

# Metates scoping leads Chesapeake to prefeasibility

RESULTS from a preliminary economic assessment for its Metates gold-silver-zinc project in Mexico have provided sufficient encouragement to Chesapeake Gold Corp for it to plan a US\$3 million prefeasibility study.

The independent assessment, or scoping study, found that measured, indicated and inferred resources totalling 852Mt within an open-pit (designed using US\$900/oz gold price) could support a 27-year operation. The overall resource estimate is shown in the table.

Conventional mining methods would yield 90,000t/d of feed for a processing plant that would use high-pressure grinding followed by flotation to produce a bulk rougher concentrate.

This would then be piped 140km downhill to a second processing plant, located near a limestone resource.

This second plant would treat the concentrate with pressure oxidation and subsequent cyanidation and Merrill-Crowe gold-silver doré production, with precious-metals recovery forecast at almost 85%.

Pressure-oxidation solutions would also be treated to yield zinc sulphide,



Category	Mt	Au (g/t)	Ag (g/t)	Zn (%)
Measured	216.2	0.67	16.5	0.19
Indicated	729.9	0.54	15.2	0.16
Inferred	135.3	0.60	14.3	0.12

Using a cut-off grade of 0.4% gold-equivalent, and a gold price of US\$900/oz

which would then be shipped to a smelter. Zinc recovery was forecast at 85%.

The electrical power would be produced by a dedicated coal-fired power station, included in the forecast US\$3.19 billion capital cost.

Average annual metals production during years 2-8 was forecast at 615,300oz of gold, 22.36Moz of silver and 58,400t of zinc. Over the life of the mine, average annual production was forecast at 547,200oz of gold, 14.5Moz of silver and 41,000t of zinc.

Average cash operating costs during

years 2-8 were estimated at US\$326/oz of gold-equivalent produced (using a gold-silver ratio of 1.64), excluding zinc credits, or US\$267/oz including zinc credits.

Life-of-mine cash operating costs were estimated at US\$419/oz gold-equivalent excluding credits, or US\$366/oz including credits.

The US\$3.19 billion capital cost include US\$2.7 billion for initial costs, US\$493 million in contingency and working capital, and US\$705 million in sustaining capital.

## Fortuna begins San Jose build

FORTUNA Silver Mines Inc has awarded the engineering, procurement and construction management contract for the plant and other facilities at its San Jose epithermal silver-gold silver project in Mexico, following a positive independent prefeasibility study.

The study, by consultant Chlumsky, Armbrust and Meyer, found that underground mining by mechanised cut-and-fill methods could support a nine-year operation exploiting probable reserves estimated to contain 23.2Moz of silver and 181,000oz of gold. Overall output was designed at 20.4Moz silver and 163,000oz gold.

The mine would use a decline to gain access to the ore, and processed tailings, as well as waste from the surface and from underground mining, would be used in the cut-and-fill mining method.

The mine would feed a conventional flotation processing plant with 750t/d initially, increasing to 1,000t/d after two and a half years of operation and then 1,500t/d later in the mine life.

The plant was designed to produce a precious-metals concentrate at forecast recoveries of 88% for silver and 90% for gold. Smelting and refining charges over the life of the mine were estimated at US\$62.1 million.

Capital costs were estimated at



San Jose is scheduled to produce 20.4Moz of silver

US\$55.7 million, and average cash operating costs were estimated at US\$6.90/oz of silver-equivalent.

Fortuna raises San Jose resource (Oct 30, 2009)  
Read more: [www.mining-journal.com/184121](http://www.mining-journal.com/184121)

## Rönnbäcken resource rises

IGE Resources AB's Scandinavian arm, IGE Nordic AB, has received a new, larger, resource estimate for its Rönnbäcken nickel project in Sweden.

The latest estimate, by SRK Consulting, increases overall resources, and also moves more of the total into the measured and indicated categories,

improving confidence compared with the previous resource released last year.

The estimate for Rönnbäcken comprises resources within two separate deposits (Rönnbäcknåset and Vinberget) within a serpentinite body.

IGE Nordic's chief executive, Fredric Bratt, suggested that an exploration target of 400-450Mt at 0.1-0.15% Ni in sulphide could be achieved by a further round of drilling.

Rönnbäcken prefeasibility (Nov 13, 2009)  
Read more: [www.mining-journal.com/186116](http://www.mining-journal.com/186116)

Category	Deposit	Tonnage (Mt)	Ni (%)	Ni in sulphide (%)	Co in sulphide (%)
Measured	Vinberget	28.2	0.188	0.132	0.006
Indicated	Vinberget	22.4	0.183	0.134	0.006
	Rönnbäcknåset	206.6	0.178	0.104	0.006
Inferred	Vinberget	6.6	0.183	0.138	0.007
	Rönnbäcknåset	76.9	0.176	0.100	0.003

Using a cut-off grade of 0.98% Ni in sulphide

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

### NORTHERN STAR ASSAYS

Northern Star Mining Corp has received assay results from drilling programmes at its Malartic-Midway and McKenzie Break projects in Quebec. The results come from underground holes at Malartic-Midway and surface drilling at McKenzie Break.

Hole	From (m)	Intercept (m)	Au (g/t)
150W-1 (UG)	-	1.60	8.80
and incl	-	10.26	5.38
210W-1 (UG)	-	4.40	9.24
10-151	-	1.09	17.94
10-171	27.30	1.00	237.46
10-172	42.60	11.15	5.05
	48.55	1.26	8.77

### PAYMASTER RESULTS

VG Gold Corp's drilling programme at its Paymaster West gold property in Timmins, Ontario, has returned wide intersections of mineralisation. The programme is targeting an open-pit resource.

Hole	From (m)	Intercept (m)	Au (g/t)
VGP-10-20 ext	230.4	7.3	3.70
48	203.3	27.7	1.56
60	134.4	7.6	2.91

### STONEPARK INTERCEPTS

Connemara Mining Company plc has received drilling results for the Stonepark base-metals joint venture in Ireland from 75%-owner and operator Teck Ltd. The holes tested extensions to the known mineralisation, with the following better results:

Hole	From (m)	Int (m)	Zn (%)	Pb (%)
TC-2368 045	209.10	7.45	19.24	8.52
incl	211.85	4.25	26.64	12.30
036	202.70	5.35	13.22	3.18
032	207.60	7.80	5.18	2.68
026	216.05	7.20	13.07	2.23

Read more: [www.mining-journal.com/94820](http://www.mining-journal.com/94820)

### GORO SPILL

One of the primary extraction columns at Vale SA's Goro lateritic nickel project in New Caledonia has failed, releasing 690m<sup>3</sup> of acid-containing solution. A spokesman said the spill had been contained with no injuries or adverse environmental effects, and work was in progress to discover the reason for the failure in order to prevent a repetition. Commissioning of the rest of the plant is continuing, but the spokesman said it was premature to speculate on any potential impact on the timetable for the project. Goro's capital cost was in the region of US\$4.3 billion, but it has suffered a number of delays over the past few years.

Read more: [www.mining-journal.com/146806](http://www.mining-journal.com/146806)