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## MEMORANDUM

**To:** Geoff Newton  
BC Gold Corp.

**Date:** Sept 22, 2009

**From:** Andre Lebel

**Re:** 2009 Induced Polarization Survey Field Report

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This memorandum is a field report describing an induced polarization (IP) survey conducted on BC Gold properties. A modified pole-dipole IP survey was conducted on the ICE, Northeast WS, and APEX properties, Whitehorse Mining District, Yukon Territory. The survey was conducted from August 15, 2009 to September 11, 2009

A total of 12.8 line-km on the ICE grid over 11 working days, 9 line-km were surveyed on the Northeast WS grid over 5 working days, and 15.2 line-km on APEX grid over 7 working days. The poor production on the ICE grid was due to wet rainy weather, and L14600N on the Northeast WS grid was surveyed using 6 dipoles because of rainy weather. The camp for the ICE property was located at 417400E 6907400N NAD83 UTM zone 8N, and the only source of water nearby is Merrice Lake. The camp on the Northeast WS property was located at 419300E 6911800N NAD83 UTM zone 8N, and there were no sources of water in the area. The camp for the Apex property was located 383600E 6952200N NAD83 UTM zone 8N, and there were no sources of water in the area. A full survey log is attached to this report.

### a. Crew and equipment.

The IP surveys were conducted by the following personnel:

#### Crew

Andre Lebel	Crew chief	August 24 – September 11
Tim Stewart	Crew chief	August 15 – August 24
Dave Robinson	Technician	August 15 – September 11
Dan Mawhinney	Helper	August 15 – September 11
Alicia Cannata	Helper	August 15 – September 11

The IP crews were equipped with the following instruments and equipment:

IP receiver	1	Iris Elrec Pro   S/N: 2315-2023534501-122
IP transmitter	1	GDD TxII 3.6 kW   S/N: TX-242
Generator	1	Honda 5kW generator
IP equipment	2	Repair tools & spare IP parts
	8 km	18 gauge wire
	33	10 conductor 50m IP cables
	5	VHF handheld radios
		Geo-reels & spools, Speedy winders and spools, stainless steel electrodes
	2	Laptops with Geosoft IP packages
Other	1	4 man summer camps
	2	Garmin 76 GPS units
		Truck and driver for each mobe/ demobe and camp moves
		Helicopter for camp-moves between grids

**a. IP survey specifications.**

The modified pole-dipole IP surveys were conducted according to the following specifications:

Array	Modified Pole-Dipole Array
Dipole spacing	50 m on all lines
Dipoles Read	N=1 through 10 (10 Channels)
TX	Time domain, 50% duty cycle, reversing polarity, 0.125 Hz.
Stacks	Minimum 15
Rx error	a standard deviation of 5 mV/V or less, otherwise repeated several times until repeatability assured
Grid registration	Handheld GPS points at line ends and every 200m minimum averaged 60 s or until estimated accuracy < 10 m. All coordinates are in NAD83 UTM Zone 8N.

## **b. Data Processing.**

Data was downloaded nightly from the receiver and imported into the Geosoft Oasis Montaj IP package. Every reading was inspected and readings which did not repeat were rejected from the database. Apparent resistivity was recalculated using a four electrode equation assuming a homogeneous earth. Average chargeability was calculated using a weighted mean based on the number of stacks and the standard deviation of the chargeability.

The ground provided clear and consistent readings. However, in those areas that produced a relatively lower signal to noise ratio additional readings as well as greater stacks of averaged readings were taken in order to ensure repeatability. GPS points were dumped from the handheld units and the coordinates for the stations determined by linear interpolation between GPS points. Elevations were determined from a digital elevation model equivalent to NTS 1:50:000 maps. Pseudosections of apparent chargeability, apparent chargeability error, and apparent resistivity were draped over topography which were produced with Oasis Montaj.

## **c. Products.**

The following data files are appended to the digital version of this report:

Data	Final data in Geosoft ASCII xyz and gdb format. The GPS files have all GPS coordinates taken in NAD83, UTM zone 8N coordinates.
Images	Pseudosections in .pdf format of apparent chargeability, apparent resistivity, & chargeability error (scale = 1:5000). Grid maps with GPS coordinates in NAD83, UTM zone 8N (scale = 1:5000 For NEWS and 1:10000 for Ice and Apex).
Raw	A folder with all the raw instrument dump files.
BC Gold 2009 IP Field Report.pdf	A PDF of this report.
Field Summary BC Gold IP summer 2009.xls	Survey log

Respectfully submitted,  
AURORA GEOSCIENCES LTD.

Andre Lebel