# Diamond Drilling Report

## on the

# CR Mineral Property

Omineca Mining Division, British Columbia

NTS 093L/07W

Latitude 54° 17' N, Longitude 126° 50' W

for
John Wesley Moll
PO Box 1182, Houston, BC, V0J 1Z0

by
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16575 Quick East Rd.
Telkwa, BC, V0J 2X2

July 26, 2003

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## 1.0 Summary

This report documents a diamond drilling program that was conducted on the CR mineral property between September 19 and October 1, 2002. The work was completed under approval number SMI-2002-0200225-44. Total expenditures for the project were $7,940 (see Table 3).

One X-Ray hole was drilled 38.1 metres to follow up previous work. Pyrite and chalcopyrite mineralization were observed in several veinlets throughout the hole. The 3.8 metre interval from 25.3 to 29.1 metres averaged 1675 ppm copper.

## 2.0 Location, Access and Physiography

The CR mineral property is located on the western flank of Morice Mountain, 15 km south of the town of Houston in central British Columbia (NTS map sheet 093L/07, Latitude 54° 17' N, Longitude 126° 50'W). Elevations on the property range from 700 metres near the bottom of the Morice River Valley to over 1600 metres in the southeast corner of the CR 4 mineral claim. The property location is shown in Figure 1.

Access to the western part of the property is by the Morice Forest Service Road - a well maintained, two lane, gravel road from Houston. Two dirt trails provide 4x4 access to the eastern parts of the claim block.

The property lies near the north western boundary of the Interior Plateau physiographic region just east of the Telkwa Range of the Coast Mountain region. Bedrock exposure is poor below the 885 metre contour but increases with elevation to the east.

## 3.0 Claim Ownership

The CR property consists of four modified grid claims totalling 38 units (Figure 2). The claims are owned by John Wesley Moll of Houston, BC. The current status of the claims is shown in Table 1.

**Table 1 – Claim Status**

| Claim | Tenure No. | Units | Expiry Date* |
|---|---|---|---|
| | | | |
| CR 1 | 324929 | 06 | April 28, 2004 |
| CR 2 | 324930 | 12 | April 28, 2004 |
| CR 3 | 324931 | 08 | April 28, 2004 |
| CR 4 | 324932 | 12 | April 28, 2004 |

* pending acceptance of this report

# CR Property - Physiographic Location Map

FIGURE 1.

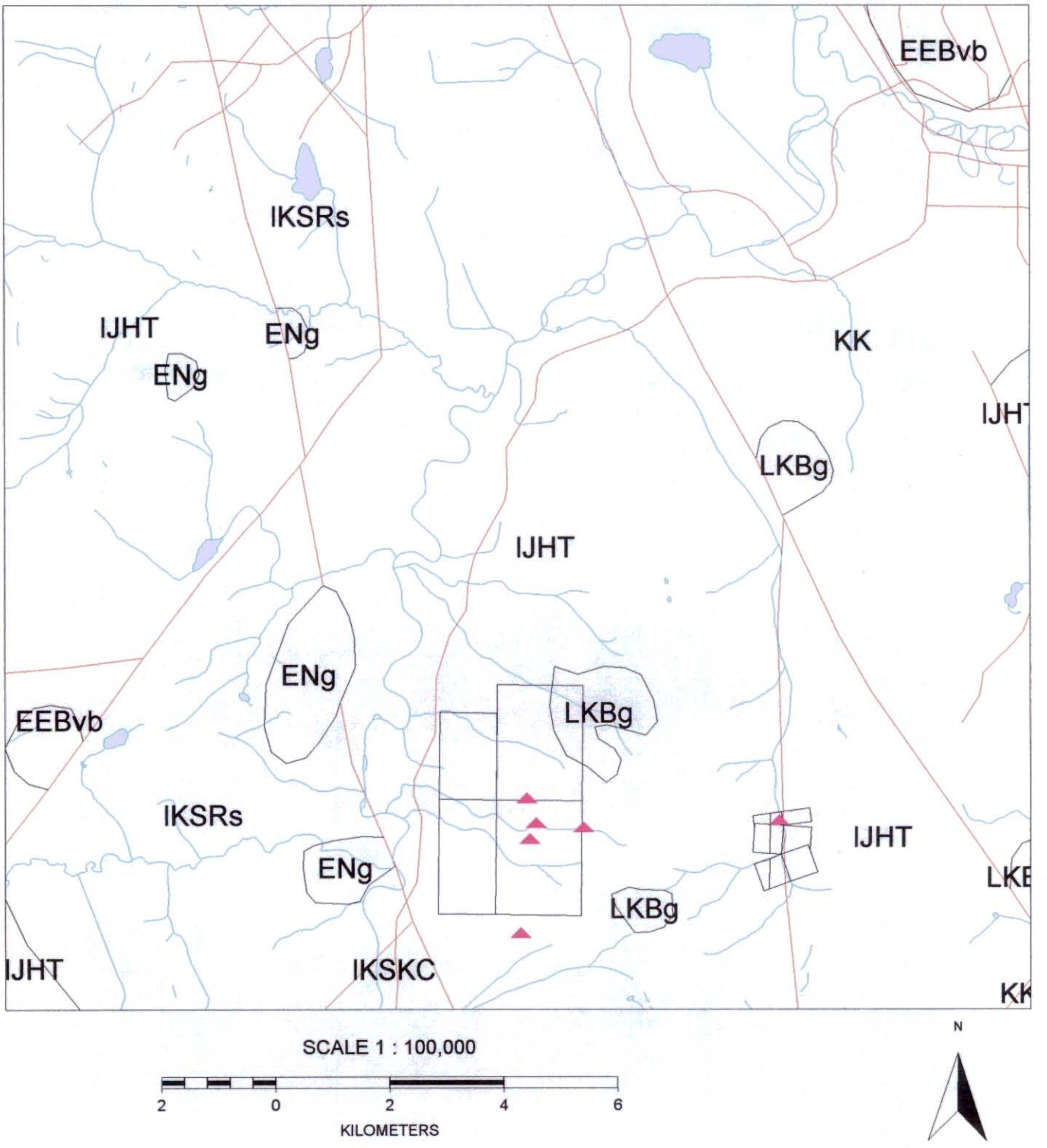



http://webmap.em.gov.bc.ca/mapplace/maps/minpot/bcgs.MWF

July 26, 2003 9:35 AM

# CR Property - Regional Geology

FIGURE 2.



## 4.0 Exploration History

The CR mineral claims contain the 093L 007, 093L202, 093L 268 and 093L 269 showings in the Minfile Database. The locations are plotted on Figure 3 and the Master Reports are included as Appendix I.

The area of the CR mineral property has been intermittently explored since the early 1930's when the original claims were staked by R. J. Douglas of Houston. A chronology of the more recent programs is as follows:

- In 1966, Axax Exploration did an induced polarization survey (Ass. Rpt. 0797).
- In 1977, Cities Services Min. did geophysical work on the Rain mineral claim (Ass. Rpt. 6311).
- In 1982, Churchill Energy Inc. did geological mapping (Ass. Rpt. 10563).
- In 1990, Equity Silver Mines Ltd. did a soil geochemical survey of the Raven mineral claims (Ass. Rpt. 19568
- In 1994, Cominco Ltd. did 13 km of induced polarization on the CR mineral claims and 700 ha. of geological mapping on the Raven and Crow claims (Ass. Rpts. 23465 and 23698).
- In 1998, John Wesley Moll drilled two X-Ray holes totalling 48.2 metres (Ass. Rpt. 25950).
- In 1999 John Wesley Moll drilled two X-Ray holes totalling 55.5 metres (Ass. Rpt. 26294).
- In 2000 John Wesley Moll drilled two X-Ray holes totalling 50.9 metres (Ass. Rpt. 26578)

## 5.0 Geology

### 5.1 Regional Geology

According to the B.C. Ministry of Energy and Mines MapPlace Website, the CR mineral property is underlain by lower Jurassic volcanic rocks belonging to the Telkwa Formation of the Hazelton Group that have been intruded by a late Cretaceous granitic pluton (see Figure 2).

The CR property is located in the east-west trending, mineral rich Skeena Arch crustal structure. In the Skeena Arch, Eocene or late Cretaceous intrusions into the Hazelton Group volcanics are the locus of several porphyry copper +/- molybdenum and copper-gold deposits and occurrences.

According to Jackisch (1994), the property lies in a NE trending graben which extends from the Berg deposit (70 km to the SW) to the Bell-Granisle deposits (85 km to the NE).

## 5.2 Property Geology

According to Wagner (1994), the lower Jurassic rocks of the Telkwa Formation of the Hazelton Group as exposed on the CR property are predominantly basaltic to andesitic tuffs, breccias and flows that have been intruded by Eocene Nanika plugs of quartz-monzonite composition. The volcanic rocks are locally "bleached" and mineralized with pyrite, chalcopyrite, hematite and molybdenite. The quartz-monzonite is weakly altered and mineralized with pyrite, chalcopyrite and molybdenite.

# 6.0 2002 Diamond Drilling Program

One X-ray diamond drill hole was collared to follow up on the results of previous drilling. The drill hole is summarized in Table 2 and the location is plotted on Figure 3.

**Table 2 – Diamond Drill Hole Summary**

| Hole # | UTM N | UTM E | Dip | Az. | Depth | Elev. | Claim |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| CR02-01 | 6,018,100 | 641,404 | -60 | 130° | 38.1m | 830m | CR 1 |

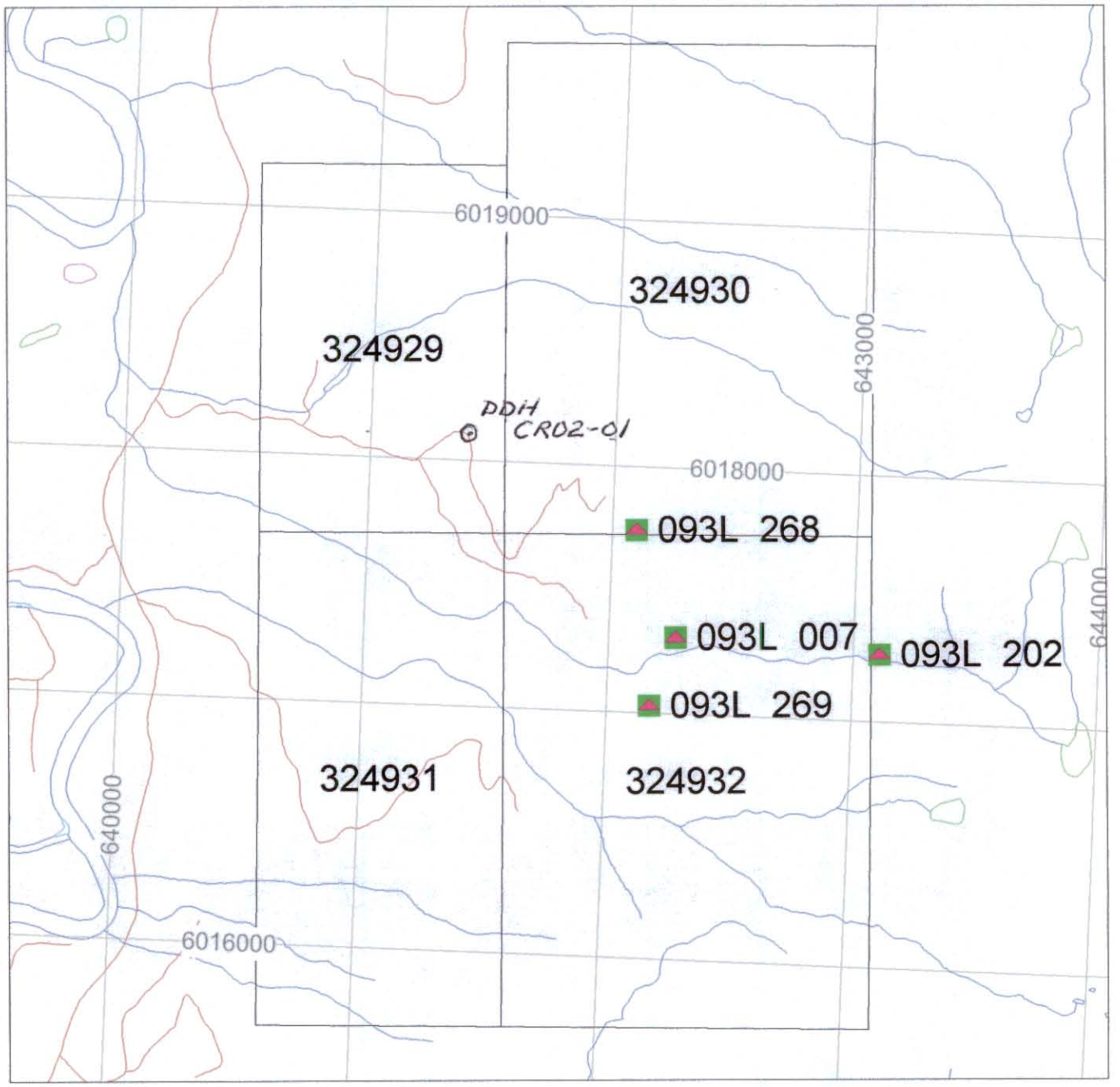
The core was placed in boxes and logged by the author for lithology, structure, mineralization and alteration. The log is included as Appendix II of this report.

Four samples representative of the mineralization were taken for analysis. The core was split manually and the samples were sent to ALS Chemex in North Vancouver B.C. for 34 element ICP-AES analysis and for gold fire assay with AA finish. The certificates of analysis are included as Appendix III and significant results are shown on the drill logs.

The core is stored permanently at the residence of John Wesley Moll in Houston.

# CR Property - 2002 Drill Hole Location Map

FIGURE 3.






http://webmap.em.gov.bc.ca/mapplace/maps/minpot/bcgs.MWF

July 26, 2003 9:00 AM

# 7.0 Results

## 7.1 Lithology

Drill hole CR02-01 encountered a pale grey coloured, non-magnetic, porphyritic quartz monzonite over its entire length. Phenocrysts consist of 15% subhedral quartz to 4 mm diameter, 5-10% quartz-sericite altered euhedral crystals (altered orthoclase feldspar?), and 5% chlorite + carbonate altered mafic mineral(s?). The groundmass (70-75%) is fine grained plagioclase feldspar. Very distinct, subhedral, pink orthoclase feldspar phenocrysts (alteration?) to 5x10 mm were observed from 31.3 metres to the end of the hole.

## 7.2 Structure

CR02-01 displayed very weak microveining (fracture filling) throughout the entire hole. Eight veinlets to 7 mm wide were observed between 16.5 and 31.1 metres. The core axis angles ranged from 10° to 70°. No other structures were observed but the lack of core recovery from 29.1 to 29.4 metres may indicate a shear zone.

## 7.3 Mineralization

CR02-01 contained traces of disseminated chalcopyrite and 2-4% pyrite as blebs to 4mm diameter throughout. Pyrite + chalcopyrite ± quartz occurred in the veinlets noted under Section 7.2. Limonite ± malachite occurred along fracture surfaces to 29 metres. Calcite occurred as rare blebs to 2-3 mm diameter.

In the four samples analyzed, copper values ranged from 619 to 1710 ppm, gold values ranged from .010 to .017 ppm, and zinc values ranged from 59 to 307 ppm. The 3.8 metre interval from 25.3 to 29.1 metres averaged 1675 ppm copper.

## 7.4 Alteration

Weak hydrothermal alteration consisting of saussuritization of calcic plagioclase, quartz-sericite alteration of orthoclase, and chlorite alteration of biotite and/or pyroxene were observed. The pink orthoclase phenocrysts near the end of the hole may represent a more strongly altered (potassic) zone or a zone of weaker quartz-sericite alteration.

## 8.0 Interpretation and Recommendations

Drill hole CR02-01 intersected a weakly altered and mineralized porphyritic quartz-monzonite intrusion over its entire length of 38.1 metres. Based on the samples taken from this hole and on the results from the holes drilled in 1998, 1999 and 2000, this intrusive contains sub-economic copper-gold mineralization.

Based on the intensity of microveining, the weak alteration, and the weak copper mineralization, it is interpreted that the mineralization encountered in the quartz-monzonite is the result of a single pulse (mineralizing event).

Detailed geologic mapping combined with a program of systematic drill testing of bedrock are recommended to identify areas with multiple intrusive phases that should be more prospective for porphyry copper-(gold?) type deposits.

Detailed geologic mapping and trenching are also recommended to assess the potential for skarn and replacement type deposits in the limestone units.

**Table 3**

**Statement of Expenditures**

| | | | |
|---|---|---|---|
| 1. | Diamond drilling | | |
| | mobe/demobe - 90 hrs.@ $20/hr | | $1,800 |
| | 38.1 metres @ $85.30/metre | | $3,250 |
| 2. | Waterline - 32 hrs.@ $20/hr | | $640 |
| 3. | Powersaw - 8 days @ $30/day | | $240 |
| 4. | Core splitting – 8 hrs.@ $20/hr | | $160 |
| 5. | Copco Drill – 1day @ $70/day | | $70 |
| 6. | Transportation | | |
| | 4X4 pickup truck – 8 days @ $50/day | | $400 |
| | ATV – 8 days @ $50/day | | $400 |
| 7. | Board - 16 mandays @ $30/day | | $480 |
| 8. | Core logging and report - 1.25 days @ $400/day | | $500 |
| | | TOTAL | $7,940 |

# REFERENCES


1. **Bulmer, W.R.,** 2001. Assessment Report 26578; Diamond Drilling Report on the CR Property

2. **Bulmer, W.R.,** 2000. Assessment Report 26294; Assessment Report for the 1999 Diamond Drilling Program on the CR Mineral Property

3. **Bulmer, W.R.,** 1999. Assessment Report 25950; Drilling Report on the CR Property

4. **Jackisch, Ingo,** 1994. Assessment Report 23465; I.P./Resistivity Survey on the Crow Raven Property

5. **Wagner, D.B.,** 1994. Assessment Report 23698; Geological Report on the Raven and Crow Claims

## AUTHOR'S STATEMENT

I, Daryl J. Hanson, of 16575 Quick East Rd., Telkwa, B.C. do hereby certify that:

1. I am a graduate of the University of British Columbia (1971) and hold a B.A.Sc. degree in Geological Engineering.

2. I am registered as a Professional Engineer with the Association of Professional Engineers and Geoscientists of British Columbia, Canada.

3. I have practiced my profession as a geologist for 32 years in British Columbia and the Yukon.

4. This report is based is based upon examination of the drill core from this project and upon work on the CR property for Equity Silver Mines Ltd. in 1990.

5. I have no financial interest, either direct or indirect, in the CR mineral claims or any adjacent properties.

Dated at Quick, British Columbia, this 28 day of July, 2003.

Daryl J. Hanson, P.Eng.

# APPENDIX I

**Minfile Master Reports:**
**093L 007**
**093L 202**
**093L 268**
**093L 269**

Run Date: 2003/Jul/26
Run Time: 09:04 AM

MINFILE / www
**MASTER REPORT**
GEOLOGICAL SURVEY BRANCH
MINISTRY OF ENERGY & MINES

MINFILE Number: **093L 007** National Mineral Inventory: 093L7 Cu2

Name(s): **SUCCESS**, RAVEN, MOUND, VAN

Status: Showing Mining Division: Omineca
Regions: British Columbia
NTS Map: 093L07W (NAD 83) UTM Zone: 09 (NAD 83)
Latitude: 54 17 02 N Northing: 6017312
Longitude: 126 48 52 W Easting: 642275
Elevation: 1066 Metres
Location Accuracy: Within 500M
Comments: Located on the west flank of Morice Mountain on the north side of an incised creek, 15 kilometres southwest of Houston.

Commodities: Copper Silver Gold

**MINERALS**
Significant: Chalcopyrite Bornite Pyrite
Associated: Quartz
Alteration: Malachite Azurite Clay Chlorite
Alteration Type: Silicific'n Chloritic
Mineralization Age: Unknown

**DEPOSIT**
Character: Vein Breccia Disseminated
Classification: Hydrothermal
Type: [Subvolcanic Cu-Ag-Au (As-Sb).] [Polymetallic veins Ag-Pb-Zn±Au.]

**HOST ROCK**
Dominant Host Rock: Volcanic

| Stratigraphic Age | Group | Formation | Igneous/Metamorphic/Other |
|---|---|---|---|
| Lower Jurassic | Hazelton | Telkwa | |
| Eocene | | | Nanika Intrusions |

Lithology: Brecciated Siliceous Andesite
Rhyolite
Granodiorite
Quartz Porphyry

**GEOLOGICAL SETTING**
Tectonic Belt: Intermontane Physiographic Area: Nechako Plateau
Terrane: Stikine Plutonic Rocks

**CAPSULE GEOLOGY**

The Morice Mountain area is underlain by Lower to Middle Jurassic Hazelton Group volcanics of the Telkwa Formation which have been intruded by plugs of Nanika Intrusions. The Telkwa Formation is comprised of variegated red, maroon, green to grey basaltic to rhyo- litic flows, tuffs, and breccia. The Eocene Nanika Intrusions are composed of granodiorite, quartz monzonite and felsite dikes which are in part porphyritic.

The "Lower showing", located at 1066 metres elevation, consists of pyrite, chalcopyrite, and bornite which is exposed for 20 metres in a silicified and brecciated zone in the andesites. The shear strikes approximately 165 degrees and is mineralized over a 37 metre length. Irregular clots of sulphides associated with quartz infill the fragmented breccia. Occasionally, quartz grains form up to 5 centimetre euhedral crystals.

Silicification has bleached the black andesite to give the rock a dacitic appearance. The quartz infilling is vuggy. Minor chloritization occurs in the mafic minerals with minor clay altera- tion near chalcedony veining.

In 1986 samples were collected from the old trenches. Massive pyrite with bornite from altered andesite assayed 0.022 grams per tonne gold, 96 grams per tonne silver and 8.8 per cent copper. Andesite with quartz veining containing pyrite, malachite and azurite assayed 0.08 grams per tonne gold, 19 grams per tonne silver and 1.58 per cent copper.

**BIBLIOGRAPHY**

EMPR AR *1930-142,143; 1931-74; 1932-85; *1966-103
EMPR ASS RPT 797, 2844, 6311, *10563, *15259, 19568
EMPR GEM 1970-155; 1977-E193
EMPR EXPL *1982-310; *1986-354
GSC P *40-18, p. 16
EMR MP CORPFILE (Moramulca Mines Ltd.)
GSC MAP 671A
EMPR MAP 69-1
GSC OF 351
EMPR OF 1994-14
Placer Dome File

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| Date Revised: 1987/08/13 | Revised By: LLC | Field Check: N |

Run Date: 2003/Jul/26
Run Time: 09:08 AM

MINFILE / www
**MASTER REPORT**
GEOLOGICAL SURVEY BRANCH
MINISTRY OF ENERGY & MINES

MINFILE Number: **093L 202**

National Mineral Inventory: 093L7 Cu3

Name(s): **SHOLTO,** MOUND, RAVEN, VAN

Status: Showing
Regions: British Columbia
NTS Map: 093L07W (NAD 83)
Latitude: 54 17 00 N
Longitude: 126 48 06 W
Elevation: 1069 Metres
Location Accuracy: Within 500M
Comments: Located on the west flank of Morice Mountain, 15 kilometres southwest of Houston.

Mining Division: Omineca

UTM Zone: 09 (NAD 83)
Northing: 6017276
Easting: 643108

Commodities: Copper, Gold, Silver

**MINERALS**
Significant: Chalcopyrite, Pyrite
Associated: Calcite
Alteration: Epidote, Garnet, Actinolite, Tremolite, Malachite
Alteration Type: Skarn, Epidote
Mineralization Age: Unknown

**DEPOSIT**
Character: Disseminated
Classification: Hydrothermal, Skarn
Type: [Cu skarn.] [Subvolcanic Cu-Ag-Au (As-Sb).]

**HOST ROCK**
Dominant Host Rock: Volcanic

| Stratigraphic Age | Group | Formation | Igneous/Metamorphic/Other |
|---|---|---|---|
| Lower Jurassic | Hazelton | Telkwa | |
| Eocene | | | Nanika Intrusions |

Lithology: Hornfels Basalt
Limestone
Hornfels
Tuff
Rhyolite
Breccia
Quartz Monzonite
Felsite

**GEOLOGICAL SETTING**
Tectonic Belt: Intermontane
Terrane: Stikine
Metamorphic Type: Contact
Grade: Hornfels

Plutonic Rocks

Physiographic Area: Nechako Plateau
Relationship: Syn-mineralization

**INVENTORY**
Ore Zone: SAMPLE
Category: Assay/analysis
Sample Type: Grab

Report On: N
Year: 1930

| Commodity | Grade |
|---|---|
| Silver | 61.71 g/t |
| Gold | 1.03 g/t |
| Copper | 4.900 % |

Comments: Mineralized limestone with chalcopyrite.
Reference: Minister of Mines Annual Report 1930, page 142.

**CAPSULE GEOLOGY**

The Morice Mountain area is underlain by the Lower Jurassic Hazelton Group volcanics of the Telkwa Formation which have been intruded by plugs of Nanika Intrusions. The Telkwa Formation is composed primarily of breccia, tuff, and flows of basaltic to rhyolitic composition while the Eocene Nanika Intrusions are composed of quartz monzonite and felsite which are in part porphyritic.

The Sholto showing is described as the Upper showing, and is located at elevation 1069 metres. Chalcopyrite, pyrite, and mala- chite occurs with epidote in black hornfelsed basalt with thin inter- calated dark grey limestone striking 027 degrees and dipping steeply southeast. A 25 metre trench exposed irregular clots of chalcopyrite in the hornfelsed volcanics.

Skarn alteration consists of calc-silicates, epidote, garnet, tremolite, and actinolite with minor coarse calcite. The epidote occurs as ovoids or is massive

near the mineralization.

In 1930, a selected sample of a mineralized chalcopyrite seam in the limestone assayed 1.03 grams per tonne gold, 61.71 grams per tonne silver, and 4.9 per cent copper (Minister of Mines Annual Report 1930, page 142).

**BIBLIOGRAPHY**

EMPR ASS RPT 797, 2844, 6311, *10563, *15259
EMPR AR 1930-142,143; 1931-74; 1932-85; 1966-103
EMPR GEM 1970-155; 1977-E193
EMPR EXPL *1982-310; *1986-354
EMPR MAP 69-1
GSC OF 351
GSC BULL 270
Placer Dome File

| | | | | | |
|---|---|---|---|---|---|
| Date Coded: | 1985/07/24 | Coded By: | GSB | Field Check: | N |
| Date Revised: | 1988/08/13 | Revised By: | LLD | Field Check: | N |

Run Date: 2003/Jul/26
Run Time: 09:01 AM

MINFILE / www
**MASTER REPORT**
GEOLOGICAL SURVEY BRANCH
MINISTRY OF ENERGY & MINES

MINFILE Number: **093L 268**

National Mineral Inventory: 093L7 Cu3

Name(s): **CROESUS**, RAVEN

Status: Showing
Regions: British Columbia
NTS Map: 093L07W (NAD 83)
Latitude: 54 17 16 N
Longitude: 126 49 01 W
Elevation: 0 Metres
Location Accuracy: Within 1KM
Comments: Located on the west flank of Morice Mountain, 15 kilometres southwest of Houston.

Mining Division: Omineca

UTM Zone: 09 (NAD 83)
Northing: 6017739
Easting: 642099

Commodities: Copper Silver Gold

**MINERALS**
Significant: Chalcopyrite Pyrite
Alteration: Hematite
Mineralization Age: Unknown

**DEPOSIT**
Character: Vein Disseminated
Classification: Porphyry
Type: [Porphyry Cu ± Mo ± Au.] [Subvolcanic Cu-Ag-Au (As-Sb).]

**HOST ROCK**
Dominant Host Rock: Plutonic

| Stratigraphic Age | Group | Formation | Igneous/Metamorphic/Other |
|---|---|---|---|
| Lower Jurassic | Hazelton | Telkwa | |
| Eocene | | | Nanika Intrusions |

Lithology: Granodiorite
Gabbro
Quartz Monzonite
Felsite
Tuff
Basaltic Rhyolite Flow
Breccia

**GEOLOGICAL SETTING**
Tectonic Belt: Intermontane
Terrane: Stikine Plutonic Rocks

Physiographic Area: Nechako Plateau

**INVENTORY**
Ore Zone: SAMPLE
Category: Assay/analysis
Sample Type: Grab

Report On: N
Year: 1986

| Commodity | Grade |
|---|---|
| Silver | 9.00 g/t |
| Gold | 0.08 g/t |
| Copper | 0.780 % |

Comments: Sample from gabbro.
Reference: Assessment Report 15259.

**CAPSULE GEOLOGY**

The Morice Mountain area is underlain by the Lower Jurassic Hazelton Group volcanics (Telkwa Formation) which have been intruded by plugs of Nanika Intrusions. The Telkwa Formation is composed primarily of breccia, tuff, and flows of basaltic to rhyolitic composition while the Eocene Nanika Intrusions are composed mainly of quartz monzonite and felsite which are in part porphyritic.

The Croesus is located south of the Sholto (093L 202) and hosts chalcopyrite in granodiorite. A sample of the best minerali- zation assayed 0.3 per cent copper (Minister of Mines Annual Report 1930, page 143).

At a higher elevation, an alaskite intrusive is well pyritized and hosts traces of chalcopyrite. In 1986, this showing is described as occurring within gabbro. A sample of the gabbro with dissemi- nated pyrite, chalcopyrite, and hematite assayed 0.08 grams per tonne gold, 9.0 grams per tonne silver, and 0.78 per cent copper (Assessment Report 15259).

**BIBLIOGRAPHY**

EMPR AR *1930-143; *1931-74; 1932-85
EMPR EXPL 1986-354
EMPR ASS RPT *15259, 19568

EMPR MAP 69-1
GSC OF 351
GSC BULL 270
EMPR OF 1994-14
Placer Dome File

Date Coded: 1986/11/06
Date Revised: 1988/08/13

Coded By: GRF
Revised By: LLD

Field Check: N
Field Check: N

Run Date: 2003/Jul/26
Run Time: 09:06 AM

MINFILE / www
**MASTER REPORT**
GEOLOGICAL SURVEY BRANCH
MINISTRY OF ENERGY & MINES

MINFILE Number: **093L 269**

National Mineral Inventory: 093L7 Cu2

Name(s): VAN, WYK, GERRY, POT

Status: Showing
Regions: British Columbia
NTS Map: 093L07W (NAD 83)
Latitude: 54 16 53 N
Longitude: 126 48 58 W
Elevation: 0 Metres
Location Accuracy: Within 1KM
Comments: Located on the west flank of Morice Mountain, 15 kilometres southwest of Houston.

Mining Division: Omineca

UTM Zone: 09 (NAD 83)
Northing: 6017030
Easting: 642175

Commodities: Copper Molybdenum

**MINERALS**
Significant: Chalcopyrite Molybdenite Pyrite
Associated: Quartz
Alteration: Malachite
Mineralization Age: Unknown

**DEPOSIT**
Character: Vein
Classification: Porphyry
Type: [Porphyry Mo (Low F- type).] [Porphyry Cu ± Mo ± Au.]

**HOST ROCK**
Dominant Host Rock: Plutonic

| Stratigraphic Age | Group | Formation | Igneous/Metamorphic/Other |
|---|---|---|---|
| Lower Jurassic | Hazelton | Telkwa | |
| Eocene | | | Nanika Intrusions |

Lithology: Quartz Monzonite
Felsite
Andesite Rhyolite Flow
Tuff
Breccia

**GEOLOGICAL SETTING**
Tectonic Belt: Intermontane
Terrane: Stikine Plutonic Rocks

Physiographic Area: Nechako Plateau

**CAPSULE GEOLOGY**

The Morice Mountain area is underlain by Lower Jurassic Hazelton Group volcanics (Telkwa Formation) which have been intruded by plugs of Eocene Nanika Intrusions. The Telkwa Formation consists of andesitic to rhyolitic flows, tuffs and breccia. The Eocene Nanika Intrusions are composed of quartz monzonite and felsite stocks which are, in part, porphyritic.

Molybdenite, chalcopyrite and pyrite are reported to occur in quartz veins and as disseminations in the quartz monzonite intrusions.

**BIBLIOGRAPHY**

EMPR ASS RPT 797, 2844, 19568
EMPR AR *1966-103
EMPR GEM 1970-155
EMPR MAP 69-1
GSC OF 351
GSC BULL 270
EMPR OF 1994-14

Date Coded: 1986/11/06
Date Revised: 1988/08/13

Coded By: GRF
Revised By: LLD

Field Check: N
Field Check: N

# APPENDIX II

**Drill Hole Log CR02-01**

**CR Property**

**Diamond Drill Log**
**DDH CR02-01**

| North UTM | East UTM | Elevation | Inclination | Azimuth |
|---|---|---|---|---|
| ~6,018,100 | ~641,404 | ~830 m | -60° | 130° |

| Depth (m) | | Description | Assay Interval (m) | | ppm Cu | ppm Ag | ppm Au | Sample No. |
|---|---|---|---|---|---|---|---|---|
| From | To | | From | To | | | | |
| 0.0 | 7.3 | -overburden – no core | | | | | | |
| 7.3 | 29.1 | -pale greenish grey, porphyritic quartz monzonite w/ 15% subhedral quartz phenos to 4 mm dia., 7% quartz-sericite altered euhedral xtls (altered feldspar), and 5% chlorite altered mafic minerals in a fine grained groundmass | 25.3 | 27.7 | 1655 | 2.6 | 0.017 | 16708 |
| | | | 27.7 | 29.1 | 1710 | 3.1 | 0.010 | 16705 |
| | | | 29.1 | 31.2 | 897 | 2.1 | 0.010 | 16706 |
| | | - 2-4% pyrite blebs (<4 mm) and in rare vnlts to 2 mm | 35.8 | 38.1 | 619 | 0.9 | 0.015 | 16707 |
| | | - tr. diss. chalcopyrite | | | | | | |
| | | - <1% calcite patches to 3 mm | | | | | | |
| | | - non-magnetic | | | | | | |
| | | - limonite ± malachite along fracts. | | | | | | |
| | | - 16.5 - 18.0 m: Cp+Py vnlts (3) @ 15° to core axis | | | | | | |
| | | - 19.9 m - 2mm Py+Cp vnlt @ 10° to core axis | | | | | | |
| | | - 26.0 m - 2 mm Py+Cp vnlt @ 17° to core axis | | | | | | |
| | | - 26.4 m - 3mm Py+Qz+Cp vnlt @ 70° to core axis | | | | | | |
| | | - 27.7 m - 5 mm Py+Qz+K-spar+Cp vnlt @ 27° to core axis | | | | | | |
| | | - 28.7 m - 7 mm Py+Qz+Cp vnlt @ 45° to core axis | | | | | | |
| 29.1 | 29.4 | -no recovery | | | | | | |
| 29.4 | 38.1 | -as above 7.3 to 29.1m w/o limonite and malachite on fracts. | | | | | | |
| | | - 30.6 m - 3mm Py+Qz+Cp vnlt @ 45° to core axis | | | | | | |
| | | - 31.1 m - 2 mm Py+Qz+Cp vnlt @ 50° to core axis | | | | | | |
| | | - 31.3 to 38.1 pink subhedral K-spar xtls. to 5x10 mm | | | | | | |
| | | E.O.H. @ 38.1 metres (overall core recovery 90%) | | | | | | |

# APPENDIX III

**Certificate of Analysis**

# ALS Chemex

***EXCELLENCE IN ANALYTICAL CHEMISTRY***

ALS Canada Ltd.
212 Brooksbank Avenue
North Vancouver BC V7J 2C1 Canada
Phone: 604 984 0221 Fax: 604 984 0218


C: **MOLL, WES**
**BOX 1182**
**HOUSTON BC V0J 1Z0**



## CERTIFICATE VA03016427

Project : CR/MORIEC

P.O. No:

This report is for 5 ROCK samples submitted to our lab in North Vancouver, BC, Canada on 16-May-2003.

The following have access to data associated with this certificate:

MOLL WES

## SAMPLE PREPARATION

| ALS CODE | DESCRIPTION |
|---|---|
| WEI-21 | Received Sample Weight |
| LOG-22 | Sample login - Rcd w/o BarCode |
| CRU-31 | Fine crushing - 70% <2mm |
| SPL-21 | Split sample - riffle splitter |
| PUL-31 | Pulverize split to 85% <75 um |

## ANALYTICAL PROCEDURES

| ALS CODE | DESCRIPTION | INSTRUMENT |
|---|---|---|
| Au-AA23 | Au 30g FA-AA finish | AAS |
| ME-ICP41 | 34 Element Aqua Regia ICP-AES | ICP-AES |

To: **MOLL, WES**
**ATTN: MOLL WES**
**BOX 1182**
**HOUSTON BC V0J 1Z0**

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

**Signature:**

**ALS Chemex**
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Page # : 2 - A
Total # of pages : 2 (A - C)
Date : 28-May-2003
Account: MOLWES

Project : CR/MORIEC

## CERTIFICATE OF ANALYSIS VA03016427

| Sample Description | Method Analyte Units LOR | WEI-21 Recvd Wt kg 0.02 | Au-AA23 Au ppm 0.005 | ME-ICP41 Ag ppm 0.2 | ME-ICP41 Al % 0.01 | ME-ICP41 As ppm 2 | ME-ICP41 B ppm 10 | ME-ICP41 Ba ppm 10 | ME-ICP41 Be ppm 0.5 | ME-ICP41 Bi ppm 2 | ME-ICP41 Ca % 0.01 | ME-ICP41 Cd ppm 0.5 | ME-ICP41 Co ppm 1 | ME-ICP41 Cr ppm 1 | ME-ICP41 Cu ppm 1 | ME-ICP41 Fe % 0.01 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-16705 | | 1.08 | 0.010 | 3.1 | 0.31 | 3 | <10 | 130 | <0.5 | <2 | 1.08 | 0.7 | 5 | 68 | 1710 | 1.76 |
| 1-16706 | | 1.18 | 0.010 | 2.1 | 0.37 | 4 | <10 | 120 | <0.5 | 5 | 1.28 | 2.3 | 6 | 67 | 897 | 1.96 |
| 1-16707 | | 1.42 | 0.015 | 0.9 | 0.39 | <2 | <10 | 80 | <0.5 | <2 | 1.60 | 1.4 | 5 | 52 | 619 | 1.22 |
| 1-16708 | | 1.44 | 0.017 | 2.6 | 0.37 | 7 | <10 | 70 | <0.5 | <2 | 0.72 | <0.5 | 7 | 61 | 1655 | 2.25 |
| 1-16709 | | 0.62 | <0.005 | <0.2 | 1.36 | 3 | <10 | 40 | 0.5 | <2 | 1.50 | <0.5 | 21 | 63 | 17 | 4.01 |

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Page # : 2 - B
Total # of pages : 2 (A - C)
Date : 28-May-2003
Account: MOLWES

Project : CR/MORIEC

## CERTIFICATE OF ANALYSIS VA03016427

| Sample Description | Method Analyte Units LOR | ME-ICP41 Ga ppm 10 | ME-ICP41 Hg ppm 1 | ME-ICP41 K % 0.01 | ME-ICP41 La ppm 10 | ME-ICP41 Mg % 0.01 | ME-ICP41 Mn ppm 5 | ME-ICP41 Mo ppm 1 | ME-ICP41 Na % 0.01 | ME-ICP41 Ni ppm 1 | ME-ICP41 P ppm 10 | ME-ICP41 Pb ppm 2 | ME-ICP41 S % 0.01 | ME-ICP41 Sb ppm 2 | ME-ICP41 Sc ppm 1 | ME-ICP41 Sr ppm 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-16705 | | <10 | <1 | 0.25 | <10 | 0.05 | 419 | 4 | 0.01 | 6 | 530 | 16 | 1.60 | <2 | 1 | 17 |
| 1-16706 | | <10 | 1 | 0.26 | <10 | 0.07 | 561 | 4 | 0.01 | 7 | 540 | 51 | 1.71 | <2 | 1 | 19 |
| 1-16707 | | <10 | <1 | 0.26 | <10 | 0.10 | 853 | 1 | <0.01 | 4 | 510 | 10 | 0.82 | <2 | 1 | 34 |
| 1-16708 | | <10 | <1 | 0.26 | <10 | 0.06 | 313 | 2 | <0.01 | 8 | 530 | 18 | 1.95 | <2 | 1 | 12 |
| 1-16709 | | 10 | <1 | 0.11 | 20 | 1.46 | 538 | <1 | 0.08 | 54 | 2520 | 4 | 0.01 | <2 | 4 | 73 |

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Date : 28-May-2003
Account: MOLWES

Project : CR/MORIEC

## CERTIFICATE OF ANALYSIS VA03016427

| Sample Description | Method / Analyte / Units / LOR | ME-ICP41 Ti % 0.01 | ME-ICP41 Tl ppm 10 | ME-ICP41 U ppm 10 | ME-ICP41 V ppm 1 | ME-ICP41 W ppm 10 | ME-ICP41 Zn ppm 2 |
|---|---|---|---|---|---|---|---|
| 1-16705 | | <0.01 | <10 | <10 | 3 | <10 | 127 |
| 1-16706 | | <0.01 | <10 | <10 | 3 | <10 | 307 |
| 1-16707 | | <0.01 | <10 | <10 | 3 | <10 | 267 |
| 1-16708 | | <0.01 | <10 | <10 | 3 | <10 | 59 |
| 1-16709 | | 0.36 | <10 | <10 | 135 | <10 | 54 |