



## ASX ANNOUNCEMENT

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## MAJOR PROJECTS

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Karinga Lakes Brine Potash

## KEY CONTACT

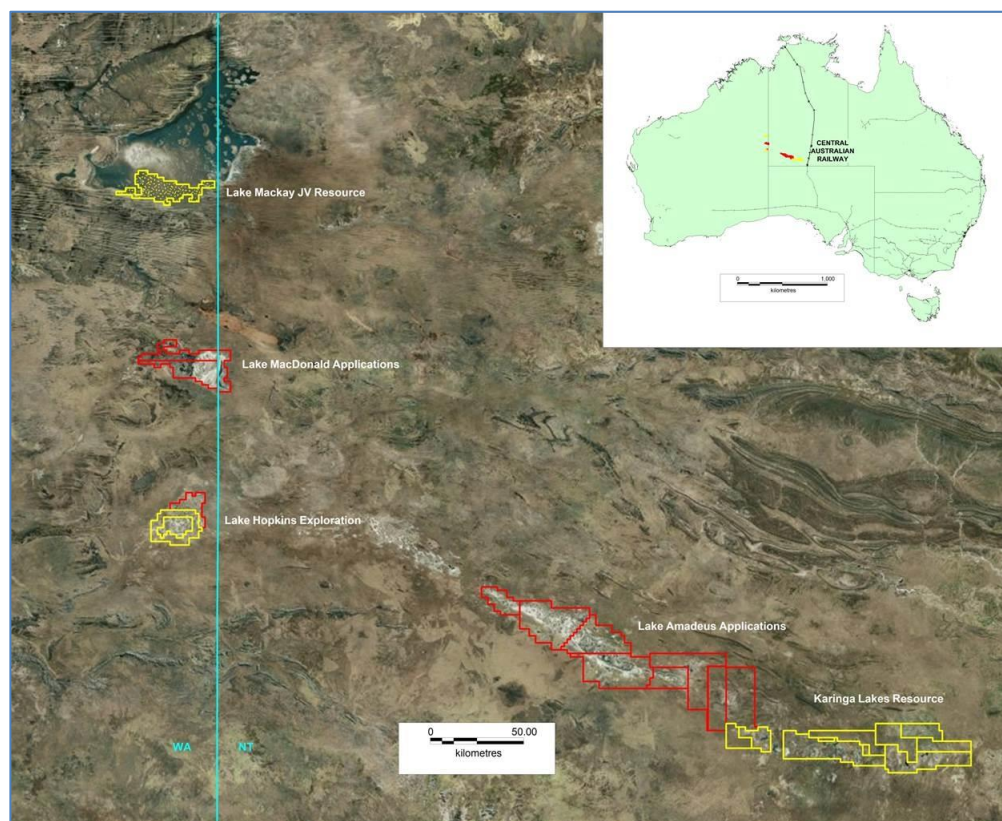
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ASX Release  
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Listings Officer  
Company Announcements  
ASX Limited, Melbourne

## LAKE MACKAY SOUTH JV BRINE POTASH JORC RESOURCE Rum Jungle Resources has earned 51% from Toro Energy Limited

Rum Jungle Resources Ltd (RUM) is pleased to announce a maiden JORC brine potash resource of 13 million tonnes  $K_2SO_4$  at its Lake Mackay South Potash Project. This maiden JORC resource at the Lake Mackay South Project highlights the growing potential of Rum Jungle Resources' portfolio of sulfate of potash projects across Central Australia that incorporates the Karinga Lakes and Lake Hopkins projects and the yet to be granted tenements associated with Lake Amadeus and Lake MacDonald.



**Figure 1. Rum Jungle Resources' Central Australian potash projects. Granted tenements in yellow and applications in red. The Lake Mackay JV is stippled.**

The resource is based on the drilling of 22 shallow vibracore drill holes in 2011 and 11 air core drill holes in 2014.

Area (m <sup>2</sup> )	Average Thickness (m)	Bulk Volume (m <sup>3</sup> )	Porosity estimate	Brine Volume (m <sup>3</sup> )	Average Dissolved Potassium Concentration (kg/m <sup>3</sup> )	Potassium Tonnage (million tonnes) <sup>1</sup>	K <sub>2</sub> SO <sub>4</sub> Tonnage (million tonnes) <sup>1</sup>
402,690,000	12.1	4,860,653,209	0.40 (upper)	1,944,261,284	3.758	7.3	16
			0.33 (middle)	1,604,015,559		6.0	13
			0.26 (lower)	1,263,769,834		4.7	11

Notes: 1) Tonnage rounded to two significant figures

**Table 1. Inferred JORC Brine Potash Resource**

### Highlights

- Heli-air core drilling has been completed at Lake Mackay South (WA).
- Eleven air core holes were drilled for 160 m in 2014 by RUM with holes drilled to an average 14.5 m depth.
- Previously, 22 vibracore holes were drilled to an average depth of 1.1 m in 2011 by Toro Energy.
- Peak brine assay of 12,114 mg/L  $K_2SO_4$  from vibracore drilling in 2011.
- Peak brine assay of 8,237 mg/L  $K_2SO_4$  from air core drilling in 2014.
- The average Static Water Level (SWL) was 0.3 m for 11 holes air core holes drilled on the lake in 2014 and 0.48 m for 22 vibracore drill holes drilled in 2011.
- The higher potassium concentrations and lower SWL in 2011 is explained by drier conditions. In early 2014, prior to the aircore drilling campaign, over 400 mm of rain fell in the Lake Mackay region, which diluted brine concentration and resulted in a rise in SWL. Parts of the lake were still water-covered during drilling operations.
- Lake Mackay South brine is similar in composition to RUM's other potash lake projects - Karinga Lakes and Lake Hopkins and potentially suitable for SOP recovery.
- RUM has now earned 51% of the potash rights.

Drilling in 2011 was carried out using a portable shallow drilling vibracore rig. Twenty-two holes were drilled to an average depth of 1.1 m. The average depth SWL of the 22 holes was 0.48 m. Brine samples were obtained from hand dug pits adjacent to 19 vibracore drillhole collars.



**Figure 2. Vibracore drilling in 2011.**

In order to enable deeper assessment of the brine resources, drilling in 2014 was carried out by a specially modified air core rig with standard 3 inch (75 mm) air core rods. The drill rig, air compressor, support pontoon, heli-cage and crew were moved around the lake with a Huey helicopter.





Figure 3. 2014 heli-portable air core drill rig on Lake Mackay.

The deepest hole was drilled to 27 m. Siltstone basement rocks were intersected at 24 m and 18 m in two different holes. The basement rocks contained a brackish aquifer, beneath the lake brine aquifer which defines the lower boundary of the brine resource. This deeper aquifer could provide an ideal source of processing water. This is a big bonus given the location of Lake Mackay in the Great Sandy Desert.

Eleven holes were drilled on the lake surface with an average SWL of 0.3 m.

Drillhole collars and the JV tenement boundary are presented on Figure 4. Drillhole data are presented as Table 2 and Table 3. The inferred brine concentration and source data points are presented as Figure 5.

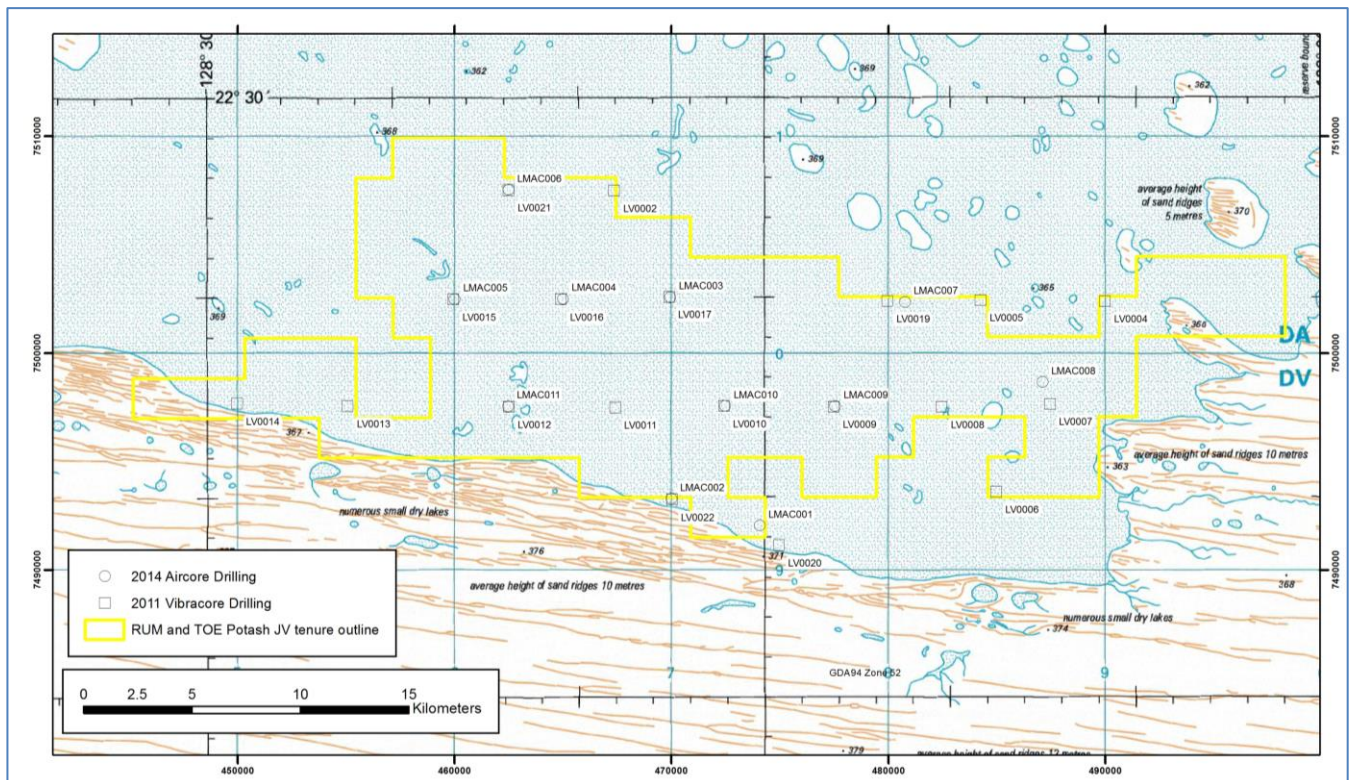


Figure 4. Drill holes on Lake Mackay South.



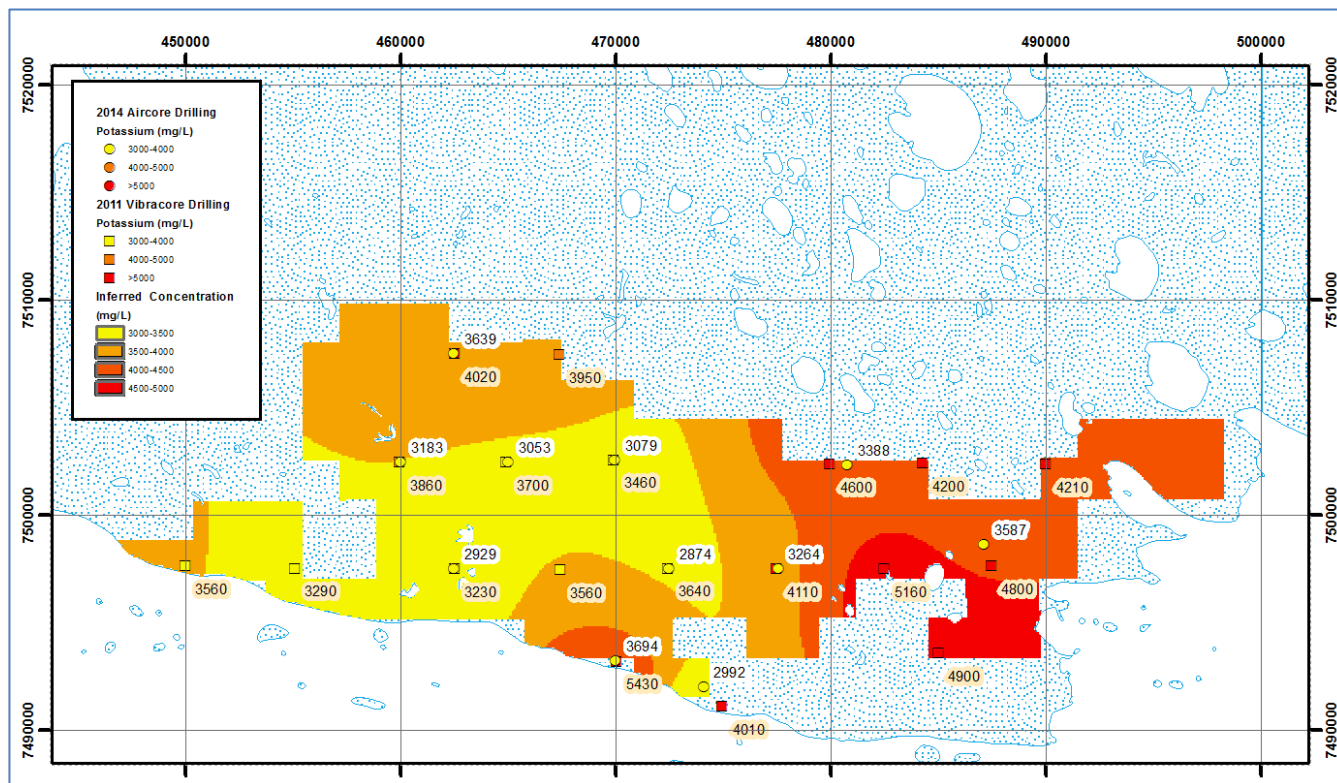


Figure 5. Inferred potassium brine concentration and source data on Lake Mackay South.

Rum Jungle Resources Ltd has earned 51% of potash rights in Exploration Licences E80/3519, E80/3484, E80/3485 and E80/3486 owned by Nova Energy Pty Ltd (a subsidiary of Toro Energy Limited) which total around 440 square kilometres of lake surface on southern Lake Mackay. A minimum amount of \$250,000 was spent to earn the 51%. Rum Jungle Resources Ltd can spend a further \$750,000 within two years to earn 80% of the potash rights over the four tenements from Toro Energy.



Figure 6. Water flowing through cyclone on LMAC001.



Figure 7. Shallow water table at drill hole LMAC009.

Hole ID	Easting	Northing	Total Depth (m)	SWL (m)	K (mg/L)	K <sub>2</sub> SO <sub>4</sub> (mg/l)	Mg (mg/L)	SO <sub>4</sub> (mg/L)
LMAC001	474073	7492043	27	0.3	2992	6672	3655	19519
LMAC002	469990	7493275	18	0.5	3694	8237	5026	32695
LMAC003	469942	7502583	19	0.5	3079	6866	3217	20663
LMAC004	464988	7502499	18	0.3	3053	6808	3334	21880
LMAC005	459999	7502486	9	0.4	3183	7098	2977	26913
LMAC006	462481	7507525	9	0.3	3639	8115	3631	24442
LMAC007	480761	7502357	12	0.1	3388	7555	3064	23310
LMAC008	487111	7498661	12	0.1	3587	7999	2851	24939
LMAC009	477542	7497552	12	0.1	3264	7278	2658	19624
LMAC010	472472	7497554	12	0.3	2874	6409	2818	19456
LMAC011	462476	7497539	12	0.3	2929	6531	2409	24770

Note: Assays are averaged for the hole

Note: All holes are vertical

Table 2. Air core collar table and brine geochemical results. Locations are in MGA GDA94 Zone 52.



Hole ID	Easting	Northing	Total Depth (m)	SWL (m)	K (mg/L)	K <sub>2</sub> SO <sub>4</sub> (mg/L)	Mg (mg/L)	SO <sub>4</sub> (mg/L)
LV0001	465013	7495164	0.71	0.60	-	-	-	-
LV0002	467357	7507487	1.22	0.58	3950	8812	3320	24000
LV0003	475955	7499855	1.82	0.50	-	-	-	-
LV0004	489989	7502393	1.45	0.40	4210	9393	3240	18300
LV0005	484247	7502448	1.66	0.46	4200	9370	3450	20000
LV0006	484973	7493598	0.89	0.36	4900	10932	3200	18600
LV0007	487453	7497655	1.47	0.31	4800	10709	3510	18000
LV0008	482461	7497519	1.14	0.50	5160	11512	2450	17800
LV0009	477481	7497528	1.18	0.52	4110	9169	2810	25000
LV0010	472421	7497555	0.67	0.50	3640	8121	3470	29000
LV0011	467410	7497489	1.18	0.50	3560	7942	3610	18600
LV0012	462501	7497513	1.53	0.50	3230	7206	2260	19900
LV0013	455076	7497546	1.17	0.52	3290	7340	3240	16600
LV0014	449981	7497662	0.98	0.48	3560	7942	3560	18900
LV0015	459948	7502471	0.38	0.42	3860	8612	3950	22800
LV0016	464912	7502474	1.01	0.50	3700	8255	3640	25400
LV0017	469895	7502595	1.08	0.57	3460	7719	3230	18100
LV0018	474967	7502555	0.70	0.50	-	-	-	-
LV0019	479954	7502404	0.79	0.38	4600	10263	3240	18800
LV0020	474958	7491136	1.42	0.50	4010	8946	3310	31700
LV0021	462491	7507523	1.14	0.45	4020	8969	3410	28600
LV0022	470023	7493234	0.67	0.50	5430	12114	7480	22400

Note: All holes are vertical

Note: One brine assay per hole

**Table 3. 2011 vibracore collar table and potassium brine results. Locations are in MGA GDA94 Zone 52.**

*The information in this report that relates to the potash resources have been verified by Ben Jeuken from Groundwater Science Pty Ltd who is a member of the AusIMM, and the International Association of Hydrogeologists and is a competent person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".*

*Ben Jeuken has sufficient experience which is relevant to the style of mineralisation and type of deposit 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".*

*Ben Jeuken consents to the inclusion in this report on the matters based on his information in the form and context in which it appears.*



**BM Jeuken BSc, MAusIMM, MIAH**  
**Principal - Groundwater Science**

*This announcement contains forward looking statements. Forward looking statements are not based on historical facts, but are based on current expectations of future results or events. These forward looking statements are subject to risks, uncertainties and assumptions which could cause actual results or events to differ materially from the expectations described in such forward looking statements. Although Rum Jungle Resources believes that the expectations reflected in the forward looking statements in this presentation are reasonable, no assurance can be given (and Rum Jungle Resources does not give any assurance) that such expectations will prove to be correct. Undue reliance should not be placed on any forward looking statements in this announcement, particularly given that Rum Jungle Resources has not yet made a decision to proceed to develop the Lake Mackay Project or any other project, and Rum Jungle Resources does not yet know whether it will be able to finance this project.*



**Chris Tziolis**  
**Managing Director**

# JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Brine samples from air core drilling are taken from the cyclone or outside return generally every 3 m down hole, where water is present, samples are collected in 500 ml bottles. Water may not flow after every rod in every hole.</li> <li>Brine samples down hole are composite samples from surface, not just for the last 3 m drilled, because of brine mixing.</li> <li>Sediment samples were taken as composite samples every 3 m down hole.</li> <li>Test pit samples were taken from hand dug test pits located adjacent to drilling collars.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Drilling was done by the air core method using an air core blade bit.</li> <li>Core and/or chips are not oriented.</li> <li>Air core bit size is approximately 80 mm, using 75 mm rods.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>For air core drilling, samples collected and reported here are brine (water), not sediment or rock. If no water is intersected, then brine will not flow through the cyclone and a sample cannot be taken. Where sufficient water is intersected, air pressure forces water up the drill rods and sample hose into the cyclone. Water is allowed to run for a few minutes to "clean up" and allow for a representative sample to be taken in a 500 ml bottle. In low flow holes, water is air lifted via the outside return (see Figure 6 in report) and</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>sampled, rather than through the cyclone.</p> <ul style="list-style-type: none"> <li>Sediment samples were collected in a bucket from beneath the cyclone in 3 m intervals.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>All drill holes are geologically logged, noting in particular moisture content of sediments, lithology, colour, structural observations and flow rates of brine from each 3 m interval. Log sheets were developed specifically for this project.</li> <li>Qualified geologists logged all samples.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>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.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>Brine is sampled from the rig cyclone or outside return in a 25 litre bucket with duplicates taken periodically. Sample bottles are rinsed with brine which is discarded prior to sampling.</li> <li>Brine is let run for a few minutes to "clean up" before sampling. Labelling is done on the shoulder of the sample bottle as well as the cap in a permanent marker or paint marker.</li> <li>Sediments samples are generally wet and mushy, with rare chips and cores.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>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.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples were submitted to Intertek Genalysis for analysis.</li> <li>The technique used is Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry (ICP OES).</li> <li>Duplicates are submitted to the laboratory from the field. Duplicate assay results are consistent.</li> <li>Inter-laboratory duplicate samples were sent to Bureau Veritas Laboratory in Adelaide.</li> <li>Primary and duplicate assay were comparable and indicate discrepancy of less than 3%.</li> <li>The charge balance error for each sample assay was calculated and compared against a 5% error threshold. All samples</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>exhibited a charge balance error of less than 5%.</p> <ul style="list-style-type: none"> <li>The assay method and results are suitable for calculation of the resource estimate.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Data entry is done in the field to minimise transcription errors.</li> <li>Brine assay results are received from the laboratory in digital format to prevent transposition errors and these data sets are subject to the quality control described above.</li> <li>No holes were twinned, and independent verification of significant intercepts was not considered warranted given the relatively consistent nature of the brine resource.</li> <li>Data entry and logging is done into excel spreadsheets and forwarded to Maxwell Geoscience for data verification and storage. Geochemical results are forwarded directly from the lab to Maxwell for addition to the database.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>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.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill hole co-ordinates are captured using hand held GPS.</li> <li>The grid system used in GDA 94. The project is located in MGA Zone 52.</li> <li>Topographic control is obtained using Geoscience Australia's 3-second DEM product.</li> <li>Topographic control is not considered critical as the salt lakes are generally flat lying and the water table is taken to be the top surface of the brine resource.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Drill hole spacing is roughly at 2-3 km and not on a grid due to the irregular nature of the salt lake shape.</li> <li>Drill holes spacing will be sufficient for Mineral Resource Estimation.</li> <li>Samples are composited each 3 m down hole whereby brine from up hole is mixed with brine from</li> </ul>

Criteria	JORC Code explanation	Commentary
		down hole ie a sample taken from 3 m represents 0-3 m whilst a sample taken at 12 m represents 0-12 m.
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All drill holes are vertical as geological structure is generally flat lying.</li> <li>Structures may be present in the basement sandstone and may control brine flow in the sub-surface but their orientations are unknown. The basement geological unit is excluded from the brine resource.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are labelled and kept onsite before transport to Alice Springs where they are delivered to the Intertek Genalysis Laboratory and a Chain of Custody system is maintained.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>None conducted</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The project is a joint venture between Rum Jungle Resources (RUM) and Toro Energy (Toro, TOE). The TOE tenements are held in the name of Nova Energy Pty Ltd, which is a wholly owned subsidiary of Toro Energy. Through the current 2014 drilling program Rum Jungle Resources Ltd has earned 50% of potash rights of Exploration Licences E80/3519, E80/3484, E80/3485 and E80/3486 which total around 440 square kilometres of lake surface on southern Lake Mackay.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>No other known potash exploration has occurred on Lake Mackay South prior to Toro Energy.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit type is salt lake brine potash.</li> </ul>
<b>Drill hole</b>	<ul style="list-style-type: none"> <li>A summary of all information material to</li> </ul>	<ul style="list-style-type: none"> <li>Information has been included</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Information</b>	<p><i>the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i></p> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> <li>• <i>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.</i></li> </ul>	<p>in drill collar tables in the report.</p> <ul style="list-style-type: none"> <li>• All holes are vertical.</li> <li>• Tables are presented in the report</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Brine assay data have been averaged across the full thickness of the Lake Bed Sediment Lithological Unit. Depth profiles have been prepared for each drillhole and these indicate that brine assay within the Lake Bed Sediment unit is consistent with depth.</li> <li>• No low grade cut-off or high grade capping has been implemented due to the consistent grade of the brine assay data.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• The brine resource is inferred to be consistent and continuous through the full thickness of the Lake Bed sediments unit on the basis of depth profiles described above. The unit is flat lying and drillholes are vertical hence the intersected downhole depth is equivalent to the thickness of mineralisation.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Addressed in the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All results have been included.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>This was a first pass drill program. No other data is yet available.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Deeper RC drilling on the lake and around lake edges may be planned.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Data validation procedures included: <ul style="list-style-type: none"> <li>Statistical analysis of data sets to identify outliers.</li> <li>Ionic balance check of brine assay data to identify errors.</li> <li>Duplicate assay inter-lab and intra-lab.</li> </ul> </li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>No site visits were undertaken by the Competent Person due to the remoteness of the project site, and the relatively straightforward nature of the ore body.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>There is a high degree of confidence in the geological interpretation of the mineral deposit. The geological structure comprises flat lying recent sedimentary fill which is reasonably consistent overlying flat-lying, weathered basement</li> <li>This interpretation is based on the geological logs of the exploration drillholes.</li> <li>The deposit is a brine-hosted resource. The chemicals of interest, Potassium, Magnesium and Sulphate are dissolved within the brine. The brine is contained within the</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>pores and structural features of the host rock.</p> <ul style="list-style-type: none"> <li>The brine resource has been calculated for the Lake Bed Sediments (LBS) lithological unit. The full thickness of this unit is defined by only a single drillhole (LMAC001). The remaining holes ended still in this unit.</li> <li>For the purpose of the resource estimate, the thickness of the defined resource is the intersected thickness from the water table to the end of hole or basement where reached.</li> <li>There is a high degree of confidence in this interpretation. The geological structure is flat lying and continuous.</li> <li>Potassium concentration in brine (grade) is relatively homogenous. The brine resource is generated in-situ by evaporation of a fairly consistent groundwater source which is subject to sporadic mixing and dilution at the lake due to infiltration of rainwater, and subsequent re-concentration by evaporation. These mechanisms generate a fairly homogenous brine concentration.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>The lateral extent of the resource is defined by the extent of each salt lake mapped in Geoscience Australia's 1:250,000 topographic data set and the exploration lease boundary. The top of the resource is defined by the water table elevation. The base of the resource is defined by the depth of drilling. The resource remains open below the depth of drilling and outside the exploration lease boundary.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li><i>The availability of check estimates,</i></li> </ul>	<ul style="list-style-type: none"> <li>Potassium tonnage was calculated as the product of: bulk rock volume, porosity and potassium concentration in brine.</li> <li>Bulk rock volume was calculated by triangulation interpolation of measured unit thickness between drillholes. Encom's Mapinfo and Discover</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <ul style="list-style-type: none"> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>packages were used.</p> <ul style="list-style-type: none"> <li>Estimates of porosity were derived from literature search of comparable projects and comparable lithology.</li> <li>Ordinary kriging interpolation was applied to potassium grade estimation. Encom's Mapinfo and Discover packages were used. Potassium (K) concentration was interpolated between drillholes using kriging grid interpolation. Kriging employed a 2000 m search radius, 4 search expansions and a single search sector. A single data point was required per sector. These settings are considered appropriate to the low spatial variability of brine concentration for this project.</li> <li>There are no mine production records for this resource.</li> <li>Recovery of by-products has not been considered.</li> <li>Estimation of deleterious elements has not been considered.</li> <li>Selective mining units were not considered.</li> <li>No assumptions were made regarding correlation between variables</li> <li>Geological interpretation was used to define the thickness of the orebody.</li> <li>No grade capping was undertaken due to homogeneity of data.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are estimated as dissolved potassium in brine on a dry weight by volume basis e.g. kilograms per cubic meter of brine.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>No Cut-off grades were applied. The average brine concentration for the lake of approximately 3800 mg/L is above the 3000 mg/L cut-off used in comparable brine projects.</li> <li>The data exhibit very low variability which indicates that the ore body is relatively homogenous. No outliers were identified.</li> </ul>
<b>Mining factors or</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable,</i></li> </ul>	<ul style="list-style-type: none"> <li>No mining factors have been applied. The mining method is assumed to be recovery by</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>assumptions</b>	<i>external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	<p>draining brine using bores and or trenches.</p> <ul style="list-style-type: none"> <li>It will not be possible to extract all of the contained brine by pumping or trenching; the amount which can be extracted depends on many factors including the permeability of the sediments, the drainable porosity, and the recharge dynamics of the aquifers.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Brine composition is similar to the composition at Karinga Lakes. Mine feasibility studies at the nearby Karinga Lakes have demonstrated that potassium sulphate can be recovered by conventional brine processing methods.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Environmental impacts are expected to be; localised reduction in saline groundwater level, surface disturbance associated with trench and pond construction and accumulation of salt tails. The project is in a remote area.</li> </ul>