

# **ASX Announcement**

# **GOLDEN SWAN DEVELOPMENT UPDATE**

#### 18 March 2021

### **KEY POINTS**

- Golden Swan drill drive due for completion in mid-April after decision made to extend by 50 metres
- Golden Swan Resource drilling scheduled to start mid-April and will take approx. three months
- Dialogue with potential offtake parties for Direct Shipping Ore (DSO) already underway
- Targeting Financial Investment Decision by late 2021 and production from Golden Swan in 2022
- First hole in the new exploration program is targeting the Southern Terrace about 120 metres below first high-grade intersection at Golden Swan

**Poseidon Nickel (ASX: POS "the Company")** is pleased to provide the following update on progress with the Golden Swan discovery and potential exploitation of the mineralisation.

Managing Director and CEO, Peter Harold, commented "the Golden Swan drill drive is due to be completed mid-April after the decision was made to extend the drive by a further 50 metres to improve the drill angles and reduce the amount of drilling in ultramafic rocks. This change also has the benefit of reducing the total drill metres of the Resource drilling program by about 1,800 metres so the forecast time to complete the Resource drilling program is unchanged and the net cost is almost neutral, with the additional drive development cost being offset by reduced drilling costs. This is a lower risk strategy and demonstrates proactive planning by our in-house geology team, site-based personnel and our mining consultants. In addition, the drill drive will also be 50 metres closer to the mineralisation which will be beneficial by reducing time to production, assuming we decide to proceed with mine development.

There should be plenty of news flow for the remainder of this year with more exploration drilling and EM surveys within the Southern Terrace, Resource drilling at Golden Swan and Reserve conversion drilling of the Silver Swan Resource.

All these activities are aimed at building a sufficient high-grade inventory at Black Swan to allow mining to recommence after a 10-year hiatus. Our internal target is to be mining Golden Swan by mid-2022."

# **Extending Golden Swan Drill Drive & the Resource Drilling**

The Company recently undertook a detailed review of the planned Resource drilling program and has decided to extend the drill drive by 50 metres for the following reasons:

- reduce the amount of drilling in the ultramafic (less competent rock);
- provide a better drilling angle for all the planned holes; and
- the end of the drive will be 50 metres closer to the mineralisation which will reduce mine development time.

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WestAuz, the mining contractor, has been doing an excellent job of the drill drive and will continue the drive for a further 50 metres. The drive is now scheduled for completion in mid-April and the drilling contractor is on track to mobilise two additional rigs to Black Swan on 19 April with drilling to commence soon after. The Resource drilling will take approximately three months to complete with two diamond rigs. Webdrill was awarded the resource drilling contract late last year. Importantly, the cost to extend the drill drive is almost offset by the reduction in drilling costs due to reduced drill metres. The Resource drilling is scheduled to be completed by mid-July 2021 which should allow us to report the maiden resource for Golden Swan during the September Quarter.

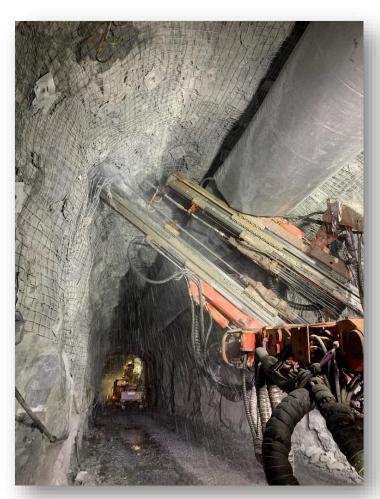




Figure 1: WestAuz at work in the Golden Swan Drill Drive

# **Southern Terrace Exploration**

The Company recommenced exploration drilling of the Southern Terrace in late January from a drill position in the Silver Swan decline. The aim of this drilling is to test for additional mineralisation below the existing known high-grade nickel sulphide mineralisation at Golden Swan. The current hole, PBSD033A, is targeting a zone about 120 metres below the original discovery hole at Golden Swan (refer Figure 2). The hole is planned to go to a depth of 750 metres and was at about 410 metres when the rods were bogged and grouted in. Webdrill, at their cost, has agreed to wedge the hole at 220 metres and redrill to 410 metres down hole. This is currently underway and as at 17 March the hole was at 398 metres. Given that the ground conditions have been challenging we now expect the drilling to be at target depth by late March/early April.

We remain very confident that additional mineralisation will be discovered within the Southern Terrace and we will continue to drill test the area and conduct downhole EM surveys in all holes we drill. Further drilling of the Southern Terrace is planned from the Golden Swan drill drive, once completed.



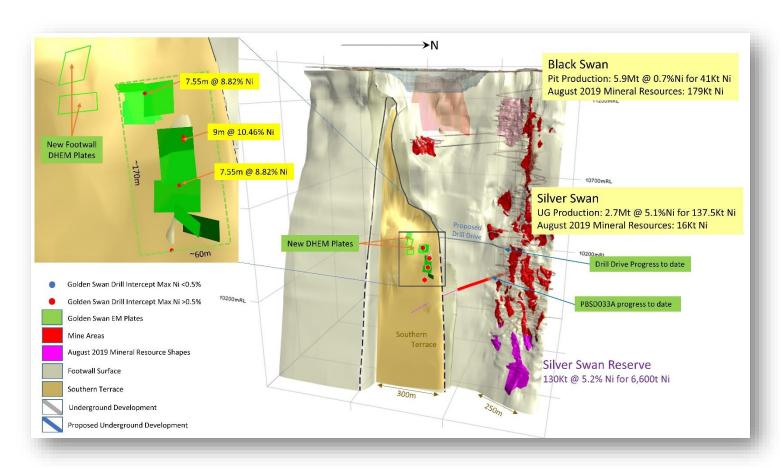


Figure 2: 3D representation of the footwall surface at Black Swan and the emerging potential of the Southern Terrace together with the position of the Golden Swan Drill Drive and Drill Hole PBSD033A

# **Golden Swan Project Timetable**

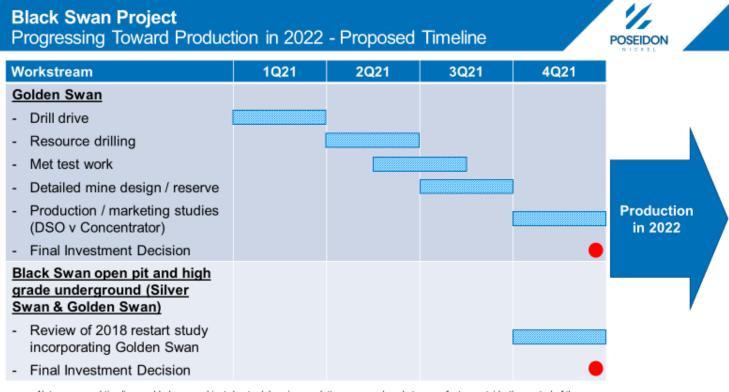
The Company is confident the Golden Swan Resource drilling will result in the delineation of a maiden resource that will have sufficient tonnage to be exploited in the near term. Preparations are underway for a recommencement of mining activities in the first half of 2022 with an internal target of producing saleable ore by mid-2022.

The initial plan is to sell DSO and we have already started preliminary discussions with potential buyers in Western Australia. The very high nickel grade of Golden Swan together with the excellent Fe:MgO ratio, low impurities and high metallurgical recovery (>90% to +13% nickel concentrate, based on preliminary metallurgical testwork<sup>1</sup>) will make Golden Swan material (ore and/or concentrate) highly attractive to a number of nickel producers both locally and overseas.

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



The proposed timeline for the exploitation of the Golden Swan mineralisation is summarised in the table below.



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

Peter Harold Managing Director & CEO 18 March 2021

For further information contact Peter Harold: + 61 (0)8 6167 6600

The announcement was authorised for lodgement by Peter Harold, Managing Director & CEO of Poseidon Nickel Ltd.

# **About Poseidon Nickel Limited**

Poseidon Nickel Limited (ASX Code: POS) is a nickel sulphide exploration and development company with three projects located within a 300km radius of Kalgoorlie in the Goldfields region of Western Australia and a resource base of around 400,000 tonnes of nickel and 180,000 ounces of gold.

Poseidon's strategy is focused on the exploration and eventual restart of its established nickel operations in Western Australia where project risk capital and operating costs are low. A critical element of this strategy has been to acquire projects and operations with high levels of geological prospectivity likely to lead to potential substantial extension of the operation's life through the application of modern exploration techniques.

Poseidon owns the Windarra, Black Swan and the Lake Johnston Nickel Projects. In addition to the mines and infrastructure including concentrators at Black Swan and Lake Johnston, these projects have significant exploration opportunities demonstrated by the discovery of the Abi Rose deposit at Lake Johnston and the recent discovery of the Golden Swan mineralisation at Black Swan. The Company is also undertaking a Definitive Feasibility Study on retreating the gold tailings at Windarra given the strength of the A\$ gold price.



### MINERAL RESOURCE STATEMENT

### **Table 1: Nickel Projects Mineral Resources 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	64,900	21,100	0.54	113,800	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	14,500	3,436	1.66	57,500	4,358	1.64	72,000	0.03	1,200	0.13	5,700
South Windarra	2004	0.80%	772	0.98	7,500	-	-	-	772	0.98	7,500	NA	-	NA	-
Cerberus	2004	0.75%	2,773	1.25	34,600	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	1.03	173,530	27,275	0.81	221,300	44,049	0.90	395,530	0.02	7,516	0.03	13,379

Note: totals may not sum exactly due to rounding. NA = information Not Available from reported resource model. The Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves.

- Black Swan Resource as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4<sup>th</sup> August 2014)
- Silver Swan Resource as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade" released 5th August 2019)
- Maggie Hays Resource as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17th March 2015)
- Mt Windarra Resource as at 7 November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7<sup>th</sup> November 2014)
- South Windarra and Cerberus Resource as at 30 April 2013 (see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1st December 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.

### **ORE RESERVE STATEMENT**

# **Table 2: Nickel Projects Ore Reserve Statement**

		ORE RESERVE CATEGORY							
Nickel Sulphide Reserves	JORC Compliance	PROBABLE							
		Tonnes (Kt)	Ni% Grade	Ni Metal (t)					
SILVER SWAN PROJECT									
Silver Swan Underground	2012	130	5.2	6,800					
Black Swan Open pit	2012	3,370	0.63	21,500					
TOTAL									
Total Ni Reserves	2012	3,500	0.81	28,300					

Note: Calculations have been rounded to the nearest 10,000 t of ore, 0.01 % Ni grade 100 t Ni metal and 10t of cobalt metal.

Silver Swan Underground Reserve as at 26 May 2017 (see ASX announcement "Silver Swan Definitive Feasibility Study" released 26th May 2017) Black Swan Open Pit Reserve as at 5 November 2014 (see ASX announcement "Poseidon Announces Black Swan Ore Reserve" dated 5th November 2014).

The Company is aware that the 2019 upgrade to the Silver Swan Indicated Resource will materially affect the Silver Swan Reserve above which was based upon the 2015 Silver Swan Resource Estimate (refer to Table 1 above for the new Silver Swan Resource estimate). Such information is based on the information complied by the Company's Geologists and the Competent Persons as listed below in the Competent Person Statements.

The Company is not aware of any 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.

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#### **COMPETENT PERSON STATEMENTS:**

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr Steve Warriner who was 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, 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, 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 report that relates to Mineral Resources at the Windarra Nickel Project and Gold Tailings Project is based on, and fairly represents, information compiled by Mr Steve Warriner, who was a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Ian Glacken who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. The Windarra Project contains Mineral Resources which are reported under JORC 2004 Guidelines as there has been no Material Change or Re-estimation of the Mineral Resource since the introduction of the JORC 2012 Codes. Future estimations will be completed to JORC 2012 Guidelines.

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 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 STATEMENT – INFERRED RESOURCE STATEMENTS:**

The Company notes that an Inferred Resource has a lower level of confidence than an Indicated Resource and that the JORC Codes, 2012 advises that to be an Inferred Resource it is reasonable to expect that the majority of the Inferred Resource would be upgraded to an Indicated Resource with continued exploration. Based on advice from relevant competent Persons, the Company has a high degree of confidence that the Inferred Resource for the Silver Swan deposit will upgrade to an Indicated Resource with further exploration work.

The Company believes it has a reasonable basis for making the forward looking statement in this announcement, including with respect to any production targets, based on the information contained in this announcement and in particular, the JORC Code, 2012 Mineral Resource for Silver Swan as of May 2016, together with independent geotechnical studies, determination of production targets, mine design and scheduling, metallurgical testwork, external commodity price and exchange rate forecasts and worldwide operating cost data.

#### **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 Silver Swan underground mine.