POSEIDONNICKEL



ASX Code: POS
Shares on Issue: 2,638M
Market Cap: ≈\$79M
Cash & equivalents at 31 Dec 2019
\$51.6M

Board of Directors

Non-Executive Chairman Derek La Ferla

Non-Executive Directors

Felicity Gooding Karl Paganin Geoffrey Brayshaw

Managing Director & CEO

Peter Harold

CFO & Joint Company Secretary

Brendan Shalders

Joint Company Secretary

Andrea Betti

Key Shareholders

Black Mountain Metals: 19.8% Squadron Resources: 17.1%

Key Operating Nickel Assets (100%)

Black Swan/Silver Swan
Lake Johnston
Windarra

Principal & Registered Office

Unit 8 Churchill Court 331-335 Hay Street Subiaco 6008 Western Australia

T: +61 8 6167 6600 F: +61 8 6167 6649 E: admin@poseidon-nickel.com.au W: www.poseidon-nickel.com.au

106% UPGRADE OF NICKEL RESERVE AT SILVER SWAN

06 MARCH 2020

The Company's announcement on 11 February 2020 ("106% Upgrade of Nickel Reserve at Silver Swan") has been updated to provide further supporting information for the Silver Swan Ore Reserves estimate, including Sections 1, 2 and 3 of Table 1 of the JORC Code (previously released to market 9 August 2019, "Silver Swan Resource Upgrade and Black Swan Underground RC Drilling"). The Silver Swan Ore Reserves estimate detailed in this announcement is unchanged from the estimate included in the Company's announcement on 11 February 2020.

HIGHLIGHTS

Silver Swan Reserve Upgrade

• Updated Ore Reserve for Silver Swan achieves a 106% increase in contained nickel metal to 130,000t @ 5.2% Ni (6,800 Ni tonnes)

Black Swan Exploration

- Large electromagnetic (EM) anomaly consistent with Massive Sulphides detected beneath Black Swan open pit and previously mined Gosling deposit
- Drilling of the EM anomaly to commence immediately

Windarra Exploration

- Assays received from recent RC program at Windarra's Crazy Diamond Prospect; highlights
 - PNRC0309 intersects 5m @ 0.75% Ni from 12m (exsulphides) including 1m @ 1.38% (approx. 0.8m true width)
 - Anomalous gold mineralisation up to 0.5 g/t Au

Poseidon Nickel (ASX: POS, "the Company") is pleased to announce the following updates:

- A 106% increase in the Silver Swan Ore Reserve Estimate following on from the increase in Mineral Resources (see ASX announcement "Silver Swan Resource Upgrade" released 5th August 2019).
- A large electromagnetic (EM) anomaly consistent with a massive sulphide EM response has been
 detected towards the base of the Black Swan mineralised sequence at depth below the open pit. An
 underground drill program to test the anomaly will commence immediately.
- Assay results from the scout drilling at Crazy Diamond (Windarra Project) have confirmed both nickel and gold mineralisation.

Commenting Mr David Riekie, Interim CEO said;

"This healthy Silver Swan Reserve upgrade is an important and significant benefit from the ongoing derisking and restart studies on and around Black Swan operations north of Kalgoorlie.

The EM anomaly identified below the Black Swan open pit and previously mined Gosling deposit, offers some very exciting potential and is a focal point for a priority drilling program.

Collectively, these outcomes are important additions that are building on the certainties created from previous successful drilling, to allow Reserve status and upgrade, as well as highlighting potential within previously untested zones. The proximity and location of the anomaly is an exciting prospect.

The additional and ongoing successful exploration also extends to our Windarra tenements."

Silver Swan Ore Reserve Estimate

The Silver Swan Ore Reserve has been updated based on Mineral Resource that was announced to market on 5th August 2019 (refer to Attachment C).

The Ore Reserve estimate, prepared by Mining Consultants, Entech Pty Ltd is based on the mining methods, designs, schedules, cost estimates and modifying factors, which have been determined from a revision of the previous Silver Swan and Black Swan 2018 Feasibility Study (refer to Attachment D). The outcomes have been achieved as part of the ongoing derisking and restart studies being undertaken for Black Swan.

The Ore Reserve economics are based on a processing recovery of 92.5% for nickel, commercial offtake terms and a nickel price of A\$22,335/t. Copper and cobalt grades in concentrate do not reach assumed payable levels.

Operating cost estimates are as per the previously announced Silver Swan and Black Swan 2018 Feasibility Study (refer to Attachment D), and presented in the following table:

Table A: December 2020 SS Ore Reserve Estimate – Operating Cost Estimates

Operating cost item	Unit	Value
Mining costs		
Lateral operating development	\$ / t ore	59.85
Stoping	\$ / t ore	44.83
Mine overheads	\$ / t ore	15.11
Mine services	\$ / t ore	120.03
Mine UG Haulage	\$ / t ore	105.79
Geology	\$ / t ore	5.01
Surface road haulage	\$ / t ore	0.00
Processing / G&A	\$ / t ore	29.38
Con transport cost	\$ / t ore	43.10
Total operating cost	\$ / t ore	423.10

The existing Indicated Resources have been converted to Probable Ore Reserves subject to mining modifying factors. Any Inferred material contained within the mine plan has been treated as waste. All material has been assumed to be processed at the Black Swan processing plant located at the site, in conjunction with material mined from the Black Swan open pit and surface stockpiles.

The Ore Reserve estimate mine design is shown in Figure 1 and Figure 2.



Figure 1 - Ore Reserve Estimate Mine Design (Long-Section Looking W)

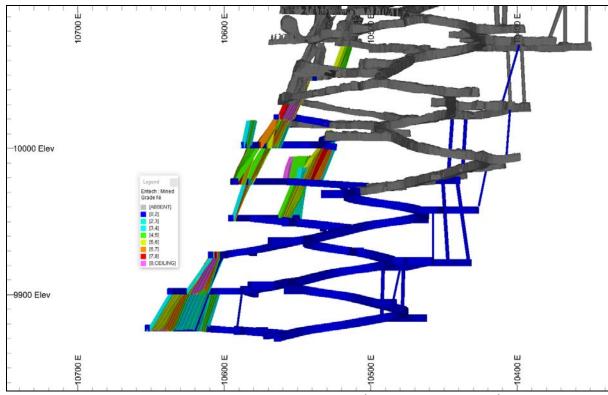


Figure 2 - Ore Reserve Estimate Mine Design (Cross-Section Looking S)

Ore Reserve Estimate Statement

The Ore Reserve estimate for the Silver Swan ("SS") underground nickel mine as at February 2020 is 130,000 tonnes of ore grading 5.2% Ni for a total of 6,800 tonnes of contained Ni metal.

The final Ore Reserves summary is presented in Table B.

Table B: December 2020 SS Ore Reserve Estimate

	Ore (kt)	Grade (% Ni)	Ni metal (kt)
Silver Swan UG Proven Reserve	-	-	-
Silver Swan UG Probable Reserve	130	5.2%	6.8
Silver Swan UG Total Reserve	130	5.2%	6.8

^{*}Calculations have been rounded to the nearest 10,000t of ore, 0.1% Ni grade and 100 t of Ni metal

The Ore Reserve represents an update to the previous Ore Reserve announced to market on 26th May 2017. A comparison of this Ore Reserve estimate to the 2017 estimate is presented in Table C. There has been no mining or depletion of the 2017 Reserves since their estimation.

Table C:Comparison with Previous Ore Reserve

	2020 Ore Reserve Estimate 2017 Ore Reserve Estimate Variance												
			2020	Ore Reserve	Estimate	2017	Ore Reserve	Estimate	Variance				
			Ore	Grade (%	Ni metal	Ore	Grade (%	Ni metal	Ore	Grade (%	Ni metal		
			(kt)	Ni)	(kt)	(kt)	Ni)	(kt)	(kt)	Ni)	(kt)		
Silver	Swan	UG	-	-	-	-	-	-	-	-	-		
Proven Reserve													
Silver	Swan	UG	130	5.2%	6.8	60	5.8%	3.3	70	-0.6%	3.5		
Probable Reserve													
Silver	Swan	UG	130	5.2%	6.8	60	5.8%	3.3	70	-0.6%	3.5		
Total R	eserve												

^{*}Calculations have been rounded to the nearest 10,000t of ore, 0.1% Ni grade and 100 t of Ni metal

The Mineral Resource used as the basis for the Ore Reserve estimate was announced to market on 5th August 2019 (see Attachment C). Indicated Resources have been converted to Probable Ore Reserves subject to mine design physicals and an economic evaluation. No Measured material was contained in the Resource. Any Inferred material contained within the mine plan has been treated as host rock waste. The Ore Reserves have been defined at delivery to Black Swan processing plant, on the assumption that Silver Swan material will be processed alongside Black Swan open pit and surface stockpile material as detailed in the 2018 Feasibility Study (see Attachment D).

The Ore Reserve estimate is based on financials and modifying factors determined as part of the 2018 Feasibility Study undertaken on the project. The Ore Reserve estimate is supported by Sections 1, 2 and 3 of Table 1 of the JORC Code (previously released to market 9 August 2019, "Silver Swan Resource Upgrade and Black Swan Underground RC Drilling"), refer to Attachment C, and revised Section 4 of Table 1 of the JORC Code, refer to Attachment B. This statement relates to a global estimate.

Black Swan Exploration - Large Electromagnetic Anomaly Detected

A Downhole Electromagnetic (DHEM) survey has been conducted on PBSD002, a diamond hole drilled in 2019 sub-horizontally into the Black Swan deposit 900m below the Open Pit. The hole intersected disseminated to blebby nickel sulphides and provided the Company with an ideal DHEM platform to identify possible repeats similar to that of the Gosling Massive Sulphide Deposit (see Figure 3).

The DHEM survey managed and interpreted by Newexco, has resulted in a large, off-hole EM anomaly with a response consistent with massive sulphides. The anomaly is located 550m below and in the same stratigraphic location as the Gosling Massive Sulphide orebody. Gosling was mined in 2008 and produced 121,417 t @ 4.4 %Ni.

The DHEM anomaly is considered to be a high-priority drill target due to its basal contact location (stratigraphically favourable position to be nickeliferous) and the clean, late-time EM response which is consistent with massive sulphides at Black Swan and Silver Swan.

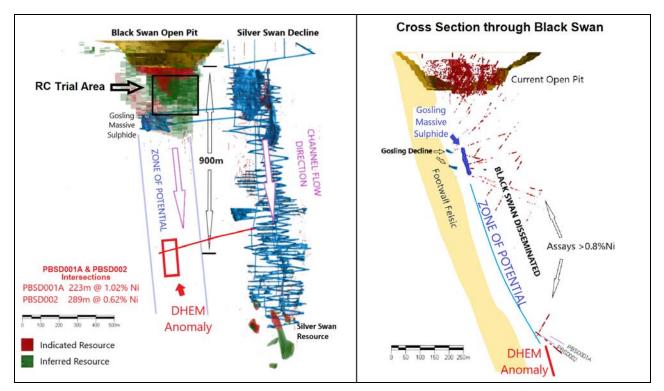


Figure 3 - Location of DHEM anomaly with respect to the BSO workings

DHEM and Anomaly Details

PBSD002 intersected disseminated to blebby sulphides (289m @ 0.62%Ni, see ASX announcement "High Grade Nickel Intersections 27 May 2019). The DHEM survey utilized the DigiAtlantis probe on 5m to 10m stations and a 1km square surface loop with a base frequency of 0.5Hz.

The off-hole EM anomaly is located 450m down hole and 35m off to the west of PBSD002. The mineralisation intersected by the drilling is not in itself able to generate the highly conductive anomaly observed due to its disseminated sulphide nature.

A comparison of the Gosling EM response and the new anomaly by Newexco suggests that the source is larger and more conductive than historical EM surveys that found the Gosling deposit. Although this is at an early stage of interpretation this anomaly is interpreted to be caused by a highly conductive source that may be greater than the areal extent of Gosling.

Next Steps

A staged approach to the drilling will be adopted to assess the EM anomaly. Plans are currently being finalised as a priority to drill-test the modelled conductor plate to ascertain if the conductor composition is nickel sulphide.

Should the source of the anomaly contain nickel sulphides, a second hole will be drilled to ascertain the dip and width of mineralization.

The footwall parent hole will then be extended to 1000m depth and cased. This will allow for further DHEM surveying of the area of potential as highlighted in Figure 3. This program is anticipated to enable the majority of the zone of potential for massive sulphides between Gosling deposit and PBSD002 to be assessed.

Windarra Exploration – Crazy Diamond Prospect

The Company has received the assays from the recent RC program at the Crazy Diamond Prospect near Windarra where both gold and nickel have been intersected. The Crazy Diamond Prospect is the next komatiite channel to the north of Poseidon's Cerberus Discovery (69,000 Ni metal tonnes, see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1st December 2011).

While intersecting nickel mineralisation was a secondary aim of the stratigraphic drilling, PNRC0309 did strike nickel enrichment in a 5m zone 10m below surface. Inspection of the drill chips revealed that the nickel enrichment is closely associated with gossanous oxide blebs which are interpreted to be weathered sulphides near the basal contact of a large komatiite flow. Importantly Poseidon does not consider the intersection to be related to the weathering profile. This is further confirmed by the underlying geochemistry as presented in the Table 5 attachment where manganese, iron, copper, chrome and magnesium appear as expected from weathered ultramafic and sulphides rather than from lateritic enrichment.

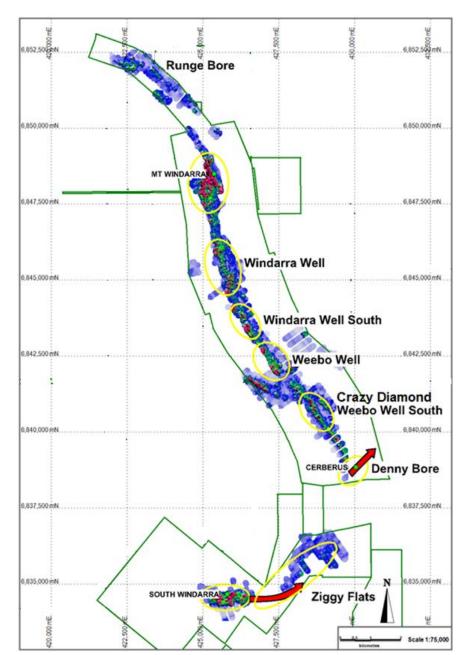


Figure 4 - Windarra Nickel Project historical geochemistry and identified komatiite channels

The intersection is interpreted to be at the base of the Upper Ultramafic, a subsequent komatiite flow to the Windarra Ultramafic (which hosts the Windarra, South Windarra and Cerberus Deposits). Poseidon's drilling to the north of the Cerberus Deposit in 2011 revealed minor sulphide nickel mineralisation in a similar stratigraphic position some 950m to the south of the recent intersection (referenced in Figure 5). Gossanous mineralisation had previously been uncovered in a trench 100m to the south of PNRC0309 however historical drilling by WMC and Poseidon under and around the gossan did not intersect anything further.

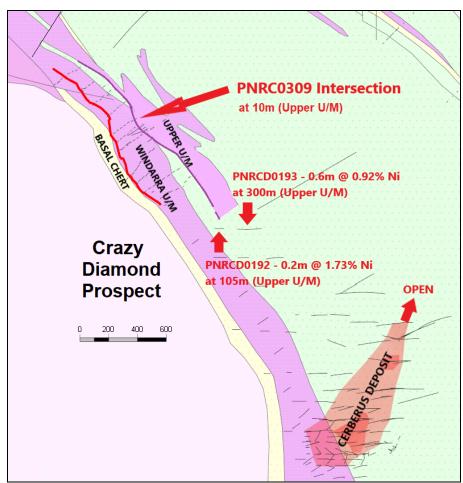


Figure 5 - Crazy Diamond Prospect and location of sulphide intercepts

Previous mapping had indicated that the basalt unit usually separating the Windarra and Upper Ultramafics elsewhere in the belt was 'missing' at Crazy Diamond, however due to the accumulation of sediments on the flood-plain, the Company could not ascertain the exact relationship between the two within the prospect. The drilling revealed that the Upper Ultramafic has indeed displaced the basalt in the stratigraphic sequence and also that the Upper Ultramafic and basalt are geologically and geochemically separate units. Therefore, it is interpreted that the Upper Ultramafic has thermally eroded the basalt and come to lie directly above the Windarra Ultramafic. Chert horizons logged in Cerberus at the top of the Windarra Ultramafic could therefore be a likely sulphide source for the nickel mineralisation located by PNRC0309.

Gold Mineralisation

An arsenic anomaly associated with hydrothermal veining within the basal chert and intruding felsics was also evident from the assays. A small group of selected samples were resubmitted for gold resulting in 1m @ 0.51 g/t Au in PNRC0264 from 30m (1m true width) and 2m @ 0.45 g/t Au in PNRC0278 from 33m (2m true width). Additional intersections >0.1 g/t Au also occur and are considered highly anomalous (refer to Table 6 in attachments).

Poseidon acknowledges that Focus Minerals' exploration at the Beasley Creek Gold Mine (particularly along the Thompson Well Fault) runs in a northwest line some 1,900m to the northeast of the intersections at Crazy Diamond. Poseidon's recent mapping has noted a similar, parallel trend of shearing and quartz veining occurring through the prospect, particularly at the contacts between the basal chert and the Corridor Ultramafic, and then again between the Upper Ultramafic and the overlying Basalts. This compares favourably with the Beasley Creek geology and structural setting (see Figure 6).

Additional assaying of the RC samples will be undertaken based upon a detailed structural interpretation with more of a focus on potential gold mineralisation. This will then be augmented with Poseidon's existing gold geochemical dataset to assist further exploration.

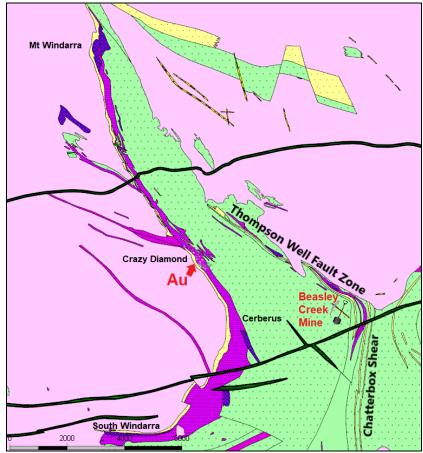


Figure 6 - Crazy Diamond Prospect in relation to regional gold trends

This announcement has been authorised for release by the Board of Directors of Poseidon Nickel Limited.

David Riekie Interim CEO

For further information contact Peter Harold or David Riekie: + 61 (0)8 6167 6600 or admin@poseidonnickel.com.au

About Poseidon Nickel Limited

Poseidon Nickel Limited (ASX: POS, "Poseidon"), is a West Australian focussed nickel company that owns three previously operating Nickel Sulphide mines: Windarra, Black Swan/Silver Swan and Lake Johnston. These 100% owned assets collectively had an operating capacity of 3.6mtpa (Lake Johnston 1.5mtpa; Black Swan 2.1mta). The processing facilities at Lake Johnston and Black Swan have been maintained through company managed, care and maintenance programs.

Poseidon released an upgrade to the resource at the Silver Swan deposit on 5th August 2019.

Poseidon is currently undertaking a number of de-risking and restart safety works and similar initiatives at and around Black Swan.

Poseidon has continued to explore at Lake Johnston, with recent diamond drilling at the Abi Rose prospect. These exploration results were released to ASX on 22 October 2018 and 21 November 2018.

Windarra has a number of near mine exploration projects including the extension of the original Windarra deposit, Cerberus, South Windarra and Woodline Well.

The current Resource Statement below shows a combined Nickel resource of 395,530 tonnes of Nickel (which should be read with the Competent Person statements below).

MINERAL RESOURCE STATEMENT

Table 1: Nickel Projects Mineral Resource Statement

								MINERAL R	ESOURCE	CATEGO	RY				
Nickel Sulphide Resources	JORC Compliance	Cut Off Grade		NDICATI	ED		INFERRE	:D				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)
BLAC	K SWAN PROJE	ECT													
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	0.19	316	0.4	679
LAKE JOHNSTON PROJECT															
Maggie Hays	2012	0.80%	2,600	1.60	41,900	900	1.17	10,100	3,500	1.49	52,000	0.05	1,800	0.10	3,400
WINE	ARRA PROJEC	т													
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
тота	L														
Total Ni, Co, Cu Resources	2004 & 2012		16,775	1.04	174,030	27,275	0.81	221,500	44,049	0.90	395,530	0.02	7,516	0.03	13,379

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

Black Swan Resource as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4th August 2014) Silver Swan Resource as at 5 August 2019 (see ASX announcement "Silver Swan Resource Upgrade..." released 5th August 2019)

Maggie Hays Resource as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17th March 2015)

Mt Windarra Resource as at t November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7th November 2014)

South Windarra and Cerberus Resource as at 30 April 2013 (see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1st December 2011)

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

Table 2: Gold Tailings Project Mineral Resource Statement

				MINERAL RESOURCE CATEGORY										
Gold Tailings Resources	JORC Compliance	Cut Off Grade	INDICATED			INFERRED			TOTAL					
			Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)			
WIND	WINDARRA GOLD TAILINGS PROJECT													
Gold Tailings	2004	NA	11,000	0.52	183,000	-	-	-	11,000	0.52	183,000			
тота	TOTAL													
Total Au Resources	2004		11,000	0.52	183,000	-	-	-	11,000	0.52	183,000			

Note: totals may not sum exactly due to rounding.

Windarra Gold Tailings Resource as at 30 April 2013 (see ASX announcement "Windarra Definitive Feasibility Study Supports Low Cost, Long Life Nickel Operation" released 30th April 2013).

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

ORE RESERVE STATEMENT

Table 3: Nickel Projects Ore Reserve Statement

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

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

Co & Cu grades and metal content for Black Swan and Silver Swan require additional modelling prior to reserve estimation.

Silver Swan Underground Reserve as at 11 February 2020 (see ASX announcement "106% Upgrade of Nickel Reserve at Silver Swan."

Black Swan Open Pit Reserve as at 5 November 2014 (see ASX announcement "Poseidon Announces Black Swan Ore Reserve" dated 5th November 2014).

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

The Company is not aware of any new information or data that materially affects the information in the relevant market announcements for the Black Swan Open Pit Reserve. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

COMPETENT PERSON STATEMENTS:

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

The information in this report which relates to the Black Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and who is a Members of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Kahan Cervoj who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Silver Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Lake Johnston Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

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

Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan all have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

FORWARD LOOKING STATEMENT – INFERRED RESOURCE STATEMENTS:

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

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

FORWARD LOOKING STATEMENTS:

This release contains certain forward looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward looking statements

Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance.

Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Silver Swan underground mine.

Table 4 - Collar and Survey Details

HoleID	Туре	Size	Depth	Dip	MGA_Azi	MGA_Grid	MGA_East	MGA_North	MGA RL
PNRC0230	RC	5.5"	49	-60	234	MGA94 51	428743	6840463	431
PNRC0231	RC	5.5"	54	-60	233	MGA94_51	428775	6840487	431
PNRC0232	RC	5.5"	54	-60	232	MGA94 51	428808	6840507	431
PNRC0233	RC	5.5"	54	-60	235	MGA94_51	428835	6840530	431
PNRC0234	RC	5.5"	54	-60	235	MGA94_51	428872	6840553	431
PNRC0235	RC	5.5"	54	-60	233	MGA94_51	428907	6840576	431
PNRC0236	RC	5.5"	54	-60	235	MGA94_51	428940	6840600	431
PNRC0237	RC	5.5"	54	-60	235	MGA94_51	428975	6840620	431
PNRC0238	RC	5.5"	40	-60	232	MGA94_51	429089	6840569	431
PNRC0239	RC	5.5"	36	-60	237	MGA94_51	429048	6840561	431
PNRC0240	RC	5.5"	42	-60	233	MGA94_51	429022	6840531	431
PNRC0241	RC	5.5" 5.5"	18 53	-60	232	MGA94_51	429003	6840496	431
PNRC0242 PNRC0243	RC RC	5.5"	53 54	-60 -60	235 237	MGA94_51 MGA94_51	428965 428925	6840480 6840464	431 431
PNRC0243	RC	5.5"	54	-60	231	MGA94_51	428923	6840449	431
PNRC0245	RC	5.5"	54	-60	237	MGA94_51	428861	6840422	431
PNRC0246	RC	5.5"	54	-70	234	MGA94_51	428903	6840457	431
PNRC0247	RC	5.5"	54	-50	231	MGA94 51	428888	6840437	431
PNRC0248	RC	5.5"	54	-60	235	MGA94 51	428826	6840518	431
PNRC0249	RC	5.5"	54	-60	223	MGA94 51	428688	6840520	431
PNRC0250	RC	5.5"	54	-60	219	MGA94_51	428705	6840545	431
PNRC0251	RC	5.5"	54	-60	218	MGA94_51	428728	6840565	431
PNRC0252	RC	5.5"	54	-60	217	MGA94_51	428752	6840583	431
PNRC0253	RC	5.5"	54	-60	235	MGA94_51	428780	6840598	431
PNRC0254	RC	5.5"	54	-60	220	MGA94_51	428678	6840618	431
PNRC0255	RC	5.5"	54	-60	220	MGA94_51	428658	6840591	431
PNRC0256	RC	5.5"	54	-60	220	MGA94_51	428638	6840573	431
PNRC0257	RC	5.5"	54	-60	220	MGA94_51	428616	6840554	431
PNRC0258	RC	5.5"	54	-60	220	MGA94_51	428695	6840643	431
PNRC0259	RC	5.5"	54	-60	220	MGA94_51	428708	6840669	431
PNRC0260	RC	5.5"	54	-60	220	MGA94_51	428735	6840685	431
PNRC0261	RC	5.5"	54	-60	220	MGA94_51	428758	6840706	431
PNRC0262	RC	5.5"	54	-60	220	MGA94_51	428775	6840744	431
PNRC0263	RC	5.5"	54 54	-60 -70	220 235	MGA94_51	428800	6840761	431
PNRC0264 PNRC0265	RC RC	5.5" 5.5"	54 54	-70 -70	235	MGA94_51	428567.5 428592.2	6840752 6840767	436.5 436
PNRC0266	RC	5.5"	54 54	-70 -70	235	MGA94_51 MGA94_51	428592.2	6840784	436
PNRC0267	RC	5.5"	54 54	-70 -70	235	MGA94_51	428640	6840804	435.9
PNRC0268	RC	5.5"	54	-70	235	MGA94_51	428665	6840818	435.8
PNRC0269	RC	5.5"	54	-70	235	MGA94_51	428550.8	6840810	439.5
PNRC0270	RC	5.5"	54	-70	235	MGA94 51	428574	6840828	439.2
PNRC0271	RC	5.5"	54	-70	235	MGA94 51	428597.4	6840848	440
PNRC0272	RC	5.5"	54	-70	235	MGA94_51	428622.3	6840864	439.9
PNRC0273	RC	5.5"	54	-70	235	MGA94_51	428690	6840835	439
PNRC0274	RC	5.5"	54	-70	235	MGA94_51	428715	6840854	439
PNRC0275	RC	5.5"	54	-70	235	MGA94_51	428643	6840884	439
PNRC0276	RC	5.5"	54	-70	235	MGA94_51	428667	6840905	439
PNRC0277	RC	5.5"	54	-70	235	MGA94_51	428502	6840852	440
PNRC0278	RC	5.5"	54	-70	235	MGA94_51	428527	6840868	440
PNRC0279	RC	5.5"	54	-70	235	MGA94_51	428551	6840886	439
PNRC0280	RC	5.5"	54	-70 -70	235	MGA94_51	428575	6840904	439
PNRC0281	RC	5.5" 5.5"	54 54	-70	235 235	MGA94_51 MGA94_51	428599 428624	6840921	438 437.5
PNRC0282 PNRC0283	RC RC	5.5"	54 54	-70 -70	235	MGA94_51 MGA94_51	428624 428482	6840940 6840985	437.5 439
PNRC0284	RC	5.5"	54 54	-70 -70	235	MGA94_51	428506	6841003	439
PNRC0285	RC	5.5"	54	-70 -70	235	MGA94_51	428529	6841023	438
PNRC0286	RC	5.5"	54	-70	235	MGA94_51	428550	6841044	437.2
PNRC0287	RC	5.5"	54	-70	235	MGA94 51	428575	6841061	436.6
PNRC0288	RC	5.5"	54	-70	235	MGA94_51	428598	6841081	435.9
PNRC0289	RC	5.5"	54	-70	235	MGA94_51	428385	6841063	436
PNRC0290	RC	5.5"	54	-70	235	MGA94_51	428404	6841086	436
PNRC0291	RC	5.5"	54	-70	235	MGA94_51	428432	6841100	436
PNRC0292	RC	5.5"	54	-70	235	MGA94_51	428449	6841124	435.5
PNRC0293	RC	5.5"	54	-70	235	MGA94_51	428482	6841131	435.3
PNRC0294	RC	5.5"	54	-70	235	MGA94_51	428498	6841161	435
PNRC0295	RC	5.5"	54	-70	235	MGA94_51	428306	6841158	435
PNRC0296	RC	5.5"	54	-70	235	MGA94_51	428330	6841181	435
PNRC0297	RC	5.5"	54	-70	235	MGA94_51	428354	6841201	435
PNRC0298	RC	5.5"	54	-70 -70	235	MGA94_51	428378	6841219	435
PNRC0299	RC	5.5"	54 54	-70	235	MGA94_51	428188	6841258	435
PNRC0300	RC	5.5"	54	-70	235	MGA94_51	428210	6841281	435

POSEIDONNICKEL

Page	1	5
------	---	---

PNRC0301	RC	5.5"	54	-70	235	MGA94_51	428238	6841295	435
PNRC0302	RC	5.5"	54	-70	235	MGA94_51	428264	6841302	435
PNRC0303	RC	5.5"	54	-70	235	MGA94_51	428288	6841323	435
PNRC0304	RC	5.5"	54	-70	235	MGA94_51	428162	6841244	434
PNRC0305	RC	5.5"	54	-70	235	MGA94_51	428144	6841225	434
PNRC0306	RC	5.5"	54	-70	235	MGA94_51	428137	6841218	434
PNRC0307	RC	5.5"	54	-70	235	MGA94_51	428115	6841206	434
PNRC0308	RC	5.5"	54	-70	235	MGA94_51	428651	6840952	436.7
PNRC0309	RC	5.5"	54	-70	235	MGA94_51	428677	6840965	436

Table 5 – Significant Nickel Assay Results

HoleId	mFrom	mTo	SampleNo	ΑI	Co	Cr	Cu	Fe	MgO	Mn	Ni	s	Ti
PNRC0309	0.00	1.00	20694	2.44	0.0	0.04	0.0	2.83	6.13	0.03	0.02	0.02	0.15
PNRC0309	1.00	2.00	20695	2.12	0.0	0.09	0.0	3.91	14.52	0.05	0.05	0.01	0.17
PNRC0309	2.00	3.00	20696	2.76	0.01	0.18	0.0	6.21	20.27	0.08	0.09	0.03	0.25
PNRC0309	3.00	4.00	20697	3.22	0.01	0.26	0.0	7.24	21.79	0.09	0.10	0.04	0.17
PNRC0309	4.00	5.00	20698	3.53	0.01	0.28	0.01	7.55	22.08	0.10	0.09	0.02	0.18
PNRC0309	5.00	6.00	20699	3.02	0.01	0.26	0.0	6.68	24.12	0.11	0.10	0.02	0.14
PNRC0309	6.00	7.00	20700	2.95	0.01	0.26	0.0	6.80	24.61	0.12	0.11	0.02	0.13
PNRC0309	7.00	8.00	20501	3.01	0.01	0.26	0.0	6.93	23.18	0.13	0.10	0.0	0.14
PNRC0309	8.00	9.00	20502	3.09	0.01	0.26	0.0	7.28	22.18	0.14	0.09	0.0	0.15
PNRC0309	9.00	10.00	20503	3.04	0.01	0.25	0.0	6.88	22.87	0.13	0.10	0.02	0.14
PNRC0309	10.00	11.00	20504	3.27	0.01	0.27	0.0	7.14	23.01	0.12	0.09	0.02	0.15
PNRC0309	11.00	12.00	20505	2.75	0.01	0.25	0.01	6.38	24.15	0.11	0.15	0.0	0.14
PNRC0309	12.00	13.00	20506	1.63	0.01	0.20	0.02	5.96	25.48	0.10	0.50	0.01	0.08
PNRC0309	13.00	14.00	20507	1.79	0.01	0.24	0.03	6.27	25.05	0.10	0.73	0.02	0.11
PNRC0309	14.00	15.00	20508	2.18	0.02	0.22	0.03	6.49	25.68	0.10	0.73	0.01	0.10
PNRC0309	15.00	16.00	20509	2.36	0.03	0.42	0.11	12.45	20.96	0.08	1.38	0.02	0.13
PNRC0309	16.00	17.00	20510	2.71	0.01	0.25	0.01	6.75	23.78	0.15	0.42	0.0	0.13
PNRC0309	17.00	18.00	20511	1.59	0.01	0.19	0.0	5.09	25.44	0.08	0.18	0.0	0.08
PNRC0309	18.00	19.00	20512	1.55	0.01	0.17	0.0	4.30	24.47	0.10	0.14	0.0	0.08
PNRC0309	19.00	20.00	20513	4.42	0.01	0.12	0.0	8.95	16.05	0.14	0.07	0.0	0.40
PNRC0309	20.00	21.00	20514	7.03	0.01	0.02	0.03	11.38	6.41	0.16	0.01	0.03	0.73
PNRC0309	21.00	22.00	20515	3.27	0.01	0.25	0.0	7.28	20.39	0.12	0.10	0.0	0.16
PNRC0309	22.00	23.00	20516	2.12	0.01	0.18	0.0	5.08	22.94	0.10	0.11	0.0	0.11
PNRC0309	23.00	24.00	20517	2.26	0.01	0.20	0.0	5.55	23.59	0.11	0.11	0.0	0.11
PNRC0309	24.00	25.00	20518	2.85	0.01	0.24	0.0	6.41	22.26	0.10	0.10	0.0	0.14
PNRC0309	25.00	26.00	20519	4.77	0.01	0.12	0.0	8.58	14.66	0.14	0.06	0.0	0.40
PNRC0309	26.00	27.00	20520	6.54	0.0	0.02	0.01	9.71	8.12	0.19	0.01	0.01	0.58
PNRC0309	27.00	28.00	20521	6.77	0.0	0.02	0.01	9.87	7.31	0.17	0.01	0.02	0.57
PNRC0309	28.00	29.00	20522	6.99	0.0	0.01	0.01	10.32	6.22	0.17	0.0	0.0	0.62
PNRC0309	29.00	30.00	20523	6.87	0.0	0.02	0.01	10.47	6.27	0.17	0.0	0.02	0.65
PNRC0309	30.00	31.00	20524	7.17	0.0	0.01	0.01	10.48	5.69	0.16	0.0	0.0	0.67
PNRC0309	31.00	32.00	20525	7.01	0.0	0.02	0.02	10.49	6.26	0.17	0.0	0.0	0.66
PNRC0309	32.00	33.00	20526	7.06	0.0	0.01	0.01	10.66	6.24	0.18	0.0	0.0	0.66
PNRC0309	33.00	34.00	20527 20528	7.06	0.0	0.01	0.01	10.69 10.73	6.45 6.45	0.17	0.0 0.0	0.02	0.66
PNRC0309 PNRC0309	34.00 35.00	35.00 36.00	20528	7.06 7.28	0.0 0.0	0.01 0.01	0.01 0.02	10.73	6.75	0.18 0.18	0.0	0.0 0.0	0.66 0.68
PNRC0309	36.00	37.00	20529	6.84	0.01	0.01	0.02	10.43	6.70	0.18	0.0	0.02	0.64
PNRC0309	37.00	38.00	20530	7.37	0.01	0.01	0.02	10.43	6.23	0.16	0.0	0.02	0.66
PNRC0309	38.00	39.00	20531	7.02	0.0	0.02	0.02	10.53	6.01	0.17	0.0	0.03	0.65
PNRC0309	39.00	40.00	20532	6.79	0.0	0.01	0.01	10.26	6.45	0.17	0.0	0.05	0.60
PNRC0309	40.00	41.00	20533	7.06	0.01	0.03	0.01	11.35	7.94	0.18	0.02	0.05	0.65
PNRC0309	41.00	42.00	20535	4.60	0.01	0.26	0.0	9.04	20.15	0.15	0.07	0.0	0.29
PNRC0309	42.00	43.00	20536	3.73	0.01	0.29	0.0	7.63	22.19	0.12	0.09	0.0	0.20
PNRC0309	43.00	44.00	20537	3.19	0.01	0.27	0.0	6.98	23.86	0.11	0.11	0.0	0.15
PNRC0309	44.00	45.00	20538	2.34	0.01	0.22	0.0	5.79	25.34	0.10	0.11	0.0	0.14
PNRC0309	45.00	46.00	20539	2.09	0.01	0.21	0.0	5.27	26.12	0.08	0.14	0.15	0.09
PNRC0309	46.00	47.00	20540	2.09	0.01	0.22	0.0	5.47	26.07	0.09	0.14	0.33	0.11
PNRC0309	47.00	48.00	20541	2.74	0.01	0.24	0.0	6.48	24.27	0.14	0.11	0.01	0.12
PNRC0309	48.00	49.00	20542	2.78	0.01	0.25	0.0	6.45	25.68	0.10	0.12	0.17	0.13
PNRC0309	49.00	50.00	20543	3.55	0.01	0.28	0.0	7.65	24.00	0.12	0.09	0.0	0.16
PNRC0309	50.00	51.00	20544	2.94	0.01	0.25	0.0	6.74	25.00	0.13	0.11	0.0	0.14
PNRC0309	51.00	52.00	20545	2.31	0.01	0.20	0.0	5.95	25.27	0.15	0.12	0.04	0.11
PNRC0309	52.00	53.00	20546	2.97	0.01	0.23	0.0	6.71	25.83	0.11	0.12	0.02	0.16
PNRC0309	53.00	54.00	20547	2.72	0.01	0.23	0.0	6.43	25.39	0.12	0.12	0.0	0.13

Table 6 - Significant Gold Assay Results

HoleId	mFrom	mTo	SampleNo	As	Cu	Fe	Pb	s	Si	Zn	Au
PNRC0264	22	23	19784	0.00	0.010	3.980	0.00	0.080	43.940	0.00	0.005
PNRC0264	23	24	19785	0.00	0.010	9.860	0.00	0.660	38.730	0.00	0.015
PNRC0264	24	25	19786	0.00	0.020	13.020	0.00	0.960	28.930	0.010	0.006
PNRC0264	25	26	19787	0.00	0.050	16.180	0.010	1.010	23.960	0.010	0.006
PNRC0264	26	27	19788	0.00	0.030	25.010	0.010	0.170	25.820	0.00	0.002
PNRC0264	27	28	19789	0.020	0.010	39.690	0.00	0.070	18.690	0.00	0.008
PNRC0264	28	29	19790	0.030	0.00	40.820	0.00	0.070	18.370	0.00	0.031
PNRC0264	29	30	19791	0.040	0.00	42.960	0.00	0.080	14.370	0.00	0.512
PNRC0264	30	31	19792	0.060	0.00	52.640	0.00	0.090	7.750	0.00	0.016
PNRC0264 PNRC0264	31	32	19793	0.030	0.010	30.070	0.00	0.080	25.590	0.00	0.030 0.290
PNRC0264 PNRC0264	32 33	33 34	19794 19795	0.020 0.030	0.030 0.00	38.370 30.090	0.00 0.00	0.090 0.090	18.520 24.500	0.010 0.00	0.290
PNRC0264	33 34	35	19796	0.00	0.00	36.750	0.00	0.030	20.190	0.00	0.033
PNRC0264	35	36	19797	0.00	0.00	28.410	0.00	0.110	27.420	0.00	0.028
PNRC0264	36	37	19798	0.00	0.00	15.120	0.00	0.410	31.450	0.00	0.054
PNRC0264	37	38	19799	0.00	0.010	10.810	0.00	0.720	29.690	0.00	0.138
PNRC0264	38	39	19800	0.020	0.010	17.830	0.00	18.800	21.820	0.00	0.048
PNRC0264	39	40	19801	0.020	0.010	16.250	0.00	15.200	25.310	0.00	0.044
PNRC0264	40	41	19802	0.00	0.00	6.750	0.00	6.150	27.430	0.00	0.017
PNRC0264	41	42	19803	0.00	0.00	5.150	0.00	0.440	39.670	0.00	0.012
PNRC0264	42	43	19804	0.00	0.00	16.350	0.00	9.250	27.430	0.030	0.013
PNRC0264	43	44	19805	0.010	0.00	22.850	0.00	21.120	20.640	0.00	0.024
PNRC0264	44	45	19806	0.00	0.00	20.330	0.00	14.150	25.360	0.00	0.020
PNRC0269	34	35	20228	0.010	0.020	21.080	0.00	11.260	12.710	0.100	0.037
PNRC0269	35	36	20229	0.00	0.020	24.560	0.00	19.150	21.490	0.00	0.055
PNRC0269	36	37	20230	0.030	0.00	37.100 39.240	0.010	37.850	8.140	0.00	0.042 0.048
PNRC0269 PNRC0269	37 38	38 39	20231 20232	0.030 0.030	0.00	38.220	0.010 0.00	40.460 38.250	8.010 9.670	0.00	0.048
PNRC0269	39	40	20232	0.00	0.020	24.580	0.00	10.670	21.040	0.020	0.043
PNRC0269	40	41	20234	0.00	0.010	26.750	0.00	8.320	19.940	0.020	0.017
PNRC0269	41	42	20235	0.00	0.020	27.410	0.00	11.480	19.070	0.010	0.022
PNRC0269	42	43	20236	0.00	0.00	19.500	0.00	6.060	26.160	0.020	0.022
PNRC0269	43	44	20237	0.00	0.00	13.810	0.00	6.520	31.900	0.010	0.021
PNRC0269	44	45	20238	0.030	0.00	5.730	0.00	3.360	41.380	0.00	0.017
PNRC0269	45	46	20239	0.020	0.00	10.730	0.00	7.850	35.720	0.030	0.036
PNRC0269	46	47	20240	0.00	0.00	12.830	0.00	5.320	33.940	0.010	0.012
PNRC0269	47	48	20241	0.00	0.00	21.980	0.00	13.610	24.050	0.00	0.014
PNRC0269	48	49	20242	0.00	0.00	13.180	0.020	6.490	30.540	0.00	0.017
PNRC0269	49	50	20243	0.00	0.00	10.100	0.00	7.280	36.090	0.00	0.021
PNRC0269	50	51	20244	0.00	0.00	11.130	0.00	6.730	34.030	0.00	0.013
PNRC0270	44	45	20292	0.00	0.00	16.980	0.00	4.510	24.050	0.030	0.008
PNRC0270 PNRC0270	45 46	46 47	20293 20294	0.00 0.020	0.020 0.020	12.510 14.060	0.00 0.00	5.660 11.280	28.100 25.690	0.050 0.070	0.009
PNRC0270	47	47	20294	0.020	0.020	12.460	0.00	10.160	32.320	0.070	0.031
PNRC0270	48	49	20296	0.00	0.010	16.480	0.00	10.100	28.560	0.020	0.010
PNRC0270	49	50	20297	0.00	0.00	11.790	0.00	5.030	24.360	0.020	0.004
PNRC0270	50	51	20298	0.040	0.00	25.880	0.00	24.830	17.390	0.060	0.044
PNRC0270	51	52	20299	0.040	0.00	34.310	0.020	36.090	11.250	0.020	0.043
PNRC0270	52	53	20300	0.040	0.00	38.720	0.00	40.830	5.180	0.020	0.042
PNRC0270	53	54	20301	0.020	0.00	33.800	0.00	26.180	12.220	0.020	0.031
PNRC0277	12	13	20476	0.00	0.010	17.730	0.00	0.060	26.320	0.010	0.013
PNRC0277	13	14	20477	0.00	0.00	18.580	0.00	0.050	32.670	0.00	0.065
PNRC0277	14	15	20478	0.010	0.00	15.930	0.020	0.040	34.970	0.00	0.056
PNRC0277	15	16	20479	0.00	0.00	12.190	0.00	0.040	38.690	0.00	0.072
PNRC0277	16	17	20480	0.00	0.00	6.730	0.00	0.050	42.840	0.00	0.044
PNRC0277	17 19	18	20481	0.00 0.030	0.00	7.720	0.00	0.030	41.970	0.00	0.016 0.004
PNRC0277 PNRC0277	18 19	19 20	20482 20483	0.030	0.00	21.060 23.990	0.00 0.010	0.100 0.090	31.600 28.810	0.00	0.004
PNRC0277 PNRC0277	20	21	20483	0.030	0.00	40.210	0.010	0.090	17.020	0.00	0.006
PNRC0277	21	22	20485	0.040	0.00	22.700	0.020	0.080	30.400	0.00	0.005
PNRC0277	22	23	20486	0.00	0.00	5.290	0.00	0.030	43.700	0.00	0.002
PNRC0277	23	24	20487	0.00	0.00	6.230	0.00	0.040	43.190	0.00	0.005
PNRC0277	24	25	20488	0.020	0.00	5.810	0.00	0.040	42.870	0.00	0.003
PNRC0277	25	26	20489	0.030	0.010	6.940	0.010	0.100	41.300	0.00	0.002
PNRC0277	26	27	20490	0.00	0.00	5.210	0.00	0.040	43.340	0.00	0.002
PNRC0277	27	28	20491	0.00	0.00	5.500	0.00	0.030	44.210	0.00	0.008
PNRC0277	28	29	20492	0.00	0.00	9.800	0.00	0.060	39.450	0.00	0.004
PNRC0277	29	30	20493	0.010	0.00	9.390	0.00	0.070	36.280	0.00	0.002
PNRC0277	30	31	20494	0.010	0.00	2.360	0.010	0.050	42.990	0.00	0.002

PNRC0277	31	32	20495	0.020	0.00	2.110	0.030	0.120	36.830	0.00	0.004
PNRC0277	32	33	20496	0.010	0.00	9.920	0.070	0.620	33.720	0.00	0.049
PNRC0278	28	29	21046	0.00	0.020	14.920	0.00	0.020	19.630	0.020	0.003
PNRC0278	29	30	21047	0.00	0.030	21.420	0.00	0.300	27.160	0.020	0.006
PNRC0278	30	31	21048	0.00	0.00	15.880	0.00	0.170	34.080	0.00	0.011
PNRC0278	31	32	21049	0.020	0.00	19.920	0.00	0.530	28.590	0.020	0.023
PNRC0278	32	33	21050	0.010	0.020	15.310	0.00	0.290	26.820	0.060	0.048
PNRC0278	33	34	21051	0.00	0.020	9.510	0.00	0.270	33.530	0.020	0.443
PNRC0278	34	35	21052	0.040	0.020	36.100	0.00	0.290	17.180	0.060	0.465
PNRC0278	35	36	21053	0.030	0.020	25.100	0.00	3.590	17.930	0.050	0.064
PNRC0278	36	37	21054	0.050	0.00	41.670	0.030	43.640	4.700	0.00	0.012
PNRC0278	37	38	21055	0.030	0.010	30.320	0.010	29.240	14.390	0.010	0.137
PNRC0278	38	39	21056	0.00	0.00	33.160	0.00	13.380	11.650	0.050	0.027
PNRC0278	39	40	21057	0.00	0.00	32.180	0.00	9.330	14.230	0.030	0.022
PNRC0278	40	41	21058	0.00	0.00	24.490	0.00	8.460	21.240	0.020	0.026
PNRC0278	41	42	21059	0.010	0.00	24.030	0.00	11.800	22.080	0.020	0.048
PNRC0278	42	43	21060	0.00	0.00	16.430	0.00	5.460	27.050	0.050	0.014
PNRC0278	43	44	21061	0.00	0.00	10.760	0.00	5.700	36.230	0.040	0.014
PNRC0278	44	45	21062	0.030	0.00	6.500	0.030	5.900	37.020	0.040	0.020
PNRC0278	45	46	21063	0.020	0.010	9.040	0.110	6.840	36.160	0.040	0.027
PNRC0278	46	47	21064	0.020	0.00	12.000	0.00	5.360	34.480	0.050	0.012
PNRC0278	47	48	21065	0.00	0.00	11.970	0.00	6.160	30.950	0.030	0.012
PNRC0279	44	45	21116	0.00	0.00	10.280	0.00	0.050	21.460	0.010	0.004
PNRC0279	45	46	21117	0.00	0.020	19.720	0.00	9.080	24.410	0.020	0.003
PNRC0279	46	47	21117	0.00	0.040	15.580	0.00	9.860	26.010	0.020	0.003
PNRC0279	47	48	21119	0.010	0.010	13.880	0.00	12.630	31.040	0.040	0.011
PNRC0279	48	49	21113	0.00	0.00	9.380	0.00	3.090	23.410	0.040	0.011
PNRC0279	49	50	21121	0.040	0.00	38.010	0.010	39.360	7.260	0.020	0.003
PNRC0279	50	51	21121	0.050	0.00	41.120	0.020	44.290	4.200	0.020	0.186
PNRC0279	51	52	21123	0.050	0.00	38.990	0.010	41.020	6.300	0.200	0.180
PNRC0279	52	53	21123	0.030	0.00	34.750	0.010	34.130	8.660	0.030	0.037
PNRC0279	53	54	21125	0.010	0.00	31.960	0.00	24.130	13.480	0.030	0.056
PNRC0283	36	37	21326	0.010	0.00	39.930	0.00	0.170	18.660	0.010	0.044
PNRC0283	37	38	21327	0.00	0.00	11.340	0.00	0.080	39.160	0.010	0.019
PNRC0283	38	39	21328	0.00	0.00	10.400	0.00	0.080	39.930	0.00	0.015
PNRC0283	39	40	21329	0.00	0.00	11.990	0.00	0.080	37.900	0.00	0.010
PNRC0283	40	41	21323	0.00	0.00	27.060	0.00	0.090	27.650	0.00	0.003
PNRC0283	41	42	21331	0.00	0.00	15.240	0.00	0.120	36.860	0.00	0.013
PNRC0283	42	43	21331	0.00	0.00	17.760	0.00	0.140	34.170	0.00	0.007
PNRC0283	43	44	21332	0.050	0.030	28.510	0.00	0.140	23.380	0.030	0.010
PNRC0283	44	45	21333	0.030	0.010	30.640	0.010	12.810	15.060	0.040	0.015
PNRC0283	45	46	21335	0.010	0.010	27.680	0.150	17.050	18.260	0.200	0.023
PNRC0283	46	47	21335	0.010	0.010	19.340	0.130	6.680	28.740	0.200	0.048
PNRC0283	47	48	21337	0.00	0.00	22.810	0.020	10.290	24.650	0.040	0.014
PNRC0283	48	46 49	21337	0.00	0.00	34.460	0.00	10.290	12.540	0.020	0.015
PNRC0283	46 49	50	21339	0.00	0.00	25.860	0.00	5.380	23.500	0.020	0.016
PNRC0283	50	50 51	21339	0.00	0.00	19.240	0.00	2.700	30.050	0.020	0.005
I ININCUZOS	50	21	21340	0.00	0.00	15.240	0.00	2.700	30.030	0.00	0.010

ATTACHMENT A JORC (2012) Table 1 EXPLORATION RESULTS

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

EXPLORATION RESULTS WINDARRA NICKEL PROJECT SECTION 1 Sampling Techniques and Data

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

JORC Code explanation Commentary Sampling techniques Nature and quality of sampling (e.g. cut channels, random chips, or Reverse circulation drilling was used to obtain samples. The drill rig was specific specialised industry standard measurement tools an Atlas-Copco H8, specifically built to collect grade-control samples in an appropriate to the minerals under investigation, such as down hole open pit environment and utilises the latest technology to ensure sample gamma sondes, or handheld XRF instruments, etc.). These integrity and quality. Samples were collected every metre by a cyclone examples should not be taken as limiting the broad meaning of and splitter with reject material and samples being placed separately on the ground. 98% of the samples were dry. sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement All samples and sample numbers were checked for integrity prior to tools or systems used. shipping for assay. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information. **Drilling techniques** Drill type (e.g. core, reverse circulation, open-hole hammer, rotary Reverse Circulation, see item above. air blast, quaer, Banaka, sonic, etc.) and details (e.a. 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.). **Drill sample recovery** Method of recording and assessing core and chip sample recoveries Recoveries were good with the exception of the first metre due to the and results assessed. loose, sandy cover. 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. Logging Whether core and chip samples have been geologically and All RC samples are geologically logged prior to shipment to the lab. 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 Sub-sampling techniques and sample preparation If core, whether cut or sawn and whether quarter, half or all core RC samples were collected by use of a cone splitter. If non-core, whether riffled, tube sampled, rotary split, etc. and No field sample duplicates or standards were used as the drilling was whether sampled wet or dry. intended for geological purposes. Duplicate samples were performed by For all sample types, the nature, quality and appropriateness of the the laboratory along with internal standards and blanks. All QAQC sample preparation technique. samples exceeded industry standards. 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. Quality of assay data and laboratory tests The nature, quality and appropriateness of the assaying and Pulps were prepared by acid digest and analysed for the nickel suite of elements by ICP-OES using standard laboratory practices. Gold assays laboratory procedures used and whether the technique is

were prepared from the same pulps where a 50g charge was digested for

fire assay. The laboratory's internal QAQC was used. No external lab

checks were necessary at this stage.

JORC Code explanation	Commentary						
applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.							
Verification of sampling and assaying							
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.	Logging and assay data is electronically captured and up loaded into exce for processing as per industry standards and best practise.						
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 3-5m using a handheld Garmin GPS. Holes were gyro surveyed upon completion and r significant deviation was reported over the short hole lengths drilled.						
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.	Samples were collected every meter. Hole spacing was determined by geology and holes were located where deemed necessary, maintaining a maximum 20m hole spacing.						
Orientation of data in relation to geological structure							
Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	continuity.						
Sample security							
The measures taken to ensure sample security.	Samples were collected by Poseidon personnel and loaded onto a truck for direct shipment to the lab.						
Audits or reviews							
The results of any audits or reviews of sampling techniques and data.	Internal sample audits revealed no issues with sample numbering or collection.						

Section 2 Reporting of Exploration Results

Section 2: Reporting of Exploration Results Mineral Tenement and Land Tenure Status Type, reference name/number, location and ownership including The Crazy Diamond Prospect and Cerberus Deposit along with the Mt agreements or material issues with third parties such as joint ventures, Windarra and South Windarra Mines are located on Special Act Lease partnerships, overriding royalties, native title interests, historical sites, MSA261, wholly owned by Poseidon Nickel Limited. The tenement is in wilderness or national park and environmental settings. good standing. The security of the tenure held at the time of reporting along with any The Black Swan and Silver Swan deposits are situated on M27/200, known impediments to obtaining a licence to operate in the area. wholly owned by Poseidon Nickel Limited. The tenement is in good standing. **Exploration Done by Other Parties** Newexco geological consultants continue to take an active part in Acknowledgment and appraisal of exploration by other parties. Poseidon's exploration programs at Windarra, Lake Johnston and Black Swan, and their assistance and advice is appreciated. Newexco supply advice, geological and geophysical support and interpretation. Newexco has a long history of involvement in exploration at the Black Swan Project. Geology The exploration results relate to mineralisation encountered in a known Deposit type, geological setting and style of mineralisation. Kambalda-style nickel environment dominated by high-MgO komatiite

lava flows. Northwest orientated shears are thought to be the source of

gold-bearing fluids which then travel along lithological contacts. **Drill Hole Information** A summary of all information material to the understanding of the Refer to Table 1 above. 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. **Data Aggregation Methods** In reporting Exploration Results, weighting averaging techniques, Grades have been aggregated using the length weighted average. SG information is not available due to the type of drilling and sampling maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. employed. Where aggregate intercepts incorporate short lengths of high grade See Table 2 and Table 3 for individual sample grades.. 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 True widths are noted above where appropriate. 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'). Diagrams Appropriate maps and sections (with scales) and tabulations of Refer to the body of text above. 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 **Balanced Reporting** Where comprehensive reporting of all Exploration Results is not Not applicable. practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Other Substantive Exploration Data Other exploration data, if meaningful and material, should be reported Refer to body of text above. 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. **Further work** The nature and scale of planned further work (eg tests for lateral Refer to body of text above. 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.

ATTACHMENT B JORC (2012) Table 1 SILVER SWAN RESERVE ESTIMATE

SILVER SWAN RESERVE ESTIMATE

Section 4 Estimation and Reporting of Ore Reserves

JORC Code explanation	Commentary							
Mineral Resource estimate for conversion to Ore Reserves								
Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Silver Swan Mineral Resource used as the basis of this Ore Reserve were estimated by Optiro Pty Ltd and was announced to market in August 2019. Mineral Resources are reported inclusive of the Ore Reserves							
Site visits								
Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person (Mr Matthew Keenan) visited the site on 7th June 2016. The visit included inspection of the Silver Swan underground workings and surface infrastructure.							
.use.	The site visits did not give the Competent Person any reason to believe that any portion of the Reserve Estimate will not be mineable.							
Study status								
The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	A Definitive Feasibility Study was completed in 2017 for the Silver Swan mate being converted from Mineral Resource to Ore Reserve ("2017 FS"). Modifying factors accurate to the study level have been applied based on detailed stope design analysis. Modelling indicates that the resulting mine pla technically achievable and economically viable.							
Cut-off parameters								
The basis of the cut-off grade(s) or quality parameters applied.	Cut-off grade parameters for the underground ore were determined based on the 2017 FS financial analysis and an underground contractor tender process carried out in late 2018 for mining costs. The Silver Swan material was assumed to be processed at the Black Swan Operations processing plant located at the site. The fully costed stoping cut-off grade applied for the Silver Swan underground was 2.9% Ni, and the incremental stoping cut-off grade was 2.5% Ni. A nickel price of \$US7.00/lb and a USD:AUD exchange rate of 0.69 was used to							

The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.

The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drillina.

The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).

The mining dilution factors used.

The mining recovery factors used.

Any minimum mining widths used.

The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.

The infrastructure requirements of the selected mining methods.

Detailed mine designs were carried out on the Silver Swan underground, and these were used as the basis of the Reserve estimate.

The Silver Swan Ore Reserve is planned to be mined using a bottom-up modified Avoca method with cemented rock backfill. This mining method has been selected based on detailed dynamic geotechnical modelling. Diesel powered trucks and loaders will be used for materials handling. Diesel-electric jumbo drill rigs will be used for development and ground support installation, and dieselelectric longhole rigs used for production drilling.

The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access is available through the existing workings, which have been kept pumped dry during care and maintenance.

Re-entry and refurbishment of capital development was costed in the Silver Swan mine plan based on detailed independent expert inspection.

Independent geotechnical consultants MineGeotech Pty Ltd and Beck Engineering Pty Ltd contributed appropriate geotechnical analyses to a suitable level of detail. These form the basis of mine design, ground support and mining method selection for the Reserve estimate.

Underground stopes were designed inclusive of minimum mining width of 2.5 m plus dilution volumes determined by independent geotechnical analysis and dynamic modelling. A global unplanned waste dilution of 7% was applied. An extra 2% of waste dilution at zero grade was applied to allow for overbog of fill. Non-fill dilution was assumed to carry a grade of 0.35% Ni, based on Mineral Resource information provided by Poseidon. Sub-level intervals are 25 m based on geotechnical advice. Maximum stope spans opened prior to filling are 5 m along strike. A mining recovery of 95% has been applied to all stopes. Ore development had an assumed 100% mining recovery, based on historical

JORC Code explanation Commentary experience and industry standards. Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. All Inferred material has had grade set to waste for the purposes of evaluation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource material. No Measured material was contained within the Mineral Resource Most of the infrastructure required for the operations is already in place and has been under care and maintenance for approximately 11 years, including a processing plant and associated infrastructure, access roads, offices and ablutions, connections to the Western Power grid, power reticulation, and borefields. Allowance has been made for refurbishment of this infrastructure where required based on quotes provided by reputable independent vendors to an appropriate standard of detail. Metallurgical factors or assumptions

The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.

Whether the metallurgical process is well-tested technology or novel in nature.

The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.

Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.

For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?

The Silver Swan Reserve estimate has been determined based on processing the material at the Black Swan Operations processing plant, in parallel with material from the Black Swan open pit and surface stockpiles. This processing plant is a conventional sulphide flotation concentrator consisting of a crushing circuit, grinding circuit, flotation circuit, thickening circuit and concentrate storage and handling facilities.

The Black Swan concentrator was successfully operated at throughput rates up to 2.2Mtpa during previous operations. All Reserve ore is expected to be processed through this concentrator at a nominal production rate of 1.1 Mtpa (inclusive of all ore sources). Suitable associated infrastructure is in place including power, water supply and storage, reagents storage, and tailings disposal and storage systems.

Extensive historical data exists on metallurgical characteristics of the Reserve orehodies

Allowance has been made for the presence of deleterious elements (As and MgO) in the concentrate, based on historical realised penalties during sales from previous operations.

The metallurgical process is conventional, well understood and has many years of operational data to support the flotation responses of the Silver Swan ores. A metallurgical recovery of 92.5% has been applied to the Silver Swan ore material for economic analysis, based on this data.

The mineral value is not defined by a specification

Environmental

The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.

Geochemical characterisation studies have been conducted that indicate that the rock mass is non-acid forming.

Poseidon has advised that most required approvals already issued under the Mining Act and Environmental Protection Act from previous operations remain current.

An additional geochemical study was conducted by MBS Environmental to assess the potential implications of storing tailings from the proposed ore blend on top of existing material in the tailings storage facility (TSF).

Works for the Stage 5 lift of the TSF commenced prior to the project being placed in care and maintenance. These works were incomplete and, as such, certification of the works by the Department of Environmental Regulation (DER) could not be obtained. The Works Approval authorising construction of the new embankment raise has since lapsed. A new Works Approval will be required prior to completing the lift. Under current approvals tailings cannot be deposited above RL11378.5 m.

Based on current approvals, it is estimated that there is currently 4 years of storage capacity in the TSF. This is sufficient to cover storage of tailings generated by processing the estimated Reserve ore.

At this point in time the Competent Person sees no reason permitting will not be granted within a reasonable time frame.

Infrastructure

The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or

The project site is already developed and on care and maintenance. The underground workings are powered and kept dry through the installed pumping system.

	Page 26						
JORC Code explanation	Commentary						
accessed.	All required surface infrastructure is already in place and requires only minor refurbishment.						
	Most required underground infrastructure is in place to commence mining including primary ventilation fans, escapeways, high voltage power reticulation, service water and compressed air. Allowance has been made for refurbishment and recommissioning of this infrastructure based on inspections and detailed quotes. Allowance has also been made for installation and hire of a refrigeration plant for cooling of air flowing into the workings						
	As the site is 53 km from Kalgoorlie along well maintained gazetted roads, a residential workforce will commute to site daily.						
	The mine is connected to the Western Power grid through two lines, one feeding the concentrator and one feeding the other surface infrastructure and underground workings. Allowance has been made for additional diesel generated power to supplement this underground feed.						
	The existing water supplies from the Black Swan borefield, Silver Swan underground dewatering system, Black Swan pit dewatering and the Federal pit are sufficient to operate the plant at a throughput of 1.1Mtpa						
Costs							
The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements.	The cost of plant refurbishment and site restart has been determined to an FS standard of accuracy. The Silver Swan ore will be processed in conjunction with the Black Swan open pit and therefore these costs were assumed to be shared between the ore sources.						
The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	The Silver Swan DFS capital and operating mining costs are based on detailed quotes from suppliers and mining contractors gathered as part of a contract tender process involving four reputable and experienced underground contractor firms carried out in May 2018. These were also benchmarked against similar operations in the WA Goldfields and historical data from previous operations at Silver Swan.						
	Operating costs for the processing plant were estimated from a combination of first principles, 2008/2009 historic operating costs and recent contractor quotations. They were also benchmarked against similar sized concentrators.						

Allowance has been made for the presence of deleterious elements (As and MgO) in the concentrate, based on historical realised penalties during sales from previous operations.

The USD:AUD exchange rate assumed for the cost modelling was 0.69 based on recent market conditions.

Road and sea transport charges for concentrate are based on quotes from

Treatment and refining charges are included in the payability factors determined from detailed discussions with potential offtake partners.

WA state royalties of 2.5 % and a third-party royalty of 1% have been applied to gross concentrate nickel revenues.

Revenue factors

The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.

The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.

Forecasts for head grade delivered to the plant are based on detailed mine plans and mining factors.

A global payability has been applied to the Silver Swan Reserve Ore concentrate based on detailed discussions with potential offtake partners

A flat USD:AUD exchange rate of 0.69 was used in the financial model based on recent market conditions

A flat nickel price of US\$7.00/lb has been assumed for the financial analysis, based on recent market pricing.

No value was assigned to any co-products as the forecast concentrate grades for these elements will not be sufficient to trigger payability.

Market assessment

The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.

A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. Poseidon is currently reviewing offtake agreements with several potential offtake partners.

The volume of concentrate produced by processing the estimated Reserve will be too small to have an impact on the global market of nickel sulphide concentrate.

JORC Code explanation	Commentary						
For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	The product is not an industrial mineral.						
Economic							
The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs.	The Silver Swan underground Ore Reserve has been assessed in a detailed financial model assuming cost and revenue factors described above. The Reserve plan is economically viable and has a positive NPV at a 10% discount rate at the stated commodity price and exchange rate. Inflation has not been applied to the model. Sensitivity analysis shows that the project is most sensitive to commodity price/exchange rate movements. The mine plan is still NPV positive at negative commodity price/exchange rate movements of 10%.						
Social							
The status of agreements with key stakeholders and matters leading to social licence to operate.	A compensation agreement exists between the Black Swan Nickel Operations and Mt Vetters Pastoral Station. This has been updated periodically as the operation has changed. Compensation previously paid under this agreement has been adequate to address all impacts of the project. No further compensation is required under the terms of this agreement. However, previous practice may have resulted in an expectation of additional compensation if significant additional land clearance is proposed. Significant land clearance is not required under the current Reserve estimate plan.						
	Poseidon will continue to communicate and negotiate in good faith with key stakeholders						
Other							
To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	A formal process to assess and mitigate naturally occurring risks will be undertaken prior to execution. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation. No marketing agreement has been signed but it is expected that such an agreement is highly likely to be arrived upon. Interest has been expressed by various potential offtake partners for the concentrate and it was successfully marketed during previous operations. Based on the information provided, the Competent Person sees no reason all required approvals will not be successfully granted within the anticipated timeframe						
Classification							
The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss. None of the Probable Ore Reserves have been derived from Measured Mineral Resources. The result appropriately reflects the Competent Person's view of the deposit.						
Audits or reviews							
The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve estimate, along with the mine design and life of mine plan, has been peer-reviewed by Entech internally.						
Discussion of relative accuracy/confidence							
Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors	The Silver Swan design, schedule, and financial model on which the Ore Reserve is based has been completed to a Definitive Feasibility study standard, with a corresponding level of confidence. Considerations in favour of a high confidence in the Ore Reserves include: — The mine plan assumes a low complexity mechanised mining method that						
which could affect the relative accuracy and confidence of the	has been successfully implemented at various sites in the local area;						

The mine has been successfully operated previously and has been kept

dry and accessible during the care and maintenance period, allowing

Material from the SS area has previously been successfully processed

through the BSN plant and sufficient historical data exists to forecast

Concentrate generated from SS ore has previously been successfully

detailed inspection of the workings and infrastructure;

metallurgical performance with a high degree of accuracy;

Documentation should include assumptions made and the procedures used.

Accuracy and confidence discussions should extend to specific

The statement should specify whether it relates to global or

should be relevant to technical and economic evaluation.

local estimates, and, if local, state the relevant tonnages, which

estimate.

JORC Code explanation	Commentary
discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	 marketed; and The project, as previously operated, has a very high likelihood of being successfully permitted Considerations in favour of a lower confidence in Ore Reserves include: There is a degree of uncertainty associated with geological estimates. The Reserve classifications reflect the levels of geological confidence in the estimates; Nickel price and exchange rate assumptions are subject to market forces and present an area of uncertainty; There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the DFS level of detail of the study; and No offtake agreement has yet been signed for the Silver Swan product and there is no guarantee that such an agreement will be reached The Ore Reserve is based on a global estimate. Modifying factors have been applied at a local scale. Further, i.e. quantitative, analysis of risk is not warranted or appropriate at the current level of technical and financial study.

ATTACHMENT C
ASX Announcement – 5 August 2019
SILVER SWAN RESOURCE UPGRADE AND BLACK SWAN
UNDERGROUND RC DRILLING

POSEIDONNICKEL

Corporate Directory

ASX Code: POS
Shares on Issue: 2,638M
Market Cap: ≈\$115M
Cash and equivalents at 30 June 2019
\$60.1M

Board of Directors

Non-Executive Chairman Geoffrey Brayshaw

Non-Executive Directors Felicity Gooding

Karl Paganin

Managing Director and CEO Robert Dennis

Company Secretary Eryn Kestel

Key Shareholders

Black Mountain Metals: 19.8% Squadron Resources: 17.1%

Key Operating Nickel Assets (100%)

Black Swan/Silver Swan Lake Johnston Windarra

Principal & Registered Office

Unit 8 Churchill Court 331-335 Hay Street Subiaco 6008 Western Australia

T: +61 8 6167 660 F: +61 8 6167 6649 E: admin@poseidon-nickel.com.au W: www.poseidon-nickel.com.au

SILVER SWAN RESOURCE UPGRADE AND BLACK SWAN UNDERGROUND RC DRILLING

5TH AUGUST 2019

HIGHLIGHTS

SILVER SWAN RESOURCE UPGRADE

- Silver Swan JORC 2012 INDICATED Restart Resource more than doubles to 10,130 tonnes of nickel metal at a grade of 9.4% Ni
- Silver Swan JORC 2012 Indicated + Inferred Resource increases 30% to 16,030 tonnes of nickel metal at a grade of 9.5% Ni
- Silver Swan Life of Mine (LOM) schedule set to increase based upon the growth in the Indicated Resource, higher grade and increased continuity of massive sulphide mineralisation

BLACK SWAN DRILLING COMMENCES

Underground RC drilling commenced below the Black Swan Open
 Pit to assess potential underground resource

SILVER SWAN RESOURCE UPGRADE

Poseidon Nickel (ASX: POS, "the Company") is pleased to announce a 30% increase in the JORC 2012 compliant Silver Swan Indicated and Inferred Resource Estimate recently prepared by Optiro Pty Ltd (Optiro). The current Total Silver Swan Resource stands at 168,000t @ 9.5%Ni for a total of 16,030 nickel tonnes. The Company previously announced that Poseidon had completed underground drilling and the resulting geological interpretations and new wireframes were supplied to Optiro for the estimation which was completed recently.

The July 2019 Mineral Resource update has focussed on the remaining four orebodies - the Goose, Fledgling-Canard, Tundra-Mute and Peking Duck areas. The estimate was classified in accordance with the JORC 2012 Code and has been reported above a 4.5% nickel cut-off as presented in Table 1.

Table 1 - Silver Swan Resource Estimate by Optiro, August 2019

		Silver Swan Resource - August 2019											
Area		Indicated				Inferred				Total			
	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	9.0	3,180	150	0				1.7	9.0	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	

Totals may not sum correctly due to rounding

For the Indicated Mineral Resource, in comparison to the previous 2015 estimate, the 2019 estimate has resulted in a 107% increase in the tonnes, a 2% increase in the nickel grade and a 112% increase in contained nickel metal. In the Inferred category, there has been a reduction of 28% in tonnes, an 8% increase in the nickel grade, resulting in a reduction of 22% of contained nickel metal due to the conversion of these to the indicated category.

Importantly, the doubling of the Indicated Resource is expected to positively affect the Silver Swan Reserve and LOM schedule upon which work is now underway.

The combined Mineral Resource has an increase of 24% in tonnes, a 5% increase in nickel grade with a resultant 30% increase in nickel metal. This significant increase in the Mineral Resource is the result of the additional drilling extending and increasing the volume of mineralisation, combined with closer spaced drilling improving the proportion of Indicated Mineral Resource

BLACK SWAN LOM EXTENSION DRILLING COMMENCES

The Company is also pleased to announce the commencement of drilling after awarding a 2,500m trial Underground RC drilling program to Metres Down Under (MDU). The drilling is aimed at investigating the potential exploitation of an underground disseminated nickel resource below the Black Swan Open Pit.

Prior to drilling the Silver Swan deposit, POS drilled two holes into the Black Swan Disseminated Deposit 1000m below surface to prove continuity of the deposit at depth (refer to ASX announcement 27th May 2019). The success of these two holes enabled geological control to be made between the 2019 deep drilling and current Open Pit resource, through a series of diamond holes collared from the Gosling Decline (Figure 1).

These historical holes clearly show that the three lodes observed in the open pit (named Footwall, Central and Hangingwall) also continue through the Gosling Area (300 to 500m below surface) and are still present in the drilling performed by Poseidon this year at 1000m depth. However, due to the very nuggety nature of the blebby nickel mineralisation encountered in both Poseidon's drilling and the historical holes, interpretation of a hard grade boundary necessary to calculate a mineable underground resource is difficult. This can be seen in Figure 1 which just presents raw assay grades >0.8% Ni as coloured dots.

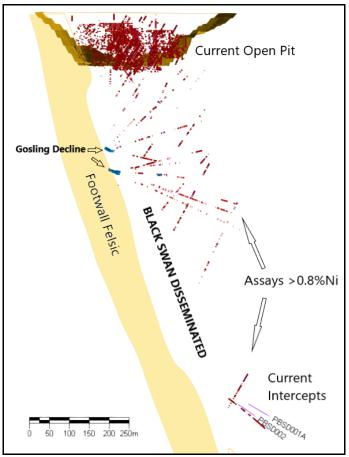


Figure 1 - Existing drilling below the Black Swan Open Pit showing raw assay grades >0.8% Ni.

In order to decrease or overcome nugget effect, the company needs to either drill many more diamond holes or increase the size of the hole and thus sample size.

The best solution was deemed to trial Underground RC Drilling which has been successfully utilized for the same reasons in deep Gold Deposits such as Sunrise Dam. NQ2 drill core has a diameter of 51mm whereas the underground RC hole has a diameter of 110mm. This leads to a substantial increase in sample size and should almost negate nugget effect.

The MDU rig has arrived on site and is currently being transported underground to the Gosling Access Drive to commence the two ring trial (refer to Figure 2). Two rings, or sets of holes, will be drilled and geologically assessed as to the appropriateness of the drill technique, which has not been used before in nickel.

In theory, as nickel is measured in percent, and gold in grammes per tonne, this technique will perform vastly better in the nickel environment and help to better define the small shifts in grade that need to be defined for a successful underground bulk mining operation, as is the opportunity below the open pit.

A successful outcome would mean that this cheaper drilling technique would yield a much better result than diamond drilling and less holes would be needed for a statistically similar result. Upon a successful

trial, the program would be expanded across the strike length of the Black Swan Deposit to assess the technique in more detail and to define bulk-mineable sections of the Black Swan Disseminated Deposit.

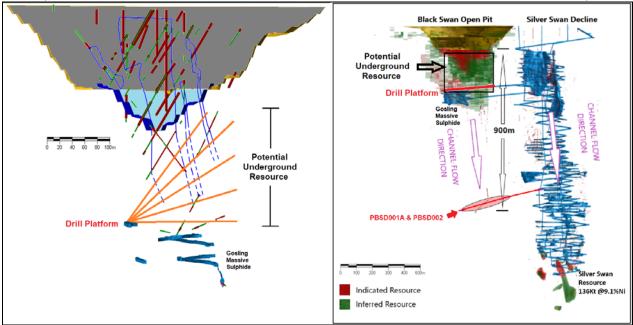


Figure 2 - Underground drilling planned for Black Swan

The trial is expected to take 1 to 2 months to complete (drill rates are currently unknown in ultramafic). A further month will be necessary to receive all assays and assess the results.

DETAIL ON THE SILVER SWAN RESOURCE MODELLING AND ESTIMATION *LOCAL GEOLOGY*

Nickel sulphide mineralisation at Silver Swan is hosted by the Black Swan Komatiite Complex (BSKC), a 3.5 km long by 0.6 km thick arcuate lens of olivine cumulate and spinifex-textured komatiite flows. The complex is enclosed within a broad NE dipping sequence of intermediate felsic lavas and associated volcanoclastics. Graphitic black shales have been recognised in the enclosing felsic sequence approximately 700 m above and below the BSKC. The BSKC and enclosing felsic volcanic sequence face and dip steeply towards the NE. Except for several small areas of sub-outcrop, a thin veneer of lateritic red soil covers the BSKC.

The northern and southern tails of the complex thin and terminate rapidly in a complex series of interdigitating felsic and komatiite horizons. Individual horizons are typically of limited extent both along strike and down plunge. The southern tail of the complex is the most pronounced. It extends over approximately 1 km and is overlain by up to three discrete thin komatiite flows.

Large areas of the BSKC have been subjected to an intense carbonation event, which altered rocks of an earlier serpentinisation event to talc—carbonate ± quartz-sericite assemblages, and at the same time destroyed most primary igneous textures of the parent komatiite (Hicks & Gamble, 2001). Carbonate is by far the most dominant alteration mineral and is present as magnesite and siderite. Fine talc flakes intergrown with the carbonate form a significant component in some areas. Quartz is a minor constituent, replacing and enveloping the carbonate, while minor sericite is a widespread alteration product.

Two small bodies of serpentinite near the centre and at the northern end of the complex survived the carbonation event. These bodies are dominated by antigorite-carbonate-talc assemblages, with the central body, the Black Swan serpentinite, hosting the Black Swan Disseminated (BSD) mineralisation. Igneous textures are generally well preserved within these areas.

A variety of relict igneous textures have been recognised within the BSKC with orthocumulate olivine textures (pseudomorphically replaced by carbonate or antigorite) the most common, especially to the south. Meso- to adcumulate textures is much less common. Flow-top breccias and spinifex-textured zones are recognised in less-altered flows about the margins of the complex.

The BSKC has been intruded by possibly as many as six dyke suites. Four are distinctive and easily recognisable while two are more mineralogically variable.

SILVER SWAN GEOLOGICAL MODELLING

The Tundra and Mute orebodies (Figure 3) had been interpreted as separate zones by Norilsk Nickel. In 2015, Poseidon identified and located a number of drill holes whose data was lost during shutdown of the operations in 2009, which supported joining these lodes. In early 2019, Newexco was commissioned by Poseidon to track down missing downhole EM (DHEM) surveys that paper records at the Black Swan Mine stated were completed in early 2008. The digital interpretations of this data did not form part of the data set handed over to Poseidon.

Using a combination of the additional drill hole data and the DHEM modelling, the company completed an underground diamond drilling campaign totaling 3,662m from the bottom of the Silver Swan Decline in June this year to target and derisk the current resource and also to exploit additional opportunities that had been identified. This has resulted in the increased Silver Swan Resource published today.

Geological evidence from core demonstrated that the majority of holes have intersected the main Silver Swan thermal erosion area found beneath the komatiite channel. Drilling also showed that a suite of mafic dykes and pegmatite intrusions were responsible for the remobilisation of massive sulphides away from the intruded portions of the channel. The orientation of the dykes intersecting with the komatiite give a northerly plunge. Thus when the sulphides are remobilised, the lodes also appear to have a northerly plunge.

Figure 1 below shows the progressive development of the Silver Swan model from 2009 when Norilsk shut the mine to 2016 when Poseidon acquired the project and completed a review (including finding an additional number of lost holes), through to the conclusions drawn from the current drill program where drillholes revealed new information about the Tundra-Mute Lode. The influence of the dykes clearly seen which correlate well with the DHEM anomalies.

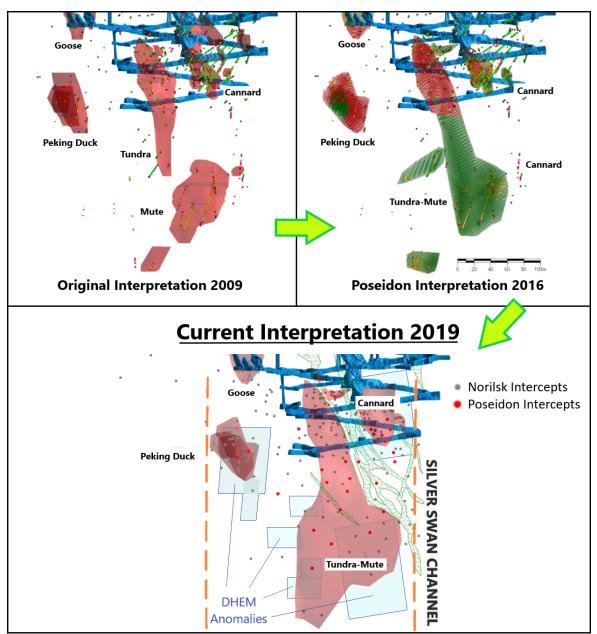


Figure 3 -The progressive development of the Silver Swan resource from mine closure in 2009 until after the completion of the current drill program.

Historical drilling failed to penetrate a basalt dyke that lay between the drill platform and mineralisation, thus information on the komatiite geology behind those locations was not available for much of the mid-Tundra-Mute Lode. From persevering with the difficult drilling through the basalt dyke, we now realise that the main Silver Swan channel still vertically and that the seemingly "separate" Tundra, Mute, Canard and Fledgling Lodes were once joined. It was only the dykes and a lack of drilling that gave the impression that the lodes were separating and that even with the later remobilisation, there is more continuity to the mineralisation than previously modelled. Again, this is shown in Figure 3.

Furthermore, the drilling concluded that there is not at present a repeat of the number, type nor intensity of dykes responsible for remobilisation of sulphides further down the channel, meaning that continuity of the proposed mining area may be greater than first anticipated and that the geotechnical challenges associated with the dykes should be lessened.

Geological modelling of the Silver Swan mineralisation had used 3D Micromine software to manually generate sectional interpretations of massive sulphide intersections utilizing geology in preference to assay grades. A geological footwall was constructed to represent the felsic to komatiite transition where massive sulphides naturally accumulated to guide the interpretive process. Areas of stringer sulphides in

the felsic footwall by and large were included in the interpretation where grades exceeded 3% nickel. This only affected a small proportion of the rockmass which was almost exclusively massive nickel sulphide. The sectional interpretations were then wireframed in Surpac to control and make accurate the triangulation process.

DATA

Poseidon provided Optiro with the drillhole database, in Microsoft Access format, which includes the collar, downhole survey, geology, sampling and assay information. The company also provided updated wireframes of the orebody interpretations for Goose, Peking Duck, Tundra-Mute and Fledgling-Canard lodes along with perimeter surfaces for the intersecting barren dykes and wireframes representing the current underground development and voids for depletion.

The assay data sample length was assessed by Optiro, and a composite length of 1.0 m was selected as the most appropriate. The raw samples were then length-density composited. After a review of the respective grade distributions, top-cuts were applied to nickel, arsenic, cobalt and copper to minimise the impact of outlier values. The top-cuts were derived from reviewing the statistical plots (histograms and probability plots).

TONNES AND GRADE ESTIMATION

The available samples were flagged and coded by the respective interpretations and 1.0 m length-density weighted composites created. The statistics from the composite samples were reviewed using the grade distribution plots, mean and variance as well as disintegration analysis and it was decided that top-cuts were requiredfor nickel (1 cut), arsenic (19 cut), cobalt (2 cut) and copper (8 cut). Data was not declustered for use in the estimation as the ordinary kriging (OK) process largely addresses any data clustering when weighting the samples. For the purposes of model validation, the input composites were declustered using an optimal cell size for each domain using Supervisor.

Optiro generated and modelled traditional variograms using the composited sample data for each element, with the exception of arsenic and copper, which were normal-scores transformed variograms with the resultant model back-transformed. Variogram analysis was carried out using Supervisor (v8) software.

A block model was created in Datamine RM using a parent block size of 2 mE by 5 mN by 5 mRL, with sub-blocking down to 0.25 mE by 0.5 mN by 0.5 mRL. The small sub-blocking was employed at domain boundaries to allow for adequate representation of the domain geometry and volume. The block model was validated visually against the drillhole data and wireframes to ensure that the blocks were coded correctly.

A total of eight variables - nickel, arsenic, cobalt, copper, iron, magnesium oxide (MgO), sulphur and density - were estimated by ordinary kriging using Datamine RM. All grade estimation was completed at the parent block support; hence, all sub-blocks within the model receive the parent block estimate. Each domain was treated as a hard boundary during grade estimation.

The chalcophile variables (nickel, cobalt, copper, iron, sulphur) as well as density, were estimated using the nickel variogram directions/rotations in order to preserve the cross-correlation relationships for these variables. Arsenic and MgO employed their own individual variogram directions/rotations. A three pass search strategy was employed, with an initial search distance of 25 m x 25 x 10 m using 6 to 36 samples. The second search pass used the same number of samples and the search distance was doubled. The third pass used twice the second search distance and between 4 and 18 samples.

The resultant estimate was initially validated in section and plan, followed comaprisons between the whole of domain naïve and declustered composite and estimated means. Swath plots were then

prepared by northing and elevation. There was good validation between the composites and estimated values.

CLASSIFICATION

The Silver Swan Mineral Resource estimate has been classified in accordance with the guidelines of The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012). The Mineral Resource has been classified on the geological understanding, grade and geological continuity and sample spatial distribution and proximity to known development. Table 2 outlines the criteria used to classify the resource, which is presented by category in Figure 4.

Table 2 - JORC 2012 Resource classification definitions

Classification	Criteria
Measured	Drill spacing to less than 15 m by 15m; underground development completed above
	and below. No material is classified as Measured in this Resource.
Indicated	Drill spacing of between 25m by 25 m to 15 m by 15 m; consistent strike and dip
	orientation, geological and grade continuity between drill intercepts, proximal (<25 m)
	to ore development
Inferred	Drill spacing greater than 25 m by 25 m; uncertainty in geological and grade continuity
	between intercepts; distal to current underground development

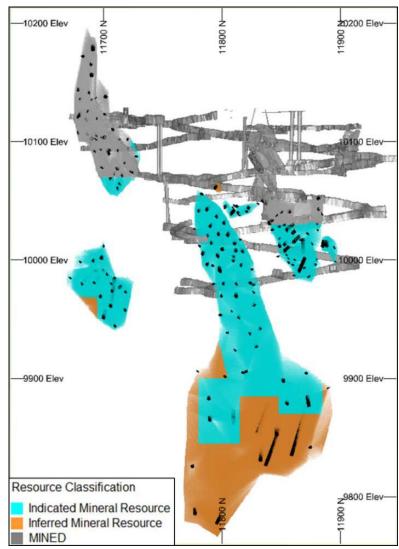


Figure 4 - Silver Swan Resource Classification

The Silver Swan Mineral Resource has been reported above a 4.5% Ni cut-off grade and has been depleted using the underground development. In areas where recovery is unlikely due to proximity to open stopes and inaccessible development, the resource has been manually coded as unclassified.

COMPARISON WITH PREVIOUS ESTIMATES

The previous Mineral Resource was generated by Optiro on behalf of Poseidon in November 2015 and has been compared with the current estimate in Table 3.

Table 3 - Comparison with previous estimates

Estimate	Area		Indica	ited	Inferred			Total		
Estimate	Area	kt	Ni %	Ni metal (t)	kt	Ni %	Ni metal (t)	kt	Ni %	Ni metal (t)
	Tundra-Mute	68	9.2	6,260	59	9.8	5,800	127	9.5	12,060
	Peking Duck	26	9.7	2,560	1.2	8.8	100	27	9.7	2,660
Jul-2019	Fledgling-Canard	12	9.9	1,160	0			12	9.9	1,160
	Goose	1.7	9.0	150	0			1.7	9.0	150
	Total Ni resource	108	9.4	10,130	61	9.7	5,900	168	9.5	16,030
	Tundra-Mute	24	9.2	2,200	73.3	8.85	6,480	97.2	8.9	8,690
	Peking Duck	21	8.8	1,820	8	10.2	820	28.7	9.2	2,640
Nov-15	Fledgling-Canard	5.8	10.4	600	2.9	9.81	280	8.7	10.2	880
	Goose	1.5	10.0	150				1.5	10.0	150
	Total Ni resource	51.9	9.2	4,770	84.2	9.01	7,580	136.1	9.1	12,360
	Tundra-Mute	183%	0%	185%	-19%	10%	-10%	31%	6%	39%
	Peking Duck	27%	11%	41%	-86%	-13%	-88%	-4%	6%	1%
% difference	Fledgling-Canard	102%	-4%	93%				34%	-3%	32%
difference	Goose	11%	-10%	0%				11%	-10%	0%
	Total Ni resource	107%	2%	112%	-28%	8%	-22%	24%	5%	30%

The additional drilling has improved the Mineral Resource by:

- increasing the geological understanding of the mineralisation
- increasing the volume of the known mineralised lodes
- improving the confidence in the interpretations and subsequent estimates, transferring previously Inferred Resource to now Indicated Resource.

Optiro's recommendations for future work on the Silver Swan estimate are as follows:

- The historical drillhole data above the current Mneral Resource should be reviewed to ensure and documentation supporting the database needs to be prepared.
- Future drillhole design for Silver Swan mineralisation should maximise the drillhole intersections Drillhole-mineralisation intersections less than 25° do not provide good definition on the volume of mineralisation and is likely to limit the amount of Inferred Mineral Resource that can be transferred to Indicated, almost irrespective of the number of drillholes.
- The excellent geological work underpinning this Mineral Resource update should be fully documented going forward, to support any additional mining studies.

Rob Dennis

Managing Director & CEO

5 August 2019

For further information contact Rob Dennis: +61 (0)8 6167 6600.

About Poseidon Nickel Limited

Poseidon Nickel Limited (ASX: POS, "Poseidon"), is an Australia focussed nickel company that owns three previously operating Nickel Sulphide mines: Windarra, Black Swan/Silver Swan and Lake Johnston. These 100% owned assets collectively had an operating capacity of 3.6mtpa (Lake Johnston 1.5mtpa; Black Swan 2.1mta). The processing facilities at Lake Johnston and Black Swan have been maintained through company managed, care and maintenance programs.

On 18 July 2018, POS released to ASX a definitive feasibility study regarding the restart of operations and potential outcomes for Black Swan/Silver Swan, located 50 kms from Kalgoorlie. Poseidon is currently undertaking a number of de-risking initiatives including additional underground diamond drilling at Black Swan.

Poseidon has continued to explore at Lake Johnston, with recent diamond drilling at the Abi Rose prospect. These exploration results were released to ASX on 22 October 2018 and 21 November 2018.

Windarra has a number of near mine exploration projects including the extension of the original Windarra deposit, Cerberus, South Windarra and Woodline Well.

The current Resource Statement below shows a combined Nickel resource of 391,900 tonnes of Nickel (which should be read with the Competent Person statements below).

MINERAL RESOURCE STATEMENT

Table 1: Nickel Projects Mineral Resource Statement

								MINERAL R	ESOURCE	CATEGO	RY				
Nickel Sulphide Resources		ı	INDICATI	ED		INFERRI	ED .	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)
BLACI	K SWAN PROJI	ECT													
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	0.19	316	0.4	679
LAKE	JOHNSTON PR	OJECT													
Maggie Hays	2012	0.80%	2,600	1.60	41,900	900	1.17	10,100	3,500	1.49	52,000	0.05	1,800	0.10	3,400
WIND	ARRA PROJEC	т													
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
тота	TOTAL														
Total Ni, Co, Cu Resources	2004 & 2012		16,775	1.04	174,030	27,275	0.81	221,500	44,049	0.90	395,530	0.02	7,516	0.03	13,379

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

Black Swan Resource as at 22 July 2014, Silver Swan Resource as at 5 August 2019, Maggie Hays Resource as at 17 March 2015, Mt Windarra, South Windarra and Cerberus Resource as at 30 April 2013

Table 2: Gold Tailings Project Mineral Resource Statement

			MINERAL RESOURCE CATEGORY							
Gold Tailings	JORC			TOTAL INDICATED						
Resources	Compliance	Grade	Tonnes			Ag Grade	Ag			
			(Kt)	(g/t)	(oz)	(g/t)	(oz)			
WIND	WINDARRA GOLD TAILINGS PROJECT									
Gold Tailings	2004	NA	11,000	0.52	183,000	1.9	670,000			
ТОТА	TOTAL									
Total Au Resources	2004		11,000	0.52	183,000	1.9	670,000			

Note: totals may not sum exactly due to rounding.

Windarra Gold Tailings Resource as at 30 April 2013.

ORE RESERVE STATEMENT

Table 3: Nickel Projects Ore Reserve Statement

		ORE RESERVE CATEGORY									
Nickel Sulphide Reserves	JORC Compliance		PROBABLE								
			Ni% Grade	Ni Metal (t)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)			
SILVER SWAN P	ROJECT										
Silver Swan Underground	2012	57*	5.79	3,300	NA	NA	NA	NA			
Black Swan Open pit	2012	3,370	0.63	21,500	NA	NA	NA	NA			
TOTAL											
Total Ni Reserves	2012	3,427	0.72	24,800	0.11	60	0.26	150			

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

Co & Cu grades and metal content for Black Swan require additional modelling prior to estimation. Silver Swan Underground Reserve as at 26 May 2017, Black Swan Open Pit Reserve as at 5 November 2014.

^{*}The Company is aware that the 2019 upgrade to the Silver Swan Indicated Resource will materially affect the Silver Swan Reserve above which was based upon the 2016 Silver Swan Resource Estimate. Such information is based on the information complied by the Company's Geologists and the Competent Persons as listed below in the Competent Person Statements.

COMPETENT PERSON STATEMENTS:

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

The information in this report which relates to the Black Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and who is a Members of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the 2019 Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Kahan Cervoj who is a full time employee of Optiro Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the 2016 Silver Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Lake Johnston Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Lake Johnston Ore Reserves Project is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

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

Mr Warriner, Mr Cervoj, Mr Weeks,Mr Glacken and Mr Keenan all have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Warriner, Mr Cervoj, Mr Weeks, Mr Glacken and Mr Keenan have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

FORWARD LOOKING STATEMENT – INFERRED RESOURCE STATEMENTS:

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

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

FORWARD LOOKING STATEMENTS:

This release contains certain forward looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward looking statements

Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance.

Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Silver Swan underground mine.

ATTACHMENT A
JORC (2012) Table 1
BLACK SWAN EXPLORATION, MINERAL RESOURCEAND ORE
RESERVE ESTIMATE

BLACK SWAN EXPLORATION AND RESERVE ESTIMATE SECTION 1 Sampling Techniques and Data

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

JORC Code explanation Commentary

Sampling techniques

Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.

Reverse circulation and diamond drilling have been used to obtain samples. Sampling is a mixture of full core, half core, quarter core and chip sampling. Generally, 1 m samples or smaller have been used for exploration drilling, whilst grade control drilling in the Black Swan pit is on 2 m sample lengths.

Samples have been obtained from drilling carried out on the tenements since 1968, incorporating several lease owners. 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.

Samples from reverse circulation drilling were collected using cone splitters, with field splits taken every 20 samples.

Drilling techniques

Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.)

Diamond and reverse circulation drilling are the primary methods by which drilling has been conducted.

The majority of diamond core is NQ, the rest being HQ size. Core orientation was carried out using either spear marks or the Ezimark system.

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. Core recovery and presentation has been documented as being good to excellent, with the exception of one hole used in the estimation, BSD189, which suffered significant core rotation, but little loss, within the oxide zone.

Due to the good to excellent core recovery, Golder has no reason to believe that there is bias due to either sample recovery or loss/gain of fines.

Logging

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.

Much of the drill core has been oriented prior to the core being logged. Recent data was electronically captured and uploaded in to the site Acquire® geology SQL database.

Golder has been provided with no record of core photography, nor the extent to which drilling was logged geologically.

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.

Early diamond core is assumed to have been chisel cut, whilst most core was cut using a core saw, with either half or quarter core used for sampling.

RC samples were collected by use of a cone splitter, with duplicates collected every 20 samples.

Later resource and grade control drilling was crushed to <3 mm and then split to 3 kg lots, then pulverised. This is appropriate given the sample interval and mass.

Quality of assay data and laboratory tests

The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is

Pulps were prepared by acid digest and analysed by ICP-OES using standard laboratory practices. Both independent and laboratory internal

JORC Code explanation	Commentary
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	QAQC were used. Site specific standards were derived from two RC drill holes specifically designed for the purpose and prepared by ORE Pty Ltd in Melbourne. Analysis for these standards was for Ni, As, Fe and Mg. For RC grade control drilling, blank samples were inserted 1 in 50 and 1 in 19 samples as standard. Standard samples have a well-defined margin of error suitable for the deposit. No external laboratory checks were conducted for drill samples.
Verification of sampling and assaying	
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.	Logging and assay data is electronically captured and up loaded in to the site Acquire® geology SQL 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 ±10 mm. A local grid based on seven known AMG 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 to the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000 m was adopted for the Black Swan project. All Black Swan diamond drill holes have been routinely surveyed—generally every 30 m or less. In the case of the some early drill holes, however, only the hole dip component was measured, using the acid via method. All subsequent diamond drill holes have been surveyed using Eastman single shot down hole survey instruments.
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.	Surface drilling used a spacing of 20 m to 50 m across strike and approximately 50 m along strike. In pit drilling is on a 10 m by 10 m staggered pattern. Underground drill data was also used in the estimate. Sample data was composited to 2 m.
Orientation of data in relation to geological structure	
Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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.	Drill hole orientation was dominantly perpendicular to geological continuity and befits the requirements of resource estimation.
Sample security	•
The measures taken to ensure sample security.	There are no documented details available for sample security.
Audits or reviews	· · · · · · · · · · · · · · · · · · ·
The results of any audits or reviews of sampling techniques and data.	Examination of duplicate, blank and standard data does not highlight an material bias or systematic error.

Section 2 Reporting of Exploration Results

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

Section 2: Reporting of Exploration Results

Mineral Tenement and Land Tenure Status Type, reference name/number, location and ownership including Black Swan open-pit is centred on M27/39 and extends into M27/200. agreements or material issues with third parties such as joint ventures, Silver Swan is wholly located on M27/200. They are located 42.5km NE partnerships, overriding royalties, native title interests, historical sites, of Kalgoorlie. They are registered to Poseidon Nickel Atlantis Operations wilderness or national park and environmental settings. Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the purchase of the assets. Historical royalties of 3% NSR exist over the minerals produced. 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. **Exploration Done by Other Parties** Acknowledgment and appraisal of exploration by other parties. Refer to Section 1 (above) The Black Swan Disseminated Resource has been explored by both MPI and Norilsk Nickel. Both companies followed best practise and Poseidon has validated all data handed over as a part of the purchase. Only minor errors have been found and corrected. Geology Deposit type, geological setting and style of mineralisation. Refer to Section 3 (below) **Drill Hole Information** A summary of all information material to the understanding of the Refer to the body of the announcement above. 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 lenath. 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. **Data Aggregation Methods** In reporting Exploration Results, weighting averaging techniques, Grades have been aggregated using the length x SG weighted average. maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. See body of text for individual sample grades. 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 True widths are stated where necessary. 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'). Diagrams Appropriate maps and sections (with scales) and tabulations of Refer to the body of text above. 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 **Balanced Reporting** Where comprehensive reporting of all Exploration Results is not Not applicable. practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration

Results.

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.

Refer to body of text above.

Metallurgical recoveries for the stockpiled ore from the Black Swan Open Pit have been determined by stockpile as follows, based on historical processing data;

- Yellow Stockpile: 73-78%%

- HG Talc Stockpile: 49-61%%

Where possible exploration results and geological logging will reflect the Yellow Stockpile (Serpentinite Mineralisation > 0.5% Ni) or the HG Talc Stockpile (Talc Mineralisation > 0.5% Ni). The other stockpiles and associated recoveries come from blends of the above or low grade and not applicable to exploration results.

Metallurgical testing is yet to be conducted on the core subject to this announcement.

Further work

The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).

The nature and appropriateness of the estimation technique(s)

applied and key assumptions, including treatment of extreme grade

values, domaining, interpolation parameters and maximum distance

Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. Poseidon expects to undertake further resource definition and grade control drilling at Black Swan.

Mineralogical and metallurgical recovery studies will be conducted on the drill samples.

Mineralisation was estimated within domains defined by lithological

used for estimation purposes.

information and statistical analysis of sample data in the composite file was

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

JORC Code explanation	Commentary				
Database integrity					
Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	Logging and assay data has been electronically captured and uploaded in to the site Acquire® geology SQL database. The database gas been previously reviewed by Golder and was found to be in excellent condition. It is very clean and contains few errors, but does not contain sample and assay quality control information. Golder conducted visual validation checks on the drill hole data, with holes not relevant to the estimation removed from the dataset.				
Site visits					
Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Golder has previously visited the Black Swan site, with several visits conducted within the last five years. A further visit was not made for this resource estimate. Black Swan has a long history of exploration and has been an operating mine, with both open pit and underground mining operations taking place.				
Geological interpretation					
Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	The geological interpretation is validated by drill and mining activity, as well as in-pit mapping by previous owners. Where possible, estimation has been restricted to lithologies controlling and surrounding mineralisation. The geological domaining is based on data from previous resource estimates completed by Norilsk Nickel Pty Ltd and Gipronickel that have been reviewed by Golder previously, and for this resource estimate. The interpretation for this Mineral Resource estimate relies solely upon data from drilling, and not on mapping or surface sampling.				
Dimensions					
The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The mineralisation associated with the Black Swan deposit runs along a strike length of approximately 250 m north-south and approximately 100 m east-west. Drilling has intercepted Ni mineralisation at up to 600 m below surface.				

the frequency of the measurements, the nature, size and

representativeness of the samples.

JORC Code explanation Commentary of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and The block size is 12.5 m (X) by 25 m (Y) by 5 m (Z). The sub-block size is 3.125 m (X) by 12.5 m (Y) by 2.5 m (Z). The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes High-grade restraining was applied to Ni in one domain, based on data appropriate account of such data. analysis of assayed samples. The high-grade samples were used only in the The assumptions made regarding recovery of by-products. estimation of blocks within a 25 m radius of the high grade sample. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage Using parameters derived from the modelled variograms, Ordinary Kriging characterisation). (OK) was used to estimate average block grades for Ni, As, MgO, Fe, and S. In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. The estimation was conducted in three passes with the search size Any assumptions behind modelling of selective mining units. increasing for each pass. In some domains, where blocks had not been filled Any assumptions about correlation between variables. after three passes, a fourth pass was used, with samples from outside the Description of how the geological interpretation was used to control domain of interest used to fill the remaining blocks. the resource estimates. Discussion of basis for using or not using grade cutting or capping. The model was validated visually and statistically using swath plots and The process of validation, the checking process used, the comparison comparison to sample statistics. of model data to drill hole data, and use of reconciliation data if available. Moisture Whether the tonnages are estimated on a dry basis or with natural Density measurements were performed using the immersion technique. moisture, and the method of determination of the moisture content. The density was calculated as a wet density even though core was often left to dry for some time. In some sampling programmes a representative section of core was used for measurements, rather than the entire core. Therefore a 5% moisture factor was applied to the Specific Gravity (SG) values used in the resource estimate. **Cut-off parameters** The basis of the adopted cut-off grade(s) or quality parameters The resource model is constrained by assumptions about economic cut-off grades. The Mineral Resources were reported using a cut-off grade of 0.4% applied. Ni which was applied on a block by block basis. Mining factors or assumptions The block model uses a parent cell size of 12.5 m (X) by 25 m (Y) by 5 m (Z), Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining primarily determined by data availability and the dimensions of the dilution. It is always necessary as part of the process of determining mineralisation. reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. Metallurgical factors or assumptions The basis for assumptions or predictions regarding metallurgical Metallurgical recovery of nickel was assigned based on data calculated by amenability. It is always necessary as part of the process of the Black Swan mill whilst mining operations were in progress. determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made. **Environmental factors or assumptions** Assumptions made regarding possible waste and process residue As the project has previously been mined, there are existing waste storage disposal options. It is always necessary as part of the process of facilities and environmental considerations are not expected to pose any determining reasonable prospects for eventual economic extraction issues to the resumption of mining activity. to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. **Bulk density** Whether assumed or determined. If assumed, the basis for the Bulk density estimates were calculated from core obtained from drilling assumptions. If determined, the method used, whether wet or dry, programmes. Golder applied a moisture factor of 5% to account for the

bulk density measurements being based on wet core, and that in some

drilling programmes, selected portions of core being used to represent the

JORC Code explanation	Commentary
The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	whole, rather than all core being measured for bulk density.
Classification	
The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The classification of Mineral Resources was completed by Golder based on geological confidence, drill hole spacing and grade continuity. The Competent Person is satisfied that the result appropriately reflects his view of the deposit. Continuous zones meeting the following criteria were used to define the resource class: Indicated Resource Blocks that were estimated with samples with an average of less than 30 m distance from blocks. Number of drill holes confirming grade continuity. Inferred Resource Blocks that were estimated with samples with an average of less than 50 m distance from blocks. Limited number of drill holes. Mineral Resource classification was restricted to a Lerch-Grossman pit shell using a potential future nickel price. This was combined with the accuracy of the estimate ascertained by geological confidence, drill hole spacing and grade continuity from available drilling data.
Audits or reviews	
The results of any audits or reviews of Mineral Resource estimates.	This Mineral Resource estimate is based on data from previous resource estimates completed by Norilsk Nickel Pty Ltd and Gipronickel that have been reviewed by Golder.
Discussion of relative accuracy/confidence	
Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The relative accuracy is reflected in the resource classification discussed above that is in line with industry acceptable standards. This is a Mineral Resource estimate that includes knowledge gained from mining and milling recovery data during production.

Section 4 Estimation and Reporting of Ore Reserves

JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	
Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Black Swan open pit and surface stockpile Ni Mineral Resources used as the basis of this Ore Reserve were estimated by Golder Resources Pty Ltd and announced to market with the previous Ore Reserve estimate in November 2014. This Resource contains both in-situ material and previously mined material in surveyed ex-pit stockpiles.
	The Co Resource used as the basis of this Ore Reserve was estimated by Entech Pty Ltd in April 2017 and has been announced concurrently with this

	1 age 20
JORC Code explanation	Commentary
	Reserve.
	Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	
Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The Competent Person (Mr Matthew Keenan) visited the BSNO site on 7 th June 2016. The visit included inspection of the Black Swan open pit and surface stockpiles.
	The site visits did not give the Competent Person any reason to believe that any portion of the Reserve Estimate will not be mineable.
Study status	•
The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a	The Black Swan and surface stockpile material being converted from Mineral Resource to Ore Reserve is based on a Preliminary Feasibility Study undertaken in 2014. Modifying factors accurate to the study level have been applied based on
mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	detailed selective mining unit (SMU) analysis. Modelling indicates that the resulting mine plan is technically achievable and economically viable.
Cut-off parameters	<u> </u>
The basis of the cut-off grade(s) or quality parameters applied.	For the Black Swan open pit, a recovered nickel cut-off grade of 0.21% Ni was used to define ore and waste. This is approximately equivalent to an in situ cut-off grade of 0.46% Ni for the serpentinite ore and 0.56% for the tal carbonate ore.
	A nickel price of \$US6.50/lb and a USD:AUD exchange rate of 0.76 was use to determine the cut-off grades.
Mining factors or assumptions	
The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (e.g. pit	Detailed mine designs were carried out on the Black Swan open pit, and these were used as the basis of the Reserve estimate. The Black Swan open pit Ore Reserves are based on a conventional open p mining method using hydraulic excavators and off-road trucks to haul the ore and waste from the pit and stockpiles.
slopes, stope sizes, etc.), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used.	The pit has already been developed. The current pit floor is approximately 120 m below the original surface. The strip ratio of the Reserve pit design i approximately 0.3:1 (waste:ore).
 The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the 	Open pit wall angles were determined based on independent geotechnical analysis and historical pit wall designs. A slip in the SE corner of the pit has been reviewed by independent geotechnical consultants and considered ir the Reserve design.
outcome to their inclusion.The infrastructure requirements of the selected mining methods.	Open pit grade control will be carried out by 25 m deep RC holes ahead of production.
	Open pit mining dilution was estimated locally by modelling a selective mining unit of 12.5m x 12.5m x 5m. This was achieved by regularising the block model to conform to this block size.
	A 95% open pit mining recovery factor was applied to the ore tonnage to account for mining related losses.
	Surface stockpile tonnages are based on detailed site surveys carried out a cessation of previous mining operations. Stockpiles grades are based on sit grade control models.
	Surface stockpiles are assumed to be reclaimed by the processing plant ROM loader if <500 m from the plant. If >500m from the plant, an additional allowance has been made for reclaim load and haul.

JORC Code explanation	Commentary
	The mining method chosen is well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access exists for all ore sources.
	Allowance has been made for dewatering of the Black Swan open pit.
	Independent geotechnical consultants MineGeotech Pty Ltd and Snowden
	Mining Industry Consultants Pty Ltd (2008) contributed appropriate geotechnical analyses to a suitable level of detail. These form the basis of mine design for the open pit Reserve estimate.
	Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. All Inferred material has had grade set to waste for the purposes of evaluation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource material.
	Most of the infrastructure required for the operations is already in place and has been under care and maintenance for approximately 8 years, including a processing plant and associated infrastructure, access roads, offices and ablutions, connections to the Western Power grid, power reticulation, and borefields. Allowance has been made for refurbishment of this infrastructure where required based on quotes provided by reputable independent vendors to an appropriate standard of detail.
Metallurgical factors or assumptions	
The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.	The Black Swan concentrator was successfully operated at throughput rates up to 2.2Mtpa on the Reserve deposits during previous operations. All
Whether the metallurgical process is well-tested technology or novel in nature.	Reserve ore is expected to be processed through this concentrator at a rate of 1.1Mtra. Suitable associated infrastructure is in place including water

The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.

Any assumptions or allowances made for deleterious elements.

The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.

For minerals that are defined by a specification, has the ore reserve $estimation\ been\ based\ on\ the\ appropriate\ mineralogy\ to\ meet\ the$ specifications?

of 1.1Mtpa. Suitable associated infrastructure is in place including water supply and storage, reagents storage, and tailings disposal and storage systems.

Extensive historical data exists on metallurgical characteristics of the Reserve orebodies.

The cost of plant refurbishment has been determined to a PFS standard of accuracy.

The metallurgical process is conventional, well understood and has many years of operational data to support the flotation responses of the Black Swan and Silver Swan ores.

The Black Swan Talc Carbonate ore has not, historically, been processed in large quantities at the Black Swan plant although it has been incorporated as a minor part of the feed blend at times. The majority mined has been stockpiled.

The metallurgical recovery of Black Swan Talc Carbonate ore has been tested and assessed by various groups in 2008 (Norilsk, AMEC and Ammtec) and 2010 (Gipronickel). The results from this testwork demonstrate that the recovery from Talc Carbonate ore is lower than Serpentinite ore but that flotation is technically feasible. Based on this work, the metallurgical recovery for the Black Swan open pit ore has been assumed at 65% for this Ore Reserve estimate.

JORC Code explanation	Commentary
	Cobalt has been included as a by-product in the Ore Reserve estimate.
	Metallurgical recoveries for the stockpiled ore have been determined by stockpile as follows, based on historical processing data;
	- Crushed Stockpile: 64%
	- Yellow Stockpile: 73%
	- Lime Stockpile: 69%
	- HG Talc Stockpile: 49%
	- Blue Indicated Stockpile: 52%
Environmental	
The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of	Geochemical characterisation studies have been conducted that indicate that the rock mass is non-acid forming.
approvals for process residue storage and waste dumps should be reported.	An additional geochemical study was conducted by MBS Environmental to assess the potential implications of storing tailings from the proposed ore blend on top of existing material in the tailings storage facility (TSF).
	Works for the Stage 5 lift of the TSF commenced prior to the project being placed in care and maintenance. These works were incomplete and, as such, certification of the works by the Department of Environmental Regulation (DER) could not be obtained. The Works Approval authorising construction of the new embankment raise has since lapsed. A new Works
	Approval will be required prior to completing the lift. Under current approvals tailings cannot be deposited above RL11378.5 m.
	Based on current approvals, it is estimated that there is currently 4 years of storage capacity in the TSF. This is sufficient to cover storage of tailings generated by processing the estimated Reserve ore.
	POS has advised that most required approvals already issued under the <i>Mining Act</i> and <i>Environmental Protection Act</i> from previous operations remain current.
	At this point in time the Competent Person sees no reason permitting will not be granted within a reasonable time frame.
nfrastructure	
The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	The project site is already developed and on care and maintenance. All required surface infrastructure is already in place and requires only minor refurbishment to the concentrator, TSF, workshops and haul roads.
	As the site is 53 km from Kalgoorlie, a residential workforce will commute to site daily.
	The mine is connected to the Western Power grid through two lines, one feeding the concentrator and one feeding the other surface infrastructure and underground workings.
	The existing water supplies from the Black Swan borefield, Silver Swan underground dewatering system, Black Swan pit dewatering and the Federal pit are sufficient to operate the plant at a throughput of 1.1Mtpa.
Costs	
The derivation of, or assumptions made, regarding projected capital costs in the study.	The project capital cost has been estimate to an accuracy of +/-25% based on detailed cost modelling and design work carried out in the Black Swan

JORC Code explanation Commentary PFS. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. More detailed costs have been sourced for refurbishment of site The basis for forecasting or source of treatment and refining infrastructure. charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. Operating costs for the open pit and processing plant were estimated from a combination of first principles, 2008/2009 historic operating costs and recent contractor quotations. They were also benchmarked against similar sized concentrators. The USD:AUD exchange rate assumed for the cost modelling was 0.76. Road transport charges for concentrate transport are based on factored quotes. WA state royalties of 2.5 % and a third-party royalty of 1% have been applied to gross concentrate nickel revenues. **Revenue factors** Forecasts for head grade delivered to the plant are based on detailed mine The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, plans and mining factors. transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), A global payable 68% of contained nickel metal has been applied to factor for the principal metals, minerals and co-products. downstream treatment and refining charges. Payabilities are based on information provided by POS following discussions with potential offtake partners. A flat USD:AUD exchange rate of 0.76 was used in the financial model. Co by-products have currently been modelled in the Black Swan open pit. No by-products have been modelled from the surface stockpiles. A flat nickel price of US\$6.50/lb has been assumed for the financial analysis, based on forecasts provided by POS. Deleterious elements (As and MgO) and associated penalties have been applied to the Black Swan pit concentrate pricing. These penalties are based on the historical concentrate grades generated by processing the Black Swan ore, and applying a penalty of US\$3/dmt of concentrate for every 0.01% As grade over 0.2%, and a penalty of \$40/dmt of concentrate for every unit of Fe:MgO ratio under 5. The penalties were advised by POS based on the 2014 study work and discussions with potential offtake partners. The total deleterious element penalty assumed for the Black Swan Reserve estimate works out to \$151.32 per dmt of concentrate. Market assessment POS is currently discussing offtake agreements with potential buyers. The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply The volume of concentrate produced by processing the estimated Reserve and demand into the future. will be too small to have an impact on the global market of nickel sulphide A customer and competitor analysis along with the identification of concentrate. likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. **Economic** The Black Swan pit and surface stockpiles Ore Reserves have been assessed The inputs to the economic analysis to produce the net present value

both as combined and stand-alone projects in detailed financial models.

(NPV) in the study, the source and confidence of these economic

inputs including estimated inflation, discount rate, etc.

JORC Code explanation	Commentary
NPV ranges and sensitivity to variations in the significant assumptions and inputs.	All cases are economically viable and have a positive NPV at a 10% discount rate at the stated commodity price and exchange rate.
	Sensitivity analysis shows that the project is most sensitive to commodity price/exchange rate movements. The project is still economically viable at unfavourable commodity price/exchange rate adjustments of 10%.
Social	-
The status of agreements with key stakeholders and matters leading to social licence to operate.	A compensation agreement exists between the Black Swan Nickel Operations and Mt Vetters Pastoral Station. This has been updated periodically as the operation has changed. Compensation previously paid under this agreement has been adequate to address all impacts of the project. No further compensation is required under the terms of this agreement. However, previous practice may have resulted in an expectation of additional compensation if significant additional land clearance is proposed. Significant land clearance is not required under the current Reserve estimate plan.
	POS will continue to communicate and negotiate in good faith with key stakeholders
Other	
To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing	A formal process to assess and mitigate naturally occurring risks will be undertaken prior to execution. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation.
arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be	No marketing agreement has yet been signed but the Competent Person considers that such an agreement is reasonably likely. Interest has been expressed by various potential offtake partners for the concentrate and it was successfully marketed during previous operations.
received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	Based on the information provided, the Competent Person sees no reason all required approvals will not be successfully granted within the anticipated timeframe.
Classification	
The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit.	The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss.
The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	None of the Probable Ore Reserves have been derived from Measured Mineral Resources.
	The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	
The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve estimate, along with the mine design and life of mine plan, has been peer-reviewed by Entech internally.
Discussion of relative accuracy/confidence	
Where appropriate a statement of the relative accuracy and	The Black Swan pit and stockpile design, schedule, and financial model on

Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.

The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.

The Black Swan pit and stockpile design, schedule, and financial model on which the Ore Reserve is based has been completed to a Pre-Feasibility study standard, with a corresponding level of confidence.

Considerations in favour of a high confidence in the Ore Reserves include:

- Approximately 17% of nickel metal tonnes are contained within ex-pit already mined surface stockpiles.
- The mining process is simple, small scale and utilises proven technology
- The Black Swan mill has a long operating history processing the Reserve material
- The project, as previously operated, is fully permitted.

JORC Code explanation	Commentary
It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Additional approvals will be required for some tailings dam and road construction works.
	Considerations in favour of a lower confidence in Ore Reserves include;
	 Deleterious element penalties still need to be confirmed based on marketing agreements and metallurgical testwork on the proposed processing blend. Since the Black Swan concentrate was successfully sold during previous operations, it is not expected that such penalties will render the Reserve estimate unsaleable.
	 Future nickel price and exchange rate forecasts carry an inherent level of risk
	 There is a degree of uncertainty associated with geological estimates. The Reserve classifications reflect the levels of geological confidence in the estimates.
	 There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study.
	 A binding offtake agreement for the product has not yet been signed.
	The Ore Reserve is based on a global estimate. Modifying factors have been applied at a local scale.
	Further, i.e. quantitative, analysis of risk is not warranted or appropriate at the current level of technical and financial study.

ATTACHMENT B
JORC (2012) Table 1
SILVER SWAN EXPLORATION RESULTS, MINERAL RESOURCES AND
ORE RESERVE ESTIMATE

SILVER SWAN EXPLORATION RESULTS AND RESERVE ESTIMATE SECTION 1 Sampling Techniques and Data

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

JORC Code explanation Commentary Sampling techniques Underground diamond drilling has been used to obtain core samples. Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to Sampling is a mixture of full core, and half core sampling. In general, the minerals under investigation, such as downhole gamma sondes, or 1 m samples or smaller have been used for exploration and grade handheld XRF instruments, etc.). These examples should not be taken control drilling. as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity Samples have been obtained from drilling carried out from and the appropriate calibration of any measurement tools or systems underground drilling by LionOre and Norilsk Nickel Australia below the 10100mRL level. The drilling database and block model above Aspects of the determination of mineralisation that are Material to the this RL have been cut from the resource estimate data set as these Public Report. have been mined out and are not reported in this document. Only drilling completed between 2006 and 2008 are included in the In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m resource estimate. 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 Diamond drilling sampling protocol has followed accepted industry where there is coarse gold that has inherent sampling problems. practice, with all mineralised core sampled and intervals selected by Unusual commodities or mineralisation types (e.g. submarine nodules) geologists to ensure samples did not cross geological or lithological may warrant disclosure of detailed information. contacts. Core was halved, with a half sent for assay and the remaining core retained for geological reference. **Drilling techniques** Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air Underground diamond drilling is the method by which drilling has blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple been conducted into the ore zones below the 10100mRL level of the or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). All of the diamond core below the reported 10100mRL is of NQ size. Core orientation was carried out using the EzyMark system. All core trays are digitally photographed to maintain a permanent record of core prior to any sampling operations. Hard copy photographs exist for core photographed before the advent of digital photography. **Drill sample recovery** Method of recording and assessing core and chip sample recoveries and Core recovery and presentation has been documented as being good to excellent and inspection of core trays by Poseidon geologists has results assessed. confirmed the quality of core recovery. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and Due to the good to excellent core recovery, Poseidon has no reason whether sample bias may have occurred due to preferential loss/gain of to believe that there is bias due to either sample recovery or loss/gain fine/coarse material. of core. Logging Whether core and chip samples have been geologically and Much of the drill core has been oriented prior to the core being geotechnically logged to a level of detail to support appropriate Mineral logged. Drilling data and geological logging was electronically Resource estimation, mining studies and metallurgical studies. captured and uploaded in to the site Acquire® geology SQL database. This has been exported to an Access database which has been Whether logging is qualitative or quantitative in nature. Core (or converted to Surpac format for modelling. costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. The entire length of the drillholes have been logged geologically and entered into the digital database. Sub-sampling techniques and sample preparation If core, whether cut or sawn and whether quarter, half or all core taken. All of the deeper drill core used in this estimation was either full core or cut using a core saw, with half core used for sampling. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. Resource and grade control drilling was crushed to <3 mm and then For all sample types, the nature, quality and appropriateness of the

split to 3 kg lots, then pulverised. This is appropriate given the

sample interval and mass.

Whether sample sizes are appropriate to the grain size of the material being sampled.

Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field

Quality control procedures adopted for all sub-sampling stages to

sample preparation technique.

maximise representivity of samples.

duplicate/second-half sampling.

JORC Code explanation Commentary Quality of assay data and laboratory tests The nature, quality and appropriateness of the assaying and laboratory All assaying since March 2004 has been carried out by Kalgoorlie procedures used and whether the technique is considered partial or Assay Laboratories (Kalassay, now Bureau Veritas) using ICP-OES on a 4 acid digest using standard laboratory practices. Both independent For geophysical tools, spectrometers, handheld XRF instruments, etc., and laboratory internal QAQC were used. the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their Site specific standards were derived from two RC drillholes specifically designed for the purpose and prepared by ORE Pty Ltd in derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, Melbourne. Analysis for these standards was for Ni, As, Fe and Mg. duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. The following QA/QC measures were adopted during the sampling and assaying of underground diamond drill core and include: Blank inserted in 1:25 samples Certified standards inserted in 1:25 samples Sizing analysis of 1:20 samples Duplicate analysis of quarter core for 1:25 holes Analysis of laboratory QAQC. Repeat analysis completed by laboratory on 5% of samples Monthly reporting of QAQC Six monthly temporal and spatial analysis of the erroneous standards and blanks. The quality of the data received from the laboratory appears to be good, with no major issues being highlighted. Standard samples have a well-defined margin of error suitable for the deposit. No external laboratory checks were conducted on the drill samples. Verification of sampling and assaying The verification of significant intersections by either independent or Logging and assay data is electronically captured and up loaded in to alternative company personnel. the site Acquire® geology SQL database which was handed over to Poseidon following the sale transaction. This has been exported to an The use of twinned holes. Access database which has been converted to Surpac format for Documentation of primary data, data entry procedures, data modelling. verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. Location of data points Accuracy and quality of surveys used to locate drillholes (collar and All collar surveys were completed to an accuracy of ±10 mm and down-hole surveys), trenches, mine workings and other locations used recorded by the underground surveyor. A local grid based on seven known AMG 84 references was created. The Department of Land in Mineral Resource estimation. Information (formerly the Department of Land Administration) Specification of the grid system used. benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used Quality and adequacy of topographic control. to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000 m was adopted for the Black Swan project. A local mine grid was established and used throughout the operation. Poseidon has also converted surveys to the current MGA_94 grid format. All Silver Swan diamond drillholes have been routinely surveyed downhole. All underground diamond drillholes have been surveyed using either Eastman Single Shot down hole survey instruments or Reflex Gyro instruments. Data spacing and distribution Underground drilling used a maximum spacing of 10 m x 10 m for Data spacing for reporting of Exploration Results. Indicated category resources and approximately 10m x 20m and 20 m Whether the data spacing and distribution is sufficient to establish the x 40m for Inferred resources. degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Sample data was composited to 1 m. Whether sample compositing has been applied. Orientation of data in relation to geological structure Whether the orientation of sampling achieves unbiased sampling of Drillhole orientation was dominantly between 20°-60° to geological possible structures and the extent to which this is known, considering continuity as the mineralisation is drilled form underground workings in the footwall of the deposit which dips 80° to grid east. The angle of the deposit type.

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.

intersection is factored into the resource shape interpretations and is

well understood as it is verified by mining and reconciliation of the

interpretations meets the requirements of the resource estimation.

ore zones to a depth of 1300m below surface. The sampling and

JORC Code explanation	Commentary
Sample security	
The measures taken to ensure sample security.	There are no documented details available regarding sample security. As the mine is not precious metals and the drilling consists of visually observable massive nickel sulphide mineralisation, security is not considered to have been compromised.
Audits or reviews	
The results of any audits or reviews of sampling techniques and data.	Examination of duplicate, blank and standard data does not highlight any material bias or systematic error. The drillhole intersections correlate well with the block model results.

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Section 2: Reporting of Exploration Results	
Mineral Tenement and Land Tenure Status	
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.	Silver Swan underground mine is located in the Kalgoorlie District within M27/200. Silver Swan mine is part of the Black Swan Operation which is located 42.5km NE of Kalgoorlie. M27/200 is registered to MPI Nickel PTY Ltc which is a 100% subsidiary of OJSC MMC Norilsk Nickel. Following the purchase of the assets from Norilsk, the tenement is currently in the process of being transferred to Poseidon Nickel Limited.
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.	All operating licences are in place and are currently being renewed and transferred to Poseidon Nickel.
	Historical royalties of 3% NSR exist over the minerals produced.
Exploration Done by Other Parties	•
Acknowledgment and appraisal of exploration by other parties.	The Silver Swan Mine was discovered by MPI Mines Ltd, then was acquired be LionOre in 2004. Much of the exploration drilling and development was completed by these 2 companies. In turn LionOre was taken over by Norilsk in 2007 and continued mining and developing the underground mine at Silve Swan. Poseidon Nickel purchased the operation from Norilsk in late 2014.
Geology	
Deposit type, geological setting and style of mineralisation.	The Silver Swan deposit is a Kambalda style Type 1a komatiite hosted massiv nickel sulphide deposit. Nickel is hosted within the Black Swan Komatiite Complex, a large series of ultramafic komatiite flows. The massive sulphide Silver Swan mineralisation is located within the lower basal komatiite flow of the Black Swan Complex. Controlling factors include presence of ultramafic, location with the ultramafic stratigraphy, and the texture of the sulphide mineralisation
Drillhole Information	
	The Silver Swan deposit has only been drilled at depth by diamond drilling methods and much of the historical core has been retained on site and is accessible.
	Poseidon recently drilled an NQ2 diamond campaign following industry best practise in all data collection and sampling techniques.
Data Aggregation Methods	
	Aggregation of grades utilised length and specific gravity weighting of assay results
Relationship Between Mineralisation Widths and Intercept Lengths	
	True widths have been stated with intercept lengths wherever required. True widths have been calculated in 3 dimensions using 3D Micromine software.
Diagrams	
	Refer to body of text above
Balance Reporting	
	All relevant information has been reorted
Other Substantive Exploration Data	
	Refer to body of text above
Further work	
	Poseidon expects to undertake further resource definition and grade control drilling at Silver Swan to convert more Inferred to Indicated resources.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	The historical database has been previously audited by Poseidon Nickel Ltd (POS)and a third party external consultant and was found to be in good standing. Subsequent to the database audit, data collected by Poseidon Nickel Ltd (POS) has been checked and validated by POS personnel during data collection and entry. The POS logging and assay data were electronically captured and uploaded to SQL drillhole database. POS supplied the data to Optiro as an extraction to a MS Access database from SQL drillhole database. This data was imported into Datamine and a variety of checks were undertaken, that did not identify any material errors with the most recent data.
	Data validation procedures used.	Basic validation steps were completed on the drillhole data supplied to Optiro. During input and desurveying in Datamine Studio RM, checks for overlapping intervals and gaps in downhole interval files, checks that assays where within expected ranges and that all data integrated as expected were undertaken and no problems identified.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Optiro CP, Kahan Cervoj has not visited the Silver Swan site.
	If no site visits have been undertaken indicate why this is the case.	No site visit was conducted as on-site exploration activity has been significantly reduced prior to when the CP was engaged to undertake the work.
geolo Natur made The e	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The geological interpretations have been validated by on-going drilling and previous mining activity, including development and face mapping by the previous lease owners and hence, there is good confidence in the geological interpretations. Estimation has been restricted to mineralised lithologies, that are based on the extensive previous mining operations.
	Nature of the data used and of any assumptions made.	Interpretations used all available drillhole data, but the estimated variables were informed by surface and underground diamond drillhole sampling exclusively.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The evidence from the previous mining makes large scale alternative interpretations unlikely. There is scope for local variability but the impact is considered to be only of local significance.
	The use of geology in guiding and controlling Mineral Resource estimation.	The mineralisation is defined by nickeliferous massive sulphide texture, which was used to interpret the mineralisation for this update.
	The factors affecting continuity both of grade and geology.	Nickel is hosted within the Black Swan Komatiite Complex, a large series of ultramafic komatiite flows. The massive sulphide Silver Swan mineralisation is located within the lower basal komatiite flow of the Black Swan Complex. Controlling factors include presence of ultramafic, location with the ultramafic stratigraphy, and the texture of the sulphide mineralisation.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	The pre-mined Silver Swan mineralisation has a length of approximately 375 m striking grid north-south and has been tested down dip to a length of 1,550 m vertically, with a steep plunge towards the north-east and is still open down plunge. The 2019 update is for 10 individual sulphide lenses grouped into 4 mineralised areas, that range from 12 to 120 m (averaging 62 m) along strike, 70 to 300 m vertically (averaging 90 m), with an average thickness of 3-5m. These lenses dip at -60° to -75° towards 090°.

		Page 31
Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques		Estimation was undertaken using Datamine RM software (v1.4.132.0). Prior to estimation, the samples and block model were coded using domain wireframes. Length-density weighted composite were generated using a nominal 1.0 m composite length. Estimation was within interpreted massive sulphide domains which were treated as hard boundaries. Interpolation was by ordinary kriging (OK) for nickel, arsenic, cobalt, copper, iron, magnesium oxide, sulphur and density. The nickel, arsenic, cobalt and copper composite grades were top-cut to minimise the impact of a small number of extreme values.
	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted	Parent block estimation into a parent block size of 2 mE by 5 mN by 5 mRL, using a block discretisation of X:4, Y:4, Z:4. A variable sub-block size is 0.25 mE by 0.5 mN by 0.5 mRL was used to optimise the block filling of the wireframes because of the narrow and variable shoot geometry.
	estimation method was chosen include a description of computer software and parameters used.	Late, non-mineralised intrusive dykes were flagged and removed from the final Mineral Resource.
		 A three pass estimation strategy was employed as outlined below: The first pass used a minimum of 6 and a maximum of 36 samples with a search rang of 25 m in along strike and down-dip, and a distance of 10 m across strike. The second pass used the same minimum and maximum number of samples, but search distance was doubled The third pas used 250 m along strike and down-dip and a distance of 50 m across strike.
		Maximum distance of extrapolation is 25 m.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	No check estimates have been undertaken. The production records from those areas previously mined are not available to reconcile against the updated 2019 Mineral Resource. Compared to the previous November 2015 Mineral Resource, the 2019 estimate has resulted in a 107% increase in the tonnes, 2% increase in the nickel grade and a 112% increase contained nickel metal of the Indicated Resource. There has been a reduction of 28% of the tonnes, an 8% increase in the nickel grade which has resulted in a reduction of 22% of the contained nickel metal for the Inferred Resource. The combined Mineral Resource seen an increase of 24% of the tonnes, a 5% increase in the nickel grade and with the resultant nickel metal increasing by 30%. These significant increase in the Mineral Resource is the result of the additional drilling extending and increasing the volume of mineralisation, combined with closer spaced drilling improving the proportion of Indicated Mineral Resource.
	The assumptions made regarding recovery of by- products.	No assumptions regarding recovery of by-products have been made.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Arsenic, magnesium oxide and iron have been estimated to assist with future mine planning requirements.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The parent block size is 2 m (X) by 5 m (Y) by 5 m (Z) with drilling spaced from 10 to 60 m spaced drilling in the plane of the mineralisation.
	Any assumptions behind modelling of selective mining units (SMU).	No assumptions regarding the mining SMU have been used.
	Any assumptions about correlation between variables.	There is good correlations (R> 0.85) between nickel, iron and density. There are moderate correlations between nickel and cobalt (R=0.67) and low to no correlation between nickel and arsenic, copper and magnesium oxide.
	Description of how the geological interpretation was used to control the resource estimates.	The Mineral Resource estimate was constrained within interpretations of the nickeliferous massive sulphide lenses. These lenses were subsequently depleted for the presence of late, cross-cutting barren intrusive dykes.
	Discussion of basis for using or not using grade cutting or capping.	Grade cuts were applied to nickel, arsenic, copper and cobalt to minimise the impact of a few extreme grades. The top-cute were derived using a combination of histogram, cumulative distribution and mean/variance analysis and population disintegration.

Criteria	JORC Code explanation	Commentary
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	The panel estimates were initially validated visually in section and plar and there was good correlation between the composite and estimate. The whole of domain averages for the estimates were then compared with the naïve and declustered composite samples and again where there was good correlation between the two. Swath plots were then used to test the estimate and again, there was good correlation and the sample trends had been maintained.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The density was measured with natural moisture. This approach is the same as was used during the previous operational phase, the core is fresh, non-porous and competent, and hence moisture is considered to be understood.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	The Mineral Resource was interpreted using the massive nickel sulphide texture. The Mineral Resource has been reported using a cur off grade of 4.5% nickel.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The current Silver Swan mineralisation commences approximately 1,360 m below surface and is exclusively an underground Mineral Resource. The previous Mineral Resource supported a positive feasibility study that was announced on 18 July 2018, demonstrating the reasonable prospect for eventual economic extraction.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The prediction regarding the metallurgical amenability of the Silver Swan sulphide material has been demonstrated with the historical processing using conventional sulphide floatation processes.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	The project is located in a mature mining area, with established environmental legislation and practices that are industry standard. As the project has previously been mined, there are existing waste storage facilities and environmental considerations are not expected to pose any issues to the resumption of mining activity.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	The bulk density has been measured from diamond core using the immersion method. The core is considered wet, but is also fresh, not-porous, competent and the moisture content is not considered material.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	Bulk density measurements were routinely collected for all underground drill core submitted for analysis. The core is not porous and porosity is negligible. Density was obtained from all submitted samples and hence, reflects all rock and alteration zones.
•	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Density was estimated from the composited density data.

Criteria	JORC Code explanation	Commentary
Classification	The basis for the classification of the Mineral Resources into varying confidence categories	The classification of Mineral Resources was completed by Optiro using a range of criteria including confidence in the geological and mineralisation model, grade and geological continuity and the available drill hole spacing The Indicated Mineral Resource is of a moderate confidence. These areas are a supported by a nominal drill spacing of less than 25 mN x 25 mRL with a suitable intersection angle, where grade and geological continuity can be assumed and where the estimate has been well informed.
		The Inferred Mineral Resource reflects is of a low confidence. These areas are supported by a nominal drill spacing of greater than 25 mN x 25 mRL, where only grade or geological continuity is implied and/or where the estimated is not well informed.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The relative accuracy is reflected in the resource classification discussed above, that is in line with industry acceptable standards. This is a Mineral Resource estimate that includes knowledge gained from previous mining and milling performance.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource classification applied to the July 2019 Silver Swan massive sulphide Mineral Resource appropriately reflect the Competent Person's view of the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The July 2019 Silver Swan massive sulphide Mineral Resource has been reviewed internally by Optiro Pty Ltd, but has not been externally reviwed.
	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate	The current Mineral Resource classification suitably reflects the relative accuracy of the Mineral Resource. There has been no statistical procedure undertaken to quantify the relative accuracy.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	The July 2019 Silver Swan massive sulphide Mineral Resource is considered a global estimate, primarily because of the sample spacing and drillhole intersection angle currently available.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	The production records for the areas previously mined are not available.

Section 4 Estimation and Reporting of Ore Reserves

JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	
Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Silver Swan Ni Mineral Resource used as the basis of this Ore Reserve were estimated by Poseidon Nickel Ltd and Optiro Pty Ltd and was announced to market in June 2016. Cu and Co Mineral Resources have been announced to the market concurrently with this Ore Reserve.
	Mineral Resources are reported inclusive of the Ore Reserves.
Site visits	
Comment on any site visits undertaken by the Competent	The Competent Person (Mr Matthew Keenan) visited the site on 7 th June 2016.

JORC Code explanation	Commentary
Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	The visit included inspection of the Silver Swan underground workings and surface infrastructure.
	The site visits did not give the Competent Person any reason to believe that any portion of the Reserve Estimate will not be mineable.
Study status	
The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	A Pre- Feasibility Study has been completed for the Silver Swan material being converted from Mineral Resource to Ore Reserve. Modifying factors accurate to the study level have been applied based on detailed stope design analysis. Modelling indicates that the resulting mine plan is technically achievable and economically viable.
Cut-off parameters	
The basis of the cut-off grade(s) or quality parameters applied.	Cut-off grade parameters for the underground ore were determined based on the 2017 financial analysis, assuming toll treatment of ore by a third party. The fully costed stoping cut-off grade applied for the Silver Swan underground was 3.0% Ni, and the incremental stoping cut-off grade was 2.1% Ni.
	A nickel price of \$US6.50/lb and a USD:AUD exchange rate of 0.76 was used to determine the cut-off grades.
Mining factors or assumptions	
The method and assumptions used as reported in the Pre- Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate	Detailed mine designs were carried out on the Silver Swan underground, and these were used as the basis of the Reserve estimate.

The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.

The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.

The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).

The mining dilution factors used.

The mining recovery factors used.

Any minimum mining widths used.

The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.

The infrastructure requirements of the selected mining methods.

The Silver Swan Ore Reserve is planned to be mined using a bottom-up modified Avoca method with unconsolidated backfill. This mining method is based on detailed dynamic geotechnical modelling. Diesel powered trucks and loaders will be used for materials handling. Diesel-electric jumbo drill rigs will be used for development and ground support installation, and diesel-electric longhole rigs used for production drilling.

The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access is available through the existing workings, which have been kept pumped dry during care and maintenance.

Re-entry and refurbishment of capital development was costed in the Silver Swan mine plan based on detailed independent expert inspection.

Independent geotechnical consultants MineGeotech Pty Ltd and Beck Engineering Pty Ltd contributed appropriate geotechnical analyses to a suitable level of detail. These form the basis of mine design, ground support and mining method selection for the Reserve estimate.

Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. All Inferred material has had grade set to waste for the purposes of evaluation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource material.

Underground stopes were designed inclusive of minimum mining width of 2.5 m plus dilution volumes determined by independent geotechnical analysis and dynamic modelling. Global planned waste dilution is 35%, and unplanned waste dilution is 7%. An extra 2% of waste dilution was applied to allow for overbog of fill. Non-fill dilution was assumed to carry a grade of 0.35% Ni, based on Mineral Resource information provided by POS. Sub-level intervals are 25 m based on geotechnical advice. Maximum stope spans opened prior to filling are 5 m along strike. A mining recovery of 95% has been applied to all stopes. Ore development had an assumed 100% mining recovery, based on historical experience and industry standards.

Most of the infrastructure required for the operations is already in place and has been under care and maintenance for approximately 8 years, including a processing plant and associated infrastructure, access roads, offices and ablutions, connections to the Western Power grid, power reticulation, and borefields. Allowance has been made for refurbishment of this infrastructure where required based on quotes provided by reputable independent vendors to

JORC Code explanation	Commentary	
	an appropriate standard of detail.	
Metallurgical factors or assumptions		
The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature.	The Silver Swan Reserve estimate has been determined based on a sale of DSO to a customer in China. The payability of the ore has been provided by POS based on discussions with this potential offtake partner.	
The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	The DSO sale is based on payability of 67% of the contained nickel only. Based on information provided by POS, this payability is assumed to cover any contained by-products, metallurgical recovery, and deleterious elements.	
Environmental		
The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status	Geochemical characterisation studies have been conducted that indicate that the rock mass is non-acid forming. POS has advised that most required approvals already issued under the <i>Mining</i>	
of approvals for process residue storage and waste dumps should be reported.	Act and Environmental Protection Act from previous operations remain current.	
	At this point in time the Competent Person sees no reason permitting will not be granted within a reasonable time frame.	
Infrastructure		
The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or	The project site is already developed and on care and maintenance. The underground workings are powered and kept dry through the installed pumping system.	
accessed.	All required surface infrastructure is already in place and requires only minor refurbishment.	
	All required underground infrastructure is in place to commence mining including primary ventilation fans, escapeways, high voltage power reticulation, service water and compressed air. Allowance has been made for refurbishment and recommissioning of this infrastructure based on inspections and detailed quotes.	
	As the site is 53 km from Kalgoorlie, a residential workforce will commute to site daily.	
	The mine is connected to the Western Power grid through two lines, one feeding the concentrator and one feeding the other surface infrastructure and underground workings. Allowance has been made for additional diesel generated power to supplement this underground feed.	
Costs		
The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges.	The Silver Swan PFS mining costs are based on detailed quotes from suppliers and mining contractors gathered as part of a Request for Quotation process involving three reputable and experienced underground contractor firms. These were also benchmarked against similar operations in the WA Goldfields and historical data from previous operations at Silver Swan.	
The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	The USD:AUD exchange rate assumed for the cost modelling was 0.76.	
	Road and sea transport charges for DSO are based on factored quotes provided by POS.	

WA state royalties of 2.5 % and a third-party royalty of 1% have been applied to

gross concentrate nickel revenues.

JORC Code explanation	Commentary
Revenue factors The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.	Forecasts for head grade delivered to the plant are based on detailed mine plans and mining factors.
The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	A global payability of 67% contained nickel metal has been applied to the DSO.
	Any by-product credits from contained Cu and co have been assumed to be incorporated into the payability, based on advice from POs following discussions with potential offtake partners.
	A flat USD:AUD exchange rate of 0.76 was used in the financial model.
	A flat nickel price of US\$6.50/lb has been assumed for the financial analysis, based on forecasts provided by POS.
Market assessment	
The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the	POS is currently discussing offtake agreements with several potential offtake partners, including the partner offering the DSO sale option used to determine the Reserve estimate.
identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	The volume of concentrate produced by processing the estimated Reserve will be too small to have an impact on the global market of nickel sulphide concentrate.
Economic	
The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.	The Silver Swan underground Ore Reserve has been assessed in a detailed financial model.
NPV ranges and sensitivity to variations in the significant assumptions and inputs.	The Reserve plan is economically viable and has a positive NPV at a 10% discount rate at the stated commodity price and exchange rate.
	Sensitivity analysis shows that the project is most sensitive to commodity price/exchange rate movements. The project is still economically viable at unfavourable commodity price/exchange rate adjustments of 10%.
Social	
The status of agreements with key stakeholders and matters leading to social licence to operate.	A compensation agreement exists between the Black Swan Nickel Operations and Mt Vetters Pastoral Station. This has been updated periodically as the operation has changed. Compensation previously paid under this agreement has been adequate to address all impacts of the project. No further compensation is required under the terms of this agreement. However, previous practice may have resulted in an expectation of additional compensation if significant additional land clearance is proposed. Significant land clearance is not required under the current Reserve estimate plan.
	POS will continue to communicate and negotiate in good faith with key stakeholders
Other	
To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:	A formal process to assess and mitigate naturally occurring risks will be undertaken prior to execution. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation.
Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and agreements and statutory approvals. These must be	No marketing agreement has been signed but it is expected that such an agreement is likely to be arrived upon. Interest has been expressed by various potential offtake partners for the concentrate and it was successfully marketed during previous operations.

to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government

approvals will be received within the timeframes anticipated in

the Pre-Feasibility or Feasibility study. Highlight and discuss the

Based on the information provided, the Competent Person sees no reason all required approvals will not be successfully granted within the anticipated timeframe.

JORC Code explanation	Commentary
materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	
The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss. None of the Probable Ore Reserves have been derived from Measured Mineral Resources. The result appropriately reflects the Competent Person's view of the deposit.
Audite annualaure	The result appropriately reflects the competency closers view of the deposit.
Audits or reviews	
The results of any audits or reviews of Ore Reserve estimates.	The Ore Reserve estimate, along with the mine design and life of mine plan, has been peer-reviewed by Entech internally.

Discussion of relative accuracy/confidence

Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.

The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.

Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

The Silver Swan design, schedule, and financial model on which the Ore Reserve is based has been completed to a Pre- Feasibility study standard, with a corresponding level of confidence.

Considerations in favour of a high confidence in the Ore Reserves include:

- The mining process is well-known, small scale and utilises proven technology
- The revenue is derived from a simple DSO model which disregards metallurgical factors
- The project, as previously operated, is fully permitted.

Considerations in favour of a lower confidence in Ore Reserves include;

- Future nickel price and exchange rate forecasts carry an inherent level of risk
- There is a degree of uncertainty associated with geological estimates.
 The Reserve classifications reflect the levels of geological confidence in the estimates.
- There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study.
- A binding offtake agreement for the product has not yet been signed.

The Ore Reserve is based on a global estimate. Modifying factors have been applied at a local scale.

Further, i.e. quantitative, analysis of risk is not warranted or appropriate at the current level of technical and financial study.

ATTACHMENT D
ASX Announcement – 18 July 2018
BLACK SWAN & SILVER SWAN – FEASIBILITY STUDY SUPPORTS
PROJECT RESTART

18th July 2018

Black Swan & Silver Swan – Feasibility Study Supports Project Restart

Highlights

- Feasibility Study confirms the restart of the Silver Swan underground Black Swan open pit mine & processing plant at Black Swan is economic generating revenues of A\$288.6m with pre-tax NPV₁₀ of A\$43.6m & IRR 92%
- Production of circa 8,000 tonnes of nickel per annum in a smeltable grade concentrate from the Black Swan process plant & DSO from Silver Swan
- All in sustaining cost of production of US\$5.10/lb¹ payable equivalent to a C1 cash cost of US\$3.18/lb²
- Project total capital cost of A\$56.7m including plant and mines refurbishment and development
- Integrated project life of 3.1 years with a number of promising resource extensions to be developed
- Ore previously mined and currently stockpiled at Black Swan to be processed at Black Swan. Combined mill feed will average 1.1 million tonnes per annum compared to process plant capacity of 2.2 million tonnes per annum
- New jobs created at site (including contractors) will be circa 180. Recruitment of leadership and maintenance roles to be progressed
- Intention is for workforce to be residential Kalgoorlie based
- Underground mining contractor tenders under review
- All operating licences necessary to restart operations at Black Swan are in good standing
- Negotiations for the sale of Silver Swan & Black Swan product and prepayment terms are underway
- Nickel pricing has improved & LME stocks continue to fall in recent months, the low capital requirement for the project combined with lower input costs have demonstrated that Black Swan & Silver Swan can be economic at forecast consensus pricing. Poseidon expects nickel prices to progressively improve over the next 12 months

¹ All in sustaining cash costs are C1 cash costs plus mine development and sustaining capital on a payable basis (excludes once off pre-production capital costs). ² C1 cash costs means operating cash costs including mining, processing, geology, OHSE, site G&A, concentrate transport, royalties, less by-product credits divided by nickel in concentrate produced (100% payable basis).

³ Unless otherwise stated, all cash flows are in Australian dollars and not subject to inflation or escalation factors. A nickel price of US\$7.70/lb has been assumed and an exchange rate of AUD:USD of 0.76.

Cautionary Statement

The information contained in this announcement that relates to the Feasibility Statement is extracted from the report entitled 'Feasibility Study of Black Swan & Silver Swan' dated 16th July 2018.

The Feasibility Study has been prepared and reported in accordance with the requirements of the JORC Code (2012) and relevant ASX Listing Rules. The primary purpose of the Feasibility Study is to establish the economic viability of restarting the Silver Swan underground & Black Swan open pit mine and processing plant. The Feasibility Study level of accuracy is estimated to be ±20%.

The Company has concluded it has a reasonable basis for providing any of the forward looking statements included in this announcement and believes that it has a reasonable basis to expect that it will be able to fund its stated objectives for the Black Swan & Silver Swan projects. All material assumptions on which the forecast financial information is based are set out in the announcement. In accordance with the ASX listing rules, the Company advises the Feasibility Study referred to in the Announcement is based on a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Project Funding

The Company is in ongoing discussions with several parties on a number of funding options (involving traditional debt and equity as well as other potential sources including prepayments on future production). Whilst no binding commitments for funding have been agreed, the Company has mandated Petra Capital to lead any potential equity raising.

Petra Capital has significant experience in this area. The Company has also fielded a number of enquiries from strategic investors and others interested in potential off-take arrangements. The Company believes that equity funding would be available should that option be selected. The terms of any equity raising including quantum, issue price and potential dilution is yet to be determined.

The recent rise in nickel price and successful fund raising activities of other nickel companies adds to the Company's level of confidence that the necessary funding for the project will be available.

The Directors and Executives of the Company have experience in fund raising activities which gives appropriate grounds for their confidence.

Poseidon Nickel Limited (ASX:POS or the Company) is pleased to announce that it has completed a Feasibility Study for its 100% owned Black Swan Nickel Operations. The study confirms that the operations can be brought back into operation with first production within 12 months of fully funding the project, at a low level of capital investment and that no regulatory or technical barriers exist.

Black Swan Nickel Operations remains on care & maintenance with all assets held in good standing. The engineering study highlighted the key prestart activities required to restart mining and processing activities and to confirm the required capital and operating costs.

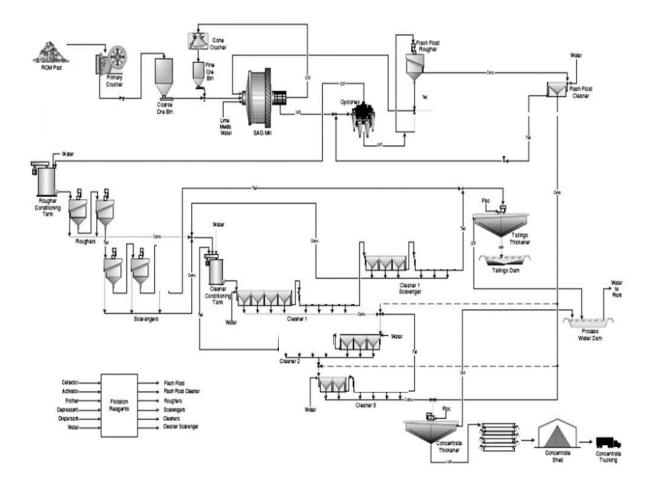


Figure 1: Black Swan Modified Process Plant Flowsheet

The study was initiated to update previously completed studies including an analysis of the geological model, resource model, geotechnical studies, a re-design of the mining methodologies used for the ore body and an analysis of the necessary work required to restart the process plant and infrastructure.

The integrated Silver Swan & Black Swan engineering study has materially increased the initial project life and ore throughput rates.

Poseidon also owns the Lake Johnston & Windarra Nickel Projects. The 2.2 million tonne per annum processing plant capacity at Black Swan is able to process third party feed on a toll treatment basis or purchase at gate under contract terms. Several mines within the Kalgoorlie region will come out of contract and an opportunity exists to competitively bid for the ore.



Figure 2: Black Swan Process Plant



Figure 3: Black Swan Open Pit



Figure 4: Underground Mine Refurbishment

Restart Capital Costs

The Black Swan Nickel Operations has been on care & maintenance and all assets remain in good standing. Only minor deterioration of the plant is evident and previously stockpiled nickel ore has been thoroughly tested to confirm nickel recovery and concentrate quality.

A full geotechnical study of the underground and open mine has been completed. A modest amount of refurbishment work is required including works to emergency escape ladder ways for the underground mine. Dewatering, power, ventilation, communications and refuge facilities remain in place and in good standing at Silver Swan.

The existing tailings facility maintains the capacity for the life of mine (LOM) plan. The licence for this has been approved by the Department of Mines and Petroleum.

Underground mining contractor tenders have been received and under review. Poseidon expects to appoint an underground contractor to begin early works at Silver Swan.

The overall capital & operating costs for the project have been estimated by independent third parties Rapallo, Simulus Engineers & Entech.

Behre Dolbear Australia (BDA) completed an independent review of the Silver Swan underground engineering re-start study.

Item	Cost (A\$m)
Pre-Production – Silver Swan Underground	12.90
Pre-Production – Black Swan Processing Plant	18.52
Sustaining Capital – Silver Swan Underground Development	17.72
Sustaining Capital – Silver Swan Underground Infrastructure	2.12
Sustaining Capital – Black Swan Processing Plant & Surface Infrastructure	3.20
Sustaining Capital – Black Swan Open Pit	2.20
Total Project Capital Requirements	56.66

Table 1: Black Swan Nickel Operations Capital Cost Estimate

Operating Costs

A full operating cost budget for the project has been developed using independently derived estimates which have also been benchmarked against previous actual costs where possible.

Operating costs	Units	Black Swan
Mining & Geology	US\$ / lb	1.30
Processing	US\$ / Ib	1.13
Transport	US\$ / Ib	0.45
Royalties	US\$ / lb	0.30
Total C1 Cost	US\$ / Ib	3.18

^{*(}excludes by-product credits)

Table 2: Black Swan Integrated C1 Operating Cash Costs US\$/Ib-Ni

C1 cash costs means operating cash costs including mining, processing, geology, OHSE, site G&A, concentrate transport, royalties, less by-product credits divided by nickel in concentrate produced (100% payable basis).

Project Commercial Metrics	
Revenue ¹ (A\$m)	\$288.60
C1 Cash Costs ² US\$/lb-Ni	\$3.18
AISC Cash Costs ³ US\$/lb-Ni	\$5.10
Breakeven Nickel Price US\$/lb-Ni (incl capital)	\$5.91
Max Cash Draw Down (A\$m)	\$39.50
Net Cash Flow (A\$m)	\$60.20
Pre-Tax NPV ₁₀ (A\$m)	\$43.60

Table 3: Project Economic Metrics

¹ Unless otherwise stated, all cash flows are in Australian dollars and not subject to inflation or escalation factors. A nickel price of US\$7.70/lb has been assumed and an exchange rate of AUD:USD of 0.76.

C1 cash costs means operating cash costs including mining, processing, geology, OHSE, site G&A, concentrate transport, royalties, less by-product divided by nickel in concentrate produced (100% payable basis).

All-in-sustaining cash costs are C1 cash costs plus mine development and sustaining capital. Excludes once off preproduction capital.

Breakeven Nickel price calculated as per foot note 3 above, however includes preproduction capital cost

Project Resources/Reserves Summary

A summary of the contained material in the integrated mine plan is shown in Table 4 below.

From the 2017 Reserves which is derived from Measured & Indicated material and other modifying factors such as dilution there is 16,200 nickel tonnes which represents 70% of the mine plan or 82% sulphide ore tonnes.

The mine plan also includes additional inferred material which is outside of Probable Reserve. This amounts to 30% of the nickel tonnes of the mine plan or 18% of the processed sulphide ore tonnes.

Most of the additional inferred material is from either the mining of existing inferred stockpiles mined in conjunction with the dewatering of the pit or the additional inferred material from the full mineral inventory from underground.

	BSN Open Pit	Surface Stockpiles	SS Underground	Totals
Probable Tonnes (kt)	1,564	169	57	1,790
Probable Grade(%Ni)	0.75%	0.65%	5.78%	0.90%
Probable Metal (t)	11,800	1,100	3,300	16,200
Inferred Tonnes (kt)	6	291	90	387
Inferred Grade(%Ni)	0%	0.52%	6.12%	1.81%
Inferred Metal (t)	0	1,500	5,500	7,000

Table 4: Summary of the contained material in the integrated mine plan

Note: totals may not sum exactly due to rounding

Implementation schedule

The Project Execution Plan (PEP) forecasts start-up will take 12 months to first ore from fully funding the project, with the critical path lead being initial infill drilling of the Silver Swan high grade underground mine, underground refurbishment and the process plant refurbishment. Various early works have been undertaken including re-establishment of services at depth underground.

Concentrate Offtake

Poseidon has issued an expressions of interest tender document to potential nickel offtake parties and negotiations are underway. Poseidon expects to receive offers to sell all of the concentrate produced at Black Swan and direct shipped ore from Silver Swan underground mine either separately or in conjunction with a prepayment facility to fund the working capital and some capital requirements, during the initial start-up period. Poseidon believes that the positive market outlook for nickel will continue to improve and the low risk and short re-start times of Black Swan offer attractive returns on investment.

Silver Swan Geology

The massive Silver Swan ores form a series of steep-tilted lenses confined to the Black Swan Komatiite Complex (BSKC) basal contact. Primary mineralisation is represented by pentlandite and pyrrhotite, small amount of violarite, chalcopyrite, pyrite and gersdorffite. Individual ore bodies include Silver Swan, White Swan, Goose, Fledgling, Canard, Odette, Trumpeter, Peking Duck, Tundra, Mute & Pato at depth (Figure 5). The mineralised zones are steeply tilted northwards along the southern margin of Silver Swan structurally raised footwall (FW) dome and explored to a depth of 1600m from surface. The mineralised zones have been mined to approximately 1100m from surface.

In 2016 Poseidon commissioned Optiro Pty Ltd to complete an updated Mineral Resource estimate for the Silver Swan nickel project (ASX: Silver Swan Resource Update dated 3 June 2016). The estimate was classified in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code, 2012). Optiro classified the Mineral Resource principally on geological confidence, drill hole spacing, and grade continuity demonstrated from the available drilling data. The Company is not aware of any new information or data that materially affects the information included in the previously disclosed Mineral Resource estimates and all material assumptions and technical parameters underpinning the estimates as disclosed continue to apply and have not materially changed.

A summary of Mineral Resources for Silver Swan is provided in Table 5 below and are inclusive of Mineral Resources modified to produce the Ore Reserves. The mineralisation models and block reporting cut-off grade used in the in-situ resource estimate for Silver Swan is 4.5% Ni and Black Swan is 0.4% Ni.

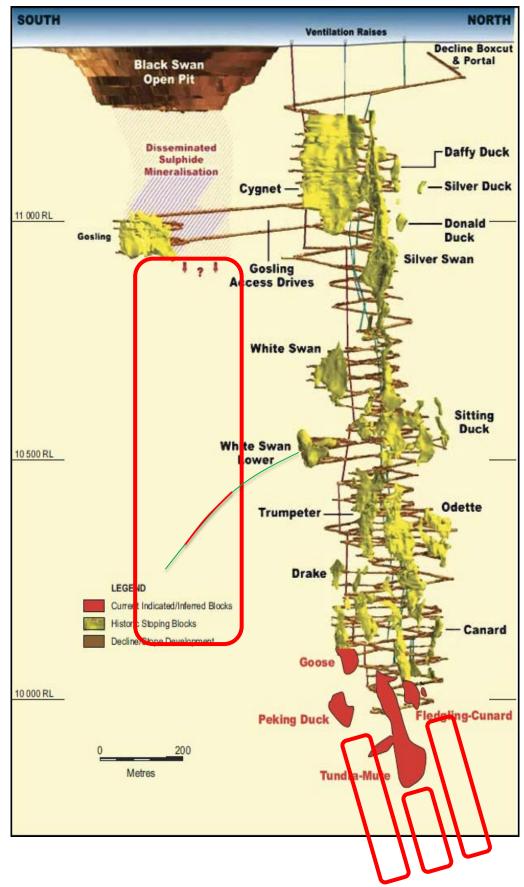


Figure 5: Black Swan & Silver Swan Section

Silver Swar	1		Mineral Resource Category (JORC 2012									
Undergroun	d Cut	Inc	dicated	ı	In	ferred		T	TOTAL			
Nickel	Off	Tonnes	Ni%	Ni	Tonnes	Ni%	Ni	Tonnes	Ni%	Ni		
Project	Grade	(Kt)	Grade	Metal	(Kt)	Grade	Metal	(Kt)	Grade	Metal		
Sulphides				(t)			(t)			(t)		
Tundra-Mut	4.5%	24.0	9.2	2,200	73.3	8.9	6,480	97.2	8.9	8,690		
Peking Duc	4.5%	20.7	8.8	1,820	8.0	10.2	820	28.9	9.2	2,640		
Fledgling- Canard	4.5%	5.8	10.4	600	2.9	9.8	280	8.7	10.2	880		
Goose	4.5%	1.5	10.0	150	0.0	0.0	0	1.5	10.0	150		
Total Silver Swan	4.5%	51.9	9.2	4,770	84.2	9.0	7,580	136.1	9.1	12,360		

Table 5: Silver Swan Nickel Operations Mineral Resource Estimate (4.5% Ni cut-off) as at 3rd June 2016

Note: totals may not sum exactly due to rounding

Potential exists to further extend the mining operations at Silver Swan with the objective of increasing the known mine life immediately adjacent to and accessible from the existing underground decline. To do this an infill drilling program has been planned to define the thicker, near mine portion of the currently identified mineralisation with the intent of converting this material to ore reserve.

In addition mineralisation has been defined adjacent to the Silver Swan mineralised zones underneath the Black Swan open pit. This opens up a number of new untested targets for an economic nickel sulphide extension. These areas will be progressively developed during operations.

Black Swan Open Pit Geology^[1]

The Black Swan Komatiite Complex (BSKC) is a 3.5 km long by 0.6 km thick arcuate lens of olivine cumulate and spinifex textured thin flows. The complex is enclosed by a broad sequence of proximal facies intermediate felsic lavas and associated volcanoclastic rocks situated on the NE dipping, NE facing limb of the Kanowna-Scotia anticline. The anticline is located in the upper greenschist – lower amphibolite facies Boorara Domain, one of six tectono-stratigraphic domains making up the Kalgoorlie Terrane.

The complex evolved as a series of episodically emplaced komatiite flows. The flows were channelised within a dynamic, coevally erupting calc-alkaline submarine environment, which resulted in the formation of several large felsic bodies (extrusive and intrusive) at various levels within the complex. Early during its evolution, massive and disseminated nickel sulphides accumulated in favourable locations on and adjacent to the basal contact of the complex. Post emplacement alteration, metamorphism and deformation was moderate to extreme and was responsible for the destruction of primary igneous textures throughout much of the complex but without significant structural reconstitution or geochemical modification of the nickel sulphides.

The Black Swan deposit (Figures 6 & 7) comprises serpentinite and surrounding talc magnesite and dolomite altered komatiites. The disseminated sulphides at Black Swan form between 2-10% of the host rock and are patchily distributed and less coherent than other members of the BSKC. They generally consist of composite grains of pyrite-millerite-magnetite±violarite in serpentinite areas with vaesite-polydymite becoming significant in the surrounding talc-carbonate altered rocks. Two textural sulphide types are recognised; fine

grained interstitial composite grains between olivine pseudomorphs and coarse grained blebby or droplet composites. The fine-grained composites are more widely distributed defining a broad low grade mineralised envelope. The coarse grained composites are much less widely distributed, forming small discrete, higher-grade horizons within the envelope.

In 2014 Poseidon commissioned Golder Associates to complete an updated Mineral Resource estimate for the Black Swan nickel project (ASX: Poseidon Announces Black Swan Mineral Resource dated 4th August 2014). In Addition Golder completed an Ore Reserve Estimate (ASX: Poseidon Announces Black Swan Ore Reserve dated 5th November 2014.) The estimates were classified in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code, 2012). Golder classified the Mineral Resource principally on geological confidence, drill hole spacing, and grade continuity demonstrated from the available drilling data. The Company is not aware of any new information or data that materially affects the information included in the previously disclosed Mineral Resource estimates and all material assumptions and technical parameters underpinning the estimates as disclosed continue to apply and have not materially changed.

A summary of Mineral Resources for Silver Swan is provided in Table 6 below and are inclusive of Mineral Resources modified to produce the Ore Reserves as shown in Table 7. The mineralisation models and block reporting cut-off grade used in the in-situ resource estimate for Black Swan is 0.4% Ni.

		Indicated	ł		Inferred		Total			
Source	Mt	Ni %	Ni kt	Mt	Ni %	Ni kt	Mt	Ni %	Ni kt	
Black Swan	8.4	0.70	59.1	20.7	0.54	111.9	29.1	0.59	170.9	
5th November 2014	1.2	0.49	5.9	0.4	0.53	1.9	1.6	0.50	7.8	
Total	9.6	0.68	64.9	21.1	0.54	113.8	30.7	0.58	178.7	

Table 6: Black Swan Open pit Mineral Resources at 0.4% Ni cut-off grade as at 22 July 2014

Nickel	JORC	Ore Reserve Category										
Sulphide	Compliance		Probable									
Reserves	Compliance	Tonnes (Kt)	Ni% Grade	Ni Metal t								
BLA	BLACK SWAN PROJECT											
Open Pit	2012	2,170	0.71	15,500								
Stockpiles	2012	1,190	0.49	6,000								
TOTAL	TOTAL											
Total Ni Reserves	2012	3,370	0.63	21,500								

Note: totals may not sum exactly due to rounding.

Table 7: Black Swan Ore Reserves on 24 September 2014 (at 0.4% nickel cut-off grade)

^[1] The Norilsk 2007, Gipronickel 2010a, Cas 2005 and Hicks 1998 reports contain extensive descriptions of the Black Swan geology. This was an edited extract from Hicks 1998.

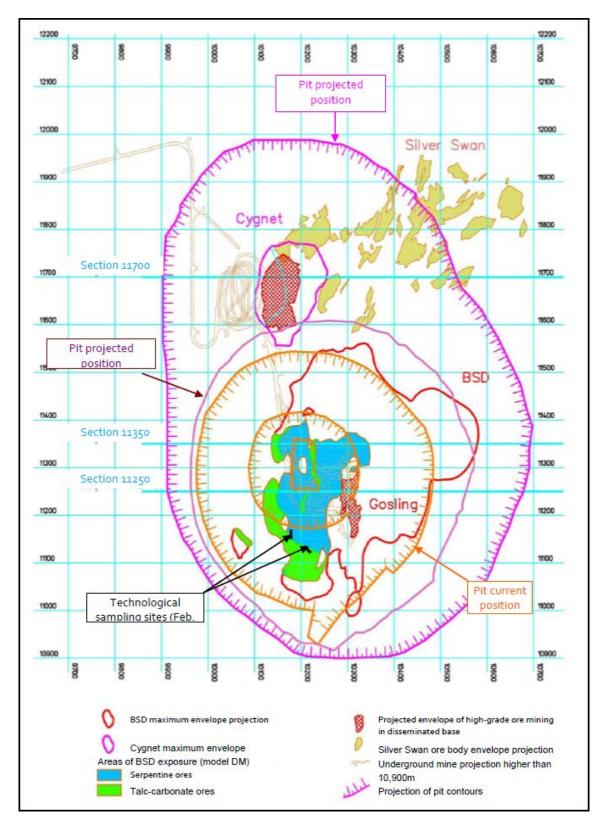


Figure 6: Black Swan Disseminated (BSD) and Cygnet mineralisation with existing mining infrastructure and pit shell options

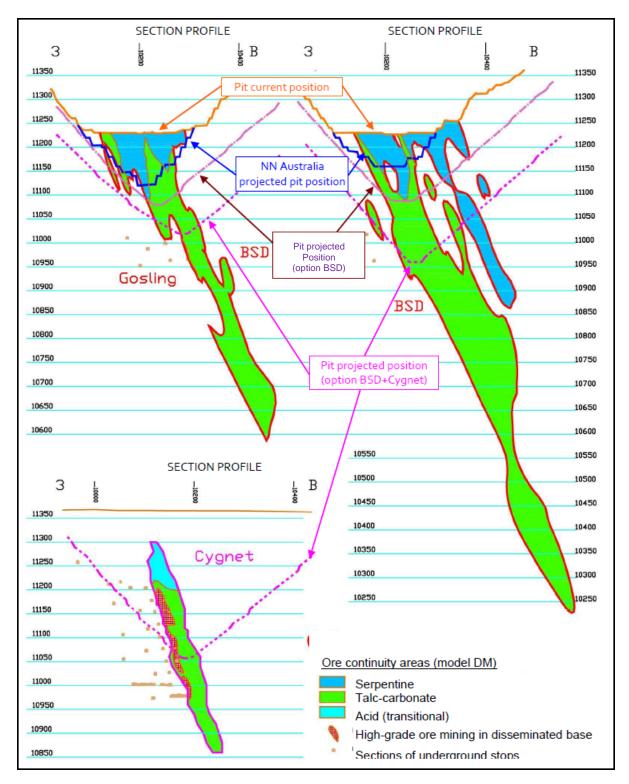


Figure 7: Cross sections of BSD and Cygnet disseminated ore occurrences including pit shell options

Key Project Achievements

- Bankable Feasibility Study completed by Entech Engineers in May 2017
 - Geotechnical audit of underground mining operations review completed and integrated into mining schedule
 - Environmental, native title and Aboriginal heritage assessment completed
 - Hydrology review completed and Operating Strategy completed

- Mine closure plan and costs reviewed and updated
- Organisational structure well developed
- Integrated project restart schedule completed
- Process plant restart report completed
- Project risk assessment undertaken
- Project Execution Plan completed
- Mining production schedule and costs completed
- Asset valuation and review including warehouse holdings and workshop assessment completed
- Early works initiated
- Nickel concentrate offtake expressions of interest progressed with traders, smelters, refiners. Poseidon is progressing discussions with offtake parties.
- Underground mining tenders evaluation under review.
- Open pit mining budget estimates under review.
- All tenements & plant held in good standing
- All major regulatory approvals in place to allow mine recommencement;
 - Project Execution Plan for refurbishment of Black Swan completed
 - Project Management Plan lodged with Department of Minerals, Industry, Regulation and Safety
 - Key stakeholders engagement underway including with Western Australian Government Departments, Shire of Kalgoorlie-Boulder, Main Roads, Esperance, Southern Port Authority (Esperance Port), Chamber of Commerce
- Resource update and exploration program completed by Poseidon
 - JORC 2012 compliant Silver Swan & Black Swan Mineral Resource Estimate.
 - JORC 2012 compliant Silver Swan & Black Swan Ore Reserve Estimate update
 - Review of structural geological structures and features. Updated face maps and reinterpreted Feral Fault.
- Major contracts tendering initiated
 - Underground mining tender issued, received and assessed
 - Offtake expressions of interest received and assessed
 - Transport, supply and sales logistics reviewed and budget quotes received
- Black Swan capital costs, operating costs and economic modelling completed
- Early works progressing at Silver Swan underground mine
- Recruitment activities underway

MINERAL RESOURCE STATEMENT

Table 1: Nickel Projects Mineral Resource Statement

					MINERAL RESOURCE CATEGORY										
	JORC Compliance	Cut Off Grade	1	NDICATI	ED	D INFERRED		D	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
BLACI	K SWAN PROJI	ECT													
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%	52	9.19	4,800	84	9.01	7,600	136	9.08	12,400	0.17	250	0.45	600
LAKE .	JOHNSTON PR	ROJECT													
Maggie Hays	2012	0.80%	2,600	1.60	41,900	900	1.17	10,100	3,500	1.49	52,000	0.05	1,800	0.10	3,400
WIND	ARRA PROJEC	т													
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
тота	L														
Total Ni, Co, Cu Resources	2004 & 2012		16,720	1.01	168,700	27,300	0.82	223,200	44,020	0.89	391,900	0.05	7,450	0.10	13,300

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

The Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Ore Reserves.

Black Swan Resource as at 22 July 2014, Silver Swan Resource as at 3 June 2016, Maggie Hays Resource as at 17 March 2015, Mt Windarra, South Windarra and Cerberus Resource as at 30 April 2013

Table 2: Gold Tailings Project Mineral Resource Statement

Gold Tailings JORC Resources Compliance		MINERAL RESOURCE CATEGORY											
		Cut Off Grade		TOTAL INDICATED									
			Tonnes (Kt)	Au Grade (g/t)	Au (oz)	Ag Grade (g/t)	Ag (oz)						
WIND	ARRA GOLD TA	LINGS PROJ	ECT										
Gold Tailings	2004	NA	11,000	0.52	183,000	1.9	670,000						
тота	TOTAL												
Total Au Resources	2004		11,000	0.52	183,000	1.9	670,000						

Note: totals may not sum exactly due to rounding. Windarra Gold Tailings Resource as at 30 April 2013.

ORE RESERVE STATEMENT

Table 3: Nickel Projects Ore Reserve Statement

Table 3. Nickel Projects Ofe Reserve Statement												
Nickel Sulphide Reserves		ORE RESERVE CATEGORY										
	JORC Compliance		PROBABLE									
		Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)				
SILVER SWAN	SILVER SWAN PROJECT											
Silver Swan Underground	2012	57	5.79	3,300	0.11	60	0.26	150				
Black Swan Open pit	2012	3,370	0.63	21,500	NA	NA	NA	NA				
TOTAL												
Total Ni Reserves	2012	3,427	0.72	24,800	0.11	60	0.26	150				

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

 ${\it Co~\&~Cu~grades~and~metal~content~for~Black~Swan~require~additional~modelling~prior~to~estimation.}$

Silver Swan Underground Reserve as at 26 May 2017, Black Swan Open Pit Reserve as at 5 November 2014.

The Company is not aware of any new information or data that materially affects the information in this report and the Resource/Reserve tables above. Such information is based on the information complied by the Company's Geologists and the Competent Persons as listed below in the Competent Person Statements.

COMPETENT PERSON STATEMENTS:

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr N Hutchison, General Manager of Geology who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

The information in this report which relates to the Black Swan Mineral Resource is based on, and fairly represents, information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Ore Reserve is based on, and fairly represents, information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and who is a Members of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Neil Hutchison, General Manager of Geology at Poseidon Nickel, who is a Member of The Australian Institute of Geoscientists and Ian Glacken who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Silver Swan Ore Reserve is based on, and fairly represents, information compiled by Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

The information in this report which relates to the Lake Johnston Mineral Resource is based on, and fairly represents, information compiled by Neil Hutchison, General Manager of Geology at Poseidon Nickel, who is a Member of The Australian Institute of Geoscientists and Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Lake Johnston Ore Reserves Project is based on, and fairly represents, information compiled by Matt Keenan who is a full time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.

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

Mr Hutchison, Mr Glacken, Mr Weeks, and Mr Keenan all have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Hutchison, Mr Glacken, Mr Weeks, and Mr Keenan have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

FORWARD LOOKING STATEMENT - INFERRED RESOURCE STATEMENTS:

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

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

FORWARD LOOKING STATEMENTS:

This release contains certain forward looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward looking statements

Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current

market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance.

Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Silver Swan underground mine.

CORPORATE DIRECTORY

Director / Senior Management

Chris Indermaur
David Singleton
Geoff Brayshaw
Robert Dennis
Eryn Kestel
Non-Executive Director
Non-Executive Director
Non-Executive Director
Company Secretary

Corporate & Media Enquiries

T: +61 8 6167 6600 F: +61 8 6167 6649

E: admin@poseidon-nickel.com.au

Principal & Registered Office

Unit 8, Churchill Court 331-335 Hay Street SUBIACO WA 6008 T: +61 8 6167 6600 F: +61 8 6167 6649

Shareholder Enquiries

Personal shareholding queries should be addressed to: Computershare Investor Services GPO Box D182, Perth WA 6840

T: +61 8 9323 2000

Home Exchange

The Company's shares are listed on the Australian Securities Exchange and the home exchange is Perth.

ASX code: POS