

**ASX RELEASE: 14 JUNE 2018** 

# **EXTENSIVE LITHIUM TARGETS IDENTIFIED AT GREENBUSHES**

#### **HIGHLIGHTS**

- Metalicity has identified two priority lithium targets at the company's 100% owned Greenbushes
  North project, within the world class Greenbushes pegmatite lithium district in the South West region
  of Western Australia (WA).
- A geochemical sampling methodology was designed and employed based on previous successful laterite sampling programs [e.g. Smith et al, 1987] which confirmed the technique is appropriate to discover lithium and tantalum bearing pegmatites in laterite-covered areas at the world class Greenbushes lithium deposit located ~35 km to the south.
- The geochemical sampling program at Greenbushes North covered an area of some 12 km X 11 km (132 km²) and highlighted two priority lithium target areas which may indicate buried LCT type pegmatites as shown on Figure 4.
- The lithium index target areas collectively cover some ~30km².
- Importantly the anomalies follow structural trends, clustering around the Donnybrook-Bridgetown Fault, which is interpreted to be a major controlling factor in the location of the Greenbushes deposit.
- Exploration planning is in progress to follow up the lithium targets using infill lateritic sampling on a 250 m X 250 m grid. This sampling will be augmented by rock chip samples of pegmatites, if located, to vector in on mineralisation.

Metalicity Limited (ASX:MCT) ("MCT" or "Company") is pleased to report that it has identified two (2) extensive lithium target areas and a number of point anomalies from a program completed by Metalicity involving geochemical sampling and geological evaluation, at the Company's 100% owned Greenbushes North Lithium Project, along strike from the world class Greenbushes lithium deposit in the South West of WA.

The Greenbushes deposit is the world's largest and highest-grade lithium deposit (118Mt of spodumene ore containing 2.4% lithium) with an ore feed containing 3%-4.5% Li20 [ref. Talison website). The Greenbushes pegmatites intrude along the major northwest Donnybrook-Bridgetown Fault and the main pegmatite consists of a zone over 3 kms X 300m (0.9km²). Greenbushes currently supplies 30% of the worlds lithium.

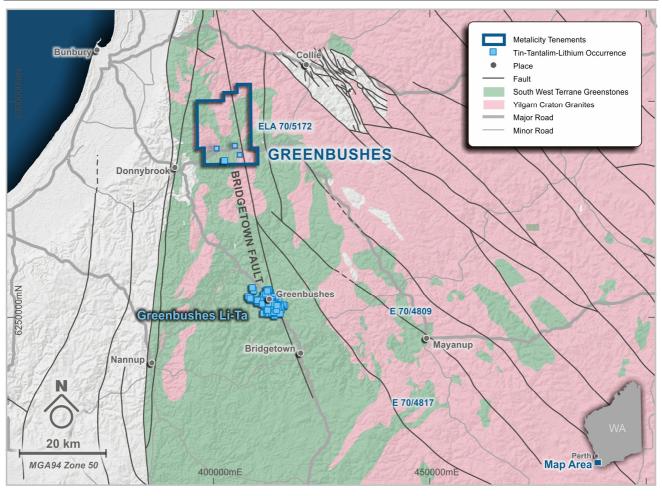
The company's Greenbushes North Tenement application (E70/5172) is located 35 km north of the Greenbushes deposit in the south west of WA and covers a total area of 70 km² located over freehold land and partial state forest, for which the company is progressing standard access agreements.

## **Metalicity Managing Director Matt Gauci said:**

"The exploration program has identified important criteria for the discovery of buried LCT-type lithium pegmatites similar to those which host the world class Greenbushes deposit. Firstly, the sampling methodology used identified two significant lithium index anomalies and secondly the clustering of these anomalies located over the same fault zone which controls the Greenbushes deposit. The anomalies cover an extensive total area of  $\sim$ 30km² and exploration teams are being mobilised to progress work programs at these new prospects."

# **GREENBUSHES NORTH LITHIUM PROJECT LOCATION**

Figure 1: Greenbushes North tenement location in the South West of WA



Source: Metalicity



Figure 2: Typical moderately undulating landscape in the southern portion of the project area



Source: Metalicity

Figure 3: Typical landscape in the northern portion of the project area

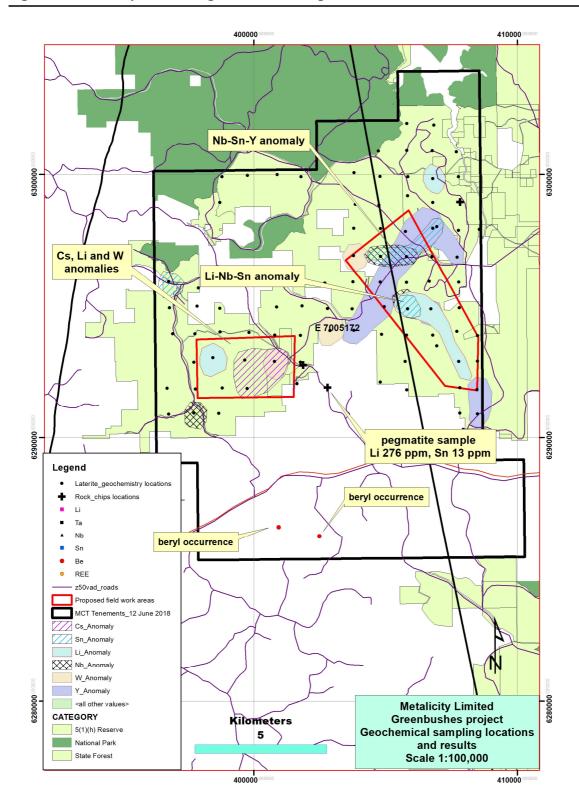


Source: Metalicity



# **GREENBUSHES NORTH LITHIUM TARGETS DISCOVERED**

Figure 4: Lithium exploration targets areas covering some 30 km<sup>2</sup>



Source: Metalicity



## **LOCATION AND ACCESS**

The southern half of the tenement covers mostly cleared farmland (white areas in Figure 4), which is largely held under freehold land title and requires landowner consent to access. The northern portion of the tenement largely covers state forest which requires state government consent, particularly to access certain areas of the state forest and to conduct any ground disturbing activities. Road access is generally good, in the southern portion of the tenement with the flat to rolling topography and mostly cleared land. The state forest areas are generally more rugged topographically, except for lateritic plateaus, and a network of tracks permit reasonable access.

#### **GEOLOGY**

The Greenbushes North project is situated within the Western Gneiss Terrain of the Archaean Yilgarn Block. It is related to the Balingup Metamorphic Belt, a wedge-shaped area bounded on the west by the Darling Fault (Figure 1) consisting of ortho- and paragneiss, metasediments and some mafic and ultramafic intrusions (Blockley, 1980; Wilde, 1980). In the south, the belt is separated from the granitic terrain by a north-northwest-trending zone of migmatite and deformed quartz monzonite.

The project occurs within a 15 km to 20 km-wide north- to northwest-trending regional Donnybrook-Bridgetown lineament zone, which has a strike length of approximately 150 km. The lineament, which is interpreted to have been a major structural control on the emplacement of the Greenbushes pegmatite deposit, is subparallel to the Darling Fault in the north of the Balingup Metamorphic Belt and trends northwest to southeast oblique to the Darling Fault to the south (Partington and McNaughton, 1995).

The area is dominated by granitic, locally migmatitic gneiss and metasedimentary quartz-feldspar-biotite gneiss with minor quartzite and porphyritic granite. The granitic gneiss is a fine- to medium-grained rock forming a layered sequence and comprising various proportions of quartz, microcline, plagioclase, biotite and, locally, garnet. The compositional banding is mostly due to variations in the amount of biotite.

Two beryl occurrences, which are believed to be hosted by pegmatites, are located in the southern portion of the tenement. They occur within an area which has an elevated potassic radiometric response probably related to potassium-enriched gneissic rocks. This may indicate input from a buried granite, possibly a potential source for rare element pegmatites. This portion of the tenement also contains numerous small pegmatoidal vein/greisen occurrences, hosted within quartz-feldspar-biotite gneiss (metasedimentary) country rock units which indicate higher levels of magmatic fluid input in this region.

## SAMPLING METHODOLOGY

The survey used a methodology based on previous surveys completed designed to locate rare element lithium and tantalum bearing pegmatites in laterite-covered areas around the Greenbushes deposit.

The area was covered on a nominal 1 km<sup>2</sup> grid pattern. The sampling grid was originally designed based on a 1:500,000 scale regolith map by the GSWA and a SRTM elevation model. The grid was limited to the high plateau and upper slope areas above a 230 m RL characterized by the relict regolith regimes and dominated by a lateritic cover (Figure 4). The lower elevation areas were also checked where accessible for potential local remnant pockets of ferruginous nodules, pisoliths or duricrust.



The planning sampling grid was reduced during the survey due to vehicle access and landowner permission constraints. The final grid covers 12 km x 11 km area with some gaps in the central part due to access difficulties.

A total of 93 samples and 5 field duplicates were collected. Sample locations were captured digitally on each site by a GPS as well as being manually recorded on a sampling spreadsheet. The plotted locations were cross validated against GPS waypoints. Metadata collected for each site included the regolith type, regime, landform, land use and date.

#### **EXPLORATION DATA ANALYSTICS**

All samples were shipped to SGS laboratory in Perth, Western Australia. The samples were washed prior to sending to the lab to reduce the amount of surface admixtures (soil, clay and vegetation) and eliminate any possibility of present-day contamination by airborne dust from unsealed roads. The duplicates were placed in new pre-numbered calico bags and included in the sample batch. Three Ta-Nb-Sn certified reference standards GTA-03 supplied by Geostats Pty Ltd (Perth) were also inserted into the sample batch to test the accuracy of the ICP-MS/OES analysis.

After drying, crushing and pulverizing, the samples were digested using a sodium peroxide fusion and analyzed by ICP-MS for As, Be, Cs, Ga, Li, Nb, Sb, Sn, Ta, W and Y and by ICP-OES for Al, Fe, B and Si. The method provided lower detection limits of 0.25ppm for Cs and Y, 0.5ppm for Li and Be, 1ppm for Nb, Sn and Ta.

The element suite includes Al, Fe, Si, As, B, Be, Cs, Ga, Li, Nb, Sb, Sn, Ta, W and Y. The data were validated to check for duplicate records, missing or incorrect locations and values outside the possible range for each variable.

Values below the lower detection limit (LDL) have been converted to positive values at 50% of the LDL to facilitate data log-transformation and to use multivariate statistics techniques. A number of elements including B, Sb and Ta have a significant proportion of data below the LDL and have been omitted from the detailed multivariate analysis. The entire remaining data set, consisting of 15 elements, was converted to the same unit (ppm) and transformed using centered log-ratios (CLR) in order to negate the effects of closure (or the constant sum problem) on the data. False correlations that result from closure effects are thus removed from correlation, regression and principal component analysis so that the real underlying associations between elements are revealed.

Most of trace element concentrations are relatively low. The threshold for elements of interest was estimated based on both natural breaks in the population distribution on a normal probability plot and using Tukey box plots.

Individual element anomalies seem to follow eastward, northeastern and northwestern structural trends, clustering into two multi-element anomalies around the regional fault which controls the Greenbushes deposit to the south (Figure 4). Most of the anomalies are limited to one or two points and are low in magnitude. The most coherent anomalies are an elongated NE-trending (5.8 km x 1.3 km) Y anomaly in the east of the central part of the license area and an NW-trending (4 km x 1 km) Li anomaly adjacent to the south. The Li anomaly generally follows the NW trend of the hosting elongated high plateau presumably indicating a preferential strike direction of weathering-resistant lithological units (including possible pegmatite) below the lateritic blanket.



Two 1.2 km to 1.7 km long complex Nb-Sn-Y and Li-Nb-Sn anomalies are positioned next to the regional fault zone indicating a potential location of pegmatite mineralisation.

Pearson Product Moment correlation analysis of the CLR-transformed data doesn't show statistically significant correlations for the pegmatite-related elements apart from negative correlations between Be and W, Ga and Y, and Y and Al.

Principal component analysis of the CLR data provides more information on element associations. Four principal components are found to be significant (loadings above 10%). The element associations are summarized in Table 1, along with the percentage of the variability in the data for each principal component (PC).

Table 1: Summary of principal component

PC (%)	Positive Association	Negative association	
PC1 (31.7)	Cs, Y, Si, W, Li	Ga, Al, Fe, As, Be	
PC2 (18.4)	Si, <b>Li, Be</b> , As, Fe, <b>Y</b>	W, Nb, Al, Ga	
PC3 (12.4)	Y, As, Nb, Be	Cs, Li, Fe, Al, W	
PC4 (11.6)	Nb, Cs, Al, Si, Li,	Fe, <b>W, Be</b> , As	

The PC1-PC2 plot showing the highest variability in the data and generally reflects major lithological groups. It shows a Li-Si group, presumably reflecting quartz-dominated pegmatite phases, and also shows a close association between Y-Cs. The pegmatite-related element associations are more evident from the PC1-PC3 and PC1-PC4 plots showing close associations between Li-Cs-W-Si and Li-Cs-Si-Y. Niobium seems to behave differently from Li indicating the possible presence of both Lithium-Caesium-Tantalum (LCT) and Niobium-Yttrium-Fluorite (NYF) types of pegmatites in the area.

Based on the results of the principal component analysis, three empirical additive exploration indices were calculated to highlight subtle anomalism and to assist in exploration targeting. The additive indexes PEG-LCT and PEG-NYF were designed to highlight the areas of possible LCT and NYF type pegmatites, respectively. The PEGALL index is a combination of the two indexes above aiming at enhancing the pegmatite-related areas.

The indexes use an empirically derived weighted linear combination of elements designed to convert strengths of each element to approximately similar numerical values (where the value for each element is in ppm) (Table 2). It should be noted that the proposed indices are specifically designed for this project and need to be adjusted for other areas based on actual element values.



**Table 2: Exploration indices** 

Exploration Index	Formula
PEG-ALL	9.43Be + 11.08Cs + Li + 0.42Nb + 3.27Sn + 13.38Ta + 1.92W + 0.29Y
PEG-LCT	9.43Be + 11.08Cs + Li + 3.27Sn + 13.38Ta + 1.92W
PEG-NYF	0.42Nb + 0.29Y

This index, by its progressively stronger contours, delineates the possible pegmatite occurrences. The NYF-type anomalies occur in the eastern central part of the tenement along the NE and E trends (Figure 4). The eastward to northeast-trending LCT-type anomaly is located to the south of the partly overlapped NYF-type anomaly (Figure 4). Several point anomalies of Li, Nb, Y, Sn, W and Cs scattered around the license area are thought to be of much lower priority based on geological merits and infrastructure constraints. The analytical results and samples locations are provided in Appendix 1.

#### **FUTURE WORK PROGRAMS**

Future work programs have been designed for the project area which includes:

- Undertake a follow-up infill laterite regolith sampling program in the two geochemically anomalous areas on a 250 m x 250 m grid.
- Additionally, undertake limited laterite sampling around two single-point Sn and Li anomalies in the western and northeastern parts of the tenement respectively.
- The lateritic survey will be augmented by rock chip samples of pegmatites, where available, to assist in understanding vectors to mineralisation and for a better understanding of relationships between the primary source and the surface response.

It is proposed to mobilise an exploration team to undertake infill laterite regolith sampling programmes in the two priority target areas shown on Figure 4 and the company will report the results of these programs when they become available.

#### **REFERENCES**

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Smith, R. E., Perdrix, J. L. Davis, J. M. 1987. Dispersion into pisolitic laterite from the Greenbushes mineralized Sn-Ta pegmatite system, Western Australia. In: Garrett, R. G. (ed.) Geochemical exploration 1985, Part I. Journal of Geochemical Exploration, 28, 251–265.

Wilde, S.A., 1980. The Jimperding Metamorphic Belt in the Toodyay area and the Balingup Metamorphic Belt and associated granitic rocks of the Southwestern Yilgarn Block: International Archaean Symposium, 2nd, Perth, 1980, Geol. Soc. Australia, Excursion Guide.

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## **About Metalicity Limited**

Metalicity Limited is an Australian exploration company with a primary focus on the battery metals sector (lithium, cobalt and graphite) with exploration projects located in existing world class and/or emerging districts for lithium, cobalt and graphite in Western Australia. The Company is also progressing a TSX-V Initial Public Offering ("IPO) of its base metal projects and has recently agreed to the terms of the sale and purchase of these projects. Metalicity is well supported by a management team with significant collective experience in the resources sector, as well as private equity, institutional, strategic and retail funds.

## **Competent Person Statement**

The information in this report that relates to Exploration results is based on information compiled by Ralph Porter, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Porter is a consultant to the Company and an employee of CSA Global Pty Ltd. Mr Porter has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the type of activity being undertaken to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Porter consents to the inclusion in the report of the information in this announcement in the form and context in which it appears.





## Appendix One. Selected analytical results laterite and rock chip samples

Sample_ID	MGA_E	MGA_N	RL	B_ppm	Be_ppm	Cs_ppm	Ga_ppm	Li_ppm	Nb_ppm	Sn_ppm	Ta_ppm	W_ppm	Y_ppm
G001	401783	6292863	230	20	0.25	0.4	19	2.9	16	2	1	5	31.3
G002	401780	6293877	230	10	0.8	0.7	41	7.1	18	0.5	0.5	1	21.4
G003	402807	6294899	258	10	0.25	0.5	69	5.4	22	0.5	0.5	3	24.7
G004	403735	6294889	271	10	1	0.5	88	6	18	0.5	0.5	1	40.3
G005	404802	6295901	270	10	1.1	0.6	86	6.9	27	4	0.5	4	58.4
G006	405799	6296881	221	10	1.4	0.6	66	4.4	34	10	2	3	48.2
G007	406770	6296879	199	10	1	0.6	43	8	18	0.5	0.5	1	37
G008	401648	6292055	205	10	1.1	0.7	36	8.9	8	0.5	0.5	3	14
G009	400805	6293894	270	10	1.3	0.5	52	5.3	20	0.5	0.5	1	10.6
G010	397912	6295675	226	10	0.7	0.5	57	8.2	15	0.5	0.5	1	7.6
G011	396786	6295921	234	10	1.4	0.4	89	4	15	11	0.5	1	8.5
G012	397862	6294984	229	10	0.8	0.6	43	6	15	0.5	0.5	3	9.3
G013	396814	6294924	293	10	0.6	0.12	106	2.9	17	0.5	0.5	2	7.3
G014	396935	6293946	294	10	0.7	0.4	118	2.6	15	0.5	0.5	3	9.8
G015	397781	6293941	253	10	0.5	0.5	47	8.8	14	0.5	0.5	1	9.6
G016	398738	6294016	248	10	1.6	0.6	64	3.6	14	0.5	0.5	1	22.8
G017	398725	6294910	220	10	1.6	1.3	32	7.7	5	0.5	0.5	1	11.5
G018	399833	6293990	267	10	1.1	0.9	49	6.6	12	0.5	0.5	3	15.7
G019	398723	6298930	206	10	0.25	0.4	45	6.6	8	0.5	0.5	1	6
G020	398806	6299900	240	10	1.2	0.12	92	3.2	13	0.5	0.5	2	3.2
G023	401805	6299904	286	10	0.5	0.4	71	8.8	13	0.5	0.5	2	21.9
G024	400892	6299984	273	10	1	0.12	108	2.7	21	0.5	0.5	2	26.8
G025	403862	6298856	266	10	0.6	0.4	65	8.2	13	0.5	0.5	1	42.3
G026	404817	6297948	240	10	0.25	0.6	34	9.4	9	0.5	0.5	1	13.6
G027	407725	6296862	184	10	2.5	0.4	23	15	11	0.5	0.5	1	55.5

Sample_ID	MGA_E	MGA_N	RL	B_ppm	Be_ppm	Cs_ppm	Ga_ppm	Li_ppm	Nb_ppm	Sn_ppm	Ta_ppm	W_ppm	Y_ppm
G028	408567	6297918	180	10	0.8	0.12	28	4.8	7	0.5	0.5	1	12.4
G029	407768	6297869	212	10	1.5	0.4	56	7.4	13	0.5	0.5	2	18.3
G030	407798	6298947	224	10	2.9	0.7	53	6.1	27	0.5	0.5	1	15.2
G031	406796	6298926	233	10	0.8	0.5	46	6.7	17	0.5	0.5	2	20.7
G032	407773	6299908	174	10	1.7	1.1	57	9.5	15	0.5	0.5	1	18.1
G033	406796	6299829	163	10	0.9	0.3	34	12.7	11	0.5	0.5	4	14.1
G034	406780	6300885	210	10	1.7	0.12	23	2.9	6	0.5	0.5	2	11.4
G035	407688	6300853	161	10	1.6	0.5	71	6.6	32	5	0.5	2	85.4
G036	406835	6301873	169	10	1.5	0.3	64	5.9	14	0.5	0.5	1	16.9
G037	405810	6301931	238	10	0.7	0.4	48	8.6	8	0.5	0.5	1	6.1
G038	405807	6300895	265	10	1.2	0.4	68	7.2	19	0.5	0.5	1	17.6
G039	405848	6299904	250	10	1.5	0.3	72	5.8	14	0.5	0.5	1	8.5
G040	404735	6300877	294	10	0.8	0.5	85	5.8	18	0.5	0.5	1	4.6
G041	405762	6297835	224	10	1.6	0.5	51	6.7	23	0.5	0.5	1	72.9
G042	406668	6295930	196	10	1.7	0.5	42	8.7	12	0.5	0.5	1	27.4
G043	405799	6295895	269	10	1.2	0.6	94	12.6	21	3	0.5	1	37.9
G044	406722	6294886	246	10	1	1.2	41	15.1	23	0.5	0.5	3	64.5
G045	407799	6294933	215	10	2	0.4	48	7.7	14	0.5	0.5	2	28.8
G046	407782	6295898	225	10	1.2	0.9	42	6.1	15	0.5	0.5	3	23
G047	406800	6297958	225	10	0.25	0.6	13	3.3	19	6	0.5	5	48.4
G048	406947	6298012	233	10	0.6	0.8	24	7.2	22	7	0.5	4	61.7
G049	405838	6299187	246	10	0.8	0.7	50	6.4	18	6	0.5	8	21.1
G050	404757	6298826	273	10	0.25	0.6	51	6.5	17	2	0.5	4	20.5
G051	404814	6296890	230	10	0.6	0.9	60	3.5	28	10	0.5	7	23.8
G052	403790	6296915	267	10	0.6	0.5	62	8.5	20	6	0.5	9	42.5
G053	403775	6295909	273	10	0.6	0.7	55	7.4	26	2	0.5	4	19.3
G054	401842	6294996	222	10	0.6	0.5	61	4	15	3	0.5	4	16.8
G055	400836	6296007	216	10	0.6	0.6	48	3.3	16	0.5	0.5	4	21.8



Sample_ID	MGA_E	MGA_N	RL	B_ppm	Be_ppm	Cs_ppm	Ga_ppm	Li_ppm	Nb_ppm	Sn_ppm	Ta_ppm	W_ppm	Y_ppm
G056	407950	6290307	212	10	0.6	0.6	65	5.2	17	2	0.5	4	40.2
G057	408491	6290894	261	10	0.6	0.5	34	6.5	14	3	0.5	8	48.5
G058	407821	6290922	226	10	0.5	0.3	37	3.3	8	5	0.5	6	39
G059	407827	6291901	265	10	0.5	0.12	84	5.2	13	4	0.5	4	18.6
G060	408470	6291830	258	10	0.6	1	50	10.3	27	0.5	0.5	5	49.9
G061	407783	6292901	240	10	0.6	1.1	40	16.9	22	3	0.5	6	26
G062	408494	6292907	214	10	0.5	0.6	46	7.9	20	2	0.5	3	11.3
G063	408491	6293873	220	10	0.8	0.7	58	5.1	16	6	0.5	4	15.7
G064	407710	6294035	232	10	1.1	1.2	39	7	12	3	0.5	3	33.7
G065	406947	6293490	247	10	0.5	1	28	6.9	25	0.5	0.5	5	37.5
G066	406792	6293896	275	10	0.25	0.4	32	11.7	15	0.5	0.5	4	22.7
G067	405839	6294889	274	10	0.25	1	68	13.7	42	9	1	4	28.6
G068	404811	6292113	212	10	0.25	0.4	34	7.8	16	2	0.5	7	50.2
G069	404861	6293925	216	10	0.8	0.9	35	6.4	17	6	0.5	5	24.7
G070	405805	6293894	258	10	0.25	0.8	28	10	16	4	0.5	6	25.2
G071	405751	6292896	251	10	0.25	0.7	84	10.2	17	3	0.5	5	41.9
G072	405810	6291816	232	10	0.25	0.3	28	4.9	4	2	0.5	6	7.9
G073	404957	6294965	259	10	0.6	0.9	30	6.3	20	6	0.5	7	56.2
G074	403797	6294079	247	10	0.25	1.1	43	5.2	19	4	0.5	8	68.6
G075	402893	6294064	219	10	0.25	0.5	27	3.9	13	3	0.5	11	27.9
G076	400799	6292896	213	10	0.7	2.1	29	6.1	17	4	0.5	13	24.1
G077	396784	6290885	286	10	0.25	0.8	56	8.5	25	0.5	0.5	7	9.9
G078	397734	6290922	274	10	0.7	0.6	141	6.8	28	5	0.5	7	7.8
G079	398679	6290915	258	10	0.25	0.5	75	7.8	14	2	0.5	4	24.8
G080	398812	6291890	238	10	1.1	0.9	46	9	15	1	0.5	4	9.1
G081	399758	6291869	203	10	0.5	2	45	8.4	16	0.5	0.5	8	13.7
G082	399668	6292947	205	10	0.9	1.6	30	11	9	1	0.5	5	12.5
G083	398462	6293040	210	10	0.6	1.3	40	14.2	14	0.5	0.5	4	15



Sample_ID	MGA_E	MGA_N	RL	B_ppm	Be_ppm	Cs_ppm	Ga_ppm	Li_ppm	Nb_ppm	Sn_ppm	Ta_ppm	W_ppm	Y_ppm
G084	397736	6292862	256	10	0.7	0.6	45	6.6	13	0.5	0.5	5	12.3
G085	396723	6291882	260	10	0.25	0.5	42	9.8	14	0.5	0.5	4	9.4
G086	397796	6291846	269	10	0.6	0.3	105	4.5	12	1	0.5	4	11.8
G087	400875	6294961	248	10	0.5	0.6	47	6.5	23	0.5	0.5	7	32.7
G088	401791	6295891	227	10	0.8	1	53	10	18	0.5	0.5	6	9.9
G089	402705	6295861	259	10	0.5	0.9	86	8.8	23	4	0.5	8	19.1
G090	399764	6299958	248	10	0.25	0.3	84	3.1	14	4	0.5	3	5.3
G091	404792	6299911	253	10	0.8	0.5	101	6	19	2	0.5	5	21.3
G092	403814	6300052	301	10	0.6	0.9	67	10.6	20	5	0.5	5	25.3
G093	403804	6297950	263	10	0.25	0.6	108	3.5	13	3	0.5	4	6.5
GBR001	402806	6291915	NR	10	7	5.4	12	276	3	13	12	13	5
GBR002	401886	6292766	NR	10	3.3	0.5	20	10.8	0.5	0.5	0.5	3	30.2
GBR003	407836	6298948	NR	10	2.7	0.5	35	5.5	26	0.5	1	5	35.2

Notes: G series are laterite samples, GBR series are rock samples, location coordinates are UTM Zone 50S GDA94





# Appendix 2. JORC Code, 2012 Edition – Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Laterite samples comprised collecting by hand laterite pisoliths at the designated sample site over an area of some 100 m². The sampling methodology is explained in the body of the report. The sample grid was approximately 1 km² x 1 km² modified by access constraints. Laterite sample sites are provided in report figure 3. Approximately 1.5 kg of laterite pisoliths were collected at each sample site. Preference was given to selecting pisoliths with intact cutans, however at some sites ferruginous nodules or duricrust were sampled.</li> <li>Rock samples of pegmatite comprise a local grab sample and are not representative of the pegmatite sampled. Sample sites are shown in report figure 4.</li> <li>Sample locations were captured digitally on each site by a hand-held GPS (accuracy ±4 m) and manually, by recording on a sampling spreadsheet. The plotted locations were cross validated against GPS waypoints. Metadata collected for each site included the regolith type, regime, landform, land use and date.</li> <li>The samples were held in custody by the field geologist prior to delivery to the laboratory.</li> <li>All samples were shipped to SGS laboratory in Perth, Western Australia. The samples were washed prior to sending to the lab to reduce the amount of surface admixtures (soil, clay and vegetation) and eliminate any possibility of contamination by airborne dust from unsealed roads. The duplicates were placed in new pre-numbered calico bags and included in the sample batch. Three Ta-Nb-Sn certified reference standards GTA-03 supplied by Geostats Pty Ltd (Perth) were also inserted into the sample batch to test the accuracy of the ICP-MS/OES analysis. After drying, crushing and pulverizing, the samples were digested using a sodium peroxide fusion and analyzed by ICP-MS for As, Be, Cs, Ga, Li, Nb, Sb, Sn, Ta, W and Y and by ICP-OES for Al, Fe, B and Si. The method provided lower detection limits of 0.25ppm for Cs and Y, 0.5ppm for Li and Be, 1ppm for Nb, Sn and Ta.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	Not applicable
Drill sample recovery  Logging	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> <li>Whether core and chip samples have been geologically and geotechnically logged to a</li> </ul>	Not applicable
Logging	level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	-



Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	•
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	The analytical technique used is considered to be total.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The exploration results and interpretation have been checked by CSA Global Pty Ltd</li> <li>The exploration results are stored as hardcopy (laboratory originals) and in digital format (laboratory digital files and extracts) by CSA Global Pty Ltd and Metalicity Limited</li> <li>Adjustments to analytical data are described in the body of the report.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Sampling data points are located using a hand-held GPS with an accuracy of ±4 m</li> <li>The grid system used is UTM Zone 50. The datum is GDA94.</li> <li>Topographic contours are derived from national data sets</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The data spacing is not adequate to establish any degree of geological control.</li> <li>No sample compositing has been applied</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The sample spacing is on an approximate 1 km grid and no bias in sampling is intended. Results are expected to be influenced the location of regional structures interpreted to control the location of pegmatites in the district.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were in the custody of the field geologist at all times up to the time of delivery to the laboratory.</li> </ul>



Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	CSA Global Pty Ltd has conducted internal reviews of the sampling techniques and data.

# JORC Code, 2012 Edition – Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The exploration results reported herein are located within pending exploration licence E70/5172 covering 70 blocks is held 100% by Metalicity Energy Pty Ltd</li> <li>The tenement covers small portions of the Wellington National Park (within which exploration is excluded) areas of state forest as shown on Figure 3 in the body of the report and areas of freehold land for which access will need to be obtained under a formal agreement from the landowners. Restrictions may apply to future exploration activities within the state forest; particularly activities requiring ground disturbance.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No review of previous exploration activity has been undertaken
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The exploration target discussed in this report relates to pegmatite hosted mineralization. The target commodity is lithium; commercially exploited principally in the form of spodumene or petalite, and other commonly associated minerals such tantalum.</li> <li>The pegmatites that typically host commercial quantities of these minerals belong to the Lithium-Caesium-Tantalum (LCT) family of rare-element pegmatites. These pegmatites are interpreted to be derived from high silica, peraluminous, S-type granitic melts which host elevated levels of incompatible rare elements such as Li, Cs, Nb, Ta, Sn, Be and Y. As the parent granite crystallises the incompatible elements are enriched in the residual melt, as are volatile or fluxing agents such as H<sub>2</sub>O, B, F and P, which reduce the viscosity of the residual melt and allow these melts to move considerable distances away from their source granite prior to crystallising as pegmatites. The movement of the pegmatite forming melt is largely focused along local/regional scale structures and final form by local structures and rock fabrics.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	The sample locations and relevant analytical results are included as Appendix 1 of the report.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer</li> </ul>	Data aggregation methods are described in the body of the report



Criteria	JORC Code explanation	Commentary
	<ul> <li>lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values to be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	Not applicable. The results reported are based on broad spaced reconnaissance sampling.
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.	Refer to main body of announcement (Figure 4) for map of sample locations and selected assay results.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Selected assay results demonstrate the extent of anomalism only and these require follow up by Metalicity Limited to allow any meaningful conclusions to be made regarding the results reported herein.</li> </ul>
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.	There is no other substantive exploration data
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>In-fill sampling of lateritic material and any outcropping pegmatites is proposed, as described in the body of the report</li> </ul>



