



**CASSINI**  
RESOURCES LIMITED

# Company Presentation

RIU Explorers Conference, 19 February 2019

GREG MILES, EXECUTIVE DIRECTOR



[www.cassiniresources.com.au](http://www.cassiniresources.com.au)



# Disclaimer and important notice



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## Competent Persons Statement

The information in this statement which relates to the Mineral Resource data, including tenement information, drilling, sampling, and analytical results, geology interpretation, and selection of cut-off grade has been overseen by Mr Greg Miles who is a full-time employee of Cassini Resources Ltd and a Member of the Australasian Institute of Geoscientists. Mr Miles has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code, 2012 Edition.

The information in this report which relates to the Nebo-Babel Mineral Resource estimation and classification has been prepared by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Weeks has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code, 2012 Edition. Both Mr Miles and Mr Weeks consent to the inclusion in this report of the matters based on information in the form and context in which it appears.

Please refer to Cassini's ASX announcement of 7 December 2015 for the Competent Person Statement and JORC disclosure tables relating to the Succoth Mineral Resource Estimate.

Cassini 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 Exploration Results, Mineral Resource Estimates and Production Targets continue to apply and have not materially changed.

The nickel equivalent (NiEq) and copper equivalent (CuEq) calculations take into account resources, reserves, and grades as stated in latest ASX releases and assumes 100% payability for all metals recovered generating a commodity equivalent value for Ni, Cu, Co, Zn, Au, Ag, Pb and Mo. Only projects with JORC 2012 resources and reserves have been used. Nickel equivalent grade =  $\text{Ni}\% + \text{Cu}\% \times 0.56$ . Copper equivalent grade =  $\text{Cu}\% + \text{Ni}\% \times 1.97$ . Based on assumed recoveries of 73% for Cu and 59% for Ni and commodity prices shown below. It is the Cassini's opinion that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold. NiEq grades have been published to enable a comparison to similar sized nickel sulphide assets. CuEq grades have been published to enable a comparison to similar sized copper assets.

## Forward Looking Statements

Some statements in this report regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward-looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain mine licenses, permits and other regulatory approvals required in connection with mining and processing operations, competition for among other things, capital, acquisitions of reserves, undeveloped lands and skilled personnel; incorrect assessments of the value of acquisitions; changes in commodity prices and exchange rates; currency and interest rate fluctuations; various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions; the demand for and availability of transportation services; the ability to secure adequate financing and management's ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward-looking statements will prove to be correct.

The production targets referred to in this announcement are based on 52% In-pit Indicated Resources and 48% Inferred Mineral Resources. The Inferred Resources do not determine the economic viability of the project, and approximately 80% of resources within the optimisation pit shells are in the Indicated Category during the pay-back period. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production targets themselves will be realised.

Statements regarding plans with respect to the Company's mineral properties may contain forward looking statements. Statements in relation to future matters can only be made where the Company has a reasonable basis for making those statements.

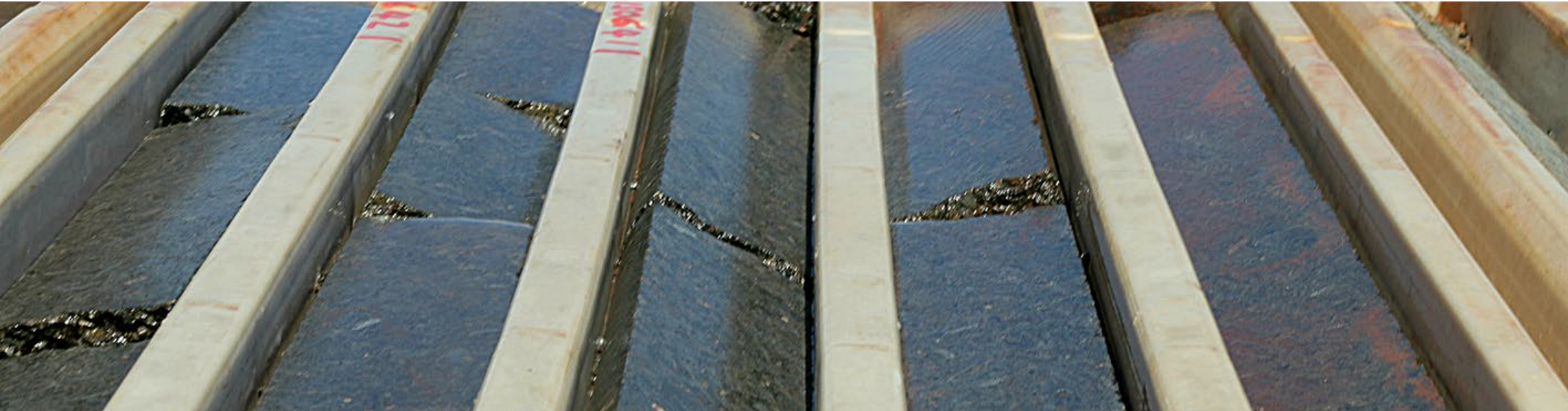
## Cassini - Powering Ahead

- ✓ Rapidly progressing Pre-feasibility Study (PFS) on a **world class** nickel + copper sulphide project with ASX100 partner **OZ Minerals (ASX:OZL)**
- ✓ One of the few new sulphide **projects of scale** being developed globally
- ✓ Significant **opportunity** to add value to project through optimisation and exploration
- ✓ Base metal market dynamics continue to improve with new demand for high quality products



## 2019 - A Company Defining Year

- ✓ Delivery of PFS on Nebo-Babel deposits in end of Q2 (June)
  - Positive outcomes from work programs to date
  - Successful regional exploration campaigns at Succoth, Yappsu and One Tree Hill
- ✓ Strong partnership with OZ Minerals (ASX:OZL)
- ✓ Progressing multiple funding options
- ✓ Continuing to explore Cassini's early stage projects





# Corporate Snapshot

## CAPITAL STRUCTURE

Australian Stock Exchange (ASX) code	<b>CZI</b>
Frankfurt Stock Exchange code	ICR
ASX Share price (close 18-Feb-19)	A\$0.09
Shares outstanding	345.5M
Options on Issue	15.15M
<b>Market capitalisation</b>	<b>A\$31.0 M</b>
Cash (31-Dec 2018)	A\$4.3M

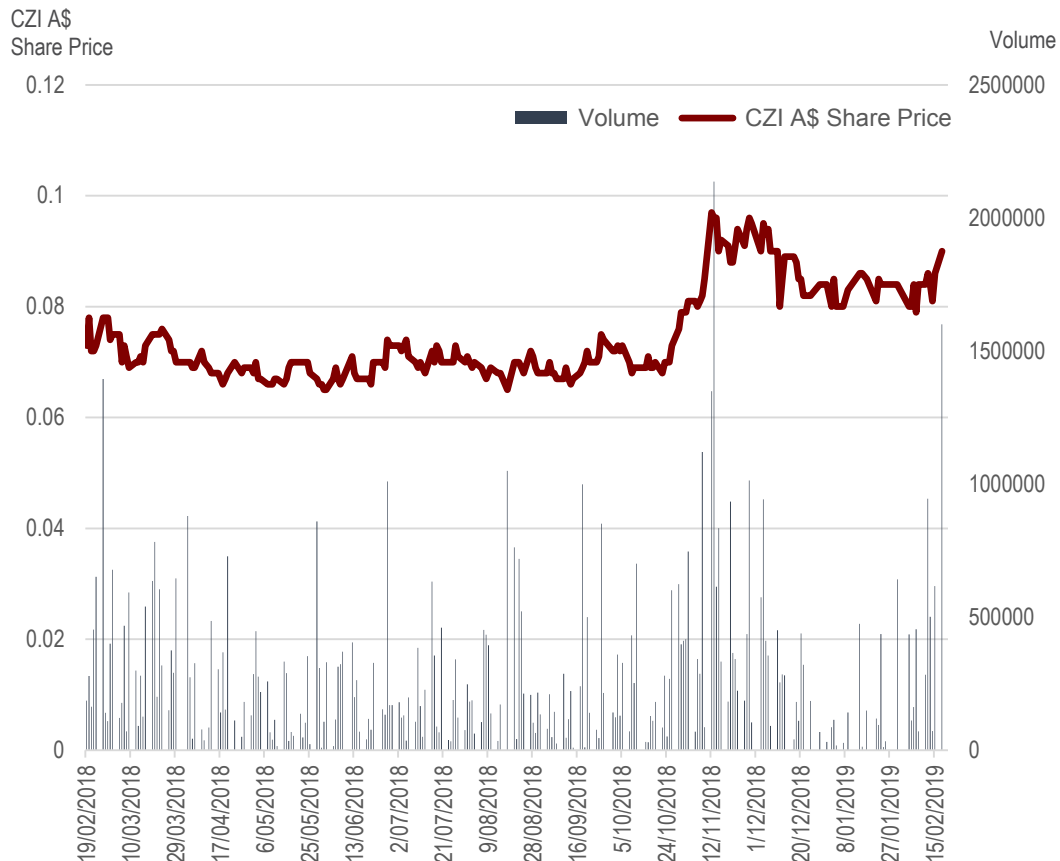
## METRICS

30 day average daily volume	562,000
90 day average daily volume	350,000
52 week Low-High	\$0.065 - \$0.10

## MAJOR SHAREHOLDERS

Atasa Holdings P/L	7.9%
Mr Xu, Jing Fu (Tinci Material Technology Co)	4.7%
Mr Bu, Xiao Yu	4.7%
GR Engineering (ASX:GNG)	4.4%
Directors and Management	4.1%

## SHARE PRICE PERFORMANCE - 12 month CZI Price and Volume





**Earnin/Joint Venture**  
(OZL 51%, CZI 49%)

## West Musgrave Project (Ni, Cu, Co, PGE)

STAGE: **PRE-FEASIBILITY**

### NEBO-BABEL DEPOSITS

- 283Mt open pit sulphide resource
- Low operating cost and long mine life

STAGE: **ADVANCED EXPLORATION**

### SUCCOTH DEPOSIT

- 156Mt shallow Cu resource
- Provides significant optionality and leverage

STAGE: **EXPLORATION**

### REGIONAL

- 40km mineralised corridor
- Multiple targets

**Significant exploration upside remains**

- West Arunta Project
- West Musgrave Project
- Mount Squires Project
- Yarawindah Project



**100% CZI Owned**

## Mount Squires Project (Au)

STAGE: **EXPLORATION**

### Shallow gold mineralisation

- 50km prospective trend
- Gold in previous drilling

## West Arunta Project (Zn)

STAGE: **EARLY EXPLORATION**

### Potential regional scale zinc project

**CZI earning in to 80%**

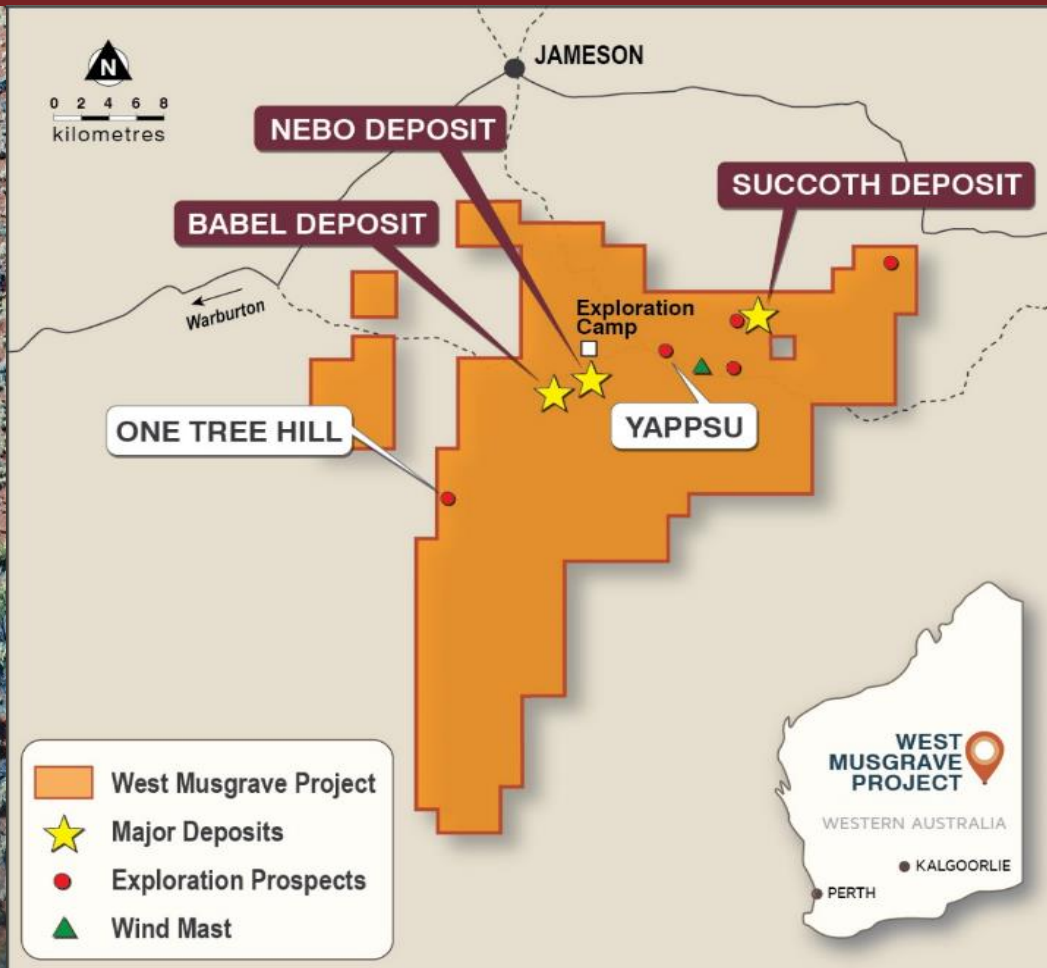
## Yarawindah Brook Project (Ni, Cu, Co, PGE)

STAGE: **EXPLORATION**

### Massive sulphide mineralisation

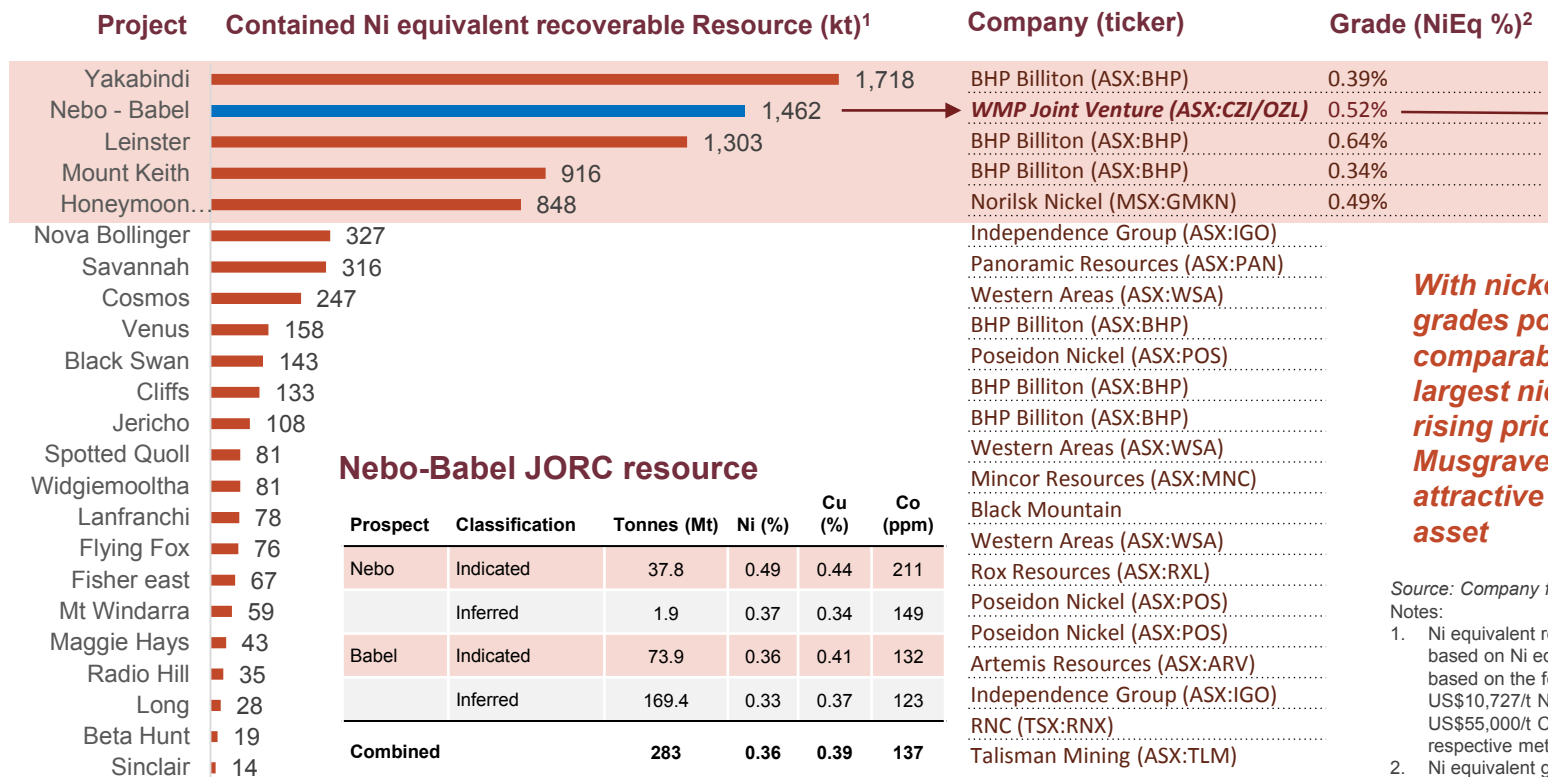
- Under-explored project
- High grade Ni-Cu-Co massive sulphides

# West Musgrave Project



# Nebo-Babel: Nickel-sulphide project benchmarking

**Nebo-Babel is one of the largest nickel sulphide development projects in Australia and comparable in scale to the tier one nickel assets of BHP Billiton and Norilsk Nickel**



**With nickel equivalent grades post recovery comparable to WA's largest nickel projects, rising prices position West Musgrave as a highly attractive development asset**

Source: Company filings

Notes:

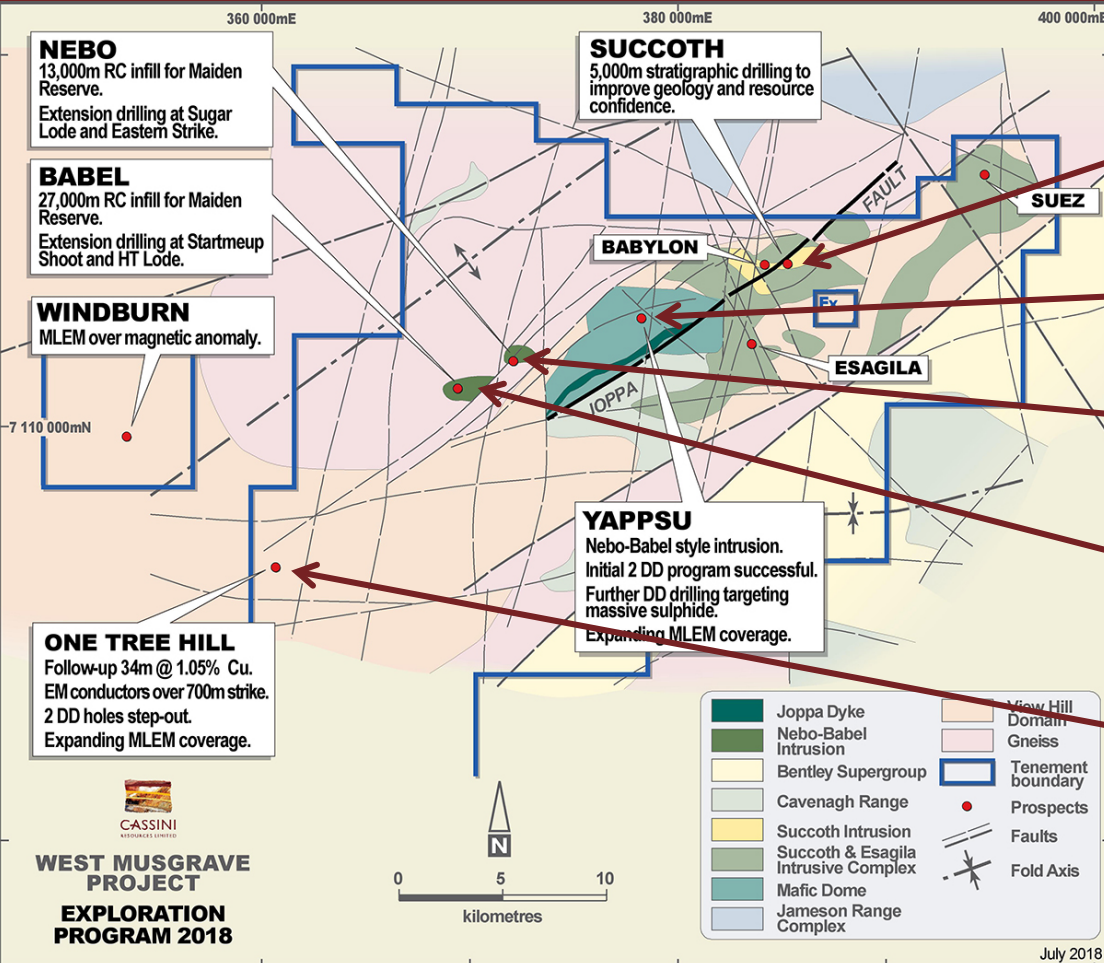
1. Ni equivalent recoverable resources are based on Ni equivalent resources calculated based on the following commodity prices: US\$10,727/t Ni, US\$6,244/t Cu, and US\$55,000/t Co; and then applied to the respective metal recoveries
2. Ni equivalent grades shown are post applying recoveries



# 2018 Exploration Success – significant upside remains



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## Succoth:

Drilling demonstrates significant upside  
Key to a multi-decade operation

## Yapssu:

Identified Nebo-style mineralisation

## Nebo:

Identification of high-grade Angie Lode

## Babel:

Confirmed Startmeup off-set: H-T Lode

## One Tree Hill:

Extension to mineralisation  
Large DHEM Conductor to test in 2019



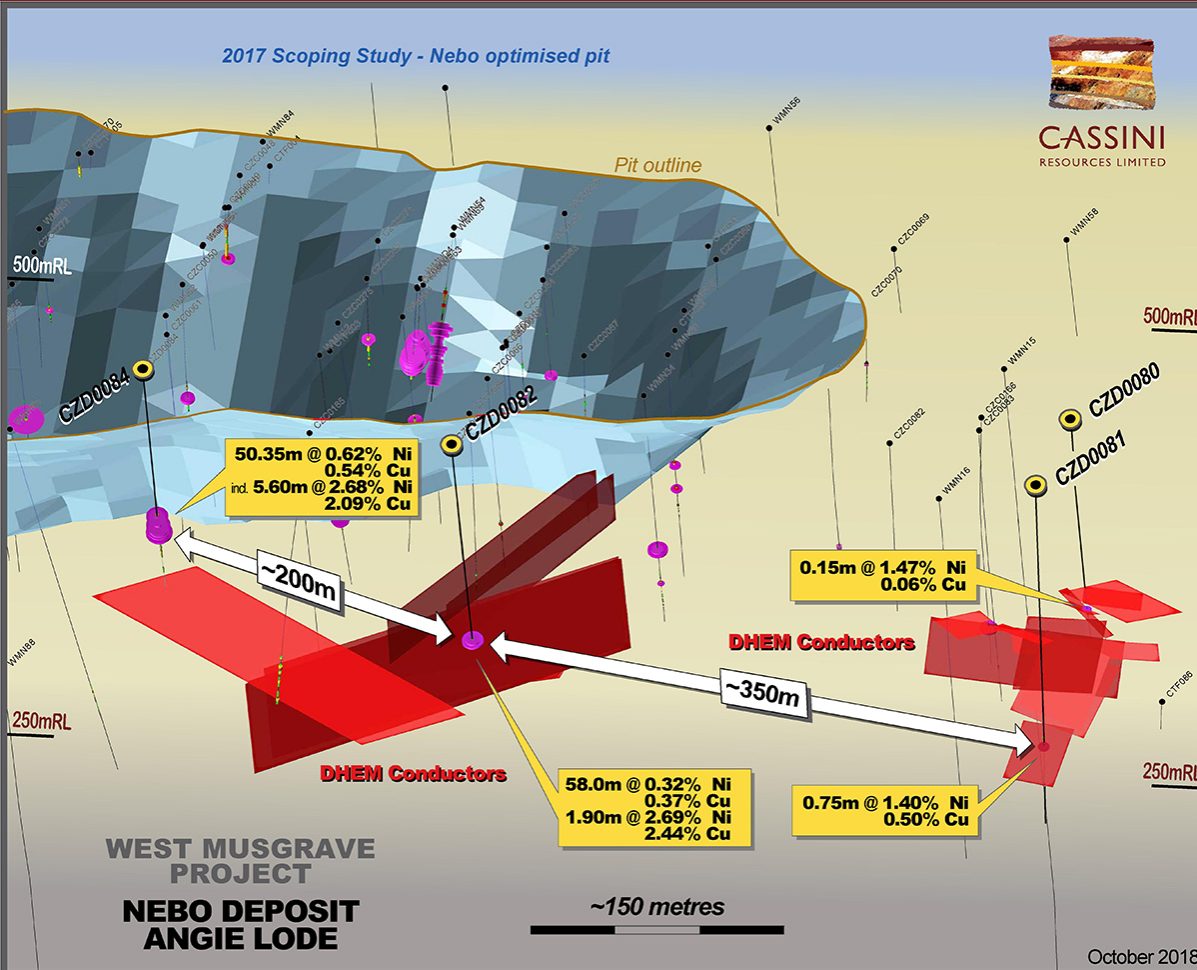
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**WEST MUSGRAVE  
PROJECT  
EXPLORATION  
PROGRAM 2018**

# Nebo – Babel Still Growing



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## Numerous highlights in 2018

- Identified high-grade Angie Lode outside Nebo pit shell
- Confirmed Babel Startmeup Shoot offset – HT Lode:
  - » 25.1m @ 0.94% Ni, 0.94% Cu
- Drilled best ever Ni intersection at Nebo:
  - » 23m @ 2.91% Ni, 1.13% Cu, 0.09% Co & 0.47g/t PGE (CZC0285)



- Significant improvements in nickel and copper recoveries compared to 2017 Scoping Study, despite lower head grade samples.
- Grade and recovery improvements in gold, platinum and palladium by-products.



## 2018 Master composite concentrate results compared to 2017 Scoping Study

Sample ID	Head Grade		Final Copper Concentrate		Final Nickel Concentrate	
	%Ni	%Cu	% Cu Grade	% Cu Recovery	% Ni Grade	% Ni Recovery
2018 MCX1	0.53	0.57	26.4	82.5	10.8	68.9
2018 MCX2	0.37	0.43	26.4	87.4	11.0	66.9
2018 MCX3	0.38	0.42	26.4	83.8	10.8	66.3
Average			26.4	84.6	10.9	67.4
2017 Scoping Study	1.00	0.70	22.7	72.6	10.8	59.0
Variance			+3.7	+12.0	+0.1	+8.4



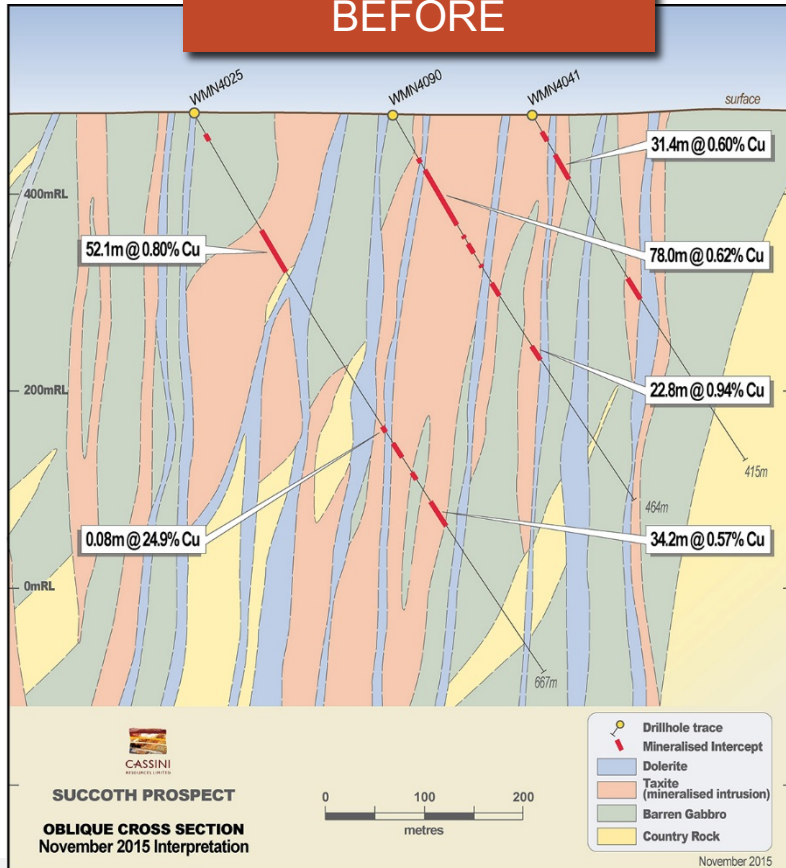
# Succoth – A Turning Point



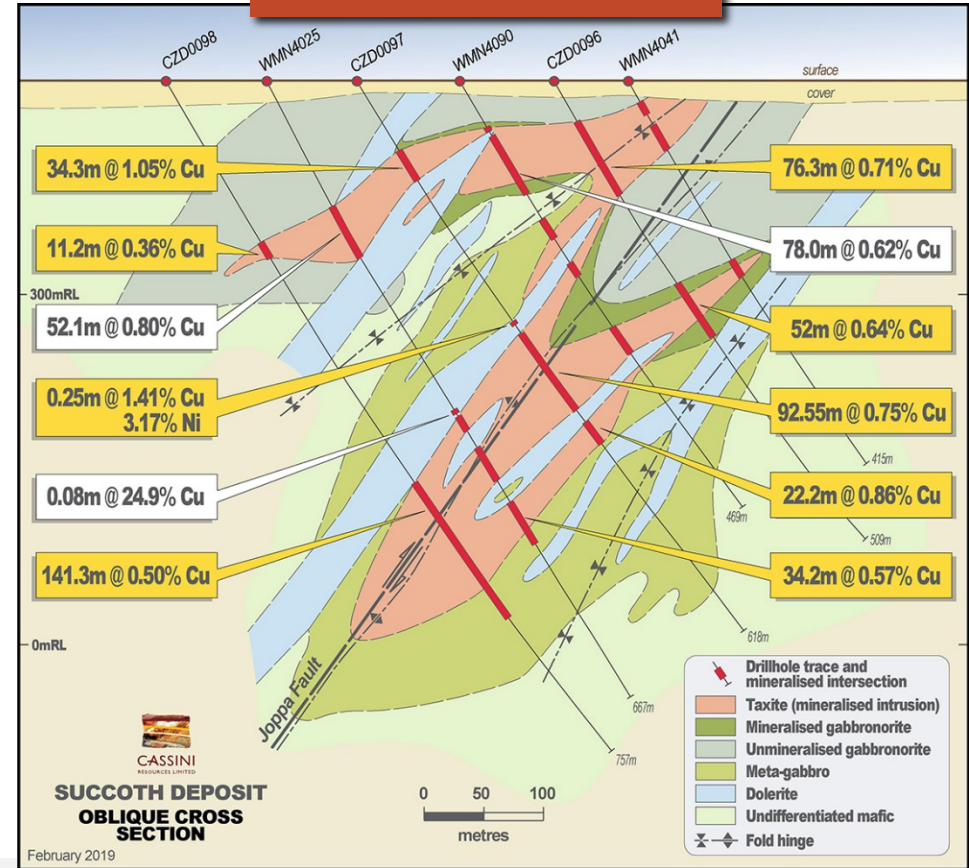
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## Three very important drill holes

BEFORE



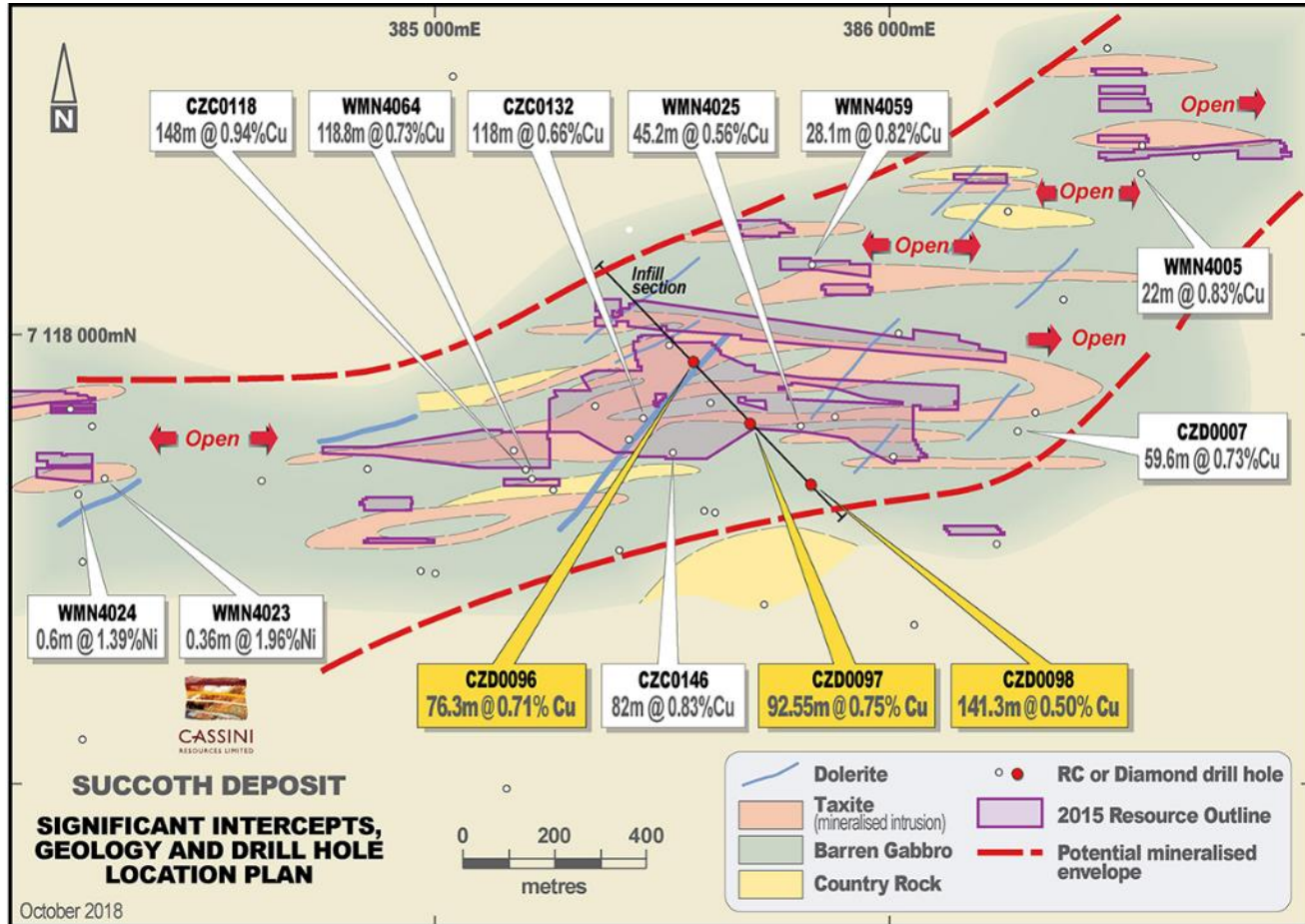
AFTER





## How big could Succoth be?

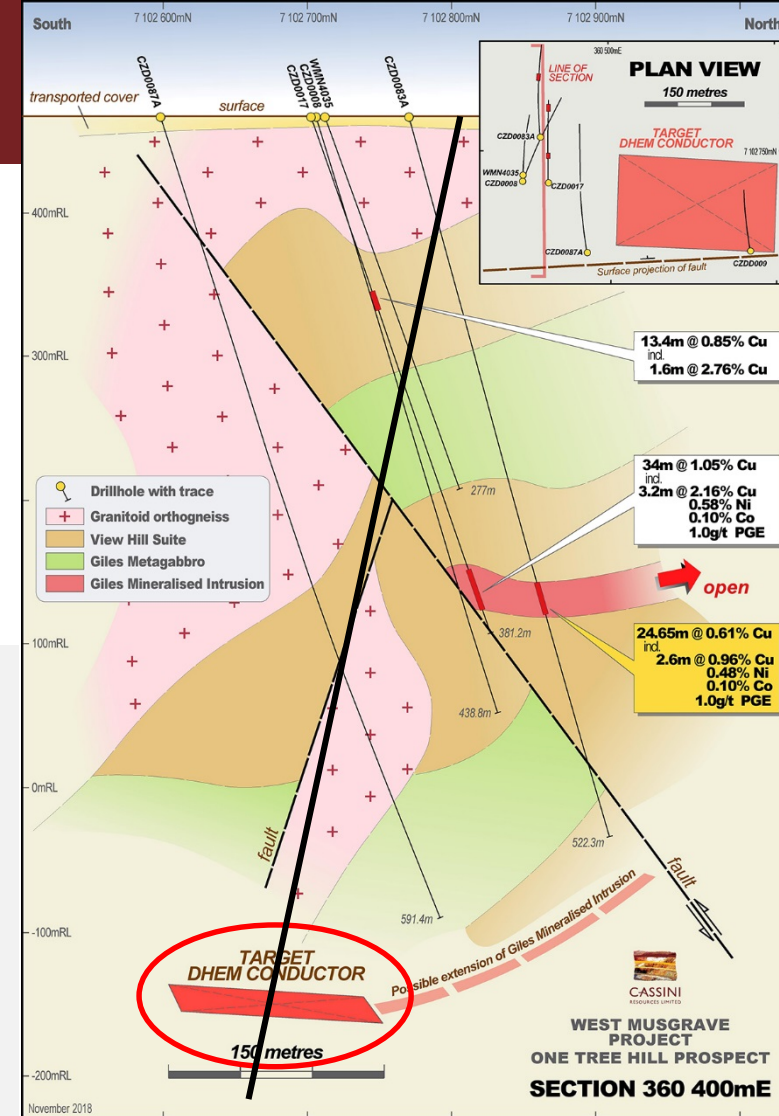
- Current resource: 156Mt @ 0.60% Cu & 0.15g/t PGE
- Additional drilling in 2019 to confirm folded model along strike
- Key to our ultimate goal of developing a multi-decade mining operation
- Still looking for massive Ni mineralisation



# One Tree Hill

## A Compelling Target

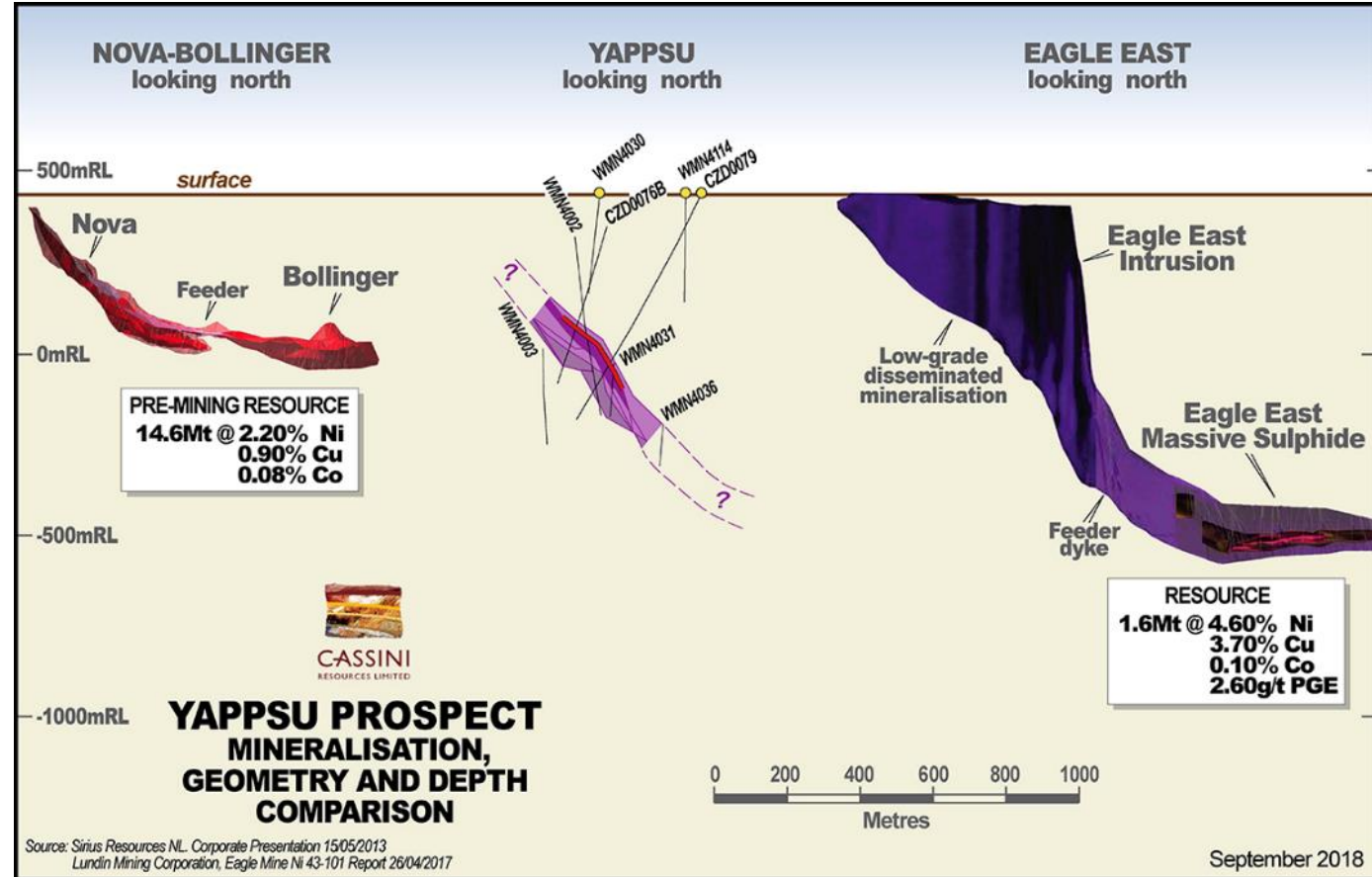
- Copper-rich system with massive sulphide
- Latest drilling provides key geological understanding and a large DHEM conductor
- Potential for a new mineralised system with significant scale
- Priority target and first exploration drill hole in 2019





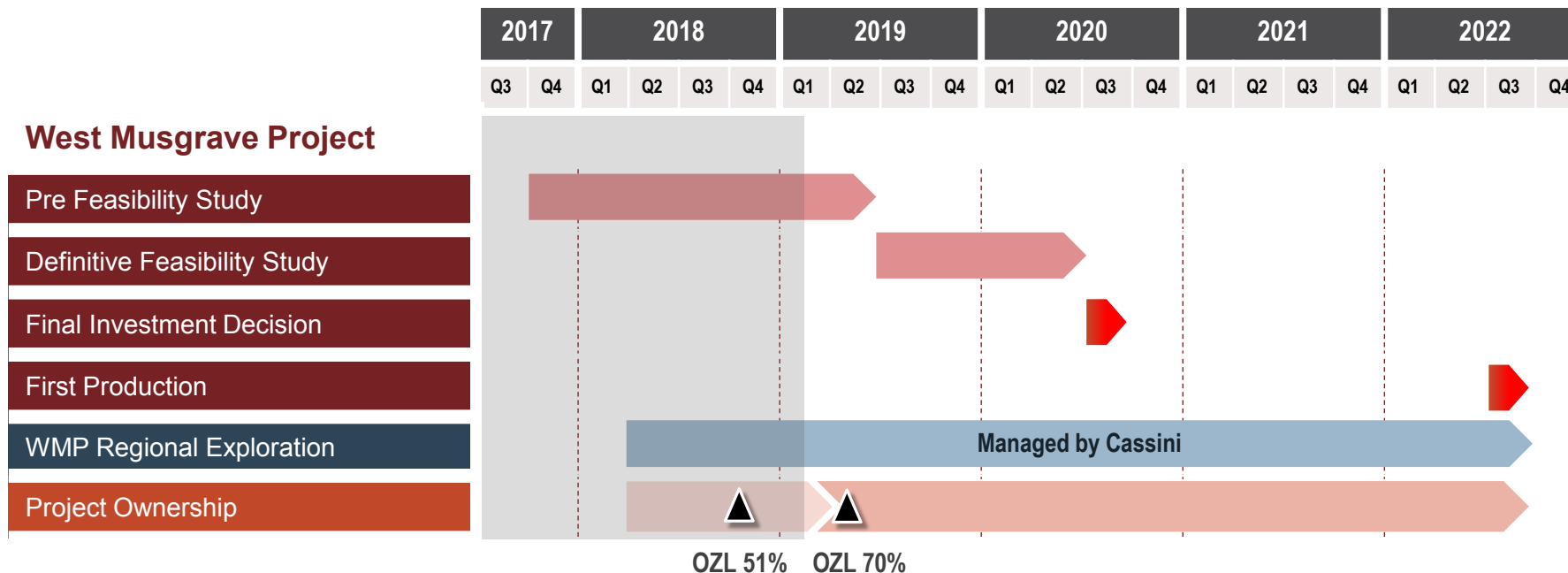
## Looking for another Nebo... Or better

- Significant advance in 2018, but still early days
- 6.45m @ 1.67% Ni, 1.07% Cu
- 80.3m @ 0.44% Ni, 0.44% Cu
- More work required on the geological interpretation
- Further drilling mid-year



# West Musgrave Project Schedule

## Indicative Timeline







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## Other Exploration Projects



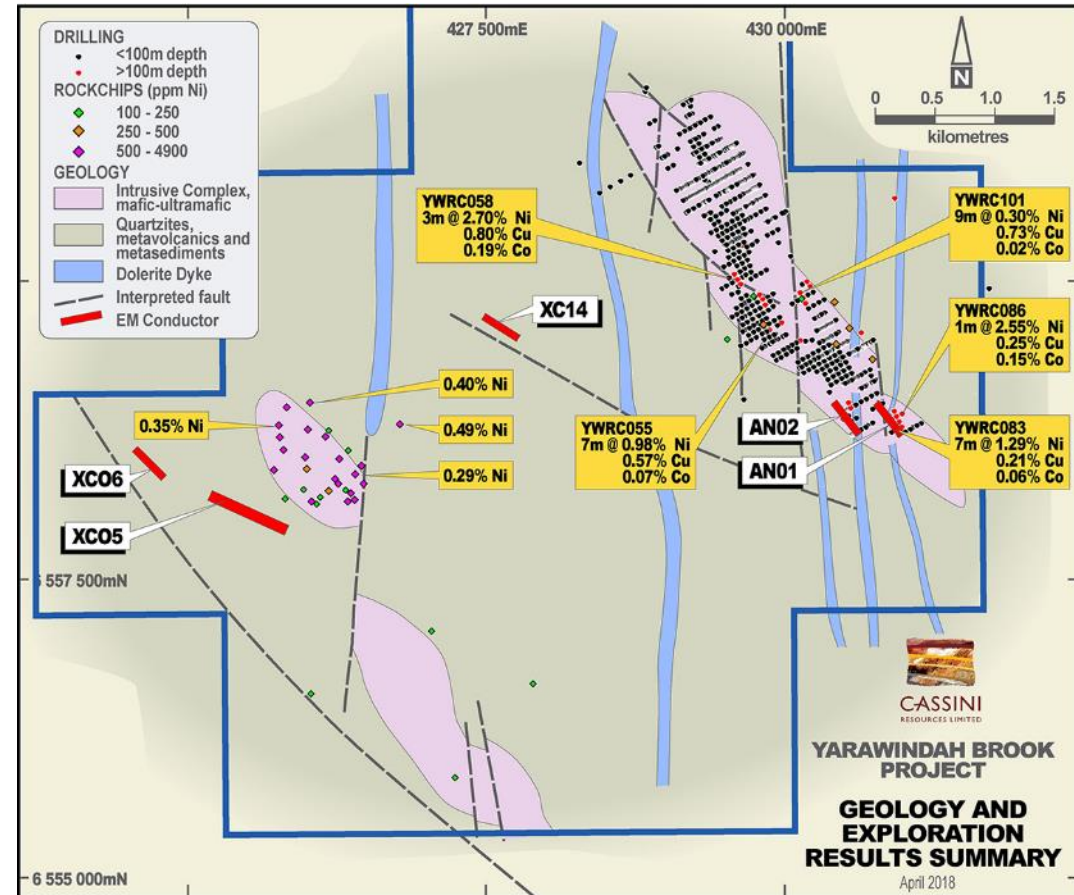
# Yarawindah Brook Ni-Cu-Co Project



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## Cassini has option to earn 80%

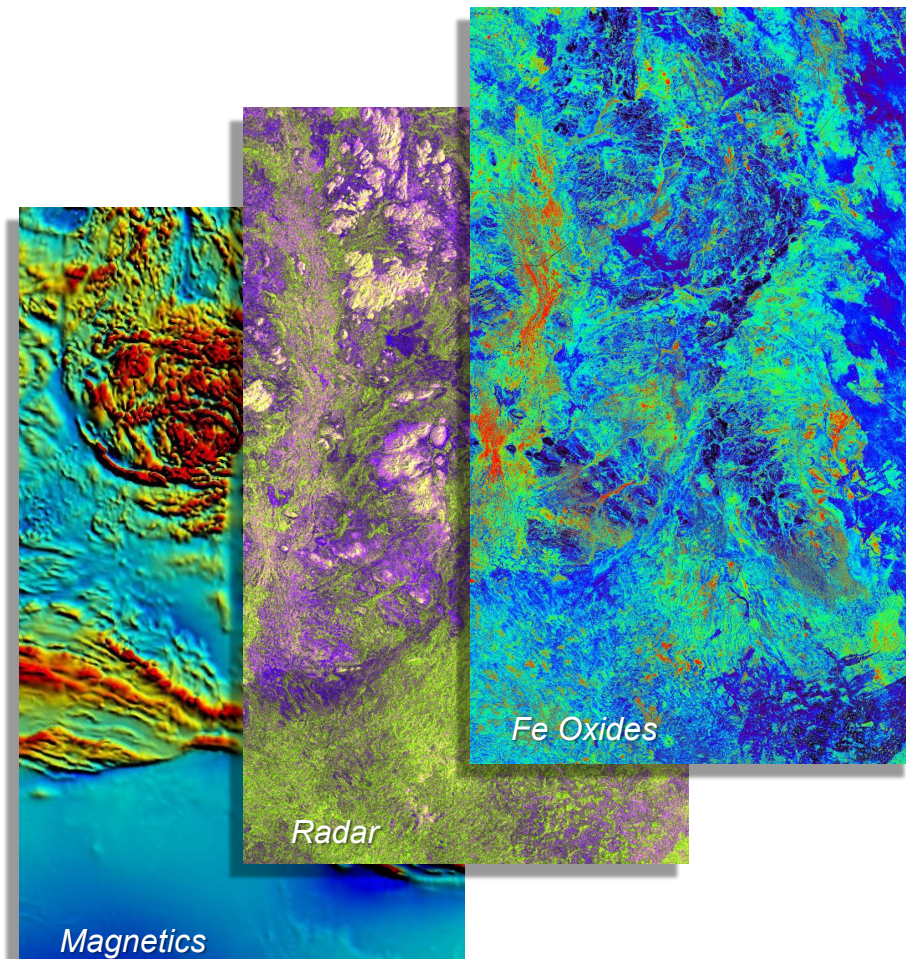
- Applying knowledge from the West Musgrave to an over-looked magmatic Ni-Cu system
- Last drilled 2007:
  - » 7m @ 1.29% Ni, 0.21% Cu, 0.06% Co
  - » 3m @ 2.70% Ni, 0.80% Cu, 0.19% Co
- AEM and FLEM programs in 2018 identify new conductors
- Strengthens case for a large mineralised system
- Building a land position
- Awaiting approvals before drilling





## A belt-scale, greenfields opportunity

- A recognised gold belt with very little exploration
- Previous drilling:
  - » 15m @ 2.3g/t Au from 31m, including 5m @ 4.7g/t from 34m
  - » 12m @ 1.3g/t Au from 25m, including 5m @ 2.0g/t from 25m
- Acquired latest geophysical and hyperspectral datasets to assist with mapping and targeting
- On the ground in 2019



## Looking for Sedimentary Zinc in Frontier Country

- Cassini has developed a number of targets over the past 4 years
- Short RC program in October 2018 testing geochemical and geophysical targets
- Encountered more Zn anomalism
- Will reassess goals
- Downgraded in exploration priorities against other projects





## Corporate Objectives for next 12 months

### Maximise value to shareholders by

1. Continue to increase value of WMP as an active partner in the Joint Venture
2. Execute a funding solution that minimises dilution
3. Minimise dilution by good capital management
4. Progress early stage exploration projects to provide discovery opportunity, being mindful of 3.





## Investment in Cassini

- ✓ Exposure to one of the few large scale, long life, low cost Ni + Cu projects in a safe, first world jurisdiction
- ✓ Project de-risked by strong technical and financial partner OZL
- ✓ Significant upside exploration opportunity to add further value
- ✓ Clear funding strategy for construction capital with multiple options
- ✓ Leveraged to positive Ni and Cu price outlook and emerging battery metals thematic







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2019 MEMBER

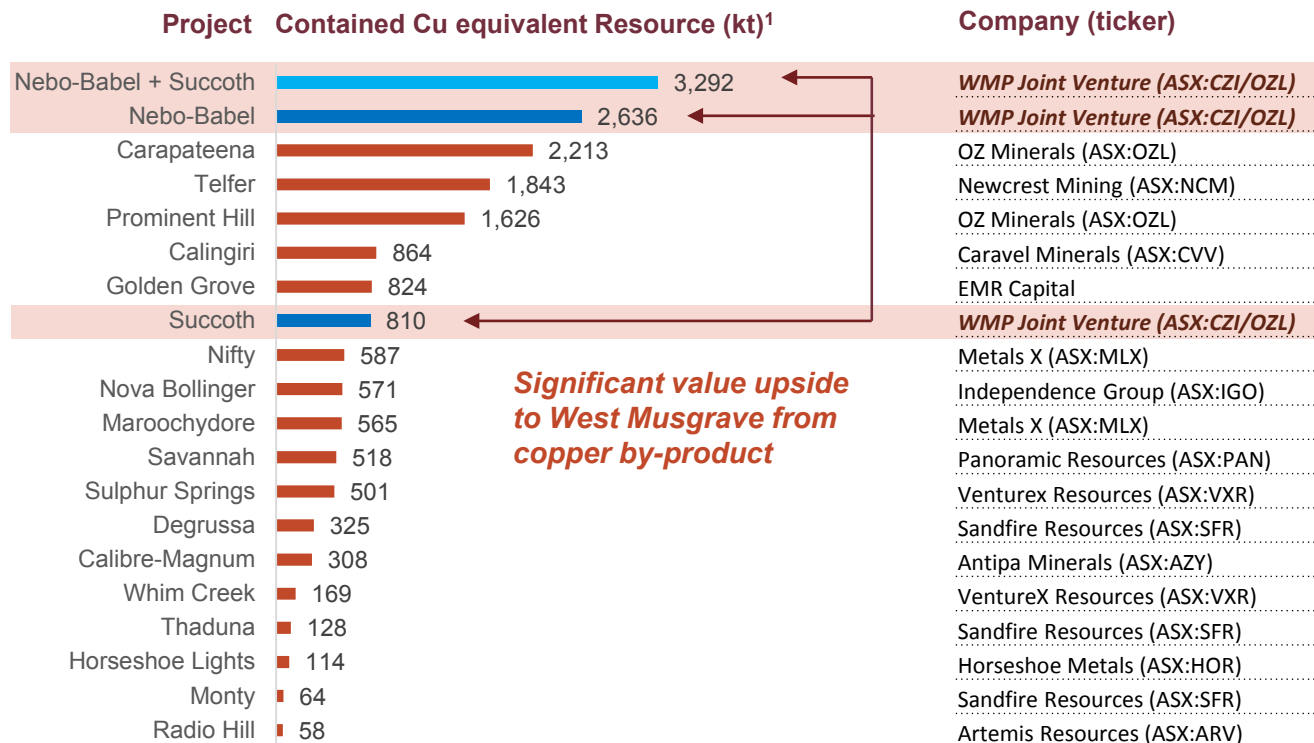




## APPENDICES

# West Musgrave: Copper project benchmarking

On a copper equivalent basis **West Musgrave is larger in scale than some of Australia's premier copper assets**



**With significant scale on a copper equivalent basis, West Musgrave is a natural and high value addition to OZ Minerals project pipeline**

Source: Company filings

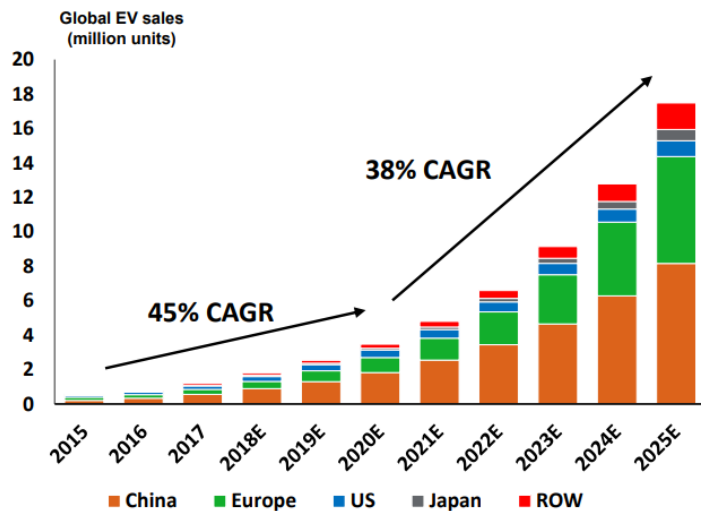
Notes:

1. Cu equivalent recoverable resources are based on Cu equivalent resources calculated based on the following commodity prices: US\$6,244/t Cu, US\$10,727/t Ni, US\$5,244/t Cu, US\$2,545/t Zn, US\$1,908/t Pb, US\$1,228/oz Au, US\$14.33/oz Ag and US\$55,000/t Co; and then applied to the respective metal recoveries



# Nickel Market: The opportunity in EV Batteries

## Trend to Increased EV Penetration & Vehicle Numbers<sup>1</sup>

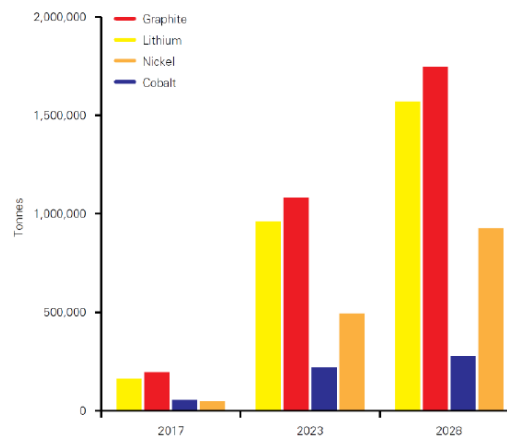


Source:

1. Independence Group 2018 AGM Presentation, UBS Research November 2018
2. UBS Research, November 2018

## Forecast Raw Material Demand for Battery

Lithium ion Battery Megafactory Raw Material Demand (tonnes) at 100% Utilisation Rate



MATERIAL	2017	2023	2028
LITHIUM	162,752	961,351	1,570,020
GRAPHITE ANODE	194,160	1,060,360	1,747,800
COBALT	54,354	219,679	276,401
NICKEL	48,584	494,774	928,018

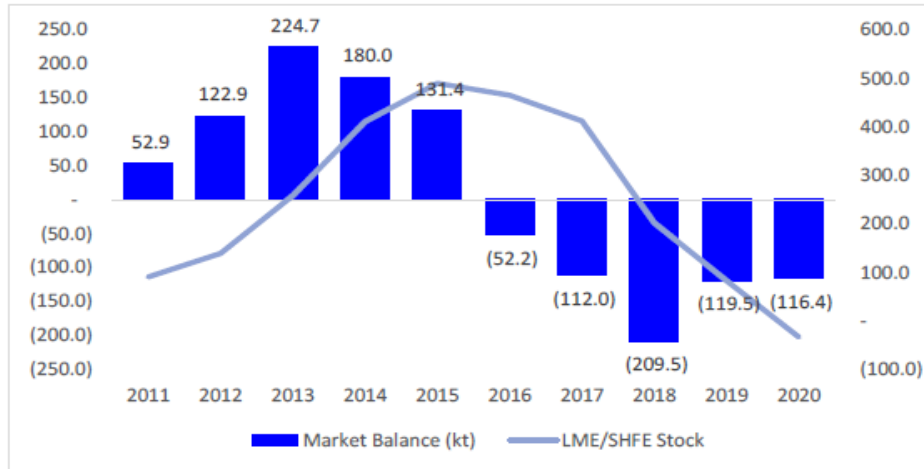
Source: Benchmark Mineral Intelligence

Nickel intensity in batteries on average is expected to rise reflecting higher loadings and rising nickel-rich batteries' market share



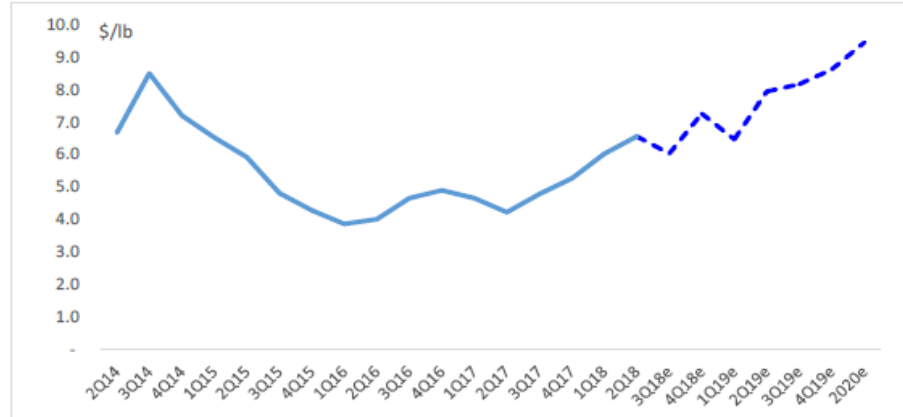
# Nickel Market: Current Stockpiles drive positive price forecasts

DB expects massive Ni S&D deficit over the next 3 years



Source: Deutsche Bank, LME

Thus... we believe LME Ni price will continue to rally above \$9/lb



Source: Deutsche Bank, LME