Briefing Paper

Escondida Phase IV Expansion

November 2000

Overview

- BHP and its joint venture partners in the Escondida copper mine in northern Chile have committed to the Escondida Phase IV development project.
- Phase IV represents a major brownfield expansion of a core BHP asset and supports the Company's strategy to add material and high value growth to its Minerals business.
- The Phase IV expansion will increase ore processing capacity by 85 per cent resulting in an average increase in copper production of 400,000 tonnes per annum (average total production of 1.2 million tonnes per annum) over the first five years of full production. The development delivers significant incremental value and earnings to BHP from a project with low technical risk.
- Project economics are attractive, providing a robust internal rate of return, strong cashflow and earnings and significant NPV enhancement.
- Operating costs at the new concentrator will be lower compared to the existing processing plant, maintaining overall Escondida operational costs in the lowest quartile.
- The development has an estimated capital cost of US$1,045 million. BHP's share is US$600 million. Extensive engineering work and cost estimation studies are largely complete. A significant portion of the project expenditure will be debt funded by the Escondida Joint Venture, without owner guarantees.
- Escondida Phase IV represents not only an important incremental value stage for the Escondida copper ore deposit but also forms a basis for delivering additional value through further potential developments of the Escondida Norte deposit and additional leach projects.
- BHP is the operator and has a 57.5% interest in the mine. Other joint venture participants are Rio Tinto (30 per cent) Japan Escondida Corporation (owned beneficially by Mitsubishi Corporation, Mitsubishi Materials Corporation and Nippon Mining and Metals Company Limited) (10 per cent) and the International Finance Corporation (2.5 per cent).

Strategic Context

Phase IV represents a major brownfield expansion of a core BHP asset and supports the BHP strategy to add material value-creating growth to its Minerals business.

BHP's position in the copper industry is advantaged by the quality and size of its assets. The Company's growth strategy for copper is focused on the development of low cost assets. Escondida provides an ideal opportunity to achieve such growth.

A key component of the BHP Copper strategy is to increase production by 50% in the next five years and to do so in a manner where incremental production is achieved in a capital efficient and value accretive basis. Further development of the Escondida mine will play a large part in achieving this goal.

Phase IV approval also represents an integral component of a broader mine optimisation program at Escondida, enabling the future extraction and conversion of the large resource base at this world class copper deposit. There are currently several further development opportunities under consideration.

Background

Escondida is the world's largest copper mine, with production representing over 9% of the world copper market. The operation produces copper contained in concentrate and cathode. Total production for the twelve months ended June 2000 was approximately 920, 000 tonnes. The mine is located 160 kilometers south-east of the northern Chilean port town of Antofagasta.

Remaining sulphide ore reserves (proven and probable) are estimated at nearly 2 billion tonnes. BHP's share of recoverable contained copper is estimated to be 19.5 million tonnes.

Escondida Ore Reserves

	At June 2000						BHP Share Recoverable Metal (Kt Cu)
	Proved		Probable		Total		
	Tonnes (millions)	Grade %Cu	Tonnes (millions)	Grade %Cu	Tonnes (millions)	Grade %Cu	
Sulphides	1051	1.32	852	1.06	1903	1.20	19456

Mine and mill facilities currently support 127,500 tonnes per day of sulphide ore. Concentrate is transported through a slurry pipeline to filtration and port facilities located at Coloso, south of Antofagasta, for shipment to Chilean and global customers.

Oxide ore is mined to feed the 140,000 tonne per annum oxide leach plant, commissioned in December 1998. The plant produces copper cathodes which are transported via railway to the port of Antofagasta.

Production commenced at Escondida in late 1990. Escondida's huge resource base and high mineral grade have facilitated an aggressive expansion program over the past 10 years.

Date	Development	Mill Capacity ('000 tonnes/day)
October 1990	Concentrator start-up	35
July 1993	Phase 1 Mine & Mill Expansion	45
August 1994	Phase 2 expansion & construction of Coloso cathode plant	55
June 1996	Phase 3 Expansion	105
May 1998	Closure of Coloso cathode plant	105
December 1998	Phase 3.5 Concentrator Expansion	127.5
		Cathodes (tonnes/year)
December 1998	Oxide Leach Project	125*

*Optimisation to 140

Ore mineral grade has averaged approximately 2.7% copper since start-up through fiscal 1997. Head-grade is now declining and it is estimated that it will be around 1.5% by 2003. Concentrate production declined in 1999, however output from the Oxide Leach project maintained total copper production levels and resulted in an increase in overall production in fiscal 2000.

Without further expansion ore grade decline will reduce copper output, resulting in reduced market share and increased operating costs per pound of copper produced.

Key Financial Information

The Escondida operation made the following contribution to BHP in fiscal year 2000.

13 months to June 2000 - BHP Share	$US Million
EBITDA	474
Net PP&E	1,160
Total Assets	1,694
Return on Capital	18%

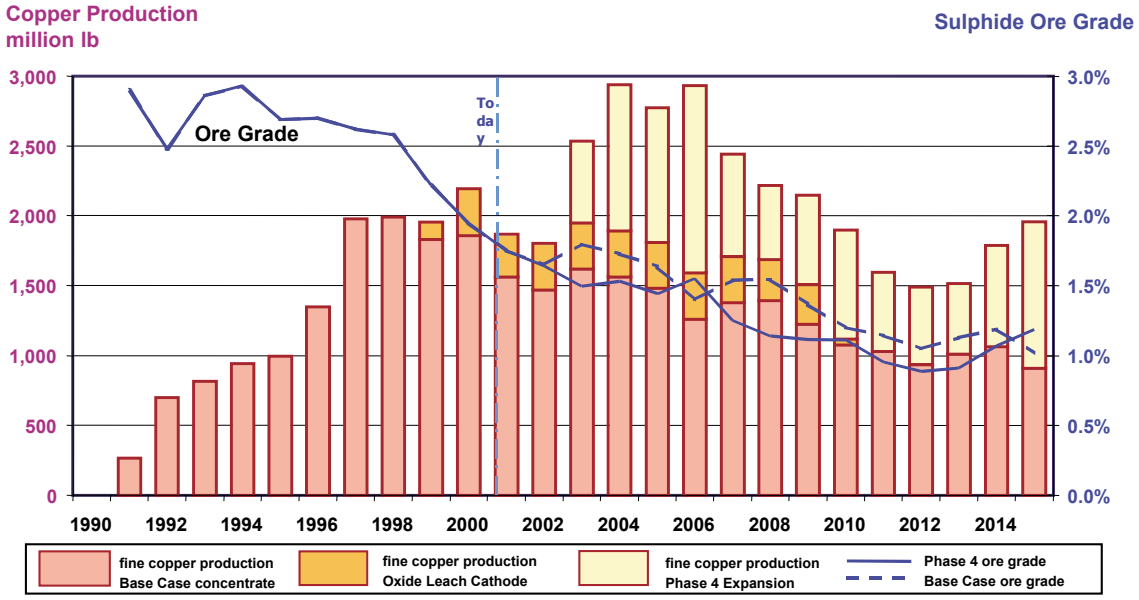
Development Overview

Phase IV is a 110,000 tonne per day new concentrator, increasing total milling capacity to 237,500 tonnes per day and substantially increasing copper output.

Construction will commence immediately, with first production from the new concentrator scheduled for September 2002 and full production in April 2003.

Total Escondida concentrate production will significantly increase with a peak production of 2.6 billion pounds of copper in concentrate reached in 2004 and 2006. These production rates can be extended through the development of the Norte ore body. Studies for the future development of Norte are now in pre-feasibility stage.

Production History & Forecast



The Phase IV development has an estimated capital cost of US$1,045 million (BHP Share US$600 million). Extensive engineering work and cost estimation studies are 97 per cent complete.

Benchmark studies show that the Escondida Phase IV project represents a highly efficient deployment of capital relative to similar scale copper developments.

The new concentrator has been designed incorporating latest proven technology and experience gained operating the existing plant.

Ore will be processed at a significantly lower cost than the existing concentrator. The cost per tonne of ore processed is forecast to be US$3.18 in fiscal 2004 compared to US$3.37 budgeted for the existing plant in FY01. The savings are a result of larger equipment requiring fewer employees and an improved design allowing easier maintenance and increased productivity. The Escondida mine will be positioned to remain in the lowest cost quartile despite the decline in ore grade processed. Current cash production costs are approximately $US0.43/pound. With Phase IV it is expected that cash costs will be maintained at approximately this level for several years. Productivity in the new concentrator will be over 60 tonnes per man hour, in the upper quartile of copper concentrators.

The project is economically attractive, providing a robust internal rate of return, strong cashflow and earnings and a significant NPV enhancement.

The review of the project's economics has been subject to rigorous economic analysis and risk evaluation, with the project robust to all reasonably expected copper price scenarios.

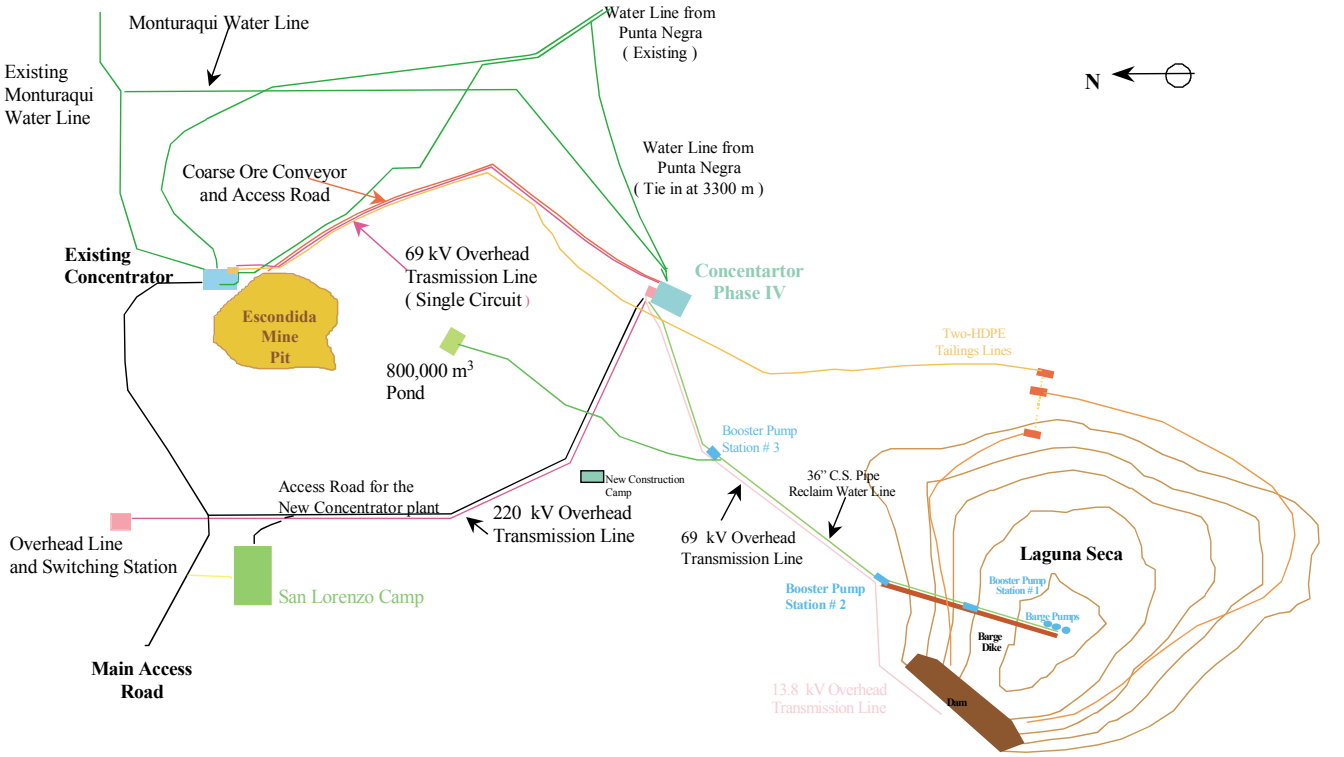
Key Project Elements

The Phase IV expansion involves construction of a new concentrator and associated support facilities. Some of the facilities and equipment will be integrated with the existing operations.

The major capital components of the project are:

- A new sulphide ore concentrator with a nominal capacity of 110,000 tonnes/day (located south of the mine)
- An in-pit ore crusher and a conveyer system to the new concentrator.
- Expanded mining fleet to increase waste stripping and ore feed to the new plant.
- A new slurry pipeline from the Phase IV concentrator to the existing plant and refurbishment of the existing slurry pipeline to Coloso.
- Tailings disposal and water reclaim facility.
- Modification to the port facilities at Coloso including additional filter capacity.

Facilities Location



Financing

A significant portion of the project expenditure will be debt funded by the Escondida Joint Venture without the need for any owner guarantees.

Marketing

Escondida has established itself as a reliable supplier of high grade, high quality concentrate. Escondida's sales program has contracts in place for the sale of current production capacity through to the end of 2002. Over 30 contracts are in place with smelter customers worldwide. The destination of these sales is global with leading markets in Japan (31%), Europe (15%) and Chile (9%).

The refined copper market is forecast to grow at about 3.5% per year over the next five years whilst the concentrate market is forecast to remain in deficit in the lead-up to the Phase IV expansion start-up. Phase IV will represent about one year's worth of world growth in refined demand.

Firm interest for greater than this amount has already been received from existing and potential new customers and in fact firm sales contracts (subject to formal approval of the project by the Owners) have already been finalised for approximately 60% of the incremental output. The remaining sales task will be progressed upon the formal approval of the project. Escondida will be responsible for approximately 30% of the international custom concentrate market as a result of the expansion in sales associated with Phase IV.

The outlook for refined metal prices for the period immediately following the start-up of Phase IV looks to be buoyant with many analysts predicting that copper prices will firm substantially in the 2002 – 2004 period. There are very few other copper projects that will be able to compete with Phase IV for market share within this timeframe given the lead times associated with regulatory approvals and financing arrangements etc.

Project Execution Issues

Water Supply

One of the key issues going into the Phase IV development was securing the water supply to meet Escondida's 1900 litre per second requirement post Phase IV. Use of ground water is the principal environmental and political issue at Escondida and other mining operations in Northern Chile. Two complete environmental impact assessments and one environmental impact statement have been developed, and vetted through the Chilean environmental approval process, for the Phase IV project and the related water supply. Careful consideration has been placed on monitoring and understanding the ground water sources through which Escondida accesses its water. A stable water supply has been secured via granting of additional water rights from the Chilean Water Board and the purchase of water rights from the neighbouring Zaldivar mine.

Project Delivery

Steps taken to mitigate execution risk include:

- Completion of detailed engineering and cost estimation work ensuring low capital risk.
- Use of proven technology
- Project Management: Escondida has enhanced its project management team and completed detailed plans and processes around project commissioning.
- BHP Experience. The design of the new plant has benefited from knowledge gained in the current Escondida concentrator and has allowed for key modifications .

Future Growth Opportunities

The Phase IV development is part of a broader mine optimisation program designed to maximise the value extracted from the mineral resources on the Escondida mining lease. The joint venture currently has a number of relatively moderate capital/high return projects under consideration. These include:

Escondida Norte:

Development of a significant high grade resource, 5km north of the existing pit.

	At June 2000					
	Indicated		Inferred		Total	
	Tonnes (millions)	Grade %Cu	Tonnes (millions)	Grade %Cu	Tonnes (millions)	Grade %Cu
Sulphides	676	1.03	796	0.76	1473	0.88
Oxides*	12	0.76	131	0.73	144	0.73

* Oxide grades are soluble copper

The development concept of Escondida Norte involves mining, crushing, and conveying of the highest grade ore to one of the two sulphide concentrators and bioleaching of the lower grade material. This project is in the prefeasibility stage that will consider a range of ore extraction rate scenarios. With Escondida Norte complementing the main Escondida mine, the net present value of ore can be optimised by having integrated mine plans and variable cut-off rates.

Sulphide Leach Project:

The potential for economic sulphide bio-leaching is significantly enhanced with the development of Phase IV and the Norte project. A leach pilot plant is currently in operation and commercial –scale demonstration heaps are planned in the near future. The technical program is aimed at evaluating the potential to produce 100-150,000 tonnes per annum of copper cathode at a low cost of production.

Brownfield exploration:

A brownfields exploration program is in progress to systematically evaluate the copper and other mineral potential of the joint venture concession areas, considered to be highly prospective and under-explored. The focus of the program will be on the location of high-grade, near-surface copper oxide bodies and high-grade copper-sulphides in porphyry systems.

Prepared by BHP Investor Relations

For clarification contact:

Investor Relations

Dr Robert Porter (Melbourne)
Vice President Investor Relations
Ph: (61 3) 9609 3540 Fax: (61 3) 9609 3006
Email: Porter.Robert.R@bhp.com.au

The information in this report relating to Mineral Resources and Ore Reserves is based on information compiled by competent persons Mr. Sean Brennan (Escondida) and and Dr. Jonathan Gilligan (Escondida Norte) who are members of the Australasian Institute of Mining and Metallurgy or the Australasian Institute of Geoscientists. All competent persons are full time employees of BHP or related entities, and have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as a competent person as defined in the JORC Code. Each competent person consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

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BHP Investor Relations
L48 600 Bourke Street
Melbourne 3000
Victoria, Australia.