Assessment Report for the

IRONY Claim Group

Kamloops Mining Division
N.T.S. 82M/15W

Latitude: 51° 46' 35", Longitude: 118° 54' 00"

Submitted by:

Rick Walker
656 Brookview Crescent
Cranbrook, BC
V1C 4R5

Date: July 6, 1998

SUMMARY

A 5 million ton Zn-Pb deposit grading 7.5% Zn and 2.5% Pb had been previously documented at Ruddock Creek (Minfile 082M 084), located approximately 100 km north-northwest of Revelstoke and 15 km southwest of Mica Creek on the west side of McNaughton Reservoir / Lake Revelstoke (Fig. 1 and 2). The IRONY claims completely surround the previous Falconbridge claims. The property lies on N.T.S. mapsheet 82M/15W, east of the Adams Plateau at approximately 51° 45' 35 N Latitude, 118° 54' 00" W Longitude. The claims are located in the Monashee Mountains at the headwaters of Oliver Creek, immediately west of the headwaters of Ruddock Creek. Access to the property is by helicopter based in Revelstoke, BC.

The 1997 field program consisted of ground verification of the physical location of a number of claim posts for current and lapsed Falconbridge claims posts to ascertain the actual position of the current claims (Fig. 4) relative to a 5 million ton Zn-Pb deposit previously identified grading 7.5% Zn and 2.5% Pb. The mineral tenure map for the area shows the claims to be plotted west of their actual position, apparently leaving the deposit on "open ground". Additional work completed during the program included examination of the nature and character of the mineralization on the "E" showing, (Fig. 5) verification of the stratigraphy, confirmation of correlations with the Late Proterozoic Horsethief Creek Group and familiarization with the styles of the separate phases of deformation (Fig. 6). In addition, several drill collars and drill core from previous programs were located, with locations established by GPS. Finally, a number of traverses were undertaken in an attempt to trace mineralized horizons from those identified on the Falconbridge claims onto claims subsequently acquired by the author from Chapleau Resources Ltd. (Fig. 7).

The nature of the work was predominantly prospecting, with a total of 15 rock samples collected from the property, all of which are representative grab samples, none of which were submitted for geochemical analysis. Due to the lack of road access to the property, all work completed during the program utilized a helicopter supported fly camp, originating in Revelstoke, approximately 100 kilometres to the south-southwest.

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INTRODUCTION

A 5 million ton Zn-Pb deposit grading 7.5% Zn and 2.5% Pb had been previously documented at Ruddock Creek (Minfile 082M 084), located approximately 100 km north-northwest of Revelstoke and 15 km southwest of Mica Creek on the west side of McNaughton Reservoir / Lake Revelstoke (Fig. 1 and 2). The IRONY claims completely surround the previous Falconbridge claims. The property lies on N.T.S. mapsheet 82M/15W, east of the Adams Plateau at approximately 51° 45' 35 N Latitude, 118° 54' 00" W Longitude. The claims are located in the Monashee Mountains at the headwaters of Oliver Creek, immediately west of the headwaters of Ruddock Creek. Access to the property is by helicopter based in Revelstoke, BC.

The deposit is hosted by meta-sediments and meta-basalts (amphibolites) of the Upper Proterozoic Horsethief Creek Group. (Fig. 3a and 3b) The units which underlie the claims range from the semipelite-amphibolite (SPA) through the overlying middle marble to the upper pelite division. The entire stratigraphic package has been subjected to multiple phases of deformation and upper amphibolite grade metamorphism. Large scale fold structures (nappes) are the result of Phase 1 deformation, subsequently re-folded by coaxial Phase 2 deformation. The dominant foliation on the property is a composite surface arising from Phase 1 and Phase 2 deformation, producing an S_{1+2} fabric. A third phase of deformation has locally affected the strata, resulting in locally identified F_3 folds and a crenulation cleavage expressed regionally. A fourth phase of deformation, F_4, is only locally expressed. Upper amphibolite grade metamorphism has affected the entire stratigraphic package, with abundant granitic pegmatites present as a result of anatexis (partial melting). In strata of the appropriate bulk composition, sillimanite (±fibrolite) can be identified. The presence of granitic pegmatite (locally volumetrically significant) has not, apparently, disrupted the structural fabric of the property.

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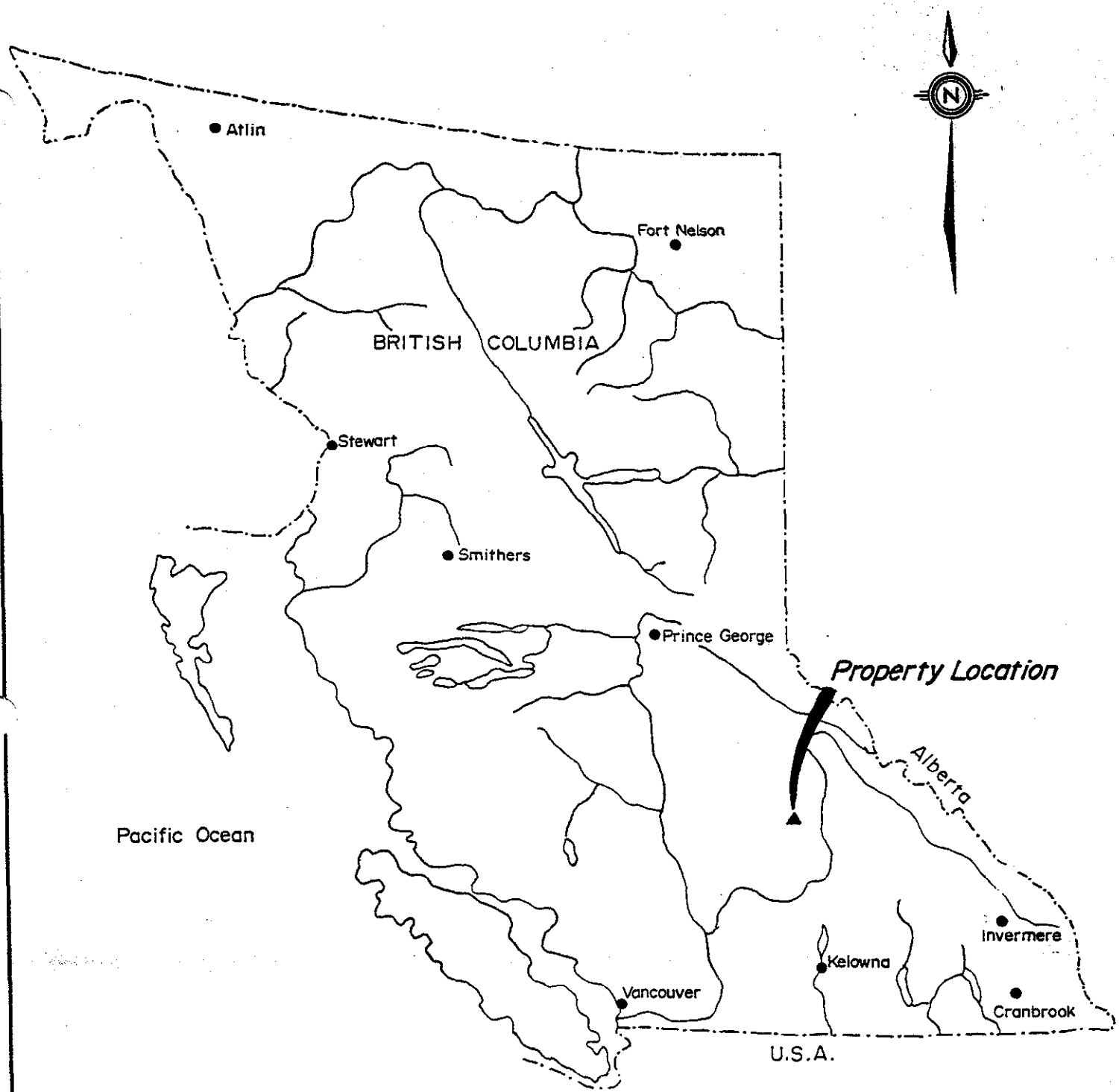

IRONY CLAIMS		
Regional Location Map		
Scale: 1:8,000,000	Date: July 5, 1998	N.T.S.: 82M/15W
Figure 1		
Drawn by: R. Walker		

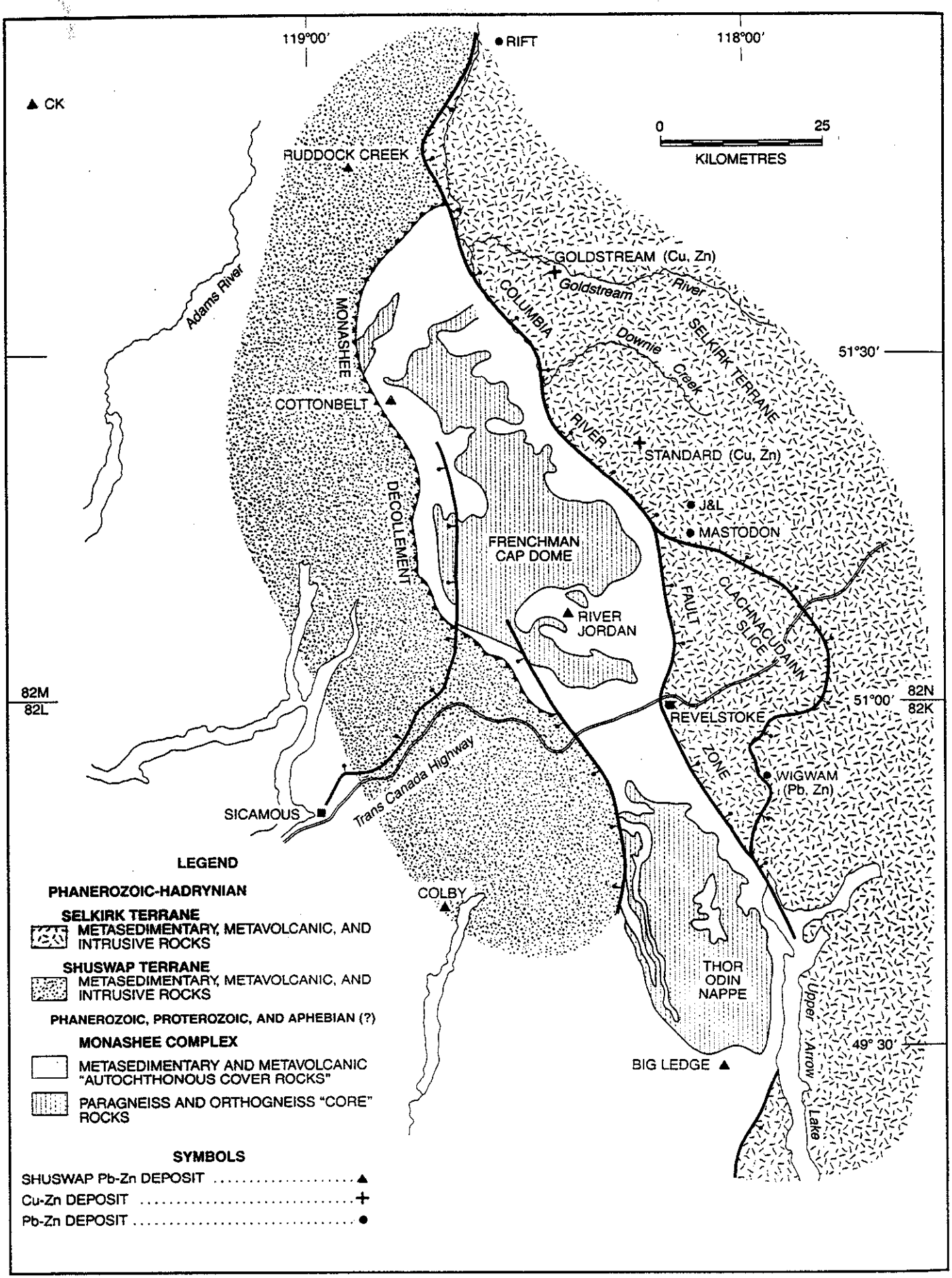

Figure 2. Tectonic setting and location of Shuswap deposits, southeastern British Columbia.

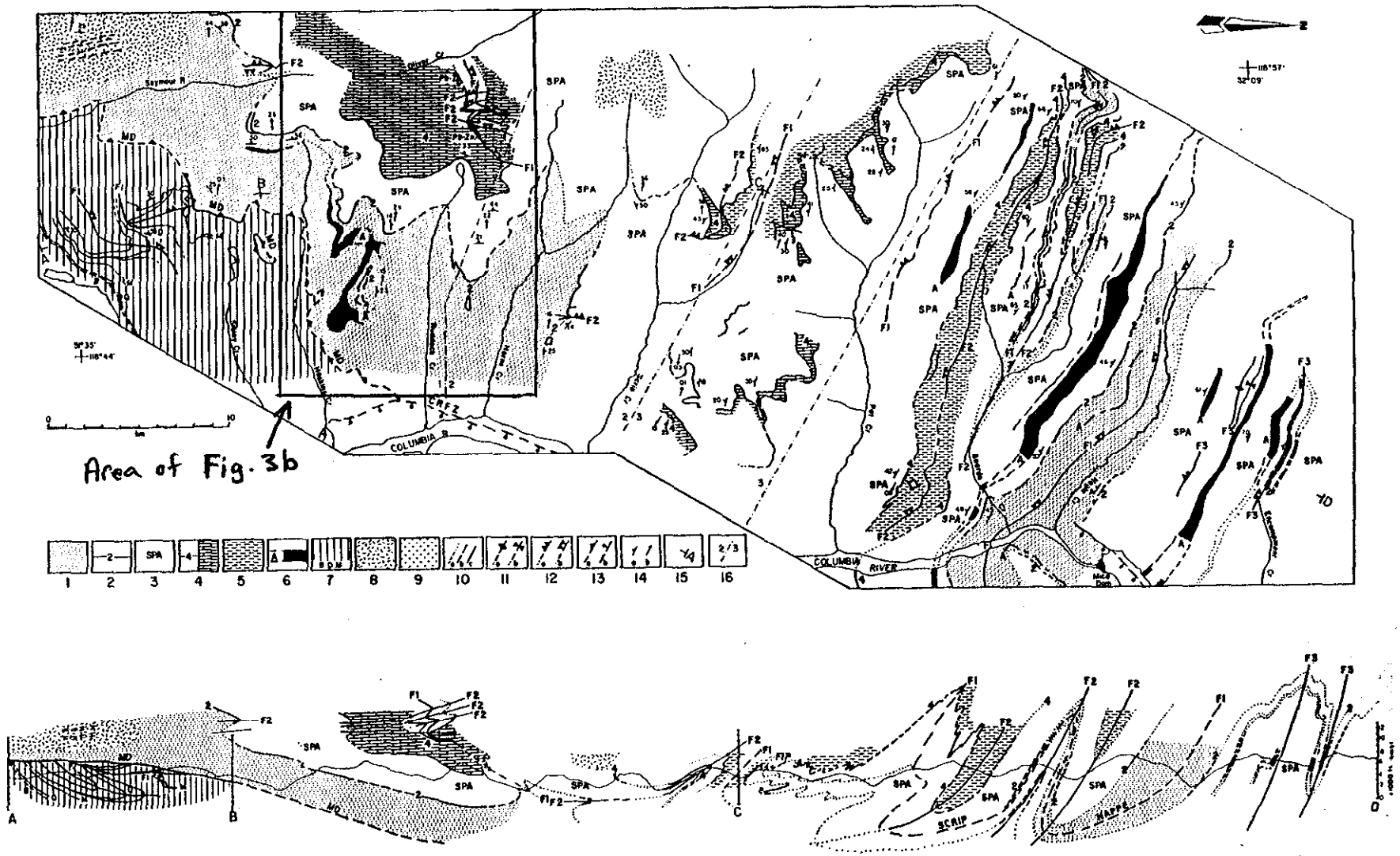

Figure 3a Simplified geological map of the study area. See Figure 1 for location. 1-5 are Horsethief Creek Group subdivisions; 1 = Lower Clastic; 2 = Lower Marble; 3 = Semipelite-Amphibolite; 4 = Middle Marble; 5 = Upper Clastic; 6 = Amphibolite or strata where amphibolite dominates; 7 = Monashee Terrane (B = basement gneisses, Q and M, are *quartzite and marble horizons of the cover gneiss sequence*); 8 = 50% or greater leucogranite; 9 = lineated hornblende granodiorite; 10 = geological contacts (a-assumed, b- *approximate, c-defined*); 11 = *axial surface traces (a-anticline, b-syncline)*; 12 = axial surface traces of overturned folds (a-anticline, b-syncline, notation on downdip side); 13 = faults (a-thrust, b- normal); 14 = fabrics (a-strike and dip of S_{1+2}, b- trend and plunge of Ls); 15 = location of cross- section; 16 = boundary between structural domains (note the north boundary of Domain 3 is Pat Creek and the south boundary of Domain 1 is the Monashee Décollement); Pb-Zn = Ruddock Creek Pb-Zn horizon (Fyles, 1970), MD = Monashee Décollement, CRFZ = Columbia River Fault Zone. Data in the footwall of Monashee Décollement is from Scammell (1986), and north of Pat Creek from Raeside (1982). See text for discussion.

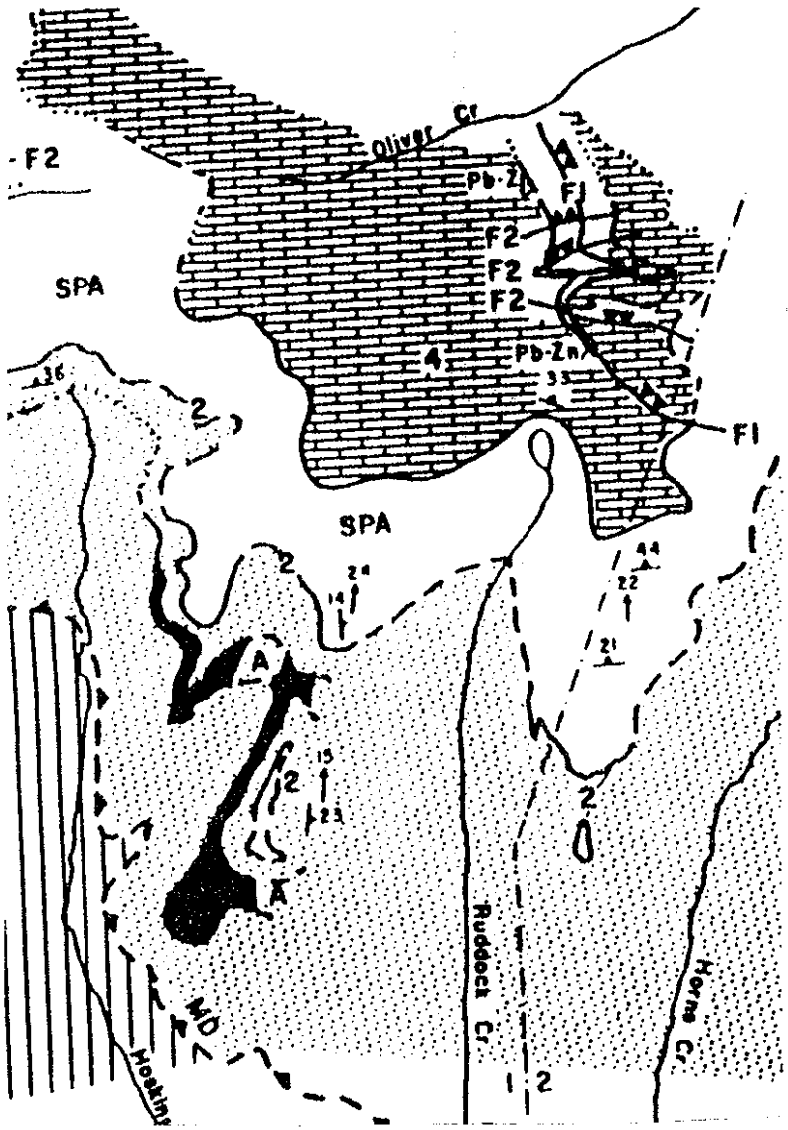

Figure 3b. Ruddock Creek project area, enlarged from Fig. 3a (from Scammell 1991)

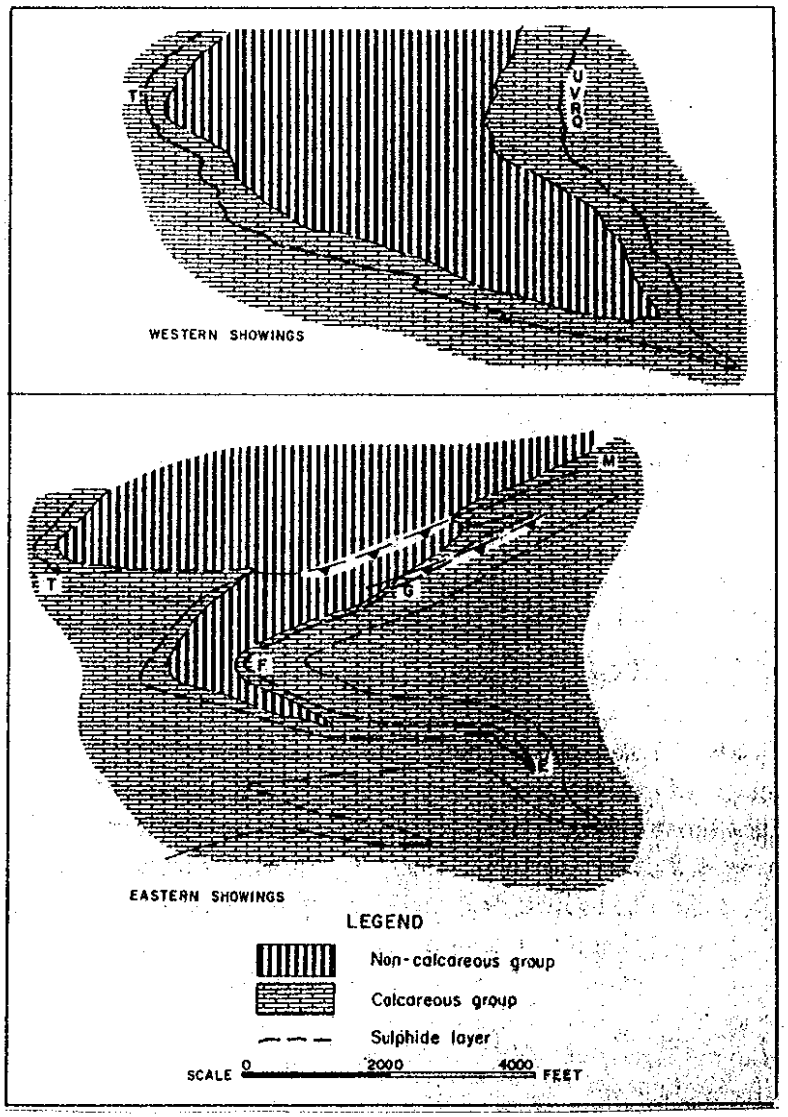

Figure 6 Interpretive cross-sections looking west. See sections on Fig: 5 for comparison + location (Fyles 1970)

LOCATION AND ACCESS

The claims are located at the headwaters of Oliver Creek and Ruddock Creek on the west side of McNaughton Reservoir / Lake Revelstoke, located in the Monashee Mountains (Fig. 1 and 2). The claims lie on NTS mapsheet 082M/15W at approximately 118° 54' 00" Longitude, 51° 46' 35" Latitude. The UTM coordinates are 368916 E, 5737657 N on TRIM map 082M76. The property consists of 12 2-post claims and 5 4-post claims, totaling 86 claim units.

There are no roads within reasonable walking distance of the claims. Therefore, access to the property is by helicopter based in Revelstoke, approximately 100 km to the south-southeast of the claims.

PHYSIOGRAPHY AND CLIMATE

The claims are located east of the Adams Plateau, north of Shuswap Lake and west of McNaughton Reservoir / Lake Revelstoke in the Monashee Mountains. The topography of the region is very rugged, characterized by very steep slopes and cliff faces, particularly at middle elevations and in areas underlain by the semipelite - amphibolite unit.

The snowfall in the area is very heavy during the winter months, easily exceeding 1-2 metres in most years at high elevation. As a result, the field season available for exploration extends from mid-June to early October for the middle to upper elevations currently of interest. Vegetation in the area consists predominantly of coniferous trees over most of the claims with highly subordinate deciduous trees near lakes and streams. Undergrowth is locally thick, particularly in avalanche chutes, and consists of slide alder and Devil's Club.

CLAIM STATUS

The IRONY claim group is held 100% by R. Walker following submission of a Bill of Sale on April 6, 1998, transferring ownership of the IRONY claims from Chapleau Resources Ltd.

The IRONY claims consist of 86 units, comprised of twelve 2-post claims and five 4-post (MGS) claims (Fig. 4), staked in accordance with existing government claim location regulations. Significant claim data are summarized below:

Claim Name		Units	Tenure #	Date of Record	Expiry Date*
Irony	1	12	355264	April 8, 1997	April 8, 2000
	2	18	355265	April 8, 1997	April 8, 2000
	5	9	357948	July 21, 1997	July 21, 2000
	6	15	357949	July 21, 1997	July 22, 1999
	7	20	357950	July 22, 1997	July 22, 1999
	11	1	357920	July 20, 1997	July 20, 1999
	12	1	357921	July 20, 1997	July 20, 1999
	13	1	357922	July 20, 1997	July 20, 1999
	14	1	357923	July 22, 1997	July 22, 1999
	15	1	357924	July 22, 1997	July 22, 1999
	16	1	357925	July 22, 1997	July 22, 1999
	17	1	357926	July 22, 1997	July 22, 1999
	18	1	357927	July 22, 1997	July 22, 1999
	19	1	357928	July 22, 1997	July 22, 1999
	20	1	357929	July 22, 1997	July 22, 1999
	21	1	357930	July 22, 1997	July 22, 1999
	22	1	357931	July 22, 1997	July 22, 1999

* After 1998 assessment credit applied.

HISTORY

"The showings were discovered in the summer of 1960 near the end of a season of systematic prospecting of this part of the Monashee Mountains by Falconbridge Nickel Mines Limited (then Ventures Limited), prospectors M. Donahue and T. Cross, under the supervision of E. Dodson.

They were drilled, sampled, and mapped in the summers of 1961, 1962, and 1963. Geological work was under the direction of H.R. Morris, who made detailed and accurate maps which formed the basis of deep drilling done in 1963. As a result of this work, several million tons of ore grading 10 per cent combined lead and zinc was discovered and the possibility of much more was indicated. No further exploratory work has been done" (Fyles 1970).

As part of his report, Fyles (1970) spent three weeks mapping and reviewing Falconbridge data to aid in his report. (Fig. 5 and 6)

In 1973, an airborne geophysical program was completed on the program by Aerodat Limited. A total of 69 line-miles was flown for Westrob Mines Limited with both EM and Magnetic data recovered (Brown and Fraser 1973).

Subsequently, Cominco Ltd, acting as operator under an option agreement with Falconbridge, undertook a series of programs between 1975 and 1982 (BC MEMPR Exploration in BC, 1975 - 1982) modified as follows:

1975 Surface diamond drilling, one hole totaling 683.1 m on claim IT4 (C-1-75).

1976 Surface diamond drilling, one NQ hole totaling 259.8 m (C-76-1) on claim IT27 (Hodgson 1976).

1977 Geological mapping (1:500) covering IT 3-7; drilling six BQ holes (UG-77-9 to 12, LG-77-7&8) totaling 812 m and 25 X-ray holes totaling 770 m on IT 3, 4, 8 & 10 (LG-77-3 to 6; F-77-1 to 5, UG-77-1 to 8, LG-77-1 & 2, T-77-1-6) (Nichols 1977).

1982 26.0 line kilometres of ground EM (UTEM), 9.2 line kilometres of ground magnetometer survey and 10.1 kilometre of line-cutting. Downhole pulse EM (PEM) survey (Lajoie 1982).

There are no Assessment Reports or other documentation pertaining to exploratory work subsequent to 1982.

In 1997, the author undertook a brief program to locate old Falconbridge claim posts, confirm stratigraphic correlations, examine the "E" showing and associated mineralization, locate old drill sites and determine if any recoverable core remained on the property.

REGIONAL GEOLOGY

The region containing the IRONY claims and Ruddock Creek deposit is comprised of the Selkirk Allochthon, lying east of the Columbia River fault, and the Kootenay Terrane separated by the Monashee Décollement.

The following has been modified from Scammell (1989):

"The Kootenay Terrane is a composite tectonic sheet in the hanging wall of the Monashee Décollement. It is composed of rocks ranging in age from Proterozoic to Middle Jurassic. Stratigraphic divisions of Late Proterozoic Horsethief Creek Group rocks, considered correlative with the Windermere Supergroup, have been traced ... through the Monashee Mountains ... to the Cariboo Mountains. Major southwest-verging nappes that predate Middle Jurassic regional metamorphism and east and west-verging second-phase folding have been documented (Scrip Nappe). These structures control the megascopic distribution of rock units in the terrane. High-pressure Barrovian-type assemblage zones and crustal anatexis characterize rocks ... in the vicinity of the map area".

> "Unit 3 (semipelite-amphibolite - SPA) is >1000 m thick and locally as thick as 2300 m. It is dominated by an interlayered succession of semipelitic schist, amphibolite, and hornblende gneiss. Subordinate rock types include pelitic schist, calc-silicate, quartzofeldspathic gneiss, quartzite, rare ultramafic pods, and quartz pebble to boulder paracoglomerate interlayered on a centimetre- to metre-scale. Quartzofeldspathic rocks commonly display biotite and biotite-garnet seams. Pelitic schist is generally relatively aluminosilicate-poor. Although commonly discontinuous, some subunits dominated by amphibolite and rusty pelitic schist can be traced for several kilometres. Amphibolite gneiss (garnet, biotite) ranges from a few millimetres up to five metres thick. ... Contacts are either sharp or gradational. Discordant amphibolite sheets have not been observed. Textures include finely layered to massive varieties. Thin interlayered marble and calc-silicate horizons occur near the top of unit 3. The unit is capped by a 5-30 m thick horizon of sillimanite-rich rusty pelitic schist.
>
> Unit 4, (middle marble subdivision) a distinctive unit ... is a second composite calcareous marker horizon in the region. It overlies rusty pelitic schist of unit 3 along an interlayered contact. The unit is 50-1000 thick and dominantly impure marble and calc-silicate with subordinate rusty pelitic schist, semipelitic schist, quartzofelspathic gneiss, quartzite and ultramafic boudins. Thickness and rock types vary along strike; consequently the internal stratigraphy of this horizon is not known in detail. A variety of 10 cm to 1 m thick marbles are present. Some can be traced along strike for several kilometres. They range from massive, pure,

grey to white weathering marble, to impure grey-and buff-weathering fetid marble. Accessory phases in impure marble includes quartz, diopside, plagioclase, garnet, graphite, and epidote.

The Ruddock Creek Pb-Zn sulphide horizon is inferred to be one of the structurally highest subunits of unit 4. This discontinuous, stratiform, sulphide-bearing subunit is generally 2-5 m thick, and is well described by Fyles (1970). Ultramafic rocks are found above and below the sulphide-bearing subunit. These ultramafic rocks are typical of all ultramafic rocks found sporadically throughout the five mapped units. They are found as metre- to 10 metre scale, foliated to massive, and fine- to very coarse-grained layer-parallel pods. Ultramafic rocks are composed of orthopyroxene, clinoamphibole, olivine, chlorite, talc, and serpentine. Discontinuous, metre-scale marble horizons mark the top of unit 4" (Scammell 1990).

Mesoscopic structures

In the area north of the proposed project area, in drainages north and south of the region cored by the east flowing Scrip Creek, Raeside and Simony (1983) describe the following structural relationships:

"Three main phases of folding and a later broad warping can be recognized from macroscopic features in the Mica Creek area. The regional foliation is identified as schistosity of gneissic banding, depending on lithology and metamorphic grade. Schistosity is produced by the parallel orientation of micas and, in very aluminous rocks, especially above the K-feldspar-sillimanite isograd, by ellipsoidal sillimanite-quartz nodules, which are flattened ... in the foliation plane and elongated parallel to the F_2 fold axis.

Throughout the Scrip Range, S_1 and S_2 surfaces are generally inseparable and the combined foliation plane is referred to as S_{1+2}. The only exceptions to this occur in the hinge zones of major F_2 folds, where the intersection of S_1 and S_2 axial planar foliations is at a high angle, and a weak crenulation cleavage results. This is best displayed on high ridges, where a combination of pelitic lithologies, extensive outcrop and exfoliation weathering allow the easy measurement of the orientation of the S_1-S_2 intersection crenulation cleavage. The mean direction of this lineation, which is parallel to the F_2 fold axis, plunges gently to the east-southeast and corroborates the macroscopic observations of fold axis trend and plunge.

The style of the premetamorphic minor folds is variable from nearly isoclinal, with sharp to rounded fold hinges, to isoclinal, with sharp elongated fold hinges, sometimes rootless. The former may be considered as F_2 folds and rarely possess

a crenulation cleavage, whereas the latter may represent F_1 folds and do not possess a crenulation cleavage. There is a gradational variation between the two forms and it is not usually possible to distinguish between F_1 and F_2 minor folds on one outcrop. ... (Nowhere) in the higher metamorphic grade parts of the Scrip Range were F_2 minor folds observed to refold F_1 minor folds ...

The third phase of deformation has not produced extensive minor structures in the mapped area. In the regions of F_3 folding, crenulation cleavage associated with S_3 superimposed on S_{1+2} is well developed in the hinge zones, and F_3 minor folds are common; these are usually disharmonic, with a substantial buckle component, and are more open than F_2 minor folds. They are devoid of an axial planar cleavage and typically fold preexisting foliation, as demonstrated by bent and broken mica flakes, sillimanite nodules and needles, and feldspar grains. The third phase of deformation therefore postdates the metamorphic climax" (Raeside and Simony 1983).

To the west of the proposed project area, in the vicinity of the headwaters of the Adams River, Sevigny and Simony (1989) described similar structural relationships, as follows:

"The Scrip Nappe is delineated by a series of northwest-southeast-striking, southwest-dipping stratigraphic units repeated across the phase 1 axial surface. Folding of the F_1 axial surface by an F_2 synform causes further repetition of these stratigraphic units. A southeasterly regional plunge of about 20° and up to 1700 m of topographic relief exposes successively higher structural levels of the nappe to the west-southwest.

The fold geometry within the closure or nose of the Scrip Nappe is characterized by an isoclinally folded, southwest-dipping, outward facing sequence of units ...

... the regional foliation, ... was produced by synkinematic recrystallization and (or) transposition of phyllosillicates during coaxial folding of F_1 and F_2, (expressed) as S_{1+2}. S_{1+2} forms a composite foliation on the limbs of F_2 folds that is separable into S_1 and S_2 in the cores of F_2 folds. Throughout the study area, the regional foliation dips to the southwest. The partial girdle of S_{1+2} data can be explained by F_3 folding about an axis plunging 10° towards 270°. The solution is consistent with mesoscopic data from F_3 folds ...

Mesoscopic F_2 folds are isoclinal with a northeasterly vergence, a southwest-dipping axial plane, and fold axes plunging gently to the west-northwest and southeast. Some of the scatter in the data for F2 fold axes may be a result of F_3 folding about east-west fold axes. Sillimanite mineral lineations are coaxial with the maxima of the F_2 fold axes and indicate that sillimanite growth and F_2 folding were coeval ...

Mesoscopic F_3 structures are upright folds with axes plunging gently to the east or west, tight in pelites and open in psammites. No megascopic F_3 folds have been recognized in the study area".

LOCAL GEOLOGY

The following has been extracted from J.T. Fyles (1970):

> **It, In** This property, known as the Ruddock Creek deposit, consists of 64 claims held by record by Falconbridge Nickel Mines Limited .... The property is on the southern slopes of a ridge west of Gordon Horne Peak, a 9,500-foot summit about 60 miles north of Revelstoke. The showings are northwest of the divide between Ruddock Creek, which flows east into the Columbia River, and Oliver Creek, which flows northwest into Adams River.
>
> The deposit is in metasedimentary rocks of the Shuswap Metamorphic Complex on the northwestern flank of the Frenchman Cap dome. The dome ... is elongate with the long axis trending north-northwest parallel to the Columbia River. On the northern end of the dome the core gneisses lie beneath gently north dipping metasedimentary rocks, which grade upward into metasedimentary rocks containing abundant pegmatite. This pegmatite-rich zone covers wide areas between the Columbia River and Oliver Creek. On the property, pegmatite and associated medium-grained granitic rocks make up more than 50 per cent of the outcrops. These rocks are mainly, if not entirely, replacements of the metasediments, and rock units and structures can be projected and traced among the pegmatite sheets without significant displacement ...
>
> The showings referred to as the E, F, G, M, T, U, V, R, and Q showings are scattered across alpine slopes which face south and west. The E showing, at an elevation of 7,600 feet, contains the outcrops of the largest orebody, which were recently washed clean by a sudden outflow of water from a small glacier lying to the north. The V, R, and Q showings are below tree-line, extending down to elevations of 3,100 feet on the steep-gullied slopes of Oliver Creek. The other showings are above tree-line in meadows, rocky crags, or steep cliffs. All the showings appear to be confined to a stratigraphic interval of not more than a few tens of feet, and their complex pattern of outcrop is caused by multiple folding.
>
> *Summary*
>
> The rocks of the area are a varied succession of mica schist, calc-silicate schist, and gneiss, with intercalated layers of marble. These rocks form highly folded discontinuous layers and lenses engulfed by granite-pegmatite and medium-grained granitic rocks.
>
> The dominant folds plunge 20 to 30 degrees to the west and are of two ages. The later or Phase 2 folds have rounded hinges, a modified concentric style, and vary from subisoclinal in the east to relatively open in the west. The axial planes strike north 20 to 30 degrees east and dip 20 to 30 degrees westward. One older, or Phase 1, fold has been mapped. The axis is almost parallel to the axes of the

Phase 2 folds and the hinge zone near the E showing plunges 28 degrees toward 285 degrees. The fold is described as a syncline, although no evidence for the stratigraphic top of the sequence has been found. ... The G, M, Q, R, V, U, and part of the F showings are on one limb and the T and part of the F showings are on the other limb of the syncline.

The pegmatites are irregular lenticular sheets a few inches to more than 100 feet thick, which lie subparallel to the foliation and are commonly concentrated along the hinge zones of the Phase 2 folds.

A northerly trending normal fault, which dips steeply to the west, lies west of the E showings. Zones of mylonite dipping at low to moderate angles to the west transect the sulphide layer and the pegmatite near the G and M showings, but do not show significant offset.

Lithology

Because of the extensive pegmatite and the complexities of the folding, a detailed lithologic succession has not been determined. (On the property), ... the metasedimentary rocks have been divided into two general groups — a calcareous group and a non-calcareous group. The stratigraphic top is not known and the sequence is described with the calcareous group below the non-calcareous group, which results in the simplest structural interpretation. The calcareous group contains three or more marble layers each more than 10 feet thick, the sulphide layer, a wide variety of calc-silicate schists and gneisses, several types of biotite schist, and minor calcareous quartzite. The non-calcareous group is mainly biotite schist of various sorts and is not as widely exposed as the calcareous group. The general characteristics of the sequence are given in the following table:

Table III. - Table of Formations, Ruddock Creek Area

Group	Thickness (Feet)	Lithology
Non-Calcareous		Medium- and fine-grained biotite schist, biotite-feldspar gneiss, rare calc-silicate gneiss.
Calcareous	0-few hundred	Mica schist, calc-silicate gneiss, and marble.
	0-50	Sulphide layer: Interlayered calcareous quartzite, marble, and mica schist with one or more layers of sulphides and quartz, local lenses of fluorite and barite.
	50-200	Biotite schist and calc-silicate gneiss.
	10-50	Grey and white marble and calc-silicate gneiss.
	20-200	Biotite-sillimanite schist.
	10-50	Grey and white marble and calc-silicate gneiss.

	Several hundred	Interlayered marble, calc-silicate gneiss, and mica schist, in part structural repetitions of the units above.
	Several hundred	Mica schist, platy quartzite, thin marble, in beds a few feet thick.

Rocks of the non-calcareous group are exposed best near Clear Lake and along the ridge west of the lake. The rocks are medium- and fine-grained grey and brown biotite schist, with varying amounts of quartz and feldspar and locally garnet. No distinctive markers have been found within the group. The maximum thickness exposed in the core of the syncline is 2,500 to 3,000 feet, including pegmatite. Possibly it represents a stratigraphic thickness in the order of 1,000 feet.

The calcareous group outcrops widely, both in the area mapped and beyond it. It consists predominantly of calc-silicate gneiss and mica schist, with several interlayers of marble. The calc-silicate gneiss forms greenish-white or dark-green platy layers up to a few inches thick, interlayered with mica schist or marble. Highly siliceous creamy-white calc-silicate gneiss is described as quartzite. The silicates in general are fine-grained, but local clusters of coarse, bright green actinolite are found. In thin-sections, actinolite, diopside, clinozoisite, and scapolite occur with varying proportions of plagioclase (An_{45}-An_{70}) and quartz. Sphene and apatite are common accessories.

The first member in the calcareous group, which separates it from the non-calcareous group, is a poorly defined discontinuous layer of marble and calc-silicate gneiss. It grades downward through a few hundred feet of mica schist and calc-silicate gneiss into a varied succession of calc-silicate gneiss, quartzite, marble, and sulphides known as sulphide member. In detailed mapping near the E showing, Morris recognized two layers containing sulphides; a main layer 2 to 15 feet thick, separated by micaceous quartzite from a subsidiary layer as much as 5 feet thick, composed of calcareous quartzite containing sulphides. This subsidiary layer is below the main layer. Layers of marble and locally barite, fluorite, and micaceous and calc-silicate rocks with scattered galena occur within the syncline or above the main layer. The sulphide member, including all the sulphides and adjacent calcareous rocks, ranges from 5 to 15 feet thick without structural repetitions. Local folding has more than doubled the thickness.

The sulphide member is underlain by a few hundred feet of rusty biotite schist with minor calc-silicate lenses followed by two or more prominent layers of marble. These layers are blue-grey weathering, white, medium- to coarse-grained fetid calcite marble. Thin-bedded calc-silicate gneiss occurs in the marble, particularly along the margins, and biotite schist, which locally contains sillimanite, lies between them. Two layers, each as much as 40 feet thick, have been identified and several others have been mapped. They are found in the cirque near Cirque Camp and westward down the wooded slopes to the north of the V showing and are conspicuous on the shores of Light Lake, on the pass northeast of the lake, and on the slopes below and east of the E showing. Some

of these exposures are clearly structural repetitions of the two layers closest to the sulphide member, but other marbles are exposed which are probably not repetitions.

The lower part of the succession beyond the marbles is not well known, but has been mapped in reconnaissance at the head of Ruddock Creek and on the ridges between the E showings and Gordon Horne Peak. It includes a sequence of biotite schist and calc-silicate gneiss with minor layers of marble and thin beds of platy, buff-weathering quartzite. A quartzite-mica-schist-marble sequence with repeated layers a few feet to a few tens of feet thick is well exposed in the cirque facing east at the head of Ruddock Creek.

Granitic pegmatite and associated medium-grained granitic rocks form more than half the outcrops in the area. In many places, as on the ridge north of Clear Lake, across the valley east of the lake, and on the ridge northeast of the E showings, they form thick, essentially continuous sheets, with only minor remnants of the metasediments. The principal constituents of these rocks are quartz and potash feldspar, with minor muscovite and biotite and scarce red garnet. The medium-grained granites have a vague foliation and lineation; the coarse-grained ones have quartz and feldspar intergrowths and scattered books of mica up to 2 inches across. Contacts between the granitic rocks and the metasediments are generally sharp, and between the granites and pegmatites are both sharp and gradational.

The granite and pegmatite bodies are extremely irregular. A few are tabular, crosscutting dykes, but most are lenticular, more or less concordant sheets which pass through the folded metasedimentary rocks without displacing them. Lineations and folds within remnants of metasediments within the pegmatites have the same orientation as those outside them. The pegmatites and granites appear to be dominantly, if not entirely, replacive.

Serpentinized dunite occurs in a few outcrops near the T showings south of Clear Lake and in a single outcrop a few hundred feet southwest of Main Camp. These are all rounded, brown outcrops of massive rock composed of brown olivine and greenish-white, fibrous serpentine. The outcrops near the T showings form a discontinuous northwesterly trending lenticular dyke 10 to 20 feet wide and a few hundred feet long.

Mineralization

The principal sulphides are sphalerite, pyrrhotite, galena, pyrite, and minor chalcopyrite. They occur as contorted layers and lenses associated with schist, siliceous calc-silicate gneiss, quartzite, marble, and locally barite and fluorite. Very fine-grained sphalerite and pyrrhotite with minor galena and rounded quartz eyes up to one-half inch in diameter are common. Equally common are layers containing medium-grained dark-brown sphalerite with interstitial quartz and scattered quartz augen. Much of the M showing and parts of the G showing

contain banded and minutely folded extremely fine-grained sphalerite and pyrrhotite. Galena and sphalerite occur also as scattered grains in marble, calcareous quartzite, and fluorite.

In the sulphide layer, lenses of massive sulphides up to 5 feet thick are common. They are complexly folded within themselves on axes which plunge to the west parallel to the folds in the surrounding rocks. The folds in the sulphides, which are outlined by the banding and by discontinuous layers of schist, gneiss, and quartzite, are irregular in form and usually disharmonic.

It is difficult to estimate the average grade without extensive sampling. Grades estimated to be 20 per cent combined lead and zinc over widths of 5 to as much as 20 feet are found at many places in the E showings and over widths up to 8 feet in the other showings. Lead is less abundant than zinc, and silver amounts to less than 1 ounce per ton.

Structure

The structure of the area is dominated by repetitive folding, which took place during metamorphism. It was followed by faulting. The earliest folds, called Phase 1, are isoclinal and obscure. One large, folded, isoclinal syncline with the E zone at the hinge is recognized. The later folds, called Phase 2, are more open, abundant on all scales, and are well displayed. They are described first and subsequently interpreted in relation to Phase 1 folds and the later faults.

All the metasedimentary rocks have a strong lineation consisting of trains of mica flakes, aligned amphiboles, elongate quartz-feldspar lenses, and clusters of calc-silicates. The mineral lineation is parallel to rodding in quartzite and calc-silicate gneisses and to crenulations in mica schists, and both sorts of lineations are parallel to the axes of minor folds. The micaceous rocks have a strong schistosity, which is essentially parallel to the compositional layering. This layering is the bedding which has been transposed in varying degrees during folding. The schistosity and bedding have been folded together into large and small folds seen in many outcrops and outlined in mapping. These are dominantly Phase 2 folds.

The Phase 2 folds mainly have rounded hinge zones and range in form from open to isoclinal. In only the tightest folds are the beds thickened at the hinge and only locally in the micaceous rocks is there a foliation crossing the beds more or less parallel to the axial planes. The folds are of a modified concentric form. Small folds parasitic on larger folds are true dragfolds in the classic sense. On the limbs of large folds the asymmetry indicates the position of the small fold with respect to the hinge of the large fold.

Four major Phase 2 folds have been mapped ... by following the hinge zone and by matching the attitudes of the layers and the asymmetry of the dragfolds on the

limbs. These are recumbent folds with axes plunging to the west and axial planes dipping to the west at 20 to 30 degrees. Folds which close toward the south are regarded as synforms and are referred to as the F-G, T, and U-V synforms. One antiform closing to the north is called the Pass antiform and is exposed along the lower slopes north of the pass between Ruddock and Oliver Creeks. The geometry of these folds, as determined from stereoplots of measurements of the attitudes of lineations, foliations, and axial planes in the areas where the folds are best exposed, is shown in the following table:

Fold	Axes (Azimuth and Plunge)			
	Average from Lineations and Minor Folds	Calculated from Attitudes of Layers	Attitude of Axial Plane (Strike and Dip)	Angle between Limbs (Degrees)
Pass antiform	286 / 25	292 / 26	25 / 28W	0-10
F-G synform	285 / 22	288 / 25	10 / 25W	35
T synform	282 / 20	294 / 25	20 / 25W	45
U-V synform	264 / 20	260 / 20	5 / 25W	100

The T and F-G synforms almost certainly have a complementary antiform between them, but it was not seen on the ground because of the high proportion of pegmatite and talus west of the F and G showings. ...

The folds change in form, both along the axis and along the axial plane perpendicular to the axis. They become progressively more open from east to west as indicated by the estimated angle between the limbs ... There are more large plications in the east than in the west. The hinge of the U-V synform between the U and V showings is a zone of very steep dips with minor reversals, whereas the same fold to the east includes the F-G synform, the eastward projection of the T synform, and the inferred antiform between them.

A large Phase 1 fold is inferred from the distribution of the rock units and the exposures of the hinge in the area near the E showing. ... It is referred to as a syncline because the fold opens upward, but the stratigraphic top of the beds has not been determined. The gross structure is outlined by the rock units. The non-calcareous group occupies the trough of the fold, becoming thinner toward the east and terminating in the area near the F and E showings. The calcareous group occurs on the limbs and the sulphide member, and conspicuous marbles are repeated on the limbs and thickened on the hinge.

The axis of the Phase 1 fold is essentially parallel to the axes of the Phase 2 folds. Locally in quartzitic rocks and amphibolitic gneisses rodding or mineral lineation lies at an acute angle with the axes of minor folds, but in general Phase 1 and Phase 2 lineations and fold axes are indistinguishable. No Phase 1 minor folds have been recognized with certainty. Minor folds near the E showing have the same style, asymmetry, and attitude as Phase 2 folds. The fold outlined by the

sulphide member in the E showings plunges 27 degrees toward 285 degrees essentially parallel to, but somewhat steeper than, the plunge of the Phase 2 folds in that area. The axial plane, judging from the outcrop and diamond-drill intersections, strikes 70 degrees and dips 45 degrees to the northwest, essentially parallel to the layers on the lower limb of the F-G synform. The hinge zone of the Phase 1 syncline has not been recognized within the non-calcareous group, but it has been traced within the calcareous group for more than half a mile eastward from the E showings. Farther east it is covered by talus and offset by a late fault, but repetitions of the marble layers are found more than a mile east of the E showings.

Several minor folds have been found which do not fit the patterns of Phase 1 and Phase 2 folding. In general they plunge southward with axial planes which dip at moderate angles to the east. Lineations are folded by these structures, indicating that they are superimposed on the Phase 1 and Phase 2 structures.

Folds on the ridges and walls of the cirque surrounding Cirque Camp plunge 10 to 20 toward 240 to 250 degrees. Though off trend, they have the same form and asymmetry as the Phase 2 folds. They occur where the major Phase 2 fold broadens rapidly toward the west and provide direct evidence for the non-cylindrical character of the Phase 2 folds.

Faults in the area belong to two general types. Those of the first type occur along the G and M showings and in the pegmatites west of the G showing. They consist of irregular but fairly continuous branching zones of mylonite, a few feet thick, which strike north and dip 20 to 50 degrees west. These zones pass through pegmatite, some mica schist, and calc-silicate gneiss as well as the sulphide member exposed at the G and M showings. Pegmatites within the mylonite zones are reduced to banded, cherty, crushed rocks in which many of the grains are 0.02 millimetre across. Sulphides are similarly comminuted and banded and are folded into microscopic isoclines; quartzitic rocks are dense, vitreous, and cherty. Most rocks in the mylonite zones have a pronounced lineation or rodding, essentially parallel to the lineation in surrounding non-mylonitized rocks, produced by minute folds and the long axes of rolled porphyroclasts.

Faults of the second type are late block faults, the most important of which lies west of the E showings and displaces the main orebody down on the west. It is exposed in a gully 1,000 feet southwest of the Main Camp and was encountered in drill holes. On the surface it is a zone of intense fracturing and shearing and in the drill holes it consists of several feet of breccia and mylonite. On the average the fault strikes north and dips 58 degrees west. Many subsidiary fractures curve downward in the footwall of the fault for several hundred feet. If the displacement has been perpendicular to the line of intersection of the fault plane and these subsidiary fractures, the displacement, measured on the fault plane, is in the order of 700 feet down on the west in a direction of 290 degrees.

This fault is one of several which form prominent lineaments visible on air photographs. A fault trending northwest, which produces a right-hand offset of northwesterly dipping layers, lies along the face of the 9,000 foot summit half a mile northeast of the E showing and joins the main fault in the pass north of the E showing. Another fault trending north and showing a right-hand offset occurs a little more than 1 mile east of the E showing. Northerly trending linears show on air photographs along the east side of Clear Lake and on the slopes west of the T showings, but significant offsets have not been found along them.

A sequence of folding and faulting is indicated by the structures just described. Phase 1 folds, which are isoclinal with thickened hinge zones and sheared-out limbs, were folded and probably tightened by Phase 2 folding. Phase 1 and Phase 2 folding produced the same axial directions and occurred during the intense regional metamorphism. The formation of granites probably began late in the Phase 2 deformation or after it, along with the development of the pegmatites. These rocks replaced the folded metasediments controlled crudely by the layers and the axial planes of the Phase 2 folds. Subsequent movement on west-dipping shear planes produced the mylonite zones, which, judging from the orientation of linear structures within them, was a continuation of the Phase 2 movement. Minor amounts of widespread chlorite and local sericite developed in part, if not entirely, after the formation of the mylonite zones. The block faults probably were the latest significant structures.

Economic Significance

The great continuity of the sulphide member and its restriction to a narrow stratigraphic range indicates that it developed in the sedimentary sequence before deformation. The structural evidence shows that it has been involved in the whole sequence of deformation and metamorphism. These conclusions have important implications in exploration and in the economic value of the lead-zinc mineralization.

The thickness of the sulphide layer, although dependent upon the original thickness, is controlled largely by the folding. The thickest sections are in the hinge zones of Phase 1 folds and the longest dimension of these thickened zones is parallel to the fold axes. The E showings are in such a zone. The axial plane of the Phase 1 fold is curved and the diamond-drill intersections suggest that this axis probably is not quite parallel to the axes of the Phase 2 folds. Consequently, it varies in plunge with its position on the Phase 2 folds. Another fold hinge on which the sulphide member may be abnormally thick should be present on surface about midway between the E showings and Light Lake. This is an area of talus and abundant pegmatite and no sulphides have been found there. No other Phase 1 hinge zones involving the sulphide layer are known in the area, but the hinge of the E showing should continue in depth on plunge to the west. Other Phase 1 fold hinges may be expected beyond the area to the west.

> The sulphide layers are only locally thickened by the Phase 2 folds. Local contortions at the hinges of the large Phase 2 folds or along the limbs may produce small orebodies plunging to the west with the Phase 2 folds.
>
> The sulphide member is replaced by pegmatite, the distribution of which cannot be anticipated. Although the structure and stratigraphy of the sulphide layer are fairly well known and can be projected, the difficulties of finding the layer are significantly reduced by the unpredictable character of the pegmatite.
>
> Extremely fine-grained sulphides such as those in the area affected by the mylonite zones may require special treatment for the recovery of the lead and zinc".

Mapping by R. Scammell (1991, 1990, 1989) in the Horsethief Creek Group west of McNaughton Reservoir confirmed the presence of the semipelite-amphibolite unit (SPA, his unit 3) and the overlying middle marble (his unit 4 and host of the sulphide horizon(s)) in the Ruddock Creek area (Fig. 3a and 3b). Furthermore, on the basis of his mapping and that of Fyles (1970) the structural nature of the Ruddock Creek deposit appears to be controlled by the trend and plunge of F_2 folds, which gently plunge to the west-northwest. This interpretation suggests the sulphide layer, hosted by the middle marble within a refolded F_1 fold controlled by F_2, should extend across, and to the west side of, Oliver Creek.

"An upright stratigraphic sequence lies in the immediate hangingwall of the Monashee Décollement, and dips moderately west to northwest. Structures generally plunge moderately to the west.

At the headwaters of Ruddock Creek, Pb-Zn-bearing and calcareous horizons of unit 4 outline a kilometre-scale type-3 fold interference pattern ... The F_1 structure at Ruddock Creek is inferred to have been originally southwesterly-verging based on long limb - short limb relationships. It is refolded by several reclined F_2 folds which can have kilometre-scale wavelengths and amplitudes, and plunge gently to the west-northwest" (Scammell 1991) (Fig. 3a and 3b).

Furthermore, based on an interpretive cross section of Fyles (1970), included as Figure 6, the sulphide layer is interpreted to wrap the southern margin of an F_2 fold to a termination against a shallow to moderately south dipping fault. The sulphide horizon is interpreted to be offset and continue structurally above the fault. However, a possible marker horizon structurally below the fault appears to pass into a deeper F_2 fold and extends to deeper levels to the south.

1997-98 PROGRAM

The 1997 field program consisted of 8 days of prospecting, predominantly on the IRONY 1 and 2 claims. Due to the lack of feasible road access, the author and an assistant utilized a helicopter from Revelstoke to set up a fly-camp for the duration of the program.

The most important issue to resolve was the actual ground location of the Falconbridge claims covering the "E" showing (Fig. 4 and 5). A portion of one day was spent attempting to locate posts for the Falconbridge claims along the southern boundary of the current Falconbridge clam block. Numerous Intermediate Posts and another Legal Claim Post were encountered and recorded in the course of work completed on the remaining days.

The main purpose of the project (subsequent to confirming claim location) was to attempt to identify/confirm the presence of, and the relative position within, the Horsethief Creek Group stratigraphy.

A total of 15 rock samples were collected from ore grade horizons on the "E" showing to document the style and nature of the mineralization and associated features (i.e. fluorite). As the grade of the deposit on the "E" showing is known and the deposit appears to be located within the Falconbridge claims, the samples were not submitted for geochemical analysis. However, these samples were collected as representative samples, characterizing a variety of features and have been retained by the author for future reference. A copy of the field notes are included in Appendix C.

At the same time the program documented in this report was being completed, additional staking was completed on the property in a separate program.

RESULTS

On the mineral tenure map for mapsheet 82M/15W, the Falconbridge claims are plotted lying approximately 2 km west and at least 0.5 km north of their actual ground position. Therefore, the "E" showing (Minfile 082M 084 - 5 million tons grading 7.5% Zn and 2.5% Pb) appeared to lie on "open ground" and therefore available for acquisition by staking. Subsequent ground work suggests the claims on the mineral tenure map are incorrectly plotted and the "E" showing is covered by existing Falconbridge claims (Fig. 7).

The secondary objective of the brief prospecting program was to examine the strata of the property to confirm: (1) the identity of the strata (i.e. Horsethief Creek Group), (2) style of deformation and (3) nature of the mineralization. Thick amphibolite units were identified in the uppermost reaches of Ruddock Creek and are interpreted to confirm the presence of the semipelite-amphibolite division. Calcareous units (including marble and calc-silicates) underlie most of the south-facing slopes lying north of the east fork of Oliver Creek. These strata are interpreted to correlate to the overlying middle marble division. Finally, the steep cliffs along the height of land north of the east fork of Oliver Creek are believed to correlate to the overlying upper pelite division. Therefore, on the basis of interpreted stratigraphic correlations and in contrast to the interpretation of Fyles (1970), the Ruddock Creek deposit is hosted within an east-verging, recumbent anticline (oldest unit in the core). This interpretation, however, does not materially change the structural interpretations of Fyles (1970) and Scammell (1991) regarding the mineralized horizon hosting the "E" Zone deposit, simply the "facing" direction, or stratigraphic top of the strata hosting the deposit.

In addition to the above, the close associations between fluorite-bearing units and sulphide horizons on the "E" zone suggest the possibility of using Fluorine as a path finder for the mineralized horizon to the west in a soil geochemical program. This may be particularly relevant with regard to significant iron staining noted immediately below a glacier west of Oliver Creek and may be present below the glacier in the steep slopes west of Oliver Creek.

DISCUSSION

A 5 million ton Zn-Pb deposit has been on Falconbridge's claims, located at the "E" showing (Fig. 5).

The Ruddock Creek deposit has been interpreted as a metamorphosed sedimentary exhalative, a carbonate hosted lead-zinc deposit and as a Broken Hill Type deposit. The deposit is a zinc-lead deposit hosted within predominantly sedimentary strata interpreted to be of Windermere age and deposited in a rift dominated environment. The SPA unit, which stratigraphically underlies the middle marble (host of the Ruddock Creek sulphide layer) contains a large proportion of amphibolite, interpreted to represent: (1) sills and transposed dykes, (2) flows and tuffs, and (3) reworked tuffaceous material (Sevigny 1987). Furthermore, the amphibolites (meta-basalts) "... may represent a comagmatic suite, derived from a single source, and related by a process of igneous differentiation" producing a high-iron tholeiite suite (Sevigny 1987). Finally, Sevigny (1987) postulates that a paleo-volcanic centre may be present in the northern Adams River area based on the observation that the proportion of amphibolite appears to decrease to the north and south of this region.

Therefore, the deposit identified to date can be assigned to a number of different categories, dependent upon the bias of the individual. For practical purposes, assignment as a Broken Hill type (Pb-Zn-Ag±Cu) deposit may be the most satisfactory, implying a deformed and/or metamorphosed massive sulphide deposit with little or no genetic implications.

Based on field observations and subsequent review of mapping by Fyles (1970) and Scammell (1991, 1988, 1989), together with interpretive sections presented by Fyles (1970), the author believes mineralization in the upper limb of the anticline extends westward from the "Q", "R" and "U" showings to the west side of Oliver Creek. Furthermore, the lower limb of the anticline (common with underlying syncline) may similarly extend westward from the "T" showing. Therefore, a single mineralized horizon, exposed on separate limbs of a recumbent anticline may extend into the east-facing slopes of Oliver Creek. In addition, the fold axes of both F_1, and F_2 folds trend west (approx 22°/284°) and therefore a hinge zone correlatable to the "E" showing may also be present in the sub-surface of the IRONY 7 claims. (Fig. 3b).

Additional mineral potential may exist in the sub-surface if a syncline proposed by Fyles (1970) exists at depth. A composite north-south cross-section (Fig. 6) documents an anticlinal F_1 closure with the "E" showing at the hinge (Fyles 1970), subsequently re-folded by an F_2 fold with the "F" showings at the hinge. Therefore, parasitic F_2 fold closures may contain additional ore grade mineral deposits.

On the basis of previous mapping on the Falconbridge claims (Lajoie 1982, Fyles 1970), one (or more) faults were interpreted to have displaced the "E" and "F" showings relative to possible sub-surface correlatives. However, limited preliminary field work and review of these data suggests considerable potential to identify additional near-surface mineralization, possibly

increasing reserves documented to date.

The presence of westward trending F_1 and F_2 fold axes and the surface trace of the mineralized horizons as mapped in previous programs on the property (discussed above) strongly suggest potential for additional mineralization to be identified to the west. Specifically, the horizon hosting the "T" showing on the southern margin of the Falconbridge claims would appear to have potential to continue to the southwest toward Oliver Creek. The horizon hosting the "Q", "R", "V" and "U" showings is located within the claims forming the northern margin of the Falconbridge claims, and similarly may continue into the Oliver Creek valley (Fig. 7). Qualitative evaluation of these horizons using an average orientation and structure contouring the two horizons into and through Oliver Creek suggests they may be present in the steep ground lying topographically below a glacier west of Oliver Creek.

Finally, there appears to be considerable uncertainty regarding the actual location of Falconbridge claims, as plotted on the mineral tenure map (Fig. 4) relative to their actual location on the ground, (Fig. 7) as evidenced by the surveyed claim locations indicated on the map accompanying the report by Lajoie (1982). Therefore, additional work must be undertaken to locate additional claims posts and/or obtain a suitable surveyed claim map from Falconbridge.

A series of contour soil geochemical lines may provide the best means of evaluating the interpreted presence of the respective mineralized horizons. Two contour soil lines on each side of Oliver Creek along the 1200 and 1400 m contours extending approximately 500 metres to either side of the interpreted location of the horizon(s) in Oliver Creek should confirm or refute its presence. Based on Fyles (1970) Table III (see Local Geology), lenses of fluorite and barite may be associated with the sulphide layer, with fluorite also noted by the author. These two elements, coupled with other base metal pathfinder elements, should provide a suitable contrast with background values to allow detection of possible mineralized horizons.

CONCLUSIONS

The objective of the 1997 program was to: 1) attempt to stake a 5 million ton Zn-Pb deposit apparently lying on open ground and 2) identify additional massive sulphide mineralization interpreted to underlie claims lying south and west of Falconbridge's Ruddock Creek claim block. The structure hosting the Ruddock Creek deposit was previously interpreted to be a syncline (Fyles 1970), however, correlations by Scammell (1991) and observations made by the author in 1997, document an upright stratigraphy located at the headwaters of Oliver and Ruddock Creek and therefore is interpreted as lying on the upper limb of an east-verging, recumbent anticline. The author believes the lower limb of the anticline, as well as a deeper synclinal closure, underlies the southern portion of the claims. In addition, the author interprets both limbs of the anticline may project westward, down the plunge of the F_1 and F_2 fold axes across Oliver Creek into the steep east facing slopes west of Oliver Creek. Significant iron staining immediately below a hanging glacier was noted by the author while working on the claims in 1997. The author believes the glacier to have receded significantly since 1983 when Cominco geologists were last active on the property (as operators subject to an option agreement with Falconbridge).

In addition, as discussed by Fyles (1970) and reproduced in Local Geology, F_2 fold hinges may produce local thickening of the mineralized horizon(s) and result in possible ore grade lenses. It is proposed that the sulphide layer may, in fact, undergo similar structural duplication at depth, underlying the southern block of claims and therefore underlie these claims, extending westward across Oliver Creek on the lower limb of the anticline and/or the common limb of an anticline - syncline pair. This is the basis for proposed additional exploration on the IRONY claims to the south of the Ruddock Creek deposit.

A program is proposed, intended to identify additional, potentially economic occurrences of lead and zinc ± silver ± copper ± gold. To date, no gold or copper has been reported from the Ruddock Creek area and only minor amounts of silver (reportedly less than 1 oz/ton). However, these elements can occur in both a sedimentary exhalative and/or volcanogenic massive sulphide environments. Minerals reported from the Ruddock Creek area include sphalerite, galena, chalcopyrite, pyrrhotite, pyrite, fluorite and barite

RECOMMENDATIONS

1. Undertake additional research on the Ruddock Creek area for any additional information regarding mineralization. Research should include locating any Regional Geochemical Survey (R.G.S.) results, Minister of Mines Reports, Geological Survey of Canada mapping and/or reports, etc.;

2. Re-plot the Falconbridge claims using all available information, to accurately locate the claims relative to known showings and suspected areas of additional mineralization;

3. Structure contour the documented mineralized horizons, using the available information and assuming planar character, to identify where the horizons might be expected to cross Oliver Creek and their possible position on the steep slopes west of Oliver Creek;

4. Acquire any additional information which may assist in evaluating the mineral potential of the Ruddock Creek area, including airborne geophysical data from the Geophysical Data Centre, Air Photos (Black and White, Colour, Infrared), and/or satellite imagery;

5. Undertake field evaluation of the possible surface traces of mineralized horizons on either side of Oliver Creek, possibly utilizing a series of soil geochemical traverses along contours and approximately perpendicular or at a high angle to the possible surface trace of the mineralized horizons;

6. Attempt to locate additional claims posts in the field to accurately ascertain the ground position of the Falconbridge claims, relative to the IRONY claims and areas of additional suspected mineralization;

7. Attempt to obtain surveyed claim data from Falconbridge for their property;

8. Monitor the status of the Falconbridge claims immediately following their 1998 anniversary dates, including the IT No. 15 and 16, 27 and 28; IT # 6 to 14 and IN # 2, 4, 6 to 19;

9. Attempt a helicopter supported, alpine camp on the IRONY 7 claim to examine and evaluate the mineral potential of the moderately to strongly iron stained exposures noted previously, immediately below the hanging glacier west of Oliver Creek;

10. Evaluate the possibility of additional mineralization in the area east of the "E" showing and west of Gordon Horne Peak, assuming an elongated, isoclinal anticlinal closure.

PROPOSED BUDGET

R. Walker - 30 days @ $450 / day:		$13,500.00
Assistant - 30 days at $200 / day:		$ 6,000.00
Food and Accommodation - 60 man-days at $125 / day:		$ 7,500.00
Vehicle Rental - 30 days at $75 / day:		$ 2,250.00
- Fuel:		$ 400.00
- mileage 1,000 km at $0.30 / km:		$ 300.00
GPS - 30 days at $15 / day:		$ 450.00
Field Supplies - 60 man-days at $20 / day:		$ 1,200.00
Analyses / Assay Costs - 200 samples at $10 / sample:		$ 2,000.00
Travel: Helicopter - 4 hours at $1,000 / hour:		$ 4,000.00
Report Preparation: 3 days at $450 / day:		$ 1,350.00
	Sub-Total	$37,950.00
	Contingency at 10%	$ 3,795.00
	Total	**$41,745.00**

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Appendix A

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, Richard T. Walker, of 656 Brookview Crescent, Cranbrook, BC, hereby certify that:

1) I am a graduate of the University of Calgary of Calgary, Alberta, having obtained a Bachelors of Science in 1986.

2) I obtained a Masters of Geology at the University of Calgary of Calgary, Alberta in 1989.

3) I am a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

4) I am a member of good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

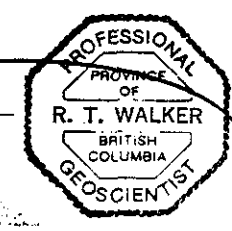
5) I am a consulting geologist with offices at 656 Brookview Crescent, Cranbrook, British Columbia.

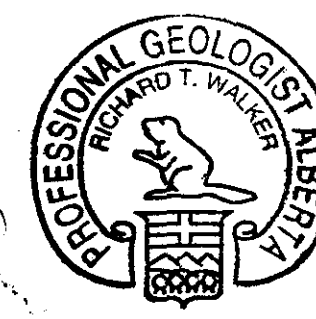
6) I am the author of this report which is based on work I personally performed between July 1 and 31, 1997, while employed by Chapleau Resources Ltd. and between March 1 and July 5, 1998 as owner of the claims subsequent to filing a Bill of Sale transferring ownership of the claims from Chapleau Resources Ltd. to R. Walker.

7) I was personally involved in the acquisition of the IRONY 1 and 2 claims described herein.

Dated at Cranbrook, British Columbia this 6th day of July, 1998.

Richard T. Walker, P.Geo.





Appendix B

Statement of Expenditures

STATEMENT OF EXPENDITURES

The following expenses were incurred on the IRONY claim group for the purpose of geological exploration within the period July 1, 1997 to April 6, 1998.

PRE-FIELD PREPARATION - 4 days @ $450	$ 1,800.00
PERSONNEL	
R.T. Walker, P.Geo., 8 days @ $450 / day	$ 3,600.00
Assistant - 8 day @ $200 / day	$ 1,600.00
EQUIPMENT RENTAL	
4 WD truck: 8 days @ $75 / day	$ 600.00
Mileage: 500 km @ $0.30 / km	$ 120.00
Fuel	$ 46.00
GPS field unit - 8 days @ $15 / day	$ 120.00
FIELD SUPPLIES	
16 man-days @ $20 / day	$ 320.00
HELICOPTER	$ 2,938.32
Food/Accommodation - 8 days @ $125	$ 1,000.00
Maps / Thesis Reproduction	$ 150.58
Meals / Motel (1 night)	$ 221.63
Photofinishing	$ 40.00
REPORT/REPRODUCTION	
R. T. Walker, P.Geo.: 4.0 days @ $450/day	$1,800.00
Photocopying / Binding	$ 100.00
Total:	**$14,346.53**

Appendix C

Field Notes

CONTENTS

PAGE	REFERENCE	DATE

Ruddock Creek July 17/92

Flew in - set up camp
Altimeter reads 1961 m
NAD 27 GPS 368959
5736909 2001 ± 47 m
4 satellites 27 mT

July 18/97
Altimeter read 1930 m in morning
→ higher pressure.

NAD 27 GPS 368918
5736929 2071 ± ?
3 satellites 57 mT

SHOULD USE NAD 83
Declination 21° 42'

Traversed ENE from camp to pass between Ruddock Creek and Oliver Creek. Found IRONY 1/2 LCP still tied to tree.

NAD83
GPS 369279/320 75 mT
5737083/081 2111 ± 48 m
Approx 100 m east of high point/claim post

Traversed down to small lakes at headwaters of Ruddock Creek. Looking for claim post on north shore of lake. Found cairn built on top of large boulder but cannot see claim tags

GPS 369558 50mT
5737067 2060m ± 60m

① Took photo of cairn with km + paper for scale
② Picture - close-up of cairn on rock w/ yesterdays paper

Took cairn apart and re-built it, did not locate any tags

Walked claim line back to ENE (067°) and found another cairn. Again, no tags readily visible
③ Took photo of cairn w/ km for scale
④ Close-up with paper

Took cairn apart + re-built it
No tags found
GPS 369638 31 nT
5737086 2017 ± 65
altimeter 1999 m

Traversing to ENE looking for additional posts / cairns. Found ½ m thick rusty weathering sandy dolomite / marble with ≤½% disseminated galena ± sphalerite
Leucosome-bearing quartzofeldspathic lithologies with med. - dark green calc-silicate rich lithologies (up to 6 cm thick) with abundant diopside - actinolite
S_{N2} 223/046
Small parasitic fold noted 4 m to south, isoclinal with 1 m limbs
Cannot determine vergence

Faxn (probably F_1) 017/262

GPS 369633 46mT
5737126 2025I ?
altimeter 1990m

Another 1fold axn @ 1973m
F_2(?) 029/273
Coming down through a rock band with numerous parasitic folds
Isoclinal - probably F_1
Open to tight - probably F_2
Cannot determine verseince
Incipient melting w/ development of discontinuous blobs + stringers of leucosome/melanosome
Large garnet aggregates (≤ 2 cm diam)

Continued ENE to
369846 34mT
5737202 1832m I 55
altimeter 1954m
Small patch of trees at confluence of two creeks flowing east into Ruddock Creek

altimeter 1972m Traversed west back into rock band. Rusty coloured, platey weathering semi-pelite with subordinate leucosome. Rusty coloured rock contains disseminated, fine-grained pyrite. Leucosome contains spotty medium-grained pyrite

SAMPLE RW-97-1 Platey, rusty coloured semi-pelite with disseminated pyrite ± galena
S_{1+2} 224/028

Small, 1m wide by 40cm thick, grey weathering marble boudins also present - middle marble still? Additional discontinuous bands and boudins of folded grey and creamy marble with subordinate sandy marble/dolomite up to cliff band 1984m. Thin bands and thicker boudins (≤ 2m)

of rare amphibolite noted
– top of SPA?

⑤ Photo of large cumulate mass of leucosome (pegmatite) with screens / inclusions of biotite-rich refractory melanosome

Traversed back to WSW approx. 40m beyond photo #⑤

GPS 369329 51mT
5736908 2002 ± 50m
altimeter ≈2005m

On north side of E-trending gully above upper lake in Ruddock Creek drainage

No evidence of tags in cairn so took it ~~ab~~ apart and re-built it
– No tags

⑥ Photo of cairn prior to dismantling it

⑦ PHOTO OF CAIRN PRIOR TO DISMANTLING
NO EVIDENCE OF TAGS IN CAIRN, SO TOOK IT APART & RE-ASSEMBLED
–NO TAGS

GPS 369106 ± 34mt.
5736794 2046 mt.
12:17 PM
LOCATED ON DIVIDE BETWEEN RUDDOCK CR. & OLIVER CR.
altimeter 2029m

Found another cairn, largely collapsed. On west side of NNW trending gully @ 1971m (altimeter)

GPS 368764 30mT
5736728 2041 ± 54m

⑧ Took photo looking west down plunge of F_1/F_2 fold closure.

⑨ Took photo of cairn prior to dismantling it. No tags and re-built it.

Storm front moving in → altimeter

Continued traversing, WSW and found another cairn, fallen over, approx. 75-100 m further along

(10) Took photo of cairn, as is, then took apart and re-built

GPS 368705 28mT
5736688 1938 ± 63m

1953m altimeter

Blazed trees at 1931m

1787 m on claim line on east side of large creek, east of lake. A total of ~~four~~ six trees cut down by axe but no LCP apparent

Traversed down to ~~Clear~~ Light Lake. Found periodic blazes to confirm we were following claim line. Lost line in cliff band above east end of lake. Could find no trace of posts / claim line near lake. Followed lakeshore to creek ½ way along southern shore.

altimeter reads 1734m, map indicates 1790m - reset to 1770m

GPS 367784 43 mT
5736274 1797 ± 68m

Photo (11) - Claim posts w/ paper
Found four posts on lakeshore

@ 367809 83mT
5736381 1892 ± 98m

Initial	Post	376164	(12)
"	"	376163	(13)
Final	Post	376165	(14)
"	"	376166	(14)

Photos (15) + (16) - scenic photos taken to west over ~~Clear~~ Light Lake

Photo (17) Scenic sunset photo from camp

Notes: From camp eastward to just beyond Oliver Creek / Ruddock Creek pass consists of marble (grey, creamy white) sandy marble, dolomite, calc-silicates, semi-pelites, quartzofeldspathic gneisses (subordinate) and minor amphibolite: at and immediately east of pass

Camp at 3688840 43mT
5737127 2067±5?m
altimeter 2000m

Grey weathering marbles noted all along traverse down southernmost claim line, albeit discontinuously.

Therefore, suspect middle marble unit from pass westward to Light Lake. Semipelite Amphibolite (SPA) unit probably caves rusty weathering slopes south of Gordon Van Horne peak on south side of valley.

Grey weathering marble band identified at camp 1 and extends along gully to pass and along gully below camp to at least 60m. "S" type & parasitic fold asymmetry indicates position on lower limb of fold; consistent with previous mapping.

July 19.

GPS for camp 1
368807 56mT
5737245 2062±?

Traversed up to Main Camp at 2149m. Took six photo panarama beginning w/ Gordon Van Horne peak & Ruddock Creek to east & ending with Clear Lake to west.

(29) Scenic photo of Light Lake and west side of Oliver Creek

Altimeter	2175m		
GPS	368678	30mT	
	5737637	2218 ± 52m	

Found core storage area (stacked core), both NQ and E-size (?).

UG-77-9	Box	18	385-408
		9	177-200
		8	154-177
		7	131-154
		6	108-131
		4	61-85
77-11		8	168-193
		6	121-144
		13	287-311
		11	240-263
77-12			470-494
			494-518
			518-542
			542-565
			565-589
			589-613
			613-637
			637-658

UG 77-12	253-276
	276-300
	300-323
	323-347
	347-372
All NQ	372-396
	83-107
	107-131
	153-178
	59-83
	131-155

Abundant E-size core in aluminum trays, ~70% salvagable
- includes holes 1, 2, 3, 4, 6, 7, 5, 8
- partial loss of 4 & 7

12, 13, 15, 25, 22, 18, 23, 24, 26, 31, 30
16, 20, 17, 35, 9, 14, 10, 27, 34, 29

Box 38 of hole 905-930

Main Showing at 2322

GPS 368927 60mT
5737913 2281 ± 88m

Traversing along E showing. Very rusty coloured gossanous outcrop with very rich metalliferous float. Taking a number of representative samples throughout the outcrop. Metal disseminated throughout host semi-pelites and subordinate marble and cm metal-rich boudins, pods and layers upto 6 cm thick. Local layers of fluorite (purple) associated with marble bands.

(25) + (26) Photos of me on "E" showing near centre

(27) Close-up of metal-rich layers on "E" showing

Strike near top of o/c 228/037

Possible drill site at
GPS 368931 34mT
5737928 2247 ± 39m
altimeter 2328m

Located old posts & tags at east end of "E" showing

Final Post 376122
" " 376120
" " 376121
" " 376119

GPS 369014 41mT
5737931 2336 ± 150m
altimeter 2333m

(28) Photo of posts, taken to ENE

(29) Photo of Rick & lake

(30) Photo of posts (above) in front of Gordon Van Horne peak

(31) Photo of km & lake

Tracking outcrops of rusty rock to the east. Posts described above represent last significant thickness of gossanous outcrop, however bands of metal-rich rock persist to east of this station. Bands appear paddy

locally but may represent isoclinal hinge zones of parasitic folds

GPS 369233 24mT
5737925 2390 ± 34m
altimeter 2327m

Continued traversing to east toward large cliff buttress. Currently below and slightly west. Numerous glacially scoured outcrops with deep red gossans. Abundant medium green calc-silicate horizons associated with sulphides in biotite semi-pelite.

GPS 369530 36mT
5738080 2415 ± 44m
altimeter 2340m

Structure complicated by masses of leucosome/pegmatite which appear to cross-cut the foliation/layering

Note: I find the "E" zone hinge closure somewhat troubling with respect to the sulphide bands found at this location. Could not get good sample for assay but suspect it may run to a couple percent anyway. Bands up to 2m in vertical extent (true thickness ≈1.5m) with at least 6 separate bands present over 40 m elevation.

If the "E" zone closure is correct, then these lie stratigraphically below and wrap the "E" zone above & below (structurally)

(32) Photo to east showing sulphide band. Took sample by rounded psammite boulder SAMPLE RW-97-2 weathered sulphide-bearing strata.

GPS 369515 79mT
5738148 2224 ± 111m

Calc-silicate dominated, sulphide-bearing outcrop. Same exposure as middle of last page

altimeter 2348m

S1/2 254/037

Traversing back to west, basically along contour. Again, sulphide-bearing layers at this location, slightly less abundant than last o/c but may be a function of late remaining snow

GPS 369310 35m
5738034 2351 ± 46m

Further west, approx. 25-30 m below sulphide horizons in pegmatite injected, calc-silicate bearing semi-pelite

GPS 369190 35 mT
5737952 2367 ± 48m
altimeter 2337 m

(53) View back east toward 'E' showing from west of gully containing fault, elev 2342 m

Old drill hole w/ 20 feet of casing sticking out. Larger diameter hole (NQ) in band of grey rock trending up-slope

GPS 368696 35mT
5737983 2409 ± 39m
altimeter 2363 m

60% pegmatite / leucosome melt and 40% biotite-rich refractory host

Elev. 2421m Traversing upslope along rock band and have encountered gossanous rock bands

GPS 368552
5738240 2475 ± 134m

The true thickness of the band is approx. 5 m overall w/ dilution by non-sulphide-bearing lithologies. Lithologies include muscovite-bearing pegmatite, semi-pelite, amphibolite, and garnet-bearing marble

Continuing traverse up shoulder to sharp pointed peak.
GPS 368464, 33 mT
5738348 2532 ± 41 m
altimeter 2485

Traversed around west side of ridge spur. Altimeter 2556 m
GPS 368471 34 mT
5738560 2480 ± 58

Degree of melting appears to have diminished relative to below. More intact host lithologies and not as discontinuous

(24) Photo of large scale "Z" fold indicating closure below.

Checked altimeter back at camp
2044 m, 5:30 pm

Notes: Located the "E" showing as expected, however there were markedly fewer parasitic folds than I expected for a hinge zone of an F_1 fold subsequently tightened by F_2 folds. Furthermore, the sulphide bearing bands extended much farther east than I expected. In fact, from our easternmost station, we observed rusty & scree slopes which may be sourced from the same or similar sulphide-bearing strata.

The sulphides themselves are very abundant and, locally, high grade (up to 20% galena ± black sphalerite). However, individual bands are discontinuous over tens of metres, possibly boudinaged, pinched out/attenuated and/or folded. Sulphides were preferentially hosted by semi-pelites and, to a lesser degree by marbles. Disseminated sulphides were noted in mafic gneisses

leuco-amphibolites to the east (SAMPLE RW-97-2).

The projected trace of the ~~mpy~~ sulphides in the upper limb of the fold is suspect. We climbed upward along the south projecting ridge spur and encountered middle marble lithologies, although marbles and calc-silicate lithologies were less abundant. However, ~~still~~ almost all the way up the strata were dipping to the north and striking to the west. There are undeniable sulphide-bearing horizons present but I doubt they represent a single band exposed continuously along the ridge spur.

July 20/97
Beautiful day, no clouds

Traversed north out of camp to the Main Camp then down gully toward "F" showing. At approx. 7120' (2160 m) there is a very rusty weathering o/c on the west side of the gully. There is a dunite reported to occur SW of the Main Camp but I don't believe this could be it. There is not a magmatic signature, it appears to be a rusty psammite however that may be host strata. The rusty zone is an elongate, platy weathering lozenge.

S1+2(2) 156/26 in rusty rock

Found some pieces of high grade float in rubble immediately below and underlying the rusty weathering lozenge, therefore believe it is the upper portion

of the "F" showing

Eastern band of "F" showing at GPS

368538 54mT
5737525 2237±59m

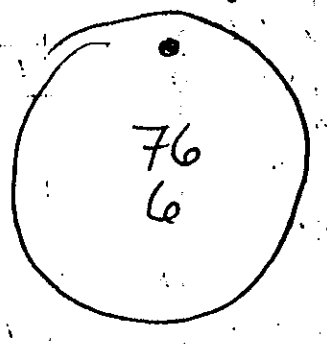
altimeter 2148m

and is approx. 45m to the east of the gully wall containing the bulk of the "F" showing.

From this location the western wall of the gully contains at least separate and distinct rusty weathering lozenges therefore there is probably a fault as previously mapped. The mineralization consists of disseminated pyrite in a platey semi-pelite (locally psammite) with the high grade material hosted in a probable marble.

(SAMPLE RW-97-3 & 4)

There is also a drill location(?) marked at the lower end of the eastern band of the "F" showing (76-6) by a piece of angle iron driven into the rock. No drill hole identified. Another possibility is that it marks a claim line as it is on a bearing of approx. 067° from a small cairn built on the west side of the gully. This is the same bearing as the claim line we followed on July 17. A tag has been affixed to the angle iron as follows:



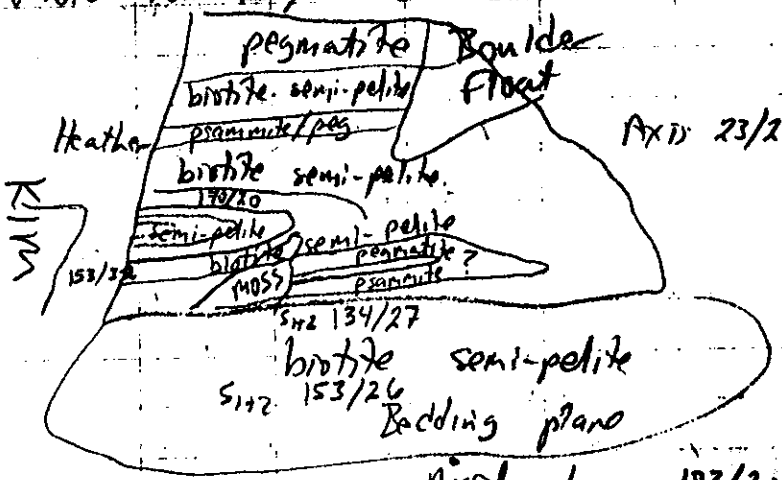
Finally, at the top of the eastern band of the "F" showing are rotten core boxes, scattered "E" size core (3/4" diameter), rotten tarps and

possibly blasting wire (double wire - purple + brown)
Thin, 6 cm mylonite zone just down the gully from last station on west side of gully at 2149m
Mylonite - approx 287/10
Appears to be truncated/crosscut by pegmatite

Traversed south, obliquely down slope to 2134m. Have found small to large blocks of dunite float. Coarse crystalline, rounded, light rusty coloured blocks of serpentinized u/m Cannot determine original composition from boulders but very probably dunite.

SAMPLE # RW-97-5
GPS 368407 41mT
5737465 2153 ± 142m

2143m Identified an isoclinal set of folds and came back up slope to describe it
GPS 368374 33mT
5737482 2163 ± 54m
The fold has a "Z" type asymetry looking NW.
Photo - Roll #2, No (1)



Looks like a probable F1, northeast verging parasitic fold. The biotite semi-pelite comprising the "bedding plane" is the same layer that wraps the psammite/pegmatite to the lower right

Alt 2129 Directly downslope of previous fold. Still have dunite boulders/float up to 3m in long dimension

(2) Corner post for Chaplean claims, shortly after stakes left. 4 post claims SE corner
GPS 367970 48mT
5737655 2248 ± 75m
altimeter 2173m

Came west along claims line to steep ground east of creek out of Clear lake. Found mylonite float in talus at foot of cliffs ⓐ ≈ 2100m
GPS 367628 62mT
5737664 2090 ± 150m

(3) + (4) Photo eastward along claim line from just east of Clear Lake creek.

(5) View from creek toward Clear Lake

Located probable drill pad a west side of creek at 2000m.
GPS 367731 / 701 94mT
5737378 / 368 1995 ± 73m
Should be on or near old Falconbridge claim line & post

Bottom end of creek flats
Took 4 photo panarama of topography north and east of Clear Lake.
(6) (7) (8) (9)

Found several trees felled by axe inside western curve in creek (west side) ⓑ 1912m.
Steep ground from west into creek and across from & slightly down slope of large talus slide to NW. Talus slide is next gully west of "f" showing.
GPS 367965 45mT
5737110 1894 ± 76m
Altimeter 2065 at camp

July 21 Helicopter set-out WNW of camp 1 and ENE of Clear Lake.

GPS 367818 416 mT
5738359 2391 ± 84m
altimeter 2387m

Located on icefield south of rounded WSW trending headwall WSW of M showing.

Note: helicopter spent 1 full hour on-site with us + stakers.

Notes: The rocks of the "non-calcareous" group are comprised of quartzo-feldspathic gneisses, upwards of 60% pegmatite / granitic, muscovite-bearing leucosome and minor semi-pelite with rare biotite pelite, marble and calc-silicate. The "non-calcareous" group is probably the upper clastic unit and therefore more susceptible to partial melting + development of leucosome / pegmatite. Very little remains of bedding or compositional layering, instead characterized by

Photo (10) Leuco-garnet amphibolite band

multiple generations of leucosome, quartzo feldspathic gneisses and layers / lenses / pods of other subordinate lithologies. Noted small masses of molybdenite (up to 1.25 cm square) contained in pegmatite.

Small, discontinuous band of biotite rich refractory restitate

Site 13817
GPS 367839 32 mT
5738360 2391 ± 42m
altimeter 2373m

Traversing eastward along foot of icefield. Encountering more abundant layering site 116/14 in weakly segregated quartzofeldspathic gneiss

GPS 368026 49 mT
5738394 2395 ± 68m

Layering is still discontinuous and predominantly gneissic in character

Note: There is layering in dark weathering blocky rock around the ice field to west, north and northeast, underlain by light to medium grey rock. I believe this may indicate the ice field is cored by and underlain by quartzofeldspathic gneiss and pegmatite of the upper clastic division. It is, in turn, structurally overlain by high-grade lithologies of the more refractory middle marble division.

Traversing up to pointed peak east of "M" showing. Have encountered a quartzofeldspathic gneiss with distinct biotite partings, possibly S_{1+2} compositional layering

$S_{1+2}(?)$ 199/40

Lineation 28/259

GPS 368132 31 mT
5738280 2479 ± 57m

⑪ Ego photo

C76-1 drill site
altimeter 2444m
GPS 368295 33 mT
5738309 2509 ± 69m

Box: 147 2770-2789 is the deepest box remaining. Core is probably 60% recoverable

⑫ Photo of C76-1 drill pad, view to east

Traversed upslope and NE to ridge spur mapped July 19. Well layered marbles at this location with a epidote coated slicken side surface, south striking, very steep west dip

GPS 368496 38 mT
5738274 2547 ± 65m

Thunder directly overhead so we left, without measurements. However, strata was striking approx. west (270) and dipping approx 35-45° north. Slick surface approx south striking

GPS 368458 27 mT
5738133 2525 ± 39m
altimeter 2419m
Banded sandy marbles with burned pile of timber, rusty gear & litter.
S1+2 094/50
Outcrop consist of sandy marble and calc silicate layers from 0.5 to 40 cm (minor) Hock. Layers have been injected with pegmatite / leucosome
Mylonite 162/30 approx 30 m to southeast @ 2419m

S1+2 135/24 approx 60 m to east in rusty weathering marbles

(13) Photo of biotite-rich refractory host strata in pegmatite/leucosome

Traversed eastward to present location at base of ridge and above "E" showing. Numerous bands of sulphide bearing strata evident, predom. semi-pelites
GPS 368903 84 mT
5738217 2436 ± 108
altimeter 2428m
S1+2 205/26 in platey semi-pelite
Lineation 26/277
(14) & (15) Two photo pair of "Z" type folds looking west
Proportion of pegmatite / leucosome relative to host strata drops markedly from west (≈ 60%) to east (≈ 20-30%).

Located 3 old drill locations
EDS, EDG and unmarked
368912 58 mT
5738013 2364 ± 66m
alt, 2385m

2064m back at camp
Back in camp @ 3pm due to

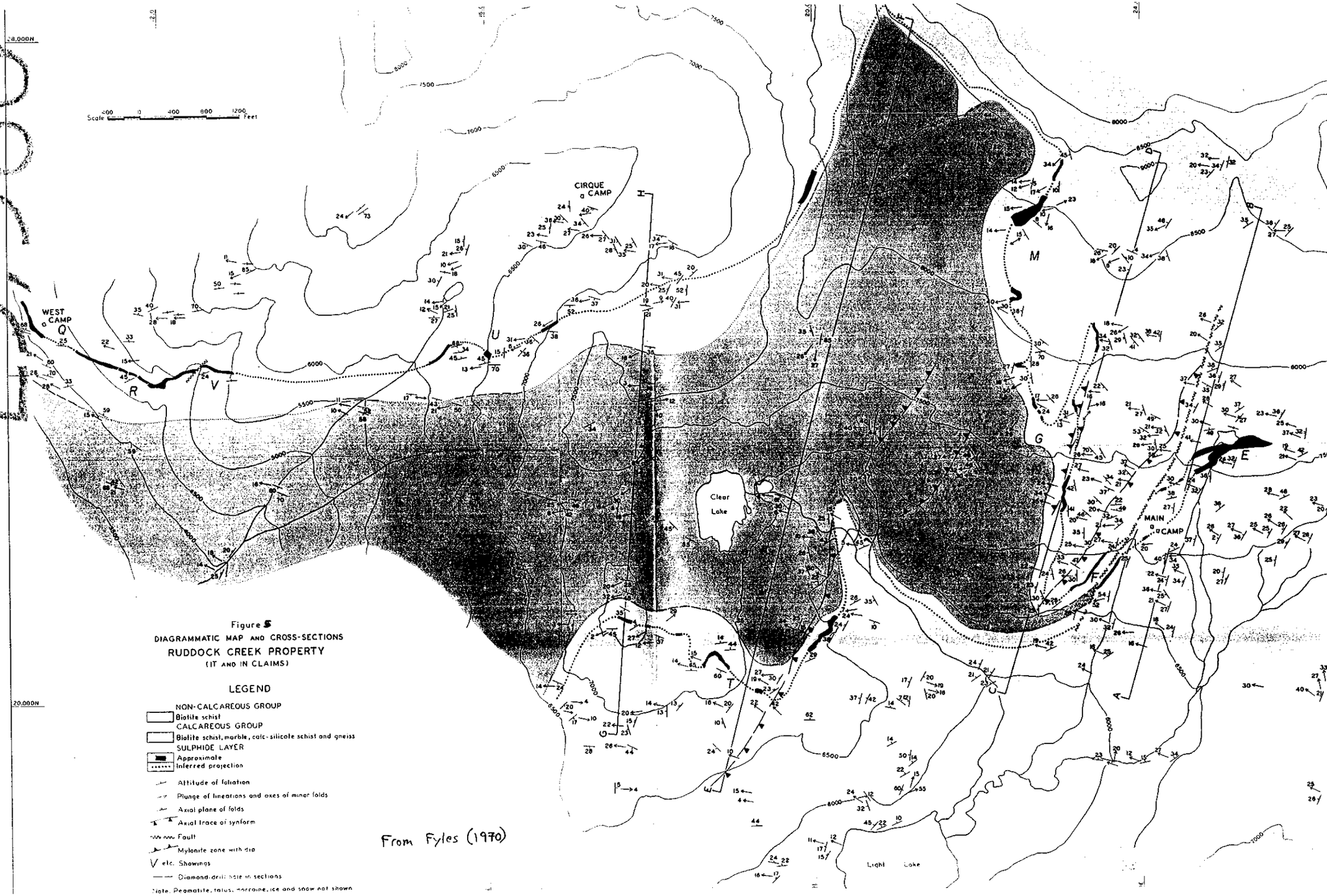
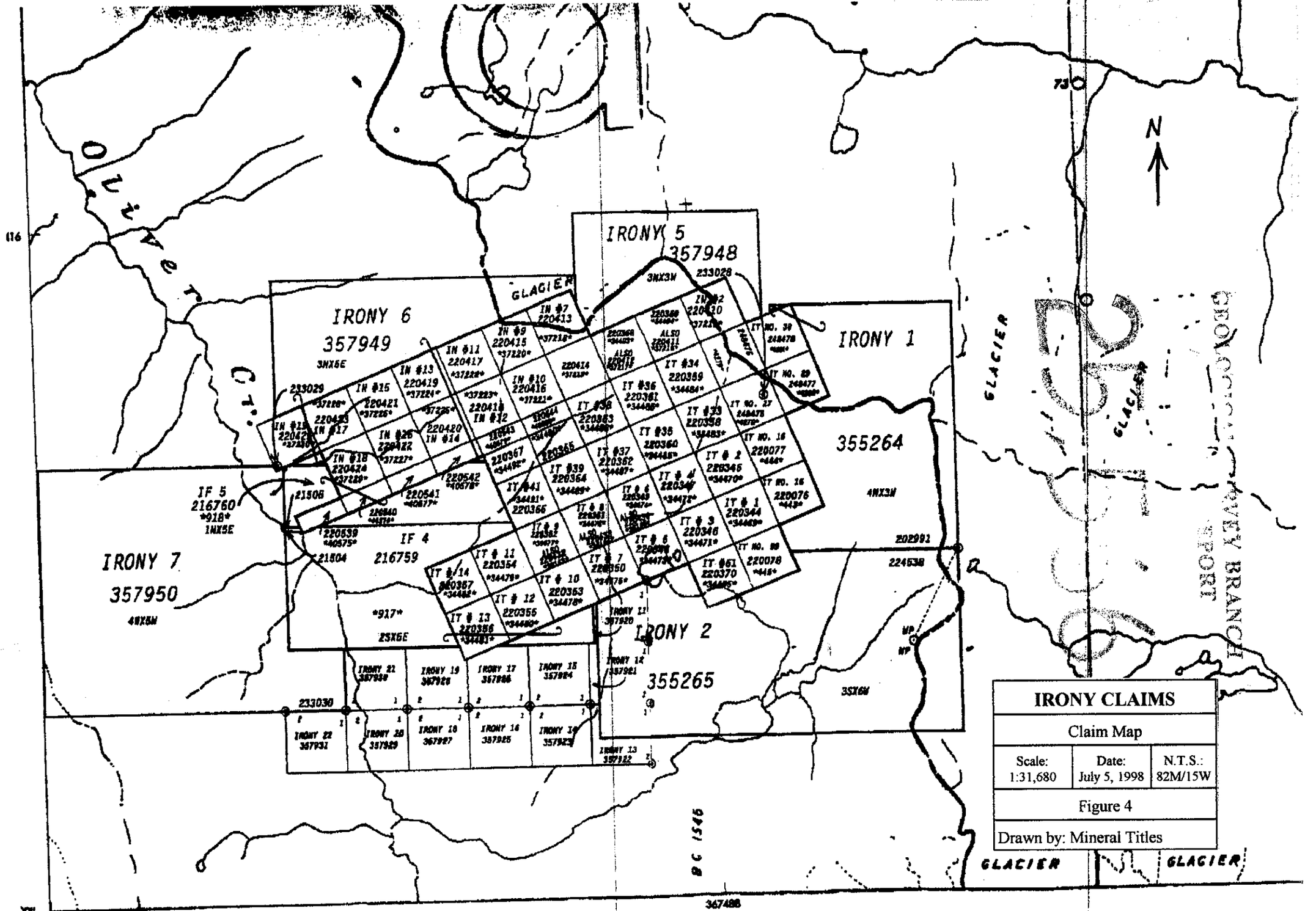


Figure 5
DIAGRAMMATIC MAP AND CROSS-SECTIONS
RUDDOCK CREEK PROPERTY
(IT AND IN CLAIMS)

LEGEND

NON-CALCAREOUS GROUP
Biotite schist
CALCAREOUS GROUP
Biotite schist, marble, calc-silicate schist and gneiss
SULPHIDE LAYER
Approximate
Inferred projection
Attitude of foliation
Plunge of lineations and axes of minor folds
Axial plane of folds
Axial trace of synform
Fault
Mylonite zone with dip
V etc. Showings
Diamond-drill hole in sections
Note. Pegmatite, talus, moraine, ice and snow not shown

From Fyles (1970)



IRONY CLAIMS		
Claim Map		
Scale: 1:31,680	Date: July 5, 1998	N.T.S.: 82M/15W
Figure 4		
Drawn by: Mineral Titles		

5740000

5736000

364000

368000

ICEFIELD

ICEFIELD

ICEFIELD

ICEFIELD

S E Y M O U R

N

IRONY CLAIMS		
Revised Claim Map		
Scale: 1:20,000	Date: July 5, 1998	N.T.S.: 82M/15W
Figure 7		
Drawn by: R. Walker		