

**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)]:** Geological

**TOTAL COST:** \$7,300.00

**AUTHOR(S):** Laurence Sookochoff, PEng

**SIGNATURE(S):** Laurence Sookochoff

Digitally signed by Laurence Sookochoff  
DN: cn=Laurence Sookochoff, o, ou,  
email=lsookochoff@yahoo.ca, c=CA  
Date: 2015.04.30 10:58:01 -0700

**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):** \_\_\_\_\_

**YEAR OF WORK:** 2014

**STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):** 5530286 November 11, 2014

**PROPERTY NAME:** Chita

**CLAIM NAME(S) (on which the work was done):** Tenures 589643, 685904

**COMMODITIES SOUGHT:** Copper, Gold, Silver

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:** 0920 049

**MINING DIVISION:** Clinton

**NTS/BCGS:** 0920.023

**LATITUDE:** 51 ° 15 ' 33.7 " **LONGITUDE:** 123 ° 31 ' 42.74 " (at centre of work)

**OWNER(S):**

1) Richard John Billingsley

2) \_\_\_\_\_

**MAILING ADDRESS:**

11114 147A Street

Surrey, BC V3R 3W2

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

1) Richard John Billingsley

2) \_\_\_\_\_

**MAILING ADDRESS:**

11114 147A Street

Surrey, BC V3R 3W2

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

Covers the Taylor Creek Group-Beece Creek Succession of undivided sedimentary rocks of Late Cretaceous to Upper

Cretaceous age intruded by feldspar porphyritic intrusive rocks of Late Cretaceous to Paleogene age. Northwesterly structures

within a dike swarm contain as much as 7.3 grams per tonne gold and 58 grams silver per tonne. Mineralization also occurs in

NW structures. Disseminated chalcopyrite up to 0.05% and minor molybdenite are associated with zones of strong alteration.

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:** 473, 1606, 8893, 28192, 34143

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping			
Photo interpretation	566 hectares	589643, 685904	\$ 7300.00
<b>GEOPHYSICAL (line-kilometres)</b>			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
<b>GEOCHEMICAL (number of samples analysed for...)</b>			
Soil			
Silt			
Rock			
Other			
<b>DRILLING (total metres; number of holes, size)</b>			
Core			
Non-core			
<b>RELATED TECHNICAL</b>			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>			
<b>PREPARATORY / PHYSICAL</b>			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other			
<b>TOTAL COST:</b>			<b>\$ 7300.00</b>

# **RICHARD BILLINGSLEY**

*(Owner & Operator)*

## **GEOLOGICAL ASSESSMENT REPORT**

*(Event 5530286)*

*on a*

**BC Geological Survey  
Assessment Report  
35349**

## **STRUCTURAL ANALYSIS**

*Work done from October 20, 2014 to November 10, 2014*

*on*

**Tenures 589643 & 685904**

*(Chita 589643 Claim Group)*

*of the eight claim*

**Chita Property**

*Clinton Mining Division*

**BCGS Map 0920.023**

*Centre of Work*

**5,678,800N, 463,120E**

*(NAD 83 Zone 10U)*

*Author & Consultant*

**Laurence Sookochoff, PEng**

*Sookochoff Consultants Inc.*

*Submitted*

**April 30, 2015**

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## SUMMARY

The two-claim Chita 589643 Claim Group of the eight-claim 3,014 hectare Chita property is located 222 kilometres north of Vancouver and 22 kilometres south of the Prosperity developed prospect.

At the Prosperity deposit, a porphyry system occurs in an area of volcanic, sedimentary and porphyritic intrusive rocks within a plication in the contact of the fine-grained porphyritic quartz diorite stock. Mineralization took place over a significant time span which saw many episodes of fracturing, healing, and refracturing. The porphyry intrusions may have acted as a heat "engine" to drive a convective cell of metal-bearing hydrothermal fluids. Whether the metals in the system were scavenged from the country rock or supplied by the porphyries is open to speculation (Geology in British Columbia).

Taseko Mines reports current mineral resources at the New Prosperity (Prosperity) at a measured 547 million tonnes of 0.27% copper and 0.46 grams per tonne gold in addition to an indicated 463 million tonnes of 0.21% copper and 0.34 grams per tonne gold or a total mineral resource of 1,010.50 million tonnes of 0.24% copper and 0.41 grams per tonne gold at a 0.14% cut-off. ([www.tasekomines.com/new-prosperity/ID540208](http://www.tasekomines.com/new-prosperity/ID540208)).

The Chita property, like the Prosperity, is in a very favourable geologically area for the location of a classic style copper-gold porphyry deposit where mineralization can occur entirely within an intrusive, commonly as a stock, or the country rock, or both. These types of deposits are usually located at the intersection of regional scale faults.

The Minfile Chita prospect, one of several designated porphyry copper +/- molybdenum +/- gold type deposits (Minfile term) in the area, was explored since the early 1960's with results indicating all the requisites for a potential porphyry resource. These results include a 2,000 x 6,000 foot area of copper values over 50 ppm, a 2,000 x 2,500 metre "doughnut-shaped" chargeability high corresponding with magnetic and resistivity lows, and drill hole core assays of 0.13% copper over 176 feet in a 213 foot drill hole.

The results of the structural analysis on two of the Chita property claims indicated two cross-structural locations that may be as significant as the two locations of higher grade zones (>0.60% copper equivalent) at the Prosperity where the reported many episodes of fracturing, healing, and refracturing and/or may be at cross-structural locations.

The two cross-structural locations, "A" and "B" were located from two northwesterly trending structures intersecting with a northeasterly trending structure. Some of the highest copper, molybdenum, and gold assays were from samples 22 and 23 as indicated on Figure 9 with coordinates, and a map on page 40 in assessment report 34,143. This location correlates with the northeasterly structure and is within 400 metres northeast of cross-structure "A" and a possible surface indication of mineral seepage along a restricted structure from a potential porphyry resource at depth related to cross-structural "A".

Thus, the cross-structure "A" area is the prime location to explore for surficial geological indicators of a potential economic sub-surface mineral resource. In the exploration, the main focus should be on all types and orientations of structures and breccias in addition to all types and degree of alteration.

The procedure to the exploration is set out in the Recommendations section of this report.

## INTRODUCTION

In October and November 2014 a structural analysis was completed on Tenures 589643 & 685904 (Chita 589643 Claim Group) of the eight claim Chita property (“Property”). The purpose of the program was to delineate cross-structures which may be integral in geological controls to potentially economic mineral zones that may occur on the Chita 589643 Claim Group or any other claims of the Property.

Information for this report was obtained from sources as cited under Selected References and from the structural analysis of Tenures 589643 and 685904.

Figure 1. Location Map



## PROPERTY LOCATION AND DESCRIPTION

### Location

The Property is situated within BCGS Map 092E.023 of the Clinton Mining Division, 222 kilometres north of Vancouver, and 22 kilometres south of the Prosperity developed prospect where a measured reserve of 547 million tonnes of 0.27% copper and 0.46 grams per tonne gold is reported in addition to an indicated reserve of 463 million tonnes of 0.21% copper and 0.34 grams per tonne gold.

### Description

The Property is comprised of eight contiguous mineral claims covering an area of 3014.895 hectares. Particulars are as follows.

**Property Location and Description (cont'd)****Table 1. Mineral Tenures of the Chita property**

<u>Tenure Number</u>	<u>Type</u>	<u>Claim Name</u>	<u>Good Until</u>	<u>Area (ha)</u>
<a href="#">589643</a>	Mineral	CHITA 2	20160923	121.3955
<a href="#">685903</a>	Mineral	NEW CHITA 1	20150715	505.6863
<a href="#">685904</a>	Mineral	NEW CHITA 2	20150715	444.9849
<a href="#">685924</a>	Mineral	NEW CHITA 4	20150715	505.941
<a href="#">685925</a>	Mineral	NEW CHITA 5	20150715	445.2429
<a href="#">685926</a>	Mineral	NEW CHITA 6	20150715	404.7719
<a href="#">685944</a>	Mineral	NEW CHITA 10	20150715	505.9218
<a href="#">704744</a>	Mineral	NEW CHITA 10A	20160923	80.9507

**ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY****Access**

Road access is via Highway 20 from Williams Lake, west 100 kilometers to the village of Hanceville. From there, a well maintained dirt road leads south for approximately 120 kilometers to the subject claims. A number of 4x4 roads cross the property. Winter access is via helicopter from bases at Gold Bridge, Pemberton, Lillooet, or Williams Lake

**Climate**

Moderate annual precipitation prevails in the Property area with cool summers and cold winters.

**Local Resources and Infrastructure**

Williams Lake would be the source for all resources including mineral exploration and mining personnel and has the infrastructure to provide accommodation for any number of employees at the Property.

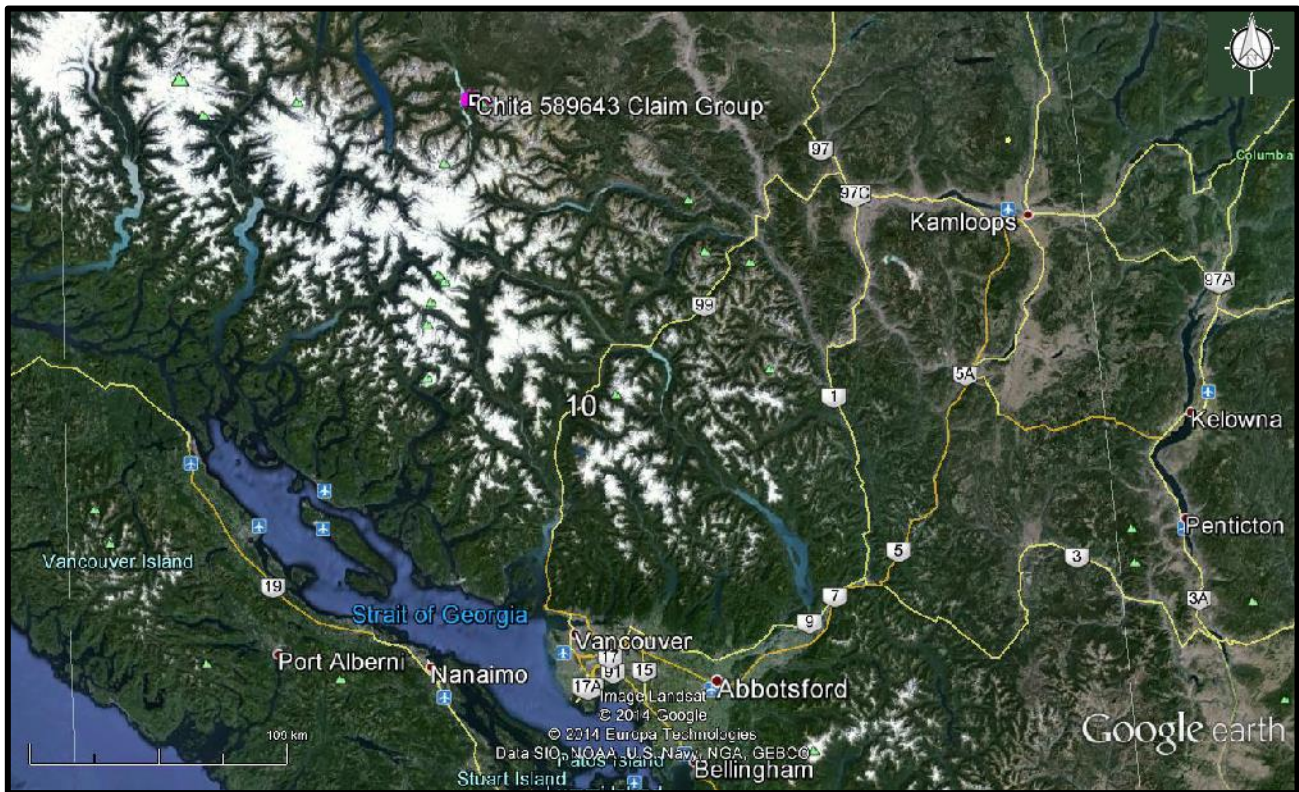
Williams Lake is connected by rail to the port of Vancouver.

**Physiography**

The Property is situated on the northeast flanks of the Chilcotin Ranges of the Coast Mountains and is located on the slopes immediately northeast of the narrows separating upper and lower Taseko Lakes.

The Property covers low to moderate forested slopes in the far western portion trending to rugged mountainous alpine terrane in the eastern portion. Elevations range from 1,327 metres at the shores of Taseko Lake to 2,734 metres at the southeastern corner of the Property.

**Figure 2. Claim Location**  
(base map from MapPlace & Google Earth)



**Figure 2a. Claim Location to Prosperity**  
(base map from MapPlace & Google Earth)



Figure 3. Claim Map  
(Base map from MapPlace)

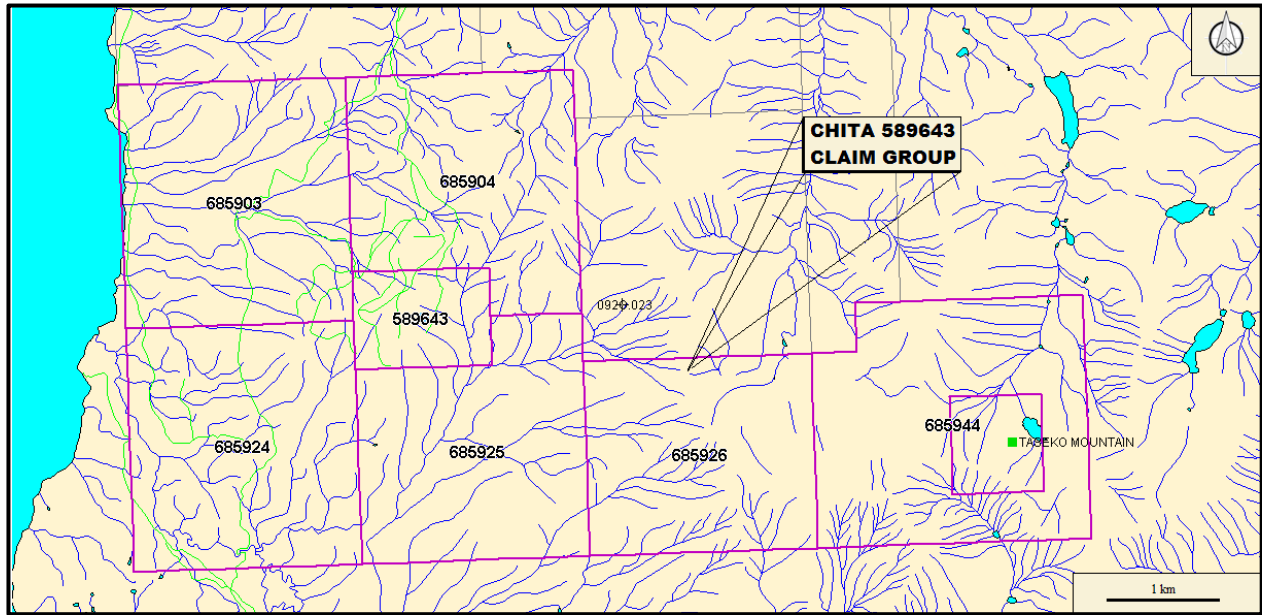
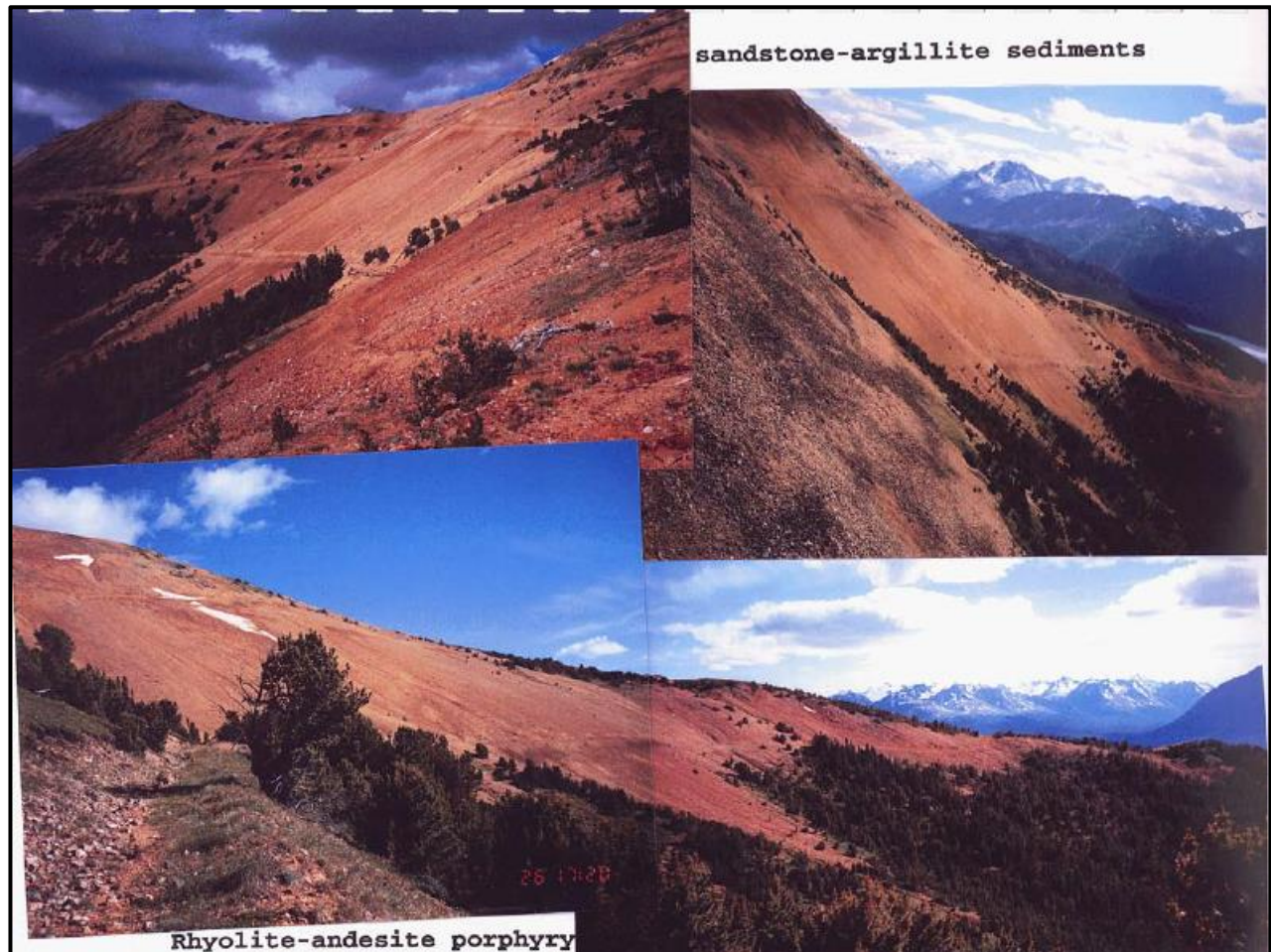


Figure 3. Photo collage of Chita mineral area  
(Photo from AR 28,192; Hajek, 2006)



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## HISTORY: PROPERTY AREA

The history on some of the MINFILE reported past producers, developed prospects, and prospects peripheral to the Chita Property are reported as follows. The distance is relative to the Chita Property.

### **ROBSON** Past Producer (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 0920 026

Four kilometres south-southwest

*Sometime prior to 1912, numerous gold-bearing sulphide veins in the Eldorado Mountain and Bonanza Basin areas were prospected by sluicing and open trenching. In 1912, a Mr. Pearson explored small arsenopyrite veins on the Bonanza Creek claims. Exploration continued to increase in the area and, by the 1930s, numerous adits had been driven along arsenopyrite veins in the Taylor, Eldorado and Bonanza basins.*

*Prior to 1939, a 6.1-metre-long adit had been excavated and the claim owners were reportedly shipping approximately 1.8 tonnes of ore per day (Geological Survey of Canada, Paper 43-15, pages 27 to 28).*

*The first official record of work on the Robson vein was from 1940 by the J.G. Mining Company. Bralorne Mines later optioned the property. Work completed by Bralorne included repairing an old 21.3-metre-long adit and extending it 39.6 metres, facing a second adit and advancing it 12.2 metres and diamond drilling a total of 213.4 metres, as well as considerable open-cut work.*

*Between 1967 and 1969, Bridge River United Mines Limited carried out an exploration program of geological mapping, geochemical sampling, trenching and electromagnetic geophysical surveying. Exploration continued from 1975 to 1976, when Chevron Standard Limited completed a program of geological mapping and soil grid sampling.*

*The property was later acquired by Mutual Resources Incorporated in 1979. The company began extensive road building and trenching, though the location of the trenches is unknown because they were never properly marked on maps included in the assessment reports. In 1985, Mutual Resources optioned the property to Cinnabar Resources Limited. Exploration that year consisted of detailed geophysical and geochemical surveying over areas with anomalous gold, silver, arsenic and stibnite values. Three short 0.3-metre channel samples were taken from the Robson trench. The following year, Mutual Resources drilled five diamond drill holes totalling 152 metres. Three of the five holes intersected the Robson veins.*

*The property was later acquired by Ken Shannon in 1999. In 2005, Rudi Durfield conducted prospecting and silt sampling over the Bonanza Gold project area, including the Robson claim. The following year, Durfield carried out geological mapping, hand trenching and rock sampling in the Robson trench and adit area as part of an exploration program on the surrounding Bonanza Finger property. The Bonanza Finger property then became known as the Eldorado Gold project and, in 2008, Mel Stewart and Rudi Durfield collected silt and rock samples over the project area and the Robson claim.*

*In 2009, J. Drobe completed a geological and geochemical evaluation of the Robson Gold property on behalf of Ken Shannon. Work that year consisted of geological mapping, prospecting and rock-chip sampling.*

**History: Property Area (cont'd)****Robson Past Producer (cont'd)**

*In 2011, GFE Exploration Corporation, a subsidiary of Gold Fields Limited, optioned the property from Ken Shannon. Exploration that year consisted of geological mapping, prospecting, talus fine- and stream-sediment sampling and diamond drilling. One NQ2 diamond drill hole totalling 367.89 metres was drilled to test the validity of surface gold geochemical anomalies.*

*In 2012, Mel Stewart and Rudi Durfield conducted a program of geological mapping, prospecting and geochemical sampling on the surrounding Eldorado property.*

*The deposit was mined in 1939 and 1940, producing a total of 34 tonnes of ore that yielded 18 kilograms of silver, 2.2 kilograms of gold, 193 kilograms of copper and 2640 kilograms of lead (Assessment Report 14428).*

*In 1986, a 0.79-metre diamond drill interval assayed 468.95 grams per tonne silver and 45.24 grams per tonne gold (Assessment Report 15119).*

*From the 2011 drill program, drillhole ELD11-03 intersected 31.7 metres of 0.741 gram per tonne gold (Assessment Report 32974, page 26).*

**TAYLOR WINDFALL Past Producer (: Polymetallic veins Ag-Pb-Zn+/-Au;  
Epithermal Au-Ag-Cu: high sulphidation)**

MINFILE 0920 028

Fifteen kilometres south-southeast

*E.J. Taylor first discovered gold in eluvium on the bank of Battlement Creek in 1920. The gold was present as coarse angular crystalline fragments and sponge-like particles in a loose decomposed matrix which included detached crystals of quartz, tourmaline, rutile, pyrite and fragments of silicified tuff. Gold was removed by panning and the use of an arrastre. Exploration beneath the surficial deposits failed to find mineralized bedrock.*

*Subsequent exploration in the area outlined two veins of interest: a tourmaline-rich vein and a sulphide-rich vein. The tourmaline vein is 10 to 20 centimetres wide along a strike length of at least 100 metres; the vein pinches, swells and bifurcates along its length. The vein consists of tourmaline, chlorite, pyrite, tennantite, sphalerite and chalcopyrite, with lesser galena, tetradymite, native gold and enargite. The main sulphide vein is 20 centimetres wide along a strike length of 20 metres (the vein has been mostly mined out). The sulphide vein mineralogy is similar to that of the tourmaline vein but contains a greater proportion of sphalerite, tennantite, and contains coarse siderite.*

**TASEKO (EMPRESS) developed prospect (Porphyry Cu+/-Mo+/-Au)**

MINFILE 0920 033

Fourteen kilometres south

*In 1991 drilling, two potential new zones were discovered: the East and Granite Creek zones. In the Granite Creek zone, situated 243 metres north of the Empress, a drillhole intersected 88 metres grading 0.23 per cent copper and 0.27 gram per tonne gold (George Cross News Letter No. 7, 1992).*

*In 1995, with Explore BC Program support, Westpine Metals Ltd. conducted a program of rock and soil sampling and 14.2 line kilometres of induced polarization surveying on the Rowbottom and Buzzer zones. Three areas of elevated metal values were defined on the Rowbottom grid (Explore BC Program 95/96 - M114).*

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**History: Property Area (cont'd)****Taseko (Empress) developed prospect (cont'd)**

*In 1996 and 1997, the property was sampled for sapphires; the largest found was 20 by 3 millimetres (George Cross News Letter No. 155, August 13, 1997). In nine collected samples, sapphires were identified but not of gem quality. No further work was recommended for sapphires (Assessment Report 26037).*

*Westpine Metals Ltd. changed its name to Great Quest Metals Ltd. in 1998. No work was completed on the property between 1999 and 2007.*

*In 2007, a program of step-out drilling from Granite Creek zone was conducted to test the Granite Creek magnetic anomaly and improve the Empress resource estimate. Follow-up drilling was completed in 2008.*

*Granite Creek Gold Ltd. acquired a 51 per cent interest in the property in 2010. A short program of prospecting and rock and soil sampling was completed in the Empress and Buzzer West areas. The program focused on previously identified outcrop and trenched areas. Subsequent drilling in 2011 focused on the Buzzer zone, whereas rock sampling focused on the Rowbottom showing.*

**PROSPERITY developed prospect (Porphyry Cu+/-Mo+/-Au)**

MINFILE 0920 041

Twenty-two kilometres north

*The property was first discovered by Phelps Dodge Corporation in 1963. In 1966, their claims lapsed and the area was restaked by Taseko Mines Limited. During the period from 1969 to 1990 a number of mining companies, including Bethlehem Copper and Cominco, completed exploration programs on the property. Early exploration drilling totalled 27,005 metres in 176 shallow holes which determined the potential for a large-scale disseminated gold-copper porphyry deposit. Many of these early drillholes bottomed in significant gold-copper mineralization.*

*A major multi-rig drilling program conducted from late 1991 to 1993 by Taseko resulted in the completion of 139 large diameter vertical core holes for a total of 77,392 metres. Throughout 1993, Taseko further advanced the project by undertaking a wide spectrum of detailed mine planning and environmental baseline studies, and in August of that year, Taseko commenced the mine permitting process with the province of British Columbia.*

**CHARLIE prospect (Porphyry Cu+/-Mo+/-Au)**

MINFILE 0920 043

Nine kilometres southwest

*A prospecting party exploring the Tchaikazan Valley in 1945, discovered quartz veins carrying gold-silver mineralization on a slope above the valley. Although only minor amounts of sulphide mineralization (predominantly pyrite) was observed in the veins, assays from a panned sulphide concentrate returned "many ounces of gold and more than 50 ounces of silver".*

*Later exploration in the area resulted in the discovery of chalcopyrite-molybdenite mineralization in the floor of the Tchaikazan Valley, within altered volcanic rocks cut by porphyritic stocks and dykes of mainly granodioritic composition.*

*International Jaguar Equities Inc. discovered the Charlie Northwest occurrence in 1998. Showings occur over an area of 2.6 square kilometres. In May 1999, a subsidiary NWC Explorations Inc., was formed to hold the property.*

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**History: Property Area (cont'd)**

**PELLAIRE** developed prospect (Polymetallic veins Ag-Pb-Zn+/-Au u)  
MINFILE 0920 045  
Fourteen kilometres south

*Past work consisted of several adits and underground development.*

*In a 1996 bulk sampling program, International Jaguar Equities has delivered a bulk sample to the Trail smelter totalling 858.74 tonnes grading 35.92 grams per tonne gold, 115.07 grams per tonne silver and 87.7 per cent silica (T. Schroeter, personal communication, 1997).*

*International Jaguar Equities Inc. completed a bulk sampling and exploration program in 1997. The balance of 450 tonnes of the approximately 2000 tonnes of high-grade ore (e.g. 34.2 grams per tonne gold and 102.9 grams per tonne silver) mined during 1996 from two adits and raises on the No. 4 and 5 veins, was scheduled to be delivered to the Trail smelter during November 1997. During the year the company carried out a program of mapping, trenching and sampling on eight of the presently known veins on the property.*

*Gold-silver mineralization occurs in veins along a 400-metre contact between granodiorite of the Coast Plutonic Complex and volcanic rocks of the lower Cretaceous Taylor Creek Group. The No. 3 vein (750 metres long by 3 metres wide) is the main structure; the No. 4 and No. 5 veins are splays off it. The company also completed an engineering report on the 1997 underground operation. A 2500-metre diamond-drilling program is planned for 1998, to establish a reserve base for year round mining. International Jaguar drilled 9 underground and 2 surface holes (600 metres) and conducted geochemistry and prospecting in 1998.*

**HISTORY: PROPERTY**

The history of the MINFILE reported prospect and showing on the Chita Property is reported as follows

**CHITA** prospect (Porphyry Cu+/-Mo+/-Au)  
MINFILE 0920 049  
Within Tenure 589643

*The Chita (Banner) porphyry copper-molybdenum occurrence has been explored intermittently since the early 1960's. In 1962, geological mapping by Phelps Dodge outlined a widespread mineralized system. By 1963, Phelps Dodge had drilled four short diamond drill holes, with a best result of 0.13 per cent copper over 53 metres.*

*In 1968, grid work, mapping, soil sampling and trenching by Bethex outlined a mineralized area measuring 610 by 1,828 metres. Forth-three trenches were blasted with a best result of 0.193 per cent copper over a 36-metre length.*

*In 1969, Bethlehem Copper diamond drilled four holes totalling 393 metres, with a best result of 0.19 per cent copper over 50 metres. The following year, Bethlehem Copper completed 21 more short percussion drill holes totalling 1,280 metres. The most significant value was 0.144 per cent copper over 60 metres (Assessment Report 28192).*

*In the 1980's, Barrier Reef outlined a copper soil anomaly (up to 0.0119 per cent copper) measuring approximately 1,219 by 2,194 metres. Rock samples assayed up to 3 per cent copper and 140 parts per billion gold (Assessment Report 28192).*

**History: Property (cont'd)****Chita prospect (cont'd)**

*In 1991, Reliance Geological and two major mining companies conducted a geochemical rock sampling program. Eleven of 26 samples produced results greater than 0.1 per cent copper, with a high of 0.44 per cent copper (Assessment Report 28192).*

*In 1998, Jaguar International Equities Inc. completed a program of grid cutting, geological mapping and stream sediment sampling in addition to induced polarization and total field magnetics. The geophysical surveys defined an interpreted pyritic halo and the stream sediment survey returned anomalous values for gold.*

*Revolver Resources carried out the initial phase of an exploration program on the property in May, 2010. The program consisted of a 920-kilometre airborne geophysical survey, using magnetics and very low frequency electromagnetics. Results of the airborne geophysics combined with a review of historical data established an 8- square- kilometre portion of the property that warrants detailed ground surveys ([www.revolverresources.com](http://www.revolverresources.com)). In 2012, Revolver Resources Inc. carried out an AeroTEM 1V time-domain electromagnetic survey and a magnetic survey over a 35-square-kilometre block within the company's Chita property claim block. The survey was successful in mapping the magnetic and conductive properties of the geology throughout the survey area. The magnetic data provided a high-resolution map of the distribution of the magnetic mineral content of the survey area (STOCKWATCH, April 25, 2012).*

**TASEKO MOUNTAIN** showing (Vein, Stockwork, Dissemination)

MINFILE 094E 076

Within Tenure 704744

*The property was originally explored in 1982 by Utah Mines Ltd., who conducted an exploration program of rock and soil sampling. This was the only work completed by Utah Mines Ltd.*

*In 1991, Cascade Investments J.V. Ltd. staked the Taseko Mountain property and completed a 15 man-day exploration program consisting of geological mapping, sampling and prospecting. Of the 52 rock samples collected, the best samples were chip sample C-D12 which assayed 0.41 per cent zinc and 16.89 grams per tonne gold and float sample F-B01 which assayed 1.25 per cent zinc and 7.28 grams per tonne gold (Assessment Report 22160).*

**Table 2. Historical exploration of work on the ground covered by the Chita Property**

<b>Year</b>	<b>Company</b>	<b>Work Completed</b>	<b>Results</b>	<b>Reference</b>
<b>1962</b>	Phelps Dodge Corporation of Canada	Geological mapping	Widespread pyrrhotite, pyrite, and chalcopyrite occur in altered feldspar porphyry intrusives and in altered sediments	<b>AR 473</b>
<b>1963</b>	Phelps Dodge Corporation of Canada	Geological mapping, soil sampling, trenching, and 750 feet of x-ray diamond drilling.	Five large copper soil anomalies were outlined. The deepest drill hole was P-4 at 213 feet with the best result of 0.13% Cu over 176 feet. The best assay of 0.35% Cu over 120 feet was from Trench 1.	<b>AR 551</b>
<b>1968</b>	Bethex Explorations Ltd.	Geological mapping, 970 soils collected and 43 trenches blasted.	A 2000 x 6000 foot area of Cu values over 50 ppm and pyrite, pyrrhotite, and sporadic chalcopyrite was outlined. Best trench assay was 0.183% Cu over 120 feet.	<b>AR 1,606</b> (Anderson, 1968)
<b>1969</b>	Bethlehem Copper Corp.	Four diamond drill holes for 1,290 feet. Deepest was DH T2 at 508 feet.	DH T2 intersected feldspar porphyry, granodiorite, quartz diorite, and hornfels from 10 to 417 feet. Pyrite and lesser pyrite were erratically distributed. Averaged 0.08% Cu from 10 to 417 feet. Best assay was 0.13% Cu over 87 feet in DH T3.	<b>AR 28,192</b> (Macdonald, 2005) Appendix 3 Referenced to a private report by Watson, 1970
<b>1970</b>	Bethlehem Copper Corp.	21 percussion holes for approx. 4,200 feet.	Best assay of 0.144% Cu over 200 feet in Hole # 15.	<b>AR 28,192</b> (Macdonald, 2005) Appendix 3 Referenced to a sketch in a private report.

*Table 2 (cont'd). Historical exploration of work on the ground covered by the Chita 589643 Claim Group*

<b>1980</b>	Barrier Reef Resources Ltd.	Geological mapping and the collection of 763 soil samples from 40.3 km of grid.	Five anomalous areas with values greater than 417 ppm Cu. Largest area is 2,000 x 2,600 feet (600 x 2,200 metres). Thirteen one point gold anomalies scattered throughout the grid area. Thirteen rock samples assayed above 500 ppm Cu, six above 1,000 ppm Cu, and a high 3.0% Cu. Highest gold was 114 ppb.	<b>AR 28,192</b> (Macdonald, 2005) Appendix 3
<b>1998</b>	International Jaguar Equities Inc.	Magnetometer and Induced Potential surveys.	A 2,000 x 2,500 metre "doughnut-shaped chargeability high corresponds with magnetic and resistivity lows. The 1980 geochemical data correlates with the chargeability highs. The chargeability low in the doughnut centre corresponds with a strong magnetic high and a resistivity high.	<b>AR 25,594</b> (Cornock, 1998)
<b>2005</b>	Banner Resources Inc.	Geological Summary	Extensive programs completed between 1962 and 1968 have demonstrated that classic porphyry hosted copper mineralization occurs on the Chita property	<b>AR 28,192</b> (Macdonald, 2005)
<b>2012</b>	Revolver Resources Ltd.	Prospecting and Sampling	There are instances across the property where additional stocks of varying intrusives are present that have not been previously identified and the opposite is true in that where some intrusives were identified they have been observed to be volcanic in origin.	<b>AR 34,143</b> (Beck 2012)

**GEOLOGY: REGIONAL** (after Macdonald, 2005)

The regional geology has previously been mapped by Tipper (1978) and the faunal Stratigraphy discussed by Jeletzky and Tipper (1968). This work was refined by Glover and Schiarriza (1987), Glover et al (1988) and McLaren (1986a, 1987a). The region is underlain by Middle Jurassic to Upper Cretaceous strata that accumulated within the Tyaughton trough. The coarse clastic sediments that dominate the axial regions of the trough interfinger with volcanic lithologies in the Taseko to Chilko lakes area. A number of significant northwest trending faults, with both strike-slip and compressional movements, transect the region. Intrusive rocks of the Coast plutonic complex truncate the stratified rocks on the south and southwest.

The area is underlain by Lower and Upper Cretaceous strata that have been intruded by a variety of stocks and dykes. Two large faults, the Tchaikazan and Chita Creek faults, cut across the area on a northwesterly trend. Lower Cretaceous strata south of the Tchaikazan fault comprise intimately interbedded volcanic, volcanic epiclastics and clastic sedimentary rocks. Rocks immediately north of this fault are Late Cretaceous in age. North of the Chita Creek fault, Lower Cretaceous strata comprise clastic sediments that are unconformably overlain by Upper Cretaceous volcanics and sediments.

**GEOLOGY: PROPERTY AREA**

The geology on some of the MINFILE reported past producers, developed prospects, prospects, and showings peripheral to the Chita Property are reported as follows. The distance is relative to the Chita Property.

**KNIGHT** showing (Epithermal Au-Ag: low sulphidation)

MINFILE 0920 002

Thirteen kilometres east

The Knight property is primarily underlain by Lower Cretaceous Taylor Creek Group clastic sedimentary rocks cut by irregularly shaped dykes and stock-like bodies of Cretaceous to Tertiary hornblende feldspar porphyry. Well hornfelsed and fractured lithologies include dark grey argillaceous siltstone, brownish greywacke and chert-volcanic pebble conglomerate.

**ROBSON** Past Producer (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 0920 026

Four kilometres south-southwest

The area is underlain by thick siltstone to sandstone turbidite sequences of the Upper Triassic Hurley Formation. The Hurley turbidites are juxtaposed against Lower Cretaceous Taylor Creek Group conglomerates and interbedded fine sandstone to shales. A diorite to quartz diorite Upper Cretaceous Coast Crystalline Complex intrusion, measuring approximately 5 by 4 kilometres, dominates the centre of the Eldorado property and Robson showing.

The showing lies within hornfelsed and altered sedimentary rocks (including calcarenite, sandstone and shale) of the Upper Triassic Hurley Formation occurring along the northwest margin of an apophysis of the Paleocene Eldorado granodiorite pluton.

**VICK** prospect (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 0920 027

Twelve kilometres north-northwest

**Geology: Property Area** (cont'd)**Vick prospect** (cont'd)

The Vick is a polymetallic vein showing hosted by andesitic flow breccias and feldspar crystal tuffs of the Powell Creek Formation. It is located on a steep mountain directly west of the narrows at the north end of Lower Taseko Lake. Two exploration adits were driven into the east side of the mountain at about 1700 metres (5500 feet) elevation in 1935. A four-wheel drive access road to the 2407 metre (7898 foot) peak around the south side of the mountain was made in the early 1980's.

**TAYLOR WINDFALL** Past Producer (: Polymetallic veins Ag-Pb-Zn+/-Au;  
Epithermal Au-Ag-Cu: high sulphidation)

MINFILE 0920 028

Fifteen kilometres south-southeast

Taylor-Windfall polymetallic vein prospect is on the southeast side of Battlement Creek 1 kilometre above its junction with Taseko River. The prospect is within dacitic and andesitic tuffs, and various volcanic sedimentary rocks and volcanic breccia's of the Upper Cretaceous Powell Creek Formation. Most tuffaceous lithic and vitric andesites are propylitically altered and silicified.

**TASEKO (EMPRESS)** developed prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 033

Fourteen kilometres south

The Empress copper-gold porphyry deposit is on the east side of Granite Creek, 800 metres above its confluence with the Taseko River. A major strike-slip fault, the Tchaikazan Fault is interpreted to underlie the Taseko River Valley to the north of the showing. The showing is in andesite, porphyry flows and bedded fragmental dacitic andesite of the Upper Cretaceous Powell Creek Formation adjacent to its contact with Late Cretaceous quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex. The contact strikes to the west and dips moderately to the north. The volcanic hostrocks are bleached, pyrophyllite altered ( $\pm$ sericite) and extremely silicic. Wallrock alteration of the volcanics roughly parallels the intrusive contact and comprises (from the contact upward) quartz-magnetite, quartz and pyrophyllite-andalusite  $\pm$  quartz  $\pm$  plagioclase.

Three zones of copper-gold mineralization have been defined: the Lower North, Upper North and 76 zones. The latter two zones appear to be fault controlled, whereas the Lower North zone appears to be related to the intrusive contact. The Lower North zone has the strongest mineralization. Preliminary calculations indicate that over 5 million tonnes of greater than 1 per cent copper (plus gold) occur in a relatively flat-lying, disc-shaped pod. The pod is situated approximately 140 metres below surface and is open to the northwest, northeast and southwest. The Upper North zone is less well defined and consists of spotty mineralization occurring in a northeast linear trend from near surface to approximately 120 metres depth. The 76 zone appears to be vertical and trends in a northeast direction. The zone is open to the northeast but appears to be cut off by the quartz diorite stock at depth.

**PROSPERITY** developed prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 041

Twenty-two kilometres north

The Prosperity (formerly Fish Lake) deposit lies within an embayment in the north contact of a northwest elongated, fine-grained, porphyritic quartz diorite stock.

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**Geology: Property Area (cont'd)****Prosperity developed prospect (cont'd)**

The Late Cretaceous stock was emplaced into marine Lower Cretaceous shale and greywacke and marine to non-marine Lower to Upper Cretaceous andesitic pyroclastic rocks with intercalated massive to porphyritic flows (possibly correlative with the informally-named Powell Creek and Silverquick formations), which occupy the Tyaughton Trough. The Tyaughton Trough is a successor basin infilled by both marine and non-marine sedimentary and volcanic rocks. Swarms of east trending feldspar porphyry dykes north of the stock, and north to northwest trending faults north and south of it, disrupt the Cretaceous succession.

One of these, the Yalakom fault, had significant transgressive movement during Late Cretaceous time accompanied by volcanism and continental sedimentation. Mineralization at Fish Lake may be genetically linked to later stages of this fault movement and volcanism. In the embayment of the contact of the quartz diorite stock where the Prosperity deposit lies, hornfelsed sedimentary, volcanic and pyroclastic country rocks are intruded by a complex of post-diorite dykes and small stocks. Subsequently, much of the area was covered by Miocene lavas or Pleistocene to Recent alluvial deposits. Erosion has opened windows in the Miocene lavas and the deposit is exposed in one of these.

The Prosperity porphyry system occurs in an area of volcanic, sedimentary and porphyritic intrusive rocks within a plication in the contact of the fine-grained porphyritic quartz diorite stock. As a result of contact metamorphism associated with the various intrusions, the country rocks are pervasively converted to biotite hornfels. The distribution of biotite is complicated both by a superimposed wave of hydrothermal biotite alteration and by later overprinting of argillic-propylitic alteration assemblages. The country rock is a mixed assemblage of massive to porphyritic volcanic and volcanoclastic rocks, greywackes and shales which dip about 20 degrees.

Porphyries are grouped into pre-ore plagioclase porphyry and quartz-plagioclase porphyry and post-ore mafic plagioclase porphyry. Wolfhard (Canadian Institute of Mining and Metallurgy Special Volume 15) also describes two younger pre-mineral porphyry phases and one post-mineral phase. Texturally, the porphyries are all similar. Distinctions between them are made on the basis of alteration and relative percentages of quartz. Post-ore dykes appear to strike northeast and dip moderately northwest.

Rocks of the Prosperity property have a complex history of alteration. The volcanic to sedimentary country rock appear to have been subjected to at least two periods of pervasive biotite alteration; one resulted from intrusion of the large porphyritic quartz diorite stock, the other from intrusion of the "younger" plagioclase porphyry and quartz-plagioclase porphyry bodies. Matrices of "older" plagioclase porphyries were flooded with biotite during the latter event or events. Vein associations, formation in earlier intrusions, grade distribution, and the alteration zoning patterns indicate that some of the biotite alteration was of hydrothermal origin and was associated with metallization. The zone of best mineralization in the deposit has a core area of pervasive biotite alteration.

From thin section work it is evident that early biotite alteration was later partially, or in places, totally destroyed by younger alteration characterized by formation of sericite, quartz, carbonate, with lesser clay, hydromica, and some gypsum and actinolite. The distribution and relative intensity of the younger alteration have produced a zone of propy-argillic alteration which is apparently fringed by a propylitic zone.

**Geology: Property Area (cont'd)****Prosperity developed prospect (cont'd)**

*The younger alteration laps onto the biotite core and has pervasively altered large areas of hornfelsed rocks outside the 0.25 per cent copper contour of the deposit. Despite the differing ages of alteration, there are coherent grade, alteration, and metal zoning patterns which appear to be controlled by the younger porphyries, particularly the quartz-plagioclase porphyries. It is in, and more commonly adjacent to, these porphyries that the best copper grades occur.*

*The earliest veining at Prosperity post-dates pervasive biotite alteration and consists of quartz, magnetite, hematite, sulphides and chlorite. With time, carbonate was added to the assemblage. During main stage mineralization, sulphides were deposited along with quartz, biotite, chlorite and sericite. The biotite and propylitic alteration associated with the porphyry system apparently also formed at this time. Late main stage veining comprise barren quartz, quartz with sulphides, carbonate and hematite, and gypsum with chlorite or pyrite. Gypsum with minor amounts of anhydrite followed by carbonate veining marked the collapse of the hydrothermal system.*

**CHARLIE prospect (Porphyry Cu<sup>+</sup>/<sup>-</sup>Mo<sup>+</sup>/<sup>-</sup>Au)**

MINFILE 0920 043

Nine kilometres southwest

*Later exploration in the area resulted in the discovery of chalcopyrite-molybdenite mineralization in the floor of the Tchaikazan Valley, within altered volcanic rocks cut by porphyritic stocks and dykes of mainly granodioritic composition.*

*Both the precious metal-bearing veins and disseminated sulphide mineralization are hosted by volcanic and sedimentary rocks of the Lower Cretaceous Taylor Creek Group, consisting of feldspar crystal tuffs, lithic fragmentals, and some flow rocks with chloritic amygdules. Argillaceous sediments are a minor component of the succession.*

**PELLAIRE developed prospect (Polymetallic veins Ag-Pb-Zn<sup>+</sup>/<sup>-</sup>Au)**

MINFILE 0920 045

Fourteen kilometres south

*In the Upper Taseko Lakes area, south of the Tchaikazan fault, strata are comprised of intimately interbedded volcanic, volcanoclastic and clastic sedimentary rocks of the Lower Cretaceous Taylor Creek Group. Intrusive rocks of the Jurassic to Tertiary Coast Plutonic Complex truncate the stratified rocks on the south and southwest.*

*The Pellaire occurrence area covers a contact zone between Coast Plutonic Complex biotite-hornblende granodiorite and volcanic and sedimentary rocks of the Taylor Creek Group. Auriferous quartz veins are primarily within a lobe of granodiorite extending northwards into both flows and pyroclastics that are well altered to a siliceous hornfels. Sedimentary lithologies are similarly hornfelsed but are not as extensive. The quartz veins extend beyond the volcanic/intrusive contact for only a short distance in the volcanics but their associated fault/shear structures extend a considerable distance. A total of eight veins have been discovered. The veins strike east or northeast with 30 to 60 degree dips to the north or northwest towards the volcanic/intrusive contact. On surface, vein widths vary from 0.3 to 7.5 metres and are exposed for up to 225 metres strike length. Drilling has indicated that some veins extend at least 182 metres downdip.*

*The quartz veins are found along steeply dipping, southeast verging reverse faults that juxtapose rocks of the Taylor Creek Group against the granodiorite.*

**Geology: Property Area (cont'd)****Pellaire** developed prospect (cont'd)

Extreme sericitic alteration of both the Taylor Group and the adjacent granodiorite occurs around the veins and is likely related to vein formation rather than to intrusion. Quartz veins are hosted by granodiorite. Basic dikes cut, and are cut by veins. Grade increases where veins or dikes intersect veins or dikes.

The veins are composed of limonite and occasionally malachite-stained friable quartz with voids of weathered-out sulphides, dominantly pyrite and lesser chalcopyrite. Fault gouge selvages are common as is gouge within the veins. Gouge most often appears to have been granodiorite but occasionally appears to have been quartz. As reported by Warren (1947), the veins carry less than 3 per cent metallic minerals which include in approximate order of abundance, pyrite, chalcopyrite, galena, sphalerite, arsenopyrite, tetrahedrite, hessite, altaite, pyrrhotite, magnetite, bornite, gold, tetradymite, cosalite, antimony and wehrlite. The hessite, which carries the bulk of the precious metal, occurs veining quartz, pyrite and chalcopyrite, and as disseminations in these minerals and in galena, tetradymite and wehrlite. Some of the gold is residual and has been left behind in veins and pockets after hessite.

Associated with each vein is a wide sericite alteration zone. Pervasive sericitization is very strong near veins with a decrease to weak sericite development in feldspars in the outer fringes of the zone. In places wallrocks are intensely silicified and carry pyrite. Carbonate is common in minor quartz veins but weathering has obscured whether it was present in the main veins.

**GRAB** showing (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 070

Twelve kilometres east-southeast

In the area, andesite and heterolithic volcanic breccia of the Informally named Upper Cretaceous Powell Creek Formation unconformably overlies argillite, sandstone and conglomerate of the Lower Cretaceous Taylor Creek Group. The sedimentary and volcanic rocks are cut by a hornblende-feldspar porphyry stock, and numerous dykes ranging in composition from quartz-eye rhyolite to andesite and diorite. Most dykes strike northerly and dip steeply; northwest, northeast, and east striking dykes also occur. The volcanic and sedimentary rocks are fractured parallel to dyke walls.

**TARN CREEK** prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 125

Twenty kilometres west

A zone of stockwork copper mineralization is located approximately 4 kilometres north-northeast of the west end of Yohetta Lake. The valley at this location is referred to as Tarn Creek. The valley is largely underlain by volcanic lithologies of Upper Cretaceous volcanics dominated by feldspar-hornblende porphyry flows and associated volcanic lithic fragmental rocks. A variety of dykes and irregularly shaped bodies of hornblende diorite porphyry intrude the volcanics on both sides of the valley. Quartz and/or carbonate alteration zones are common adjacent to the intrusives. Propylitic alteration in the volcanics has produced carbonate, epidote and chlorite as complete replacements of, or irregular haloes around, feldspar and hornblende phenocrysts. Argillic alteration or silicification is locally present.

## GEOLOGY: PROPERTY

Macdonald (2005) provides a description of the Chita property geology as follows:

*The property is underlain by Lower Cretaceous Taylor Group sediments (argillites, sandstones, etc.) and Upper Cretaceous Kingsvale volcanic rocks which are intruded by Upper Cretaceous feldspar-hornblende-biotite porphyry.*

*Four basic rock units outcrop throughout the property:*

*a) Black argillite, grey-brown to green sandstones, siltstones, quartz pebble conglomerate.*

*b) Intercalated with the sediments are narrow zones of pale yellow rhyolite ash.*

*Both units a) and b) have been regionally mapped as Lower Cretaceous Taylor Creek Group or Upper Cretaceous Silverquick Formation.*

*c) A dark green fine-grained andesite porphyry and an agglomerate which outcrops in the north and south areas of the property. This unit is part of the Upper Cretaceous Kingsvale Group.*

*d) A feldspar-hornblende biotite porphyry intrusive. Phenocrysts consist of euhedral zoned plagioclase (up to 2 cm in size), smaller hornblende and local biotite-quartz crystals in a fine-grained groundmass of feldspar, quartz and mafic minerals. The feldspar hornblende porphyry varies from fresh to intense carbonate-argillic alteration. The highly altered zones include sections of multiple veining and silicification.*

The geology of the MINFILE reported prospect and showing on the Chita 589643 Property is reported as follows

### **CHITA** prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 049

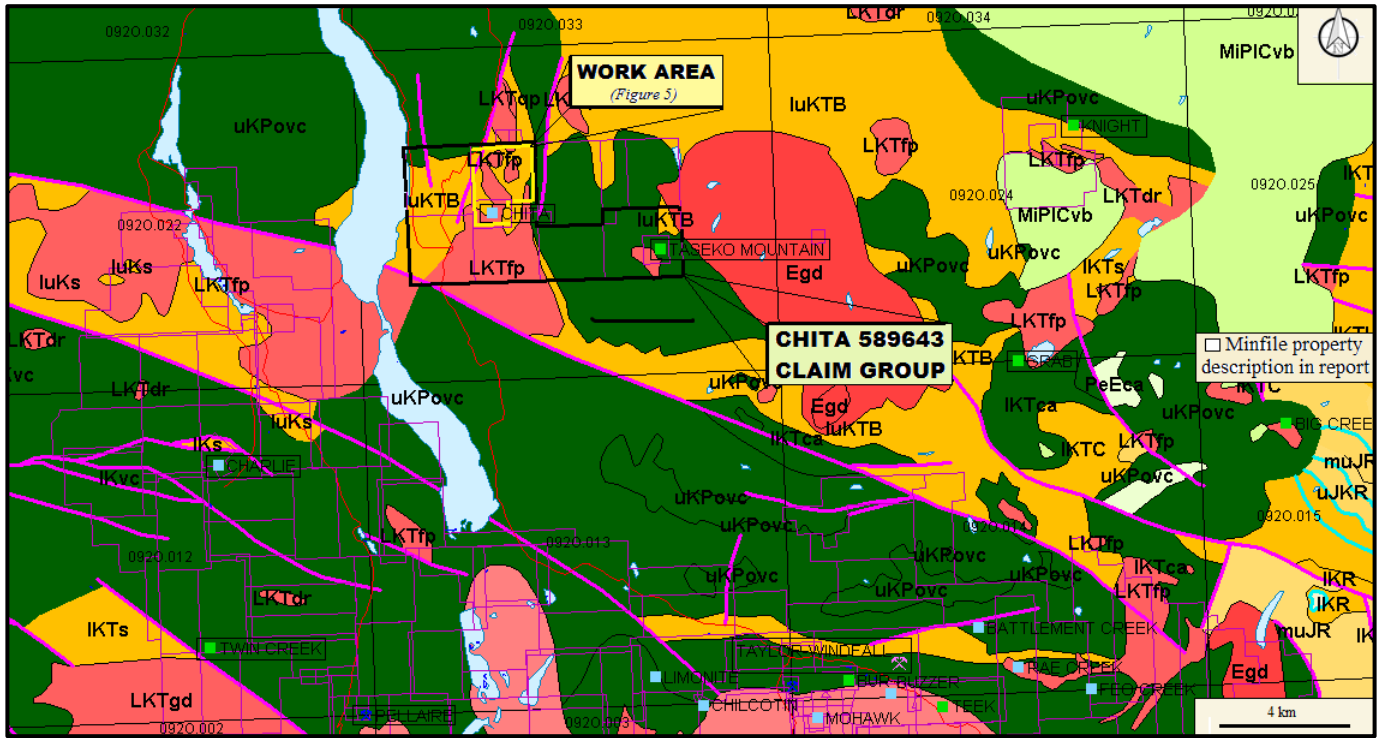
Within Tenure 589643

*Regionally, the Chilko-Taseko Lakes area lies on the boundary between the Coast Plutonic Complex to the southwest and the Intermontane Belt. The Intermontane Belt consists of three northwest-southeast-trending fault-bounded blocks of Triassic to Cretaceous sedimentary and volcanic rocks. Andesitic flows and associated tuffs, and breccias constitute the bulk of the volcanic rocks. Intercalated with waterlain tuffs, siltstones, shales, minor sandstone and carbonate rocks, they are unconformably overlain by scattered outliers of Eocene and Pliocene plateau lavas.*

*Plutonic rocks emplaced during Cretaceous and Tertiary periods are granodiorite, quartz diorite and diorite. They form the main mass of the Coast Mountains to the southwest; however, related dykes, stocks and sills intrude the volcanic and sedimentary rocks throughout the Taseko-Chilco Lakes area.*

*The Taseko-Chita property is located on the southwestern flank of what was once the Tyaughton trough, an Early Cretaceous volcanic island arc environment transitional to a marine sedimentary basin environment. Intrusive rocks of the Coast Plutonic Complex truncate the volcanic and sedimentary sequences, and have uplifted the volcanic arc, exposing it to erosion. Locally, the Taseko-Chita property is underlain by Upper Cretaceous andesite to basaltic flows, lithic and crystal tuffs and breccias, and andesitic tuffaceous sediments and minor rhyolite trending northwards with moderate easterly dips. These rocks are extensively intruded by various phases of hornblende feldspar porphyritic diorite to granodiorite.*

Figure 5. Property Geology  
(Base map from MapPlace)



**GEOLOGY MAP LEGEND**

**Eocene**

**Egd**

Unnamed  
granodioritic rocks

**Upper Cretaceous**

**uKPovc**

Powell Creek Formation  
volcaniclastic rocks

**Late-Cretaceous to Paleogene**

**LKTfp**

Unnamed  
feldspar porphyritic intrusive  
rocks

**Late-Cretaceous to Paleogene**

**LKTqp**

Unnamed  
High level quartz, phyric felsitic  
intrusive rocks

**Late-Cretaceous to Paleogene**

**LKTdr**

Unnamed  
dioritic intrusive rocks

**Lower-Cretaceous to Upper Cretaceous**

**luKTB**

Taylor Creek Group-Beece Creek  
Succession  
undivided sedimentary rocks

**Lower-Cretaceous**

**luKs**

Unnamed  
undivided sedimentary rocks

**Lower-Cretaceous**

**IKvc**

Unnamed  
volcaniclastic rocks

**Geology: Property (cont'd)****Chita prospect (cont'd)**

*Fine- grained felsic to intermediate dykes and irregular plugs crosscut both the volcanic and intrusive rocks. Dykes vary from 0.5 to 25 metres in width and occur in a northwesterly trending swarm, capped by volcanic rocks, in the area of Easy Peak on the east side of Taseko Mountain.*

*The dominant structures are shears trending 330 and 40 degrees, with related splays. The northwest- trending, sub-vertical dipping shear zone is approximately 1 kilometre in width and extends from the southeast corner of the property to the northwest corner. Parallel faults occur in the valley and ridge to the east of Easy Peak.*

**TASEKO MOUNTAIN** showing (Vein, Stockwork, Dissemination)

MINFILE 0920 076

Within Tenure 704744

*A stock of Cretaceous to Tertiary diorite crosscuts these volcanic rocks and has produced extensive limonitic hornfelsed zones. The area of greatest interest is relatively inaccessible due to the steep terrain. Intermittent limonitic alteration is visible for more than one kilometre of cliff exposure. Boulders of altered and intensely silicified volcanic rocks immediately below a north-facing cliff contain disseminations, stockwork, and discrete veins up to 5 centimetres thick of arsenopyrite, sphalerite, chalcopyrite, and pyrite.*

**MINERALIZATION: PROPERTY AREA**

The mineralization of the MINFILE reported past producers, developed prospects, prospects, and showings peripheral to the Chita Property are reported as follows. The distance is relative to the Chita Property.

**KNIGHT** showing (Epithermal Au-Ag: low sulphidation)

MINFILE 0920 002

Thirteen kilometres east

*Boulders of vuggy, banded quartz vein material were sampled; the best of 7 grab samples graded 3.87 grams per tonne gold (Assessment Report 20428). Similar, more prominent northeast trending boulder trains are evident on the Dil claim adjacent to the south.*

**ROBSON** Past Producer (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 0920 026

Four kilometres south-southwest

*Mineralization in the immediate area is dominated by visible arsenopyrite, pyrite, minor chalcopyrite, sphalerite and stibnite, and occurs within and along the margins of quartz ± carbonate veins as disseminations and along fractures in quartz diorite and turbiditic, hornfelsed sediments. Gold is common throughout and likely associated with arsenopyrite, pyrite and/or stibnite mineralization. The Robson prospect consists of seams and veins of predominantly auriferous arsenopyrite and quartz along a southwest-trending and steeply dipping shear zone that seems to be part of a set of fractures radiating from the pluton. The vein seems to partly grade into the decomposed and altered granodiorite and related porphyritic dikes. Other metallic minerals present include pyrite, jamesonite, sphalerite, chalcopyrite, stibnite, boulangerite, pyrrhotite and pyrargyrite. Silica, carbonate and chlorite alteration are associated with the mine.*

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**Mineralization: Property Area (cont'd)****VICK** prospect (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 0920 027

Twelve kilometres north-northwest

*Mineralization consists of gold, silver and copper-bearing quartz-sulphide veins within a northeast-striking shear zone that can be traced across the top of the peak on the east face. Diorite dykes roughly parallel the fault zone. The quartz veins contain iron carbonates, pyrite, and chalcopyrite concentrations parallel to the walls of the veins. Malachite and azurite are common. In upper parts of the vein shear system, specularite pseudomorphs pyrite. Significant precious metal assays are generally associated with the sulphide-rich sections of the veins (Assessment Report 16873).*

*A chip sample assayed 72 grams per tonne gold, 86 grams per tonne silver and 0.2 per cent copper (Bulletin 81).*

**TAYLOR WINDFALL** Past Producer (: Polymetallic veins Ag-Pb-Zn+/-Au;

Epithermal Au-Ag-Cu: high sulphidation)

MINFILE 0920 028

Fifteen kilometres south-southeast

*Both veins are accessed by the 1648 metre level of the underground workings. Production records show that 555 tonnes of ore were mined in 5 years between 1932 and 1953, inclusive; 454 tonnes of this were mined in 1935. Recovered from this ore were 14,525 grams of gold and 156 grams of silver.*

**TASEKO (EMPRESS)** developed prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 033

Fourteen kilometres south

*Pyrite, chalcopyrite and magnetite are the most abundant metallic minerals and are present as disseminations throughout the altered volcanic rocks, with minor amounts in fractures and as veinlets. Molybdenite and pyrrhotite are present in small amounts. Microscopic examinations of gravity concentrates of mineralized core indicate the additional presence of trace galena, sphalerite and free gold.*

*In the Empress deposit area, corundum, in association with andalusite pyrophyllite rock, is reported in several drillholes. It might be a geochemical pathfinder.*

*The Empress deposit was discovered in 1935. Since that time, the Taseko region has been explored intermittently through mapping, prospecting, and geochemical and geophysical surveying by various companies. Exploration companies have generally held the Empress, Rowbottom (0920 029) and Buzzer (0920 038) showings concurrently; soil sampling and step-out drilling frequently occur in the regions between the showings. Historical drill programs on the property have identified porphyry copper-molybdenum deposits at the Empress and have partially defined the Granite Creek and East zones through drilling and soil sampling, as follows (adapted from Assessment Report 32841):*

*Based on drilling results from 1990 and earlier, a reserve estimate of 6 760 500 tonnes of 0.73 per cent copper, 0.82 gram per tonne gold and 1.71 grams per tonne silver within the Lower North zone was announced in 1991 (Northern Miner, February 18, 1991).*

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**Mineralization: Property Area (cont'd)****Taseko (Empress) developed prospect (cont'd)**

A March 1991 "preliminary pre-feasibility" study of the Empress deposit has calculated 10 048 000 tonnes of 0.61 per cent copper and 0.79 gram per tonne gold at a 0.4 per cent copper cut-off grade (George Cross News Letter No. 151, August 7, 1991).

In 1991 drilling, two potential new zones were discovered: the East and Granite Creek zones. In the Granite Creek zone, situated 243 metres north of the Empress, a drillhole intersected 88 metres grading 0.23 per cent copper and 0.27 gram per tonne gold (George Cross News Letter No. 7, 1992).

In 1995, with Explore BC Program support, Westpine Metals Ltd. conducted a program of rock and soil sampling and 14.2 line kilometres of induced polarization surveying on the Rowbottom and Buzzer zones. Three areas of elevated metal values were defined on the Rowbottom grid (Explore BC Program 95/96 - M114).

In 1996 and 1997, the property was sampled for sapphires; the largest found was 20 by 3 millimetres (George Cross News Letter No. 155, August 13, 1997). In nine collected samples, sapphires were identified but not of gem quality. No further work was recommended for sapphires (Assessment Report 26037).

**PROSPERITY developed prospect (Porphyry Cu+/-Mo+/-Au)**

MINFILE 0920 041

Twenty-two kilometres north

The earliest veining at Prosperity post-dates pervasive biotite alteration and consists of quartz, magnetite, hematite, sulphides and chlorite. With time, carbonate was added to the assemblage. During main stage mineralization, sulphides were deposited along with quartz, biotite, chlorite and sericite. The biotite and propy-argillic alteration associated with the porphyry system apparently also formed at this time. Late main stage veining comprises barren quartz, quartz with sulphides, carbonate and hematite, and gypsum with chlorite or pyrite. Gypsum with minor amounts of anhydrite followed by carbonate veining marked the collapse of the hydrothermal system.

Mineralization occurred in an area of ongoing igneous activity and this is reflected in the orientation of veins and mineralized fractures. Through time, dips of dominant fracture orientations varied from steep to moderate or low and back to steep. In part they probably reflect regional stresses but in part they are related to intrusive activity, evolution of magmatic fluids, and pressure generated by the hydrothermal system (Geology in British Columbia 1976).

Emplacement of porphyritic intrusive bodies at Prosperity was accompanied by extensive biotite hornfelsing of the volcanic country rocks. The earliest vein and fracture-filling minerals cut hornfelsed rocks but were probably deposited very shortly after their formation. These veins carry magnetite with quartz, hematite, some pyrite and chalcopyrite, and lesser chlorite. As the hydrothermal system became established and evolved, the mineralogy of fracture and vein fillings changed. For example, carbonate joined magnetite and its associated minerals prior to main stage mineralization. During main stage mineralization chalcopyrite, pyrite, and molybdenite along with quartz, biotite, chlorite and sericite were deposited. Pervasive country rock alteration of varying intensity also occurred during main stage mineralization.

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**Mineralization: Property Area (cont'd)****Prosperity developed prospect (cont'd)**

*During this pervasive alteration, particularly in altered mafic minerals, disseminated magnetite, pyrite, chalcopyrite, and minor amounts of bornite were deposited.*

*Magnetite in altered mafic minerals may be a simple byproduct of alteration but sulphides required addition of sulphur to the system. Sphalerite was observed in quartz veins and in quartz-specularite veins with pyrite halos in drill core. Arsenopyrite and tetrahedrite occurs with pyrite and chalcopyrite in another drill intersection. Typical vein and fracture assemblages include: 1) quartz + pyrite (often with quartz + flaky sericite envelopes) 2) quartz +/- pyrite +/- chalcopyrite +/- molybdenite (mainly with quartz + flaky sericite envelopes) 3) chalcopyrite +/- pyrite 4) pyrite +/- chalcopyrite 5) biotite + chlorite +/- pyrite +/- chalcopyrite 6) sericite +/- chlorite +/- biotite +/- pyrite +/- chalcopyrite 7) sericite + quartz +/- pyrite +/- chalcopyrite +/- carbonate Sulphide deposition decreased gradually. During the waning period barren quartz veins and quartz + sulphide +/- carbonate +/- hematite veins and fractures predominated. Minor amounts of gypsum + chlorite and gypsum + pyrite were also deposited. Formation of gypsum and anhydrite +/- carbonate and lesser carbonate-hematite veins was followed by deposition of carbonate and finally graphitic carbonate in veins and fractures. These mark the collapse of the hydrothermal system (Geology in British Columbia 1976).*

*A sample of hornfels containing 40 per cent secondary biotite was obtained from drill core for an age determination by J.E. Harakal at the University of British Columbia. A whole rock age of 77.2 Ma +/- 2.8 Ma was obtained. As there are biotite-sulphide veinlets present, as well as matrix biotite coexisting with quartz-sulphide veinlets, the radiometric age is considered to be the date of mineralization (Canadian Institute of Mining and Metallurgy Special Volume 15).*

*Orientations of mineralized fractures and veins were measured from vertical drill holes in the deposit. Most dip between 70 and 90 degrees and a less well-developed set of structures dips about 45 degrees. Fracture orientations changed slightly with time. Most of the oldest, magnetite-rich veins are subvertical, although there are lesser concentrations with dips near 65 and 15 degrees.*

*Similarly, pyrite and chalcopyrite-bearing veins are also dominantly steeply inclined. Late-stage gypsum veinlets have dip maxima of 45 and 25 degrees. Carbonate, which is calcite in part, occurs in veins with minor amounts of chlorite. These have dip maxima of 75 and 45 degrees but a significant number also dip between 10 and 40 degrees. Younger carbonate + graphite (?) veins have steep orientations again (Geology in British Columbia 1976).*

*In summary, alteration at Prosperity is related to younger porphyritic intrusions which cut a country rock comprised of older porphyritic intrusions and hornfelsed volcanic and sedimentary rocks. The best mineralization is in zones of biotite alteration adjacent to, and in, bodies of this "young" quartz plagioclase porphyry. The hydrothermal system was maintained for some time after the younger porphyries and somewhat beyond the time when post-ore hornblende plagioclase porphyry dykes were emplaced. All have been subjected to carbonate-sericite dominated propy-argillic alteration.*

*While main phase veins and fractures are grouped and treated as a unit, in fact several ages of, for example, quartz + pyrite + chalcopyrite veins occurs in a single piece of drill core.*

**Mineralization: Property Area (cont'd)****Prosperity developed prospect (cont'd)**

Mineralization obviously took place over a significant time span which saw many episodes of fracturing, healing, and refracturing. The porphyry intrusions may have acted as a heat "engine" to drive a convective cell of metal-bearing hydrothermal fluids. Whether the metals in the system were scavenged from the country rock or supplied by the porphyries is open to speculation (Geology in British Columbia)

Current dimensions of the deposit above a 0.40 per cent copper equivalent cutoff grade are 853 metres north-south, 1310 metres east-west and extending to 823 metres deep. The deposit remains open to extension north, west and southwest (George Cross News Letter No.180 (September 17, 1992).

Two higher grade zones (higher than 0.60 per cent copper equivalent) have been defined within the overall deposit. The large Main zone measures 503 metres north-south, 609 metres east-west and to 823 metres deep. A West zone measures 250 metres north-south, 183 metres east-west and to 183 metres deep (George Cross News Letter

Reserves in the combined drill indicated and inferred category as of July 1991 were as follows (George Cross News Letter No.142, July 1991):

TONNES	COPPER (%)	GOLD (g/t)	STRIP RATIO
526,429,000	0.20	0.38	0.7:1
449,232,000	0.21	0.41	1.0:1
361,770,000	0.23	0.45	1.5:1

By the end of October 1991, drilling had confirmed a block of 544,200,000 tonnes grading 0.32 per cent copper and 0.55 grams per tonne gold (0.86 per cent copper equivalent) (George Cross News Letter No.209, 1991). The grade continuity is reported to be good and reserves are open in all directions.

Taseko Mines Ltd. has reported a preliminary reserve estimate of 1,080,356,100 tonnes grading 0.23 per cent copper and 0.41 gram per tonne gold for a copper equivalent of 0.52 per cent (George Cross News Letter No. 197 (October 13), 1992.

Mineral Resources Development Inc. has calculated preliminary mineable reserves for the Prosperity deposit. Preliminary mineable reserves are reported for several progressively deeper pit designs (George Cross News Letter No. 50 (March 12), 1993).

Strip Ratio	Reserve Million Tonnes	Grade	
		Cu %	Au g/t
0.80:1	148	0.24	0.51
1.16:1	404	0.24	0.47
1.49:1	505	0.24	0.47
1.84:1	640	0.24	0.44
2.11:1	811	0.24	0.44

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**Mineralization: Property Area (cont'd)****Prosperity developed prospect (cont'd)**

A detailed pre-feasibility study completed in 1995 was based on an open-pit reserve of 675 million tonnes grading 0.236 per cent copper and 0.435 gram per tonne gold at a stripping ratio of 1.57 to 1. The company (Taseko Mines Ltd.) has submitted an application for a Mine Development Certificate. The project was renamed Prosperity in 1995 (from Fish Lake) and was under review with respect to the Environmental Assessment Act (Information Circular 1996-1, page 10; 1997-1, page 18). In June 1997, Taseko completed a large diameter core drilling program totalling 49,462 metres in 107 holes.

During 1997, Taseko Mines Ltd. completed pilot plant metallurgical and process testing programs, including bulk sample testing of the Prosperity gold-copper deposit. All pilot plant program results were reported to compare favourably with the previously announced pre-feasibility metallurgical results. Results from a 50,000 kilogram test program averaged 90 per cent copper recovery and 75.6 per cent gold recovery producing a 25 per cent copper concentrate containing 38.9 grams per tonne gold.

A detailed geological and gold-copper grade computer model of the deposit, based on 123,414 metres of drilling in 248 holes, is nearing completion and will lead to a new mineable reserve estimate and open pit design and production schedules. In addition, comprehensive environmental and socio-economic studies for presentation to the government Project Review Committee are continuing. The previously established mineable reserve for the deposit was 675,000,000 tonnes grading 0.236 per cent and 0.435 gram per tonne gold.

At a projected 90,000-tonnes per day milling rate, the company forecasted annual production of 11,688 kilograms of gold, 16,485 kilograms of silver and 69,460 tonnes of copper, over a mine life of 21 years. The capital costs were estimated at US \$430 million. Between 1996 and 1997, Taseko completed a large (13.5 million), in-fill drilling program; this was the largest exploration program (\$5 million) in the province in 1997.

Based on 143,945 metres of drilling in 326 holes (including 92 angle drill holes completed during 1996 and 1997), Independent Mining Consultants calculated a new mineable mineral reserve of 633 million tonnes at an average grade of 0.253 per cent copper, 0.466 gram per tonne gold and 0.5 gram per tonne silver (silver grade is based on planned production levels). The geometry and continuity of the mineable mineral reserve provides for efficient open pit mining with an overall life of mine waste to ore stripping ratio of 1.89 to 1. The copper grade has increased by 7.2 per cent and the gold grade has increased by 7.4 per cent from the previously announced mineable mineral reserve which was based on 76,134 metres of drilling in 147 holes. The mineral reserve includes 65 per cent measured, 30 per cent indicated and 5 per cent inferred. (Taseko Mines Limited, Press Release, March 16, 1998). At a projected 90,000 tonnes per day milling rate, the company forecasts annual production of 12,940 kilograms of gold and 95,795 tonnes of copper, over the 25.3-year mine life.

In 2005, Taseko Mines Ltd, applied and was granted an extension of the Environmental Assessment Act period to April 30, 2007. The company continues to communicate and consult with area First Nations, and is reviewing and optimizing previous project economic studies. The most recent information from the company gives an estimated measured and indicated resource of 491 million tonnes grading 0.43 grams per tonne gold and 0.22 per cent copper (Exploration and Mining in BC 2005, page 59).

**Mineralization: Property Area (cont'd)****Prosperity developed prospect (cont'd)**

*In September 2007 Taseko Mines Ltd. announced the results of a feasibility study. The Proven reserves reported were 286 million tonnes grading 0.25 per cent Cu and 0.47 grams per tonne Au. The Probable reserves reported were 201 million tonnes grading 0.18 per cent Cu and 0.37 grams per tonne Au. The project is currently in the Environmental Assessment Process (Taseko Mines Ltd. 2007 Annual Report).*

*In November 2009 Taseko Mines announced an increase in reserves at Prosperity. Reporting Proven reserves of 481 million tonnes 0.46 gram per tonne Au and 0.26 per cent Cu and Probable reserves of 350 million tonnes grading 0.35 gram per tonne Au and 0.18 per cent Cu. This was based on a \$5.50 net smelter return cut-off. (Stockwatch News Release November 2, 2009).*

In 2014, Prosperity proven and probable mineral reserves were reported as a measured reserve of 547 million tonnes of 0.27% copper and 0.46 grams per tonne gold and an indicated reserve of 463 million tonnes of 0.21% copper and 0.34 grams per tonne gold or a total mineral resource of 1,010.50 million tonnes of 0.24% copper and 0.41 grams per tonne gold at a 0.14% cut-off. ([www.tasekomines.com/new-prosperity/ID540208](http://www.tasekomines.com/new-prosperity/ID540208)).

**CHARLIE** prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 043

Nine kilometres southwest

*Both the precious metal-bearing veins and disseminated sulphide mineralization are hosted by volcanic and sedimentary rocks of the Lower Cretaceous Taylor Creek Group, consisting of feldspar crystal tuffs, lithic fragmentals, and some flow rocks with chloritic amygdules. Argillaceous sediments are a minor component of the succession. A chip sample assayed 279.9 grams per tonne silver, 10.6 grams per tonne gold and 13.68 per cent copper (Bulletin 81).*

*Mineralogical compositions and textures of the vein mineralization suggest precipitation at a high structural level, above the disseminated chalcopyrite mineralization exposed in the valley floor.*

*In other words, the vein mineralization was precipitated from the same hydrothermal system from which copper mineralization was deposited at a deeper level.*

**PELLAIRE** developed prospect (Polymetallic veins Ag-Pb-Zn+/-Au u)

MINFILE 0920 045

Fourteen kilometres south

*As reported by Warren (1947), the veins carry less than 3 per cent metallic minerals which include in approximate order of abundance, pyrite, chalcopyrite, galena, sphalerite, arsenopyrite, tetrahedrite, hessite, altaite, pyrrhotite, magnetite, bornite, gold, tetradymite, cosalite, antimony and wehrlite. The hessite, which carries the bulk of the precious metal, occurs veining quartz, pyrite and chalcopyrite, and as disseminations in these minerals and in galena, tetradymite and wehrlite. Some of the gold is residual and has been left behind in veins and pockets after hessite.*

*Associated with each vein is a wide sericite alteration zone. Pervasive sericitization is very strong near veins with a decrease to weak sericite development in feldspars in the outer fringes of the zone. In places wallrocks are intensely silicified and carry pyrite. Carbonate is common in minor quartz veins but weathering has obscured whether it was present in the main veins.*

**Mineralization: Property Area** (cont'd)**Pellaire** developed prospect (cont'd)

Probable geological reserves are 30,841 tonnes grading 22.9 grams per tonne gold and 78.8 grams per tonne silver; possible geological reserves are 36,284 tonnes with the same grade respectively (Statement of Material Facts 50/88, Lord River Gold Mines Ltd., June 1, 1988).

**GRAB** showing (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 070

Twelve kilometres east-southeast

Mineralization occurs as fracture-fillings and as disseminations within the dykes and enclosing volcanics and sediments. Mineralization consists of chalcopyrite with minor amounts of pyrrhotite, galena, sphalerite, and trace molybdenite. Malachite, azurite, chrysocolla, and covellite occur locally. Pyrite is scarce within the zone of chalcopyrite mineralization, but is common in the adjacent hornblende-feldspar porphyry stock.

**TARN CREEK** prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 125

Twenty kilometres west

A discontinuously exposed gossanous zone, covering an area of approximately 400 by 150 metres, surrounds a strongly developed quartz stockwork zone. Within this zone chalcopyrite, bornite, pyrrhotite and pyrite mineralization occurs in veinlets, as fracture coating and as disseminations throughout all rock types. Magnetite and chlorite are common accessory minerals. Selected rock-chip samples from this zone assayed from 0.02 to 0.05 per cent copper, some with anomalous silver values (3.0 grams per tonne) (Bulletin 81).

**MINERALIZATION: PROPERTY**

Macdonald (2005) provides a description of the Chita property geology as follows:

*Disseminated chalcopyrite up to 0.5% and minor molybdenite are associated with zones of strong to intense alteration. One of these mineralized zones measured 350 meters (E-W) by 250 meters (N-S).*

The mineralization of the MINFILE reported prospect and showing on the Chita Property is reported as follows

**CHITA** prospect (Porphyry Cu+/-Mo+/-Au)

MINFILE 0920 049

Within Tenure 589643

*The Chita (Banner) porphyry copper-molybdenum occurrence has been explored intermittently since the early 1960's. In 1962, geological mapping by Phelps Dodge outlined a widespread mineralized system. By 1963, Phelps Dodge had drilled four short diamond drill holes, with a best result of 0.13 per cent copper over 53 metres.*

*In 1968, grid work, mapping, soil sampling and trenching by Bethex outlined a mineralized area measuring 610 by 1,828 metres. Forth-three trenches were blasted with a best result of 0.193 per cent copper over a 36-metre length.*

*In 1969, Bethlehem Copper diamond drilled four holes totalling 393 metres, with a best result of 0.19 per cent copper over 50 metres.*

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**Mineralization: Property Area (cont'd)****Chita prospect (cont'd)**

*The following year, Bethlehem Copper completed 21 more short percussion drill holes totalling 1,280 metres. The most significant value was 0.144 per cent copper over 60 metres (Assessment Report 28192).*

*In the 1980's, Barrier Reef outlined a copper soil anomaly (up to 0.0119 per cent copper) measuring approximately 1,219 by 2,194 metres. Rock samples assayed up to 3 per cent copper and 140 parts per billion gold (Assessment Report 28192).*

*In 1991, Reliance Geological and two major mining companies conducted a geochemical rock sampling program. Eleven of 26 samples produced results greater than 0.1 per cent copper, with a high of 0.44 per cent copper (Assessment Report 28192).*

**TASEKO MOUNTAIN** showing (Vein, Stockwork, Dissemination)

MINFILE 094E 076

Within Tenure 704744

*The Taseko Mountain polymetallic vein showing, 1.5 kilometres east of Taseko Mountain, is within andesite breccias, lapilli tuffs, crystal tuffs, ash tuffs and minor andesitic to basaltic flows of the informally named Upper Cretaceous Powell Creek Formation.*

*A stock of Cretaceous to Tertiary diorite crosscuts these volcanic rocks and has produced extensive limonitic hornfelsed zones. The area of greatest interest is relatively inaccessible due to the steep terrain. Intermittent limonitic alteration is visible for more than one kilometre of cliff exposure. Boulders of altered and intensely silicified volcanic rocks immediately below a north-facing cliff contain disseminations, stockwork, and discrete veins up to 5 centimetres thick of arsenopyrite, sphalerite, chalcopyrite, and pyrite.*

*This polymetallic mineralization occurs as northwesterly trending shear zones within a dike swarm and contains as much as 7.3 grams per tonne gold, 58.0 grams per tonne silver, and copper and zinc in excess of one per cent (Assessment Report 10674). Mineralization also occurs in northeast trending shears crosscutting the northwestern shear system, with limonite, magnetite and hematite.*

**STRUCTURAL ANALYSIS**

The Structural Analysis of Tenures 589643 & 685904 was accomplished marking the observed lineaments on a DEM Image Hillshade map. A total of 66 lineaments were indicated as shown on Figure 6. A Georient 32v9 software program was used to create a Rose Diagram reflecting the grouping of the 66 lineaments into an individual 10 °class sector angle interval as shown on Figure.7.

The centre of the work area is at 5,678,800N, 463,120E

Structural Analysis (cont'd)

Figure 6. Indicated Lineaments on the Chita 589643 Claim Group  
(Base map: MapPlace & Google)

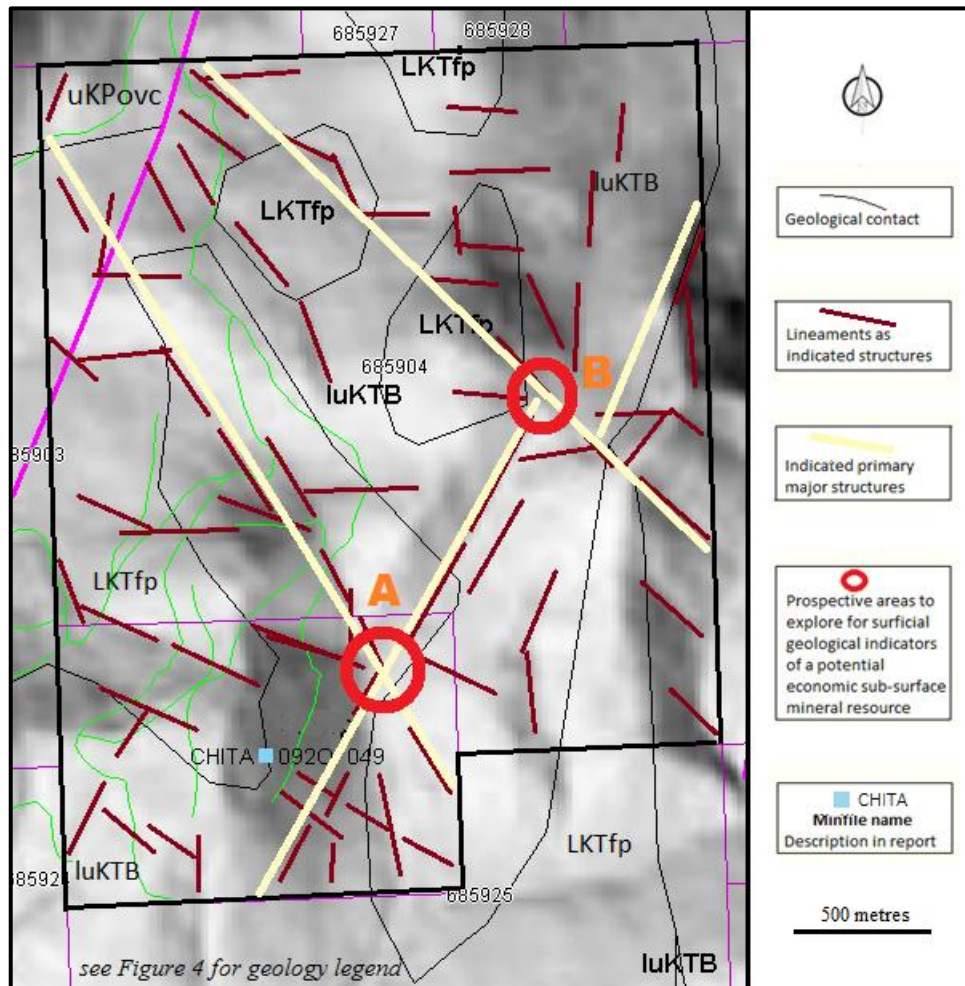
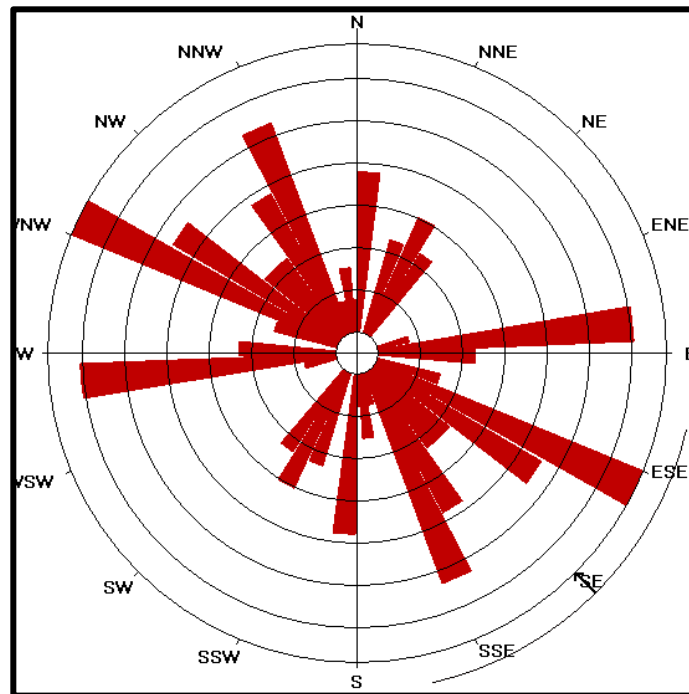


Table 3. Approximate location of cross-structures and Minfiles  
(UTM-NAD 83 Zone 10U)

Area	UTM East	UTM North	Elevation (metres)
A	601,331	6,365,845	1,505
B	601,454	6,365,739	1,726
C	601,844	6,366,247	1,756
D	601,658	6,366,056	1,855
Chita	601,797	6,365,471	1,965
Border	601,497	6,366,113	1,900

*Structural Analysis (cont'd)***Figure 7 Rose Diagram from Lineaments of the Chita 589643 Claim Group****STATISTICS**

Axial (non-polar) data

No. of Data = 66

Sector angle = 8°

Scale: tick interval = 2% [1.3 data]

Maximum = 13.6% [9 data]

Mean Resultant dir'n = 135-315

[Approx. 95% Confidence interval = ±32.0°]

(valid only for unimodal data)

Mean Resultant dir'n = 135.2 - 315.2

Circ.Median = 001.0 - 181.0

Circ.Mean Dev.about median = 45.7°

Circ. Variance = 0.26

Circular Std.Dev. = 44.48°

Circ. Dispersion = 4.81

Circ.Std Error = 0.27

Circ.Skewness = -1.03

Circ.Kurtosis = -4.33

kappa = 0.63

(von Mises concentration param. estimate)

Resultant length = 19.77

Mean Resultant length = 0.2996

'Mean' Moments: Cbar = 0.0018; Sbar = -0.2996

'Full' trig. sums: SumCos = 0.1166; Sbar = -19.7714

Mean resultant of doubled angles = 0.1363

Mean direction of doubled angles = 047

(Usage references: Mardia &amp; Jupp, 'Directional Statistics', 1999, Wiley; Fisher, 'Statistical Analysis of Circular Data', 1993, Cambridge University Press)

Note: The 95% confidence calculation uses

Fisher's (1993) 'large-sample method'

Structural Analysis (cont'd)

Figure 8. Cross-Structural locations on Google Earth  
(Base map from MapPlace and Google Earth)

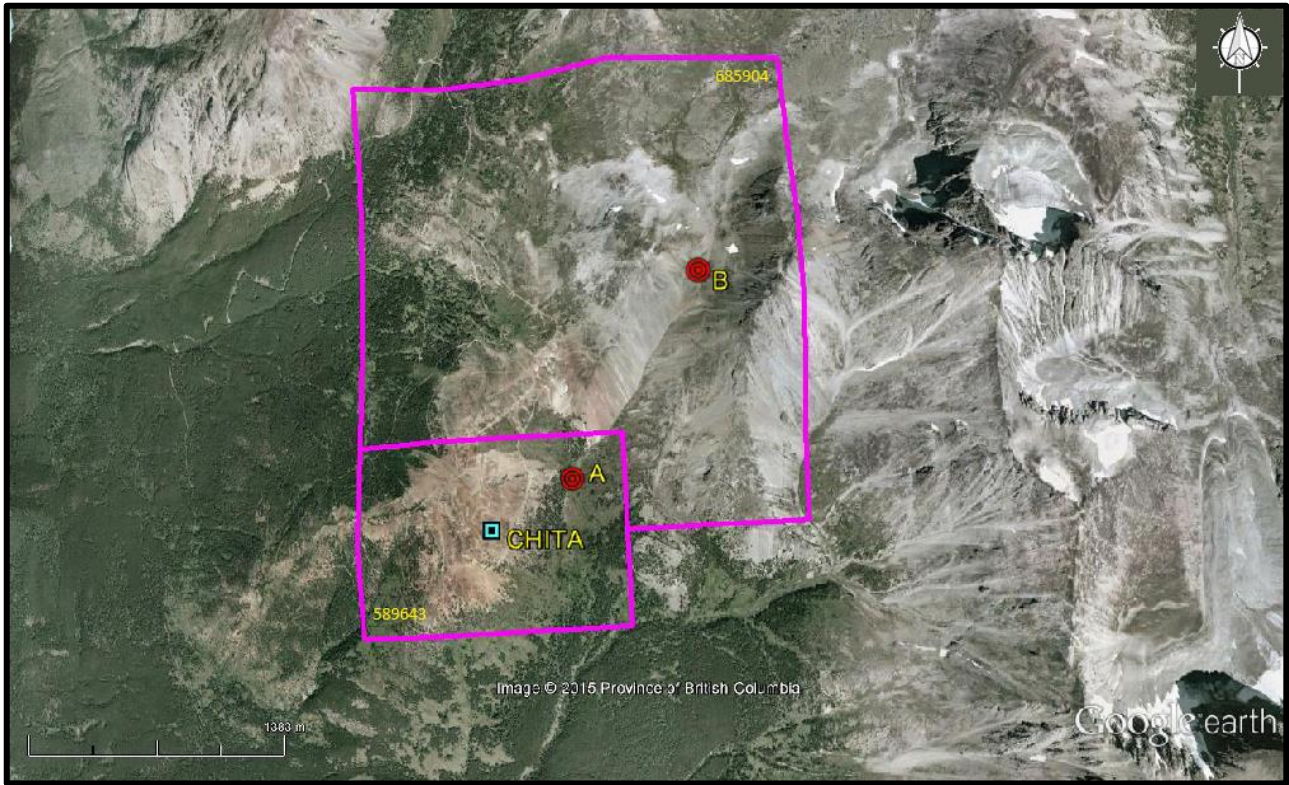


Figure 9. Chita Rock Sample Results from the Chita 589643 Claim Group \*  
(Map from AR 34,143; Beck, 2012)

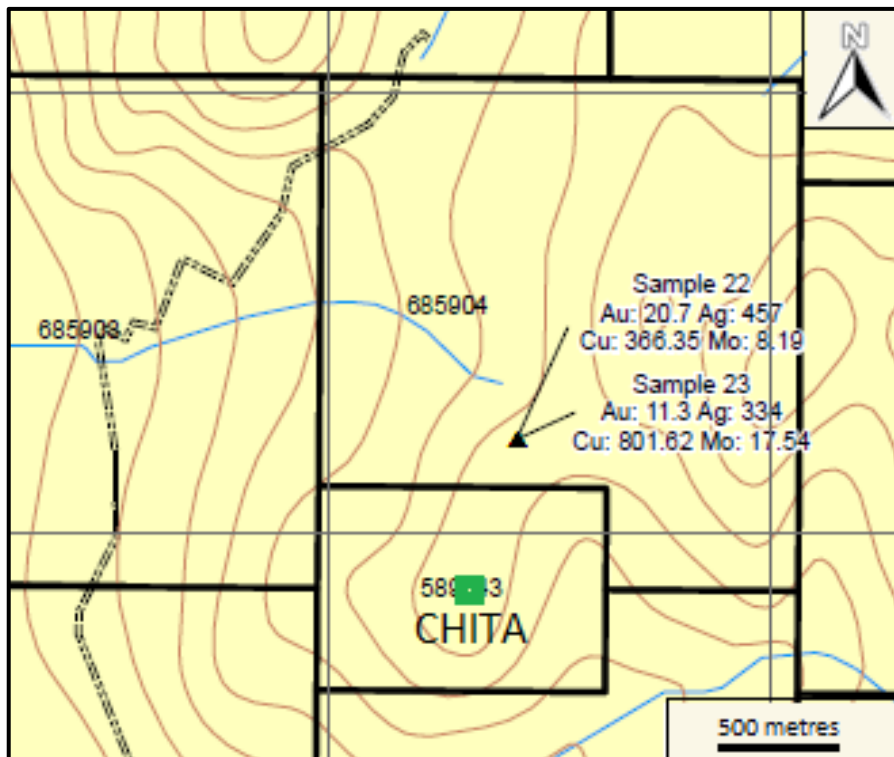
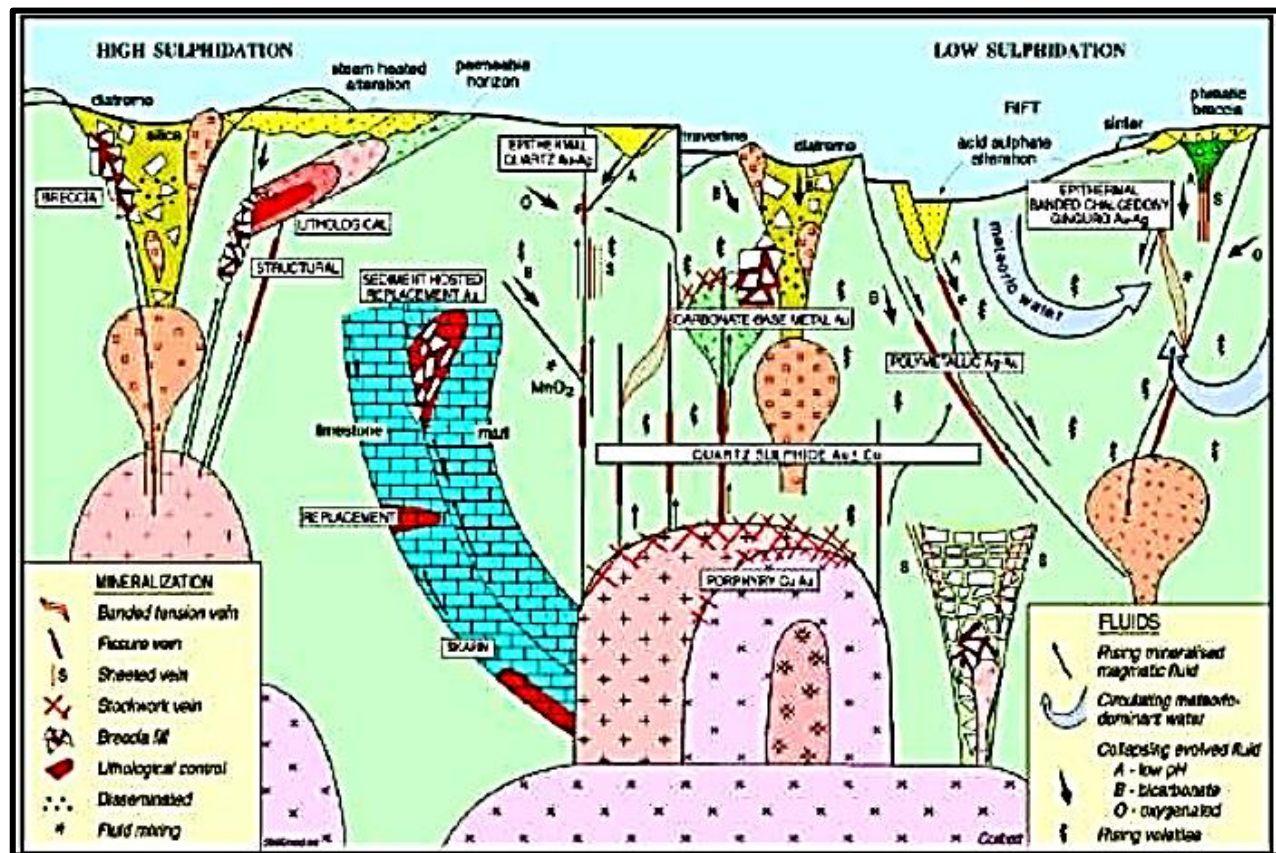


Figure 10. Conceptual model showing potential for a deep-seated porphyry Cu-Au resource.

(Map from Bisson, 2014)



## INTERPRETATION and CONCLUSIONS

The Chita property is in a very favourable geological area for the location of a classic style copper-gold porphyry mineral resource where mineralization can occur entirely within an intrusive, commonly as a stock, or the country rock, or both. These types of deposits are usually located at the intersection of regional scale faults.

Reported Minfile mineralization peripheral to the Chita property supports this likelihood in the porphyry and the porphyry related deposit types such as:

- the epithermal mineralization at the Knight showing;
- the polymetallic vein mineralization at the past productive Robson, Taylor Windfall, and the Pellaire, in addition to the Vick prospect;
- the porphyry mineralization, which is most common; the Taseko Empress developed prospect, the Charlie, Chita, and the Vick prospects, and the Grab showing

The relationship between these deposit types is shown in Figure 10.

The porphyry mineralization at the Prosperity, however, is the most significant, as it demonstrates the potential for the development of substantial tonnages of mineralization in a geological environment comparable to the Chita property.

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***Interpretation and Conclusions (cont'd)***

At the Prosperity, proven and probable mineral resources were reported as a measured 547 million tonnes of 0.27% copper and 0.46 grams per tonne gold and an indicated 463 million tonnes of 0.21% copper and 0.34 grams per tonne gold or a total mineral resource of 1,010.50 million tonnes of 0.24% copper and 0.41 grams per tonne gold at a 0.14% cut-off. ([www.tasekomines.com/new-prosperity/ID540208](http://www.tasekomines.com/new-prosperity/ID540208)).

The Chita property includes two Minfile reported areas of mineralization. The Taseko Mountain showing comprised of polymetallic vein, stockwork, and disseminated mineralization within northeasterly and northwesterly trending shears, and relatively high gold and silver, which may be indicative of the peripheral mineralized zone to a porphyry system.

The Chita prospect, designated as a porphyry copper +/- molybdenum +/- gold type deposit, was explored since the early 1960's which provided definitive results to the existence of a potentially economic porphyry deposit. The results are summarized in Table 2 with the more significant being:

- Widespread mineralization occurring in altered feldspar porphyry intrusives and altered sediments;
- 2,000 x 6,000 foot area of copper values over 50 ppm;
- five copper anomalies with greater than 417 ppm copper with the largest area 2,000 x 2,600 feet;
- a 2,000 x 2,500 metre "doughnut-shaped" chargeability high corresponding with magnetic and resistivity lows;
- drill hole core assay result of 0.13% copper over 176 feet including 0.35% copper over 120 feet;

These results are all referenced from sources as cited in Table 2 and should be referred to for complete information. The specific location of the above results has not determined, however, they are generally indicated to be within or peripheral to, the Chita 589643 Claim Group.

The results of the structure analysis defined two cross-structural locations that would be the most prospective areas to explore for surficial geological indicators of a potential mineral resource. This supposition is based on three important qualifying aspects that a cross-structural location may generate for the geological indications of, in the case of the Chita 589643 Claim Group a concealed bulk tonnage porphyry copper-gold molybdenum deposit.

- the cross-structure would likely be depth intensive to source, and/or provide a path for orthomagmatic mineralized fluids to migrate to the surface;
- the cross-structural location could establish an expansive zone of fracturing from a central breccia or intensely fractured zone for the deposition of the minerals from the metal rich saline fluid;
- the alteration at the surface would be caused from the rising vapor rich fluid acidic fluid reacting with the host rock leaving alteration products for the explorationist to record and interpret as to the possibility of a porphyry related mineral resource.

### *Interpretation and Conclusions (cont'd)*

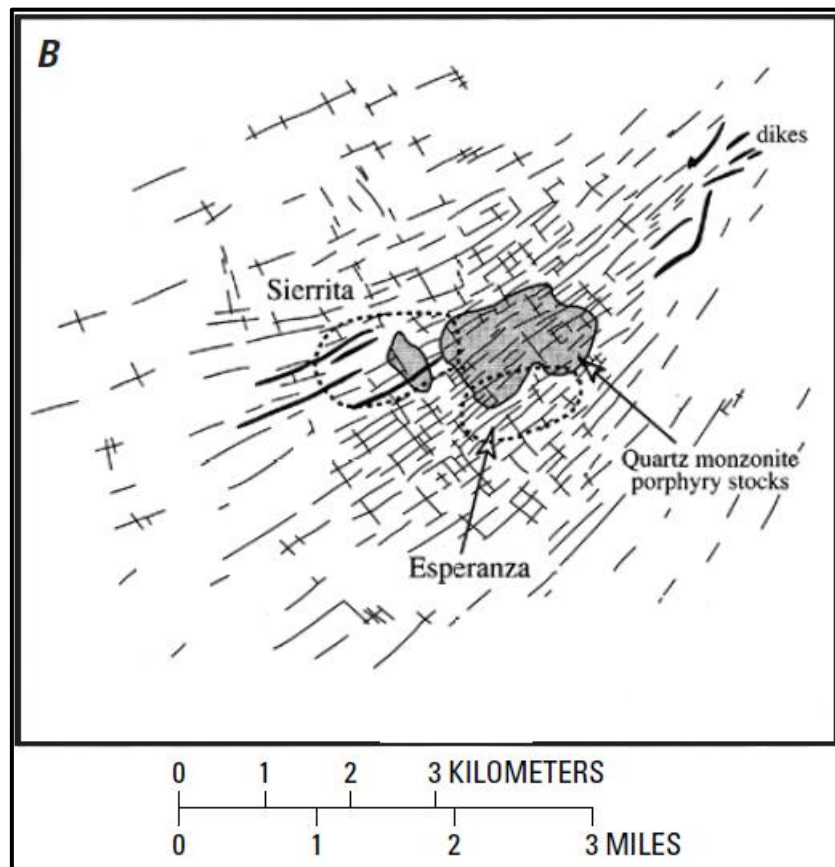
The advantage of having numerous surficial geological indicators present on the Chita property, and apparently without any specific location on which to develop, the cross-structural location may be the central and highest grade portion of a porphyry mineral resource from which a mineral resource may be developed. At the Prosperity the two higher grade zones (>0.60 copper equivalent) may be the location of the reported many episodes of fracturing, healing, and refracturing and/or may be the location of a cross-structure.

On the two claim Chita 589643 Claim Group, the two cross-structural locations are significant as that some of the highest copper, molybdenum, and gold assays were from samples 22 and 23 (indicated on Figure 9 with coordinates, and a map on page 40 in assessment report 34,143) taken from a location within 400 metres northwest of cross-structure "A" (Figures 8 & 9).

Thus, the cross-structure "A" area is the prime location to explore for surficial geological indicators of a potential economic sub-surface mineral resource. In the exploration, the main focus should be on all types and orientations of structures and breccias in addition to all types and degree of alteration.

**Figure 11. Generalized fracture and dike distribution and orientation around the Sierrita and Esperanza porphyry copper deposits. From Tosdal and Richards (2001, their Fig. 12D).\***

*(map from USGS; Porphyry Copper Deposit Model. Figure D6)*



\*Note the cross-structural control to the copper deposits, the fracture density, and the porphyry stock/host rock association.

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## RECOMMENDATIONS

- 1) Study all the reports on the results of the previous exploration on the Chita property to become familiar with the geology, alteration, and other aspects of the property;
- 2) Prepare a digital compilation map of all the exploration results including drill holes and cross sections;
- 3) Utilizing the digital map for reference to areas of correlative geological/geochemical/geophysical significance, conduct a property examination noting especially the structural and mineral features at the correlative locations;
- 4) Go to the locations of the better mineralized drill holes, such as the 1969 and 1970 Bethlehem drill holes T2 and #15 and note the geological features;
- 5) Go to cross-structural locations "A" and "B" to note and evaluate the geological features with emphasis on structure, fractures, and alteration;
- 6) Take rock samples at these locations for to a 36 element ICP analysis for information on pathfinder elements;
- 7) Evaluate all the information to select the prime location for a 500 metre drill hole.

Respectfully submitted

Sookochoff Consultants Inc.



Laurence Sookochoff, PEng

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- MtOnline** - MINFILE downloads.
- 0920 002 – KNIGHT
  - 0920 026 – ROBSON
  - 0920 027 – VICK
  - 0920 028 – TAYLOR WINDFALL
  - 0920 033 – TASEKO (EMPRESS)
  - 0920 041 – PROSPERITY
  - 0920 043 – CHARLIE
  - 0920 045 – PELLAIRE
  - 0920 049 – CHITA
  - 0920 070 – GRAB
  - 0920 076 – TASEKO MOUNTAIN
  - 0920 125 – TARN CREEK
- Pollock, T.** – Geological and Geochemical Report on the High Claim for Utah Mines Ltd. September, 1982. AR 10,674.
- Tipper, H.W.** – Taseko Lakes (920) map-area: Geological Survey of Canada, Open File 534. 1978.
- Watson, I.M.** (1970). Exploration Report on the Taseko Lakes Property for Bethlehem Copper Corp. Private Report
- [www.tasekomines.com/new-prosperity/ID540208](http://www.tasekomines.com/new-prosperity/ID540208)

**STATEMENT OF COSTS**

Work on Tenures 589643 & 685904 of the Chita property was done from October 20, 2014 to November 10, 2014 to the value as follows:

*Structural Analysis*

<i>Laurence Sookochoff, PEng. 3 days @ \$ 1,000.00/day -----</i>	<i>\$ 3,000.00</i>
<i>Maps -----</i>	<i>1,000.00</i>
<i>Report -----</i>	<i><u>4,000.00</u></i>
	<i>\$ 8,000.00</i>
	<i>=====</i>

**CERTIFICATE**

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with an address at 120 125A-1030 Denman Street, Vancouver, BC V6G 2M6.

I, Laurence Sookochoff, further certify that:

- 1) I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
- 2) I have been practicing on profession for the past forty-nine years.
- 3) I am registered and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
- 4) The information for this report is based on information as itemized in the Selected Reference section of this report.
- 5) I have no interest in the Property as described herein.



Laurence Sookochoff, P. Eng.