

ASX Announcement 18 December 2023

EXPLORATION & GOLD TAILINGS UPDATE

KEY POINTS

Maggie Hays West prospect returns positive assay results

- Latest drill assay results confirm a strong, 1km coherent Ni-Cu-PGE regolith anomaly at Maggie Hays West. Drill results include:
 - o PLJA176: 36m @ 0.99% Ni, 286ppm Cu, 141ppb PGE
 - with intervals grading up to 2.37% Ni, 624ppm Cu and 353ppb Pt+Pd
 - o PLJA177: 21m @ 1.13% Ni, 374ppm Cu, 136ppb PGE
 - with intervals grading up to 2.16% Ni, 425ppm Cu and 207ppb Pt+Pd
- Shallow drill traverses at Maggie Hays West has provided important geological information as to the location of the Western Ultramafic Unit basal contact
- Ni-Cu-PGE pathfinder suite a confirms an 'embayed' channel feature along the basal contact a key setting where economic concentrations of nickel sulphides could potentially accumulate
- Maggie Hays West is confirmed as a compelling and exciting regional nickel sulphide target and further drilling to progress this exciting target is warranted

Regional nickel targets along the Western Ultramafic Unit

 Final assays from the recent program testing other prospective regional targets remain outstanding, including some PGE results from Maggie Hays West

Lake Johnston lithium review

- Recent soil sampling targeting the southern area of the Western Ultramafic Unit, returned anomalous lithium values over a strike length of 3km with corresponding rubidium (Rb) and caesium (Cs) anomalism
- Lithium levels of >100ppm Li₂O returned are similar to those recently reported by other companies within the Lake Johnston region
- Further works being planned to better understand the source of the Li-Rb in-soil anomalism and an expanded lithium review has commenced across the Lake Johnston project

• Windarra

- o External consultant engaged to undertake further exploration targeting
- Ongoing engagement with multiple parties showing renewed interest in the Windarra and Lancefield gold tailings projects as well as the South Windarra water resource



Poseidon Nickel Limited (ASX: POS, "the Company") is pleased to provide this exploration and gold tailings project update.

CEO, Craig Jones, commented: "the Company continues to advance its exploration activities on several fronts. At Lake Johnston, the nickel exploration activities have been focussed along the highly prospective Western Ultramafic Unit with results returning elevated nickel and platinum group metals that support the existence of the extensive Maggie Hays West anomaly and potentially points towards a mineralised channel.

A review of the lithium potential is well underway at Lake Johnston with soil samples containing elevated Lithium and indicator minerals located towards the southern end of our tenements. The detailed review includes additional soil sampling to determine the size and scale of this opportunity and a resampling of historic pegmatite in existing drill core. As part of the ongoing lithium evaluation, a selection of pegmatite samples (~10cm each) from existing core has been sourced aided by UV light and pXRF. While no significant lithium assay values were returned, these results are being incorporated into the historical data previously collected by Poseidon to build lithium fertility maps of the region.

Following on from the recent exploration targeting review of Windarra, a project scale target identification program is underway along sections of the 24km of strike of the basal contact, targeting additional opportunities for low-cost exploration activities. The initial focus is along a 7km section to the south of the historical Mt Windarra mine."

LAKE JOHNSTON

Western Ultramafic Unit Exploration

The first batches of assay results for the October 2023 drill program that targeted both Maggie Hays West and several other regional targets along the Western Ultramafic Unit (WUU) have been received (Figure 1). Whilst not all assays have been returned, the higher priority assay results from Maggie Hays West have been received. Significant results are summarised in Table 1.

Hole	From	То	Ni Intercept
PLJA175	3	18	15m @ 0.66% Ni, 191ppm Cu, 171ppb PGE
	21	23	2m @ 0.58% Ni 159ppm Cu, 64ppb PGE
PLJA176	3	39	36m @ 0.99% Ni 286ppm Cu, 141ppb PGE
including	7	13	6m @ 1.23% Ni, 334ppm Cu, 85 ppb PGE
and	21	34	13m @ 1.31% Ni, 332ppm Cu, 229ppb PGE
and	25	26	1m @ 2.06% Ni, 624ppm Cu, 353ppb PGE
and	28	29	1m @ 2.01% Ni, 349ppm Cu, 188ppb PGE
and	33	34	1m @ 2.37% Ni, 347ppm Cu, 249ppb PGE
PLJA177	15	16	1m @ 0.52% Ni, 100ppm Cu, 70ppb PGE
	18	39	21m @ 1.13% Ni, 374ppm Cu, 136ppb PGE
including	26	36	11m @ 1.41% Ni, 425ppm Cu, 162ppb PGE
and	28	29	1m @ 2.16% Ni, 355ppm Cu, 207ppb PGE
PLJA179	33	36	3m @ 0.83% Ni, 170ppm Cu
	43	51	8m @ 0.63% Ni, 124 ppm Cu
	56	59	3m @ 0.60% Ni, 249 ppm Cu
PLJA182	17	25	8m @ 0.55% Ni, 107ppm Cu
	27	28	1m @ 0.41% Ni 147 ppm Cu
	30	35	5m @ 0.44% Ni, 87 ppm Cu
	38	39	1m @ 0.41% Ni, 90 ppm Cu

TABLE 1: MAGGIE HAYS WEST ASSAY RESULTS USING 0.4% NI CUT OFF (PGE= PLATINUM + PALLADIUM)



PLJA183	13	14	1m @ 0.41% Ni, 154ppm Cu
FLJA105			
	19	48	29m @ 0.52% Ni, 112ppm Cu
	55	56	1m @ 0.46% Ni, 26ppm Cu
	62	63	1m @ 0.43% Ni, 15ppm Cu
PLJA185	3	4	1m @ 0.48% Ni, 219ppm Cu
	6	8	2m @ 0.45% Ni, 472ppm Cu
	11	17	6m @ 0.44% Ni, 266ppm Cu
	29	32	3m @ 0.51% Ni, 43ppm Cu
	41	42	1m @ 0.51% Ni, 105ppm Cu
PLJA186	33	35	2m @ 0.48% Ni, 75ppm Cu
PLJA187	6	8	2m @ 0.55% Ni,73 ppm Cu
	11	22	11m @ 0.49% Ni, 89 ppm Cu
	26	31	5m @ 0.55% Ni, 20ppm Cu
	38	39	1m @ 0.53% Ni, 118ppm Cu

Maggie Hays West

The Maggie Hays West October 2023 drill program consisted of 17 aircore (AC) holes for a total of 807 metres. The AC holes were drilled on 100m spaced lines with the aim to define the position of the basal (eastern) Contact of the WUU against the Banded Iron Formation (BIF) unit that separates the WUU from the underlying Central Ultramafic Unit (CUU) (Figures 2 and 3). The former Maggie Hays nickel orebody and associated underground workings are hosted within the CUU approximately 200 metres to the east of (directly below) Maggie Hays West.

Assay results have now been received for all AC holes completed at Maggie Hays West. The results include a best nickel intercept of 1.0m at 2.37% Ni, 347ppm Cu and 249ppb Pt+Pd in Hole PLJA176, within a 36m intercept of 0.99% Ni. This provides significant additional support for the existence of a strong coherent nickel anomaly associated with the interpreted komatiite channel and basal contact of the WUU. Significant results received from this program to date are summarised in Table 1. Interpretation of the results, in conjunction with a detailed review of the historical drilling suggests the Maggie Hays West anomaly consists of a 1km long channel feature developed in the WUU directly above the CUU. In addition to the anomaly, the channel is also partly defined by an appreciable thinning of the BIF unit that separates the two ultramafic units in this area. A potential connection with the possible complete absence of the separating BIF unit is now also recognised near to the surface further enhancing the prospectivity of the largely untested WUU and creating an exciting exploration target.

Testing of the Maggie Hays West anomaly and associated WUU "channel-like" zone warrants further exploration efforts and planning for efficient targeting with cost effective exploration techniques, is being evaluated for the next stages of the work programs for 2024.



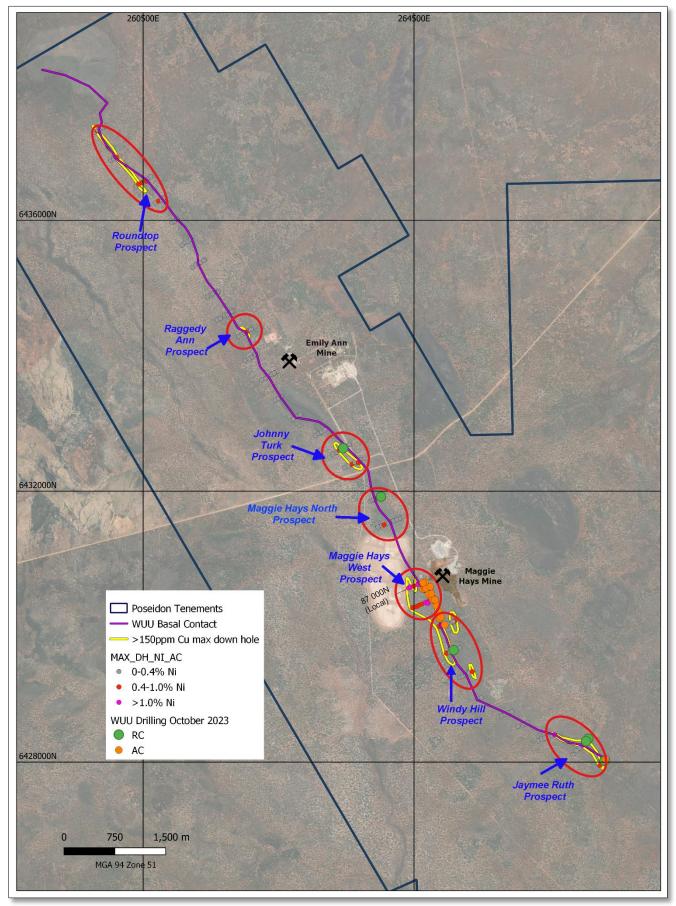
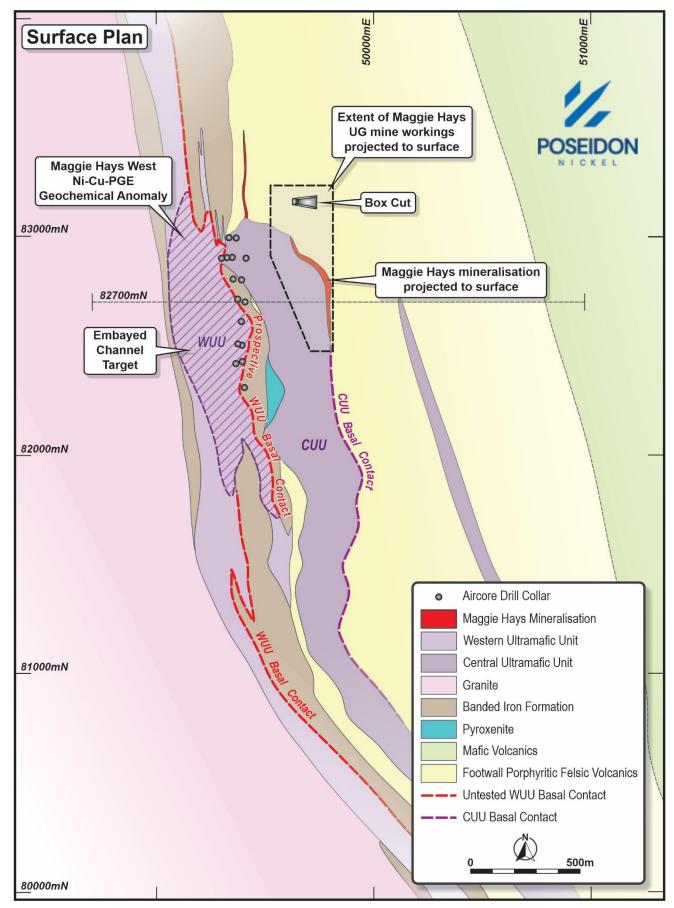


FIGURE 1: LOCATION PLAN SHOWING COMPLETED DRILLING IN OCTOBER 2023 AT LAKE JOHNSTON





POSEIDON



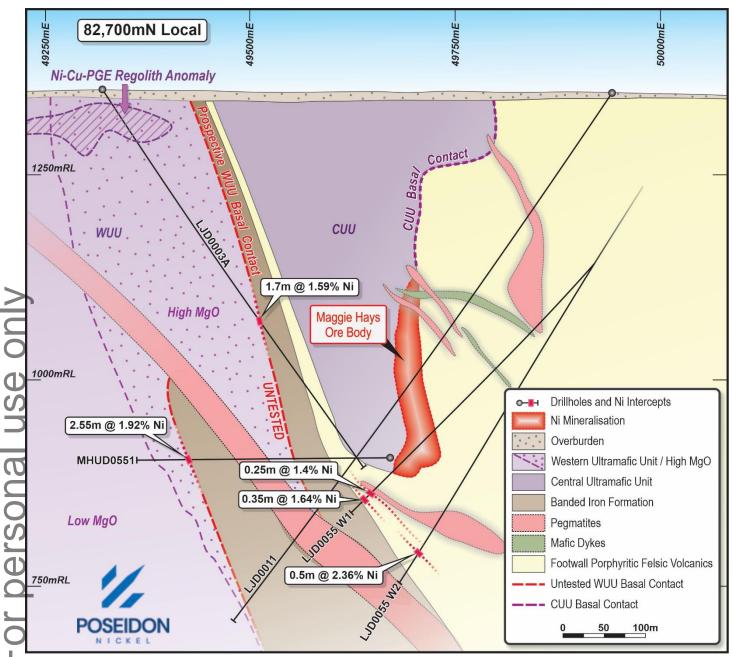


FIGURE 3: CROSS SECTION 82700N WITH HISTORICAL INTERCEPTS OF NICKEL SULPHIDES ALONG THE BASAL CONTACT OF THE WUU

Regional Targets

No assays have been received to date from the regional targets tested as part of the October 2023 drill program. Based on historical drill results and pXRF readings from the drill program, additional priority shallow AC drilling is required at Johnny Turk, Raggedy Ann and Roundtop to test and further define the extent of high MgO lithologies identified near the basal contact of the WUU in these areas. This additional shallow drilling is planned to be completed in 2024.

Lake Johnston Lithium Review

The lithium potential of the Lake Johnston Project is currently being reviewed. Data from five recently completed regional soil sampling programs to delineate the extent of the WUU were re-examined, four of which were orientation surveys to determine the effectiveness of the Ultrafine technique to define bedrock in transported regimes to the north of the project (Figure 4). The standout area was the southern-most program



where in-situ soils covering the WUU returned anomalous lithium values with corresponding rubidium (Rb) and caesium (Cs) anomalism in places over a strike length of 3km (Figure 5). This anomaly is open to the east and south-west where it continues underneath North Lake Hope. The lithium levels in the soils are similar to levels recently reported by other companies exploring for lithium bearing pegmatites in the Lake Johnston region. The coincident Rb in-soil anomalism could indicate the presence of pegmatites as Rb is incompatible in early forming minerals and increases in the melt as they fractionate. It is interpreted that there is a potential granite source associated with the pegmatites that are present to the west of the anomaly.

Three orientation soil sampling programs completed at Roundtop, Johnny Turk and Magie Hays West along the WUU have also returned similar lithium values but, in these areas, transported soil cover up to 30 metres thick is present. Thus, these results are considered less significant as they may not represent true bedrock anomalism.

In addition to the soil data, a preliminary review of the logged pegmatite data recorded in the Lake Johnston Project drill-hole database was also completed which identified numerous broad pegmatite zones (>100m thickness). Selective inspection of the available core from several of these zones with pXRF and UV light resulted in eight fluorescent samples with slightly elevated lithium levels which were sent for analysis. While the assay results from this limited sampling did not return any significant lithium anomalism, it has provided important information regarding the mineralogy of the pegmatites. These results will be incorporated with the historical data previously collected by Poseidon to build lithium fertility maps of the region.

The initial results of the lithium review supports further work with the Company intending to ramp-up lithium search activities in 2024. The initial focus will involve field checks, resampling of existing cores and verification of existing soil anomalies, followed by mapping and rock chip sampling about known pegmatite outcrops and significantly extending soil sampling coverage over areas of in-situ residual soils. To assist the implementation of this work and drive target selection and prioritisation the Company has engaged a consultant with significant lithium expertise.



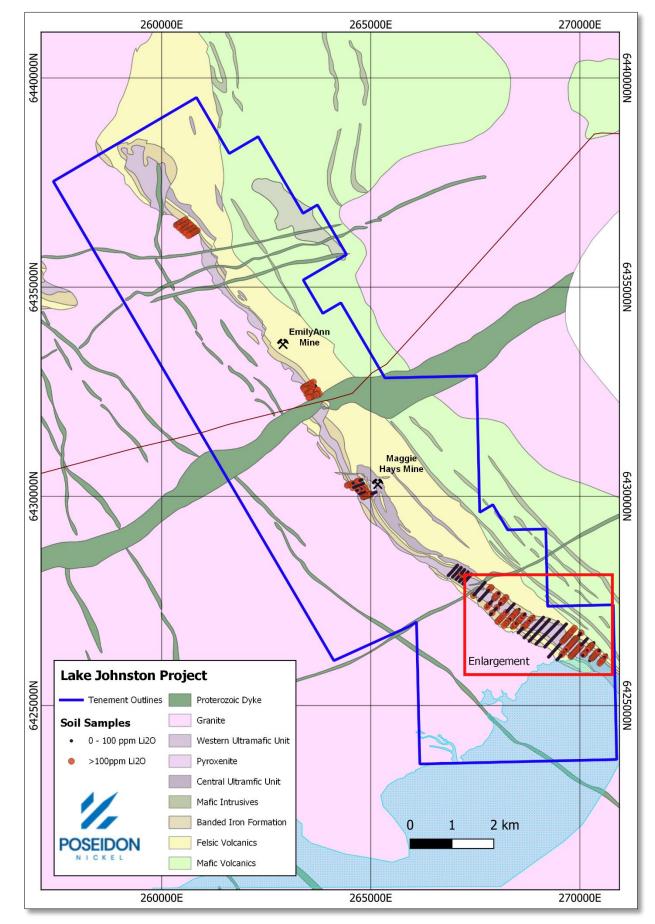


FIGURE 4: REGIONAL GEOLOGICAL PLAN SHOWING THE LOCATION OF THE SOILS PROGRAM OVER THE WUU AND SOILS WITH $$>100 \mbox{ppm}\ Li_2O$



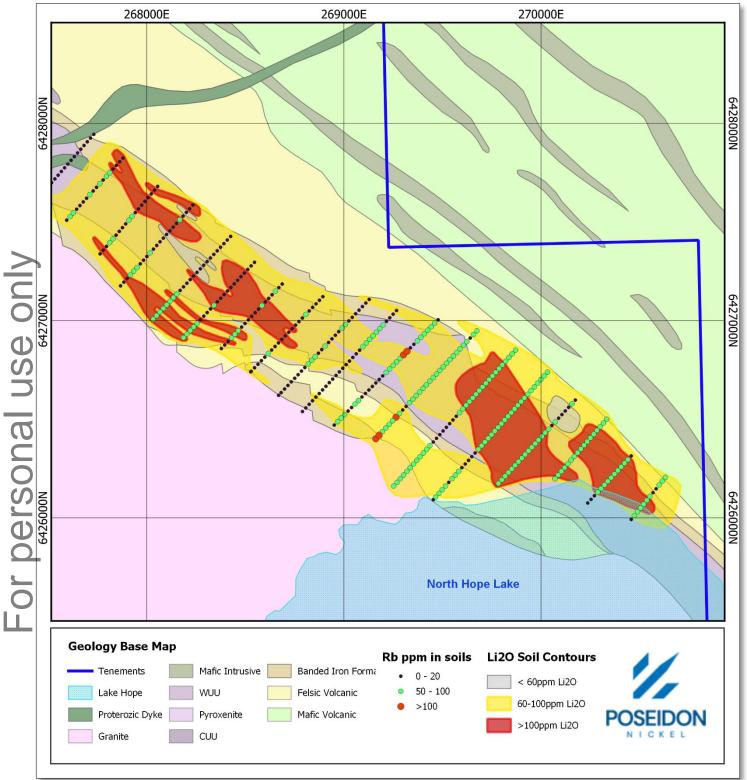


FIGURE 5: SOILS LOCATED IN THE SOUTHERN PORTION OF THE PROJECT AREA SHOWING LI2O CONTOURS AND COINCIDENT RUBIDIUM ANOMALISM WITHIN A RESIDUAL SOIL PROFILE.



WINDARRA

Gold Tailings Project

The Company has recently completed metallurgical testwork to assess the potential of Draslovka's Glycine Leaching Technology, which may improve gold recoveries for the tailings retreatment project. Draslovka is a global leader in cyanide-based chemical specialties and their Glycine Leaching Technology (GlyCAT[™]) is considered one of the most environmentally sustainable and cost-effective ways to produce precious metals and critical minerals.

Results are reported on representative samples of the Lancefield gold tailings (Comp C) and two samples of nickel tailings from the Windarra Central Dam (WCD). The samples were collected from separate sonic drilling programs.

The objectives of the testwork and a high-level summary of the key outcomes are presented below:

- Objective 1: Assess if Draslovka's GlyCAT[™] technology can improve the gold extraction from that
- Objective 1: Assess if Draslovka's GlyCATTM technology can improve the gold extraction from that reported in the DFS.
 Key outcome: Gold extraction improved by approximately 10% when the sample (particle sizing P₈₀ 167 microns) was ground finer to P₈₀ 41 microns. This improvement was evident whether utilising cyanide as the leaching lixiviant or GlyCATTM (a mixture of cyanide and glycine).
 Objective 2: Assess whether Draslovka's GlyLeachTM technology can extract nickel from the nickel tailings contained in the WCD.
 Key outcome: This proof-of-concept testwork demonstrated circa 49.3% of the nickel and 36.6% of the cobalt was leached and adsorbed onto resin-in-pulp in a 48-hour resin-in-pulp bottle roll test when the sample (particle sizing P₈₀ 192 microns) was ground finer to P₈₀ 30 microns and when the slurry temperature was maintained at nominally 50 degrees Celsius.

unickel tailings sample was leached within a 16-hour period. This is the leach residence time available in the Carbon-In-Pulp (CIP) leach tanks proposed for the Windarra Gold Tailings Project.

igodot The positive results reported for the nickel tailings sample opens the opportunity to consider incorporating the WCD into the production profile for the Windarra Gold Tailings Project. The activated carbon for the CIP circuit could be switched to a suitable resin when processing the nickel tailings with the nickel and cobalt extracted from the resin using the same stripping circuit, mining, and processing equipment.

The positive result for the Lancefield Comp C sample opens the opportunity to significantly improve the gold extraction from the Lancefield gold tailings. Realising both opportunities would require the installation of a Ball Mill and cyclone cluster to grind the tailings finer. Additional testwork would be required to assess if these recent metallurgical breakthroughs can deliver improved economics for the project.

Since the Windarra Gold Tailings Definitive Feasibility Study (DFS) (refer to ASX announcement "Windarra Gold Tailings DFS Highlights Robust Project' released 23 July 2021) was released, the Australian dollar gold price has improved significantly, lifting approximately 30% from A\$2,333/oz in the DFS to circa A\$3,000/oz today. The improvement in gold price combined with an uplift in gold recoveries, would improve project economics. The Company is continuing to pursue development opportunities with interested partners for the project.



Exploration review

Following a recent review of the Windarra exploration opportunities, a specialist consultant has been engaged to complete a belt scale review across the tenements and recommend follow up work programs to realise the potential.

An initial focus of approximately 7km of the basal contact between Cerberus and Mt Windarra is underway. Validation of the historical data is being completed that will support the creation of long sections throughout the belt, tied together with surface mapping and the construction of a three-dimensional footwall model.

Following this initial work, it is anticipated that quality targets will be generated that will support future low-cost work programs that can be incorporated into activities throughout 2024.

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

Craig Jones CEO 18 December 2023 For further information contact Craig Jones: + 61 (0)8 6167 6600. About Poseidon Nickel Limited (ASX Code: POS) is a nickel sulphide exploration of the a radius of 300km from Kalgoorlie in the Goldfields region Und aventual restart of the a radius of 300km from Kalgoorlie in the Goldfields region of a ventual restart of the a radius of 300km from Kalgoorlie in the Goldfields region 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

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 to acquire projects and 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 Lake Johnston and Windarra 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 Golden Swan Resource at Black Swan, the Abi Rose and more recently the Maggies Hays West mineralisation at Lake Johnston.

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 remaining positive and all necessary approvals being obtained.

A Definitive Feasibility Study on retreating the gold tailings at Windarra and Lancefield was completed in mid-2022. A potential partner is currently conducting due diligence on the Lancefield gold tailings and accessing the water in the South Windarra pit.



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 Ms Karyn Parker, who is an employee of Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.

Ms Parker, 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). Ms Parker consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Additional information contained within this announcement is extracted from the reports titled:

- "Exciting Greenfields Nickel Intersections at Lake Johnston" dated 3 July 2023
- "Updated Resource provides more Nickel at Black Swan" dated 7 June 2023
- "Black Swan Restart Project Update" dated 5 April 2022

which are available to view on www.poseidon-nickel.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 announcement and, in the case of Minerals Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially modified from the original market announcement.

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

TORWARD 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 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.



Appendix 1 - Nickel Projects Mineral Resource Statement

									MIN	IERAL RESOU	RCE CATEGOR	Y						
Nickel Sulphide	JORC Complia	Cut Off		MEASURED			INDICATED			INFERRED					TOTAL			
Resources	nce	Grade	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co% Grade	Co Metal (t)	Cu% Grade	Cu Metal (t)
								BLAC	CK SWAN PROJE	ст								
Black Swan	2012	0.4%	800	0.78	7,000	15,100	0.73	111,000	10,400	0.69	71,000	26,300	0.72	189,000	0.02	4,000	0.03	7,900
Silver Swan	2012	1.0%	-	-	-	138	9.00	12,450	8	6.00	490	146	8.80	12,940	0.16	240	0.36	530
Golden Swan	2012	1.0%	-	-	-	112	4.70	5,200	48	2.20	1,050	160	3.90	6,250	0.08	120	0.30	480
Silver Swan Tailings	2012	NA	675	0.92	6,200	-	-	-	-	-	-	675	0.92	6,200	0.07	460	0.04	270
Stockpiles	2012	0.4%	-	-	-	1,200	0.49	5,900	400	0.53	1,900	1,600	0.50	7,800	NA	NA	NA	NA
								LAKE J	OHNSTON PRO	JECT								
Maggie Hays	2012	0.8%	-	-	-	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
								WIN	IDARRA PROJE	ст								
Mt Windarra	2012	0.9%	-	-	-	922	1.56	14,000	3,436	1.66	57,500	4,358	1.64	71,500	0.03	1,200	0.13	5,700
South Windarra	2004	0.8%	-	-	-	722	0.98	8,000	-	-	-	772	0.98	8,000	NA	-	NA	-
Cerberus	2004	0.75%	-	-	-	2,773	1.25	35,000	1,778	1.91	34,000	4,551	1.51	69,000	NA	-	NA	-
					, and the second se		, and the second se		TOTAL		n na sana na s			, and the second se	, and the second se			
Total Ni, Co, Cu Resources	2004 &2012		1,475	0.84	13,200	23,600	0.98	233,500	17,000	1.03	176,000	42,100	1.00	422,700	0.02	7,800	0.05	18,300

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

- Black Swan Resource as at 7 June 2023 (see ASX announcement "Updated Resource provides more Nickel at Black Swan" released 7 June 2023)
- Silver Swan Resource as at 27 April 2022 (see ASX announcement "Updated Silver Swan Resource underpins significant increase in high-grade Indicated resource base" released 27 April 2022)
- Golden Swan Resource as at 27 October 2021 (see ASX announcement "Golden Swan Maiden Resource" released 27 October 2021).
- Silver Swan Tailings Resource as at 15 September 2021 (see ASX announcement "Silver Swan Tailings Maiden Resource Estimate" released 15 September 2021)
- Stockpile Resource as at 22 July 2014 (see ASX announcement "Poseidon Announces Black Swan Mineral Resource" released 4 August 2014)
- Maggie Hays Resource as at 17 March 2015 (see ASC announcement "50% Increase in Indicated Resources at Lake Johnston" released 17 March 2015)
- Mt Windarra Resource as at 7 November 2014 (see ASX announcement "Poseidon Announces Revised Mt Windarra Resource" released 7 November 2014)
- South Windarra and Cerberus Resource as at 30 April 2013 (see ASX announcement "Resource Increase of 25% at Windarra Nickel Project" released 1 December 2011)



Appendix 2 - Nickel Reserves Statement

	JORC Compliance								
Nickel Sulphide Reserves		Proved/Probable	Tonnes (Kt)	Ni% Grade	Ni Metal (t)	Co % Grade	Co Metal (t)	Cu % Grade	Cu Metal (t)
			BLACK	SWAN PROJEC	Г				
		Proved	579	0.7	4.2	NA	NA	NA	NA
Black Swan	2012	Probable	2,608	0.7	17.7	NA	NA	NA	NA
	2012	Proved	-	-	-	NA	NA	NA	NA
Silver Swan		Probable	179	5.0	9.0	NA	NA	NA	NA
	2012	Proved		-	-	NA	NA	NA	NA
Golden Swan		Probable	100	4.0	4.0	NA	NA	NA	NA
		Proved	579	0.7	4.2	NA	NA	NA	NA
Total Ni Reserves	2012	Probable	2,887	1.1	30.7	NA	NA	NA	NA
		Total	3,466	1.0	34.9	NA	NA	NA	NA

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

• Black Swan Reserve, Silver Swan Reserve and Golden Swan Reserve as at 21 November 2022 (see ASX announcement "Positive Black Swan Feasibility Study" released 21 November 2022)

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.



Appendix 3

DRILLHOLE COLLAR LOCATION DATA, REPORTED IN GDA 94 MGA ZONE 51 AND LOCAL CO-ORDINATES

Prospect	Lease	Hole	Туре*	Local East	Local North	MGA East	MGA North	RL	Dip	Local Azi	MGA Azi	EOH	Assays
Maggie Hays	M 63/163	LJD0003A	DD	49,320	82,706	264,719	6,430,375	1355	-55	89	67	625	Pending
Maggie Hays	M 63/163	MHUD0551	DD	49,663	82,729	265,029	6,430,523	903	0	270	248	301.7	Pending
Maggie Hays	M 63/163	MHUD0581	DD	49,666	82,729	265,032	6,430,524	905	-1.5	282	260	293.6	Pending
Maggie Hays	M 63/163	MHUD0582	DD	49,665	82,728	265,032	6,430,523	905	5	258	236	286.36	Pending
Maggie Hays West	M 63/163	PLJA175	AC	49,307	82,899	264,636	6,430,552	1358	-60	92	70	23	Received
Maggie Hays West	M 63/163	PLJA177	AC	49,354	82,902	264,678	6,430,569	1360	-60	92	70	43	Received
Maggie Hays West	M 63/163	PLJA178	AC	49,360	82,803	264,720	6,430,479	1363	-60	92	70	46	Received
Maggie Hays West	M 63/163	PLJA179	AC	49,381	82,708	264,775	6,430,400	1366	-90	0	0	59	Received
Maggie Hays West	M 63/163	PLJA180	AC	49,415	82,695	264,811	6,430,401	1370	-90	0	0	57	Received
Maggie Hays West	M 63/163	PLJA181	AC	49,398	82,604	264,829	6,430,311	1368	-90	0	0	31	Received
Maggie Hays West	M 63/163	PLJA182	AC	49,383	82,503	264,852	6,430,206	1365	-90	0	0	55	Received
Maggie Hays West	M 63/163	PLJA183	AC	49,372	82,410	264,876	6,430,115	1366	-90	0	0	70	Received
Jaymee Ruth	M 63/163	PLJA184	AC	50,881	79,572	267,328	6,428,037	1350	-60	62	40	37	Received
Maggie Hays West	M 63/163	PLJA185	AC	49,372	82,991	264,662	6 <i>,</i> 430,660	1357	-90	0	0	68	Received
Maggie Hays West	M 63/163	PLJA186	AC	49,341	82,993	264,632	6,430,648	1357	-90	0	0	41	Received
Maggie Hays West	M 63/163	PLJA187	AC	49,419	82,897	264,740	6,430,592	1360	-90	0	0	41	Received
Maggie Hays West	M 63/163	PLJA188	AC	49,399	82,798	264,758	6,430,490	1365	-90	0	0	34	Received



	Prospect	Lease	Hole	Туре*	Local East	Local North	MGA East	MGA North	RL	Dip	Local Azi	MGA Azi	EOH	Assays
	⁄laggie Hays Vest	M 63/163	PLJA189	AC	49,414	82,695	264,810	6,430,400	1369	-60	92	70	29	Received
	/laggie Hays Vest	M 63/163	PLJA190	AC	49,399	82,496	264,870	6,430,214	1365	-90	0	0	55	Received
	/laggie Hays Vest	M 63/163	PLJA191	AC	49,401	82,420	264,900	6,430,140	1364	-90	0	0	57	Received
	/laggie Hays Vest	M 63/163	PLJA192	AC	49,411	82,298	264,954	6,430,026	1359	-90	0	0	40	Received
J	aymee Ruth	M 63/163	PLJC001	RC	50,859	79,560	267,312	6,428,019	1350	-60	242	220	142	Pending
J	aymee Ruth	M 63/163	PLJC002	RC	50,760	79,954	267,075	6,428,345	1350	-60	242	220	150	Pending
J	aymee Ruth	M 63/163	PLJC003	RC	50,714	79,929	267,041	6,428,309	1350	-60	242	220	136	Pending
V	Vindy Hill	M 63/163	PLJC004	RC	49,393	81,896	265,086	6,429,654	1350	-60	272	250	150	Pending
	/laggie Hays Iorth	M 63/283	PLJC005	RC	49,235	84,402	264,013	6,431,920	1350	-65	272	250	136	Pending
J	ohnny Turk	M 63/283	PLJC006	RC	48,977	85,268	263,453	6,432,634	1350	-60	272	250	61	Pending
J	ohnny Turk	M 63/283	PLJC007	RC	48,977	85,268	263,453	6,432,634	1350	-60	92	70	60	Pending
Ν	/laggie Hays	M63/163	MHUD022	DD	49,589	83,052	264,841	6,430,796	1219	-62	310	288	153.50	Received
Ν	/laggie Hays	M63/163	LJD039W1	DD	49,797	83,400	264,906	6,432,297	1349	-62	276	254	418	Received
E	mily Ann	M63/283	RTD103	DD	NA	NA	262,573	6,434,448	1352	-60	NA	241	340	Received
R	aggedy Ann	M63/283	RTD155	DD	NA	NA	261,824	6,434,385	1347	-60	NA	060	499	Received

*AC = Aircore, RC = Reverse Circulation, DD=Diamond



Appendix 4

Soils sample location data with samples >100ppm Li₂O , reported in GDA 94 MGA Zone 51.

	Sample ID	Lease	Prospect	MGA East	MGA North	Li	Li₂O	Rb	Cs
						(ppm)	(ppm)	(ppm)	(ppm)
	UF00001	M 63/163	Maggie Hays West	264,897	6,430,122	71	153	56	3.6
	UF00002	M 63/163	Maggie Hays West	264,873	6,430,113	54	117	61	3.8
	UF00009	M 63/163	Maggie Hays West	264,817	6,429,983	61	131	64	4
	UF00010	M 63/163	Maggie Hays West	264,840	6,429,992	60	129.61	73.5	4.4
	UF00011	M 63/163	Maggie Hays West	264,864	6,430,001	69	147.91	79.7	4.7
	UF00012	M 63/163	Maggie Hays West	264,887	6,430,010	75	162.12	74.5	4.4
	UF00013	M 63/163	Maggie Hays West	264,910	6,430,020	90	192	57	4.5
	UF00014	M 63/163	Maggie Hays West	264,933	6,430,029	56	121	66.8	3.9
_	UF00015	M 63/163	Maggie Hays West	264,958	6,430,036	66	143	52.8	4.0
	UF00016	M 63/163	Maggie Hays West	264,981	6,430,045	66	142	48.8	3.8
C	UF00017	M 63/163	Maggie Hays West	265,004	6,430,054	50	109	57.2	3.6
4	UF00023	M 63/163	Maggie Hays West	264,860	6,430,215	56	121	46.3	4.8
P	UF00026	M 63/163	Maggie Hays West	264,790	6,430,187	51	110	53	3.6
2	UF00030	M 63/163	Maggie Hays West	264,697	6,430,150	48	104	65.5	4.2
-	UF00032	M 63/163	Maggie Hays West	264,567	6,430,207	52	113	73.8	4.8
σ	UF00044	M 63/163	Maggie Hays West	264,437	6,430,263	80	172	84.8	3.8
Z	UF00045	M 63/163	Maggie Hays West	264,461	6,430,272	68	146	89.9	3.7
Z	UF00047	M 63/163	Maggie Hays West	264,507	6,430,290	53	114	82.6	3.7
2	UF00049	M 63/163	Maggie Hays West	264,554	6,430,309	47	100	63	3.5
2	UF00054	M 63/163	Maggie Hays West	264,670	6,430,355	62	133	71.3	3.4
D	UF00055	M 63/163	Maggie Hays West	264,693	6,430,364	51	110	70.2	3.3
Ž	UF00056	M 63/163	Maggie Hays West	264,717	6,430,371	47	102	73.6	3.2
	UF00094	M 63/163	Jaymee Ruth	267,162	6,428,149	49	106	31.2	3.0
2	UF00107	M 63/163	Jaymee Ruth	267,212	6,428,059	512	112	63.6	3.8
	UF00108	M 63/163	Jaymee Ruth	267,194	6,428,041	49	105	49.3	3.3
	UF00126	M 63/282	Roundtop	260,350	6,436,481	79	169	154	11.0
	UF00127	M 63/282	Roundtop	260,372	6,436,494	69	149	157	10.8
	UF00128	M 63/282	Roundtop	260,393	6,436,507	66	142	155	10.8
	UF00129	M 63/282	Roundtop	260,415	6,436,520	73	156	194	12.0
	UF00130	M 63/282	Roundtop	260,436	6,436,533	75	163	212	13.1
	UF00131	M 63/282	Roundtop	260,458	6,436,545	71	153	163	11.2
	UF00132	M 63/282	Roundtop	260,479	6,436,558	77	166	169	11.8
	UF00133	M 63/282	Roundtop	260,500	6,436,571	56	121	168	9.9
	UF00134	M 63/282	Roundtop	260,522	6,436,584	58	126	142	10.1
	UF00135	M 63/282	Roundtop	260,543	6,436,597	71	153	160	11.4
	UF00136	M 63/282	Roundtop	260,565	6,436,610	73	158	146	9.3
	UF00137	M 63/282	Roundtop	260,637	6,436,547	75	162	130	8.1
	UF00138	M 63/282	Roundtop	260,616	6,436,534	70	151	130	7.5



UF0	0139	M 63/282	Roundtop	260,594	6,436,521	77	165	145	9.0
UF0	0140	M 63/282	Roundtop	260,573	6,436,508	82	176	151	9.0
UFO	0141	M 63/282	Roundtop	260,551	6,436,495	77	167	143	8.9
UFO	0142	M 63/282	Roundtop	260,530	6,436,482	96	208	133	10.8
UF0	0143	M 63/282	Roundtop	260,509	6,436,469	83	180	148	9.3
UF0	0144	M 63/282	Roundtop	260,487	6,436,457	80	173	147	9.0
UF0	0145	M 63/282	Roundtop	260,466	6,436,444	89	191	154	10.2
UF0	0146	M 63/282	Roundtop	260,444	6,436,431	89	192	139	9.3
UF0	0147	M 63/282	Roundtop	260,423	6,436,418	84	181	156	10.0
UF0	0148	M 63/282	Roundtop	260,495	6,436,355	85	184	126	8.4
UF0	0149	M 63/282	Roundtop	260,517	6,436,368	83	178	156	10.0
UF0	0150	M 63/282	Roundtop	260,538	6,436,381	72	154	138	9.0
UFO	0151	M 63/282	Roundtop	260,559	6,436,393	74	160	121	7.9
VF0	0152	M 63/282	Roundtop	260,581	6,436,406	79	169	139	8.5
UFO	0153	M 63/282	Roundtop	260,602	6,436,419	81	173	114	7.6
	0154	M 63/282	Roundtop	260,624	6,436,432	72	154	94	6.7
	0155	M 63/282	Roundtop	260,645	6,436,445	88	190	112	7.2
UFO	0156	M 63/282	Roundtop	260,667	6,436,458	88	188	116	7.5
	0157	M 63/282	Roundtop	260,688	6,436,471	65	140	100	6.7
-UF0	0158	M 63/282	Roundtop	260,710	6,436,483	59	127	87	5.9
	0159	M 63/282	Roundtop	260,781	6,436,421	57	123	77	5.4
UFO	0160	M 63/282	Roundtop	260,760	6,436,408	55	118	93	6.1
UFO	0161	M 63/282	Roundtop	260,738	6,436,395	59	127	92	6.2
UFO	0162	M 63/282	Roundtop	260,717	6,436,382	74	159	173	10.0
UFO	0163	M 63/282	Roundtop	260,695	6,436,370	89	191	116	7.4
UFO	0164	M 63/282	Roundtop	260,674	6,436,357	85	183	146	8.7
UF0	0165	M 63/282	Roundtop	260,652	6,436,344	78	167	107	7.5
UF0	0166	M 63/282	Roundtop	260,631	6,436,331	76	164	123	8.0
UF0	0167	M 63/282	Roundtop	260,610	6,436,318	65	141	117	7.6
UF0	0168	M 63/282	Roundtop	260,588	6,436,305	68	147	118	7.8
UF0	0169	M 63/282	Roundtop	260,567	6,436,292	66	142	122	8.0
UF0	0170	M 63/282	Roundtop	260,853	6,436,358	67	144	84	6.1
UF0	0171	M 63/282	Roundtop	260,832	6,436,345	56	121	84	6.0
UF0	0172	M 63/282	Roundtop	260,811	6,436,332	67	143	77	5.9
UF0	0173	M 63/282	Roundtop	260,789	6,436,319	76	164	105	7.5
UF0	0174	M 63/282	Roundtop	260,768	6,436,306	61	132	84	6.3
UF0	0175	M 63/282	Roundtop	260,746	6,436,294	75	161	102	7.9
UF0	0176	M 63/282	Roundtop	260,725	6,436,281	69	149	101	7.5
UFO	0177	M 63/282	Roundtop	260,703	6,436,268	85	182	115	8.7
UF0	0178	M 63/282	Roundtop	260,682	6,436,255	61	131	105	7.5
UFO	0179	M 63/282	Roundtop	260,661	6,436,242	67	143	104	7.6
UF0	0180	M 63/282	Roundtop	260,639	6,436,229	67	144	97	7.8
UFO	0181	M 63/283	Johnny Turk	263,388	6,432,597	87	187	81	5.0
UF0	0182	M 63/283	Johnny Turk	263,410	6,432,610	74	160	117	5.6



	UF00183	M 63/283	Johnny Turk	263,432	6,432,622	69	149	108	5.5
	UF00184	M 63/283	Johnny Turk	263,453	6,432,635	68	147	91	4.9
	UF00185	M 63/283	Johnny Turk	263,475	6,432,647	56	121	78	4.0
	UF00186	M 63/283	Johnny Turk	263,496	6,432,660	54	116	55	4.1
	UF00187	M 63/283	Johnny Turk	263,518	6,432,673	50	107	67	4.7
	UF00188	M 63/283	Johnny Turk	263,561	6,432,698	49	105	41	4.2
	UF00189	M 63/283	Johnny Turk	263,583	6,432,710	48	103	86	4.5
	UF00191	M 63/283	Johnny Turk	263,628	6,432,733	49	105	65	3.5
	UF00195	M 63/283	Johnny Turk	263,606	6,432,616	53	114	78	3.8
	UF00196	M 63/283	Johnny Turk	263,536	6,432,588	59	126	83	4.3
	UF00197	M 63/283	Johnny Turk	263,513	6,432,579	61	131	92	4.9
	UF00198	M 63/283	Johnny Turk	263,490	6,432,569	73	157	102	5.1
	UF00199	M 63/283	Johnny Turk	263,467	6,432,560	81	174	108	5.5
\geq	UF00200	M 63/283	Johnny Turk	263,443	6,432,551	63	135	85	3.9
C	UF00201	M 63/283	Johnny Turk	263,420	6,432,541	107	230	96	4.4
C	UF00202	M 63/283	Johnny Turk	263,472	6,432,444	109	235	86	4.4
	UF00203	M 63/283	Johnny Turk	263,495	6,432,454	108	233	87	4.5
Q	UF00204	M 63/283	Johnny Turk	263,518	6,432,463	98	210	98	4.0
	UF00205	M 63/283	Johnny Turk	263,541	6,432,472	80	173	96	3.8
	UF00206	M 63/283	Johnny Turk	263,565	6,432,481	64	139	76	3.2
	UF00207	M 63/283	Johnny Turk	263,588	6,432,491	47	101	63	2.7
	UF00210	M 63/283	Johnny Turk	263,704	6,432,537	65	140	70	2.9
	UF00211	M 63/283	Johnny Turk	263,729	6,432,544	53	113	60	2.4
C	UF00212	M 63/283	Johnny Turk	263,775	6,432,456	47	101	72	3.0
U U	UF00214	M 63/283	Johnny Turk	263,727	6,432,440	61	132	70	3.2
a	UF00215	M 63/283	Johnny Turk	263,704	6,432,430	55	119	65	2.8
2	UF00216	M 63/283	Johnny Turk	263,635	6,432,402	59	126	70	3.0
	UF00218	M 63/283	Johnny Turk	263,588	6,432,384	62	133	65	2.9
	UF00219	M 63/283	Johnny Turk	263,565	6,432,374	70	150	75	3.0
	UF00220	M 63/283	Johnny Turk	263,542	6,432,365	81	174	78	3.2
	UF00221	M 63/283	Johnny Turk	263,519	6,432,356	67	143	75	3.2
	UF000233	E 63/1784	Regional South	267,880	6,427,825	54	117	39	4.4
	UF000234	E 63/1784	Regional South	267,863	6,427,806	53	114	45	4.4
	UF000236	E 63/1784	Regional South	267,829	6,427,769	53	115	36	4.4
	UF000251	E 63/1784	Regional South	267,452	6,427,625	81	174	50	3.4
	UF000263	E 63/1784	Regional South	267,958	6,427,567	49	106	42	3.7
	UF000264	E 63/1784	Regional South	267,975	6,427,586	63	136	48	4.2
	UF000265	E 63/1784	Regional South	267,991	6,427,605	55	118	48	4.0
	UF000266	E 63/1784	Regional South	268,007	6,427,624	50	107	45	4.4
	UF000268	E 63/1784	Regional South	268,040	6,427,662	51	109	32	4.1
	UF000270	E 63/1784	Regional South	268,235	6,427,587	56	121	49	3.8
	UF000271	E 63/1784	Regional South	268,218	6,427,568	60	128	46	4.5
	UF000274	E 63/1784	Regional South	268,168	6,427,512	63	135	57	3.7
	UF000275	E 63/1784	Regional South	268,151	6,427,493	57	123	47	3.9



UF00027	76 E 63/1784	Regional South	268,134	6,427,475	56	120	46	3.7
UF00027	77 E 63/1784	Regional South	268,118	6,427,456	56	121	50	3.8
UF00028	B3 E 63/1784	Regional South	268,018	6,427,344	48	103	53	2.9
UF00029	90 E 63/1784	Regional South	267,901	6,427,214	59	128	44	2.3
UF00029	94 E 63/1784	Regional South	267,780	6,427,358	47	101	44	3.0
UF00029	97 E 63/1784	Regional South	267,829	6,427,415	48	102	62	3.3
UF00030	D3 E 63/1784	Regional South	268,238	6,427,227	56	119	30	2.7
UF00031	18 E 63/1784	Regional South	268,495	6,427,242	61	130	41	4.6
UF00031	19 E 63/1784	Regional South	268,478	6,427,223	54	115	39	3.8
UF00032	20 E 63/1784	Regional South	268,461	6,427,205	51	110	38	3.6
UF00032	21 E 63/1784	Regional South	268,444	6,427,187	56	120	36	3.8
UF00032	E 63/1784	Regional South	268,427	6,427,169	67	145	25	3.1
UF00032	24 E 63/1784	Regional South	268,392	6,427,132	54	115	32	3.6
UF0003 2	25 E 63/1784	Regional South	268,375	6,427,114	55	118	36	3.6
UF00032	26 E 63/1784	Regional South	268,358	6,427,096	48	102	37	3.2
	27 E 63/1784	Regional South	268,341	6,427,078	48	102	58	2.9
UF00033	B1 E 63/1784	Regional South	268,272	6,427,005	48	102	41	2.9
UF00033	33 E 63/1784	Regional South	268,238	6,426,969	48	102	61	3.2
UF00033	B4 E 63/1784	Regional South	268,221	6,426,950	47	100	57	2.9
- UF0003 3	36 E 63/1784	Regional South	268,187	6,426,914	49	106	56	3.0
UF00033		Regional South	268,033	6,427,008	55	119	60	3.3
UF00033	38 E 63/1784	Regional South	268,050	6,427,026	58	124	60	3.6
UF00034	40 E 63/1784	Regional South	268,084	6,427,062	57	122	59	3.4
UF00034	41 E 63/1784	Regional South	268,101	6,427,081	57	122	59	3.1
UF00034	43 E 63/1784	Regional South	268,135	6,427,117	57	123	58	3.3
UF00034	45 E 63/1784	Regional South	268,170	6,427,154	49	106	46	3.1
UF00035	53 E 63/1784	Regional South	268,413	6,426,895	49	106	43	2.8
UF00035	55 E 63/1784	Regional South	268,447	6,426,931	55	118	53	3.1
UF00035	E 63/1784	Regional South	268,464	6,426,950	49	105	55	3.1
UF00036	60 E 63/1784	Regional South	268,533	6,427,022	53	114	48	4.8
UF00036	61 E 63/1784	Regional South	268,550	6,427,041	49	105	40	4.2
UF00036	· ·	Regional South	268,567	6,427,059	52	111	50	4.6
UF00036		Regional South	268,584	6,427,077	59	126	59	4.6
UF00036	·	Regional South	268,601	6,427,095	50	108	48	4.1
UF00036		Regional South	268,653	6,427,150	48	104	61	4.5
UF00037	·	Regional South	268,859	6,427,086	49	106	40	3.6
UF00037		Regional South	268,807	6,427,032	57	123	67	4.2
UF00037		Regional South	268,738	6,426,960	55	118	43	4.3
UF00038		Regional South	268,703	6,426,923	56	121	46	4.3
UF00038	·	Regional South	268,686	6,426,905	51	109	47	4.1
UF00038		Regional South	268,651	6,426,869	58	124	40	3.8
UF00044		Regional South	270,599	6,426,167	49	106	70	3.4
UF00045		Regional South	270,536	6,426,089	47	100	52	2.7
UF00045	51 E 63/1784	Regional South	270,520	6,426,070	49	106	63	3.2



	UF000452	E 63/1784	Regional South	270,504	6,426,050	59	127	61	3.2
	UF000454	E 63/1784	Regional South	270,473	6,426,012	59	127	68	3.3
	UF000455	E 63/1784	Regional South	270,287	6,426,131	57	123	57	3.5
	UF000456	E 63/1784	Regional South	270,304	6,426,149	50	107	53	3.1
	UF000457	E 63/1784	Regional South	270,321	6,426,167	52	112	64	3.5
	UF000458	E 63/1784	Regional South	270,338	6,426,186	49	106	65	3.3
	UF000459	E 63/1784	Regional South	270,355	6,426,204	52	111	65	3.5
	UF000460	E 63/1784	Regional South	270,372	6,426,222	54	117	64	3.4
	UF000461	E 63/1784	Regional South	270,389	6,426,241	55	118	68	3.3
	UF000462	E 63/1784	Regional South	270,406	6,426,259	63	136	68	3.4
	UF000463	E 63/1784	Regional South	270,423	6,426,278	57	122	65	3.3
	UF000464	E 63/1784	Regional South	270,440	6,426,296	50	107	52	2.9
	UF000520	E 63/1784	Regional South	269,586	6,426,534	47	101	52	2.5
\geq	UF000522	E 63/1784	Regional South	269,620	6,426,571	50	109	64	3.0
	UF000523	E 63/1784	Regional South	269,637	6,426,590	50	108	70	3.0
C	UF000524	E 63/1784	Regional South	269,653	6,426,608	53	114	74	3.3
	UF000551	E 63/1784	Regional South	269,670	6,426,627	47	100	68	3.1
Q	UF000552	E 63/1784	Regional South	269,687	6,426,646	47	102	75	3.8
U	UF000553	E 63/1784	Regional South	269,703	6,426,664	48	102	84	4.6
_	UF000554	E 63/1784	Regional South	269,720	6,426,683	47	101	84	4.8
	UF000555	E 63/1784	Regional South	269,737	6,426,702	49	106	85	5.1
Ω	UF000556	E 63/1784	Regional South	269,753	6,426,720	54	117	86	6.4
	UF000557	E 63/1784	Regional South	269,770	6,426,739	51	109	83	8.0
Q	UF000558	E 63/1784	Regional South	269,787	6,426,757	66	141	83	9.6
S	UF000559	E 63/1784	Regional South	269,803	6,426,776	60	129	78	8.2
a	UF000561	E 63/1784	Regional South	269,837	6,426,813	52	111	69	7.8
2	UF000563	E 63/1784	Regional South	269,870	6,426,850	47	100	61	8.1
	UF000564	E 63/1784	Regional South	270,032	6,426,739	58	126	70	5.2
7	UF000571	E 63/1784	Regional South	269,915	6,426,608	78	167	54	3.5
	UF000572	E 63/1784	Regional South	269,899	6,426,590	48	102	59	3.6
	UF000573	E 63/1784	Regional South	269,882	6,426,571	50	107	69	4.2
	UF000574	E 63/1784	Regional South	269,865	6,426,553	47	100	65	3.7
	UF000575	E 63/1784	Regional South	269,849	6,426,534	59	127	84	4.1
	UF000576	E 63/1784	Regional South	269,832	6,426,515	53	113	82	3.6
	UF000577	E 63/1784	Regional South	269,815	6,426,497	51	110	78	3.9
	UF000578	E 63/1784	Regional South	269,799	6,426,478	51	109	73	3.6
	UF000579	E 63/1784	Regional South	269,782	6,426,459	53	115	73	3.4
	UF000580	E 63/1784	Regional South	269,765	6,426,441	53	113	72	3.6
	UF000581	E 63/1784	Regional South	269,749	6,426,422	51	110	66	3.3
	UF000582	E 63/1784	Regional South	269,732	6,426,404	52	112	65	3.4
	UF000583	E 63/1784	Regional South	269,715	6,426,385	54	116	68	3.3
	UF000584	E 63/1784	Regional South	269,699	6,426,366	53	114	67	3.3
	UF000585	E 63/1784	Regional South	269,682	6,426,348	49	105	68	3.4
	UF000589	E 63/1784	Regional South	269,615	6,426,273	51	110	41	2.1
I		1	1						



	UF000592	E 63/1784	Regional South	269,565	6,426,217	50	108	61	3.0
	UF000602	E 63/1784	Regional South	269,784	6,426,175	58	125	74	3.3
	UF000603	E 63/1784	Regional South	269,801	6,426,193	63	136	79	3.6
	UF000604	E 63/1784	Regional South	269,818	6,426,212	61	132	83	4.0
	UF000605	E 63/1784	Regional South	269,834	6,426,230	68	147	88	3.9
	UF000606	E 63/1784	Regional South	269,851	6,426,248	67	144	89	4.0
	UF000607	E 63/1784	Regional South	269,868	6,426,267	62	133	85	3.9
	UF000608	E 63/1784	Regional South	269,885	6,426,285	62	133	86	3.9
	UF000609	E 63/1784	Regional South	269,902	6,426,304	59	126	86	3.9
	UF000610	E 63/1784	Regional South	269,919	6,426,322	49	104	70	3.0
	UF000611	E 63/1784	Regional South	269,936	6,426,340	51	109	84	4.2
	UF000612	E 63/1784	Regional South	269,953	6,426,359	60	130	92	4.5
	UF000613	E 63/1784	Regional South	269,970	6,426,377	63	135	89	4.3
2	UF000614	E 63/1784	Regional South	269,987	6,426,395	61	131	80	4.0
C	UF000615	E 63/1784	Regional South	270,004	6,426,414	71	154	86	4.7
Ē	UF000616	E 63/1784	Regional South	270,021	6,426,432	61	131	81	6.0
	UF000629	E 63/1784	Regional South	270,283	6,426,444	49	105	67	3.4
D	UF000630	E 63/1784	Regional South	270,267	6,426,425	49	106	72	3.4
U	UF000631	E 63/1784	Regional South	270,250	6,426,406	59	127	77	3.7
_	UF000632	E 63/1784	Regional South	270,234	6,426,387	49	106	71	3.4
6	UF000633	E 63/1784	Regional South	270,218	6,426,368	56	121	75	3.7
	UF000634	E 63/1784	Regional South	270,201	6,426,349	57	122	74	3.6
	UF000635	E 63/1784	Regional South	270,185	6,426,331	55	118	74	3.9
	UF000639	E 63/1784	Regional South	270,119	6,426,255	59	127	74	3.4
U U	UF000640	E 63/1784	Regional South	270,103	6,426,236	51	110	68	3.1
a	UF000641	E 63/1784	Regional South	270,086	6,426,217	56	121	72	3.2



Appendix 5

LITHIUM CORE SAMPLE ASSAY RESULTS

Hole No	From	То	Interval	Sample No	Li ppm	Li2O ppm
MHUD0022	125.65	125.75	0.1	PLX01001	5	11
LJD039W1	414.27	414.4	0.13	PLX01002	16	34
LJD039W1	415.5	415.6	0.1	PLX01003	69	148
RTD103	266.95	267.05	0.1	PLX01004	57	123
RTD103	267.65	267.75	0.1	PLX01005	49	106
RTD103	267.9	268	0.1	PLX01006	13	29
RTD103	268.35	268.45	0.1	PLX01007	77	165
RTD155	489.2	489.3	0.1	PLX01008	28	60



Appendix 6 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	 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. 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 (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. 	 Drilling – Aircore and Reverse Circulation Air core and reverse circulation drilling was used to obtain 1m drill samples that were placed on the ground in 20m rows. Samples were taken using a spear to collect samples from each pile to produce a representative 1 -2kg sample. Samples for the regional drilling were created as four meters composites and one meters intervals were taken from the Maggie Hays West drilling. Each sample was crushed and pulverized and a 0.2g sample digested with a mixture of nitric, hydrochloric, perchloric and hydrofluoric acids before analysed via ICP-OES (SGS method GE_ICP40Q20). Composite samples with >0.4% Ni will be resampled on one metre intervals with a spear to collect a 1-2kg sample. Selected 1m interval samples >0.4% Ni were submitted for PGE analysis via fire assay (SGS method GE_FAM30V10). Soil Samples Samples were collected on approx. 200m spaced lines, 25m apart. The surface material was scaped to the side and a shallow hole dug using a paleo pick. The material was sieved to 2mm in the field with a nominal 200g sample taken by Geolithic field staff. Samples were sent to LabWest for the standard Ultrafine method (UFF-PE), whereby the 2-micron clay fraction is digested using a microwave and 51 elements detected by ICP-MS and ICP-OES Diamond Core Historic diamond core was inspected using a UV lamp and pXRF. 10cm intervals were selected and cut in half using a diamond saw, bagged and delivered to Intertek Laboratories in Perth 		
Drilling techniques	• 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).	 Air core and reverse circulation drilling was conducted by Gyro Drilling Pty Ltd using a KL-150 rig. The holes were drilled with a 95 mm hole diameter, using a blade bit and face sampling hammers. The majority of holes were vertical. Holes that were angled were drilled at -60 and orientated towards grid east or west using a compass and clinometer. 		



Criteria	JORC Code explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	 Historical drill core varied between NQ and NQ2 in hole size. None of the core was orientated Collar locations were established using a hand- held GPS using GDA MGA zone 51 co-ordinate system. Recovery of drill spoil was estimated visually, and notes made in the logs. Sample recoveries were
lecovery	 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. 	 energination and registion of the recovery and grade was recognized.
	 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. 	 All drill chip samples were logged into Geobank Mobile by Newexco field staff at the time of drilling. Logged chips were washed prior to recording geology (including lithology, weathering, mineralogy and alteration). Holes were validated before being exported to the Geobank database. All holes were logged in full. Historical drill logs are present for the diamond drill holes, with current photographs taken of recent sample intervals.
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 subsampling 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. 	 Air core and RC samples were collected using a spear directly from the sample piles to give a 1-2kg sample based on either 1m intervals of 4m composites. Follow-up 1 m samples will be taken on composite samples returning >0.4 % Ni. The same method above will be used. Field duplicates were carried out every 50 samples, and Certified Referenced Materials (CRM) were used every 50 samples. Historical drill core was sampled using half core.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 Aircore and RC samples were dispatched to SGS laboratories in Perth. After crushing and pulverizing they were analysed by 4-acid exploration grade digest with ICP-OES finish 1m samples were also crushed and pulverized and analysed via 4 -acid exploration grade digest with ICP-OES finish and precious metals determined by using lead collection technique with a 30g charge weight with ICP-MS instrument finish CRMs standards and field duplicate samples were submitted at a rate of 1 in 25 throughout the course of the program. Analysis of the results demonstrate a high degree of reliability can be assigned to the SGS analytical results. Soil samples were sent to LabWest for the standard Ultrafine method (UFF-PE), whereby the 2-micron



Criteria	JORC Code explanation	Commentary
		 clay fraction is digested using a microwave and 51 elements detected by ICP-MS and ICP-OES. Labwest included and reported their own standards, blanks and pulp duplicates at rates compliant to industry standards. Diamond core samples were sent to Intertek Laboratories, where by after crushing and pulverising (85% passing 75µm) a four acid digest was used for a near total dissolution for determination of 48 elements via ICP-OES and ICP-MS.
		 No portable analysis tools were used in the determination of assay results.
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. 	 Sampling of aircore and RC was conducted by the logging geologists and field staff who are contractors to Newexco Services. Data was collected using Geobank Mobile which utilises a validation function before data can be exported into the Geobank database. Soil samples were collected on a grid basis, completed by Geolithic staff. Historical diamond holes sampling was conducted by a Poseidon staff member No adjustments have been made to the assay data.
Location of	 Accuracy and quality of surveys used to locate drill belog (college and down belog surveys) 	Collar locations were picked up after drilling using a
data points	 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. 	 hand-held GPS ±5m. The grid used is GDA 94 MGA Zone 51. No downhole surveys were conducted on the vertical holes.
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 Minera Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied 	 samples. Soil samples are located on a 200x25m grid.
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 structure is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 Drill sample orientation is considered appropriate with respect to the geology being tested. Bias introduced by drilling orientation is considered insignificant due to the depth of cover and lower penetration of residual bedrock
Sample security	The measures taken to ensure sample security	 All aircore and RC samples were placed in prenumbered calico bags and secured with a draw string. The calico samples were then placed in a polyweave bag and sealed with a cable tie annotated with sample numbers and then placed in a bulky bag. Samples were transported directly to SGS laboratories in Kalgoorlie to be sent to Perth for assay or directly hand delivered to SGS in Perth



Criteria	J	ORC Code explanation	С	ommentary
			•	Soil samples were placed into numbered paper soil packets and stored in cardboard boxes. Boxes were hand delivered to LabWest in Malaga. Diamond core samples were placed into numbered calicos and collated into a polyweave bag sealed with a cable tie. The samples were hand delivered to Intertek in Maddington.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	•	No audits or reviews were completed during drilling



Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
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. 	 The Western Ultramafic Unit covers a strike length of 17km and extends through tenements M63/282, M63/283, M63/284,M63/163 and E63/1784. Mining tenements M63/282, M63/283, M63/284 and M63/163 are all 100% owned by Poseidon Nickel Limited. E63/1784 is a joint venture between Poseidon Nickel (80%) and Essential Metals Limited (20%), Essential Metals has been acquired by Develop Global Limited The tenements are located 160km west of Hyden and straddle the Hyden-Norseman Road.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 The Maggie Hays and Emily Ann nickel mines were discovered by LionOre. Much of the exploration drilling and development was completed by LionOre which was taken over by Norilsk in 2007. Norilsk Nickel continued mining and developing the underground mines on and off until 2013. Poseidon Nickel purchased the operation from Norilsk in December 2014.
Geology	 Deposit type, geological setting and style of mineralisation. 	 The Emily Ann, Maggie Hays and Abi Rose nickel deposits are hosted within the Central Ultramafic Unit are intrusive-style massive and disseminated nickel deposits. The Western Ultramafic Unit, however, is considered to be a Kambalda-Style Komatiite.
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 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. 	 The Lake Johnston drill hole database has developed and been maintained in different software formats for 30 years. It contains data captured by some 6,523 drill holes by numerous companies over this period. The latest drill hole information pertaining to this announcement that has not been previously reported is listed as a Table within Appendix 3. The soil sample locations with assay data pertaining to the text is tabulated in Appendix 4. Lithium results from historical diamond core is reported in Appendix 5.
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. 	 When reporting nickel assay results, a cut-off grade of 0.4% Ni has typically been used to create weighted averages. When reporting Platinum and Palladium the values have been added to give a combined PGE value. A cut off of 50 ppb has been



Criteria	JORC Code explanation	Commentary
	 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. 	 used in the tabulated results. When reporting lithium, the Lithium Oxide values have been used. Lithium Oxide ppm is calculated by multiplying the Li ppm value by a factor of 2.153. No metal equivalents are used.
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'). 	 Nickel, Copper and Combined PGE widths are reported as down hole lengths at Lake Johnston.
Diagrams OS O	 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. 	 Appropriate maps and sections related to this latest Lake Johnston drilling have been included with the announcement. Plans with soil geochemistry have also been supplied within this announcement
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. 	 Significant intersections from the recent AC and RC programs are tabulated in Table 1 of the report. Both low and high grades and widths are reported.
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. 	 Geochemical soil sampling data on anomalous lithium results has been included in table form. No further substantive exploration data is necessary to support this announcement.
Further work	 The nature and scale of planned further work (e.g. 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. 	 Further work is currently being planned to test the results reported.