

EXPLORATION

Tapping Tennant Creek's treasures

Kate Haycock, [19 January 2010](#)



Emmerson has a good pipeline of drill targets.

WHILE other gold explorers try to move into production by reviving marginal old mines, Emmerson Resources is taking a more studied approach at its Tennant Creek project in the belief that finding new, million ounce plus deposits is only a matter of time and hard work.

After listing in late 2007 with \$A20 million in the bank, Emmerson attracted the attention of the Robert Friedland-backed Ivanhoe Australia. In April last year Ivanhoe took 10% stake in Emmerson and entered into a \$28 million joint venture over the Tennant Creek projects in the Northern Territory.

Ivanhoe is funding the work while Emmerson is managing the exploration, and in 2009 Ivanhoe spent around \$7 million on drilling and surveys.

Late last year this drilling turned up a peak intersection of 2m at 50.6 grams per tonne gold from 156m from the Pinnacles prospect.

Emmerson managing director Rob Bills said comparing the known geology of the Pinnacles prospect to the model of the Juno deposit, a high-grade mine in the same mineral field, suggested the hole may have just clipped the top of a gold-copper system at depth.

"We think that result was in the 'exhaust zone' of the deposit," he told **HighGrade**, adding that the intersection returned bismuth as well – a good indicator of higher grade gold in the Tennant Creek mineral field.

Juno featured grades of more than 59 grams per tonne and produced more than 860,000 ounces of gold during operations.

Another strong prospect is the Rising Star, to the north of the tenement package, where a drillhole returned 1.9m at 6.49% copper from 201.2m.

The results, while promising, are not yet “game changers” for the company, as Bills admits. Emmerson is instead selling itself as a well-funded, longer term play with good people and good techniques and a focus on geology and exploration

“Don’t buy Emmerson if you want a quick, director’s special drillhole. That’s not what we’re about,” Bills said.

Instead the \$7 million spent by Ivanhoe so far has given the company a firm handle on the geology of the region.

Despite this, Bills would prefer not to describe the company’s strategy as long term, saying that if a suitable deposit is delineated at Tennant Creek it could be bought into production very quickly.

The company has a 300,000 tonne per annum capacity second-hand gold mill, the only one with 500km, and its tenements cover over 2700sq.km and include several shuttered gold mines.

However, Bills said the company will not try to dust off any of these old mines by adding incrementally to reserves even though the rising gold price has made this an appealing option for other gold hopefuls.

Instead, Emmerson wants to find “tier one” gold deposits of a million ounces or above – and it is this goal which has attracted Ivanhoe.

As part of its \$28 million buy-in to Emmerson’s tenements, Ivanhoe has agreed to pay \$18 million in exploration over the next three years to earn a 51% stake in the project.

Ivanhoe must then sole fund any developments over half a million ounces of gold equivalent to earn a 70% interest in any deposits that look promising - provided those projects hit the full, tier one level of million ounces of gold or gold equivalent.

Anything under 250,000oz, however, will revert to Emmerson.

Emmerson can then decide whether or not to develop these smaller deposits, which could give it a faster route to production than under the JV.

In 2010 Ivanhoe will spend another \$7 to \$10 million on both geophysical surveys and drilling.

This drilling will look at both the Rising Star and Pinnacles prospects, but will also follow up more geophysical anomalies at the project.

Emmerson’s initial investment of \$2 million in early 2008 on gravity surveys turned up 26 anomalies which could host a million ounces or more.

“That was a pretty ballsy move for a small company – we’d raised \$20 million in our IPO but spending that amount of money on gravity was a big move,” Bills said.

“It has paid off in spades, it has opened up that whole field, and that’s the reason why we could attract Ivanhoe as a partner.”

Bills said the gravity was integral in searching for iron-copper-gold deposits like these.

The known deposits of the Tennant Creek mineral field produced almost 5 million ounces but the mineralisation of these mines run under cover and exploration and mining was clustered around outcropping deposits.

"Our contention is that the job's only been half done," Bills said.

"When you have a look at what had been done there - which is why I was headhunted just before the float in December 2007 with my background with Western Mining and knowing these iron oxide deposits like Prominent Hill and Olympic Dam and Cloncurry - it was a pretty one-dimensional approach the [previous owners] had taken to exploration."

Magnetic surveys also appear to have missed some of the field's potential with the deposit and Emmerson's theory is the non-magnetic parts of the deposits host the majority of the mineralisation, as at Prominent Hill. The drilling last year has gone some way towards validating this hypothesis.

"It is when you put it into the context," Bills said. "The key is understanding where everything is in a mineralised system."

At some point the company will need to stop considering the field as a whole and narrow its attention, but Bills said this was still a way into the future as the company continued to unlock the code of the geology to re-rank and reprioritise drilling.

"Once we've spent this \$18 million or maybe some of the \$10 million, we will have a reasonable idea of where to focus. Ivanhoe will be doing their thing and in parallel we can do our own exploration of the tier two deposits," he said.

"The value uplift you would see if we discover a tier one would be fantastic. But by the same token, if we can strong two or three tier twos together, things can happen very quickly in the Northern territory in terms of getting into production."

"You can't predict when that is going to happen, you can't put a timeframe on exploration. But discovering tier two deposits is definitely more immediate for us and our shareholders."

Bills said Ivanhoe's response to the results has been positive and the Emmerson approach sat well with Ivanhoe's aggressive exploration program.

"They're saying, yes, you're understanding the geology and coming to grips with what the geophysics is telling you about the geology, and that's what we were doing two years ago," he said.

"Even some of the major companies would not be spending the sort of money we're spending. Knowing Ivanhoe and knowing Robert Friedland, if you get onto something the money will start flowing."

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