

BLACK SWAN RESTART PROJECT UPDATE

5 April 2022

KEY POINTS

Resource Definition Drilling

- o Black Swan Disseminated drilling program below the open cut pit completed
- o Silver Swan Resource update due early April, Mining Inventory should increase
- EM platform hole below Tundra-Mute underway

Metallurgy Update

- Metallurgical test work on various ore sources, nickel recoveries and potential concentrate specifications well advanced
- Ore characterisation and blending tests continue to demonstrate that the Fe:MgO ratio in concentrate can be improved
- Regrind test work on Black Swan disseminated samples confirms higher nickel grade can be achieved in the final concentrate

Bankable Feasibility Study (BFS)

- o GR Engineering well underway with engineering component
- Further drilling and metallurgical testwork required to quantify the serpentinite zones below the current open pit floor level (drilling completed)
- Additional drilling, work scope changes and industry wide pressures have pushed the BFS delivery out a few months to September 2022
- Final investment decision to be concurrent with BFS delivery

Pure Battery Technologies (PBT) secures Federal Government funding

- PBT secures ~\$120 million grant from the Federal Government for its pCAM refinery hub
- Preliminary test work demonstrates Black Swan concentrates could be a suitable feed material for the pCAM refinery
- PBT and Poseidon negotiating a definitive agreement in relation to working together

Marketing and Project Financing

- Strong interest in the Black Swan concentrate offtake from various potential customers, based on preliminary specifications and production estimates
- o Indicative offtake terms confirm concentrate saleability and competitive market terms



Poseidon Nickel (ASX: POS) ("Poseidon", "the Company") is pleased to provide this update on the Black Swan 1.1Mtpa "Fill the Mill" project and the Bankable Feasibility Study process.

Managing Director and CEO, Peter Harold, commented, "the Company has made good progress on the Black Swan BFS over the past three months, notwithstanding the BFS delivery has been pushed back a few months due to a combination of COVID, the extra drilling below the open pit and increased activity in the resources sector.

The resource drilling below the pit was extended to increase the knowledge of the serpentinite zones and has assisted in establishing the optimal pit shell for the BFS.

The Company continues to undertake various pre-production works to support the restart. Most recently we completed rehabilitation works on a 150 metre stretch of the Silver Swan decline so the EM platform hole below Tundra-Mute could be drilled. A contract for the balance of the decline rehabilitation has recently been awarded and will commence immediately.

The Federal Government grant of ~\$120 million for PBT's proposed Kalgoorlie pCAM refinery hub is a major step forward for the project. This refinery could be of great benefit to Poseidon by maximising margins on concentrates supplied to the refinery as well as potentially being able to treat a broader range of nickel concentrate specifications, thereby unlocking significant additional value from the Company's large nickel sulphide resource base proximal to Kalgoorlie."

Black Swan Restart Project Update

The following work streams have been completed:

- Black Swan Disseminated (BSD) resource drilling;
- rehabilitation of the final 150 metre stretch of the Silver Swan decline;
- studies on dewatering the Black Swan pit;
- · GM Mining Craig Jones appointed and commenced;
- in-fill resource drilling within the Silver Swan Channel;
- Silver Swan Tailings maiden Resource;
- · five year water access agreement signed with Norton Gold Fields; and
- Golden Swan maiden Resource.

The following workstreams are ongoing:

- updating the Silver Swan and Black Swan Disseminated (BSD) Resources to JORC Indicated classification;
- mining studies to convert the Resources to Reserves for Silver Swan, Golden Swan and BSD;
- metallurgical test work on blending the various ore sources to determine the optimum feed blend, expected metallurgical recoveries for each feed source and typical concentrate specifications;
- environmental and development approvals for the mining activities, infrastructure requirements including power supply and on site accommodation (if required);
- · discussions with PBT in relation to finalising a definitive agreement;
- · offtake and financing discussions ongoing with interested parties; and
- completing the Bankable Feasibility Study.





FIGURE 1: BOTTOM OF SILVER SWAN DECLINE

Black Swan Restart Project Timetable

Resourcing constraints in the mining and mining services industries have resulted in a revision of the Black Swan restart timetable.

Assays are taking longer than expected for the Black Swan Disseminated drilling program and metallurgical test work. This industry wide issue has been caused by the elevated level of exploration/ mining activity being undertaken in Western Australia and staff shortages at several of our key service providers.



The result is the BFS is now scheduled for completion during September 2022 with FID expected to occur concurrently. The delay in completion will provide additional time for the Company to pursue grid power allocations and progress approvals for onsite camp accommodation (if required).



FIGURE 2 – REVISED BLACK SWAN RESTART INDICATIVE TIMETABLE

Concurrently with the BFS process the Company continues to evaluate the potential for a DSO operation. Following completion of the revised Silver Swan Resource, the Company will complete mine studies and provide production schedules to the potential DSO offtake party so they can provide indicative terms.

Exploration Update

Black Swan Disseminated Drilling Program

The planned diamond drilling underneath the Black Swan pit has been completed. The program has drilled 24 holes for 5,144 metres (Table 1) and has added significantly to the understanding of the widespread mineralisation within the Black Swan ultramafic flow.





FIGURE 3: CURRENT RC AND DIAMOND DRILLING UNDERNEATH THE BLACK SWAN PIT

CollarID	EAST	NORTH	RL	Dip	Azimuth (True)	TD (m)
PBSD038	10184	11308	11017	62	52	199.9
PBSD039	10184	11308	11016	49	52	269.7
PBSD040	10184	11308	11015	36	52	242.3
PBSD041	10161	11382	11023	62	55	200.2
PBSD042	10161	11382	11022	49	55	250.6
PBSD043	10161	11382	11021	36	55	314.7
PBSD044	10183	11234	11012	63	55	190.3
PBSD045	10183	11234	11011	49	55	240
PBSD046	10182	11234	11013	80	61	136.7
PBSD047	10183	11234	11012	55	83	200.2
PBSD048	10182	11234	11013	76.3	92.6	190
PBSD049	10183	11234	11012	63	72	209.3
PBSD050	10182	11234	11013	75.5	64	194
PBSD051	10174	11272	11016	75	93	179
PBSD052	10174	11280	11016	63	55	215.1
PBSD053	10174	11280	11015	49	55	251.7
PBSD054	10173	11280	11016	75.1	31	190.8
PBSD055	10174	11281	11015	53.2	43.8	215
PBSD056	10163	11361	11022	72	55	180.8
PBSD057	10164	11361	11021	59	55	215
PBSD058	10164	11361	11021	48.1	55	224.5
PBSD059	10159	11395	11024	67.4	55	186
PBSD060	10159	11395	11024	50.5	54.5	254.4
PBSD061	10169	11315	11018	67.6	50	194.3

TABLE 1: BLACK SWAN DISSEMINATED DIAMOND DRILLING COLLAR INFORMATION

Modelling is currently underway to delineate the Serpentinite and Talc altered parts of the orebody using logged intervals supported by Quantitative X-ray Diffraction (QXRD) analysis. Assays will be applied to this model as they become available to support the JORC resource update.

The Company is currently working with WSP Golder on the new resource estimation and is aiming to release the results to market during the June Quarter.

Silver Swan Extension Opportunities

A deeper hole is being drilled for an EM survey to follow the EM plate identified in hole PTMD022 (Figure 4). This hole could identify a new area prospective for massive sulphide mineralisation below the currently known extents of the Silver Swan deposit. Extension of the Silver Swan Resource could build additional high-grade mine inventory.

The updated Mineral Resource for Silver Swan is due for release in mid-April 2022.





FIGURE 4: EXISTING DHEM PLATES AND PLANNED DRILLING BELOW TUNDRA-MUTE

Metallurgical Test Work

Silver Swan Tailings

The metallurgical testwork program on the Silver Swan Tailings (SST) was completed in December 2021. The testwork characterised the response of the SST to conventional sulphide flotation techniques, refloating the metal sulphides present in the SST both in isolation, through to a final concentrate, and as a mixture with a master composite generated from the Black Swan Disseminated (BSD) ore collected from surface stockpiles.

The testwork supports the positive flotation characterisation results reported in 2019. Key observations and interpretations of the recent testwork are summarised below:

 The SST floated (in isolation) to a re-cleaner concentrate yielded a 24% mass pull, with a nickel grade of 1.6%, nickel recovery of 48%, arsenic grade of 0.3%, and importantly an Fe:MgO ratio of 15:1. There is no discernible difference in the improvement in the Fe:MgO ratio when floating the SST in isolation and recombining with the concentrate produced from the BSD ore, relative to simply 'mixing' the SST with the BSD ore and floating as a mixture. This is positive since it will reduce the circuit complexity and associated capital and operating costs.



- The SST are proposed to be reclaimed hydraulically via a small barge pump and pumped approximately 500 metres, to be mixed with the BSD ore at the SAG Mill discharge hopper.
- Mixing 7.5% by weight of SST with the BSD ore improves the Fe:MgO ratio significantly, to within generally accepted guidelines for smelters.
 - The improvement is maintained across all stages of flotation i.e., the rougher stage through to the final re-cleaner concentrate (refer to Figure 5).
 - The Fe:MgO ratio can be improved even further with more SST added but at the expense of nickel grade in the final concentrate. At this stage, the anticipated blend rate is ~10% addition of the SST.



FIGURE 5: IMPACT OF MIXING SST (AT 7.5% BY WT.) WITH BSD ORE

An evaluation of historical production data from the Black Swan Concentrator has provided a baseline which was used to predict the concentrate specification when the SST is blended with the BSD ore. The modelling predictions included the addition of the high-grade massive sulphide ore mined from the Silver Swan underground, blended in at historical production levels.

Based on the testwork results the final concentrate specification with the addition of 7.5% of the SST was modelled. The modelled concentrate specification was provided to potential offtakers as part of our process during late 2021 to seek indicative offtake terms. The preliminary market approach received a strong level of interest from potential customers and offtake partners, indicating saleability of our concentrate product.

Silver Swan Underground

Metallurgical characterisation testwork using representative samples collected from the recent Silver Swan resource drilling continues.

Based on the preliminary results received to date, the metallurgical samples collected from the Silver Swan underground are responding well to conventional flotation tests. The preliminary results are in line with the historical production performance at the Silver Swan Concentrator.

Detailed results will be reported as part of the Feasibility Study once the ore blending testwork program is complete.



Golden Swan Underground

Metallurgical characterisation testwork using representative samples collected from the Golden Swan underground exploration target continues. Based on the preliminary results obtained to date, the Golden Swan massive sulphide is generally responding to conventional flotation tests in line with expectations.

Detailed results will be reported as part of the Feasibility Study once the ore blending testwork program is complete.





Black Swan Disseminated

Ore characterisation testwork using representative samples collected from approximately 80-120 metres below the base of the current pit floor level continues. The testwork on the metallurgically favourable serpentinite ore forms an integral part of the ore blending testwork program.



The following observations can be made based on the preliminary results received to date:

- Quantitative X-Ray Diffraction (QXRD) will be used to model the talc distribution within the serpentinite below the current pit floor level. A talc assessment program is currently being scoped.
- The ratio of sulphur to nickel (S:Ni) in whole rock analysis appears to be reducing with depth. The S:Ni
 ratio is a standard technique employed on low grade disseminated nickel orebodies. The ratio can
 predict changes to the nickel mineralogy. For low grade disseminated nickel orebodies, such as Black
 Swan, a S:Ni ratio of less than 1.0 indicates millerite (NiS) is likely to be the predominant form of nickel
 mineralisation.

Millerite can be difficult to liberate and subsequently float (relatively slow floating) due to its relatively fine grain size compared to pentlandite (NiFe)₉S₈. Pentlandite is the predominant source of nickel mineralisation in the Silver Swan and Golden Swan massive sulphide deposits.

Historical reports have identified where millerite is present, the millerite grain size is very fine, requiring a regrind of a suitable flotation concentrate stream to assist with the mineral liberation from the antigorite host rock. For this reason, a concentrate regrind test was employed on the rougher concentrate produced from the metallurgical sample collected from PBSD039 (which had negligible talc). The rougher concentrate was ground to 80% passing 25 microns, and the ground product re-floated (and cleaned). This preliminary regrind test yielded the following results:

- Final re-cleaner concentrate nickel grade 31%.
- The MgO and SiO₂ content in the re-cleaner concentrate reduced by ~50% (both to less than 12% by weight), demonstrating significantly improved liberation of interlocked gangue minerals.
- Overall nickel recovery reduced by approximately 5%.

The ore characterisation and blending testwork program is approximately 50% complete. The program was delayed by the need to collect additional samples of serpentinite ore, given the first batch of samples (specifically from PBSD038) were found to contain high levels of talc.

In recent months, delays at the laboratories have also been encountered due to COVID-19 workforce related issues. The high industry demand on the metallurgical testing laboratories is also contributing to delays in completing the testwork program. To minimise the impact on the overall BFS schedule, the metallurgical testwork program will run in parallel with the engineering studies.

Engineering Studies

Process Plant and Infrastructure Study

GR Engineering Services (GRES) commenced the Process Plant and Infrastructure study in mid-February 2022. The study is anticipated to take 13-weeks to complete. Western Power and GRES are working together to assess the power allocation required for access to the Western Power electrical grid.

The GRES study will include an assessment of an accommodation camp located at Black Swan. The accommodation camp may be required to house a percentage of the workforce given the current shortage of accommodation in the Kalgoorlie region. Our preference is to have the majority of the workforce located in Kalgoorlie.

GRES will also evaluate the potential to utilise the existing Silver Swan ball mill as a regrind stage. Based on the positive testwork results received to date it is likely the regrind duty would be applied on selected flotation banks from the rougher flotation stage. More testwork is required to optimise the opportunity to incorporate a concentrate regrind stage.



Black Swan Pit Dewatering Study

The Black Swan Pit Dewatering Study was completed at the end of February 2022. The study assessed the operating history of the Black Swan Tailings Storage Facility (TSF) and its interface with the Black Swan Pit. The Black Swan TSF forms part of an overall Integrated Waste Rock Landform (IWRL) with the TSF positioned only 350 metres to the south of the Black Swan Pit. As of September 2021, the Black Swan Pit contained approximately 300ML of saline water that needs to be removed prior to recommencing mining activities.

In January 2012, the southern wall at the Black Swan Pit had a localised failure. Therefore, it was important to assess the pit/TSF interface in detail to ensure that appropriate controls are put in place to manage the transfer of 300ML of water from the Black Swan Pit to the adjacent TSF. Recognising the central decant (water recycling system) at the Black Swan TSF would not be in operation until the Black Swan Concentrator commenced production.

The Black Swan Pit is proposed to be dewatered at approximately 20L/sec over a period of 6-9 months, with a large percentage of the water likely to be directed to an alternate TSF (located much further way from the Black Swan Pit) for a dust suppression duty or sent to water vaporisers (positioned within the crest of the Black Swan Pit).

The Company expects to commence pit dewatering to align with recommencement of open pit mining operations.

Silver Swan Tailings Geotechnical Study

The geotechnical investigation of the Silver Swan TSF was completed at the end of February 2022. The study was commissioned for three key reasons:

- to support the Mining Proposal application required to reclaim the Silver Swan Tailings and reprocess to recover nickel and improve the final concentrate quality (with respect to the Fe:MgO ratio);
- to confirm the trafficability across the surface of the TSF (and with depth), noting the first metre from surface will need to be scrapped back to access the high iron (low magnesium oxide) material; and
- to confirm the embankment wall stability of the Silver Swan TSF; and
- to assess the potential to re-use this facility, to receive processed tailings in the future once the volume the Silver Swan Tailings is fully reclaimed.

Outcomes from the study were:

- the embankment walls will have an adequate factor of safety against failure when the tailings are
 reclaimed. The factor of safety will be maintained whether the tailings are reclaimed via a hydraulic
 mining approach or via a mechanical mining method; and
- the Silver Swan Tailings Storage Facility could be reused to store tailings in the future after the existing tailings are reclaimed (and reprocessed).

Mining Studies

During January/February 2022, Entech investigated the options available to remove and remediate the wall failure located on the southern side of the Black Swan Pit. Waste rock from the wall failure is currently sterilising a significant tonnage of serpentinite ore. The assessment confirmed that addressing the wall 'slip' is technically feasible and is to be incorporated within the overall mine plan going forward.

The mining studies will continue with impending Silver Swan and Black Swan Resource updates once available.



Pure Battery Technologies (PBT)

Modern Manufacturing Initiative Grant Awarded to PBT

In September 2021, PBT made a submission for a grant under the Modern Manufacturing Initiative – Manufacturing Collaboration Stream to assist with the development of their proposed battery material refinery.

On 16 March 2022 the Federal Government announced a \$119.6 million grant for PBT's proposed Kalgoorlie pCAM Hub, in partnership with Poseidon, under the Collaboration Stream of the Modern Manufacturing Initiative (see ASX announcement "\$119.6 million Modern Manufacturing Initiative Grant for Integrated Battery Material Refinery Hub in Kalgoorlie" released 17 March 2022).

The support from the Federal Government is a major step forward for PBT's pCAM Hub, which could be of great benefit to Poseidon by maximising margins on concentrates supplied to the refinery as well as potentially being able to treat a broader range of nickel concentrate specifications, thereby unlocking significant additional value from the Company's large nickel sulphide resource base proximal to Kalgoorlie.



FIGURE 7: OVERVIEW OF PBT'S TECHNOLOGY

Preliminary Leach Testwork

PBT recently achieved excellent results from preliminary leach testwork on samples of Black Swan nickel sulphide concentrates. The pressure oxidation leach tests were carried out on three different concentrate blends provided by Poseidon and the tests achieved >90% extraction of nickel and >95% extraction of cobalt.

The leach testwork continues, with the program to include additional samples from the recent Black Swan disseminated drilling program.



Marketing and Project Funding

The Company has received strong interest from various parties to enter an offtake arrangement for concentrate to be produced at Black Swan. Preliminary concentrate specifications were provided to interested parties, including trading houses, battery makers and smelters, with competitive indicative offtake terms received from a number of parties. Poseidon will continue to engage with these parties as more information becomes available on the final concentrate specifications and expected production schedule.

Other Developments

The Company has appointed Craig Jones, an experienced mining executive, to the position of GM – Mining. Craig has more than 28 years of experience in West Australian hard-rock mining within the resources industry and was most recently the COO of Bellevue Gold.

In addition to Craig's appointment, the Company has filled a number of positions to support the Company through the BFS process and into production. Further appointments are expected as we move forward toward a restart of operations at Black Swan.

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

Peter Harold Managing Director & CEO

5 April 2022



COMPETENT PERSON STATEMENTS:

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

- "Poseidon Announces Black Swan Mineral Resource" released 4 August 2014
- "Silver Swan Resource Upgrade" released 5 August 2019
- "50% Increase in Indicated Resources at Lake Johnston" released 17 March 2015
- "Silver Swan Tailings Maiden Resource Estimate" released 15 September 2021
- "Golden Swan Maiden Resource" released 27 October 2021

which are available to view on <u>www.poseidon-nickel.com.au</u>. 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 information in this report that relates to Exploration Targeting and 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.

Mr Pearce has sufficient experience which is relevant to the style of mineralisation and type of deposits 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 2012). Mr Pearce consents 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.

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. 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 deposit at Lake Johnston. The Company completed a Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield in July 2021 and is currently investigating potential partners to develop the project and monitise the asset.



Appendix 1 - Mineral Resource Statement

TABLE 1: NICKEL PROJECTS MINERAL RESOURCES STATEMENT

								MINERAL P	RESOURCE	CATEGORY	1				
Nickel Sulphide	JORC	Cut Off	I	INDICATED)		INFERRED					TOTAL			
Resources	Compliance	Grade	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)
BL	ACK SWAN PR	OJECT													
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	NA		NA	
LA	KE JOHNSTON	PROJECT													
Maggie Hays	2012	0.80%	2,600	1.6	41,900	900	1.17	10,100	3,500	1.49	52,000	0.05	1,800	0.1	3,400
wi	INDARRA PRO	IECT													
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
то	TAL														
Total Ni, Co, Cu Resources	2004 & 2012		16,775	1.04	174,030	27,275	0.81	221,500	44,049	0.9	395,530	0.01	7,200	0.05	12,700

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 modelled to produce the Ore Reserves

Black Swan Resource as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4 August 2014)

Silver Swan Resource as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade" released 5 August 2019)

 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)

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.

		Silver Swan Resource - August 2019										
Area		Indic	ated			Infe	erred			Т	otal	
	kt	Ni %	As ppm	Ni metal (t)	kt	Ni %	As ppm	Ni metal (t)	kt	Ni %	As ppm	Ni metal (t)
Tundra-Mute	68	9.2	3,200	6,260	59	9.8	3,290	5,800	127	9.5	3,240	12,060
Peking Duck	26	9.7	2,520	2,560	1.2	8.8	4,330	100	27	9.7	2,590	2,660
Fledgling- Canard	12	9.9	2,100	1,160	0				12	9.9	2,100	1,160
Goose	1.7	9	3,180	150	0				1.7	9	3,180	150
Total resource	108	9.4	2,910	10,130	61	9.7	3,310	5,900	168	9.5	3,060	16,030

TABLE 2: SILVER SWAN MINERAL RESOURCE ESTIMATE

Silver Swan Resource as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade" released 5 August 2019)

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 3: SILVER SWAN TAILINGS RESOURCE - SEPTEMBER 2021

		Silver Swan Tailings Resource - September 2021								
Zone		Measured								
	Tonnes	Ni%	Ni t	Cu%	Co ppm	Fe%	MgO%	As%	S%	Density
1	280600	0.75	2118	0.02	283	16.7	8.81	0.04	7.56	2.84
2	394365	1.04	4082	0.06	967	26.1	4.71	0.17	13.56	3.09
Total	674964	0.92	6201	0.04	683	22.2	6.42	0.11	11.06	2.98

Silver Swan Tailings Resource as at 15 September 2021 (see ASX announcement "Silver Swan Tailings – Maiden Resource Estimate" released 15 September 2021).

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 4: GOLDEN SWAN 2021 MINERAL RESOURCE AT A 1.0% NICKEL CUT-OFF

					Golden	Swan Reso	urce - Octol	per 2021				
Туре	Indicated			Inferred				Total				
	kt	Ni %	As ppm	Ni metal (t)	kt	Ni %	As ppm	Ni metal (t)	kt	Ni %	As ppm	Ni metal (t)
Contact	111.6	4.7	390	5,200	8.8	4.7	500	410	120.4	4.7	390	5,610
Hanging Wall	-	-	-	-	39600	1.6	140	640	39.6	1.6	140	640
Total	111.6	4.7	390	5,200	48.4	2.2	208	1050	160	3.9	332	6,250

Note: totals may not sum due to rounding

Golden Swan Resources as at 27 October 2021 (see ASX announcement "Golden Swan Maiden Resource" released 27 October 2021).

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 2

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. 	Samples were divided into logged domains, with no individual sample being greater than 1.2m or less than 0.3m. Appropriate QAQC standards and blanks from Geostatswere inserted, and duplicates taken in quarter core at selected intervals where mineralisation variability warranted it.
Drilling techniques	 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). 	using the Diamec Smart 6 Mobile Carrier rig. The holes were drilled in NQ2 and the core was orientated using the Trucore Orientation Tool. The hole was surveyed
Drill sample recovery	 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 	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 frequent
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Minera Resource estimation, mining studies and metallurgical studies. 	Logging was done for Geology, structure,



Criteria	JORC Code explanation	Commentary
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 After logging, all core was photographed in both dry and wet images. The photographs are stored on site.
Sub- sampling techniques and sample preparation	 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. 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. 	 Core was sampled as half core, unless duplicates were taken which required samples to be quarter core.
Quality of assay data and laboratory tests	 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. 	 Samples have been dispatched to SGS lab in Perth. After crushing and pulverizing they are analysed by 4-acid ore grade digest with ICP-OES finish.
Verification of sampling and assaying	· · · ·	 Sampling was conducted by the logging geologists who are employees of Newexco Data is collected using Geobank Mobile which utilises a validation function before data can be exported into the Geobank database
Location of data points	 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. 	 All collar surveys were completed to an accuracy of ±10mm. A local grid based on known MGA references was created. 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 + 1000m was adopted for the Black Swan project. All holes are surveyed using the DHS Devishot tool. Shots were taken every 2 or 3m on in and out runs across the entire



Criteria	JORC Code explanation	Commentary
Data	Dete appoint for reporting of Evaluation	length of the hole at every survey interval. The tool is True North seeking and has an accuracy of +/-1 degree of dip and azimuth. In tool analysis gave an indication of whether the survey passed or failed and successive surveys were overlayed in Devi Cloud to visually check deviation between surveys with an average survey used as the base for modelling.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 The holes drilled form part of a program that is intended to bring the mineral occurrence to Indicated status. The nominal spacing is 40x40m, with infill drilling to be conducted as required to comply with resource modelling requirements.
Orientation of data in relation to geological structure Sample		 Drill core is oriented using the Trucore Ori. N/A
Sample security	The measures taken to ensure sample security.	• IN/A
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 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
<i>Mineral tenement and land tenure status</i>	 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. 	 The Black Swan open pit is centred on M27/39 and extends into M27/200. Silver Swan is 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.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 The Silver Swan orebody was discovered by MPI Mines Ltd in 1995, an subsequently 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 and continued mining and developing the underground mine at Silver Swan until 2010. Poseidon Nickel purchased the project from Norilsk in late 2014.
Geology	 Deposit type, geological setting and style of mineralisation. 	 The Silver Swan deposit is a Kambalda style komatiite hosted nickel deposit.
Drill hole Information	 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: 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. 	 The current drill hole information is listed as Table 7 and 8 in Appendix One of this document.
Data aggregation methods	 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. 	 When reporting Silver Swan assay results, a cut off grade of 1.0% Ni has been used. When reporting Black Swan assay results, a cut-off grade of 0.4% Ni has been used.



Criteria	JORC Code explanation	Commentary
	 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 stated. 	
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 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'). 	 Mineralised widths are reported as down hole lengths. Due to the uneven nature of the Felsic footwall, true width of the reported assays cannot be stated with certainty at this time.
Diagrams	 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. 	 No significant new discovery reported. All current Black Swan drilling is shown on the Oblique Section (Figure 2). Collar locations and drill dip and azimuth are included as Table 1
Balanced reporting	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.	 Not applicable to this announcement.
Other substantive exploration data	 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. 	 DHEM Surveys were conducted by Vortex Geophysics. Interpretation of the results was done by Newexco Ltd. Significant plates to this announcement are shown in Figure 2.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Resource drilling on the Black Swan deposit was commenced in FY 2021- 22, and as part of that program further diamond drilling will be done in the area in order to extend the known mineralisation.