

**THIRD DOOLGUNNA ZONE**

Sandfire Resources NL has confirmed the discovery of a third zone of copper-gold mineralisation at its Doolgunna property in Western Australia. The Conductor 4 find was intersected by DGDD-016 (see table). The company also received assays from DeGrussa and Conductor 1.

Hole	From (m)	Int (m)	Cu (%)	Au (g/t)	Ag (g/t)
DGDD-016	670.9	5.1	15.0	3.7	25.3
DGDD-015	257.8	40.8	13.7	2.4	33.2
DGDD-017	286.1	36.9	4.0	1.7	15.3
DGDD-021	362.9	37.1	9.4	3.7	22.8
DGDD-024	407.5	13.6	10.2	2.8	22.4

Read more: [www.mining-journal.com/177829](http://www.mining-journal.com/177829)

**FRUTA RESUMPTION**

Kinross Gold Corp will shortly restart exploration of the Fruta del Norte gold deposit in Ecuador, following authorisation from the country's natural resources ministry. Ecuador suspended all mining operations about 18 months ago.

# IGE to take Rönnbäcken to prefeasibility study

AN INDEPENDENT preliminary economic assessment for development of International Gold Exploration AB's Rönnbäcken nickel-cobalt sulphide project in Sweden has convinced the firm to undertake a prefeasibility study.

The assessment, by consultant Scott Wilson Roscoe Postle Associates, was based on an open-pit, bulk-tonnage operation exploiting about 250Mt of indicated and inferred resources – about 55Mt indicated (see table).

The mine plan was for a 20Mt/y operation over 13 years, using two pits – Vinberget and Rönnbäcksnäset.

Processing would use conventional crushing, grinding, flotation and dewatering to produce an estimated 17,000t/y of nickel and 420t/y of cobalt in 60,000t/y of concentrates averaging 28% Ni, with forecast recoveries of 75% Ni.

Initial capital costs were estimated at US\$698 million, but sustaining costs estimated at US\$104 million and reclamation costs of US\$25 million would also be required – giving a life-of-mine total of US\$827 million. Cash operating costs were estimated at US\$5.55/lb nickel produced, including freight, smelting and refining charges, net of by-product credits.

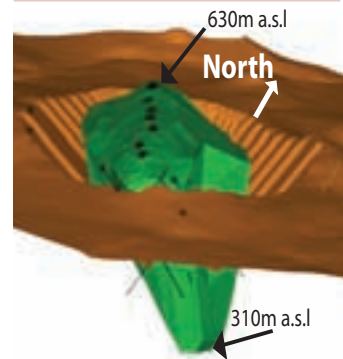
Rönnbäcken is about 25km from Tärnaby, Västerbotten County, and contains nickel-rich serpentinite. IGE said that the property contains large areas of untested exposed serpentinite.

The company expected to begin work on the prefeasibility study next year, at a cost of US\$14 million, aiming for completion in 2011.

**Rönnbäcken resource for IGE (Apr 3)**  
Read more: [www.mining-journal.com/143095](http://www.mining-journal.com/143095)

Category	Tonnage (Mt)	Ni (%)	Ni-in-sulphide (%)	Co (%)
Indicated	54.9	0.187	0.137	0.009
Inferred	192.9	0.178	0.107	0.009

Using a cut-off grade of 0.065% Ni-in-sulphides



The Vinberget pit is one of two that will be mined at Rönnbäcken

## Papua New Guinea: Activity Update

The resurgence in demand for mineral commodities has provided a solid foundation for PNG's exploration and development projects

OVERALL mineral-sector activity in Papua New Guinea has proved resilient, with significant progress at all of the major projects, despite some junior companies having found the going tough, especially when it comes to raising new funding.

At the latest count, over 260 exploration licences are now in force, with a further 20 under renewal and more than 100 new licence applications being processed. Gold remains the principal commodity of interest, with copper, nickel, iron and seabed massive sulphide deposits also being targeted.

These were the headlines from a recent two-day PNG Chamber of Mines & Petroleum conference in Port Moresby. A record 300 delegates attended the biannual Mining & Petroleum Seminar.

With the first gold pour achieved in June, Hidden Valley is the first new gold mine to be commissioned on mainland PNG for 15 years. It is engineered for an ore throughput of 4.2Mt/y from the Hamata, Hidden Valley and Kaveroi orebodies, with peak annual production scheduled at 275,000oz in 2019.

Joint-venture partners Harmony Gold Mining Co Ltd and Newcrest Mining Ltd have begun studies on optimising the plant's throughput and increasing production.

Meanwhile, expenditure on the Ramu nickel-cobalt laterite project in Madang province had reached US\$930 million by mid-year, out of a total capital expenditure budget of nearly US\$1.4 billion, despite interruptions earlier this year on safety grounds.

Construction completion and commissioning at the project, operated by China Metallurgical Construction Corp, are scheduled for the end of this year. Annual production is targeted at 31,150t nickel and 3,300 t cobalt over an initial 20-year life.

Highlands Pacific Ltd holds an 8.56% interest.

Not only are these projects nearing completion, but some of the country's existing mines are at various stages of expansion or life-extension studies.

Lihir Gold Ltd, for example, is currently working on its 'Million Ounce Plant Upgrade' project, while at Porgera, Barrick Gold Corp is exploring both around the existing operation and at depth to identify resources that could extend the mine's current 13-year remaining life.

The project at Lihir aims to increase output to around 1Moz/y from 2012 for the remainder of its life, the operation having produced 771,000oz last year, and over 7Moz since it came on stream in 1997. Successful exploration during the first half of this year has increased measured and indicated resources at Lihir from 33Moz to 43Moz.

Barrick reported success in increasing resources underground at Porgera during 2008, and current reserves are sufficient to support mining both on surface and underground until 2017.

The company is also continuing with its Porgera Deeps programme, exploring the intersections of proven gold-bearing structures below the current underground infrastructure.

Meanwhile, with open-pit closure scheduled for 2013 at Ok Tedi, which is majority-owned by local interests, new efforts are under way to find additional resources within the locality. A prefeasibility study on moving to underground mining began last year, with a feasibility study scheduled for completion in 2010. The government holds a 30% interest.

Aside from focusing on their Hidden Valley project, Harmony and Newcrest have been working on a number of exploration sites. At Wafi-Golpu, the joint

venture has compiled an integrated geological model, and has outlined a mining method for the Golpu porphyry.

Other prospects currently under evaluation include Kesiago (copper-gold), Apu Creek (base metals and silver), Yafu and Biamana (both gold), all of which have been drilled recently.

On Woodlark Island, Woodlark Mining Ltd is reported to have identified a 1Moz-plus resource at its namesake project, with additional drilling having been carried out in order to improve the resource estimate.

Allied Gold Ltd commissioned its mine on Simberi Island in February last year, and has been able to increase its total resource to 4.7Moz of gold and 10Moz of silver. Exploration is continuing at both the Sorowar and Pigiput prospects, with Allied having begun plant optimisation studies aimed at a consistent 100,000oz/y output from the operation.

Elsewhere, Barrick has started work on its earn-in commitments over Allied's copper and gold prospects on Tatau and Big Tabar islands. Following on from initial fieldwork and an airborne EM survey over the Tabar Island group, Barrick's targets here have included Tupinda, Banasa and Kupo.

The company also spent US\$10 million on exploration in 2008 at its own Kainantu property in the Eastern Highlands, plus a further US\$27 million on mine development.

Although gold and copper have formed the foundation for PNG's mining industry in the past, the country's mineral endowment is far more extensive. The prospect of diversification has led a number of companies to begin evaluating a range of other mineral resources, including chromite, nickel, platinum-group metals and industrial minerals.