

# **West Musgrave Work Program Commences**

#### **HIGHLIGHTS**

 Initial OZ Minerals funded work program commenced with aim of building on previous study work to maximise project value

# **Work Program includes:**

- Exploration drilling targeting Succoth and One Tree Hill Prospects
- Metallurgical program to optimise Ni and Cu recoveries and progress geometallurgical model
- Resource Definition drilling of high-grade zones at Nebo-Babel
- Further studies on infrastructure, energy alternatives and mine planning
- Initial Drill program to start in early November

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") advises that it has commenced work programs with OZ Minerals Limited (ASX:OZL) ("OZ Minerals"), on the West Musgrave Project JV ("WMP" or the "Project"), located in Western Australia.

The initial earn-in will see OZ Minerals commit up to \$3m on further scoping studies as well as test a number of regional exploration targets over a 12 month period. Field work, including drilling, is on track to commence in the first week of November.

#### **Exploration**

#### **Succoth Cu Deposit**

Cassini has won WA Government EIS funding to drill a diamond hole at the Babylon Prospect, which is part of the broader Succoth Deposit (156mt @ 0.6% Cu). The award is under the co-funded drilling scheme and will refund 50% of the direct drilling costs, worth up to \$148,500.

Babylon has the potential to host massive sulphides and in particular, Ni sulphides. The drill hole will target a wide intersection of the interpreted sub-vertical mineralized zone for a further 260m-350m below the current maximum depth of downhole electromagnetic investigation, and 230m-590m vertically below the mineralisation intersected in hole WMN4023 (1.96% Ni, 0.13%Cu, 1.2g/t Pt+Pd), Figure 1. This mineralisation occurs as massive sulphide xenoliths that have been remobilized in a late-stage dolerite dyke (Figure 2). This observation implies the presence of Ni-rich massive sulphides at depth and given the much higher density of the massive sulphides compared to the mafic magma, thin doleritic intrusions would have not been able to carry those xenoliths for more than about 200 metres.

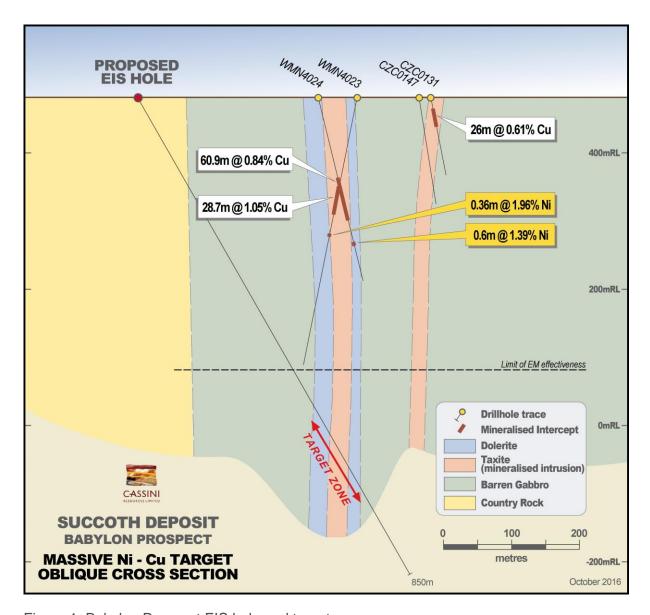


Figure 1. Babylon Prospect EIS hole and target zone.



Figure 2. WMN4023, 0.36m @ 1.96% Ni at 226m in late-stage dolerite dyke.

#### **One Tree Hill Prospect**

The One Tree Hill prospect is located about 13km SW of Babel and is associated with a major regional structural intersection. In 2015, Down-hole electromagnetic (DHEM) data from historical drilling was remodelled and a poorly defined EM conductor (below-hole from WMN4035) was drill tested by CZD0008. The hole intersected two chalcopyrite-rich veins that returned 0.3m @ 10.1% Cu from 193.8m and 0.4m @ 4.48% Cu from 250.9m. 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 of >100,000S suggesting pyrrhotite-rich massive sulphide mineralisation (Figure 2).

Significant zones of PGE anomalism (e.g. 35m @ 0.11g/t Pd+Pd and locally up to 0.81g/t) have been intersected in historical drilling and provides encouragement for orthomagmatic nickel-copper sulphide mineralisation, possibly with a later hydrothermal overprint.

A single hole will be drilled to test the off-hole conductor.

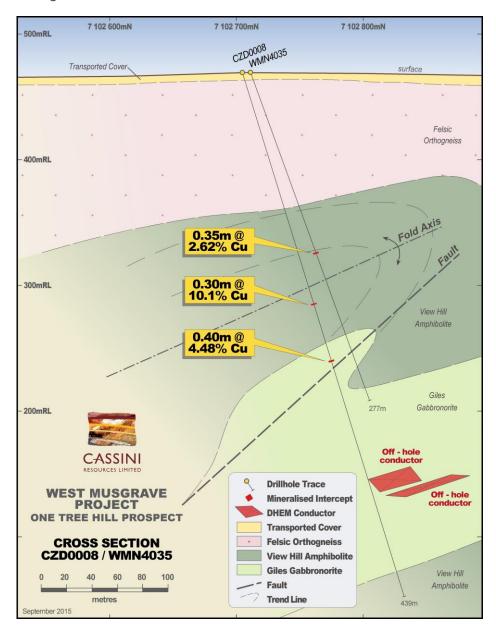


Figure 3. One Tree Hill section showing off-hole conductors from CZD0008.

#### **Development Studies**

## **Metallurgical Testwork Program**

Cassini's 2015 Scoping Study included the initial metallurgical testwork that was conducted on five composite samples, each representing different higher grade Nebo-Babel ores. Testwork that was carried out made use of a split flotation flowsheet to produce separate Ni and Cu concentrates.

This next stage, denoted Further Scoping Studies (FSS), will target the geological units (domains) which contain the bulk of the metal tonnes and those domains that are critical in the early stages of the mine schedule. Some of the key objectives are to:

- improve scoping study Ni and Cu concentrate grades and recoveries;
- test samples at the appropriate Ni and Cu grades that are likely to be mined in 4mtp + size operation; and
- test samples that cover significant variations in silicate and sulphide mineralogy; and test chemical variations within and between the existing geological ore domains (if these variations are considered significant).

Approximately twenty (20) whole ore and composite samples will be adequate for the purposes of FSS. These samples will be derived from existing core samples as well as drilling approximately 4 new PQ diamond holes for 700m. Drilling would follow the Succoth exploration hole. Construction of a new geometallurgical domain model is also a critical step in this phase of testwork.

### **Resource Definition Drilling**

A number of targets at Nebo-Babel represent an opportunity to increase the size of the existing high grade domains within the deposits, and thus increase the overall grade of the resources. Examples of these targets are: massive sulphide zones at Nebo, extensions to the Startmeup Shoot at Babel and definition of the roll-over zone at Babel (eg CZC0129 18m @ 1.50% Ni & 1.52% Cu). All of the these targets have significant potential to impact project economics if further high-grade mineralisation can be found.

A better understanding of these high grade domains, in terms of dip and strike extents, and variations in geometries and grade would also enable better planning of the infill drilling that will be required during the PFS for the purposes of ore reserves. Furthermore, additional drilling and a better understanding of the grade variations within these high grade zones may also reduce a number of metallurgical test samples that will be required to adequately sample variations within these zones during the PFS.

The RC program will comprise approximately 2,000m and will commence at the start of the 2017 field season.

#### **Energy, Infrastructure and Logistics Studies**

The FSS will continue to assess renewable energy opportunities considered during the recent Scoping Study which showed potential hybrid wind/diesel power savings in the order of 30% compared to conventional diesel power station options. The Company is evaluating the installation of a wind mast to capture baseline data over a 12 month period to be evaluated during the early stages of the PFS.

A logistics study will build on the Cassini Scoping Study and will evaluate different concentrate transport options and routes in order to narrow down the alternatives to be considered in more detail during the PFS.

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#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Mr Greg Miles, who is an employee of the company. Mr Miles is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Miles consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this report that relates to the Mineral Resources has been compiled or supervised by Mr Aaron Green, who is a full-time employee of CSA Global Pty Ltd. Mr Green has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Green consents to the disclosure of this information in this report in the form and context in which it appears.

The Company is not aware of any new information or data, other than that disclosed in this report, that materially affects the information included in this report and that all material assumptions and parameters underpinning Mineral Resource Estimates and Exploration Results as reported in the market announcements dated 13, 15 April 2015 and 7 December 2015, continue to apply and have not materially changed.