824119

SZF

PROPOSAL FOR 1988 ROSSLAND PROJECT

۱

KERR ADDISON MINES LIMITED

March, 1988

by

Fred Daley, M.Sc.

Proposal for 1988 Rossland Project

Inland Au-Ag Resources Ltd. has presented Kerr Addison with an opportunity to acquire an interest in their "South Belt" claims in the Rossland Mining Camp. The loaction of the Inland Claims is shown in blue on the attached Figure 1.

Also shown on Figure 1 is the local geology in the Rossland District. The 4 main formerly producing mines are shown with green dots, along the north contact of the Rossland Monzonite (RM). The Inland Claim holdings cover portions of the southern contact of the Rossland Mozonite with the Rossland Volcanics (RV).

The mylar overlay shows, what I perceive to be, the 5 priority areas for land acquisition in the Rossland Camp. This priority rating is based on limited field examinations, a moderate amount of reading on the historical geological data, and utilizing an exploration model that ties the Rossland Cu-Au veins to a deeper, as yet unexposed, mineralized hydrothermal system.

Figure 2 (attached) shows the proposed evolution of the Willa Deposit (also in Rossland Volcanics). The exploration model proposed here is that the present day "Rossland Camp" Cu-Au veins are "high level" and related to a deeper source. If we look at the central section of cartoon "D" and re-orient the section to N-S, looking West, along the Rossland Break, some similarities are recognizable.

- The Rossland Monzonite occurs along the axis of the Rossland Break.
- The Red Mtn. moly (BRxx) deposit North of Rossland occurs at one of the breccia apophyses.
- The Rossland Vein Systems, related to the multi-phase intrusive history, can realistically occur over considerable vertical ranges. An important corollary to this point is that, depending on where you are vertically in the system, you may <u>guite conceivably get different vein</u> <u>mineralogies</u> and an overall "mineral zonation", as shown in the mylar overlay for cartoon D.

The formerly producing mines north of Rossland were dominantly Cu-Au. Veins south of Rossland are more commonly Pb-Zn-Ag-Au. It is proposed that these "base metal" veins on the south contact of the Rossland Monzonite represent a different "level" of mineralization and that at depth, these veins will become more Cu-Au dominant. There are, from old reports, several showings on the south side which have Cu-Au mineralization similar to the formerly producing mines to the north (e.g. Crown Point, Deer Park). The priority rating system is based on:

- Area 1: Proximity to the formerly producing mines, multiple stage intrusions, stockwork moly mineralizaton, brecciation, and possible increase in vein and fracture density with depth.
- Area 2: Abundance of old prospects with Pb-Zn-Au-Ag veins, minor prospects with Cu-Au mineralization, vein and fracture strikes of several 100's of meters, recent exploration successes (B & B Mining with drill intercept of 8 oz/t Au).
- Area 3: North-east margin of Rossland Monzonite; multi-phase intrusive history (Trail Pluton, Rossland Monzonite, Coryell Intrusions), Tertiary age intrusions.
- Area 4: Along the axis of the "Rossland Break" (see Figure 1, Geology), several old prospects within the Rossland Monzonite.
- Area 5: Along the extension of the "Rossland Break", several old Au prospects, multi-phase intrusive history (Paleozoic ultramafics, Mesozoic quartz feldspar porphyry Tertiary syenite), and coarse clastic flows.

The ground presented by Inland Au-Ag Resources Ltd. covers a substantial amount of one of the priority areas. Other claim holders in the immediate area are Antelope Resources (to the north) and Gunsteel Resources (to the South).

Inland and Antelope are currently involved in a legal action to determine ownership of several key claim units. It is the opinion of Inland's lawyers that they will retain ownership of all of their claim holdings and may, through the courts, gain ownership to the Antelope claims. Inland's lawyers will be forwarding a legal opinion to Kerr Addison very shortly. Initial discussions with Eric Godfreyson, Director of Inland, indicated they would be willing to have Kerr Addison as a partner in an exploration program in the Rossland Camp. It was made very clear to Mr. Godfreyson that Kerr's continued involvement was conditional on a favourable court ruling in Inland's behalf and therefore retaining all their claims. A model framework for a possible option arrangment was discussed with Mr. Godfreyson and is summarised below:

For Kerr Addison to acquire a 65% interest:

i. \$10,000 cash upon signing option agreement, again, providing Inland retains clear title to their claims.

ii. Escalating yearly cash payments:

ł

First year	\$10,000				
Second year	20,000				
Third year	20,000				
Fourth year	25,000				
Fifth year	45,000				
			_		
TOTAL	\$120,000	over	5	years.	

iii. Escalating yearly work commitments:

First year	\$170,000
Second year	330,000
Third year	500,000
Fourth year	800,000

TOTAL \$1.8 million

iv. Details to be discussed

- Buy out clause

- NPI, retained interest, etc.
- Dilution clause.

- 3 -

PROPOSED 1988 PROGRAM

i.	2 man crew for 4 months in Rossland 125 days @ \$500/day all incl. Wages, food, accomm, vehicle, gas	\$62,500
ìi.	1 month trenching program 30 days @ \$1000/day	30,000
iii.	Geochem. Assays 500 @ \$20 each Soils 1500 @ \$12 each	10,000 <u>18,000</u> 28,000
iv.	Contract Work. a. Blasting b. Geophysical Surveys (MAG,VLF) c. Line Cutting, grids	15,000 15,000 <u>20,000</u> \$50,000
	TOTAL	\$170,000

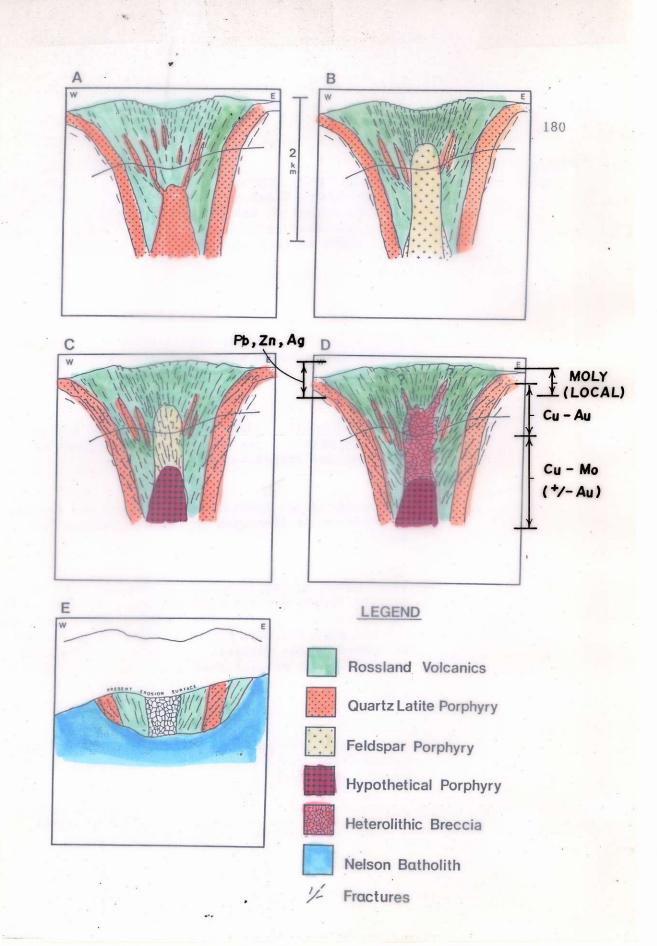
With a first year cash payment of \$10,000 and a 1988 work program of roughly \$170,000, the total of \$180,000 approximates the 1988 budget for the Rossland Project.

RECOMMENDATION:

If Inland Au-Ag Resources retains free title to their claims, Kerr Addison should acquire an option on the "South Belt" property. The property is well located geolgically, has exploration potential in light of our proposed model, and a viable \$180,000 first year program is in line with the 1988 Rossland Project Budget.

Fred Daley

- 4 -



and the second

A . K . A

Et 14 12

ビーシーシー

ALC: NO

and the second

and a second

Particular.

BULLET P

1 miles

Manual

STATISTICS.

のないで

POSSIBLE CORRELATION BETWEEN "WILLA" & "ROSSLAND" Au CAMPS

FIG. 2

FIGURE 54 Sequential interpretive cross-sections depicting the geological evolution of the Aylwin Creek mineralized area. There are two erosion surfaces present on each caption: the Lower to Middle Jurassic (upper surface) and the present day (lower surface). The horizontal scale on each caption is equivalent to the vertical scale.

- (A) Intrusion of the Quartz Latite Porphyry ring- and radial dyke complex with local quartz +/- MoS₂ mineralization.
- (B) Intrusion of the Feldspar Porphyry stock central to the ring dyke complex in (A) and development of potassic and propylitic alterations.
- (C) Intrusion of the Hypothetical Porphyry and further development of fractures in the surrounding wall rocks.
- (D) Development of the Heterolithic Breccia Pipe by boiling fluids derived from the apical portion of the Hypothetical Porphyry. The question marks above the breccia pipe indicate the uncertainy as to whether it vented to the surface. The gold-copper-silver mineralization precipitates along with calc-silicate minerals during the latter stages of the pipe-forming event.
- (E) Intrusion of the Nelson Batholith, rafting of the Aylwin Creek roof pendant and later erosion to the present day level.

SOUTH BELT

*

The principal vein system in the South belt is on the Blue Bird and Olla Podrida (referred to as the Mayflower) claims (*see* Fig. 3), which are on either side of Gopher Creek about 1.2 kilometres south of the centre of the city of Rossland. The vein system trends 110 degrees and dips steeply. North of the Blue Bird another group of old workings tested a vein system on the Homestake, Gopher, and Maid of Erin claims that trends east and dips steeply. Some other deposits in the South belt include isolated showings on several other claims including the Deerpark, Lily May, Zilor, Richmond, Sunset, and Monday. The two vein systems are 100 to 400 metres south of the southern edge of the Rossland monzonite in siltstone, hornfelsic siltstone, volcanic conglomerate, and augite porphyry of the Rossland Group. They are within the zone of thermal metamorphism associated with the monzonite. Many northerly trending lamprophyre dykes and a few granite and diorite porphyry dykes transect these rocks.

Mineral deposits in the South belt were among the earliest discovered in the Rossland camp (the Lily May on the Dewdney Trail, located in 1887, is reported to have been the first discovery in the camp); they have received attention from time to time since. Total production from the South belt, however, has amounted to only 3 625 tonnes with gross contents of 18 100 grams gold, 2 081 160 grams silver, 4 747 kilograms copper, 107 797 kilograms lead, and 129 202 kilograms zinc. Extensive exploration of the principal vein systems was undertaken by Rossland Mines Ltd. between 1946 and 1949 (see White, 1949, pp. 156-163).

From the examination of old dumps and accessible workings and from published and unpublished reports, White distinguished three types of mineralization in the South belt:

The Rossland type is heavy sulphide ore, predominantly pyrite and pyrrhotite with a little chalcopyrite. and yields gold and copper. The South Belt type contains pyrite, pyrrhotite, arsenopyrite, sphalerite, galena, and, locally, boulangerite. A large part of the value is due to silver, lead, zinc, and gold, but the content is low. The Transitional type is gradational in mineralogy and metal content between the Rossland and South Belt types. Usually it contains abundant sphalerite, little or no galena, and is low in silver.

Table 2, modified from White's report (p. 158), shows the distribution of these types.

TABLE 2. (CHARACTERISTICS	OF THE SC	DUTH BELT VEINS
------------	-----------------	-----------	-----------------

Claim	Strike of Deposit	Tonnes Mined	Country Rock	Ore Type		
Phoenix	80	279	Monzonite	Rossland)		
Abe Lincoln	90	?	Monzonite	Rossland (6	F16.
Sunset	?	?	Monzonite	Rossland	SE	1 10,
Nest Egg	?	?	Monzonite	Rossland		
Monday	0-45	64	Hornfelsic siltstone	Transitional		
Homestake	100	236	Augite porphyry	Transitional		
Gopher	?	?	Augite porphyry	Transitional		
Maid of Erin	80	?	Augite porphyry near monzonite	Transitional		
Blue Bird	110-115	2090	Siltstone	South Belt		
Mayflower	110	876	Augite porphyry	South Belt		
Hattie	90	21	Volcanic near monzonite	Rossland (c	5
Deerpark	170	?	Volcanic near monzonite	Rossland)	SEE	MG.
Lily May	135	37	Siltstone	South Belt		
Richmond	80	11	Siltstone	South Belt		
Robert E. Lee	?	131	Volcanic near monzonite	Transitional		
Red Eagle	?	7	Augite porphyry	South Belt		
Zilor	90 & 145	?	Siltstone	South Belt		
Curlew		6	Augite porphyry	South Belt		

White notes that Rossland-type ore occurs either in or near the monzonite. Whereas the most common trend is westerly, anomalous trends are found on the outskirts of the area.

In the vicinity of the Mayflower and Blue Bird workings White describes the geology as follows:

The predominant rock near the workings is a variation of the type called 'augite porphyrite' in Memoir 77, which here is characterized by prominent dark-green crystals of altered augite and is markedly brecciated. The angular fragments are recognizable only on weathered surfaces and are embedded in a matrix somewhat finer in grain but apparently of the same composition as the fragments. The fragments range from 1 to 12 inches [2.5 to 30 centimetres] across. The prominent augite crystals are scattered evenly throughout both fragments and matrix, and some crystals of augite extend from a fragment across the boundary into the matrix. Near the southeastern border of the augite porphyrite area the outcrops are more severely weathered and coloured red and white by oxidation of iron and kaolinization of the feldspars. In one outcrop 950 feet [290 metres] west of the main adit the augite porphyrite breccia grades first into volcanic agglomerate and finally into thin-bedded reddish material resembling tuff, which strikes north 60 degrees east and dips steeply southeastward.

The augite porphyrite breccia gives place southeastward to conglomerate composed of subrounded and rounded pebbles of augite porphyrite, granite, diorite, and quartz in a matrix of very fine-grained dark-coloured silt-like material. The matrix weathers out readily, leaving the pebbles protruding from the surface. Most of the pebbles range in size from 1 to 3 inches [2.5 to 7 centimetres], but in places pea-size pebbles and coarse sand occur in stratified lenses that strike about north 40 degrees east and dip about 60 degrees to the southeast. Grain-size gradations in the stratified beds indicate that the beds are right-side up. Preferential replacement of the matrix and of certain of the pebbles by epidote is a common feature. The contact of the augite porphyrite and conglomerate was nowhere observed, but it would appear to be abrupt. Evidently it represents an erosion surface separating the augite porphyrite and the overlying conglomerate.

One thousand feet [305 metres] southwesterly from the Mayflower workings, across the drift-filled valley of Gopher Creek, the contact of augite porphyrite and thin-bedded siliceous slate is exposed in a railroad cut. The augite porphyrite near the contact is massive, fine grained, and not porphyritic, and the slate is indurated and pyritic. The contact strikes north 20 degrees east and is vertical. In the railroad cut the bedding of the slate is parallel to the contact, but 850 feet [259 metres] farther north the slate in the Blue Bird workings strikes north 15 degrees west and dips 50 degrees westward.

Intrusive into these older rocks are diorite porphyry, granite porphyry, and both mica lamprophyre and non-mica lamprophyre dykes. The oldest are dykes and irregular masses and tongues of finegrained diorite porphyry with distinctive acicular hornblende crystals. The zone of granite porphyry dykes begins near the eastern edge of the area mapped. The granite porphyry is easily distinguished by its subspheroidal crystals of clear quartz about 1 millimetre in diameter, in a finegrained feldspathic groundmass. The dykes strike north 15 degrees east and dip regularly 50 to 60 degrees eastward. On a railroad cut north of the area a granite porphyry dyke is cut by a lamprophyre dyke.

The ore is composed of fine-grained, disseminated, or rudely banded, massive sulphides in a gangue consisting of thoroughly sericitized rock, a little carbonate, and some quartz. The metallic minerals in their general order of relative abundance include pyrite, pyrrhotite, sphalerite, arsenopyrite, galena, and boulangerite. Locally the relative proportions may vary a good deal. Microscopic examination of polished sections suggests that pyrrhotite was the earliest mineral to form, followed and partly replaced by pyrite and arsenopyrite.

Since White's visit to the area extensive work has been carried out on the Blue Bird vein. Main access to the vein, which is apparently the western extension of the Mayflower vein, is by No. 2 adit, driven at an elevation of 844 metres just above and west of Gopher Creek. The vein, which strikes 110 to 115 degrees and dips steeply to the south, is well mineralized to 61 metres below the level and to 244 metres west of the portal. The host rock is mainly hornfelsic siltstone that dips at moderate angles to the west and is cut by northerly trending dykes. Average grades based on production statistics are: 3.87 grams gold per tonne, 653.8 grams silver per tonne, 3.5 per cent lead, 4.2 per cent zinc, and insignificant amounts of copper.

1949 JESCRIPTION SOUNDS LIKE RESSIBLE MINERAL ZONING IN CR ADJACENT TO HYDROSTHERMAL SYSTEM.