

1025

GEOLOGICAL AND GEOCHEMICAL

ASSESSMENT

OF THE

FILMED

FULL AND MOON

MINERAL CLAIMS

GEOLOGICAL BRANCH
ASSESSMENT REPORT

SKEENA MINING DIVISION

NTS 103I 15 W

LAT. 54° 48'

LONG. 129° 00'

OWNER: DON YOUNG

OPERATORS: DON YOUNG AND PETER OGRYZLO

WORK COMPLETED: AUGUST 1987

REPORT SUBMITTED: JULY 1988

17,890

RECEIVED

SEP 18 1988

GOVERNOR
PRINCE RUPERT

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FULL and MOON	- soil and vein sampling in pocket

INTRODUCTION:

i. Location:

The property is composed of the FULL and MOON mineral claims. These claims are located 45 km. N 37 W of the Terrace municipal airport, NTS 103 I. Record numbers are 6347 and 6346.

A number of Au/Ag bearing veins have been discovered and explored. The showings are usually above treeline, although elevations are below 1600 meters ASL. The vein with the best exposure is at 1430 meters (4700 feet) elevation on the Full claim. This vein is from 30 to 100 cm wide and is visible for a length of 30 meters. Grades range up to 20.8 g/t (0.611 OPT) Au and 8231 g/t (242.1 OPT) Ag and average 7.3 g/t (0.214 OPT) Au and 1077 g/t (31.7 OPT) Ag over 45 cm. The vein is enveloped by a mineralized quartz-carbonate stockwork containing up to 30 g/t Ag. Larger stockwork zones up to 50 meters across contain up to 30.6 g/t Ag. Other veins not as well exposed on the Moon claim grade up to 70.4 g/t (2.07 OPT) Au and 56.8 g/t (1.67 OPT) Ag over 70 cm.

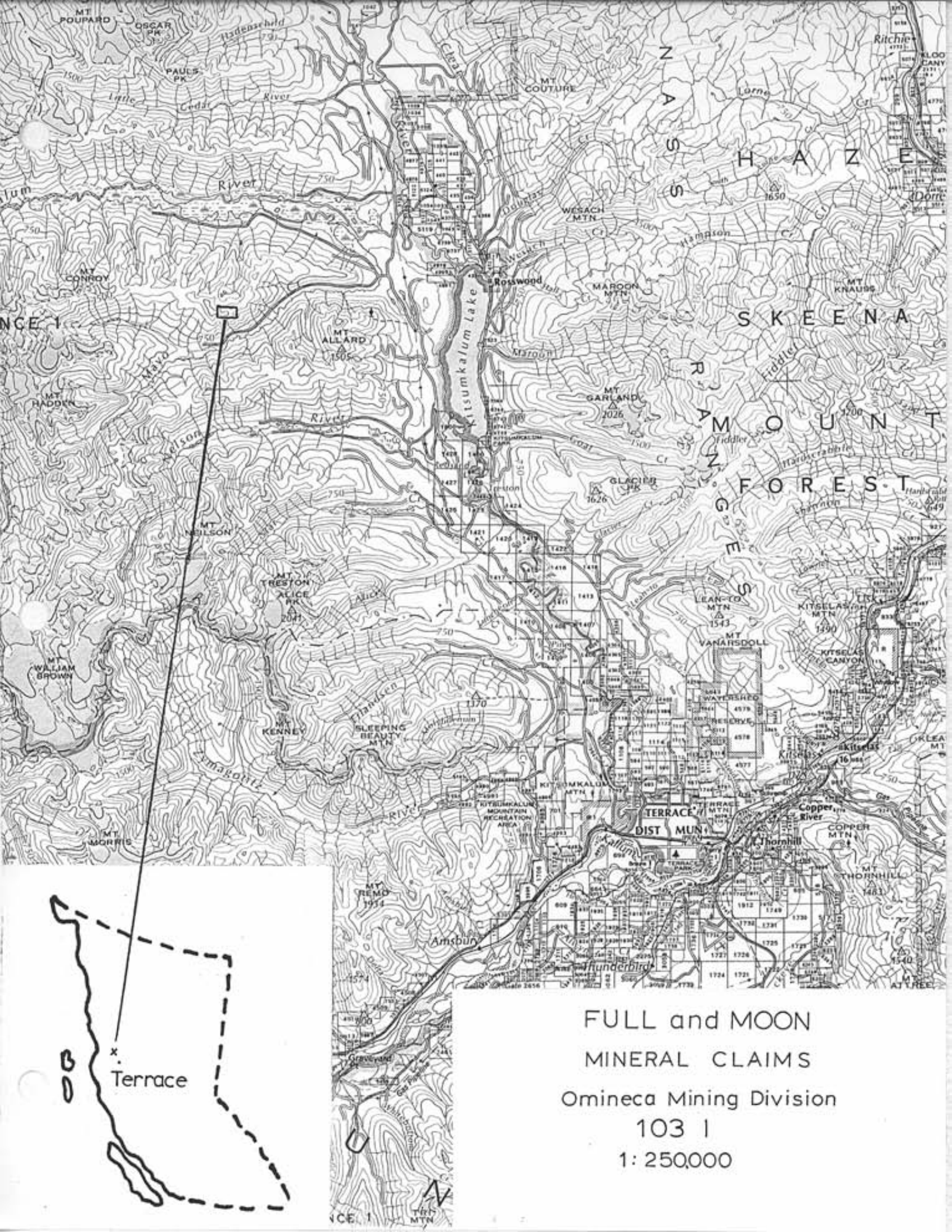
The claims are in the Kitimat Ranges of the Coast Mountain Range of British Columbia and straddle a portion of the ridge forming the divide between the Kitsumkalum River

and Mayo Creek. Elevations on the property are from 1350 meters to 1590 meters.

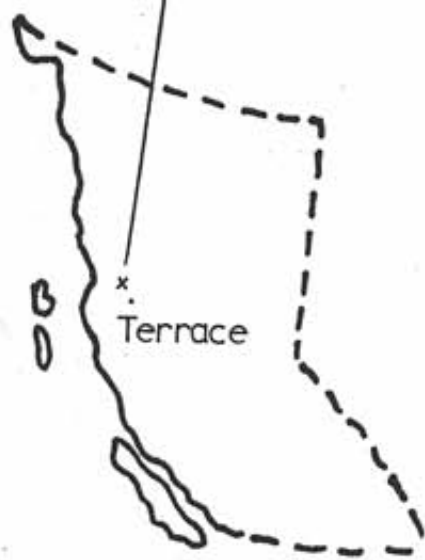
Topography is characteristic of the Coast Mountains. The lowest elevations are in the valley of the Kitsumkalum river, which meanders through a broad, flat, marshy U-shaped glacial valley filled with quaternary alluvium. Heavily forested slopes rise steeply from the valley floor. Tributary streams are deeply incised into these slopes, and rise with numerous waterfalls to a series of cirques.

The ridge dividing the Kitsumkalum river from Mayo Creek begins some 2 km southwest of the confluence of the Cedar and Kitsumkalum rivers. The ridge runs east to west. It is rounded and forested to the east, becoming increasingly mountainous to the west until it finally abuts Mount Conroy. It is bordered to the north and south by a series of cirques separated by aretes. The cirques are usually filled with talus and occasionally with remnants of glacial ice.

Vegetation is characteristic of a coastal rain forest. Slopes are covered with cedar, hemlock and balsam fir. Alpine areas range from bare rock to heather and sparse dwarf balsam fir. Tree line is around 1150 meters on north facing slopes and 1400 meters on south facing slopes.



FULL and MOON
 MINERAL CLAIMS
 Omineca Mining Division
 103 I
 1:250,000



N
 Terrace
 MTN

ii.ACCESS:

Access is by helicopter from Terrace municipal airport. Round trip air time is approximately one hour by Bell 206 helicopter.

Terrace is a modern industrial community with a population of around 8000. It is well serviced with daily flights from Vancouver. The property is 50 km. from the CN transcontinental railway, and 110 km. from the port of Kitimat, which is open year round. There is a 138 KVA power line 15 km. from the property.

Ground access is by foot from Km.10 on the Beaver logging road which joins the Nass logging road 38 km. north of Terrace.The showings may be reached in 6 to 7 hours depending on weather and route chosen.

The Mayo and Beaver logging roads provide good all-weather access to the area surrounding the property.Branch logging roads now terminate around the 700 m. elevation within 4 km. of the property. Future road access from the end of these roads would not be difficult to achieve, and would require a climb of 500 to 600 m. over a distance of 4 km.

iv. HISTORY:

The veins discussed in this report were discovered by following up stream sediment and quartz float dispersion trains. The area was chosen as a result of the B.C. Ministry of Mines and Petroleum Resources geochemical survey of NTS sheet 103 I released in 1979, which showed the Mayo Creek ridge to be anomalous in arsenic and silver. No previous reference to these veins has yet been found, and it is possible that the largest vein found to date has only recently been exposed by retreating snow and ice.

Significant placer production has taken place in the Terrace area, notably on Lorne and Douglas creeks, and precious metals have been produced from lode deposits on Kitselas Mountain and Knauss Mountain.

In the immediate vicinity of the Full and Moon claims, reference may be made to the MAYOU and ORO showings. The ORO showing, which is 3 km Northeast of Full Moon, has been actively explored from 1945 to the present and is in the most advanced stage of development. This showing is on the CHRIS claims. Duffel and Souther (1964), in the GSC memoir on the Terrace area, also examined the MARTIN group some 5 km to the east. All these showings are polymetallic vein occurrences,

usually well mineralized with arsenopyrite, and have significant precious metal values.

iv. SUMMARY OF WORK

Two men spent some eight man days on the property during the 1987 field season. The assessment work was done between August 9 and August 14, 1987.

The object of the program was to chip sample and map the most highly mineralized veins discovered during the previous exploration, to sample the mineralized stockwork zones, and to extend the area of mapping and prospecting.

GEOLOGICAL DESCRIPTIONS

i GENERAL:

The property is near the southern margin of the Lower Jurassic - Upper Cretaceous Bowser Basin close to the southern contact of that unit with the Coast Range Plutonic Complex. The basin is predominantly filled with siltstone and shale, accompanied by minor sandstone, conglomerate and coal. The coast range complex is represented by apophyses and outliers of dioritic composition. On a regional scale the Terrace area is broadly anticlinal, with a core of Paleozoic carbonates trending NNE from Kitimat, flanked to the east and west by Mesozoic volcanics. The axis is the locus of hot springs and two stockwork molybdenum deposits at Nicholson (Shannon) and Fiddler Creeks. Evidence of rifting and extensional tectonics may be seen in the Kitsumkalum valley, where Mesozoic volcanics can be seen in the valley adjacent to Paleozoic carbonates on the valley slopes. The Tseaux lava field is some 40 km north of the property, and is the site of recent (400 y) volcanic activity.

A medium grained light grey granodiorite forms the peak of Mt. Allard south and east of the property, apparently crossing Mayo creek and forming the spine of the ridge dividing Mayo creek and the Kitsumkalum river.

Intruding this apophysis is a younger composite multiphase stock of predominantly diorite composition. A number of precious metal bearing quartz veins are clustered in and around this stock on the Full and Moon claims. The stock is primarily a fine to medium grained diorite with hornblende diorite and occasional coarse gabbro. Rhyolite dykes cut the stock as well. Surrounding the stock is a contact aureole extending for several hundred meters characterised by limonite staining in the sediments.

ii MINERALIZATION:

The 4700 vein may be seen at the 1430 meter elevation. It is well exposed for some thirty meters, and is from 30 to 100 cm. wide. The attitude is N 60 W / 70 NE. The vein is entirely within the diorite host rock, and appears to pinch off to the North and South. It reappears some 100 meters to the North but is largely obscured by talus. To the south the vein is represented by a shear zone, but another vein appears 100 meters higher and 200 meters to the Southeast along this trend. This vein was only recently discovered and is almost completely obscured by overburden and vegetation. It was not sampled, but deserves further attention.

The 4700 vein is a polymetallic epithermal deposit. Gold is primarily associated with arsenopyrite and silver is

primarily associated with galena. Other gangue minerals are quartz and ankerite, which together make up 80 % of the vein with the remaining 20 % being sulphides and xenoliths of wallrock. The other sulphides are chalcopyrite and sphalerite, and occasional bornite. Quartz is milky white to grey and is usually stained with iron oxides and a greenish arsenic stain. The vein is sometimes banded with alternating bands of quartz and arsenopyrite or bands of included wallrocks. The other sulphides appear to occur as more irregular masses or lenses.

Wallrocks are of a medium grained diorite, which has been pervasively altered by carbonates, and pyrite for several meters on either side of the vein. The alteration zone has a distinctive reddish tinge due to the presence of ankerite, which is the dominant carbonate, and represents up to 10% of the host rock. Pyrite makes up from 1% to 5% of the rock. This mineralization is significant as these altered wallrocks appear to carry precious metals. Silver seems to occur more often than gold, and is almost always present. The footwall appears to carry higher values than the hangingwall. The zone is silicified with quartz occurring both as pervasive disseminations and as small veinlets. Occasionally the vein boundaries become indistinct where the vein horsetails into a number of smaller veinlets, and the entire zone is well mineralized. The vein splits at the southern end with a branch leaving the main trend in a westerly direction.

A much larger quartz-ankerite zone several tens of meters in extent lies below and to the north of the 4700 vein. Mineralogy is similar to the mineralized alteration envelope around the vein, but is not quite as intense. Silver values remain significant, and may be as high as in the footwall zone of the vein. It is not clear if this zone exists independently. It is possible that it is also an envelope around a blind vein that does not outcrop, or that is buried under talus or snow. Similar zones exist elsewhere on the property, and all deserve attention, both for the precious metal content and for the possibility of discovering more veins.

Above and to the south the 5000 vein may be seen at the 1525 meter elevation in a col or saddle. The vein was trenched by hand. The vein strikes N10W, dips 50 W and is 175 cm wide where sampled. It is found on the contact between the granodiorite and the siltstones, with the siltstones forming the footwall. Values were not as high as those for the 4700 vein. The vein is deeply weathered and fresh samples were difficult to obtain. Sulphide mineralogy could not be determined due to limonite staining and replacement. This showing deserves further attention as precious metal values were significant, and the vein is the widest found to date on the property.

The Pick vein may be seen at the 1490 meter elevation on the Moon claim. It strikes NBOW with a vertical dip. The vein

can be seen further along strike occupying a shear zone with the same attitude. Wall rock alteration is not prominent. A single soil sample in the ravine below the vein yielded 12.7 g/t Au (0.37 DPT). The vein is entirely within the diorite intrusion. Sulphide mineralogy could not be determined.

DETAILED TECHNICAL DATA - VEIN GEOCHEMISTRY

i METHOD:

The primary target of the program was to sample the larger veins, and to gather more geochemical information in order to plan further sampling programs. The 5000 vein, the 4700 vein and the Pick vein appear to have the greatest possibilities.

The 5000 vein was hand trenched to expose its full width. Chip samples were then taken of the footwall, vein, and hangingwall rock. The vein was deeply weathered, and fresh samples could not be obtained.

The 4700 vein outcrops on the east wall of a north facing cirque. It is accessible on foot without undue difficulty. The attitude is N 60 W / 70 NE. Widths range from 30 cm. to 100 cm. over an exposed length of 30 m. A mineralized envelope of quartz and ankerite extends for up to 10 meters either side of the vein and gives the wall rocks a singularly rusty appearance.

The Pick vein was chip sampled across its width of 70 cm and a soil sample was taken below it as a check. The significance of this vein was not apparent at the time of the field work or it would have received far more attention. Because of its attitude, width, and grade it may be the most significant vein discovered to date. A previous sample taken from this vein yielded values of 70.4 gm/ton (2.07 OPT) Au and 56.8 gm/ton (1.67 OPT) Ag. Lack of visible sulphides and lack of wallrock alteration may have led to a corresponding lack of attention being given this occurrence.

A total of 33 samples were taken, of which 7 were soil samples and the remainder were rock or chip samples. These samples were crushed and weighed, a .500 gram sample digested with 3 ml 3:1:2 HCl:HN03:H20 at 95 deg. C for one hour and diluted to 10 ml with water, then analysed by induction coupled plasma geochemical analysis for Cu, Pb, Ag, and As. Au was analyzed by AA from a 10 gram sample.

INTERPRETATION OF RESULTS

Precious metal values are summarized as follows:

LOCATION	POCK TYPE	WIDTH (ca.)	Au g/t (OPT)	Ag g/t (OPT)
5000 VEIN	Hangingwall	50	tr	1 (.03)
	Vein	75	2.5 (.07)	40.7 (1.2)
	Foot wall	60	2.7 (.08)	7.6 (0.2)
	Zone	100	6.1 (.18)	17.3 (0.5)
4700 VEIN	Hangingwall	60	tr	3.4 (.1)
	Vein	45	7.3 (.22)	1077 (31.7)
	Foot wall	60	tr	20.2 (.6)
PICK VEIN	Vein	70	4.8 (.14)	380.0 (11.2)

Immediately below the 4700 vein is a large mineralized boulder apparently derived from the vein.

Samples from this boulder are presented as follows:

WIDTH (cm.)	Au g/t (OPT)	Ag g/t (OPT)
30	14.6 (.43)	8230 (242.1)
100	20.6 (.61)	57.8 (1.7)

Below the 4700 vein and some 50 meters NW a large silicified ankeritic stockwork zone outcrops. Several chip samples were taken across this zone. Gold values were negligible, but silver values were as high as 0.89 OPT over a sample width of 10 meters. Silver was present in significant amounts in each chip sample. A grab sample of ankeritic rock found in the talus contained 1.47 OPT Ag. These ankeritic zones present a much larger exploration target than the vein deposits. They are much more common on the property and present a potential for developing a large tonnage deposit. They are easily prospected, as they have a characteristic reddish iron carbonate stain. Several zones exist on the property and have recieved little or no prospecting. All should be systematically sampled.

In addition to the chip sampling program, prospecting for more veins continued. Four veins were discovered, and grab samples from these are listed as follows:

WIDTH(cm.)	Au g/t (OPT)	Ag g/t (OPT)
30	5.7 (.17)	429.6 (12.6)
50	1.3 (.04)	322.1 (9.5)
25	0.7 (.02)	345.3 (10.2)
40	3.0 (.09)	279.6 (8.2)

Silver appears to be associated primarily with galena. Pb/Ag ratios range between 2/1 and 10/1 after eliminating

anomalously high or low ratios. Gold is apparently associated with arsenopyrite, which is ubiquitous in the mineralized vein material. Cu and Zn are commonly associated with both Au and Ag, while Ca is apparently depleted in the veins. Hg is occasionally present, but is not common. Pb/Ag ratios appear to be in a similar range in the quartz-ankerite zones, at least for the few samples taken. Ca however, appears to be enriched, as evidenced by the abundant iron carbonates.

Gold silver ratios are generally below 0.1 for most of the 25 or more veins discovered so far on the property. Two noted exceptions appear to be the 5000 vein and the Pick vein where ratios of 0.4 and 1.2 have been obtained respectively. Sulphide and base metal content of these two veins appears much lower than in the 4700 vein. A higher temperature environment of deposition is suggested for the former.

Arsenic appears to be invaluable as an index element in exploration for more veins, in particular blind veins or zones with no surface expression. A study of As values in stream sediments around the Mayo creek property has yielded a mean for As of 67 ppm and a sd of 106. Experience has shown that any As value above 150 ppm indicates the presence of a nearby vein carrying precious metals.

SUMMARY AND CONCLUSIONS

Epithermal gold/silver deposits have been discussed by Eimon (1981), Bonham (1980), Sillitoe (1980) and Boyle (1982). Boyle suggests that the vertical zonation of elements and minerals should allow an estimate of the erosion level of the outcropping mineralization. The mineral assemblages in the veins observed to date have been dominated by arsenopyrite, galena, chalcopyrite and sphalerite. A significant trace element has been antimony. These associations indicate that these veins may be near the bottom of an epithermal system, and exploration should continue at a higher erosion level. This presents some difficulty as many of the veins are exposed near the crest of the ridge, where erosion may have removed the potentially richest portions of the veins. However, it does not preclude further exploration on those veins found in the clastic sediments which mantle the composite stock that is the apparent source of the mineralization, nor in downfaulted blocks that may be found in the valley of Mayo Creek.

The precious metal veins on the Full and Moon claims should continue to be explored. Mineable widths exist in the 4700 vein, 5000 vein and Pick veins and they should be sampled at depth to determine if tonnage and grade are sufficient to support a mining operation. The property is close to an established population center, and access and power are close

by. The infrastructure necessary to service a mining operation is easily available.

The other veins on the property should be pursued as well to determine if mineable widths are present. Exploration of the ankeritic alteration zones should continue to see if there are tonnages and grade available to support larger scale mining operations. Over thirty veins have been found in and around the diorite stock, fifteen of which have significant precious metal values, and three of which have concentrations of precious metals in economic amounts. The stock is apparently the source of the precious metals. The frequency and grade of these occurrences make the stock and the flanking sediments a prime exploration target.

ITEMIZED COST STATEMENT

i. Allocation for wages		
P.Ogryzlo		
fieldwork		
10/8/87 to 13/8/87	4 days @ \$300.00	
		\$1200.00
Preparation of reports,drafting		
40 hr. @ \$25.00		\$1000.00
D.Young		
fieldwork		
10/8/87 to 13/8/87	4 days @ \$200.00	
		\$ 800.00
Travel 2 days Topley	Landing-Terrace	
20 hr. @\$20.00		\$ 400.00
ii.Camp expenses		
10 man days @ \$25.00		\$ 250.00
iii.Board		
10 man days @ \$15.00		\$ 150.00
iv. Travel		
mileage 1500 km @ \$0.30 x20%		\$ 90.00
2 pickups 5 days @ \$30.00		\$ 150.00
v. Helicopter		\$ 250.00
vi. Assay charges \$363.75+\$21.20 frt		\$ 384.95
vii.Secretarial,photocopy, office		\$ 150.00
		=====
TOTAL		\$4824.95

AUTHOR'S QUALIFICATIONS

I, Peter Lawrence Ogryzlo, certify that I received the degree of Bachelor of Science from McGill University in 1969.

I was continuously employed in mineral exploration and mining geology from 1969 to 1977. I have been an independent prospector from 1977 to 1982.

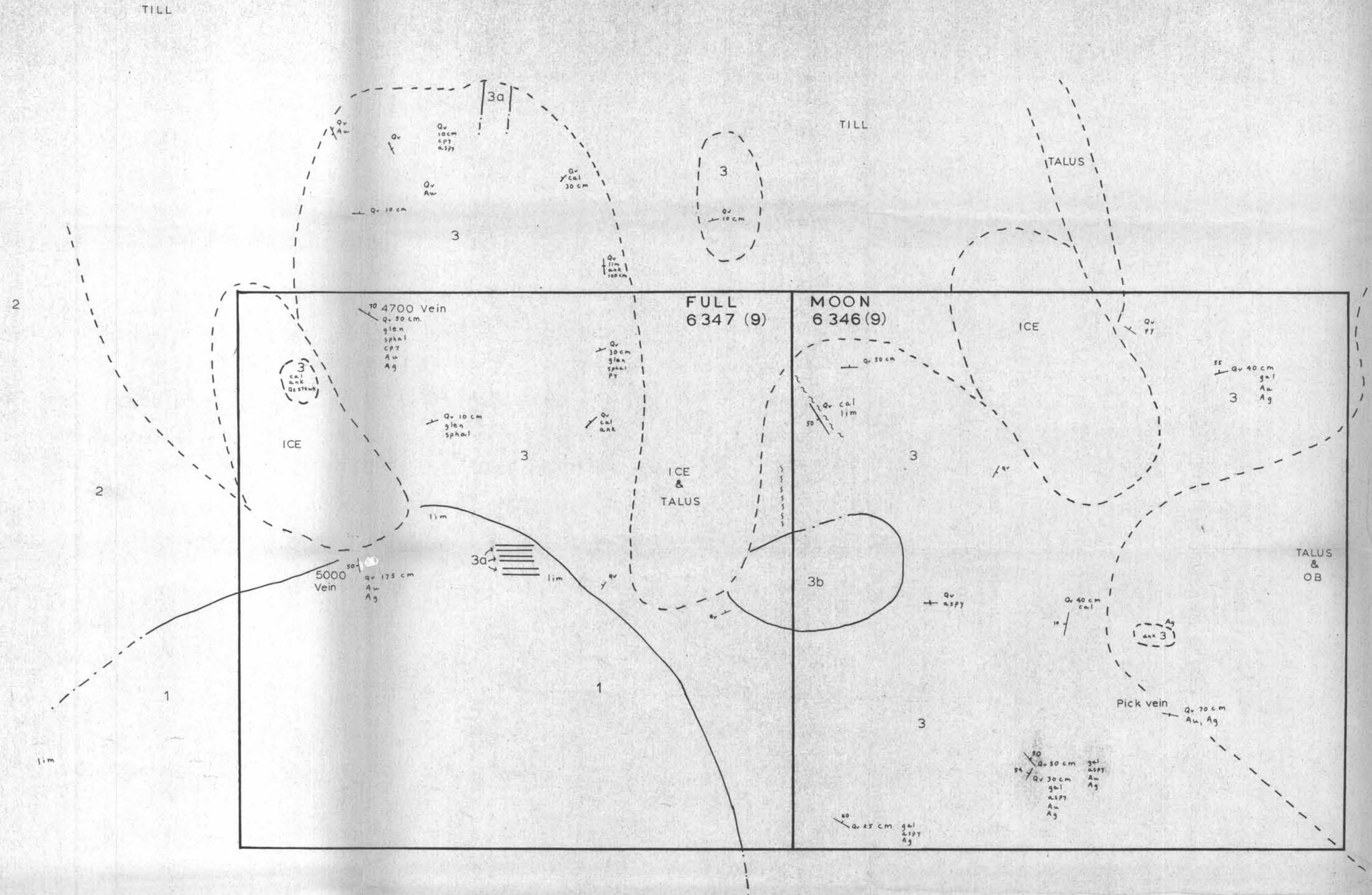
Period	Employer	Position
1969-1972	Patino Mines Ltd.	Junior Exploration Geologist
1972-1977	Noranda Mines Ltd.	Mine Geologist Noranda Mines Ltd. Bell Copper Div.
1977-1988	Prospector and consulting geologist	

STATEMENT OF QUALIFICATIONS

I, Donald M. Young, certify that the following summarizes my education and experiences:

Date

- 1965 Induced polarization survey- McPhar Geophysics
- 1977 Prospecting course, Granisle, B.C.
Louis Tsan instructor
- 1977 Prospecting and claimstaking, partnered by
Peter Ogryzlo
- 1978 Prospected under Prospector's
Assistance Act
- 1979 Completed B.C. Ministry of Mines advanced
prospecting
course, Castlegar, B.C.
- 1979-1982 Prospected under Prospector's
Assistance Act
- 1982-1988 Prospector and employee at Noranda Minerals Bell
Mine



- LITHOLOGY**
- INTRUSIVE ROCKS**
- 3 Multiple phase stock: diorite, hornblende diorite, gabbro undivided
 - 3a Rhyolite, aplite
 - 3b Gabbro
 - 2 Biotite quartz diorite

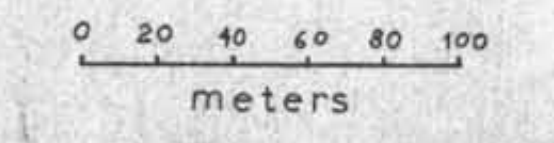
- SEDIMENTARY ROCKS**
- .1 Siltstone, shale, minor conglomerate, sandstone, grit

GEOLOGICAL BRANCH
ASSESSMENT REPORT

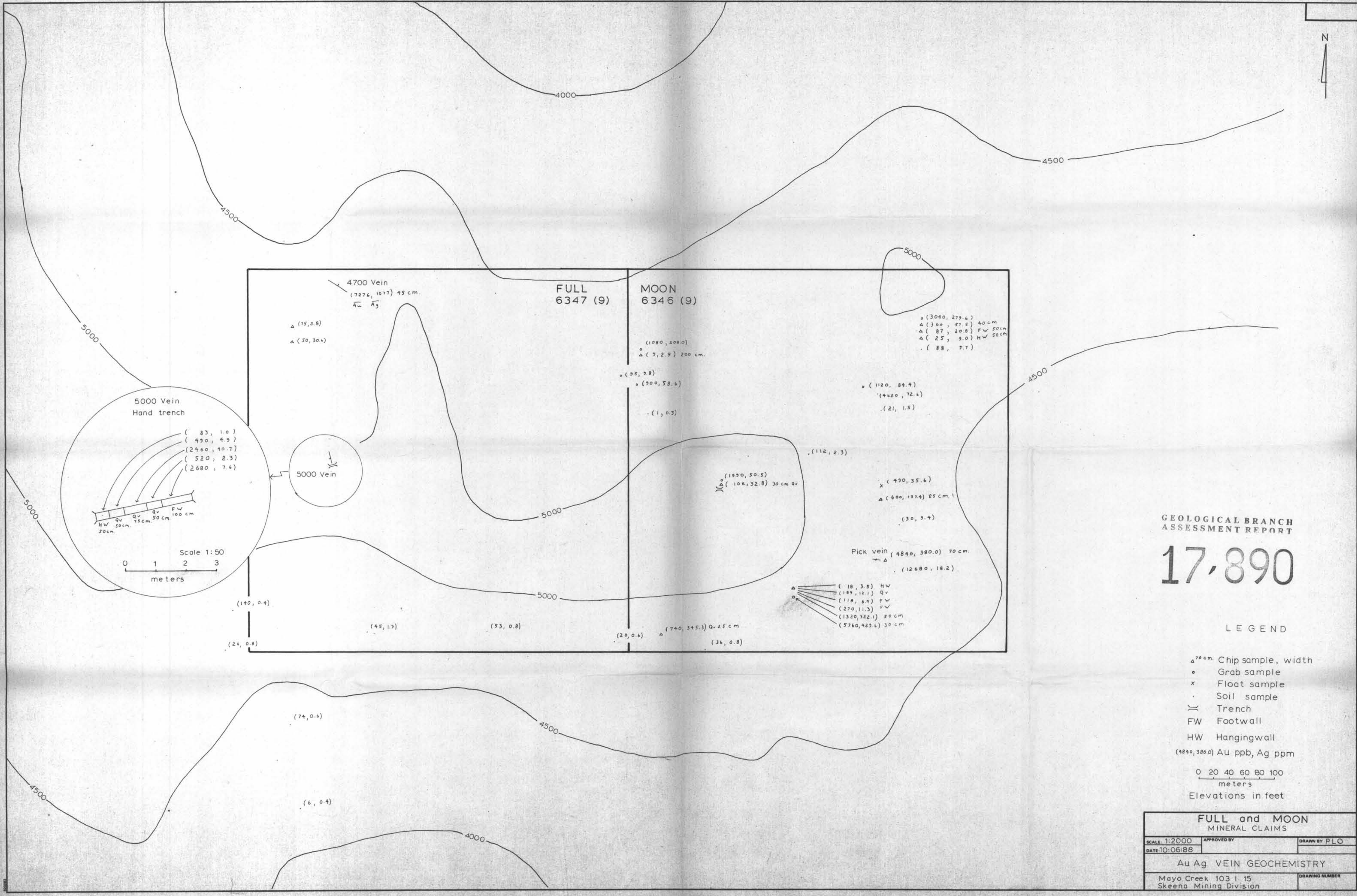
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LEGEND

- Quartz vein, width, dip
- Fault
- Outcrop
- Contact



FULL and MOON MINERAL CLAIMS		
SCALE 1:2000	APPROVED BY	DRAWN BY PLO
DATE 10-06-88		
GEOLOGICAL SKETCH		
Mayo Creek 103 1 15 Skeena Mining Division		DRAWING NUMBER



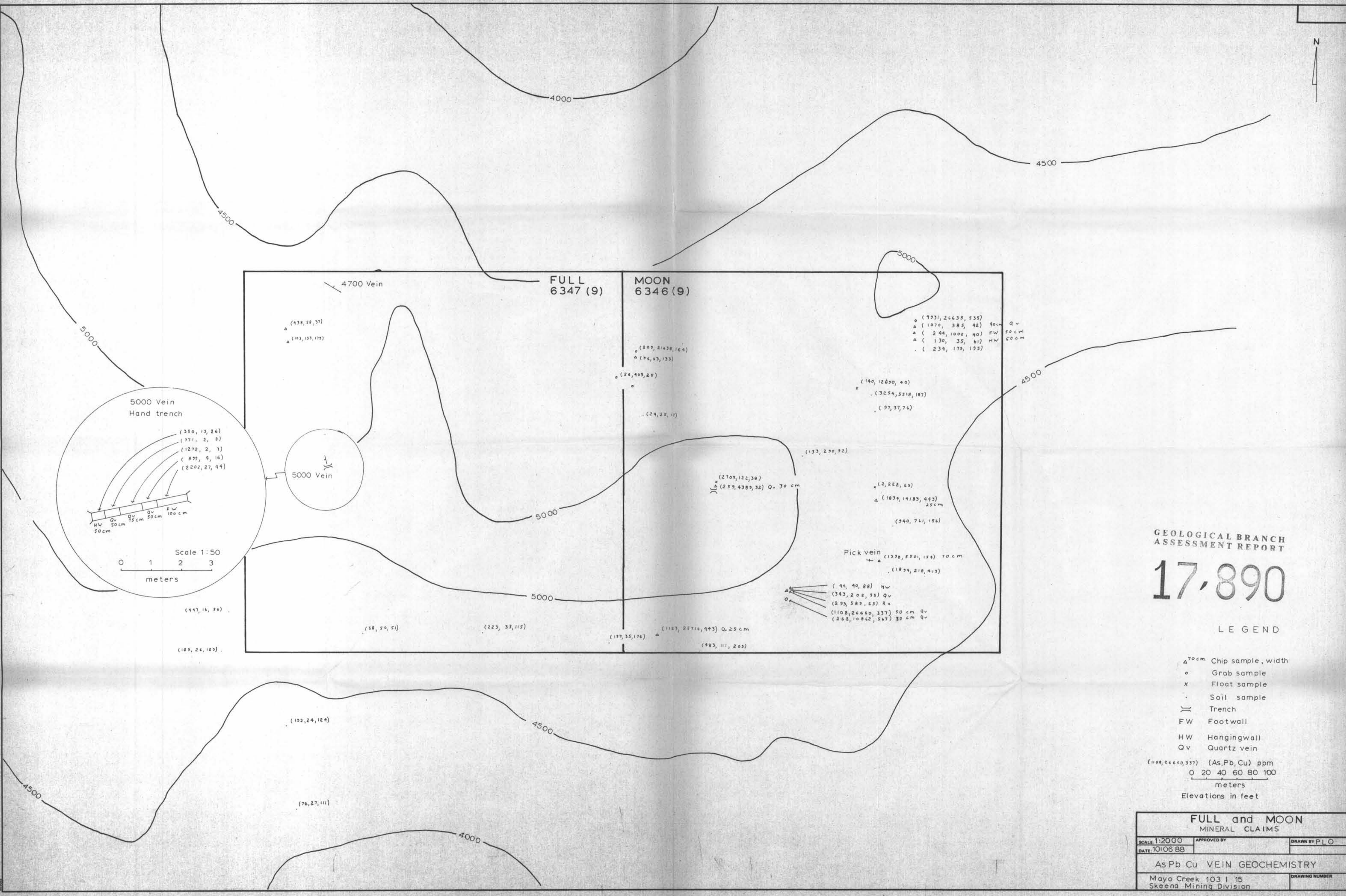
GEOLOGICAL BRANCH
ASSESSMENT REPORT

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LEGEND

- △ 70 cm. Chip sample, width
- Grab sample
- x Float sample
- Soil sample
- ⌋ Trench
- FW Footwall
- HW Hangingwall
- (4840, 380.0) Au ppb, Ag ppm
- 0 20 40 60 80 100
meters
- Elevations in feet

FULL and MOON MINERAL CLAIMS		
SCALE 1:2000	APPROVED BY	DRAWN BY PLO
DATE 10-06-88		
Au Ag VEIN GEOCHEMISTRY		
Mayo Creek 103 I 15 Skeena Mining Division		DRAWING NUMBER



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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LEGEND

- △^{70cm} Chip sample, width
 - Grab sample
 - x Float sample
 - Soil sample
 - ≡ Trench
 - FW Footwall
 - HW Hangingwall
 - Qv Quartz vein
- (1108, 24680, 337) (As, Pb, Cu) ppm
- 0 20 40 60 80 100
meters
- Elevations in feet

FULL and MOON MINERAL CLAIMS		
SCALE 1:2000	APPROVED BY	DRAWN BY PLO
DATE: 10/06/88		
As Pb Cu VEIN GEOCHEMISTRY		
Mayo Creek 103 1 15		DRAWING NUMBER
Skeena Mining Division		