

PROSPECTUS

April 5, 1988.

062291

**EVALUATION REPORT**

on the

**RUM 1-90 Claims**

**Clear Creek Area  
Dawson Mining District, Yukon  
63° 52'N, 137° 05'W**

**For:**

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**July 17, 1987**

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## SUMMARY

The RUM property consists of 90 mineral claims which cover a portion of the West Ridge area at the head waters of Clear Creek, Dawson Mining Division. The property was staked to cover the three main intrusive stocks on West Ridge; Rhosgobel, Pukelman and Josephine. Quartz stockwork development is intense near the centre of these stocks, with the widest veins occurring near the margins and up to 200 meters into the country rock. Scheelite and auriferous arsenopyrite are common mineralizers of the veins.

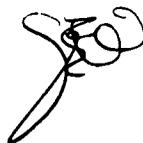
A major mapping and sampling program was conducted in the area in 1981 by Bema Industries Ltd. on behalf of Canada Tungsten Mining Corporation Ltd. Efforts were concentrated on locating a source for high grade scheelite found in placer concentrates on the adjoining creeks.

Grids were established over the Rhosgobel and Josephine stocks and reconnaissance soil sampled for tungsten, tin and gold. Sampling on the Rhosgobel grid outlined a gold-tungsten anomaly 1,000 meters long and 400 meters wide. Gold values range from 100 to 340 ppb.

A 550 meter tie line joining the two grids was sampled during the same program. Of the 18 samples taken, 13 carried anomalous gold values between 100 and 1,540 ppb. Two rock samples from this same general area returned gold assays of 0.570 and 1.313 oz Au/ton. Cathro (1971) describes a quartz stockwork located between the Rhosgobel and Josephine grids. There appears to have been no detailed exploration over this area in 1981, however a single 0.386 oz Au/ton rock sample may be related to this zone.

A number of rock samples with anomalous gold values were collected during the 1981 program but most locations are not clearly defined. Three clearly marked grab or float samples between the Rhosgobel and Josephine stockworks returned assays of 0.112, 0.882 and 0.562 oz Au/ton.

A two phase exploration program is recommended for the property. Phase 1 will consist of relocating and rechainning the 1981 grids, prospecting, some soil geochemistry and trenching. Phase 1 is anticipated to cost \$93,000. If Phase 1 results are favourable, a Phase 2 drilling program estimated to cost \$376,000 is recommended.



## INTRODUCTION

The RUM 1-90 claims cover part of West Ridge in the Dawson Mining District, Yukon Territory (NTS 115-P-14). Access to the property is by 50 kilometres of secondary gravel roads leaving the Klondike Highway at a point approximately 100 km south of Dawson City and 435 km from Whitehorse.

The claims were staked in 1987 to cover anomalous gold values in soil and rock resulting from extensive exploration carried out between 1980 and 1982 by Bema Industries Ltd. on behalf of Canada Tungsten Mining Corporation Ltd. This exploration was primarily directed at tungsten, with lesser emphasis on tin and gold mineralization. Exploration consisted of detailed mapping and rock, soil, silt and heavy mineral concentrate sampling. No trenching or drilling was carried out.

The RUM claims are recorded in the names of R. Robertson and K. McCrory of Whitehorse; M. E. Compu Software Inc. holds an option on the property by which a 100% interest can be earned.

This report has been prepared at the request of Kenneth L. Hueser, a director of M. E. Compu Software Inc.

Canada Tungsten Mining Corporation Ltd. and Bema Industries Ltd. allowed access to their files and use of unpublished data not otherwise available to the writer.

### LOCATION AND ACCESS

The RUM 1-90 claims cover part of West Ridge between the headwaters of Left Clear Creek, Josephine Creek and Big Creek in NTS Sheet 115-P-14. Approximate geographical co-ordinates are 63°52' north and 137°05' west. Access to the property is via the Klondike Highway (435 km from Whitehorse or 100 km from Dawson City) and then by 50 km of secondary gravel roads to placer mining camps 2 km from the west boundary of the property. A network of bulldozer trails provide four-wheel-drive access to the northern and southern portions of the property. Various aspects of the property location and access are shown in Figures 1, 2 and 3.

### PHYSIOGRAPHY, CLIMATE AND VEGETATION

The Clear Creek property covers the north-south trending West Ridge and several spur ridges. Slopes facing south or west are quite gentle, whereas slopes facing north or east are longer and steeper. The hills are rounded with relatively little outcrop. Elevations range from 3500 feet (1066 m) at the access road in upper Left Clear Creek to 5000-5500 feet (1525-1675 m) on the ridges, with local summits as high as 5900 feet (1800 m). Existing bulldozer trails cross the main ridge from Left Clear Creek to Josephine Creek at about 5400 feet (1645 m).

The area has a continental interior climate with low precipitation, warm summers and cold winters. Precipitation averages 12-15 inches annually. The area is normally snow-free from late May to late September; water for drilling may be difficult to obtain after mid-summer.

Most of the property is above local treeline and ground cover consists of moss, alpine plants and dwarf birch, spruce and willow. The region lies in the discontinuous permafrost zone and was not affected by the most recent glaciation, so outcrop is sparse except on ridge tops and in gullies. Slopes are generally masked by slide rock and felsenmeer.

BEAUFORT SEA

FIGURE 1

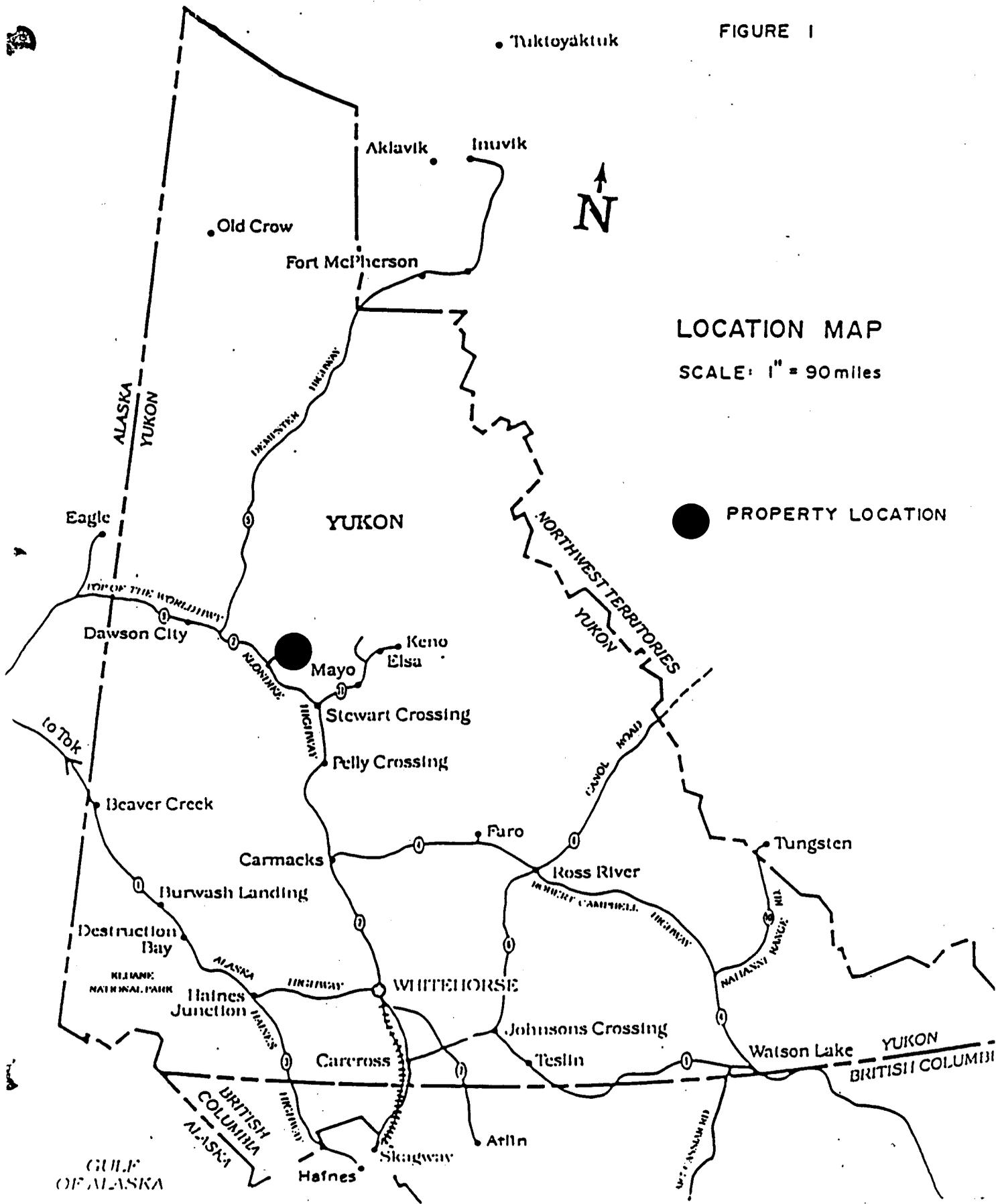
• Tuktoyaktuk



LOCATION MAP

SCALE: 1" = 90 miles

● PROPERTY LOCATION



GULF OF ALASKA

BRITISH COLUMBIA

YUKON  
BRITISH COLUMBIA

NORTHWEST TERRITORIES  
YUKON

ALASKA  
YUKON

YUKON

Dawson City

Mayo

Stewart Crossing

Pelly Crossing

Faro

Carmacks

Ross River

Destruction Bay

Burwash Landing

WHITEHORSE

Johnsons Crossing

Teslin

Watson Lake

Carecross

Arlin

Haines

Skagway

Tungsten

Eagle

Aklavik

Inuvik

Old Crow

Fort McPherson

TOP OF THE WORLD

to Tok

HALNES JUNCTION  
KILBUCK NATIONAL PARK

ALASKA HIGHWAY

ALASKA HIGHWAY

CANAL ROAD

INVERT CAMPBELL HIGHWAY

MALIBY ROAD

MT. ANSLUW RD

PROPERTY STATUS

The Clear Creek property of M. E. Compu Software Inc. consists of 90 Yukon Quartz claims, as shown in Figure 2 and as listed in Table I below:

Table I  
Property Status

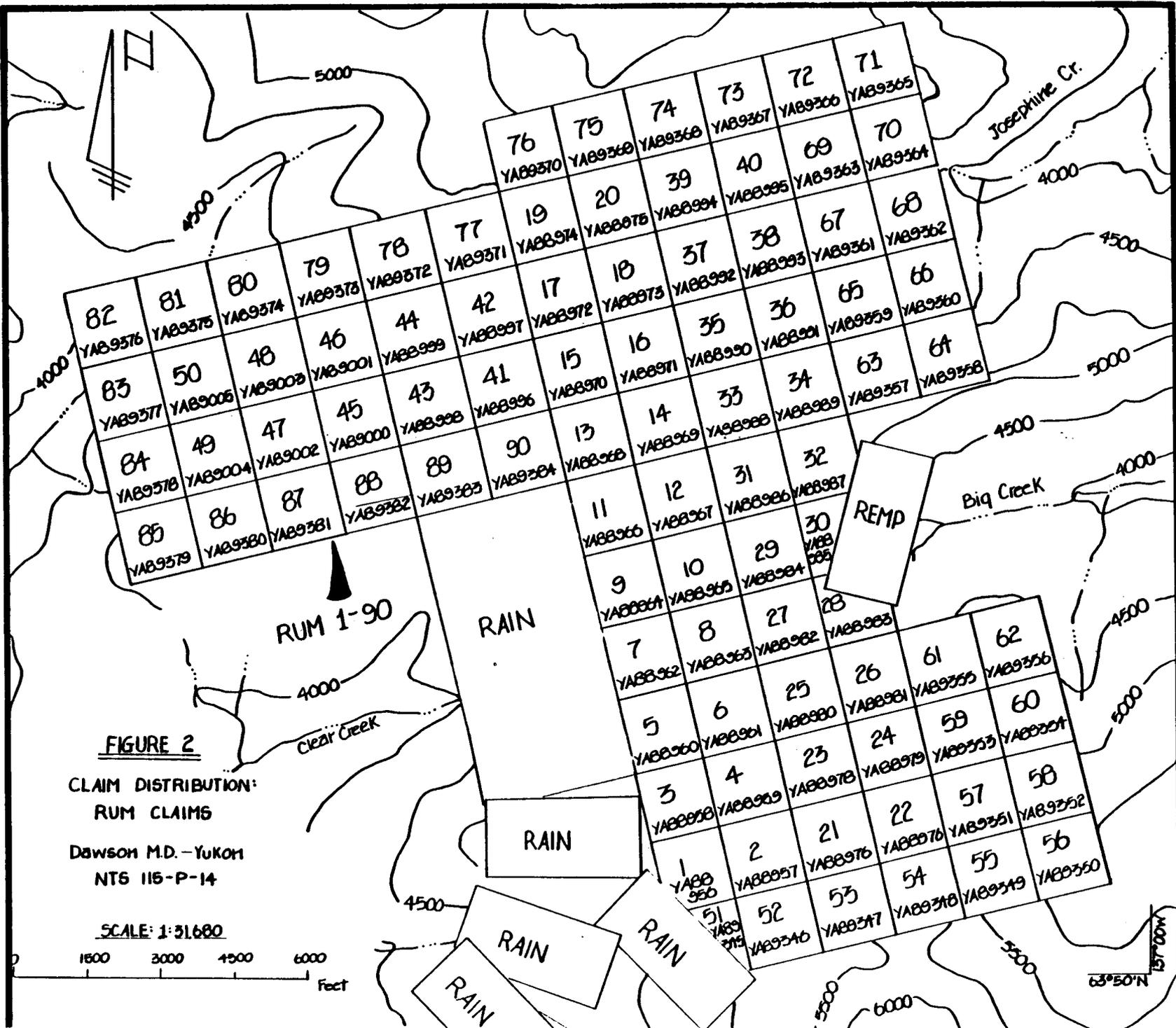
Claim Name	Grant Number	Renewal Date
RUM 1-50	YA88956-YA89005	1st April 1988
RUM 51-90	YA89345-YA89384	17th June 1988

The RUM 1-50 claims were staked on 31st March 1987 and recorded in the office of the Dawson District Mining Recorder on 1st April 1987 by R. Robertson of Whitehorse. A 30% interest in these claims was subsequently transferred to K. McCrory of Whitehorse. Under the terms of an option agreement, M. E. Compu Software Inc. can earn a 100% interest in the property.

The RUM 51-90 claims were staked on 10th June 1987 and recorded on 17th June 1987; these claims are included in the above option agreement.

Claims recorded under the Yukon Quartz Mining Act require expenditure of \$100 per claim per year (as assessment work or as cash payment in lieu of work) to maintain the property in good standing. During the first three years, surface geological, geophysical or geochemical surveys may be filed for assessment credit; in subsequent years, only physical work such as trenching or diamond drilling is accepted.

Adjoining mineral claims are held by local prospectors and placer miners: RAIN claims (YA31503 etc.) by N. Harper, operator of a placer property on Left Clear Creek, and REMP claims (YA88112 etc.) by W. Malicky.



## REGIONAL GEOLOGY

The West Ridge area is located in the northwestern portion of the Selwyn Basin at the southern edge of the Ogilvie Mountains, a short distance east of the trace of the Tintina Fault which separates the old North American continental margin (including the Selwyn Basin) from sheared metamorphic rocks of the Yukon Cataclastic Complex, an accreted continental fragment.

The northern portion of the area, shown in Figure 3, consists of Paleozoic (primarily Ordovician to Devonian) sedimentary and metasedimentary rocks including quartzites, conglomerates, sandstones, slates, phyllites and limestones (Bostock, 1964), probably equivalent to the Road River Formation (Emond, 1986). The southern portion, including West Ridge, is underlain by a thick, monotonous sequence of weakly metamorphosed and deformed sedimentary rocks tentatively assigned to the Late Proterozoic-Early Cambrian Grit Unit of Green, 1971 (Yukon Group schists of Bostock, 1964). Rocks of this unit strike generally east-west and consist largely of massive to gritty quartzite, phyllite, phyllitic quartzite and varieties of biotite hornfels and calc-silicate hornfels including minor amounts of calc-silicate skarn.

Intrusive rocks of the district are thought to be Cretaceous in age (83 - 110 Ma) and are typical of those throughout the Selwyn Basin. They are small in area and have not been extensively unroofed. Their size ranges from discontinuous dykes less than two metres wide, to the Rhosgobel Stock which is about three kilometres by one kilometre wide. Acid plutonic rocks include porphyritic quartz monzonite (Pukelman and Rhosgobel Stocks), diorite and granodiorite (Josephine, Barney and South Klondike Stocks). Later stage differentiates include quartz porphyry, aplite, lamprophyre and other associated biotite-rich intrusive rocks. Locally derived float samples of basalt and tuff have also been recognized. These rocks represent several intrusive events and emplacement at more than one structural level.

The West Ridge area is located on the northern limb of a large structure which has been termed the McQuesten River Anticline. The anticline axis trends about 070°, plunging 10-20° NE and is located approximately 20 km south of West Ridge. Structural features such as folding and layering indicate that there have been at least three phases of rock deformation within the Grit unit. Stratigraphic and structural interpretations suggest that these rocks may comprise part of a large nappe-like structure (Rainbird and Kelly, 1981). Deformation occurred prior to intrusive emplacement.

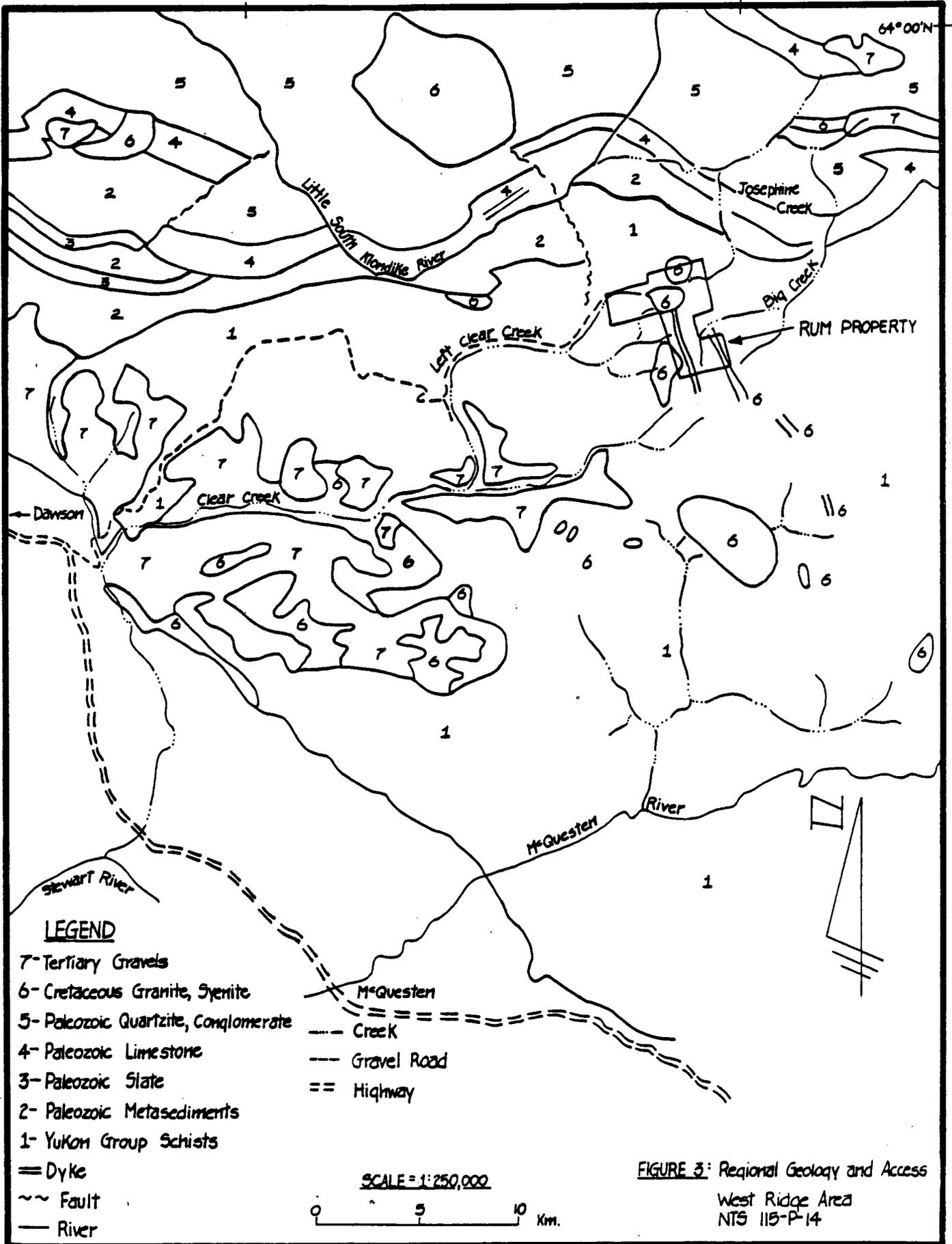
The Barlow Creek and Clear Creek basins are covered by extensive deposits of alluvium, mapped by Bostock (1964) as Pliocene or younger. Quaternary unconsolidated alluvial and minor glacial deposits blanket valley floors and hillsides to elevations of 1000 metres. Above this elevation, overburden consists of locally derived talus, felsenmeer and clays developed by frost action.

Tungsten, tin, gold and silver are of prime economic interest within the region. Tungsten, in the form of scheelite, occurs as a fine grained constituent of calc-silicate (pyroxene) skarn. Scheelite is also developed within stockwork quartz veins and rarely along thin laminae in hornfelsed quartzite. Native gold occurs enclosed within arsenopyrite which is a common constituent of some of the larger stockwork quartz veins. Native gold is actively mined by placer operations throughout the region; however, it has not been traced to a bedrock source. The occurrence of tin, in the form of cassiterite, has been documented as early as the 1940's when dredging operations on Left Clear Creek encountered anomalous concentrations of cassiterite nuggets from dredge concentrates. High grade vein silver mineralization has been mined for many years from the Keno Hill-Galena Hill deposits of United Keno Hill Mines, located in similar geology approximately 60 km to the east. A number of similar silver prospects are being actively explored closer to West Ridge, including the Silverquest Resources' property in the Forty Mile Creek drainage, some 16 km SE of the RUM property.

137°3'W

137°00'W

64°00'N



**LEGEND**

- 7- Tertiary Gravels
- 6- Cretaceous Granite, Syenite
- 5- Paleozoic Quartzite, Conglomerate
- 4- Paleozoic Limestone
- 3- Paleozoic Slate
- 2- Paleozoic Metasediments
- 1- Yukon Group Schists
- == Dyke
- ~ ~ Fault
- River

- M-Questen
- Creek
- Gravel Road
- == Highway

SCALE = 1:250,000



**FIGURE 3:** Regional Geology and Access  
West Ridge Area  
NTS 115-P-14

## HISTORY

Placer gold was first discovered on Clear Creek in 1898 and production of gold from placer operations has been essentially continuous since then, although documentation is incomplete. Sluicing and dredging operations on Left Clear Creek from 1941 to 1958 likely produced 48,000 crude ounces. The same dredge was reactivated by Queenstake Resources in 1979 and has mined on Clear Creek since 1980, producing at least 20,000 crude ounces of gold. Clear Creek gold is typically 800 fine. Most figures are estimated from royalty payment records and largely exclude production from the many smaller operations on Left Clear Creek, Clear Creek and other valleys draining West Ridge. There are a number of operations on the upper section of Left Clear Creek within a few kilometres of the property.

Hardrock exploration has been much less intense although prospecting for Keno Hill type silver-lead-zinc veins has been carried out whenever high silver prices prevailed. During the 1970's and early 1980's, exploration focused on tungsten and tin mineralization.

A 1969 stream sediment survey by Archer, Cathro and Associates Ltd. and the release of G.S.C. Open File 51 (Garrett, 1971, "Mo, W and U in Acid Plutonic Rocks as a Guide to Regional Exploration, Southeast Yukon") prompted the staking of several groups of claims in the West Ridge area. Follow-up work by Archer, Cathro (for the Chevron Standard - Canada Tungsten, North Stewart River Joint Venture) resulted in the staking of the PUKELMAN, RHOSGOBEL, LUGDUSH and NOP claim groups in 1971. Soil geochemistry and geologic mapping on the PUKELMAN and RHOSGOBEL groups indicated significant potential for stockwork scheelite and associated gold-bearing arsenopyrite vein mineralization. Similar targets were restaked in 1978-1981. Four groups of claims, the RAIN/BEE, JUB JUB, JABBERWOCK and NEL, were staked on West Ridge in 1978. The JUB JUB and JABBERWORK were explored by Campbell Resources Ltd. for tin and tungsten between 1978 and 1981. The NEL property of Cominco Ltd. was diamond drilled in the 1980 field season. The LUGDUSH property (1971), situated at the headwaters of Vancouver Creek, has two calc-silicate skarn zones with scheelite mineralization and assays up to 1% WO<sub>3</sub>; this property was restaked as the NOP group by Amax of Canada Ltd. in 1979.

During 1980-1981, Bema Industries Ltd. (as agents for Canada Tungsten Mining Corporation Ltd.) staked approximately 1054 claims in the West Ridge area and optioned a number of other properties (including the RAIN/BEE group) from local prospectors and operators. A small reconnaissance exploration program was carried out in 1980.

During 1981, approximately \$500,000 was spent by Canada Tungsten on reconnaissance and detailed exploration directed primarily at tungsten mineralization, with lesser emphasis on tin and gold. Exploration in 1982 was limited to a two week program of sampling directed at locating the bedrock source of tin concentrations in Clear Creek placer gravels and minor geological mapping in the Josephine Creek area. Decreases in world tungsten prices and declining revenues from mining operations forced Canada Tungsten to cease exploration in the area after 1982.

## PROPERTY GEOLOGY

(modified from Rainbird and Kelly, 1981)

The property is underlain by the Late Proterozoic to Early Paleozoic Grit Unit; north of the property, the Grit Unit is overthrust by Ordovician to Devonian sedimentary rocks (Emond, 1986). The Grit Unit is a thick, homogeneous, blocky grey-weathering sequence of deformed greenschist facies quartzites, quartz-mica schists and phyllites with lesser amounts of marble, dolomite and amphibolite. Prominent compositional layering and foliation strikes northwest-southeast and dips generally north or northeast; original bedding features have been overprinted by regional and contact metamorphism and are rarely recognized. Occasional gritty or pebbly bands occur in quartzite horizons. Phyllites are typically dark weathering or rusty; chloritic, graphitic and limy varieties of phyllite occur less commonly.

On a regional scale, Grit Unit rocks are metamorphosed to greenschist facies producing abundant muscovite and chlorite; regional metamorphism is perhaps Early Cretaceous in age. Within the RUM property, most Grit Unit rocks show thermal metamorphic effects produced by intrusion of Upper Cretaceous igneous rocks. Approximate limits of thermal metamorphism are shown on Figure 4. In quartzitic and pelitic lithologies, biotite hornfels is the common product of thermal metamorphism. Lesser amounts of K-feldspar, andalusite and garnet in these rocks reflect locally higher temperatures and differences in primary rock composition. Red-brown gossan zones accentuate contact aureoles and result from oxidation of iron-rich silicates and sulphides. In calcareous lithologies, thermal metamorphism produces dark coloured pyroxene skarns and pale coloured wollastonite or actinolite hornfels. Both types of calc-silicate hornfels occur as beds in quartz-biotite hornfels adjacent to the Rhosgobel intrusive contact. Calc-silicate rocks also occur as boulders on the flanks of the Josephine and Pukelman intrusives.

Breccias occur at several places on the property; most occurrences are found as debris associated with rusty quartzites. Breccias were probably formed in association with intrusion of the Upper Cretaceous stocks and dykes. Strongly clast-supported breccia is found at the head of Left Clear Creek on West Ridge and consists of angular fragments of quartzite and phyllite up to 2 cm across in a vuggy matrix of fine quartz and tiny dark fragments (biotite or shale). These rocks have heavy Mn and Fe oxide staining; fractures in surrounding quartzites show similar staining. Two occurrences of breccia were found around the Josephine granodiorites; these have equal amounts of clast and matrix and display better sorting than the Left Clear Creek breccia. Angular quartzite clasts (to 3 cm) with some chlorite occur in a matrix of fine quartz, feldspar and biotite with a granitic texture.

In the property area, Grit Unit rocks are intruded by a variety of intrusive rocks ranging in composition from quartz monzonite to biotite lamprophyre. These rocks were emplaced at relatively shallow depths as stocks, plugs and dykes (locally sheeted) with little or no accompanying folding. Potassium-argon cooling ages indicate that intrusion occurred in the Upper Cretaceous (80-100 Ma). Few cross-cutting relationships have been recognized but a tentative age sequence is quartz monzonite/granite, quartz diorite/diorite/granodiorite, quartz porphyry/rhyolite and late stage aplite and lamprophyre dykes.

Two porphyritic quartz monzonite stocks, Rhosgobel and Pukelman, outcrop at the headwaters of Left Clear Creek and between Left Clear Creek and Josephine Creek respectively.

The Rhosgobel stock is 12 square km in area and has a lenticular shape with its long axis striking north-northwest over 4 km. Its contact with the Grit Unit is usually sharp and steeply dipping and generates a hornfels zone up to 1.5 km from the contact. It was passively emplaced with a wide metamorphic aureole and no evidence of doming or brecciation. Jointing usually strikes north-northwest.

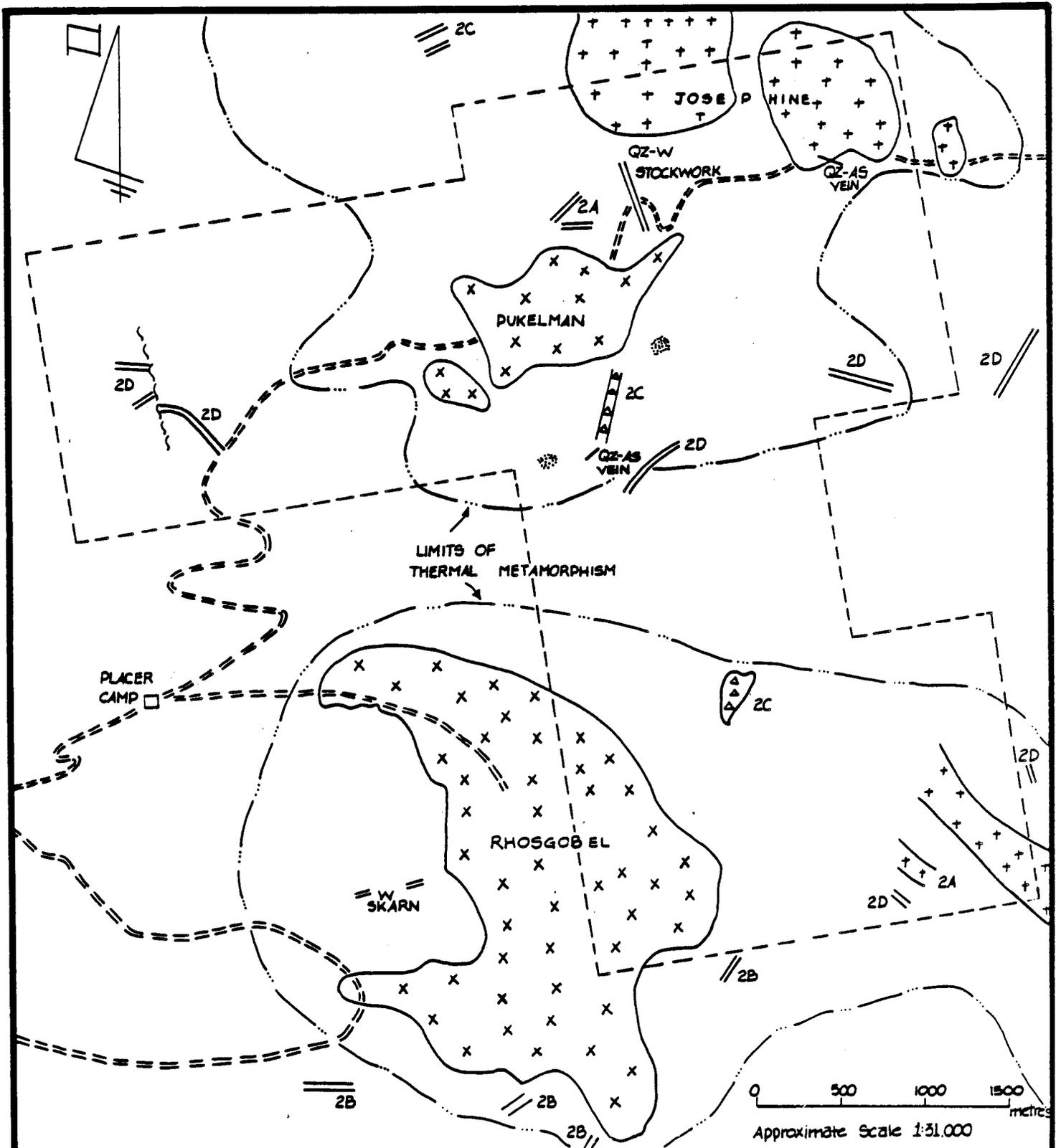
The Pukelman stock is 1.5 square km in area and has an irregular shape. It has nearly equidimensional axes with sharp, steeply dipping contacts. Like Rhosgobel, it was intruded slowly and has a widespread hornfels zone. Minor brecciation was noted near the western contact. Jointing strikes north but no large scale fracturing was observed.

Both stocks at Rhosgobel and Pukelman are medium to coarse grained and include phenocrysts of K-feldspar (40-45%) which are in part of replacement origin. K-feldspar also forms within the finer grained groundmass, intergrown with quartz and plagioclase. The plagioclase (25-30%) forms subhedral to anhedral grains. Quartz forms 15-17% of the rock and is intergrown with the feldspars. Biotite (5-7%) is locally altered to chlorite. Hornblende forms anhedral grains with alteration patches and rims of diopside-calcite due to metasomatic or retrograde alteration. Apatite, epidote and zircon occur in minor and trace amounts.

The overall texture suggests that alteration has occurred on a large scale, especially in the relationships of the feldspars and hornblende. Some of the potassic feldspars are secondary and due to reaction with potassium rich fluids during or after emplacement.

At Josephine Creek, two small subrounded stocks of quartz diorite-granodiorite intrude the country rock occupying a combined area of 7.5 square km. The stocks have equidimensional axes and have sharp contacts with the surrounding country rocks. Emplacement was passive as little brecciation is seen around the contacts. Between the two stocks, a thin band of quartz and biotite hornfels exists but it is suggested that the two stocks join at depth. The stocks are dominantly granodiorite in composition; however, more mafic-rich quartz diorite was observed.

The granodiorite tends to be porphyritic with feldspar, quartz and biotite phenocrysts in a groundmass of feldspars, quartz, biotite and some calcite. Biotite alters locally to chlorite and secondary calcite.



**LEGEND**

- △ 2C - Rhyolite Quartz, Porphyry
- X 2B - Quartz Monzonite
- + 2A - Quartz Diorite
- 1 - Grit Unit
- 2D - Lamprophyre

- == - Dyke
- ◇ - Gossan zone
- - - Vein
- ~ - Fault
- - - Property Boundary
- W - Tungsten

- - Bulldozer trail
- QZ - Quartz
- AS - Arsenopyrite

Figure 4: Property Geology-  
Rum Claims, West Ridge  
NTS 115-P-14

The quartz diorite stocks are fine to medium grained and, like the granodiorite, tend to be porphyritic. The quartz diorite contains scattered phenocrysts of plagioclase and clinopyroxene in a groundmass of plagioclase, actinolite, biotite, hornblende and interstitial quartz.

Clinopyroxene occurs as single grains and clusters which have thick alteration rims of actinolite. Some hornblende is present but is completely altered to actinolite. Both these textures indicate retrograde or metasomatic alteration.

The quartz diorite/granodiorite stocks of the area, like the quartz monzonite stocks, are strongly altered, as evidenced by the occurrence of metamorphic minerals, such as actinolite, diopside and chlorite. This suggests that all the stocks of this area have undergone a retrograde alteration during late stage cooling.

Quartz porphyry/rhyolite was recognized in sill-like bodies throughout the area. Their form is roughly concordant with the trend of the Grit Unit host rocks. The sills vary from a few metres to hundreds of metres in length and have varying widths from several up to 20 metres. The rock weathers to a light cream colour and, in places, due to the alteration of feldspars, to kaolinite and sericite. Quartz porphyry is especially prevalent just south of the southern contact of the Rhosgobel quartz monzonite. No contact metamorphism is associated with the porphyries, indicating rapid emplacement along an irregular zone of weakness. The texture of the "porphyry" varies from strongly to very weakly porphyritic. Composition grades from quartz-rhyolite to a more feldspar-rich quartz-feldspar-biotite porphyry.

The quartz porphyry contains quartz and plagioclase phenocrysts and fragments of plagioclase-quartz-muscovite in a groundmass of plagioclase-quartz-sericite. Pyrite altered to hematite forms scattered grains and clusters.

Dark biotite-rich intrusive dyke rocks referred to as lamprophyre occur throughout the claim area. Dykes up to 200 metres in length with widths from less than a meter up to 10 metres have been recognized. Dykes are concentrated to the northeast of the area near the Pukelman and Josephine stocks where they strike roughly northwest. This unit is recognized as the latest intrusive event in the area, as evidenced by its cross-cutting of other intrusives. Lamprophyre dykes have sharp contacts with their host rocks and rare chilled margins. They are jointed with joints striking north and contain abundant phenocrysts of clinopyroxene and phlogopite. The dominant mica is biotite, which gives the rock a distinctive red-brown hue. The groundmass is dominated by plagioclase. Minor constituents include quartz and apatite.

Aplites occur as dykes and were observed in association with the Rhosgobel and Pukelman quartz monzonite stocks. Dykes are only traceable for several metres and are up to one metre in width. Aplite dykes penetrate beyond intrusive boundaries into the adjacent country rocks and may occur in association with biotite lamprophyres. Chemically they are characterized by a high silica and alkali content with subordinate iron and magnesium. In hand specimen they exhibit an even, fine-grained saccharoidal texture. Compositions vary according to the composition of the granitic associate. Quartz-rich varieties pinch out laterally into quartz veins and veinlets. This rock is easily confused with recrystallized hornfelsic quartzites.

Felsic tuffs occur in talus material at the head of Left Clear Creek. The rock is buff coloured and very fine grained with small fractures filled with hematite and Mn oxides. It is suggested from their position that they represent extrusive equivalents of hypabyssal dykes and stocks.

Four separate phases of deformation were recognized during reconnaissance scale mapping in 1981.

The structural fabric at West Ridge is dominated by penetrative foliation associated with the first phase of deformation. This foliation transposes original sedimentary layering especially in phyllitic units. Folds vary in size from the inferred Phase I nappe, the limbs of which are measured in terms of kilometres, to microscopic crenulation formed in later phases.

Phase I deformation is recognized by rare, tight to isoclinal minor folds ( $F_1$ ) and a common penetrative foliation ( $S_1$ ) oriented parallel to the axial surfaces of the folds,  $312^\circ$  strike,  $20-30^\circ$  dip northwest. Shear zones are associated with the tight to isoclinal  $F_1$ 's and are parallel to compositional layering. The shear zones separate strata that shows little, if any, evidence of shearing. The shearing and associated cataclasis is evidence of possible major thrusting throughout the area and small scale thrust faults were recognized.

Phase II folds ( $F_2$ ) are the most common in the area and are generally open to tight, with hinge thickening being characteristic. A second planar fabric,  $S_2$ , which is weakly developed, was seen crosscutting  $S_1$ , and striking  $054^\circ$  and dipping  $26^\circ$  northeast. This fabric is parallel to the axial surface of the NE-SW trending McQuesten anticline just to the south of the West Ridge area. It is believed that  $F_2$  folds warp the  $F_1$  nappe structure.

Minor phase III folds ( $F_3$ ) were also found and are open upright folds with their axes striking north.

Kink bands are commonly developed and appear to cut across all previously described structures. They are probably a late feature produced as a result of stress relaxation within the region.

The period of major deformation of the Grit Unit and Road River formation was pre-intrusive in age; it is believed to have occurred in Lower Cretaceous times. The mineralization in the area is associated with the composite intrusives and not with the earlier deformation; however, underlying structural control does exist.

The West Ridge area occurs approximately 35 km east of the Tintina Fault, a major transcurrent structure separating the Yukon Cataclastic Complex from rocks of the Selwyn Fold belt. Major faulting was not recognized on the property; however, where faulting occurs, it is believed to be conjugate to the Tintina Fault. Dykes and joints also appear to be conjugate and a general east-west trend is observed. Faults and associated fractures and joints were likely an important control in the movement and localization of mineral-rich hydrothermal fluids at West Ridge.

During the latter stages of pluton emplacement, shrinkage and fracturing of the intrusive rock and the surrounding metamorphic aureole allowed the infiltration of silica-rich tungsten and auriferous sulphide-bearing solutions.

Quartz stockwork development is confined to the three main intrusive stocks on West Ridge: Rhosgobel, Pukelman and Josephine. The most intense vein development appears to be near the centres of these stocks. The widest veins occur toward the margins of the intrusive extending up to 200 metres into country rock. Scheelite and auriferous arsenopyrite are common mineralizers of these veins. Arsenopyrite occurs as fine disseminated grains or in massive aggregates along vein walls. Rare galena and stibnite have also been recognized in association with the arsenopyrite mineralization. Sulphides are confined primarily to larger veins (< 3 cm) within the intrusive hornfels zone. Scheelite is not normally associated with arsenopyrite, which may indicate that there was more than one mineralizing event or that arsenopyrite was more mobile and was transported to the perimeter of the stockwork vein system.

Tungsten-bearing veins are located mainly at the Rhosgobel and Pukelman stocks. Sheeted quartz-scheelite-K-feldspar veins occur in both the endo- and exo-contacts of the feldspar porphyry granite stocks. They occur in a vertical to steeply-dipping set of cooling joints which is continuous in the stock and surrounding country rock. As much as 10% scheelite occurs in the fine-grained quartz veins. Veining occurs at two locations in the Pukelman stock and in the metasedimentary rocks between the Pukelman and Josephine stock. In the Pukelman stock, veining is most dense in the central part. Large flakes of molybdenum and crystals of pyrite occur in some vein material. Similar veining is also present in the central Rhosgobel stock (Emond, 1986).

Calc-silicate rocks have been recognized at several localities at West Ridge; scheelite mineralization is confined to a showing near the centre of the Rhosgobel grid. Calc-silicate skarn occurs along strike from the intrusive contact for about 800 metres and over a stratigraphic thickness of approximately 4.5 metres. Individual skarn beds vary from one centimetre up to two metres.

The calc-silicate skarn includes two distinct lithologic assemblages, both of which are present at this locality. The wollastonite-plagioclase-quartz assemblage (pale skarn) represents over 95% of the calc-silicate rocks present. The diopside-plagioclase-quartz assemblage (dark skarn) is actually a sub-unit of the latter but is economically more significant in that it hosts all scheelite mineralization.

Gossanous contact metamorphic aureoles were noted at several intrusive contacts along the West Ridge. Mineralization is confined to pyrite, pyrrhotite and minor arsenopyrite. The host rock is a silicified biotite hornfels marked by distinct iron oxide staining.

During staking of the RUM claims in 1987, an extensive area of manganese staining with some quartz veining was noted near the RUM 21-22 location line, and an occurrence of carbonate-altered rhyolite was seen high on the slope near the RUM 3 and 4 claims.

## EXPLORATION PROGRAMS AND RESULTS, 1980-1982

Between 1980 and 1981, Bema Industries Ltd., on behalf of Canada Tungsten Mining Corporation Ltd., staked 1054 mineral claims and optioned others from local prospectors and operators. A brief preliminary exploration program was carried out in 1980. A major reconnaissance mapping and sampling program, estimated to cost approximately \$500,000, was completed in 1981. In 1982, a two-week program was conducted on two areas: soil sampling for tin on part of the C.C. claim group located well to the west of the RUM property, and geological mapping in the Josephine Creek area (northeast sector of the RUM property). Principal gold exploration targets on the RUM 1-90 claims result from the 1981 exploration program.

In September 1980, a brief program of reconnaissance mapping, prospecting and heavy mineral concentrate sampling was carried out. Significant results of this program were:

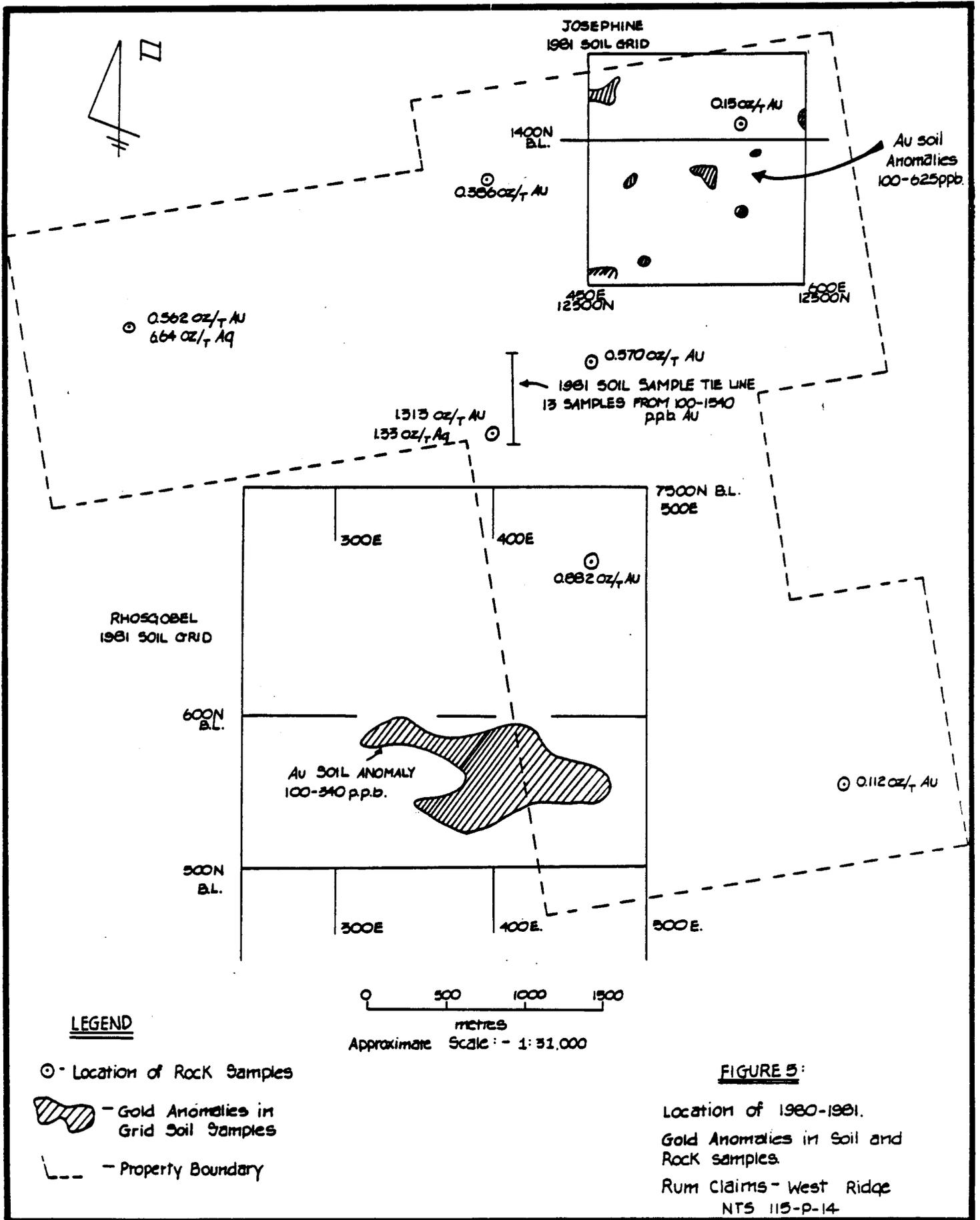
- the area drained by Upper Josephine Creek and the upper portion of the north fork of Left Clear Creek showed anomalous gold and tungsten values in heavy mineral samples;
- low grade scheelite skarn was located in outcrops just west of the central portion of the Rhosgobel intrusion;
- gold-bearing arsenopyrite-quartz veining was sampled from outcrops near the upper fork of Josephine Creek (grab sample 27128: 0.15 oz/ton gold, 0.06 oz/ton silver). This vein is about 10 cm wide and was traced on surface for five metres.

The 1981 exploration program included more detailed heavy mineral sampling, regional and detailed geological mapping and rock sampling, establishment of several large grids and extensive soil sampling. Significant results from areas now included in the RUM property are summarized below.

Detailed geological mapping, using orthophoto maps for topographic control, was carried out at 1:10,000 scale over the whole C.C. property and at 1:5000 scale over grids.

Grids were established in the Josephine and Rhosgobel areas (Figure 5). Grids are 3 x 2.5 km and 3 x 4 km respectively; parts of these grids can be recovered in the field although grid co-ordinates on pickets are illegible. Parts of both grids were soil sampled. Samples from the Rhosgobel grid were analyzed for tungsten, tin and gold. Samples from the Josephine grid were analyzed for tungsten and gold. Samples were generally collected at 50 metre intervals along lines 100 metres apart; gaps in sample coverage occur in areas of rocky talus or outcrop.

Results of soil sampling on the Rhosgobel grid show a large east-west gold-tungsten anomaly in the centre of the grid. The anomalous zone is 1000 m long



by 400 m wide and occurs over the Rhosgobel quartz monzonite and adjacent hornfels. Gold values in soil are in the range of 100-340 ppb. The western part of this anomaly is located in the RAIN claims and the eastern part runs uphill into the RUM property. The source of this anomaly appears to be an area of intense quartz stockwork development near the centre of the Rhosgobel quartz monzonite stock, with vein intensity from 10 cm to 5 m spacing and vein widths from hairline to 6 cm. Average vein width is 1 cm and veins are regularly developed in two or more orientations. Widest veins occur towards the margin of the intrusive extending up to 200 m into the surrounding hornfelsed country rock. Scheelite occurs as randomly distributed grains within the quartz veins. Arsenopyrite was not recognized although anomalous geochemical values for gold are prevalent. These descriptions are from Cathro (1971), Rainbird and Kelly (1981) and Emond (1986).

Sampling of the scheelite skarn outcrops located in 1980 returned a maximum value of 1.31% WO<sub>3</sub> in dark skarn.

A tie-line joining the Rhosgobel and Josephine grids was also sampled. A 550 m long section of this line showed that, of 18 soil samples, 13 had gold values between 100 and 1540 ppb. The distribution of results suggests that there may be more than one source for these anomalies. Comparison with geological maps (e.g. Figure 4) shows these soil gold anomalies to be spatially associated with rhyolite dykes, gossan zones and at least two 1981 rock samples with significant gold values:

LWC0950R - 0.570 oz/ton gold  
LWR0016R - 1.313 oz/ton gold; 1.33 oz/ton silver

Prospecting in 1981 outlined an area with disseminated arsenopyrite in quartzite and arsenopyrite-quartz veins on a felsenmeer-covered slope.

An interim progress report from Bema Industries Ltd. to Canada Tungsten Mining Corporation dated 18th July 1981 mentions a limonitic quartzite fragment breccia outcropping near the northern edge of the Rhosgobel grid. It is not known whether samples from this unit were analyzed for gold.

Cathro (1971) describes a quartz vein stockwork near the centre of the Pukelman stock, i.e. located between the 1981 Rhosgobel and Josephine grids. The zone is about 200 m square with vein spacing as close as 15 cm. Widths vary from hairline up to 3 cm. Disseminated grains of scheelite up to 0.5 cm across, with occasional flakes of molybdenite, occur both in quartz veins and within the granite. Arsenopyrite is developed along fractures and in larger quartz veins near and beyond the margin of the stock. Tungsten grades in 1971 samples were low. There appears to have been no detailed exploration in this area in 1981. A single 1981 rock sample may be related to this zone:

LWN8010R - 0.386 oz/ton gold

A large number of soil samples were collected in 1981 and analyzed in early 1982 (and hence not reported in the November 1981 assessment report by Rainbird and Kelly). Analytical results for these samples were found but it has so far not been possible to identify sample locations - samples apparently come from extensions of the Rhosgobel grid, possibly as an attempt to detail the soil gold anomalies located along the Rhosgobel-Josephine tie-line.

This suite of approximately 600 samples includes many values between 50 and 100 ppb gold and 14 samples between 100 and 600 ppb gold.

A strongly developed scheelite-bearing stockwork was recognized at a road cut outcrop near the upper switchback of the main access road to Josephine Creek. The showing is located between the Pukelman and Josephine stocks and comprises east-west trending quartz veins up to 5 cm wide. Vein spacing is varied but generally greater than 0.5 m. Rock chip and soil samples were taken at 5 m intervals from the switchback and up the road approximately 600 m to the Rhosgobel stock contact. Analysis of these samples indicates tungsten soil values averaging 300 ppm over a distance of 200 m west from the switchback. Rock samples along the same traverse gave an average assay of 0.03% WO<sub>3</sub> with values up to 0.1% WO<sub>3</sub>. Night lamping of the showing indicated that the strongest scheelite mineralization was in the vicinity of the switchback. Lamping also revealed two beds of siliceous hornfels containing significant concentrations of fine disseminated scheelite (visual estimate of 0.5% WO<sub>3</sub>). The beds are roughly 0.2 to 0.3 m thick, although their lateral continuity is obscured by talus and overburden (Rainbird and Kelly, 1981).

Exact locations of these samples are not plotted on maps included with the 1981 report. Analytical results (Appendix 3) show that, of the 61 soil samples, 33 have gold values in excess of 100 ppb and, of these, three contain in excess of 1000 ppb gold. Samples with 1300 and 2350 ppb gold, respectively, are coincident with the principal tungsten anomaly; however, the maximum gold value of 5100 ppb lies in a separate zone of much lower tungsten values. These zones can undoubtedly be easily relocated in the field by their position relative to the access road.

Part of the Josephine grid was soil sampled in 1981; samples were analyzed for gold and tungsten in 1982. Sample locations and results do not appear in the 1981 or 1982 assessment reports. The area of sampling and approximate locations of the principal gold anomalies are shown on Figure 5, reconstructed from data in files of Bema Industries Ltd. and Canada Tungsten Mining Corporation Ltd. Sample spacing was 50 m by 100 m. A total of 348 soil samples were analyzed (not all samples could be located); 64 samples show gold contents of 50 ppb or greater and, of these, 18 samples have results ranging from 100 to a maximum of 625 ppb gold.

A number of other rock samples with anomalous gold values were collected in 1981. These are believed to be grab or float samples. Locations of some samples are shown on Figure 5:

LWRO017R	-	0.112 oz/ton gold
LWS0606F	-	0.882 oz/ton gold
LWRO018R	-	0.562 oz/ton gold, 6.64 oz/ton silver, 4.48% lead

Other rock samples shown in Appendix 2 have not yet been located exactly.

Most of the short 1982 program focused on tin exploration in areas outside the present RUM property. Limited geological mapping was carried out east of the Josephine grid, again largely outside the present property area.

## CONCLUSIONS AND DISCUSSION

Exploration in the Clear Creek area during the late 1970's and early 1980's was primarily designed to locate a lode source for the high grade tungsten minerals found in placer concentrates from the local creeks. Canada Tungsten terminated their exploration programs in the area after the 1981 season primarily for economic reasons. Tungsten targets located appeared to be low grade, prices were tumbling and declining revenues from the Cantung Mine were limiting exploration funding. Consequently, the gold targets located during 1981 geochemical and rock sampling programs were never followed up. As a result, most of the expensive early stage exploration required on a new project has been completed and the results are available. A limited program designed to locate 1980-1 grid and sample locations, along with some fill-in sampling will place the company in the enviable position of having ground located a number of intriguing gold targets for a minimum expenditure.

Preliminary property examination and data review has indicated that both negative and positive features which will affect exploration exist. Negative features are:

- 1) Vein widths within the stockwork zones are narrow with variable, sometimes wide vein spacings.
- 2) One of the most interesting targets, the Rhosgobel anomaly, is only partially covered by the Rum claims. To ensure complete coverage, the Rain claims should be optioned from Nels Harper.
- 3) Some of the gold targets are located on steep talus covered slopes. These areas can be expected to be in permafrost zones which will appreciably increase the cost and effectiveness of trenching. Access to these areas will require extensive road building. In many cases it will be advantageous to drill a short line of fence holes across the zone to ensure effective sampling.
- 4) Drill water is not readily accessible near the target areas. By mid to late season, most of the water sources can be expected to be dry.

Readily identifiable positive features of the property are:

- 1) The number and variety of gold targets already defined.
- 2) The gold stockwork zones when combined with the disseminated mineralization in the quartzite and hornfels, have the potential of being extremely large.
- 3) The target sizes and vein intensities to date are based on float examination only, not on outcrop or trench and drill results. Actual geology and mineralization is poorly understood.
- 4) The gold targets are basically untested. As examples: a) source for the high grade float assays, b) gold anomalies on the Josephine grid, and c) the Pukelman stockwork.

- 5) Potential geologic targets that have never been mapped or sampled. These are breccia zones and zones of heavy manganese which are similar to vein fault silver showings in the area and to the recent Rancheria silver discoveries.

### RECOMMENDATIONS

A two phase exploration program is recommended for the Rum property. Phase 1 should consist of basic prospecting, relocating and rechaining some of the 1981 grids, fill-in soil sampling to define some of the targets, and follow-up hand and bulldozer trenching. Details with estimated costs are as follows:

#### Phase 1

Geologist, 50 days @ \$300/day	\$ 15,000
Assistant, 50 days @ \$200/day	10,000
2 Prospectors, trenchers etc., 50 man days @ \$200/day	10,000
Dozer rental, 75 hrs @ \$150/hr	11,250
Sample analysis	7,000
Vehicle rental incl. fuel, 50 days @ \$70/day	3,500
Camp and supplies	8,000
Groceries, 250 man days @ \$20/man day	5,000
Helicopter support, 10 hrs @ \$550/hr	5,500
Engineering and supervision, 10 days @ \$400/day	4,000
Final report, drafting, etc.	<u>5,000</u>
Sub-total	\$ 84,250
Contingency 10%	<u>8,750</u>
TOTAL	<u><u>\$ 93,000</u></u>

*JLO*

If Phase 1 results are favourable, Phase 2 will be initiated. Details and estimated costs are as follows:

Phase 2

Camp and supplies	\$ 50,000
Diamond drilling, 5,000 ft NQ size @ \$40/ft.	200,000
Assaying	8,000
Dozer rental, 200 hrs @ \$125/hr	25,000
Truck rental and fuel, 60 days @ \$70/day	4,200
Geologist, 60 days @ \$300/day	18,000
Sampler, 60 days @ \$200/day	12,000
Engineering and supervision, 10 days @ \$400/day	4,000
Final report, drafting, etc.	6,000
Mobilization and demobilization	<u>14,000</u>
Sub-total	\$ 341,200
Contingency 10%	<u>34,800</u>
TOTAL	<u><u>\$ 376,000</u></u>

## REFERENCES

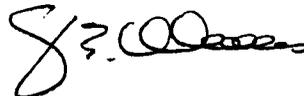
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## CERTIFICATE OF QUALIFICATIONS

I, J.E. Wallis, of 214 - 475 Howe Street, British Columbia, do certify that:

1. I am a registered Professional Engineer in good standing in the Association of Professional Engineers of British Columbia.
2. I am a graduate of the Haileybury School of Mines 1958, the University of Alaska, B.Sc. 1965 and Queen's University, M.Sc. (Eng) 1967.
3. I have been practicing my profession for 28 years and as a Professional Engineer for the past 21 years.
4. I do not have nor have I ever had any interest direct, indirect or contingent, in the shares of M. E. Compu Software Inc., nor do I expect to receive any interest, either direct or indirect, in the properties or securities pertaining thereto.
4. I have personally visited the property reviewed in this report and am familiar with the district.
5. I hereby grant my permission for M. E. Compu Software Inc. to use this report for filing with the Vancouver Stock Exchange as partial requirement of a Statement of Material Facts or for any legal purposes normal to the business of M. E. Compu Software Inc.

Dated at Vancouver, British Columbia, this 17th day of July, 1987.



J.E. Wallis, P.Eng.

APPENDIX 1

1980 Rock Sample Assays

To: Bema Industries Ltd.

OCT 15 1980

*Westridge Project Assays - 80-31.*

REPORT NO. A20 - 1490

PAGE No. 1

BONDAR-CLEGG & COMPANY LTD.

DATE: October 10, 1980

5780-203rd Street  
Langley, B.C. V3A 1W3

CERTIFICATE OF ASSAY

Samples submitted: September 23, 1980  
Results completed: October 10, 1980

PROJECT: 80-31 Acc. Ref. 544

I hereby certify that the following are the results of assays made by us upon the herein described ore samples.

MARKED	GOLD		SILVER		Cu	Mo	Pb	Zn	Sn	W	
	Ounces per Ton	Grams per Metric Ton	Ounces per Ton	Grams per Metric Ton	Percent						
27126	-		-		-	-	-	-	<0.01	0.04	
27127	-		-		-	-	-	-	<0.01	0.03	
27128	0.15		0.06		-	-	-	-	-	-	
27129	<0.002		<0.02		<0.01	<0.001	<0.01	<0.01	<0.01	0.01	

NOTE:  
Rejects retained three weeks  
Pulps retained three months



BEMA INDUSTRIES LTD.

DATE \_\_\_\_\_  
COLLECTOR \_\_\_\_\_PROJECT 81-05G  
N-T-S- 115 P/14, 15ANALYST CHEMEX LABS LTD.  
North Vancouver, B.C.

## ROCK CHIP SAMPLE DATA

## HORNFELS ZONE ROCKS (GEOCHEMISTRY)

## VALUES

Number	Location	Grid Reference	Notes	Date	Type	Depth	Length	Width	Remarks	VALUES		
										Au ppb	W ppm	Sn ppb
1W0403R	Rhosgobel Grid	4+000E 4+275N							Biotite hornfels from western contact with Rhosgobel Stock	20	100	2
1W0034R	Rhosgobel Grid	3+800E							Light green hornfelsic quartzite	120	325	2
1W0032R	Rhosgobel Grid	4+750E 4+180N							Coarsened biotite hornfels		32	1
1WJ0277R	Rhosgobel Grid	4+600E 4+400N							Biotite hornfels	10	12	1
1WJ0278R	Rhosgobel Grid	4+600E 3+600N							Biotite hornfels	10	10	1
1WJ0274R	Rhosgobel Grid	4+700E 3+750N							Biotite hornfels	10	1	1
1WJ0280R	Rhosgobel Grid	4+700E 4+150N							Biotite hornfels	10	1	1
1WJ0281R	Rhosgobel Grid	4+700E 4+600N							Biotite hornfels	20	1	1
1W0145R	Rhosgobel Grid	4+475E 4+275N							Quartzitic hornfels	10	12	1
1W0146R	Rhosgobel Grid	4+800E 3+565N							Quartzitic hornfels	10	1	1
1W0147R	Rhosgobel Grid	4+300E 3+815N							Chloritic hornfels	10	1	1
1W0148R	Rhosgobel Grid	4+470E 5+450N							Chloritic hornfels	10	1	1
1W0468R	Rhosgobel Grid	4+500E 3+900N							Biotite hornfels		1	1
1W0469R	Rhosgobel Grid	4+450E 3+700N							Biotite hornfels		18	1
1W0470R	Rhosgobel Grid	4+315E 4+490N							Biotite hornfels		15	2
1W0523R	Rhosgobel Grid	3+400E 5+275N								10	2	
1W0524R	Rhosgobel Grid	3+400E 5+275N								10	40	
1W0525R	Rhosgobel Grid	3+300E 6+000N							Interbedded biotite and quartzitic hornfels	10	1	



BEMA INDUSTRIES LTD.

DATE \_\_\_\_\_  
COLLECTOR \_\_\_\_\_PROJECT 81-05G  
N-T-S- 115 P/14, 15ANALYST CHEMEX LABS LTD.  
North Vancouver, B.C.

## ROCK CHIP SAMPLE DATA

## INTRUSIVE ROCKS (GEOCHEMISTRY)

## VALUES

Number	Location	Grid Reference	Holes	Date	Type	Depth	Length	Width	Remarks	VALUES			
										Au ppb	U ppm	Sn ppm	Pb ppm
1W0404R	Rhosgobel Grid	4+000E 4+300N							Porphyritic quartz monzonite from Rhosgobel Stock	10	35	1	
1W0051R	Rhosgobel Grid	3+700E 5+250N							Porphyritic quartz monzonite from Rhosgobel Stock	10	1	1	
1W0020R	Rhosgobel Grid	4+200E 5+150N							Porphyritic quartz monzonite from Rhosgobel Stock		30		
1W0021R	Rhosgobel Grid	4+200E 6+000N							Porphyritic quartz monzonite from Rhosgobel Stock	5	9	4	4
1W0022R	Rhosgobel Grid	4+100E 5+575N							Porphyritic quartz monzonite from Rhosgobel Stock		10		
1W0023R	Rhosgobel Grid	4+050E 5+300N							Porphyritic quartz monzonite from Rhosgobel Stock		30		
1W0024R	Rhosgobel Grid	4+300E 5+650N							Porphyritic quartz monzonite from Rhosgobel Stock		20		
1W0025R	Rhosgobel Grid	4+300E 5+800N							Porphyritic quartz monzonite from Rhosgobel Stock		7		
1W0038R	Rhosgobel Grid	3+700N							Granodiorite from Rhosgobel Stock	10	1	1	
1W0526R	Rhosgobel Grid	3+400E 5+800N							Porphyritic quartz monzonite from Rhosgobel Stock	100	90		
1W0635R	Rhosgobel Grid	4+000E 6 200N							Porphyritic quartz monzonite from Rhosgobel Stock	10	42		
1W0456R	Rhosgobel Grid	3+600E 5+200N							Porphyritic quartz monzonite from Rhosgobel Stock	10	1		
1W0468R	Rhosgobel Grid	3+800E 5+450N							Porphyritic quartz monzonite from Rhosgobel Stock	10	5		
1W0469R	Rhosgobel Grid	3+800E 5+500N							Porphyritic quartz monzonite from Rhosgobel Stock	20	1		
1W0158R	Rhosgobel Grid	4+900E 5+450N							Porphyritic quartz monzonite from Rhosgobel Stock	10	1		
1W0191R	Rhosgobel Grid	4+700E 5+000E							Porphyritic quartz monzonite from Rhosgobel Stock	10	1		
1W0017R	North slope of ridge above Harper's Placer	UTM 3940E 70792N							Quartz-feldspar porphyry	10	1	Ag ppm 0.6	
1W0302R	Josephine Grid	3+650E 13+700N							Impure porphyry dyke containing sulphides				U ppm 96.5

**APPENDIX 2**

**1981 Rock Sample Assays**



# CHEMEX LABS LTD.

112 BROOKSBANK AVE  
 NORTH VANCOUVER B.C.  
 CANADA V7J 2C1  
 TELEPHONE 604-984-0221  
 TELEX 043 82597

ANALYTICAL CHEMISTS

GEOCHEMISTS

REGISTERED ASSAYERS

## CERTIFICATE OF ASSAY

TO : Jema Industries Ltd.,  
 Ste. 203 - 19945 56th Ave.  
 Langley, B.C.  
 V3A 3Y2

CERT. # : A8111520-001-  
 INVOICE # : I8111520  
 DATE : 30-JUN-81  
 P.O. # : NONE

ATTN: DON DICK

Sample description	Prep code	Pb percent	U308 (Z) (N.A.A.)	W03 percent	Sn percent	Ag (FA) oz/t	Au (FA) oz/t
✓ 30601WR0016R	✓ 207	--	--	--	--	1.33	1.313 Fig.
✓ 306031WR0001R	✓ 207	--	--	0.35	--	--	--
✓ 306041WK0002R	✓ 207	--	--	--	<0.01	--	--
✓ 306051WR0017R	✓ 207	--	--	--	--	--	0.112 Fig.
✓ 306061WR0018R	✓ 207	4.43	<0.001	--	--	6.54	0.562 Fig.
✓ 306071WN0010R	✓ 207	--	--	<0.01	--	0.12	0.386
✓ 306081WN0011R	✓ 207	--	--	0.04	Fig 7	--	--
✓ 306091WN0012R	✓ 207	--	--	0.03	Fig 10	--	--
✓ 306101WN0013R	✓ 207	--	--	0.04	Fig 7	--	--
✓ 306111WN0014R	✓ 207	--	--	0.03	--	--	--
✓ 306121WN0015R	✓ 207	--	--	0.03	Fig 7	--	--
✓ 306131WN0016R	✓ 207	--	--	0.02	Fig 7	--	--
✓ 306191WK0008R	✓ 207	--	--	--	<0.01	--	--
✓ 306201WN0020R	✓ 207	--	--	0.03	--	--	-- Fig.
✓ 306221WN0019R	✓ 207	--	--	0.02	--	--	-- Fig.
✓ 306231WA0004R	207	--	--	0.02	--	--	--
✓ 306341WN0023R	✓ 207	--	--	0.05	--	--	-- Fig.
✓ 306351WN0022R	✓ 207	--	--	0.03	--	--	-- Fig.
✓ 1WA0004R	39800 E	5+300N	high SK	Rhagozel			
✓ 1WN0010R	39830	708430	25' Assenopy	Scardl vein	little S. W. like F.		
✓ 1WN0011R	39850	708445	massive Skarn		Josephine		
✓ 1WN0012R	39850	708445	"	"	"		
✓ 1WN0013R	39850	708445	"	"	"		
✓ 1WN0014R	39835	708445	"	"	"		Fig 6
✓ 1WR0001R			Rhagozel good	line 4+700	3989E	70794N	FE
✓ 1WR0017R			Ridge between forks of big creek				
✓ 1WR0018R			Ridge above Lewis gulch	UTM 39600 E 708350N			
✓ 1WR0016R				assy - Scard - Pb in 1d			
✓ 1WR0017R			Ridge bet. Josephine and Rhagozel	Q82 - 40m - 1972			
✓ 1WK0001R			Barney Ridge				
✓ 1WK0002R							
✓ 1WN0015R	39830	708480	massive Skarn - mark	Josephine			
✓ 1WN0016R	39860	708495	low SK - 80% 40%	Josephine			
✓ 1WN0019R	39360	708090	60% dark Skarn	left Clear Gulch - Harpers			
✓ 1WN0020R	39360	708080	dark Skarn	left Clear Gulch - Harpers			
✓ 1WN0022R	39360	708051	"	"			
✓ 1WN0023R	39590	708010	"	"			



Registered Assayer, Province of British Columbia



# CHEMEX LABS LTD.

212 BROOKSBANK  
NORTH VANCOUVER  
CANADA V7J  
TELEPHONE (604) 964-  
TELEX 043-5

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ASSAY

TO : Bema Industries Ltd.,  
Ste. 203 - 19945 56th Ave.  
Langley, B.C.  
V3A 3Y2

CERT. # : A8112805-0C  
INVOICE # : 18112805  
DATE : 18-AUG-81  
P.O. # : NONE  
81-05G

Sample description	Prep code	W03 percent	Au (FA) oz/t			
<del>Sample</del> 90981 1WK0300R ✓	207	--	0.005	--	--	-- Figg. --
" 90982 1WX0001R ✓	207	--	<0.003	--	3+500N 12+600W	--
" 90983 1WX0003R ✓	207	--	<0.003	--	3+700N 13+550W	-- Figg. --
" 90985 1WK0301R ✓	207	--	0.003	--	14348,	--
" 90986 1WC0950R ✓	207	--	0.570	--	South of Joseph grid	ARPY 95 vein
" 90987 1WS0606R ✓	207	--	0.882	--	Joseph grid	--
<del>90999</del>	207	0.01	0.020	--	--	--
90997 1WR0045R ✓	207	--	0.624	--	3+400S	Joseph grid

✓ 1WK0300R - <sup>UTM</sup> 3956 E 7086 N *Sample* *at 5 - Surr - assay 100m near*  
 ✓ 1WK0301R <sup>UTM</sup> 3+650E 13+470N *Butte Hornfels with ARSP*  
 ✓ 1WX0001R <sup>UTM</sup> 3985 E 70843 N *" 1d*  
 ✓ 1WX0003R <sup>UTM</sup> 3972 E 70846 N *" 2c*  
 ✓ 1WC0950R <sup>UTM</sup> 3989 E 70834 N *" at 5 - ARSP vein*  
 ✓ 1WS0606R *" at 5 - ARSP vein*  
 ✓ 1WR0045R *" at 5 - ARSP vein*

AUG 24 1981

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# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C.  
CANADA V7V 3C7  
TELEPHONE (604) 994-2221  
TELEX 343-52597

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## CERTIFICATE OF ASSAY

TO : Bema Industries Ltd.  
Ste. 203 - 19945 56th Ave.  
Langley, B.C.  
V3A 3Y2

CERT. # : A8114731-001-  
INVOICE # : 18114731  
DATE : 16-NOV-81  
P.C. # : 8054  
81-05

Sample description	Prep code	Pb %	Zn %	WC3 %	Sn %	Sb NAA %	Ag FA oz/T
✓ 30655 (WA0071R)	207	--	--	--	--	--	--
✓ 30664 N.S.	207	--	--	--	<0.01	--	--
✓ 30666 N.S.	207	3.14	--	--	--	1.930	0.44
✓ 30667 N.S.	207	--	--	<0.01	--	--	--
✓ 30669 N.S.	207	--	<0.01	0.03	--	--	--
30669 N.S.	207	--	--	--	<0.01	--	--
30671 N.S.	207	--	--	--	3.38	--	--

✓ 1UA0071R 3+975 W Josephine Grid. 25' vein  
13+180 N

✓ 30664 No No Boney L 5+000 Breccia  
STN 4+200

✓ 30666 3943/70899 Smith Klenshike Sample - Samsonite.

✓ 30667 " " " " " "

✓ 30668 3978/70883 Rhogohel Creek - Biotite Hornfels.

✓ 30669 3985/70829 Breccia from between Rhogohel & Josephine grid

✓ 30671 (WRCAS2) Cassiterite Nuggets. (Cassiterite Dredge)

*P. Stewart*

Registered Assayer, Province of British Columbia





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER B.C.  
CANADA V7V 3C1  
TELEPHONE 604-984-0001  
TELEX 043-52597

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## CERTIFICATE OF ASSAY

TO : Bema Industries Ltd.,  
Ste. 203 - 19945 56th Ave.  
Langley, B.C.  
V3A 3Y2

CERT. # : A8114731-001-8  
INVOICE # : I8114731  
DATE : 16-NOV-81  
P.C. # : 8054  
81-05

Sample description	Prec code	Au FA oz/t					
30655	207	0.022	--	--	--	--	--
30664	207	--	--	--	--	--	--
30666	207	0.020	--	--	--	--	--
30667	207	--	--	--	--	--	--
30668	207	<0.003	--	--	--	--	--
30669	207	--	--	--	--	--	--
30671	207	--	--	--	--	--	--

*R. L. Swaites*  
.....  
Registered Assayer, Province of British Columbia



# CHEMEX LABS LTD.

ANALYTICAL CHEMISTS

GEOCHEMISTS

REGISTERED ASSAYERS

TELEPHONE 494-4400  
TELEFAX 494-4400

## CERTIFICATE OF ASSAY

TO : Bema Industries Ltd.,  
Ste. 203 - 19945 56th Ave.  
Langley, B.C.  
V3A 3Y2

CERT. # : 48112194-001-  
INVOICE # : 18112194  
DATE : 23-JUL-81  
P.O. # : NONE  
81-056

CC: MAYO, Y.T.

Sample description	Prep code	W03 percent	Sn percent	Au (FA) oz/t	
✓ 90955 1WR0035R	207	<0.01	--	0.088	Fig. 7 plant + sample Q5/Ansp vein stream sample at D. gulch
✓ 90956 1WR0037R	207	0.64	0.01	--	
✓ 30645 1WR0035R	207	0.04	1.00	--	

1 WR0037R 90956 - L3+400 - SKarn Rhazogobal  
STWS+575.

1 WR0035R 30645 - Consistent wood tin magnet sample

✓ 1 WR0035R - Upper Josephine Creek  
contact zone, eastern  
contact of Rukhman Stalk  
aspy-9T2

Registered Assayer, Province of British Columbia



BEMA INDUSTRIES LTD.

DATE \_\_\_\_\_  
COLLECTOR \_\_\_\_\_PROJECT 81-03G  
N-T-S- 115 P/14, 15ANALYST CHEMEX LAI  
North Vanu

## ROCK CHIP SAMPLE DATA

## CALC-SILICATE SKARN (ASSAY)

VALUES

Number	Location	Grid Refer'ce	Notes	Date	Type	Depth	Length	Width	Remarks	Mo %	Sn %	Au oz/
1WA005R	Rhosgobel Grid	3+250E 5+470W							Calc-silicate skarn	0.03	0.01	0.003
1WA0087R	Rhosgobel Grid	4+900E 4+000W							Calc-silicate skarn	0.05		
1WA0008R	Rhosgobel Grid	4+900E 4+000W							Calc-silicate skarn	0.03	0.02	
1WR0048R	Rhosgobel Creek Sections A-G	UTM 3974E 70802N							Calc-silicate skarn	0.01		
1WR0049R	Rhosgobel Creek Sections A-G	UTM 3974E 70802N							Calc-silicate skarn	0.09		
1WR0050R	Rhosgobel Creek Sections A-G	UTM 3974E 70802N							Calc-silicate skarn	0.68		
1WR0051R	Rhosgobel Creek Sections A-G	UTM 3974E 70802N							Calc-silicate skarn	0.01		
1WR0052R	Rhosgobel Creek Sections A-G	UTM 3974E 70802N							Calc-silicate skarn	1.31		
1WR0054R	Rhosgobel Creek Sections A-G	UTM 3974E 70802N							Calc-silicate skarn	0.01		
1WR0055R	Rhosgobel Creek Sections A-G	UTM 3974E 70802N							Calc-silicate skarn	0.59		
1WR0037R	Rhosgobel Grid	3+400E 5+575W							Calc-silicate skarn	0.64	0.01	
1WR0001R	Rhosgobel Grid	UTM 3989E 70794N							Calc-silicate skarn	0.35		
1WN001R	Josephine Area	UTM 3985E 70844N							Massive calc-silicate skarn	0.04		
1WN0012R	Josephine Area	UTM 3985E 70844N							Massive calc-silicate skarn	0.03		
1WN0013R	Josephine Area	UTM 3985E 70844N							Massive calc-silicate skarn	0.04		
1WN0014R	Josephine Area	UTM 3983E 70844N							Massive calc-silicate skarn	0.03		
1WN0015R	Josephine Area	UTM 3983E 70848N							Massive calc-silicate skarn	0.03		
1WN0016R	Josephine Area	UTM 3986E 70849N							Laminated skarn - biotite quartzite schist	0.02		



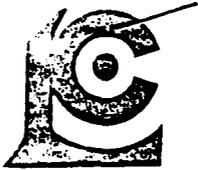




APPENDIX 3

1981 Josephine Stockwork Soil Sample Analyses





# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER, B.C.  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX 043-52597

- ANALYTICAL CHEMISTS      - GEOCHEMISTS      - REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : Bema Industries Ltd.,  
 Ste. 203 - 19945 56th Ave.  
 Langley, B.C.  
 V3A 3Y2

*Josephine Stockwork*  
*Soils located between 3984E - 3988E*  
*70838N - 70848N*  
*Josephine Road.*

CERT. # : A8114730-001-A  
 INVOICE # : I8114730  
 DATE : 18-NOV-81  
 P.C. # : 8426  
 81-05G

Sample description	Prep code	W ppm	Sn ppm	AU	FA+AA			
					ppb			
0+05	217	27	3		35	--	--	--
0+15	217	95	1		265	--	--	--
0+25	217	295	2		2350	--	--	--
0+35	217	400	1		105	--	--	--
0+45	217	600	1		65	--	--	--
0+55	217	620	1		420	--	--	--
0+65	217	285	1		60	--	--	--
0+75	217	395	1		140	--	--	--
0+85	217	270	1		250	--	--	--
0+95	217	300	2		130	--	--	--
1+05	217	295	1		350	--	--	--
1+15	217	590	1		310	--	--	--
1+25	217	395	1		205	--	--	--
1+35	217	400	1		675	--	--	--
1+45	217	450	2		275	--	--	--
1+55	217	320	1		185	--	--	--
1+65	217	350	1		15	--	--	--
1+75	217	500	1		1300	--	--	--
1+85	217	700	2		440	--	--	--
1+95	217	420	1		370	--	--	--
2+05	217	300	1		285	--	--	--
2+15	217	220	1		390	--	--	--
2+25	217	320	1		310	--	--	--
2+35	217	110	1		190	--	--	--
2+45	217	145	2		360	--	--	--
2+55	217	325	2		430	--	--	--
2+65	217	70	1		135	--	--	--
2+75	217	95	2		130	--	--	--
2+85	217	32	2		75	--	--	--
2+95	217	40	1		170	--	--	--
3+05	217	20	2		45	--	--	--
3+15	217	79	1		65	--	--	--
3+25	217	39	2		60	--	--	--
3+35	217	72	2		75	--	--	--
3+45	217	37	1		55	--	--	--
3+55	217	48	2		95	--	--	--
3+65	217	50	1		70	--	--	--
3+75	217	69	2		110	--	--	--
3+85	217	73	1		130	--	--	--
3+95	217	82	2		160	--	--	--

Certified by *Hart Bachler*



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
 NORTH VANCOUVER B C  
 CANADA V7J 2C1  
 TELEPHONE (604)984-0221  
 TELEX 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ANALYSIS

TO : Bema Industries Ltd.,  
 Ste. 203 - 19945 56th Ave.  
 Langley, B.C.  
 V3A 3Y2

CERT. # : A8114730-C02-  
 INVOICE # : I8114730  
 DATE : 18-NCV-81  
 P.C. # : E426  
 81-05G

Sample description	Prep code	w ppm	Sn ppm	Au FA+AA ppb			
4+05	217	70	1	175	--	--	--
4+15	217	148	1	40	--	--	--
4+25	217	170	1	195	--	--	--
4+35	217	40	1	260	--	--	--
4+45	217	75	1	100	--	--	--
4+55	217	195	1	5100	--	--	--
4+65	217	68	1	75	--	--	--
4+75	217	55	1	30	--	--	--
4+85	217	70	1	20	--	--	--
4+95	217	32	1	10	--	--	--
5+05	217	80	1	10	--	--	--
5+15	217	35	1	15	--	--	--
5+25	217	90	1	25	--	--	--
5+35	217	50	1	35	--	--	--
5+45	217	52	1	20	--	--	--
5+55	217	120	1	25	--	--	--
5+65	217	53	1	20	--	--	--
5+75	217	55	1	35	--	--	--
5+85	217	19	1	30	--	--	--
5+95	217	72	1	35	--	--	--
6+05	217	28	1	25	--	--	--

*Hart Buchler*

Certified by .....



MEMBER  
 CANADIAN TESTING  
 ASSOCIATION



