

WESTERN AREAS LTD



AUSTRALIAN NICKEL CONFERENCE

"SUCCESS THROUGH INNOVATION"

OCTOBER 2017

www.westernareas.com.au



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The information within this PowerPoint presentation was compiled by Western Areas management, but the information as it relates to exploration results, mineral resources or ore reserves was prepared by Mr Graeme Gribbin, Mr Andre Wulfse or Mr Marco Orunesu-Preiata respectively. Mr Gribbin, Mr Wulfse and Mr Orunesu-Preiata are full time employees of Western Areas Ltd. Mr Gribbin is a member of Australian Institute of Geoscientists (AIG). Mr Wulfse and Mr Orunesu-Preiata are members of Australian Institute of Mining and Metallurgy (AusIMM) and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (2012 JORC Code). Mr Gribbin, Mr Wulfse and Mr Orunesu-Preiata consent to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.

AGENDA

WSA Snapshot



Innovation



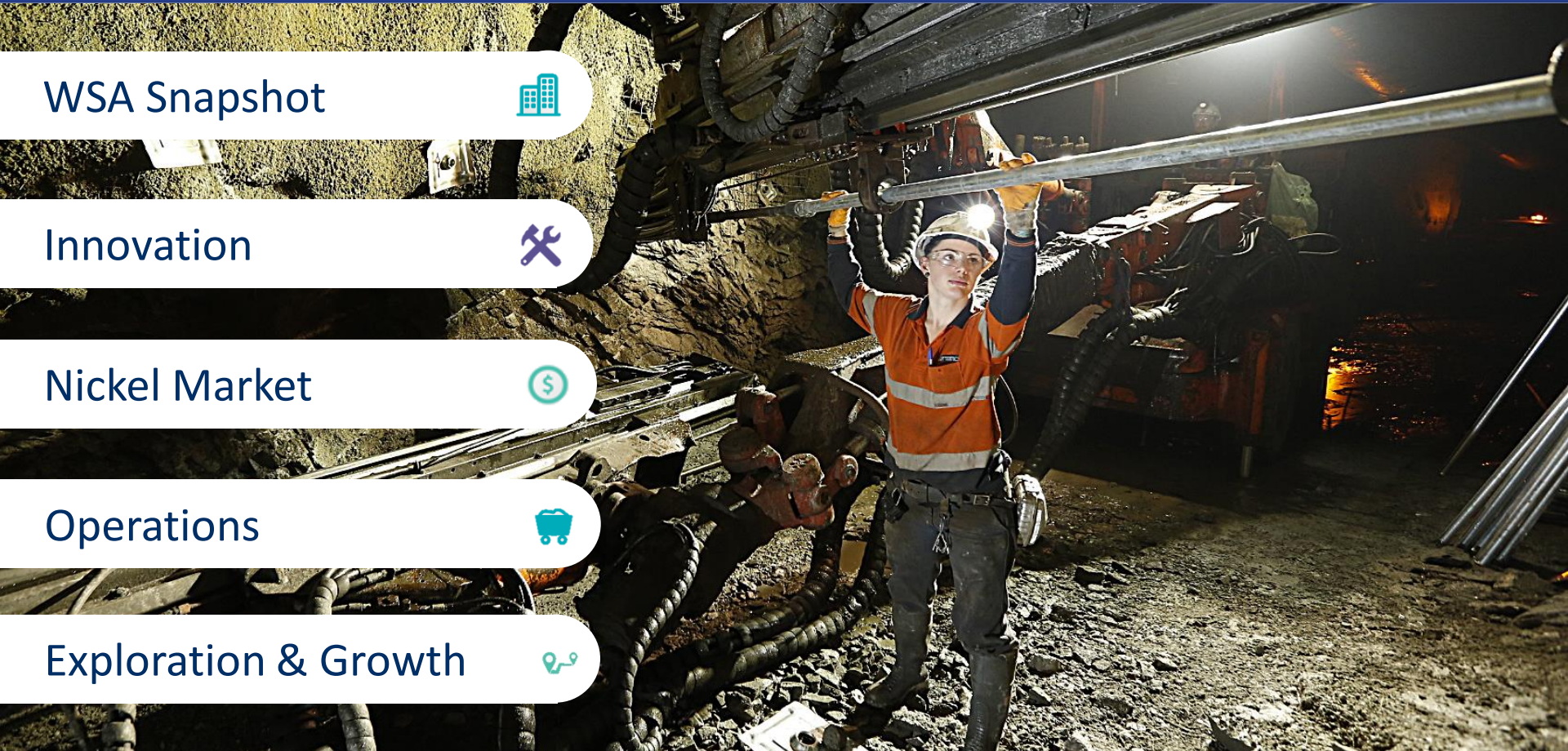
Nickel Market



Operations



Exploration & Growth

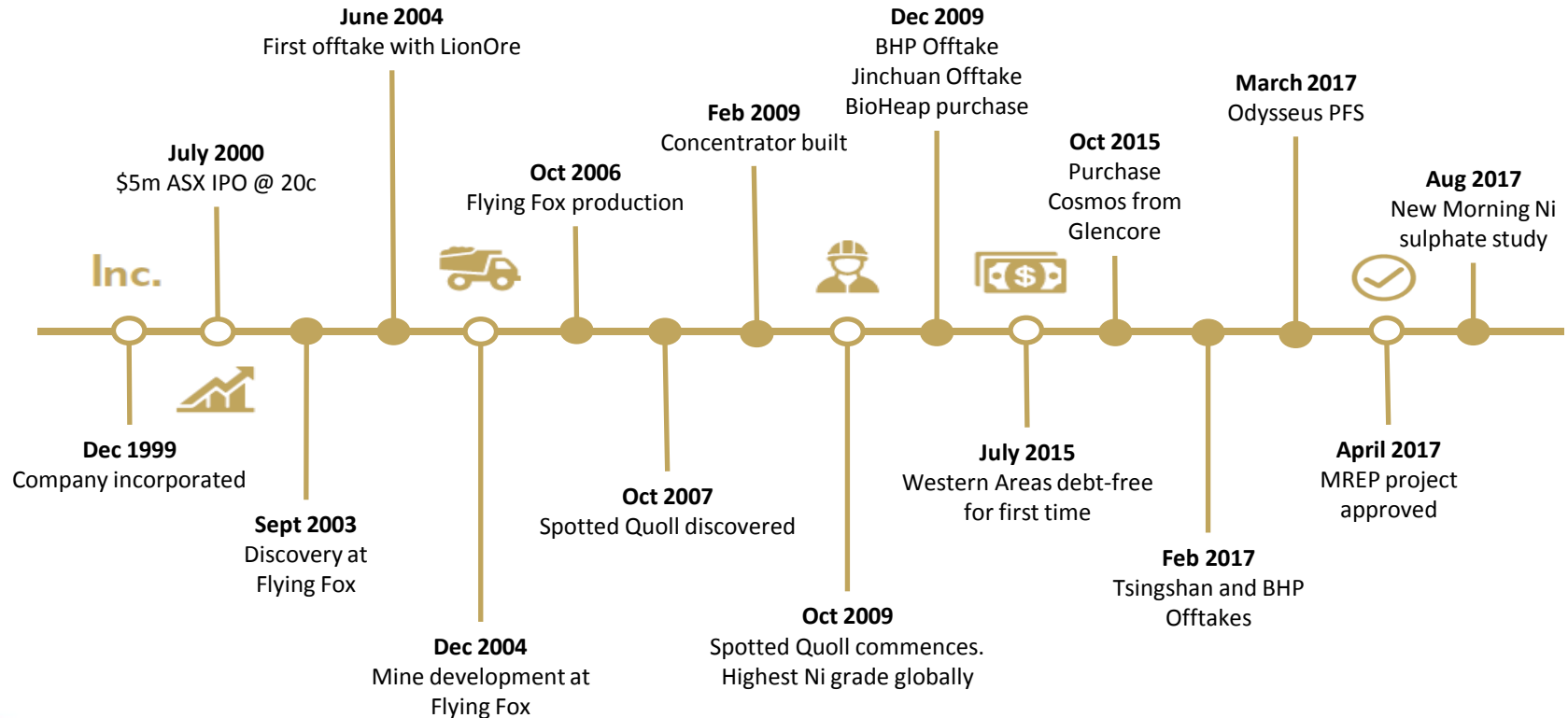




WESTERN AREAS CORPORATE SNAPSHOT



SNAP SHOT OF WSA HISTORY



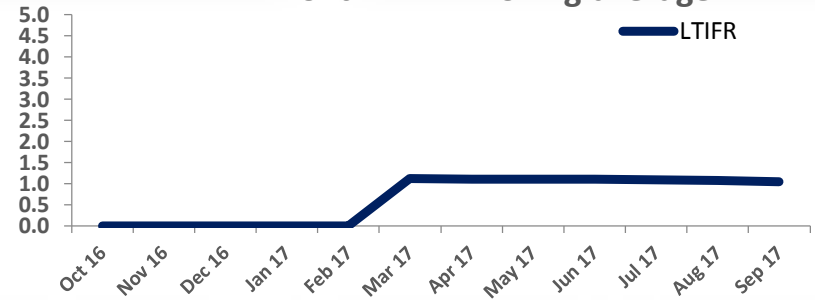
WESTERN AREAS ARE SAFE AREAS



Days LTI free

Exploration	3,319	Nov-08
Spotted Quoll	2,363	Aug-11
Cosmic Boy Concentrator	1,561	Oct-13
Flying Fox	202	Mar-17

12 month LTIFR moving average



Safe operations make efficient operations

CORPORATE OVERVIEW

High quality assets

- Highest grade, low cash cost nickel producer
- Free cashflow positive

No debt, clean balance sheet, low costs

- Low unit cash cost producer
- A\$140.3m cash at bank

Organic growth options and innovation

- Exciting exploration hits
- Odysseus DFS and Mill Enhancement project

Positioned for nickel recovery

- A\$1/lb lift in nickel price = circa A\$35m EBITDA
- New and improved offtake contracts implemented

ASX code	WSA
Share price	2.87
Shares outstanding (m)	272.2
Market Cap (A\$m) ¹	781.2
Cash (A\$m) ²	140.3

Cosmos Nickel Complex

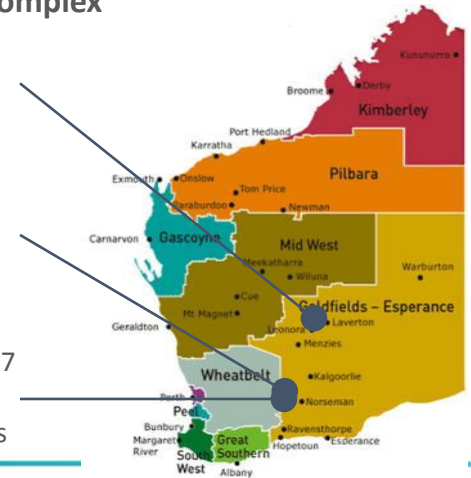
592kt Ni resources
PFS complete
DFS underway

Flying Fox

10kt Ni mined FY17
38kt Ni reserves
99.8kt Ni resources

Spotted Quoll

15.5kt Ni mined FY17
85.6kt Ni reserves
118.6kt Ni resources

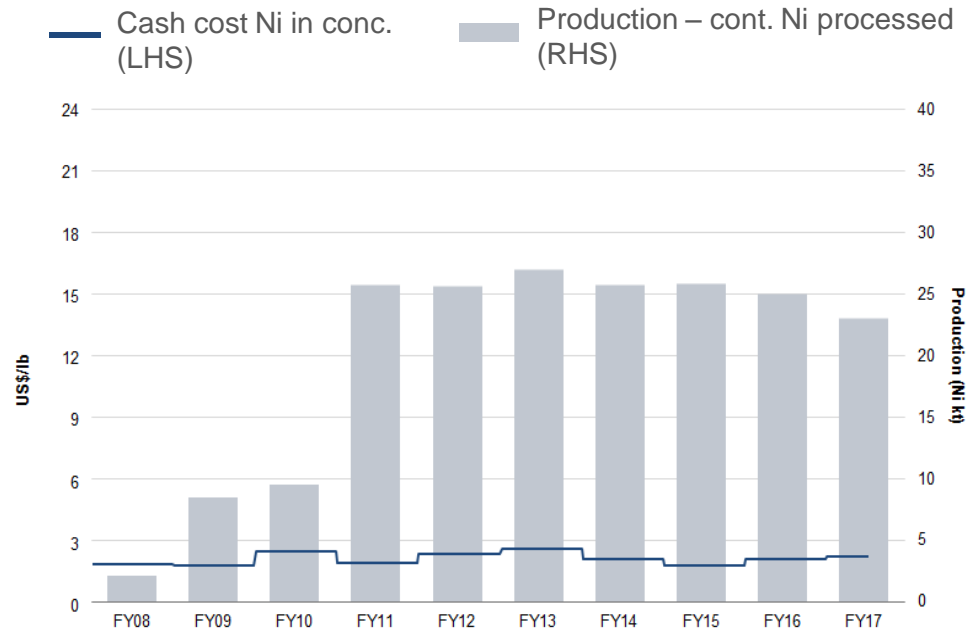


A leading mid-tier base metal producer

1. Based on share price on 5 October 2017 2. Cash as at 30 June 2017

CONSISTENT DELIVERY

- Seven years delivering or exceeding guidance
- Remain debt free
- Consistent low cost producer
- Mill performs well above nameplate capacity
- Ore sorter initiative
- Innovation – ‘pinch valve’ and mining optimisation at SQ



A management team that consistently delivers on guidance

KEEPING ACTIVE IN A VOLATILE MARKET

Innovation, adding value, finding new opportunities, doing things differently...

New and improved
offtake deals

MREP – a new,
higher grade and
value product
stream

Advancing Cosmos
– a third potential
mine

Greater operational
efficiency

Lithium
investments

Value from non-
core assets

Delivering on our promises...

Targets	Completed
Offtake contracts	✓
Cost control	✓
Prudent capital management	✓
Innovation	✓
Building our portfolio	✓
New products and markets	✓



INNOVATION



NEW AND IMPROVED OFF-TAKE CONTRACTS

Opening new markets

Superior commercial terms

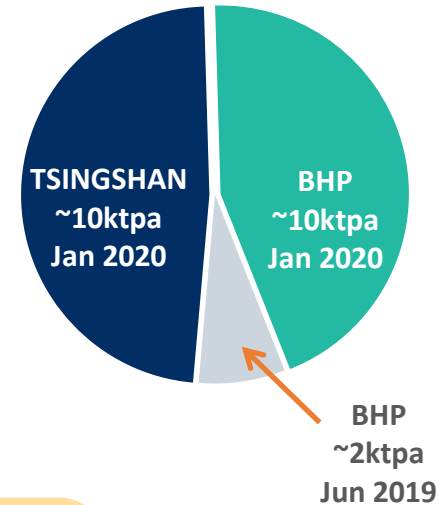
Creating more value from the same nickel product

Our Partners:

- **BHP:** 55%
- **Tsingshan:** 45%
- ✓ China's largest stainless steel producer
- ✓ Consumes ~25% of China's nickel demand
- ✓ Revenue RMB85 billion in 2015, 20k employees

Roasting

- Creates a high grade nickel oxide that can be blended with laterite ore
- By-product of sulphuric acid for 'pickling' stainless steel
- Most concentrates do not suit roasting
- Proven process - opening up opportunities with Tsingshan



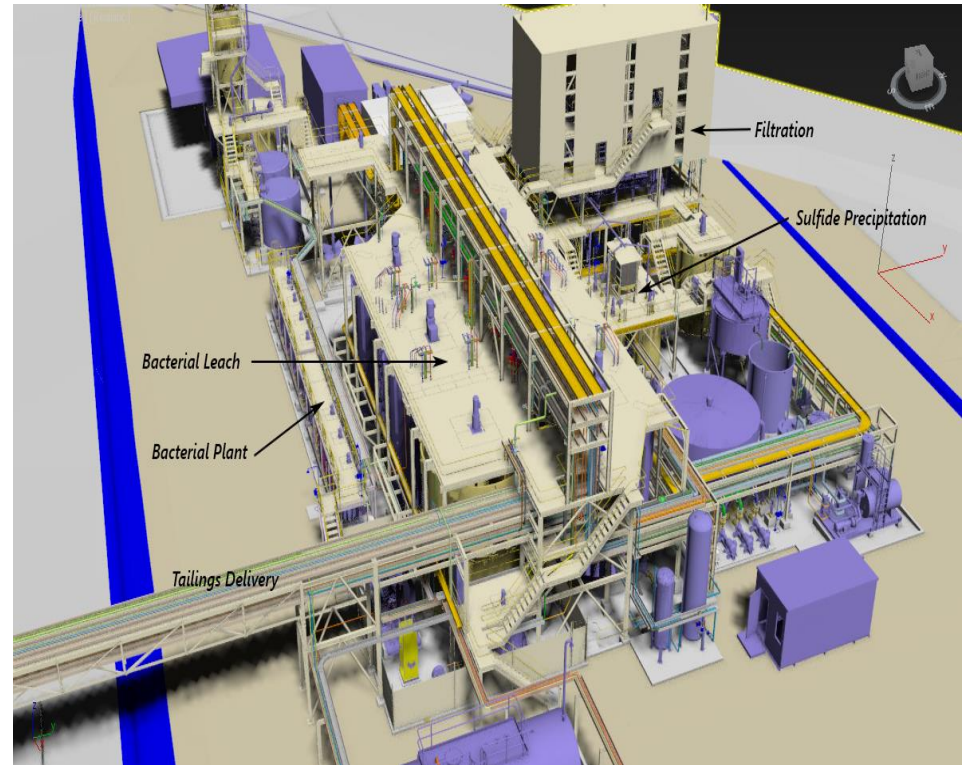
MILL RECOVERY ENHANCEMENT PROJECT (“MREP”)

Produces additional new higher-grade product

Generating value from waste tailings

New customers eg EV battery market

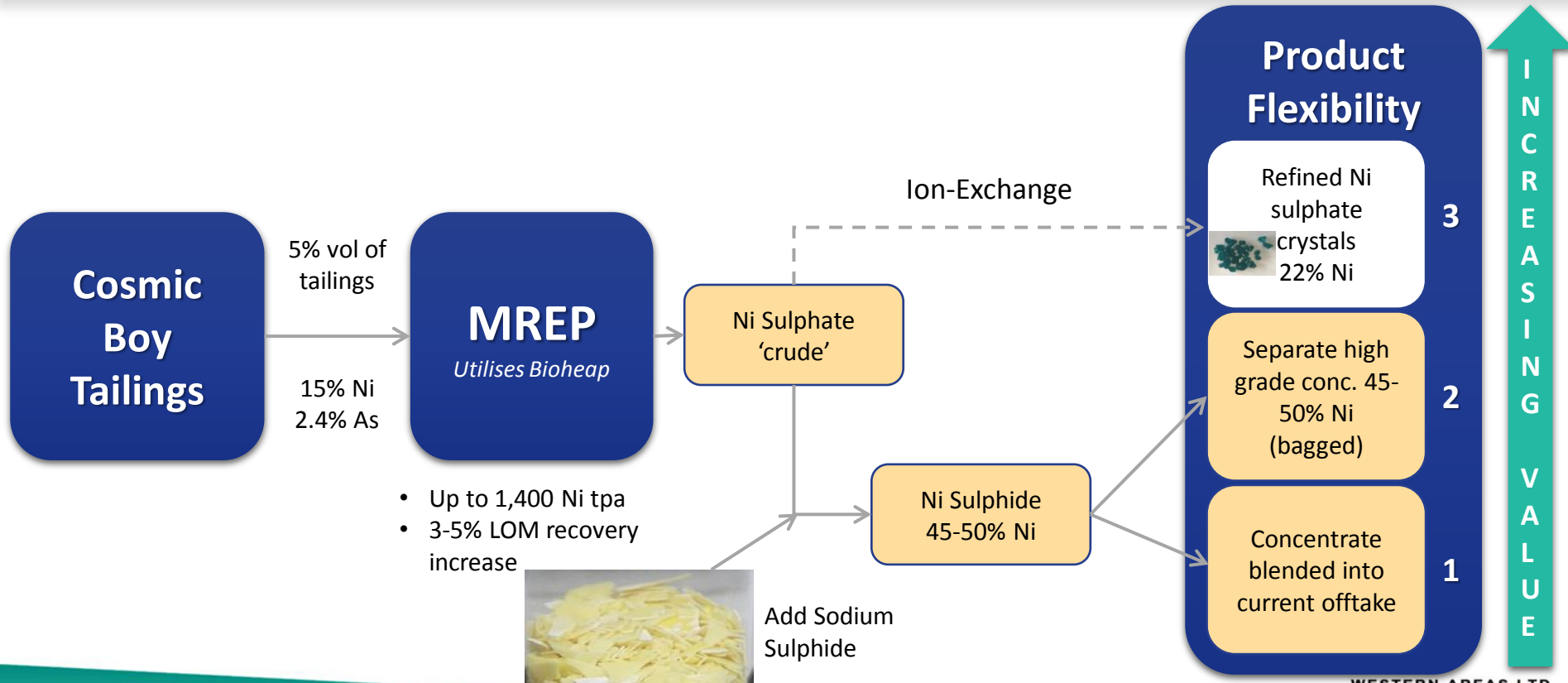
- Located adjacent to Cosmic Boy Nickel Concentrator
- Construction is in advanced stage
- First production of high grade nickel sulphide (45%-50%) in Q1 2018
- Utilises BioHeap® process to leach waste tailings
- A\$17.5m completion cost, unit cost A\$2.44/lb, 3 year payback



“MREP” SITE WORKS

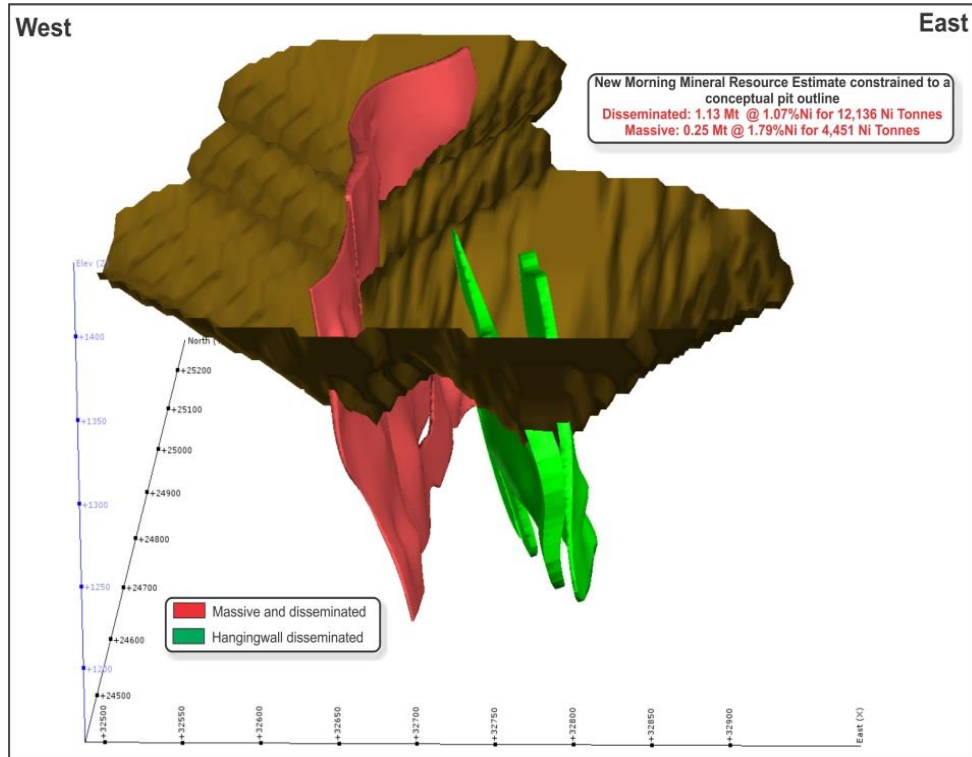


"MREP" FLOWSHEET

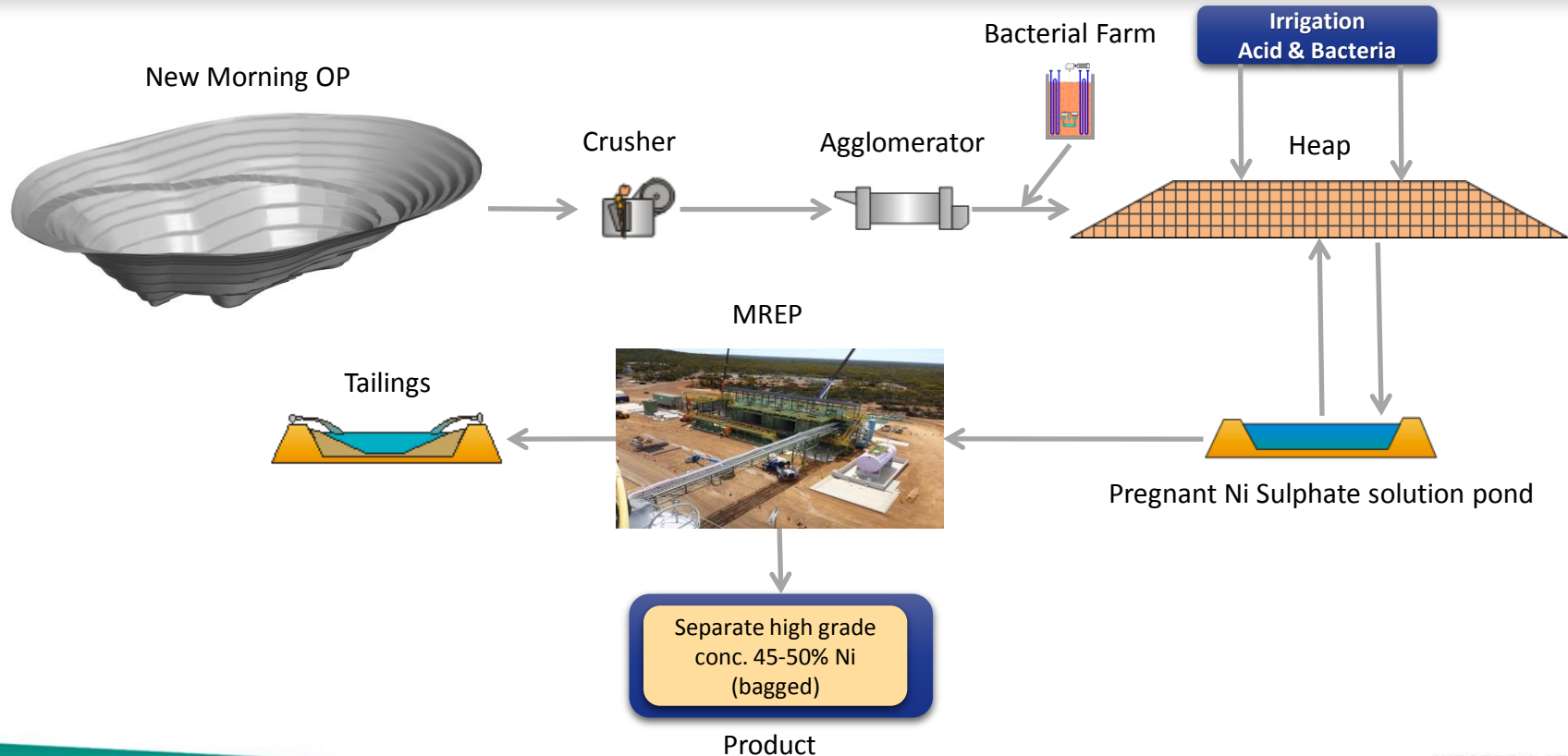


NEW MORNING / DAYBREAK

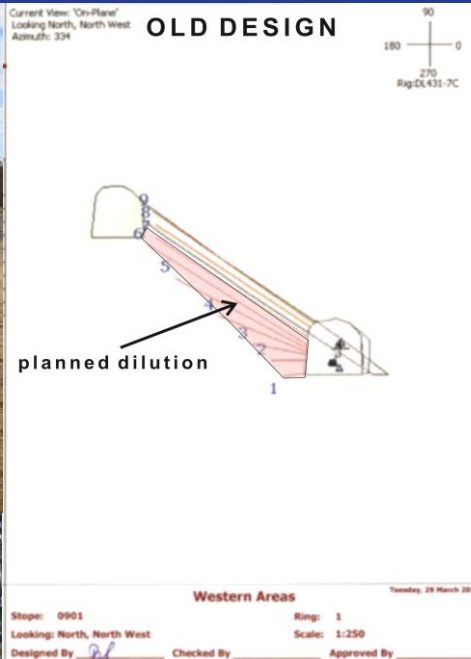
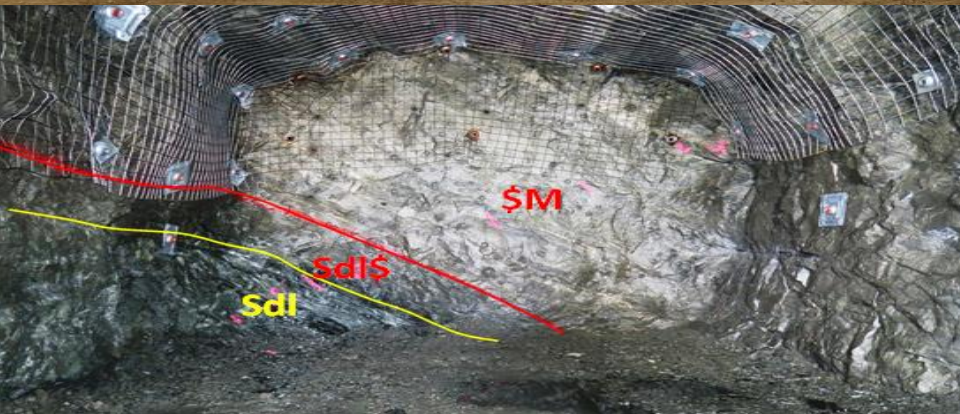
- Massive sulphide resource of 418kt @ 3.4% for 14,249 nickel tonnes
- Low grade resource (at 0.5% Ni COG) of 5.1m tonnes @ 1.3% for 67,090 nickel tonnes
- Located 2.5km from Flying Fox and 2.8km from Spotted Quoll
- Open Pit Scoping Study commenced
- BioHeap® testwork ongoing to evaluate heap leach criteria



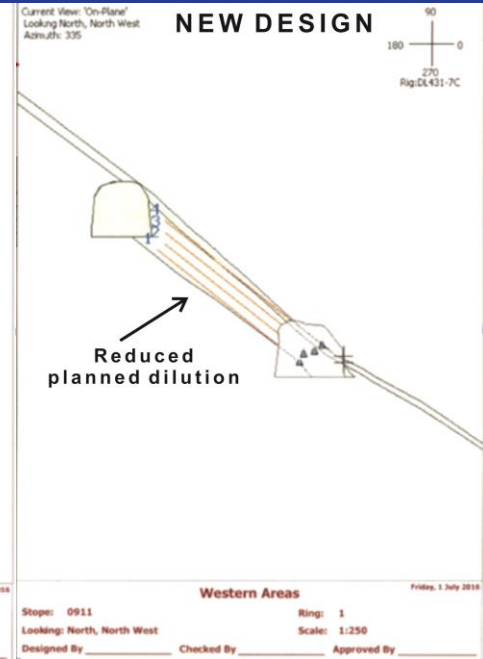
CONCEPTUAL NEW MORNING NICKEL FLOWSHEET



OPTIMISING OPERATIONS



Original design for budget



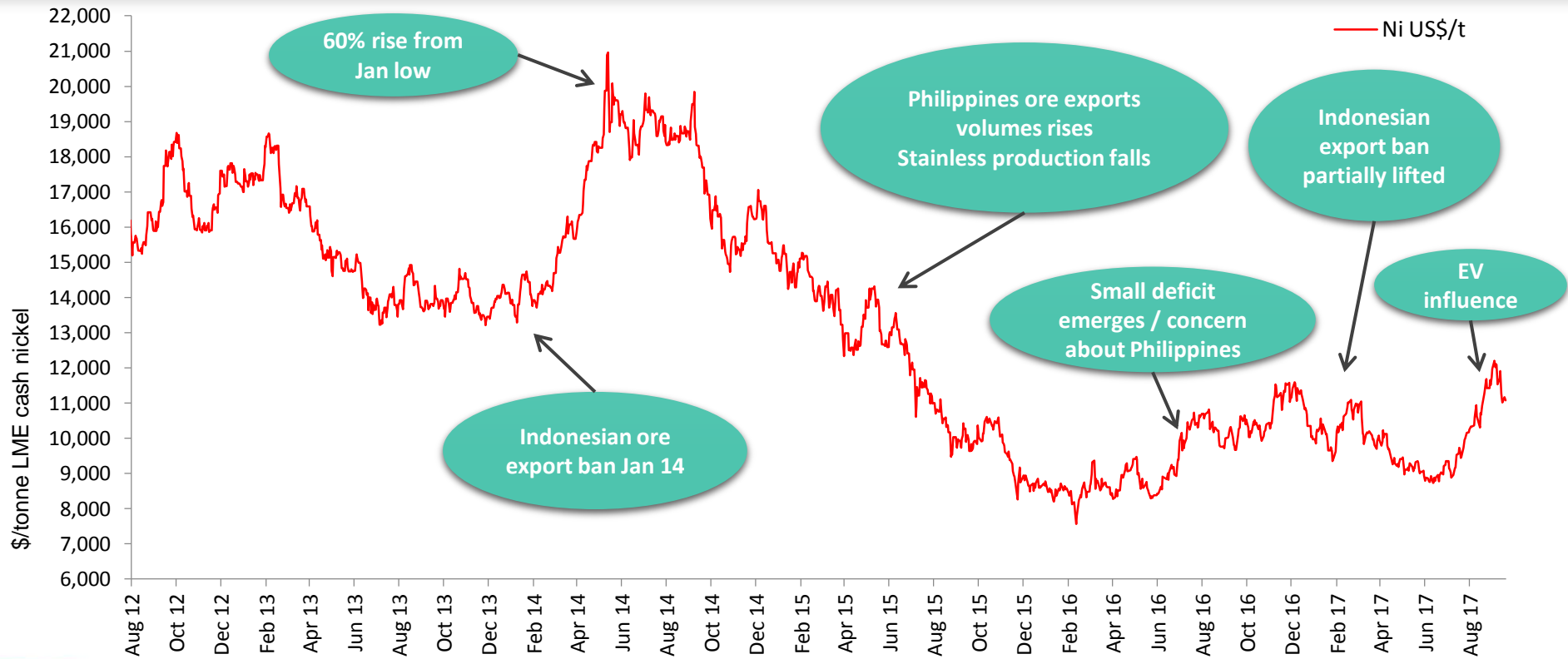
Mining method change
currently implemented



NICKEL MARKET OBSERVATIONS



NICKEL PRICE “ROLLER COASTER”



MARKET OBSERVATIONS

China NPI

- **2007 – Un-sustainable high Nickel prices** due to low LME stockpiles and strong Chinese demand in SS;
- **2007 - Introduction of NPI (Blast Furnace) in China** in response to high nickel price. (Based on low grade Filipino laterite ore (0.8-1% Ni);
- **Indonesian HG laterite ore exports (1.8-2% Ni)** supports advancement to Electric Arc (EA) and Rotary Kiln Electric Arc Furnace (RKEF) Technology, resulting in low cost integrated NPI/Stainless Steel plants in China.



Geo-Political Forces dominate landscape

- **Jan 2014 - Indonesian Laterite Ore export ban introduced** and subsequent ramp up of Filipino laterite exports;
- **Mid 2016 - Commencement of Filipino environmental** concerns and proposed ban on OP mining;
- **Ramp up of in country Indonesian NPI plants** and subsequent RKEF plants by Chinese companies (Tsingshan et al);
- **Jan 2017 - Relaxation (not reversal) of Indonesian laterite ore export ban** (only 8.8Mt of Laterite ore export approved);
- **Oct 2017 - Roy Cimatú appointed by law makers (October 2017)** – now awaiting Open pit mining legislation.

MARKET OBSERVATIONS

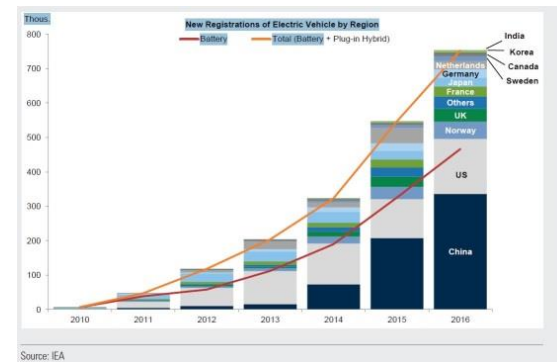
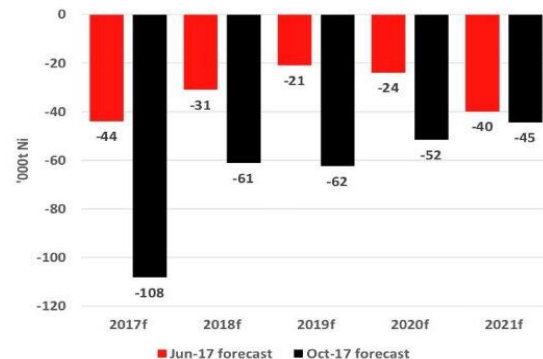
Supply/Demand

- **Demand for Stainless Steel good** (300 series);
- **HPAL projects plagued by high capital and operating costs** and only few have met nameplate capacity;
- **Inadequate mine closures** or scale back due to:
 - Non-core assets of large diversified mining groups;
 - Expensive re-habilitation costs;
 - Care and Maintenance of complex plants expensive;
 - Very high capital outlay;
 - Socio-political “hand-cuffs”;

Introduction of the Electric Vehicle (EV) battery market

- TESLA leading the charge, but....
- BYD from China, now the largest EV producer

Fig 7 Projected global nickel market balance



NI GROWTH FROM THE EV BATTERY SECTOR

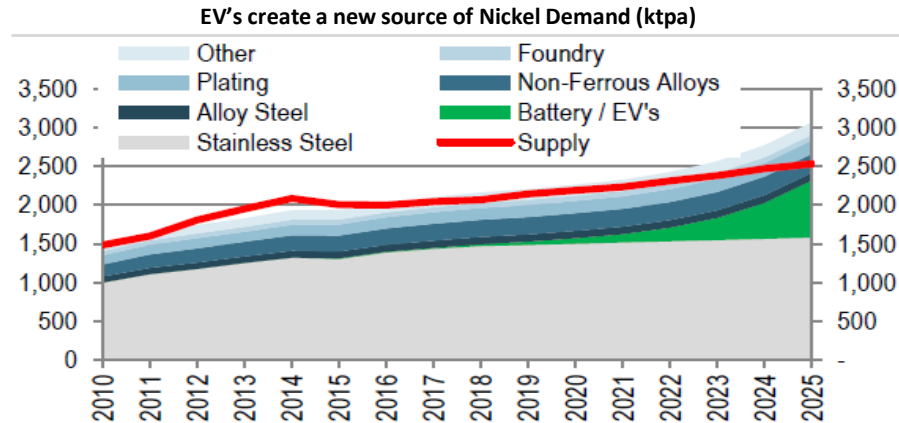
- Nickel is a key ingredient in lithium-ion batteries (~50kg per car); Technology change to NCM 811 from 622
- EV battery manufacture could drive +10-40% of incremental nickel demand by 2025 – *UBS, July 2017*
- ~15m EV production in 2025 would mean an additional ~300- 900ktpa of incremental nickel demand – *UBS, July 2017*

“It’s not just the demand for nickel – it’s the form as well”

Source: UBS Global Commodities – July 2017

“The company (VW) which aims to make up to three million EVs a year by 2025”

Source: Mitsui Bussan Commodities – September 2017



Source: Nickel Supply & Demand (ktpa); AME, WBMS, UBS.

“Asian Battery Makers Eye Nickel Top-Up As Cobalt Price Bites”

Source: Mitsui Bussan Commodities – August 2017

“Big Winner from Electric Vehicles”

Source: UBS Global Commodities – July 2017

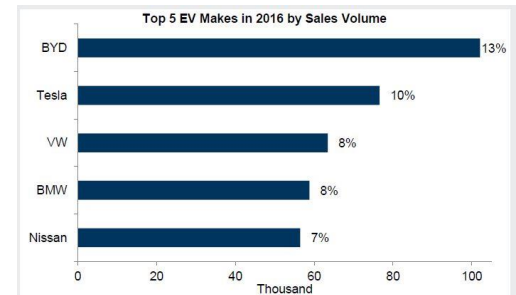
WHAT WE ARE SEEING

- **Significant increase in inbound off-take inquiries** for MREP product and Nickel Sulphide concentrate post current contract period. These are from:
 - Existing pre-cursor material manufacturers from Japan, Korea and China
 - New manufacturers sourcing future material to meet demand
 - Existing EV battery manufacturers
- **Our partner, China's largest stainless steel producer, Tsingshan, has strong growth plan** which will require significant additional nickel units
- **Technology change to NCM 811** which requires even more Nickel!
- **Current nickel price too low** to incentivise new project development. New mine development can 3 yrs – the nickel “pie” is not expanding!!!
- **May see divergent market in nickel supply** emerging between stainless steel and EV ???



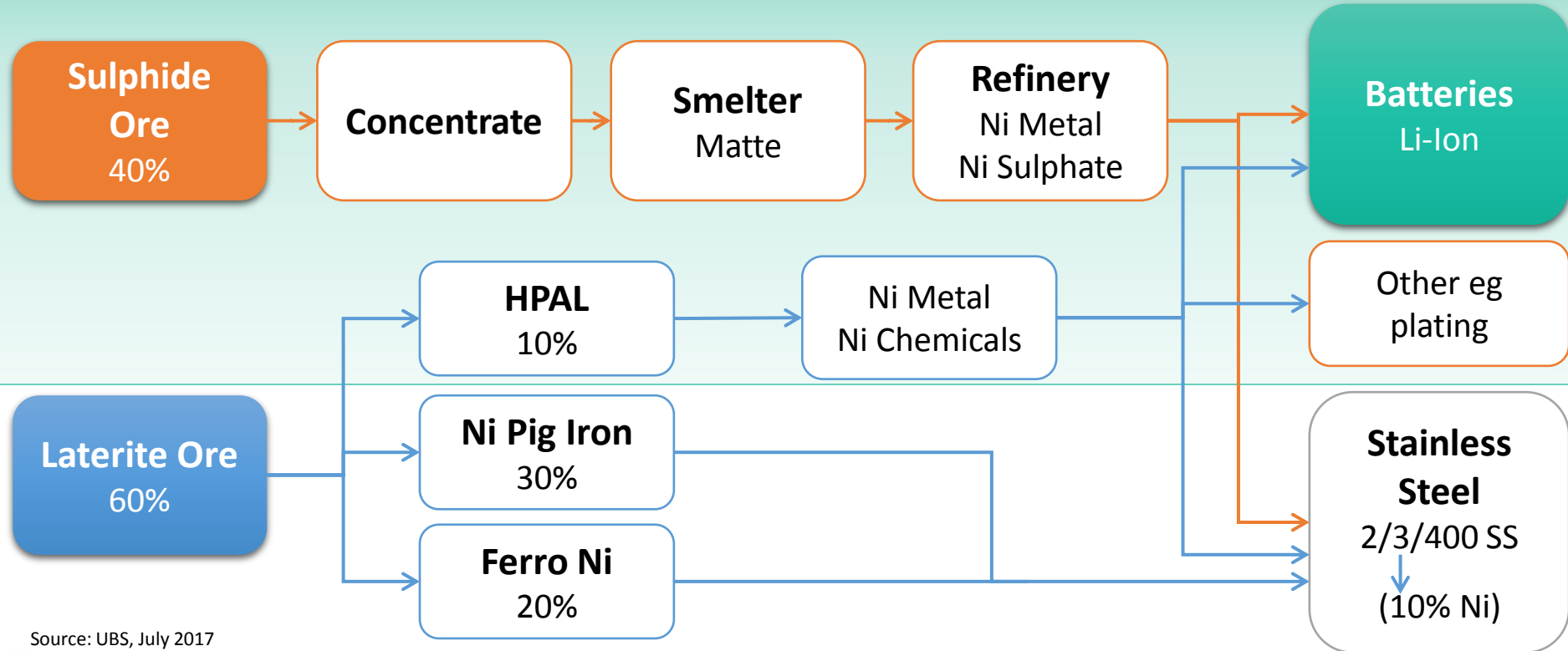
Estimated electrification impact per vehicle (avg NMC battery)

40-50kg Ni	50-75kg Cu
5-15kg Co	+ Cu for charging point + Cu for grid access



Source: auto.gasgoo.com, Goldman Sachs Global Investment Research

ONLY ~50% OF NICKEL WILL BE AVAILABLE FOR EV ?





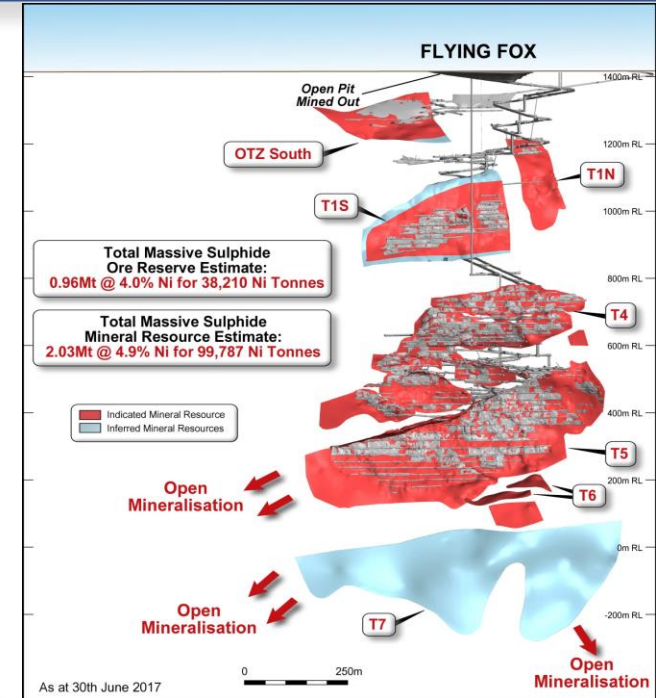
OPERATIONS

FLYING FOX MINE

Reserve Contained nickel	0.96Mt @ 4.0% 38,210 Ni tonnes
Resource Contained nickel	2.03Mt @ 4.9% 99,787 Ni tonnes
Mine life	4 years

Key points

- FY17 production – 10,486 Ni tonnes
- Reserve life has a demonstrated history of replenishment
- Added OTZ South Massive Zone – 182,898t @ 4.1% Ni for 7,417 nickel tonnes
- Recent resource extension drilling into T6 domain has been encouraging, **including 8.0m @ 10.7% Ni**
- Has been operating for over 12 years



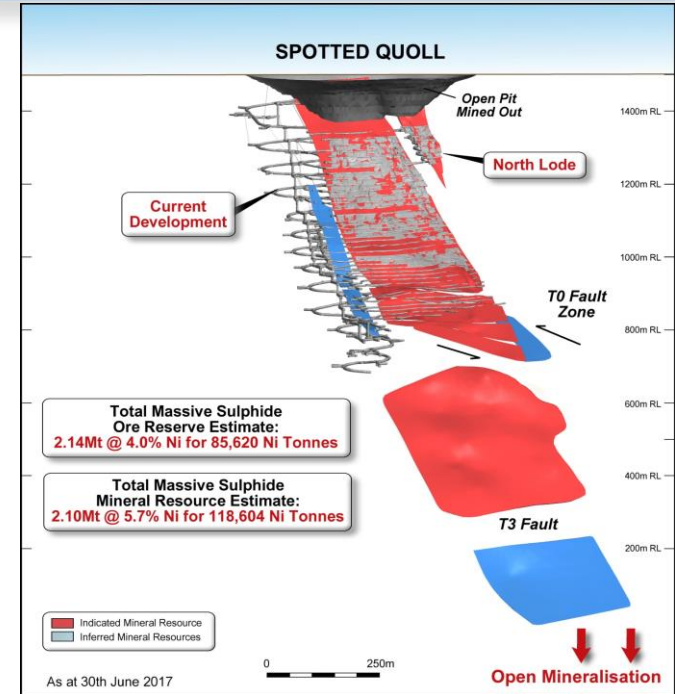
The heart of Western Areas' Operations

SPOTTED QUOLL MINE

Reserve Contained nickel	2.14Mt @ 4.0% 85,620 Ni tonnes
Resource Contained nickel	2.10Mt @ 5.7% 118,604 Ni tonnes
Mine life	7years

Key points

- March Mineral Resource upgrade +12,650 nickel tonnes
- Has never recorded an LTI
- FY17 record annual production – 15,510 Ni tonnes
- Remains open at depth and to the North
- Production has outperformed reserve tonnes and grade consistently
- Top down mining with paste fill



WSA explored, discovered and developed

COSMIC BOY NICKEL CONCENTRATOR

Concentrator Summary

- Mill processed an annual record of 617,808k tonnes of ore in FY17, for 23,005 nickel tonnes
- 12% above name plate capacity of 550,000 tpa
- Concentrate grades of between 15.0% to 16.0% Ni
 - Premium blending product (Fe/Mg ratio >15:1)
 - Desirable to smelters and roasters

Export Infrastructure and Logistics

- Export concentrate transported to Esperance Port in half height containers and shipped through to China
- BHP Nickel West concentrate delivered to Kambalda by road



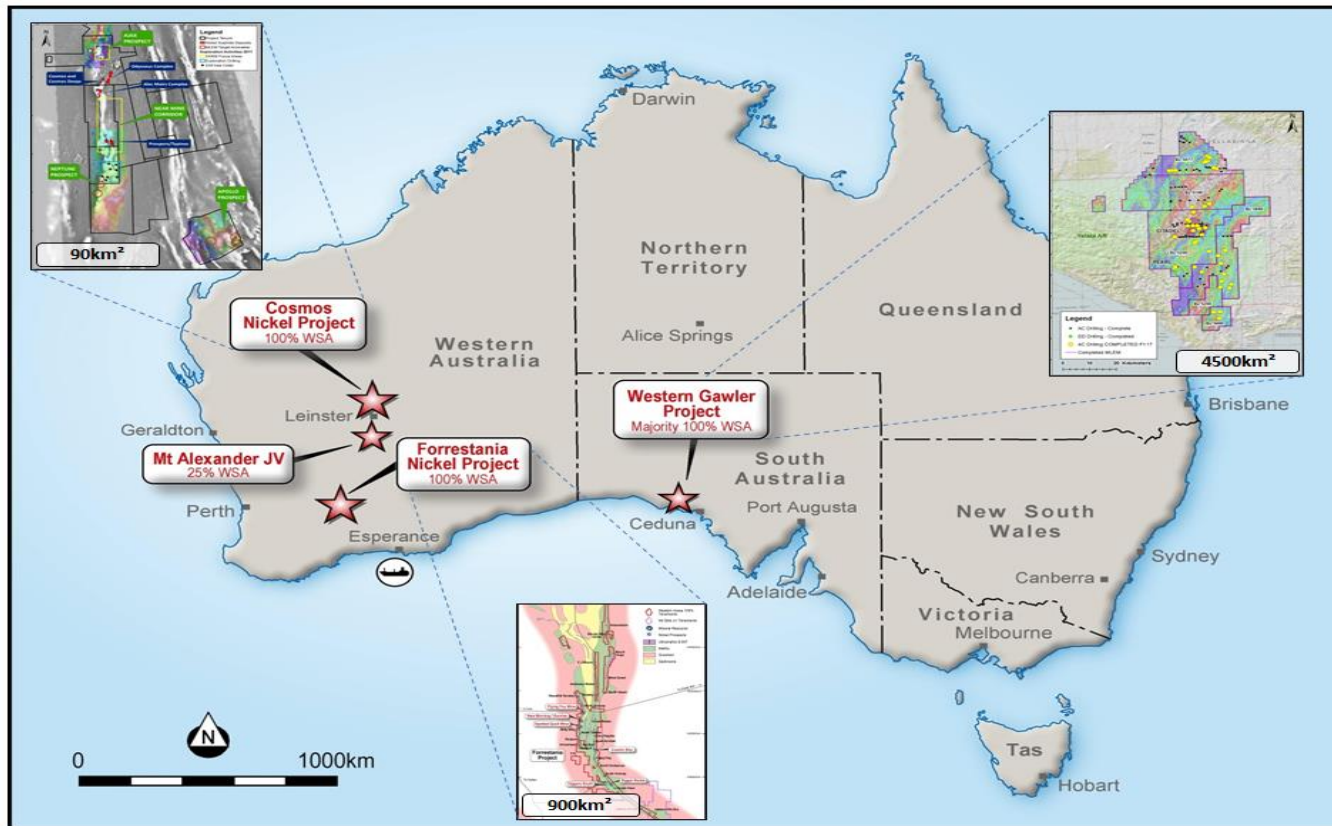
WSA produces a high quality and in demand nickel concentrate



EXPLORATION AND GROWTH



EXPLORATION UPSIDE – KEY TENEMENT HOLDINGS



ORGANIC GROWTH PROFILE

Large holding in 2 significantly endowed nickel provinces:

Forrestania Operations – Western Australia

- History of reserve/resource extension
- New Morning project – Near mine leveraging existing infrastructure with open pit scoping study underway utilising BioHeap® technology
- Mill Recovery Enhancement Project – lift metallurgical recoveries by 3-5%
- Evaluating Lithium potential at the Forrestania tenements

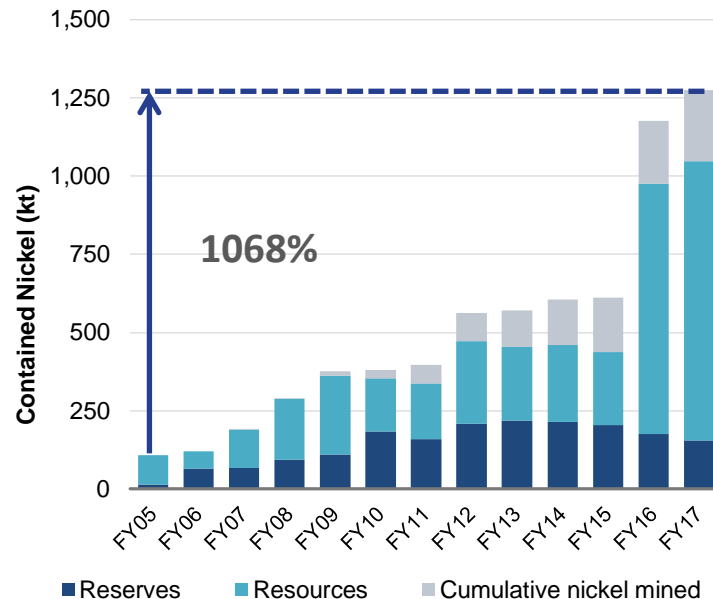
Cosmos Nickel Complex – Western Australia

- Existing resources and infrastructure (previous Glencore/ Xstrata/Jubilee Mines operation)
- Odysseus DFS underway with significant high grade intersections in latest drilling
- First pass drilling at Neptune successful

Western Gawler – South Australia

- First mover advantage
- Intrusive style and geologically similar to Nova

Historic reserves & resources

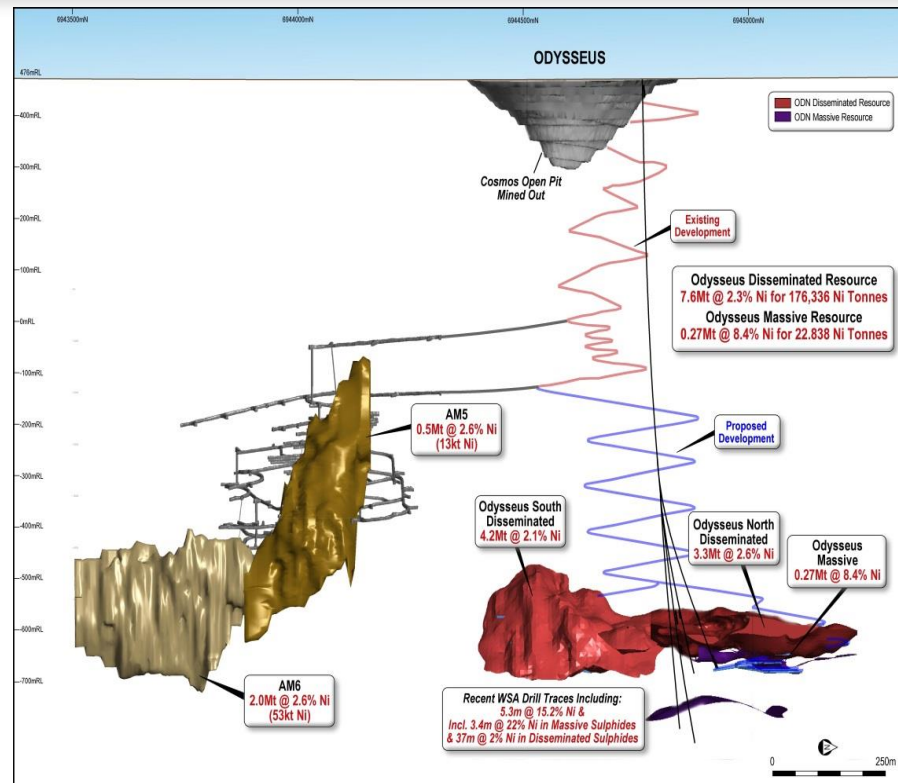


WSA has a track-record of discovery and development

ODYSSEUS PROJECT


A potential new (third) nickel operation on the horizon...

- Covers 88km² in prolific nickel belt, including the Odysseus deposit
- Odysseus PFS shows financially and economically robust project and nickel production metrics
- Very low sustaining capital expenditure after initial pre-production capex
- Very low all-in unit sustaining costs **of A\$3.69/lb (US\$2.70/lb)**
- Odysseus DFS underway, to be completed April 2018
- Very high grade drill results at Odysseus North, extension to project resource
- **Significant exploration upside:**
 - ✓ AM5 and AM6 orebodies (53kt of contained nickel)
 - ✓ Recent massive sulphide drilling success beneath Odysseus
 - ✓ Regional drilling success at Neptune
 - ✓ Opportunities for a roasting concentrate




ODYSSEUS PRE-FEASIBILITY STUDY RESULTS


Key Metrics

**ODYSSEUS SOUTH
DISSEMINATED** 
4.2Mt @ 2.1% for 88,200 Ni Tonnes



**ODYSSEUS NORTH
DISSEMINATED** 
3.3Mt @ 2.6% for 85,800 Ni Tonnes





ODYSSEUS MASSIVE 
0.27Mt @ 8.4% Ni for 22,838 Ni Tonnes





PRODUCTION
 12,000
Ni Tonnes
pa

MINE LIFE
 7.5 Years


PRE-TAX NPV
 A\$292M

PRE-TAX IRR
 28%

PAYBACK
 3.5 Years

NET CASHFLOW PRE TAX
 A\$580M

TOTAL CAPITAL COST
 A\$190 – \$210M

C1 CASH COSTS
 A\$3.21/lb (US\$2.41/lb)

**ALL IN SUSTAINING
COSTS**
 A\$3.69/lb (US\$2.77/lb)

Assumptions:

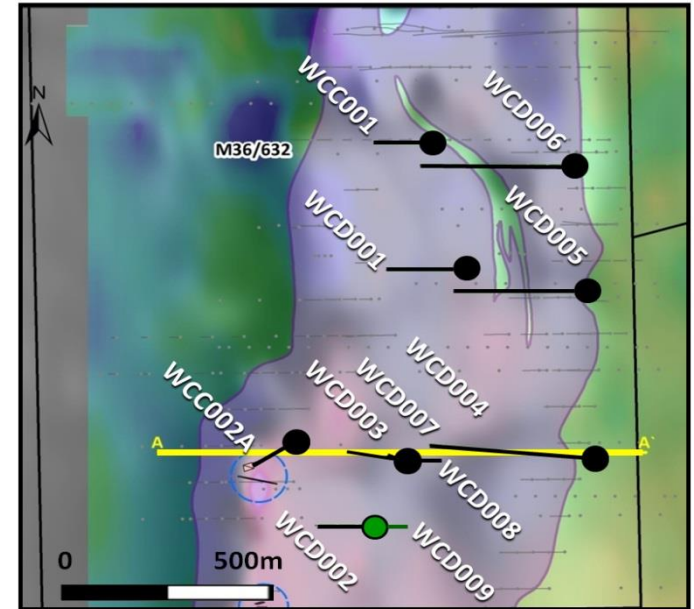
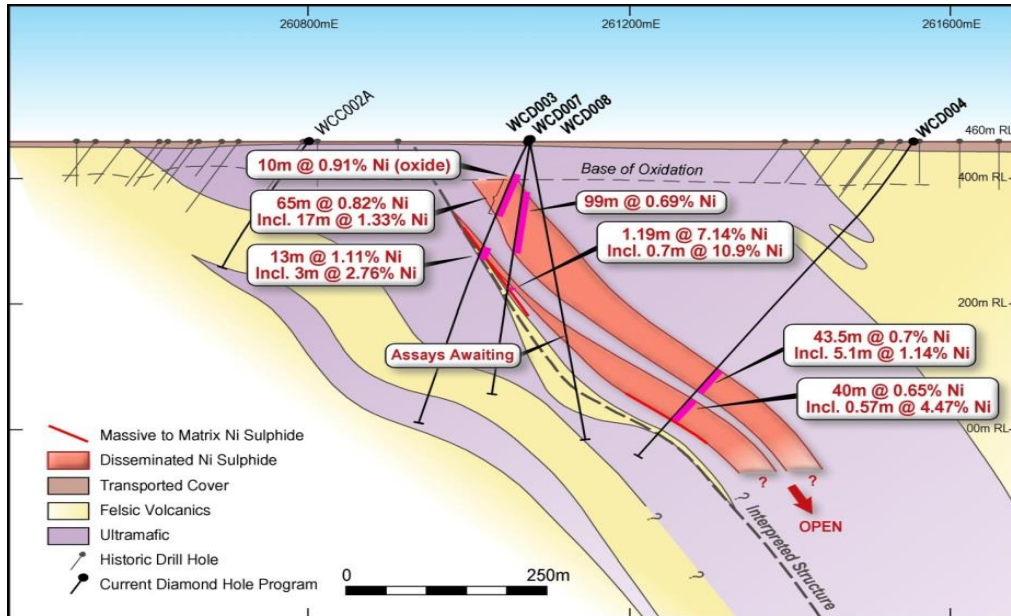
- Nickel Price of US\$7.50/lb;
- USD Exchange rate A\$0.75

For full pre-feasibility detail, see ASX announcement, 30 March 2017

COSMOS EXPLORATION - NEPTUNE

Drilling Results

- First drill program completed at Neptune and high grade nickel sulphides intersected
- 65.0m @ 0.82% Ni, including 17.0m @ 1.33% Ni
- **1.2m @ 7.1% Ni, including 0.7m @ 10.9% Ni**



WESTERN GAWLER PROJECT

Large-Scale Greenfields Exploration Asset

- 4,450km² tenement holding
- Majority 100% owned
 - With Strandline farm in agreement – WSA earning up to 90%
- Underexplored margin of the Gawler Craton - camp scale opportunities preserved

Right Address

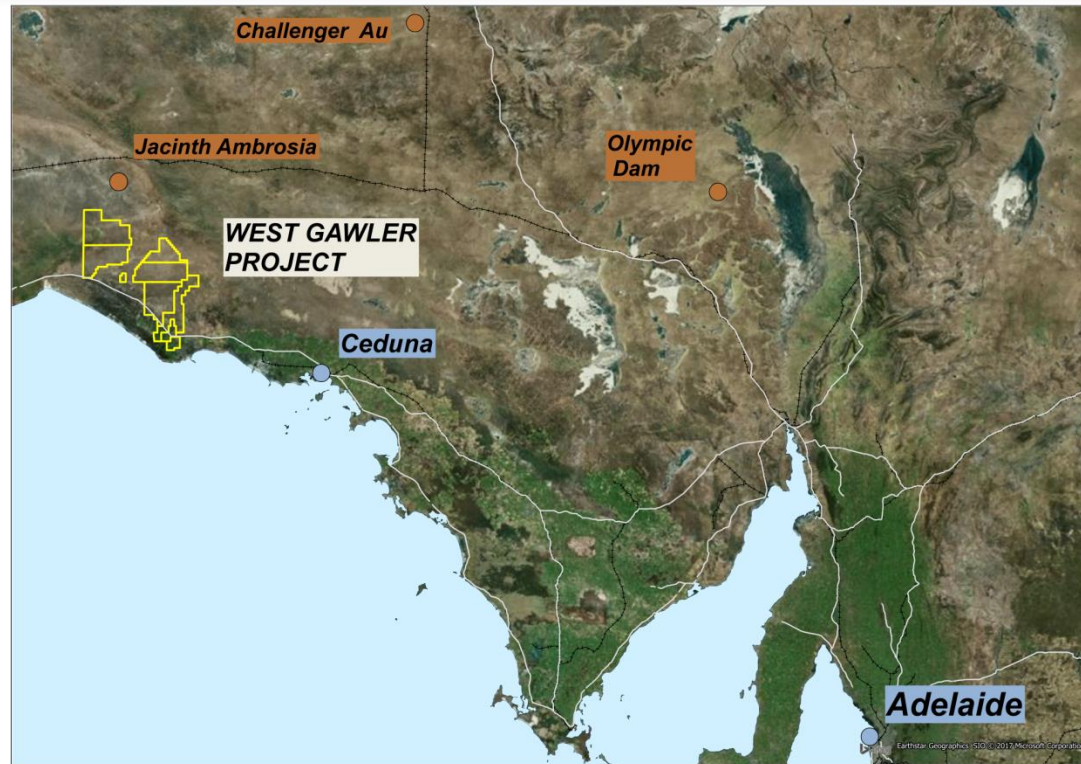
- Multi-commodity - Nickel- Copper- Gold
- Multitude of untested targets
- Analogous to Fraser Range

Right Rocks

- Fertile mafic-ultramafic intrusive rocks throughout area
- Magmatic nickel sulphides confirmed

Right Signatures

- Anomalous values returned from drilling



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