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POSEIDON NICKEL

ASX Announcement

EM SURVEY EXTENDS GOLDEN SWAN POTENTIAL

1 October 2020

HIGHLIGHTS

- A downhole electromagnetic (DHEM) survey, which utilised a newly installed in-mine loop, has successfully identified an additional high conductance anomaly down dip of the high-grade intersections at Golden Swan
- The newly interpreted DHEM plate at Golden Swan forms part of a contiguous series of open-ended EM plates now detected for over a 170m dip extent
- Remodelling of the Southern Terrace geological surface has highlighted a sizable new area with the potential to host additional massive nickel sulphide mineralisation (see Figure 1)
- Funds committed for an underground drill drive to provide an optimum drill position for resource definition of Golden Swan and the testing of targets within the greater Southern Terrace area
- Drilling continues to expand the footprint of nickel sulphide mineralisation from Golden Swan

Poseidon Nickel (ASX: POS, "the Company") is very pleased to provide an update on the recent down hole EM survey, current and planned exploration activities on and around the recently discovered Golden Swan mineralisation.

Managing Director and CEO, Peter Harold, commented "*the recent downhole EM survey suggests the Golden Swan mineralisation is likely to extend down dip of the current intersections*. *Given the widths and high grades of the previously reported intersections the positive EM results are very exciting news and highlight the potential for Golden Swan to grow into a sizeable deposit. I am delighted the Board has committed capital to construct a drill drive that will allow us to drill out the Golden Swan mineralisation to a Resource category. The aim is to commence the drill drive during the December 2020 quarter and be resource drilling in early 2021. Assuming Golden turns into an ore body, the drill drive could be used to access ore which would fast track Golden Swan into production, subject to reporting a Reserve and acceptable project economics. In the meantime, we continue drilling from the Gosling Drill Drive to test the Southern Terrace.*"

Downhole EM survey returns a high conductance anomaly

Poseidon has recently extended a previously completed diamond drill hole (PBSD0029C) beneath and down-dip from the Golden Swan mineralisation intersected and reported previously. The drill hole, by design, remained in the footwall immediately beneath Golden Swan to provide a platform for a geophysical DHEM survey to identify extensions to known mineralisation. Poseidon has installed and commissioned a new underground geophysical transmitter loop to provide stronger EM signal and remove the influence of conductive overburden that has historically been challenging for EM survey interpretation. The maiden survey using the new loop has proven very successful delivering high quality geophysical data and this loop is considered an important part of Poseidon's ongoing exploration efforts at the Black Swan Project. The potential to re-survey historic drillholes with modern geophysical probes and the underground transmitter loop provides an exciting exploration opportunity across both the Southern Terrace and the Black Swan Project.

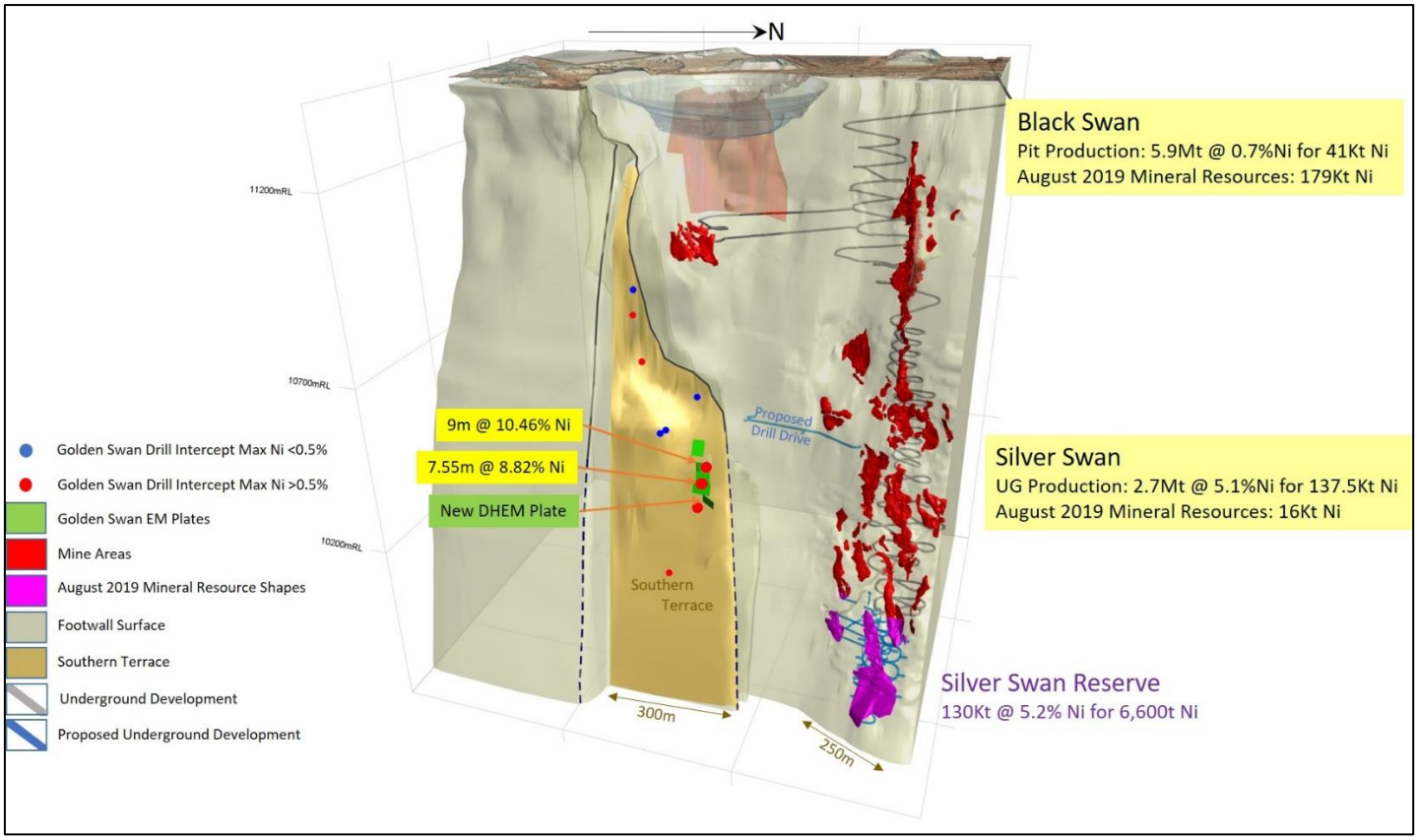

Figure 1: 3D representation of the footwall surface at Black Swan and the emerging potential of the Southern Terrace

The successful survey confirmed the location, orientation and validity of EM conductors identified previously and an additional high conductance plate down-dip. The newly modelled EM plate measures 54m north-south along strike and 22m in the sub-vertical plunge/dip direction with a very high conductance of 58,000 siemens. The EM plate is located on the basal contact position. It is interpreted that this, very high conductance, plate is likely to represent the presence of massive nickel sulphides. **The Golden Swan EM response now extends to 170m long and 50m wide and is limited in strike extent only by the physical limitations of the EM technique employed.**

Underground exploration drilling targeting Golden Swan continues with a drillhole currently in progress targeted approximately 120m to the south of existing massive nickel sulphide intersections reported previously. This hole is designed to intersect the Southern Terrace at a similar level to the existing intersections and due to the low drill angle with respect to the contact is expected to provide an excellent platform for a DHEM geophysical survey both up and down dip from the intersection point. Successful identification of conductive anomalism will provide additional information on the potential strike continuity of the Golden Swan mineralisation.

In parallel with the ongoing underground drilling campaign Poseidon has, in conjunction with geological consultants Newexco, combined recent and historical drilling information to develop a new geological model for the basal contact of the mineralised Black Swan ultramafic channel at depth around and below Golden Swan (See Figure 1). The modelled Southern Terrace represents a significant new target area approximately 300m in strike extent, and in excess of 600m dip extent where the Black Swan ultramafic channel has flowed over the felsic footwall stratigraphy, a critical relationship for the deposition of massive nickel sulphide mineralisation. The discovery of mineralisation at Golden Swan and modelling of the Southern Terrace opens a new chapter in exploration at Black Swan that the Company will advance over time.

Assays results from PBSC0030C

Assays have been received for the zone of stringer and semi-massive nickel sulphide mineralisation reported previously in hole PBSD0030C (refer Table 1). The Golden Swan stringer nickel sulphides were intersected in a felsic pinch-out structure near the top of the DHEM response on the drill section and the semi-massive sulphide intersection, although lower in the drillhole, represents mineralisation on the upper continuation of the Southern Terrace which extends above Golden Swan pinch-out.

Table 1 – Assays results from PBSC0030C

PBSC0030C Intercept	Depth From	Depth To	Interval	True Width	Ni%	Cu%	Co ppm	As ppm
Stringer Sulphides	672	672.5	0.5	0.25	2.47	0.73	700	50
Semi-Massive Sulphides	692.45	693	0.55	0.3	10.04	0.40	2150	700

Next Steps

Exploration drilling is ongoing.

To advance the Golden Swan Project the Company has committed to the development of a circa 400m drill drive from the existing Silver Swan decline to facilitate Resource definition drilling. Commitment to development of the underground drill drive is underpinned by the previously reported intersections into Black Swan, the recent EM survey and potential for Golden Swan and the Southern Terrace area to deliver economic nickel sulphide orebodies.

The drive, to be developed in competent footwall felsic rocks, will be positioned approximately 200m from the known mineralisation and will provide an excellent platform for resource definition drilling and additional exploration drilling of the highly prospective Southern Terrace. The drill drive could potentially be used for a future production access to Golden Swan, if required.

Preliminary metallurgical testwork on Golden Swan has commenced and results will be reported as they come to hand.

Peter Harold
Managing Director & CEO
1 October 2020

For further information contact Peter Harold: + 61 (0)8 6167 6600.

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

About Poseidon Nickel Limited

*Poseidon Nickel Limited **(ASX Code: POS)** is a nickel sulphide exploration and development company with three projects located within a radius of 300km from Kalgoorlie in the Goldfields region of Western Australia and a resource base of around 400,000 tonnes of nickel and 180,000 ounces of gold.*

Poseidon's strategy is focused on the exploration and eventual restart of its established nickel operations in Western Australia where project risk capital and operating costs are low. A critical element of this strategy has been to acquire projects and operations with high levels of geological prospectivity likely to lead to potential substantial extension of the operation's life through the application of modern exploration techniques.

Poseidon owns the Windarra, Black Swan and the Lake Johnston Nickel Projects. In addition to the mines and infrastructure including concentrators at Black Swan and Lake Johnston, these projects have significant exploration opportunities demonstrated by the discovery of the Abi Rose deposit at Lake Johnston and the recent discovery of the Golden Swan mineralisation at Black Swan. The Company is also undertaking a Definitive Feasibility Study on retreating the gold tailings at Windarra given the strength of the A$ gold price.

MINERAL RESOURCE STATEMENT

Table 1: Nickel Projects Mineral Resource Statement

Nickel Sulphide Resources	JORC Compliance	Cut Off Grade	MINERAL RESOURCE CATEGORY												
			INDICATED			INFERRED			TOTAL						
			Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
BLACK SWAN PROJECT															
Black Swan	2012	0.40%	9,600	0.68	64,900	21,100	0.54	113,800	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
WINDARRA PROJECT															
Mt Windarra	2012	0.90%	922	1.56	14,500	3,436	1.66	57,500	4,358	1.64	72,000	0.03	1,200	0.13	5,700
South Windarra	2004	0.80%	772	0.98	7,500	-	-	-	772	0.98	7,500	NA	-	NA	-
Cerberus	2004	0.75%	2,773	1.25	34,600	1,778	1.91	34,000	4,551	1.51	69,000	NA	-	0.08	3,600
TOTAL															
Total Ni, Co, Cu Resources	2004 & 2012	-	**16,775**	**1.03**	**173,530**	**27,275**	**0.81**	**221,300**	**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 7 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.

ORE RESERVE STATEMENT

Table 2: Nickel Projects Ore Reserve Statement

Nickel Sulphide Reserves	JORC Compliance	ORE RESERVE CATEGORY		
		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 and 10t of cobalt metal.

Silver Swan Underground Reserve as at 26 May 2017 (see ASX announcement "Silver Swan Definitive Feasibility Study" released 26th May 2017) 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 Graham Leaver, who is an employee of 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 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 Leaver, 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 Leaver, 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

BLACK SWAN EXPLORATION RESULTS – JORC Code, 2012 Edition

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. The underground RC technique utilises air with water injection to flush sample material from the rods and send it through a rotary cone splitter. Three duplicate samples are collected and 1 in 10 duplicates are submitted for analysis as a check and balance to sample representivity.
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. Surface RC drilling is limited to the extent of the Black Swan open pit. The underground RC system being trialled by Poseidon uses a combination of technologies to perform a wet RC function utilising an underground long-hole drill rig. The system has been trialled in gold mines with large nugget effect. This is the first application of this technique to nickel.
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. Recovery from the underground RC method is 100%. The rods are flushed clean on every sample before sample bags are removed. Sample weights are taken to ensure representivity.

JORC Code explanation	Commentary
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. All underground RC samples are logged prior to shipment to the lab.
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. Underground RC samples are taken in triplicate and 1 in 10 duplicates are sent to the lab. Samples are roll-crushed to 2mm prior to splitting for assay.
Quality of assay data and laboratory tests	
The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Pulps were prepared by acid digest and analysed by ICP-OES using standard laboratory practices. Both independent and laboratory internal 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 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. 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 vial method. All subsequent diamond drill holes have been surveyed using Eastman single shot down hole survey instruments. Underground RC holes are gyro surveyed upon completion.

JORC Code explanation	Commentary
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 historical 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 any 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 agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Black Swan open-pit is centred on M27/39 and extends into M27/200. Silver Swan is wholly located on M27/200. They are located 42.5km NE of Kalgoorlie. They are registered to Poseidon Nickel Atlantis Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the purchase of the assets. Historical royalties of 3% NSR exist over the minerals produced.
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 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.*	Refer to the body of the announcement and Section 1 above.
Data Aggregation Methods	
In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. *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.*	Grades have been aggregated using the length x SG weighted average. See body of text for individual sample grades.
Relationship Between Mineralisation Widths and Intercept Lengths	
These relationships are particularly important in the reporting of Exploration Results. *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	True widths are stated where necessary.
Diagrams	
Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being	Refer to the body of text above.

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 practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Not applicable.
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.
Further work	
The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	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.

ATTACHMENT B

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	
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 downhole 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.*	Underground diamond drilling has been used to obtain core samples. Sampling is a mixture of full core, and half core sampling. In general, 1 m samples or smaller have been used for exploration and grade control drilling. Samples have been obtained from drilling carried out from underground drilling by LionOre and Norilsk Nickel Australia below the 10100mRL level. The drilling database and block model above this RL have been cut from the resource estimate data set as these have been mined out and are not reported in this document. Only drilling completed between 2006 and 2008 are included in the resource estimate. Diamond drilling sampling protocol has followed accepted industry practice, 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 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 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.).	Underground diamond drilling is the method by which drilling has been conducted into the ore zones below the 10100mRL level of the mine. 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 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 and inspection of core trays by Poseidon geologists has confirmed the quality of core recovery. Due to the good to excellent core recovery, Poseidon has no reason to believe that there is bias due to either sample recovery or loss/gain of core.
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. Drilling data and geological logging was electronically captured and uploaded in to the site Acquire® geology SQL database. This has been exported to an Access database which has been converted to Surpac format for modelling. 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. *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.*	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. 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.

JORC Code explanation	Commentary
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 laboratory procedures used and whether the technique is considered partial or total. *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	All assaying since March 2004 has been carried out by Kalgoorlie Assay Laboratories (Kalassay, now Bureau Veritas) using ICP-OES on a 4 acid digest using standard laboratory practices. Both independent and laboratory internal QAQC were used. Site specific standards were derived from two RC drillholes specifically designed for the purpose and prepared by ORE Pty Ltd in Melbourne. Analysis for these standards was for Ni, As, Fe and Mg. 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 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 which was handed over to Poseidon following the sale transaction. This has been exported to an Access database which has been converted to Surpac format for modelling.
Location of data points	
Accuracy and quality of surveys used to locate drillholes (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 and recorded by the underground surveyor. A local grid based on seven known AMG_84 references was created. The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 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	
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.*	Underground drilling used a maximum spacing of 10 m x 10 m for Indicated category resources and approximately 10m x 20m and 20 m x 40m for Inferred resources. Sample data was composited to 1 m.

JORC Code explanation	Commentary
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.*	Drillhole orientation was dominantly between 20^0-60^o to geological continuity as the mineralisation is drilled form underground workings in the footwall of the deposit which dips 80^0 to grid east. The angle of intersection is factored into the resource shape interpretations and is well understood as it is verified by mining and reconciliation of the ore zones to a depth of 1300m below surface. The sampling and interpretations meets the requirements of the resource estimation.
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. *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.*	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 Ltd 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. 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 by 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 Silver 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 komatiite hosted nickel deposit.
Drillhole Information	
	Refer to body of text above
Data Aggregation Methods	
	Aggregation of grades utilised length weighting of assay results
Relationship Between Mineralisation Widths and Intercept Lengths	
	True widths have been stated with intercept lengths
Diagrams	
	Refer to body of text above
Balance Reporting	
	All relevant information has been reported
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 Inferred resources to Indicated resources.