

GEOLOGICAL REPORT
ZINC-LEAD-SILVER POTENTIAL
RED BIRD, CAVIAR AND NOR CLAIMS - SALMO, B.C.
Lat: 49.01 N./Long: 117.23 W., Mapsheet 82 F 3W.

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SUMMARY

This report outlines a proposed stratabound sulphide zinc exploration project on claims adjacent to the Reeves MacDonald mine, a long term producer of zinc, lead and silver located 20 miles east of the Cominco Trail Smelter in the prolific mine-making southern portion of the Kootenay Arc.

Golden Eye Minerals Ltd. can earn an 80% interest in Hecla Mining Company's Red Bird property which contains the high grade Red Bird Deposit, and can acquire a 100% interest in the Nor property, which covers the westward extension of the Red Bird Deposit. Combined, the properties comprise approximately 2200 acres. Additional ground has been staked by the company adjacent to these prospects.

The project offers an excellent chance of success in locating substantial tonnages of high grade zinc and associated minerals.

An exciting additional attraction is the probability of significant amounts of germanium associated with the zinc mineralization.

The area is serviced by an extensive infrastructure of road access and hydro power, and is located in one of B.C.'s oldest mining camps.

Gerald H. Klein, P. Eng.
Consulting Geologist
May 24, 1985

INTRODUCTION

A significant package of claims comprising a promising zinc-lead-silver exploration play has been assembled by Golden Eye Minerals Ltd. The prospect is adjacent to the abandoned Reeves MacDonald Mine, from which 7.2 million tons of ore containing approximately 540 million pounds of Zinc, 140 million pounds of Lead, 1.5 million ounces of Silver and 3.0 million pounds of Cadmium were produced from 1949 to 1975.

Geological data indicate that ore zones mined at the Reeves MacDonald Mine project onto the ground now held by Golden Eye Minerals Ltd. This includes the high grade deposits of the Red Bird and Annex zones.

This report summarizes the geological data and mining potential; recommendations for exploring this potential are included.

The writer was employed as mine geologist at the Reeves MacDonald Mine from 1970 to 1973. Information gathered from Hecla Mining Company, Reeves MacDonald Mines Ltd., Cominco Ltd., Diem Mines Ltd., and government publications has been used in this report.

LOCATION AND ACCESS

The properties (Figures 1 and 2) are situated 15 miles south-southwest of Salmo B.C. and 22 miles southeast of Trail, B.C. The claims are located in an area roughly 4 miles by 9 miles, west and east of the Nelway border crossing to the U.S.A., and are bounded to the south by the International border.

The western portion of the property can be reached by crossing B.C. Hydro's Seven Mile Dam at Church Creek, and then by good logging road.

The northern part of the property is accessible by a bridge crossing the Pend d'Oreille River on the Reeves MacDonald property.

All supplies and services are available in Salmo or Trail; daily air service from Calgary and Vancouver is available at the Castlegar Airport, 28 miles from the property. Power lines cross the Reeves MacDonald property nearby; water is available for drilling purposes from a number of creeks or the Pend d'Oreille River. A significant pool of experienced underground miners is available in Salmo, which has been a mining center for a long time. A partially filled tailings pond is situated on the Reeves MacDonald property. Idle mills are situated at the H.B. Mine site 12 miles to the north and at the Pend d'Oreille mine site at Metaline Falls in the U.S.A., 15 miles to the south.

PROPERTY DEFINITION

The property comprises several groups of claims acquired by staking, option to purchase and lease-purchase agreements.

The Red Bird, Caviar and Grouse groups of Crown-granted mineral claims were acquired by Golden Eye Minerals Ltd. from Diem Mines Ltd., of Nelson, B.C., a Canadian subsidiary wholly owned by Hecla Mining Company of Wallace, Idaho. Golden Eye Minerals can, through a series of cash payments and work commitments, earn 100% interest in the property subject to a 20% Net Profits Interest payable to Diem Mines Ltd.

The Nor 2 and 3 claims were acquired from Gerald Klein; Golden Eye Minerals can earn 100% interest in the claims by a series of payments of cash and stock over a number of years.

The Blue and Tick claims were staked by Golden Eye Minerals and are owned outright.

GEOLOGY

Stratigraphy in the Reeves MacDonald - Red Bird area includes the lower Cambrian Quartzite Range Formation, and the Reno and Laib Formations, in ascending order. To the south and west, the Ordovician Active Argillite is faulted against the Cambrian rocks (Figures 3 and 4).

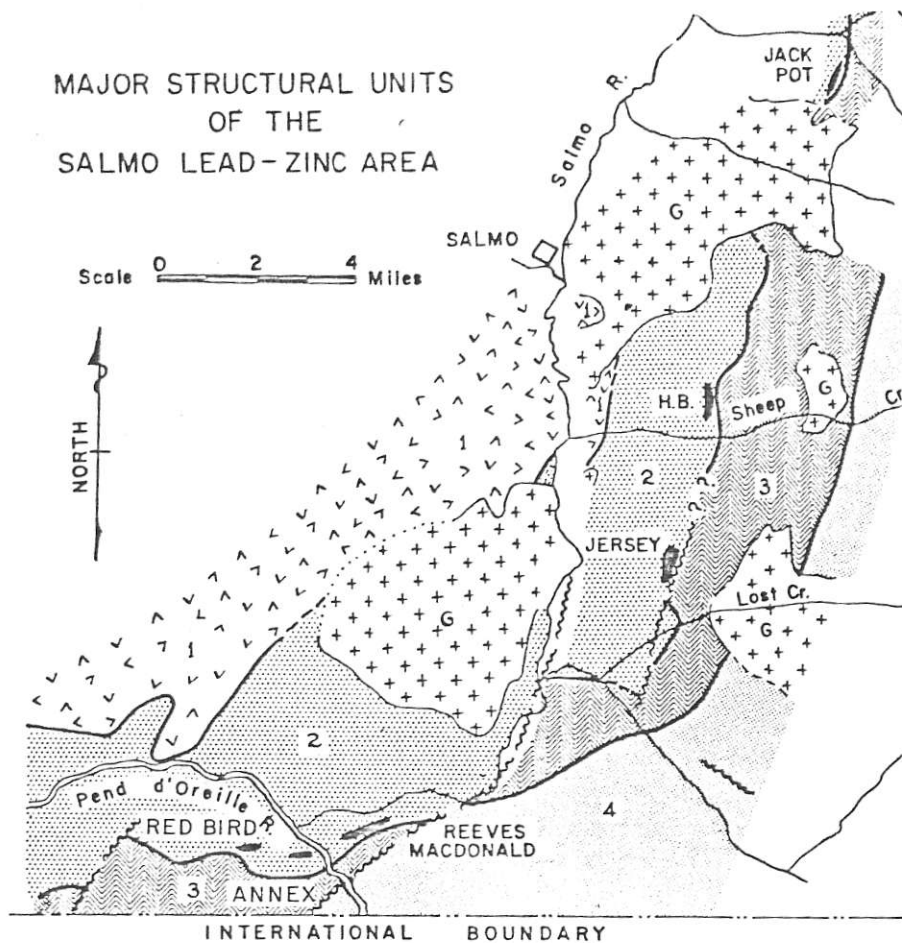
The Laib Formation is subdivided into the Truman Argillite, Reeves Limestone and Upper Laib Member. Dolomitized portions of one band of the Reeves Limestone are the hosts for the zinc-lead mineralization.

Deposits in the area, mined from this band of the Reeves Limestone include the Emerald and Jersey Mines, (Placer Development Ltd.), the H.B. Mine (Cominco), the Reeves MacDonald Mine and the Red Bird Deposit.

The mined zones in the Reeves Member are stratabound massive sulphides encased in dolomite, and possibly originated as sedimentary exhalatives. The Reeves Ore Zone had a total mined and explored length of 6500 feet, with further plunge extensions likely.









Dominant structural features at the Reeves are transverse normal faults, which have the effect of displacing the orebodies to a higher elevation, providing better conditions for mining than if the orebodies had continued unbroken (Figure 5).

MAJOR STRUCTURAL UNITS
OF THE
SALMO LEAD-ZINC AREA



INTERNATIONAL BOUNDARY

LEGEND

-  Mesozoic volcanic rocks
-  Cambrian sedimentary rocks, (Quartzite Range and Reno formations, Laib group)
-  Ordovician (?) black argillite (Active (?) formation)
-  Cambrian sedimentary rocks, (Quartzite Range, Reno and Nelway formations, and Laib group)
-  Granitic rocks
-  Major thrust faults
-  Transverse faults
-  Lead-Zinc orebodies

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DIEM - NOR

REGIONAL GEOLOGY

Aug 1985

FIG. 3

GEOLOGICAL MAP OF THE SALMO LEAD-ZINC AREA

WEST KOOTENAY DISTRICT
BRITISH COLUMBIA

Scale 1000 0 1000 2000 3000 4000 5000 Feet

Contour interval 200 feet

Geology by J.T.Fyles and C.G.Hewlett 1952-1955

LAIB FORMATION

7 UPPER LAIB UNDIVIDED: phyllite, schist, micaceous quartzite, and minor limestone

6 EMERALD MEMBER: black phyllite and argillite

5 REEVES MEMBER: grey limestone, minor dolomite

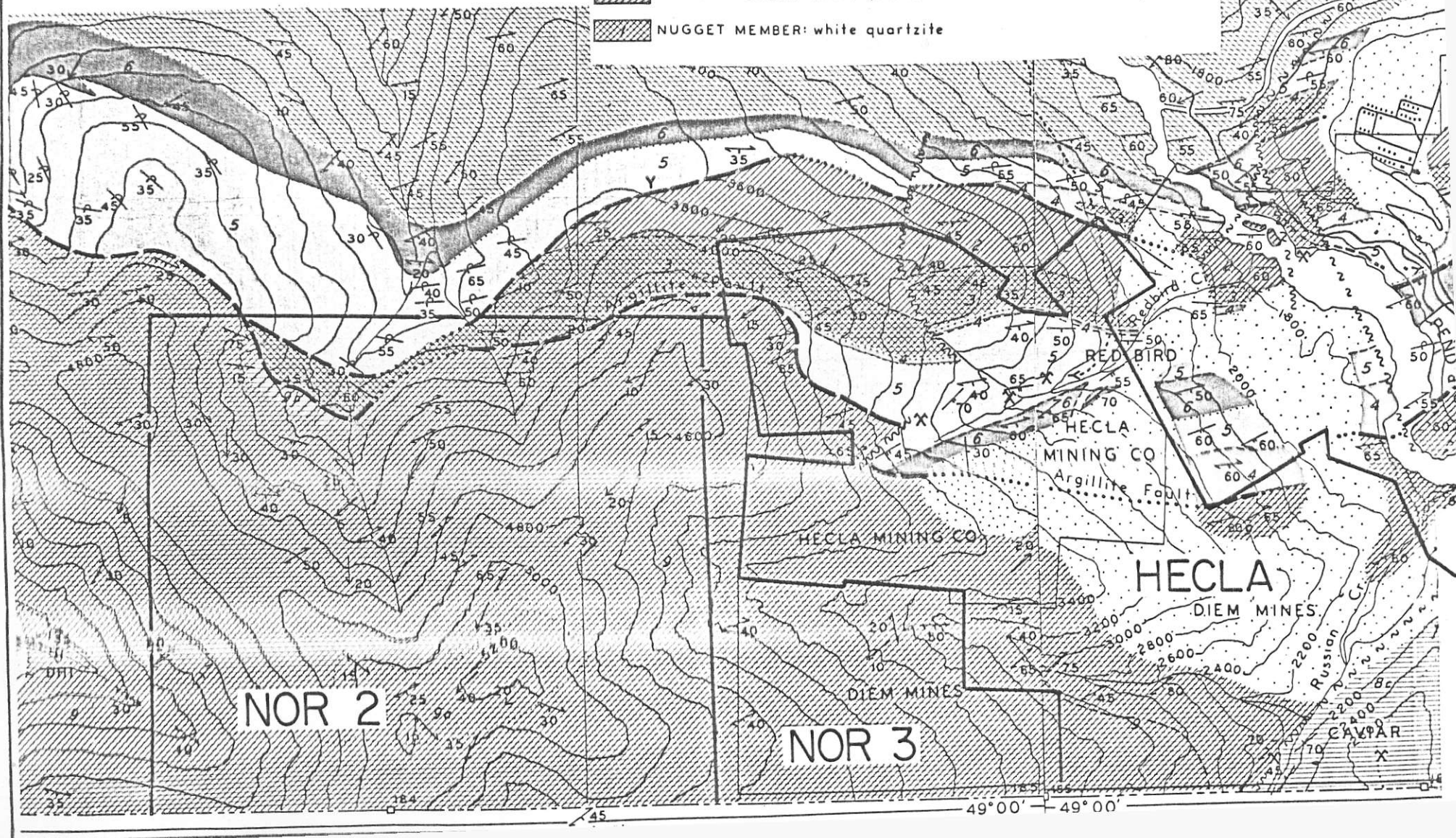
4 TRUMAN MEMBER: phyllite and argillite with lenses of limestone

3 RENO FORMATION: grey blocky and grey micaceous quartzite

QUARTZITE RANGE FORMATION

2 NAVADA MEMBER: white quartzite and brown micaceous quartzite

1 NUGGET MEMBER: white quartzite



HISTORY

REEVES MACDONALD MINES LTD:

The presence of zinc-lead gossan zones on the Reeves MacDonald and Red Bird properties led to surface and underground exploration on both properties in the 1920's; the mining of near-surface sulphide mineralization in the Reeves resulted in the production of 7,252,000 tons of ore yielding 140 million pounds of lead, 540 million pounds of zinc, 1.5 million ounces of silver and 3,000,000 pounds of cadmium prior to its closure in 1975. In today's values, this represent over \$340,000,000 in production.

Four distinct zones were mined by Reeves MacDonald Mines Ltd. Orebodies averaged 600 feet in length, were 20 to 30 feet in width, had a steep plunge to the south-west, were mineralogically distinguishable from each other and had distinctive metal ratios. None of these zones were traced to mineralogical termination at depth.

The most westerly portion of the Reeves mine, known as the Annex Zone contained more than double the grade of ore previously mined, having a grade of 1% lead, 8.0% zinc, 2.5 ounces per ton silver, and 0.09% cadmium.

The orebodies at the Reeves MacDonald Mine lent themselves, because of their steep dip, good width, and favourable ground conditions, to low cost sub-level benching and blast-hole mining methods. Direct operating costs, inclusive of mining, milling, development, etc. in June 1973, were \$10.62 per ton on a throughput of approximately 18,000 tons. The orebodies were capable of being mined at the rate of one vertical foot per day and milling averaged 1200 tons per day.

RED BIRD PROPERTY:

The Red Bird Property is situated on Red Bird Creek, on the south side of Pend d'Oreille River, west of Nelway, B.C., on the Canada/U.S. border.

The 16 crown-granted mineral claims comprising the Red Bird property are owned by Diem Mines Ltd., of Nelson, B.C., a subsidiary of Hecla Mining Company, of Coeur d'Alene, Idaho. Golden Eye Minerals Ltd. can earn an 80% interest in the property by making certain payments and carrying out work over a 10 year period.

Exploration by Boundary Basin Mines, Hecla and Cominco, from 1920 to 1962 discovered oxidized zinc-lead mineralization with strong width and high grade. An adit at 2650 feet elevation and diamond drilling outlined mineralization for 1600 feet; sampling in the eastern portion of the drift revealed a length of 600 feet, a width of 20 to 25 feet averaging 6.5% lead and 18.5% zinc, while diamond drilling in the western portion of the drift shows as much as 55 feet averaging 3% lead and 6% zinc.

Exploration of a different zone on the Red Bird property, was carried out from the 800 foot level of the Reeves Annex Mine. This work was initiated to locate the fault-displaced portion of the high grade Annex orebody, and the exploration was successful in discovering significant and mineable amounts of mineralization. However, no further exploration was done because of the sudden imposition of high mineral royalties and the inability of the parties involved to come to a suitable mining agreement.

NOR 2 AND 3 CLAIMS:

The Nor 2 and 3 modified grid claims adjoin the Red Bird prospect on the

west, south of Pend d'Oreille River to the U.S. border.

The 22 units in these two mineral claims are held by Golden Eye Minerals Ltd. under an option agreement with Gerald Klein, formerly mine geologist with Reeves MacDonald Mines Ltd. Golden Eye can earn a 100% interest over a 10 year period.

These claims cover the westward and fault-displaced lateral extension of the Reeves Limestone, host for mineralization in the area. This ground had long been held by Reeves MacDonald Mines, Cominco Ltd and others. Cominco drilled two holes, one in 1951 and one in 1969, in order to locate the Reeves Limestone under the argillite cover. Hole #1 was successful in cutting 26 feet of the limestone at 1110 feet; Hole #2 intersected only quartzite after penetrating the argillite at 1311 feet. These holes are approximately 1000 feet west of the Nor 2 west boundary.

Presence of the Reeves Limestone in Hole #1 provides evidence of continuation of the favourable Reeves Limestone Member in areas underlying Golden Eye Minerals claim holdings, and suggests that further massive mineralization in several shoots may be located by deep drilling.

CAVIAR PROPERTY:

The 16 crown-granted claims comprising the Caviar prospect are owned by Diem Mines Ltd., wholly-owned (since 1981) Canadian subsidiary of Hecla Mining Company, and are included in the lease to Golden Eye Minerals Ltd.

Surface zinc mineralization is exposed for a length of 150 feet and widths up to 20 feet. Four holes were drilled, the best intersection being 20 feet assaying 6.5% zinc. This zone is open to the west and down plunge.

Little is known of this zone, or its relationship to the other mineralization in the area.

EXPLORATION POTENTIAL

Faulting on the Reeves property has displaced four ore zones on to the Red Bird and Nor claims. A 2000' depth was chosen for calculating tonnages and values. Tonnage potential and Gross Metal Value (G.M.V.) for each of the four zones is shown on the following table, with the following metal prices assumed: Lead-\$0.25/lb; Zinc-\$0.55/lb; Cadmium-\$1.50/lb; Silver-\$8.50/oz. ↗

MINERALIZED ZONES - RED BIRD/NOR CLAIMS (Grades established from diamond drilling and previous mining)

	<u>Red Bird</u>	<u>Annex</u>	<u>Annex West</u>	<u>K-Zone</u>
Lead %	6.5	1.0	3.5	1.5
Zinc %	18.5	8.0	3.5	4.5
Cadmium (lbs/ton)	?	0.09	0.02	0.02
Silver (oz/ton)	?	2.5	1.0	0.30
Tons/Vertical Foot	1,200	1,200	700	900
Total Tons	2,400,000	2,400,000	1,400,000	1,800,000
G.M.V.\$/Ton	\$ 236	\$ 117	\$ 65	\$ 60
Gross Value	\$566,000,000	\$281,000,000	\$ 91,000,000	\$ 60,000,000

The main Reeves orebody was mined for many years at a grade of about 5% zinc. This can be taken as a break-even grade for the area. The potential mining rate for these zones is from 1200 to 2500 tons per day.

Presence of significant amounts of germanium in the now mined-out portions of the Reeves is a little-known fact. Results of recent assaying have ranged up to 0.05% germanium, and samples from all zones except the Annex West have shown appreciable germanium. This could add significantly to the already high potential of the project. A grade of 0.05% germanium represents a value of \$350/ton.

EXPLORATION BUDGET

The preferred targets for exploration are the massive sulphide zones of the Red Bird and Annex areas. Proposed exploration is by surface diamond drilling; and three holes are necessary to determine the location of the structures. Estimated costs of exploration are as follows:

STAGE I:

Road Building	\$ 20,000.00
Diamond Drilling 8000 ft. @\$35.00	280,000.00
Assaying	5,000.00
Miscellaneous Costs	15,000.00
Consulting and Supervision	30,000.00
	<u>\$ 350,000.00</u>
Contingency 20%	70,000.00
	<u>\$ 420,000.00</u>
TOTAL	\$ 420,000.00

STAGE II:

Combined exploration/haulage drift (6000 feet @\$250.00/ft)	\$ 1,500,000.00
Diamond drilling 25,000 ft. @\$16.00/ft	400,000.00
Associated costs Hydro, overhead, Camp	<u>1,000,000.00</u>
TOTAL	\$ 2,900,000.00

STAGE III:

Feasibility Study	\$ 250,000.00
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STAGE IV:

Mill Construction etc. --- Costs not estimated.

Respectfully submitted:

Gerald H. Klein, P. Eng.

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