Oyu Tolgoi is a copper-gold mine in the South Gobi region of Mongolia, approximately 550 kilometres south of the capital city Ulaanbaatar and 80 kilometres north of Mongolia’s border with China. Oyu Tolgoi LLC is the strategic partnership between the Government of Mongolia (34% through Erdenes Oyu Tolgoi LLC) and Turquoise Hill Resources (66%). Turquoise Hill Resources is majority owned by Rio Tinto (51%). Rio Tinto has been providing management services to Oyu Tolgoi since 2010.

Oyu Tolgoi was discovered in 2001 and consists of four deposits containing copper, gold, silver and molybdenum. Oyut – current open pit, Hugo Dummet (Hugo North and Hugo South) and Heruga.

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RESERVES

The Oyu Tolgoi deposits stretch over 12km, from the Hugo North Deposit in the north through the adjacent Hugo South deposit, down to the Oyt deposit and extending to the Heruga in the south. Collectively the deposits contain an estimated measured and indicated mineral resource of Contained Copper of 46.8 bn pounds and contained gold of 25.3 mln ounces. Estimated inferred mineral resource are 51.5 bn pounds of contained copper and 36 mln ounces of contained gold.
MINING ACTIVITIES

Open Pit Operations

Oyu Tolgoi commenced production in 2013 operating open pit with a concentrator and support infrastructure to process around 100,000 tonnes of ore per day.

Ore processing through the existing concentrator comprise conventional crushing, grinding, and flotation circuits. The final concentrate product is trucked to smelters and traders in China through Gashuun-Sukhait border point at the Mongolia-China border.

Oyu Tolgoi is a conventional shovel-truck operation which involves a four-step process: blasting, excavation, removal and initial primary crushing. The company’s workforce carries out drilling, loading, hauling, and associated support roles. The operation makes use of a mixed fleet of 34m³ diesel hydraulic shovel and 56m³ electric rope shovels working in tandem with 290t haul trucks. Equipment maintenance is conducted under service agreements with selected original equipment manufacturers in-country dealers. A blasting contractor provides blasting products and down-the-hole services.

The open pit is mined using a combination of excavator dump trucks and shovel dump trucks. Ore is removed from a series of benches which are linked to the top of the pit by a 40 metre wide trench road. Each truck transports around 290 tonnes of excavated soil and ore to the top of the pit where it is stockpiled or sent to the primary crusher. Hydraulic and cable operated electric excavators (Bucyrus RH 340B and 495HR shovels) are used alongside Komatsu 930E-4SE dump trucks. A total of 28 dump trucks have been used on site since August 2012.

Underground Operations

In parallel to surface works, underground infrastructure and mine development is ongoing for Hugo North. Up to 80 per cent of Oyu Tolgoi deposits lie deep underground in the Hugo North, Hugo South, and Heruga deposits. Underground mining is planned utilising block cave method starting with Hugo North where two mining lifts are planned. The first three panels of Hugo North lift 1 contains the highest grade copper and gold with the highest value, reserves total 499Mt at a grade of 1.66%Cu and 0.35g/t Au.

Concentrator

The Oyu Tolgoi concentrator is the biggest industrial unit ever built in Mongolia and employs a conventional SAG mill (ball mill) grinding circuit (SABC) followed by flotation.

The concentrator covers an area 255 metres long and 144 metres wide. It was commissioned on 27 December 2012, produced its first copper concentrate on 1 February 2013, and commenced shipments to customers on 9 July 2013.

DEVELOPMENT PROJECTS

Oyu Tolgoi is a remote brownfields project with large infrastructure facilities and construction works completed during Phase 1. This included water bore field, water treatment, housing, airstrip, supporting facilities and power.

The main facilities for Phase 2 is associated with the underground mine: power supply and distribution system, some internal access roads, concentrate logistics facilities, camp accommodation, water distribution, ICT, surface warehouse for UG, central heating and the waste and recycling facilities.
The Underground construction project (Phase 2) officially commenced in May 2016, overall construction reached 54% of progress as of May 2019. The total forecast capital spend for the UG project is US$5.3 bn. The project involves sinking a total of 6.1 kms across five shafts and mining 203 kms of tunnel at a depth of 1.3 kms underground. Construction of associated crushing and materials handling infrastructure and surface facilities include:

- 3 maintenance shops
- 2 drilling machine shops
- 2 fuel stations
- 1 explosives storage
- 2 crushers
- 1 shotcrete station
- 10 km of conveyors

**Power Plant**

Oyu Tolgoi currently imports power from China. Within the Power Source Framework Agreement signed on 31 December 2018 between the Government of Mongolia and Oyu Tolgoi LLC, the company is to construct the Tavan Tolgoi Power Project. This will secure a long-term power supply for Oyu Tolgoi and the demand in the South Gobi region.

The parties agreed to build 300 megawatt coal-fired power plant which will be located close to the Tavan Tolgoi coalfields in the South Gobi region. The plant will be majority owned by the Oyu Tolgoi LLC. Renewable sources will also be considered as part of the overall energy solution for the mine.

**PROCUREMENT OPPORTUNITIES**

Oyu Tolgoi has identified a need for Australian METS companies in areas of niche and high technology equipment, machinery and solutions. This is supported through the signing in 2016 of a critical project package contract with Worley Parsons, a provider of technical, professional and construction services, to provide engineering, procurement and construction management (EPCM) services for the underground operations.


Online Supplier registration – Businesses seeking to do business with Oyu Tolgoi must register online [http://ot.mn/procurement/how-to-engage-with-ot/](http://ot.mn/procurement/how-to-engage-with-ot/)

**Local Content**

Oyu Tolgoi’s strategic procurement direction is seeking to increase local content in life of mine consumables through the Made in Mongolia initiative. Establishing a local presence through collaboration with established Mongolian companies or engaging dedicated representation directly will be important in supporting Oyu Tolgoi’s local content agenda.

Oyu Tolgoi’s supplier policy sets out five categories to specifically and purposefully enable local content optimisation this included an International Strategic Supplier Collaboration policy. In summary:

- Encourage commitment from foreign suppliers to support optimization of Mongolian content through training, technical skills transfer, apprentice ships, scholarships, Mongolian employment, local subcontracting and mentoring programs
AUSTRADE

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- win productive foreign direct investment
- promote international education
- strengthen Australia’s tourism industry
- seek consular and passport services.

Austrade provides information and advice that can help Australian companies reduce the time, cost and risk of exporting. We also provide a range of services to Australian exporters looking to expand their business in growth and emerging markets, including:

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- help with overseas market selection
- identification of relevant overseas contacts
- assistance with market entry and expansion
- identification and follow-up of specific international business opportunities.

We also administer the Export Market Development Grants scheme – the Australian Government’s financial assistance program for aspiring and current exporters.

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