



Cassini Resources (ASX: CZI)

## Cassini and OZ Kick Off West Musgrave Project JV

Having finalised a Joint Venture to develop the West Musgrave project (WMP), Cassini Resources (ASX: CZI) and OZ Minerals (ASX: OZL) were quick out of the blocks to get drilling.

CASSINI RESOURCES ACQUIRED THE WMP in 2014, and has since progressed the company's geological and technical understanding of the project.

Cassini completed a positive Scoping Study in April 2015, which was further optimised in April 2016, with results demonstrating the WMP's strong potential to become a low cost (first quartile) nickel-copper operation with an initial mine life of over 15 years.

The results attracted the attention of OZ Minerals, which was announced as a Joint Venture partner in August, to earn up to a 70 per cent interest in WMP by sole funding a minimum of \$36 million on development and exploration, including completion of a Definitive Feasibility Study (DFS).

Cassini will remain as operator of the project until the DFS stage.

The agreement includes funding for continued studies on the Nebo-Babel deposit to progress to a 'Decision to Mine', as well as a regional exploration spend of up to \$8 million to assist in identifying additional value adding opportunities.

The Joint Venture grants OZ Minerals the right to farm-in to the WMP via a three stage process.

First up, Oz Minerals is sole funding an initial minimum spend of \$3 million within a maximum 12 month period to further progress scoping studies on the WMP, as well as providing two full-time technical employees to work under the instruction of Cassini while the commitments of this stage are met.

Stage 1 of the farm-in agreement then kicks in, under which OZ Minerals may earn a 51 per cent interest in the WMP by sole funding



an additional \$15 million within an 18 month period towards completion of a Pre-Feasibility Study (PFS) and (DFS) in addition to sole funding at least \$4 million within the same 18 month period on regional exploration.

Once this has been achieved the deal moves into the Stage 2 farm-in, at which time a Joint Venture will be formed between Cassini and OZ Minerals, allowing the latter to earn an additional 19 per cent interest.

The 70 per cent prize will belong to Oz Minerals after sole funding of a further \$10 million within a 12 month period towards completion of a DFS, plus sole funding at least another \$4 million within the same 12 month period on regional exploration.

Should OZ Minerals attain 70 per cent JV interest, Cassini will have the right to maintain its 30 per cent

interest by contributing to ongoing expenditure on a pro-rata basis or dilute under standard industry terms.

"To attract a Joint Venture partner of the calibre of OZ Minerals is a clear endorsement of the potential of the West Musgrave project," Cassini Resources managing director Richard Bevan told *The Resources Roadhouse*.

"A deal such as this is of great importance to a company like Cassini, as it provides funding of exploration and development activities.

"It also provides access to the significant technical capabilities of OZ Minerals, a company with considerable base metal project development expertise.

"It allows us immediate access to a substantial level of funding to progress the project, which will give us a clear line of sight on a decision to mine and subsequently, potential cash flow for the company."

Cassini has identified Babylon as having the potential to host massive sulphides and in particular, nickel sulphides, beneath the existing copper-dominant resource.

The Babylon drill hole will target a wide intersection of the interpreted sub-vertical mineralised zone for a further 260 metres to 350 metres below the current maximum depth of downhole electromagnetic investigation.

It will drill to 230m to 590m vertically below mineralisation intersected by previous hole WMN4023 (1.96 per cent nickel, 0.13 per cent copper, 1.2g/t Pt+Pd).

The work already completed by Cassini on Babylon has demonstrated this mineralisation to occur as massive sulphide xenoliths that have been remobilised in a late-stage dolerite dyke.



The company has interpreted this to imply the presence of nickel-rich massive sulphides at depth.

Further drilling has been scheduled for the One Tree Hill prospect, located about 13 kilometres southwest of the Babel deposit.

One Tree Hill emerged as a target from work carried out by Cassini in 2015, which involved the remodelling of down-hole electromagnetic (DHEM) data from historical drilling.

As a result the, previously poorly defined EM conductor was drill tested by hole CZD0008, which intersected two chalcopyrite-rich veins that returned:

- 0.3 metres at 10.1 per cent copper from 193.8m; and
- 0.4m at 4.48 per cent copper from 250.9m.

Subsequent DHEM confirmed that CZD0008 failed to intersect the original target but there was an off-hole conductor, 30m by 30m at 350m with an extremely high modelled conductance suggesting the existence of pyrrhotite-rich massive sulphide mineralisation.

This conductor is to be the subject of the upcoming drilling.

Cassini will also be concentrating much time and effort into the company's flagship Nebo-Babel project.

Nebo-Babel currently hosts a JORC 2012 compliant Resource of

203 million tonnes at 0.41 per cent nickel and 0.42 per cent copper for 830,000 tonnes of contained nickel and 860,000 tonnes of contained copper.

There are areas of the existing Nebo-Babel resource that remain open, including zones of higher grade massive sulphide. Cassini is targeting a number of these zones in its resource extension drilling program, especially those which are likely to be used early in the mining schedule. The Company is confident that there are opportunities to increase the size of the existing resource, especially the high-grade domains within the deposits.

This confidence is demonstrated by massive sulphide zones at Nebo, extensions to the Startmeup Shoot at Babel and definition of the rollover zone at Babel, which has produced a hit of:

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18m at 1.5 per cent nickel and 1.52 per cent copper.

"All of these targets have significant potential to impact project economics if further high-grade mineralisation can be found," Bevan said.

"Once we have a better understanding of the possible extensions of the high-grade domains we will be better equipped to determine a number of Project parameters, such as processing throughput that will be required during the PFS.

The Nebo-Babel RC program will comprise approximately 2,000 metres of drilling and is anticipated to commence at the start of the 2017 field season.

Cassini will also follow up on metallurgical results from the 2015 Scoping Study that used a split flotation flowsheet to produce separate nickel and copper concentrates on five composite samples, each from different higher-grade Nebo-Babel ores.

The Further Scoping Studies (FSS), will target geological units (domains) containing the bulk of the metal tonnes and domains critical to early stages of the mine schedule.

Objectives of the FSS include:

- Improving scoping study nickel and copper concentrate grades and recoveries; and
- Testing samples at appropriate nickel and copper grades likely to be mined in a 4mtp-plus size operation;

Approximately twenty whole ore and composite samples will satisfy the purposes of FSS, to be taken from existing core samples as well as drilling of approximately four new PQ diamond holes.

Cassini considers the construction of a new geometallurgical domain model a critical step in this phase of testwork. 🏠

## **The Short Story**

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