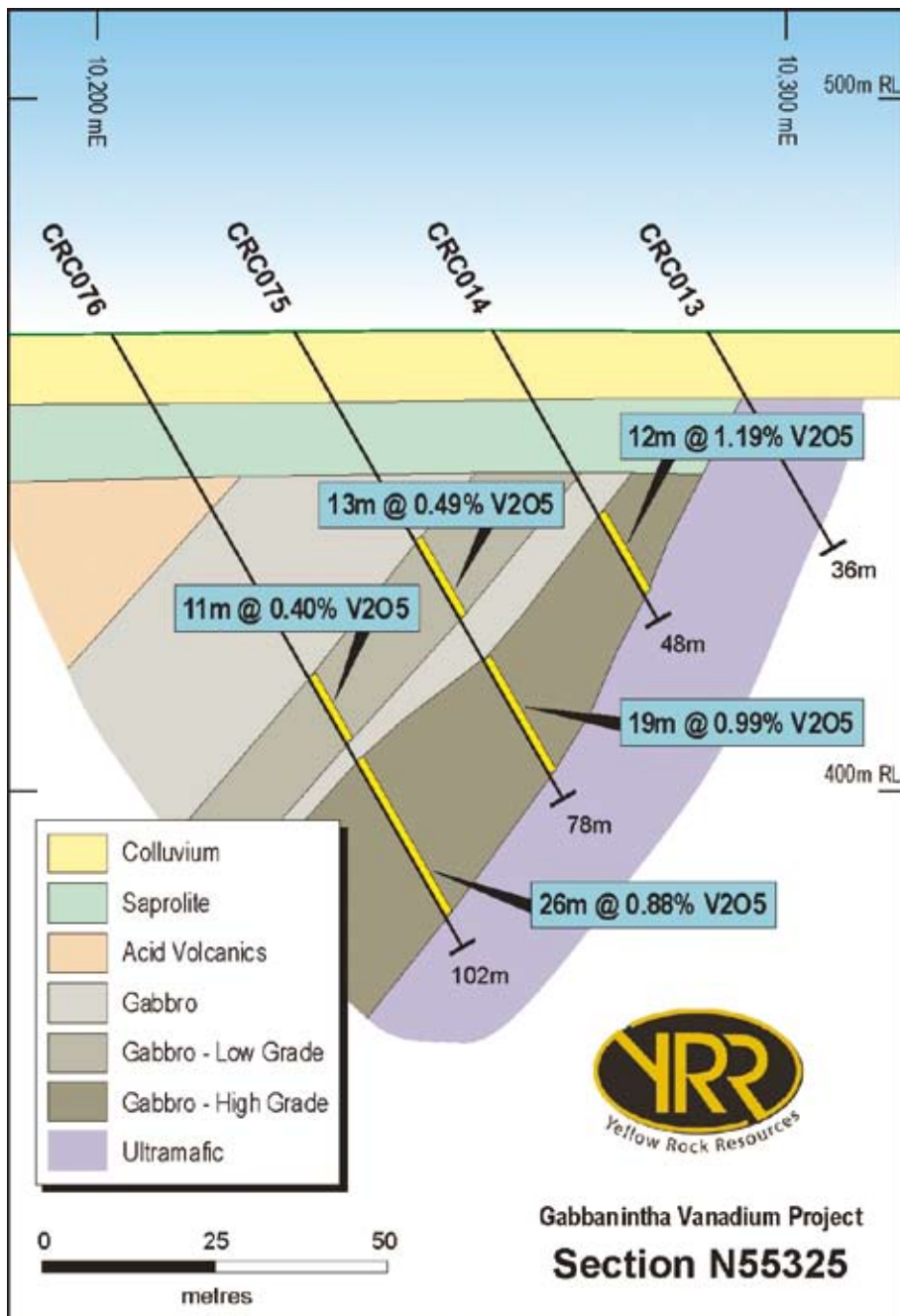


Vanadium price hike excites explorer

When WA-based junior explorer Yellow Rock Resources listed on the Australian Securities Exchange in September 2005 the company's primary objective was to consolidate and evaluate its proven vanadium and uranium tenements. By **Ron Berryman**



Yellow Rock Resources director John Geary.



But the Western Australian Government's attitude to uranium mining and the improving price of vanadium shifted the focus squarely onto the company's Gabbanintha vanadium project.

Less than three years later the company is in a comfortable position. It has almost completed its evaluation of Gabbanintha – located about 43km southeast of Meekatharra with access to the Great Northern Highway – and is convinced the project is a winner.

Modern exploration of the region began in the 1960s when Mangore sampled and drilled some of the outcropping vanadiferous magnetite in the northern tenements and returned consistent grades of 1.2-1.3% V2O5 (vanadium pentoxide) over widths of 6-25m.

Greater Pacific Gold re-assessed the previous data and undertook a drilling program in 2000, which resulted in a then JORC-standard indicated mineral resource of 20.6 million tonnes (Mt) of scree ore at 0.49% V2O5 and 6.62% TiO2 (titanium) and 17Mt of massive ore 1.05% V2O5 and 12.25% TiO2.

The leases were then vended into Yellow Rock.

The five granted tenements at Gabbanintha cover 58 square kilometres and, from work done since, the company has established it hosts a strike length of 9km and is open at depth.

The total mineral resource for Gabbanintha is estimated at 89Mt at an average grade 0.8% V2O5, 9.7% TiO2 and 51.1% Fe2O3 (iron oxide), and is classified as an indicated mineral resource.

"We believe we have a company maker," Yellow Rock director John Geary told *RESOURCESTOCKS*.

There is every reason for Geary to be excited as the game has changed since the

price of vanadium was hovering around \$US1.50 a pound in 2000-01.

Vanadium is used in metal alloys with iron to produce high-strength steel, making it a highly desirable product in the rapidly developing Asian economy. It is also used for reinforcing bars in building and construction, gas and oil pipelines and tool steel, axles and crankshafts for the automotive industry and jet engines for the aircraft industry.

"The vanadium price is tied to iron ore and it's been up as high as \$US21 a pound and is now around \$13 a pound," Geary explained. "It is important that it stays at a sensible price as the higher price tends to encourage a substitution effect."

Yellow Rock consulting geologist Peter Schwann said 90Mt had been proved up and the company didn't intend stopping there.

"The ore body is a long, tabular magnetite layer that stretches on for about 14 kilometres, dipping to the west and open at depth," he said.

"The magnetics would suggest it just keeps going down. We made a conscious decision that we would explore it to a depth of 100 metres.

"The ore body is about 18 metres thick and if you take the material we're looking at, it's somewhere like one percent vanadium in situ, with a value of about \$US160 to \$US240 a tonne, not counting credits for titanium and iron.

"It outcrops or is under cover to about 30 metres, so it's a long slab and oxidised down to about 60 metres, then transition to about 80 metres and from there it's primary magnetite."

Schwann further stated that with an 18m-thick ore lens and using an applicable waste ore ratio, the pit could be designed down to about 200m.

"The vanadium is the most valuable component and is in an oxidised to fresh magnetite material," he said.

"If you consider it as an iron oxide-titanium-vanadium ore, using roast-leach to get the vanadium out, you could then take the residue and put it through a basic iron plant, similar to how ilmenite is treated to produce a high titanium slag and a standard pig iron product."

World mining production accounts for only about 20% of annual production of vanadium with the majority (80%) a by-product of steel slags, oil refining and the uranium enrichment industry.

Schwann said there was a possibility of an offtake agreement that would take the raw product that had credits for iron, titanium and vanadium rather than go down the roast-leach processing route.

"Our product is a more defined, compact zone. It's not several stringers," he added.

"We've drilled a pattern of holes to infill and extend for an indicated resource. In February-March this year we drilled some extensions to the south and we did check sampling to satisfy the resource consultants to put a lot of that resource into the measured category."

Yellow Rock has had some overseas interest in its resource and the company is waiting to see what potential clients will want. Schwann pointed out that anyone considering an offtake agreement would probably want to look at bulk samples first and these would guide the process to be used.

Geary admitted that potential clients had shown an interest in Yellow Rock.

"The key to the project is an offtake agreement to achieve our ends," he said.

He said an offtake agreement would also determine what direction the company would go in, in terms of bulk ore delivery or processing to extract the vanadium.

"The question is, what are we going to be producing," Geary said.

"The ore body is such that we can produce a lump feed if required because lump is quite easily handled and can be loaded into trucks and shipped to port.

"We could also use the fines and low-grade material for treatment at a roast-leach style plant. This would allow full utilisation of most of the material within the pit limits."

"The ore body is well defined and there is a very close correlation between the iron, titanium and vanadium, so it would be very clean and very simple, depending upon what the client wants.

"For example, does the client want iron credits, titanium credits or pure vanadium? If the client wants pure vanadium then we'll have to go down the processing path onsite."

Yellow Rock will have to wait until it has an agreement in place before moving into the next phase. The company is confident it can get the project up and running fairly quickly as it has a resource study that can easily be clipped into a feasibility study.

Infrastructure is good with the gas pipeline about 100km away, but Geary said the company prefers keeping capital expenditure low.

For example, "lump would give an early cash flow with less capital expenditure," he pointed out.

"We have a very large resource and there will be time enough to commit to value adding by way of a full processing plant once we have established a cash flow.

"One of the concerns for us has been the ongoing talk about rail lines in the region and the port at Oakajee. Like everyone else, we want them to stop talking and start making decisions.

"We can truck up to 3 million tonnes per annum and once a decision is made, we could decide whether we're going to do any value adding, whether we're going to have a multiplicity of clients or whether we're going to supply just one client."

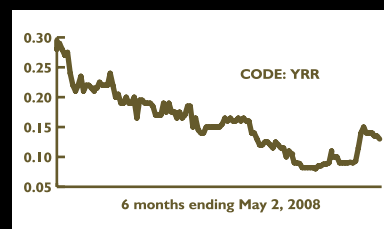
But whatever the outcome regarding transport options, there is little doubt Yellow Rock's Gabanintha vanadium project is an exciting opportunity for this fledgling exploration company.

When it listed it had vanadium and uranium exploration targets in WA and the Northern Territory, but it has added to its uranium portfolio in the NT with four tenements in the highly prospective Arunta Region covering a total of 4847sq.km.

An airborne geophysics program conducted in April has identified eight significant radiometric uranium count anomalies across the central southern section of the Turner's Dome tenement.

The geophysical data had highlighted channel-like and stratigraphic structures containing uranium anomalies. Proterozoic stratigraphy in the province hosts uranium mineralisation with the Energy Metals-Paladin Resources joint venture at Bigryli in the same province and adjacent the southern boundary. **RS**

yellow rock resources at a glance



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Market Capitalisation

\$20 million (at press time)

Major Shareholders

Greater Pacific Gold 21.22%
Selcam Investments 7.37%
Citicorp Nominees 4.69%
Kimbriki Nominees 2.76%