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**MT COPELAND Mo-W PROJECT-
GEOCHEMICAL AND PETROLOGY REPORT**

COPELAND CREEK, JORDAN RIVER, B.C.

REVELSTOKE MINING DIVISION

BY

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DEC 20, 2007

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT
29,539

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1.0 SUMMARY

Mineral tenure 501827 (and adjacent tenure 546342), 'Copeland Mo' are within the Revelstoke Mining Division, located 30 km northwest of Revelstoke at the headwaters of Hiren Creek (Fig. 1). Access to the property is by helicopter (Selkirk Helicopters Ltd on Westside Road, Revelstoke) or by hiking 11 km up Hiren Creek on the abandon and overgrown mine access road built by King Resources in 1968.

Copeland Mo property history includes underground excavation (1970-73) that produced 169,729 tonnes and recovered 2,625,046 pounds (1,190,713 kilograms) of molybdenum. When the Copeland Mine went into production in 1970, development work (diamond drilling, mapping, sampling) indicated there was 163,340 tonnes @ 1.82% MoS₂ (Fyles, 1973).

The Copeland molybdenite occurrence lies within Proterozoic Shuswap Metamorphic Complex consisting of nepheline syenite, syenite calc-silicate gneiss, marble, syenite aplite, syenite pegmatite, biotite schist, and quartzite. The rocks that have been metamorphosed (greenschist-amphibolite grade) and subjected to 3 phases of deformation. The oldest folds are recumbent and isoclinal with deformed axial surfaces and shallow easterly or westerly plunging axes. Second phase folds have overturned axial surfaces which dip steeply to the southwest and south. The broad curvature of the foliation around the southwest corner of the dome is referred to as phase 3 folding.

Lenses of syenite pegmatite or syenite aplite are concentrated along the north border of an extensive nepheline syenite body that occurs along the ridge crest in contact with calc-silicate metamorphic rocks located west of Mount Copeland. The syenite pegmatite and aplite host disseminated and fracture filling molybdenite with minor magnetite, ilmenite, pyrite, pyrrhotite, scheelite, and chalcopyrite. Molybdenite bearing zones are associated with secondary K-spar, calcite, biotite, chlorite and rare quartz.

At present, there are no established mineral reserves, but there is a known strike length of 1 kilometre of molybdenum and tungsten bearing mineralization which occur as 1-10 m wide sub-parallel bands. Production by King Resources was confined to the Glacier Zone where a fold hinge contained high grade molybdenite over a strike length of approximately 100 meters and a horizontal distance of 75 meters. The main focus of proposed exploration fieldwork would involve geological mapping, geochemical sampling and geophysical surveys over the 1,000 meters of strike length over known molybdenum and tungsten mineralization.

In order to complete follow-up exploration work on molybdenum bearing mineral zones, and to a lesser extent tungsten bearing mineralization present on the subject property, a 2 phase fieldwork program is recommended. Phase 1 recommendations include core drilling, geological, geophysical and geochemical core and rock chip sampling with a proposed budget of \$100,000.00. Contingent on the results of phase 1, a second phase of core drilling, rock sampling and geological/geochemical surveys is recommended. The estimated total budget for phase 2 is \$500,000.00.

The total recommended core drilling for phase 2 is 10,000 feet (3,048 m). The total recommended expenditures to complete proposed two phase program are about \$600,000.00.

2.0 INTRODUCTION AND TERMS OF REFERENCE

This report summarizes geological fieldwork carried out on the Copeland claim and evaluates economic mineral potential of molybdenum and tungsten bearing mineral zones as well as nepheline syenite (industrial mineral with numerous commercial applications) situated within the subject property. The purpose of the report is to qualify targets for future exploration/development on the subject property, as well as satisfying the requirements of an assessment report.

This report is partly based on geological fieldwork carried out by the author, who was present on the subject property on Sept 19-20, 2007. This report is partly based on published and unpublished fieldwork reports carried out by various private sector mining company personnel and public sector government personnel as well as fieldwork carried out by the author on the Copeland claim. Geological and geochemical data compilation has identified numerous areas of interest. Potential exists for outlining additional economic concentrations of molybdenite bearing mineralization.

3.0 DISCLAIMER

This report is comprised of a compilation of data based in part on documents and technical reports prepared by various authors. The portions of this report that give information gathered from various authors are referenced. The documents and technical reports from various authors were used to compile the Copeland Molybdenum property history.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Copeland claim is located about 30 km northwest of Revelstoke. Details of the claim are listed in the table as follows:

Claim Name (Legacy Name)	Cells	MTO Tenure # (Legacy Record #)	Mining Division	Record Date	Expiry Date
No Name (Copeland)	25	501827 (414820)	Revelstoke	Oct 16, 2004	Oct 16, 2008
Copeland 4	12	523095	Revelstoke	Dec. 2, 2006	*Dec. 2, 2008

*extended expiry date based on filing a statement of qualified assessment work

NOTE- In January, 2005 the Copeland mineral claim record # 414820 converted to mineral tenure # 501827

The claims are registered to Andris Kikauka FMC No. 114051. By letter of agreement, the Copeland claim is joint-venture co-owned by John Kalmet, Grant Anderson and William Pfaffenberger.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the property is by helicopter from Revelstoke or by hiking up the abandon road that follows Hiren Creek to the south facing slope of Copeland Ridge.

The Copeland property has cool/cold moderately wet winters and warm relatively dry summers. Total yearly rainfall on the property is estimated at between 35-55 inches (88.9-137.5 cm). At higher elevations of 1,900-2,400 meters (6,232-7,872 ft) above sea level, work could be carried out between June and October. Snowfall, avalanche hazard and cold weather would hamper activity in the winter months.

The primary vegetation is mixed fir-hemlock-cedar-spruce. The landforms are typical alpine terrain of the Selkirk Mountains which contain uplifted, foliated and folded intrusive, metasedimentary and metavolcanic rocks.

6.0 COPELAND Mo-W PROPERTY HISTORY

During 1964, several claims (Joan and Knox) were staked on the north side of Copeland Ridge in the vicinity of the existing claim. These claims were purchased by King Resources Company from Gulliver Mining and Exploration in January 1965. Additional staking in the area of the existing workings was accomplished during the summer of 1965. In 1966, the "Glacier Zone" was discovered, channel samples were taken, the zone was mapped, and a bulk sample was shipped to Colorado School of Mines Research Foundation for analysis and preliminary metallurgical testing. A short field season did not allow time for further work on the property until 1967 when 6 diamond drill holes were collared on the Glacier Zone. Encouraging drill results led King Resources to initiate an underground operation on the north side only. In 1967, approximately 700 feet of cross-cutting and drifting took place on the north side (Glacier Zone), and Interior Engineering Services Ltd provided a geodetic and astronomic survey of the Glacier Zone. In 1968, King Resources excavated a 6,000 ft (1,828.8 m) adit cross-cut and 600 ft (182.9 m) raise. Access to the site was via a 11 km long road along the north side of Hiren Creek valley and a camp was erected near the south portal.

The following consultants and contractors have prepared various reports and/or worked on certain aspects of the Copeland molybdenum mine: 1) George Wilson – geology, 2) M.C. Robinson – geology, 3) Interior Engineering Services Ltd. – Surveying, Road, Power, and Water, 4) Colorado School of Mines Research – Ore Beneficiation, 5) Versatile Engineering – General Contractors, 6) Rupert Drilling – Underground drilling contractors, 7) Chapman, Wood, & Griswold Ltd. – General Advisory, 8) E.H. Robinson – Mill Design.

Recorded production from 1970 to 1973 comprised 191,126 tonnes. A total of 169,729 tonnes of ore was milled produced 1,190,713 kilograms (2,622,715 pounds) of molybdenum (source: MINFILE).

In 1996, Discovery Consultants staked the Copeland claim (tag number 334164) and completed a program of whole rock sampling of the nepheline syenite body located south of the molybdenite occurrence. A total of 8 different sites were sampled and results indicated that sampling of nepheline syenite and nepheline syenite gneiss on the property shows that several samples fall within the range of commercial deposits exploited for the use as an industrial mineral and recommended detailed mapping and sampling on the property to define the grade and assess the extent of high-purity grade nepheline syenite on the Copeland claim. Discovery Consultants let the claims lapse and there has not been any other fieldwork done on Copeland Ridge over the past 9 years.

7.0 GEOLOGICAL SETTING

The Copeland claim lies within the Shuswap Metamorphic Complex, a narrow belt of high grade (amphibolite-granulite facies) metamorphic rocks flanked to the north and south by the Aphebian (i.e. Canadian, Proterozoic orogeny) 'Frenchman's Cap' gneiss dome. This 'migmatitic core gneiss' is considered to be the center of the Shuswap Metamorphic Complex with fringes containing meta-sedimentary and meta-volcanic rocks that are intruded by syenite (pegmatite/aplite phases present suggesting >10 km depth of burial), and subsequently folded and displaced by at least 3 different phases of deformation. The metasedimentary rocks comprise a series of rock units comprised of biotite schist, grey schist, white quartzite, calc-silicate gneiss, marble and grey gneiss. Concordant bodies of nepheline syenite gneiss occur within the calc-silicate gneiss and marble unit. The margins of the syenite bodies are nepheline-free, which may be the result of reaction with enclosing rocks.

Amphibolite grade metamorphism occurring on a regional scale at the margins of the Frenchman's Cap gneiss dome has produced sillimanite-kyanite, sillimanite, and sillimanite-potassic feldspar bearing assemblages in pelitic rocks. Calc-silicate assemblages contain diopside, garnet and actinolite. Carbonates and carbonatites are re-crystallized to medium and locally coarse-grained granoblastic marbles.

The following lithologies (distinct rock units) are present on the Copeland claim:

PROTEROZOIC (PRE-CAMBRIAN)

- 8- Syenite Aplite/Syenite Pegmatite:** K-feldspar, kaolinite, sericite, calcite, biotite, pyrrhotite, pyrite, molybdenite, ilmenite, chalcocopyrite, scheelite
- 7- Hangingwall Syenite Gneiss, Nepheline Syenite:** microcline/oligoclase, green/brown mica, chlorite, accessory apatite, zircon, & sphene
- 6- Biotite-Amphibole Marble:** weathered and deeply pitted appearance, biotite, hornblende, chlorite, marble, actinolite, diopside
- 5- Black Biotite Amphibole Gneiss:** schistose, biotite, hornblende, chlorite, oligoclase, magnetite
- 4- Quartzite Gneiss:** massive feldspar, granular texture, interbedded marble bands with actinolite and diopside
- 3- Footwall Schist:** massive biotite, minor feldspar, chlorite
- 2- Footwall Syenite Gneiss:** brown weathering, microcline/oligoclase, green/brown mica, chlorite
- 1- Green Diopside Gneiss:** 50% feldspar, 10-35% biotite, 2-10% green diopside,

The 8 listed and physically distinct rock units have been subjected to 3 phases of deformation. The oldest folds are recumbent and isoclinal with deformed axial surfaces and shallow easterly or westerly plunging axes. Second phase of folds have overturned axial surfaces which dip steeply to the southwest and south. A broad curvature of foliation around the southwest portion of the Glacier Zone is referred to as a phase 3 fold.

Lenses of syenite pegmatite or syenite aplite are common along the northern border of the nepheline syenite unit, and because of their concentrations of molybdenum, are the main focus of economic interest. Characteristically, the syenite aplite/pegmatite are parallel with foliation, but locally they cross it. Massive disseminated molybdenite occurs randomly in the aplite and pegmatite lenses, and to a lesser extent in calc-silicate gneisses adjacent to the syenite-gneiss contact. During the life of the Copeland moly mine, almost all the production was from the aplite-pegmatite bodies within the syenite gneisses; more specifically the Glacier Zone, which is 1-10 meters thick and exposed for 121 meters along strike. The Glacier Zone occurs in a digitation of either a fold limb or a sill of syenite gneiss in the calc-silicate gneiss unit. In these digitations, the syenite gneiss appears to be free of nepheline.

8.0 DEPOSIT TYPES

The 6950 Glacier Zone (2030-2075 m elevation), is the host rock for molybdenite mineralization is a metamorphosed soda syenite characterized by microcline megacrysts (pegmatite). As suggested by the abundance of calcite and interlayered marble and lime-silicates, the molybdenite mineralization can be classified as a metamorphosed skarn, type unknown.

In the 7000 Glacier West Zone (2120-2160 m elevation), calcite occur as 1-5 cm wide lenses, streaks, granoblasts, and layers. The calcite is present in small amounts and

locally prominent in the syenite gneiss. The distribution of calcite-diopside-epidote in the syenite/gneiss contact zone suggests a skarn fluid metasomatic process of mineral emplacement (i.e. calcic skarn mineralization), however the environment of formation i.e. replacement 'exoskarn' versus within intrusion 'endoskarn' or replacing earlier skarn alteration 'retrograde skarn' is still in question.

9.0 MINERALIZATION

Minor constituents of the syenite gneiss include zircon, sphene, apatite, magnetite and minor fluorite, pyrite, pyrrhotite, magnetite, ilmenite, molybdenite, & chalcopyrite. Lenses of molybdenite-bearing syenite aplite and syenite pegmatite have been folded into tightly compressed, overturned (phase 2) folds plunging 15 degrees southeast. The axial surfaces dip at moderate angles to the south. The contacts between aplite, pegmatite, and/or syenite gneiss may be either sharp or gradational. Pegmatite and aplite have similar mineralogies. Both are leucocratic relative to the enclosing gneisses but both have mafic-rich folia and lenses. Potassium feldspar is the dominant mineral. Locally, the pegmatite matrix consists of masses of calcite that contain clusters of biotite, pyrrhotite, pyrite, ilmenite. Minor amounts of zircon are present; quartz is rare but occurs interstitially or as vug fillings. The iron oxide minerals magnetite and ilmenite are common, locally forming equant grains and blebs to 2 cm across. Sulphide minerals present include pyrite, pyrrhotite, molybdenite, and rare chalcopyrite. The sulphide mineral trends (including the 6950 Glacier, 7000 Glacier West, 6420 Pegmatite, 6400 Quartz-Gneiss, 6,300 J-5, 6650 East Basin) are all roughly sub-parallel, and trend at 110 degrees, dipping 30-70 degrees to the south.

Molybdenite has a number of habits; it may be disseminated, form clumps and rosettes of crystals along hairline cracks, fill vugs, or occur as intergrowths in calcite, sericite, and/or potassium feldspar. Large crystals of molybdenite contain inclusions of potassium feldspar, calcite and zircon. Molybdenite also occurs in potassium feldspar crystals, and commonly concentrated around potassium megacrysts in the syenite pegmatites as well as aplitic texture syenite. Pyrite and pyrrhotite are distributed as disseminations, fracture fillings and vug infillings adjacent to molybdenite mineralization.

In the syenite gneisses, feldspars are clouded by kaolinite alteration or stained pink by sericite-calcite alteration. Biotite is locally chloritized. The pegmatite-aplite zones are similarly altered. Epidote and chlorite coat late-stage fractures in the rocks. Veinlets commonly consist of calcite, potassium feldspar or rarely, quartz.

10.0 EXPLORATION

A total of 9 rock chip samples were taken from a 200 X 600 m area located near the central area of claim 501827 (Fig 4). Rock samples taken from surface outcrops range from 1,948-2,172 meters in elevation. Sampled widths range from 0.2-2.0 m width. The dominant strike of mineralization varies from 95-110 degrees (E to ESE azimuth), dipping 30-60 degrees towards the south. Geochemical analysis indicates higher grades of molybdenite are hosted mainly in metamorphosed aplite and to a lesser degree

pegmatite and skarn (as a contaminant from marble?). Rock sample number VC090707-1, on the 6950 Glacier Zone, returned 3.6% Mo. This sample was taken near the crest of a fold hinge that has an axial fold trace of 110 degrees and shallow south-southeast plunge (20-30 degrees). This synformal fold hinge axis is where past production (King Res Co, 1970-73) has taken place in an area located beneath surface approximately 10-150 m to the south-southeast of sample number VC090707-1.

A selection of 4 representative rock samples from the 7000 Glacier West (sample VC090707-2), 6950 Glacier Zone (sample Cope-07-A1), 6420 Pegmatite Zone (sample Cope-07-A2), and 6650 East Basin (sample Cope-07-A6) were selected for petrographic descriptions (Appendix B). Accessory apatite, and trace hematite, rutile and zircon are noted in the petrographic descriptions.

11.0 DRILLING (HISTORIC)

Eight diamond drill holes were located in the area of the 6950 Glacier Zone by King Resources Company in 1970. These drill holes intersected significant Mo values as indicated below:

DDH No. (year drilled, s-surface)	DIP	AZIMUTH	END OF HOLE m. (ft.)	FROM m. (ft.)	TO m. (ft.)	INTERVAL m. (ft.)	% Mo
S701 (s-1970)	-80	0	30.17 (99)	7.32 (24)	21.64 (71)	14.32 (47)	0.14
S702 (s-1970)	-80	75	36.88 (121)	23.16 (76)	27.13 (89)	3.96 (13)	0.095
S703 (s-1970)	-45	15	42.06 (138)	16.46 (54)	19.51 (64)	3.05 (10)	0.15
S704 (s-1970)	-80	315	38.71 (127)	21.34 (70)	35.05 (115)	13.72 (45)	0.218
S705 (s-1970)	-70	15	36.58 (120)	17.37 (57)	23.32 (76.5)	5.94 (19.5)	0.083
S706 (s-1970)	-80	15	57.61 (189)	26.82 (88)	36.88 (121)	10.06 (33)	0.235
S707 (s-1970)	-65	35	50.29 (165)	31.39 (103)	35.97 (118)	4.57 (15)	0.187
S708 (s-1970)	-45	320	63.40 (208)	58.52 (192)	61.11 (200.5)	2.59 (8.5)	0.454

Source- King Resources 1970 diamond drill core sampling data, BC Ministry of Energy & Mines, Property File

It is not known where diamond drill holes S701-S708 were collared, and there is no data available regarding procedures and parameters relating to the surveys and investigations, thus the reliability of drill hole data listed can not be relied upon.

12.0 SAMPLING METHOD AND APPROACH

A total of 9 rock chip samples were taken from widths ranging from 0.2 to 2.0 m. Approximately 2 kilograms of rock chips were collected from outcrop exposures of the 6950 Glacier Zone, 6650 East Basin, 7000 West Glacier, and 6240 Pegmatite aplite-pegmatite related molybdenite vein/replacement mineralization. The rock chips were placed in marked poly ore bags and all samples were shipped to Pioneer Labs, Richmond, BC for 30 element ICP geochemical analysis and Mo assay for 7 samples.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Samples were boxed and delivered by the writer to Pioneer Labs, Richmond BC and Vancouver Petrographics, Langley BC. Sampling and assay data from 2007 was carried out using relevant and reliable methods. The samples were prepared using standard analytical procedures by Pioneer Labs, Richmond, B.C. This includes crushing the rock chip samples, and passing through -10 mesh, and splitting 250 grams and pulverizing and passing -150 mesh. Multi-element ICP analysis was done on all samples which involves taking 0.5 grams sample and digesting with 3 ml of aqua regia, diluted with 10 ml water. Mo analysis uses 1 gram sample digested with 50 ml aqua regia, diluted to 100 ml with water and is finished by ICP/ES.

14.0 DATA VERIFICATION

Duplicate samples and/or blank samples were not included in the lab shipments of rock samples due to the reconnaissance nature of the exploration program. The results of geochemical surveys performed are intended to be an exploration guide and do not constitute mineral resource or reserve studies involving geo-statistical evaluation.

15.0 ADJACENT PROPERTIES

River Jordan (MINFILE 082M 001) is located approximately 2 km east of mineral tenure 501827. River Jordan is a developed prospect and a 1961 resource estimate from CIM Bull 57, page 48 states River Jordan contains a total of 2,605,826 tons grading 37.7 g/t Ag, 5.1% Pb and 5.6% Zn. River Jordan is classified as a stratabound Broken Hill type Ag-Pb-Zn-(Cu). Other nearby mineral deposits (10-20 km radius) include Cottonbelt Ag-Pb-Zn, J & L Au-Ag-As-Pb-Zn, and Goldstream Cu-Zn-Ag, all of which are stratabound base and precious metal bearing mineral occurrences.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In 1967-68, Colorado School of Mines Research Foundation Inc conducted two series of metallurgical bench tests on samples submitted to them by King Resources Company (Wood, 1969). The first series, completed in March, 1967, was on a 500 pound (226.8 kilogram) sample taken from the surface exposure of the 6950 Glacier Zone. The second series, completed in June, 1968, was on one sample from the 6950 Glacier Zone and one sample from the peripheral zone. Test were conducted to determine optimum size grind,

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necessity for regrinding the rougher concentrate, dispersants or depressants required, impurities in the concentrate, optimum pH modifiers, tailings effluent composition and tailings settling requirements. Metallurgical test results indicate:

1) Finer grind does increase recovery, but 65 mesh size is sufficient to give desired concentrate grade if reagents are used in flotation circuit for control of iron sulphides and other gangue minerals.

2) The ore is amenable to production of high grade, high recovery concentrate using regrinding and dispersants, but other tests produce similar results without regrinding.

3) The use of dispersants and depressants are necessary to provide an acceptable concentrate grade.

4) Impurities are present, as indicated below, but are low enough to satisfy market requirements:

Zone	% Cu	% Pb	% P	% Sn + As	% Insoluble	% Fe
Glacier	0.04	0.014	0.003	<0.01	1.59	0.86
Peripheral	0.026	0.050	0.004	<0.04	1.91	1.91

A spectrographic analysis reveals the presence of silver in quantities too small to be significant. Arsenic, bismuth and lead impurities are either absent or insignificant.

5) The use of soda ash as a pH modifier was shown to be superior to lime insofar as a higher concentrate grade is concerned.

6) A tailing water effluent test was conducted using the equivalent reagent quantities. The conclusions drawn were that the pine oil, sodium silicate and sodium carbonate are not added in sufficient quantities to be considered pollutants. The cyanide exists mostly as the radical $M(CN)_x$ and not as the iron $(CN)_-$, it resists decomposition, and is considered stable.

7) Utilizing a tailings thickener has been recommended to minimize groundwater pollution.

8) Metallurgy of the Glacier Zone appears to be relatively uncomplicated:

- Apparent optimum grind is 75-80% at -65 mesh
- Concentrate ratio is 25-30 to 1
- Moisture content of concentrate is 10-12%
- Concentrate production from a 200 tons/day mill is approximately 8 tons/day
- Percentage recovery is 93%
- Concentrate grade is 90-92% MoS_2

Reagents used: Fuel oil (standard petroleum product), Syntex L (sulphated monoglyceride of coconut oil, a detergent), pine oil (terpene derivative from pine trees), Separan MGL (high molecular weight synthetic polymer), sodium cyanide (depressant), sodium silicate (dispersant), sodium carbonate (pH control and flotation agent).

These metallurgical tests are dated (1967-68), and do not conform with present day industry standards and sampling protocol, the data generated by Colorado School of Mines Research Foundation can not be relied upon.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

There are no categorized mineral resources and mineral reserve estimates on the subject property.

18.0 OTHER RELEVANT DATA AND INFORMATION

Three rock chip samples taken by Discovery Consultants in 1995 on Copeland Ridge (2,378-2,432 m elevation) were tested for suitability for high-purity nepheline syenite (nepheline, potash and soda feldspar with minor biotite, hornblende and magnetite accessory minerals), used in glassmaking, ceramics, glazes, cleaning compounds, insulators, dental spar, and flux coatings. A typical chemical analysis for high-purity nepheline syenite is 60% SiO₂, 23.6% Al₂O₃, 0.07% Fe₂O₃, 0.3% CaO, 0.1% MgO, 5.3% K₂O, 10.2% Na₂O, 0.5% LOI (source: Canadian Minerals Yearbook, Energy, Mines and Resources, Canada). The Copeland Ridge samples fall in the range of nepheline syenite given the relatively comparative silicon, aluminium, potassium and sodium oxide values obtained from geochemical analysis. Effort should be directed to finding samples similar to MC95-3 (taken by T.H.Carpenter, 1995 for Discovery Consultants on Copeland Ridge, A.R. 24,328) which returned values of 0.66% Fe₂O₃ as well as being very low in other impurities.

19.0 INTERPRETATION AND CONCLUSIONS

The results warrant exploration in the area of the 6950 Glacier Zone, in order to trace the down-plunge extension of the molybdenite bearing zone. Geological mapping and geochemical sampling of the 6950 Glacier Zone indicate further exploration should be directed at the east-southeast and shallow east-southeast plunge extension of molybdenite bearing aplite-pegmatite-skarn mineralization. Recorded production from 1970 to 1973 (King Resources Company) comprised 191,126 tonnes. A total of 169,729 tonnes of ore was milled produced 1,190,713 kilograms (2,622,715 pounds) of molybdenum (source: MINFILE). This zone of past production is known is referred to as the '6950 Glacier Zone', and is located approximately 100 m south of King Resources 6,664 ft (2,031.2 m) elevation adit (Fig.4).

Further exploration of additional zones of high-grade molybdenite (MoS₂) and accessory scheelite (CaWO₄)–wolframite (Fe,MnWO₄) is recommended for a 1 km radius of the 6950 Glacier Zone. Areas of specific interest include the '7000 Glacier West Zone' which may be interpreted as the offset, upper west strike extension of the 6950 Glacier Zone. Located 100-200 meters north of the 6950 Glacier Zone, other areas of molybdenite (MoS₂) mineralization include the '6420 Pegmatite Zone' and the '6400 Quartz-Gneiss Zone' with the '6300 J-5 Zone' and the '6650 East Basin Zone'. The 6650 East Basin, 7000 West Glacier, and 6420 Pegmatite Zone should be geological mapped

for cleavage, lineation and folds to deduce sense of movement in ductile shear zones, combined with geochemical and geophysical fieldwork

The other type of mineral occurrence present on the property is high-purity nepheline syenite. Copeland Ridge area is reported to contain nepheline, potash and soda feldspar minerals suitable for industrial applications.

Sampling in Sept, 2007 (VC090707-1, 6950 Glacier Zone) included an assay of 3.6% Mo across a width of 80 cm (Fig.4). This sample was taken near the axis of a synformal fold hinge which is the location of past production (King Res Co, 1970-73) located beneath surface approximately 10-150 m to the south-southeast of sample number VC090707-1. In addition to geochemical sampling, 4 representative rock samples from the 7000 Glacier West (sample VC090707-2), 6950 Glacier Zone (sample Cope-07-A1), 6420 Pegmatite Zone (sample Cope-07-A2), and 6650 East Basin (sample Cope-07-A6) were selected for petrographic descriptions (Appendix B). Accessory apatite, and trace hematite, rutile and zircon are noted in the petrographic descriptions.

20.0 RECOMMENDATIONS

Based on the results of previous core drilling and mining activity, there is potential to outline further economic concentrations of molybdenite-(scheelite) mineralization present on the subject property. A two phase program consisting of preliminary geological mapping, trenching, VLF-EM and magnetometer geophysics, and litho-geochemical sampling followed by a series of diamond drill holes and further detailed geological mapping are proposed to test the depth extension of Glacier Zone (upper and lower, surface mineralization trends). Concurrent with drilling, a program of hand trenching, geological mapping and rock chip sampling is required to outline further extensions of known mineral trends.

A detailed budget of this 2 phase exploration program is described as follows:

PHASE 1: PROPOSED BUDGET FOR COPELAND Mo-(W):

FIELD CREW- Geologist, 1 geotechnician, 21 days	\$	12,500.00
FIELD COSTS-Assays 250		5,400.00
Rock chip geological/geochemical survey		15,000.00
Geophysics (VLF-EM and magnetometer)		23,000.00
Soil Grid		2,500.00
Equipment and Supplies		2,000.00
Communication		900.00
Food		2,400.00
Transportation		17,100.00
Emergency camp construction		7,350.00
REPORT		1,850.00
Contingency		10,000.00
		<hr/>
	Total = \$	100,000.00

PHASE 2: PROPOSED BUDGET FOR COPELAND Mo-(W) TARGETS:

FIELD CREW- Geologist, 1 geotechnician, 1 cook 120 days	\$ 46,000.00
FIELD COSTS- Core drilling, 10,000 feet (3,048 m) .	325,000.00
Assays 1,400	28,000.00
Equipment and Supplies	4,000.00
Communication	3,000.00
Food	6,500.00
Transportation	58,000.00
REPORT	1,200.00
Contingency	18,300.00

Total = \$ 500,000.00

TOTAL PHASE 1 + 2 = \$ 600,000.00

The total recommended core drilling for phase 2 is 10,000 feet (3,048 m).

21.0 REFERENCES

- Canadian Minerals Handbook 1978, Energy, Mines and Resources Canada
- Carpenter, T.H., (1996) Geological Report for Discovery Consultants, Assessment Report 24,328, BC Ministry of Energy & Mines
- CIM Special Volume 15, 1976, page 418-420 Characteristics of Canadian Cordillera Molybdenum Deposits (Soregaroli, A.R., Sutherland Brown, A., 1976)
- Clark, K.J., 1972, Stockwork Molybdenum Deposits in the Western Cordillera of North America, Econ. Geol. Volume 67, pp. 731-758
- EMPR Assessment Report # 679, 776, 1788, 8752, and 24328
- EMPR Bulletin 57 pp. 22, 40, 58-61
- EMPR EXPL 1978 pp. 100, 101; 1980 pp. 137,138
- EMPR PF (Fyles, J.T., McCammon, J.W., 1969) Mineral Resources Revelstoke Area.
- EMPR MP CORPFILE (King Resources Company, 1969, 1970)
- GAC Special Paper No. 6, pp. 87-98 (Fyles, J.T., 1970)
- Guillet, G. Robert, 1994, "Nepheline Syenite" in Industrial Minerals and Rocks, Donald G. Carr, Ed., Society for Mining, Metallurgy, and Exploration, Inc.
- Kikauka, Andris A., (2005), Geological and Geochemical Report on Mount Copeland Molybdenum Project, Assessment Report for BC Ministry of Energy & Mines, Mineral Titles, available online www.em.gov.bc.ca
- Kirkham, R.V., 1972, Intermineral Intrusions and their Bearing on Porphyry Copper and Molybdenum Deposits, Econ Geol., Volume 66, 1244-1249
- Wood, John A., (1969) Preliminary Feasibility Study, Copeland Mountain Molybdenum Project, Revelstoke Mining Division, King Resources Company

22.0 DATE AND CERTIFICATE

I, Andris Kikauka, of 4901 East Sooke Rd., Sooke B.C. V0S 1N0 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 twenty 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 the Technical Report are based on fieldwork carried out in my presence on the subject properties during Sept, 2007 during which time a technical evaluation consisting of geological mapping of mineral zones located on the subject property was carried out by the writer.
6. As at the date hereof, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
7. This report summarizes technical data for the purpose of reporting fieldwork for geochemical-petrographic assessment work.
8. Recommendations and proposed budgets listed in this report are guidelines, and are not intended for the purpose of public financing.

Andris Kikauka, P. Geo.,



December 12, 2007

ITEMIZED COST STATEMENT-

COPELAND Mo PROJECT- PETROLOGY AND GEOCHEMICAL ANALYSIS
FIELDWORK DURING SEPTEMBER 19-20, 2007 ON MINERAL TENURE 501827
TRIM 082M.018, REVELSTOKE MINING DIVISION

FIELD CREW:

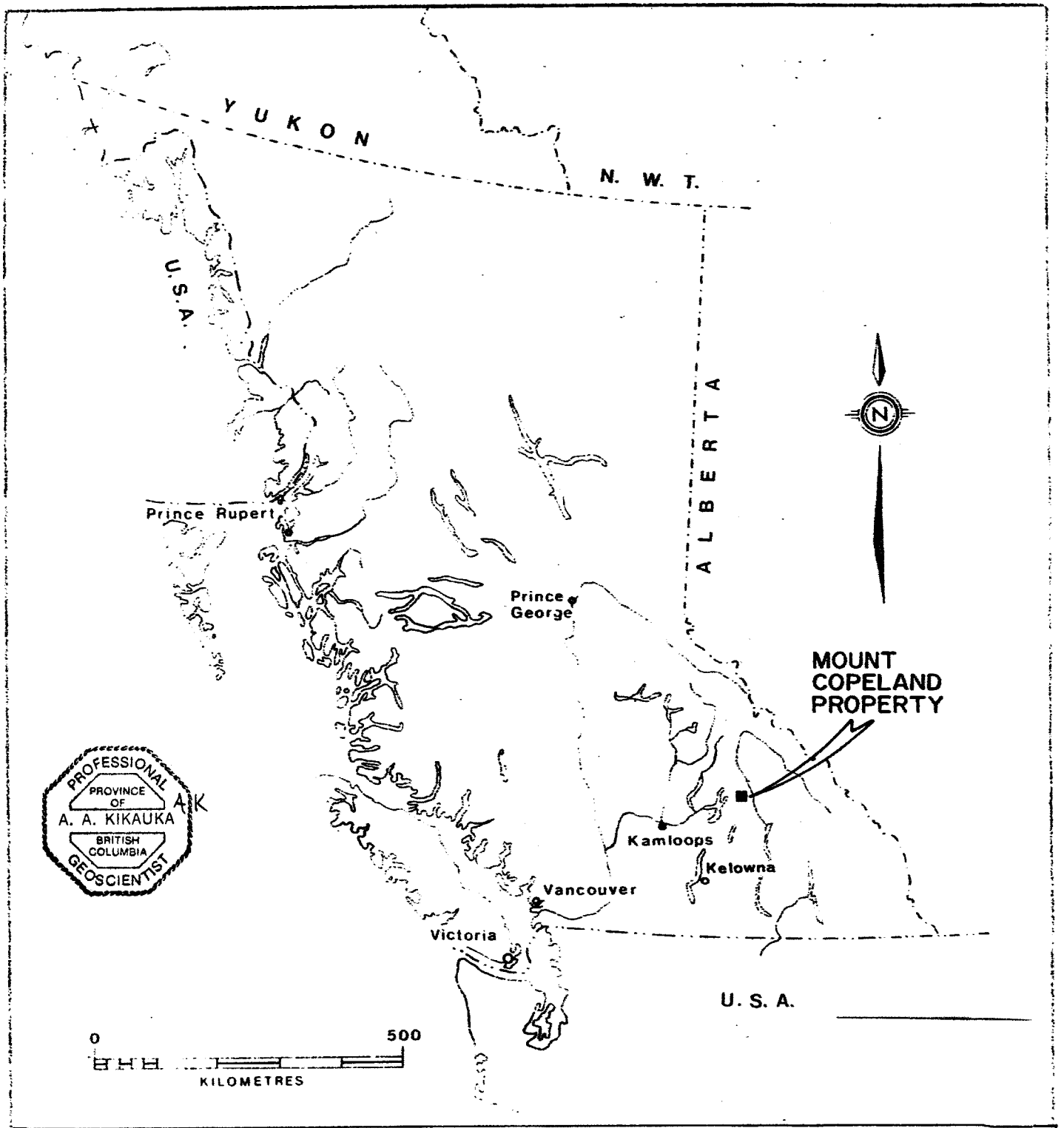
Andris Kikauka (Geologist) 2 Days \$ 800.00

FIELD COST:

Mob and Demob	\$ 260.00
Equipment and Supplies	90.00
Petrographic descriptions	933.86
Geochemical analysis 9 ICP 30 element, 5 Mo assays	342.00
Helicopter charter (1.2 hours)	1,293.00
Food	149.00
Accommodation	170.00
Fuel	250.00
Communication	20.00

Report 590.00

Total amount= \$ 4,897.86

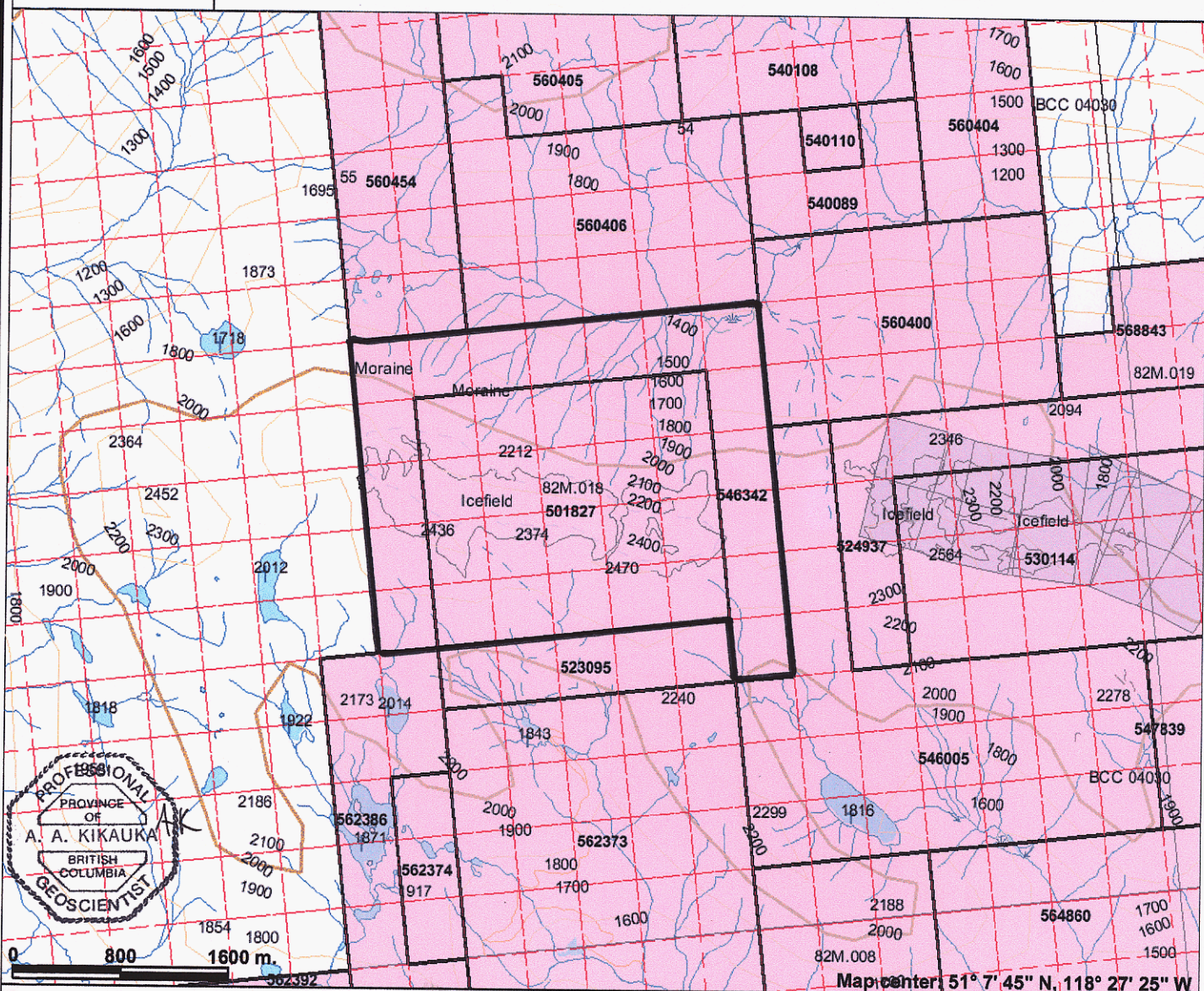


MOUNT COPELAND Mo-W PROJECT

FIGURE 1 GENERAL LOCATION MAP

Mt Copeland Mo

FIG. 2 CLAIM LOCATION MAP



Legend

- Indian Reserves
- National Parks
- Parks
- Mineral Titles Grid (LRDW)
- Mineral Tenures (Mineral - LRDW)
- Mineral Claim
- Mineral Lease
- Reserves (Mineral - LRDW Sites)
- Placer Claim Designation
- Placer Lease Designation
- No Staking Reserve
- Conditional Reserve
- Release Required Reserve
- Surface Restriction
- Recreation Area
- Others
- Mining Division (MTO)
- Survey Parcels
- BCGS Grid
- Contours (1:250K)
- Contour - Index
- Contour - Intermediate
- Area of Exclusion
- Area of Indefinite Contours
- Transportation - Points (TRIM)
- Helipad
- Transportation - Lines (TRIM)
- Airfield
- Airport
- Airstrip
- Airport Abandoned
- Ferry Route
- Road (Gravel/Unimproved) - 1 Lane



0 800 1600 m.

Map center: 51° 7' 45" N, 118° 27' 25" W

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.

Notes: Geological and geochemical fieldwork carried out in Sept, 2007 on mineral tenure 501827

Scale: 1:44,593

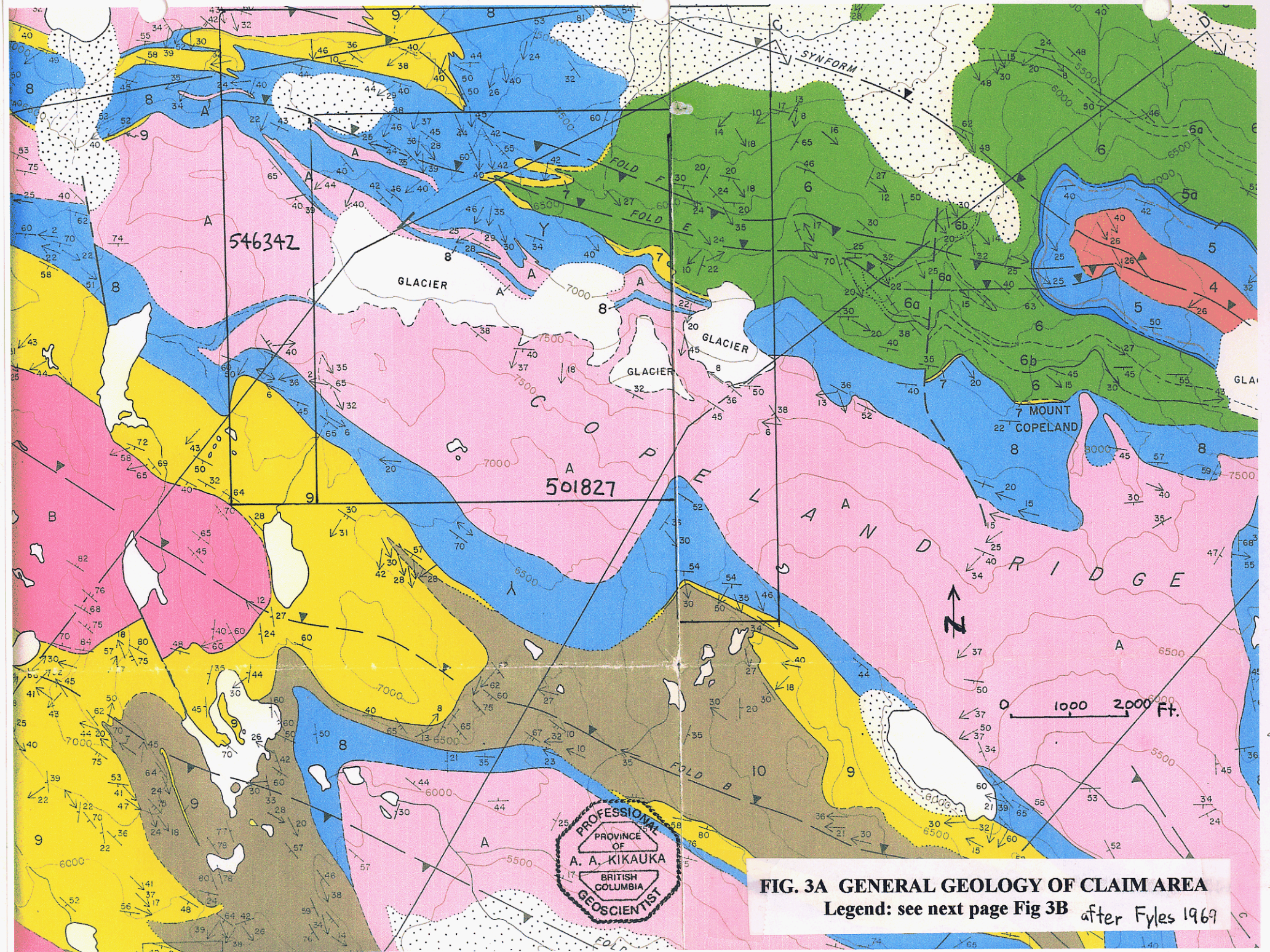


FIG. 3A GENERAL GEOLOGY OF CLAIM AREA
 Legend: see next page Fig 3B after Fyles 1969

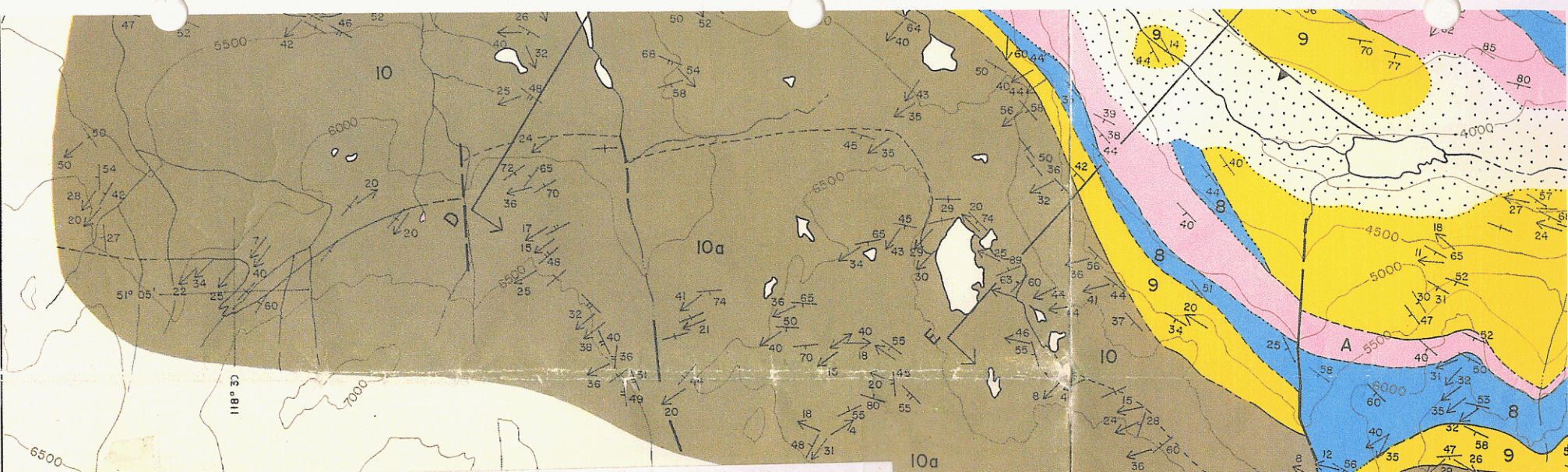

















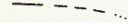







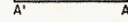

FIG. 3B LEGEND FOR GENERAL GEOLOGY OF CLAIM AREA

GEOLOGICAL MAP OF THE JORDAN RIVER AREA

Geology by J. T. Fyles 1964-66

Legend

-  Area of little or no outcrop
-  Porphyritic granite gneiss
-  Nepheline syenite gneiss
-  Biotite schist and grey gneiss
10a many granitic intrusions
-  White quartzite
-  Calc-silicate gneiss and marble
-  White quartzite
-  Greyish and greenish grey gneiss
6a white quartzite
6b calc-silicate gneiss
-  Marble
-  Lead-zinc sequence, calc-silicate, gneiss, schist, and quartzite
Sulphide layer
-  Biotite sillimanite schist
-  Mica schist and quartzite
-  White quartzite and conglomerate
-  Mixed gneiss (grey biotite - feldspar gneiss)

-  Fault - defined, approximate, assumed
-  Geological contact - defined, approximate, assumed
-  Attitude of bedding and layering
-  Attitude of axial planes of folds
-  Plunge of prominent lineations and minor folds
-  Axial trace of large phase 2 folds
-  Antiform showing dip of axial plane
-  Synform showing dip of axial plane
-  Line of section
-  Adit
-  Prospect

SCALE 0 500 1000 2000 3000 4000 FEET

Contour Interval 500 feet
Magnetic declination 23° 30' east

Appendix A

G E O C H E M I C A L A N A L Y S I S C E R T I F I C A T E

Multi-element ICP Analysis - .500 gram sample is digested with 3 ml of aqua regia, diluted to 10 ml with water. This leach is partial for Mn, Fe, Ca, P, La, Cr, Mg, Ba, Ti, B, W and limited for Na, K and Al. Detection Limit for Au is 3 ppm.

Analyst RSam
 Report No. 2070922
 Date: October 31, 2007

Project: Copeland Mo
 Sample Type: Rocks

ELEMENT SAMPLE	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
COPE-07-A1	1042	34	7	75	.3	5	1	1037	2.97	2	8	ND	2	111	1.2	3	6	26	.42	.031	158	48	0.11	26	.06	<20	.42	.06	.29	2
COPE-07-A2	2000	5	12	64	.3	9	3	1353	.85	2	8	ND	2	746	.9	3	8	14	3.85	.103	45	50	0.74	7	.03	<20	.61	.19	.52	2
COPE-07-A3	62	120	9	99	.3	78	25	2082	5.70	2	18	ND	19	615	1.1	3	8	56	14.80	.167	60	74	1.09	2012	.09	<20	1.73	.12	1.49	2
COPE-07-A4	1	179	55	135	.6	149	38	4747	2.96	3	8	ND	19	2793	1.1	3	9	50	17.55	.291	101	93	2.61	134	.25	<20	1.57	.05	1.86	16
COPE-07-A5	2000	93	5	19	.5	2	4	126	1.94	2	8	ND	2	14	.5	3	6	165	.17	.019	5	37	0.15	19	.05	<20	.39	.04	.17	2
COPE-07-A6	2000	36	3	38	.3	7	5	164	2.30	2	8	8	2	5	1.8	6	14	332	.16	.036	4	44	0.33	12	.06	<20	.58	.05	.46	3
COPE-07-A7	2000	31	3	28	.3	6	4	182	1.53	2	8	3	2	12	1.0	3	6	117	.28	.007	6	47	0.23	35	.03	<20	.53	.09	.30	2
VC090707-1	2000	16	3	191	.3	1	2	1138	3.34	2	8	3	2	85	1.3	3	8	92	.99	.429	169	35	0.5	129	.28	<20	1.19	.06	1.02	2
VC090707-2	2000	47	12	348	.3	17	8	4619	4.98	2	8	22	6	3930	5.3	3	31	124	17.43	.042	172	62	3.51	104	.33	<20	2.76	.07	2.51	8

A S S A Y C E R T I F I C A T E

Mo Analysis - 1.000 gm sample is digested with 50 ml of aqua regia, diluted to 100 ml with water and is finished by ICP/ES.

Subject: Copeland Mo
Sample Type: Rocks

Analyst RSAM
Report No. 2071099
Date: November 16, 2007

SAMPLE	Mo %
COPE-07-A1	0.11
COPE-07-A2	0.51
COPE-07-A5	0.23
COPE-07-A6	1.97
COPE-07-A7	1.12
VC090707-1	1.33
VC090707-2	3.60

sample no	width	host rock	alteration	minerals
Cope-07-A-1	2.0 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
Cope-07-A-2	0.4 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
Cope-07-A-3	1.0 m	pegmatite	fluorite, calcite, K-spar, biotite	pyrite
Cope-07-A-4	1.0 m	pegmatite	K-spar, quartz	pyrite
Cope-07-A-5	0.3 m	aplite	K-spar, quartz	pyrite
Cope-07-A-6	0.4 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
Cope-07-A-7	0.2 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
VC090707-1	0.8 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
VC090707-2	0.4 m	skarn	calcite, biotite, magnetite, K-spar	molybdenite, pyrite

sample no	easting	northing	elevation	strike	dip	% Mo	Zone Name	petrographics
Cope-07-A-1	397754	5665416	2059 m	100	45 S	0.11	6950 Glacier	yes
Cope-07-A-2	397863	5665534	1948 m	95	40 S	0.51	6420 Pegmatite	yes
Cope-07-A-3	398174	5665220	2172 m	95	55 S	0.006	East Basin	no
Cope-07-A-4	398186	5665777	2199 m	100	60 S	0.001	East Basin	no
Cope-07-A-5	398367	5665354	2039 m	105	50 S	0.23	6650 East Basin	no
Cope-07-A-6	398334	5665373	2040 m	100	45 S	1.97	6650 East Basin	yes
Cope-07-A-7	398384	5665354	2048 m	110	49 S	1.12	6650 East Basin	no
VC090707-1	397754	5665416	2059 m	100	45 S	3.6	6950 Glacier	no
VC090707-2	397624	5665381	2152 m	100	30 S	1.33	7000 Glacier West	yes



Appendix B
Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V1M 3S3
PHONE (604) 888-1323 • FAX (604) 888-3642
email: vanpetro@vancouver.net

Report 070834 for:

Andris Kikauka,
Geofacts Consulting,
406 4901 East Sooke Road,
Sooke, BC, V0S 1N0

October 2007

Samples: VC090707-2, COPE-07-A1, COPE-07-A2, COPE-07-A6

Summary:

Sample VC090707-2 is a metamorphosed biotite syenite containing megacrysts of microcline in a finer grained groundmass of microcline and biotite. Molybdenite forms clusters of flakes associated with patches of biotite. Calcite forms disseminated patches, possibly a contaminant from marble. Minor sulphides include pyrrhotite (altered moderately to completely to pyrite and non-reflective material) and sphalerite, with trace chalcopyrite.

Sample COPE-07-A1 is a metamorphosed porphyritic soda syenite containing megacrysts of microcline in a groundmass dominated by plagioclase with much less abundant microcline and a patch of ilmenite-(magnetite-rutile). Replacement patches up to several mm across are of one or more of molybdenite, pyrrhotite (replaced by pyrite and altered strongly to hematite), and pyrite (altered moderately to hematite) and minor sericite.

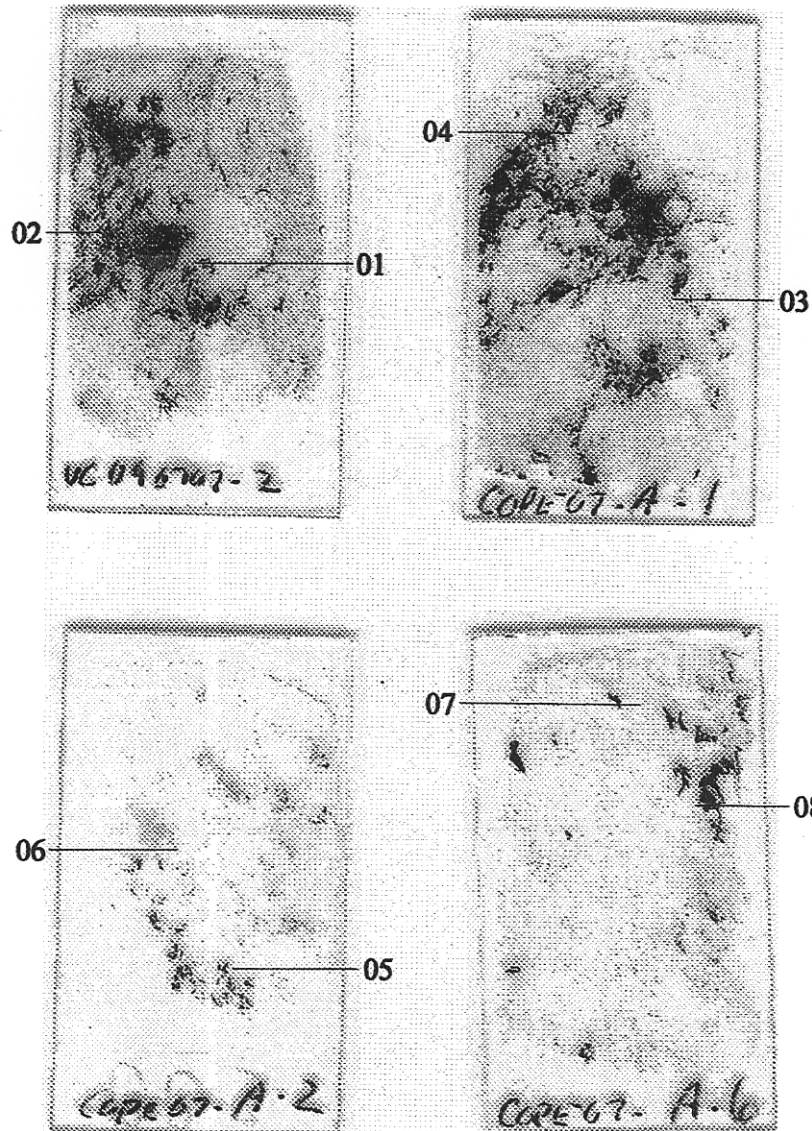
Sample COPE-07-A2 is a metamorphosed soda syenite that contains porphyroblasts of perthitic microcline in a groundmass of plagioclase and much less abundant lesser microcline. Biotite is concentrated moderately to strongly in a few patches and bands. Molybdenite forms disseminated clusters that are concentrated in one main diffuse band and one weaker band. Biotite and molybdenite bands define a weak foliation.

Sample COPE-07-A6 is a metamorphosed quartz-bearing soda syenite that contains minor porphyroblasts of perthitic microcline in a groundmass of plagioclase, less abundant microcline, and much less abundant quartz and molybdenite, and minor apatite, biotite, ilmenite, pyrrhotite, and pyrite. Sulphides were altered partly to hematite.

Photographic Notes:

The scanned sections show the gross textural features of the sections; these features are seen much better on the digital image than on the printed image. Sample numbers are shown in or near the top left of the photos and photo numbers at or near the lower left. The letter in the lower right-hand corner indicates the lighting conditions: P = plane light, X = plane light in crossed nicols, R = reflected light. Locations of digital photographs (by photo number) are shown on the scanned section. Descriptions of the photographs are at the end of the report.

070834 geofacts sections



070834 geofacts blocks

VC090707-2

COPE-07-A1



COPE-07-A2

COPE-07-A6

Sample VC090707-2

Metamorphosed Biotite Syenite:

Replacement: Molybdenite-Calcite-(Sphalerite-Pyrrhotite/Pyrite)

Megacrysts of microcline are contained in a finer grained groundmass of microcline and biotite. Molybdenite forms clusters of flakes associated with patches of biotite. Calcite forms disseminated patches, possibly a contaminant from marble. Minor sulphides include pyrrhotite (altered moderately to completely to pyrite and non-reflective material) and sphalerite, with trace chalcopyrite.

mineral	percentage	main grain size range (mm)	
megacrysts			
microcline	7- 8%	3- 7	
groundmass			
microcline	65-70	0.3-1	
biotite	8-10	0.3-1	(a few up to 1.7 mm long)
molybdenite	5- 7	0.5-1	(a few up to 1.5 mm long)
calcite	5- 7	0.5-1.5	(a few grains up to 2.5 mm)
pyrrhotite	1- 2	0.1-0.3	(altered strongly to pyrite-hematite)
sphalerite	0.3	0.1-0.5	
chalcopyrite	trace	0.03-0.1	

Microcline forms a few equant megacrysts, some of which contain minor exsolution patches of plagioclase.

In the groundmass, microcline forms equant, submosaic grains, some of which contain minor exsolution patches of plagioclase.

Biotite forms subhedral flakes and clusters of flakes that are concentrated strongly in a few patches associated with molybdenite. Pleochroism is from light to medium reddish brown.

Calcite is concentrated in a few patches up to a few mm across as anhedral submosaic grains. It also forms scattered much smaller grains interstitial to microcline.

Molybdenite is concentrated strongly in a few clusters of unoriented flakes, mainly associated with biotite. It also forms minor disseminated flakes in microcline-rich parts of the section.

Sphalerite forms anhedral grains intergrown with molybdenite and with biotite-microcline. It is deep reddish brown in colour and contains minor exsolution blebs of chalcopyrite.

Pyrrhotite forms disseminated patches up to 1 mm in size intergrown with microcline, biotite, and molybdenite; in a few larger patches a few grains of pyrrhotite were altered slightly to moderately to hematite. Elsewhere in these patches and in smaller patches, pyrrhotite was altered completely to secondary pyrite and non-reflective material. Some patches of pyrite, including one 1.3 mm across, were altered slightly to strongly to red-brown hematite.

Chalcopyrite forms minor grains associated with pyrrhotite.

Sample COPE-07-A1**Metamorphosed Porphyritic Soda Syenite:****Replacement: Molybdenite-Pyrrhotite-Pyrite-Hematite-Sericite**

Megacrysts of microcline are set in a groundmass dominated by plagioclase with much less abundant microcline and a patch of ilmenite-(magnetite-rutile). Replacement patches up to several mm across are of one or more of molybdenite, pyrrhotite (replaced by pyrite and altered strongly to hematite), and pyrite (altered moderately to hematite) and minor sericite.

mineral	percentage	main grain size range (mm)
megacrysts		
microcline	25-30%	2- 8
groundmass		
plagioclase	35-40	0.3-0.7 (a few up to 1.7 mm long; some patches 0.07-0.2 mm)
microcline	15-17	0.3-1.5
replacement		
molybdenite	4- 5	0.3-1
pyrrhotite/pyrite	3- 4	0.1-0.3 (anhedral, partly replaced by hematite)
pyrite	1	0.3-1 (cubic)
sericite/muscovite	0.5	0.02-0.05 (a few flakes up to 0.15 mm long)
ilmenite	0.3	0.2-0.5
rutile	trace	0.03-0.05
chalcopyrite	trace	0.03-0.05
limonite	0.2	cryptocrystalline

Microcline forms anhedral porphyroblastic grains, many of which contain minor to moderately abundant disseminated subparallel exsolution lenses of sodic plagioclase or locally irregular patches of sodic plagioclase.

In the groundmass away from microcline porphyroblasts, plagioclase forms mosaic grains and a few prismatic grains, most of which are fresh. A few coarser prismatic grains are up to 1.7 mm long. Mainly adjacent to microcline porphyroblasts, plagioclase forms finer grained aggregates of mosaic to submosaic grains (0.07-0.2 mm), with minor to locally abundant interstitial grains of microcline.

Molybdenite forms irregular replacement patches up to 2 mm across of unoriented, commonly tightly intergrown flakes, some of which are associated with patches of pyrite-pyrrhotite, and some of which are intergrown coarsely with plagioclase and K-feldspar. Many molybdenite clusters contain interstitial flakes and clusters of flakes of muscovite/sericite and are bordered on one side at least by zones of muscovite flakes.

Pyrite forms scattered subhedral cubic grains (0.5-1 mm) and patches of anhedral grains; many of the latter were fractured moderately and altered moderately to strongly to hematite. A few of the latter contain relic cores of pyrrhotite, indicating that at least some of the pyrite with this texture probably was formed by replacement of pyrrhotite. Several patches up to 1.5 mm in size of hematite have oriented textures suggesting that they were formed by replacement of pyrrhotite.

Sericite forms a few interstitial patch up to 0.25 mm across of equant grains (0.005-0.015 mm). Some of these contain minor coarser grained flakes of muscovite (0.05-0.1 mm).

Ilmenite forms one equant patch 2.5 mm across that consists of anhedral, slightly interlocking grains that contain exsolution blebs of magnetite and disseminated grains and clusters of rutile.

Chalcopyrite forms scattered patches surrounded by hematite; it is uncertain whether the hematite is secondary after chalcopyrite or after pyrite.

The rock was fractured moderately with minor limonite along fractures.

Sample COPE-07-A2**Metamorphosed Soda Syenite**

Porphyroblasts of perthitic microcline are set in a groundmass of plagioclase and much less abundant lesser microcline. Biotite is concentrated moderately to strongly in a few patches and bands. Molybdenite forms disseminated clusters that are concentrated in one main diffuse band and one weaker band. Biotite and molybdenite bands define a weak foliation.

mineral	percentage	main grain size range (mm)	
megacrysts			
microcline	17-20%	2- 5	(a few up to 12 mm)
groundmass			
plagioclase	55-60	0.1-0.7	
microcline	12-15	0.1-0.7	
biotite	4- 5	0.2-0.7	(a few up to 1.2 mm long)
molybdenite	3- 4	0.1-0.7	
apatite	0.2	0.07-0.3	(one grain 0.8 mm long)
zircon	trace	0.03-0.1	

Perthitic microcline forms porphyroblasts up to several mm across; most contain abundant exsolution lenses of sodic plagioclase in a preferred crystallographic orientation.

The groundmass is dominated by an intergrowth of irregular, moderately interlocking plagioclase and much less abundant microcline grains with very variable grain size. A few patches up to 1.5 mm in size are of grains averaging 0.05-0.1 mm in size.

Biotite is concentrated in a few patches and lenses as subhedral flakes with pleochroism from pale or light to light or medium brown.

Molybdenite is concentrated in clusters of unoriented flakes in one main band and to a lesser extent in a second weaker band.

Apatite forms disseminated subhedral stubby prismatic grains (0.07-0.1 mm) and one prismatic grain 0.8 mm long.

Zircon forms disseminated stubby prismatic grains, many of which are associated with clusters of molybdenite.

Minor porphyroblasts of perthitic microcline are set in a groundmass of plagioclase, less abundant microcline, and much less abundant quartz and molybdenite, and minor biotite, apatite, ilmenite, pyrrhotite, and pyrite. Sulphides were altered partly to hematite.

mineral	percentage	main grain size range (mm)
porphyroblasts		
microcline	5- 7%	1-1.7
groundmass		
plagioclase	45-50	0.2-0.7
microcline	25-30	0.3-0.7
quartz	7- 8	0.1-0.5
molybdenite	3- 4	0.3-1
biotite	1	0.1-0.5
apatite	0.4	0.1-0.5
ilmenite	0.4	0.2-0.5
pyrrhotite	0.4	0.1-0.5
pyrite	0.3	0.02-0.05
zircon	0.1	0.07-0.2

(one grain 1 mm across)

Microcline forms scattered porphyroblasts that have irregular outlines against finer grained plagioclase and microcline.

Plagioclase forms anhedral equant to slightly prismatic grains that are intergrown irregularly with K-feldspar. Grain size varies moderately. Plagioclase is more abundant adjacent to the main zone of molybdenite and K-feldspar is more abundant further away from it.

Quartz forms interstitial grains and lenses. It also forms disseminated blebs (0.015-0.03 mm) in many plagioclase grains adjacent to K-feldspar.

Biotite forms disseminated flakes with pleochroism from light to medium, slightly reddish brown.

Molybdenite is concentrated moderately to strongly in irregular clusters of unoriented flakes that are intergrown with feldspars (mainly plagioclase). A few large flakes are rimmed by aggregates of pyrite (0.01-0.03 mm) altered partly to hematite.

Ilmenite forms irregular patches up to 1.5 mm in size of anhedral grains with 2-5% silicate inclusions.

Pyrrhotite forms disseminated grains and clusters of grains that were altered completely to hematite which has a texture that is interpreted as being secondary after pyrrhotite.

Pyrite forms disseminated grains and clusters up to 1 mm across of grains, in part altered slightly to moderately to hematite. A few patches up to 0.25 mm in size of red-brown hematite probably are secondary after pyrite.

Apatite forms several anhedral grains with slightly to moderately corroded borders surrounded by groundmass microcline and plagioclase. They are concentrated near one end of the section.

Zircon forms disseminated anhedral, in part corroded grains.

List of Photographs

Photo Section	Description
01 VC090707-2	microcline megacryst with perthitic lenses of sodic plagioclase; finer grains of microcline, fine to coarse grains of calcite, flakes of molybdenite, scattered biotite flakes, patch of hematite (after pyrite).
02 VC090707-2	intergrowth of microcline and biotite with cluster of molybdenite flakes with interstitial patches of pyrrhotite (altered completely to pyrite and non-reflective material; pyrite was altered locally to hematite) and minor sphalerite.
03 COPE-07-A1	porphyroblast of microcline with exsolution lenses of sodic plagioclase intergrown with much finer grained plagioclase; replacement patch of a dense intergrowth of unoriented molybdenite flakes.
04 COPE-07-A1	cluster of pyrrhotite (altered completely to hematite, in large part pseudomorphic) with disseminated clusters of pyrite (possibly in part secondary after pyrrhotite) and one dense patch of molybdenite; bordered by a thin rim of sericite against plagioclase of the host rock; several cavities where hematite was removed from the rock, either during weathering or sample preparation.
05 COPE-07-A2	porphyroblast of perthitic microcline intergrown with much finer grained aggregate of plagioclase and microcline, with an irregular patch of molybdenite, some of which was lost from the section.
06 COPE-07-A2	intergrowth of plagioclase, microcline, biotite, and apatite.
07 COPE-07-A6	anhedral microcline porphyroblast with minor exsolution lenses of sodic plagioclase; intergrown with anhedral plagioclase and interstitial microcline, with numerous blebs of quartz in plagioclase and a few selvages of quartz between microcline and plagioclase; a few anhedral grains of apatite.
08 COPE-07-A6	to the left: intergrowth of plagioclase and quartz with minor biotite and pyrite; to the right; large patch of molybdenite flakes showing slight kink deformation, irregular border with plagioclase-quartz.

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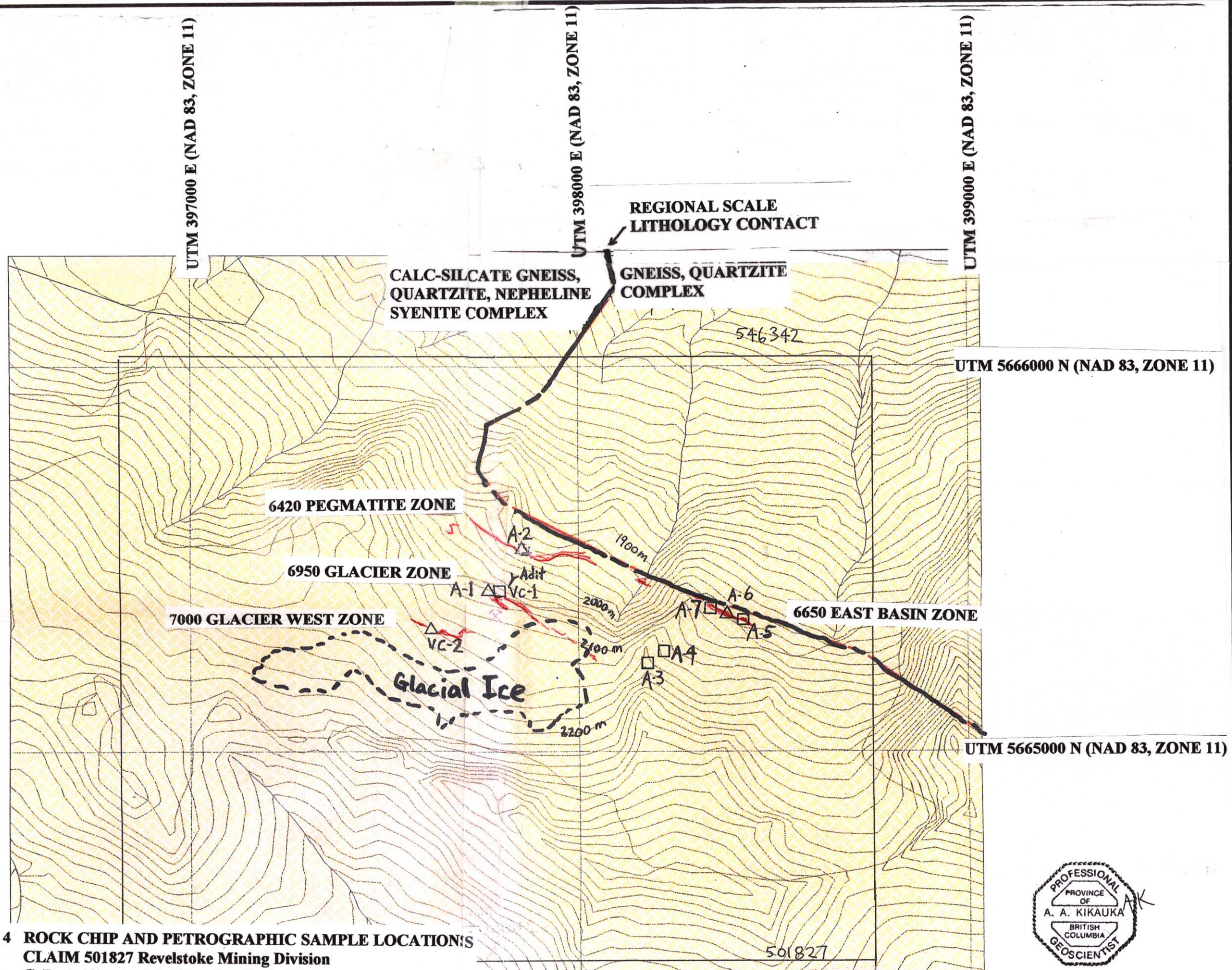


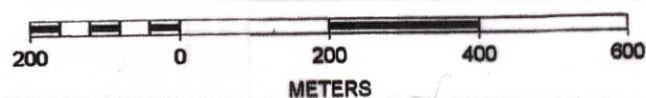
FIG. 4 ROCK CHIP AND PETROGRAPHIC SAMPLE LOCATIONS
CLAIM 501827 Revelstoke Mining Division
Collected by: Andris Kikauka, Sept., 2007



SCALE 1 : 10,000

□ Rock Chip Sample

△ Petrographic and Rock Chip Sample



↔ Molybdenite-bearing mineral zone



sample no	easting	northing	elevation	strike	dip	% Mo	Zone Name	petrographics
Cope-07-A-1	397754	5665416	2059 m	100 45 S		0.11	6950 Glacier	yes
Cope-07-A-2	397863	5665534	1948 m	95 40 S		0.51	6420 Pegmatite	yes
Cope-07-A-3	398174	5665220	2172 m	95 55 S		0.006	East Basin	no
Cope-07-A-4	398186	5665377	2199 m	100 60 S		0.001	East Basin	no
Cope-07-A-5	398367	5665354	2039 m	105 50 S		0.23	6650 East Basin	no
Cope-07-A-6	398334	5665373	2040 m	100 45 S		1.97	6650 East Basin	yes
Cope-07-A-7	398384	5665354	2048 m	110 49 S		1.12	6650 East Basin	no
VC090707-1	397754	5665416	2059 m	100 45 S		3.6	6950 Glacier	no
VC090707-2	397624	5665381	2152 m	100 30 S		1.33	7000 Glacier West	yes

sample no	width	host rock	alteration	minerals
Cope-07-A-1	2.0 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
Cope-07-A-2	0.4 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
Cope-07-A-3	1.0 m	pegmatite	fluorite, calcite, K-spar, biotite	pyrite
Cope-07-A-4	1.0 m	pegmatite	K-spar, quartz	pyrite
Cope-07-A-5	0.3 m	aplite	K-spar, quartz	pyrite
Cope-07-A-6	0.4 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
Cope-07-A-7	0.2 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
VC090707-1	0.8 m	aplite	sericite, calcite, K-spar, biotite, magnetite	molybdenite, pyrite
VC090707-2	0.4 m	skarn	calcite, biotite, magnetite, K-spar	molybdenite, pyrite