



# EXCEEDING EXPECTATIONS AT THE BARRUECOPARDO TUNGSTEN PROJECT, SPAIN

AIM: ORM  
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# ORMONDE MINING: KEY STRENGTHS

## → EXPERIENCE

A skilled mining, geological and engineering team is on hand to manage mine development activities, bringing Barruecopardo to the production stage during 2011

## → STRATEGIC METAL

Tungsten, used in strategic alloys, is positioned in a tightening supply and demand profile, offering significant upside price potential

## → SIZE

Barruecopardo could become Europe's largest tungsten mine and would enter the market at a time when the global economic recovery should be advancing and when a number of other tungsten mines are coming to the end of their life. The reappearance of the underlying tungsten supply shortage opens up potential for favourable off-take agreements. The Barruecopardo resource is readily recoverable using tried-and-tested mining and mineral processing methods

## → UNDERVALUED

Ormonde's current share price does not reflect the value of the near-term production earnings on offer at Barruecopardo

## → ENVIRONMENT

Barruecopardo is located in a former mining area and no adverse environmental impact issues are envisaged

## → ADDITIONAL ASSETS

Copper, gold and zinc resources at the La Zarza property add to Ormonde's portfolio and earning potential. Ormonde's portfolio also includes several early-stage gold exploration prospects, offering further upside potential

## → FINANCE

Ormonde has the funds to further advance the Barruecopardo Project and initiate the permitting submissions and is in discussion with tungsten industry partners to secure funding for the feasibility study and mine development; Spanish Government grants are available to support CAPEX; relevant project finance will be required to move into the mine development stage

## → OPPORTUNITIES

Now is the time for end-users or refiners to enter into a strategic off-take partnership, whether as a stand-alone project investment or by taking a stake in the plc

## DIVERSE PORTFOLIO

Ormonde Mining's second major project is a copper, gold and zinc deposit located within the Iberian Pyrite Belt mining district at La Zarza in Southwest Spain.

Aker Kvaerner Engineering Services Ltd (now Aker Solutions) completed a feasibility study on this project in January 2008, based on an underground project mining 600,000 tonnes per year; this study showed a high fixed capital cost component.

Ormonde recently signed an agreement with Antofagasta Minerals S.A., which will extend previous exploration to cover the entire extent of the three-kilometre long La Zarza massive sulphide deposit to investigate the possibility of significantly increasing the copper resource and evaluating a larger, lower-grade copper-only project. Antofagasta has the right to earn up to a 75% interest in La Zarza by spending US\$7 million on these expanded exploration programmes and thereafter funding a feasibility study on a mining project that meets its investment criteria.

Ormonde also has a 90% interest in several gold exploration prospects in the permit area surrounding Barruecopardo and a 100% interest in two gold permits in Zamora Province, covering around 37 square kilometres. Ormonde considers the Salamanca-Zamora area to be one of the most prospective gold terrains in Spain.

# ORMONDE MINING: THE TEAM FOR TUNGSTEN

ORMONDE MINING – AN AIM-LISTED TEAM OF EXPERIENCED MINING AND GEOLOGICAL PROFESSIONALS – IS AN ACTIVE, TECHNICALLY DRIVEN MINING COMPANY WITH A PARTICULAR FOCUS ON TUNGSTEN, COPPER AND GOLD IN SPAIN.

Using the in-depth exploration, project evaluation, operational and development expertise at its disposal to identify and develop mineral assets, Ormonde has acquired two significant mining ventures in Spain: a 90% holding in the Barruecopardo Tungsten Project and full ownership of the La Zarza Copper-Gold-Zinc Project. The objective is to move Barruecopardo to production in the near term and to explore potential for a significantly larger copper resource at the La Zarza Project through a joint venture with Antofagasta Minerals S.A.

Tungsten is a key component in a range of industrial products, such as metal and rock cutting tools, electronic components and specialist steels. Consumption of tungsten has risen steadily over the past decade, nowhere more so than in China, where usage has risen by as much as 9% annually. The tungsten price (APT) has increased almost threefold since 2004.

Located in the Salamanca Province of Western Spain, Barruecopardo is set to become one of Europe's most productive tungsten mines. Although previous owners worked the deposit to shallow depths of around 80 metres until the early 1980s, producing a clean, high-grade tungsten concentrate, contained resources remain high (around five million tonnes at normal industry cut-off grades) and this resource is open, laterally and at depth, indicating that this is likely to be a long-life mine.

Utilising conventional, cost-efficient mineral processing and mining methods

to achieve high recoveries, Barruecopardo is set to be Ormonde's first producing mine and will play a significant role in the supply of high-quality tungsten to European and world markets at an opportune time, due to tightening global supply.

Since activities began at Barruecopardo, Ormonde has built strong local stakeholder support. Spain operates a transparent fiscal environment, supports mining and has a good infrastructure and a skilled workforce. The next phase will be final project evaluation, including detailed drilling of the initial area of mine production, the relevant permit and development documentation, a definitive feasibility study and an environmental impact assessment, based upon an expected mining production rate of 400,000 tonnes per year.





# FACT FILE: BARRUECOPARDO

## → LOCATION

70 kilometres west of the city of Salamanca in the Castilla y León Region of Spain, 350 kilometres west-northwest of Madrid; close to European markets, offering good infrastructure and lower cost logistics

## → TENURE

Ormonde, through its Spanish subsidiary Saloro S.L., holds a 90% interest in Barruecopardo and a surrounding investigation permit area totalling 312 square kilometres; investigation permits are issued for an initial period of three years and are renewable for further periods of three years upon the submission of appropriate work programmes to the regional authority

## → MINING & PROCESSING

Proposed open-pit and mechanised underground mining: low-cost open-pit mining during the first phase (Years 1-6); underground mining using conventional mechanised bulk, open-stopping mining methods will commence in Year 5. As the mineralisation is very coarse, it is amenable to low-cost gravity concentration of the tungsten minerals by jigs and spirals, followed by a clean-up of all gravity concentrates. The

initial mine production rate will be around 400,000 tonnes per year, with forecast operating costs in the lower end of western world costs. Capital costs will be low at around €20 million, due to the relatively simple nature of the processing plant and the presence of good existing infrastructure

## → STATUS

The last JORC standard resource estimate was 5.2 million tonnes at 0.48% WO<sub>3</sub> (tungsten trioxide) in the Inferred Mineral Resource category. Later infill drilling has confirmed the widths and grades of tungsten mineralisation in the main part of the deposit upon which the resource estimate is based. Metallurgical testwork has confirmed that 80% of the contained tungsten can be recovered to a scheelite concentrate at the industry standard grade of 65% WO<sub>3</sub>, using low-cost gravity processing

## → FINANCE

Ormonde Mining is in a position to advance the technical studies and initial project permitting, but may require further funds to complete the final infill drilling, feasibility and environmental studies. The objective is to have the project in a position for development by late 2010-2011

## TALKING TUNGSTEN

With the highest melting point of any metal and one of the highest densities, tungsten is almost as hard as diamond. These properties, coupled with its high electrical conductivity and excellent corrosion resistance, make tungsten the ideal material for a range of specialised industrial uses.

Initially, tungsten was used as an additive in the steel production process. Today, it has become a strategic component, being a vital ingredient in products as diverse as jet turbine engines, high-speed drills, catalytic converters, fuel cells, armaments, surgical instruments, super-alloys and scintillation detectors (nuclear physics/nuclear medicine).

Growth markets for tungsten are still being identified. Researchers at the Massachusetts Institute of Technology are developing a nickel-tungsten alloy that could replace chromium plating. Trials reveal that nickel-tungsten alloys remain stable at room temperature and are highly resistant to decomposition when heated. They can also be harder and longer lasting than chrome, whilst offering a reduced environmental impact during the application process.

Other applications include electronics. Nickel-tungsten alloys can be used to replace gold-nickel plated jack ports, for example, offering such benefits as increased endurance and lower production costs. Tungsten is a strategic metal for the future.

# TUNGSTEN: MARKET OUTLOOK

AS A RESULT OF RISING TUNGSTEN PRICES AND DECLINING INVENTORIES, ORMONDE MINING IS WELL PLACED TO BENEFIT FROM THE SUPPLY GAP THAT IS EXPECTED TO WIDEN IN THE NEXT DECADE.

Tungsten prices are quoted through an intermediate refined product, Ammonium Paratungstate (APT), in 10-kilogram units of contained tungsten trioxide ( $WO_3$ ). The tungsten price has increased significantly since 2004; as the global economic recovery begins, demand increases, inventories decline and restocking commences, further price rises can be expected.

Consumption of tungsten has grown on average by 2% year-on-year in western markets over the last decade and by as much as 9% annually in China. This rise in consumption has come at a time when a number of major mines are coming towards the end of their productive lives.

Increasing supply restrictions from China – which controls 75% of world tungsten supplies – should accentuate the positive future price trend, by tightening supply to the international market. It is expected that Chinese domestic consumption of primary tungsten will grow by almost 8% per year between 2008 and 2013. To ensure security of supply, the development of new tungsten mines, especially in Europe, is becoming more vital.

The evidence suggests that a time lag is building between tungsten supply coming to the market and the return to increased demand. Not only are several mines coming to the end of their lives, but aspects of capital funding and marketing contracts may hinder a number of very high capital cost tungsten mine development

proposals. As a result, few new projects are coming on stream. Capital development costs at Barruecopardo are much lower than at most of the other hopeful tungsten producers, making Ormonde well placed to benefit from this emerging supply gap.

## OFF-TAKE AGREEMENTS

Off-take agreements provide an indication of the position users of tungsten are taking to secure supply. Over the last two years, there has been several off-take agreements between tungsten miners and end-users or refiners. Australian miner Heemskirk entered into an off-take agreement with Osram Sylvania in 2007, to purchase 100% of tungsten concentrate produced at its Los Santos Mine, Spain. Thor Mining plc signed an off-take agreement with CITIC Australia Commodity Trading to take 100% of tungsten and molybdenum from its Molyhil Tungsten-Molybdenum Mine in Australia.

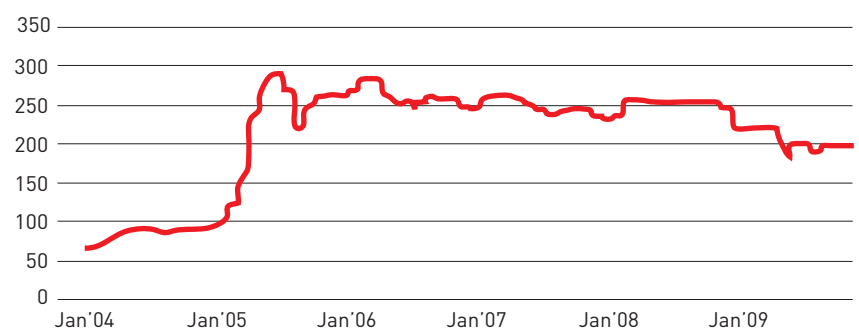
In February 2009, Sandvik announced an agreement to purchase Wolfram Bergbau- und Hutten GmbH (WBH), an Austrian producer and supplier with a refining plant for producing tungsten carbide. In March 2009, Canadian miner Malaga announced that it would sell tungsten concentrates from its Pasto Bueno Mine in Peru to Global Tungsten & Powders (formerly Osram) in line with a supply agreement that will continue until February 2014.

These are just a few examples of what has become a significant trend for off-take agreements, as end-users and refiners seek to guarantee supply.

Ormonde Mining represents an excellent off-take opportunity. Strategically located for the European markets, Barruecopardo is set to become a low-cost, dependable producer of significant volumes of high-quality, low-cost tungsten in the near term.

## TUNGSTEN PRICE (APT) 2004-2009

(US\$ per MTU)





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