



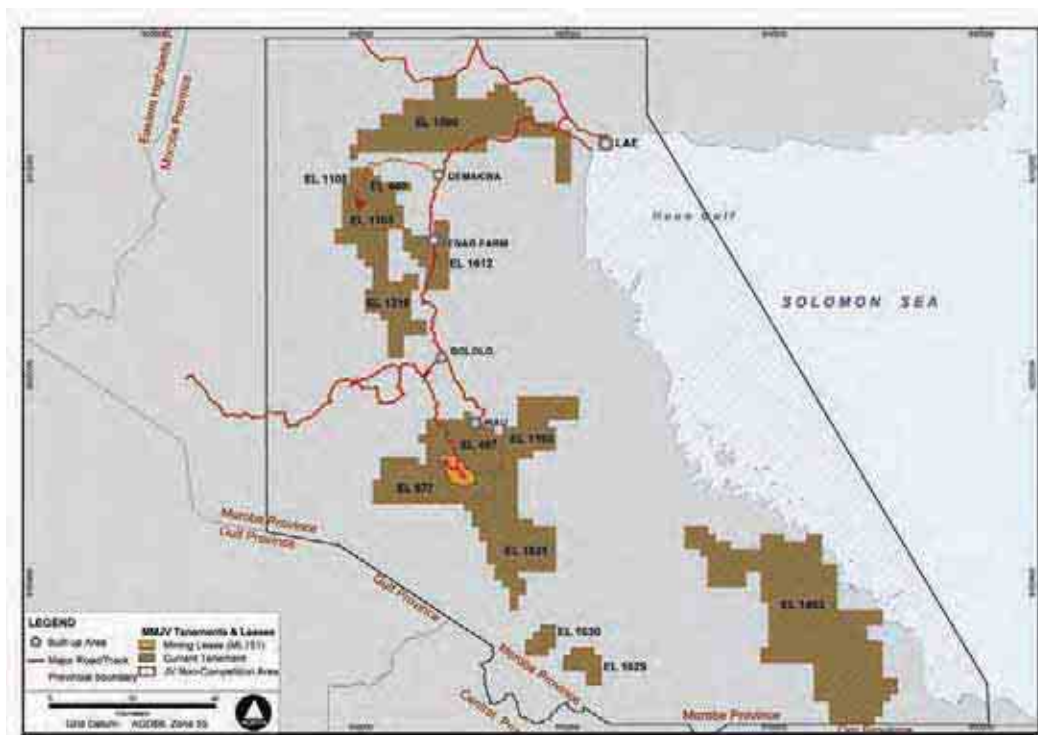
## Description

Hidden Valley is an open-pit, gold-silver mine and processing plant located in Morobe Province, PNG. It is, approximately 210 kilometres north-north-west of Port Moresby, the capital of PNG, and 90 kilometres south-south-west of Lae. This project is included in the Morobe Mining Joint Ventures.

The Morobe Mining Joint Ventures is a 50:50 joint venture between Harmony and Newcrest Mining Limited (Newcrest), a major Australian-listed gold and copper mining company, which covers all current and future mining, project and exploration activities by the two companies in Morobe Province, including Hidden Valley. In terms of the joint venture agreement, Newcrest bought an initial 30% stake in Harmony's PNG assets in July 2008 for US\$229 million and sole funded exploration, development and construction costs in the joint venture area for around US\$300 million in FY09 to earn-in an additional 20%. Newcrest formally reached a 50% stake in the joint venture on 30 June 2009.

In terms of the unincorporated joint venture, each party owns the underlying assets directly and receives product from the operation, with each party responsible for the marketing of its product. The joint venture is jointly managed, with the general managers of the various operations reporting to an operating committee on which both venturers are equally represented.

The joint venture is undertaking extensive exploration activities in Morobe Province, targeting the Hidden Valley mine area, the Wafi-Golpu project and greenfields targets throughout Morobe Province. This is discussed in greater detail on pages 92 to 96



# Review of operations cont.

## Mineral resources and ore reserves

At the end of June 2009, Harmony's share of the Papua New Guinea joint venture reported an ore reserve of 2.096 million ounces of gold and 22.522 million ounces of silver and a mineral resource of 7.790 million ounces of gold and 41.968 million ounces of silver. Copper ore reserves totalled 882 million pounds and mineral resources 2 034 million pounds

Extensive exploration is being undertaken in PNG in the joint venture area, including work on the Hidden Valley mining lease area, the surrounding exploration tenements and the Wafi-Golpu project area as well as at Morobe coast, to further unlock value in the region which is considered highly prospective. In FY09, an increase in the resource was reported with the discovery of a porphyry copper complex adjacent to the Wafi-Golpu project area (the Nambonga Deposit).

More detailed information on this operation's attributable mineral resources and ore reserves is available in the mineral resources and ore reserves section on pages 139 to 143.

### Papua New Guinea

Gold	Mineral resources				Ore reserves		
	Measured	Indicated	Inferred	Total	Proven	Probable	Total
Oz (000)	207	4 604	2 979	7 790	112	1 984	2 096
Tonnes (Mt)	3.0	102.7	92.8	198.5	1.5	54.9	56.4
Grade (g/t)	2.16	1.40	1.00	1.22	2.32	1.12	1.16

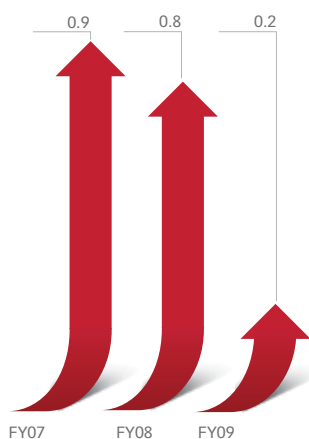
Silver	Mineral resources				Ore reserves		
	Measured	Indicated	Inferred	Total	Proven	Probable	Total
Oz (000)	3 668	25 246	13 054	41 968	1 755	20 767	22 522
Tonnes (Mt)	2.8	23.1	14.8	40.7	1.4	17.6	19.0
Grade (g/t)	40.52	33.95	27.38	32.01	39.00	36.70	36.87

Copper	Mineral resources				Ore reserves		
	Measured	Indicated	Inferred	Total	Proven	Probable	Total
Pounds (million)	–	1 343	691	2 034	–	882	882
Tonnes (Mt)	–	43.8	57.6	101.4	–	35.4	35.4
%	–	1.39	0.54	0.91	–	1.13	1.13

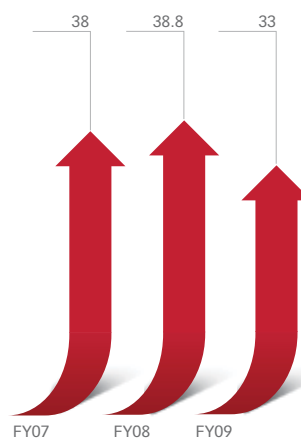
## Safety

The Hidden Valley project maintained a very good safety record during the construction and pre-start up mining phase. The performance is particularly creditable given that construction and operation has taken place in remote, difficult terrain with a large number of inexperienced members of the local community recruited, trained and employed on the mine site during the construction and operational start up phases.

LTIFR: PNG  
(per million hours worked)



AIFR: PNG  
(per million hours worked)



**Hidden Valley key statistics:**

	Unit	(100% basis, only 50% attributable to Harmony)
<b>Production</b>		
Tonnage to be milled over current life-of-mine	t (metric)	42 million
	t (imperial)	46 million
Estimated annual production	Gold (kg)	7 931
	Gold (oz)	255 000
	Silver (kg)	124 414
	Silver (oz)	4 million ounces
Average grade (or reserve)	Gold g/t	2.03
	oz/t	0.06
<b>Financial</b>		
Expected total cash costs (net silver credits)	US\$/oz	500
Expected cash operating cost (net silver credits)	US\$/oz	350
Capital expenditure to date*	A\$ million	689
Life-of-mine	years	10

\* excludes contingency, includes foreign exchange movements

Given current estimates, annual production at Hidden Valley mine is expected to be around 255 000 ounces of gold and 4 million ounces of silver. The operation, which currently has a 10-year life of mine, will process an estimated 4.2 million tonnes of ore annually from two open pits located approximately 5 kilometres apart: the Hamata pit which exploits the Hamata gold orebody, and the larger Hidden Valley pit which exploits the Hidden Valley and Kaveroi gold and silver orebodies. Mining pre-strip excavation of the main Hidden Valley-Kaveroi (HVK) pit started in July 2007, with the first ore production and stockpiling starting in March 2008. By 30 June 2009, some 810 000 tonnes of ore at a grade of 2.1 g/t gold had been stockpiled in preparation for commissioning of the processing plant.

Construction of the Hidden Valley plant facilities has continued apace. The processing facility involves a hybrid of two processing alternatives because of the differences between Hamata, Hidden Valley and Kaveroi ores and specifically the differences in silver grades. The Hamata oxide and primary ores will be processed via a conventional whole-of-ore carbon in leach (CIL) process. The Hidden Valley and Kaveroi transitional and primary ore types will utilise flotation concentration followed by a hybrid leaching, counter current decantation (CCD) and zinc precipitation circuit (Merrill-Crowe process). The grinding circuit and gravity circuit were completed in FY09, while the remaining processing plant construction will be completed by the end of September 2009. The construction of the overland conveyor from HVK and the crushing facilities at HVK will continue until December 2009. The SAG mill was installed and underwent separate commissioning trials in late June, milling a total of 16 000 tonnes of ore, which was then processed through the gravity circuit for a total recovery of some 450 ounces of gold, 50% of which was attributable to Harmony. Mill construction is nearing its final phase, with commissioning having commenced in the September 2009 quarter. Initial production will be limited to Hamata pit sourced ore, with the overland conveyor from Hidden Valley-Kaveroi pit expected to commence commissioning in the December 2009 quarter. It is expected that the mill will ramp-up to nameplate production over a period of six months, with de-bottlenecking activities targeted to increase the throughput commencing during the year. The tailings storage facility (TSF) starter dam walls have been completed. This allows for sufficient storage capacity for the first 18 months of operation, while the next stage of the TSF is constructed.

By year-end, most vacancies (745 employees, plus contractors) required for start-up and operation had been filled. Approximately 40% of the operation's workforce (excluding construction personnel, but including operations contractors) was made up of local landowners. PNG nationals accounted for 92% of the operation's workforce in all. Operational readiness programmes are in place and extensive training was undertaken prior to commissioning.

**Outlook\***

Hidden Valley is located in a highly prospective area. As exploration continues and potential new resources are identified on the mining lease, the life of the process facility could be extended. A resource development drilling programme is currently under way to support potential resource expansion, while potential plant constraints are being reviewed. De-bottlenecking studies to increase the plant capacity to approximately 4.8 million tonnes per annum have begun. This may require the construction of an additional TSF, the availability of which is a constraint currently to extending mine life. Key milestones for this project going forward are:

- ◆ completion of construction, commissioning and ramp-up of the mill to nameplate capacity and beyond;
- ◆ completion of construction and commissioning of the overland conveyor from HVK pit by December 2009;
- ◆ establishment of formal engineered waste dumps; and
- ◆ connection to main hydro-power electricity grid in FY11.

The estimated attributable gold production from Hidden Valley in FY10 is between 90 000 and 105 000 ounces, subject to successful commissioning and start up. Life-of-mine cash costs\*\* are planned to be in the region of US\$350/oz, net of silver credits. However, this is not expected to be achieved in the commissioning year as costs then will be higher, given the ramp-up in production which is currently under way as well as limited silver production in year one. Attributable capital\*\* for project completion, development and sustaining capital is A\$60 million (US\$48.6 million) in FY10.

\* Please refer to the forward-looking statement on the inside front cover of this report.

\*\* June 2009 money terms. The exchange rate as at 30 June 2009 of A\$1.23/US\$ has been used for all forward-looking conversions.