few of these deposits extend into the (d)(2) lands. The few known occurrences of industrial minerals reported in the literature, chiefly barite and phosphates, are noted, but little detailed information is

available about their extent. Except in conjunction with the Alyeska pipeline, sand and gravel are rarely mentioned by location as potentially valuable mineral commodities, although immense amounts occur throughout the Brooks Range.

The most useful sources for information on the mineral deposits of the Brooks Range are the comprehensive summaries of the governmental literature by Cobb (1972a-1, 1973, 1975a-b, 1976). Geologists with the U.S. Geological Survey and Alaska Division of Geological and Geophysical Surveys provided additional, as yet unpublished, information. Data from the claim records maintained by the Alaska Division of Geological and Geophysical Surveys and the claim location maps prepared by the U.S. Bureau of Mines were also used. Details on claim location covering previously known mineralization are generally not included except where they indicate substantial recent work. However, because legal claims indicate mineral-bearing ground, the location of claims is shown on the map where there is no other report of mineralization, even if the mineralization is not described in the claim records. Mining companies that have worked or are working in the area provided information from their files. Geochemical data for the Brooks Range are given on another map of the Brooks Range RAMRAP series (Grybeck, 1977).

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U.S. Bureau of Mines allowed the use of unpublished work on the (d)(2) lands of the Brooks Range. The following companies graciously provided information and helpful discussion: the Anaconda Mining Company; Bear Creek Mining Company; BP Alaska Exploration, Inc.; C. C. Hawley and Associates; Little Squaw Gold Mining Company; Noranda Exploration, Inc.; Placid Oil Company; Resource Associates of Alaska, Inc.; and WGM, Inc.

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**Table 1.-- Known mineral deposits of the Brooks Range, Alaska arranged by U.S. Geological Survey
1:250,000-scale quadrangles.**

Principal
References

Map No. Name (a) Location Category Resource Type Brief Description

DeLong Mountains Quadrangle

1	(Ikah Cr.)	T895, R506514 (approx. 6.9, 12.3)	0	Au?	--	Auriferous pyrite reported in late 1880's was said to contain up to 0.4 ounces per ton in Au. Unsubstantiated and geologically unlikely.	Smith and Mertie (1970) Berg and Cobb (1967)
2	(Mt. Kelly)	T115, R504 (approx. 8.8, 8.4)	0	Au	--	Rich gold lode reported prior to 1913; unsubstantiated and geologically unlikely.	Smith and Mertie (1970)
3	--	T32M, R204 (13.1, 3.1)	P	--	--	Seven lode claims staked 1975.	DGSS Kardex file
4	--	T32M, R194 (12.5, 3.8)	P	Pb, Zn	--	Four prominent color anomalies. Brief examination indicated weak geochemical anomalies and minor galena. May be similar to Red Dog prospect (loc. 7). Two hundred and eighteen lode claims staked 1975.	USAM unpublished data DGSS Kardex file
5	--	T32M, R194 (13.1, 3.4)	P	--	--	One lode claim staked 1975.	DGSS Kardex file
6	--	T32M, R194 (13.5, 2.7)	P	--	--	One lode claim staked 1975.	DGSS Kardex file
7	Red Dog	T33M, R184 (14.3, 1.3)	P	Pb, Zn, barite	Volcanogenic? Mississippi- valley type?	Mineralized area about 3000 by 1000 meters in area. Mineralization consists of sphalerite and galena in bedded chert; massive sphalerite; sphalerite and galena with barite; sphalerite and galena in massive siliceous rocks and in veins and breccia in black chert. Estimate of 768,000 tons per vertical foot of material that assays 0.65-5.08 Pb, 1.4-24.08 Zn, 14-82 grams per metric tonne Ag, and substantial barite. An additional 9 square km anomalous in Pb and Zn.	Tailleur (1970) USAM unpublished data

<u>Map No.</u>	<u>Name(s)</u> ^{1/}	<u>Location</u> ^{2/}	<u>Category</u> ^{2/}	<u>Resources</u> ^{4/}	<u>Type</u> ^{5/}	<u>Brief Description</u>	<u>Principal References</u> ^{6/}
<u>Misheguk Mountain Quadrangle</u>							
1	Aven	T33N, R14W (centered about 0.6, 4.2)	0	Cr	Magnetic	Limited traversing in ultramafic body indicated minor disseminated to banded chromite. Very few Pt-group analyses not anomalous.	USBR unpublished data
2	(Kuguruok River)	T32N, R12W7 (approx. 3.0, 3.0)	P	Cr	--	Specimen of chromite collected from a "large amount of similar material said to occur in that area." Unsubstantiated but geologically probable associated with the gabbro-ultramafic complex at Misheguk Mountain.	Anderson (1947)
3	(Misheguk Mountain)	T33N, R10W (centered about 6.0, 4.2)	0	Cr	Magnetic	Limited traversing in ultramafic body about 52 km by 20 km in size indicated widespread chromite in minor amounts.	USBR unpublished data

Map No. / Location / Category / Resources / Type / Brief Description / Principal Reference /

Gold Mountain Subgroup

Map No.	Location	Category	Resources	Type	Brief Description	Principal Reference
1	--	--	72728M, 81361M (centered about 0.6, 13.0)	0	Magmatic	USBR unpublished data Limited geologic work in a portion of Mt. Mountain ultramafic body indicated minor disseminated pyrite, chalcopyrite and chromite; extensive geochemical prospecting in area indicated little of significance except for one value of 2.075 ppm Zn.
2	Exhino	--	724M, 819M (centered about 1.0, 8.0)	2	Cu, Au	Unpublished industry data Chalcopyrite and malachite in breached limestone; twenty-five claims staked in vicinity 1966. BGS Kardon file
3	--	--	734M, 813M (3.05, 9.9)	0	Cu	Unpublished industry data Mineralized quartz vein in limestone with malachite containing 18 Cu. Brough, Rolser and Tallour (1967)
4	(E11 River)	--	726M, 812M (3.0, 11.25)	0	Cu	Unpublished industry data Malachite in quartz vein. Brough, Rolser and Tallour (1967)
5	--	--	726M, 812M (centered about 4.9, 11.3)	2	Cu	Unpublished industry data Eighteen lode claims staked 1966. BGS Kardon file
6	Callahorn	--	721M, 815M (0.4, 3.2)	2	Cu	Unpublished industry data Two quartz veins with chalcopyrite in schist and phyllite. One claim staked in 1970's.
7	Wai	--	721M, 814M (1.75, 3.1)	2	Cu	Unpublished industry data Quartz vein with chalcopyrite in schist and phyllite.
8	Smar	--	724M, 810M (2.6, 8.7)	2	Cu	Unpublished industry data Hydrothermal breccia and fracture filling (ruby creek type) zones 30 meters wide by 300-1000 meters long, faulted and brecciated gossan in tan-washed Devonian dolomite associated with malachite, bornite, chalcopyrite and covellite. About 900 meters of diamond drilling.
9	Frost	--	724M, 804M (0.9, 8.7)	2	Barite (Zn, Cu)	USBR unpublished data Lenses and pods of barite at least 10 meters thick by 25-30 meters long occur along a strike distance of about 1600 meters in Devonian dolomite. Several occurrences of sphalerite and chalcopyrite in underlying quartz-calcite-barite veins. Exposed strongly suggests resources of 1 million tonnes of barite and possibly as much as 10 million tonnes.
10	--	--	724M, 804M (0.5, 8.0)	2	Zn, Barite	Unpublished industry data Zn, barite mineralization trends north-west for about 1 km.
11	(Klary Cr., Caribon Cr., Gold Run Cr., Jon Guich)	--	721, 22, 23M, (centered about 11.0, 4.0)	2	Au	Unpublished industry data More than 16 tons of creek worked in bars from 1909 to present. Mining by hand method, various mechanical apparatus and small dredge. Total production through 1931 estimated at about 974,000 grams. Gold probably derived from local veins and stringers of quartz in limestone and schist. Prospecting on various tracts of Klary Creek with minor production from at least one.
12	Head (1931)	--	Cobb (1931)	--	--	--

<u>Map No.</u>	<u>Name(s) 1/</u>	<u>Location 2/</u>	<u>Category 3/</u>	<u>Resource 4/</u>	<u>Type 5/</u>	<u>Brief Description</u>	<u>Principal References 6/</u>
<u>Baird Mountains Quadrangle (cont.)</u>							
12	(Makolikurok Creek)	T26N, R6W (10.75, 11.25)	0	Cu, Mo	Vein	Quartz vein in greenstone contains Cu; Mo.	Brosigé, Reiser and Tellier (1967)
13	--	T29N, R6W (14.6, 15.3)	0	Cu	Vein	Quartz vein in greenstone sill contains 1% Cu.	Brosigé, Reiser and Tellier (1967)
14	Chevron	T5N, R5W (14.6, 15.3)	0	Cu	Vein	Several quartz veins with chalcopyrite occur in phyllite over an area about 30 meters across.	USBM unpublished data
15	Hub	T27N, R4W (15.9, 13.7)	0	Cu	Vein	Two 15 cm quartz-calcite veins with chalcopyrite in dolomite contain an average of 8.72% Cu.	USBM unpublished data
16	(Salmon River)	T26N, R5W (14.4, 12.2)	0	Cu	Vein	Chalcopyrite in rubble of quartz vein in schist.	USBM Unpublished data
17	Tomby	T25N, R4W (16.45, 10.4)	0	Cu	Vein	Chalcopyrite and pyrite in quartz vein in phyllite over 60 by 30 meter area.	Brosigé, Reiser and Tellier (1967) USBM unpublished data

<u>Map No.</u>	<u>Name(s) 1/</u>	<u>Location 2/</u>	<u>Category 3/</u>	<u>Resources 4/</u>	<u>Type 5/</u>	<u>Brief Description</u>	<u>Principal References 6/</u>
<u>Selawik Quadrangle</u>							
1,6,7	--	T780N, R9610W (blocks centered about 10.6, 1.26; 10.3, 0.4; 0.2, 0.3)	P	U	--	Fourteen lode claims staked at three locations 1969-1971.	DGGS Kardex file
2,3,5,9	--	T8N, R9W; T9N, R9610W; T10611N, R8W (blocks centered about 11.7, 6.5; 9.35, 4.6; 8.7, 3.05; 9.8, 2.25)	P	U	Disseminated and veins in felsic intrusive rock	Three hundred and twenty-three lode claims staked 1968-1974 in four claim blocks.	DGGS Kardex file
4	--	T9N, R9W (9.5, 3.1)	0	Fluorite	Braccia zone	Outcrop 20-25 meters long in cutbank of fault braccia composed of argillized intrusive rock cemented by purple fluorite. Grab sample contained about 13% F.	Unpublished data, T. P. Miller
8	--	T869N, R8W (centered about 11.6, 2.45)	P	U	--	Sixteen lode claims staked 1974.	DGGS Kardex file
10	(Hunt Cr.)	T9N, R5W (16.0, 3.25)	0	Pb, Zn	Hydrothermal vein	Galena, sphalerite, and pyrite in quartz-calcite vein cutting pink syenite.	Elliott and Miller (1969)

<u>Map No.</u>	<u>Name(s)^{1/}</u>	<u>Location^{2/}</u>	<u>Category^{3/}</u>	<u>Resources^{4/}</u>	<u>Type^{5/}</u>	<u>Brief Description</u>	<u>Principal References^{6/}</u>
<u>Howard Pass Quadrangle</u>							
1	(Sinktan-nagak Mtn.)	T34N, R1-3E (centered about 3.95, 6.9)	0	--	--	Sixty-five lode claims staked in 1972. Commodity of interest not given but includes most of large gabbro-ultramafic complex.	DGGS Kardex file
2	(Mt. Dupto)	T11S, R24W (9.7, 9.1)	0	P ₂ O ₅ , U	(V ₂ O ₅ , Chemical sediment	Sample probably from black chert and shale member of Alapeh member of Alapeh Ls. contains 13.7% P ₂ O ₅ and 0.0048 U.	Patton and Matzko (1959)
3	(Lisburne Ridge)	T9S, R20W (14.6, 11.25)	0	P ₂ O ₅ , U	(V ₂ O ₅ , Chemical sediment	Sample in interbedded black chert and dark-gray dolomite unit in Lisburne Group contains 24.8% P ₂ O ₅ and 0.17% V ₂ O ₅ .	Patton and Matzko (1959)

Map No.	Loc(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resources ^{4/}	Type ^{5/}	Brief Description	Principal References ^{6/}
<u>Ambler River Quadrangle</u>							
1	Halfblatt	T25N, R2W (0.0, 9.25)	P	Cu	--	Copper prospect discovered about 1912 at limestone and schist contact.	Brooks (1914)
2	(Kobuk River)	T20N, R1W	P	Jade?	Claims	Unstated number (1-27) of claims staked 1968-1970. Assessment work reports "Jade cutting."	DGGS Kardex file
3	--	T25N, R3E (5.3, 9.8)	O	Pb, Cu fluorite	Contact metamorphic	Minor amounts of galena, fluorite, and malachite in granite near contact zone over a distance of about 1.6 km. Area of 13 km ² geochemically anomalous in Pb and Zn.	USBR unpublished data
4	(Jade Mtns.)	T21N, R3E (5.7, 4.4)	O	Cu, Pb	Vein	Mineralized vein in limestone with malachite, azurite and galena.	Brosig, Reiser and Tailleir (1967)
5	(Jade Mtn.)	T21N, R4E (approx. 6.5, 4.25)	P	Asbestos, Jade	Magmatic (ultramafic)	Highly serpentized ultramafic body at least 5 km ² in area contains chrysotile and tremolite asbestos and nephrite jade, some of which is gem quality.	Anderson (1945, 1947) Fritts (1970)
6	(Jade Mtns.)	T21N, R5E (approx. 8.2, 3.5)	P	Ni, asbestos, Jade	Magmatic (ultramafic)	Location uncertain and may refer to loc. 5. Garnierite, nephrite jade and asbestos associated with a serpentized ultramafic body.	Anderson (1945)
7	--	T25N, R8E (centered about 12.6, 9.7)	P	--	Claims	Six lode(?) claims staked 1968.	DGGS Kardex file
8	--	T28N, R9E (14.8, 14.3)	O	Cu, Ag, (Sb)	?	Prominent rusty colored peaks of brecciated dolomite, Tetrahedrite, tennantite(?), chalcopyrite and malachite at four localities over an area of about 0.4 km ² .	USBR unpublished data
9	(Ningyoyak Creek)	T29N, R11E (17.9, 15.4)	P	Cu	?	Copper mineralization over an area of about 25 x 30 meters. Consists of quartz-carbonate stringers with chalcopyrite in phyllite.	USBR unpublished data
10	--	T23N, R10E (centered about 15.8, 7.3)	P	Cu, Pb (Au)	Contact metamorphic	Numerous small quartz veins and veinlets with chalcopyrite and galena in quartose rocks in contact aureole of granite. Twenty lode claims staked 1974.	Unpublished industry data
11	--	T23624N, R11E (centered about 17.1, 7.5)	P	Cu, Pb (Au)	Contact metamorphic	Numerous small quartz veins and veinlets with chalcopyrite and galena in quartose rocks in contact aureole of granite. Forty-six lode claims staked 1974 in blocks.	Unpublished industry data

<u>Map No.</u>	<u>Name(s)</u> ^{1/}	<u>Location</u> ^{2/}	<u>Category</u> ^{3/}	<u>Resources</u> ^{4/}	<u>Type</u> ^{5/}	<u>Brief Description</u>	<u>Principal References</u> ^{6/}
Ambler River Quadrangle (cont.)							
12	(Shishakshin-ovik Pass)	T24N, R11E (18.05, 8.2)	P	Cu, Pb (Au, Ag)	--	Selected specimens that include tetrahedrite and native copper in the streams reported to have assayed 9.8% Cu, 27.7% Pb and some Au and Ag.	Smith (1913) Anderson (1947)
13	(Shishakshin-ovik Pass)	T23N, R12E (18.4, 7.75)	0	Pb, Zn, Cu, Ag, Mo, (Au)	Contact metamorphic	Minor galena, chalcopyrite, sphalerite and molybdenite in granites near its contact zone. Also geochemically anomalous in Pb, Zn, and Mo. Float boulder contains 3% Pb, 5.6% Zn, and more than 90 grams of Ag per metric tonne.	USBR Unpublished data Unpublished industry data
14	--	T2823N, R10411E (centered about 16.9, 6.5)	P	--	Claims	Eighty-three lode claims staked in three blocks, 1974.	DGS Korok file
15	Smucker, "Steel Creek"	T22N, R8E (12.4, 5.3)	P	Cu, Zn, (Ag)	Stratabound massive sulfide	Malachite, disseminated pyrite, chalcopyrite and sphalerite in chlorite and graphitic muscovite-quartz schist. Samples in massive sulfide layer at surface contain up to 1.2% Cu, 0.9% Zn, and 220 grams of Ag per metric tonne. Strong mineralization occurs over an area of at least 60 x 1200 meters and at scattered locations elsewhere in vicinity.	Unpublished industry data
16	"Worse Creek"	T22N, R10E (15.4, 5.8)	P	Cu, Zn (Pb, Ag, Au)	Stratabound massive sulfide	Details and reserves not published but deposit similar to Arctic deposit (19).	Sichermann, Russell and Fikhan (1976)
17	"Sunshine Creek"	T21N, R10E (16.1, 3.7)	P	Cu, Zn (Pb, Ag, Au)	Stratabound massive sulfide	Details and reserves not published but deposit similar to Arctic deposit (19).	Sichermann, Russell and Fikhan (1976)
18	"Dead Creek"	T21N, R11E (16.9, 3.7)	P	Cu, Zn (Pb, Ag, Au)	Stratabound massive sulfide	Details and reserves not published but deposit similar to Arctic deposit (19).	Sichermann, Russell and Fikhan (1976)
19	Arctic	T21N, R10E (17.9, 3.2)	P	Cu, Zn (Pb, Ag, Au)	Stratabound massive sulfide	Polymetallic, stratabound, volcanogenic deposit within a suite of low- to medium-grade metamorphic rocks that include micaschist, porphyrobasaltic schist, quartz-muscovite schist and graphitic schist. Pyrite, chalcopyrite and sphalerite comprise 20-90% of a number of sulfide-rich horizons 0.3 to over 18 meters thick that comprise a triangular-shaped mineralized zone about 1030 by 730 meters in plan and about 90 meters thick. Deposit drilled and estimated to contain 30 to 35 million tons of material that averages 4% Cu, 5.5% Zn, 46 grams Ag per metric tonne, 1% Pb and a small amount of Au.	Wiltse(1975) Sichermann, Russell and Fikhan (1976)

Map No.	Name(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resources ^{4/}	Type ^{5/}	Brief Description	Principal References ^{6/}
<u>Ambler River Quadrangle (cont.)</u>							
20	"Blane Creek"	T20N, R12E (19.0, 3.1)	P	Cu, Zn	Stratabound	Weakly disseminated chalcopyrite, bornite, sphalerite, and pyrrhotite in calcareous schist and skarn, mainly as float.	Unpublished industry data
21	"Que Creek"	T20N, R12E (19.4, 2.75)	P	Cu	Stratabound	Disseminated malachite in muscovite, quartz schist for at least 275 meters.	Unpublished industry data
22	(Riley Cr.)	T19N, R9E10E (centered about 15.1, 0.8)	P	--	Claims	Substantial number of lode claims staked 1960.	8883 Kardex file
23	(Asbestos Mtn.)	T19N, R9E (14.9, 0.45)	M	Asbestos, Jade (quartz, taic)	Magmatic (ultramafic)	Serpentinized ultramafic body contains veins and veinlets of cross- and slip-fiber tremolite and chrysotile asbestos. About 33.1 metric tonnes of tremolite and about 1 tonne of chrysotile shipped during World War II. Small deposits of taic and soapstone common. Small shipment of optical quartz crystals shipped in 1943 from float in vicinity.	Anderson (1945, 1947) Meida and others (1949) Fritts (1970)
24	Bornite, Ruby Creek	T19N, R9E (14.1, 1.6)	P	Cu, Zn, (Pb, Ag, Au, U)	Hydrothermal breccia filling	Deposit occurs in a 760 meter-thick Devonian carbonate sequence that includes dolomite, limestone, limestone breccia, phyllite and calcarenite. The ore bodies occur along two northeast-trending breccia zones that may be related to large bioherms. Pyrite is the most common sulfide but chalcopyrite and bornite are the chief minerals of interest. Chalcopyrite, sphalerite, tennantite, tetrahedrite, galena and pyrrhotite are locally present in noticeable amounts; and marcasite, carrollite and germanite are present in trace amounts. Various secondary copper minerals occur especially near the surface; selected samples reach 0.02% Cu but the U content of the ore is apparently negligible. No published data on the Ag and Au content of the ore. Wallrock alteration associated with mineralization minor or absent. The deposit has been extensively explored by many thousands of meters of diamond drilling and a vertical shaft 326 meters deep. Current grade and tonnage figures not available but they are appreciable.	Smith and Eakin (1911) Matzko and Freeman (1963) Fritts (1970) Sichermann, Russell and Fikkan (1976)

Principal
References/

Brief Description

Category/ Resources/ Type/

Map No. Name(s)/ Location/

Ambler River Quadrangle (cont.)

Map No.	Name(s)	Location	Category	Resources	Type	Brief Description	Principal References
25	Perchers Mill (Aurora Mtn)	T19N, R8E (13.5, 1.3)	P	Cu, Au, Ag, Pb, Zn	Hydrothermal breccia filling	Chalcopyrite and bornite in a reef(?) breccia that occurs in a synclinal, dolomitic limestone above dark slate and schist. Minor galena; selected sulfide samples contain up to 1.24 grams per metric tonne Au and 44 grams per metric tonne Ag. Secondary copper minerals locally. Probably similar in origin and general characteristics to the bornite deposit (24).	Smith and Eakin (1911) Fritts (1970) Sicherman, Russell and Pihkan (1976)
26	(Cosmos Cr.)	T19N, R8E (12.9, 0.5)	M	Au, asbestos, Jade	Magmatic (ultramafic) placer	Sheared serpentinite with low-grade chrysotile asbestos. Colors of Au in creek above canyon but no production. Some nephrite jade from creek gravels produced and sold.	Reed (1931) Anderson (1945, 1947)
27	(Aurora Mtn.)	T1920N, R8E (centered about 13.0, 1.4)	P	--	Claims	Substantiated number of lode claims staked 1960.	DOGS Karden file
28	(Blasmark Mtn.)	T19N, R7E (11.9, 1.0)	P	Asbestos	Magmatic (ultramafic)	Serpentinized ultramafic body contains veins and veinlets of cross- and slip-fiber chrysotile asbestos; magnetite veinlets locally. Small test shipment made but no production.	Anderson (1945, 1947) Halde and others (1949)
29	(Shungnak River)	T19N, R7E (centered about 11.9, 0.6)	M	Au, Jade, asbestos (Cu, Ag)	Placer	Intermittent mining from 1898 to 1940. May have produced as much as 110,000 grams of gold; concentrates mainly magnetite with nuggets of native copper and silver. Low-grade asbestos occurs in greenstone and serpentinite along river. Several tonnes of nephrite have been produced from the gravels as a gemstone.	Smith and Eakin (1911) Reed (1931) Fritts (1970)

Map No. _____

Name(s) _____

Location _____

Category _____

Resources _____

Type _____

Brief Description _____

Principal References _____

Shungnak Quadrangle

Map No.	Name(s)	Location	Category	Resources	Type	Brief Description	Principal References
1	(Cosmos Creek)	T10N, R0E (12.7, 17.6)	M	Jade	Placer	Flint Jade shipped in 1945.	Anderson (1945)
2	(Masley Creek)	T10N, R0E (13.65, 17.65)	Q	Pb, Au asbestos, Jade	Hydrothermal vein; magmatic (ultramafic); placer	Selenite occurs in quartz vein cutting dolomite. Tremolite asbestos and nephrite Jade occurs near head of creek. Fine gold found during prospecting but no placer mining.	Smith (1913) Anderson (1945)
3	(Dah) Creek)	T10N, R0E (centered about 14.6, 17.2)	M	Au, asbestos, Jade (Cr, Cu, Ag)	Placer; magmatic (ultramafic)	Creek mined intermittently from 1896 to at least 1968. Placer concentrates contain boulders of chromite up to 0.3 meters in diameter as well as nuggets of native copper and silver. Total gold production may have been as much as 622,000 grams. Serpentine in upper part of creek contains chrysotile asbestos and some Jade or Jade-like serpentine has been produced as a gemstone from float in the creek.	Smith (1913) Reed (1931) Fritts (1970) Cobb (1973)
4	(California Creek)	T10N, R10E (16.3, 17.1)	M	Au, asbestos, Jade, quartz	Placer; magmatic (ultramafic)	Placer mining nearly every year between 1918 and 1940. Stream draining area of metavolcanic rocks and phyllite with quartz veins that are probably the source of the gold. Total production probably less than 622,000 grams of gold. Quartz crystal, asbestos-bearing boulders and nephrite Jade of poor quality found during placer mining.	Reed (1931) Anderson (1945, 1947) Fritts (1970)
5	(Shovel Creek)	T11N, R5E (8.35, 6.1)	M	Au	Placer	Two-man placer operation during 1950's and 1960's near contact of quartz monzonite pluton and andesite country rock. Production unknown. Gold may have been derived from the quartz-tourmaline-sulfide veins near the contact. One hundred lode claims staked in vicinity in 1972.	Miller and Ferrilans (1968) Cobb (1973) DCGS Karden file
6	(Hawk River)	T10N, R6E (10.6, 4.6)	P	Cu, Pb Ag	Hydrothermal vein	A belt of pyriticiferous quartz veins occur in an area about 10.5 by 2.4 km in size where they cut upper Jurassic and lower Cretaceous volcanic rocks. Veins are generally less than 0.6 meters thick and contain argeniferous galena, chalcopyrite, and malachite. One hundred and fifty lode claims staked in 1972.	Miller and Ferrilans (1968) DCGS Karden file

Map No.	Name(s)	Location	Category	Resources	Type	Brief Description	Principal References
<u>Shuswap Quadrangle (cont.)</u>							
7	--	T12M, R11E (about 18.2, 8.2)	0	Cu, Ag, Au, Pb	Hydrothermal vein	Chalcopyrite-bearing quartz vein cuts meta-andesite at one locality. At another in vicinity an oxidized pyrite- ferous quartz sample contains 3 ppm Ag, 0.6 ppm Au and 150 ppm Pb.	Miller and Ferrilans (1968)
8	--	T12M, R12E (19.1, 7.3)	0	Ag, Pb, Mo	Hydrothermal vein	Oxidized, pyritiferous quartz sample contains 1 ppm Ag, 30 ppm Pb and 3 ppm Mo.	Miller and Ferrilans (1968)
9	(Dak11)	T11M, R12E (centered about 19.45, 6.6)	0	Cu, Au Ag	Hydrothermal vein	Float of quartz veins near contact of granodiorite pluton and andesite wall- rock contains pyrite, covellite, and malachite with chalcopyrite; contains up to 155 ppm Ag and 0.8 ppm Au. One hundred and fifty-six lode claims staked from 1968 to 1972.	Miller and Ferrilans (1968) BGS Kerdex file
10	--	T11M, R13E (19.85, 6.25)	0	Mo	Hydrothermal vein	Grab sample of molybdenite-bearing quartz veins up to 0.6 meters thick near andesite-granodiorite contact contains 0.28 Mo.	Miller and Ferrilans (1968)

Map No.	Name(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resources ^{4/}	Type ^{5/}	Brief Description	Principal References ^{6/}
<u>Survey Pass Quadrangle</u>							
1	--	T21N, R13E (0.4, 3.6)	P	Pb, Zn, (Cu)	--	More than forty 1-5 cm bands of galena and sphalerite in 122 meter drill hole in carbonates. Bands are apparently conformable, stratabound lenses or beds.	Unpublished industry data
2	"Sharp Creek"	T21N, R14E (1.6, 3.6)	P	Cu	Stratabound massive sulfide	Minor chalcopyrite in chlorite-muscovite-quartz schist.	Unpublished industry data
3	"Jerry Creek"	T20N, R13E (0.3, 2.25)	P	Cu, Zn (Ag)	Stratabound massive sulfide	Weakly disseminated chalcopyrite and sphalerite in muscovite-quartz schist over a strike distance of at least 1200 meters. Selected samples up to 0.72% Cu, 2.15% Zn, and 12 grams Ag per tonne.	Unpublished industry data
4	--	T20N, R14E (1.0, 2.55)	0	Au, Ag, Cu, Pb, Zn	--	Rock sample taken during geochemical sampling program contained 2.5 ppm Au, 35 ppm Ag, 7250 ppm Cu, 1750 ppm Pb, and 1500 ppm Zn.	Garland, Eakins, Tribble, and McClintock (1975b)
5	--	T20N, R14E (0.6, 1.9)	P	Cu	Stratabound massive sulfide	Malachite staining in porphyroblastic chlorite-quartz schist.	Unpublished industry data
6	--	T20N, R16E (4.2, 1.95)	0	Au, Ag, Pb, Zn	Vein	Twenty-five rock samples of metamorphic rocks and quartz vein with galena contain up to 2 ppm Au, 2850 ppm Ag, 4750 ppm Pb and 6.3% Zn.	Garland, Eakins, Tribble, and McClintock (1975b)
7	--	T19N, R16E (4.8, 1.1)	P	--	--	Thirty-five lode claims staked, 1974.	DGGS Kardex file
8	--	T20N, R17E (5.3, 3.0)	0	Au	--	Rock sample taken during geochemical sampling program contained 3 ppm Au.	Garland, Eakins, Tribble, and McClintock (1975b)
9	--	T20N, R17E (6.2, 2.2)	0	Au	--	Rock sample taken during geochemical sampling program contained 1.5 ppm Au.	Garland, Eakins, Tribble, and McClintock (1975b)
10	--	T20N, R18E (6.8, 2.7)	0	Au	--	Rock samples taken during geochemical sampling program contained up to 3.5 ppm Au. Probably related to the mineralization at Picnic Creek (11).	Garland, Eakins, Tribble, and McClintock (1975b)
11	Picnic Cr.	T29N, R17&18E (6.7, 1.3)	P	Cu, Zn (Pb, Ag, Au)	Stratabound massive sulfide	No specific description of deposit but similar to the Arctic deposit (19 Ambler River quadrangle): a stratabound, volcanogenic deposit in a low- to medium-grade metamorphic sequence of metarhyolite and schists. Pyrite, chalcopyrite, and sphalerite are the principal sulfides. Extensively drilled and of substantial size.	Sichermann, Russell, and Fikkan (1976) Unpublished industry data

Map No.	Name(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resources ^{4/}	Type ^{5/}	Brief Description	Principal References ^{6/}
<u>Survey Pass Quadrangle (cont.)</u>							
12	--	T20N, R20E (10.6, 2.2)	0	Au, Ag, Cu	--	Rock sample taken during geochemical sampling program contained 2.5 ppm Au, 2 ppm Ag and 810 ppm Cu.	Garland, Eakins, Tribie and McClintock (1975a)
13	--	T20N, R20E (11.1, 2.75)	0	Au	--	Rock sample taken during geochemical sampling program contained 2.0 ppm Au.	Garland, Eakins, Tribie and McClintock (1975a)
14	--	T21N, R21E (12.1, 3.5)	0	Au	--	Rock sample taken during geochemical sampling program contained 2.5 ppm Au.	Garland, Eakins, Tribie and McClintock (1975a)
15	(Arrigotch Creek)	T23N, R21&22E (12.8-13.2, 7.6)	0	Cu, Zn W	Contact metamorphic	Several talcite bodies up to 700 meters long by 70 meters thick at granite-limestone contact. Contain magnetite lenses and pods with minor disseminated chalcopyrite and sphalerite and tungsten values.	USBR unpublished data
16	(Angunela-chak Pass)	T22N, R16E (4.9, 6.0)	0	Ag	--	Silver reported by a prospector prior to 1913.	Smith (1913)
17	Wood Prospect	T25N, R14E (2.3, 9.55)	P	Cu	Vein	Copper in quartz vein cutting(?) massive gray limestone and black slate.	Unpublished industry data
18	(Tupik Cr.)	T24N, R17E (6.3, 8.3)	0	Cu, Pb Zn, Mo, Ag, Sn	Contact metamorphic	Minor Cu, Pb, Zn, Mo, Ag, and Sn mineralization widely distributed near the contact zone of granite.	USBR unpublished data
19	--	T24N, R17E (6.65, 9.9)	0	Au, Ag, Pb, Zn, Sn, Mo	Disseminated in granite and contact metamorphic	Area about 900 meters long traversed during geochemical sampling program. Seventeen samples taken which reached as high as 55 ppm Au, 55 ppm Ag, 6,320 ppm Pb, 8500 ppm Zn, and 450 ppm Sn. Traverse across contact between granite and metamorphic rocks. Fluorite and molybdenite visible in granite.	Garland, Eakins and Tribie (1975b)
20	--	T25N, R17E (6.7, 10.0)	0	Au, Ag	--	Rock sample taken during geochemical sampling program contained 3.5 ppm Au and 480 ppm Ag.	Garland, Eakins and Tribie (1975b)
21	--	T25N, R18E (8.1, 10.35)	0	Ag	--	Rock sample of quartzite taken during geochemical sampling program contained 3 ppm Ag. Small lens of high-grade Ag ore reported during early prospecting.	Garland, Eakins and Tribie (1975b) Anderson (1947)
22	(Lucky Six Creek)	T26N, R18E (approx. 8.0, 10.8)	0	Cu, Sb, Au	Hydrothermal vein	Six or more quartz veins with pyrite chalcopyrite, bornite, malachite and stibnite discovered 1902-03. Apparently no more recent work.	Schrader (1904)

<u>Map No.</u>	<u>Name(s)^{1/}</u>	<u>Location^{2/}</u>	<u>Category^{3/}</u>	<u>Resource^{4/}</u>	<u>Type^{5/}</u>	<u>Brief Description</u>	<u>Principal References^{6/}</u>
<u>Survey Pass Quadrangle (cont.)</u>							
23	--	T25N, R18E (8.6, 10.4)	0	Au, Ag Cu	--	Rock samples taken of marble, dolomite, quartzite, and diabase during geochemical sampling program contained up to 10 ppm Au, 3 ppm Ag, and 170 ppm Cu.	Barland, Ekins and Tribble (1975a)
24	--	T26N, R20E (11.1, 11.1)	P	Cu	?	Copper in chlorite schist.	Unpublished industry data

Map No.	Name(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resources ^{4/}	Type ^{5/}	Brief Description	Principal References ^{6/}
Hughes Quadrangle							
1	--	T8N, R14E (0.2, 2.0)	0	Cu, W	Vein	Chalcopyrite in quartz contains 7000 ppm W.	Miller and Ferrians (1968)
2	--	T8N, R14E (0.4, 2.3)	0	Ag, Pb, Bi, W	Altered felsic intrusive	Pyritiferous silicified intrusive contains 200 ppm Ag, 500 ppm Pb, 1000 ppm Bi and 700 ppm W.	Miller and Ferrians (1968)
3	--	T8N, R14E (centered about 0.5, 2.1)	0	U, Th	Disseminated felsic intrusive	Border phase of the Zane Hills pluton contain 5 to 10 times the background radioactivity of the rest of the pluton.	Miller and Ferrians (1968)
4	--	T9N, R14E (centered about 1.2, 3.3)	0	Ag, Au, Pb, Zn, Mo, Bi	Vein	Pyrite in quartz vein at two localities contains 15 ppm Ag, 2.4 ppm Au, 300 ppm Pb, 300 ppm Zn and 500 ppm Cu. Sample at another locality in vicinity contains molybdenite and 3000 ppm Bi.	Miller and Ferrians (1968)
5	--	T9N, R14E (1.1, 3.6)	0	Sb	Breccia	Altered quartz breccia contains 200 ppm Sb.	Miller and Ferrians (1968)
6	--	T9N, R14E (centered about 1.2, 3.3)	0	U, Th	Disseminated felsic intrusive	Border phase of the Zane Hills pluton contain 5 to 10 times the background radioactivity of the rest of the pluton.	Miller and Ferrians (1968)
7	Bear Creek	T9N, R15E (2.05, 3.4)	<u>M</u>	Au	Placer	Auriferous gravels derived from glacio-fluvial deposits; original source of gold may be contact zone of porphyritic monzonite and andesite. Dredge operated from 1957 to 1975. Concentrates also contain minor cassiterite, platinum-group metals and uranothorite. Substantial production.	Cobb (1973)
8	Red Mountain Creek	T10N, R23E (14.9, 5.4)	0	Zn, Au	Altered felsic intrusive	Pyritic latite porphyry with large gossan that contains traces of Zn and Au.	Berg and Cobb (1967)
9	Akoffakruich Hills	T16N, R18E (7.6, 13.1)	<u>P</u>	Zn, Cu, Mo	Altered felsic intrusive	Porphyritic granite where intensely oxidized to pyritized soda rhyolite bodies are weakly anomalous in Zn.	Unpublished industry data
10	(Lake Selby)	T17N, R14E (1.5, 15.55)	0	Cu (Ag)	Hydrothermal vein	Chalcopyrite with malachite and azurite stain in quartz vein cutting Cretaceous conglomerate; 100 ppm Ag by analysis.	Patton and Miller (1966)

<u>Map No.</u>	<u>Name(s)^{1/}</u>	<u>Location^{2/}</u>	<u>Category^{3/}</u>	<u>Resources^{4/}</u>	<u>Type^{5/}</u>	<u>Brief Description</u>	<u>Principal References^{6/}</u>
<u>Chandler Lake Quadrangle</u>							
1	(Chandler Lake)	T135, R2V (3.9, 5.8)	0	P ₂ O ₅ , (U, V, fluorite)	Chemical sediment	Samples from near the top of the Mississippian Alapah Limestone contain 25.6% P ₂ O ₅ , 0.02% U ₂ O ₅ , 0.009% eU, and purple fluorite.	Petton and Matzko (1959)
2	(Tigluksuk Creek)	T135, R1E (7.2, 5.2)	0	P ₂ O ₅ , (U, V, fluorite)	Chemical sediment	A 11 meter zone of a black chert and shale unit in the Mississippian Alapah Limestone contains an average of 8% P ₂ O ₅ ; a 1.1 meter sequence in it contains 21% P ₂ O ₅ . Samples contain up to 0.10% V ₂ O ₅ and ubiquitous fluorite.	Petton and Matzko (1959)
3	(Nativakruak Lake)	T135, R2E (8.5, 4.8)	0	P ₂ O ₅ , (U, V, fluorite)	Chemical sediment	A sample of phosphate rock in the black chert and shale unit of the Alapah Limestone contain 27.9% P ₂ O ₅ .	Petton and Matzko (1959)
4	(Anaktuvuk River)	T145, R263E (8.6, 4.55; 10.4, 4.3)	0	P ₂ O ₅ , (U, V, fluorite)	Chemical sediment	Samples of phosphate rock in the black chert and shale member of the Alapah Limestone contain up to 21.4% P ₂ O ₅ , 0.014% eU, and ubiquitous fluorite.	Petton and Matzko (1959)

Map No.	Name(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resource ^{4/}	Type ^{5/}	Brief Description	Principal Reference ^{6/}
<u>Missouri Quadrangle</u>							
1	--	T27N, R24W (centered about 0.8, 2.4)	P	Cu, Zn	Stratiform	Seventy-seven lode claims staked 1975. Geology and geochemistry similar to that along the Copper belt to the west.	DESS Kardon file Unpublished industry data
2	--	T27N, R24W (centered about 1.6, 3.2)	P	Cu, Zn	Stratiform	Twenty-one lode claims staked 1975. Geology and geochemistry similar to that along the Copper belt to the west.	DESS Kardon file Unpublished industry data
3	--	T27N, R23W (centered about 2.65, 2.5)	P	Cu, Zn	Stratiform	Thirty-six lode claims staked 1975. Geology and geochemistry similar to that along the Copper belt to the west.	DESS Kardon file Unpublished industry data
4	Ann Groups	T30W, R24W (centered about 1.1, 7.2)	P	--	Replacement(?) in carbonates	Fifty-eight lode claims staked 1975 in three blocks. General character of mineralization in area is sphalerite and galena in carbonates.	DESS Kardon file Unpublished industry data
5	--	T30W, R23W (centered about 2.3, 7.0)	P	--	--	Eight lode claims staked 1975. General character of mineralization in area is sphalerite and galena in carbonates.	DESS Kardon file Unpublished industry data
6	--	T30W, R23W (centered about 2.15, 7.8)	P	--	Replacement(?) in carbonates	One hundred ninety-one lode claims staked 1975. General character of mineralization in area is sphalerite and galena in carbonates.	DESS Kardon file Unpublished industry data
7	--	T33W, R24W (0.4, 11.8)	D	Cu	--	Copper sulfides and malachite stains in Devonian slate and phyllite.	Brosig and Reiser (1960)
8	(Hunt Fork)	T35W, R22W (approx. 2.6, 14.8)	D	Pb	Vein	Two quartz veins with galena in Devonian slate and phyllite unit.	Brosig and Reiser (1960)
9	(John River)	W of quad- rengle	D	Sb, Cu Au	--	Chalcopyrite and bornite in river gravels (location not reported). Sulfide lode near Hunt Fork. Twenty-four claims staked 1975.	Schrader (1904) Joesting (1942) DESS Kardon file
10	--	T31W, R21W (5.0, 9.2)	D	Cu	--	Copper sulfides and malachite in faulted Skagit limestone.	Brosig and Reiser (1960)
11	--	T31W, R20W (6.4, 9.6)	D	Cu	--	Copper sulfides and malachite at fault contact between Devonian limestone and phyllite and siltstone unit.	Brosig and Reiser (1960)
12	--	T32W, R20W (6.8, 10.0)	D	Cu	--	Copper sulfides and malachite in Devonian conglomerate.	Brosig and Reiser (1960) USBR unpublished data

Map No.	Name(s) 1/	Location 2/	Category 3/	Resources 4/	Type 5/	Brief Description	Principal References 6/
<u>Wiseman Quadrangle (cont.)</u>							
13	--	T32H, R19G29W	0	Cu, Pb	--	Copper sulfides, galena and malachite along thrust fault.	Brosig and Reiser (1960)
14	--	T31H, R19W (7.6, 8.7)	0	Cu	--	Copper sulfides and malachite beneath thrust plate of Skajit limestone.	Brosig and Reiser (1960)
15	--	T31H, R19W (8.4, 9.0)	0	Cu	--	Copper sulfides and malachite in Devonian phyllite and siltstone unit.	Brosig and Reiser (1960)
16	--	T31H, R18W (8.9, 8.5)	0	Cu	Vein	Sulfides and malachite in vein quartz.	Chipp (1972)
17	--	T31H, R18W (9.5, 9.4)	0	Cu, Pb	Stockwork	Minor malachite and galena in vein quartz stockworks.	Chipp (1972)
18	--	T31H, R18W (10.15, 9.6)	0	Cu	Vein	Bornite and malachite in vein quartz. In calcareous Devonian schist in at least three localities in the area.	Chipp (1972) Brosig and Reiser (1960)
19	--	T31H, R18W (10.0, 8.85)	0	Cu, Pb	Vein	Malachite or tetrahedrite in samples of vein quartz.	Chipp (1972)
20a	(Spring Cr.)	T31H, R18W (centered about 10.0, 9.05)	M	Au	Placer	Mining from 1903 to at least 1937 and may have been minor production since. Total production through 1937 about 89,000 grams of Au.	Reed (1938) Brosig and Reiser (1960)
20b	(Lake Creek)	T31H, R18W (centered about 9.9, 8.5)	M	Au	Placer	Intermittent mining from 1904 to at least 1937. Production at least 31,000 grams of Au; concentrates contain stibnite, scheelite, native copper and native bismuth.	Reed (1938) Joesting (1943) Cobb (1973)
21	(Matthews Dam)	T31H, R18W (10.2, 8.4)	0	Cu	--	Bornite and malachite in calc-schist and vein quartz.	Chipp (1972)
22	(Birch Cr., Eagle Gulch)	T30H, R17W (11.2, 8.0)	P	Au	Placer	Total production of about 31,000 to 47,000 grams of Au prior to 1934. Creek mined for about 1.6 kms.	Reed (1938)
23	(Joy Cr., Eye Cr., Lucky Cr.)	T30H, R17W (centered about 11.4, 7.3)	M	Au	Placer	Creeks mined for about 3 kms from 1904 to at least 1935. Production about 310,000 grams of Au.	Reed (1938)
24	(May Cr.)	T30W, R16W (11.2, 7.2)	M	Au	Placer	Drift and bend mining through at least 1937. Production about 78,000 grams of Au.	Reed (1938) Cobb (1973)

Wiseman Quadrangle (cont.)

Rep No.	Name(s)	Location	Category	Resources	Type	Brief Description	Principal References
25	(Bourbon Creek)	T28M, R16W (12.45, 5.1)	M	Au	Placer	Was extensively mined in the early days and considered to have been mined out by 1937.	Reed (1938)
26	--	T29M, R17W (centered about 11.15, 5.6)	P	--	--	Six lode claims staked 1975.	D665 Kardex file
27	(Salena Cr.)	T29M, R17W (10.7, 5.3)	O	Pb	--	Large piece of galena found in creek as float. Creek said to drain mineralized area of Salena Mtn. but no published report of mineralization in the drainage basin to creek.	Reed (1938)
28	(Michigan Creek)	T28a, 29M, R17W (11.3, 5.2)	P	Pb, Ag, Au	Vein	Quartz vein with argentiferous galena in limestone, phyllite or slate. Short edit driven but no production. Mined in 1968.	Reed (1938) Brosge and Ralsor (1960) D665 Kardex file
29	(Allen River)	T30M, R20W (centered about 6.7, 7.0)	O	Cu	--	Copper sulfides and malachite in Devonian black phyllite and slate unit. Twenty-four claims staked in area 1975.	Brosge and Ralsor (1960) D665 Kardex file
30	(Cravice Creek)	T20M, R19a, 20W (7.5, 6.2)	O	Cu, Pb	--	Galena and copper sulfides in Devonian Stajit limestones.	Brosge and Ralsor (1960)
31	--	T29M, R21W (centered about 4.7, 5.2)		Cu, Pb, Zn	Stratiform	Eight prospecting sites staked 1976. Pyrrhotite, galena, and sphalerite, chalcocopyrite in interbedded schist, quartzite, and limestones.	Unpublished industry data
32	--	T31M, R15W (14.6, 10.4)	O	Pb	Vein	Quartz vein with galena in Devonian slate, phyllite and siltstone unit.	Brosge and Ralsor (1960)
33	(Vermont Down)	T31M, R12W (10.6, 9.5)	O	Cu, Zn	--	Copper sulfides with malachite and vein quartz with traces of Cu and Zn in Devonian phyllite and siltstone unit.	Brosge and Ralsor (1960) Mulligan (1974)
34	(Vermont Creek)	T31M, R12W (10.3, 9.4)	M	Au	Placer	Major producer in Wiseman area, production from 1901 to at least 1969. Known production at least 156,000 grams and total is probably more.	Reed (1938) Mulligan (1974)

Wiseman Quadrangle (cont.)

Map No.	Name(s) 1/ Location 2/ Category 3/ Resources 4/ Type 5/ Brief Description	Principal References 6/
34b	(Hammond River, Swift Gulch) T31N, R11W (centered about 19.7, 9.2)	Lead (1938) Cobb (1973)
35	(Molan Cr., Archibald Gulch, Fay Gulch, Smith Creek, Acme Creek) T31N, R12W (centered about 18.8, 8.7)	Lead (1938) Cobb (1973) Mulligan (1974)
36	Ferguson; Jones and Boyle; Mannemaker and Mortzen T30S31W, R12W (centered about 19.1, 8.8)	Joesting (1943) Ebbly and Wright (1948) Mulligan (1974)
37	(Union Gulch) T30W, R11W (19.55, 8.4)	Lead (1938)
38	(Mascot Cr.) T31N, R13W (16.6, 8.9)	Lead (1938) Brosge and Reiser (1960)
39	(Coe Creek) T30W, R12W (19.25, 7.4)	Brosge and Reiser (1960)
40	(Emma Dome) T29W, R13W (17.5, 6.05)	Brosge and Reiser (1960)

Wyona Quadrangle (cont.)

Map No.	Name (s) 1/	Locality 3/	Category 2/	Resources 6/	Type 5/	Brief Description	Principal &/ References/
41	(Emma Cr.)	T29N, R12W (centered about 18.8, 6.10)	M	Au	Placer	About 4 1/2 hrs of steep, narrow, boulder- laden gulch mined from 1900 to at least 1974. Small scale mining. Total produc- tion between 239,000 and 302,000 grams of Au.	Reed (1938) Mulligan (1974)
42	(State Cr.)	T28N, R13W (20.25, 4.4)	M	Au	Placer	One of biggest producers in district. Creek gravels mined for at least 9 km above mouth. Relatively shallow gravel mined by hand and by hydraulic methods with mechanical equipment. Mined Inter- mittently from 1899 to at least 1953. Total production unknown but about 286,000 grams produced from 1900 to 1909.	Hodder (1913) Mulligan (1974)

Map No.	Name(s) 1/	Location 2/	Category 3/	Resource 4/	Type 5/	Brief Description	Principal Reference 6/
	<u>Bettles Quadrangle</u>						
1	(Gold Bench, Ironside Bench, Rock Creek)	T25N, R14W (centered about 17.7, 16.1)	M	Au	Placer	Substantial placer gold production. Active through 1975.	Reed (1938) BGS Nordex file

Map No.	Name(s) 1/	Location 2/	Category 2/	Resources 4/	Type 5/	Brief Description	Principal 6/ References/
<u>Phillip Smith Mountains Quadrangle</u>							
1	Bescoup Group	T145, R19E (14.0, 4.0)	P	Cu	Vein	Chalcopyrite and malachite in remnants of quartz vein in limestone. Eight claims staked in 1971.	Unpublished industry data BGS Kardax file
2	Occasional Group	T136, R20E (16.0, 5.25)	P	Pb, Zn, Cu	Vein	Galena, sphalerite and chalcopyrite in vein and bonework of veinlets in limestone. Twenty claims staked in 1971.	Unpublished industry data
3	Hungry Group	T155, R20E (16.0, 3.9)	P	Cu	Vein	Quartz vein with malachite and minor chalcopyrite.	Unpublished industry data

Map No.	Name(s)	Location	Category	Resources	Type	Brief Description	Principal References
<u>Chandalar Quadrangle</u>							
1	--	T27N, R9W (2.5, 2.35)	0	Cu, Ni	--	Copper sulfide minerals and/or malachite-azurite stains at contact between Devonian(?) volcanics and underlying phyllite and slate unit. Nickel identified by analysis.	Brosigé and Reiser (1964)
2	(Siwash Cr.)	T26N, R8W (4.15, 2.0)	0	Cu	--	Copper sulfides and/or malachite-azurite stains in cherty part of Devonian(?) volcanic rock unit.	Brosigé and Reiser (1964)
3	(Myrtle Cr.)	T28N, R11W	H	Au	Placer	One of the biggest gold producers in the Koyukuk district with recorded production of about 274,000 grams of Au from 1900 through 1909 from stream gravels and bench gravels. Deeper gravels mined by hydraulicking and mechanized equipment through 1960's. Nugget weighing 23 ounces found in 1940.	Hedden (1913) Reed (1938) Smith (1942) Cobb (1973) Mulligan (1974)
4	(Slate Cr.)	T28N, R11W (0.75, 4.0)	H	Au	Placer	Thin gravels on mica schist bedrock. Mining reported sporadically from 1899 through present (1974). Production from 1900 through 1909 was 4500 grams.	Schrader (1900) Hedden (1913) Mulligan (1974)
5	--	T28N, R10W (1.75, 3.75)	0	Cu	--	Copper sulfide minerals and/or malachite-azurite stains in Devonian(?) micaceous graywacke.	Brosigé and Reiser (1964)
6	(West Fork)	T27N, R5W (8.7, 3.5)	0	Cu	--	Copper minerals in Devonian(?) volcanic rocks.	Brosigé and Reiser (1964)
7	(Howard Cr.)	T30W, R11W (0.6, 6.65)	0	Cu, Pb, Ni	--	Cherry-sized pods of quartz and pyrrhotite with traces of galena and chalcopyrite in Devonian chloritic schists. Pyrite veinlets along fractures contain traces of copper. Ni by analysis.	Brosigé and Reiser (1964) Mulligan (1974)
8	(Gold Cr. Magpet Cr.)	T31N, R10W (centered about 1.7, 9.05)	H	Au	Placer	Gold discovered in 1900 with sporadic mining through 1974. Production of gold from 1900 through 1909 was about 348,000 grams. Angular fragments of stibnite with quartz stringers have been found in stream gravels.	Schrader (1904) Hedden (1913) Reed (1938) Cobb (1973)
9	--	T32N, R11W (0.15, 11.0)	0	Cu	--	Copper sulfide minerals and malachite-azurite stains in Upper Devonian siltstone and grit unit.	Brosigé and Reiser (1964)

Map No.	Name(s) 1/	Location 2/	Category 3/	Resources 4/	Type 5/	Brief Description	Principal References 6/
<u>Chandler Quadrangle (cont.)</u>							
10	(Big Jim Creek)	T32W, R11W (0.3, 15.15)	0	Cu, Pb	--	Selen and copper sulfides and/or copper carbonates in Upper Devonian phyllite.	Brosge and Reiser (1964)
11	--	T36W, R10W (16.4, 0.6)	0	Cu	--	Copper sulfides and malachite near contact between Skagit Limestone and slate, phyllite siltstone unit.	Brosge and Reiser (1964)
12	(Snowden Creek)	T34W, R10W (2.0, 13.2)	0	Cu, Gypsum	Vein	Graphite, pyrite, and chalcopyrite in vein quartz float near contact of Devonian limestone and greenstone. Gypsum-calcite zone 0.15 meter thick contains abundant fine-grained pyrite.	Brosge and Reiser (1964) Mulligan (1974)
13	--	T35W, R8&9W (centered about 3.6, 14.8)	2	?	--	Claims staked in 1967.	DGSS Kardex file
14	--	T33W, R9W (centered about 2.75, 12.5)	2	?	--	Claims staked in 1967.	DGSS Kardex file
15	(Matthews River)	T33W, R9W	0	Cu, Pb Zn, Au, (Ag)	--	Sulfide mineralization in quartz veins in Devonian(?) greenstone and green-schist. Iron-stained quartz float. Vein assayed 3.4 ppm gold and trace of silver.	Brosge and Reiser (1964) Mulligan (1974)
16	Victor	T32&33W, R8W (centered about 3.95, 11.15)	2	Cu	Porphyry copper(?)	At least 23 lode claims staked 1967-1970. Details of mineralization not known but may be similar to contiguous Venes claims (17).	DGSS Kardex file
17	Venus	T32&33W, R8W (centered about 4.5, 11.0)	2	Cu	Porphyry copper	Disseminated chalcopyrite in granodiorite porphyry and associated skarn. At least 37 lode claims staked 1967-1970 and prospect drilled.	Unpublished data, M. A. Wilton and S. P. Marsh DGSS Kardex file
18	Limestone Creek	T32W, R8W	0	Pd, Ag, Ni	--	Nichel, palladium, and silver identified from x-ray analysis of material in limestone thrust over quartz-mica schist.	Brosge and Reiser (1964)
19	Evelyn Lee	T33W, R8W (centered about 4.9, 11.55)	2	Cu	Contact metamorphic	Chalcopyrite, bornite, and pyrite in contact skarn developed in marble close to or within a hornblende granodiorite porphyry. At least 24 lode claims staked in 1969 and 1970.	Unpublished data, M. A. Wilton and S. P. Marsh DGSS Kardex file

Map No.	Name(s)	Location	Category	Resource	Type	Brief Description	Principal Reference
<u>Chandler Quadrangle (cont.)</u>							
20	--	T35W, R6W (4.9, 12.45)	P	Cu	--	Copper sulfide minerals and/or malachite-azurite veins in thrust fault-bounded block of Devonian Skagit Limestone. Eight lode claims staked 1969-1970.	Brosig and Reiser (1964) D665 Kardex file
21	--	T35W, R7W (centered about 5.5, 13.9)	P	Cu	Contact metamorphic	Copper mineralization associated with tectite. About 20 lode claims staked 1967 to 1970.	Unpublished data, M. A. Wilcox and S. P. Marsh D665 Kardex file
22	--	T35W, R7W (centered about 5.6, 13.3)	P	--	--	Six lode claims staked 1967 to 1970 in two blocks.	D665 Kardex file
23	--	T35W, R6S7W (centered about 6.5, 13.8)	P	--	--	Five lode claims staked in four locations, 1972.	D665 Kardex file
24	(Quartz Cr.)	T35W, R7W (5.6, 14.2)	0	Cu, Zn	Vein	Small quartz vein cutting Devonian chlorite schist contains goethite, malachite, and trace of zinc. Malachite and possibly chalcocopyrite in float.	Brosig and Reiser (1964) Mulligan (1974)
25	--	T35W, R7W (5.9, 15.45)	P	--	--	Eight lode claims staked, 1968.	D665 Kardex file
26	--	T35W, R6W (centered about 7.4, 14.3)	P	Cu	--	Eighty-two claims staked in two blocks 1972 to 1975. Copper sulfides and copper carbonates near limestone contact at one location.	D665 Kardex file Brosig and Reiser (1964)
27	Jim-Montana Group; Mongli Group	T35W, R6W (approx. 7.6, 14.4)	P	Cu, Zn, Ag, (Pb)	Contact metamorphic	Chalcocopyrite, sphalerite and minor galena, tennantite, and malachite stain in skarn. About 100 claims staked 1971 and 1972 in two locations.	Unpublished industry data
28	Steph Group	T35W, R6W (7.9, 15.05)	P	Cu, Ag	Vein	Quartz vein with malachite, azurite and tennantite. Five claims staked 1971 and 1972.	Unpublished industry data
29	Bob Group; Bayle Group	T35W, R5W (approx. 8.5, 15.2)	P	Pb, Zn, Ag	Contact metamorphic	Galena and sphalerite with Ag veins in skarn associated with limestone. Twenty-seven claims staked 1972 in two locations.	Unpublished industry data Unpublished data, M. A. Wilcox and S. P. Marsh
30	Bibbon Group	T35W, R5W (8.3, 15.5)	P	Cu	Vein	Quartz vein with malachite and chalcocopyrite. Nineteen claims staked 1972.	Unpublished industry data

Map No.	Name(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resources ^{4/}	Type ^{5/}	Brief Description	Principal References ^{6/}
<u>Chandalar Quadrangle (cont.)</u>							
31	--	T36N, R5W (8.7, 16.15)	0	Cu	--	Copper sulfide minerals and/or malachite-azurite stains in Devonian limestone-siltstone unit overlying Devonian Skagit Limestone.	Brosgå and Reiser (1964)
32	--	T36N, R4SW (9.45, 16.6; 10.7, 16.6; 9.3, 15.9)	0	Cu	Vein	Malachite, pyrite and pyrrhotite disseminated in small veinlets in limestone at three localities.	Unpublished industry data
33	--	T35N, R5W (centered about 9.1, 14.8)	P	--	--	Four placer claims staked in vicinity 1973. Sample of limestone with galena from area contained 360 ppm Ag and 6.5 ppm Au.	DGCS Kardex file Schradler (1900) Brosgå and Reiser (1972)
34	--	T35N, R4W (centered about 10.2, 14.9)	P	Pb	Vein	Claims staked in 1972 in area of galena-bearing veinlets and stockworks.	DGCS Kardex file
35	--	T33N, R5W (8.3, 12.5)	0	Zn	--	Sphalerite in bonework of veinlets found in float.	Unpublished industry data
36	(Geros Cr.)	T33N, R6W (centered about 7.9, 11.9)	P	Mo, Cu	Mo-Cu porphyry	Disseminated molybdenite associated with Geros Creek pluton. Associated copper sulfide minerals. Two hundred and thirty-nine lode claims staked 1975 and 1976.	Unpublished industry data DGCS Kardex file
37	--	T33N, R5W (centered about 8.8, 11.7)	P	Au	--	Six lode claims staked in 1975 on "Au-arsenic lode."	DGCS Kardex file
38	(Anderson Cr.)	T33N, R5W (9.25, 11.5)	0	Cu	Vein	Malachite and chalcopyrite in quartz vein.	Unpublished industry data
39	(Horse Cr.)	T30N, R6W (7.0, 7.0)	0	Cu	--	Copper sulfides and/or malachite-azurite stains in Devonian quartz-mica schist.	Brosgå and Reiser (1964)
40	--	T30N, R4W (10.4, 7.55)	0	Au	Vein	Gold in quartz vein in Devonian quartz-mica schist.	Brosgå and Reiser (1964)
41	(Big Joe Creek)	T30N, R3W (11.4, 8.25)	0	Au	Vein	Gold in quartz vein in Devonian(?) quartz-mica schist.	Brosgå and Reiser (1964)
42	--	T31N, R3&4W (centered about 11.3, 8.9)	P	Au	Vein?	Thirty-four lode claims staked in 1973.	DGCS Kardex file

Chandler Quadrangle (cont.)

Map No.	hmsa(s) 1/	Location 2/	Category 3/	Resources 4/	Type 5/	Brief Description	Principal References 6/
43	(Tobin Cr.)	T31N, R3W (11.4, 9.5)	M	Au	Placer	No data available on gold production that has taken place from early prospecting in 1930 to reported activity in 1965. Concentrates include monazite, hematite, scheelite, gold, pyrite, magnetite, rutile, and galena.	Chipp (1970) Cobb (1973)
44	Molty	T32N, R3W (approx. 11.5, 9.9)	P	Au	Hydrothermal vein	Steeply dipping auriferous quartz veins in schistose rocks.	Maddren (1913)
45a	Mikado (6 numerous others)	T31N, R3W (11.75, 9.45)	M	Au	Hydrothermal vein	Steeply dipping auriferous quartz vein structure up to 4.5 meters thick explored for at least 900 meters in schist. Over 600 meters of underground working mostly through an adit. Active exploration program and minor production since early 1960's. Vein structure highly faulted with much gouge. Sulfides minor; include arsenopyrite, sphalerite, galena and stibnite. Visible native Au in quartz which commonly assays 60 to 750 ppm Au. Estimated reserves at Mikado Mine of at least 778,000 grams of Au. Numerous other similarized-mineralized quartz veins found at other prospects in vicinity but none explored so thoroughly.	Maddren (1913) Chipp (1970) Brosge and Nelsner (1972) Unpublished industry data
45b	Star, Summit and others	T31N, R3W (12.0, 9.55)	M	Au	Hydrothermal vein	Quartz veins at Summit Mine assayed at 90 ppm gold in 1913. Workings included 16-meter shaft and 22-meter drift on vein about 0.5 meters wide. Dump samples assayed 0.5-6.6 ppm gold in 1970 with abundant arsenopyrite and scorodite. Nearby Star prospect has 1.8 meter wide quartz vein that assayed 11 ppm Au.	Maddren (1913) Chipp (1970) Brosge and Nelsner (1972)
45c	Little Square	T32N, R3W (12.2, 10.0)	M	Au	Hydrothermal vein	Development work from 1910 to 1933 included a short edit on an auriferous quartz vein in schist. Arsenopyrite lenses common. Small stamp mill set up early in century for ore from this mine; probably some minor production. Current activity mainly surface trenching.	Maddren (1913) Hertie (1925) Berg and Cobb (1967) Chipp (1970)

Map No.	Name(s) of Location	Category	Resource	Type	Brief Description	Principal Reference
<u>Chandalar Quadrangle (cont.)</u>						
46	Little Square Cr.) T31W, R3W (12.1, 10.1)	R	Au	Placer	Complex glacial history; creek was dammed during part of Pleistocene and gold-bearing creek and bench gravels mingled. Source of gold in auriferous quartz veins in headwaters. Concentrates contain gold, pyrite, hematite, arsenopyrite, scheelite, galena and monazite. Mining reported in most years between 1914 and 1940. Production unknown but significant.	Chipp (1970) Madron (1913) Marla (1925) Cobb (1973)
47	(Big Creek) T31W, R3W (12.1, 9.3)	R	Au	Placer	Gold discovered in 1906. Production has been estimated as high as 1.2 million grams of which about 466,000 grams have been produced since 1950 with mechanical equipment.	Chipp (1970) Madron (1913) Marla (1925) Brogg and Reiser (1972) Cobb (1973)
48	-- T30W, R3E (12.55, 8.0)	D	Au, Ag	Vein	High concentration of gold and silver in thin arsenic-rich quartz vein system north of Thazzik Mountain.	Brogg and Reiser (1972)

Map No.	Name(s) ^{1/}	Location ^{2/}	Category ^{3/}	Resources ^{4/}	Type ^{5/}	Brief Description	Principal References ^{6/}
<u>Mt. Michelson Quadrangle</u>							
1	(Manook Cr.)	T2N, R25E (approx. 5.7, 9.7)	0	Cu	--	"Minor malachite and azurite stains in amygdaloidal basalt" at one locality. "Native copper reported in basalt. Azurite and malachite in breccia zone in Devonian or older dolomite overlying the basalt" at another.	Brosigé and Reiser (1976)
2	--	T3N, R29E (22.9, 10.3)	0	Cu	--	Native copper occurs in basalt.	Brosigé and Reiser (1976)
3	(Mt. Weller)	T3N, R30E (13.8, 10.3)	0	Cu	--	Copper sulfides occur in amygdaloidal basalt.	Brosigé and Reiser (1976)
4	--	Extensive in central portion of quadrangle	0	P ₂ O ₅ (U)	Chemical sediment	Extensive outcrop of phosphate-bearing unit of the Triassic Shublik Formation. Samples analyzed from at least six localities; richest was a 6.1 meter section of phosphate rock in a 30 meter sequence of black oolitic limestone that contained 35.8% P ₂ O ₅ and a 0.008% aU.	Patton and Matzko (1959) Butterman (1970) Tourtelot and Tailleux (1971)
39 5	--	Extensive in east-central portion of quadrangle	0	P ₂ O ₅ (U)	Chemical sediment	Extensive outcrop of phosphate-bearing unit of the Triassic Shublik Formation. Sampled in two localities; a 6.1 meter section contained 15% P ₂ O ₅ and 0.003% aU.	Patton and Matzko (1959)
6	--	T1S, R30E (12.6, 5.7)	0	Cu	Vein(?)	"0.3% Cu in thin veins in quartzite."	Brosigé and Reiser (1976)
7	(Katak Cr.)	T2S, R31E (14.25, 5.45)	0	Sn	--	Thin section of sample from the Paleozoic Kekiktuk Conglomerate contains cassiterite, tourmaline, sphene, magnetite and limonite. Source of cassiterite to east in Romanzof Mountains area.	Reed (1962)
8	(Esotuk Glacier)	T2S, R32E (16.3, 5.6)	0	Pb, Zn, Sn, Cu, W	Contact metamorphic	Skarn contains galena, sphalerite, malachite, azurite, up to 300 ppm Sn, 1500 ppm W, and quartz-tourmaline veins.	Brosigé and Reiser (1976)
9	--	T1S, R33E (17.9, 6.1)	0	Mo	--	Disseminated molybdenite in granite at two localities.	Sable (1965)
10	--	T4S, R32E (15.6, 0.75)	0	Cu	--	Chalcopyrite in sheared volcanic rocks.	Brosigé and Reiser (1976)

<u>Map No.</u>	<u>Name(s)^{1/}</u>	<u>Location^{2/}</u>	<u>Category^{3/}</u>	<u>Resources^{4/}</u>	<u>Type^{5/}</u>	<u>Brief Description</u>	<u>Principal References^{6/}</u>
<u>Nt. Michelson Quadrangle (cont.)</u>							
11	--	T58, R31E (14.8, 0.4)	0	Cu	--	Chalcopyrite in brecciated quartzite of Mississippian Kakiktuk Conglomerate.	Brogé and Reiser (1976)
12	(Ickilik Creek)	T58, R32E (15.6, 0.75)	0	Cu	--	Chalcopyrite in phyllite interbedded with chert and volcanic rocks.	Brogé and Reiser (1976)
13	(Okpliak Cr.)	T18, R33E (18.6, 6.7)	0	U	Disseminated, felsic igneous	Representative sample in peripheral zone of Okpliak granite contains 50 ppm uU.	White (1952)

Map No.	Name(s)	Location	Category	Resource	Type	Brief Description	Principal Reference
1	--	T64, R34E (10.5, 16.4)	0	Cu	--	Malachite and azurite in sandstone.	Brogé and Kiser (1976)

Article Quadrangle

Demarcation Point Quadrangle

Map No.	Name(s)	Location	Category	Resources	Type	Brief Description	Principal References
1	--	T15, R34E (0.4, 6.2)	0	Pb, Zn	Vein	Fluorite in small isolated body of granite; As, Pb, and Zn by analysis in quartz veins.	Brosig and Reiser (1976)
2	(vic. McCall Glacier)	T25, R34E (0.5, 5.3)	0	Cu, Zn Pb, Sn	Vein	Sulfides including galena, sphalerite(?) and chalcopyrite in deformed quartz veins and schist along sheared contact between granite and quartz monzonite dikes at two localities.	Sable (1965) Brosig and Reiser (1976)
3	(vic. McCall Glacier)	T25, R34E (0.2, 5.2)	0	Fluorite	Greisen	Fluorite in greisen in granite.	Brosig and Reiser (1976)
4	(trib. to Okpilak River)	T25, R34E (0.1, 4.4)	0	Mo	--	Molybdenite at contact of quartz veins with granite.	Brosig and Reiser (1976)
5	--	T25, R34E (0.5, 4.5)	0	Am, Ag	--	Pyritic zone in granite contains traces of Au and Ag.	Brosig and Reiser (1976)
6	(Boulder Creek)	T15, R35E (2.5, 5.7)	0	Cu	Shear zone	Chalcopyrite in quartz in shear zone concordant with bedding of lower part of Meruokpak formation.	Sable (1965)
7	(Creek below Contact Glacier)	T25, R35E (2.4, 4.8)	0	Cu	Contact metamorphic	Malachite and azurite in calcareous hornfels.	Brosig and Reiser (1976)
8	--	T15, R37E (4.7, 5.8)	0	Phosphates	Chemical sediment	Limited exposure of Shublik Formation which is probably phosphatic.	Brosig and Reiser (1976)
9	--	T1W, R30E (7.3, 0.4)	0	Cu	Vein	"Chalcopyrite in quartz vein in volcanic rocks."	Brosig and Reiser (1976)
10	--	T4S, R11E (10.6, 1.7)	0	Mn	Sedimentary rock	Up to 5% Mn in manganeseiferous siltstone with manganese nodules at two localities in Lower Cretaceous rocks.	Detterman (1970) Brosig and Reiser (1976)

<u>Map No.</u>	<u>Name(s)</u> ^{1/}	<u>Location</u> ^{2/}	<u>Category</u> ^{3/}	<u>Resources</u> ^{4/}	<u>Type</u> ^{5/}	<u>Brief Description</u>	<u>Principal References</u> ^{6/}
<u>Table Mountain Quadrangle</u>							
1	--	T8S, R35E (1.2, 13.05)	0	Cu, Pb, (Ag)	--	Sample of quartz vein in green slate and volcanic rocks contains 0.5% Cu, 0.15% Pb, and 2.8 ppm Ag.	Brosig and Reiser (1968)
2	--	T10S, R39E (6.6, 9.9)	0	Mo?	--	An area of granite interpreted from aerial photographs with possible Mo potential.	Brosig and Reiser (1976)
3	(Bear Mtn.)	T12S, R44E (11.75, 6.75)	0	W, Sn	--	Random samples contain up to 200 ppm W and 10 ppm Sn.	Brosig and Reiser (1968)
4	(Bear Mtn.)	T12S, R44E (approx. 12.6, 7.3)	0	Pb, Cu	--	Pyrite and chalcopyrite in greenstone at contact of conglomerate on phyllite; samples contain 0.06% Pb. A gossan at another locality contains 0.05% Pb.	Brosig and Reiser (1968)
5	(Bear Mtn.)	T12S, R44E (12.6, 6.75)	0	Pb	--	Galena veinlets in greenstone.	Brosig and Reiser (1976)
6	(Bear Mtn.)	T12S, R44E (12.5, 6.5)	0	Pb, Zn Cu	--	Several occurrences of galena, sphalerite and chalcopyrite in quartz at contact of rhyolite dike in quartzite and phyllite; contains 1% Cu, 0.16% Zn, and 0.002% Mo.	Brosig and Reiser (1968)

<u>Map No.</u>	<u>Name(s) 1/</u>	<u>Location 2/</u>	<u>Category 3/</u>	<u>Resources 4/</u>	<u>Type 5/</u>	<u>Brief Description</u>	<u>Principal References 6/</u>
<u>Coleen Quadrangle</u>							
1	--	T34N, R17E (1.55, 16.5)	0	Barite	Chemical sediment(?)	Bed or lens of barite about 6 meters thick in interlayered chert, shale and mafic rocks.	Brosgård and Reiser (1968)
2	--	T34N, R26E (13.9, 13.45)	0	Ag, Cu	--	Rock sample of schist(?) contains 2.5 ppm Ag and 1500 ppm Cu.	Brosgård and Reiser (1968)
3	--	T34N, R27E (15.1, 13.6)	0	Barite	--	Barite occurrence near granite contact.	Brosgård and Reiser (1968)
4	--	T31N, R24E (11.55, 9.7)	0	Ag, Pb, Cu, Zn	--	At least four samples taken in undifferentiated sedimentary rocks near rhyolite dikes contain 1-25 ppm Ag, up to 1% Pb, 2% Cu, and 2200 ppm Zn.	Brosgård and Reiser (1968)
5	--	T31N, R28E (16.6, 9.95)	0	Ag	--	Sample taken at border of small body of mafic volcanic rocks contains 3.2 ppm Ag.	Brosgård and Reiser (1968)
6	--	T31N, R29E (19.0, 8.6)	0	Ag, Pb, Cu, Zn	--	Several samples taken in manganeseiferous granite contain up to 6 ppm Ag, 1500-2000 ppm Pb, 2300-26,000 ppm Zn, and one contains 300 ppm Cu. Samples taken near periphery of large granitic intrusive.	Brosgård and Reiser (1968)

- 1/ per name(s) of deposit given if available. Unnamed deposits are listed when possible by a nearby geographical feature given in parentheses.
- 2/ Location(s) are given in conventional Township (T) and Range (R) designation and in grid coordinates following Cobb and Kachadoorian (1961, p. 3-4). The coordinates are given in inches from the southwest corner of the standard 1:250,000-scale topographic map; the second coordinate is the distance up along the left margin of the map and the first, the distance to the right, perpendicular to the left margin.
- 3/ Symbols used:
M -- Mine with production however small and with post-1960 production or exploration.
M -- Mine with production however small but with no production or exploration after 1960.
P -- Prospect with confirmed or probable post-1960 exploration activity.
P -- Prospect without confirmed or probable post-1960 exploration activity.
O -- Occurrence without known exploration work or development. Includes minor occurrences of probable negligible economic implications as well as indications of mineralization that have not been adequately evaluated.
- 4/ Metallic resources indicated by conventional chemical symbol; nonmetallic commodities are spelled out. Minor constituents or potential byproducts in parentheses.
- 5/ Simple designation of the geometry and genetic type of the deposit or the indication of mineralization.
- 6/ See Cobb (1975a, b, 1976) for a complete list of governmental references to deposits within the area. "D683 Kardex file" refers to the file maintained by the Alaska Division of Geological and Geophysical Surveys of all mining claims in the State of Alaska. This report includes claim information posted through May, 1976. Most unpublished industry data have been obtained through personal contact and discussion.

