

LOW COST, NEAR SURFACE EXPLORATION TARGETS IDENTIFIED AT BLACK SWAN

KEY POINTS

- Validation of two near surface high grade nickel exploration targets at Black Swan
- Further reduction of annualised operating costs by up to \$1.0 million through optimised care and maintenance at Black Swan, bringing total annualised cost reductions up to \$5.8 million

Poseidon Nickel Limited (ASX: POS, “the Company”) provides an exploration and care and maintenance (C&M) update for the Black Swan project.

CEO, Brendan Shalders, commented: *“We are pleased that exploration reviews at Black Swan by two specialist nickel consultant groups have independently verified two promising near surface high-grade nickel targets. Following on from NewExco’s review completed during 2023, the Company has further refined these two near surface exploration targets.*

There is a strong desire to test these targets in the short term as a high-grade discovery can potentially add to reserves for any future Black Swan restart with the potential to decrease the unit costs and further improve the project economics. The Company plans to undertake low cost surface drilling programs to test these targets in the near term.

The Company is pleased to see the strong increase in the nickel price, while acknowledging that nickel prices are likely to remain volatile for the foreseeable future. With this in mind, the Company has reviewed its care and maintenance at Black Swan and has implemented initiatives to further remove up to \$1.0 million of annualised costs. On top of the expenditure reductions already implemented, the Company has now reduced total annualised costs by \$5.8 million. In addition, the Company is divesting surplus equipment which is expected to release up to \$0.6 million cash in the coming months.

The proposed changes to care and maintenance and the proposed sale of surplus equipment is not expected to impact any future restart plans for the project. The estimated 12 month plant refurbishment period assumed in the Bankable Feasibility Study released in November 2022 should provide more than sufficient time to prepare the Silver Swan mine and infrastructure for any future operations. There would be additional capital expenditure required to undertake these works, however the cost would unlikely be prohibitive to restarting the project.”

BLACK SWAN

Exploration Strategy

With a renewed focus on exploration the Company has recommenced exploration activities at Lake Johnston and geological assessments are continuing at all our projects. A focus is shallow targets that are low cost to test and that could lead to new discoveries for a number of targeted commodities (Ni - Li - Au). Any new discoveries at Black Swan, Windarra or Lake Johnston are highly leveraged to existing resources and/or infrastructure at these projects.

The results of the Company's greenfields work programs and assessments to date have been very promising with the previously announced Ni-Li targets identified at Lake Johnston (see ASX Announcement "*Lake Johnston Project Update*" dated 17 May 2024) and Ni targets at northern Windarra (see ASX announcement "*Exciting New Exploration Targets at Windarra*" dated 14 February 2024).

Moving forward, the Company intends to provide exploration updates by project area as results from these active programs come to hand.

Black Swan Background

The Black Swan Project is located approximately 50km northeast of Kalgoorlie, Western Australia. The project commenced operations in 1997 and operated continuously until 2008. **Over this period the project produced a total of 179kt of nickel in concentrate, with 138kt nickel extracted from the underground Silver Swan mine and 41kt nickel from the Black Swan open pit.** Poseidon acquired the project in 2015.

Historical exploration efforts have focused primarily on growing the Silver Swan high-grade resource or identifying mineralisation with similar high-grade characteristics in close proximity to the mining infrastructure. Despite extensive exploration, certain areas remain prospective for further high-grade nickel discoveries where limited exploration drilling has returned promising results that have not been followed up.

Black Swan Exploration Targets

The Company engaged Muller Geological Services Consultancy (MGSC) to complete a data integrity audit against the geological interpretations at Black Swan. Work streams included lithogeochemical correlation and verification of all logged geological units with the geological felsic footwall 3D model then updated – a key setting for massive sulphide development.

A comparison to the 2023 Newexco exploration targets and felsic footwall models has also been completed.

Both reviews have independently validated two highly prospective high-grade targets closer to surface at Cygnet South and Upper Southern Terrace (*refer Figure 1*). These targets present lower cost exploration targets compared to those deep underground, such as extensions to Silver Swan and Golden Swan which typically require expensive underground drilling programs to discover and then convert to a JORC Resource.

At the Upper Northern Terrace, further assessment is planned to identify any prospective targets.

Upper Cygnet South

The Upper Cygnet South target is located between Cygnet and the Black Swan pit (*refer Figure 1*). Cygnet previously produced 11kt nickel contained at an average nickel grade of 2.2%. The target area is approximately 250m by 150m, with further potential open at depth (*refer Figure 2*).

This area has had very limited drilling and includes a number of historic drill intersections, which have not previously been reported, with the best being:

- BSD011 – 0.10m @ 3.57% Ni
- BSD054A – 0.13m @ 3.78% Ni

Upper Southern Terrace

The Southern Terrace was first identified and announced to the market in August 2020, see ASX announcement "*Second Golden Swan Massive Sulphide intersection extends new discovery*" dated 5 August 2020.

The Southern Terrace target area is approximately 1,200m by 300m and hosts the Gosling resource, which produced 5.3kt nickel contained at an average nickel grade of 4.4% and the Golden Swan resource which contains 160kt at 3.9% nickel for 6.2kt nickel tonnes (*refer Figure 3*).

The Southern Terrace is under-explored with limited drilling. The primary near surface target area is located south of Gosling on the Southern Terrace and approximately 350m by 150m in size. The area has Down Hole

Electro Magnetic (DHEM) anomalies and a number of historic mineralised intersections, which have previously not been reported, as follows:

- BSD165 – 5.55m @ 2.70% Ni
- BSD116 – 1.90m @ 3.02% Ni
- GUD264 – 5.77m @ 3.91% Ni
- GUD220 – 4.00m @ 7.48% Ni

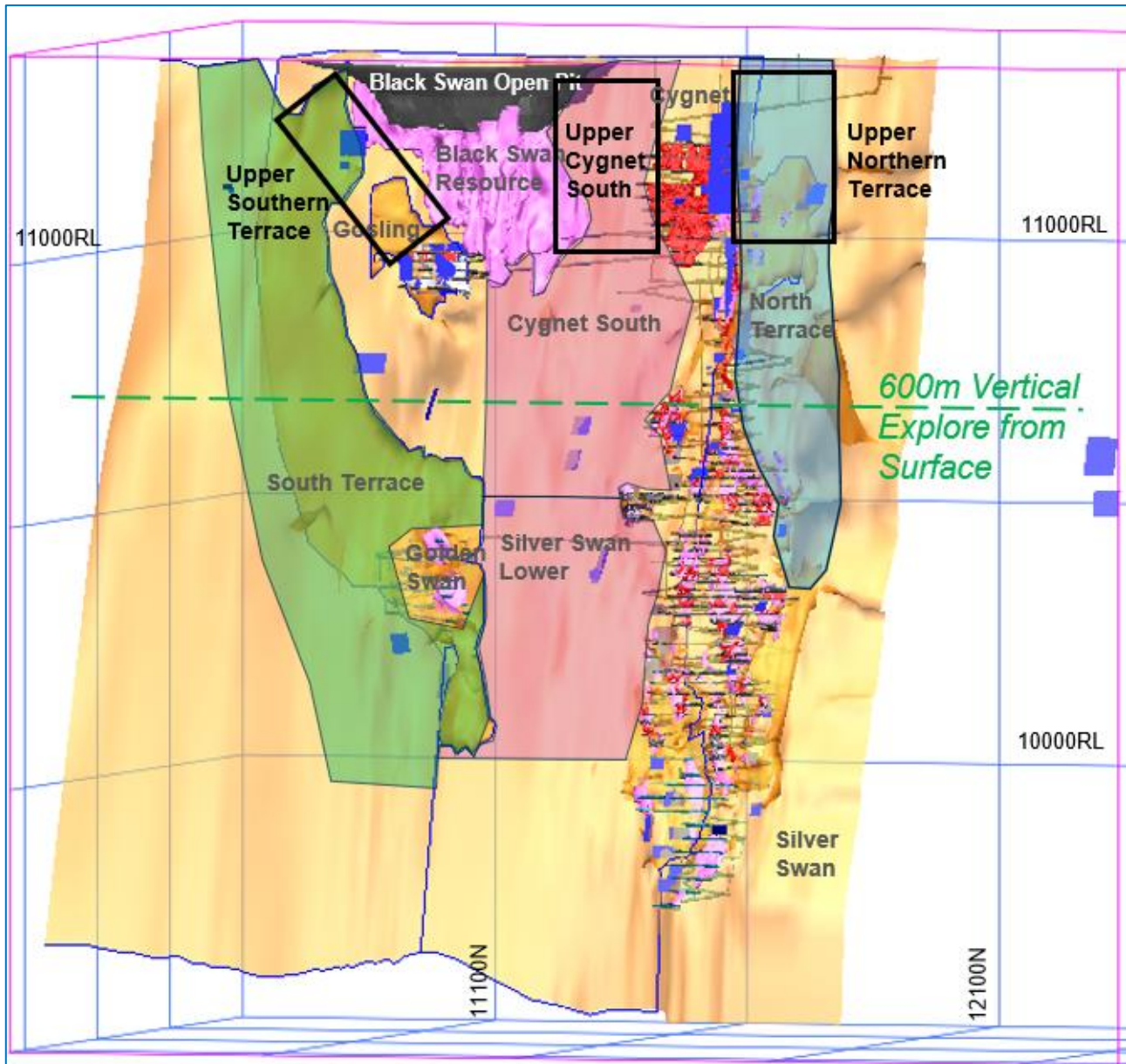


FIGURE 1: EXPLORATION TARGET AREAS AT BLACK SWAN

Upper Northern Terrace

With a total area of 600m by 200m, the Northern Terrace is divided into two surfaces, Upper and Lower. The Upper Northern Terrace area is 400m by 200m with limited historical drilling, which has previously not been reported, that includes the following intersections to underpin its prospectivity:

- SUD2951 – 2.27m @ 7.13% Ni
- SUD2952 – 3.82m @ 2.70% Ni

Further assessment of this area is planned to fully define exploration targets along each surface.

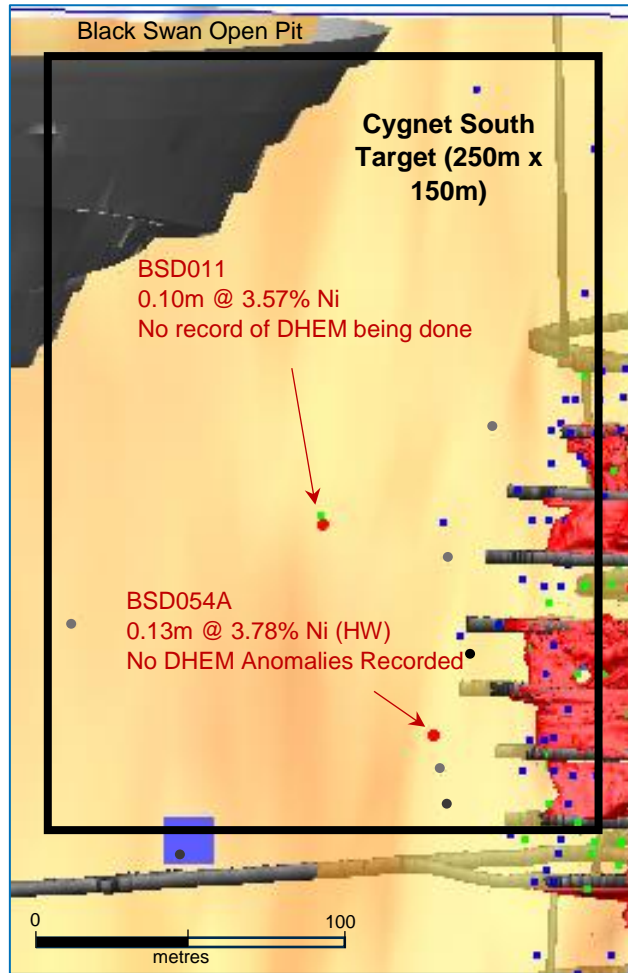


FIGURE 2: UPPER CYGNET SOUTH AREA

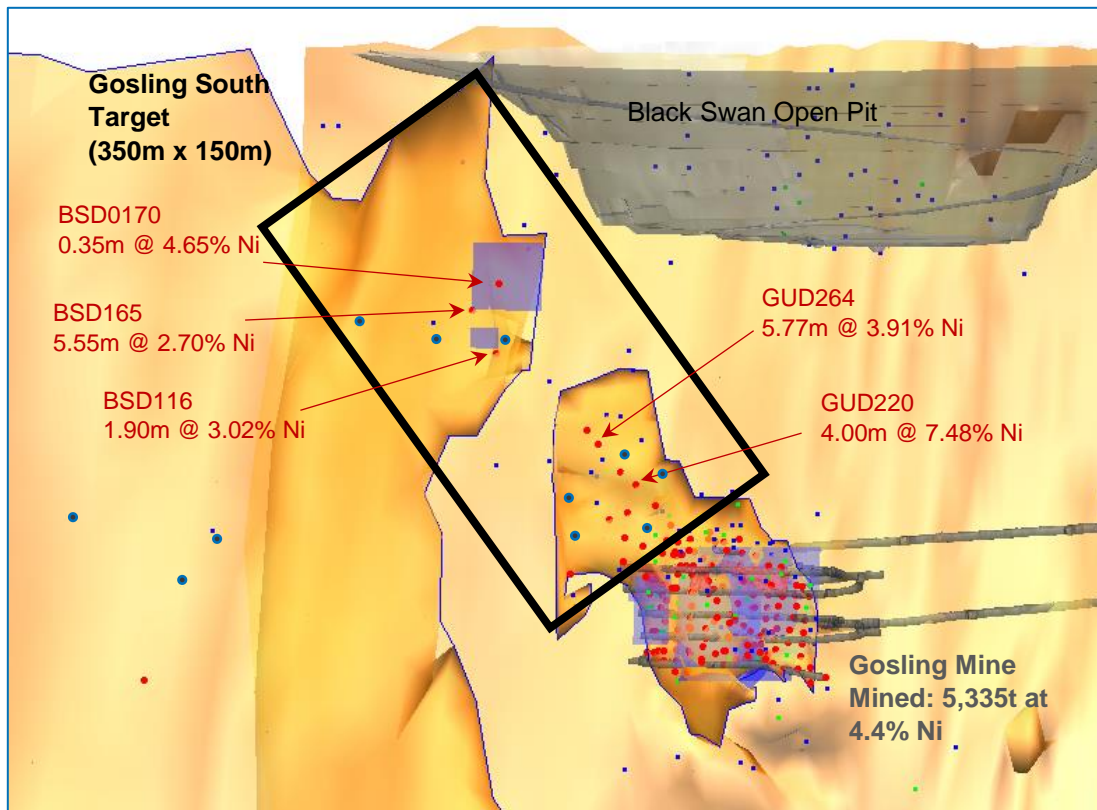


FIGURE 3: UPPER SOUTHERN TERRACE AREA

Next Steps

Following identification of these prospective targets, the next steps include completing the data integrity review for the upper Northern Terrace and the remainder of the greater Black Swan project area. This will include extending the detailed section-based footwall model across the entire project area focusing on near-surface opportunities.

The Company has commenced planning exploration programs for the Cygnet South and Upper Southern Terrace high-grade targets.

Revised Care and Maintenance (C&M)

The Company has revised its C&M model at Black Swan which includes ceasing dewatering of the Silver Swan mine. Following the recent exploration review, lower cost, near surface exploration targets have been identified which do not require drilling from underground positions. The optimised C&M removes up to \$1.0 million of annualised costs from the business. In addition to already achieved cost reductions of \$4.8 million, this decreases total annualised expenditure by \$5.8 million.

Ceasing dewatering of the Silver Swan mine potentially adds further development costs to the project restart cost assumptions presented in the Bankable Feasibility Study released during November 2022 (see ASX Announcement "*Positive Black Swan Feasibility Study*" dated 21 November 2022). The costs to prepare the mine for a future restart have not yet been estimated, however the Company considers it to be unlikely that any additional capital expenditure would prohibit a future restart of the project.

The Company has identified equipment on site which is surplus to current C&M requirements. A total of \$0.4 million worth of equipment has been sold already during 2024 with further equipment sales expected to release additional cash of over \$0.2 million.

In line with the Company's strategic plan of developing a pathway to production, restarting Black Swan as soon as it is feasible to do so remains one of the strategic pillars of the business. Any new near surface, high-grade discoveries that can be converted to a reserve will enhance the overall project economics hence the exploration focus on the near surface targets.

The strategic value of Black Swan resources and infrastructure remains albeit nickel prices are likely to remain volatile for the foreseeable future. In addition, Poseidon's processing plants at Black Swan and Lake Johnston could be reconfigured to treat gold and/or lithium ore. The Company has previously assessed opportunities to process gold at Black Swan during 2017 (see ASX announcement "*Poseidon & Aphrodite Move Closer to Gold Production*" dated 10 July 2017) and lithium at Lake Johnston during 2016 (see ASX announcement "*Poseidon & Kidman Move Closer to Lithium Production*" dated 27 July 2016). The existing infrastructure combined with the potential to shorten regulatory approvals for any future operations, makes the value proposition of these assets significant.

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



Brendan Shalders
Chief Executive Officer
30 May 2024

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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 420,000 tonnes of nickel and 180,000 ounces of gold¹.

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 profitable and sustainable nickel producer. A critical element of this strategy has been owning 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 Black Swan, Windarra Nickel and Lake Johnston Projects. In addition to the mines and infrastructure including the concentrator at Black Swan, these projects have significant exploration opportunities demonstrated by the discovery of the Golden Swan Resource at Black Swan, Maggie Hays West prospect at Lake Johnston and more recently the NW05 and NW04 targets at Windarra.

The Company completed a Bankable Feasibility Study on Black Swan in November 2022 which is planned to be the first project to restart, subject to appropriate project financing structures being achieved, the outlook for the nickel price improving and all necessary approvals being obtained.

A Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield was completed in mid-2022. In December 2023 Mt Morgans entered into a trial processing agreement with Poseidon on the Lancefield gold tailings and accessing the water in the South Windarra pit.

¹ Refer to the Company website, www.poseidon-nickel.com.au, for Resource and Reserves tables

COMPETENT PERSON STATEMENTS:

The information in this report that relates to Exploration Targeting and Results is based on, and fairly represents, information compiled and reviewed by Mr Mark Muller, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Muller is a full time employee of Muller Geological Services Consultancy Pty Ltd, an independent industry consultancy providing geological services to Poseidon Nickel, and has 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 Muller consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Additionally, Mr Mueller confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

Information on Poseidon's exploration results and mineral resources contained within this announcement is extracted from the ASX announcements titled:

- "Poseidon & Kidman Move Closer to Lithium Production" dated 27 July 2016
- "Poseidon & Aphrodite Move Closer to Gold Production" dated 10 July 2017
- "Second Golden Swan Massive Sulphide intersection extends new discovery" dated 5 August 2020.
- "Positive Black Swan Feasibility Study" released 21 November 2022
- "Exciting New Exploration Targets at Windarra" dated 14 February 2024
- "Lake Johnston Project Update" dated 17 May 2024

The information in this report that references previously reported exploration results is extracted from the Company's previous ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website (www.poseidon-nickel.com.au) or on the ASX website (www.asx.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 market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

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.

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

Appendix 1 - Nickel Projects Mineral Resource Statement

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	MINERAL RESOURCE CATEGORY															
			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)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
BLACK SWAN PROJECT																		
Black Swan	2012	0.4%	800	0.78	7,000	15,100	0.73	111,000	10,400	0.69	71,000	26,300	0.72	189,000	0.02	4,000	0.03	7,900
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
Stockpiles	2012	0.4%	-	-	-	1,200	0.49	5,900	400	0.53	1,900	1,600	0.50	7,800	NA	NA	NA	NA
LAKE JOHNSTON PROJECT																		
Maggie Hays	2012	0.8%	-	-	-	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	0.9%	-	-	-	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	0.8%	-	-	-	722	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	-	NA	-
TOTAL																		
Total Ni, Co, Cu Resources	2004 & 2012		1,475	0.84	13,200	23,600	0.98	233,500	17,000	1.03	176,000	42,100	1.00	422,700	0.02	7,800	0.05	18,300

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

- **Black Swan Resource** as at 7 June 2023 (see ASX announcement "Updated Resource provides more Nickel at Black Swan" released 7 June 2023)
- **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 Resource** 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)
- **Stockpile Resource** as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4 August 2014)
- **Maggie Hays Resource** as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17 March 2015)
- **Mt Windarra Resource** as at 7 November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7 November 2014)
- **South Windarra and Cerberus Resource** as at 30 April 2013 (see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1 December 2011)

Appendix 2 - Nickel Reserves Statement

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)

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.

Appendix 3 - Drillhole Collar Location Data

TABLE 1: DRILLHOLE COLLAR LOCATION DATA AND INTERSECTIONS >1% Ni, SG WEIGHTED WHEN VALUE AVAILABLE OR A DEFAULT OF 3 USED. COLLAR CO-ORDINATED REPORTED IN GDA 94 MGA ZONE 51.

Hole Id	Collar Co-Ordinates			Dip	MGA Azi	From m	To m	Downhole Interval m	Ni %	Cu %	Co %
	MGA East	MGA North	RL								
BSD011	370132	6637056	364	-50	232	261.02	261.12	0.10	3.57	0.03	0.08
BSD054A	370128	6637114	364	-60	232	320.48	320.61	0.13	3.78	0.05	0.09
BSD116	370506	6636771	364	-66	232	232.80	234.70	1.90	3.02	0.14	0.07
BSD165	370506	6636736	364	-60	232	206.50	212.05	5.55	2.70	0.18	0.04
GUD220	370252	6636777	6	29	092	108.00	112.00	4.00	7.48	NA	NA
GUD264	370253	6636778	7	38	111	130.00	135.77	5.77	3.91	0.35	0.09
SUD2951	369825	663722613	106	-23	012	115.20	117.47	2.27	7.13	0.19	0.21
SUD2952	369826	6637225	107	-21	008	110.53	114.35	3.82	2.70	0.07	0.09

NA = No Assay

Appendix 4 - Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Historically both reverse circulation and diamond drilling have been used to obtain samples. Sampling is therefore a mixture of full core, half core, quarter core and chip sampling. Generally, 1 m samples or smaller have been used for exploration diamond drilling. Sampling protocols from drilling between 1968 and 1991 have not been well documented. Diamond drilling sampling protocol since 1995 has followed accepted industry practice for the time, with all mineralised core sampled and intervals selected by geologists to ensure samples did not cross geological or lithological contacts. Core was halved, with a half quartered, with one quarter core sent for assay, half core kept for metallurgical testing, and the remaining quarter core retained for geological reference.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> The majority of historical diamond core is NQ, the rest being HQ size. Core orientation was carried out on surface holes using either spear marks or the Ezimark system.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Historically, core was typically recovered via 3m core tube then transferred from tube to core trays. Recovery was calculated on the amount recovered versus the amount drilled. Depths and recovery were recorded on wooden blocks placed in the core trays by the driller at the end of every run. Lost core was also recorded in this way. Core recovery was good, even-through areas of broken ground.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Verification of the accuracy of historical logging was limited to relogging several historical core holes stored on-site. Photographs, where present of the core have also been checked for geological validation purposes. All checks revealed the historical logging is of a high standard.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<ul style="list-style-type: none"> Historical core was generally cut with a core saw and sampled as half core, unless duplicate were taken which required samples to be quarter core. Samples were selected based on geological boundaries or to 1m intervals.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Surface RC samples were collected by use of a cone splitter, with duplicates collected every 20 samples.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> Historical samples were dispatched various laboratories including Analabs, Kal Assay in Kalgoorlie, ALS in Perth. More recently, Poseidon has used SGS Laboratories in Perth After crushing and pulverizing they were analysed by 4-acid ore grade digest with ICP-OES finish CRMs standards, blanks and cone split duplicate samples were submitted at a rate of 1 in 20 throughout the course of the program. Analysis of the results demonstrate a high degree of reliability can be assigned to the SGS analytical results. QAQC historically was conducted to industry standards with the submission of duplicate samples utilising the second quarter of core and certified Base metal Reference materials at nominal intervals, with a minimum of 3 per lab job. QC reports were generated at the completion of each drill program.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Historical sampling was conducted by the on-site logging geologists Validation of logging via relogging select drill holes and use of photography has revealed the historical logging is of a high standard More recent logging data is collected using Geobank Mobile which utilises a validation function before data can be exported into the Geobank database
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> All Black Swan drill hole collars have typically been surveyed to an accuracy of $\pm 10\text{mm}$ and recorded in both AMG51 and Black Swan local grid coordinates. The local grid is based on known MGA references. The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 10,000m was adopted for the Black Swan project. All Black Swan drill holes have been routinely surveyed downhole generally every 30m or less. In the case of some early drill holes (Australian Anglo American Ltd) however, only the hole dip component was measured using the acid vial method. All subsequent drill holes have been surveyed using a variety of instruments including Eastman single shot, multi-shot and modern downhole gyro survey instruments.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • The holes drilled form part of a program that is intended for exploration.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • With the exception of a few holes the majority of holes were drilled more or less perpendicular to the strike of the Black Swan disseminated mineralization.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Historically samples were placed in numbered calico bags and were sealed within poly weave bags and sent to laboratories within creates via transportation companies direct from site.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits or reviews were completed during drilling

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Black Swan open pit is centred on M27/39 and extends into M27/200. Silver Swan and Golden Swan are wholly located on M27/200. They are located 42.5km NE of Kalgoorlie. They are registered to Poseidon Nickel Atlantis Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the purchase of the assets.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The Silver Swan Mine was discovered by MPI Mines Ltd, then was acquired by Lion Ore in 2004. Much of the exploration drilling and development was completed by these two companies. In turn Lion Ore was taken over by Norilsk in 2007 who continued mining and developing the underground mine at Silver Swan until 2010. Poseidon Nickel purchased the operation from Norilsk in late 2014.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Silver Swan and Black Swan deposits are Kambalda style komatiite hosted nickel deposits.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> The Black Swan drill hole database has developed and been maintained in different software formats for 30 years. It contains data captured by 9,485 drill holes by 5 different companies over this period. The historical drill hole information pertaining to this announcement that has not been previously reported is listed as Table 1 in Appendix 2 of this document.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly 	<ul style="list-style-type: none"> When reporting historical massive nickel sulphide intersections a cut-off grade of 1% Ni has typically been used. The intervals have been SG weighted, with measured values used and, when available, a default of 3 used.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<p><i>stated.</i></p> <ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • The mineralised nickel sulphide widths are reported as down hole lengths at Black Swan.
Diagrams	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • Appropriate maps and sections related to this release are included in the main body of the release. • Due to the complexity of the geology and drilling longsections have been used to show the location of the current intercepts.
Balanced reporting	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • Historical results relating to the release are tabulated in Appendix 2.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • No further substantive exploration data is necessary to support this announcement.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • Further work is currently being planned and will be reported if and when it occurs in the future.