



## MINERALISATION INTERSECTED AT SUCCOTH

### HIGHLIGHTS

- **Approximately 80m zone of disseminated sulphide mineralisation intersected**
- **Approximately 10m zone of heavily disseminated to matrix sulphide at the basal contact**
- **Up to 10% chalcopyrite (Cu) with minor pentlandite (Ni) visually identified**
- **Drilling continuing**

Cassini Resources Limited (ASX:CZI) ("Cassini" or the "Company") is pleased to provide an update on hole CZD0007 drilling a large DHEM conductor at the Succoth Prospect within its 100% owned West Musgrave Project ("Project") in Western Australia.

### Visually encouraging sulphides intersected

The drill hole has intersected a broad envelope of disseminated chalcopyrite and pyrrhotite starting at 535m and extending to approximately 615m. Within this zone is a 10m wide, visually higher grade zone of heavily disseminated to matrix sulphide with local mineralisation up to 10% chalcopyrite, a copper sulphide mineral (Figures 1 & 2). Minor pentlandite (nickel sulphide) has also been observed. The sulphides appear inter-connected and are likely to have generated the DHEM conductor.

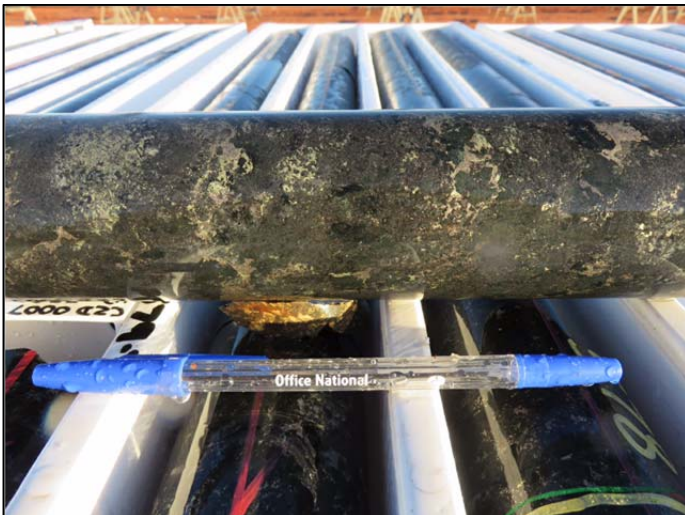


Figure 1. Disseminated mineralisation at 577m.



Figure 2. High grade matrix sulphide at 614m.

At the end of shift on 3 August 2015 the drill hole was at 660m depth. Drilling will continue over the next few days to test a potential footwall lode position. At the conclusion of drilling the hole will be down-hole EM surveyed to test for any extensions to existing in-hole and off-hole conductors.

The Company is encouraged that highly mineralised rocks have been intersected at the expected depth and appear to be representative of the target DHEM conductor and confirming the Company's geological model (Figure 3).

The hole will be logged and sampled as a priority. Assays are likely to be returned in 3-4 weeks.

Please refer to ASX announcement dated 21 July 2015 for additional details of the drill program.

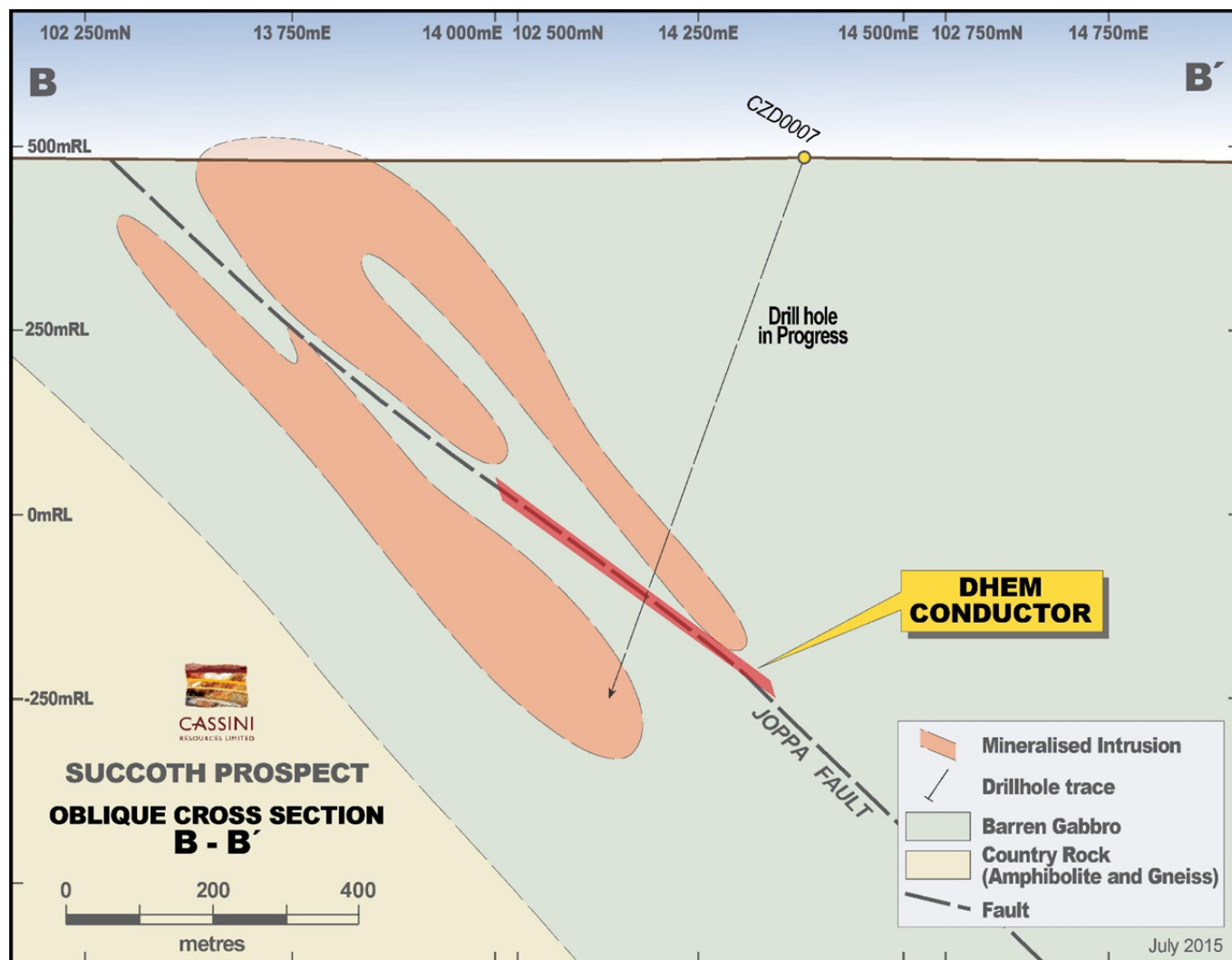


Figure 3. Succoth Cross-section showing DHEM Conductor target and current drill hole in progress

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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 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 and 15 April 2015, continue to apply and have not materially changed.

## ANNEXURE 1:

The following Tables are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of the Mineralisation Intersected at Succoth.

### Section 1: Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down-hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	The diamond drill hole will be sampled on nominal 1m intervals. The hole was angled towards grid southwest (289 mag) at 70 degrees to optimally intersect the mineralised zones.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	The drill hole location will be picked up by survey contractors at the completion of the drilling, they are currently surveyed by handheld GPS units. . Sampling will be carried out under Cassini protocols and QAQC procedures as per industry best practice.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	Diamond drilling was used to obtain approximately 1m samples from which 3 kg will be pulverised (total prep) to produce a sub sample for analysis by four acid digest with an ICP/AES or ICP/MS finish (0.25 gram) for base metals or a FA/AAS finish (40 gram) for Au, Pt and Pd.
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic etc) and details (e.g. core diameter, triple of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).</i>	Diamond drilling accounts for 100% of the drilling completed by Cassini and comprises NQ to PQ diameter core sample. Hole depth is approximately 700m.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Overall recoveries are >95% and there has been no significant sample recovery problems.
	<i>Measures taken to maximise sample recovery and</i>	Samples are routinely checked for recovery.

Criteria	JORC Code explanation	Commentary
	<i>ensure representative nature of the samples.</i>	
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	This is not applicable due to no assays being completed nor grade reported.
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All core will be geologically logged and the level of understanding of these variables increases with the maturity of the prospect.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging at Succoth recorded lithology, mineralogy, mineralisation, weathering, colour and other relevant features of the samples. Logging of core is both qualitative (eg. colour) and quantitative (eg. mineral percentages).
	<i>The total length and percentage of the relevant intersections logged.</i>	All drilling will be logged in full.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Half core will be taken and sampled.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable as not non-core.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	The sample preparation of diamond samples at Succoth follows industry best practice in sample preparation involving oven drying, followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 90% passing 75 micron.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Field QC procedures involves the use of certified reference material (CRM) as assay standards, along with blanks and duplicates. The insertion rate of these averaged 1:15 with an increased rate in mineralised zones.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Quarter core duplicate sampling will be 1-2% of total sampling.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered appropriate for the rock type, style of mineralisation (massive sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements at Succoth.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The analytical techniques used a four acid digest multi element suite with ICP/AES or ICP/MS finish (25 gram) for base metals and a FA/AAS for previous metals. The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. Total sulphur is assayed by combustion furnace. These methods approach total dissolution of most minerals.
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Hand held assay devices have not been reported.
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	Sample preparation for fineness were carried by the laboratory as part of their internal procedures to ensure the grind size of 90% passing 75 micron was being attained. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures.  Certified reference materials, having a good range of values, were inserted blindly and randomly. Results highlight that sample assay values are accurate and that contamination has been



Criteria	JORC Code explanation	Commentary
		contained. Repeat or duplicate analysis for samples reveals that precision of samples is within acceptable limits.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Both the Exploration Manager and the Technical Director of Cassini have viewed photographs of core samples.
	<i>The use of twinned holes.</i>	To date Cassini has not twinned any drill holes.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary data was collected for Succoth using a set of standard Field Marshal templates on laptop computers using lookup codes. The information was sent to Geobase Australia for validation and compilation into a SQL database server.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations were made to any assay data
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Holes drilled to date by Cassini have been located with a Garmin hand-held GPS and are assumed to be accurate to ±5m. This is considered appropriate for the drill hole spacing. At the completion of the drill program, survey contractors will be employed to complete differential GPS surveying.  Downhole surveys were completed every 5m using north-seeking gyroscopes after hole completion. Stated accuracy is ± 0.25° in azimuth and ± 0.05° in inclination.
	<i>Specification of the grid system used.</i>	The grid system for West Musgrave Project is MGA_GDA95, Zone 52.
	<i>Quality and adequacy of topographic control.</i>	The tenement package exhibits subdued relief with undulating hills and topographic representation is sufficiently controlled.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	The nominal drill hole spacing is 200mm (northing) by 100m (easting) in the core of the deposit.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	Not applicable as no Mineral Resource and Ore Reserve estimation procedures or classifications applied
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The drill hole is drilled towards local grid southwest at 70° to intersect the mineralised zones at a close to perpendicular relationship for the bulk of the conductor.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	To date, mineralisation orientation has been favourable for perpendicular drilling and sample widths are not considered to have added a sampling bias.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Sample chain of custody is managed by Cassini. Samples for the West Musgrave Project are stored on site and delivered to Perth by recognised freight service and then to the assay laboratory by a Perth-based courier service. Whilst in storage the samples are kept in a locked yard. Tracking sheets tracks the progress of batches of samples.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews completed to date.