

GEOLOGICAL REPORT  
ON THE  
BEATRICE PROPERTY  
Revelstoke Mining Division  
British Columbia

for  
DUNHILL RESOURCE CORP.

by  
N.C. CARTER, PH.D. P.ENG.  
January 22, 1988

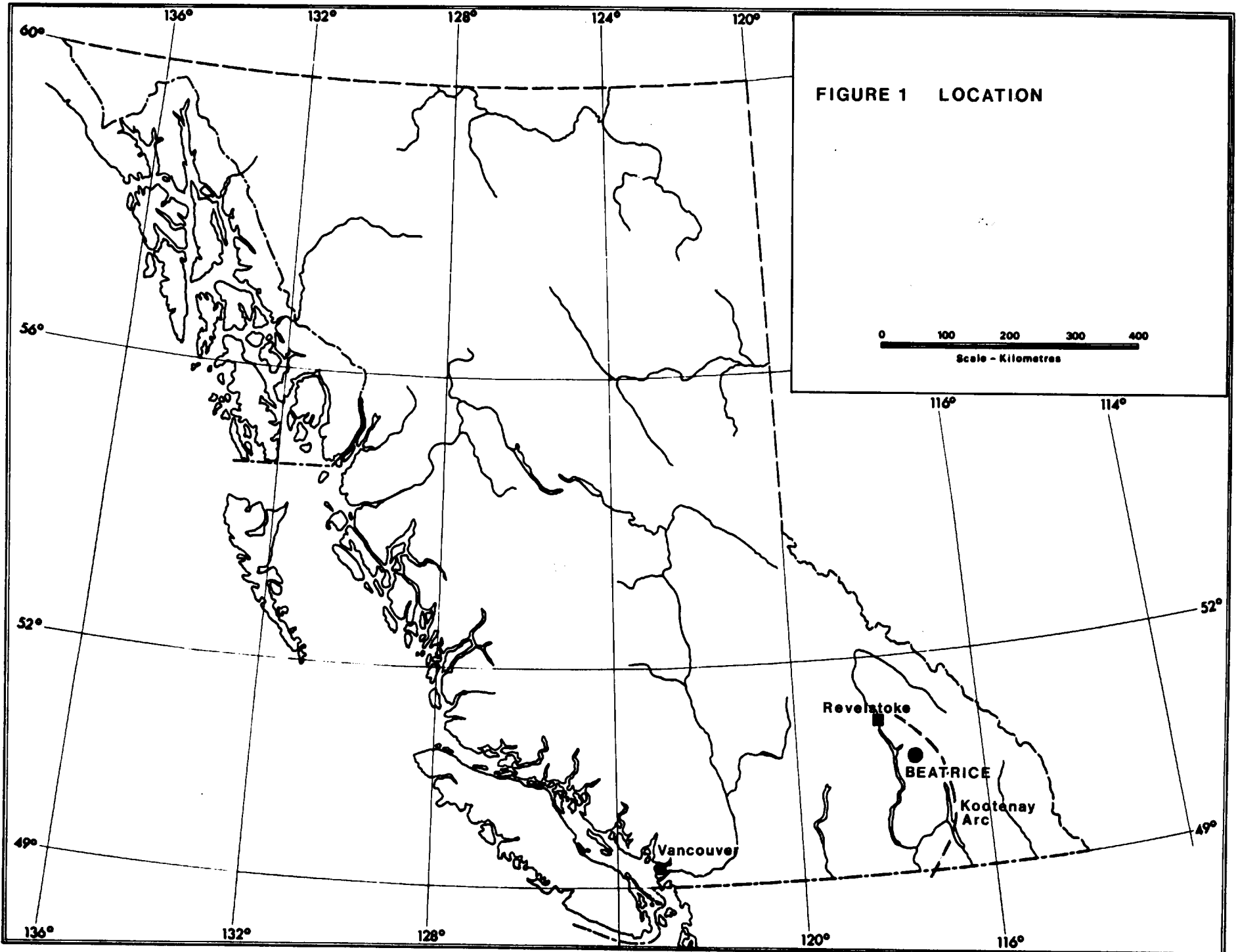
N.C. CARTER, Ph.D., P.Eng.  
CONSULTING GEOLOGIST

## TABLE OF CONTENTS

	Page
SUMMARY	1
INTRODUCTION	4
LOCATION AND ACCESS	4
MINERAL PROPERTY	5
HISTORY	6
PHYSICAL SETTING	7
REGIONAL GEOLOGICAL SETTING AND MINERAL DEPOSITS	8
PROPERTY GEOLOGY AND MINERALIZATION	11
CONCLUSIONS	18
RECOMMENDED PROGRAM	21
COST ESTIMATE	23
REFERENCES	24
CERTIFICATE	25
APPENDIX 'A' - Sample Assay Results	
APPENDIX 'B' - Smelter statements	

### List of Figures

	Following Page
Figure 1 - Location	Frontispiece
Figure 2 - Location-Beatrice Property	4
Figure 3 - Beatrice Property-Mineral Claims	5
Figure 4 - Beatrice Property-	12
Figure 5 - Beatrice Underground Workings	14



## SUMMARY

The Beatrice silver-lead-zinc property is situated in the Revelstoke Mining Division of southeastern British Columbia. The property is accessible by road from Revelstoke, Nakusp or Kaslo. Revelstoke, the main supply centre, is 35 air miles northeast of the property.

Mineralization was discovered on the Beatrice property prior to 1898 and work since that time has included some 2,000 feet of lateral and vertical underground development on four levels. Limited production from the property includes 580 tons prior to 1920 and 280 tons of dump material processed in 1984. A soil geochemical survey in 1978 and a limited diamond drilling program in 1980 constitutes the only recent exploratory work on the property.

The property is situated in fairly rugged terrain midway between the former mining communities of Ferguson and Camborne in the northern part of the Lardeau district. The geological setting is similar to that of the Ferguson camp and the property is underlain by a highly deformed northwest trending sequence which is the upper part of the Paleozoic Lardeau Group.

Two silver-lead-zinc vein structures are known on the property. The Beatrice vein consists of fine-grained pyrite, galena, sphalerite and some tetrahedrite in a quartz gangue and strikes northeasterly across the trend of the host rocks

which are dominantly black, graphitic phyllites. The structure is less than 3 feet wide and is exposed over a strike length of 70 feet on No.1 level. Part of the strike length has been stoped over a down dip distance of 110 feet between a surface glory hole and a point below the No.1 level. Much of this broken rock, amounting to a possible 1,500 tons, remains in the stopes, and while grab samples of this material good silver, lead and zinc grades, the potential costs in extracting this material may outweigh its indicated gross value. A possible 1,000 tons of dump material at the No.1 level portal has an estimated gross value of \$90 - \$130 per ton based on mill and smelter data for a 454 ton shipment in 1984.

The Main vein is exposed on three levels and is crudely conformable with the northwest striking, east dipping phyllitic host rocks. Better widths and grades of mineralization are found on the No.2 level and the sublevel above it. The distribution of grades on these two levels suggests that better values are contained in shoots, one of which has grades similar to those recovered in the past at the nearby Sunshine Lardeau mine.

A gold bearing quartz vein, reportedly east of the present workings has had little or no work done on it. A soil geochemical survey south of the workings has defined a northwest striking zone with coincident anomalous values for silver, lead and zinc, and which is open to the southeast.

The Beatrice property is an exploration prospect with two

partially developed vein structures which locally contain appreciable silver, lead and zinc grades. Lateral and vertical continuity of these structures remains to be demonstrated and a two phase program to further assess the potential of the property is recommended.

Phase I work, estimated to cost \$70,000, is recommended to include preparation of a detailed base map and establishment of survey control on the property prior to a program of detailed surface and underground geological mapping and sampling. Follow up geochemical sampling in the area of the previously defined silver-lead-zinc soil anomaly is also warranted, coupled with some trenching.

Contingent on results of first phase work, a second phase of surface diamond drilling to test both vein structures, at an estimated cost of \$130,000, would be in order.

## INTRODUCTION

Dunhill Resource Corp. holds an agreement with respect to the Beatrice property southeast of Revelstoke in southeastern British Columbia.

This report, prepared at the request of Messrs. Wayne Tyner and Brian Fisher of Dunhill Resource Corp. is a slight revision of a report on the property by the author written for Tyner Mining Corporation January 27, 1986. The original report was based on visits to the property September 7 and 24, 1985. The writer is not aware of any work having been done on the property since the 1986 report other than an October 26, 1987 report on the property by Nels Vollo, P.Eng. for Dunhill Resource Corp.

Both published and unpublished reports and maps used in the preparation of this report are listed in the References section.

## LOCATION AND ACCESS

The Beatrice property is situated 35 air miles southeast of Revelstoke in southeastern British Columbia (Figure 1). Geographic centre of the property is at latitude 50°44' North and longitude 117°33' West in NTS map-area 82K/12E.

Access to the area is by highway 23 south from Revelstoke a distance of 30 miles to the Galena Bay ferry on Upper Arrow Lake and then by 16 miles of secondary roads through Beaton to the former community of Camborne (Figure 2). The area is also accessible from the south by way of Nakusp or Kaslo.

A steep, narrow, four wheel drive road some seven miles

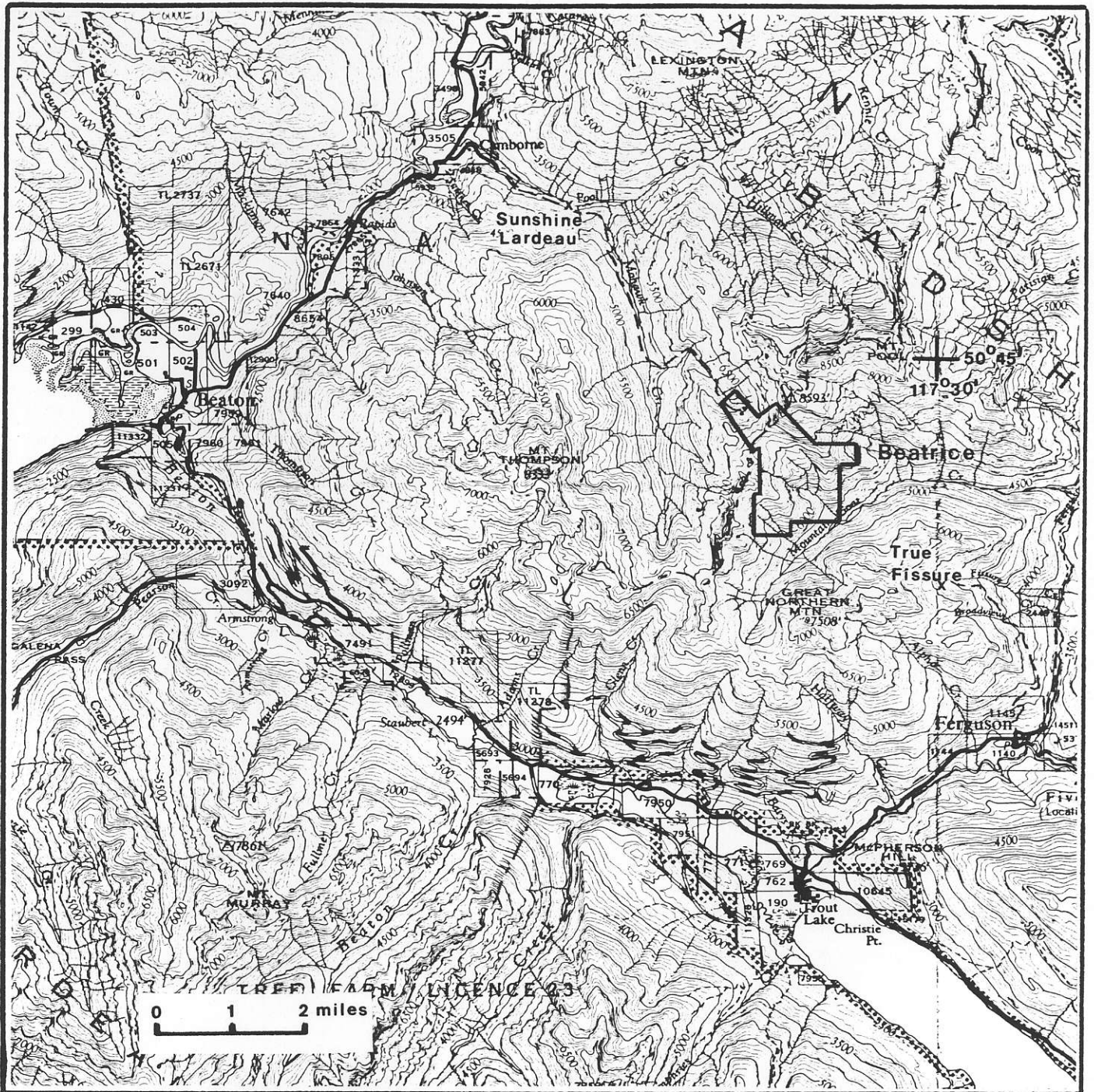


FIGURE 2 - LOCATION - BEATRICE PROPERTY



long, extends up Pool Creek and the east fork of Mohawk Creek and links the Beatrice camp with the former Sunshine Lardeau mill at Camborne (Figure 2).

Revelstoke, the nearest major supply point, is situated on the Trans Canada highway and the CP Rail main line.

#### MINERAL PROPERTY

The Beatrice property is comprised of 2 Crown granted mineral claims, 4 reverted Crown granted mineral claims and one Modified Grid claim of 16 units in the Revelstoke Mining Division (Figure 3). The claims are held by a Mr. E. Empey and are subject to an agreement with Dunhill Resource Corp.

Details of the claims are as follows:

<u>Name of Claim</u>	<u>Record Number</u>	<u>Lot Number</u>	<u>Units</u>	<u>Expiry Date</u>
Beatrice	-	4586		-
Folsom	-	4587		-
Donaldo	11306	3607		February 6, 1988
Maymie Mack	11307	8291		" "
Mina R	11308	8292		" "
Iron Mast	11309	8293		" "
Goat 1	1022	-	16	August 21, 1988

No posts were examined during visits to the property. While the Goat 1 mineral claim is a nominal 16 units, because of previously held ground at the time of location, it in fact consists of approximately 12 units as shown on Figure 3.

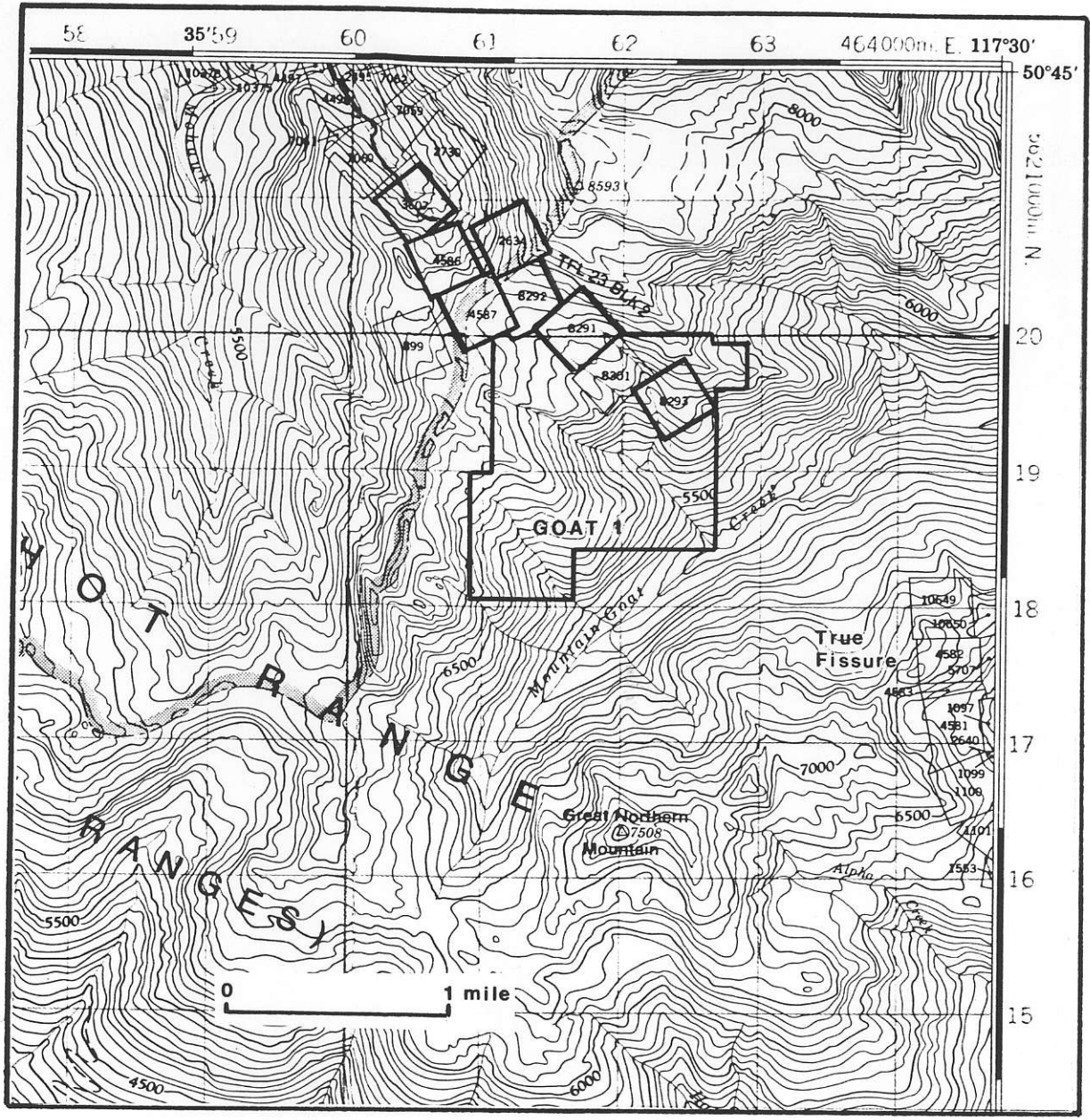


FIGURE 3 - BEATRICE PROPERTY - Mineral Claims

HISTORY

Silver-lead-zinc mineralization was discovered on the Beatrice property prior to 1898 during a period of extensive prospecting in the area between Ferguson and Camborne.

The Beatrice vein was developed by a surface cut prior to underground development which resulted in the discovery of the Main vein. Most of the present 2,000 feet of lateral and vertical underground workings were in place by 1907.

Several shipments were reportedly made from the property during this period and it is apparent that the major impediment to continued development was the great difficulty in sorting out zinc-rich material which at that time exacted a heavy smelter penalty. Total recorded production from the property is as follows:

<u>Shipments</u>	<u>Silver</u>	<u>Lead</u>	<u>Gold</u>
580 tons	45,409 oz. (78.3 oz/ton)	359,384 lb. (31%)	6 oz. (0.01 oz/ton)

Except for some limited work between 1915 and 1920, the property lay idle until the 1950's when the road was constructed and some rehabilitation of the underground workings was carried out. This work was concurrent with production at the nearby Sunshine Lardeau mine. In 1964 and 1965, some underground raising was reportedly done by Dakota Silver Mines Ltd.

A soil geochemical survey was carried out over the original claims on behalf of Arch Mining and Milling Ltd. in 1978 and

some underground sampling was done. Taseko Mines reportedly drilled 5 holes totalling 1,500 feet in 1980; results of this work are not known.

Mr. Wayne Tyner shipped 454.4 tons of No.1 adit dump material to the David Minerals Ltd. mill at Ainsworth where lead and zinc concentrates were produced and treated at the Cominco smelter in 1984.

#### PHYSICAL SETTING

The Beatrice property is situated south of Incomappleux River which flows into the northeast arm of Upper Arrow Lake (Figure 2). Pool and Mohawk Creeks, tributary to Incomappleux River, occupy deeply incised canyons within rugged terrain typical of the Selkirk Mountains. Elevations range from 1,700 feet above sea level at Camborne to nearly 8,600 feet less than a mile northeast of the property.

The Beatrice workings are at the head of a cirque near the height of land between the east fork of Mohawk Creek and Mountain Goat Creek (Figures 2 and 3). Heavy tree cover extends to the camp at 6,700 feet elevation, above which is open alpine country. Permanent ice and snow fields are common above 8,000 feet elevation.

Bedrock is well exposed and elevations within the claims area range from 5,000 feet at the southeast corner of the Goat mineral claim (Figure 3) to more than 7,600 feet near the east boundary of the Mina R claim. Principal workings are on a prominent rock spur above the cirque headwall.

## REGIONAL GEOLOGICAL SETTING AND MINERAL DEPOSITS

The Beatrice property is situated in the northern Lardeau silver-lead-zinc district of southeastern British Columbia. The Lardeau district is within the northeast part of the Kootenay arc, a curving belt of highly deformed sedimentary, volcanic and metamorphic rocks extending southeast from Revelstoke, south along Kootenay Lake and southwest across the International boundary (Fyles, 1962, 1967) (Figure 1).

Layered rocks within the arc range in age from earliest Paleozoic to Mesozoic and are steeply dipping and bowed around the eastern margins of the Mesozoic Nelson and Kuskanax batholiths which occupy the core of the arc.

Mining districts within Kootenay arc, including Salmo, Ainsworth, Slocan and Lardeau, have contributed a significant proportion of British Columbia's silver, lead and zinc production. Mineral deposits are of two principal types; concordant deposits in which lead and zinc and relatively low grade silver mineralization is disseminated in limestones and dolomites as in the Salmo camp, and more common, but smaller, transgressive deposits, including veins and shear zones containing locally high grade silver mineralization in addition to lead and zinc. Most deposits in the Ainsworth, Slocan and Lardeau districts are of the transgressive type.

The northeastern part of the Kootenay arc in the Camborne-Ferguson area (Figure 2) is underlain principally by early to

mid Paleozoic sediments and lesser volcanics of the Lardeau Group which are highly deformed and locally metamorphosed (Fyles and Eastwood,1962, Read,1975).

The Lardeau Group has been subdivided into six formations (Fyles and Eastwood,1962, Read,1975) and is comprised of a thick, predominantly clastic sedimentary assemblage with some intercalated calcareous varieties. A volcanic unit has been recognized in the upper part of the succession. The sequence is complexly folded with secondary folds superimposed on the limbs of a regional anticline and syncline in the Ferguson area (Fyles and Eastwood,1962). Both major and minor folds are overturned with steeply east-dipping axial planes and northwest plunging fold axes.

A northwest striking fault zone of regional extent transects the east limb of the major anticlinal structure in the Ferguson area and passes just north of the Nettie L, True Fissure, Beatrice and Sunshine Lardeau properties and across Incomappleux River (Read,1975).

The more significant mineral deposits in the Ferguson-Camborne area are veins and lodes containing galena, sphalerite tetrahedrite and minor chalcopyrite developed in more brittle rocks of the Lardeau Group. More than 85% of recorded production in the Ferguson camp (Fyles and Eastwood,1962) amounting to 44,259 tons grading 0.156 ounces per ton gold, 49.8 ounces per silver, 10.23% lead and 0.49% zinc has come from deposits

hosted by Lardeau Group rocks.

Three deposits have accounted for most of the Ferguson area production (see following table) while the Sunshine Lardeau mine was the major producer at Camborne.

Ferguson Area

	Tons	Gold(oz)	Silver(oz)	Lead(lb)	Zinc(lb)
True Fissure	5,310	216 (0.041)	50,815 (9.57)	702,063 (6.6%)	286,571 (2.7 %)
Nettie L	12,820	781 (0.061)	459,253 (35.82)	1,309,868 (5.1%)	28,239 (0.11%)
Silver Cup	22,544	4,978 (0.221)	1,419,339 (62.96)	5,684,204 (12.6%)	110,447 (0.24%)

Camborne

Sunshine Lardeau (Spider, Eclipse)	136,800	11,913 (0.087)	1,719,474 (12.57)	23,908,706 (8.7%)	25,396,066 (9.3%)
---------------------------------------	---------	-------------------	----------------------	----------------------	----------------------

Average camp grade for gold in the Ferguson area is heavily weighted by Silver Cup production (average 0.156 oz/ton); the True Fissure and Nettie L grades of 0.041 and 0.061 oz/ton respectively, more properly reflect average gold grades of these deposits. Sunshine Lardeau average recovered grade of 0.087 oz/ton gold is a reflection of the greenstone host rock which is known to host nearby gold-bearing quartz veins.

With the exception of Sunshine Lardeau production, average zinc grades are misleading; zinc was not recovered at most deposits prior to 1917 (Fyles and Eastwood, 1962). Not shown in the table is some copper production; True Fissure produced 1,144 lbs. (0.01%) and Sunshine Lardeau 188,161 lbs. (0.07%).

Deposits in the Ferguson area are near the crest of the major anticlinal structure and south of the regional northwest striking fault zone. These two structures extend northwesterly through Camborne. The Silver Cup and Nettie L deposits are hosted by siliceous argillites and quartzites of the middle part of the Lardeau Group; True Fissure mineralization is within a phyllite-grit sequence of the Broadview formation at the top of the Lardeau succession. Better sections of the Spider and Eclipse veins of the Sunshine Lardeau mine were hosted by carbonate altered greenstones of the volcanic formation underlying the Broadview formation.

While most deposits occupy northerly-trending shear zones of some lateral extent, better mineralized shoots are not continuous along them. Zone widths are commonly in the 5 feet range and these may extend over strike lengths and down dip distances of a few hundred feet.

Quartz and lesser carbonates are the main gangue minerals and oxidation of sulfides to some depth is not uncommon.

#### PROPERTY GEOLOGY AND MINERALIZATION

The Beatrice property is underlain by dark grey to black, locally carbonaceous phyllites and grey, quartz-rich grits of the Broadview formation which extends from the True Fissure property on the northeast slope of Great Northern Mountain 3 miles southeast. (Figures 2 and 4). Principal workings on the



Beatrice are immediately south of the extension of the major northwest fault zone in the Ferguson area (Read, 1975).

The following description is based on the writer's observations and on previously prepared reports by Sanders (1964), Ashton (1979) and Hart (1982). Hart's report summarizes a number of previous reports and results of earlier sampling on the property. Only a cursory examination of surface exposures was possible during the writer's property examination because of snow cover. Numbers 1 and 2 adits were examined and six samples were collected to confirm earlier results.

Schistose varieties of the principal rock types prevail and graphitic phyllites are overlain by grey, schistose grits which make up the prominent spur ridge at the head of the cirque. Schistosity strike north to northwest and dip moderately to steeply east. The sequence in the cirque headwall appears to be on the west limb of a synform which has a northwest plunge of about 20°.

Underground workings on the property total some 2,000 feet, and most were in place prior to 1920. These include three adit levels over a vertical range of 360 feet, a sublevel and several stopes. Nos. 1 and 2 levels were connected by a vertical shaft (Figure 5), which is currently accessible only between No. 2 level and a sublevel 60 feet above it. A stoped area between the surface glory hole, 60 feet vertically above the upper or No. 1 level, is partly accessible by a manway from the level.

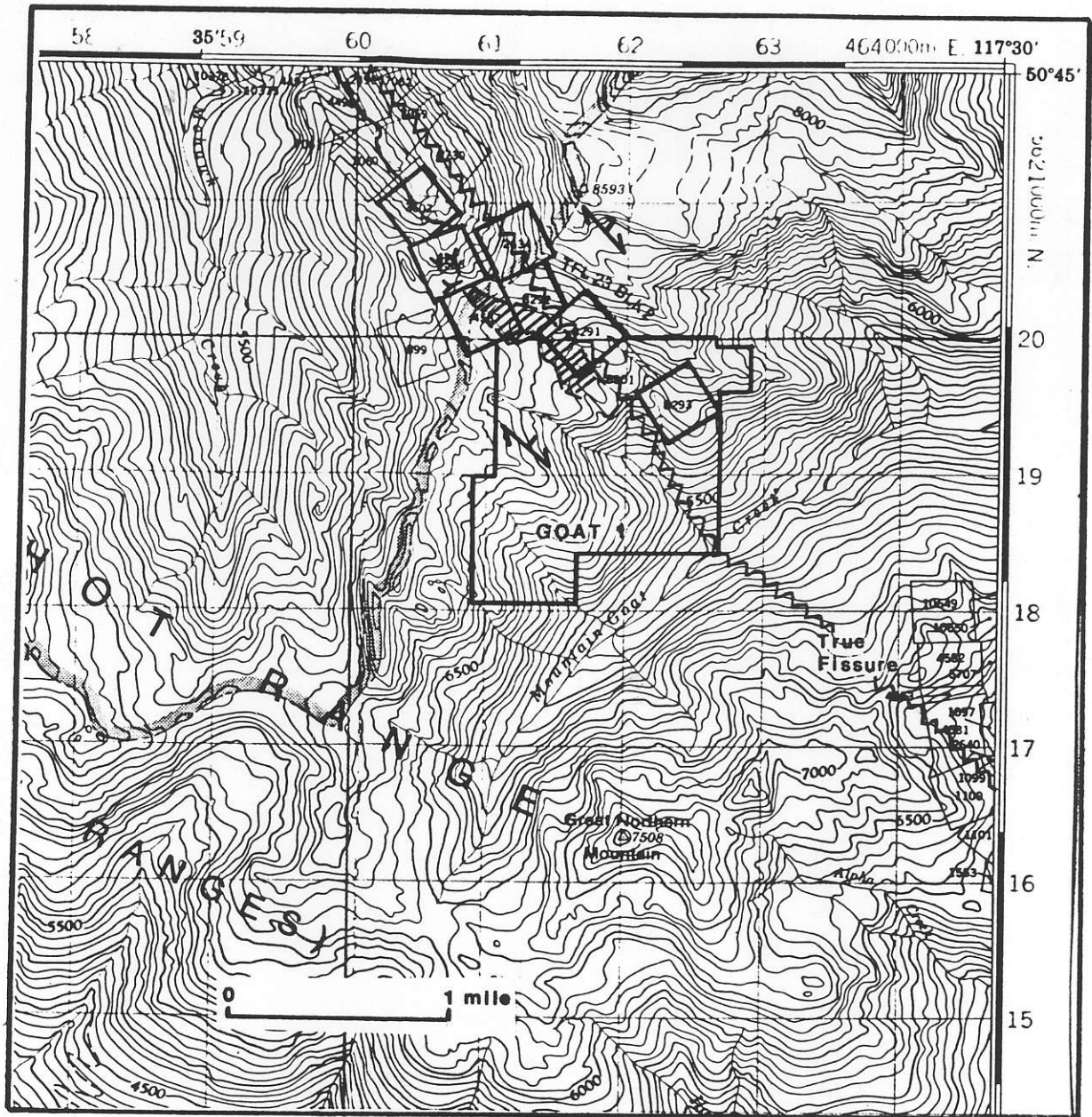




FIGURE 4 - BEATRICE PROPERTY

-  Adit
-  Soil Geochemical Anomaly
-  Fault
-  Schistosity

This stoped area, some 30 feet in length, apparently extends 20 feet below the No. level (Sanders, 1964) and is now filled with water. No. 3 adit is 200 feet vertically below, and several hundred feet west of No. 2 portal. This level was apparently driven only a few hundred feet and is between 350 and 500 feet from the Main vein.

Two principal mineralized structures are known on the property. The original surface discovery was on the Beatrice vein which was exposed on the west side of the prominent spur ridge in the cirque headwall. This vein was developed by an open cut prior to underground development by way of No. 1 level which included stoping to surface. Mineralization exposed in the walls of the present glory hole is contained in a shear zone up to 25 feet wide which strikes northeasterly or normal to the trend of the host grey grits. The main mineralized zone, less than 2 feet wide and dipping steeply south, consists of nearly massive fine grained pyrite, sphalerite, galena and some tetrahedrite (as evidenced by copper staining) in a quartz gangue. Both hangingwall and footwall rocks contain numerous quartz-sulfide stringers. The following table summarizes results of previous sampling and includes one collected by the writer.

Glory Hole

Main zone	Width	Silver (oz/ton)	Lead (%)	Zinc (%)
Weighted average-2 samples	1.75'	17.34	1.21	31.2
2 Grab samples - average	-	43.15	13.7	34.9

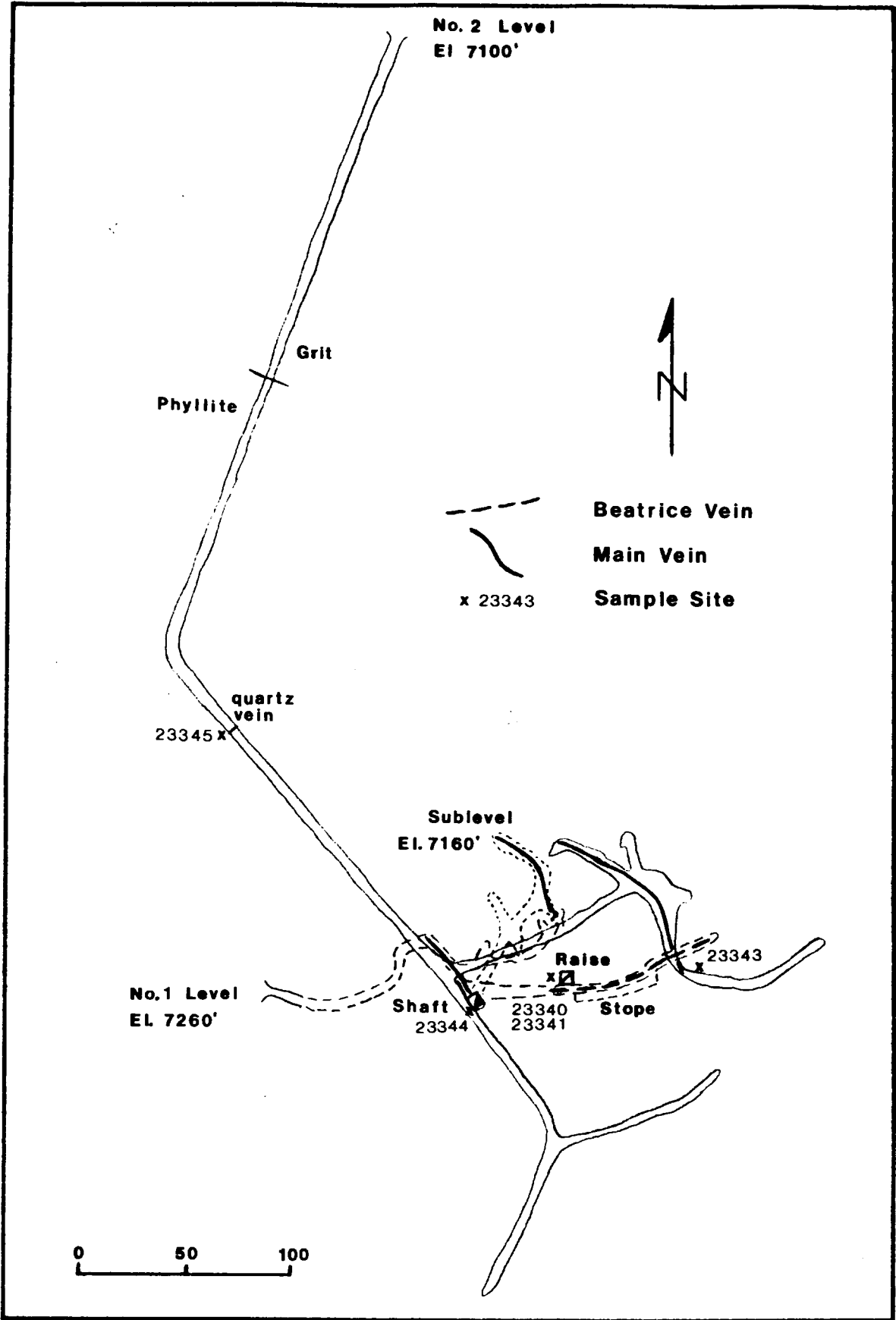
Glory Hole (cont.)

	<u>Width</u>	<u>Silver (oz/ton)</u>	<u>Lead (%)</u>	<u>Zinc (%)</u>
Hangingwall Weighted average- 3 samples	9 ft.	13.25	2.38	12.88
Footwall 2 samples	3.5 ft.	0.69	0.2	0.1
Random chips- 23342	-	2.48	0.41	1.84

These data indicate good grades over an appreciable width, developed in the competent grey grit unit. Not included in the table are some gold assays - these range from 0.005 to 0.04 ounces per ton.

The contact between the grey grits and underlying, less competent black graphitic phyllites and schists, the principal host rocks on the property, is midway between the glory hole and No. 1 level (Sanders, 1964). The first 160 feet of No. 2 level is also in the grit unit, indicating a 20° northwest plunge for the fold structure on the property.

The Beatrice vein is exposed in the easternmost section of the main drift on No. 1 level (Figure 5). Several stopes between this level and the glory hole were the source of early shipments and the dump material below No. 1 level portal. As previously mentioned, stoping below the level was reportedly carried out to a depth of 20 feet and over a length of 30 feet. This area is full of water and precluded access to the face of the drift. One stope above the level was accessible by way of a 35 ft. manway. Here, the vein structure is 2.6 feet wide and strikes north 60°



**FIGURE 5 - BEATRICE UNDERGROUND WORKINGS**

east, and is vertical. Fine grained galena and sphalerite are contained in a quartz gangue. Two samples collected from this area are listed on the following table which includes previously collected samples (Hart,1982).

No.1 Level-Beatrice vein

<u>Sample</u>	<u>Width</u>	<u>Silver(oz/ton)</u>	<u>Lead(%)</u>	<u>Zinc(%)</u>	<u>Gold(oz/ton)</u>
Drift face (3 samples)	2.5'	13.25	3.13	10.19	0.016
Stope- (8 samples)	grabs	23.57	7.03	14.41	0.02
Stope- 23340	2.6'	3.02	0.64	15.00	0.005
Stope- 23341	grab	17.38	3.23	4.69	0.007
Dump (8 samples)	grabs	18.58	3.04	12.27	N/A

Higher silver values are only partly related to lead content and it is thought that at least some of the silver is contained in tetrahedrite and possibly other silver minerals. Copper assays for samples collected by the writer range from 0.03 to 0.70%.

An average of 8 grab samples collected from the dump by Ashton (Hart,1982) indicate good values. Perhaps a more realistic estimate of actual grades is based on mill and smelter assays for the 454.5 ton shipment in 1984. Average head grades reported by the David Minerals Ltd. mill were 10.67 oz/ton silver, 2% lead and 3.41% zinc. Cominco smelter data (Appendix B) indicate average calculated grades of 5.88 oz/ton silver, 0.013 oz/ton gold, 1.19% lead, 2.53% zinc and 0.05% copper.

The Main vein is exposed on three levels (Figure 5), but apparently has no surface expression. Unlike the Beatrice vein, it is crudely conformable to the trend of the host graphitic phyllites, striking northwest and dipping 65° to the northeast. On No.1 level, the structure is narrow (Sanders,1964) and appears to be of little consequence. On the sublevel, 100 feet vertically below, the Main vein is reportedly exposed over a length of 50 feet and is between 1.3 and 2.6 feet wide. On No.2 level, it is reportedly between 2 and 9 feet wide (Hart,1982) and is exposed over an 80 feet strike length. Although increasing in width between the sublevel and No.2 level, there is a corresponding decrease in grade, as indicated on the following table which lists weighted averages for previously collected samples and the results of two samples collected by the writer. A number of the listed samples were collected from chutes connected to stopes above No.2 level. The sublevel was inaccessible during the writer's examination; consequently some reliance is made on previously collected samples.

Sublevel

<u>Sample</u>	<u>Width</u>	<u>Silver(oz/ton)</u>	<u>Lead(%)</u>	<u>Zinc(%)</u>	<u>Gold(oz/ton)</u>
Wtd. Average -6 samples	1.8'	32.47	11.39	18.2	0.02
Average- 6 samples	grabs	28.1	17.1	16.4	N/A
Grab-chute by shaft 23344	-	55.4	17.8	23.5	0.034

No.2 Level

<u>Sample</u>	<u>Width</u>	<u>Silver(oz/ton)</u>	<u>Lead(%)</u>	<u>Zinc(%)</u>	<u>Gold(oz/ton)</u>
Wtd. average -7 samples	4.1'	2.67	0.86	2.53	0.02
23345- grab-chute	-	1.86	0.39	2.09	0.005

As with the Beatrice vein, higher silver values are believed to be associated with tetrahedrite and other silver minerals in addition to galena.

A gold-bearing quartz-pyrite vein is reportedly (Hart,1982) 600 feet northeast of the surface projection of the Main vein. This has apparently been traced on surface for several hundred feet; no assay data are available.

A sample was collected from a 2 feet wide quartz-sulfide vein which crosses No. 2 level (Figure 5). This assayed 1.59 ounces per ton silver, 0.030 ounces per ton gold, 0.48% lead, 0.56% zinc and 0.03% copper.

A soil geochemical survey was carried out by Ashton(1979) over three claims south of the principal workings (Figure 4). Samples were collected at 100 ft. stations along lines oriented across the strike of the Main vein, and were analyzed for silver, lead and zinc. A northwest trending zone, apparently on strike with the Main vein, measuring 2500 by 400 feet contains anomalous silver, lead and zinc values. Elevated values within the zone range from 2 to 16 ppm silver and 60 to 1223 ppm lead. Zinc has a more diffuse pattern, with values in the



100 to 353 ppm range.

#### CONCLUSIONS

The Beatrice property includes two silver-lead-zinc vein structures which have been only partially tested by underground workings. Previous sampling provides some information regarding grades of mineralization, exposed lengths and widths, and possible vertical extents.

The Beatrice vein is known to have a down dip extent of 90 feet between the surface glory hole and the stope some 20 feet below the No.1 level. It is exposed along the level for a distance of 70 feet and samples taken from the face of the drift suggest its continuation beyond this point. Up to 30 feet of the vein length has been stoped to a depth of 20 feet below the level and between the level and the glory hole. Much of the broken mineralized rock remains in the stoped areas and the average of 8 previously collected grab samples (23.57 ounces silver per ton, 7.03% lead and 14.41% zinc) gives an indication of the grade of this material. There could be as much as 1,500 tons of broken rock in the stopes above and below the level; the potential value of this material is dependent on the degree of oxidation and the costs of rehabilitating the level and the chutes from the upper stopes.

The down dip continuity of the Beatrice vein below the No.1 level has not been established. Assuming a -65° average

southerly dip, the southeast workings on the No.2 level would be 10 to 20 feet short of intersecting the structure (Sanders, 1964; Figure 5).

Some 1,000 tons of Beatrice vein material may be present on the dump below No.1 level portal. The best estimate of average grade, based on mill and smelter data for a 1984 shipment, is 5.88 - 10.67 oz/ton silver, 0.013 oz/ton gold, 1.19 - 2% lead, 2.53 - 3.41% zinc and 0.05% copper, or a gross value per ton of approximately \$90 to \$130.

The Main vein has a demonstrated down dip continuity of 190 feet between the Nos. 1 and 2 levels, with better widths and grades exposed in the the sublevel and the No.2 level. On the sublevel, the structure has an average width of 1.8 feet and is exposed over a 50 feet length. Assuming a 5 feet mining width, zero grade for dilution and a vertical continuity of 30 feet both above and below the sublevel, there is an estimated geological reserve of 1,500 tons grading 11.49 ounces silver per ton, 4.03% lead, 7.78% zinc and 0.007 ounces per ton gold.

The Main vein on No.2 level has an exposed strike length of 80 feet and was partially developed by stopes above the level. Making the same assumptions as those for the sublevel, a geological reserve of 2,400 tons grading 2.19 ounces silver per ton, 0.70% lead, 2.08% zinc and 0.016 ounces gold per ton is estimated.

It is apparent on comparing values between the sublevel and

and No.2 level that better grades occur in shoots within the vein structure, a feature not uncommon in the nearby Ferguson camp.

The estimated grades for the sublevel, with the exception of the gold values, are somewhat comparable with recovered grades at the nearby Sunshine Lardeau property (12.57 ounces silver per ton, 8.7% lead, 9.3% zinc and 0.087 ounces gold per ton, having a value of \$260/ton at current metal prices). Potential reserves above and below the sublevel have a gross value of \$200/ton, and in the writer's opinion, material of this grade or better is necessary to sustain a viable operation.

Sunshine Lardeau was an 80 ton per day operation, and a similar currently producing mine in southeastern British Columbia is the Silvana operation of Dickenson Mines Ltd. This is an underground mine with a 100 tons per day mill, and operating costs in 1984 were slightly less than \$200 per ton. 1984 reserves were 55,000 tons grading 15.4 ounces silver per ton, 5.5% lead and 6.2% zinc.

Drilling to test lateral and down dip continuity of the known vein structures on the Beatrice property has been recommended on at least two occasions in the past (Sanders, 1964; Ashton, 1979) but never carried out. Sanders (1964) recommended a program of underground drilling from the sublevel to test the Beatrice vein. While this would conserve drill footage in testing the structure, it is not considered to be a practical undertaking in view of

the expense in rehabilitating the No.2 level and the narrow manway up to the sublevel. Utilization of the underground workings for possible future exploration and development could be considered, pending positive results from an exploratory program as outlined in the succeeding section of this report.

The Beatrice property is an exploration prospect with indications of good grade silver-lead-zinc mineralization. A program to further assess its potential is warranted.

#### RECOMMENDED PROGRAM

A two phase program is recommended, with phase one consisting of geological mapping, follow-up soil geochemistry and some trenching and blasting.

A 1:5000 base map of the property should be prepared prior to field work and survey control should be established. Detailed geological mapping is required in the area of the principal workings, and any surface expression of mineralization should be trenched. Particular attention should be directed to locating and sampling the gold-bearing quartz vein referred to in earlier reports.

Underground workings require surveying and washing of the walls prior to detailed geological mapping and sampling. The present condition of the workings is considered to be adequate to perform this work, but should be checked by qualified

personnel.

Follow-up sampling is required to further assess the 1979 geochemical survey results. It may be necessary to re-establish the original results and prospecting is recommended to assist in determining the source of the anomalous values. The anomalous zone as defined to date is open to the southeast, and additional sampling is recommended for the Goat 1 claim.

Contingent on gaining a better understanding of the nature and structural style of mineralization, a program of diamond drilling would constitute the second phase. It is envisioned that both vein structures would be tested from surface, with locations of holes predicated on results of first phase work.

Repairs to the present access road will be required prior to any work on the property. Two bridges on the east fork of Mohawk Creek may need to be replaced and inevitable sloughing during spring run off will have to be removed. As noted previously, this is a steep, narrow road, and some consideration should be given to the possibility of constructing a road around the head of Mountain Goat Creek, southeast of the property, to link up with the True Fissure road system from Ferguson.

Present camp facilities on the property should be adequate for first phase work, but additional facilities would be required for the drilling phase.

COST ESTIMATE

Phase I

Geological mapping - surface and underground	\$10,000.00
Base map preparation - survey control	\$7,500.00
Road maintenance	\$10,000.00
Camp and support costs	\$7,500.00
Geochemical sampling	\$3,500.00
Backhoe trenching, blasting	\$6,000.00
Sample analyses	\$4,000.00
Engineering, supervision	\$5,000.00
Miscellaneous travel	\$4,000.00
Contingencies	<u>\$12,500.00</u>
Total	\$70,000.00

Phase II

Diamond drilling - 3,000 ft. @ \$30/ft.	\$90,000.00
Sample analyses	\$3,500.00
Engineering, supervision	\$5,000.00
Camp and support costs	\$10,000.00
Contingencies	<u>\$21,500.00</u>
Total	\$130,000.00

N.C. Carter, Ph.D. P.Eng.

REFERENCES

- Ashton, A.S. (1979): Geochemical Survey, Beatrice Mine, Revelstoke Mining Division, British Columbia, B.C. Ministry of Energy Mines and Petroleum Resources Assessment Report 7207
- Eastwood, G.E.P. (1957): Spider, Eclipse, in Minister of Mines and Petroleum Resources Annual Report 1956, pp. 99-105
- Fyles, J.T. (1967): Geology of the Ainsworth-Kaslo Area, British Columbia; B.C. Department of Mines and Petroleum Resources Bulletin No. 53
- Fyles, J.T. and Eastwood, G.E.P. (1962): Geology of the Ferguson Area, British Columbia, B.C. Department of Mines and Petroleum Resources Bulletin No. 45
- Hart, R.C. (1982): An Analysis of Reports on the Beatrice Property, Revelstoke Mining Division, B.C.-private report  
Minister of Mines, B.C., Annual Reports 1898-1903, 1905-1907, 1914, 1916-1921, 1954-1958, 1964-1965
- Read, P.B. (1975): Lardeau West-Half, Geological Survey of Canada Open File 288
- Sanders, K.G. (1964): Report on the Beatrice Property-private report for Dakota Silver Mines Ltd.
- Walker, J.F., Bancroft, M.F., and Gunning, H.C. (1929): Lardeau Map-Area, British Columbia, Geological Survey of Canada Memoir 161

CERTIFICATE

I, NICHOLAS C. CARTER, of 1410 Wende Road, Victoria, B.C., do hereby certify that:

1. I am a Consulting Geologist registered with the Association of Professional Engineers of British Columbia since 1966.
2. I am a graduate of the University of New Brunswick with B.Sc. (1960), Michigan Technological University with M.S. (1962) and the University of British Columbia with Ph.D. (1974).
3. I have practised my profession in eastern and western Canada and in parts of the United States for more than 25 years.
4. The foregoing report on the Beatrice property, Revelstoke Mining Division, British Columbia, is based on visits to the property September 7 and 24, 1985 and is a revision of a report originally prepared by me for Tyner Mining Corporation dated January 26, 1986.
5. I hold no interest, direct or indirect, in the Beatrice property or in the securities of Dunhill Resource Corp.

N.C. Carter, Ph.D. P.Eng.

Victoria, B.C.  
January 22, 1988

N.C. CARTER, Ph.D., P.Eng.  
CONSULTING GEOLOGIST





# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.  
North Vancouver, B.C.  
Canada V7J 2C1

Phone: (604) 984-0221  
Telex: 043-52597

## CERTIFICATE OF ASSAY

TO : KILD GOLD MINES LTD.  
210 BURNES HOUSE  
26 BASTION SQUARE  
VICTORIA, B.C.  
V8W 1H9

\*\* CERT. # : A8516983-001-A  
INVOICE # : I8516983  
DATE : 10-OCT-85  
P.O. # : NONE  
BEATRICE

Sample description	Prep code	Cu %	Pb %	Zn %	Ag FA oz/T	Au FA oz/T	
23340	207	0.05	0.64	15.00	3.02	0.005	--
23341	207	0.23	3.23	4.69	17.38	0.007	--
23342	207	0.02	0.41	1.84	2.48	0.005	--
23343	207	0.03	0.39	2.09	1.86	0.005	--
23344	207	0.70	17.80	23.50	55.40	0.034	--
23345	207	0.03	0.48	0.56	1.59	0.030	--

VOI rev. 4/85

.....  
Registered Assayer, Province of British Columbia



LEAD CONCENTRATE COMINCO LTD. JANUARY 25, 1985

TRAIL, B.C.

PRELIMINARY SETTLEMENT: W. TYNER-PB CN

IN ACCOUNT WITH: W. TYNER  
 817 MCQUEEN DRIVE  
 KAMLOOCS, B.C.

LOT NUMBER: 2 SERIAL NUMBER: 7160

CAR NUMBERS DATE RECEIVED

1 TRUCK 12 05 84

NET WET WEIGHT MOISTURE NET DRY WEIGHT SHORT DRY TONS

26860 LBS 14.7000 % 22912 LBS 11.4560

ASSAYS:	GOLD	SILVER	COPPER	LEAD	ZINC	SULPHUR	SILIC
	0.3350	180.1500	1.8000	23.4000	23.0000	27.7000	4.500
	OZ/ DRY TON	%	%	%	%	%	%

ALUMINA	IRON	LIME	ANTIMONY	ARSENIC	BISMUTH	MAGNESIA	CADMI
0.0000	10.2000	0.1000	1.5000	0.1500	0.0000	0.0700	0.13
%	%	%	%	%	%	%	%

METAL PRICES: JAN 22, 1984

EXCHANGE: \$US TO \$CDN = 1.32170 STERLING TO \$US = 1.13400

LABOUR RATE = 18.140

COMINCO CDN PRICE 26.500 \* 0.000 = 0.00000

US PRICE 18.000 \* 1.32170 \* 0.600 = 14.27436

LME PRICE 350.220 \* 1.13400 / 2204.6 \* 1.32170 \* 0.400 = 9.52395

CALCULATED LEAD PRICE = 23.79831

PB PRICE 23.79831 - 12.00 - 0.25 ( 23.79831 - 33.00 ) = 11.79831 \$/LB

ZN PRICE 900.000 / 2204.6 \* 1.32170 - 15.00 = 38.95673 \$/LB

AG PRICE 6.07860 \* 1.32170 \* .970 - 0.00000 = 7.79306 \$/OZ

AU PRICE 303.14300 \* 1.32170 \* 0.98 - 0.000 = 392.65082 \$/OZ

CU PRICE 56.127 \* 1.32170 - 20.000 = 54.18306 \$/LB

PAYMENTS PER TON

	CONTENT	DEDUCTIONS	PAID FOR	
PB	468.00 LBS	39.37 LBS	428.63 LBS	=\$ 50.57 LEAD
ZN	460.00 LBS	184.00 LBS	276.00 LBS	=\$ 107.52 ZINC
AG	180.1500 OZ	12.9453 OZ	167.2047 OZ	=\$ 1303.04 SILVER
AU	0.3350 OZ	0.0300 OZ	0.3050 OZ	=\$ 119.76 GOLD
CU	36.00 LBS	21.60 LBS	14.40 LBS	=\$ 7.80 COPPER
			TOTAL PAYMENT	=\$ 1588.69

DEDUCTIONS

BASIC TREATMENT CHARGE	=\$ -145.00
C.P. INDEX	=\$ -1.55
SULPHUR PENALTY	=\$ -30.80
ARSENIC + ANTIMONY	=\$ -2.01
LABOUR: LABOUR RATE = 18.140	=\$ -1.25
MOISTURE	=\$ -5.50
NET DEDUCTIONS	=\$ -186.13
VALUE/S.D.T. -- F.O.B. TADANAC	=\$ 1402.56
VALUE/S.D.T. * 11.4560 S.D.T.	=\$ 16067.73
ADVANCE PAYMENT	=\$ 12050.00



ZINC CONCENTRATE COMINCO LTD. JANUARY 10, 1985  
TRAIL, B.C.  
PRELIMINARY SETTLEMENT: W. TYNER-ZN CN

IN ACCOUNT WITH: W. TYNER  
817 MCQUEEN DRIVE  
KAMLOOCS, B.C.

LOT NUMBER: 1 SERIAL NUMBER: 7152

CAR NUMBERS	DATE RECEIVED	NET WET WEIGHT	MOISTURE	NET DRY WEIGHT	SHORT DRY TONS			
1 TRUCK	12 03 84	49200 LBS	10.1000 %	44231 LBS	22.1155			
ASSAYS:		GOLD	SILVER	COPPER	LEAD	ZINC	SULPHUR	SILIC
		0.0970	35.4000	0.3300	10.9000	40.2000	31.6000	2.8000
		OZ/ DRY TON		%	%	%	%	%
ALUMINA	IRON	LIME	ANTIMONY	ARSENIC	BISMUTH	MAGNESIA	CADMI	
0.0000	10.3000	0.0500	0.2500	0.1000	0.0000	0.0400	0.21	
%	%	%	%	%	%	%	%	%

METAL PRICES: JAN 8, 1984

EXCHANGE: \$US TO \$CDN	= 1.32040	STERLING TO \$US	= 1.14840
LABOUR RATE	= 18.140		
COMINCO CDN PRICE	59.250 * 0.000		= 0.00000
US PRICE	45.000 * 1.32040 * 0.600		= 35.65080
LME PRICE	900.000 / 2204.6 * 1.32040 * 0.400		= 21.56146
		CALCULATED ZINC PRICE	= 57.21226
PB PRICE	354.500 * 1.14840 * 1.32040 / 2204.6 - 0.100		= 14.38289 \$/LB
ZN PRICE	57.21226 - 0.000		= 57.21226 \$/LB
AG PRICE	6.01280 * 1.32040 * .970 - 0.000		= 7.70112 \$/OZ
AU PRICE	302.24000 * 1.32040 * 0.98 - 0.000		= 391.09614 \$/OZ

PAYMENTS PER TON	CONTENT	DEDUCTIONS	PAID FOR		
PB	218.00 LBS	43.60 LBS	174.40 LBS	=\$	25.08 LEAD
ZN	804.00 LBS	151.75 LBS	652.25 LBS	=\$	373.17 ZINC
AG	35.4000 OZ	2.5394 OZ	32.8606 OZ	=\$	253.06 SILVER
AU	0.0970 OZ	0.0500 OZ	0.0470 OZ	=\$	18.38 GOLD
			TOTAL PAYMENT	=\$	669.69

DEDUCTIONS:

BASIC TREATMENT CHARGE	=\$	-215.00
C.P. INDEX	=\$	-1.50
LABOUR: LABOUR RATE = 18.140	=\$	-1.25
ZINC PRICE	=\$	-25.24
IRON = ( 10.3000 - 0.1 % ) * 1.80	=\$	-18.54
MOISTURE	=\$	-4.15
SILICA	=\$	-1.15
NET DEDUCTIONS	=\$	-266.83
VALUE/S.D.T. -- F.O.B. TADANAC	=\$	402.86
VALUE/S.D.T. * 22.1155 S.D.T.	=\$	8909.45
ADVANCE PAYMENT	=\$	6680.00





CUSTOM LEAD ORE COMINCO LTD. JANUARY 22, 1985  
TRAIL, B.C.  
PRELIMINARY SETTLEMENT: W. TYNER

IN ACCOUNT WITH: W. TYNER  
817 MCQUEEN DRIVE  
KAMLOOCS, B.C.

LOT NUMBER: 1 SERIAL NUMBER: 7159

CAR NUMBERS		DATE RECEIVED		NET DRY WEIGHT		SHORT DRY TONS	
1 TRUCK		12 05 85		7056 LBS		3.5280	
NET WET WEIGHT	MOISTURE						
8000 LBS	11.8000 %						
ASSAYS: GOLD	SILVER	COPPER	LEAD	ZINC	SULPHUR	SILIC.	
0.0220	49.0500	0.4200	14.2000	13.7000	13.6000	37.0000	
OZ/ DRY TON							
ALUMINA	IRON	LIME	ANTIMONY	ARSENIC	BISMUTH	MAGNESIA	CADMI
7.6000	6.0000	0.3000	0.4000	0.0800	0.0100	0.0000	0.00
%	%	%	%	%	%	%	%

METAL PRICES:	JAN 22, 1984	
EXCHANGE: \$US TO \$CDN	= 1.32170	STERLING TO \$US = 1.13400
LABOUR RATE	= 18.140	
COMINCO CDN PRICE	26.500 * 0.000	= 0.00000
US PRICE	18.000 * 1.32170 * 0.600	= 14.27436
LME PRICE	350.220 * 1.13400 / 2204.6 * 1.32170 * 0.400	= 9.52395
	CALCULATED LEAD PRICE	= 23.79831
PB PRICE	23.79831 - 12.00 - 0.25 ( 23.79831 - 33.00 )	= 11.79831 ¢/LB
ZN PRICE	900.000 / 2204.6 * 1.32170 - 15.00	= 38.95673 ¢/LB
AG PRICE	6.07860 * 1.32170 * .970 - 0.00000	= .7.79306 ¢/OZ

PAYMENTS PER TON		DEDUCTIONS		PAID FOR	
PB	284.00 LBS	22.72 LBS	261.28 LBS	=\$	30.83 LEAD
ZN	274.00 LBS	109.60 LBS	164.40 LBS	=\$	64.04 ZINC
AG	49.0500 OZ	3.5116 OZ	45.5384 OZ	=\$	354.88 SILVER
			TOTAL PAYMENT	=\$	449.75

DEDUCTIONS		
BASIC TREATMENT CHARGE		=\$ -283.45
C.P. INDEX		=\$ -1.50
ALUMINA		=\$ -6.39
LABOUR: LABOUR RATE = 18.140		=\$ -1.25
MOISTURE		=\$ -2.60
NET DEDUCTIONS		=\$ -295.20
VALUE/S.D.T. -- F.O.B. TADANAC		=\$ 154.55
VALUE/S.D.T. * 3.5280 S.D.T.		=\$ 545.25
ADVANCE PAYMENT		=\$ 410.00