### COLUMBIA ZINC CORPORATION

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#### MINERAL KING MINE PROPERTY SUMMARY

The Mineral King property is a dormant barite-lead-zinc-copper mine which was in continuous production for 14 years from 1953 to 1967. A total of 2.3 million tons of ore were mined during this time from which 190.8 million 1b zinc, 81.7 million 1b lead, 1.44 million 1b copper, 0.66 million 1b cadmium and 1.8 million oz silver were recovered (BCDM annual report 1959, p 74-89 and 1967, p 267-269).

The present mineral property consists of 23 crown granted mineral claims and 113 modified grid claim units (3 groups), which are accessible by good road 25 miles up Toby Creek valley from the town of Invermere in southeastern British Columbia.

The barite-lead-zinc-copper "replacement" orebodies are hosted by the "Mine dolomite" unit of the lower Mt. Nelson formation which lies directly on or a few tens of meters above a 3000 foot thick pyritic black argillite sequence presently assigned to the Dutch Creek formation. Both formations were named and assigned to a Precambrian age by Jim Fyles of the BCDM who mapped the local Mineral King Mine area in 1959. The general structure at the mine is a broad northerly trending and plunging syncline, along which the known orebodies continued down plunge for 4000 feet. There are no known granitic intrusive rocks within 15 km of the property, however several small diorite breccia bodies and dikes have been reported. (BCDM Annual Report 1959, p 74-89)

No significant exploration work, with or without involving modern syngenetic models, has been carried out at the Mineral King Mine property since 1967. Columbia Zinc Corporation, the present optionee/owner optioned the 23 Crown Grants and the group of five Maid Maryon claims from Mountain Minerals Co. Ltd. in 1988, after

examining the property and becoming interested by its geological setting and by textures exhibited by the laminated barite-sphalerite-galena mineralization, which strongly resembles the mineralization (sedex) barite-lead-zinc massive sulphide deposits such as the Tom deposit occurring in Yukon territory and the Cirque deposit in north eastern B.C.

Subsequently the Toby claim group was staked on the northern and the Red claim group was staked on the southern boundaries of the optioned property by Columbia Zinc Corporation. The present property therefore gives claim coverage of over 8 km of strike of the prospective stratigraphy, 4 km both north and south of the Mineral King mine area.

Recent exploration work by Columbia Zinc Corporation in 1989-1991 has included cutting 18 line kilometres of grid on the north and south strike extensions of the mineralized zone and carrying out I.P., magnetic, VLF and soil sampling surveys. This work has outlined several exploration targets requiring further prospecting, sampling and mapping. For the next phase, a detailed geological mapping program of the entire property is required, particularly along the northern extension of the mineralized zone across Jumbo Creek Valley, which area has the best potential where drilling targets could be outlined at an early stage. The 3000 foot thick pyritic, black argillite footwall unit should be explored for barite, lead, zinc, silver, massive sulphide (sedex) deposits as the main focus of an exploration program, as this mineral potential has never been evaluated on the property.

Historically, the Mineral King Mine has by far been the largest known lead-zinc-copper-silver-barite producing deposit in the regionally extensive Windermere lead-zinc-silver district which hosts over a dozen occurrences including the Paradise, Redmac and Silver Giant deposits.

Recent geological mapping in the district by the G.S.C. has identified a northerly trending belt of Devonian aged sedimentary

formations (Mt. Forster and Starbird), which include pillow basalts, trending into the Mineral King mine area as a panel along the footwall of the regional Mt. Forster Thrust Fault structure. The Mt. Forster formation section is virtually identical to the Mt. Nelson formation section at the Mineral King Mine. This recent work was important as previously the Delphine Creek and Jumbo Creek areas were mapped exclusively as Precambrian in age and no Palaeozoic formations were known to exist there. (GSC papers 85-1A, p 727-730 and 83-1B, p 377-380)

Recently several barite-massive sulfide ore samples from the Mineral King Mine have been dated as Devonian in age (not pre Cambrian) using Sulphur isotopes by Don Sangster of the G.S.C. These two examples of recent work show how poorly understood the age, geology and controls on mineralization are for the Mineral King Mine property and indicate as well that there is good reason to explore the area using modern barite-lead-zinc-silver (sedex) massive sulfide deposits model.

### MINERAL KING PROPERTY CLAIM HOLDINGS

(As of November 22, 1991)

1. Owned 100% by Columbia Zinc Corporation

# A) TOBY GROUP

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	CLAIM NAME	RECORD NO.	UNITS	EXPIRY DATE
	Toby 1 Toby 2 Toby 4	213309 213310 213311	8 10 3	May 07, 1993 May 07, 1993 May 07, 1993
		Total Units:	21	
В)	RED GROUP			
	Red 1 Red 2 Red 3	213427 213428 213429	8 3 4	Jun 13, 1993 Jun 13, 1993 Jun 13, 1993
		Total Units:	15	

2. Owned 100% by Columbia Zinc Corporation - Subject to Option from Mountain Minerals Co. Ltd.

### A) MAID MARYON GROUP

	RECORD NO.	UNITS	EXPIRY DATE
1	582	20	Jan 28, 1994
2	583	8	Jan 28, 1994
3	584	4	Jan 28, 1994
4	2089	16	Dec 19, 1992
	2187	1	Jun 18, 1992
5	2188	1	Jun 18, 1992
	2 3 4	1 582 2 583 3 584 4 2089 2187	1 582 20 2 583 8 3 584 4 4 2089 16 2187 1

# Total Units: 50

### B. CROWN GRANTS

CROWN GRANTS			
Toby Prince	11256	1	Crown Grant
Toby Princess	11257	1	Crown Grant
Orion	15687	1	Crown Grant
Poplar	15688	1	Crown Grant
Ponderosa	15689	1	Crown Grant
Silver King	12866	1	Crown Grant
Maple Leaf	12867	1	Crown Grant
Egyptian	15692	1	Crown Grant
Blue Grouse Fr.	15693	1	Crown Grant
Moose	15691	1	Crown Grant
Duchess	11258	1	Crown Grant
Highlander	15686	1	Crown Grant
Lowlander	15967	1	Crown Grant
Lowlander 2	15968	1	Crown Grant
M.K. No. 1	15969	1	Crown Grant
M.K. No. 2	15970	1	Crown Grant
M.K. No. 3	15971	1	Crown Grant
M.K. No. 4	15972	1	Crown Grant
M.K. No. 5	15973	1	Crown Grant
M.K. No. 7	15975	1	Crown Grant
M.K. No. 8	15976	1	Crown Grant
M.K. No. 16	15974	1	Crown Grant
M.K. No. 17	15979	1	Crown Grant

Total Units: 23

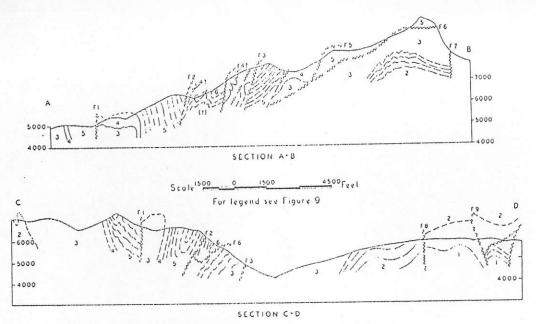


Figure 10. Geological cross-sections, Mineral King area.

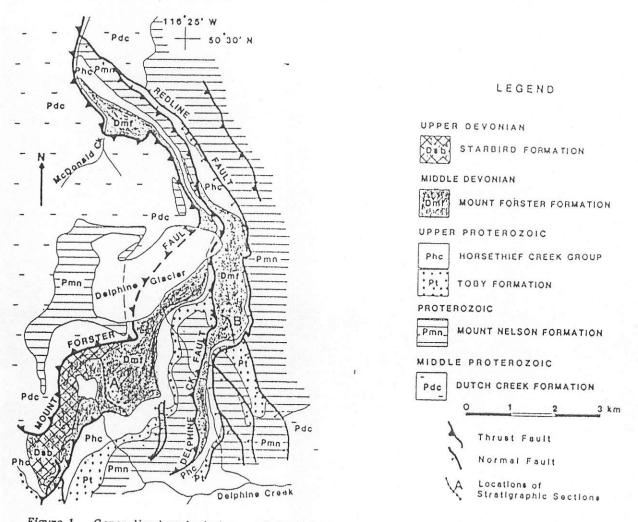


Figure 1. Generalized geological map of the Delphine Creek area. Geology by Freiholz (1983) and the author.

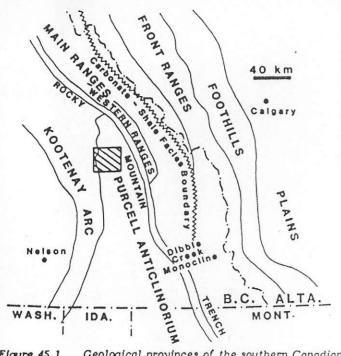


Figure 45.1. Geological provinces of the southern Canadian Cordillera. The age of the facies boundary is Early Paleozoic. The location of Figure 45.2 is indicated by the cross-hatched area.

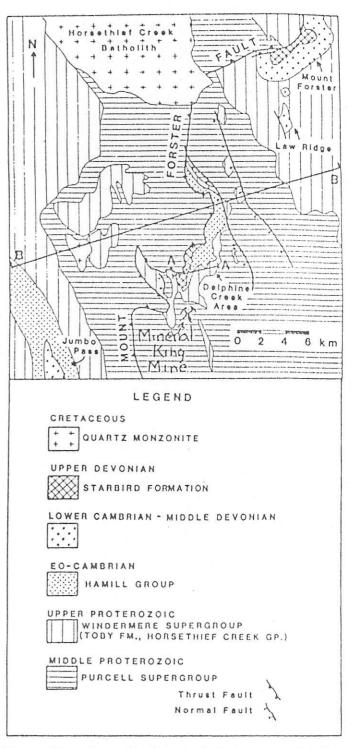


Figure 45.2. Generalized geological map compiled from Reesor (1973), G. Freiholz (personal communication, 1983), and work of the writer, to illustrate the distribution of Paleozoic strata in the northern portion of the Purcell Anticlinorium. A-A denotes the line of stratigraphic section in Figure 45.3; B-B denotes the line of schematic stratigraphic section in Figure 45.4.

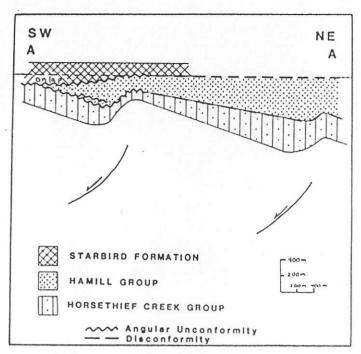


Figure 45.3. Stratigraphic section illustrating the asymmetric wedges of strata developed in subbasins, probably as a result of movement on listric normal faults. The horizontal datum is the base of a dolomitic siltstone in the Upper Devonian Starbird Formation. Section location is shown in Figure 45.2.

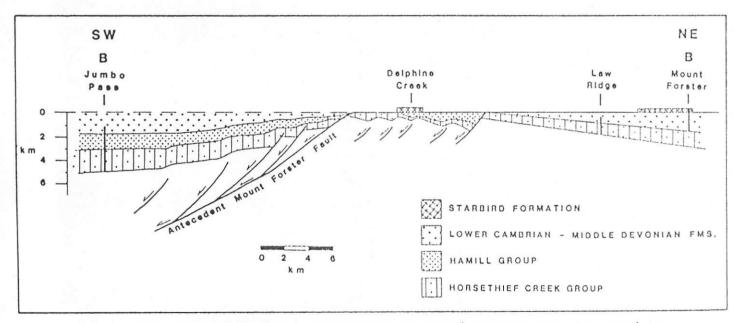
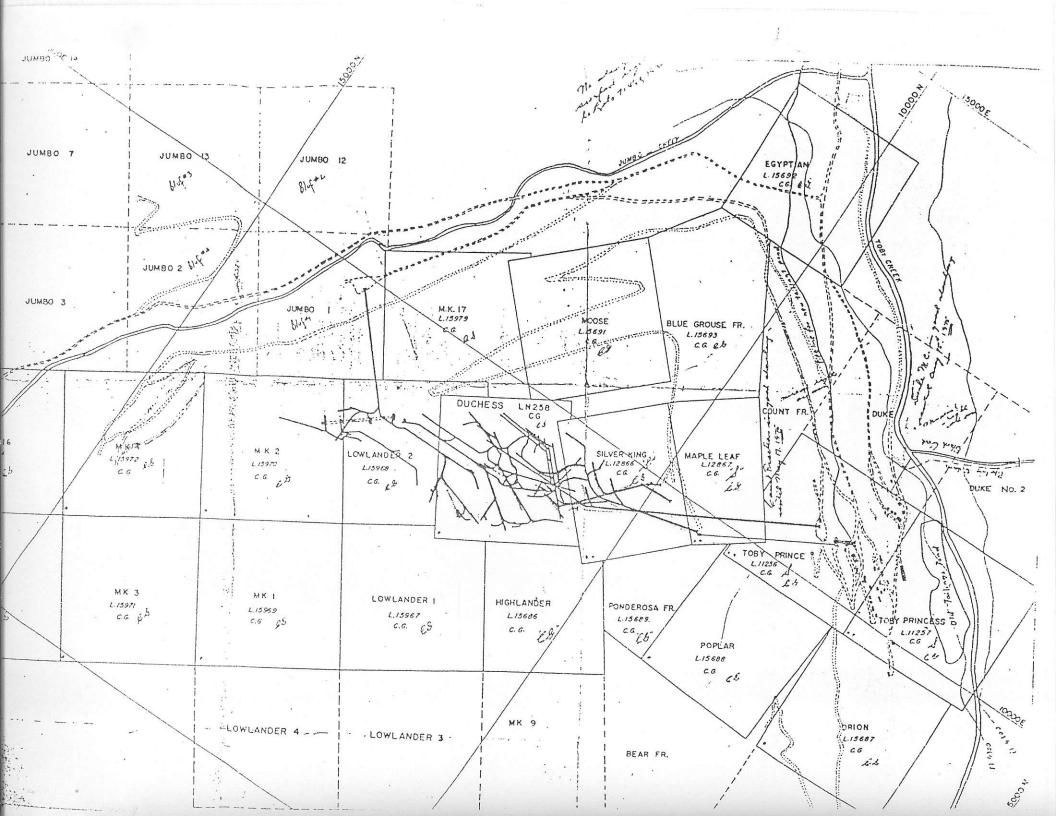
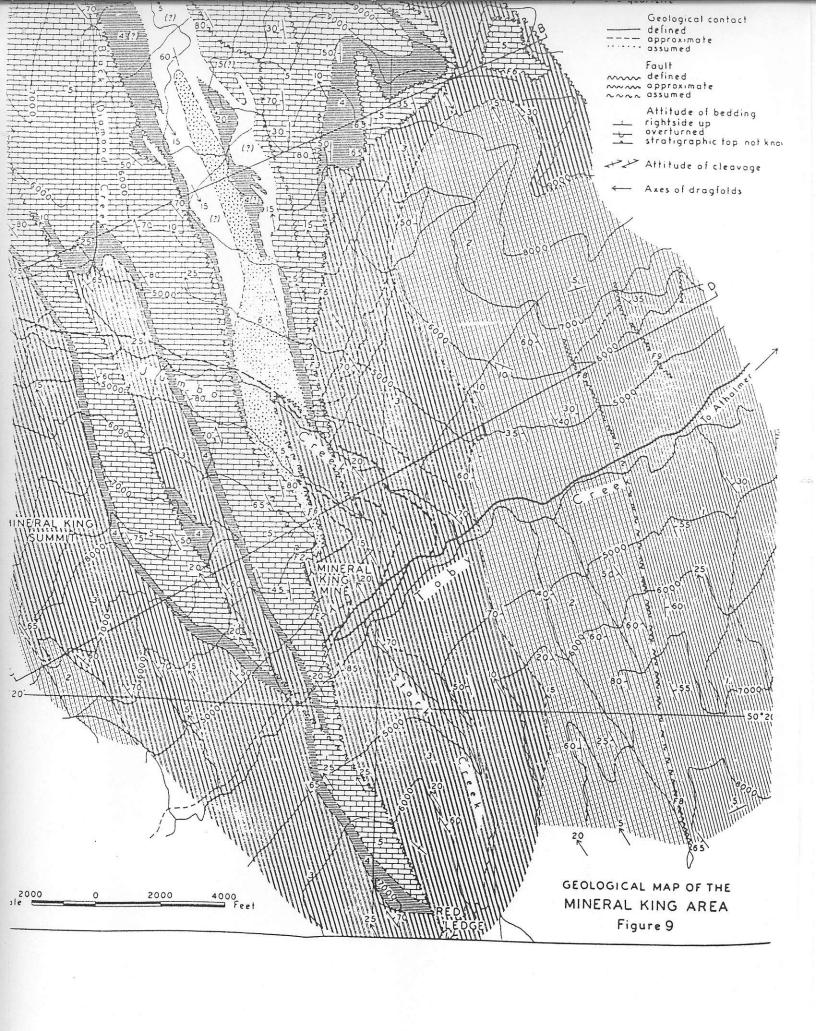


Figure 45.4. Schematic stratigraphic section across the crest of the Purcell Arch. The base of the Upper Devonian is the horizontal datum. Section location is shown in Figure 45.2. Thickness of strata at Law Ridge and Jumbo Pass from Réesor (1973), and at Mount Forster from Reesor (1973) and Norford (1981).





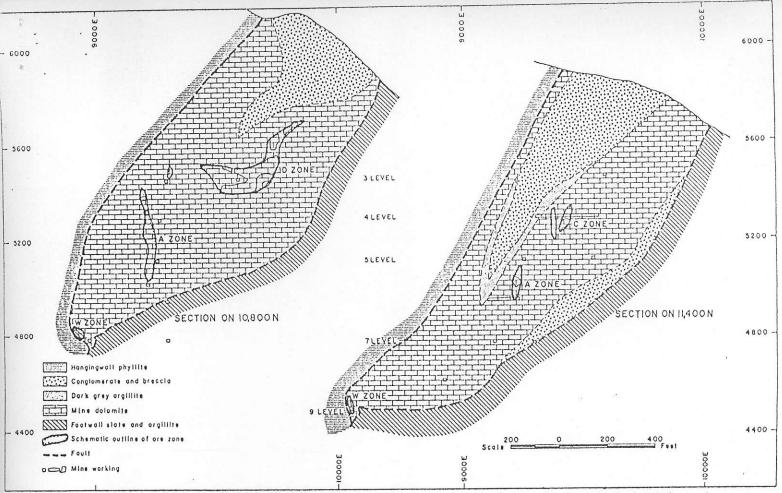


Figure 31. Actna Investment Corporation Ltd. Geological sections through the Mineral King mine showing the orebodies in relation to the structure of the mine dolomite.

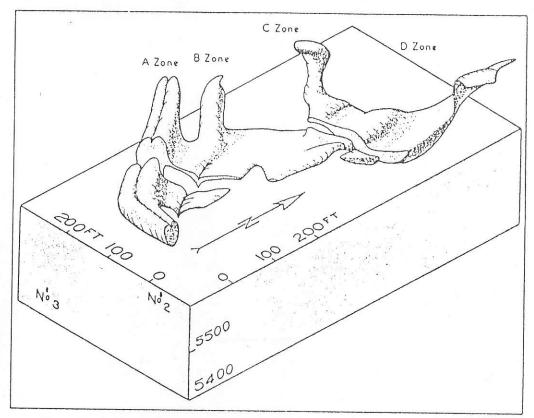


Figure 12. Isometric diagram of upper part of Mineral King orebodies. The plunge of the orebodies is to the northwest, away from the observer.