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# Research

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## WHEATON RIVER GOLD-SILVER DISCOVERIES

### HIGHLIGHTS

The Wheaton River (Mt. Skukum) district gold-silver discovery 30 miles southwest of Whitehorse suggests a major gold-silver camp is evolving. At this early stage current results indicate one of the richest, minable sources of hard rock gold in Canada at a still undetermined tonnage. Geologist Glen C. Macdonald has suggested the AGIP-Erickson strike is "one of the best since Hemlo". The area has been drawing considerable attention and national press (The Northern Miner, Financial Post). The district is currently seeing a surge in exploration and development. The activity has precipitated a real gold rush and it appears that a belt 35 miles long and up to 20 miles wide has all been staked. The AGIP-Erickson and United Keno Hill (Venus) projects represent two potential high grade mines at this early stage and both deposits are still open to extension.

Exploration last season by junior companies (Shakwak & Tally-Ho) led to additional discoveries with often spectacular assays. At \$300 U.S. for gold and \$6.50 for silver, the very high grade deposits have good development potential. Overviewed, this area is one of the most interesting, accessible, easily worked and untested gold-silver regions in Canada.

### GEOLOGICAL MODEL

To relate to the origin of mineralization in the area, three periods of violent volcanic activity have to be visualized. In the first phase, a suitable host rock was placed (basement rocks), composed of interlayered andesites and basaltic andesites ranging up to 3,000 feet thick. Next, the ground was fractured through the collapse of the caldera and mineral solutions were then forced into these fractures, depositing the gold and silver.

### EXPLORATION AREA

Gold and silver occur in a triangular-shaped 300-mile square area which hosts two 25-mile long belts of mineralization joined at one end. Elevations range to 8,000 feet above sea level, with main valley bottoms from 2,000 to 2,500 feet.

The Wheaton River is attractive to mining firms for its high grade potential and the fact there is extensive infrastructure there. It is close to needed services and qualified, experienced mining people in Whitehorse. The region is served by an all-weather road, a major highway and rail route to the coast. Consideration is being given by the Yukon government to installing a power line which would represent a major cost saving to operators in the area.

### EXPLORATION – DEVELOPMENT

To date, the exploration emphasis has been towards gold and silver which are associated with the following minerals: galena, tetrahedrite, argentite, chalcopyrite and pyrite. These minerals are generally found in silicified zones or quartz-calcite veins. In the past prospectors looked for gold in veins with heavy sulphide content, usually indicated by rust-coloured mineralization in surface outcrop. They tended to ignore veins that looked like barren white rock — quite unexciting, without sulphides and visible gold. But modern day exploration techniques have unlocked the secret to the high grade gold-silver mineralization in the region. In the case of the AGIP discovery, gold is generally not visible but rather homogenous throughout the quartz-calcite veins.

The primary host rock for the gold-silver mineralization at Mt. Skukum, which not only includes the AGIP-Erickson holdings but Shakwak, Tally-Ho and United Keno Hill (Venus) properties as well, is an andesite flow unit intruded by tertiary rhyolite porphyry dyke swarms and stocks. Mineralization occurs consistently throughout these competent rock structures which appear amenable to underground development and extraction.

Major exploration drilling and development programs were undertaken last year by United Keno Hill Mines on Montana Mountain and by joint-venture partners AGIP-Erickson on the Mount Skukum district.

Preliminary exploration work last year included geochem, trenching, and mapping by Noranda, Tally-Ho and Shakwak. Initial diamond drill results released by Shakwak included a high grade intersection assaying 1.35 ounces per ton gold over 4.5 feet in one hole that tested a geochemical/geophysical anomaly.

Other companies active or holding ground in the area include: Kerr-Addison, INCO, Kennco, Omni Resources, Island Mining, Berglynn Resources, Golden Eye, Avid Gold, New Era Developments Ltd., Skukum Gold Inc., Reynolds, Sanfred, New Ridge, McCrory Holdings, Augustus Resources, JMT Mining Services, Rockridge, Euro-Petroleum, Rex Silver, Central Generating Board Exploration – U.K., Carmac Resources Ltd., Newhawk Gold Mines Ltd., and Hyde-Djukastein.

## **ERICKSON GOLD MINES LIMITED**

Listed TSE/VSE – EGM  
NASDAQ QUOTED – ERGMF  
(604) 986-5661

Contact: Kristian Ross, President

The company is a primary, leading gold producer in British Columbia. Last year it entered into a joint-venture agreement whereby, as operator, it may earn up to 45% interest in AGIP's Mt. Skukum gold discovery. The Mt. Skukum gold vein deposits were discovered in 1981 by AGIP Canada, a subsidiary of the Italian State Oil company. The discovery is the result of persistent prospecting following a regional geochemical exploration program. To date, only a small portion of this 45 square mile property has been tested in detail.

"It's a pretty amazing deposit", says Jim Morin, Regional Geologist for the Federal Government's Northern Affairs Program. The deposit appears to be somewhat of a hybrid in the gold mining industry in that gold values occur in quartz carbonate with hardly any sulphides.

The Cirque zone deposit is almost vertical and mining widths range from 4.5 - 30 feet, near perfect for low cost shrinkage stope mining. Exploration by prospecting has indicated ore grade material in at least four other gold-bearing zones, which remain unexplored. Significant ore reserves are being developed, (main Cirque reserves in May 1984 are carried at 165,000 tons at 0.73 ounces per ton gold, plus silver values – additional reserves/grades are yet to be reported) and the zone has yet to be closed off. The 1984 drill program, carried out by AGIP, confirmed the presence of widespread economic mineralization and excellent potential for additional reserves. Erickson reports there is also room to increase the grade, noting wider drill intercepts typically give higher gold values – a most unusual feature for a gold deposit.

An adit has been completed to a position underneath the known ore zone and ground conditions have been such that timbering has not been required. Assuming these ground conditions continue, dilution of high grade reserves won't be a problem. Tests for the most economical means of extracting Mt. Skukum ore are in progress. A mill site location has been established along with a tailing area. In many respects, the layout is similar to Erickson's operation at Cassiar, B.C. Because of its high carbonate content, the ore should be easy to mill. At an operating rate of 300 tons per day, Erickson's share of gold from this project should be between 28,000 and 32,000 ounces annually.

Kristian Ross, President of Erickson, indicates that substantial, additional reserves are anticipated from future exploration work and development. Mt. Skukum may just be the opener for the Wheaton River area many people believe.

## **SHAKWAK EXPLORATION COMPANY LIMITED**

Listed VSE – SHA

Contact: Glen C. Macdonald, President – Ron Robertson, Chief Geologist

(403) 668-2044

Shakwak has successfully acquired interests in 8 significant Yukon prospects by staking, joint-venture & option agreements. Five of these gold-silver properties are strategically located in the Wheaton River area.

Possible commercial grade assays of gold-silver over mining widths have been obtained from zones located during the 1984 exploration programs on the Dickson Hill and Charleston properties. At Dickson Hill (AGIP joint venture) a high grade intersection assaying 1.35 oz. gold per ton over 4.5 feet was obtained in one hole drilled to test a geochemical/geophysical anomaly. The Charleston property has ore-making potential on strike with the Cirque Zone deposit of the AGIP-Erickson Mt. Skukum property. A new vein zone discovered

during 1984 is located 200 feet vertically above the old showings and adit. The new zone is a quartz-calcite vein averaging 4.2 feet wide for a length exceeding 100 feet. Channel samples assayed 2.52, 0.52 and 0.42 ounces gold per ton and 29.5, 19.6 and 3.56 ounces silver per ton. In addition a sample of Skukum series rhyolite porphyry assayed 0.11 ounces gold per ton with less than 1% visible sulphides, an unexpected result in view of the lack of veining and low sulphide content of the rock.

The Bear gold property (AGIP joint venture) consists of 80 claims and covers a Skukum series volcanic complex cut by strongly altered rhyolite dykes.

The 16 Charlie claims cover a series of Mt. Skukum rhyolite porphyry dykes with chalcedonic quartz and intense country rock alteration, characteristic of epithermal gold deposits.

The 87 NYAC claims adjoin the United Keno Hill (Venus) mine project and are underlain by the favourable host andesite unit.

Outside the Wheaton River district, Shakwak drilled 2,050 feet in 1984 on its Revenue Creek property (Carmacks District) and intersected potentially economic gold mineralization in several holes. Currently, Shakwak also holds 20% interest in the 600 claim CMC property (31,000 acres) in southwest Yukon. Trenching last year outlined several new zones of high grade silver mineralization including an 80 to 100 foot long zone averaging 3-4 feet wide grading 160 to 100 ounces per ton silver. A program of road building, geophysics and diamond drilling will commence shortly.

Aggressive exploration programs are planned to develop the company's holdings during the 1985 season.

### **OMNI RESOURCES INC.**

Listed VSE – ORI

Contact: Jon or Ernest Bergvinson

(604) 684-5827

With an aggressive core drilling program planned for this season, Omni will be moving its own diamond drill onto the Skukum Creek property for the initial exploration phase. Omni's two holdings, the 44-claim Skukum Creek property and the 138-claim Montana property, together comprise approximately 9,000 acres in the Wheaton River area. The Skukum Creek property has a similar geological structure to that of the AGIP-Erickson discovery which adjoins immediately to the north. Previous soil sampling and geochemistry have located three unusually large gold, gold-silver anomalies with extremely high grade values. A composite sample from a 5 x 7 foot trench, located within one of these anomalies assayed 50.95 ounces per ton silver and 0.184 ounces per ton gold.

### **UNITED KENO HILL MINES LTD.**

Listed TSE – UKH

Contact: Dennis Prince

(403) 667-7817

United Keno Hill spent in excess of \$1.6 million during 1984 conducting a program of surface drilling and drifting along the Venus vein structure. Drilling indicated a new zone on top of Montana Mountain and the underground program identified new ore shoots as an extension to previously known mineralization. Ore reserves in existing workings are reported to be a minimum of 100,000 tons grading 0.27 ounces per ton gold and 7.2 ounces per ton silver. New potential ore indentified by the 1984 development program is indicated to grade approximately 0.7 ounces gold equivalent for an uncalculated tonnage. All zones are open to extension. The new high grade shoots outlined in 1984 will make a significant addition to the previous reserve inventory. An aggressive development program is scheduled for 1985.

### **ISLAND MINING EXPLORATION CO. LTD.**

Listed VSE – IMX

Contact: Jon or Ernest Bergvinson

(604) 684-4814

A recently negotiated joint venture with INCO on their 16 adjoining claims has increased Island's present holdings to 203 claims, covering over 10,000 acres. The geology of this claim group is very similar to neighbouring ground owned by Shakwak and Tally-Ho which border to the west. Preliminary field work has resulted in the location of two anomalous areas on the Midnite Gulch property. A composite sample derived from an old adit assayed 1.3 ounces per ton gold. A limited geochem survey was performed, which produced very positive results. Further development will involve more, geochem work, linecutting, trenching, and diamond drilling this field season.

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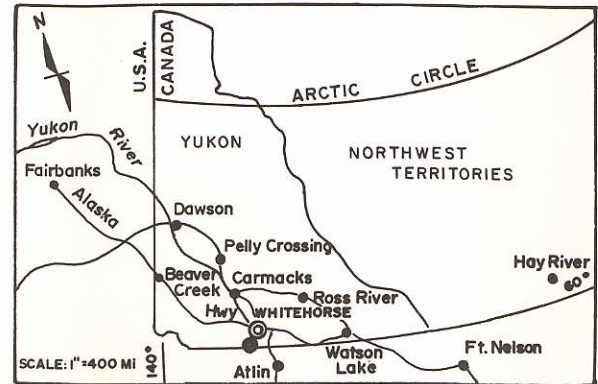
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ALLIGATOR LAKE  
AGIP-KERR-ADDISON

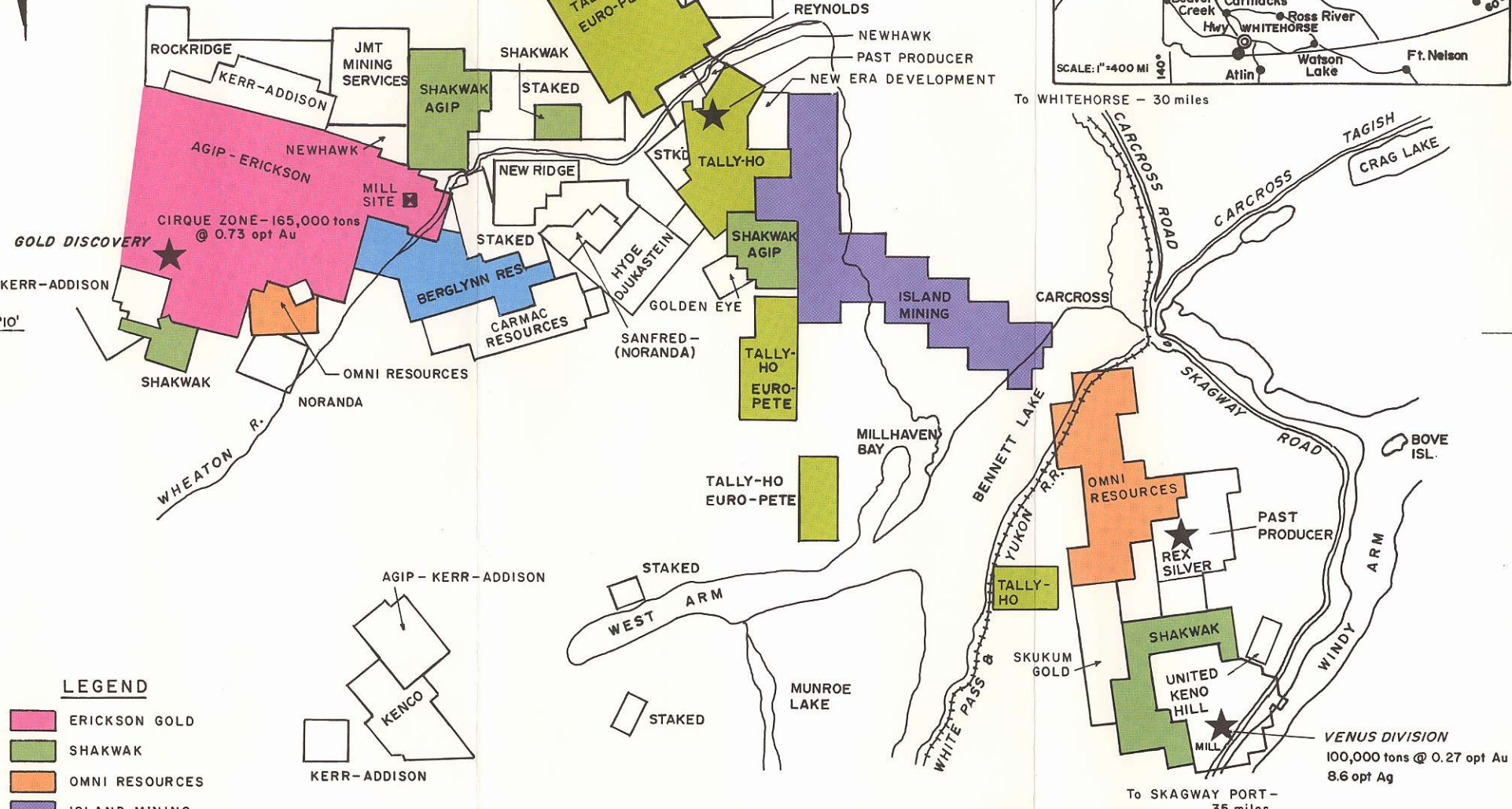
TALLY-HO  
EURO-PETE

135°00'



To WHITEHORSE - 30 miles

60°10'



**LEGEND**

- ERICKSON GOLD
- SHAKWAK
- OMNI RESOURCES
- ISLAND MINING
- BERGLYNN RESOURCES
- TALLY-HO

AGIP - KERR - ADDISON  
KERR-ADDISON  
KENCO

**WHEATON RIVER AREA**

