860109

GENERAL CORRESPONDENCE

January 23, 1980

The Honourable R.H. McLelland
Minister
Energy Mines and Petroleum Resources
Parliament Buildings
Victoria, B.C.

Dear Sir:

This is an earnest request that, in both the short and long-term best interests of the people of British Columbia, a small and isolated area of mountain, which is located in the extreme north-westerly corner of Tweedsmuir Provincial Park, be opened up for mineral development.

This request is made in the name of the Telluride Prospecting Syndicate the two principals of which are the writer and Dr. F.R. Joubin. Both principals are Victoria natives, and are graduates from U.B.C. in Mining Engineering and Geology, respectively. Both have a record of long, successful mining experience in B.C., and have recorded major contributions to the economy of both British Columbia and Canada.

The specific mineral deposit of interest was discovered by Joubin (Pioneer Gold Mines), and all the considerable moneys which have ever been spent on the property were spent under the direction of Joubin. The writer was Chief Engineer for Pioneer Gold Mines.

Serious consideration of this request is very respectfully requested by

Yours faithfully,

Dennis Fairbairn, P.Eng.

#416, 131 Bloor St. West,
Toronto, Ontario.
M5S 1R1

DF:cs

cc: The Hon. James Chabot
Minister
Lands Parks & Housing
Parliament Bldgs.
Victoria, B.C.

SUMMARY

A developed silver-gold deposit exists in the north-westerly tip of Tweedsmuir Park.

The deposit contains 100,000 tons of developed gold-silver ore with a gross value, at current prices, of some $75,000,000.00.

Given experienced and responsible engineers, this wealth could be mined on-site, carried 5 miles by existing road to the Park boundary, and then milled outside the Park - all with no adverse environmental impact.

Recovery of this wealth would have an obviously significant positive impact on the British Columbia economy during the four-to-five year period of operations.

It is requested that the area of the deposit be opened up for development and that, if it is, some preference be given for that development to the original discoverers and the only prior developers of the deposit.

Telluride Prospecting Syndicate

Background to the Request to the Minister

January 21, 1980

The gold-silver telluride deposit was discovered by F.R. Joubin, chief geologist of Pioneer Gold Mines, in the early 1940's, while he was investigating a prospector's reported tungsten occurrence. On Joubin's advice, the prospectors staked the "telluride" and then optioned the property back to Pioneer Gold Mines.

Two distinct periods of mine development ensued. Both were directed by Joubin. The writer was Chief Engineer of Pioneer.

The field work included a substantial 7,000 feet of diamond-drilling, and 2,000 feet of underground tunnelling. The result was the development of 100,000 tons of reserves which were estimated by D.H. James, P.Eng., to average 0.28 ounces of gold and 9.5 ounces of silver per ton. At the then-existing prices, this tonnage was considered to be too small to be commercial. Subsequently, the 30 Crown-granted mineral claims were dropped, title reverted to the Crown, the legal surveys were cancelled and, because the property later came to location within an A-class Park, all activity ceased.

The deposit is located above the timber line, et an elevatien of 4,200 feet, at the extreme westerly tip of both the Park and Whitesail Lake. It is just north of Lindquist Lake, and is within the hydro reserve which was granted Alcan. About 5 miles of road exist between the deposit and the Park boundary at Whitesail Lake.

The deposit crops out on the surface amidst heavy rock talus. There exists only sparse typical mountain vegetation, and animal life seems to be restricted to an occasional wandering bear or wolverine.

It would be proposed to mine, underground, at the site, and, essentially, to remove only the quartz ore. This would be transported down the existing road to the Park boundary, and then barged, outside the Park, to a suitable mill site, possibly at the settlement of Ootsa Lake. It is henestly believed that, in experienced and responsible hands, the entire operation would proceed with no adverse impact on either the environment, wild life, or the present or future enjoyment of the area by the people of B.C.

Since exploratory talks with Ministry Geologists in early 1979, the writer has assembled old data and has completed considerable engineering work. Professional metallurgical testing has been completed, and has shown that very high recoveries are obtainable with conventional flotation techniques. Wastes will be non-toxic, and total tailings accumulation, easily handled, would be a maximum of only 90,000 tons.

A preliminary report covering the envisaged environmental impact has been prepared by George W. Poling, P.Eng., (head, Dept. of Mineral and Process Engineering, University of B.C.). A copy of this report is attached.

...2

At today's prices of gold and silver, the 100,000 tons of ore, which grades about 0.25 oz. of gold, and 10.0 oz. of silver, has a gross value of seventy-five million dollars. The positive impact of the recovery of this known ore during a 4-5 year period on the B.C. economy - in jobs, in equipment and supplies purchased in the Province, in direct and indirect tax revenues to the Provincial Government, - would be both self-evident and very significant.

It being possible of accomplishment, at no environmental risk, by experienced and responsible mining people acting in strict conformation with Governmental regulations, and with such financial rewards for the people of B.C., it would seem shameful not to do so; it would seem shameful not to release this particular deposit for development.

Additionally, it is very respectfully suggested that, were this property to be made available to any party, it should properly be to those professional mining people who initially discovered it, who have done all the work, and who have spent all the money which has been done and spent on it, from discovery to date, - the people who have organized a syndicate and financed the past year's work with the sole objective of recovering and operating this one mineral deposit.

DENNIS FAIRBAIRN, P.ENG.,
Managing Director,
Telluride Prospecting Syndicate,
#416, 131 Bloor St. West,
Toronto, Ontario.
M5S 1R1

REFERENCES

1. S. Holland - Confidential report, B.C. Dept. Mines, 1945

2. S. Duffel - G.S.C. Memoir 299, p. 93

3. "Whitesail Lake: - B.C. Minister of Mines Report 1955

4. H.V. Warren - Various published reports - Telluride minerals.

5. D.H. James - Consulting Engineer's report to Deerhorn Mines, Ltd., Dec. 1955

6. Geo. W. Poling - Preliminary Environmental Impact Report, January 18, 1980

NOTE:

Crown-Granted Claims Included:

Lots No: 3002; 3004; 2999; 3003; 3005 3013; 2997; 2998; 3006; 3010; 3020; 3021; 3009; 3008; 3019; 3025; 3024; 3022; 3026; 3023; 3007; 3011;

Omenica Mining Division

Vancouver, B.C.
January 18, 1980

Mr. Dennis Fairbairn, P.Eng.,
General Manager,
The Telluride Prospecting Syndicate,
131 Bloor Street West,
Suite 416,
Toronto, Ontario.

Dear Mr. Fairbairn: Re: Whitesail Lake, B.C. Gold-Silver Property

I have reviewed the several maps, geological reports and general reconnaissance reports that you supplied me with on Jan. 14, 1980 concerning the subject property. This particular property is located near the western extremity of Whitesail Lake, B.C.at 53 degrees 21 minutes N. Lat. and 127 degrees 16 minutes W. Long. Since this property is located just inside the western boundary of Tweedsmuir Park, I understand that your Syndicate will have to obtain special governmental permission to develop and essentially rejuvenate a small underground mine at that site. As a result of my preliminary review, I offer my support to you in your seeking this permission. My reasons for supporting your proposal are outlined briefly below.

(1.) EXISTING ENVIRONMENTAL CONDITIONS SHOULD NOT BE DAMAGED BY THE MINE

Your proposal is to establish a small mine of 50-200 tons per day capacity. This will almost amount to a rejuvenation of the old Deer Horn Mine which closed down in 1955. Many of the old buildings and surface facilities from this previous mining operation still remain on this particular site.

This potential mine site lies at an elevation of approximately 4000-5800 feet elevation on the eastern slope of a mountain belonging to the Coast Mountain chain. This places the mine activity all above the timberline. In addition most of the mountainside is presently covered by talus. These factors would all serve to minimize the potential land disturbance at the mine site.

Reports from the several years of previous mining activity at that site indicate wild game was very scarce. Only an occasional moose, bear and wolverine were seen near the old camp. Fish were reported to be abundant in parts of Whitesail Lake. Preventing significant contamination or pollution of the streams and lakes in the immediate vicinity will probably be the main concern of the governmental agencies involved in environmental protection. Sound engineering design and responsible management of the entire proposed mining operation can ensure that pollution of the lakes and streams will not occur.

(2.) PROJECT DESCRIPTION

Your proposal to mine approximately 100,000 tons of ore should be possible with a minimum of disturbance to the existing surface environment. Locating almost all of the operations and service facilities underground is one proposal worth serious consideration. The mine itself will be an underground operation using selective techniques. This would ensure that a minimum of waste rock would need to be disposed of near the portal of an adit used for access to the mine workings. Camp and service facilities could also be accommodated underground. This would not only minimize surface disturbances but also conserve heating energy and eliminate concerns of high winter snow loads on

conventional outdoor buildings.

The mill to concentrate the gold-silver containing minerals in the ore would be a simple one-product flotation plant. This mill could either be located underground at the mine-site or outside of the Park entirely.

Your report on mineral process testwork conducted on a sample of the ore (from Lakefield Research of Canada Ltd., dated Oct. 19, 1979) indicates that a medium grind fineness (approx. 60% -200 mesh) will liberate the valuable minerals in the ore. This will be followed by froth flotation to concentrate the valuable minerals in the ore. The froth concentrate will include almost all of the sulphide minerals contained in the ore. The gold-silver-sulphide concentrate will be transported out of the Whitesail Lake area for additional processing to recover the gold and silver values.

The mill tailing which will remain should consist primarily of the quartz host rock. With essentially all of the sulphides removed there should be no problem of potential acid mine water generation. The coarse fraction of this mill tailing (approx. 50% of the total tailing) might be placed back in the mined-out areas as "fill" for ground support. The tailing fines would have to be stored in a tailing pond which could be located outside of Tweedsmuir Park. A detailed contour map of the area indicates that several cross-valley impoundment sites immediately west of the mine site, warrant study as potential tailing impoundment areas.

Tailing impoundments can be constructed so that no seepage nor contaminated supernatant need enter the surrounding lake system. Satisfactory disposal of the tailing outside of Tweedsmuir Park should therefore be possible.

(3.) FEATURES OF NATIONAL INTEREST

The gold and silver that can be produced from this small mining operation can add significantly to Canada's reserves and improve our foreign exchange position.

I understand that one of the members of your Syndicate is Mr. Franc Joubin, who originally discovered the subject gold-silver bearing quartz vein in 1944. It would seem just that if anyone is to obtain permission to mine these resources, your Syndicate should.

In conclusion, I support your attempt to secure permission to develop this Whitesail Lake property into a mine. This mining operation should be possible with a minimum of impact on the existing environment. In fact, since your Syndicate will have to commit to perform land reclamation work following closure of your proposed mine, this site might well be returned to a more natural state than presently exists.

Sincerely,

George W. Poling, P. Eng.

Head, Dept. Mining & Mineral Process Eng.
University of British Columbia

Province of
British Columbia
OFFICE OF THE MINISTER

Ministry of
Energy, Mines and
Petroleum Resources

Parliament Buildings
Victoria
British Columbia
V8V 1X4

March 3, 1980

Postmarked Mar 5/80
Rec'd Fri Mar. 7/80

Dennis Fairbairn, P.Eng.
#416, 131 Bloor St. West
Toronto, Ontario
M5S 1R1

Dear Mr. Fairbairn:

Your request of January 23, 1980, has been reviewed.

Government policy is that there shall be no mining within provincial parks and, therefore, I cannot recommend that the Telluride Prospecting Syndicate give any further consideration to developing the old gold-silver-tungsten deposit you refer to. I can assure you that all other prospective operators of this property will be given the same advice.

Yours very truly,

R. H. McClelland
Minister

XEROX COPY MADE FOR
DWL F & FRJ
MAR. 10/80

Province of
British Columbia

OFFICE OF THE
MINISTER

Ministry of Lands,
Parks and Housing

Parliament Buildings
Victoria
British Columbia
V8V 1X4

2-5-2-218-15

March 6, 1980

Postmarked Dec. 7/80
Rec'd Dun. Dec. 10/80

Mr. Dennis Fairbairn
Managing Director
Telluride Prospecting Syndicate
#416 - 131 Bloor Street West
Toronto, Ontario
M5S 1R1

Dear Mr. Fairbairn:

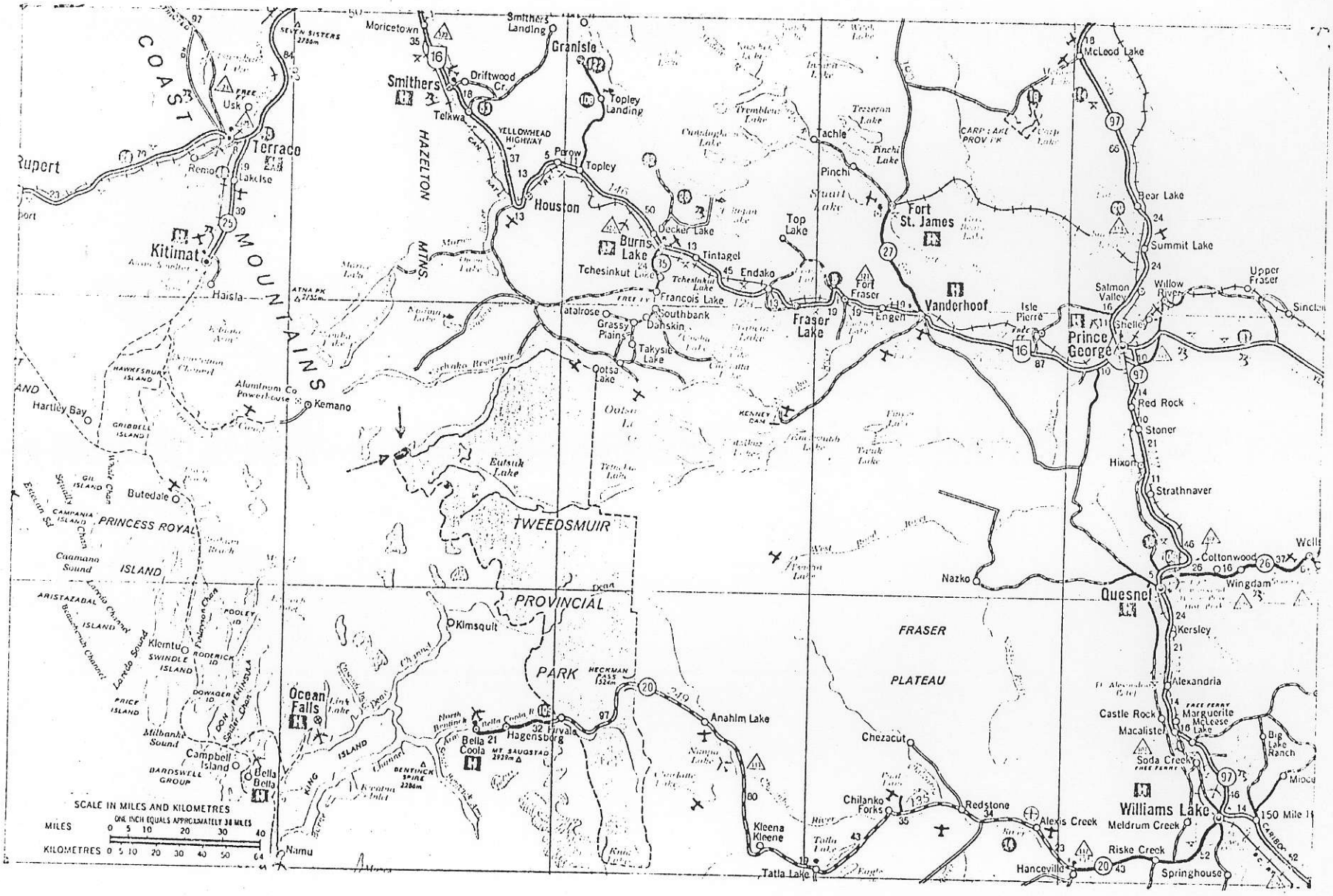
Thank you for your letter of January 23, 1980, to the Honourable R. H. McLelland, Minister of Energy, Mines and Petroleum Resources concerning your request to restake reverted Crown granted mineral claims within Tweedsmuir Provincial Park.

Existing legislation and policy do not permit the registration of new mineral claims within Provincial Parks. Accordingly, your request cannot be approved.

Yours sincerely,

James R. Chabot
Minister

X c for
Dun. F. and FRJ
Dec. 10/80 (J.S.)


COAST MOUNTAINS
HAZELTON MTS.
Rupert
Terrace
Kitimat
Usk
Remo
Lakelse
Haisla
Hartley Bay
Kemano
Aluminum Co Powerhouse
Butedale
PRINCESS ROYAL ISLAND
Klemtu
Ocean Falls
Milbanke Sound
Campbell Island
Bella Bella
Namu
Kimsquit
PROVINCIAL PARK
TWEEDSMUIR
Moricetown
Smithers
Telkwa
Driftwood Cr.
Smithers Landing
Granisle
Topley Landing
Topley
Houston
Burns Lake
Tintagel
Decker Lake
Tchesinkut Lake
Francois Lake
Southbank
Grassy Plains
Takysie Lake
Ootsa Lake
Endako
Fraser Lake
Fort Fraser
Top Lake
Tachie
Pinchi
Fort St. James
Vanderhoof
Engen
Isle Pierre
Prince George
McLeod Lake
Bear Lake
Summit Lake
Salmon Valley
Willow River
Upper Fraser
Shelley
Red Rock
Stoner
Hixon
Strathnaver
Cottonwood
Wingdam
Quesnel
Nazko
Kersley
Alexandria
Castle Rock
Macalister
Marguerite
McLeese Lake
Soda Creek
Big Lake Ranch
Williams Lake
Meldrum Creek
150 Mile
Riske Creek
Springhouse
Hanceville
Alexis Creek
Redstone
Chilanko Forks
Chezacut
Anahim Lake
Kleena Kleene
Tatla Lake
Bella Coola
Hagensborg
Nascall
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SCALE IN MILES AND KILOMETRES
ONE INCH EQUALS APPROXIMATELY 30 MILES
MILES 0 5 10 20 30 40
KILOMETRES 0 5 10 20 30 40 50 64

Province of British Columbia
OFFICE OF THE MINISTER

Ministry of
Energy, Mines and
Petroleum Resources

Parliament Buildings
Victoria
British Columbia
V8V 1X4

JUL 12 1983

Your letter: June 28, 1983.
Re: Submission requesting permission to Mine within Tweedmuir Park (Class B) situated in the Omineca M.D., Whitesail Lake Area, B.C.

JUL 12 1983

July 7, 1983.

000187

Mr. Franc. R. Joubin,
Interim Manager,
170 Bloor St. W., #418,
Toronto, Ontario.
M5S 1T9

Re: T.P.S

Dear Mr. Joubin:

This will acknowledge and thank you for your letter addressed to the Honourable Stephen Rogers, Minister of Energy, Mines and Petroleum Resources.

Your letter has been brought to the Minister's attention and you may expect a response very shortly.

Yours truly,

(Mrs.) D.M. Hall,
Secretary to the Minister.

c. R.D.T.
D.F.

Province of British Columbia

OFFICE OF THE MINISTER

Ministry of Lands, Parks and Housing

Parliament Buildings
Victoria
British Columbia
V8V 1X4

AUG 15 1983

File: 2-5-2-218-15-G

August 9, 1983

Mr. Franc R. Joubin
Interim Manager
Telluride Prospecting Syndicate
170 Bloor Street West, #418
Toronto, Ontario
M5S 1T9

T.P.S

Dear Mr. Joubin:

This will acknowledge your letter of June 28, 1983, and enclosed submission concerning your request to undertake staking and mining development activities in Tweedsmuir Provincial Park.

I have directed my staff to review your proposal and to prepare a report for the Environment and Land Use Committee of Cabinet. When we are in a position to render a decision, I will ensure that you are informed.

Yours sincerely,

Anthony J. Brummet
Minister

Province of British Columbia
OFFICE OF THE MINISTER

Ministry of Energy, Mines and Petroleum Resources

Parliament Buildings
Victoria
British Columbia
V8V 1X4

AUG 25 1983

August 17, 1983.
M.O. 0187

Dr. Franc R. Joubin,
Interim Manager,
Telluride Prospecting Syndicate,
170 Bloor Street West,
Suite 418,
Toronto, Ontario.
M5S 1T9

Dear Dr. Joubin:

Thank you for your excellent written submission proposing to develop a mineral deposit in Tweedsmuir Park (Class B). Your report has been reviewed by my staff and I will be discussing this matter further with my Cabinet colleagues. As you can appreciate, this proposal raises a number of significant policy questions and precedents with respect to resource development in parks and disposition of sub-surface rights. I will pursue this matter to resolve these questions.

If my Government's policy is changed to permit development of these very valuable deposits I will contact you to describe the conditions of any further participation.

I sincerely thank you for bringing this resource development opportunity to my attention.

Yours truly,

Stephen Rogers,
Minister of Energy, Mines
and Petroleum Resources.

cc: The Honourable A. Brummet,
Minister of Lands, Parks and Housing.

Some Specularite and Associated Rocks, Blough Lake Area, Northern Quebec.

by

M. J. Mloszewski

Abstract.

This work presents some facts which can be of help in interpreting the origin and present appearance of a type of iron formation and associated rocks found in northern Quebec, near the Labrador boundary. The type of metamorphism to which the rocks have been subjected is not common to the region as a whole but rather to limited, sub-elliptical, slightly domed areas. The rocks are metamorphosed sediments whose sequence is compatible with that found in typical sections of the Labrador Trough. Laboratory investigation methods included petrographic, mineralographic and inclusion studies and decrepitation, apectographic and chemical and inclusion studies and decrepitation, spectrographic and chemical analyses.

The degree of migmatisation considerably surpasses that of rocks outside of the areas investigated. The iron formation shows all gradations from barren, massive quartz to 90 per cent specularite. Iron silicates are nearly absent in the iron formation. It was concluded that the iron formation recrystallized under stress. The specularite is largely derived from oxidation of magnetite. Fe_2O_3 was present as specularite previous to the final re-emplacement of quartz. Spectographic analysis confirms ultimate sedimentary origin of the ferruginous material. Simple granite pegmatite dykes follow various trends and can be subvided into (1) those with vague contacts due to invasion by quartz from the iron formation (while this quartz was mobile during recrystallization, and therefore the dykes precede recrystallization) and (2) those with sharp contacts, considered to be post-recrystallization. There exists a fair gradation from dykes with very vague contacts to those with sharp ones. Spectographic analysis for barium suggests that the age of the dykes varies, the sharp contact type being youngest (assuming that all originated in the same liquid). Decrepitation work on quartz indicates that recrystallization of pegmatite quartz from dykes with vaguest contacts approximates that of iron formation quartz both in degree and in temperature range, while the sharp contact dyke quartz has not been markedly recrystallized. Other rock types are: dolomitic marble with much coarse tremolite and original as well as introduced quartz, and gneiss which mainly underlies the iron formation although some occurs within it, particularly near the lower contact. They are treated from a mineralogical and chemical view-point. It is argued that dolomitization (if it took place) preceded the events responsible for the present appearance of this rock complex as a whole. Decrepitation work and fluid inclusion studies indicated that these rocks recrystallized in a temperature of about 400°C, subject to a correcton for pressure.

It is censidered that the present character of the areas investigated is due to intrusion by a plutonic body of granitic composition and that erosion has not progressed sufficiently to expose the igneous body proper. There is some evidence of soda metasomatism of the type usually associated with magmatic activity. (67 pages, 16 figures.)

Available, Main Library, Universty of Toronto.

Geology of the Racing River Area, British Columbia

by

John Randolph Vail

M.Sc. Thesis, University of British Columbia, 1957.

Abstract

Rocks Exposed in the map area range in age from Late Precambrian to Upper Cretaceous, and except for thin basic dykes which cut the basement rocks, are made up entirely of sedimentary sequences. Fourteen formations have been recognized, using earlier work by M. Y. Williams (1944) and Laudon and Chronic (1949) as a basis for the subdivisions. Units mapped are essentially rock units and do not always coincide with the Formations.

The area includes the physiographic provinces of the Rocky Mountain Foothills Belt, and the Rocky Mountains proper. Topography is closely related to the underlying structures, which are comprised essentially of large thrust sheets overriding each other from the west; the planes of the faults dip towards the west at varying angles. Except close to the thrust faults, the strata in general are remarkably unfolded. Secondary tension fractures have developed, often along pre-existing dykes, and quartz and carbonate material has been introduced. The veins are in places accompanied by copper mineralization. (129 pages, 11 figures, 17 plates, 3 maps.)

University of British Columbia Library.

The Geology of the Willroy Property Manitouwadge Lake, Ontario

by

Edward Holton MacPhail Chown

M.A.Sc. Thesis, University of British Columbia, 1957.

Abstract

Manitouwadge, a copper-zinc-silver mining camp, lies 150 miles east of Port Arthur, Ontario, and 25 miles north of Lake Superior. A series of volcanics and sediments, now metamorphosed and migmatized to hornblende schists, quartz feldspar gneisses, and granite gneiss, underlies the Manitouwadge area. These have been folded into an overturned syncline which strikes east-west and plunges gently to the northeast. Three sets of faults are known with at least four periods of movement. The latest of these has offset the mineral deposits and some of the north striking diabase dykes. The two important deposits lie on the south limb of the syncline near the contact between granite and quartz feldspar gneiss. The Willroy property is adjacent to, and immediately west of, the Geco mine.

The ore occurs in three tabular sulphide replacement bodies, with a strike parallel to that of the enclosing formations. These orebodies plunge to the east at 45 degrees, parallel to the plunge of the folds. The ore consists of pyrite, pyrrhotite, chalcopyrite, sphalerite, galena and tethradrite. Silver is present, and is apparently contained in the sulphide minerals.

Although precise structural controls are not known, the sulphide deposits of the area all occur adjacent to small folds. Further work in the area might well be concentrated on outlining and prospecting similar structures. (65 pages, 9 figures, 7 piates, 1 table.)

University of British Columbia Library.

Archaeocyatha from the Colville and Salmo Area of Washington and British Columbia

by

Robert G. Greggs

M.Sc. Thesis, University of British Columbia, 1957.

The Archaeocyathids which are the subject of this thesis were collected by Dr. H. Little from the South Fork of the Salmo River, and from north of Colville, Washington. In the Salmo area, they occur in a narrow band of limestone at the base of the Laib group. The Colville collection is from an outcrop of Old Dominion limestone. The identification and description of the species present in these collections are the main considerations of the thesis. Two new species are described, *Ethmophyllum lineatus* and *Syringocnema colvillensis*. The former species occurs in the Lower Cambrian limestone of the Laib group, Salmo area; the latter is reported from the Old Dominion limestone of the Colville area.

Archaeocyathids may be useful in the correlation of Lower Cambrian formations, providing further accurately located (stratigraphically) collections are made. At present, insufficient stratigraphic data are available to erect Archaeocyathid zones. However, some attempt to correlate the known Archaeocyathid occurrences is made. (67 pages, 4 plates.)

University of British Columbia Library.

The Geology and Ore Deposits of the Summit Camp, Boundary District, British Columbia

by

Henry Thomas Carswell

Abstract

M.Sc. Thesis, University of British Columbia, 1957.

The Summit Camp, now abandoned, is located seven miles north of the town of Greenwood in south-central British Columbia. Mineral deposits in skarn zones of the camp were mined for their copper, gold, and silver values. The oldest rocks in the Summit Camp are the contorted grey charts of the Knob Hill Formation of Paleozoic (?) age. The Knob Hill Formation is overlain nonconformably by the Paleozoic Attwood Series, made up of the shales of the basal Rawhide Formation; the limestones, chert breccia, and limestone breccia of the Brooklyn Formation; and the pyroclastics, lavas, and greenstones of the Ehelt Formation.

Mineral deposits of the camp contain magnetite, pyrite, pyrrhotite, chalcopyrite and tetrahedrite in a gangue of skarn minerals. Skarn has formed from Brooklyn limestone as a result of the addition of heat and large amounts of Si, Al, and Fe^{+++} from the Lion Creek Intrusive. The intrusive assimilated large amounts of Ca and CO_2 in the process. Skarn zones are controlled by proximity to the Lion Creek stock, or by a contact of limestone with other rocks, or by the presence of channelways such as faults or permeable beds. Metallic minerals were introduced into the skarn zones along fractures and foliation planes with falling temperature. (77 pages, 2 figures, 3 plates, 7 maps.)

University of British Columbia Library.

Regional Frame-Work and Structural Ore Control Silver Cup Mine, Lardeau

by

Hans Peter Trettin

M.Sc. Thesis, University of British Columbia, 1957.

Abstract

The Silver Cup mine is about 10 miles east of Trout Lake in the Central Lardeau. From 1895 to 1915 it produced about 1.5 million oz. of silver and some lead, zinc, and gold. The problem of the paper is to study its geological setting and structural ore controls.

Eastwood has shown that the mine is close to the axial plane of a major isoclinal anticline that is dipping to the northwest and plunging to the northeast. He has correlated the greenstones in the core of the anticline with the top of the Bunker Hill Group and has named the overlying black slates and phyllites Triune Formation. These two stratigraphic units were divided into three and four members respectively. The repetition of certain horizons and the trend of contacts indicates that the major anticline here has two apices separated by a tightly compressed syncline.

Due to the steep rake of the structures, these systems cannot be related to relative movement of outer layers towards the apices of the anticline. Their origin is not known but two hypotheses based on field evidence are offered. (47 pages, 3 figures, 5 plates, 6 maps.)

University of British Columbia Library.

Geology of the Deer Horn Prospect, Omineca M.D., British Columbia

by

Vladimir Stephen Papezik

M.Sc. Thesis, University of British Columbia, 1957.

Abstract

The Deer Horn property lies astride hte contact of the Coast Range batholith and a group of siliceous and shaly sediments of Jnrassic or Lower Cretaceous age. The contact strikes westerly and dips about 50° to the South. The southern three fifths of the property are underlain by granitic rocks, the remaining northern part consists of slightly metamorphosed sediments striking approximately west, dipping about 70° south and believed to form an overturned syncline. The rocks are cut by two albitite dykes and several minor trap dykes.

Two veins or vein systems, the Main and the Contact lie in the hornblende granodiorite and in the contact zone. They strike westerly, converge towards the west and dip towards each other, forming a shallow trough like structure. Both carry sulphides and minor telluride with gold and silver. Scheelite occurs sparsely in the veins and in bands of epidote-garnet skarn in the sediments, being somewhat more concentrated in two areas of fine talus in the western part of the property.

In view of the known and inferred limits of the two veins it is not expected that the ore will continue either laterally or in depth. (80 pages, 5 figures, 10 plates, 7 maps.)

University of British Columbia Library.

Petrology of Part of the Charny Formation Near Quebec (in French)

by

G. Robert Tessier

M.Sc. Thesis, Université Laval, 1950.

The section of the formation along Chaudière river was measured. The characteristics of the various members of the Charny are described, and their origin is discussed. (67 pages, 2 maps and 5 plates.)

Library-Université Laval.

Geology and Petrology of the Albanel Region, Mistassini Territory, (in French)

by

Paul E. Grenier

M.Sc. Thesis, Université Laval, 1949.

Biotite-plagioclase, hornblende-plagioclase, and injection gneisses of Grenville aspect are cut by granite and syenite gneiss, hyperites diabase, nepheline syenite, and hastingsite granite. These rocks are separated by a fault from dolomites and iron-formation of the Mistassini series. (80 pages, 1 map, 4 plates.)

Library-Université Laval.

Geology and Petrology of the Precambrian in the Portneuf Map-Area, Quebec

by

Stephen J. Melihercsik

M.Sc. Thesis, Université Laval, 1949.

The geology of the northern or Precambrian part of the Portneuf area is described with special emphasis on the petrology. Most of the rocks of the area are considered to be derived from rocks of the non-carbonate Grenville series and are biotite-plagioclase and biotite-hornblende-plagioclase gneisses. The paragneisses are cut by granites, pegmatite, and gabbro. (50 pages, 2 maps, and 8 plates.)

Library-Université Laval.

The Petrology of the Region Near Lauzon

(In French)

by

Roger A. Blais

M.Sc. Thesis, Université Laval, 1950.

A new map of the area of rocks of the Quebec group near Levis and Lauzon is given, and the petrology and genesis of the limestone conglomerates are discussed. A new interpretation of the regional structure is offered, and the graptolites from a bed of limestone in the Coastal Ridge are described. (110 pages, 1 map, 19 plates.)

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