POSEIDONNICKEL

13 April 2018

Lake Johnston- Medusa Lithium Drilling Results

Highlights

- **20 Slim-line RC drill holes completed for 1,245m at the Medusa Project**
- **Despite strong surface geochemical and mapping support, no encouraging lithium bearing pegmatites were encountered**
- **All assay results were below 2000ppm Li (>0.5% Li_2O) with limited support from typical LCT pegmatite associated elements**
- **The lithium mineral-rich portions of the pegmatites are interpreted to have been weathered off which explains the strong residual lithium soil anomalies over the area**

Poseidon Nickel Limited (ASX:POS or the Company) has now received the laboratory results from samples recovered from the reconnaissance stage of the Medusa Lithium Project drilling campaign at Lake Johnston. 20 slim-line RC holes (Figure 1) were completed for a total of 1,245m (Table 1) utilising a specialised rubber-tracked Morrooka mounted slim-line RC drill rig to minimise the drill rigs environmental footprint and to navigate the hilly-rocky terrain at Medusa.

All assay results were below 2000ppm Li (>0.5% Li_2O) with limited support from typical LCT pegmatite associated elements (Table 2). These grades are not economic and given the lack of suitable mineralisation in the unweathered/un-eroded, open-pitable portions of the system it is not proposed to carry out further drilling for lithium at the Medusa Project at this stage.

Medusa Geological Summary

Numerous felsic pegmatites were intersected ranging from 65m in thickness in the east to 2-6m in thickness in the central portion of the project area. Pegmatites were scarce in the west of the project area. The pegmatites are generally flatly orientated, dipping ~25 degrees to the east and variably striking NE to NW.

The pegmatites intersected in the drilling can be classified as Albite-Muscovite Sub-Type LCT Pegmatites. Local variations occur with observations of zoned lithium minerals lepidolite and petalite in outcrops, however, no visible spodumene or lepidolite was observed in the drill chips and the lack of assay results supports the drill chip observations.

The discovery of petalite at surface to the central-west of the project (thinning pegmatites) combined with observed geology in drill intercepts (thicker pegmatites) indicates a westerly (and upward) fractionation trend. Drilling below the petalite zones and in the west revealed scarce, thin pegmatites. If the westerly fractionation trend is tangible, then it is interpreted

that the lithium mineral-rich portions of the pegmatites have been weathered off which explains the strong residual lithium soil anomalies over the area.

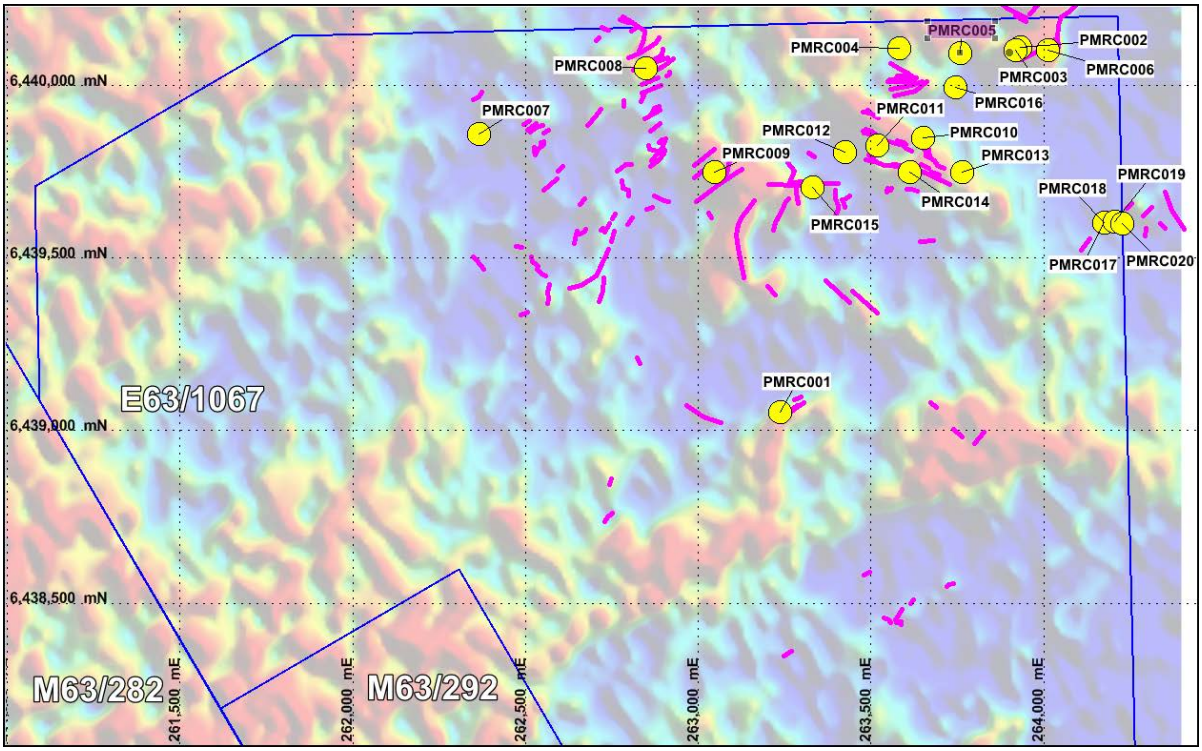

Figure 1: Drill hole locations with mapped pegmatites (maroon) on radiometric image (potassium).

Table 1: Drill hole details

Hole ID	Hole Type	Hole Size	Depth m	Dip	East MGA	North MGA	Azi MGA	Comments
PMRC001	RC	5.5"	25	-60	263237	6439052	90	Completed
PMRC002	RC	5.5"	16	-60	263931	6440109	90	Completed
PMRC003	RC	4"	91	-90	263917	6440101	0	Completed
PMRC004	RC	4"	49	-90	263583	6440106	0	Completed
PMRC005	RC	4"	37	-90	263759	6440092	0	Completed
PMRC006	RC	4"	66	-90	264013	6440102	0	Completed
PMRC007	RC	4.75"	39	-90	262365	6439860	0	Completed
PMRC008	RC	4.75"	73	-90	262847	6440049	0	Abandoned
PMRC009	RC	4.75"	91	-90	263048	6439749	0	Completed
PMRC010	RC	4.75"	76	-90	263652	6439848	0	Completed
PMRC011	RC	4.75"	100	-90	263518	6439826	0	Ran out of rods in pegmatite
PMRC012	RC	4.75"	73	-90	263425	6439807	0	Completed
PMRC013	RC	4.75"	93	-90	263763	6439748	0	Completed
PMRC014	RC	4.75"	80	-90	263612	6439749	0	Completed
PMRC015	RC	4.75"	80	-90	263331	6439704	0	Completed
PMRC016	RC	4.75"	87	-90	263745	6439994	0	Very slow drill rate, hole abandoned
PMRC017	RC	4.75"	28	-60	264174	6439601	270	Completed
PMRC018	RC	4.75"	43	-90	264176	6439601	0	Completed
PMRC019	RC	4.75"	34	-90	264204	6439606	0	Completed
PMRC020	RC	4.75"	64	-90	264226	6439600	0	Completed

Table 2: Elevated assay results from typical LCT pegmatite associated elements

HoleId	mFrom	mTo	Li_ppm	Cs_ppm	Ta_ppm	Sn_ppm	Rb%
PMRC001	2	3	157	249	12.8	21	0.46
PMRC001	3	4	81.5	310	8.1	7	0.53
PMRC001	4	5	132	247	2.6	14	0.62
PMRC003	70	71	287	133	51.3	50	0.47
PMRC003	71	72	45.8	187	48.4	6	0.59
PMRC003	72	73	55.4	161	13.6	5	0.69
PMRC003	73	74	58.2	196	12.8	4	0.61
PMRC003	74	75	157	115	6.2	19	0.51
PMRC008	16	17	721	63.8	37	198	0.36
PMRC010	57	58	1000	7.8	38.7	121	0.02
PMRC011	77	78	113	139	14.1	30	0.62
PMRC011	78	79	72.3	147	12.6	21	0.81
PMRC011	79	80	70.1	111	9.5	22	0.75
PMRC011	80	81	166	88.9	21.1	47	0.69
PMRC011	93	94	374	80.4	32.8	115	0.45
PMRC011	94	95	536	104	32.9	176	0.49
PMRC011	95	96	443	89.5	29.8	142	0.44
PMRC011	96	97	296	104	22.9	97	0.49
PMRC011	97	98	356	107	26.7	128	0.51
PMRC013	70	71	1540	101	19.5	23	0.4
PMRC013	71	72	563	80.3	19.1	42	0.31
PMRC014	30	31	1590	243	7.1	3	0.14
PMRC019	4	5	948	47.9	25.9	172	0.32
PMRC020	51	52	954	141	28.3	153	0.38
PMRC020	60	61	1460	566	106	89	0.36
PMRC020	61	62	1070	263	57.6	141	0.37
PMRC020	62	63	1110	310	24.1	149	0.35

Notes

The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr N Hutchison, General Manager of Geology who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists. Mr Hutchison has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code 2012). Mr Hutchison has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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

FORWARD LOOKING STATEMENTS:

This release contains certain forward looking statements including nickel production targets. 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

Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance.

CORPORATE DIRECTORY

Director / Senior Management

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David Singleton	Non-Executive Director
Geoff Brayshaw	Non-Executive Director
Robert Dennis	Non-Executive Director
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Home Exchange
The Company's shares are listed on the Australian Securities Exchange and the home exchange is Perth.
ASX code : POS

ATTACHMENT A
JORC (2012) Table 1

LAKE JOHNSTON PROJECT
E63/1067 LITHIUM DRILLING

E63/1067 LITHIUM DRILLING

SECTION 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

JORC Code explanation	Commentary
Sampling techniques	
Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Samples were riffle split via a cyclone mounted splitter at the rig to ensure representative samples were collected for assaying. The split samples were collected in calico sample bags which were send to the lab for analysis. The bulk residual sample was collected in large green plastic bags and stacked for logging and future reference as per standard procedures. Drill chip samples were collected from the top of each bag, sieved then washed. Chips were stored in 1 meter intervals in plastic chip trays and detail logged. • Riffle split lab samples weighed between 1-6kg and were pulverised, homogenised and further riffle split in the lab to produce a 30g charge for analysis.
Drilling techniques	
Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	• Slim-line RC holes were completed utilising a specialised rubber-tracked Morrooka mounted slim-line RC drill rig to minimise the drill rigs environmental footprint and to navigate the hilly-rocky terrain at Medusa. • The first 2 holes were 5.5" in diameter then the next 4 holes were 4" in diameter. To improve penetration rates and sample return all subsequent holes were 4.75" in diameter. • This type of drilling is more than adequate for reconnaissance drilling.
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.*	• Initially recoveries were variable due to hole size and air capacity vs penetration rates. Once correct hole size/air ratio was establish recoveries were consistent and appropriate for the drilling technique.
Logging	
Whether core and chip samples have been geologically and geotechnically logged to a	• Samples were collected in 1 meter intervals within plastic bags. Drill chip samples were

JORC Code explanation	Commentary
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.*	collected from the top of each bag, sieved then washed. Chips were stored in 1 meter intervals in plastic chip trays and detail logged into FieldMarshal software on a Toughbook laptop using the companys detailed logging codes.
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 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.*	• Samples were riffle split via a cyclone mounted splitter at the rig to ensure representative samples were collected for assaying. The split samples were collected in calico sample bags which were send to the lab for analysis. The bulk residual sample was collected in large green plastic bags and stacked for logging and future reference as per standard procedures. No subsampling occurred.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Samples were sent to a commercial laboratory, SGS Australia in Perth. Samples were assayed for multi-elements using 4 acid digest with XRF Fusion and ICP-MS finish. • No field duplicate or standard samples were inserted as this was a reconnaissance drilling program.
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 and data entry was completed/supervised by Poseidon personnel to ensure sound quality control and representation. • Data was collected from each drill meter and logged into FieldMarshal software on a Toughbook laptop using the companys detailed logging codes.

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.*	• Location of drill holes were recorded using a Garmin 62s handheld GPS units with an accuracy of +/- 5m. • All data points were located using the Geocentric Datum of Australia 1994 and the Map Grid of Australia zone 51 projection. Topographic control using GPS is more than adequate for reconnaissance drilling.
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 Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	• Drill hole spacing was selected to test the most prospective pegmatites and associated soil anomalies. • The drilling spacing is more than adequate for reconnaissance drilling.
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.*	• The first 2 holes were drilled at -60deg to specifically target a dipping pegmatite. All subsequent holes were drilled vertically (-90deg) to target the flatter lying nature of the identified pegmatites.
Sample security	
The measures taken to ensure sample security.	• All samples were collected, prepared and stored on site in a secure environment. They were transported and delivered directly to the laboratory by Poseidon personnel.
Audits or reviews	
The results of any audits or reviews of sampling techniques and data.	• Only internal reviews have been completed as the results don't warrant external review.

E63/1067 LITHIUM DRILLING

SECTION 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections)

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 reported drill holes are located within E63/1067 which is at the northern end of the Lake Johnston tenement package which is 100% owned by Poseidon Nickel. • The Maggie Hays and Emily Ann mines are situated on M63/163 & M63/283 respectively. The concentrator plant is also located on M63/283 which are located 190km SW of Kalgoorlie. • A long standing Native Title Agreement (since 1997) exists with the Ngadju People and will be continued by Poseidon Nickel. • The tenements are located within the buffer zone of the Bremer Range Priority Ecological Community and within the Proposed Nature Reserve 82. • Lake Johnston Plant commenced operation in 2001 and there are no known impediments to continue operating in this area. • There are no royalties or other interests held.
Exploration Done by Other Parties *Acknowledgment and appraisal of exploration by other parties.*	• AMAX Australia Ltd explored for tantalum within the Mt Day area in 1981. They mapped and rock chipped pegmatites which included Li analysis. • LionOre Australia and Norilsk Nickel Australia previously completed exploration, drilling and mining of the Lake Johnston project until Poseidon's acquisition in late 2014.
Geology *Deposit type, geological setting and style of mineralisation.*	• The Lake Johnston Project is located 80km ENE of Western Areas' Forrestania Project which contains their flagship Flying Fox Mine. Flying Fox and Maggie Hays are both intrusive style ultramafic bodies, not extrusive Kambalda style lava flows. They have undergone similar intrusive emplacement, nickel mineralisation, and structural overprinting histories. Late state felsic pegmatites intruded this rocks from late stage granitic activity.
Drill hole information	• Co-ordinates and other attributes of drilling are included in the release.
Data aggregation methods	NA
Relationship between mineralisation widths and intercept lengths	NA
Diagrams	• Drill hole location plans have been included in the body of report
Balance reporting	• The reporting is factual & balanced
Other substantive exploration data	• All relevant material relating to the lithium project and targeting have been previously reported.
Further work	• The returned assay grades are not economic and given the lack of suitable mineralisation in the unweathered/un-eroded, open-pitable portions of the system it is not proposed to carry out further drilling for lithium at the Medusa Project at this stage.