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# ASX Announcement 6 June 2024

# **GOLD AND NICKEL TARGETS AT WINDARRA**

### Multi-commodity assessment of Windarra has identified promising gold in soil anomalies in addition to the recently identified nickel sulphide channels

- Gold in soil anomalies established from limited historic programs interpreted to be along strike of a regional major mineralised gold trend which follows the margins of a large granitoid intrusive that appears to control the nearby Lancefield and Beasley Creek gold camps
- Newly identified nickel sulphide channels reported in February 2024 could host a new nickel sulphide deposit close to surface<sup>1</sup>
- High-grade polymetallic lead-zinc-silver hydrothermal vein hosted mineralisation reported in several historical drillholes. Best results include 1.60m @ 38.38g/t Ag, 2.56% Pb, 3.77% Zn from 687.70m in WED13
- Poseidon Nickel State Agreement was a key deterrent to carrying out sustained exploration for other commodities over a 50-year period
  - The "Poseidon Nickel State Agreement Act 1971", which only considered the mining of nickel ores, was successfully terminated when the "Poseidon Nickel Agreement Amendment (Termination) Bill 2021" was passed by the WA State Government in early 2022<sup>2</sup>
  - The subsequent transition of the Windarra tenure to mining leases resulted in Poseidon having the right to mine for all metals, minerals and processing of tailings, subject to normal permitting conditions
- Next steps include a staged soil program, focusing on newly identified gold anomalies and nickel sulphide channels, (using modern day technologies, assaying for a full range of elements across the portfolio) and shallow reconnaissance drilling

<sup>1</sup> Refer to ASX Announcement "Exciting New Exploration Targets at Windarra" dated 14 February 2024
 <sup>2</sup> Refer to ASX Announcement "Quarterly Activities Report – March 2022" dated 29 April 2022

**Poseidon Nickel (ASX: POS, "the Company")** is pleased to provide an update on multi-commodity exploration opportunities at Windarra.

CEO, Brendan Shalders, commented: "After several years of negotiation with the WA State Government, the Poseidon Nickel State Agreement Act 1971 was terminated in early 2022 and the Windarra tenure was transitioned to mining leases. This has opened up significant opportunities at Windarra as the Company obtained the right to mine and treat tailings for any metal, not just nickel, subject to normal permitting conditions.

Extending the recent northern Windarra geological assessment which has identified several high-quality nickel targets, to evaluate other commodities, the Company has identified exciting gold in soil anomalies. Soil sampling conducted during 2010 initially identified these gold anomalies, but only nickel results from the sampling program were reported. Building upon the previous program, the Company has conducted additional regolith and structural mapping that has enhanced the potential of these anomalies with some promising gold targets being identified.



These gold targets are interpreted to be along strike of the major mineralised regional gold trend, and on the western side of a large regional granitoid which has the Beasley Creek group of mines (total gold endowment of 1.2Moz)<sup>3</sup> along its southern margin and the Lancefield group of mines (total gold endowment of over 4Moz)<sup>4</sup> along the eastern margin.

Further to the gold opportunity, historical high-grade lead-zinc-silver drill intersections have been rerated as part of the multi-commodity assessment. The mineralisation in the drilling is consistent with other Polymetallic Vein Hosted lead-zinc-silver discoveries seen elsewhere in WA.

The exciting gold and lead-zinc-silver opportunities are in addition to the two exciting new channel structures considered highly prospective for nickel mineralisation, reported in February 2024. These opportunities open Windarra up to potentially being a multi-commodity project.

The Company is very excited by the exploration potential at Windarra and is now planning to test these exploration targets."

### Multi-Commodity Exploration Review

The Company recently reported the results of a geological assessment of the 10km northern section of Windarra with two new exciting high priority embayed basal contact channel structures identified. The northern Windarra Project review was undertaken by Mark Muller from Muller Geological Services Consultancy (MGSC) in conjunction with Poseidon's geologists, with the initial focus on nickel (see ASX announcement "*Exciting New Exploration Targets at Windarra*" dated 14 February 2024). Refer to Figure 1 for a summary of progress of exploration reviews at Windarra.

The Company has extended the geological assessment to consider other commodities which have previously presented interesting exploration results which required further investigation. The assessment has enhanced the significance of previously identified gold in soil anomalies and polymetallic high-grade lead-zinc-silver mineralisation.

Regolith mapping, remote sensing, magnetic and gravity datasets along with GSWA geological mapping was combined with the soil geochemistry data collected by Poseidon in 2010 to fully assess the mineralisation potential. The limited 2010 soil program included a comprehensive suite of elements, which is standard exploration practice today, while large areas at Windarra are yet to be covered by soil programs that assay the full suite of elements.

The recently compiled data highlights the potential for gold mineralisation with a number of low order coincident gold and multi-element anomalous trends that is along strike of a favourable regional geological trend that is interpreted to include the Lancefield and Beasley Creek group of mines (Figure 2). In addition to the gold anomalies, the drilling review completed for the nickel potential also identified isolated but high-grade lead-zinc-silver intersections.

The gold in soil anomalies and high-grade lead-zinc-silver intersections have been noted by Poseidon previously, however were never followed up. Interpretation of the Poseidon Nickel State Agreement Act 1971 ("Windarra State Agreement") was that if a commodity or proposed works was not specifically mentioned in the Windarra State Agreement, then the Company was not allowed to progress these works. With the termination of the Windarra State Agreement and transition of Windarra tenure to a mining lease during 2022, the Company had the right to mine for all metals and minerals and processing of tailing, not just nickel, subject to normal permitting conditions. The Windarra State Agreement, combined with a prior focus on nickel exploration, is considered to be a major reason why historically little exploration for other commodities was undertaken.

<sup>&</sup>lt;sup>3</sup> Refer to Focus Minerals Ltd, ASX Announcement: "Beasley Creek Gold Deposit Continues to Grow" dated 8<sup>th</sup> November 2021 and "Beasley Creek South Mineral Resource Update" dated 23 February 2022

<sup>&</sup>lt;sup>4</sup> Refer Focus Minerals Ltd, ASX Announcement "Lancefield Far North Maiden Mineral Resource" dated 18<sup>th</sup> January 2022



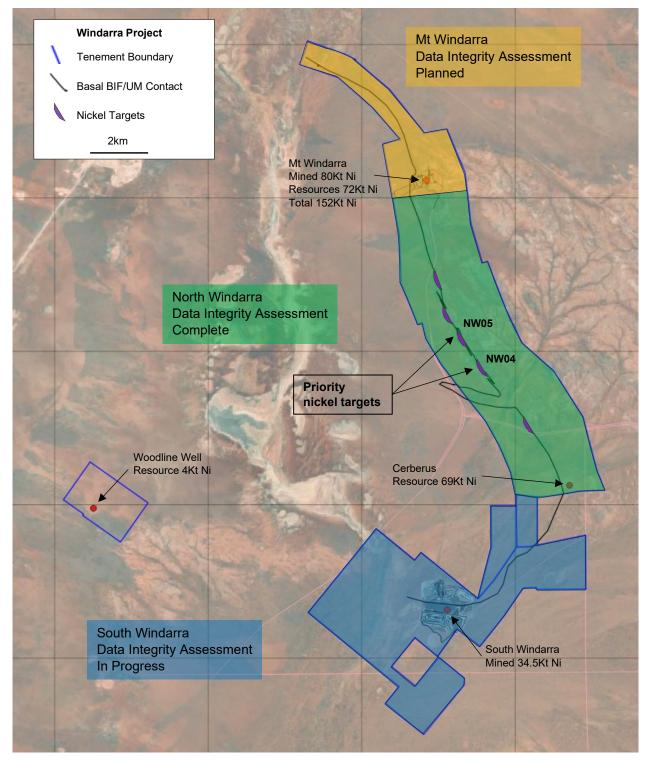


FIGURE 1: SUMMARY OF RECENTLY IDENTIFIED PRIORITY NICKEL TARGETS AND PROGRESS OF EXPLORATION REVIEWS

### Multiple Gold Anomalies Identified

Following the assessment of potential for other commodities at northern Windarra, the Company has identified promising gold in soil anomalies, the two best areas being the Western anomaly which is 6km x 0.7km in size (Max Au 460ppb) and the Eastern anomaly which is 4km x 0.3km in size (Max Au 16ppb) (see Figure 3). The anomalies were identified from a review of Poseidon's soil sampling program completed in 2010 which consisted of 1,138 samples from 1km and 0.5km spaced lines with sample site separation of 100m and 20m spacing (see ASX announcement "*Windarra Exploration to Recommence*" dated 18 January 2010). Samples were analysed



by ACME Lab in Vancouver for 36 elements using 0.5gm charge Aqua Regia digest. Results of the soil sampling program was focused on the nickel prospectivity with the identification of seven prospective channels (see ASX announcement "*Poseidon Identifies New Prospective Nickel Targets at Windarra*" dated 16 June 2010).

Soil sampling completed in 2010 identified a series of low-order gold anomalies. The anomalies were a series of disconnected highs within a consistent trend parallel to structural control in the area. With the termination of the Windarra State Agreement, the Company has re-reviewed the soil data and noted that soil anomaly responses were subdued or absent in areas of cover. A recent site visit has visually confirmed the extent of cover in the noted areas. With the confirmation of the potential impact of cover on the soil sampling, the Company has rerated these anomalies as a continuous trend extending over 6km x up to 0.7km in width, rather than isolated, discrete highs.

The trend of the anomalies matches the regional geological control of structural fluid flow and the mineralising trend around a large granitoid intrusive. This relationship produces a favourable setting for gold mineralisation as granitoid intrusives are significant to control the gold mineralisation by directing and focusing mineralising fluids along the intrusive margins. The Windarra Project is located on the western side of the large granitoid, with the Beasley Creek group of mines (total endowment of 1.2Moz Au) on the southern margin and the Lancefield group of mines (total endowment of over 4Moz Au) on the eastern margin (see Figure 2 below).

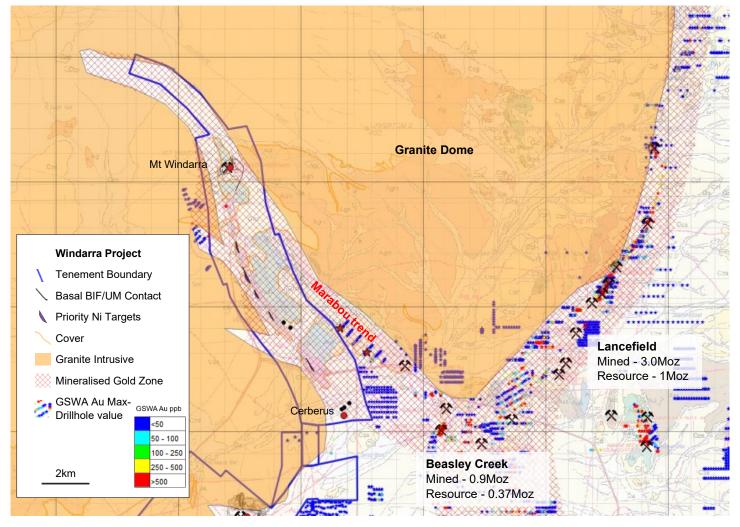


FIGURE 2: PLAN VIEW OF THE GSWA 250K GEOLOGY MAPPING SHOWING THE STRUCTURAL RELATIONSHIP OF THE HIGH PRIORITY MARABOU GOLD TREND AND STRUCTURAL CORRIDOR HOSTING THE LANCEFIELD AND BEASLEY CREEK GROUP OF MINES AROUND THE GRANITOID INTRUSIVE



Some exploration has been completed to the east of and leading into the Windarra Group of tenements with the last reported work from Magnetic Resources noting gold mineralisation in drilling, including hole **LJA0035 – 2m @ 110g/t Au from 38m** (drilled by Metex Resources Limited in 2005, see Magnetic Resources (ASX: MAU) ASX announcement "*Bonanza Grades of 2m @110g/t Gold from Historical Drilling at the Marabou Project*" dated 18 April 2016). The clear structure hosting the mineralisation extends into the Windarra Project with coincident gold and multi-element soil geochemical support along an observed aeromagnetic feature that extends for over 15km through the Windarra Project.

The Company has identified two gold anomalies:

- The larger anomaly, the Western anomaly, occurs to the west and trends sub-parallel to the ultramafic/BIF contact. The anomaly extends over 6km x 0.7km (max Au 460ppb); and
- The Eastern anomaly is a 4km x 0.3km (max Au 16ppb) low order gold anomaly. No drilling for gold has occurred on this anomaly within the Windarra Project and it is open to the north (Figure 3).

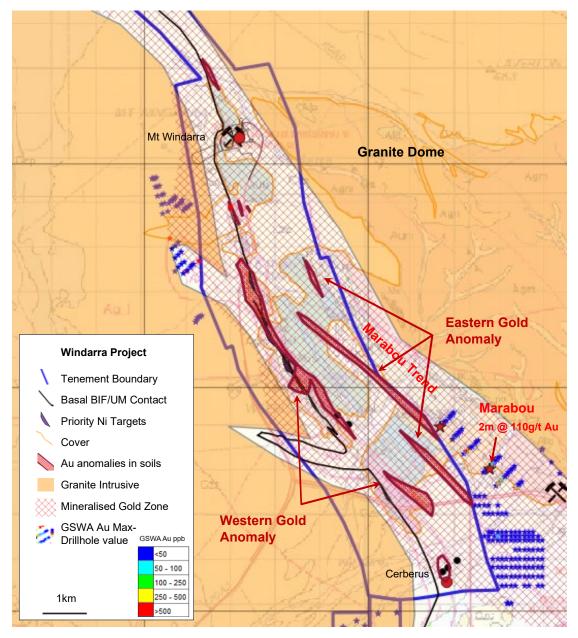


FIGURE 3: POSITIONING OF WESTERN AND EASTERN ANOMALIES WITHIN THE WINDARRA PROJECT

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Due to the Windarra State Agreement and prior focus on nickel exploration, prior drilling was typically not sampled for gold and did not specifically target gold mineralisation. Prior drilling has only partially tested these anomalies with limited results and only two holes returning anomalous gold with the best being hole PNRC0278 - 1m @ 0.5g/t Au from 34m (previously not reported), which is located on the Western anomaly.

Recent ground checking along the gold anomalies confirmed in each area ultramafic, granite and BIF trends with common occurrences of shearing and quartz veining though limited observed alteration. In addition, areas where the gold in soil anomalies were subdued or absence creating "breaks" in the continuous trends are from transported areas containing aeolian red sand cover. Whilst the anomalous gold in soil areas were over residual profiles. A total of 35 selective reconnaissance rock chips were taken during the recent site visit around each major occurrence over the entire 6km length.



FIGURE 4: COMPANY CEO BRENDAN SHALDERS AT TWO LOCATIONS, FIRST NOTING QUARTZ VEINING ALONG ANOMALOUS TRENDS, SECOND SHOWING LEVEL OF COVERED IN AREAS WITH SUBDUED GOLD RESULTS FROM SOILS

### High-Grade Polymetallic Lead-Zinc-Silver

The Company has internally reported high-grade polymetallic lead-zinc-silver values in historical drilling results. The mineralisation identified is consistent with other Polymetallic Vein Hosted Pb/Zn/Ag discovered in Western Australia, for example in the Northhampton Complex (Blockley, 1971). This style of mineralisation has historically produced Pb and Zn with Ag as a by-product at other mining projects. The style is from a mineralising event that is younger than the gold event and is typically not associated with gold mineralisation. The Polymetallic occurrences are isolated and from two small clusters in the northern Windarra area. The four significant historic intersections not previously reported are:

- WED13 1.60m @ 38.38g/t Ag, 2.56% Pb, 3.77% Zn from 687.70m
- PNRCD0128 4.57m @ 80.92g/t Ag, 0.67% Pb, 1.26% Zn from 211.83m (Figure 5)
- PND0142 0.52m @ 90.00g/t Ag, 2.25% Pb, 0.49% Zn from 271.00m
- PND0039 1.44m @ 29.92g/t Ag, 0.08% Pb, 0.85% Zn from 672.93m



Whilst these occurrences have exploration significance and are worthy of follow-up, the Company will focus on gold and nickel initially as these present greater prospectivity for an economic discovery.

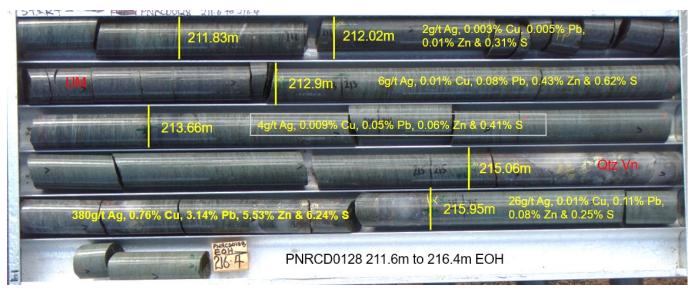


FIGURE 5: WINDARRA HIGH GRADE LEAD-ZINC-SILVER INTERSECTION LOCATED AT THE END OF HOLE PNRCD0128 WITH MINERALISATION EXTENDING BEYOND QUARTZ VEINING

### **Next Steps**

Planning has commenced for a soil sampling program in the northern Windarra area with a particular focus on extending and infilling the newly identified gold anomalies and nickel sulphide channels, with assaying for a full suite of elements. Selected high priority infill soil sampling using the more sensitive UltraFine+ Process developed by LabWest and CSIRO is planned in areas of cover or geological interest where the traditional - 250um size fraction and aqua regia digest may not be as effective. This traditional method can be continued in areas of residual terrain but at a tighter 100m x 20m and 250m x 20m spacing to better define the extensive soil anomalies in the north Windarra area.

Once results from the soil sampling program have been assessed, the Company intends to progress planning for aircore and/or reverse circulation drilling programs to test exploration targets identified. Planning for heritage and regulatory approvals will commence immediately to expedite preparation for any future exploration drilling programs.

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

Brendan Shalders CEO 6 June 2024

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## **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 over 420,000 tonnes of nickel and 180,000 ounces of gold<sup>1</sup>.

Poseidon's strategy is focused on the exploration and eventual restart of its established nickel operations in Western Australia with the aim of being a profitable and sustainable nickel producer. A critical element of this strategy has been owning operations with significant existing infrastructure, large nickel resources and geological prospectivity likely to lead to resource growth through the application of modern exploration techniques.

Poseidon owns the Black Swan, Windarra Nickel and Lake Johnston Projects. In addition to the mines and infrastructure including the concentrator at Black Swan, these projects have significant nickel exploration opportunities demonstrated by the discovery of the Golden Swan Resource at Black Swan, Maggie Hays West prospect at Lake Johnston and more recently the NW05 and NW04 targets at Windarra. Assessment of other commodities across Poseidon's project portfolio has noted strong lithium prospectivity at Lake Johnston and gold anomalies at Windarra.

The Company completed a Bankable Feasibility Study on Black Swan in November 2022 which is planned to be the first project to restart, subject to appropriate project financing structures being achieved, the outlook for the nickel price improving and all necessary approvals being obtained.

A Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield was completed in mid-2022. In December 2023 Mt Morgans entered into a trial processing agreement with Poseidon on the Lancefield gold tailings and accessing the water in the South Windarra pit.

<sup>1</sup> Refer to the Company website, <u>www.poseidon-nickel.com.au</u>, for Resource and Reserves tables

#### COMPETENT PERSON STATEMENTS:

The information in this report that relates to Exploration Targeting and Results is based on, and fairly represents, information compiled and reviewed by Mr Mark Muller, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Muller is a full time employee of Muller Geological Services Consultancy Pty Ltd, an independent industry consultancy providing geological services to Poseidon Nickel, and has 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 Muller consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Additionally, Mr Mueller confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

Information on Poseidon's exploration results and mineral resources contained within this announcement is extracted from the ASX announcements and references titled:

- "Low Cost, Near Surface Exploration Targets Identified at Black Swan" dated 30 May 2024
- "Exciting New Exploration Targets at Windarra" dated 14 February 2024
- Focus Minerals Ltd, ASX announcement "Beasley Creek South Mineral Resource Update" dated 23 February 2022
- Focus Minerals Ltd, ASX Announcement "Lancefield Far North Maiden Mineral Resource" dated 18 January 2022
- Focus Minerals Ltd, ASX announcement "Beasley Creek Gold Deposit Continues to Grow" dated 8 November 2021
- Magnetic Resources NL, ASX announcement "Bonanza Grades of 2m @110g/t Gold from Historical Drilling at the Marabou Project" dated 18 April 2016
- Poseidon Identifies New Prospective Nickel Targets at Windarra" dated 16 June 2010
- "Windarra Exploration to Recommence" dated 18 January 2010
- Blockley, 1971. The Lead, Zinc and Silver Deposits of Western Australia, Geological Survey of Western Australia, Mineral Resources Bulletin 9

The information in this report that references previously reported exploration results is extracted from the Company's previous ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website (www.poseidon-nickel.com.au) or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

#### FORWARD LOOKING STATEMENTS:

This release contains certain forward looking statements including nickel production targets matters that may involve risks or uncertainties and may involve significant items of subjective judgement and assumptions of future events that may or may not eventuate (Forward Statements). 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. No independent third party has reviewed the reasonableness of any such statements or assumptions. None of the Company, their related bodies corporate and their respective officers, directors, employees, or advisers represent or warrant that such Forward Statements will



be achieved or will prove to be correct or gives any warranty, express or implied, as to the accuracy, completeness, likelihood of achievement or reasonableness of any Forward Statement contained in this release. Except as required by law or regulation, the Company assumes no obligation to release updates or revisions to Forward Statements to reflect any changes. Recipients should form their own views as to these matters and any assumptions on which any of the Forward Statements are based and not place reliance on such statements.

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



## **Appendix 1 - Drillhole Collar Location Data**

TABLE 1: DRILLHOLE COLLAR LOCATION DATA OF HISTORICAL GOLD INTERSECTIONS REPORTED IN THIS ANNOUNCEMENT, CO-ORDINATES REPORTED IN GDA 94 MGA ZONE 51.

Hole Id	Со	llar Co-Ordinat	es	Dip MGA Azi From m To m Downhole Interval m	Auralt				
Hole Id	MGA East	MGA North	RL		Azi	Fromm	10 111	Interval m	Au g/t
PNRC0278	428527	6840868	440	-60	270	34	35	1.0	0.5

#### TABLE 2: DRILLHOLE COLLAR LOCATION DATA OF HISTORICAL LEAD, ZINC AND SILVER INTERSECTIONS, TO A 1G/T AG CUT OFF REPORTED IN THIS ANNOUNCEMENT, CO-ORDINATES REPORTED IN GDA 94 MGA ZONE 51.

	Colla	ar Co-Ordinates	S		MGA	From		Downhole	Au	Ag	Pb	Zn	Cu
Hole Id	MGA East	MGA North	RL	Dip	Azi	m	То т	Interval m	g/t	g/t	%	%	%
WED13	428032	6842314	435	-85	235	687.70	689.30	1.60	0.04	38.38	2.56	3.77	0.01
including		I		1	1	687.70	688.00	0.30	0.09	200.00	13.50	15.00	0.01
PNRCD0128	429998	6838876	426	-59	274	208.07	216.40 (EOH)	8.33	NA	73.03	0.49	0.74	0.09
including						211.83	216.40 (EOH)	4.57	NA	80.92	0.67	1.26	0.16
and						215.06	215.95	0.89	NA	380.00	3.14	5.53	0.76
PND0142	430116	6838968	426	-72	263	271.0	271.52	0.52	NA	90.00	2.25	0.49	0.03
PND0039	430580	6839285	427	-82	273	672.93	674.37	1.44	NA	29.92	0.08	0.85	0.02

NA = No Assay



## **Appendix 2 - Checklist of Assessment and Reporting Criteria**

### **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drilling</li> <li>Drilling at Windarra Nickel Project (WNP) was initially completed by Poseidon NL then subsequently Western Mining Corporation (WMC) from 1969 to 1992. Poseidon Nickel Limited (Poseidon) recommenced drilling in 2006. No activity took place between the period 1992 to 2006.</li> <li>Historically RAB, Aircore, Reverse Circulation (RC) and Diamond Drilling have been used to obtain samples.</li> <li>Sampling referred to in this report includes half core and RC chip sampling. Generally, 1.2m samples or smaller have been used for exploration diamond drilling and 1m intervals for RC drilling.</li> <li>Sampling protocols from drilling between 1969 and 1992 have not been well documented.</li> <li>Diamond drilling sampling protocol since 2006 has followed accepted industry practice with sample selection based on geological cortacts. Individual assay samples typically vary in length from a minimum of 0.2m and a maximum length of 1.2m.</li> <li>Soil Samples</li> <li>- 250 µm Soil samples were collected on 2km, 1km and 500m spaced lines. Sample sites were 200m, 100m, or 20m separation based on target outcome.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Diamond drilling at WNP is typically NQ2 size. Occasionally BQ and HQ size holes have been drilled.</li> <li>WMC used downhole orientation methods such as the Core-stub Spear and the Craelius System.</li> <li>The entire core from 2006 onwards was orientated using the 2IC EzyMark orientation tool in surface holes and Reflex ACTII RD downhole tools in underground holes.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>All recovered diamond core has been meter marked by on-site field technicians and/or geologists. Any core loss is determined and recorded as part of the geological logging process.</li> <li>Core recovery is typically 100% with only minor losses in and around shear zones.</li> <li>No relationship exists between core recovery and grade.</li> </ul>
Logging	<ul> <li>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.</li> </ul>	<ul> <li>All core is geologically and geotechnical logged.</li> <li>Core is logged onto Toughbook computers using FieldMarshal software using validated coding. The data is checked in Micromine</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>then loaded into Poseidon's SQL Server database via DataShed which is managed in house.</li> <li>All core from 2006 is photographed dry and wet. No photo records exist for WMC core, however core from several holes was preserved at the Joe Lord Core library in Kalgoorlie</li> </ul>
		<ul> <li>Photographs, where present of the core have also been checked for geological validation purposes. All checks revealed the historical logging is of a high standard.</li> </ul>
Sub- sampling techniques and sample preparation	split, etc and whether sampled wet or dry.	<ul> <li>Drilling</li> <li>All core selected for sampling is cut into half core using a CoreWise automated core saw and sampled for assaying by on site field technicians. WMC used a manual brick saw.</li> <li>Where possible all cut samples are selected from the same side of the downhole orientation mark to ensure the core is not "selectively sampled".</li> <li>RC samples were collected using a spear over 1m intervals, suitable for Nickel exploration which was the focus of the programs.</li> <li>Selected samples were taken for Au and othe polymetallic elements using the same methods.</li> <li>Samples were collected from a depth of 25cm and dry sieved to collect 100g of -250µm sample.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Drilling</li> <li>The majority of the historic samples were analysed by Analabs in Perth and grade control samples were analysed by the Windarra onsite laboratory.</li> <li>Samples were dissolved in a mixed acid digest and analysed using an AAS finish.</li> <li>Poseidon samples have been analysed by Ultratrace and Quantum Analytical laboratories in Perth.</li> <li>The laboratory process for Poseidon samples involve: sorting, drying, &amp; crushing to nominal 10mm, then up to 3kg is pulverised to 75um (LM5). A 0.5g sample charge is mixed with Lithium Borate flux and fused at 10800 C. The melt is dissolved in HCl acid and analysed using ICP-OES finish (15 elements).</li> <li>Gold assays were determined on pulps via Fire Assay at Nagrom Laboratories.</li> <li>CRMs standards, blanks and duplicate samples were submitted by Poseidon at a rate of 1 in every 25 samples.</li> <li>The QAQC results indicate that the assays are a fair representation of the material that has been sampled.</li> <li>Soil samples were dispatched to ACME in Vancouver for analysis by aqua regia via</li> </ul>

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Criteria	JORC Code explanation	Commentary
		• CRM's and field duplicates were included at a rate of 3 per 100.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Validation of logging via relogging select drill holes and use of photography has revealed the historical logging is of a high standard.</li> <li>All data is captured within the Geobank and has been validated in-house by the Database Manager.</li> <li>Assay results were validated, and significant intersections were calculated by Muller Geological Services Consultancy.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>WMC holes progressed from downhole survey methods such as acid tubes to Eastman Single Shot Cameras from 1971 then to multishot orientation tools by the 1980's.</li> <li>Poseidon uses DHS's digital Azimuth Aligner gyroscope system.</li> <li>All underground and most surface hole collars are located by mine surveyors using Total Station control and surveyed control points which are tied into surveyed trig points.</li> <li>Collar locations for drilling conducted by Poseidon were surveyed by a licensed surveyor in MGA GDA94 Zone 51.</li> <li>Soil samples were located using a Garmin handheld GPS.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The holes drilled form part of a program that is intended for exploration and are therefore not a prescribed grid.</li> <li>Soil samples were collected on 2km, 1km and 500m spaced lines. Sample sites were 200m, 100m, or 20m separation based on target outcome.</li> </ul>
Orientation of data in relation to geological structure		<ul> <li>Drilling is generally perpendicular to strike and targets Nickel mineralisation, which are relatively planar and runs parallel to the stratigraphy.</li> <li>Targeting of specific gold targets was not part of the scope of drilling.</li> <li>Soil samples were collected perpendicular to strike.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Core is delivered directly to the core yard which is separated from the main mine area and is manned by Poseidon personnel.</li> <li>All sampled core/RC spoil is bagged and wire-tied closed then placed in a large bulka bag which is also wire-tied closed.</li> <li>This is couriered direct to the labs were it is inspected before opening by lab staff.</li> <li>Sample security is considered adequate.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits or reviews were completed



## **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Mt Windarra is situated on M261SA (AM70 261). There is a 1% revenue royalty due to BHPB if the nickel product is not sold to/treated by BHPB. There are no material issues at Mt Windarra.</li> <li>Poseidon owns 100% of M261SA which is in good standing and has no overriding encumbrances.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Mt Windarra Nickel Project (WNP) was initially discovered by Poseidon NL in 1969 and was then acquired by Western Mining Corporation (WMC) in 1972. Poseidon Nickel Limited (Poseidon) acquired the project in 2005 and recommenced drilling in 2006. No activity took place between the period 1992 to 2006.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	• The Windarra region is part of the Mt Margret Goldfield and comprises the Windarra Greenstone that wraps around the Mt Margret anticline.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul> <li>The historical drill hole information pertaining to this announcement that has not been previously reported is listed as Table 1 in Appendix 1 of this document.</li> <li>The drill hole database was digistised from WMC data by Poseidon that captured 15,180 drill holes. Subsequently, Poseidon has added close to 1000 more drill holes.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>When reporting polymetallic (Pb, Zn and Ag) assay results, a cut-off grade of 1g/t Ag was applied and interval weighted. With no more than 2m true width going both ways unless otherwise stated.</li> <li>No metal equivalents were reported.</li> </ul>
Relationship between	These relationships are particularly important in the reporting of Exploration	• The mineralised widths are reported as down hole lengths, true width not known.



Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	<ul> <li>Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Appropriate maps related to this release are included in the main body of the release.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Historical results relating to the release are tabulated in Appendix 1.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>No further substantive exploration data is necessary to support this announcement.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further work is currently being planned and will be reported if and when it occurs in the future.</li> </ul>