ARIS SUMMARY SHEET

District Geologist, Nelson Off Confidential: 89.12.14

ASSESSMENT REPORT 18575 MINING DIVISION: Fort Steele

PROPERTY: Fors
LOCATION: LAT 49 20 00 LONG 115 55 00
UTM 11 5468563 578656
NTS 082G05W

CAMP: 001 Purcell Belt (Sullivan)

CLAIM(S): Puma,Cougar 1-3,Puma 1-3
OPERATOR(S): Morgan, L.D. Morgan, J.E. Banting, R.T.
AUTHOR(S): Banting, R.T.
REPORT YEAR: 1989, 24 Pages
COMMODITIES
SEARCHED FOR: Lead,Zinc
KEYWORDS: Middle Aldridge Formation,Quartzite,Wacke,Siltstone,Argillite
Fault,Sulphide lens
WORK
DONE: Prospecting
PROS 2500.0 ha
Map(s) - 2; Scale(s) - 1:10 000

LOG NO: 0914 RD. 2
ACTION: Date received report back from amendments.
FILE NO:

ENGINEERING REPORT
ON THE FORS GRID
FORT STEELE MINING DIVISION
NTS: 82G5W

Latitude: 49° 20'N
Longitude: 116° 53'W

By

R.T. BANTING P.ENG.

March 10, 1989

Revised

September 5, 1989

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Assay Results

POCKET

Geology & Prospecting Maps

SUMMARY

This report is submitted on behalf of the recorded owners of the FORS Grid property, namely : L. Morgan, J. Morgan, C. Kennedy and R.T. Banting.

The Fors property, comprising of 7 mineral claims of 119 units is located in the Cranbrook - Kimberley area on Lamb Creek.

In the spring of 1988, the writer researched literature and old reports on the property while L. Morgan and C. Kennedy initiated a prospecting program over the Fors claims. Prospecting located the mineral occurrences as mentioned in the reports as well as other prospective areas.

In consideration of the favourable structural and lithological geology of the Fors property, and in recognition of the several anomalous zones, a detailed geological and geophysical program is recommended to evaluate the requirement for an extended drilling program.

1.0 INTRODUCTION

1.1 Location and Access

The Fors property is located approximately 17km SW of Cranbrook. Access is via paved Highway #3 to Green Bay, west to Monroe Lake then by gravel road to the property.

1.2 Physiography

The property is situated west of the Rocky Mountain Trench within the Moyie Range of the Purcell Mountains. The highest elevation in the area, at the northern most part of the property is 2000 metres. Elevations vary between 1340 metres at the entrance road to 1800 metres.

Precipitation is high (80-180cm) compared to other surrounding areas, while snow is moderate to high. Mean temperature compares to Cranbrook norm at 17C in July to -8C in January.

The ravines are well timbered with spruce, larch, lodgepole pine, alpine fir, white pine and thick underbrush. The upper elevations exhibit much less forest cover.

The property is drained by the Little Lamb Creek and Gold Hill Creek. The creeks flow southerly into Lamb Creek.


FORS PROPERTY
LOCATION MAP
FIGURE 1
SCALE : 200 0 100 200 KM.
R.T. Bastin
March 10/87
YUKON
TERRITORY
BRITISH
COLUMBIA
N
FORS
PROPERTY

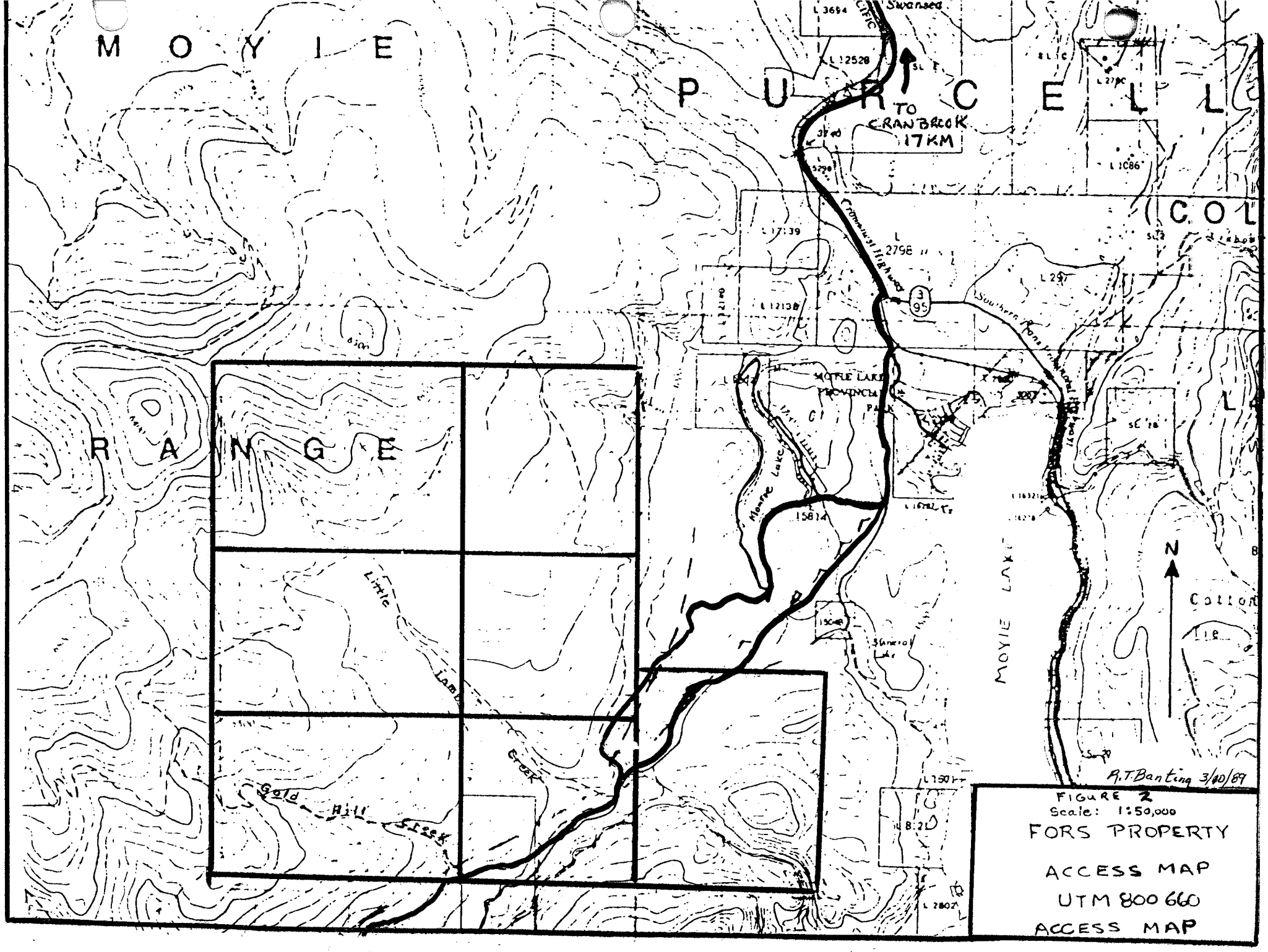


FIGURE 2
Scale: 1:50,000
FORS PROPERTY
ACCESS MAP
UTM 800 660
ACCESS MAP

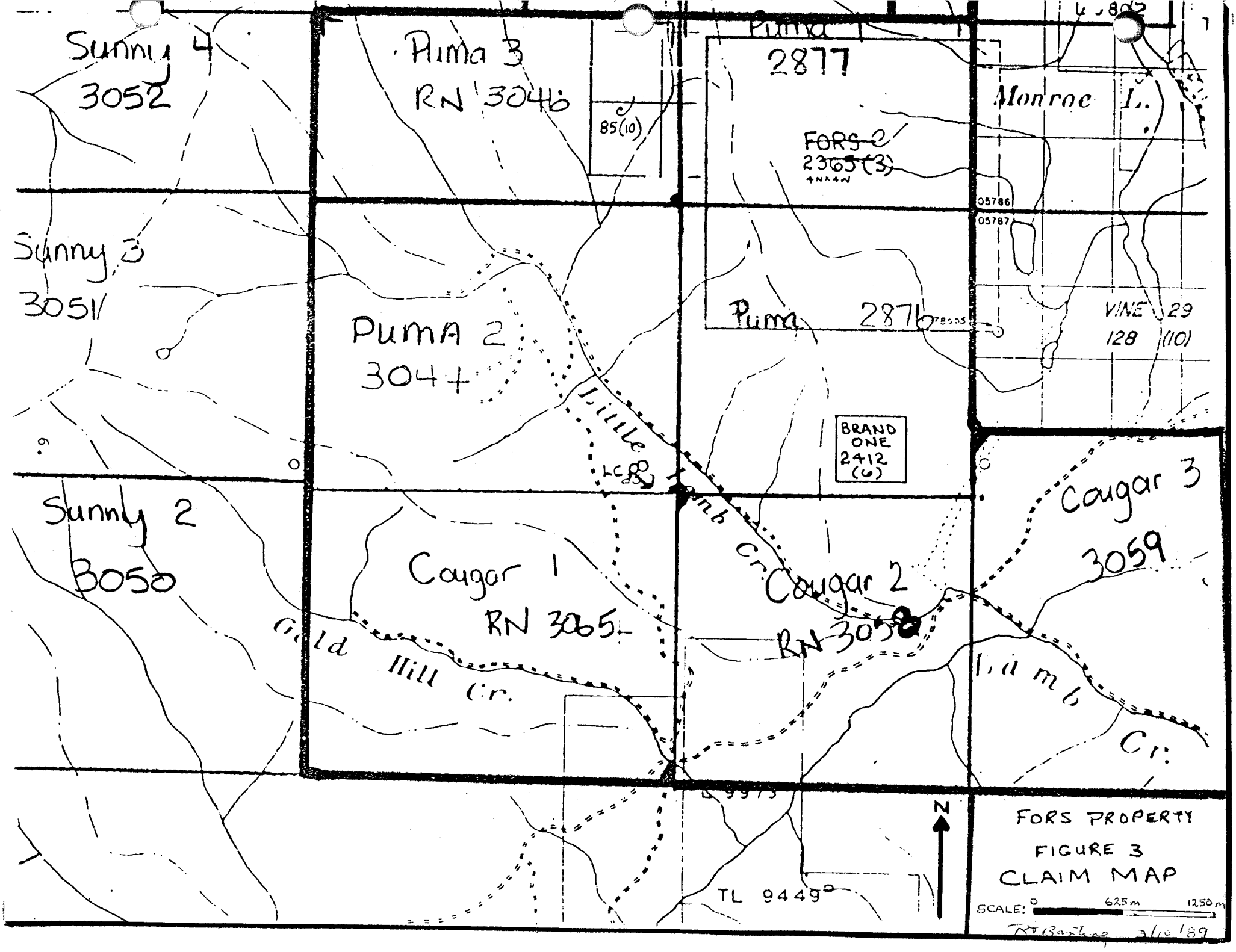
1.3 Claim Information

The Fors property is comprised of 7 mineral claims of 119 units. The mineral claims, so named Puma and Cougar are owned by L. Morgan, C. Kennedy and R.T. Banting of Cranbrook, B.C. and J. Morgan of Victoria, B.C.

CLAIM STATUS

TABLE 1.3

Claim Name	Record #	Recorded Date	Expiry Date	# Units
Puma	2876	April 27/87	April 27/90	16
Puma 1	2877	April 27/87	April 27/90	12
Puma 2	3044	Dec. 17/88	Dec. 17/89	20
Puma 3	3046	Jan. 25/88	Jan. 25/90	15
Cougar 1	3065	Feb. 24/88	Feb. 24/90	20
Cougar 2	3058	Feb. 8/88	Feb. 8/90	20
Cougar 3	3059	Feb. 5/88	Feb. 5/90	16


Sunny 4
3052
Puma 3
RN 3046
85(10)
Puma
2877
Monroe L.
FORS 2
2365(3)
05786
05787
Sunny 3
3051
Puma 2
3044
Puma 2876
VINE 29
128 (110)
BRAND ONE
2412
(6)
Little Lamb Cr.
Sunny 2
3050
Cougar 1
RN 3065
Cougar 2
RN 3058
Cougar 3
3059
Gold Hill Cr.
Lamb Cr.
TL 9449
N
FORS PROPERTY
FIGURE 3
CLAIM MAP
SCALE: 0 625m 1250m
3/10/89

1.4 History

Mining was initiated in the East Kootenays in 1864 by the discovery of placer gold on the Wild Horse River, Moyie River, Perry Creek and Palmer Bar Creeks. Although there is no reliable record of the total amount of gold recovered, it is mentioned that the Wild Horse alone produced over 20 million dollars in placer gold in early 1900's. Perry Creek followed as "one of the richest placer gold creeks ;within the Cranbrook Map area".

Besides being a major placer gold camp in B.C., Cranbrook area heralded as having the largest lead and zinc producer in Canada, the Sullivan orebody. The Sullivan is one of the largest base metal deposits in the world, having produced in excess of 125 million tons of ore. This deposit is by far the most important economic deposit in the region.

Although the majority of these base metal mines are not in operation today, the largest, the Sullivan continues production with an estimated reserve of 30 million tons of ore.

The Moyie - St. Eugene mine produced in excess of 1 million tons or ore containing 5M ounces of silver and 229M pounds of lead.

1.5 Economic Potential

The mineral deposits of Cranbrook area are many and varied. For purposes of description they have been classified into 3 main types:

A) replacement deposits in sedimentary rocks, not localized along fractures.
B) deposits associated with Moyie Intrusion.
C) veins and replacement deposits localized along fractures.

The Sullivan, North Star and Stemwinder deposits are representative of the first type. Deposits of the second type, associated with Moyie intrusion have produced mineral occurrences on a reduced scale due to their erratic distribution. The third type included gold bearing quartz veins and sulphide rich fissure vein systems. The Fors property exhibits mineral occurrences similar to both fissure vein and a replacement sulphide system.

1.6 Property History

The foregoing is a synopsis of the exploration programs carried out by the company that previously held the property, namely Cominco Ltd.

Sept. 1966 Stream Geochemistry

A total of 120 samples were taken from all of the tributaries on the map area. Anomalous values for total heavy metals were obtained in Semlin and Gold Hill region. They attributed the weak response in the drainages off the main prospect where mineralized debris and outcrop is plentiful to a number of factors:

1 - steep stream gradients
2 - poorly developed stream beds
3 - seasonal stream flow
4 - increased zinc mobilization due to abundance of iron sulphide in mineralized zone.

Nov. 1966 Soil Geochemistry

The 1966 geochemical grid was situated east of the mineral showing. Three significant lead anomalies were located in the grid. One anomaly is situated downslope from the expected trace of known mineralization. Another anomaly is situated on the trace of mineralization and the third anomaly contains an extreme value of 16,000 ppm. The one significant zinc anomaly is coincident with the lead anomaly situated downslope from the expected trace of the mineralization.

Nov. 1966 Geophysics

EM survey was run using a horizontal loop. Gentle dipping metasediments underlie the surveyed area. Some beds contain 5% to 10% pyrrhotite. Problems with shortened cables and misalignment of coils due to rugged topography probably resulted in frequent erratic in phase readings that were detrimental to the survey. Also the depth of overburden was perhaps greater than the penetration of the instrument.

Nov. 1966 Geology

The entire map area was geologically mapped for outcrop formation, attitudes and major structures.

Oct. 1966 Soil Geochemistry

The Daisy grid line measuring 1300 meters in length was located over a suspected fault zone. Anomalous zones of Zn and Pb were found along the fault trace in the valley, (on strike with the pebble conglomerate found on the ridge). These anomalies were later trenched.

1967 Diamond Drilling

A total of five shallow diamond drill holes were located around the mineral showing. Results have yet to be acquired. (See Map).

Nov. 1976 Soil Geochemistry

A detailed soil geochemistry survey was conducted on the Vine 3, now designated Puma, where the mineral showing exists. A total of 227 soil samples were collected to determine Background and Threshold values for each element of Cu, Pb and Zn.

	Cu	Pb	Zn
Background (PPM)	25	50	100
Threshold (PPM)	35	150	250

No interpretation of this survey was offered until the geology, till fabrics and glacial transport direction were completed.

Summer 1978 Diamond Drilling

Cominco returned to geologically map the Vine 1 and 3, known as the Vine vein and Fors Grid respectively. A program of diamond drilling followed on each, with the Fors acquiring hole #78-3A and Puma 2 selected for a 626 meter hole.

October 1982 Geophysics

This report described a University of Toronto Electromagnetic survey on the now designated Puma and Puma 2 Claims. The data sections showed typical background response. A comparison of the data with model studies indicated 'the host rock in the survey area is quite resistive with a resistivity of about 400 ohm meters. Seven crossover anomalies were found during the course of the survey, the most interesting of which are the lines 0 and 5E at about 19N'. (This is where the road to the showing crosses the valley fault).

June 1983 Soil Geochemistry

The Vine 3 geochemical program consisted of two contour lines and an extension of the geochemical grid initiated in 1966 (see map). A total of 117 samples were collected and analyzed for Pb and Zn. The geochemistry program delineated a previously found anomaly, which was later trenched. Threshold selected was 40ppm for lead and 200ppm for zinc.

2.0 GEOLOGY

The following descriptions of the geology of the Purcell Range and the Perry Creek area are taken from G.S.C. Memoirs by Schofield, Rice and Hamilton.

2.1 Regional & Local Lithology

The Purcell Range is separated from the Selkirk range on the west and from the Rocky Mountain system on the east.

The rocks of the Purcell Range form the western part of the ancient group of sediments deposited in the Rocky Mountain geosyncline. These sediments, called the Purcell series, and of Pre-Cambrian Beltian age, consist of a great thickness of fine grained quartzites, argillaceous quartzites, argillites and limestones, all remarkable for their homogeneity.

In southeastern British Columbia, the Purcell Super group exceeds 10,000 m in thickness. In the vicinity of the Sullivan deposit at Kimberley the lowermost subdivision of the Purcell Supergroup, the Aldridge formation, is 4,000 m thick succession of fine-grained siliclastic rocks. Most of the Aldridge formation, was probably deposited by turbidity currents. East of Kimberley, in the western Rocky Mountains, the oldest rocks are greater than 2,000m thick, fining-upward platformal/deltaic sequence called the Fort Steele Formation. A transitional contact exists between the Fort Steele and the succeeding Aldridge Formation. The Fort Steele Formation is interpreted to be the facies equivalent of the lower part of the Aldridge Formation in the Kimberley area.

The Aldridge Formation is gradationally overlain by up to 1,800 m of grey, green and maroon wacke of the tidal flat to deltaic Creston Formation. Conformably overlying the Creston Formation is 1,200 m of dominantly platformal dolomite and terrigenous-dolomite admixtures of the Kitchener formation. The Kitchener is in turn overlain by 200 to 400 m of green, slightly dolomitic and calcareous fine-grained sedimentary rocks of the Van Creek Formation and up to 500m of andesitic volcanic rocks of the Nicol Creek Formation.

In the Purcell Mountains, about 1,200m of grey to dark grey, dominantly platformal carbonates and fine-grained siliciclastic rocks of the Dutch Creek Formation rest with apparent conformity of the Lower Purcell sequence. The Dutch Creek Formation is overlain by 1,000m of grey, green and maroon wacke and buff orthoquartzite of the Mount Nelson Formation.

Middle Proterozoic gabbros of two ages intrude the Purcell Supergroup in southeastern British Columbia. The oldest (1433 + 10 Ma) are sills, slightly discordant sheets and dykes of the Moyie Sills, which are most commonly developed in the lower part of the Aldridge Formation. Gabbro sills are most abundant in the Purcell Mountains, where they attain an aggregate thickness of up to 2,000m. The youngest event of gabbro intrusion is thought to be comagmatic with the volcanics of the Nicol Creek Formation, and is represented by abundant sills in the upper part of the Creston Formation and in the Kitchener and Van Creek Formations. Potassium-argon methods indicate an age of 1075 Ma for the Nicol Creek Formation.

The claim area studied is underlain by Precambrian sedimentary rocks of the Proterozoic age, either of the Kitchener, Creston or Aldridge Formations.

In the Perry Creek area, the Creston and Kitchener Formations predominate, and are lenticularly Northeast trending, commonly in a fault contact and bounded to the North and South by the Aldridge Formation. The Aldridge formation outcrops predominantly within an area south and east of the Baldy and Cranbrook faults - on the Moyie River side. Precambrain diorite sills are distributed throughout the map area, in concentrated form along fault zones.

2.2 Geology - Regional & Local Structure

The Purcell Mountains exhibit a pronounced North East trending structural grain, delineated by late transverse faults.

The two major transvers faults zones, the St. Mary and Boulder Creek (Wildhorse) on the North, and the Moyie and Dibble Creek on the South, are hypothesized to coincide with a southwest trending Precambrian rift that continues beneath the Rocky Mountains in Alberta. Several deep reflecting horizons of anomalous magnetic and gravity trends show that the rift is continuous across Alberta and British Columbia, more specifically throughout the Kimberley lead-zinc field, and possibly the Coeur d'Alene mining district of Idaho.

There is evidence that synsedimentary faulting perhaps near the northern edge of a transverse rift structure, locally controlled and modified the distribution of Purcell rocks in Lower and Middle Aldridge time. The lead zinc deposits such as Sullivan, North Star, Stemwinder and Kootenay King are also located near the northern edge of this transvers structure, suggesting a close link between mineralization and synsedimentary faulting.

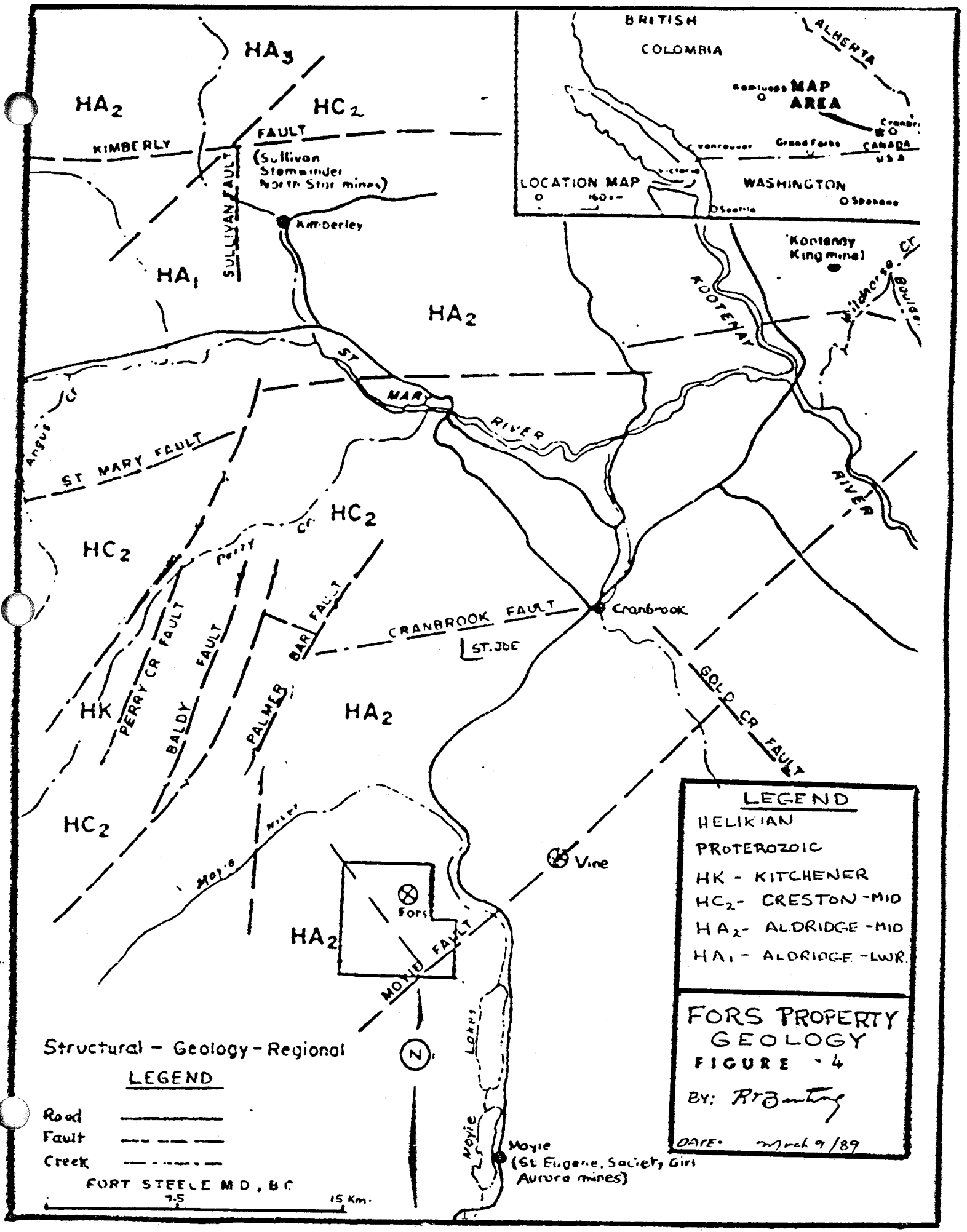
Several lead-zinc-silver veins are present in the area some of which have received considerable attention by owners in the form of narrow open cuts and adits. These veins strike at 135 az. and dip steeply, as do all important vein systems within the Aldridge. The structures tend to be very persistent along strike with pinch and swell characteristics resulting in tabular steeply dipping ore shoots.

Occurrences of this type with major economic importance in the Aldridge include the St. Eugene from which approximately 1 million tonnes grading 7oz/tonne Ag and 8% combined and Estella Mine which produced 250,000 tonnes grading 10oz/tonne Ag with 10% lead and zinc.

Other prospects include the Try-Again, the Best Facini Mine, and the Hamilton Mine.

Of interest is the recent discovery of the lead-zinc VINE deposit only 10km directly east of the Fors prospect. The Vine vein deposit has reserves approaching the grade and tonnage mined at the St. Eugene but has yet to be exploited. A 1 metre wide sulphide zone has been confirmed by drilling to continue on strike of 135 azimuth for 500 metres.

The Vine deposit is in a shear zone that trends parallel to the shear zones on both McNeil Creek (NW of Fors) and the Fors Grid properties.


HA3
HA2
HC2
HA1
HK
KIMBERLY
FAULT
(Sullivan Stemwinder North Star mines)
SULLIVAN FAULT
Kimberley
BRITISH COLOMBIA
ALBERTA
MAP AREA
LOCATION MAP
WASHINGTON
Kootenay King mine)
KOOTENAY
ST MARY RIVER
ST MARY FAULT
Cr.
Perry
PERRY CR FAULT
BALDY FAULT
PALMER BAR FAULT
CRANBROOK FAULT
ST. JOE
Cranbrook
GOLD CR FAULT
RIVER
Vine
Fors
MONK FAULT
Moyie
(St Eugene, Society Girl Aurora mines)
LEGEND
HELIKIAN
PROTEROZOIC
HK - KITCHENER
HC2 - CRESTON - MID
HA2 - ALDRIDGE - MID
HA1 - ALDRIDGE - LWR.
FORS PROPERTY
GEOLOGY
FIGURE 4
BY:
DATE: March 9/89
Structural - Geology - Regional
LEGEND
Road
Fault
Creek
FORT STEELE M.D., B.C.
7.5
15 Km.

2.3 Regional Mineralization - Sulphide Prospects

The Kimberley area is transected by the right lateral transverse St. Mary's fault. The Sullivan deposit occurs at the boundary between the Lower and Middle Aldridge within the St. Mary's block, with the North Star and Stemwinder deposits located just to the south.

The Sullivan orebody is interpreted as a hydrothermal synsedimentary sulphide lens which formed in a sub-basin on the marine floor during deposition of the Aldridge Formation. It is located directly over and adjacent to conduits through which mineralized fluids passed.

The evidence relating stratiform mineralization to syndepositional faulting is found in the coarse conglomerates which occur close to the lower and middle Aldridge contact. Conglomerate is found on the footwall at this horizon beneath the stratiform Sullivan deposit and below the Hilo mineral showing (north of the Hall Lake fault). The conglomerate underlies a thin stratiform pyrrhotite laminated zone. Pyrrhotite fragments in the conglomerate also occur in the Kootenay King deposit in Boulder Creek (See Figure 4).

Slightly north of the property claim block, on the St. Joe property, quartz veins mineralized with galena, chalcopyrite and arsenopyrite are found cutting the Middle Aldridge. Mineralized conglomerate is also reported to have originated from these workings.

In recent years, exploration of the area has been advanced by developments which include:

- the recognition of laminated markers (varves) and their use in subdivision of Aldridge stratigraphy.
- the recent discovery of the lead-zinc VINE deposit, located 40 km southeast of the Sullivan mine (the deposit crosscuts stratigraphy and appears to be of St. Eugene type).
- the discovery of lead-zinc float boulders at the Fors Grid prospect (40km south of the Sullivan) leading to exploration of bedding controlled mineralization which might have occurred at a higher level than the Sullivan time.
- The discovery of finely laminated pyrrhotite-pyrite beds in silty argillite that may be equivalents of the Sullivan deposit in diamond drilled holes east and southeast of the Sullivan deposit.

2.4 Property Geology

Overall structure, acquired from G.S.C. geological mapping, report research and field examination consists of a northeasterly dipping panel which is attenuated to the north by the Moyie Fault, a major transverse structure with approximately 4,000 metres of throw. The property is transected by a Northwest trending fault, along Little Lamb Creek, which originates from the Moyie Fault.

Lithologies present within claim boundaries include thin to thick bedded grey quartzite wacke with minor siltstone and argillite of the Middle Aldridge Formation. In the Bouma designation, these correspond to AE turbidites and are indicative of a rapid depositional environment. Rare conglomerates are present within the Middle Aldridge and represent slump adjacent to growth faults active in Middle Aldridge time.

Numerous Moyie metadiorite sills and dykes are present within the Middle Aldridge. The Lower Aldridge argillaceous dolomites at the Moyie fault - southern limit of the property.

2.5 Property - Mineralogy

The presence of a conglomerate unit near the northern limit of the claim area at ridge elevation positions the Aldridge as being 'Middle' stratigraphically. This conglomerate in float boulders comprises of elongate shaly fragments in an argillaceous matrix.

More southeasterly, toward Monroe Lake is the main mineral showing being a replacement lead-zinc type of deposit in the form of a small sulphide lens, probably diagenetic in origin. Assays for the showing ran 1.36 oz/st Ag and 3% Zn and 0.7% Pb.

Quartzite and argillite host the mineralization which include pyrrhotite, sphalerite, galena and sparse chalcopyrite.

Also, of interest is the quartz vein mineralization that crosscuts the Aldridge sediments. These veins are mineralized with galena, sphalerite, and chalcopyrite.

2.6 Property - Structure

Bedding attitudes in areas prospected to date are northwest in strike and fifteen degrees northeast in dip.

The most distinctive structural feature in the report area is the Moyie Fault. It is a high angle reverse fault and brings Aldridge into contact with younger Kitchener rocks.

The fault strikes northeast across the southern margin of the property.

Many quartz veins parallel the fault zone.

At right angle to the Moyie Fault is the extension of Little Lamb Creek Fault, which transects the property from southeast to Northwest.

3.0 EXPLORATION PROGRAM - 1988

Initial exploration of the property resulted in an intense prospecting program over the entire claim area followed by soil geochemistry adjacent to and downslope from the showing. (See Pocket Map).

3.1 Prospecting

The major East-West drainage on the property is Little Lamb Creek. The Government Geological map indicates a fault running up it's length. The regional mapping of the Lamb Creek, Moyie River area indicates a good argument for the Little Lamb fault being a splay-off of the Palmer Bar Fault. This would provide a link-up between the Moyie and Cranbrook transverse faults. Where the Palmer Bar swings through the Lower Moyie River area, it is know to be anomolous in gold and copper in a number of locations. With this factor in mind, a sieved bulk sample for heavies analysis was taken. The analysis indicated anomolous values for gold and copper. Four other heavy samples were taken out of Little Lamb Creek sized tributaries further up the drainage. Analysis of these indicated no gold values and low to very low copper values. Because of the existence of large diorite sills and dykes in the Middle Aldridge stratigraphy, it was anticipated that copper would show elevated values. This, in fact, does not seem to occur, leading up to the belief that the Little Lamb sample indicates very legitimate anomilies in copper and gold. It was concluded that there was a good possibility that the anomolous value was leakage from mineralized areas along the Little Lamb Fault, or a subtle indication of a mineralized horizon in the middle Aldridge formation. (Rock geo-chem analysis of the "Fors" showing and strata-bound mineralization indicated encouraging numbers for Cu and Au).

Prospecting was initiated up Little Lamb Creek itself, with float boulders within the creek channel being the major target. With this completed, a number of the larger tributaries were prospected in kind. Much of the float encountered was gabbro and/or diorite - some was hard and glassy and others showed signs of varying degrees of alteration. Limonite staining, in conjunction with quartz or calcite veining, was commonly observed in the gabbro float. Occasional pieces of coarse crystal gabbro, with sporatic pyrrhotite and chalcopyrite were also seen.

Basically, three types of sedimentary rocks were continuously encountered, these being, slightly altered quartzite, slightly altered black/grey argillite and very rusty black thin bedded argillite with continuous pyrrhotite laminations of up to one millimetre in width. No other sulphides were recognized accompanying the pyrrhotite. The sedimentary float tested was non-magnetic. A number of pieces of varved marker float was also seen.

A follow-up program of heavy sampling is necessary to provide more finite prospecting targets. Overburden and very thick vegetation severely limit effective general prospecting.

The largest drainage on the North-East section of the property was the next prospecting target. Again, heavy overburden and thick brush inhibited effective prospecting. In general, however, a higher frequency of altered sediments were encountered. Quartzites, with chlorite stars and minor patches of pyrrhotite, were continually seen, along with gabbro and/or diorite. No other sulphides were recognized. Some small pieces of quartz float were seen - these were of the crystalline variety. Some pieces were Manganese stained. Some quartz material was rust stained, with blebs of pyrite and seams of biotite running through it. A fair amount of syenite float was also encountered. The majority of pieces checked were magnetic. Sulphides were not seen in the syenite. Varved marker float was again encountered quite regularly and one outcrop was varved marker. This is in all probability the 'Hiawatha' as it is known to outcrop on the property in several locations.

The next area prospected was from the North Eastern portion of the property in a South-West direction, through and West of the sulphide showing. From the property boundary to the showing, the bedding is only slightly inclined into the hill. Most of the exposures show a moderate to high degree of alteration. The most common alteration is chlorite, with some narrow beds heavily chloritized. Along a road, constructed by Cominco, a sheared up section of bedrock exists north of a prominent draw.

Along the margin of this shearing, a heavily altered diorite dyke exists. Numerous scattered anomolous soil samples points exist within, and in close proximity, to the draw. This draw also gives an obvious change in background when VLF-EM is run across it. From the margin of the draw, uphill towards the sulphide showing, completely leached quartzite beds, up to a metre in width, are common. Interspaced, are highly silicified finer grained quartzites and argillites, some contain patches of irregular pyrrhotite. It is in this lithology that the occasional grain of Pbs and/or Zns is seen.

Three soil geo-chem lines were run on 25 metre nodes between the sulphide showing and the property boundary. These lines indicated three anomolous areas. One definitely could be related to the existing showing, while the other two seemed to be related to another source. Disseminated sulphides encountered on the exposed outcrops do not seem to be legitimate sources for these anomolies. Above the showing, rusty outcrops are exposed and no sulfide, other than pyrrhotite was recognized. One outcrop of varved marker was encountered, again, probably the 'Hiawatha' marker.

One soil sample anomoly relates well with the draw containing strataform Pb, Zn, Cu float boulders. A large float boulder of bedded mineralization was found topographically higher and to the west of the known showing - numerous other pieces of smaller mineralized float were also encountered. Very little outcrop exists in the area of the float train, no source for the boulder was encountered. One outcrop is of interest as it is a very coarse quartzite, similar in nature to those in which the showing to the southeast is located.

3.2 Soil Geochemistry

Soil geochemistry was utilized for a follow-up to the prospecting program in order to outline anomalous zones located around the existing sulphide showing on the original Fors Grid in Puma 1.

A total of 46 samples were taken from the 'B' horizon on three gridlines MOR-L-1, 2, 3. The grids are oriented N-S with 100 metres between lines and 50 metres between sample sites.

Low element abundances are common in Belt-Purcell soils, even over sulphide mineralization, because of the overall low absorptive capacity of the soils (low clay and Fe-oxy-hydroxide mineral content). This allows the easy leaching of the soluble base metals from the soils, despite high element concentrations in the source-bearing subjacent bedrock. This is somewhat apparent close to the showing, as high background and anomalous values were found elsewhere on the grid, possibly related to economic mineralization.

Lead

The Pb distribution appears to have a bimodal form. One mode consisting of a large group of samples, exhibiting what are interpreted to be 'background' Pb concentrations and a mean of 39 ppm. Standard deviation value about this mean is 9ppm.

A second group of samples of higher abundance can be distinguished from this 'background' group. These concentrations are interpreted to be 'anomalous' and range up to 165 ppm Pb. One such sample, 130 ppm may be related to the Pb sulphide bearing showing.

A threshold which discriminates the 'background' and 'anomalous' samples groups occurs at approximately 57 ppm - chosen at the mean plus two standard deviations.

Zinc

Zinc concentrations exhibit a positive skewness and the frequency concentrations can be modeled with a bimodal distribution. The lowest mode has a mean of 183 ppm and standard deviation of 61 ppm and probably represents 'background' concentrations. The highest mode, with a mean concentration of 550 ppm is classified as 'anomalous'. A threshold which distinguishes the 'background' mode of samples from the 'anomalous' occurs at 305 ppm.

4.0 COST OF 1988 PROGRAM

4.1 Little Lamb Group

Claims Credited

Puma - 2876
Cougar 3 - 3059
Cougar 2 - 3058

Prospecting	30 mandays @ $125/day	$3,750.00
	Vehicle 26 days @ $50/day	1,300.00
Geochemical (apportioned with Puma Group)		
50% -	46 samples @ $543.60	971.80
	8 mandays @ $150.00	
	Vehicle fuel 4 @ $ 50.00	
Total		**$6,021.80**

4.2 Puma Group

Claims Credited

Puma 1 - 2877
Puma 2 - 3044
Puma 3 - 3046
Cougar 1 - 3065

Prospecting	32 mandays @ $125/day	$4,000.00
	Vehicle 22 days @ $50/day	1,100.00
Geochemical (apportioned with Little Lamb)		
50% -	46 samples $543.60	971.80
	8 mandays @ $150.00	
	Vehicle fuel 4 @ $ 50.00	
Field Supplies		200.00
Engineering Report		800.00
Total		$7,071.80

5.0 **STATEMENT OF QUALIFICATIONS** - R.T. Banting

I, ROBERT T. BANTING, certify that:

1. I am a consulting Mining Engineer, of R.T. Banting Engineering Ltd., with offices at 901 Industrial Road #2, Cranbrook, B.C., V1C 4C9.

2. I am a graduate of Michigan Technological University with a degree in Mining Engineering (B.Sc.) 1972.

3. I have practised my profession of engineering in British Columbia, Manitoba, Ontario and Quebec for a total of fifteen years. As a consultant, I have been engaged in exploration and engineering activities for four years.

4. I am a member in good standing of the Association of Professional Engineers of British Columbia.

Date

March 10, 1989

Robert T. Banting P.Eng.

Sept 8/89

6.0 REFERENCES

Boyle, R.W.	1979, Geochemistry of Gold and its Deposits
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A P P E N D I X 1

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Pb 40 →
Zn 150 →

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JULY 05 1988 DATE REPORT MAILED: July 9/88 ASSAYER. C. Leong .D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

CHAPLEAU RESOURCES LTD. File # 88-2453 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
MOR-L-0 850N	1	24	20	188	.1	36	17	236	2.45	5	5	ND	8	25	2	4	2	23	.15	.057	16	15	.54	282	.11	4	3.03	.01	.26	1	1
MOR-L-0 800N	1	14	33	251	.1	27	10	247	2.57	6	5	ND	5	43	1	2	3	26	.23	.136	10	10	.32	177	.15	2	4.08	.02	.11	1	2
MOR-L-1 7+50N	1	22	39	276	.1	31	11	269	3.07	4	5	ND	8	31	2	2	2	26	.19	.046	19	14	.51	183	.13	2	3.07	.01	.16	1	1
MOR-L-1 7+00N	1	25	25	181	.2	33	14	191	2.95	4	5	ND	3	21	1	3	2	22	.13	.031	19	15	.60	143	.10	8	2.49	.01	.16	2	1
MOR-L-1 6+50N	1	29	32	161	.1	35	14	317	3.76	4	5	ND	9	30	2	2	2	30	.23	.063	22	16	.60	194	.15	10	3.81	.01	.19	1	1
MOR-L-1 6+00N	1	48	33	198	.1	51	19	364	4.31	12	5	ND	10	33	2	2	2	30	.18	.115	31	18	.61	119	.16	11	4.14	.01	.21	1	1
MOR-L-1 5+50N	1	21	19	166	.1	40	9	252	2.14	4	5	ND	6	39	3	2	2	21	.28	.142	28	7	.22	112	.15	4	4.25	.03	.11	1	1
MOR-L-1 5+00N	1	21	22	265	.1	38	12	361	3.19	7	5	ND	6	31	2	3	2	29	.19	.201	17	12	.52	316	.16	2	3.88	.02	.18	1	1
MOR-L-1 4+50N	1	27	26	276	.1	52	15	510	3.59	6	5	ND	7	31	2	2	2	30	.22	.065	26	16	.60	176	.16	2	3.70	.01	.29	2	1
MOR-L-1 4+00N	1	43	36	291	.1	51	21	1026	3.87	6	5	ND	8	26	3	3	2	33	.22	.184	25	17	.50	137	.15	2	4.29	.01	.29	1	1
MOR-L-1 3+50N	1	38	38	553	.1	51	15	337	2.93	11	5	ND	7	25	3	2	2	26	.19	.056	23	21	.64	148	.10	3	2.73	.01	.20	1	1
MOR-L-1 3+00N	1	44	165	716	.1	63	28	302	4.82	12	5	ND	10	39	3	3	2	37	.23	.171	46	23	.60	136	.12	2	3.17	.01	.19	2	2
MOR-L-1 2+50N	1	19	23	162	.2	29	8	153	2.09	5	5	ND	7	23	1	4	2	21	.20	.046	18	11	.41	175	.11	5	2.66	.02	.22	1	1
MOR-L-1 2+00N	1	14	21	158	.2	23	8	196	2.04	7	5	ND	5	16	1	2	2	18	.14	.060	14	11	.43	158	.09	8	2.15	.01	.22	1	1
MOR-L-1 1+50N	1	18	26	176	.1	27	10	198	2.31	5	5	ND	6	22	1	2	2	19	.17	.104	17	13	.54	202	.09	8	2.37	.01	.22	1	2
MOR-L-1 1+00N	1	13	22	200	.2	22	9	274	1.85	6	5	ND	5	25	2	2	2	17	.25	.032	18	12	.41	117	.09	7	2.03	.02	.23	1	1
MOR-L-1 0+50N	1	12	45	517	.1	26	7	407	2.11	7	5	ND	5	18	1	2	2	21	.13	.104	13	10	.35	185	.11	7	2.84	.02	.15	1	1
MOR-L-1 0+00N	1	33	33	264	.1	51	11	272	2.75	7	5	ND	8	23	2	2	2	26	.17	.071	23	9	.43	540	.14	5	4.16	.02	.25	1	2
MOR-L-2 10+50N	1	19	17	125	.1	24	10	590	2.75	3	5	ND	8	25	1	2	2	21	.21	.030	28	16	.69	208	.10	2	2.66	.01	.84	1	1
MOR-L-2 10+00N	1	14	23	105	.1	19	8	195	2.12	3	5	ND	7	10	1	2	2	17	.08	.030	21	13	.44	110	.09	11	2.04	.01	.29	1	1
MOR-L-2 9+50N	1	19	26	150	.1	23	15	423	2.65	6	5	ND	7	11	1	2	2	22	.12	.043	22	17	.50	81	.11	5	2.12	.01	.24	1	1
MOR-L-2 9+00N	1	15	20	290	.1	30	13	341	2.39	5	5	ND	5	14	1	2	2	24	.12	.033	13	16	.53	142	.11	10	2.43	.01	.19	2	2
MOR-L-2 8+50N	1	37	29	383	.1	48	25	362	3.15	4	5	ND	8	13	2	2	2	30	.15	.045	27	21	.62	111	.13	2	3.26	.01	.17	2	1
MOR-L-2 8+00N	1	45	36	401	.1	40	20	450	3.93	16	5	ND	8	11	2	2	4	33	.08	.115	32	19	.50	109	.13	2	3.70	.01	.15	1	1
MOR-L-2 7+50N	1	36	94	299	.1	25	12	399	3.62	11	5	ND	7	13	1	2	2	34	.12	.183	24	18	.52	93	.14	4	2.90	.01	.16	1	1
MOR-L-2 7+10N	1	48	70	372	.2	30	12	766	4.99	10	5	ND	13	23	3	2	2	31	.16	.212	30	14	.41	174	.14	6	3.37	.01	.14	1	1
MOR-L-2 6+50N	1	23	58	1332	4	37	10	192	2.88	19	6	ND	9	50	4	2	3	21	.33	.489	24	8	.36	329	.12	10	3.33	.03	.18	1	1
MOR-L-2 6+00N	1	34	44	226	.1	34	15	508	4.12	14	5	ND	8	26	1	2	2	27	.19	.081	25	17	.76	125	.15	4	4.39	.01	.13	1	1
MOR-L-2 5+50N	1	34	20	136	.1	41	13	294	3.06	8	5	ND	6	37	1	2	2	27	.26	.100	17	16	.54	138	.14	11	3.87	.02	.14	2	1
MOR-L-2 5+00N	3	40	35	196	.1	40	13	232	5.93	21	5	ND	9	38	1	2	2	37	.25	.085	29	19	.69	100	.15	3	3.22	.01	.23	2	2
MOR-L-2 4+50N	1	47	37	271	.1	71	31	455	6.19	50	5	ND	13	41	5	2	2	31	.20	.107	67	20	.71	117	.13	3	3.57	.01	.32	1	1
MOR-L-2 4+00N	1	33	25	215	.1	54	23	662	4.26	7	5	ND	11	19	2	2	2	31	.12	.098	36	15	.40	139	.14	6	3.77	.01	.14	1	1
MOR-L-3 10+50N	1	9	11	72	.1	15	6	218	1.95	2	5	ND	5	11	1	2	2	15	.09	.018	15	13	.47	197	.09	2	1.57	.01	.79	1	2
MOR-L-3 10+00N	1	13	16	129	.1	22	9	353	2.15	4	5	ND	7	19	1	2	2	18	.14	.111	19	12	.37	182	.09	5	2.37	.01	.26	1	1
MOR-L-3 9+50N	1	15	20	120	.1	22	7	184	2.22	4	5	ND	6	22	1	2	2	18	.15	.089	20	13	.44	153	.09	8	2.23	.01	.26	1	1
MOR-L-3 9+00N	1	20	22	99	.1	19	7	175	2.51	8	5	ND	9	12	1	2	2	19	.11	.044	27	17	.53	77	.08	2	1.94	.01	.26	2	1
STD C/AU-S	18	59	39	132	6.5	68	29	1061	4.23	40	20	8	37	47	13	16	19	58	.49	.091	40	57	.95	177	.07	32	2.05	.06	.13	13	53

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
MOR-L-3 8+50N	1	18	37	192	.2	43	17	1478	3.55	14	5	ND	8	28	5	2	2	34	.30	.132	44	16	.45	186	.15	4	3.99	.01	.22	1	1
MOR-L-3 8+00N	1	21	46	187	.1	45	16	558	3.68	17	5	ND	9	25	4	2	2	37	.27	.099	39	18	.46	129	.14	2	3.31	.01	.19	2	1
MOR-L-3 7+50N	1	20	47	231	.2	45	19	1748	3.47	20	5	ND	10	22	7	2	2	30	.27	.095	50	13	.46	323	.13	4	3.83	.01	.29	1	1
MOR-L-3 7+00N	1	40	44	182	.3	57	26	491	4.11	26	5	ND	12	14	5	2	3	28	.13	.132	42	20	.50	94	.10	2	3.86	.01	.19	1	1
MOR-L-3 6+50N	1	28	130	337	.3	66	16	1354	3.27	32	5	ND	8	65	4	2	2	25	.44	.153	52	8	.35	365	.12	2	3.56	.02	.15	1	1
MOR-L-3 6+00N	2	70	69	117	.5	107	132	1729	3.13	65	5	ND	7	18	13	2	2	21	.16	.120	131	20	.34	87	.09	3	3.81	.01	.12	2	1
MOR-L-3 5+50N	1	22	21	155	.1	30	21	1030	2.57	9	5	ND	5	12	2	2	2	24	.13	.085	32	18	.50	138	.10	6	2.70	.01	.21	1	1
MOR-L-3 5+00N	1	39	23	120	.1	36	12	428	3.08	5	5	ND	7	9	1	2	2	29	.08	.065	27	19	.55	105	.13	2	3.22	.01	.25	1	2
MOR-L-3 4+50N	1	24	22	136	.1	38	14	923	3.21	10	5	ND	7	26	3	2	2	30	.25	.073	24	16	.55	254	.11	4	3.15	.01	.24	1	1
MOR-L-3 4+00N	1	23	28	159	.1	30	11	801	3.16	5	5	ND	5	24	1	2	5	28	.22	.048	19	18	.67	139	.12	9	3.15	.01	.24	1	1
STD C/AU-S	17	57	41	132	7.1	68	27	1046	4.12	39	17	7	36	45	16	16	19	55	.46	.084	39	55	.91	176	.06	30	1.97	.06	.13	12	52.

N G E

6000

4000

3700

3700

3800

4500

5500

L 9802

L 11313

1581

Monroe Lake

Little Lamb Creek

Gold Hill Creek

FAULT

MOYIE FAULT

HA2

HA1

HM

HK

Varved Marker Float No Sulphides

Varved Float

Unaltered Quartzite Beds

Limonite Diorite Float

Breccia Float

Diorite Float Some Sulphides

Bedded Argillites and Quartzite Some Sulphides

Altered Argillite + Quartzite Float

Sheared Argillite Punky

Sheared Weathered Argillite

Some Sulphides + Weathered Argillite

Rusty Gossan Float, blebs of Sulphides

Rusty Beds of Argillite

Rusty Quartzites + Argillite

Black Argillite Sulphide Lenses

Rusty Argillite Float

Syenite Qtz. Float

Varved Marker Bed

Hi Swath

Syenite Float

Chlorite Alteration

Hard Black Argillites w/ patches of Sulphides

Sulphides in Quartzites

Cu Zn Pb Float

Diorite Dyke

Altered Beds Quartzite + Argillite

Syenite Float

Sulphides in Quartzite Beds

GABBRO Out Crops

Sulphide Rich Quartzite Float

Rusty Sheared Argillite, Pyrite on Fractures

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,575

SCALE: 1:10,000

0 250 500 m

N

Geological Legend

Helikian Proterozoic

Moyie Intrusion	- HM
Kitchener	- HK
Aldridge - MID	- HA2
Aldridge - LWR	- HA1

TRAVERSE MAP

FORS GRID

LEGEND

- TRAVERSE ROUTE
- CLAIM BOUNDARY
- FAULT, Major, Minor
- ROAD
- CREEK
- (Zn) (11,72) ANOMALY (Pb, Zn) ppm.
- 67-1 DRILL HOLE
- T TRENCH

Revised Sept 8/89

10/3/89

N G E

6000

4000

3700

3800

5500

4500

L 9802

L 11313

L 1581

Monroe Lake

Little Lamb Creek

Gold Hill Creek

FAULT

MOYIE FAULT

MASSIVE ZONE

SHOWING

MIA

HIAWATHA

N/S TALUS

1966 GRID

L.C.P.

MOR

HA2

HA1

HM

HK

67-1

67-2

67-3

67-4

67-5

18-3A

0+50N

8+50N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,575

SCALE: 1:10,000

250 500 M

Geological Legend

Helikian - Proterozoic

Moyie Intrusion - HM

Kitchener - HK

Aldridge - MID - HA2

Aldridge - LWR - HA1

FORS GRID

LEGEND

CLAIM BOUNDARY

FAULT, Major, Minor

ROAD

CREEK

ANOMALY (Pb, Zn) ppm

DRILL HOLE

TRENCH

PURCELL EXPLORATIONS. DR. BY R.T. Bonting P.Eng. 10/3/87

L.M. C.K. R.T.B.