

# **TECHNICAL ASSESSMENT REPORT ON THE GEOCHEMICAL AND GEOPHYSICAL SURVEYS**

**On the  
GREENHORN PROPERTY**

**Slocan Mining Division, British Columbia**

**NTS Map Sheet 82K/5 (082K031)**

***Approximate Geographic Limits:***

**436300-440400E**

**5573200-5581200N**

**(Datum: NAD83, Zone 11N)**

***Prepared For:***

**Bravura Ventures Corp.  
430-580 Hornby St.  
Vancouver, B.C. V6C 3B6**

***By:***

**Gordon J. Allen, P. Geo.**

**November 12, 2011**



Ministry of Energy, Mines & Petroleum Resources  
Mining & Minerals Division  
BC Geological Survey



Assessment Report  
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geochemical and Geophysical

TOTAL COST: \$149,187.26

AUTHOR(S): Gordon J. Allen

SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): N/A

YEAR OF WORK: 2011

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5095647

PROPERTY NAME: Greenhorn

CLAIM NAME(S) (on which the work was done): 551876, 836154, 836155, 838311, 838312, 838313, 838315

COMMODITIES SOUGHT: copper, lead, zinc, silver, gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 082KSW124

MINING DIVISION: Slocan

NTS/BCGS: 082K031

LATITUDE: 50 ° 20 ' 50 "      LONGITUDE: 117 ° 51 ' 33.6 "      (at centre of work)

OWNER(S):

1) Bruce Doyle

2)

MAILING ADDRESS:

1424 Crease Avenue,

Nelson, B.C., V1L 1A2

OPERATOR(S) [who paid for the work]:

1) Bravura Ventures Corp.

2)

MAILING ADDRESS:

430, 580 Hornby Street, Vancouver, B.C.

V6C 3B6

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Quartz rich amphibolite is mineralized with pyrite and chalcopyrite in a north-northwest striking and steeply east dipping horizon, traceable for over 2km. Thickness is uncertain, but probably 5-10m. Host rocks are part of the Permian Kaslo Group mafic volcanic sequence.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 7789, 21289, 25447, 26162, 28321, 31243, 32081

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo Interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	35.65 km	838313, 838315, 836154, 551876, 83+	4375
Electromagnetic	30.525 km	838313, 838315, 836154, 551876, 83+	75000
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil	1045 (36 element ICP-MS incl Au)	838313, 838315, 836154, 551876, 83+	48,304.29
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying	1045 soils for ICP-MS; Acme Labs		18,995.36
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other	Site visit, vehicle rental, report, base maps, consu		2512.61
		TOTAL COST:	149,187.26

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## 1.0 SUMMARY

*The Greenhorn property consists of approximately 2536 hectares of mineral claims located in the Kootenay Terrane of south-eastern British Columbia. It is underlain by mafic volcanic rocks of the Permian Kaslo Group and limestone and clastic sedimentary rocks of the Triassic Slocan Group. All volcano-sedimentary rocks were isoclinally folded and metamorphosed to greenschist and amphibolite facies schist during a Jurassic orogeny circa 180-175Ma when the Intermontane superterrane docked with ancestral North America. A granodioritic plutonic complex, the Kuskanax batholith, intruded into these stratified rocks during this orogeny. The most significant mineralization discovered on the property to date consists of a steeply eastward dipping quartz-rich amphibolite horizon containing chalcopyrite and pyrite. Several copper showings in the Dunn Creek area appear to be on the same horizon with a tentative strike length of over 2km. The North showing has similar characteristics but is not on stratigraphic trend with the other showings. It may be a different horizon or a fold repetition of the same unit.*

*Kuroko – Noranda type volcanogenic massive sulphide occurrences are documented in Kaslo Group rocks elsewhere in the region, and it is probable that mineralization on the Greenhorn property is also stratabound exhalative.*

*Mineralization on the property has been documented since 1903 when prospectors reported finding high grade copper and gold ore at the Cornwall showing (probably the Dunn Creek showing). Several exploration programs were conducted but documentation is scarce, and assessment reports only date back to 1979. The most significant previous program was conducted by Phelps Dodge in 1997, and consisted of geological mapping, soil and rock sampling, magnetic and IP surveys, and three short drill holes. Bravura Ventures Corp. optioned the property in 2010 and subsequently contracted an airborne magnetic and VLF-EM survey from Aeroquest Airborne. Bravura's 2011 program consisted of collecting 1045 soil samples and the contracting of approximately 35km of ground time-domain electromagnetic (TEM) and magnetic surveys to cover known showings.*

*A 2.4km long north-northwest trending linear copper-in-soil anomaly is coincident with the known limits of the copper horizon. Zinc, lead, and barium in soil are defining a linear feature of similar dimension and orientation, but offset roughly 175m to the west of the copper horizon. This second feature has coincident chargeability, TEM, and magnetic anomalies, suggesting potential for massive sulphide mineralization. Phelps Dodge drilled in this area, but holes appear to have been too short to cut the conductive horizon.*

*It is recommended that the TEM survey be expanded to the limits of the Kaslo Group rocks on the property. Detailed mapping of the entire grid is required to put all other data into a geological context. Property-wide sieved stream sediment sampling is also warranted. The linear zone with coincident geochemical and geophysical anomalies west of the copper horizon is a compelling target. Pending geological mapping in the area, three drill holes are proposed to test various parts of this anomalous zone.*

*Bravura Ventures Corp.  
Technical Assessment Report on the Geochemical and Geophysical Surveys on the  
Greenhorn Property, November 12, 2011*

*This proposed Phase III exploration program will require approximately \$530,000 to complete.*

## 2.0 INTRODUCTION

The Greenhorn property is located in south-eastern British Columbia in the Slocan Mining Division (Figure 1), and within the mineral-rich Kootenay Terrane. Claims in this group are underlain by mafic volcanic rocks of the Permian to Triassic Kaslo Group, fine-grained metasedimentary rocks of the Triassic Slocan Group, and intrusions of the Jurassic Kuskanax Batholith. Stratified rocks were metamorphosed to greenschist and amphibolite facies schists during a Jurassic orogeny. Numerous copper showings occur within the Kaslo Group mafic volcanic suite on the property. Copper mineralization is commonly stratibound in nature, and recognized in the latter part of the 1900s as having a possible volcanogenic exhalative genesis.

Documented activity on the property dates back to 1903 when a high grade stratabound copper skarn or shear zone was developed at the Cornwall showing (Minfile, 082KSW124). Several exploration programs on the property have been conducted over the past century. The current property area was staked by Bruce and Grant Doyle in 1997 and subsequently optioned to various groups. The most extensive exploration program documented on the property was conducted by Phelps Dodge in 1997 when geological mapping, geochemical, ground geophysical, and diamond drilling surveys were conducted. Eventually Bravura Ventures Corp. acquired the property under an option agreement dated November 24, 2010. Bravura contracted Aeroquest Airborne to conduct magnetic and VLF-EM surveys on the property later that same year. An NI 43-101 report was written to document that work, and Bravura was subsequently listed on the Toronto Stock Exchange.

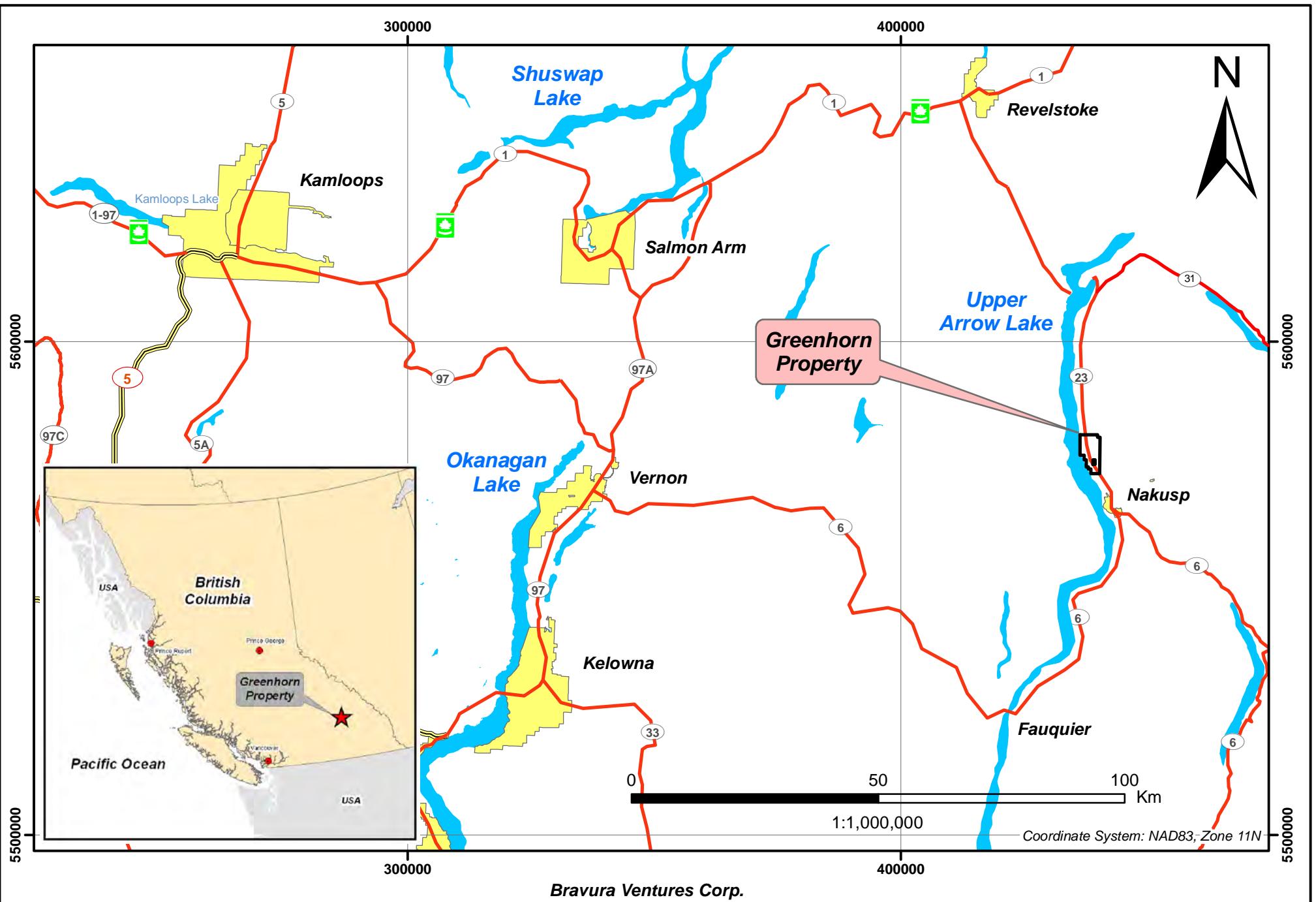
This program of geochemical sampling and geophysical surveying was conducted on the subject property intermittently between July 7<sup>th</sup> and October 26<sup>th</sup>, 2011, at the request of Mr. Chris Dyakowski of Bravura Ventures Corp. The program was recommended by Mr. John Kerr in his 43-101 technical report on the property (Kerr, 2011).

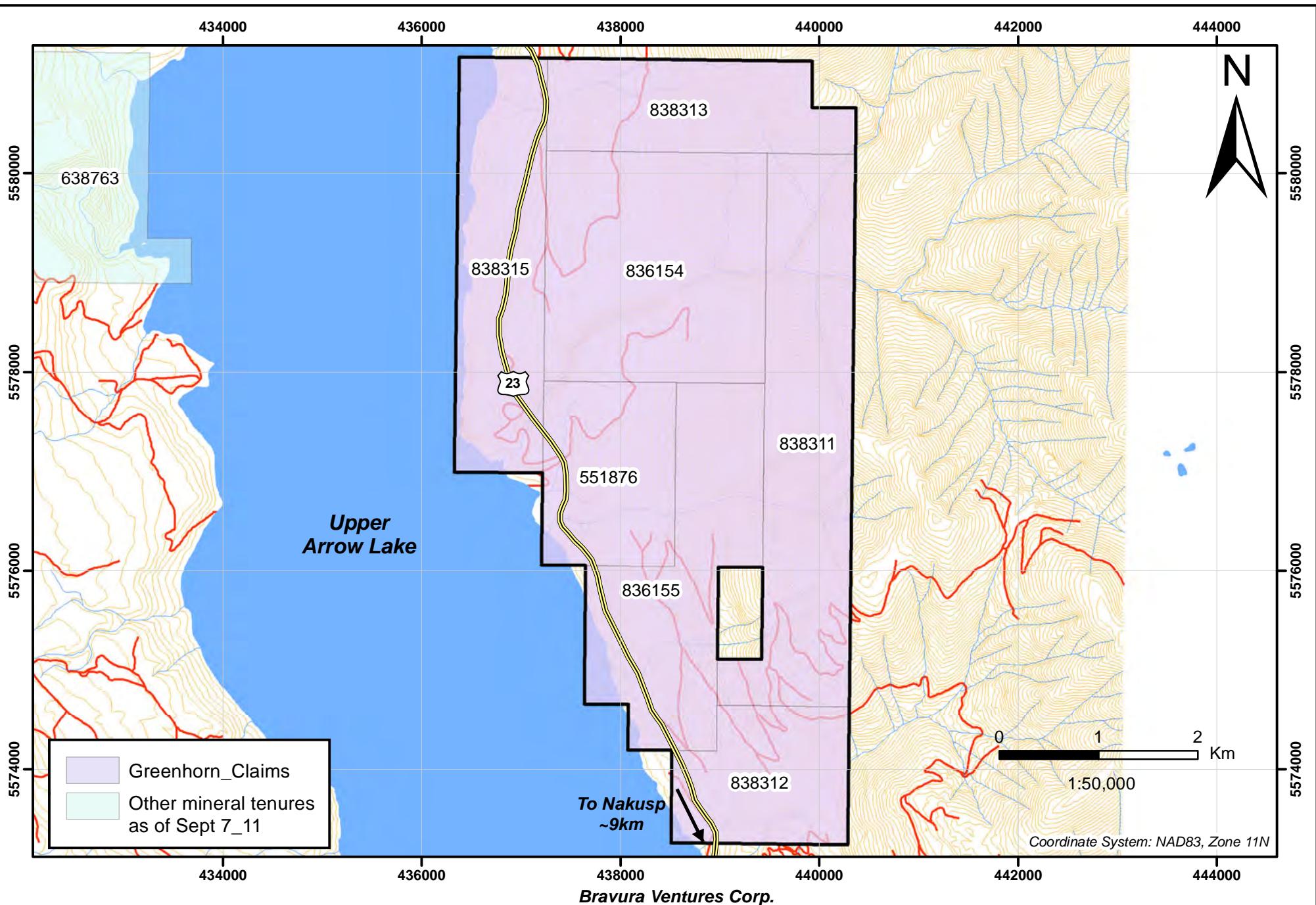
A total of 64.7 km of grid was established to cover the known copper showings, and various EM and magnetic features identified in the airborne geophysical surveys. Ground magnetic and HLEM surveys were conducted, and 1045 soil samples collected.

The purpose of this program was to assess if the property warranted continued exploration.

## 3.0 MINERAL TENURE

The Greenhorn property consists of 7 mineral tenures totalling 2536.13 hectares (Figure 2, Table 1). Mr. Bruce Doyle of Nelson, B.C., is the current registered owner of all claims. They have been optioned to Noram Ventures Inc. under an option agreement dated November 24<sup>th</sup>, 2010, and constitute the “Greenhorn Property.”





**Table 1****Greenhorn Property Claims**

Tenure No.	Claim Name	Area_Ha	Owner	Issue_Date	Good-To Date
551876	Horn	247.46	Doyle, Bruce	13-Feb-07	25-Aug-17
836154	Copper Horn 1	515.35	Doyle, Bruce	18-Oct-10	18-Oct-17
836155	Green	391.89	Doyle, Bruce	18-Oct-10	18-Oct-17
838311	Arrow 1	515.51	Doyle, Bruce	14-Nov-10	14-Nov-17
838312	Arrow 2	226.97	Doyle, Bruce	14-Nov-10	14-Nov-17
838313	Arrow 3	267.90	Doyle, Bruce	14-Nov-10	14-Nov-17
838315	Arrow 4	371.05	Doyle, Bruce	14-Nov-10	14-Nov-17
Total Hectares		2536.13			

Note: "Good to Date" or anniversary dates shown have been updated using assessment credits from work detailed in this report and documented in a Statement of Exploration and Development Work with Event Number ID of 5095647.

Mineral tenures in British Columbia are acquired through an internet-based mineral titles administration system. It is assumed, therefore, that the Greenhorn property is precisely as shown on the province's mineral tenure map and displayed in Figure 2. The tenures are for mineral rights only and do not include surface rights.

Under the current Mineral Tenure Act, maintaining a mineral tenure (claim) in B.C. for the first three years after issuance requires annual exploration expenditures (work assessment or payment in lieu) of \$4.00 per hectare plus a \$0.40 per hectare fee. After three years the assessment rate increases to \$8.00 per hectare. Under these regulations the annual costs (assessment work and fees) to maintain the entire Greenhorn claim group beyond their current expiry date in 2017 would be \$21,303.49. Changes to the Mineral tenure Act are proposed, and the exploration work requirement and fees will likely increase significantly.

#### **4.0 PROPERTY LOCATION, ACCESSIBILITY, CLIMATE, INFRASTRUCTURE, AND PHYSIOGRAPHY**

The Greenhorn property is located approximately 10 lineal kilometres due north of Nakusp in the Kootenay region of south-eastern British Columbia (Figure 1). It is in the Lardeau Range of the Selkirk Mountains, on the east shore of Upper Arrow Lake.

From Nakusp, access to the property is via Highway 23 along the east shore of Upper Arrow Lake. A network of logging roads provides access to most parts of the claim block. Travel time to the property from Nakusp along the paved highway is approximately 10 minutes.

The Lardeau Range consists of steep mountainous terrain. Elevations in the property area range from approximately 445m on the shore of Upper Arrow Lake, up to over 1600m in the east part of the claims. Valley bottoms and flanks are vegetated with primary and second growth fir, hemlock, spruce and cedar forests, with alder growing in slide chutes.

Average temperatures at the Upper Arrow Lake level range from -5°C in January to over 25°C in July and August. Precipitation averages 842mm (33") per year.

Power and water for any industrial endeavour are readily available. A labour force with mining experience is well established at most towns and cities throughout the region.

## **5.0 REGIONAL GEOLOGY AND ECONOMIC SETTING**

### **5.1 Regional Geology**

The Canadian Cordillera is made up of five major tectonostratigraphic belts that formed or were accreted during Mesozoic to post mid Tertiary time (McMillan, 1991, Figure 3). Of these five, the Omineca and Coast belts are assemblages of crystalline plutonic and metamorphic rocks which are thought to have developed along suture zones where exotic terranes docked with the North American craton. Rocks within the accreted terranes are interpreted to have been deposited in sedimentary basins and island arc settings off the coast of ancestral North America and later pushed onto the western margin of the continent during eastward subduction of the Pacific oceanic plates.

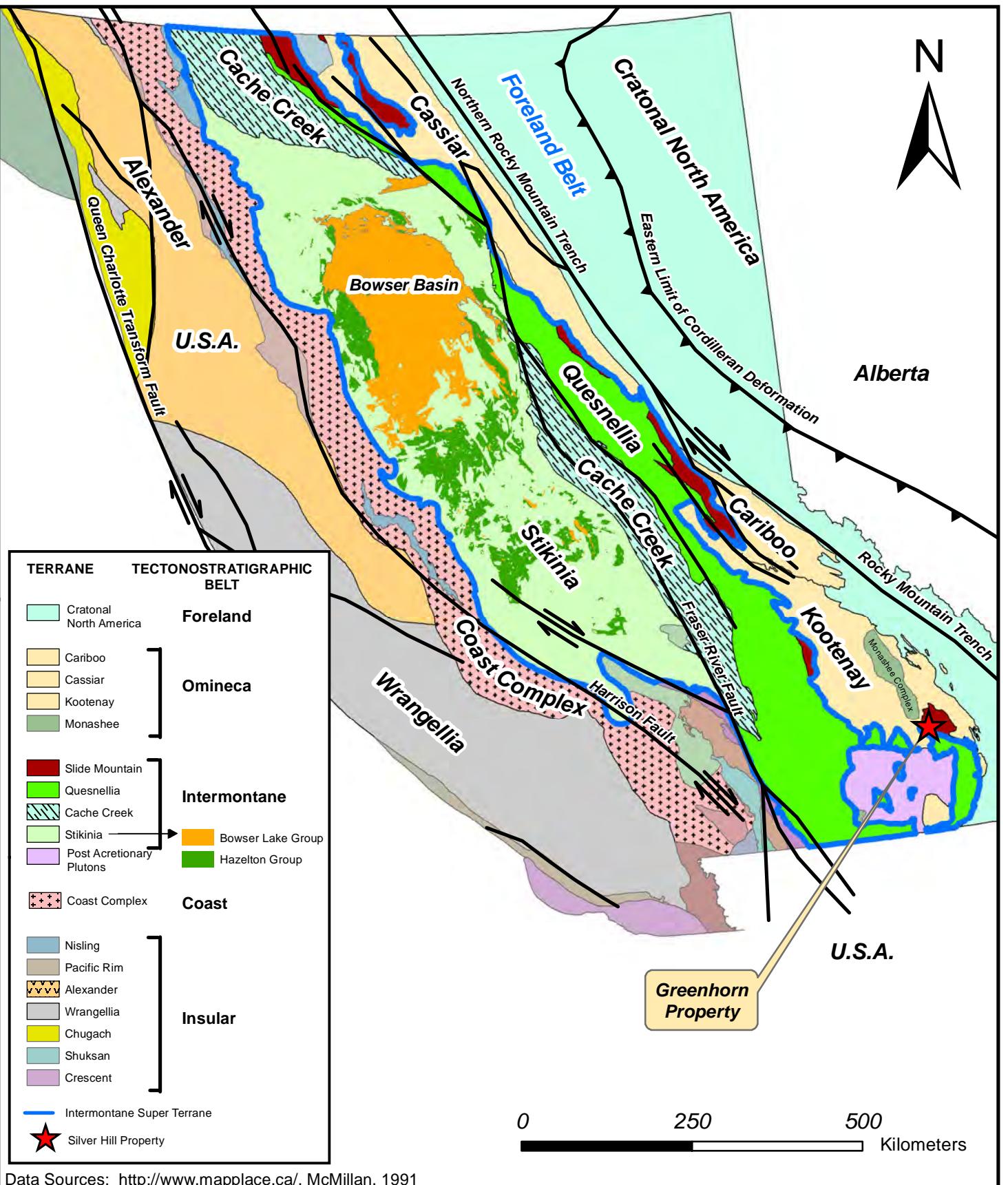
Four volcano-sedimentary terranes of central B.C. (Slide Mountain, Quesnellia, Cache Creek, and Stikinia) are thought to have collided and coalesced in the ocean west of ancestral North America by Late Triassic time, forming the Intermontane superterrane. This assemblage continued moving eastward and subsequently docked with the North American continent in the Mid Jurassic period, circa 185-175 Ma. The Omineca tectonostratigraphic belt, which underlies the Greenhorn property, is located between the Intermontane belt and the ancient North American craton. It consists of metamorphic and plutonic rocks which formed during this major terrane collision; the first in the development of the Canadian Cordillera.

A second volcano-sedimentary superterrane, the Insular belt, is composed primarily of the Alexander and Wrangellia terranes. They are interpreted to have coalesced by mid Pennsylvanian time (circa 310-305 Ma), and collided with the western edge of the Intermontane belt in the middle Cretaceous (approximately 100 Ma). The Coast Complex metamorphic-plutonic assemblage started to form at this time between the Insular and Intermontane belts, and had active intrusion emplacement up to the mid Eocene (45 Ma).

Cordilleran terrane assemblages have been cut by numerous intracontinental dextral strike slip faults. Right lateral offset along this fault system is interpreted to have initiated in the Late Cretaceous along the Rocky Mountain trench. Movement then appears to have been transferred sequentially to more western faults. The cumulative dextral fault offset in the B.C. Cordillera has been estimated to be in the order of 1300km.

Rocks on the eastern shore of Upper Arrow Lake have been assigned to the Kootenay terrane (Höy, 1991), and specifically to a belt of rocks known as the Kootenay arc. Rocks of the Kootenay arc extend from Revelstoke southward into the United States, and are situated between the Windermere-Purcell anticlinorium on the east, and the Monashee-Shuswap metamorphic complexes on the west.

The Kootenay arc consists of various major volcano-sedimentary and sedimentary sequences. From oldest to youngest they are: Lardeau, Milford, Kaslo and Slocan



**Bravura Ventures Corp.**  
**Silver Hill Property, Revelstoke Mining Division, B.C.**  
**Geological Terranes of British Columbia**

Groups. Regional geology of the property area is presented in Figure 4. A summary of the chronology of geological events of the region is presented in Figure 5.

The Lardeau Group is a Cambrian to Lower Devonian aged predominantly sedimentary sequence deposited in a deep water extensional basin. It consists predominantly of fine-grained clastic sediments, minor limestone and rare intercalated MORB-type (mid ocean ridge basalt) volcanic rocks.

Conformably overlying the Lardeau Group is the Devonian Mount Sproat assemblage. It is a sequence of intercalated fine-grained clastic sediments, limestone and basalt; similar to the underlying Lardeau Group but with a larger volcanic component. Volcanic rocks predominate in the upper part. Basaltic rocks in the sequence grade up stratigraphy from mid ocean ridge (MORB), to ocean island (OIB), to island arc tholeiite (IAT) and finally to calc-alkaline basalt (CAB). This gradational change in chemistry suggests a transition in depositional environment from deep ocean to continental margin island arc. These rocks are thought to be equivalent to the VMS-bearing Eagle Bay assemblage in the Shuswap region.

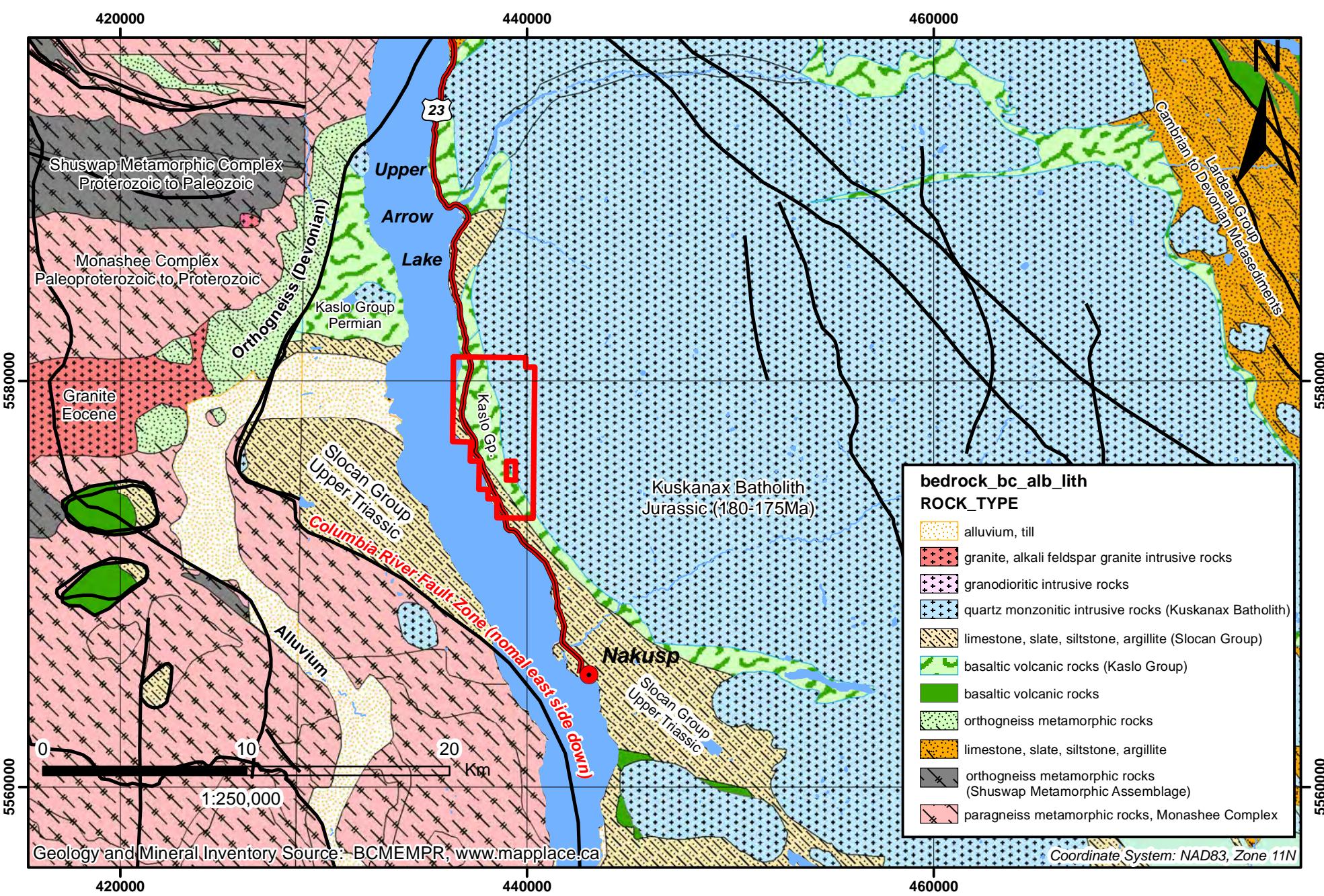
Rocks in the Lardeau Group and Mount Sproat assemblage were deformed by the Late Devonian Antler Orogeny. With renewed backarc subsidence, basins were filled with fine-grained clastic sediments and limestone of the Mississippian to Pennsylvanian Milford Group.

After a depositional hiatus, the Milford Group rocks were overlain by basalt flows and volcanioclastic rocks of the Permian Kaslo Group, and intruded locally by gabbro. The Kaslo mafic volcanic suite was in turn overlain by metasedimentary strata of the Triassic Slocan Group consisting predominantly of phyllite, siltstone and limestone.

In the mid Jurassic (circa 185-175 Ma) the Intermontane Superterrane pushed the Kootenay arc succession into the North American continent, causing isoclinal folding along north to northwest striking fold axes, and greenschist to amphibolite facies metamorphism. At this same time, the sequence was intruded by the Kuskanax batholith (circa 180-175 Ma); a multiphase intrusion complex consisting of granodiorite, quartz monzonite and syenite. Subsequently, the Galena Bay quartz monzonite stock was emplaced at approximately 162 Ma.

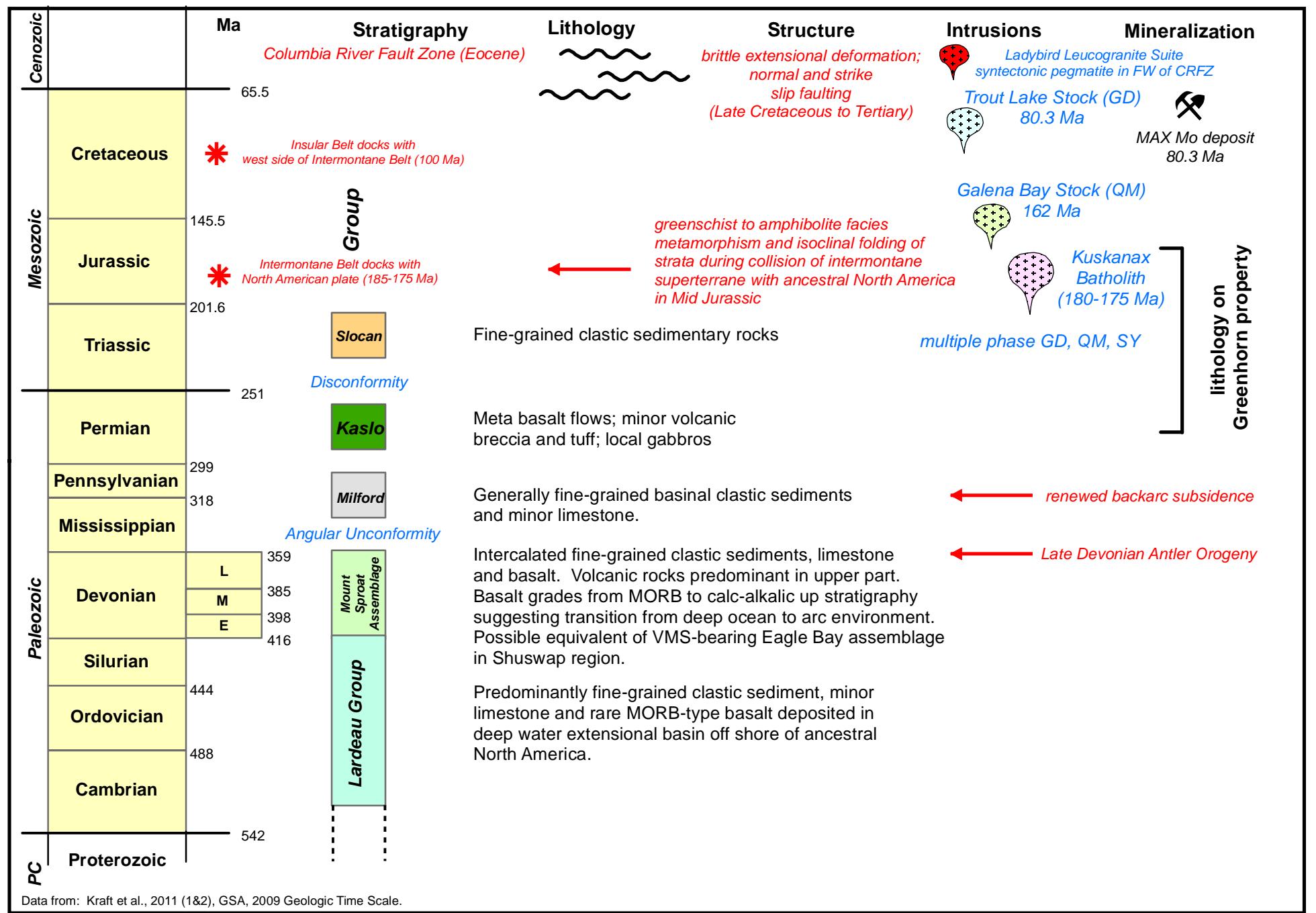
The Trout Lake stock is a very small granodiorite body emplaced into the Lardeau Group sedimentary sequence. It hosts the Max (formerly Trout Lake) molybdenum porphyry deposit approximately 35km to the northeast of the Greenhorn property boundary. Both host intrusion and mineralization have been dated at 80.3 Ma (Lawley, 2010).

In the late Cretaceous and early Tertiary, Kootenay arc rocks underwent brittle extensional deformation. The stratigraphy was cut and offset by a series of sub-parallel northwest trending normal and strike slip faults. The most significant such structure in the property area is the Eocene Columbia River fault zone (CRFZ). It has normal east



Bravura Ventures Corp.

## Greenhorn Property, Slocan Mining Division, British Columbia Regional Geology



Data from: Kraft et al., 2011 (1&2), GSA, 2009 Geologic Time Scale.

*Bravura Ventures Corp.*

**Greenhorn Property, Slocan Mining Division, B.C.  
Stratigraphy and Geochronology of Part of the Northern Kootenay Arc  
East of the Columbia River Fault Zone**

side down movement that juxtaposes high grade sillimanite facies metamorphic Paleoproterozoic to Paleozoic rocks of the Monashee and Shuswap complexes on the west with younger and lower grade metamorphic rocks of the Kootenay arc succession on the east.

## 5.2 Economic Setting

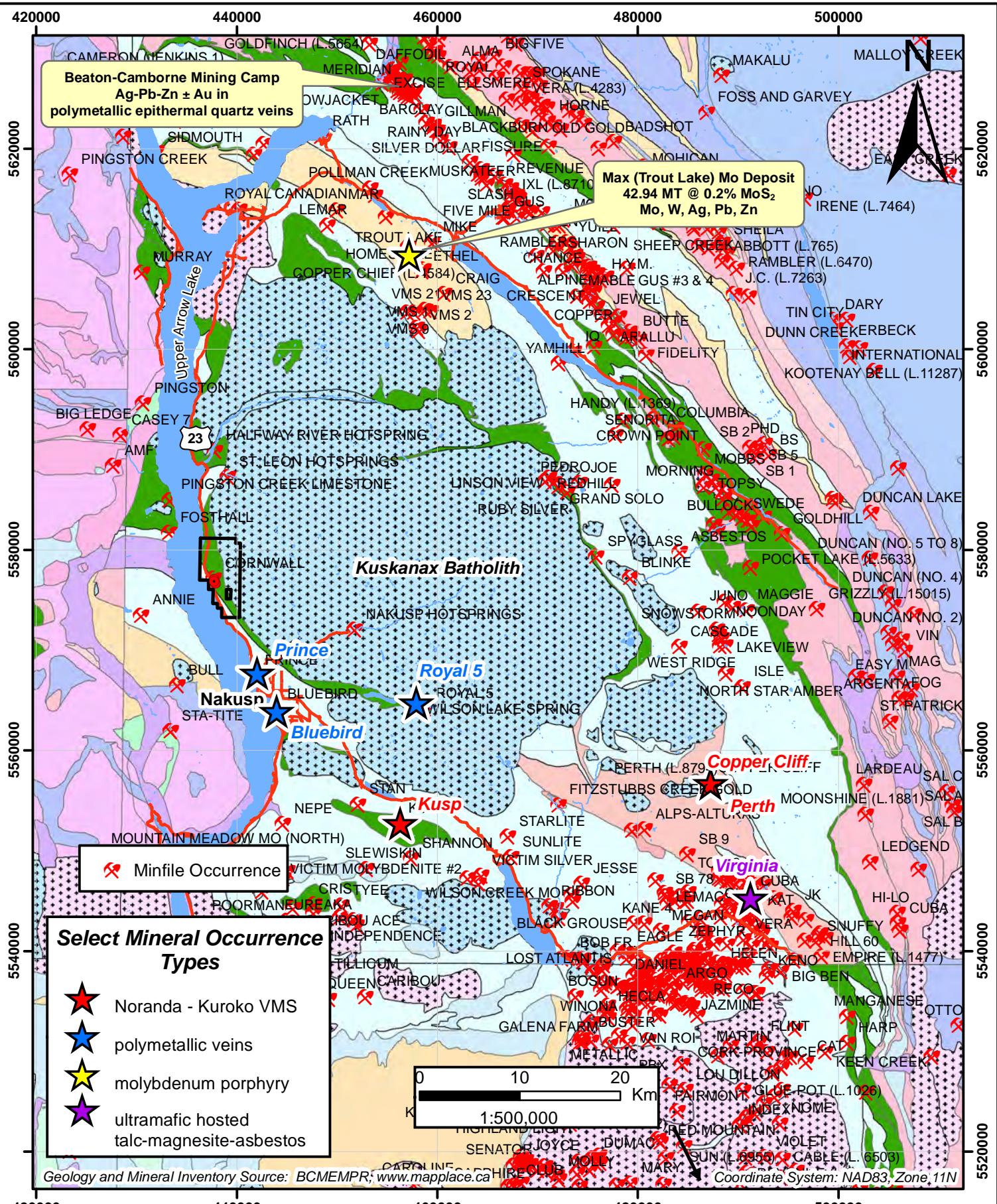
In a geological summary of the 082KSW map sheet, Mountjoy et al. (1996) made reference to the Ni-Cu-PGE and VMS potential of the Kaslo and Slocan Groups rocks. *“An ultramafic belt in the Kaslo Group adjacent to its contact with the Slocan Group has been explored for gabbroid Ni-Cu-PGE type showings such as SB 78 (082KSW064). Strong serpentization has occurred in this ultramafic belt resulting in several serpentinite-hosted magnesite-talc showings; the Virginia (082KSW144) being an example of this type of showing. The Copper Cliff (082KSW111), Perth (082KSW079) and Kusp (082KSW161) are volcanogenic massive sulphide occurrences hosted in Kaslo and Slocan groups strata.”* Minfile reports of these occurrences are included in Appendix 1. Locations are shown in Figure 6.

The Copper Cliff, Perth and Kusp are all classed as “Noranda/Kuroko” type massive sulphide deposits. Copper Cliff is located 58km SE of the Greenhorn property. Mineralization consists of small lenses of massive sulphide with pyrrhotite, pyrite, chalcopyrite, sphalerite and galena, hosted in intercalated metasedimentary and intermediate to felsic volcanic rocks of the Kaslo Group. Several horizons of sulphides have been identified ranging up to 1.8m wide and 30m in length.

The Kusp deposit consists of stratiform pyrite, galena and sphalerite in a 30m thick by 2400m long horizon of schistose metasedimentary rock of the Slocan Group. A considerable amount of work has been conducted on the property including ground geophysics, soil geochemistry and 308m of diamond drilling.

Gold and silver-bearing polymetallic veins at the Prince and Bluebird, occurrences are located 6 and 10km south-southeast of the Greenhorn property respectively. The Royal 5 occurrence is situated 20km southeast of the Greenhorn property. They consist of galena, sphalerite ± chalcopyrite-bearing quartz veins hosted in phyllitic sedimentary rocks of the Slocan Group.

The Max (formerly Trout Lake) molybdenum deposit is located just over 35km northeast of the Greenhorn property (Figure 6). It is hosted in the upper Cretaceous Trout Lake granodiorite stock which intruded into the Lower Paleozoic Lardeau Group sediment sequence. Molybdenite occurs in a multi-phase quartz stockwork associated with the intrusions. Tungsten, with minor associated molybdenum and copper, is restricted to skarn replacement pods in limestone peripheral to the main molybdenite-bearing quartz stockwork.



**Greenhorn Property, Slocan Mining Division, British Columbia**  
**Economic Setting**

The deposit was explored by Esso and Newmont in a joint venture in the 1970's and 1980's, but was eventually dropped. In a 2004 43-101 report (McCauley, 2004) resources in the deposit were quoted as being 42.94 MT (measured and indicated) grading 0.2% MoS<sub>2</sub>. Roca Mines Inc. brought the deposit into production in October of 2007. In a September 26<sup>th</sup>, 2011 news release Roca stated that in the two previous months it had processed an average of 391 tonnes of ore per day with a head grade of 0.34% Mo (0.56% MoS<sub>2</sub>). Unfortunately in a subsequent news release on October 3<sup>rd</sup>, 2011, Roca stated that these head grades were at the breakeven level for a "500 tpd throughput and current oxide prices at the US\$14 range." It was announced that operations at the mine would cease at the end of October, 2011.

Regardless of current economic conditions, the Max molybdenum deposit demonstrates the potential for the area to host viable molybdenum resources. Kraft (2011-1) comments that the Trout Lake stock is currently unique in the area. Documented molybdenite showings occur peripheral to and up to 15km distant from the Trout Lake stock, and genetically related intrusions may be more abundant in the area than current mapping indicates.

A great many high grade Ag-Pb-Zn ± Au occurrences (including several past producers) are documented in the Beaton-Camborne mining camp (Figure 6). These polymetallic epithermal quartz vein deposits are hosted predominantly in the Lower Paleozoic Lardeau Group sedimentary rocks. Veins are commonly orthogonal to regional fold axis orientations and they may be genetically related to the Antler Orogenic event which deformed these rocks in the Late Devonian (Figure 5). If this is the case, mineralization pre-dates the deposition of the Kaslo and Slocan Groups sequences.

## 6.0 HISTORY

The following summary of the history of the Greenhorn property is taken from Kerr (2011).

*"Little exploration work has been documented in the immediate area of the Greenhorn Property. The upper Arrow Lake region received attention by early prospectors searching for placer gold during the 1880's. Minister of Mines annual reports indicate that the Cornwall occurrence, located on the present Greenhorn claim at Dunn creek, was exploited during the early 1900's and samples assayed 8% copper and \$2.00 gold per ton (over 3gpt). It is reported that geological mapping and soil geochemistry were conducted in 1967 to follow-up chalcopyrite mineralization found in Dunn Creek. Results of this work are unavailable. The following summarizes the work 1979 – present.*

**1979 – 1982:** Cold Lake Resources (1979) were exploring for uranium in the area and located the RB 1 claim which overlapped the eastern portion of the present Greenhorn property. Exploration consisted of geological mapping, prospecting, soil geochemistry, magnetometer and radiometric surveys. Their work outlined anomalous concentrations

*of copper in soil (up to 405ppm) in the western portion of their grid with the most intense anomalies open to the west.*

**1982 – 1989:** No recorded work or claims

**1990 – 1996:** Brenda Mines located the Cu claims and followed up the discovery of a high grade copper occurrence along the Dunn Creek access road with prospecting, rock sampling and soil sampling over a small grid. The Brenda Mines grid provides partial westerly continuation of the 1979 grid, extending the area of anomalous copper some 200 meters to the west. Rock samples collected during the 1990 program returned up to 3.14% Cu with weakly elevated gold and silver tenors from calc-silicate rocks and mineralized amphibolite. Further work was recommended but not completed.

**1997:** The property was staked by Bruce Doyle in February, 1997. Phelps Dodge optioned the property and completed grid geophysics consisting of IP, magnetometer and VLF-EM surveys. The work was completed by SJ Geophysics of Vancouver, B.C. It is reported that Phelps Dodge also completed a three-hole diamond drill program, however records of this drilling were never kept. Drill logs and analytical results are summarized in the 1998 report by Kulla for Phelps Dodge. It is assumed the program was unsuccessful in identifying economic mineralization.

**1999:** Crest Geological Consultants Ltd. optioned the property, and during the period July to October completed a limited exploration program. The program consisted of geological mapping and prospecting the central part of the grid area concentrating on the copper soil anomaly and the collection of 26 rock samples. Reinterpretation of the IP and Magnetic-VLF data was completed by SJV Geophysics Ltd. It was during this program that the North showing was discovered and trenching initiated.

**2005 – 2006:** Zappa Resources Inc. completed some limited soil and rock geochemistry on the property. As a result, a second phase of trenching was completed in October, 2005.

**2010:** Bravura Ventures Corp. entered a four year option agreement to earn a 100% interest in the property. During December, 2010, a 610 km airborne magnetic and VLF electromagnetic survey was completed on the property by Aeroquest Ltd. of Mississauga, Ontario.”

The most comprehensive exploration program on the property prior to Bravura's involvement was conducted by Phelps Dodge Corporation of Canada in 1997. Their program consisted of geological mapping, rock and soil geochemistry, magnetic, VLF-EM and IP surveys, and three short drill holes. The Phelps Dodge data were re-evaluated by Crest Geological Consultants Limited on behalf of BGM Diversified Energy Inc. in 1999-2000 (Payne, 2000). S.J.V. Consultants Ltd. was contracted at this time to reinterpret the Phelps Dodge geophysical data.

A quick review of the Phelps Dodge data was done for this assessment report. It is based on plots made from compilation tables provided by Bruce Doyle (property owner), that were presumably prepared by Crest Geological Consultants.

## **6.1 Phelps Dodge 1997**

### **6.1.1 Geology**

A geological map prepared by Phelps Dodge was not located during this review. In order to put geophysical and geochemical discussions into a geological context, however, a short overview of the property geology is presented here.

General geology of the Greenhorn property is shown in Figure 7a. It consists of a simple volcano stratigraphic sequence with Permian mafic volcanic rocks of the Kaslo Group at the base. These rocks were overlain by fine-grained clastic sedimentary rocks and limestone of the Triassic Slocan Group along a disconformity. During a Jurassic orogeny the sequence was isoclinally folded along a north-northwest trending fold axis and metamorphosed to greenschist and amphibolite facies. The Kuskanax Batholith intrusive suite was emplaced at this time (180-175Ma).

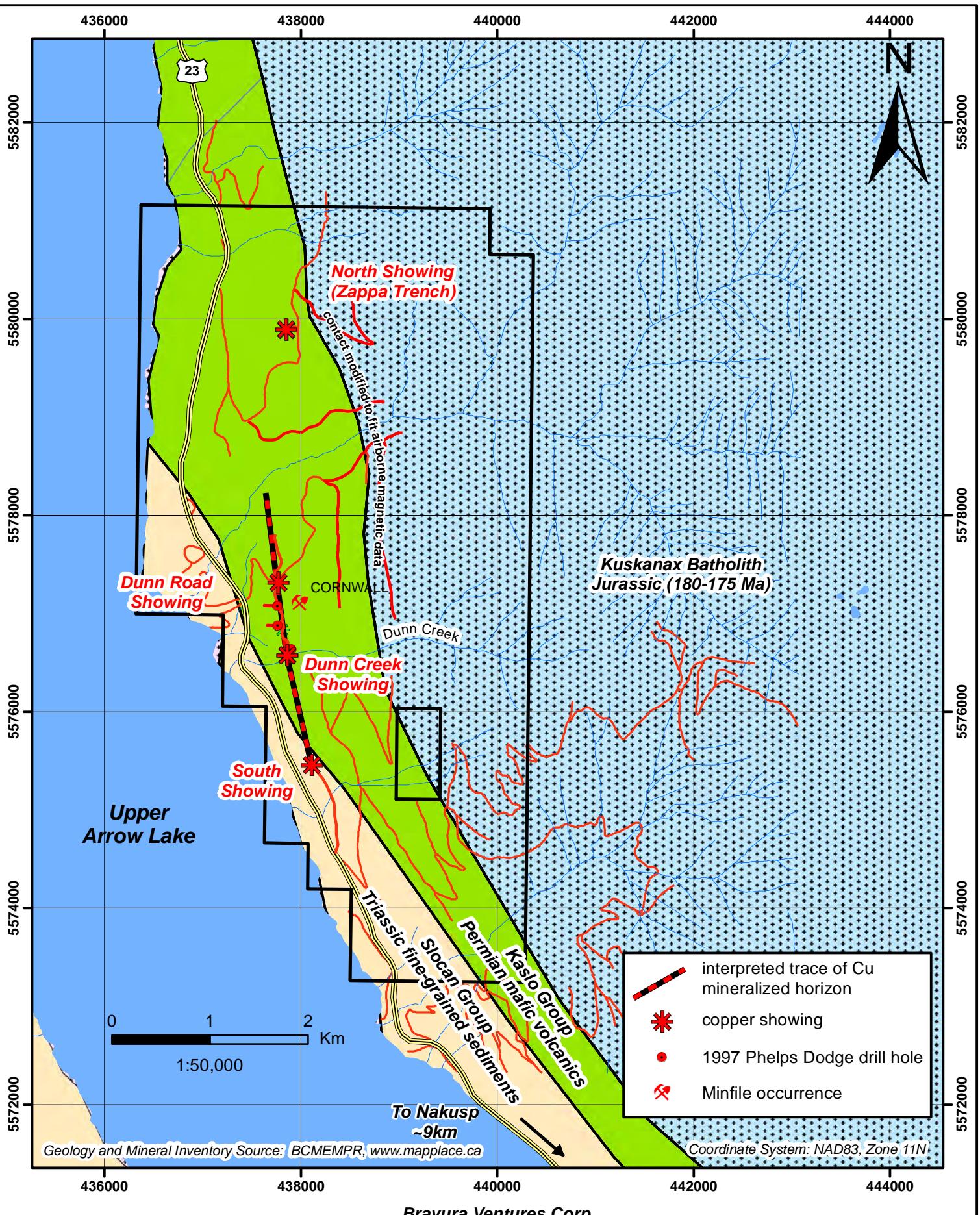
Copper mineralization on the property consists of apparently stratabound quartz-rich amphibolite horizons mineralized with disseminated and clotty pyrite and chalcopyrite. These horizons are up to a few metres in thickness, and typically dipping moderately to steeply eastward parallel to regional foliation.

### **6.1.2 Soil Geochemistry**

The Phelps Dodge grid is predominantly underlain by mafic volcanic rocks of the Kaslo Group, but in the south apparently straddles the Kaslo – Slocan Groups contact. It did not extend eastward onto the Kuskanax batholith. Plots of the copper, silver, lead, zinc, molybdenum and barium in soil samples are presented in Figures 7b1 through 7b6.

Copper in soil is shown in Figure 7b1. A north-trending linear anomaly approximately 2.4 km long is coincident with the interpreted trace of the copper-bearing horizon that runs between the South showing and north to the Dunn Road showing. In the north part of this anomaly it is up to 600m wide. Copper values are low to both the north and south projections of the trend suggesting possible truncation of the horizon or structure. Copper-in-soil anomalies do occur to the east of both the north and south limits of the linear trend. It is uncertain if these are related to other horizons, or are possibly delineating structural complications of the known horizon.

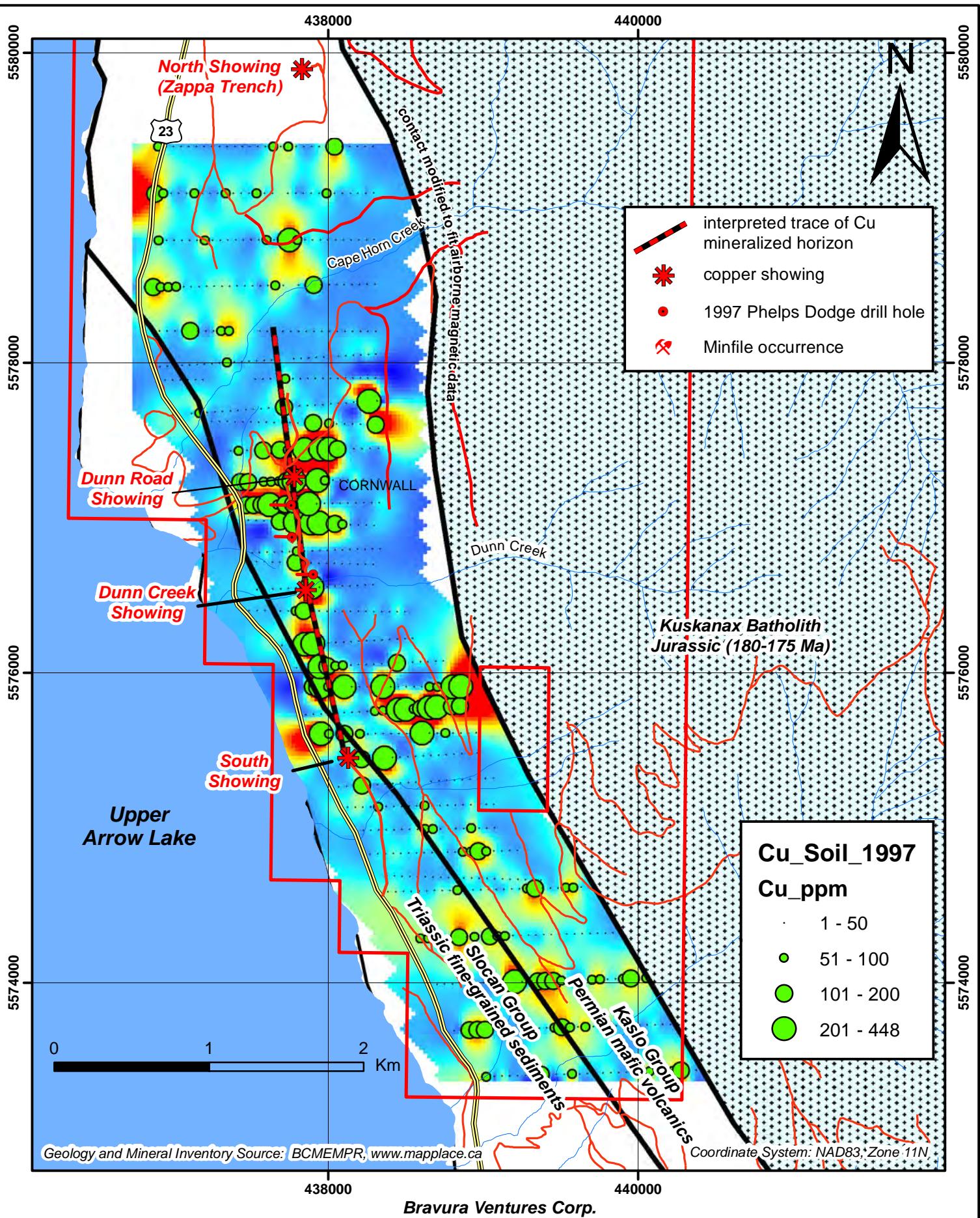
Silver and lead in soils (Figures 7b2 and 7b3) do not show any well defined linear anomalies. Silver is sporadically anomalous in a broad zone centred on the Dunn Road copper showing.



**Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); Composite Geology**

G. Allen, November, 2011

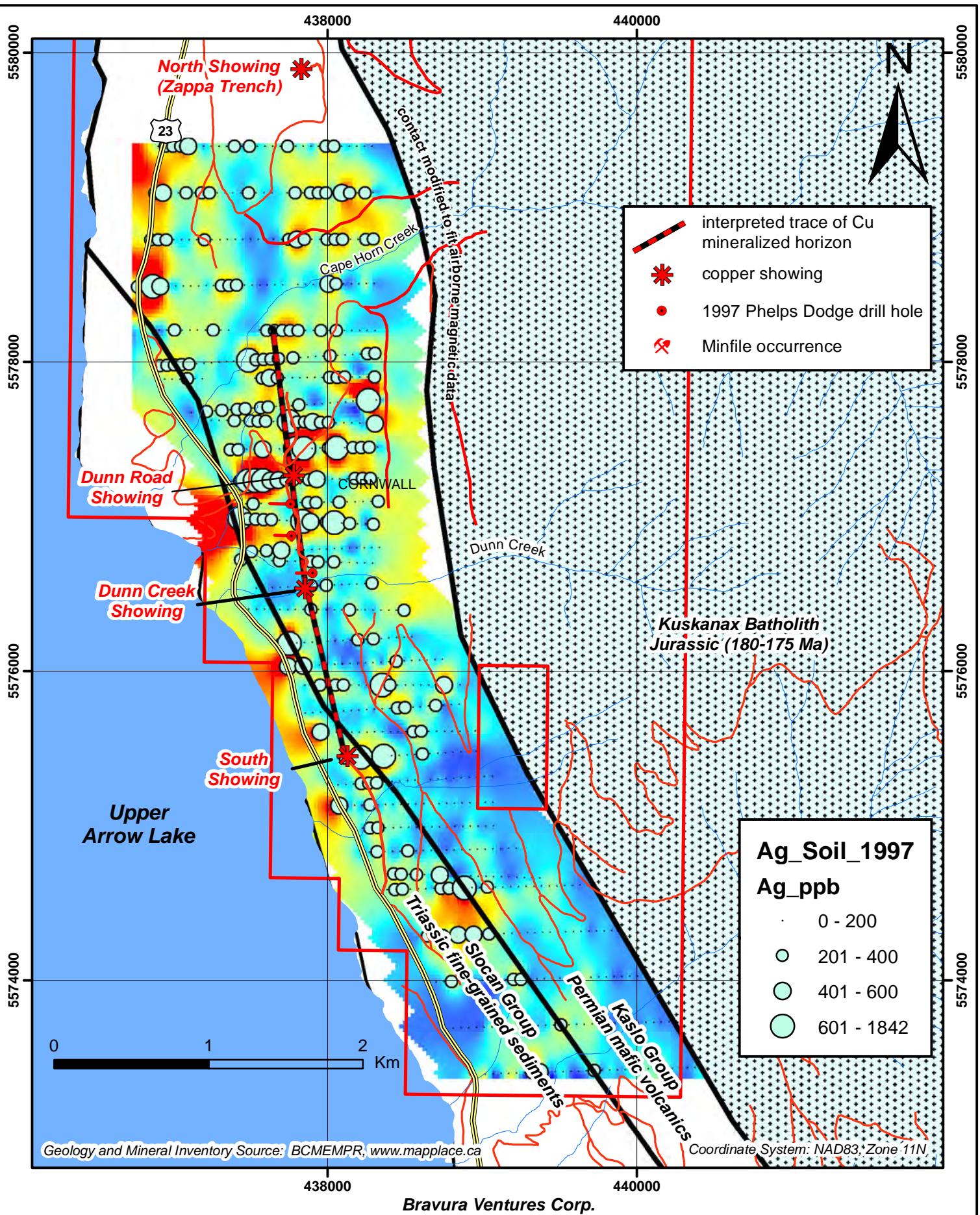
Figure 7a



**Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); Soil Geochemistry, Cu (ppm)**

G. Allen, November, 2011

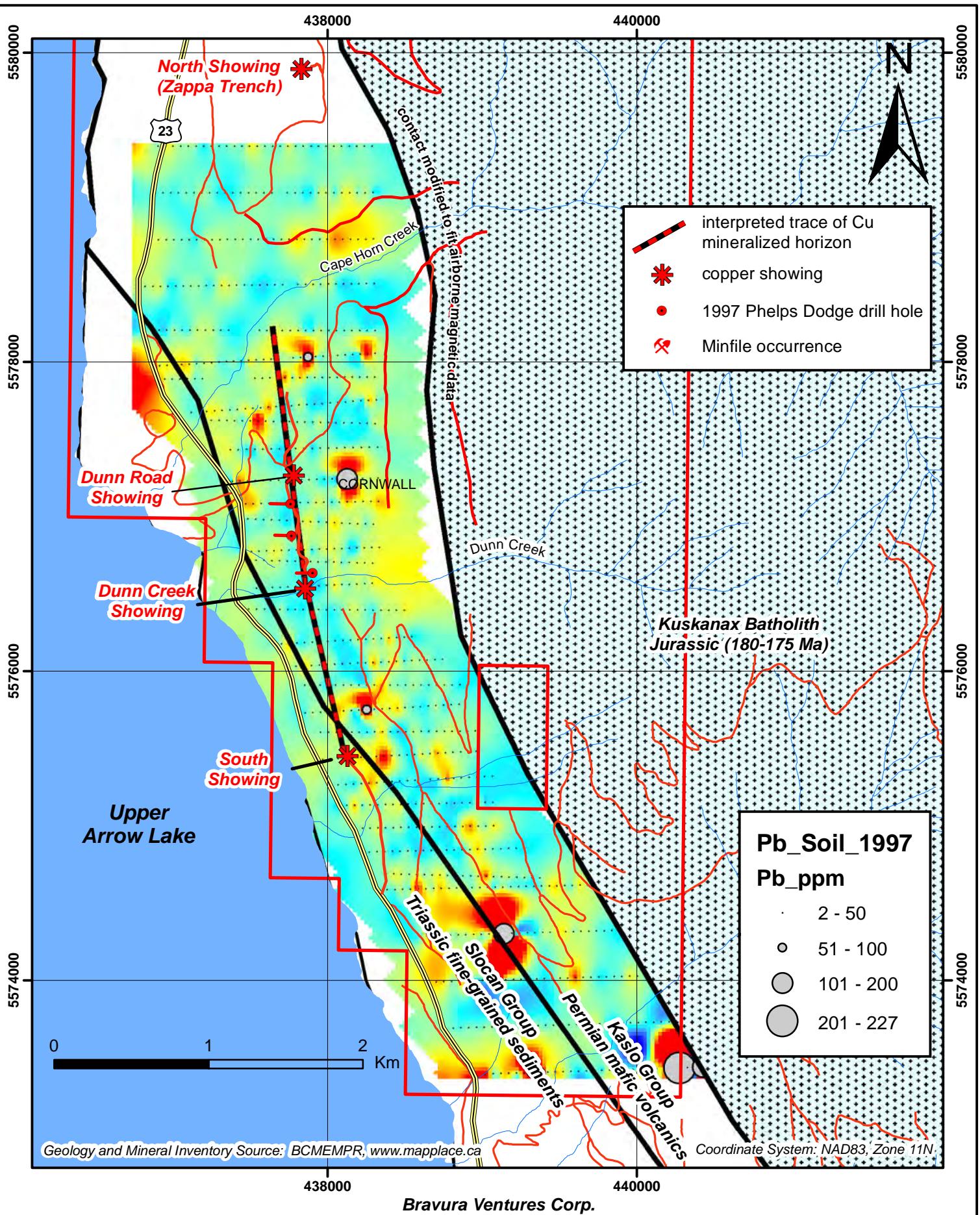
Figure 7b1



Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); Soil Geochemistry, Ag (ppb)

G. Allen, November, 2011

Figure 7b2



**Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); Soil Geochemistry, Pb (ppm)**

G. Allen, November, 2011

Figure 7b3

Zinc in soil (Figure 7b4) is generally elevated peripheral to the copper-bearing horizon and as with copper, appears to drop off both to the north and south. A north-trending linear anomaly roughly 2km long parallels the copper-in-soil anomaly 200-300m west of the copper mineralized horizon.

A plot of molybdenum in soil is presented in Figure 7b5. It shows an anomalous zone peripheral to the Dunn Road showing as for silver and copper. The north-trending anomaly west of the copper horizon is coincident with the distribution of zinc. A broad stratigraphy-parallel molybdenum anomaly over a kilometre long is defined on the south end of the grid, apparently underlain by Slocan Group rocks.

Barite in soil is presented in Figure 7b6. It shows a north-northwest trending anomaly near to and parallel with the 2.5 km long copper horizon, but appears to be centred west of the known mineralization.

Most of the presented Phelps Dodge soil geochemistry plots show a similar pattern with anomalies generally associated with the copper horizon, although some elements appear to be defining a second horizon roughly 200 metres west of the known mineralization. There are distinct geochemical breaks along Cape Horn Creek north of the Dunn Road showing and along the creek south of the South Showing. These drainages could be following post mineralization northeast-trending fault zones.

Another observation is that although the soil geochemistry anomalies appear to follow the interpreted trend of the copper mineralized horizon, they are not parallel to the mapped orientation of the stratigraphy. The discrepancy is probably simply due to poor mapping control at a regional scale, but no detailed property geology maps were located to confirm this.

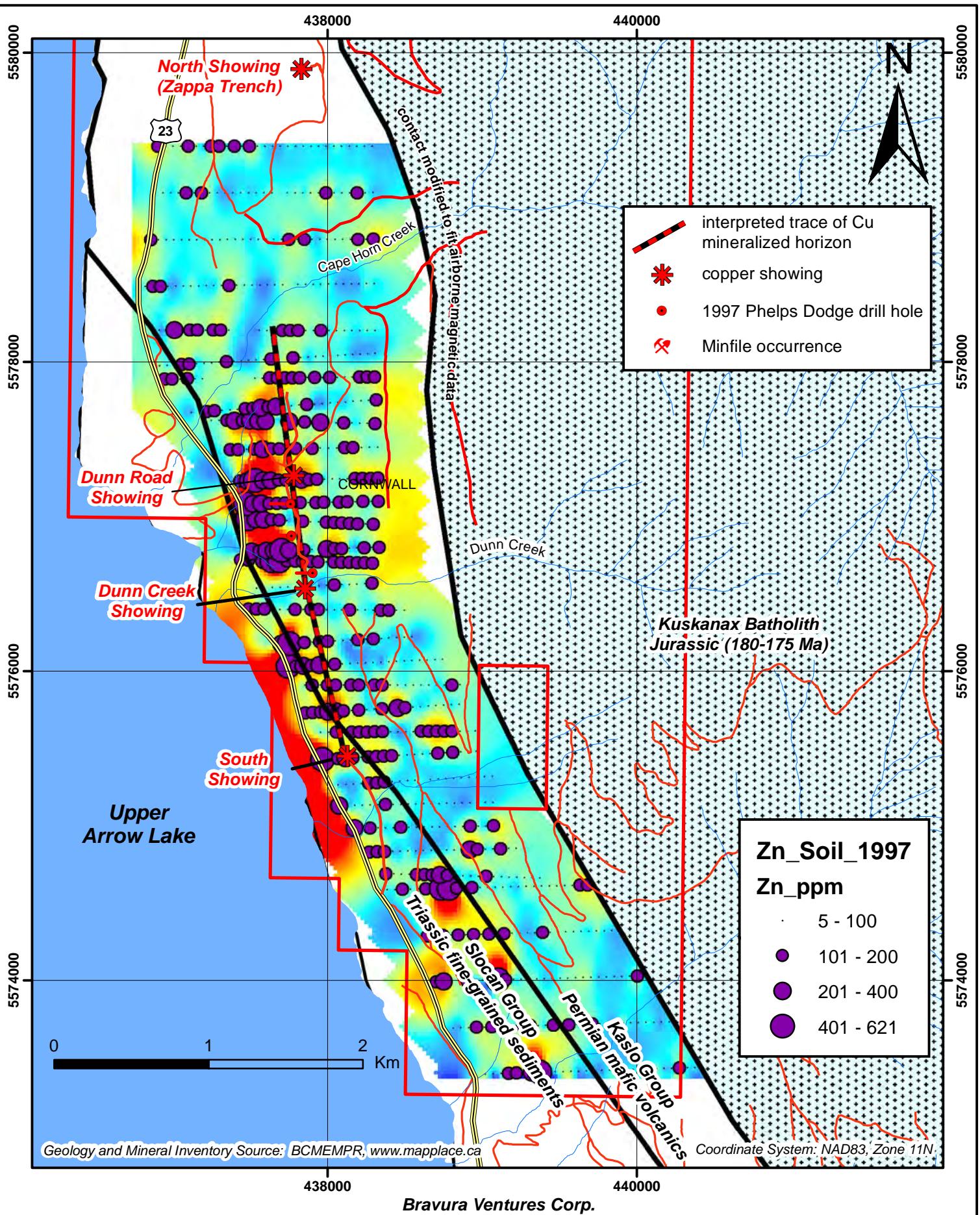
### **6.1.3 Rock Geochemistry**

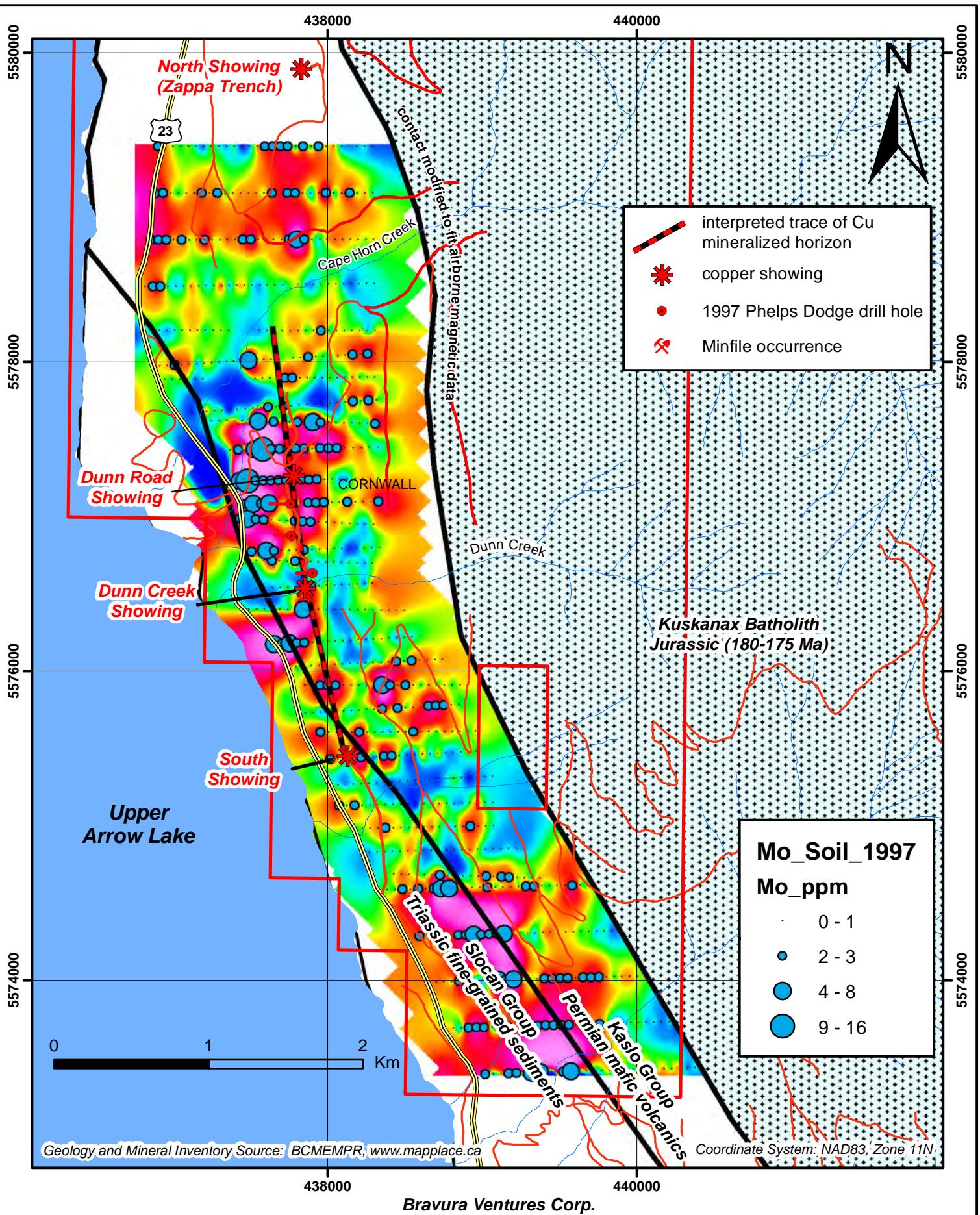
A compilation of rock samples collected by Phelps Dodge and Crest Geological Consultants Limited is presented in a report by Payne (2000). Select samples with anomalous copper are presented in Table 2. Most samples were collected from the Dunn Creek and Dunn Road showings (Figure 7c). Data are presented to demonstrate relative metal contents in the mineralized horizon.

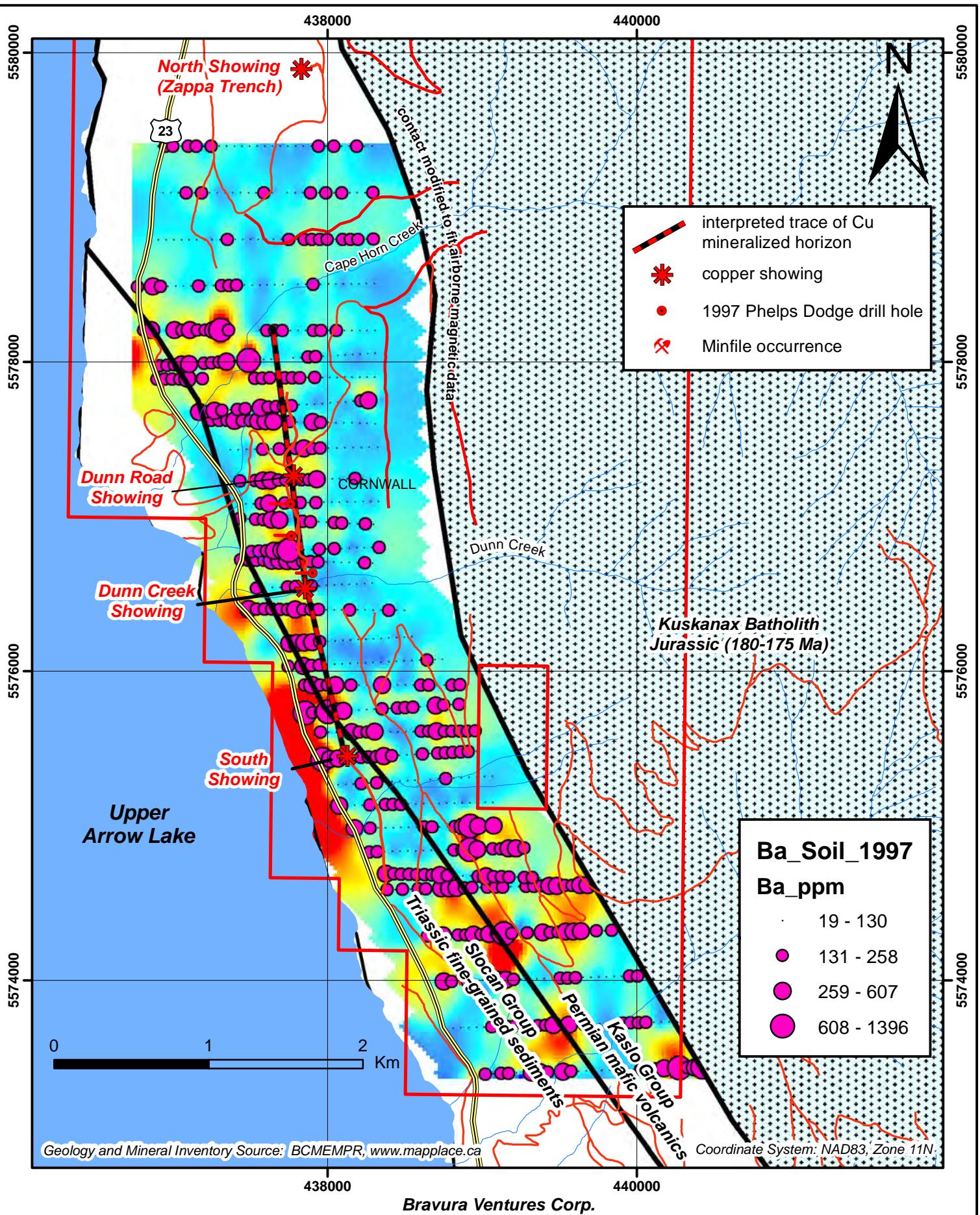
Copper values range up to 5.7%. Associated silver, gold, zinc, molybdenum and barium are all sporadically elevated but not significantly anomalous.

### **6.1.4 Magnetic Survey**

A total field magnetic plot is presented in Figure 7d. It shows that the areas underlain by Kaslo Group mafic volcanic rocks (amphibolites) have a generally higher magnetic relief than in areas underlain by Slocan Group sedimentary rocks. The copper horizon does not have an associated magnetic response. A zone of high magnetic susceptibility does however occur roughly 200m west of the Dunn Road showing in an area with coincident anomalous zinc and molybdenum in soil.



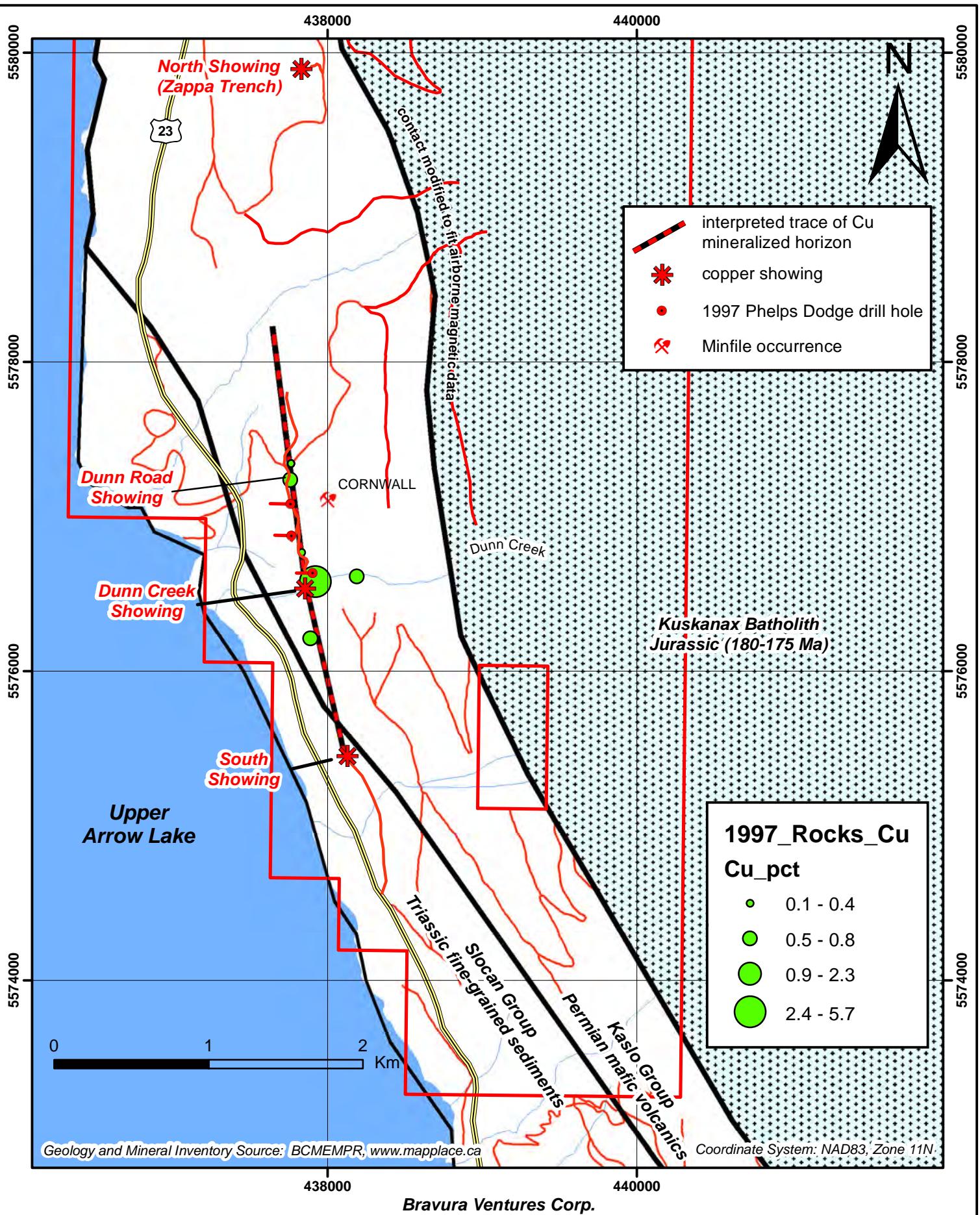




**Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); Soil Geochemistry, Ba (ppm)**

G. Allen, November, 2011

Figure 7b6



Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); Rock Geochemistry, Cu (%)

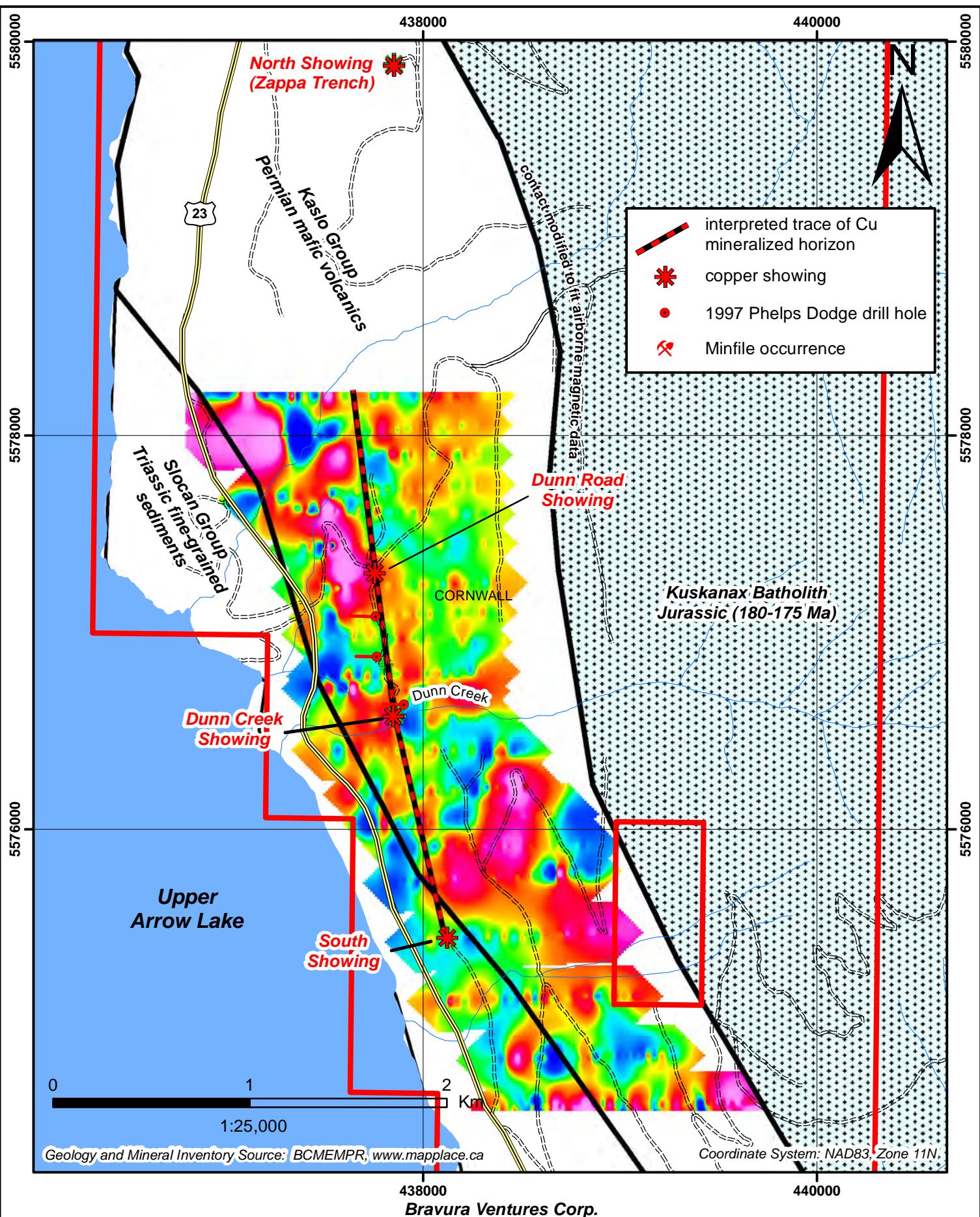
G. Allen, November, 2011

Figure 7c

**Table 2****Anomalous Rock Samples from Historic Programs**

Sample_ID	Showing_Name	NAD83_E	NAD83_N	Cu_ppm	Cu_pct	Ag_ppm	Au_ppb	Zn_ppm	Mo_ppm	Ba_ppm	Company
10590	Dunn Creek	437922	5576578	23049	2.3	7.8	96	117	12	6	Crest Geological Consultants Ltd. (BGM Diversified Energy Inc.), 1999
10593		437837	5576766	4259	0.4	1	13	16	3	2	"
10598	Dunn Road	437766	5577342	2453	0.2	2.2	19	52	10	133	"
10599	Dunn Road	437766	5577342	4008	0.4	2.1	19	32	12	103	"
10735		437889	5576208	4738	0.5	7.1	95	25	2	18	"
10739		437760	5577235	8275	0.8	4.4	28	43	59	40	"
14819		438191	5576609	6545	0.7	6.1	74	16.5	1.78	13.8	"
14862	Dunn Creek	437910	5576552	4845	0.5	3.3	5.6	223.4	8.15	277.7	"
61495	Dunn Creek	437910	5576552	5675	0.6	0.1	12	151.8	0.4	50	Phelps Dodge, 1997
61499	Dunn Creek	437922	5576578	57429	5.7	48.4	31	310.9	2.2	33	"
62096	Dunn Road	437766	5577342	1312	0.1	0.5	10	81.5	17	122	"

Data Source: Crest Geological Consultants Limited (Payne, 2000)



**Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); Magnetic Survey (Total Field)**

G. Allen, November, 2011

Figure 7d

The copper-in-soil anomaly east of the south end of the copper mineralized horizon is semi coincident with a cluster of larger magnetic anomalies.

#### **6.1.5 IP Survey**

The “channel 6” (presumably a deeper view) chargeability and resistivity plots are presented in Figures 7e and 7f.

A prominent north-northwest striking chargeability anomaly over 2km in length parallels the copper mineralized horizon approximately 160 to 180m to the west. It is coincident with zinc-, and molybdenum-in-soil, and magnetic anomalies. The core of chargeability anomaly shifts slightly east between the CH1 and CH6 plots, suggesting a steep eastward dip consistent with regional foliation. It appears to be unrelated to the copper mineralized horizon. Phelps Dodge drill holes 97-1 and 97-3 are probably targeting this chargeability feature but appear to be too short to have reached it.

Low resistivity is coincident with the high chargeability. The copper mineralized horizon lies along the western margin of a zone of high resistivity.

#### **6.1.6 VLF-EM Survey**

A plot of the VLF-EM survey (quadrature) is presented in Figure 7g. It shows a broad zone of conductivity between the Dunn Creek and Dunn Road showings. It does not show any linear, stratigraphy-related features.

#### **6.1.7 Drilling**

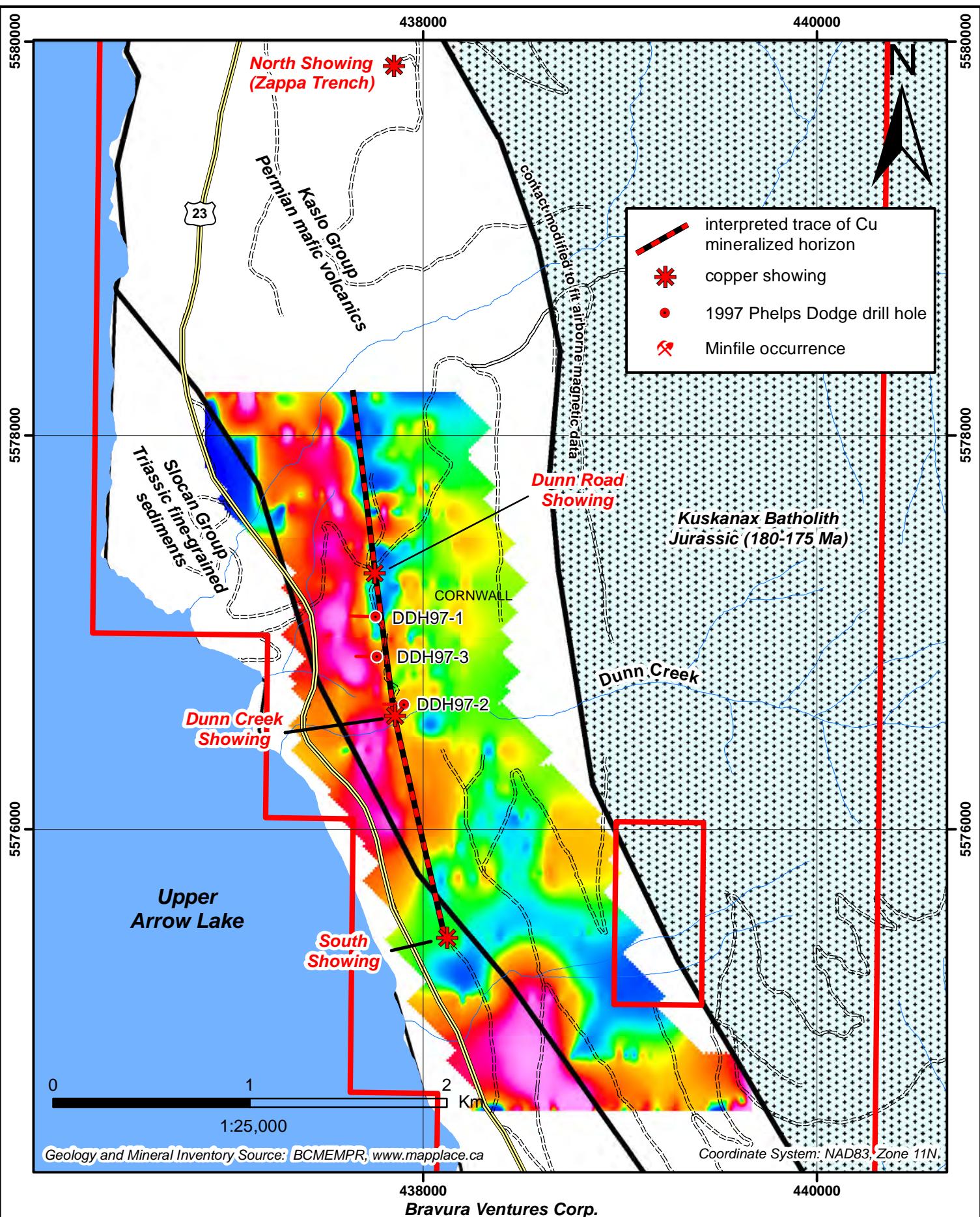
Three drill holes are shown on the Crest Geological Consultants compilation map as shown on the Figure 7 series maps. All are drilled to the west to best intersect the east dipping foliation and presumably stratigraphy. Drill hole 97-3 was located by the author during a property examination on September 26<sup>th</sup>, 2011. It plots 40m to the south of the Crest location.

It appears that holes 1 and 3 were targeting the prominent chargeability feature west of the copper horizon. They did not target nor intersect the known mineralization. Drill hole 97-2 appears to have targeted the Dunn Creek showing.

No drill logs or assays were located during this review.

### **6.2 Airborne Magnetic and VLF-EM Survey, 2010**

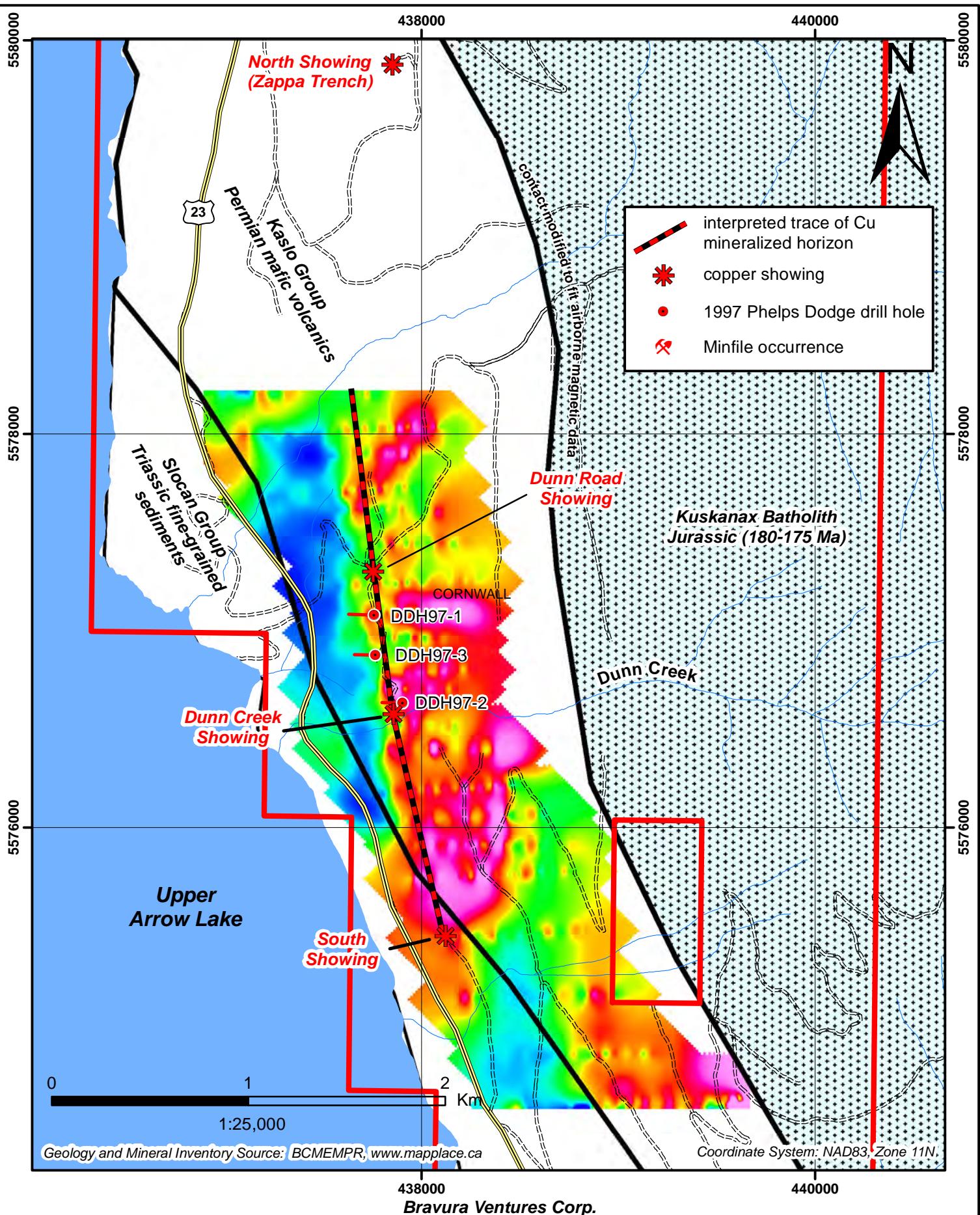
Aeroquest Airborne of Mississauga Ontario was contracted to conduct an airborne magnetic and VLF-EM airborne survey over the Greenhorn property. Between December 11<sup>th</sup> and 18<sup>th</sup> of 2010, 610km of lines were flown, covering an area of 2717 Ha. Cross lines were oriented east-west and spaced at 50m. A magnetic gradiometer measured total magnetic field, and vertical, longitudinal and transverse magnetic gradients. The VLF-EM system used two near-orthogonal signals from transmitting stations simultaneously (in this case Cutler, Maine, and Jim Creek, Washington). Data



Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); IP Survey (Chargeability, CH6)

G. Allen, November, 2011

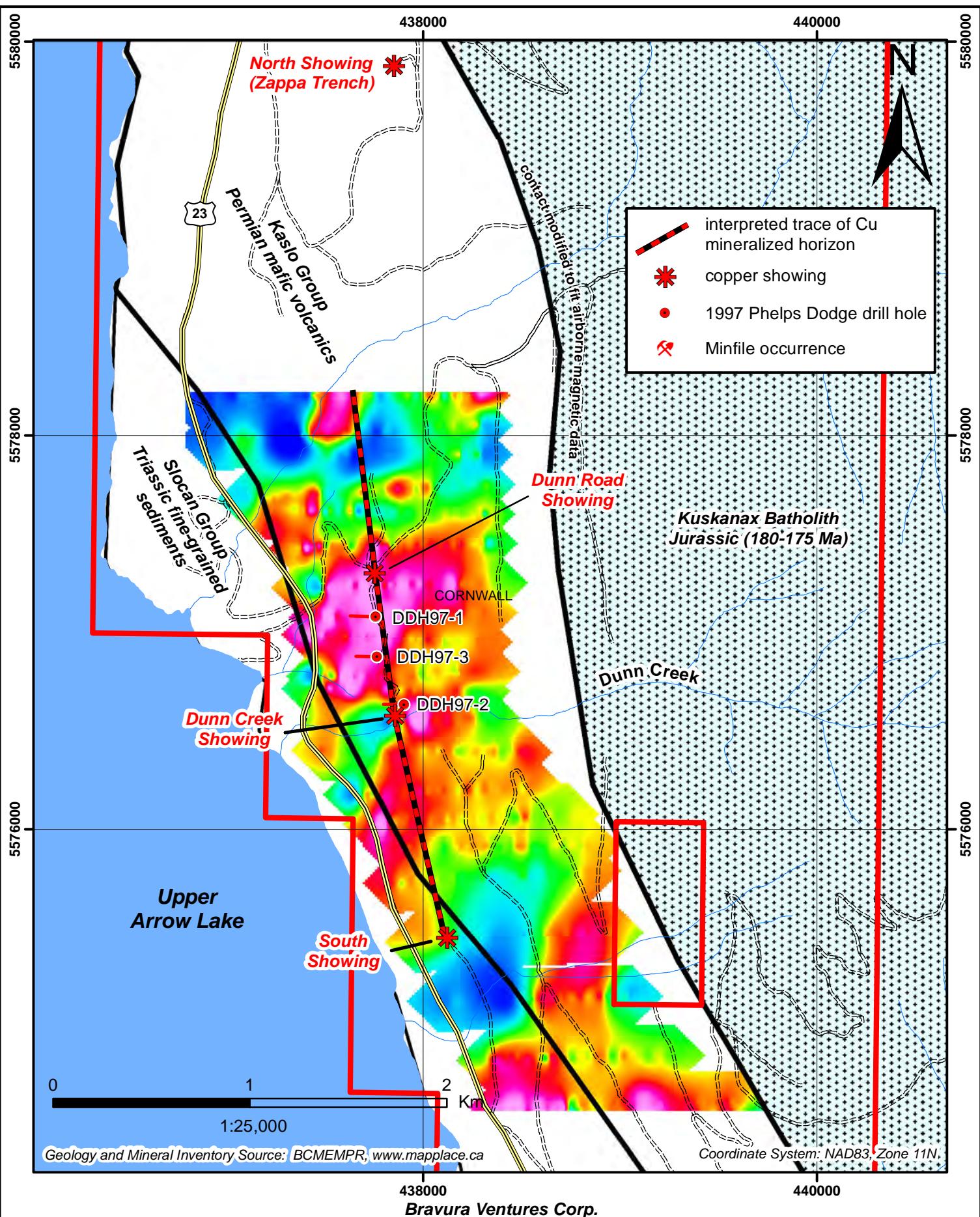
Figure 7e



Greenhorn Property, Slocan Mining Division, British Columbia  
Phelps Dodge (1997); IP Survey (Resistivity, RES6)

G. Allen, November, 2011

Figure 7f



**Greenhorn Property, Slocan Mining Division, British Columbia**  
**Phelps Dodge (1997); VLF-EM Survey (Quadrature)**

were filtered and interpolated onto a grid using a bi-directional algorithm to produce a single map (Garrie, 2011). Airborne geophysical data are plotted in Figures 8a through 8c.

The total magnetic intensity (Figure 8a) and vertical magnetic gradient (Figure 8b) plots show sporadic elevated magnetic susceptibility along the apparent western limit of the Kuskanax batholith. This data in fact was used to modify the Kuskanax contact in Figure 7a.

An east-west high magnetic susceptibility feature in the northern limits of the survey area is apparently underlain by mafic volcanic rocks of the Kaslo Group, but no detailed geological information is available. It may be associated with a Kuskanax intrusion-related dyke.

The magnetic survey is not differentiating the Kaslo and Slocan Groups. Weak magnetic features on the vertical magnetic gradient plot do show a general west-northwest fabric parallel to stratigraphy. No magnetic features are associated with the copper mineralized horizon.

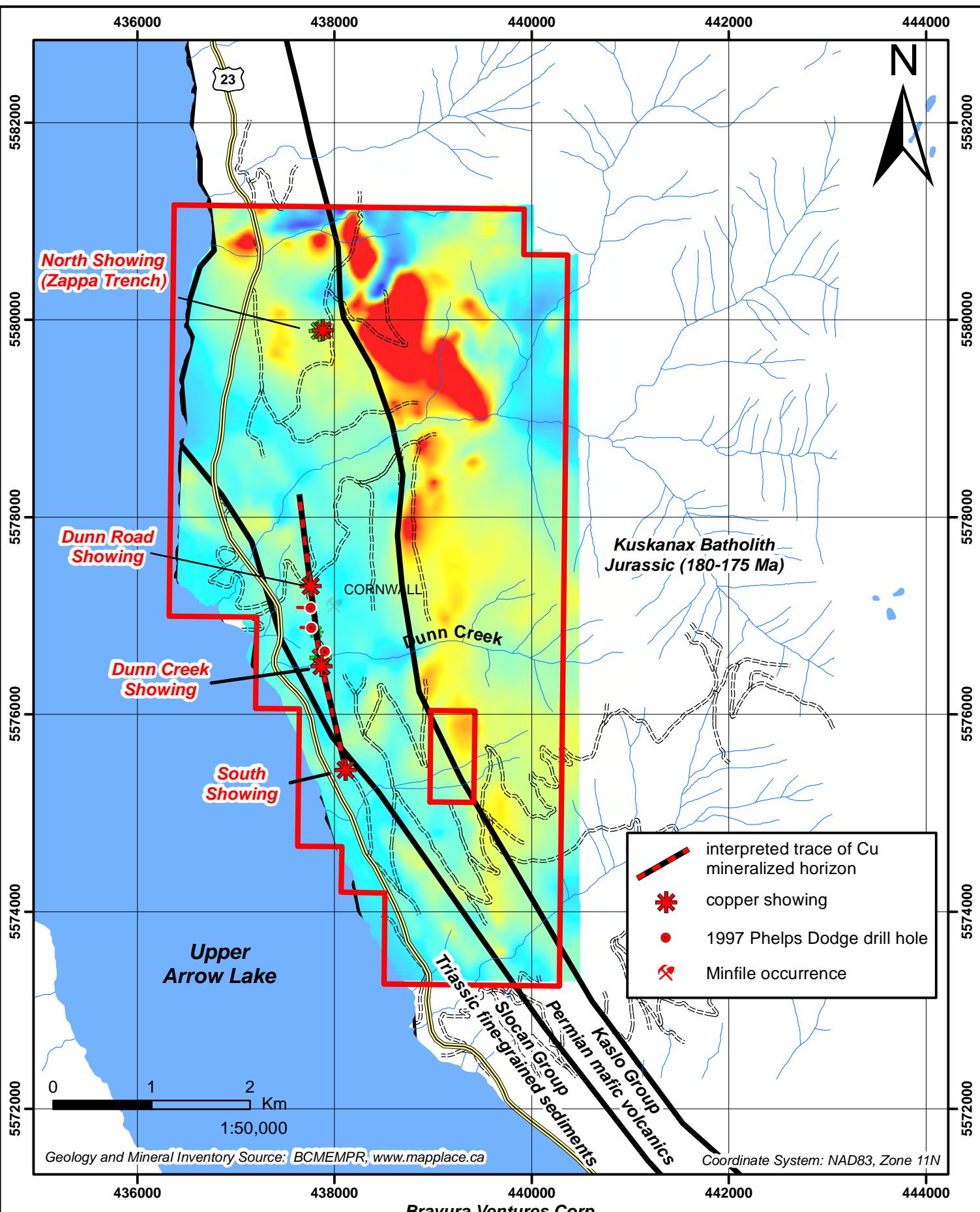
The VLF-EM plot (Figure 8c) shows apparent east-west trending zones of low conductivity coincident with Dunn and Cape Horn Creeks, and a prominent zone of apparent high conductivity coincident with a topographic high in the north part of the claim block. An east-west anomaly trends from the shore of Upper Arrow Lake and extends across the entire width of the Kaslo Group strata. This orientation is perpendicular to regional stratigraphy and a geological cause is unknown.

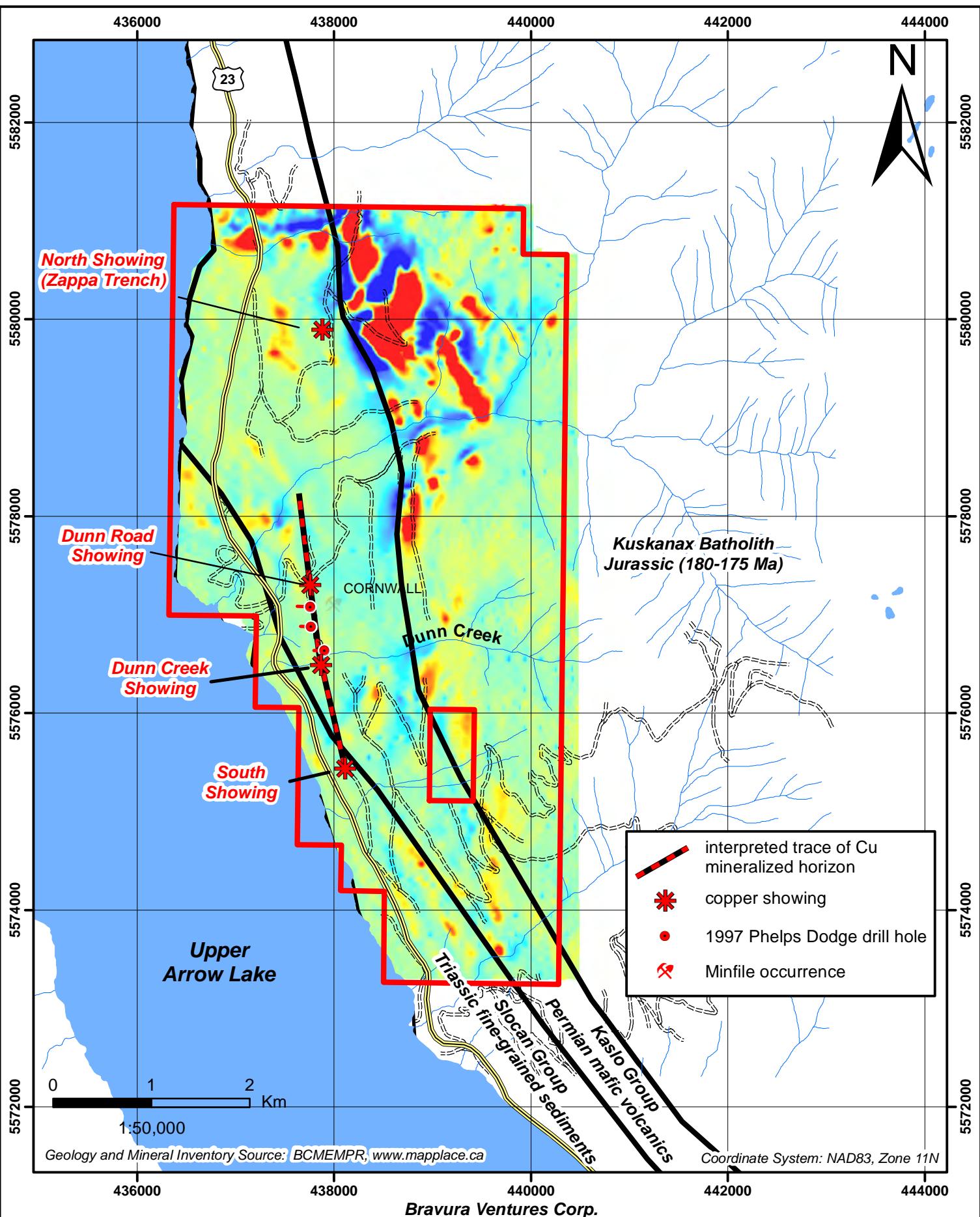
In general it appears that the airborne magnetic data is of limited use as a tool for geological mapping, and it does not delineate known mineralization. The VLF-EM anomalies appear for the most part to be a topographic effect.

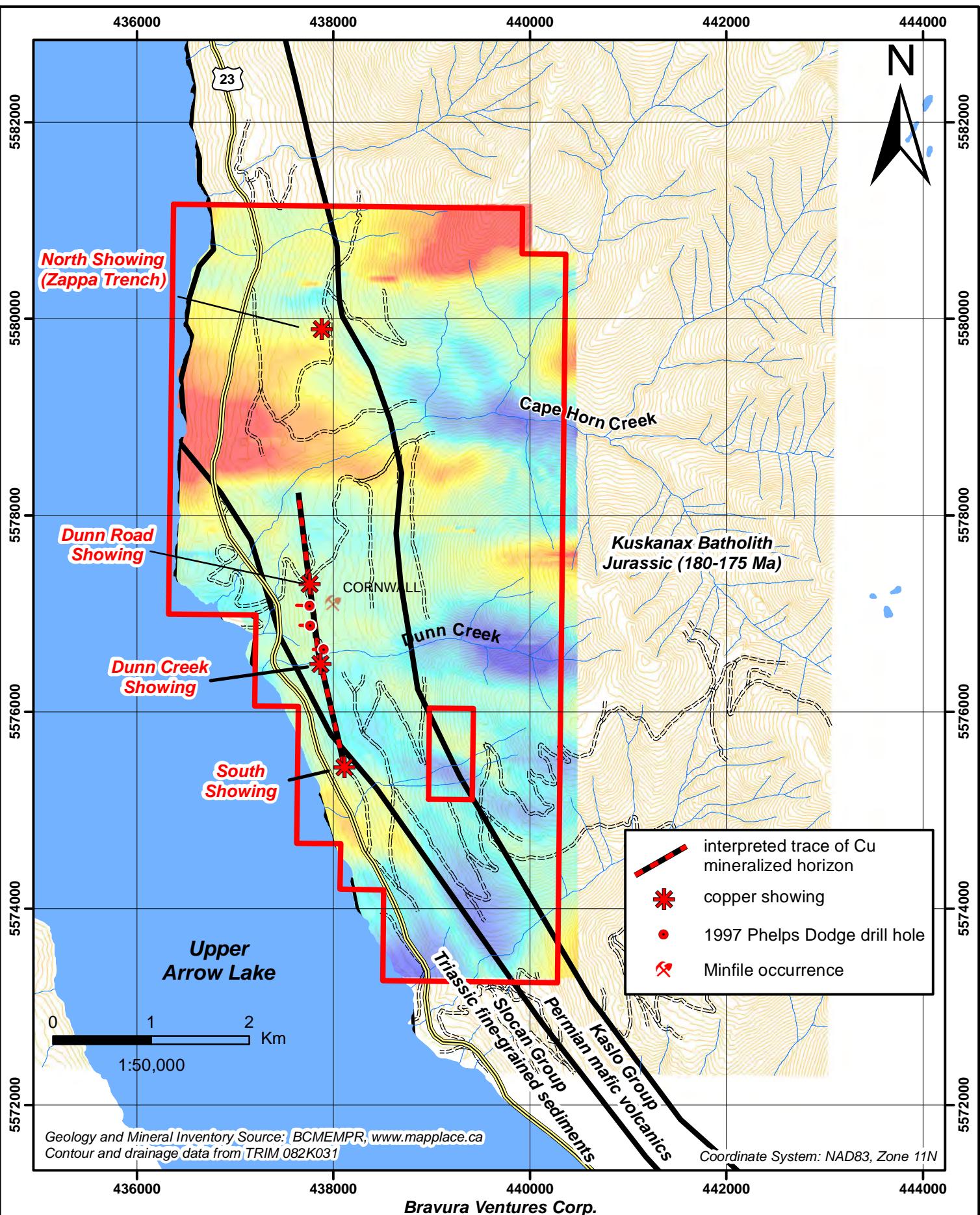
## 7.0 2011 EXPLORATION PROGRAM

The 2011 Bravura exploration program on the Greenhorn property was based on recommendations proposed in a 43-101 technical report by Kerr (2011). Between July 7<sup>th</sup> and July 25<sup>th</sup>, 2011, an uncut control grid was established with a 6km long north-south base line and 57.7km of 200m spaced east-west cross lines. Grid stations were marked every 50m. A total of 1045 “B” horizon soil samples were collected on the grid at a spacing of 200m by 50m, covering an area of approximately 1220 hectares and including all known showings.

Between August 9<sup>th</sup> and 28<sup>th</sup>, 2011, SJ Geophysics Ltd. conducted ground magnetic and time-domain electromagnetic (TDEM or TEM) surveys on 35.7km and 30.5km (respectively) of the western parts of the grid lines.







Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia  
Aeroquest Airborne Geophysical Survey 2010

The property was visited by the author on September 19<sup>th</sup>, 20<sup>th</sup> and 26<sup>th</sup>, of 2011. Work consisted of locating known copper showings, old drill holes, and confirming locations of some of the 2011 grid points. The nature of the mineralization was observed and described, but no rock sampling or mapping was conducted. Those grid points checked correspond to within a few meters of the soil sample data as displayed in figure sets 9 and 10.

## **7.1 Mineralization**

The four main copper occurrences as shown in Figures 7 through 12 were visited and the mineralization described.

### ***South Showing***

Mineralization at the South (or Dunn South) showing consists of clotty and medium-grained disseminated chalcopyrite and pyrite hosted in a poorly foliated quartz-biotite-amphibole schist. The rock is composed of roughly 80% quartz, black fine-grained biotite, and fine-grained blue-green actinolite. It is non magnetic.

### ***Dunn Creek Showing***

Host rock at the Dunn Creek showing is a thinly banded to thinly laminated quartz-biotite-amphibole schist. The amphibole is fine-grained and blue-green; probably actinolite. Pyrite and chalcopyrite occur as clots and disseminations interstitial to the quartz. No magnetite was detected.

### ***Dunn Road Showing***

The host rock is a thinly banded dark schistose to gneissic aggregate of quartz, actinolite, chlorite and epidote. Chalcopyrite and pyrite occur as 1-2mm clots and as fine-grained disseminations in quartz-rich compositional layers, as well as in cross-cutting fractures.

### ***North Showing (Zappa Trench)***

Rocks consist of banded granular to medium-grained crystalline grey quartz mixed with fine-grained blue-green actinolite, minor epidote and rare magnetite. Clotty and finely disseminated pyrite and chalcopyrite occur in quartz-rich bands, but also in cross-cutting fractures. Malachite and azurite are associated as fracture coatings.

Mineralization from the Zappa Trench is shown in Photo 1.



**Photo 1:** North Showing (Zappa Trench). Boulder of quartz-rich amphibolite with chalcopyrite and pyrite-bearing horizons. Possible stratabound exhalative mineralization.

Mineralization and lithology are similar in all occurrences, and consistent with Besshi or Cyprus type VMS exhalative deposits. Epidote and the proximity to the Kuskanax batholith suggest that there may also be a skarny alteration overprint. It appears that the South, Dunn Creek and Dunn Road showings are on the same stratigraphic horizon. The North Showing may be a separate horizon, or possibly the same horizon displaced due to deformation. Magnetite content is generally negligible and it appears that magnetic surveys will not delineate mineralization.

## 7.2 Soil Geochemistry

A total of 1045 'B' horizon soil samples were collected on the grid, generally from the red-brown "B" horizon at a depth of 15-30cm below surface. Samples were subsequently sent to Acme Labs of Vancouver, B.C. Soil samples were dried at 60°C and 100g of -80 mesh material sieved out (preparation code: SS80). Fifteen gram cuts of the -80 mesh fraction were analysed for 36 elements using an aqua regia digestion and an ICP-MS (mass spectroscopy) technique (Acme code 1DX2).

No QAQC (quality assurance - quality control) samples were inserted in the field. Acme inserted standards and blanks in the sample sequence, and prepared pulp duplicates in the lab. These QAQC analyses were acceptably close to expected values, and there are no concerns with the validity of the analytical work.

Analytical results for copper, silver, gold, lead, zinc, molybdenum and barium are presented in Figures 9a through 9g. Larger scale maps with posted data are presented in Figures 10a through 10g in Appendix 3.

### ***Copper in Soil***

A plot of copper in soil from the 2011 Bravura survey is presented in Figure 9a. Copper values range up to 519ppm. The north-northwest trending copper horizon running from the South showing to the Dunn Road showing is coincident with a distinct moderate copper in soil anomaly. A parallel but weaker anomaly occurs approximately 1200m to the east of the known mineralization, and it may be delineating a structural repeat of the horizon.

As with the 1997 Phelps Dodge soil geochemistry survey, there is a distinct metallogenic break along Cape Horn Creek. North of the creek a cluster of samples define a moderately anomalous zone approximately 1km wide. The North showing is situated on the north margin of this anomaly. It appears that mineralization does not continue to the north of the North Showing.

### ***Gold in Soil***

Gold in soil has a similar but not identical pattern to the copper. A stratigraphy parallel sporadic anomaly lies approximately 200m east of the copper horizon. The highest gold value lies within the copper anomaly roughly 400m south of the North showing.

### ***Silver in Soil***

Silver values in soil are very low, ranging up to 1.5ppm. There are no significant mineralized zones indicated, but a series of north-northwest trending features appear to be delineating stratigraphic horizons with slight variations in trace element geochemistry. Silver and copper do not seem to be coincident.

### ***Lead in Soil***

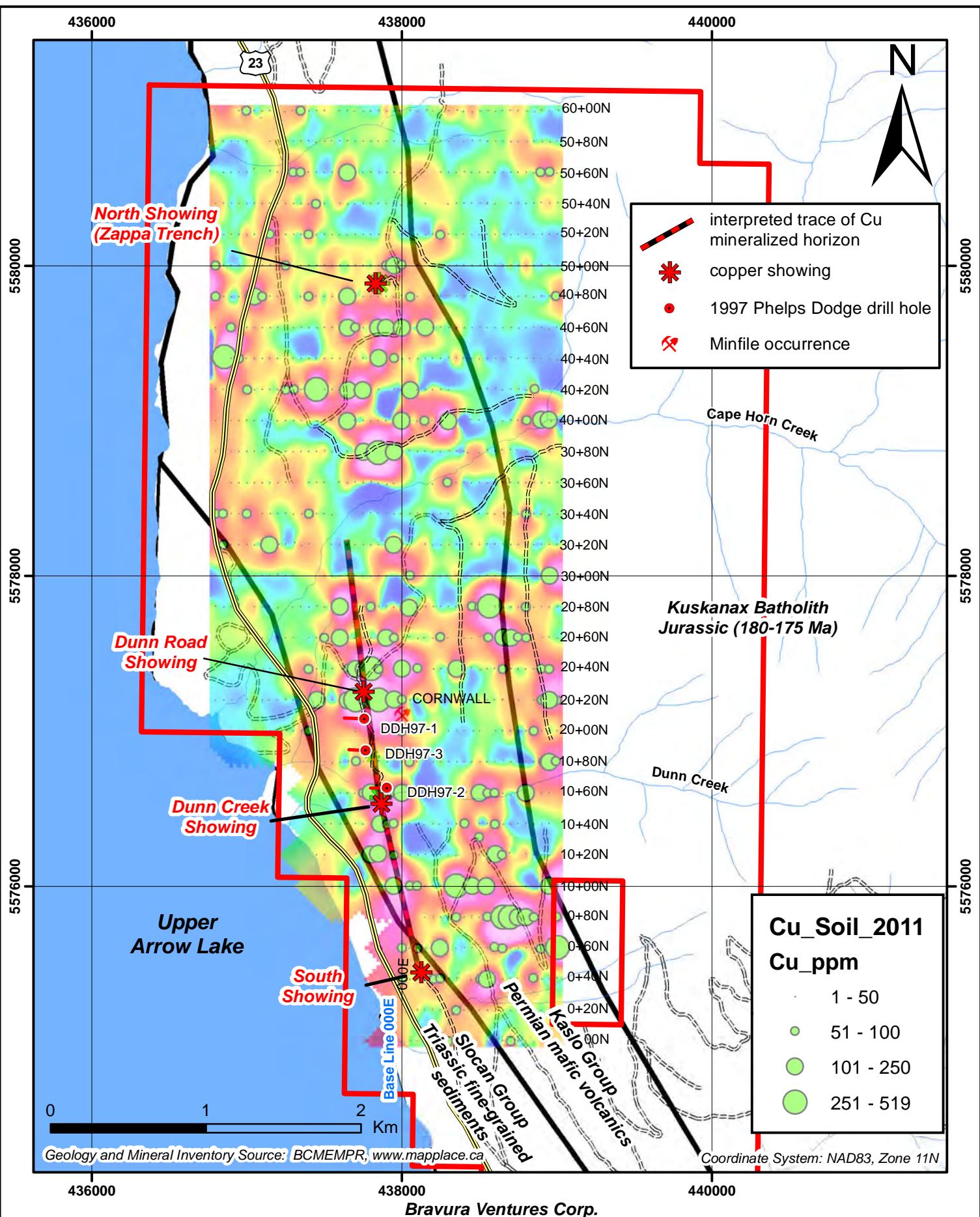
As with silver, lead values are low. A sporadic lead anomaly trends parallel to the mapped Kaslo – Slocan Groups contact west of the copper horizon and coincident with the 1997 IP anomaly. Lead is not coincident with copper.

### ***Zinc in Soil***

Zinc in soil shows a clearly elevated north-northwest trending zone 100 – 200m west of the copper horizon that continues intermittently for over 6km. The strongest part of this trend is roughly 2km long, parallel to the mapped copper horizon and is coincident with a chargeability feature delineated in the 1997 survey.

### ***Molybdenum in Soil***

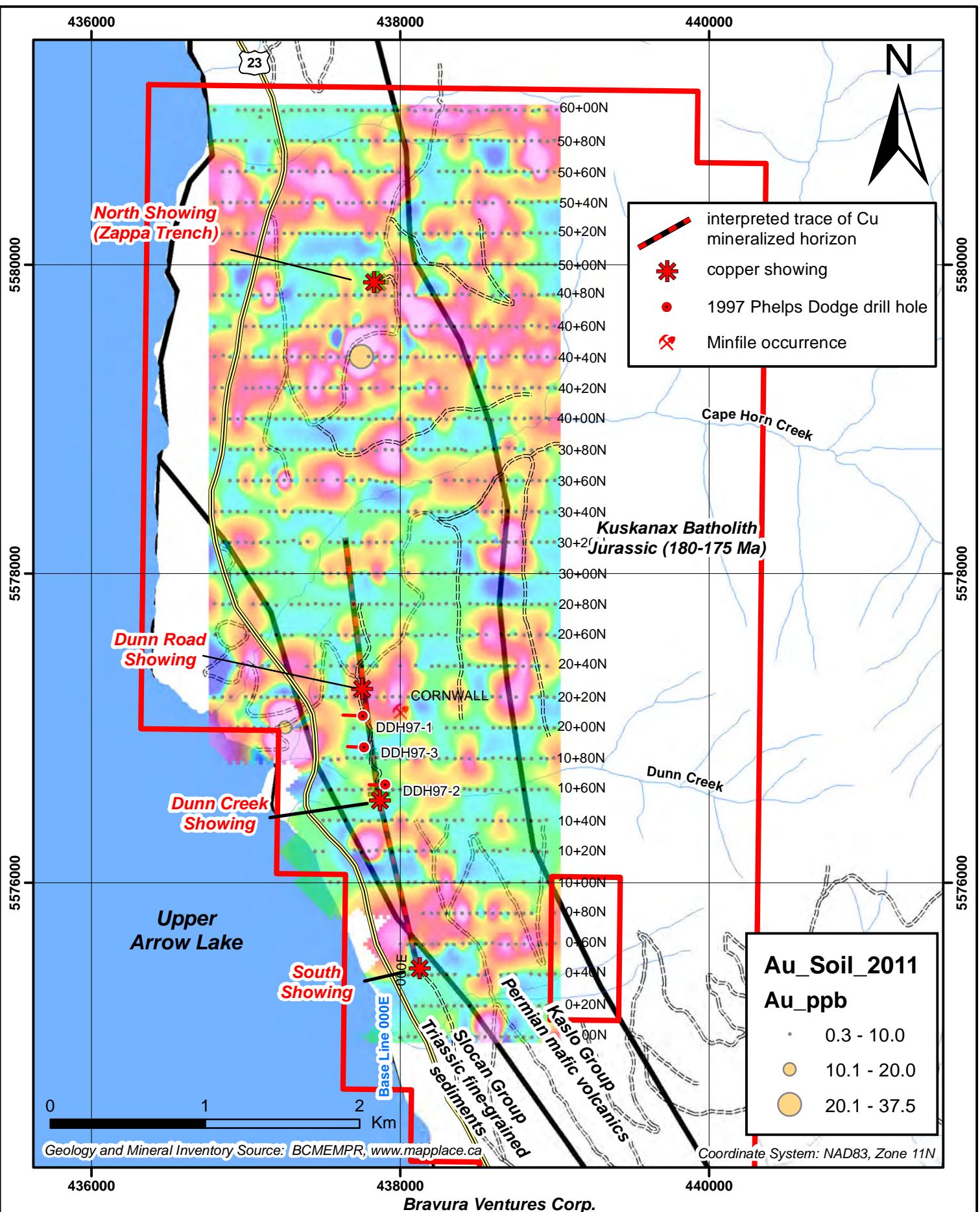
Molybdenum shows a stratigraphy-parallel zone of elevated values roughly coincident with the entire Kaslo Group stratigraphy. The highest molybdenum occurs in a loose, kilometre wide by 2km long cluster around the copper horizon. Again, there is a distinct metallogenic break with low molybdenum values along Cape Horn Creek.



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Greenhorn Property, Slocan Mining Division, British Columbia

## 2011 Bravura Program

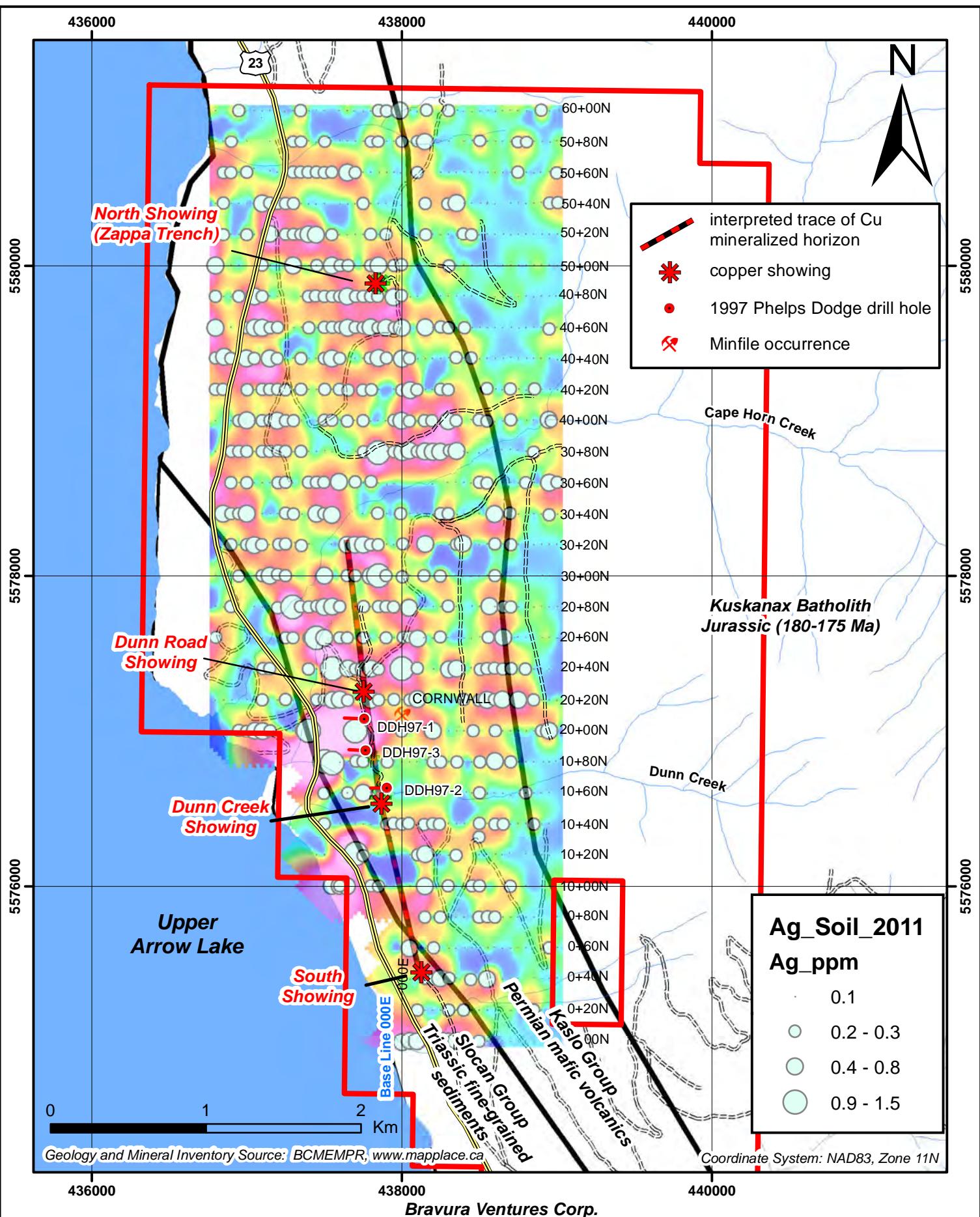
### Soil Geochemistry, Copper (ppm)

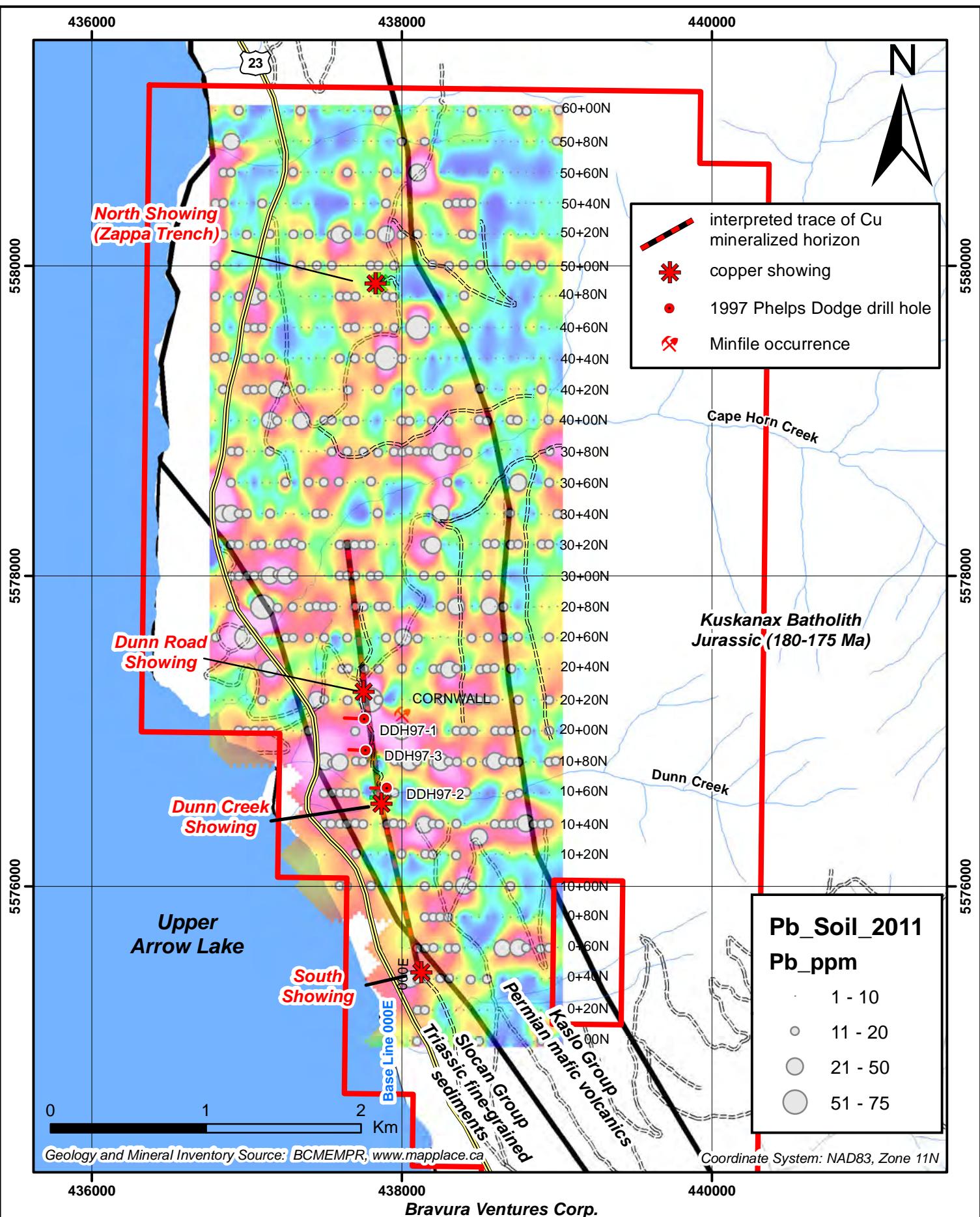


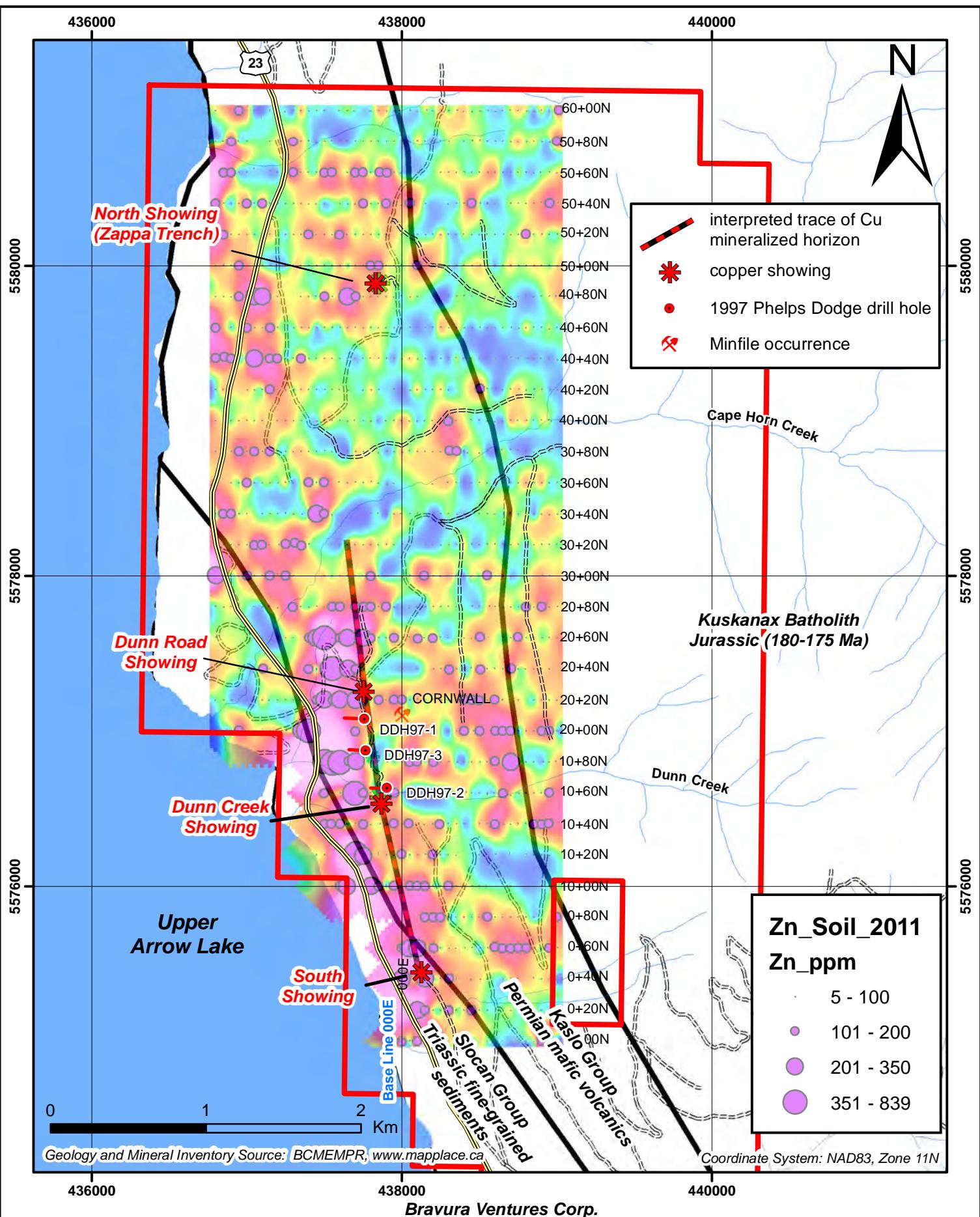
**Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia**

## 2011 Bravura Program

### Soil Geochemistry, Gold (ppb)



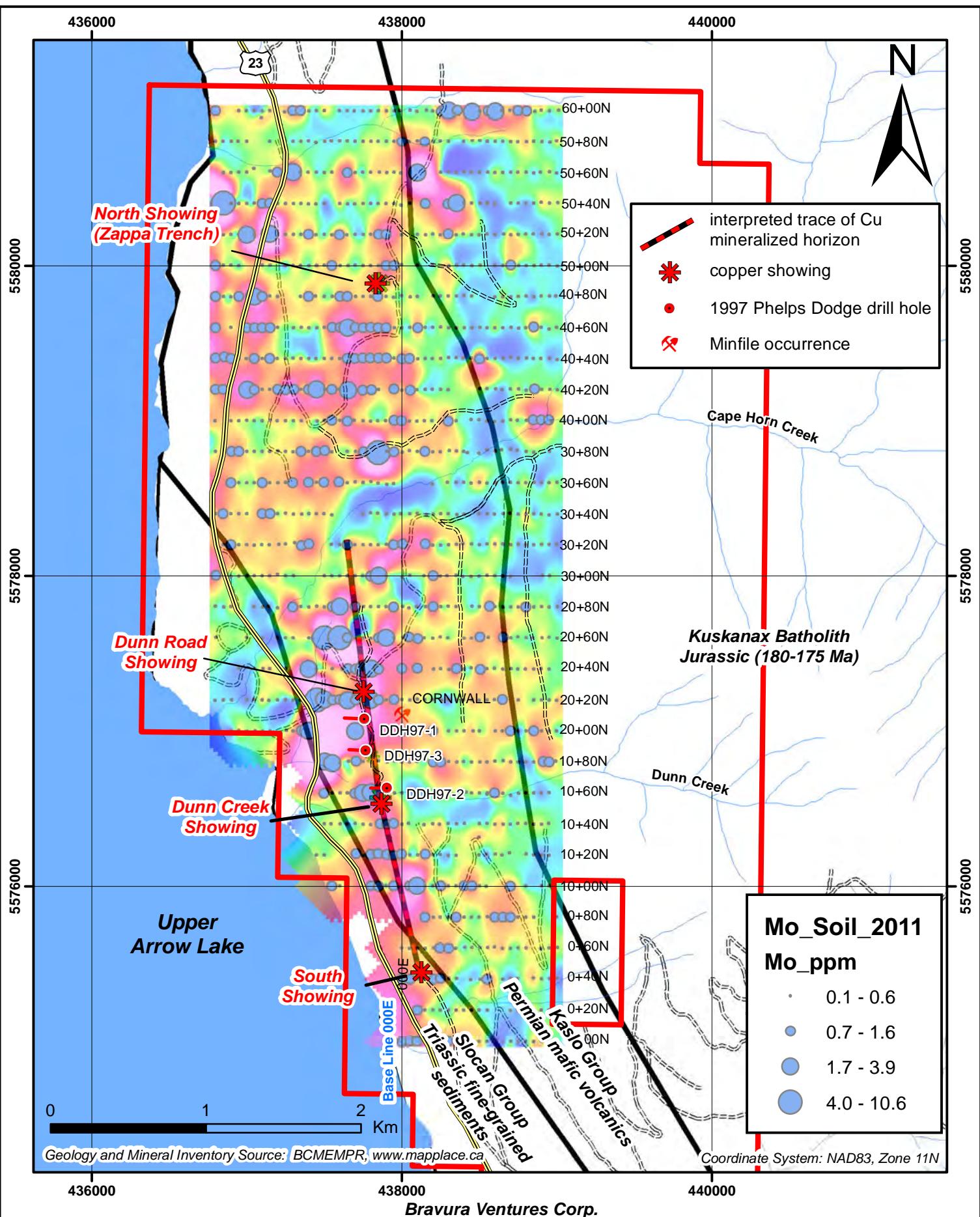




Bravura Ventures Corp.  
 Greenhorn Property, Slocan Mining Division, British Columbia

## 2011 Bravura Program

### Soil Geochemistry, Zinc (ppm)



Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia

## 2011 Bravura Program

### Soil Geochemistry, Molybdenum (ppm)

G. Allen, November, 2011

Figure 9f

### **Barium in Soil**

A 3km long north-northwest trending barium anomaly is centred 100 to 200m west of the copper horizon. It is coincident with the zinc, lead and molybdenum in soil anomalies, and with the 1997 chargeability anomaly.

Where the 1997 and 2011 surveys overlap, the distribution of trace elements in soil generally coincide. Both surveys indicate that there is a strong, coincident, 2-3km long lead-zinc-barium in soil anomaly west of and parallel to the copper-rich stratigraphic horizon.

## **7.3 Ground Geophysical Surveys**

Between August 9<sup>th</sup> and August 28th, 2011, SJ Geophysics Ltd. of Delta, B.C., conducted ground magnetic and time domain electromagnetic (TEM) surveys on the western part of the Greenhorn grid. Survey parameters are discussed in a report included in Appendix 4. TEM profiles are presented in Appendix 5. Large format magnetic susceptibility plan plots are included in Appendix 6.

### **7.3.1 Ground Time-Domain Electromagnetic (TEM) Survey**

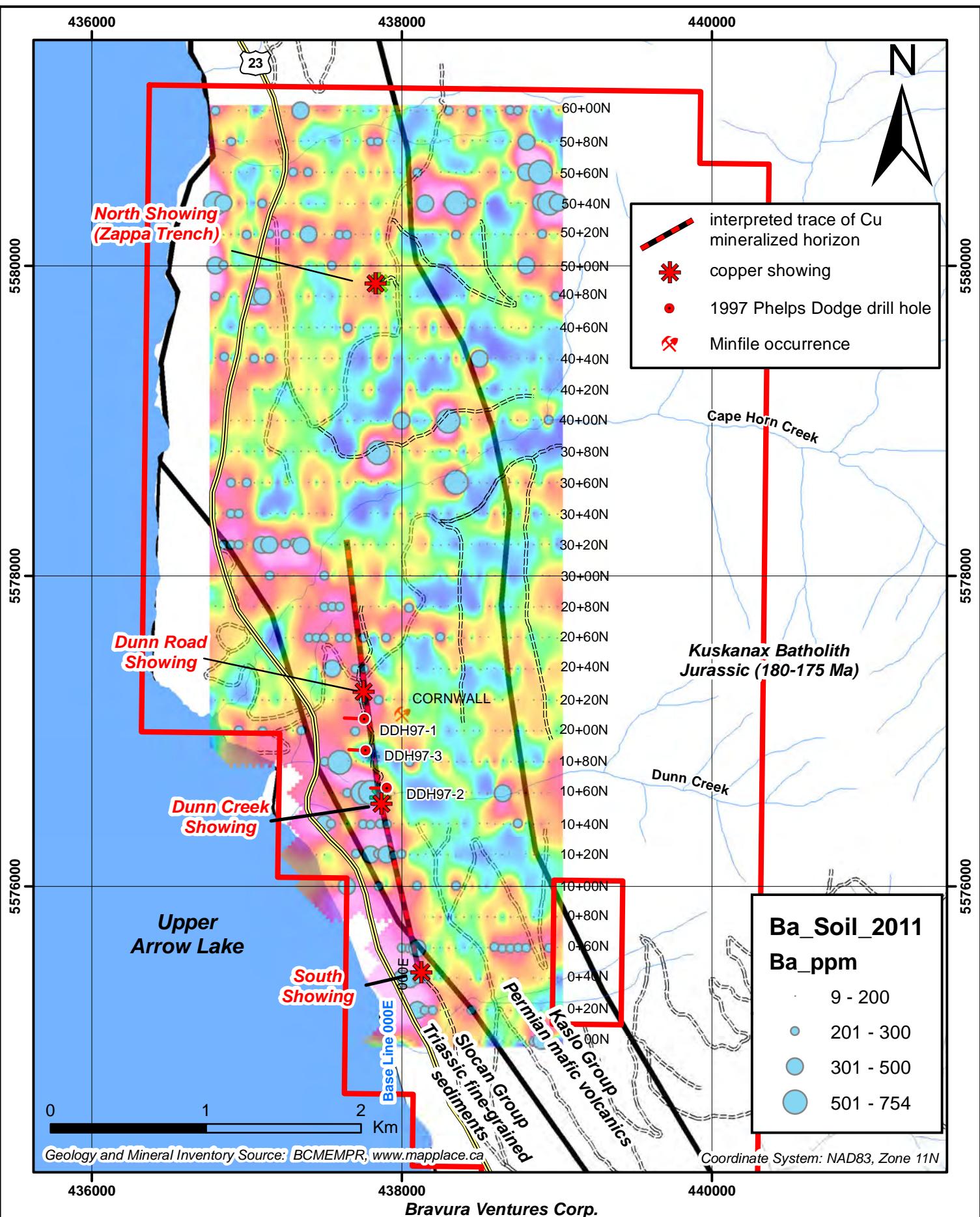
The TEM survey was conducted predominantly on the west part of the grid. Fourteen channels were recorded; channel 1 being late time and channel 14 being early time. A plot of the filtered spatial derivative of the Channel 10 data is presented in Figure 11. It shows a distinct 2km long west-northwest trending conductor parallel to and 100-200m west of the copper horizon. A weaker feature along highway 23 is interpreted to be associated with a power line.

### **7.3.2 Ground Magnetic Survey**

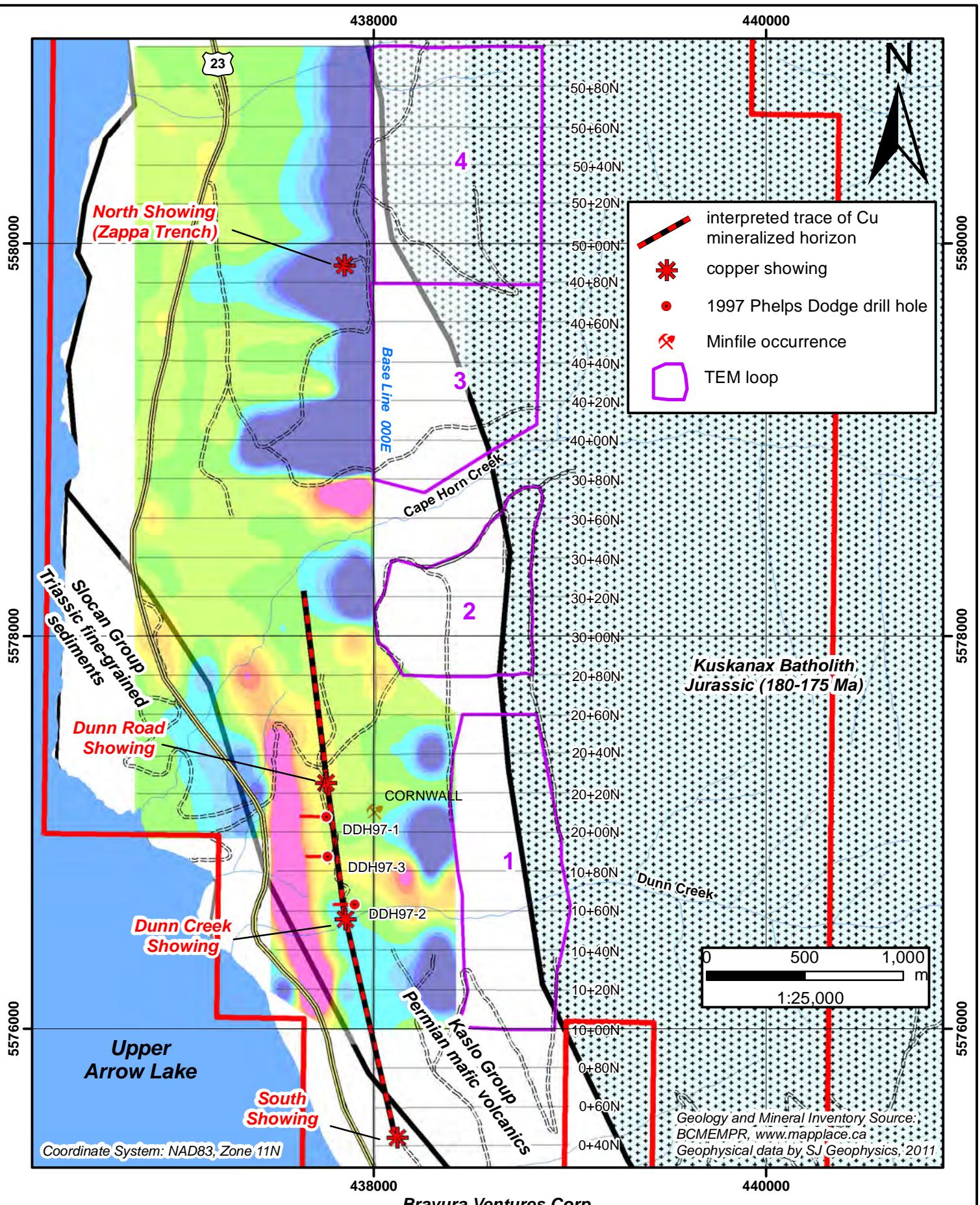
The total field intensity of the ground magnetic survey is presented in Figure 12.

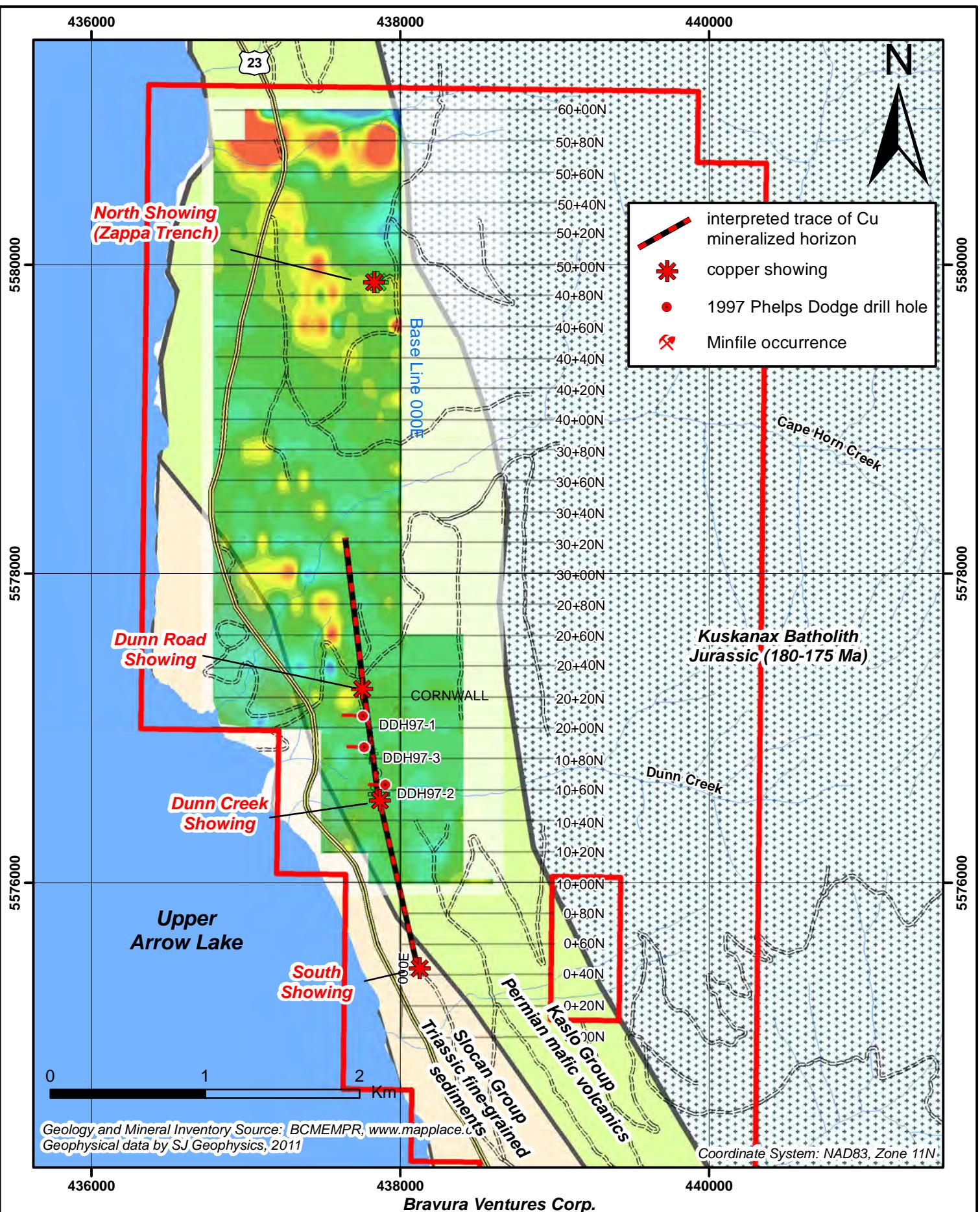
Several zones of elevated magnetic relief appear to be defining stratigraphic horizons which trend north-northwest in the south part of the survey area and swing to the northwest in the north part of the grid. The east-west zone of high magnetic susceptibility delineated on the airborne magnetic survey (Figure 8a) is clearly apparent on the ground survey as well. It is not stratigraphy parallel and may be a dyke.

Known copper mineralization is not associated with distinct magnetic anomalies. A stratigraphic unit west of the copper horizon, however, has moderate sporadic magnetic susceptibility coincident with the multi element soil geochemistry, chargeability and TEM conductor anomalies.



Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia





## 8.0 INTERPRETATION AND CONCLUSIONS

The various exploration programs have clearly demonstrated the potential for VMS type mineralization on the property.

The copper showings on the Greenhorn property have pyrite and chalcopyrite hosted in a quartz-rich amphibolite. Mineralization is consistent with Besshi or Cyprus type VMS exhalative sulphides deposited in a mafic volcanic environment. The South, Dunn Creek and Dunn Road showings appear to be on the same sulphide-bearing stratigraphic horizon which has been tentatively traced along a strike length of over 2km. The North showing is similar in character, but appears to be off stratigraphic trend from the other showings (Figure 13a). It may be on a different horizon, or be a structural (folded) repeat of the same unit.

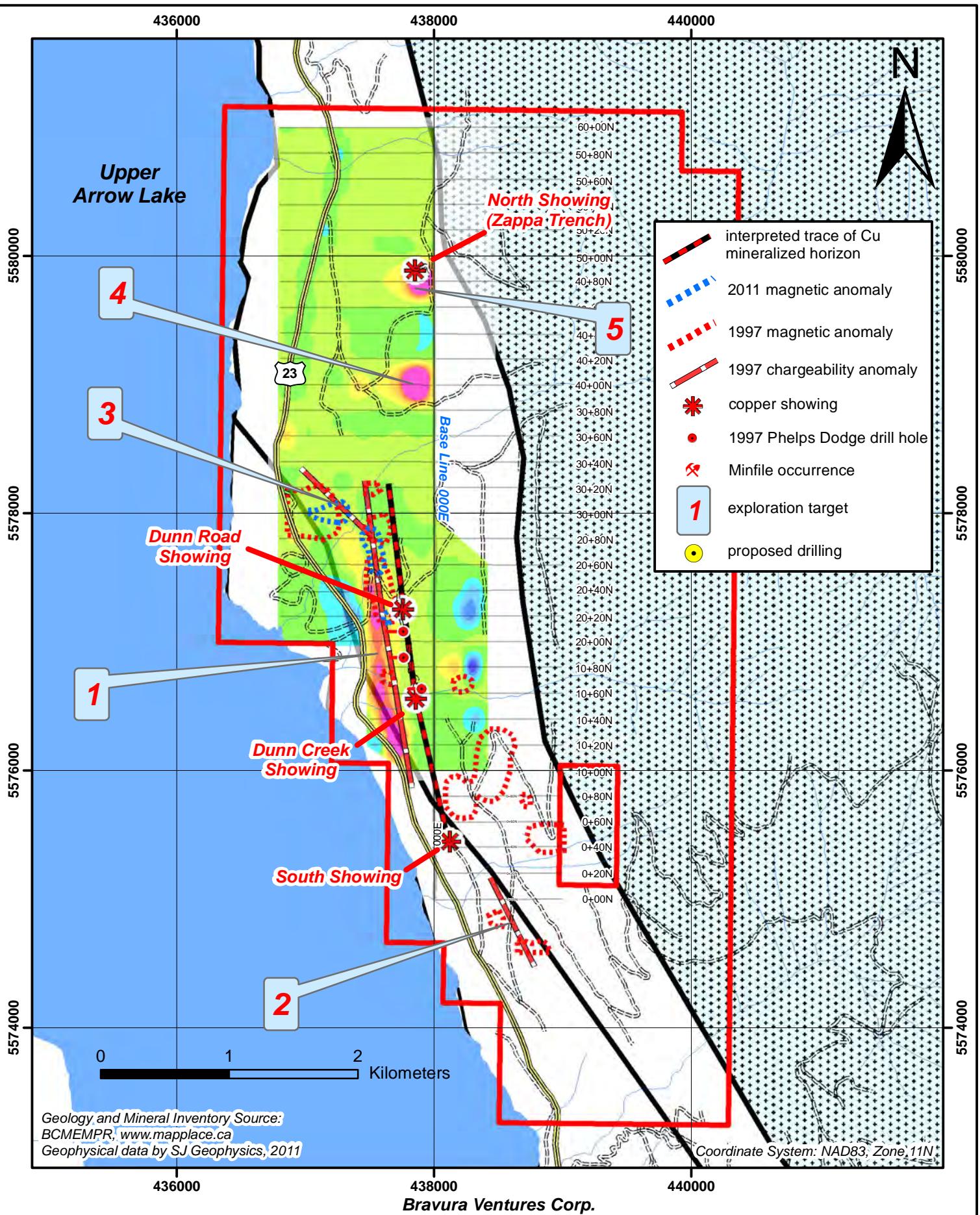
Soil geochemistry is an effective exploration tool in this area. The copper horizon is clearly delineated by copper-in-soil anomalies in both the 1997 and 2011 surveys. Zinc, lead, and barium anomalies in this area are not coincident with the copper. They define a linear feature over 2km long parallel to the copper horizon, but offset by roughly 175m to the west. This Zn-Pb-Ba anomaly is coincident with a distinct linear chargeability anomaly defined in the 1997 survey conducted by Phelps Dodge. It is also coincident with a strong conductor defined in the 2011 TEM survey. Phelps Dodge drilled the chargeability anomaly in 1997, but the holes appear to be short, and did not cross the core of the EM-defined conductor (Figure 13b). Drill logs were not located to ascertain what was intersected. Core is stored near DDH97-3 at 437804E, 5576957N, and appeared to be in good condition.

Kuroko / Noranda type VMS mineralization is documented in Kaslo Group rocks elsewhere in the region. It is possible that the copper mineralized unit is stratigraphically overlain by a sulphide-rich exhalite horizon containing galena, sphalerite and barite.

The linear conductor in the Dunn Creek area is by far the most interesting exploration target on the property. There are, however, several other sites with coincident geochemical and geophysical anomalies that warrant further investigation. Areas of interest are shown as targets 1 through 5 in Figures 13a and 13b. Targets are summarized below:

***Target 1 (stratigraphic feature west of the Dunn Creek showings area)***

- 2km (+) long linear multi parameter anomaly
- Coincident zinc-, lead-, and barium-in-soil anomalies
- TEM conductor
- IP chargeability feature
- Low resistivity
- Sporadic high magnetic susceptibility

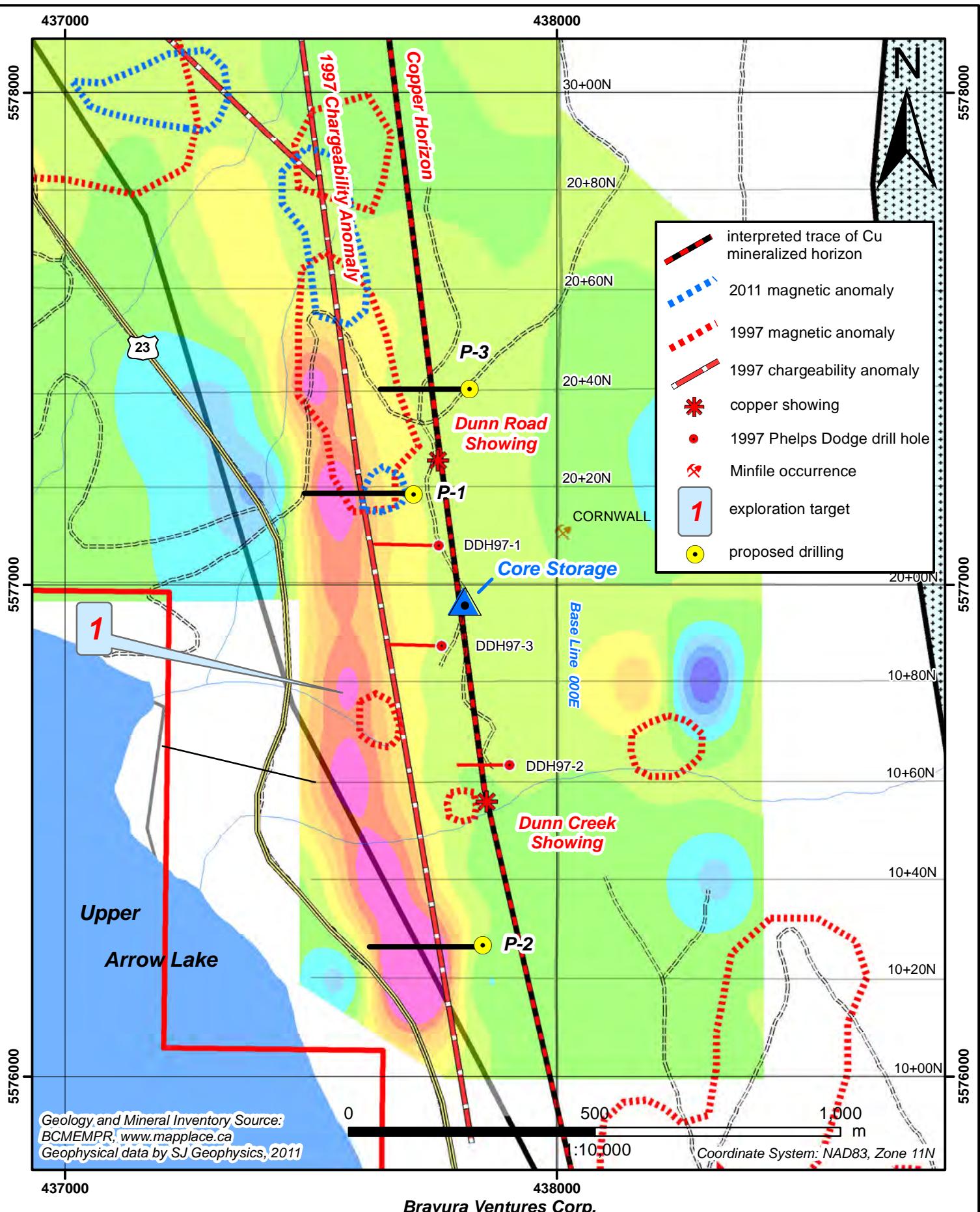


Bravura Ventures Corp.  
 Greenhorn Property, Slocan Mining Division, British Columbia

## Composite on TEM (FF\_7) Base and Exploration Targets

G. Allen, Nov, 2011

Figure 13a



Greenhorn Property, Slocan Mining Division, British Columbia

## Composite on TEM (FF\_7) Base and Exploration Targets

G. Allen, Nov, 2011

Figure 13b

**Target 2 (south of Dunn Creek)**

- Strong chargeability feature
- Coincident resistivity low
- High magnetic susceptibility
- Zinc-in-soil

**Target 3 (NW of Target 1, possible continuation)**

- Chargeability feature
- Magnetic anomalies
- Barium in soil

**Target 4 (North of Cape Horn Creek)**

- TEM conductor
- Copper-in-soil anomaly

**Target 5 (North showing, Zappa Trench)**

- Mineralization
- TEM anomaly

Target 2 is a strong chargeability anomaly defined south of the 2011 Bravura grid. It has coincident zinc-in-soil and magnetic susceptibility anomalies very similar to Target 1. It is possible that this is a continuation of the tentative mineralized horizon in target 1 offset along a northeast trending fault.

Target 3 has coincident chargeability, magnetic and barium anomalies, and is possibly a northwest striking continuation of target 1.

Targets 4 and 5 are isolated small conductors defined by the TEM survey north of Cape Horn Creek.

## 9.0 RECOMMENDATIONS

An attempt was made during this program to present highlights of historic work conducted on the property. There is, however, a good deal more information in assessment reports that warrant being included, and a thorough compilation study is needed.

All targets defined above require detailed mapping to put them into geological context.

The TEM survey appears to be a very effective method of delineating conductors. It should be expanded to the limits of the Kaslo Group rocks on the property.

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*Greenhorn Property, November 12, 2011*

Target 1 has so many encouraging coincident geochemical and geophysical anomalies that it could be drill ready with very little work. Three proposed drill holes totalling 850m are shown in Figure 13b and summarized in Table 3.

Proposed Hole ID	NAD83_E	NAD83_N	Azimuth	Dip	Length (m)	Target
P1	437696	5577189	270	-45	300	Target 1; coincident Zn-Pb-Ba, IP, TEM, mag
P2	437832	5576268	270	-45	300	Target 1; coincident Zn-Pb-Ba, IP, TEM
P3	437818	5577398	270	-45	250	Copper horizon
				850		

A proposed budget for this recommended program is presented in Table 4.

**Table 4**

***Bravura Ventures Corp.***  
***Greenhorn Property***

**Budget for Proposed Phase III Exploration Program**

Item	Quantity / Days	Rate	Cost	Cost	Cost
<b><i>Personnel:</i></b>					
Geologist / project manager	5	500	2500		
Consulting geologist	40	600	24000		
Field assistants (3)	40	180	7200		
Prospector	10	300	3000		
			36700	36700	
<b><i>Contract Line Cutting and Soil Sampling:</i></b>	18km	1400	25200	25200	
<b><i>Geophysics</i></b>					
Ground magnetic and TEM survey	34km	2500	85000	85000	
<b><i>Analyses:</i></b>					
soils	378	32.8	12398.4		
Rocks	100	36.95	3695		
-12 Mesh Stream Sediments	15	55	825		
Core	500	36.95	18475		
			35393.4	35393	
<b><i>Accommodation:</i></b>					
Rooms	80	100	8000		
Meals (daily)	180	50	9000		
			17000	17000	
<b><i>Transportation:</i></b>					
Truck rental (2 vehicles)	80	100	8000	8000	
<b><i>Drilling Contractor</i></b>	850m	300	255000	255000	
<b><i>Field Supplies</i></b>				2000	
<b><i>Fuel</i></b>				2000	
<b><i>Report</i></b>				15000	
<b><i>Subtotal</i></b>				481293	
<b><i>Contingency (10%)</i></b>				48129	
<b>Total</b>				529423	<b>\$529,423</b>

or roughly:

**\$530,000**

## 10.0 REFERENCES

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- Höy, T., 1991, Massive sulphide deposits of the Eagle Bay assemblage, Adams Plateau, south central British Columbia (082M3,4). B.C. Geological Survey, Geological Fieldwork 1998, Paper 1999-1.
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- Macaulay, T.N., 2004, Technical report on the Max Molybdenum property, Revelstoke Mining Division, British Columbia, Canada. A 43-101 compliant technical report prepared for Roca Mines Inc.
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- Mountjoy, K.J., Arseneau, G.J., and McMillan, R.H., 1997, Geological summary of the 082KSW map sheet, British Columbia Ministry of Energy and Mines:  
<http://www.em.gov.bc.ca/Mining/Geoscience/MINFILE/ProductsDownloads/PublicationsList/Pages/082ksw.aspx>
- Natural Resources Canada, Geoscience Data Repository; [http://gdr.nrcan.gc.ca/minres/index\\_e.php](http://gdr.nrcan.gc.ca/minres/index_e.php). Source for national geophysical, geological, and geochemical maps, world mineral deposit maps, etc.
- Nelson, J., and Colpron, M., 2007, Tectonics and metallogeny of the British Columbia, Yukon, and Alaskan cordillera, 1.8 Ga to the present, *in* Mineral Deposits of Canada, Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5.
- Payne, C., 1999, Summary Report on the Greenhorn Property; by Crest Geological Consultants Ltd. for BGM Diversified Energy Inc.; subsequently submitted to B.C. Geological Survey Branch in 2000 as assessment report 26162.
- Pezzot, E.T., 2000, Geophysical Report, Magnetic, VLF-EM and Induced Polarization surveys, Greenhorn project; a report prepared by S.J.V. Consultants Ltd. for BGM Diversified Energy Inc. Appended to B.C. Geological Survey Branch assessment report 26162 by Payne.

*Bravura Ventures Corp.*

*Technical Assessment Report on the Geochemical and Geophysical Surveys on the  
Greenhorn Property, November 12, 2011*

SJ Geophysics Ltd., 2011, Logistics Report, Time Domain Electromagnetic and Magnetometer Survey on the Greenhorn Property, prepared for Bravura Ventures Corp.

## **CERTIFICATE OF AUTHOR**

### **I, GORDON J. ALLEN, P. GEO, DO HEREBY CERTIFY THAT:**

1. I am a consulting geologist with a home office at:

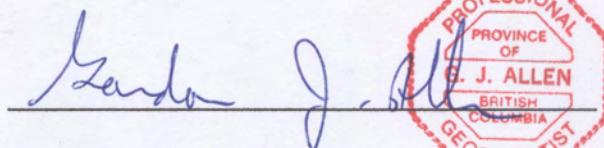
2479 Jackson Valley Road,  
Duncan, British Columbia, V9L 6B2
2. I am responsible for the preparation of the report titled “Technical Assessment Report on the Geochemical and Geophysical Surveys on the Greenhorn Property” (the “Technical Report”) and dated November 12, 2011.
2. I am a graduate from the University of British Columbia with a Bachelor of Science, Honours Geology degree (1975).
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (19692).
4. I have worked as a geologist for a total of thirty-six years since my graduation from university and for twenty-four of those years I have held professional status. Relevant experience in the exploration for volcanogenic base metal deposits includes various projects in Canada and South America over the course of 36 years.
5. I visited the subject property on September 19<sup>th</sup>, 20<sup>th</sup> and 26<sup>th</sup>, 2011.
6. I am responsible for the preparation of all sections of this Technical Report.
9. I am independent of the issuer as defined in section 1.4 of National Instrument 43-101.
7. I have not had prior involvement with the property that is the subject of this Technical Report.

*Bravura Ventures Corp.*

*Technical Assessment Report on the Geochemical and Geophysical Surveys on the  
Greenhorn Property, November 12, 2011*

8. I am not aware of any material fact or material change with respect to the subject matter of this Technical Report that has not been disclosed, the omission of which would make the Technical Report misleading.

Dated this 12th Day of November, 2011.

  
**Gordon J. Allen, P. Geo**



## **Appendix 1**

### **Minfile Detail Reports**



MINFILE Detail Report  
BC Geological Survey  
Ministry of Energy, Mines & Petroleum Resources

### *Location/Identification*

MINFILE Number: 082KSW161

Name(s): KUSP

Status: Prospect

Mining Division: Slocan

Regions: British Columbia

Electoral District: Nelson-Creston

BCGS Map: 082K012

Forest District: Arrow Boundary Forest District

NTS Map: 082K04E

UTM Zone: 11 (NAD 83)

Latitude: 50 07 30 N

Northing: 5552708

Longitude: 117 36 42 W

Easting: 456278

Elevation: 1730 metres

Location Accuracy: Within 500M

Comments: Location of diamond-drill hole 3, figure 3, Assessment Report 7054.

### *Mineral Occurrence*

Commodities: Lead, Zinc, Silver

Minerals      Significant: Galena, Sphalerite, Pyrite  
                  Mineralization Age: Unknown

Deposit      Character: Stratiform  
                  Classification: Volcanogenic  
                  Type: G06: Noranda/Kuroko massive sulphide Cu-Pb-Zn  
                  Shape: Tabular

Strike/Dip: 000/

### *Host Rock*

Dominant Host Rock: Metasedimentary

Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Triassic	Slocan	Undefined Formation	-----
Jurassic	Rossland	Elise	-----

Isotopic Age      Dating Method      Material Dated

-----      -----      -----  
-----      -----      -----

Lithology: Tuffaceous Schist, Quartz Sericite Schist, Argillite, Calcareous Slate, Dacite, Andesite

### *Geological Setting*

Tectonic Belt: Omineca      Physiographic Area: Selkirk Mountains

Terrane: Quesnel

Metamorphic Type: Regional  
Grade: Greenschist

### *Inventory*

Ore Zone: DRILLHOLE

Year: 1978

Category: Assay/analysis

Report On: N

**Sample Type:** Drill Core

Commodity	Grade
Silver	69.6000 grams per tonne
Lead	1.0000 per cent
Zinc	4.1000 per cent

**Comments:** A 1.5-metre sample.

**Reference:** Assessment Report 7054.

### Capsule Geology

The Kusp property is located 2.5 kilometres south of the east end of Summit Lake, 18 kilometres southeast of Nakusp. Because of the precipitous terrain, access is by helicopter, although logging roads pass within 1.5 kilometres of the property.

Honey-coloured sphalerite and fine galena were intersected in drillhole number 3 (Assessment report 7054) in a carbonate-rich pyritic tuffaceous schist, interlayered with quartz sericite schist, carbonate-rich argillite and calcareous slates (Assessment Report 7054). A 1.5-metre section, between 80.8 and 82.3 metres, analysed 4.1 per cent zinc, 1.0 per cent lead and 69.6 parts per million silver. The hostrocks to the base metal mineralization is a 30 metre thick section of pyritic tuffaceous metasedimentary rock which has been traced for 2400 metres (Assessment Report 20015). The tuffaceous sedimentary hostrocks are interlayered with dacites, andesites and fine clastic rocks of the Triassic Slocan Group and volcanic rocks which are probably part of the Jurassic Elise Formation (Rossland Group). There is a facies change with volcanic rocks interfingering westward into sedimentary strata (Assessment Report 20015). The beds strike 100 degrees, dipping 60 degrees south.

The property was staked by J.R. Woodcock in 1977 after silt samples taken from creeks draining a large gossan were found to contain highly anomalous amounts of copper, lead and zinc. In 1977, geological mapping, soil sampling, gridding, as well as VLF-EM, magnetic and Turam surveys were completed on the property (Assessment Report 6845). In 1978, Dome Exploration (Canada) and Ranworth Explorations Limited optioned the property and completed four diamond-drill holes totalling 308.45 metres (Assessment Report 7054). In 1988, the property was optioned to Adastral Resources Limited, who completed additional ground magnetic (7.2 kilometres) and VLF-EM (7.2 kilometres) surveys, and soil sampling (340 samples with analyses for copper, manganese, silver, arsenic, lead and zinc). In 1989, Adastral Resources Limited completed 1.4 kilometres of linecutting, 40 metres of trenching and collected 16 rock lithogeochemical samples and 40 soil samples which were analysed for copper, lead, zinc, silver, cobalt, manganese and antimony (Assessment Report 18387). In 1990, trenching (3.7 metres), linecutting (1.35 kilometres), soil sampling (224 samples analysed for silver, arsenic, manganese, lead, zinc and copper) and 3.9 kilometres of induced polarization surveying were completed by Adastral Resources Limited (Assessment Report 20015).

### Bibliography

EMPR ASS RPT 6845, \*7054, 11717, 18387, 20015

EMPR EXPL 1978-76

EMPR OF 1999-2

EMPR PF (Adastral Resources Limited prospectus, 18 September 1987)

GSC BULL 161

GSC OF 432

Placer Dome File

**Date Coded:** 1985/07/24

**Coded By:**

BC Geological Survey (BCGS)

**Field Check:**

N

**Date Revised:** 1995/09/29

**Revised By:**

Ron McMillan(RHM)

**Field Check:**

N



*MINFILE Detail Report  
BC Geological Survey  
Ministry of Energy, Mines & Petroleum Resources*

***Location/Identification***

**MINFILE Number:** 082KSW144  
**Name(s):** **VIRGINIA (L.3337)**  
ROBIN (L.2509), WILD SWAN (L.2510), GARNETT (L.2842), MAYFLOWER (L.4458), CUBA (L.5609), PAISLEY (L.5612), WHISTLER (L.5614), CONNIE FR. NO. 2 (L.5818), RUBY FR. (L.5820), EMERALD FR. (L.5821)  
**Status:** Showing      **Mining Division:** Slocan  
**Regions:** British Columbia      **Electoral District:** Nelson-Creston  
**BCGS Map:** 082K005      **Forest District:** Kootenay Lake Forest District  
**NTS Map:** 082K03E      **UTM Zone:** 11 (NAD 83)  
**Latitude:** 50 03 35 N      **Northing:** 5545278  
**Longitude:** 117 07 22 W      **Easting:** 491212  
**Elevation:** 1676 metres  
**Location Accuracy:** Within 500M  
**Comments:** Centre of Virginia (Lot 3337) Reverted Crown grant.

***Mineral Occurrence***

**Commodities:** Talc, Asbestos

<b>Minerals</b>	<b>Significant:</b>	Talc, Chrysotile
	<b>Associated:</b>	Serpentine, Uralite, Saussurite
	<b>Alteration:</b>	Serpentine, Talc, Mariposite, Chlorite, Albite
	<b>Alteration Type:</b>	Serpentin'zn, Talc
	<b>Mineralization Age:</b>	Unknown
<b>Deposit</b>	<b>Character:</b>	Massive, Stratabound
	<b>Classification:</b>	Hydrothermal, Industrial Min.
	<b>Type:</b>	M07: Ultramafic-hosted talc-magnesite

***Host Rock***

**Dominant Host Rock:** Metaplutonic

<b>Stratigraphic Age</b>	<b>Group</b>	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
Permian	Kaslo	Undefined Formation	-----

<b>Isotopic Age</b>	<b>Dating Method</b>	<b>Material Dated</b>
-----	-----	-----

**Lithology:** Serpentinite, Andesite Flow, Andesite Pyroclastic, Greenstone

***Geological Setting***

<b>Tectonic Belt:</b>	Omineca	<b>Physiographic Area:</b>	Selkirk Mountains
<b>Terrane:</b>	Slide Mountain		
<b>Metamorphic Type:</b>	Regional	<b>Relationship:</b>	Pre-mineralization
<b>Grade:</b>	Greenschist		

***Inventory***

### Capsule Geology

The Virginia showing is located roughly 500 metres west of the Highland Surprise (082KSW037), 28 kilometres northwest of Kaslo, British Columbia.

A serpentinite belt about 300 metres wide cuts through the Kaslo Group, adjacent to the Highland Surprise. The main lithologies of the area are assigned to the Permian Kaslo Group consisting of andesite flows, pyroclastics and tuffaceous sediments. Volcanics are extensively chlorite altered and schistose. The reader is referred to the Highland Surprise for a more detailed description of the geology of the area. The serpentinite is largely altered to talc, chrysotile with grains of magnetite, chromite? and some carbonate.

Conspicuous amounts of talc and mariposite occur at the Virginia showing where a large serpentinite body, located in the vicinity of the quartz veins, is largely altered to talc and brownish weathered (Ca-Mg-Fe) carbonate (Geological Survey of Canada Memoir 173). The surrounding massive greenstones are altered to chlorite, serpentine, uralite, saussurite and albite. The alteration is believed to be related to intrusion of the Nelson batholith. Similar to the Tom 3 showing, 2.5 kilometres to the northwest, the Virginia showing also hosts chrysotile along hairline fractures. Refer to the Tom 3 (082KSW139) for a detailed description of the mode of occurrence for chrysotile.

### Bibliography

EMPR OF \*1988-19, pp. 23,24

GSC BULL \*7, pp. 31-42

GSC MEM 173, pp. 46-49

GSC OF 266; 432; 464

**Date Coded:** 1985/07/24

**Coded By:** BC Geological Survey (BCGS)

**Field Check:** N

**Date Revised:** 1995/10/10

**Revised By:** Keith J. Mountjoy(KJM)

**Field Check:** N

### ***Location/Identification***

**MINFILE Number:** 082KSW128

**Name(s):** BLUEBIRD

<b>Status:</b>	Showing	<b>Mining Division:</b>	Slocan
<b>Mining Method</b>	Underground	<b>Electoral District:</b>	Nelson-Creston
<b>Regions:</b>	British Columbia	<b>Forest District:</b>	Arrow Boundary Forest District
<b>BCGS Map:</b>	082K022	<b>UTM Zone:</b>	11 (NAD 83)
<b>NTS Map:</b>	082K04W	<b>Northing:</b>	5564033
<b>Latitude:</b>	50 13 33 N	<b>Easting:</b>	444224
<b>Longitude:</b>	117 46 55 W		
<b>Elevation:</b>	500 metres		
<b>Location Accuracy:</b>	Within 1KM		
<b>Comments:</b>	Location from occurrence number 239, GSC Open File 464.		

### ***Mineral Occurrence***

**Commodities:** Silver, Lead, Zinc, Copper

<b>Minerals</b>	<b>Significant:</b>	Unknown
	<b>Associated:</b>	Quartz
	<b>Mineralization Age:</b>	Unknown

<b>Deposit</b>	<b>Character:</b>	Vein
	<b>Classification:</b>	Hydrothermal, Epigenetic
	<b>Type:</b>	I05: Polymetallic veins Ag-Pb-Zn+/-Au

### ***Host Rock***

**Dominant Host Rock:** Metasedimentary

<b>Stratigraphic Age</b>	<b>Group</b>	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
Triassic	Slocan	Undefined Formation	-----

<b>Isotopic Age</b>	<b>Dating Method</b>	<b>Material Dated</b>
-----	-----	-----

**Lithology:** Pelitic Phyllite, Silty Phyllite

### ***Geological Setting***

<b>Tectonic Belt:</b>	Omineca	<b>Physiographic Area:</b>	Selkirk Mountains
<b>Terrane:</b>	Quesnel		

### ***Inventory***

No inventory data

### ***Capsule Geology***

The Bluebird showing is located about 2.5 kilometres southeast of Nakusp (Minister of Mines Annual Report 1927; GSC Open File 432).

The 1927 Annual Report states that a prospect tunnel was driven east for 88 metres on a faulted and "broken" quartz vein cutting "slate-schists". There is no information regarding the mineralogy of the vein other than "small pieces of ore have been encountered" (Minister of Mines Annual Report 1927). It is tabulated as number 239 in GSC Open File 464, where it is stated to contain silver, lead, zinc and copper.

GSC Bulletin 161 shows the area to be underlain by pelitic to silty phyllite and slate of the Triassic Slocan Group.

### Bibliography

EMPR AR 1927-330

GSC BULL 161

GSC OF 288, #239; 432; 464, #239

**Date Coded:** 1985/07/24

**Coded By:** BC Geological Survey (BCGS)

**Field Check:** N

**Date Revised:** 1995/10/02

**Revised By:** Ron McMillan(RHM)

**Field Check:** N



MINFILE Detail Report  
BC Geological Survey  
Ministry of Energy, Mines & Petroleum Resources

### Location/Identification

**MINFILE Number:** 082KSW124  
**Name(s):** CORNWALL  
RB, NADECO, COPPER HORN, CAPE HORN

**Status:** Showing      **Mining Division:** Slocan  
**Regions:** British Columbia      **Electoral District:** Nelson-Creston  
**BCGS Map:** 082K031      **Forest District:** Arrow Boundary Forest District  
**NTS Map:** 082K05W  
**Latitude:** 50 20 34 N      **UTM Zone:** 11 (NAD 83)  
**Longitude:** 117 52 16 W      **Northing:** 5577106  
**Elevation:** 690 metres      **Easting:** 438015  
**Location Accuracy:** Within 500M  
**Comments:** Location of sample Horn 07, Rock Sample and Soil Grid Location Map, Assessment Report 21289.

### Mineral Occurrence

**Commodities:** Copper

<b>Minerals</b>	<b>Significant:</b>	Chalcopyrite
	<b>Alteration Type:</b>	Skarn
	<b>Mineralization Age:</b>	Unknown
<b>Deposit</b>	<b>Character:</b>	Stratabound, Shear
	<b>Classification:</b>	Skarn
	<b>Type:</b>	K01: Cu skarn
	<b>Shape:</b>	Tabular

### Host Rock

**Dominant Host Rock:** Metavolcanic

<b>Stratigraphic Age</b>	<b>Group</b>	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
Paleozoic-Mesozoic	Kaslo	Undefined Formation	-----
Jurassic	-----	-----	Kuskanax Batholith
<b>Isotopic Age</b>		<b>Dating Method</b>	<b>Material Dated</b>
-----		-----	-----
-----		-----	-----

**Lithology:** Amphibolite, Gabbro, Skarn, Felsic Porphyry Dike, Quartz Monzonite

### Geological Setting

<b>Tectonic Belt:</b>	Omineca	<b>Physiographic Area:</b>	Selkirk Mountains
<b>Terrane:</b>	Quesnel, Slide Mountain		
<b>Metamorphic Type:</b>	Regional, Contact		
<b>Grade:</b>	Amphibolite		

### Inventory

<b>Ore Zone:</b>	SAMPLE	<b>Year:</b> 1991
<b>Category:</b>	Assay/analysis	<b>Report On:</b> N

Sample Type: Grab

Commodity	Grade
Copper	3.1400 per cent

Reference: Assessment Report 21289.

**Capsule Geology**

The Cape Horn copper showings are located in a logging cut adjacent to the Dunn Creek access road. The showings are 600 metres east of the highway, 11 kilometres north of Nakusp (Assessment Report 21289).

"Strong copper mineralization", presumably chalcopyrite, with "skarn-like" alteration is reported in the metavolcanic sequence (Assessment Report 21289). Assays as high as 3.14 per cent copper were obtained from the showings (Assessment Report 21289). Earlier reports (Minister of Mines Annual Report 1961, page 79) mention copper mineralization in three "shear zones" in diorite, the widest being 1.2 metres wide. The property is located along the western margin of the Jurassic Kuskanax batholith which is composed mainly of aegirine-augite quartz monzonite (GSC Open File 432). Felsic porphyry dikes, possibly related to the batholith, crosscut the layered rocks in the area of the showing. The metavolcanic rocks, mainly amphibolite and gabbroic rocks, belong to the Paleozoic to Triassic Kaslo Group. The metavolcanic rocks are overlain to the southwest by metasedimentary strata of the Triassic Slocan Group which include phyllite, siltstone and limestone (Assessment Report

The earliest record of work was prospecting in 1903, when "a large showing of low grade copper ore assaying 8 per cent copper and \$2.00 gold per ton" was reported (Minister of Mines Annual Report 1903). Three diamond-drill holes "totalling 144 feet" (47 metres) were reported in 1960 (Minister of Mines Annual Report 1961). Geological mapping and a geochemical survey were reported in 1967 (Minister of Mines Annual Report 1967). In 1978, the area was staked for uranium and three stream sediment samples were taken as well as several scintillometer readings (Property File - Report by Donald W. Tully). In 1979, the property was geologically mapped, 35 kilometres of line prepared and surveyed by scintillometer and magnetometer (Assessment Report 7789). A total of 330 soil samples were collected and analysed for copper and lead.

**Bibliography**

EMPR AR 1903-150; 1961-79; 1967-248

EMPR ASS RPT 7789, \*21289

EMPR PF (Report by D.W. Tully, 1978)

GSC OF 432; 464, #230,#231

Date Coded: 1985/07/24

Coded By: BC Geological Survey (BCGS)

Field Check: N

Date Revised: 1995/10/03

Revised By: Ron McMillan(RHM)

Field Check: N



### *Location/Identification*

<b>MINFILE Number:</b>	082KSW111	<b>Mining Division:</b>	Slocan
<b>Name(s):</b>	<b>COPPER CLIFF</b> COPPER KING GROUP, PYRITE (L.8793), PERTH (L.8794), COPPER KING (L.8791)		
<b>Status:</b>	Prospect	<b>Electoral District:</b>	Nelson-Creston
<b>Mining Method</b>	Underground	<b>Forest District:</b>	Kootenay Lake Forest District
<b>Regions:</b>	British Columbia		
<b>BCGS Map:</b>	082K015	<b>UTM Zone:</b>	11 (NAD 83)
<b>NTS Map:</b>	082K03E	<b>Northing:</b>	5556714
<b>Latitude:</b>	50 09 45 N	<b>Easting:</b>	487223
<b>Longitude:</b>	117 10 44 W		
<b>Elevation:</b>	1584 metres		
<b>Location Accuracy:</b>	Within 500M		
<b>Comments:</b>	The location of the upper adit (Assessment Report 6051).		

### *Mineral Occurrence*

<b>Commodities:</b>	Silver, Gold, Copper, Zinc, Lead
<b>Minerals</b>	<b>Significant:</b> Pyrrhotite, Pyrite, Chalcopyrite, Sphalerite, Galena
	<b>Mineralization Age:</b> Unknown
<b>Deposit</b>	<b>Character:</b> Podiform, Massive, Concordant
	<b>Classification:</b> Volcanogenic
	<b>Type:</b> G06: Noranda/Kuroko massive sulphide Cu-Pb-Zn
	<b>Dimension:</b> 6x2x0 metres <b>Strike/Dip:</b> 000/
	<b>Comments:</b> In the upper adit, a massive sulphide lens is 1.8 metres wide over a strike length of 6 metres.

### *Host Rock*

<b>Dominant Host Rock:</b>	Metasedimentary	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
<b>Stratigraphic Age</b>	<b>Group</b>		
Permian	Kaslo	Undefined Formation	-----

Unknown ----- Unnamed/Unknown Informal

<b>Isotopic Age</b>	<b>Dating Method</b>	<b>Material Dated</b>
-----	-----	-----
-----	-----	-----

**Lithology:** Chert, Cherty Argillite, Siliceous Chert, Quartzite, Andesite Tuff, Rhyolite Flow, Rhyolite Breccia, Quartz Monzonite, Felsite Dike, Felsite Sill

### *Geological Setting*

<b>Tectonic Belt:</b>	Omineca	<b>Physiographic Area:</b>	Selkirk Mountains
<b>Terrane:</b>	Slide Mountain		
<b>Metamorphic Type:</b>	Regional		
<b>Grade:</b>	Greenschist		

### *Inventory*

**Ore Zone:** ADIT      **Year:** 1975

**Category:** Assay/analysis

**Report On:** N

**NI 43-101:** N

**Sample Type:** Grab

Commodity	Grade
Silver	9.6300 grams per tonne
Gold	0.3400 grams per tonne
Copper	2.2200 per cent
Zinc	0.6000 per cent

**Comments:** Sample 14733, taken from the upper portal.

**Reference:** Assessment Report 5636.

### ***Capsule Geology***

The Copper King prospect is located at 1584 metres elevation, on a tributary of Cooper Creek on the southeastern slopes of Mount Cooper. Kaslo, British Columbia lies 37 kilometres to the southeast.

Early work on the property dates back to 1907 when it is reported two adits were driven, the upper adit 4.3 metres long and the lower adit 27 metres long. Property work is also reported in 1908. The property area was re-staked by O. Janout in 1974 and prospected until 1976.

The Copper King prospect is underlain by metavolcanics and metasediments of the Permian Kaslo Group. The Kaslo Group strikes northwest and is folded into a broad anticline plunging moderately to the southeast. Metasediments and volcanics of the Kaslo Group are intruded by quartz monzonite stocks and felsite dikes and sills.

The Copper Cliff prospect consists of four laterally restricted massive sulphide lenses hosted within a lens-shaped felsic metavolcanic-sedimentary sequence within andesite flows. Sediments include laminated chert and cherty argillite, siliceous chert and quartzite. Metavolcanics include andesite tuffs and massive rhyolite flows with rare quartz eyes and rhyolite breccia.

The massive sulphides consist of pyrrhotite, with lesser chalcopyrite, sphalerite, pyrite and galena. The two southernmost lenses are up to 30 centimetres wide and traceable for no more than 60 centimetres. The thickest concentration of massive sulphides is found in the old upper adit. At the back of this adit, 1.8 metres of pyrrhotite-pyrite-chalcopyrite-sphalerite mineralization is hosted within cherty argillite. A second 60-centimetre wide lens of massive sulphide is separated by cherty argillite. The massive sulphide lenses pinch out sharply over 6 metres strike length to a 15 to 30 centimetre horizon traceable on surface for up to 30 metres. In a nearby creek, two 60-centimetre wide massive sulphide lenses consisting of pyrrhotite-pyrite-chalcopyrite outcrop and are separated by 45 centimetres of chert. The lenses have a 4.5 metre strike length.

Several rock chip samples were taken from the property. The best assay results were from samples 14733 to 14735, from the upper adit. Grab sample 14733, from the upper portal over roughly 75 centimetres, yielded 0.34 gram per tonne gold, 9.63 grams per tonne silver, 2.22 per cent copper and 0.6 per cent zinc (Assessment Report 6536).

### ***Bibliography***

EMPR AR 1907-L96; 1908-J250

EMPR ASS RPT \*5636, \*6051, 8019, 9697

EMPR OF 1999-2

GSC MAP 1667

GSC MEM 161, pp. 21,31

GSC OF 432; 464

GSC SUM RPT 1907, p. 86

**Date Coded:** 1985/07/24

**Coded By:**

BC Geological Survey (BCGS)

**Field Check:**

N

**Date Revised:** 1995/12/21

**Revised By:**

Keith J. Mountjoy(KJM)

**Field Check:**

N

### ***Location/Identification***

**MINFILE Number:** 082KSW093

**Name(s):** ROYAL 5

**Status:** Showing

**Mining Division:** Slocan

**Regions:** British Columbia

**Electoral District:** Nelson-Creston

**BCGS Map:** 082K023

**Forest District:** Arrow Boundary Forest District

**NTS Map:** 082K04E

**UTM Zone:** 11 (NAD 83)

**Latitude:** 50 13 40 N

**Northing:** 5564114

**Longitude:** 117 34 28 W

**Easting:** 459026

**Elevation:** 985 metres

**Location Accuracy:** Within 500M

**Comments:** Location of drillhole number 1, Map 2, Assessment Report 11893.

### ***Mineral Occurrence***

**Commodities:** Lead, Copper

<b>Minerals</b>	<b>Significant:</b>	Galena, Chalcopyrite, Pyrite
	<b>Alteration:</b>	Siderite, Silica
	<b>Alteration Type:</b>	Silicific'n, Carbonate

**Deposit**      **Character:** Vein, Breccia

<b>Classification:</b>	Hydrothermal, Epigenetic
<b>Type:</b>	I05: Polymetallic veins Ag-Pb-Zn+/-Au

### ***Host Rock***

**Dominant Host Rock:** Metasedimentary

<b>Stratigraphic Age</b>	<b>Group</b>	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
Triassic	Slocan	Undefined Formation	-----
Jurassic	-----	-----	Kuskanax Batholith

<b>Isotopic Age</b>	<b>Dating Method</b>	<b>Material Dated</b>
-----	-----	-----
-----	-----	-----

**Lithology:** Sericite Schist, Argillite, Phyllite, Syenite

### ***Geological Setting***

<b>Tectonic Belt:</b>	Omineca	<b>Physiographic Area:</b>	Selkirk Mountains
<b>Terrane:</b>	Quesnel		

### ***Inventory***

No inventory data

### ***Capsule Geology***

The Royal 5 claim was located on the south side of Little Wilson Lake, 15 kilometres east of Nakusp.

The area is shown on the geological map in Geological Survey of Canada Open File 432 as being underlain by the Jurassic Kuskanax batholith which consists of syenite, leuco-quartz monzonite and leucogranite. Assessment Report 11893, which presents the logs from some drillholes on the Royal 5 claim, has documented the presence of syenitic intrusive rocks, as well as metamorphic rocks which are possibly xenoliths or pendants within the Kuskanax batholith. Lithologies include sericite schist, black argillite and phyllite which were probably derived from the Triassic Slocan Group.

Assessment Report 11893, which documents an 11-hole, 338-metre X-ray drill program completed in 1983, describes an "alteration zone" consisting of "light to dark brown silicified and sideritic breccia with quartz stringers containing 2 per cent sulphides - pyrite, minor galena, chalcopyrite, possibly molybdenite and an unidentified "grey metallic" mineral". No assays are available.

### Bibliography

EMPR ASS RPT 11893

GSC BULL 161

GSC OF 432

**Date Coded:** 1995/05/29

**Coded By:** Ron McMillan(RHM)

**Field Check:** N

**Date Revised:** 1995/10/15

**Revised By:** Ron McMillan(RHM)

**Field Check:** N



MINFILE Detail Report  
BC Geological Survey  
Ministry of Energy, Mines & Petroleum Resources

### Location/Identification

**MINFILE Number:** 082KSW079  
**Name(s):** PERTH (L.8794)  
PYRITE (L.8793), COPPER CLIFF

**Status:** Prospect      **Mining Division:** Slocan  
**Mining Method** Underground      **Electoral District:** Nelson-Creston  
**Regions:** British Columbia      **Forest District:** Kootenay Lake Forest District  
**BCGS Map:** 082K015  
**NTS Map:** 082K03E      **UTM Zone:** 11 (NAD 83)  
**Latitude:** 50 09 43 N      **Northing:** 5556652  
**Longitude:** 117 10 42 W      **Easting:** 487262  
**Elevation:** 1533 metres  
**Location Accuracy:** Within 500M  
**Comments:** Location of adit on Reverted Crown grant Lot 8794.

### Mineral Occurrence

**Commodities:** Copper, Zinc, Lead, Silver, Gold

**Minerals**      **Significant:** Pyrrhotite, Pyrite, Chalcopyrite, Sphalerite, Galena  
                 **Alteration:** Sericite, Chlorite, Silica  
                 **Alteration Type:** Chloritic, Silicific'n, Sericitic  
                 **Mineralization Age:** Unknown

**Deposit**      **Character:** Massive  
                 **Classification:** Volcanogenic  
                 **Type:** G06: Noranda/Kuroko massive sulphide Cu-Pb-Zn

### Host Rock

**Dominant Host Rock:** Volcanic

<b>Stratigraphic Age</b>	<b>Group</b>	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
Permian	Kaslo	Undefined Formation	-----
Paleozoic	Milford	Undefined Formation	-----

**Isotopic Age**      **Dating Method**      **Material Dated**  
-----      -----  
-----      -----

**Lithology:** Tuffaceous Andesite, Mafic Intrusive, Intermediate Intrusive, Limestone, Argillite, Chert

### Geological Setting

**Tectonic Belt:** Omineca      **Physiographic Area:** Selkirk Mountains  
**Terrane:** Kootenay

**Metamorphic Type:** Regional  
**Grade:** Greenschist

### Inventory

**Ore Zone:** SAMPLE      **Year:** 1981  
**Category:** Assay/analysis      **Report On:** N

**Sample Type:** Chip

Commodity	Grade
Silver	23.0000 grams per tonne
Gold	1.5000 grams per tonne
Copper	3.1000 per cent
Zinc	1.2200 per cent

**Comments:** Weighted average of samples taken across a 0.6 metre wide section of massive sulphide mineralization exposed at surface.

**Reference:** Assessment Report 9697.

### *Capsule Geology*

The Perth occurrence is situated near the headwaters of Copper Creek, on Reverted Crown grant Lot 8794 at 1533 metres elevation above sea level, in the Slocan Mining Division. The property also includes the Pyrite Reverted Crown grant (Lot 8793). Regionally, the area lies within the Selkirk Mountains of southeastern British Columbia. The occurrence is within the Kootenay Arc, a curving belt of highly deformed metasedimentary and metavolcanic rocks which includes the Upper Proterozoic to Lower Cambrian Hamill Group, the Lower Cambrian Badshot Formation, the Permian to Carboniferous Kaslo Group and the Paleozoic Lardeau and Milford groups. The volcano-sedimentary sequence is intruded by numerous Paleozoic to Mesozoic granitoid plutons.

The property is underlain by andesitic volcanic rocks and intermediate to mafic intrusive rocks of the Kaslo Group that generally strike northwest and dip west. Limestone, argillite and chert of the Milford Group are exposed east of the property. Further east, overlying the Kaslo Group are the sedimentary rocks of the Upper Triassic Slocan Group.

The occurrence consists of bands of massive to semimassive sulphide mineralization enclosed within a strongly silicified, sericitized and chloritized tuffaceous andesite. The sulphide body varies from a few centimetres up to 2 metres in width and extends discontinuously for about 150 metres. The massive sulphide body comprises pyrrhotite, pyrite, chalcopyrite, sphalerite and minor galena. A weighted average of chip samples of the mineralization at surface assayed 3.1 per cent copper, 1.22 per cent zinc, 23 grams per tonne silver and 1.5 grams per tonne gold over an average width of 0.6 metre (Assessment Report 9697).

Two short adits were driven to explore the potential of the massive sulphide body. The upper adit intersected a 2 metre wide sulphide body while the lower adit failed to reach the mineralization. Diamond drilling in 1981 failed to identify a lateral or vertical continuity to the surface mineralization (Assessment Report 9697).

### *Bibliography*

EMPR AR 1907-96; 1908-250  
 EMPR ASS RPT 5636, 6051, 8019, \*9697  
 EMPR GEM 1975-E45; 1976-E46  
 EMPR OF 1999-2  
 GSC BULL 193  
 GSC MAP 235A; 1277A  
 GSC MEM 161  
 GSC OF 432; 464  
 GSC SUM RPT 1908, pp. 86-87

<b>Date Coded:</b> 1985/07/24	<b>Coded By:</b> BC Geological Survey (BCGS)	<b>Field Check:</b> N
<b>Date Revised:</b> 1995/12/14	<b>Revised By:</b> Gilles J. Arseneau(GJA)	<b>Field Check:</b> N



*MINFILE Detail Report*  
*BC Geological Survey*  
*Ministry of Energy, Mines & Petroleum Resources*

### Location/Identification

<b>MINFILE Number:</b>	082KSW185	<b>Mining Division:</b>	Slocan
<b>Name(s):</b>	<u>PRINCE</u>	<b>Electoral District:</b>	Nelson-Creston
	COACHMAN	<b>Forest District:</b>	Arrow Boundary Forest District
<b>Status:</b>	Showing		
<b>Regions:</b>	British Columbia		
<b>BCGS Map:</b>	082K021	<b>UTM Zone:</b>	11 (NAD 83)
<b>NTS Map:</b>	082K05W	<b>Northing:</b>	5567454
<b>Latitude:</b>	50 15 23 N	<b>Easting:</b>	442002
<b>Longitude:</b>	117 48 49 W		
<b>Elevation:</b>	500 metres		
<b>Location Accuracy:</b>	Within 500M		
<b>Comments:</b>	Location of drillholes, map number 2, Assessment Report 6296.		

### Mineral Occurrence

<b>Commodities:</b>	Lead, Silver, Gold
<b>Minerals</b>	<b>Significant:</b> Galena, Pyrite
<b>Deposit</b>	<b>Character:</b> Vein <b>Classification:</b> Epigenetic, Hydrothermal <b>Type:</b> I05: Polymetallic veins Ag-Pb-Zn+/-Au

### Host Rock

<b>Dominant Host Rock:</b>	Metavolcanic		
<b>Stratigraphic Age</b>	<b>Group</b>	<b>Formation</b>	<b>Igneous/Metamorphic/Other</b>
Triassic	Rossland	Undefined Formation	-----
<b>Isotopic Age</b>		<b>Dating Method</b>	<b>Material Dated</b>
-----		-----	-----

**Lithology:** Phyllite, Tuff, Porphyritic Flow

### Geological Setting

<b>Tectonic Belt:</b>	Omineca	<b>Physiographic Area:</b>	Selkirk Mountains
<b>Terrane:</b>	Quesnel		
<b>Metamorphic Type:</b>	Regional		
<b>Grade:</b>	Greenschist		

### Inventory

<b>Ore Zone:</b>	SAMPLE	<b>Year:</b>	1986
<b>Category:</b>	Assay/analysis	<b>Report On:</b>	N
<b>Sample Type:</b>	Grab	<b>NI 43-101:</b>	N

<b>Commodity</b>	<b>Grade</b>
Silver	3116.0000 grams per tonne
Gold	7.5000 grams per tonne
Lead	48.5000 per cent

**Reference:** Assessment Report 15785.

### ***Capsule Geology***

The Prince showings are located 2 kilometres north of the town of Nakusp. They were exposed during excavation for a trailer court.

Vein-type lead-zinc-silver showings are reported to be present (Assessment Report 20005) with pyrite in showings in the trailer court. Galena is reported in Assessment Report 15875, as is an assay of 48.5 per cent lead, 3116 grams per tonne silver and 7.5 grams per tonne gold. There is no information on the geology of the occurrence other than the rock in a diamond-drill hole on the property which is a phyllitic rock which appears to be volcanic, with a relic texture suggesting either a tuff or a porphyritic flow (Assessment Report 20005). If the hostrocks are volcanic, they likely belong to the Triassic Rossland Group. GSC Open File 432 shows the area to be underlain by pelitic to silty phyllite and slate of the Triassic Slocan Group.

The showing was uncovered in 1974 during excavations for a trailer court and the Coachman mineral claim was staked by J.E. Harris. Five percussion-drill holes were drilled in 1976 (Assessment Report 6296). In 1986, prospecting and a single diamond-drill hole were completed on the property (Assessment Report 15785). During 1990, another diamond-drill hole (38.1 metres) was completed.

### ***Bibliography***

EMPR ASS RPT 6296, 15785, \*20005

GSC BULL 161

GSC OF 432

**Date Coded:** 1995/10/02

**Coded By:** Ron McMillan(RHM)

**Field Check:** N

**Date Revised:** 1995/10/02

**Revised By:** Ron McMillan(RHM)

**Field Check:** N

*Bravura Ventures Corp.*

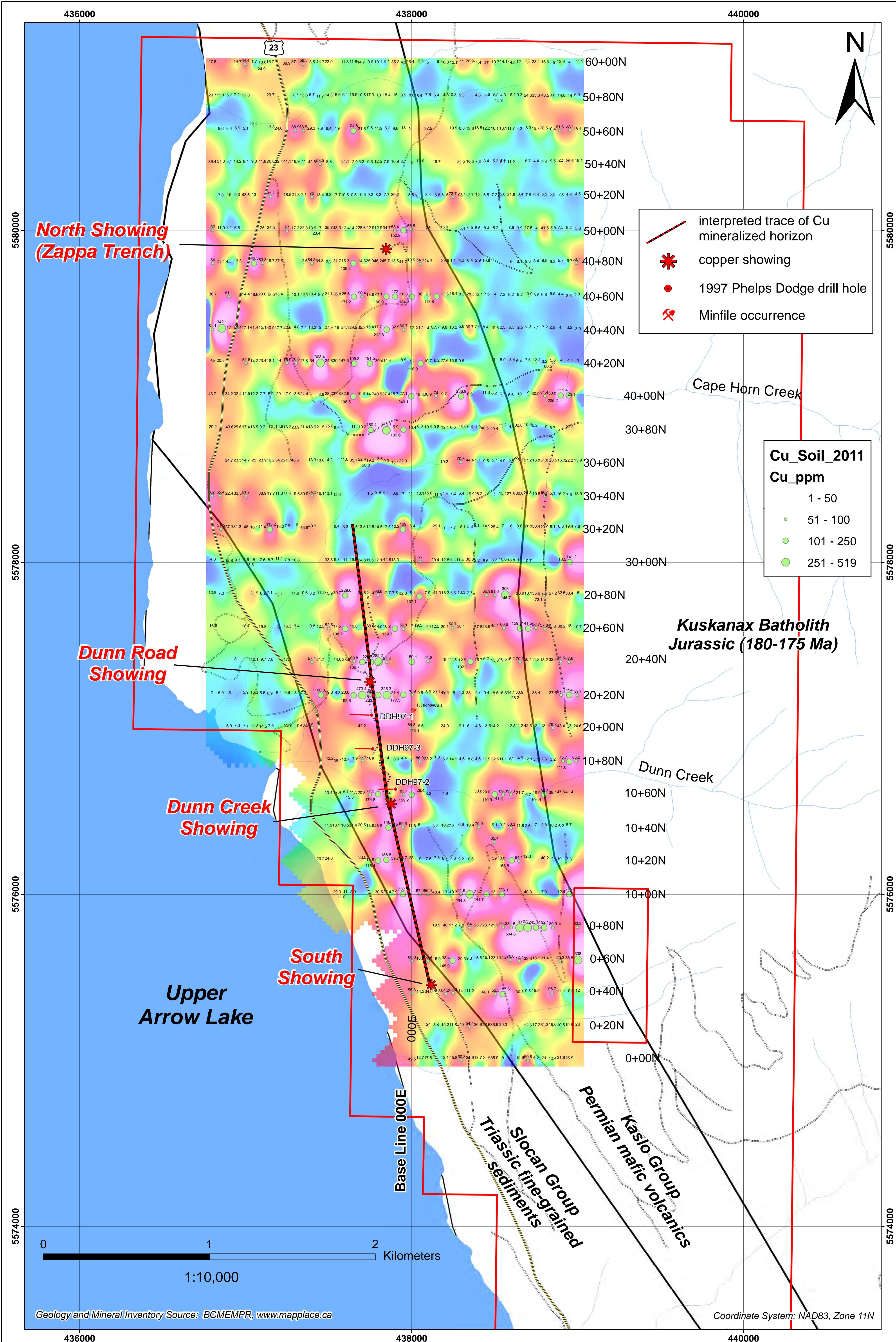
*Technical Assessment Report on the Geochemical and Geophysical Surveys on the  
Greenhorn Property, November 12, 2011*

## **Appendix 2**

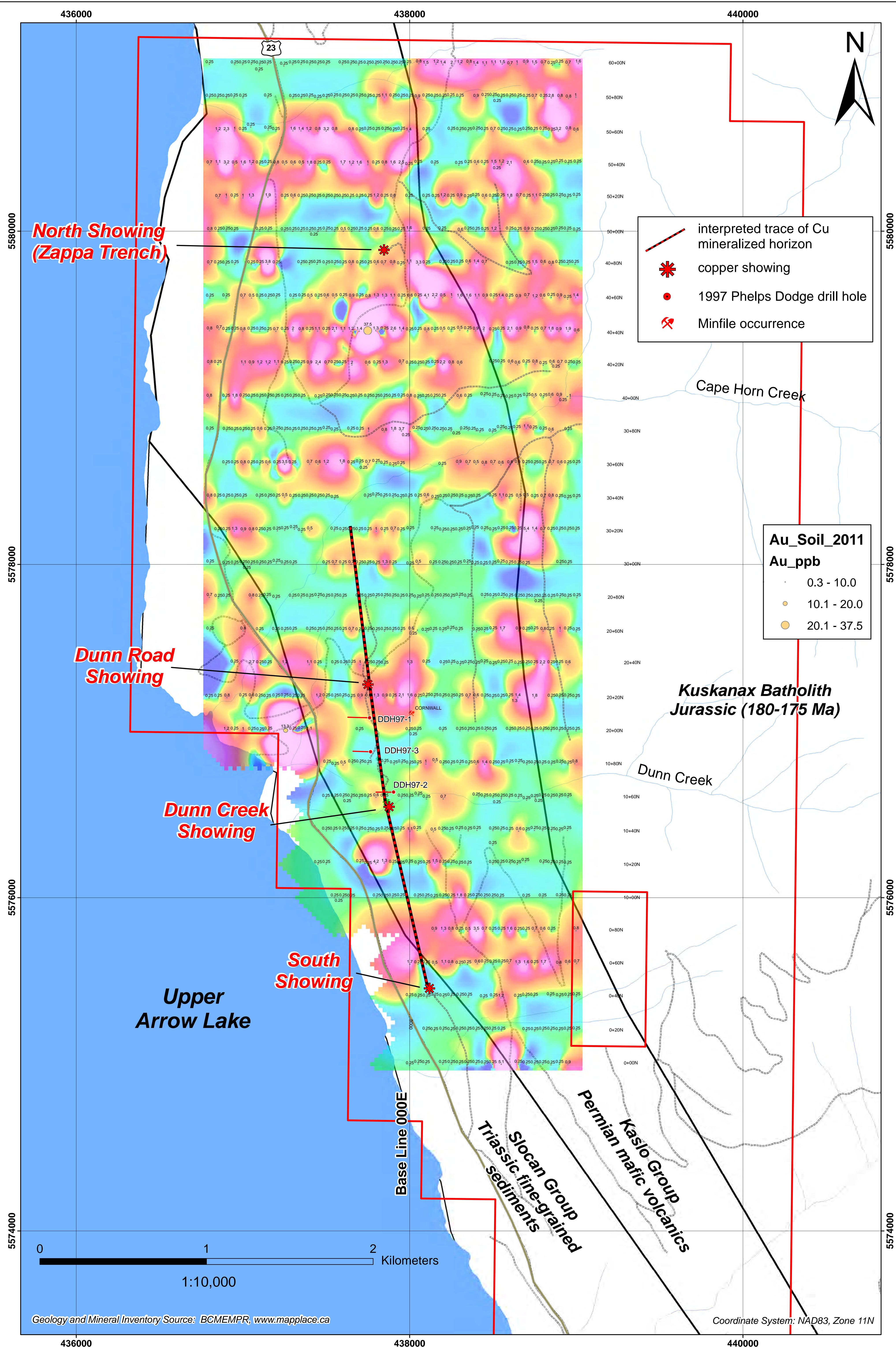
### **Assay Certificates**

## **Appendix 3**

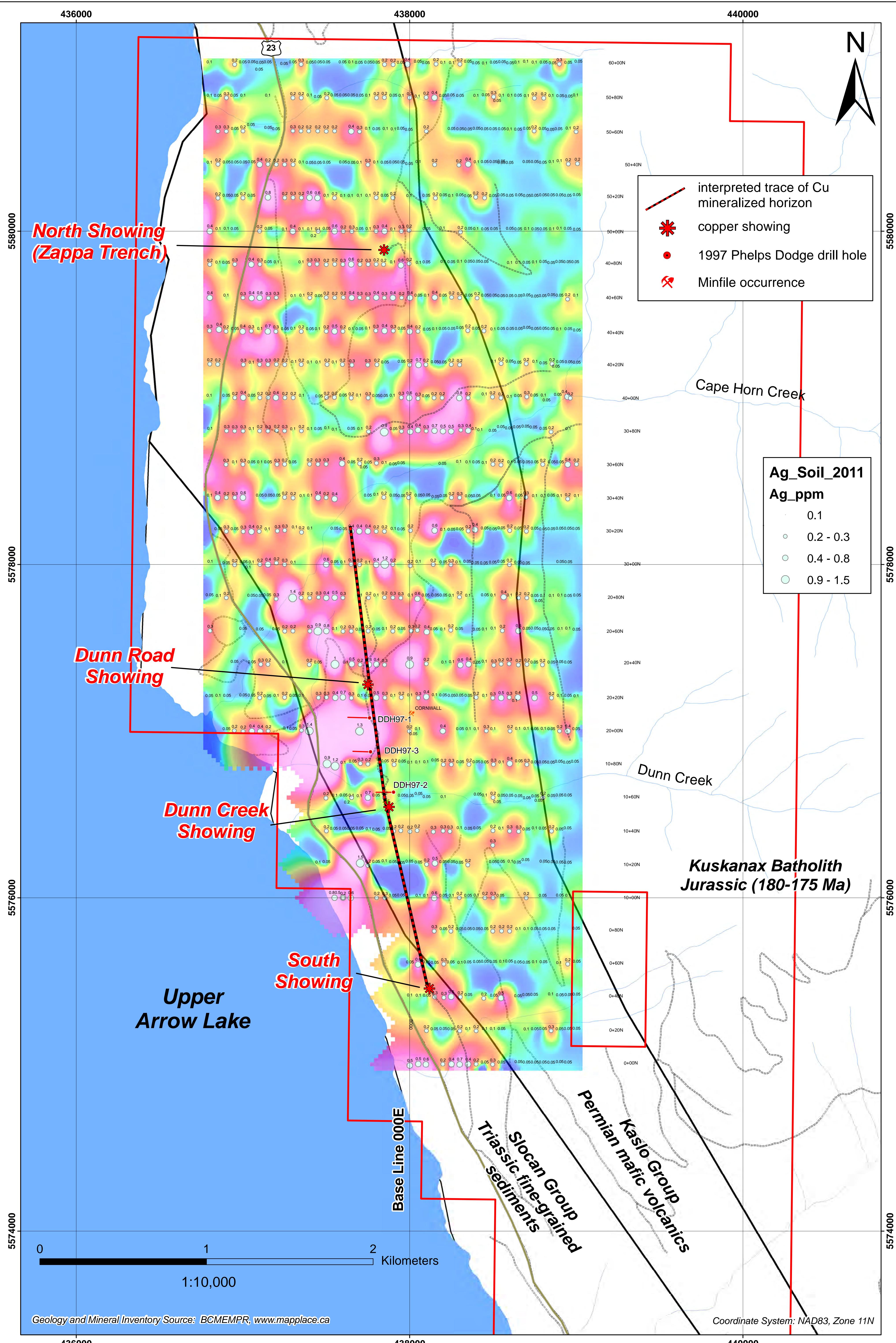
**Large Format Soil Geochemistry Maps with Posted Data**  
**Figures 10a through 10g**



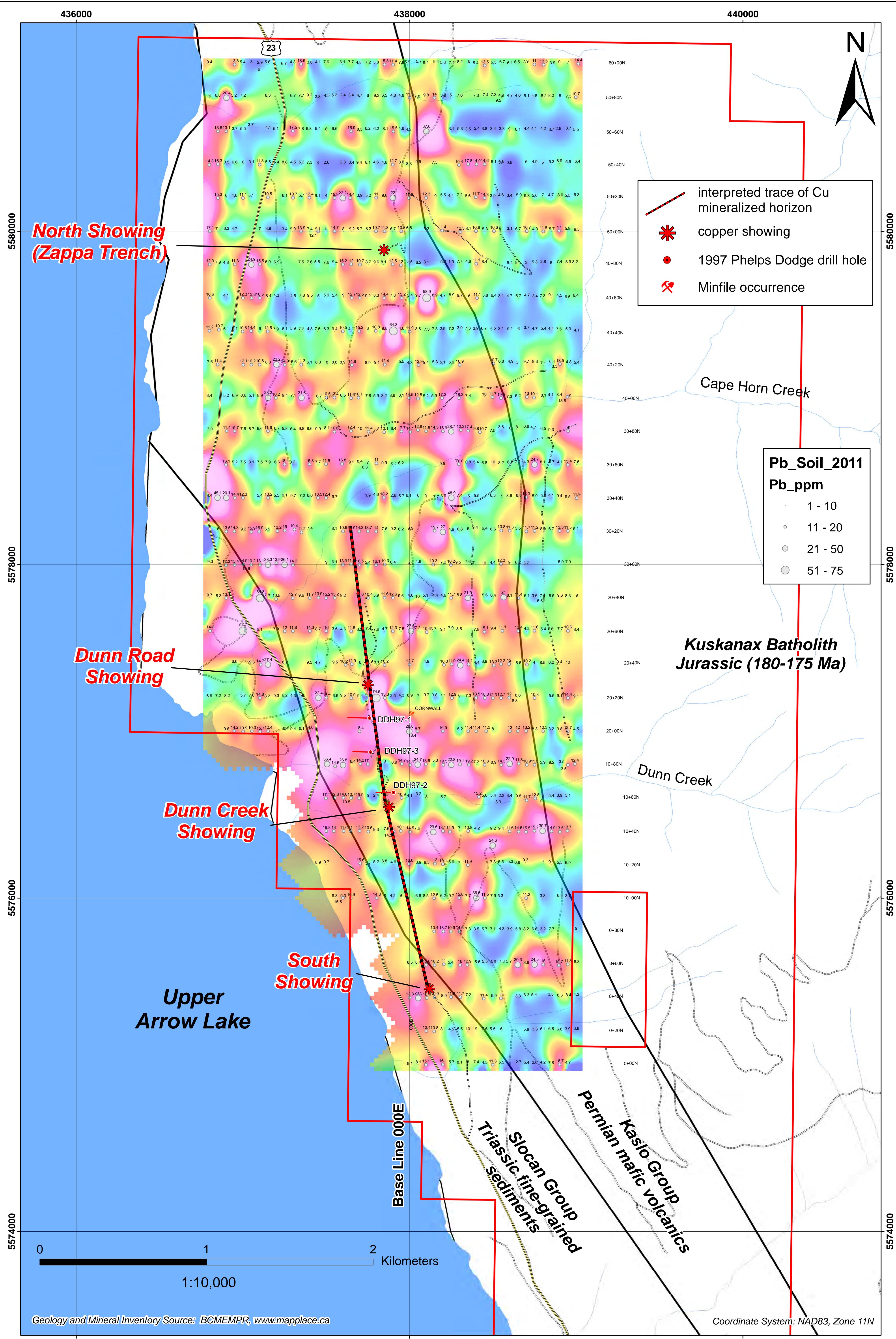
**Bravura Ventures Corp.**  
**Greenhorn Property, Slocan Mining Division, British Columbia**  
**2011 Bravura Program**  
**Soil Geochemistry, Copper (ppm)**



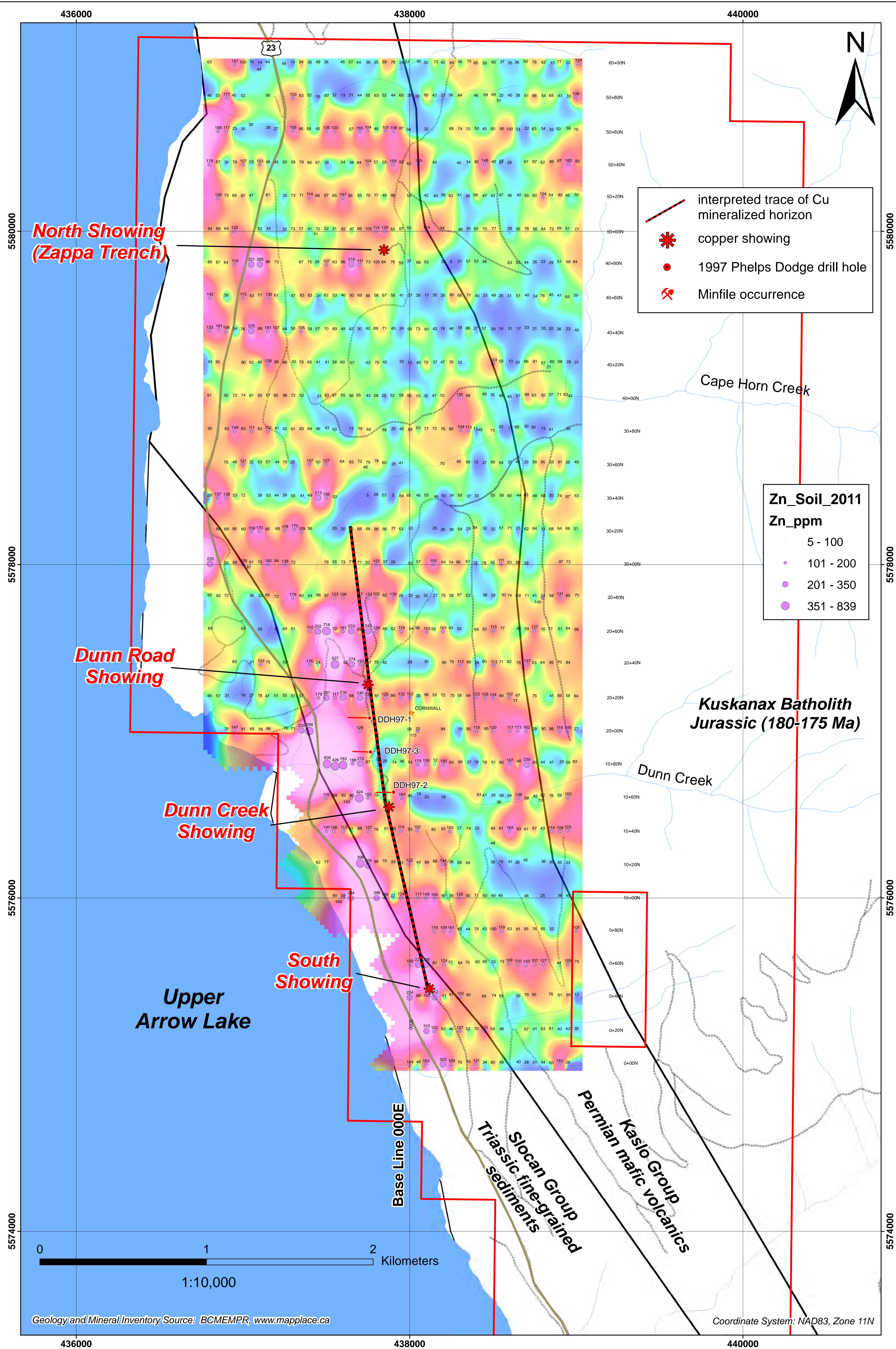
Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia  
2011 Bravura Program  
Soil Geochemistry, Gold (ppb)



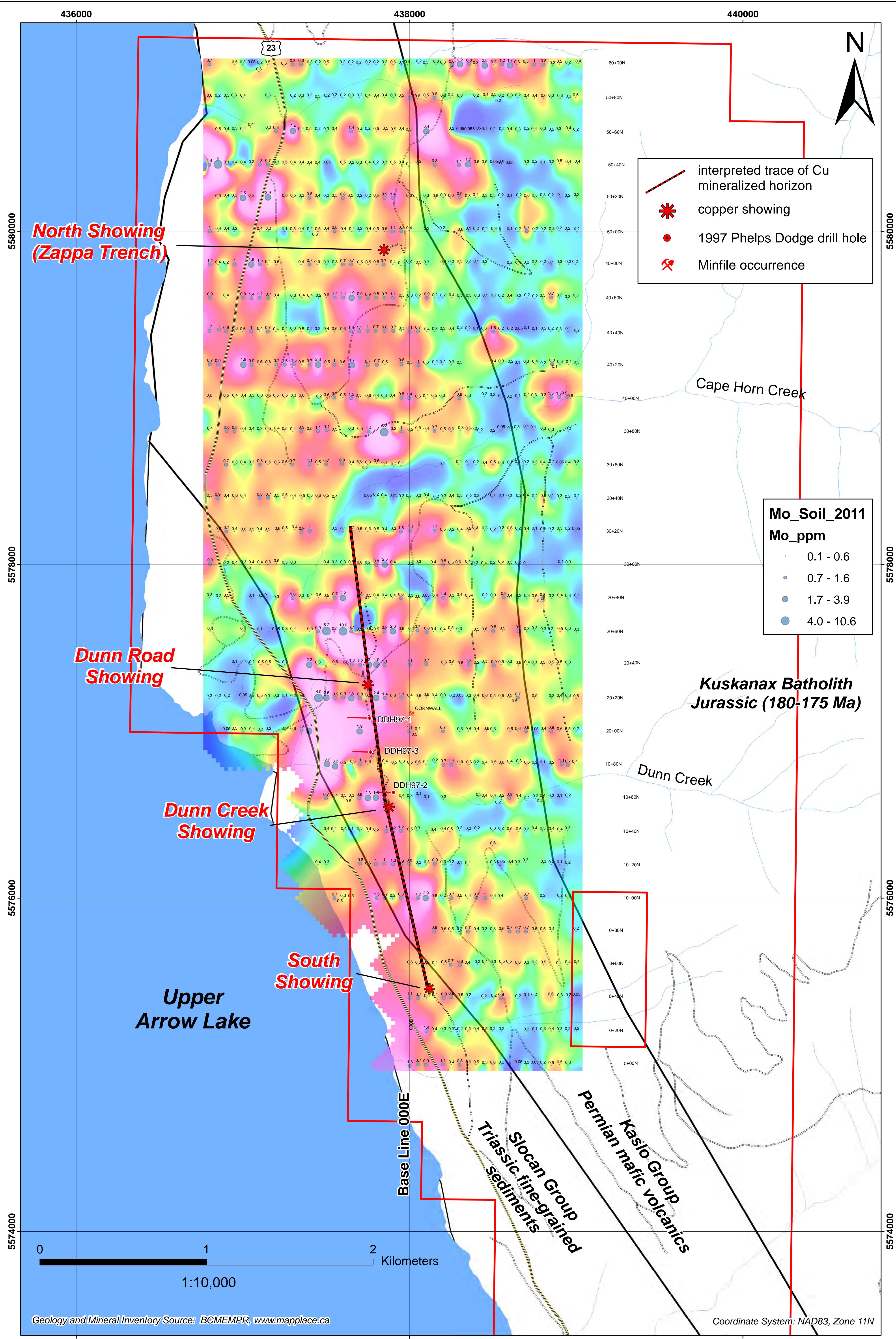
Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia  
2011 Bravura Program  
Soil Geochemistry, Silver (ppm)



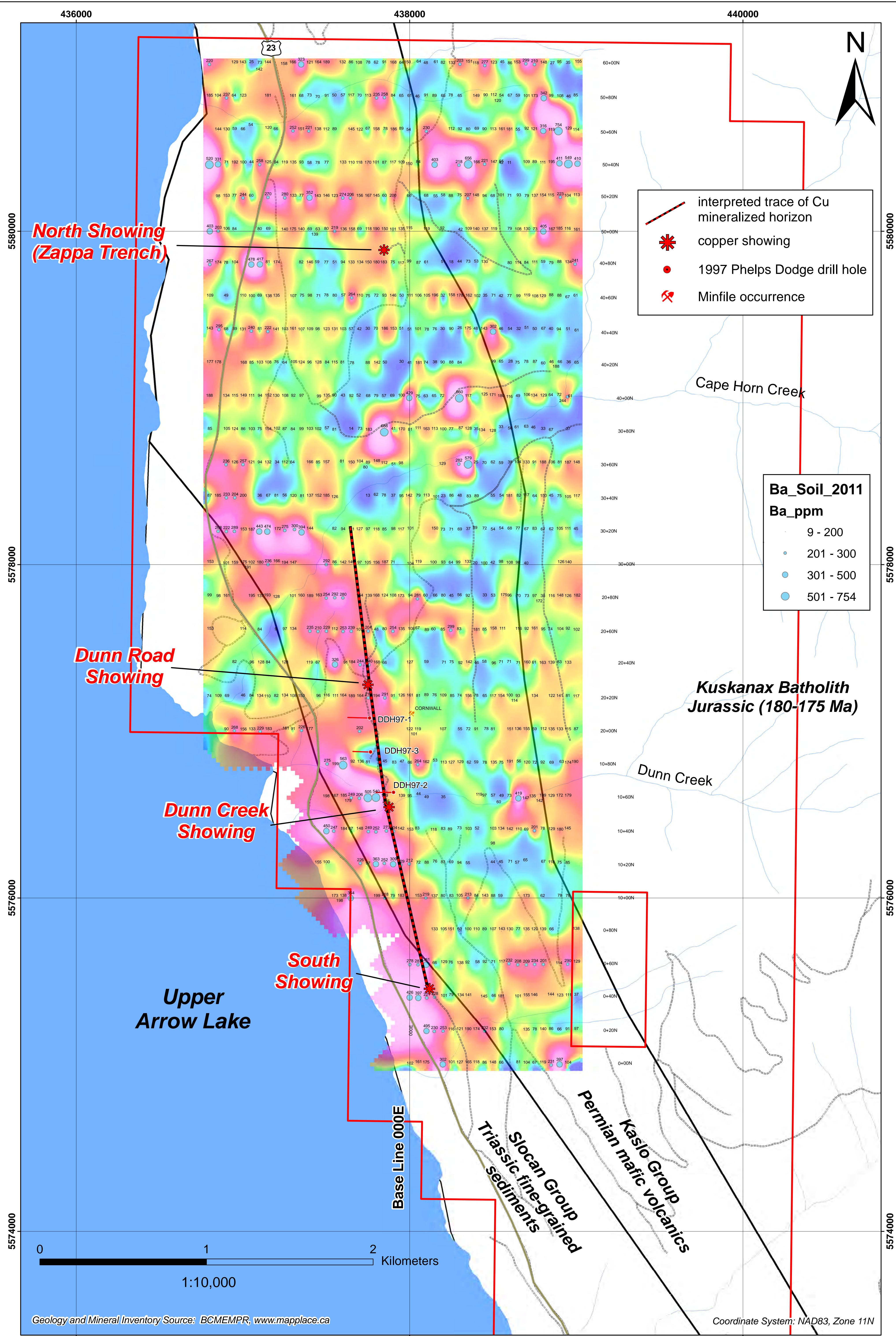
Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia  
2011 Bravura Program  
Soil Geochemistry, Lead (ppm)



Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia  
2011 Bravura Program  
Soil Geochemistry, Zinc (ppm)



Bravura Ventures Corp.  
Greenhorn Property, Slocan Mining Division, British Columbia  
2011 Bravura Program  
Soil Geochemistry, Molybdenum (ppm)



Greenhorn Property, Slocan Mining Division, British Columbia

2011 Bravura Program

Soil Geochemistry, Barium (ppm)

*Bravura Ventures Corp.*

*Technical Assessment Report on the Geochemical and Geophysical Surveys on the  
Greenhorn Property, November 12, 2011*

## **Appendix 4**

**SJ Geophysics Ltd.**

**Greenhorn Geophysical Report**

**LOGISTICS REPORT PREPARED**  
**FOR**  
**BRAVURA VENTURES CORP**

**TIME DOMAIN ELECTROMAGNETIC**  
**AND MAGNETOMETER SURVEY**  
**ON THE**  
**GREENHORN PROPERTY**

NAKUSP, BRITISH COLUMBIA, CANADA  
LATITUDE: 50° 21' N LONGITUDE: 117° 52'  
MINING DIVISION: SLOCAN  
NTS SHEET: 082K05

SURVEY CONDUCTED BY SJ GEOPHYSICS LTD.  
AUGUST 2011

REPORT PREPARED BY  
SJ GEOPHYSICS LTD.  
OCTOBER 2011

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## 1. SURVEY DETAILS

SJ Geophysics Ltd. (SJ Geophysics) was contracted by Max Investments Inc. to acquire various geophysical measurements on their Client's (Bravura Ventures Corp) Greenhorn Property. The following table provides a brief summary of the project.

<b>Client (Property Owner)</b>	Bravura Ventures Corp
<b>Project Name</b>	Greenhorn Property
<b>Location</b>	Grid Location: Latitude: 50° 21' N Longitude: 117° 52' W
<b>Survey Type</b>	Time Domain Electromagnetic (TEM), Magnetometer
<b>Number of Survey Lines</b>	TEM: 26 lines Magnetometer: 26 Cross lines, 1 Base line
<b>Total Line Kilometres</b>	TEM: 30.525 km Magnetics: 35.650 km
<b>Survey Dates</b>	August 9 – August 28, 2011
<b>Objective</b>	SJ Geophysics was contracted to carry out TEM and ground magnetic surveys with the purpose of providing information about the geological target. The target consists of volcanogenic massive sulphides (VMS) deposits and similar mineralization to the strata-controlled Big Ledge Pb/Zn deposit 15 kilometres to the northwest.

Table 1: Survey Details

This logistical report summarizes the operational aspects and methodologies of the geophysical survey. This report does not discuss or interpret the survey results.

## 2. LOCATION AND ACCESS

The Greenhorn project is located in the Slocan Mining Division of British Columbia, Canada (see Figure 1). The closest town to the survey area is Nakusp, which is approximately 11 km southeast of the Greenhorn property.



Figure 1: Overview Map of the Greenhorn Property

The project area can be accessed by driving north out of Nakusp on Highway 23 which intersects the grid approximately 11 km outside of town. To the east of Highway 23 are a couple of forest service roads that provide access to the majority of the grid (Figure 2).

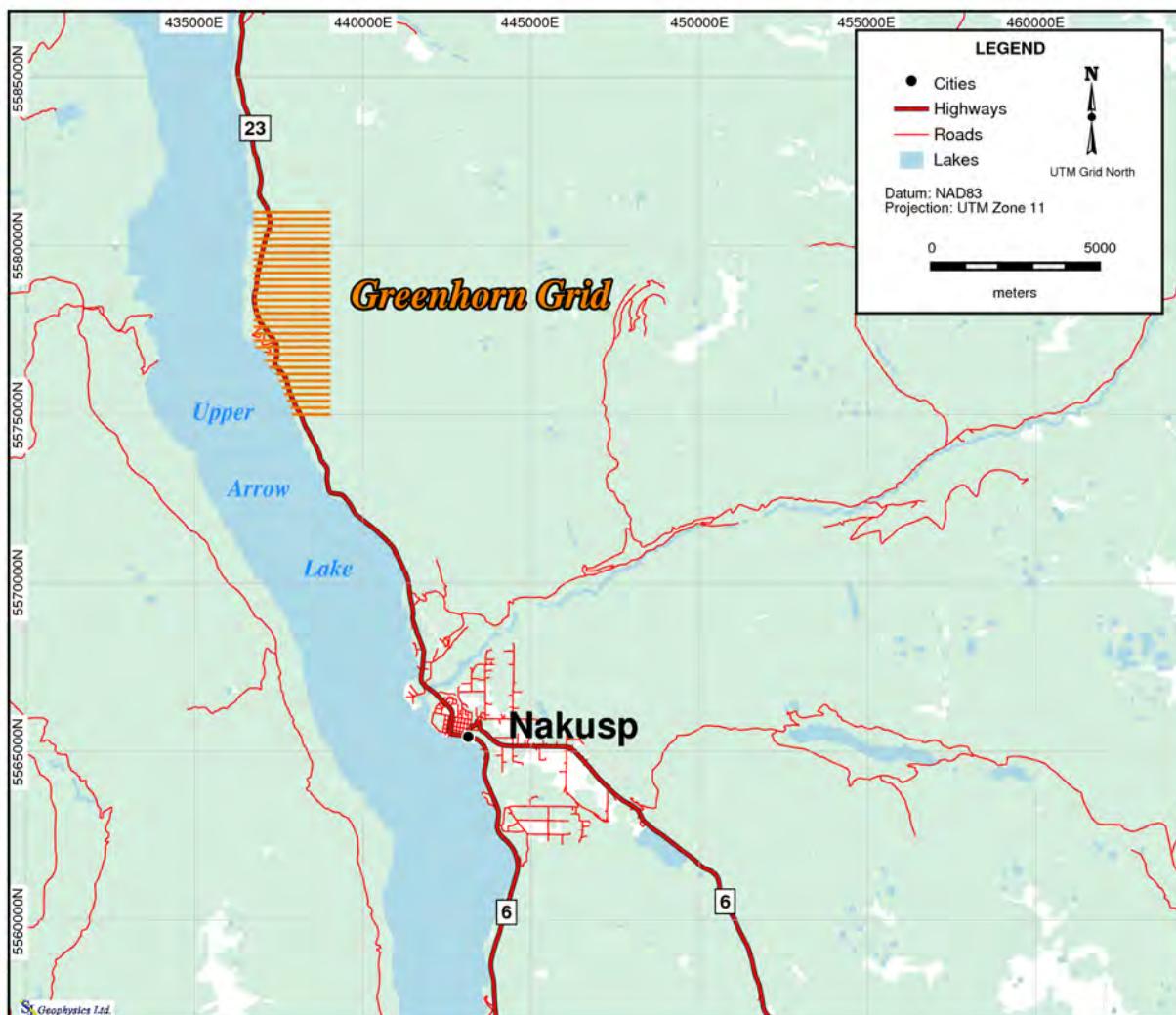


Figure 2: Location Map for the Greenhorn Property.

### 3. GRID INFORMATION

<b>Grid</b>	Greenhorn Property
<b>Number Of Lines</b>	TEM / Magnetometer: 26 cross lines, 1 base line
<b>Survey Line Azimuth</b>	90°
<b>Line Spacing</b>	200 m
<b>Station Spacing</b>	50m
<b>Elevation range</b>	450 – 900 m
<b>Projection/Datum</b> <i>used in geophysical database</i>	UTM NAD 83 Zone 11

Table 2: Grid parameters

The Greenhorn grid consisted of 26 east-west uncut survey lines, spaced 200 m with stations flagged and marked every 50 m (See Figure 3). Line labelling incremented by 200 m starting from 1000N in the south to 6000N in the north. A 5 km north-south base line (0E) was cut and traversed down the eastern edge of north side of the grid and then bisected the southern portion of the grid. Station labelling was based on the survey distance from the base line. From lines 2800N to 6000N, the eastern edge consistently ended at the base line whereas the southern lines extended further east to 400E, with the exception of line 1000N which went out to 600E for just the magnetic survey. The western edge of the grid was defined by lake shore and varied in length from 200 m (200W) to 1200 m (1200W) measured from the base line.

All of the locational information were recorded by the SJ Geophysics' crew, including GPS control points and slope/clinometer data. Control points were recorded with a Garmin GPSMap 60CSx or 62S hand-held GPS and downloaded in the UTM projection and NAD83 datum. Slope data were recorded with a Suunto handheld clinometer.

The grid had a continuous slope to it with some extremely steep parts that needed to be walked around. The survey grid had good road access to the majority of the grid; the grid could be split into three regions (south, central and north) with each region having its own access point from the highway to the west.

The property houses a diverse wildlife population including black bears, deer, cougars, as well as lots of small game. The weather was warm and dry during the survey period. The surrounding vegetation consists of pine and cedar forests, cut blocks and dense shrubs. The terrain was steep with gullies and fast running streams which were difficult to cross on some lines.

For the project period, temperatures at the Greenhorn project ranged from around 6 °C at night and up to 33 °C during the day. Precipitation was minimal (5.2mm) at this time of year so the conditions were dry.

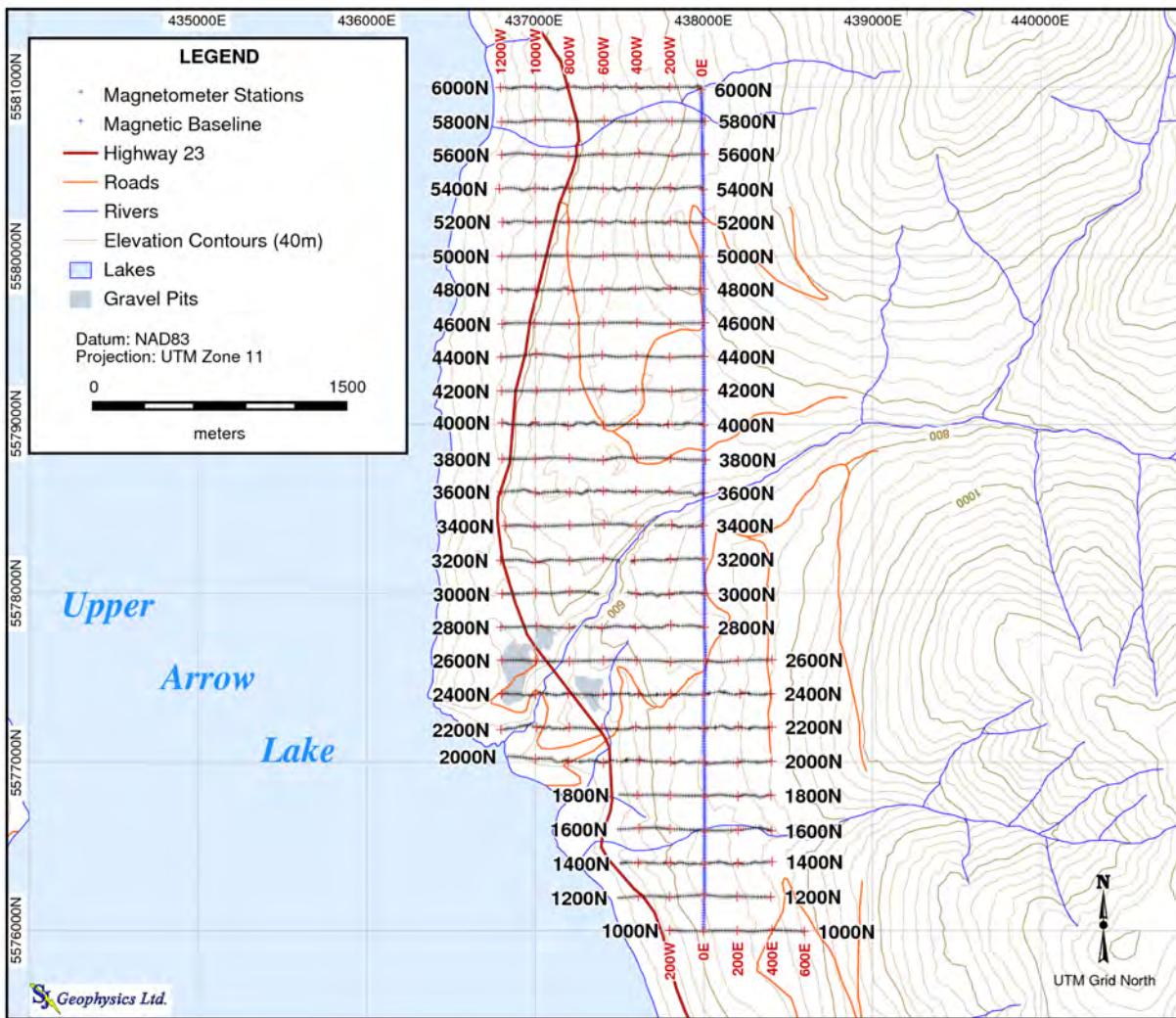


Figure 3: Grid Map

## 4. FIELD WORK AND INSTRUMENTATION

### 4.1. Field Logistics

SJ Geophysics was contracted to acquire various geophysical measurements on the Greenhorn Property. Two techniques were utilized, Time-domain Electromagnetic (TDEM), and ground Magnetics. A single geophysical crew, varying in personnel depending on survey type and time, conducted the survey between August 9<sup>th</sup>, 2001 and August 28<sup>th</sup>, 2001. The lead field geophysicist/technician oversaw all operational aspects including field logistics, data acquisition and initial field data quality control. The table below summarizes the crew personnel and the days they were on the project site.

<b>Crew Member Name</b>	<b>Role</b>	<b>Dates on Survey Site</b>
Alex Visser	Geophysical Technician	August 9 – August 25
Ashley Bezembinder	Geophysical Technician	August 9 – August 28
Conrad Hess	Field Technician	August 18 – August 28
Kieran Kootchin	Field Technician	August 15 - August 25
Alex Fachler	Field Technician	August 15 – August 25
Nicholas Chalykoff	Helper	August 9 – August 25
Pearce Luck	Helper	August 9 – August 14

Table 3: SJ Geophysics' crew details

The SJ Geophysics crew arrived in Nakusp on the evening of August 8<sup>th</sup>, 2011 where they were accommodated at a hotel in Nakusp. After an initial site specific safety talk the next morning, the crew laid out the first loop (Loop 2) and acquired a few test readings. An Universal Receiver Electromagnetic (UREM) System was utilized for the survey. The UREM survey carried out on the Greenhorn property used four 14-gauge copper wire loops to energize the underground conductors and two UR-III receivers associated with B-field coil sensors to measure and record the ground response. The transmitter signal was monitored by a CM-II current monitor coupled to a UR-III receiver to record the signal going through the loop wire throughout the day.

TEM acquisition started with lines 2800N to 3600N being acquired with Loop2. The crew then progressed south to Loop 1 where lines 1000N to 2600N were acquired. After Loop 1, the crew moved north to acquire lines 3800N to 4800N with Loop 3. Finally, the crew surveyed the final lines, 5000N to 6000N, with Loop 4.

The TEM survey encountered logistical issues such as line breaks in the loops caused by the local wildlife, steep gullies that were difficult to navigate and a couple days were shortened due to thunderstorms rolling through the region. One valley was particularly difficult as it could not be traversed between lines 2600N to 3400N. While surveying this section, one operator would record data east of the ravine while a second operator recorded data west of the ravine, leaving a small gap that went unsurveyed along the ravine. With no cut lines to follow, steep terrain and significant windfall in the region, traversing the lines was slow and locating the stations was very difficult. In some cases, stations could not be located and these were estimated by the crew member. GPS control points were taken at these stations. Given the circumstances the survey progressed smoothly; however, the uncut lines and poorly demarcated stations caused confusion when gathering locational information. The problems with the locations added significant time when processing the data on the back end.

While the geophysical technicians were acquiring their TEM readings, some of the other crew members were either laying out the next loop in advance, or picking up wire from the previous loops. In addition, magnetic readings were acquired during periods of inactivity in the TEM survey. After the TEM survey was complete, two crew members remained behind to conclude the magnetic survey. For the Magnetometer survey a stationary base unit was used to record the diurnal variation in the total magnetic field at 3 second intervals. The mobile units, known as rovers, recorded the total magnetic field every 12.5m along the grid survey lines. Calibration measurements were taken by the rover units at the start and end of each day to account for levelling errors between instruments and operators. Unfortunately, one of the magnetometers had some technical issues; therefore, the base station was used as a rover for the last two days of magnetic surveying. The crew acquired data along the base line to allow for levelling of the data in the absence of the base station.

## 4.2. Survey Parameters and Instrumentation

The geophysical instrumentation used to acquire the time-domain electromagnetic data consisted of a UR-III receiver, Current Monitor (CM-II) and an EM signal transmitter. To acquire the magnetic survey data, GEM GSM 19 Overhauser magnetometers were used. The specifications of these instruments are listed in Appendix A and the equipment parameters are summarized in Table 4.

<b>TEM Transmitter</b>	Neodyne Signal EM Transmitter
Frequency	30.971 (30.970 – 30.974 effective)
Duty cycle	100%
Waveform	Square
<b>TEM Current Monitor</b>	Current Monitor (CM-II)
<b>TEM Receiver</b>	Universal Receiver III (UR-III)
Coil	Zonge (Serial #0923,1123,1223,2123,1723, 1823)
Survey Interval	25 m
Properties Calculated	Magnetic Field, Conductivity
<b>Magnetometer</b>	GEM GSM 19 Overhauser Magnetometer
Station Spacing	12.5 m
Base Unit Reading Interval	3 seconds
Measured Property	Total magnetic field
<b>GPS</b>	
Average Accuracy	10 m
Datum / Projection	NAD83 UTM Zone 11

Table 4: Instrument parameters

## 5. GEOPHYSICAL TECHNIQUES

### 5.1 Time Domain EM method

The time domain EM technique energizes the ground with a variable magnetic field known as the primary field. A transmitter sends an alternating current through a square loop of electrical wire laid on the ground to create the primary field (Figure 4). Each time a variation occurs in the current (e.g. succession of on-time/off-time) and therefore in the primary field, induced currents will flow within underground conductors beneath the loop. These currents flowing in circles within the conductor will then create a secondary magnetic field while decaying with time. The magnitude and rate of decay of those eddy currents depend on the electrical conductivity and on the geometry of the medium. The secondary field contains therefore the same information.

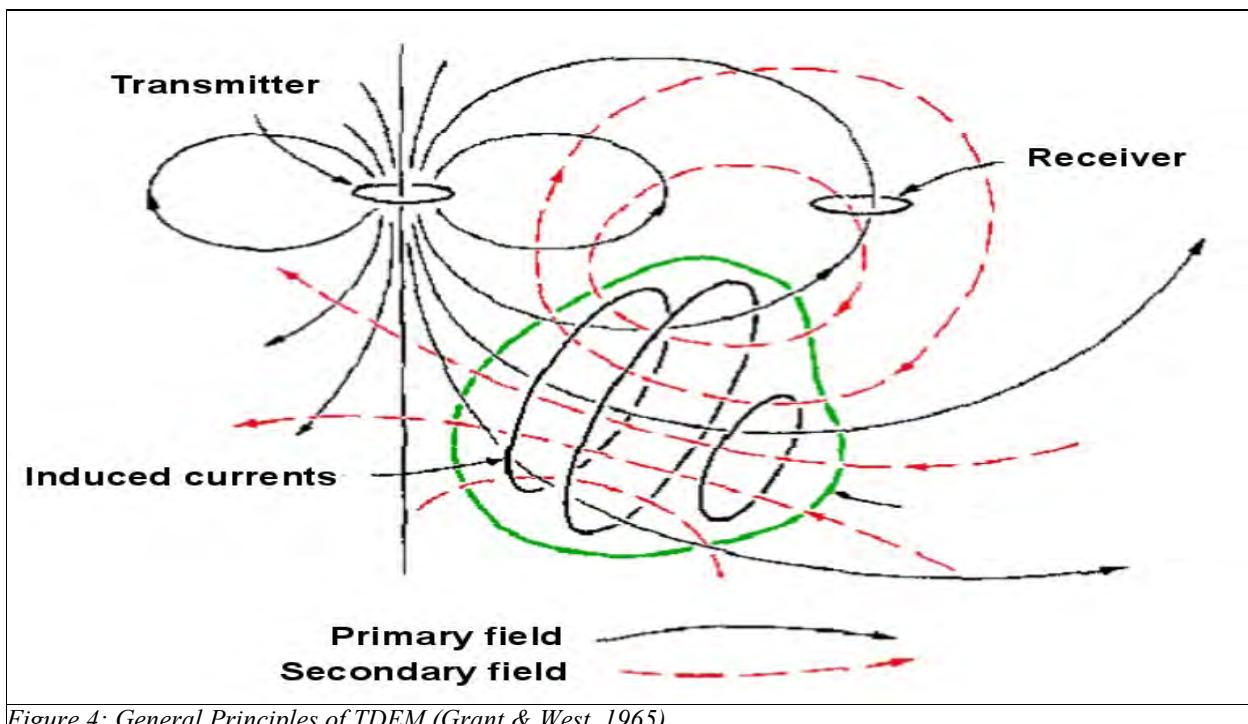


Figure 4: General Principles of TDEM (Grant & West, 1965)

In resistive media the currents will decay very rapidly. In conductive media the currents will decay more slowly. An appropriate sensor will then measure the total magnetic field, combination of both primary and secondary magnetic fields, on the surface. The information carried by the secondary magnetic field will be extracted during a processing stage using

filtering, modeling and normalizations.

TDEM measurements are generally considered repeatable. However, changing field conditions, such as variable water content, reduce the overall repeatability. Incorporating other data sets to assist in interpretation is prudent from a geological perspective.

### **5.2 UREM method**

A square loop is laid on the ground and connected to a transmitter generating a square waveform current of desired amplitude and frequency (e.g. 30 Hz for a classic survey with one loop). The transmitted signal can be monitored and recorded during the day to prevent any processing problems due to a drift in the signal. A sensitive B-field sensor is connected to a receiver (UR-III) in order to measure the total magnetic field on the surface. Measurements are taken along survey lines which can be outside, inside or crossing the loop. Moreover, two different loops using two different frequencies can stimulate the ground at the same time and the secondary field related to each of them will be isolated at the processing stage. Every surveying day calibration readings are taken for each loop in order to estimate the primary field they are generating.

UREM quality control may be performed during the survey and at the end of each day using the *EMSPProject* software. Recorded signals, calibration readings as well as filters applied on the data can be checked to ensure the highest data quality.

### **5.3 Magnetic Survey Method**

Magnetic intensity measurements are taken along survey traverses (normally on a regular grid) and are used to identify metallic mineralization related to magnetic materials in the ground (e.g., magnetite and/or pyrrhotite). Magnetic data are also used as a mapping tool to distinguish rock types and to identify faults, bedding, structure and alteration zones. Line and station intervals are usually determined by the size and depth of the exploration targets.

The magnetic field has both an amplitude and a direction and our instrumentation measures both components. The most common technique used in mineral exploration is to measure just the amplitude component using an overhauser magnetometer. The instrument digitally records the survey line, station, total magnetic field and time of day at each station. After each day of surveying, data are downloaded to a computer for archiving and further processing.

The earth's magnetic field is continually changing (diurnal variations) so field measurements are calibrated to these variations. The most accurate technique is to establish a stationary base station magnetometer to continually monitor and record the magnetic field over the course of a day. The base station and field magnetometers are synchronized on the basis of time and computer software is used to correct the field data for the diurnal variations.

## 6. DATA PROCESSING

### 6.1. Acquisition and Quality Assurance Measures

The UREM and location field data were dumped and archived to field laptops every evening. All software ran on laptops using Windows XP brought by the crew members. Locations were generated for all survey stations based on slopes and GPS locations using internal software developed by S.J.V. Consultants Ltd.

The proprietary software package *EMSPProject* was used to review and process the waveforms. Here the users are able to adjust the base frequency of the transmitted square waveform to reduce the amount of error propagating into further processing stages (Figure 5). Using EMSPProject, duplicate readings and questionable sections in readings were also removed from the receiver waveforms. The waveforms were processed using the calibration readings noted in the previous section. (This program performs similar calculations as are performed internally in many commercial EM receivers.) EMSPProject produced an output TEM file for each component on each line.

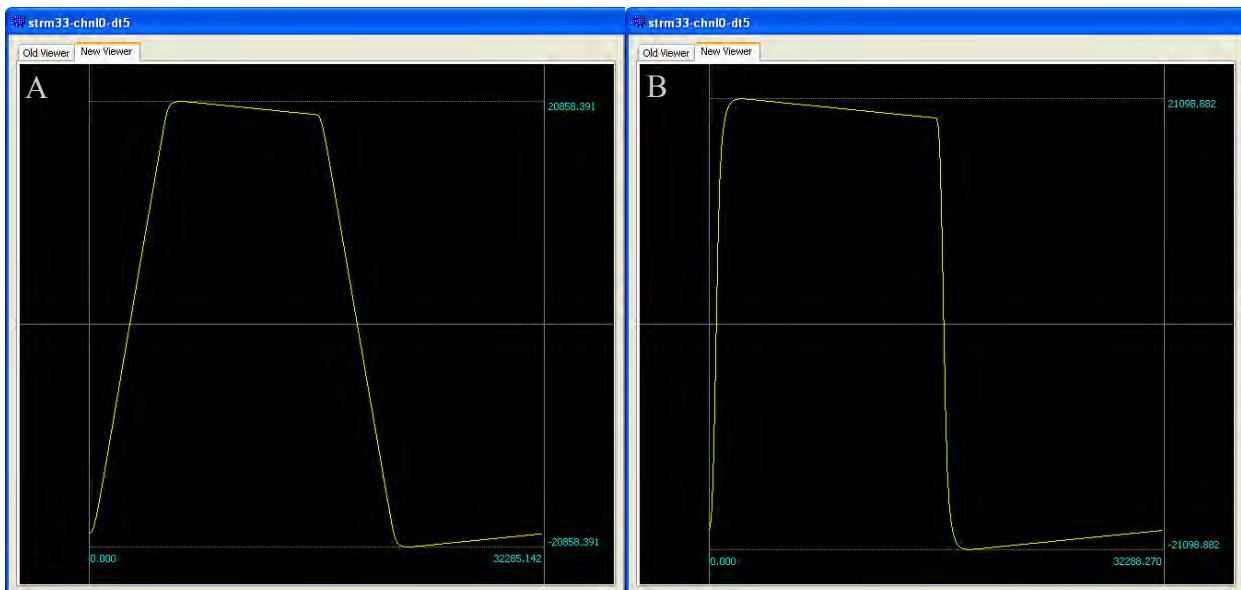


Figure 5: Example of a poorly calibrated base frequency (A) and a properly calibrated base frequency (B)

In the TEM file, the stacked signal was sampled onto 14 logarithmic time channels where the width of the time channels increases by the square root of 2; the exact time windows are listed in Appendix C. The labelling of the channels follows the UTEM convention so CH1 (channel 1) is the latest time window and CH14 (channel 14) is the earliest time window. The TEM files were normalized by the gain and current settings and all channels other than CH1 are reduced by CH1. Otherwise, the data is considered in a raw form without any primary field reduction.

The TEM files were reviewed for proper coil filter selection and data quality using an internal software package called *TEMplot* (Figure 6). Questionable readings were removed from the TEM file based on this review. Field results were emailed to the S.J.V. Consultants Ltd. office in Delta for review and final processing. After the data were reviewed in the office, the final processing step generated TEM files in the following three formats :

1. “Raw” (units of nT/A): Time channels other than CH1 are reduced by CH1.
2. “HtNorm” (units of %): CH1 normalized by HTOTAL and reduced by HVEC3 (Z-component), CH2 – CH14 normalized by HTOTAL and reduced by CH1.
3. “CnstNorm” (units of %): CH1 normalized by a constant and reduced by HVEC3; CH2 – CH14 normalized by a constant and reduced by CH1.

For formats 2 and 3, HTOTAL, HVEC1 and HVEC3 are all theoretical values calculated based on the loop geometry, survey station location and the current. The constant noted in format 3 is usually chosen as the CH1 value at the cross-over point of any anomaly present on the line.

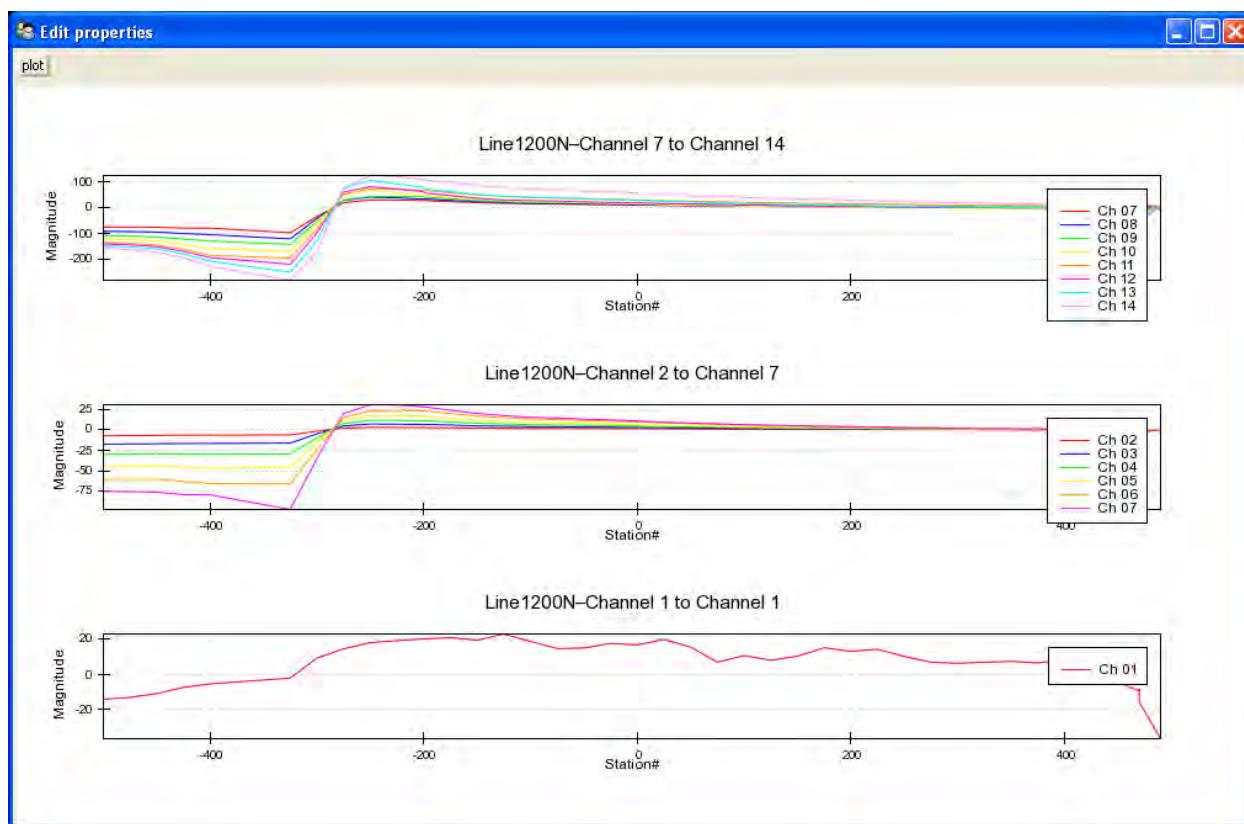


Figure 6: TEMplot software showing the magnitude of response (%Htot) for each time window along line 1200N

Respectfully submitted,  
per SJ Geophysics Ltd.

***APPENDIX A: INSTRUMENT SPECIFICATIONS******Neodyne Signal EM Transmitter***

<b>General</b>	
Weight:	12lbs
<b>Input</b>	
Voltage:	12 Volts DC
<b>Output</b>	
Voltage:	30 to 320 volts, peak to peak
Current:	Up to 30 amps, peak to peak
Power:	Max 1200W
Waveform:	Square 50% or 100% duty cycle
Base Freq.	1Hz to 120Hz, adjustable in 0.01Hz

***UR-III receiver***

Batteries	Li Po 6500 mAh
Frequency range:	3.6 kW maximum
Reading length	Adjustable
Signal Gain	1 to 1024
Operating temp. range:	-40° to +65° C
Display:	Digital LCD
Dimensions (h w d):	34 x 21 x 39 cm
Weight:	4 kg

***ZONGE ANT23 MAGNETIC ANTENNA***

Frequency range: 1 Hz to 10,000 Hz  
 Sensitivity in passband: 100 mV/nT  
 Noise level: 12 pT per  $\sqrt{\text{Hz}}$  at 1 Hz

**GEM GSM 19 Overhauser Magnetometer**

Resolution:	0.01 nT, magnetic field and gradient.
Accuracy:	0.2 nT over operating range.
Gradient Tolerance:	up to 5000 nT/metre.
Operating Interval:	4 seconds minimum, faster optional.
Reading:	Initiated by keyboard depression, external trigger or carriage return via RS-232C.
Input/Output:	6 Pin weatherproof connector, RS-232C, and optional analog output
Power Requirements:	12v 300 mA peak(during polarization), 35 mA standby, 600 mA peak in gradiometer
Power Source:	Internal 12v, 1.9ah sealed lead-acid battery standard, other optional External 12v power source can be used.
Battery Charger:	Input: 110/220 VAC, 50/60 Hz and/or 12VDC. Output: 12v dual level charging.
Operating Ranges Temperature:	-40o C to +600 C
Battery Voltage:	10v min. to 15v max.
<b>Dimensions:</b>	
Console:	223 x 69 x 240 mm.
Sensor staff:	4 x 450 mm sections.
Sensor:	170 x 71 mm diameter.
<b>Weights:</b>	
Console:	2.1 kg
Staff:	0.9 kg.
Sensor:	1.1 kg each.

**APPENDIX B: SURVEY SUMMARY TABLE****TDEM**


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<b>Loop</b>	<b>Line</b>	<b>Type</b>	<b>Start Station</b>	<b>End Station</b>	<b>Survey Length (m)</b>
1	1000N	UREM	425	-200	625
1	1200N	UREM	400	-500	900
1	1400N	UREM	400	-500	900
1	1600N	UREM	400	-500	900
1	1800N	UREM	400	-500	900
1	2000N	UREM	400	-1150	1550
1	2200N	UREM	400	-1200	1600
1	2400N	UREM	375	-1200	1575
1	2600N	UREM	400	-750	1150
1	2600N	UREM	-900	-1200	300
2	2800N	UREM	100	-700	800
2	2800N	UREM	-800	-1200	400
2	3000N	UREM	0	-550	550
2	3000N	UREM	-625	-1200	575
2	3200N	UREM	0	-450	450
2	3200N	UREM	-600	-1200	600
2	3400N	UREM	0	-275	275
2	3400N	UREM	-425	-1200	775
3	3600N	UREM	0	-1200	1200
3	3800N	UREM	0	-1200	1200
3	4000N	UREM	0	-1200	1200
3	4200N	UREM	0	-1200	1200
3	4400N	UREM	0	-1200	1200

---

<b>Loop</b>	<b>Line</b>	<b>Type</b>	<b>Start Station</b>	<b>End Station</b>	<b>Survey Length (m)</b>
3	4600N	UREM	0	-1200	1200
3	4800N	UREM	0	-1200	1200
4	5000N	UREM	0	-1200	1200
4	5200N	UREM	0	-1200	1200
4	5400N	UREM	0	-1200	1200
4	5600N	UREM	0	-1200	1200
4	5800N	UREM	0	-1200	1200
4	6000N	UREM	0	-1200	1200

Total Linear Metres = 30425

### **Magnetometer**

<b>Line</b>	<b>Series</b>	<b>Type</b>	<b>Start Station</b>	<b>End Station</b>	<b>Survey Length (m)</b>
1000	N	MAG	600	-200	800
1200	N	MAG	400	-500	900
1400	N	MAG	400	-500	900
1600	N	MAG	400	-500	900
1800	N	MAG	400	-500	900
2000	N	MAG	400	-1162.5	1562.5
2200	N	MAG	400	-1200	1600
2400	N	MAG	400	-1200	1600
2600	N	MAG	400	-925	1325
2600	N	MAG	-950	-1200	250
2800	N	MAG	0	-700	700
2800	N	MAG	-762.5	-1200	437.5
3000	N	MAG	0	-450	450

<b>Line</b>	<b>Series</b>	<b>Type</b>	<b>Start Station</b>	<b>End Station</b>	<b>Survey Length (m)</b>
3000	N	MAG	-625	-1200	575
3200	N	MAG	0	-425	425
3200	N	MAG	-500	-1200	700
3400	N	MAG	0	-287.5	287.5
3400	N	MAG	-362.5	-1200	837.5
3600	N	MAG	0	-1200	1200
3800	N	MAG	0	-1200	1200
4000	N	MAG	0	-1200	1200
4200	N	MAG	0	-1200	1200
4400	N	MAG	0	-1200	1200
4600	N	MAG	0	-1200	1200
4800	N	MAG	0	-1200	1200
5000	N	MAG	0	-1200	1200
5200	N	MAG	0	-1200	1200
5400	N	MAG	0	-1200	1200
5600	N	MAG	0	-1200	1200
5800	N	MAG	0	-1200	1200
6000	N	MAG	0	-1200	1200
0	E	MAG	1000	6000	5000

Total Linear Metres = 35750

***APPENDIX C: UREM TIME WINDOWS***

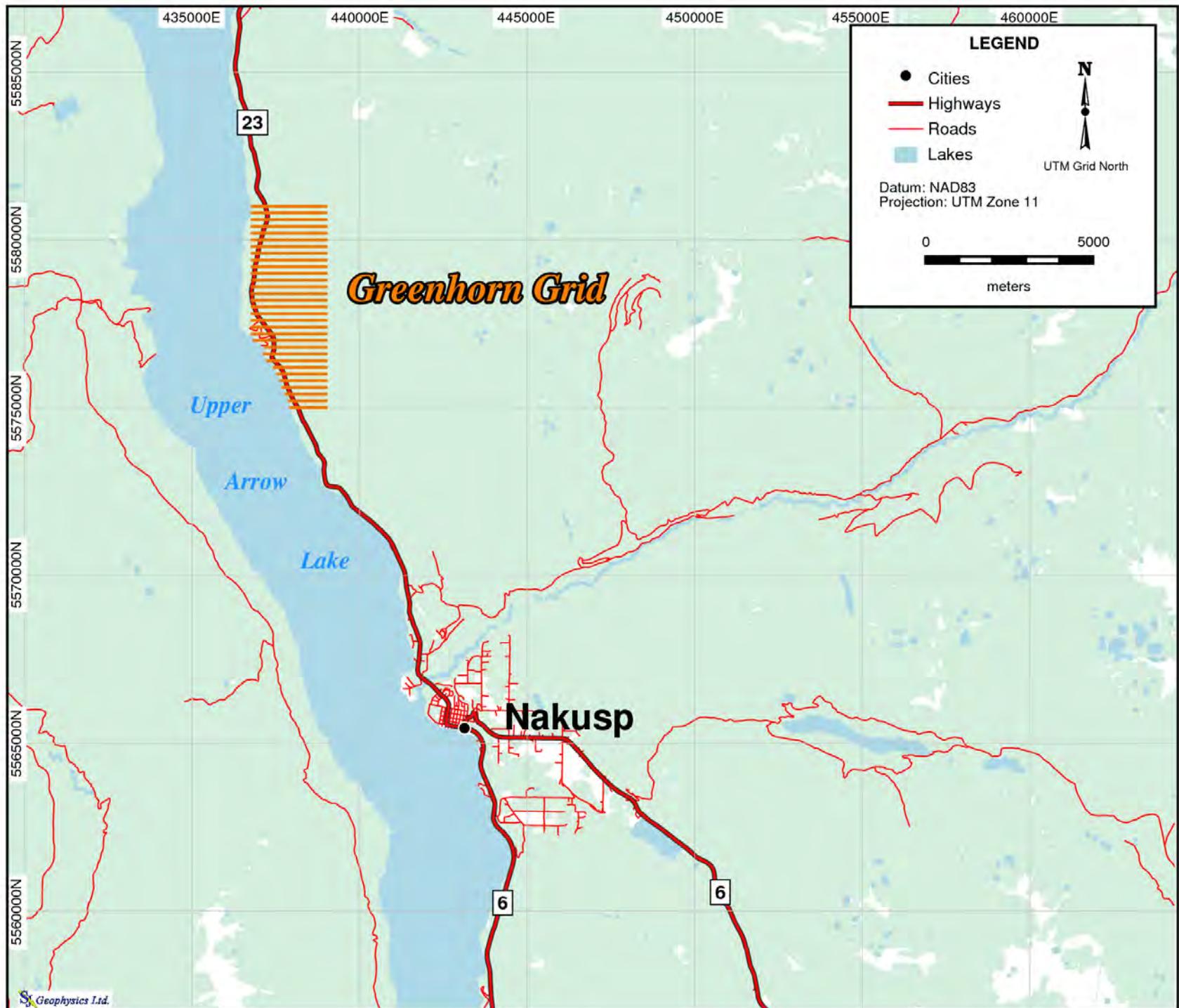
Channel	Start time(s)	End time(s)
1	11.42	14.96
2	8.07	11.42
3	5.71	8.07
4	4.04	5.71
5	2.85	4.04
6	2.02	2.85
7	1.43	2.02
8	1.01	1.43
9	0.71	1.01
10	0.5	0.71
11	0.36	0.5
12	0.25	0.36
13	0.18	0.25
14	0.13	0.18

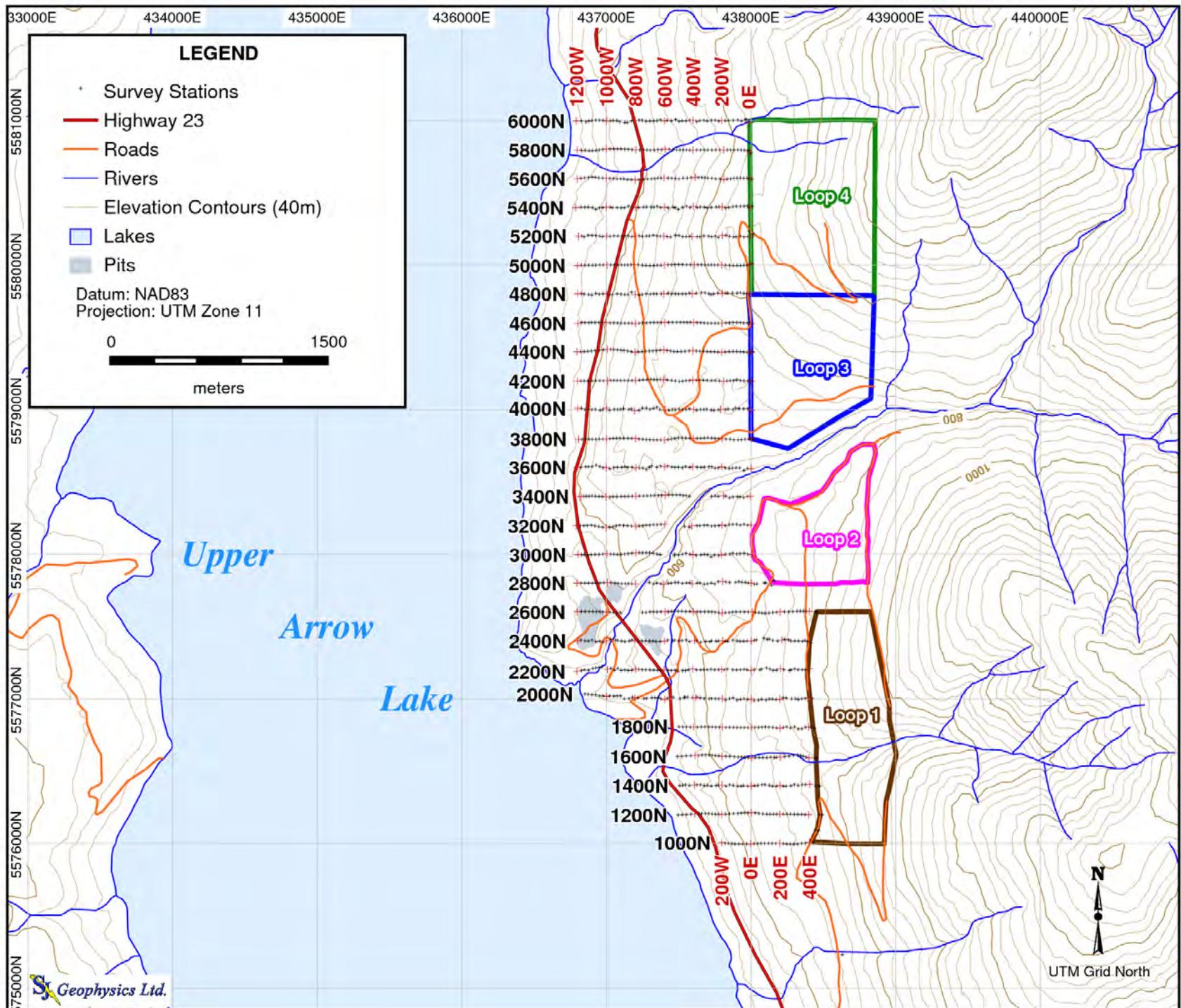
## **Appendix 5**

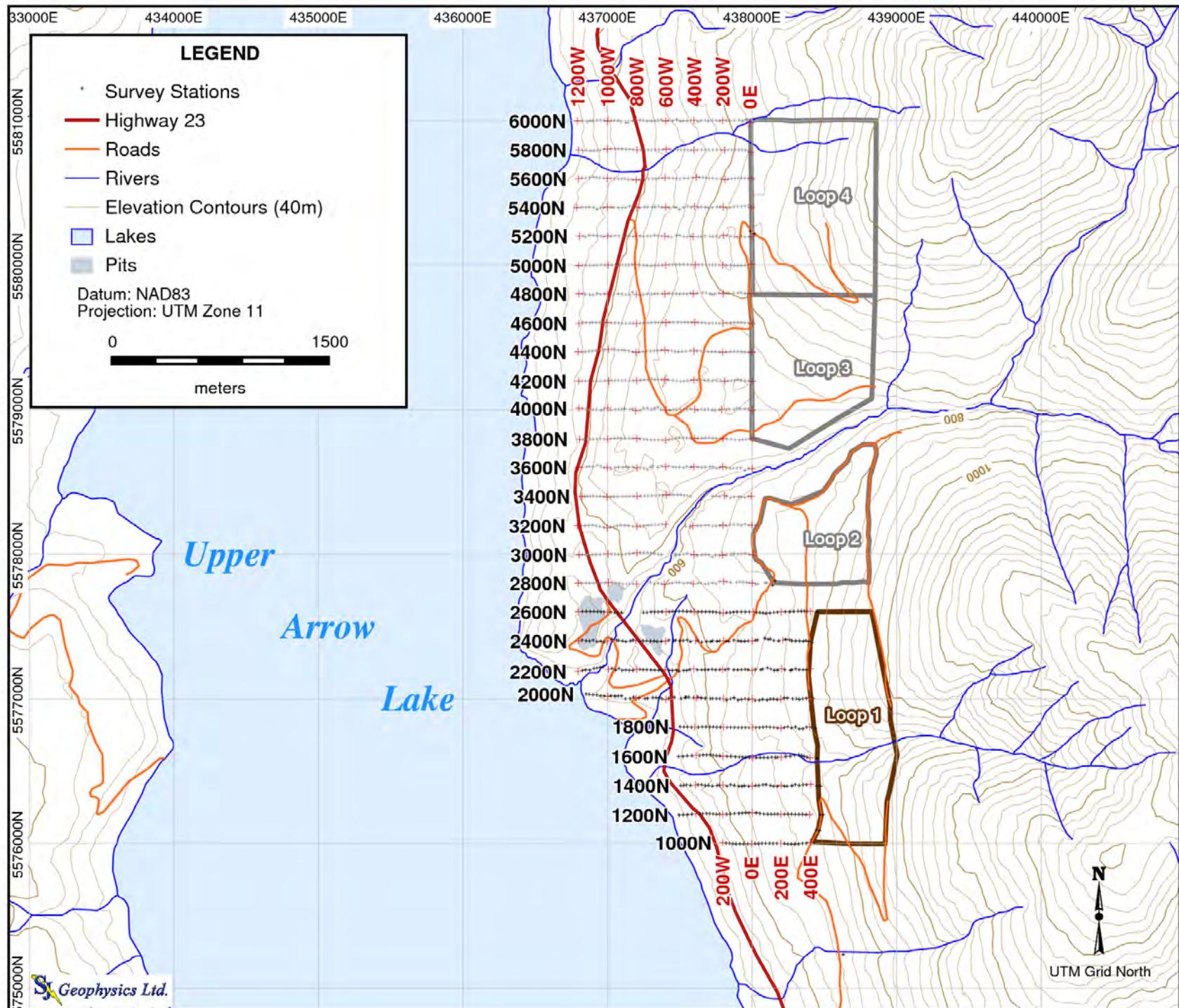
### **SJ Geophysics Ltd.**

#### **TEM Profiles**

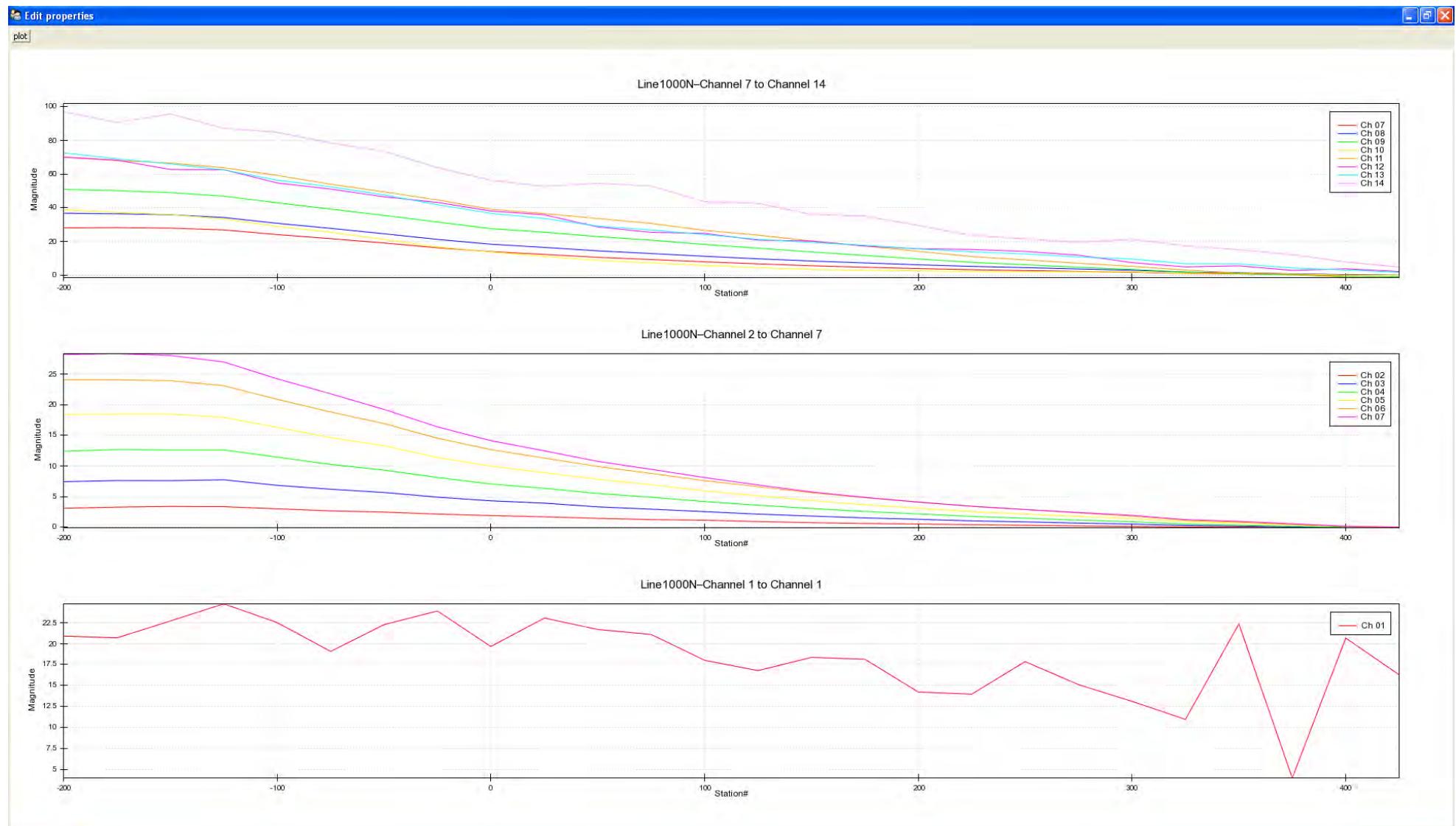






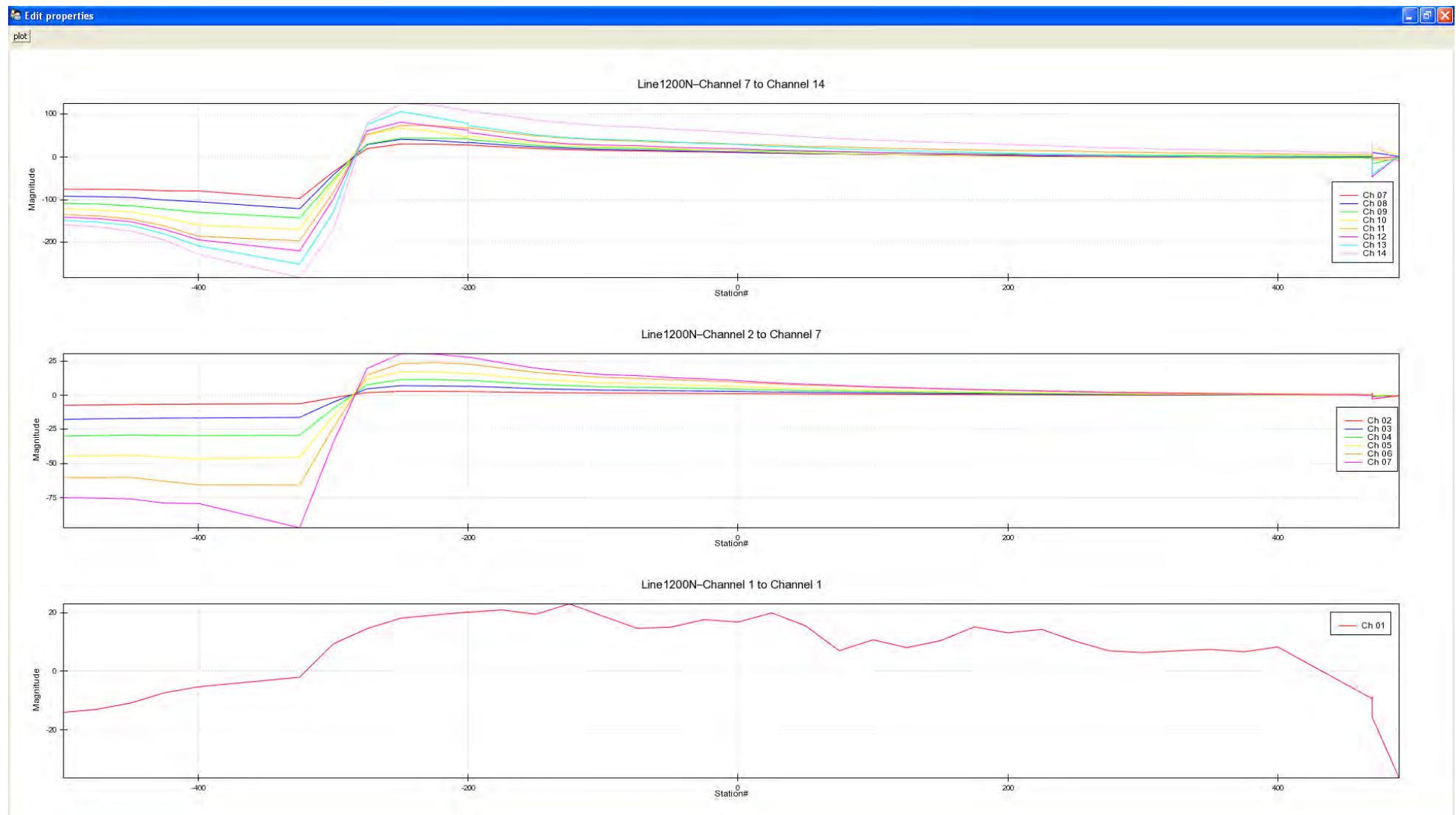


**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 1000N**  
**UREM Plots**



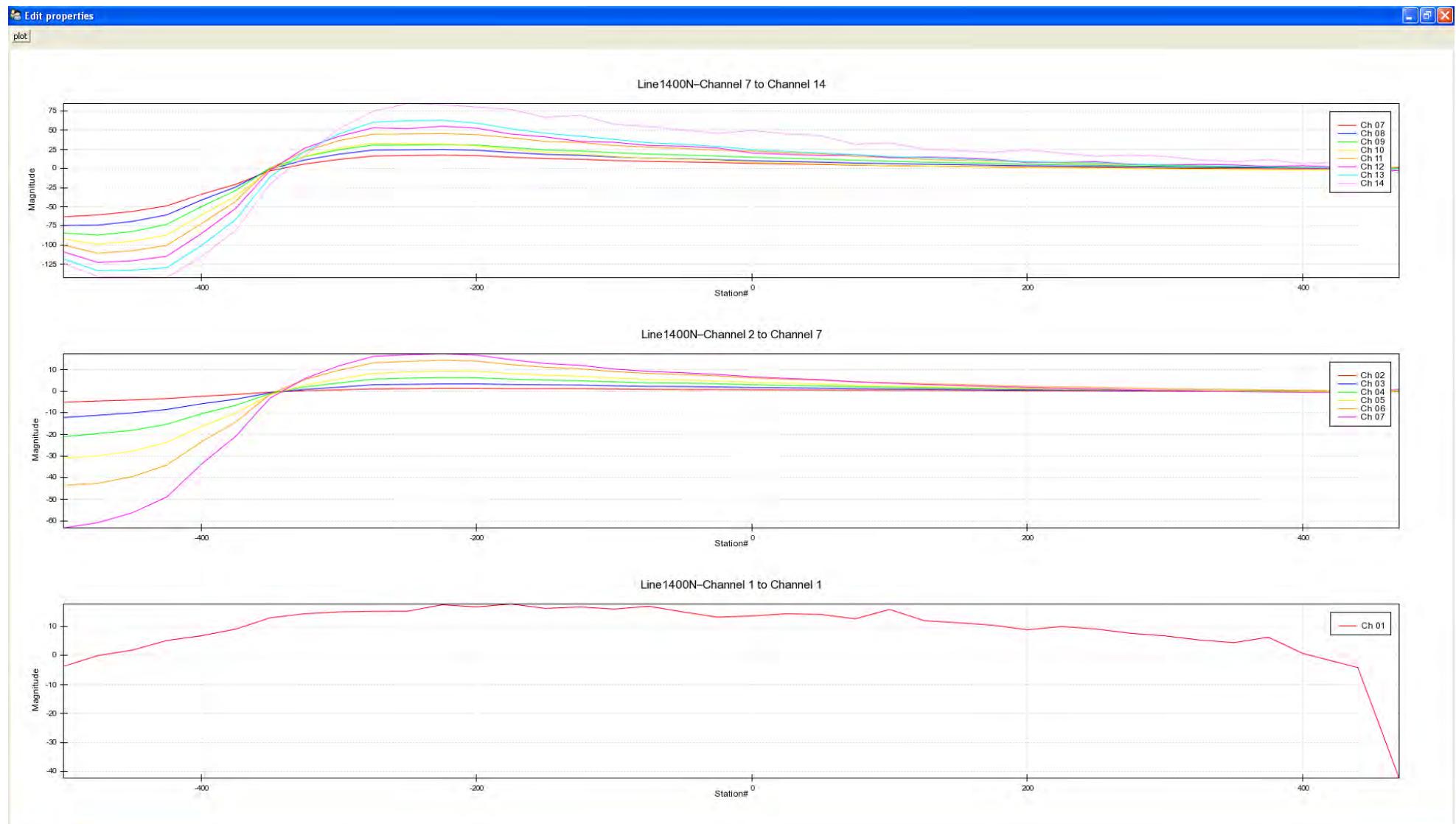
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- Reduction Term: Ch1
- Multiplication : -100
- Survey Date: August 13<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 1200N**  
**UREM Plots**



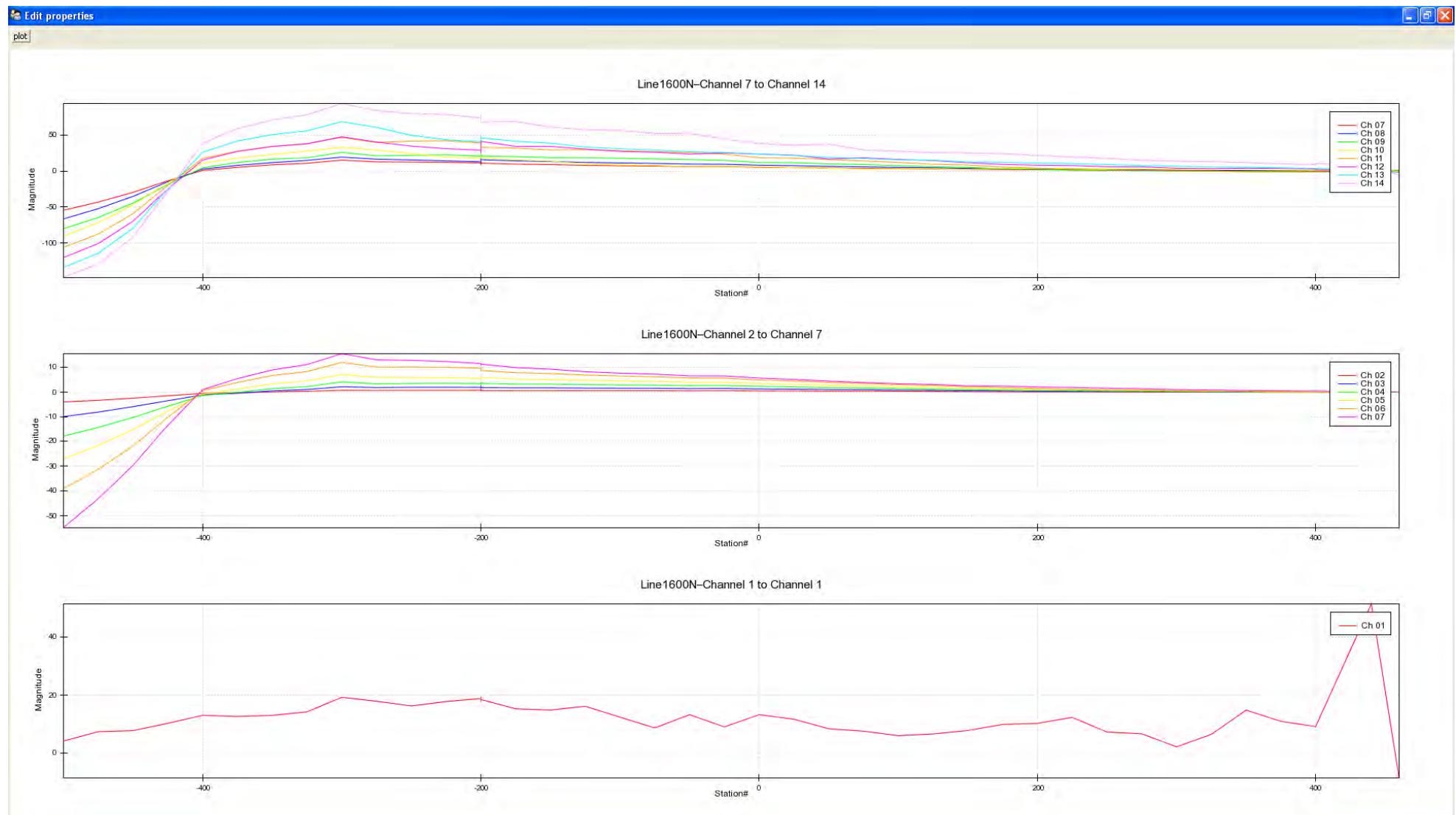
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 14<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 1400N**  
**UREM Plots**



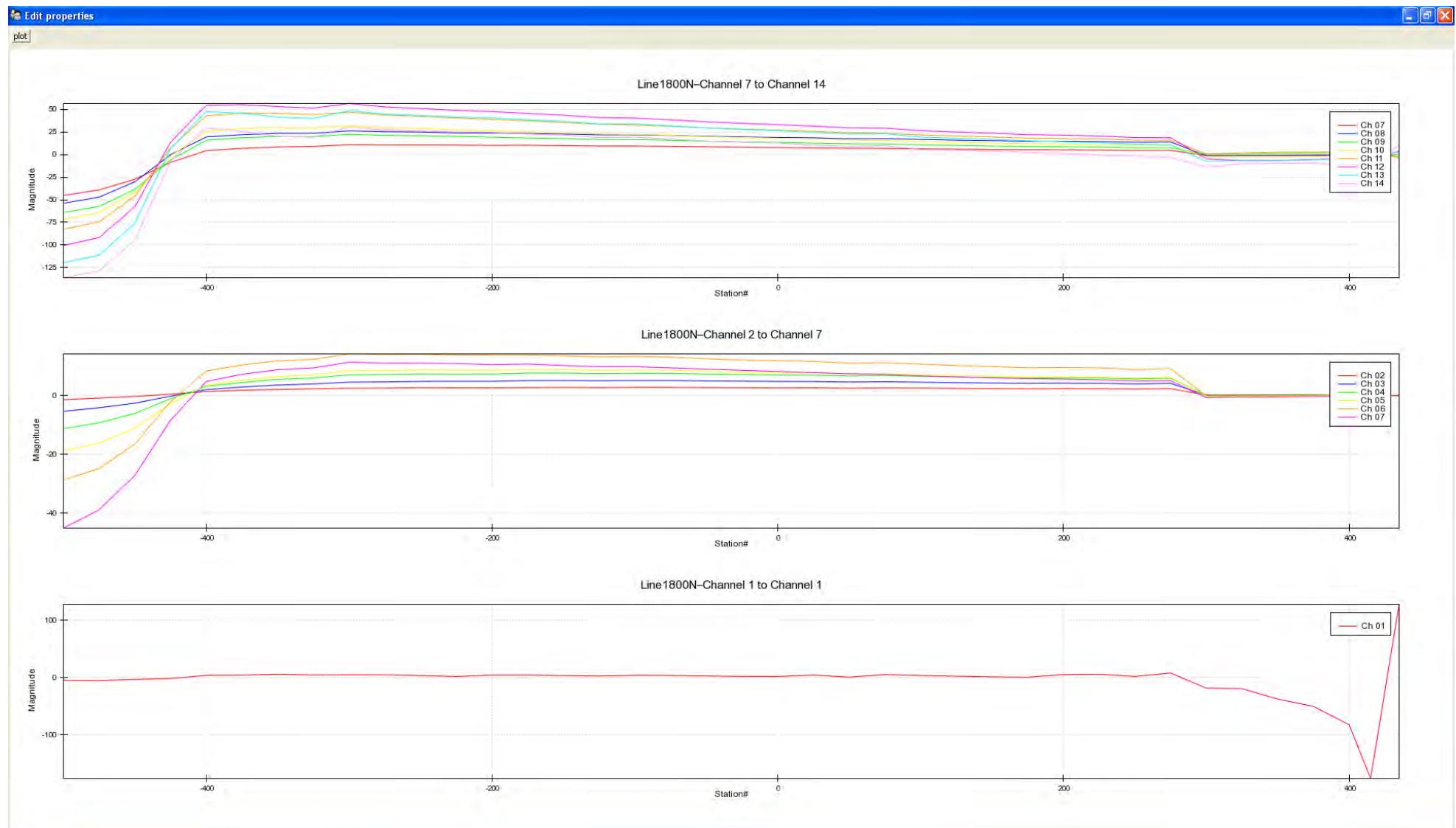
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 13<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 1600N**  
**UREM Plots**



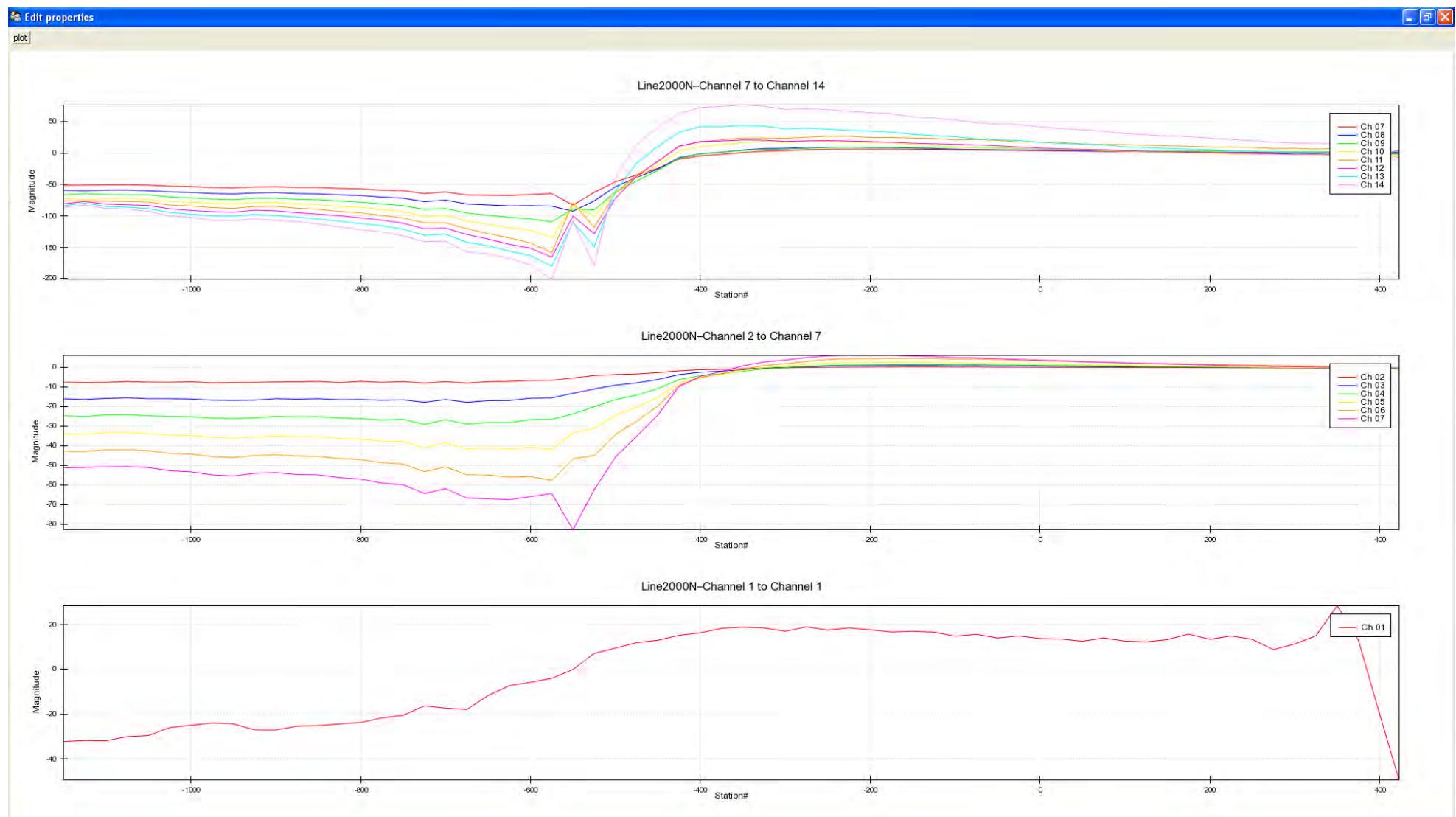
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 14<sup>th</sup> - 16<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 1800N**  
**UREM Plots**



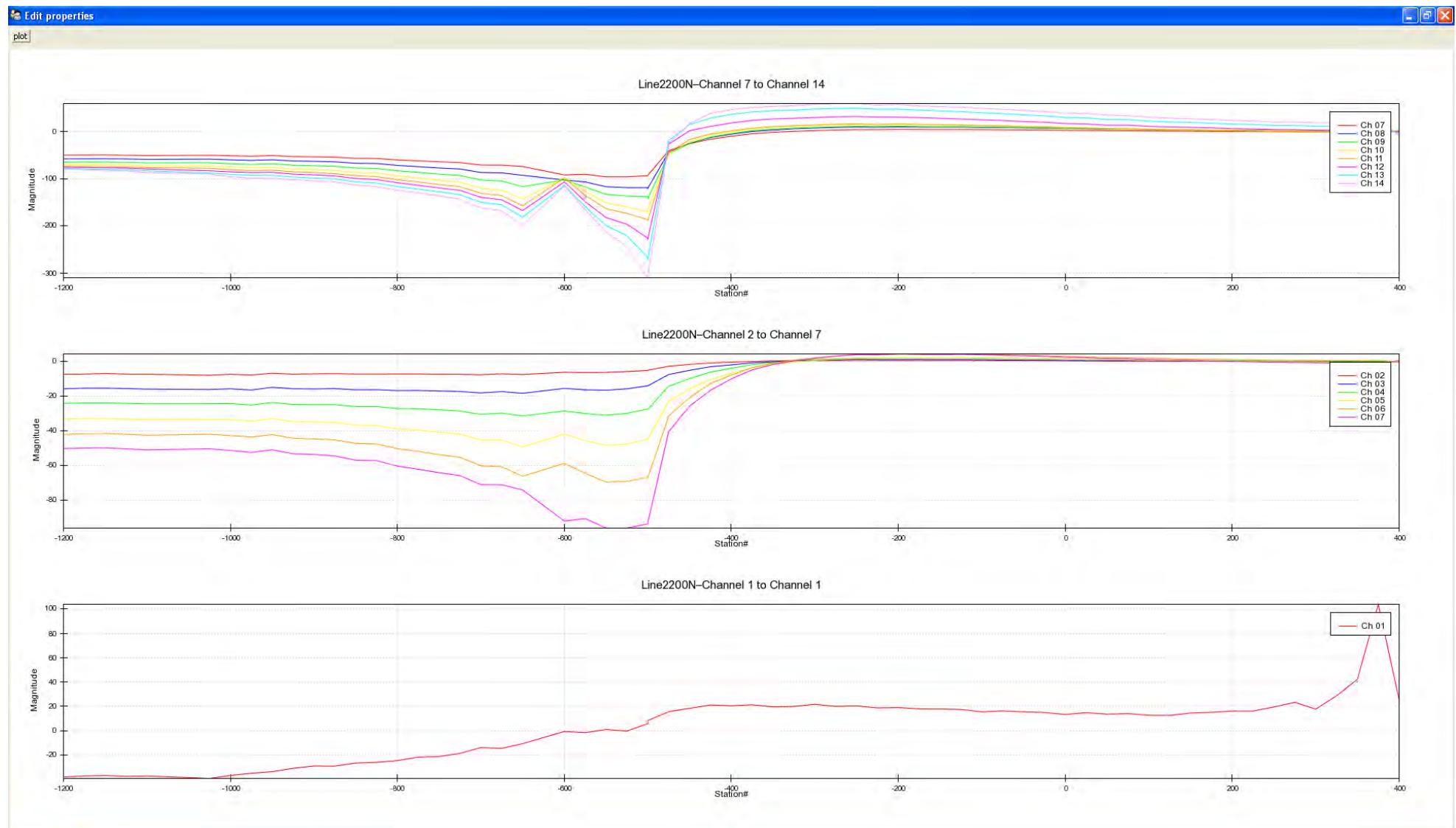
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- Reduction Term: Ch1
- Multiplication : -100
- Survey Date: August 15<sup>th</sup> - 17<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 2000N**  
**UREM Plots**



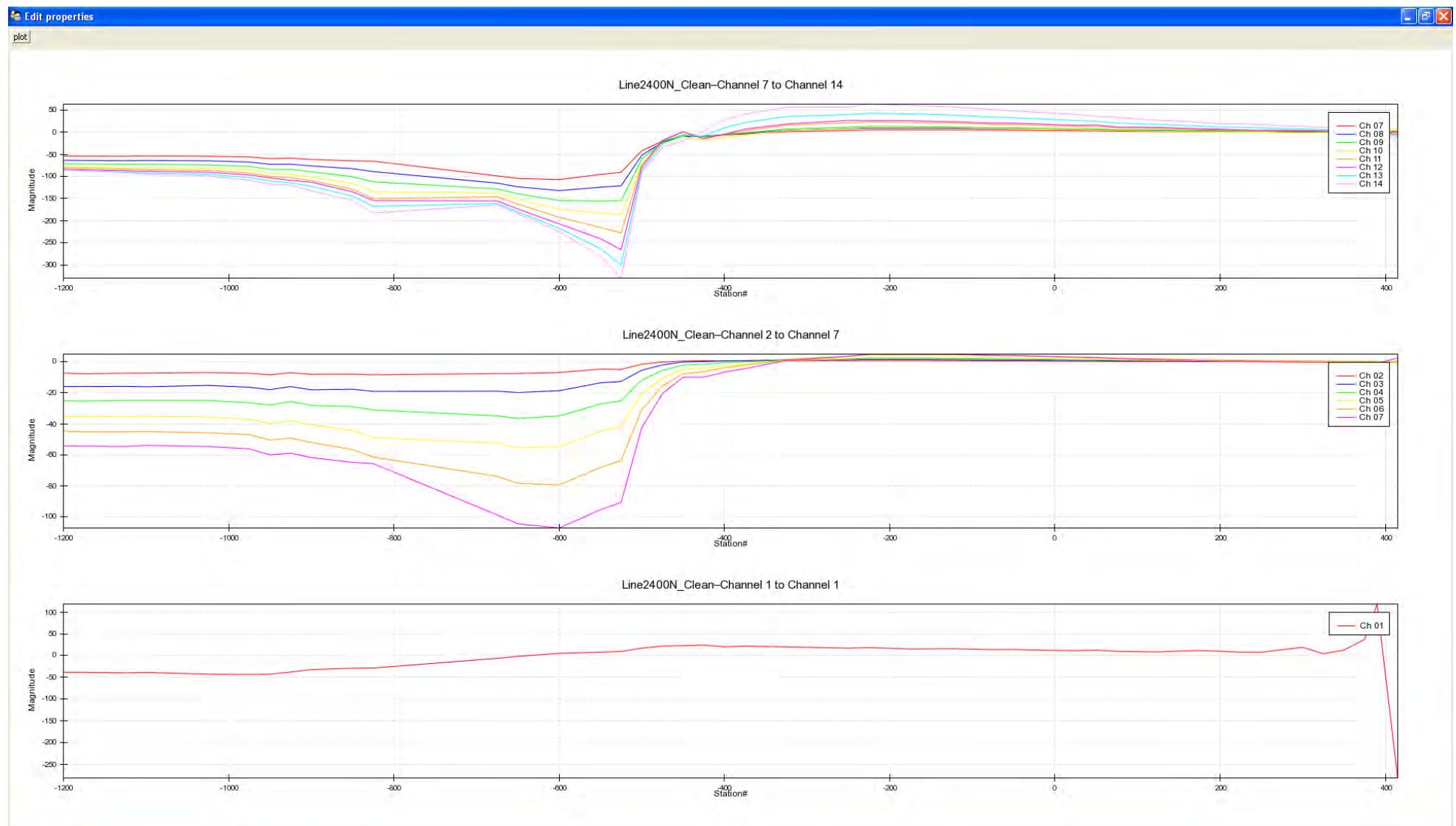
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- Reduction Term: Ch1
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- Survey Date: August 14<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 2200N**  
**UREM Plots**



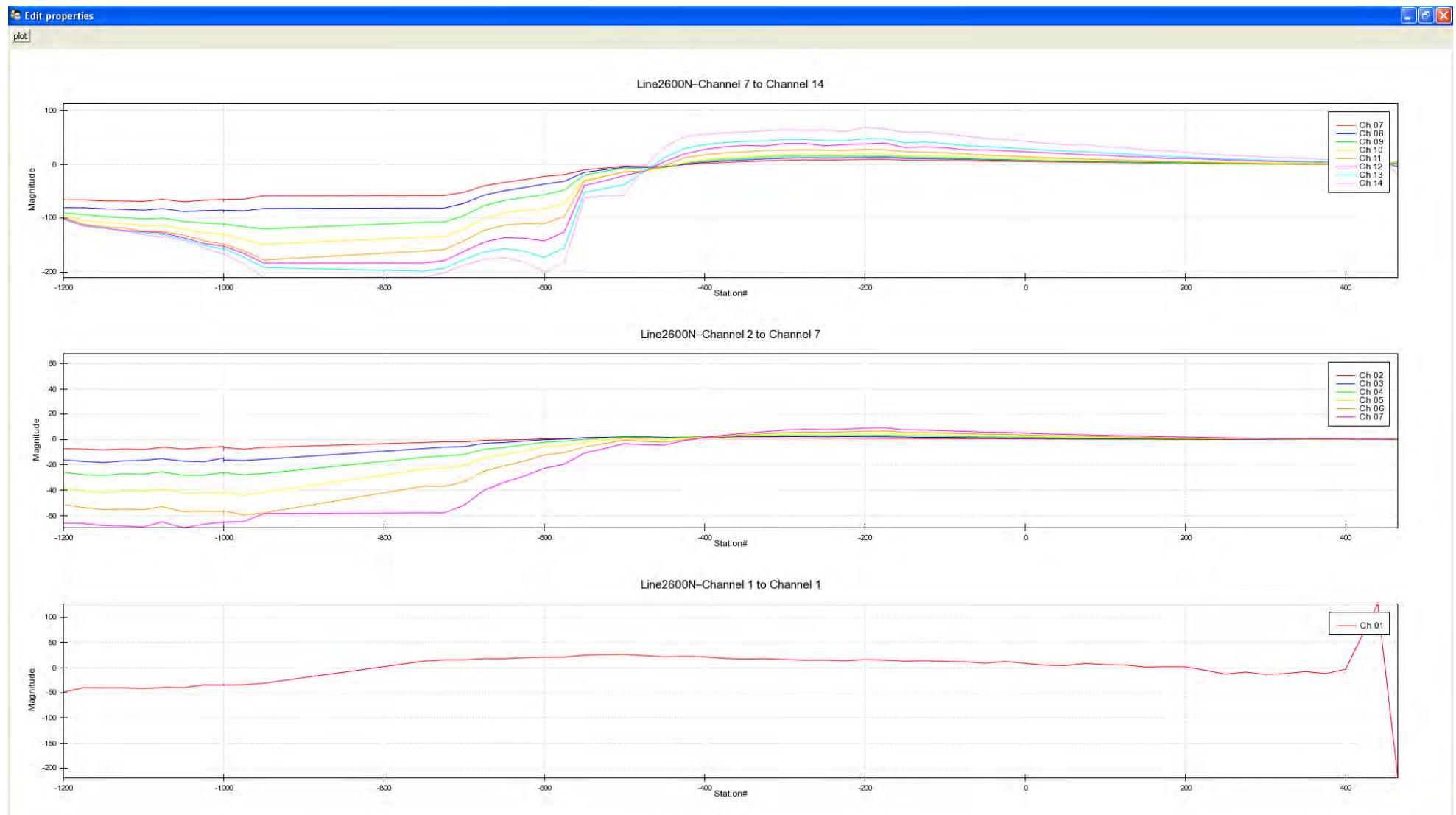
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- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 15<sup>th</sup> - 16<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 2400N**  
**UREM Plots**



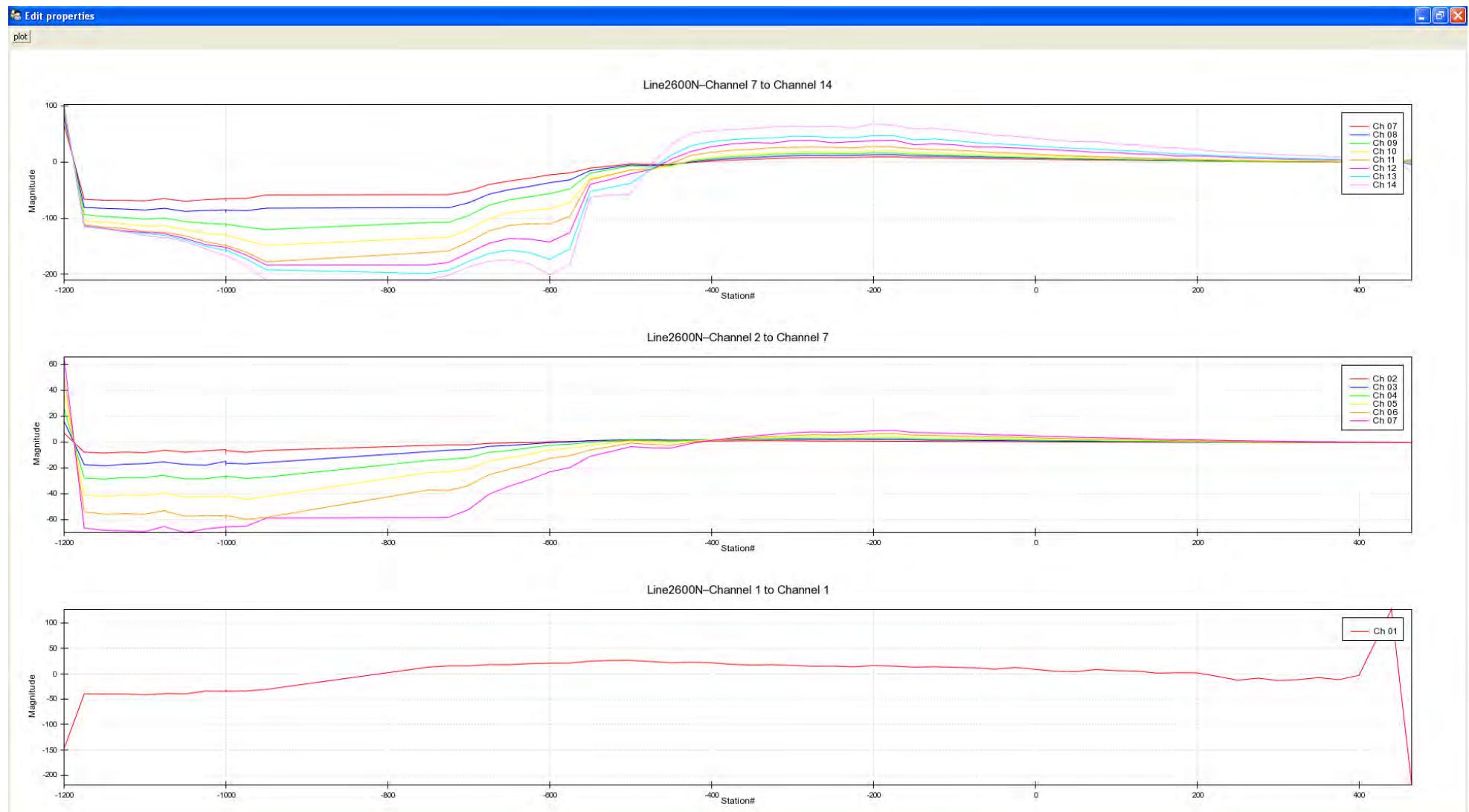
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- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 18<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 2600N**  
**UREM Plots**

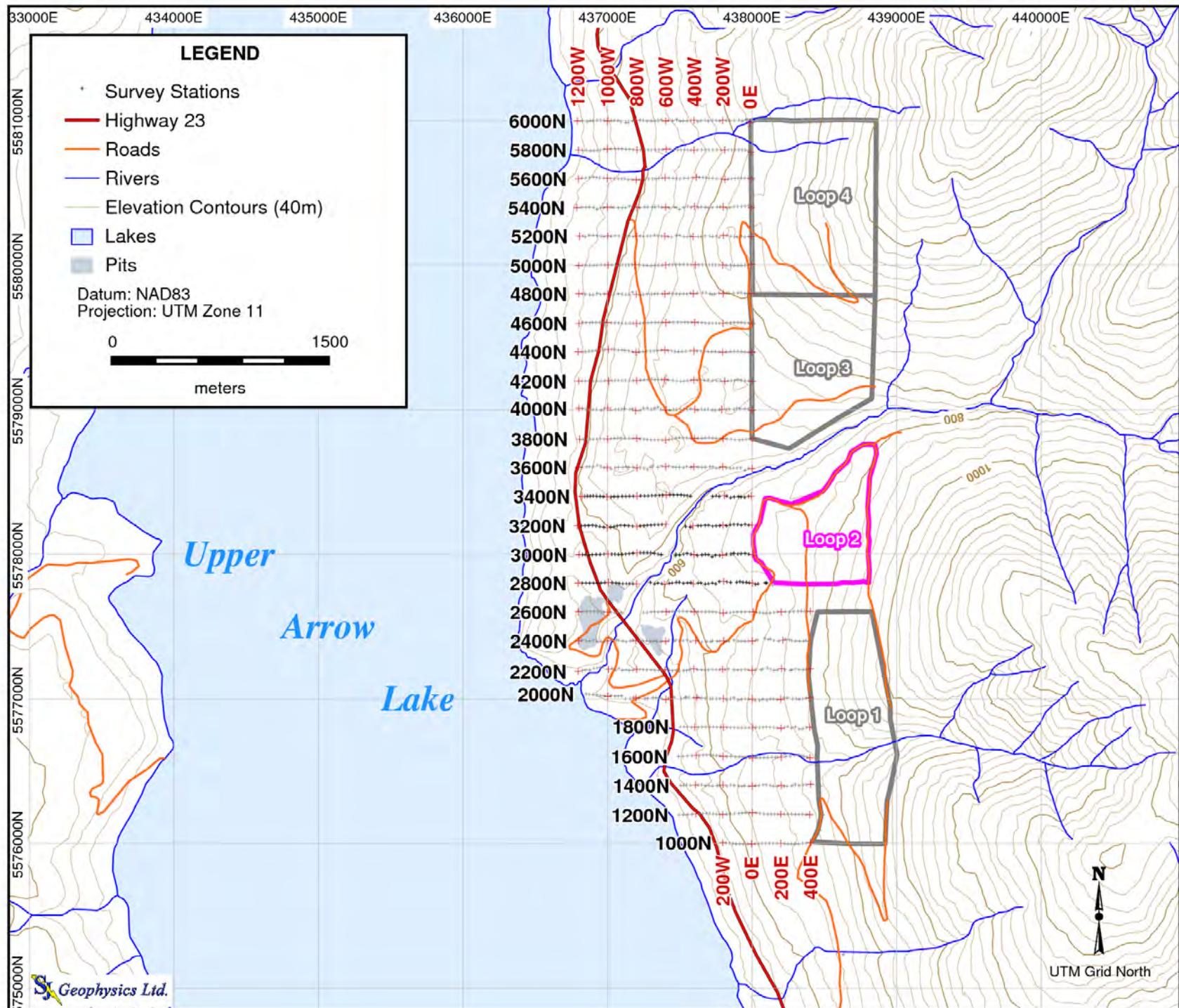


- 
- Normalization Factor: Htotal
  - Reduction Term: Ch1
  - Multiplication : 100
  - Survey Date: August 18<sup>th</sup>
  - Reversed loop direction for station -1200

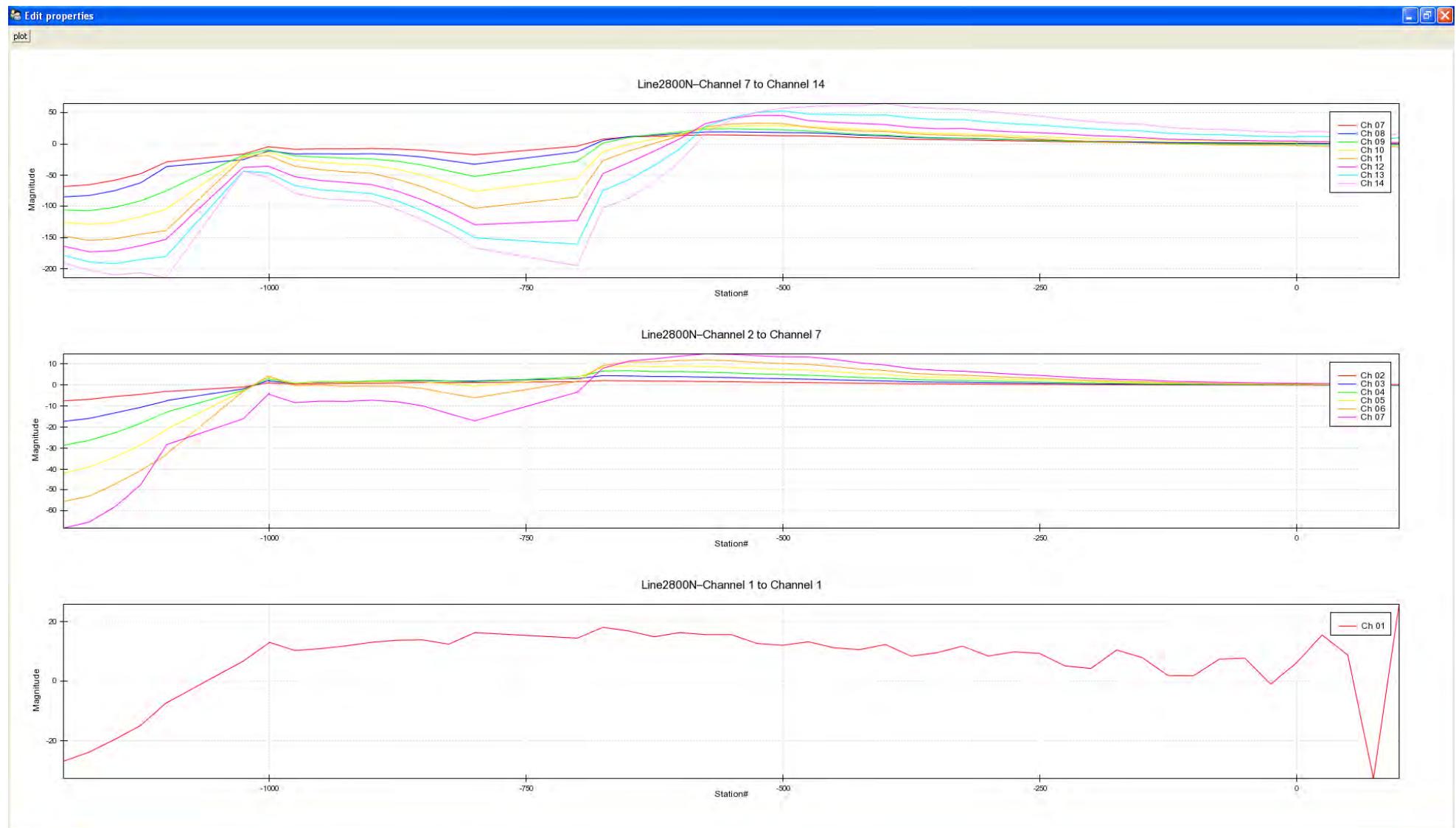
**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 1 - Line 2600N**  
**UREM Plots**



- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 18<sup>th</sup>

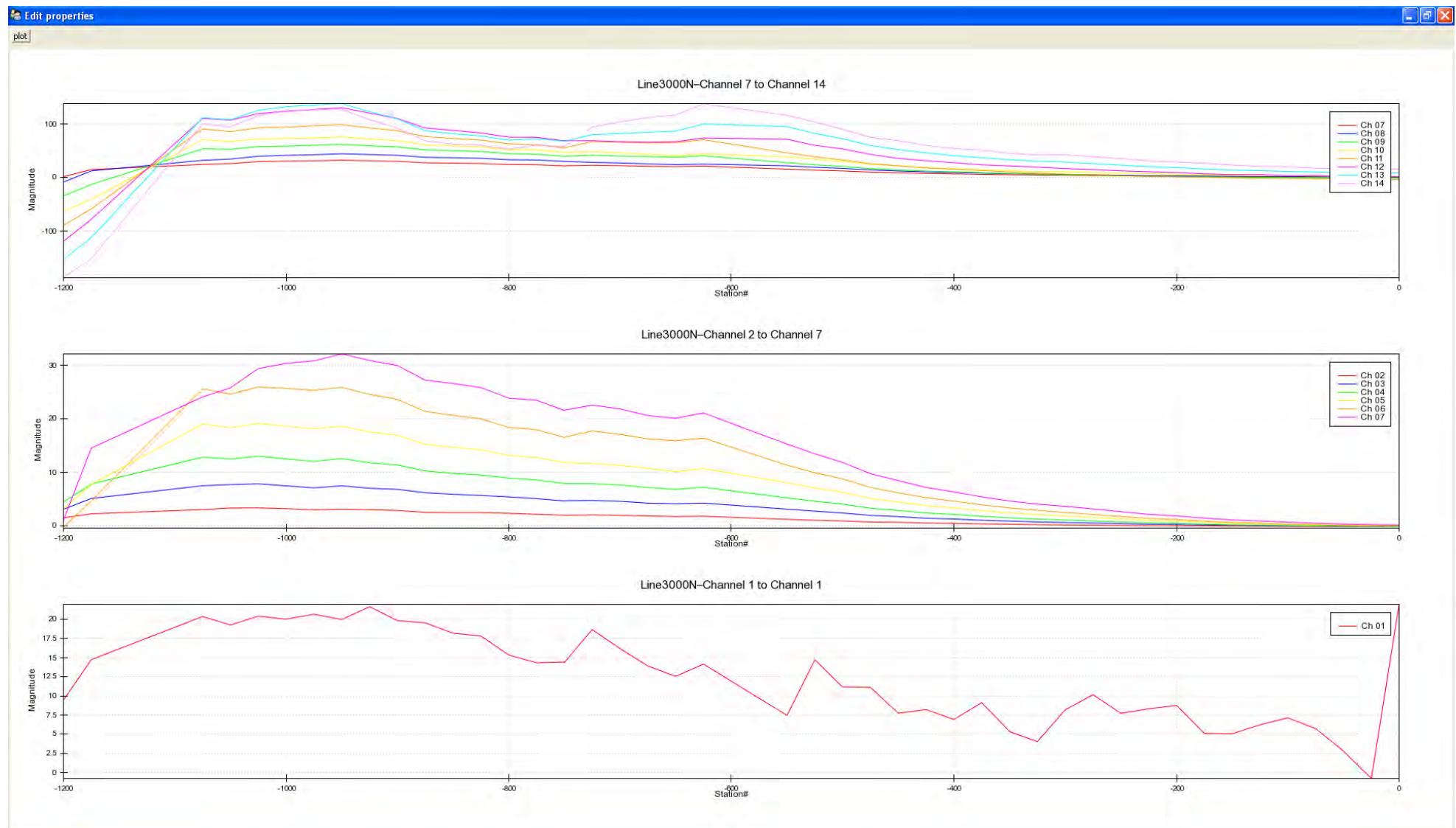


**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 2 - Line 2800N**  
**UREM Plots**



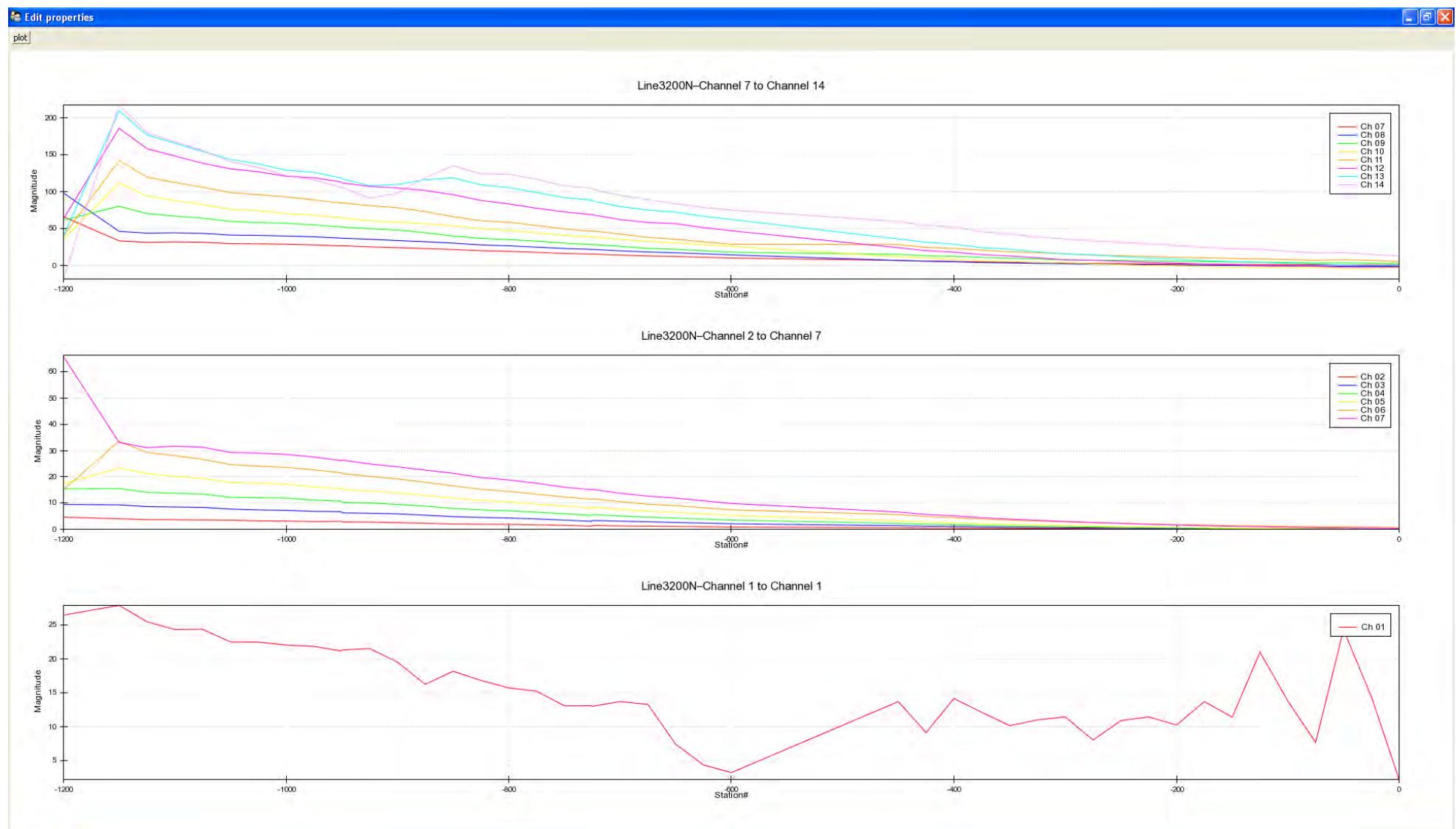
- 
- Normalization Factor: Htotal
  - Reduction Term: Ch1
  - Multiplication : -100
  - Survey Date: August 10-12<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 2 - Line 3000N**  
**UREM Plots**



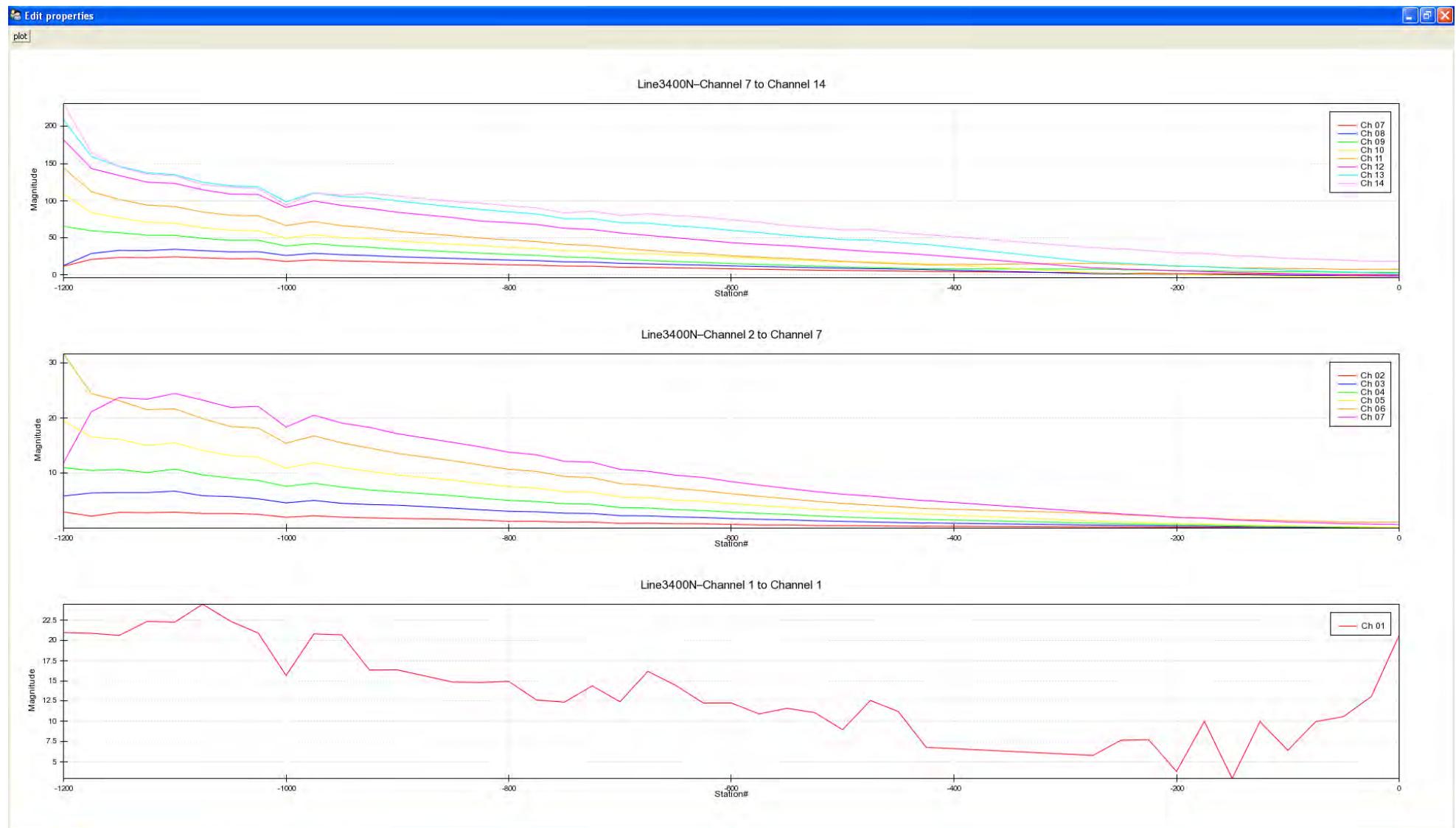
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : -100
- Survey Date: August 10-11<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 2 - Line 3200N**  
**UREM Plots**

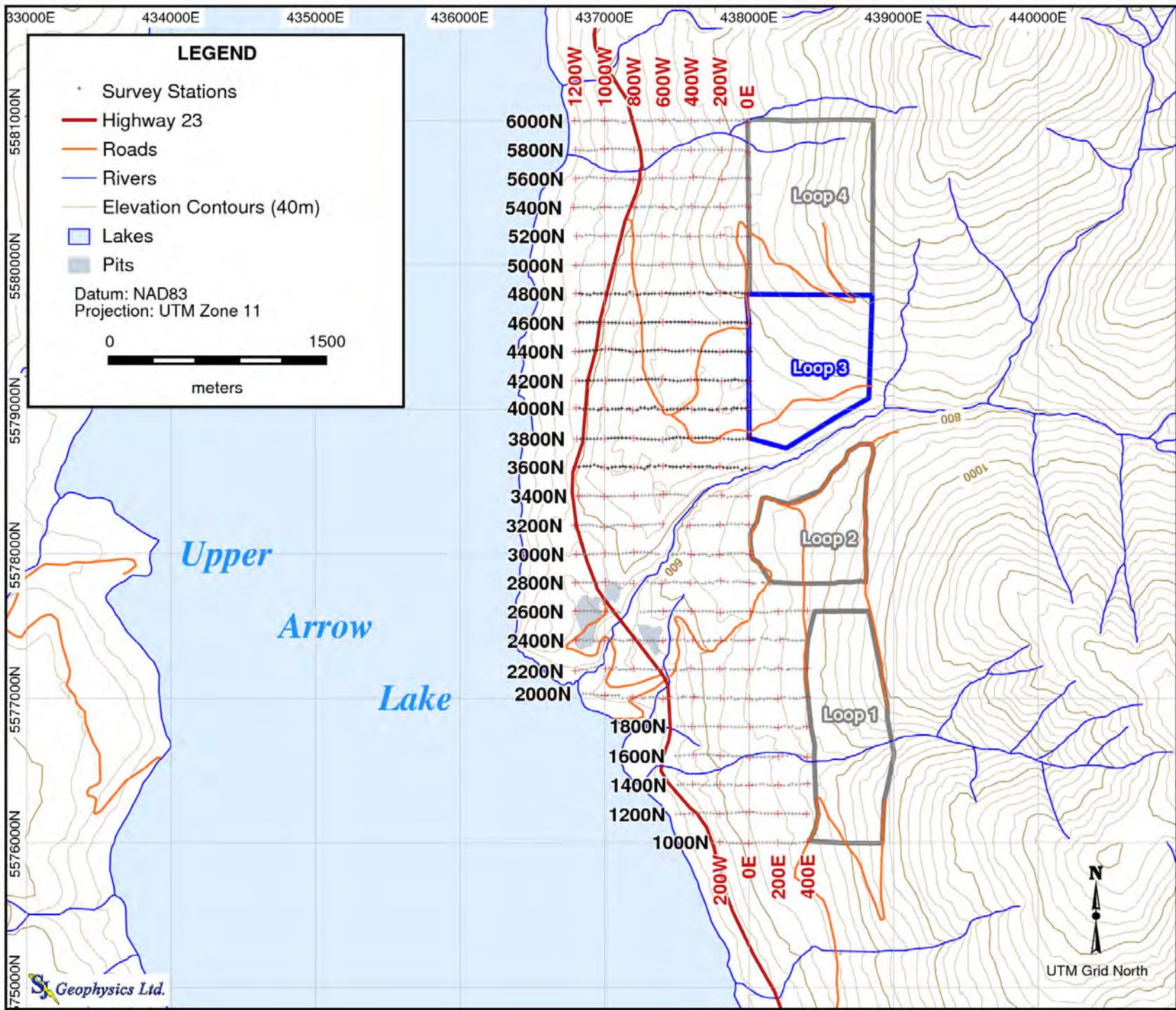


- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : -100
- Survey Date: August 10-12<sup>th</sup>

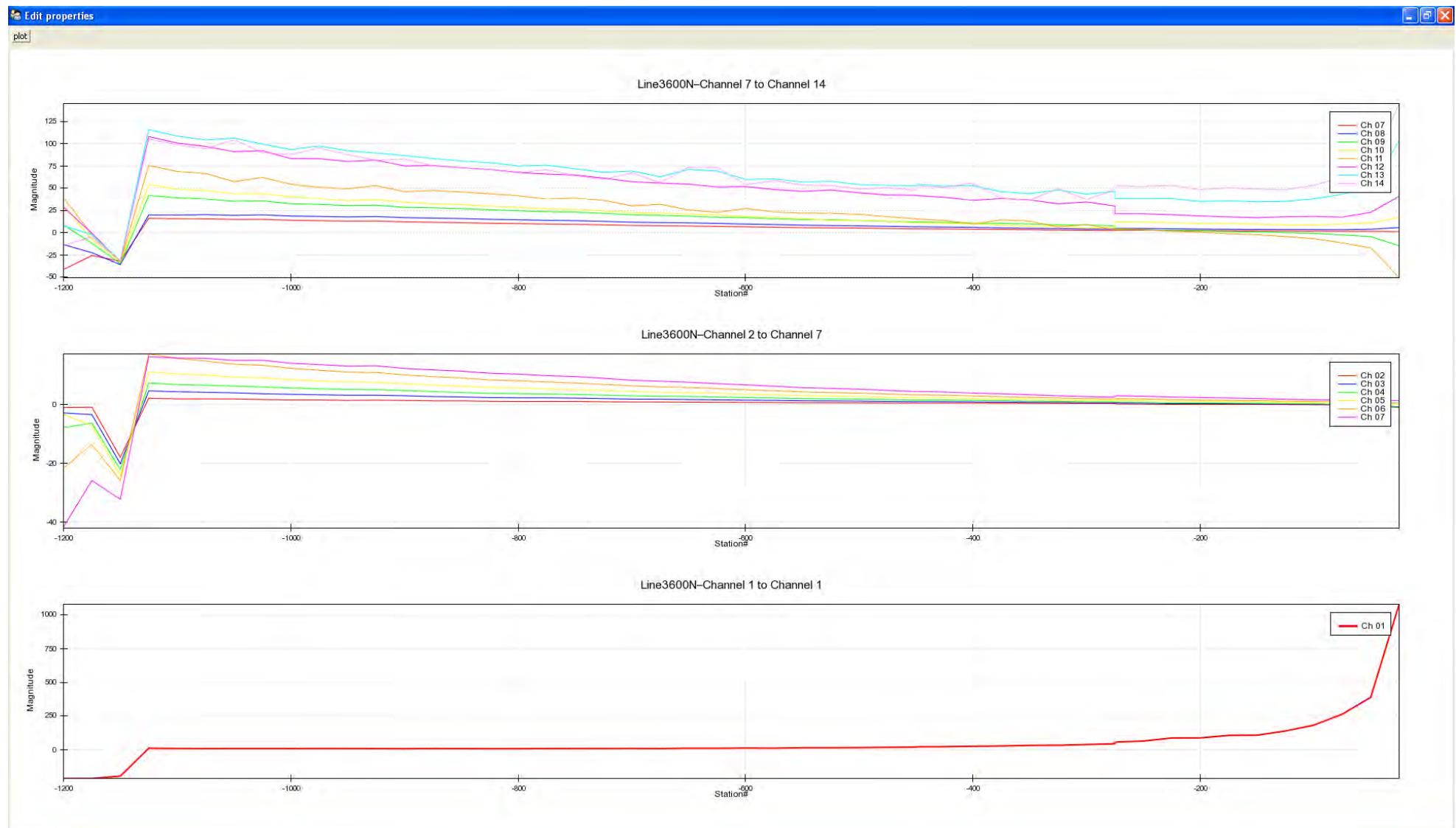
**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 2 - Line 3400N**  
**UREM Plots**



- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : -100
- Survey Date: August 10-12<sup>th</sup>

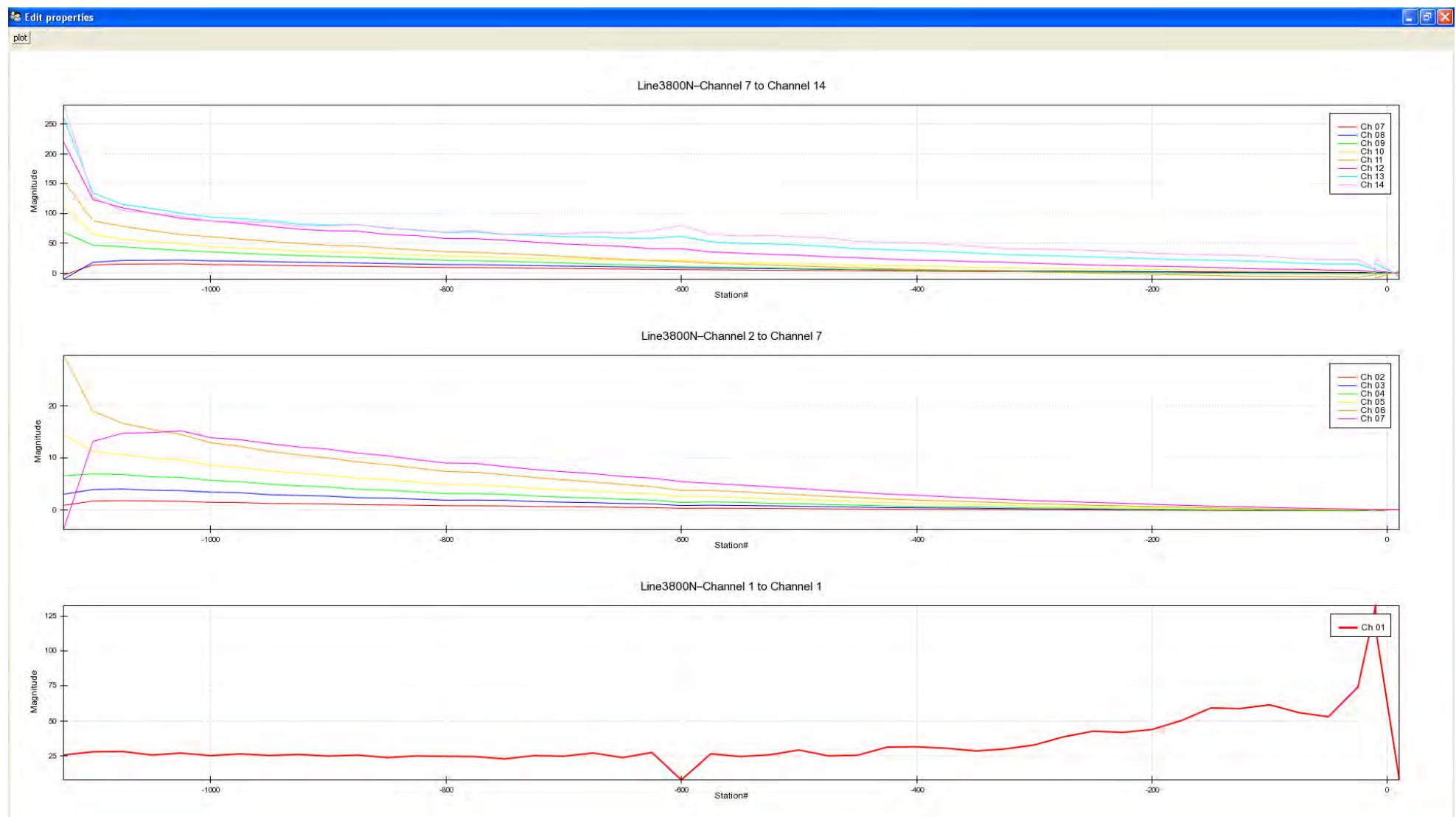


**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 3600N**  
**UREM Plots**



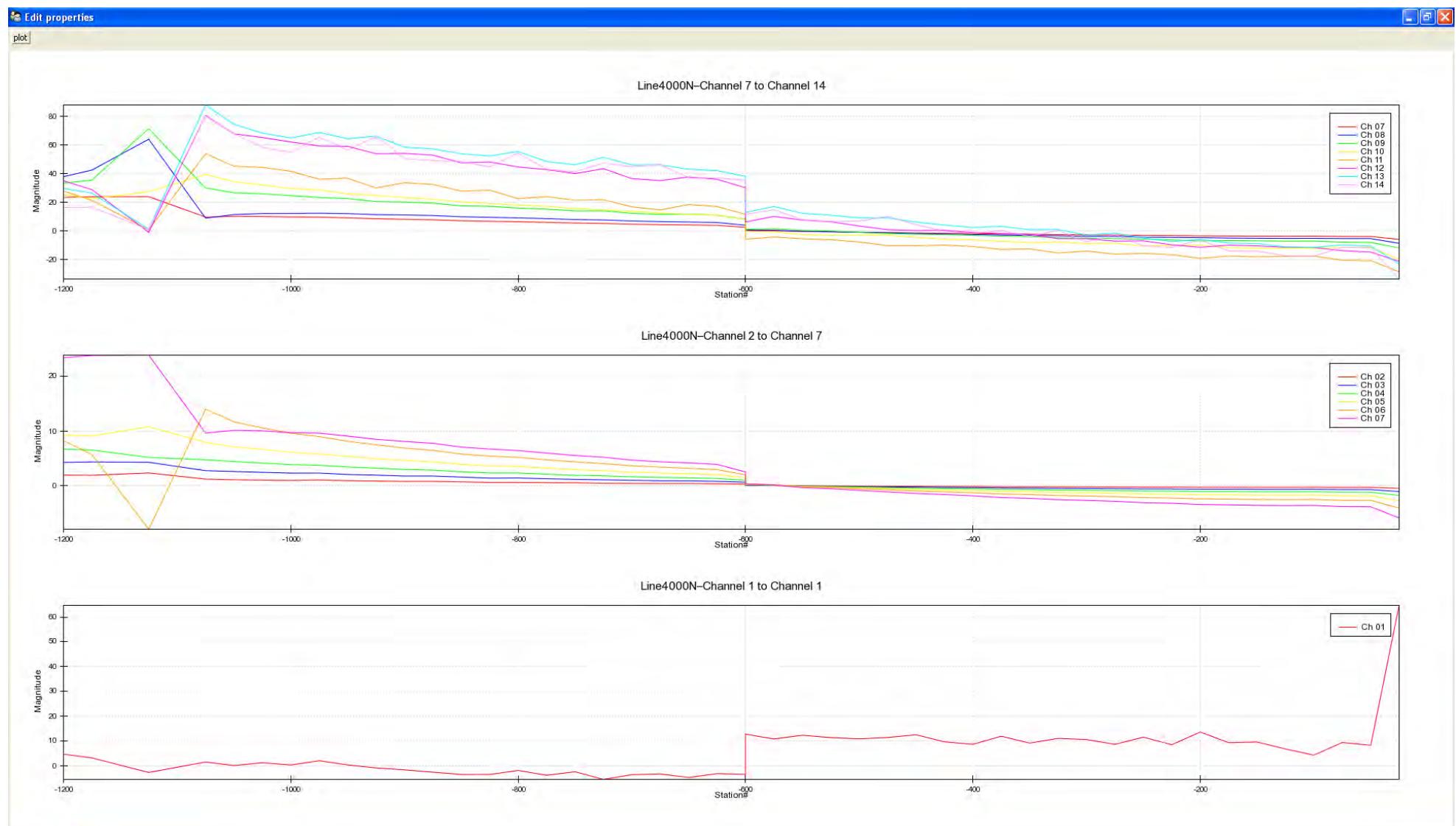
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 19-20<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 3800N**  
**UREM Plots**



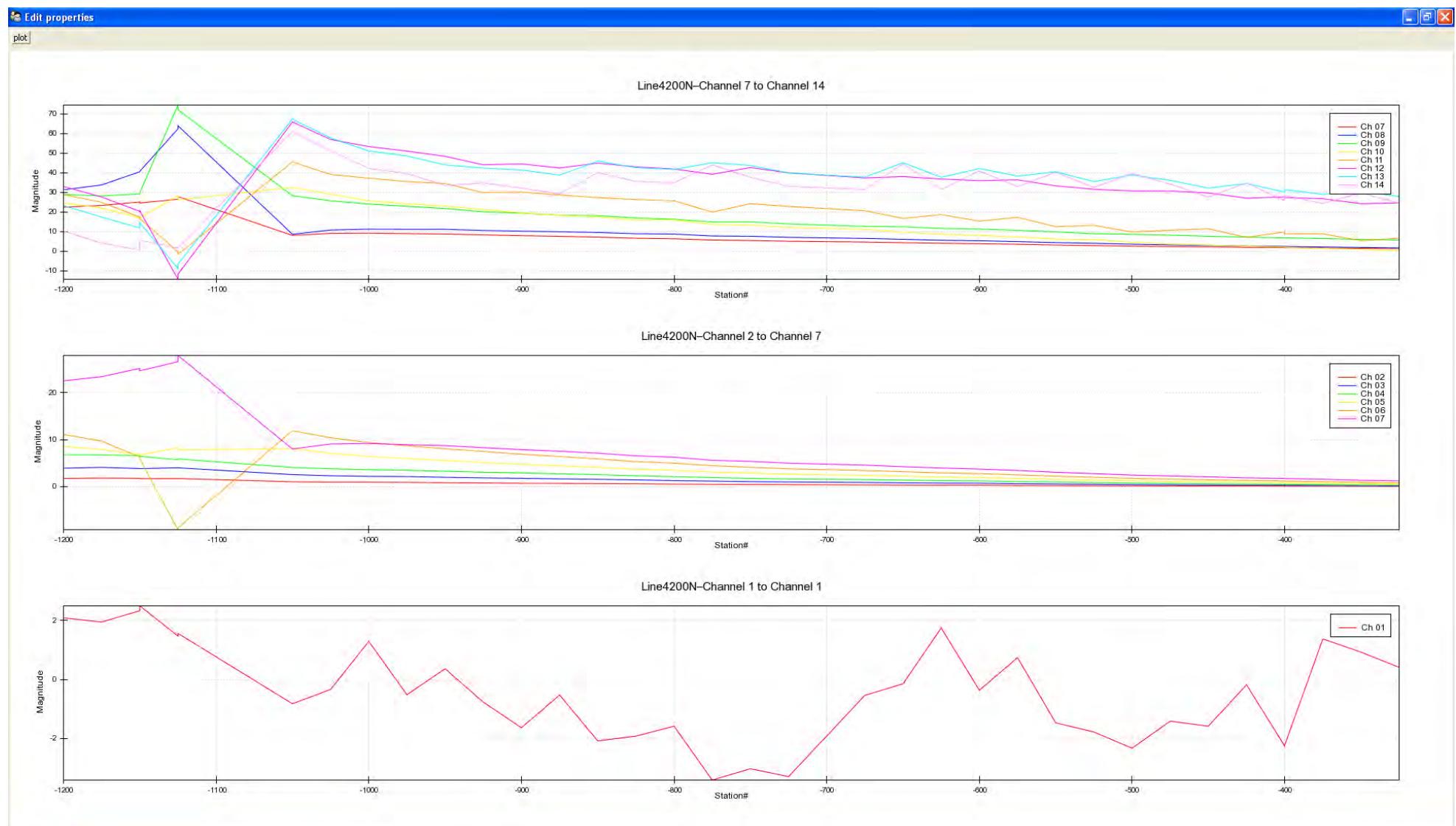
- 
- Normalization Factor: Htotal
  - Reduction Term: Ch1
  - Multiplication : 100
  - Survey Date: August 19-20<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 4000N**  
**UREM Plots**



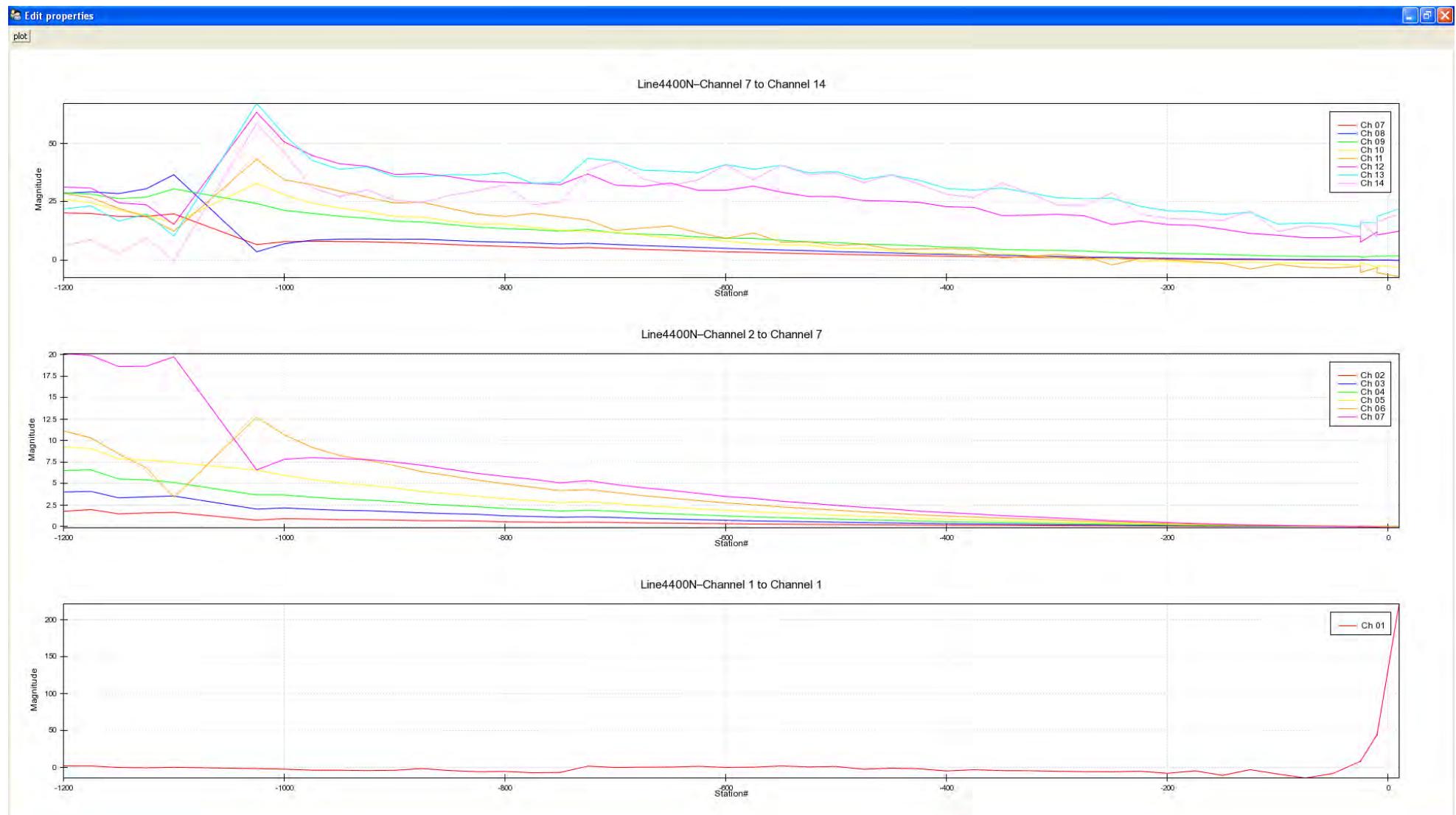
- 
- Normalization Factor: Htotal
  - Reduction Term: Ch1
  - Multiplication : 100
  - Survey Date: August 20-21<sup>st</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 4200N**  
**UREM Plots**



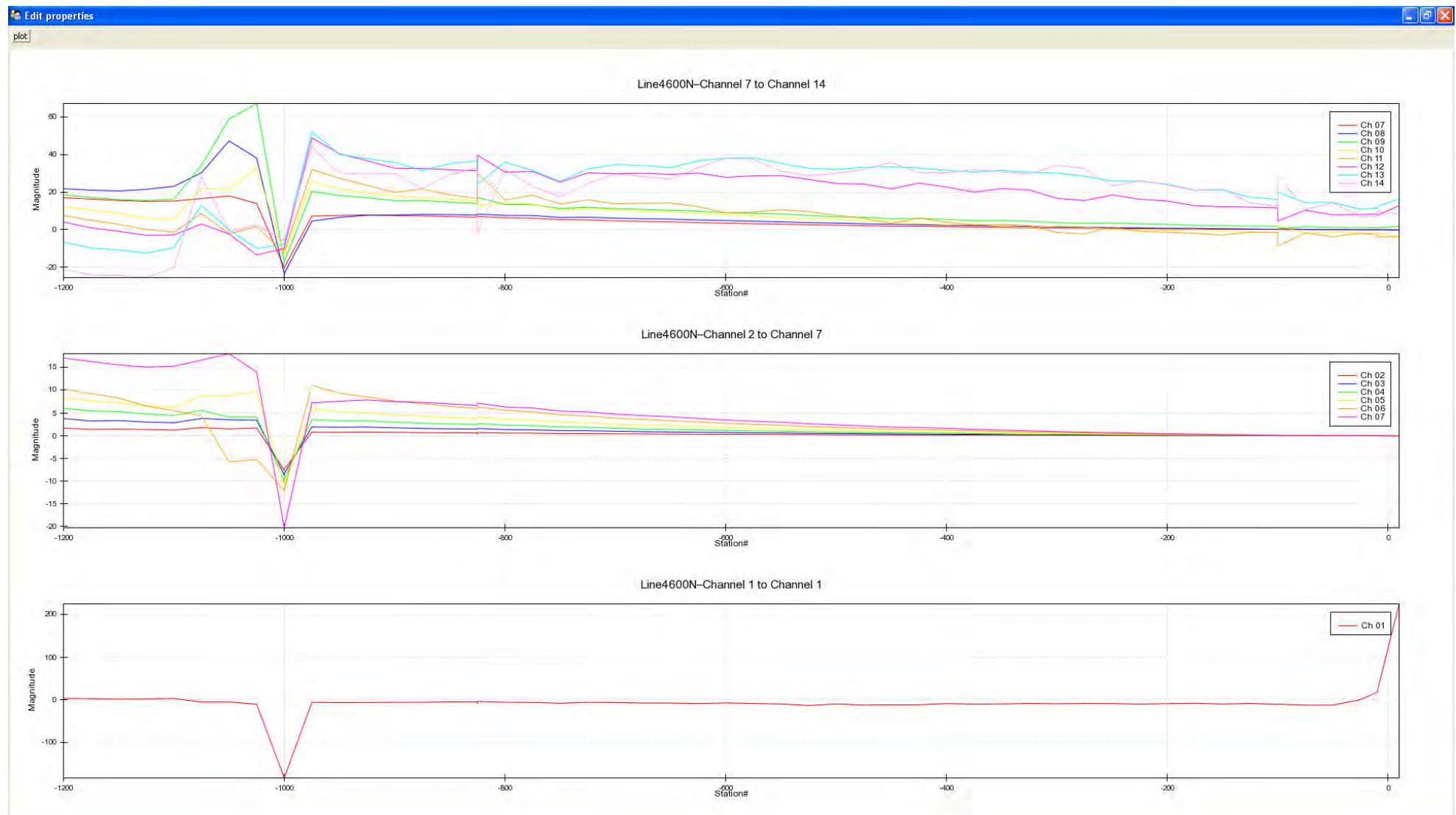
- 
- Normalization Factor: Htotal
  - Reduction Term: Ch1
  - Multiplication : 100
  - Survey Date: August 20<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 4400N**  
**UREM Plots**



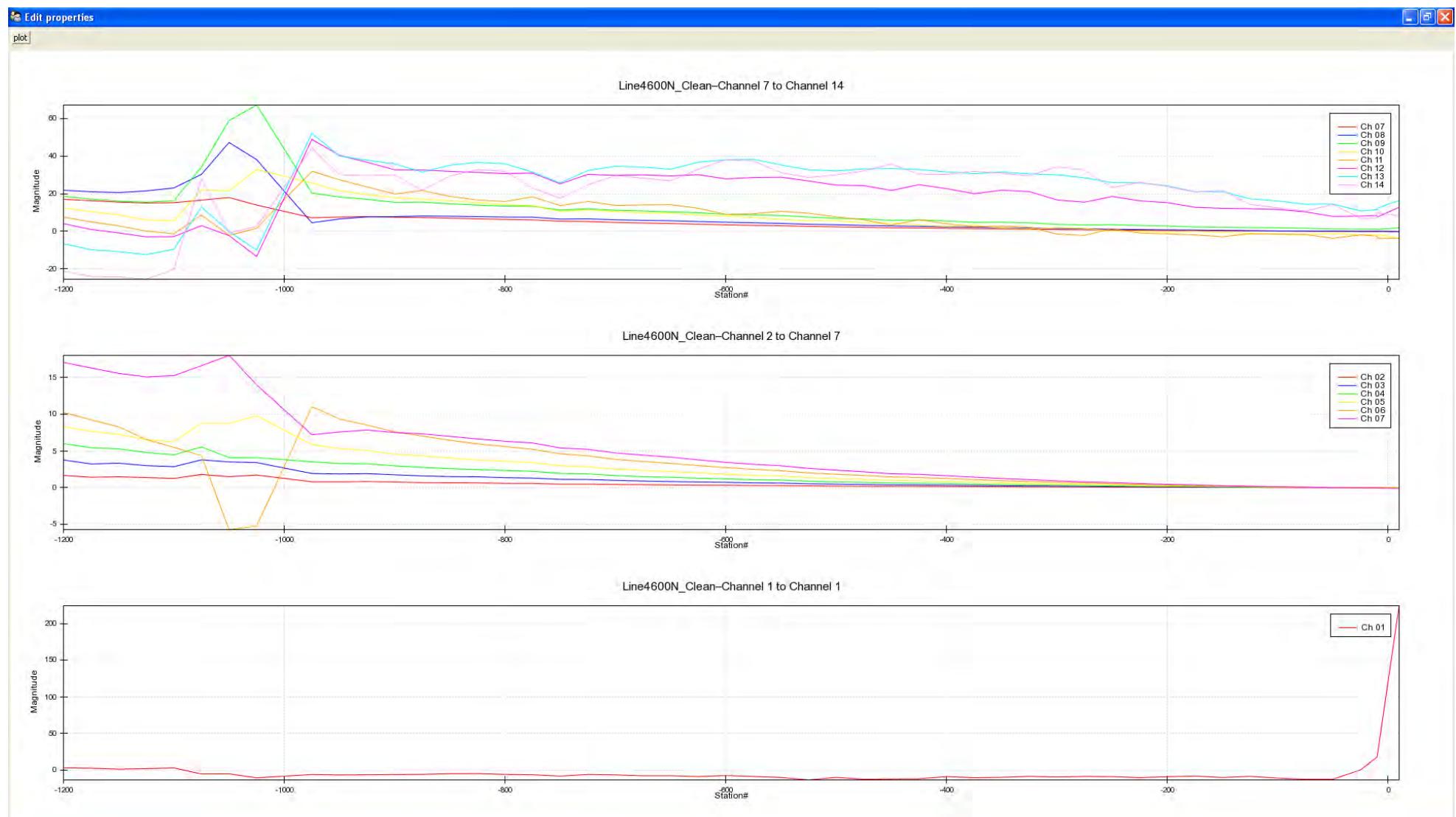
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 20-21<sup>st</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 4600N**  
**UREM Plots**



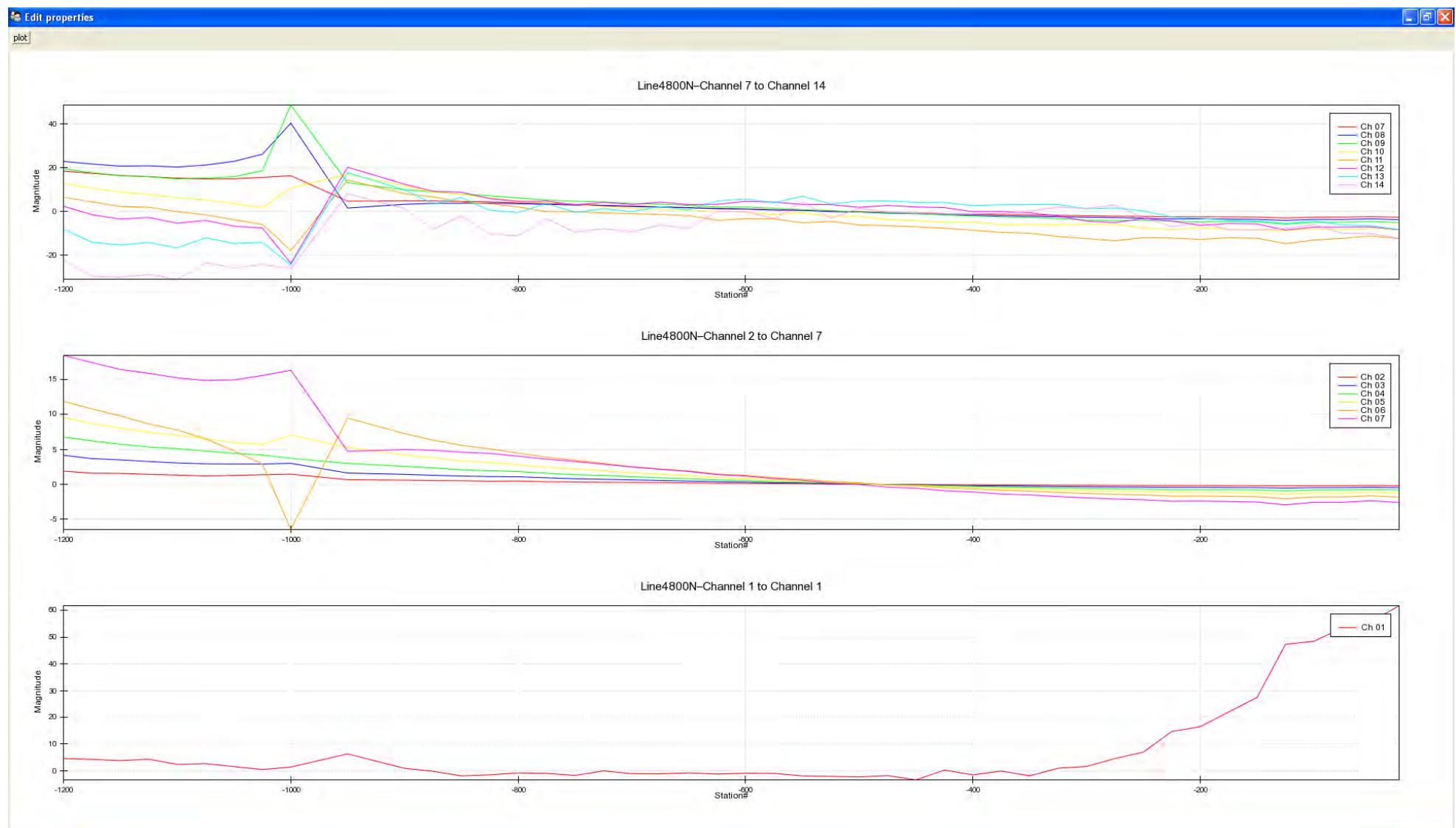
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 21<sup>st</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 4600N**  
**UREM Plots**

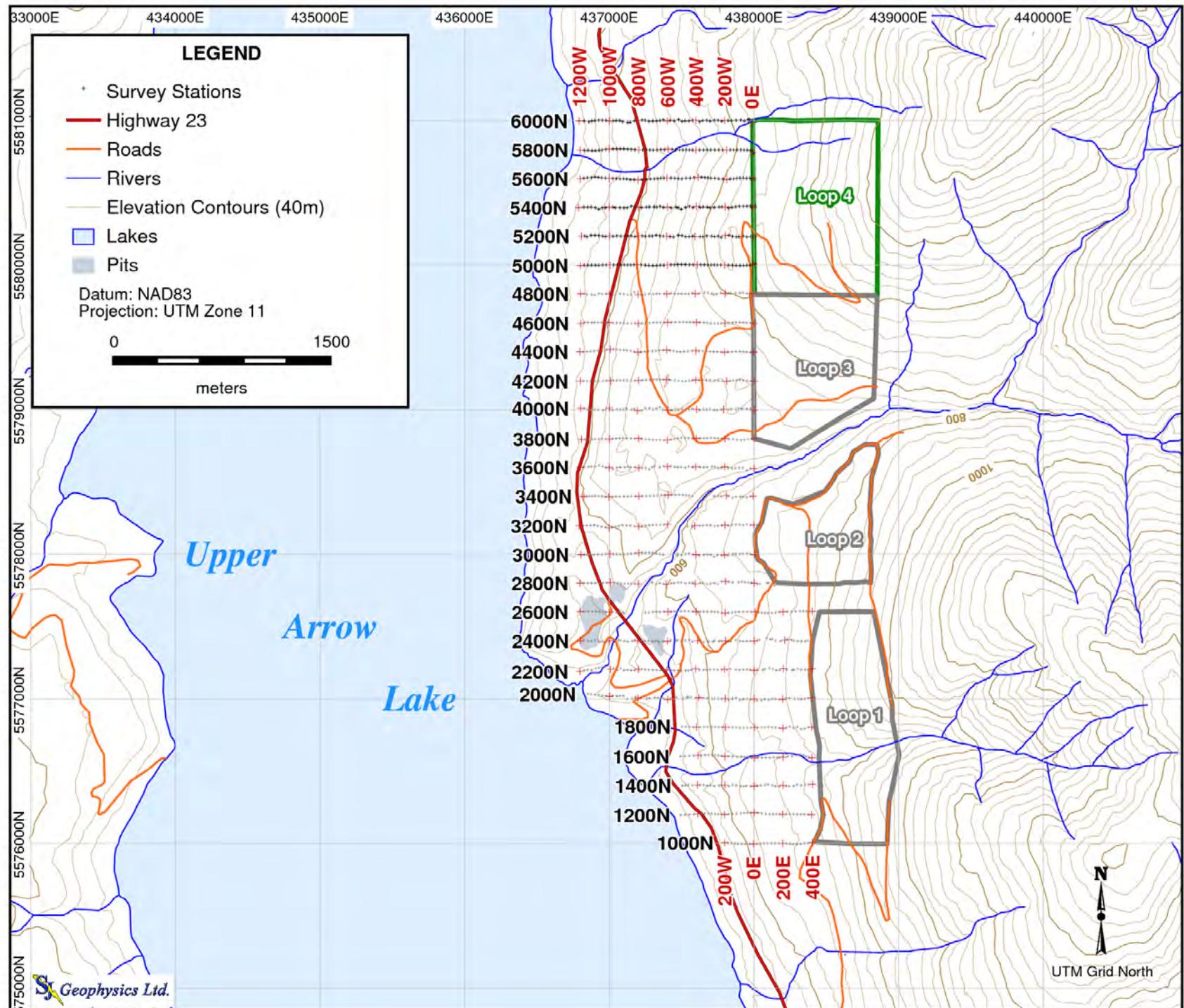


- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 21<sup>st</sup>

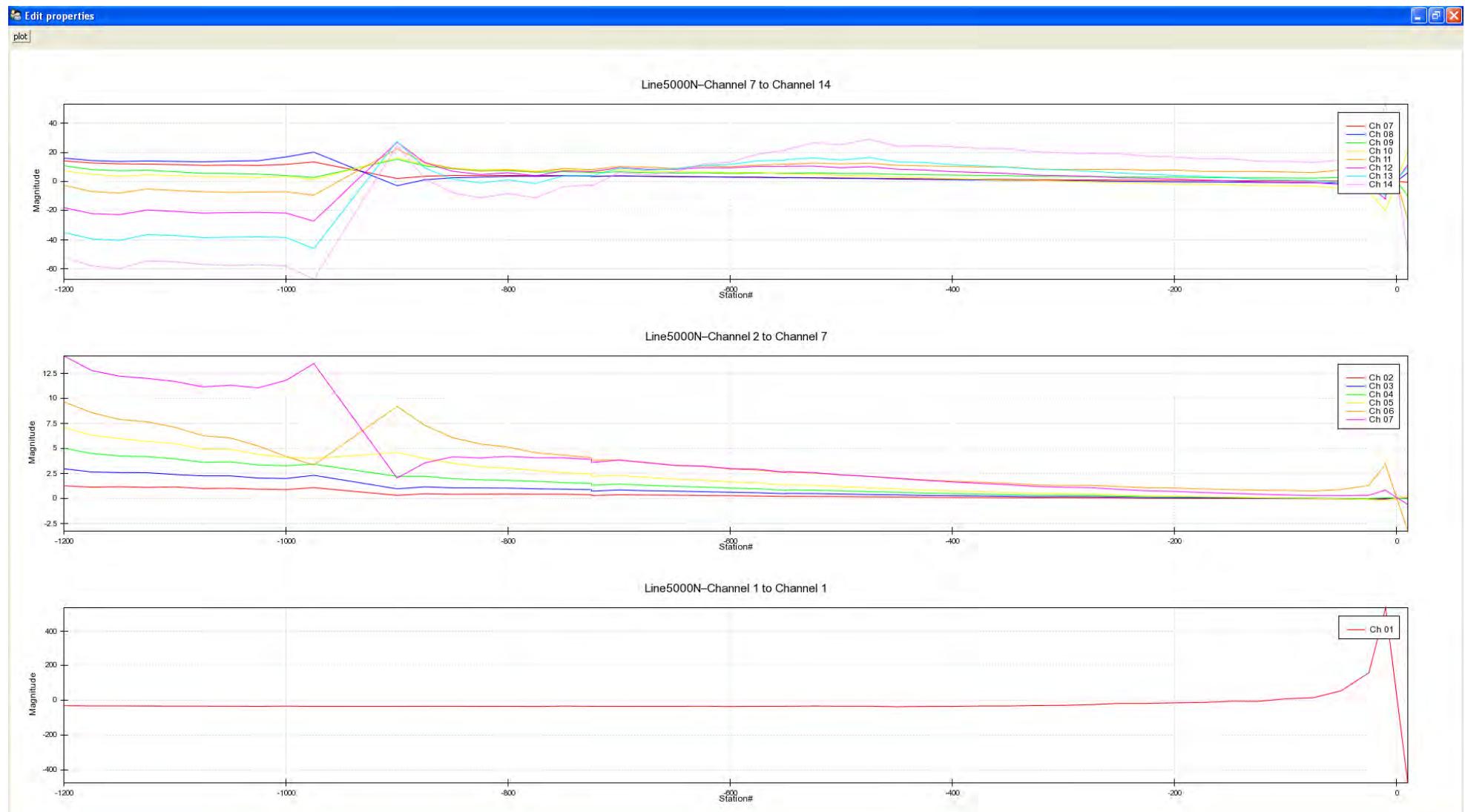
**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 3 - Line 4800N**  
**UREM Plots**



- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 21<sup>st</sup>

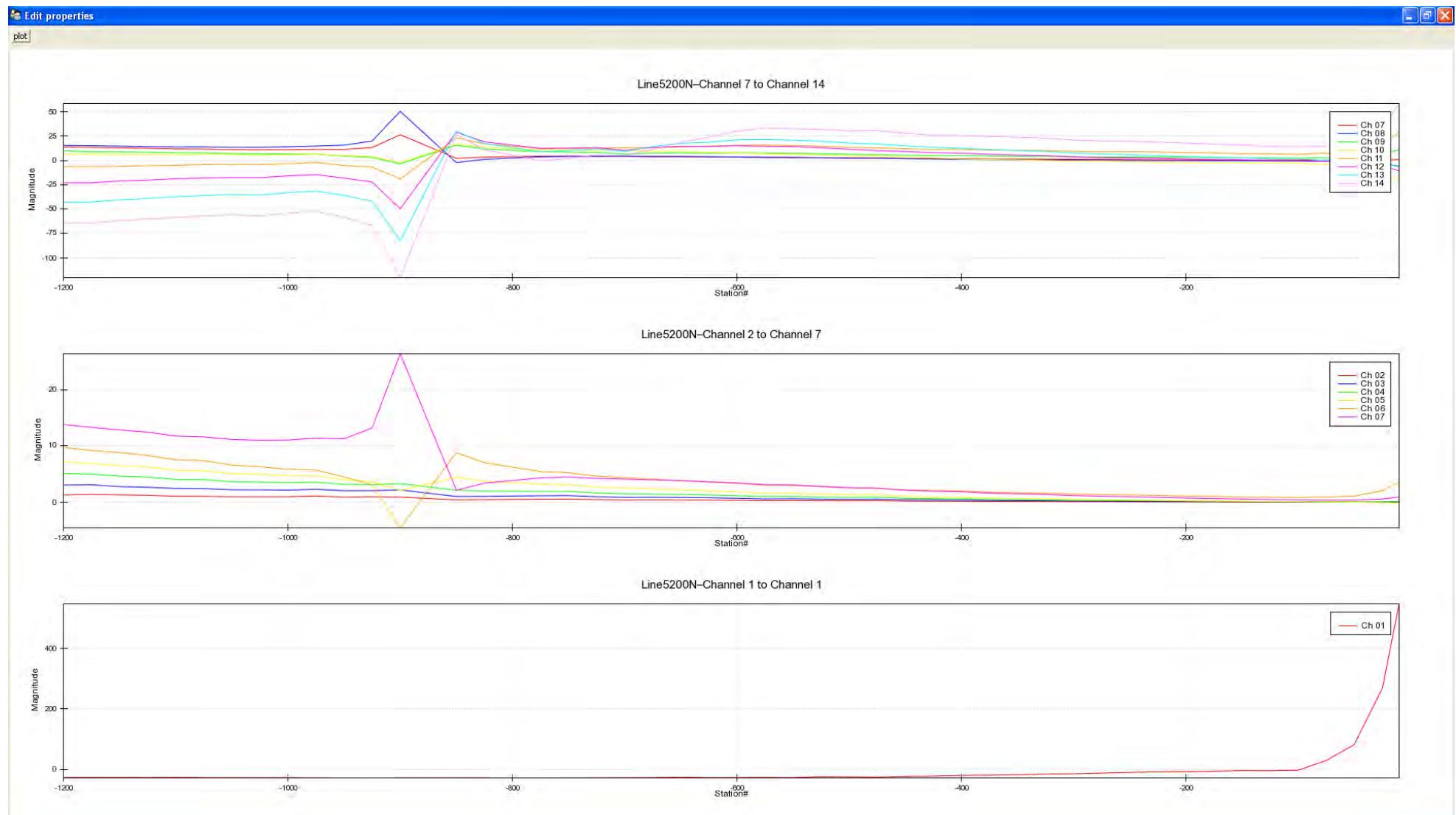


**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 4 - Line 5000N**  
**UREM Plots**



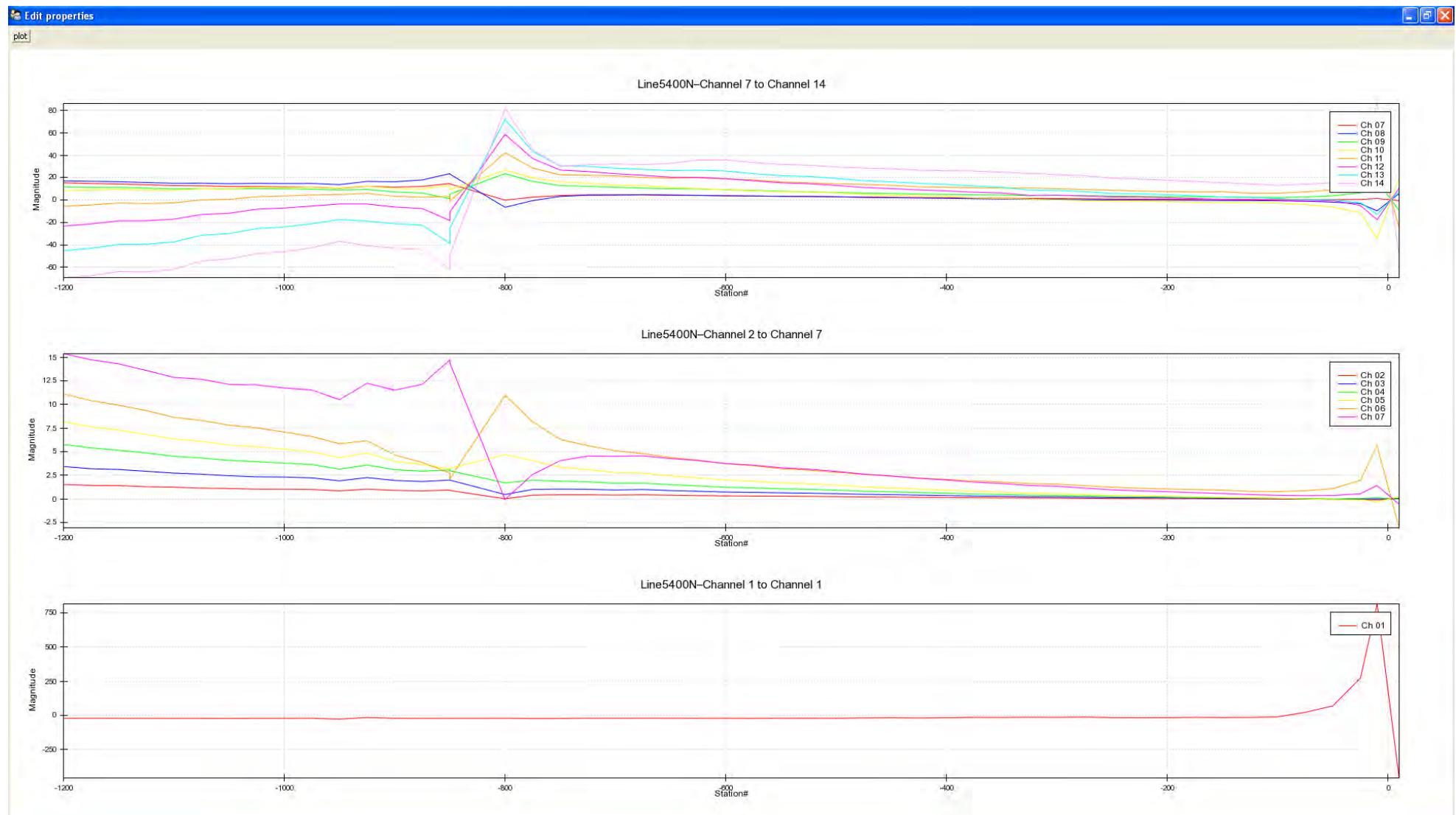
- 
- Normalization Factor: Htotal
  - Reduction Term: Ch1
  - Multiplication : 100
  - Survey Date: August 22<sup>nd</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 4 - Line 5200N**  
**UREM Plots**



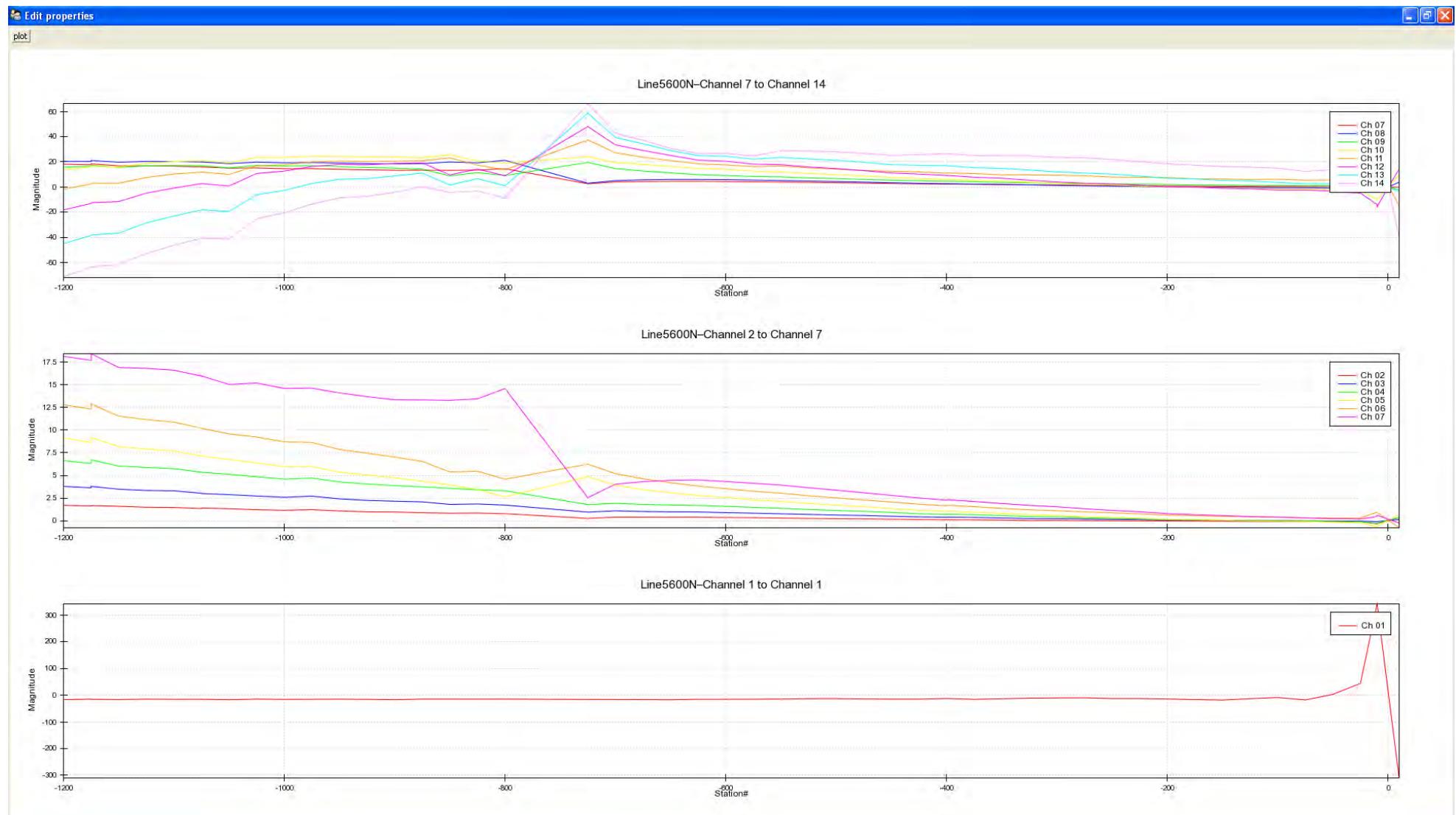
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 22<sup>nd</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 4 - Line 5400N**  
**UREM Plots**



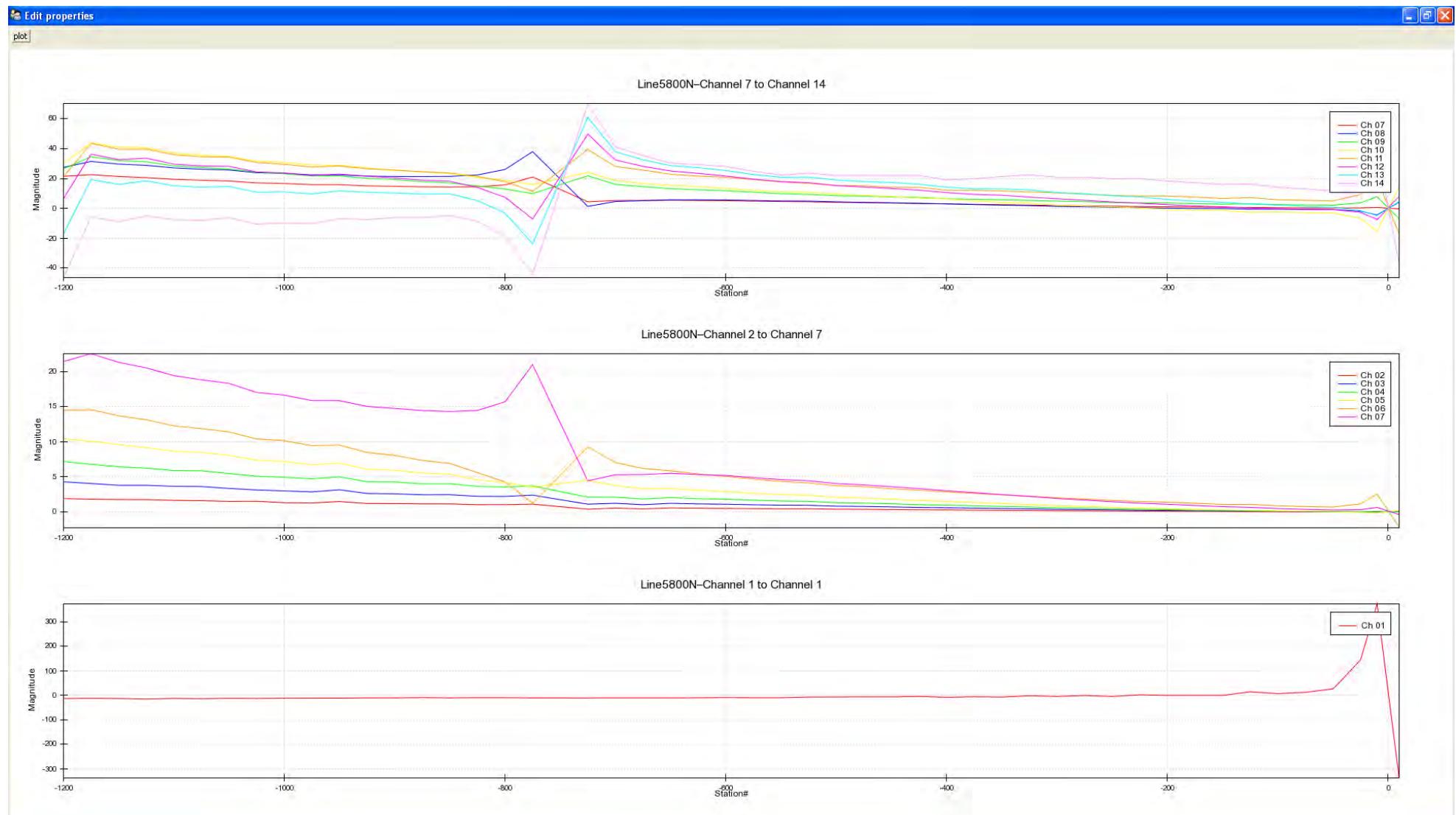
- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 23<sup>rd</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 4 - Line 5600N**  
**UREM Plots**



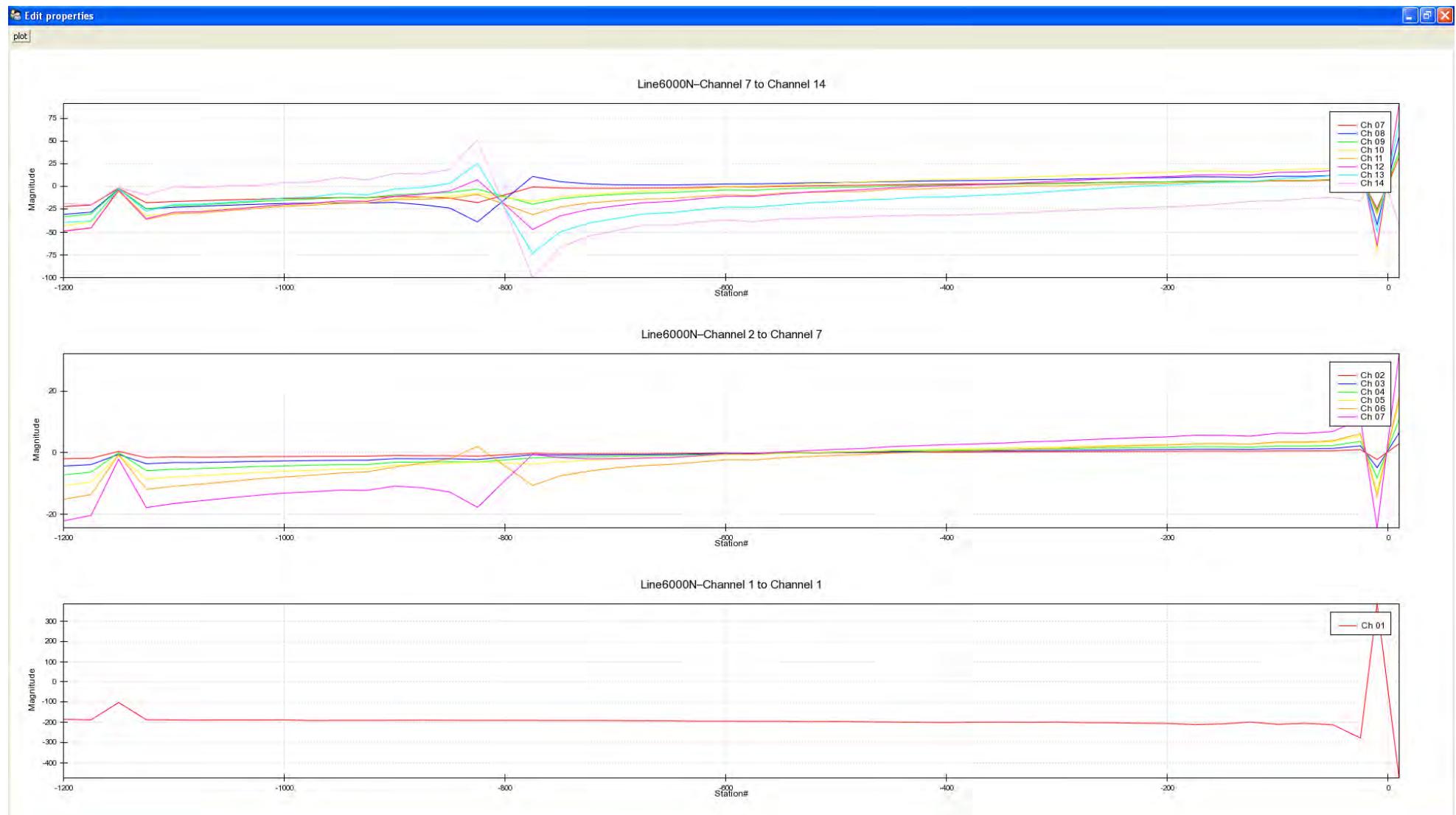
- 
- Normalization Factor: Htotal
  - Reduction Term: Ch1
  - Multiplication : 100
  - Survey Date: August 23<sup>rd</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 4 - Line 5800N**  
**UREM Plots**



- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 24<sup>th</sup>

**Bravura Ventures Corp. - Greenhorn Property**  
**Nakusp, British Columiba**  
**Loop 4 - Line 6000N**  
**UREM Plots**




- Normalization Factor: Htotal
- Reduction Term: Ch1
- Multiplication : 100
- Survey Date: August 24<sup>th</sup>


*Bravura Ventures Corp.*


*Technical Assessment Report on the Geochemical and Geophysical Surveys on the  
Greenhorn Property, November 12, 2011*


## **Appendix 6**


### **SJ Geophysics Ltd. Magnetic Susceptibility Maps**











## **Appendix 7**

### **Itemized Cost Statement for Assessment Work**

**Itemized Cost Statement for Assessment Work**  
**2011 Exploration Program**

		Days or Number	Rate	Cost	Cost	Cost
<b>Contractors:</b>						
Chris Dyakowski	Project Manager	3	500	1500.00		
John Kerr	Consulting Geologist	2	630	1260.00		
Gordon Allen	Consulting Geologist	4	600	2400.00		
ConnextX Marketing Ltd.	Gridwork and soil sampling	59.2km	712.48	42179.29		
Smuland Contracting	Gridwork and soil sampling	5	350	1750.00		
SJ Geophysics	contract price for TEM			75000.00		
SJ Geophysics	contract price for Mag			4375.00		
				<u>128464.29</u>	128464.29	
<b>Food and Accommodation:</b>						
Smuland				897.61	897.61	
<b>Transportation:</b>						
Ford F350		3	100	300.00		
GMC pickup				<u>265.00</u>	<u>565.00</u>	565.00
<b>Assays:</b>						
Acme Labs Ltd.		1045	18.18	18995.36	18995.36	
<b>Other Expenses:</b>						
TRIM topographic maps				200.00	200.00	
John Kerr				<u>65.00</u>	<u>149187.26</u>	<b>\$149,187.26</b>

## **Appendix 8**

**Statement of Exploration and Development;**

**Event Number ID: 5095647**



## Mineral Titles Online Viewer

### Exploration and Development Work / Expiry Date Change Event Detail

**Event Number ID** **5095647**

Recorded Date 2011/oct/22

Work Type Technical Work (T)

Technical Items Geological (G), Geophysical (P), Geochemical (C), Prospecting (PR), Preparatory Surveys (TS)

Work Start Date 2011/jun/28

Work Stop Date 2011/sep/30

Total Value of Work \$ 149187.00

Mine Permit Number

**Summary of the work value:****Tenure Numbers** **551876**

Claim Name/Property HORN

Issue Date 2007/feb/13

Work Performed Index Y

Old Good To Date 2014/aug/25

New Good To Date 2017/aug/25

Numbers of Days Forward 1096

Area in Ha 247.46

Applied Work Value \$ 5939.12

Submission Fee \$ 297.23

**Tenure Numbers** **836154**

Claim Name/Property COPPER HORN 1

Issue Date 2010/oct/18

Work Performed Index Y

Old Good To Date 2014/oct/18

New Good To Date 2017/oct/18

Numbers of Days Forward 1096

Area in Ha 515.35

Applied Work Value \$ 12368.34

Submission Fee	\$ 618.98
<b>Tenure Numbers</b>	<b>836155</b>
Claim Name/Property	GREEN 1
Issue Date	2010/oct/18
Work Performed	Y
Index	
Old Good To Date	2014/oct/18
New Good To Date	2017/oct/18
Numbers of Days	1096
Forward	
Area in Ha	391.89
Applied Work Value	\$ 9405.45
Submission Fee	\$ 470.70
<b>Tenure Numbers</b>	<b>838311</b>
Claim Name/Property	ARROW 1
Issue Date	2010/nov/14
Work Performed	Y
Index	
Old Good To Date	2014/nov/14
New Good To Date	2017/nov/14
Numbers of Days	1096
Forward	
Area in Ha	515.51
Applied Work Value	\$ 12372.34
Submission Fee	\$ 619.18
<b>Tenure Numbers</b>	<b>838312</b>
Claim Name/Property	ARROW 2
Issue Date	2010/nov/14
Work Performed	Y
Index	
Old Good To Date	2014/nov/14
New Good To Date	2017/nov/14
Numbers of Days	1096
Forward	
Area in Ha	226.97
Applied Work Value	\$ 5447.29
Submission Fee	\$ 272.61
<b>Tenure Numbers</b>	<b>838313</b>
Claim Name/Property	ARROW 3
Issue Date	2010/nov/14
Work Performed	Y
Index	
Old Good To Date	2014/nov/14
New Good To Date	2017/nov/14
Numbers of Days	1096
Forward	
Area in Ha	267.90
Applied Work Value	\$ 6429.60
Submission Fee	\$ 321.77

<b>Tenure Numbers</b>	<b>838315</b>
Claim Name/Property	ARROW 4
Issue Date	2010/nov/14
Work Performed Index	Y
Old Good To Date	2014/nov/14
New Good To Date	2017/nov/14
Numbers of Days Forward	1096
Area in Ha	371.05
Applied Work Value	\$ 8905.19
Submission Fee	\$ 445.67

#### **Financial Summary:**

Total Applied Work Value:	\$ 60867.33
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PAC name	Bruce Anthony Doyle
Debited PAC amount	\$ 0.00
Credited PAC amount	\$ 88319.67

Total Submission Fees	\$ 3046.14
Total Paid	\$ 3046.14

#### **Related Summary:**

Existing Work Program Event Numbers	
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