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POSEIDON NICKEL

ASX Announcement

8 October 2024

COPPER-GOLD AND LITHIUM TARGETS AT LAKE JOHNSTON ENHANCED

- **Billy Ray Copper Gold Prospect – preparation for drilling underway**
  - Infill soil sampling results confirm 1.0km by 1.2km bullseye shaped Cu-Au anomaly
  - Highest soil Cu-Au values are concentrated near the eastern margin of the prospect, peak coincident values of 71ppb Au and 141ppm Cu, area untested by drilling
  - Flora Surveys will be conducted during the Spring season, enabling the submission of the program of work
  - Priority reconnaissance drilling programs are planned to test this promising target once all necessary approvals are in place
- **Norfolk Prospect - second untested gold target emerging**
  - Maiden reconnaissance sampling results across the farm-in Mantis tenement (E63/2244) has successfully extended the open-ended Norfolk Au anomaly
  - Infill soil sampling program to commence shortly to better define the extents and grade distribution for this emerging gold in soil target
- **Lithium in soils anomaly at Mantis tenement**
  - Soil sampling program results have also successfully identified a large 2.3km by 3.4km lithium anomaly located on the Mantis tenement (E63/2244) and remains open to the west
  - A maximum value of 495ppm Li_2O was recovered in the centre of the anomaly with coincident rubidium (117ppm Rb), caesium (31ppm Cs) and tin (9ppm Sb), extending south from lithium bearing pegmatites returning high grades from 2.80% up to 3.85% Li_2O[1]
  - Infill soils program to commence straight after the Norfolk program
- **Black Swan gold**
  - Infill soil and grab sampling programs completed at the Wilson Prospect and several other gold anomalies within the portfolio[2], results awaiting
  - Black Swan soil results expected in the following weeks will be used to optimise drill targets

[1] Refer to ASX Announcement "*High Grade Lithium Bearing Pegmatites Located at Lake Johnston*" dated 23 May 2016

[2] Refer to ASX Announcement "*Gold Potential Builds at Black Swan"* dated 24 September 2024

Poseidon Nickel (ASX: POS, the Company) is pleased to provide an update on copper-gold and lithium exploration programs at Lake Johnston.

CEO, Brendan Shalders, commented, *"Following completion of our recent soil sampling program at Lake Johnston, we continue to receive positive results that have enhanced the greenfield opportunities at this project. These include the copper-gold opportunities at Billy Ray and Norfolk Prospects, and the lithium potential across the Mantis tenement E63/2244.*

Due to the historic nickel focus, large areas of the Lake Johnston greenstone belt that are prospective for gold, lithium and base metals have been under explored with no surface geochemistry coverage or assays for these targeted metals.

The maiden Mantis soil program is part of a larger systematic program that will be assayed for a broad suite of pathfinder elements to provide baseline coverage for the first time over the entire Lake Johnston tenement package. The results from the Mantis program have been very successful on several fronts.

The Billy Ray Prospect is a coherent bullseye shaped copper-gold anomaly extending onto the Mantis tenement, with the highest values concentrated on the eastern margins which have not been drill tested. The western extent of the soil anomaly is supported by the previously reported mineralised Cu-Au drill intersection, which supports the prospectivity for a larger Cu-Au system. The company is currently working on getting all the permitting approvals to allow for priority drilling to test this promising target.

The Norfolk Prospect presents a second emerging gold exploration target in the region based on a promising gold in soil anomaly that has been successfully extended onto the Mantis JV tenements.

The results have also identified a large 2.3km by 3.4km lithium anomaly which remains open to the west with a maximum soil sample value of 495ppm Li_2O extending south from lithium bearing pegmatites which returned high grades from 2.80% up to 3.85% Li_2O. Further to this, the anomalous values noted are commensurate to other anomalies previously reported by peer lithium explorers in the Lake Johnston region.

Further infill soil sampling within the Mantis tenements is scheduled to start shortly to progress copper, gold and lithium targets in parallel.

The Company has also completed infill soil sampling at Black Swan during the second half of September 2024, awaiting results. The information obtained will be used for planning drill programs to test the gold targets identified."

Multiple Exploration Targets from Soils at Lake Johnston

During early September 2024 the Company collected 135 soil samples to test extensions of the Billy Ray Prospect, evaluate the gold potential at the Norfolk Prospect and to define additional exploration targets across the Mantis tenement (E63/2244). The soil samples were conducted on variable line spacing, ranging from 200m near Billy Ray to 400m and 800m further north, with sample spacing intervals of between 80 and 160m. The UltraFine+ technique was utilised providing a comprehensive suite of elemental data including gold, copper and lithium. Significant results from the soil sampling are tabled in Appendix 1.

Gold results from the soil program are presented below in Figure 1, which also notes the extensive areas across the Lake Johnston tenements which have not previously been tested for gold, lithium and base metals. The historic nickel focus at Lake Johnston has resulted in large areas that have been under explored for commodities other than nickel. The Company is planning to continue soil sampling programs over the under explored areas in the near future to identify any further gold, lithium or base metal targets.

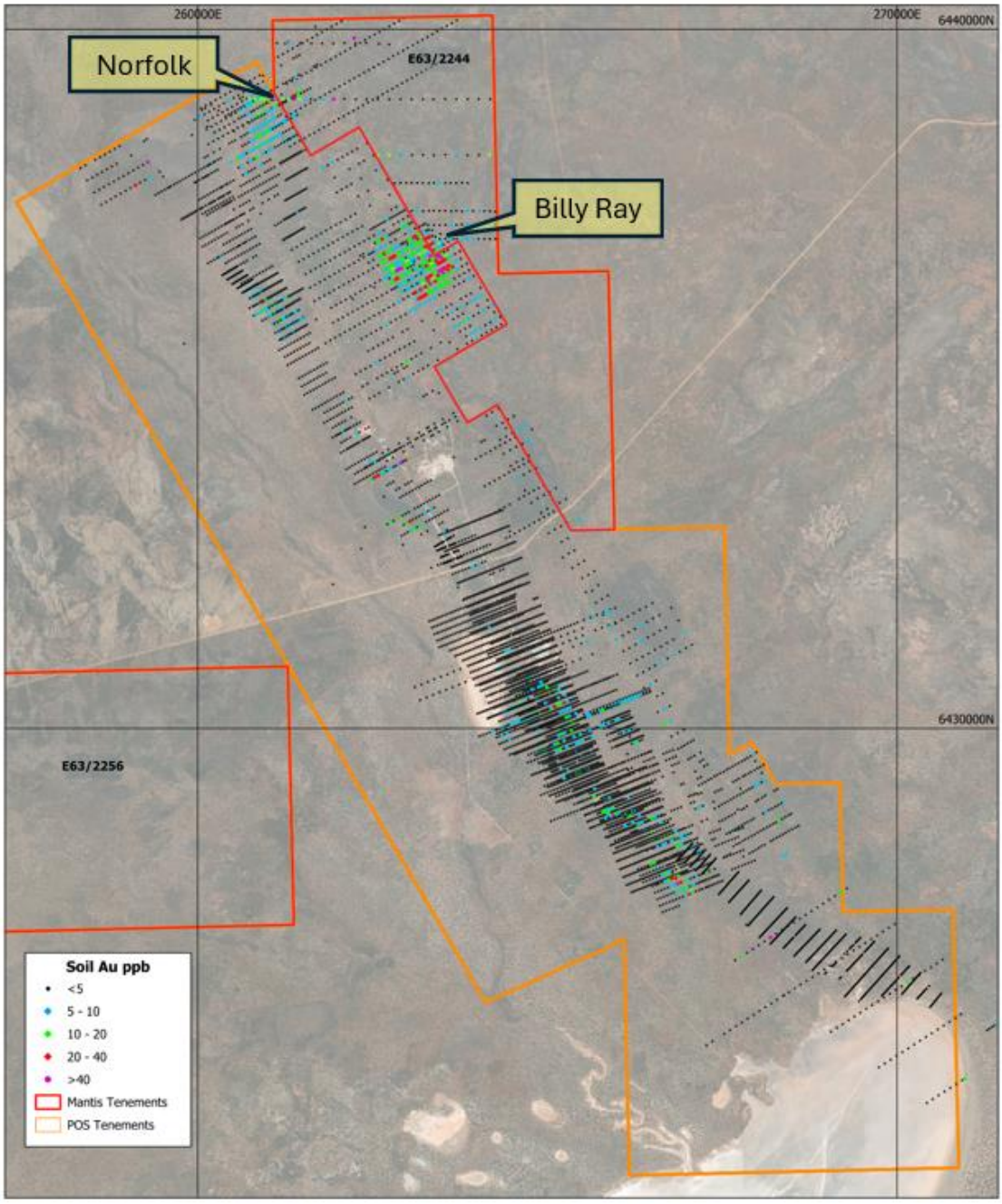

FIGURE 1: LAKE JOHNSTON GOLD IN SOIL ANOMALIES AND COVERAGE OF PREVIOUSLY UNTESTED AREA ACROSS THE TENEMENTS

Large Copper-Gold Anomaly Defined at Billy Ray

The recent soil sampling program at the Billy Ray Prospect focused on extending the known copper-gold anomaly previously identified in historical soils (refer ASX Announcement "*Further Validation of Gold Potential at Black Swan and Lake Johnston*" dated 26th August 2024). The sampling successfully defined the eastern extent of the anomaly, now covering an area of 1km by 1.2km, refer Figure 2. This eastern section represents the strongest copper-gold association with peak values of 71ppb Au and 141ppm Cu and aligns with the interpreted cross cutting structure.

The Billy Ray anomaly has previously been drill tested along the eastern extent noting Cu-Au mineralisation in drillhole LJPD0032 with best intersection grading 2.36% Cu and 2.26g/t Au from 149.62m (refer to ASX Announcement "*Update on Gold Exploration Programs*' dated 30 July 2024), see Figure 3. The eastern extent of the anomaly has not been previously drill tested and the Company is currently undertaking preparation activities to apply for a program of work (POW) to complete shallow reconnaissance aircore (AC) or reverse circulation (RC) drilling at Billy Ray.

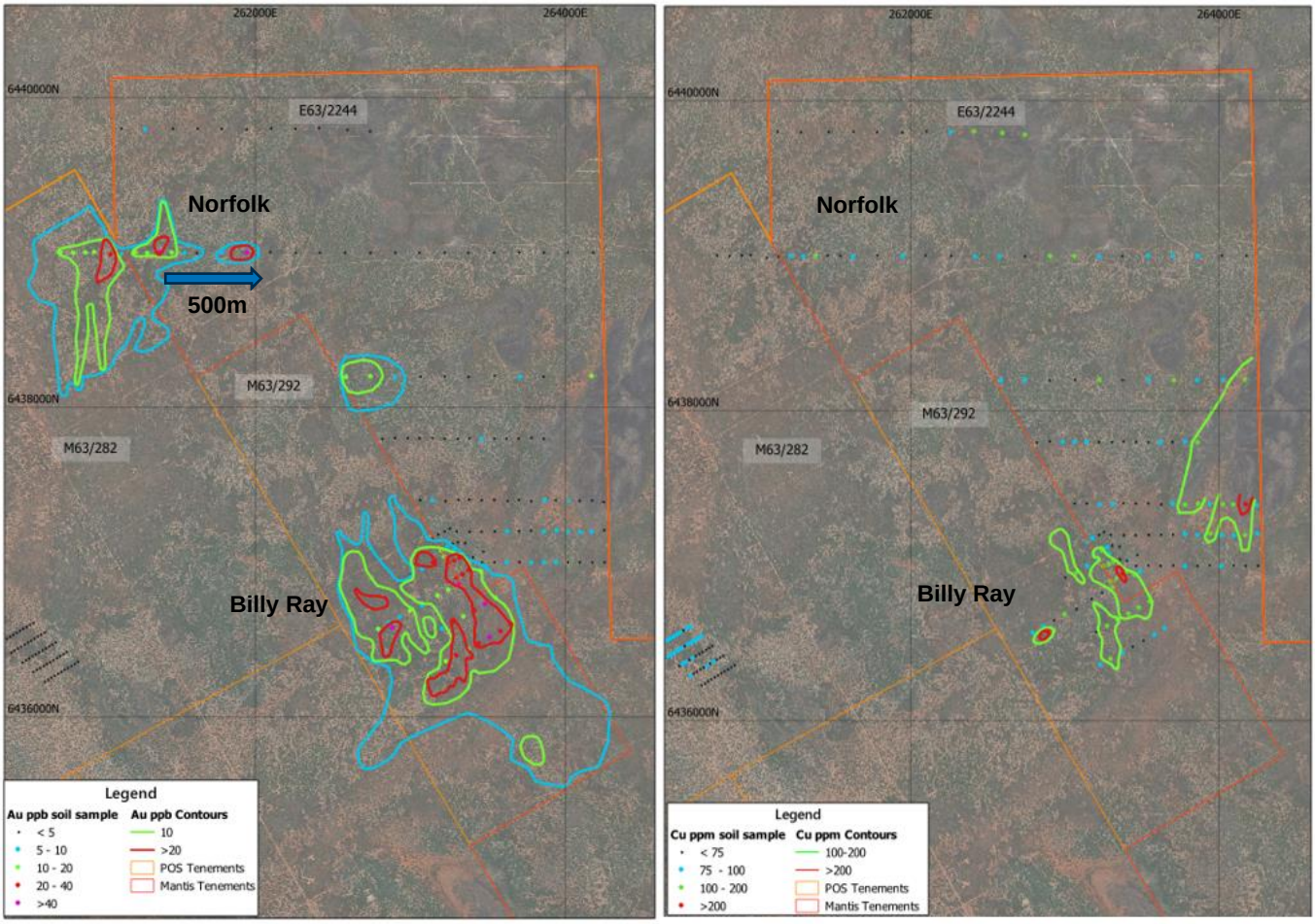

FIGURE 2: LAKE JOHNSTON COPPER-GOLD IN SOIL ANOMALIES AT BILLY RAY AND NORFOLK (CONTOURS PRESENT ALL SOIL RESULTS, DOTS PRESENT ONLY MOST RECENTLY COMPLETED SOIL PROGRAM)

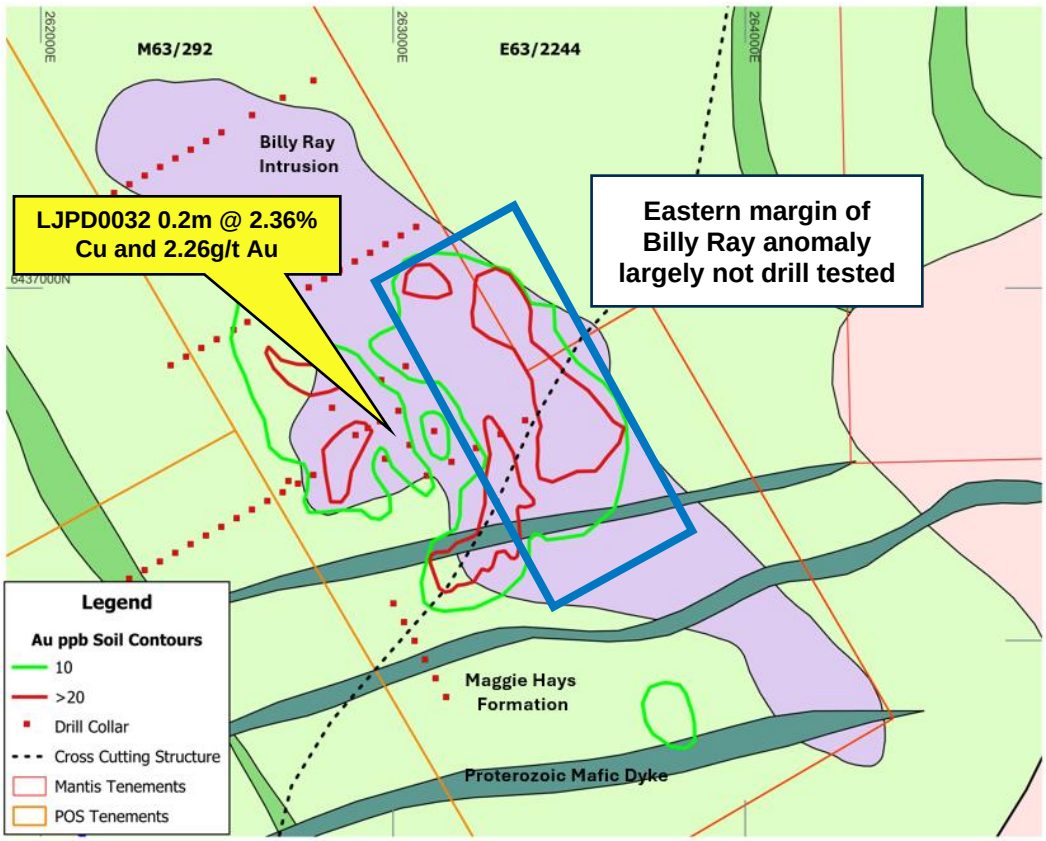

FIGURE 3: BILLY RAY COPPER-GOLD ANOMALY LARGELY NOT DRILL TESTED ON EASTERN EXTENT

Second Gold Exploration Target Developing at Norfolk Prospect

A single line of 80m to 160m spaced soils samples were collected over the Norfolk anomaly to confirm the historical anomalous gold results noted in the area. The results confirmed the historical results and returned a maximum gold value of 66pb Au, extending the anomalism 500m to the east. Norfolk requires further soil sampling to further define the gold targets and test the area extending through to Billy Ray.

Large Coherent Untested Lithium Anomaly

The wide-spaced soil sampling conducted on the northern section of tenement E63/2244 has identified a large coherent Li_2O anomaly that is characterised by >100ppm Li_2O and extends south of previous composite rock chips that returned high grades from 2.80% up to 3.85% Li_2O (refer ASX Announcement "*High Grade Lithium Bearing Pegmatites Located at Lake Johnston*" dated 23 May 2016).

The central core of this anomaly, defined by >200ppm Li_2O, spans 0.95km by 2.3km and remains open to the west. Within this core zone, an outstanding maximum value of 495ppm Li_2O was recorded, coinciding with rubidium (117ppm Rb), caesium (31ppm Cs) and Tin (9ppm Sb).

Historical RC drilling targeted the northeast corner of the tenement, with one hole collared within the core of the anomaly. This hole did not intersect pegmatite and was not subsequently assayed, leaving the identified anomaly untested by drilling.

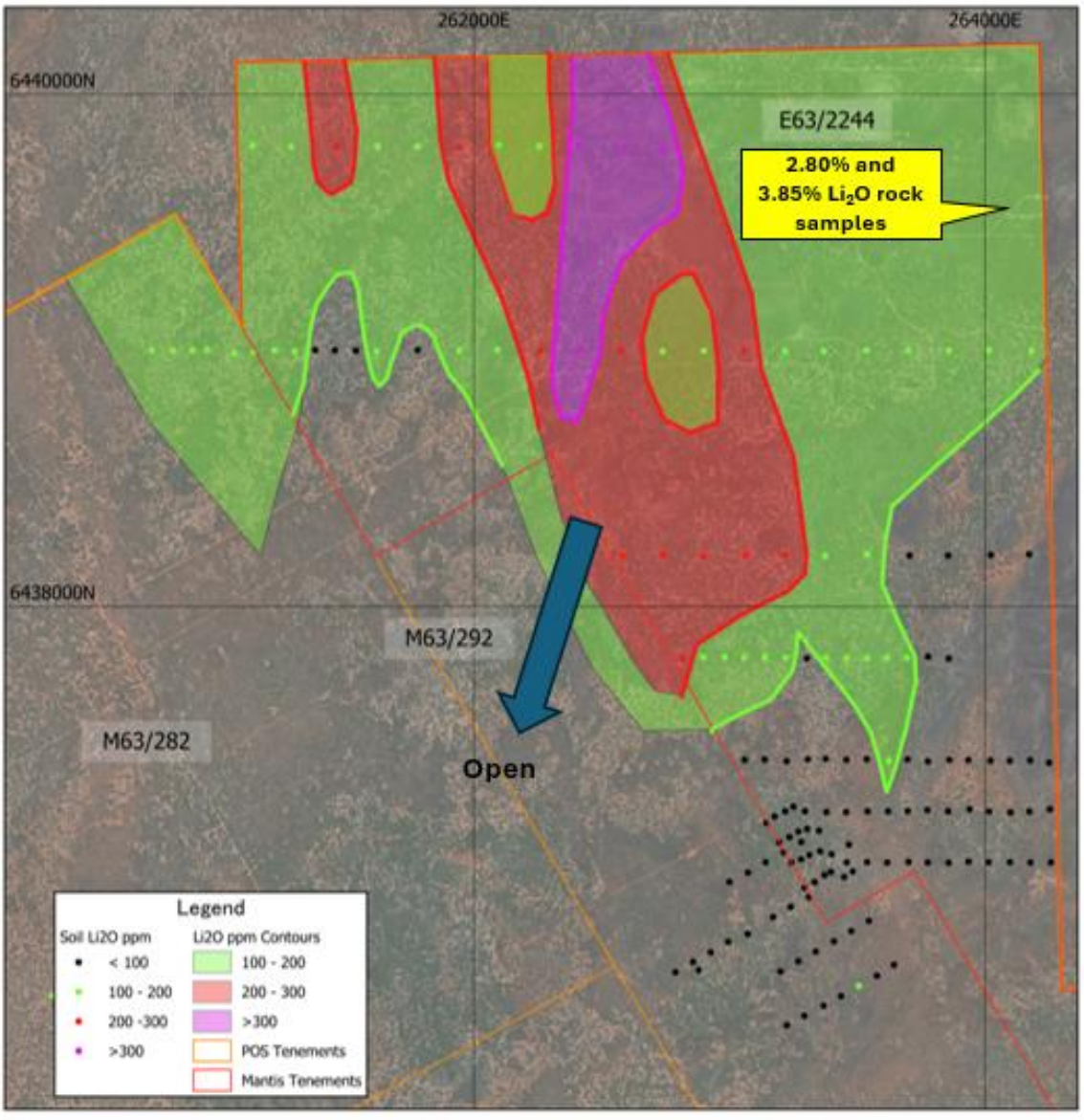

FIGURE 4: LITHIUM ANOMALY IDENTIFIED ACROSS THE MAJORITY OF THE NORTHERN EXTENT OF TENEMENT E63/2244

Next Steps

The Company plans to undertake further soil sampling programs at Lake Johnston in the near future to continue to build out the gold, lithium and base metal opportunities at the project. Concurrently, the Company is progressing planning for shallow AC and/or RC drilling at Billy Ray to test this advanced copper-gold target. The Company has a flora survey planned over the spring season this year to support planning approvals.

At Black Swan the Company is currently awaiting results from the recent infill soil sampling. Once results are received the Company will commence planning for POWs to complete shallow AC or RC drilling.

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

Brendan Shalders
CEO
8 October 2024

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About Poseidon Nickel Limited

Poseidon Nickel Limited (ASX Code: POS) is a multi-commodity 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[1].

Poseidon's strategy is focused on targeted exploration and business development to grow reserves and resources for the eventual restart of its established processing operations in Western Australia with the aim of being a profitable and sustainable producer.

Poseidon owns the Black Swan, Windarra Nickel and Lake Johnston Projects. The mines and infrastructure across all projects, including concentrators at Black Swan and Lake Johnston, present near term development options for Poseidon and peer companies that have mineral resources without established processing infrastructure.

In addition to processing capabilities, the Company has 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 developing gold exploration targets at all three projects.

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. During July 2024, Encore Minerals entered into an agreement with Poseidon to develop the Windarra tailings project.

[1] Refer to the Company website, www.poseidon-nickel.com.au, 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 Ms Karyn Parker. Ms Parker 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.

The information in this report that references previously reported 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.

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

- *"Gold Potential Builds at Black Swan" dated 24 September 2024*
- *"Further Validation of Gold Potential at Black Swan and Lake Johnston", dated 26 August 2024*
- *"Update on Gold Exploration Programs", dated 30 July 2024*
- *"High Grade Lithium Bearing Pegmatites Located at Lake Johnston" dated 23 May 2016*

FORWARD LOOKING STATEMENTS

Some of the statements contained in this report are forward looking statements. Forward looking statements include, but are not limited to, statements concerning estimates of tonnages, expected costs, statements relating to the continued advancement of Poseidon's project and other statements that are not historical facts. When used in this report, and on other published information of Poseidon, the words such as 'aim', 'could', 'estimate', 'expect', 'intend', 'may', 'potential', 'should' and similar expressions are forward looking statements.

Although Poseidon believes that the expectations reflected in the forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that the actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements including the potential that the Project may experience technical, geological, metallurgical and mechanical problems, changes in gold and nickel price and other risks not anticipated by Poseidon. Poseidon considers that this summary of the study is presented in a fair and balanced way and believes that it has a reasonable basis for making the forward-looking statements in this announcement, including with respect to any mining of mineralised material, modifying factors, production targets and operating cost estimates. This announcement has been compiled by Poseidon from the information provided by the various contributors to the announcement.

Appendix 1 – Soil Data

TABLE 1: LAKE JOHNSTON SWAN ANOMALOUS SOIL LOCATION AND ASSAY DATA REPORTED IN GDA94 / MGA ZONE 51 (VALUES BELOW DETECTION LIMIT ARE REPRESENTED AS X)

Sample No	MGA_East	MGA_North	RL	Au ppb	Cs ppm	Cu ppm	Li ppm	Li_2O ppm	Rb ppm	Sn ppm
UF00660	263060	6437401	387	4.50	4.07	65	31.7	68.3	41.7	1.10
UF00661	263138	6437402	387	6.90	5.91	67	30.2	65.0	62.4	1.15
UF00662	263224	6437396	387	1.70	8.29	77	33.8	72.8	79.5	1.52
UF00663	263307	6437403	387	4.70	5.39	78	22.6	48.7	46	1.13
UF00664	263376	6437405	387	2.40	5.37	60	42.3	91.1	58.1	1.46
UF00665	263458	6437401	387	1.10	4.49	60	34.2	73.6	49	1.69
UF00666	263537	6437404	387	2.00	4.56	62	34.4	74.1	50.1	1.61
UF00667	263624	6437397	387	1.20	13.50	68	54.7	117.8	111	1.96
UF00668	263697	6437403	387	2.80	8.28	81	36.6	78.8	72.2	1.55
UF00669	263777	6437395	387	1.40	4.60	112	34.6	74.5	19.8	1.58
UF00670	263861	6437401	387	6.20	3.38	102	24.0	51.7	31.3	1.35
UF00671	263935	6437400	387	4.70	3.79	86	24.1	51.9	46.2	1.55
UF00672	264022	6437398	387	8.40	2.37	114	21.4	46.1	25.4	1.18
UF00673	264097	6437397	387	4.10	1.60	142	29.8	64.2	18.8	1.54
UF00674	264177	6437399	387	3.40	0.74	211	20.2	43.5	7.9	1.09
UF00675	264251	6437390	387	3.30	1.73	93	28.5	61.4	24	1.36
UF00676	264254	6437208	387	4.40	2.50	85	22.9	49.3	26.8	1.18
UF00677	264174	6437199	387	6.10	2.22	103	34.2	73.6	14	1.68
UF00678	264100	6437196	387	8.30	1.52	80	15.5	33.4	28.4	1.00
UF00679	264016	6437199	387	8.70	2.88	83	19.1	41.1	49.9	1.26
UF00680	263940	6437208	387	6.80	3.46	101	22.5	48.4	60.3	1.20
UF00681	263856	6437200	387	5.60	3.62	83	24.1	51.9	46.2	1.36
UF00682	263775	6437205	387	3.80	2.67	95	18.4	39.6	48.7	0.84
UF00683	263698	6437201	387	2.40	10.10	73	37.2	80.1	86.3	1.54
UF00684	263621	6437200	387	7.10	4.20	60	32.4	69.8	34.8	0.74
UF00685	263541	6437200	387	3.20	4.89	68	38.0	81.8	55.1	1.31
UF00686	263457	6437197	387	1.80	6.26	75	25.8	55.5	58.7	1.38
UF00687	263380	6437197	387	2.40	4.32	69	23.2	49.9	44.6	1.06
UF00688	263296	6437200	387	3.40	4.11	64	22.1	47.6	52.4	1.05
UF00689	261133	6439801	387	4.60	10.10	58	64.1	138.0	156	2.31
UF00690	261285	6439796	387	6.70	9.85	58	83.0	178.7	137	2.55
UF00691	261465	6439798	387	1.20	6.08	52	105.0	226.1	92.2	2.55
UF00692	261625	6439799	387	2.90	7.15	43	79.5	171.2	81.7	2.00
UF00693	261779	6439798	387	2.50	20.60	55	61.5	132.4	144	3.40
UF00694	261942	6439795	387	1.10	24.50	52	121.0	260.5	176	1.72
UF00695	262098	6439803	387	1.40	14.10	63	63.1	135.9	131	2.04
UF00696	262257	6439799	387	2.50	8.55	78	61.7	132.8	85	1.65
UF00697	262407	6439804	387	0.60	23.00	106	180.0	387.5	73.3	9.82
UF00698	262591	6439792	387	X	18.30	141	175.0	376.8	71.4	8.59
UF00699	262737	6439782	387	0.90	31.40	126	230.0	495.2	117	8.92
UF00700	264258	6437000	387	4.50	2.25	57	20.1	43.3	39.2	1.85
UF00701	264178	6437000	387	3.50	3.51	57	32.1	69.1	51.9	1.58
UF00702	264098	6437001	387	4.40	2.14	73	32.7	70.4	29.2	2.17

Sample No	MGA_East	MGA_North	RL	Au ppb	Cs ppm	Cu ppm	Li ppm	Li_2O ppm	Rb ppm	Sn ppm
UF00703	264014	6437001	387	2.40	2.55	76	32.8	70.6	32.9	2.00
UF00704	263936	6437003	387	9.50	3.00	63	27.8	59.9	29.1	1.69
UF00705	263858	6436999	387	6.90	1.87	41	21.2	45.6	17.5	1.47
UF00706	263776	6437000	387	6.00	5.50	93	24.8	53.4	40.7	1.94
UF00707	263701	6437002	387	1.50	5.08	60	29.6	63.7	59.2	1.49
UF00708	263618	6437000	387	7.50	3.59	61	28.6	61.6	39.9	1.11
UF00709	263539	6437001	387	2.40	4.37	61	23.4	50.4	50	1.24
UF00710	263459	6437000	387	2.40	2.65	58	16.0	34.4	30.5	0.75
UF00711	263449	6436943	387	13.70	1.60	119	16.7	36.0	25.1	1.25
UF00712	263483	6436965	387	7.30	2.39	91	15.9	34.2	28.8	1.12
UF00713	263400	6437032	387	2.80	2.85	66	23.2	49.9	34.7	1.12
UF00714	263468	6437070	387	3.90	3.87	74	26.6	57.3	35.7	1.09
UF00715	263351	6437124	387	1.50	3.04	63	21.1	45.4	35.1	1.06
UF00716	263644	6436600	387	36.90	3.61	78	43.1	92.8	48.9	1.70
UF00717	263578	6436557	387	32.00	3.38	77	44.2	95.2	56.1	1.43
UF00718	263507	6436517	387	47.30	3.00	74	48.6	104.6	59.2	1.37
UF00719	263437	6436478	387	35.10	2.44	65	34.1	73.4	38.8	1.31
UF00720	263369	6436440	387	15.70	3.80	85	41.2	88.7	53.1	1.64
UF00721	263293	6436401	387	27.50	3.55	107	29.0	62.4	50.4	1.39
UF00722	263225	6436364	387	17.90	5.38	86	26.2	56.4	44.7	1.26
UF00723	263200	6436574	387	9.50	2.86	68	22.1	47.6	38.7	1.32
UF00724	263270	6436614	387	23.70	3.15	158	26.8	57.7	44.1	1.80
UF00725	263338	6436652	387	17.80	3.40	124	30.9	66.5	49.1	1.68
UF00726	263409	6436692	387	30.40	2.51	104	31.6	68.0	44.9	1.21
UF00727	263477	6436732	387	71.40	4.13	141	29.5	63.5	53.2	1.59
UF00728	263546	6436772	387	13.90	4.01	104	32.7	70.4	55.2	1.36
UF00729	263311	6436865	387	45.20	2.55	139	18.4	39.6	31	0.90
UF00730	263240	6436826	387	11.40	2.11	37	19.4	41.8	17.1	1.08
UF00731	263171	6436787	387	11.80	3.92	61	19.9	42.8	46.3	1.22
UF00732	263616	6437799	387	3.10	23.70	88	64.5	138.9	138	2.12
UF00733	263538	6437798	387	3.20	20.30	74	74.9	161.3	108	1.52
UF00734	263459	6437799	387	6.60	4.68	43	53.2	114.5	53.1	0.64
UF00735	263378	6437801	387	4.30	5.15	64	54.0	116.3	72.7	0.78
UF00736	263304	6437798	387	4.20	4.83	53	41.8	90.0	49.1	0.66
UF00737	263219	6437799	387	3.30	15.90	74	72.7	156.5	114	1.34
UF00738	263139	6437802	387	2.80	18.30	89	65.3	140.6	164	5.35
UF00739	263058	6437801	387	2.80	20.00	85	56.2	121.0	172	2.81
UF00740	262981	6437802	387	2.00	17.20	78	65.9	141.9	183	3.33
UF00741	262898	6437803	387	1.90	21.30	75	90.0	193.8	206	3.14
UF00742	262815	6437796	387	2.30	30.60	55	93.1	200.4	256	2.68
UF00743	262582	6438197	387	13.30	30.20	96	116.0	249.7	285	3.06
UF00744	262739	6438202	387	11.10	36.20	87	120.0	258.4	204	2.37
UF00745	262897	6438196	387	6.60	19.60	47	119.0	256.2	119	1.47
UF00746	263064	6438200	387	4.90	16.20	57	95.8	206.3	103	1.18
UF00747	263219	6438201	387	3.30	18.20	106	97.8	210.6	132	1.41
UF00748	263374	6438198	387	2.10	15.30	70	86.4	186.0	121	1.92
UF00749	263540	6438204	387	4.60	22.00	81	74.0	159.3	154	2.00

Sample No	MGA_East	MGA_North	RL	Au ppb	Cs ppm	Cu ppm	Li ppm	Li_2O ppm	Rb ppm	Sn ppm
UF00750	263705	6438199	387	8.90	16.20	124	34.3	73.8	108	1.56
UF00751	263856	6438199	387	4.50	9.42	79	32.2	69.3	74	1.38
UF00752	264023	6438201	387	3.20	4.61	86	25.3	54.5	32.8	1.17
UF00753	264173	6438204	387	11.80	3.14	131	22.0	47.4	16.9	1.49
UF00754	263858	6437797	387	3.10	1.81	168	32.1	69.1	4.4	1.11
UF00755	263777	6437804	387	2.50	4.15	99	34.5	74.3	12.5	1.50
UF00756	263695	6437799	387	2.10	17.30	73	61.7	132.8	95.5	1.95
UF00757	263281	6437080	387	7.90	3.43	100	22.7	48.9	43.9	1.03
UF00758	263213	6437040	387	13.40	5.50	86	25.8	55.5	66.3	1.43
UF00759	263142	6437001	387	28.70	5.90	92	31.1	67.0	68.4	1.32
UF00760	263073	6436960	387	7.80	3.83	107	23.1	49.7	44.9	1.24
UF00761	263000	6436924	387	4.50	3.73	65	18.3	39.4	41.2	1.04
UF00762	264183	6439000	387	4.40	10.80	60	68.4	147.3	139	2.38
UF00763	264016	6439001	387	3.10	9.80	63	52.2	112.4	106	1.82
UF00764	263859	6439000	387	2.50	9.63	91	75.6	162.8	129	2.53
UF00765	263699	6439002	387	1.80	13.10	92	67.1	144.5	183	4.17
UF00766	263536	6439001	387	2.10	9.85	94	61.0	131.3	110	1.18
UF00767	263370	6438998	387	1.50	12.40	74	74.0	159.3	176	2.45
UF00768	263219	6438998	387	3.90	23.90	79	89.4	192.5	329	11.10
UF00769	263057	6438999	387	2.80	11.40	134	99.6	214.4	42	4.72
UF00770	262900	6438999	387	0.80	14.20	125	48.7	104.9	35.2	1.73
UF00771	262739	6438997	387	1.40	27.20	58	83.5	179.8	137	2.43
UF00772	262575	6438999	387	2.40	33.80	76	101.0	217.5	132	2.17
UF00773	262413	6438998	387	2.50	25.50	78	172.0	370.3	143	3.81
UF00774	260740	6439002	387	10.90	7.07	65	58.2	125.3	65.9	1.43
UF00775	260821	6438999	387	14.90	6.11	60	79.9	172.0	45.2	1.37
UF00776	260900	6439002	387	18.00	6.09	60	68.3	147.0	56.6	1.58
UF00777	260957	6439004	387	18.80	9.64	69	74.6	160.6	88.4	2.25
UF00778	261063	6438989	387	34.40	12.30	68	73.7	158.7	71.9	1.71
UF00779	261138	6438996	387	9.60	21.30	59	76.2	164.1	103	2.29
UF00780	261220	6439001	387	11.80	27.20	88	90.8	195.5	153	3.20
UF00781	261299	6438998	387	14.20	20.80	94	80.2	172.7	122	2.43
UF00782	261380	6439002	387	65.50	5.03	179	31.4	67.6	61.5	1.65
UF00783	261457	6439001	387	14.60	2.76	70	30.0	64.6	27.5	0.85
UF00784	261539	6438999	387	5.20	1.85	56	41.3	88.9	22.2	0.58
UF00785	261620	6438997	387	5.00	7.73	91	55.3	119.1	64.9	1.74
UF00786	261781	6439002	387	5.10	3.71	74	41.5	89.3	40.3	0.84
UF00787	261943	6439000	387	48.60	12.10	95	72.7	156.5	118	1.82
UF00788	262093	6439003	387	3.50	23.40	60	78.3	168.6	230	4.74
UF00789	262259	6438998	387	1.50	38.30	69	100.0	215.3	360	5.12
UF00790	262789	6436571	387	12.50	6.70	90	27.9	60.1	51.9	1.37
UF00791	262858	6436612	387	9.20	6.29	99	28.2	60.7	46.2	1.55
UF00792	262927	6436649	387	5.90	5.06	72	30.3	65.2	33.5	1.45
UF00793	262995	6436690	387	11.20	6.36	127	26.2	56.4	59.4	1.60
UF00794	263072	6436721	387	7.80	4.48	66	24.0	51.7	49.1	1.46

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	• *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 downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (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.*	**Soil Sampling** • Lake Johnston soil sampling used the UltraFine+ technique and was on variable sample spaced lines of 800m,400m and 200m with sample spacings between 80m and 160m. • The UltraFine + samples were collected between 5-10cm depth or to the B horizon if shallower. Samples were recorded and logged on smart device using Avenza Maps and coordinates confirmed using handheld GPS. ***Historical Soil Sampling*** • Numerous historical soil sampling programs have been conducted historically at Lake Johnston using various techniques including Lag, BLEG, and soils. • Historical soils samples were collected on various grids and most commonly on a 400m x 40m grid stepping down to 200 x 40m and 100 x 20m grid in selected areas.
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).*	• No previous unreported drill results have been reported in this release.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No previous unreported drill results have been reported in this release.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	**Soil Sampling** • Soils samples were logged on collection according to regolith type.
Sub-sampling	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	**Soil Sampling**

Criteria	JORC Code explanation	Commentary
techniques and sample preparation	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Soil samples were sieved to - 2mm to remove excessive rock fragments and other organic debris with a minimum 200g sample collected.
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 (i.e. lack of bias) and precision have been established.*	**Soil Sampling** • Samples were sent to LabWest utilising the UltraFine+ method, UFF-PE that uses an Aqua Regia microwave digest with Gold and multielement analysis by ICP-MS/OES providing 54 elements in total. • Laboratory QAQC was undertaken.
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.*	**Soil Sampling** • Data was captured in the field by Poseidon staff using and also recorded on a smart device. • Data has been validated whilst uploaded to the geological database by the geologist and then the in-house database manager. • Assay data is received as either ppb or ppm. Lithium ppm was converted to Li_2O ppm for discussion purposes of similar trends and exploration results. • Data below detection limits are represented with an X in the tabulated data in Table 1. **Historical data** • Data was validated and cross referenced to GSWA data. • Inconsistencies are present in the data with respect to detection limits and sensitivity.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	**Soil Samples** • Samples were located using a smart device using Avenza Maps and coordinates confirmed using handheld GPS, using GDA94 / MGA zone 51. • An approximate RL has been assigned to the sample location.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of*	**Soils Sampling** • Soils sampling was reconnaissance in nature and collected on a 200, 400 or

Criteria	JORC Code explanation	Commentary
	geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • *Whether sample compositing has been applied.*	800m spaced grid with sample locations 80 to 160m apart.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	**Soil Sampling** • Soil sampling is explorative in nature and collected along an east- west grid.
Sample security	• *The measures taken to ensure sample security.*	**Soil Samples** • Samples were securely stored within numbered paper geochemical bags and then boxed. • The boxed samples were wrapped and delivered directly to the transport company in Kalgoorlie by Poseidon staff and delivered to Labwest in Perth. • A chain for custody was maintained throughout the process.
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
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.*	• 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 E63/2244 + E63/2256 is a farm in between Poseidon Nickel and Mantis Minerals
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 Nickel in 2007. Norilsk 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.*	**Nickel** • The Emily Ann, Maggie Hays and Abi Rose nickel deposits are intrusive-style massive and disseminated nickel deposits hosted within the Lake Johnston Greenstone belt. **Gold** • Gold is interpreted to be related to orogenic mineralisation typical of deposits found throughout greenstones in Western Australia **Lithium** • Lithium-Cesium-Tantalum (LTC) spodumene bearing pegmatites are commonly found within the greenstones of Western Australia and the style of lithium deposit being explored

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• The soil samples pertaining to this release are depicted in the main body of the release, with anomalous results tabled in Appendix 1.

Data	• *In reporting Exploration Results,*	• Single point soil results have been plotted

Criteria	JORC Code explanation	Commentary
aggregation methods	*weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	in this release. • Anomalous soil sample results greater than 5ppb Au, 75ppm Cu and 60 ppm Li_2O are tabulated in Appendix 1 • Lithium ppm was converted to Li_2O for discussion purposes. Both Li ppm and Li_2Opmm results are provided in Table 1.
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').*	• No previously unreported drill results have been reported in this release.
Diagrams	• *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 related to this release are included in the main body of the release.
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.*	• All soil sample results are depicted on maps within the main body of the release.
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.*	• No further substantive exploration data is necessary to support this announcement.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further infill soil sampling is planned in the near future to delineate the anomalies and will be reported when or if it occurs in the future.