

ASSESSMENT REPORT
PHYSICAL AND GEOLOGICAL WORK

HAIL-HARPER CREEK PROPERTY

Hail 1-12, 15-19, 28-30, 51, 52, 59, 61, 62, 71, 72, 77-88, 97, 98, 107
109-116, 531A, 532, 533, 535-538, 701-711, 567Fr-570Fr, 572Fr,
575Fr, 576Fr, 579Fr-585Fr
Karina 1-11
Bob 5Fr-7Fr

WORK DONE ON
Hail 2, 4, 7-10, 568Fr and 570Fr

Kamloops Mining Division
NTS 82 M 12

51° 31' N 119° 49' W

for

AURUN MINES LTD

Surrey, British Columbia
(Operator)

on behalf of

QUEBEC CARTIER MINING COMPANY

Montreal, Quebec
(Owner)

by

Charles A.R. Lammie, PEng.

30 November 1986

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,738

E (77)

02

03

04

05

Scale 1:50 000 Échelle

22

Miles 1

Mètres 1000

0

1000

2000

3000

4000 Mètres

2

3 Miles

25 25' OF 90 452 Mils

Creek

21

20

19

CANADIAN NATIONAL

NORTH

NATIONAL

THOMPSON

16

15

P R O V I N C I A L

14

13

HAIL-HARPER CREEK PROPERTY

12

11

plate 1

10

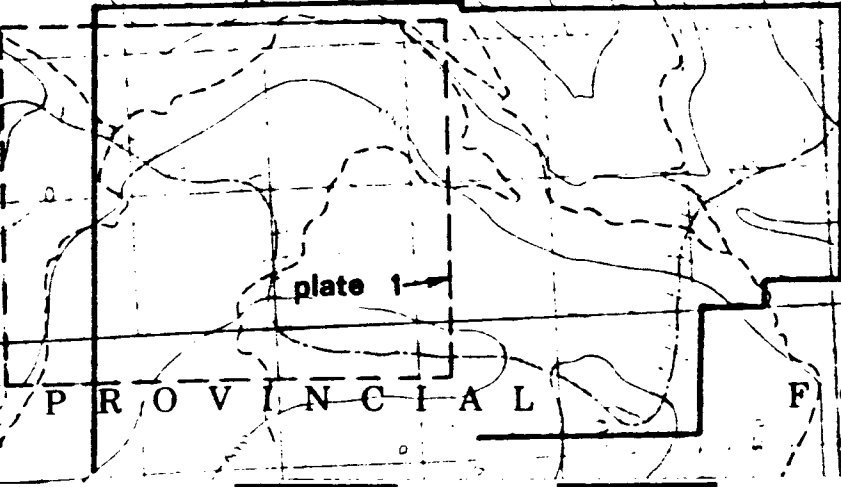
I E R E

P R O V I N C I A L

F O R E S

Fig 1

VAVENB 82 M/12





CLAIM STATUS

GOOD W/TA	NEW CLAIMS	ASSES ACRES
<input type="checkbox"/> 000	11	307
<input type="checkbox"/> 000	07	107
<input type="checkbox"/> 007	00	007
<input type="checkbox"/> 000	00	0000
<input type="checkbox"/> 000	0	00
ASSESSMENT & PAYMENT AMT.		
<input type="checkbox"/> 000	00	000
TOTAL:		0007
PAYMENT MADE		
<input type="checkbox"/> 000	00	000

NOTE: THIS CLAIM GROUP IS SUBJECT TO THE FOLLOWING CONDITIONS:
 1. ALL CLAIMS ARE SUBJECT TO THE CLAIM ACT OF BRITISH COLUMBIA.
 2. THIS CLAIM GROUP IS SUBJECT TO THE CLAIM ACT OF BRITISH COLUMBIA.

QUEBEC CARTIER MINING COMPANY
 4007, RUE DE LA SAISON
 10000, ST-JEAN
HAIL, KARIMA, & 000 Claim Group
 HAIL HARPER CREEK PROJECT
 KAMLOOPS MINING DIVISION - BRITISH COLUMBIA
 CANADA
 1988-01-11

FIG 2

ASSESSMENT REPORT
PHYSICAL AND GEOLOGICAL WORK
HAIL-HARPER CREEK PROPERTY
Kamloops Mining Division NTS E2 M 12

INTRODUCTION AND SUMMARY

During early 1986, Aurum Mines Ltd signed a long term mining lease agreement with Quebec Cartier Mining Company of Montreal relating to Quebec Cartier's Hail-Harper Creek low grade stratiform disseminated Cu-Mo prospect, a metamorphosed volcanogenic deposit with massive sulphide affinities, located on the north-western Shuswap Highlands, near Birch Island, British Columbia, and accessible by Jones Creek forest access road. This prospect was extensively explored during the late 1960's and early 1970's, partly by Quebec Cartier, and partly by that company under a joint venture agreement with Noranda Exploration Company which owns an adjoining prospect to the west with similar mineralization.

Open pit designs for preliminary feasibility studies of the combined low grade deposits were generated by computer methods in 1972. For purposes of those studies, reserves on the Hail-Harper Creek Property were stated as 53,000,000 tonnes, and grade was 0.37% Cu and 0.016% Mo. Small gold and silver credits were allowed at that time on the basis of the presence of those metals in two composited core samples.

In more recent years, much new work by individuals, private companies and by the Department of Mines and Petroleum Resources has increased geological knowledge of the district. Some new deposits with geological similarities and massive sulphide aspects, containing important gold and silver values were discovered; and a University of British Columbia masters thesis indicated the presence of titanium in certain of the more mafic strata on the property.

The new work led to Aurum Mines' acquisition of the property, and to the objective of taking a fresh look at available data, with consideration of the potential of both small highgrade and large lowgrade deposits, of the precious metal content of massive sulphide layers and of some of the more siliceous parts of the mineralization, and of the titanium-bearing minerals and their amounts.

Work accomplished to date consists of trenching to enable examination and sampling of massive sulphide layers, and to disclose additional portions of higher grade portions of the stratiform copper mineralization for study and sampling. Because of time restraints, the trenching was guided by magnetic and VLF-EM prospecting done immediately in front of the trenching machine without benefit of lines and marked stations. The trenches were

mapped (1:2400) and exposed massive sulphide-oxide sections were sampled and analyzed as were the trenches in the higher grade part of the stratiform copper mineralization. Core stored near the property was partly restored to new racks and examined, and suspect sections were sampled and analyzed. Outside consultants were engaged to advise regarding aspects of preliminary feasibility and regarding titanium minerals in the mineralization and host rocks.

This report will describe the work accomplished and the results obtained, and will detail expenditures.

PROPERTY DESCRIPTION

The property consists of 72 claims and 23 fractional claims, all of the old two-post style. The original claims were staked in 1966 and other replacement and protective claims were located during later years. Location lines generally run east-west.

Since staking, the area encompassing the drilled-off area has been logged and slash-fired. The combination of the logging activity - road work, landings, skid-trails, etc, - and the intentional burning has destroyed most, if not all, of the posts overlying the mineralized area. Posts in the forest area unaffected by the logging are presumably still identifiable, but these have not been searched out. Old maps and records allow retrieval of approximate map positions of the destroyed posts.

Claim details are tabulated on the next page:

HAIL-HARPER CREEK CLAIMS - EXPIRY DATES

CLAIM NAME	RECORD NUMBER	1987	1988	1989	1993	1994	1999
Hail 1- 2	58405-406					07-13	
3- 5	58407-409						07-13
6- 7	58410-411					07-13	
8	58412	07-13					
9	58413					07-13	
10	58414	07-13					
11	58415					07-13	
12	58416	07-13					
15- 19	58419-423	07-13					
28- 30	58432-434	07-13					
31	58435						07-13
32	58436				07-13		
33	58437						07-13
34	58438				07-13		
35	58439						07-13
36	58440				07-13		
51- 52	58449-450	07-13					
59	58457	07-13					
61- 62	58459-460	07-13					
71- 72	58465-466	07-13					
77- 87	58469-479	07-13					
88	58480		07-13				
97- 98	58822-823	07-22					
99	58824						07-22
100,102	58825,827				07-22		
104,106	58829,831				07-22		
107	58832	07-22					
108	58833				07-22		
109-116	58934-941	07-22					
531A	44569	08-08					
532-533	66570-571	08-08					
534	66572				08-08		
535-537	66573-575	08-08					
538	66576					08-08	
590	70210						07-31
701	86192		12-09				
702-704	86194-196			12-09			
705	86197		12-09				
706	86198			12-09			
707	86199		12-09				
708	86200			12-09			
709	86201		12-09				
710	86202			12-09			
711	86203		12-09				
565-566Fr	66659-660				10-19		
567-568Fr	66661-662					10-19	
589Fr	66663	10-19					
570Fr	66664					10-19	
572Fr	66666	10-19					
573-574Fr	66667-668				10-19		
575-576Fr	66669-670					10-19	
577-578Fr	66671-672				10-19		
579-585Fr	70203-209	07-31					
Karina 1-11	96581-591		04-26				
Bob 5- 7Fr	99827-929						09-14

PHYSICGRAPHY

The Hail-Harper Creek property covers a small part of the north-western Shuswap Highlands. These highlands consist of gently sloping plateau areas underlain by foliated metamorphic rocks that are dissected by the Clearwater, North Thompson, Adams and Shuswap Rivers. Valley sides are commonly steep because of glacial erosion, and total relief may be 1000m or more although local relief in the highlands is generally moderate. Most summits are rounded. Higher elevations are found in the north part of the physiographic region, the general surface sloping very gently south from 2000m to 1500m. Numerous large lakes occupy some of the larger valleys.

The property is on a rolling plateau portion of the highland at an elevation of 1800m, near the valley of the North Thompson River. Local streams are usually deeply incised, and frequently follow courses along fault lines. Precipitation is high and fosters a thick forest of fir and spruce, with some pine at lower elevations.

ACCESS

Access is via B.C. Highway 5 north from Kamloops to Birch Island, then across the North Thompson River, and eastwards along the river to Jones Creek forest access road. At this juncture, a logging road leads up the mountain some 18km to the property. The Canadian National Railway follows the river, passing through Birch Island. The local center for small supplies is the village of Clearwater, and otherwise, Kamloops. Four-wheel drive vehicles may be necessary during wet weather.

PREVIOUS WORK

Complete records of all of the work that had been done are not presently available to the writer. A crude outline is given below:

1967	Geochemical and geological investigations
1967	Diamond drilling, at least 6 holes
1968	Geological, geochemical, geophysical, physical
1969	Diamond drilling, at least 27 holes
1970, 71	Diamond drilling, at least 44 holes
1971	Preliminary floatation test work
1971	Optimized computer-generated open pit design
1972	Target Evaluation of mineralization economics
1974	Evaluation Review of open pit economics

Concurrently, similar work was being conducted on Noranda portion of the mineralization by that company, in part under a joint venture agreement with Quebec Cartier.

OBJECT OF PRESENT WORK

The present work has several objectives:

- to check for small tonnages of higher grade Cu-Mo mineralization that might be minable by surface methods,
- to take a fresh look at the low grade mineralization,
- to check for the possible presence of significant amounts of precious metals in layers of massive sulphide-oxide mineralization, and also in more siliceous parts of the low grade Cu-Mo mineralization, and
- to determine the amounts and mode of occurrence of titanium-bearing minerals, and to determine the significance of these.
- to investigate leaching possibilities of the low grade mineralization.

INSTRUMENTS AND THEORY

Instruments used in prospecting style to trace the massive sulphide horizon were the Phoenix Geophysics VLF-2 electromagnetometer and the Geometrics G 816 proton precession magnetometer. Rigorous cut lines and measured stations were not used because of time restraints; rather the two instruments were employed immediately in front of the physical trenching work, crossovers being marked with ribbon as a guide as the work went on.

The VLF-EM (very low frequency) electromagnetic survey system, like all other electromagnetic systems, detects electrically conductive materials in the ground. To do this, the system uses a radio signal that the military transmits for navigational and communication purposes. These powerful signals induce electrical currents in local, property scale conductors at distances of a several thousands of kilometers from the transmitter antenna, and these currents in turn produce a secondary electromagnetic field around the conductor. The Phoenix Geophysics VLF-EM unit is a radio signal that measures the strength and effects of the induced field on the primary, the induced field being identical in frequency but differing in phase from the primary.

VLF-EM surveys are frequently difficult to interpret because of commingling of response from several conductors. The common criticism of the method is that, because of the high frequency used (relative to other geophysical methods) many confusing anomalies from unwanted sources are detected. One way of optimizing results is to use the most ideally located transmitter - one that sends out signals that cross the anticipated conductor most nearly at right angles, rather than one whose signals parallel the anticipated conductor, in which case very little current is induced in the conductor. The optimum transmitter station used in this work was the one located at Cutler, Maine.

As is well known, proton precession magnetometers measure the

strength of the magnetic field of the earth. As the earth's magnetic field is influenced by property scale features such as variations in the amount of magnetic minerals in overburden and in bedrock, or alteration of magnetic minerals to non-magnetic iron minerals, or to remanent polarities of formerly magnetized rock units, it is an ideal instrument to trace structural features, or to trace rock types with either high or low amounts of magnetic minerals. In the case here at Harper Creek, the massive sulphide horizon contains abundant quantities of magnetite and also pyrrhotite, and so the magnetometer is an ideal instrument to quickly trace such a stratigraphic horizon and structures, if any, that might offset such a horizon.

GENERAL GEOLOGY

Geologically, the Hail - Harper Creek area is close to the northerly trending boundary between the intensely deformed and metamorphosed Paleozoic strata of the Eagle Bay Formation which, together with the Shuswap Metamorphic Complex make up the eastern fold belt. To the west, this fold belt is flanked by relatively undeformed and unmetamorphosed Paleozoic and Mesozoic volcanic and sedimentary rocks. Batholithic and related stocks in the area are principally Cretaceous granodiorite and quartz monzonite of the Raft (105-140 ma) and Baldy Batholiths (80-100 ma).

A large number of mineral prospects with an unusual variety of associated minerals occur around the periphery of the Baldy Batholith. The better known prospect is the Rexspar uranium-fluorite prospect, and perhaps the most significant in terms of metal content are the Hail-Harper Creek prospect and the Sue-Goof prospect of Noranda. Most of the prospects near the northern periphery of the Baldy Batholith are characterized by copper, those near Foghorn Mountain near the northwest portion of the batholith by lead, and many of those around the southern periphery of the batholith by lead, zinc and some precious metals. Several are characterized by molybdenite. Much work has been done in the past few years on prospects in the area of the Barriere Lakes on some massive sulphide prospects, as well as on other types of prospects, many of which have some precious metal association with the dominantly Cu-Pb-Zn mineralization.

LOCAL GEOLOGY

The Hail-Harper Creek Copper Prospect is located 2½ miles north of the northern contact of the Baldy Batholith. Here the host rocks are characteristically well foliated phyllites and schists - chlorite, sericite, quartz and carbonaceous varieties - with quartzite, impure limestone, dolomite, slates, and greenstone, presumed to be of Permian or earlier age. The section dips generally at low angles to the north, slightly steeper than the slope of the topography. Andesite dykes are present.

Geologists¹ from the B.C. Department of Mines have subdivided the local stratigraphy, oldest to youngest, as follows:

Lower Cambrian and/or Older

Light to medium grey quartzite, platy chlorite-muscovite quartzite, and chlorite-muscovite-quartz schist; lesser amounts of limestone, calc-silicate schist, light to dark grey phyllite, calcareous phyllite, and green chlorite schist; includes garnet-biotite-muscovite schist and quartzite, and locally orthogneiss.

Devonian and/or Older

Light to medium greenish grey chlorite-sericite-quartz schist, schistose sandstone and grit, quartzite and phyllite; smaller amounts of dark grey phyllite, limestone, dolostone, and chlorite schist.

Devonian

Light silvery grey to medium greenish grey sericite-quartz phyllite and sericite-chlorite-quartz phyllite derived largely from felsic to intermediate volcanic and volcanoclastic rocks; smaller amounts of green chlorite phyllite, dark grey phyllite and siltstone, sericitic quartzite and pyritic chert or exhalite.

Devonian and/or Mississippian

Light to medium green to greenish grey chlorite-sericite schist derived from quartz from quartz-hornblende-feldspar lithic tuffs and porphyritic flows; minor amounts of cherty quartzite or exhalite, dark grey phyllite, and siltstone; some feldspar porphyry, feldspathic schist, pyritic schist, metavolcanic breccia, and trachyte.

Mississippian

Dark grey phyllite, siltstone, sandstone, grit, and pebble conglomerate; small amounts of limestone, dolostone, schist, quartzite and metatuff.

Sulphide mineralization occurs in a slice, it is believed, of the older Lower Cambrian or older strata that has been thrust over younger members of the section. These host rocks are mostly light to medium greenish grey sericite-chlorite-quartz schist and medium to dark grey phyllite.

Chalcopyrite, pyrite, and pyrrhotite with minor bornite and covellite, sphalerite, galena, molybdenite and arsenopyrite, are associated with seams and veinlets of quartz in these metamorphosed rocks. Chalcopyrite, the principal economic mineral has three main modes, (1) thin coatings on joints and fractures, (2) thin blebs and stringers in quartz veins, and (3) tiny specks on rock foliation planes. The tiny specks account for most of the copper value.

¹ Schiarizza, Paul, 1995, Geology of the Wavenby Area, 82M5, 11, 12, Open File Map 1996/5, B.C. Ministry of Energy, Mines and Resources.

Layers of massive sulphide-oxide mineralization are present as lenses and thin conformable layers.

Additionally, appreciable amounts of sphene and some rutile - titanium containing minerals - are present in the mineralized zone and concentrations of these appear to reflect the intensity of the copper mineralization. It is believed that the titanium-bearing minerals were produced during metamorphism, the original titanium being a constituent of former mafic volcanic rocks. Molybdenite is present.

Some small amounts of gold were detected in two preliminary composite samples that were used primarily for initial floatation tests to determine recoverability of chalcopyrite and molybdenite. However, indications are that very little additional work was done to establish the possible presence or absence of significant more pervasive gold and silver.

The economic significance of the titanium-bearing rutile and sphene is not known. Presumably the metal might be won from the rutile, an oxide mineral, if sufficient to the titanium is carried by this mineral. Economic processes for winning titanium from sphene, a silicate mineral, are not known.

PHYSICAL WORK

Sixteen trenches (Plate 1) totalling 1263m in length, and affecting some 1.16 ha surficially, were excavated. Eleven of these were spotted by VLF-EM (Phoenix Geophysics VLF-2) and some magnetometer (Geometrics G 816) work done immediately in front of the trenching work. Time did not permit more rigorous control of this work by cut lines and measured stations and so the instruments were used essentially in prospector fashion. This work was successful in tracing and exposing a layer of massive to semi-massive sulphide-oxide mineralization 300m eastwards from previous exposures.

The near massive layer has a thickness ranging between 1m and 2m. Analyses of samples indicates a near absence of associated precious metals.

No work has yet been done to investigate leaching possibilities at the deposit. An outside consultant familiar with the deposit and with the titanium minerals present has been consulted with regard to the titanium, but as yet no further investigations have been made into the possible economic significance, if any, of these minerals.

RESULTS OF THE SAMPLING
Massive Sulphides

Five samples of the massive sulphide-oxide mineralization exposed by the trenching and one from drill core were sampled and sent to Chemex Labs for analysis. Results are tabulated below:

Sample No.	Location	Width	Au oz/t	Ag oz/t	Cu %	TiO ₂ %	Comment
RL 1	Trench G	2 m	<0.003	0.06	0.11	0.08	Massive Sul
RL 2	Trench H	3 m	<0.003	0.02	0.32	----	Massive Sul
RL 3	Trench I	2 m	<0.003	0.01	0.10	----	Massive Sul
RL 4	Trench F	1 m	<0.003	0.04	0.22	0.22	Massive Sul
RL 6	Trench M	1 m	<0.003	0.24	0.93	----	Massive Sul
QC 1	DDH J16	538-541'	835 ppb	1.1 ppm	----	----	Massive Sul

Siliceous Sections from Diamond Drill Core

Thirty-eight samples of the more siliceous sections from diamond drill core were sampled and sent to Chemex Labs for analysis. These were prompted by the results of three 50' composited core samples analyzed by Noranda with the following results:

DDH No	Footage	Au ppb	Ag ppm
69H3	280-330	350	3.6
59H23	410-460	100	---
69H23	760-810	100	---

Results of our sampling and Chemex analysis are tabulated below:

Sample No.	DDH No	Footage	Au ppb	Ag ppm
QC 2	J 16	930-940	25	1.7
QC 3	J 16	300-310	<5	1.3
QC 4	J 16	310-320	<5	1.3
QC 5	J 8	110-120	<5	0.4
QC 6	J 8	120-130	15	0.8
QC 7	J 8	130-140	<5	0.3
QC 8	J 8	390-400	95	2.1
QC 9	J 8	400-410	45	1.5
QC 10	J 8	410-420	10	1.0
QC 11	J 8	420-430	35	1.5
QC 12	J 8	430-440	10	0.5
QC 13	J 13	540-550	<5	0.8
QC 14	J 13	550-560	<5	0.9
QC 15	J 13	560-570	<5	1.0
QC 16	J 15	135-187	<5	0.1
QC 17	J 15	206-210	<5	0.4

Sample No.	DDH No	Footage	Au ppb	Ag ppm
QC 18	J 17	130-140	<5	0.8
QC 19	J 17	180-190	<5	0.4
QC 20	J 17	426-430	10	1.5
QC 21	J 17	430-440	50	1.2
QC 22	J 17	440-450	<5	0.2
QC 23	J 17	450-460	80	1.5
QC 26	J 17	1070-1080	<5	0.1
QC 27	J 17	1080-1090	<5	0.1
QC 28	J 5	650-655	10	0.5
QC 29	J 5	710-716	<5	0.1
QC 30	J 5	442-450	<5	0.2
QC 31	J 27	30-40	<5	0.1
QC 32	J 27	490-450	80	2.9
QC 33	J 27	500-510	75	2.1
QC 34	J 27	590-600	20	1.4
QC 35	J 27	600-610	35	2.6
QC 36	J 27	610-620	15	3.5
QC 37	J 27	732-740	<5	0.6
QC 38	J 27	799-903	<5	0.7
QC 39	J 7	192-195	<5	1.1
QC 40	J 7	504-507	<5	0.1
QC 41	J 7	257-259	<5	0.1

Additional Surface Samples

Additionally, ten other surface grab samples were taken variously from the surface to check for possible precious metals content. These were also sent to Chemex Labs for analysis and the results are tabulated below:

Sample No	Location	Width	Au oz/t	Ag oz/t	Cu %	TiO ₂ %	Comment
RL 7	Trench F	Grab	<0.003	0.42	0.04	----	Limestone
RL 8	Trench J	Grab	<0.003	0.04	0.04	0.26	Schist
RL 9	Trench J	Grab	<0.003	0.12	0.11	0.29	Schist
RL 10	Trench T13	Grab	<0.002	<0.01	0.05	----	Quartz
RL 11	Trench T14	Grab	<0.002	<0.01	0.01	----	Quartz
OZ 1	Trench T17	Grab	<0.002	0.01	0.21	----	Quartz
OZ 2	Trench T8	Grab	<0.002	0.06	0.30	----	Quartz
OZ 3	Trench T1	Grab	<0.002	<0.01	<0.01	----	Quartz
OZ 4	Trench T2	Grab	<0.002	<0.01	0.03	----	Quartz
OZ 5	Trench E	Grab	<0.002	<0.01	<0.01	----	Quartz

CONCLUSIONS

1. Surface samples taken from the massive sulphide-oxide horizon indicates only minor values in precious metals. One sample of massive sulphide material from deep in diamond drill hole J 16 contains small amounts of both gold and silver over a width of about 1 metre.
2. Thirty-eight sections of the more siliceous and quartz-containing core from eight different drill holes indicate only small amounts of precious metals in a few instances.
3. Ten grab samples, mostly of quartz from the spoil of surface trenches indicates no material amounts of precious metals.
4. Work to determine leaching possibilities, and possible economic significance of the titanium content of some of the mineralization remains to be done.

ITEMIZED STATEMENT OF COSTS INCURRED

Wages:			
C.A.R.Lammle	79 days @ \$250/day	\$19750	
D.W.Philip	12 days @ \$350/day	4200	
G.D.Belik	1 day @ \$300/day	300	
Norman Krohn	5 1/2 days @ \$150/day	825	\$25075
Food and Accommodation			
C.A.R.Lammle	51 days @ \$ 40/day	2040	
Norman Krohn	1 day @ \$ 30/day	30	2070
Transportation			
Blazer 4x4	61 days @ \$ 51/day	3111	
D.W. Philip		220	3331
Geophysical Instruments			
VLF-EM VLF-2	1 mo. @ \$ 769/mo	769	
Mag. G 816	at cost	232	1000
Analyses			
Chemex labs	54 samples @ \$20.45/	1104	1104
Trenching			
D-8, Bryan Krohn	100 hr @ \$125/hr	12500	
Mob-demob		1333	13833
Supplies			
Lumber, nails, tools, etc		1432	1432
Recording Fees			
Aurum Group, 35 Claims		960	960
Miscellaneous			
Photocopy		211	
Postage		52	
Stationery		39	
Telephone		92	445
Report, drafting	10 days @ \$250/day	2500	2500
Head Office Expense			
Managerial, Accounting, Secretarial		3673	3673
Total of Expenditures incurred			<u>\$55,423</u>

C.A.R. Lammle

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- Philip, D.W., 1986, Hail Project, Preliminary Project Considerations for a Commercial Mining Project, private company report to Aurum Mines Ltd, 16p.

CERTIFICATE AND PERMISSION TO USE REPORT

I, Charles A. R. Lammle, PEng., resident of Burnaby, B.C., hereby certify that:

1. I am a registered member of the Association of Professional Engineers of the Province of British Columbia.

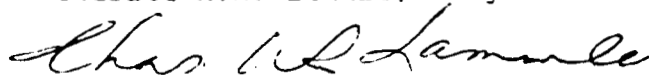
2. I am a 1962 graduate of the University of British Columbia, B.A.Sc. Geological Engineering.

3. I have practiced my profession nearly continuously (with the exception of a large part of the year 1985) since graduation in 1962, mostly in British Columbia and Yukon, and partly in Alaska, and in the western United States.

4. This report is based partly on general knowledge of the property gained from study of the references cited herein, and partly on knowledge of the property gained during employment with United States Steel Company, parent company of Quebec Cartier Mining Company. I have not made site inspections nor property geology and claim inspections because of current snow cover. Such examinations will be made when conditions permit, and there is no reason to expect that such examinations when made will necessitate any material changes to recommendations made herein on the basis of study of the technical reports and files.

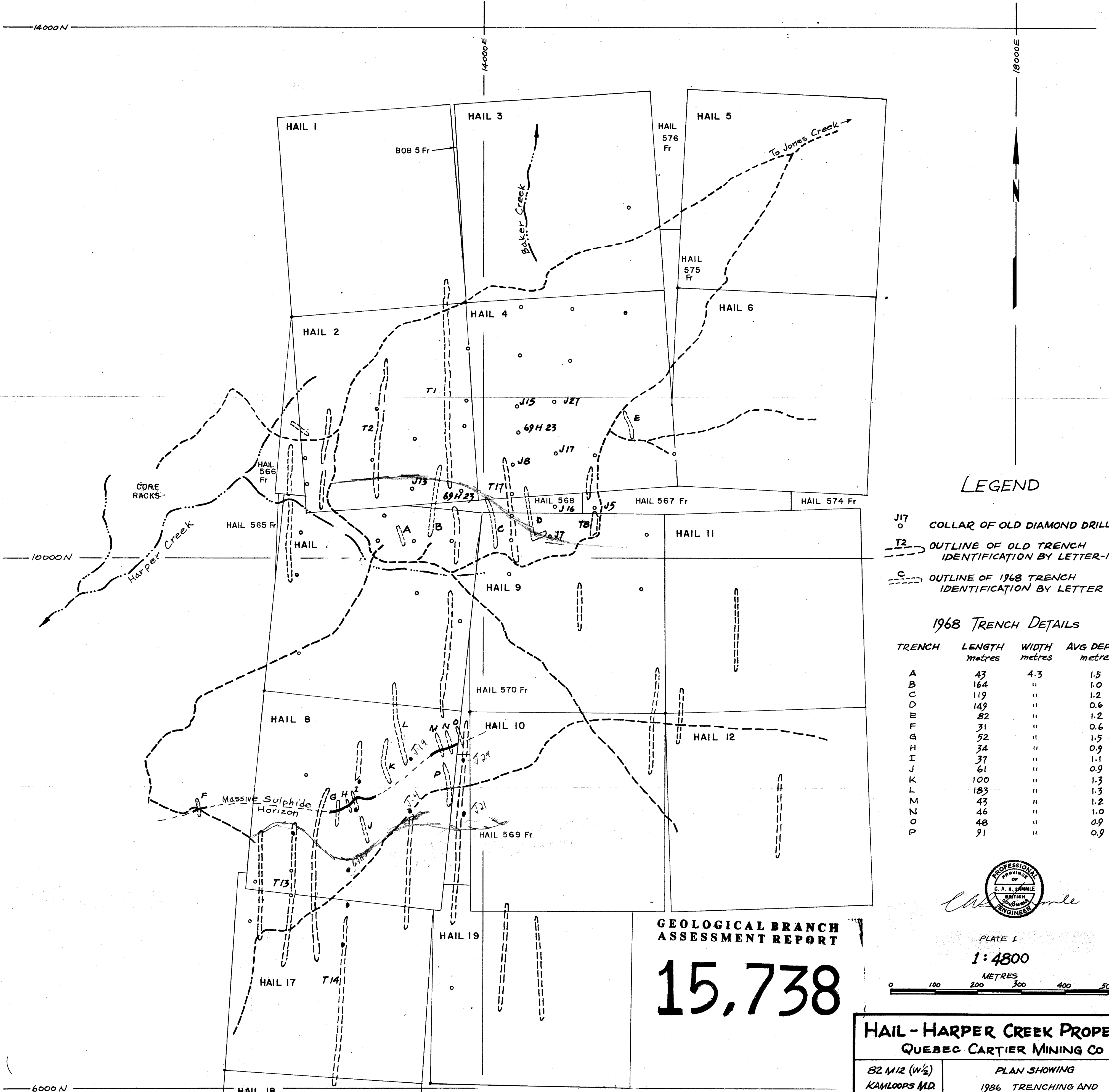
5. I hereby grant Aurun Mines Ltd. permission to use this report for its corporate purposes.

Charles A.R. Lammle, PEng.



30 November 86



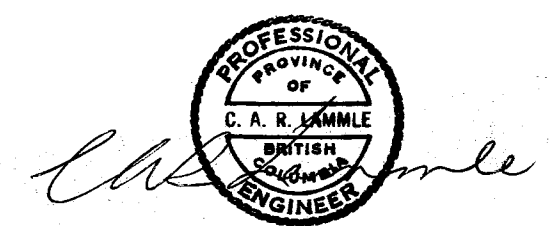


LEGEND

- J17 ○ COLLAR OF OLD DIAMOND DRILL HOLE
- T2 - - - OUTLINE OF OLD TRENCH IDENTIFICATION BY LETTER-NUMBER
- C - - - OUTLINE OF 1968 TRENCH IDENTIFICATION BY LETTER

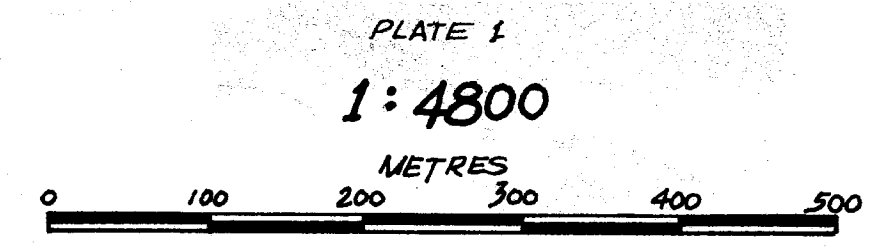
1968 TRENCH DETAILS

TRENCH	LENGTH metres	WIDTH metres	AVG DEPTH metres
A	43	4.3	1.5
B	164	"	1.0
C	119	"	1.2
D	149	"	0.6
E	82	"	1.2
F	31	"	0.6
G	52	"	1.5
H	34	"	0.9
I	37	"	1.1
J	61	"	0.9
K	100	"	1.3
L	183	"	1.3
M	43	"	1.2
N	46	"	1.0
O	48	"	0.9
P	91	"	0.9



GEOLOGICAL BRANCH ASSESSMENT REPORT

15,738



HAIL - HARPER CREEK PROPERTY
QUEBEC CARTIER MINING CO

52 M12 (W^{1/2})
 KAMLOOPS M.D.
 B.C.
 51°31' N
 119°49' W

PLAN SHOWING
 1986 TRENCHING AND
 OLD DDH COLLARS AND TRENCHES

OPERATOR
AURUN MINES LTD

NOTE: CLAIM OUTLINES RECONSTRUCTED FROM OLD MAPS

C.A.R. LAMMIE PENG
 NOV 1986

KAMLOOPS

FAME E77-15738



Province of British Columbia

Ministry of Energy Mines and Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY IS: **PHYSICAL** TOTAL COST: **\$ 55 423 .00**

AUTHOR(S): **C.A.R. Lammle** SIGNATURE(S):

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED: **8 Dec /86** YEAR OF WORK: **1986**

PROPERTY NAME(S): **Hail - Harper Creek**

COMMODITIES PRESENT: **Cu, Mo, Ti, Pb, Zn**

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN: **82M-9**

MINING DIVISION: **Kamloops** NTS: **82M12W**

LATITUDE: **51° 31'** LONGITUDE: **119° 49'**

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property. Examples: TAX 1-4, FIRE 1-12 units, PHOENIX (Lot 1706), Mineral Lease M 120, Mining or Certified Mining Lease ML 12 (or arms involved).

" see back "

OWNER(S):
(1) **Quebec Cartier Mining Co.**

MAILING ADDRESS

OPERATOR(S) (that is, Company paying for the work):
(1) **Aurum Mines Ltd.**

MAILING ADDRESS

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):
The property is underlain by well foliated phyllites and schists with quartzite, limestone, dolomite, slate and greenstone. Sulphide mineralization occurs as 1) thin coatings on joints and fractures, 2) thin blebs and stringers in quartz veins, and 3) tiny specks on rock foliation planes.

REFERENCES TO PREVIOUS WORK: **A.R. 16226, 1612, 1035**

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying <i>SAMP 54, Au, Ag, Cu, Ti</i>			
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
/ PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres) <i>TREN 1283.0m 16</i>			
Underground (metres)			
			TOTAL COST <i>55423.00</i>

Hail 7-9

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report) <i>55,423.00</i>				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date <i>March 31/88</i>	Rept No <i>15738</i>			Information Class <i>(4)</i>