

OFR 44-85

MINERAL SAMPLING IN THE WESTERN PORTION OF THE
SOUND STUDY AREA, CHUGACH NATIONAL FOREST, ALASKA

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***** OFR 44-85

UNITED STATES DEPARTMENT OF THE INTERIOR

Donald P. Hodel, Secretary

BUREAU OF MINES

Robert C. Horton, Director

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UNIT OF MEASURE ABBREVIATIONS USED IN THIS REPORT

yd ³	cubic yard(s)	m.y.	million years
ft	feet	oz	ounce(s)
in.	inch(es)	pct	percent
mi	mile(s)	ppm	parts per million

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STUDY AREA, CHUGACH NATIONAL FOREST, ALASKA

by Mark P. Meyer^{1/} and Steven A. Fechner ^{2/}

ABSTRACT

A mineral investigation of the Chugach National Forest, Alaska was conducted jointly by the U.S. Geological Survey and the U.S. Bureau of Mines from 1979 to 1983 as part of the RARE II program. The U. S. Geological Survey remapped the geology and distribution of mineral resources. The Bureau investigated mines, prospects, and mineral occurrences.

Previously unreported mineralization in three areas, Long Bay, Wells Bay, and Miners River were discovered in the western portion of the SOUND study area. Copper, lead, zinc, gold, silver, nickel, cobalt, fluorite, and arsenic were found in north-northeast to north-northwest trending shear zones, veins, felsic dikes, and granitic intrusives in Tertiary Orca Group metasedimentary rocks.

INTRODUCTION

The Bureau of Mines (Bureau) and the U.S. Geological Survey (USGS) conducted a four-year (1979 to 1982) mineral appraisal of the Chugach National Forest (CNF), Alaska (fig. 1) as part of the Roadless Area Review and Evaluation (RARE II) study (Public Law 94-588). The USGS

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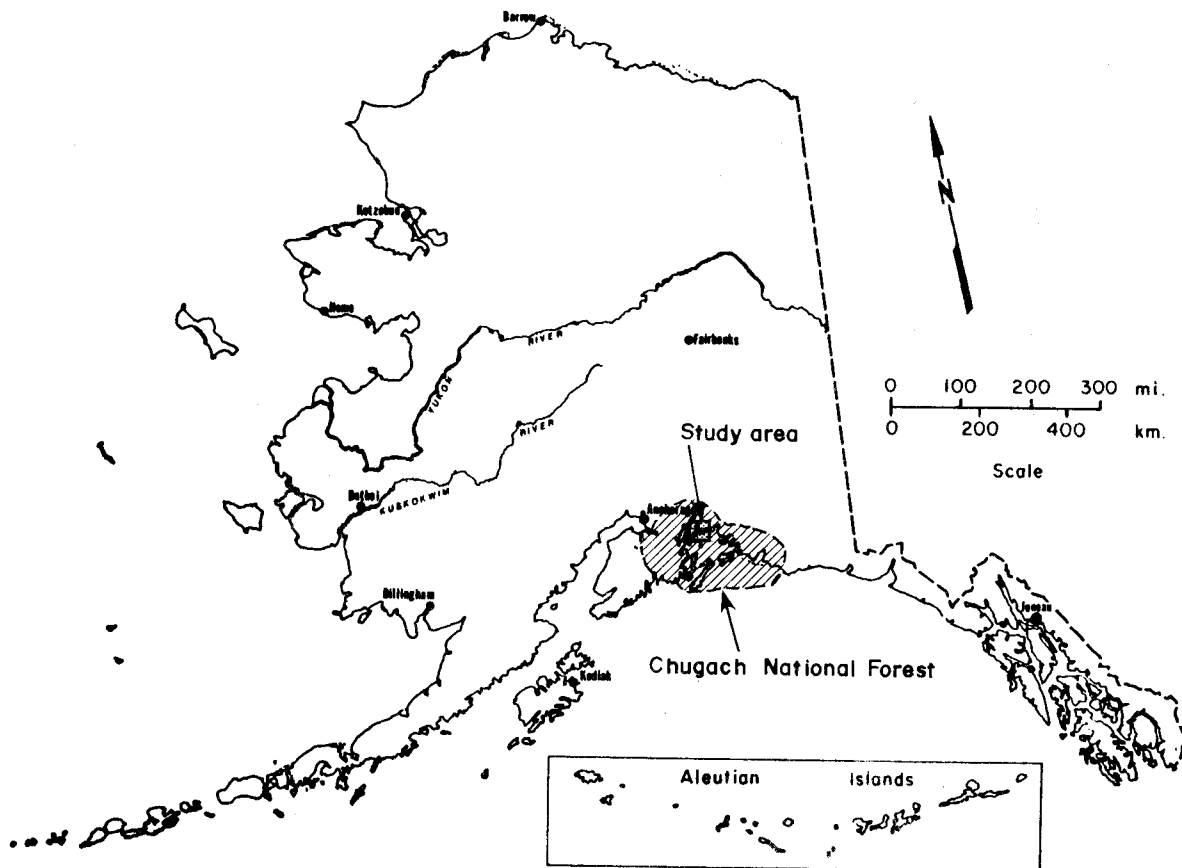


FIGURE 1. - Location map of the western portion of the SOUND study area, Chugach National Forest, Alaska

compiled and evaluated data on the regional geology, geochemistry, and geophysics. The Bureau compiled and evaluated data on mines, prospects, mineral occurrences, and areas of mineralization. More detailed and comprehensive Bureau reports (MLA 5-84) on the investigations of mines, prospects, and their geologic setting will be completed later. A joint USGS/Bureau summary report, published by the USGS as MF-1645A, describes geology, geophysics, geochemistry, and the mineral resource potential of the study area.

To facilitate the appraisal, the Bureau subdivided the CNF into three study areas: PENINSULA, ISLANDS, and SOUND ^{3/} (fig. 2). This report presents results of the Bureau's reconnaissance sampling and investigations in the western portion of the SOUND study area (fig. 3).

ACKNOWLEDGMENTS

The authors wish to acknowledge the cooperation of the USGS personnel, led by Steve Nelson, who worked on the RARE II project. Analytical support was provided by TSL Labs, Opportunity, WA; Skyline and Rainbow Resource Labs, Anchorage, AK; and the Bureau Research Centers at Albany, OR, and Reno, NV.

LOCATION AND ACCESS

The SOUND study area comprises approximately 2.8 million acres. The western portion of the study area, as discussed in this report, encompasses approximately 95,000 acres and includes the area from Unakwik

^{3/}SOUND study area is the Bureau of Mines unofficial designation for the eastern half of the Chugach National Forest.

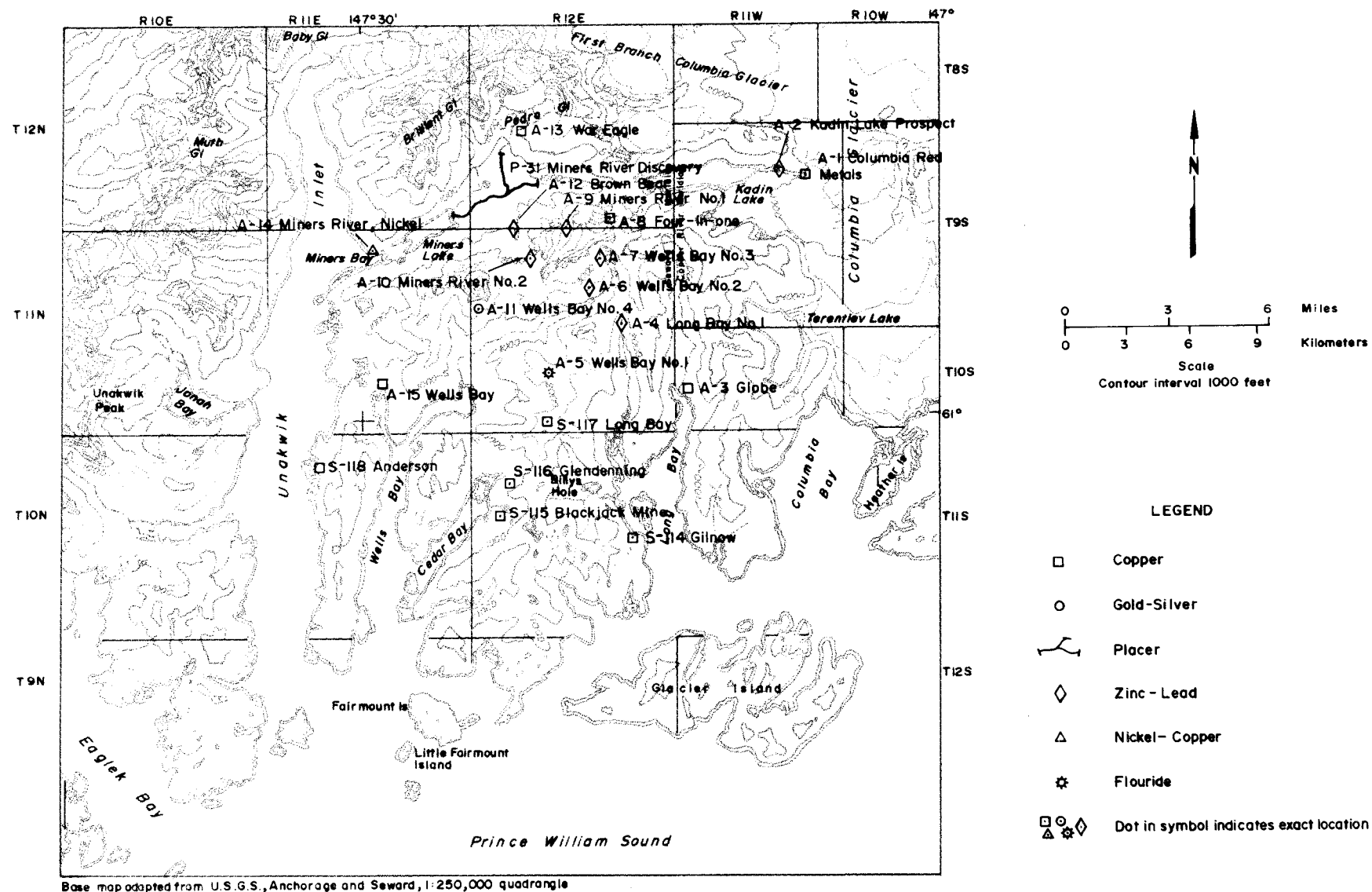


FIGURE 3. - Prospect and occurrence location map of the western portion of the SOUND study area, Chugach National Forest, Alaska.

Inlet on the west to Columbia Glacier on the east and from the mouth of Wells Bay on the south to Pedro Glacier on the north (fig. 3). Because there are no roads to the area, access is limited to boats, helicopters, and float planes.

PHYSIOGRAPHIC SETTING

The western portion of the SOUND study area is within the Kenai-Chugach Mountains section of the Pacific Border Ranges Physiographic Province (1) 4/ . The area is rugged with up to 4,200 ft of relief. Glaciers are present on the higher mountains. Long north-south trending fiords indent the southern coast. Vegetation consists of spruce forests and muskeg in the low lying areas, and tundra above the 1,500 elevation.

LAND STATUS

The western portion of the SOUND study area in the central part of the CNF consists of approximately 95,000 acres and contains federal and state lands (fig. 2). State land occurs northeast of the cities of Valdez and Cordova, and the Rude and Miners Rivers. Private land occurs around Valdez, Cordova, along much of the coast, and as isolated groups of patented mining claims. The remaining land is federally owned and managed by the U.S. Forest Service (USFS).

4/Underlined numbers in parentheses refer to items in the list of references at the end of this report.

MINING HISTORY

Prospecting in the area began in 1897, but it was not until 1904 that the first prospect was staked. Copper, lead, zinc, gold, silver, and nickel occurrences were discovered and worked sporadically from 1904 until the 1940's, but no mineral production has been recorded from the area.

As of December 1984, no active mining operations occur in the area.

PREVIOUS STUDIES

F. C. Schrader of the USGS (2) was the first to describe the geology of the western portion of the SOUND study area. Starting in 1906 the USGS has studied the geology and mineral deposits in the area and have reported on these in various reports (3-15). In 1964, Plafker and MacNeil (16), dated the Orca Group as Tertiary by the use of fossils. Plafker (17-18) also studied the tectonic effects of the 1964 Alaska earthquake in the area. Geologic maps of the Seward Quadrangle have been published by the USGS (19-27). In the 1970's the USGS studied the possible origins of the rocks of the Orca and Valdez Groups (28-32). The USGS Alaska Mineral Resource Assessment Program (AMRAP) studies have been and are being conducted in the Seward and Anchorage Quadrangles (19-21, 26-27), which cover the area.

The Territory of Alaska Department of Mines and the State of Alaska Department of Natural Resources have conducted site specific examinations in the area (33-35) which included mapping and sampling of the Four-in-One Mine and A. D. Thompson's Brown Bear property, both in the Miners River drainage.

The Bureau conducted site specific and regional investigations in the western portion of the SOUND study area during 1944 which included examinations of the Blackjack claims in Cedar Bay, and the Miners Bay nickel prospect (36-37). Recent Bureau investigations in the area are the subject of several reports (38-40). A summary of USGS and Bureau work completed in the RARE II study has been published by the USGS (42).

GEOLOGIC SETTING

The western portion of the SOUND study area is underlain by Tertiary Orca Group metasedimentary and metavolcanic rocks and Tertiary intrusive rocks.

The Orca Group metasedimentary rocks are interpreted as representing a widespread, thick, and complexly deformed accretionary sequence of flysch and tholeiitic basalt in fault contact with the southern margin of the Valdez Group (32). The thickness of the Orca Group is estimated as many thousands of feet (32). The Group has mostly been metamorphosed to the zeolite or prehnite-pumpellyite facies; however, rocks adjacent to the contact fault may be metamorphosed to the greenschist facies (32).

Intrusive rocks in the area include granitoid plutons and dikes. The granitoid plutons are near Cedar, Miners, and Columbia Bays and near Terentiev Lake. The ages of the plutons are reportedly correlative with the ages of other Tertiary plutons intruding the Orca Group which is approximately 50 m.y. (30). Dikes are present throughout the area, but no information as to the extent and nature of the dikes is available.

Structurally, the Orca Group has been complexly faulted, folded, and commonly overturned in various directions. The Contact Fault zone, which extends from Mt. St. Elias to Kodiak Island, is the major structural feature in the area. The fault zone consists of northward-dipping reverse faults, which separate the Tertiary Orca Group from the Cretaceous Valdez Group. The trace of the fault is projected through the Miners River drainage.

PRESENT INVESTIGATIONS

The Bureau's investigations in the study area were conducted from 1979 to 1982. Both literature search and field studies were included.

The literature search reviewed the following documents: 1) USGS publications, including a review of files in Menlo Park; 2) Bureau reports, published and unpublished which included Minerals Availability System (MAS) files; 3) USFS reports; and 4) Territory and State of Alaska reports and mining claim records from the MinFile (Kardex) recording system (43).

The Bureau's field investigation of the study area began in 1979, at which time stream sediment and rock samples were collected (38). Subsequent field investigations from 1980 to 1982 included: 1) reconnaissance sampling of geochemically anomalous terranes in search of previously unreported deposits; 2) mapping and sampling underground and surface prospect workings; 3) drilling at two locations using a 1-in.-core backpack diamond drill to obtain unweathered sulfide mineral samples for analysis (not for delineating the extent of mineralization); and 4) minor placer sampling. Approximately three

weeks were spent mapping and sampling the area. Six stream sediment, two placer, and one hundred sixty seven rock samples were taken (fig.4). The analytical results are listed in the appendix. Areas which contained copper, lead, zinc, nickel, cobalt, and arsenic values greater than 0.1 pct; gold values greater than 0.01 oz/ton; silver values greater than 0.5 oz/ton; fluorite; and placer gold values greater than 0.0005 oz/yd³ were assigned occurrence names. The results of 1981 placer sampling in the area were summarized in a 1982 Bureau open-file report (39).

MINERAL PROPERTY TYPES

Twelve prospects, eight occurrences, and one placer gold property occur in the area (39). The mineral properties have been subdivided into the following types: 1) copper; 2) gold-silver; 3) placer gold; 4) zinc-lead; 5) nickel-copper; and 6) fluorite.

COPPER

Two types of copper properties occur in the study area; sediment-hosted and those associated with felsic intrusives.

Sediment-Hosted Properties

Seven copper prospects and one copper occurrence occur in sedimentary rocks (A-1, 3, 8, 13, 15, S-114, 117, and 118) ^{5/}. Three pros-

^{5/}Numbers with letter prefix in parentheses reference prospects and occurrences shown on the Prospect and Occurrence Location Map (fig. 3) and tabulated in the appendix.

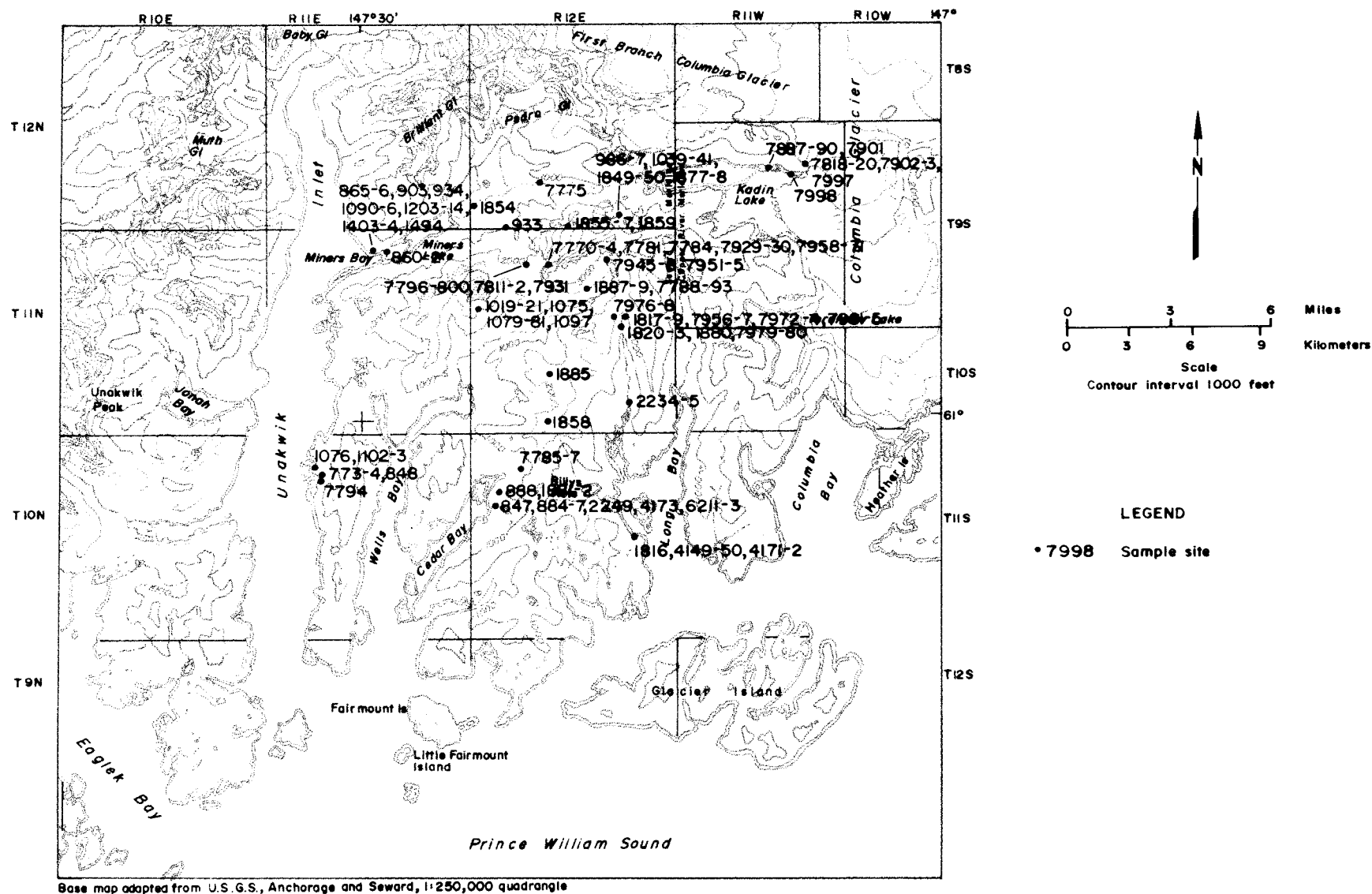


FIGURE 4. - Sample location map of the western portion of the SOUND study area, Chugach National Forest, Alaska

pects and the occurrence were located, mapped, and sampled by the Bureau; Columbia Red Metals Group (A-1), Four-in-One (A-8), Gilnow (S-114), and Long Bay occurrence (S-117). Four prospects looked for but not located by the Bureau include; Globe (A-3), War Eagle (A-13), Wells Bay (A-15), and Anderson (S-118).

Columbia Red Metals Group Prospect

The Columbia Red Metals Group Prospect (A-1) consists of three prospect pits near Kadin Lake. Copper, silver, zinc, and lead mineralization occur in at least four shear zones. Three of the shear zones strike from N35°W to N35°E and dip from 65° to 80°N. The fourth shear zone strikes N70°E and dips 80°SE. The shear zones range from 3-in. to 18-ft in width and are traceable along strike for 800 ft. The mineralization ranges from 1-in.-wide veinlets of chalcopyrite and pyrite to 4-ft-wide zones of massive chalcopyrite. Disseminated galena, sphalerite, pyrite, and chalcopyrite also occur in a 4-ft-wide shear zone.

Seven samples were taken from the shear zones by Bureau personnel in 1982. Two 8-ft-long chip samples (7818-19) ^{6/} from one shear zone contained 0.12 pct and 700 ppm copper, 11.3 and 13.7 ppm silver, and 0.44 and 0.31 pct zinc. A selected grab sample (7820) from the shear zone contained 0.12 pct copper, 15.4 ppm silver, and 0.18 pct zinc. One 1-ft-long chip sample (7902) from another shear zone contained 0.11 pct copper, 12.6 ppm silver, 0.16 pct zinc, and 0.72 pct lead.

^{6/}Numbers in parentheses reference sample results tabulated in the appendix.

Two 4-ft-long chip samples (7903, 7997) taken from a third shear zone contained 7.0 and 5.5 pct copper, 8.9 oz/ton and 75.2 ppm silver, and 0.25 and 0.67 pct zinc. One 4-ft-long chip sample (7998) from the fourth shear zone contained 0.12 pct copper, 19.7 ppm silver, 0.87 pct zinc, and 0.42 pct lead. Inferred reserve base includes: 6,600 tons at 0.095 pct copper, 12.5 ppm silver, 0.37 pct zinc, and 0.01 pct lead; 2,700 tons at 6.08 pct copper, 4.85 oz silver/ton, and 0.5 pct zinc; and 1,700 tons at 0.12 pct copper, 19.7 ppm silver, 0.87 pct zinc, and 0.42 pct lead.

Four-In-One Prospect

The Four-in-One Prospect (A-8) on the south side of Miners River consists of two mineralized shear zones: the Red and East Veins. The Red Vein strikes N25°W and dips 65°NE and is approximately 100-ft-wide. Mineralization consists of pyrite and chalcopyrite in quartz-calcite veinlets 1- to 12-in.-wide. The East Vein is located approximately 0.3 mi northeast of the Red Vein. The vein occurs along a 5- to 15-ft-wide silicified shear zone which strikes N5°E and dips 75°SE. The shear zone is traceable along strike for approximately 0.5 mi. Mineralization consists of veinlets of chalcopyrite, and pods of pyrite. The mineralization is present in zones up to 2-ft in width. Workings consist of a 60-ft crosscut (fig. 5) on the Red Vein and open pits on the East Vein.

Williams (35) sampled the prospect in 1954. An 8-ft-long chip sample taken of the Red Vein contained 0.79 pct copper, and trace amounts of gold and silver (35). A 9-ft-long chip sample on the East

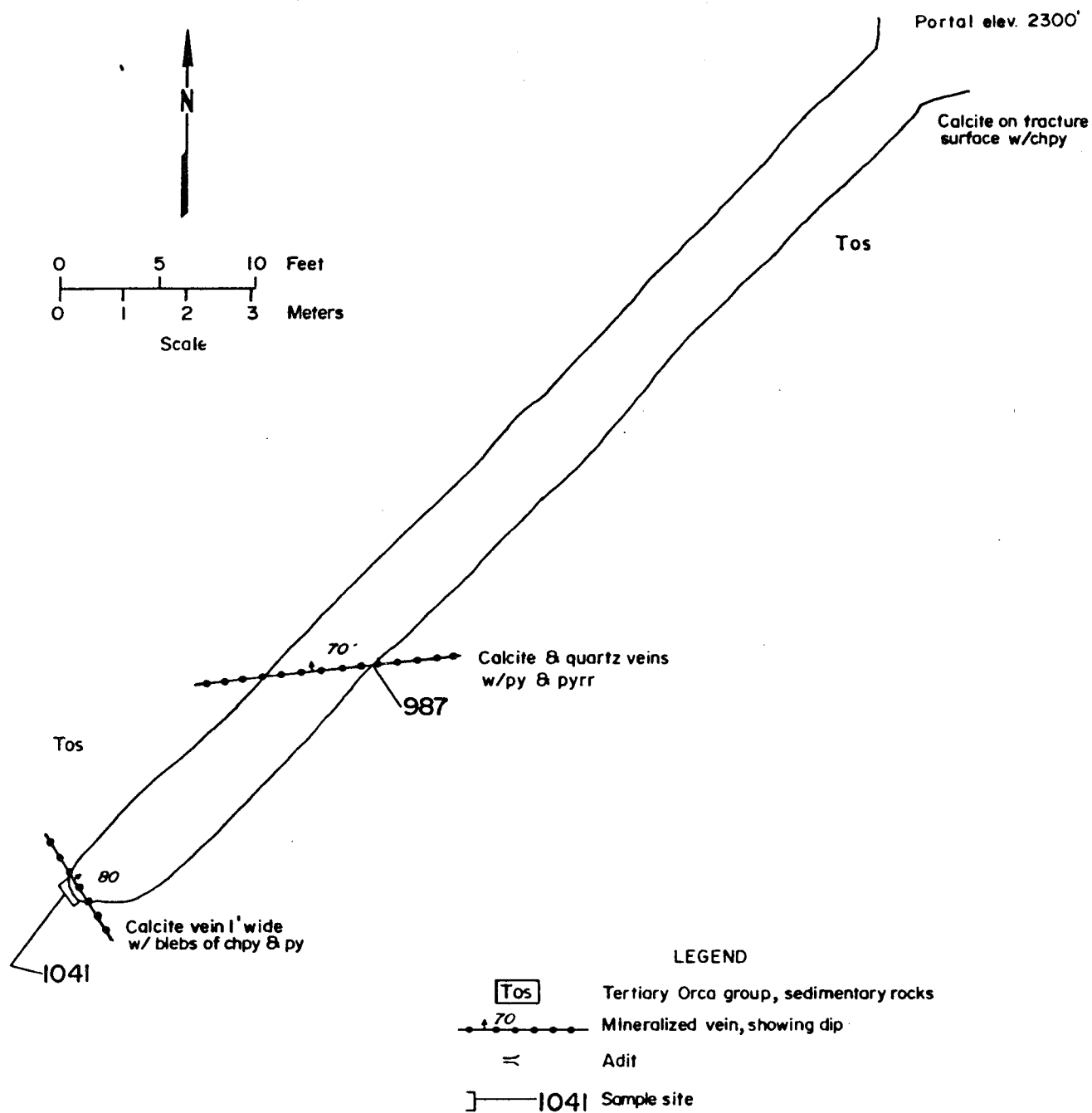


FIGURE 5. - Four-In-One Prospect, Red Vein adit sample locations.

Vein contained 0.22 pct copper, no gold, and a trace of silver (35). A high-grade grab sample contained 2.33 pct copper, 0.06 oz gold/ton, and a trace of silver (35). Bureau personnel examined the prospect in 1980 and 1981. At the Red Vein a grab sample (1039) from the west side of the shear zone contained 0.94 pct copper, 2.7 ppm silver, and 0.18 pct nickel. A 1-ft-long chip sample (1041) taken at the face of the adit contained 3.0 pct copper and 46 ppm silver. Sampling at the East Vein consisted of: 1) a 15-ft-long chip sample (1877) taken from the southern limit which contained 20 ppm copper and 2.6 ppm silver; 2) an 8-ft-long chip sample (1878) taken from the northern limit, which contained 690 ppm copper and 8.6 ppm silver; and 3) a 15-ft-long chip sample (1849) taken from the middle of the shear zone which contained 0.29 pct copper and 28.6 ppm silver. Inferred reserve base includes: Red Vein adit - 60 tons at 0.67 pct copper and 13.4 ppm silver; East Vein - 33,500 tons averaging 0.22 pct copper and 21.3 ppm silver.

Gilnow Prospect

The Gilnow Prospect (S-114) in Long Bay contains a limonite-stained shear zone which strikes N70°E and dips 90°. The shear zone is approximately 100-ft-wide. Mineralization consists of pyrrhotite disseminated in the shear zone. No workings were located on the prospect.

The Bureau examined the prospect in 1979 and 1981. A high-grade grab sample (1816) from the shear zone contained 33 ppm copper.

Long Bay Occurrence

The Long Bay occurrence (S-117) consists of a mineralized 10-ft-wide, north-south striking shear zone. Mineralization consists of 0.5-in.-wide veinlets of chalcopyrite.

Bureau personnel discovered and examined this occurrence in 1981. A grab sample (1858) taken from the shear zone contained 0.6 pct copper and 26 ppm silver.

Properties Associated With Felsic Intrusives

The Blackjack (S-115) and Glendenning (S-116) copper prospects are located on the east side of Cedar Bay, and are associated with the Cedar Bay granitic pluton. Mineralization at the two prospects appears to be associated with sheared silicified graywacke (?) roof pendants within the Cedar Bay pluton.

Blackjack Prospect

The Blackjack Prospect (S-115) consists of a mineralized silicified graywacke (?) along a 12-ft-wide shear zone within the Cedar Bay Granite. The shear zone strikes from N5°E to N5°W, dips 75°W, and is traceable for approximately 1 mi. Sulfide minerals in the shear consist of pyrite, pyrrhotite, sphalerite, and chalcopyrite. Two adits (fig. 6) are located on the prospect; one 42-ft-long and one 280-ft-long.

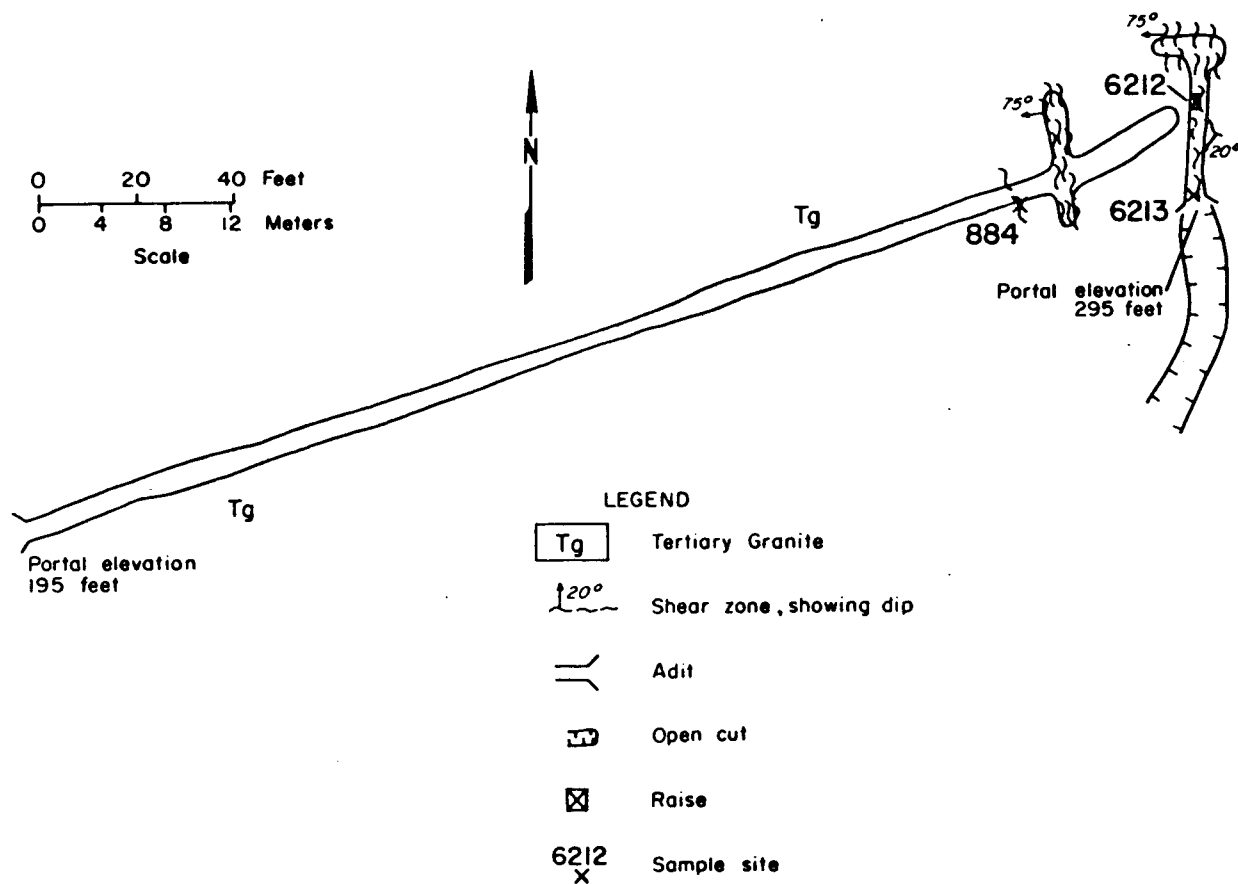


FIGURE 6. - Blackjack Prospect adit sample locations.

Bureau personnel located, mapped, and sampled the prospect in 1944, 1979, 1980, and 1981. In 1944, the prospect was sampled by Webber and Rutledge (36). Four samples were taken in the 42-ft-long adit with the highest values of 1.51 pct zinc, 0.16 pct copper, and 0.5 oz silver/ton. The average values over a 12.6-ft width were 0.7 pct zinc and 0.1 pct copper. Five samples were taken in the 280-ft-long adit. A 1.2-ft-long chip sample contained 2.08 pct zinc, 0.17 pct copper, 0.05 pct lead, and 0.3 oz silver/ton. A discontinuous chip 2.7-ft-wide contained 0.98 pct zinc, 0.07 pct copper, 0.02 pct lead, and 0.13 oz silver/ton. The other samples contained from 0 to 0.2 pct zinc and 0 to 0.02 pct copper. The prospect was reexamined in 1979 and 1980 by Bureau personnel. One grab sample (6212) taken from the 42-ft-long adit contained 40 ppm zinc and 285 ppm copper. Three grab samples were taken from the 280-ft-long adit. A grab sample (884) taken from a 1- to 6-in.-wide quartz vein contained 9 pct zinc, 0.57 pct copper, 0.29 pct lead, and 14.5 ppm silver. Two selected grab samples (847, 4173) of granite float contained 3 and 2.9 pct zinc, 0.2 and 0.18 pct copper, 0.1 and 0.15 pct lead, and 10 and 12 ppm silver. Five selected grab samples (885, 887-88, 1881-82) were taken from the shear zone north of the workings in 1980 and 1981. The samples contained from 22 to 230 ppm zinc, 6 to 250 ppm copper, 10 to 125 ppm lead, and 0.3 to 4.2 ppm silver.

Glendenning Prospect

The Glendenning Prospect (S-116) contains the only patented mining claims in the area. It is located approximately 0.5 mi northeast of

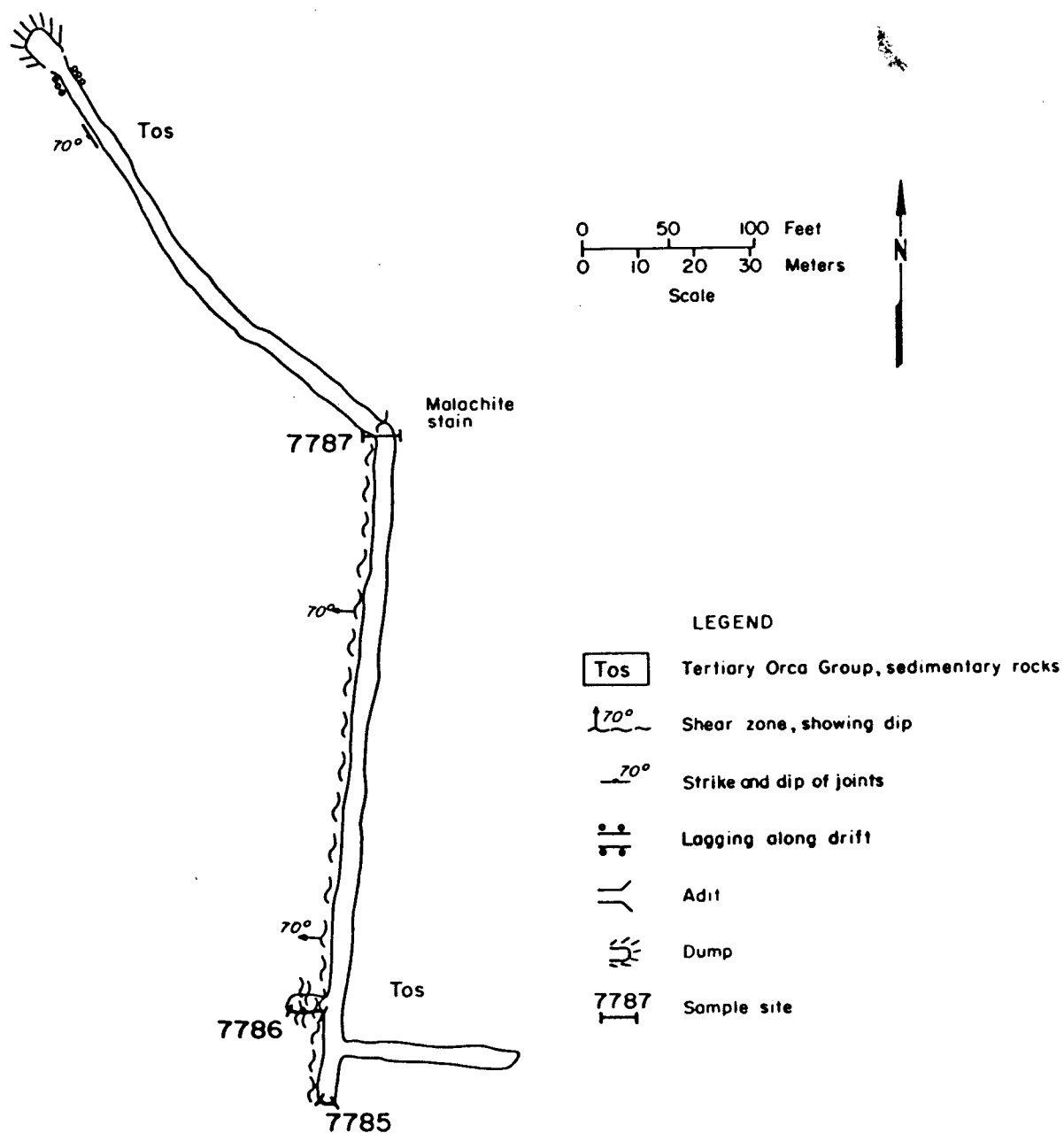


FIGURE 7. - Glendenning Prospect adit sample locations.

the Blackjack Prospect. One 700-ft-long adit (fig. 7) was driven along a 6- to 70-ft-wide shear zone, which strikes N5°E and dips 70°NW. The shear consists of silicified graywacke (?) in contact with the Cedar Bay pluton. The mineralization consists of 0.5- to 3-in.-wide veinlets of quartz, pyrite, and chalcopyrite.

Three chip samples (7785-87) were taken across the shear zone in the adit by the Bureau in 1982. The samples contained from 30 to 825 ppm copper.

GOLD-SILVER

One gold-silver bearing quartz vein with high sulfide content north of Wells Bay was labeled the Wells Bay No. 4 occurrence (A-11). The Wells Bay occurrence comprises a 30-ft-wide shear zone which strikes N20°E and dips 75° to 85° NW. The shear zone is traceable along strike for 100 ft. Mineralization includes pyrite, arsenopyrite, and quartz.

Eight selected grab samples (1019-21, 1075, 1079-81, 1097) were taken by the Bureau in 1980. The samples contained from <0.005 to 0.012 oz gold/ton, <0.2 to 0.6 oz silver/ton, and up to 0.2 pct arsenic.

PLACER GOLD

One placer gold occurrence has been identified in the report area; the Miners River Discovery (P-31). This occurrence was originally

staked in 1962, but no production was reported. Placer gold occurs within the Quaternary alluvium deposited in the river valley.

A 0.1 yd³ placer sample (1854) taken by Bureau personnel in 1981, below the confluence with the Pedro Glacier drainage, contained 0.104 oz gold/yd³. The gold fineness was 455. A 0.1 yd³ placer sample (7775) taken above the confluence contained <0.03 ppm gold, 345 ppm copper, 215 ppm lead, and 300 ppm zinc, which are high values for a placer sample.

ZINC-LEAD

Two zinc-lead prospects and five occurrences occur in the study area. One prospect and the occurrences were located, mapped, and sampled by the Bureau; and included the Kadin Lake Prospect (A-2), the Long Bay No.1 (A-4), Wells Bay No.2 (A-6), Wells Bay No.3 (A-7), Miners River No.1 (A-9), and Miners River No.2 (A-10) occurrences. The Brown Bear Prospect (A-12) was not definitely located.

Kadin Lake Prospect

The Kadin Lake Prospect (A-2) consists of two mineralized and sheared felsic dikes. The 3- to 15-ft-wide felsic dikes strike from N50° to 60°E and dip 55°SE and 75°NW. Sphalerite, chalcopyrite, and galena occur in a 0.5-ft-wide zone in one dike. Arsenopyrite occurs as 1/8-in.-wide veinlets in the other dike. An 80-ft-long adit (fig. 8) and several prospect pits are located on the property.

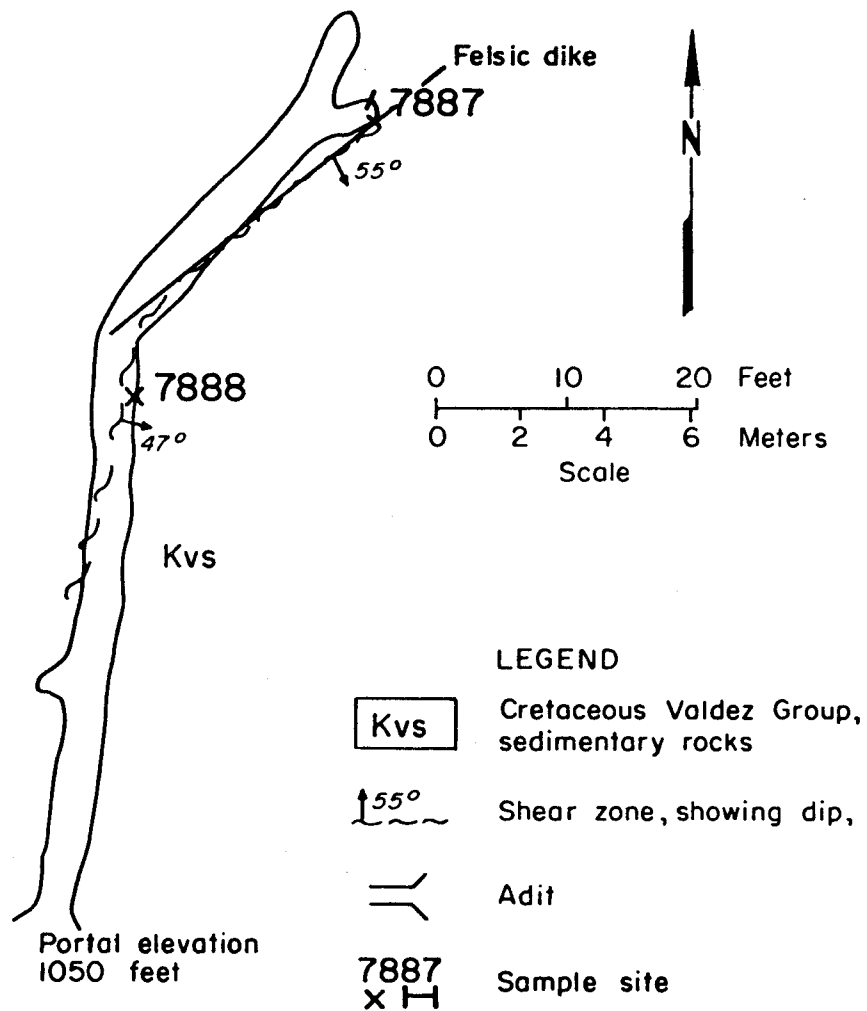


FIGURE 8. - Kadin Lake Prospect adit sample locations.

Five chip samples were taken by Bureau personnel in 1982. Two 3-ft-long chip samples (7887-88) taken in the adit contained 2.85 and 2.25 pct zinc, 0.59 and 0.16 pct copper, and 22 and 6.7 ppm silver. Three chip samples (7889-90, 7901) taken across the felsic dikes on the surface contained from 0.037 to 1.65 pct zinc, 0.020 to 0.7 pct copper, 4.4 to 12 ppm silver, 0.014 to 0.22 pct lead, and 0.012 to 1.65 pct arsenic. Inferred reserve base includes: adit - 285 tons at 2.38 pct zinc, 0.25 pct copper, and 9.92 ppm silver; surface - 50 tons at 1.65 pct zinc, 0.7 pct copper, and 12 ppm silver; felsic dike - 400 tons at 0.11 pct zinc, 0.4 pct copper, 0.22 pct lead, and 11.1 ppm silver.

Brown Bear Prospect

The Brown Bear Prospect (A-12) on the south side of Miners River consists of two veins which contain sphalerite, galena, pyrite, calcite, and quartz. The veins strike N40° to 50°E and dip 60° to 70°SE, and range in width from a few inches to 18 in. A 6-ft-long adit is reported on the property (33).

Two samples of the veins were taken by Pilgrim (34) in 1930 and contained 0.08 and 0.19 oz gold/ton, 3.6 and 28.8 oz silver/ton, 0.05 pct copper, 4.45 and 17.78 pct lead, and 12.29 and 28.88 pct zinc. One selected grab sample (933) taken in the area by Bureau personnel in 1980 of a 1- to 2-in.-wide veinlet contained 0.8 pct lead, 2.5 pct zinc, 8.5 ppm silver, and 1.5 ppm gold. The adit was not located at the time of examination. Inferred reserve base is 400 tons (33).

Long Bay No. 1 Occurrence

The Long Bay No.1 occurrence (A-4) consists of numerous 4-in. to 20-ft-wide shear zones, which cut metasedimentary rocks and greenstones. Although most of the shear zones strike from N25°W to N20°E and dip 80° to 90°S, some shear zones strike from N55° to 78°E and dip steeply. Mineralization consists of pods and veinlets of sphalerite, galena, pyrite, and arsenopyrite. Gossans occur over some of the shear zones in the metasedimentary rocks. Galena appears to be more concentrated in the metasedimentary rock, whereas sphalerite is more concentrated in the underlying (?) greenstones.

Twenty-two samples were taken by Bureau personnel in 1979, 1981, and 1982. Six chip samples (7957, 7972-74, 7978-79) contained from 0.0039 to 1.75 pct zinc, <0.0001 to 0.14 pct lead, 0.3 to 8.2 ppm silver, and 0.001 to 1.6 pct arsenic. Sixteen grab samples (1817-23, 1880, 7956, 7976-77, 7980-83, 7985) contained from 0.0036 to 3.2 pct zinc, 0.0005 to 2.6 pct lead, and <0.01 to 8 oz silver/ton.

Wells Bay No. 2 Occurrence

The Wells Bay No.2 occurrence (A-6) on the north side of a tributary to Wells Bay consists of a 10-ft-wide felsic dike and nine 1- to 20-ft-wide shear zones. The felsic dike strikes N10°W, dips 90°, and contains minor amounts of pyrite and arsenopyrite. The shear zones strike from north-south to N45°E and dip steeply. The zones have been traced for more than 250-ft along strike. Pyrite, arsenopyrite, galena, and chalcopyrite have been noted in the shears.

Five chip samples and three grab samples were taken from the shear zones and one chip sample was taken from the felsic dike by Bureau personnel in 1981 and 1982. Five chip samples (1887, 7788-91) taken from the shear zones contained from 0.0215 to 0.54 pct arsenic, <0.0001 to 1.1 pct lead, 0.0107 to 0.33 pct copper, and 0.9 to 10.6 ppm silver. Three grab samples (1889, 7792-93) contained from 0.092 to 5.1 pct arsenic, 0.031 to 0.5 pct copper, <0.03 to 1.42 ppm gold, and 2.5 to 9.0 ppm silver. The chip sample (1888) of the felsic dike contained 810 ppm arsenic and minor amounts of lead, copper, gold, and silver.

Wells Bay No. 3 Occurrence

The Wells Bay No.3 occurrence (A-7) is located at the headwaters of a tributary to Wells Bay. It consists of two 1- to 4-ft-wide shear zones. One shear zone strikes N26°W and dips 64°NE, and the other strikes N28°E. Mineralization includes sphalerite, galena, pyrite, and arsenopyrite. Gossans overlie the more mineralized portions of the shear zones.

Four diamond drill holes, two chip samples, and two grab samples were taken by Bureau personnel in 1982. Five samples (7951-55) from the four drill holes, 1- to 3-ft-long, contained from 0.0265 to 4.6 pct zinc, 0.0032 to 1.65 pct lead, 0.6 to 10.8 ppm silver, and 0.0011 to 0.18 pct arsenic. The two chip samples (7945, 7947) across the shear zones contained 0.43 pct and 93 ppm zinc, 0.37 pct and 125 ppm lead, 0.7 oz/ton and 1.9 ppm silver, and 0.12 pct and 360 ppm arsenic.

Two grab samples (7946, 7948) contained 1.5 and 3.7 pct zinc, 2 pct and 530 ppm lead, 2.5 oz/ton and 4.3 ppm silver, and 1.1 pct and 0.11 ppm arsenic.

Miners River No. 1 Occurrence

The Miners River No.1 occurrence (A-9) consists of a 450-ft-wide north-south trending brecciated shear zone. The shear zone is traceable along strike for approximately 0.5 mi. The zone consists of parallel brecciated zones containing quartz, calcite, and arsenopyrite. Float that contains galena, sphalerite, and arsenopyrite is present.

Three chip samples and one grab sample were taken by Bureau personnel in 1981. The three chip samples (1855-57) taken across the brecciated zones contained from 0.0026 to 0.18 pct arsenic, and minor amounts of zinc, lead, copper, silver, and gold. A selected grab sample (1859) of mineralized float contained 16 pct arsenic, 4.8 pct zinc, 1.7 pct lead, 0.5 pct copper, 2.2 oz silver/ton, and 0.06 oz gold/ton.

Miners River No. 2 Occurrence

The Miners River No. 2 occurrence (A-10) consists of felsic dikes and shear zones, which cut slates, graywackes, and conglomerates. The felsic dikes strike from N45°E to N85°W and dip from 60° to 80°N. The shear zones, ranging from a few inches to 150-ft-wide, primarily

strike from N25°E to N35°W and dip steeply. Some of the shears strike from N80°E to N80°W. Mineralization consists of 0.25- to 6-in.-wide veinlets of galena, sphalerite, and arsenopyrite. Pyrite occurs as disseminations and pods in the shear zones.

Three diamond drill holes, eleven chip samples, and six grab samples were taken by Bureau personnel in 1982. Fourteen samples (7958-71) taken from the three drill holes, ranging in depth from 2- to 5.75-ft, contained from 0.19 to 11.8 pct zinc, 0.0165 to 0.99 pct lead, 0.6 to 9.3 ppm silver, and <0.03 to 0.93 ppm gold. Ten chip samples (7770, 7772-73, 7781, 7784, 7800, 7812, 7929-31) taken across the shear zones contained from 0.0057 to 5.15 pct zinc, 0.0029 to 2.55 pct lead, and 0.3 to 37.5 ppm silver. Six grab samples (7771, 7774, 7796, 7798-99, 7811) contained from 0.0014 to 19 pct zinc, 0.0003 to 3.7 pct lead, 3.8 to 13.7 oz silver/ton, and 0.005 to 0.084 oz gold/ton. One chip sample (7797) taken across a felsic dike contained minor metal values. Inferred reserve base includes 1500 tons at 4.23 pct zinc, 2.24 pct lead, and 5.88 ppm silver.

NICKEL-COPPER

One nickel-copper prospect occurs in the report area. The Miners River Nickel Prospect (A-14) is located on the north shore of Miners Bay, Unakwik Inlet. It was located, mapped, and sampled by Bureau personnel in 1944, 1980, and 1982.

The prospect consists of a 10- to 25-ft-wide shear zone which cuts a Tertiary dioritic pluton. The zone strikes N20° to 40°E and dips 70° SE. Mineralization consists of disseminated pyrrhotite and chalco-

pyrite in the diorite and disseminated pyrrhotite, chalcopyrite, and pentlandite (?) in the fracture areas along the shear zone. The sulfides are more concentrated along the shear zone than in the diorite. Workings consist of an 8-ft-long adit and an 218-ft-long adit (fig. 9).

Both adits were mapped and sampled by Bureau personnel in 1944, 1980, and 1982. In 1944 Webber and Rutledge (37) took a 10-ft-long chip sample in the 8-ft-long adit. The sample contained 0.29 pct nickel. In the 218-ft-long adit a 20-ft-long chip sample contained 0.2 pct nickel and minor copper; and a 26-ft-long chip sample contained 0.2 pct nickel and minor copper. In 1980 and 1982, one chip, one grab, and one bulk sample were taken in the 8-ft-long adit. The 1-ft-long chip sample (865) taken across the shear zone contained 0.2 pct copper and 0.2 pct cobalt. The grab sample (866) contained 30 ppm nickel and 20 ppm copper. A 260 pound bulk sample (1494) from the adit consisted of ferromagnesian silicate minerals and calcic plagioclase feldspar, in about equal amounts with 10 to 15 pct pyrrhotite disseminated as medium-grained aggregates throughout the rock. The sample contained 0.25 pct nickel, 0.31 pct copper, and 0.02 pct cobalt. In the 218-ft-long adit a 20-ft-long chip sample (1090) contained 0.1 pct nickel, 0.1 pct copper, and 0.02 pct cobalt. A 30-ft-long chip sample (1214) contained 0.12 pct nickel, 0.11 pct copper, and 0.009 pct cobalt. Two grab samples (903, 934) contained 200 ppm nickel and 30 ppm and 0.1 pct copper. Twenty samples (860-62, 1091-96, 1203-13) taken from the diorite, east of the shear zone, contained from 0.008 to 0.2 pct nickel, 0.005 to 0.1 pct copper, and 0.004 to 0.02 pct cobalt. Two bulk samples (1403-04) contained 140 and 449 ppm nickel, 110 and 311 ppm copper, and 800 ppm cobalt.

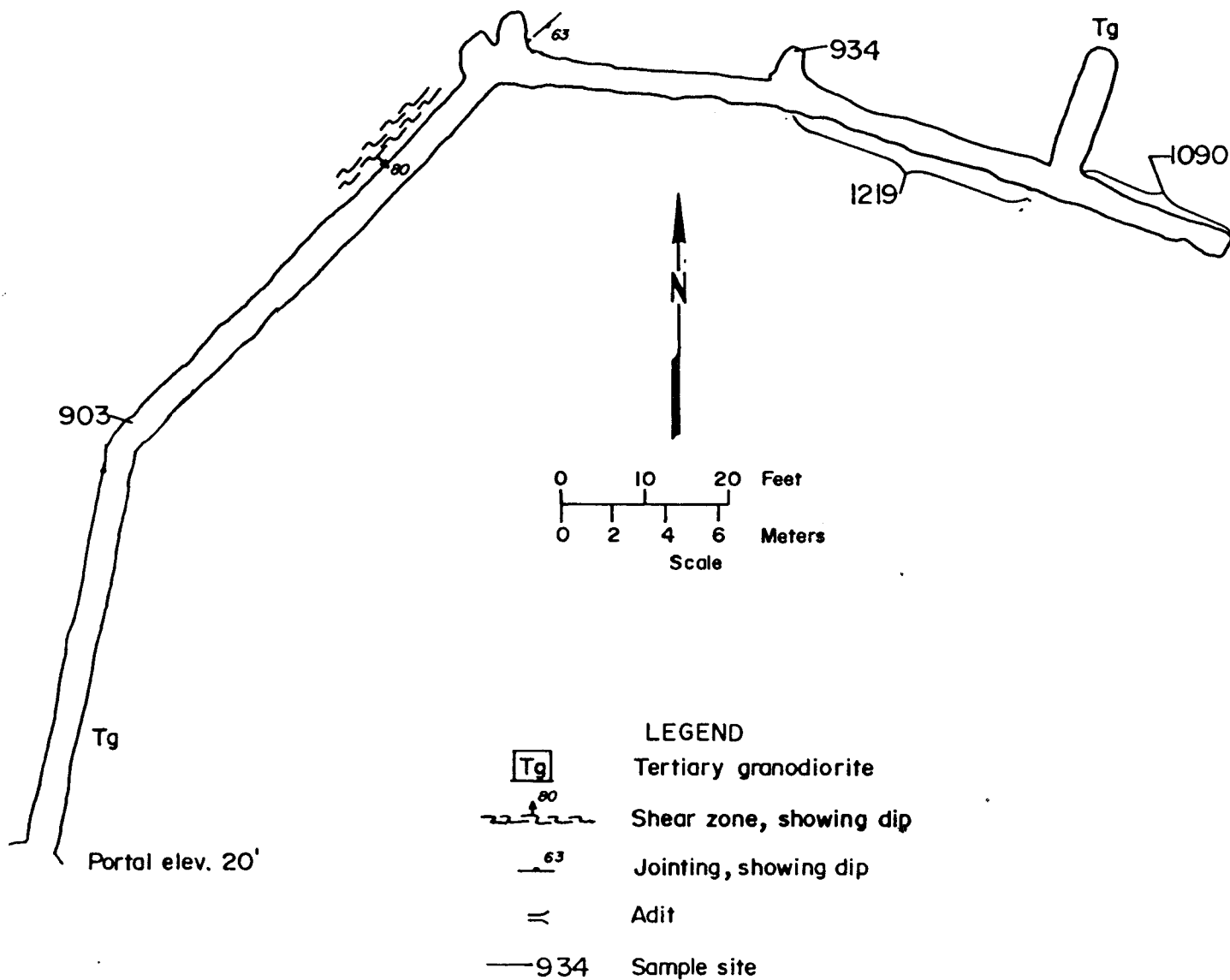


FIGURE 9. - Miners River Nickel Prospect adit sample locations.

Measured reserve base is: 4500 tons at 0.2 pct nickel (37); and indicated reserve base is 6500 tons at 0.2 pct nickel (37).

FLUORITE

One fluorite occurrence was discovered on the south side of a tributary to Wells Bay. The Wells Bay No.1 occurrence (A-5) was examined by Bureau personnel in 1981.

At the Wells Bay No.1 occurrence, fluorite occurs in a fluorite-quartz-calcite vein which strikes N10° to 25°W and dips 80°SW. The vein is from 3- to 12-ft-wide and is traceable for at least 100 ft along strike.

One 3-ft-long chip sample (1885) taken across the vein contained 17.5 pct fluorine. Inferred reserve base contains 1500 tons at 17.5 pct fluorine.

CONCLUSIONS

Eight previously reported prospects, eight previously unreported mineral occurrences, and one placer occurrence were located, mapped, and sampled in the western portion of the SOUND study area. Four previously reported prospects were looked for but not located.

North-northwest to north-northeast trending shear zones and veins that contain high copper, lead, zinc, fluorite, arsenic, nickel, cobalt, gold, and silver values are present along Long, Cedar, and Miners Bays, and along tributaries to Long Bay, Columbia Glacier, Miners River, Unakwik Inlet, and Wells Bay. Some felsic dikes contain arsenic, gold, silver, copper, and lead values.

Although brief examinations of the shear zones and veins revealed no large tonnages of mineralized material, the discovery of mineralization is significant because: 1) many of these mineralized zones had not previously been known in the area; 2) some of the samples found in the area contain the highest concentrations of fluorite and arsenic mineralization ever reported in the Orca Group; 3) close spatial and possible genetic relationship between sulfide mineralization and the felsic intrusives in the area has been further documented; 4) more detailed sampling of the mineralized areas may reveal continuations of existing shear zones and larger quantities of sulfide mineralization; and 5) further reconnaissance sampling may locate additional mineralized areas.

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APPENDIX.-- SAMPLE RESULTS OF THE WESTERN PORTION OF THE
SOUND STUDY AREA, CHUGACH NATIONAL FOREST, ALASKA.

Explanation

- Sample Number/Year : Refers to field sample numbers and year sample was taken. Sample locations are shown on figure 4.
- Material Type : Refers to type of material collected at the sampling site. The following material types were collected.
- Stream Sed - Stream sediment
 - SL/SS/CG - Slate, sandstone, conglomerate
 - Maf Volc - Mafic volcanic rock
 - Maf Plut - Mafic plutonic rock
 - Fel Plut - Felsic plutonic rock
 - Fel Plut Q - Felsic plutonic rock with quartz veins
 - Sed Rk/Q - Sedimentary rock with quartz veins
 - Placer - Concentrates from 0.1 yd³ of gravel run through a sluice box
 - Calc - Calcite vein
 - Sed/Volc - Sedimentary and volcanic rocks in area
- Rock Type : Refers to rock types in the area of sampling as shown on 1:250,000 scale geologic maps. The rock types mapped as being present are:
- Qal - Unconsolidated deposits
 - Meta Sed - Metasedimentary rocks, including all non-igneous rocks
 - Maf Volc - Mafic volcanic rocks
 - Fel Int - Felsic intrusive rocks
- Rock Age : Refers to the geologic age of the underlying rock groups as shown on 1:250,000 scale geologic maps.
- Quad 4 mile/1 mile : Refers to the 1:250,000 and 1:63,360 scale USGS quadrangle maps covering the area.
- Sec/T/R/Mer : Refers to section, township, range, and meridian in which sample was collected.
- Sew - Seward
 - CR - Copper River

- Location/Property : Refers to geographic location of sampling site and name of mine or claim.
- KX/MAS/File : Refers to the Kardex number, Mineral Availability System (MAS) number, and Bureau file number.
- Proj. No./Sub. : Refers to the project number and subdivision the sample was taken for.
- Sample Type : Refers to the type of sample taken. The following sample types were taken.
- Stream sediment - A sample of silt, sand, and/or clay taken along a stream bed.
 - Grab - A collection of mineral and rock fragments taken at random from an outcrop or float.
 - Chip - A sample of ore or rock chips taken in a regular series along a continuous line or at uniformly spaced intervals.
 - Diamond Drill Hole - A sample taken of rock and/or minerals with a portable diamond drill which obtains a core and cuttings used for analysis.
 - Placer - A sample taken of surficial material which is concentrated in a sluice box.
- E. Sp. : Refers to semiquantitative emission spectrographic technique analysis. Given in parts per million (ppm) unless otherwise noted.
- AA/Wet (Geochem) : Refers to quantitative atomic absorption spectrophotometric technique analysis. Given in parts per million (ppm).
- Assay : Refers to fire assaying technique analysis. Given in ounces per ton.

Sample Number/Year	: 773 / 80	: 774 / 80	: 847 / 80
Material Type	: Sed Rk/Q	: SS/SL/CG	: FeI Plut
Rock Type	: Metased	: Metased	: FeI Int
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Seward / D-2	* Seward / D-2	* Seward / D-2
Sec/T/R/Mer	* 08 / 10N/ 11E / Sew	* 08 / 10N/ 11E / Sew	* 18 / 10N/ 12E / Sew
Location/Property	:Unakwik Inlet/Anderson:	:Unakwik Inlet/Anderson:	: Cedar Bay/Blk Jack
KX/MAS/File	: 254 / 134 / S-118	: 254 / 134 / S-118	: 260 / 51 / S-115
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 12 pct			: 10 pct			: 3 pct		
: Arsenic	:			:			:		
* Barium	*		*	*		*	*		*
: Boron	: 20			:			:		
: Calcium	: 1.0 pct			: 4 pct			: 0.02 pct		
* Chromium	* 50		*	* 20		*	*		*
* Cobalt	*		*	*		*	*		*
: Copper	: 50			: 10			: 2000		
: Fluorine	:			:			:		
: Gallium	: 20			:			:		
* Germanium	*		*	*		*	*		*
* Gold	*		*	*		*	*		*
: Iron	: 5 pct			: 3 pct			: 5 pct		
: Lanthanum	:			:			:		
* Lead	*		*	*		*	* 1000		*
* Manganese	* 800		*	* 1000		*	* 800		*
: Magnesium	: 3 pct			: 4 pct			: 0.2 pct		
: Molybdenum	:			:			: 40		
* Nickel	* 20		*	* 20		*	*		*
* Phosphorous	*		*	*		*	*		*
: Scandium	:			:			:		
: Silver	:			:			: 10		
* Silicon	* >20 pct		*	* >20 pct		*	* >20 pct		*
* Sodium	* 2 pct		*	* 2 pct		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*		*	*		*	*		*
* Titanium	* 6000		*	* 5000		*	* 400		*
* Tungsten	*		*	*		*	*		*
: Vanadium	: 100			: 70			:		
: Yttrium	:			:			:		
: Zinc	:			:			: 30000		
* Zirconium	* 40		*	* 40		*	*		*

Sample Number/Year	: 848 / 80	: 860 / 80	: 861 / 80
Material Type	: SS/SL/CG	: Maf Volc	: Maf Volc
Rock Type	: Metased	: Maf Volc	: Maf Volc
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Seward / D-2	* Anchorage / A-2	* Anchorage / A-2
Sec/T/R/Mer	* 08 / 10N / 11E / Sew	* 03 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew
Location/Property	:Unakwik Inlet/Anderson:	Miners Bay / Miners Ni:	Miners Bay / Miners Ni
KX/MAS/File	: 254 / 134 / S-118	: 220 / 113 / A-14	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 15 pct			: 10 pct			: 10 pct		
: Arsenic	:			:			:		
* Barium	* 20			*			*		
: Boron	:			:			:		
: Calcium	: 2 pct			: 7 pct			: 10 pct		
* Chromium	* 50			* 20			* 200		
* Cobalt	*			*			*		
: Copper	: 50			:			:		
: Fluorine	:			:			:		
: Gallium	: 20			: 20			:		
* Germanium	*			*			*		
* Gold	*			*			*		
: Iron	: 7 pct			: 1 pct			: 4 pct		
: Lanthanum	:			:			:		
* Lead	*			*			*		
* Manganese	* 800			* 400			* 600		
: Magnesium	: 4 pct			: 2 pct			: 4 pct		
: Molybdenum	:			:			:		
* Nickel	* 20			*			* 20		
* Phosphorous	*			*			*		
: Scandium	:			:			:		
: Silver	:			:			:		
* Silicon	* 20 pct			* >20 pct			* >20 pct		
* Sodium	* 2 pct			* 3 pct			* 2 pct		
* Strontium	*			*			*		
* Tin	*			*			*		
* Titanium	* 6000			* 1000			* 6000		
* Tungsten	*			*			*		
: Vanadium	: 100			: 30			: 200		
: Yttrium	:			: 50			:		
: Zinc	:			:			:		
* Zirconium	* 50			*			*		

Sample Number/Year	: 862 / 80	: 865 / 80	: 866 / 80
Material Type	: Maf Volc	: Maf Plut	: Maf Plut
Rock Type	: Maf Volc	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-2	* Anchorage / A-2	* Anchorage A-2
Sec/T/R/Mer	* 03 / 11N / 11E / Sew	* 04 / 11N / 11E / Sew	* 04 / 11N / 11E / Sew
Location/Property	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni
KX/MAS/File	: 220 / 113 / A-14	: 220 / 113 / A-14	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Chip 1'	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:			:	17.0	pct	
: Arsenic	:		:			:			
* Barium	*		*			*			
: Boron	:		:			:			
: Calcium	:		:			:	7.0	pct	
* Chromium	*		*			*	200		
* Cobalt	*		*		2000	*			
: Copper	:	100	:		2000	:	20		
: Fluorine	:		:			:			
: Gallium	:		:			:			
* Germanium	*		*			*			
* Gold	*	0.11	*		0.19	*			
: Iron	:		:			:	5.0	pct	
: Lanthanum	:		:			:			
* Lead	*		*			*			
* Manganese	*		*			*	400		
: Magnesium	:		:			:	>4.0	pct	
: Molybdenum	:		:			:			
* Nickel	*		*			*	30		
* Phosphorous	*		*			*			
: Scandium	:		:			:			
: Silver	:	0.50	:		2.2	:			
* Silicon	*		*			*	>20.0	pct	
* Sodium	*		*			*	2.0	pct	
* Strontium	*		*			*			
* Tin	*		*			*			
* Titanium	*		*			*	3000		
* Tungsten	*		*			*			
: Vanadium	:		:			:	200		
: Yttrium	:		:			:			
: Zinc	:	30	:		40	:			
* Zirconium	*		*			*			

Sample Number/Year	:	884 / 80	:	885 / 80	:	886 / 80
Material Type	:	Fel Plut / Q	:	Fel Plut / Q	:	Fel Plut
Rock Type	:	Fel Int	:	Fel Int	:	Fel Int
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Seward / D-2	*	Seward / D-2	*	Seward / D-2
Sec/T/R/Mer	*	18 / TON / T2E / Sew	*	18 / TON / T2E / Sew	*	18 / TON / T2E / Sew
Location/Property	:	Cedar Bay/Blk Jack	:	Cedar Bay / Blk Jack	:	Cedar Bay / Blk Jack
KX/MAS/File	:	260 / 51 / S-115	:	260 / 51 / S-115	:	260 / 51 / S-115
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:	8.0	pct	
: Arsenic	:			:			:			
* Barium	*			*			*			
: Boron	:			:			:	20.0		
: Calcium	:			:			:	2.0	pct	
* Chromium	*			*			*			
* Cobalt	*		9.0	*		15	*			
: Copper	:		5700	:		250	:			
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.05	*		0.08	*			
: Iron	:			:			:	1.0	pct	
: Lanthanum	:			:			:			
* Lead	*		2900	*		125	*			
* Manganese	*			*			*	600.0		
: Magnesium	:			:			:	2.0	pct	
: Molybdenum	:		22	:		6.0	:			
* Nickel	*		6.0	*		6.0	*	20.0		
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		14.5	:		4.2	:			
* Silicon	*			*			*	>20.0	pct	
* Sodium	*			*			*	2.0	pct	
* Strontium	*			*			*			
* Tin	*		5.0	*		<5.0	*			
* Titanium	*			*			*	5000.0		
* Tungsten	*		1280	*		8.0	*			
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		90000	:		230	:			
* Zirconium	*			*			*	70.0		

Sample Number/Year	: 887 / 80	: 888 / 80	: 903 / 80
Material Type	: Fel Plut / Q	: Quartz	: Maf Plut
Rock Type	: Fel Int	: Fel Int	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Seward / D-2	* Seward / D-2	* Anchorage / A-2
Sec/T/R/Mer	* 18 / 10N / 12E / Sew	* 17 / 10N / 12E / Sew	* 03 / 11N / 11E / Sew
Location/Property	: Cedar Bay / Blk Jack	: Cedar Bay / Blk Jack	: Miners Bay / Miners Nf
KX/MAS/File	: 260 / 51 / S-115	: 260 / 51 / S-115	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:			:	17.0	pct	
: Arsenic	:		:			:			
* Barium	*		*			*			
: Boron	:		:			:	20		
: Calcium	:		:			:	10.0	pct	
* Chromium	*		*			*			
* Cobalt	*	10	*	15	*				
: Copper	:	48	:	20	:	30			
: Fluorine	:		:			:			
: Gallium	:		:			:	20		
* Germanium	*		*			*			
* Gold	*	0.04	*	<0.03	*				
: Iron	:		:			:	3.0	pct	
: Lanthanum	:		:			:			
* Lead	*	15	*	10	*				
* Manganese	*		*			*	400		
: Magnesium	:		:			:	0.4	pct	
: Molybdenum	:	<2.0	:	<2.0	:				
* Nickel	*	4.0	*	9.0	*				
* Phosphorous	*		*			*			
: Scandium	:		:			:			
: Silver	:	1.7	:	1.0	:				
* Silicon	*		*			*	>20.0	pct	
* Sodium	*		*			*	2.0	pct	
* Strontium	*		*			*			
* Tin	*	<5.0	*	<5.0	*	3000			
* Titanium	*		*			*			
* Tungsten	*	<1.0	*	1.0	*				
: Vanadium	:		:			:			
: Yttrium	:		:			:	50		
: Zinc	:	22	:	35.0	:				
* Zirconium	*		*			*	200		

Sample Number/Year	:	933 / 80	:	934 / 80	:	986 / 80
Material Type	:	SS/SL/CG	:	Maf Plut	:	SS/SL/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-2	*	Anchorage / A-1
Sec/T/R/Mer	*	32 / 12N / 12E Sew	*	03 / 11N / 10E / Sew	*	35 / 12N / 12E / Sew
Location/Property	:	Miners River/Br. Bear	:	Miners Bay / Miners Nl	:	Miners River / 4 in 1
KX/MAS/File	:	97 / 114 / A-12	:	220 / 113 / A-14	:	114 / 115 / A-8
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:				: 17.0	pct		:		
: Arsenic	:				:			:		
* Barium	*				*			*		
: Boron	:				: 30			:		
: Calcium	:				: 10.0	pct		:		
* Chromium	*				* 50			*		
* Cobalt	*		18.0		*			*		
: Copper	:		530		: 1000			:		4000
: Fluorine	:				:			:		
: Gallium	:				:			:		
* Germanium	*				*			*		
* Gold	*		1.5		*			*	0.04	<0.005
: Iron	:				: 5.0	pct		:		
: Lanthanum	:				:			:		
* Lead	*		8000		*			*		
* Manganese	*				* 400			*		
: Magnesium	:				: 4.0	pct		:		
: Molybdenum	:		4.0		:			:		
* Nickel	*		30.0		* 200			*		
* Phosphorous	*				*			*		
: Scandium	:				:			:		
: Silver	:		8.5		:			:	8.8	0.4
* Silicon	*				* >20.0	pct		*		
* Sodium	*				* 0.4	pct		*		
* Strontium	*				*			*		
* Tin	*		<5.0		*			*		
* Titanium	*				* 6000			*		
* Tungsten	*				*			*		
: Vanadium	:				: 70			:		
: Yttrium	:				:			:		
: Zinc	:		25000		:			:		200
* Zirconium	*				*			*		

Sample Number/Year	:	987 / 81	:	:
Material Type	:	SL/SS/CG	:	:
Rock Type	:	Metased	:	:
Rock Age	*	Tertiary	*	*
Quad 4 mile/1 mile	*	Anchorage / A-1	*	*
Sec/1/R/Mer	*	35 / 12N / 12E / Sew	*	*
Location/Property	:	Miners River / 4 in 1	:	:
KX/MAS/File	:	114 / 115 / A-8	:	:
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Random Chip 3'	:	:
	*		*	*

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:			:	:			:	:			:
: Arsenic	:			:	:			:	:			:
* Barium	*			*	*			*	*			*
: Boron	:			:	:			:	:			:
: Calcium	:			:	:			:	:			:
* Chromium	*			*	*			*	*			*
* Cobalt	*			*	*			*	*			*
: Copper	:	2000		:	:			:	:			:
: Fluorine	:			:	:			:	:			:
: Gallium	:			:	:			:	:			:
* Germanium	*			*	*			*	*			*
* Gold	*	0.06	<0.005	*	*			*	*			*
: Iron	:			:	:			:	:			:
: Lanthanum	:			:	:			:	:			:
* Lead	*			*	*			*	*			*
* Manganese	*			*	*			*	*			*
: Magnesium	:			:	:			:	:			:
: Molybdenum	:			:	:			:	:			:
* Nickel	*			*	*			*	*			*
* Phosphorous	*			*	*			*	*			*
: Scandium	:			:	:			:	:			:
: Silver	:	7.5	<0.2	:	:			:	:			:
* Silicon	*			*	*			*	*			*
* Sodium	*			*	*			*	*			*
* Strontium	*			*	*			*	*			*
* Tin	*			*	*			*	*			*
* Titanium	*			*	*			*	*			*
* Tungsten	*			*	*			*	*			*
: Vanadium	:			:	:			:	:			:
: Yttrium	:			:	:			:	:			:
: Zinc	:	60		:	:			:	:			:
* Zirconium	*			*	*			*	*			*

Sample Number/Year	: 1019 / 80	: 1020 / 80	: 1021 / 80
Material Type	: SL/SS/CG	: SL/SS/CG	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-2	* Anchorage / A-2	* Anchorage / A-2
Sec/T/R/Mer	* 18 / 11N / 12E / Sew	* 18 / 11N / 12E / Sew	* 18 / 11N / 12E / Sew
Location/Property	: Wells Bay / Occ #4	: Wells Bay / Occ #4	: Wells Bay / Occ #4
KX/MAS/File	: --- / --- / A-11	: --- / --- / A-11	: --- / --- / A-11
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 8	pct		: 17	pct		: 15	pct	
: Arsenic	:			: 0.2	pct		:		
* Barium	* 0.1	pct		* 0.1	pct		* 0.1	pct	
: Boron	:			: 20			: 20		
: Calcium	: 2	pct		: 0.2	pct		: 2	pct	
* Chromium	* 20			* 100			* 80		
* Cobalt	*			*			*		
: Copper	: 40			: 80			: 40		
: Fluorine	:			:			:		
: Gallium	:			: 20			: 20		
* Germanium	*			*			*		
* Gold	*			*	0.05	tr	*	<0.03	<0.005
: Iron	: 5	pct		: 3	pct		: 3	pct	
: Lanthanum	:			:			:		
* Lead	*			*			*		
* Manganese	* 800			* 600			* 0.1	pct	
: Magnesium	: 4	pct		: 1	pct		: 2	pct	
: Molybdenum	:			:			:		
* Nickel	* 40			* 100			* 100		
* Phosphorous	*			*			*		
: Scandium	:			:			:		
: Silver	:			:	0.88	<0.2	:	0.52	0.2
* Silicon	* >20	pct		* >20	pct		* >20	pct	
* Sodium	* 3	pct		* 0.4	pct		* 2	pct	
* Strontium	*			*			*		
* Tin	*			*			*		
* Titanium	* 0.3	pct		* 0.5	pct		* 0.5	pct	
* Tungsten	*			*			*		
: Vanadium	: 50			: 100			: 50		
: Yttrium	:			:			:		
: Zinc	:			:			:		
* Zirconium	*			* 50			* 50		

Sample Number/Year	:	1039 / 80	:	1040 / 80	:	1041 / 80
Material Type	:	SL/SS/CG	:	Maf Volc	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	35 / 12N / 12E / Sew	*	35 / 12N / 12E / Sew	*	35 / 12N / 12E / Sew
Location/Property	:	Miners River/ 4 in 1	:	Miners River /4 in 1	:	Miners River / 4 in 1
KX/MAS/File	:	114 / 115 / A-8	:	114 / 115 / A-8	:	114 / 115 / A-8
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Random Chip 1'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:				: 8 pct					
: Arsenic	:				:				500	
* Barium	*				* 0.2 pct			*		
: Boron	:				:					
: Calcium	:				: 2.0 pct					
* Chromium	*				*			*		
* Cobalt	*		270		*			*		
: Copper	:		9400		: 60			:	30000	
: Fluorine	:				:					
: Gallium	:				:					
* Germanium	*				*			*		
* Gold	*		<0.03	<0.005*				*	0.09	
: Iron	:				: 1.5 pct			:		
: Lanthanum	:				:					
* Lead	*		24		*			*		
* Manganese	*				* 600			*		
: Magnesium	:				: 2.0 pct			:		
: Molybdenum	:		<2		:					
* Nickel	*		1800		* 40			*		
* Phosphorous	*				*			*		
: Scandium	:				:			:		
: Silver	:		2.7	<0.2	:			:	46	
* Silicon	*				* >20 pct			*		
* Sodium	*				* 0.6 pct			*		
* Strontium	*				*			*		
* Tin	*		<5		*			*		
* Titanium	*				* 1000			*		
* Tungsten	*		<5		*			*		
: Vanadium	:				:			:		
: Yttrium	:				:			:		
: Zinc	:		49		:			:	1000	
* Zirconium	*				* 200			*		

Sample Number/Year	:	1075 / 80	:	1076 / 80	:	1079 / 80
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	Sed Rk / Q
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-2	*	Seward / D-2	*	Anchorage / A-2
Sec/T/R/Mer	*	18 / 11N / 12E / Sew	*	05 / 10N / 11E / Sew	*	18 / 11N / 12E / Sew
Location/Property	:	Wells Bay / Occ #4	:	Unakwik Inlet/Anderson:	:	Wells Bay / Occ #4
KX/MAS/File	:	--- / --- / A-11	:	254 / 134 / S-118	:	--- / --- / A-11
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:				: 10 pct					
: Arsenic	:				:					
* Barium	*				* 700			*		
: Boron	:				: 20					
: Calcium	:				: 2.0 pct					
* Chromium	*				* 100			*		
* Cobalt	*				*			*	35	
: Copper	:	30			:			:	70	
: Fluorine	:				:					
: Gallium	:				:					
* Germanium	*				*			*		
* Gold	*		<0.03	<0.005*	*			*	0.05	tr
: Iron	:				: 2 pct					
: Lanthanum	:				:					
* Lead	*				*			*	30	
* Manganese	*				* 400			*		
: Magnesium	:				: 2 pct					
: Molybdenum	:				:				<2	
* Nickel	*				* 20			*	20	
* Phosphorous	*				*			*		
: Scandium	:				:					
: Silver	:	0.5		<0.2:	:			:	4.6	0.2
* Silicon	*				* >20 pct			*		
* Sodium	*				* 2 pct			*		
* Strontium	*				*			*		
* Tin	*				*			*	20	
* Titanium	*				* 3000			*		
* Tungsten	*				*			*	7	
: Vanadium	:				: 50					
: Yttrium	:				:					
: Zinc	:	60			:			:	450	
* Zirconium	*				*			*		

Sample Number/Year	:	1080 / 80	:	1081 / 80	:	1090 / 80
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	Fel Plut
Rock Type	:	Metased	:	Metased	:	Fel Int
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-2	*	Anchorage / A-2	*	Anchorage / A-2
Sec/T/R/Mer	*	18 / 11N / 12E / Sew	*	18 / 11N / 12E / Sew	*	03 / 11N / 11E / Sew
Location/Property	:	Wells Bay / Occ #4	:	Wells Bay / Occ #4	:	Miners Bay / Miners Ni
KX/MAS/File	:	--- / --- / A-11	:	--- / --- / A-11	:	220 / 113 / A-14
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample type	:	Grab	:	Grab	:	Random Chip 20'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:	17 pct		
: Arsenic	:			:			:			
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:	8 pct		
* Chromium	*			*			*	200		
* Cobalt	*		20	*		30	*	200		
: Copper	:		60	:		80	:	1000		
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.18	0.012*		<0.03	tr *			
: Iron	:			:			:	6 pct		
: Lanthanum	:			:			:			
* Lead	*		43	*		270	*			
* Manganese	*			*			*	1000		
: Magnesium	:			:			:	>4 pct		
: Molybdenum	:		<2	:		<2	:			
* Nickel	*		16	*		16	*	1000		
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		7.1	0.6 :		1.8	<0.2 :			
* Silicon	*			*			*	>20 pct		
* Sodium	*			*			*	1 pct		
* Strontium	*			*			*			
* Tin	*		30	*		30	*			
* Titanium	*			*			*	3000		
* Tungsten	*		<5	*		9	*			
: Vanadium	:			:			:	200		
: Yttrium	:			:			:			
: Zinc	:		160	:		160	:			
* Zirconium	*			*			*			

Sample Number/Year	: 1091 / 80	: 1092 / 80	: 1093 / 80
Material Type	: Fel Plut	: Fel Plut	: Fel Plut
Rock Type	: Fel Int	: Fel Int	: Fel Int
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-2	* Anchorage / A-2	* Anchorage / A-2
Sec/1/R/Mer	* 03 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew
Location/Property	: Miners Bay /Miners Ni	: Miners Bay /Miners Ni	: Miners Bay / Miners Ni
KX/MAS/File	: 220 / 113 / A-14	: 220 / 113 / A-14	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 17 pct			: 17 pct			: 17 pct		
: Arsenic	:			:			:		
* Barium	*			*			*		
: Boron	:			: 20			: 20		
: Calcium	: 8 pct			: 8 pct			: 6 pct		
* Chromium	* 200			* 500			* 100		
* Cobalt	* 100			* 80			*		
: Copper	: 700			: 200			: 50		
: Fluorine	:			:			:		
: Gallium	:			:			: 20		
* Germanium	*			*			*		
* Gold	*			*			*		
: Iron	: 4 pct			: 5 pct			: 6 pct		
: Lanthanum	:			:			:		
* Lead	*			*			*		
* Manganese	* 800			* 1000			* 1000		
: Magnesium	: >4 pct			: >4 pct			: >4 pct		
: Molybdenum	:			:			:		
* Nickel	* 800			* 400			* 100		
* Phosphorous	*			*			*		
: Scandium	:			:			:		
: Silver	:			:			:		
* Silicon	* >20 pct			* >20 pct			* >20 pct		
* Sodium	* 0.5 pct			* 0.6 pct			* 2 pct		
* Strontium	*			*			*		
* Tin	*			*			*		
* Titanium	* 1000			* 2000			* 7000		
* Tungsten	*			*			*		
: Vanadium	: 100			: 100			: 80		
: Yttrium	:			:			:		
: Zinc	:			:			:		
* Zirconium	*			* 50			* 80		

Sample Number/Year	:	1094 / 80	:	1095 / 80	:	1096 / 80
Material Type	:	Fel Plut	:	Fel Plut	:	Fel Plut
Rock Type	:	Fel Int	:	Fel Int	:	Fel Int
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-2	*	Anchorage / A-2	*	Anchorage / A-2
Sec/T/R/Mer	*	03 / 11N / 11E / Sew	*	03 / 11N / 11E / Sew	*	03 / 11N / 11E / Sew
Location/Property	:	Miners Bay / Miners Ni	:	Miners Bay / Miners Ni	:	Miners Bay / Miners Ni
KX/MAS/File	:	220 / 113 / A-14	:	220 / 113 / A-14	:	220 / 113 / A-14
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Random Chip 20'	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:	17	pct		:	20	pct		:			
: Arsenic	:				:				:			
* Barium	*				*				*			
: Boron	:				:	20			:			
: Calcium	:	10	pct		:	8	pct		:			
* Chromium	*	300			*	500			*			
* Cobalt	*				*	100			*		50	
: Copper	:	500			:	100			:		900	
: Fluorine	:				:				:			
: Gallium	:				:				:			
* Germanium	*				*				*			
* Gold	*				*				*		<0.03	
: Iron	:	2	pct		:	5	pct		:			
: Lanthanum	:				:				:			
* Lead	*				*				*		15	
* Manganese	*	600			*	1000			*			
: Magnesium	:	3	pct		:	>4	pct		:			
: Molybdenum	:				:				:		5	
* Nickel	*	300			*	400			*		750	
* Phosphorous	*				*				*			
: Scandium	:				:				:			
: Silver	:				:				:		4.0	
* Silicon	*	>20	pct		*	>20	pct		*			
* Sodium	*	1	pct		*	1	pct		*			
* Strontium	*				*				*			
* Tin	*				*				*		<5	
* Titanium	*	500			*	2000			*			
* Tungsten	*				*				*		<5	
: Vanadium	:	200			:	200			:			
: Yttrium	:				:				:			
: Zinc	:				:				:		45	
* Zirconium	*				*				*			

Sample Number/Year	:	1097 / 80	:	1102 / 80	:	1103 / 80
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-2	*	Seward / D-2	*	Seward / D-2
Sec/I/R/Mer	*	18 / TIN / 12E / Sew	*	05 / 10N / 11E / Sew	*	05 / 10N / 11E / Sew
Location/Property	:	Wells Bay / Occ #4	:	Unakwik Inlet /	:	Unakwik Inlet /
KX/MAS/File	:	--- / --- / A-11	:	254 / 134 / S-118	:	254 / 134 / S-118
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:	15	pct		:	10	pct		:	8	pct	
: Arsenic	:				:				:			
* Barium	*	0.1	pct		*	700			*	700		
: Boron	:	30			:	20			:	50		
: Calcium	:	3	pct		:	1.5	pct		:	0.5	pct	
* Chromium	*	50			*	70			*	70		
* Cobalt	*				*				*			
: Copper	:	30			:				:	50		
: Fluorine	:				:				:			
: Gallium	:				:	20			:			
* Germanium	*				*				*			
* Gold	*				*				*			
: Iron	:	2	pct		:	3	pct		:	5	pct	
: Lanthanum	:				:				:			
* Lead	*				*				*			
* Manganese	*	0.1	pct		*	600			*	600		
: Magnesium	:	2	pct		:	2	pct		:	2	pct	
: Molybdenum	:				:				:			
* Nickel	*	50			*	20			*	30		
* Phosphorous	*				*				*			
: Scandium	:				:				:			
: Silver	:				:				:			
* Silicon	*	>20	pct		*	>20	pct		*	>20	pct	
* Sodium	*	3	pct		*	3	pct		*	2	pct	
* Strontium	*				*				*			
* Tin	*				*				*			
* Titanium	*	0.4	pct		*	3000			*	3000		
* Tungsten	*				*				*			
: Vanadium	:	30			:	50			:	100		
: Yttrium	:				:				:			
: Zinc	:				:				:			
* Zirconium	*	50			*	100			*			

Sample Number/Year	: 1203 / 80	: 1204 / 80	: 1205 / 80
Material Type	: Fel Plut	: Fel Plut	: Fel Plut
Rock Type	: Fel Int	: Fel Int	: Fel Int
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-2	* Anchorage / A-2	* Anchorage / A-2
Sec/T/R/Mer	* 03 / 11N / 11E / Sew	* 01 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew
Location/Property	: Miners Bay / Miners Ni	: Miners Bay / Miners Ni	: Miners Bay / Miners Ni
KX/MAS/File	: 220 / 113 / A-14	: 220 / 113 / A-14	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 17 pct			: 17 pct			: 15 pct		
: Arsenic	:			:			:		
* Barium	*			*			*		
: Boron	:			:			:		
: Calcium	: 10 pct			: 8 pct			: 10 pct		
* Chromium	* 500			* 100			* 500		
* Cobalt	* 200	50		* 100	36		* 300	100	
: Copper	: 400	290		: 400	195		: 1000	890	
: Fluorine	:			:			:		
: Gallium	: 20			: 20			: 20		
* Germanium	*			*			*		
* Gold	*	0.10		*	0.03		*	0.05	
: Iron	: 8 pct			: 7 pct			: 8 pct		
: Lanthanum	:			:			:		
* Lead	*	47		*	25		*	35	
* Manganese	* 600			* 600			* 600		
: Magnesium	: >4 pct			: >4 pct			: >4 pct		
: Molybdenum	:	6		:	3		: 20	<2	
* Nickel	* 500	220		* 300	150		* 2000	1150	
* Phosphorous	*			*			*		
: Scandium	:			:			:		
: Silver	:	1.4		:	1.5		:	1.6	
* Silicon	* >20 pct			* >20 pct			* >20 pct		
* Sodium	* 1 pct			* 2 pct			* 1 pct		
* Strontium	*			*			*		
* Tin	*	5		*	<5		*	<5	
* Titanium	* 2000			* 7000			* 2000		
* Tungsten	*	<5		*	<5		*	<5	
: Vanadium	: 500			: 200			: 400		
: Yttrium	:			:			:		
: Zinc	:	50		:	50		:	40	
* Zirconium	* 50			*			* 50		

Sample Number/Year	: 1206 / 80	: 1207 / 80	: 1208 / 80
Material Type	: Fe1 Plut	: Fe1 Plut	: Fe1 Plut
Rock Type	: Fe1 Int	: Fe1 Int	: Fe1 Int
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-2	* Anchorage / A-2	* Anchorage / A-2
Sec/T/R/Mer	* 03 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew
Location/Property	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni
KX/MAS/File	: 220 / 113 / A-14	: 220 / 113 / A-14	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Random Chip
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 17 pct			: 18 pct			: 17 pct		
: Arsenic	:			:			:		
* Barium	*			*			*		
: Boron	:			:			: 20		
: Calcium	: 10 pct			: 8 pct			: 8 pct		
* Chromium	* 500			* 500			* 400		
* Cobalt	* 200	78		* 200	95		* 50	45	
: Copper	: 400	450		: 1000	580		: 200	135	
: Fluorine	:			:			:		
: Gallium	: 20			: 20			: 20		
* Germanium	*			*			*		
* Gold	*	0.18		*	<0.03		*	<0.03	
: Iron	: 8 pct			: 8 pct			: 5 pct		
: Lanthanum	:			:			:		
* Lead	* 100	170		* 50			* 30		
* Manganese	* 800			* 800			* 800		
: Magnesium	: >4 pct			: >4 pct			: >4 pct		
: Molybdenum	: 20	5		: 3			:	<2	
* Nickel	* 1000	600		* 2000	700		* 400	120	
* Phosphorous	*			*			*		
: Scandium	:			:			:		
: Silver	:	1.2		:	3.0		:	4.7	
* Silicon	* >20 pct			* >20 pct			* >20 pct		
* Sodium	* 1 pct			* 1 pct			* 2 pct		
* Strontium	*			*			*		
* Tin	* <5			* <5			* <5		
* Titanium	* 2000			* 2000			* 2000		
* Tungsten	* <5			* <5			* <5		
: Vanadium	: 400			: 200			: 200		
: Yttrium	:			:			:		
: Zinc	: 50			: 50			: 50		
* Zirconium	* 50			* 80			*		

Sample Number/Year	: 1209 / 80	: 1210 / 80	: 1211 / 80
Material Type	: Fel Plut	: Fel Plut	: Fel Plut
Rock Type	: Fel Int	: Fel Int	: Fel Int
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-2	* Anchorage / A-2	* Anchorage / A-2
Sec/T/R/Mer	* 03 TTN / TTE / Sew	* 03 / TTN / TTE / Sew	* 03 / TTN / TTE / Sew
Location/Property	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni
KX/MAS/File	: 220 / 113 / A-14	: 220 / 113 / A-14	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 18 pct			: 17 pct			: 18 pct		
: Arsenic	:			:			:		
* Barium	*		*	*		*	*		*
: Boron	: 20			: 20			:		
: Calcium	: 6 pct			: 8 pct			: 10 pct		
* Chromium	* 80		* 300	* 300		* 400	* 400		
* Cobalt	*	40	* 100		60	* 50		38	
: Copper	: 300	250	: 400		410	: 300		340	
: Fluorine	:		:			:			
: Gallium	: 30		: 20			: 20			
* Germanium	*		*	*		*	*		*
* Gold	*	0.03	*	<0.03	*	<0.03	*		
: Iron	: 4 pct		: 6 pct			: 7 pct			
: Lanthanum	:		:			:			
* Lead	*	35	*	16	*	17	*		
* Manganese	* 800		* 800			* 800			
: Magnesium	: 3 pct		: >4 pct			: >4 pct			
: Molybdenum	:	<2	:	<2	:	3	:		
* Nickel	* 200	75	* 1000	630	* 400	250	*		
* Phosphorous	*		*		*		*		
: Scandium	:		:		:		:		
: Silver	:	1.4	:	2.3	:	3.6	:		
* Silicon	* >20 pct		* >20 pct		* >20 pct		*		
* Sodium	* 4 pct		* 2 pct		* 2 pct		*		
* Strontium	*		*		*		*		
* Tin	*	<5	*	<5	*	<5	*		
* Titanium	* 7000		* 1000		* 2000		*		
* Tungsten	*	<5	*	<5	*	<5	*		
: Vanadium	: 30		: 200		: 200		:		
: Yttrium	:		:		:		:		
: Zinc	:	50	:	40	:	40	:		
* Zirconium	* 50		*		*		*		

Sample Number/Year	: 1212 / 80	: 1213 / 80	: 1214 / 80
Material Type	: Fel Plut	: Fel Plut	: Fel Plut
Rock Type	: Fel Int	: Fel Int	: Fel Int
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-2	* Anchorage / A-2	* Anchorage / A-2
Sec/T/R/Mer	* 03 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew	* 03 / 11N / 11E / Sew
Location/Property	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni	:Miners Bay / Miners Ni
KX/MAS/File	: 220 / 113 / A-14	: 220 / 113 / A-14	: 220 / 113 / A-14
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Random Chip 30'
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	: 17 pct			: 18 pct			: 18 pct		
: Arsenic	:			:			:		
* Barium	*			*			*		
: Boron	:			: 20			: 20		
: Calcium	: 8 pct			: 8 pct			: 10 pct		
* Chromium	* 300			* 400			* 400		
* Cobalt	* 100	65		* 200	65		* 200	93	
: Copper	: 100	155		: 500	220		: 2000	1100	
: Fluorine	: 20			:			:		
: Gallium	:			: 20			: 20		
* Germanium	*			*			*		
* Gold	*	<0.03		*	<0.03		*	0.07	
: Iron	: 7 pct			: 8 pct			: 6 pct		
: Lanthanum	:			:			:		
* Lead	* 60			* 37			* 15		
* Manganese	* 800			* 1000			* 800		
: Magnesium	: >4 pct			: >4 pct			: >4 pct		
: Molybdenum	:	5		:	<2		:	<2	
* Nickel	* 400	135		* 1000	450		* 2000	1150	
* Phosphorous	*			*			*		
: Scandium	:			:			:		
: Silver	:	2.9		:	1.2		:	2.5	
* Silicon	* >20 pct			* >20 pct			* >20 pct		
* Sodium	* 2 pct			* 1 pct			* 2 pct		
* Strontium	*			*			*		
* Tin	* 5			* <5			* <5		
* Titanium	* 800			* 3000			* 2000		
* Tungsten	* <5			* <5			* <5		
: Vanadium	: 100			: 200			: 200		
: Yttrium	:			:			:		
: Zinc	: 50			: 50			: 45		
* Zirconium	*			*			*		

Sample Number/Year	:	1403 / 80	:	1404 / 80	:	1494 / 80
Material Type	:	Fel Plut	:	Fel Plut	:	Fel Plut
Rock Type	:	Fel Int	:	Fel Int	:	Fel Int
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-2	*	Anchorage/ A-2	*	Anchorage / A-2
Sec/T/R/Mer	*	03 / 11 N/ 11E /Sew	*	03 / 11N/ 11E /Sew	*	03 / 11N/ 11E /Sew
Location/Property	:	Miners Bay/ Miner Ni	:	Miners Bay/Miners Ni	:	Miners Bay/Miners Ni
KX/MAS/File	:	220 / 113 / A-14	:	220 / 113 / A-14	:	220 / 113 / A-14
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:				:	9.6	pct		:			
: Arsenic	:				:				:			
* Barium	*				*	140			*			
: Boron	:				:				:			
: Calcium	:				:	7.57	pct		:			
* Chromium	*				*	297			*			
* Cobalt	*	800			*				*		0.02	pct
: Copper	:	110			:	311			:		0.31	pct
: Fluorine	:				:				:			
: Gallium	:				:				:			
* Germanium	*				*				*			
* Gold	*				*				*			0.002
: Iron	:				:	5.846	pct		:			
: Lanthanum	:				:				:			
* Lead	*				*				*			
* Manganese	*				*	707			*			
: Magnesium	:				:	6.85	pct		:			
: Molybdenum	:				:				:			
* Nickel	*	140			*	449			*		0.25	pct
* Phosphorous	*				*	1520			*			
: Scandium	:				:				:			
: Silver	:				:				:			0.04
* Silicon	*				*	23.99	pct		*			
* Sodium	*				*				*			
* Strontium	*				*	192			*			
* Tin	*				*				*			
* Titanium	*				*	2890			*			
* Tungsten	*				*				*			
: Vanadium	:				:				:			
: Yttrium	:				:				:			
: Zinc	:				:	204			:			
* Zirconium	*				*				*			

Sample Number/Year	:	1816 / 81	:	1817 / 81	:	1818 / 81
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	Slate
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Seward / D-1	*	Anchorage/ A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	14 /10 N/12E /Sew	*	14 / 11N/ 12E /Sew	*	14 / 11 N/ 12E /Sew
Location/Property	:	Long Bay/Gilnow	:	Long Bay/Occ #1	:	Long Bay/Occ #1
KX/MAS/File	:	--- / --- /S-114	:	--- / --- / A-4	:	--- / --- / A-4
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		13	:		89	:		<10	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		21	*		17	*		15	
: Copper	:		33	:		44	:		24	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		<0.03	*		<0.03	*		0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		26	*		22	*		73	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		3	:		<2	:		<2	
* Nickel	*		30	*		24	*		22	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		0.2	:		0.3	<0.01:		0.2	<0.01
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		6	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		88	:		120	:		130	
* Zirconium	*			*			*			

Sample Number/Year	: 1819 / 81	: 1820 / 81	: 1821 / 81
Material Type	: SS/SL/CG	: SL/SS/CG	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage/ A-1	* Anchorage/ A-1	* Anchorage / A-1
Sec/T/R/Mer	* 14 /11 N/12E /Sew	* 14 / 11N/12E /Sew	* 14 /11 N/ 12E /Sew
Location/Property	: Long Bay/Occ #1	: Long Bay/Occ #1	: Long Bay/Occ #1
KX/MAS/File	: --- / --- / A-4	: --- / --- / A-4	: --- / --- / A-4
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Grab
	*	*	*

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:	23		:	140		:	24		
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*	25		*	6		*	11		
: Copper	:	74		:	320		:	325		
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*	<0.03		*	0.04	0.009*	*	0.03	0.034	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*	27		*	2.6 pct		*	0.27 pct		
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:	<2		:	3		:	<2		
* Nickel	*	39		*	5		*	14		
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:	0.40	<0.01:		8.0		:	7.3	0.26	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*	<5		*	<5		*	<5		
* Titanium	*			*			*			
* Tungsten	*	<5		*	53		*	9		
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:	115		:	0.2 pct		:	350		
* Zirconium	*			*			*			

Sample Number/Year	: 1822 / 81	: 1823 / 81	: 1849 / 81
Material Type	: Maf Volc	: Gossan	: Sed Rk/Q
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/T/R/Mer	* 14 / 11N/ 12E /Sew	* 14 / 11 N/ 12E /Sew	* 35 / 12N/ 12E /Sew
Location/Property	: Long Bay/Occ #1	: Long Bay/Occ #1	: Miners River/4 in 1
KX/MAS/File	: --- / --- / A-4	: --- / --- / A-4	: 114 / 115 / A-8
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Grab	: Chip 15'
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	50	:	:	77	:	:	150	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	99	*	*	57	*	*	10	*
: Copper	:	355	:	:	900	:	:	0.29 pct	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	0.31	0.035*	*	0.03	<0.003*	*	0.06	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	0.53 pct	*	*	2.45 pct	*	*	14	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	<2	:	:	<2	:	:	<2	:
* Nickel	*	20	*	*	19	*	*	11	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	7.3	0.01:	:	34	0.78:	:	28.6	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	3497	*	*	290	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	1.7 pct	:	:	1.25 pct	:	:	120	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	: 1850 / 81	: 1854 / 81	: 1855 / 81
Material Type	: Sed Rk/Q	: Placer	: Sed Rk/Q
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage/ A-1	* Anchorage / A-2	* Anchorage / A-1
Sec/I/R/Mer	* 35 /12 N/ 12E /Sew	* 29 /12 N/12 E /Sew	* 33 / 12 N/12 E /Sew
Location/Property	: Miners River/4 in 1	: Miners R/ MR Disc.	: Miners River/Occ #1
KX/MAS/File	: 114 / 115 / A-8	: --- / --- / P-31	: --- / --- / A-9
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Placer 0.1 cy	: Chip
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	78	:	:	100	:	:	26	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	7	*	*	10	*	*	5	*
: Copper	:	195	:	:	50	:	:	19	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	<0.03	*	*		0.104*	*	<0.03	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	9	*	*	115	*	*	94	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	<2	:	:	<2	:	:	<2	:
* Nickel	*	9	*	*	50	*	*	8	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	2.8	:	:		0.05	:	1.6	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	8	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	<5	*	*	2	*	*	21	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	40	:	:	125	:	:	700	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	: 1856 / 81	: 1857 / 81	: 1858 / 81
Material Type	: Sed Rk/Q	: Sed Rk/Q	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage/ A-1	* Anchorage / A-1	* Seward / D-1
Sec/T/R/Mer	* 33 /12 N/ 12E /Sew	* 33 /12 N/ 12E /Sew	* 33 / 11 N/ 12E /Sew
Location/Property	: Miners River/Occ #1	: Miners River/Occ #1	: Long Bay/ Occ.
KX/MAS/File	: --- / --- / A-9	: --- / --- / A-9	: --- / --- / S-117
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Chip 5'	: Chip 3'	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	0.18 pct	:	:	100	:	:	110	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	4	*	*	6	*	*	24	*
: Copper	:	36	:	:	270	:	:	0.6 pct	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	0.17	0.006*	*	0.04	<0.003*	*	<0.03	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	310	*	*	935	*	*	62	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	<2	:	:	<2	:	:	3	:
* Nickel	*	8	*	*	11	*	*	10	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	1.6	<0.01	:	4.1	0.14:	:	26	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	13	*	*	47	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	390	:	:	175	:	:	105	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	: 1859 / 81	: 1877 / 81	: 1878 / 81
Material Type	: Sulfides	: Sed Rk/Q	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/1/R/Mer	* 33/ 12N/ 12E /Sew	* 35 /12 N/ 12E /Sew	* 35 / 12 N/12 E /Sew
Location/Property	: Miners River/ Occ #1	: Miners River/4 in 1	: Miners River/4 in 1
KX/MAS/File	: --- / --- / A-9	: 114 / 115 / A-8	: 114 / 115 / A-8
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Ran Chip 15'	: Ran Chip 8'
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	16 pct	:	:	570	:	:	105	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	13	*	*	9	*	*	14	*
: Copper	:	0.5 pct	:	:	20	:	:	690	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	1.7	0.06*	*	0.18	*	*	<0.03	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	1.7 pct	*	*	18	*	*	13	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	3	:	:	<2	:	:	<2	:
* Nickel	*	10	*	*	11	*	*	16	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	55	2.2	:	2.6	:	:	8.6	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	968	*	*	<5	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	4.8 pct	:	:	72	:	:	73	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	:	1880 / 81	:	1881 / 81	:	1882 / 81
Material Type	:	Sulfides	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Fel Int	:	Fel Int
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Seward / D-2	*	Seward / D-2
Sec/T/R/Mer	*	14 / 11 N/ 12E /Sew	*	07 / 10 N/ 12E /Sew	*	07 / 10 N/12 E /Sew
Location/Property	:	Long Bay/Occ #1	:	Cedar Bay/ Blk Jak	:	Cedar Bay/ Blk Jak
KX/MAS/File	:	--- / --- / A-4	:	260 / 51 / S-115	:	260 / 51 / S-115
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		67	:		60	:		<10	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		18	*		16	*		3	
: Copper	:		100	:		14	:		6	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.03	<0.003*		<0.03	*		<0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		68	*		28	*		25	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		2	:		2	:		2	
* Nickel	*		17	*		8	*		5	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		1.5	<0.01:		1.3	:		0.3	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		683	*		<5	*		<5	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		3.2 pct	:		130	:		47	
* Zirconium	*			*			*			

Sample Number/Year	: 1885 / 81	: 1887 / 81	: 1888 / 81
Material Type	: Cal-Fluor Vein	: SL/SS/CG	: Graywacke/Fel Plut
Rock Type	: Metased	: Metased	: Metased/Fel Int
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/T/R/Mer	* 28 / 11 N/12 E /Sew	* 10 / 11N/ 12E /Sew	* 10 / 11 N/12 E /Sew
Location/Property	: Wells Bay/Occ #1	: Wells Bay/Occ #2	: Wells Bay/Occ #2
KX/MAS/File	: --- / --- / A-5	: --- / --- / A-6	: --- / --- / A-6
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Chip 3'	: Chip 20'	: Chip 15'
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:	:	:	:	:	:	: 15 pct	:	:
: Arsenic	:	:	:	:	0.54 pct	:	:	810	:
* Barium	*	:	*	:	:	*	: 2000	:	:
: Boron	:	:	:	:	:	:	: 20	:	:
: Calcium	:	:	:	:	:	:	: 1 pct	:	:
* Chromium	*	:	*	:	:	*	: 200	:	:
* Cobalt	*	3	*	5	*	*	:	4	:
: Copper	:	27	:	130	:	:	: 20	23	:
: Fluorine	:	17.5 pct	:	:	:	:	:	:	:
: Gallium	:	:	:	:	:	:	: 20	:	:
* Germanium	*	:	*	:	:	*	:	:	:
* Gold	*	0.18	*	0.12	0.005*	:	:	0.05	:
: Iron	:	:	:	:	:	:	: 4 pct	:	:
: Lanthanum	:	:	:	:	:	:	:	:	:
* Lead	*	82	*	46	*	*	:	21	:
* Manganese	*	:	*	:	:	*	: 400	:	:
: Magnesium	:	:	:	:	:	:	: 2 pct	:	:
: Molybdenum	:	6	:	2	:	:	:	<2	:
* Nickel	*	8	*	9	*	*	: 100	6	:
* Phosphorous	*	:	*	:	:	*	:	:	:
: Scandium	:	:	:	:	:	:	:	:	:
: Silver	:	4.5	:	1.4	<0.01:	:	:	<0.03	:
* Silicon	*	:	*	:	:	*	: >20 pct	:	:
* Sodium	*	:	*	:	:	*	: 2 pct	:	:
* Strontium	*	:	*	:	:	*	:	:	:
* Tin	*	<5	*	<5	*	*	:	<5	:
* Titanium	*	:	*	:	:	*	: 2000	:	:
* Tungsten	*	<5	*	<5	*	*	:	<5	:
: Vanadium	:	:	:	:	:	:	: 200	:	:
: Yttrium	:	:	:	:	:	:	: 10	:	:
: Zinc	:	27	:	39	:	:	:	34	:
* Zirconium	*	:	*	:	:	*	:	:	:

Sample Number/Year	: 1889 / 81	: 2234 / 79	: 2235 / 79
Material Type	: SL/SS/CG	: Stream Sed	: Stream Sed
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage/ A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/T/R/Mer	* 10 /11 N/ 12E /Sew	* 35 /11 N/ 12E /Sew	* 35 / 11 N/ 12E /Sew
Location/Property	: Wells Bay/Occ #2	: Long Bay/Occ #1	: Long Bay/Occ #1
KX/MAS/File	: --- / --- / A-6	: --- / --- / A-4	: --- / --- / A-4
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Stream Sediment	: Stream Sediment
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Antimony	:		:	: <100		:	: <100		:
: Arsenic	:	1.05 pct	:	: <500		:	: <500		:
* Barium	*		*	* 0.1 pct		*	* 0.1 pct		*
* Beryllium	*		*	* <2		*	* <2		*
* Bismuth	*		*	* <10		*	* <10		*
: Boron	:		:	: 50		:	: 50		:
: Calcium	:		:	: 0.5 pct		:	: 0.3 pct		:
: Cadmium	:		:	: <50		:	: <50		:
* Chromium	*		*	* 100		*	* 100		*
* Cobalt	*	20	*	* 20		*	* 20		*
: Copper	:	0.5 pct	:	: 150		:	: 150		:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	: 20		:	: 20		:
* Germanium	*		*	* <20		*	* <20		*
* Gold	*	1.25	0.389*			*			*
: Iron	:		:	: 5 pct		:	: 5 pct		:
: Lanthanum	:		:	: 20		:	: 20		:
* Lead	*	126	*	* 100		*	* 100		*
* Manganese	*		*	* 0.2 pct		*	* 0.15 pct		*
: Magnesium	:		:	: 2 pct		:	: 2 pct		:
: Molybdenum	:	<2	:	: <2		:	: <2		:
: Niobium	:		:	: 20		:	: 20		:
* Nickel	*	13	*	* 30		*	* 20		*
* Phosphorous	*		*			*			*
: Scandium	:		:	: 20		:	: 20		:
: Silver	:	7.4	0.44	: <1		:	: <1		:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	* 200		*	* 200		*
* Tin	*	<5	*	* <10		*	* <10		*
* Titanium	*		*	* 0.5 pct		*	* 0.3 pct		*
* Tungsten	*	<5	*	* <50		*	* <50		*
: Vanadium	:		:	: 150		:	: 100		:
: Yttrium	:		:	: 10		:	: 10		:
: Zinc	:	570	:	: 500		:	: 300		:
* Zirconium	*		*	* 100		*	* 100		*

Sample Number/Year	: 2249 / 79	: 4149 / 79	: 4150 / 79
Material Type	: Stream Sed	: Stream Sed	: Stream Sed
Rock Type	: Fel Int	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Seward / D-2	* Seward / D-1	* Seward / D-1
Sec/T/R/Mer	* 18 / 10 N/12 E /Sew	* 23 / 10 N/ 12E /Sew	* 23 / 10 N/12 E /Sew
Location/Property	: Cedar Bay/Blk Jak	: Long Bay/Gilnow	: Long Bay/Gilnow
KX/MAS/File	: 260 / 51 / S-115	: --- / --- / S-114	: --- / --- / S-114
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Stream Sediment	: Stream Sediment	: Stream Sediment
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Antimony	: <100		:	:		:	: <100		:
: Arsenic	: <500		:	:		:	: <500		:
* Barium	* 700		*			*	* 1000		*
* Beryllium	* 2		*			*	* <2		*
* Bismuth	* <10		*			*	* <10		*
: Boron	: <10		:	:		:	: 20		:
: Calcium	: 0.5 pct		:	:		:	: 0.2 pct		:
: Cadmium	: <50		:	:		:	: <50		:
* Chromium	* <10		*			*	* 150		*
* Cobalt	* <5		*			*	* <5		*
: Copper	: 15		:	: 25		:	: 10	5	:
: Fluorine	:		:	:		:	:		:
: Gallium	: 10		:	:		:	: 15		:
* Germanium	* <20		*			*	* <20		*
* Gold	*		*			*			*
: Iron	: 1.5 pct		:	:		:	: 2 pct		:
: Lanthanum	: 20		:	:		:	: 20		:
* Lead	* 30		*	: 25		*	* 10	10	*
* Manganese	* 700		*			*	* 500		*
: Magnesium	: 1 pct		:	:		:	: 0.5 pct		:
: Molybdenum	: <2		:	:		:	: <2		:
: Niobium	: <20		:	:		:	: <20		:
* Nickel	* <5		*			*	* 10		*
* Phosphorous	*		*			*			*
: Scandium	: <10		:	:		:	: <10		:
: Silver	: <1		:	:		:	: <1		:
* Silicon	*		*			*	*		*
* Sodium	*		*			*	*		*
* Strontium	* 100		*			*	* 200		*
* Tin	* <10		*			*	* <10		*
* Titanium	* 2000		*			*	* 2000		*
* Tungsten	* <50		*			*	* <50		*
: Vanadium	: 10		:	:		:	: 100		:
: Yttrium	: <10		:	:		:	: <10		:
: Zinc	: <200		:	: 150		:	: <200	20	:
* Zirconium	* 150		*			*	* 70		*

Sample Number/Year	:	4171 / 79	:	4172 / 79	:	4173 / 79
Material Type	:	SL/SS/CG	:	Stream Sed	:	Sulfides
Rock Type	:	Metased	:	Metased	:	Fel Int
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Seward / D-1	*	Seward / D-1	*	Seward / D-2
Sec/T/R/Mer	*	23 /10 N/ 12E /Sew	*	23 /10 N/ 12E /Sew	*	18 / 10 N/ 12E /Sew
Location/Property	:	Long Bay/Gilnow	:	Long Bay/Gilnow	:	Cedar Bay/Btk Jak
KX/MAS/File	:	--- / --- / S-114	:	--- / --- / S-114	:	260 / 51 / S-115
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Stream Sediment	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:			:				:				
: Antimony	:			:	<100			:	<100			
: Arsenic	:			:	<500			:	<500			
* Barium	*			*	1000			*	30			
* Beryllium	*			*	<2			*	<2			
* Bismuth	*			*	<10			*	15			
: Boron	:			:	30			:	10			
: Calcium	:			:	0.5 pct			:	<0.02 pct			
: Cadmium	:			:	<50			:	100			
* Chromium	*			*	50			*	<10			
* Cobalt	*			*	<5			*	<5			
: Copper	:	45		:	5			:	1500	1800		
: Fluorine	:			:				:				
: Gallium	:			:	10			:	<10			
* Germanium	*			*	<20			*	<20			
* Gold	*		<0.02	*				*		<0.02		
: Iron	:			:	5 pct			:	3 pct			
: Lanthanum	:			:	20			:	<20			
* Lead	*	5		*	<10			*	500	1550		
* Manganese	*			*	500			*	100			
: Magnesium	:			:	3 pct			:	0.07 pct			
: Molybdenum	:			:	<2			:	30			
: Niobium	:			:	20			:	<20			
* Nickel	*			*	<5			*	<5			
* Phosphorous	*			*				*				
: Scandium	:			:	10			:	<10			
: Silver	:	<0.2		:	<1			:	20	12		
* Silicon	*			*				*				
* Sodium	*			*				*				
* Strontium	*			*	200			*	100			
* Tin	*			*	<10			*	<10			
* Titanium	*			*	7000			*	200			
* Tungsten	*			*	<50			*	<50			
: Vanadium	:			:	100			:	10			
: Yttrium	:			:	<10			:	<10			
: Zinc	:	10		:	<200			:	>10000	2.9 pct		
* Zirconium	*			*	50			*	20			

Sample Number/Year	:	6211 / 79	:	6212 / 79	:	6213 / 79
Material Type	:	Fel Plut	:	Fel Plut	:	Fel Plut
Rock Type	:	Fel Int	:	Fel Int	:	Fel Int
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Seward / D-2	*	Seward / D-2	*	Seward / D-2
Sec/T/R/Mer	*	18 / 10 N/ 12E /Sew	*	18 / 10N/ 12E /Sew	*	18 / 10 N/ 12E /Sew
Location/Property	:	Cedar Bay/Blk Jak	:	Cedar Bay/Blk Jak	:	Cedar Bay/Blk Jak
KX/MAS/File	:	260 / 51 / S-115	:	260 / 51 / S-115	:	260 / 51 / S-115
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	(No Analysis)

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			:
: Antimony	:	<100		:	<100		:			:
: Arsenic	:	500		:	<500		:			:
* Barium	*	50		*	300		*			*
* Beryllium	*	<2		*	<2		*			*
* Bismuth	*	20		*	<20		*			*
: Boron	:	<10		:	20		:			:
: Calcium	:	<0.02	pct	:	0.15	pct	:			:
: Cadmium	:	<50		:	<50		:			:
* Chromium	*	<10		*	15		*			*
* Cobalt	*	<5		*	<5		*			*
: Copper	:	700		:	300	285	:			:
: Fluorine	:			:			:			:
: Gallium	:	<10		:	20		:			:
* Germanium	*	<20		*	<20		*			*
* Gold	*			*			*			*
: Iron	:	5	pct	:	3	pct	:			:
: Lanthanum	:	<20		:	20		:			:
* Lead	*	100		*	300		*			*
* Manganese	*	200		*	100		*			*
: Magnesium	:	0.2	pct	:	0.5	pct	:			:
: Molybdenum	:	20		:	<2		:			:
: Niobium	:	<20		:	<20		:			:
* Nickel	*	5		*	<5		*			*
* Phosphorous	*			*			*			*
: Scandium	:	<10		:	<10		:			:
: Silver	:	30		:	<1		:			:
* Silicon	*			*			*			*
* Sodium	*			*			*			*
* Strontium	*	<100		*	100		*			*
* Tin	*	<10		*	<10		*			*
* Titanium	*	500		*	3000		*			*
* Tungsten	*	<50		*	<50		*			*
: Vanadium	:	<10		:	50		:			:
: Yttrium	:	<10		:	10		:			:
: Zinc	:	200		:	<200	40	:			:
* Zirconium	*	<20		*	200		*			*

Sample Number/Year	:	7770 / 82	:	7771 / 82	:	7772 / 82
Material Type	:	SL/SS/CG	:	Sulfides	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage/ A-1	*	Anchorage /A-1
Sec/T/R/Mer	*	04 /11 N/ 12E /Sew	*	04 /11 N/12E /Sew	*	04 / 11 N/ 12E /Sew
Location/Property	:	Miners River/ Occ #2	:	Miners River/ Occ #2:	:	Miners River/ Occ #2
KX/MAS/File	:	--- / --- / A-10	:	--- / --- / A-10	:	--- / --- / A-10
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 1'	:	Grab	:	Chip 1'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		175	:		5000	:		19	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		2	*		7	*		3	
: Copper	:		150	:		310	:		255	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.13	*			0.084*		<0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		6250	*		15500	*		24500	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		3	:		3	:		<2	
* Nickel	*		9	*		16	*		4	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		17.2	:			3.8:		22.9	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		5	*		6	*		9	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		<5	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		18000	:		81000	:		35000	
* Zirconium	*			*			*			

Sample Number/Year	:	7773 / 82	:	7774 / 82	:	7775 / 82
Material Type	:	SL/SS/CG	:	Sulfides	:	Placer
Rock type	:	Metased	:	Metased	:	Qa1
Rock Age	*	Tertiary	*	Tertiary	*	Cretaceous
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	04 /11 N/ 12E /Sew	*	04 /11 N/ 12E /Sew	*	29 /12 N/ 12E /Sew
Location/Property	:	Miners River/Occ #2	:	Miners River/Occ #2	:	Miners River/MR Disc
KX/MAS/File	:	--- / --- / A-10	:	--- / --- / A-10	:	--- / --- / P-31
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Ran Chip 10'	:	Grab	:	0.1 Placer
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:			:	:			:	:			:
: Arsenic	:		420	:	:		600	:	:		17	:
* Barium	*			*	*			*	*			*
: Boron	:			:	:			:	:			:
: Calcium	:			:	:			:	:			:
* Chromium	*			*	*			*	*			*
* Cobalt	*		2	*	*		7	*	*		8	*
: Copper	:		1400	:	:		165	:	:		345	:
: Fluorine	:			:	:			:	:			:
: Gallium	:			:	:			:	:			:
* Germanium	*			*	*			*	*			*
* Gold	*		0.07	*	*		<0.005	*	*		<0.03	*
: Iron	:			:	:			:	:			:
: Lanthanum	:			:	:			:	:			:
* Lead	*		9900	*	*		24500	*	*		215	*
* Manganese	*			*	*			*	*			*
: Magnesium	:			:	:			:	:			:
: Molybdenum	:		3	:	:		2	:	:		<2	:
* Nickel	*		/	*	*		2	*	*		30	*
* Phosphorous	*			*	*			*	*			*
: Scandium	:			:	:			:	:			:
: Silver	:		14.4	:	:		13.7	:	:		2.0	:
* Silicon	*			*	*			*	*			*
* Sodium	*			*	*			*	*			*
* Strontium	*			*	*			*	*			*
* Tin	*		5	*	*		5	*	*		<5	*
* Titanium	*			*	*			*	*			*
* Tungsten	*		<5	*	*		<2	*	*		<5	*
: Vanadium	:			:	:			:	:			:
: Yttrium	:			:	:			:	:			:
: Zinc	:		1450	:	:		190000	:	:		300	:
* Zirconium	*			*	*			*	*			*

Sample Number/Year	:	7781 / 82	:	/	:	/
Material Type	:	SL/SS/CG	:		:	
Rock Type	:	Metased	:		:	
Rock Age	*	Tertiary	*		*	
Quad 4 mile/1 mile	*	Anchorage / A-1	*	/	*	/
Sec/T/R/Mer	*	04 /11 N/ 12E /Sew	*	/ N/ /Sew	*	/ N/ /Sew
Location/Property	:	Miners River/Occ #2	:		:	
KX/MAS/File	:	--- / --- / A-10	:	/ /	:	/ /
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 1'	:		:	
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:	1700		:			:			
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*	3		*			*			
: Copper	:	29		:			:			
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*	<0.03		*			*			
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*	29		*			*			
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:	3		:			:			
* Nickel	*	10		*			*			
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:	0.3		:			:			
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*	<5		*			*			
* Titanium	*			*			*			
* Tungsten	*	<5		*			*			
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:	57		:			:			
* Zirconium	*			*			*			

Sample Number/Year	:	7784 / 82	:	7785 / 82	:	7786 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Seward / D-2	*	Seward / D-1
Sec/T/R/Mer	*	04 /11 N/12 E /Sew	*	08 /10 N/ 12E /Sew	*	08 /10 N/ 12E /Sew
Location/Property	:	Miners River/ Occ #2:	:	Cedar Bay/Glendenning:	:	Cedar Bay/Glendenning
KX/MAS/File	:	--- / --- / A-10	:	251 / --- / S-116	:	257 / --- / S-116
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 10'	:	Chip 6'	:	Chip 15'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:	180		:	<10		:	38		
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*	6		*	7		*	32		
: Copper	:	280		:	30		:	185		
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*	0.07		*	<0.03		*	<0.03		
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*	25500		*	66		*	13		
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:	2		:	<2		:	<2		
* Nickel	*	11		*	21		*	29		
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:	4.1		:	0.1		:	0.1		
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*	5		*	<5		*	<5		
* Titanium	*			*			*			
* Tungsten	*	<5		*	<5		*	<5		
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:	51500		:	110		:	335		
* Zirconium	*			*			*			

Sample Number/Year	:	7787 / 82	:	7788 / 82	:	7789 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Seward / D-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	08 /10 N/ 12E /Sew	*	10 /11 N/ 12E /Sew	*	10 /11 N/ 12E /Sew
Location/Property	:	Cedar Bay/Glendenning:	:	Wells Bay/Occ #2	:	Wells Bay/ Occ #2
KX/MAS/File	:	257 / --- / S-116	:	--- / --- / A-6	:	--- / --- / A-6
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 6'	:	Chip 2'	:	Chip 3'
	*		*		*	

Element	:	E. Sp	AA/Wet	Assay	:	E. Sp	AA/Wet	Assay	:	E. Sp	AA/Wet	Assay
: Aluminum	:			:				:				
: Arsenic	:		52	:		1800		:			4600	
* Barium	*			*				*				
: Boron	:			:				:				
: Calcium	:			:				:				
* Chromium	*			*				*				
* Cobalt	*		32	*		7		*			14	
: Copper	:		825	:		455		:			3300	
: Fluorine	:			:				:				
: Gallium	:			:				:				
* Germanium	*			*				*				
* Gold	*		<0.03	*		0.05		*			<0.03	
: Iron	:			:				:				
: Lanthanum	:			:				:				
* Lead	*		11	*		900		*			11000	
* Manganese	*			*				*				
: Magnesium	:			:				:				
: Molybdenum	:		4	:		<2		:			<2	
* Nickel	*		21	*		3		*			<1	
* Phosphorous	*			*				*				
: Scandium	:			:				:				
: Silver	:		1.0	:		4.6		:			10.6	
* Silicon	*			*				*				
* Sodium	*			*				*				
* Strontium	*			*				*				
* Tin	*		<5	*		<5		*			5	
* Titanium	*			*				*				
* Tungsten	*		<5	*		<5		*			<5	
: Vanadium	:			:				:				
: Yttrium	:			:				:				
: Zinc	:		95	:		240		:			1250	
* Zirconium	*			*				*				

Sample Number/Year	:	7790 / 82	:	7791 / 82	:	7792 / 82
Material Type	:	Maf Volc	:	SL/SS/CG	:	Quartz
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	10 /11 N/ 12E /Sew	*	10 /11 N/ 12E /Sew	*	10 /11 N/12E /Sew
Location/Property	:	Wells Bay/Occ #2	:	Wells Bay/Occ #2	:	Wells Bay/Occ #2
KX/MAS/File	:	--- / --- / A-6	:	--- / --- / A-6	:	--- / --- /A-6
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 1'	:	Chip 2'	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:	215		:	2600		:	51000		
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*	5		*	10		*	9		
: Copper	:	107		:	395		:	1900		
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*	<0.03		*	0.07		*	1.42		
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*	7		*	<1		*	17		
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:	<2		:	2		:	<2		
* Nickel	*	5		*	13		*	3		
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:	0.9		:	1.0		:	9.0		
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*	<5		*	<5		*	<5		
* Titanium	*			*			*			
* Tungsten	*	9		*	<5		*	<5		
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:	30		:	43		:	40		
* Zirconium	*			*			*			

Sample Number/Year	:	7793 / 82	:	7794 / 82	:	7796 / 82
Material Type	:	Quartz	:	Quartz	:	Calc
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Seward / D-2	*	Anchorage / A-1
Sec/I/R/Mer	*	10 /11 N/ 12E /Sew	*	08 /10 N/11E /Sew	*	05 / 11 N/ 12E /Sew
Location/Property	:	Wells Bay/Occ #2	:	Unakwik Inlet/Anderson:	:	Miners River/ Occ #2
KX/MAS/File	:	--- / --- / A-6	:	254 / 134 / S-118	:	--- / --- / A-10
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Grab	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		920	:		31	:		690	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		<1	*		4	*		2	
: Copper	:		310	:		23	:		12	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		<0.03	*		<0.03	*		0.12	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		2	*		1	*		3	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		8	:		2	:		<2	
* Nickel	*		8	*		7	*		4	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		2.5	:		<0.1	:		0.7	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		<5	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		56	:		165	:		14	
* Zirconium	*			*			*			

Sample Number/Year	: 7797 / 82	: 7798 / 82	: 7799 / 82
Material Type	: Fel Plut	: Quartz	: Sed Rk/Q
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/T/R/Mer	* 8 / 11 N/12E / Sew	* 8 / 11 N/12E / Sew	* 8 / 11 N/ 12E / Sew
Location/Property	: Miners River/Occ #2	: Miners River/Occ #2	: Miners River/ Occ #2
KX/MAS/File	: --- / --- / A-10	: --- / --- / A-10	: --- / --- / A-10
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Chip 6'	: Grab	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	27	:	:	8000	:	:	81	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	3	*	*	<1	*	*	10	*
: Copper	:	11	:	:	49	:	:	310	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	<0.03	*	*	0.52	*	*	0.10	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	1	*	*	390	*	*	8800	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	<2	:	:	<2	:	:	3	:
* Nickel	*	5	*	*	2	*	*	10	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	<0.1	:	:	15.2	:	:	20	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	<5	*	*	<5	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	16	:	:	185	:	:	22000	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	:	7800 / 82	:	7811 / 82	:	7812 / 82
Material Type	:	SL/SS/CG	:	Sulfides	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	8 / 11 N/ 12E /Sew	*	8 / 11 N/ 12E /Sew	*	8 / 11 N/ 12E /Sew
Location/Property	:	Miners River/Occ #2	:	Miners River/ Occ #2	:	Miners River/Occ #2
KX/MAS/File	:	--- / --- / A-10	:	--- / --- / A-10	:	--- / --- / A-10
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 2'	:	Grab	:	Chip 2'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		8000	:		78	:		43000	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		10	*		4	*		3	
: Copper	:		120	:		355	:		76	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.66	*		<0.005*			0.73	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		200	*		37000	*		1950	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		<2	:		<2	:		<2	
* Nickel	*		14	*		4	*		2	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		2.7	:		5.4	:		3.5	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		<5	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		2750	:		42000	:		12000	
* Zirconium	*			*			*			

Sample Number/Year	:	7818 / 82	:	7819 / 82	:	7820 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	11 / 9 S/ 11W /CR	*	11 / 9 S/11W /CR	*	11 / 9 S/ 11W /CR
Location/Property	:	Kadin Lake/Col. Red M.	:	Kadin Lake/Col. Red M.	:	Kadin Lake/Col. Red M.
KX/MAS/File	:	90 / 165 / A-1	:	90 / 165 / A-1	:	90 / 165 / A-1
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 8'	:	Chip 8'	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		26	:		23	:		19	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		8	*		8	*		5	
: Copper	:		1200	:		700	:		1250	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		<0.03	*		<0.03	*		<0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		1400	*		650	*		815	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		<2	:		<2	:		<2	
* Nickel	*		11	*		17	*		13	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		11.3	:		13.7	:		15.4	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		8	*		20	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		<5	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		4400	:		3100	:		1800	
* Zirconium	*			*			*			

Sample Number/Year	:	7887 / 82	:	7888 / 82	:	7889 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Cretaceous	*	Cretaceous	*	Cretaceous
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	10 / 9 S/ 11W /CR	*	10 / 9 S/ 11W /CR	*	10 / 9 S/ 11W /CR
Location/Property	:	Kadin Lake/Idle Claim	:	Kadin Lake/Idle Claim	:	Kadin Lake/Idle Claim
KX/MAS/File	:	--- / --- / A-2	:	--- / --- / A-2	:	--- / --- / A-2
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 3'	:	Chip 3'	:	Chip 3'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:	110		:	72		:	120		
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*	36		*	21		*	23		
: Copper	:	5900		:	1650		:	7000		
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*	<0.03		*	<0.03		*	<0.03		
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*	345		*	245		*	135		
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:	3		:	<2		:	<2		
* Nickel	*	10		*	15		*	3		
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:	22		:	6.7		:	12.0		
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*	<5		*	<5		*	<5		
* Titanium	*			*			*			
* Tungsten	*	<5		*	<5		*	81		
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:	28500		:	22500		:	16500		
* Zirconium	*			*			*			

Sample Number/Year	: 7890 / 82	: 7901 / 82	: 7902 / 82
Material Type	: Fel Plut	: Fel Plut	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Cretaceous	* Cretaceous	* Cretaceous
Quad 4 mile/1 mile	* Anchorage / A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/T/R/Mer	* 10 / 9 S/ 11W /CR	* 10 / 9 S/ 11W /CR	* 11 / 9 S/ 11W /CR
Location/Property	: Kadin Lake/Idle Claim:	Kadin Lake/Idle Claim:	Kadin Lake/Col. Red M.
KX/MAS/File	: --- / --- / A-2	: --- / --- / A-2	: 90 / 165 / A-1
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Chip 4'	: Ran Chip 10'	: Chip 1'
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	16500	:	:	3200	:	:	105	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	8	*	*	<1	*	*	/	*
: Copper	:	4000	:	:	205	:	:	1100	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	0.86	*	*	0.13	*	*	0.05	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	2250	*	*	200	*	*	7200	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	41	:	:	6	:	:	3	:
* Nickel	*	2	*	*	2	*	*	17	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	11.1	:	:	4.4	:	:	12.6	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	9	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	<5	*	*	18	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	1150	:	:	370	:	:	1600	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	:	7903 / 82	:	7929 / 82	:	7930 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Cretaceous	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage/ A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	11 / 9 S/ 11W /CR	*	4 / 11N/ 12E /Sew	*	9 / 11 N/12 E /Sew
Location/Property	:	Kadin Lake/Col. Red M.	:	Miners River/Occ. #2	:	Miners River/Occ #2
KX/MAS/File	:	90 / 165 / A-1	:	--- / --- / A-10	:	--- / --- / A-10
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 1'	:	Ran Chip 2'	:	Chip 2'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:	265		:			:			
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*	70		*	3		*	4		
: Copper	:	70000		:	360		:	165		
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*			<0.005*			<0.005*	0.10		
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*	240		*	20500		*	20500		
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:	3		:	3		:	2		
* Nickel	*	25		*	7		*	11		
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:			8.9:			1.7	37.5		
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*	<5		*			*			
* Titanium	*			*			*			
* Tungsten	*	11		*			*			
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:	2550		:	160		:	3800		
* Zirconium	*			*			*			

Sample Number/Year	:	7931 / 82	:	7945 / 82	:	7946 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage/ A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	8 /11 N/ 12 E/Sew	*	3 /11 N/ 12E /Sew	*	3 / 11 N/ 12E /Sew
Location/Property	:	Miners River/Occ. #2	:	Wells Bay/Occ. #3	:	Wells Bay/Occ. #3
KX/MAS/File	:	--- / --- / A-10	:	--- / --- / A-7	:	--- / --- / A-7
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 3'	:	Chip 4'	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:			:	:			:	:			
: Arsenic	:			:	:	1250		:	:	11000		
* Barium	*			*	*			*	*			
: Boron	:			:	:			:	:			
: Calcium	:			:	:			:	:			
* Chromium	*			*	*			*	*			
* Cobalt	*		4	*	*	2		*	*	9		
: Copper	:		1050	:	:	77		:	:	115		
: Fluorine	:			:	:			:	:			
: Gallium	:			:	:			:	:			
* Germanium	*			*	*			*	*			
* Gold	*		0.21	*	*			<0.005*	*			<0.005
: Iron	:			:	:			:	:			
: Lanthanum	:			:	:			:	:			
* Lead	*		1300	*	*	3750		*	*	20000		
* Manganese	*			*	*			*	*			
: Magnesium	:			:	:			:	:			
: Molybdenum	:		3	:	:	<2		:	:	2		
* Nickel	*		8	*	*	2		*	*	10		
* Phosphorous	*			*	*			*	*			
: Scandium	:			:	:			:	:			
: Silver	:		6.4	:	:			0.7:	:			2.5
* Silicon	*			*	*			*	*			
* Sodium	*			*	*			*	*			
* Strontium	*			*	*			*	*			
* Tin	*			*	*	6		*	*	70		
* Titanium	*			*	*			*	*			
* Tungsten	*			*	*	<5		*	*	<5		
: Vanadium	:			:	:			:	:			
: Yttrium	:			:	:			:	:			
: Zinc	:		8900	:	:	4300		:	:	15000		
* Zirconium	*			*	*			*	*			

Sample Number/Year	:	7947 / 82	:	7948 / 82	:	7951 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage/ A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	3 /11 N/ 12E /Sew	*	3 /11 N/12E /Sew	*	3 /11 N/ 12E /Sew
Location/Property	:	Wells Bay/Occ #3	:	Wells Bay/Occ #3	:	Wells Bay/Occ. #3
KX/MAS/File	:	--- / --- / A-7	:	--- / --- / A-7	:	--- / --- / A-7
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 1'	:	Grab	:	Diamond Drill Hole 2'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			:
: Arsenic	:		360	:		1100	:		11	:
* Barium	*			*			*			*
: Boron	:			:			:			:
: Calcium	:			:			:			:
* Chromium	*			*			*			*
* Cobalt	*		<1	*		5	*		6	*
: Copper	:		16	:		260	:		59	:
: Fluorine	:			:			:			:
: Gallium	:			:			:			:
* Germanium	*			*			*			*
* Gold	*		0.06	*		0.09	*		<0.03	*
: Iron	:			:			:			:
: Lanthanum	:			:			:			:
* Lead	*		125	*		530	*		32	*
* Manganese	*			*			*			*
: Magnesium	:			:			:			:
: Molybdenum	:		<2	:		2	:		4	:
* Nickel	*		8	*		6	*		21	*
* Phosphorous	*			*			*			*
: Scandium	:			:			:			:
: Silver	:		1.9	:		4.3	:		0.6	:
* Silicon	*			*			*			*
* Sodium	*			*			*			*
* Strontium	*			*			*			*
* Tin	*		<5	*		44	*		<5	*
* Titanium	*			*			*			*
* Tungsten	*		<5	*		<5	*		5	*
: Vanadium	:			:			:			:
: Yttrium	:			:			:			:
: Zinc	:		93	:		37000	:		265	:
* Zirconium	*			*			*			*

Sample Number/Year	: 7952 / 82	: 7953 / 82	: 7954 / 82
Material Type	: SL/SS/CG	: SL/SS/CG	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-1	* Anchorage/ A-1	* Anchorage / A-1
Sec/T/R/Mer	* 3 /11 N/12E /Sew	* 3 /11 N/12E /Sew	* 3 / 11 N/ 12E /Sew
Location/Property	: Wells Bay/Occ. #3	: Wells Bay/ Occ. #3	: Wells Bay/ Occ. #3
KX/MAS/File	: --- / --- / A-7	: --- / --- /A-7	: --- / --- / A-7
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	:Diamond Drill Hole 1'	: Diamond Drill Hole 1'	: Diamond Drill Hole 1'
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	44	:	:	690	:	:	360	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	4	*	*	<1	*	*	3	*
: Copper	:	27	:	:	76	:	:	36	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	<0.03	*	*	0.05	*	*	0.08	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	74	*	*	215	*	*	4300	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	3	:	:	2	:	:	4	:
* Nickel	*	16	*	*	8	*	*	8	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	0.8	:	:	2.45	:	:	10.8	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	21	*	*	5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	<5	*	*	<5	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	6200	:	:	4000	:	:	3350	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	:	7955 / 82	:	7956 / 82	:	7957 / 82
Material Type	:	SL/SS/CG	:	Maf Volc	:	Maf Volc
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage/A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	3 /11 N/ 12E /Sew	*	14 /11 N/12E /Sew	*	14 / 11 N/ 12E /Sew
Location/Property	:	Wells Bay/ Occ. #3	:	Long Bay/Occ #1	:	Long Bay/ Occ. #1
KX/MAS/File	:	--- / --- / A-7	:	--- / --- / A-4	:	--- / --- / A-4
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Diamond Drill Hole 1'	:	Grab	:	Chip 2'
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		1850	:		67	:		47	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		2	*		3	*		23	
: Copper	:		78	:		18	:		175	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*			<0.005*		<0.03	*		<0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		16500	*		76	*		10	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		3	:		4	:		10	
* Nickel	*		6	*		10	*		39	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:			4.6:		0.6	:		0.4	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		32	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		<5	*		8	*		23	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		46000	:		92	:		635	
* Zirconium	*			*			*			

Sample Number/Year	: 7958 / 82	: 7959 / 82	: 7960 / 82
Material Type	: Sed Rk/Q	: SL/SS/CG	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage / A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/T/R/Mer	* 4 / 11 N/ 12E / Sew	* 4 / 11 N/ 12E / Sew	* 4 / 11 N/ 12E / Sew
Location/Property	: Miners River/Occ. #2	: Miners River/Occ. #2	: Miners River/ Occ. #2
KX/MAS/File	: --- / --- / A-10	: --- / --- / A-10	: --- / --- / A-10
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Diamond Drill Hole 2'	: Diamond Drill Hole	: Diamond Drill Hole
	*	* 0.67'	* 0.75'

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	400	:	:	190	:	:	<10	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	9	*	*	7	*	*	5	*
: Copper	:	20	:	:	13	:	:	28	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	0.06	*	*	0.06	*	*	<0.03	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	320	*	*	165	*	*	275	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	4	:	:	5	:	:	3	:
* Nickel	*	17	*	*	14	*	*	22	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	1.5	:	:	0.8	:	:	2.8	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	<5	*	*	<5	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	15000	:	:	5200	:	:	9300	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	:	7961 / 82	:	7962 / 82	:	7963 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	4 / 11 N/12E /Sew	*	4 / 11 N/ 12E /Sew	*	4 / 11 N/ 12E /Sew
Location/Property	:	Miners River/Occ. #2	:	Miners River/ Occ. #2	:	Miners River/Occ. #2
KX/MAS/File	:	--- / --- / A-10	:	--- / --- / A-10	:	--- / --- / A-10
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Diamond Drill Hole	:	Diamond Drill Hole .9'	:	Diamond Drill Hole
	*	0.5'	*		*	0.75'

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		<10	:		<10	:		23	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		6	*		6	*		9	
: Copper	:		26	:		23	:		19	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		<0.03	*		<0.03	*		<0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		285	*		390	*		400	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		4	:		4	:		5	
* Nickel	*		14	*		17	*		19	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		0.8	:		0.8	:		0.6	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		11	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		3600	:		1900	:		1950	
* Zirconium	*			*			*			

Sample Number/Year	: 7964 / 82	: 7965 / 82	: 7966 / 82
Material Type	: SL/SS/CG	: SL/SS/CG	: SL/SS/CG
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage/ A-1	* Anchorage / A-1	* Anchorage / A-1
Sec/T/R/Mer	* 4 / 11N/ 12E /Sew	* 4 / 11N/ 12E /Sew	* 4 / 11 N/ 12E /Sew
Location/Property	: Miners Bay/Occ. #2	: Miners River/Occ.#2	: Miners River/Occ. #2
KX/MAS/File	: --- / --- / A-10	: --- / --- / A-10	: --- / --- / A-10
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Diamond Drill Hole	:Diamond Drill Hole	: Diamond Drill Hole
	* 0.58'	* 0.58'	* 0.58'

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	<10	:	:	<10	:	:	34	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	9	*	*	7	*	*	6	*
: Copper	:	28	:	:	27	:	:	16	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
: Gold	*	<0.03	*	*	<0.03	*	*	<0.03	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	990	*	*	1000	*	*	435	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	3	:	:	4	:	:	3	:
* Nickel	*	18	*	*	17	*	*	11	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	1.2	:	:	1.3	:	:	1.3	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	<5	*	*	<5	*	*	<5	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	3700	:	:	7500	:	:	8500	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	:	7967 / 82	:	7968 / 82	:	7969 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	SL/SS/CG
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage /A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	4 / 11N/ 12E /Sew	*	4 /11 N/ 12E /Sew	*	4 / 11 N/ 12E /Sew
Location/Property	:	Miners River/Occ. #2	:	Miners River/Occ. #2	:	Miners River/Occ. #2
KX/MAS/File	:	--- / --- / A-10	:	--- / --- / A-10	:	--- / --- / A-10
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Diamond Drill Hole	:	Diamond Drill Hole	:	Diamond Drill Hole 1'
	*	0.42'	*	0.75'	*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		40	:		7000	:		11500	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		9	*		7	*		15	
: Copper	:		150	:		120	:		52	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.03	*		0.27	*		0.93	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		4000	*		4200	*		165	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		2	:		2	:		<2	
* Nickel	*		14	*		10	*		15	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		7.8	:		6.1	:		2.8	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		<5	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		68000	:		7300	:		96000	
* Zirconium	*			*			*			

Sample Number/Year	:	7970 / 82	:	7971 / 82	:	7972 / 82
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	Maf Volc
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	4 / 11N/ 12E /Sew	*	4 / 11N/ 12E /Sew	*	14 / 11 N/ 12E /Sew
Location/Property	:	Miners River/ Occ. #2	:	Miners River/Occ. #2	:	Long Bay/Occ. #1
KX/MAS/File	:	--- / --- / A-10	:	--- / --- / A-10	:	--- / --- / A-4
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Diamond Drill Hole	:	Diamond Drill Hole	:	Chip 6'
	*	0.5'	*	0.5'	*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		2000	:		4400	:		57	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		12	*		77	*		13	
: Copper	:		23	:		180	:		60	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.57	*		0.30	*		<0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		55	*		9900	*		650	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		<2	:		<2	:		6	
* Nickel	*		10	*		11	*		21	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		1.9	:		9.3	:		0.7	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*		<5	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		118000	:		35000	:		1200	
* Zirconium	*			*			*			

Sample Number/Year	:	7973 / 82	:	7974 / 82	:	7976 / 82
Material Type	:	Maf Volc	:	Maf Volc	:	Maf Volc
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage/ A-1	*	Anchorage/ A-1
Sec/T/R/Mer	*	14 / 11N/ 12E /Sew	*	14 /11 N/ 12E /Sew	*	15 / 11 N/12 E /Sew
Location/Property	:	Long Bay/Occ. #1	:	Long Bay/Occ. #1	:	Long Bay/Occ. #1
KX/MAS/File	:	--- / --- / A-4	:	--- / --- / A-4	:	--- / --- / A-4
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 3'	:	Chip 3'	:	Grab
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:			:	:			:	:			
: Arsenic	:		16	:	:		<10	:	:		51	
* Barium	*			*	*			*	*			
: Boron	:			:	:			:	:			
: Calcium	:			:	:			:	:			
* Chromium	*			*	*			*	*			
* Cobalt	*		21	*	*		29	*	*		6	
: Copper	:		51	:	:		115	:	:		230	
: Fluorine	:			:	:			:	:			
: Gallium	:			:	:			:	:			
* Germanium	*			*	*			*	*			
* Gold	*		<0.03	*	*		<0.03	*	*		0.4	
: Iron	:			:	:			:	:			
: Lanthanum	:			:	:			:	:			
* Lead	*		<1	*	*		51	*	*		1900	
* Manganese	*			*	*			*	*			
: Magnesium	:			:	:			:	:			
: Molybdenum	:		<2	:	:		3	:	:		2	
* Nickel	*		16	*	*		53	*	*		11	
* Phosphorous	*			*	*			*	*			
: Scandium	:			:	:			:	:			
: Silver	:		0.3	:	:		0.6	:	:		9.5	
* Silicon	*			*	*			*	*			
* Sodium	*			*	*			*	*			
* Strontium	*			*	*			*	*			
* Tin	*		5	*	*		<5	*	*		<5	
* Titanium	*			*	*			*	*			
* Tungsten	*		<5	*	*		<5	*	*		12	
: Vanadium	:			:	:			:	:			
: Yttrium	:			:	:			:	:			
: Zinc	:		9000	:	:		17500	:	:		1850	
* Zirconium	*			*	*			*	*			

Sample Number/Year	:	7977 / 82	:	7978 / 82	:	7979 / 82
Material Type	:	Sulfides	:	Quartz	:	Maf Volc
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage / A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	15 /11 N/12E /Sew	*	15 /11 N/ 12E /Sew	*	14 / 11 N/ 12E /Sew
Location/Property	:	Long Bay/Occ. #1	:	Long Bay/Occ. #1	:	Long Bay/Occ. #1
KX/MAS/File	:	--- / --- / A-4	:	--- / --- / A-4	:	--- / --- / A-4
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Grab	:	Chip 1'	:	Chip 2'
	*		*		*	

Element		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay		E. Sp	AA/Wet	Assay
: Aluminum	:			:	:			:	:			
: Arsenic	:		680	:	:		71	:	:		16000	
* Barium	*			*	*			*	*			
: Boron	:			:	:			:	:			
: Calcium	:			:	:			:	:			
* Chromium	*			*	*			*	*			
* Cobalt	*		4	*	*		10	*	*		110	
: Copper	:		14	:	:		47	:	:		190	
: Fluorine	:			:	:			:	:			
: Gallium	:			:	:			:	:			
* Germanium	*			*	*			*	*			
* Gold	*		0.29	*	*		0.09	*	*		0.03	
: Iron	:			:	:			:	:			
: Lanthanum	:			:	:			:	:			
* Lead	*		25	*	*		4	*	*		1400	
* Manganese	*			*	*			*	*			
: Magnesium	:			:	:			:	:			
: Molybdenum	:		<2	:	:		2	:	:		6	
* Nickel	*		2	*	*		17	*	*		16	
* Phosphorous	*			*	*			*	*			
: Scandium	:			:	:			:	:			
: Silver	:		3.7	:	:		8.2	:	:		2.2	
* Silicon	*			*	*			*	*			
* Sodium	*			*	*			*	*			
* Strontium	*			*	*			*	*			
* Tin	*		<5	*	*		<5	*	*		8	
* Titanium	*			*	*			*	*			
* Tungsten	*		6	*	*		15	*	*		<5	
: Vanadium	:			:	:			:	:			
: Yttrium	:			:	:			:	:			
: Zinc	:		36	:	:		39	:	:		2100	
* Zirconium	*			*	*			*	*			

Sample Number/Year	:	7980 / 82	:	7981 / 82	:	7982 / 82
Material Type	:	Maf Volc	:	Maf Volc	:	Fe1 Plut
Rock Type	:	Metased	:	Metased	:	Metased
Rock Age	*	Tertiary	*	Tertiary	*	Tertiary
Quad 4 mile/1 mile	*	Anchorage/ A-1	*	Anchorage/ A-1	*	Anchorage / A-1
Sec/T/R/Mer	*	14/ 11N/ 12E /Sew	*	14 /11 N/ 12E /Sew	*	14 / 11 N/ 12E /Sew
Location/Property	:	Long Bay/Occ. #1	:	Long Bay/Occ. #1	:	Long Bay/Occ. #1
KX/MAS/File	:	--- / --- / A-4	:	--- / --- / A-4	:	--- / --- / A-4
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	*	Grab	*	Grab	*	Grab

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		225	:		13	:		<10	
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		138	*		18	*		4	
: Copper	:		440	:		60	:		12	
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		<0.03	*		<0.03	*		<0.03	
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		10	*		5	*		19	
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		<2	:		4	:		<2	
* Nickel	*		15	*		29	*		8	
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		0.5	:		0.1	:		0.3	
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*		<5	
* Titanium	*			*			*			
* Tungsten	*		14	*		<5	*		8	
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		245	:		180	:		86	
* Zirconium	*			*			*			

Sample Number/Year	: 7983 / 82	: 7984 / 82	: 7985 / 82
Material Type	: Maf Volc	: Stream Sed	: Maf Volc
Rock Type	: Metased	: Metased	: Metased
Rock Age	* Tertiary	* Tertiary	* Tertiary
Quad 4 mile/1 mile	* Anchorage/ A-1	* Anchorage/ A-1	* Anchorage / A-1
Sec/T/R/Mer	* 14 /11 N/ 12E /Sew	* 23 /11 N/12 E /Sew	* 23 / 11 N/ 12E /Sew
Location/Property	: Long Bay/Occ. #1	: Long Bay/Occ. #1	: Long Bay/Occ. #1
KX/MAS/File	: --- / --- / A-4	: --- / --- / A-4	: --- / --- / A-4
Proj. no./Sub.	: 1219/SOUND	: 1219/SOUND	: 1219/SOUND
Sample Type	: Grab	: Stream Sediment	: Grab
	*	*	*

Element	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:		:	:		:	:		:
: Arsenic	:	<10	:	:	33	:	:	<10	:
* Barium	*		*	*		*	*		*
: Boron	:		:	:		:	:		:
: Calcium	:		:	:		:	:		:
* Chromium	*		*	*		*	*		*
* Cobalt	*	33	*	*	12	*	*	25	*
: Copper	:	165	:	:	37	:	:	165	:
: Fluorine	:		:	:		:	:		:
: Gallium	:		:	:		:	:		:
* Germanium	*		*	*		*	*		*
* Gold	*	<0.03	*	*	<0.03	*	*	<0.03	*
: Iron	:		:	:		:	:		:
: Lanthanum	:		:	:		:	:		:
* Lead	*	16	*	*	11	*	*	285	*
* Manganese	*		*	*		*	*		*
: Magnesium	:		:	:		:	:		:
: Molybdenum	:	14	:	:	2	:	:	14	:
* Nickel	*	32	*	*	27	*	*	22	*
* Phosphorous	*		*	*		*	*		*
: Scandium	:		:	:		:	:		:
: Silver	:	0.2	:	:	0.1	:	:	<0.1	:
* Silicon	*		*	*		*	*		*
* Sodium	*		*	*		*	*		*
* Strontium	*		*	*		*	*		*
* Tin	*	<5	*	*	<5	*	*	<5	*
* Titanium	*		*	*		*	*		*
* Tungsten	*	<5	*	*	<5	*	*	16	*
: Vanadium	:		:	:		:	:		:
: Yttrium	:		:	:		:	:		:
: Zinc	:	1650	:	:	185	:	:	355	:
* Zirconium	*		*	*		*	*		*

Sample Number/Year	:	7997 / 82	:	7998 / 82	:	/
Material Type	:	SL/SS/CG	:	SL/SS/CG	:	
Rock Type	:	Metased	:	Metased	:	
Rock Age	*	Tertiary	*	Tertiary	*	
Quad 4 mile/1 mile	*	Anchorage / A-1	*	Anchorage / A-1	*	/
Sec/T/R/Mer	*	11 / 9 S/ 11W /CR	*	11 / 9 S/ 11 W/CR	*	/ N/ /Sew
Location/Property	:	Kadin Lake/Col. Red M.:	:	Kadin Lake/Col. Red.M.:	:	
KX/MAS/File	:	90 / 165 / A-1	:	90 / 165 / A-1	:	/ /
Proj. no./Sub.	:	1219/SOUND	:	1219/SOUND	:	1219/SOUND
Sample Type	:	Chip 4'	:	Chip 4'	:	
	*		*		*	

Element		E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay	E. Sp	AA/Wet	Assay
: Aluminum	:			:			:			
: Arsenic	:		295	:		130	:			
* Barium	*			*			*			
: Boron	:			:			:			
: Calcium	:			:			:			
* Chromium	*			*			*			
* Cobalt	*		29	*		12	*			
: Copper	:		55000	:		1200	:			
: Fluorine	:			:			:			
: Gallium	:			:			:			
* Germanium	*			*			*			
* Gold	*		0.03	*		0.03	*			
: Iron	:			:			:			
: Lanthanum	:			:			:			
* Lead	*		1800	*		4200	*			
* Manganese	*			*			*			
: Magnesium	:			:			:			
: Molybdenum	:		3	:		2	:			
* Nickel	*		28	*		4	*			
* Phosphorous	*			*			*			
: Scandium	:			:			:			
: Silver	:		75.2	:		19.7	:			
* Silicon	*			*			*			
* Sodium	*			*			*			
* Strontium	*			*			*			
* Tin	*		<5	*		<5	*			
* Titanium	*			*			*			
* Tungsten	*		<5	*		<5	*			
: Vanadium	:			:			:			
: Yttrium	:			:			:			
: Zinc	:		6700	:		8700	:			
* Zirconium	*			*			*			