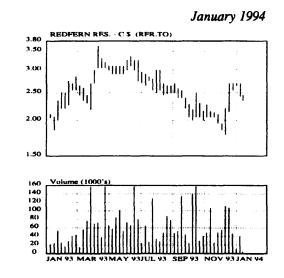
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Feb. 10/94

## **Redfern Resources Ltd**

Sector	Resource Exploration/Development
Listed	Toronto
Code	RFR
Recent share price	C\$2.60
12 month range	C\$1.85 - 3.65
Shares issued	14.77m
Fully diluted	15.93m
Market capitalisation	C\$38.4m
Av. monthly volume	0.3m
Float	7.5m
Long term debt	nil
Cash and short term deposits	C\$2.8m
Year end	Dec 31st
Major shareholders	Cominco Ltd 4.7%
-	Teck Corp 3.1%
	Directors/Management 15.6%



### Major Polymetallic Ore Reserve in British Columbia

Redfern Resources Ltd. (RFR) has completed the pre-feasibility development stage of a polymetallic ore reserve project which has the potential to be a significant, minimum 10-year life, commercial underground mining operation. At current metal prices, estimated annual pre-tax earnings would be C\$38m with zinc, gold and copper the major products in order of importance. The geological potential for the discovery of additional ore is considered excellent.

- RFR has earned a 100% interest in a substantial land package in northwest British Columbia, close to the Alaskan border. The asset was obtained through a series of agreements with Cominco, which had previously operated two small mines in the area, Tulsequah Chief and Big Bull in the 1950's.
- An 8.5Mt drill indicated reserve was established by 1992 at the Tulsequah Chief mine zone and, in April 1993, a pre-feasibility study defined a 7Mt diluted mineable reserve grading 6.4% zinc, 2.4g/t gold, 1.4% copper, 1.1% lead and 93g/t silver. The study estimated that a 2,250tpd mine/mill complex could be brought into production at a capital cost of some C\$140m with a net smelter return of C\$115/t on forecast metal prices adjusted to C\$93/t based on November 1993 producer prices.
- RFR has recently completed an underground definition drilling programme at the Tulsequah Chief project in preparation for a full feasibility study and is continuing with surface drilling at the Big Bull mine zone and with exploration on several other prospective targets located between the two deposits.
- At current levels Redfern Resources appears to be substantially undervalued on both the current status and potential of company. Tulsequah Chief is one of the highest grade deposits of its type ever discovered in Canada.

### INDEPENDENT RESEARCH NOTE

DAVID WILLIAMSON ASSOCIATES LIMITED Member of The Securities and Futures Authority

78 Old Broad Street, London, EC2M 1QP

#### Management

# Redfern is well represented with key executives in both technical and financial disciplines of the natural resources industry

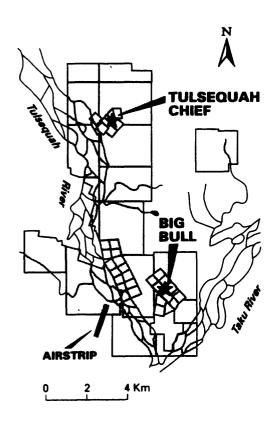
John Greig is *President, Chairman* and a *Director* of RFR. He was an exploration geologist with Cominco in the 1960's and holds directorships in several other public mineral exploration companies. His exploration experience includes both North American and International projects. He is a founder of Redfern and also of Crown Resources and Sutton Resources.

Michael Kenyon is Secretary/Treasurer and a Director of RFR. He is a geologist having had considerable experience with several exploration and mining companies in North America, South America and Africa. In addition to Redfern, he is a founding director of Crown Resources and Sutton Resources.

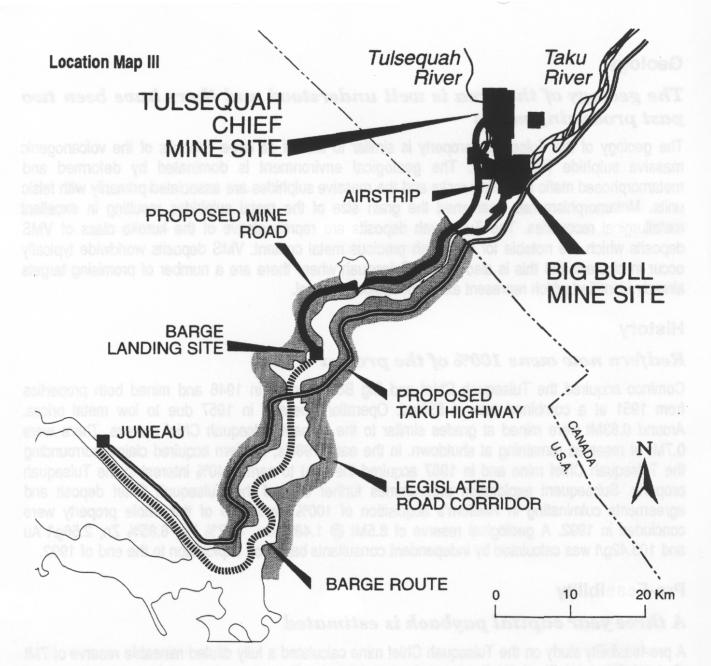
**Terence Chandler** is *Vice-President of Exploration*. He has formerly held senior positions in the exploration divisions of Falconbridge Corp. and Homestake Mining Company. His experience includes major projects in North America, Central America and Africa.

Seven other directors of the Company represent many years of combined experience and expertise in the financial, technical and legal areas.

#### Location maps | & ||







#### Location

# The property is well located for the establishment of adequate infrastructure

Redfern's land package area of some 60km<sup>2</sup> is located in a mountainous terrain 100km south of Atlin, B.C. and 65km northeast of Juneau, Alaska. The property is accessible by aircraft to a 1km long airstrip. A road can be easily constructed from the property along the Taku Inlet to tide water for the transportation of concentrates which can be barged from that point to a deep water loading facility at Juneau. There is a proposed plan for a state highway to link Alaska's capital city of Juneau to the Canadian highway system at Atlin B.C. This highway would pass within a few kilometres of the property.

The Tulsequah Chief and Big Bull mine sites are both located about 100 metres above sea level on the east side of the Tulsequah River valley.

#### Geology

## The geology of the area is well understood and there have been two past producing mines

The geology of the Tulsequah property is similar to that of all large deposits of the volcanogenic massive sulphide (VMS) type. The geological environment is dominated by deformed and metamorphosed mafic and felsic rocks and the massive sulphides are associated primarily with felsic units. Metamorphism has coarsened the grain size of the metal sulphides resulting in excellent metallurgical recoveries. The Tulsequah deposits are representative of the kuroko class of VMS deposits which are notable for their high precious metal content. VMS deposits worldwide typically occur in clusters and this is also true at Tulsequah where there are a number of promising targets already identified which represent excellent upside potential.

#### **History**

#### Redfern now owns 100% of the project

Cominco acquired the Tulsequah Chief and Big Bull deposits in 1946 and mined both properties from 1951 at a combined rate of 530tpd. Operations ceased in 1957 due to low metal prices. Around 0.83Mt were mined at grades similar to the present Tulsequah Chief reserve. There were 0.7Mt of reserves remaining at shutdown. In the early 1980's, Redfern acquired claims surrounding the Tulsequah Chief mine and in 1987 acquired the right to earn a 40% interest in the Tulsequah property. Subsequent exploration programmes further defined the Tulsequah Chief deposit and agreements culminating in Redfern's acquisition of 100% ownership of the whole property were concluded in 1992. A geological reserve of 8.5Mt @ 1.48% Cu, 1.17% Pb, 6.85% Zn, 2.56g/t Au and 103.42g/t was calculated by independent consultants based on exploration to the end of 1992.

#### **Pre-Feasibility**

### A three year capital payback is estimated

A pre-feasibility study on the Tulsequah Chief mine calculated a fully diluted mineable reserve of 7Mt @ 1.4% Cu, 1.1% Pb, 6.4% Zn, 2.4g/t Au and 93g/t Ag. The report also considered the geological potential for the discovery of additional ore to be excellent, particularly along strike and in nearby targets. A conceptual mining plan involves a combination of blasthole stoping and shrinkage stoping. Metallurgical testing indicates that recoveries in excess of 87% will be achieved for all metals including gold and silver.

Capital costs to bring an 800,000tpa (2,250tpd) mine-mill operation into production is estimated at C\$140m. and operating costs are estimated at C\$46/t. The net smelter return (NSR) at forecast metal prices of US\$1.00/lb copper, US\$0.35/lb lead, US\$0.60/lb zinc, US\$375/oz gold, US\$4.00/oz silver, was C\$115/t and would be adjusted to C\$93/t based on November 1993 producer prices. Annual pre-tax earnings of C\$56m, a 31% pre-tax rate of return, a 10% discounted NPV of C\$103m and capital payback in three years was indicated at the forecast metal prices. Using average metal prices since 1970 (in 1992 dollars), the annual pre-tax earnings increase to C\$97m with a 59% pre-tax rate of return, a discounted NPV of C\$262m and a capital payback in less than two years. An infill drill programme is required to upgrade the ore reserve classification for a full bankable feasibility study.

#### **Mineral Processing**

Analysis of metallurgical test work for the pre-feasibility study demonstrates that a conventional differential flotation circuit will be appropriate for mineral processing. Flotation circuits will sequentially produce lead, copper, and zinc concentrates. Recoveries in excess of 87% will be achieved for all metals, including gold and silver. Approximately 40% of the gold will be recovered in a gravity circuit. High concentrate grades of 57% for zinc, 32% for copper and 60% for lead are indicated.

#### The 1993 Exploration Programme

## Confirmation programme completed and further exploration success

Recent exploration activity has consisted of underground definition drilling at Tulsequah Chief, required for a full feasibility study, together with surface drilling at Big Bull and geophysical-geological work on the most prospective areas between the two mine sites. Initial results have been most encouraging. A full interpretation is expected to be complete by end-January 1994.

The underground drill programme at the Tulsequah Chief represented both definition infill of the 1992 reserve and exploration drilling along the east and west boundaries of the reserve. Results confirm the tonnage and that the deposit is open at depth. Overall grade is likely to be higher.

The Big Bull drilling tested the mineral system over a strike length of 1km. Seven of twelve holes recorded ore grade mineralisation. Drilling has demonstrated that the Big Bull mineral system is at least as large as the Tulsequah Chief and the potential for delineating a significant mineral deposit is considered excellent. Four other massive sulphide systems have been located on the property and these represent further upside reserve potential.

#### **Financial**

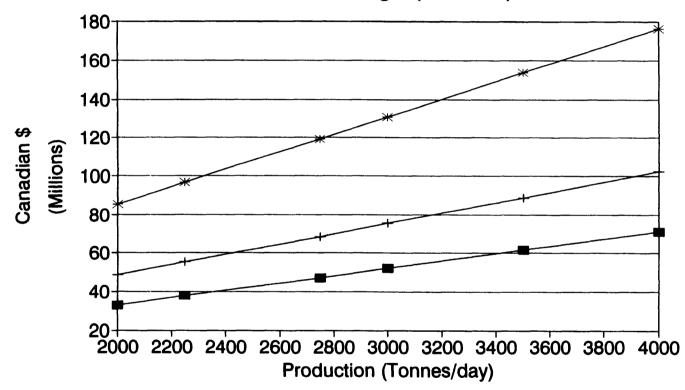
The Company is debt free and in June 1993 raised a C\$5.0m equity issue to cover immediate capital requirements. If the Company decides to develop the property on its own a major financing package will be necessary to raise the C\$140m required for project construction.

## **TULSEQUAH PROPERTY**

Annual Earnings (Pre-tax)

**TULSEQUAH PROPERTY** 

**Annual Pre-tax Earnings** 





#### **Potential**

#### Scope for a substantial increase in ore reserves is considerable.

The ore reserve established at the Tulsequah Chief deposit is sufficient to support a sizeable commercial operation, even at current depressed metal prices. The drilling programme to date indicates that the orebody is still open at depth. It is also open along strike to the west, and a significant increase in ore reserves can be expected as a result of further deep and lateral drilling.

The Big Bull mine contained higher grades than Tulsequah Chief when the two operations were mined in the 1950's. Initial shallow drilling has been sufficiently encouraging to initiate a major drill programme in 1994. Plant design will accommodate potential expansion to at least 3,500tpd.

The two exploration targets identified by surface geophysics both have potential to identify commercial reserves. There is thus a real prospect of a major increase in mineable reserves to justify a long life operation at higher production rates.

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