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**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:** $ 7,000.00

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

**SIGNATURE(S):** Laurance Sookochoff

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

**YEAR OF WORK:** 2014

**STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):** 5515574

**PROPERTY NAME:** Peacock

**CLAIM NAME(S) (on which the work was done):** 670804

**COMMODITIES SOUGHT:** Copper Gold

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:** 092ISE055 0921SE123 092ISE125 092ISE132

**MINING DIVISION:** Nicola

**NTS/BCGS:** 092H.017 / .018 092I.027 / .028

**LATITUDE:** 50 ° 13 ' 02 " **LONGITUDE:** 120 ° 18 ' 14 " **(at centre of work)**

**OWNER(S):**

1) Christopher Delorme

2)

**MAILING ADDRESS:**

340 Logan Lane
Merritt BC V1K1P7

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

1) Christopher Delorme

2)

**MAILING ADDRESS:**

340 Logan Lane
Merritt BC V1K1P7

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

Paleocene intrusives. Late Triassic to Early Jurassic intrusives. Upper Triassic Nicola Group Western Volcanic Facies. Regional northeasterly fault. Within Tenure 670804: major northeasterly and northwesterly structures; four cross-structures; the Peacock (092ISE132) copper mineralization occurs in up to 60 cm wide quartz veins and occasionally disseminated in the granodiorite. Several large sparsely Mineralized quartz bodies up to 12 metres across connected by veins and stringers.

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:** 6179 6180 6264 10518 25283 28721 32465 33375

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| 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** | 310 hectares | 670804 | $ 7,000.00 |
| **GEOPHYSICAL (line-kilometres)** | | | |
| **Ground** | | | |
| **Magnetic** | | | |
| **Electromagnetic** | | | |
| **Induced Polarization** | | | |
| **Radiometric** | | | |
| **Seismic** | | | |
| **Other** | | | |
| **Airborne** | | | |
| **GEOCHEMICAL (number of samples analysed for...)** | | | |
| **Soil** | | | |
| **Silt** | | | |
| **Rock** | | | |
| **Other** | | | |
| **DRILLING (total metres; number of holes, size)** | | | |
| **Core** | | | |
| **Non-core** | | | |
| **RELATED TECHNICAL** | | | |
| **Sampling/assaying** | | | |
| **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** | | | |
| | | **TOTAL COST:** | $ 7,000.00 |

# CHRISTOPHER DELORME

*(Owner & Operator)*

# GEOLOGICAL ASSESSMENT REPORT

*(Event 5515574)*

*on a*

# STRUCTURAL ANALYSIS

*on*

**Tenure 670804**

*of the six Tenure*

**Peacock 670804 Claim Group**



**Nicola Mining Division**

**BCGS Maps 092H.017/.018, 092I.027/.028**

*Dates of work*

**July 26, 2014 to July 31, 2014**

*Centre of Work*

**668,556E; 5,565,444N**
10U (NAD 83)

Author & Consultant

**Laurence Sookochoff, PEng**
**Sookochoff Consultants Inc.**

*Submitted*

**January 19, 2015**

*Amended September 21, 2015*

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### ***ILLUSTRATIONS***



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# SUMMARY

The six claim 1364 hectare Peacock 670804 claim group ("Property") is located 210 kilometres northeast of Vancouver, 52 kilometres south of Kamloops, and 15 kilometres northeast of Merritt in south-central British Columbia. It is strategically positioned within the Intermontane belt of rocks traversing the extent of British Columbia which hosts some of the most historic and/or currently productive copper mines of North America such as the Copper Mountain, Craigmont, Afton/New Afton, and the Highland Valley/Lornex; all within 82 kilometres of the Property; with the nearest, Craigmont, 14 kilometres distant.

Craigmont was in operation as a copper producer from 1962 to 1982 and produced 402,704,479 kilograms of copper in addition to gold and silver from a skarn mineral deposit developed within calcareous sediments of the Nicola Group. From 1985 to 1992 the mine was as a magnetite producer; magnetite being extracted from stockpiles left over from the copper mining operation. In 1993 the recovery of magnetite commenced from the mine tailings.

The significance of the Nicola Group and structures as mineral controls for economic mineral deposits is also exemplified at the recently revived Copper Mountain mineral deposit where production re-commenced in 2011 with a super-pit *(Figure 7)* designed to envelop the former three pits.

At Pit 1 the bulk of the ore was emplaced along the Main fault in massive and fragmental volcanic rocks above the lower bedded tuff horizon with recognizable pre-ore porphyritic intrusive rocks scarce;

At Pit 2 ore was along an indistinct and irregular contact of volcanic rocks with Lost Horse intrusive rocks; both rock types being host to ore with faults controlling the boundaries of the orebody to a considerable degree;

At Pit 3 ore was almost entirely in the Nicola Group volcanics with mineralization occurring along the northwest-striking intrusive contact, along major faults such as the Main fault or the "Mine breaks" or at the intersection of a series of steeply-dipping, west-striking fault These rocks, being more brittle than the adjacent flows, tuffs and agglomerates, shattered readily yielded more "ore fractures".

As indicated by the BC government supported MapPlace BCGS Geology Layers 2005 map the Peacock 670804 Claim Group is bisected by a main regional northerly trending fault which is intersected by a southwesterly fault near the Peacock showing. The faults are indicated as contacts with the Upper Triassic Western Volcanic Facies of the (uTrNW) to the west and dioritic intrusives (LTrJdr) to the east.

In the structural analysis of Tenure 670804, four cross-structures were delineated; one of which is located in the dioritic intrusive and three are located in the Nicola volcanics within 200 metres of the volcanic/intrusive contact. All four locations are cross-structures developed between northerly and northwesterly trending structures paralleling the MapPlace indicated regional structures which are the indicated volcanic/intrusive contacts on Tenure 670804.

The cross-structures, located proximally to the major MapPlace indicated faults, would be ideal structurally prepared locations for the geological development of an economic mineral resource. The four locations should be explored for surficial geological indicators for such a resource; the indicators may be mineral and/or alteration and subject to interpretation for continued exploration.

## INTRODUCTION

From July 26, 2014 to July 24, 2014 a structural analysis was completed on Tenure 670804 of the six claim Peacock 670804 claim group ("Property"). The purpose of the program was to delineate structures which may be integral in geological controls to potentially economic mineral zones that may occur on Tenure 670804 or other claims of the Property.

Information for this report was obtained from sources as cited under Selected References and from mineral exploration work the writer has done in the Merritt area since the 1980's.

## PROPERTY LOCATION and DESCRIPTION

### Location

The Property is located within BCGS Maps 092H.017/.018 and 092I.027/.028 of the Nicola Mining Division, 210 kilometres northeast of Vancouver, 52 kilometres south of Kamloops, and 15 kilometres northeast of Merritt in southwestern British Columbia.

### Description

The Property is comprised of six claims covering an area of 1364.8432 hectares. Particulars are as follows:

*Table 1.* **Tenures of the DOT 670804 Claim Group**

| Tenure Number | Type | Claim Name | Good Until* | Area (ha) |
|---|---|---|---|---|
| 670623 | Mineral | COPPERADO | 20150425 | 186.1569 |
| 670683 | Mineral | COPPERADO 2 | 20150425 | 289.5829 |
| 670703 | Mineral | COPPERADO 3 | 20150425 | 289.5533 |
| 670804 | Mineral | PEACOCK | 20150425 | 310.1549 |
| 774942 | Mineral | STUMP | 20150425 | 186.0267 |
| 774962 | Mineral | STUMP 1 | 20150425 | 103.3685 |

*Upon the approval of the assessment work filing, Event 5515574.

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

### Access

Access to the Property is north from Merritt via Highway 5 (Coquihalla Highway) for 16 kilometres to the western boundary of Tenure 670804 of the Peacock 670804 Claim Group. Secondary roads provide access to most general areas of the Property.

### Climate

The Property is situated within the dry belt of British Columbia with rainfall between 25 and 30 cm per year. Temperatures during the summer months could reach a high of 35°C and average 25°C with the winter temperatures reaching a low of -10°C and averaging 8°C. On the Property snow cover on the ground could be from December to April and would not hamper a year-round exploration program.

***Accessibility, Climate, Local Resources, Infrastructure and Physiography*** *(cont'd)*

**Local Resources & Infrastructure**

Merritt, and/or Kamloops, historic mining centres, could be a source of experienced and reliable exploration and mining personnel and a supply for most mining related equipment. Kamloops is serviced daily by commercial airline and is a hub for road and rail transportation. Vancouver, a port city on the southwest corner of, and the largest city in, the Province of British Columbia is four hours distant by road and less than one hour by air from Kamloops.

**Physiography**

Tenure 670804 covers an area of predominantly low to moderate forested slopes with local barren logged areas and second growth forested areas. Elevations range from 830 metres within a creek valley in the south-west to 1,155 metres along the mid-west boundary.

*Figure 1.* **Location Map**


## HISTORY: PROPERTY AREA

The history of the more significant mineral MINFILE reported showings, prospects, and producers peripheral to the Property (*Figure 4*) is reported as follows. The distance from the Property is relative to Tenure 670804 which is the subject of the structural analysis.

***CRAIGMONT*** producer (Cu skarn; Fe skarn; Tailings)
MINFILE 092ISE035
Fourteen kilometres west

*The original Craigmont copper mine went into production in 1962, with underground mining ceasing in February 1982 as a result of the falling price of copper. The concentrator remained in operation processing the iron ore stockpiles until November 1982, when it was also shut down.*

*From the commencement of its operation in 1962 until 1970, Craigmont Mines Limited did not recover the magnetite in its milling process, and on a material-balance basis there is estimated to be in the order of 5 million tonnes of magnetite in the tailings deposit.*

*Figure 2.* **Property Location**
*(from MapPlace & Google Earth)*

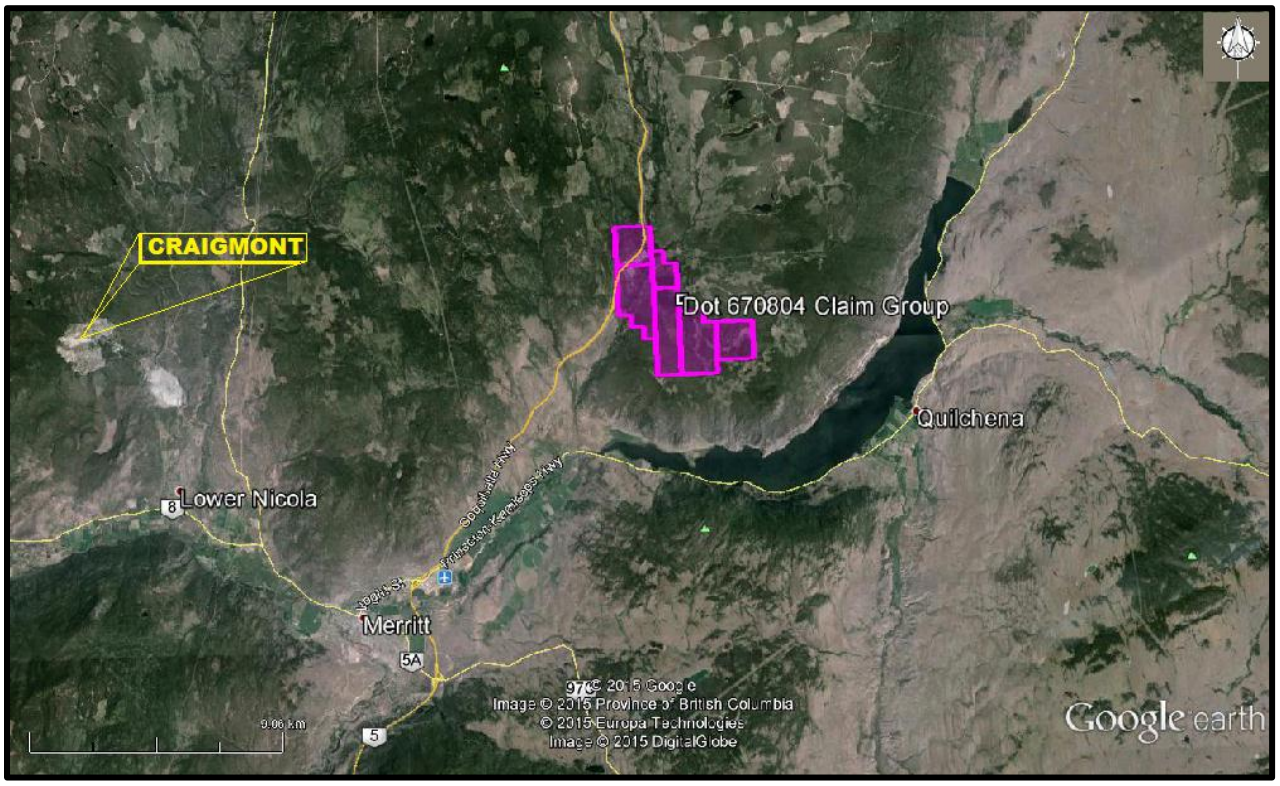
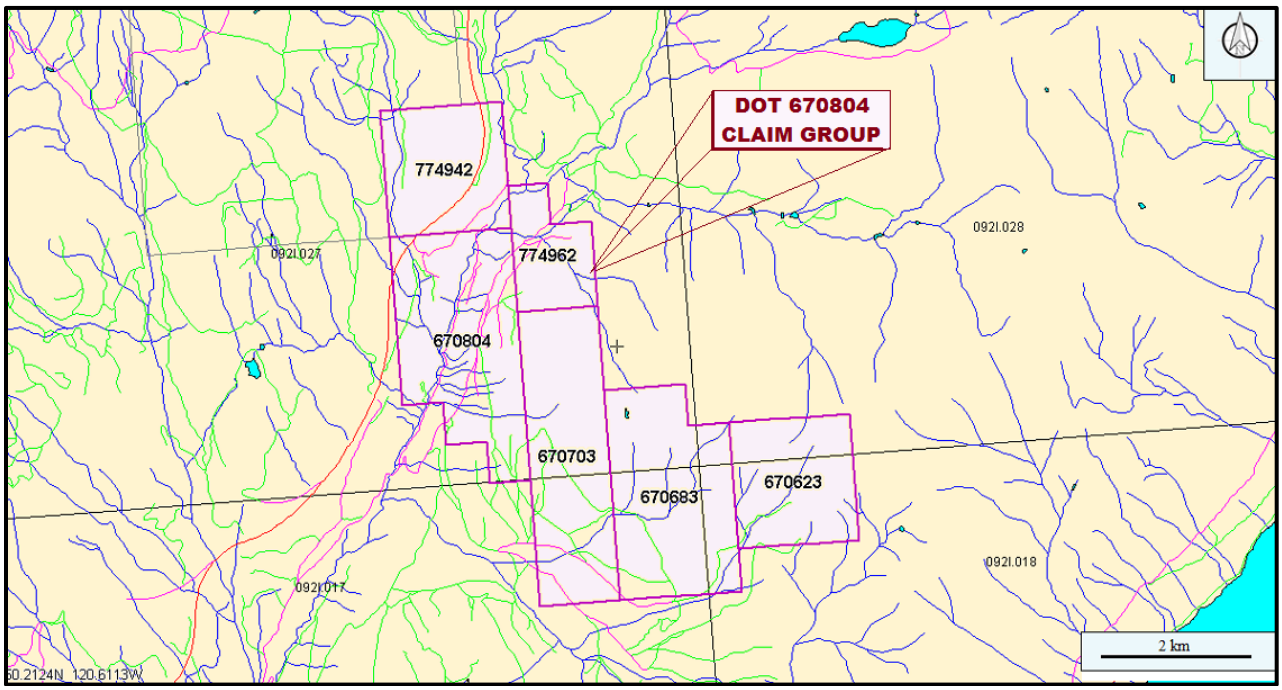



*Figure 3.* **Claim Map**
*(Base map from MapPlace)*



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

*The company reports that exploration completed in 1991 proved the presence of in excess of 1 million tonnes of magnetite in the southerly one-quarter of the tailings.*

*Since the cessation of production in 1982, magnetite has been shipped from the stockpiles at Craigmont to western Canadian and United States coal producers, to be used as an essential component in their heavy media separation process.*

*Magnetite remaining in the original stockpiles as of 1992 represents approximately three years of industry requirements, based on the current level of usage. In order to replenish the stockpiles, in 1991 the company applied for the necessary government permits to construct a facility to recover the magnetite from the old tailings deposit. Production from the plant is scheduled to commence in the fall of 1992 (J. Harris (Yorkshire Resources), personal communication, 1992).*

*Seven Industries Inc. continues to produce about 60,000 tonnes per year of magnetite by processing the Craigmont tailings. The quality of the product has improved and the company is supplying most coal mines in western Canada (except Manalta and Line Creek). The company has filed a conceptual design to create a new tailings storage dam (on top of the old one) which would allow the operation to continue for at least another 15 years (Information Circular 1996-1, page 10).*

*M Seven is reported to have operated the Craigmont tailings up to and including 2001.*

*In 2002, it was reported that Craigmont Holdings Ltd. owned the Craigmont magnetite tailings operation which is setup to process the tailings and recover about 70,000 tonnes of magnetite annually.*

*In 2003, Craigmont Mines Ltd processed tailings from the old Craigmont copper mine and produced 45,000 tonnes of magnetite although the operation is setup up to recover up to 70,000 tonnes of magnetite annually. The magnetite is used in coal washing plants in British Columbia, Alberta and Washington State. The company is evaluating other magnetite sources, both on and off the property, as well as potential markets for hematite, which may also be recoverable.*

*In 2004, Craigmont Mines Ltd signed an option agreement with Christopher James Gold Corp to purchase 50% of the 70,000 tonne of per year magnetite operation for $3.5 million.*

## HISTORY: PROPERTY

The history of the more significant mineral MINFILE reported showings and prospect within the Property (*Figure 4*) is reported as follows.

***TURLIGHT*** past producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE055
Within Tenure 670683

*The Turlight copper deposit was discovered in 1928 and Turlight Mines Limited was incorporated in 1929. That year, an 18-metre-deep shaft was excavated to follow a prospective quartz vein. After many years of inactivity, Guichon Mine Limited acquired the property and put it back into production in 1947. From 1947 to 1948, the property was held under option by Anaconda Copper Mining Company. In total, seven drillholes totalling 786 metres were completed before Anaconda dropped the option on the property. Guichon Mine Limited continued production until 1951. At the end of production, six levels had been established along the 137-metre-deep shaft. Between 1948 and 1951, approximately 136 to 181 tonnes of ore grading 5 per cent copper were shipped to the smelter at Tacoma (Assessment Report 10518, page 2).*

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

***Turlight** (cont'd)*

*In 1956, Western Copperado Mining Corporation took control of the Turlight mine, dewatered the shaft and drilled approximately 609 metres on the 61-metre (200-foot) level. That year, approximately 41 tonnes of ore grading 6.91 per cent copper were shipped to the Tacoma smelter.*

*The following year, Shield Mining Surveys Limited completed a geophysical survey and 20 diamond drill holes totalling 3036 metres. A short adit and several short drill holes were completed on a mineralized zone approximately 1.6 kilometres north of the Turlight shaft.*

*Toluma Mining and Development Limited optioned the property in 1960 and conducted work programs until 1963. Work included geophysical surveying, geochemical surveying and bulldozer trenching. Encouraging molybdenum and copper results were encountered in the Southeast zone (MINFILEs 092ISE124, 092ISE125), along with encouraging copper results in the Northwest zone (MINFILE 092SIE123). Six diamond drill holes completed in the Southeast zone between 1961 and 1962 assayed low-grade copper-molybdenum-silver values.*

*In 1965, Rio Tinto Canadian Exploration Limited optioned the property and completed a magnetometer geophysical survey over the northwest and southeast zones. The property was then optioned to Great Slave Mines Limited in 1966. In 1967, Great Slave Mines completed magnetometer, photogeological and geochemical studies on the property. Also during this time, a joint provincial and federal government aeromagnetic geophysical survey was flown over the region.*

*Danstar Mines Limited acquired the Copperado property and dewatered the Turlight shaft again in 1973. This was followed by a program of surveying, geological mapping and sampling. In 1976, Danstar Mines conducted an exploration program consisting of three percussion drill holes totalling 264 metres at the Turlight mine, three percussion drill holes totalling 320 metres at the Copperado-TM 1 occurrence (MINFILE 092ISE125) and an induced polarization–resistivity geophysical survey over a portion of the property including the Turlight mine and Copperado-P66 occurrence (MINFILE 092ISE123).*

*From 1981 to 1982, Danstar Mines completed two BQ diamond drill holes totalling 306.76 metres. One hole, drillhole D-5-82, assayed several intersections of anomalous copper results.*

*The area was later acquired by C.R.C. Explorations Limited as the Cop property. In late 1996, LaMancha Resources Limited optioned the property, established 33.7 kilometres of grid and baseline and collected 1188 soil samples. The following year, exploration consisted of geological mapping, prospecting and rock sampling (184 samples). In 2000, the grid was extended to the north, east and west, followed by a ground magnetometer, very low-frequency electromagnetic geophysical survey and the collection of 484 soil samples and 40 rock samples. An additional 10 kilometres of induced polarization surveying was completed over the West zone.*

*In 2006, Columbia Yukon Explorations Incorporated optioned the property and completed five BQ diamond drill holes totalling 967.73 metres. Four holes were completed in the West zone (MINFILE 092ISE123) and one in the East zone (MINFILEs 092SIE124, 092ISE125).*

*Sometime prior to 2011, the Cop claim area was allowed to lapse and the Peacock property was staked over the area by Christopher Delorme. In 2011, claim owner Delorme retained Terry Garrow to conduct a ground geophysical survey and mineral evaluation on the Peacock property. Delorme followed up in 2012 by conducting a rock and soil sampling program.*

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

***COPPERADO P66** showing (Porphyry Cu+/-Mo+-Au)*
MINFILE 092ISE123
Within Tenure 370703

*The Copperado-P66 occurrence is situated southeast of Highway 5, 4 kilometres north of Nicola Lake and approximately 23 kilometres northeast of Merritt.*

***COPPERADO TM1** showing (Porphyry Cu+/-Mo+-Au)*
MINFILE 092ISE125
Within Tenure 670623

*The Copperado-TM 1 occurrence is situated southeast of Highway 5, 4 kilometres north of Nicola Lake and approximately 23 kilometres northeast of Merritt.*

***PEACOCK** showing (Porphyry Cu+/-Mo+-Au)*
MINFILE 092ISE132
Within Tenure 670804

*The Peacock occurrence is situated on the south side of Clapperton Creek, southeast of Highway 5, 4 kilometres north of Nicola Lake and approximately 23 kilometres northeast of Merritt.*

*Exploration began in the area in the early 1900s. The Turlight copper deposit (MINFILE 092SIE055) situated to the southeast was discovered in 1928. An 18-metre-deep shaft was excavated to follow a prospective quartz vein. After many years of inactivity, Guichon Mine Limited acquired the property and put it back into production in 1947. From 1947 to 1948, the property was held under option by Anaconda Copper Mining Company. In total, seven drillholes totalling 786 metres were completed before Anaconda dropped the option on the property. Guichon Mine Limited continued production until 1951. At the end of production, six levels had been established along the 137-metre-deep shaft. Between 1948 and 1951, approximately 136 to 181 tonnes of ore grading 5 per cent copper were shipped to the smelter at Tacoma (Assessment Report 10518, page 2).*

*In 1956, Western Copperado Mining Corporation took control of the Turlight mine, dewatered the shaft and drilled on the 61-metre (200-foot) level. That year, approximately 41 tonnes of ore grading 6.91 per cent copper were shipped to the Tacoma smelter.*

*The following year, Shield Mining Surveys Limited completed a geophysical survey and 20 diamond drill holes totalling 3036 metres. A short adit and several short drillholes were completed on a mineralized zone approximately 1.6 kilometres north of the Turlight shaft.*

*Toluma Mining and Development Limited optioned the Turlight property in 1960 and conducted work programs until 1963. Work included geophysical surveying, geochemical surveying, drilling and bulldozer trenching. Encouraging molybdenum and copper results were encountered in the Southeast zone (MINFILEs 092ISE124, 092ISE125), along with encouraging copper results in the Northwest zone (MINFILE 092SIE123).*

*In 1965, Rio Tinto Canadian Exploration Limited optioned the property and completed a magnetometer geophysical survey over the Northwest and Southeast zones. The property was then optioned to Great Slave Mines Limited in 1966. In 1967, Great Slave Mines completed magnetometer, photogeological and geochemical studies on the property. Also during this time, a joint provincial and federal government aeromagnetic geophysical survey was flown over the region.*

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

***Peacock** (cont'd)*

*Danstar Mines Limited acquired the Copperado property and dewatered the Turlight shaft again in 1973. This was followed by a program of surveying, geological mapping and sampling. In 1976, Danstar Mines conducted an exploration program consisting of three percussion drill holes totalling 264 metres near the Turlight mine (MINFILE 092ISE055), three percussion drill holes totalling 320 metres at the Copperado-TM 1 occurrence (MINFILE 092ISE125) and an induced polarization–resistivity geophysical survey over a portion of the property including the Turlight mine (MINFILE 092ISE055) and Copperado-P66 occurrence.*

*In 1976, on behalf of Quintana Minerals Corporation, C.J. Roberson staked the Nicola No. 1 claim over an area to the immediate south of the Peacock occurrence that included the Copperado-P66 showing and overlapped areas previously held by Danstar Mines. The following year, T.E. Lisle conducted geological mapping and prospecting on the Nicola claim.*

*From 1981 to 1982, Danstar Mines completed two BQ diamond drill holes totalling 306.76 metres near the Turlight shaft on their Star 100 claim. One hole, drillhole D-5-82, assayed several intersections of anomalous copper results.*

*The area was later acquired by C.R.C. Explorations Limited as the Cop property. In late 1996, LaMancha Resources Limited optioned the property, established 33.7 kilometres of grid and baseline and collected 1188 soil samples. The following year, exploration consisted of geological mapping, prospecting and rock sampling (184 samples). In 2000, the grid was extended to the north, east and west, followed by a ground magnetometer, very low-frequency electromagnetic geophysical survey and the collection of 484 soil samples and 40 rock samples. An additional 10 kilometres of induced polarization surveying was completed over the West zone.*

*In 2006, Columbia Yukon Explorations Incorporated optioned the property and completed five BQ diamond drill holes totalling 967.73 metres. Four holes were completed in the West zone (MINFILE 092ISE123) and one in the East zone (MINFILEs 092SIE124, 092ISE125). Drilling in the West zone targeted copper-silver-gold soil geochemical anomalies and coincident induced polarization and resistivity geophysical anomalies.*

*Sometime prior to 2011, the Cop claim area was allowed to lapse and the Peacock property was staked over the area by Christopher Delorme. In 2011, claim owner Delorme retained Terry Garrow to conduct a ground geophysical survey and mineral evaluation on the Peacock property. Delorme followed up in 2012 by conducting a rock and soil sampling program.*

## GEOLOGY: REGIONAL

The Dot 670804 Claim Group is located within the regional Quesnel Trough, a 30 to 60, km wide belt of Lower Mesozoic volcanic and related strata enclosed between older rocks and much invaded by batholiths and lesser intrusions (Campbell and Tipper, 1970). The southern part is the well-known Nicola belt, continuing nearly 200 km to its termination at the U.S. border and containing the important copper deposits of Highland Valley, Craigmont, Copper Mountain, Afton, in addition to the historic Hedley gold camp.

The Nicola Group has been divided into Western, Central, and Eastern belts on the basis of lithology, lithogeochemistry and by major fault systems. Variation from calc-alkaline to shoshinitic compositions from west to east has been interpreted to reflect eastward dipping subduction in the Nicola arc.

## GEOLOGY: PROPERTY AREA

The geology of the more significant mineral MINFILE reported showings, prospects, and producers peripheral to the Property (*Figure 4*) is reported as follows. The distance from the Property is relative to Tenure 670804 which is the subject of the structural analysis.

***CRAIGMONT*** producer (Cu skarn; Fe skarn; Tailings)
MINFILE 092ISE035
Fourteen kilometres west

*The Promontory Hills area is underlain by a complex east- northeast trending, steeply dipping volcanic pile of Upper Triassic Nicola Group rocks, bounded to the north by the multistage Early Jurassic-Late Triassic Guichon Creek batholith and unconformably overlain by the Middle and Upper Cretaceous Spences Bridge Group. Most of the area is covered by extensive gravel overburden.*

*In the vicinity of Craigmont mine, the Border phase of the Guichon Creek batholith varies in composition from quartz diorite to granodiorite. These rocks intrude the Nicola Group, a thick volcanic and sedimentary series of agglomerate, breccia, andesitic flows, limestone, argillite and greywacke. Attitudes parallel the intrusive contact zone. Sediments immediately adjacent to the batholith are hornfelsed quartzofeldspathic greywackes. Spences Bridge Group agglomerates and flows dip approximately 15 degrees to the south and outcrop in the areas south and west of the mine.*

*The mine lies adjacent to the southern margin of the Guichon Creek batholith. Host rocks to the mineralization are calcareous sedimentary rocks of the Nicola Group comprised of limestones, limy tuffs, greywackes and argillites.*

*The gross structure at the mine is a large anticline with ore- bearing drag folds on the north limb. These folds plunge 60 to 70 degrees eastward and are often occupied by diorite dykes. The anticline is cut off by a northwest trending fault on the west and an east trending fault on the south. Orebodies lie within a block bounded by these regional faults and the Guichon Creek intrusive.*

*Alteration mineralogy indicates thermal zoning. Within the hornfelsed zone, greywackes contain biotite and actinolite and limestone is altered to marble. Immediately to the south is a massive actinolite skarn which, in places, is further altered to epidote and garnet (grossularite, andradite). Three types of alteration are present. First is a zone of potassic alteration with a related (second) distal hornfels. Third is skarn alteration which overprints the potassic alteration and some of the hornfels. The skarn is garnet-epidote-amphibolite in composition with some chlorite, tourmaline and sericite.*

*Semi-continuous ore is found over a strike length of 900 metres and a vertical depth of 600 metres. The five main orebodies are confined to the limy horizon between walls of greywacke and andesite.*

***NICOLA LAKE*** showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE046
Four kilometres southeast

*The property is located near the southwestern contact of the Lower Jurassic granodioritic Nicola batholith with variably foliated diorite, amphibolite and metasediments of the Upper Triassic Nicola Group. The Nicola Lake showing is mainly underlain by chlorite schist with foliations striking northwest to north and dipping steeply to the west. Carbonate lenses and argillaceous layers are interbedded in the metavolcanic rocks. Rocks are highly sheared and fractured. Alteration consists of widespread chloritization, epidote stringers, variable silicification and carbonitization, quartz-calcite veining and oxidation (malachite, azurite, limonite and hematite).*

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

***THELMA*** past producer (: Pb-Zn skarn, Polymetallic veins Ag-Pb-Zn+/-Au)
MINFILE 092ISE101
Five kilometres northwest

*The property covers the contact zone between the volcanic and sedimentary sequences of the Upper Triassic Nicola Group. Limestone and conglomerate beds strike north and dip steeply to the east. At the 1615 metre elevation, a 30 metre wide band of dark grey limestone is exposed for 106 metres in a northerly direction. The limestone is massive and contains scattered thin stringers of white calcite, some chert nodules and vague shapes that may be fossils.*

*The area around Swakum Mountain consists of folded Upper Triassic Nicola Group volcanic rocks with interbedded sedimentary units. These rocks are intruded by large north trending felsic to intermediate intrusions (batholiths) east and west of the mountain. Nicola Group rocks on the mountain strike north to northeast with generally steep dips. For a large part they consist of andesitic flows and tuffs, agglomerates, and occasional basalts and rhyolites. A break occurs in the volcanic stratigraphy and is comprised of a mixed volcanic-sedimentary unit consisting of a thick sequence of felsic volcanic flows, lithic and crystal tuffs, limy sediments and a prominent limestone. This unit has a northeast strike and crosses the mountain for a 2.5 kilometre strike length. The unit has been historically used as a marker horizon in interpreting a large, asymmetrical, south plunging anticline with its north trending axis near Swakum Mountain summit. Narrow quartz porphyry dykes locally intrude the Nicola Group sequence. To the east of this marker unit are a thick, unconformable wedge of immature sediments, predominantly coarse polymictic conglomerates (fan-type) and grits with minor cherty units. Most of the old workings on the mountain occur in close proximity to or within this volcanic-sedimentary unit and consist of polymetallic skarn-type mineralization, lead-zinc-silver bearing quartz veins and replacements, and polymetallic quartz veins.*

## GEOLOGY: PROPERTY

As indicated by the BC government supported MapPlace BCGS Geology Layers 2005 map the Peacock 670804 Claim Group is bisected by a main regional northerly trending fault which is intersected by a southwesterly fault near the Peacock showing. The faults are indicated as contacts with the Upper Triassic Western Volcanic Facies of the (uTrNW) to the west and dioritic intrusives (LTrJdr) to the east.

The geology of the more significant mineral MINFILE reported showings and prospects within the Property (*Figure 4*) is reported as follows.

***TURLIGHT*** past producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE055
Within Tenure 670683

*The property is located near the southwestern perimeter of the Lower Jurassic Nicola batholith. This intrusive locally consists of gneissic hornblende-biotite granodiorite to quartz monzonite and exhibits widespread chlorite-epidote alteration. Foliation strikes approximately 335 degrees and dips 80 degrees to the west, though dip angles vary from nearly vertical to moderately northeastward. To the southwest, the batholith intrudes intermediate volcaniclastic rocks and interbedded sediments belonging to the Upper Triassic Nicola Group. Faults on the property strike north to northwest and dip very steeply northeast. Shear zones contain lenses of mineralized vein matter.*

*The Nicola batholith granodiorite is intruded by numerous aplite dikes generally associated with quartz veining, and several feldspar porphyry dikes. The dikes are aligned with foliation or fault directions.*

***Turlight** (cont'd)*

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

*The Turlight occurrence consists of a 137-metre-deep inclined shaft, six levels of underground workings and several trenches. At the shaft, copper mineralization occurs in a quartz vein up to 1.5 metres wide with well-defined walls, striking 330 degrees and dipping 65 degrees northeast. The quartz hosts irregular masses, veinlets and disseminated grains of bornite, chalcopyrite, minor chalcocite and some malachite.*

***COPPERADO P66** showing* (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE123
Within Tenure 370703

*The Copperado-P66 occurrence is situated at the southwestern margin of the Lower Jurassic Nicola batholith. Locally, the intrusive rocks consist of gneissic hornblende-biotite granodiorite to quartz monzonite and exhibit widespread chloritization. A thin section of the sheared gneissic rock lacked plagioclase but showed a development of clinozoisite. Foliation strikes northwest with moderate to steep west dips. The granodiorite intrudes intermediate volcaniclastic rocks and sediments of the Upper Triassic Nicola Group. The contact strikes east. Aplite dikes occupy north-northwest–trending fracture sets that dip moderately to the east and west. A major fault striking 325 degrees and dipping 65 degrees west displaces the Nicola Group contact approximately 18.3 metres in a right-lateral sense.*

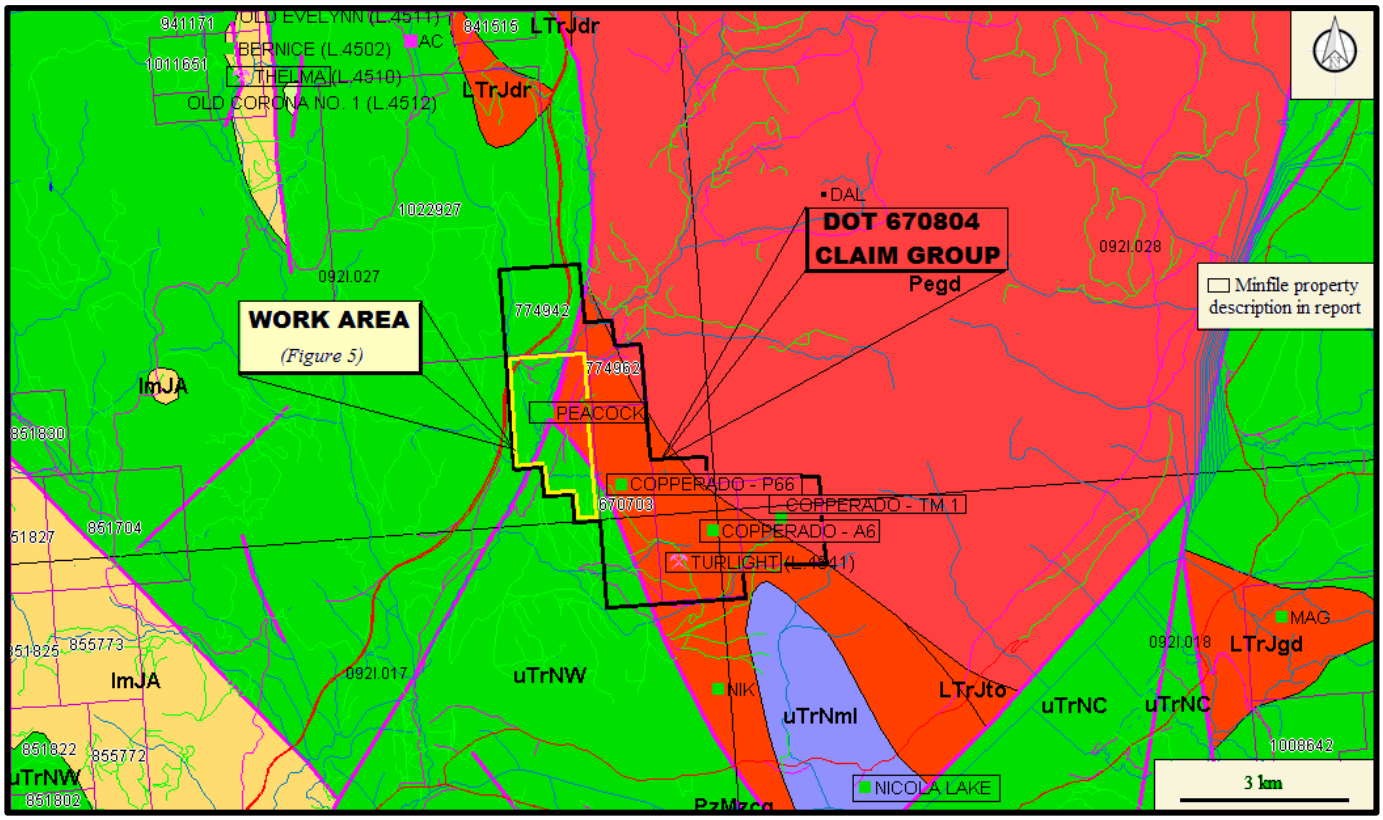
***COPPERADO TM1*** showing (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE125
Within Tenure 670623

*The Copperado-TM 1 occurrence is situated at the southwestern margin of the Lower Jurassic Nicola batholith. Locally, the intrusive rock is gneissic quartz monzonite to granodiorite and exhibits widespread chloritization. Foliation strikes north and dips steeply to the west but orientations vary considerably. The Nicola batholith intrudes intermediate volcaniclastic rocks and sediments belonging to the Upper Triassic Nicola Group. Aplite and quartz-feldspar porphyry dikes cut the intrusive. Shear zones strike 310 degrees and dip steeply to the northeast.*

*North-south shear zones trend through the area. Numerous trenches have exposed north-northwest–trending shearing and foliation with scattered sulphide mineralization along shear planes. Granodiorite outcrops contain scattered small quartz veinlets carrying fine sulphides. On surface outcrop, sulphides appear in patches associated with malachite copper stain.*

*Diamond drilling (1962) intersected a mineralized zone 6 to 9 metres wide striking 330 degrees and dipping 70 degrees east, with subsidiary zones branching off into the footwall. This zone consists of sheared gneissic leucrocratic granite and narrow quartz stringers up to 2.5 centimetres wide striking approximately 325 degrees and dipping 85 degrees east. Thin threads and small grains of molybdenite are scattered in the quartz. Occasional disseminated bornite, chalcopyrite and malachite staining occur in the veins and vein walls at depth and are also exposed on the surface. A 2006 drillhole encountered medium to coarse-grained granite and weakly chlorite-sericite–altered foliated diorite. Scattered, weakly anomalous copper silver values were associated with chalcopyrite and chalcocite in quartz and quartz-feldspar veins.*

*Figure 4.* **GEOLOGY, CLAIMS, INDEX, & MINFILE**
*(Base Map from MapPlace)*




## GEOLOGY MAP LEGEND

**Paleocene**
**Pegd**
Unnamed granodioritic intrusive rocks

**Upper Triassic: Nicola Group**
**uTtNsf**
mudstone, siltstone, shale, fine clastic sedimentary rocks
**uTrNMl**
lower amphibolite/kyanite grade metamorphic rocks
**uTrJum**
unnamed ultramafic rocks

**Eastern Volcanic Facies**
**uTrNE**
basaltic volcanic rocks

**Central Volcanic Facies**
uTrNc
andesitic volcanic rocks

**Western Volcanic Facies**
**uTrNW**
undivided volcanic rocks

**Late Triassic to Early Jurassic**
**LTrJgd**
unnamed granodiorite intrusive rocks
**LTrJdr**
dioritic to gabbroic intrusive rocks

**Lower Jurassic to Middle Jurassic**
**lMJA**
Ashcroft Formation
mudstone, siltstone, shale, fine clastic sedimentary rocks

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

***PEACOCK*** showing (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE132
Within Tenure 670804

*The area is underlain by three north-south–trending Jurassic batholiths: the eastern Wildhorse Mountain batholith, the central Nicola batholith and the western Guichon Creek batholith. Compositionally, the batholiths are zoned from an exterior diorite rim to a quartz monzonite core. The batholiths intrude Nicola Group volcanic and pyroclastic rocks with minor limestone, argillite and conglomerate.*

*The property is underlain by granitic rocks of the Lower Jurassic Nicola batholith. Locally, the intrusive rock is hornblende-biotite granodiorite that has undergone widespread chlorite-epidote alteration and that exhibits strong foliation striking northeast and dipping steeply to the west. To the southwest is the intrusive contact of the granodiorite with Upper Triassic green to purple andesite, volcaniclastic rocks and intercalated sediments belonging to the Nicola Group. The Nicola batholith is intruded (?) by a northwest-trending tongue of quartz monzonite that is fine grained and foliated near its margins and coarse grained and massive elsewhere. Numerous faults strike approximately 030 degrees with dip angles 50 degrees northwest to vertical and appear to have been the locus of some horizontal displacement.*

*The Peacock showing contains several shallow shafts in the narrow gorge of Clapperton Creek that expose several large, sparsely mineralized quartz bodies up to 12 metres across, connected by veins and stringers.*

## MINERALIZATION: PROPERTY AREA

The mineralization of the more significant mineral MINFILE reported showings, prospects, and producers peripheral to the Property (*Figure 4*) is reported as follows. The distance from the Property is relative to Tenure 670804 which is the subject of the structural analysis.

***CRAIGMONT*** producer (Cu skarn; Fe skarn; Tailings)
MINFILE 092ISE035
Fourteen kilometres west

*Mineralization consists of magnetite, hematite and chalcopyrite and occurs as massive pods, lenses and disseminations extending through the calc-silicate horizon. The body is roughly tabular, trends east and dips near vertically. Minor folding and faulting is present but do not significantly distort the mineralization. Chalcopyrite is associated with, but post-dates the magnetite and commonly encloses the magnetite.*

*Chalcopyrite is the principal ore mineral and occurs as veins, streaks, patches and coarse disseminations. It was first deposited with magnetite during the development of the actinolite skarn and later with specularite as fracture-fillings and veins. Bornite is present in small amounts. Pyrite is confined to areas of heavy garnet alteration. Approximately 20 per cent of the ore (by weight) is comprised of magnetite and hematite and along with actinolite, epidote, grossularite, andradite, pyrite and minor diopside, occur in the skarn. Supergene minerals, native copper and chalcocite, occur in a narrow oxidized zone immediately above the orebody. The apparent ore controls are favourable host rock, folding and brecciation of host rock, and proximity to the batholith.*

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

***NICOLA LAKE*** showing (Porphyry Cu +/- Mo +/- Au)
MINFILE 092ISE046
Four kilometres southeast

*Three adits have been driven at this occurrence, the main one being 20 metres in length with one crosscut. Rock sampling in Adit A returned a best assay of 1.18 per cent copper, 5.75 grams per tonne gold and 6.85 grams per tonne silver over a vein width of 45 centimetres (Prospectus, 1988).*

*Copper mineralization occurs as blebs of chalcopyrite, malachite, azurite, bornite and pyrite.*

***THELMA*** past producer (Pb-Zn skarn, Polymetallic veins Ag-Pb-Zn+/-Au)
MINFILE 092ISE101
Five kilometres northwest

*The Thelma occurrence consists of one shaft, underground workings and a number of surface trenches, all of which have collapsed and filled in since work ceased in 1940. Silver-lead-zinc mineralization is exposed in tabular and lenticular garnet-epidote skarn zones up to 5 metres wide within the limestone. Pyrite, galena and sphalerite, with gold and silver values, occur as metasomatic replacements along bedding planes and as disseminations throughout the limestone. Minor copper values are also associated with the skarn. Quartz veins 10 to 15 centimetres wide are hosted by Nicola Group andesitic rocks near the volcanic-sedimentary contact. These veins carry galena and sphalerite with minor gold and silver values.*

*A sample was taken across 30 metres at the centre of the exposure and analyzed 0.28 per cent Fe2O3, 0.07 per cent MnO, 0.44 per cent MgO, 51.22 per cent CaO, 0.026 per cent P2O5, 0.03 per cent S, 40.8 per cent Ig. Loss, 0.04 per cent H2O, 7.08 per cent Insol. and 0.46 per cent R2O3 (Minister of Mines Annual Report 1958).*

## MINERALIZATION: PROPERTY

The mineralization of the more significant mineral MINFILE reported showings and prospects within the Property (*Figure 4*) is reported as follows.

***TURLIGHT*** past producer (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE055
Within Tenure 670683

*Two blocks of values were identified in the collar area of the Turlight shaft above the 30-metre level: Block A contains 1197 tonnes grading 2.3 per cent copper, 30.8 grams per tonne silver and trace gold. Block B contains 916 tonnes grading 2.5 per cent copper, 13.7 grams per tonne silver and 0.3 gram per tonne gold (Lorimer, 1974). Significant results from the 1981 to 1982 drill program include 0.31 metre of 0.53 per cent copper and 1.15 metres of 1.23 per cent copper from drillhole D-5-82 (Assessment Report 10518, page 18).*

***COPPERADO P66*** *sh*owing (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE123
Within Tenure 370703

*Narrow quartz veins and scattered stringers in the shear zone carry sparse copper mineralization. Chalcopyrite, bornite and minor pyrite occur as disseminations; malachite staining is also evident. The veins strike 325 degrees and dip 30 degrees east.*

***Mineralization: Property*** *(cont'd)*

***Copperado P66*** *(cont'd)*

*The 2006 drill program encountered chalcopyrite, chalcocite and minor bornite and native copper in quartz and quartz-feldspar veins. Disseminated native copper and minor chalcopyrite occur within foliated diorite surrounding the veins. Mineralization within the veins consists of coarse disseminated stringers and clots of chalcopyrite, chalcocite and minor bornite, along with fine laths and clots of native copper. Quartz-feldspar dikes contain clots and stringers of chalcopyrite and chalcocite lining vugs. Assay results indicated that mineralization was sporadic with no continuation over significant lengths of core.*

***COPPERADO TM1*** showing (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE125
Within Tenure 670623

*Mineralization is known over a length of 60 metres and widths up to 60 metres at intervals. The lower limit was not encountered. Average grades are 0.2 per cent copper, 0.07 per cent molybdenite and 17.1 grams per tonne silver (Assessment Report 10518).*

*Results of the 1961 to 1962 drill program reported up to 0.53 per cent copper and 0.16 per cent molybdenum over widths of 7.3 metres, with an average grade of approximately 0.2 per cent copper, 0.07 per cent molybdenum disulphide and 17.1 grams per tonne silver (Assessment Report 10518, page 16).*

*Drilling in 1982 defined two planes of mineralization averaging 0.53 per cent copper over 0.31 metre and 1.23 per cent copper over 1.15 metres (Assessment Report 10518).*

*The most significant result from the 2006 drillhole was 3.5 metres of 2.45 grams per tonne silver and 0.19 per cent copper (Assessment Report 28721, page 13).*

***PEACOCK*** showing (Porphyry Cu+/-Mo+-Au)
MINFILE 092ISE132
Within Tenure 670804

*Copper mineralization occurs in the quartz veins and is occasionally disseminated in the granodiorite. The veins are up to 60 centimetres in width and strike north in general alignment with foliation and fractures. Many veins occur in areas of aplite dikes. Mineralization consists of bornite, chalcopyrite, malachite and azurite, usually associated with minor pyrite.*

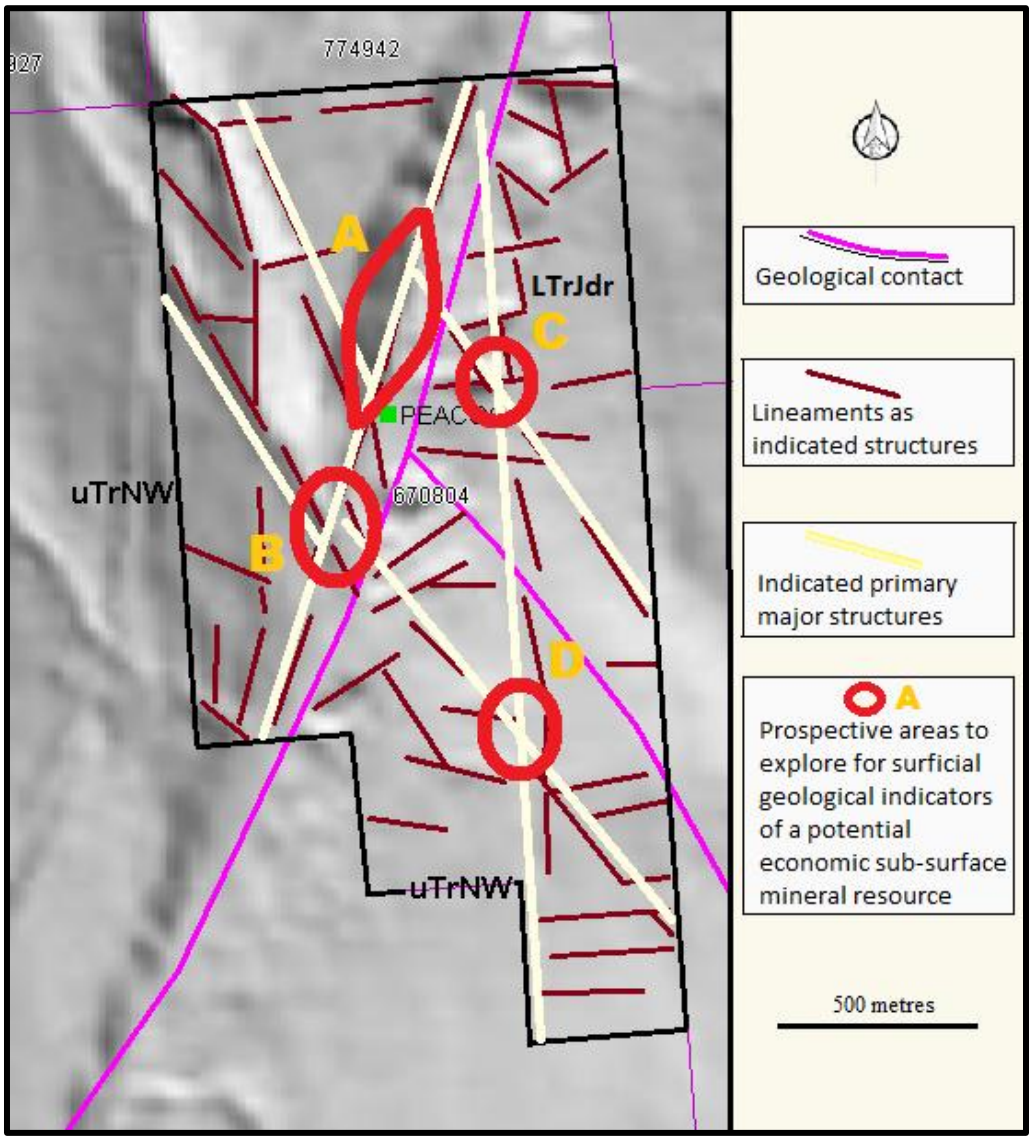
## STRUCTURAL ANALYSIS

The structural analysis was performed on a MapPlace hillside shade map of Tenure 670804 by viewing of the map and marking the lineaments, or indicated structures, thereon. A total of 58 lineaments were marked (*Figure 5*), compiled into a 10 degree class interval, and plotted as a rose diagram as indicated on Figure 6.

The centre of the work area is at 668,556E; 5,565,444N (NAD 83)

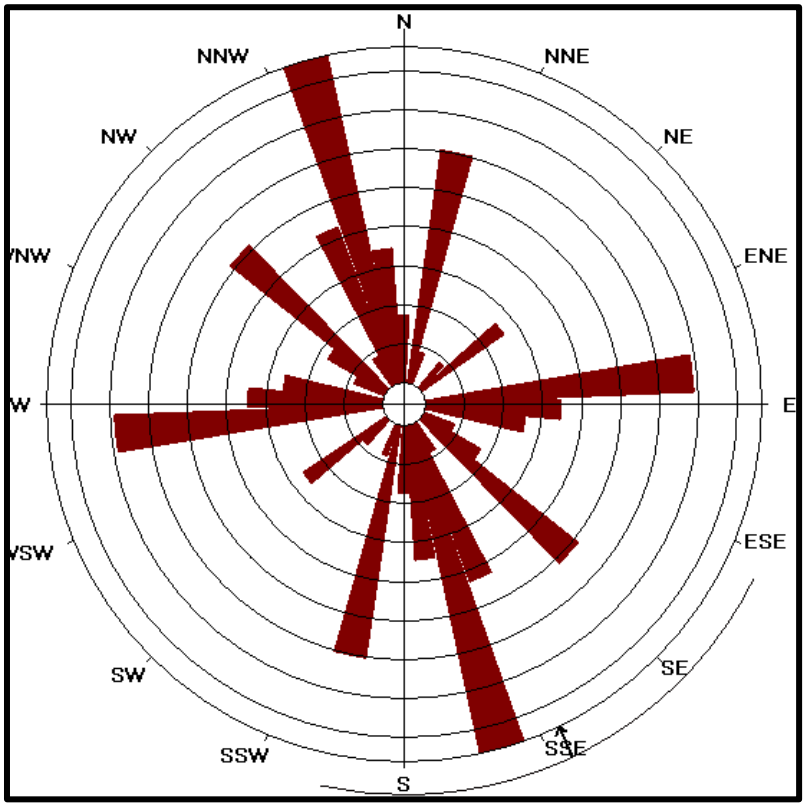
***Structural Analysis*** *(cont'd)*

*Figure 5.* **Indicated Lineaments (Structures) on Tenure 670804**
*(Base Map from MapPlace)*



***Structural Analysis** (cont'd)*

*Figure 6.* **Rose Diagram from Lineaments of Tenure 670804**




# STATISTICS

*(Tenure 670804)*

*Axial (non-polar) data*
*No. of Data = 58*
*Sector angle = 8°*
*Scale: tick interval = 2% [1.2 data]*
*Maximum = 17.2% [10 data]*
*Mean Resultant dir'n = 154-334*
*[Approx. 95% Confidence interval = ±37.9°]*
*(valid only for unimodal data)*

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*Mean Resultant dir'n = 154.4 - 334.4*
*Circ.Median = 001.0 - 181.0*
*Circ.Mean Dev.about median = 40.7°*
*Circ. Variance = 0.30*
*Circular Std.Dev. = 48.30°*
*Circ. Dispersion = 5.70*
*Circ.Std Error = 0.3134*
*Circ.Skewness = 2.00*
*Circ.Kurtosis = -1.81*

*kappa = 0.50*
*(von Mises concentration param. estimate)*

*Resultant length = 14.00*
*Mean Resultant length = 0.2413*

*'Mean' Moments: Cbar = 0.1514; Sbar = -0.1879*
*'Full' trig. sums: SumCos = 8.7832; Sbar = -10.8994*
*Mean resultant of doubled angles = 0.3364*
*Mean direction of doubled angles = 167*

*(Usage references: Mardia & 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 7.* **Cross structural locations on Google Earth**
*(Base map from MapPlace and Google Earth)*

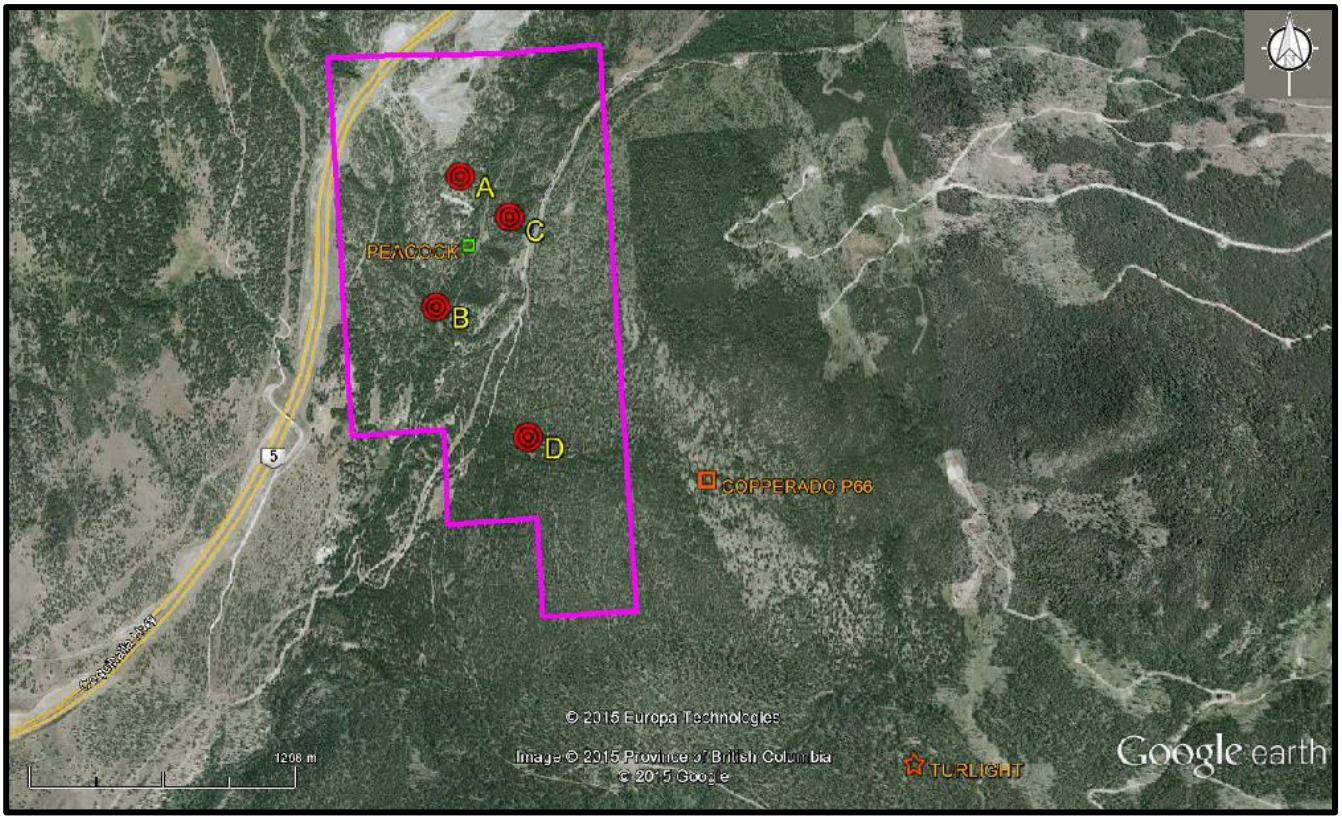
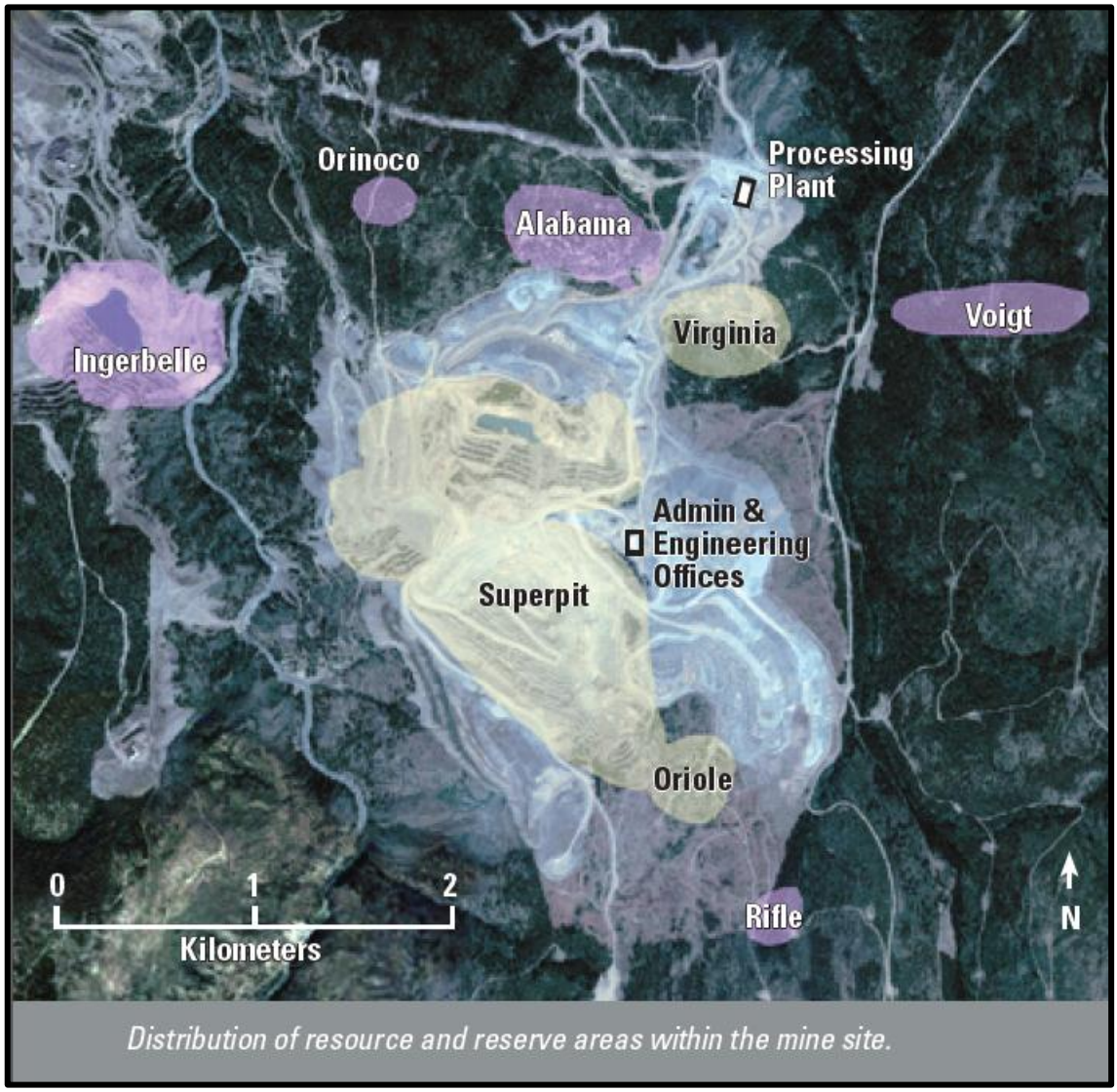



*Table 2.* *Approximate UTM location of cross-structures & Minfiles on Tenure 670804. D*
*(Zone 10; UTM-NAD 83)*

| Location | UTM East | UTM North | Elevation |
|---|---|---|---|
| **A** | 668,602 | 5,565,685 | 947 |
| **B** | 668,451 | 5,565,052 | 859 |
| **C** | 668,838 | 5,565,478 | 919 |
| **D** | 669,918 | 5,564,375 | 975 |
| **Peacock** | 668,623 | 5,565,364 | 853 |
| **Copperado P66** | 669,753 | 5,564,132 | 1,175 |
| **Turlight** | 670,628 | 5,512,831 | 1,214 |

*Figure 8.* **Copper Mountain Mine**

*(map from Copper Mountain Mining Corporation. 2013 Annual Report)*



## INTERPRETATION & CONCLUSIONS

Four cross-structures were delineated on Tenure 670804; one of which is located in the dioritic intrusive and three are located in the Nicola volcanics within 200 metres of the volcanic/intrusive contact. All four locations are cross-structures developed between northerly and northwesterly trending structures paralleling the MapPlace indicated regional structures which are the indicated volcanic/intrusive contacts on Tenure 670804.

The cross-structures, located proximally to the major MapPlace indicated faults, would be ideal structurally prepared locations for the deposition of a maximum amount of hydrothermal fluids. The greater the degree of fractures and mineral content, the greater potential for an economic mineral resource

An indication of the potential for such a resource may be indicated in the surficial exposure of minerals and alteration at the cross-structural locations where any fluid migration to the surface would be facilitated to a greater degree by the additional space created and the possible extended depth to tap a hydrothermal source. These surficial geological indicators would be subject to interpretation as to economic mineral indicators where in the volcanics, may indicate a capped porphyritic intrusive

Excluding other variable geological conditions, the structures are essential in the localization of potentially economic porphyritic mineralization. For mineral deposit types that may occur within the Toni 670804 Claim Group reference is made in the report to the eight Minfile properties described herein. These Minfile descriptions, copied from the BC Government Minfile records, as shown on Figure 4, are included herein as potential types of mineralization that should be sought subsequent to the exploration of the four cross-structural locations.

Respectfully submitted
Sookochoff Consultants Inc.


Laurence Sookochoff, PEng

## SELECTED REFERENCES

**Garrow, T.,** Peacock Property Report. Geophysical Technical Report for Chris Delorme. October 20, 2011. AR 32,465.

**Jarawka, L.** – Soil and Rock Geochemical Report on the Peacock Property for Christopher Delorme. October 28, 2012. AR 33,375.

**MapPlace Downloads**

**Mitra, G. –** Basic Methods of Structural Geology. pp 258-259, 264*.Prentice-Hall Inc. 1988

**MtOnline** - MINFILE downloads.

092ISE035 – CRAIGMONT

092ISE046 – NICOLA LAKE

092ISE055 – TURLIGHT

092ISE101 – THELMA

092ISE123 – COPPERADO P66

092ISE125 – COPPERADO TM1

092ISE132 – PEACOCK

**Wyllie, R**. – Geophysical Assessment Report on the Peacock Property for Dot Resources Ltd. May 15, 2013. AR 34,164.

## STATEMENT OF COSTS

Work on Tenure 670804 of the DOT 670804 Claim Group was done from July 26, 2014 to July 31, 2014 to the value as follows:

**Structural Analysis**

| | |
|---|---|
| Laurence Sookochoff, PEng. 3 days @ $ 1,000.00/day ---- | $ 3,000.00 |
| Maps ---------- | 500.00 |
| Report ---------- | 3,500.00 |
| | $ 7,000.00 |
| | ======= |

## 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 my profession for the past forty-eight 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 and from periodic work the author has performed in the Aspen Grove area since the 1980's.

5) I have no interest in the Property as described herein.


Laurence Sookochoff, P. Eng.