

464

82F

82F/06E

Report on The

GOLDEN AGE MINE

(Golden Age #1 and #2, totaling 1 "old" claim and 8 new units)

Situated thirteen (13)
Road kilometres
South on Highway #6
from the
City of Nelson
Nelson Mining Division
British Columbia
Canada

(Ymir Gold Camp)

on behalf of

Espina Copper Developments Ltd. (N.P.L.)
of
Vancouver, B. C.

By

D. R. Cochrane P. Eng.
April 7, 1977
Delta, B. C.



Cochrane Consultants Limited
4882 Delta St., Delta, B.C. V4K 2T8 946-8221
Geotechnical Consulting / Exploration Services

geology
geophysics
geochemistry

ESPINA COPPER DEVELOPMENTS LTD. (N.P.L.)
Statement of changes in financial position
Six months ended March 31, 1977
(prepared without audit)

SOURCE OF FUNDS:

Expenditures recovered	\$ 3,059
Exploration advance refunded	<u>690</u>
	<u>3,749</u>

USE OF FUNDS:

Deferred charges -	
Exploration	12,000
Administration	<u>24,235</u>
	36,235
Less office equipment written off - not involving a current outlay of funds	<u>163</u>
	36,072
Option payment on mineral properties	<u>9,000</u>
	<u>\$ 45,072</u>

DECREASE in working capital	\$ (41,323)
WORKING CAPITAL, September 30, 1976	<u>47,728</u>
WORKING CAPITAL, March 31, 1977	<u>\$ 6,405</u>

REPRESENTED BY:

Current assets	\$ 11,129
Less current liabilities	<u>4,724</u>
As above	<u>\$ 6,405</u>

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SECTION A: SUMMARY AND CONCLUSIONS

1. The author was retained by ESPINA COPPER DEVELOPMENTS LTD. (N.P.L.) of Vancouver B. C. to make a study of the GOLDEN AGE property, a former gold producing mine situated in the Nelson Mining Division in Southern British Columbia. Previous exploration work on the GOLDEN AGE, in 1970 and 1971, was directed by the author on behalf of ROBERTS MINES, the former owners, and the property was again visited in the fall of 1976.

2. The GOLDEN AGE gold property is centrally located and situated 13 road kilometers south of the City of NELSON on highway # 6 and 60 road kilometers northeast of the mineral products processing complex at TRAIL, in the Kootney District. The main # 2 adit on the GOLDEN AGE is adjacent to the highway and within a few hundred meters of a power line, adequate water source and BURLINGTON NORTHERN Railway Line.



3. The mineral claims now covering the GOLDEN AGE consist of a single "old" claim, the GOLDEN AGE #2, and a recently staked "new" claim, of eight (8) units (one unit being 500 metres by 500 metres square). They lie on an easterly facing, moderately steep side hill, and extend down into the upper Salmo Valley at an elevation of just over 900 metres above sea level.

4. The claims lie near the north end of the once highly productive YMIR GOLD CAMP. The initial discovery was made in 1896 and with the exception of the depression in 1899 to 1901 the YMIR area continued to be an important camp until 1904 when attention was shifted to SHEEP CREEK. There was a mining flurry in the 1930's following the upward valuation in the price of gold. The last mine to close down in the area was the Yankee Girl and it did so in 1951. Very little attention has been directed to the camp in the last few decades. Total production from 24 former YMIR CAMP producers is 873,484 tons - and the ore averaged 0.307 ounces of gold; 1.59 ounces of silver and 2.7% combined lead and zinc per ton.



5. Past production from the GOLDEN AGE, as recorded in the B. C. DEPARTMENT of MINES PRODUCTION TABLES, is periodic from 1928 to 1973, and has totaled 108 tons. The average grade of the shipped ore is 0.33 troy ounces of gold per ton, 2.6 troy ounces of silver per ton, 0.13% copper, 0.17% lead and 0.18% zinc. Significant amounts of TUNGSTEN (W_3) are present in widely separated sections of the old mine.

6. The GOLDEN AGE has been developed by three (3) adits totalling just over 500 lineal metres, and two adits are presently accessible. They are driven on a steeply dipping sheeted fault zone with clusters, knots and pods of quartz carrying pyrite, chalcopyrite, sphalerite and galena. Mineralized portions of the sheeted structure vary from a few centimeters to 1 metre wide and from a few metres to 30 metres long.

7. In 1971, based on sampling, measurement and calculations by the author, the reserves of the main stope



area was estimated at:

Type of Reserves	Short Tons
A. Developed on 3 sides (probable)	1,530
B. Developed on 1 or more sides (possible)	3,680 5 210

The average grade across 0.84 metres was estimated at:

Gold(oz/ton)	Silver (oz/ton)	Copper (%)
0.21	0.82	0.29

Additional sampling and measurement is required in order to confirm and more accurately estimate the reserves of the old mine.



8. The author herein recommends a modest exploration program on the GOLDEN AGE, with two priorities, namely:
- (a) a re-evaluation of the old workings area and
 - (b) explore, on surface, using modern techniques, the remainder of the claims area.

9. The recommended program is divided into two phases,

Phase A: Preliminary re-evaluation of the old workings and "quick look" reconnaissance type exploration program on the remaining claims.

Estimated Cost Phase A.....\$ 25,000.00

Phase B: (Contingent on the success of Phase A)

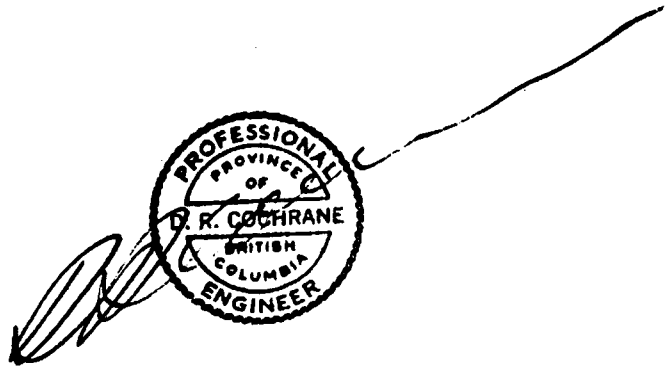
Continued exploration and development.

Estimated Cost Phase B.....\$ 50,000.00

Total of Phase A & B is then.....\$ 75,000.00



Respectfully submitted



D. R. Cochrane P. Eng.

April 7, 1977

Delta, B. C.







MINERAL RESOURCES

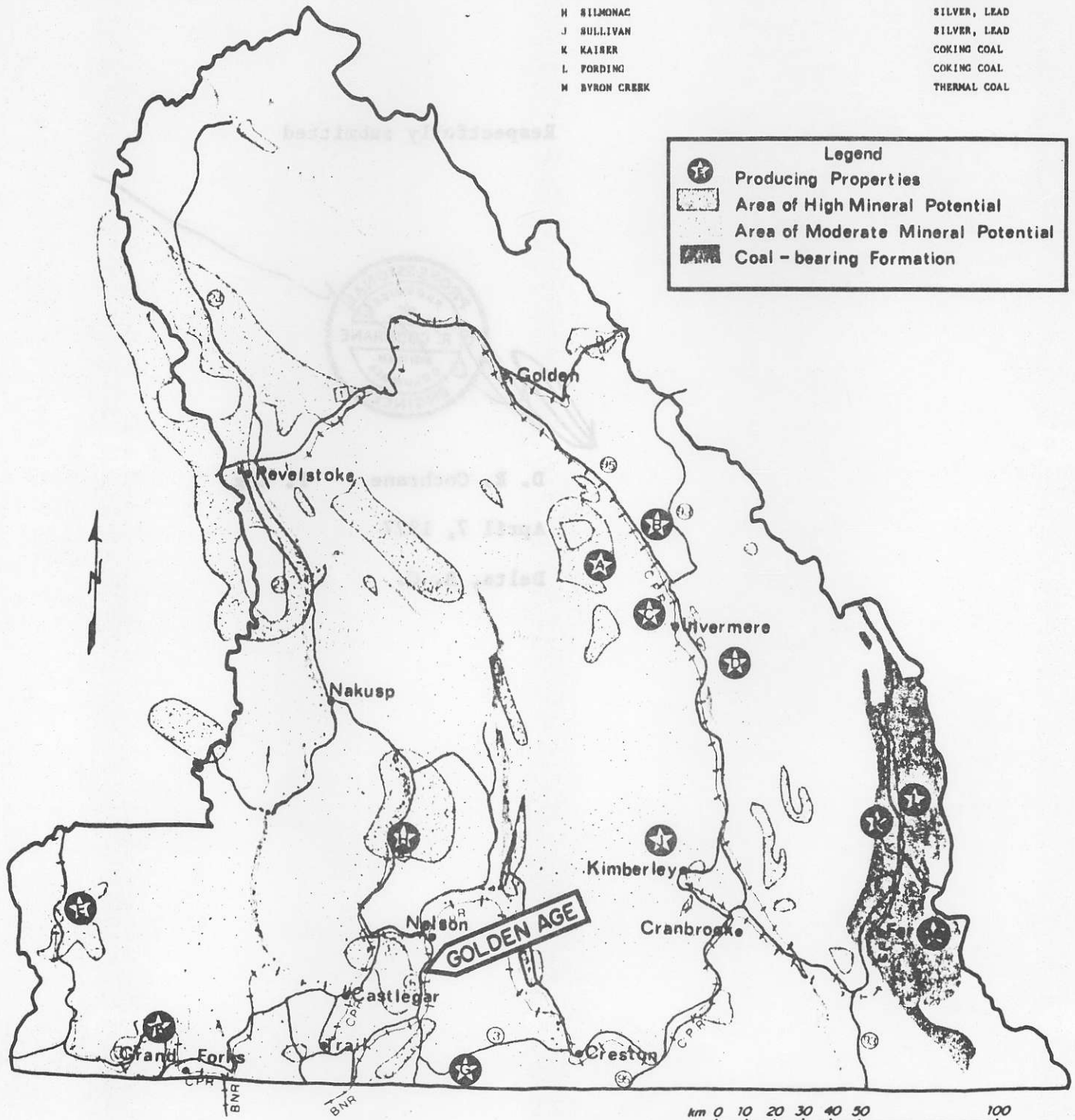
FIGURE 2

1976
PRODUCING PROPERTIES

A RUTH VERMONT	SILVER, LEAD, ZINC
B BARIITE PRODUCED FROM PARRSON AND DIEGO	BARIITE
C SILVER GIANT MINE TAILINGS PROCESSED BY BARMID OF CANADA LTD.	BARIITE
D GYPSUM EXTRACTED BY WESTERN GYPSUM PRODUCTS LTD.	GYPSUM
E HIGHLAND BELL	SILVER, LEAD, ZINC
F PHOENIX	COPPER
G H. B.	LEAD, ZINC
H SILMONAC	SILVER, LEAD
J SULLIVAN	SILVER, LEAD
K KAISER	COKING COAL
L FORDING	COKING COAL
M BYRON CREEK	THERMAL COAL

Legend

-  Producing Properties
-  Area of High Mineral Potential
-  Area of Moderate Mineral Potential
-  Coal-bearing Formation



ESPINA COPPER DEVELOPMENTS LTD., (N.P.L.)
GOLDEN AGE MINE PROJECT
NELSON, BRITISH COLUMBIA.

NELSON MINING DIVISION
N.T.S. 82 F/6E.

ABOVE MAP EXTRACTED FROM "THE KOOTENAY REPORT 76" (DEPT OF ECONOMIC DEVELOPMENT, GOV'T OF B. C.)

PREPARED FOR THIS REPORT APRIL 7, 1977. *Cochrane Consultants Ltd*

B. **INTRODUCTION:**

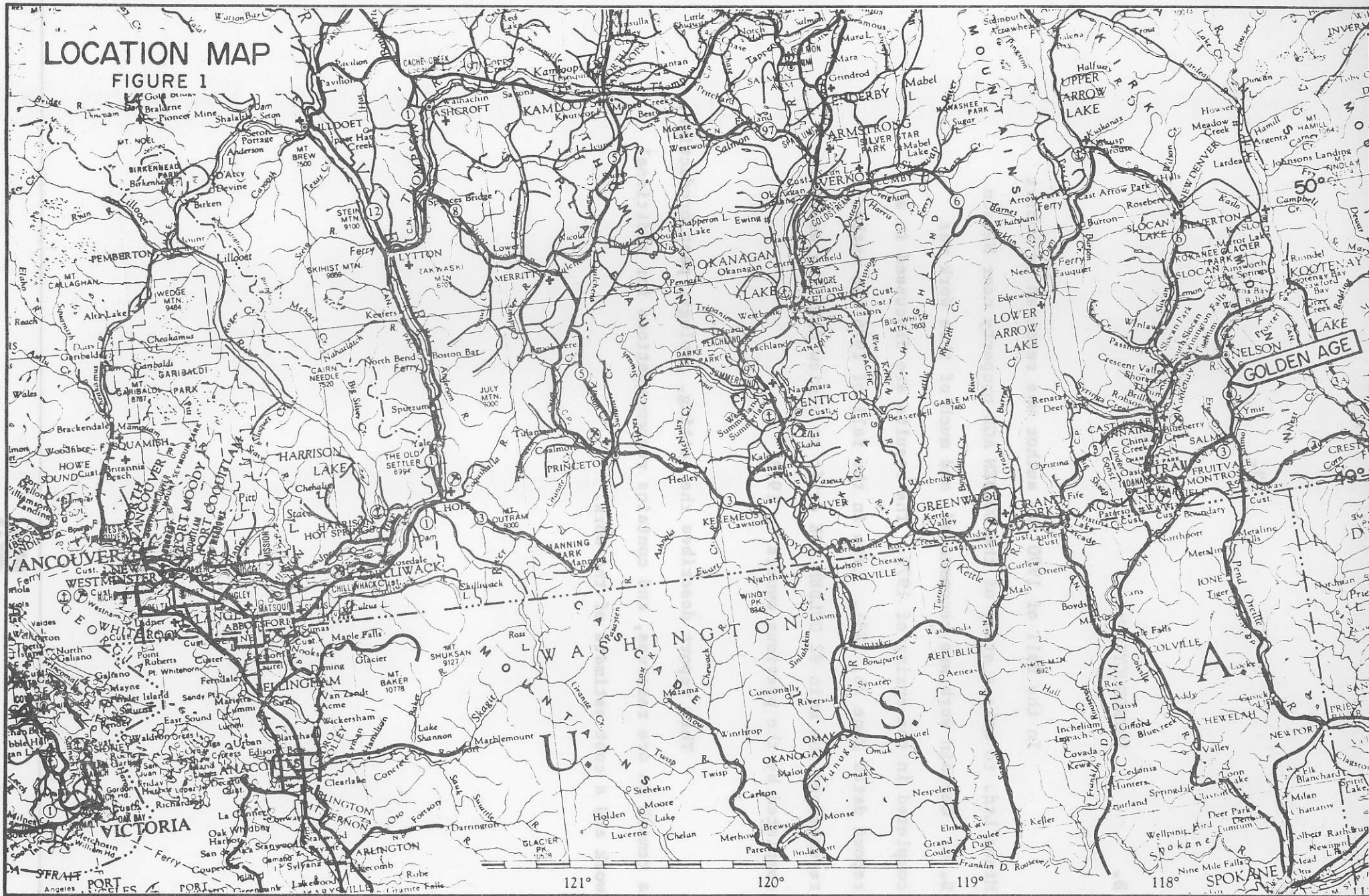
In the fall of 1970 the author was retained by Robert Mines Ltd. to make a study of the GOLDEN AGE property near Nelson B. C. Certain work was recommended, and much of this work was completed in the spring of 1971. The results are discussed in a report dated June 26, 1971. Late in the fall of 1976 the author re-examined the main #2 GOLDEN AGE drift to review drifting work completed by the previous owners in 1973.

This report describes the setting, geology, past production, a remark on ore reserves, and contains recommendations for additional work and a cost estimate of the work.



LOCATION MAP

FIGURE 1



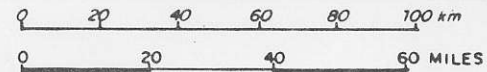
ESPINA COPPER DEVELOPMENTS LTD., (N.P.L.)
GOLDEN AGE MINE PROJECT
NELSON, BRITISH COLUMBIA

NELSON MINING DIVISION
N.T.S. 82 F/6 E.

ABOVE MAP EXTRACTED FROM DEPT. OF LANDS, FORESTS & WATER
 RESOURCES MAP NO 1J.

PREPARED FOR THIS REPORT APRIL 7, 1977.

Cochrane
 Consultants Ltd.



C. PROPERTY DESCRIPTION AND LOCATION

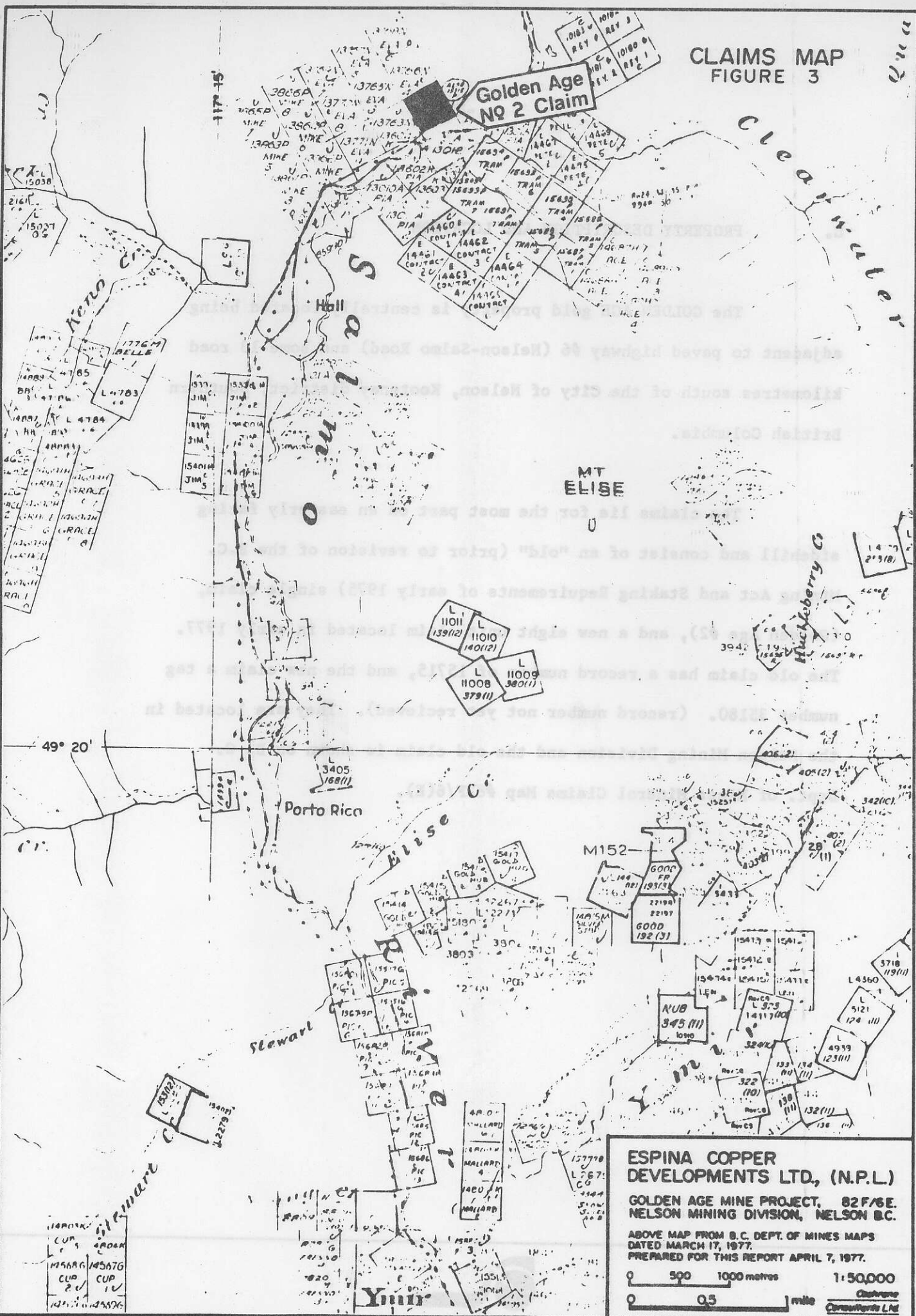
The GOLDEN AGE gold property is centrally located being adjacent to paved highway #6 (Nelson-Salmo Road) and some 13 road kilometres south of the City of Nelson, Kootenay district, Southern British Columbia.

The claims lie for the most part on an easterly facing sidehill and consist of an "old" (prior to revision of the B.C. Mining Act and Staking Requirements of early 1975) single claim, (Golden Age #2), and a new eight unit claim located in early 1977. The old claim has a record number of 15715, and the new claim a tag number 35180. (record number not yet recieved). They are located in the Nelson Mining Division and the old claim is shown on B. C. Dept. of Mines Mineral Claims Map #82F/6(E).



CLAIMS MAP FIGURE 3

**Golden Age
No 2 Claim**



**ESPINA COPPER
DEVELOPMENTS LTD., (N.P.L.)**

**GOLDEN AGE MINE PROJECT, 82F/6E,
NELSON MINING DIVISION, NELSON B.C.**

ABOVE MAP FROM B.C. DEPT. OF MINES MAPS
DATED MARCH 17, 1977.
PREPARED FOR THIS REPORT APRIL 7, 1977.

0 500 1000 metres 1:50,000
0 0.5 mile

Chapman
Consultants Ltd.

D. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES.

Facile automobile access to the property may be made from Trail, located a distance of 60 road kilometres southwesterly from the Golden Age, or from the City of Nelson, located 13 Kilometres north. The main level is adjacent to the highway, in the upper Salmo Valley which is well serviced by power and the BURLINGTON NORTHERN railway. There is abundant water and a well developed forest cover consisting predominantly of cedar, hemlock, balsam, pine, spruce, tamarack and jack pine. There is a healthy forest product industry and there are several local sawmills.

The climate is most agreeable with only three months of below zero (Celsius) mean monthly temperature and the summers are, as a rule, temperate and dry. The average annual precipitation occurs largely as snow in the winter months and is 75 cm. at Nelson. The area has a long mining history and there is a large experienced mine labour pool in the area.



Nelson is an important administrative and service center for the Kootenay Region and the commercial center for the west Kootenays. The 1971 population was 9,400, and there are 225 accommodation and food services establishments and 110 personal service units. (Govt. of B.C. Dept. of Ec. Development-The Kootenay Report, 1976).



E. HISTORY

During the 1860's gold was discovered in the Boundary country, the southern Rocky Mountain Trench, and the tributaries of the Columbia north of Revelstoke. The ensuing gold rushes resulted in a flurry of activity as mining camps sprung up to accommodate the flow of prospectors.

New towns which had their origins in this boom include Kaslo, Slocan, Sandon, Nelson, Nakusp and Ymir. Mining activity in the Trail area was first recorded when gold/copper ore was discovered at Red Mountain near Trail in 1890. The mining camp of Rossland was established the same year as a result of this discovery. The surface outcrop of the Sullivan orebody at Kimberley was staked two years later.

The 1890's were boom years throughout the Region.

Discovery of a large number of high grade mineral deposits, including silver, lead, zinc, gold, copper and coal, provided a strong stimulus for settlement in the region.



In 1896, a copper/gold smelter was opened at Trail to process the Red Mountain ore. A narrow-gauge railway was built from Trail to Rossland and a standard gauge railway from Trail to Robson, 20 miles up the Columbia River.

With the coming of the C.P.R. railway the rapid development of the Region continued through the latter 1890's and the first decade of the 20th century.

In 1898 the C.P.R. purchased the Trail smelter and the railways to Rossland and Robson and formed a subsidiary to operate the smelter, The Canadian Smelting Works. The same year West Kootenay Power and Light completed their first power plant on the Kootenay River and began supplying power to the Trail smelter and Rossland Mines. A year later, a lead smelter, and the world's first electrolytic lead refinery, was completed by Canadian Smelting Works in Trail.



Little (1960) reports "Ymir Camp first became active in 1896 and, with the exception of a depression in 1899 to 1901, it continued as an important camp.....until about 1904 when attention was shifted to the Sheep Creek Camp".

There was a major revival of activities in Ymir in the 30's and the last mine to close down was the Yankee Girl in 1951. At one time the Ymir Mine was the largest gold mine in Canada. According to the early Minister of Mines Reports, the GOLDEN AGE was discovered in the early 20's by extensive "float"tracing by the TERZIAN brothers of Hall B. C. A stamp mill was constructed in 1928 but burned down in 1929.

The property has been developed by three adit levels, with the main (#2) and upper adit still accessible. Over 500 metres of drifting has been completed. The production record, taken from B. C. Dept. of Mines Records is as follows:



Year(s)	tons shipped or treated	Au (oz.)	Ag (oz.)	Cu (lbs)	Pb(lbs)	Zn(lbs)
1928-1945	20	29	185	--	133	137
1973	88	7	101	236	241	241

Significant amounts of tungsten (sheelite) have been reported in the old workings, and a check sample of vein material collected by the author ran 0.35% WO_3 .



F. GEOLOGY

The Geology of Ymir is briefly reported in various Minister of Mines reports, however the most serious work was that of Drysdale (1917) and Cockfield (1936). Little (1970) described the geology of the entire Nelson Map sheet (82F/W $\frac{1}{2}$).

Although mining was and is still an important industry in the region, Drysdale's remarks are still very much pertinent: "Although Ymir is one of the oldest lode mining camps in British Columbia and the Ymir mine was at one time the largest gold mine in Canada, very little geological work has been done since the investigations of McConnell in 1897."

The Ymir Gold camp lies on the east flank of a large, north trending synclinerium whose axis runs from Salmo to Nelson, a distance of roughly 40 kilometres.



The synclinorium is "floating" being enclosed for the most part in Nelson plutonic rocks, and the latter is considered by most workers as being derived by metamorphism of pre-existing volcanic and sedimentary rocks (Little, pg. 98). The synclinorium consists of the following sequence (from outside or oldest, towards the center):

1. Lower or Pre-Jurassic Ymir Group (formerly Pend D' Oreille by Drysdale) consisting of argillite, slate and paragneiss.
2. Lower Jurassic Rossland Formation consisting predominately of greenstones.
3. Mid/Upper Jurassic Hall Formation, which conformably overlies the Rossland, and consists of argillite, sandstone and conglomerate.

This entire complex is intruded by various intrusives of the Nelson plutonic suite and is locally strongly deformed and metamorphosed.

To the east of the synclinorium is a sequence of Cambrian and Ordovician strata that are northerly trending and are characterized by quartzite, argillite and various schists.



Productive metaliferous gold, silver, lead and zinc deposits occur in all the above described rocks except the Hall Formation.

Various attempts have been made in the past to classify the metal deposits in the Nelson-Ymir area, and the problem has yet to be satisfactorily solved. Cockfield (1936) utilized a host rock system, and Little (1960) used a relative abundant metal system. However, the past producing mines of the Ymir camp are predominately gold deposits, although significant amounts of silver, lead and zinc have been recorded.

The Golden Age Property is underlain by a volcanic sequence believed to be part of the Lower Jurassic Rosslund Volcanic Formation. Little suggests the maximum thickness of the series is 8,500 feet, and predominant trends are northerly. Locally, the author observed two rock varieties, an andesite on the west property half, and an augite porphyry on the east half. The andesite often shows distorted pillow structures, and amygdules. It is variously altered (carbonatization, silicification) and is well fractured,



faulted and sheared. Several major faults are clearly observable in the new road cut some 500 feet west of the main adit, and faults appear to display a northwest preferred orientation. Immediately west of the main adit, and to the east of the creek (see Fig. 2) are bodies of augite "porphyrite". This is a medium to coarse-grained dark green coloured intrusive, containing phenocrysts of augite up to 3/4" long. It is more competent than the andesite and faulting and shearing is not as common. Both the above described rock types are cut by lamprophyre dikes (identified as augite kersantite by Cockfield, G.S.C. Memoir 191) varying in width from a few inches to over 10 feet, and striking northwest.

The bedrock complex is overlain by a poorly developed grey brown forest soil consisting of pebbly to cobbly sand and boulder clay.



G. VEIN SYSTEM AND MINERALOGY

The Golden Age vein system is classed by W.E. Cockfield (1936) as "poorly defined shear zones carrying stringers and bunches of quartz". Cockfield also notes, "The lower slopes of the hillside are extensively drift-covered, but outcrops show the underlying formation are schists of the Rosslund Volcanic group."

The author found that the main drift was driven in sheared and altered country rock, and no distinct or strong vein system was present. Shearing and silicification are discontinuous, and apparently are en echelon. The main adit follows a structure which strikes between North 35° to 50° west, and dips Southwest between 50 and 80 degrees. The sheared and mineralized sections are often bounded by dikes and/or faults. These boundaries are sometimes observable on both the hanging wall and footwall sides of the mineralized zone. Fault gouge is prevalent and the attitude of the faults are quite variable.



Quartz stringers often exhibit boudinage of "sausage-like structures" and are sometimes drag folded. Some of the faulting is post mineral since slickenside faces contain smeared and crushed sulphide minerals. The well mineralized sections of the vein-shear system appear to have developed in curvilinear or arcuate portions of the main shear zones, (That is, where the strike attitude varies from the normal (through going) attitude). Mineralized widths vary from a few centimetres to a metre wide, and from a few metres to about 30 metres long. In short, the vein system as physically quite complex.

The classification of the shear zone as an en echelon one (that is, relatively short shear zones that overlap one another without actually touching) has several ramifications. It is possible that the en echelon system (that is, on which the main drift is driven) if not the main fault zone, but a secondary one. There is a possibility of a subparallel major fault zone close by, which, in itself, would be a prime target for future exploration.



A microscopic examination was made of a "high grade" specimen collected from a slashed up section in the drift, at a point 275 metres from the portal and just past the second and third stopes. This specimen may be classed as "mineralogically simple". Gangue minerals included quartz (both milky and blue) with the development of occasional small vugs. At least two ages of quartz are recognizable. Other gangue minerals, (in decreasing order of abundance) are calcite, ankerite (?) and sericite. The predominant metallic mineral is pyrite, and chalcopyrite is the second major metallic mineral present. Malachite was observed in and around chalcopyrite blebs, and traces of sphalerite and galena were identified. A few microscopic specks of a very fine grained, soft, steel grey metallic mineral were tentatively identified as tetrahedrite. The sulphide minerals listed above, occur in small knots and in microveinlets within the quartz-carbonate-sericite gangue. Tourmaline was noticed in a quartz pod close to the slashed up area.



H NOTE ON ORE RESERVES

In 1971 the author channel sampled the main (#2) level and from a total of 20 samples (not including grab samples) four samples in an old partially stoped area were of economic significance. Based on the four channel samples, the length weighted average was 0.21 oz Au per ton, 0.82 oz. Ag per ton and 0.29% copper, across 0.84 metres. From a sketch of the partially worked stope an estimate of 1530 short tons of material developed on three sides was made, and a guesstimate of 3680 tons of material developed on one side was made.

Clearly the sampling is inadequate, and without an "up to date" survey plan, calculations of tonnage are sloppy. Recommendations to improve the quality and quantity of sampling and measurement is herein made, and is allowed for in Part 1 of this report.



I DISCUSSION

There is good reason to be optimistic about the price of gold, and therefore it is advisable, at this point in time, to investigate and explore for gold deposits which are classed, at the present price of gold, as "low grade" or "sub ore" occurrences. The most logical place to search for these deposits, and to re-appraise old deposits in the light of increased gold prices, is in and around old gold mining camps. The Ymir Gold camp offers excellent opportunities since it is an "old" camp (late 1800's and very early 1900's) and therefore has not had the benefit of modern exploration techniques. It is easily accessible, centrally located and well serviced. As the price of gold advances, different types of gold deposits become important. In the days of the 49'ers it was placer gold that is in a free state and easily extracted by hand. In the early 1900's and on into the late 50's, vein type lode deposits were extremely important but declined in value as the price of gold remained fixed and the cost of labour and supplies continued to climb.



In the 1960's a significant portion of gold production came as a byproduct of base metal mining. By 1972 the price of gold was freed from direct government control and rose dramatically, and other types of deposits now became important. These deposits now may be lower grade, but should ideally have large dimensions and lie close to surface so they are amenable to low cost, high volume mechanized bulk mining techniques.

Much of the Ymir Camp production has been from narrow vein type deposits, however, replacement type deposits, with larger dimensions, have long been recognized. This includes the Tamarac, Porcupine and Lexington deposits which fall into the "replacement" type class but were not extensively sought after, nor recognized nor exploited by the "old timer's" who were much biased toward quartz veins. A classic example is the large replacement type body of Carolin Mines Idaho zone in the Coquihalla Gold belt B. C., which is adjacent to the old Aurum Mine which produced between 1930 and 1942. The value of the adjacent Idaho Zone did not become apparent until extensive exploration work during 1974 and 1975 seasons.



The Golden Age mine has some potential as a small producer from the presently delineated vein system, however the vein system should also be regarded as a clue to other types of gold deposits and/or adjacent associated veins or lodes. In short, additional exploration work should be conducted on the Golden Age claims.



J RECOMMENDATIONS and COST ESTIMATE

in view of the foregoing the author recommends the following program and estimates costs of same:

PHASE A

1. Preparation of a metric topographic base map from existing air photographs at a scale of 1:5,000 (with mosaic) \$ 2,000.00

2. Linecutting: 25 line kilometres, lines 100 metres apart with station intervals at 25 metres, and survey controlled base and tie line at \$100.00 per kilometre \$ 2,500.00

3. Underground and surface geological mapping and sampling..... \$ 5,000.00

4. Geochemical soil sampling with analysis of soils for gold content, 25 km @ \$250.00 per kilometre (including analysis interpretation and report preparation).....\$ 6,250.00



5.	Consulting and supervision.....	\$ 1,750.00
6.	Transportation, communications and camp costs.....	\$ 2,000.00
7.	Report preparation and filing assessment work.....	\$ 1,750.00
8.	Contingencies of subtotal of \$21,250.00 at 15%	\$ 3,187.50
		<hr/>
	Total Phase A.....	\$24,437.50
	Say.....	\$25,000.00

Work should be completed in one month.



Phase B. (Contingent on the Success of Phase A

1. "Fill in" line cutting, estimate 20 line kilometres @ \$100.00/kilometre.....\$ 2,000.00

2. "Fill in" geochemical soil sampling 20 line kilometres @ \$250.00/line km.....\$ 5,000.00

3. Bulldozer trenching, drill site preparation. 100 hrs. @ \$50.00/hr.....\$ 5,000.00

4. Detailed geological mapping and sampling..... \$ 6,500.00

5. Consulting and supervision.....\$ 2,500.00

6. Transportation, communications and camp costs.....\$ 4,000.00





7. Allowance for diamond drilling,
including surveying drill holes,
log and assay core.
300 metres @ \$60.00/ metre.....\$ 18,000.00

8. Contingencies @ 15% of subtotal
of \$43,000.00.....\$ 6,450.00

Total Phase B.....\$49,450.00
Say.....\$50,000.00
Total of Phase A & B is then\$75,000.00

Respectfully submitted



D. R. Cochrane P. Eng.

April 1, 1977

Delta, B. C.



APPENDIX I

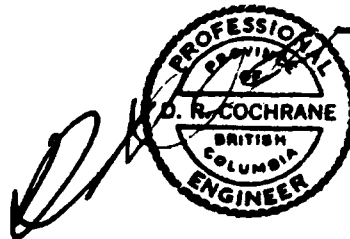
Certificate:

I, Donald Robert Cochrane, of the Municipality of Delta, British Columbia, do hereby certify that:

1. I am a consulting geological engineer with an office at 4882 Delta Street, Delta, British Columbia.
2. I am a graduate of the University of Toronto (1962) with a degree in Applied Geology (B.A. Sc.) and a graduate of Queen's University (1964) with a degree in Economic Geology (M. Sc. Eng.).
3. I have practised my profession continuously since graduation while being employed by such companies as Noranda Exploration Co. Ltd., Quebec Cartier Mines, and Meridian Explorations Syndicate. I have been in private independent practice since 1969.
4. I have no interest, either direct or indirect in the properties or securities of Espina Copper Developments Ltd. nor do I expect to acquire any such interest.
5. I am a member in good standing of the Association of Professional Engineers (A.P.E.) of the Province of British Columbia, and also a member of the A.P.E. in the Province of Ontario, Saskatchewan, and the Yukon Territories.

April 7, 1977
Delta, B. C.

(Signed) D. R. Cochrane,
P. Eng.



APPENDIX III

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1971); Assessment Report # 3719.

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British Columbia.



APPENDIX II
Conversion Tables

<u>A. Length</u>	<u>Centimeters</u>	<u>Meters</u>	<u>Inches</u>	<u>Feet</u>	<u>Miles</u>
Metric					
1 Angstrom	10 ⁻⁸	10 ⁻¹⁰	3.9370x10 ⁻⁹	3.2808x10 ⁻¹⁰	—
1 millimicron	10 ⁻⁷	10 ⁻⁹	3.9370x10 ⁻⁸	3.2808x10 ⁻⁹	—
1 micron	10 ⁻⁴	10 ⁻⁶	3.9370x10 ⁻⁵	3.2808x10 ⁻⁶	—
1 millimeter	0.1	0.001	0.03937	3.2808x10 ⁻³	—
1 centimeter	1	0.01	0.3937	0.032808	—
1 meter	100	1	39.37	3.2808	.0006
1 kilometer	100,000	1000	39,370	3280.8	.6214
English					
1 inch	2.5400	0.0254	1	0.08333	—
1 foot (12 in.)	30.480	0.3048	12	1	.000189
1 yard	91.440	0.9144	36	3	.0005618
1 mile (statute)	160,940	1609.4	63,360	5280	1

<u>B. Weight</u>	<u>Grams</u>	<u>Kilograms</u>	<u>Oz. Troy</u>	<u>Avoirdupois</u>	<u>Short Tons</u>
Metric					
1 milligram	0.001	10 ⁻⁶	3.215x10 ⁻⁵	2.205x10 ⁻⁶	—
1 gram (1000 mg.)	1	0.001	0.032151	0.002205	—
1 kilogram (1000 g.)	1000	1	32.1507	2.2046223	0.0011023
1 metric ton	10 ⁶	1000	32,151	2204.6223	1.1023
Troy					
1 grain*	0.064799	6.480x10 ⁻⁵	0.0020833	1/7000	7.134x10 ⁻⁸
1 pennyweight (24 grains)	1.55517	0.001555	0.05	.00342857	1.71426x10 ⁻⁶
1 ounce (20 dwt.)	31.10348	0.0311035	1	0.0685714	3.4286x10 ⁻⁵
1 pound	373.24	0.37324	12	0.8228569	0.000411428

*1 grain troy = 1 grain apothecary's weight = 1 grain Avoirdupois

<u>C. Assay Values</u>	<u>Per Cent</u>	<u>*Grams per Metric Ton</u>	<u>Oz. Troy per Short Ton</u>
1 per cent	1	10,000	291.667
*1 gram per metric ton	0.0001	1	0.0291667
1 kg per metric ton	0.1	1,000	29.1667
1 dwt per short ton	0.00017143	1.71426	0.0500
1 dwt per long ton	0.00015306	1.53061	0.0446428
1 oz troy per short ton	.00342857	34.2857	1
1 oz troy per long ton	.00306122	30.6122	0.892859
* or parts per million			

<u>D. Mesh Sizes (Us Standard Sieves)</u>		<u>Opening</u>	
<u>Mesh NBS</u>	<u>Mesh (Tyler)</u>	<u>Microns</u>	<u>Inches</u>
10	9	2000	0.0787
100	100	149	0.0059
325	325	44	0.0017



from the offering of shares pursuant to this Statement of Material Facts, if all of the 200,000 shares offered are sold at the minimum price of \$0.18 per share, the proceeds would be \$36,000.00 less commissions of \$2,700.00 for a net of \$33,300.00. The principal purposes for which the estimated net proceeds from the sale of securities offered by this Statement of Material Facts are to be spent are in order of priority, as follows:

- (a) To provide the Company with sufficient funds to commence the first phase of a 2 phase exploration program recommended on the Golden Age mineral claims more particularly described under heading 11 as recommended by Don Cochrane, P. Eng., in a report to the Company dated April 7, 1977, a copy of which is attached hereto and forms part of this Statement;

Estimated Amount: \$25,000.00

- (b) To provide the Company with working capital:

\$ 8,300.00

\$33,300.00

The second phase of the exploration program recommended by Don Cochrane on the Golden Age mineral claims is contingent upon the success of the first phase exploration program.

If the total number of shares offered hereunder are not sold, the Issuer will complete only the first phase of the recommended exploration program.

5. FULL NAME, HOME ADDRESS AND CHIEF OCCUPATION, THE NUMBER OF SHARES OF THE ISSUER BENEFICIALLY OWNED, DIRECTLY OR INDIRECTLY, BY EACH SENIOR OFFICER OR DIRECTOR OF THE ISSUER AND IF EMPLOYED DURING THE PAST FIVE YEARS THE NAME OF EACH EMPLOYER

<u>Name and Address</u>	<u>Chief Occupation</u>	<u>Number of Shares Beneficially Owned</u>
Roy Albert Stack, 13715-28th Avenue, Surrey, B.C. President and Director	Mining Executive and Properties Manager with Leonis Management & Consultants Ltd.	50,000
Bruce Woodsworth, Bryan Road, Halfmoon Bay, B.C. Secretary and Director	Consulting Geologist and Mining Executive	125,000

<u>Name and Address</u>	<u>Chief Occupation</u>	<u>Number of Shares Beneficially Owned</u>
Gayle Jensen 942 Parker Street White Rock, B.C.	Secretary and Receptionist, Leonis Management & Consultants Ltd.	Nil

6. PARTICULARS OF THE CORPORATE STANDING OF THE ISSUER.

The Issuer was incorporated in British Columbia on June 2, 1972 by Memorandum and Articles.

The last Annual Report for the Issuer was filed with the Registrar of Companies of British Columbia on June 17, 1976.

The Company is not in default of making filings required to be made under the Companies Act and the Securities Act of the Province of British Columbia in the jurisdiction in which they do business.

The last audited financial statements of the Issuer were dated September 30, 1976 and were placed before the members of the Issuer at the Annual General Meeting held on November 29, 1976.

The Company is a specially limited company and its business is restricted to the natural resource development field.

7. THE AUTHORIZED AND ISSUED SHARE CAPITAL OF THE ISSUER.

The authorized capital of the Issuer consists of 5,000,000 shares with a par value of \$0.50 each of which 3,010,002 are issued and outstanding as fully paid and non-assessable.

8. THE PRICES AT WHICH SECURITIES OF THE ISSUER HAVE BEEN ISSUED DURING THE PAST YEAR.

During the preceding year 200,000 shares of the Company's capital stock were issued to the public at a price of \$.35 per share.

9. PARTICULARS OF ANY BONDS, DEBENTURES, NOTES, MORTGAGES, CHARGES, LIENS OR HYPOTHECATIONS OF THE ISSUER.

There are no bonds, debentures, notes, mortgages, charges, liens or hypothecations of the Issuer outstanding.

10. PARTICULARS OF IMPORTANT PROPERTIES PRESENTLY OWNED, LEASED, HELD UNDER OPTION OR OPERATED BY THE ISSUER OR ANY SUBSIDIARY THEREOF OR PROPOSED TO BE OWNED, LEASED, HELD UNDER OPTION OR OPERATED BY THE ISSUER OR ANY SUBSIDIARY THEREOF

The Company is the holder of an option to acquire one (1) mineral