

# POSEIDON

N I C K E L

## Targeting production in 2022

2021 Noosa Mining and  
Exploration Investor Conference  
Virtual Presentation  
15 July 2021



# Disclaimer and Competent Person Statement



## Disclaimer

This presentation is for information purposes only. It has been prepared for the purpose of providing general information about Poseidon Nickel Limited ("Poseidon"). It should not be considered as an offer, invitation, solicitation or recommendation to subscribe for or purchase any securities in Poseidon in any jurisdiction. It is not recommended that any person makes an investment decision in relation to Poseidon in reliance on this presentation material. This presentation does not constitute financial product advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

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## Competent Person Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr Andrew Pearce, who is an employee of Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists

The information in this report which relates to the Black Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and who is a Members of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who was a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Kahan Cervoj who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Silver Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Lake Johnston Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who was a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Lake Johnston Ore Reserves Project is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

The information in this Updated Gold Tailings Project Mineral Resource Statement which relates to Mineral Resources is based upon details compiled by Ian Glacken, who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Ian Glacken is an employee of Optiro Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and the 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 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

Mr Pearce, Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan all have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Pearce, Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release

## Forward Looking Statements

This release contains certain forward looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward looking statements

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 interpretation 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 or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Golden Swan underground mine.



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# COMPANY OVERVIEW

# The Poseidon Story

Western Australian  
focused

Experienced  
Exploration and  
Development Team

Three quality  
nickel sulphide  
assets

Significant  
exploration  
upside



Combined Nickel  
Resources  
~400kt Ni



2Mtpa processing plant  
at Black Swan  
1.5Mtpa processing  
plant at Lake Johnston  
(both on C&M)



Gold Tailings Project  
containing 180koz Au +  
option to treat another  
62koz Au



Targeting nickel  
production in 2022



Golden Swan and  
Silver Swan  
**Ultra high-grade  
nickel**



Golden Swan  
High-grade nickel  
discovery



Multiple production  
scenarios given two  
strategically located  
processing plants



Progressing toward  
generating revenue in  
2022



# Experienced Board and Executive Team



**Derek La Ferla**

**Non-Executive Chair**

Derek La Ferla is an experienced corporate lawyer and company director with over 30 years of experience working in corporate and commercial law. Derek is on the National Board of the AICD, a member of its WA Council and a fellow since 2010. He is also a partner (part time) at large independent WA law firm, Lavan and the Chairman of Sandfire Resources Ltd and Threat Protect Australia Ltd.



**Peter Harold**

**Managing Director and CEO**

Peter Harold is a process engineer with over 30 years corporate experience in the minerals industry, specialising in financing, marketing, business development and general corporate activities. Prior to joining Poseidon, Peter was the Managing Director of Panoramic Resources for 18 years which developed and operated the Savannah and Lanfranchi nickel sulphide underground mines.



**Dean Hildebrand**

**Non-Executive Director**

Dean Hildebrand is a Director and Chief Financial Officer of Black Mountain Metals, a global battery metals mining company. He is a corporate finance professional with experience in capital markets, mergers and acquisitions, and project financing within the natural resources sectors. Dean is the nominee Director for Black Mountain Metals Pty Ltd, a significant shareholder of the Company, holding 19.6%



**Felicity Gooding**

**Non-Executive Director**

Felicity Gooding is the Deputy Chief Executive Officer of Minderoo, encompassing the philanthropic and private business holdings of Andrew and Nicola Forrest. Felicity has held senior positions at PwC, Diageo Plc and Fortescue Metals Group Ltd where she was instrumental in the raising of over \$5bn expansion financing. Prior to joining Minderoo, Felicity was an executive at potash development company Sirius Minerals Plc. Exploration Companies Inc.



**Peter Muccilli**

**Non-Executive Director**

Peter Muccilli is a geologist with more than 30 years of extensive exploration, development, operational experience in the resources sector, particularly nickel, gold, zinc and lead. He has proven experience in mine geology, exploration and resource estimation and was the former Managing Director and Chief Executive Officer for Mincor Resources NL. Peter is also the Technical Director for Constellation Resources Ltd.



**Brendan Shalders**

**CFO & Joint Co Sec**

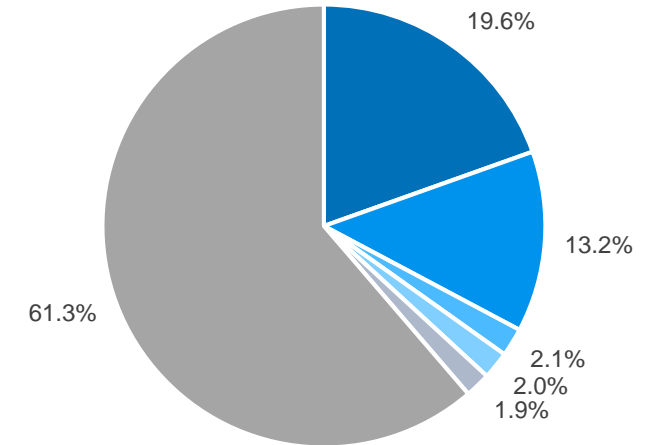
Brendan Shalders is a Chartered Accountant having commenced his career at KPMG. He was the Managing Director at FTI Consulting for nearly 3 years. Having held senior finance roles in both advisory and corporate settings, he has over 16 years' experience in corporate finance, accounting, risk management and business development, predominantly within the mining and mining services industries.

## Capital Structure/Enterprise Value

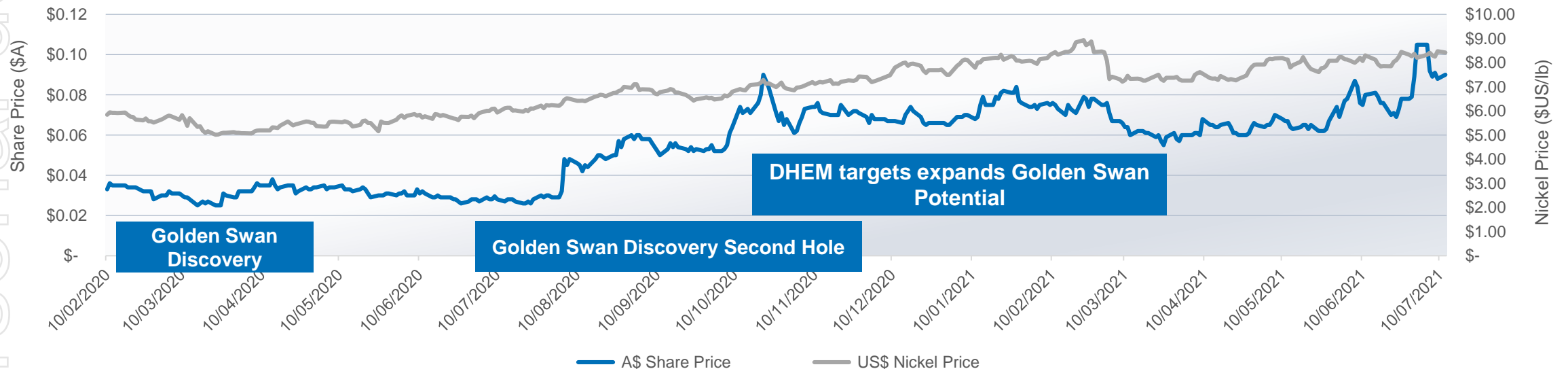
ASX Code	POS
Shares on Issue	2.81B
Share Price (14 July 2021)	\$0.10
Market Cap	~\$280M
Cash (31 Mar 2021)	~\$15M

## Significant Shareholders

- Black Mountain Metals
- Tattarang/Forrest
- Credit Suisse Group
- UBS AG
- Private Investor - Sydney
- Remaining Shareholders



## Share Price Performance





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**NICKEL MARKET**

# Electric Vehicles to drive massive nickel demand growth

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**“Our team accepted the challenge to transform product development at GM and position our company for an all-electric future,” said Mary Barra, GM chairman and CEO.**

November 2020



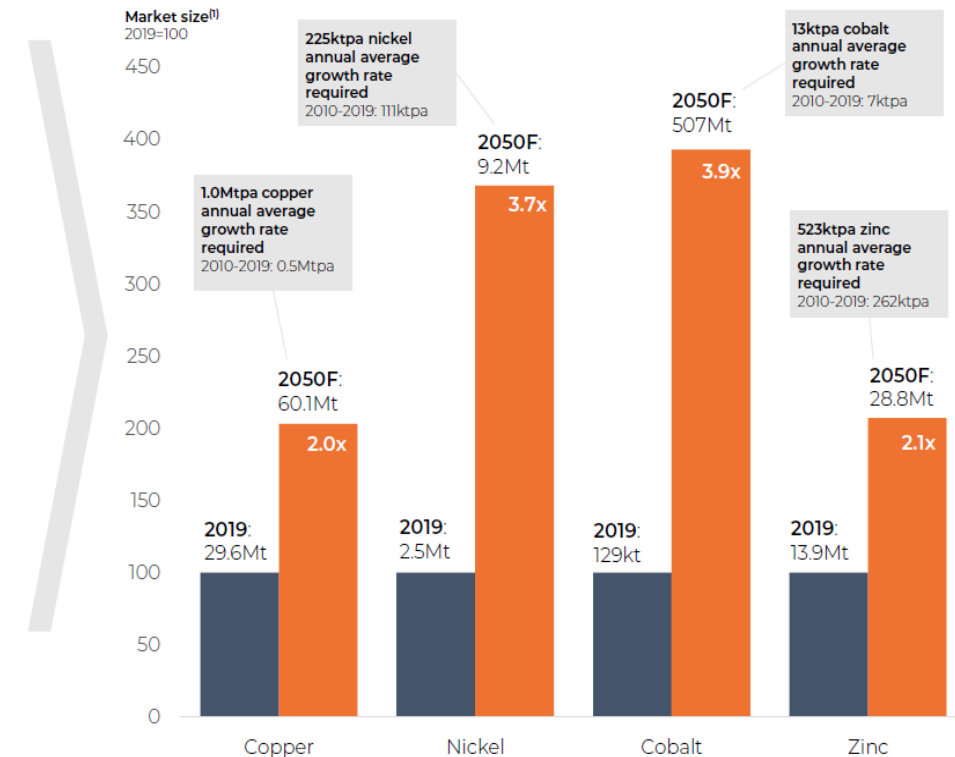
## Electric Vehicles (EVs) drive nickel demand

- Significant investment by car manufacturers in electrification
- Traditional car makers, i.e. VW, showing they can build EVs cost efficiently with their ID.3 model UBS, March 2021
- Battery manufacturers adopting battery chemistries with higher nickel content Trafigura research, SMM, CIAP
- These batteries projected to hold 63% of EV market in six years
- Supply deficits in nickel forming over the decade
- **Prices expected to rise to incentivise new production capacity**

## Projected Base Metal Demand Growth

... needs significant metals supply growth ...

Forecast commodity demand under a Rapid Transition 1.5°C pathway



Glencore 2020 Preliminary results

# Jaguar Land Rover goes all-electric

Land Rover's **Jaguar** brand will be **all-electric by 2025**, the carmaker has said. Longer term, the UK government wants to outlaw the sale of **all** wholly petrol and diesel cars from 2030.





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**OUR NICKEL PROJECTS**



# Black Swan Project



Aerial view of  
Black Swan  
concentrator



## History

- Black Swan Production - 5.9Mt @ 0.7% Ni for 41kt Ni
- Silver Swan Production - 2.7Mt @ 5.1% Ni for 137.5kt Ni
- Total production - 178.5kpta Ni in concentrate

## Current Resources & Infrastructure

- Silver Swan underground 16kt Ni\* (grade - 9.5%)<sup>1</sup>
- Black Swan open pit & stockpiles 179kt Ni\* (grade - 0.6%)<sup>1</sup>
- 2.2 Mtpa processing plant and associated infrastructure

## Future Focus and Activities

- Resources & Reserves definition drilling of Golden Swan
- Continue to explore the Southern Terrace
- Pre-works ahead of FID to mine high-grade ore in December 2021
- Develop & commission high-grade underground mine, second half 2022



**Black Swan 2.2Mtpa milling circuit**

\* Contained Ni Metal

<sup>1</sup> Mineral Resources Statement Table 1 attached.

# Black Swan Project

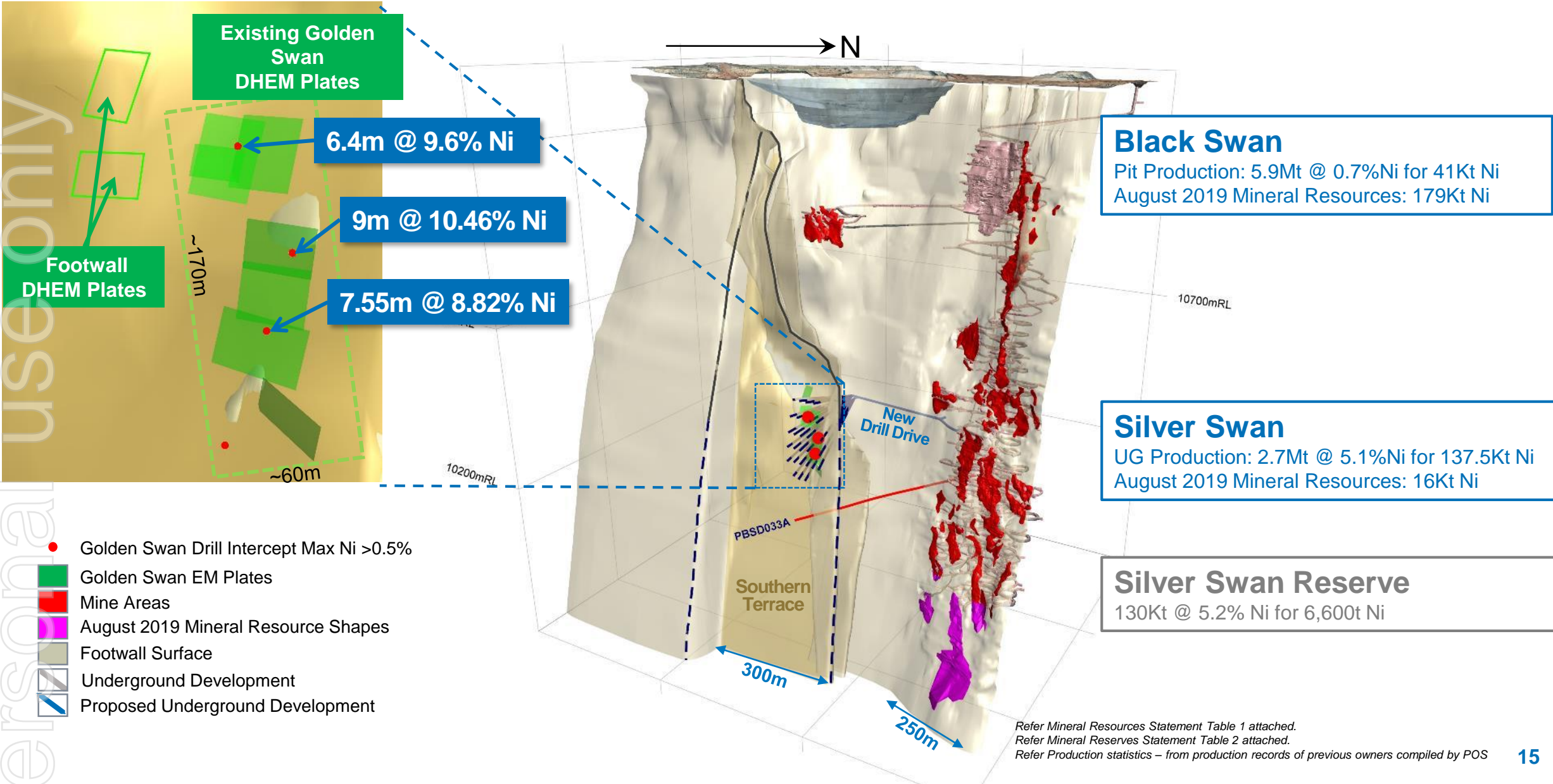
## Silver Swan Discovery - 1995



**Maiden Resource 440,000 tonnes @ 14% Ni  
for approximately 62,000 tonnes of Ni<sup>1</sup>**



# Golden Swan High Grade Discovery & Southern Terrace Prospective







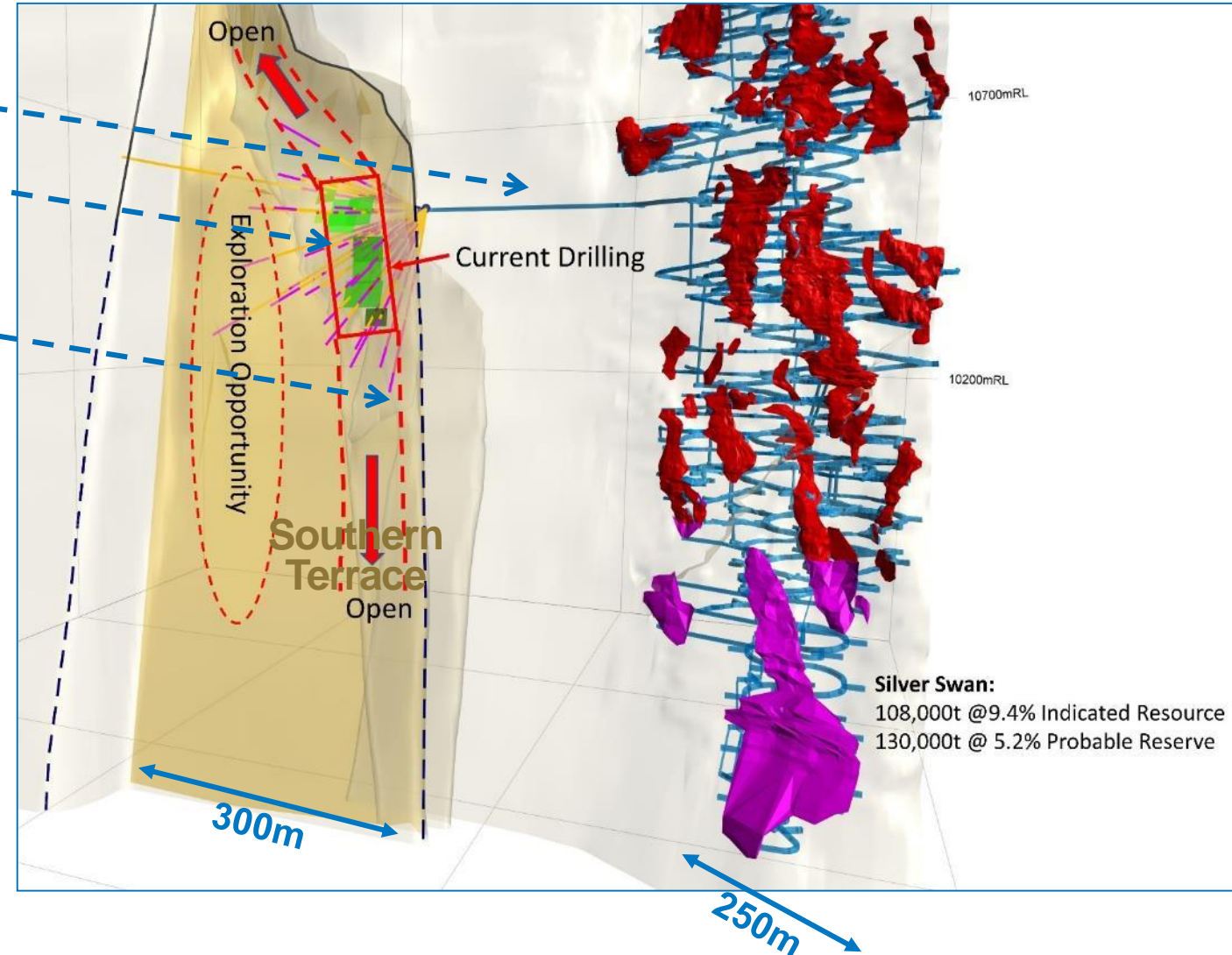
- **Resource drilling – 13,000m on track to be completed in July**
- **Southern Terrace – further EM surveys & drill testing ongoing**

## Golden Swan Metallurgy

- Preliminary Testwork very positive<sup>1</sup>
- Ni recovery >90%
- Ni conc grade >13%
- Fe:MgO > 50:1
- Testwork ongoing

## Processing

- GR Engineering completing a scoping study on restarting 150ktpa plant and 1.1Mtpa plant



<sup>1</sup> ASX Announcement "Excellent results from preliminary metallurgical testwork" dated 25 November 2020.

# Golden Swan Path to Market

The Company is assessing several options to bring Golden Swan to market

## 1. Ore Treatment Concentrate Purchase Agreement (OTCPA)



## 2. Direct Shipped Ore (DSO)



## 3. Concentrate



The OTCPA and DSO paths to market present high margin, low capital intensity options compared to refurbishing the Black Swan concentrator

# Progressing Toward Production in 2022

WORKSTREAM	1Q21	2Q21	3Q21	4Q21
<b>GOLDEN SWAN</b>				
- Drill drive				
- Resource drilling				
- Met test work				
- Detailed mine design / reserve				
- Production / marketing studies (DSO v Concentrator)				
- Final Investment Decision				
<b>BLACK SWAN OPEN PIT AND HIGH-GRADE UNDERGROUND</b>				
- Review of 2018 Restart Study incorporating Golden Swan and Windarra				
- Final Investment Decision				

**Production  
in 2022**

Note: proposed timeline could change subject due to delays in completing proposed workstreams, factors outside the control of the Company or macro economic considerations like commodity prices and exchange rates.





Lake Johnston processing plant



## History

- Emily Ann - 1.5Mt @ 3.5% Ni mined and processed between 2001-2007
- Maggie Hays - 10Mt @ 0.6%Ni mined and processed between 2008-2014
- **11.5Mt ore mined and processed to produce +100kt Ni**

## Current resources & infrastructure

- Maggie Hay - 3.5Mt @ 1.5% Ni\* for 52kt Ni<sup>1</sup>
- 1.5Mtpa process plant (on C&M)

## Exploration Potential - Future activities

- Assess options (sale, IPO, JV, retain)
- Update restart study
- Test geological theory
  - More Kambalda-style deposits
  - Intrusive model - Follow up Abi Rose Ni discovery<sup>2</sup>



Lake Johnston processing plant

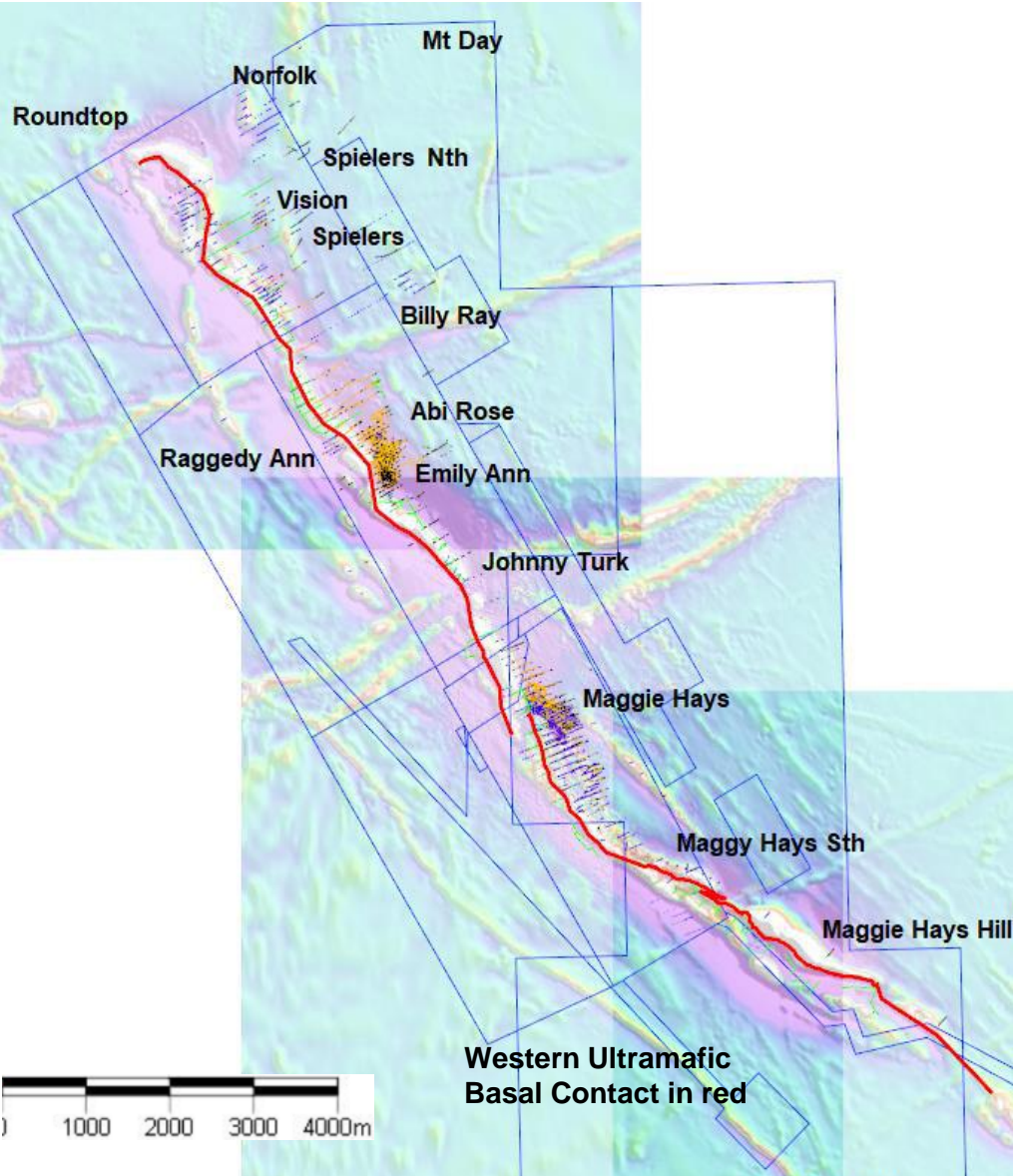
\*Contained Ni metal

<sup>1</sup> Reference Mineral Resources Statement Table 1 attached

<sup>2</sup> ASX Announcement Successful Drill Program at Abi Rose Concluded with all three diamond holes intersecting Massive Nickel-Copper sulphides" dated 21 November 2018

# Stratigraphy, Nickel Targets and Regional Magnetics

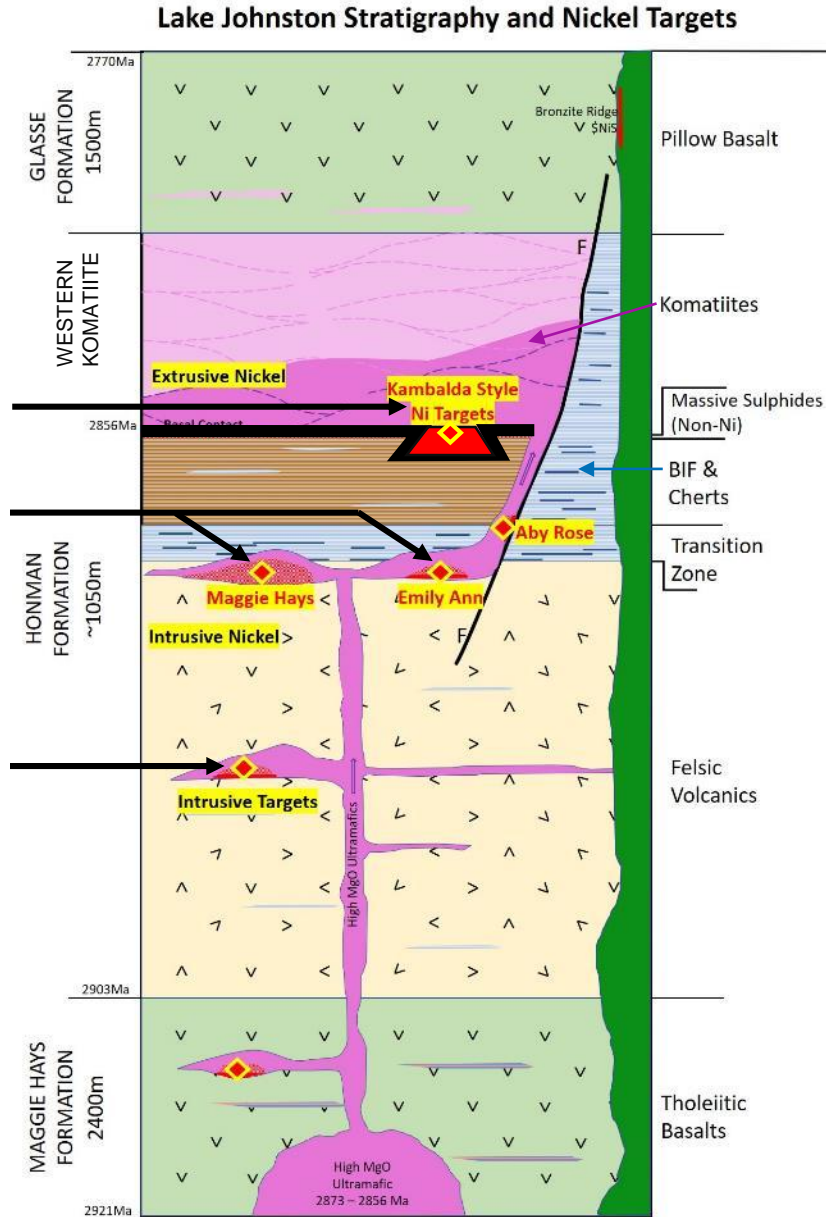
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## Key Target Areas

- Limited exploration to date
- Main focus for historic exploration
- Limited exploration to date

Poorly explored







The old milling circuit at Windarra

## History

- Discovered in 1969 and mined from 1974-1983
- **8Mt mined and processed to produce 84kt Ni\***

## Current resources & infrastructure

- Mt Windarra 71.5kt Ni\* (grade - 1.64%)<sup>1</sup>
- Cerberus Nickel 69kt Ni\* (grade - 1.5%)<sup>1</sup>
- South Windarra 8kt Ni\* (grade - 0.98%)<sup>1</sup>
- Gold Tailings contains ~180,000 oz/Au Resource<sup>2</sup>
- June 2020 PFS on Gold Tailings Project<sup>2</sup> – confirmed low risk, low capex & opex

## Future activities – Gold Tailings

- Complete DFS incorporating the 62,000oz of Lancefield tailings<sup>3</sup>
- Proposed plant – 1.5Mtpa CIL processing facility
- Monetise existing gold resource and utilise cash for nickel strategy

\*Contained Ni metal

<sup>1</sup> Refer Mineral Resource Statement attached Table 2

<sup>2</sup> Refer ASX Announcement "Robust PFS completed for Windarra Gold tailings Project" dated 22 June 2020

<sup>3</sup> Refer ASX Announcement "Poseidon to acquire rights to treat Lancefield gold tailings" dated 17 August 2020





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**The Future**

## Black Swan

- Deliver maiden Golden Swan Resource and Reserve, finalise offtake and financing, FID by December 2021 or earlier
- Continue to drill test the Southern Terrace
- Convert more Silver Swan Resource into Reserve
- Complete a Scoping Studies on capex and opex of 150ktpa and 1.1Mtpa processing plants

## Mt Windarra

- Study option of trucking ore to Black Swan for 1.1Mtpa processing option
- Complete gold tailings BFS and monetise asset

## Lake Johnston

- Review and prioritise all exploration targets
- Determine optimum pathway for this asset

# POSEIDON

## NICKEL

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Managing Director & CEO

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# Mineral Resource and Reserve Statement Tables

**Table 1: Nickel Projects Mineral Resource Statement**

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	MINERAL RESOURCE CATEGORY												
			INDICATED			INFERRED			TOTAL						
			Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
BLACK SWAN PROJECT															
Black Swan	2012	0.40%	9,600	0.68	65,000	21,100	0.54	114,000	30,700	0.58	179,000	0.01	4,200	NA	-
Silver Swan	2012	4.50%	108	9.4	10,130	61	9.7	5,900	168	9.5	16,030	0.19	316	0.4	679
LAKE JOHNSTON PROJECT															
Maggie Hays	2012	0.80%	2,600	1.60	41,900	900	1.17	10,100	3,500	1.49	52,000	0.05	1,800	0.10	3,400
WINDARRA PROJECT															
Mt Windarra	2012	0.90%	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500	0.03	1,200	0.13	5,700
South Windarra	2004	0.80%	772	0.98	8,000	-	-	-	772	0.98	8,000	NA	-	NA	-
Cerberus	2004	0.75%	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000	NA	-	0.08	3,600
TOTAL															
Total Ni, Co, Cu Resources	2004 & 2012		16,775	1.04	174,030	27,275	0.81	221,500	44,049	0.90	395,530	0.02	7,516	0.03	13,379

**Table 1 – Nickel Resource Table**

Black Swan Resource as at 22 Jul 2014 (ASX announcement “Poseidon Announces Black Swan Mineral Resource” 4 Aug 2014)

Silver Swan Resource as at 5 Aug 2019 (ASX announcement “Silver Swan Resource Upgrade...” 5 Aug 2019)  
Maggie Hays Resource as at 17 Mar 2015 (ASX announcement “50% Increase in Indicated Resources at Lake Johnston” 17 Mar 2015)

Mt Windarra Resource as at t Nov 2014 (ASX announcement “Poseidon Announces Revised Mt Windarra Resource” 7 Nov 2014)

South Windarra and Cerberus Resource as at 30 Apr 2013 (ASX announcement “Resource Increase of 25% at Windarra Nickel Project” 1 Dec 2011)

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

**Table 2.1 Windarra Gold Tailings Project JORC2012 Mineral Resource**

The Windarra Tailings estimate for North and South Dams has been reported based on the following:

- no cut-off grade has been used to report the resource, as potential mining method dictates removal of the entire dams.
- a dry bulk in situ density of 1.6 t/m<sup>3</sup> has been used to derive tonnages.
- resource numbers in Table 2.1 may not sum exactly due to rounding.

**Table 2.2 Windarra Central Dam JORC2012 Mineral Resource**

The Windarra Tailings estimate for the Central Dam has been reported based on the following:

- No cut-off grade has been used to report the resource, as the potential mining method dictates removal of the entire dam down to a specified elevation.
- The mineralisation has been reported above a flat elevation of 446 mRL; there are tailings below this level but these have been shown by drilling to contain no gold, and it is anticipated that the proposed mining method will not treat material below this elevation.
- A dry bulk in situ density of 1.6 t/m<sup>3</sup> has been used to derive tonnages.
- Resource totals may not sum exactly due to rounding.

Windarra Gold Tailings Resource as at 22 June 2020 (see ASX announcement “Gold Tailings Resource at Windarra updated to JORC 2012 Indicated” 22 Jun 2020). The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

**Table 2: Gold Tailings Project Mineral Resource Statement**

Table 2.1 Windarra Gold Tailings Project North and South Dams Mineral Resource – JORC 2012 Tabulation							
	INDICATED						
	Tonnes (t)	AU (g/t)	Au (oz)	Ag (g/t)	As (ppm)	CU (ppm)	Ni (%)
North Dam	3,624,000	0.78	91,000	1.9	1,770	360	0.10
South Dam	923,000	0.48	14,000	0.6	630	369	0.26
Total	4,547,000	0.72	105,000	1.6	1,540	360	0.13
Table 2.2 Windarra Gold Tailings Project Central Dam Mineral Resource – JORC 2012 Tabulation							
	INDICATED						
	Tonnes (t)	AU (g/t)	Au (oz)	As (ppm)	CU (ppm)	Ni (%)	
Central	6,198,000	0.37	74,000	435.0	270	0.3	

**Table 3: Nickel Project Ore Reserve Statement**

Nickel Sulphide Reserves	JORC Compliance	ORE RESERVE CATEGORY		
		PROBABLE		
		Tonnes (kt)	Ni % Grade	Ni Metal (t)
Silver Swan Project				
Silver Swan Underground	2012	130	5.2	6,800
Silver Swan Open Pit	2012	3,370	0.63	21,500
Total Ni Reserves	2012	3,500	0.81	28,300

**Table 3 – Nickel Reserve Table**

Silver Swan Underground Reserve as at 26 May 2017 (ASX announcement “Silver Swan Definitive Feasibility Study” 26 May 2017).

Black Swan Open Pit Reserve as at 5 Nov 2014 (ASX announcement “Poseidon Announces Black Swan Ore Reserve” 5 Nov 2014).

The Company completed an upgrade to the Silver Swan Indicated Resource in 2019 which was based upon the 2015 Silver Swan Resource Estimate (refer Table 1 above). At this point it is not known the impact the updated to the Silver Swan Resource will have on the Silver Swan Reserve.

The Company is not aware of any other new information or data that materially affects the information in the relevant market announcements for the Black Swan Open Pit Reserve. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.