

YEIP  
04-028  
2004

ASSESSMENT REPORT ON  
GEOLOGICAL AND GEOCHEMICAL SURVEYS OF  
THE RB 1-94 CLAIMS,  
(YB93186-YB93243 and YB94298 - YB94333)

AUGUST 13 - 17, 2004

UTM - 407,500 E + 6,796,000 N  
NTS 105 G/7

WATSON LAKE MINING DISTRICT  
YUKON TERRITORY.

Prepared for:  
**Arcturus Ventures Inc.**  
1012 - 470 Granville St.  
Vancouver, B.C.  
V6C 1V5

Ian Foreman, P.Geo.  
October 29<sup>th</sup>, 2004  
Vancouver, B.C.

YMIP GA-028

## Table of Contents

TABLE OF CONTENTS.....	I
TABLE OF FIGURES.....	II
SUMMARY:.....	III
1.0 INTRODUCTION AND TERMS OF REFERENCE:.....	1
2.0 DISCLAIMER:.....	1
3.0 PROPERTY DESCRIPTION AND LOCATION:.....	3
4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY:.....	3
5.0 HISTORY.....	6
6.0 GEOLOGICAL SETTING.....	7
6.1 REGIONAL GEOLOGY.....	7
6.2 PROPERTY GEOLOGY.....	7
6.2.1 <i>Phyllite</i> :.....	10
6.2.2 <i>Quartz-biotite Schist</i> :.....	10
6.2.3 <i>The Fire Lake Unit</i> :.....	10
6.2.4 <i>Ultramafic rocks</i> :.....	11
6.2.5 <i>Granite</i> :.....	11
7.0 DEPOSIT TYPES.....	11
8.0 MINERALIZATION.....	13
8.1 JD SHOWING:.....	13
8.2 THE DM SHOWING:.....	14
9.0 EXPLORATION.....	14
9.1 PREVIOUS WORK:.....	14
9.2 THE 2003 FIELD SEASON:.....	16
9.2.1 <i>Results</i> .....	16
9.3 THE 2004 FIELD SEASON:.....	19
9.3.1 <i>Results</i> .....	19
9.4 STATEMENT OF COSTS.....	21
10.0 DRILLING.....	22
11.0 SAMPLING METHOD AND APPROACH.....	22
12.0 SAMPLE PREPARATION, ANALYSES AND SECURITY.....	22
13.0 DATA VERIFICATION.....	24
14.0 ADJACENT PROPERTIES.....	24
15.0 MINERAL PROCESSING AND METALLURGICAL TESTING.....	25
16.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES.....	25
17.0 OTHER RELEVANT DATA AND INFORMATION.....	25
18.0 INTERPRETATION AND CONCLUSIONS.....	25
19.0 RECOMMENDATIONS.....	27
20.0 REFERENCES.....	30
21.0 CERTIFICATE OF QUALIFICATION.....	31
APPENDIX A.....	32
APPENDIX B.....	34
APPENDIX C.....	36

## Table of Figures

FIGURE 1: LOCATION OF THE RB PROPERTY .....	2
FIGURE 2: THE RB PROPERTY .....	5
FIGURE 3A: GEOLOGY OF THE RB PROPERTY. ....	8
FIGURE 3B: GEOLOGY OF THE RB PROPERTY - LEGEND.....	9
FIGURE 4: GEOLOGY OF THE RB PROPERTY WITH THE KNOWN SHOWINGS.....	12
FIGURE 5: THE DM SHOWING.....	15
FIGURE 6: RB PROPERTY SILT RESULTS – EMERALD SUITE .....	17
FIGURE 7: RB PROPERTY SILT RESULTS – VMS SUITE.....	18
FIGURE 8: RB PROPERTY SOIL SAMPLE LOCATIONS AND RESULTS. ....	21
FIGURE 9: PROPOSED GRID FOR THE RB PROPERTY.....	29



## Summary:

The RB Property is located in the Finlayson Lake area, southern Yukon Territory, approximately 168 km northwest of Watson Lake and 120 km southeast of Ross River. The property is made up of 94 Yukon Quartz Claims totaling 1,965 hectares (or 4,850 acres).

The RB property has the potential to host a Beshi-style Volcanogenic Massive Sulphide (VMS) deposit. This is based on the fact that the property has similar geology to the Fyre Lake property and there are two direct correlations between the two: 1) they are both located within the same portion of the stratigraphy and 2) both are located at the southwest extremity of a package of comagmatic ultramafic rocks. Within the RB property, the prospective stratigraphy for hosting a beshi-style VMS deposit has been preserved under the overlying phyllites. In addition, there is the potential to infer a northwest trending growth fault within the northern portion of the property. Although this has yet to be proven, the ramifications of a growth fault within the property would be significant in adding to the VMS potential of the property.

The RB property also has the correct geological environment for it to have the potential for emeralds. This is based on: the property containing the same stratigraphy as at the Regal Ridge property; anomalous chromium and beryllium values from silt samples; and the discovery of the large boulder of granite near the centre of the property. The two key factors in creating emeralds are a source of beryllium and a chromium-rich environment for deposition. At RB the chlorite schists are regionally recognized as being a chromium-rich portion of the stratigraphy. Without additional geochemical data it remains unknown whether or not the granite boulder discovered in 2003 is the same as the Cretaceous-aged two mica granite that is the source of the beryllium for the emerald mineralization at the Crown showing but they are visually identical.

Only small scale exploration programs have been run on the property to date. The RB property contains excellent exploration targets that warrant additional work programs.

## **1.0 Introduction and Terms of Reference:**

Ian Foreman, P.Geo. ("the author") was retained by Arcturus Ventures Inc. ("Arcturus"), a public company listed on the TSX-Venture Exchange and located in Vancouver, British Columbia, to inspect ("the Inspection") the RB Property ("the Property") located in the Finlayson Lake area of Yukon Territory, Canada.

The author visited the property between August 1 and 4, 2003. The object of the 2004 sampling program was to further define the anomalous zones previously identified at the north end of the property by soil sampling with widely spaced lines. The resulting Technical Report complies with reporting regulations as set out in NI 43-101. It is the author's understanding that Arcturus may use this report in the future either in the public domain or as part of an Annual Information Form.

The RB Property is located in the Finlayson Lake area, southern Yukon Territory (see figure 1), approximately 168 km northwest of Watson Lake and 120 km southeast of Ross River.

The property was staked by Arcturus in two stages between 2001 and 2002 and belongs 100% to Arcturus. There are no payments of any kind pending on the property.

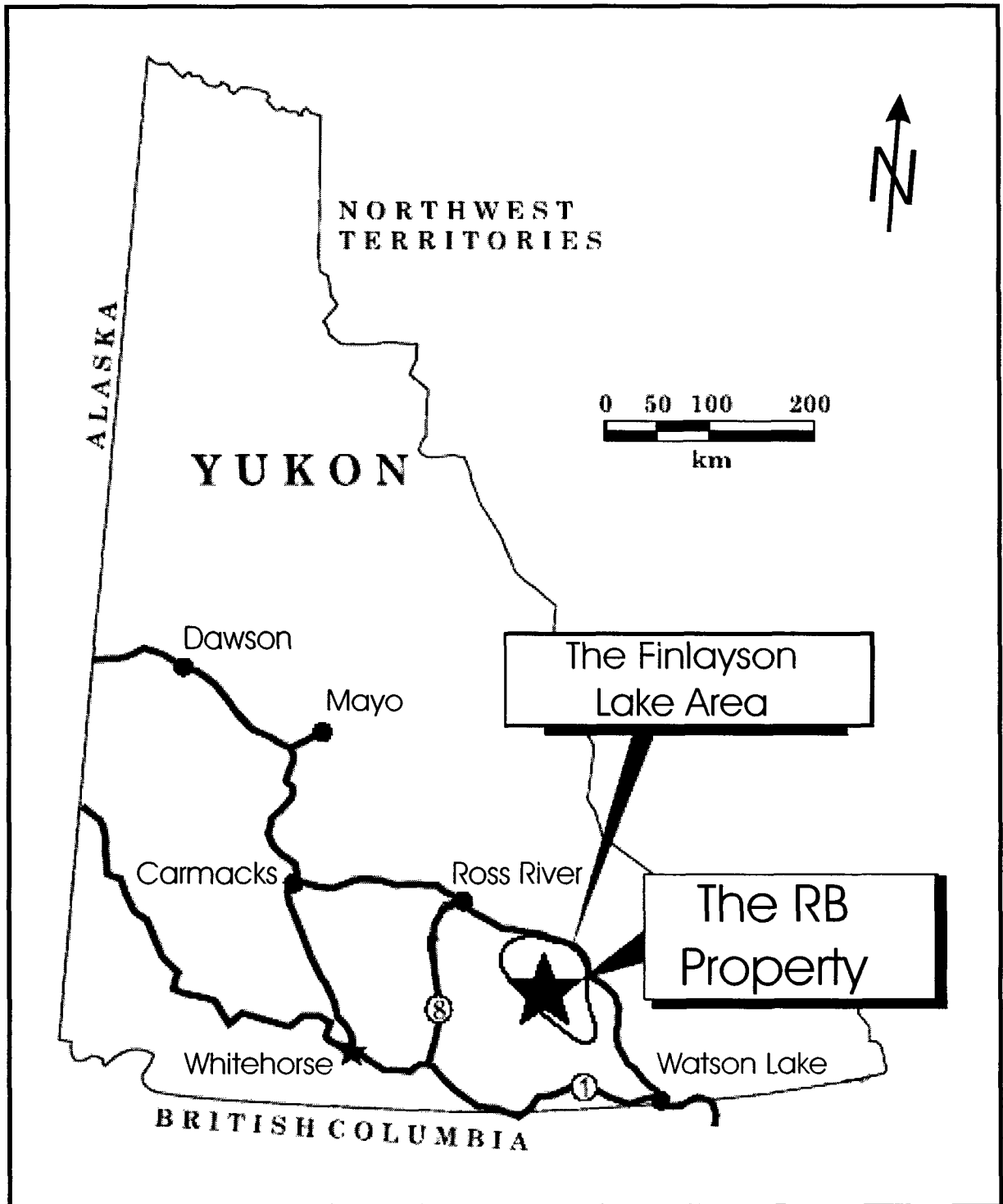
The author has twelve years of experience in the mining industry, with substantial experience in precious and base metal exploration, and has completed numerous projects in both North and South America. The author is intimately familiar with the exploration target as he worked on the nearby Fyre Lake project for 2 seasons.

The author is familiar with NI 43-101 and can be defined as a "qualified person". The author is an insider of Arcturus and realizes that he does not qualify as an "independent" qualified person.

In preparing this report, the author relied on geological reports and maps, miscellaneous technical papers, published reports and documents listed in the "References" section at the conclusion of this report, public information and his experience in Yukon. In addition, during the author's visit, three traverses were undertaken to confirm the geology of the property and to prospect for VMS mineralization as well as potentially emerald bearing structures. A total of twenty two stream sediment samples were collected by geological assistants during the visit and the samples were submitted to Acme Analytical Labs Ltd. in Vancouver for analyses. Due to the nature of the visit and the small number of samples taken, no duplicate or blanks were submitted with the samples.

## **2.0 Disclaimer:**

The results and opinions expressed in this report are based on the author's field observations and the geological and technical data listed in the "Resources" section. While the author has carefully reviewed all of the information provided by Arcturus, and believes they are reliable, the author has not conducted an in-depth independent investigation to verify its accuracy and completeness. The results and opinions expressed in this report are conditional upon the aforementioned geological and legal information being current, accurate, and complete as of the date of this report, and that no information has been withheld which would affect the conclusions made herein. The author reserves the right, but will not be obliged to revise his report and conclusions if additional information becomes known to him subsequent to the date of this report. The author does not assume responsibility for Arcturus' actions in distributing this report.



ARCTURUS VENTURES INC.

Location of the RB property

Figure: 1  
 Drafted by: IJF

Date: Oct. 2004  
 Scale: as shown

### 3.0 Property Description and Location:

The RB Property is located in the Finlayson Lake area of the Watson Lake Mining District and is approximately 168 km northwest of Watson Lake and 120 km southeast of Ross River in southern Yukon Territory. The property is within NTS map sheet 105 G/7.

The property is made up of 94 Yukon Quartz Claims totaling 1,965 hectares (or 4,850 acres) (see figure 2). The property is approximately 12 km northwest of the Fyre Lake property and 6 km west of the Regal Ridge and Fife properties.

The property was staked by Arcturus between 2001 and 2002 and belongs 100% to Arcturus. The claims are in good standing and there are no payments of any kind pending on the property. The official status of the RB property is shown in Appendix A.

The relevant data for the RB claims is as follows:

Claim Name	Grant No.	Expiry Date	Registered Owner	% Owned	NTS #'s
RB 1 - 58	YB93186 - YB93243	2006/08/30	Arcturus Ventures	100.00	105G07
RB 59 - 94	YB94298 - YB94333	2004/11/21	Arcturus Ventures	100.00	105G07

Surface rights to the RB property are vested with Yukon Territory's government. The property is not currently subject to any known environmental liabilities, however work permits, if needed, will be subject to review by the proper authorities. At this time the proposed phase one of exploration would not need permits to proceed.

The work performed during 2004 is sufficient to 'common date' the entire property to November 2006.

### 4.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography:

The principle access to the Finlayson Lake area is the Robert Campbell highway – a loose surface two lane road that connects Watson Lake in the south to Carmacks in the north. Finlayson Lake is approximately 45 km north of the RB property. The only direct access to the property is by helicopter.

The nearest community to the property is the town of Ross River, 120 km to the north northwest. Groceries, gas and basic supplies can be bought in Ross River. Watson Lake, approximately 165 km south of the property, is larger than Ross River.

The climate of the Finlayson Lake area is defined as sub-arctic. The mean summer and winter temperatures are 14.9° C and -24.6° C respectively and the mean summer and winter precipitation average 25.7 cm and 21.9 cm respectively with a majority of the winter precipitation being in the form of snow.

There are six separate drainages that flow from the central north-south trending ridge that makes up the centre of the property. All of these have year round water. In addition there are two tarns in the north of the property that contain substantial amounts of water.

There is no infrastructure on the property.

Vegetation through the valleys consists predominately of dense buck brush, which grades into thick growths of stunted balsam, black spruce and pine. The upper slopes are host to dwarf willow and the ridge tops support only lichen and sparse alpine grasses.



- Groupings**
- Group 1
  - Group 2
  - Group 3
  - Group 4

**ARCTURUS VENTURES INC.**

RB property showing individual claims and their groupings

Figure: 2	Date: Oct. 2004
Drafted by: IJF	Scale: as shown

## 5.0 History

Exploration in the Finlayson Lake area has a long history dating back to Robert Campbell of the Hudson's Bay Company who established a trading post at Francis Lake in the 1840's. Since then many prospectors have searched for both placer and lode gold deposits. The discovery of the Anvil lead-zinc deposit in the 1960's changed the face of exploration in the area as Faro became an important centre due to the mine. No further significant discoveries were made in the area until 1993 when Cominco discovered the Kudz Ze Kayah massive sulphide deposit (reserves of 11.3 million tonnes grading 6.0% Zn, 1.0% Cu, 1.3% Pb, 125.0 g/t Ag, and 1.3 g/t Au). This discovery was followed by huge amounts of ground being staked and large exploration programs over the next four years. In 1995 Westmin Resources [now Boliden] made the discovery of the Wolverine massive sulphide deposit (resources of 5.31 million tonnes grading 12.96% Zn, 1.41% Cu, 1.53% Pb, 359.1 g/t Ag, and 1.81 g/t Au). This was followed up by the discovery of the Fyre Lake massive sulphide deposit (resources of 8.0 million tonnes grading 2.1% Cu, 0.11% Co, and 0.7 g/t Au) by Columbia Gold Mines [now Pacific Ridge Explorations]. Between 1997 and 2001 work in the area only consisted of small exploration programs.

During previous work programs various claim groups have covered different portions of the RB property. In general, these programs either covered the northern or southern portions of the current 94 RB claims.

The southern two thirds of the RB property and area immediately to the south was staked originally as the Tak claims 1-72 (Y7782) in 1966 following an airborne mag/EM survey by Atlas Explorations Ltd. The company carried out prospecting and geochemical sampling later in the summer and staked Tak cl 73-78 (Y13676) that same year. The northern portion of the Tak property covered only the southern most claims of the RB property. Atlas's geophysical surveys outlined 1 EM conductor and 2 magnetic anomalies. Soil sampling outlined numerous Cu-Zn anomalies. Preliminary evaluation of the geophysical and geochemical anomalies attributed them to graphitic horizons within mafic schists and "greenstone intrusives" (Minfile). Bad weather prevented the company from returning to the property to carry out a ground follow-up investigation of the anomalies (Minfile).

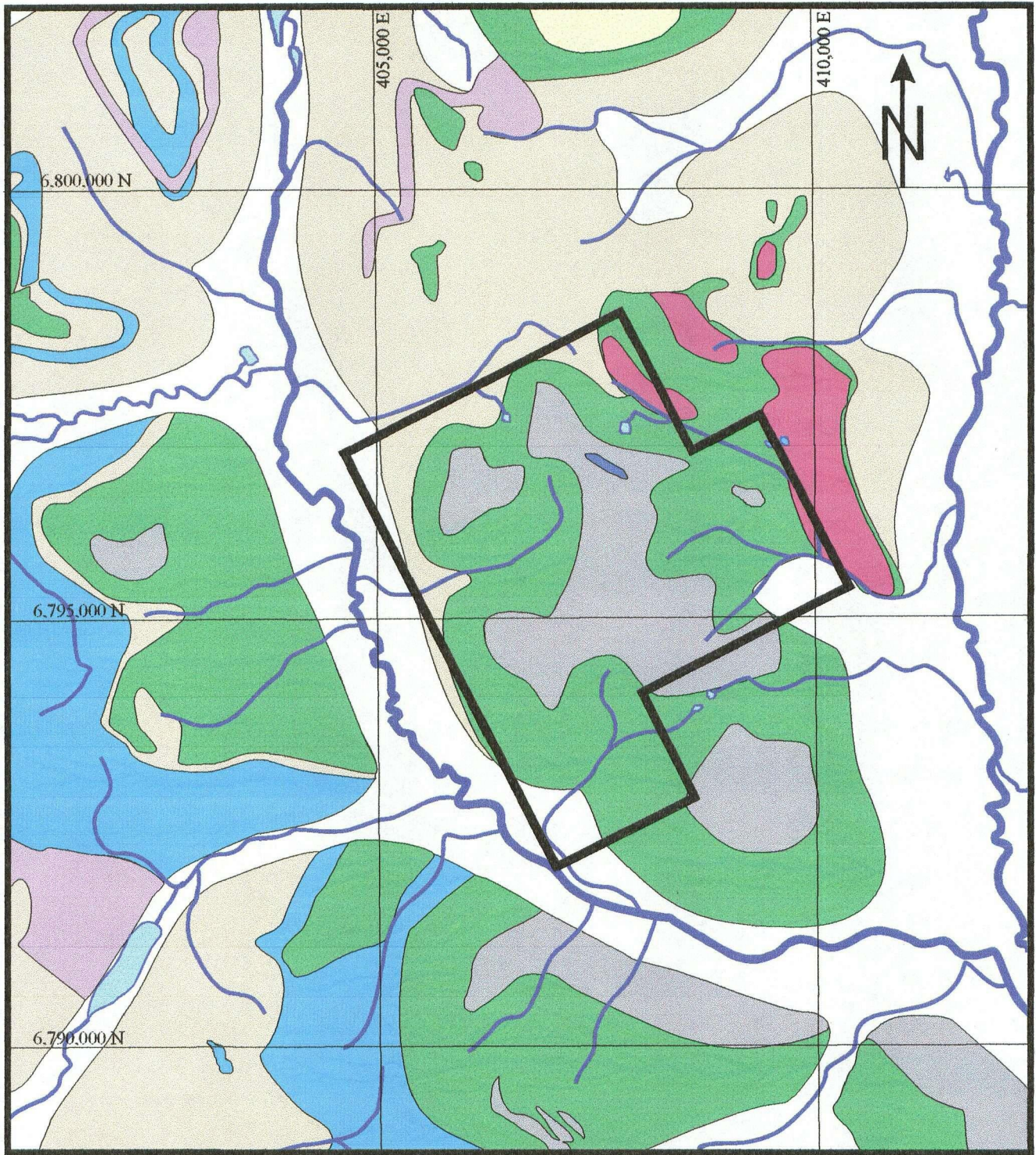
The area immediately to the northeast of the property was originally staked as the Cookie claims (YA420) in August 1976. Little information exists regarding the original Cookie claims and no assessment work was ever filed (Minfile). It appears the claims were staked for base metal potential during regional exploration programs for massive sulphide deposits in the 1970's. The immediate area covering the Cookie occurrence was restaked as the Hoop claims 1-94 (YB89467) by B. Macdonald in July 1997. These claims were then allowed to lapse and are now part of the Meg claims that are under option to Firestone.

The area immediately south of the property was then restaked as the Tor claims 1-57 (YB50233) in 1994 by Cominco Ltd. as part of their regional exploration following the discovery of Kudz Ze Kayah. The Tor property was staked to cover one of many airborne geophysical targets identified during a Cominco survey conducted in early 1994. In 1994, Cominco completed 7.2 km of line cutting, 5.3 km of HLEM and total field magnetic surveys, geological mapping, prospecting and soil sampling on the claim block (Minfile).

In 1996 Arcturus Resources Ltd. (the predecessor to Arcturus Ventures) staked Ket 1-48 claims (YB83886). The southern most claims of this group covered the northern most portion of the RB property. During the same year Consolidated Shoshoni Gold Inc. staked the Ball 1-56 claims (YB83934) that were contiguous to the south with the Ket claims and covered the middle three quarters of the current RB property.

In August and September 1996 both companies carried out soil sampling, geological mapping and prospecting programs on their prospective claim groups. The Ket and Ball claim groups were geologically mapped in 1996 by G. S Davidson. Consolidated Shoshoni then flew an airborne EM/Mag geophysical survey over the Ball claims in May of the following year. The airborne geophysical survey flown over the Ball claims outlined 5 conductive responses, of which four correlate with anomalous soil geochemistry.





After Murphy and Piercey (1999)



For legend see figure 3b.

ARCTURUS VENTURES INC.

Geology of the RB property

Figure: 3a

Date: Oct. 2004

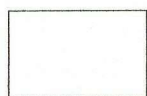
Drafted by: IJF

Scale: as shown



# Legend

(After Murphy and Piercey, 1999)



Unconsolidated alluvium, colluvium and lacustrine glacial deposits.



Weakly foliated, medium- to coarse-grained biotite-muscovite granite.



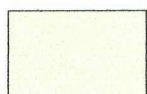
Carbonaceous phyllite and quartzite, minor quartzofeldspathic psammite.



Brown weathering, dark green to black, variably serpentinized ultramafic rock.



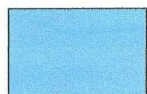
Fire Lake mafic metavolcanic unit: made up of biotite-plagioclase-actinolite-chlorite schist with local pillow basalts and grey marble.



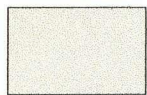
Kudz Ze Kayah felsic metavolcanic unit: undifferentiated feldspar-muscovite-quartz schist.



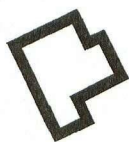
Rare, tan to white foliated granitic dykes



Marble



Biotite-muscovite-feldspar-quartz schist, micaceous quartzite and psammite, quartz-biotite-muscovite metapelitic schist and marble.



The RB property boundary

ARCTURUS VENTURES INC.

Geology of the RB property

Figure: 3b

Date: Oct. 2004

Drafted by: IJF



This work led to the creation of a 50/50 joint venture between Arcturus and Consolidated Shoshoni to explore the claims. This JV was short lived as only limited work was done on the properties.

The Ket, Ball, Cookie, and Tor claims were all allowed to lapse by the respective owners.

## **6.0 Geological Setting**

### **6.1 Regional Geology**

The RB claims lie north of the Tintina Fault, a large trans-current Late Cretaceous to Tertiary fault system with approximately 450 km of displacement. The tectonic setting of the Finlayson Lake area is the segment of the Yukon Tanana terrane that is bounded by northwesterly-trending right lateral faults, the Tintina and Denali faults. This has resulted in the lozenge-shaped Yukon Tanana 'banana'. During the Eocene volcanism and sedimentation deposited sequences of basalt, rhyolite, felsic tuff and conglomerate in the Tintina depression. Late Tertiary uplift and faulting preserved Eocene volcanoclastic rocks in structurally complex grabens.

The regional geology of the relevant portions of the Finlayson Lake and Francis Lake areas has been mapped and compiled by Murphy and Piercey (1999) of the Yukon Geological Survey in Open File map 1999-4.

The RB property is underlain by rocks belonging to a package of rock units termed Layered Metamorphic Rocks (Murphy and Piercey, 1999), which are composed of both metasediments and metavolcanics. These are associated with various felsic and ultramafic intrusive rocks. The oldest rocks in the area are within Unit 1qsu of probable Pre-Mississippian age and composed of quartzite or meta-arenite with quartz, muscovite and biotite. It appears to grade upwards into Unit 2m, a chlorite schist with interbedded muscovite-tourmaline schist, quartzite and phyllite. This chlorite schist is overlain by a felsic to mafic metavolcanic sequence (Unit 3) with minor quartzite and argillaceous marble.

This metamorphosed package has been intruded by contemporaneous (?) metagabbro and metapyroxenite sills (unit 2 mum), Cretaceous aged beryllium-rich granitic rocks (Kg), and Tertiary feldspar porphyry dykes (Td). Murphy (2001) updated his classification by putting Unit 2m and Unit 2mum into a single equivalent unit labeled "DF".

The rocks of the layered metamorphic sequence were subjected to two phases of metamorphism and deformation resulting in green schist and to lower amphibolite facies. A sub-horizontal foliation is subparallel to the compositional layering and is parallel to the axial planes of local recumbent isoclinal folds. In general, the foliation in the area strikes west to northwest and dips gently to the north and northeast. The folds in the region are generally north-verging with the fold axes plunging 5-10° to the west.

### **6.2 Property Geology**

The geology of the RB property and the surrounding area is shown in figure 3a. There are five different rock types known to outcrop on the RB Property: carbonaceous phyllite, chlorite schist, biotite quartz schist, ultramafic rocks, and granite.

### 6.2.1 Phyllite:

The carbonaceous phyllite is a greater than 500 metre thick package of rock that typically outcrops at the top of ridges in the Fire Lake area. This is true for the RB property where the phyllite consistently makes up the uppermost 20 to 150 vertical metres of the central ridge through the middle of the property. The phyllite/chlorite schist contact is relatively flat lying throughout the property and is generally at the 1,550 to 1,600 metre elevation.

In general the unit is finely laminated with alternating millimetre-scale black, grey, white, and brown compositional layers. The unit has a consistent dark grey to black appearance but the composition is locally quite variable. The phyllite is generally very fine to fine grained and is locally carbonaceous. In hand sample the fine grained nature of the unit makes identification of minerals other than quartz and biotite difficult. Individual beds appear to vary from being less than one metre to greater than 30 metres in thickness.

Elsewhere in the region this phyllite unit contains chert, limestone, sandstone, and micaceous chlorite schist (volcanically derived sediments?) occurring as thin beds and/or discontinuous lenses.

### 6.2.2 Quartz-biotite Schist:

There is a package of quartz-biotite-muscovite schist that occurs sporadically through the northern portion of the property. It is consistently stratigraphically between the chlorite schist and the overlying phyllite.

This unit is very similar to the metasedimentary rocks of the "transition zone" unit that is located immediately over the Kona Deposit at Fyre Lake. At Fyre Lake the transition unit is composed of alternating beds of metasediments (sandstones?) and metavolcanics (intermediate to mafic volcanic rocks) with individual beds varying from 10 cm to greater than 20 metres in thickness (Deighton et al. 1997). This package of rocks has not been separated from the regional stratigraphy by Murphy and Piercy and has only been previously seen in core.

To date only the felsic schist portion of this unit has been seen at the RB property and it remains unclear if this unit is associated with a synvolcanic growth fault as it is at Fyre Lake.

### 6.2.3 The Fire Lake Unit:

The Fire Lake Unit is made up predominately of varieties of biotite-actinolite-chlorite schist that is greater than 800 metres in thickness (Murphy and Piercy, 2000). Within the RB property the thickness of the unit is unknown – Murphy (1998), however has estimated the unit to be approximately 300 metres thick at the northern end of the property. The unit is predominately made up of a strongly deformed succession of quartz-chlorite and quartz-actinolite-chlorite schists. These schists represent a series of mafic, to possibly intermediate, flows, tuffs, and fragmentals. The mafic schist is typically medium green in colour and very fine grained. The modal mineralogy is generally quite simple throughout as chlorite, biotite, and quartz have been identified from both hand samples and drill core. Chlorite, which makes up a bulk of the groundmass, is rarely seen in crystals greater than 2 mm. Biotite most commonly occurs as 1 to 5 mm lenses that are concentrated to form 2 to 5 cm wide rough bands. Preliminary petrographic studies (Foreman, 1998) noted that some of the biotite is green suggesting that field descriptions locally overestimated the modal percentage of chlorite. The same study also identified tremolite, plagioclase, potassium feldspar, muscovite, carbonate, and apatite crystals up to 1 mm long throughout the groundmass.

Murphy and Piercy (1999 and 2000) include 5 to 200 metres of felsic schist of volcanic and volcanoclastic protolith as well as siliceous carbonaceous phyllite in the Fire Lake Unit. These rock types overlie the chlorite schist and essentially form a transition between the chlorite schists and the carbonaceous phyllite

and quartzite (unit Mcp). This portion of the stratigraphy may actually contain rocks of the 'transition unit'.

#### 6.2.4 Ultramafic rocks:

The unit includes coarse-grained whitish-green leucoamphibolite (meta-gabbro), medium to dark green amphibolite (meta-pyroxinite) and dun-coloured meta-ultramafic rocks that are prominent in aeromagnetic surveys (Murphy, 1998). In the vicinity of the RB property the ultramafic rocks are made up of talc, magnetite, serpentine, tremolite, phlogopite, orthopyroxine, relict olivine, and possibly chromite.

There are four distinct areas with this ultramafic unit that occur at or near the northeastern margin of the property. Murphy (1998) has interpreted these four areas of ultramafic rocks to actually belong to one near-continuous sheet that is dissected by topography in such a way as to appear fragmented. Although it has been interpreted to have been offset by a fault coincident with the North River (Murphy, pers. comm.), this sheet is interpreted to continue to the east where it is considerably thicker (up to 5 times).

#### 6.2.5 Granite:

Murphy (Murphy and Piercey, 1999) identified a small foliated tan to white granitic dyke that outcrops in the centre of the ridge at the northern end of the property. Murphy and Piercey (1999) have assigned a Permian age to this foliated dyke. This dyke appears to have very limited extent and has not been seen elsewhere in the property.

Several hundred metres to the west from this area a large boulder of weakly foliated two mica granite was found by the author (see figure 4). This approximately 1.5 by 1.0 metre boulder has not been traced to a source outcrop. The rock contains approximately 8 to 10 percent of sub- to euhedral 0.5 to 3mm black biotite and 5 to 8 percent of sub- to euhedral white to cream muscovite surrounded by a typical granitoid groundmass made up of less than 0.5 to 5mm grains of quartz and feldspar. The foliation is particularly evident due to the alignment of the micas.

This rock type has not previously been identified within the RB property and the identification of two mica granite in outcrop would have significant implications with regards to the emerald potential of the property.

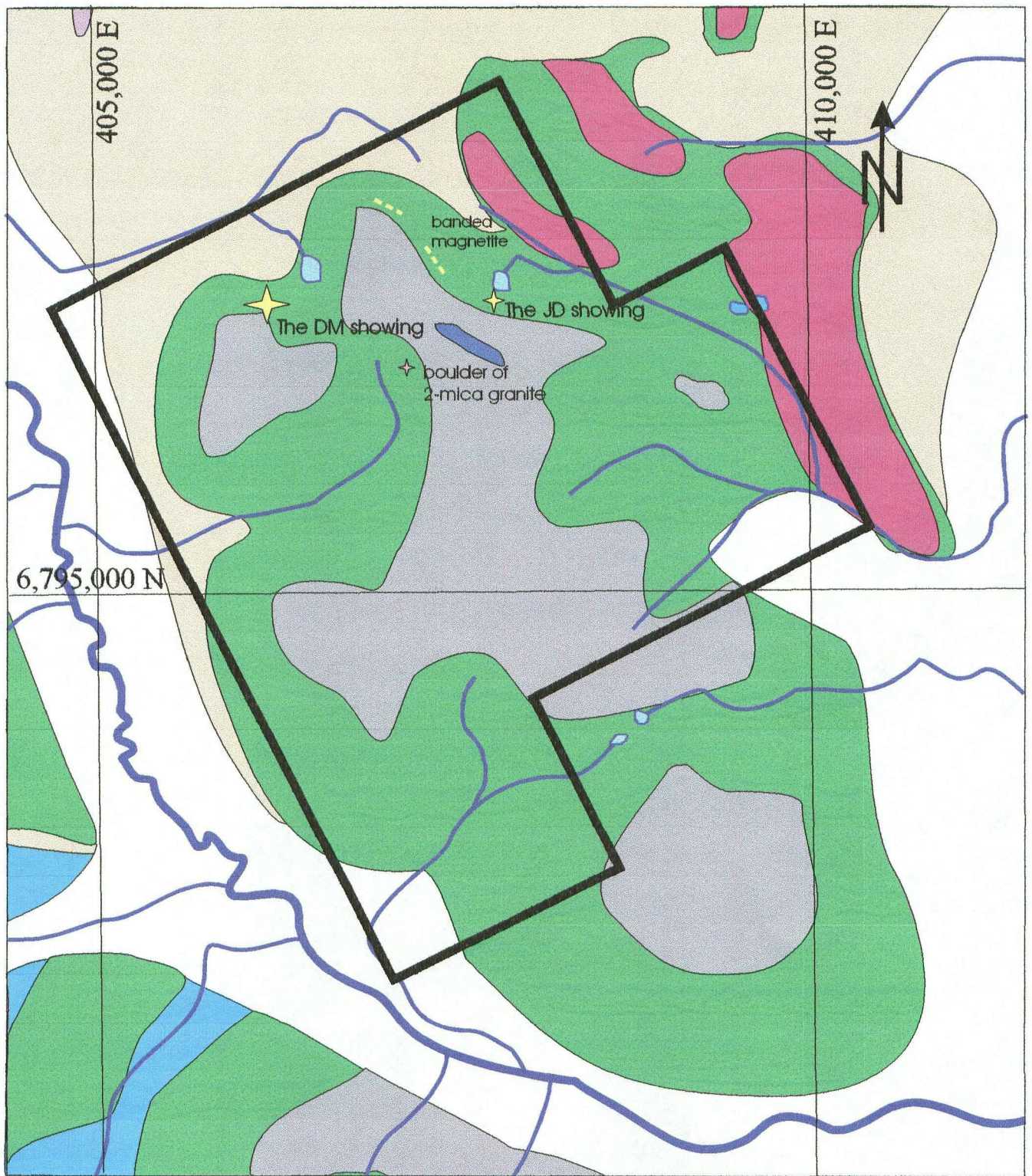
## 7.0 Deposit Types

At this early stage of exploration, there are two viable exploration targets within the RB property – VMS and emeralds. The discovery of a large block of foliated muscovite-biotite granite increases the potential for emerald mineralization to occur within the RB property. The only example of emerald mineralization in the area is the Crown Showing on the Regal Ridge property located 6 km to the east. The best model for the VMS target is the Fyre Lake property, located only 13 km to the southeast. The Fyre Lake property is host to the Kona deposit – a beshi style VMS deposit.

#### 7.1 Emeralds:

Emeralds are a chromium rich variety of beryl ( $\text{Be}_3\text{Al}_2(\text{SiO}_3)_6$ ) where the chromium replaces the aluminum. In some environs vanadium replaces the aluminum – historically this variety was technically not called an emerald but green beryl and were therefore less sought after. Emeralds are the third most valuable of all the precious gems after diamond and ruby (Walton, 1996). Emeralds are so rare due to the fact that the two key components of emeralds – beryllium and chromium – are common in two completely different geological systems that rarely occur in the same environments.





After Murphy and Piercey (1999)



For legend see figure 3b.

# ARCTURUS VENTURES INC.

## Geology of the RB property with the known showings

Figure: 4

Date: Oct. 2004

Drafted by: IJF

Scale: as shown



The Crown showing is made up of numerous emerald-bearing float trains and at least 6 main source regions have been discovered in a 900 by 400 m area on both sides of the ridge. The emerald deposit is hosted within chromium-rich chlorite schist of the Fyre Lake Unit and are within 600 metres of a Cretaceous aged biotite-muscovite granite, which is thought to be the source for the beryllium-rich fluids. The emeralds predominately occur within quartz veins that are at low angles to the foliation of the schist and they also occur in shear zones within the chlorite schist. Emerald mineralization appears to have a close relationship with randomly oriented aplite dykes.

## 7.2 Beshi-style VMS:

The Kona deposit is hosted within a strongly deformed and metamorphosed mafic to intermediate volcanic succession of chlorite-quartz and chlorite-actinolite-quartz schists. This volcanic package is overlain by a metasedimentary succession composed primarily of finely laminated carbonaceous phyllite that locally contains 1 to 20 m thick beds of micaceous volcanic-derived sediments. An intercalated unit of quartz-biotite schist and chlorite-mica-quartz schist marks the base of the metasedimentary succession (Foreman, 1998).

Mineralization within the Kona deposit has a defined strike length of 1500 m and a width of 250 m and remains open to the south. The Kona deposit consists of two parallel northwest trending zones of copper-cobalt-gold massive sulphide mineralization: East Kona and West Kona. East Kona is made up of two distinct horizons: the Upper Horizon and the Lower Horizon. The Upper Horizon occurs immediately below the contact of the metasediments and the metavolcanics while the Lower Horizon occurs 40 to 70 m deeper, within the mafic volcanics. The mineralization of East Kona consists primarily of pyrite with lesser amounts of pyrrhotite and chalcopyrite occurring as massive to banded sulphides with local lenses of massive magnetite. The mineralization across West Kona changes from magnetite, pyrite, and chalcopyrite hosted within a grey siliceous matrix in the east, or down dip, through massive pyrite and lesser chalcopyrite into massive pyrrhotite in the west. The mineralization of West Kona occurs immediately below the metasedimentary and metavolcanic contact; the same stratigraphic position as the Upper Horizon of East Kona. All of the mineralized zones that make up the Kona deposit have an eastern dip and plunge to the southeast – between 120 and 140° (Foreman, 1998).

Peripherally to the Kona deposit are wide spread horizons of disseminated magnetite.

## 8.0 Mineralization

To date there are two gold-base metal showings within the RB property: the JD showing and the DM showing. Figure 4 shows the location of known mineralization on the RB property.

### 8.1 JD Showing:

The JD showing is located approximately 75 metres to the southwest of the small lake located in the northeast corner of the property and has the UTM co-ordinates 407836 E and 6796924 N. The documented sampling of the showing was done in August of 1997 when it was part of the Ball claims. One sample of unknown size was taken from the bottom of the JD showing in July of 1997 and it returned values of 0.62 g/t Au, 0.29 % Cu, and 0.08 % Co.

The showing is approximately 5 metres wide and 2 metres tall and is made up of strongly foliated chlorite schist. Throughout the outcrop is 3 to 5 percent 2 to 6 millimetre sub- to euhedral black crystals of magnetite that tend to occur loosely within 5 to 10 cm thick horizons. The magnetite crystals at this location appear to be predominately porphyroblasts as they crosscut the foliations. Pyrite also occurs throughout the showing and makes up less than 1 percent. It is locally concentrated within horizons and makes up 5 to 8 % within those horizons as local 2 to 5 millimetre blebs but predominately as euhedral

cubes up to 3 millimetres in dimension. Trace amounts of chalcopyrite occur throughout the showing but chalcopyrite appears to be more concentrated towards the lowest exposed portions of the showing. The chalcopyrite typically occurs as 1 to 4 millimetre irregular blebs.

## **8.2 The DM showing:**

The DM showing is a new discovery that was made during the 2003 field visit (see figure 5). The showing is very large and measures at least 150 metres in width (between 406336 E, 6796904 N and 406245 E, 6796920 N) and 40 metres in true thickness. The showing is actually made up of about 6 large outcrops within this area.

Mineralization through the showing is made up of intermittent centimetre-scale bands that are locally concentrated into visible horizons. In general, the mineralization grades from magnetite-rich upwards to sulphide-rich with the magnetite-rich mineralization making up a majority of the known mineralization. The magnetite is generally 0.5 to 3 millimetres in size and occurs as subhedral black crystals. Pyrite occurs throughout the showing. In the lower portions it occurs only in trace amounts whereas in the upper, more sulphide rich zone pyrite makes up approximately 1 to 2 percent of the rock and occurs as concentrations of very fine grains, irregular blebs, and euhedral crystals that are up to 3 millimetres in dimension. Chalcopyrite has only been noted locally and occurs in trace amounts. The chalcopyrite typically occurs as 1 to 4 millimetre irregular blebs.

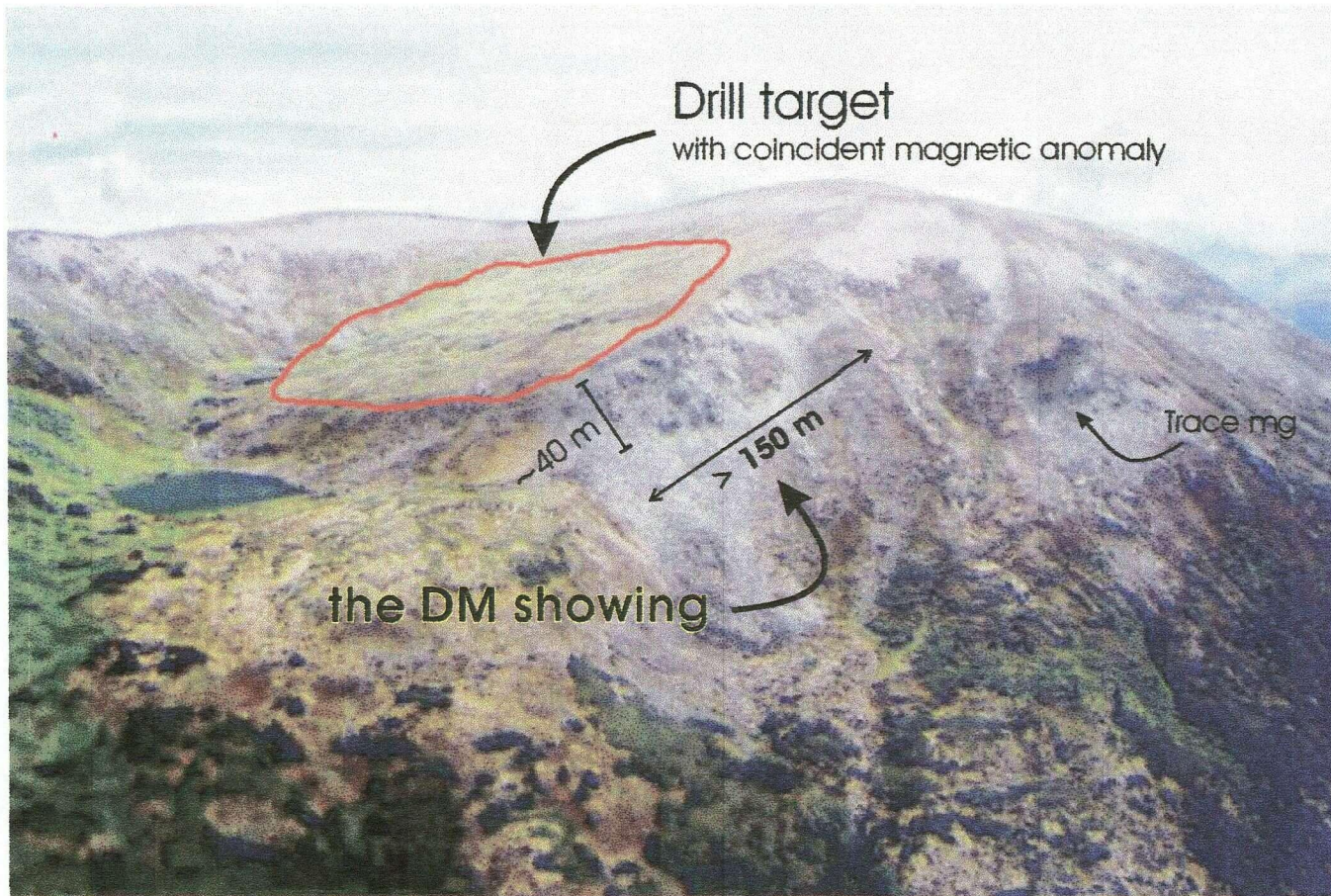
The chlorite schist at the JD showing is much more strongly foliated than in the surrounding outcrops where there are locally well preserved pillowed textures. It also appears to have a much stronger foliation than the rocks of the DM showing. It is thought that this is probably due to the original composition of the mafic protolith – the protolith at JD was probably more basic (possibly a boninite?) than that at DM (Murphy, pers. comm.).

## **9.0 Exploration**

### **9.1 Previous work:**

A compilation of the geophysical data collected by Arcturus and Shoshoni over the Ket and Ball claims respectively showed a series of interesting magnetic and conductive anomalies (Foreman, 2001). The discrete magnetic anomalies have a good correlation to the mapped ultramafic lenses but the linear magnetic anomalies have yet to be explained. Of particular interest is the northwestern most one, which ends abruptly in the vicinity of the DM showing. The discrete conductive anomalies within the RB property are all at, or near, the contact between the phyllites and the chlorite schist. A majority (all except two) of these discrete conductive anomalies occur on the eastern side of the property. These conductive anomalies form a greater than 500 metre wide trend that runs to the northwest. This trend appears to split the linear magnetic anomalies and continues to the north of the property. Physical evidence of this corridor has yet to be seen in the field. It is possible that this trend may represent a discrete structural feature (a growth fault?).

In 2002, Arcturus retained Marvin Mitchell, P.Geo. to visit the property and write a technical report. The visit was limited to the JD showing and a 300 metre traverse to the north of the showing following the contact between the chlorite schist and the overlying phyllite. This traverse identified sporadic magnetite mineralization within the chlorite schist over the entire 300 metres. Four rock samples (RB-02-1 through 4) were taken during that visit. None of these samples contained any sulphides. The northernmost two, RB-02-2 and 3, contained a waxy green secondary mineral that was later identified as garnierite, a nickel and magnesium bearing hydrous silicate (Mitchell, 2002a). Both of these samples were strongly anomalous



ARCTURUS VENTURES INC.

The DM showing

Figure: 5

Date: Oct. 2004

Drafted by: IJF

Scale: as shown

in Ni, Mn, Sr, and Ca as well as being depleted in Fe, V, and Al. In addition, RB-02-2 was strongly anomalous in As (565 ppm).

Of particular interest are the high chromium values in samples RB-02-2 and 3, which returned 569 ppm and 316 ppm respectively. The chlorite schists of the Fyre Lake unit are, in general, chromium-rich with values ranging from 150 to over 800 ppm (Murphy, pers. comm. and Sebert and Hunt, 1999) and the rocks hosting the Crown showing at Regal Ridge are also high in chromium (520 ppm, Newfeld et al, 2003).

## 9.2 The 2003 field season:

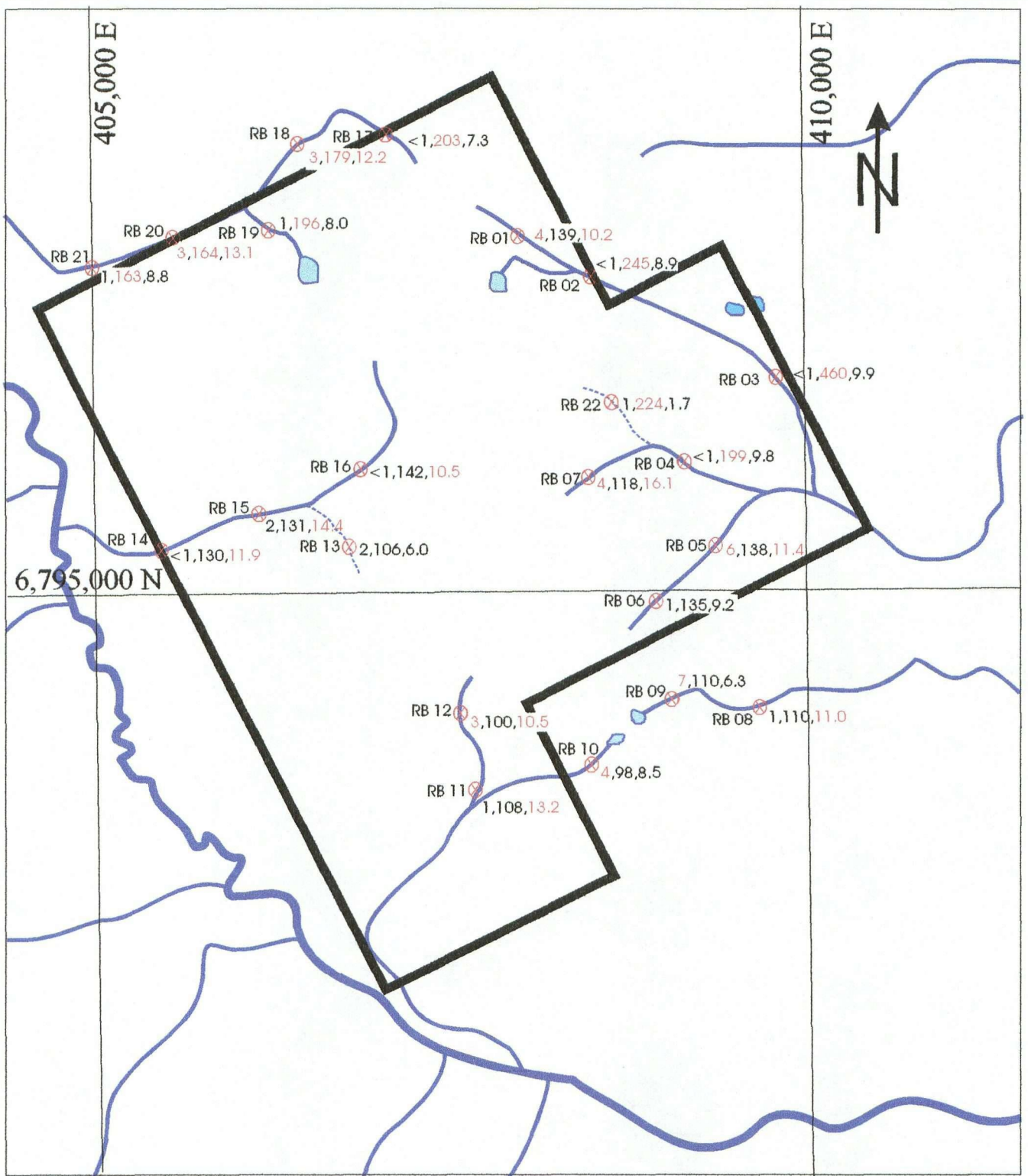
The 2003 field inspection of the RB Property was done over a three day period and involved three traverses by the author with the primary goal of confirming the geological potential for the property. Only one rock sample was taken for geochemical purposes. At the same time 22 stream silt samples were taken from within or immediately off of the property from the six streams that drain from the property's central ridge.

### 9.2.1 Results

The results of the elements pertinent to the exploration of VMS and emeralds deposits are listed below and are shown in figures 6 and 7.

Sample	Easting	Northing	Emerald suite			VMS suite						
			Be (ppm)	Cr (ppm)	W (ppm)	V (ppm)	Ba (ppm)	Au (ppb)	Co (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
RB 1	408044	6797298	4.0	139	10.2	166	2952.0	1.1	19.6	56.1	21.5	136
RB 2	408517	6797066	0.5	245	8.9	199	1879.4	1.0	29.4	74.5	21.5	116
RB 3	409833	6796411	0.5	460	9.9	210	1154.7	3.7	34.4	63.5	11.6	87
RB 4	409316	6795707	0.5	199	9.8	180	1219.3	5.9	23.2	50.0	11.2	118
RB 5	409439	6795100	6.0	138	11.4	159	1016.4	1.3	17.8	34.5	10.6	113
RB 6	409012	6794679	1.0	135	9.2	226	1422.6	0.1	31.4	67.2	14.7	152
RB 7	408582	6795594	4.0	118	16.1	175	1163.6	2.0	19.6	47.8	14.1	135
RB 8	409733	6793939	1.0	110	11.0	147	922.0	1.7	19.4	47.5	9.1	118
RB 9	409305	6794055	7.0	110	6.3	172	1239.4	1.6	16.4	40.3	10.1	99
RB 10	408596	6793571	4.0	98	8.5	154	946.8	2.5	19.2	49.3	17.8	125
RB 11	407735	6793315	1.0	108	13.2	154	862.0	1.9	18.3	38.4	9.6	121
RB 12	407661	6793926	3.0	100	10.5	157	1110.6	0.9	22.7	55.7	10.2	99
RB 13	406920	6795150	2.0	106	6.0	148	985.5	6.1	15.7	28.4	7.6	153
RB 14	405560	6795175	0.5	130	11.9	169	1086.1	1.2	22.8	51.4	9.7	102
RB 15	406220	6795405	2.0	131	14.4	164	1083.7	1.1	20.3	66.5	10.6	111
RB 16	406970	6795700	0.5	142	10.5	172	1248.4	1.6	22.5	59.5	14.4	114
RB 17	407170	6798071	0.5	203	7.3	183	2537.9	1.4	31.2	62.0	26.4	131
RB 18	406506	6797995	3.0	179	12.2	180	2029.6	0.6	24.3	44.9	14.6	89
RB 19	406302	6797402	1.0	196	8.0	203	4088.8	7.3	26.6	168.5	14.6	150
RB 20	405658	6797373	3.0	164	13.1	169	2496.7	0.5	24.3	90.4	19.1	122
RB 21	405057	6797143	1.0	163	8.8	182	2215.5	0.1	22.5	54.7	14.2	102
RB 22	408703	6796133	0.5	230	2.1	150	1353.8	3.0	25.3	44.2	10.8	117
RB 22 duplicate			2.0	218	1.4	148	1320.1	3.9	25.2	43.5	10.6	109
Minimum value:			0.5	98	1.4	147	862	0.1	15.7	28.4	7.6	87
Maximum value:			7.0	460	16.1	226	4088.8	7.3	34.4	168.5	26.4	153
Average value:			2.1	166.2	9.6	172.5	1579.8	2.2	23.1	58.2	13.7	118.2
Median value:			1.0	139.0	9.9	169.0	1239.4	1.6	22.7	51.4	11.6	117.0





Legend	
Sample #	⊗ Be (ppm), Cr (ppm), W (ppm)

## ARCTURUS VENTURES INC.

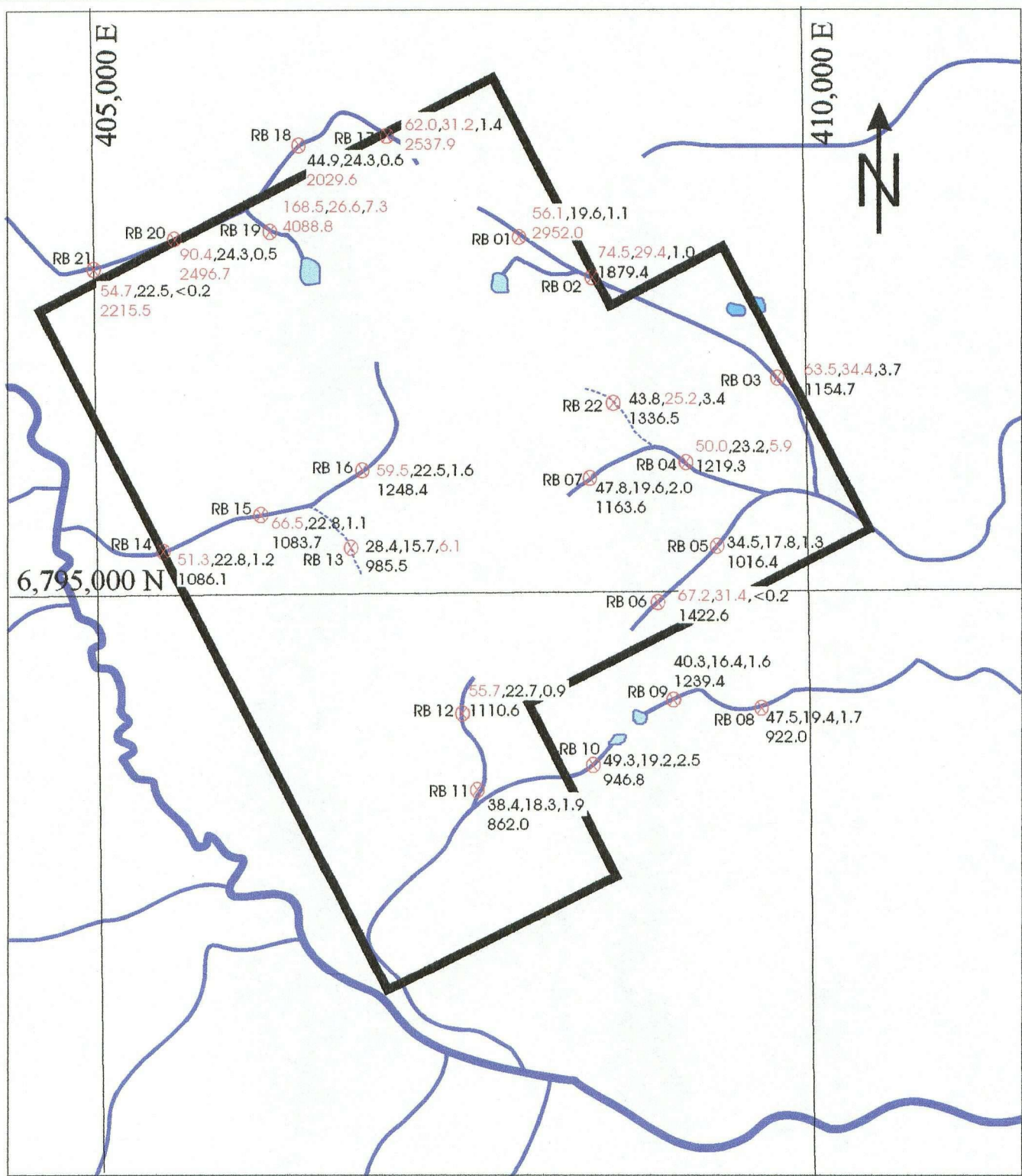
RB property silt results  
- emerald suite -

Figure: 6

Date: Oct. 2004

Drafted by: IJF

Scale: as shown



Legend	
Sample #	⊗ Cu (ppm), Au (ppb), Co (ppm) Ba (ppm)

## ARCTURUS VENTURES INC.

### RB property silt results - VMS suite -

Figure: 7

Date: Oct. 2004

Drafted by: IJF

Scale: as shown

The highest chromium result of 460 ppm is very anomalous as it is similar to what the surrounding rocks are expected to contain. In general, the geochemical results appear to be a bit inconsistent but the samples were taken on a very wide spacing with samples locally being greater than a kilometre apart.

The high barium results from the northernmost stream are also surprising. In comparison to the other samples in the area (RB 17-21) sample RB 19 is strongly anomalous in Cu, Au, and Ba. In addition this sample is anomalous in Zn and has elevated amounts of Ni, W, and Cr.

One grab sample (sample #48076, see Appendix B) was taken from a pyrite-rich portion of float from scree in the centre of the DM showing. This sample returned 346 ppm Cu, 24.7 ppm Co only 14.8 ppb gold. In comparison to the silt samples in the immediate area (RB 19-22) this rock sample is depleted in Cs, Nb, Rb, Sn, Ta, Th, U, W, Pr, and Cr. The sample also has significantly lower values of Hf, Sr, La, Ce, Nd, Sm, and Eu. Of particular interest, however, is that this rock sample has contains only 13 ppm chromium, which is not explainable at this stage of the program. It is possible that the chromium was leached from this area but at this stage the author is unaware of a mechanism for this to happen. This value is unexpected as the lower levels of the rare earth elements suggests that this rock is possibly boninitic in composition (Murphy, pers. comm.), which is typically a chromium-rich rock. It is important to note that this is from only one sample and additional sampling is necessary to determine the chromium content in the chlorite schists throughout the property.

### 9.3 The 2004 field season:

The most recent field program at the RB Property was done over a four and a half day period and involved the taking of 55 soil samples from five 500 metre long lines as well as one stream silt sample. All of the work was directed at the northern portion of the property where earlier exploration programs had been successful in defining several showings within the favourable horizon of the stratigraphy.

#### 9.3.1 Results

The results of the elements pertinent to the exploration of VMS and emeralds deposits are listed below and the location of the sample lines and the single silt sample are shown in figure 8.

Sample	Au (ppm)	As (ppm)	Ba (ppm)	Be (ppb)	Co (ppb)	Cr (ppm)	Cu (ppm)	Mg (%)	Mn (ppm)	Ni (ppm)	Ti (ppm)
L1 + 00	<0.005	198	1800	2.9	5	106	43	0.51	219	16	0.15
L1 + 50	<0.005	20	1030	1.7	10	102	26	1.06	556	29	0.33
L1 + 100	<0.005	36	1070	1.8	12	156	29	1.2	611	39	0.39
L1 + 150	<0.005	12	900	1.7	13	139	38	1.4	684	39	0.38
L1 + 200	0.005	10	880	0.7	29	101	148	2.09	1110	48	0.33
L1 + 250	<0.005	<5	520	0.6	23	151	17	3.31	941	50	0.3
L1 + 300	0.01	8	840	0.6	25	155	82	3.13	908	50	0.34
L1 + 350	0.011	6	690	0.5	29	136	152	3.12	1030	48	0.34
L1 + 400	<0.005	<5	960	1	17	122	41	2.16	749	40	0.4
L1 + 450	<0.005	9	1080	1.3	14	113	47	1.58	667	32	0.47
L1 + 500	<0.005	8	1130	1.2	16	107	100	1.88	735	33	0.48
L2 + 00	0.005	14	1190	3.1	26	102	58	1.08	849	67	0.2
L2 + 50	<0.005	<5	1120	3.1	10	97	28	0.78	384	30	0.22
L2 + 100	<0.005	<5	1210	4.7	13	127	36	1.54	461	33	0.11
L2 + 150	<0.005	14	1040	3.1	10	84	29	0.62	371	34	0.16
L2 + 200	<0.005	26	990	2.2	14	61	31	0.46	759	34	0.19
L2 + 250	<0.005	48	1910	2.7	13	147	150	0.65	379	98	0.26
L2 + 300	<0.005	9	1260	2.5	9	102	27	0.99	407	24	0.37
L2 + 350	<0.005	15	860	1.5	16	122	29	1.76	750	47	0.33
L2 + 400	<0.005	5	1060	1.9	8	71	22	0.93	519	26	0.31
L2 + 450	<0.005	37	1220	2.3	16	90	48	0.88	579	52	0.26
L2 + 500	<0.005	16	1220	2	10	79	26	0.87	529	30	0.25
L3 + 00	<0.005	79	1560	1.7	24	140	69	1.96	1140	59	0.29
L3 + 50	0.006	69	2360	1.5	27	142	86	2.76	1805	57	0.32



Sample	Au (ppm)	As (ppm)	Ba (ppm)	Be (ppb)	Co (ppb)	Cr (ppm)	Cu (ppm)	Mg (%)	Mn (ppm)	Ni (ppm)	Ti (ppm)
L3 +100	0.005	60	1260	1.2	31	176	55	3.17	1255	67	0.41
L3 +150	0.008	27	1720	0.7	34	172	60	4.3	1460	70	0.44
L3 +200	0.007	18	1160	0.7	36	214	63	3.8	1315	77	0.43
L3 +250	0.005	46	1820	0.7	31	158	50	3.96	1310	63	0.46
L3 +300	<0.005	12	650	0.6	33	425	49	5.37	1000	178	0.33
L3 +350	<0.005	<5	940	1.1	29	229	51	3.39	1140	102	0.58
L3 +400	<0.005	21	1480	1.3	38	213	70	2.92	1545	103	0.61
L3 +450	<0.005	10	1690	1.5	28	182	53	2.68	1135	79	0.5
L3 +500	0.008	13	1560	1.4	35	223	109	2.91	1720	102	0.63
L6 + 00	0.01	10	340	0.6	49	425	19	5.28	1220	171	0.24
L6 + 50	<0.005	5	270	<0.5	55	439	45	4.39	949	168	0.24
L6 + 100	<0.005	77	1240	0.9	45	462	78	3.98	975	257	0.3
L6 + 150	<0.005	38	1680	0.7	43	447	78	1.92	1260	248	0.38
L6 + 200	<0.005	23	1690	0.8	39	381	73	2.31	1075	182	0.37
L6 + 250	<0.005	11	3560	3.9	10	67	27	0.79	560	33	0.32
L6 + 300	<0.005	<5	>10000	3.6	16	84	150	0.69	1755	72	0.29
L6 + 350	0.01	11	1330	1.6	25	319	32	3.24	1115	137	0.72
L6 + 400	0.006	113	670	0.7	59	675	59	6.69	1065	940	0.24
L6 + 450	0.006	18	240	0.5	41	636	136	6.07	775	759	0.28
L6 + 500	0.005	42	400	0.5	44	485	173	5.46	981	497	0.32
L7 + 00	0.005	20	1950	2	15	135	51	1.3	868	47	0.21
L7 + 50	0.007	<5	780	1.4	9	63	79	0.73	513	36	0.15
L7 + 100	<0.005	8	1240	2.2	13	146	25	1.84	632	50	0.22
L7 + 150	0.021	7	930	0.6	19	235	60	3.61	1020	61	0.24
L7 + 200	0.022	14	580	<0.5	28	314	123	4.51	1245	95	0.22
L7 + 250	0.036	<5	830	0.6	25	300	142	4.86	1295	86	0.24
L7 + 300	0.017	6	1060	0.6	26	297	111	5.19	1365	90	0.24
L7 + 350	0.013	7	730	0.6	22	257	122	4.31	1165	77	0.23
L7 + 400	0.01	6	750	0.7	18	224	33	3.28	951	65	0.28
L7 + 450	0.006	<5	960	0.9	14	214	18	2.62	695	56	0.27
L7 + 500	0.008	9	1160	1	14	207	25	2.05	642	53	0.28
Minimum value:	0.036	198	>10000	4.7	59	675	173	6.69	1805	940	0.72
Maximum value:	<0.005	<5	240	0.5	5	61	17	0.46	219	16	0.11
Average value:	0.006	23.6	1319.5	1.5	23.9	210.1	65.1	2.62	929.9	109.7	0.32
Median value	<0.005	12	1080	1.3	23	155	51	2.31	949	59	0.3
Silt Sample	0.015	19	1000	1.2	24	112	95	2.3	1105	48	0.37

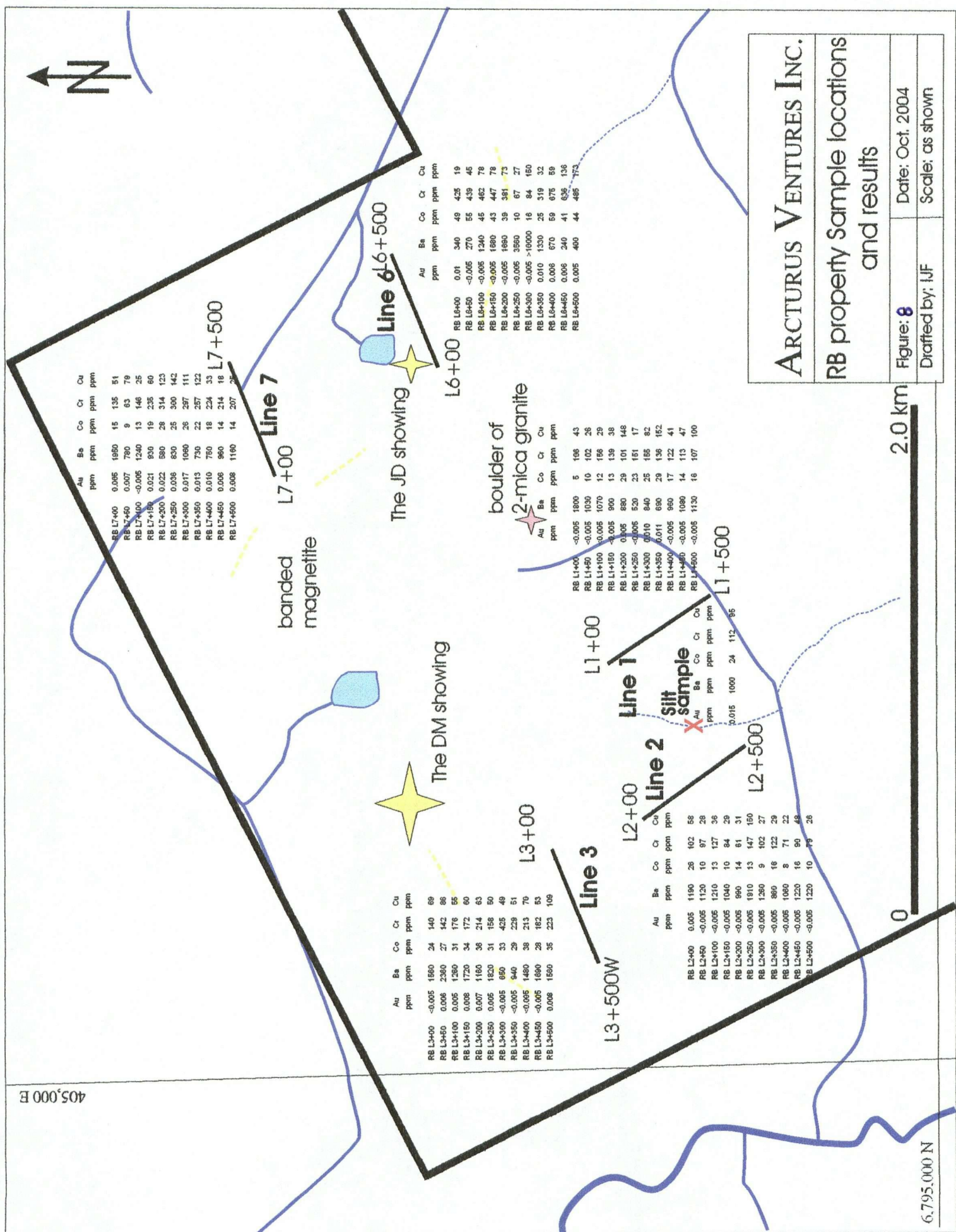
Interestingly, soil sample lines 1 and 2 returned only sporadic anomalies. Lines 3, 6 and 7, however, proved much more interesting. Each of those three lines contained barium, cobalt, chromium, manganese and magnesium anomalies that span at least several samples.

Line 7 contains four samples through its centre that are all moderately to strongly anomalous in gold, barium, cobalt, copper, chromium, magnesium and manganese. This forms an anomaly that spans 150 metres and coincides with the lowest portion of the topography through the broad pass. There are few outcrops in that area but discrete horizons of banded magnetite have been mapped by Mitchell.

Line 6 is anomalous in barium, cobalt, chromium, manganese and magnesium. This sample line passes within metres of the JD showing, which graded 0.62 g/t Au, 0.29 % Cu, and 0.08 % Co. The samples in that vicinity, however, were low in gold and only weakly anomalous in copper. The reasons for this are not apparent but that area is quite marshy and soil geochemistry could be affected by that. Sample L3+300 returned the highest barium response on the property at >10,000 ppm.

Line 3, located to the west of the DM showing was strongly anomalous in barium, cobalt, chromium, magnesium, and manganese. Locally the line had strong nickel values. The area surrounding line 3 has only been visited briefly so the anomalies have yet to be explained.

405,000 E



	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L3+00	-0.005	1560	24	140	69
RB L3+50	0.006	2360	27	142	86
RB L3+100	0.005	1260	31	176	55
RB L3+150	0.008	1720	34	172	60
RB L3+200	0.007	1160	36	214	63
RB L3+250	0.006	1820	31	158	50
RB L3+300	-0.005	650	33	425	49
RB L3+350	-0.005	940	29	229	51
RB L3+400	-0.005	1480	38	213	70
RB L3+450	-0.005	1680	28	182	53
RB L3+500	0.008	1560	35	223	109

	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L1+00	-0.005	1800	5	166	43
RB L1+50	-0.005	1030	10	102	28
RB L1+100	-0.005	1070	12	196	29
RB L1+150	-0.005	900	13	139	38
RB L1+200	0.005	880	29	101	148
RB L1+250	-0.005	520	23	151	17
RB L1+300	0.010	840	25	155	82
RB L1+350	0.011	690	29	136	162
RB L1+400	-0.005	960	17	122	41
RB L1+450	-0.005	1080	14	113	47
RB L1+500	-0.005	1130	16	107	100

	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L6+00	0.01	340	49	425	19
RB L6+50	-0.005	270	55	439	45
RB L6+100	-0.005	1240	45	462	78
RB L6+150	-0.005	1860	43	447	78
RB L6+200	-0.005	1650	38	381	73
RB L6+250	-0.005	3500	10	67	27
RB L6+300	-0.005	>10000	16	84	160
RB L6+350	0.010	1330	25	319	32
RB L6+400	0.008	670	59	675	59
RB L6+450	0.006	240	41	636	136
RB L6+500	0.005	400	44	465	173

	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L7+00	0.005	1660	15	135	51
RB L7+50	0.007	790	9	63	79
RB L7+100	-0.005	1240	13	146	25
RB L7+150	0.021	930	19	235	60
RB L7+200	0.022	580	28	314	123
RB L7+250	0.006	830	25	300	142
RB L7+300	0.017	1060	26	297	111
RB L7+350	0.013	730	22	257	122
RB L7+400	0.010	750	18	224	33
RB L7+450	0.006	960	14	214	18
RB L7+500	0.008	1160	14	207	25

	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L2+00	0.005	1190	26	402	58
RB L2+50	0.005	1120	10	97	28
RB L2+100	-0.005	1210	13	127	36
RB L2+150	-0.005	1040	10	84	29
RB L2+200	-0.005	990	14	61	31
RB L2+250	-0.005	1910	13	147	150
RB L2+300	-0.005	1260	9	402	27
RB L2+350	-0.005	860	16	122	29
RB L2+400	-0.005	1090	8	71	22
RB L2+450	-0.005	1220	16	90	49
RB L2+500	-0.005	1320	10	79	26

	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L1+00	-0.005	1030	10	102	28
RB L1+50	-0.005	1070	12	196	29
RB L1+100	-0.005	900	13	139	38
RB L1+150	0.005	880	29	101	148
RB L1+200	-0.005	520	23	151	17
RB L1+250	0.010	840	25	155	82
RB L1+300	0.011	690	29	136	162
RB L1+350	-0.005	960	17	122	41
RB L1+400	-0.005	1080	14	113	47
RB L1+450	-0.005	1130	16	107	100

	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L6+00	0.01	340	49	425	19
RB L6+50	-0.005	270	55	439	45
RB L6+100	-0.005	1240	45	462	78
RB L6+150	-0.005	1860	43	447	78
RB L6+200	-0.005	1650	38	381	73
RB L6+250	-0.005	3500	10	67	27
RB L6+300	-0.005	>10000	16	84	160
RB L6+350	0.010	1330	25	319	32
RB L6+400	0.008	670	59	675	59
RB L6+450	0.006	240	41	636	136
RB L6+500	0.005	400	44	465	173

	Au ppm	Ba ppm	Co ppm	Cr ppm	Cu ppm
RB L7+00	0.005	1660	15	135	51
RB L7+50	0.007	790	9	63	79
RB L7+100	-0.005	1240	13	146	25
RB L7+150	0.021	930	19	235	60
RB L7+200	0.022	580	28	314	123
RB L7+250	0.006	830	25	300	142
RB L7+300	0.017	1060	26	297	111
RB L7+350	0.013	730	22	257	122
RB L7+400	0.010	750	18	224	33
RB L7+450	0.006	960	14	214	18
RB L7+500	0.008	1160	14	207	25

**ARCTURUS VENTURES INC.**

RB property sample locations and results

Figure: 8 Date: Oct. 2004

Drafted by: J/JF Scale: as shown

2.0 km

0

6,795,000 N

### 9.4 Statement of Costs

The schedule of deferred exploration costs is shown in Appendix B. The total costs for the exploration work previous to August 30<sup>th</sup>, 2004 was \$CDN 9,356.22.

For the purpose of distributing costs for the property, the total expenditures minus the management fees were divided into the total number of samples collected - 56 - resulting in each sample costing \$157.5. This calculation results in the following amount of work performed on the following claims:

RB11	3 samples	= \$ 472.5
RB12	8 samples	= \$ 1260
RB25	7 samples	= \$ 1102.5
RB26	1 sample	= \$ 157.5
RB27	4 samples	= \$ 630
RB47	4 samples	= \$ 630
RB48	7 samples	= \$ 1102.5
RB74	4 samples	= \$ 630
RB75	8 samples	= \$ 1260
RB77	9 samples	= \$ 1412.5
RB79	1 sample	= \$ 157.5

## 10.0 Drilling

There has been no documented drilling performed within the limits of the RB property.

## 11.0 Sampling Method and Approach

The silt sample was taken from a streambed with seasonally flowing water. The sample consisted of approximately 1 to 2 kg of -2 cm material that was segregated manually.

The soil samples were taken from predetermined locations surrounding the northern portion of the property that contains both the JD and DM showings. Samples were taken along five 500 metre lines that ran perpendicular to topography. Each sample consisted of approximately 200 to 500 grams of fine material that was taken from the lower b horizon.

## 12.0 Sample Preparation, Analyses and Security

Due to the small nature of the program and the remote location of the property, minimal security measures were necessary. While in transportation the samples were under constant supervision. The samples were transported back to Vancouver in a personal vehicle to ensure additional security.

All the samples were sent to ALS Chemex Labs of Vancouver for analysis. Every sample was assayed for gold (method Au-AA23) by multi-element geochemistry by ICP (method ME-ICP61). The sample preparation and analytical procedures for the three separate analyses used by Acme are described below.

Method Au-AA23:

Sample Decomposition: Fire Assay Fusion  
Analytical Method: Atomic Absorption Spectroscopy (AAS)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 ml dilute nitric acid in the microwave oven, 0.5 ml concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 ml with de-mineralized water, and analyzed by atomic absorption spectroscopy against matrix-matched standards.

ALS Chemex Method Code	Element	Symbol	Sample Weight	Lower Reporting Limit	Upper Reporting Limit	Units
Au-AA23	Gold	Au	30 g	0.005	10.0	ppm
Au-AA24	Gold	Au	50g	0.005	10.0	ppm

(ALS Chemex, 2004).

#### Method ME-ICP61:

Sample Decomposition: Four Acid Digestion

Analytical Method: Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample (0.250 gram) is digested with perchloric, nitric, and hydrofluoric acids to near dryness. The sample is then further digested in a small amount of hydrochloric acid. The solution is made up to a final volume of 12.5 ml with 11% hydrochloric acid, homogenized, and analyzed by inductively coupled plasma-atomic emission spectrometry. Results are corrected for spectral interelement interferences.

Element	Symbol	Lower Reporting Limit	Upper Reporting Limit	Units
Silver	Ag	0.5	100	ppm
Aluminum	Al	0.01	25	%
Arsenic	As	5	10,000	ppm
Barium	Ba	10	10,000	ppm
Beryllium	Be	0.5	1000	ppm
Bismuth	Bi	2	10,000	ppm
Calcium	Ca	0.01	25	%
Cadmium	Cd	0.5	500	ppm
Cobalt	Co	1	10,000	ppm
Chromium	Cr	1	10,000	ppm
Copper	Cu	1	10,000	ppm
Iron	Fe	0.01	25	%
Potassium	K	0.01	10	%
Magnesium	Mg	0.01	15	%
Manganese	Mn	5	10,000	ppm
Molybdenum	Mo	1	10,000	ppm
Sodium	Na	0.01	10	%
Nickel	Ni	1	10,000	ppm
Phosphorus	P	10	10,000	ppm
Lead	Pb	2	10,000	ppm
Sulphur	S	0.01	10	%
Antimony	Sb	5	10,000	ppm
Strontium	Sr	1	10,000	ppm
Titanium	Ti	0.01	10	%

Vanadium	V	1	10,000	ppm
Tungsten	W	10	10,000	ppm
Zinc	Zn	2	10,000	ppm

(ALS Chemex, 2004).

### 13.0 Data Verification

The author has relied on the data verification of Acme labs for this program as the fact that the accepted 5% of the total number of samples used for duplicates would result in only 1 sample, which would not result in a reasonable sample set. There were no unreasonably high results returned by the lab and the author feels that the results can be considered valid. The data verification administered by ALS Chemex is described as follows:

The Laboratory Information Management System (LIMS) inserts quality control samples (reference materials, blanks and duplicates) on each analytical run, based on the rack sizes associated with the method. The rack size is the number of sample including QC samples included in a batch. The blank is inserted at the beginning, standards are inserted at random intervals, and duplicates are analysed at the end of the batch. Quality control samples are inserted based on the following rack sizes specific to the method:

Rack Size	Methods	Quality Control Sample Allocation
20	Specialty methods including specific gravity, bulk density, and acid insolubility	2 standards, 1 duplicate, 1 blank
28	Specialty fire assay, assay-grade, umpire and concentrate methods	1 standard, 1 duplicate, 1 blank
39	XRF methods	2 standards, 1 duplicate, 1 blank
40	Regular AAS, ICP-AES and ICP-MS methods	2 standards, 1 duplicate, 1 blank
84	Regular fire assay methods	2 standards, 3 duplicates, 1 blank

The laboratory staff analyses quality control samples at least at the frequency specified above. If necessary, laboratory staff may include additional quality control samples above the minimum specifications.

All data gathered for quality control samples – blanks, duplicates and reference materials – are automatically captured, sorted and retained in the QC Database. Quality Control Limits for reference materials and duplicate analyses are established according to the precision and accuracy requirements of the particular method. Data outside control limits are identified and investigated and require corrective actions to be taken. Quality control data is scrutinised at a number of levels. Each analyst is responsible for ensuring the data submitted is within control specifications. In addition, there are a number of other checks (ALS Chemex, 2004).

### 14.0 Adjacent Properties

Adjoining the RB property to the east is the Meg property. The Meg property was staked by True North Gems due to its emerald potential. The Meg property and three others in the Finlayson Lake area (Rusty, Lion, and Straw) have been optioned to Firestone Ventures. To earn a 60 % interest in the properties, Firesone must pay for the staking costs, issue a total of 500,000 shares to True North Gems, and incur \$750,000 of exploration expenditures over a five year period.

Results from the 2003 field program on the Meg property have not been included in news releases from Firestone Ventures but their AIF dated May 28, 2003 indicates that a grid on the Meg claims was cut and



soil sampled. Results are reported to be up to 2.64 ppm Be, 7.2 ppm Sb, and 55 ppm W, but these are from the eastern block of the Meg property, which is contiguous with the Regal Ridge property and is across the North River from the RB property. It is unknown if the Meg claims received any work during 2004.

## **15.0 Mineral Processing and Metallurgical Testing**

There has been no mineral processing or metallurgical testing done within the RB Property. Metallurgical testing would not necessary for emeralds as there would be no need for any form of metallurgy would be needed in order to process emeralds if an economic deposit were to be found on the property. The exploration for VMS mineralization is still in the earliest of stages and metallurgical testing is not required at this stage.

During their 2002 field program True North Gems installed a processing plant consisting of a crushing circuit, a screening circuit and a visual picking belt that had a capacity of approximately 50 tonnes per day. The resulting 65 kg concentrate was then processed in Vancouver. The results are summarized in Montgomery's 2003 technical report. The results indicate that a majority of the emeralds can be classified as 'near gem' but several zones do have a considerable number of 'gem' quality stones that are greater than 4.5 mm in one dimension. The results from the 2002 program at Regal Ridge are considered preliminary as the 2003 program will provide much more detailed information.

## **16.0 Mineral Resource and Mineral Reserve Estimates**

Exploration within the RB Property is still in the earliest stage, hence there are no existing resources and none shall be estimated without an additional technical report.

## **17.0 Other Relevant Data and Information**

At this stage of exploration, there is no other relevant data or information regarding the RB property.

## **18.0 Interpretation and Conclusions**

Within the RB property, the prospective stratigraphy for hosting a beshi-style VMS deposit has been preserved under the overlying phyllites. The RB property has similar geology to the Fyre Lake property. There are two direct correlations between the two: 1) they are both located within the same portion of the stratigraphy and, 2) both are located at the southwest extremity of a package of comagmatic ultramafic rocks.

Although the property is still in the early stages of exploration, it is possible to infer a northwest trending (growth ?) fault within the northeastern portion of the property. The evidence that leads to that conclusion is 1) the similarities to Fyre Lake, 2) the corridor of conductive geophysical anomalies, and 3) the possible presence of 'transition zone'-style rocks at the northern end of the property that coincides with this trend. The ramifications of a growth fault existing within the property would have significant ramifications with regard the VMS potential of the property.

In addition, the correct geological environment exists within the RB property for it to have the potential for emeralds. This is based on: the property containing the same stratigraphy as at Regal Ridge: anomalous

chromium and beryllium values from silt samples; and the discovery of the large boulder of granite. The two key factors in creating emeralds are a source of beryllium and a chromium-rich environment for deposition. At RB the chlorite schists are regionally recognized as having chromium-rich sections in the stratigraphy. Without additional geochemical data it remains unknown whether or not the granite boulder discovered in August 2003 is the same Cretaceous-aged two mica granite that is the source of the beryllium for the emerald mineralization at the Crown showing but the two are visually identical (Murphy, pers. comm.).

It appears that the chromium content within the chlorite schists is quite variable. The Fyre Lake unit is interpreted to have originally been made up of various facies of mafic rocks within one larger volcanic pile. These rocks varied from water and/or air lain tuffs to massive flows. The composition of these rocks is also probably quite variable as locally the rocks range from basalts and andesite to tholeiites and boninites (Sebert and Hunt, 1999). The more mafic (basic) rock types such as the boninites have much higher levels of chromium and are therefore a much more favourable host rock for emerald mineralization. From their work at Fyre Lake, Sebert and Hunt (1999) conclude that "there are distinct chemical differences between chlorite schist which hosts the copper-cobalt-gold Kona zone mineralization and those in other areas which are barren. Lithochemical sampling and analysis can thus be used as a tool to aid in separating schist units which are not readily distinguishable in outcrop or drill core."

In conclusion, the RB property contains excellent exploration targets that warrant additional work programs.

## 19.0 Recommendations

Based on the successes of limited exploration within the RB property, the author recommends that the anomalies identified by prospecting and geochemical sampling be drilled. A results based two stage program is recommended.

The first stage should involve the cutting of a grid through the entire property with baselines spaced at 1km. These baselines should be cut at 235°. Two baselines were started during the 2001 field season; currently baseline 100 W is 1.0 km in length and baseline 110 W is 2.5km in length. They are tied together by line 110 N, which is currently 1.0 km in length. To complete the ultimate grid, an additional 15.8 km of baselines needs to be cut and tie line 110 N would have to be extended by 2.0 km. This would result in 17.8 km of cut lines. The sample lines would then be run 100 metres apart by a two person sample team who would then tie in the lines with the baselines. These lines should be sampled every 50 metres but only every second sample should be sent for analysis. In the event of anomalous results the surrounding samples (at a spacing of 50 metres) should then be run. There would be a total of 98.8 km of sample lines resulting in a grand total of 1976 samples. In addition, another 15 to 20 stream silt samples need to be taken in order to fill in the gaps of the previous sampling and act as checks.

During this stage the property needs to be prospected in detail with the emphasis being each of the drainages as well as all the areas below the treeline. The beryllium anomalies from the middle drainage on the eastern side of the property should be followed up with additional silt sampling and local panning. The uppermost part of the central drainage on the western side of the property should be prospected in detail (possibly by a geologist) in order to identify a source for the granite boulder. Geological mapping at a scale of 1:5,000 should be performed over the entire property. The JD and DM showings should be sampled and mapped in detail.

Chromium-rich portions of the Fire Lake Unit should therefore be identified as this can be used as a guide to identify areas that require more detailed exploration. Without whole rock geochemistry geochemical theories of the rocks are imprecise but, if these high chromium rocks are also low in titanium then it may be possible to infer that the rocks may have similar geochemistry as the host rocks of the Kona Deposit.

The geophysics that already covers the property (covering the old Ket and Ball claims) is sufficient and no additional geophysics is warranted at this time. However, it would be well worth the time to reprocess the current geophysical data using the current interpretations.

The second stage should be designed around a small diamond drilling program. 1,500 metres of drilling should be sufficient to test the two known showings and any other zone that may be found during phase 1.

### Proposed Budget – Phase 1:

- estimated program = 30 days

#### Personnel:

- 4 samplers/line cutters @ 175/day	=	\$ 21,000
- 1 geological assistant @ 200/day	=	\$ 6,000

#### Detailed mapping:

- 1 geologist (10 days) @ 300/day	=	\$ 3,000
-----------------------------------	---	----------

#### Prospecting:

- 1 prospector (7 days) @ 175/day	=	\$ 1,125
-----------------------------------	---	----------

#### Assays:

- 988 soil samples @ 25/sample	=	\$ 24,700
- 50 silt/rock samples @ 30/sample	=	\$ 1,500

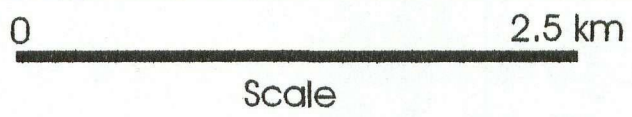
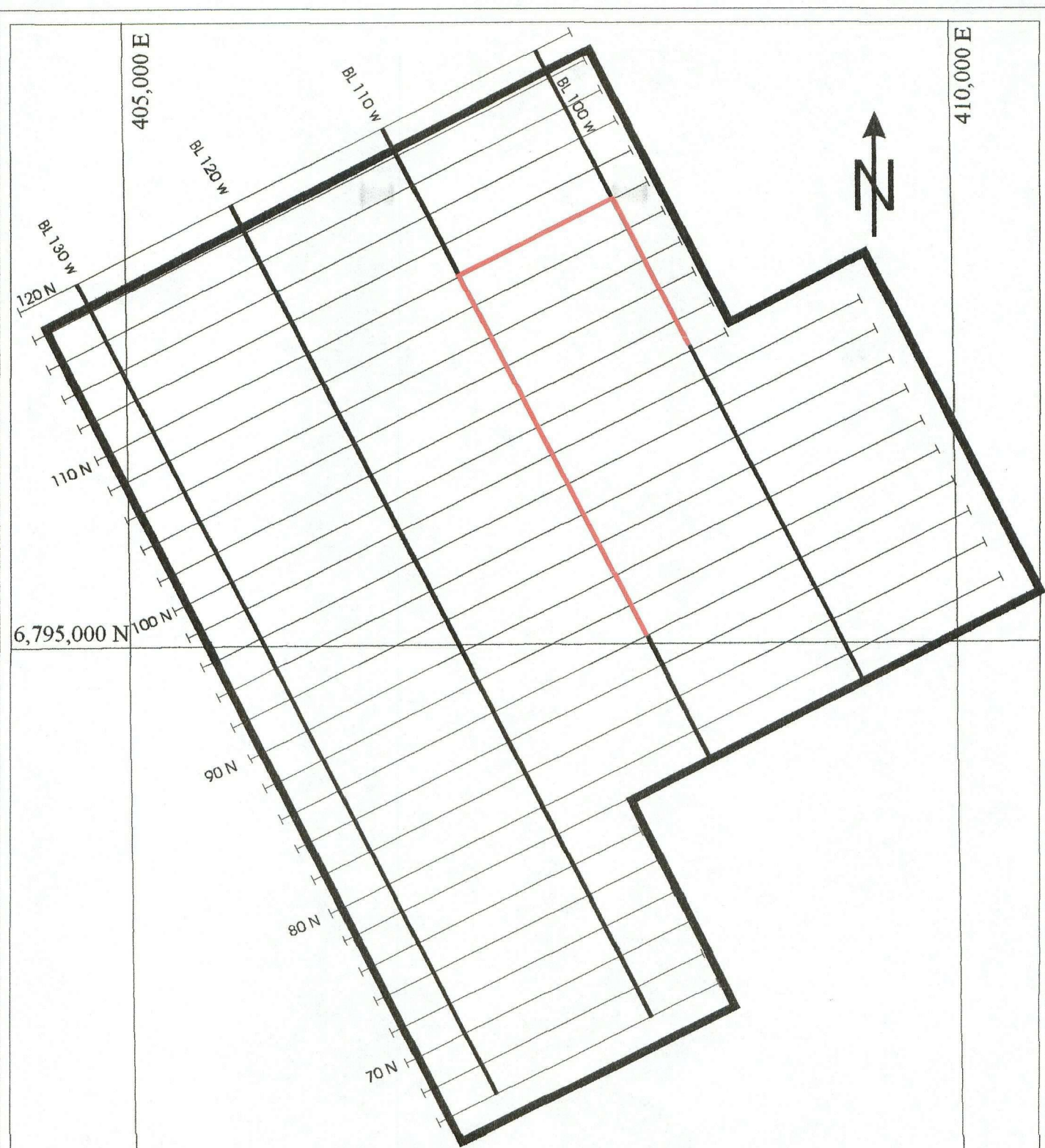
#### Camp and support:

- estimate	=	\$ 20,000
Transportation:		
- helicopter (11 hrs) @ 950/hr	=	\$ 10,450
Contingency:		
- 10 percent	=	\$ 8,800
<b>Total for Phase 1:</b>	=	<b>\$ 96,575</b>

**Proposed Budget – Phase 2:**

- estimated program = 15 days

Personnel:		
- 1 geological assistant @ 200/day	=	\$ 3,000
- 1 geologist @ 300/day	=	\$ 4,500
Drilling:		
- 1,000 metres at 150/m	=	\$150,000
Assays:		
- 100 core samples @ 30/sample	=	\$ 3,000
Camp and support:		
- estimate	=	\$ 10,000
Transportation:		
- helicopter (11 hrs) @ 950/hr	=	\$ 10,450
Contingency:		
- 10 percent	=	\$ 18,000
<b>Total for Phase 2:</b>	=	<b>\$198,950</b>



**Legend**

— = existing lines

— = proposed lines

**ARCTURUS VENTURES INC.**

Proposed grid for the  
RB property

Figure: 9	Date: Oct. 2004
Drafted by: IJF	Scale: as shown

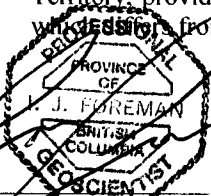
## 20.0 References

- ALS Chemex Laboratories, 2004. Company hand-outs to clients.
- Davidson, G.S., 1997. Assessment Report on the Bas I-64 claims (YB83822-YB83885) and Ket I-48 claims (YB83886-YB83933).
- Deighton, J.R., Foreman, I.J., and Sebert, C.F.B., 1997. Exploration Report for the 1997 Fyre Lake Project. Watson Lake Mining District, Yukon Territory, Canada. pp. 113.
- Firestone Ventures Inc., 2003. Annual Information Form – May 28, 2003.
- Foreman, I.J., 1998. The Fyre Lake Project 1997: Geology and mineralization of the Kona massive sulphide deposit. *In: Yukon Exploration and Geology 1997*, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p.105 – 113.
- Foreman, I.J., 2001. A summary of the RB claim group, Yukon Territory. Internal company memo.
- Groat, L.A., Ercit, T.S., Marshall, D.D., Gault, R.A., Wise, M.A., Wengyznowski, W., and Eaton, W.D., 2000. Canadian Emeralds: the Crown Showing, Southeastern Yukon. *In: Newsletter of the Mineralogical Association of Canada*, Dec. 2000.
- Mitchell, M.A., 2002a. Summary Report on the RB I-58 Claims (YB93186-YB93243) and 1<sup>st</sup> Base I-44 Claims (YB51866-51909). Report for Arcturus Ventures Inc.
- Mitchell, M.A., 2002b. Assessment Report on the RB I-58 Claims (YB93186-YB93243).
- Montgomery, J.H., 2003. Report on Regal Ridge Emerald Project Yukon Territory.
- Murphy, D.C. and Piercey, S.J., 1999. Open File 1999-4, Geological map of parts of Finlayson Lake (105G/7,8 and parts of 1,2, and 9) and Frances Lake (parts of 105H/5 and 12) map areas, southeastern Yukon (1:100,000-scale).
- Murphy, D.C. and Piercey, S.J., 2000. Syn-mineralization faults and their re-activation, Finlayson Lake massive sulphide district, Yukon-Tanana Terrane, southeastern Yukon. *In: Yukon Exploration and Geology 1999*, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 55-66.
- Neufeld, H.L.D., Groat, L.A. and Mortensen, J.K., 2003. Preliminary investigations of emerald mineralization in the Regal Ridge area, Finlayson Lake district, southeastern Yukon. *In: Yukon Exploration and Geology 2002*, D.S. Emond and L.L. Lewis (eds.), Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, p. 281-284.
- Sebert, C. and Hunt, J.A., 1999. A note on the preliminary litho geochemistry of the Fire Lake area. *In: Yukon Exploration and Geology 1998*, C.F. Roots and D.S. Emond (eds.), Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, p. 139-142.
- Walton, L. 1996. Exploration Criteria For Gemstone Deposits and Their Application to Yukon Geology. Indian and Northern Affairs Canada, Northern Affairs: Yukon Region. Open File 1996-2(G).
- Yukon Minfile. Map sheet 105 G. Yukon Geology Program, Whitehorse.

## 21.0 Certificate of Qualification

I, Ian Foreman of 2160 West 3<sup>rd</sup> Ave., Vancouver, B.C. Canada do hereby certify that:

1. I am a graduate of Queen's University (1992) with a Bachelor of Science honors degree with a subject of specialization in geology.
2. I have continuously practiced my profession as a geologist since 1993.
3. I am a professional geoscientist, registered with the Association of Professional Engineers and Geoscientists of British Columbia (License No. 23572)
4. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I am **not**, according to paragraph 1.5(4)(c) of NI 43-101, "independent of the issuer".
6. I am responsible for the preparation of this report titled ASSESMENT REPORT ON THE RB 1-94 CLAIMS,(YB93186-YB93243 and YB94298 - YB94333), dated October 29, 2004.
7. I visited the property between August 1 and 4, 2003.
8. I have relied on current 'Claim Status Reports' supplied by the Mining Recorder, Watson Lake Mining Division, Yukon Territory, for information relating to legal title of the property.
9. I am not aware of any material fact or material change with respect to the subject matter of this report.
10. I have read National Instrument 43-101 and Form 43-101F1, and the technical aspects of this report have been prepared in compliance with that instrument and form.
11. I consent to the filing of this report with the Mining Recorder, Watson Lake Mining Division, Yukon Territory, provided that no portion be used out of context in such a manner as to convey a meaning which differs from that set out in the whole.

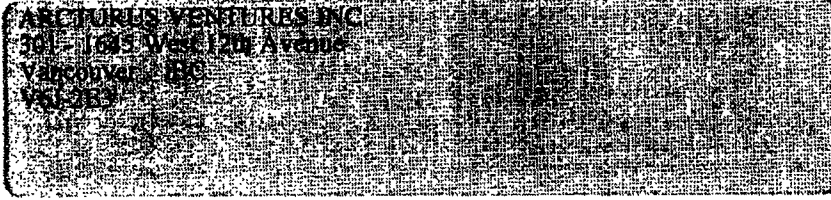


Ian Foreman, P. Geo.  
October 29, 2004  
Vancouver, Canada

**Appendix A**  
Claim Data



24 July 2003



Dear Sir/Madam:

We are able to confirm the status of the following claim(s):

Claim Name and Nbr.	Grant No.	Entry Date	Registered Owner	% Owned	NTS #s
FIFE 1 - 39	YB94334 - YB94372	2004/11/21	ARCTURUS VENTURES INC.	100.00	105G02, 105G07
FIFE 41 - 52	YB94373 - YB94384	2004/11/21	ARCTURUS VENTURES INC.	100.00	105G02, 105G07
RB 1 - 58	YB93186 - YB93243	2006/08/30	ARCTURUS VENTURES INC.	100.00	105G07
RB 59 - 94	YB94298 - YB94333	2004/11/21	ARCTURUS VENTURES INC.	100.00	105G07

There is no provision in either the Quartz Mining Act or the Placer Mining Act for a Mining Recorder to interpret his/her records to the public. Where information regarding the status of a mineral claim is to be used for title opinions or quasi-legal purposes, we recommend that certified true copies of documents be obtained. All books of record and documents filed are open for public inspection, free of charge, during office hours. An enquirer may employ someone to search the records, or obtain abstracts of record at a cost of \$1.00 for the first entry and \$.10 for each additional entry.

If you have any questions, please do not hesitate to contact this office.

Yours truly,

Patti McLeod  
Mining Recorder  
Watson Lake Mining District  
P.O. Box 269  
Watson Lake YT Canada  
Y0A-1C0  
Ph:(867) 536-7366  
fax: (867) 536-7842

Total claims selected : 1000176249

Left column indicator legend:

- R - Indicates the claim is on one or more pending renewal(s).
- P - Indicates the claim is pending.

Right column indicator legend:

- L - Indicates the Quartz Lease.
- F - Indicates Full Quartz fraction (25+ acres)
- P - Indicates Partial Quartz fraction (<25 acres)

- D - Indicates Placer Discovery
- C - Indicates Placer Codiscovery
- B - Indicates Placer Fraction

**Appendix B**  
Statement of Costs

**Statement of costs  
RB Claims 1-94  
Period August 13-17, 2004**

**Personnel**

Blake Macdnald	Supervisor	2 Days @ \$400/day	(15% mgt+7.5% GST)	\$980.00
Pat Etzel	Prospector/GPS Tech	4 1/2 days @ \$200	(15% mgt+7.5% GST)	\$1,102.50
Tyrell Ollie	Geochem Sampler	4 1/2 days @ \$150	(15% mgt+7.5% GST)	\$826.88

**Analytical**

ALS Chemex				\$1,430.96
------------	--	--	--	------------

**Helicopter**

Trans North	mob	1/2 of 2368.34		\$1,184.27
	de-mob	1015.00		\$1,015.00

**Miscellaneous Expenses**

Ross River Service Centre Groceries etc	744.25		
Hotel Whitehorse	321.00		
Gas	51.46		
	39.91		
Truck	997.08		
Hotel Ross River	793.45		
Sat Phone	<u>406.07</u>		
	3353.22 divided by 2		\$1,676.61

**Report Preparation and Grouping**

Ian Foreman	4 days @ \$285/day	\$1,140.00
-------------	--------------------	------------

Total

\$9,356.22

**Appendix C**  
Soil sample geochemistry results





# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.

212 Brooksbank Avenue

North Vancouver BC V7J 2C1 Canada

Phone: 804 984 0221 Fax: 804 984 0218

To: ARCTURUS VENTURES INC.

1012 - 470 GRANVILLE ST.

VANCOUVER BC V6C 1V5

Page: 2 - A

Total # Pages: 5 (A - B)

Finalized Date: 27-SEP-2004

Account: ARCVE

## CERTIFICATE OF ANALYSIS VA04061370

Sample Description	Method Analyte Units LOR	WEI-21	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
		Recvd Wt. kg 0.02	Ag ppm 0.5	Al % 0.01	As ppm 5	Ba ppm 10	Be ppm 0.5	Bi ppm 2	Ca % 0.01	Cd ppm 0.5	Co ppm 1	Cr ppm 1	Cu ppm 1	Fe % 0.01	K % 0.01	Mg % 0.01	
RB L1+00N		0.28	<0.5	11.70	198	1800	2.9	<2	0.29	<0.5	5	106	43	3.13	3.46	0.51	
RB L1+50N		0.24	<0.5	7.85	20	1030	1.7	<2	0.95	<0.5	10	102	26	4.19	1.77	1.06	
RB L1+100N		0.28	<0.5	8.25	36	1070	1.8	<2	0.73	<0.5	12	156	29	5.44	1.72	1.20	
RB L1+150N		0.28	<0.5	7.27	12	900	1.7	<2	1.16	<0.5	13	139	38	4.11	1.48	1.40	
RB L1+200N		0.22	<0.5	7.66	10	880	0.7	<2	0.99	<0.5	29	101	148	5.85	0.99	2.09	
RB L1+250N		0.24	<0.5	7.93	<5	520	0.6	<2	3.06	<0.5	23	151	17	5.38	0.68	3.31	
RB L1+300N		0.38	<0.5	7.23	8	840	0.6	<2	2.55	<0.5	25	155	82	5.20	0.77	3.13	
RB L1+350N		0.30	<0.5	7.10	6	890	0.5	<2	1.97	<0.5	29	136	152	6.18	0.51	3.12	
RB L1+400N		0.32	<0.5	7.61	<5	960	1.0	<2	1.86	<0.5	17	122	41	4.75	1.04	2.16	
RB L1+450N		0.24	<0.5	7.10	9	1060	1.3	<2	1.58	<0.5	14	113	47	4.20	1.32	1.58	
RB L1+500N		0.34	<0.5	7.29	8	1130	1.2	<2	1.95	<0.5	16	107	100	4.58	1.13	1.88	
RBL-6 00M		0.22	<0.5	8.46	10	340	0.6	<2	1.90	<0.5	49	425	19	8.04	0.88	5.28	
RBL-6 50M		0.24	<0.5	7.47	5	270	<0.5	<2	1.70	<0.5	55	439	45	8.45	0.36	4.39	
RBL-6 100M		0.28	<0.5	7.91	77	1240	0.9	<2	1.44	<0.5	45	462	78	7.02	1.05	3.98	
RBL-6 150M		0.40	<0.5	9.57	38	1680	0.7	<2	0.65	<0.5	43	447	78	6.55	1.63	1.92	
RBL-6 200M		0.34	<0.5	8.96	23	1690	0.8	<2	0.94	<0.5	39	381	73	6.53	1.56	2.31	
RBL-6 250M		0.42	<0.5	8.53	11	3580	3.9	<2	0.23	<0.5	10	67	27	3.73	3.61	0.79	
RBL-6 300M		0.40	<0.5	6.84	<5	>10000	3.6	<2	0.01	<0.5	16	84	150	5.09	3.42	0.89	
RBL-6 350M		0.46	<0.5	8.09	11	1330	1.6	<2	2.44	<0.5	25	319	32	6.14	1.19	3.24	
RBL-6 400M		0.26	<0.5	4.52	113	670	0.7	<2	1.10	<0.5	59	675	59	5.53	0.74	6.69	
RBL-6 450M		0.30	<0.5	6.36	18	240	0.5	<2	3.15	<0.5	41	636	136	5.66	0.36	6.07	
RBL-6 500M		0.24	<0.5	6.65	42	400	0.5	<2	2.70	<0.5	44	485	173	5.74	0.50	5.46	
RBL-7 00M		0.30	<0.5	8.39	20	1950	2.0	<2	0.35	<0.5	15	135	51	4.35	2.18	1.30	
RBL-7 50M		0.14	0.8	6.36	<5	780	1.4	<2	2.14	1.4	9	63	79	2.35	1.51	0.73	
RBL-7 100M		0.32	<0.5	6.79	8	1240	2.2	<2	0.91	<0.5	13	146	25	4.38	1.89	1.84	
RBL-7 150M		0.34	<0.5	7.45	7	930	0.6	<2	2.46	<0.5	19	235	60	4.87	0.93	3.61	
RBL-7 200M		0.28	<0.5	7.12	14	580	<0.5	<2	2.41	<0.5	28	314	123	6.09	0.46	4.51	
RBL-7 250M		0.32	<0.5	7.97	<5	830	0.6	<2	2.15	<0.5	25	300	142	6.33	0.65	4.86	
RBL-7 300M		0.34	<0.5	8.12	6	1060	0.6	<2	2.34	<0.5	26	297	111	6.87	0.64	5.19	
RBL-7 350M		0.22	0.5	7.59	7	730	0.6	<2	1.86	<0.5	22	257	122	5.82	0.67	4.31	
RBL-7 400M		0.24	<0.5	7.61	6	750	0.7	<2	1.74	<0.5	18	224	33	5.47	0.80	3.28	
RBL-7 450M		0.30	<0.5	7.63	<5	960	0.9	<2	2.01	<0.5	14	214	18	3.71	1.00	2.62	
RBL-7 500M		0.30	<0.5	7.37	9	1160	1.0	<2	1.34	<0.5	14	207	25	4.53	1.02	2.05	
RBL-2 00+00M		0.28	<0.5	9.84	14	1190	3.1	<2	0.41	<0.5	26	102	58	5.24	2.41	1.08	
RBL-2 00+50M		0.26	<0.5	9.92	<5	1120	3.1	<2	0.31	<0.5	10	97	28	4.79	2.36	0.78	
RBL-2 00+100M		0.26	<0.5	12.35	<5	1210	4.7	<2	0.14	<0.5	13	127	36	6.70	2.63	1.54	
RBL-2 00+150M		0.44	<0.5	10.10	14	1040	3.1	<2	0.49	0.5	10	84	29	3.55	2.43	0.62	
RBL-2 00+200M		0.28	<0.5	9.26	26	990	2.2	<2	0.80	<0.5	14	61	31	3.71	2.25	0.48	
RBL-2 00+250M		0.34	<0.5	9.75	48	1910	2.7	<2	0.24	0.7	13	147	150	5.15	3.30	0.65	
RBL-2 00+300M		0.30	<0.5	8.82	9	1260	2.5	<2	0.83	0.5	9	102	27	3.53	2.16	0.99	



**ALS Chemex**  
**EXCELLENCE IN ANALYTICAL CHEMISTRY**  
 ALS Canada Ltd.  
 212 Brooksbank Avenue  
 North Vancouver BC V7J 2C1 Canada  
 Phone: 604 984 0221 Fax: 604 984 0218

To: ARCTURUS VENTURES INC.  
 1012 - 470 GRANVILLE ST.  
 VANCOUVER BC V6C 1V5

Page: 2 - B  
 Total # Pages: 5 (A - B)  
 Finalized Date: 27-SEP-2004  
 Account: ARCVE

**CERTIFICATE OF ANALYSIS VA04061370**

Sample Description	Method Analyte Units LOR	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Au-AA23	F-ELE61a
		Mn ppm S	Mo ppm 1	Na % 0.01	Ni ppm 1	P ppm 10	Pb ppm 2	S % 0.01	Sb ppm S	Sr ppm 1	Ti % 0.01	V ppm 1	W ppm 10	Zn ppm 2	Au ppm 0.005	F ppm 20
RB L1+00N		219	3	0.91	18	870	30	0.08	<5	299	0.15	148	<10	47	<0.005	
RB L1+50N		556	4	1.38	29	1240	20	0.04	<5	215	0.33	130	<10	73	<0.005	
RB L1+100N		811	4	1.17	39	990	21	0.04	<5	180	0.39	147	<10	86	<0.005	
RB L1+150N		684	2	1.81	39	890	21	0.02	<5	209	0.38	148	<10	68	<0.005	
RB L1+200N		1110	1	2.18	48	290	10	0.01	<5	134	0.33	210	<10	74	0.005	
RB L1+250N		941	1	2.84	50	320	9	0.01	5	188	0.30	198	<10	66	<0.005	
RB L1+300N		908	1	2.34	50	170	9	0.01	<5	200	0.34	201	<10	76	0.010	
RB L1+350N		1030	<1	2.57	48	210	9	0.01	<5	128	0.34	236	<10	118	0.011	
RB L1+400N		749	1	2.20	40	320	14	0.01	<5	188	0.40	188	<10	81	<0.005	
RB L1+450N		687	1	1.88	32	350	15	0.01	<5	182	0.47	167	<10	68	<0.005	
RB L1+500N		735	1	1.98	33	440	11	0.01	<5	192	0.48	175	<10	83	<0.005	
RBL-6 00M		1220	<1	0.40	171	210	4	0.02	<5	30	0.24	307	<10	31	0.010	
RBL-6 50M		949	<1	0.92	188	180	5	0.01	<5	38	0.24	317	<10	27	<0.005	
RBL-6 100M		975	1	0.95	257	430	13	0.02	<5	98	0.30	258	<10	76	<0.005	
RBL-6 150M		1260	1	1.27	248	400	22	0.02	5	134	0.38	237	<10	80	<0.005	
RBL-6 200M		1075	<1	1.07	182	540	21	0.03	<5	138	0.37	234	<10	84	<0.005	
RBL-6 250M		580	3	0.50	33	450	73	0.01	<5	46	0.32	108	<10	178	<0.005	
RBL-6 300M		1755	4	0.08	72	800	22	0.01	<5	44	0.29	148	<10	310	<0.005	
RBL-6 350M		1115	6	1.55	137	1100	25	0.04	<5	138	0.72	195	<10	202	0.010	
RBL-6 400M		1065	2	0.82	940	1320	29	0.10	<5	84	0.24	108	<10	80	0.006	
RBL-6 450M		775	<1	1.30	759	280	8	0.01	<5	112	0.28	193	<10	43	0.006	
RBL-6 500M		981	1	1.28	497	510	13	0.02	<5	176	0.32	196	<10	54	0.005	
RBL-7 00M		888	11	1.24	47	1860	19	0.04	5	131	0.21	209	<10	124	0.005	
RBL-7 50M		513	3	1.21	38	1200	14	0.19	<5	300	0.15	81	<10	116	0.007	
RBL-7 100M		832	4	1.52	50	480	21	0.03	<5	190	0.22	161	<10	127	<0.005	
RBL-7 150M		1020	3	2.13	61	850	11	0.03	<5	228	0.24	173	<10	182	0.021	
RBL-7 200M		1245	1	1.70	95	410	10	0.03	<5	105	0.22	207	<10	250	0.022	
RBL-7 250M		1295	1	1.75	88	680	12	0.02	<5	104	0.24	228	<10	228	0.038	
RBL-7 300M		1365	1	1.83	90	300	10	0.02	<5	116	0.24	228	<10	215	0.017	
RBL-7 350M		1165	1	1.79	77	440	14	0.03	<5	119	0.23	204	<10	192	0.013	
RBL-7 400M		951	1	1.59	65	700	14	0.03	<5	132	0.28	196	<10	148	0.010	
RBL-7 450M		695	1	1.92	58	570	17	0.03	<5	144	0.27	181	<10	80	0.008	
RBL-7 500M		642	2	1.41	53	790	18	0.03	<5	120	0.28	175	<10	80	0.008	
RBL-2 00+00M		849	3	1.08	87	830	28	0.02	<5	207	0.20	138	<10	102	0.005	
RBL-2 00+50M		384	3	1.03	30	550	28	0.01	<5	221	0.22	146	<10	65	<0.005	
RBL-2 00+100M		461	4	1.26	33	750	37	0.02	<5	307	0.11	159	<10	128	<0.005	
RBL-2 00+150M		371	2	1.40	34	1400	28	0.05	<5	325	0.16	119	<10	77	<0.005	
RBL-2 00+200M		759	2	1.53	34	1290	21	0.05	<5	336	0.19	104	10	102	<0.005	
RBL-2 00+250M		379	14	0.84	98	1100	34	0.01	<5	149	0.26	227	<10	390	<0.005	
RBL-2 00+300M		407	6	1.31	24	610	27	0.01	<5	220	0.37	182	10	79	<0.005	



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.

212 Brooksbank Avenue  
North Vancouver BC V7J 2C1 Canada  
Phone: 604 984 0221 Fax: 604 984 0218

To: ARCTURUS VENTURES INC.  
1012 - 470 GRANVILLE ST.  
VANCOUVER BC V6C 1V5

Page: 3 - A  
Total # Pages: 5 (A - B)  
Finalized Date: 27-SEP-2004  
Account: ARCVE

## CERTIFICATE OF ANALYSIS VA04061370

Sample Description	Method Analyte Units LOR	WEI-21	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
		Recvd Wt. kg	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %
		6.02	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	0.01	0.01
RBL -2 00+350M		0.26	<0.5	7.48	15	880	1.5	<2	1.49	<0.5	18	122	29	5.07	1.24	1.76
RBL -2 00+400M		0.30	<0.5	8.02	5	1060	1.9	<2	1.28	0.5	8	71	22	3.52	1.98	0.93
RBL -2 00+450M		0.26	0.5	8.21	37	1220	2.3	<2	0.87	0.8	18	90	48	4.48	2.10	0.88
RBL -2 00+500M		0.24	<0.5	8.25	16	1220	2.0	<2	0.84	<0.5	10	79	26	3.61	2.04	0.87
107+50E BL 100N		0.30	<0.5	8.61	8	1820	2.4	<2	2.90	0.6	18	55	20	3.88	2.00	2.14
107 E BL 100N		0.38	<0.5	8.42	<5	1540	2.2	<2	2.45	<0.5	23	144	37	5.11	1.86	2.98
106+50E BL 100N		0.22	<0.5	7.51	<5	1720	1.9	<2	1.75	1.0	14	88	17	4.32	1.71	2.03
108E BL 100N		0.42	<0.5	7.02	8	1150	1.8	<2	2.07	<0.5	13	107	21	3.55	1.40	1.72
105+50E BL 100N		0.28	<0.5	7.53	<5	2090	1.7	<2	1.22	4.2	27	121	50	4.50	1.66	2.21
105E BL 100N		0.32	1.7	6.97	<5	1880	2.8	<2	1.02	1.4	23	69	81	6.32	1.72	1.13
104+50E BL 100N		0.28	<0.5	7.76	11	1530	1.7	<2	1.22	5.5	38	110	54	5.65	1.48	2.58
104E BL 100N		0.18	<0.5	8.05	<5	800	1.1	<2	1.80	2.2	34	230	42	6.55	0.82	2.48
103+50E BL 100N		0.20	<0.5	8.65	11	270	1.4	<2	4.50	<0.5	38	223	48	5.97	0.56	3.95
103E BL 100N		0.28	<0.5	6.70	<5	590	1.4	<2	2.18	<0.5	14	154	30	3.93	1.06	2.11
102+50E BL 100N		0.24	<0.5	7.20	<5	210	0.9	<2	3.52	<0.5	40	195	142	6.33	0.43	3.05
102E BL 100N		0.30	<0.5	7.27	<5	480	1.2	<2	2.04	0.7	35	177	63	5.18	0.78	2.33
101+50E BL 100N		0.24	<0.5	8.45	<5	470	1.6	<2	3.00	1.8	73	130	82	4.52	0.66	2.01
101E BL 100N		0.30	<0.5	7.45	8	670	1.6	<2	2.83	0.8	23	160	49	4.51	0.94	3.01
100+50E BL 100N		0.24	0.5	7.34	<5	1860	2.1	<2	0.68	2.2	25	157	108	5.03	1.72	2.38
100E BL 100N		0.22	0.8	7.81	<5	440	1.0	<2	2.06	2.0	28	171	80	6.70	0.78	3.47
L-107+50E L- 107+50N		0.34	<0.5	9.09	<5	730	3.0	<2	1.06	<0.5	23	72	78	4.61	1.66	0.92
L-107+50E 107N		0.48	<0.5	9.37	8	870	2.8	<2	1.32	0.6	26	76	84	5.55	1.85	1.03
L-107+50E L- 106+50N		0.30	<0.5	7.02	<5	710	2.3	<2	0.81	0.5	16	69	50	4.01	1.40	0.82
L-107+50E 106N		0.36	0.6	9.78	<5	870	3.1	<2	0.86	<0.5	59	86	130	5.95	1.98	1.16
L-107+50E L- 105+50N		0.40	0.8	8.91	5	810	3.2	<2	1.35	0.5	33	78	59	4.64	1.87	1.04
L-107+50E 105N		0.28	<0.5	10.55	<5	1280	3.6	<2	1.18	0.5	59	82	80	4.68	2.55	1.04
L-107+50E L- 104+50N		0.28	<0.5	8.03	8	870	2.7	<2	0.79	0.6	17	72	46	4.19	1.71	0.91
L-107+50E 104N		0.54	<0.5	9.88	5	2930	4.0	<2	0.48	<0.5	8	86	31	3.01	3.39	0.86
L-107+50E L- 103+50N		0.42	0.6	8.88	11	1140	2.9	<2	1.00	0.5	16	85	58	5.05	2.21	1.45
L-107+50E 103N		0.30	<0.5	7.53	<5	1840	2.1	<2	0.88	2.5	32	136	99	5.11	1.38	2.37
L-107+50E L- 102+50N		0.30	<0.5	7.98	9	920	1.5	<2	2.00	<0.5	29	113	55	5.36	1.38	2.89
L-107+50E 102N		0.40	0.5	7.90	<5	1860	1.9	<2	1.82	1.6	22	185	58	4.38	1.26	2.35
L-107+50E L- 101+50N		0.48	<0.5	7.81	7	1750	2.4	<2	1.49	0.7	16	108	39	4.04	1.96	2.56
L-107+50E 101N		0.32	<0.5	8.82	<5	2830	3.1	<2	1.28	1.2	10	55	27	3.35	3.28	2.36
L-107+50E L- 100+50N		0.24	<0.5	8.29	7	1810	2.2	<2	1.46	0.6	7	20	21	2.38	2.73	1.26
L99+00E		0.18	<0.5	7.34	<5	1230	1.5	<2	2.13	0.6	11	40	20	2.97	1.87	1.42
L99+50N		0.30	1.0	9.23	8	4120	3.2	<2	0.43	0.9	9	31	59	3.29	4.48	2.32
L98+50N		0.26	<0.5	7.42	7	1180	1.4	<2	1.59	0.6	6	24	27	2.19	1.97	0.65
L98+00N		0.30	<0.5	7.32	<5	1500	2.1	<2	1.67	0.8	11	81	20	3.43	1.70	1.66
L97+50N		0.24	<0.5	7.75	8	1520	2.0	<2	2.07	0.5	14	87	19	3.97	1.86	2.02



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.

212 Brooksbank Avenue  
North Vancouver BC V7J 2C1 Canada  
Phone: 604 984 0221 Fax: 604 984 0218

To: ARCTURUS VENTURES INC.  
1012 - 470 GRANVILLE ST.  
VANCOUVER BC V6C 1V5

Page: 3 - B  
Total # Pages: 5 (A - B)  
Finalized Date: 27-SEP-2004  
Account: ARCVE

## CERTIFICATE OF ANALYSIS VA04061370

Sample Description	Method	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Au-AA23	F-ELE81a
	Analyte	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sr	Ti	V	W	Zn	Au	F
	Units	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
LOR	5	1	0.01	1	10	2	0.01	5	1	0.01	1	10	2	0.005	20	
RBL -2 00+350M	750	3	1.99	47	920	24	0.02	<5	172	0.33	162	<10	101	<0.005		
RBL -2 00+400M	519	3	1.90	26	490	23	0.01	<5	339	0.31	124	10	71	<0.005		
RBL -2 00+450M	579	6	1.14	52	950	30	0.01	<5	212	0.28	148	10	121	<0.005		
RBL -2 00+500M	529	5	1.62	30	1170	22	0.01	<5	243	0.25	138	<10	89	<0.005		
107+50E BL 100N	765	<1	1.06	19	990	48	0.02	<5	335	0.35	114	10	202		650	
107 E BL 100N	1025	1	1.38	46	1020	27	0.04	<5	332	0.47	175	10	142		670	
106+50E BL 100N	856	2	1.22	23	730	32	0.04	<5	305	0.47	151	<10	155		500	
106E BL 100N	610	2	1.40	31	720	24	0.02	<5	296	0.41	130	<10	89		500	
105+50E BL 100N	1230	7	0.75	63	1030	29	0.07	<5	256	0.37	203	10	294		600	
105E BL 100N	1400	11	0.90	41	2850	83	0.18	<5	136	0.33	112	10	174		530	
104+50E BL 100N	2340	3	0.84	49	1660	53	0.07	<5	158	0.51	200	10	267		510	
104E BL 100N	1415	4	1.72	69	1300	22	0.05	<5	248	0.83	245	<10	231		420	
103+50E BL 100N	1285	1	2.11	107	1860	9	0.02	<5	357	0.99	240	<10	90		390	
103E BL 100N	690	3	1.59	48	2130	13	0.06	<5	220	0.63	165	<10	68		390	
102+50E BL 100N	1250	2	2.02	79	1180	12	0.06	<5	262	0.80	236	10	98		400	
102E BL 100N	1500	1	2.07	92	2180	19	0.05	<5	263	0.67	185	<10	117		560	
101+50E BL 100N	3250	3	0.96	232	1800	15	0.05	<5	271	0.38	128	<10	203		440	
101E BL 100N	745	2	1.89	73	800	17	0.04	<5	328	0.66	186	<10	95		530	
100+50E BL 100N	973	27	0.77	100	1480	27	0.35	5	162	0.24	260	<10	393		780	
100E BL 100N	783	4	1.40	91	1460	14	0.10	<5	177	0.76	212	<10	164		490	
L-107+50E L- 107+50N	526	6	0.65	63	1150	26	0.12	<5	198	0.38	114	<10	104		480	
L-107+50E 107N	577	5	0.72	62	1200	25	0.13	<5	197	0.48	114	<10	109		450	
L-107+50E L- 106+50N	522	5	0.71	47	1380	21	0.14	<5	163	0.34	107	<10	90		500	
L-107+50E 106N	637	10	0.63	121	1420	26	0.14	<5	228	0.30	138	10	148		560	
L-107+50E L- 105+50N	756	5	0.81	83	1030	27	0.11	<5	207	0.35	118	10	114		460	
L-107+50E 105N	533	3	0.42	122	640	29	0.12	<5	192	0.28	128	10	135		540	
L-107+50E L- 104+50N	746	4	0.94	39	1760	30	0.11	<5	219	0.32	113	20	88		420	
L-107+50E 104N	416	5	0.58	16	700	17	0.28	<5	265	0.37	119	10	67		1110	
L-107+50E L- 103+50N	611	5	1.21	35	1010	23	0.29	<5	261	0.52	120	<10	128		600	
L-107+50E 103N	1660	24	0.53	107	2080	24	0.29	<5	130	0.36	253	<10	310		860	
L-107+50E L- 102+50N	877	1	1.20	59	1160	16	0.07	<5	204	0.57	164	<10	112		690	
L-107+50E 102N	916	7	1.22	75	1380	20	0.14	<5	182	0.52	202	<10	237		720	
L-107+50E L- 101+50N	896	3	1.20	45	520	41	0.10	<5	219	0.37	117	<10	192		840	
L-107+50E 101N	722	2	1.10	18	610	93	0.03	<5	237	0.26	79	<10	253		970	
L-107+50E L- 100+50N	534	2	1.92	9	630	35	0.05	<5	404	0.23	49	<10	97		660	
L99+00E	797	1	1.94	12	830	18	0.04	<5	462	0.31	72	10	94		560	
L99+50N	634	3	0.56	11	530	219	0.15	<5	118	0.23	57	<10	350		1090	
L98+50N	724	2	2.30	9	1020	19	0.03	<5	454	0.25	62	<10	61		380	
L98+00N	545	1	1.42	28	930	27	0.02	<5	278	0.39	109	<10	100		570	
L97+50N	885	<1	1.56	27	1260	23	0.02	<5	353	0.45	124	10	106		610	



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.  
 212 Brooksbank Avenue  
 North Vancouver BC V7J 2C1 Canada  
 Phone: 604 984 0221 Fax: 604 984 0218

To: ARCTURUS VENTURES INC.  
 1012 - 470 GRANVILLE ST.  
 VANCOUVER BC V6C 1V5

Page: 4 - A  
 Total # Pages: 5 (A - B)  
 Finalized Date: 27-SEP-2004  
 Account: ARCVE

## CERTIFICATE OF ANALYSIS VA04061370

Sample Description	Method	WEI-21	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
	Analyte	Recvd Wt.	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Mg
Units		kg	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	%	%
LOR		0.02	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	0.01	0.01
SAMPLE#3 CREEK BED		0.20	<0.5	6.41	<5	1140	1.8	<2	2.25	2.0	17	120	51	3.71	1.22	2.04
BELOW CREEK#4		0.16	<0.5	6.45	<5	1100	1.7	<2	2.43	2.8	17	118	62	3.40	1.28	1.92
RB1 SILT SAMPLE		0.40	<0.5	7.43	19	1000	1.2	<2	2.12	1.1	24	112	95	4.68	1.06	2.30
L-102+50E 107+50N		0.28	<0.5	8.04	11	2910	2.3	<2	0.85	0.9	6	53	60	3.76	3.28	2.13
L-102+50E 107N		0.28	0.5	8.29	15	2320	2.3	<2	1.46	<0.5	12	134	39	4.26	2.41	3.00
L-102+50E 106+50N		0.28	<0.5	8.75	<5	2230	2.5	<2	1.32	0.5	10	81	32	5.54	1.42	2.49
L-102+50E 106N		0.36	0.6	7.94	13	1740	2.3	<2	1.70	0.5	14	111	32	4.15	1.58	2.13
L-102+50E 105+50N		0.28	0.5	7.46	<5	1680	2.2	<2	1.38	0.8	15	86	47	3.70	1.70	1.60
L-102+50E 105N		0.52	<0.5	7.57	<5	1360	2.0	<2	1.84	<0.5	19	184	43	4.52	1.48	3.03
L-102+50E 104+50N		0.28	<0.5	6.63	<5	1110	2.8	<2	2.22	1.0	26	268	39	4.20	1.30	2.84
L-102+50E 104N		0.24	<0.5	6.80	<5	1090	2.9	<2	2.10	2.5	43	179	39	3.88	1.21	2.23
L-102+50E 103+50N		0.26	<0.5	7.07	<5	1100	3.5	<2	2.04	1.1	29	312	71	4.75	1.16	3.31
L-102+50E 103N		0.32	<0.5	7.04	<5	1280	2.1	<2	2.03	1.2	42	146	29	3.29	1.72	1.82
L-102+50E 102+50N		0.36	<0.5	7.65	6	1220	2.0	<2	1.80	0.7	19	111	46	4.18	1.38	2.00
L-102+50E 102N		0.22	<0.5	7.68	6	1390	1.7	<2	1.70	0.9	38	146	89	6.72	1.38	3.76
L-102+50E 101+50N		0.30	0.7	6.87	22	1250	1.9	<2	1.30	1.4	34	130	79	4.72	1.68	1.99
L-102+50E 101N		0.36	<0.5	7.55	<5	1540	2.2	<2	1.30	1.1	25	156	129	7.20	1.70	2.94
L-102+50E 100+50N		0.20	<0.5	6.99	<5	450	1.2	<2	3.53	<0.5	22	221	31	3.78	1.00	3.31
L-105+00E 97+50N		0.34	<0.5	7.64	<5	790	2.7	<2	2.66	5.4	34	230	42	4.93	0.64	3.51
L-105+00E 98+00N		0.32	<0.5	6.91	5	1120	2.5	<2	2.33	3.2	25	278	52	4.68	1.00	3.45
L-105+00E 98+50N		0.32	<0.5	6.88	11	970	2.2	<2	1.86	2.7	24	225	40	4.64	1.12	2.79
L-105+00E 99+00N		0.32	<0.5	7.24	8	1350	2.0	<2	1.56	1.7	35	178	79	5.42	1.40	2.73
L-105+00E 99+50N		0.38	<0.5	7.22	6	1560	1.8	<2	0.84	3.9	40	195	61	5.97	1.68	3.13
L-105+00E 100+50N		0.36	<0.5	7.86	<5	1840	2.0	<2	1.79	1.0	12	89	25	3.88	1.54	2.10
L-105+00E 101N		0.22	<0.5	8.12	<5	2280	2.3	<2	1.30	<0.5	12	70	21	4.07	1.87	1.94
L-105+00E 101+50N		0.28	<0.5	8.38	5	2200	2.2	<2	1.80	1.0	16	113	30	4.70	1.86	2.78
L-105+00E 102+00N		0.22	<0.5	8.41	<5	2160	2.3	<2	1.80	0.5	12	91	30	4.83	2.28	2.49
L-105+00E 102+50N		0.26	<0.5	8.25	<5	1990	2.2	<2	1.78	0.6	13	89	22	4.22	2.10	2.41
L-105+00E 103N		0.18	<0.5	8.59	<5	1960	2.2	<2	1.80	1.1	17	91	36	4.49	2.08	2.30
L-105+00E 103+50N		0.20	<0.5	7.23	<5	1080	1.6	<2	1.42	0.6	9	64	26	2.85	1.61	1.30
L-105+00E 104+00N		0.30	<0.5	7.54	12	1380	2.1	<2	1.47	0.7	17	135	46	3.92	1.43	2.00
L-105+00E 104+50N		0.24	<0.5	7.12	<5	1180	2.0	<2	1.22	1.5	24	112	58	3.96	1.24	1.91
L-105+00E 105N		0.38	0.6	7.81	9	1020	2.4	<2	1.38	0.9	20	112	56	3.64	1.38	1.85
L-105+00E 105+50N		0.36	<0.5	7.86	<5	1380	1.9	<2	1.44	0.8	23	120	59	4.45	1.50	2.05
L-105+00E 106+00N		0.34	<0.5	7.09	9	1050	2.2	<2	1.44	1.0	15	81	61	3.79	1.29	1.46
L-105+00E 106+50N		0.34	0.7	8.24	8	1380	2.1	<2	1.80	1.1	28	122	67	4.61	1.36	2.38
L-105+00E 107N		0.30	<0.5	8.50	8	1120	1.6	<2	2.92	0.5	32	137	61	5.43	1.28	3.04
L-105+00E 107+50N		0.38	<0.5	8.55	<5	1370	1.6	<2	2.25	0.6	43	160	82	5.83	1.29	3.39
RB1 L3 0+00		0.28	<0.5	8.39	79	1560	1.7	<2	0.87	<0.5	24	140	69	5.22	1.90	1.96
RB1 L3 0+50		0.26	<0.5	8.09	69	2360	1.5	<2	1.31	0.5	27	142	66	5.53	1.68	2.76





**ALS Chemex**  
**EXCELLENCE IN ANALYTICAL CHEMISTRY**  
 ALS Canada Ltd.  
 212 Brooksbank Avenue  
 North Vancouver BC V7J 2C1 Canada  
 Phone: 604 984 0221 Fax: 604 984 0218

To: ARCTURUS VENTURES INC.  
 1012 - 470 GRANVILLE ST.  
 VANCOUVER BC V6C 1V5

Page: 4 - B  
 Total # Pages: 5 (A - B)  
 Finalized Date: 27-SEP-2004  
 Account: ARCVE

**CERTIFICATE OF ANALYSIS VA04061370**

Sample Description	Method Analyte Units LOR	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Au-AA23	F-ELEB1a
		Mn ppm 5	Mo ppm 1	Na % 0.01	Ni ppm 1	P ppm 10	Pb ppm 2	S % 0.01	Sb ppm 5	Sr ppm 1	Tl % 0.01	V ppm 1	W ppm 10	Zn ppm 2	Au ppm 0.005	F ppm 20
SAMPLE#3 CREEK BED		822	5	1.05	67	1080	20	0.12	<5	204	0.44	150	<10	158		680
BELOW CREEK#4		624	6	0.99	77	1320	19	0.18	<5	211	0.32	144	<10	180		580
RB1 SILT SAMPLE		1105	1	2.10	48	670	17	0.03	<5	185	0.37	180	<10	170	0.015	810
L-102+50E 107+50N		459	4	0.80	14	810	122	0.44	<5	181	0.27	89	<10	251		810
L-102+50E 107N		679	4	0.98	31	880	54	0.17	<5	198	0.32	136	<10	211		720
L-102+50E 108+50N		815	3	1.50	25	730	28	0.12	<5	255	0.66	171	10	201		840
L-102+50E 108N		643	3	1.12	44	1000	26	0.08	<5	238	0.39	133	<10	138		620
L-102+50E 105+50N		856	2	1.76	25	2100	19	0.07	<5	352	0.37	112	<10	89		570
L-102+50E 105N		695	2	1.14	63	850	21	0.09	<5	223	0.40	162	10	163		630
L-102+50E 104+50N		1115	2	1.14	95	1390	18	0.06	<5	186	0.30	141	10	100		580
L-102+50E 104N		1915	2	1.39	65	1670	24	0.07	<5	252	0.35	128	10	162		610
L-102+50E 103+50N		852	3	0.95	116	1280	19	0.07	<5	158	0.34	170	10	164		680
L-102+50E 103N		1905	2	1.76	59	1280	18	0.05	<5	349	0.31	108	<10	122		540
L-102+50E 102+50N		897	4	1.18	57	1390	23	0.10	<5	209	0.49	163	10	134		590
L-102+50E 102N		1040	4	1.24	66	1140	17	0.15	<5	224	0.52	234	<10	182		850
L-102+50E 101+50N		1195	13	1.21	111	920	32	0.07	<5	225	0.44	198	<10	255		580
L-102+50E 101N		1185	30	0.73	115	1240	32	0.62	<5	174	0.32	360	10	379		860
L-102+50E 100+50N		698	1	1.89	113	1300	9	0.04	<5	534	0.54	129	<10	55		430
L-105+00E 97+50N		1020	3	1.45	104	980	19	0.05	<5	210	0.55	179	10	444		610
L-105+00E 98+00N		1010	8	1.18	117	1130	20	0.07	<5	181	0.41	182	10	279		690
L-105+00E 98+50N		1180	6	1.16	98	990	25	0.05	<5	189	0.50	174	<10	214		590
L-105+00E 99+00N		1455	10	1.03	110	1280	34	0.07	<5	186	0.45	192	<10	216		630
L-105+00E 99+50N		2060	6	0.84	101	1280	44	0.06	<5	134	0.47	196	10	429		710
L-105+00E 100+50N		730	2	1.00	29	1070	27	0.08	<5	218	0.36	130	<10	152		780
L-105+00E 101N		664	2	1.47	29	550	23	0.06	<5	257	0.40	117	<10	122		690
L-105+00E 101+50N		1175	4	1.14	37	1180	29	0.09	<5	283	0.38	139	10	184		1160
L-105+00E 102+00N		810	3	1.24	24	910	64	0.11	<5	302	0.43	154	10	156		880
L-105+00E 102+50N		739	1	1.32	24	810	35	0.04	<5	300	0.40	126	<10	114		770
L-105+00E 103N		1100	5	1.33	21	1410	58	0.08	<5	349	0.42	136	10	150		660
L-105+00E 103+50N		522	2	1.72	25	1190	22	0.08	<5	335	0.32	95	<10	98		510
L-105+00E 104+00N		881	3	1.26	48	1310	26	0.06	<5	222	0.43	152	<10	134		690
L-105+00E 104+50N		986	7	1.06	74	1240	29	0.10	<5	203	0.42	164	<10	200		650
L-105+00E 105N		612	4	1.11	61	1170	20	0.08	<5	190	0.44	158	10	134		610
L-105+00E 105+50N		1180	6	1.14	57	1720	42	0.19	<5	203	0.47	176	10	141		660
L-105+00E 106+00N		674	5	1.21	62	1020	21	0.11	<5	221	0.50	138	<10	132		670
L-105+00E 106+50N		1040	5	1.22	92	1320	24	0.10	<5	202	0.52	178	<10	168		700
L-105+00E 107N		1310	2	1.48	85	1500	22	0.05	<5	293	0.76	196	10	130		750
L-105+00E 107+50N		1550	3	1.26	127	810	18	0.09	<5	178	0.64	218	10	168		750
RB1 L3 0+00		1140	4	1.36	59	840	17	0.04	<5	140	0.29	173	<10	100	<0.005	
RB1 L3 0+50		1805	4	1.39	57	1180	20	0.05	<5	134	0.32	206	<10	100	0.006	



**ALS Chemex**  
**EXCELLENCE IN ANALYTICAL CHEMISTRY**  
 ALS Canada Ltd.  
 212 Brooksbank Avenue  
 North Vancouver BC V7J 2C1 Canada  
 Phone: 604 984 0221 Fax: 604 984 0218

To: ARCTURUS VENTURES INC.  
 1012 - 470 GRANVILLE ST.  
 VANCOUVER BC V6C 1V5

Page: 5 - A  
 Total # Pages: 5 (A - B)  
 Finalized Date: 27-SEP-2004  
 Account: ARCVE

**CERTIFICATE OF ANALYSIS VA04061370**

Sample Description	Method Analyte Units LOR	WBI-21	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61
		Recvd Wt. kg	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	K %	Mg %
		0.02	0.5	0.01	5	10	0.5	2	0.01	0.5	1	1	1	0.01	0.01	0.01
RB1 L3 100		0.30	<0.5	8.30	60	1280	1.2	<2	1.82	<0.5	31	176	55	6.15	1.11	3.17
RB1 L3 150W		0.28	<0.5	7.70	27	1720	0.7	<2	2.89	<0.5	34	172	60	6.27	0.75	4.30
RB1 L3 200W		0.24	<0.5	7.41	18	1180	0.7	<2	2.81	<0.5	36	214	63	5.95	0.72	3.80
RB1 L3 250W		0.28	<0.5	7.75	46	1820	0.7	<2	2.67	<0.5	31	158	50	5.85	0.78	3.98
RB1 L3 300W		0.20	<0.5	7.12	12	650	0.8	<2	3.62	<0.5	33	425	49	5.45	0.65	5.37
RB1 L3 350W		0.24	<0.5	7.81	<5	940	1.1	<2	3.09	0.6	29	229	51	6.16	1.06	3.39
RB1 L3 400W		0.28	<0.5	7.69	21	1480	1.3	<2	1.98	0.7	38	213	70	6.43	1.37	2.92
RB1 L3 450W		0.32	<0.5	7.81	10	1690	1.5	<2	2.06	<0.5	28	182	53	5.58	1.49	2.68
RB1 L3 500W		0.22	<0.5	7.34	13	1560	1.4	<2	2.90	<0.5	35	223	109	6.04	1.47	2.91



# ALS Chemex

EXCELLENCE IN ANALYTICAL CHEMISTRY

ALS Canada Ltd.

212 Brooksbank Avenue  
North Vancouver BC V7J 2C1 Canada  
Phone: 604 984 0221 Fax: 604 984 0218

To: ARCTURUS VENTURES INC.  
1012 - 470 GRANVILLE ST.  
VANCOUVER BC V6C 1V5

Page: 5 - B  
Total # Pages: 5 (A - B)  
Finalized Date: 27-SEP-2004  
Account: ARCVE

## CERTIFICATE OF ANALYSIS VA04061370

Sample Description	Method Analyte Units LOR	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	ME-ICP61	Au-AA23	F-ELE81a
		Mn	Mo	Na	Ni	P	Pb	S	Sb	Sr	Tl	V	W	Zn	Au	F
		ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
		5	1	0.01	1	10	2	0.01	5	1	0.01	1	10	2	0.005	20
RB1 L3 100		1255	2	1.85	87	630	14	0.02	<5	158	0.41	224	<10	100	0.005	
RB1 L3 150W		1480	<1	1.86	70	480	7	0.02	<5	152	0.44	245	<10	89	0.008	
RB1 L3 200W		1315	<1	2.03	77	600	9	0.02	<5	151	0.43	227	<10	100	0.007	
RB1 L3 250W		1310	<1	2.18	83	450	9	0.02	<5	160	0.46	243	<10	88	0.005	
RB1 L3 300W		1000	<1	1.99	178	400	12	0.01	<5	170	0.33	196	<10	79	<0.005	
RB1 L3 350W		1140	1	2.11	102	700	18	0.01	<5	198	0.58	245	<10	116	<0.005	
RB1 L3 400W		1545	2	1.56	103	1010	18	0.02	<5	152	0.61	248	<10	140	<0.005	
RB1 L3 450W		1135	2	1.85	79	880	18	0.01	<5	182	0.50	208	10	116	<0.005	
RB1 L3 500W		1720	1	0.89	102	1480	20	0.06	<5	220	0.63	210	<10	121	0.008	



Yukon Energy, Mines & Resources Library



1000762247

DATE DUE