

IP (WKS)

**TECHNICAL REPORT  
FOR ICE CLAIMS  
YMIP # 09-168**

**TARGET EVALUATION PROGRAM  
CARMACKS AREA YUKON**

**Whitehorse Mining District**

**Report for Period of Work: July 10<sup>th</sup> – September 18<sup>th</sup> 2009**

**Location:**

- 1. 31 km NNW of Carmacks, Yukon**
- 2. NTS Map Area 115 I-07**
- 3. Easting: 418 500  
    Northing: 6 907 000**

**By:**

**BCGOLD CORP  
Suite 1400, 625 Howe Street  
Vancouver, BC  
V6C 2T6  
Gary Sidhu**

**March 16<sup>th</sup>, 2010**



YUKON MINING INCENTIVES PROGRAM (YMIP)

FINAL SUBMISSION FORM

Submit completed form by March 31<sup>st</sup> to:

Yukon Mining Incentives Program  
 Energy, Mines and Resources  
 Government of the Yukon  
 102 - 300 Main Street  
 Box 2703 (K102), Whitehorse, Yukon, Y1A 2C6  
 E-mail: [ymip@gov.yk.ca](mailto:ymip@gov.yk.ca)

YMIP # 09-168

PROJECT NAME: ICE

NAME AND ADDRESS	Please indicate any changes or omissions
	<hr/> <hr/> <hr/> <hr/>
E-mail:	Correct e-mail if it has changed: _____

**SUMMARY OR TECHNICAL REPORT CHECKLIST**

- Please check ✓ appropriate section.
- **MUST** be completed and submitted with your final report.
- Ensure all required information is attached to prevent delays in processing your claim

INFORMATION	INCLUDED	NOT APPLICABLE
1. Description/implementation of work	<u>  x  </u>	
2. Location map(s) of completed work	<u>  x  </u>	
3. Colored maps at adequate scale showing		
- Geology	<u>  x  </u>	
- Geophysics	<u>  x  </u>	
- Geochemistry		<u>  x  </u>
4. Results		
- Drill core assays		<u>  x  </u>
- Geochemistry data		<u>  x  </u>
- Geophysical data	<u>  x  </u>	
5. Drill collar location map(s)		<u>  x  </u>
6. Drill hole sections		<u>  x  </u>
7. Typewritten drill logs		<u>  x  </u>
8. Longitudinal Section(s)		<u>  x  </u>
9. Recommendations	<u>  x  </u>	
10. Future Plans	<u>  x  </u>	
11. Detailed list of project expenditures	<u>  x  </u>	
12. Copies of receipts	<u>  x  </u>	
13. Final submission form signed and dated	<u>  x  </u>	
14. Hardcopy of report with maps and data	<u>  x  </u>	
15. Electronic version of report, etc in <b>PDF</b> format	<u>  x  </u>	

**Access to Information and Protection of Privacy Act**

The information requested on this form is collected under the authority of and used for the purpose of administering the Yukon Mining Incentives Program. Questions about the collection and use of this information can be directed to the Mineral Development Geologist, Department of Energy, Mines and Resources, Yukon Government, Box 2703 (K102), Whitehorse, Yukon Territory, Y1A 2C6 (867) 456-3828.

The Department of Energy, Mines and Resources may verify all statements related to and made on this form, in any previously submitted reports, interim claims and in the Summary or Technical Report which accompanies it. I certify that;

1. I am the person, or the representative of the company or partnership, named in the Application for Funding and in the Contribution Agreement under the Yukon Mining Incentives Program.
2. I am a person who is nineteen years of age or older, and I have complied with all the requirements of the said program.
4. I hereby apply for the final payment of a contribution under the Yukon Mining Incentives Program (YMIP) and declare the information contained within the Summary or Technical Report and the Financial Summary Report to be true and accurate.

Signature of Applicant  Date March 17, 2009

Name (print) Brian Fowler

Your opinions are requested to help evaluate the formal objectives of the program, client satisfaction with regard to its administration and delivery and to determine if any changes or improvements are indicated.

1. Have you previously applied for financial assistance through YMIP?    X YES    NO

a. If YES, proceed to 'Question 2'.

b. If NO, what was your reason for not applying:

- Desire to maintain confidentiality
- Moral objection to YMIP
- Thought it was a hardrock program
- Not aware of YMIP
- To much work to apply
- Other \_\_\_\_\_

2. How important was YMIP funding to your decision to undertake the proposed project?

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a. Without YMIP the project would not have gone ahead.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. The project would have gone ahead, but on a reduced scale.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The project would have gone ahead with or without YMIP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_

3. Did YMIP help to lever additional funding and/or secure an option deal? YES    X NO

If YES, please provide details: \_\_\_\_\_

4. Regarding the YMIP application/approval process, please indicate your agreement or disagreement with the following statements:

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
a. Written program information and forms were clear.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Questions and inquiries were answered promptly.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Applications were fairly and consistently handled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Project evaluations were done in a timely manner	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Interim claims and payments were processed on time	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. If you have any suggestions for improvements or changes to YMIP or any other additional comments, please include them below.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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## **1.0 SUMMARY**

The ICE property, comprised of 41 contiguous claims, located approximately 8.5 km south of the Carmacks Copper deposit in the Whitehorse Mining District of central Yukon. The claims were originally staked by Shawn Ryan of Dawson City, Yukon and are currently optioned to BCGOLD Corporation ("BCG"). The history of exploration in the area stretches back to the turn of the century when copper mineralization was first discovered at Williams Creek some 40 km south of the Minto copper-gold deposit. Foliated and non-foliated granitic rocks of the Early Jurassic Aishihik Suite underlie most of the property although rock exposures are poor comprising less than 5% of the area. Work completed in 2009 included mapping, prospecting, 4.5 km of line cutting, and a pole dipole geophysical induced polarization (IP) survey.

## **2.0 INTRODUCTION AND TERMS OF REFERENCE**

The ICE Claim group is owned 100 % by Shawn Ryan of Dawson City Yukon subject to an option agreement with BCG whereby BCG can earn a 100% interest in the ICE Claims as part of a larger 845 claims located in the Carmacks copper-gold belt which hosts the Minto and Williams Creek deposits.

The purpose of this report is to summarize the work completed during the months of July to September which consisted of mapping, prospecting, 4.5 km of line cutting, and a pole dipole geophysical induced polarization (IP) survey.

## **3.0 RELIANCE ON OTHER EXPERTS**

This report is based upon the results of fieldwork partially supervised by the author, publicly-available assessment reports, and certain private reports prepared for and provided by BCG. There is no reason to believe that any of this information is incorrect.

The author has relied on information provided by the Yukon Mining Recorder to describe the mineral tenure status of the property and believes, to the best of his knowledge, that this information is correct.

This report is based upon the results of geophysical fieldwork supervised by Andre Lebel of Aurora Geosciences Ltd. ("Aurora") and a geophysical summary report by Frank Dziuba of Aurora for BCGold. The line cutting was done by Coureur Des Bois (CDB) and sample data compilation and plotting was completed by Gary Lustig, M.Sc., P. Geo. of G. N. Lustig Consulting Ltd.

## **4.0 PROPERTY DESCRIPTION AND LOCATION**

The ICE mineral claims are located 25 kilometres NW of Carmacks and 8.5 km ESE of the Carmacks Copper deposit. The ICE claims adjoin the WS and BC claims, which are also under option by BCG (Figs. 1, 2). The property falls within the Whitehorse Mining District on NTS map sheets 115I/07 and is centred at an easting of 418 500 and a northing of 6 907 000. The claims cover favourable geology and regional airborne magnetic anomalies and regional stream sediment anomalies that are prospective for Minto-Williams Creek style copper-gold

mineralization. The mineral claims are registered to Shawn Ryan of Dawson City, Yukon and are under an option agreement to BCG.

In accordance with the Yukon Quartz Mining Act, yearly extensions to the expiry dates of quartz claims are dependent upon conducting \$100 of work per claim or paying the equivalent cash in lieu of work. Work must be filed in the year the work was completed. Excess work can be used to extend expiry dates up to maximum of four years. Assessment costs can be applied to adjoining claims through filing grouping certificates. Filing a statement of work and costs and submission of an assessment report to the Whitehorse Mining Recorder verifying completion of the work, are also required no later than six months after the anniversary date of the claim.

The claims are located within the Traditional Territory of the Little Salmon Carmacks First Nation, which has a land claim settlement Agreement under the Yukon Umbrella Final Agreement.

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

Access to the property is by helicopter from Carmacks. Low precipitation and a wide temperature range characterize the climate. Winters are cold, and temperatures of -30° C to -40° C are common. Summers are moderately cool to hot, with daily highs of 15° C to 30° C. The Town of Carmacks is the closest centre for obtaining groceries, fuel, accommodation and some limited rental and contracted exploration services. Trans North Helicopters maintains a summer helicopter base at Carmacks

## **6.0 HISTORY**

The area covered by the ICE claims has seen some prior reconnaissance exploration work as part of the property work around the Williams Creek deposit primarily by Hudson Bay Exploration, however there are no known historical showing.

In 2007 BCGold completed an airborne magnetic and radiometric survey with 200m spaced lines was flown over the entire belt claims.

A total of 294 MMI™ samples were collected by BCGold during the 2007 field season on the ICE Claims

In 2007 BCGold Corp. drilled 4 holes totalling 859.23m. Drilling on ICE 07-03 and ICE 07-04 intersected discreet zones of copper mineralization that returned assays of 1.2 % Cu over 1.69 m in Ice 07-02 and 0.20 m of 1.41% Cu in Ice 07-04 (Doherty, 2008). The drilling was in follow up to multiple chip samples with grades of up to .48% Cu over 0.8m and less over multiple locations uncovered by trenching.

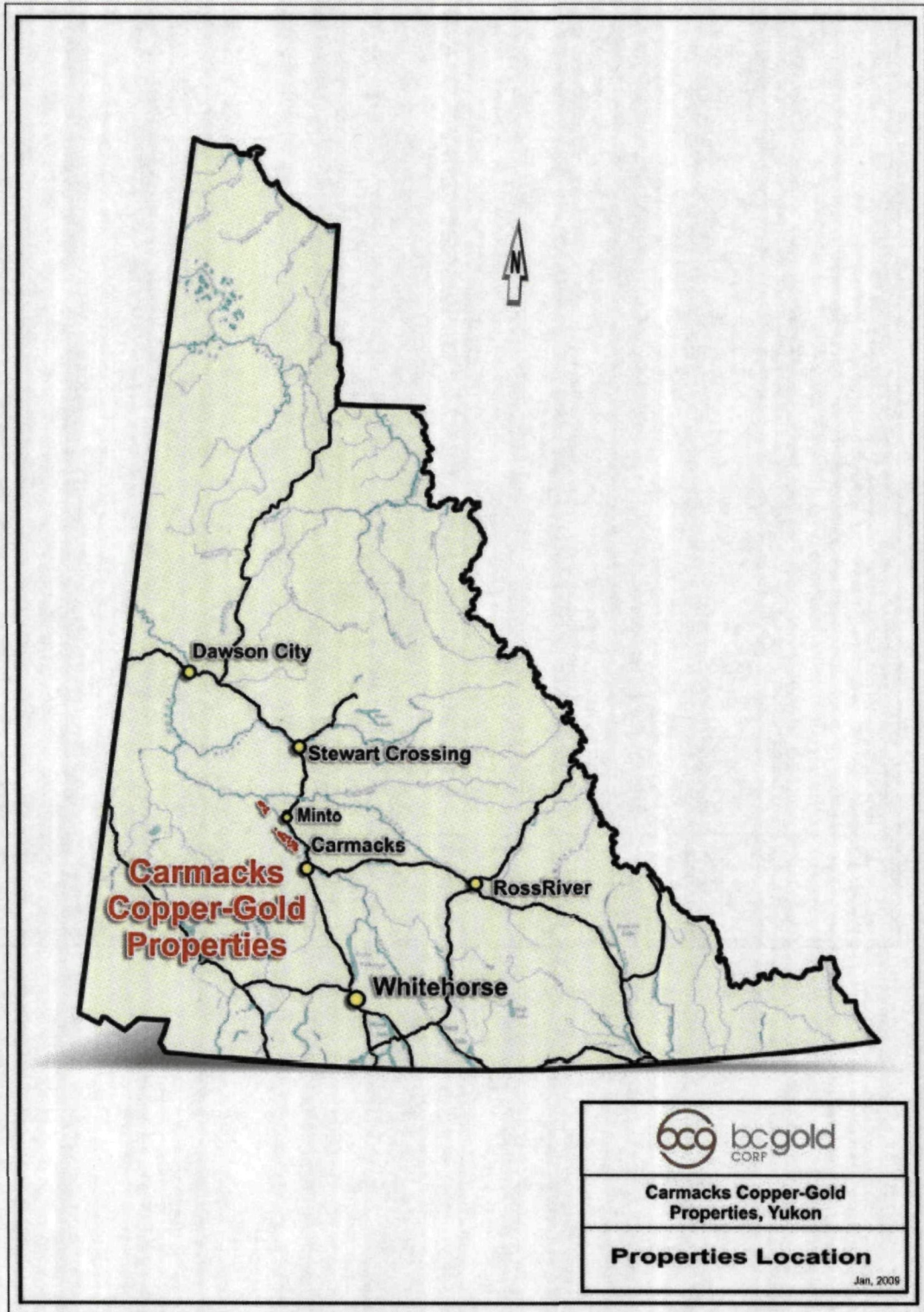


Figure 1: Carmacks area location map.

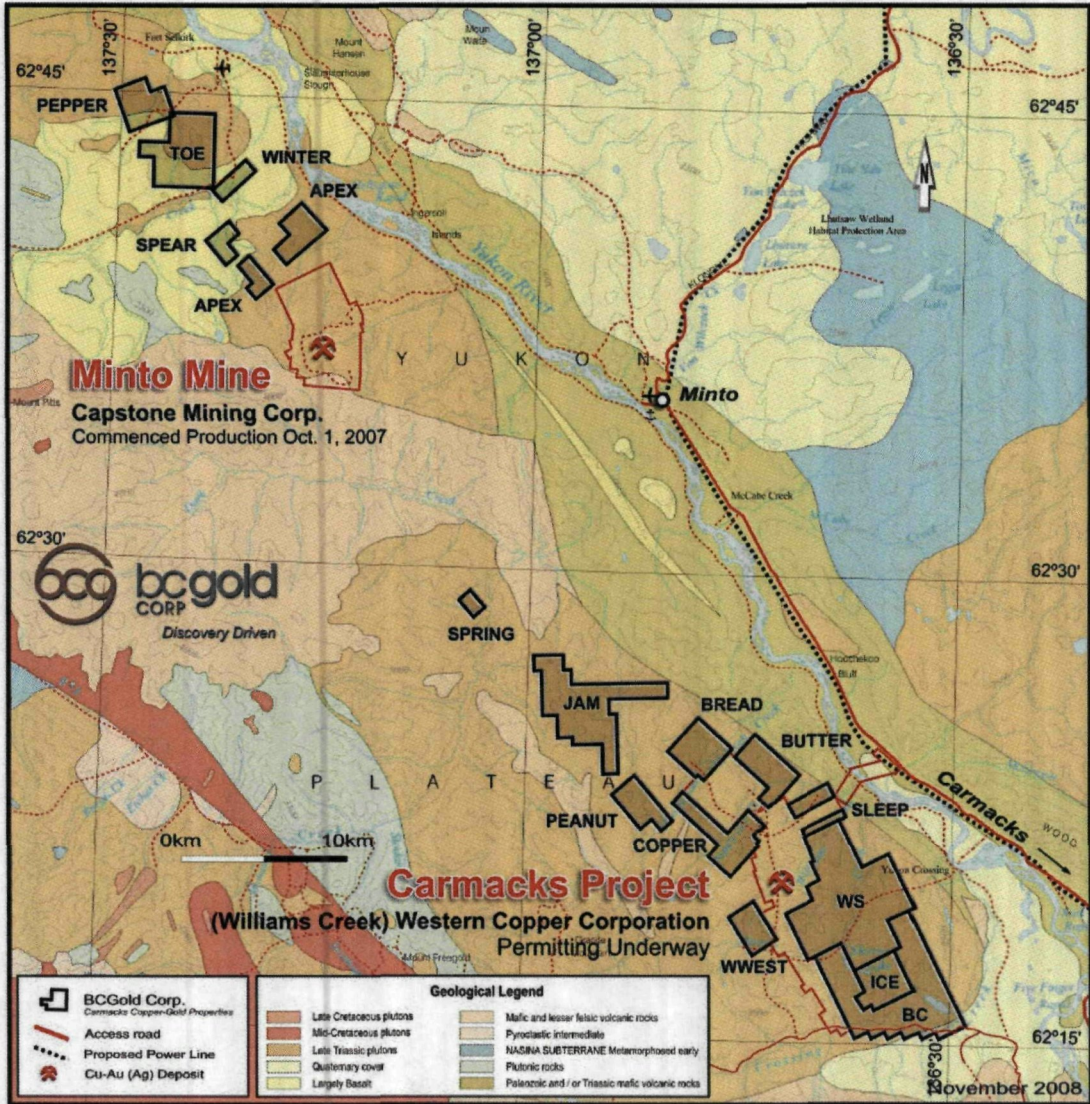


Figure 2: Carmacks regional geology and claim location map.



## 7.0 GEOLOGICAL SETTING

### 7.1 Regional Geology

The ICE claims are located approximately 8.5 kilometres South of the Williams Creek (Carmacks Copper Corp) copper-gold deposits. This area of the Yukon is bounded by the Stikinia Terrane rocks to the east, Yukon Tanana Terrane rocks to the north and the Coast Plutonic Complex rocks to the west. The Minto and Williams Creek copper-gold deposits are hosted within foliated biotite rich granodiorite and granitic rocks of the early Jurassic Aishihik Suite.

### 7.2 Property Geology

The ICE claims are located south of the Williams Creek deposit and north of the Freegold Road. Rocks underlying the property are primarily foliated to non-foliated hornblende-biotite granodiorite with aplite dykes. Traces of malachite were noted in a few locations. Magnetite and 1-2% epidote were noted in a number of locations. Outcrop is scarce (< 5%) and normally confined to rounded ridge tops and stream cuts.

## 8.0 EXPLORATION PROGRAMS

### 8.1 Induced Polarization (IP) Survey

The IP survey was conducted by Aurora Geoscience during August 15<sup>th</sup> – September 11<sup>th</sup>, 2009 under the supervision of crew chief Andre Lebel. Over 28 days 4.5 km of line was surveyed in the Southern and Northeast part of the ICE property (Fig. 3). A modified pole-dipole array was used with 50m dipole spacing on all lines. Handheld GPS points at line ends and every 200m minimum averaged 60s or until estimated accuracy < 10m, whichever was longer. All coordinates are in NAD83 UTM Zone 8N.

*total 6km? or 4.5?*

Three survey lines oriented in a northeast-southwest direction were run over the property. The three were positioned to fill in lines between covered by previous IP surveys and are situated as groups of lines spaced 200m to 400m apart. Five additional lines were run on the WS claims which are contiguous with the ICE claims. The eight survey lines completed in the Southern part of the property over the ICE and WS claims will be discussed as one survey.

## 9.0 RESULTS AND CONCLUSIONS

The survey done on WS property identifies multiple resistivity highs, values greater than 4000 ohm-m, on the northern parts of L12400N, L12200N, and on the southern parts of L11400N, L11800N and L12000N (Fig. 4). These resistivity highs appear to be striking north-south and occurring at a depth of 50 to 100m. The chargeability values on this grid range from 0-14 mV/V with a background value of 3.5mV/V. Chargeability anomalies of 10.0mV/V or higher are considered anomalous (Dzuibia, 2009).

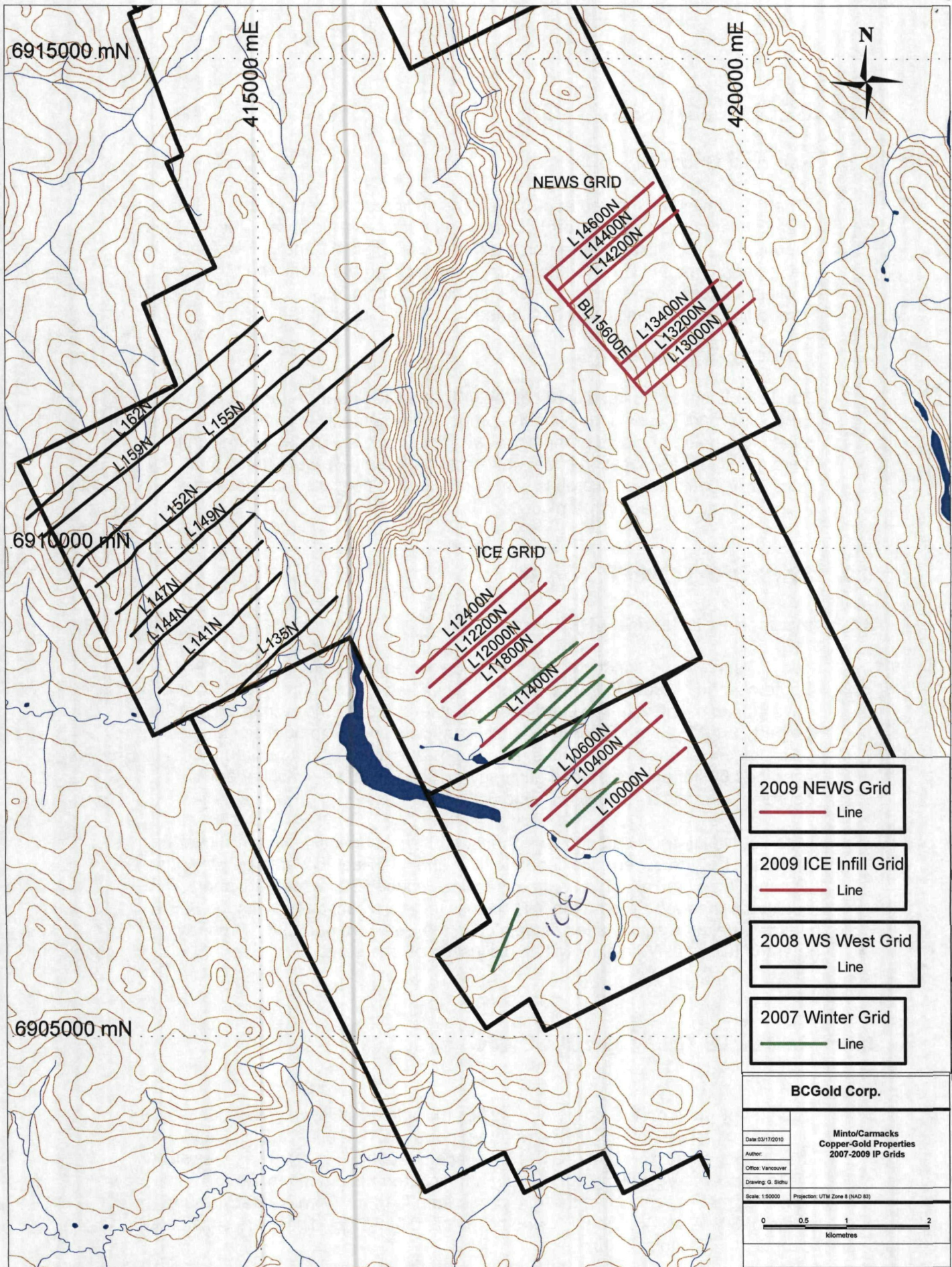


Figure 3: 2009 IP Grid Locations

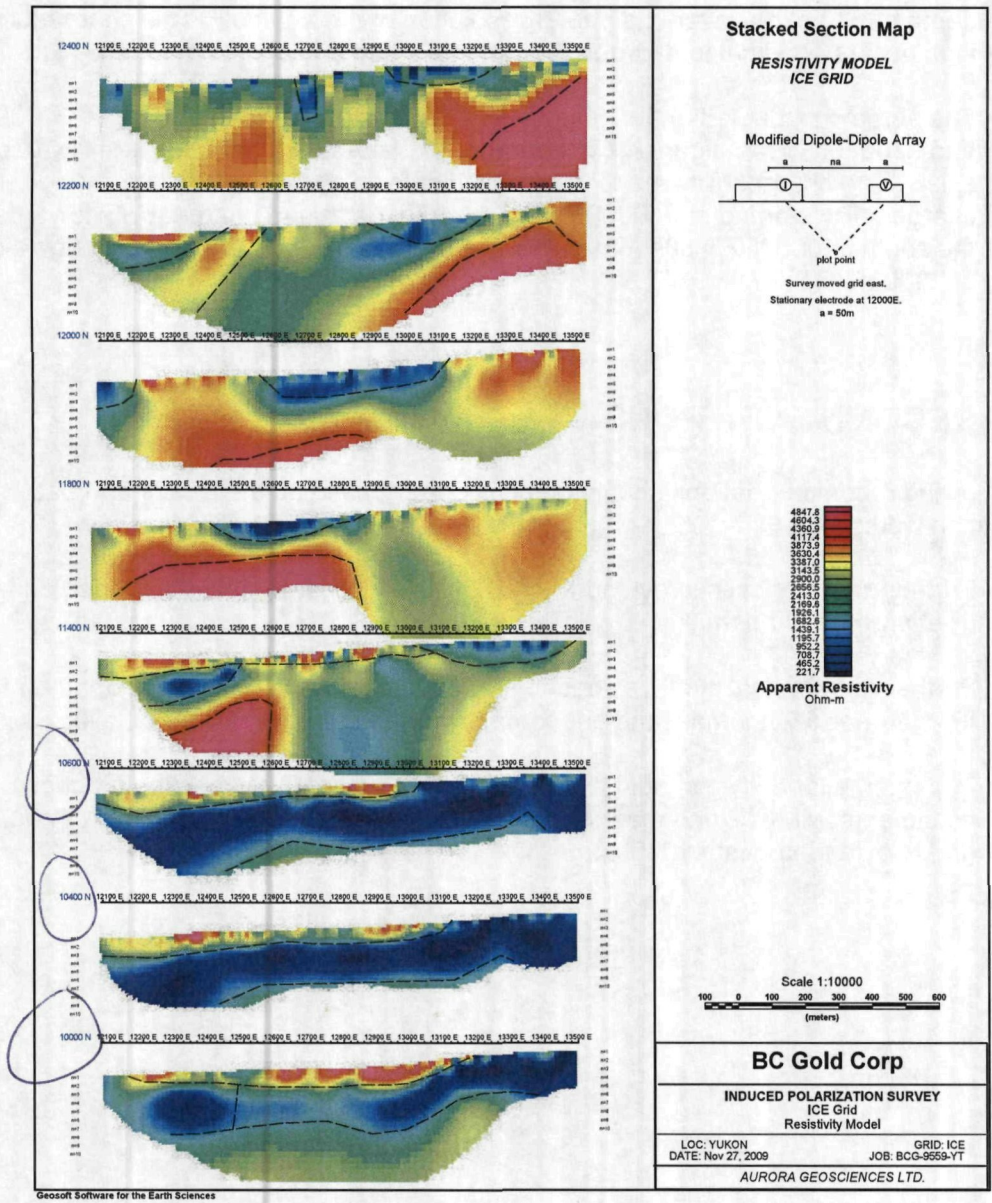
Figure 5 outlines two chargeability zones. The first approximately 300m wide, starting at L12400N to L12000N, centered near station 130000E and approximately 80 to 150m in depth. This anomaly is coincident with a total magnetic field high, elevated copper MMI, open to the north where foliated granodiorite is interpreted to occur. The total field magnetic high is however, interpreted as being Upper Cretaceous Carmacks Group volcanics (Fig. 6). The second chargeable zone (Fig. 5) on L11800N is much broader and occurs at a depth of 130m, however has poorer resolution of the anomaly. This chargeability high occurs proximal to a larger MMI anomaly and a total field magnetic high.

The survey conducted on the ICE property consists of lines 106000N, L104000N and L10000N. From figure 4 it is apparent that a tabular very low resistivity body exists. The chargeability model (Fig. 6) indicates a shallow moderate chargeability starting at L10600N increasing in depth and chargeability towards the south L10000N. Just south of this line there is a large MMI anomaly upwards of 2300 ppb (Fig 7).

## **10.0 RECOMMENDATIONS**

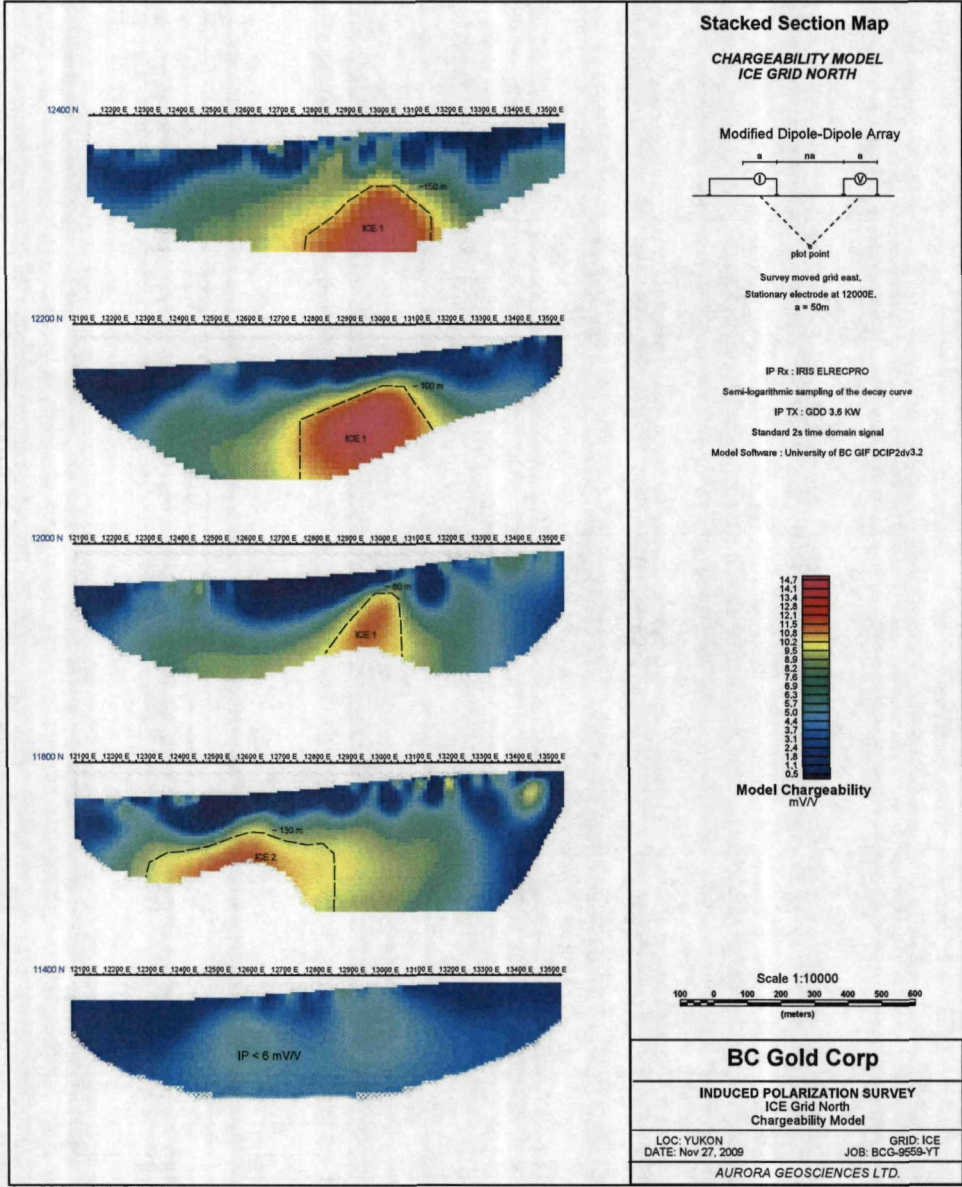
The following recommendations should be considered based on the recent and past exploration work:

- i) Further geophysical surveys north of L12400N in order to define the open ended IP chargeability anomaly
- ii) Further geophysical surveys south of L10000N in order to define the open ended IP chargeability anomaly and get some coverage over the MMI anomalies.
- iii) Top priority for drilling should be the coincident areas of intersecting magnetic lineaments, MMI, IP and magnetic anomalies that are found after a geophysical grid is extended past L10000N.



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Figure 4: WS-ICE Resistivity Model



Geosoft Software for the Earth Sciences  
Figure 5: WS-ICE NORTH CHARGEABILITY MODEL

ice

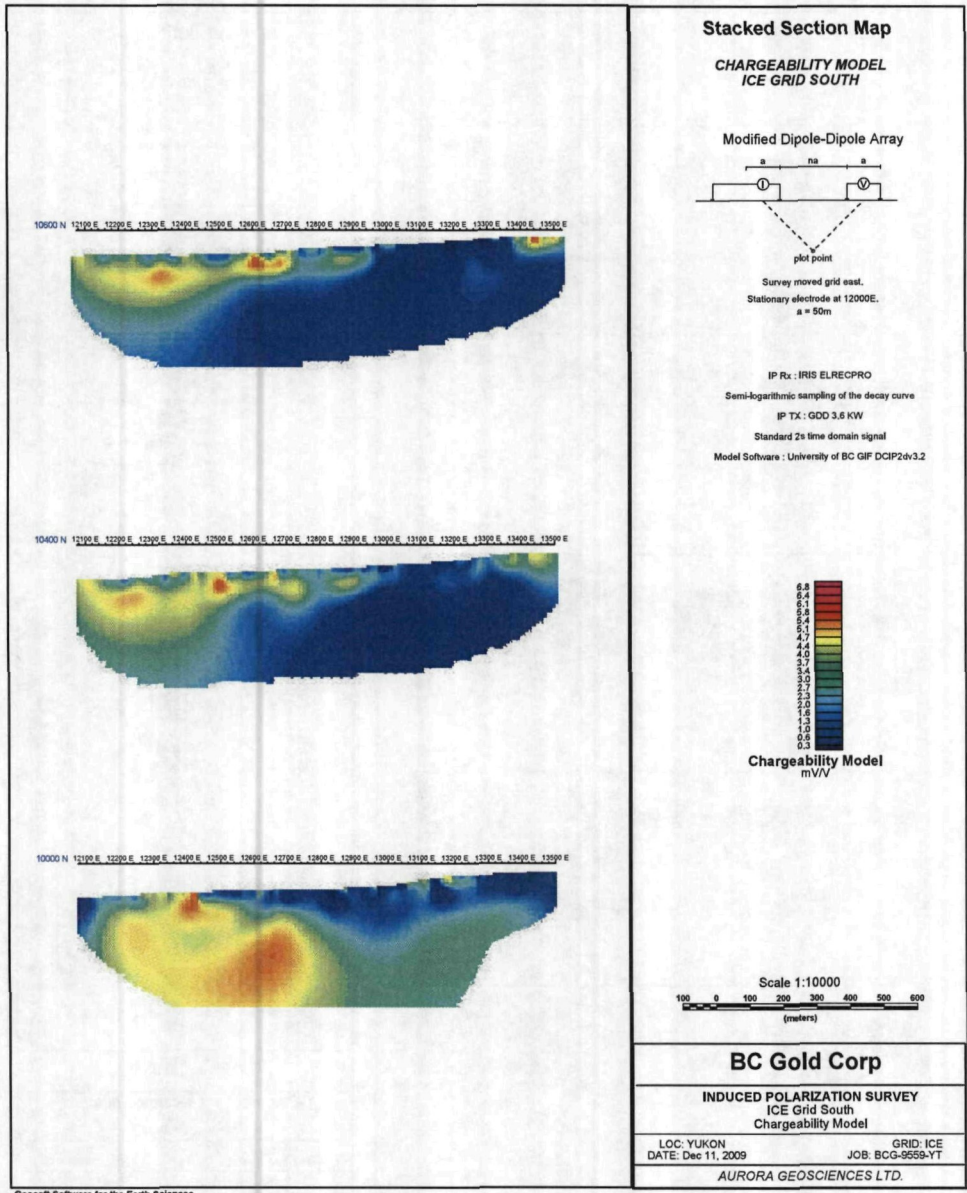
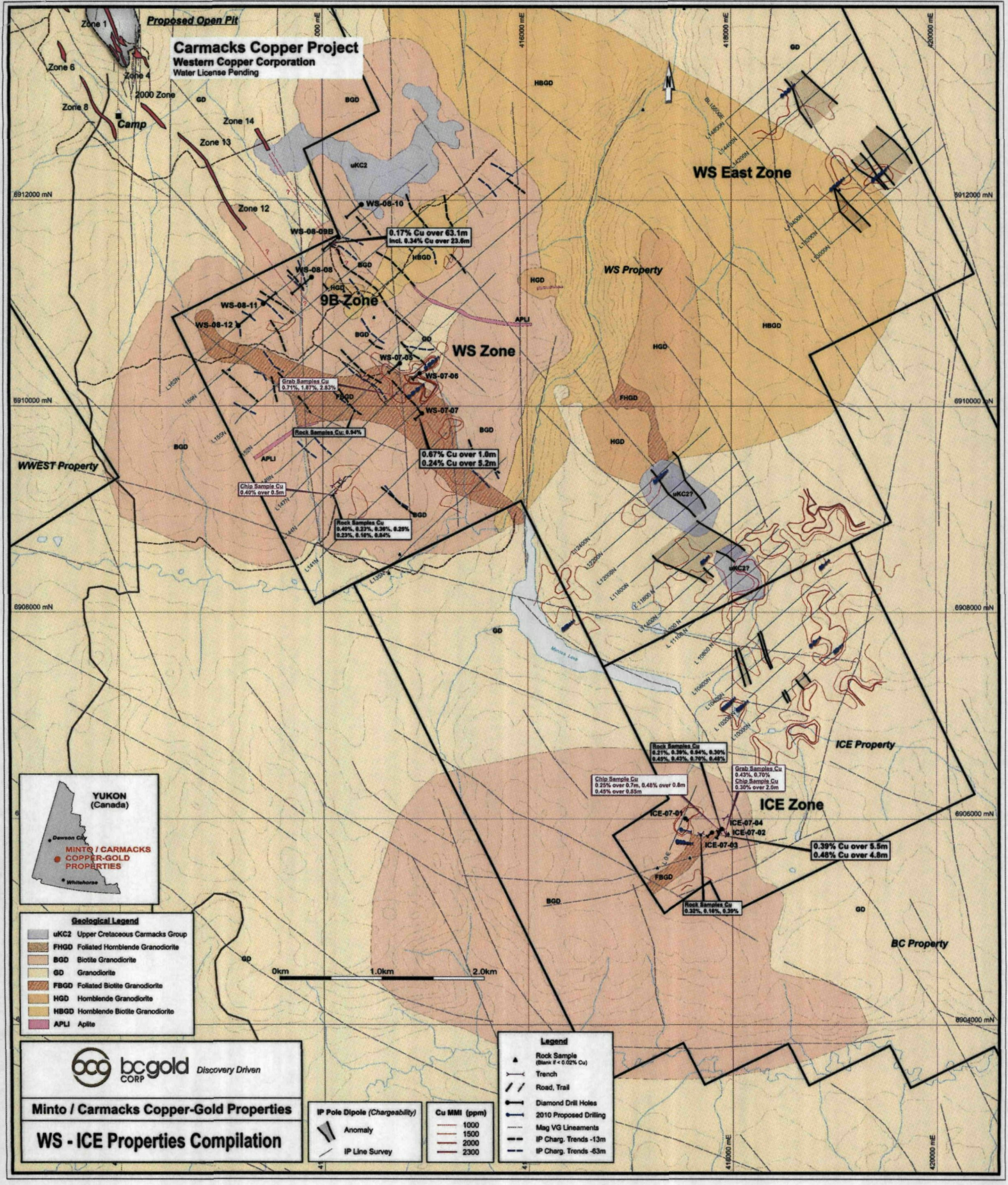


Figure 6: WS-ICE SOUTH CHARGEABILITY MODEL

**Carmacks Copper Project**  
Western Copper Corporation  
Water License Pending



**Geological Legend**

uKC2	Upper Cretaceous Carmacks Group
FHGD	Foliated Hornblende Granodiorite
BGD	Biotite Granodiorite
GD	Granodiorite
FBGD	Foliated Biotite Granodiorite
HGD	Hornblende Granodiorite
HBGD	Hornblende Biotite Granodiorite
APLJ	Aplite

**bcg gold** Discovery Driven  
CORP

**Minto / Carmacks Copper-Gold Properties**

**WS - ICE Properties Compilation**

**IP Pole Dipole (Chargeability)**

Symbol	Anomaly
Symbol	IP Line Survey

**Cu MMI (ppm)**

1000	1500	2000	2300
------	------	------	------

**Legend**

▲	Rock Sample (Blank # = 0.02% Cu)
—	Trench
—	Road, Trail
●	Diamond Drill Holes
—	2010 Proposed Drilling
—	Mag VG Lineaments
—	IP Chrg. Trends -13m
—	IP Chrg. Trends -63m

Rock Samples Cu  
0.21%, 0.39%, 0.54%, 0.39%,  
0.49%, 0.42%, 0.70%, 0.48%

Grab Samples Cu  
0.43%, 0.70%,  
Chip Sample Cu  
0.38% over 2.0m

Chip Sample Cu  
0.25% over 0.7m, 0.48% over 0.8m,  
0.45% over 0.85m

0.39% Cu over 5.5m  
0.48% Cu over 4.8m

Rock Samples Cu  
0.23%, 0.16%, 0.29%

0.67% Cu over 1.0m  
0.24% Cu over 5.2m

Rock Samples Cu  
0.48%, 0.27%, 0.28%, 0.29%,  
0.23%, 0.18%, 0.24%

Chip Sample Cu  
0.49% over 0.5m

Grab Samples Cu  
0.71%, 1.87%, 2.87%

0.17% Cu over 63.1m  
incl. 0.34% Cu over 23.6m

Zone 1, Zone 4, Zone 6, Zone 8, Zone 10, Zone 12, Zone 13, Zone 14, Zone 15, Zone 16, Zone 17, Zone 18, Zone 19, Zone 20, Zone 21, Zone 22, Zone 23, Zone 24, Zone 25, Zone 26, Zone 27, Zone 28, Zone 29, Zone 30, Zone 31, Zone 32, Zone 33, Zone 34, Zone 35, Zone 36, Zone 37, Zone 38, Zone 39, Zone 40, Zone 41, Zone 42, Zone 43, Zone 44, Zone 45, Zone 46, Zone 47, Zone 48, Zone 49, Zone 50, Zone 51, Zone 52, Zone 53, Zone 54, Zone 55, Zone 56, Zone 57, Zone 58, Zone 59, Zone 60, Zone 61, Zone 62, Zone 63, Zone 64, Zone 65, Zone 66, Zone 67, Zone 68, Zone 69, Zone 70, Zone 71, Zone 72, Zone 73, Zone 74, Zone 75, Zone 76, Zone 77, Zone 78, Zone 79, Zone 80, Zone 81, Zone 82, Zone 83, Zone 84, Zone 85, Zone 86, Zone 87, Zone 88, Zone 89, Zone 90, Zone 91, Zone 92, Zone 93, Zone 94, Zone 95, Zone 96, Zone 97, Zone 98, Zone 99, Zone 100

## **11.0 REFERENCE**

1. Dzuibia, Frank. 2009. Memorandum: Carmacks 2009 IP Surveys. December 15, 2009. Aurora Geosciences.