



ASX Announcement

14 July 2014

West Musgrave Project – Program of Works Update

Key Activities Underway:

- Program of Works Approval Imminent
- Re-establishment of Exploration Camp Underway
- ✓ Drill Contractor Appointed
- ✓ Final Field Trip With Traditional Owners Scheduled
- ✓ Awaiting Clearing Permit Approval

Cassini Resources Limited (ASX: CZI) ("**Cassini**" or the "**Company**") provides the following update on the planned program at the West Musgrave Project (the "**Project**").

Program of Works Approval Imminent

A number of important planning milestones have been achieved, including the receipt of feedback from the Department of Mines and Petroleum ("**DMP**") on the timing of approval for Cassini's Program of Works ("**POW**"). Whilst the POW approval is expected within the next week or so, Cassini has recently been advised that the existing Clearing Permits (the "**Permits**") covering the Project area are not transferrable and that the Company is required to re-apply for these. This approval process has already commenced and Cassini is working closely with the DMP to accelerate the process where possible.

The Company expect the Permits to be granted on or around the first week of September 2014, with the drilling programme designed to commence immediately following this final approval.

Importantly, this slight delay will not have any impact on the Company's ability to achieve all of the stated technical outcomes at the West Musgrave Project by the end of this exploration season.

Milestone	Commenced	Indicative Date		
Drilling Contractor Appointed	Y	June 2014		
POW Approval from DMP	Y	21 July 2014		
Final Field Trip with Traditional Owners	Y	25 July 2014		
Reactivation of Exploration Camp	Y	22 August 2014		
Clearing Permits Granted	Y	Early September 2014		
Commencement of Drilling	Ν	Early September 2014		

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Re-establishment of Exploration Camp Underway

Cassini acquired the existing exploration camp as part of the West Musgrave Project. This infrastructure is a significant benefit in establishing field operations. The camp includes a potable water supply, sewage system and generator power. The camp site and drill site also has mobile phone coverage. Cassini has commenced works to have the camp fully operational by the time drilling commences.

There is also a significant drill core storage area located at the camp. It is estimated that there is around 90,000 m of diamond core logged and stored onsite.



Figure 1. Exploration Camp with core storage

Drill Contractor Appointed

Cassini has appointed Mackay Drilling as the drilling contractor for the upcoming Reverse Circulation ("RC") drilling program. Mackay has strong experience in the region and the Company has a high level of confidence in their capability. Importantly, Mackay has the ability to provide additional rigs to the Project if required. This will be particularly useful should it be necessary to accelerate the program in order to ensure its completion during this field season.

Final Field Trip with Traditional Owners

A field trip with members of the Ngaanyatjarra community is scheduled on the 23rd and 24th July 2014. The purpose of this is to communicate the Company's exploration work and objectives and for the community to orientate the Company to the Project area.

It is significant that Cassini's exploration program is all being conducted on areas of land subject to previous Heritage surveys and subsequent exploration work.



Outline of Initial Works Program at the West Musgrave Project

Aim of the Program

The initial works program is designed to achieve the key technical milestones required to validate Cassini's higher-grade strategy at Nebo-Babel. They are:

- 1. In-fill Reverse Circulation (RC) drilling program Targeting the known higher-grade zones at Nebo-Babel to confirm continuity of mineralisation and to increase resource confidence (inferred to indicated);
- 2. RC drilling of areas of resource that remain open along strike to test for potential extensions of higher-grade zones;
- **3.** Diamond (PQ) drilling program Specific sampling of appropriate ore types to collect metallurgical samples to test metal recoveries and processing options; and
- 4. RC Drilling Program at Succoth Cu Prospect Definition of maiden resource at Succoth Cu Prospect.

Cassini aims to complete all the fieldwork component of this program by December this year.



Detail of Nebo-Babel Works Program

Figure 2. Proposed Program of Works – drill collar locations



Cassini's preliminary review of the existing drill hole database has identified a number of positions where the high-grade mineralised zone appears to be open. The potential to extend the existing resource will be tested during the upcoming drilling program at Nebo-Babel.

Existing Drill Hole Density over Nebo-Babel

Cassini's strategy is to focus on the known, but poorly defined, higher-grade component of the mineralisation at Nebo-Babel. The key to the validity of this strategy is confirming the continuity of the higher-grade zones. An initial review of the technical database has provided strong support for Cassini's view that the higher-grade zones form a coherent body and importantly, that the higher-grade portion of the resource is generally present closer to the surface than the rest of the ore body.

The previous resource model for Nebo-Babel was focused on the large, low-grade disseminated resource and based on a 0.2% Ni cut off. By way of comparison, the *entire* 446 million tonne Nebo-Babel resource is defined by only 86 drill holes at Nebo and 99 holes at Babel (total holes = 185), whereas Sirius' Nova-Bollinger deposits are currently defined by 242 holes (total resource of 14.9 Mt @ 2.2%Ni, 0.9% Cu).

Cassini has revaluated the existing resource model at a higher block model cut-off grade (0.5% Ni) to provide an inferred resource at Nebo-Babel of **33Mt @ 0.73% Ni, 0.59% Cu**, for a total of 241,000 tonnes of contained nickel and 195,000 tonnes of contained copper. At this cut-off grade, only 10 holes at Nebo and only 7 holes at Babel fit within an area equivalent to the resource footprint of Nova – Bollinger (Figure, 4A, 4B).



Figure 3. Nova Bollinger Inferred Resource – defined by 237 holes (excluding holes outside resource outline). Source: Sirius Resources ASX Announcement





Figure 4A. The higher-grade Nebo Inferred Resource is defined by only 10 holes within an area equivalent to the Nova Bollinger Resource outline (superimposed blue outline). This is shown on the same scale as the image of Nova-Bollinger above.

Figure 4B. The higher-grade Babel Inferred Resource is defined by only 7 holes within an area equivalent to the Nova Bollinger Resource outline (superimposed blue outline). This is shown on the same scale as the image of Nova-Bollinger above.

-ENDS-For further information, please contact:

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About Cassini

Cassini Resources Limited (ASX: CZI) is an Australian resource company that successfully listed on the ASX in January 2012. In April 2014, Cassini acquired the significant Nebo and Babel nickel and copper sulphide deposits in the Musgrave region of WA. The Company's primary focus is now on the development of these deposits and progressing them through to successfully mineral production as a matter of priority.

Cassini aims to progress its development projects, to explore and add value to its exploration stage projects with the aim to increase shareholder value.

Prospect	Cut-off Ni%	Mt	Ni%	Cu%	As ppm	Co ppm	Fe %	MgO %	S %
Nebo	0.2	84	0.39	0.31	3	153	9.5	5.9	2.5
Babel	0.2	362	0.32	0.36	3	118	9.9	7.8	2.1
Total	0.2	446	0.33	0.35	3	125	9.9	7.4	2.2
Nebo	0.5	15.9	0.82	0.48	3	323	14.2	3.7	5.6
Babel	0.5	17.3	0.64	0.70	3	196	12.9	6.0	4.4
Total	0.5	33.2	0.73	0.59	3	257	13.5	4.9	5.0

Resource Statement (JORC 2012)

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resource Estimates 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 as reported in the market announcement dated 14th of April 2014 continue to apply and have not materially changed.