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PREPARED BY

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> JAMES M. DAWSON, P.Eng. July 9, 1986

# REPORT ON THE AU PROPERTY, NICOLA MINING DIVISION, BRITISH COLUMBIA

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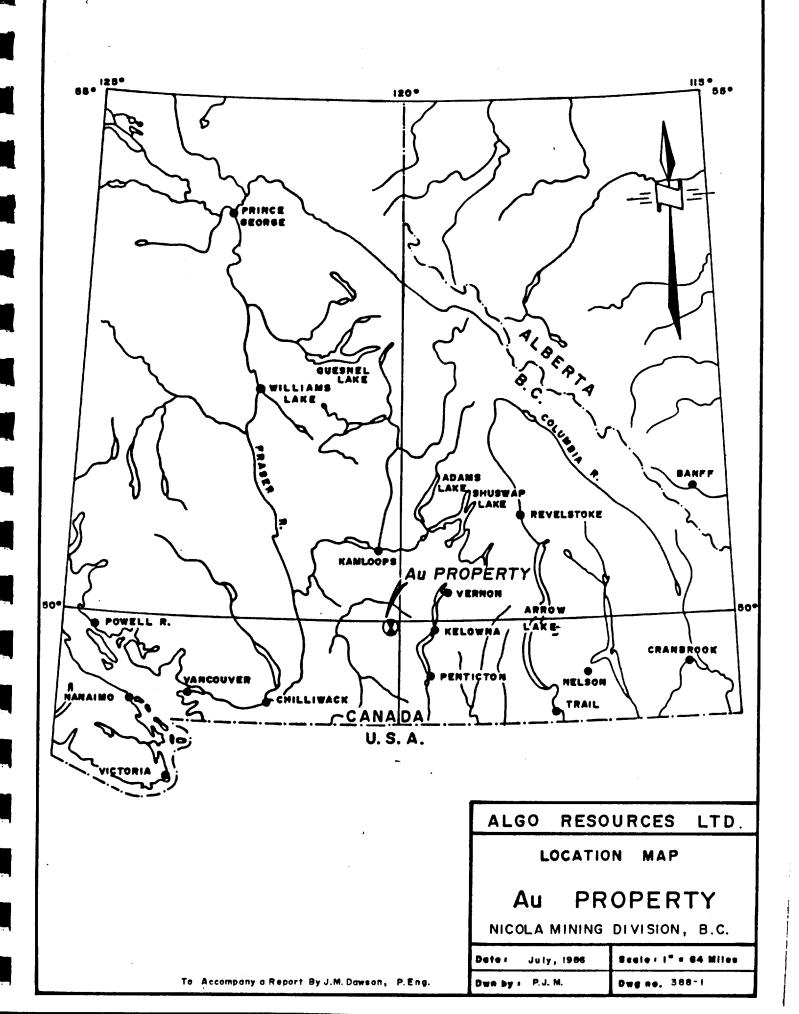
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## INTRODUCTION

This report has been prepared at the request of the directors of Algo Resources Limited. It discusses the geology, mineralization and exploration potential of the Au Claims and recommends a phased programme of exploration to fully test the precious metal potential of the property.

A series of maps showing location, claims and surface geology and sampling of the main showing area is included in the text of this report.

#### SUMMARY AND CONCLUSIONS

- 1. The Au Property consists of a contiguous block of five MGS claims aggregating 20 units located in relatively flat terrain in the Aspen Grove District of southern British Columbia, and is road accessible.
- 2. Free gold was reportedly found by prospectors in the soil on the Au Property in the 1930s. The property was peripheral to extensive exploration for porphyry copper deposits in the Aspen Grove Camp during the 1960s and early 1970s. In 1974, a local prospector from Merritt located free gold while trenching a known copper showing. Sampling of this trench (the Nesbitt showing) returned high gold values and the property was optioned to New Pyramid Gold Mines Inc. This company carried out limited geochemical and geophysical surveys as well as mapping, sampling and the drilling of four shallow diamond drill holes.

Results were inconclusive, and the option was dropped. In 1978, the property was acquired by Invex Resources Ltd., and limited geochemical soil sampling and hand trenching was performed. In 1979 a detailed geochemical soil sampling programme was carried out on Au#1 claim. In 1983, Imperial Metals Corp. (which had merged with Invex Resources Ltd.) drilled two core holes aggregating 168 meters near the Nesbitt showing. In 1985, Imperial optioned the property to Mr. D. Heyman who, in 1986, optioned it to Algo Resources Limited.

- 3. The property is underlain by clastic sediments and tuffs of the Nicola volcanics, along with a number (?) of small bodies of coeval diorite intrusive rocks. This package is intruded by a lobe of the Jurassic, Pennask Batholith. The geology has only been mapped in detail around the main showing. Here, a complex assembly of highly fractured and faulted intermediate tuffs and clastic sediments has been intruded by several (?) small bodies of diorite.
- 4. Gold mineralization is associated with zones of narrow, quartz-filled fractures in dacitic tuffs and ? cherty argillites. Gold occurs in the free

state as well as associated with sulphides. Presently the surface zone, which appears to be at least five meters wide, cannot be traced for more than a few meters along strike, although very little trenching has been done outside the immediate area of the main (Nesbitt) showing. Diamond drilling beneath the main showing has returned only anomalous gold values in narrow core sections, except for one five-foot interval assaying 0.145 oz/ton gold over five feet.

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The main showing on the Au Property and area, where most of the previous exploration has been done, occupies the south end of a gold soil geochemical anomaly which is about 500 meters long and up to 150 meters wide. The anomaly is on the Au#1 claim. Very little exploration work has been done on the remainder of the property. The geological setting on the Au property is similar to the recently discovered QR deposit, near Quesnel, BC, as well as a significant gold occurrence currently being explored on adjacent property to the west. In the writer's opinion, there is excellent potential for the delineation of additional areas of significant gold mineralization and an exploration programme to fully test this potential is certainly warranted.

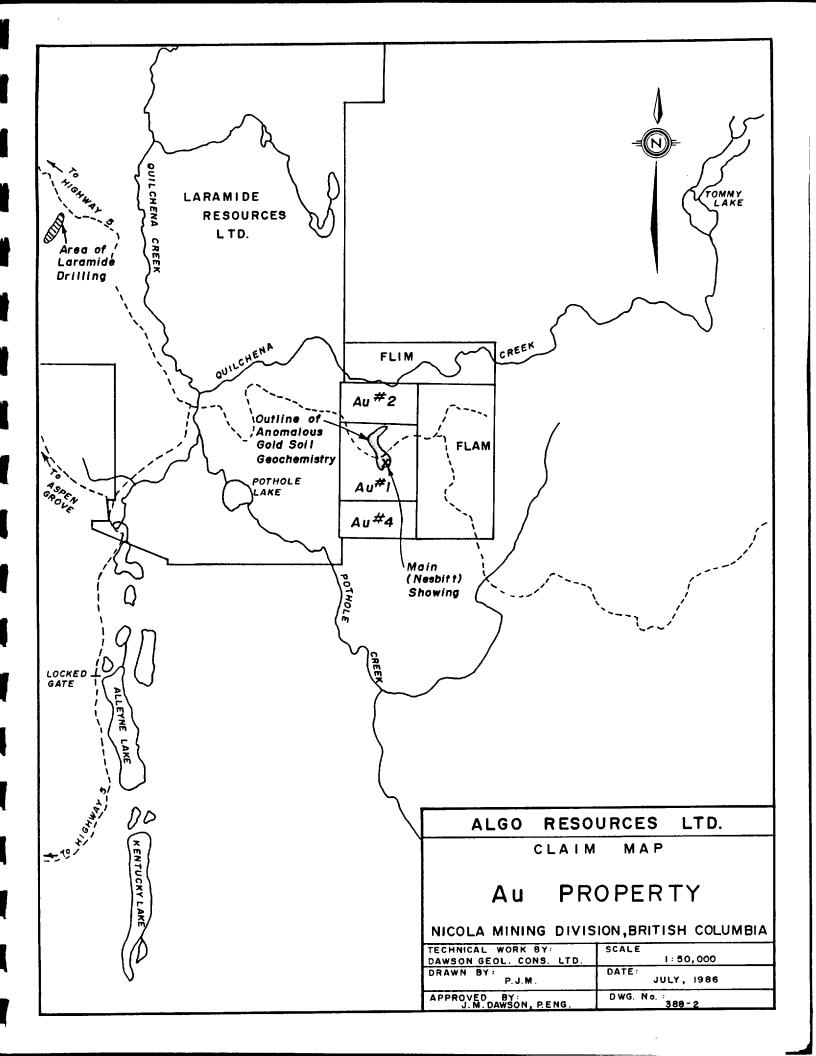
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## PROPERTY

The property consists of five MGS claims, aggregating 20 units as follows:

Claim Name	Record No.	Tag No.	Expiry Date
Au #1	456	35219	Apr 20/87
Au #2	462	37467	Apr 25/87
Au #4	464	37469	Apr 25/87
Flim	1683	85026	May 15/87
Flam	1684	85034	May 15/87

It is understood that the claims are currently under option to Algo Resources Limited.



#### LOCATION AND ACCESS

The property is located in southern British Columbia about 23 kilometers southeast of Meritt and approximately seven kilometers east of the village of Aspen Grove. Approximate geographic center of the claims is at 49°57' north and 120°31' west.

The claims are located about seven kilometers east of Provincial Highway No.5 (Merritt-Princeton) and three dirt roads lead easterly from this highway and join up at Quilchena Creek (see Figure 388-2). Road distance is about ten to twelve kilometers from Highway No.5, and four-wheel drive is advisable. Two of the dirt roads have locked gates and permission to enter is required by Douglas Lake Ranch which owns much of the surface rights in this area.

#### PHYSIOGRAPHY AND VEGETATION

The claim block covers a flat to gently rolling upland area on the Thompson Plateau. The northern part of the property is traversed by Quilchena Creek which here occupies a broad gentle depression. Relief on the ground is in the order of 300 feet. Elevations vary from less than 3500 feet near the northwest property corner, to just under 3800 feet at the center of the south boundary.

The northwestern part of the claim block is open, grassy rangeland. The southern and eastern portions are covered with a scattered to dense, second growth of spruce, fir and pine.

#### **HISTORY**

It is reported that local prospectors found gold in the soil on this property during the 1930s. Some minor test pitting was done but the gold source was not located.

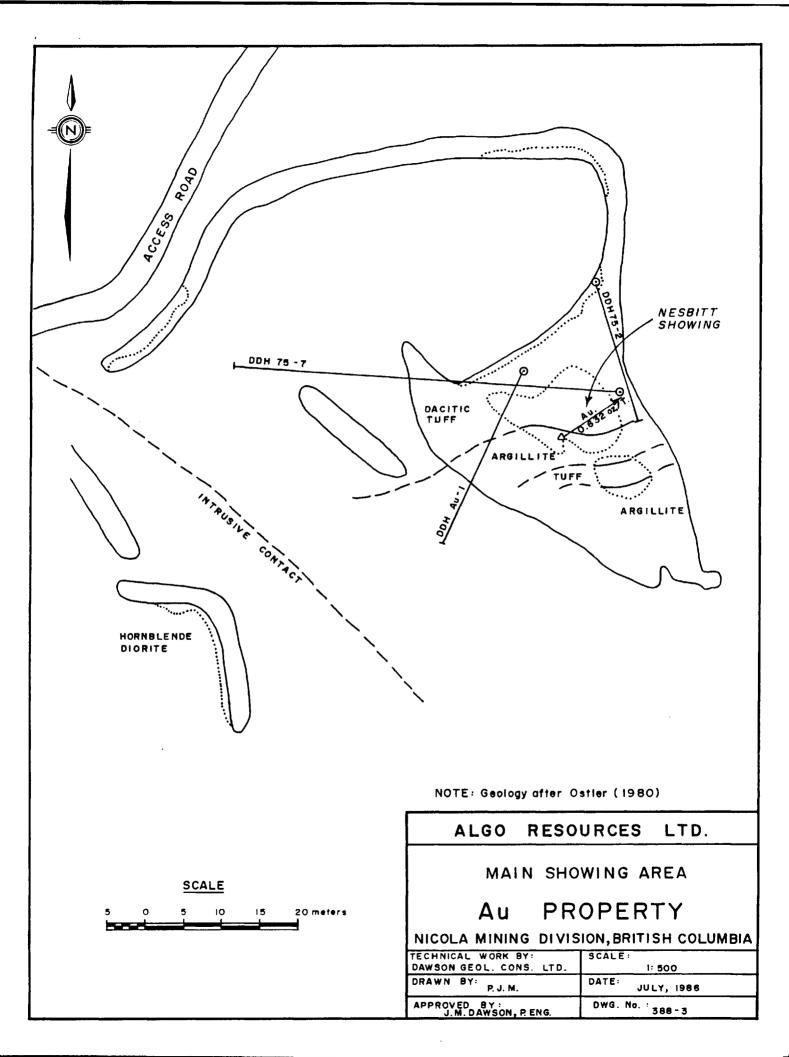
Bethlehem Copper Corp. carried out geophysical surveys, trenching and drilling on property to the north and west of the present ground during the early 1970s. Some of this work may have overlapped on to the Au Property. The present area of the Au#1 claim was owned by Mr. Harry Nesbitt of Merritt, BC during the early 1970s. He carried out prospecting and trenching of known copper showings and in 1974 located free gold in one of the trenches.

The property was optioned by New Pyramid Gold Mines Inc. in 1975 and an exploration programme consisting of limited geophysical and geochemical surveys, sampling and diamond drilling was carried out. Surface sampling returned high grade values and four shallow holes were drilled around the showing. The results of this drilling (only results from two holes are available) were inconclusive, and the option was subsequently dropped.

In 1978, the property was acquired by Invex Resources Ltd., which later merged with Imperial Metals Corp. During 1978, limited soil sampling and hand trenching was performed near the main (Nesbitt) showing. Results were encouraging and in 1979, the entire area of Au#1 claim was gridded and soil sampled, with samples being analyzed for gold, silver and copper. This survey outlined a gold soil anomaly about 500 meters long and averaging 150 meters wide, extending north from the main showing area.

In 1983, Imperial Metals Corp. drilled two core holes aggregating 168 meters in the vicinity of the main showing. Results showed some anomalous values but nothing approaching the surface grades at the main showing.

There is no record of further work by Imperial Metals and in early 1986, the property was optioned by Algo Resources Ltd.



#### **GEOLOGY AND MINERALIZATION**

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According to Preto (1979) the property is underlain by clastic sediments and tuffs of the Nicola Group – Eastern Belt, intruded by a lobe of the Pennask Batholith.

In detail, not much is known of the geology except in the immediate ara of the main showing (see Figures 388-3 and 388-4). Here, a series of andesitic and dacitic tuffs are interlayered with carbonaceous slates and intruded by subvolcanic dioritic bodies (Ostler, 1984). The exposures near this main showing are intensely fractures and faulted, and the exact relationship between differing rock types is unclear.

Gold mineralization is associated with zones of narrow, quartz-filled fractures in dacitic tuffs and ? cherty argillites. Gold occurs in the free state and is also associated with sulphides (pyrite, chalcopyrite, pyrrhotite and arsenopyrite (Ostler, 1984). The exact extent of the gold mineralization at the main showing has never been precisely delineated; however, high grade to significant assays have been obtained from several sampling programmes.

In 1975 grab samples and selected samples by personnel of New Pyramid Gold Mines Inc. returned values of 0.42, 0.62, 2.66 and 2.30 oz/ton gold respectively (see Figure 388-4).

In 1978, chip samples across the same zone by Mr. J. McGoran returned values of 0.315 oz/ton gold across 4.9 meters and 0.198 oz/ton gold across 5.1 meters.

The several drill holes bored underneath the surface showing returned only low to anomalous gold values, except for one five-foot section near the bottom of drill hole 75-7. Here, a five-foot section from 193 to 198 feet assayed 0.145 oz/ton gold. The hole bottomed at 201 feet. The mineralization was encountered in a (?) dioritic intrusive with chalcopyrite-filled fractures.

#### **EXPLORATION POTENTIAL**

Ore grade gold mineralization is found locally over widths of up to approximatley five meters at the main (Nesbitt) showing on the Au Property. Further trenching and several drill holes have for the most part returned only anomalous to sub-economic gold values in some portions of their lengths; however, the main showing and the area of virtually all the previous trenching and drilling is located near the south end of a gold soil anomaly which is approximately 500 meters long. Further, no work as far as is known has been done on the ground outside of the Au#1 claim.

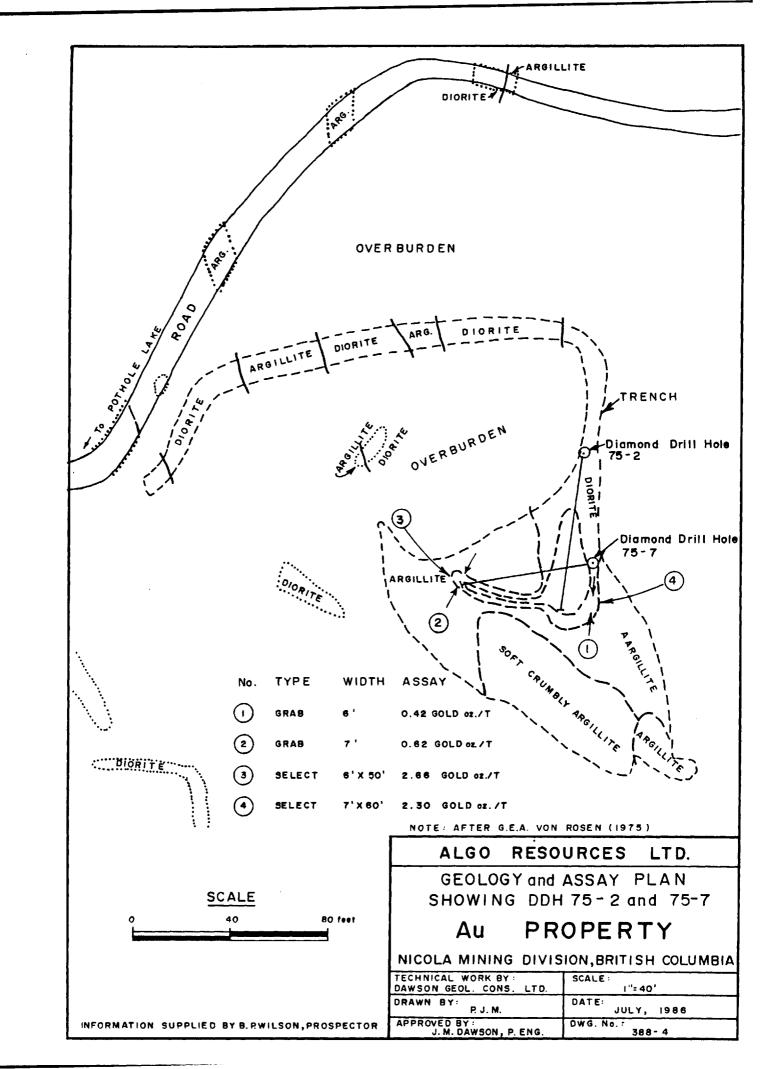
The geological setting of mineralization on the Au property is not unlike the QR deposit of Dome Mines, where gold mineralization is found in sediments and tuffs adjacent to an alkaline stock. The quoted reserves at QR are currently given as 950,000 tons grading 0.21 oz/ton gold. It is believed that this deposit is amenable to open pit mining.

Immediately to the west of the Au Property, a large claim block (Snowflake Property) is currently being explored by Laramide Resources Ltd. and Lornex Mining Corp. Ltd. Drilling on this property in 1983 delineated gold mineralization in intensely fractured and argillically altered sediments, tuffs and flows of the Nicola Group. A number of alkaline coeval, diorite monzonite stocks are located nearby.

The ore controls at both the QR and Snowflake properties have proven to be complex and extensive drilling is required to explore them.

In the writer's opinion, the mineralization found on the Au Property is similar in many respects to the above-mentioned properties and good potential exists for discovery of additional zones of gold-bearing material.

An exploration programme to fully test the potential of the Au Property is, therefore, recommended.



### **RECOMMENDATIONS**

#### Phase I

1. Lay out a 200 X 50 meter grid over the entire property.

- 2. Expand soil sample coverage over the entire grid. Analyze samples for gold only.
- 3. Geologically map the property at a scale of 1:5,000 with additional details in the area of the main showing.
- 4. Carry out a magnetometer survey over the entire property.
- 5. Carry out an induced polarization survey over the existing area of anomalous gold values in soils with at least two reconnaissance lines, both to the north and south of this area across the entire property (E-W). This should give an idea of the geometry of the mineralizing system along strike and to depth.
- 6. Trench selected areas of the known gold geochemical anomaly, as well as any newly delineated areas, with a crawler-type backhoe.
- 7. Selectively test significant geochemical and geophysical anomalies by means of a series of percussion drill holes.

#### Phase II

Contingent upon the success of Phase I, areas of significant mineralization should be tested in detail by a programme of diamond drilling.

## Respectfully submitted, DAWSON GEOLOGICAL CONSULTANTS LTD.

Vancouver, British Columbia July 9, 1986

James M. Dawson, P.Eng.

# APPENDIX A

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# ESTIMATED COST OF RECOMMENDED PROGRAMME

## **PROGRAMME COSTS**

# Phase I

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| (a) | Grid Layout                                                                                   |                    | \$       | 3,000.00                     |
|-----|-----------------------------------------------------------------------------------------------|--------------------|----------|------------------------------|
| (b) | Soil Sample Collection                                                                        |                    |          | 2,000.00                     |
| (c) | Geological Mapping                                                                            |                    |          | 5,500.00                     |
| (d) | Magnetometer Survey                                                                           |                    |          | 2,000.00                     |
| (e) | Assays and Analyses                                                                           |                    |          | 3,000.00                     |
| (f) | Induced Polarization Survey                                                                   |                    | 1        | 5,000.00                     |
| (g) | Trenching                                                                                     |                    |          | 6,000.00                     |
| (h) | Percussion Drilling<br>5000 feet at \$10/foot, all in (includes<br>supervision, assays, etc.) |                    | Ę        | 50,000.00                    |
| (i) | Data Compilation, Interpretation, and<br>Preparation of Final Report                          |                    | <u> </u> | <u>4,000.00</u><br>90,500.00 |
|     |                                                                                               | Contingency at 10% |          | 9,050.00                     |

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Total Cost of Phase I (rounded) \$100,000.0

APPENDIX B

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# REFERENCES

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