

## DRILLING UNDERWAY AT BLACK SWAN

### KEY POINTS

- Black Swan open pit dewatering completed
- Reverse Circulation drilling program has commenced from the floor of the open pit
- Drilling program designed to achieve following outcomes:
  - convert more Inferred Resource to Indicated to potentially increase the Ore Reserve
  - provide additional metallurgical samples to allow more testwork on the rougher concentrate study
- The program will focus on upgrading of the geological confidence for the large amount of Inferred Mineral Resources residing in the proposed pit outline and not included in the mining inventory

**Poseidon Nickel Ltd (ASX: POS, “Poseidon” or “the Company”)** is pleased to report that following the positive outcomes of the Black Swan Bankable Feasibility Study (“BFS”) for the 1.1Mtpa mill feed option (refer to Company ASX announcement “*Positive Black Swan Feasibility Study*”, dated 21 November 2022), reverse circulation (“RC”) resource delineation drilling from the floor of the dewatered Black Swan open pit has commenced.

**Managing Director and CEO, Peter Harold commented:** “*Following the release of our smelter grade concentrate feasibility study and the recent equity raising we are pleased to be starting the RC drilling into the Black Swan Disseminated Resource from the floor of the recently dewatered open pit.*”

*The drill program is another important piece of work for the Black Swan Project restart. The drill data generated should allow us to extend the Life of Mine of the Project. In addition, it will allow us to optimise the mining and metallurgical parameters and production schedules that will underpin the Final Investment Decision for the conventional smelter grade concentrate project.*

*The drilling program targets a large portion of the Black Swan Disseminated Inferred Resource, with drill spacing sufficient to convert this to Measured or Indicated. Extending the life of mine for Black Swan will further strengthen our current efforts to secure attractive offtake and project financing as we progress toward Final Investment Decision during the first half of 2023.”*



FIGURE 1 – DRILL RIG IN THE BLACK SWAN OPEN PIT

## Background

Following the dewatering of the Black Swan open pit, the Company has undertaken clean-up activities to facilitate the RC drilling from in-pit positions.

The Company intends to complete an 11,000 metre RC drilling program into the Black Swan Disseminated resource. Activities within the pit are now well advanced (see Figure 1) with drilling now underway. The drilling program is scheduled to be completed early February 2023 with all assay results expected by the end of March 2023.

The principal aims of the drill program are:

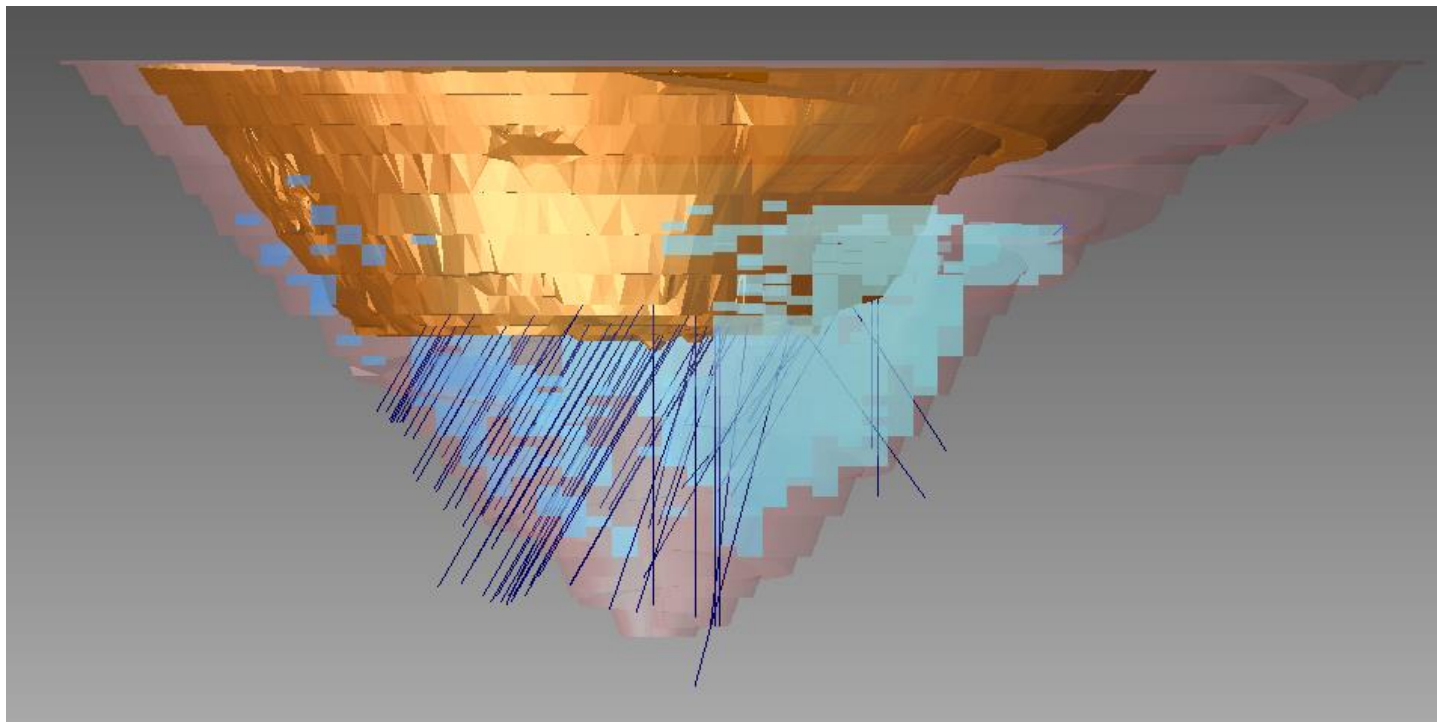
- to convert more Inferred Resources to Indicated and increase the Measured and Indicated Resource and in particular for the large amount of Inferred resources that are not currently in the mining inventory;
- enhanced delineation of the metallurgically important serpentinite and talc-carbonate hosted ore types to quantify variations in their respective characteristics such as talc and non-sulphide nickel levels as well as sulphur/nickel ratios, which are important to optimise ore blending strategies;
- provide more detailed production scheduling for commencement of operations; and
- provide material for ongoing metallurgical testwork programs on the rougher concentrate option.

The program will further enhance the restart information as the Company moves towards commencement of operations in the first half of 2024, subject to Final Investment Decision (FID).

## Black Swan Disseminated Resource Drilling Program

Strike Drilling Pty Ltd has been contracted to undertake the RC program initially with one rig, with the option to utilise a second rig from early 2023.

The drilling program targets a zone of the BSD Resource which was not able to be targeted from the underground diamond drilling from the Gosling development drive completed during 2021/2022. Figure 2 highlights the Inferred Resource zones targeted by the current drilling program.



**FIGURE 2: INFILL DRILLING PROGRAM COVERING INFERRED BLOCKS (BLUE) AND SHOWING STAGE 2 PIT OUTLINE IN (RED)**

The results of the 11,000 metre RC program will provide new data that will enable the development of a new “Life of Project” Resource model containing, in addition to the usual ore type grade data, important metallurgical related information such as talc and non-sulphide nickel levels as well as sulphur/nickel ratios. This information is important for ore blending requirements and will support the process now underway to secure binding offtake and project financing as the Company progress toward project FID during first half 2023.



FIGURE 3 – DRILLING UNDERWAY IN THE BLACK SWAN OPEN PIT

*This announcement was authorised for lodgement by the Board of Poseidon Nickel Limited.*



**Peter Harold**  
**Managing Director & CEO**

**12 December 2022**

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## About Poseidon Nickel Limited

*Poseidon Nickel Limited (ASX Code: POS) is a nickel sulphide exploration and development company with three projects located within a radius of 300km from 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 with the aim of being a +15,000tpa nickel producer. A critical element of this strategy has been to acquire projects and operations with significant existing infrastructure, large nickel resources and geological prospectivity likely to lead to resource growth 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 Golden Swan Resource at Black Swan and the Abi Rose mineralisation at Lake Johnston.*

*The Company recently completed a Bankable Feasibility Study on Black Swan which will be the first project to restart. This will be followed by Lake Johnston and then Windarra, subject to favourable Feasibility Studies, appropriate project financing structures being achieved, the outlook for the nickel price remaining positive and all necessary approvals being obtained.*

*The Company has completed a Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield and has entered into a Heads of Agreement with Green Gold Projects whereby Green Gold will develop the project and Poseidon can retain an 8% free carried interest, subject to certain conditions precedent being*

### COMPETENT PERSON STATEMENTS:

*The information contained within this announcement is extracted from the reports titled:*

- *"Black Swan Restart Update" released 12 July 2022*
- *"More Nickel in Updated Black Swan Mineral Resource" released 4 July 2022*
- *"Non-Executive Director Warren Hallam Appointment" released 1 June 2022*
- *"Silver Swan Resource Update" released 27 April 2022*
- *"Golden Swan Maiden Resource" released 27 October 2021*
- *"Silver Swan Tailings – Maiden Resource Estimate" released 15 September 2021*
- *"Gold Tailings Resource at Windarra updated to JORC 2012 Indicated" 22 Jun 2020*
- *"Positive Black Swan Feasibility Stuff" released 21 November 2022.*

*which are available to view on [www.poseidon-nickel.com.au](http://www.poseidon-nickel.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and, in the case of Minerals Resources or Ore Reserves that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement. 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 matters that may involve risks or uncertainties and may involve significant items of subjective judgement and assumptions of future events that may or may not eventuate (Forward Statements). 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. No independent third party has reviewed the reasonableness of any such statements or assumptions. None of the Company, their related bodies corporate and their respective officers, directors, employees, or advisers represent or warrant that such Forward Statements will be achieved or will prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this release. Except as required by law or regulation, the Company assumes no obligation to release updates or revisions to Forward Statements to reflect any changes. Recipients should form their own views as to these matters and any assumptions on which any of the Forward Statements are based and not place reliance on such statements.*

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	Black Swan Project Mineral Resource Summary												
			MEASURED & 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	2012	0.4%	10,700	0.75	80,000	18,200	0.55	101,000	28,900	0.63	181,000	0.01	4,500	0.02	5,800
Silver Swan	2012	1.0%	138	9.00	12,450	8	6.00	490	146	8.80	12,940	0.16	240	0.36	530
Golden Swan	2012	1.0%	112	4.70	5,200	48	2.20	1,050	160	3.90	6,250	0.08	120	0.30	480
Silver Swan Tailings	2012	NA	675	0.92	6,200	-	-	-	675	0.92	6,200	0.07	460	0.04	270
Sub-Total Ni, Co, Cu Resources	2012		11,625	0.90	103,850	18,260	0.60	102,540	29,880	0.69	206,390	0.02	5,320	0.02	7,080
Stockpiles	2012	0.4%	1,200	0.49	5,900	400	0.53	1,900	1,600	0.5	7,800	NA	NA	NA	NA
Total Ni Resources	2012		12,825	0.86	109,750	18,660	0.56	104,440	31,480	0.68	214,190	-	-	-	-

**Note: totals may not sum exactly due to rounding. NA = Information Not Available from reported resource model.**

- **Black Swan Resource** as at 4 July 2022 (see ASX announcement "More Nickel in Updated Black Swan Mineral Resource" released 4 July 2022)
- **Silver Swan Resource** as at 27 April 2022 (see ASX announcement "Updated Silver Swan Resource underpins significant increase in high-grade Indicated resource base" released 27 April 2022)
- **Golden Swan Resources** as at 27 October 2021 (see ASX announcement "Golden Swan Maiden Resource" released 27 October 2021).
- **Silver Swan Tailings Resource** as at 15 September 2021 (see ASX announcement "Silver Swan Tailings – Maiden Resource Estimate" released 15 September 2021)
- **Black Swan Surface Stockpiles** as at 4 August 2014 (see announcement "Poseidon Announces Black Swan Mineral Resource" including surface stockpiles released 4 August 2014)

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.

Nickel Sulphide Reserves	JORC Compliance	BLACK SWAN PROJECT							
		Proved/Probable	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co % Grade	Co Metal (t)	Cu % Grade	Cu Metal (t)
Black Swan	2012	Proved	579	0.7	4.2	NA	NA	NA	NA
		Probable	2,608	0.7	17.7	NA	NA	NA	NA
Silver Swan	2012	Proved	-	-	-	NA	NA	NA	NA
		Probable	179	5.0	9.0	NA	NA	NA	NA
Golden Swan	2012	Proved	-	-	-	NA	NA	NA	NA
		Probable	100	4.0	4.0	NA	NA	NA	NA
Total Ni Reserves	2012	Proved	579	0.7	4.2	NA	NA	NA	NA
		Probable	2,887	1.1	30.7	NA	NA	NA	NA
		Total	3,466	1.0	34.9	NA	NA	NA	NA

**Note: totals may not sum exactly due to rounding. NA = Information Not Available from reported resource model.**

- **Black Swan Reserve, Silver Swan Reserve and Golden Swan Reserve** as at 21 November 2022 (see ASX announcement "Positive Black Swan Feasibility Study" released 21 November 2022)

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