008518

Property Name: Common MACMILLAN Other Quartz Lake

Location: Lat. 60°31' Long. 127°57' NTS 95D/12

Metals: Major Lead, zinc, silver Minor

Type of Mineral Deposit: Stratiform

History and Previous Work:

Apparently first discovered in 1892 by prospectors from the Cassiar Gold Fields, and rediscovered in 1948 by K. MacMillan. MacMillan's claims were acquired by Noranda ML, ~~who~~ which optioned them to New Jersey Zinc in 1949 and 1950. In 1951, Noranda entered a joint venture with Asarco and a new company was later formed, Liard River Mg CL, in which Asarco now holds the major interest.

Since 1965, claims surrounding the Asarco holdings have been explored by Redfort Prospecting Syndicate (Redstone ML, Rayrock ML, and Fort Reliance Mls.L) ~~who~~ which conducted an airborne mag and EM survey in 1966 and 1967. During 1968, Fort Reliance Mls L acquired the interests of its partners and drilled about 1500 feet in 5 holes.

Work to date by Liard River Mg CL consists of 93 drill holes totalling 23,155 ft. The most recent work was an I.P. survey in 1967 and 3400 ft of drilling in 1968.

Description:

The deposit occurs in upper ~~Paleozoic~~ Proterozoic (Hadrynian) weakly metamorphosed sediments (unit 1) which dip 30° northwest. Rocks in the area have been divided into three units-lower Ridge unit-quartzite, grit limestone and argillite; overlain by a middle Range unit-quartzite and grit; overlain by upper Canyon unit-black fetid limestone and phyllite. Mineralization consists of sphalerite, galena and pyrite with siderite and ankerite. It occurs at the base of a limestone conglomerate near the top of the lower unit, and is exposed in Mine Creek. Both Mine and Pyrite Creeks are thought to follow thrust fault traces. Reserves have been quoted as about one million tons grading about 5% Pb, 10% Zn, and 1.8 oz/ton Ag.

References:

P66-31, pp72-74
P67-40, p66
"Lower Cambrian Strata and Base Metals", by H. Gabrielse, WM, Feb/69, pp 11-18

Property Name: Common MEL Other

Location: Lat. 60°21' Long. 127°24' NTS 95D/6

Metals: Major Lead, Zinc Minor Silver

Type of Mineral Deposit: Vein

History and Previous Work:

Staked as the Mel cl (Y17410) in March/67 by J. Melnychuk and T. Flint. Newmont optioned the claims briefly in 1967-68 and conducted a geochem survey and bulldozer trenching, during which time the prospectors interest was sold to WINCO Mg.and Dev. L. Newmont retained no interest when the option was dropped. There is no record of subsequent work.

Description:

Galena and sphalerite occur with barite in lower Cambrian limy sediments (unit 5).

References:

ER,May/69, by W.E. Selnes, in Winco Mg. & Dev. L. Prospectus.
Paper 68-38, p.16

Property Name: Common FIR TREE Other

Location: Lat. 61°25' Long. 128°27' NTS 105H/8

Metals: Major Lead-zinc-silver Minor Copper

Type of Mineral Deposit: Skarn or Stratiform

History and Previous Work:

Staked as Louise, PY, OP and PX cl (88555, 88633) in Sept and Oct/63 by Norquest Joint Venture (Anaconda, Asbestos Corp, Bralorne Pioneer, Granby, New Jersey Zinc, and Utah). Surface surveys, trenching and sampling were conducted in 1964 and 1966. The Ace cl (Y2711) were staked nearby in April/66 by S.J. Carter. Limited trenching was conducted on the PY and Ace groups in 1970.

Description:

Dark brown sphalerite, galena, pyrrhotite, pyrite and chalcopyrite is finely disseminated in an epidote-rich gneiss band (unit 2) , which is cut by numerous dikes and sills related to a stock one mile to the east. The band has been traced for a length of 1300 ft. on surface and reaches a maximum thickness of 40 ft. Grab samples assayed as follows:

Pb(%)	Zn(%)	Ag(oz/ton)	Au(oz/ton)	Cu(%)
5.0	3.1	0.4	tr.	0.4
4.1	3.8	1.1	tr.	0.2
0.1	6.6	1.7	tr.	0.2

References:

P 65-19, pp 45-46

Property Name: Common BLACK JACK Other

Location: Lat. 61°22' Long. 128°23' NTS 105H/8

Metals: Major Zinc Minor Lead-silver

Type of Mineral Deposit: Skarn or Stratiform

History and Previous Work:

Staked as Louise, PY, OP and PX cl (88555, 88633) in Sept and Oct/63 by Norquest Joint Venture (Anaconda, Asbestos Corp, Bralorne Pioneer, Granby, New Jersey Zinc, and Utah). Surface mapping and bulldozer trenching in 1964 and 1965 was followed by 2000 ft. of drilling (7 holes) in 1966, at the north end of the showing.

Description:

Disseminated to massive sphalerite in epidote-rich bands within quartz-feldspar-biotite paragneiss (unit 2), which is cut by many dikes and sills up to 10 ft. wide. The zone has been traced for a length of 1400 ft. and appears to be 15 ft. thick at best. A surface trench assayed 8.7%Zn, 0.4 % Pb, 0.14% Cd, 1.2 oz/ton Ag, and trace Au.

References:

P 66-31, pp 68-71
P 67-40, p.62

Summary of Exploration Method

Pre-Planning

(1) airphotos ordered and catalogued.
(2) base map preparation started.
(3) complete literature search undertaken.
(4) location of main base camp established and fuel mobilized to field before breakup(if necessary).

Start-Up

(1) field crew assembled in Whitehorse.
(2) senior personnel study geology of project area and work on airphoto interpretation
(3) junior personnel assemble field equipment and complete base map preparation.

Field Techniques

(1) the crew, consisting of a helicopter pilot, helicopter mechanic, cook, and seven field men (10 men total) work out of a main base camp. Base camps are moved at two to three week intervals (until the project is completed) and are located on lakes, rivers or bush airstrips in order that service trips can be accomplished by fixed wing aircraft rather than the more expensive helicopter.

(2) all drainages within the appropriate radius of each base camp are traversed. Traverses are outlined by the geologist and each field man works independently. Personnel are set out by helicopter in the morning and picked up at a designated point in the evening.

(3) silt samples are collected at half mile intervals on the main stream being traversed and from each side stream including dry gulches that only flow during spring run-off. Sample points are marked on an airphoto in the field. Each man also prospects for mineralization or mineral indicators. Reconnaissance soil sampling and prospecting traverses are done over geologically favourable areas that are poorly drained.

(4) the geologist uses the helicopter during the day to examine specific areas of interest (known prospects, mineral located by field men, stream sediment anomalies), to obtain silt samples from higher altitude locations where a full day's traverse would not be warranted and to do regional geological mapping where required.

(5) each field man and geologist complete a standard traverse form in the evening which shows the area covered, location of silt and rock samples, comments on geology and geomorphology and any other observations considered pertinent.

(6) the camp is equipped with an ultraviolet lamp, geiger counter and portable binocular microscope and all rock samples are routinely tested for radioactivity and fluorescence.

(7) silt and soil samples are collected in standard prenumbered kraft bags and hung in camp to dry. All accumulated samples and sample traverse sheets are sent to Whitehorse on the return of each service trip.

Whitehorse Office

(1) a twice daily radio schedule is maintained with the field camp.

(2) geochemical samples are sorted, packaged and air expressed to Vancouver when received from the field. These are picked up at the airport by Chemex Labs Ltd., North Vancouver and analyzed by atomic absorption spectrometry of a nitric-perchloric extraction. Anomalous results are telephoned by Chemex to the Whitehorse office (usually within seven days of shipment, but faster on special request) and values of interest are relayed to the field during the daily radio schedule.

(3) a Xerox copy of the traverse sheets sent from the field is returned in order that both the Whitehorse office and field crew can study the geochemical results independently.

(4) field data is plotted on base maps in the office on a regular basis.

(5) progress reports are prepared at regular intervals.

(6) a separate bank account is established for the project and financial statements are prepared from time to time.

Post Field

(1) at the conclusion of the field season, high-value equipment is returned to Whitehorse for storage. Remaining equipment is field-cached.

(2) senior personnel are retained in Whitehorse until field reports and raw data organization is complete.

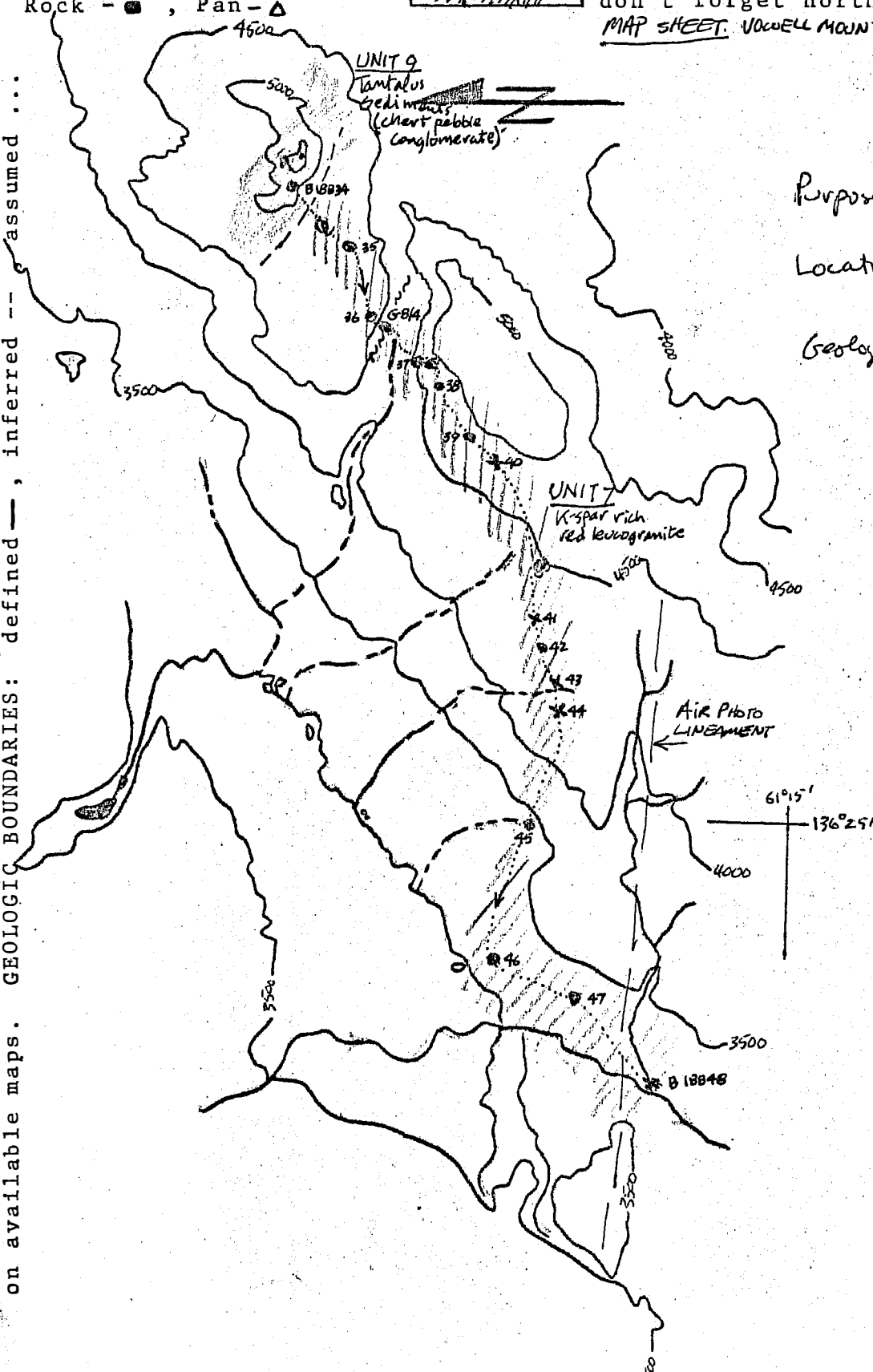
(3) final drafting and report preparation is completed at the Vancouver office during the period September to November.

Project SYJV
Date 17 June 1972
Sampler Slater
Silt - X , Soil - ●
Rock - ■ , Pan - △

NW	N	NE
W	C	E
SW	S	SE

sample numbers B18834 - 18848
air photo numbers A11068 - 54, 55, 56 (CC)
targets
don't forget north arrow → ↓ ← ↑ (choose one)
MAP SHEET: VOCKELL MOUNTAIN 115 H/8W

show contours, drainage, north arrow, all samples: old workings, gossans, cabins, or trails -- is there any intrusive or volcanic outcrop or float not shown on available maps. GEOLOGIC BOUNDARIES: defined —, inferred --, assumed ...



Purpose: regional prospecting for SYJV project

Location: traverse area is about 6 miles NE of Hutshi Lake

Geology: top of hill at B 18834 is in Tantalus sediments that, in this area, consist of brown chert pebble conglomerates. There is no exposed contact between this and the UNIT 7 red K-spar rich leucogranite found at the bottom of the hill and exposed over the rest of the traverse area. This granite is locally weathered and (?) altered to produce a crumbly rock with white chalky feldspars and abundant limonite, after the mafics. Some barren quartz veining and qtz porphyry dykes were seen at location G-8-14, the emplacement apparently controlled by narrow shear zones that seemed to be associated with the above features. The observed shear zone was roughly parallel to the Air Photo Lineament that suggests a (?) regional shearing that could be favorable to further qtz and qtz porphyry emplacement, with maybe an ore deposit or two.

rock types Tantalus sediments (chert pebble cgl); UNIT 7 K-spar rich red leucogranite
soil types B horizon, silty o.v. except for a lot of sand
percent outcrop 7.32% %
scale 1:50000
1.25" = 1 mile (approx)

Project SY
Date June 23/72
Sampler B. Fairbank
Silt - ▣ , Soil - X
Rock - ■ , Pan - △

NW	N	NE
W	C	E
SW	S	SE

sample numbers 17406 → 17422
air photo numbers
targets
don't forget north arrow

show contours, drainage, north arrow, all samples: old workings, gossans, cabins, or trails -- is there any intrusive or volcanic outcrop or float not shown on available maps. GEOLOGIC BOUNDARIES: defined —— , inferred -- , assumed ...

Location : Labarge map sheet (NTS E/4W). The area shown is part of the Sifton Range and is approximately 5 miles S.E. of Little Ridge.

Purpose : To prospect in the area shown near the Oscar claim group (in green dotted line)

Outcrop : lots of outcrop on the top of the mountain just to the north of the claim area. Almost zilch outcrop within the claim area

Rock types

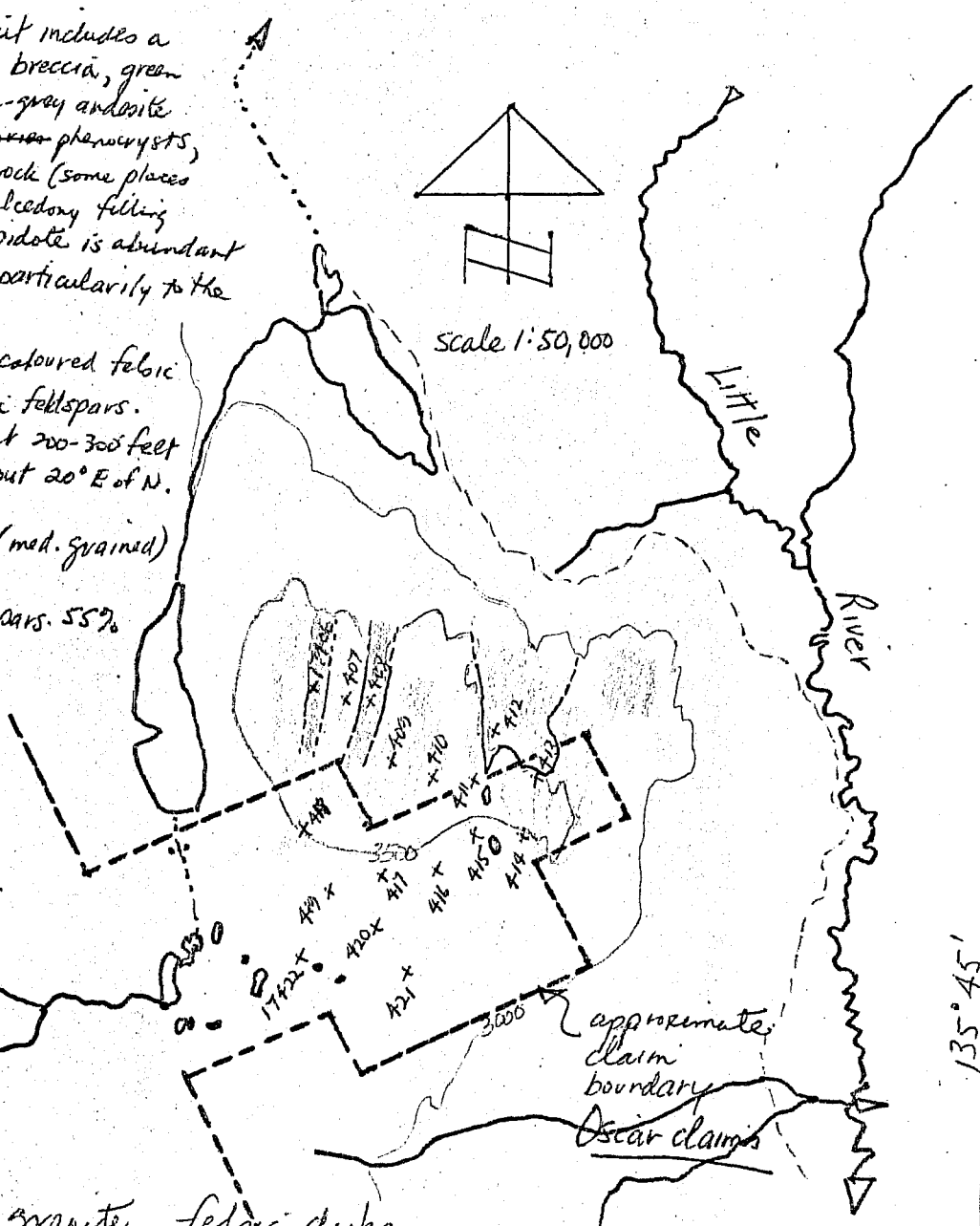
Volcanic - this unit includes a mixture of grey volcanic breccia, green aphanitic rock, green-grey andesite with hornblende porphyries phenocrysts, grey-green vesicular rock (some places amigduloidal with chalcedony filling in the vesicles). Epidote is abundant in the volcanic rocks particularly to the east and south.

Light weight, light coloured felsic dike with porphyritic feldspars. These dikes are about 200-300 feet wide and trend about 20° E of N.

Granitic intrusion (med. grained) equihedral texture.
pink and white feldspars. 55%
quartz 20%
hornblende 15%
biotite 10%
Some epidote in the intrusive near the contact with the volcanics.

Major fractures are near vertical ~~and~~ with strikes varying between 0° and 30°. These occur over the whole outcrop area.

No claim posts were seen.



rock types Volcanics, granite, felsic dyke
soil types easily obtained B horizon
percent outcrop 60% on top% 0% to South
scale 1:50,000

Schedule of Charges
For
Management of $180,000 Regional Exploration Project

Management

- $1500/month on a twelve month basis for a total of $18,000. this includes all time spent on the project, either office or field, by principals of the company.

Supervision

- parttime supervision during the four month field season at rate of $125/day for senior geologists. No more than 40 days total/year charged to project unless work enters a property development phase.

Labour

Salaries - charged at direct salary plus 50% (our firm pays Canada Pension Plan, Workmen's Compensation, Unemployment Insurance, holiday pay, etc.)

Expediting - charged at flat rate of $600/month during the four month field season. This includes expeditor's time, use of truck in Whitehorse area, use of and monitoring of office two-way radio link to field and preparation of geochemical samples for shipment.

Drafting - $8/hr (includes all supplies)

Other Services

Radio - if the field radio is supplied by Archer, Cathro the charge is $120/mo while in use.

Xerox - 15¢ per copy

Room and Board - student room and board supplied by Archer, Cathro in Whitehorse charged at $15/manday (there is no charge for room and board of principals or associates).

Workmen's Compensation Aviation Premium - charged at cost which is $2.70/hr for each hour a crew member flies in a helicopter, $1.80/hr for each hour in a single engine fixed wing and $0.90/hr for each hour in a multiengine fixed wing aircraft.

Expenses - charged to project at direct cost and supported by appropriate invoices.

Responsibility and Insurances - Archer, Cathro assumes all direct and indirect responsibility for the project during the exploration phase and carries, at no cost to the project, all appropriate liability insurances.

Hyland Joint Venture

Budget for seven man, helicopter supported exploration program.

Helicopter	
400 hours rental G3B1 at $130/hr contract plus $15/hr fuel ..	$ 58,000.00
Fixed Wing	
including fuel mobilization for helicopter	15,000.00
Labour	
seven man field crew plus cook--including travel and living expenses in Whitehorse	44,000.00
Field Expenses	
camp and field equipment plus consumable supplies	18,000.00
Freight and Expediting	
includes truck rental	5,000.00
Office	
includes drafting, printing and duplicating, telephone, general supplies and air express for soil samples	5,000.00
Assaying	
geochemical and rock	15,000.00
Contingency	
.....	2,000.00
Management	
.....	18,000.00
Total ------	$180,000.00

Summary of Form of Agreement to be Prepared for 1973 Hyland Joint Venture

(1) The agreement will be in Joint Venture form and the project will be called Hyland Joint Venture.

(2) The 1973 budget and each participant's contribution to the budget and resulting interest in the project is outlined.

(3) Archer, Cathro is not required to contribute financially to the project or in the development of properties to retain its interest. This interest will constitute a 2% equity in each and any company formed by the Joint Venture to exploit any discoveries and can be purchased by the company for a negotiable sum not to exceed one million dollars or can be paid out of profits.

(4) The 1974 exploration budget (assuming the project continues beyond the first year) will be divided into exploration and property development portions. Each participant's interest in each portion will be proportional to its contribution in 1973, with each participant having an opportunity to obtain an interest equivalent to its 1973 interest. Should any participant elect to decrease its interest, the other participants will have first right to obtain such interest. Should any participant terminate expenditure in 1974, that participant will retain no interest in the properties that were acquired by the Joint Venture in 1973.

(5) Should any participant elect to decrease or terminate its interest after 1974, it will retain an interest in the properties developed by the remaining participants in proportion to the total final expenditure. For example, if participant "A" provides $30,000 in 1974 and then withdraws from the Joint Venture, and a mine is subsequently brought into production at a total expenditure of three million dollars, then participant "A" will retain a 1% interest in the mine.

(6) Archer, Cathro will be managers of the Joint Venture in 1973 and will remain managers as long as elected by the participants. A management committee composed of one representative from each participant and Archer, Cathro will be formed to regulate the project and will meet, as required, during the life of the Joint Venture. Archer, Cathro will not have voting privileges within the management committee.

(7) The managers of the Joint Venture will submit a prospective work program to the participants by November 30, of 1973, and each subsequent year. This work program will be ratified (and modified by the participants by mutual agreement if so desired) by the management committee within six weeks and such program will establish the level of expenditure for the following year.

(8) All mineral claims or properties will be held in the name of Archer, Cathro on behalf of the Joint Venture. Archer, Cathro will not undertake epxloration work for others in the area of interest without consent of the participants. The area of interest will be defined on a map attached to the agreement.

(9) Each of the participants will be free after April 1, 1974 to independently prospect or acquire mineral claims within the area of interest as long as such claims are not within two and one half miles of claims held by the Joint Venture, or as long as they are not within areas specifically stated to require further work in 1974.

(10) The managers of the Joint Venture will assume all damages, liabilities, etc., arising from the regional exploration phase of the Joint Venture.

(11) The schedule of payments for 1973 will be:

20% on January 31, 20% on May 1, 20% on June 1, 20% on July 1 and 20% on September 1. Such payments will be deposited directly in an account established for the Joint Venture at the Canadian Imperial Bank of Commerce, 505 Burrard Street, Vancouver 1, B.C.