

836570

aimed at producing 3,000 t/y of nickel metal by mid-1997 and 30,000 t/y by the end of 1998. To achieve this accelerated development, the company plans the early development of the Serp Hill resource, which has reserves of 947,000 t at a grade of 0.97% Ni, by open pit.

When compared with the 21,500 t/y base case model, the 30,000 t/y operation has capital costs of \$A540 million against \$455 million, operating cash costs of \$US1.61/lb with cobalt credits against \$1.59/lb, but an unchanged mine life of 20 years. The models assume prices of \$US3.50/lb for Ni and \$US12/lb for Co and an exchange rate of \$US0.75/\$A.

According to Behre Dolbear Australia, a consultancy that conducted a technical audit of the feasibility study for Dominion's financial advisers on Yakabindie, ABN-AMRO Hoare Govett, the use of Dominion's proprietary Activox process will mean that the project will have a minimal impact on the environment as it will produce no noxious gases, and leach residues will remain neutralised in the tailings dam.

Maggie Wakes Up

Forrestania Gold's managing director, Barry Eldridge, said that development of the Maggie Hays nickel project is expected to begin in about 18 months. He told the Diggers and Dealers conference in Kalgoorlie that he expects to commence a feasibility study of the project in the middle of 1997.

Maggie Hays is part of the Lake Johnston joint venture which is 50:50 owned by Forrestania and Gencor. Since January 1996, drilling has increased the indicated and inferred resource at Maggie Hays by 32%, to 11.9 Mt at a grade of 1.55% Ni, using a 0.7% cut-off grade.

Callie On Schedule

North Flinders Mines reports that the development of the Callie decline is on schedule and within budget. The company said that the decline has advanced by 297 m, and in addition 503 m of level development was completed. Some development took place in ore and this confirmed North Flinders' understanding that the orebody is high-grade, but variable.

The Callie underground development is expected to cost \$A13 million and will develop the 300,000 oz Callie orebody. It is scheduled to begin production in late 1996.

Underground Operation For Red Dome?

Niugini Mining has ceased operations, as scheduled, at the Red Dome open-pit gold-copper-silver mine in the Chillagoe region of Queensland. The mine, which was

opened in 1986, produced 111,420 oz of gold, 4,917 t of copper and 629,796 oz of silver in 1995. Niugini expects to continue processing stockpiled ore from the open pit for a further year. The company also said that it is considering the development of a limited underground operation from the lower levels of the open pit. If this project is approved, it would allow the Red Dome processing plant to operate at full capacity until at least the end of 1997. In addition to supplying the Red Dome plant with underground ore, Niugini has identified a number of other targets in the region that could become sources of feed for the Red Dome mill.

Private Iron Ore

The private Australian company Hancock Prospecting Pty Ltd, left by the founding father of the Australian iron ore industry, Lang Hancock, believes that it is close to breaking into iron ore production in its own right. According to Reuters, David Paice, Hancock's executive director, has made an initial presentation to the Japanese steel industry based upon the proposed construction of a \$A450 million iron ore mine. The Hope Dawn project, in the Pilbara region of Western Australia, has 800 Mt of high-grade reserves in three separate deposits and could begin production at a rate of 15 Mt/y in the year 2000.

According to Mr Paice, as well as the quality of the actual deposit, the project could prove attractive to Japanese and other South-east Asian investors because of Hancock's plan to offer over 50% equity in the project.

Lang Hancock discovered the Pilbara iron ore province forty years ago and, as a result, Hancock's interests have collected royalties from major iron ore producers in the region.

Any production from the proposed Hopes Dawn operation would be in addition to other planned new production from the Pilbara region. This will come from the start-up of RTZ-CRA's 10 Mt/y Yandicoogina mine next year and BHP's expansion of its Yandi operation to 25 Mt/y by late 1996. North is also said to be considering several options for new developments in the region.

Nigerian Aluminium Smelter Completed

According to the state-owned *Business Times* newspaper in Nigeria, the Nigerian Gas Co., a subsidiary of the Nigerian National Petroleum Corp., has completed a gas pipeline to supply the Ikot Abasi aluminium smelter. The paper reports that the 193,000 t/y smelter (*MJ*, June 9, 1995, p.425) has been completed and is expected to come on stream in October.

The plant, which will use up to 33.6 billion ft³ of natural gas a year, which would otherwise be flared off, will be

supplied from Shell Nigeria fields. Nigeria has ten times more gas than crude oil, which currently accounts for over 90% of export earnings.

November Decision For Iscor

According to Iscor spokesman Ernest Webbstock, a decision on the development of a R1,500 million titanium mining and smelter project (*MJ*, June 21, p.479) is expected in November. The location for the 200,000 t/y smelter has not been decided, but possible sites include Richards Bay, Komatipoort in Mpumalanga and Maputo in Mozambique. The three mines that would feed the smelter are near Richards Bay and Durban in KwaZulu Natal province, and at Gravelotte, in the Northern Province.

Ben Alberts, managing director of Iscor's mining division, said that if the board of directors approves the feasibility study in November the project would take two to three years to construct. Production would begin within a year after that, which could be towards the end of 1999.

Resolute's African Developments

Australia's Resolute Samantha Ltd has said that the development of two gold projects in Africa will produce approximately 300,000 oz/y, at cash operating costs of \$A280/oz. Resolute's equity share of this production will amount to approximately 190,000 oz/y. The company said that it has placed the construction contract for the Obotan project, in Ghana. It expects the operation to begin production in June 1997 at a rate of 126,000 oz/y, at a cash operating cost of \$280/oz, over a ten-year project life.

In Tanzania it has acquired a 50% interest in the Golden Pride project from London-based Samax Ltd. Under the terms of the agreement, Resolute will spend \$US17 million for its 50% holding and undertake to fund a disproportionate share of development expenditure up to \$US9 million. The project, which has resources of 23.6 Mt at a grade of 3.2 g/t Au, is expected to produce 170,000 oz/y at a cash operating cost of \$US210/oz, over ten years. Resolute expects to finalise optimisation and pre-development studies by the end of 1996 and to begin production early in 1998.

Taseko Re-Drilling

Taseko Mines plans to spend approximately \$C12.6 million to complete a 35,000 m re-drilling programme of its Prosperity project, formerly known as Fish Lake. The programme is aimed at proving the gold and copper grade increases of 11% and 4% respectively, as well as 10,000 m of geotechnical drilling to confirm pit wall slopes. By the end of the month, the company plans to

have four diamond-drilling rigs carrying out this programme. Concurrently, it will also operate a pilot-scale metallurgical plant to confirm process design and performance.

Taseko also announced that it is investigating the expansion of the mining and milling operation to 90,000 t/d. At this rate, over a 21 year mine life, the operation is expected to produce 376,000 oz/y of gold and 70,800 t/y of copper. The project's pre-feasibility study estimated the deposit to have a resource containing 9.4 Moz of gold and 1.5 Mt of copper. The company has recently raised \$9 million through a private placement of flow-through special warrants and 8.5% convertible notes.

Julietta Study Completed

Arian Resources, which has a 50.5% beneficial interest in the Julietta gold-silver project, in Russia, has announced that its consultant on the project, Davy International, has completed a positive feasibility study. The project, which is 250 km northeast of Magadan in the Russian Far East, has proven and probable reserves of 540,000 t, at a grade of 24.7 g/t Au and 407.5 g/t Ag. In addition, Davy has calculated a possible reserve of 492,000 t at a grade of 19.5 g/t Au and 341.9 g/t Ag.

The feasibility study is based on an initial production rate of 105,000 oz/y of gold and equivalent. Capital costs for the project are estimated at \$US34.1 million, consumables at \$11.8 million and engineering, procurement and construction management (EPCM) will cost \$5.1 million. Arian Resources reports that the operating costs for the project are expected to be \$US123/oz of gold equivalent.

Access to the orebody will be via a ramp, and mining will be by cut and paste fill at a rate of 122,500 t/y. Subject to financing and approval from the board of directors, Arian expects to select an EPCM contractor by September. Outside the feasibility study area, Arian has intersected further epithermal gold mineralisation.

The company believes that the results are typical of 'bonanza' epithermal type deposits. The company is also exploring for other targets within the 110 km² Julietta licence area and elsewhere in the Magadan region.

Longnan Smelter Construction Started

According to the *Futures Herald*, construction of a zinc smelter in China's Western Gansu province has started. The State Planning Commission and the China Construction Bank plan to invest \$US9.6 million in the smelter, which is expected to produce 25,000 t/y of zinc and 40,000 t/y of sulphuric acid.