## Prospecting Report

on the

May #1 Mineral Claim

Merritt Area

# NICOLA MINING DIVISION

by

Murray Morrison, B.Sc.

Claim:

May #1 (4 units)

Location:

The May #1 claim lies 29 km due east

of Merritt, B.C.

Lat. 50° 07'; Long. 120° 23';

N.T.S. 92 - I - 1

Owner:

Murray Morrison

Operator:

Murray Morrison

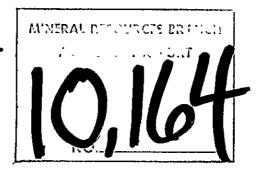
Date Started:

September 15, 1981

Date Completed:

September 16, 1981

Kelowna, B.C.



March 1, 1982

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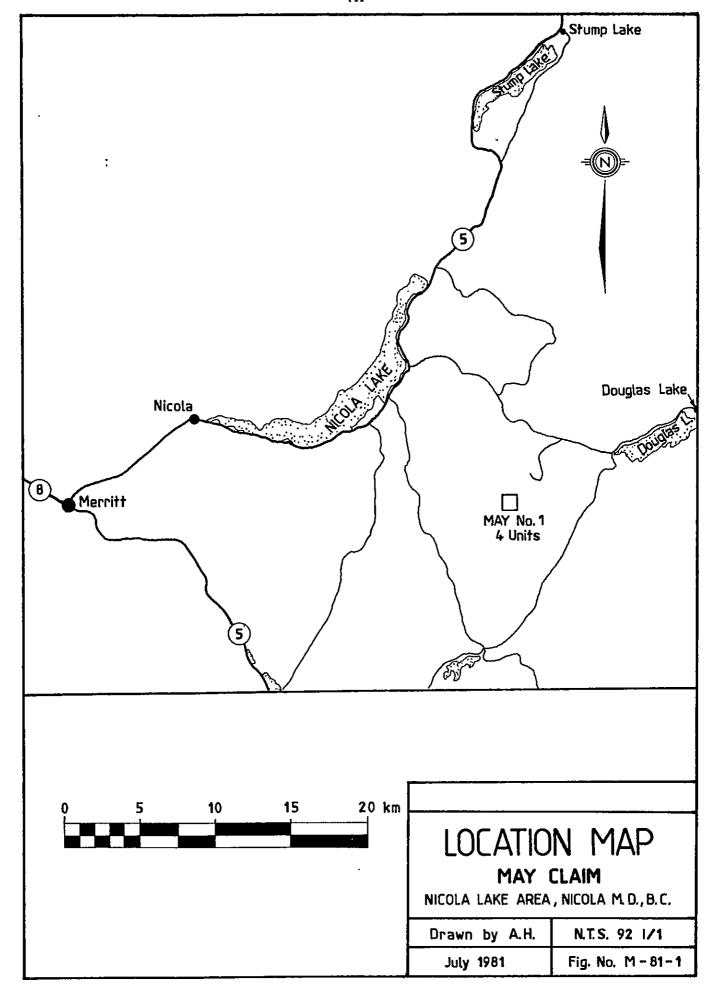
#### SUMMARY

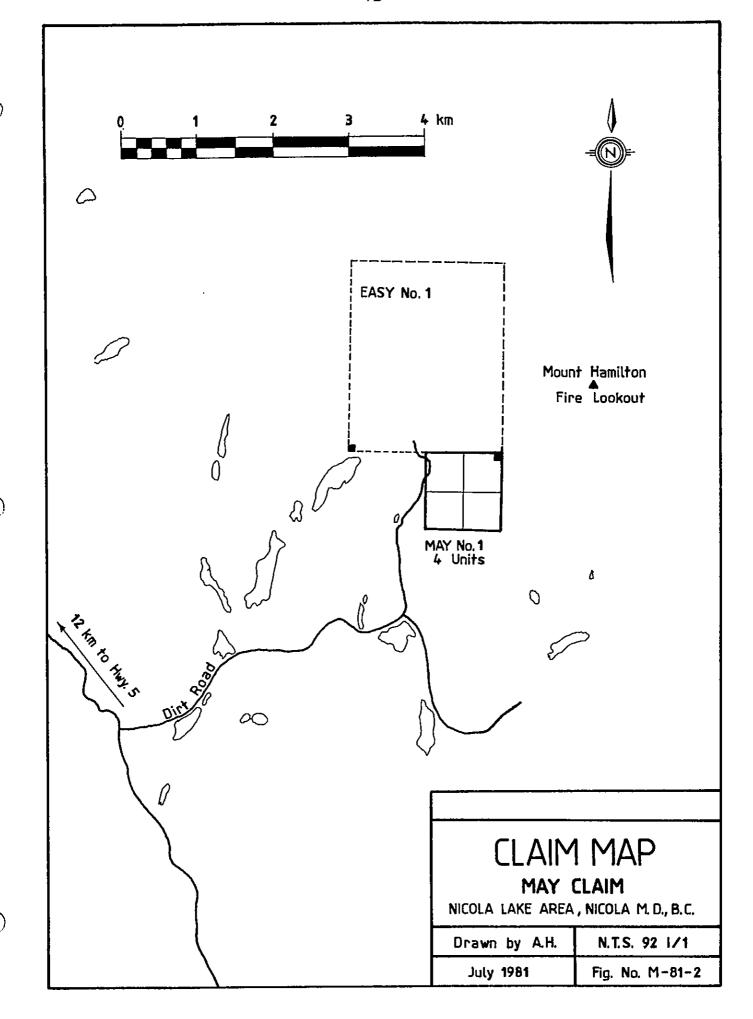
The May #1 mineral claim of 4 units located on the west slope of Mount Hamilton, 29 km due east of Merritt, B.C., was staked May 14, 1981 by the writer. The claim was staked to cover a large zone of carbonate altered Nicola greenstone found by the writer during routine prospecting. On September 15 & 16, 1981, the writer prospected the carbonate zone, and collected 10 rock samples for analysis. These rocks were analyzed for gold, silver, antimony, arsenic and mercury.

Analysis of the 10 samples showed that parts of the carbonate zone have slightly elevated concentrations of antimony, arsenic and mercury. These elements characteristically form halos over epithermal mineral deposits, and it is possible that gold and silver horizons might lie at depth on the property. Therefore, a systematic rock geochemical survey is recommended over the carbonate zone to better define antimony, arsenic or mercury halos. If results of the geochem program are favorable, drilling into the carbonate zone should be considered in order to test for a possible gold or silver horizon.

#### INTRODUCTION

The May #1 mineral claim of 4 units is situated 29 km due east of Merritt, B.C., on the west slope of Mount Hamilton. The claim was staked on May 14, 1981 by the writer, Murray Morrison, to cover a large zone of carbonate altered Nicola greenstone found during routine prospecting. It was hoped that gold and silver mineralization might have accompanied the hydrothermal event which was responsible for the carbonate alteration.





#### INTRODUCTION - Cont.

On September 15 & 16, 1981, the writer prospected the carbonate zone and collected 10 rock samples for rock geochem analysis. The rocks were analyzed for gold, silver, antimony, arsenic and mercury. The results of the prospecting and sampling program are discussed within the text of this report, while sample sites and values are shown on Map M-81-3.

#### LOCATION, ACCESS, TOPOGRAPHY AND VEGETATION

The May #1 claim is located 2 km southwest of the Mount Hamilton Fire Lookout, or 29 km due east of Merritt, B.C. (see figures M-81-1&2). The property is one hour's driving distance (38.3 km) from Merritt, and is reached via Highway #5 and the Paradise Lake road. At a point 12 km along the Paradise Lake road, a dirt branch road is taken to the east which runs 5.8 km to the May #1 claim.

The claim covers a portion of the west slope of Mount Hamilton. The gentle slope (1200 to 1400 in elevation) is forested with Douglas Fir, and overlooks the rolling grasslands of the Nicola region. Roads and skid trails left by logging operations of 15 to 20 years ago are now grown over on the property. However, a service road following a 240 kv powerline passing through the May #1 claim is useable.

#### CLAIM STATUS

The May #1 claim of 4 units was staked by the writer May 14, 1981 and was recorded in the Nicola Mining Division May 15, 1981. The claim was given record no. 1074. The claim is 100% owned by M. Morrison of Kelowna, B.C.

#### CLAIM STATUS - Cont.

The May #1 claim is located within District Lot 671, a Government Commonage Reserve. The reserve is for past-urage, and mineral rights are not affected by the reserve.

#### **HISTORY**

Ref: Geology, Exploration and Mining in British Columbia, 1969. B.C. Dept. of Mines, pp. 275-276

The May #1 claim covers a small portion of ground once covered by the Rancher, Pepsi, Out and Raise claims owned by Noranda Exploration Company Ltd. of Vancouver. In 1969 Noranda geologically mapped the property, carried out 22 km of induced polarization and ground magnetometer surveys, collected and analyzed 300 soil samples, and drilled 6 percussion drill holes for a total of 550 metres. In subsequent years Noranda allowed their claims to lapse. The ground now covered by the May #1 claim received some of the work listed above.

#### REGIONAL GEOLOGY

G.S.C. Map 886A by Cockfield shows a 12 km belt of Upper Triassic Nicola rocks running 26 km south from Stump Lake to Mount Hamilton. The Nicola rocks within this belt are largely greenstones derived from andesitic flow rocks and tuffs. These Nicola rocks are intruded 5 km southeast of Mount Hamilton by the Pennask Batholith believed to be of Jurassic age. The May #1 claim covers a zone of carbonate altered Nicola greenstone on the western slope of Mount Hamilton.

# 1981 PROSPECTING AND SAMPLING PROGRAM

A baseline of 650 metres in length was measured out across the centre of the carbonate zone on the May #1 mineral claim, and the legal corner post was tied-in to the baseline. Three grid lines spaced 100 metres apart, and measuring a total of 850 metres were laid out from the baseline. A Silva Ranger compass and Topolite belt chain were used for measuring.

Making use of the grid the outline of the carbonate zone was mapped as well as outcrops would allow. Rock exposures within the carbonate zone were mapped, and rock chips within tree roots and in the soil were noted. Much of the carbonate zone is believed to be covered by a mantle of soil of 1 metre or less.

A total of 10 rock samples were collected for geochemical analysis. At each sample site 3 kg of rock chips of 3 cm size were chipped from outcrop, or taken from tree roots over a 5 square metre area. All samples were shipped to Chemex Labs in North Vancouver for analysis. Samples were tested for gold, silver, antimony, arsenic and mercury. All samples were crushed to minus 100 mesh and dissolved in solution. All elements were quantitatively determined by atomic absorption (gold samples were subjected to fire assay and then determined by atomic absorption). Values reported in parts per billion (ppb) for gold and mercury, and parts per million (ppm) for silver, antimony and arsenic are shown with the sample sites on Map M-81-3.

## DISCUSSION OF PROSPECTING AND SAMPLING RESULTS

A fairly well defined zone of carbonate altered Nicola greenstone located near the centre of the May #1 claim was found to have a measured diameter of 350 metres.

Andesite tuff 100 metres to the east of the main carbonate zone was found to be unaltered, while andesite tuff 100 metres to the west of the main carbonate zone contained only minor (1 to 10 metre) zones of carbonate alteration.

Rocks collected from several different locations within the carbonate altered zone were very similar in composition. They were fine to medium grained, limonite stained and pink coloured. They showed varying degrees of brecciation. Late calcite, ankerite, and quartz veinlets equalling up to 5% mended fractures in the brecciated samples.

Rock geochem analyses of the 1981 samples show that antimony (0.1 - 18.0 ppm), arsenic (6 - 65 ppm) and mercury (80 - 1000 ppb) are all slightly anomalous over the carbonate zone, particularly on the southern side. Silver (0.1 ppm) and gold (less than 5-5 ppb) values were low. These results are typical of epithermal deposits where antimony, arsenic, and mercury form halos over deeper buried gold and silver horizons.

## CONCLUSIONS AND RECOMMENDATIONS

In the writer's view the topography, geology and rock geochemistry of the May #1 claim all suggest that the carbonate zone represents the upper part of an epithermal deposit. The halo of antimony, arsenic, and mercury in slightly anomalous amounts would suggest that a gold and silver horizon could lie buried beneath the carbonate cap. The writer believes that the carbonate zone is of sufficient size and strength to warrant further testing for economic mineralization.

## CONCLUSIONS AND RECOMMENDATIONS - Cont.

As a first step a systematic rock geochemical survey is recommended over the carbonate zone to better define antimony, arsenic and mercury halos. Samples should be taken at 25 metre stations on lines spaced 50 metres apart over the entire carbonate zone. Such a survey would involve the collecting of 40 samples. The samples should be analyzed for gold, silver, antimony, arsenic and mercury.

Much of the carbonate zone is mantled by loamy soil believed to be 1 metre deep. Carbonate chips are scattered through the soil in amounts ranging from 1 to 10%. It is suggested that rock samples be obtained by screening the carbonate chips from the soil. It is thought that the rock chips are fairly representative of underlying bedrock, and that the collecting of the chips would be easier than trenching to bedrock. It is feared that the high organic content of the loamy soil would affect the geochemistry of the elements in which we are interested. Therefore, a soil survey is not recommended.

Once an antimony, arsenic or mercury halo is defined on surface a percussion drill might be used to test the carbonate for zoning in the vertical dimension. It is hoped that a gold or silver horizon would be encountered in drilling.

Murray Korrison

## REFERENCES:

Cockfield, W.E. <u>Geology & Mineral Deposits of Nicola</u>
<u>Map - Area, British Columbia</u>, G.S.C. Memoir 249, 1948.

Polikarpochkin, V.V. and Kitaev, N.A. <u>Endogenic Halos</u> of <u>Epithermal Gold-Bearing Deposits</u>, Geochemical Exploration, C.I.M. Special Vol. 11, pp. 381-383, 1971.

# APPENDIX A

## STATEMENT OF QUALIFICATIONS

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:

- 1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.
- 2. I have been working in all phases of mining exploration in Canada for the past thirteen years.
- 3. During the past twelve years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
- 4. Over the past nine years, I have examined many mineral properties within the Nicola Mining Division.
- 5. I personally carried out the prospecting and sampling program outlined in this report.
- 6. I own full title to the May #1 mineral claim described in this report.

Narch 1, 1982 Kelowna, B.C.

Murray Morrison

## APPENDIX B

# STATEMENT OF EXPENDITURES MAY #1 MINERAL CLAIM

Statement of Expenditures in connection with the Prospecting Program carried out on the May #1 mineral claim, N.T.S. 92 - I - 1, Merritt Area, B.C., for the year 1981.

## FIELDWORK

| Geologist-prospector - 2 days @ \$150/day        | \$ 300.00 |
|--|-----------|
| Meals & Lodging - 2 days @ \$ 40/day             | 80.00     |
| Truck (4x4, incl. gasoline) - 2 days @ \$ 55/day | 110.00    |
| Materials: Flagging, belt chain thread, rock     |           |
| sample bags, etc.                                | 15,00     |

#### LABORATORY COSTS

| 10 | Rock | geochem | samples   | analyzed   | for: | Au, | Ag, | As, |      |     |
|----|------|---------|-----------|------------|------|-----|-----|-----|------|-----|
|    |      | Sb, I   | Hg @\$19. | 50 /sample | )    |     |     |     | 197. | .50 |

#### REPORT PREPARATION

| Geologist-prospector - 1 day @ \$150/day | 150.00      |
|--|-------------|
| Drafting - ½ day @ \$100/day             | 50.00       |
| Typing - 11 'pages @ \$3.00/page         | 33.00       |
| Copying Maps and Reports (two copies)    | 20.00       |
|  | <del></del> |

| TATOT | OF SUB-TOTALS | \$ <u>955.50</u> |
|-------|---------------|------------------|

I hereby certify that the above statement is a true statement of monies expended in connection with the prospecting program carried out September 15 - 16, 1981.

March 1, 1982

Muna Morrison - Geologist



# CHEMEX LABS LTD.

212 BROOKSBANK AVE. NORTH VANCOUVER, B.C. V7J 2C1 CANADA

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ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

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STE 1650 - 609 GRANVILLE ST.

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CERT. # : A8210331-001-A

INVOICE # : 18210331

DATE

: 23-FEB-82

P.O.#

: NONE

MAY 1 5301

ATTN: A. CLENDENAN . C.C: MR. MORRISON - KELOWNA

|                       | •     | - VEFOMINA | .5 .162.5 5.4 | COC PINE | HE CHAIL T |             |
|-----------------------|-------|------------|---------------|----------|------------|-------------|
| <br>FA+AA             | Sb Au | Hq         | AS            | Ag       | Ргер       | Sample      |
| dqa                   | ppm   | dqq        | mag           | ppm      | code       | description |
| <br>5                 | 15.2  | 240        | 65            | 0.1      | 205        | MA 8101     |
| <br><b>&lt;</b> 5     | 1.6   | 100        | 14            | 0.1      | 205        | MA 8102     |
| <br><5                | 0.1   | 80         | 6             | 0.1      | 205        | MA 8103     |
| <br><5                | 3.2   | 260        | 22            | 0.1      | 205        | 4A 8104     |
| <br><5                | 0.1   | 100        | 17            | 0.1      | 205        | MA 8105     |
| <br><del>~~~~</del> 5 | 3.2   | 270        | 35            | 0.1      | 205        | MA 8106     |
| <br>5                 | 1.4   | 150        | 24            | 0.1      | 205        | MA 8107     |
| <br>5                 | 1.6   | 90         | 11            | 0.1      | 205        | MA 8108     |
| <br><b>&lt;</b> 5     | 1.0   | 200        | 11            | 0.1      | 205        | MA 8109     |
| <br><b>&lt;</b> 5     | 18.0  | 1000       | 41            | 0.1      | 205        | MA 8110     |

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