

BLACK SWAN PROGRESSING TO RESTART

KEY POINTS

- **Resource update** - in pit drill program completed with 20% of assays returned. Aim is to increase the mining inventory to further extend the mine life and optimise start up feed schedule
- **Offtake** - strong interest received, shortlisted parties in data room and undertaking site visits, as required
- **Debt Financing** – the most attractive debt terms have been offered by offtakers
- **Timetable** – Restart Final Investment Decision expected Q2 2023
- **Expansion Project** – metallurgical testwork well underway to establish optimum metallurgical recovery and concentrate nickel grade, samples being made for testing by potential customers
- **Lake Johnston drilling** - targeting early April 2023 start
- **Funds** - well funded to FID with cash at bank of ~\$11.5 million as at 6 March 2023 (unaudited)

Poseidon Nickel Ltd (ASX: POS, “Poseidon” or “the Company”) is pleased to provide an update on the progress being made on the restart of the Black Swan project on the basis of the November 2022 Bankable Feasibility Study (refer to Company ASX announcement “*Positive Black Swan Feasibility Study*”, dated 21 November 2022). Numerous work streams are being progressed as the Company moves towards the restart Final Investment Decision (FID), which is on track to be made in the second quarter of 2023.

Managing Director and CEO, Peter Harold commented: “*Our primary focus remains on offtake and project financing work streams, with strong interest having been received. The most attractive structure is currently combining offtake and project financing. A shortlist of parties have been given access to the data room and are undertaking site visits, as required. We are planning to finalise the preferred partner/s early in the second quarter of 2023 and we remain on track to announce the Final Investment Decision for the restart during the second quarter.*”

We are also progressing the Expansion Project study with metallurgical testwork well underway to determine the optimum nickel recovery and grade of nickel in the rougher concentrate. The key attraction of the Expansion Project is that annual production of nickel in concentrate could increase significantly, and the mine life could be extended due to the ability to treat talc carbonate ores which are not included in the current Ore Reserves. The key to unlocking the value of the talc carbonate material is to find a non-conventional smelter customer/s i.e., POX, HPAL or pCAM producer for the proposed product which is a main focus of the Expansion Study.”

Black Swan Disseminated Resource Drilling Program

The Company has completed an 11,000-metre reverse circulation drilling program, from the bottom of the open pit, into the Black Swan Disseminated resource (see Figure 1). Approximately 20% of the assay results have been returned with all assays expected by the end of March 2023. The resource model update will then follow, during Q2 2023.

The principal aims of the drill program were:

- upgrade some of the large tonnages of Inferred Resources that are available within the proposed open pit shell to Indicated Resources category. The higher confidence levels could lead to an increase in mining inventories and reportable open pit ore reserves;
- enhance the 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, to optimise the mining schedules and ore blending strategies;
- optimise the mining schedule for the commencement of operations; and
- provide additional material for ongoing metallurgical testwork for the Expansion Project study.

Any increase in the Ore Reserve of the Black Swan open pit would result in a longer mine life which would subsequently improve the NPV and the debt financing parameters for the project.

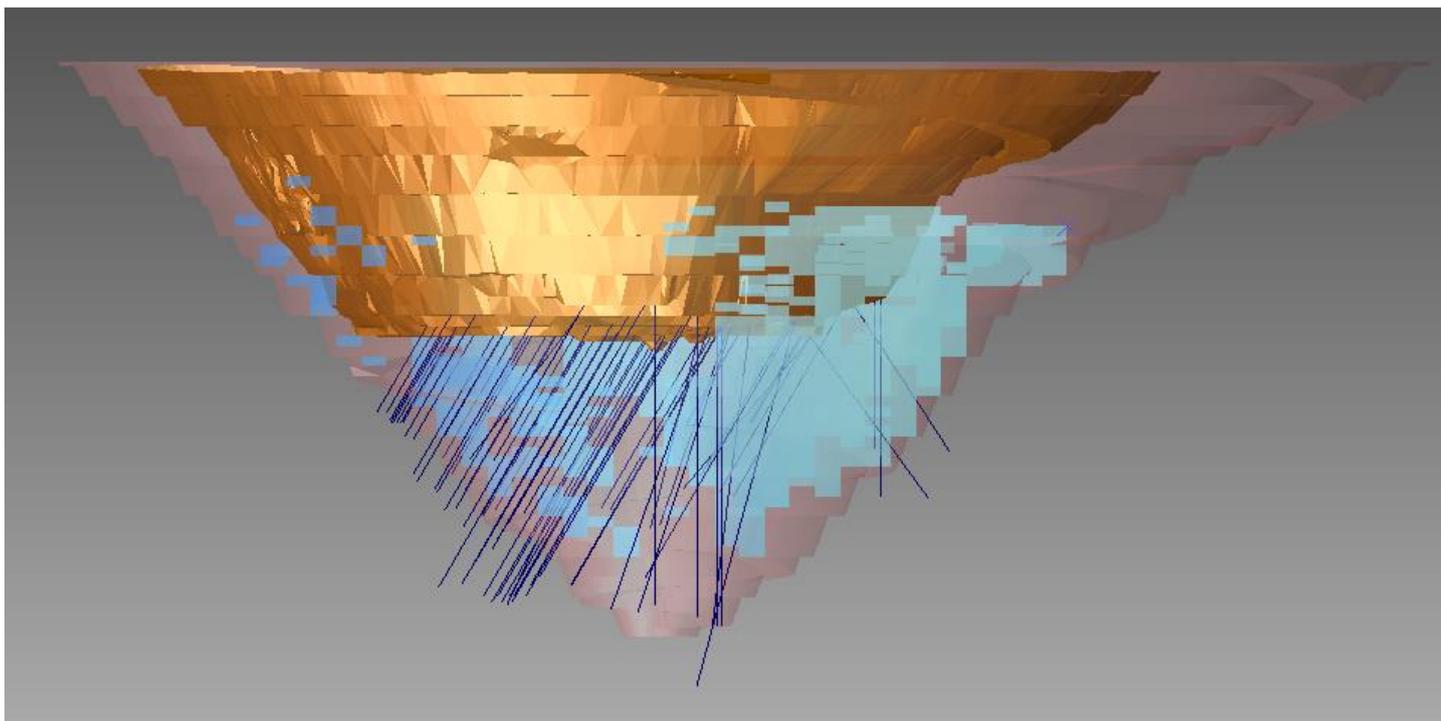


FIGURE 1 – INFILL DRILLING PROGRAM COVERING INFERRED BLOCKS (IN BLUE) AND SHOWING STAGE 2 PIT OUTLINE (IN PINK)

Workstreams for the Restart

The main workstreams are:

- Offtake and debt financing – see details on page 3
- Pre-works at Black Swan
 - Open pit – dewatering completed
 - Underground – remaining rehabilitation works will be scheduled to coincide with the mine ramp up
 - Resource upgrade (in pit) to increase mine life – will be completed once all assay results received

- Processing plant – finalise contract with selected engineering company for plant refurbishment
- Major contracts – discussions will commence as required
- Approvals – continue work on obtaining outstanding approvals required for the restart
- Personnel onboarding – planning is well underway for the onboarding of the technical team
- Accommodation – is recognised as one of the key execution risks and the Company is looking at various options in relation to having sufficient rooms in Kalgoorlie for the full complement of personnel required for the operating phase. There is a temporary accommodation camp at site which will be utilised for the plant refurbishment.

Offtake and Debt Financing

Firm offers were received for offtake and/or project financing during January 2023. The Company is delighted with the strong interest received and has shortlisted a group of offtakers who can also provide project debt finance. These parties are now in the detailed due diligence phase including access to an electronic data room and site visits, as required. The aim is to have both offtake and project debt financing terms concluded during the second quarter of 2023 so the Final Invest Decision can be made during that quarter.

Final Investment Decision (FID)

FID remains on track to be made during the June quarter 2023. Assuming that timing is achieved, **concentrate production could commence mid-2024**, based on the current refurbishment timetable and mine production ramp up schedule.

Expansion Project - Feasibility Study

Work continues on the Expansion Project which is based on increasing the mill feed rate from 1.1Mtpa to 2.2Mtpa and producing a rougher concentrate which will have a lower nickel grade and higher magnesium oxide content. This product will be attractive feed for a pressure oxidation, high-pressure acid leach or a pCAM plant, rather than a conventional nickel smelter. Metallurgical studies are well underway to determine the optimum rougher concentrate nickel grade, the metallurgical recovery and the typical concentrate specifications to enable potential offtakers to provide indicative terms. These terms will be a key component in determining the economics of the Expansion Project.

LAKE JOHNSTON

Western Ultra mafic drill program about to kick off

A Reverse Circulation (RC) drill program of up to 15,000 metres is scheduled to commence in early April. The program is aimed at systematically testing the base of Western Ultramafic Unit against the underlying Banded Iron Formation (BIF) unit, at regular intervals over its 14km strike (see Figure 2).

The Western Ultramafic Unit is interpreted to represent the extruded portion of the intrusive body hosting the Maggie Hays and Emily Ann deposits that has breached the BIF unit. As the extrusive lavas flow over the basal contact, melting and assimilating of the sulphidic BIF units occurs, which is conducive for the formation of nickel sulphides. It is within the channelised, embayment positions of the extrusive ultramafic unit along the basal contact where nickel sulphides can accumulate to form massive sulphides deposits. Finding the channelised flows along the Western Ultramafic basal contact is a key exploration target of this drilling program. All of the stratigraphic units have subsequently been deformed and overturned along the length of the Company's tenement portfolio at Lake Johnson, refer to Figure 2.

The Western Ultramafic Unit is sparsely drilled with a lack of effective drilling that intersects the all-important basal contact position. **Historical isolated nickel sulphide intersections located along or near the Western Ultramafic basal contact position, have confirmed the fertility of the unit.** Follow-up drilling is

planned from the regional nickel intersections. In addition, the effectiveness of historic ground electromagnetic (EM) surveys was significantly reduced due to the interference of highly conductive responses from the underlying BIF unit. The swamping EM signals from the overturned BIF unit would likely mask any potential responses related to nickel mineralisation along the basal contact position.

The Lake Johnston Project remains an important part of the Company’s strategy going forward and studies to consider options for restarting this project will begin once the Black Swan Project is in production.

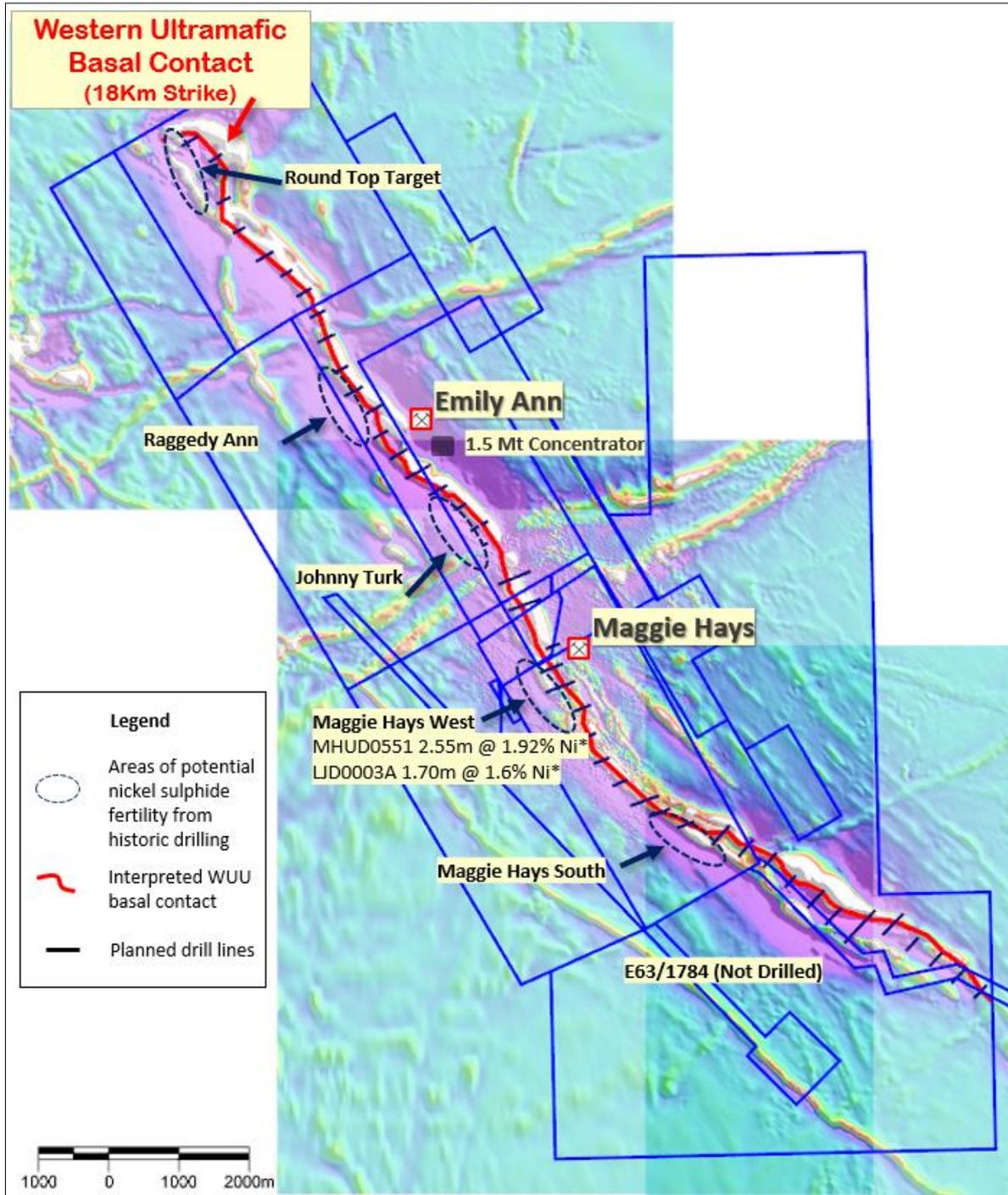


FIGURE 2: INTERPRETED BASAL CONTACT POSITION OF THE WESTERN ULTRAMAFIC OVERLAYING MAGNETICS WITH HIGHLIGHTED AREAS OF POTENTIAL NICKEL SULPHIDE FERTILITY IDENTIFIED FROM HISTORIC DRILLING CONDUCTED BY PREVIOUS OWNERS, AND NOT PUBLICLY REPORTED. THE BASAL CONTACT TO BE TESTED IN UPCOMING DRILL PROGRAM.

** REFER TO ASX ANNOUNCEMENT “NEW MINERALISED ZONE IDENTIFIED AT LAKE JOHNSTON” DATED 18 FEBRUARY 2015*

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



Peter Harold
Managing Director & CEO

6 March 2023

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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 over 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 plus 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 completed a Bankable Feasibility Study in November 2022 on Black Swan which will be the first project to restart. This could 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 satisfied.

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. 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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