

# Innovative geophysics opens up IOCG province

The expanse of Northern Territory's Tennant Creek has always promised big things for explorers willing to capitalise on its history of gold and copper yields.

And, as 2009 came to a close, junior Emmerson Resources Ltd found itself one of the best placed to develop a project in the area.

After 18 months of inspired geophysics, the junior was able to secure a multi-million dollar joint venture with Ivanhoe Australia Ltd in April, and it was pushing ahead with a drilling program in the south of its NT holdings when the good results started to come in.

Two projects were identified as centres for possible tier one mineralisation (material with the potential to host large [plus] 1 million ounce gold equivalent deposits) – Pinnacles North for copper-gold and Rising Star for copper.

Drilling began at both sites in late December, with a leakage anomaly identified at Pinnacles after 900 metres of initial RC work. The presence of gold-hosted in hematite-magnetite ironstone was revealed by deeper RC and diamond results.

Three diamond holes drilled at Rising Star suggested iron oxide-copper-gold (IOCG) mineralisation, while evidence of a copper intersection hosted in hematite-dolomite-chlorite was found in another.

## Well endowed

Emmerson managing director Rob Bills was particularly excited by the high grade tenor suggested at both projects.

"The Tennant Creek mineral field is one of the highest grade gold provinces in Australia, if not in the world," he said.

"It has produced around 5.5 million oz, but the thing about the field is the grade of the gold. The average grade is upwards of 15 grams/t compared to the Golden Mile at Kalgoorlie-Boulder, which is 2 g/t.

These Tennant Creek IOCG targets contain similarities to BHP Billiton Ltd's mighty Olympic Dam and OZ Minerals Ltd's Prominent Hill mines in South Australia.

There are also numerous examples of this style of deposit in the Cloncurry province of Queensland. With the challenge of delving below the sand, Emmerson

has been able to bring innovative geophysics to the fore in identifying the deeper ore bodies.

"We spent about \$2 million collecting what we call gravity geophysics – a technique that hasn't been done up there in a systematic way before," Bills explained.

"It's given us some new insights and allowed us to look through the shallow cover which,

combined with the size of potential of some of the targets, was instrumental in attracting Ivanhoe's interest.

"Of particular interest is our drilling at the North Pinnacles project, where we believe we have intersected the very top of a large underlying system, perhaps analogous to the historic Juno deposit which produced in excess of 860,000 oz of gold at a grade of 59g/t."

## Right partner

Emmerson entered the JV with Ivanhoe last April after short listing a number of other possible investors.

It eventually selected the Robert Friedland-led outfit on the strength of its track record of discovery and adding shareholder wealth through persistent exploration.

"They've got a very strong technical team, and they found arguably the biggest copper-gold resource in the world in Mongolia, as well as the largest and highest grade molybdenum-rhenium deposit in Cloncurry," Bills explained.

"Ivanhoe tend to secure large ground packages in well endowed, but under explored, provinces and then undertake bold and systematic exploration – usually through persistent deep drilling."

The venture with Ivanhoe will provide solid funding, especially for the larger tier one projects within Emmerson's NT holdings.

It will also provide the flexibility to define smaller tier two projects either as a consequence of tier one exploration or a "sole fund sole risk" clause that allows the junior to retain 100% of the smaller plays.

By Caroline Smith



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Aggressive drilling is a passion both partners share.