25 July 2014

ASX Announcement

Airborne Geophysics Survey Completed, Drilling to commence at Tin Camp Creek Uranium Project

Highlights

- **Airborne SAM/MMR survey completed on TCC Project area.**
- **SAM/MMR Survey has successfully refined current targets and identified new targets underneath sandstone cover providing renewed impetus to exploration in the area.**
- **Board and Management remains committed to drilling five priority targets in 2014.**
- **Drilling confirmed to commence in last week of July. 5,000 metres of RC/Diamond Drilling planned.**

Alligator Energy Ltd (ASX: AGE) (Alligator, the Company) provides the following update on field work at the Tin Camp Creek Project in the Northern Territory.

Airborne SAM/MMR Survey completed.

A helicopter-supported SAM/MMR geophysical survey has been completed on the TCC Project area. The survey has covered a significant part of the sandstone covered areas of the project area. The survey was undertaken to identify conductive rock units (low resistivity) in the target basement rocks that may be associated with unconformity uranium style mineralization.

Preliminary results indicate that the survey technique has been successful in identifying basement conductive units underlying the Kombolgie Sandstone (refer **Figure 1**). Existing targets have been more clearly defined and a number of previously unknown basement features have been identified which warrant further investigation.

Alligator Energy Ltd

ABN 79140575604

Suite 3
36 Agnes Street
Fortitude Valley,
QLD 4006

Ph: (07) 3852 4712
Fax: (07) 3852 5684

ASX Code: AGE

Number of Shares:
206M Ordinary Shares
15.2M Unlisted Options

While further interpretation of the data is ongoing, Alligator considers that the application of this geophysical technique and the results of the survey provide a significant new impetus to the company's exploration in the area.

2014 Drilling Program to commence in last week of July

Drilling of priority targets is expected to commence by end July.

Priority targets for the 2014 field season are the Mintaka, Orion East, Orion North, North East Myra and Orion South prospect areas (refer **Figure 1**). These targets have been selected on the basis of having favourable host rocks, structure and known presence of strong uranium and pathfinder element anomalism. These targets will be further refined and prioritized following completion of final processing of the results of the recently completed SAM/MMR survey.

A total of 5,000 metres of RC Percussion and Diamond Drilling is planned to be completed this year.

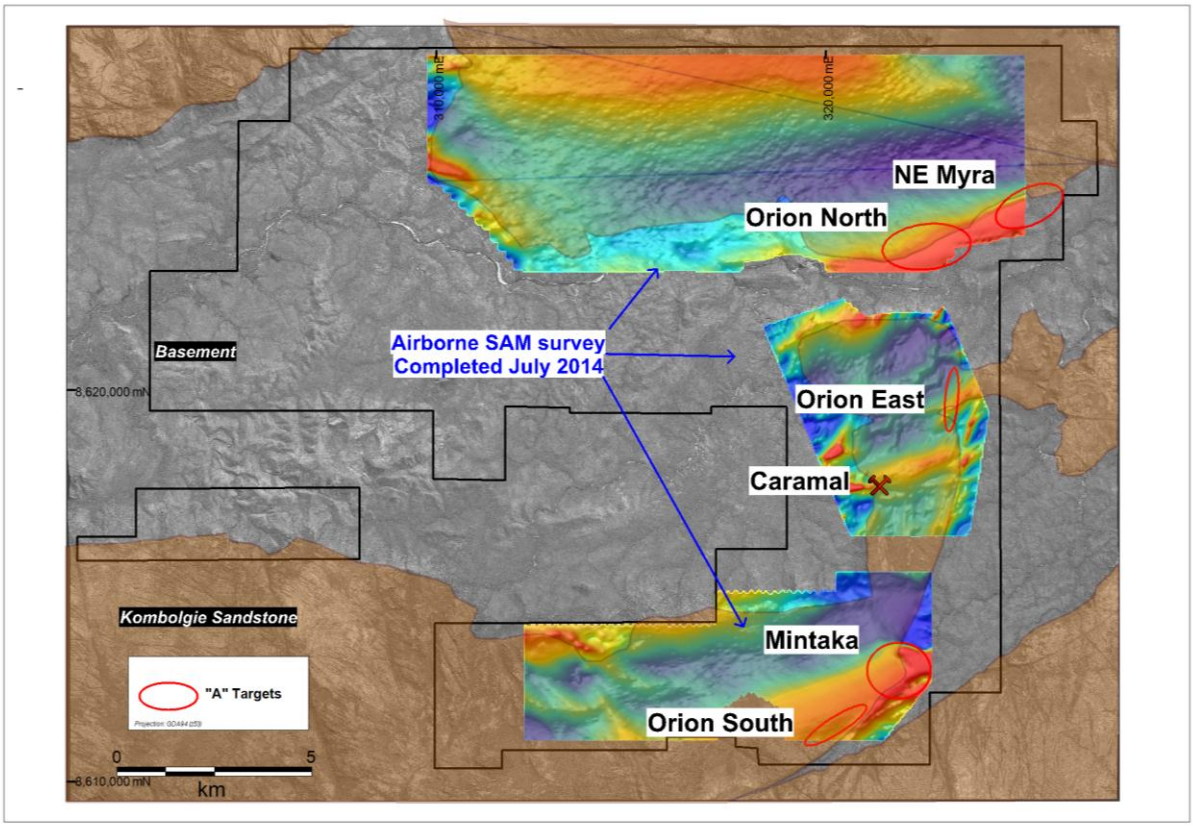
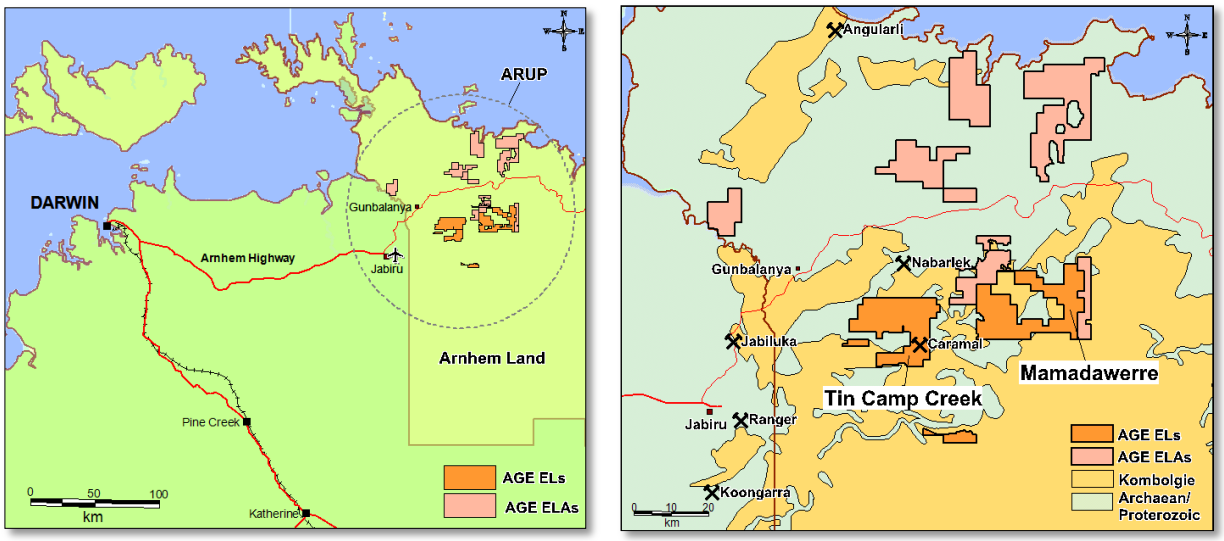


Figure 1. Tin Camp Creek Project area and Image of MMR responses. Red and orange coloured areas relate to low resistivity/higher conductivity.

About Alligator Energy

Alligator Energy Ltd is an Australian, ASX listed, exploration company with uranium exploration tenements in the world class Alligator Rivers Uranium Province in Arnhem Land, Northern Territory. The Alligator Rivers Uranium Province hosts nearly 1 billion pounds of high grade uranium resources and past production, including the Ranger Mine and Jabiluka. The company's flagship project is the Tin Camp Creek Project. Since listing in February 2011, the company has completed in excess of 15,000m of drilling, defined a maiden high grade, JORC compliant resource at Caramal (6.5Mlb U3O8 at 3100ppm U3O8) and discovered new mineralization at Mintaka and Orion East. High Grade mineralization also occurs at the historic South Horn and Gorrunghar prospect which remain only partially tested.

The company has in excess of 1000km^2 of Exploration Licence applications and is also in Joint Venture with Cameco Australia Pty Ltd for the Mamadawerre Project, also within the Alligator Rivers Uranium Province



Project Location Diagrams

Not applicable for Geophysical survey.

FOR FURTHER INFORMATION, PLEASE CONTACT

Mr Rob Sowerby
Chief Executive Officer
Alligator Energy Ltd
Email: info@alligatorenergy.com.au

JORC Code, 2012 Edition – Table 1

Sub Audio Magnetics Airborne Survey – July 2014

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	**Survey Type:** Helicopter-borne Sub-Audio Magnetics (HeliSAM) Mode: TMI/TFMMR/GSEM Total Area: 134 km2 Line Spacing: 200m with some 100m infill Sensor Survey height: 30m – 40m depending on vegetation and terrain Total Survey Distance: Nominally 1,381 line-kilometres Sample Intervals (nominal): i. Total Magnetic Intensity (TMI): 5m ii. Total Field Magnetometric Resistivity (TFMMR): 10m iii. Galvanic Source Electromagnetics (GSEM): 20m iv. Digital Elevation Model (DEM): 10m
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Geophysical Survey – No drilling was undertaken
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.*	• Geophysical Survey – No drilling was undertaken

Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Geophysical Survey – No logging was undertaken
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.*	• Geophysical Survey – No sampling was undertaken
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Geophysical Survey – No assaying was undertaken
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Geophysical Survey – Verification of assaying and sampling not applicable
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.*	• Data points surveyed using a Hemisphere R320 GPS with Omnistar G2 Differential corrections. This system is accurate to 0.1m.

	• *Quality and adequacy of topographic control.*	
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.*	Line Spacing: 200m with some 100m infill Sensor Survey height: 30m – 40m depending on vegetation and terrain Total Survey Distance: Nominally 1,102 line-kilometres Sample Intervals (nominal): i. Total Magnetic Intensity (TMI): 5m ii. Total Field Magnetometric Resistivity (TFMMR): 10m iii. Galvanic Source Electromagnetics (GSEM): 20m iv. Digital Elevation Model (DEM): 10m
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.*	Flight lines were aligned in a E-W and ENE-WSW directions to traverse the interpreted regional strike of Lower Proterozoic geological units as defined by previous mapping.
Sample security	• *The measures taken to ensure sample security.*	• Data received directly from the geophysical contractor including raw data direct from the helicopter receiver.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• All data collected and reviewed by independent consultant.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	Geophysical results reported in this ASX release were undertaken on the Tin Camp Creek Project which is comprised of contiguous exploration licences EL24921 and EL24922 in the Northern Territory. The tenement is held by TCC Project Pty Ltd (98%), a wholly owned subsidiary of Alligator Energy Ltd and by West Arnhem Corporation Pty Ltd (2%). The tenements were recently renewed by the Northern Territory Department of Mines and Energy for a further 2 year period (until May 2015 whereby AGE may apply for additional 2 year renewal periods) and are in good standing. Exploration and Mining agreements with the

		Northern Land Council (**NLC**) on behalf of traditional owners are in place for these tenements in accordance with the Aboriginal Land Rights Act (1976). The Tin Camp Project is also subject to a uranium buy back agreement with Cameco Australia Pty Ltd whereby Cameco may buy 51% of a defined resource greater than 20,000t contained U3O8. There are no existing impediments to any tenement within the Tin Camp Creek Project area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Regional exploration has previously been undertaken by other parties in the region by Queensland Mines Ltd (1970-1972), Afmeco (1996-2001) and Cameco Australia Pty Ltd (2001-2010).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Alligator is exploring for Unconformity Associated Style Uranium Deposits. The geology of the area being targeted is comprised primarily of Carpentarian aged sandstones of the Kombolgie Formation overlying multiply deformed meta-sediments of the lower-Proterozoic Cahill Fm and Archaean granite Gneiss Complexes.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• The location of the geophysical survey is shown in Figure 1 in this ASX release.
		• Survey information was recorded in the MGA94 grid coordinate system.
		• No drilling was undertaken therefore drill hole information is not applicable.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not applicable for Geophysical survey.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Not applicable for Geophysical survey.
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 Figure 1 of ASX release – 25 July 2014, showing area and location of survey and MMR responses in survey area.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Not applicable for Geophysical Surveys
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• No significant exploration data has been omitted
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	A number of targets have been identified on the Tin Camp Creek Project area that will be prioritised using data from the reported geophysical survey in addition to previous geological interpretations and historic exploration data. Proposed drilling announced in this release will test priority targets between August and December 2014. Further advice on this ongoing work will be provided following further assessment and ranking of these targets in the coming months.

Competent Persons Statement

Information in this report is based on current and historic Exploration Results compiled by Mr Rob Sowerby who is a Member of the Australasian Institute of Geoscientists. Mr Sowerby is CEO and Director of Alligator Energy Ltd, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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'. Mr Sowerby consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.