

**APPENDIX 2**

**TECHNICAL REPORT ON THE ATLIN GOLD PROPERTY; DANDY, L.,  
2005**

**TECHNICAL REPORT**  
**ON**  
**THE ATLIN GOLD PROPERTY**

**ATLIN MINING DIVISION, BC**

**MAPSHEETS: 104N.053 & 104N.063**

**LATITUDE 59<sup>0</sup>35'N LONGITUDE 133<sup>0</sup>32'E**

**for**

**MUSKOX MINERALS CORP.  
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**by**

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**February 15, 2005**

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## **1) SUMMARY**

In October 2003, Muskox Minerals Corp. (“Muskox”) entered into an option agreement with Lenard Diduck to acquire 100% interest in the Atlin Gold Property (formerly referred to as Yellowjacket Property). The Atlin Gold Property consists of 12 mineral claims totalling approximately 2,500 hectares. These claims, located 7 kilometres east of the town of Atlin in northwestern British Columbia, cover an area with a long history of placer gold production. The Atlin Gold Property lies predominantly within lower Jurassic Cache Creek Group mafic volcanics and associated sediments over thrust by mid Jurassic ophiolitic sequences.

The first record of bedrock exploration is in 1899 when a shaft was sunk on the Yellowjacket showing into a newly discovered bedrock zone. Intermittent bedrock exploration continued until 1905. In 1983, Canova Resources and Tri-Pacific Resources optioned the property from the titleholder and conducted a small diamond drill program that intersected high grade gold mineralization at depth. In 1986, Homestake Mineral Development Corp. optioned the property and conducted geological, geophysical and drilling programs until 1989.

Significant results from Homestake’s prior exploration programs include identifying gold mineralization within broad zones of intensely altered (carbonate, silica, mariposite) ultramafic rocks, and in adjacent silicified and stockworked volcanic rocks. These rock and alteration types are notable for their close association to gold mineralization throughout the Atlin region.

No exploration work was conducted on the Atlin Gold Property from 1989 until Muskox optioned the claims in 2003. In 2003 and 2004, Muskox conducted a 42 hole diamond drill program on the Yellowjacket Zone. The Yellowjacket Zone, located along the Pine Creek Valley near the centre of the Atlin Gold Property, is the main zone of gold mineralization identified by exploration programs to date. Muskox also flew 820 line kilometres of detailed (50 metre spaced lines) airborne magnetics and electromagnetics over the Atlin Gold Property in 2004.

Diamond drilling by Muskox intersected gold mineralization throughout the 350 metre length of the Yellowjacket Zone. Statistical analyses done on the diamond drill results from Muskox’s program show three populations of gold mineralization, with each population being associated with a specific structural event and orientation. A broad zone of gold values ranging from 0.5 to 5.0 g/t appears to be related to the original low angle thrust faulting of the host ophiolite sequences. This low angle structure is intersected by two steeply dipping fault structures, one trending roughly parallel with the main Pine Creek Fault and the second striking oblique to it. These two cross structures contain two distinct gold populations with assay values ranging from 5.0 to 15.0 g/t gold and 15.0 to 5724.0 g/t gold.

Exploration drilling which encounters coarse native gold is subject to the ‘nugget effect’ where adjacent samples within the same mineralized zone can have widely varying gold values. This “nugget effect” must be taken in to account when exploring for gold mineralization in this type of system and the importance of structures, veins and associated and indicator element geochemistry must be stressed. The gold values within this

mineralized system will often be greatly variable. This variability can be mitigated by increasing sample size with the implementation of a bulk sampling program.

Plots of the airborne magnetic survey results show a distinctive signature where the main Yellowjacket Zone is located. Along strike of the Pine Creek Fault are two additional geophysical features with very similar characteristics to the Yellowjacket Zone. One is known to host the historic bedrock occurrence “Rock of Ages” and the second is related to the head of the rich Pine Creek placer gold channel. Both of these features are significant exploration targets requiring follow up exploration work.

It is the opinion of the author that work to date has shown that the Atlin Gold Property has the potential to host economically feasible mineral deposits. Additional drilling and bulk sampling is needed in order to fully define the gold potential of this system. Drilling will trace the steeply dipping features to depth in the central portion of the Yellowjacket Zone and along strike in the main Pine Creek Fault. Bulk sampling will mitigate the assay variability due to “nugget effect” caused by the coarse gold grains in the drill core samples.

A two phase exploration program is recommended for the Atlin Gold Property in 2005. Phase I will consist of continued diamond drilling in both the Yellowjacket Zone and additional target areas defined by the airborne geophysical survey. In the main Yellowjacket Zone, 2500 metres of drilling in ten holes are designed to confirm the orientations of previously identified high grade gold intercepts, both along strike and to depth. This drilling will allow for better definition of the size and orientation of the multi-modal gold mineralized structures in order to provide accurate locations to collect bulk samples in Phase II.

The Phase I exploration program will also include ground magnetic and resistivity surveys. These geophysical surveys will be conducted in order to locate the airborne geophysical anomalies on the ground to better define diamond drill targets. Approximately 40 diamond drill holes totalling 8000 metres will be put in along strike from the main Yellowjacket Zone following the structural trends interpreted from the geophysical surveys.

Phase II will consist of surface stripping at the Yellowjacket Zone to allow for mapping and rock chip sampling of the surface exposure of the gold mineralized zones that have been identified by drilling. This sampling will be followed by the collection of several large (up to 1000 tonnes) bulk samples from near surface mineralized zones. Coincident with this surface program, underground bulk sampling will be commenced upon completion of a short exploration decline or shaft. The specific amount of development required and the exact locations for the underground bulk sampling will be determined by the Phase I drill program results on the Yellowjacket Zone.

Processing of the bulk samples will allow for better grade control in areas where the coarse nature of the gold mineralization (“nugget effect”) may cause variability in assay values. These results are necessary to more accurately complete a resource calculation in order to determine the economic feasibility of the Yellowjacket Zone.

Upon completion of the underground development, deeper diamond drilling is recommended from three drill stations located at various depths in the underground

workings. This drilling will assist in tracing the steeply dipping gold mineralized structures at Yellowjacket to depth. A total of 2500 metres in 15 holes are recommended to be drilled from underground.

Phase I diamond drilling is expected to commence immediately and be ongoing for much of 2005. The ground geophysical surveys will be conducted as soon as snow conditions allow. Phase II surface stripping, mapping, chip sampling and surface bulk sampling program is anticipated to start up in early summer, coincident with the underground bulk sampling program. The surface program is anticipated to take approximately two months to complete, and the underground program expected to take at least six months to complete. Exact timing of the bulk sampling programs is dependent upon completion of the British Columbia Ministry of Energy and Mines permitting process.

Cost for the 2005 exploration program is budgeted at \$2,060,000 for Phase I and \$4,530,000 for Phase II.

## **2) INTRODUCTION AND TERMS OF REFERENCE**

The author of this report was retained by MuskoX Minerals Corp. (“MuskoX”), of Calgary, Alberta, Canada, through consulting firm Canamera Geoscience Corp., to plan and directly supervise the 2004 exploration program on the Atlin Gold Property. The author spent 87 days on site between April and December 2004, while diamond drilling was underway. The results of this work and the history of exploration on the property are discussed in detail in Sections 6, 10 and 11 of this report. The author is familiar with the geology and exploration history of the Atlin area and has worked on several prior exploration programs conducted in the Atlin area from 1983 to 1987. Company and government reports utilized in the preparation of this report are referenced in Section 21.

Based on the results of the exploration programs conducted to date on the Atlin Gold Property, it is concluded that the Yellowjacket Zone represents a legitimate exploration target with the potential to host an economically feasible mineral deposit. Additional zones on the Atlin Gold Property, having airborne geophysical responses similar to those at the Yellowjacket Zone, are legitimate early stage exploration targets.

This technical report is prepared in compliance with the requirements of National Instrument 43-101 and is intended to be used as a supporting document to be filed with the Alberta Securities Commission, British Columbia Securities Commission and the TSX Venture Exchange.

## **3) DISCLAIMER**

This report is based upon personal examination, by the author, of all available company and government reports pertinent to the subject property. The author examined the 2003 and 2004 diamond drill core in detail. Work carried out on the Atlin Gold Property was done in a professional and thorough manner. The author also implemented a QA/QC program to insure the validity and quality of the assay data obtained.

This report expresses opinions regarding exploration and development potential for the Atlin Gold Property, and recommendations for further analysis. These opinions and recommendations are intended to serve as guidance for future evaluation of the Atlin Gold Property, but should not be construed as a guarantee of success.

For information pertaining to ownership of claims on the Atlin Gold Property, the author has relied on information provided by the property vendor and MuskoX, which to the best of the author’s knowledge and experience is correct. However, the author disclaims responsibility for such information.

As of the date of the report, the author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in this report, the omission to disclose which would make this report misleading.

## **4) PROPERTY DESCRIPTION AND LOCATION**

MuskoX entered into an option agreement with vendor Leonard Diduck in October 2003 to acquire 100% interest in the Atlin Gold Property (formerly referred to as the Yellowjacket Property). MuskoX optioned the Atlin Gold Property after examination of the property and of reports from previous exploration programs.

The Atlin Gold Property is located within the Atlin Mining Division in northwestern British Columbia, Canada. The claim block optioned consists of 8 modified grid and 4 two post claims to total 112 contiguous units (Figures 1 and 2). The claims cover an area of approximately 2,500 hectares and are centred at latitude 59°35'N and longitude 133°32'E within map sheets 104N.053 and 104N.063.

The main mineralized zone of interest on the Atlin Gold Property is the Yellowjacket Zone. The Yellowjacket Zone is located near the centre of the claim holdings, along the Pine Creek Valley, which bisects the claim block in an east-west direction. Two additional historic workings (BC Ministry of Energy and Mines Minfile), the Rock of Ages and Red Jacket Zones are also located along Pine Creek. The exact location of the Red Jacket Zone is not currently known, due to masking of bedrock by placer mining tailings. The Rock of Ages Zone is located approximately 1.5 kilometres west of the Yellowjacket Zone.

The claims are listed in Table I, below. All claims are located on crown land. The claims are currently being converted to comply with the new British Columbia mineral tenure grid system. The claims have not been surveyed.

**TABLE I  
CLAIM INFORMATION**

CLAIM NAME	RECORD NUMBER	NUMBER OF UNITS	ANNIVERSARY DATE
YJ	262566	3	July 5, 2007
EVA 7	364968	15	July 5, 2009
MICHELE 1	367244	16	July 5, 2008
ANDREW 1	367245	16	July 5, 2008
CELESTE	367492	3	July 5, 2011
EVA 8	367577	15	July 5, 2009
KITTY 15	368118	1	July 5, 2009
KITTY 16	368119	1	July 5, 2010
KITTY 14	368120	1	July 5, 2010
KITTY O	368121	1	July 5, 2010
YJ 1	394473	20	June 18, 2009
YJ 2	394474	20	June 18, 2009

On October 16, 2003, MuskoX optioned the Atlin Gold Property, comprised of 12 claims from Leonard Diduck for payments totalling \$2,590,000 cash over 7 years. In 2011, upon completion of payments, MuskoX will have 100% interest in these claims subject to a 1.5% net smelter return (NSR). Under terms of the agreement, work commitments are as follows:

- 1) MuskoX must keep the Atlin Gold Property tenures in good standing for not less than 4 years, and make such filings and payments in accordance with the BC Mineral Tenure Act and regulations.
- 2) Incur a minimum of \$250,000 exploration expenditures on a yearly basis for three years, starting the year after commencement of agreements.

Work expenditures to date meet and exceed the commitment amount in paragraph 2) above.

There are no pre-production royalties, back-in rights or other agreements or encumbrances to these claims with respect to MuskoX's option right to them, known to the author.

There are no environmental liabilities existing on the Atlin Gold Property, known to the author. The author foresees no permitting obstacles for year round drilling programs, as prior drill programs have been permitted and conducted on the Atlin Gold Property in the past. Permitting for the Phase I diamond drilling program has been obtained, permit application for Phase II bulk sampling is currently underway and is anticipated to be completed in two to three months.

## **5) ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

Access to the Atlin Gold Property is via the Surprise Lake Road, east from Atlin for 7 kilometres. The Atlin Gold Property lies along the Pine Creek Valley, parallel to the Surprise Lake Road, for approximately 6.5 kilometres.

Climate is typical of northern British Columbia with winter temperatures averaging -15°C in January with moderate snowfall. A pleasant summer climate has average temperatures of 20°C and little precipitation. Total annual precipitation is measured at 279.4 millimetres of moisture. "Winter" conditions can be expected from October to April.

Power lines follow Surprise Lake Road to within 3 kilometres of the Atlin Gold Property. Abundant water for mining operations is available from Pine Creek and its tributaries. Crew lodgings are available in Atlin. A skilled labour force for mining and exploration is available in Atlin or Whitehorse, YT, a 2 hour drive. Whitehorse is also the major supply and service centre for resource industries working in northwestern British Columbia and the Yukon.

The Atlin Gold Property lies in an area of moderate relief, in a broad valley between mountains, with elevations ranging between 810 and 1060 metres along the Pine Creek valley. In the far southeastern corner of the Atlin Gold Property the elevation increases up slope to 1340 metres. Outcrop is very limited, generally confined to creek gullies, but occasionally observed in road cuts and along some of the steeper slopes. The main area of mineralization identified by exploration work to date on the Atlin Gold Property is the Yellowjacket Zone. The Yellowjacket Zone lies along the Pine Creek Valley and is completely covered by 5 or more metres of tailings consisting of boulders from historic placer mining.

The tree line is at approximately 1370 metres on north facing slopes and 1525 metres on south facing slopes. Below 1370 metres the valleys are forested with lodgepole pine, black spruce, aspen and scrub birch. Mountain alder and willow grow near streams with stunted buckbrush covering the hills above tree line.

## **6) HISTORY**

Gold was first discovered in the Atlin area in 1897 by Fritz Miller while en route to Dawson. The first workings were on Pine Creek and by the end of 1898, more than 3000 people were camped in the Atlin area. Placer mining has been, for most of its history, the economic mainstay for the town of Atlin. Reported placer gold production between 1898 and 1946 (the last year for which records were kept) from creeks in the Atlin area totalled 634,147 ounces (19,722 kilograms) (Holland, 1950). A number of the larger placer deposits, including those on Otter, Spruce and Pine Creeks, continued to produce significant quantities of gold into the late 1980s. Although the total placer gold production from the area to date is not available, it probably exceeds one million ounces (Ash, 2001).

Gold bearing quartz veins were first discovered in the Atlin area in 1899 and by 1905 most of the known showings had been discovered. In 1899, an auriferous vein zone (the Yellowjacket showing) was discovered along Pine Creek by placer miners (BC Ministry of Energy and Mines Minfile Number 104N043). Additional gold zones in bedrock were found during subsequent placer mining operations at the Red Jacket and Rock of Ages showings. Numerous gold-bearing quartz veins in the vicinity of the gold placers are believed to be the source for many of the placer deposits.

Details of the geological mapping and research history of the Atlin region is outlined by Evans (2003).

In 1983, Canova Resources (“Canova”) and Tri-Pacific Resources optioned the Yellowjacket Property (which now encompasses Muskox’s Atlin Gold Property) from the title holder and conducted a small diamond drill program that intersected high grade gold mineralization at depth. Total reported Canova expenditures are \$0.54 million. In 1986, Homestake Mineral Development Corp. (“Homestake”) optioned the Yellowjacket Property and conducted geological, geophysical and drilling programs until 1989. From 1986 to 1988, Homestake diamond drilled 58 holes on the Yellowjacket Zone, and in 1989, carried out a reverse circulation rotary drilling program their large Yellowjacket Property. Total reported Homestake expenditures on the Yellowjacket Property are \$1.66 million. These expenditure figures are taken directly from the BC Ministry of Energy and Mines Minfile website.

Significant results from Homestake’s prior exploration programs include:

- 1 - Drilling in 1986 to 1989 identified gold mineralization within broad zones of intensely altered (carbonate, silica, mariposite) ultramafic rocks, and in adjacent silicified and stockworked volcanic rocks. These rock and alteration types are notable for their close association to gold mineralization throughout the Atlin camp.

- 2 – Airborne and ground magnetic surveys located the ultramafic contacts in areas of very limited outcrop exposure identifying a significant target area for gold mineralization. It is widely known that gold mineralization within mesothermal/ophiolite hosted gold deposits is often located adjacent to contact zones.

No exploration work was conducted on the Atlin Gold Property from 1989 until MuskoX optioned the Atlin Gold Property in 2003.

## **7) GEOLOGICAL SETTING**

### **REGIONAL GEOLOGY (reproduced from Ash, 2001)**

The Atlin region is located in the northwestern corner of the northern Cache Creek (Atlin) Terrane. It contains a fault bounded package of late Paleozoic and early Mesozoic dismembered oceanic lithosphere, intruded by post-collisional Middle Jurassic, Cretaceous and Tertiary felsic plutonic rocks. The terrane is dominated by mixed graphitic argillite and pelagic sedimentary rocks that contain minor pods and slivers of metabasalt and limestone. Remnants of oceanic crust and upper mantle lithologies are concentrated along the western margin. Dismembered ophiolitic assemblages have been described at three localities along this margin: from north to south they are the Atlin, Nahlin and King Mountain assemblages. Each area contains imbricated mantle harzburgite, crustal plutonic ultramafic cumulates, gabbros and diorite, together with hypabyssal and extrusive basaltic volcanic rocks. Thick sections of late Paleozoic shallow-water limestone dominate the western margin of the terrane and are associated with alkali basalts. These are interpreted to be carbonate banks constructed on ancient ocean islands within the former Cache Creek ocean basin.

The middle Jurassic timing of emplacement of the Northern Cache Creek Terrane over Late Triassic to Lower Jurassic Whitehorse Trough sediments along the Nahlin Fault is well constrained by combined stratigraphic and plutonic evidence. The youngest sediments affected by deformation related to the King Salmon Fault are Bajocian rocks that are immediately underlain by organic-rich sediments of Aalenian age. They are interpreted to reflect loading along the western margin of Stikinia by the Cache Creek during its initial emplacement. The oldest post-collisional plutons that pierce the Cache Creek Terrane to the west of Dease Lake are dated at  $173 \pm 4$  Ma by K-Ar methods and in the Atlin area they are dated at  $172 \pm 3$  Ma by U-Pb zircon analyses. Considering the age of these plutons relative to the orogenic event, the descriptive term late syn-collisional is preferable.

The Northern Cache Creek Terrane to the east is bordered mainly by the Thibert Fault which continues northward along the Teslin lineament. Discontinuous exposures of altered ultramafite along the fault suggest that it has previously undergone significant reverse motion and may be a reactivated thrust or transpressional fault zone. Latest movement on this fault is thought to be dextral strike-slip, of pre-Late Cretaceous age.

The terrane is dominated by sub-greenschist, prehnite-pumpellyite facies rocks; however, local greenschist and blueschist metamorphism are recorded. The terrane is characterized by a northwesterly-trending structural grain, however, in the Atlin – Sentinel Mountain area there is a marked deviation from this regional orientation with a dominant northeasterly trend. Reasons for this divergence in structural grain are poorly understood.

### **LOCAL GEOLOGY (reproduced from Ash, 2001)**

The geology of the Atlin region is divisible into two distinct lithotectonic elements. A structurally higher, imbricated sequence of oceanic crustal and upper mantle lithologies termed the “*Atlin ophiolitic assemblage*”, is tectonically superimposed over a lower and

lithologically diverse sequence of steeply to moderately dipping, tectonically intercalated slices of pelagic metasedimentary rocks with tectonized pods and slivers of metabasalt, limestone and greywacke termed the “*Atlin accretionary complex*”. Locally these elements are intruded by the Middle Jurassic calcalkaline Fourth of July batholith and related quartz-feldspar porphyritic and melanocratic dike rocks.

#### Atlin Ophiolitic Assemblage

The Atlin ophiolitic assemblage comprises an imbricated sequence of relatively flat-lying, coherent thrust slices of obducted oceanic crustal and upper mantle rocks. Mantle lithologies are dominated by harzburgite tectonite containing subordinate dunite and lesser pyroxenite dikes. The unit forms an isolated klippe that underlies the town of Atlin and Monarch Mountain, which is located four kilometres southeast of the town. The harzburgite is also exposed on the northern and southern slopes of Union Mountain, 10 kilometres south of Atlin. Ductile deformational fabrics indicative of hypersolidus to subsolidus deformation, and the phase chemistry of primary silicates and chrome spinels in the harzburgite indicate a uniform, highly refractory composition and support a depleted mantle metamorphic origin for the unit. The least serpentinized rocks with well preserved primary structures and texture crop out at the highest elevations on Monarch Mountain. Primary features are less well preserved toward the base of the body and internally, where high angle fault zones cut it, the unit becomes increasingly serpentinized. Serpentinite mylonite fabrics are locally preserved near the base of the body. Commonly the basal contact of the harzburgite unit is pervasively carbonatized and tectonized over distances of several tens of metres or more.

Oceanic crustal lithologies in the Atlin map area, in decreasing order of abundance, include metamorphosed basalt, ultramafic cumulates, diabase and gabbro with metabasalts dominating. They are generally massive, fine grained to aphanitic and weather a characteristic dull green-grey colour. Locally, the unit grades to medium-grained varieties or diabase. Primary textures locally identified in the metabasalt include flow banding, autobrecciation and rare pillow structures. Although rarely exposed, basalt contacts are commonly sheared or brecciated zones, sometimes intensely carbonatized. Petrochemical investigations of these basaltic rocks indicate they are similar in composition to basalts of normal mid ocean-ridge settings and the chemistry also suggests a genetic relationship to the associated depleted metamorphic mantle ultramafic rocks.

Serpentinized peridotite displaying ghost cumulate textures and sporadically preserved relict poikilitic texture is suspected to originally be wehrlite. The peridotite forms an isolated thrust sheet that outcrops discontinuously along an east-trending belt 1 to 3 kilometres wide on the south-facing slope of Mount Munroe, located four kilometres northeast of the town of Atlin. Extensive exploration drilling along the base of Mount Monroe at the Yellowjacket Zone indicates that the serpentinized body is in structural contact with metabasaltic rocks along a gently northwest-dipping thrust. Along the contact zone hangingwall ultramafites and footwall metabasalts are tectonically intercalated and carbonatized. Projection of this fault across the Pine Creek valley suggests that carbonatized and serpentinized ultramafic rocks on the summit of Spruce Mountain, immediately south of the Pine Creek valley in the vicinity of the Yellowjacket Zone, represent a remnant above an extension of the same tectonized and altered basal contact.

Metagabbro is the least commonly seen ophiolitic component in the Atlin area. It crops out on the northern slope of Union Mountain and along the south-facing slope of Mount Munroe. On Union Mountain, gabbro occurs along the Monarch Mountain thrust as isolated dismembered blocks with faulted contacts.

#### Atlin Accretionary Complex

The Atlin accretionary complex comprises a series of steeply to moderately dipping lenses and slices of structurally intercalated metasedimentary and metavolcanic rocks that underlie the southern half and northwest corner of the Atlin region (see Figure 3). Pelagic metasedimentary rocks dominate the unit and consist of argillites, cherty argillites, argillaceous cherts and cherts with lesser limestones and greywackes. They range from highly mixed zones with well-developed flattening fabric indicative of tectonic melange to relatively coherent tectonic slices. Individual slices range from metres to several hundreds of metres in width. Indications of internal deformation are moderate or lacking; in a few slices original stratigraphy is well preserved. Contact relationships between many of the individual units of the complex have not been established due to a lack of exposure, however most are inferred to be tectonic. Internal bedding within the individual lenses in some places is parallel to the external contacts, but is more commonly strongly discordant. This argues against simple interfingering of different facies.

A common feature throughout the accretionary complex, particularly in areas of moderate overburden, is closely spaced outcroppings of different lithologies with no clearly defined contacts. Such relationships are interpreted to represent areas of melange in which the exposed lithologies that commonly include chert, limestone and basalt are more competent than the intervening, recessive fissile and argillaceous matrix. Such relationships are confirmed where sections are exposed along road cuts and in areas of trenching.

#### GOLD MINERALIZATION (reproduced from Ash, 2001)

Occurrences of gold quartz vein mineralization throughout the Atlin camp are localized along pervasively carbonatized fissure and fracture zones within and marginal to serpentized mantle tectonite and ultramafic cumulate rocks of the Atlin ophiolitic assemblage.

Gold quartz veins are poorly and erratically developed within the ultramafic rocks and more commonly occur as random fracture fillings. Wider, more continuous tabular fissure veins have been identified only in the mafic igneous crustal components (gabbro, diabase) of the Atlin ophiolitic assemblage where immediately adjacent to carbonatized ultramafic rocks.

Ages of hydrothermal Cr-muscovite (mariposite) associated with the gold mineralization suggest a limited interval of vein formation between 171 and 167 million years ago (Ma). This age of mineralization is consistent with the timing of Middle Jurassic magmatism at around 171 Ma. There is also a consistent spatial association between known gold vein occurrences and high level dikes and stocks. Both mineralization and magmatism appear to closely follow Middle Jurassic orogenic activity.

Placer deposits in the camp are situated in stream valleys cutting erosional windows through the carbonatized relatively flat lying thrust faults within the Atlin ophiolitic

assemblage. The placers are considered to be derived from quartz lodes previously contained within the ophiolitic crustal rocks.

Two convincing lines of evidence support the theory that quartz veins are widely accepted as the source of the abundant gold won from Tertiary and Quaternary placer gravels:

The coarse, free gold in the veins is similar physically and chemically to the gold recovered from the placer gravels.

The two most productive placer gold streams, Spruce and Pine Creeks, drain erosional windows through the basal fault zones of the ultramafic thrust sheets that are hosts for most of the gold mineralization throughout the camp.

Historically, significant economic concentrations of placer gold are restricted to streams in the Pine Creek and McKee Creek watersheds. It appears that preferential erosion through flat-lying mineralized thrust contacts in both these areas was accelerated along high-angle, post accretionary fault zones. This interpretation is supported by the presence of fault breccia zones within both these valleys.

Lode gold mineralization associated with the thrust sheet of ultramafic cumulate rocks includes showings hosted by faults bounding this thrust sheet, including the Yellowjacket, Imperial, Surprise and Lakeview (see Section 15 “Adjacent Properties”). The Yellowjacket showing is associated with the basal faulted contact of this ultramafic body along the Pine Creek valley. The contact between the hangingwall ultramafites and footwall metabasalts is not exposed but is well defined by exploration drill holes (Marud, 1988). The zone of thrusting is characterized by up to 15 metres of carbonate alteration that contains intermittent zones of quartz-carbonate veining in both hangingwall and footwall rocks. On the Atlin Gold Property the thrust fault is disrupted by a later, east-trending, steeply dipping structure referred to as the Pine Creek Fault. This high angle fault zone averages approximately 70 metres in width and can be described as a fault breccia. The fault is characterized by strongly broken and fractured rocks, with gouge and rubble zones ranging from centimetres to more than 10 metres wide. The zone contains irregular blocks and lenses of all the lithologies that are typical of the Atlin ophiolitic assemblage, metamorphosed basalt, diabase, gabbro and ultramafics as well as younger felsic rocks. Ultramafic rocks vary from completely serpentinized to completely carbonatized, with or without quartz veining.

Marud (1988) suggests that high-angle faulting might be contemporaneous with mineralization along the fault structure, however Ash (2001) feels it is more likely that the Pine Creek Fault post-dates mineralization. Work to date by MuskoX appears to support the earlier hypothesis by Marud, with high grade gold intercepts in drilling being traced along the Pine Creek Fault. However, it is possible that the fault postdates the original gold emplacement but contains a later concentration of mineralization along its trend.

#### ATLIN GOLD PROPERTY GEOLOGY

There are eleven distinct lithologies that were previously logged in drill core. These lithologies were originally defined by Homestake (Marud, 1987). In order to maintain consistency in core logging, MuskoX followed these rock descriptions and labels as much

as possible. In some instances, changes to the lithological nomenclature were necessary for clarity. The following description of each lithological unit, where they are generally found and their common characteristics is reproduced from the original Homestake reports. *In italics are comments or changes made to the original lithologies during subsequent core logging in 2004 by Muskox.*

#### Unit 1: Basalt

Rocks logged as basalts are generally found in holes that intersect bedrock north of 1+00S. The rocks strike roughly 040° to 070° and dip shallowly northwest. They form a thrust fault slice of rock sandwiched between two sheets of serpentinite. To the south they are truncated by a vertical fault zone and to the east by a west dipping fault zone.

The basalts are generally dark green, weakly to strongly chloritized rocks. They are very fine to fine grained and massive. Original mineralogy consists of approximately 20% plagioclase and 80% pyroxene. Fracturing is ubiquitous with most fractures being coated with dark green serpentine.

*In some instances where the rock is faulted and altered, identification between basalt and andesite is not distinguishable, therefore in several instances these two lithologies (Units 1 and 9) are combined during core logging into a single mafic/intermediate volcanic unit.*

#### Unit 2: Serpentinite

Almost all holes within the Yellowjacket Zone intersect some thickness of serpentinite. The rocks are usually completely serpentinitized. This is the result of alteration of ultramafic rocks such as pyroxenite and dunite.

The rocks are typically dark blue-grey to blue-green and massive. Usually they are moderately to strongly magnetic due to the presence of up to 10% magnetite, but non-magnetic varieties are observed. Stringers, veinlets and spots of talc, calcite and carbonate are common.

*Occasionally, unaltered pyroxenite is intersected, often at depth.*

#### Unit 3: Completely Altered Ultramafic

Most rocks within the Yellowjacket Zone display some alteration. However, some rocks are altered to the point where identification of original minerals and textures is impossible. Such rocks are said to be completely altered and are classified under unit 3. Although serpentinite is a completely altered ultramafic rock, within the Yellowjacket Zone it is considered to be a separate rock type because of its abundance, unique character and early stage of alteration.

Alteration varies widely throughout the zone but carbonatization is by far the most widespread. This alteration results in the replacement of serpentine by magnesian dolomite and/or magnesite with lesser amounts of talc, tremolite and quartz. These rocks are typically light grey, light green or cream in colour and are generally non-magnetic. 2-3% black “flecks” of chromite are regularly observed.

Pervasive silicification is not as common as carbonatization but is extensive enough to be noted. It is usually associated with abundant quartz veining, locally in volcanic rocks but more commonly in serpentinite. Silicification is usually accompanied by 2-3% fine-grained pyrite in volcanic rocks and trace disseminated pyrite in serpentinite.

Other alteration minerals noted in the Yellowjacket Zone include calcite, sericite, chlorite, biotite and mariposite.

*Whenever possible, distinctions between the various intense alterations within the ultramafic rocks have been made during Muskox's core logging. In general, the light and dark grey, mottled to spotted completely altered ultramafic unit is called magnesite indicating strong magnesium-carbonate alteration. In many instances this alteration is combined with weak to strong talc or overprinted by silica flooding.*

*Dark orange, mottled and spotted completely altered ultramafic is moderately to strongly iron carbonate altered. Again this alteration can be combined with weak to strong talc or overprinted by silica flooding. Visible gold has been identified in two intervals of strong iron carbonate and silica alteration.*

*The third important alteration to identify in the completely altered ultramafic category is listwanite. Listwanite is ultramafic that is carbonatized, strongly silicified (exhibiting both silica flooding and veinlets), mariposite (Cr-mica) rich, and often contains minor amounts of fine grained disseminated pyrite. Occasionally fine specks of visible gold can be identified in the listwanite, and more commonly within the associated quartz veining.*

#### Unit 4: Mafic Intrusive Rocks

**4a. Diabase** – Diabase dykes have been noted in most of the drill holes in the Yellowjacket Zone. They are typically a fine grained mixture of pyroxene and plagioclase, sometimes exhibiting ophitic texture. Alteration is variable but chlorite, carbonate, serpentine and leucoxene have all been noted. *Hematite is a common fracture coating.*

*As with the basalts above, in the intensely faulted zones, distinction between the volcanic units (basalt and andesite) and diabase is not readily visible, therefore these units are sometimes combined.*

**4b. Gabbro** – Gabbro is encountered predominantly east of line 15+00E. It seems to occur as thin, long flat lying sills, often cut by numerous dykes. Thickness of the units is estimated at 30 metres. The gabbro is medium to coarse grained and relatively unaltered except for abundant thin unmineralized white quartz veins. *At the west end of the Yellowjacket Zone, another gabbro sill was encountered in drill hole YJ04-30. As described above, this sill was medium to coarse grained and relatively unaltered, however it did display some good examples of cumulate layering textures.*

#### Unit 5: Feldspar Porphyry

Feldspar porphyry has previously been noted in holes YJ86-9, 12 and 17. It was not intersected in subsequent drilling.

*This feldspar porphyry unit is likely the same as Unit 9b plagioclase porphyritic andesite.*

Unit 6: Syenite

Syenite was identified in hole YJ86-13 and 16 but was not intersected in subsequent drilling.

Unit 7: Diorite

Rocks logged as diorites are generally dark green with up to 40% white feldspar phenocrysts and 60% chloritized(?) amphibole. They typically have a dioritic texture and often grade in and out of fine grained andesitic rocks. In drill holes they have also been noted to contain hornblende phenocrysts and have been called hornblende andesites (9a).

Unit 8: Greenstone

This unit is used as a field term for any chloritized and/or carbonatized volcanic rock presumably ranging from andesite to basalt. It was only used where a more diagnostic description was not possible.

*As mentioned earlier in this section, in the faulted and altered zones, distinction between the intermediate/mafic volcanic units is often difficult. Although, in core logging Homestake used the term Greenstone, Muskox prefers to identify these units simply as volcanic.*

Unit 9: Andesite

Rocks logged as andesites are intersected south of 1+50S. They seem to form irregular shaped pods, lenses and slivers between 1+50S and 1+90S but are more continuous south of 1+90S.

They are generally dark grey to green, fine grained volcanic rocks made up primarily of plagioclase feldspar with 10-15% quartz. Mafic minerals include hornblende, chlorite and biotite.

Two sub units have been recognized and classified on the basis of their predominant phenocrysts. These are 9a, Hornblende Andesite and 9b, Plagioclase Andesite.

*Adjacent to strong fault features, where the ultramafic units are strongly deformed and altered, the more competent andesite tends to shatter. This fractured rock is then stockworked and flooded with quartz-carbonate. The highest grade gold intervals returned from drill core are associated with this portion of the lithology package.*

Unit 10: Lamprophyre (Phlogopite/Biotite Porphyry)

These rocks are dark grey to dark olive green, fine to coarse grained, with brown biotite-phlogopite flakes of less than 1 millimetre in size disseminated in a fine-grained matrix of plagioclase.

Unit 11: Intermediate Extrusive

Although this unit is not that common in the Yellowjacket Zone it does bear mention, as it is quite unusual. It has been noted only in holes YJ88-52 and 55 at depths greater than 100 metres.

The unit is typically dark grey to brown and very fine grained. It contains between 1 to 15% white recrystallized knots of quartz. The knots are generally 0.5 to 1.5 centimetres in diameter and often look to be boudined quartz veins. The matrix of the rock however shows no sign of tectonism. The unit is very competent and is highly siliceous. Fracturing is only poorly developed and alteration is weak with only minor amounts of carbonate and calcite being present

### **8) DEPOSIT TYPES** (reproduced from Ash, 2001)

Gold-quartz vein deposits and their derived placers are often spatially associated with carbonate+/-sericite+/-pyrite altered ophiolitic and ultramafic rocks known as 'listwanites'. They have historically been of major socio-economic importance in British Columbia and account for a large portion of the 50% of the province's gold production from such lodes (Schroeter et al., 2000). This amount would be significantly greater if placer gold derived from such lodes was included.

Cordilleran Mesozoic gold-quartz vein deposits have Archean analogues that are typically referred to in terms of their age 'Archean lode gold', or the nature of their host rocks 'greenstone gold'. In a similar fashion one could refer to deposits from the Atlin area as 'Mesozoic lode gold' or 'oceanic lode gold'. Characterizing a deposit type, however, based strictly on its age or the nature of its host rocks, when that deposits spans a range of both these characteristics is restrictive. Deposits of this type are referred to in many ways, such as; gold quartz veins or lodes, mesothermal gold, shear-hosted or shear zone gold, orogenic gold, syn-orogenic veins, Mother Lode gold, etc., and they all correspond to USGS deposit model classifications for low-sulphide gold-quartz veins.

Locally, these deposits occur primarily as quartz veins, stockworks or stringer zones in fault, fracture and shear zones and are typified by the variability of host rocks which are affected by pervasive carbonatization with localized sericitization and sulfidation marginal to gold-bearing quartz veins.

### **9) MINERALIZATION**

On the Atlin Gold Property, the Yellowjacket Zone is the main mineralized zone identified by drilling to date. Diamond drilling intersected gold mineralization throughout the 350 metre length of the Yellowjacket Zone.

In the Yellowjacket Zone, ophiolite-hosted gold veins are contained within fault-bounded lenses of oceanic igneous crust. Listwanite altered ultramafic rocks are consistently associated with the ophiolite-hosted gold veins, but rarely host them. This deposit type contains very high grade, coarse native gold occurring in quartz veins or flooding hosted by ophiolitic mafic igneous crustal rocks (gabbro, diabase, basalt, andesite) adjacent to listwanite altered ultramafic rocks.

Exploration drilling which encounters coarse native gold is subject to the 'nugget effect' where adjacent samples within the same mineralized zone can have widely varying gold values. This "nugget effect" must be taken in to account when exploring for gold mineralization in this type of system and the importance of structures, veins and associated and indicator element geochemistry must be stressed. The gold values within this

mineralized system will often be greatly variable. This variability can be mitigated by increasing sample size with the implementation of a bulk sampling program.

## **10) EXPLORATION**

### **GEOPHYSICS**

Canamera Geoscience Corp. conducted an airborne geophysical survey over the Atlin Gold Property on September 18-22, 2004, at the request of Musko Minerals Corp. A total of 820 line kilometres of airborne survey were flown by helicopter, using 50 metre spaced flight lines.

The following summary and conclusions are taken from Rodionov (2004).

The primary objective of the airborne geophysical survey was to obtain a dense high-resolution aeromagnetic and electromagnetic data set over the Atlin Gold Property. These data are required to enhance the general understanding of the geology of the area and to identify further target areas for exploration. In this regard, these data can also be used to map geologic contacts and structural features within the Atlin Gold Property.

The survey incorporated the use of a Hummingbird™ five frequency electromagnetic system supplemented by a high-sensitivity cesium magnetometer, barometric altimeter and laser altimeter. A combined GPS/GLONASS navigation computer system with flight path indicators ensured accurate positioning of the geophysical data with respect to the World Geodetic System 1984 geodetic datum (WGS-84).

The Atlin Gold Property contains anomalies of small to high amplitude in both the magnetic and electromagnetic responses indicating that the region contains lithologies of varying contrast in magnetic susceptibility and electrical conductivity.

The magnetic susceptibility of the ultramafic and mafic rocks is considerably higher than the basalts and metabasalts; therefore this unit is easily mapped by the total field magnetic contours (see Figure 4). The internal structure of the magnetic field within this unit reflects the complexity of lithological varieties of magmatic rocks and the degree of their alteration. Numerous faults that appear to cut the unit at various angles make this picture even more complicated. It seems that the amplitudes of magnetic field reaching more than 1000nT are associated with the areas of relatively unchanged magmatic rocks while lower intensities of magnetic field indicate some degree of alteration.

Preliminary analysis of three dimensional magnetic inversion data allowed identification of several areas of low magnetic susceptibility, one of which is spatially associated with the Yellowjacket Zone mineralization.

The electromagnetic data shows several low resistivity anomalies (see Figure 5). The linear anomaly in the centre area can probably be associated with a zone of serpentinization of ultramafic rocks. To some extent, the same explanation can be applied to all anomalies located to the north the creek and to the anomaly in the southern part of the survey area which is correlated with a dyke. However, there are a group of anomalies located on the

margin of magmatic rocks, the origin of which cannot be explained. At the moment, no correlation is established between resistivity anomalies and gold bearing structures.

## **11) DRILLING**

In 2003 and 2004, 14 NQ and 28 HQ size drill holes totalling 4816.25 metres were drilled on the Yellowjacket Zone of the Atlin Gold Property by MuskoX.

The drill program conducted by MuskoX was designed to test for high grade gold mineralization within a large fault zone (the Pine Creek Fault) along the contact between ultramafics and Cache Creek Group volcanics and metasediments. This fault zone is thought to be the source area for much or all of the placer gold mined in the lower part of Pine Creek.

During November and December 2003, an initial 152.45 metres of diamond drilling, in two holes was completed in the Yellowjacket Zone. Drill holes YJ03-01 and YJ03-02 confirmed the presence of high grade gold mineralization discovered during previous exploration programs.

Due to the success of the initial drilling, an expanded diamond drill program was undertaken early in 2004. An additional 906.84 metres of drilling, in holes YJ04-01 to YJ04-12, was completed during this program. Drilling resumed in the summer of 2004 and continued to the end of the year. The final drill hole completed was YJ04-40. The majority of the holes drilled during this program encountered one or more intervals of gold mineralization.

Drill hole collar locations are shown on Figure 6 and in Table II.

**TABLE II  
DIAMOND DRILL HOLE COLLAR LOCATIONS**

Hole #	Northing	Easting	Elevation (m)	Azimuth (°)	Dip (°)	Length (m)
YJ03-01	6607317	582041	866.0	178	-58	74.09
YJ03-02	6607283	582112	868.9	003	-60	78.36
YJ04-01	6607284	582100	868.2	340	-60	96.62
YJ04-02	6607284	582100	868.2	340	-45	90.50
YJ04-03	6607307	582161	864.7	340	-60	83.54
YJ04-04	6607307	582161	864.7	340	-45	108.81
YJ04-05	6607312	582048	866.1	160	-70	90.55
YJ04-06	6607317	582048	866.3	180	-70	61.87
YJ04-07	6607317	582048	866.3	180	-60	60.96
YJ04-08	6607317	582041	866.0	180	-70	90.54
YJ04-09	6607310	582041	866.0		-90	32.62
YJ04-10	6607322	582041	866.6	180	-60	68.60
YJ04-11	6607322	582036	866.6	180	-70	72.24
YJ04-12	6607322	582036	866.6	180	-50	49.99
YJ04-13	6607336	582266	872.5	343	-45	58.83
YJ04-14	6607336	582266	872.5	343	-75	129.59
YJ04-15	6607336	582266	872.5	032	-60	104.24
YJ04-16	6607324	582240	869.8	340	-60	138.99
YJ04-17	6607324	582240	869.8	340	-45	97.84
YJ04-18	6607324	582240	869.8	340	-75	153.04

Hole #	Northing	Easting	Elevation (m)	Azimuth (°)	Dip (°)	Length (m)
YJ04-19	6607324	582240	869.8		-90	61.60
YJ04-20	6607314	582205	870.8	340	-85	146.00
YJ04-21	6607314	582192	867.6	340	-55	127.10
YJ04-22	6607330	582158	863.0	044	-60	182.01
YJ04-23	6607257	582014	873.5	033	-48	115.00
YJ04-24	6607316	582135	869.5		-90	146.70
YJ04-25	6607341	582211	876.3	040	-55	139.29
YJ04-26	6607279	582087	871.0	040	-55	156.09
YJ04-27	6607265	582041	869.7	038	-55	185.01
YJ04-28	6607205	581925	874.0	041	-55	87.48
YJ04-29	6607215	581942	869.8	038	-55	217.00
YJ04-30	6607198	581896	855.8	040	-55	200.24
YJ04-31	6607322	582162	864.2		-90	136.23
YJ04-32	6607393	582370	862.8	340	-65	124.04
YJ04-33	6607319	582147	862.8	042	-60	168.25
YJ04-34	6607319	582147	862.8		-90	212.45
YJ04-35	6607319	582147	862.8	060	-60	143.55
YJ04-36	6607319	582147	862.8	024	-60	156.04
YJ04-37	6607330	582158	864.5	060	-60	166.26
YJ04-38	6607330	582158	864.5	026	-60	165.19
YJ04-39	6607404	582319	861.0	340	-55	18.00
YJ04-40	6607405	582321	861.0	340	-55	20.90

Gold assays, when plotted along section lines, show the widespread nature of the gold mineralization throughout the Yellowjacket Zone. By plotting drill sections, it can be concluded that the gold mineralization is structurally controlled within the highly deformed Pine Creek Fault zone. This zone is up to 100 metres in width, and has been traced by drilling for over 350 metres.

Statistical analyses run on the gold assay data from the diamond drill program has identified three gold populations (see Table III).

**TABLE III**  
**STATISTICAL ANALYSES RESULTS FOR GOLD VALUES**

RANGE Au (g/t)	NUMBER OF SAMPLES	SAMPLE AVERAGE Au (g/t)	POPULATION	STRIKE (°)	DIP (°)	PLUNGE (°)
0.5 to 5.0	444	1.426	3	30.7	15.5	12.4
5.0 to 15.0	62	8.672	2	113.8	88.6	11.9
15.0 to 5724.0	52	188.397	1	254.5	84.2	9.8
0.5 to 5724.0	558	19.655	ALL	113.0	84.3	52.6

Upon initially receiving gold assays from the laboratory, it was immediately apparent that there were two or more populations of gold mineralization; with high grade gold intercepts being interspersed with broader zones of lower grade gold values.

The high grade gold mineralization has always been assumed to be found along steeply dipping structures associated with the Pine Creek Fault which underlies the rich placer

channel. Statistical analyses appear to confirm this with Population 1, and also shows two additional gold mineralized populations that were intersected during the 2004 diamond drill program. For statistical analyses the three gold populations are:

Population 1 – 15.00 to 5724.00 g/t gold

Population 2 – 5.00 to 15.00 g/t gold

Population 3 – 0.50 to 5.00 g/t gold.

Each of these gold populations appears to be concentrated along independent structural orientations, with all three structural features intersecting on the Yellowjacket Zone. Gold mineralization from Population 3 is found within a shallowly dipping feature believed to be related to the original thrust faulting of the ultramafic host rocks. Higher grade gold mineralization from Populations 1 and 2 are related to steeply dipping features that cut across the shallowly dipping thrust fault. Population 1 (containing the highest grade gold mineralization) is directly related to the Pine Creek Fault and Population 2 is contained within faults crossing the main Pine Creek Fault. Table III above shows the calculated strike, dip and plunge of the structures hosting the three gold populations.

Table IV shows the high grade gold intersections from the 2003 and 2004 Muscox diamond drill program on the Yellowjacket Zone. These intervals all contain gold values from Populations 1 or 2, therefore are assumed to be from steeply dipping structures. The reported widths of the sample intervals generally represent 50 to 75% of the apparent true width of the mineralizing structure. In drill holes where more than one mineralized zone was intersected, the main target zone was drilled to cross as close to the apparent true width as possible, with subsidiary zones often appearing in drill core to be wider than their true width. Due to the intensity of the structural deformation along the Pine Creek Fault, contact orientations of the mineralized sections are usually not visible in drill core, therefore exact true width calculations for these structures are difficult to determine.

**TABLE IV  
HIGH GRADE GOLD INTERSECTIONS**

<b>HOLE #</b>	<b>FROM (m)</b>	<b>TO (m)</b>	<b>WIDTH (m)</b>	<b>GOLD (g/t)</b>
<b>YJ03-01</b>	13.94	19.50	5.56	<b>509.95</b>
including	14.33	14.76	0.43	<b>5724.00</b>
	21.64	22.86	1.22	<b>16.18</b>
	24.99	26.82	1.83	<b>40.78</b>
	35.96	39.01	3.05	<b>35.12</b>
	42.98	44.20	1.22	<b>57.41</b>
<b>YJ04-01</b>	92.50	93.00	0.50	<b>128.15</b>
<b>YJ04-02</b>	66.28	66.96	0.68	<b>7.08</b>
<b>YJ04-03</b>	43.90	45.70	1.80	<b>6.62</b>
<b>YJ04-07</b>	24.47	24.97	0.50	<b>6.75</b>
	38.66	39.16	0.50	<b>24.61</b>
	48.35	49.35	1.00	<b>6.96</b>
	53.40	54.45	1.05	<b>221.13</b>
<b>YJ04-17</b>	33.10	33.60	0.50	<b>19.41</b>
	50.11	50.54	0.43	<b>5.96</b>

<b>HOLE #</b>	<b>FROM (m)</b>	<b>TO (m)</b>	<b>WIDTH (m)</b>	<b>GOLD (g/t)</b>
<b>YJ04-18</b>	95.00	96.00	1.00	<b>5.56</b>
<b>YJ04-20</b>	90.00	91.00	1.00	<b>7.57</b>
	107.00	108.00	1.00	<b>7.12</b>
	140.00	141.00	1.00	<b>142.40</b>
<b>YJ04-21</b>	41.75	42.75	1.00	<b>14.30</b>
	79.00	79.50	0.50	<b>5.49</b>
<b>YJ04-22</b>	29.57	30.00	0.43	<b>14.63</b>
	31.00	31.50	0.50	<b>7.90</b>
	31.50	32.00	0.50	<b>16.19</b>
	73.76	74.25	0.49	<b>5.12</b>
	106.80	107.30	0.50	<b>156.95</b>
<b>YJ04-24</b>	118.00	118.50	0.50	<b>6.93</b>
<b>YJ04-26</b>	59.00	59.50	0.50	<b>6.02</b>
	59.50	60.00	0.50	<b>5.00</b>
<b>YJ04-27</b>	68.85	69.35	0.50	<b>22.43</b>
	69.35	69.90	0.55	<b>9.55</b>
<b>YJ04-29</b>	68.00	68.50	0.50	<b>119.62</b>
	195.00	196.00	1.00	<b>5.18</b>
<b>YJ04-31</b>	115.35	116.45	1.10	<b>7.56</b>
	116.45	117.45	1.00	<b>14.57</b>
<b>YJ04-33</b>	57.50	58.00	0.50	<b>20.04</b>
	80.65	81.15	0.50	<b>16.76</b>
	91.80	92.30	0.50	<b>31.30</b>
<b>YJ04-35</b>	106.70	107.40	0.70	<b>47.24</b>
	107.40	108.00	0.60	<b>15.80</b>
	108.00	108.80	0.80	<b>21.17</b>
<b>YJ04-36</b>	77.00	77.50	0.50	<b>14.90</b>
	87.00	87.50	0.50	<b>31.70</b>
<b>YJ04-37</b>	29.00	32.00	3.00	<b>6.53</b>
	73.00	73.65	0.65	<b>12.08</b>
	82.50	83.00	0.50	<b>11.64</b>
	109.50	110.00	0.50	<b>23.11</b>
	115.50	116.00	0.50	<b>5.10</b>
<b>YJ04-38</b>	39.00	40.00	1.00	<b>5.61</b>

The high gold values found in the drill holes listed above are often confined to relatively narrow drill intercepts. The very high gold grades relate to significant mineralizing (structural) events. It is important to note that in many of the above listed diamond drill holes there are also one or more lower grade gold intervals which correlate with the low angle thrust fault orientation of the host lithologies.

Table V shows the assay results for Population 1, 2 and 3 gold values obtained from diamond drilling to date by MuskoX. The gold assay results for samples analysed by standard fire assay techniques and those analysed by the metallics method have been reported in separate columns. To the right of the average metallics assay the individual assay values for the -150 mesh and +150 mesh fractions are shown. For completeness, the

lower portion of Table V shows some of the prior gold assays obtained from previous drilling by Homestake Mineral Development Corp. on the Yellowjacket Zone.

Drill core from holes YJ03-01 and 02 and YJ04-01 to 26 was analysed at Loring Labs in Calgary, and holes YJ04-27 to YJ04-40 were analysed at ACME Laboratories in Vancouver. The reporting method for the metallics assays is different between the two laboratories, with Loring doing a fire assay on a split from the fine and coarse fractions separately and ACME reporting the weighted gold assay value from each split.

**TABLE V  
DIAMOND DRILL HOLE GOLD INTERSECTIONS**

HOLE #	FROM (m)	TO (m)	WIDTH (m)	GOLD (g/t) Fire Assay	GOLD (g/t) Metallics assay average	GOLD (g/t) -150 mesh	GOLD (g/t) +150 mesh	POPULATION
<b>YJ03-01</b>	13.94	19.50	5.56		<b>509.95</b>	58.28	2298.46	1
including	14.33	14.76	0.43		<b>5724.00</b>	638.0	25993.0	1
	21.64	22.86	1.22		<b>16.18</b>	10.27	99.41	1
	24.99	26.82	1.83	<b>40.78</b>				1
	35.96	39.01	3.05	<b>35.12</b>				1
	42.98	44.20	1.22	<b>57.41</b>				1
<b>YJ04-01</b>	92.50	93.00	0.50		<b>128.15</b>	46.00	720.90	1
<b>YJ04-02</b>	66.28	66.96	0.68	<b>7.08</b>				2
<b>YJ04-03</b>	43.90	45.70	1.80	<b>6.62</b>				2
<b>YJ04-07</b>	24.47	24.97	0.50	<b>6.75</b>				2
	38.66	39.16	0.50		<b>24.61</b>	17.33	77.73	1
	48.35	49.35	1.00	<b>6.96</b>				2
	50.35	51.40	1.05	<b>3.78</b>				3
	53.40	54.45	1.05	<b>221.13</b>				1
<b>YJ04-13</b>	45.23	45.75	0.52		<b>2.06</b>	1.04	7.73	3
<b>YJ04-14</b>	83.35	83.85	0.50		<b>1.41</b>	1.05	4.94	3
	99.70	100.20	0.50		<b>0.75</b>	0.40	5.65	3
<b>YJ04-16</b>	17.75	18.75	1.00	<b>1.22</b>				3
	21.75	22.25	0.50		<b>1.09</b>	1.16	0.31	3
	27.75	28.35	0.60	<b>4.02</b>				3
	35.35	35.85	0.50		<b>1.29</b>	0.78	7.21	3
	39.00	39.50	0.50		<b>1.05</b>	1.10	0.74	3
	110.20	111.20	1.00		<b>2.03</b>	1.85	3.38	3
<b>YJ04-17</b>	32.60	33.10	0.50		<b>0.57</b>	0.16	7.51	3
	33.10	33.60	0.50		<b>19.41</b>	8.83	138.37	1
	49.70	50.11	0.41		<b>1.98</b>	1.50	9.41	3
	50.11	50.54	0.43		<b>5.96</b>	3.85	26.11	2
<b>YJ04-18</b>	45.00	46.00	1.00		<b>1.08</b>	0.97	1.68	3
	93.00	94.00	1.00		<b>3.43</b>	3.48	3.44	3
	94.00	95.00	1.00		<b>1.73</b>	1.06	6.94	3
	95.00	96.00	1.00		<b>5.56</b>	4.60	17.93	2
	96.00	97.00	1.00		<b>2.34</b>	2.00	6.17	3
<b>YJ04-20</b>	59.00	60.00	1.00	<b>2.10</b>				3
	80.00	81.00	1.00		<b>4.49</b>	2.45	17.26	3
	89.00	90.00	1.00		<b>2.08</b>	1.15	24.13	3
	90.00	91.00	1.00		<b>7.57</b>	5.56	48.97	2
	105.00	105.50	0.50		<b>1.34</b>	0.44	12.32	3

HOLE #	FROM (m)	TO (m)	WIDTH (m)	GOLD (g/t) Fire Assay	GOLD (g/t) Metallics assay average	GOLD (g/t) -150 mesh	GOLD (g/t) +150 mesh	POPULATION
<b>YJ04-20</b>	105.50	106.00	0.50		<b>2.13</b>	1.93	4.60	3
	106.00	107.00	1.00		<b>1.27</b>	0.97	10.39	3
	107.00	108.00	1.00		<b>7.12</b>	3.76	129.16	2
	108.00	109.00	1.00		<b>0.75</b>	0.61	8.26	3
	110.50	111.00	0.50		<b>1.29</b>	1.29	0.84	3
	113.00	114.00	1.00		<b>1.13</b>	1.01	5.59	3
	137.00	138.00	1.00		<b>0.94</b>	0.66	7.91	3
	138.00	139.00	1.00		<b>1.04</b>	0.66	17.37	3
	140.00	141.00	1.00		<b>142.40</b>	28.13	938.95	1
<b>YJ04-21</b>	17.35	17.95	0.60	<b>1.27</b>				3
	41.75	42.75	1.00	<b>14.30</b>				2
	52.75	53.25	0.50		<b>0.74</b>	0.42	7.45	3
	73.50	74.00	0.50		<b>4.42</b>	3.57	19.69	3
	79.00	79.50	0.50		<b>5.49</b>	2.46	69.18	2
	102.90	103.40	0.50		<b>3.89</b>	2.40	12.77	3
<b>YJ04-22</b>	29.57	30.00	0.43		<b>14.63</b>	13.55	23.17	2
	30.50	31.00	0.50		<b>1.93</b>	1.00	9.18	3
	31.00	31.50	0.50		<b>7.90</b>	3.85	34.64	2
	31.50	32.00	0.50		<b>16.19</b>	5.10	135.06	1
	46.00	46.50	0.50		<b>1.33</b>	1.01	4.31	3
	68.60	69.25	0.65	<b>1.32</b>				3
	73.76	74.25	0.49		<b>5.12</b>	5.10	5.26	2
	76.25	76.81	0.56		<b>1.55</b>	1.15	4.20	3
	76.81	77.22	0.41		<b>1.28</b>	1.37	0.45	3
	89.93	90.43	0.50		<b>2.29</b>	1.27	10.77	3
	106.80	107.30	0.50		<b>156.95</b>	35.50	1525.04	1
	107.80	108.30	0.50		<b>1.13</b>	0.95	2.40	3
<b>YJ04-24</b>	53.00	54.00	1.00	<b>1.42</b>				3
	54.00	54.50	0.50		<b>1.39</b>	1.41	1.23	3
	56.00	57.00	1.00		<b>1.59</b>	1.53	2.05	3
	94.00	95.00	1.00	<b>1.45</b>				3
	95.00	95.50	0.50	<b>2.66</b>				3
	109.00	109.95	0.50		<b>3.67</b>	3.36	6.75	3
	109.50	110.00	0.50		<b>4.94</b>	4.32	10.59	3
	112.30	113.00	0.70		<b>2.15</b>	2.00	3.23	3
	114.50	115.00	0.50	<b>1.42</b>				3
	116.00	117.20	1.20	<b>3.90</b>				3
	118.00	118.50	0.50		<b>6.93</b>	3.65	37.30	2
<b>YJ04-25</b>	13.00	14.00	1.00		<b>1.30</b>	0.46	11.37	3
	14.00	14.40	0.40		<b>1.10</b>	0.46	6.72	3
<b>YJ04-26</b>	59.00	59.50	0.50		<b>6.02</b>	1.94	44.80	2
	59.50	60.00	0.50		<b>5.00</b>	1.74	32.79	2
	60.50	61.25	0.75		<b>2.30</b>	0.86	13.45	3
	67.60	68.10	0.50		<b>0.65</b>	0.23	5.70	3
	72.20	73.20	1.00	<b>1.08</b>				3
	94.25	94.75	0.50		<b>1.46</b>	0.32	9.31	3
	94.75	95.35	0.60		<b>2.08</b>	1.57	5.39	3
<b>YJ04-27</b>	57.65	58.15	0.50		<b>4.13</b>	2.62	2.73	3
	64.15	64.90	0.75		<b>3.61</b>	2.33	4.08	3
	66.35	66.85	0.50		<b>4.19</b>	1.13	6.36	3

HOLE #	FROM (m)	TO (m)	WIDTH (m)	GOLD (g/t) Fire Assay	GOLD (g/t) Metallics assay average	GOLD (g/t) -150 mesh	GOLD (g/t) +150 mesh	POPULATION
<b>YJ04-27</b>	66.85	67.35	0.50		<b>1.38</b>	0.56	1.48	3
	67.85	68.35	0.50		<b>1.05</b>	0.93	0.20	3
	68.35	68.85	0.50		<b>3.12</b>	1.84	2.31	3
	68.85	69.35	0.50		<b>22.43</b>	16.43	12.36	1
	69.35	69.90	0.55		<b>9.55</b>	6.26	5.82	2
	69.90	70.50	0.60		<b>3.74</b>	2.64	2.64	3
	115.65	116.15	0.50		<b>3.84</b>	3.68	0.30	3
<b>YJ04-29</b>	66.75	67.00	0.45		<b>0.79</b>	0.07	0.76	3
	68.00	68.50	0.50		<b>119.62</b>	136.27	48.16	1
	76.50	77.60	1.10		<b>0.99</b>	0.33	0.73	3
	136.00	136.50	0.50		<b>0.73</b>	0.18	0.61	3
	136.50	137.00	0.50		<b>3.92</b>	2.40	2.69	3
	142.00	143.00	1.00		<b>2.02</b>	2.39	1.50	3
	157.00	158.00	1.00		<b>2.87</b>	0.95	2.65	3
	160.00	161.00	1.00		<b>0.57</b>	0.29	0.50	3
	178.00	179.00	1.00		<b>2.30</b>	3.88	1.33	3
	179.00	180.00	1.00		<b>3.84</b>	6.35	1.17	3
	180.00	180.50	0.50		<b>2.01</b>	1.66	1.26	3
	180.50	181.00	0.50		<b>2.42</b>	3.23	1.48	3
	181.00	182.00	1.00		<b>3.83</b>	5.77	1.85	3
	182.00	183.00	1.00		<b>2.31</b>	1.65	1.51	3
	183.00	183.70	0.70		<b>2.14</b>	2.00	1.75	3
	186.00	187.00	1.00		<b>0.86</b>	0.68	0.72	3
	191.00	192.00	1.00		<b>0.84</b>	0.46	0.73	3
	193.00	194.00	1.00		<b>1.45</b>	0.40	1.34	3
	194.00	195.00	1.00		<b>0.95</b>	0.38	0.87	3
	195.00	196.00	1.00		<b>5.18</b>	8.76	2.62	2
	201.00	202.00	1.00		<b>0.52</b>	0.17	0.47	3
<b>YJ04-31</b>	34.00	35.00	1.00		<b>0.65</b>	0.16	0.61	3
	35.00	36.00	1.00		<b>0.82</b>	0.19	0.77	3
	36.00	37.10	1.10		<b>0.80</b>	0.35	0.70	3
	37.10	38.00	0.90		<b>0.74</b>	<0.01	0.74	3
	43.00	44.00	1.00		<b>0.50</b>	0.07	0.54	3
	48.00	50.00	2.00		<b>1.20</b>	0.41	1.08	3
	60.00	60.70	0.70		<b>0.55</b>	0.32	0.44	3
	80.30	81.00	0.70		<b>0.88</b>	0.65	0.61	3
	81.00	82.00	1.00		<b>2.75</b>	2.44	2.04	3
	90.00	91.00	1.00		<b>0.50</b>	0.11	0.56	3
	115.35	116.45	1.10	<b>7.56</b>				2
	116.45	117.45	1.00	<b>14.57</b>				2
	119.70	120.30	0.60		<b>2.25</b>	1.19	1.51	3
	120.99	122.00	1.01	<b>1.17</b>				3
	125.25	125.75	0.50		<b>0.59</b>	<0.01	0.59	3
	125.75	126.35	0.60		<b>1.69</b>	0.56	1.47	3
	126.35	127.00	0.65		<b>0.75</b>	0.13	0.68	3
<b>YJ04-33</b>	24.10	24.60	0.50		<b>0.59</b>	<0.01	0.59	3
	27.10	22.75	0.65		<b>1.91</b>	0.51	1.67	3
	27.75	28.60	0.85	<b>0.59</b>				3
	31.10	31.60	0.50		<b>0.51</b>	0.31	0.38	3
	34.10	34.65	0.55		<b>1.03</b>	0.46	0.81	3

HOLE #	FROM (m)	TO (m)	WIDTH (m)	GOLD (g/t) Fire Assay	GOLD (g/t) Metallics assay average	GOLD (g/t) -150 mesh	GOLD (g/t) +150 mesh	POPULATION
<b>YJ04-33</b>	57.50	58.00	0.50	<b>20.04</b>				1
	75.00	75.50	0.50		<b>1.26</b>	<0.01	1.26	3
	80.65	81.15	0.50		<b>16.76</b>	0.14	16.68	1
	81.15	81.65	0.50		<b>2.31</b>	1.53	1.38	3
	81.65	82.40	0.75		<b>2.18</b>	2.02	1.43	3
	91.80	92.30	0.50		<b>31.30</b>	10.12	24.69	1
	104.00	104.50	0.50		<b>0.71</b>	0.12	0.63	3
	105.00	105.50	0.50		<b>2.40</b>	1.37	1.91	3
	105.50	106.00	0.50	<b>2.31</b>				3
	106.50	107.00	0.50	<b>0.55</b>				3
<b>YJ04-34</b>	36.20	37.19	0.99	<b>0.66</b>				3
	39.30	39.80	0.50		<b>0.67</b>	0.38	0.46	3
	39.80	40.35	0.55		<b>0.74</b>	0.17	0.65	3
	40.35	40.80	0.45		<b>1.05</b>	0.04	1.03	3
	40.80	41.30	0.50		<b>0.92</b>	0.92	0.50	3
	41.30	41.80	0.50		<b>0.80</b>	0.01	0.79	3
	50.40	51.40	1.00	<b>0.71</b>				3
	116.60	117.60	1.00	<b>0.58</b>				3
	117.60	118.60	1.00	<b>0.53</b>				3
	131.00	131.50	0.50	<b>0.53</b>				3
	181.25	181.75	0.50		<b>0.64</b>	0.01	0.64	3
	182.75	183.25	0.50	<b>0.64</b>				3
<b>YJ04-35</b>	22.00	23.00	1.00	<b>1.26</b>				3
	29.65	30.15	0.50		<b>1.00</b>	0.38	0.73	3
	84.20	84.75	0.55		<b>0.63</b>	0.11	0.58	3
	87.30	87.90	0.60	<b>0.55</b>				3
	87.90	88.40	0.50		<b>1.17</b>	0.03	1.15	3
	88.40	88.90	0.50		<b>1.54</b>	<0.01	1.54	3
	88.90	89.40	0.50		<b>1.65</b>	<0.01	1.65	3
	98.70	99.97	1.27		<b>0.58</b>	0.24	0.42	3
	102.25	103.25	1.00		<b>0.66</b>	0.02	0.65	3
	105.25	105.75	0.50		<b>0.68</b>	0.11	0.64	3
	105.75	106.20	0.45		<b>0.51</b>	0.03	0.50	3
	106.20	106.70	0.50		<b>2.20</b>	0.88	1.69	3
	106.70	107.40	0.70		<b>47.24</b>	45.20	27.06	1
	107.40	108.00	0.60		<b>15.80</b>	15.55	9.70	1
	108.00	108.80	0.80		<b>21.17</b>	15.33	14.23	1
	115.80	117.00	1.20	<b>0.63</b>				3
	118.65	119.50	0.85	<b>0.56</b>				3
	122.00	122.70	0.70	<b>0.88</b>				3
	134.50	135.03	0.53	<b>0.53</b>				3
	140.00	141.00	1.00	<b>0.60</b>				3
<b>YJ04-36</b>	26.10	27.00	0.90	<b>1.13</b>				3
	27.00	27.80	0.80	<b>0.50</b>				3
	49.00	49.50	0.50	<b>0.54</b>				3
	51.30	52.10	0.80	<b>2.54</b>				3
	54.60	55.50	0.90	<b>2.18</b>				3
<b>YJ04-36</b>	77.00	77.50	0.50		<b>14.90</b>	24.46	3.47	2
	85.00	85.50	0.50	<b>0.74</b>				3
	85.50	86.00	0.59		<b>0.74</b>	0.05	0.71	3

HOLE #	FROM (m)	TO (m)	WIDTH (m)	GOLD (g/t) Fire Assay	GOLD (g/t) Metallics assay average	GOLD (g/t) -150 mesh	GOLD (g/t) +150 mesh	POPULATION
<b>YJ04-36</b>	87.00	87.50	0.50	<b>31.70</b>				1
	90.00	90.50	0.50	<b>1.83</b>				3
	97.00	97.50	0.50	<b>1.53</b>				3
	100.50	101.50	1.00	<b>0.66</b>				3
<b>YJ04-37</b>	29.00	32.00	3.00	<b>6.53</b>				2
	73.00	73.65	0.65	<b>12.08</b>				2
	82.50	83.00	0.50	<b>11.64</b>				2
	109.50	110.00	0.50	<b>23.11</b>				2
	115.50	116.00	0.50	<b>5.10</b>				2
<b>YJ04-38</b>	39.00	40.00	1.00	<b>5.61</b>				2
<b>HOMESTAKE DRILL HOLE DATA</b>								
<b>YJ86-06</b>	85.34	88.39	3.05	<b>17.82</b>				
<b>YJ86-07</b>	41.61	44.50	2.89	<b>23.41</b>				
<b>YJ86-08</b>	60.96	62.48	1.52	<b>6.85</b>				
<b>YJ86-09</b>	50.75	52.58	1.83	<b>18.96</b>				
	61.26	62.79	1.53	<b>8.50</b>				
<b>YJ86-10</b>	74.68	76.20	1.52	<b>3.49</b>				
<b>YJ87-20</b>	27.00	28.00	1.00	<b>20.98</b>				
<b>YJ87-21</b>	74.00	75.00	1.00	<b>5.21</b>				
	90.00	91.00	1.00	<b>6.21</b>				
<b>YJ87-23</b>	55.00	57.45	2.45	<b>24.28</b>				
	63.00	65.00	2.00	<b>10.70</b>				
<b>YJ87-24</b>	25.00	26.00	1.00	<b>16.15</b>				
	126.50	127.00	0.50	<b>18.82</b>				
<b>YJ88-36</b>	223.00	224.00	1.00	<b>8.56</b>				
<b>YJ88-37</b>	97.00	99.00	2.00	<b>4.20</b>				
<b>YJ88-42</b>	124.00	125.70	1.70	<b>6.22</b>				
	138.00	139.00	1.00	<b>6.88</b>				
<b>YJ88-43</b>	69.49	71.50	2.01	<b>4.00</b>				
	105.00	116.00	11.00	<b>1.90</b>				
<b>YJ88-44</b>	111.00	117.00	6.00	<b>1.51</b>				
<b>YJ88-46</b>	105.00	107.00	2.00	<b>2.34</b>				
<b>YJ88-47</b>	113.00	114.00	1.00	<b>4.32</b>				
<b>YJ88-48</b>	134.00	136.00	2.00	<b>3.39</b>				
<b>YJ88-55</b>	20.00	22.00	2.00	<b>6.78</b>				
	88.00	90.00	2.00	<b>7.57</b>				
<b>YJ88-56</b>	82.00	83.00	1.00	<b>4.90</b>				
<b>YJ88-57</b>	40.00	41.00	1.00	<b>4.52</b>				
	93.00	97.00	4.00	<b>17.99</b>				
	101.00	103.00	2.00	<b>10.94</b>				
	108.00	110.00	2.00	<b>15.66</b>				

The assay table above shows two things quite clearly. First, by comparing the -150 and +150 mesh gold assays with the average, it is readily apparent that the majority of the gold mineralization is located in the coarse (or +150 mesh) fraction. This is proportionally more

pronounced as gold grades increase. The coarse nature of the gold grains found in the drill core samples is common in mineralizing systems that are subject to the “nugget effect”.

The second conclusion that can be drawn from the assay table is that the broad zones of gold Population 3 (0.5 to 5.0 g/t gold) often contain one or more higher grade gold intervals relating to steeply dipping cross structures which host the Population 1 and 2 gold values. The section maps, Figures 7 and 8, illustrate this conclusion.

Figure 6 is a plan view showing the diamond drill hole locations in the Yellowjacket Zone. One cross section and one long section through the area of drilling were reproduced for this report. These are typical sections illustrating the mineralization in the Yellowjacket Zone. Figure 7 is a sample cross section through the central portion of the Yellowjacket Zone, oriented roughly 160°, cutting across the Pine Creek Fault. Figure 8 is a long section of drill results plotted sub-parallel to the Pine Creek Fault which trends at 070°.

The cross section on Figure 7 shows gold assay values as bar graphs along the drill hole trace. The most readily visible gold mineralization in this section corresponds to the orientation of gold Population 2, lying within the broader gold values from Population 3. The deepest significant gold intersection from the 2004 diamond drill program can be seen in hole YJ04-20 on this section. This intersection of 142.40 g/t gold, over a one metre drill core intercept, is at 140 metres depth showing that the gold mineralization is open to depth and is a target area requiring additional diamond drilling.

The long section on Figure 8 shows scattered gold values plotted as histograms along the drill hole traces. Clusters of high gold values can be seen in two areas; one located just east of the centre of the section and the other near surface toward the western portion of the section. These areas correlate to the mineralizing structures associated with gold Populations 1 and 2, respectively.

In general, it can be concluded that broad zones of gold values ranging from 0.5 to 5.0 g/t relate to shallowly dipping fault thrust features. These shallow structures are intersected by two steeply dipping fault zones (the Pine Creek Fault and its associated cross faults). Narrower but higher grade gold mineralization has been identified within these steeply dipping structures. Additional drilling to trace the steeply dipping features to depth in the central portion of the Yellowjacket Zone, and along strike in the main Pine Creek Fault is required in order to fully define the gold potential of this system.

## **12) SAMPLING METHOD AND APPROACH**

Drill core sample preparation procedures used by MuskoX follow standard industry practice and professional guidelines. The drill core was cut on site using a small diamond saw and then logged. One half of the core was then placed in a labelled sample bag with the second half remaining in its original location in the core box. In the core box, sample locations are marked with metal tags showing the assay tag number. The remaining drill core was then shipped for storage in a warehouse in Calgary, AB, where it is well sorted and available for reference.

All drill core handling, cutting and sampling on site was conducted by employees and contractors of consulting firm Canamera Geoscience Corp. under the direct supervision of the author.

Due to the nature of the gold mineralization, in most instances the entire length of the diamond drill core was cut and assayed. Sample intervals are generally 1.0 metre, with smaller samples (usually 0.5 metres) being taken where certain alterations, mineralization or veining styles are present.

### **13) SAMPLE PREPARATION, ANALYSES AND SECURITY**

The core to be assayed was shipped by trucking company from site directly to Loring Laboratories Ltd. ("Loring") in Calgary, AB or to ACME Analytical Laboratories Ltd. ("ACME") in Vancouver, BC. All sample preparation was done at the laboratory by their staff.

Loring does not currently have recognizable accreditation. ACME is certified through the International Standards Organization ("ISO") with an ISO 9000:2000 certification. The International Standards Organization comprises national standards organization members from every major industrial and developing country. In 1987 they adopted a series of guidelines (ISO 9000 to 9004) for the global standardization of Quality Assurance for products and services. A company seeking accreditation must implement and maintain a quality assurance system that is compliant with one of the three applicable models (i.e. ISO 9001, 9002 or 9003). Some of the aspects specifically addressed in a quality assurance system include:

- Responsibility of management in defining and achieving quality goals,
- Contract review to ensure customer needs are understood and met,
- Procurement of supplies and services capable of delivering the desired level of quality,
- Handling of material supplied by the customer to ensure integrity,
- Controlling processes to ensure consistency of quality,
- Inspection and testing to ensure that all work meets or exceeds quality criteria,
- Correction and prevention of non-conformities (errors),
- Training of staff, and
- Statistical analysis to ensure quality criteria is met.

After the system is in place and a track record established documenting its effectiveness, the company must undergo auditing by a registered External Auditor. If found compliant by the auditor, the company is recommended for registration. Accredited companies must undergo periodic internal and external audits to ensure continued compliance.

Muskox initially contracted Loring to conduct their drill core analyses, but decided to change to ACME in order to ensure quality of assay results and to receive the results in a timely manner. Core samples from drill holes YJ03-01 and YJ03-02 were split between Loring and ACME, drill holes YJ04-01 to YJ04-26 were shipped to Loring, and YJ04-27 to YJ04-40 were shipped to ACME. The check assay comparisons (see Section 14 Data Verification) found that both laboratories returned a good quality of analyses.

In the laboratory, core samples were initially jaw crushed and a 250 gram sub sample was riffle split out of the original sample. This sub sample was further crushed to –200 mesh, sieved and fire assayed for gold and analysed for 30 additional elements by the ICP method. In many instances the gold analyses was done by metallics assay method, which is:

“A fire assay that determines the amount of coarse native metal in a sample. A large sample is pulverized then sieved. The coarse fraction containing any native metal is assayed in total; a representative portion of the fine fraction is assayed. Results are reported for each fraction and for the weighted average of the fractions” (Acme labs – glossary).

In the author’s opinion, the sample size, sampling methods, preparation, security and analytical procedures are adequate to return a reliable quality of results.

#### **14) DATA VERIFICATION**

Data used in the preparation of this report were predominantly generated by Muscox, through its consulting firm of Canamera Geoscience Corp., during the 2003 and 2004 exploration programs. As well, a portion of the data used was generated by Homestake Mineral Development Corp. (“Homestake”) who worked on the Yellowjacket Zone previously. All data is stored in Muscox office in Calgary, AB and in a site office located in Atlin, BC. There appears to be no reason to doubt the accuracy or veracity of the considerable amount of geological exploration data that is presented as written material and as illustrations on maps, sections or diagrams.

Documentation of prior exploration work shows that this work was carried out to a good standard of competency and completion. Paper records such as assay sheets and drill logs, geophysical maps and geological sections are properly archived and readily available for inspection. Drill core from prior exploration programs is well stored on site in an orderly way, and new core drilled by Muscox is stored in a secure facility in Calgary, AB. Assayed sections of the core have been cut and retained in properly marked core boxes. It is easy to refer to a drilled and assayed intercept in a report or cross section and view the same core interval in the box at its storage site.

In the field, drill collars are easily identified. GPS survey has located all drill collar locations, and many have been transit surveyed as well.

The author can verify the quality and results of the 2004 diamond drilling program, by the fact of direct supervision of said program. For prior drilling by Muscox, the author examined diamond drill core, drill logs and analytical results in detail. The results from Homestake’s prior drill programs were also examined by the author. Although no re-sampling of drill core was conducted to confirm assay results, short step-out drill holes put in by Muscox (under the author’s supervision) verified the results obtained previously by Homestake.

#### **QUALITY ASSURANCE AND QUALITY CONTROL (“QA/QC”)**

The QA/QC work completed on the Atlin Gold Property consists of check assay comparisons, assay standard comparisons and re-assay comparisons.

Check assay comparisons can be found in Table VI. Eighty-five sample pulps and rejects returned from Loring Laboratories Ltd. were given new assay tag numbers and submitted to ACME Analytical Laboratories Ltd. for comparison. The top portion of the table shows the comparison between total metallics assay (average of coarse and fine fractions) of select coarse rejects and the lower portion of the table shows comparisons between re-assays of select pulps only. It should be noted that for metallics gold assaying, screening of the coarse fraction is -150 mesh at ACME, and -100 mesh at Loring, so some variability may be expected in comparisons between the metallics re-assays.

**TABLE VI  
CHECK ASSAY COMPARISONS**

<b>New Sample Number</b>	<b>Initial Sample Number</b>	<b>Loring_Tot_Met including +100 Au (g/t)</b>	<b>Acme_Tot_Met including +150 Au (g/t)</b>	<b>Loring Pulps Only Au (g/t)</b>	<b>Acme Pulps Only Au (g/t)</b>	<b>Value Difference Au (g/t)</b>	<b>Absolute Difference Au (g/t)</b>
228501	1122	0.28	0.70	-	-	+0.42	0.42
228502	1125	0.54	0.23	-	-	-0.31	0.31
228503	2190	<0.01	0.04	-	-	+0.03	0.03
228504	2191	<0.01	0.01	-	-	0.00	0.005
228505	2199	<0.01	0.02	-	-	+0.01	0.01
228506	2205	<0.01	0.01	-	-	+0.00	0.005
228510	2236	1.09	0.28	-	-	-0.81	0.81
228511	2240	0.09	0.06	-	-	-0.03	0.03
228512	2245	2.06	1.97	-	-	-0.09	0.09
228513	2246	0.14	0.12	-	-	-0.02	0.02
228514	2248	0.33	0.16	-	-	-0.17	0.17
228516	2253	0.17	0.02	-	-	-0.15	0.15
228517	2273	0.49	0.56	-	-	+0.07	0.07
228521	2385	0.61	0.86	-	-	+0.25	0.25
228522	2387	0.16	0.08	-	-	-0.08	0.08
228523	2402	1.08	0.29	-	-	-0.79	0.79
228524	2403	0.04	0.58	-	-	+0.54	0.54
228525	2413	0.22	0.24	-	-	+0.02	0.02
228526	2434	0.31	0.03	-	-	-0.28	0.28
228527	2435	<0.01	0.02	-	-	+0.01	0.01
228528	2436	0.01	0.02	-	-	+0.01	0.01
228529	2437	<0.01	0.03	-	-	+0.02	0.02
228531	2438	<0.01	0.03	-	-	+0.02	0.02
228532	2442	0.37	0.59	-	-	+0.22	0.22
228533	2443	0.49	0.71	-	-	+0.22	0.22
228534	2444	0.50	0.73	-	-	+0.23	0.23
228535	2451	3.48	2.94	-	-	-0.54	0.54
228536	2452	1.73	4.85	-	-	+3.12	3.12
228537	2453	5.56	7.66	-	-	+2.10	2.10
228538	2454	2.34	3.83	-	-	+1.49	1.49
228539	2455	0.87	0.64	-	-	-0.23	0.23
228540	2471	<0.01	0.02	-	-	+0.01	0.01
228541	2472	<0.01	0.02	-	-	+0.01	0.01
228542	2482	0.03	0.05	-	-	+0.02	0.02
228544	3026	0.14	0.11	-	-	-0.03	0.03
228546	3031	0.81	0.29	-	-	-0.52	0.52

New Sample Number	Initial Sample Number	Loring_Tot_Met including +100 Au (g/t)	Acme_Tot_Met including +150 Au (g/t)	Loring Pulps Only Au (g/t)	Acme Pulps Only Au (g/t)	Value Difference Au (g/t)	Absolute Difference Au (g/t)
228547	3034	0.32	0.31	-	-	-0.01	0.01
228548	3035	1.29	0.98	-	-	-0.31	0.31
228549	3039	0.31	0.03	-	-	-0.28	0.28
228550	3041	1.05	0.86	-	-	-0.19	0.19
228551	3050	0.33	0.02	-	-	-0.31	0.31
228558	3114	0.16	0.44	-	-	+0.28	0.28
228559	3115	2.03	1.87	-	-	-0.16	0.16
228562	3143	0.12	0.05	-	-	-0.07	0.07
228563	3144	0.31	0.20	-	-	-0.11	0.11
228564	3145	0.47	0.43	-	-	-0.04	0.04
228565	3150	0.10	0.10	-	-	0.00	0.00
228566	3192	2.06	0.46	-	-	-1.60	1.60
228567	3196	<0.01	0.03	-	-	+0.02	0.02
228568	3205	<0.01	0.03	-	-	+0.02	0.02
228569	3229	0.01	0.01	-	-	0.00	0.00
228570	7834	0.12	0.25	-	-	+0.13	0.13
228571	7836	4.49	5.00	-	-	+0.51	0.51
228572	7839	<0.01	0.03	-	-	+0.02	0.02
228573	7842	0.49	1.11	-	-	+0.62	0.62
228574	7843	0.32	0.46	-	-	+0.14	0.14
228576	7845	2.08	3.02	-	-	+0.94	0.94
228577	7846	7.57	5.58	-	-	-1.99	1.99
228578	7847	0.51	0.25	-	-	-0.26	0.26
228579	7848	0.89	0.30	-	-	-0.59	0.59
228580	7981	0.30	0.23	-	-	-0.07	0.07
228581	7823	0.02	0.02	-	-	0.00	0.00
228582	7822	0.21	0.13	-	-	-0.08	0.08
				<b>Total</b>	<b>Difference</b>	<b>+1.41</b>	
				<b>Average</b>	<b>Difference</b>	<b>+0.02</b>	
				<b>Absolute</b>	<b>Difference</b>	<b>Total</b>	<b>21.68</b>
				<b>Absolute</b>	<b>Difference</b>	<b>Average</b>	<b>0.34</b>
228507	2224	-	-	0.41	0.01	-0.40	0.40
228508	2231	-	-	1.22	0.02	-1.20	1.20
228509	2232	-	-	0.58	0.01	-0.57	0.57
228518	2315	-	-	<0.01	0.01	0.00	0.005
228519	2330	-	-	<0.01	0.01	0.00	0.005
228520	2346	-	-	<0.01	0.01	0.00	0.005
228543	2493	-	-	0.43	0.01	-0.42	0.42
228552	3070	-	-	0.38	0.01	-0.37	0.37
228553	3084	-	-	<0.01	0.01	0.00	0.005
228554	3097	-	-	0.02	0.03	+0.01	0.01
228555	3099	-	-	<0.01	0.01	0.00	0.005
228556	3101	-	-	<0.01	0.01	0.00	0.005
228557	3113	-	-	<0.01	<0.01	0.00	0.00
228561	3116	-	-	0.02	0.04	+0.02	0.02
228583	7821	-	-	0.09	0.06	-0.03	0.03

New Sample Number	Initial Sample Number	Loring Tot_Met including +100 Au (g/t)	Acme Tot_Met including +150 Au (g/t)	Loring Pulps Only Au (g/t)	Acme Pulps Only Au (g/t)	Value Difference Au (g/t)	Absolute Difference Au (g/t)
228584	7815	-	-	2.10	0.91	-1.19	1.19
228585	7799	-	-	<0.01	0.01	0.00	0.005
228586	7787	-	-	<0.01	0.01	0.00	0.005
228587	7781	-	-	<0.01	0.06	+0.05	0.05
228588	7755	-	-	0.01	0.03	+0.02	0.02
228589	3134	-	-	0.03	0.02	-0.01	0.01
228591	2226	-	-	0.38	0.02	-0.36	0.36
<b>Total Difference</b>						<b>-4.45</b>	
<b>Average Difference</b>						<b>-0.20</b>	
<b>Absolute Difference Total</b>							<b>4.695</b>
<b>Absolute Difference Average</b>							<b>0.21</b>

The results posted in the top portion of Table VI show the coarse reject metallic gold assay comparisons. ACME's overall difference is +1.21 g/t gold for an average of +0.02 g/t gold, indicating that ACME's analyses for which include coarse gold fractions average just slightly higher than those previously returned from Loring. Due to the small sample population re-assayed, no definitive conclusions can be drawn from these results. The absolute average difference for the metallics assay comparisons has 0.34 g/t gold variability. This variability is likely due to the "nugget effect" found in the coarse fraction assays, and is probably not due to laboratory error.

For the pulp (or fine fraction only) comparisons in the lower portion of Table VI, ACME's total difference from Loring's is -4.45 g/t gold with an average difference of -0.20 g/t gold. This indicates that on average, ACME's pulp assays return lower gold values than those returned by Loring. Generally, one would expect the difference in the pulp re-assays to be less than those in the coarse rejects, but this is not the case for these re-assays. The average absolute difference between gold re-assays for pulps from the two different labs is 0.21 g/t gold. As part of the on-going QA/QC procedures, continued check sampling is strongly recommended.

During the last portion of the 2004 exploration program, MuskoX implemented a procedure of assay standard insertion. In these drill holes, assay standards were randomly submitted at intervals of approximately one per 10 core samples. Three grades of assay standards were purchased by MuskoX; their averages are 0.78 g/t, 5.10 g/t and 20.60 g/t gold. These three assay standard averages roughly correlate to the grade of the three gold populations identified by statistical analyses on drill core assays. Table VII shows the assay standards inserted, their acceptable value range, and the assay results from ACME Laboratory.

**TABLE VII  
ASSAY STANDARD COMPARISONS**

Sample Number	Standard	Recommended Concentration: Au g/t			Acme Analysis	Difference from Mean
		Low	Mean	High		
A 146657	CDN-GS-1A	0.70	0.78	0.86	0.79	+0.01
A 146665	CDN-GS-1A	0.70	0.78	0.86	0.78	0.00

Sample Number	Standard	Recommended Concentration: Au g/t			Acme Analysis	Difference from Mean
		Low	Mean	High		
A 146705	CDN-GS-1A	0.70	0.78	0.86	0.79	+0.01
A 146724	CDN-GS-1A	0.70	0.78	0.86	0.76	-0.02
A 146745	CDN-GS-1A	0.70	0.78	0.86	0.73	-0.05
A 146794	CDN-GS-1A	0.70	0.78	0.86	0.75	-0.03
A 146825	CDN-GS-1A	0.70	0.78	0.86	0.77	-0.01
A 146845	CDN-GS-1A	0.70	0.78	0.86	0.77	-0.01
A 146886	CDN-GS-1A	0.70	0.78	0.86	0.78	0.00
A 146926	CDN-GS-1A	0.70	0.78	0.86	0.74	-0.04
A 146935	CDN-GS-1A	0.70	0.78	0.86	0.78	0.00
A 146965	CDN-GS-1A	0.70	0.78	0.86	0.79	+0.01
A 146985	CDN-GS-1A	0.70	0.78	0.86	0.77	-0.01
A 149071	CDN-GS-1A	0.70	0.78	0.86	0.78	0.00
A 149080	CDN-GS-1A	0.70	0.78	0.86	0.74	-0.04
A 149152	CDN-GS-1A	0.70	0.78	0.86	0.78	0.00
A 149210	CDN-GS-1A	0.70	0.78	0.86	<b>0.63</b>	-0.15
A 149230	CDN-GS-1A	0.70	0.78	0.86	<b>0.68</b>	-0.10
A 149257	CDN-GS-1A	0.70	0.78	0.86	0.76	-0.02
A 149266	CDN-GS-1A	0.70	0.78	0.86	0.74	-0.04
A 149291	CDN-GS-1A	0.70	0.78	0.86	0.79	+0.01
A 149311	CDN-GS-1A	0.70	0.78	0.86	0.77	-0.01
A 149339	CDN-GS-1A	0.70	0.78	0.86	0.74	-0.04
A 149373	CDN-GS-1A	0.70	0.78	0.86	0.74	-0.04
A 149396	CDN-GS-1A	0.70	0.78	0.86	0.75	-0.03
A 149426	CDN-GS-1A	0.70	0.78	0.86	0.76	-0.02
A 149480	CDN-GS-1A	0.70	0.78	0.86	0.78	0.00
A 149540	CDN-GS-1A	0.70	0.78	0.86	0.80	+0.02
A 149594	CDN-GS-1A	0.70	0.78	0.86	0.74	-0.04
A 149611	CDN-GS-1A	0.70	0.78	0.86	0.77	-0.01
A 149061	CDN-GS-1A	0.70	0.78	0.86	0.79	+0.01
A 149131	CDN-GS-1A	0.70	0.78	0.86	0.75	-0.03
228515	CDN-GS-1A	0.70	0.78	0.86	0.76	-0.02
228530	CDN-GS-1A	0.70	0.78	0.86	0.75	-0.03
228545	CDN-GS-1A	0.70	0.78	0.86	0.75	-0.03
A 146645	CDN-GS-5A	4.83	5.10	5.37	5.14	+0.04
A 146677	CDN-GS-5A	4.83	5.10	5.37	4.96	-0.14
A 146716	CDN-GS-5A	4.83	5.10	5.37	4.91	-0.19
A 146756	CDN-GS-5A	4.83	5.10	5.37	4.98	-0.12
A 146774	CDN-GS-5A	4.83	5.10	5.37	4.99	-0.11
A 146834	CDN-GS-5A	4.83	5.10	5.37	4.93	-0.17
A 146855	CDN-GS-5A	4.83	5.10	5.37	<b>4.73</b>	-0.37
A 146895	CDN-GS-5A	4.83	5.10	5.37	<b>4.60</b>	-0.50
A 146905	CDN-GS-5A	4.83	5.10	5.37	5.06	-0.04
A 146955	CDN-GS-5A	4.83	5.10	5.37	5.08	-0.02
A 146994	CDN-GS-5A	4.83	5.10	5.37	5.00	-0.10
A 149031	CDN-GS-5A	4.83	5.10	5.37	5.21	+0.11
A 149101	CDN-GS-5A	4.83	5.10	5.37	5.06	-0.04

Sample Number	Standard	Recommended Concentration: Au g/t			Acme Analysis	Difference from Mean
		Low	Mean	High		
A 149120	CDN-GS-5A	4.83	5.10	5.37	5.11	+0.01
A 149165	CDN-GS-5A	4.83	5.10	5.37	5.12	+0.02
A 149195	CDN-GS-5A	4.83	5.10	5.37	4.98	-0.12
A 149242	CDN-GS-5A	4.83	5.10	5.37	5.12	+0.02
A 149275	CDN-GS-5A	4.83	5.10	5.37	5.06	-0.04
A 149299	CDN-GS-5A	4.83	5.10	5.37	4.90	-0.20
A 149327	CDN-GS-5A	4.83	5.10	5.37	4.90	-0.20
A 149360	CDN-GS-5A	4.83	5.10	5.37	4.97	-0.13
A 149386	CDN-GS-5A	4.83	5.10	5.37	4.96	-0.14
A 149413	CDN-GS-5A	4.83	5.10	5.37	5.15	+0.05
A 149457	CDN-GS-5A	4.83	5.10	5.37	5.04	-0.06
A 149510	CDN-GS-5A	4.83	5.10	5.37	5.14	+0.04
A 149556	CDN-GS-5A	4.83	5.10	5.37	5.11	+0.01
A 149582	CDN-GS-5A	4.83	5.10	5.37	5.12	+0.02
A 149648	CDN-GS-5A	4.83	5.10	5.37	5.05	-0.05
A 149671	CDN-GS-5A	4.83	5.10	5.37	5.14	+0.04
A 149731	CDN-GS-5A	4.83	5.10	5.37	<b>5.52</b>	+0.42
A 149050	CDN-GS-5A	4.83	5.10	5.37	5.06	-0.04
228560	CDN-GS-5A	4.83	5.10	5.37	4.99	-0.11
228575	CDN-GS-5A	4.83	5.10	5.37	4.97	-0.13
228590	CDN-GS-5A	4.83	5.10	5.37	4.86	-0.24
A 146636	CDN-GS-20	19.93	20.60	21.27	21.38	+0.78
A 146685	CDN-GS-20	19.93	20.60	21.27	20.92	+0.32
A 146696	CDN-GS-20	19.93	20.60	21.27	20.15	-0.45
A 146735	CDN-GS-20	19.93	20.60	21.27	<b>19.81</b>	-0.79
A 146785	CDN-GS-20	19.93	20.60	21.27	<b>19.83</b>	-0.77
A 146806	CDN-GS-20	19.93	20.60	21.27	20.40	-0.20
A 146815	CDN-GS-20	19.93	20.60	21.27	<b>22.12</b>	+1.52
A 146865	CDN-GS-20	19.93	20.60	21.27	<b>23.37</b>	+2.77
A 146874	CDN-GS-20	19.93	20.60	21.27	<b>21.36</b>	+0.76
A 146915	CDN-GS-20	19.93	20.60	21.27	<b>21.53</b>	+0.93
A 146944	CDN-GS-20	19.93	20.60	21.27	<b>22.24</b>	+1.64
A 146976	CDN-GS-20	19.93	20.60	21.27	21.12	+0.52
A 149005	CDN-GS-20	19.93	20.60	21.27	<b>22.38</b>	+1.78
A 149041	CDN-GS-20	19.93	20.60	21.27	<b>19.50</b>	-1.10
A 149090	CDN-GS-20	19.93	20.60	21.27	20.91	+0.31
A 149110	CDN-GS-20	19.93	20.60	21.27	20.12	-0.48
A 149218	CDN-GS-20	19.93	20.60	21.27	20.13	-0.47
A 149283	CDN-GS-20	19.93	20.60	21.27	21.14	+0.54
A 149440	CDN-GS-20	19.93	20.60	21.27	20.84	+0.24
A 149494	CDN-GS-20	19.93	20.60	21.27	20.23	-0.37
A 149523	CDN-GS-20	19.93	20.60	21.27	20.18	-0.42
A 149630	CDN-GS-20	19.93	20.60	21.27	20.64	+0.04
A 149659	CDN-GS-20	19.93	20.60	21.27	20.53	-0.07

The right hand column of Table VII shows the difference in assay values for the Standards analysed by ACME versus their published mean. In most instances the assay results for the Standards fall into the acceptable range. The assay values in bold identify the samples that lie outside of the acceptable range. The higher assay value Standards, averaging 20.60 g/t gold, have the majority of the assay values that fall outside the acceptable range. It can be assumed that even within the assay Standard pulps submitted to the laboratory, a certain amount of “nugget effect” still occurs within the higher grade range, therefore these discrepancies are not believed to be laboratory error.

Table VIII shows re-assay comparisons. As part of ACME’s internal QA/QC program, they routinely take about 1 in 20 assays and check a second split from the pulverized material against the original. At about the same frequency as the pulp rejects, ACME also selects a second split of coarse rejects, pulverized to –150 mesh and assayed for gold. The results of the pulp re-assays are identified with RE and the coarse reject re-assays identified with RRE.

**TABLE VIII  
RE-ASSAY COMPARISONS**

<b>Sample Number</b>	<b>Au (g/t)</b>		<b>Sample Number</b>	<b>Au (g/t)</b>
10732	0.01		A 149160	0.12
RE 10732	<0.01		RE A 149160	0.37
RRE 10732	<0.01		RRE A 149160	0.44
10807	0.03		A 149188	0.16
RE 10807	0.03		RE A 149188	0.13
RRE 10807	0.03		RRE A 149188	0.19
10843	0.07		A 149226	0.03
RE 10843	0.07		RE A 149226	0.03
RRE 10843	0.09		RRE A 149226	0.02
10890	<0.01		A 149260	0.09
RE 10890	<0.01		RE A 149260	0.10
RRE 10890	<0.01		RRE A 149260	0.08
10924	<0.01		A 149303	8.95
RE 10924	<0.01		RE A 149303	9.55
RRE 10924	<0.01		RRE A 149303	31.07
A 146620	0.05		A 149332	<0.01
RE A 146620	0.01		RE A 149332	0.02
RRE A 146620	0.01		RRE A 149332	<0.01
A 146660	0.01		A 149368	0.05
RE A 146660	0.02		RE A 149368	0.04
RRE A 146660	0.02		RRE A 149368	0.04
A 146690	0.02		A 149402	0.04
RE A 146690	0.02		RE A 149402	0.03

Sample Number	Au (g/t)	Sample Number	Au (g/t)
RRE A 146690	0.03	RRE A 149402	0.05
A 146740	<0.01	A 149434	0.01
RE A 146740	<0.01	RE A 149434	<0.01
RRE A 146740	<0.01	RRE A 149434	<0.01
A 146776	0.03	A 149484	0.01
RE A 146776	0.04	RE A 149484	0.01
RRE A 146776	0.03	RRE A 149484	0.01
A 146798	0.02	A 149514	<0.01
RE A 146798	0.01	RE A 149514	<0.01
RRE A 146798	0.02	RRE A 149514	<0.01
A 146838	0.02	A 149546	<0.01
RE A 146838	0.03	RE A 149546	0.01
RRE A 146838	0.02	RRE A 149546	<0.01
A 146868	0.13	A 149570	0.03
RE A 146868	0.12	RE A 149570	0.04
RRE A 146868	0.14	RRE A 149570	0.03
A 146906	0.08	A 149598	<0.01
RE A 146906	0.18	RE A 149598	<0.01
RRE A 146906	0.08	RRE A 149598	<0.01
A 146958	<0.01	A 149634	0.01
RE A 146958	0.01	RE A 149634	<0.01
RRE A 146958	<0.01	RRE A 149634	<0.01
A 149010	0.05	A 149656	0.01
RE A 149010	0.05	RE A 149656	<0.01
RRE A 149010	0.04	RRE A 149656	<0.01
A 149036	0.09	A 149698	0.03
RE A 149036	0.09	RRE A 149698	0.02
RRE A 149036	0.28	A 149734	0.02
A 149076	0.02	RRE A 149734	<0.01
RE A 149076	<0.01	A 149762	0.09
RRE A 149076	<0.01	RRE A 149762	0.09
A 149123	0.06	A 149924	<0.01
RE A 149123	0.06	RE A 149924	<0.01
RRE A 149123	0.08	RRE A 149924	<0.01

In general, the RE and RRE analyses compare favourably with the original assay. For sample A149036, the coarse reject assay was 0.19 g/t gold greater than the original and for sample A149160 both the pulp and coarse reject assays were 0.25 and 0.32 g/t gold greater

than the original. The only sample with wildly variable assay results is A149303, where the original assay of 8.95 g/t gold, varied to 9.55 g/t with the pulp re-assay and 31.07 g/t with the coarse reject re-assay. The increase of 22 g/t gold in the coarse fraction re-assay can be explained by the coarse free gold observed in this sample leading to a strong “nugget effect” as seen by the re-assays.

In summary, the laboratory analyses are reasonably reliable, however implementation of standard insertion and quality control measures should be continued. Most laboratory discrepancies are likely caused by “nugget effect” of the coarse gold fraction.

### **15) ADJACENT PROPERTIES**

Numerous lode gold occurrences can be found in the Atlin area. All of these occurrences are hosted by the same geological units and exhibit similar alteration styles as those found on the Atlin Gold Property.

Many of the known gold quartz vein mineralization occurrences are localized along the tectonized basal thrust fault of a harzburgite unit. These include the Beavis, Pictou, Heart of Gold, Aitken Gold, Anaconda and Goldenview prospects, which are all located along the annular surface trace of the basal fault contact. Others, including the Anna and Goldstar showings, are hosted by carbonatized second order splay fault zones within the harzburgite.

Lode gold accumulations such as those on the Atlin Gold Property are also found at the Surprise, Imperial and Lakeview showings where they are associated with the basal faulted contact of an ultramafic unit. This zone of thrusting is characterized by up to 15 metres of carbonate alteration that contains intermittent zones of quartz-carbonate veining in both hangingwall and footwall rocks. The showings, lying in a geologically similar environment to the Yellowjacket Zone, contain gold mineralization within quartz vein systems.

The Surprise showing (BC Government Minfile 104N076) is located on the northeastern flank of Spruce Mountain approximately one kilometre northeast of the summit. The occurrence is a steeply dipping north-trending quartz vein approximately 3.5 kilometres wide, hosted by carbonatized metabasaltic rocks near a faulted contact with intensely carbonatized ultramafic rocks. Ultramafic rocks form a north-northeast trending lens with a width of roughly 150 metres at the showing and appears to thin significantly to the east. The exposed vein consists of fractured white bull-quartz with randomly distributed clots of euhedral galena, 0.5 to 4 centimetres across, comprising from 1 to 3% of the vein. No mariposite can be seen in the vein where exposed but it comprises up to several percent of the carbonatized wall rocks.

The Imperial deposit (BC Government Minfile 104N008) and Lakeview showing (BC Government Minfile 104N009) are hosted by mafic volcanic and plutonic crustal rocks near the carbonatized, faulted borders of the western and eastern ends of the ultramafic body.

The abandoned Imperial Mine is located on the southwestern flank of Mount Munroe, 8 kilometres northeast of Atlin. Two northwest trending auriferous quartz veins dip moderately toward the southwest and are hosted by fissures in carbonatized basalt/diabase

and gabbro close to their faulted contact with the ultramafic cumulates. The gold quartz veins are associated with pyrite-sericite-carbonate altered feldspar-phyrlic dykes that are also anomalous in gold. The Lakeview showing is located between Birch and Boulder Creeks north of the east end of Surprise Lake, at the eastern end of the ultramafic thrust sheet. A mineralized northwest-trending quartz vein, 2 centimetres to 1 metre wide, dips steeply to the northeast. The vein is hosted by carbonatized metabasalt adjacent to a faulted contact with serpentinized and carbonatized ultramafic rocks.

#### **16) MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing or metallurgical testing analyses have been carried out on the Atlin Gold Property.

#### **17) MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES**

No mineral resources or mineral reserve estimates have been carried out on the Atlin Gold Property.

#### **18) INTERPRETATION AND CONCLUSIONS**

The Atlin Gold Property is underlain by Cache Creek Group metasediments and volcanics intruded by Pennsylvanian and Permian ultramafics. The Cache Creek Group is comprised of limestone, argillite, chert and andesite. The ultramafic rocks are strongly faulted and altered, most notably along the contact with the metasedimentary units. Brecciation and quartz veins and stockworks occur in both the footwall and hanging wall units of the faulted contacts. Recent work by Ash (2001) indicates that in many instances the best location for lode gold mineralization is within volcanic units adjacent to the intensely altered ultramafic rocks. The Atlin Gold Property, and more specifically the Yellowjacket Zone, is underlain by these favourable lithologies.

Ground magnetic surveys, by prior property holders, delineated trends of high magnetism paralleling the ultramafic rocks. Linear magnetic low features are interpreted to follow the trace of the altered ultramafic units within faults or contact zones. Plots of Canamera Geoscience Corp.'s airborne magnetic survey results show a distinctive signature where the main Yellowjacket Zone is located. Along strike of the Pine Creek Fault are two additional geophysical features with very similar characteristics to the Yellowjacket Zone. One is known to host the historic bedrock occurrence "Rock of Ages" and the second is related to the head of the rich Pine Creek placer gold channel. Both of these features are significant exploration targets requiring follow up exploration work.

Diamond drilling by MuskoX intersected gold mineralization throughout the 350 metre length of the Yellowjacket Zone. Statistical analyses done on diamond drill results from MuskoX's program show three populations of gold mineralization, with each population being associated with a specific structural event and orientation. A broad zone of gold values ranging from 0.5 to 5.0 g/t appears to be related to the original low angle thrust faulting of the host ophiolite sequences. This low angle structure is intersected by two steeply dipping fault structures, one trending roughly parallel with the main Pine Creek Fault and the second striking oblique to it. These two cross structures contain two distinct gold populations with assay values ranging from 5.0 to 15.0 g/t gold and 15.0 to 5724.0 g/t gold.

Exploration drilling which encounters coarse native gold is subject to the ‘nugget effect’ where adjacent samples within the same mineralized zone can have widely varying gold values. This “nugget effect” must be taken in to account when exploring for gold mineralization in this type of system and the importance of structures, veins and associated and indicator element geochemistry must be stressed. The gold values within this mineralized system will often be greatly variable. This variability can be mitigated by increasing sample size with the implementation of a bulk sampling program.

It is the opinion of the author that work to date has shown that the Atlin Gold Property has the potential to host economically feasible mineral deposits. Additional drilling and bulk sampling is needed in order to fully define the gold potential of this system. Drilling will trace the steeply dipping features to depth in the central portion of the Yellowjacket Zone and along strike in the main Pine Creek Fault. Bulk sampling will mitigate the assay variability due to “nugget effect” caused by the coarse gold grains in the drill core samples.

### **19) RECOMMENDATIONS**

A two phase exploration program is recommended for the Atlin Gold Property in 2005. Phase I will consist of continued diamond drilling in both the Yellowjacket Zone and additional target areas defined by the airborne geophysical survey. In the main Yellowjacket Zone, 2500 metres of drilling in ten holes will be drilled to confirm the orientations of previously identified high grade gold intercepts, both along strike and to depth. This drilling will allow for better definition of the size and orientation of the multi-modal gold mineralized structures in order to provide accurate locations to collect bulk samples in Phase II.

The Phase I exploration program will also include ground magnetic and resistivity surveys. These geophysical surveys will be conducted in order to locate the airborne geophysical anomalies on the ground to better define diamond drill targets. Approximately 40 diamond drill holes totalling 8000 metres will be put in along strike from the main Yellowjacket Zone following the structural trends interpreted from the geophysical surveys. This portion of the drill program is designed to expand the Yellowjacket Zone along strike of the Pine Creek fault and test additional zones that are geophysically similar to the one currently being explored at Yellowjacket.

Phase II will consist of surface stripping at the Yellowjacket Zone to allow for mapping and rock chip sampling of the surface exposure of the gold mineralized zones identified by drilling. This sampling will be followed by the collection of several large (up to 1000 tonnes) bulk samples from near surface mineralized zones. Coincident with this surface program, underground bulk sampling will be commenced upon completion of a short exploration decline or shaft. The specific amount of development required and the exact locations for the underground bulk sampling will be determined during the Phase I drilling program on the Yellowjacket Zone.

Processing of the bulk samples will allow for better grade control in areas where the coarse nature of the gold mineralization (“nugget effect”) may cause variability in assay values. These results are necessary to more accurately complete a resource calculation in order to determine the economic feasibility of the Yellowjacket Zone.

Upon completion of the underground development, deeper diamond drilling is recommended from three drill stations located at various depths in the underground workings. This drilling will assist in tracing the steeply dipping gold mineralized structures at Yellowjacket to depth. A total of 2500 metres in 15 holes is recommended to be drilled from underground.

Phase I diamond drilling is expected to commence immediately and be ongoing for much of 2005. The ground magnetic survey will be completed in early spring, with the resistivity survey being conducted in late spring once ground conditions are free of snow. Phase II surface stripping, mapping, chip sampling and surface bulk sampling program is anticipated to start up in early summer, coincident with the underground bulk sampling program. The surface program is anticipated to take approximately two months to complete, and the underground program expected to take at least six months to complete. Exact timing of the bulk sampling programs is dependent upon completion of the British Columbia Ministry of Energy and Mines permitting process.

Cost for the 2005 exploration program is budgeted at \$2,060,000 for Phase I and \$4,530,000 for Phase II.

The laboratory analyses of the drill core samples appears to be reliable, however as part of the on-going QA/QC procedures standard insertion and quality control measures should be continued. Most laboratory discrepancies noted to date are likely caused by “nugget effect” of the coarse gold fraction and not by laboratory error. Specific gravity determinations should be routinely completed as well with both mineralized and unmineralized samples from each zone measured.

### COST ESTIMATE

#### PHASE I

1) Ground magnetics and resistivity geophysical surveys	\$ 100,000
2) Diamond drilling at Yellowjacket Zone (2,500 metres)	250,000
3) Diamond drilling along strike from Yellowjacket Zone along geophysical trends (8,000 metres)	800,000
4) Drilling support costs (10,500 metres x \$50)	525,000
5) Core Logging and Sampling	75,000
6) Assays and analyses (7000 samples x \$40)	280,000
7) Interpretations, Drafting and Reports	<u>30,000</u>
<b>TOTAL FOR PHASE I</b>	<b>\$2,060,000</b>

#### PHASE II

1) Stripping and ground preparation	\$ 80,000
2) Bedrock mapping, trenching and rock chip sampling	50,000
3) Surface bulk sampling and processing	225,000
4) Decline/shaft construction (2000 metres x \$1250)	2,500,000
5) Construction Equipment Leasing	500,000

6) Geological and Engineering supervision	225,000
7) Underground bulk sampling and processing	350,000
8) Underground diamond drilling (2500 metres x \$100)	250,000
9) Drilling support costs (2500 metres x \$50)	125,000
10) Core logging and sampling	25,000
11) Core assays and analyses (2500 samples x \$40)	100,000
12) Computer modeling and resource calculation	60,000
13) Technical Report	<u>40,000</u>
<b>TOTAL FOR PHASE II</b>	<b>\$4,530,000</b>

Respectfully submitted

Linda Dandy, P.Geol.  
February 15, 2005

## **20) REFERENCES**

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## **21) QUALIFICATIONS**

I, **Linda Dandy**, hereby certify that:

1. I am an independent Consulting Geologist with P&L Geological Services having an office at 3728 Ridgemont Drive, Lac Le Jeune, British Columbia, V1S 1Y8.
2. I am a graduate of the University of British Columbia with the degree of Bachelor of Science in Geology (1981).
3. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (Registration No. 19236) and a Fellow of the Geological Association of Canada (Membership No. F5201).
4. I have practiced my profession in North America since 1981, having worked as an employee and consultant for Major Mining Corporations and Junior Resource Companies.
5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 and, as a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101.
6. This report is based upon a personal examination of all available company and government reports pertinent to the subject property. I have also directly supervised the exploration program undertaken on the property between April and December 2004, spending a total of 87 days on site.
7. I have prepared all sections of this report and have verified the illustrations, which were prepared by staff at Canamera Geoscience Corp. Where applicable, sources of information are noted on the illustrations.
8. In the disclosure of information relating to title of the optioned claims I have relied on the information provided to me by Muskox Minerals Corp. and the property vendor. I disclaim responsibility for such information.
9. I am independent of Muskox Minerals Corp. applying all of the tests in section 1.5 of National Instrument 43-101.
10. As of the date of the certificate, 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 this report, the omission to disclose which would make this report misleading.
11. I have read National Instrument 43-101 and the foregoing technical report has been prepared in conformity with this instrument and generally accepted Canadian mining industry practice.

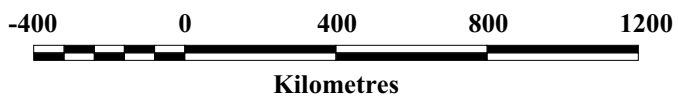
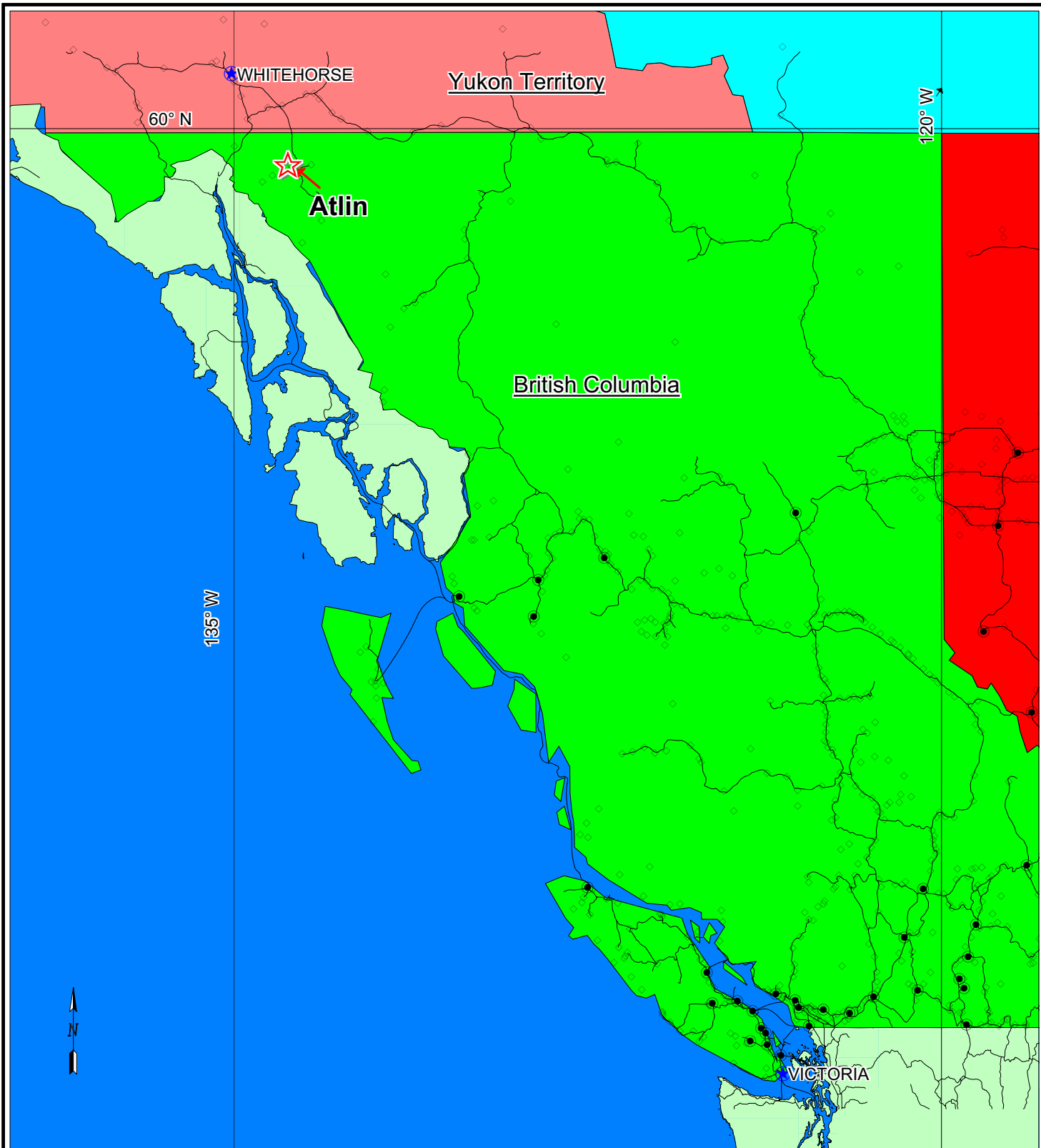
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

February 15, 2005  
Lac Le Jeune, B.C.

Linda Dandy, P.Geo.  
Consulting Geologist

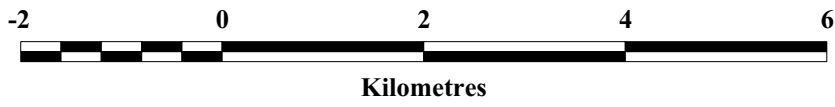
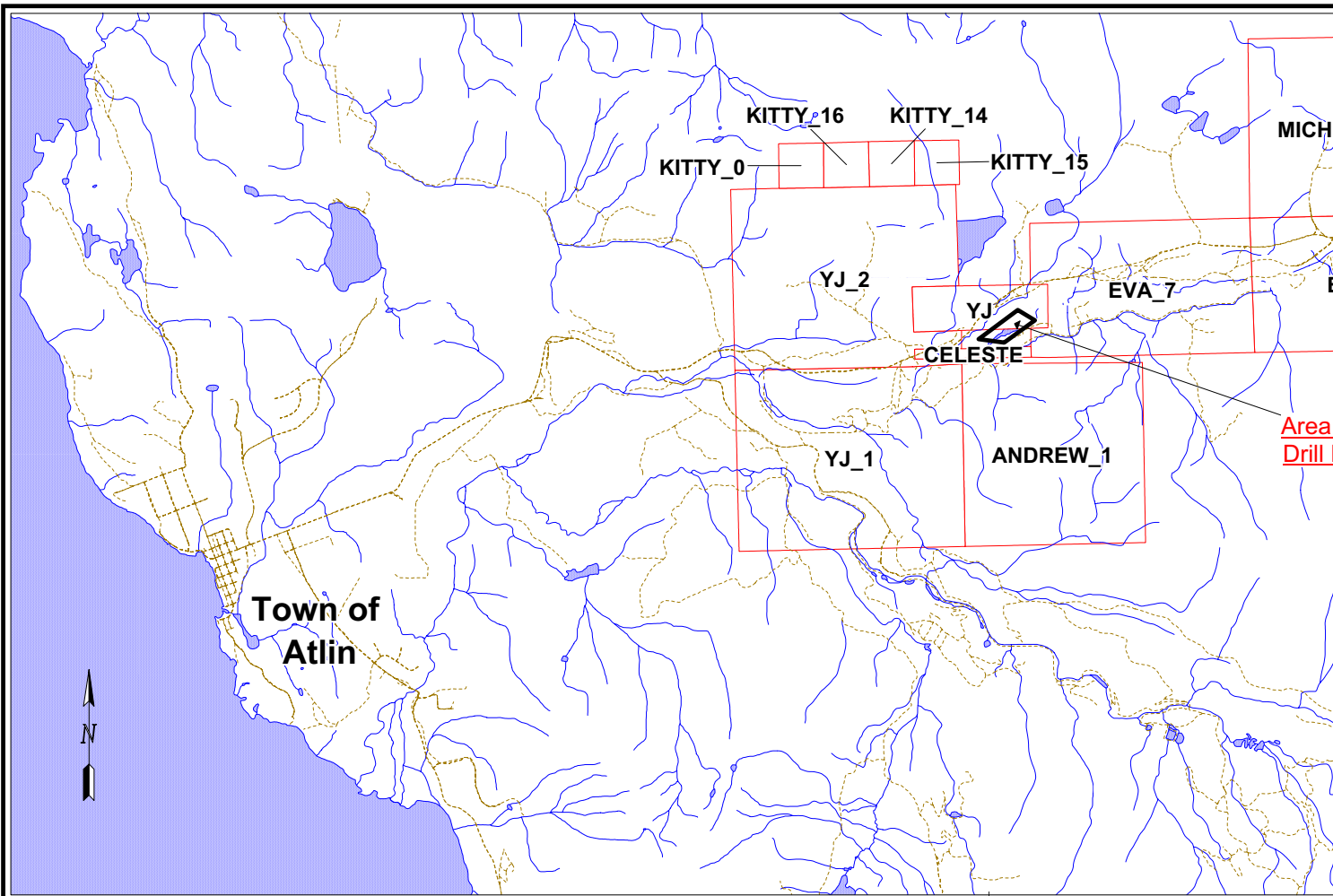
**APPENDIX**

**FIGURES 1 TO 8**



**Scale: 1:20,000,000**

<b>Muskox Minerals</b>	
Atlin Area YJ Project	
<b>LOCATION MAP</b>	
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Author:	
Office:	
Drawing: Figure 1	
Scale:	Projection: UTM NAD 83 Zone 8

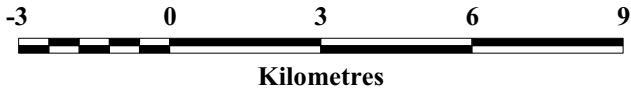
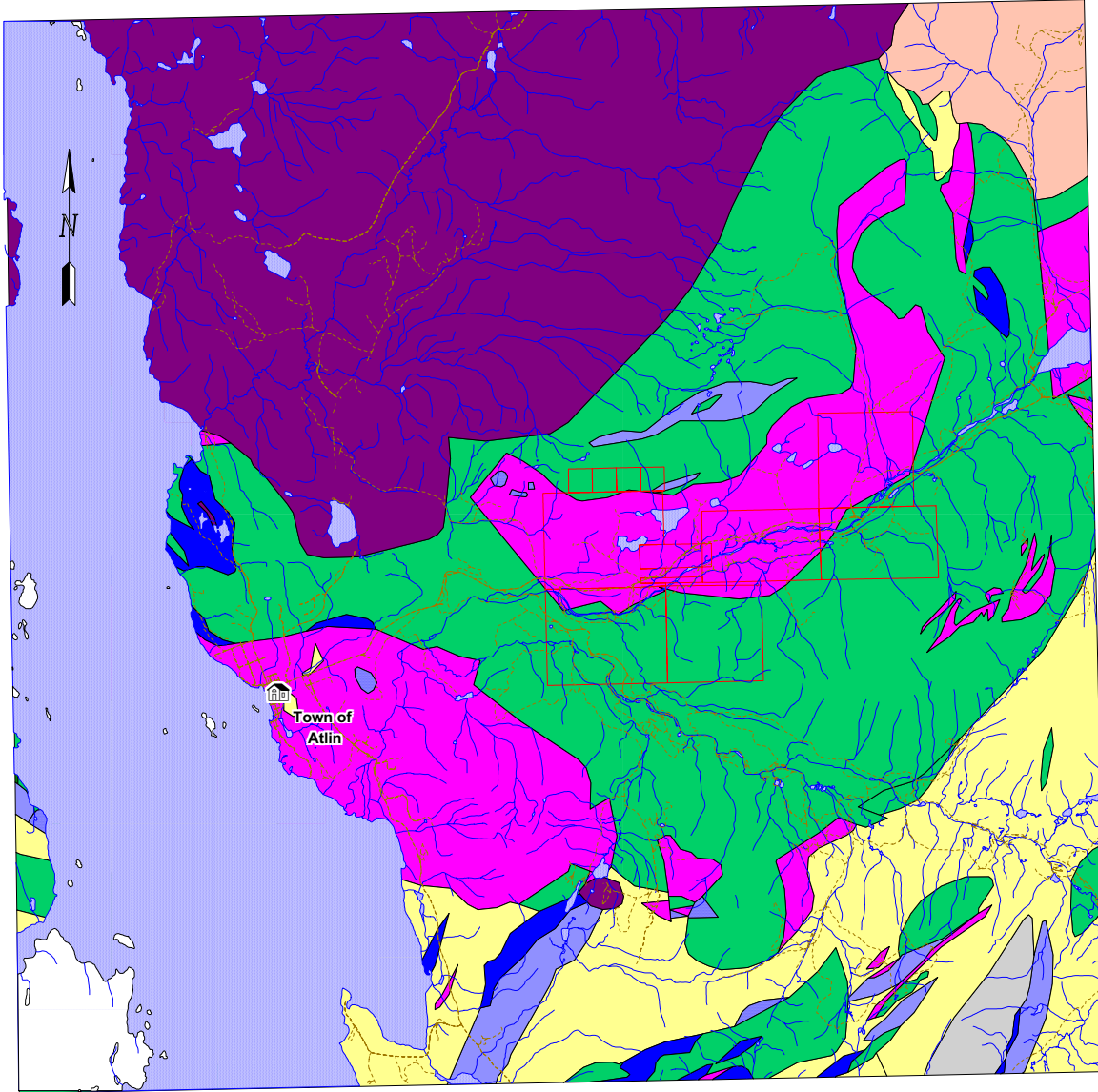


**Scale: 1:75,000**

<b>Muskox M</b>	
	Atl
Date: Feb 8, 2005	YJ
Author:	
Office:	CLA
Drawing: Figure 2	
Scale: 1:75,000	Projection: UTM NAD 83 Zone
Map Data Reference: Digital Base Map and Claims B.C. Government web site <a href="http://www.mapplace.ca">http://www.mapplace.ca</a>	

**Regional Geology**

- argillite, greywacke, wacke
- basaltic volcanic rocks
- chert, siliceous argillite, siltstone
- eclogite/mantle tectonites
- gabbroic to dioritic intrusives
- granite, alkali feldspar granites
- limestone, marble, calcareous siltstone
- mudstone/laminite fine grained
- rhyolite, felsic volcanic rocks
- tonalite intrusive rocks
- ultramafic rocks
- undivided sedimentary rocks

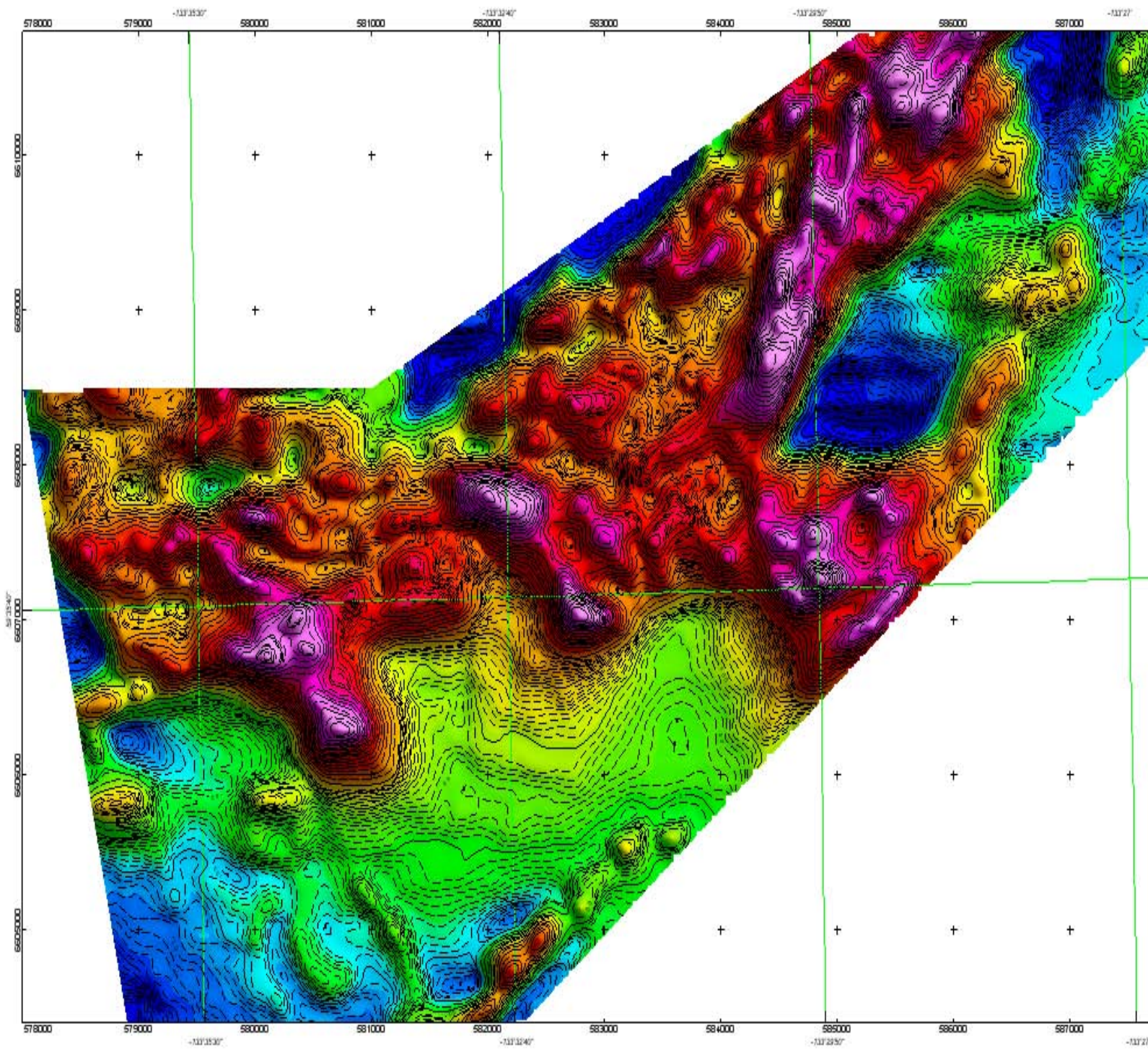


**Muskogee**

**Regional**

Date: Feb 8, 2005
Author:
Office:
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Scale: 1:150,000
Projection: UTM N

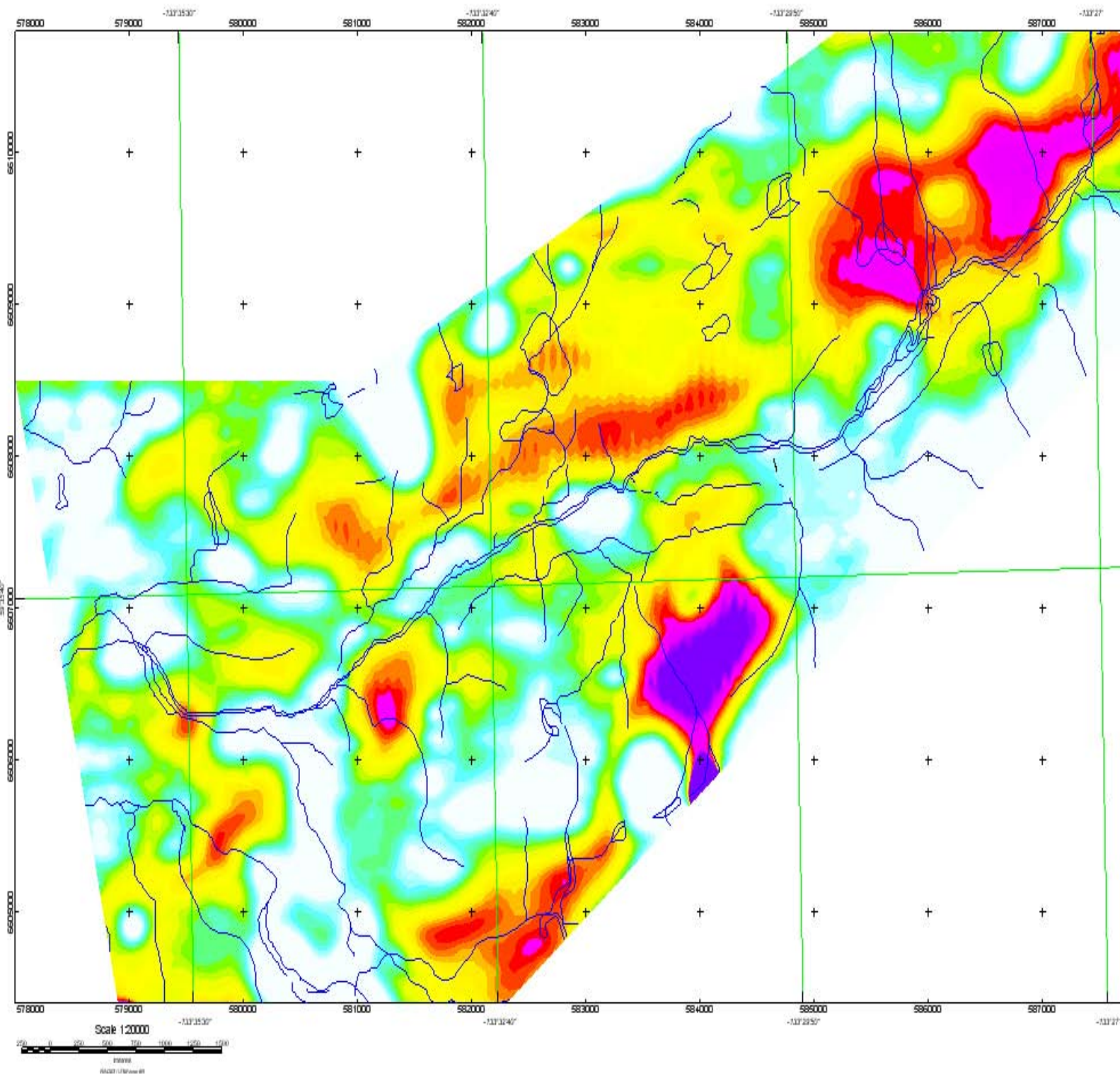
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 B.C. Ministry of Energy and Mines, Geological Map of British Columbia  
 by N.W.D. Massey, D.G. MacIntyre, P.J. ...



Scale 1:20,000



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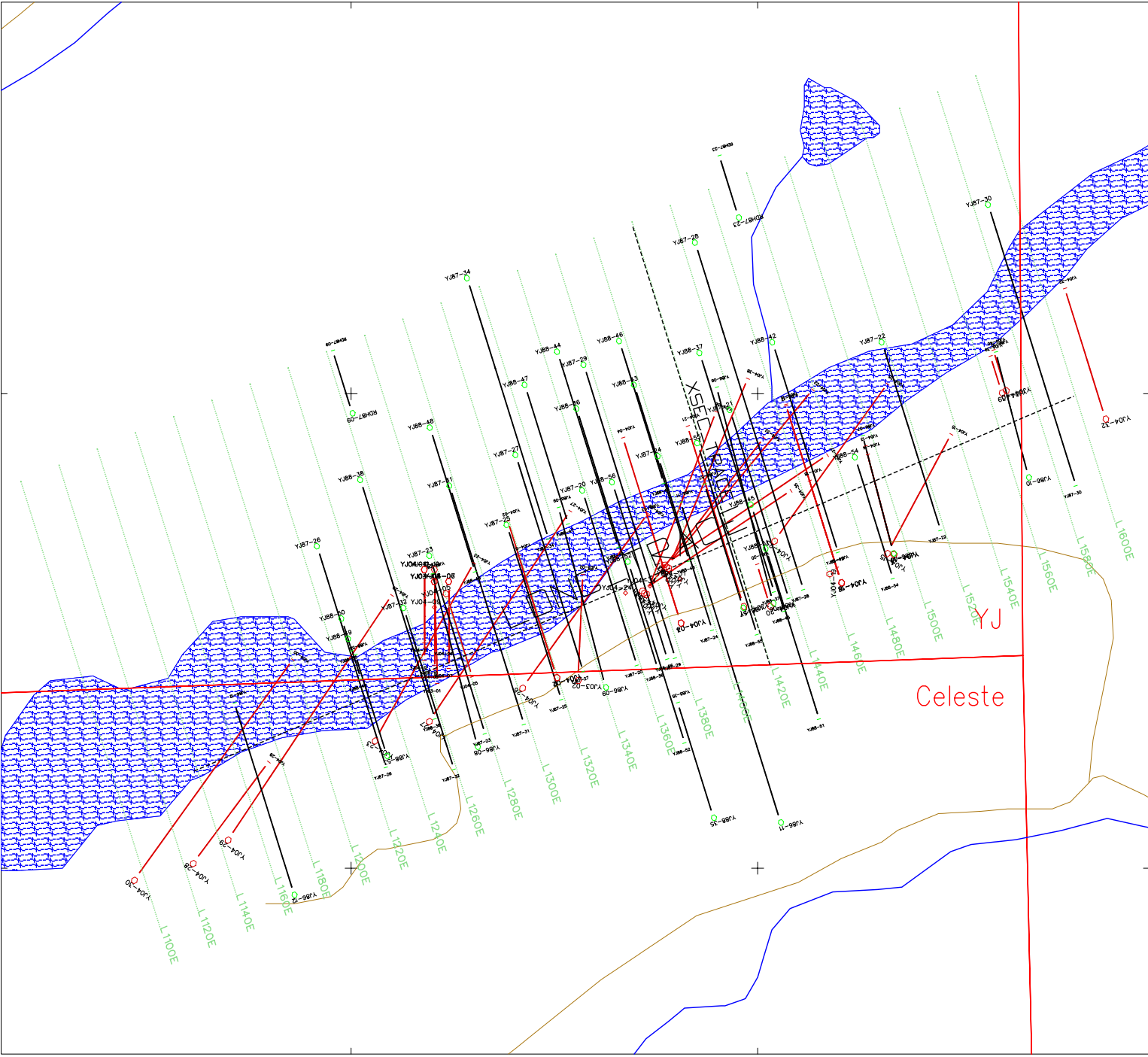
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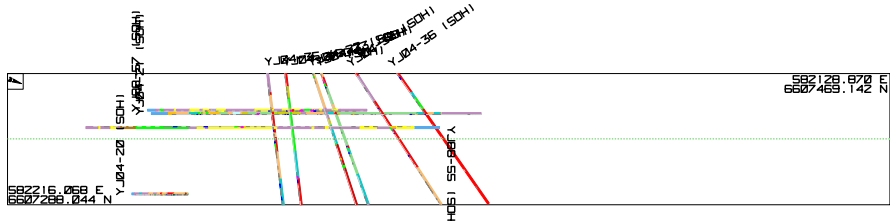
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LEGEND

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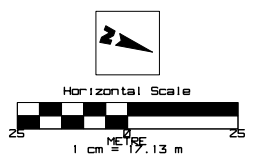
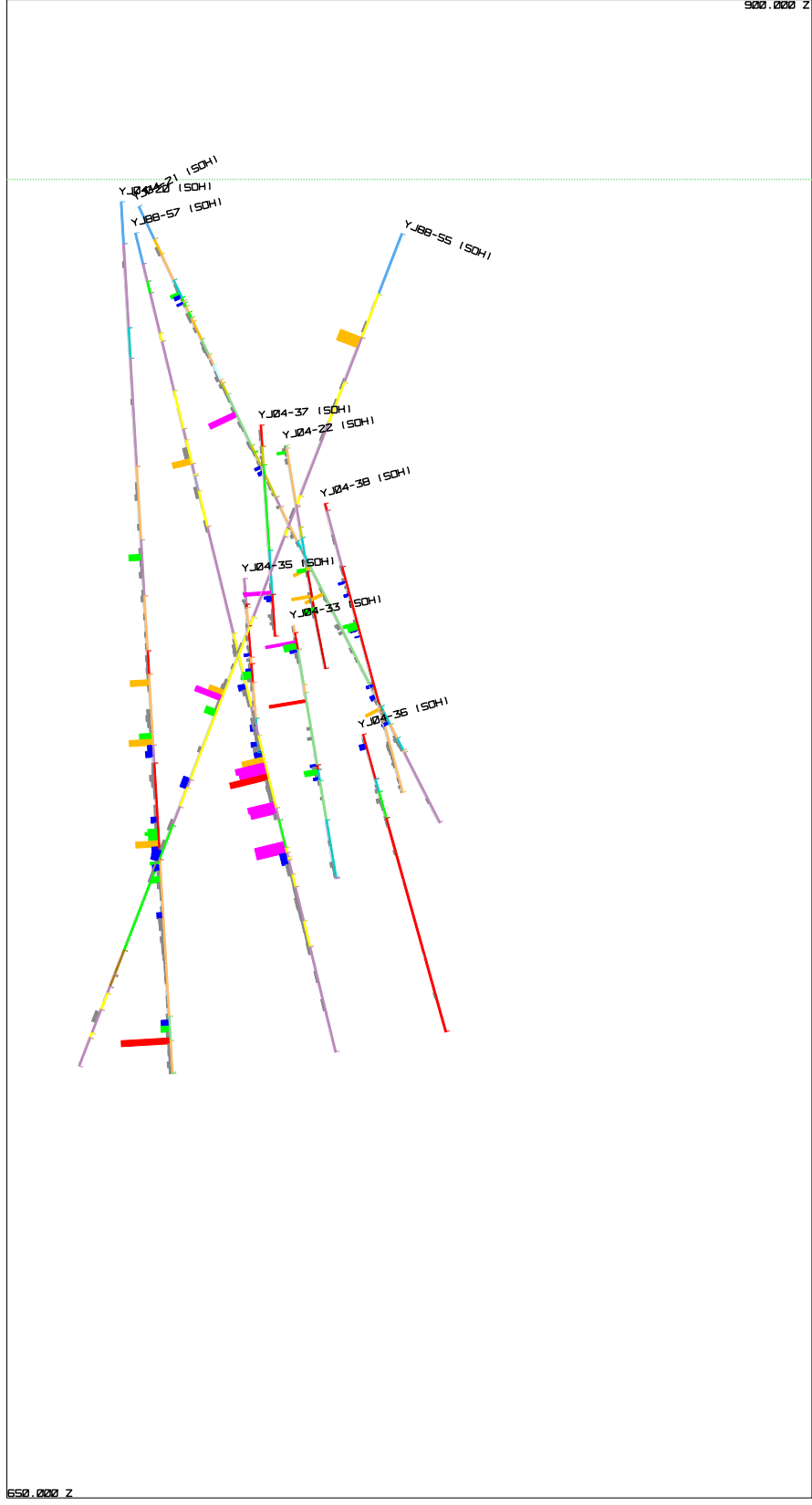
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Histogram

Scaling: Logarithmic

Minimum cutoff: 0

Maximum cutoff: 100



Muskox Minerals

Atlin Area

Yellow Jacket Zone

Cross section L 14+20E

Scale: 1:1713

Date: 08-Feb-2005

Project: YJ

Drawn By: Jh

Checked:

Approved:

Drawing No.

Figure 7

