

19th July 2016

SILVER SWAN HIGH GRADE NICKEL PROJECT UPDATE

Highlights

- **Silver Swan underground pre-production activities on target**
- **Geotechnical engineering being completed**
- **Geological mapping of core and underground face maps will support the geotechnical works**
- **Entech Engineering appointed to complete definitive engineering and life of mine (LOM) schedule**
- **Resource estimate for Silver Swan Nickel Deposit 136,000 tonnes at 9.08% nickel for 12,400 tonnes of contained metal**

Poseidon Nickel Limited (ASX:POS) ("Poseidon") has been encouraged by the recent strengthening of the nickel market and improved market sentiment for the commodity. Following the change of government in the Philippines in June, uncertainty on the future of the direct shipment of nickel laterite ore to overseas destinations has emerged as a real opportunity for Australian producers struggling to remain competitive.

The Company is progressing key pre-production activities to facilitate the restart of Silver Swan underground nickel operations. Beck Engineering has been appointed to develop a numerical model for the underground Silver Swan mine. The model will be normalised based on previous experience at Silver Swan. Geotechnical work will allow the mine sequencing to be optimised and to confirm stope and pillar stability. Geotechnical core logging will underpin this work together with digitising underground face maps to improve the accuracy of the model. Following the completion of the model optimisation, a ground control management plan will be finalised based on the geotechnical recommendations.

Entech Engineering has also been appointed to progress definitive engineering. Entech will review previous mining methods applied at Silver Swan, define the preferred mining method and complete a life on mine optimised schedule. A JORC 2012 compliant reserve estimate will be prepared by Entech based on the ground control management plan and life of mine engineering study. On 3 June 2016 the Company announced a 180% increase in the Indicated Category of the Silver Swan resource estimate (JORC 2012 compliant) at a grade of 9.19% nickel, making it one of the highest grade nickel mines in the world. Poseidon is not aware of any new information relating to that announcement that would change any of the statements made.

Poseidon has an estimated 1.2 million tonnes of stockpiled Probable Category Ore at Black Swan (Figure 1) on the run of mine (ROM) pad estimated at 0.49% nickel for a total of 6,000 tonnes of nickel (announced 5th November 2014). The Company plans to complete testwork on a blend of ores to investigate the technical performance of the nickel ore blends

and possible treatment options. Samples have been recovered and sent to a third party to progress testwork.

Previous testwork results confirmed that blending disseminated high talc nickel ores and massive nickel sulphide ores can be co-processed by a conventional nickel sulphide concentrator. This is the subject of a separate patent application prepared and submitted by the Company to the Australian Patents Office. An opportunity therefore exists for Poseidon to progress the blending stockpiled Black Swan disseminated high talc ores to allow the co-processing of the stockpiled ore via a conventional sulphide concentrator.



Figure 1: One of Several Ore Stockpiles at Black Swan

At 5:40pm on 8 July 2016, a 5.5-magnitude earthquake was recorded in the Norseman area. The epicentre was beneath the uninhabited Dundas Nature Reserve however the tremor was felt up to 278 kilometres away. There was no evidence of damage at any of the Company's mines. The Silver Swan mine infrastructure remains in good condition and the ore bodies can be readily accessed from the existing decline. Poseidon is currently progressing outstanding regulatory approvals to facilitate a restart of the Silver Swan underground nickel mine.

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
WINDARRA PROJECT											
Mt Windarra	2012	0.90%	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500
South Windarra	2004	0.80%	772	0.98	8,000	-	-	-	772	0.98	8,000
Cerberus	2004	0.75%	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000
BLACK SWAN PROJECT											
Black Swan	2012	0.40%	9,600	0.68	65,000	21,100	0.54	114,000	30,700	0.58	179,000
Silver Swan	2012	4.50%	52	9.19	4,800	84	9.01	7,600	136	9.08	12,400
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
TOTAL											
Total Ni Resources	2004 & 2012		16,720	1.01	168,700	27,300	0.82	223,200	44,020	0.89	391,900

Note: totals may not sum exactly due to rounding

Table 2: Gold Tailings Project Mineral Resource Statement

Gold Tailings Resources	JORC Compliance	Cut Off Grade	Mineral Resource Category								
			Indicated			Inferred			TOTAL		
			Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)	Tonnes (Kt)	Grade (g/t)	Au (oz)
WINDARRA GOLD TAILINGS PROJECT											
Gold Tailings	2004	NA	11,000	0.52	183,000	-	-	-	11,000	0.52	183,000
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.

ORE RESERVE STATEMENT

Table 3: Nickel Project Ore Reserve Statement

Nickel Sulphide Reserves	JORC Compliance	Ore Reserve Category		
		Probable		
		Tonnes (Mt)	Ni% Grade	Ni Metal (Kt)
LAKE JOHNSTON PROJECT				
Maggie Hays	2012	1.9	1.19	22.6
BLACK SWAN PROJECT				
Black Swan	2012	3.4	0.63	21.5
WINDARRA PROJECT				
Mt Windarra	2012	0.6	1.70	9.6
Cerberus	2004	1.2	1.30	16.0
Windarra Sub Total		1.8	1.42	25.6
TOTAL				
Total Ni Reserves	2004 & 2012	7.1	0.98	69.7

Note: totals may not sum exactly due to rounding.

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

Notes

The information in this report that relates to Exploration Results is based on 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 Lake Johnston Mineral Resource is based on 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 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 which relates to the Silver Swan Mineral Resource is based on information compiled by Neil Hutchison, General Manager of Geology at Poseidon Nickel, who is a Member of The Australian Institute of Geoscientists.

The information in this report which relates to the Black Swan Mineral Resource and Ore Reserves is based on information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. as well as Francois Bazin of IMC Mining Pty Ltd. Both are Members of the Australasian Institute of Mining and Metallurgy.

The information in this report that relates to Mineral Resources at the Windarra Nickel Project is based on 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 that relates to Ore Reserve at the Windarra Nickel Project is based on information compiled Leanne Cureton and Andrew Law who are both full time employees of Optiro Pty Ltd and are a Member and a Fellow of the Australasian Institute of Mining and Metallurgy respectively.

Mr Hutchison, Mr Glacken, Mr Keenan, Mr Weeks, Mr Bazin, Mr Law & Ms Cureton 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 Keenan, Mr Weeks, Mr Bazin, Mr Law & Ms Cureton have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This document contains Mineral Resources and Ore Reserves which are reported under JORC 2004 Guidelines as there has been no Material Change or Re-estimation of the Mineral Resource or Ore Reserves since the introduction of the JORC 2012 Codes. Future estimations will be completed to JORC 2012 Guidelines.

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

CORPORATE DIRECTORY

Director / Senior Management

Chris Indermaur	Non-Executive Chairman
David Singleton	Non-Executive Director
Geoff Brayshaw	Non-Executive Director
Robert Dennis	Non-Executive Director
Gareth Jones	Company Secretary

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Home Exchange

The Company's shares are listed on the Australian Securities Exchange and the home exchange is Perth ASX code: POS