

## NWB Annual Report

Year being reported:

Select ▼

License No: 3BCBUR0611

Issued Date:

JULY 13-06

Expiry Date:

JUNE 30-2011

Project Name:

Licensee:

~~3BCBUR0611~~ ALEX MCPHERSON

Mailing Address:

# 45 - 53 RD ST.  
DELTA B.C. V4M 3B1

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

General Background Information on the Project (\*optional):

Licence Requirements: the licensee must provide the following information in accordance with

Select ▼

Select ▼

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):

Water Quantity:

NO WORK ON PROPERTY	
	Quantity Allowable Domestic (cu.m)
	Actual Quantity Used Domestic (cu.m)
	Quantity Allowable Drilling (cu.m)
	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- ☐ Solid Waste Disposal  
☐ Sewage  
☐ Drill Waste  
☐ Greywater  
☐ Hazardous  
☐ Other:

Additional Details:

NO WORK / NO WATER USAGE

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.:  (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

#### Revisions to the Spill Contingency Plan

Select

Additional Details:

#### Revisions to the Abandonment and Restoration Plan

Select

Additional Details:

#### Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

#### Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Select

Additional Details:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Select

Additional Details:

NO WORK DONE

**Results of any additional sampling and/or analysis that was requested by an Inspector**

Select ▼

Additional Details: (date of request, analysis of results, data attached, etc)

**Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.**

Select ▼

Additional Details: (Attached or provided below)

**Any responses or follow-up actions on inspection/compliance reports**

Select ▼

Additional Details: (Dates of Report, Follow-up by the Licensee)

**Any additional comments or information for the Board to consider**

NO WORK DONE

Date Submitted:  
Submitted/Prepared by:  
Contact Information:

AUG 8-07

Tel:

604 940 0709

Fax:

604 943 0197

email:

**GPS Coordinates for water sources utilized**

[illegible]

### GPS Locations of areas of waste disposal

[illegible]

MAP SHEET 8605

→ STAIRS

74

ALEX MCPHERSON

2

NEED COPY

604 943 0729

Coppermine River

940 0409

MINERAL POTENTIAL  
ALEX MCPHERSON CLAIMS

**GENERAL GEOLOGY:** The claims are situated in the southern part of the Coronation Basin, an interlayered sequence of basaltic volcanic rocks and various sedimentary rocks of Late Proterozoic age (544-1000 million years ago). The claims are entirely covered by the volcanic rocks plus some related diabasic-gabbroic sills.

**COPPER MINERALIZATION:** The Basin has received considerable exploration attention in the past. Some 200 copper showings and a few copper deposits are documented in the basalts from work in the late 60's. Some copper resources were calculated. For instance the Dot 47 Deposit, located 30 kilometres northwest of the McPherson Claims, boasts 4 million tons of material at a grade of 2.96% copper. It also has some silver. The Coronation deposit with a resource of 1.3 million tons of 1.53% copper is situated 25 kilometres west-northwest of the Claims. Significantly, the Dot 47 Deposit sits on the regional northeast trending Teshierpi Fault. These showings are mostly contained in quartz-carbonate- (feldspar) veins.

**BRECCIA PIPES:** Dot 47 may be a breccia pipe, that is hydrothermal fluid pressure from depth has forced the minerals to or close to surface with such power that the host rock is severely fractured and shattered such that the rock collapses in on itself. The open spaces created then serve as a medium for mineral deposition.

**URANIUM:** Uranium exploration in the sedimentary sequences of the Coronation Basin was carried out in the early 80's and one small uranium deposit, the Pec, was uncovered. The deposit is in quartz-carbonate veins, again hosted by the northeast-trending Teshierpi Fault.

**FAULT CONTROL ON MINERAL DEPOSITS:** Researchers conclude that the significant mineral deposits in the area occur on northeasterly fault structures, particularly where they intersect north-south and east-west running faults. Both north-south and east-west fault zones have been found on the McPherson Claims.

**NICKEL & PLATINUM:** More recent activity over the last four years includes examination of the Coppermine Basalts for possible platinum group metals with associated nickel and copper. Precedent is set by the large nickel-palladium deposits of the Noril'sk Region, Russia which also are contained in Proterozoic continental flood basalts, similar rocks to those of the Coppermine area. This exploration model should be kept in mind while working in the Coppermine basalts.

SULPHUR

BASALTS

0.02%

**COPPER ECONOMICS:** The copper deposits themselves are at this time not economic, given the depressed price for copper, their remote location and of course the stiff competition from the huge copper mines in Chile and Southeast Asia (100's of millions of tons versus a couple of million tons). Mongolia also is soon to be a copper producing powerhouse.

ALL PERMITS IN PLACE

G.S.C. 2-4% Cu  
IN FAULTS

Took 1.5 yrs TO GET

72% Cu. Con.

NO IMPURITIES IN THE ...

**POLYMETALLIC & IOCG DEPOSITS MAKE MORE ECONOMIC SENSE:** But suppose there are other metals associated with the copper? Aside from silver, some workers have detected low values in gold and nickel in these copper-bearing veins. Research on various Proterozoic mineral deposits has suggested that the Coppermine Region may be a candidate for what is becoming known as Iron Oxide Copper Gold deposits, or IOCG, a polymetallic deposit-type found in some Proterozoic areas of the world, such as Australia, Sweden and the Northwest Territories.

**IOCG & GBMZ:** Several IOCG occurrences and two deposits occur approximately 500 kilometres south of the Coppermine area in the NWT. Fortune Minerals is currently examining the potential of IOCG deposits in the southern part of the Great Bear Magmatic Zone (GBMZ). This geological feature, highlighted on the accompanying map, consists of Early Proterozoic (1750-2500 million years ago) granitic intrusive rocks and some earlier volcanic and sedimentary rock sequences. Significantly, the zone extends northwards to the Coronation Basin and may in fact extend underneath the Basin as implicated on the map.

**NICO & SUE-DIANNE DEPOSITS IN GBMZ, NWT:** The Nico deposit has a resource of 42 million tonnes of 0.10% cobalt, 0.5 g/t gold, 0.12% bismuth plus some copper and silver. Sue-Dianne, described as a diatreme (breccia pipe) has 17.3 million tonnes of material outlined containing 0.72% Cu and 3.3 g/t silver. The similarities to Dot 47 I don't believe have ever been publicly made!

**OLYMPIC DAM, AUSTRALIA:** For your information the type locality for this style of deposit is the Olympic Dam Mine in Australia, which has a resource of 2 billion tonnes of 1.6% copper, 0.6 g/t gold, 3.5 g/t silver, 0.6 kg uranium as well as cobalt, bismuth and rare earth elements. This would be a mine anywhere in Nunavut. Olympic Dam is also comprised of large breccia zones and diatremes, quartz-carbonate veins. Notice the uranium, which is also found in the Coppermine Basin. The breccias are described as being hematite (iron)-rich.

**STRUCTURES, IT'S ALL ABOUT STRUCTURES:** What is significant about the Nico and Sue-Dianne deposits is that they occur along the traces of northeasterly faults and at or close to intersecting east-west fault structures, the precise orientation of fault structures in the Coronation Basin and on the McPherson Claims.

**URANIUM & SILVER DEPOSITS IN GBMZ; IOCG?** Additionally, the quartz-carbonate hosted uranium deposits at Eldorado/Echo Bay and silver deposits at Terra and Northrim located at Great Bear Lake, approximately 50 kilometres southwest of the Coppermine area, in the GBMZ, also all occur along northeasterly fault structures. Perhaps these deposits are genetically related to IOCG models (?).

Why the GBMZ is not the scene of an exploration and staking rush for IOCG-type deposits is puzzling.

**McPHERSON CLAIMS POTENTIAL:** The potential to find the IOCG style of polymetallic deposit on or around the McPherson Claims is good, given a few constraints. First of all, such a deposit would lie underneath the Coronation Basin basalts, at depth, so not directly visible on surface. Second, to find such a deposit at depth would require some expensive and sophisticated geophysical surveying.

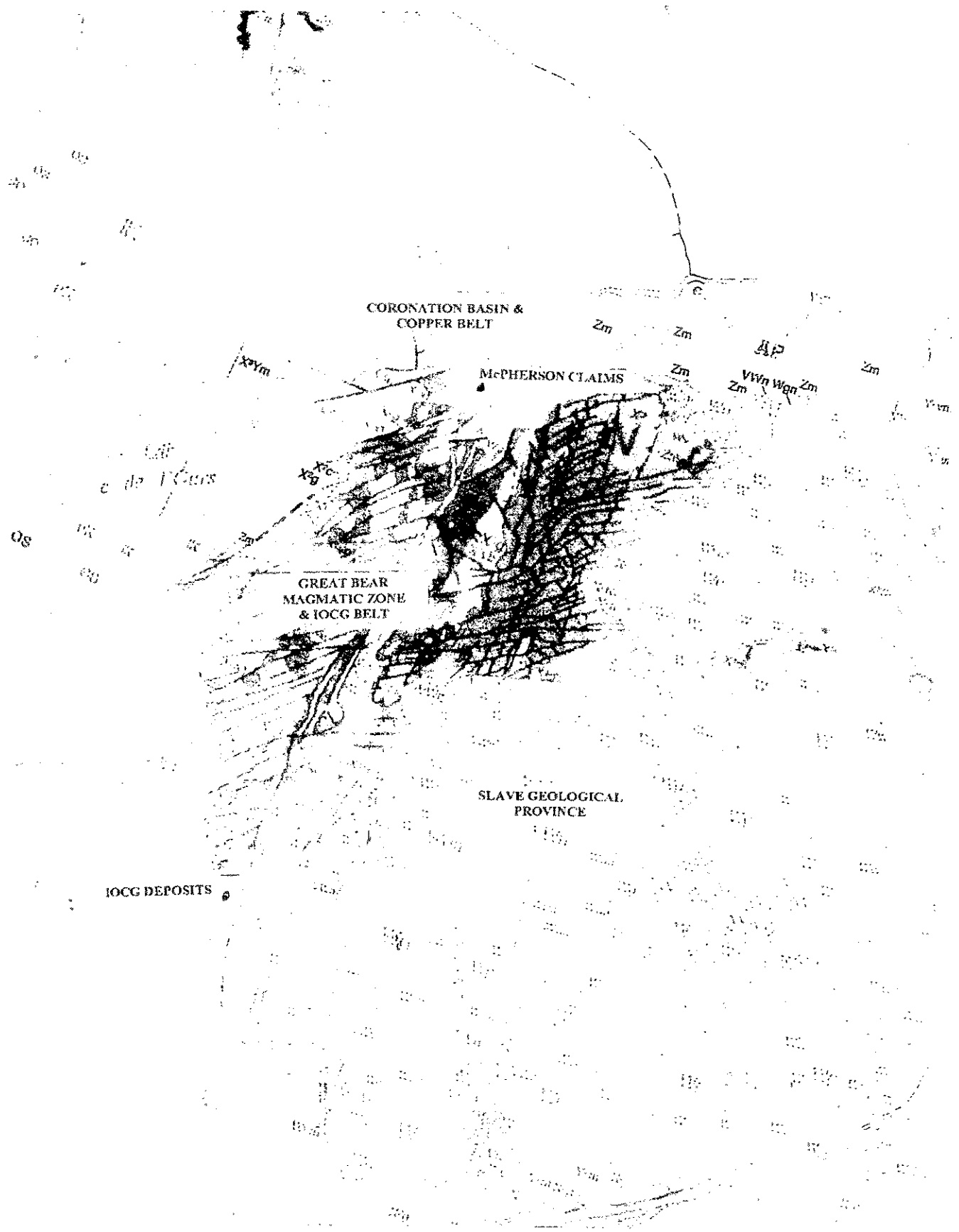
However in the interim, good structural mapping should determine if the significant host structures occur on the ground, that is vertical northeasterly regional faults and intersecting north-south and east-west faults. The Teshierpi Fault has been mapped in both the Coronation Basin basalts and the GBMG, indicating that at least some, if not all, of the area faults may be related to the IOCG mineralizing event found at Nico and Sue-Dianne.

Alex McPherson reports a significant mineralized east-west structure from his work in the 1960's. Although on a one day property visit with Alex we failed to locate this structure, we did visit one outcrop of basalt that was intensely hematite-altered; this is one of the main characteristics of IOCG deposits.



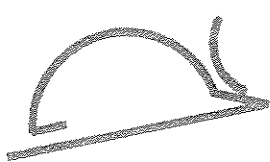
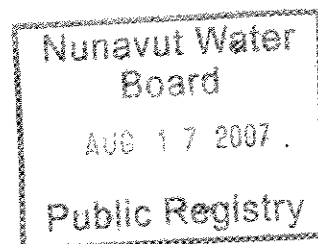
Neil Willoughby, B.Sc.H.  
Exploration Geologist  
Kugluktuk, Nunavut

August 13, 2003



**PROJECT PROPOSAL  
FOR  
EXPLORATION OF THE BASALT HOSTED  
COPPER DEPOSITS  
OF  
THE COPPERMINE MOUNTAINS REGION,  
NUNAVUT, NORTHWEST TERRITORIES,  
CANADA**

**Coppermine Mountains,  
Coppermine, Nunavut, NWT,  
CANADA**



**NT&A**

*Boogie*

JANUARY 19, 2005  
N.L. TRIBE., P.ENG.

# **PROJECT PROPOSAL FOR EXPLORATION OF THE BASALT HOSTED COPPER DEPOSITS OF THE COPPERMINE MOUNTAINS REGION, NUNAVUT, NORTHWEST TERRITORIES, CANADA**

**Coppermine Mountains, Coppermine, NWT.**

## ***INTRODUCTION***

The Coppermine Mountains is known to be a highly mineralized series of basalt flows, containing numerous copper deposits of chalcocite and native copper. Documentation of many of these showings can be found in the GSC files and other places. A trip to the area in the summer of 2004 in the company of Alex McPherson, sparked an interest in putting together a proposal for a regional land acquisition and exploration program to give the best of this area another look in view of the recent surge in copper prices in the metals markets.

## ***ACCESS***

The property is located about 65 km south of the arctic community of Coppermine, NWT, and was accessed by helicopter from Yellowknife. An existing camp on McGregor Lake was used as a base and a fuel cache at Mouse Lake was used for refueling. Mouse Lake is approximately 20 km south of the area of interest.

## ***TOPOGRAPHY AND VEGETATION***

The topography of the claims is terraces of volcanic flow rocks 3 to 20 meters in height. These are hard basalts, lichen covered, rounded rock. The terrace benches are muskeg, grassy areas and lakes with an occasional rocky hummock and frost heaves of broken rock.

There are very few distinguishing landmarks in the terrain. There are ridges and lakes but no trees or other distinguishing features. Even the ridges are similar, round off by glaciation, and the lakes are mostly of a similar size and shape and although the maps show a few dozen lakes there are in fact many more than are shown on the maps.

## **OBSERVATIONS**

The geology of the area is well documented in the literature with 40 known prospects shown on the government maps. The more interesting prospects have much in common. They are all located within the Coppermine Basalts and are associated either with the amygdaloidal flow tops of the individual flows or with secondary fault structures within the basalts. The copper mineralization is predominantly chalcocite or native copper.

This type of deposit is known in other parts of the world and is referred to by the GSC as "The Volcanic Redbed Copper" Model (Kirkham, 1966). The Michigan Copper on the Keweenaw Peninsula, the Natkusiak deposits on Victoria Island and the "Manto Copper" deposits along the coastal ranges of Chile are this type. The Chilean deposits hosted in andesite flows are controlled by faulting along which the copper is remobilized and enriched along the flowtops. The Michilla Mine just north of Antofagasta is the most productive of these "Manto Coppers" on the Chilean coast containing about 27M tonnes of 2.23% copper in an open pit configuration.

The mineralization of the Coppermine Mountain deposits is chalcocite and native copper and has the advantage of producing a high grade concentrate which would reduce shipping costs on any production which may be achieved.

The area contains at least 40 prospects making it one of the more promising areas to be found anywhere. However most of these prospects are smallish and are predicted to contain only a few tens of millions of tonnes at most, making them less interesting individually, than a single porphyry copper property containing hundreds of millions of tonnes might be.

The Coppermine Mountains received a good deal of attention in the late 1960's when the price of copper was US\$0.42/pound. Recent increases in the price of copper on the LME to US\$1.40/ pound makes this area once again very interesting. Grades of known prospects in the Coppermine Mountains vary from, 3% to 10% copper giving values of from US\$84/tonne (C\$100) to US\$280/tonne (C\$336) for rock in place. With "flow through" money available, the possibility of native participation, proximity to the community of Coppermine, all contribute to making this area worth another good look.

The document provided by Mr. McPherson entitled COPPERMINE PROJECT, MAP SHEETS 86N,86O, (Author Unknown) summarizes nicely the important features of a regional project.

The shape and size of the known mineralization in the area makes the use of satellite imagery and even airborne geophysics of limited use in detecting actual mineralization. Structural controls are the most important localizing

feature of the remobilized and enriched mineralization and therefore satellite and airborne photography should be used to define these structural controls. Other parameters such as conductivity or thematic parameters are expected to be of limited value.

Geochemistry in an environment with copper in all the flow tops will likewise be of limited use. Anomalous background noise will mask the genuine response of whatever deposits might be there.

The most productive method for the discovery of economic deposits in the Coppermine Mountains is expected to be the use of prospectors supported by geological interpretation of the structures identified on airphotos. This method followed by trenching by hand or with a helicopter transportable mini-excavator would expose and define mineralization found by the prospecting crews. The problems associated with the thawing of permafrost would be minimized with the use of this small scale equipment.

### **CONCLUSION**

To overcome the size problem, the possibility of combining all these properties into one project should be considered. The mineralogy is the same in all the prospects and would not cause metallurgical problems. The prospects are all within a few kilometers of each other and could easily and practically be treated at a central mill.

### **RECOMMENDATIONS**

It is therefore recommended that a regional project be considered. It would be necessary to research, to search out and to develop all the prospects in the Coppermine Mountains at the same time. A block of 45 claims would be sufficient to cover all the known showings and to consolidate the efforts into one project.

## **BUDGET**

### Phase I

Research - 2 months geological review and reporting

40 days at \$500/day \$20,000

Staking of 48 claims \$30,000

Phase I total \$50,000

### Phase II

Exploration

Mobilization of prospectors and geologicals \$ 15,000

Camp set up \$ 20,000

Trenching sampling assaying \$ 50,000

Drilling program say 5000 meters @ \$50 \$ 250,000

Phase II total \$ 335,000

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Project Total Phases I and II \$ 385,000

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Respectfully submitted

Norm Tribe, P.Eng.

