POSEIDONNICKEL

13th August 2014

Company Announcements Officer
ASX Limited
Exchange Centre
Level 4, 20 Bridge Street
SYDNEY NSW 2000

Dear Sir

Re: BLACK SWAN ENGINEERING. KEY OUTCOMES

We enclose herewith a copy of an announcement in relation to the above.

Yours faithfully

David P.A. Singleton
MANAGING DIRECTOR &
CHIEF EXECUTIVE OFFICER

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CORPORATE DIRECTORY

Director / Senior Management

David Singleton	Managing Director & Chief Executive Officer
Chris Indermaur	Non-Executive Chairman
Geoff Brayshaw	Non-Executive Director
Robert Dennis	Non-Executive Director
Ross Kestel	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

ASX Announcement 13th August 2014

BLACK SWAN ENGINEERING. KEY OUTCOMES

- **Poseidon announces the result of engineering relating to trucking and processing nickel ores from Mt Windarra at Black Swan**
- **Capital saving of $240m compared to processing ores onsite at Mt Windarra due to the avoidance of a new concentrator plant and associated infrastructure**
- **Black Swan additional benefits of higher tonnes ore processing capacity, lower onsite operating costs and less reliance on single mine operation**
- **Trucking ore from Mt Windarra is practical and costs are readily offset by operating, capital and financing savings**
- **Cash cost estimate of US$4.05/lb (compared to US$3.35/lb Windarra site)**
- **Windarra has an initial operating life of 7 years although further drilling is expected to continue to extend. Black Swan has an initial operating life of circa 7 years including 1.5 years using ore mined and stored on the ROM pad and a further 3 years before a cutback to the current open pit is required**
- **Initial Black Swan option will produce 9,800 tonnes nickel in concentrate p.a.**
- **Progressive output growth from mining Cerberus ore body at Mt Windarra and expanding Black Swan output may increase annual nickel in concentrate to circa 14,000 tonnes nickel p.a.**
- **Both the Mt Windarra mine and the Black Swan operation can be brought into production in less than 6 months from final financing**
- **Black Swan and Mt Windarra will produce a smeltable concentrate grade of circa 12% nickel**

Overview

Poseidon Nickel Limited (ASX:POS) ("Poseidon") is pleased to announce the results of the engineering work which it initiated immediately post its announcement of an agreement to purchase the Black Swan nickel project in Western Australia.

Poseidon has agreed to buy Black Swan in order to access the nickel flotation concentrator on the site and thereby avoid building a new facility at Mt Windarra with an estimated saving of $240m (detailed below) for the project. The Black Swan concentrator expansion was commissioned in 2006 but only operated until February 2009 when it was put on care and maintenance when commodity prices were negatively impacted during the Global Financial Crisis. The concentrator is in good condition with an independently estimated restart capital cost of circa $9.4m detailed below.

In addition to the plant the site includes a large, low grade, high volume, open pit nickel sulphide ore body which can be used to supplement higher grade ore from the Mt Windarra mine owned by Poseidon. The operating plan is based on a total initial concentrator throughput of 1.1 million tonnes of nickel ore comprising 600,000 tonnes from Mt Windarra and a further 500,000 tonnes from the Black Swan open pit. This level of throughput has been selected to reduce the upfront capital cost of the operation utilising approximately 50% of design capacity of the concentrator that has a proven throughput of 2.15m tonnes of ore per annum. Plant throughput and nickel production can be increased by adding ore from the

Cerberus nickel deposit (located on Poseidon's Mt Windarra site) and increasing mining rates at the Black Swan open pit to meet the full 2.15m concentrator plant capacity. This growth option has not been included in any financials in this announcement.

Managing Director and CEO, David Singleton said, "The outcome of this engineering activity has clearly demonstrated what a transformational acquisition the Black Swan project has been for Poseidon. The independent analysis has demonstrated that we have reduced the capital cost of the Mt Windarra nickel project by $240million, as well as doubling the ore resources of the company and shaving a year off the development time. The key outcome is that the project operating cash flows have been increased markedly by using the Black Swan plant.

"Earlier in the year we announced a potential ore tolling and concentrate contract with a major party which, although delayed, we continue to progress. The acquisition has now given us two clear strategic alternatives to either process Mt Windarra ore through Black Swan or to deliver Windarra into an ore tolling agreement and operate Black Swan in its own right."

The Company is also in advanced discussions with parties regarding debt financing for the project and securing an off-take contract for the Black Swan concentrate.

The project results included in this announcement are drawn from the engineering work undertaken by Simulus Engineering, Golder Associates and GR Engineering. Operating costs have been produced by Poseidon using key data produced during this phase as well as operating data available from the Windarra Nickel Project - Definitive Feasibility Study.

Process plant and associated facilities

The current nickel concentrator at Black Swan was built to enable an increase in processing capacity for the Silver Swan underground mine and the Black Swan open pit mine and successfully operated for over 24 months demonstrating both its design capacity and reliability in operation. The plant was designed by Lycopodium who managed construction activities undertaken by Roche Mining and GR Engineering senior staff who were part of the construction team (see Figure 1 Process Flow Diagram). The plant design is ideally suited to processing Windarra style nickel ore as well as Black Swan Ore which has been confirmed by the work completed to date. The process plant is shown in figures 2-5 below and comprises of the following major components:

- Single stage jaw crushing circuit (Figure 2)
- Two stage grinding through a 4.8MW SAG mill in a closed circuit with 185kW Terex gyracone pebble crusher and a 5.5MW ball mill (Figure 3)
- Multi stage flotation circuit (Figure 4)
- Concentrate and tailings thickeners (Figure 5)
- Ceramic disc concentrate filters as well as concentrate storage and load out facilities
- Power from the main grid via two separate sub stations
- Single cell tailings storage facility with an estimated capacity of approximately 4 years before an additional wall lift is required
- Water from the Black Swan borefield and mine ingress water

The plant was designed to have the option to only use the SAG mill for operations which fits with the initial operating plans of 1.1m tonnes of throughput. The float cells can be

reconfigured to the initial operating throughput and progressively brought back into operation as throughput is increased beyond that envisaged in this report.

GR Engineering has produced a detailed estimate of costs to refurbish the plant suitable for operations. This cost estimate was reviewed in line with the initial operating requirements and provided an estimated plant refurbishment cost of $9.4m (including infrastructure)

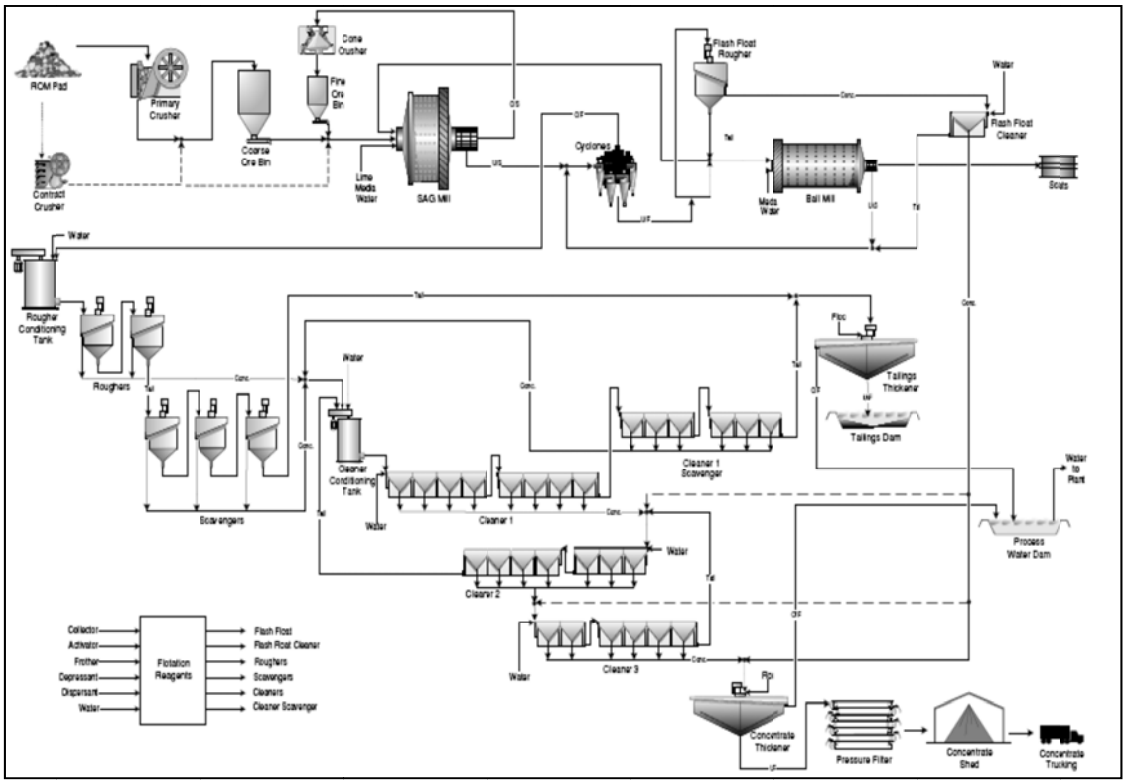

Figure 1: Black Swan overall process flow diagram

Figure 2: Black Swan primary crushing circuit

Figure 3: Black Swan grinding circuit

Figure 4: Black Swan flotation circuit

Figure 5: Black Swan concentrate thickener

Logistics

The Black Swan project is situated 53 kms from Kalgoorlie and used as an entirely drive in work force thereby avoiding the need for onsite overnight accommodation, messing facilities and airstrip which provides a substantial organisational and cost benefit to a more remote FIFO site such as Mt Windarra. The ability for employees to live in Kalgoorlie underpinned Black Swan being a popular worksite for local personnel when it was operating. Combining this aspect with a general softening in the industry supports the belief that the site will have ready access to suitably skilled workforce and support services.

The study identified 3 primary options for the hauling of ore from Mt Windarra to the Black Swan processing plant all by established roadways and two requiring a relatively minor level of haul road construction. The preferred option has an estimated gate to gate haulage distance of 334kms which will require approximately 30kms of existing gravel roadway to be upgraded by Poseidon. The estimated cost of this upgrade is $3.4m based on quoted market rates received by Golder.

Transport of ore from Mt Windarra will be by quad road trains carrying 105 tonnes of ore per trip. Current road haulage rates have been received from 3 contractors and used in the operating cost model. Whilst the transport costs are significant they are more than offset be operating benefits of the Black Swan site over a more remote location such as Mt Windarra. These benefits include the use of mains power over diesel generators, non-residential nature of the workforce, higher plant throughput levels, shorter concentrate transport distance to smelters and the reduced cost of financing the concentrator plant.

Capital Budget

The combined Black Swan and Mt Windarra capital costs required to bring the project back into operation are outlined in the table below.

Cost Description	**A$m**
Refurbishment of Black Swan process plant	7.8
Black Swan support infrastructure	1.6
Upgrade haulage road	3.4
Total Black Swan restart capital	**12.8**
Complete refurbishment of Mt Windarra mine	2.5
Mine surface infrastructure	1.4
Mine underground equipment	0.9
Pre-production mine capital	3.0
Project costs	1.3
Mt Windarra resource drilling	1.1
Total capital	**23.0**
Contingency	5.4
Total capital (incl. contingency)	**28.4**

The total funding requirement for Black Swan and Mt Windarra is expected to be around $50m which includes all transaction fees, holding costs of Black Swan, contingencies and working capital. This results in a saving of circa $240m when compared to funding Windarra as this included a prepaid interest reserve of $55m to cover the construction and commissioning timeframe associated with a new facility.

Note:
1. The Black Swan capital costs are sourced from:
    a. Golder Associates Engineering study (Appendix E)
    b. GR Engineering Plant Assessment Report (Appendix D)
    c. Simulus Engineers, Black Swan Project Engineering Study (July 2014)
2. The Windarra capital costs are based on the Definitive Feasibility Study (DFS) (2013) undertaken by Arccon (WA) Pty Ltd and Company/Consultant estimates
3. The above capital requirement excludes working capital

Operating Costs

	Black Swan	**Mt Windarra DFS**
Operating Costs (US$/lb)		
Mining	1.27	1.47
Processing	1.28	1.73
Transport of Ore	0.83	-
G&A	0.28	0.21
Royalties	0.39	0.35
Credits	-	(0.41)
Cash Cost	**4.05**	**3.35**
Operating Costs (AS$/tonne)		
Mining	28.69	64.11
Processing	29.04	37.70
Transport of Ore	18.79	-
G&A	6.29	17.76
Royalties	8.81	9.26
Total Costs	**91.62**	**128.83**
Concentrate Produced (tonnes)	9,600	9,700

The difference in the cash cost is primarily being driven by the transport of the Mt Windarra ore to Black Swan, however this additional cost is more than offset by the reduced financing required.

Note:
1. Operating costs are the average life of mine costs
2. The Black Swan operating costs are sourced from Simulus Engineers, Black Swan Project Engineering Study (July 2014)
3. The Mt Windarra operating costs are based on the DFS
4. Payable cash cost includes mining, processing, G&A, transport, royalties, sustaining capital, corporate costs and debt interest repayment

Black Swan 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 volcaniclastic 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 sulfides 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 sulfides.

The Black Swan deposit (Figures 6 & 7) compromises serpentinite and surrounding talc magnesite and dolomite altered komatiites. The disseminated sulfides 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 sulfide 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.

[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.*

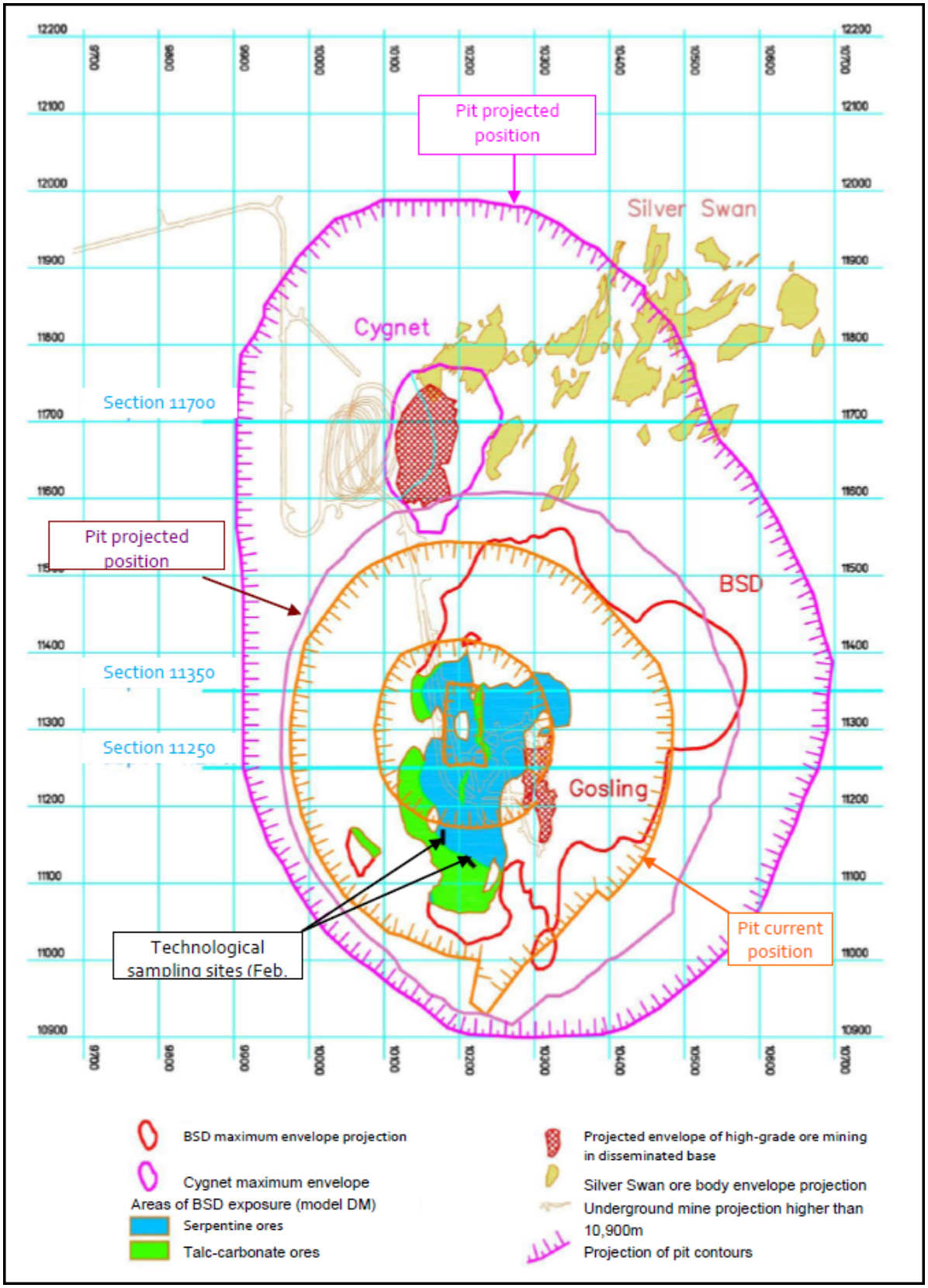

Figure 6: Black Swan Disseminated (BSD) and Cygnet mineralisation with existing mining infrastructure and pit shell options

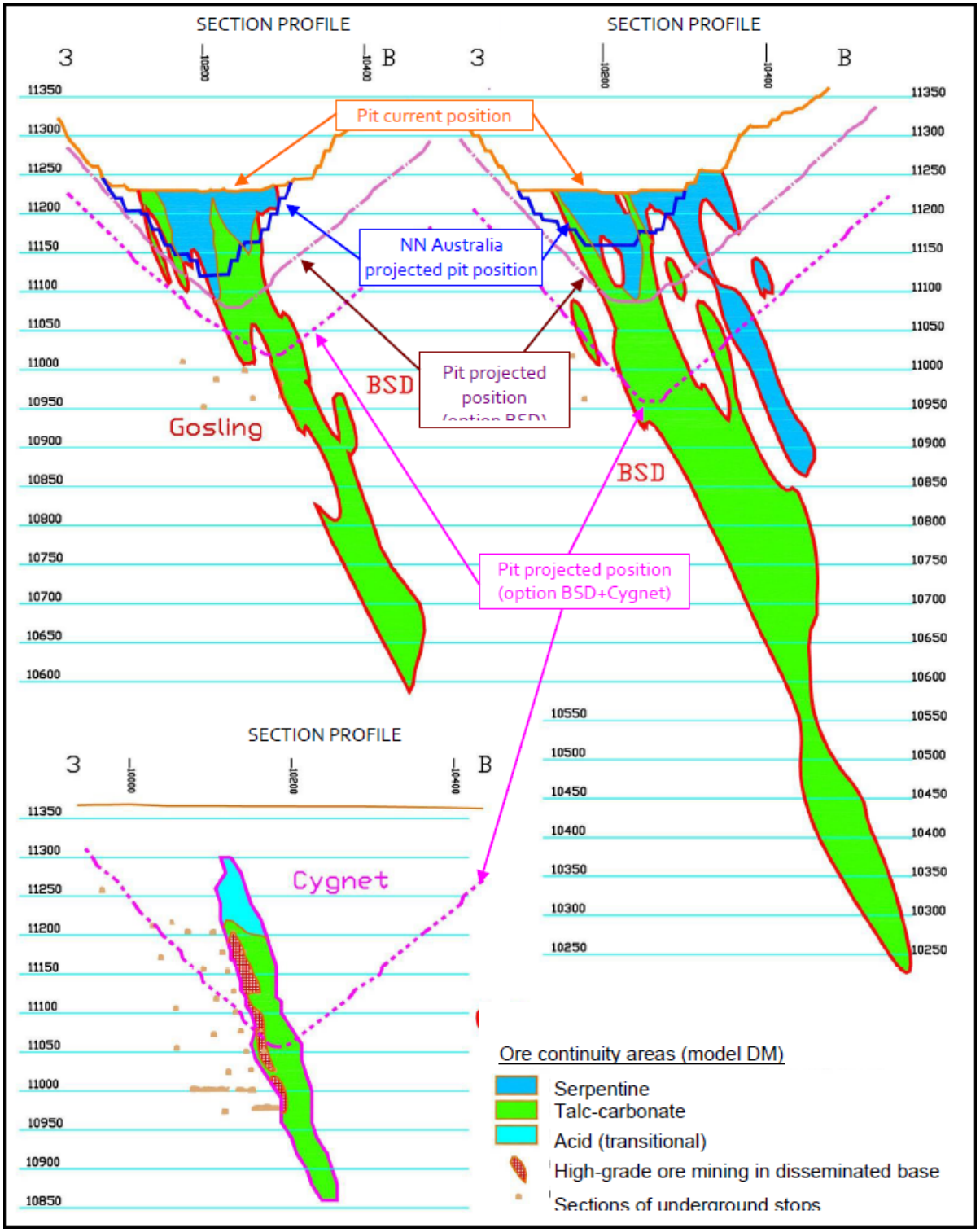

Figure 7: Cross sections of BSD and Cygnet disseminated ore occurrences including pit shell options

ORE RESERVE STATEMENT

Windarra Nickel Sulphides	Ore Reserve Category (JORC 2004)		
	Probable		
	Tonnes	Ni% Grade	Ni Metal t
Cerberus	1,221,000	1.3	16,000
Mt Windarra	498,000	1.78	9,000
Total	**1,719,000**	**1.44**	**25,000**

Table 1: Windarra Nickel Project Ore Reserve Statement

MINERAL RESOURCE STATEMENT

Windarra Nickel Project Sulphides	Cut Off Grade	Mineral Resource Category (JORC 2004)								
		Indicated			Inferred			TOTAL		
		Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
Mt Windarra	0.75%	1,217,000	1.39	17,000	3,553,000	1.78	63,000	4,770,000	1.68	80,000
South Windarra	0.80%	772,000	0.98	8,000	-	-	-	772,000	0.98	8,000
Cerberus	0.75%	2,773,000	1.25	35,000	1,778,000	1.91	34,000	4,551,000	1.51	69,000
Total Sulphide		**4,762,000**	**1.24**	**60,000**	**5,331,000**	**1.82**	**97,000**	**10,093,000**	**1.55**	**157,000**

Black Swan Nickel Project Sulphides	Cut Off Grade	Mineral Resource Category (JORC 2012)								
		Measured & Indicated			Inferred			TOTAL		
		Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t	Tonnes	Ni% Grade	Ni Metal t
Black Swan	0.40%	9,600,000	0.68	64,900	21,100,000	0.54	113,800	30,700,000	0.58	178,700
Total Black Swan		**9,600,000**	**0.68**	**64,900**	**21,100,000**	**0.54**	**113,800**	**30,700,000**	**0.58**	**178,700**

Table 2: Windarra and Black Swan Nickel Project Mineral Resource Statement

Windarra Gold Tailings Project	Mineral Resource Category (JORC 2004)		
	Indicated		
	Tonnes (kt)	Grade (g/t)	Au (oz)
Total Gold Tailings	**11,000**	**0.52**	**183,000**

Table 3: Windarra Gold Tailings Project Mineral Resource Statement

Note: Totals in the tables may not be mathematically accurate due to JORC rounding requirements.

Notes

The information in this report which relates to the Black Swan Mineral Resource is based on information compiled by Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd, and Member of the Australasian Institute of Mining and Metallurgy. Andrew Weeks has sufficient relevant experience to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012).

The information in this report that relates to the Windarra Nickel Project, Mineral Resources is based on information compiled by Mr N Hutchison, General Manager of Geology at Poseidon Nickel Limited, who is a Member of The Australian Institute of Geoscientists and Mr I Glacken who is a Fellow of the Australasian Institute of Mining and Metallurgy as well as a full time employee of Optiro Pty Ltd.

The information in this report that relates to Ore Reserves at the Windarra Nickel Project is based on information compiled by Denis Grubic, who is a Member of The Australasian Institute of Mining and Metallurgy as well as a full time employee of Rock Team Pty Ltd.

Mr Hutchison, Mr Glacken and Mr Grubic 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2004). Mr Hutchison, Mr Glacken and Mr Grubic have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources in this document 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.

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