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Mineral Investigations on Chichagof and Baranof Islands, and Vicinity, Southeast Alaska, 1996

Peter E. Bittenbender and Jan C. Still



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Cover Photo

BLM employee inspecting mineralization discovered during reconnaissance sampling in Patterson Bay, southeast Baranof Island, Alaska.

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By Peter E. Bittenbender and Jan C. Still

ABSTRACT

Mineral investigations on Chichagof and Baranof Islands in 1996 represent the second year of a mineral assessment study initiated by the former U. S. Bureau of Mines in 1995. BLM personnel examined the geology along roads near Hoonah, Tenakee Springs, Corner Bay, and Sitkoh Bay. Prospects were mapped and sampled in the Silver Bay area southeast of Sitka. Several sites were revisited following up work accomplished in 1995 at Sea Lion Cove, Halleck Island, the Hill prospect, and Patterson Bay. Copper mineralization was examined in the Mt. Muravief area.

Copper mineralization in massive sulfides pods, felsic schists, and volcanic breccia was discovered in the Mt. Muravief area. The mineralization is associated with greenstone lenses hosted within slate, phyllite, and graywacke of the Jurassic to Cretaceous Sitka Graywacke. The predominant sulfide is pyrrhotite, but chalcopyrite, bornite, and native copper are also present. Samples to date indicate copper grades to 1.6 % over 18 feet, and up to 6.3 % in high grade samples. Low gold and silver values accompany the copper. The mineralization is significant because it is unique on southern Baranof Island and there remains the potential for additional discoveries in the area.

Minor skarn type mineralization was discovered north of Freshwater Bay. This discovery widens the extent of the known skarn mineralization related to a Cretaceous intrusion into carbonate rocks of the Iyoukeen Formation.

Field work in the Silver Bay area clarified the location and condition of historic prospects reported in mining-related literature. Investigations to date indicate that precious metal mineralization in quartz veins is spotty and that the veins are of limited continuity.

TABLE OF ABBREVIATIONS

| | |
|--------|---|
| BLM | United States Department of the Interior, Bureau of Land Management |
| FS | United States Department of Agriculture, Forest Service |
| no(s). | number(s) |
| PGE | platinum-group element(s) |
| ppb | parts per billion |
| ppm | parts per million |
| REE | rare-earth element(s) |
| USGS | United States Geological Survey |
| ° | degrees of azimuth |
| % | percent |

INTRODUCTION

A two-year investigation of the Chichagof-Baranof Islands area was initiated by the U. S. Bureau of Mines in 1995. With the closure of the Bureau of Mines in early 1996, responsibility for the investigation was taken over by the Bureau of Land Management (BLM). Study of the area was undertaken at the request of the USDA, Forest Service (FS) with the intent of conducting a mineral assessment of the area. A mineral assessment includes surveying, mapping, and sampling historic mines, prospects, and occurrences as well as reconnaissance investigations of prospective mineralized areas. The main objective is to determine the type, amount, and distribution of mineral deposits, which assists in evaluating the area's mineral development potential.

BLM personnel released a report on the first year of work completed in the Chichagof-Baranof area in 1996 (Maas and others, 1996). The report includes much introductory material (e.g., land status, previous studies, mining history, and production, general geology, bibliography, etc.) that is not repeated in this report. Interested readers are referred to "Mineral Investigations on Baranof and Chichagof Islands, and Vicinity, Southeast Alaska, 1995" by Maas, Bittenbender, and Still.

This report provides information gathered during field investigations in the Chichagof-Baranof area during 1996. Areas examined include those accessible from the Hoonah road system; the area surrounding Sitka, including the Silver Bay area; and reconnaissance investigations on southern Baranof Island. Brief descriptions of BLM work in these areas is provided along with analytical results from samples collected and a map showing sample locations.

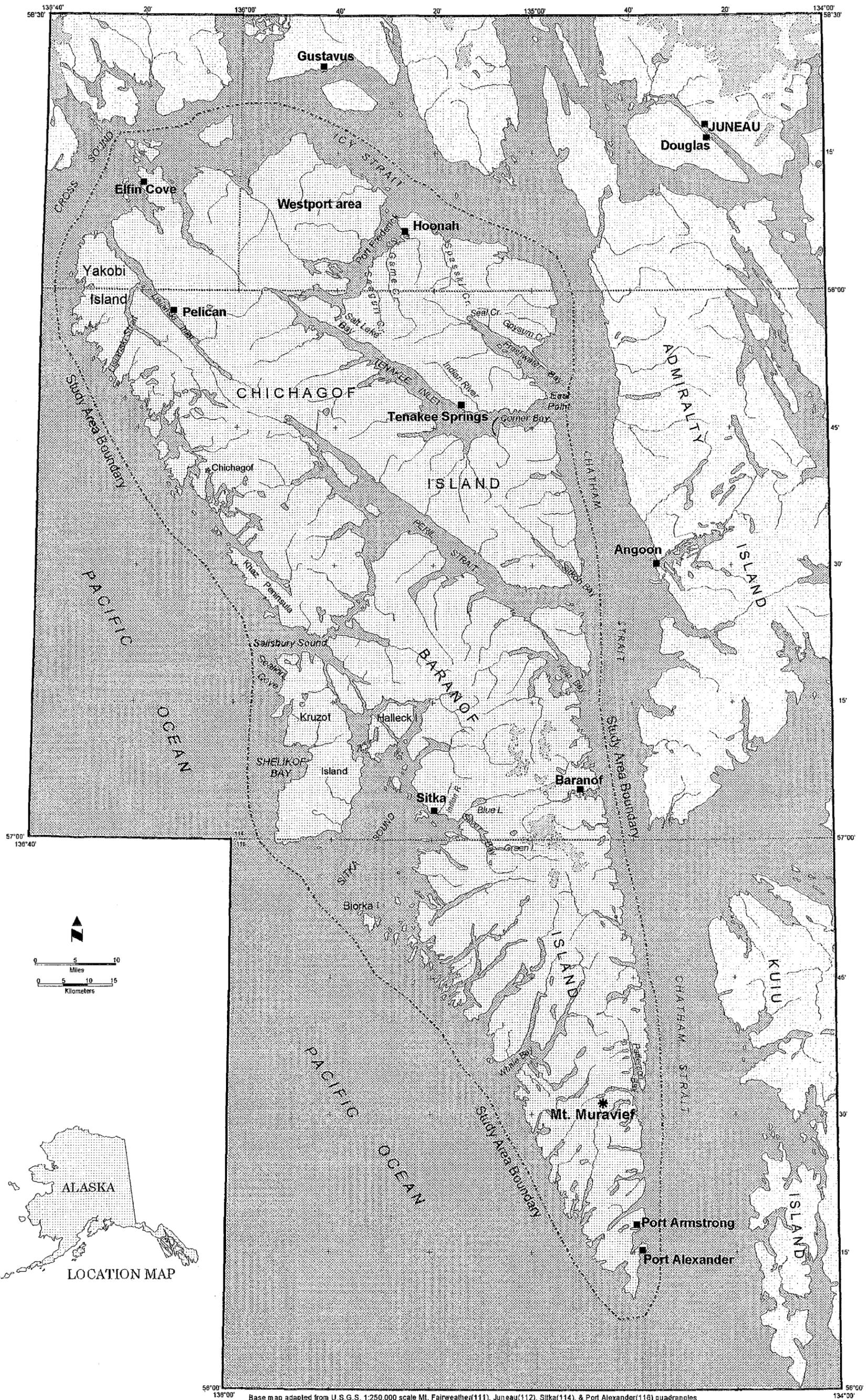
Additional work in the Mt. Muravief area on southern Baranof Island is scheduled for 1997. Results of the 1997 field work will be included in a third and final report on the Chichagof-Baranof area. The final report will summarize the work accomplished by the BLM and Bureau of Mines in the Chichagof-Baranof area and will include reference to the historic West Chichagof area. The final report is scheduled for release in early 1998.

Location and Access

The 1996 study area was confined to Chichagof and Baranof Islands, and adjacent small islands to the west (Fig. 1). These islands form the northern part of the Alexander Archipelago in Southeast Alaska. Sitka is the largest community in the study area and is located about 90 miles southwest of Juneau.

Sitka is the major transportation hub in the area. It is served by commercial jet and the state ferry system. Access to outlying areas can be made by boat, float plane, or helicopter. A limited road system around Sitka allows access to parts of the Silver Bay area. The extensive road system in the Hoonah area was constructed for the timber industry. BLM personnel used all-terrain-vehicles to access mineral occurrences on the road system.

Figure 1. - Location map of the Chichagof-Baranof Islands study area.



Base map adapted from U.S.G.S. 1:250,000 scale Mt. Fairweather(111), Juneau(112), Sitka(114), & Port Alexander(116) quadrangles

ACKNOWLEDGMENTS

The authors wish to thank Kenneth Maas, a geologist with the BLM in Juneau, for his investigation and sampling of mineralization along the road networks in the Hoonah area. The authors would like to thank FS personnel in Hoonah who provided boat transportation on several occasions. Thanks is also extended to the FS in Sitka for use of vehicles on remote road systems in the area. Helicopter service was provided by Coastal Helicopters of Juneau and Mountain Aviation of Sitka. The authors thank Jerry Kouzes, of the BLM office in Anchorage, Alaska, who created the figures for this report.

BUREAU INVESTIGATIONS

BLM investigators concentrated on three areas of the Chichagof-Baranof area in 1996: the Hoonah road system; the Sitka area; and southern Baranof Island, near Mount Muravief. The results of these efforts are discussed in the following sections. Two BLM personnel spent 19 days surveying, mapping, and sampling about 24 different mines, prospects, or occurrences. A total of 195 samples were collected including rock chip, reconnaissance rock chip, and stream sediment samples.

Hoonah Road System

A reconnaissance investigation for mineral occurrences was made along the Hoonah road system for ten days in June, 1996. Road cuts and rock pits were inspected, particularly in areas of favorable geology. Several different road networks in the area were examined including those at Corner Bay, Sitkoh Bay, Salt Lake Bay, Seal Creek, the Indian River near Tenakee, and the Game Creek, Spasski Creek, and Seagull Creek areas south and east of Hoonah. The road system northwest of Port Frederick (the Westport area) was also examined.

There are only a few prospects and occurrences in the Hoonah area, on the northeast side of Chichagof Island. These are concentrated on the east side of the island, near Gypsum Creek and near East Point, on the north side of the mouth of Tenakee Inlet. (Seven days of work in 1995 concentrated on the known occurrences and prospects in the area; see Maas and others, 1996.) The northeast side of Chichagof Island, northeast of Peril Strait and Lisianski Inlet is underlain by rocks assigned to the Alexander terrane (Berg and others, 1978). These rocks consist of Paleozoic sedimentary, intrusive, and volcanic rocks (Loney and others, 1975).

Only minor amounts of mineralization were discovered along the Hoonah road system. In the Westport area, a sample of brecciated, altered argillite of the Point Augusta Formation (Loney and others, 1975) contained 2,930 ppm copper (map no. 1, sample 1242) and a quartz-bearing dike had 1,715 ppm copper (map no. 9, sample 1243). (Map numbers in parentheses refer to Figure 2 and

Table B-1 in Appendix B. Sample numbers refer to Table B-1.) The mineralization was not extensive in either of these occurrences. Several samples of limestone were collected near Flynn Cove, in the Westport area (map nos. 3-7, samples LS4-LS9). Calcium carbonate totals ranged from about 82% to 93%. These totals are not sufficient to encourage development as a carbonate resource. Analytical results from the carbonate samples are presented in Table B-2 in Appendix B.

Skarn mineralization hosting a small amount of copper was found along the Seal Creek road network north of Freshwater Bay (map no. 44). The mineralization is exposed in a 15- by 30-foot road cut. The skarn consists of garnet, epidote, and diopside and contains pyrite, pyrrhotite, and chalcopyrite. The mineralization is found along the contact between limestone of the Iyoukeen Formation and an intrusion of hornblende-biotite adamellite (Loney and others, 1975). A sample of the skarn contained 2,030 ppm copper (map no. 44, sample 1221). Two other skarn occurrences were found along the Seal Creek roads, but they contained little to no sulfides (map nos. 40, 45). The mineralization here is very limited, but BLM personnel found similar sulfide-bearing skarn mineralization along the same intrusive-carbonate contact in the Gypsum Creek area and on the ridge crest between Gypsum Creek and Freshwater Bay, 1.5 to 5.5 miles to the southeast. The skarn at both of these sites contains only minor copper mineralization and appears to be of limited extent. A further description of the Gypsum Creek skarn mineralization and sample results can be found in Maas and others, 1996.

Twenty-one samples were collected of a pegmatite dike in the Salt Lake Bay area and of syenites and other alkalic intrusives in the Kook Lake-Sitkoh Bay area. The samples were analyzed for their rare-earth element (REE) potential. Results indicate economically insignificant REE concentrations. Analytical results are presented in Appendix B, Table B-3.

Sitka Area

Several prospects and occurrences were examined in the Sitka area by BLM personnel in 1996. Gold-bearing quartz veins were examined at Sealion Cove (map no. 73), Halleck Island (map no. 74), the Thetis prospect northeast of Sitka (map no. 75) and at several prospects at the head of Silver Bay (map nos. 76-80). The potential for chrome, copper, and platinum-group elements (PGE) in a magmatic segregation-type deposit was examined at the Hill prospect (map nos. 81-82). Although a few samples indicate relatively high metal values, no specific exploration targets were identified.

Sealion Cove (map no. 73)

Narrow quartz veins are exposed in the intertidal zone near Sealion Cove, on the northwest end of Kruzof Island. BLM personnel revisited the area following the collection of samples with anomalous gold values in 1995. Quartz veins in the area were originally reported by Loney and

others (1963) as containing molybdenite and minor copper. BLM sampling in 1996 revealed very minor copper and molybdenite, but reconfirmed anomalous gold concentrations.

The Sealion Cove quartz veins are narrow, from 0.25 to 0.5 feet in width, are oriented from about 300° to 70°, and have steep dips. They commonly pinch and swell, and anastomose along strike. The veins are exposed for up to 100 feet along strike. They are covered below tidewater in one direction and by vegetation in the other. The quartz veins are exposed for about 200 feet along the shoreline. The veins are hosted by hornfelsed graywacke and generally crosscut felsic dikes that intrude the area. Bedding in the graywacke is oriented about 310°. A brecciated zone in the hosting hornfels includes graywacke clasts and quartz stringers. The zone contains minor pyrrhotite that locally comprises up to 1% to 2% of the rock. There is no obvious structural control to the veining in the area. Small northerly trending faults, with offsets of one to two feet, cut the veins in some places.

The quartz veins contain minor amounts of sulfides including pyrrhotite, arsenopyrite, and chalcopyrite. Vein samples revealed gold values up to 1,810 ppb (sample 1461). One sample of the graywacke hornfels adjacent to the vein contained 2,360 ppb gold and 6,900 ppm arsenic (sample 1460). Higher gold values were generally associated with the higher arsenic values. Samples of the brecciated zone in the hornfels contained very low precious metal values (samples 1462, 1463).

Halleck Island (map no. 74)

BLM personnel revisited the Halleck Island prospect to see if extensions of the shear-hosted gold quartz mineralization could be traced further inland, away from the workings near tidewater. Dense vegetation conceals most of the rock outcrop in the area. One small outcrop of quartz-calcite stringers exposed in a small drainage was sampled (sample 1458). Results indicated very low metal values.

Thetis (map no. 75)

The Thetis prospect is located in Billy Basin, which drains into the Indian River northeast of Sitka. The prospect was first mentioned in a USGS publication dated 1898 (Becker, 1898). The site reportedly consists of two short adits that were driven on a gold-bearing quartz vein. A test mill and sawmill were reportedly built in the area by 1904 (Becker, 1898; Wright and Wright, 1905). No further mention of the property is made after 1905.

BLM personnel located, mapped, and sampled one of the two adits reported at the Thetis prospect. The adit exposes a narrow quartz vein, less than one foot thick, that is concordant with a 350°-striking fault. Also exposed are discontinuous quartz stringers up to six inches thick that are hosted by graywacke. The quartz and surrounding graywacke contain minor pyrite and pyrrhotite. Samples of the quartz vein, stringers, and iron-stained graywacke contained very low metal values (samples 1400-1402, 1450-1453).

Silver Bay

Four prospects were examined at the head of Silver Bay in 1996: Green Lake, Bonanza #1, Wicked Fall, and Free Gold (Fig. 3). Historic prospecting in the area was directed at gold-bearing quartz veins. No significant mineralization was discovered at any of the four prospects examined.

Green Lake (map nos. 76-77)

BLM personnel located a caved adit near the outlet of Green Lake (map no. 77). Several authors reported a 300- to 400-foot adit in the area that was part of the Green Lake group of claims (Nelson, 1931; Roehm, 1938). Mineralization was discovered here in 1912 and developed by adits and trenches until about 1928. Free gold was reportedly found at the property, but the mineralization was considered too spotty to sustain development (Nelson, 1931; Roehm, 1938).



Figure 3. Aerial view of the head of Silver Bay. Green Lake on lower left. View to southeast.

Quartz on the dump of the caved Green Lake adit is iron stained and contains minor pyrite. Fragments indicate the quartz was hosted by slate, graywacke, and greenstone. Ribbons of this country rock are common in the quartz pieces. Samples of the quartz returned very low precious metal values (samples 1417, 1465, 1466).

Bonanza #1 (map no. 78)

Little information is available on the adit located near tidewater at the head of Silver Bay. The adit is marked on an unpublished claim map of the Edgcumbe Exploration Company that dates from the 1940's. It is located on the Bonanza #1 claim of the claim map. The BLM mapped and sampled the adit. The adit follows a shear in black slate that trends 310° , which is subparallel to the foliation of the slate. Only a few quartz stringers are visible in the adit. Samples from the adit contained very low precious metal values (samples 1403, 1404, 1454). One sample of quartz stringers and black slate (sample 1404) contained 11,350 ppb mercury. Elsewhere in Silver Bay, high mercury values have been associated with higher gold values (Maas and others, 1996).

Wicked Fall (map no. 79)

The Wicked Fall prospect is located about one and a half miles southeast of the head of Silver Bay. It is marked on a USGS Bulletin map from 1912 (Knopf, 1912), but no other information is provided. The site is referred to as the 'Wicked Water Fall' and is marked on an unpublished claim map of the Edgcumbe Exploration Company from the 1940's. This map indicates two adits at the site, but BLM personnel were only able to locate one adit. The other is likely caved and buried beneath alluvium along the banks of the creek that flows through the property.

The Wicked Fall adit is 20 feet long and was driven to undercut quartz veins and stringers that are located along a northwest-trending fault. The adit also cuts northeast-trending, steeply dipping quartz stringers in the area. The veins pinch and swell along strike and are limited in extent. The veins and stringers are hosted by black slate, but graywacke is the predominant rock type in the area. The generally milky quartz is iron stained in places and commonly includes ribbons and fragments of slate. Sparse pyrite and arsenopyrite were the only sulfides detected in the quartz. Samples across the vein exposed in the adit contained 90 to 130 ppb gold (samples 1405-1406). A select sample of iron stained quartz and black slate contained 280 ppb gold (sample 1407). Each of the samples had elevated arsenic values; sample 1407 contained 5,390 ppm arsenic.

Free Gold (map no. 80)

The Free Gold prospect at the head of Silver Bay is mentioned in a USGS report as early as 1904, but little of its history is known. It is marked on an unpublished claim map of the Edgcumbe Exploration Company from the 1940's, which shows an adit at the site. The adit is reported to be over 200 feet in length and to include the best of the Edgcumbe Exploration Company's prospects (J. Burgess, personal communication). BLM personnel were unable to locate evidence of an adit in the area, possibly due to the snow levels. The BLM sampled quartz from a trench dump and

discontinuous quartz veins and stringers in the area. The veins and stringers are hosted in graywacke and contain minor pyrite. Precious metal values are very low (samples 1408, 1455). The highest gold value was 45 ppb gold across 4.1 feet (sample 1408).

Hill prospect (map nos. 81-82)

BLM personnel collected several samples from the magmatic segregation-type deposit at the Hill prospect. The area consists of mafic intrusive rocks, particularly dunite and pyroxenite. The dunite exposures have been prospected for chromite. During 1996, the BLM sampled exposures of sulfide-bearing pyroxenite for their copper, nickel, and platinum-group element potential. Sulfides include chalcopyrite, pyrrhotite, and pyrite. The samples contained from 12 to 3,050 ppm copper and from 7 to 1,100 ppm nickel (samples 1409-1410, 1456-1457). The sample with the highest copper value (sample 1409) also contained the highest PGE value of 55 ppb platinum and 68 ppb palladium. The remaining samples contained up to 5 ppb platinum and 10 ppb palladium.

South Baranof Island

BLM personnel examined two areas of mineralization on South Baranof Island in 1996; the porphyry copper-gold potential at Patterson Bay (map nos. 83-85), and massive and disseminated sulfides at Mt. Muravief (map nos. 98-102). The work in Patterson Bay was to follow up anomalous mineralization found during reconnaissance sampling in 1995. The Mt. Muravief work resulted from a literature search of Bureau of Mines records, which indicated that copper mineralization had been found in the area during the 1960's.

Patterson Bay (map nos. 83-85)

Several float samples collected in the Patterson Bay area in 1995 revealed the presence of anomalous gold and copper mineralization. Follow-up work during 1996 was aimed at finding the source of the anomalies and additional mineralization. BLM personnel examined the ridge to the east of Patterson Bay and discovered minor copper mineralization associated with faults in a tonalite intrusive and near a fault contact between the tonalite and hosting greenstone.

The mineralization discovered in 1996 consists of chalcopyrite in small blebs and very thin veinlets in sheared, silicified tonalite. The mineralization is restricted to a narrow fault zone less than two feet thick that extends for up to 60 feet along strike. Samples contained from 534 to 2,150 ppm copper and 20 ppb gold (samples 1422, 1468).

One of the samples collected by the BLM in 1995 had 970 ppb gold and 4,820 ppm arsenic (Maas and others, 1996). The low gold and arsenic values of this study's samples indicate that the source of the float with anomalous gold sampled in 1995 has not yet been discovered.

Mt. Muravief (map nos. 98-102)

Copper mineralization in the Mt. Muravief area, on southern Baranof Island, was apparently discovered in 1969. At that time a prospector brought some pieces of ore to the Bureau of Mines office in Juneau for sulfide mineral identification. A petrographic report of that ore, found in property files from the area, indicated the presence of chalcocite and bornite. The report described "massive chalcocite from stringers" and other outcrops of copper-bearing rocks on the slopes of Mt. Muravief (W.L. Gnagy, unpublished petrographic report).

The Mt. Muravief area is located within the Chugach terrane (Monger and Berg, 1987). On southern Baranof Island, the terrane is composed of the Sitka Graywacke (Loney and others, 1975), which represents a Cretaceous accretionary wedge complex of flysch and melange (Plafker and others, 1977). The area was mapped by Loney and others (1975) as lineated schistose graywacke and slate, where the Sitka Graywacke has undergone dynamothermal metamorphism.

The country rock in the Mt. Muravief area consists of interlayered graywacke and slate or phyllite. In places the layering of the two rock types is distinct; in others, ductile deformation has transposed bedding such that stretched, rounded clasts of graywacke are found in a slate matrix. The rock is well foliated with foliation generally striking to the northwest. Iron staining is common on weathered surfaces. The staining is probably derived from pyrrhotite that commonly occurs in elongate lenses parallel to foliation.

BLM personnel located copper mineralization in three main areas on the slopes of Mt. Muravief; 1) in a cirque on the southwest side of the mountain (Fig. 4), 2) on a ridge extending from the peak to the west (Figs. 5, 6), and 3) on the north face of the mountain. In each of these areas the mineralization is associated with lenses of greenstone within the surrounding metasedimentary rocks. The lenses are up to 100 feet wide and extend up to 400 feet along strike. The lenses strike generally to the northwest and dip steeply to the southwest. They are elongate parallel to the foliation in the metasediments. In each of the three areas mentioned, the greenstone lenses are surrounded by slate or phyllite within the predominant graywacke of the area. The contacts between greenstone and metasediment appear to be depositional, but may also be fault contacts. The greenstone lenses have been more brittly deformed, whereas the surrounding country rock shows evidence of more ductile deformation. Quartz veins filling fractures are common in the greenstone, but generally absent in the graywacke.

The copper mineralization in the area is associated with felsic, quartz-biotite schists within the greenstone lenses. The schists appear to have been altered, possibly by the mineralizing fluids. Alternatively, they may represent different phases of volcanic activity from the greenstones. The schists contain quartz, biotite, sericite, and amphibole, plus sulfides. The sulfides, mainly pyrrhotite and chalcopyrite, occur in seams parallel to the foliation and in patches that cut across the foliation. Along the west ridge of Mt. Muravief, massive lenses of sulfide occur within the band of felsic schists. The lenses are up to three feet wide and extend up to ten feet along strike.

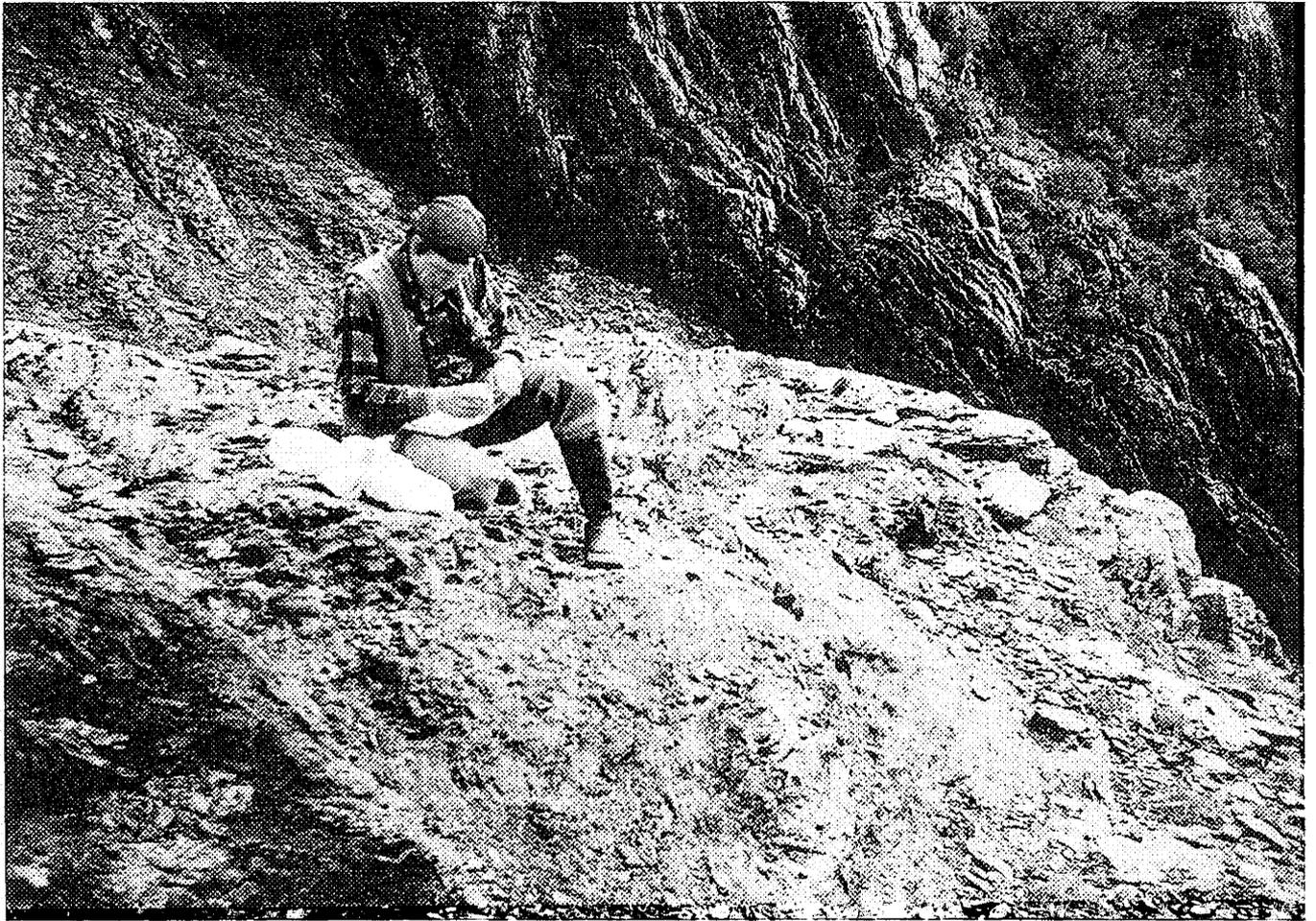


Figure 4. BLM worker examining disseminated sulfide mineralization in felsic schist at the southwest cirque exposure, Mt. Muravief.



Figure 5. Aerial view of the west ridge exposure, Mt. Muravief. View is to the northeast.



Figure 6. Close-up view of the iron stained massive sulfide exposure, west ridge, Mt. Muravief.

The lenses are parallel to the surrounding foliation; they strike about 315° and dip about 60° to the southwest. Sulfides include pyrrhotite, chalcopyrite, sphalerite, and bornite. A few small specks of native copper were also found within a massive sulfide lens.

Copper mineralization in float was found below the greenstone lens in the southwest cirque of Mt. Muravief. BLM personnel found a 12-foot by 8-foot by 3-foot boulder composed of metamorphosed volcanic breccia in which coarse-grained chalcopyrite and pyrrhotite is found in the matrix. Chalcopyrite is also disseminated in the fine- to very fine-grained metavolcanic clasts in the conglomerate.

In several locations on the north face of Mt. Muravief malachite has leached out of the greenstone and stains the rock surfaces. The source of the copper stain is chalcopyrite that is disseminated in the greenstone, concentrated along fracture surfaces, and forming patches and seams parallel to the foliation. Samples of this copper-bearing greenstone contained up to 3,900 ppm copper and 110 ppb gold (map no. 100, sample 1444).

BLM personnel collected twenty samples from the three mineralized areas on Mt. Muravief. The samples indicate copper grades up to 6.33% (map no. 102, sample 1473), gold to 600 ppb (map no. 101, sample 1433), silver to 14.5 ppm (map no. 102, sample 1474), and zinc to 2,200 ppm (map no. 102, sample 1474). A sample across 18 feet of the mineralized felsic schist on the west ridge returned 1.63 % copper, 3.6 ppm silver, and 560 ppm zinc (map no. 102, sample 1427). The copper grades indicated by the sampling are lower than would be expected by examining the massive sulfide lenses. However, closer examination indicates that the predominant mineral is pyrrhotite and that the chalcopyrite in the samples is mottled and contains more than 50% of very fine-grained inclusions of unidentified material.

Two miles west-southwest of Mt. Muravief, BLM personnel located another lens of greenstone that is about 100 feet wide and extends about 400 feet up the slope of a mountain. Within the predominantly greenstone lens are sections of interlayered greenstone and phyllite/graywacke with layers about five to ten feet wide. In the interlayered sections the greenstone contains minor chalcopyrite. One sample was collected of iron-stained, silicified greenstone that contained 1,300 ppm copper (map no. 120, sample 1512).

Thirty-one stream sediment samples (map nos. between 86 and 121) were collected in and around the Mt. Muravief area. The intent of the stream sampling program was to identify the geochemical character of the copper mineralization in the area and to compare it with geochemical data to be collected elsewhere on southern Baranof Island. Further stream sediment sampling on southern Baranof is scheduled for 1997.

Copper mineralization was examined in several locations in the Mt. Muravief area. However, the location of the mineralization described in the literature that led the BLM to the area may not have been located as yet. The petrographic report describes stringers of massive chalcocite; no such mineralization was discovered during 1996.

CONCLUSION

Copper-bearing mineralization was discovered in the Mt. Muravief area on southern Baranof Island following review of Bureau of Mines records dating from the 1960's. Field examination revealed that the mineralization occurs as disseminated and massive sulfides in felsic schist, as coarse-grained patches in volcanic breccia, and disseminated in greenstone. Massive chalcocite stringers mentioned in the Bureau of Mines records have not been found as yet. Further work is also needed to define the genesis of the mineralization. These goals are included in BLM field plans for 1997 as well as a stream sediment sampling program to locate similar mineralization elsewhere on southern Baranof Island.

Minor skarn mineralization was discovered during BLM work along logging road systems in the Hoonah area in 1996. The mineralization is located north of Freshwater Bay on northeastern Chichagof Island. Although ore-grade mineralization was not found, the discovery extends the known skarn occurrence in the area.

BLM work in the Silver Bay area southeast of Sitka further defined the status of the area's historic prospects. Surveying, mapping, and sampling of prospects indicated that quartz veining is discontinuous and hosts spotty gold mineralization.

A crew of two BLM personnel spent 19 days surveying, mapping, and sampling sites in the Chichigof-Baranof area during 1996. In total, 195 samples were collected from about 24 mines, prospects, or occurrences. Additional work in the area is scheduled for 1997 and will be included in a report scheduled for release in early 1998.

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APPENDIX A - SAMPLING AND ANALYTICAL PROCEDURES

Sampling

Several types of rock samples were collected, including continuous chip, grab, representative chip, select, and spaced-chip. **Continuous chip** samples consist of rock fragments taken in a continuous line across an exposure; **grab** samples are collections of rock fragments, some broken from larger pieces, taken more or less at random from an outcrop, from float, or from a dump; **representative chip** samples are rock fragments collected to characterize the rock type or material described in the sample description; **select** samples are grab samples collected from the highest-grade part of a mineralized zone; and **spaced-chip** samples are composed of rock fragments taken at specified intervals across an outcrop.

Stream-sediment samples consist of silt to clay-sized particles found in streams or along stream banks. Metals adsorb to these fine particles, so the samples are used to determine the presence of anomalous metal concentrations in the area drained by the stream.

Analytical Methods and Results

Samples were prepared and subsequently analyzed using both atomic absorption spectrophotometry (AA) and inductively coupled argon plasma spectroscopy (ICP) techniques. Gold was analyzed using a 30 gram sample by fire assay preconcentration followed by an AA finish. Silver, copper, lead, zinc, nickel, cobalt, and molybdenum were usually analyzed by AA techniques. A few samples were analyzed for platinum-group metals using fire-assay techniques followed by an ICP finish. Several samples were analyzed for the same element using two different techniques. The result from the more accurate method is presented in the tables.

Rock samples were dried, crushed, and pulverized to at least minus 100 mesh. A sample weight of 0.5 grams was put into solution using a nitric-aqua-regia leach technique for the AA and ICP analyses.

Limestone samples were analyzed using whole rock methods. Major oxide determinations were made by X-ray fluorescence spectroscopy (XRF) and total carbonate by acid/alkali procedures (CaCO_3 determined by volumetric/titration method ASTM C-25). Each sample was rinsed, dried, and weighed prior to analysis.

Several rock chip samples were analyzed for rare-earth elements (REE) by neutron activation analysis (NAA). The standard sample preparation described above was used for these samples, however no sample dissolution was required.

APPENDIX B - ANALYTICAL RESULTS OF SAMPLES FROM MINES, PROSPECTS, AND OCCURRENCES

Sample data and analytical results are tabulated in Tables B-1 to B-3. In addition to the analytical results, the following are listed in the tables: map number, field sample number, mineral location name, sample type, sample size, sample site and sample description. The results are organized by map numbers, which are displayed on the sample locality map (Fig. 2, in pocket). Analytical results from carbonate sampling are presented in Table B-2. Rare-earth element (REE) sample analyses are given in Table B-3. A list of analytical detection limits is included as Table B-4.

Key to Appendix B tables

All analyses were conducted by a commercial laboratory. Results are presented by chemical element symbol in the following units:

Au, Hg, Pt, Pd - parts per billion (**ppb**);

Ag, Cu, Pb, Zn, Mo, Ni, Co, As, Ba, Be, Bi, Cd, Cr, Ga, La, Mn, P, Sb, Sc, Sr, Tl, U, V, W, Ce, Eu, La, Lu, Nd, Sm, Tb, Th, Yb - parts per million (**ppm**);

Al, Ca, Fe, K, Mg, Na, Ti, oxides, "Loss on Ignition" (LOI), and "Total" carbonate values - **percent**.

Cu analyses in bold and followed by an asterisk (*) are given in **percent**.

Abbreviations

Abbreviations for **sample types** (see page 19 for definitions of sample types):

| <u>Rock Chip</u> | | <u>Stream Sample</u> | |
|------------------|---------------------|----------------------|-----------------|
| C | continuous chip | SS | stream sediment |
| G | grab | | |
| RC | random chip | | |
| Rep | representative chip | | |
| S | select | | |
| SC | spaced chip | | |

Abbreviations for **sample sites**:

| | | | |
|----|-----------|----|----------------------|
| FL | float | RC | rubblecrop |
| MD | mine dump | TP | trench, pit, or cut |
| OC | outcrop | UW | underground workings |

Abbreviations used in the sample descriptions:

| | |
|--------|-----------------------------|
| @ | at |
| adj | adjacent |
| alt | altered |
| arg | argillite |
| aspy | arsenopyrite |
| bt | biotite |
| br | breccia/brecciated |
| calc | calcite |
| cp | chalcopyrite |
| di | diorite |
| dissem | disseminated/disseminations |
| fel | felsic |
| fest | iron stained |
| fg | fine-grained |
| gd | granodiorite |
| gs | greenstone |
| gw | graywacke |
| hem | hematite |
| hnbd | hornblende |
| hn | hornfels |
| ls | limestone |
| mag | magnetite |
| ml | malachite |
| msv | massive |
| pl | phyllite |
| po | pyrrhotite |
| py | pyrite/pyritic |
| qz | quartz |
| sed | sediment |
| sc | schist |
| sil | silicified/siliceous |
| sl | sphalerite |
| sulf | sulfide |
| volc | volcanic |
| w/ | with |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Location | Sam. Type | Sample Size (ft) | Au ppb | Ag ppm | Cu ppm | * % | Pb ppm | Zn ppm | Mo ppm | Ni ppm | Co ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Cr ppm | Fe % | Ga ppm |
|---------|----------|--------------------|-----------|------------------|-----------|-----------|-----------|--------|-----------|-----------|-----------|-----------|-----------|---------|-----------|-----------|-----------|-----------|---------|-----------|-----------|---------|-----------|
| 1 | 1242 | Westport | Rep | | <5 | <2 | 2930 | | <2 | <2 | 1 | 8 | 7 | 0.3 | 2 | 10 | <5 | <2 | 8.79 | <5 | 45 | 2.28 | <10 |
| 2 | 1241 | Westport | Rep | 2 | <5 | <2 | 11 | | 6 | 22 | <1 | 6 | 5 | 0.64 | 12 | 60 | <5 | <2 | >15.00 | <5 | 27 | 3.16 | <10 |
| 2 | 1391 | Westport | S | | <5 | <2 | 54 | | 30 | 52 | <1 | 49 | 20 | 2.74 | 22 | 40 | <5 | <2 | >15.00 | <5 | 47 | 5.11 | <10 |
| 8 | 1395 | Westport | RC | | <5 | <2 | 3 | | 2 | 60 | <1 | 1 | 1 | 0.23 | 2 | 160 | <5 | <2 | 0.15 | <5 | 37 | 3.94 | <10 |
| 9 | 1243 | Westport | Rep | 2 | <5 | <2 | 1715 | | <2 | <2 | <1 | 5 | 4 | 0.24 | <2 | 20 | <5 | <2 | 13.1 | <5 | 28 | 7.73 | <10 |
| 9 | 1392 | Westport | S | | <5 | <2 | 33 | | 6 | 2 | <1 | 46 | 27 | 0.44 | <2 | 10 | <5 | <2 | 9.04 | <5 | 70 | 4.66 | <10 |
| 10 | 1245 | Westport | Rep | 0.7 | <5 | <2 | 22 | | <2 | 2 | <1 | <1 | <1 | 0.09 | 2 | 3660 | <5 | <2 | >15.00 | 0.5 | 5 | 0.49 | <10 |
| 11 | 1394 | Westport | Rep | 5.5 | <5 | <2 | 100 | | <2 | 50 | 8 | 1 | 4 | 1.01 | <2 | 40 | 0.5 | <2 | 1.6 | <5 | 28 | 5.7 | <10 |
| 12 | 1244 | Westport | Rep | 2 | <5 | <2 | 26 | | 12 | 32 | 12 | 6 | 4 | 0.49 | 24 | 20 | <5 | <2 | 0.66 | <5 | 162 | 3.36 | <10 |
| 13 | 1396 | Westport | G | | <5 | <2 | 4 | | <2 | 30 | 3 | 11 | 3 | 0.14 | <2 | 50 | <5 | <2 | 9.89 | <5 | 135 | 2.06 | <10 |
| 14 | 1393 | Westport | S | | <5 | <2 | 25 | | 24 | 20 | 6 | 5 | 4 | 0.29 | 112 | 40 | <5 | <2 | 0.75 | <5 | 96 | 4.72 | <10 |
| 15 | 1210 | Spaski Creek Road | Rep | 15 | <5 | <2 | 30 | | 12 | 196 | <1 | 46 | 28 | 3 | <2 | 90 | 1 | <2 | 2.9 | <5 | 121 | 7.54 | 10 |
| 16 | 1201 | Game Creek Road | Rep | 2 | <5 | <2 | 14 | | 10 | 16 | 6 | <1 | <1 | 0.52 | 10 | 30 | 0.5 | <2 | 0.02 | <5 | 42 | 2.4 | <10 |
| 16 | 1202 | Game Creek Road | Rep | 2 | <5 | <2 | 21 | | 8 | 38 | 6 | 1 | 2 | 0.6 | <2 | 30 | <5 | <2 | 0.18 | <5 | 55 | 3.86 | <10 |
| 16 | 1350 | Game Creek Road | SC | 36 @ 2 | <5 | <2 | 11 | | 10 | 46 | 9 | 1 | 1 | 0.37 | 12 | 60 | <5 | <2 | 1.69 | <5 | 68 | 3.8 | <10 |
| 16 | 1351 | Game Creek Road | Rep | 10 | <5 | <2 | 12 | | 2 | 50 | 4 | <1 | 4 | 0.62 | 6 | 50 | 0.5 | <2 | 2.08 | <5 | 33 | 3.18 | <10 |
| 17 | 1203 | Game Creek Road | Rep | 2 | <5 | <2 | 3 | | 2 | 8 | 5 | 1 | 3 | 0.32 | <2 | 20 | <5 | <2 | 0.09 | <5 | 57 | 2.98 | <10 |
| 17 | 1204 | Game Creek Road | Rep | 2 | 10 | <2 | 9 | | <2 | 2 | 9 | 1 | 9 | 0.28 | <2 | 10 | <5 | <2 | 0.26 | <5 | 77 | 3.6 | <10 |
| 17 | 1205 | Game Creek Road | Rep | 2 | <5 | <2 | 6 | | 6 | 6 | 4 | 1 | 22 | 0.23 | 2 | 10 | <5 | <2 | 0.51 | <5 | 53 | 3.33 | <10 |
| 18 | 1389 | Salt Lake Bay | SS | | <5 | <2 | 30 | | 2 | 50 | <1 | 15 | 15 | 3.68 | 24 | 80 | <5 | <2 | 2.21 | <5 | 48 | 3.79 | <10 |
| 19 | 1239 | Salt Lake Bay | Rep | 0.5 | 15 | 1.2 | 654 | | 6 | 52 | <1 | 15 | 70 | 5.05 | 52 | 30 | 0.5 | <2 | 4.57 | <5 | 87 | 6.22 | 10 |
| 19 | 1388 | Salt Lake Bay | S | | — | <2 | 4 | | <2 | 10 | 1 | 2 | 4 | 2.45 | 60 | 10 | <5 | <2 | 2.42 | <5 | 80 | 1.34 | <10 |
| 20 | 1238 | Salt Lake Bay | Rep | 1.5 | 10 | <2 | 49 | | 2 | 54 | 4 | 8 | 17 | 2.79 | <2 | 130 | <5 | <2 | 0.53 | <5 | 92 | 5.71 | <10 |
| 21 | 1387 | Salt Lake Bay | S | | <5 | 0.2 | 687 | | <2 | 44 | 1 | 16 | 27 | 2.94 | 2 | 40 | <5 | <2 | 1.2 | <5 | 93 | 7.72 | 10 |
| 22 | 1240 | Salt Lake Bay | Rep | 2 | <5 | <2 | 23 | | <2 | 48 | 1 | 22 | 13 | 1.17 | 6 | 60 | <5 | <2 | 1.72 | <5 | 163 | 3.05 | <10 |
| 22 | 1390 | Salt Lake Bay | S | | <5 | <2 | 9 | | 2 | 52 | <1 | 3 | 9 | 3.68 | 12 | 100 | <5 | <2 | 12.4 | <5 | 24 | 4.04 | 10 |
| 23 | 1237 | Salt Lake Bay | S | 0.5 | 30 | <2 | 16 | | 12 | 336 | 18 | 6 | 12 | 1.27 | 2260 | 20 | <5 | <2 | >15.00 | <5 | 17 | 3.79 | <10 |
| 23 | 1385 | Salt Lake Bay | Rep | 1.5 | <5 | <2 | 27 | | 2 | 72 | 1 | 6 | 15 | 1.56 | 1700 | 30 | <5 | <2 | 8.16 | <5 | 21 | 4.36 | <10 |
| 23 | 1386 | Salt Lake Bay | G | | — | <2 | 20 | | <2 | 4 | 6 | 2 | 5 | 0.59 | 6 | 30 | <5 | <2 | 2.86 | <5 | 111 | 0.65 | <10 |
| 24 | 1236 | Salt Lake Bay | SS | | <5 | <2 | 53 | | 4 | 80 | <1 | 29 | 14 | 2.99 | 6 | 150 | <5 | <2 | 4.02 | <5 | 51 | 3.42 | <10 |
| 25 | 1384 | Salt Lake Bay | SS | | <5 | <2 | 51 | | 6 | 98 | <1 | 27 | 16 | 3.21 | 8 | 140 | <5 | <2 | 1.13 | 0.5 | 56 | 4.19 | <10 |
| 26 | 1235 | Salt Lake Bay | SS | | <5 | <2 | 60 | | 8 | 98 | <1 | 31 | 17 | 3.58 | 2 | 150 | <5 | <2 | 1.63 | <5 | 54 | 4.08 | <10 |
| 27 | 1355 | Seagull Creek Road | G | | <5 | <2 | 74 | | <2 | 50 | <1 | 61 | 40 | 2.83 | 22 | 60 | <5 | <2 | 6.5 | <5 | 64 | 7.22 | <10 |
| 28 | 1208 | Seagull Creek Road | Rep | 1.5 | 25 | <2 | 340 | | <2 | 136 | <1 | 4 | 16 | 1.05 | 82 | 70 | <5 | <2 | 8.53 | 1 | 56 | 3.55 | <10 |
| 28 | 1209 | Seagull Creek Road | S | 0.66 | <5 | 0.2 | 735 | | <2 | 24 | 4 | 192 | 81 | 0.7 | 28 | 50 | <5 | <2 | 0.78 | <5 | 109 | >15.00 | <10 |
| 29 | 1207 | Seagull Creek Road | Rep | 2 | <5 | <2 | 72 | | 14 | 150 | <1 | 27 | 22 | 2.98 | <2 | 90 | <5 | <2 | 0.65 | 0.5 | 53 | 5.48 | <10 |
| 30 | 1354 | Game Creek Road | G | | <5 | <2 | 36 | | 112 | 680 | <1 | 18 | 14 | 1.64 | 2 | 80 | <5 | <2 | 1.58 | 2.5 | 70 | 3.98 | <10 |
| 31 | 1383 | Salt Lake Bay | SS | | <5 | <2 | 43 | | 8 | 96 | <1 | 31 | 12 | 3.06 | <2 | 60 | <5 | <2 | 0.42 | <5 | 43 | 3.41 | <10 |
| 32 | 1234 | Salt Lake Bay | SS | | <5 | <2 | 59 | | 8 | 108 | <1 | 33 | 17 | 3.36 | 6 | 150 | <5 | <2 | 1.39 | <5 | 59 | 4.27 | <10 |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No | Sam. No | Hg ppm | K % | La ppm | Mg % | Mn ppm | Na % | P ppm | Sb ppm | Sc ppm | Sr ppm | Ti % | Ti ppm | U ppm | V ppm | W ppm | Pt ppb | Pd ppb | Sam. Site | Sample Description |
|--------|---------|--------|-----|--------|------|--------|------|-------|--------|--------|--------|------|--------|-------|-------|-------|--------|--------|-----------|---|
| | 1 | 1242 | 20 | 0.03 | 10 | 1.29 | 1460 | 0.13 | 580 | <2 | 10 | 106 | <.01 | <10 | <10 | 14 | <10 | | TP | Cp, mal in alt br arg of Pt. Augusta fm. |
| | 2 | 1241 | <10 | 0.04 | 10 | 1.06 | 395 | 0.02 | 560 | <2 | 1 | 708 | 0.03 | <10 | <10 | 34 | <10 | | TP | Ls w/ py to 10% near mafic dike |
| | 2 | 1391 | 10 | 0.01 | 10 | 0.81 | 325 | <.01 | 390 | <2 | 3 | 788 | 0.13 | <10 | <10 | 38 | <10 | | TP | Ls at contact w/ volc rock; ~4% py |
| | 8 | 1395 | <10 | 0.07 | 20 | 0.09 | 1085 | 0.15 | 50 | <2 | <1 | 13 | <.01 | <10 | <10 | 7 | <10 | | TP | Sil volc w/ dissem py to 2% |
| | 9 | 1243 | <10 | 0.05 | 10 | 3.68 | 1845 | 0.06 | 890 | <2 | 10 | 91 | <.01 | <10 | <10 | 10 | <10 | | TP | Felsic dike w/ cp to 2% in qz veins |
| | 9 | 1392 | 40 | 0.24 | 10 | 2.5 | 945 | 0.08 | 1530 | <2 | 15 | 109 | <.01 | <10 | <10 | 62 | <10 | | TP | Fg py in alt metased; ~1% py |
| | 10 | 1245 | <10 | 0.03 | <10 | 0.24 | 940 | 0.01 | <10 | <2 | <1 | 1840 | <.01 | <10 | <10 | 1 | <10 | | TP | Calc vein w/ py to 3% |
| | 11 | 1394 | 80 | 0.64 | 170 | 0.2 | 2590 | 0.09 | 130 | <2 | <1 | 45 | <.01 | <10 | <10 | <1 | <10 | | TP | Dissem py to 5% in sil volc |
| | 12 | 1244 | 310 | 0.22 | 40 | 0.26 | 405 | 0.15 | 80 | <2 | 1 | 13 | <.01 | <10 | <10 | 1 | <10 | | TP | Felsic volc w/ dissem & clots of py to 2% |
| | 13 | 1396 | 10 | 0.08 | <10 | 0.58 | 245 | 0.01 | 110 | <2 | 3 | 118 | <.01 | <10 | <10 | 5 | <10 | | TP | Carbon-rich ls w/ minor py <1% |
| | 14 | 1393 | 810 | 0.2 | 10 | 0.23 | 365 | 0.05 | 150 | <2 | 1 | 16 | <.01 | <10 | <10 | <1 | <10 | | TP | Sil volc w/ seams & dissem py to 7% |
| | 15 | 1210 | <10 | 0.27 | 30 | 2.16 | 1100 | 0.11 | 1110 | <2 | 10 | 199 | 0.44 | <10 | <10 | 150 | <10 | | OC | Fg intrusive w/ mag |
| | 16 | 1201 | 30 | 0.3 | 60 | 0.02 | 315 | 0.1 | 80 | <2 | <1 | 4 | <.01 | <10 | <10 | <1 | <10 | | OC | Rhyolite w/ py in mafic-fel volc sequence |
| | 16 | 1202 | 50 | 0.36 | 110 | 0.12 | 1330 | 0.15 | 90 | <2 | <1 | 12 | <.01 | <10 | <10 | 1 | <10 | | OC | Fest & sil zone in volc adj to rhyolite |
| | 16 | 1350 | 70 | 0.13 | 40 | 0.44 | 1780 | 0.27 | 340 | <2 | 4 | 90 | <.01 | <10 | <10 | <1 | <10 | | OC | Rhyolite w/ 2% dissem py |
| | 16 | 1351 | 80 | 0.36 | 20 | 0.48 | 2000 | 0.09 | 800 | <2 | <1 | 116 | <.01 | <10 | <10 | 8 | <10 | | OC | Alt rhyolite w/ 1-2% py |
| | 17 | 1203 | 80 | 0.13 | 20 | 0.07 | 100 | 0.16 | 210 | <2 | <1 | 7 | <.01 | <10 | <10 | 1 | <10 | | TP | Sl, py in alt fg intrusive |
| | 17 | 1204 | 210 | 0.15 | 60 | 0.05 | 150 | 0.21 | 230 | <2 | <1 | 7 | <.01 | <10 | <10 | <1 | <10 | | TP | Rhyolite w/ py & sl |
| | 17 | 1205 | 850 | 0.12 | 30 | 0.13 | 365 | 0.16 | 210 | <2 | 1 | 11 | <.01 | <10 | <10 | <1 | <10 | | TP | Cp & py in alt fg intrusive |
| | 18 | 1389 | 20 | 0.1 | <10 | 0.83 | 490 | 0.05 | 800 | <2 | 4 | 120 | 0.13 | <10 | <10 | 122 | <10 | | | Gd to di in area |
| | 19 | 1239 | 60 | 0.13 | <10 | 0.99 | 560 | 0.04 | 640 | <2 | 7 | 265 | 0.21 | <10 | <10 | 92 | <10 | | OC | Sheared gd w/ qz veinlets & msv sulf pod |
| | 19 | 1388 | 160 | 0.12 | 10 | 0.31 | 155 | 0.06 | 110 | <2 | 3 | 60 | 0.06 | <10 | <10 | 25 | <10 | | TP | K-spar pegmatite dike w/ py seams (1%) |
| | 20 | 1238 | <10 | 0.4 | 10 | 1.14 | 670 | 0.1 | 1260 | <2 | 9 | 64 | 0.16 | <10 | <10 | 141 | <10 | | OC | Dissem py/po to 3% in alt di |
| | 21 | 1387 | <10 | 0.13 | <10 | 1.4 | 500 | 0.02 | 1070 | <2 | 13 | 118 | 0.33 | <10 | <10 | 155 | <10 | | OC | Fault zone w/ 3% dissem py in gd |
| | 22 | 1240 | 780 | 0.11 | 10 | 0.79 | 725 | 0.09 | 660 | <2 | 8 | 44 | 0.12 | <10 | <10 | 89 | <10 | | TP | Highly alt di; oxidized (fest) potassic |
| | 22 | 1390 | 10 | 0.12 | <10 | 1.22 | 1005 | 0.01 | 230 | <2 | 2 | 160 | 0.08 | <10 | <10 | 90 | <10 | | TP | Fault gouge w/ py to 3% in gd to di |
| | 23 | 1237 | 10 | 0.14 | <10 | 0.4 | 2030 | 0.04 | 430 | 36 | 5 | 167 | <.01 | <10 | <10 | 35 | <10 | | TP | Hem in clay gouge in sheared gd |
| | 23 | 1385 | 30 | 0.11 | <10 | 0.42 | 775 | 0.05 | 510 | 30 | 7 | 114 | 0.07 | <10 | <10 | 61 | <10 | | TP | Sheared alt gd w/ hem |
| | 23 | 1386 | <10 | 0.11 | <10 | 0.14 | 110 | 0.04 | 40 | <2 | <1 | 34 | 0.01 | <10 | <10 | 19 | <10 | | TP | Pegmatite w/ minor crystalline py |
| | 24 | 1236 | 70 | 0.43 | <10 | 1.83 | 445 | 0.05 | 680 | <2 | 8 | 242 | 0.2 | <10 | <10 | 109 | <10 | | | Pt. Augusta fm gw + gd |
| | 25 | 1384 | 70 | 0.34 | 10 | 2.01 | 585 | 0.06 | 750 | <2 | 10 | 122 | 0.22 | <10 | <10 | 128 | <10 | | | Intrusive & gw in area |
| | 26 | 1235 | 90 | 0.33 | 10 | 1.86 | 580 | 0.03 | 600 | <2 | 10 | 114 | 0.23 | <10 | <10 | 125 | <10 | | | Pt. Augusta fm. gw & marble |
| | 27 | 1355 | <10 | 0.36 | <10 | 3.19 | 375 | 0.05 | 890 | <2 | 4 | 259 | <.01 | <10 | <10 | 43 | <10 | | FL | Py cubes & dissem to 10% in ls/marble |
| | 28 | 1208 | 30 | 0.21 | <10 | 1.57 | 475 | 0.06 | 930 | <2 | 4 | 350 | <.01 | <10 | <10 | 36 | <10 | | OC | Pyritic dike in fractured ls |
| | 28 | 1209 | 380 | 0.08 | <10 | 0.41 | 90 | <.01 | 230 | 22 | 1 | 56 | <.01 | <10 | <10 | 7 | <10 | | OC | Qz clot between pyritic dike and ls |
| | 29 | 1207 | 10 | 0.31 | 10 | 2.11 | 535 | 0.01 | 850 | <2 | 5 | 19 | 0.25 | <10 | <10 | 59 | <10 | | OC | Fest sil volc w/ abundant py |
| | 30 | 1354 | 80 | 0.34 | 10 | 1.1 | 635 | 0.05 | 820 | <2 | 5 | 54 | <.01 | <10 | <10 | 41 | <10 | | FL | Rhyolite w/ dissem py <1%, copper stain |
| | 31 | 1383 | 30 | 0.11 | <10 | 2.35 | 305 | 0.01 | 330 | <2 | 7 | 27 | 0.09 | <10 | <10 | 95 | <10 | | | Pt. Augusta fm metaseds in area |
| | 32 | 1234 | 50 | 0.33 | 10 | 2.21 | 545 | 0.04 | 640 | <2 | 11 | 98 | 0.21 | <10 | <10 | 127 | <10 | | | Pt. Augusta fm. metaseds in area |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Location | Sam. Type | Sample Size (ft) | Au | Ag | Cu | * Pb | Zn | Mo | Ni | Co | Al | As | Ba | Be | Bi | Ca | Cd | Cr | Fe | Ga |
|---------|----------|-----------------|-----------|------------------|-----|-----|------|------|-----|-----|-----|-----|------|----|------|-----|-----|--------|-----|-----|--------|-----|
| | | | | | ppb | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| 33 | 1381 | Salt Lake Bay | SS | | <5 | <2 | 50 | 6 | 104 | <1 | 31 | 15 | 2.97 | <2 | 130 | <5 | <2 | 1.04 | <5 | 52 | 4.05 | <10 |
| 33 | 1382 | Salt Lake Bay | Rep | | <5 | <2 | 62 | 8 | 44 | 10 | 27 | 11 | 1.66 | <2 | 20 | <5 | <2 | 0.73 | <5 | 120 | 2.96 | <10 |
| 34 | 1353 | Game Creek Road | SS | | <5 | <2 | 59 | 12 | 118 | <1 | 32 | 17 | 3.33 | 20 | 120 | <5 | <2 | 0.67 | 0.5 | 58 | 4.48 | <10 |
| 35 | 1206 | Game Creek Road | Rep | | <5 | <2 | 56 | 66 | 72 | <1 | 12 | 7 | 1.06 | <2 | 40 | <5 | <2 | 14.65 | 0.5 | 84 | 2.34 | <10 |
| 35 | 1352 | Game Creek Road | S | | 10 | <2 | 23 | 2 | 2 | <1 | 13 | 7 | 0.83 | 62 | 400 | <5 | <2 | 4.58 | <5 | 59 | 3.17 | <10 |
| 36 | 1218 | Seal Creek | G | | <5 | 0.2 | 180 | 4 | 22 | <1 | 23 | 12 | 5.39 | <2 | 20 | <5 | <2 | 4.01 | <5 | 112 | 4.63 | 10 |
| 37 | 1364 | Seal Creek | SS | | <5 | <2 | 22 | 22 | 66 | <1 | 17 | 10 | 2.88 | <2 | 40 | 0.5 | <2 | 6.02 | 0.5 | 26 | 3.04 | <10 |
| 38 | 1219 | Seal Creek | SS | | <5 | <2 | 33 | 6 | 136 | 2 | 84 | 17 | 1.97 | 6 | 40 | <5 | <2 | 2.05 | 0.5 | 62 | 3.5 | <10 |
| 39 | 1365 | Seal Creek | S | | <5 | 0.8 | 89 | 10 | 36 | <1 | 8 | 17 | 4.19 | 14 | 70 | <5 | <2 | 4.59 | 0.5 | 35 | 5.38 | <10 |
| 40 | 1220 | Seal Creek | S | | <5 | 0.6 | 273 | 2 | 16 | <1 | 2 | 48 | 1.47 | 22 | <10 | <5 | <2 | >15.00 | <5 | 77 | 10.6 | <10 |
| 40 | 1366 | Seal Creek | Rep | 2.8 | <5 | 0.2 | 43 | 28 | 28 | <1 | 137 | 43 | 5.84 | 20 | 30 | <5 | <2 | 3.7 | 0.5 | 136 | 6.23 | <10 |
| 40 | 1367 | Seal Creek | S | | <5 | 0.2 | 19 | 102 | 324 | <1 | 66 | 62 | 0.65 | 58 | <10 | <5 | <2 | 7.23 | 7 | 67 | >15.00 | <10 |
| 41 | 1368 | Seal Creek | SS | | <5 | <2 | 44 | 16 | 128 | 1 | 72 | 15 | 2.41 | 6 | 40 | <5 | <2 | 4.46 | 0.5 | 75 | 3.38 | <10 |
| 42 | 1369 | Seal Creek | SS | | <5 | <2 | 21 | 4 | 92 | 1 | 39 | 12 | 2.5 | <2 | 40 | 0.5 | <2 | 2.95 | 0.5 | 34 | 3.33 | <10 |
| 44 | 1221 | Seal Creek | S | 1 | 15 | 3 | 2030 | <2 | 54 | <1 | 5 | 13 | 3.63 | <2 | <10 | <5 | <2 | 13 | <5 | 140 | 5.62 | 10 |
| 44 | 1370 | Seal Creek | Rep | 60 | <5 | <2 | 124 | <2 | 52 | 10 | 22 | 27 | 2.02 | <2 | 20 | <5 | <2 | 2.14 | 0.5 | 51 | 4 | <10 |
| 45 | 1222 | Seal Creek | Rep | 1.5 | <5 | <2 | 34 | <2 | 42 | <1 | 27 | 20 | 4.2 | 32 | 70 | 0.5 | <2 | 0.59 | <5 | 122 | 9.85 | 10 |
| 45 | 1371 | Seal Creek | Rep | 30 | <5 | <2 | 90 | <2 | 14 | 1 | 13 | 22 | 2.33 | <2 | 60 | <5 | <2 | 2.1 | <5 | 41 | 3.54 | <10 |
| 46 | 1372 | Seal Creek | SS | | <5 | <2 | 38 | 8 | 124 | 1 | 30 | 19 | 3.53 | 34 | 90 | 0.5 | <2 | 1.73 | 0.5 | 38 | 4.12 | <10 |
| 47 | 1223 | Seal Creek | Rep | 0.1 | <5 | <2 | 8 | <2 | 88 | <1 | 5 | 14 | 0.6 | 2 | 1570 | <5 | <2 | >15.00 | 0.5 | 31 | 4.57 | <10 |
| 48 | 1229 | Tenakee Road | Rep | | <5 | <2 | 82 | <2 | 52 | 1 | 8 | 31 | 3.54 | <2 | 20 | <5 | <2 | 4.69 | <5 | 13 | 6.93 | 10 |
| 48 | 1230 | Tenakee Road | Rep | | <5 | <2 | 1 | <2 | 8 | <1 | 4 | 8 | 0.49 | 24 | 90 | <5 | <2 | >15.00 | <5 | 18 | 2.37 | <10 |
| 48 | 1380 | Tenakee Road | S | | 30 | <2 | 182 | <2 | 28 | <1 | 13 | 68 | 1.29 | 4 | 50 | <5 | <2 | 7.29 | <5 | 61 | 8.65 | <10 |
| 49 | 1231 | Tenakee Road | C | 0.66 | <5 | <2 | 165 | <2 | 142 | <1 | 39 | 31 | 3.87 | <2 | 10 | 0.5 | <2 | 6.49 | <5 | 68 | 6.04 | 20 |
| 50 | 1232 | Tenakee Road | S | 0.1 | 5 | <2 | 99 | 2 | 78 | 3 | 2 | 20 | 2.48 | <2 | 10 | <5 | <2 | 2.61 | <5 | 45 | 5.36 | 10 |
| 51 | 1233 | Trap Bay | Rep | | — | <2 | 36 | 2 | 18 | <1 | 3 | 2 | 0.32 | 2 | 10 | <5 | <2 | 0.79 | <5 | 234 | 0.46 | <10 |
| 52 | 1374 | Corner Bay | Rep | | <5 | <2 | 37 | 8 | 88 | 1 | 4 | 12 | 0.8 | 6 | 230 | 0.5 | <2 | 6.46 | <5 | 16 | 4.27 | <10 |
| 53 | 1375 | Corner Creek | S | | <5 | <2 | 22 | <2 | 34 | <1 | 2 | 1 | 0.11 | <2 | <10 | <5 | <2 | >15.00 | <5 | 4 | 2.12 | <10 |
| 54 | 1224 | Kadashan Bay | Rep | | — | <2 | 15 | 10 | 20 | 2 | 2 | 4 | 0.52 | <2 | 10 | 2 | <2 | 3.24 | <5 | 47 | 1.41 | <10 |
| 54 | 1373 | Kadashan Bay | Rep | 2 | — | <2 | 75 | 12 | 26 | 1 | 1 | 3 | 0.49 | 2 | 10 | 1.5 | <2 | 1.78 | <5 | 38 | 1.9 | <10 |
| 55 | 1225 | Corner Creek | Rep | 1 | <5 | <2 | 7 | <2 | 20 | 1 | 11 | 27 | 1.22 | <2 | 40 | <5 | <2 | 2.8 | <5 | 59 | 2.7 | <10 |
| 55 | 1376 | Corner Creek | S | | <5 | 0.2 | 89 | 2 | 86 | <1 | 35 | 82 | 3.43 | <2 | <10 | <5 | 2 | 2.43 | <5 | 71 | 14.6 | 10 |
| 56 | 1377 | Corner Creek | Rep | | — | <2 | 9 | <2 | 36 | 1 | 1 | 3 | 0.77 | <2 | 10 | <5 | <2 | 0.33 | <5 | 37 | 2.69 | <10 |
| 57 | 1378 | Kook Lake | SS | | <5 | <2 | 25 | 12 | 118 | 6 | 20 | 16 | 2.38 | <2 | 70 | 0.5 | <2 | 1.57 | <5 | 34 | 4.17 | <10 |
| 58 | 1379 | Kook Lake | SS | | <5 | <2 | 28 | 14 | 106 | 5 | 25 | 15 | 3.15 | <2 | 50 | 1 | <2 | 1.44 | <5 | 51 | 3.21 | <10 |
| 59 | 1228 | Kook Lake | SS | | 10 | <2 | 23 | 24 | 190 | 2 | 24 | 12 | 3.39 | <2 | 40 | 2 | <2 | 1.69 | 0.5 | 44 | 3.4 | <10 |
| 60 | 1226 | Kook Lake | Rep | | — | <2 | 4 | 4 | 16 | 3 | 1 | 9 | 0.67 | <2 | 10 | <5 | <2 | 1.01 | <5 | 67 | 1.83 | <10 |
| 61 | 1227 | Kook Lake | SS | | <5 | <2 | 25 | 32 | 210 | <1 | 28 | 12 | 4.14 | <2 | 40 | 2.5 | <2 | 2.35 | 0.5 | 44 | 2.96 | <10 |
| 62 | 1211 | Sitkoh Bay | Rep | | <5 | <2 | 27 | 2 | 64 | <1 | 3 | 12 | 6.59 | <2 | 30 | 0.5 | <2 | 4.88 | <5 | 36 | 4.06 | 10 |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Hg ppm | K % | La ppm | Mg % | Mn ppm | Na % | P ppm | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Pt ppb | Pd ppb | Sam. Site | Sample Description |
|---------|----------|--------|-----|--------|------|--------|------|-------|--------|--------|--------|------|--------|-------|-------|-------|--------|--------|---|--------------------|
| | 33 | 1381 | 50 | 0.24 | 10 | 2 | 530 | 0.02 | 650 | <2 | 10 | 64 | 0.16 | <10 | <10 | 113 | <10 | | Gd and minor marble in area | |
| | 33 | 1382 | 30 | 0.15 | <10 | 0.81 | 40 | 0.11 | 390 | <2 | 3 | 89 | 0.09 | <10 | <10 | 66 | <10 | OC | Pt. Augusta fm gw w/ <1% py | |
| | 34 | 1353 | 60 | 0.32 | 10 | 2.29 | 645 | 0.01 | 650 | <2 | 12 | 55 | 0.18 | <10 | <10 | 126 | <10 | | In Pt. Augusta fm. metaseds | |
| | 35 | 1206 | <10 | 0.17 | <10 | 0.72 | 1525 | 0.04 | 300 | <2 | 6 | 663 | <0.1 | <10 | <10 | 31 | <10 | TP | Py & cp in qz w/ gw and sil slate | |
| | 35 | 1352 | 350 | 0.32 | <10 | 1.12 | 830 | 0.03 | 510 | 2 | 6 | 119 | <0.1 | <10 | <10 | 21 | <10 | TP | Gw w/ seams of py <1% | |
| | 36 | 1218 | <10 | 0.19 | <10 | 0.92 | 185 | 1.05 | 880 | <2 | 3 | 240 | 0.28 | <10 | <10 | 67 | <10 | FL | Fest skarnified intrusive near ls contact | |
| | 37 | 1364 | 40 | 0.08 | 10 | 2.94 | 510 | 0.03 | 590 | <2 | 3 | 136 | 0.15 | <10 | <10 | 74 | <10 | | Felsic intrusive and marble float | |
| | 38 | 1219 | 40 | 0.1 | 10 | 2.18 | 470 | 0.05 | 1240 | <2 | 4 | 57 | 0.27 | <10 | <10 | 75 | <10 | | Downstream from intrusive-ls contact | |
| | 39 | 1365 | <10 | 0.12 | <10 | 2.19 | 240 | 0.98 | 850 | <2 | 4 | 181 | 0.11 | <10 | <10 | 72 | <10 | FL | Marble w/ 2-3 % py, po, cp | |
| | 40 | 1220 | 10 | 0.06 | <10 | 0.39 | 275 | 0.35 | 330 | <2 | <1 | 198 | 0.06 | <10 | <10 | 12 | <10 | TP | Hn lens in ls, py/po to 5% | |
| | 40 | 1366 | <10 | 0.19 | <10 | 2.18 | 175 | 0.92 | 1020 | <2 | 3 | 215 | 0.15 | <10 | <10 | 43 | <10 | TP | Felsic dike w/ 5% py + po | |
| | 40 | 1367 | 10 | <0.1 | <10 | 0.75 | 405 | <0.1 | 70 | <2 | 1 | 40 | 0.01 | <10 | <10 | 28 | <10 | RC | Py (40%) in calc matrix near dike; skarn | |
| | 41 | 1368 | 40 | 0.13 | 10 | 2.58 | 420 | 0.02 | 1020 | <2 | 5 | 110 | 0.17 | <10 | <10 | 79 | <10 | | Area of ls w/ intruding dikes | |
| | 42 | 1369 | 40 | 0.08 | 10 | 1.76 | 440 | 0.04 | 800 | <2 | 3 | 127 | 0.2 | <10 | <10 | 77 | <10 | | Ls w/ mafic dikes in area | |
| | 44 | 1221 | 30 | 0.01 | <10 | 0.36 | 1045 | 0.01 | 120 | <2 | 1 | 4 | 0.06 | <10 | <10 | 52 | <10 | OC | Skarn w/ garnet, epidote; cp <1%, mal, py | |
| | 44 | 1370 | <10 | 0.07 | <10 | 0.33 | 110 | 0.44 | 1480 | <2 | 1 | 177 | 0.16 | <10 | <10 | 24 | <10 | OC | Sil intrusive w/ ~5% dissem py & po | |
| | 45 | 1222 | 20 | <0.1 | 10 | 2.24 | 3020 | <0.1 | 350 | <2 | 7 | 11 | <0.1 | <10 | <10 | 77 | <10 | OC | Fest skarn w/ py/po; 6' skarn zone | |
| | 45 | 1371 | <10 | 0.14 | <10 | 0.78 | 165 | 0.2 | 670 | <2 | 4 | 228 | 0.19 | <10 | <10 | 80 | <10 | OC | Intrusive w/ dissem py/po to 3% near skarn | |
| | 46 | 1372 | 100 | 0.13 | 10 | 1.24 | 725 | 0.03 | 1160 | <2 | 5 | 113 | 0.19 | <10 | <10 | 102 | <10 | | Mapped Freshwater Bay volcanics | |
| | 47 | 1223 | <10 | 0.23 | 10 | 1.66 | 2990 | 0.01 | 330 | <2 | 1 | 416 | <0.1 | <10 | <10 | 46 | <10 | TP | Ribbons of hem in qz vein in fault w/ gs | |
| | 48 | 1229 | <10 | 0.09 | 10 | 2.32 | 345 | 0.04 | 3040 | <2 | 7 | 123 | 0.06 | <10 | <10 | 119 | <10 | TP | Py to 5% on fractures in gs dike in ls | |
| | 48 | 1230 | <10 | <0.1 | <10 | 0.73 | 425 | 0.01 | 110 | <2 | 1 | 574 | <0.1 | <10 | <10 | 17 | <10 | TP | Marble w/ py to 10%; near intrusive contact | |
| | 48 | 1380 | 20 | 0.2 | <10 | 0.94 | 450 | 0.02 | 850 | <2 | 5 | 152 | 0.1 | <10 | <10 | 74 | <10 | TP | Interbedded gw & ls w/ ~7% py/po | |
| | 49 | 1231 | 790 | <0.1 | <10 | 3.06 | 610 | <0.1 | 1160 | <2 | 16 | 67 | 0.49 | <10 | <10 | 250 | <10 | OC | Mafic dike w/ py to 2% in marble | |
| | 50 | 1232 | <10 | 0.17 | 30 | 1.5 | 515 | 0.15 | 2020 | <2 | 6 | 61 | 0.25 | <10 | <10 | 10 | <10 | TP | Py/po to 2% in mafic dike; ls host | |
| | 51 | 1233 | <10 | 0.16 | 10 | 0.08 | 175 | 0.11 | 20 | <2 | <1 | 10 | 0.01 | <10 | 10 | 4 | <10 | OC | Minor py, trace cp, in aplite dike in hn | |
| | 52 | 1374 | <10 | 0.35 | 10 | 1.47 | 1325 | 0.05 | 1180 | <2 | 3 | 414 | <0.1 | <10 | <10 | 22 | <10 | TP | Metavolc w/ <1% dissem py | |
| | 53 | 1375 | 10 | <0.1 | <10 | 0.86 | 130 | 0.01 | <10 | <2 | <1 | 241 | <0.1 | <10 | <10 | 1 | <10 | TP | Ls w/ bands of po & py to 3% | |
| | 54 | 1224 | <10 | 0.23 | 40 | 0.27 | 1190 | 0.11 | 220 | <2 | <1 | 75 | 0.01 | <10 | 10 | 10 | <10 | TP | Syenite w/ little to no qz; minor py | |
| | 54 | 1373 | 60 | 0.21 | 40 | 0.24 | 665 | 0.1 | 220 | <2 | 1 | 49 | 0.01 | <10 | <10 | 11 | <10 | TP | Alt syenite along shear | |
| | 55 | 1225 | <10 | 0.15 | 20 | 0.67 | 420 | 0.09 | 540 | <2 | 1 | 142 | 0.15 | <10 | <10 | 34 | <10 | TP | Alt syenite inclusion in di; py to 2% | |
| | 55 | 1376 | 10 | 0.09 | <10 | 2.11 | 850 | <0.1 | 1350 | <2 | 4 | 256 | 0.39 | <10 | <10 | 104 | <10 | TP | Shear-hosted py in metavolc; py 15% | |
| | 56 | 1377 | <10 | 0.14 | <10 | 0.44 | 425 | 0.06 | 390 | <2 | 1 | 35 | 0.09 | <10 | <10 | 25 | <10 | TP | Highly fractured syenite | |
| | 57 | 1378 | 50 | 0.11 | 10 | 1.37 | 1025 | <0.1 | 1500 | <2 | 4 | 204 | 0.21 | <10 | <10 | 101 | <10 | | Syenite, metavolc, & ls float | |
| | 58 | 1379 | 40 | 0.14 | 10 | 1.11 | 950 | 0.04 | 900 | <2 | 4 | 174 | 0.18 | <10 | <10 | 74 | <10 | | Volc and syenite float | |
| | 59 | 1228 | 70 | 0.2 | 30 | 1.08 | 1690 | 0.09 | 690 | <2 | 4 | 214 | 0.19 | <10 | <10 | 69 | <10 | | Gd, syenite & mafic dike rock as float | |
| | 60 | 1226 | <10 | 0.23 | 10 | 0.13 | 265 | 0.1 | 130 | <2 | <1 | 21 | 0.11 | <10 | <10 | 18 | <10 | TP | Py & cp in clots to 5% in syenite | |
| | 61 | 1227 | 80 | 0.26 | 40 | 1.11 | 2050 | 0.22 | 520 | <2 | 4 | 354 | 0.18 | <10 | 10 | 55 | <10 | | Gd, syenite, & volc as float | |
| | 62 | 1211 | 80 | 0.07 | <10 | 1.26 | 655 | 0.03 | 620 | 2 | 12 | 215 | 0.16 | <10 | <10 | 109 | <10 | OC | Cg bt-hnbd tonalite w/ finely dissem py | |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Location | Sam. Type | Sample Size (ft) | Au ppb | Ag ppm | Cu ppm | * Pb % | Zn ppm | Mo ppm | Ni ppm | Co ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Cr ppm | Fe % | Ga ppm |
|---------|----------|----------------|-----------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|------|--------|--------|--------|--------|-------|--------|--------|--------|--------|
| 63 | 1212 | Sitkoh Bay | Rep | | <5 | <2 | 43 | 4 | 34 | 1 | 6 | 13 | 3.64 | <2 | 10 | <5 | <2 | 3.07 | <5 | 44 | 3.1 | 10 |
| 64 | 1356 | Sitkoh Bay | G | | 10 | <2 | 94 | 6 | 46 | <1 | 20 | 28 | 4.39 | <2 | 30 | 0.5 | <2 | 6.89 | <5 | 34 | 3.43 | 10 |
| 65 | 1363 | Sitkoh Bay | Rep | | — | <2 | 7 | 6 | 14 | <1 | 8 | 4 | 0.9 | <2 | 40 | <5 | <2 | 0.97 | <5 | 111 | 1.04 | <10 |
| 66 | 1362 | Sitkoh Bay | SS | | <5 | <2 | 19 | 22 | 248 | 1 | 41 | 13 | 2.79 | <2 | 50 | 1 | <2 | 1.99 | 3 | 54 | 3.5 | <10 |
| 67 | 1217 | Sitkoh Bay | S | | <5 | 0.2 | 460 | 2 | 44 | <1 | 4 | 43 | 1.45 | <2 | 80 | <5 | <2 | 1.31 | <5 | 65 | 6.75 | <10 |
| 67 | 1361 | Sitkoh Bay | S | | 10 | 0.8 | 97 | 2 | 14 | 13 | 1 | 83 | 0.91 | 50 | 10 | <5 | <2 | 0.18 | <5 | 27 | >15.00 | <10 |
| 68 | 1360 | Sitkoh Bay | S | | <5 | <2 | 29 | <2 | 18 | 1 | 2 | 7 | 1.24 | <2 | <10 | <5 | <2 | 9 | <5 | 40 | 3.13 | <10 |
| 69 | 1216 | Sitkoh Bay | S | 1 | <5 | <2 | 60 | <2 | 26 | 3 | 12 | 16 | 1.03 | <2 | 90 | <5 | <2 | 0.35 | <5 | 410 | 3.23 | <10 |
| 70 | 1215 | Sitkoh Bay | Rep | 2 | — | <2 | <1 | 2 | 70 | <1 | <1 | 1 | 0.92 | <2 | <10 | <5 | <2 | 0.14 | <5 | 49 | 2.03 | <10 |
| 70 | 1359 | Sitkoh Bay | Rep | 2.6 | — | <2 | 90 | <2 | 130 | <1 | 9 | 26 | 2.64 | <2 | <10 | 0.5 | <2 | 3.74 | <5 | 21 | 4.66 | 10 |
| 71 | 1214 | Sitkoh Bay | Rep | | — | <2 | 3 | 10 | 70 | 2 | <1 | 4 | 0.78 | <2 | 80 | 0.5 | <2 | 2.29 | <5 | 25 | 1.54 | <10 |
| 71 | 1358 | Sitkoh Bay | S | | — | <2 | 8 | 16 | 90 | 1 | <1 | 7 | 0.97 | 6 | 70 | 0.5 | <2 | 2.21 | <5 | 27 | 2.75 | <10 |
| 72 | 1213 | Sitkoh Bay | S | 0.1 | <5 | <2 | 16 | <2 | 54 | <1 | 8 | 38 | 4 | <2 | 30 | 0.5 | <2 | 4.31 | <5 | 66 | 3.93 | 10 |
| 72 | 1357 | Sitkoh Bay | S | | <5 | <2 | 18 | 2 | 52 | <1 | 12 | 67 | 3.41 | <2 | 70 | 0.5 | <2 | 3.79 | <5 | 38 | 4.16 | 10 |
| 73 | 1413 | Sealion Cove | Rep | 0.18 | 555 | 0.6 | 53 | 8 | 8 | 1 | 5 | 3 | 0.2 | 660 | 20 | <5 | 24 | 0.03 | <5 | 339 | 1.01 | <10 |
| 73 | 1414 | Sealion Cove | Rep | 0.67 | 20 | <2 | 30 | <2 | 90 | 1 | 17 | 5 | 2.07 | 80 | 250 | <5 | <2 | 0.24 | 0.5 | 112 | 3.58 | <10 |
| 73 | 1415 | Sealion Cove | C | 0.25 | 5 | <2 | 6 | <2 | 18 | 1 | 5 | 1 | 0.48 | 22 | 80 | <5 | <2 | 0.07 | <5 | 315 | 0.97 | <10 |
| 73 | 1416 | Sealion Cove | C | 0.33 | 25 | 0.2 | 220 | <2 | 2 | 2 | 8 | 6 | 0.12 | 70 | <10 | <5 | <2 | 0.07 | <5 | 290 | 1.59 | <10 |
| 73 | 1459 | Sealion Cove | C | 0.5 | 1190 | 0.2 | 73 | <2 | <2 | 3 | 6 | 5 | 0.06 | 1890 | <10 | <5 | 22 | 0.06 | <5 | 319 | 0.99 | <10 |
| 73 | 1460 | Sealion Cove | G | 0.4 | 2360 | 0.4 | 82 | <2 | 68 | 2 | 14 | 7 | 2.77 | 6900 | 230 | <5 | 10 | 0.87 | <5 | 120 | 3.39 | <10 |
| 73 | 1461 | Sealion Cove | C | 0.5 | 1810 | 0.3 | 58 | <2 | 6 | 13 | 6 | 7 | 0.27 | 1645 | 20 | <5 | 32 | 0.09 | <5 | 342 | 0.98 | <10 |
| 73 | 1462 | Sealion Cove | Rep | 50 | 20 | 0.2 | 18 | <2 | 88 | 4 | 14 | 6 | 2.16 | 740 | 290 | <5 | <2 | 0.34 | <5 | 200 | 3.24 | <10 |
| 73 | 1463 | Sealion Cove | RC | 5 | 10 | 0.6 | 23 | <2 | 110 | 1 | 20 | 9 | 2.03 | 1510 | 190 | <5 | <2 | 0.25 | <5 | 99 | 3.92 | <10 |
| 73 | 1464 | Sealion Cove | RC | 10 | 15 | 0.2 | 61 | 14 | 104 | 2 | 3 | 1 | 0.51 | 748 | 260 | <5 | <2 | 0.08 | <5 | 215 | 1.77 | <10 |
| 74 | 1412 | Halleck Island | G | | 20 | <2 | 56 | <2 | 56 | 1 | 316 | 32 | 3.35 | 34 | 80 | <5 | <2 | 5.74 | <5 | 727 | 4.3 | <10 |
| 74 | 1458 | Halleck Island | G | 0.5 | <5 | <2 | 1 | <2 | 10 | 1 | 10 | 3 | 8.4 | <2 | <10 | <5 | <2 | 9.49 | <5 | 55 | 1.12 | <10 |
| 75 | 1400 | Thetis | Rep | | 10 | 0.2 | 23 | 12 | 56 | 1 | 11 | 5 | 0.64 | 2 | 20 | <5 | <2 | 0.65 | 0.5 | 202 | 1.63 | <10 |
| 75 | 1401 | Thetis | SS | | | 0.2 | 81 | 2 | 116 | 2 | 47 | 25 | 3.04 | 10 | 40 | <5 | <2 | 0.7 | 0.5 | 108 | 4.57 | <10 |
| 75 | 1402 | Thetis | SS | | | 1 | 66 | 14 | 202 | 3 | 53 | 34 | 3.38 | 130 | 90 | 0.5 | <2 | 0.81 | 1.5 | 59 | 4.76 | <10 |
| 75 | 1450 | Thetis | C | 5 | <5 | <2 | 52 | 18 | 70 | 2 | 23 | 10 | 1.9 | <2 | 60 | <5 | <2 | 3.03 | 0.5 | 101 | 3.55 | <10 |
| 75 | 1451 | Thetis | C | 0.8 | <5 | <2 | 14 | 4 | 20 | 1 | 9 | 3 | 0.58 | <2 | 10 | <5 | <2 | 4.31 | <5 | 129 | 1.18 | <10 |
| 75 | 1452 | Thetis | C | 3.0 | <5 | 0.2 | 41 | 44 | 122 | 1 | 16 | 7 | 1.23 | 2 | 30 | <5 | <2 | 1.31 | 1.5 | 145 | 2.53 | <10 |
| 75 | 1453 | Thetis | C | 2.3 | <5 | 0.6 | 60 | 80 | 134 | 3 | 18 | 9 | 1.1 | 2 | 10 | <5 | <2 | 0.98 | 1.5 | 99 | 3.12 | <10 |
| 76 | 1418 | Green Lake | C | 2 | <5 | <2 | 157 | <2 | <2 | <1 | 3 | <1 | 0.04 | <2 | <10 | <5 | <2 | 0.01 | <5 | 155 | 0.25 | <10 |
| 77 | 1417 | Green Lake | G | | 10 | <2 | 27 | 8 | 12 | 1 | 7 | 2 | 0.33 | 2 | 20 | <5 | <2 | 0.28 | <5 | 304 | 0.85 | <10 |
| 77 | 1465 | Green Lake | RC | | 5 | <2 | 4 | <2 | 2 | <1 | 5 | 1 | 0.05 | 8 | <10 | <5 | <2 | <0.01 | <5 | 312 | 0.37 | <10 |
| 77 | 1466 | Green Lake | G | 0.5 | <5 | <2 | 1 | 12 | 2 | <1 | 3 | <1 | 0.09 | 6 | 10 | <5 | <2 | 0.03 | <5 | 240 | 0.36 | <10 |
| 78 | 1403 | Bonanza #1 | C | 4.5 | 5 | <2 | 28 | <2 | 78 | 3 | 20 | 10 | 1.98 | 4 | 90 | <5 | <2 | 2.31 | <5 | 47 | 3.5 | <10 |
| 78 | 1404 | Bonanza #1 | C | 4.3 | 10 | <2 | 50 | 2 | 88 | 2 | 21 | 13 | 2.29 | 52 | 170 | <5 | <2 | 3.37 | <5 | 53 | 4.18 | <10 |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Hg ppm | K % | La ppm | Mg % | Mn ppm | Na % | P ppm | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Pt ppb | Pd ppb | Sam. Site | Sample Description |
|---------|----------|--------|------|--------|------|--------|------|-------|--------|--------|--------|------|--------|-------|-------|-------|--------|--------|-----------|--|
| 63 | 1212 | 70 | 0.11 | <10 | 0.7 | 275 | 0.08 | 870 | <2 | 4 | 56 | 0.18 | <10 | <10 | 71 | <10 | | | FL | Fest hn near intrusive contact |
| 64 | 1356 | <10 | 0.07 | <10 | 0.73 | 220 | 0.17 | 1430 | <2 | 4 | 204 | 0.24 | <10 | <10 | 72 | <10 | | | RC | Banded hn w/ po/py <1% |
| 65 | 1363 | <10 | 0.09 | <10 | 0.35 | 130 | 0.08 | 200 | <2 | 1 | 33 | 0.06 | <10 | <10 | 21 | <10 | | | OC | Felsic dike in hn & tonalite |
| 66 | 1362 | 60 | 0.21 | 10 | 1.42 | 1425 | 0.08 | 910 | <2 | 4 | 134 | 0.21 | <10 | <10 | 146 | <10 | | | | Area of intrusives w/ minor marble |
| 67 | 1217 | 10 | 0.31 | 10 | 0.44 | 735 | 0.07 | 620 | <2 | <1 | 90 | 0.15 | <10 | <10 | 37 | <10 | | | RC | Clots of py/po in trondhjemite |
| 67 | 1361 | 110 | 0.03 | <10 | 0.09 | 1260 | <.01 | 330 | <2 | <1 | 27 | 0.09 | <10 | <10 | 19 | <10 | | | OC | Msv py in shear in intrusive; py to 25% |
| 68 | 1360 | <10 | 0.02 | <10 | 0.08 | 960 | 0.02 | 530 | <2 | 1 | 44 | 0.08 | <10 | <10 | 82 | <10 | | | RC | Skarn w/ ~1% py |
| 69 | 1216 | <10 | 0.36 | <10 | 0.54 | 200 | 0.08 | 350 | <2 | 5 | 33 | 0.14 | <10 | <10 | 50 | <10 | | | OC | Qz w/ hn |
| 70 | 1215 | 10 | 0.33 | 10 | 0.19 | 1285 | 0.09 | 210 | <2 | <1 | 13 | 0.09 | <10 | <10 | 16 | <10 | | | OC | Syenite w/ thin black silicate veinlets |
| 70 | 1359 | 40 | 0.62 | <10 | 2.45 | 1495 | 0.01 | 820 | <2 | 12 | 235 | 0.25 | <10 | <10 | 146 | <10 | | | OC | Diabase dike in alkalic intrusive; po <1% |
| 71 | 1214 | <10 | 0.26 | 10 | 0.31 | 935 | 0.06 | 540 | <2 | <1 | 162 | 0.11 | <10 | <10 | 13 | <10 | | | OC | K-spar-rich syenite |
| 71 | 1358 | 10 | 0.25 | 10 | 0.41 | 980 | 0.04 | 500 | <2 | <1 | 102 | 0.1 | <10 | <10 | 23 | <10 | | | RC | Alkalic intrusive w/ py ~1% |
| 72 | 1213 | 20 | 0.11 | <10 | 1.58 | 565 | 0.07 | 1270 | <2 | 8 | 288 | 0.22 | <10 | <10 | 131 | <10 | | | OC | Alt tonalite in shear w/ py/po to 10% |
| 72 | 1357 | 10 | 0.15 | <10 | 1.34 | 550 | 0.1 | 1340 | <2 | 7 | 166 | 0.21 | <10 | <10 | 113 | <10 | | | RC | Bt-hnblid tonalite w/ py to 3% in alt zones |
| 73 | 1413 | <10 | 0.12 | <10 | 0.11 | 50 | 0.01 | 30 | <2 | <1 | 6 | 0.01 | <10 | <10 | 9 | <10 | | | OC | Qz vein w/ minor sulf; py 1%, aspy |
| 73 | 1414 | <10 | 1.51 | <10 | 1.43 | 480 | <.01 | 500 | <2 | 12 | 13 | 0.25 | <10 | <10 | 105 | <10 | | | OC | Hornfelsed sandstone hosting qz vein |
| 73 | 1415 | <10 | 0.25 | <10 | 0.24 | 115 | 0.01 | 90 | <2 | 1 | 7 | 0.05 | <10 | <10 | 20 | <10 | | | OC | Qz in hornfelsed sandstone |
| 73 | 1416 | <10 | 0.08 | <10 | 0.09 | 30 | <.01 | 50 | <2 | <1 | 8 | <.01 | <10 | <10 | 5 | <10 | | | OC | Qz w/ aspy (2%), py + cp <<1% |
| 73 | 1459 | <10 | <.01 | <10 | 0.01 | 20 | <.01 | <10 | <2 | <1 | 1 | <.01 | <10 | <10 | 2 | 20 | | | OC | Qz vein w/ po & aspy |
| 73 | 1460 | 10 | 1.19 | <10 | 1.18 | 500 | 0.13 | 450 | <2 | 10 | 49 | 0.18 | <10 | <10 | 90 | 10 | | | OC | Hornfels |
| 73 | 1461 | <10 | 0.09 | <10 | 0.07 | 50 | 0.02 | 30 | <2 | <1 | 10 | 0.01 | <10 | <10 | 8 | <10 | | | OC | Qz vein w/ po & aspy |
| 73 | 1462 | <10 | 1.2 | <10 | 1.2 | 500 | 0.07 | 600 | <2 | 11 | 23 | 0.21 | <10 | <10 | 101 | <10 | | | OC | Hn br zone w/ qz stringers & br sparse po |
| 73 | 1463 | <10 | 1.28 | <10 | 1.39 | 590 | 0.03 | 620 | <2 | 12 | 10 | 0.22 | <10 | <10 | 114 | 10 | | | OC | Fest br zone; hn adj to fel dike |
| 73 | 1464 | <10 | 0.2 | <10 | 0.05 | 85 | 0.08 | 50 | <2 | <1 | 13 | 0.01 | <10 | <10 | 1 | <10 | | | OC | Tonalite w/ 4% po |
| 74 | 1412 | 230 | <.01 | <10 | 6.1 | 895 | <.01 | 530 | 68 | 14 | 293 | <.01 | <10 | <10 | 99 | <10 | | | OC | Arg w/ minor qz stringers; minor fest |
| 74 | 1458 | <10 | <.01 | <10 | 0.88 | 310 | 0.05 | <10 | <2 | 4 | 20 | 0.01 | <10 | <10 | 26 | <10 | | | FL | Silicified calcareous rock |
| 75 | 1400 | <10 | 0.07 | <10 | 0.39 | 300 | <.01 | 260 | <2 | 1 | 24 | 0.03 | <10 | <10 | 16 | <10 | | | OC | Qz stringers and lenses in arg; <1% po |
| 75 | 1401 | 30 | 0.12 | <10 | 2.17 | 780 | <.01 | 560 | 2 | 6 | 51 | 0.22 | <10 | <10 | 100 | <10 | | | | Bedrock mainly gw w/ arg & qz stringers |
| 75 | 1402 | 40 | 0.21 | <10 | 1.45 | 960 | <.01 | 1020 | 2 | 6 | 121 | 0.17 | <10 | <10 | 96 | <10 | | | | Gw & arg bedrock; fest qz boulder float |
| 75 | 1450 | 10 | 0.22 | <10 | 1.19 | 675 | <.01 | 670 | <2 | 3 | 126 | 0.08 | <10 | <10 | 40 | <10 | | | UW | Gw w/ 3 qz stringers from .05 to .2 ft thick |
| 75 | 1451 | <10 | 0.05 | <10 | 0.36 | 730 | <.01 | 170 | <2 | 1 | 121 | 0.05 | <10 | <10 | 21 | <10 | | | UW | Qz vein w/ po and py |
| 75 | 1452 | 10 | 0.13 | <10 | 0.79 | 405 | <.01 | 390 | <2 | 2 | 46 | 0.08 | <10 | <10 | 33 | <10 | | | UW | Qz vein and stringers w/ blebs of sulf |
| 75 | 1453 | <10 | 0.07 | <10 | 0.71 | 395 | <.01 | 430 | <2 | 2 | 35 | 0.07 | <10 | <10 | 33 | <10 | | | UW | Fest, sheared gw and qz |
| 76 | 1418 | <10 | <.01 | <10 | 0.02 | 20 | <.01 | <10 | <2 | <1 | <1 | <.01 | <10 | <10 | 1 | <10 | | | OC | Qz vein w/ minor py in gw; py <<1% |
| 77 | 1417 | <10 | 0.04 | <10 | 0.15 | 180 | <.01 | 40 | <2 | <1 | 20 | 0.02 | <10 | <10 | 6 | <10 | | | MD | Fest qz in slate w/ minor py (<1%) |
| 77 | 1465 | <10 | 0.01 | <10 | 0.01 | 40 | <.01 | <10 | <2 | <1 | <1 | <.01 | <10 | <10 | 1 | <10 | | | MD | Qz vein w/ slate ribbon texture |
| 77 | 1466 | 10 | 0.01 | <10 | 0.04 | 45 | <.01 | <10 | <2 | <1 | 1 | 0.01 | <10 | <10 | 3 | <10 | | | MD | Vuggy qz vein w/ gs, some ribbons |
| 78 | 1403 | 170 | 0.13 | <10 | 1.11 | 560 | <.01 | 650 | <2 | 3 | 93 | 0.16 | <10 | <10 | 36 | <10 | | | UW | Interbedded gw & slate; minor qz stringer |
| 78 | 1404 | 11350 | 0.29 | <10 | 0.96 | 650 | <.01 | 690 | 2 | 3 | 330 | 0.2 | <10 | <10 | 27 | <10 | | | UW | Sheared black slate w/ minor qz stringers |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Location | Sam. Type | Sample Size (ft) | Au | Ag | Cu | * Pb | Zn | Mo | Ni | Co | Al | As | Ba | Be | Bi | Ca | Cd | Cr | Fe | Ga |
|---------|----------|-------------------|-----------|------------------|-----|-----|------|------|------|-----|------|-----|------|------|-----|-----|-----|------|-----|-----|-------|-----|
| | | | | | ppb | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| 78 | 1454 | Bonanza #1 | C | 3.0 | <5 | <2 | 32 | 8 | 90 | 3 | 19 | 12 | 2.22 | 30 | 130 | <5 | <2 | 1.74 | <5 | 79 | 4.77 | <10 |
| 79 | 1405 | Wicked Fall | C | 1.8 | 130 | <2 | 2 | <2 | 14 | 1 | 4 | 1 | 0.16 | 1295 | 10 | <5 | <2 | 0.78 | <5 | 82 | 0.77 | <10 |
| 79 | 1406 | Wicked Fall | C | 1.9 | 90 | <2 | 2 | <2 | 16 | 1 | 8 | 3 | 0.42 | 2480 | 50 | <5 | <2 | 1.96 | <5 | 250 | 1.25 | <10 |
| 79 | 1407 | Wicked Fall | S | | 280 | <2 | 7 | 2 | 34 | 2 | 11 | 6 | 0.57 | 5390 | 50 | <5 | <2 | 2.46 | <5 | 143 | 1.73 | <10 |
| 80 | 1408 | Free Gold | Rep | 4.1 | 45 | <2 | 1 | <2 | 2 | <1 | 10 | 1 | 0.09 | 224 | <10 | <5 | <2 | 0.43 | 1 | 278 | 0.53 | <10 |
| 80 | 1455 | Free Gold | G | 0.4 | <5 | <2 | 5 | <2 | 2 | <1 | 6 | 1 | 0.08 | 222 | <10 | <5 | <2 | 0.09 | 1 | 283 | 0.47 | <10 |
| 81 | 1410 | Hill prospect | S | | <5 | <2 | 680 | <2 | 32 | 1 | 174 | 86 | 2.33 | <2 | <10 | <5 | <2 | 1.12 | <5 | 128 | 5.46 | <10 |
| 81 | 1411 | Hill prospect | S | | <5 | <2 | 680 | <2 | 14 | 1 | 370 | 98 | 1.57 | <2 | <10 | <5 | <2 | 0.49 | <5 | 488 | 4.05 | <10 |
| 81 | 1457 | Hill prospect | G | | <5 | <2 | 12 | <1 | 4 | <1 | 7 | 1 | 0.18 | <2 | 40 | <5 | <2 | 0.06 | <5 | 381 | 0.63 | <10 |
| 82 | 1409 | Hill prospect | G | | 10 | 0.8 | 3050 | <2 | 50 | 1 | 1100 | 196 | 2.07 | 18 | <10 | <5 | 6 | 0.05 | 0.5 | 325 | 8.47 | <10 |
| 82 | 1456 | Hill prospect | G | | <5 | <2 | 1150 | <1 | 42 | 1 | 265 | 186 | 2.62 | <2 | <10 | <5 | <2 | 1.45 | <5 | 72 | 7.24 | <10 |
| 83 | 1419 | Patterson Bay | G | | 20 | 0.2 | 31 | <2 | 16 | 1 | 18 | 9 | 0.79 | 12 | 10 | <5 | <2 | 2.4 | <5 | 208 | 2.53 | <10 |
| 84 | 1468 | Patterson Bay | Rep | 0.4 | 20 | 0.6 | 2150 | <2 | 30 | 10 | 2 | 6 | 5.17 | <2 | <10 | 0.5 | <2 | 5.91 | <5 | 118 | 2.44 | 10 |
| 85 | 1422 | Patterson Bay | G | | <5 | <2 | 534 | <2 | 54 | 2 | 36 | 19 | 2.27 | 6 | 120 | <5 | <2 | 1.63 | <5 | 165 | 3.08 | <10 |
| 86 | 1531 | Mt. Muravief area | SS | | <5 | <2 | 47 | 2 | 114 | <1 | 23 | 13 | 2.79 | 22 | 250 | <5 | <2 | 0.17 | <5 | 54 | 4.94 | 10 |
| 87 | 1440 | Mt. Muravief area | SS | | <5 | <2 | 38 | 10 | 102 | <1 | 25 | 21 | 3.55 | 26 | 170 | <5 | <2 | 0.13 | <5 | 59 | 4.5 | 10 |
| 88 | 1439 | Mt. Muravief area | SS | | <5 | <2 | 39 | 6 | 102 | 1 | 25 | 15 | 2.91 | 36 | 380 | <5 | <2 | 0.22 | <5 | 66 | 4.44 | 10 |
| 89 | 1438 | Mt. Muravief area | SS | | <5 | <2 | 50 | 10 | 122 | 1 | 22 | 20 | 3.24 | 22 | 290 | <5 | <2 | 0.15 | 0.5 | 51 | 5.34 | 10 |
| 89 | 1478 | Mt. Muravief area | SS | | <5 | <2 | 71 | 12 | 112 | 1 | 25 | 26 | 3.08 | 38 | 240 | <5 | <2 | 0.15 | <5 | 52 | 5.12 | 10 |
| 90 | 1477 | Mt. Muravief area | SS | 0.4 | <5 | <2 | 31 | 8 | 92 | 1 | 18 | 11 | 2.62 | 26 | 240 | <5 | <2 | 0.13 | <5 | 47 | 4.29 | <10 |
| 91 | 1437 | Mt. Muravief area | SS | | <5 | <2 | 81 | 8 | 142 | 1 | 47 | 29 | 3.16 | 28 | 230 | <5 | <2 | 0.36 | <5 | 60 | 4.93 | 10 |
| 92 | 1442 | Mt. Muravief area | SS | | <5 | <2 | 95 | 6 | 134 | <1 | 29 | 22 | 2.97 | 40 | 230 | <5 | <2 | 0.26 | <5 | 66 | 4.56 | 10 |
| 92 | 1443 | Mt. Muravief area | SS | | <5 | <2 | 96 | 6 | 116 | <1 | 44 | 29 | 2.91 | 22 | 130 | <5 | <2 | 0.39 | <5 | 102 | 4.67 | <10 |
| 93 | 1480 | Mt. Muravief area | SS | | <5 | <2 | 105 | 2 | 94 | 1 | 85 | 35 | 2.61 | 36 | 100 | <5 | <2 | 0.75 | <5 | 174 | 3.97 | <10 |
| 93 | 1481 | Mt. Muravief area | SS | | <5 | <2 | 64 | 4 | 152 | <1 | 34 | 28 | 3.25 | 38 | 200 | <5 | <2 | 0.37 | <5 | 65 | 4.69 | 10 |
| 94 | 1476 | Mt. Muravief area | Rep | 2.5 | <5 | <2 | 190 | 3 | 14 | <1 | 5 | 3 | 0.29 | <2 | <10 | <5 | <2 | 0.14 | <5 | 245 | 0.87 | <10 |
| 95 | 1430 | Mt. Muravief area | S | | <5 | <2 | 145 | <1 | 175 | <1 | 87 | 37 | 3.67 | 58 | 320 | <5 | <2 | 0.27 | <5 | 367 | 7.45 | 10 |
| 95 | 1431 | Mt. Muravief area | G | | <5 | <2 | 150 | <1 | 175 | <1 | 117 | 56 | 3.68 | 254 | 260 | <5 | <2 | 0.71 | <5 | 416 | 7.49 | 10 |
| 95 | 1432 | Mt. Muravief area | G | | <5 | 0.3 | 95 | 2 | 140 | <1 | 14 | 8 | 3 | <2 | 70 | <5 | <2 | 0.1 | <5 | 327 | 6.78 | <10 |
| 96 | 1429 | Mt. Muravief area | G | | <5 | <2 | 66 | <1 | 86 | 2 | 11 | 6 | 1.81 | 26 | 70 | 0.5 | <2 | 0.18 | <5 | 57 | 14.95 | <10 |
| 97 | 1441 | Mt. Muravief area | SS | | <5 | <2 | 106 | 6 | 106 | <1 | 63 | 32 | 3.07 | 22 | 80 | <5 | <2 | 0.37 | <5 | 157 | 5.06 | <10 |
| 97 | 1479 | Mt. Muravief area | SS | | <5 | <2 | 234 | 12 | 104 | 2 | 25 | 18 | 2.72 | 38 | 170 | <5 | <2 | 0.15 | <5 | 59 | 5.16 | <10 |
| 98 | 1426 | Mt. Muravief | G | | 20 | 4.8 | 8800 | <1 | 380 | 18 | 36 | 71 | 2.47 | <2 | 70 | <5 | <2 | 0.31 | 1.5 | 300 | 9.13 | <10 |
| 99 | 1423 | Mt. Muravief | C | 3.5 | <5 | 1.3 | 1600 | <1 | 400 | 7 | 7 | 7 | 3.23 | <2 | 70 | <5 | <2 | 0.15 | <5 | 312 | 10.35 | 10 |
| 99 | 1424 | Mt. Muravief | S | | <5 | 0.7 | 2500 | <1 | 1380 | 4 | 24 | 29 | 3.48 | <2 | 110 | <5 | <2 | 0.13 | 4.5 | 310 | 10.1 | 10 |
| 99 | 1425 | Mt. Muravief | Rep | | 130 | <2 | 18 | 48 | 10 | <1 | 7 | 3 | 0.22 | <2 | <10 | <5 | <2 | 0.03 | <5 | 245 | 0.59 | <10 |
| 100 | 1434 | Mt. Muravief | Rep | | <5 | <2 | 4 | <1 | 2 | <1 | 3 | <1 | 0.07 | 2 | <10 | <5 | <2 | 0.01 | <5 | 145 | 0.27 | <10 |
| 100 | 1444 | Mt. Muravief | G | | 110 | 1.8 | 3900 | <1 | 370 | 1 | 59 | 50 | 5.31 | 12 | 170 | <5 | <2 | 0.28 | 0.5 | 262 | 9.84 | 10 |
| 100 | 1445 | Mt. Muravief | S | | <5 | <2 | 1700 | <1 | 73 | <1 | 45 | 32 | 2.55 | 60 | 120 | <5 | 2 | 1.3 | <5 | 131 | 9.63 | <10 |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Hg ppm | K % | La ppm | Mg % | Mn ppm | Na % | P ppm | Sb ppm | Sc ppm | Sr ppm | Ti % | Ti ppm | U ppm | V ppm | W ppm | Pb ppb | Pd ppb | Sam. Site | Sample Description |
|---------|----------|--------|------|--------|------|--------|------|-------|--------|--------|--------|------|--------|-------|-------|-------|--------|--------|-----------|--|
| 78 | 1454 | 330 | 0.32 | <10 | 0.97 | 900 | <0.1 | 700 | <2 | 3 | 135 | 0.16 | <10 | <10 | 30 | <10 | | | UW | Gw, slate and sparse qz stringers |
| 79 | 1405 | 90 | 0.02 | <10 | 0.22 | 230 | <0.1 | 100 | <2 | <1 | 58 | <0.1 | <10 | <10 | 3 | <10 | | | UW | Qz vein in black slate, py + aspy <1% |
| 79 | 1406 | 50 | 0.1 | <10 | 0.27 | 545 | <0.1 | 180 | <2 | 1 | 130 | <0.1 | <10 | <10 | 8 | <10 | | | UW | Qz vein + black slate in shear |
| 79 | 1407 | 10 | 0.1 | <10 | 0.29 | 675 | <0.1 | 400 | 2 | 1 | 189 | <0.1 | <10 | <10 | 8 | <10 | | | UW | Fest qz & black slate |
| 80 | 1408 | <10 | 0.01 | <10 | 0.12 | 110 | <0.1 | 30 | <2 | <1 | 17 | <0.1 | <10 | <10 | 2 | <10 | | | OC | Qz veins & stringers in gw; minor py |
| 80 | 1455 | <10 | 0.01 | <10 | 0.04 | 125 | <0.1 | 320 | <2 | <1 | 6 | <0.1 | <10 | <10 | 2 | <10 | | | MD | Qz vein w/ sparse py |
| 81 | 1410 | <10 | 0.01 | <10 | 2.01 | 470 | 0.07 | <10 | <2 | 9 | 46 | 0.21 | <10 | <10 | 109 | <10 | 5 | 4 | RC | Pyroxenite w/ po (1-2%) & minor cp (<1%) |
| 81 | 1411 | <10 | <0.1 | <10 | 2.95 | 165 | <0.1 | <10 | <2 | 3 | 1 | 0.01 | <10 | <10 | 50 | <10 | 5 | 10 | OC | Pyroxenite w/ dissem cp (~1%) |
| 81 | 1457 | <10 | 0.05 | <10 | 0.09 | 75 | 0.01 | 70 | <2 | <1 | 3 | 0.01 | <10 | <10 | 8 | <10 | <5 | <2 | RC | Qz vein w/ ribbons & sulf along ribbons |
| 82 | 1409 | <10 | <0.1 | <10 | 12.3 | 580 | <0.1 | <10 | <2 | 16 | 1 | <0.1 | <10 | <10 | 134 | <10 | 55 | 68 | FL | Pyroxenite w/ po & cp ~1% |
| 82 | 1456 | 10 | <0.1 | <10 | 2.1 | 465 | 0.12 | <10 | <2 | 11 | 59 | 0.25 | <10 | <10 | 106 | <10 | <30 | <12 | RC | Pyroxenite w/ cp and py |
| 83 | 1419 | <10 | 0.14 | <10 | 0.52 | 435 | <0.1 | 80 | <2 | 3 | 27 | 0.03 | <10 | <10 | 40 | <10 | | | FL | Fest qz w/ limonite in gs |
| 84 | 1468 | 40 | 0.01 | <10 | 0.71 | 440 | <0.1 | 240 | 2 | 6 | 14 | 0.09 | <10 | <10 | 71 | <10 | | | OC | Sil band in tonalite w/ cp & ml stain |
| 85 | 1422 | <10 | 0.24 | <10 | 0.77 | 280 | 0.08 | 500 | <2 | 9 | 50 | 0.33 | <10 | <10 | 96 | <10 | | | RC | Alt gs inclusion in tonalite; cp <1% |
| 86 | 1531 | 29 | 0.77 | <10 | 1.46 | 485 | <0.1 | 730 | <2 | 7 | 8 | 0.15 | <10 | <10 | 109 | <10 | | | | River 20' wide where sampled |
| 87 | 1440 | 43 | 0.42 | <10 | 1.39 | 620 | <0.1 | 640 | <2 | 7 | 11 | 0.15 | <10 | <10 | 111 | <10 | | | | PI & gw float |
| 88 | 1439 | <10 | 0.72 | <10 | 1.53 | 550 | 0.01 | 760 | <2 | 9 | 14 | 0.16 | <10 | <10 | 124 | <10 | | | | PI & sc in area |
| 89 | 1438 | 21 | 0.73 | <10 | 1.48 | 680 | <0.1 | 820 | <2 | 8 | 11 | 0.18 | <10 | <10 | 116 | <10 | | | | PI outcrops in area |
| 89 | 1478 | 35 | 0.7 | <10 | 1.34 | 675 | <0.1 | 960 | <2 | 7 | 13 | 0.15 | <10 | <10 | 103 | <10 | | | | Fest phyllite outcrops in area |
| 90 | 1477 | 10 | 0.69 | <10 | 1.27 | 440 | <0.1 | 750 | <2 | 6 | 10 | 0.13 | <10 | <10 | 95 | <10 | | | | Phyllite outcrops in area |
| 91 | 1437 | 23 | 0.62 | <10 | 1.57 | 715 | 0.01 | 730 | <2 | 7 | 26 | 0.17 | <10 | <10 | 115 | <10 | | | | PI & gw float |
| 92 | 1442 | 10 | 0.57 | <10 | 1.45 | 630 | <0.1 | 640 | <2 | 7 | 14 | 0.16 | <10 | <10 | 104 | <10 | | | | Mostly pl w/ gw, minor gs |
| 92 | 1443 | 16 | 0.41 | <10 | 1.59 | 695 | <0.1 | 650 | 2 | 6 | 14 | 0.17 | <10 | <10 | 100 | <10 | | | | PI, gw & gs |
| 93 | 1480 | 11 | 0.36 | <10 | 1.56 | 780 | <0.1 | 570 | <2 | 6 | 14 | 0.19 | <10 | <10 | 93 | <10 | | | | Phyllite and gs in float |
| 93 | 1481 | 16 | 0.5 | <10 | 1.55 | 850 | <0.1 | 570 | <2 | 7 | 17 | 0.22 | <10 | <10 | 107 | <10 | | | | Phyllite, gs, and gw in float |
| 94 | 1476 | 10 | 0.03 | <10 | 0.11 | 55 | 0.01 | 200 | <2 | <1 | 5 | 0.01 | <10 | <10 | 6 | <10 | | | OC | Qz vein |
| 95 | 1430 | 10 | 1.36 | <10 | 1.58 | 825 | 0.06 | 580 | <2 | 25 | 23 | 0.15 | <10 | <10 | 212 | <10 | | | FL | Qz-mica sc to semi-sc w/ minor sulf |
| 95 | 1431 | 10 | 0.96 | <10 | 1.3 | 845 | 0.12 | 540 | <2 | 22 | 51 | 0.13 | <10 | <10 | 187 | <10 | | | FL | Gs & gs-sc w/ minor sulf (po ~1%) |
| 95 | 1432 | <10 | 0.18 | <10 | 1.82 | 910 | 0.02 | 740 | <2 | 11 | 11 | 0.08 | <10 | <10 | 98 | <10 | | | FL | Sil sc w/ minor sulf; po <1% |
| 96 | 1429 | 10 | 0.25 | <10 | 0.82 | 450 | <0.1 | 1000 | <2 | 3 | 13 | 0.07 | <10 | <10 | 55 | <10 | | | OC | Iron seep clay |
| 97 | 1441 | 11 | 0.4 | <10 | 1.8 | 740 | <0.1 | 580 | <2 | 8 | 13 | 0.18 | <10 | <10 | 109 | <10 | | | | PI w/ interbedded gw and gs in area |
| 97 | 1479 | 35 | 0.53 | <10 | 1.27 | 500 | <0.1 | 870 | <2 | 6 | 11 | 0.12 | <10 | <10 | 97 | <10 | | | | Fest phyllite outcrops in area |
| 99 | 1426 | <10 | 0.53 | <10 | 2.11 | 280 | <0.1 | 330 | <2 | 9 | 4 | 0.29 | <10 | <10 | 168 | <10 | | | RC | Metased w/ cp (5-10%) |
| 99 | 1423 | 10 | 0.29 | <10 | 2.58 | 310 | <0.1 | 270 | <2 | 14 | 4 | 0.23 | <10 | <10 | 224 | <10 | | | OC | Felsic sc w/ dissem py & cp (1-2%) |
| 99 | 1424 | <10 | 0.71 | <10 | 2.82 | 370 | <0.1 | 350 | <2 | 13 | 3 | 0.17 | <10 | <10 | 231 | <10 | | | OC | Sericite sc w/ cp (<1%) and chalcocite (?) |
| 99 | 1425 | 10 | <0.1 | <10 | 0.18 | 125 | <0.1 | 20 | <2 | 1 | <1 | <0.1 | <10 | <10 | 12 | <10 | | | OC | Qz stringers in gs |
| 100 | 1434 | <10 | 0.02 | <10 | 0.02 | 45 | <0.1 | <10 | <2 | <1 | <1 | <0.1 | <10 | <10 | 1 | <10 | | | OC | Qz veins in gw; <1% sulf |
| 100 | 1444 | <10 | 1.3 | <10 | 3.47 | 420 | 0.01 | 480 | <2 | 10 | 5 | 0.18 | <10 | <10 | 216 | <10 | | | OC | Gs w/ dissem cp (1-2%) |
| 100 | 1445 | <10 | 0.49 | <10 | 0.99 | 600 | 0.1 | 540 | <2 | 5 | 51 | 0.1 | <10 | <10 | 95 | <10 | | | OC | Fest gs w/ 1-2% cp |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Location | Sam. Type | Sample Size (ft) | Au | Ag | Cu | * | Pb | Zn | Mo | Ni | Co | Al | As | Ba | Be | Bi | Ca | Cd | Cr | Fe | Ga |
|---------|----------|-------------------|-----------|------------------|-----|------|------|---|-----|------|-----|-----|-----|------|------|-----|-----|-------|------|-----|-----|--------|-----|
| | | | | | ppb | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| 100 | 1446 | Mt. Muravief | S | | 90 | <2 | 3000 | | <1 | 160 | <1 | 28 | 28 | 2.96 | 8 | 70 | <5 | <2 | 1.38 | <5 | 151 | 4.86 | <10 |
| 100 | 1447 | Mt. Muravief | S | | <5 | 0.5 | 4000 | | <1 | 890 | 17 | 22 | 44 | 3.71 | 18 | 40 | <5 | <2 | 0.23 | 5 | 299 | 11.5 | 10 |
| 101 | 1433 | Mt. Muravief | G | | 600 | <2 | 73 | | <1 | 107 | 1 | 29 | 15 | 2.72 | <2 | 290 | <5 | <2 | 0.21 | <5 | 114 | 4.3 | <10 |
| 101 | 1435 | Mt. Muravief | S | | <5 | 0.5 | 1070 | | 4 | 171 | 22 | 328 | 71 | 2.73 | 1125 | 40 | <5 | <2 | 1.69 | <5 | 98 | 14.1 | <10 |
| 101 | 1436 | Mt. Muravief | G | | 320 | 0.3 | 1000 | | 1 | 123 | 31 | 238 | 49 | 1.98 | 1685 | 40 | <5 | <2 | 1.43 | <5 | 59 | 10.4 | <10 |
| 102 | 1420 | Mt. Muravief area | G | | <5 | <2 | 106 | | <1 | 124 | 1 | 65 | 31 | 2.96 | <2 | 160 | <5 | <2 | 0.23 | <5 | 211 | 5.76 | 10 |
| 102 | 1427 | Mt. Muravief | SC | 18 @ .5 | <5 | 3.6 | 1.63 | * | 14 | 560 | 9 | 32 | 106 | 3.06 | <2 | 50 | <5 | <2 | 0.29 | 3 | 274 | 8.09 | 10 |
| 102 | 1428 | Mt. Muravief | S | | 80 | 4.1 | 5100 | | 72 | 40 | 272 | 9 | 38 | 0.59 | 6 | 10 | <5 | 12 | 0.01 | <5 | 178 | 8.94 | <10 |
| 102 | 1470 | Mt. Muravief | C | 0.3 | 65 | 12 | 2.79 | * | 24 | 700 | 35 | 12 | 27 | 2.38 | <2 | 40 | <5 | <2 | 0.28 | 3 | 132 | 14 | <10 |
| 102 | 1471 | Mt. Muravief | C | 2.7 | 50 | 9.5 | 2.88 | * | 90 | 1300 | 22 | 105 | 505 | 0.08 | <2 | <10 | <5 | <2 | <.01 | 5 | 7 | >15.00 | <10 |
| 102 | 1472 | Mt. Muravief | Rep | 2.5 | 80 | 11.5 | 3.19 | * | 170 | 1400 | 26 | 90 | 467 | 0.09 | <2 | <10 | <5 | <2 | 0.01 | 3.5 | 9 | >15.00 | <10 |
| 102 | 1473 | Mt. Muravief | S | 0.4 | 100 | 20 | 6.33 | * | 56 | 1900 | 30 | 79 | 420 | 0.3 | <2 | <10 | <5 | <2 | 0.05 | 7.5 | 24 | >15.00 | <10 |
| 102 | 1474 | Mt. Muravief | Rep | 0.2 | 10 | 14.5 | 4.79 | * | 12 | 2200 | 18 | 80 | 328 | 1.31 | 24 | 10 | <5 | Intf* | 0.44 | 11 | 69 | >15.00 | <10 |
| 102 | 1475 | Mt. Muravief | C | 0.4 | <5 | 1.2 | 3450 | | 9 | 115 | 2 | 13 | 30 | 3.23 | <2 | 70 | <5 | <2 | 0.5 | <5 | 269 | 10.4 | 10 |
| 104 | 1421 | Mt. Muravief area | S | | <5 | <2 | 630 | | <1 | 46 | <1 | 33 | 17 | 2.09 | <2 | 100 | <5 | <2 | 1.56 | <5 | 165 | 2.92 | <10 |
| 104 | 1467 | Mt. Muravief area | G | 0.3 | <5 | <2 | 45 | | <2 | 72 | 3 | 22 | 11 | 1.71 | <2 | 90 | <5 | <2 | 3.18 | <5 | 78 | 2.85 | <10 |
| 105 | 1492 | Mt. Muravief area | SS | | <5 | <2 | 84 | | 8 | 126 | 1 | 29 | 21 | 2.81 | 26 | 150 | <5 | <2 | 0.17 | <5 | 49 | 5.91 | <10 |
| 106 | 1482 | Mt. Muravief area | SS | | <5 | <2 | 72 | | 4 | 124 | 1 | 38 | 23 | 2.83 | 34 | 160 | <5 | <2 | 0.24 | <5 | 55 | 5.45 | 10 |
| 107 | 1493 | Mt. Muravief area | SS | | <5 | <2 | 92 | | 8 | 146 | 1 | 42 | 28 | 2.68 | 28 | 120 | <5 | <2 | 0.22 | <5 | 46 | 5.99 | <10 |
| 107 | 1494 | Mt. Muravief area | SS | | <5 | <2 | 86 | | 6 | 130 | 1 | 29 | 22 | 2.76 | 20 | 160 | <5 | <2 | 0.18 | <5 | 48 | 6.02 | <10 |
| 108 | 1483 | Mt. Muravief area | SS | | <5 | <2 | 67 | | 4 | 126 | 1 | 34 | 18 | 2.93 | 28 | 150 | <5 | <2 | 0.19 | <5 | 53 | 5.87 | 10 |
| 109 | 1484 | Mt. Muravief area | SS | | <5 | <2 | 55 | | 4 | 110 | 1 | 23 | 17 | 2.72 | 14 | 140 | <5 | <2 | 0.18 | <5 | 50 | 5.91 | <10 |
| 110 | 1495 | Mt. Muravief area | SS | | <5 | 0.2 | 102 | | 10 | 146 | 1 | 38 | 27 | 2.76 | 50 | 110 | <5 | <2 | 0.2 | <5 | 46 | 6.96 | <10 |
| 111 | 1485 | Mt. Muravief area | SS | | <5 | <2 | 47 | | 2 | 108 | <1 | 21 | 17 | 2.4 | 12 | 160 | <5 | <2 | 0.17 | <5 | 45 | 5.2 | <10 |
| 112 | 1486 | Mt. Muravief area | SS | | <5 | <2 | 76 | | 8 | 110 | 2 | 29 | 20 | 2.58 | 22 | 180 | <5 | <2 | 0.24 | <5 | 48 | 5.8 | <10 |
| 112 | 1487 | Mt. Muravief area | SS | | <5 | 0.2 | 80 | | 14 | 130 | 1 | 31 | 25 | 2.46 | 28 | 140 | <5 | <2 | 0.22 | <5 | 45 | 6.01 | <10 |
| 112 | 1496 | Mt. Muravief area | G | | <5 | <2 | 55 | | <1 | 100 | <1 | 27 | 14 | 2.68 | <2 | 310 | <5 | <2 | 0.28 | <5 | 120 | 4.25 | <10 |
| 113 | 1488 | Mt. Muravief area | SS | | <5 | 0.2 | 97 | | 12 | 156 | 2 | 44 | 29 | 3.01 | 30 | 110 | <5 | <2 | 0.11 | 0.5 | 44 | 7.85 | <10 |
| 114 | 1489 | Mt. Muravief area | SS | | <5 | <2 | 95 | | 14 | 170 | 1 | 55 | 45 | 2.63 | 42 | 70 | <5 | <2 | 0.3 | 0.5 | 38 | 5.83 | <10 |
| 115 | 1498 | Mt. Muravief area | SS | | <5 | <2 | 83 | | 12 | 146 | 1 | 46 | 32 | 2.3 | 42 | 30 | <5 | <2 | 0.17 | <5 | 31 | 5.71 | <10 |
| 116 | 1499 | Mt. Muravief area | SS | | <5 | <2 | 78 | | 10 | 154 | 1 | 45 | 32 | 2.48 | 44 | 50 | <5 | <2 | 0.18 | <5 | 36 | 5.51 | <10 |
| 117 | 1497 | Mt. Muravief area | SS | | <5 | <2 | 60 | | 14 | 106 | 1 | 25 | 17 | 3.03 | 32 | 90 | <5 | <2 | 0.1 | <5 | 44 | 5.92 | <10 |
| 118 | 1490 | Mt. Muravief area | SS | | <5 | <2 | 47 | | 6 | 106 | 1 | 26 | 17 | 2.52 | 14 | 160 | <5 | <2 | 0.16 | <5 | 47 | 4.95 | <10 |
| 119 | 1491 | Mt. Muravief area | SS | | <5 | <2 | 68 | | 6 | 140 | 1 | 38 | 22 | 3.06 | 22 | 180 | <5 | <2 | 0.15 | <5 | 50 | 5.48 | 10 |
| 119 | 1530 | Mt. Muravief area | G | | <5 | <2 | 18 | | <1 | 56 | 1 | 5 | 4 | 1.53 | 2 | 200 | <5 | <2 | 0.13 | <5 | 141 | 2.11 | <10 |
| 120 | 1511 | Mt. Muravief area | G | | <5 | <2 | 145 | | <1 | 132 | <1 | 33 | 24 | 3.28 | 26 | 40 | <5 | <2 | 0.56 | <5 | 187 | 8.38 | <10 |
| 120 | 1512 | Mt. Muravief area | G | | <5 | 1 | 1300 | | <1 | 144 | <1 | 109 | 28 | 2.49 | 72 | 120 | <5 | <2 | 0.58 | <5 | 143 | 10.55 | <10 |
| 121 | 1510 | Mt. Muravief area | SS | | <5 | <2 | 83 | | 10 | 134 | 1 | 40 | 29 | 2.89 | 30 | 150 | <5 | <2 | 0.2 | <5 | 47 | 5.27 | <10 |

Table B-1. Analytical results from mine, prospect, occurrence, and reconnaissance samples

| Map No. | Sam. No. | Hg ppm | K % | La ppm | Mg % | Mn ppm | Na % | P ppm | Sb ppm | Sc ppm | Sr ppm | Ti % | Tl ppm | U ppm | V ppm | W ppm | Pt ppb | Pd ppb | Sam. Site | Sample Description |
|---------|----------|--------|------|--------|------|--------|------|-------|--------|--------|--------|------|--------|-------|-------|-------|--------|--------|-----------|---|
| 100 | 1446 | <10 | 0.47 | <10 | 1.9 | 355 | 0.09 | 790 | 2 | 10 | 22 | 0.14 | <10 | <10 | 120 | <10 | | | OC | Gs w/ seams of cp (2%); copper staining |
| 100 | 1447 | <10 | 1.42 | <10 | 1.72 | 275 | 0.08 | 360 | <2 | 25 | 12 | 0.2 | <10 | <10 | 245 | <10 | | | OC | Alt gs w/ cp, chalcocite (?); cp to 3% |
| 101 | 1433 | <10 | 1.02 | <10 | 1.48 | 725 | 0.02 | 840 | 2 | 8 | 11 | 0.13 | <10 | <10 | 110 | <10 | | | OC | Graphitic pl w/ gw clasts, minor py + po |
| 101 | 1435 | 10 | 0.34 | 10 | 1.22 | 1425 | 0.02 | 5530 | 2 | 5 | 36 | 0.06 | <10 | <10 | 272 | <10 | | | OC | Gs w/ minor sulf; po 3% |
| 101 | 1436 | <10 | 0.39 | 10 | 0.92 | 3910 | 0.01 | 5390 | <2 | 3 | 48 | 0.06 | <10 | <10 | 188 | <10 | | | OC | Sil gs w/ 10-15% sulf, mainly po |
| 102 | 1420 | <10 | 1.18 | <10 | 1.88 | 675 | <.01 | 970 | <2 | 21 | 5 | 0.13 | <10 | <10 | 160 | <10 | | | FL | Sc & gw w/ minor sulf |
| 102 | 1427 | 10 | 0.88 | <10 | 2.48 | 735 | 0.05 | 500 | <2 | 26 | 19 | 0.18 | <10 | <10 | 201 | <10 | | | OC | Felsic sc w/ chalcocite, bornite, cp |
| 102 | 1428 | <10 | 0.15 | <10 | 0.52 | 205 | <.01 | 420 | <2 | 3 | 3 | 0.01 | <10 | <10 | 104 | <10 | | | OC | Chalcocite seam in fel sc |
| 102 | 1470 | <10 | 1.05 | <10 | 1.37 | 470 | 0.04 | 510 | <2 | 11 | 17 | 0.13 | <10 | <10 | 128 | <10 | | | OC | Msv sulf, 50% gossan, w/ po, cp, chalcocite |
| 102 | 1471 | <10 | 0.01 | <10 | 0.01 | 45 | <.01 | <10 | <2 | <1 | <1 | <.01 | <10 | 10 | 8 | <10 | | | OC | Msv chalcocite, po, & cp |
| 102 | 1472 | 10 | 0.01 | <10 | 0.03 | 150 | <.01 | <10 | <2 | <1 | <1 | <.01 | <10 | 10 | 12 | <10 | | | OC | Msv po & cp |
| 102 | 1473 | 10 | 0.04 | <10 | 0.05 | 110 | <.01 | <10 | <2 | 2 | 1 | <.01 | <10 | 10 | 35 | <10 | | | OC | Msv cp, po, & chalcocite |
| 102 | 1474 | 10 | 0.56 | <10 | 0.57 | 380 | 0.1 | Intf* | <2 | 7 | 23 | 0.06 | <10 | <10 | 68 | <10 | | | OC | Msv sulf, po, py, cp, & sl |
| 102 | 1475 | <10 | 1.1 | <10 | 2.2 | 635 | 0.18 | 330 | <2 | 29 | 34 | 0.14 | <10 | <10 | 172 | <10 | | | OC | Qz ser sc w/ 20% sulf; po, py, cp |
| 104 | 1421 | <10 | 0.2 | <10 | 0.77 | 265 | 0.07 | 480 | <2 | 8 | 44 | 0.32 | <10 | <10 | 92 | <10 | | | FL | Metased w/ minor sulf, cp <1% |
| 104 | 1467 | <10 | 0.33 | <10 | 1.08 | 825 | <.01 | 840 | <2 | 6 | 135 | 0.06 | <10 | <10 | 80 | <10 | | | FL | Fest qz vein w/ gw wallrock, sparse po |
| 105 | 1492 | 25 | 0.52 | <10 | 1.43 | 590 | <.01 | 960 | 4 | 5 | 13 | 0.12 | <10 | <10 | 92 | <10 | | | | Pl, gw, minor qz |
| 106 | 1482 | 10 | 0.57 | <10 | 1.4 | 650 | 0.01 | 960 | <2 | 5 | 20 | 0.1 | <10 | <10 | 89 | <10 | | | | Gs sc, phyllite & gs |
| 107 | 1493 | 10 | 0.42 | <10 | 1.39 | 650 | <.01 | 1100 | <2 | 5 | 16 | 0.1 | <10 | <10 | 84 | <10 | | | | Mainly pl or slate |
| 107 | 1494 | 32 | 0.57 | <10 | 1.46 | 605 | <.01 | 960 | <2 | 5 | 11 | 0.13 | <10 | <10 | 94 | <10 | | | | Mainly pl-slate, some gw |
| 108 | 1483 | <10 | 0.63 | <10 | 1.53 | 615 | <.01 | 1050 | <2 | 5 | 13 | 0.1 | <10 | <10 | 88 | <10 | | | | Phyllite and gs float |
| 109 | 1484 | 11 | 0.55 | <10 | 1.49 | 605 | <.01 | 990 | 2 | 4 | 11 | 0.1 | <10 | <10 | 84 | <10 | | | | Phyllite and gw outcrops |
| 110 | 1495 | 14 | 0.41 | <10 | 1.36 | 650 | <.01 | 1170 | 2 | 4 | 20 | 0.1 | <10 | <10 | 83 | <10 | | | | Interlayered pl and gw |
| 111 | 1485 | 10 | 0.57 | <10 | 1.39 | 525 | <.01 | 870 | <2 | 4 | 9 | 0.1 | <10 | <10 | 78 | <10 | | | | Gw and phyllite |
| 112 | 1486 | 35 | 0.64 | <10 | 1.34 | 565 | <.01 | 1050 | <2 | 4 | 19 | 0.11 | <10 | <10 | 83 | <10 | | | | Phyllite and gw outcrops |
| 112 | 1487 | 10 | 0.47 | <10 | 1.34 | 645 | <.01 | 980 | 4 | 4 | 10 | 0.1 | <10 | <10 | 82 | <10 | | | | Gw and phyllite |
| 112 | 1496 | 10 | 1.16 | <10 | 1.52 | 470 | 0.02 | 1230 | <2 | 6 | 15 | 0.15 | <10 | <10 | 92 | <10 | | | RC | Pl w/ dissem & seams of po & py, 1-2% |
| 113 | 1488 | 41 | 0.34 | <10 | 1.18 | 895 | <.01 | 1420 | <2 | 3 | 7 | 0.1 | <10 | <10 | 79 | <10 | | | | Fest phyllite and gw outcrops |
| 114 | 1489 | 23 | 0.17 | <10 | 1.18 | 1145 | <.01 | 1100 | 4 | 4 | 14 | 0.07 | <10 | <10 | 71 | <10 | | | | Phyllite and gw outcrops |
| 115 | 1498 | 36 | 0.07 | <10 | 1.21 | 940 | <.01 | 1090 | <2 | 2 | 7 | 0.05 | <10 | <10 | 47 | <10 | | | | Interbedded pl & gw |
| 116 | 1499 | 32 | 0.14 | <10 | 1.27 | 870 | <.01 | 1050 | 4 | 3 | 8 | 0.07 | <10 | <10 | 57 | <10 | | | | Pl w/ interbedded gw |
| 117 | 1497 | 32 | 0.31 | <10 | 1.25 | 600 | <.01 | 1090 | <2 | 4 | 7 | 0.11 | <10 | <10 | 83 | <10 | | | | Mainly pl w/ interbedded gw |
| 118 | 1490 | 11 | 0.53 | <10 | 1.35 | 590 | <.01 | 950 | <2 | 5 | 9 | 0.1 | <10 | <10 | 86 | <10 | | | | Gw and phyllite outcrops |
| 119 | 1491 | 49 | 0.62 | <10 | 1.41 | 520 | <.01 | 1100 | <2 | 5 | 20 | 0.12 | <10 | <10 | 92 | <10 | | | | Phyllite, gs, and gw in float |
| 119 | 1530 | 20 | 0.61 | <10 | 0.91 | 260 | 0.04 | 480 | <2 | 7 | 16 | 0.1 | <10 | <10 | 71 | <10 | | | FL | Sil fest gs w/ sparse po & trace cp |
| 120 | 1511 | <10 | 0.24 | <10 | 1.66 | 635 | 0.01 | 1480 | 2 | 12 | 21 | 0.14 | <10 | <10 | 150 | <10 | | | OC | Fest gs |
| 120 | 1512 | <10 | 0.22 | <10 | 1.18 | 2270 | <.01 | 2320 | 2 | 10 | 20 | 0.06 | <10 | <10 | 323 | <10 | | | OC | Fest, alt, sil gs w/ minor cp (<1%) |
| 121 | 1510 | 14 | 0.44 | <10 | 1.41 | 705 | <.01 | 1020 | <2 | 5 | 15 | 0.12 | <10 | <10 | 95 | <10 | | | | Pl w/ interbedded gw |

Table B-2. Analytical results from carbonate samples

| Map No. | Sam. No. | Location | Sam. Type | Sample Size (ft) | Al ₂ O ₃ | CaO | Cr ₂ O ₃ | Fe ₂ O ₃ | K ₂ O | MgO | MnO | Na ₂ O | P ₂ O ₅ | SiO ₂ | TiO ₂ | LOI | aCO | OTA | Sam. Site | Sample Description |
|---------|----------|------------|-----------|------------------|--------------------------------|------|--------------------------------|--------------------------------|------------------|------|------|-------------------|-------------------------------|------------------|------------------|------|-------|-------|-----------|------------------------------|
| 3 | LS9 | Westport | | | 0.75 | 46.1 | 0.02 | 0.66 | 0.14 | 4.76 | 0.02 | 0.06 | 0.01 | 5.27 | 0.03 | 41.4 | 82.25 | 99.43 | OC | |
| 4 | LS8 | Westport | | | 0.59 | 50.1 | <.01 | 0.39 | 0.12 | 2.19 | 0.02 | 0.03 | 0.01 | 4.23 | 0.03 | 41.7 | 89.45 | 99.47 | OC | |
| 5 | LS7 | Westport | | | 0.31 | 51.9 | 0.01 | 0.42 | 0.07 | 2.32 | 0.03 | 0.03 | 0.01 | 1.05 | 0.03 | 43.5 | 92.71 | 99.42 | OC | |
| 6 | LS5 | Westport | SC | 150 @ 1 | 0.58 | 51.9 | <.01 | 0.45 | 0.13 | 1.45 | 0.01 | 0.03 | 0.05 | 2.55 | 0.03 | 42.1 | 92.68 | 99.10 | OC | Dark gray, fg, bedded |
| 7 | LS4 | Westport | SC | 150 @ 1 | 0.71 | 51.5 | <.01 | 0.37 | 0.14 | 1.79 | <.01 | 0.01 | 0.08 | 2.48 | 0.03 | 42.3 | 91.96 | 99.70 | OC | Dark gray, fg, fossiliferous |
| 43 | LS3 | Seal Creek | | | 0.18 | 49 | <.01 | 0.12 | 0.06 | 5.18 | <.01 | <.01 | <.01 | 1.85 | 0.01 | 43 | 87.45 | 99.29 | OC | Gray-white banded, some sulf |

Table B-3. Analytical results from REE samples

| Map No. | Sam. No. | Location | Sam. Type | Sample Size (ft) | La | Ce | Nd | Sm | Eu | Tb | Yb | Lu | Th | U | Sam. Site | Sample Description |
|---------|----------|---------------|-----------|------------------|----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----------|---|
| 19 | 1388 | Salt Lake Bay | S | | 22 | 43 | 15 | 2.9 | <.5 | <.5 | 2.6 | 0.4 | 22 | 7 | TP | K-spar pegmatite dike w/ py seams (1%) |
| 23 | 1386 | Salt Lake Bay | S | 0.5 | 10 | 18 | <.5 | 0.7 | 0.4 | <.5 | 0.5 | 0.1 | 15 | 6 | TP | Hem in clay gouge in sheared gd |
| 51 | 1233 | Trap Bay | Rep | | 13 | 25 | 9 | 1.5 | 0.2 | <.5 | 2.1 | 0.4 | 31 | 15 | OC | Minor py, trace cp, in aplite dike in hn |
| 54 | 1224 | Kadashan Bay | Rep | | 55 | 94 | 29 | 4.7 | 0.6 | 0.8 | 5.4 | 0.8 | 41 | 22 | TP | Syenite w/ little to no qz; minor py |
| 54 | 1373 | Kadashan Bay | Rep | 2 | 42 | 76 | 25 | 4.3 | <.5 | 0.7 | 4.8 | 0.8 | 30 | 18 | TP | Alt syenite along shear |
| 55 | 1225 | Corner Creek | Rep | 1 | 49 | 88 | 31 | 5.3 | 1 | 0.9 | 3.6 | 0.5 | 25 | 11 | TP | Alt syenite inclusion in di; py to 2% |
| 56 | 1377 | Corner Creek | Rep | | 19 | 38 | 16 | 3.6 | 0.8 | <.5 | 1.6 | 0.3 | 3.8 | 3 | TP | Highly fractured syenite |
| 57 | 1378 | Kook Lake | SS | | 67 | 125 | 46 | 7 | 1.6 | 0.8 | 3 | 0.5 | 10.1 | 8 | | Syenite, metavolc, & ls float |
| 58 | 1379 | Kook Lake | SS | | 44 | 87 | 37 | 6.2 | 1.5 | 0.6 | 2.7 | 0.4 | 7.8 | 9 | | Volc and syenite float |
| 59 | 1228 | Kook Lake | SS | | 49 | 93 | 37 | 5.8 | 1.3 | 0.5 | 3.8 | 0.6 | 10.4 | 13 | | Gd, syenite & mafic dike rock as float |
| 60 | 1226 | Kook Lake | Rep | | 31 | 69 | 31 | 5 | 1 | 0.6 | 1.7 | 0.3 | 4.1 | 3 | TP | Py & cp in clots to 5% in syenite |
| 61 | 1227 | Kook Lake | SS | | 65 | 119 | 40 | 6.3 | 1.2 | 0.9 | 6.4 | 1.1 | 13.9 | 19 | | Gd, syenite, & volc as float |
| 62 | 1211 | Sitkoh Bay | Rep | | 14 | 30 | 18 | 4.5 | 1.1 | 0.9 | 3 | 0.5 | 1.1 | <.1 | OC | Cg bt-hnbd tonalite w/ finely dissem py |
| 65 | 1363 | Sitkoh Bay | Rep | | 11 | 22 | 8 | 1.3 | <.5 | <.5 | 0.5 | <.1 | 5.5 | 3 | OC | Felsic dike in hn & tonalite |
| 66 | 1362 | Sitkoh Bay | SS | | 40 | 75 | 34 | 5.9 | 1.4 | 0.8 | 2.6 | 0.4 | 6.4 | 8 | | Area of intrusives w/ minor marble |
| 67 | 1217 | Sitkoh Bay | S | | 20 | 40 | 18 | 3.2 | 1.2 | 0.5 | 1.6 | 0.2 | 3.6 | 3 | RC | Clots of py/po in trondhjemite |
| 70 | 1215 | Sitkoh Bay | Rep | 2 | 21 | 37 | 18 | 2.6 | 1.2 | <.5 | 1.2 | 0.2 | 3.6 | 2 | OC | Syenite w/ thin black silicate veinlets |
| 70 | 1359 | Sitkoh Bay | Rep | 2.6 | 13 | 30 | 18 | 4 | 1.3 | 0.6 | 1.9 | 0.3 | 2 | 2 | OC | Diabase dike in alkalic intrusive; po <1% |
| 71 | 1214 | Sitkoh Bay | Rep | | 33 | 59 | 21 | 3.3 | 1.4 | 0.5 | 2.1 | 0.3 | 7.6 | 5 | OC | K-spar-rich syenite |
| 71 | 1358 | Sitkoh Bay | S | | 32 | 55 | 15 | 2.9 | 1.4 | <.5 | 1.8 | 0.3 | 9.1 | 14 | RC | Alkalic intrusive w/ py ~1% |
| 72 | 1213 | Sitkoh Bay | S | 0.1 | 22 | 51 | 28 | 6 | 1.7 | 0.7 | 1.6 | 0.3 | 2.7 | <.1 | OC | Alt tonalite in shear w/ py/po to 10% |

Table B-4. Detection limits by analytical technique.

Fire assay - atomic absorption spectrophotometry finish

| <u>Element</u> | <u>Minimum, ppm</u> | <u>Maximum, ppm</u> |
|----------------|---------------------|---------------------|
| Au | 0.005 | 10 |

Fire assay - inductively coupled argon plasma (ICP) spectroscopy finish

| | | |
|--------|-------|----|
| Au, Pd | 0.002 | 10 |
| Pt | 0.005 | 10 |

Atomic absorption spectrophotometry (AA)

| | | |
|---------------|-------|--------|
| Ag | 0.2 | 100 |
| Cu | 1 | 10,000 |
| Pb | 1 | 10,000 |
| Zn | 1 | 10,000 |
| Mo | 1 | 1,000 |
| Co | 1 | 10,000 |
| Ni | 1 | 10,000 |
| Hg | 0.01 | 100 |
| Cu, ore-grade | 0.01% | 100% |

Inductively coupled argon plasma (ICP) spectroscopy

| <u>Element</u> | <u>Min. ppm</u> | <u>Max. ppm</u> | <u>Element</u> | <u>Min. ppm</u> | <u>Max. ppm</u> |
|----------------|-----------------|-----------------|----------------|-----------------|-----------------|
| Ag | 0.2 | 200 | Ga | 10 | 10,000 |
| Cu | 1 | 10,000 | K | 100 | 100,000 |
| Pb | 2 | 10,000 | La | 10 | 10,000 |
| Zn | 2 | 10,000 | Mg | 100 | 150,000 |
| Mo | 1 | 10,000 | Mn | 5 | 10,000 |
| Ni | 1 | 10,000 | Na | 100 | 50,000 |
| Co | 1 | 10,000 | P | 10 | 10,000 |
| Al | 100 | 150,000 | Sb | 2 | 10,000 |
| As | 2 | 10,000 | Sc | 1 | 10,000 |
| Ba | 10 | 10,000 | Sr | 1 | 10,000 |
| Be | 0.5 | 100 | Ti | 100 | 50,000 |
| Bi | 2 | 10,000 | Tl | 10 | 10,000 |
| Ca | 100 | 150,000 | U | 10 | 10,000 |
| Cd | 0.5 | 100 | V | 1 | 10,000 |
| Cr | 1 | 10,000 | W | 10 | 10,000 |
| Fe | 100 | 150,000 | | | |

Detection Limits - Neutron activation analysis

| <u>Element</u> | <u>Min. ppm</u> | <u>Max. ppm</u> |
|----------------|-----------------|-----------------|
| La | 1 | 10,000 |
| Ce | 2 | 10,000 |
| Nd | 5 | 1,000 |
| Sm | 0.1 | 500 |
| Eu | 0.5 | 100 |
| Tb | 0.5 | 100 |
| Yb | 0.5 | 1,000 |
| Lu | 0.1 | 500 |
| Th | 0.5 | 10,000 |
| U | 1 | 10,000 |

Detection Limits

X-ray fluorescence spectroscopy (XRF)

| <u>Element</u> | <u>Min. %</u> | <u>Max. %</u> |
|--------------------------------|---------------|---------------|
| Al ₂ O ₃ | 0.01 | 100 |
| CaO | 0.01 | 100 |
| Cr ₂ O ₃ | 0.01 | 100 |
| Fe ₂ O ₃ | 0.01 | 100 |
| MgO | 0.01 | 100 |
| MnO | 0.01 | 100 |
| Na ₂ O | 0.01 | 100 |
| P ₂ O ₅ | 0.01 | 100 |
| SiO ₂ | 0.01 | 100 |
| TiO ₂ | 0.01 | 100 |
| LOI | 0.01 | 100 |

Titration

| | | |
|-----|------|-----|
| CaO | 0.01 | 100 |
|-----|------|-----|