BC Geological Survey
Assessment Report
39039

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Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geochemical

TOTAL COST: $9,261.03

AUTHOR(S): Andris Kikauka

SIGNATURE(S): A. Kikauka

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):

YEAR OF WORK: 2020

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5777893

PROPERTY NAME: Copper Island (Pomeroy)

CLAIM NAME(S) (on which the work was done): 848551

COMMODITIES SOUGHT: Cu, Ag, V

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092K 012, 092K 52, 092K 058, 092K 071, 092K 72, 092K 073, 092K 074
092K 103 092K 104 092K 105 092K 113 092K 118 092K 119

MINING DIVISION: Nanaimo

NTS/BCGS: 092K 03/W, 092K.014

LATITUDE: 50 ° 07 ' 04 " LONGITUDE: 125 ° 16 ' 20 " (at centre of work)

OWNER(S):

1) Jared Lazerson 2)

MAILING ADDRESS:

1080 Howe Street, Suite 303 Vancouver, BC V6Z 2T1

OPERATOR(S) [who paid for the work]:

1) same 2)

MAILING ADDRESS:

same

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Property underlain by andesitic, and basaltic volcanic rocks Upper Triassic Karmutsen Formation, amygdaloidal andesitic flows trend NW & N, form dense, fine-medium grained andesitic-basaltic units with thin beds of sedimentary & tuffaceous material flows contain 1-15% amygdules of calcite, quartz, chlorite, actinolite or prehnite, minor veinlets of quartz, calcite and epidote. disseminated chalcocite, trace amounts native copper & chalcopyrite occur in zones of increased fractures, and fault structures

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 852, 5076, 19282, 22264, 24999, 27346, 33093

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TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil	50 samples prep 41, ALS ME-ICP41	848551	7,550.75
Silt			
Rock	4 samples prep 31, ME-ICP41 multi-element	848551	1,710.28
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
		TOTAL COST:	9,261.03

NTS 092K 03/W, TRIM 092K.014

LAT. 50 07' 04" N

LONG. 125 16' 20" W

GEOCHEMICAL

REPORT ON

COPPER ISLAND (POMEROY) MINERAL PROPERTY

POMEROY, COPPER FLAT, BEAVER, & INGERSOLL

MINERAL OCCURRENCES

HERIOT BAY, B.C.

QUADRA ISLAND

Nanaimo Mining Division

by

Andris Kikauka, P.Geo.

4199 Highway 101,

Powell River, BC V8A 0C7

39,039

April 1, 2020

LIST OF FIGURES

1 Summary

The Copper Island mineral claims are located on central Quadra Island, approximately 15 kilometers north of Campbell River, BC. The Copper Island property features a cluster of small to medium size (several thousand tonnes) copper and silver bearing mineral occurrences that collectively, constitute a large resource of high-grade copper (silver is associated with the copper mineralization). Cu-Ag bearing mineralization within the property is hosted in basaltic/andesitic volcanic rocks of the Lower-Upper Triassic Karmutsen Formation. Copper-bearing minerals include chalcocite, with minor occurrences of bornite, native copper, cuprite, malachite and azurite.

The Copper Island property is situated 10 kilometers north of Campbell River, B.C., in the Nanaimo Mining Division of southwest British Columbia, Canada. Access to Quadra Island is via 10 minute (3 kilometers) ferry from Campbell River to Quathiaski Cove. The property is 4 kilometers northwest of the Community of Heriot Bay, Quadra Island. There are numerous secondary forestry and logging roads from Heriot Bay that give good access to most parts of the property. The property consists of five (5) contiguous mineral claims that cover an area of 1,056.62 hectares. Mineral tenures are held by Jared Lazerson on behalf of Copper Island Mines Ltd.

The property also has potential vanadium and manganese concentrations. Previous work has identified vanadium geochemical values that are reported in black, siliceous (& laminated) carbonaceous clastic rocks (located several hundred meters south of the Pomeroy Zone). It is unclear whether the vanadium and manganese are associated with copper-silver. The north portion of Vancouver Island has several 90th percentile RGS anomalies for manganese and vanadium, and may reflect Triassic age black smokers, rift pull-apart zones (sea-floor spreading).

Copper-silver bearing mineralization occurs in amygdaloidal basaltic lava flows. Mineralization is classified as volcanic redbed copper deposit type. Regional controls include extensional fault structures associated with mafic tuffs and stacked deposits at several stratigraphic intervals separated by barren rock. Mineralization occurs as replacement of amygdules, within veins, fracture filling and disseminations. Faulting and minor brecciation are associated with the mineralized zones. Overlying the mineralized flow is a homogeneous medium-coarse grained dense homogeneous mafic flow.

Quadra Island is underlain by Triassic & Jurassic volcanic, sedimentary & intrusive rocks. The predominant rocks are Triassic Karmutsen Formation volcanics, Quatsino formation limestones and Island intrusives of Middle Jurassic age, part of the Coast Intrusive complex. The southern part of the island is covered by Quaternary glacial debris. Glacio-alluvial deposits cover low-lying contacts and fault zones. The Karmutsen and Quatsino Formations host numerous mineral deposits on Vancouver Island such as magnetite (Fe3O4), gold-silver, and copper-lead-zinc-silver-gold deposits such as Buttle Lake. Porphyry type copper, molybdenum-rhenium deposits

of Island Copper at the north end of Vancouver Island, and the iron, copper, and high-calcium limestone deposits on Texada Island. The claim area is underlain by Karmutsen volcanics, which consist chiefly of amygdaloidal, fine to medium-grained, heavily fractured basaltic lava. Mineralized areas are exposed on higher topographic relief where outcrop is exposed. The mineral of interest is chalcocite (CuS), a secondary mineral of copper, with subordinate and local occurrences of bornite (Cu5 FeS4) cuprite (Cu2O), malachite (Cu CO3 (OH)), and native copper (Cu), in highly oxidized materiel. Chalcocite occurs in the higher-grade showings as partial to complete replacement of amygdules in the upper portion of individual flow structures, and as chalcocite in veinlets and fracture fillings, disseminated amygdules (similar to the Keweenan, Point Michigan, copper-bearing basaltic flows). The volcanic flows range in thickness from 1-12 feet (0.3-3.7 meters), and vary in composition from andesitic to basaltic. Many are highly amygdaloidal and the eavities are mainly filled with calcite, quartz, and chlorite. Regionally the volcanic rocks are traversed by major faults that trend northwesterly and have associated jointing and fracturing. Distribution of copper mineralization within the volcanic rocks is erratic and occurs mainly along fractures, within quartz-calcite veinlets, in the amygdules, and disseminated in the flows. Chalcocite is the most abundant copper mineral, with some native copper, malachite and azurite.

Considerable previous work has been performed on the Pomeroy Group copper-silver bearing mineralization. The first recorded mining in the project area was in 1906- 1907, when high grade ores from the Copper Cliff deposit were mined from an adit in the cliff face and shipped to a smelter at Ladysmith B.C. This smelter has since closed. The next period of activity was between 1915 and 1919 when ores from the Pomeroy area were mined by the Valdez Copper Company and shipped to the smelter at Anyox B.C. Samples from the Senator claim in the Pomeroy area were tested for Radium in 1922. Testing was done on siliceous carbonaceous thin-bedded sediments with an electroscope. the instrument used to detect radioactivity at that time. No radioactivity was detected. In 1929 the Pomeroy area was acquired as the Hercules 1-10 Claims by the Hercules Consolidated Mining Smelting and Power Company. Samples collected by Gunning identified acid leachable vanadium which contain the highest V values in a black siliceous sediment, overlying a copper mineralized flow. In 1952-53, Dodge Copper Mines Limited carried out a detailed exploration program of trenching and diamond drilling. Dodge Copper Mines drilled 145 holes totaling 8800 feet on various deposits. The Quadra Mining Company acquired the property in 1968. In 2011, the Pomeroy Group of mineral claims were acquired by Copper Island Mines Ltd. A program of geochemical sampling was carried out and identified several zones of high-grade copper located in the Pomeroy 1-4 mineralized zones, as well as new showings adjacent to the known occurrences.

The known ore deposits occur mainly on the surface and have bean drilled, trenched and sampled in by Prince Stewart Mines Ltd (Sheppard, 1974). Ore tonnage estimates have been made by previous operators (Note-estimates are non-compliant with NI 43-101 standards & guidelines)

In 1973 Prince Stewart Mines Ltd. optioned the properties from Quadra and Quadra Bell and carried out intensive work including 392 metres of diamond drilling. A report of the drilling of one vertical hole to 33.6 metres on the Bit1 claim encountered no visible sulphide mineralization and the remaining holes were recommended to be inclined. Results from the remaining holes are unknown. Prince Stewart estimated indicated reserves from several mineralized zones:

ZONE	TONS*	% COPPER
Pomeroy 1	12,300	3.55
Pomeroy 2 North	5,000	2.70
Pomeroy 2 South	25,000	2.11
Pomeroy 3	194,500	0.67
Pomeroy 4	10,500	2.69
Beaver 1	18,000	1.73

** These reserves probably should be considered as inferred by current standards.*

In 1996 the property was acquired by Ms. Elisa Reyes as the Copper Bell, Copper Cliffs and VC claims. Reyes had Minestart Management Inc. evaluate the property based on property history, review of mineralization, mineralized zones and inferred reserves. Reyes also contracted a mine technologist to review the feasibility of acid leaching 3,000 tons of broken mineralized material extracted previously by Quadra and Quadra Bell. In 1997 the claims were forfeited.

In 2011, the claims were acquired by Copper Island Mines Ltd, and a program of geochemical sampling was carried out on the Pomeroy, Beaver and Colleen Zones. A significant portion of geochemical sampling returned >2% Cu from numerous new & historic copper-silver bearing mineral occurrences (Betmanis, 2012).

The Pomeroy 3, 4 Zone occurs over a strike length of approximately 200 meters (largest of the numerous Cu-Ag zones identified), following a northwest to north trending formation of amygdaloidal basaltic flows. Several parallel zones have been identified (e.g. Copper Valley, Butte, Copper Bell, Colleen, Vanadium & Ingersoll). The Pomeroy zones have been extensively trenched and sampled by large open cuts that exposed large areas of low-grade copper mineralization in a calcite filled amygdules and veinlet stockwork that is evident throughout the property. The other mineralized zones consist of increased quartz, calcite veining, and copper sulphides in 1-10 meter wide altered and fractured zone traced intermittently for approximately 20-200 meters on surface.

The following list describes the various Minfile occurrences located within Copper Island mineral claims (also listed in Appendix E, Minfile Descriptions):

POMEROY 1: 336900E, 5554850N
Area is highly disturbed from pervious workings with blasted material covering up most of the bedrock. There is a 4m long x 3m wide x 3m deep pit. Neighboring outcrop is light-dark green fgr mafic with angular clastic fragments of quartz, epidote, chlorite up to 1cm in a fine grained matrix. There are amygdules present however the majority are angular. This indicates a fault zone breccia or possible pyroclastic flow west of the main pit, in the forest are a series of small trenches (3m x 2m) and blast sites with visible blebs of chalcocite up to 2cm. Malachite staining seen throughout blasted rock. Area of bedrock open cuts with observed mineralization is 25m x 15m. Historic estimates for Pomeroy 1 mineral zone are 16,500 short tons @3.67% Cu (Sheppard, 1974). Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

East of Pomeroy 1 there is a normal fault trending 315 (Fig 3) with the hanging wall on the NE side with a potential vertical displacement of 10m. Mineralization is observed along an E-W trending ridge structure up to 200m long. The structure has potential to be mineralized 200m long x 25m wide x 5m thick. The host rock is a medium green fine grained mafic flow with amygdules up to 5mm. Rock is weathered red-brown and has crackled brecciated appearance. Malachite staining is visible on weathered surface. The dominant rock type is medium green fine grained basalt with quartz and black amygdules. Coarse disseminated blebs of chalcocite up to 3cm were noted.

POMEROY 2: 337540E, 5554480N
North Zone:
Host rock is a fine grained dark green vesicular mafic with 1-3mm amygdules filled with qtz, epidote and chalcocite stained with malachite. Mineralization in pit extends approximately 5m wide x15m long x2m deep. Flows at pit have a shallow dip of 10-15 degrees to south. Rock has crackled weathered appearance, minor brecciation.
Sheppard, 1974: PROVEN: 5,000 short tons @ 2.70% Cu
INDICATED: 17,000 short tons @ 2.70% Cu

POMEROY 3: 337750E, 5554300N
Pomeroy 3 is a series of discontinuous mineralized outcrops, trenches and blast pits along the western edge of a flow structure, east of Pomeroy 2 and 4 (Photo 12, 14). Mineralization is also seen in trenches in the low lying area between Pomeroy 2 and Pomeroy 3, which is interpreted as a N-S fault extending southward between Pomeroy 3 and 4. Outcrops are medium-dark green fine-grained mafic dominated by quartz amygdules up to 1cm, black amygdules also present. Moderate silicification with some quartz veining. At Pomeroy 3 north, there is an intensely brecciated outcrop, rock is soft and friable, malachite and chalcocite occur as disseminations and fracture fillings. Clasts are angular-subangular and vary from 1-10cm. Mineralization is dominant in the matrix but also coating the clasts. This feature supports that there is a N-S trending fault potentially being the control on mineralization of Pomeroy 2, 3 and 4. Above the

mafic, silicified breccia on top of the fault structure, is chalcocite, chalcopyrite and malachite mineralisation. Apparent dip of the Pomeroy 3 mineralized flow is 20 degrees south. From mineralized outcrops and neighboring mineralized pits Pomeroy 3 has a potential thickness of 7 meters.

POMEROY 4: 337650E, 5554150N
Pomeroy 4 is a 200m long x 100m wide structure dipping approximately 15-20o to the south. Mineralization is most apparent on the eastern flank of the structure where there is series of historic pits that extend N-S approximately 70 meters long. The most northerly pit is the site where a historic bulk sample was taken for the Mill. The outcrop contains near vertical fractures that are filled with Chalcocite minor native copper and quartz (Photo 16). Chaotic quartz-carbonate veins and epidote stringers throughout outcrop. Chalcocite is seen disseminated throughout the rock, most noticeably next to veins. Rock has dull grey look, friable, weathered crackled appearance. The southern pit is much larger, 20m long x 15m wide x 10m+ high. Pit has disseminated chalcocite blebs throughout a dark green mafic with small <1mm black amygdules and larger <1cm quartz amygdules. Across the structure along strike is a series of pits and outcrops with weathered, friable malachite stained rock (Photo 18). The top of Pomeroy 4 structure is covered by pods and ridges of dark grey coarse grained mafic (cap flow?).

Pomeroy 3+4
Sheppard, 1974: PROVEN: 972,400 short tons @ 1.22% Cu
INDICATED: 472,000 short tons @ 1.62% Cu

POMEROY 5: 337620E, 5554490N
Pomeroy 5 is east of Pomeroy 2 across the new logging road on the adjacent structure. The mineralized area is 10m long x 2m wide x 2m high. The surrounding rock is a fine grained dark green blocky mafic, whereas at the showing the rock is crackled and weathered as seen in other mineralized zones. Continuous mineralization is not observed, however a NW trending fault contained malachite staining and is traced SE to a series of small mineralized prospects with crackled weathered outcrops with malachite staining. Chalcocite mineralization is hosted in about 10% of the small black 1mm amygdules. The rest of the amygdules are quartz.
Mineral Potential: 100m x 100m x 2m x 2.66 ton/m3 = 53,200 metric tons @ 1.00% Cu

Beaver 1: 338100E, 5553560N
Turtle back structure 100m long (N-S) x 30m wide (E-W). Dark green-grey fine grained mafic with large amounts of Mn staining and high Fe content, highly magnetic on top of ridge. Thin 5mm quartz and epidote veins and stringers throughout outcrop. Three trenches on top of central structure,2 meters wide 2 meters deep. Chalcocite mineralization is visible at the bottom of trenches indicating thickness of 2m+. Malachite staining throughout. Mineralization observed at north end of structure, could entire structure potentially be mineralized. The mineral zone is estimated to contain 19,375 short tons @ 1.74% Cu (Sheppard, 1974). Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

Hall: 336915E, 5555595N
Small blasted pits 3m x 10m on top of a small structure 60m x 30m next to logging road. Mineralization is seen locally within the blasted pits as chalcocite, malachite and azurite. Rock is a dark green fine grained mafic with quartz, chlorite, epidote, chalcocite amygdules 1-3mm in size. Minor Fe and Mn staining. No visible mineralization on neighboring structures which host dark green-grey coarse grained dense mafic flows. West of Hall showing outcrop with 30cm thick quartz veins cutting though mafic flows with epidote stringers.
Sheppard, 1974: PROVEN: 5,000 short tons @ 3.45% Cu
INDICATED: 50,000 short tons @ 2.40% Cu Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

Copper Bell 1: 338290E, 5555028N
Series of small blasts and small pits in an area 15m x 15m. One blast trench found 6m long x 2m wide x 2m deep. Mineralization in this area if found within chaotic quartz-carbonate veins and disseminations in the wallrock proximal to veining. Veins area up to 10cm thick with mafic inclusions up to 5cm. Chalcocite and bornite are the dominant form of copper mineralization within the veins and along selvedges. Chalcocite is seen disseminated in the mafic host rock especially noticeable next to veining. Hostrock is a medium-dark green fine grained mafic that has crackled, brecciated, weathered appearance.

Copper Bell 2: 337920E, 5555150N
Structure is 230m long x 50m wide x 3m thick. Light-medium green amygdaloidal fine grained andesite? It has chl, qtz, and black amygdules. Vuggy quartz clasts and amygdules. 5-10cm quartz veins with visible bornite and malachite. Veins are both vuggy and comb with comb crystal up to 2-2.5cm in length. Epidote stringers throughout. Host rock is moderately silicified giving it lighter appearance. Localized areas have crackled brecciated appearance.
Copper Bell 1 & 2: An estimate of the combined Copper Bell 1 & 2 mineral zones are 112,000 short tons @ 2.55% Cu (Sheppard, 1974). Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

Work performed by the writer in February, 2020 consisted of soil sampling (total number = 50), and rock sampling (total number = 4). Geochemical soil sampling was carried out on the central portion of MTO ID# 848551, in order to test the extent of Cu-Ag bearing mineralization, and rock samples taken over a large area to compare tenor of mineralization.

A total of 4 rock samples, ranging from 0.98-1.4 kilograms in weight, of acorn sized rock chips were taken with rock hammer and moil, and placed in marked poly bags and shipped to ALS Chemex Labs Ltd, North Vancouver, BC for Prep-31 & ME-ICP41 ICP multi-element ultra-trace geochemical analysis, (Appendix A, B). Location was aided by maps from www.Mapplace and Google Earth. Locations were marked by waypoints generated by Garmin 60Cx GPS receiver and considered accurate to within 3-5 meter accuracy for northing and easting (elevations are considered rough estimates, and can not be relied upon). Geological descriptions of rock and soil samples were noted (Appendix C & D).

A total of 50 soil samples covering approximately 100 X 350 m area in the south portion of the claims (Fig 4-13). Soil samples were taken in a grid pattern using Garmin 60Cx GPS receiver for survey control. Using a tree planting shovel and garden trowel (dug with care to provide minimal damage to A horizon vegetation), approximately 0.1-0.5 kilograms of soil from B horizon (identified by colour/texture change at 25-30 cm depth), was placed in brown kraft sample bags along with a numbered sample tag identification, and described in notebook (Appendix D). Sample bags were labelled with black felt markers, and flagged at soil sample locations. Samples were securely shipped to ALS Minerals Ltd, N Vancouver for Prep-41 drying 60 degrees C, sieving 80 mesh prior to ME-MS41, 35 element and Au Aqua Regia ICP-AES ultra-trace level geochemical analysis (details, methods & procedures are described in Appendix A, B: Geochemical Analysis & Methods).

Results of rock sampling in 2020 are summarized as follows:

Sample ID	Easting NAD 83	Northing NAD 83	Elev (m)	Sample Type	Lithology
19CIR-1	337701	5554153	127	outcrop	amygdaloidal basalt
19CIR-2	337688	5554183	128	outcrop	amygdaloidal basalt
19CIR-3	337472	5554583	168	outcrop	amygdaloidal basalt
19CIR-4	338102	5553605	98	outcrop	amygdaloidal basalt

Sample ID	Alteration	Mineralization	Cu ppm	Ag ppm	As ppm
19CIR-1	quartz, chlorite, prehnite, calcite	chalcocite, malachite	76400	24	16
19CIR-2	quartz, chlorite, prehnite, calcite	chalcocite, malachite	66400	24.8	16
19CIR-3	quartz, chlorite, prehnite, calcite	chalcocite, malachite	59500	19.8	3
19CIR-4	quartz, chlorite, prehnite, calcite	chalcocite, malachite	56400	29.4	2

Sample ID	Pb ppm	Zn ppm	Fe %	S %	Ca %	P ppm	Mn ppm	V ppm	Cr ppm	Cu %
19CIR-1	3	59	6.81	1.79	1.62	530	923	354	112	7.64
19CIR-2	4	80	7.21	1.65	2.81	430	1120	344	159	6.64
19CIR-3	<2	80	9.15	1.28	1.44	560	1335	398	155	5.95
19CIR-4	11	102	9.8	1.18	1.81	580	1480	757	216	5.64

Each of the 4 rock chip samples were taken across a sample interval width of 30 cm (from outcrop). The results indicate that high-grade copper values (ranging from 5.64-7.64% Cu) with significant silver (19.8-29.4 g/t Ag) values were obtained from rock chip samples from the Pomeroy 2, 3, & 4 mineral zones. Vanadium content of up to 757 ppm V suggests that vanadium bearing minerals are present, and likely linked with increased Fe.

Soil sampling carried out in 2020 is described (with geochemically analysis) as follows:

Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Zn ppm
CI Pomeroy 3, 4	20CIS-1	337600	5554050	25 cm	red-brown	95	0.3	47
CI Pomeroy 3, 4	20CIS-2	337650	5554050	25 cm	red-brown	56	<0.2	67
CI Pomeroy 3, 4	20CIS-3	337700	5554050	25 cm	red-brown	7870	2.1	82
CI Pomeroy 3, 4	20CIS-4	337750	5554000	25 cm	red-brown	1210	0.5	128
CI Pomeroy 3, 4	20CIS-5	337800	5554050	30 cm	red-brown	421	<0.2	48
CI Pomeroy 3, 4	20CIS-6	337600	5554100	25 cm	brown	108	<0.2	52
CI Pomeroy 3, 4	20CIS-7	337650	5554100	30 cm	brown	85	0.3	88
CI Pomeroy 3, 4	20CIS-8	337700	5554100	25 cm	brown	742	0.2	52
CI Pomeroy 3, 4	20CIS-9	337750	5554100	25 cm	red-brown	5100	1.3	147
CI Pomeroy 3, 4	20CIS-10	337800	5554100	30 cm	red-brown	203	<0.2	108
CI Pomeroy 3, 4	20CIS-11	337600	5554150	25 cm	brown	300	0.2	43
CI Pomeroy 3, 4	20CIS-12	337650	5554100	25 cm	brown	57	<0.2	93
CI Pomeroy 3, 4	20CIS-13	337700	5554150	25 cm	red-brown	4420	1.1	40
CI Pomeroy 3, 4	20CIS-14	337750	5554150	25 cm	red-brown	2770	0.4	38
CI Pomeroy 3, 4	20CIS-15	337800	5554150	30 cm	brown	426	<0.2	43
CI Pomeroy 3, 4	20CIS-16	337600	5554200	25 cm	red-brown	64	0.2	77
CI Pomeroy 3, 4	20CIS-17	337650	5554200	30 cm	red-brown	38	<0.2	87
CI Pomeroy 3, 4	20CIS-18	337700	5554200	25 cm	red-brown	9560	4.2	79
CI Pomeroy 3, 4	20CIS-19	337750	5554200	25 cm	red-brown	1010	0.4	74
CI Pomeroy 3, 4	20CIS-20	337800	5554200	30 cm	brown	373	0.2	73
CI Pomeroy 2	20CIS-21	337400	5554500	25 cm	red-brown	113	0.2	59
CI Pomeroy 2	20CIS-22	337450	5554500	25 cm	red-brown	247	0.4	97
CI Pomeroy 2	20CIS-23	337500	5554500	25 cm	red-brown	127	<0.2	62
CI Pomeroy 2	20CIS-24	337650	5554500	25 cm	red-brown	309	<0.2	77
CI Pomeroy 2	20CIS-25	337600	5554500	30 cm	red-brown	45	<0.2	45
CI Pomeroy 2	20CIS-26	337400	5554550	25 cm	brown	33	<0.2	35
CI Pomeroy 2	20CIS-27	337450	5554550	30 cm	red-brown	160	<0.2	101
CI Pomeroy 2	20CIS-28	337500	5554500	25 cm	brown	24	<0.2	23
CI Pomeroy 2	20CIS-29	337550	5554550	25 cm	brown	95	<0.2	85
CI Pomeroy 2	20CIS-30	337600	5554550	25 cm	brown	268	<0.2	78
CI Pomeroy 2	20CIS-31	337400	5554600	25 cm	red-brown	279	0.2	80
CI Pomeroy 2	20CIS-32	337450	5554600	25 cm	brown	45	<0.2	39
CI Pomeroy 2	20CIS-33	337500	5554600	30 cm	brown	127	0.2	29
CI Pomeroy 2	20CIS-34	337550	5554600	25 cm	brown	1080	0.5	90
CI Pomeroy 2	20CIS-35	337600	5554600	30 cm	red-brown	847	0.6	295
CI Beaver 1	20CIS-36	337650	5554600	25 cm	brown	80	<0.2	109
CI Beaver 1	20CIS-37	337950	5553500	25 cm	red-brown	1030	0.6	60
CI Beaver 1	20CIS-38	338000	5553500	25 cm	red-brown	93	0.2	79
CI Beaver 1	20CIS-39	338050	5553500	25 cm	red-brown	569	0.2	63

Cl Beaver 1	20CIS-40	337950	5553550	30 cm	red-brown	811		0.3	88
Cl Beaver 1	20CIS-41	338000	5553550	25 cm	red-brown	167	<0.2		59
Cl Beaver 1	20CIS-42	338050	5553550	30 cm	brown	167	<0.2		38
Cl Beaver 1	20CIS-43	338000	5553600	25 cm	brown	32	<0.2		50
Cl Beaver 1	20CIS-44	338050	5553600	25 cm	brown	127	<0.2		67
Cl Beaver 1	20CIS-45	338100	5553600	25 cm	red-brown	2670		0.6	37
Cl Beaver 1	20CIS-46	338150	5553600	30 cm	red-brown	693		0.5	658
Cl Beaver 1	20CIS-47	338000	5553650	25 cm	red-brown	36		0.2	79
Cl Beaver 1	20CIS-48	338050	5553650	30 cm	red-brown	290		0.2	96
Cl Beaver 1	20CIS-49	338100	5553650	25 cm	brown	86	<0.2		78
Cl Beaver 1	20CIS-50	338150	5553650	25 cm	brown	279	<0.2		27

Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Zn ppm

Project	Sample ID	Pb ppm	As ppm	P ppm	Mn ppm	Co ppm	Cr ppm	V ppm	% Fe	% Ca	% Ti
Cl Pomeroy 3, 4	20CIS-1	5	6	440	558	16	40	306	5.95	0.84	0.54
Cl Pomeroy 3, 4	20CIS-2	28	4	420	875	25	55	293	7.29	1.66	0.66
Cl Pomeroy 3, 4	20CIS-3	12	36	800	1925	35	101	293	6.88	2.09	0.44
Cl Pomeroy 3, 4	20CIS-4	27	6	700	3070	35	108	247	7.47	2.1	0.51
Cl Pomeroy 3, 4	20CIS-5	36	7	560	1015	12	53	227	5.66	1	0.45
Cl Pomeroy 3, 4	20CIS-6	11	6	450	570	12	29	186	4.03	0.8	0.34
Cl Pomeroy 3, 4	20CIS-7	43	7	670	2660	27	56	182	5.08	1.7	0.4
Cl Pomeroy 3, 4	20CIS-8	52	8	640	801	8	29	58	1.61	0.68	0.09
Cl Pomeroy 3, 4	20CIS-9	40	18	840	6910	35	96	213	6.01	3.19	0.38
Cl Pomeroy 3, 4	20CIS-10	16	3	650	1870	37	125	299	8.32	2.02	0.62
Cl Pomeroy 3, 4	20CIS-11	17	5	380	898	17	33	132	3.69	0.73	0.3
Cl Pomeroy 3, 4	20CIS-12	54	7	750	7090	28	37	171	4.97	1.03	0.34
Cl Pomeroy 3, 4	20CIS-13	20	9	630	635	13	77	109	2.25	2.46	0.15
Cl Pomeroy 3, 4	20CIS-14	7	7	480	595	14	32	156	3.71	0.98	0.28
Cl Pomeroy 3, 4	20CIS-15	6	<2	7190	81	5	72	91	1.32	0.73	0.15
Cl Pomeroy 3, 4	20CIS-16	50	9	1480	2590	33	40	164	5.48	0.81	0.43
Cl Pomeroy 3, 4	20CIS-17	15	5	1050	1505	18	54	225	7.97	0.55	0.49
Cl Pomeroy 3, 4	20CIS-18	7	15	570	1785	36	145	249	6.67	2.8	0.43
Cl Pomeroy 3, 4	20CIS-19	7	7	610	772	25	59	444	8.51	0.91	0.71
Cl Pomeroy 3, 4	20CIS-20	61	6	1150	915	19	89	167	6.53	1.01	0.33
Cl Pomeroy 2	20CIS-21	3	2	410	410	12	37	127	4	0.68	0.34
Cl Pomeroy 2	20CIS-22	14	<2	620	1130	26	86	309	8.58	1	0.6
Cl Pomeroy 2	20CIS-23	46	10	490	1710	20	47	216	6.46	1.04	0.39
Cl Pomeroy 2	20CIS-24	19	3	380	1315	41	31	159	5.44	0.4	0.37
Cl Pomeroy 2	20CIS-25	8	3	380	386	11	36	221	6.26	1.26	0.36
Cl Pomeroy 2	20CIS-26	20	3	240	857	10	26	125	3.28	0.38	0.28
Cl Pomeroy 2	20CIS-27	11	2	610	1115	21	79	315	8.08	0.63	0.72
Cl Pomeroy 2	20CIS-28	17	6	310	335	4	16	101	2.26	0.64	0.26
Cl Pomeroy 2	20CIS-29	131	8	870	2140	22	16	75	2.68	0.81	0.14

CI Pomeroy 2	20CIS-30	54	6	910	5550	123	31	64	3.11	0.61	0.16
CI Pomeroy 2	20CIS-31	25	5	580	1375	106	34	93	4.56	0.37	0.27
CI Pomeroy 2	20CIS-32	44	8	390	577	6	27	151	4.15	1.17	0.35
CI Pomeroy 2	20CIS-33	60	7	860	125	3	25	56	1.06	0.72	0.1
CI Pomeroy 2	20CIS-34	58	6	760	3280	16	42	184	4.57	0.48	0.5
CI Pomeroy 2	20CIS-35	87	15	1220	13300	27	57	91	3.66	2.03	0.17
CI Beaver 1	20CIS-36	50	5	1220	3030	22	51	157	5.38	0.59	0.49
CI Beaver 1	20CIS-37	20	6	790	4200	55	47	115	4.11	0.91	0.23
CI Beaver 1	20CIS-38	27	6	550	1430	24	51	204	5.39	1.29	0.46
CI Beaver 1	20CIS-39	12	3	530	969	17	50	200	5.35	0.94	0.45
CI Beaver 1	20CIS-40	20	7	1340	1010	36	69	130	5.56	0.81	0.28
CI Beaver 1	20CIS-41	7	2	460	593	21	73	301	7.48	1.14	0.72
CI Beaver 1	20CIS-42	24	5	430	468	14	32	165	3.92	0.55	0.36
CI Beaver 1	20CIS-43	10	3	350	328	10	27	167	4.44	0.74	0.39
CI Beaver 1	20CIS-44	13	11	1890	414	11	41	119	4.17	0.37	0.31
CI Beaver 1	20CIS-45	24	8	1080	741	10	38	195	4.54	1.04	0.41
CI Beaver 1	20CIS-46	51	19	1780	17550	49	79	137	6.2	2.61	0.26
CI Beaver 1	20CIS-47	51	10	1290	7100	35	40	170	6.73	1.43	0.41
CI Beaver 1	20CIS-48	66	10	1190	7110	28	68	152	4.56	1.66	0.34
CI Beaver 1	20CIS-49	19	3	470	751	12	33	106	3.74	0.37	0.26
CI Beaver 1	20CIS-50	11	4	340	229	6	25	97	2.87	0.34	0.18
Project	Sample ID	Pb ppm	As ppm	P ppm	Mn ppm	Co ppm	Cr ppm	V ppm	% Fe	% Ca	% Ti

Soil sample results indicate a strong positive copper in soil anomaly located along a N-S trend on the Pomeroy 3, 4 zone between 337,675 E and 337,775 E. The anomalous copper in soil anomaly is shown in Fig 9, and occurs between 5,554,025 N and 5,554,225 N (note- the anomaly is open to the north and south. The Pomeroy 2 (Copper Flats) zone and Beaver 1 analysis results show strong positive copper in soil anomalies however they are more erratically distributed. Silver in soil values closely follow anomalous copper in soil values. There appears to be peripheral manganese in soil anomalies in close proximity to the copper zones and may indicate a sea-floor spreading (rifting) environment of deposition. The high manganese content does not correlate with high Cu-Ag values but the close proximity of high Mn, and localized concentrations of vanadium (up to 444 ppm V) in soil suggests that pyrolusite (MnO_2) and vanadium bearing minerals may be present in the highly differentiated, amygdaloidal basalts, and inter-layered (thin-bedded0 siliceous, carbonaceous clastic sediments.

Before any additional work is done on the property it is recommended that all historical data be converted to digital format and plotted on a common base using a GIS. This will allow integration with the results of historic surveying and drilling/trenching, and will assist in identifying targets for follow-up work. In order to assess the economic potential of the property, IP geophysics of the Pomeroy, Beaver, Colleen, Copper Valley, Copper Valley, Butte and Doe

Zones is recommended to test for chargeability (disseminated sulphide) mineralization. Based on results of geophysics, follow-up drilling, trenching & bulk sample testing may be recommended.

2 Introduction

The following report contains geochemical (rock & soil) sampling information on the Pomeroy & Beaver showings located within the Copper Island mineral property. The information in this report covers surveys & geochemical sampling carried out by the writer done on Feb 2-9, 2020

This technical report has been prepared to conform with requirements for reporting assessment work with MEMPR. The writer has reviewed data pertaining to the property and has prepared a technical report that describes historical work completed on the property, reviews the results of recent geochemical surveys and makes recommendations for further work if warranted.

The writer has checked the B.C. Ministry of Energy, Mines and Petroleum Resources Mineral-Titles-On-Line database, indicating the last recorded Statement of Work (SOW event 5777893) filed (for the five mineral tenures that comprise the property), was recorded on March 11, 2020. This Statement of Work covered work done on the property in February 2020. The results of this work are described in this report.

3 Reliance on Other Experts

The writer has researched previous work by examining MEMPR assessment reports, property files, annual reports, and corporate files. Work done by Sheppard (1973-74, AR 5,076), and Property File has been heavily relied on.

4 Property Description and Location

4.1 Mineral Tenures

Details of the status of tenure ownership for the Copper Island - Pomeroy, Beaver, Copper Bell property were obtained from the Mineral-Titles-Online (MTO) electronic staking system managed by the Mineral Titles Branch of the Province of British Columbia. This system is based on mineral tenures acquired electronically online using a grid cell selection system. Tenure boundaries are based on lines of latitude and longitude. There is no requirement to mark claim boundaries on the ground as these can be determined with reasonable accuracy using a GPS. The Copper Island - Pomeroy, Beaver, Copper Bell claims have not been surveyed.

The mineral tenures comprising the Copper Island - Pomeroy, Beaver, Copper Bell property are shown in Figure 2A & 2B and listed in the table below. The claim map shown in Figure 2 was

generated from GIS spatial data downloaded from the Government of BC, Integrated Land Management Branch (ILMB), Land and Resource Data Warehouse (LRDW) (http://archive.ilmb.gov.bc.ca/lrdw/). These spatial layers are generated by the Mineral-Titles-Online (MTO) electronic staking system that is used to locate and record mineral tenures in British Columbia.

The property consists of five (5) contiguous mineral claims that cover an area of 1,056.62 hectares. Mineral tenures are held by Jared Lazerson on behalf of Copper Island Mines Ltd.

Claim details given in Table 1 were obtained using an online mineral tenure search engine available on the MTO web site. All claims listed in the table are in the Nanaimo Mining Division within NTS map sheet 92K/03W, BCGS 092K.014.

Table of mineral claims (registered MTO titles):

Tenure Number	Type	Claim Name	Issue Date	Good Until	Area (ha)
808082	Mineral	Pomeroy 1	03 JUL 2010	15 JUN 2022	20.72
844515	Mineral		26 JAN 2011	15 JUN 2022	41.4161
848551	Mineral		10 MAR 2011	15 JUN 2022	331.5079
848942	Mineral		15 MAR 2011	15 JUN 2022	207.1898
848943	Mineral		15 MAR 2011	15 JUN 2022	455.7849

Area Total= 1,056.6187 Ha

4.2 Claim Ownership

Information posted on the MTO website indicates that all of the five claims listed are owned 100% by Jared Lazerson, who holds these claims on behalf of Copper Island Mines Ltd.

4.3 Required Permits and Reporting of Work

In British Columbia, an individual or company holds the available mineral or placer mineral rights as defined in section 1 of the Mineral Tenure Act by acquiring title to a mineral tenure. This is now done by electronic staking as described above. In addition to mineral or placer mineral rights, a mineral title conveys the right to use, enter and occupy the surface of the claim or lease for the exploration and development or production of minerals or placer minerals, including the treatment of ore and concentrates, and all operations related to the business of mining providing the necessary permits have been obtained.

In order to maintain a mineral tenure in good standing exploration work or cash in lieu to the value required must be submitted prior to the expiry date. The amount required is specified by Section 8.4 of the British Columbia Mineral Tenure Act Regulation.

Up to 10 years of work or cash in lieu can be applied on a claim. A change in anniversary date can be initiated at anytime and for any period of time up to 10 years. In order to obtain credit for the work done on the Copper Island - Pomeroy, Beaver, Copper Bell property, a Statement of Work (SOW) is submitted and Assessment Report documenting the results of the work done on the property (report must also include an itemized statement of costs).

On July 1, 2012, the Province of British Columbia increased the assessment work required to maintain a mineral tenure in good standing. The tiered increases for mineral claims were revised and expanded, while the single tier for placer claims remained the same. For mineral claims, the assessment work requirement changed from a 2-tier to 4 tier structure. Assessment work requirements are:

- $5.00 per hectare for anniversary years 1 and 2;
- $10.00 per hectare for anniversary years 3 and 4;
- $15.00 per hectare for anniversary years 5 and 6; and
- $20.00 per hectare for subsequent anniversary years.

The PIED (payment instead of exploration & development) rate has been set at double the value of the corresponding assessment work requirement. The minimum requirement for PIED is 6 months, and 12 month (1 year) maximum.

Similar to the assessment work requirements, if a recorded holder wishes to register PIED, the claim will also be treated as if it is in its first anniversary year for the purposes of calculating the assessment requirement, as of the date of implementation (July 1, 2012). PIED will be $10.00 per hectare for anniversary years 1 and 2 for mineral claims (double the work amount).

Prior to initiating any physical work such as drilling, trenching, bulk sampling, camp construction, access upgrading or construction and geophysical surveys requiring line-cutting for electrical current contact points (induced polarization, IP) on a mineral property, a Notice of Work permit application must be filed with and approved by the Ministry of Energy and Mines (FrontCounter). The digital filing of the Notice of Work initiates engagement and consultation with all other stakeholders including First Nations.

The property falls within the K'omoks First Nations land claims. There may be various First Nation Band claims involved also. These treaties have not yet been fully ratified, but for any physical work that would involve surface disturbance, the appropriate First Nations should be consulted. The First Nations could make claim to the surface rights, but sub-surface mineral rights would not be affected. The property is not affected by any registered Indian Reserves. TimberWest holds logging rights on most of the property but is not actively logging in the area.

4.3 Environmental Liabilities

There has not been any commercial scale mining or mineral processing related physical disturbances on the Copper Island property to date. Most of the roads built to access forestry cut blocks have been decommissioned and have grown over and are no longer passable. Roads built for logging activities are not the responsibility of the mineral tenure holder. The author is not aware of any environmental issues or liabilities related to historical exploration or mining activities that would have an impact on future exploration of the property.

5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

5.1 Access

The Copper Island property is situated 10 kilometers north of Campbell River, B.C., in the Nanaimo Mining Division of southwest British Columbia, Canada. Access to Quadra Island is via 10 minute (3 kilometers) ferry from Campbell River to Quathiaski Cove. The property is 4 kilometers northwest of the Community of Heriot Bay, Quadra Island. There are numerous secondary forestry and logging roads from Heriot Bay that give good access to most parts of the property.

The property is located on Quadra Island 10 kilometers north from Campbell River, Vancouver Island, British Columbia and 4 kilometers northwest from Heriot Bay, Quadra Island. The centre of the property is approximately geographically 50° 07' 15" N, 125° 16' 15" W; or UTM Zone 10, 5,554,480 N, 337,645 E (NAD^{83}). The claims are located on NTS map sheet 092K03 or BCGS sheet 092K.014. The property is easily accessible from Campbell River, B.C. by ferry and then paved and secondary roads. Numerous secondary forestry and logging roads from Heriot Bay give access to most parts of the property. Vehicle access is available year round except temporarily during the winter months after occasional heavier snowfalls.

5.2 Climate & Physiography

The area has undergone several periods of logging. Most of the timber on the property is second growth fir, some hemlock, cedar and with a scattering of alder and poplar. The timber on most of the property is still too immature for commercial logging in the near future. Tree planting on a small scale is being undertaken on parts of the property. Underbrush in the main areas of interest is negligible except for some salal. Underbrush in the main valleys and surrounding the small lakes and ponds can be heavier. Although parts of the property that are in the main valleys may have significant overburden cover, large parts of the current main known areas of interest have abundant rock exposure with insignificant overburden cover.

Logging and forestry roads exist on the property and provide a good network of vehicle access to most parts of the property. The old system of logging roads as shown on government meps and in previous property raports has been almost obliterated and overgrown from lack of use. The current roads are accessible most of the time year-round except during occasional heavier snow falls in winter. In general the winters are mild due to the low elevation and proximity to the ocean.

5.3 Local Resources

Resources are somewhat limited on Quadra Island, which is primarily a tourist and retirement center, but Campbell River is a city that can provide a wide variety of services and facilities that include international airports, health and emergency services, mechanical, equipment, lumber, transportation and retail stores.

5.4 Infrastructure

The property area is accessible via logging and forestry service roads. The nearest community is Heriot Bay, B.C., which is approximately 7 kilometres east-sontheast of the property centre. If required, loading and handling industrial scale shipments of goods and mined materials can be handled by personnel of maritime vessels.

5.5 Physiography

The Copper Island-Pomeroy, Beaver, Copper Bell property is located in an area of well-defined mountains and intervening, u-shaped glacial valleys. Elevations on the property vary between 0 and 260 metres above mean sea level. The mountain sides are moderately steep with steeper sections found in the southern portion of the property near Copper Cliff. Bedrock exposure is greater than 30 percent on steep slopes near the ridge tops, but it is very limited at lower elevations in valleys. Overall, the topography (ridge tops) trend north to northwest.

6 History.

6.1 Historic Exploration and Development Work

Considerable previous work has been performed on the Pomeroy Group copper-silver bearing mineralization. The first recorded mining in the project area was in 1906- 1907, when high grade ores from the Copper Cliff deposit were mined from an adit in the cliff face and shipped to a smelter at Ladysmith B.C. This smelter has since closed. The next period of activity was between 1915 and 1919 when ores from the Pomeroy area were mined by the Valdez Copper Company and shipped to the smelter at Anyox B.C. Samples from the Senator claim in the Pomeroy area were tested for Radium in 1922. Testing was done on siliceous carbonaceous thin-bedded sediments with an electroscope. the instrument used to detect radioactivity at that time. No radioactivity was detected. In 1929 the Pomeroy area was acquired as the Hercules 1-10 Claims by the Hercules Consolidated Mining Smelting and Power Company. Samples collected by Gunning identified acid leachable vanadium which contain the highest V values in a black siliceous sediment, overlying a copper mineralized flow. In 1952-53, Dodge Copper Mines Limited carried out a detailed exploration program of trenching and diamond drilling. Dodge Copper Mines drilled 145 holes totaling 8800 feet on various deposits. The Quadra Mining Company acquired the property in 1968. In 2011, the Pomeroy Group of mineral claims were acquired by Copper Island Mines Ltd. A program of geochemical sampling was carried out and identified several zones of high grade copper located in the Pomeroy 1-4 mineralized zones, as well as new showings adjacent to the known occurrences.

The known ore deposits occur mainly on the surface and have bean drilled, trenched and sampled in by Prince Stewart Mines Ltd (Sheppard, 1974). Ore tonnage estimates have been made by previous operators (Note-estimates are non-compliant with NI 43-101 standards & guidelines)

In 1973 Prince Stewart Mines Ltd. optioned the properties from Quadra and Quadra Bell and carried out intensive work including 392 metres of diamond drilling. A report of the drilling of one vertical hole to 33.6 metres on the Bit1 claim encountered no visible sulphide mineralization and the remaining holes were recommended to be inclined. Results from the remaining holes are unknown. Prince Stewart estimated indicated reserves from several mineralized zones:

ZONE	TONS*	% COPPER
Pomeroy 1	12,300	3.55
Pomeroy 2 North	5,000	2.70
Pomeroy 2 South	25,000	2.11
Pomeroy 3	194,500	0.67
Pomeroy 4	10,500	2.69
Beaver 1	18,000	1.73

** These reserves probably should be considered as inferred by current standards.*

In 1996 the property was acquired by Ms. Elisa Reyes as the Copper Bell, Copper Cliffs and VC claims. Reyes had Minestart Management Inc. evaluate the property based on property history, review of mineralization, mineralized zones and inferred reserves. Reyes also contracted a mine technologist to review the feasibility of acid leaching 3,000 tons of broken mineralized material extracted previously by Quadra and Quadra Bell. In 1997 the claims were forfeited.

In 2011, the claims were acquired by Copper Island Mines Ltd, and a program of geochemical sampling was carried out on the Pomeroy, Beaver and Colleen Zones. A significant portion of geochemical sampling returned >2% Cu from numerous new & historic copper-silver bearing mineral occurrences (Betmanis, 2012).

7 Geological Setting and Mineralization

7.1 Regional Geology

Quadra Island is underlain by Triassic & Jurassic volcanic, sedimentary & intrusive rocks. The predominant rocks are Triassic Karmutsen Formation volcanics, Quatsino formation limestones and Island intrusives of Middle Jurassic age, part of the Coast Intrusive complex. The southern part of the island is covered by Quaternary glacial debris. Glacio-alluvial deposits cover low-lying contacts and fault zones. The Karmutsen and Quatsino Formations host numerous mineral deposits on Vancouver Island such as magnetite (Fe3O4), gold-silver, and copper-lead-zinc-silver-gold deposits sueh as Buttle Lake. Porphyry type copper, molybdenum-rhenium deposits of Island Copper at the north end of Vancouver Island, and the iron, copper, and high-calcium limestone deposits on Texada Island. The claim area is underlain by Karmutsen volcanics, which consist chiefly of amygdaloidal, fine to medium-grained, heavily fractured basaltic lava.

7.2 Structure

Steep to moderate dipping fracturing and faulting are evident in the basaltic volcanic host rocks. Northwest-trending structures are most common with north and east trending structures being subordinate. Quartz-calcite veins and veinlets trend in multiple directions.

7.3 Property Geology and Mineral Occurrences

The Pomeroy 3, 4 Zone occurs over a strike length of approximately 600 feet (183 meters) of a northwest to north trending formation of volcanic flows. Several parallel zones have been identified (e.g. Copper Valley, Butte, Copper Bell, Colleen, Vanadium & Ingersoll). The Pomeroy zones have been extensively trenched and sampled by large open cuts that exposed large areas of low-grade copper mineralization in a calcite filled amygdules and veinlet stockwork that is evident throughout the property. The other mineralized zones consist of

increased quartz, calcite veining, and copper sulphides in 1-10 meter wide altered and fractured zone traced intermittently for approximately 20-200 meters on surface.

The following list describes geology & mineralization of nine Minfile occurrences located within Copper Island mineral claims (note- Appendix E lists all 13 Minfile occurrences):

POMEROY 1: 336900E, 5554850N
Area is highly disturbed from pervious workings with blasted material covering up most of the bedrock. There is a 4m long x 3m wide x 3m deep pit. Neighboring outcrop is light-dark green fgr mafic with angular clastic fragments of quartz, epidote, chlorite up to 1cm in a fine grained matrix. There are amygdules present however the majority are angular. This indicates a fault zone breccia or possible pyroclastic flow west of the main pit, in the forest are a series of small trenches (3m x 2m) and blast sites with visible blebs of chalcocite up to 2cm. Malachite staining seen throughout blasted rock. Area of bedrock open cuts with observed mineralization is 25m x 15m. Historic estimates for Pomeroy 1 mineral zone are 16,500 short tons @3.67% Cu (Sheppard, 1974). Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

East of Pomeroy 1 there is a normal fault trending 315 (Fig 3) with the hanging wall on the NE side with a potential vertical displacement of 10m. Mineralization is observed along an E-W trending ridge structure up to 200m long. The structure has potential to be mineralized 200m long x 25m wide x 5m thick. The host rock is a medium green fine grained mafic flow with amygdules up to 5mm. Rock is weathered red-brown and has crackled brecciated appearance. Malachite staining is visible on weathered surface. The dominant rock type is medium green fine grained basalt with quartz and black amygdules. Coarse disseminated blebs of chalcocite up to 3cm were noted.

POMEROY 2: 337540E, 5554480N

North Zone:
Host rock is a fine grained dark green vesicular mafic with 1-3mm amygdules filled with qtz, epidote and chalcocite stained with malachite. Mineralization in pit extends approximately 5m wide x15m long x2m deep. Flows at pit have a shallow dip of 10-15 degrees to south. Rock has crackled weathered appearance, minor brecciation.
Sheppard, 1974: PROVEN: 5,000 short tons @ 2.70% Cu
INDICATED: 17,000 short tons @ 2.70% Cu

POMEROY 3: 337750E, 5554300N
Pomeroy 3 is a series of discontinuous mineralized outcrops, trenches and blast pits along the western edge of a flow structure, east of Pomeroy 2 and 4 (Photo 12, 14). Mineralization is also seen in trenches in the low lying area between Pomeroy 2 and Pomeroy 3, which is interpreted as a N-S fault extending southward between Pomeroy 3 and 4. Outcrops are medium-dark green fine-grained mafic dominated by quartz amygdules up to 1cm, black amygdules also present. Moderate silicification with some quartz veining. At Pomeroy 3 north, there is an intensely brecciated outcrop, rock is soft and friable, malachite and chalcocite occur as disseminations and

fracture fillings. Clasts are angular-subangular and vary from 1-10cm. Mineralization is dominant in the matrix but also coating the clasts. This feature supports that there is a N-S trending fault potentially being the control on mineralization of Pomeroy 2, 3 and 4. Above the mafic, silicified breccia on top of the fault structure, is chalcocite, chalcopyrite and malachite mineralisation. Apparent dip of the Pomeroy 3 mineralized flow is 20 degrees south. From mineralized outcrops and neighboring mineralized pits Pomeroy 3 has a potential thickness of 7 meters.

POMEROY 4: 337650E, 5554150N
Pomeroy 4 is a 200m long x 100m wide structure dipping approximately 15-20o to the south. Mineralization is most apparent on the eastern flank of the structure where there is series of historic pits that extend N-S approximately 70 meters long. The most northerly pit is the site where a historic bulk sample was taken for the Mill. The outcrop contains near vertical fractures that are filled with Chalcocite minor native copper and quartz (Photo 16). Chaotic quartz-carbonate veins and epidote stringers throughout outcrop. Chalcocite is seen disseminated throughout the rock, most noticeably next to veins. Rock has dull grey look, friable, weathered crackled appearance. The southern pit is much larger, 20m long x 15m wide x 10m+ high. Pit has disseminated chalcocite blebs throughout a dark green mafic with small <1mm black amygdules and larger <1cm quartz amygdules. Across the structure along strike is a series of pits and outcrops with weathered, friable malachite stained rock (Photo 18). The top of Pomeroy 4 structure is covered by pods and ridges of dark grey coarse grained mafic (cap flow?).

Pomeroy 3+4
Sheppard, 1974: PROVEN: 972,400 short tons @ 1.22% Cu
INDICATED: 472,000 short tons @ 1.62% Cu

POMEROY 5: 337620E, 5554490N
Pomeroy 5 is east of Pomeroy 2 across the new logging road on the adjacent structure. The mineralized area is 10m long x 2m wide x 2m high. The surrounding rock is a fine grained dark green blocky mafic, whereas at the showing the rock is crackled and weathered as seen in other mineralized zones. Continuous mineralization is not observed, however a NW trending fault contained malachite staining and was traced SE to a series of small mineralized prospects with crackled weathered outcrops with malachite staining. Chalcocite mineralization is hosted about 10% of the small black 1mm amygdules. The rest of the amygdules are quartz.
Mineral Potential: 100m x 100m x 2m x 2.66 ton/m3 = 53,200 metric tons @ 1.00% Cu

Beaver 1: 338100E, 5553560N
Turtle back structure 100m long (N-S) x 30m wide (E-W). Dark green-grey fine grained mafic with large amounts of Mn staining and high Fe content, highly magnetic on top of ridge. Thin 5mm quartz and epidote veins and stringers throughout outcrop. Three trenches on top of central structure,2 meters wide 2 meters deep. Chalcocite mineralization is visible at the bottom of trenches indicating thickness of 2m+. Malachite staining throughout. Mineralization observed at north end of structure, could entire structure potentially be mineralized. The mineral zone is estimated to contain 19,375 short tons @ 1.74% Cu (Sheppard, 1974). Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

Hall: 336915E, 5555595N
Small blasted pits 3m x 10m on top of a small structure 60m x 30m next to logging road. Mineralization is seen locally within the blasted pits as chalcocite, malachite and azurite. Rock is a dark green fine grained mafic with quartz, chlorite, epidote, chalcocite amygdules 1-3mm in size. Minor Fe and Mn staining. No visible mineralization on neighboring structures which host dark green-grey coarse grained dense mafic flows. West of Hall showing outcrop with 30cm thick quartz veins cutting though mafic flows with epidote stringers.
Sheppard, 1974: PROVEN: 5,000 short tons @ 3.45% Cu
INDICATED: 50,000 short tons @ 2.40% Cu Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

Copper Bell 1: 338290E, 5555028N
Series of small blasts and small pits in an area 15m x 15m. One blast trench found 6m long x 2m wide x 2m deep. Mineralization in this area if found within chaotic quartz-carbonate veins and disseminations in the wallrock proximal to veining. Veins area up to 10cm thick with mafic inclusions up to 5cm. Chalcocite and bornite are the dominant form of copper mineralization within the veins and along selvedges. Chalcocite is seen disseminated in the mafic host rock especially noticeable next to veining. Hostrock is a medium-dark green fine grained mafic that has crackled, brecciated, weathered appearance.

Copper Bell 2: 337920E, 5555150N
Structure is 230m long x 50m wide x 3m thick. Light-medium green amygdaloidal fine grained andesite? It has chl, qtz, and black amygdules. Vuggy quartz clasts and amygdules. 5-10cm quartz veins with visible bornite and malachite. Veins are both vuggy and comb with comb crystal up to 2-2.5cm in length. Epidote stringers throughout. Host rock is moderately silicified giving it lighter appearance. Localized areas have crackled brecciated appearance.
Copper Bell 1 & 2: An estimate of the combined Copper Bell 1 & 2 mineral zones are 112,000 short tons @ 2.55% Cu (Sheppard, 1974). Note that historic estimates are not compliant with NI 43-101 and are not to be relied upon.

8 Deposit Types

Copper Island property Cu-Ag bearing mineral showings on the property have been classified as a volcanic redbed copper (silver) deposit types. The Pomeroy Zones are a primary target for these redbed type deposits. In general, the Cu-Ag deposits tend to be crudely stratified along lithological basaltic flow contacts, forming clusters (lenses) along NW to N (minor E) trending fracture/fault zones along S to SW dipping basalt flow contacts. Volcanic redbed Cu-Ag occurrences are also known as basaltic Cu, volcanic-hosted copper, and copper mantos (Lefebvre, 1996). Examples in British Columbia include Sustut Copper (094D063), Shamrock (092HNE092), NH (093L082), North Star (094D032). Outside of BC examples of volcanic redbed Cu includes White River (Yukon, Canada), 47 Zone and June, Coppermine River area

(Northwest Territories, Canada) Mountain Grill and Radovan (Alaska, USA), Calumet-Hecla and Kearsarga, Keweenaw Peninsula (Michigan, USA), Mantos Blancos, Ivan and Altamira (Chile).

Mineralogy of volcanic redbed Cu deposits includes chalcocite, bornite and/or native copper occur in mafic to felsic volcanic flows, tuff and breccia and related sedimentary rocks as disseminations, veins and infilling amygdules, fractures and flowtop breccias. Some deposits are tabular, stratabound zones, while others are controlled by structures and crosscut stratigraphy.

These deposits occur in intracontinental rift tectonic settings with subaerial flood basalt sequences and near plate margins with island-arc and continental-arc volcanics. Amygdaloidal basaltic lavas, breccias and coarse volcaniclastic beds with associated volcanic tuffs, siltstone, sandstone and conglomerate are the most common host rocks. The volcanics may cover the spectrum from basalt to rhyolite composition, typically it is the mafic volcanics that have widespread elevated background values of copper due to the presence of native copper or chalcocite in amygdules, flow breccias or minor fractures. Many volcanic redbed Cu deposits are tabular lenses from a few to several tens of metres thick which are roughly concordant with the host strata over several hundred metres. Other deposits are strongly influenced by structural controls and crosscut the stratigraphy as veins, veinlets, fault breccias and disseminated zones. Open spaces may be amygdules, cavities in flowtop breccias or fractures. Mineralization is commonly fine-grained, although spectacular examples of copper "nuggets" are known (Lefebvre, 1996).

Mineralogy of volcanic redbed Cu deposits are characterized by a suite of minerals including chalcocite, bornite, native copper, and digenite, with lesser amounts of djurleite, chalcopyrite, covellite, native silver and greenockite in a gangue of hematite, magnetite, calcite, quartz, epidote, chlorite and zeolite minerals. Iron sulphides, including pyrite, typically peripheral to the ore. Some deposits are zoned from chalcocite through bornite and chalcopyite to fringing pyrite. Copper-arsenic minerals, such as domeykite, algodonite and whitneyite, occur in fissure veins in the Keewenaw Peninsula. Deposits appear to be confined to subaerial to shallow-marine volcanic sequences commonly with intercalated redbeds. Geochemically, volcanic redbed Cu deposits produce a very specific geochemical signature for Cu and usually Ag. Lithogeochemical and stream sediment samples may return high values of Cu and Ag, typically high Cu/Zn ratios and low gold values. Geophysical induced polarization (IP) surveys can be effectively used to delineate disseminated sulphide mineralization.

Typical grade and tonnage of volcanic redbed Cu deposits range in size from hundreds of thousands to hundreds of millions of tonnes grading from less than 1% Cu to more than 4% Cu. Silver values are only reported for some deposits and vary between 6 and 80 g/t Ag. Sustut (located approximately 250 km NW of Prince George, BC) has been estimated to contain 43.5 Mt grading 0.82% Cu. The Calumet conglomerate (Hecla and Kearsarga, Keweenaw Peninsula, Michigan, USA) produced 72.4 Mt grading 2.64% Cu. Only a few deposits have been high enough grade to support underground mines and the majority of occurrences are too small to be economic as open pit operations. The Keweenaw Peninsula deposits in Michigan produced 5 Mt of copper between 1845 and 1968. Currently, operating mines in Chile are producing significant copper from Mantos Blancos, Ivan and Altamira volcanic redbed Cu deposits (Lefebure, 1996).

9 Exploration

Work performed by the writer in February, 2020 consisted of soil sampling (total number = 50), and rock sampling (total number = 4). Geochemical soil sampling was carried out on the central portion of MTO ID# 848551, in order to test the extent of Cu-Ag bearing mineralization, and rock samples taken over a large area to compare tenor of mineralization.

A total of 4 rock samples, ranging from 0.98-1.4 kilograms in weight, of acorn sized rock chips were taken with rock hammer and moil, and placed in marked poly bags and shipped to ALS Chemex Labs Ltd, North Vancouver, BC for Prep-31 & ME-ICP41 ICP multi-element ultra-trace geochemical analysis, (Appendix A, B). Location was aided by maps from www.Mapplace and Google Earth. Locations were marked by waypoints generated by Garmin 60Cx GPS receiver and considered accurate to within 3-5 meter accuracy for northing and easting (elevations are considered rough estimates, and can not be relied upon). Geological descriptions of rock and soil samples were noted (Appendix C & D).

A total of 50 soil samples covering approximately 100 X 350 m area in the south portion of the claims (Fig 4-13). Soil samples were taken in a grid pattern using Garmin 60Cx GPS receiver for survey control. Using a tree planting shovel and garden trowel (dug with care to provide minimal damage to A horizon vegetation), approximately 0.1-0.5 kilograms of soil from B horizon (identified by colour/texture change at 25-30 cm depth), was placed in brown kraft sample bags along with a numbered sample tag identification, and described in notebook (Appendix D). Sample bags were labelled with black felt markers, and flagged at soil sample locations. Samples were securely shipped to ALS Minerals Ltd, N Vancouver for Prep-41 drying 60 degrees C, sieving 80 mesh prior to ME-MS41, 35 element and Au Aqua Regia ICP-AES ultra-trace level geochemical analysis (details, methods & procedures are described in Appendix A, B: Geochemical Analysis & Methods).

Results of rock sampling in 2020 are summarized as follows:

Sample ID	Easting NAD 83	Northing NAD 83	Elev (m)	Sample Type	Lithology
19CIR-1	337701	5554153	127	outcrop	amygdaloidal basalt
19CIR-2	337688	5554183	128	outcrop	amygdaloidal basalt
19CIR-3	337472	5554583	168	outcrop	amygdaloidal basalt
19CIR-4	338102	5553605	98	outcrop	amygdaloidal basalt

Sample ID	Alteration	Mineralization	Cu ppm	Ag ppm	As ppm
19CIR-1	quartz, chlorite, prehnite, calcite	chalcocite, malachite	76400	24	16
19CIR-2	quartz, chlorite, prehnite, calcite	chalcocite, malachite	66400	24.8	16
19CIR-3	quartz, chlorite, prehnite, calcite	chalcocite, malachite	59500	19.8	3
19CIR-4	quartz, chlorite, prehnite, calcite	chalcocite, malachite	56400	29.4	2

Sample ID	Pb ppm	Zn ppm	Fe %	S %	Ca %	P ppm	Mn ppm	V ppm	Cr ppm	Cu %
19CIR-1	3	59	6.81	1.79	1.62	530	923	354	112	7.64
19CIR-2	4	80	7.21	1.65	2.81	430	1120	344	159	6.64
19CIR-3	<2	80	9.15	1.28	1.44	560	1335	398	155	5.95
19CIR-4	11	102	9.8	1.18	1.81	580	1480	757	216	5.64

Each of the 4 rock chip samples were taken across a sample interval width of 30 cm (from outcrop). The results indicate that high-grade copper values (ranging from 5.64-7.64% Cu) with significant silver (19.8-29.4 g/t Ag) values were obtained from rock chip samples from the Pomeroy 2, 3, & 4 mineral zones. Vanadium content of up to 757 ppm V suggests that vanadium bearing minerals are present, and likely linked with increased Fe.

Soil sampling carried out in 2020 is described and geochemically analyzed as follows:

Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Zn ppm
CI Pomeroy 3, 4	20CIS-1	337600	5554050	25 cm	red-brown	95	0.3	47
CI Pomeroy 3, 4	20CIS-2	337650	5554050	25 cm	red-brown	56	<0.2	67
CI Pomerny 3, 4	20CIS-3	337700	5554050	25 cm	red-brown	7870	2.1	82
CI Pomeroy 3, 4	20CIS-4	337750	5554050	25 cm	red-brown	1210	0.5	128
CI Pomeroy 3, 4	20CIS-5	337800	5554050	30 cm	red-brown	421	<0.2	48
CI Pomeroy 3, 4	20CIS-6	337600	5554100	25 cm	brown	108	<0.2	52
CI Pomeroy 3, 4	20CIS-7	337650	5554100	30 cm	brown	85	0.3	88
CI Pomeroy 3, 4	20CIS-8	337700	5554100	25 cm	brown	742	0.2	52
CI Pomeroy 3, 4	20CIS-9	337750	5554100	25 cm	red-brown	5100	1.3	147
CI Pomeroy 3, 4	20CIS-10	337800	5554100	30 cm	red-brown	203	<0.2	108
CI Pomeroy 3, 4	20CIS-11	337600	5554150	25 cm	brown	300	0.2	43
CI Pomeroy 3, 4	20CIS-12	337650	5554150	25 cm	brown	57	<0.2	93
CI Pomeroy 3, 4	20CIS-13	337700	5554100	25 cm	red-brown	4420	1.1	40
CI Pomeroy 3, 4	20CIS-14	337750	5554150	25 cm	red-brown	2770	0.4	38
CI Pomeroy 3, 4	20CIS-15	337800	5554150	30 cm	brown	426	<0.2	43
CI Pomeroy 3, 4	20CIS-16	337600	5554200	25 cm	red-brown	64	0.2	77
CI Pomeroy 3, 4	20CIS-17	337650	5554200	30 cm	red-brown	38	<0.2	87
CI Pomeroy 3, 4	20CIS-18	337700	5554200	25 cm	red-brown	9560	4.2	79
CI Pomeroy 3, 4	20CIS-19	337750	5554200	25 cm	red-brown	1010	0.4	74
CI Pomeroy 3, 4	20CIS-20	337800	5554200	30 cm	brown	573	0.2	73
CI Pomeroy 2	20CIS-21	337400	5554500	25 cm	red-brown	113	0.2	59
CI Pomeroy 2	20CIS-22	337450	5554500	25 cm	red-brown	247	0.4	97
CI Pomeroy 2	20CIS-23	337500	5554500	25 cm	red-brown	127	<0.2	62
CI Pomeroy 2	20CIS-24	337550	5554500	25 cm	red-brown	309	<0.2	77
CI Pomeroy 2	20CIS-25	337600	5554500	30 cm	red-brown	45	<0.2	45
CI Pomeroy 2	20CIS-26	337400	5554550	25 cm	brown	33	<0.2	35
CI Pomeroy 2	20CIS-27	337450	5554550	30 cm	red-brown	160	<0.2	101
CI Pomeroy 2	20CIS-28	337500	5554550	25 cm	brown	24	<0.2	23

CI Pomeroy 2	20CIS-29	337550	5554550	25 cm	brown	95	<0.2		85
CI Pomeroy 2	20CIS-30	337600	5554550	25 cm	brown	268	<0.2		78
CI Pomeroy 2	20CIS-31	337400	5554600	25 cm	red-brown	279		0.2	80
CI Pomeroy 2	20CIS-32	337450	5554600	25 cm	brown	45	<0.2		39
CI Pomeroy 2	20CIS-33	337500	5554600	30 cm	brown	127		0.2	29
CI Pomeroy 2	20CIS-34	337550	5554600	25 cm	brown	1080		0.5	90
CI Pomeroy 2	20CIS-35	337600	5554600	30 cm	red-brown	847		0.6	295
CI Beaver 1	20CIS-36	337650	5554600	25 cm	brown	80	<0.2		109
CI Beaver 1	20CIS-37	337950	5553500	25 cm	red-brown	1030		0.6	60
CI Beaver 1	20CIS-38	338000	5553500	25 cm	red-brown	93		0.2	79
CI Beaver 1	20CIS-39	338000	5553500	25 cm	red-brown	569		0.2	63
CI Beaver 1	20CIS-40	337950	5553550	30 cm	red-brown	811		0.3	88
CI Beaver 1	20CIS-41	338000	5553550	25 cm	red-brown	167	<0.2		59
CI Beaver 1	20CIS-42	338050	5553550	30 cm	brown	167	<0.2		38
CI Beaver 1	20CIS-43	338000	5553600	25 cm	brown	32	<0.2		58
CI Beaver 1	20CIS-44	338050	5553600	25 cm	brown	127	<0.2		67
CI Beaver 1	20CIS-45	338100	5553600	25 cm	red-brown	2670		0.6	37
CI Beaver 1	20CIS-46	338150	5553600	30 cm	red-brown	693		0.5	658
CI Beaver 1	20CIS-47	338000	5553650	25 cm	red-brown	36		0.2	79
CI Beaver 1	20CIS-48	338050	5553650	30 cm	red-brown	290		0.2	96
CI Beaver 1	20CIS-49	338100	5553650	25 cm	brown	86	<0.2		78
CI Beaver 1	20CIS-50	338150	5553650	25 cm	brown	279	<0.2		27

Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Zn ppm	

Project	Sample ID	Pb ppm	As ppm	P ppm	Mn ppm	Co ppm	Cr ppm	V ppm	% Fe	% Ca	% Ti
CI Pomeroy 3, 4	20CIS-1	5	6	440	558	16	40	306	5.95	0.84	0.54
CI Pomeroy 3, 4	20CIS-2	28	4	420	875	25	55	293	7.29	1.66	0.66
CI Pomeroy 3, 4	20CIS-3	12	36	800	1925	35	101	293	6.88	2.09	0.44
CI Pomeroy 3, 4	20CIS-4	27	6	700	3070	35	108	247	7.47	2.1	0.51
CI Pomeroy 3, 4	20CIS-5	36	7	560	1015	12	53	227	5.66	1	0.45
CI Pomeroy 3, 4	20CIS-6	11	6	450	570	12	29	186	4.03	0.8	0.34
CI Pomeroy 3, 4	20CIS-7	43	7	670	2660	27	56	182	5.08	1.7	0.4
CI Pomeroy 3, 4	20CIS-8	52	8	640	801	8	29	58	1.61	0.68	0.09
CI Pomeroy 3, 4	20CIS-9	40	18	840	6910	35	96	213	6.01	3.19	0.38
CI Pomeroy 3, 4	20CIS-10	16	3	650	1870	37	125	299	8.32	2.02	0.62
CI Pomeroy 3, 4	20CIS-11	17	5	380	898	17	33	132	3.69	0.73	0.3
CI Pomeroy 3, 4	20CIS-12	54	7	750	7090	28	37	171	4.97	1.03	0.34
CI Pomeroy 3, 4	20CIS-13	29	9	630	635	13	77	109	2.25	2.46	0.15
CI Pomeroy 3, 4	20CIS-14	7	7	480	595	14	32	156	3.71	0.98	0.28
CI Pomeroy 3, 4	20CIS-15	6	<2	7190	81	5	72	91	1.32	0.73	0.15
CI Pomeroy 3, 4	20CIS-16	50	9	1480	2590	33	40	164	5.48	0.81	0.43
CI Pomeroy 3, 4	20CIS-17	15	5	1050	1505	18	54	225	7.97	0.55	0.49
CI Pomeroy 3, 4	20CIS-18	7	15	570	1785	36	145	249	6.67	2.8	0.43

Cl Pomeroy 3, 4	20CIS-19	7	7	610	772	25	59	444	8.51	0.91	0.71
Cl Pomeroy 3, 4	20CIS-20	61	6	1150	915	19	89	167	6.53	1.01	0.33
Cl Pomeroy 2	20CIS-21	3	2	410	410	12	37	127	4	0.68	0.34
Cl Pomeroy 2	20CIS-22	14	<2	620	1130	26	86	309	8.58	1	0.6
Cl Pomeroy 2	20CIS-23	46	10	490	1710	20	47	216	6.46	1.04	0.39
Cl Pomeroy 2	20CIS-24	19	3	380	1315	41	31	159	5.44	0.4	0.37
Cl Pomeroy 2	20CIS-25	8	3	380	386	11	36	221	6.26	1.26	0.36
Cl Pomeroy 2	20CIS-26	20	3	240	857	10	26	125	3.28	0.38	0.28
Cl Pomeroy 2	20CIS-27	11	2	610	1115	21	79	315	8.08	0.63	0.72
Cl Pomeroy 2	20CIS-28	17	6	310	335	4	16	101	2.26	0.64	0.26
Cl Pomeroy 2	20CIS-29	131	8	870	2140	22	16	75	2.68	0.81	0.14
Cl Pomeroy 2	20CIS-30	54	6	910	5550	123	31	64	3.11	0.61	0.16
Cl Pomeroy 2	20CIS-31	25	5	580	1375	106	34	93	4.56	0.37	0.27
Cl Pomeroy 2	20CIS-32	44	8	390	577	6	27	151	4.15	1.17	0.35
Cl Pomeroy 2	20CIS-33	60	7	860	125	3	25	56	1.06	0.72	0.1
Cl Pomeroy 2	20CIS-34	58	6	760	3280	16	42	184	4.57	0.48	0.5
Cl Pomeroy 2	20CIS-35	87	15	1220	13300	27	57	91	3.66	2.03	0.17
Cl Beaver 1	20CIS-36	50	5	1220	3030	22	51	157	5.38	0.59	0.49
Cl Beaver 1	20CIS-37	20	6	790	4200	55	47	115	4.11	0.91	0.23
Cl Beaver 1	20CIS-38	27	6	550	1430	24	51	204	5.39	1.29	0.46
Cl Beaver 1	20CIS-39	12	3	530	969	17	50	200	5.35	0.94	0.45
Cl Beaver 1	20CIS-40	26	7	1340	1010	36	69	130	5.56	0.81	0.28
Cl Beaver 1	20CIS-41	7	2	460	593	21	73	301	7.48	1.14	0.72
Cl Beaver 1	20CIS-42	24	5	430	468	14	32	165	3.92	0.55	0.36
Cl Beaver 1	20CIS-43	10	3	350	328	10	27	167	4.44	0.74	0.39
Cl Beaver 1	20CIS-44	13	11	1890	414	11	41	119	4.17	0.37	0.31
Cl Beaver 1	20CIS-45	24	8	1080	741	10	38	195	4.54	1.04	0.41
Cl Beaver 1	20CIS-46	51	19	1780	17550	49	79	137	6.2	2.61	0.26
Cl Beaver 1	20CIS-47	51	10	1290	7100	35	40	170	6.73	1.43	0.41
Cl Beaver 1	20CIS-48	66	10	1190	7110	28	68	152	4.56	1.66	0.34
Cl Beaver 1	20CIS-49	19	3	470	751	12	33	106	3.74	0.37	0.26
Cl Beaver 1	20CIS-50	11	4	340	229	6	25	97	2.87	0.34	0.18
Project	Sample ID	Pb ppm	As ppm	P ppm	Mn ppm	Co ppm	Cr ppm	V ppm	% Fe	% Ca	% Ti

Soil sample results indicate a strong positive copper in soil anomaly located along a N-S trend on the Pomeroy 3, 4 zone between 337,675 E and 337,775 E. The anomalous copper in soil anomaly is shown in Fig 9, and occurs between 5,554,025 N and 5,554,225 N (note- the anomaly is open to the north and south. The Pomeroy 2 (Copper Flats) zone and Beaver 1 analysis results show strong positive copper in soil anomalies however they are more erratically distributed. Silver in soil values closely follow anomalous copper in soil values. There appears to be peripheral manganese in soil anomalies in close proximity to the copper zones and may indicate a sea-floor spreading (rifting) environment of deposition. The high manganese content does not correlate with high Cu-Ag values but the close proximity of high Mn, and localized

concentrations of vanadium (up to 444 ppm V) in soil suggests that pyrolusite (MnO_2) and vanadium bearing minerals may be present in significant quantities in the highly differentiated, amygdaloidal basalts.

10 Drilling

Core drilling has been done on the Copper Island - Pomeroy, Beaver, Copper Bell property and this work is described in the History section of this report. Drill logs from drilling in the 1970's are not available in the public record.

11 Sample Preparation, Analyses, & Security

Sample preparation is described in Appendix B, and geochemical analysis is shown in Appendix A. The samples were transported in secure conditions and were not tampered with.

12 Data Verification

Quality Control for each sample analyzed is listed in Appendix A geochemical analysis certificates.

13 Mineral Processing and Metallurgical Testing

Obtaining bulk samples by excavating surface mineralization from Pomeroy mineralization is relatively easy because of good access.

14 Mineral Resource Estimates

Not applicable.

15 Mineral Reserve Estimates

Not applicable.

16 Adjacent Properties

The area 2-12 km north of the subject property contains an assortment of Cu-Ag-Au-Zn(W) bearing vein, volcanic redbed Cu, skarn and manto deposit types. Notable Cu-Ag-Au-Zn(W) bearing mineral occurrences include Lucky Jim, Contact, Nat, WFP, Copper Road, Madison, Great Gold, Rebecca, Pelican, Plato, and Trilby. Of all the adjacent property mineral occurrences, only Copper Road is a volcanic redbed Cu (chalcocite, malachite, chalcopyrite) deposit type. All other adjacent properties (besides Copper Road) are classified as Cu-Ag vein, Cu skarn, and polymetallic vein deposit types.

17 Relevant Data

The exploration & development work required to develop the resources of the Pomeroy and adjacent zones within the mineral titles can be done without conflicting with recreational trail use of the area.

18 Interpretations and Conclusions

Rock chip sample results from 2020 fieldwork indicate that high-grade copper values (ranging from 5.64-7.64% Cu) with significant silver (19.8-29.4 g/t Ag) values were obtained from rock chip samples from the Pomeroy 2, 3, & 4 mineral zones. Vanadium content of up to 757 ppm V suggests that vanadium bearing minerals are present, and likely linked with increased Fe. It's uncertain whether the V-Mn zones correlate with distal portions of Cu-Ag zone, or may be a separate age

Soil sample results from 2020 fieldwork indicate a strong positive copper in soil anomaly located along a N-S trend on the Pomeroy 3, 4 zone between 337,675 E and 337,775 E. The anomalous copper in soil anomaly is shown in Fig 9, and occurs between 5,554,025 N and 5,554,225 N (note- the anomaly is open to the north and south. The Pomeroy 2 (Copper Flats) zone and Beaver 1 analysis results show strong positive copper in soil anomalies however they are more erratically distributed. Silver in soil values closely follow anomalous copper in soil values. There appears to be peripheral manganese in soil anomalies in close proximity to the copper zones and may indicate a sea-floor spreading (rifting) environment of deposition. The high manganese content does not correlate with high Cu-Ag values but the close proximity of high Mn, and localized concentrations of vanadium (up to 444 ppm V) in soil suggests that pyrolusite (MnO2) and vanadium bearing minerals may be present in the highly differentiated, amygdaloidal basalts, and inter-layered (thin-bedded0 siliceous, carbonaceous clastic sediments.

19 Recommendations

Before any additional work is done on the property, it's recommended that all historical data be converted to digital format and plotted on a common base using a GIS. This will allow integration with the results of historic surveying and drilling/trenching, and will assist in identifying targets for follow-up work. In order to assess the economic potential of the property, IP geophysics of the Pomeroy, Beaver, Colleen, Copper Valley, Copper Valley, Butte and Doe Zones is recommended to test for chargeability (disseminated sulphide) mineralization. Geophysical induced polarization (IP) surveys can be effectively used to delineate disseminated sulphide mineralization.

Based on results of geophysics, follow-up drilling, trenching & bulk sample testing may be recommended.

20 References

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CERTIFICATE AND DATE

I, Andris Kikauka, of 4199 Highway, Powell River, BC am a self-employed professional geoscientist. I hereby certify that:

1. I am a graduate of Brock University, St. Catharines, Ont., with an Honours Bachelor of Science Degree in Geological Sciences, 1980.
2. I am a Fellow in good standing with the Geological Association of Canada.
3. I am registered in the Province of British Columbia as a Professional Geoscientist.
4. I have practiced my profession for thirty five years in precious and base metal exploration in the Cordillera of Western Canada, U.S.A., Mexico, Central America, and South America, as well as for three years in uranium exploration in the Canadian Shield.
5. The information, opinions, and recommendations in this report are based on fieldwork carried out in my presence on the subject property during which time a technical evaluation consisting of geochemical sampling, surveying was carried during February, 2020.
6. I have no direct interest in Copper Island's Property and Copper Island Mines. The recommendations in this report are intended for general planning purposes & direction, and cannot be used for the purpose of public financing.
7. I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that is not reflected in the Technical Report, the omission to diselose which makes the Technical Report misleading.
8. This technical work report supports requirements of BCEMPR for Exploration and Development Work/Expiry Date Change.

Andris Kikauka, P. Geo.,

A. Kikauka

April 1, 2020

ITEMIZED COST STATEMENT-
Copper Island (Pomeroy, Beaver, Colleen, Copper Bell, Copper Cliff, Doe) MINERAL TENURES

808082
844515
848551
~~848662~~
848942
848943
~~848944~~
~~848946~~
~~848947~~

FIELDWORK PERFORMED FEBRUARY 2-9, 2020,
WORK PERFORMED ON MINERAL TENURE 848551
NANAIMO MINING DIVISION, NTS 92K 3W (TRIM 092K 014)

FIELD CREW:

A Kikauka (Geologist) 8 days (surveying, mapping, sampling)	**$ 5,040.00**

FIELD COSTS:

Mob/demob/preparation	**328.20**
Meals and accommodations	**694.98**
Truck mileage & fuel	**409.65**
Equipment & safety supplies (first aid, bags, flags, tags)	**88.90**
ICP AES (ALS ME-MS41, & Au-ICP21)	
geochemical analysis geochemistry (4 rock samples)	**156.80**
ICP AES (ALS ME-MS41)	
geochemical analysis geochemistry (50 soil samples)	**1,347.50**
Communications (VHF radio, cell phone)	**45.00**
Report	**1,150.00**
Total=	**$ 9,261.03**

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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Finalized Date: 24-MAR-2020
This copy reported on
25-MAR-2020
Account: KIKAND

Appendix A Geochemical Analysis Certificates

CERTIFICATE VA20061909

Project: Copper Island

This report is for 50 Soil samples submitted to our lab in Vancouver, BC, Canada on 13-MAR-2020.

The following have access to data associated with this certificate:

ANDRIS KIKAUKA

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both
DISP-01	Disposal of all sample fractions

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
Cu-OG46	Ore Grade Cu - Aqua Regia	
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Saa Traxler, General Manager, North Vancouver

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Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061909

Sample Description / Method / Analyte / Units / LOD	WEI-21 Recvd Wt. kg 0.02	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10
19CIS-1	0.28	0.3	2.22	6	<10	30	<0.5	<2	0.84	<0.5	16	40	95	5.95	10
19CIS-2	0.42	<0.2	2.37	4	<10	20	<0.5	<2	1.66	<0.5	25	55	56	7.29	20
19CIS-3	0.38	2.1	4.19	36	10	20	<0.5	5	2.09	<0.5	35	101	7870	6.88	10
19CIS-4	0.34	0.5	3.09	6	<10	50	<0.5	2	2.10	<0.5	35	108	1210	7.47	20
19CIS-5	0.44	<0.2	1.84	7	<10	20	<0.5	<2	1.00	<0.5	12	53	421	5.66	10
19CIS-6	0.30	<0.2	1.62	6	<10	40	<0.5	<2	0.80	<0.5	12	29	108	4.03	10
19CIS-7	0.22	0.3	2.45	7	<10	60	<0.5	<2	1.70	<0.5	27	56	85	5.08	10
19CIS-8	0.14	0.2	0.86	8	<10	30	<0.5	<2	0.68	<0.5	8	29	742	1.61	<10
19CIS-9	0.38	1.3	3.94	18	10	70	<0.5	<2	3.19	<0.5	35	96	5100	6.01	10
19CIS-10	0.30	<0.2	3.11	3	<10	30	<0.5	3	2.02	<0.5	37	125	203	8.32	20
19CIS-11	0.22	0.2	2.50	5	<10	30	<0.5	2	0.73	<0.5	17	33	300	3.69	10
19CIS-12	0.36	<0.2	2.07	7	<10	100	<0.5	<2	1.03	<0.5	28	37	57	4.97	10
19CIS-13	0.22	1.1	1.63	9	<10	10	<0.5	<2	2.46	<0.5	13	77	4420	2.25	<10
19CIS-14	0.28	0.4	1.88	7	<10	20	<0.5	<2	0.98	1.7	14	32	2770	3.71	10
19CIS-15	0.16	<0.2	6.29	<2	<10	30	0.6	<2	0.73	<0.5	5	72	426	1.32	10
19CIS-16	0.40	0.2	2.14	9	<10	50	<0.5	<2	0.81	<0.5	33	40	64	5.48	10
19CIS-17	0.38	<0.2	2.85	5	<10	40	<0.5	2	0.55	<0.5	18	54	38	7.97	10
19CIS-18	0.78	4.2	4.71	15	10	20	<0.5	2	2.80	<0.5	36	145	>10000	6.67	10
19CIS-19	0.38	0.4	4.38	7	<10	20	<0.5	<2	0.91	0.7	25	59	1010	8.51	20
19CIS-20	0.14	0.2	2.01	6	<10	40	<0.5	2	1.01	<0.5	19	89	573	6.53	10
19CIS-21	0.18	0.2	1.96	2	<10	50	<0.5	<2	0.68	<0.5	12	37	113	4.00	10
19CIS-22	0.32	0.4	3.20	<2	<10	50	<0.5	4	1.00	<0.5	26	86	247	8.58	20
19CIS-23	0.30	<0.2	1.81	10	<10	20	<0.5	<2	1.04	<0.5	20	47	127	6.46	10
19CIS-24	0.18	<0.2	2.63	3	<10	30	0.7	<2	0.40	<0.5	41	31	309	5.44	10
19CIS-25	0.24	<0.2	1.77	3	<10	20	<0.5	<2	1.26	<0.5	11	36	45	6.26	10
19CIS-26	0.26	<0.2	0.99	3	<10	40	<0.5	<2	0.38	<0.5	10	26	33	3.28	10
19CIS-27	0.32	<0.2	2.44	2	<10	40	<0.5	2	0.63	<0.5	21	79	160	8.08	20
19CIS-28	0.26	<0.2	0.88	6	<10	20	<0.5	<2	0.64	<0.5	4	16	24	2.26	10
19CIS-29	0.10	<0.2	0.89	8	<10	90	<0.5	<2	0.81	<0.5	22	16	95	2.68	<10
19CIS-30	0.20	<0.2	3.37	6	<10	40	1.1	<2	0.61	<0.5	123	31	268	3.11	10
19CIS-31	0.18	0.2	3.51	5	<10	30	1.3	2	0.37	<0.5	106	34	279	4.56	10
19CIS-32	0.24	<0.2	1.13	8	<10	20	<0.5	<2	1.17	<0.5	6	27	45	4.15	10
19CIS-33	0.16	0.2	0.97	7	<10	20	<0.5	<2	0.72	<0.5	3	25	127	1.06	<10
19CIS-34	0.28	0.5	1.05	6	<10	60	<0.5	2	0.48	<0.5	16	42	1080	4.57	10
19CIS-35	0.34	0.6	2.47	15	10	150	<0.5	<2	2.03	0.9	27	57	847	3.66	10
19CIS-36	0.42	<0.2	2.14	5	<10	130	<0.5	<2	0.59	<0.5	22	51	80	5.38	10
19CIS-37	0.24	0.6	3.87	6	<10	50	0.7	<2	0.91	<0.5	55	47	1030	4.11	10
19CIS-38	0.26	0.2	2.11	6	<10	60	<0.5	<2	1.29	<0.5	24	51	93	5.39	10
19CIS-39	0.26	0.2	3.18	3	<10	50	<0.5	<2	0.94	<0.5	17	50	569	5.35	10
19CIS-40	0.18	0.3	3.59	7	<10	50	0.7	<2	0.81	<0.5	36	69	811	5.56	10

***** See Appendix Page for comments regarding this certificate *****

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4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061909

Sample Description	Method / Analyte / Units / LOD	ME-ICP41 Hg ppm 1	ME-ICP41 K % 0.01	ME-ICP41 La ppm 10	ME-ICP41 Mg % 0.01	ME-ICP41 Mn ppm 5	ME-ICP41 Mo ppm 1	ME-ICP41 Na % 0.01	ME-ICP41 Ni ppm 1	ME-ICP41 P ppm 10	ME-ICP41 Pb ppm 2	ME-ICP41 S % 0.01	ME-ICP41 Sb ppm 2	ME-ICP41 Sc ppm 1	ME-ICP41 Sr ppm 1	ME-ICP41 Th ppm 20
19CIS-1		<1	0.03	<10	0.53	558	1	0.02	23	440	5	0.04	<2	7	29	<20
19CIS-2		<1	0.02	<10	0.92	875	1	0.02	30	420	28	0.04	<2	12	33	<20
19CIS-3		1	0.03	10	2.45	1925	1	0.02	66	800	12	0.05	<2	21	17	<20
19CIS-4		<1	0.03	10	0.73	3070	1	0.02	42	700	27	0.07	<2	12	20	<20
19CIS-5		<1	0.03	<10	0.39	1015	1	0.02	15	560	36	0.06	<2	5	13	<20
19CIS-6		<1	0.04	<10	0.41	570	1	0.02	17	450	11	0.05	<2	4	30	<20
19CIS-7		1	0.05	<10	1.21	2660	1	0.02	37	670	43	0.08	<2	12	49	<20
19CIS-8		<1	0.04	<10	0.48	801	1	0.02	22	640	52	0.10	<2	3	30	<20
19CIS-9		1	0.02	10	1.56	6910	1	0.02	72	840	40	0.08	<2	18	27	<20
19CIS-10		<1	0.03	10	0.52	1870	1	0.02	35	650	16	0.04	<2	13	15	<20
19CIS-11		<1	0.03	<10	0.48	898	1	0.02	22	380	17	0.05	<2	5	21	<20
19CIS-12		1	0.04	10	0.60	7090	<1	0.02	26	750	54	0.06	<2	10	36	<20
19CIS-13		1	0.06	10	0.83	635	4	0.03	49	630	29	0.13	<2	8	20	<20
19CIS-14		<1	0.03	<10	0.64	595	1	0.02	20	480	7	0.04	<2	5	17	<20
19CIS-15		1	0.02	10	0.09	81	<1	0.02	19	7190	6	0.21	<2	13	8	<20
19CIS-16		<1	0.05	10	0.55	2590	1	0.02	27	1480	50	0.09	2	9	20	<20
19CIS-17		<1	0.04	10	0.68	1505	1	0.02	26	1050	15	0.04	2	10	12	<20
19CIS-18		1	0.04	10	2.95	1785	2	0.02	91	570	7	0.05	<2	23	14	<20
19CIS-19		<1	0.04	<10	1.11	772	2	0.02	40	610	7	0.04	<2	9	19	<20
19CIS-20		<1	0.03	10	0.17	915	1	0.01	25	1150	61	0.08	<2	6	8	<20
19CIS-21		<1	0.04	<10	0.50	410	1	0.02	20	410	3	0.04	<2	3	32	<20
19CIS-22		<1	0.04	10	0.40	1130	2	0.02	46	620	14	0.05	<2	6	38	<20
19CIS-23		<1	0.03	<10	0.40	1710	1	0.02	19	490	46	0.05	2	7	10	<20
19CIS-24		1	0.03	<10	0.46	1315	1	0.02	24	380	19	0.05	<2	3	11	<20
19CIS-25		<1	0.02	<10	0.26	386	1	0.02	12	380	8	0.06	<2	6	16	<20
19CIS-26		<1	0.03	<10	0.27	857	<1	0.02	12	240	20	0.03	<2	2	14	<20
19CIS-27		1	0.05	<10	0.25	1115	1	0.02	31	610	11	0.05	<2	4	29	<20
19CIS-28		<1	0.02	<10	0.20	335	1	0.02	8	310	17	0.04	<2	2	9	<20
19CIS-29		1	0.06	10	0.11	2140	1	0.02	19	870	131	0.14	<2	3	33	<20
19CIS-30		1	0.04	20	0.32	5550	1	0.03	49	910	54	0.09	<2	6	21	<20
19CIS-31		<1	0.04	10	0.33	1375	<1	0.02	40	580	25	0.05	<2	6	14	<20
19CIS-32		<1	0.03	<10	0.14	577	1	0.02	13	390	44	0.06	<2	5	8	<20
19CIS-33		1	0.03	<10	0.13	125	<1	0.02	14	860	60	0.20	<2	3	9	<20
19CIS-34		1	0.04	<10	0.16	3280	1	0.02	17	760	58	0.07	<2	3	17	<20
19CIS-35		1	0.04	10	0.27	13300	<1	0.02	56	1220	87	0.15	<2	7	44	<20
19CIS-36		<1	0.04	<10	0.36	3030	1	0.02	31	1220	50	0.05	<2	5	42	<20
19CIS-37		1	0.04	10	0.62	4200	1	0.02	41	790	20	0.11	<2	8	29	<20
19CIS-38		<1	0.04	<10	0.61	1430	1	0.02	23	550	27	0.05	<2	6	23	<20
19CIS-39		<1	0.07	10	0.97	969	1	0.02	36	530	12	0.04	<2	7	20	<20
19CIS-40		<1	0.07	10	0.31	1010	1	0.02	30	1340	26	0.05	<2	6	13	<20

***** See Appendix Page for comments regarding this certificate *****

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CERTIFICATE OF ANALYSIS VA20061909

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Cu-OG46
	Analyte	Ti	Tl	U	V	W	Zn	Cu
	Units	%	ppm	ppm	ppm	ppm	ppm	%
	LOD	0.01	10	10	1	10	2	0.001
19CIS-1		0.54	<10	<10	306	<10	47	
19CIS-2		0.66	<10	<10	293	<10	67	
19CIS-3		0.44	<10	<10	293	<10	82	
19CIS-4		0.51	<10	<10	247	<10	128	
19CIS-5		0.45	<10	<10	227	<10	48	
19CIS-6		0.34	<10	<10	186	<10	52	
19CIS-7		0.40	<10	<10	182	<10	88	
19CIS-8		0.09	<10	<10	58	<10	52	
19CIS-9		0.38	<10	<10	213	<10	147	
19CIS-10		0.62	<10	<10	289	<10	108	
19CIS-11		0.30	<10	<10	132	<10	43	
19CIS-12		0.34	<10	<10	171	<10	93	
19CIS-13		0.15	<10	<10	109	<10	40	
19CIS-14		0.28	<10	<10	156	<10	38	
19CIS-15		0.15	<10	<10	91	<10	43	
19CIS-16		0.43	<10	<10	164	<10	77	
19CIS-17		0.49	<10	<10	225	<10	87	
19CIS-18		0.43	<10	<10	249	<10	79	0.956
19CIS-19		0.71	<10	<10	444	<10	74	
19CIS-20		0.33	<10	<10	167	<10	73	
19CIS-21		0.34	<10	<10	127	<10	59	
19CIS-22		0.60	<10	<10	309	<10	97	
19CIS-23		0.39	<10	<10	216	<10	62	
19CIS-24		0.37	<10	<10	159	<10	77	
19CIS-25		0.36	<10	<10	221	<10	45	
19CIS-26		0.28	<10	<10	125	<10	35	
19CIS-27		0.72	<10	<10	315	<10	101	
19CIS-28		0.26	<10	<10	101	<10	23	
19CIS-29		0.14	<10	<10	75	<10	85	
19CIS-30		0.16	<10	<10	64	<10	78	
19CIS-31		0.27	<10	<10	93	<10	80	
19CIS-32		0.35	<10	<10	181	<10	39	
19CIS-33		0.10	<10	<10	56	<10	29	
19CIS-34		0.50	<10	<10	184	<10	90	
19CIS-35		0.17	<10	<10	91	<10	295	
19CIS-36		0.49	<10	<10	157	<10	109	
19CIS-37		0.23	<10	<10	115	<10	60	
19CIS-38		0.46	<10	<10	204	<10	79	
19CIS-39		0.45	<10	<10	290	<10	63	
19CIS-40		0.28	<10	<10	130	<10	88	

***** See Appendix Page for comments regarding this certificate *****

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CERTIFICATE OF ANALYSIS VA20061909

Sample Description	Method / Analyte / Units / LOD	WEI-21 Recvd Wt. kg 0.02	ME-ICP41 Ag ppm 0.2	ME-ICP41 Al % 0.01	ME-ICP41 As ppm 2	ME-ICP41 B ppm 10	ME-ICP41 Ba ppm 10	ME-ICP41 Be ppm 0.5	ME-ICP41 Bi ppm 2	ME-ICP41 Ca % 0.01	ME-ICP41 Cd ppm 0.5	ME-ICP41 Co ppm 1	ME-ICP41 Cr ppm 1	ME-ICP41 Cu ppm 1	ME-ICP41 Fe % 0.01	ME-ICP41 Ga ppm 10
19CIS-41		0.34	<0.2	2.75	2	<10	30	<0.5	2	1.14	<0.5	21	73	167	7.48	10
19CIS-42		0.18	<0.2	1.85	5	<10	30	<0.5	<2	0.55	<0.5	14	32	167	3.92	10
19CIS-43		0.32	<0.2	1.74	3	<10	30	<0.5	<2	0.74	<0.5	10	27	32	4.44	10
19CIS-44		0.26	<0.2	4.24	11	<10	50	<0.5	<2	0.37	<0.5	11	41	127	4.17	10
19CIS-45		0.32	0.6	1.73	8	<10	30	<0.5	<2	1.04	1.3	10	38	2670	4.54	10
19CIS-46		0.28	0.5	2.28	19	<10	380	<0.5	<2	2.61	0.9	49	79	693	6.20	10
19CIS-47		0.24	0.2	1.93	10	<10	110	<0.5	<2	1.43	<0.5	35	40	36	6.73	10
19CIS-48		0.38	0.2	1.95	10	<10	160	<0.5	<2	1.66	<0.5	28	68	290	4.56	10
19CIS-49		0.24	<0.2	2.19	3	<10	60	<0.5	<2	0.37	<0.5	12	33	86	3.74	10
19CIS-50		0.32	<0.2	2.46	4	<10	30	<0.5	<2	0.34	<0.5	6	25	279	2.87	10

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.
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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061909

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
	Units	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOD	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
19CIS-41		<1	0.04	<10	0.75	593	2	0.02	29	460	7	0.04	2	7	22	<20
19CIS-42		<1	0.05	10	0.42	468	1	0.02	19	430	24	0.04	<2	4	13	<20
19CIS-43		<1	0.03	<10	0.36	328	<1	0.02	14	350	10	0.02	<2	4	17	<20
19CIS-44		<1	0.05	<10	0.43	414	1	0.02	22	1890	13	0.04	<2	5	13	<20
19CIS-45		1	0.02	<10	0.39	741	1	0.01	14	1080	24	0.04	<2	5	9	<20
19CIS-46		1	0.06	10	0.32	17550	1	0.01	57	1780	51	0.10	2	9	49	<20
19CIS-47		<1	0.03	10	0.33	7100	<1	0.01	21	1290	51	0.05	<2	11	22	<20
19CIS-48		1	0.03	10	0.40	7110	<1	0.02	27	1190	66	0.05	2	11	30	<20
19CIS-49		<1	0.07	<10	0.39	751	<1	0.02	18	470	19	0.04	<2	3	16	<20
19CIS-50		<1	0.02	<10	0.29	229	1	0.02	14	340	11	0.04	<2	3	13	<20

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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061909

Sample Description	Method / Analyte / Units / LOD	ME-ICP41 Tl % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Cu-OG46 Cu % 0.001
19CIS-41		0.72	<10	<10	301	<10	59	
19CIS-42		0.36	<10	<10	165	<10	38	
19CIS-43		0.39	<10	<10	167	<10	50	
19CIS-44		0.31	<10	<10	119	<10	67	
19CIS-45		0.41	<10	<10	195	<10	37	
19CIS-46		0.26	<10	<10	137	<10	658	
19CIS-47		0.41	<10	<10	170	<10	79	
19CIS-48		0.34	<10	<10	152	<10	96	
19CIS-49		0.26	<10	<10	106	<10	78	
19CIS-50		0.18	<10	<10	97	<10	27	

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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061909

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:				
	Cu-OG46	DISP-01	LOG-22	ME-ICP41
	ME-OG46	SCR-41	WEI-21	

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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Finalized Date: 24-MAR-2020
This copy reported on
25-MAR-2020
Account: KIKAND

CERTIFICATE VA20061914

Project: Copper Island

This report is for 4 Rock samples submitted to our lab in Vancouver, BC, Canada on 13-MAR-2020.

The following have access to data associated with this certificate:

ANDRIS KIKAUKA

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250g 85% <75 um
DISP-01	Disposal of all sample fractions

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Saa Traxler, General Manager, North Vancouver

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4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061914

Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOD	0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
19CIR-1		1.26	24.0	3.40	16	10	<10	<0.5	<2	1.62	<0.5	41	112	>10000	6.81	10
19CIR-2		1.36	24.8	3.69	16	<10	10	<0.5	3	2.81	<0.5	37	159	>10000	7.21	10
19CIR-3		1.40	19.8	4.45	3	<10	<10	<0.5	<2	1.44	<0.5	56	155	>10000	9.15	10
19CIR-4		0.98	29.4	4.84	2	<10	<10	<0.5	<2	1.81	55.3	42	216	>10000	9.80	20

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Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061914

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
	Units	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
	LOD	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
19CIR-1		1	0.01	<10	2.71	923	4	0.03	101	530	3	1.79	<2	23	8	<20
19CIR-2		1	0.05	<10	3.27	1120	5	0.03	89	430	4	1.65	<2	21	17	<20
19CIR-3		1	<0.01	<10	3.88	1335	4	0.03	109	560	<2	1.28	<2	28	5	<20
19CIR-4		1	<0.01	<10	4.09	1480	6	0.03	111	580	11	1.18	<2	32	6	<20

***** See Appendix Page for comments regarding this certificate *****

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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
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Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061914

Sample Description	Method / Analyte / Units / LOD	ME-ICP41 Tl % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Cu-OG46 Cu % 0.001
19CIR-1		0.68	<10	<10	354	<10	59	7.64
19CIR-2		0.36	<10	<10	344	<10	80	6.64
19CIR-3		0.73	<10	<10	398	<10	80	5.95
19CIR-4		0.88	<10	<10	757	<10	102	5.64

***** See Appendix Page for comments regarding this certificate *****

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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Finalized Date: 24-MAR-2020
Account: KIKAND

Project: Copper Island

CERTIFICATE OF ANALYSIS VA20061914

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:				
	CRU-31	CRU-QC	Cu-OG46	DISP-01
	LOG-22	ME-ICP41	ME-OG46	PUL-31
	PUL-QC	SPL-21	WEI-21	

ALS Canada Ltd.

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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

INVOICE NUMBER 5092834

BILLING INFORMATION

Certificate:	VA20061914
Sample Type:	Rock
Account:	KIKAND
Date:	24-MAR-2020
Project:	Copper Island
P.O. No.:	
Quote:	
Terms:	Due on Receipt C2
Comments:	

ANALYSED FOR

QUANTITY	CODE	- DESCRIPTION	UNIT PRICE	TOTAL
1	BAT-01	Administration Fee	38.75	38.75
4	PREP-31	Crush, Split, Pulverize	8.75	35.00
5.00	PREP-31	Weight Charge (kg) - Crush, Split, Pulverize	0.90	4.50
4	DISP-01	Disposal of all sample fractions	0.70	2.80
4	ME-ICP41	35 Element Aqua Regia ICP-AES	13.10	52.40
4	ME-OG46	Ore Grade Elements - AquaRegia	10.15	40.60
4	Cu-OG46	Ore Grade Cu - Aqua Regia	2.95	11.80

SUBTOTAL (CAD)	$	185.85
R100938885 GST	$	9.29
TOTAL PAYABLE (CAD)	**$**	**195.14**

To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Payment may be made by: Cheque or Bank Transfer

Beneficiary Name:	ALS Canada Ltd.
Bank:	Royal Bank of Canada
SWIFT:	ROYCCAT2
Address:	Vancouver, BC, CAN
Account:	003-00010-1001098

Please send payment info to accounting.canusa@alsglobal.com

Please Remit Payments To :
ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
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To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
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INVOICE NUMBER 5092828

BILLING INFORMATION

Certificate:	VA20061909
Sample Type:	Soil
Account:	KIKAND
Date:	24-MAR-2020
Project:	Copper Island
P.O. No.:	
Quote:	
Terms:	Due on Receipt C2
Comments:	

ANALYSED FOR

QUANTITY	CODE	- DESCRIPTION	UNIT PRICE	TOTAL
1	BAT-01	Administration Fee	38.75	38.75
50	PREP-41	Dry, Sieve (180 um) Soil	1.95	97.50
14.32	PREP-41	Weight Charge (kg) - Dry, Sieve (180 um) Soil	3.05	43.68
50	DISP-01	Disposal of all sample fractions	0.70	35.00
50	ME-ICP41	35 Element Aqua Regia ICP-AES	13.10	655.00
1	ME-OG46	Ore Grade Elements - AquaRegia	10.15	10.15
1	Cu-OG46	Ore Grade Cu - Aqua Regia	2.95	2.95

SUBTOTAL (CAD)	$	883.03
R100938885 GST	$	44.15
TOTAL PAYABLE (CAD)	**$**	**927.18**

To: KIKAUKA, ANDRIS
4199 HIGHWAY 101
POWELL RIVER BC V8A 0C7

Payment may be made by: Cheque or Bank Transfer

Beneficiary Name:	ALS Canada Ltd.
Bank:	Royal Bank of Canada
SWIFT:	ROYCCAT2
Address:	Vancouver, BC, CAN
Account:	003-00010-1001098

Please send payment info to accounting.canusa@alsglobal.com

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ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7

Appendix B- Geochemical Analysis Methods & Procedures

PREP-31

Standard Sample Preparation: Dry, Crush, Split and Pulverize

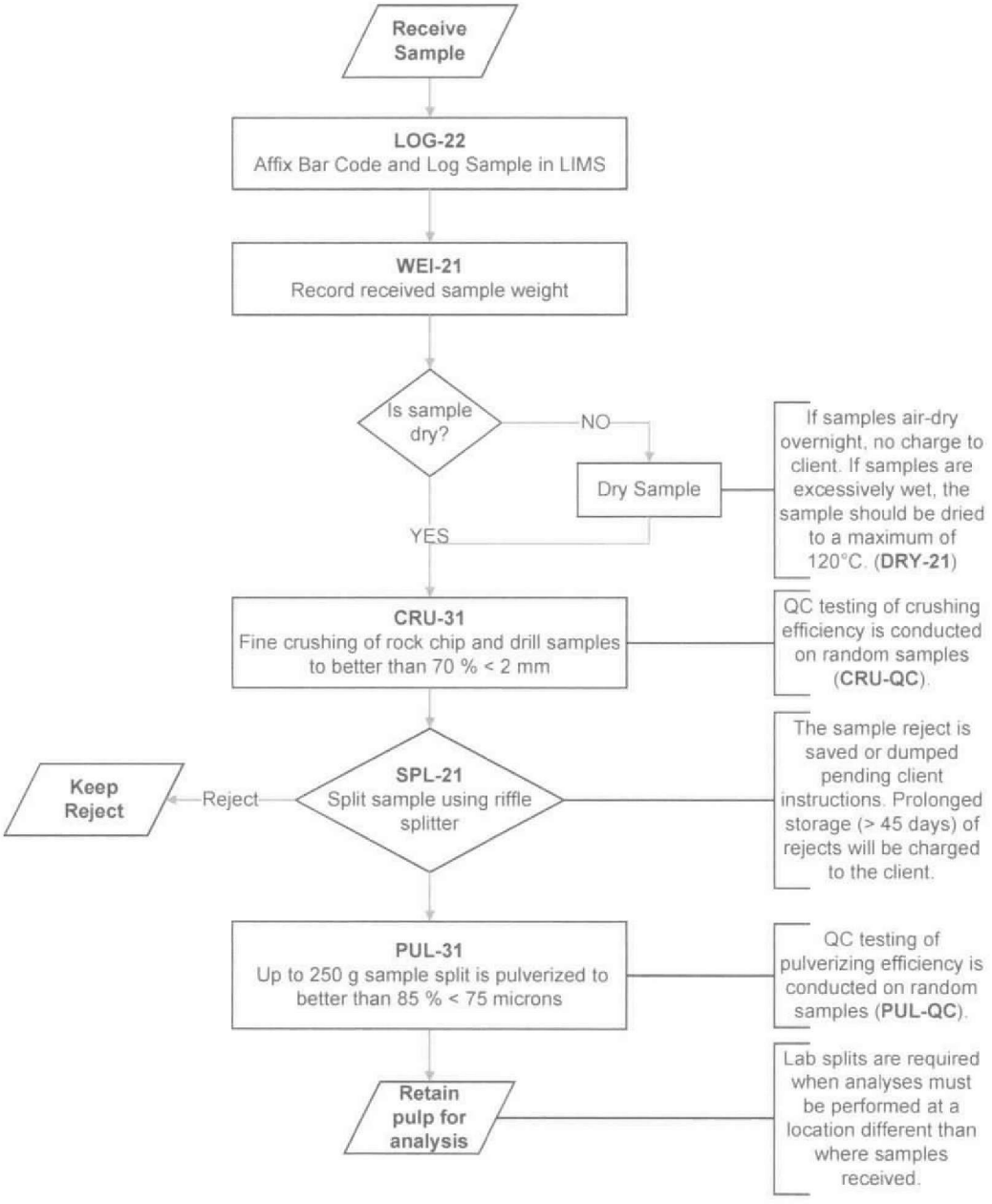
Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

The sample is logged in the tracking system, weighed, dried and finely crushed to better than 70 % passing a 2 mm (Tyler 9 mesh, US Std. No.10) screen. A split of up to 250 g is taken and pulverized to better than 85 % passing a 75 micron (Tyler 200 mesh, US Std. No. 200) screen. This method is appropriate for rock chip or drill samples.

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
CRU-31	Fine crushing of rock chip and drill samples to better than 70 % of the sample passing 2 mm.
SPL-21	Split sample using riffle splitter.
PUL-31	A sample split of up to 250 g is pulverized to better than 85 % of the sample passing 75 microns.

Flow Chart -

Sample Preparation Package - PREP-31
Standard Sample Preparation: Dry, Crush, Split and Pulverize



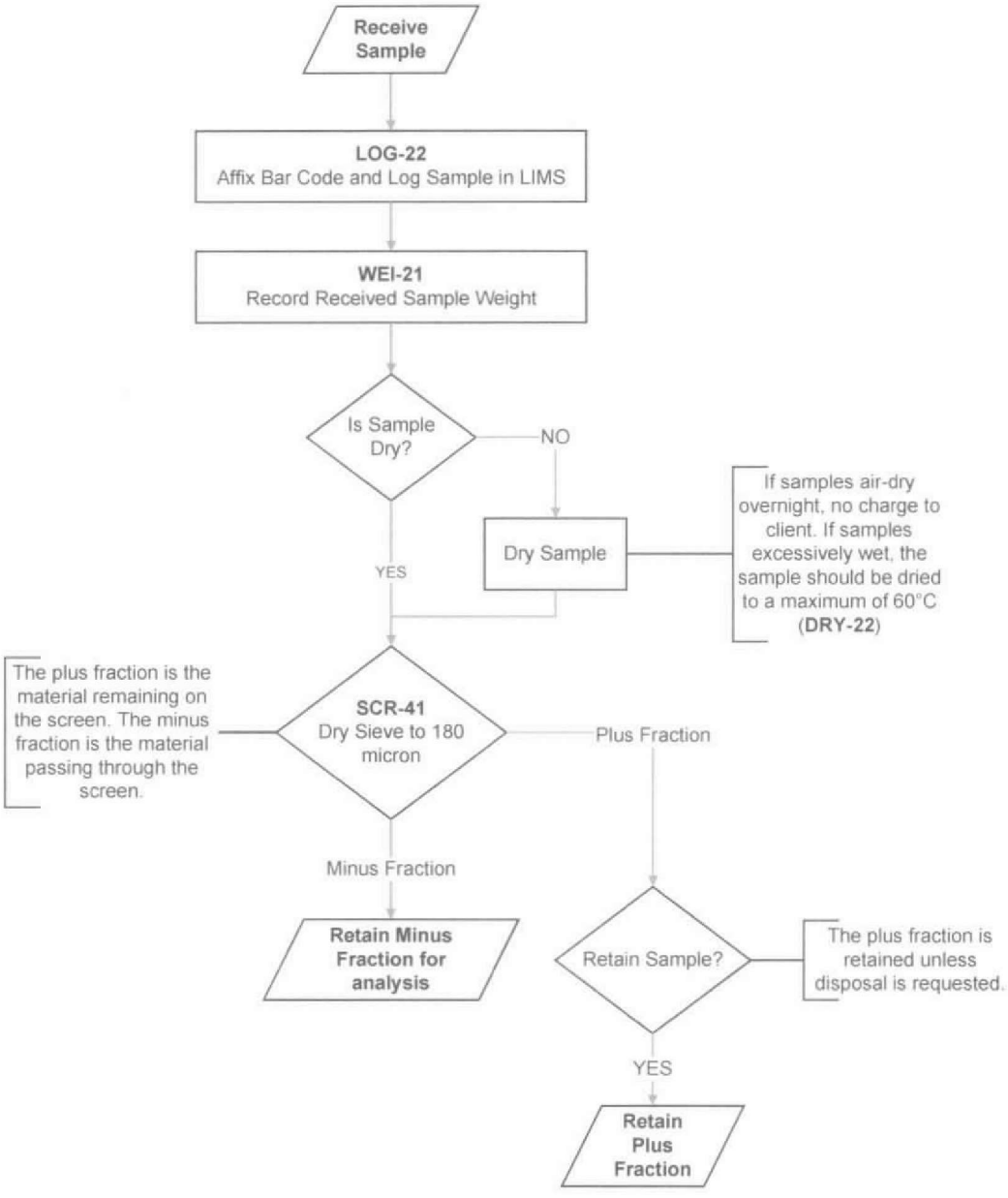
PREP-41
Standard Preparation: Dry sample and dry-sieve to -180 micron

Sample preparation is the most critical step in the entire laboratory operation. The purpose of preparation is to produce a homogeneous analytical sub-sample that is fully representative of the material submitted to the laboratory.

An entire sample is dried and then dry-sieved using a 180 micron (Tyler 80 mesh) screen. The plus fraction is retained unless disposal is requested. This method is appropriate for soil or sediment samples up to 1 kg in weight.

Method Code	Description
LOG-22	Sample is logged in tracking system and a bar code label is attached.
SCR-41	Sample is dry-sieved to - 180 micron and both the plus and minus fractions are retained.

Sample Preparation Flowchart Package -PREP-41



ME-ICP41 – Trace Level Methods Using Conventional ICP-AES Analysis

Sample Decomposition:

HNO3- HCl Aqua Regia Digestion (GEO-AR01)

Analytical Method:

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample (0.50 g) is digested with aqua regia for 45 minutes in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with deionized water, mixed and analyzed by inductively coupled plasma-atomic emission spectrometry. The analytical results are corrected for inter element spectral interferences.

NOTE: In the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

List of Reportable Analytes:

Analyte	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Silver	Ag	ppm	0.2	100	Ag-OG46
Aluminum	Al	%	0.01	25	
Arsenic	As	ppm	2	10000	
Boron	B	ppm	10	10000	
Barium	Ba	ppm	10	10000	
Beryllium	Be	ppm	0.5	1000	
Bismuth	Bi	ppm	2	10000	
Calcium	Ca	%	0.01	25	
Cadmium	Cd	ppm	0.5	1000	
Cobalt	Co	ppm	1	10000	
Chromium	Cr	ppm	1	10000	
Copper	Cu	ppm	1	10000	Cu-OG46
Iron	Fe	%	0.01	50	
Gallium	Ga	ppm	10	10000	
Mercury	Hg	ppm	1	10000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10000	
Magnesium	Mg	%	0.01	25	
Manganese	Mn	ppm	5	50000	
Molybdenum	Mo	ppm	1	10000	
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10000	
Phosphorus	P	ppm	10	10000	
Lead	Pb	ppm	2	10000	Pb-OG46
Sulfur	S	%	0.01	10	
Antimony	Sb	ppm	2	10000	
Scandium	Sc	ppm	1	10000	
Strontium	Sr	ppm	1	10000	
Thorium	Th	ppm	20	10000	
Titanium	Ti	%	0.01	10	

Analyte	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Thallium	Tl	ppm	10	10000	
Uranium	U	ppm	10	10000	
Vanadium	V	ppm	1	10000	
Tungsten	W	ppm	10	10000	
Zinc	Zn	ppm	2	10000	Zn-OG46

Elements Listed below are available upon request:

Analyte	Symbol	Units	Lower Limit	Upper Limit	Default Overlimit Method
Cerium	Ce	ppm	10	10000	
Hafnium	Hf	ppm	10	10000	
Indium	In	ppm	10	10000	
Lithium	Li	ppm	10	10000	
Niobium	Nb	ppm	10	10000	
Rubidium	Rb	ppm	10	10000	
Selenium	Se	ppm	10	10000	
Silicon	Si	ppm	10	10000	
Tin	Sn	ppm	10	10000	
Tantalum	Ta	ppm	10	10000	
Tellurium	Te	ppm	10	10000	
Yttrium	Y	ppm	10	10000	
Zirconium	Zr	ppm	5	10000	

Appendix C - Soil Sample 2020 Descriptions & Geochemistry

Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
CI Pomeroy 3, 4	20CIS-1	337600	5554050	25 cm	red-brown	95	0.3	558
CI Pomeroy 3, 4	20CIS-2	337650	5554050	25 cm	red-brown	56	<0.2	875
CI Pomeroy 3, 4	20CIS-3	337700	5554050	25 cm	red-brown	7870	2.1	1925
CI Pomeroy 3, 4	20CIS-4	337750	5554050	25 cm	red-brown	1210	0.5	3070
CI Pomeroy 3, 4	20CIS-5	337800	5554050	30 cm	red-brown	421	<0.2	1015
CI Pomeroy 3, 4	20CIS-6	337600	5554100	25 cm	brown	108	<0.2	570
CI Pomeroy 3, 4	20CIS-7	337650	5554100	30 cm	brown	85	0.3	2660
CI Pomeroy 3, 4	20CIS-8	337700	5554100	25 cm	brown	742	0.2	801
CI Pomeroy 3, 4	20CIS-9	337750	5554100	25 cm	red-brown	5100	1.3	6910
CI Pomeroy 3, 4	20CIS-10	337800	5554100	30 cm	red-brown	203	<0.2	1870
CI Pomeroy 3, 4	20CIS-11	337600	5554150	25 cm	brown	300	0.2	898
CI Pomeroy 3, 4	20CIS-12	337650	5554150	25 cm	brown	57	<0.2	7090
CI Pomeroy 3, 4	20CIS-13	337700	5554150	25 cm	red-brown	4420	1.1	635
CI Pomeroy 3, 4	20CIS-14	337750	5554150	25 cm	red-brown	2770	0.4	595
CI Pomeroy 3, 4	20CIS-15	337800	5554150	30 cm	brown	426	<0.2	81
CI Pomeroy 3, 4	20CIS-16	337600	5554200	25 cm	red-brown	64	0.2	2590
CI Pomeroy 3, 4	20CIS-17	337650	5554200	30 cm	red-brown	38	<0.2	1505
CI Pomeroy 3, 4	20CIS-18	337700	5554200	25 cm	red-brown	9560	4.2	1785
CI Pomeroy 3, 4	20CIS-19	337700	5554200	25 cm	red-brown	1010	0.4	772
CI Pomeroy 3, 4	20CIS-20	337800	5554200	30 cm	brown	573	0.2	915
CI Pomeroy 2	20CIS-21	337400	5554500	25 cm	red-brown	113	0.2	410
CI Pomeroy 2	20CIS-22	337450	5554500	25 cm	red-brown	247	0.4	1130
CI Pomeroy 3	20CIS-23	337500	5554500	25 cm	red-brown	127	<0.2	1710
CI Pomeroy 3	20CIS-24	337650	5554500	25 cm	red-brown	309	<0.2	1315
CI Pomeroy 2	20CIS-25	337600	5554500	30 cm	red-brown	45	<0.2	386
CI Pomeroy 2	20CIS-26	337400	5554550	25 cm	brown	33	<0.2	857
CI Pomeroy 3	20CIS-27	337450	5554550	30 cm	red-brown	160	<0.2	1115
CI Pomeroy 3	20CIS-28	337600	5554550	25 cm	brown	24	<0.2	335
CI Pomeroy 2	20CIS-29	337550	5554550	25 cm	brown	95	<0.2	2140
CI Pomeroy 2	20CIS-30	337600	5554550	25 cm	brown	268	<0.2	5550
CI Pomeroy 2	20CIS-31	337400	5554600	25 cm	red-brown	279	0.2	1375
CI Pomeroy 3	20CIS-32	337450	5554600	25 cm	brown	45	<0.2	577
CI Pomeroy 2	20CIS-33	337500	5554600	30 cm	brown	127	0.2	125
CI Pomeroy 2	20CIS-34	337550	5554600	25 cm	brown	1080	0.5	3280
CI Pomeroy 3	20CIS-35	337600	5554600	30 cm	red-brown	847	0.6	13300
CI [illegible]	20CIS-36	337650	5554600	25 cm	brown	80	<0.2	3030
CI Beaver 1	20CIS-37	337950	5553500	25 cm	red-brown	1030	0.6	4200
CI Beaver 1	20CIS-38	338000	5553500	25 cm	red-brown	93	0.2	1430
CI Beaver 1	20CIS-39	338050	5553500	25 cm	red-brown	569	0.2	969
CI Beaver 1	20CIS-40	337950	5553550	30 cm	red-brown	811	0.3	1010
CI Beaver 1	20CIS-41	338000	5553550	25 cm	red-brown	167	<0.2	593
CI Beaver 1	20CIS-42	338050	5553550	30 cm	brown	167	<0.2	468
CI Beaver 1	20CIS-43	338000	5553600	25 cm	brown	32	<0.2	328
CI Beaver 1	20CIS-44	338050	5553600	25 cm	brown	127	<0.2	414
CI Beaver 1	20CIS-45	338100	5553600	25 cm	red-brown	2670	0.6	741
CI Beaver 1	20CIS-46	338150	5553600	30 cm	red-brown	693	0.5	17550

Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
CI Beaver 1	20CIS-47	338000	5553650	25 cm	red-brown	36	0.2	7100
CI Beaver 1	20CIS-48	338050	5553650	30 cm	red-brown	290	0.2	7110
CI Beaver 1	20CIS-49	338100	5553650	25 cm	brown	86	<0.2	751
CI Beaver 1	20CIS-50	338150	5553650	25 cm	brown	279	<0.2	229

Project	Sample ID	Zn ppm	Pb ppm	As ppm	P ppm	Co ppm	Cr ppm	V ppm	% Fe	% Ca	% Ti
CI Pomeroy 3, 4	20CIS-1	47	5	6	440	16	40	306	5.95	0.84	0.54
CI Pomeroy 3, 4	20CIS-2	67	28	4	420	25	55	293	7.29	1.66	0.66
CI Pomeroy 3, 4	20CIS-3	82	12	36	800	35	101	293	6.88	2.09	0.44
CI Pomeroy 3, 4	20CIS-4	128	27	6	700	35	108	247	7.47	2.1	0.51
CI Pomeroy 3, 4	20CIS-5	48	36	7	560	12	53	227	5.66	1	0.45
CI Pomeroy 3, 4	20CIS-6	52	11	6	450	12	29	186	4.03	0.8	0.34
CI Pomeroy 3, 4	20CIS-7	88	43	7	670	27	56	182	5.08	1.7	0.4
CI Pomeroy 3, 4	20CIS-8	52	52	8	640	8	29	58	1.61	0.68	0.09
CI Pomeroy 3, 4	20CIS-9	147	40	18	840	35	96	213	6.01	3.19	0.38
CI Pomeroy 3, 4	20CIS-10	108	16	3	650	37	125	299	8.32	2.02	0.62
CI Pomeroy 3, 4	20CIS-11	43	17	5	380	17	33	132	3.69	0.73	0.3
CI Pomeroy 3, 4	20CIS-12	93	54	7	750	28	37	171	4.97	1.03	0.34
CI Pomeroy 3, 4	20CIS-13	40	29	9	630	13	77	109	2.25	2.46	0.15
CI Pomeroy 3, 4	20CIS-14	38	7	7	480	14	32	156	3.71	0.98	0.28
CI Pomeroy 3, 4	20CIS-15	43	6	<2	7190	5	72	91	1.32	0.73	0.15
CI Pomeroy 3, 4	20CIS-16	77	50	9	1480	33	40	164	5.48	0.81	0.43
CI Pomeroy 3, 4	20CIS-17	87	15	5	1050	18	54	225	7.97	0.55	0.49
CI Pomeroy 3, 4	20CIS-18	79	7	15	570	36	145	249	6.67	2.8	0.43
CI Pomeroy 3, 4	20CIS-19	74	7	7	610	25	59	444	8.51	0.91	0.71
CI Pomeroy 3, 4	20CIS-20	73	61	6	1150	19	89	167	6.53	1.01	0.33
CI Pomeroy 2	20CIS-21	59	3	2	410	12	37	127	4	0.68	0.34
CI Pomeroy 2	20CIS-22	97	14	<2	620	26	86	309	8.58	1	0.6
CI Pomeroy 2	20CIS-23	62	46	10	490	20	47	216	6.46	1.04	0.39
CI Pomeroy 2	20CIS-24	77	19	3	380	41	31	159	5.44	0.4	0.37
CI Pomeroy 2	20CIS-25	45	8	3	380	11	36	221	6.26	1.26	0.36
CI Pomeroy 2	20CIS-26	35	20	3	240	10	26	125	3.28	0.38	0.28
CI Pomeroy 2	20CIS-27	101	11	2	610	21	79	316	8.08	0.63	0.72
CI Pomeroy 2	20CIS-28	23	17	6	310	4	16	101	2.26	0.64	0.26
CI Pomeroy 2	20CIS-29	85	131	8	870	22	16	75	2.68	0.81	0.14
CI Pomeroy 2	20CIS-30	78	54	6	910	123	31	64	3.11	0.61	0.16
CI Pomeroy 2	20CIS-31	80	25	5	580	106	34	93	4.56	0.37	0.27
CI Pomeroy 2	20CIS-32	39	44	8	390	6	27	151	4.15	1.17	0.35
CI Pomeroy 2	20CIS-33	29	60	7	860	3	25	56	1.06	0.72	0.1
CI Pomeroy 2	20CIS-34	90	58	6	760	16	42	184	4.57	0.48	0.5
CI Pomeroy 2	20CIS-35	295	87	15	1220	27	57	91	3.66	2.03	0.17
CI Pomeroy 2	20CIS-36	109	50	5	1220	22	51	157	5.38	0.59	0.49
CI Beaver 1	20CIS-37	60	20	6	790	55	47	115	4.11	0.91	0.23
CI Beaver 1	20CIS-38	79	27	6	550	24	51	204	5.39	1.29	0.46
CI Beaver 1	20CIS-39	63	12	3	530	17	50	200	5.35	0.94	0.45
CI Beaver 1	20CIS-40	88	26	7	1340	36	69	130	5.56	0.81	0.28
CI Beaver 1	20CIS-41	59	7	2	460	21	73	301	7.48	1.14	0.72
CI Beaver 1	20CIS-42	38	24	5	430	14	32	165	3.92	0.55	0.36
CI Beaver 1	20CIS-43	50	10	3	350	10	27	167	4.44	0.74	0.39
CI Beaver 1	20CIS-44	67	13	11	1890	11	41	119	4.17	0.37	0.31
CI Beaver 1	20CIS-45	37	24	8	1080	10	38	195	4.54	1.04	0.41
CI Beaver 1	20CIS-46	658	51	19	1780	49	79	137	6.2	2.61	0.26

Project	Sample ID	Zn ppm	Pb ppm	As ppm	P ppm	Co ppm	Cr ppm	V ppm	% Fe	% Ca	% Ti
CI Beaver 1	20CIS-47	79	51	10	1290	35	40	170	6.73	1.43	0.41
CI Beaver 1	20CIS-48	96	66	10	1190	28	68	152	4.56	1.66	0.34
CI Beaver 1	20CIS-49	78	19	3	470	12	33	106	3.74	0.37	0.26
CI Beaver 1	20CIS-50	27	11	4	340	6	25	97	2.87	0.34	0.18

Appendix D - Rock Sample 2020 Description & Geochemistry

Sample ID	Easting NAD 83	Northing NAD 83	Elev (m)	Sample Type	Lithology
20CIR-1	337701	5554153	127	outcrop	amygdaloidal basalt
20CIR-2	337688	5554183	128	outcrop	amygdaloidal basalt
20CIR-3	337472	5554583	168	outcrop	amygdaloidal basalt
20CIR-4	338102	5553605	98	outcrop	amygdaloidal basalt

Sample ID	Alteration	Mineralization	Cu ppm	Ag ppm	As ppm
20CIR-1	quartz, chlorite, prehnite, calcite	chalcocite, malachite	76400	24	16
20CIR-2	quartz, chlorite, prehnite, calcite	chalcocite, malachite	66400	24.8	16
20CIR-3	quartz, chlorite, prehnite, calcite	chalcocite, malachite	59500	19.8	3
20CIR-4	quartz, chlorite, prehnite, calcite	chalcocite, malachite	56400	29.4	2

Sample ID	Pb ppm	Zn ppm	Fe %	S %	Ca %	P ppm	Mn ppm	V ppm	Cr ppm	Cu %
20CIR-1	3	59	6.81	1.79	1.62	530	923	354	112	7.64
20CIR-2	4	80	7.21	1.65	2.81	430	1120	344	159	6.64
20CIR-3	<2	80	9.15	1.28	1.44	560	1335	398	155	5.95
20CIR-4	11	102	9.8	1.18	1.81	580	1480	757	216	5.64

Appendix E - Minfile Descriptions

MINFILE Record Summary

MINFILE No 092K 012

File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 30-May-97 by Keith J. Mountjoy(KJM)

XML Extract/Production Report/Inventory Report

SUMMARY

Name	COPPER CLIFF, COPPER BELL, COPPER CLIFF ADIT, RAIN, POMEROY	**NMI**	092K3 Cu5
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Past Producer	**NTS Map**	092K03W
Latitude	50° 06' 03" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 20" W	**Northing**	5552314
		Easting	337505
Commodities	Copper, Silver	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The Copper Cliff occurrence is located on the western side of Quadra Island near Gowland Bay.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The Copper Cliff occurrence was first explored in 1919 when a small adit was driven on high grade copper mineralization. The first extensive exploration program was carried out in 1952-53 by Dodge Copper Mines and included 2682 metres of diamond drilling in 145 holes. An ore shipment was made to the Britannia mill in 1963. Quadra Mining Company Ltd. produced copper from an in situ bioleaching test in 1968 from the Pomeroy zones (092K 071,072). A mine permit was granted in 1973 but low copper prices and unfavourable political climate prevented commencement of production.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group. The area is underlain by Tertiary volcanic rocks of the Calden series that dip gently to the southeast. The amygdaloidal andesitic to basaltic flows range in thickness from 0.30 to 3.65 metres interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The amygdules are filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Copper Cliff is comprised of chalcocite mineralization within fractured amygdaloidal andesite flows. The chalcocite is predominant within the amygdules but is also irregularly distributed throughout the flow. Chalcocite and occasional native copper also occur along fracture planes. The flows strike 140 degrees and dip 30 degrees southwest. A flat lying conformable mineralized horizon up to 2.1 metres thick has been previously mined out. An extensive malachite halo has been developed for 274 metres along a cliff face.

In 1973, reserves of 272,130 tonnes at 3.05 per cent copper have been classified as inferred ore (Sheppard, 1973).

A shipment of 323.86 tonnes was made in 1963 which ran 1.63 per cent copper (Assessment Report 19282).

Bibliography

EMPR AR 1907-L160; *1914-K381-K385; *1916-K346-K348; *1918-K270-K274; 1919-N217,N218; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953- A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, *19282, 22264
EMPR BC METAL MM00124
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR INDEX 3-192
EMPR PF (see 092K 071, *Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; see 092K 101, Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168

MINFILE Record Summary

MINFILE No 092K 058

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XML Extract/Inventory Report

SUMMARY

Name	DOE, COPPER CLIFF	**NMI**	092K3 Cu5
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Developed Prospect	**NTS Map**	092K03W
Latitude	50° 06' 03" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 00" W	**Northing**	5552302
		Easting	337902
Commodities	Copper	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The region is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

In this region chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within ir- regular quartz-calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Doe is comprised of disseminated chalcocite mineralization within fractured chloritic amygdaloidal andesitic flows which strike 135 degrees and dip 20 degrees southwest.

Drill indicated reserves are 4082 tonnes grading 3.05 per cent copper. The resource is estimated by Cooke based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mining Ltd., F.G. Cooke, April 12, 1973).

bliography

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163- A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, includes drill hole plans; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K 012; 092K 101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General; Mintek Resources Ltd., Quadra Copper Project, May 1991)
EMR MIN BULL MR 223 B.C. 167
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1: Vancouver Island, p. 168

MINFILE Record Summary

MINFILE No 092K 071

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SUMMARY

Summary Help

Name	POMEROY 3,4, INGERSOLL, COPPER MOUNTAIN, COPPER HILLS, EVELYN 2, POMEROY 3, POMEROY 4, HERCULES, COPPER CLIFF	**NMI**	092K3 Cu3
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Past Producer	**NTS Map**	092K03W
Latitude	50° 07' 04" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 20" W	**Northing**	5554198
		Easting	337562
Commodities	Copper, Silver	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The Pomeroy 3,4 occurrence is located 3.25 kilometres south of Morte Lake and 4 kilometres west-northwest from the community of Heriot Bay on Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator (092k 052) claim in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Pomeroy consists of two mineralized zones 61 metres apart separated by a north-trending fault. The Pomeroy 3 is a flat lying, sporadically mineralized zone in the upper part of a massive, fine grained chloritized andesite flow which is overlain by a coarser grained and highly amygdaloidal andesite flow. The flow rock is strongly sheared and fractured in an east direction with dips steeply north. The fractures carry chalcocite stringers and blebs.

The Pomeroy 4 is west of the Pomeroy 3 and is comprised of chalcocite mineralization controlled by strong fractures in amygdaloidal andesite flows. The fracturing trends in two directions. Malachite is prevalent as an oxidation product. The north-trending fault separating the two zones contains high grade chalcocite mineralization. Three hundred and twenty-six tonnes of 2.5 per cent copper were shipped from a pit located between the Pomeroy 3 and 4.

Mineralization consists of chalcocite and minor native copper and chalcopyrite. A vein of quartz-calcite up to 38 centimetres wide and mineralized with chalcocite was previously explored.

The Pomeroy 3 zone extends 213 metres in a north-south direction, 45 metres east-west and ranges from 1.5 to 3 metres true width.

Indicated reserves at the Pomeroy 4 are 9524 tonnes grading 2.6 per cent copper. Indicated reserves at the Pomeroy 3 are 176,431 tonnes grading 0.67 per cent copper. The resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973).

Between 1915 and 1919, 2808 tonnes yielded 25,224 grams of silver and 72,572 kilograms of copper.

Bibliography

EMPR AR 1907-L160; *1914-K381-K385; *1916-K346,K347; 1917-F259; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-100,101
EMPR ASS RPT 852, *5076, 22264
EMPR BC METAL MM00125
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR INDEX 3-201
EMPR PF (*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, includes drill hole plans; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; Holland, S.S. (1973): Limited Production Permit - Quadra Mining Co. Ltd. letter; 092K 012; 092K 101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MIN BULL MR 223 (1989) B.C. 168
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
EMR MP RESFILE (Pomeroy Resources)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168
Statement of Material Facts, VSE, Prince Stewart Mines Ltd., May 7, 1973

MINFILE Record Summary

MINFILE No 092K 072

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SUMMARY

Name	POMEROY 1, COPPER MOUNTAIN, COPPER HILLS, COPPER HILL 2, COPPER CLIFF	**NMI**	092K3 Cu3
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Past Producer	**NTS Map**	092K03W
Latitude	50° 07' 22" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 43" W	**Northing**	5554768
		Easting	337122
Commodities	Copper, Silver, Gold	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The Pomeroy 1 occurrence is located 2.5 kilometres south of Morte Lake and 5.25 kilometres north-northwest of the community of Heriot Bay on Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) was mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) were mined by the Valdez Copper Company and shipped to smelter at Anyox. Samples from the Senator claim (092k 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Pomeroy 1 is comprised of disseminated chalcocite mineralization hosted in fractured chloritic amygdaloidal andesite flows. In 1968, approximately 5443 tonnes of ore were mined and bacterially leached to produce 559 kilograms of metallic copper.

Indicated reserves at Pomeroy 1 are 11,157 tonnes grading 3.55 per cent copper. Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mines Ltd.; F.G. Cooke, April 12, 1973).

Bibliography

EMPR AR *1914-K381-K385; *1916-K346,K347; *1918-K270-K274; 1919-N217, N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 19282, *22264
EMPR BC METAL MM00125, MM00165
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Production; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MIN BULL MR 223 (1989) B.C. 168
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168
Statement of Material Facts, VSE, Prince Stewart Mines Ltd., May 7, 1973

MINFILE Record Summary
MINFILE No 092K 052

File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 02-May-11 by Larry Jones(LDJ)

XML Extract

SUMMARY

Name	RADIUM, SENATOR, VANADIUM, QUADRA	**NMI**	092K3 Va1,Va2
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Showing	**NTS Map**	092K03W
Latitude	50° 06' 59" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 05" W	**Northing**	5554035
		Easting	337855
Commodities	Vanadium, Uranium, Copper	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The Radium area is underlain by fractured and sheared chloritic andesitic and basaltic rocks of the Upper Triassic Karmutsen Formation. The flow rocks are commonly amygdaloidal and dip gently south and southwest at about 15 degrees. The amygdules are filled with chlorite, quartz, calcite and amphibole and locally chalcocite. Flows of amygdaloidal augite andesite contain disseminated chalcocite and a fractured, thinly banded, black siliceous carbonaceous rock that carries vanadium values. Sparsely disseminated chalcocite and some malachite staining are also present within this black rock which is also cut by minute quartz veinlets. Carnotite was reported in fractures within the volcanic rocks. An analysis of a carnotite sample taken in 1932 gave 24.5 per cent uranium and 21.1 per cent vanadium oxide (Geological Survey of Canada, Economic Geology 11). The occurrence of carnotite could not be confirmed during a field visit by the Geological Survey of Canada (Dr. R.T. Bell, personal communication).

Bibliography

EMPR AR 1914-K381-K385; 1916-K346; 1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1932-A208; 1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, 5076, 22264, 24999, 27346
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; 1974-207,208
EMPR MAP 22
EMPR PF (*092K052-Maps by W.F. Seyer, 1932; P.B. Freeland, 1942; Rpts. by W.F. Robertson, 1922; R. Clark, 1922; D.C. Douglas, 1968; 092K General-Jambor, J.L. (1957): Vanadium-Bearing Interlava Sediment from the Campbell River Area, British Columbia, M.Sc. Thesis, University of British Columbia, 123 pp.; 092K071-Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; W.F. Robertson, Letter, 1922; Regional Geologist's notes, 1997; D.C. Douglas, Investigation Report, Jan/Feb 1968; D.C. Douglas, Letter, 1968)
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd., New Ainsworth Mines Ltd.)
GSC EC GEOL *11, p. 139; 16, p. 46; 16 (Rev.), p. 235; 27, p. 50
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480; 551
GSC P 66-57, p. 9
GSC SUM RPT *1932, Part AII, pp. 51-56
CIM Vol. XLVII, 1944, pp. 415-423
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1: Vancouver Island, p. 167

MINFILE Record Summary

MINFILE No 092K 073

File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 30-May-97 by Keith J. Mountjoy(KJM)

SUMMARY

Name BEAVER 1, BIT 2, BARON

Status Developed Prospect
Latitude 50° 06' 47" N
Longitude 125° 15' 52" W

Commodities Copper, Silver
Tectonic Belt Insular

NMI 092K3 Cu3
Mining Division Nanaimo
BCGS Map 092K014
NTS Map 092K03W
UTM 10 (NAD 83)
Northing 5553656 5553560 N
Easting 338102
Deposit Types D03 : Volcanic redbed Cu
Terrane Wrangell

Capsule Geology

The Beaver 1 occurrence is located 3.75 kilometres west- northwest from the village of Heriot Bay on Quadra Island and 4 kilometres south of Morte Lake.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence. Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Beaver 1 is comprised of disseminated chalcocite mineralization within flat lying, strongly fractured chloritic amygdaloidal andesite flows.

Indicated reserves at Beaver 1 are 16,327 tonnes grading 1.73 per cent copper (National Mineral Inventory 092K3 Cu3, Prince Stewart Mines Ltd., Statement of Material Facts, by New Ainsworth Base Metals Limited).

In 1964, a shipment of 237 tonnes of ore produced 2550 grams of silver and 5038 kilograms of copper. The exact location is unclear.

Bibliography

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163- A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR BC METAL MM00184 (assigned to Senator, 092K 052, probably in error)
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR INDEX 4-119
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, includes drill hole plans; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines Information; Holland, S.S. (1973): Limited Production Permit - Quadra Mining Co. Ltd. letter; 092K 012; 092K 101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168

MINFILE Record Summary

MINFILE No 092K 074

File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 03-May-89 by George Owsiacki(GO)

XML Extract/Inventory Report

SUMMARY

Name	INGERSOLL NO. 2, BIT 1	**NMI**	092K3 Cu3
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Showing	**NTS Map**	092K03W
Latitude	50° 06' 41" N	**UTM**	10 (NAD 83)
Longitude	125° 15' 58" W	**Northing**	5553475
		Easting	337977
Commodities	Copper, Silver	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Ingersoll No. 2 is comprised of chalcocite and bornite mineralization along fracture plane surfaces within shear zones in chloritic amygdaloidal andesite flows. Occasional epidote and quartz stringers are evident.

The showing was opened up by stripping in 1969.

Bibliography

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163- A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

MINFILE Record Summary

MINFILE No 092K 103

File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 30-May-97 by Keith J. Mountjoy(KJM)

SUMMARY

Name	COLLEEN 1, COPPER KING, COPPER MOUNTAIN, HALL TRENCHES	**NMI**	092K3 Cu3
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Developed Prospect	**NTS Map**	092K03W
Latitude	50° 07' 45" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 50" W	**Northing**	5555482
		Easting	337005
Commodities	Copper	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The Colleen 1 showing is located 1.75 kilometres south of Morte Lake, 5.75 kilometres north-northwest of the community of Heriot Bay on Quadra Island. It lies at the northwest end of a belt of 10 copper showings on the west side of Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Colleen 1 is comprised of chalcocite mineralization hosted in fractured chloritic amygdaloidal andesite flows. The mineralization occurs along fracture plane surfaces and within irregular quartz- calcite veinlets.

Proven reserves are 4535 tonnes grading 3.45 per cent copper; indicated reserves are 45,355 tonnes grading 2.4 per cent copper. The reserves are based on trenching (Property File - see 092K 071, Sheppard, 1973).

Bibliography

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163- A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

MINFILE Record Summary

MINFILE No 092K 104

File Created: 03-May-89 by George Owsiacki(GO)
Last Edit: 01-Jan-01 by BC Geological Survey (BCGS)

XML Extract

SUMMARY

Summary Help

Name	COPPER FLAT	**NMI**	
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Showing	**NTS Map**	092K03W
Latitude	50° 07' 13" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 18" W	**Northing**	5554475
		Easting	337610
Commodities	Copper	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium-grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Copper Flat is comprised of chalcocite mineralization (similar to Pomeroy 2, 092K 119) in east trending fractures within chloritic amygdaloidal andesite flows.

Bibliography

EMPR AR *1914-K381-K385; *1916-K346,K347; *1918-K270-K274; 1919-N217, N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163-A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

MINFILE Record Summary

MINFILE No 092K 105

File Created: 28-Apr-89 by George Owsiacki(GO)
Last Edit: 31-Jul-97 by Keith J. Mountjoy(KJM)

XML Extract/Inventory Report

SUMMARY

Summary Help

338290E 5555028N 1
337920E 5555150N 2

Name	COPPER BELL 1,2, COPPER QUEEN	**NMI**	092K3 Cu3
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Developed Prospect	**NTS Map**	092K03W
Latitude	50° 07' 22" N	**UTM**	10 (NAD 83)
Longitude	125° 15' 36" W	**Northing**	5554727
		Easting	338453
Commodities	Copper	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The Copper Bell 1,2 occurrence is located 3.25 kilometres south- southeast from Morte Lake and 4 kilometres north-northwest from the community of Heriot Bay on Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Copper Bell is comprised of chalcocite mineralization hosted in fractured chloritic amygdaloidal andesite flows. Quartz veining is associated with the fractures.

Two hundred and seventy-two tonnes of ore were mined from a surface pit.

Indicated reserves are 101,595 tonnes grading 2.55 per cent copper. The reserves are based on trenching and drill samples (Property File - see 092K 071, Sheppard, 1973).

Bibliography

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163- A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 19282, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1971-314; 1972-285; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property, Bacon, W.R. (1953): Preliminary Report for Department of Mines' Production; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.; New Ainsworth Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480

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MINFILE Record Summary

MINFILE No 092K 118

Print Preview | MSWORD | MINFILE Detail | New Window

File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 03-May-89 by George Owsiacki(GO)

XML Extract/Inventory Report

SUMMARY

Summary Help

Name BUTTE, CLIFF 2

Status Developed Prospect
Latitude 50° 06' 11" N
Longitude 125° 16' 08" W

Commodities Copper
Tectonic Belt Insular

NMI 092K3 Cu3
Mining Division Nanaimo
BCGS Map 092K014
NTS Map 092K03W
UTM 10 (NAD 83)
Northing 5552554
Easting 337751
Deposit Types D03 : Volcanic redbed Cu
Terrane Wrangell

Capsule Geology

The western half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Upper Triassic Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Butte is comprised of disseminated chalcocite mineralization within fractured, chloritic amydgaloidal andesite flows.

Trenching has resulted in inferred reserves of 36,284 tonnes grading 1.4 per cent copper (see Pomeroy 3,4 (092K 071), Report by Sheppard, 1973).

Bibliography

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163- A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (*092K071-Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd., Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstone & Mineral Sites of British Columbia, Vol. 1: Vancouver Island, p. 168

MINFILE Record Summary

MINFILE No 092K 113

File Created: 03-May-89 by Garry J. Payie(GJP)
Last Edit: 12-May-89 by Garry J. Payie(GJP)

XML Extract/Inventory Report

SUMMARY

Name	COPPER VALLEY, DAVID	**NMI**	
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Prospect	**NTS Map**	092K03W
Latitude	50° 08' 21" N	**UTM**	10 (NAD 83)
Longitude	125° 15' 36" W	**Northing**	5556549
		Easting	338508
Commodities	Copper, Gold, Silver	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The Copper Valley showing occurs about halfway along the stream valley, between Morte Lake and Hyacinthe Bay on the southwestern half of Quadra Island.

This half of the island lies within the Insular Belt and is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation, Vancouver Group. These are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, also of the Vancouver Group.

Mineralization on the Copper Valley occurrence consists mainly of two layers of chalcocite, up to 1.2 metres thick, occurring within andesite. Occasional bornite and malachite were observed on a cliff side. Bulldozing was carried out along a length of 120 metres at the cliff base that carried copper mineralization. Over 7.3 tonnes of ore were selected and shipped for leaching. This shipment assayed 2.0 per cent copper (Sheppard, 1970).

One of several holes drilled in 1970 in the Copper Valley 4 claim cut andesite carrying varying amounts of chalcocite. One 4.9 metre length assayed about 1.3 per cent copper per tonne (Sheppard, 1972). Another hole intersected flecks of native copper at the 61 metre level.

A chip sample on the adjoining David 1 claim, taken from a 1.2 by 1.8 metre area, assayed 3.27 per cent copper, 0.34 grams per tonne gold and 6.86 grams per tonne silver (Sheppard, 1972).

Bibliography

EMPR ASS RPT 3100, 3167
EMPR BULL 23; 40
EMPR GEM 1970-281; 1971-313
EMPR PF (*Sheppard, E.P., (1970,1972): Geological Report on the Contact Claims, Quadra Island, Prince Stewart Mines Ltd.; Prospectus, Prince Stewart Mines, April 19, 1971; Sheppard, E.P., (1973): Geological Report on the Pomeroy Group and Contact Group, Quadra Island, Prince Stewart Mines Ltd.)
GSC MAP 120A; 1386A
GSC OF 463; 480
GSC SUM RPT 1913, pp. 53-75

MINFILE Record Summary

MINFILE No 092K 119

File Created: 24-Jul-85 by BC Geological Survey (BCGS)
Last Edit: 30-May-97 by Keith J. Mountjoy(KJM)

XML Extract/Inventory Report

SUMMARY

Name	POMEROY 2, COPPEROPOLIS, EVELYN 3	**NMI**	092K3 Cu3
		Mining Division	Nanaimo
		BCGS Map	092K014
Status	Developed Prospect	**NTS Map**	092K03W
Latitude	50° 07' 07" N	**UTM**	10 (NAD 83)
Longitude	125° 16' 27" W	**Northing**	5554295
		Easting	337426
Commodities	Copper, Silver	**Deposit Types**	D03 : Volcanic redbed Cu
Tectonic Belt	Insular	**Terrane**	Wrangell

Capsule Geology

The Pomeroy 2 occurrence is located 3 kilometres south of Morte Lake and 4.5 kilometres west-northwest from the community of Heriot Bay on Quadra Island.

The first recorded mining on the western side of Quadra Island was in 1906 and 1907, when high-grade cores from the Copper Cliff occurrence (092K 012) were mined from an adit in the cliff face and shipped to a smelter in Ladysmith. Between 1915 and 1919, ore from the Pomeroy area (092K 071,072,119) was mined by the Valdez Copper Company and shipped to the smelter at Anyox. Samples from the Senator claim (092K 052) in the Pomeroy area were tested for radium in 1922. In 1929, Hercules Consolidated Mining Smelting and Power Company acquired the Pomeroy area as the Hercules 1 to 10 claims. In 1930, carnotite was identified from a sample from the property, however, its presence was not confirmed by other investigators. Between 1952 and 1953, Dodge Copper Mines drilled 145 drillholes totalling 2682 metres on various properties. In 1964, mining was conducted from a shallow pit on the Beaver occurrence (092K 073). Lonrho Explorations mined and heap leached ore from the Pomeroy 1 (092K 072) occurrence in 1968 and 1969. Between 1970 and 1979 portions of the area were held by Western Mines, Prince Stewart Mines, Quadra Mining and Quadra Bell Mining. During this period the Copper Bell occurrence (092K 105) was discovered by E.P. Sheppard. In 1990, G.M. Ford identified the area as containing significant copper reserves that may not have been adequately explored and staked the CCT, MCT and BN claims. They were subsequently optioned to Mintek Resources Ltd. who conducted a photometric analysis of the claim area.

The western-half of Quadra Island is underlain primarily by andesitic volcanic rocks of the Upper Triassic Karmutsen Formation which are overlain and bounded on the east by a northwest trending belt of Upper Triassic Quatsino Formation limestone, both of the Vancouver Group.

The area is underlain by highly fractured and sheared Karmutsen Formation amygdaloidal andesitic flow rocks interlayered with dense, fine to medium grained andesitic units and minor thin beds of sedimentary and tuffaceous material. The flow rocks dip gently south and southeast and range in thickness from 0.3 to 3.6 metres and more. Many of the flows are highly amygdaloidal with the amygdules filled with calcite, quartz, chlorite, actinolite or prehnite. The rocks are chloritized and cut by numerous stringers and veinlets of quartz, calcite and epidote.

Chalcocite is the most abundant mineral with native copper and chalcopyrite in lesser amounts. Bornite and pyrite are rare. Malachite, azurite and cuprite are confined to oxidized and weathered surfaces. The distribution of the mineralization is erratic. It is found along fracture plane surfaces and within irregular quartz- calcite veinlets, less commonly it occurs within amygdules or is otherwise locally disseminated. The mineralization tends to be more concentrated where fracture density is high.

The Pomeroy 2 is comprised of two zones, 180 metres apart, of disseminated native copper, chalcopyrite and pyrite mineralization in fractured chloritic amygdaloidal andesite flows. The fracturing is developed in a prominent east trending direction and contains quartz veinlets mineralized with chalcocite. Malachite is prevalent as an oxidation product.

Indicated reserves at Pomeroy 2 South are 22,677 tonnes grading 2.11 per cent copper; indicated reserves at Pomeroy 2 North are 4535 tonnes grading 2.7 per cent copper. Resource estimates by Cooke are based on a re-evaluation of earlier data compiled by Sheppard and Weber (Statement of Material Facts May 7, 1973 - Prince Stewart Mines Ltd., F.G. Cooke, April 12, 1973).

Bibliography

EMPR AR *1914-K381-K385; *1916-K346; *1918-K270-K274; 1919-N217,N218; 1920-N216; 1922-N240; 1925-A282; 1929-C391; 1930-A306; *1953-A163- A165; 1964-152; 1968-A53,100,101
EMPR ASS RPT 852, *5076, 19282, 22264
EMPR EXPL 1975-E111,E112; 1976-E125; 1978-E180; 1979-187,188
EMPR GEM 1969-212; 1970-280; *1974-207,208
EMPR PF (see 092K071-*Sheppard, E.P. (1973): Geological Report on the Pomeroy Group and Contact Group, includes drill hole plans; McLeod, G.H. (1969): Report of Examination and Estimates of Production on the Quadra Mining Company Limited Property; Bacon, W.R. (1953): Preliminary Report for Department of Mines' Information; Holland, S.S. (1973): Limited Production Permit - Quadra Mining Co. Ltd. letter; 092K012; 092K101-Sheppard, E.P. (1972): Geological Report on the Contact Claims; 092K General)
EMR MP CORPFILE (Dodge Copper Mines Ltd.; Prince Stewart Mines Ltd.)
GSC MAP 1386A
GSC MEM 23, pp. 125-127
GSC OF 463; 480
Hudson, R. (1997): A Field Guide to Gold, Gemstones & Mineral Sites of British Columbia, Vol. 1; Vancouver Island, p. 168

Fig 1 Copper Island (Pomeroy) Mineral Claims Location

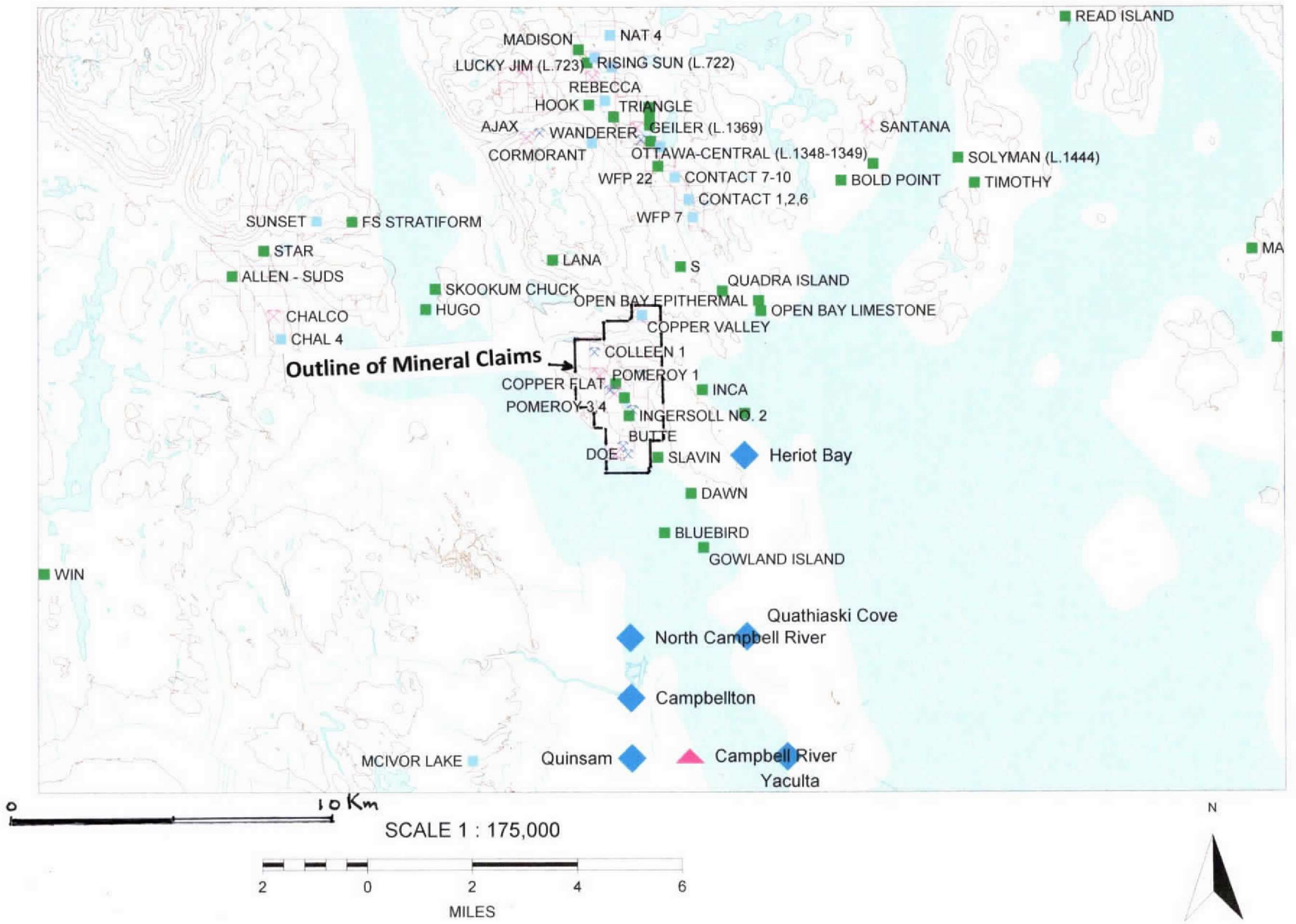


Fig 1B General Location Copper Island Claims

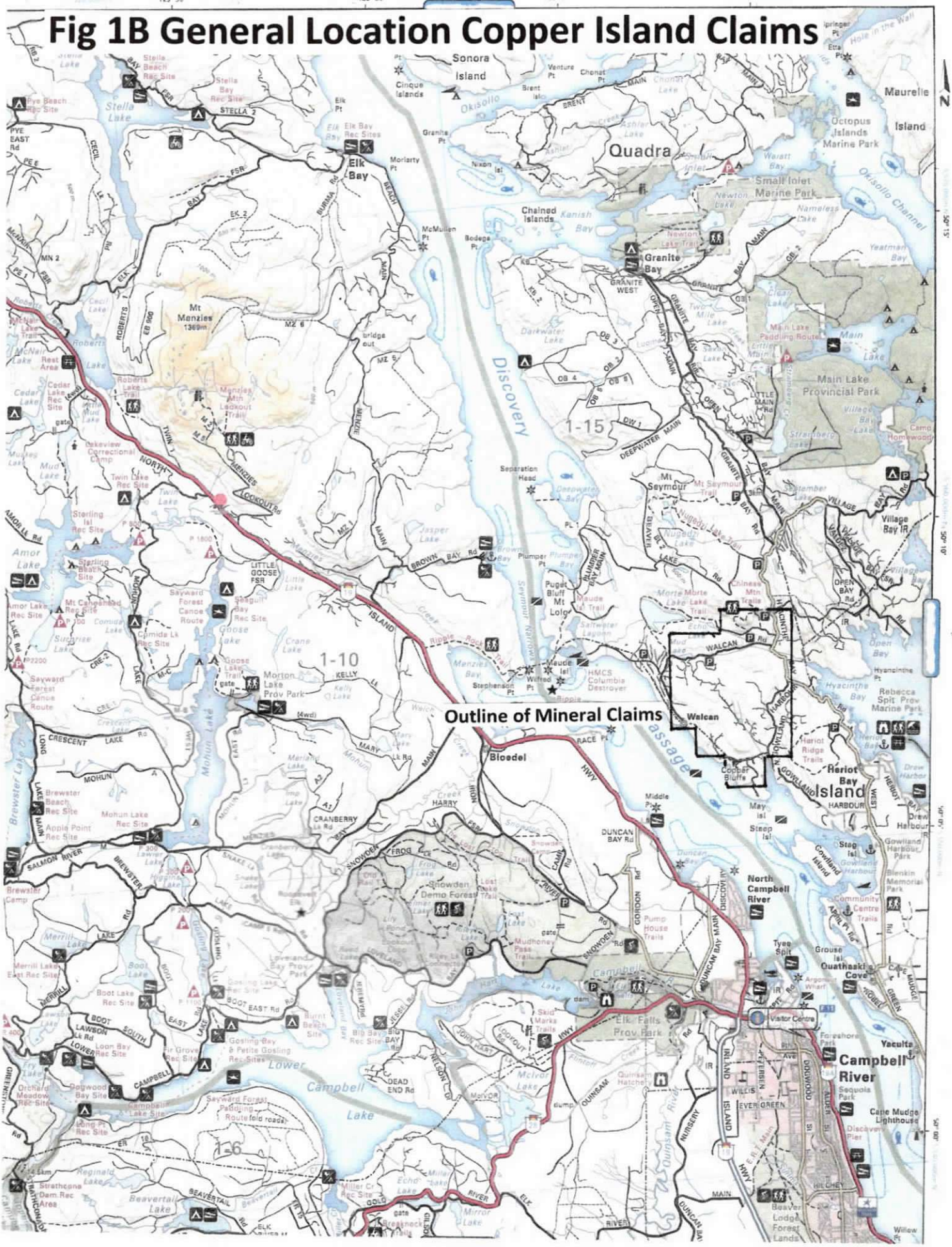
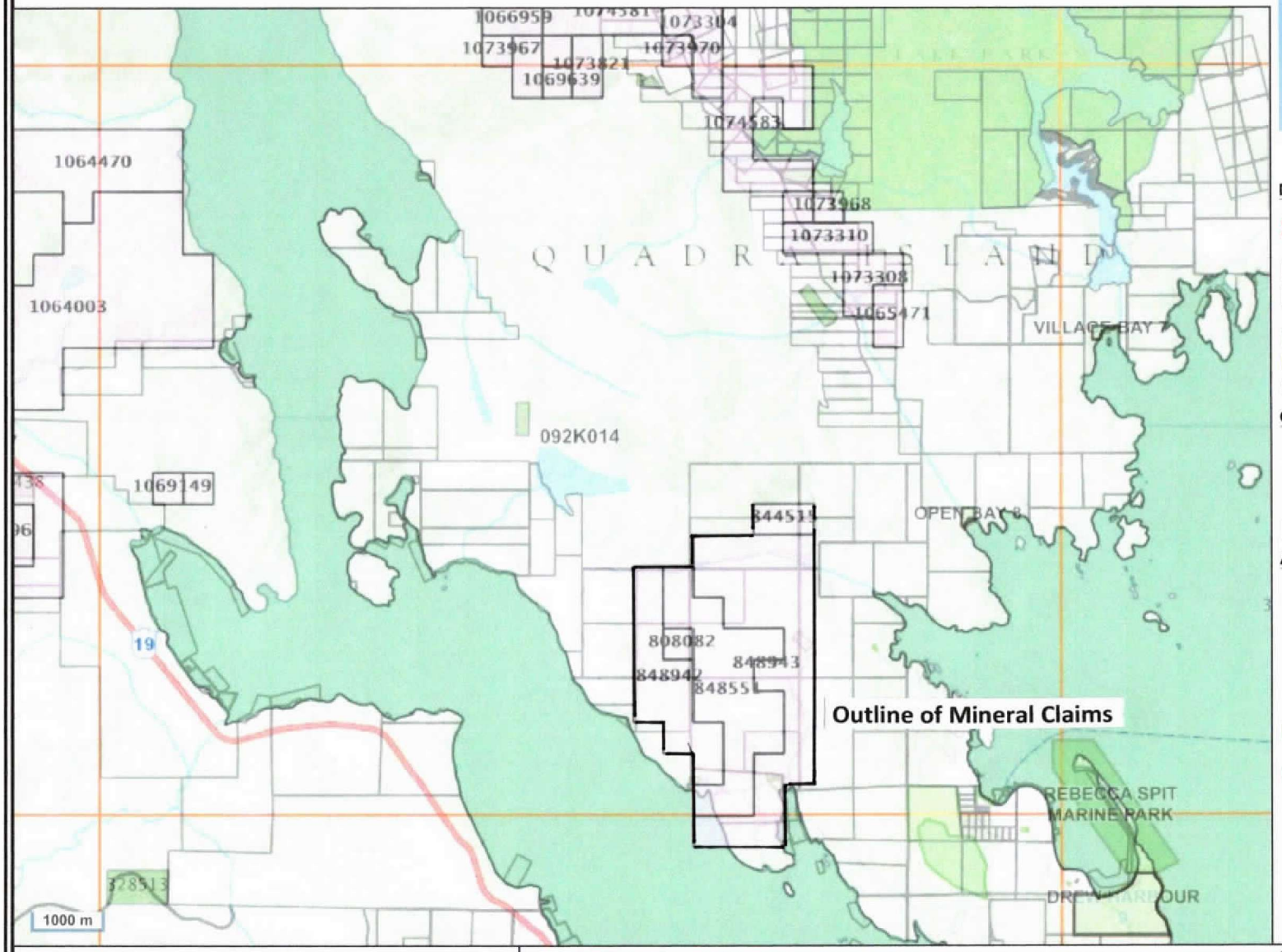


Fig 2A MTO Claim Map



Legend

Mineral Titles (MTO)
- MTO Grid
- Title (current)
- LEASE
- CLAIM
- Reserves
- No Registration
- Conditional
- Heritage/Historic Site

Crown Land Layers (Tantalis)
- Land Act Survey Parcels - Tantalis - Legal Descriptions
- Label Text
- Land Act Survey Parcels - Tantalis - Outlined

Administrative Boundaries
- Historic Environment
- Registered
- Federal Jurisdiction
- Legacy
- Local Regional Greenspaces - Outline
- Local and Regional Greenspaces
- Local Regional Greenspaces - Colour Filled
- Federal Transfer Lands - Outlined
- Federal Transfer Lands - Colour Filled
- National Parks - Outlined
- National Park
- National Parks - Colour Filled
- Conservancy Areas - Tantalis - Colour Filled
- Conservancy Areas

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Printed using the Mineral Titles Online (MTO) application.NTS 092 K3/W, BCGS 092K.014, Nanaimo M.D.

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Scale: 1 : 135420
SRS: EPSG:3857
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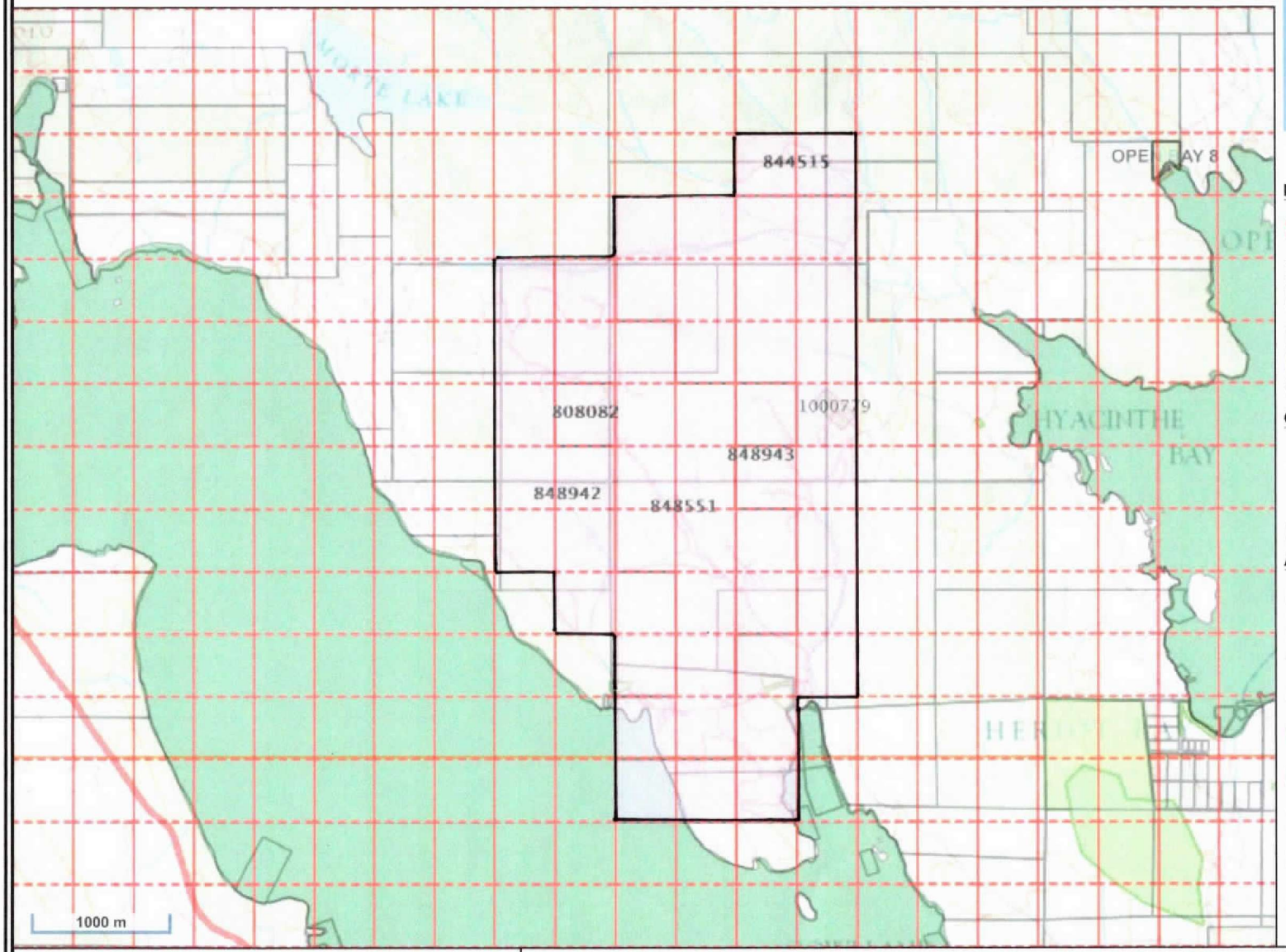
Fig 2B MTO Claim Map (Detail)



Legend

Mineral Titles (MTO)

MTO Grid

Title (current)

LEASE

CLAIM

Reserves

No Registration

Conditional

Heritage/Historic Site

Crown Land Layers (Tantalis)

Land Act Survey Parcels - Tantalis - Legal Descriptions

Label Text

Land Act Survey Parcels - Tantalis - Outlined

Administrative Boundaries

Historic Environment

Registered

Federal Jurisdiction

Legacy

Local Regional Greenspaces - Outline

Local and Regional Greenspaces

Local Regional Greenspaces - Colour Filled

Federal Transfer Lands - Outlined

Federal Transfer Lands - Colour Filled

National Parks - Outlined

National Park

National Parks - Colour Filled

Conservancy Areas - Tantalis - Colour Filled

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Printed using the Mineral Titles Online (MTO) application.NTS 092 K3/W, BCGS 092K.014, Nanaimo M.D.

Center: 50°7'7", -125°16'25"
Scale: 1 : 67710
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Fig 3 Copper Island Property Regional Geology

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division

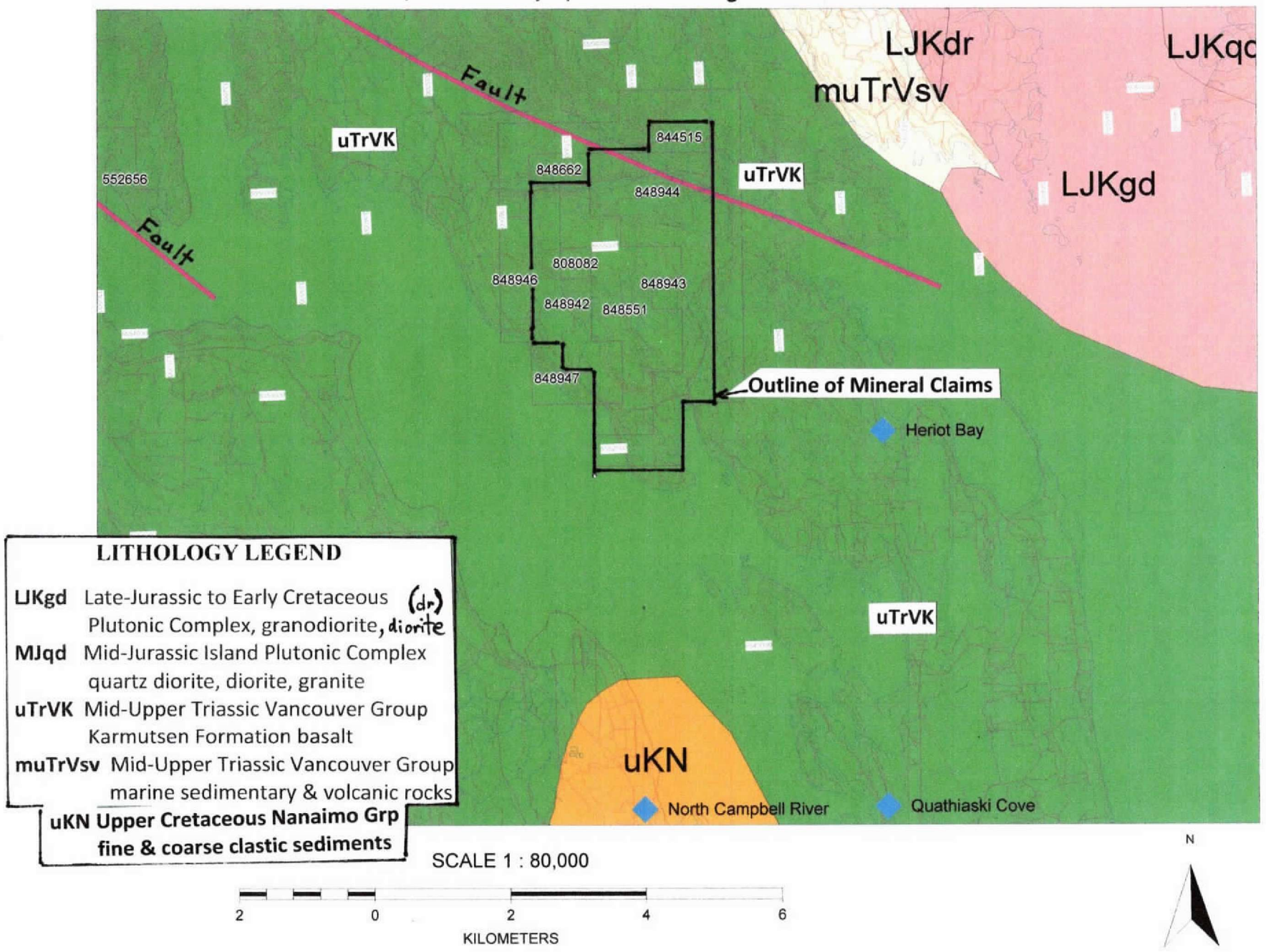


Fig 4 Copper Island Claims (2020 Soil & Rock Sampling)

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division

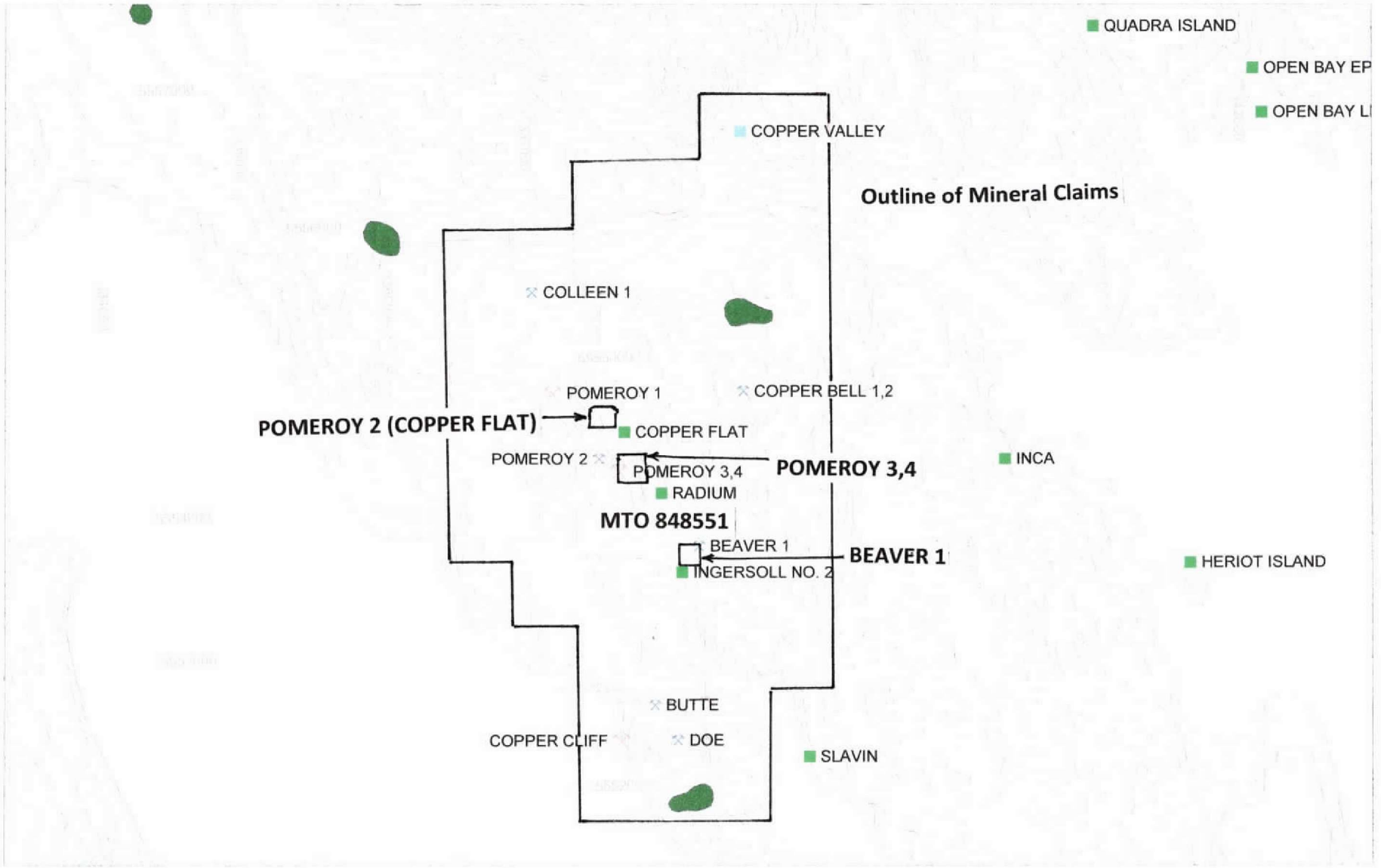


Fig 5 Rock Samples

NTS092K 3/W,BCGS092K.014 Nanaimo MD

Sample ID	Easting NAD 83	Northing NAD 83	Elev (m)	Sample Type	Lithology
20CIR-1	337701	5554153	127	outcrop	amygdaloidal basalt
20CIR-2	337688	5554183	128	outcrop	amygdaloidal basalt
20CIR-3	337472	5554583	168	outcrop	amygdaloidal basalt
20CIR-4	338102	5553605	98	outcrop	amygdaloidal basalt

Sample ID	Alteration	Mineralization	Cu ppm	Ag ppm	As ppm
20CIR-1	quartz, chlorite, prehnite, calcite	chalcocite, malachite	76400	24	16
20CIR-2	quartz, chlorite, prehnite, calcite	chalcocite, malachite	66400	24.8	16
20CIR-3	quartz, chlorite, prehnite, calcite	chalcocite, malachite	59500	19.8	3
20CIR-4	quartz, chlorite, prehnite, calcite	chalcocite, malachite	56400	29.4	2

Sample ID	Pb ppm	Zn ppm	Fe %	S %	Ca %	P ppm	Mn ppm	V ppm	Cr ppm	Cu %
20CIR-1	3	59	6.81	1.79	1.62	530	923	354	112	7.64
20CIR-2	4	80	7.21	1.65	2.81	430	1120	344	159	6.64
20CIR-3	<2	80	9.15	1.28	1.44	560	1335	398	155	5.95
20CIR-4	11	102	9.8	1.18	1.81	580	1480	757	216	5.64

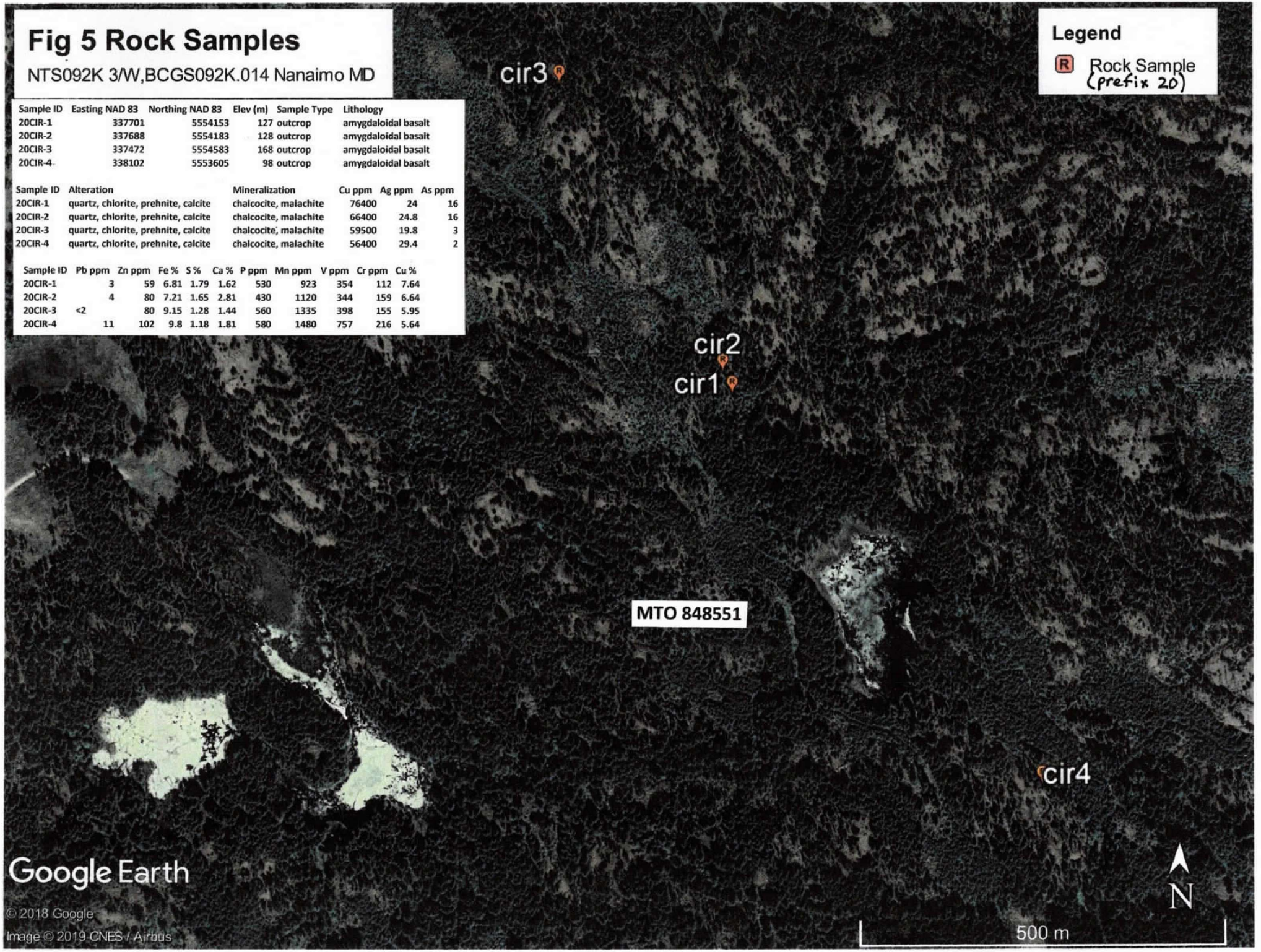
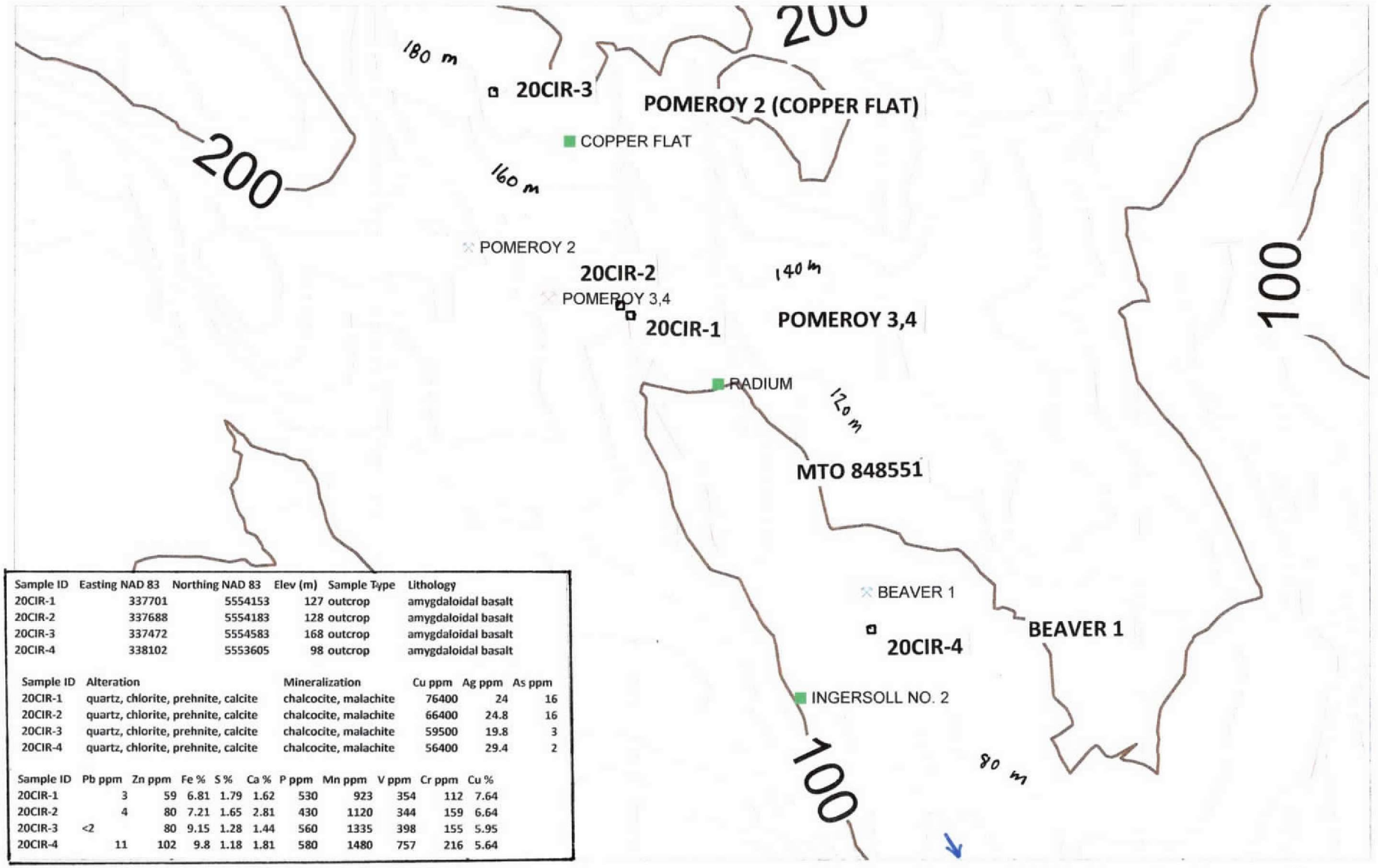


Fig 5B Rock Chip Samples



Sample ID	Easting NAD 83	Northing NAD 83	Elev (m)	Sample Type	Lithology
20CIR-1	337701	5554153	127	outcrop	amygdaloidal basalt
20CIR-2	337688	5554183	128	outcrop	amygdaloidal basalt
20CIR-3	337472	5554583	168	outcrop	amygdaloidal basalt
20CIR-4	338102	5553605	98	outcrop	amygdaloidal basalt

Sample ID	Alteration	Mineralization	Cu ppm	Ag ppm	As ppm
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20CIR-2	quartz, chlorite, prehnite, calcite	chalcocite, malachite	66400	24.8	16
20CIR-3	quartz, chlorite, prehnite, calcite	chalcocite, malachite	59500	19.8	3
20CIR-4	quartz, chlorite, prehnite, calcite	chalcocite, malachite	56400	29.4	2

Sample ID	Pb ppm	Zn ppm	Fe %	S %	Ca %	P ppm	Mn ppm	V ppm	Cr ppm	Cu %
20CIR-1	3	59	6.81	1.79	1.62	530	923	354	112	7.64
20CIR-2	4	80	7.21	1.65	2.81	430	1120	344	159	6.64
20CIR-3	<2	80	9.15	1.28	1.44	560	1335	398	155	5.95
20CIR-4	11	102	9.8	1.18	1.81	580	1480	757	216	5.64

0 300 m

SCALE 1 : 10,000

1,000 0 1,000 2,000 3,000

FEET

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division

N

Rock Chip Sampling

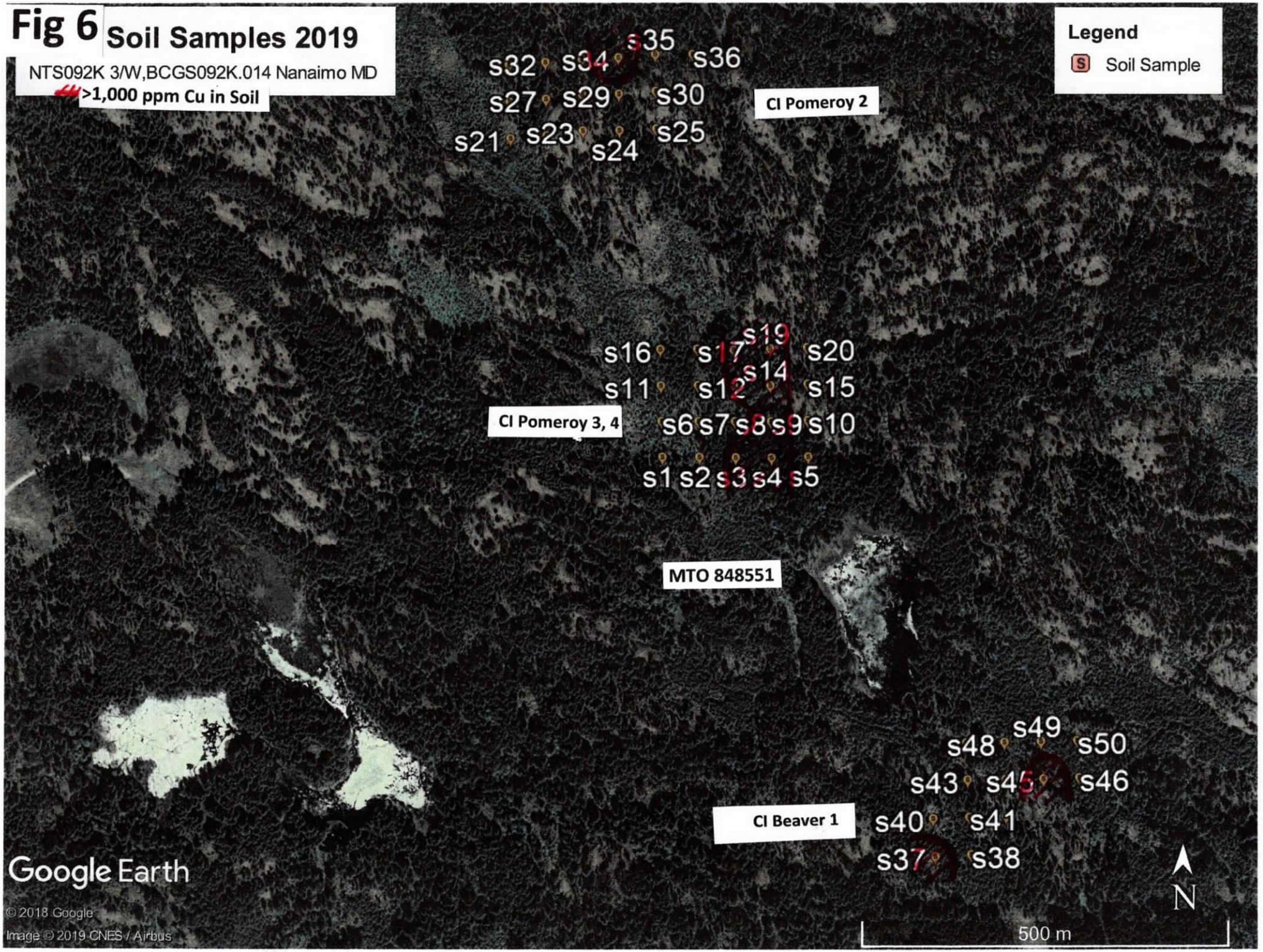


Fig 6 Soil Samples 2019
NTS092K 3/W,BCGS092K.014 Nanaimo MD
>1,000 ppm Cu in Soil
Legend
Soil Sample
s35
s32
s34
s36
s27
s29
s30
CI Pomeroy 2
s21
s23
s24
s25
s19
s16
s17
s20
s14
s11
s12
s15
CI Pomeroy 3, 4
s6
s7
s8
s9
s10
s1
s2
s3
s4
s5
MTO 848551
s49
s48
s50
s43
s45
s46
CI Beaver 1
s40
s41
s37
s38
N
500 m
Google Earth
© 2018 Google
Image © 2019 CNES / Airbus

Fig 7 Copper Island 2020 Soil Survey Location

>1,000 ppm Cu in Soil

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division

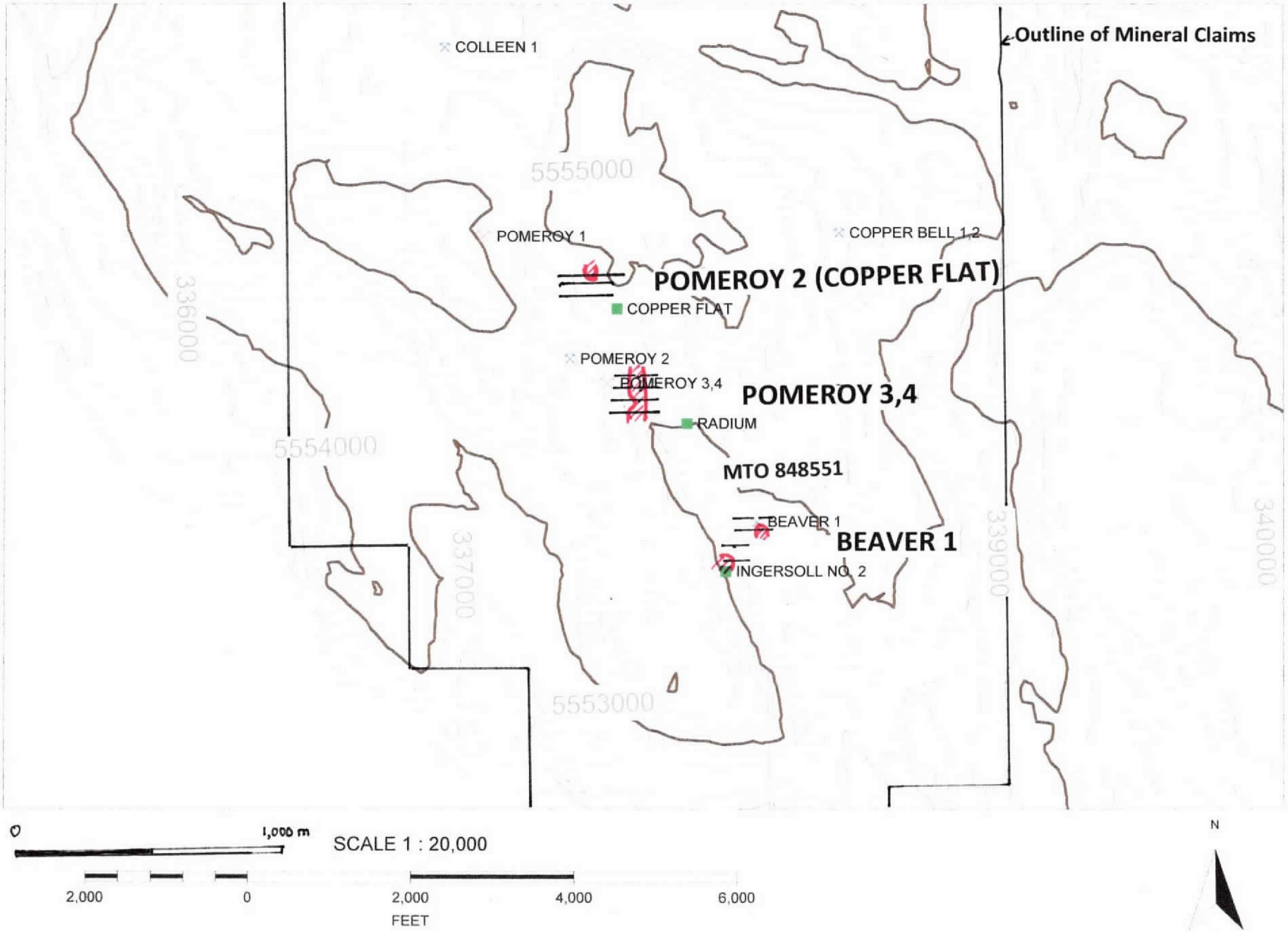
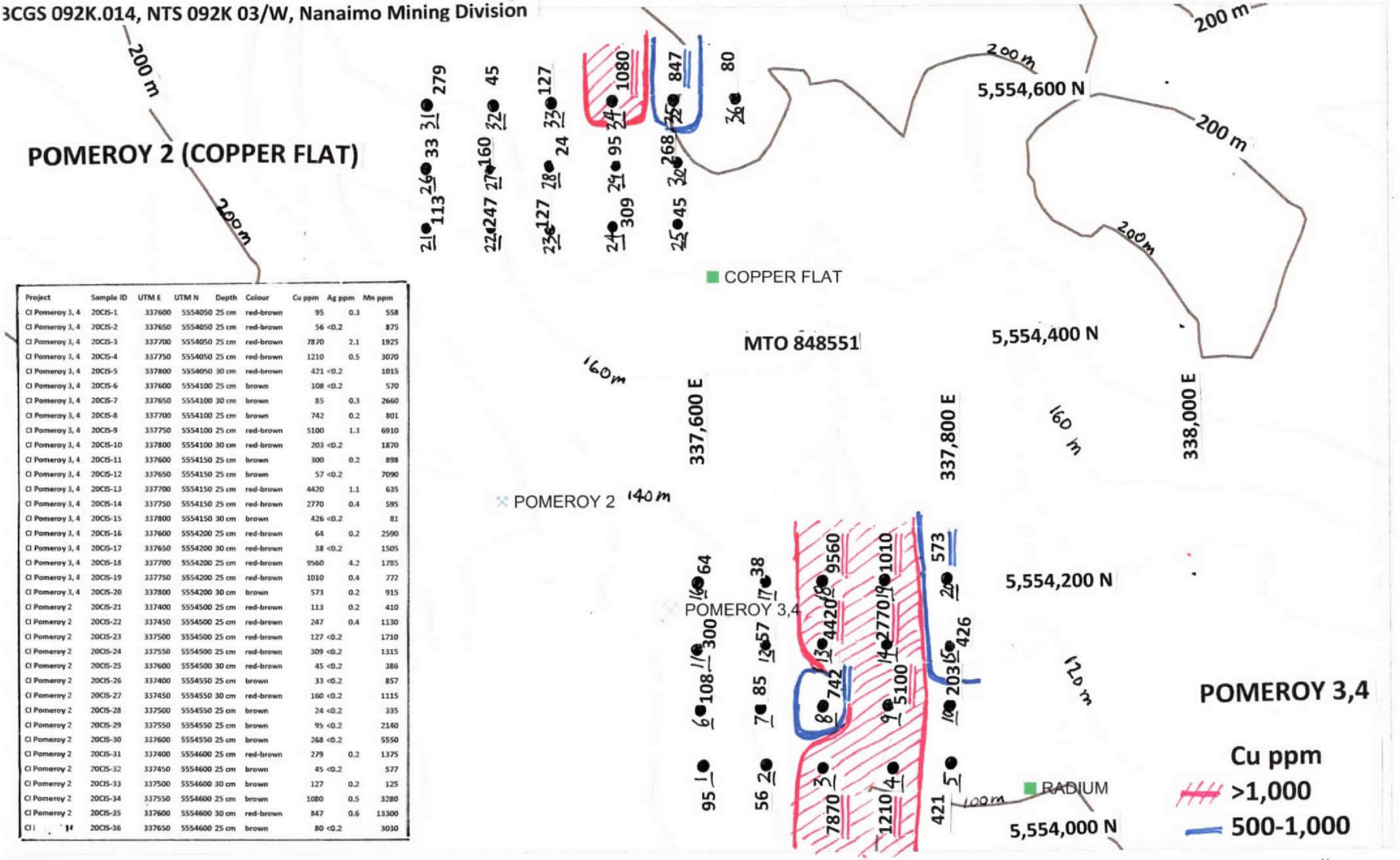


Fig 8 Pomeroy 2, 3, & 4 2020 Soil Survey Location

3CGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division



Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
CI Pomeroy 3, 4	20CIS-1	337600	5554050	25 cm	red-brown	95	0.3	558
CI Pomeroy 3, 4	20CIS-2	337650	5554050	25 cm	red-brown	56	<0.2	875
CI Pomeroy 3, 4	20CIS-3	337700	5554050	25 cm	red-brown	7870	2.1	1925
CI Pomeroy 3, 4	20CIS-4	337750	5554050	25 cm	red-brown	1210	0.5	3070
CI Pomeroy 3, 4	20CIS-5	337800	5554050	30 cm	red-brown	421	<0.2	1015
CI Pomeroy 3, 4	20CIS-6	337600	5554100	25 cm	brown	108	<0.2	570
CI Pomeroy 3, 4	20CIS-7	337650	5554100	30 cm	brown	85	0.3	2660
CI Pomeroy 3, 4	20CIS-8	337700	5554100	25 cm	brown	742	0.2	801
CI Pomeroy 3, 4	20CIS-9	337750	5554100	25 cm	red-brown	5100	1.3	6910
CI Pomeroy 3, 4	20CIS-10	337800	5554100	30 cm	red-brown	203	<0.2	1870
CI Pomeroy 3, 4	20CIS-11	337600	5554150	25 cm	brown	300	0.2	898
CI Pomeroy 3, 4	20CIS-12	337650	5554150	25 cm	brown	57	<0.2	7090
CI Pomeroy 3, 4	20CIS-13	337700	5554150	25 cm	red-brown	4420	1.1	635
CI Pomeroy 3, 4	20CIS-14	337750	5554150	25 cm	red-brown	2770	0.4	595
CI Pomeroy 3, 4	20CIS-15	337800	5554150	30 cm	brown	426	<0.2	81
CI Pomeroy 3, 4	20CIS-16	337600	5554200	25 cm	red-brown	64	0.2	2590
CI Pomeroy 3, 4	20CIS-17	337650	5554200	30 cm	red-brown	38	<0.2	1505
CI Pomeroy 3, 4	20CIS-18	337700	5554200	25 cm	red-brown	9560	4.2	1785
CI Pomeroy 3, 4	20CIS-19	337750	5554200	25 cm	red-brown	1010	0.4	772
CI Pomeroy 3, 4	20CIS-20	337800	5554200	30 cm	brown	573	0.2	915
CI Pomeroy 2	20CIS-21	337400	5554500	25 cm	red-brown	113	0.2	410
CI Pomeroy 2	20CIS-22	337450	5554500	25 cm	red-brown	247	0.4	1130
CI Pomeroy 2	20CIS-23	337500	5554500	25 cm	red-brown	127	<0.2	1710
CI Pomeroy 2	20CIS-24	337550	5554500	25 cm	red-brown	309	<0.2	1315
CI Pomeroy 2	20CIS-25	337600	5554500	30 cm	red-brown	45	<0.2	386
CI Pomeroy 2	20CIS-26	337400	5554550	25 cm	brown	33	<0.2	857
CI Pomeroy 2	20CIS-27	337450	5554550	30 cm	red-brown	160	<0.2	1115
CI Pomeroy 2	20CIS-28	337500	5554550	25 cm	brown	24	<0.2	335
CI Pomeroy 2	20CIS-29	337550	5554550	25 cm	brown	95	<0.2	2140
CI Pomeroy 2	20CIS-30	337600	5554550	25 cm	brown	268	<0.2	5550
CI Pomeroy 2	20CIS-31	337400	5554600	25 cm	red-brown	279	0.2	1375
CI Pomeroy 2	20CIS-32	337450	5554600	25 cm	brown	45	<0.2	577
CI Pomeroy 2	20CIS-33	337500	5554600	30 cm	brown	127	0.2	125
CI Pomeroy 2	20CIS-34	337550	5554600	25 cm	brown	1080	0.5	3280
CI Pomeroy 2	20CIS-35	337600	5554600	30 cm	red-brown	847	0.6	13300
CI [illegible]	20CIS-36	337650	5554600	25 cm	brown	80	<0.2	3030

0 100m SCALE 1 : 4,300

200 0 200 400 600 FEET

19● SOIL SAMPLE ID (PREFIX '20CIS-')

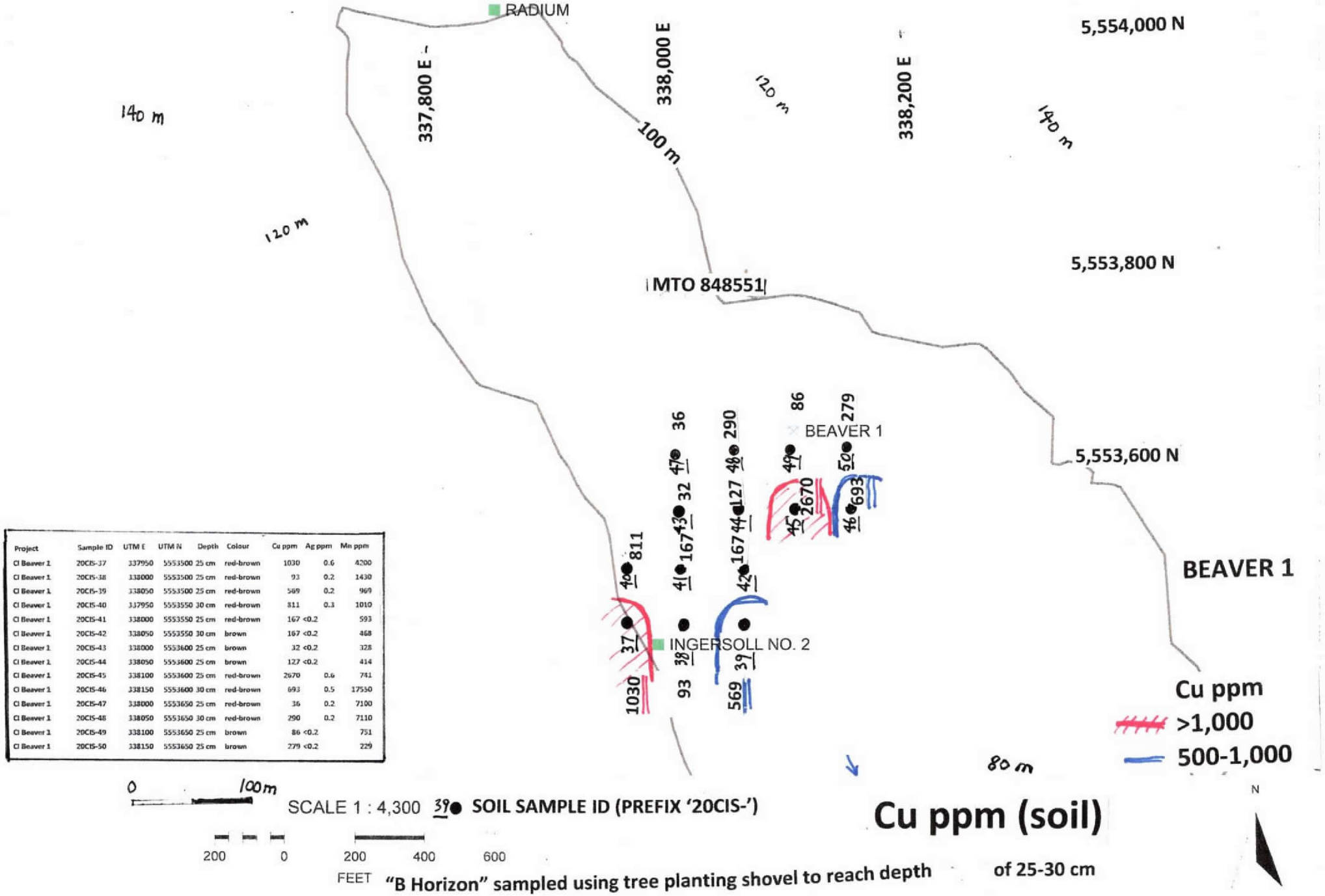
"B Horizon" sampled using tree planting shovel to reach depth of 25-30 cm

Cu ppm (soil)

N

Fig 9 Beaver 1 2020 Soil Survey Location

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division



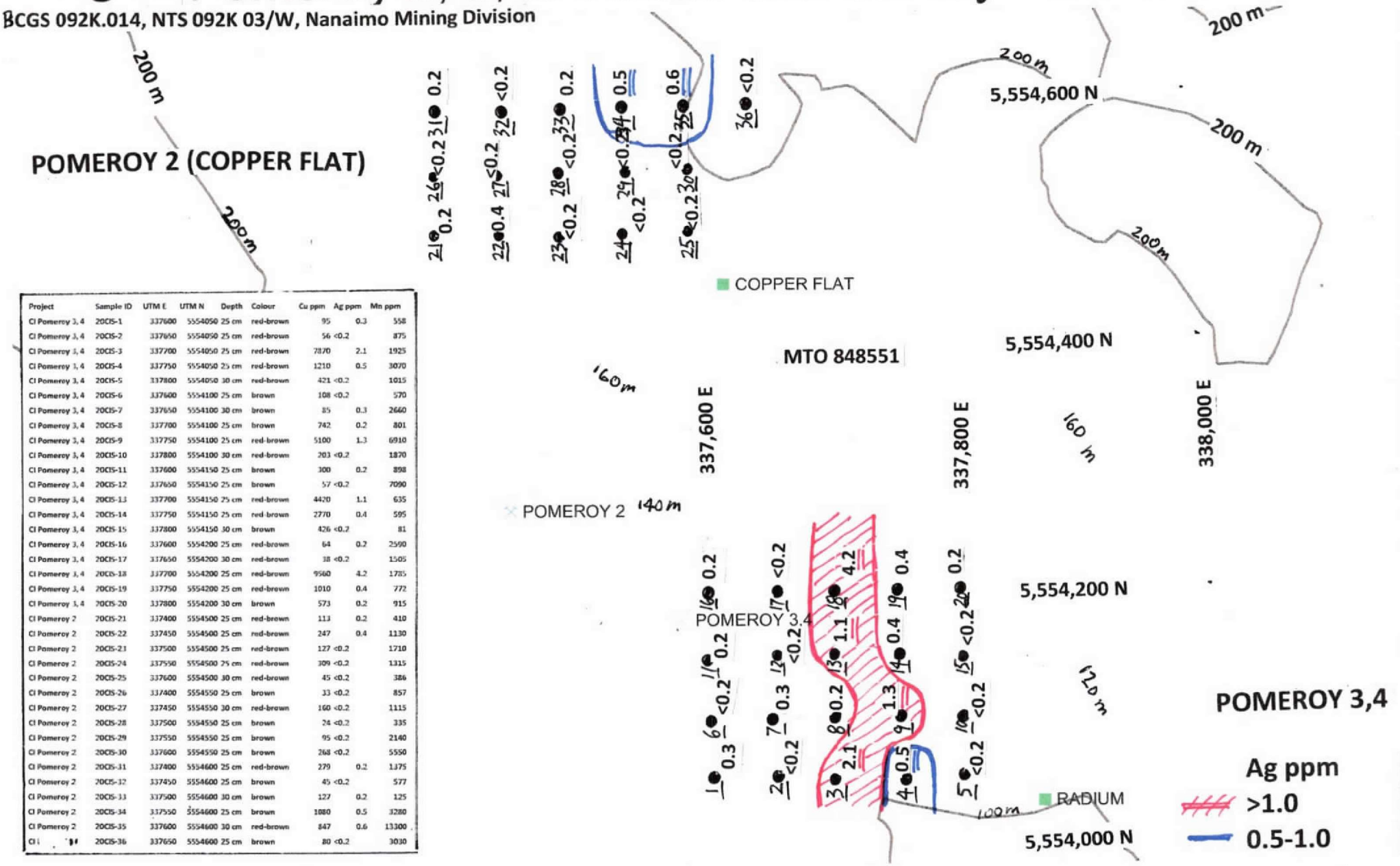
Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
CI Beaver 1	20CIS-37	337950	5553500	25 cm	red-brown	1030	0.6	4200
CI Beaver 1	20CIS-38	338000	5553500	25 cm	red-brown	93	0.2	1430
CI Beaver 1	20CIS-39	338050	5553500	25 cm	red-brown	569	0.2	969
CI Beaver 1	20CIS-40	337950	5553550	30 cm	red-brown	811	0.3	1010
CI Beaver 1	20CIS-41	338000	5553550	25 cm	red-brown	167	<0.2	593
CI Beaver 1	20CIS-42	338050	5553550	30 cm	brown	167	<0.2	468
CI Beaver 1	20CIS-43	338000	5553600	25 cm	brown	32	<0.2	328
CI Beaver 1	20CIS-44	338050	5553600	25 cm	brown	127	<0.2	414
CI Beaver 1	20CIS-45	338100	5553600	25 cm	red-brown	2670	0.6	741
CI Beaver 1	20CIS-46	338150	5553600	30 cm	red-brown	693	0.5	17550
CI Beaver 1	20CIS-47	338000	5553650	25 cm	red-brown	36	0.2	7100
CI Beaver 1	20CIS-48	338050	5553650	30 cm	red-brown	290	0.2	7110
CI Beaver 1	20CIS-49	338100	5553650	25 cm	brown	86	<0.2	751
CI Beaver 1	20CIS-50	338150	5553650	25 cm	brown	279	<0.2	229

Cu ppm (soil)

"B Horizon" sampled using tree planting shovel to reach depth of 25-30 cm

Fig 10 Pomeroy 2, 3, & 4 2020 Soil Survey Location

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division



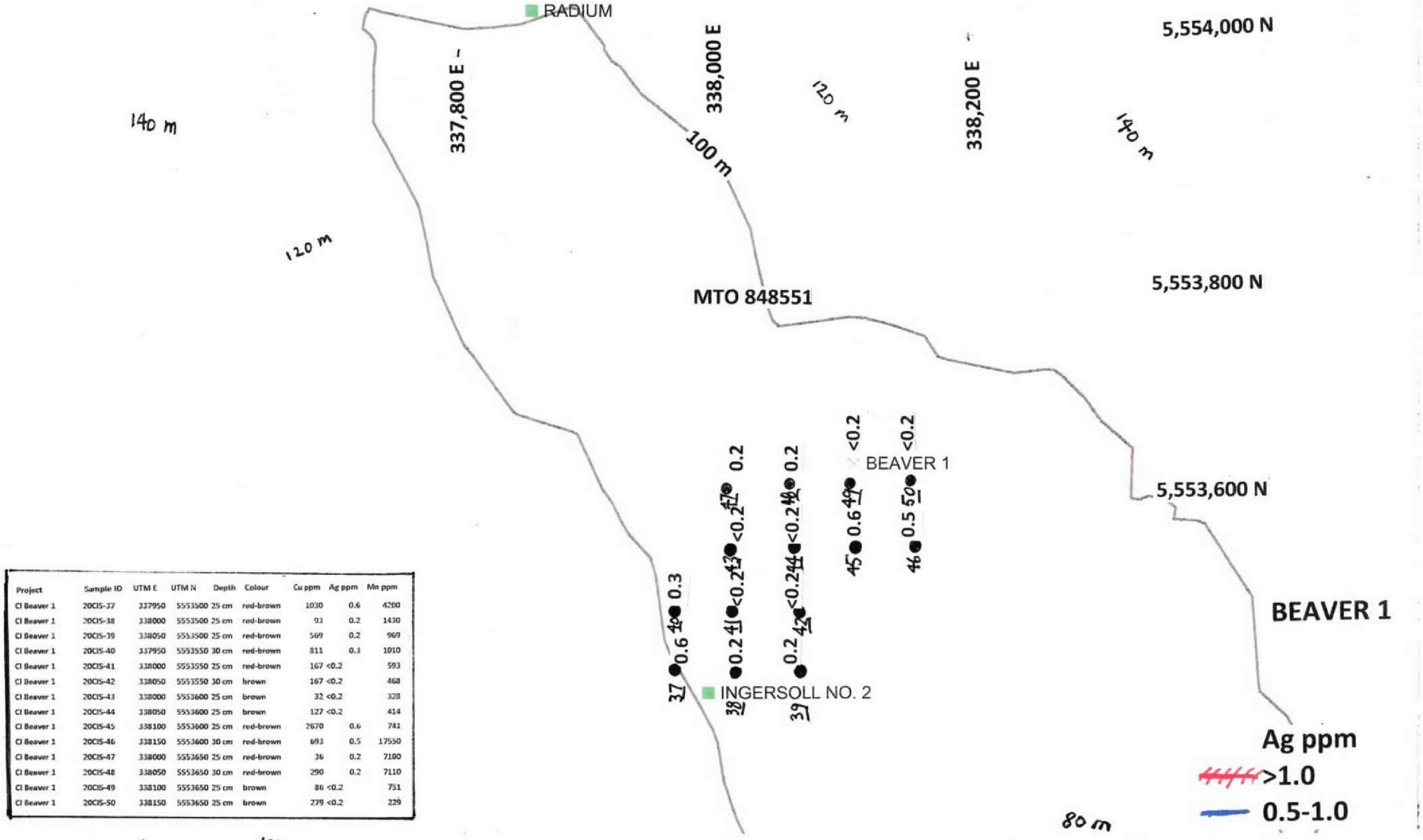
Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
CI Pomeroy 3, 4	20CIS-1	337600	5554050	25 cm	red-brown	95	0.3	558
CI Pomeroy 3, 4	20CIS-2	337650	5554050	25 cm	red-brown	56	<0.2	875
CI Pomeroy 3, 4	20CIS-3	337700	5554050	25 cm	red-brown	7870	2.1	1925
CI Pomeroy 3, 4	20CIS-4	337750	5554050	25 cm	red-brown	1210	0.5	3070
CI Pomeroy 3, 4	20CIS-5	337800	5554050	30 cm	red-brown	421	<0.2	1015
CI Pomeroy 3, 4	20CIS-6	337600	5554100	25 cm	brown	108	<0.2	570
CI Pomeroy 3, 4	20CIS-7	337650	5554100	30 cm	brown	85	0.3	2660
CI Pomeroy 3, 4	20CIS-8	337700	5554100	25 cm	brown	742	0.2	801
CI Pomeroy 3, 4	20CIS-9	337750	5554100	25 cm	red-brown	5100	1.3	6910
CI Pomeroy 3, 4	20CIS-10	337800	5554100	30 cm	red-brown	203	<0.2	1870
CI Pomeroy 3, 4	20CIS-11	337600	5554150	25 cm	brown	300	0.2	898
CI Pomeroy 3, 4	20CIS-12	337650	5554150	25 cm	brown	57	<0.2	7090
CI Pomeroy 3, 4	20CIS-13	337700	5554150	25 cm	red-brown	4420	1.1	635
CI Pomeroy 3, 4	20CIS-14	337750	5554150	25 cm	red-brown	2770	0.4	595
CI Pomeroy 3, 4	20CIS-15	337800	5554150	30 cm	brown	426	<0.2	81
CI Pomeroy 3, 4	20CIS-16	337600	5554200	25 cm	red-brown	64	0.2	2590
CI Pomeroy 3, 4	20CIS-17	337650	5554200	30 cm	red-brown	38	<0.2	1505
CI Pomeroy 3, 4	20CIS-18	337700	5554200	25 cm	red-brown	9560	4.2	1785
CI Pomeroy 3, 4	20CIS-19	337750	5554200	25 cm	red-brown	1010	0.4	772
CI Pomeroy 3, 4	20CIS-20	337800	5554200	30 cm	brown	573	0.2	915
CI Pomeroy 2	20CIS-21	337400	5554500	25 cm	red-brown	113	0.2	410
CI Pomeroy 2	20CIS-22	337450	5554500	25 cm	red-brown	247	0.4	1130
CI Pomeroy 2	20CIS-23	337500	5554500	25 cm	red-brown	127	<0.2	1710
CI Pomeroy 2	20CIS-24	337550	5554500	25 cm	red-brown	309	<0.2	1315
CI Pomeroy 2	20CIS-25	337600	5554500	30 cm	red-brown	45	<0.2	386
CI Pomeroy 2	20CIS-26	337400	5554550	25 cm	brown	33	<0.2	857
CI Pomeroy 2	20CIS-27	337450	5554550	30 cm	red-brown	160	<0.2	1115
CI Pomeroy 2	20CIS-28	337500	5554550	25 cm	brown	24	<0.2	335
CI Pomeroy 2	20CIS-29	337550	5554550	25 cm	brown	95	<0.2	2140
CI Pomeroy 2	20CIS-30	337600	5554550	25 cm	brown	268	<0.2	5550
CI Pomeroy 2	20CIS-31	337400	5554600	25 cm	red-brown	279	0.2	1375
CI Pomeroy 2	20CIS-32	337450	5554600	25 cm	brown	45	<0.2	577
CI Pomeroy 2	20CIS-33	337500	5554600	30 cm	brown	127	0.2	125
CI Pomeroy 2	20CIS-34	337550	5554600	25 cm	brown	1080	0.5	3280
CI Pomeroy 2	20CIS-35	337600	5554600	30 cm	red-brown	847	0.6	13300
CI	20CIS-36	337650	5554600	25 cm	brown	80	<0.2	3030

Ag ppm (soil)

"B Horizon" sampled using tree planting shovel to reach depth of 25-30 cm

Fig 11 Beaver 1 2020 Soil Survey Location

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division



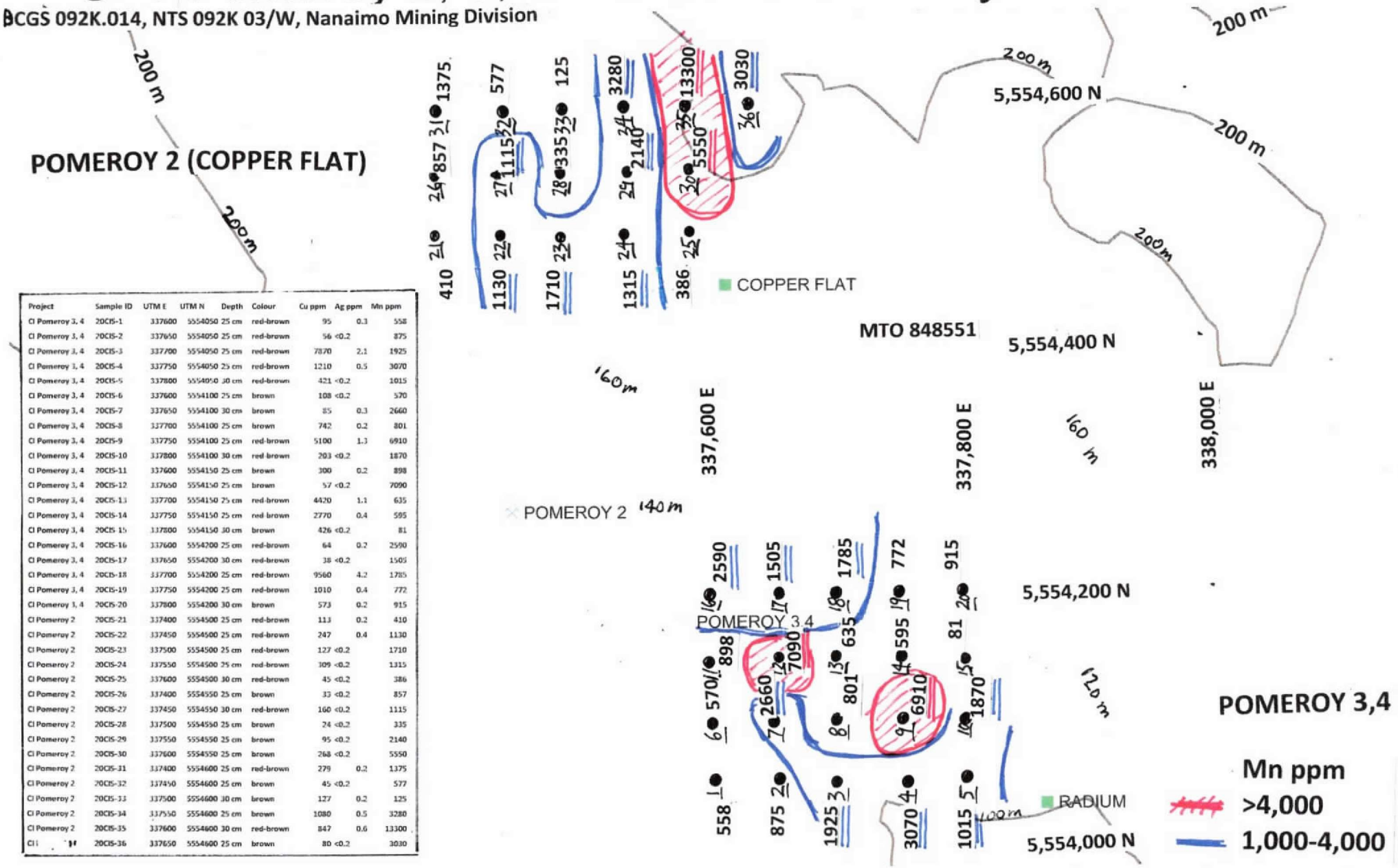
Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
CI Beaver 1	20CIS-37	337950	5553500	25 cm	red-brown	1030	0.6	4200
CI Beaver 1	20CIS-38	338000	5553500	25 cm	red-brown	93	0.2	1430
CI Beaver 1	20CIS-39	338050	5553500	25 cm	red-brown	569	0.2	969
CI Beaver 1	20CIS-40	337950	5553550	30 cm	red-brown	811	0.3	1010
CI Beaver 1	20CIS-41	338000	5553550	25 cm	red-brown	167	<0.2	593
CI Beaver 1	20CIS-42	338050	5553550	30 cm	brown	167	<0.2	468
CI Beaver 1	20CIS-43	338000	5553600	25 cm	brown	32	<0.2	328
CI Beaver 1	20CIS-44	338050	5553600	25 cm	brown	127	<0.2	414
CI Beaver 1	20CIS-45	338100	5553600	25 cm	red-brown	2670	0.6	741
CI Beaver 1	20CIS-46	338150	5553600	30 cm	red-brown	693	0.5	17550
CI Beaver 1	20CIS-47	338000	5553650	25 cm	red-brown	36	0.2	7100
CI Beaver 1	20CIS-48	338050	5553650	30 cm	red-brown	290	0.2	7110
CI Beaver 1	20CIS-49	338100	5553650	25 cm	brown	86	<0.2	751
CI Beaver 1	20CIS-50	338150	5553650	25 cm	brown	279	<0.2	229

Ag ppm (soil)

"B Horizon" sampled using tree planting shovel to reach depth of 25-30 cm

Fig 12 Pomeroy 2, 3, & 4 2020 Soil Survey Location

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division

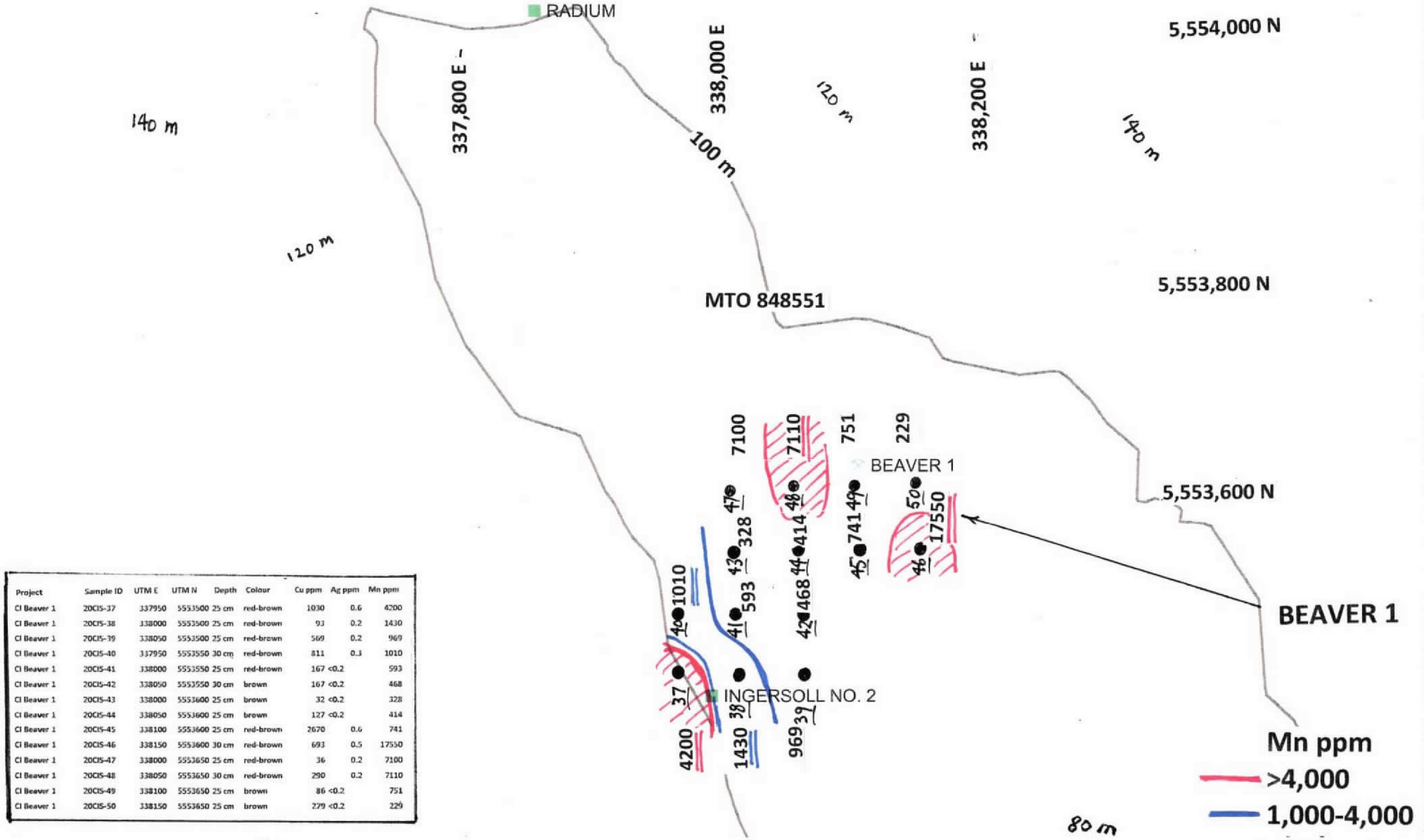


Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
Cl Pomeroy 3, 4	20CIS-1	337600	5554050	25 cm	red-brown	95	0.3	558
Cl Pomeroy 3, 4	20CIS-2	337650	5554050	25 cm	red-brown	56	<0.2	875
Cl Pomeroy 3, 4	20CIS-3	337700	5554050	25 cm	red-brown	7870	2.1	1925
Cl Pomeroy 3, 4	20CIS-4	337750	5554050	25 cm	red-brown	1210	0.5	3070
Cl Pomeroy 3, 4	20CIS-5	337800	5554050	30 cm	red-brown	421	<0.2	1015
Cl Pomeroy 3, 4	20CIS-6	337600	5554100	25 cm	brown	108	<0.2	570
Cl Pomeroy 3, 4	20CIS-7	337650	5554100	30 cm	brown	85	0.3	2660
Cl Pomeroy 3, 4	20CIS-8	337700	5554100	25 cm	brown	742	0.2	801
Cl Pomeroy 3, 4	20CIS-9	337750	5554100	25 cm	red-brown	5100	1.3	6910
Cl Pomeroy 3, 4	20CIS-10	337800	5554100	30 cm	red-brown	203	<0.2	1870
Cl Pomeroy 3, 4	20CIS-11	337600	5554150	25 cm	brown	300	0.2	898
Cl Pomeroy 3, 4	20CIS-12	337650	5554150	25 cm	brown	57	<0.2	7090
Cl Pomeroy 3, 4	20CIS-13	337700	5554150	25 cm	red-brown	4420	1.1	635
Cl Pomeroy 3, 4	20CIS-14	337750	5554150	25 cm	red-brown	2770	0.4	595
Cl Pomeroy 3, 4	20CIS-15	337800	5554150	30 cm	brown	426	<0.2	81
Cl Pomeroy 3, 4	20CIS-16	337600	5554200	25 cm	red-brown	64	0.2	2590
Cl Pomeroy 3, 4	20CIS-17	337650	5554200	30 cm	red-brown	38	<0.2	1505
Cl Pomeroy 3, 4	20CIS-18	337700	5554200	25 cm	red-brown	9560	4.2	1785
Cl Pomeroy 3, 4	20CIS-19	337750	5554200	25 cm	red-brown	1010	0.4	772
Cl Pomeroy 3, 4	20CIS-20	337800	5554200	30 cm	brown	573	0.2	915
Cl Pomeroy 2	20CIS-21	337400	5554500	25 cm	red-brown	113	0.2	410
Cl Pomeroy 2	20CIS-22	337450	5554500	25 cm	red-brown	247	0.4	1130
Cl Pomeroy 2	20CIS-23	337500	5554500	25 cm	red-brown	127	<0.2	1710
Cl Pomeroy 2	20CIS-24	337550	5554500	25 cm	red-brown	109	<0.2	1315
Cl Pomeroy 2	20CIS-25	337600	5554500	30 cm	red-brown	45	<0.2	386
Cl Pomeroy 2	20CIS-26	337400	5554550	25 cm	brown	33	<0.2	857
Cl Pomeroy 2	20CIS-27	337450	5554550	30 cm	red-brown	160	<0.2	1115
Cl Pomeroy 2	20CIS-28	337500	5554550	25 cm	brown	24	<0.2	335
Cl Pomeroy 2	20CIS-29	337550	5554550	25 cm	brown	95	<0.2	2140
Cl Pomeroy 2	20CIS-30	337600	5554550	25 cm	brown	268	<0.2	5550
Cl Pomeroy 2	20CIS-31	337400	5554600	25 cm	red-brown	279	0.2	1375
Cl Pomeroy 2	20CIS-32	337450	5554600	25 cm	brown	45	<0.2	577
Cl Pomeroy 2	20CIS-33	337500	5554600	30 cm	brown	127	0.2	125
Cl Pomeroy 2	20CIS-34	337550	5554600	25 cm	brown	1080	0.5	3280
Cl Pomeroy 2	20CIS-35	337600	5554600	30 cm	red-brown	847	0.6	13300
Cl [illegible]	20CIS-36	337650	5554600	25 cm	brown	80	<0.2	3030

"B Horizon" sampled using tree planting shovel to reach depth of 25-30 cm

Fig 13 Beaver 1 2020 Soil Survey Location

BCGS 092K.014, NTS 092K 03/W, Nanaimo Mining Division



Project	Sample ID	UTM E	UTM N	Depth	Colour	Cu ppm	Ag ppm	Mn ppm
CI Beaver 1	20CIS-37	337950	5553500	25 cm	red-brown	1030	0.6	4200
CI Beaver 1	20CIS-38	338000	5553500	25 cm	red-brown	93	0.2	1430
CI Beaver 1	20CIS-39	338050	5553500	25 cm	red-brown	569	0.2	969
CI Beaver 1	20CIS-40	337950	5553550	30 cm	red-brown	811	0.3	1010
CI Beaver 1	20CIS-41	338000	5553550	25 cm	red-brown	167	<0.2	593
CI Beaver 1	20CIS-42	338050	5553550	30 cm	brown	167	<0.2	468
CI Beaver 1	20CIS-43	338000	5553600	25 cm	brown	32	<0.2	328
CI Beaver 1	20CIS-44	338050	5553600	25 cm	brown	127	<0.2	414
CI Beaver 1	20CIS-45	338100	5553600	25 cm	red-brown	2670	0.6	741
CI Beaver 1	20CIS-46	338150	5553600	30 cm	red-brown	693	0.5	17550
CI Beaver 1	20CIS-47	338000	5553650	25 cm	red-brown	36	0.2	7100
CI Beaver 1	20CIS-48	338050	5553650	30 cm	red-brown	290	0.2	7110
CI Beaver 1	20CIS-49	338100	5553650	25 cm	brown	86	<0.2	751
CI Beaver 1	20CIS-50	338150	5553650	25 cm	brown	279	<0.2	229

0 100m

SCALE 1 : 4,300 39● SOIL SAMPLE ID (PREFIX '20CIS-')

200 0 200 400 600

FEET

Mn ppm (soil)

"B Horizon" sampled using tree planting shovel to reach depth of 25-30 cm