

Foilow-Up January 19, 1967

1/23

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Date	COMMENTS:
1/12	Mr. Arthur Fouks, Attorney at Law, British Columbia is sending us a prospectus
	^{Racing} on Racing River Mines located in the ^{Northern British Columbia} Yukon . (see WEH memo to the file 1/10/67)
1/23	Ron Cillas turned this submittal down week of 1/16/67

January 17, 1967

Reg

In + out

1202

Mr. Nicholas Pyrgos
Burrard Building
1030 W. Georgia Street
Vancouver 5, B.C.
Canada

Dear Mr. Pyrgos:

It was very kind of you to have sent us a copy of your prospectus of Racing River Mines Ltd.

I read it with great interest, and wish you good luck in your venture.

Very truly yours,

Ronald G. Cullis
Senior Corporate Planner

RGC:pac

*Racing River Mines Ltd.
Project # 67-26
Closed 1/17/67
dt*

NICHOLAS PYRGOS

BARRISTER & SOLICITOR

FILE NUMBER

BURRARD BUILDING
1030 W. GEORGIA STREET
VANCOUVER 5, B.C.
TEL. 681-6010

January 11, 1967

William E. Hosken, Esq.,
Vice-President,
Cyprus Mines Corporation,
523 West Sixth Street,
LOS ANGELES, California,
U.S.A.

Dear Sir:

Re: RACING RIVER MINES LTD.

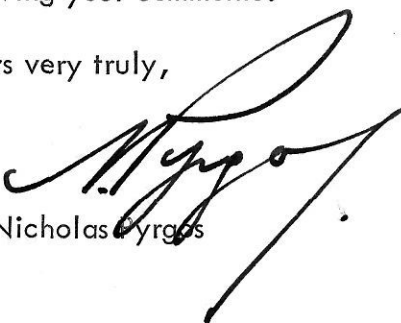
I am informed by Mr. Arthur Fouks, who was speaking to you over the phone this morning, that you would be interested in seeing the prospectus of our Company, and I therefore enclose herewith a copy of our prospectus, together with a copy of our geophysicist's report which was not included in the prospectus.

We also have a series of photographs of all the primary targets as well as aerial photos of the whole property.

Our primary targets are presently the KID Group of claims lying within five hundred yards of the road, and the NANNY Group of claims, the location of which can be seen on the maps included in the prospectus.

We would be interested in having your comments.

Yours very truly,



Nicholas Pyrgos

NP:egm
Encl.

JAN 13 1967

January 10, 1967

TO: The Record

FROM: W. E. Hosken

SUBJECT: Telephone conversation with Arthur Fouks, Attorney at Law
British Columbia

Mr. Fouks is the attorney who helped us considerably on Pulpwood Harvesting Act license in British Columbia a year ago. He is well acquainted with the political situation in British Columbia and particularly well acquainted with Mr. Lang, Dominion Minister of Northern Affairs.

Mr. Fouks called for two reasons, one a personal one in connection with the interest of one of his children in the Claremont college complex and secondly, to ask of our potential interest in ^{Raeine} ~~Raeine~~ River Mines. This is a mining company in the Yukon. He is sending us a prospectus. Owen Irish has been alerted to this property potential.

Mr. Fouks stated the company is controlled by a small group of men, and they recognize they must merge with a large company capable of furnishing capital.

WEH:ib

cc: RMA
WAB & JGH
✓WOI

Vancouver, B.C.
September 5, 1966

Racing River Mines Ltd.,
915—1030 West Georgia Street,
Vancouver 5, B.C.

Gentlemen:

It is with pleasure that I submit my progress report to August 31st, 1966.

Exploration was started with a helicopter-supported E.M. survey on June 14th, 1966. This program had as its immediate objective the finding of shallow conductors on the ground held by the Company, and to acquire additional ground if warranted by anomalies.

An E.M. method, patented by C. B. Selmser—Primary Field From Rotor Blades—was employed. This system has an approximate frequency of 1000 cycles per second that provides a depth penetration of about 100 feet maximum. After testing this approach over known sulphide occurrences (with positive results) in the Tuchodi Lake area, a start was made on the properties held by Racing River Mines Ltd.

As the E.M. Survey was in progress, photographs of geological importance—faults, folds, dykes and anomalous areas—were taken.

In addition, vertical (stereo) airphoto coverage was ordered from Ottawa covering the total area now held by the Company.

Recently I was made aware of a report by John Randolph Vail — “Geology of the Racing River Area”—that covers our locality extensively. It was a pleasant surprise to find that others had arrived at the same conclusion about the mine-making potential of the quartzites in that area.

To further facilitate the work, a base camp (tent frames) was established at the junction of Racing River and Lemjay Creek. This location can be reached by taking the tote road south from Mile 420 on the Alaska Highway, and is adequately serviced by the Power-Wagon the Company now owns. From this site will be staged the contemplated diamond drilling of the Kid Group and the geological mapping of nearby claims.

SUMMARY AND CONCLUSIONS

It is apparent that Racing River Mines properties have a better than average chance to turn into producers. From the results thus far, and from the abundant occurrences in the immediate neighborhood, one is inclined to think of copper as the principal metal.

All groups are on, or adjacent to, thrust faults and subsidiary fractures that intersect with dykes and/or quartzites. Claims were staked only when these conditions coincided with E.M. anomalies.

Although all known copper mineralization seemed to occur in subsidiary fractures, and within the thrust sheets of the faults, in the ancient Windermere-type formations, the red weathering (Cambrian-MountRobson) quartzites offered even better possibilities.

Earlier observers' reasons for being preoccupied with dykes was due to the resistance to erosion of these dark basic intrusives; most of the ridges were formed by this material, and it served to preserve the softer argillaceous rocks from wasting.

Since gabbro/diabase dykes are competent enough to fracture when faulted, subsequent injection of quartz-calcite-ankerite vein matter would lead to the assumption that this prominent basic material is the only bet for prospecting. Quartzites, even more competent, and thus more fractured than dark dykes, occur in great thicknesses and ought to be better hosts for sizable deposits.

Intrusives:

There are a great number of basic igneous dykes in the area. They vary in width from 15 feet to 100 feet, and some can be traced for over three miles. In general they are vertical, or have steep dips. And in all cases they appear to be discordant to the country rocks that are without exception the pre-cambrian argillites and quartzites.

The dykes are usually found to strike in two main directions, so that on occasion intersection of dykes is observed. The dominant trends are northwest and northeast.

These dykes form most of the prominent ridges west of Racing River, preventing the rapid erosion of the shaley argillites.

The contact with the country rocks is generally sharp and there does not seem to be evidence of contact metamorphism. Very often the contacts are sheared and quartz-carbonate vein matter is found.

Later movements have affected the dyke rocks and have sheared and in part altered them to epidote. Many of the dykes are fractured and are cut by quartz stringers and quartz-carbonate veins, which often carry chalcopyrites.

The age of these intrusives is pre-Silurian. They were not seen to intrude the Cambrian quartzites and conglomerates, but could conceivably have been overlooked since they weather to the same red and brown colours of the tan sediments of this sequence.

Structure:

The entire region of this area is controlled by similar more or less parallel thrust faults that cause repetition and bring older quartzite rocks into contact with younger argillaceous and limey beds. The thrusting was from the west.

Many of the thrust blocks appear to have slid along incompetent argillaceous beds that have acted as lubricating soles for the large thrust sheets.

The thrust masses are remarkable, for they are relatively undisturbed and have flat dips. Locally, and especially near the thrust faults, the beds are highly contorted and generally overfolded, but the dip flattens rapidly away from the fault planes.

Between Mount Roosevelt and Wokkash Creek three faults have been recognized.

The most easterly thrust plane cuts Silurian grey limestones about two miles upstream from Wokkash creek; evidence of this fault is to be found on both sides of the Racing River, and it has been followed north westerly where it crosses Yash Creek. The plane dips west at about 45° , and strikes $N 40^\circ W$. The overlying limestones are highly contorted and overfolded. A sharp fault contact exists between almost flat-lying black shales to the west and the overfolded limestones to the east in the northern tributary to Yash Creek. Similar evidence was found on both sides of Tentsi Creek.

About 4 miles upstream from Wokkash Creek, along the Racing River, another fault is intersected by the valley and is clearly exposed on the northwest side. High on the valley side the well-bedded limestones are seen to be dragged and crumpled into small folds near the fault plane. This fault was traced across both branches of Tentsi Creek, in northwesterly direction, and from there to the Toad River. In southeasterly direction, the fault can easily be followed to Wokkash Creek. It dips $50^\circ W$ and strikes $N45^\circ W$.

The best exposed of these three thrusts was traced from west of Yedhe Mountain, east of Mount Roosevelt, across Churchill Creek to the head waters of Upper Racing River. This fault is clearly marked by an abrupt change in dip of the beds, and intense folding. Often the rock types change abruptly on either side of the fault. It appears to dip $40^\circ W$ and strike also $N40^\circ W$.

GENERAL

Topography:

In general the topography is one of steep valley sides (in places vertical) rising from narrow deep valleys. In some places the interfluvial areas are knife-edge ridges; elsewhere they are broad flat plateaus usually capped with flat-lying palaeozoic limestones.

Whatever caused these flat ridges, they are actively modified at present by stream erosion, and by the action of small hanging glaciers that are the last remnants of what must once have been considerable mountain glacierization.

Most of the present valley bottoms seem to be about 500 feet below an older base level, for many of the valley sides show old rock benches and nearly all the side tributaries are in hanging valleys. The tributaries drop in a series of falls, or else are deeply incised and have very steep gradients as they flow into the main valleys.

Glaciation:

The evidence of Pleistocene glaciation is widespread within the map area. Features of Alpine glaciation such as U-shaped valleys, mountain cirques, matterhorns, hanging valleys and glacial sediments, are present throughout the region. Significant are the high banks composed of glacial boulders and sand that are now being undercut along the Racing River, near the Wokkash confluence.

Climate:

The climate of the area under consideration is sub-arctic. In winter temperatures along the Alaska Highway drop to a mean minimum of about 55° below zero, with January the coldest month. In the summer temperatures rise to a maximum of around 95°F, although the mean monthly temperature for July, the hottest month, is only 60°F.

Freeze-up starts usually in mid-October, and is complete by mid-November. Break-up usually commences in late April. Thus the field season is limited to four months, and even during that time snow can be expected. Permafrost is absent, but snow will lie until late August. Total precipitation is from 10" to 15", with 60% falling between May and September. Winter snowfall totals only about four feet, and the snow cover is somewhat less.

GENERAL GEOLOGY

Stratigraphy:

In the Racing River area all the rocks exposed are of sedimentary origin, except for green basic dykes that intrude the oldest formations. The exposed sequence ranges in age from Late Pre-Cambrian to Upper Cretaceous, and has an estimated maximum thickness of about 21,000 feet.

Several unconformities are present, the most important of which is the erosional surface upon which the Silurian-Devonian strata rest. The others are less conspicuous and often do not represent very great periods of erosion.

Basement Windermere-type rocks consist of argillites, quartzites and limestones and have an estimated thickness of about 5000 feet. They are intruded by thin basic dykes that often extend for several miles.

Palaeozoic strata reach an estimated thickness of 12,500 feet. These are dominantly limestones and shales, and are often cyclic. The lowermost Cambria (Mount Robson?) formation contains quartzites and thick red conglomerates and reaches an estimated thickness of 7,000 feet.

Mesozoic rocks reach a thickness of about 4,000 feet, and grade from shales and limestones into sandstones and conglomerates.

It is of importance to note that associated with this major structural break, and up to about two miles distant from it on the upper thrust sheet for a distance of about 20 miles, are seven known quartz-carbonate veins which fill secondary faults and carry copper mineralization. Thus the recognition of this major feature is of importance economically and might be regarded as a large scale regional ore control.

It was in the Laramide Orogeny (late Cretaceous) that the thick accumulation of sediments in the "Rocky Mountain" geo-syncline were folded, faulted and elevated into the present mountain ranges. In general, movement from the West (relative to the east) was translated along westerly dipping faults and thrust planes. At least three are recognized west of the Racing River, and east of Mount Roosevelt.

Economic Geology:

The metalliferous Lode deposits in the area are in general all of the same type, that is, quartz-carbonate fissure veins which carry mineralization, principally in the form of chalcopyrite.

Seven of these copper showings are roughly aligned and adjacent to the thrust fault that extends from Yedhe Mountain to the headwaters of the Racing River.

The veins are located some distance from the leading edge of the actual thrust, and they appear to occupy subsidiary fractures.

Without exception, all the copper mineralization occurs in the ancient Windermere-type formations. In almost all cases basic green dykes are intimately related with the quartz-carbonate veins.

Although there is not a known deposit in the quartzites in this region, it is quite conceivable that thick quartzites cut by one or more sets of faults might constitute a structurally favourable host rock, due to the greater competency, and thus greater shattering of the rock.

RACING RIVER MINES LTD.

KID GROUP (30 claims)

This group was staked around an E.M. anomaly.

Part of the creek is represented by a well developed fault. In this locality it seems to dip to the West at 80°, and the displacement is unknown. The shear zone is several feet wide, along which the quartzites and limestones are highly sheared. This fault is filled with quartz-ankerite-calcite veins and cuts at least two dykes that strike N30°E.

The fault, and the dykes it cuts, are highly weathered; all assays (over a distance of 400 feet) give a trace of copper mineralization. This is remarkable, since this area is so highly leached and decomposed.

Within a couple of hundred feet to the east the gently dipping beds are abruptly folded and sheared. Massive calcocite float (57.47%) was found here.

At the top of the exposed fault is an occurrence of massive sulphides (iron mainly) that strikes N30°E, and that is at least 20 feet wide. Assays here again give an indication of copper. It is possible that this last zone is represented by a sheared and mineralized dyke.

NANNY GROUP

This group was staked to cover two distinct anomalies. The possibility exists that the same conductor was intercepted on both sides of the mountain. If so, the conductor coincides with the major thrust fault from Mount Yedhe.

These conductors seem to be represented by mineralized quartzites. Float here assayed nearly 5% cu; this was represented by chalcopyrite in shattered quartzites.

BILLY GROUP

This group was staked around an E.M. Conductor.

Although no detailed information is available now, there are a number of contorted dykes present. These dykes cut a series of quartzites that are partly covered by the talus. This conductor seems to coincide with the same thrust fault that cuts the Kid Group.

PAUL, GOAT & MOOSE GROUPS

Four conductors are present on this block of claims. This group surrounds the six Lemjay claims and appears to lie within a thrust sheet. All faulting here is secondary, with an exposure of massive bomite on the Lemjay Group. Also, a number of dykes were noted here that terminate abruptly at a nonconformity. Here Silurian rocks cut off the dykes that occur in the Cambrian quartzites.

SAM GROUP

One conductor was found on this group. This conductor is due north of the Churchill showings, and appears to lie on the major fault from Mount Yedhe.

This conductor is completely covered by talus that consists of soft shaley argillites. Although the beds are flat-lying here, the conductor occupies the same formation as is found on the Churchill property to the south.

GORDON GROUP

No conductor was found here. This is not surprising, since we are dealing with thick beds of Cambrian conglomerates that cover the important Windermere strata.

The area is bounded to the east by the same thrust fault from Mount Yedhe and lies completely within the same thrust sheet as the Churchill and Magnum shows are located in. This group is located between these last two shows!

RECOMMENDATIONS

The Kid Group should be drilled as soon as possible. This group is easily accessible, and the indications are such that a major copper find could be anticipated. Apart from the possibilities of secondary enrichment, the all important intersection of quartzites and fault should be investigated.

The Nanny Group should be drilled as soon as possible. This group seems to have chalco-pyrite in the shattered quartzites! However, detailed geological mapping can be done here while the Kid group is being drilled.

In general, all anomalies ought to be prospected, mapped and drilled. The Gordon group needs special prospecting attention, since it lies in such a favourable thrust sheet structure.

At this time I would like to thank the Board for their co-operation and their understanding of the difficulties encountered in the field.

In closing this long letter, I would like to ask for their continued co-operation in investigating this exciting mineral province!

Respectfully

W. E. KLEINHOUT,

GEOPHYSICIST

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