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To: All Staff

December 12, 1986

Re: MEG TALK - NICKEL PLATE GOLD PROJECT

Speaker: Ron Simpson, Mascot Gold Mines

Date: Dec. 10, 1986

Intro: Tom Schroeter

Thanks: Ken Dawson

HISTORY: (Brief Highlights)

1898 - Key claims sold for reported \$60,000 to U.S. interest  
early 1900's - approximately 30 % of gold was contained in the flotation concentrates which were shipped to the smelter in Tacoma.  
- 1035 metre tram line constructed.

1912 - shaft started (Dickenson Incline) and completed in 1924 over a vertical range of 460 metres.

1930 - operations ceased.

1934 - mine re-opened.

1936 - Hedley-Mascot Fraction mining began and between then and 1945 production totalled approx. 250,000 ounces of gold from a 9 acre claim!

1955 - Nickel Plate Mine closed due to low gold price (fixing). Mining of 4m tons grading 0.43 ounces of gold per ton yielded 1.7 million ounces of gold (B.C.'s 4th largest producer).

1984-1985 - \$7 million raised in Flow Through Financing for Hedley project. Work included 170,000 feet of drilling in 650 holes (surface and underground).  
- Drilling was done on 23 metre (75 feet) centres.

CURRENT RESERVES:

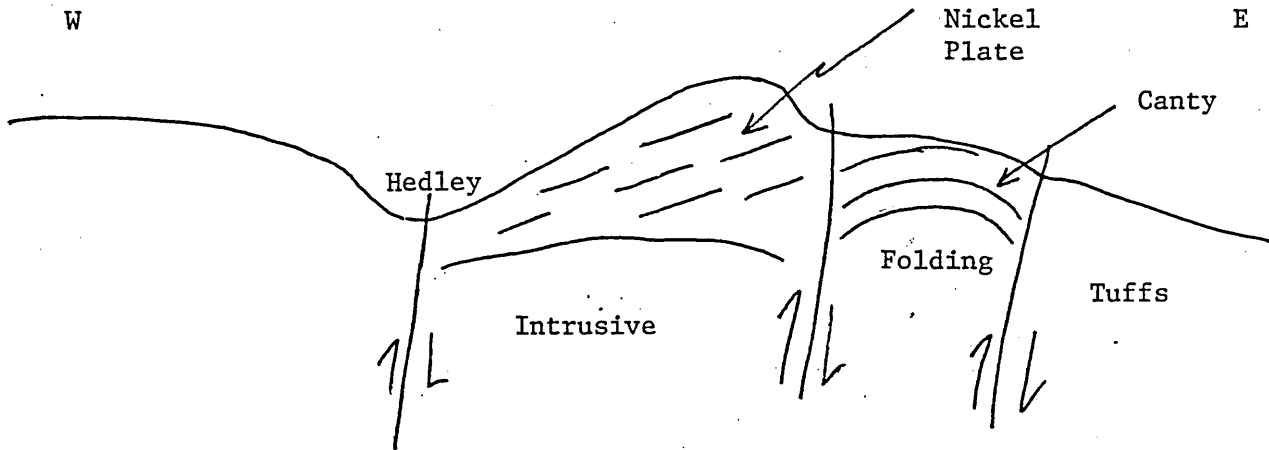
| <u>Cut-Off (oz/ton)</u> | <u>Tons x 10<sup>6</sup></u> | <u>Grade (oz/ton)</u> | <u>Strip Ratio</u> |
|-------------------------|------------------------------|-----------------------|--------------------|
| 0.05                    | 7.1                          | 0.15                  | 8.24:1             |

REGIONAL GEOLOGY:

- Deposition of sediments in back-arc basin ('Hedley sequence').
- Limestone boulder conglomerate (Copperfield Conglomerate) separates these sediments from overlying tuffaceous rocks of the upper Whistle Creek Formation.

MASCOT

- Conodonts from the underlying sediments give Norian, and Karnian ages.
- Two intrusive suites: i) Hedley diorites - av. 180 Ma. Stocks cluster around facies change and near the Bradshaw Fault i.e. tectonic control?!
- ii) Similkameen granodiorites - av. 150 Ma.
- Folding took place in mid to upper Jurassic.



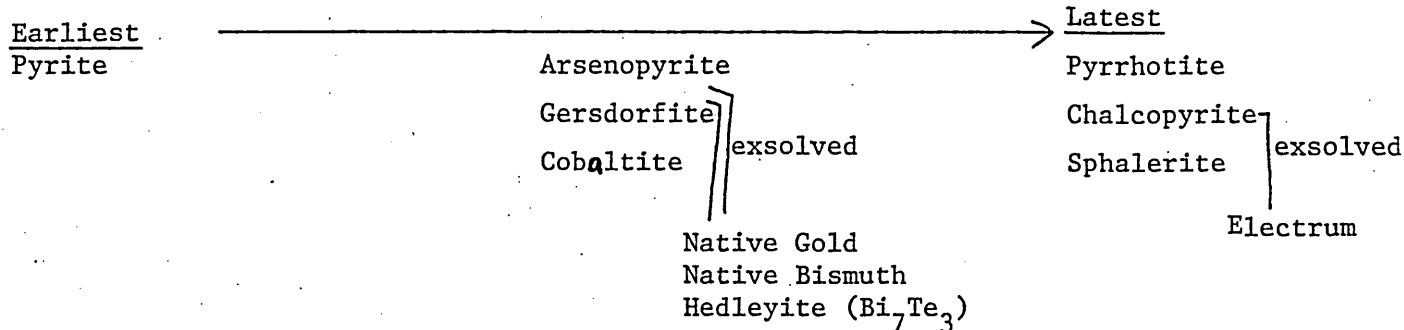
MINE GEOLOGY:

- West dipping skarns (~25°).
- Stacked ore lenses within 100m thick 'favourable' horizon.
- Sills are skarned (i.e. gold mineralization post dates emplacement).
- Three stages of Skarn

| <u>Prograde</u>                            | <u>Early Retrograde</u>                   | <u>Late Retrograde</u>                                     |
|--|---|--|
| pyrox., garnet,<br>scapolite, wollastonite | tremolite, calcite,<br>epidote, (axinite) | calcite, quartz,<br>chlorite, sulphides<br>magnetite, gold |
| Magmatic fluids →                          | Magmatic & Meteoric →                     | Meteoric Fluids  |

- Exoskarn - pyroxene, garnet.
- 'Upper' skarn has a cherty-tuffaceous appearance and consists of pyroxene, potash feldspar and quartz.
- Endoskarn - diopsidic pyroxene.
- Ore 'beds' occur both above and below diorite sills.
- Chemical 'fronts' rather than old-fashioned "marble line".
- Early deformation episode aided in localization of mineralization (esp. good exploration guide underground).

ORE MINERALOGY:



- Close association of gold with bismuth.  
(Note: correlation coefficient = 0.94, very high).
- Cobalt has a 'rough' correlation also.
- Silver best correlates with copper minerals (esp. chalcopyrite), not with gold.
- Some gold enrichment in fault zones (with red 'mud' oxides).
- Source of gold?: magmatic from Hedley intrusions? (eg. Banbury).

Banbury

MINE OPERATION:

|                        | <u>\$ Canadian</u>                            |
|------------------------|---|
| Capital Cost           | 69 million                                    |
| Milling Rate           | 2700 tons per day                             |
| Payable Gold Recovery  | 88%   |
| Personnel              | 150 - 160*                                    |
| Operating Costs        | \$170/oz gold produced<br>\$25/ton ore milled |
| Annual Gold Production | 140,000 ounces                                |

\*Note: Already had 5000 applications.

MILLING:

- 2 cyanide stages.
- Gold recovery by Merrill-Crowe process.
- Dore bars.

MINING:

- Ore benches - 20 ft.
- Waste benches - 40 ft.
- Overall pit angle - 60 °.
- 65 ton haul trucks.

EXPLORATION GUIDELINES:

1. Favourable stratigraphic horizon - siltstones, limestones.
2. Spatial relationship to Hedley intrusions.
3. Soil geochemistry - good Au-As correlation.

4. Geophysics - combined magnetic and I.P.; VLF (esp. quartz-calcite shear zones).

QUESTIONS:

- a) Age of mineralization? - mid-Jurassic.
- b) Grind on ore? - 80% passing 400 mesh.
- c) Presence of breccia? - yes, underground - don't know significance yet.
- d) 'Flange' dykes - importance? - ore appears to follow the dykes 'up'.  
Skarn 'rolls' - good ore control (folding).
- e) Any problem milling/smelting with arsenic? - no!

COMMENT:

- Excellent talk.
- Great exploration success.
- Should provide good example.
- Other skarns? - eg. Tillicum, Tel.
- Regional potential - Canty, French Mine.

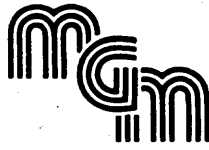


Tom Schroeter

Senior Regional Geologist

TGS/cl

✓ Copy for G. Ray



# Mascot Gold Mines Limited

Vancouver, B.C., February 1, 1985

## LETTER TO THE MEMBERS

As previously announced, the Company's Annual General Meeting was held in Vancouver at 10:00 a.m. on Monday, January 28, 1985.

Dr. R.L. Lister, Chairman of the Board presided over the meeting. Following the conclusion of the business of the meeting, Mr. Henry G. Ewanchuk, President and Chief Executive Officer, speaking to a capacity audience, outlined the present corporate structure, the results of last year's major exploration programs and the plans for 1985, including the funding and resumption of field activities. This was all highlighted by a slide presentation and followed by a question and answer period. The key points in Mr. Ewanchuk's remarks are as follows:

By way of private placement of flow-through shares, \$1.5 million has been committed to the resumption of Exploration programs with the emphasis on Nickel Plate.

Further funding is being sought and is expected to be committed.

### NICKEL PLATE

Preliminary open pit mineral reserves at the Nickel Plate Mine now stand in the order of 3,000,000 short tons at an average grade of 0.15 ounces of gold per ton. Further work is being planned which will result in a further refinement of the tonnages and grades on these reserves.

Engineering and geological data is being updated with an additional 300 holes planned to-date.

*Another \$1.5M  
needed @ paid  
in Toronto*

*Hedley  
Bridgman*  
*Gold  
Mines*  
*MASCOT*

### **BRALORNE**

Recent drilling at Bralorne has resulted in reserves being increased by 142,000 tons with a grade of 0.41 ounces of gold per ton. These reserves are all located above the 800 main haulage levels and have the advantage that no hoisting will be necessary which will result in lower operating costs.

The planned 1985 program will include more drilling in an attempt to discover new veins and will follow the drill indicated extensions by drifting.

### **STERLING MINE**

The mine has a daily production rate of about 200 tons per day resulting in production of approximately 800 - 1,000 ounces of gold per month.

### **EL PLOMO**

The El Plomo property is located in southern Colorado. The Company has an 8.7% interest in this property which has 1,367,000 tons in reserve, averaging 0.053 oz gold per ton.

The Company has varying interests in 35 other exploration ventures, among them the "Mica", a zinc, lead, silver massive sulphide prospect north of Revelstoke, B.C. Work is planned for this property this summer.

**MASCOT GOLD MINES LIMITED**

# Correspondence/Notes

CIM Dist 6 Oct 86

Nickel Plate

Ron Simpson

Gold Skarn 320km E of Vancouver  
Former producer 1 1/2 M oz Au

Reserves 7.1 MT @ 0.1500

plan 2700 TPD

Two pits planned

Recovery expected 89%

Bradshaw fault

French Mine

25000 oz produced

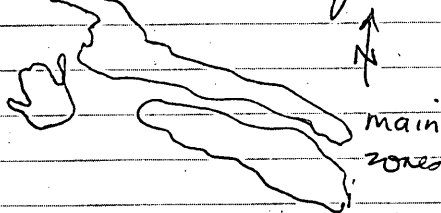
Nickel Plate Mtn

Stemwinder Mtn

Question

- How do regional & \$ big skarn differ - almost not - perhaps facies change in Nicola Gp is influencing ore formation - any pyrophyllite? not much

Discovered in 1898 (gossan - panned gold)



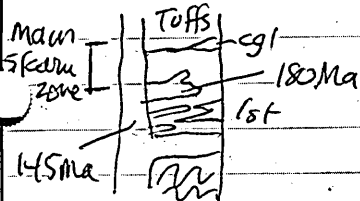
Mascot Fraction

Mine 250 000 <sup>02</sup> TPD

Buildings

Drilling 170000' / > 650 holes / 84 - 86

Older chert / arg / greenstone OPHIOLITE?



mainly sedo / beds arc to Nicola B Arc?

# Correspondence/Notes

Cgl Olistostrome  
 French Mine is in dr

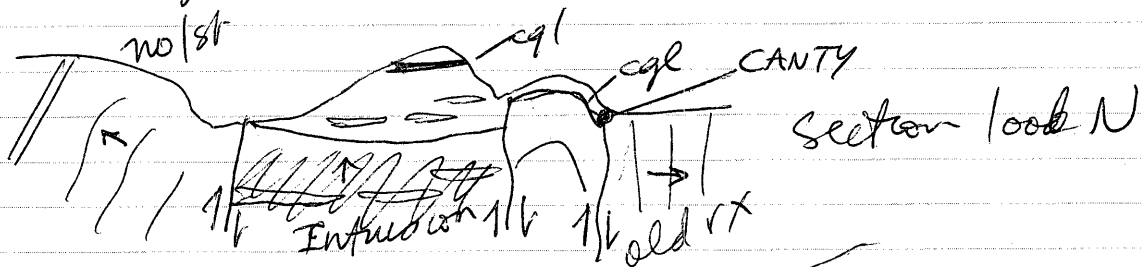
Karman/Norian

Skarn zone in 300m section (upper Hedley sequence)

Hedley Intrusions 180 Ma diorite → gabbro

sills 1-25 m avg S / wander, split, merge

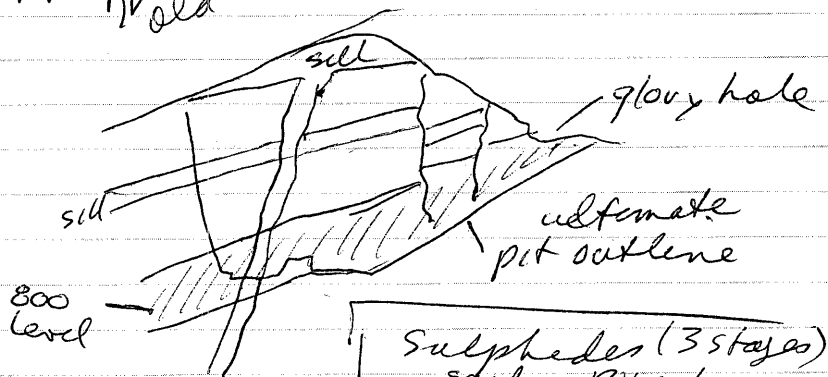
Similkameen gd 145 Ma



Ore post sill

Skarn

Early | garnet diopside  
 local wollastonite



later retrograde

~~tremolite~~ / cal / minor Qtz / cp

sulphides cal Qtz in structural traps

Pyrox Heden / Diopside ~ 1:1

Garnet Andradite - core 86 rim 56 ? Bi + Co correlate with Cu

Cherty-looking skarn Ksp / pyrox / Qtz - after fall?

Sills → diopside → trem cal Qtz  
 local secondary biotite

\* even retrograde skarn rims  
 are deformed

ore often above & below sills

GRIND 80% - 400 mesh

Gold + silver are poorly  
 correlated  
 Ag correlates best with Cu