



12 November 2014

ASX Announcement

Mamadawerre Project update

- **Helicopter-borne VTEM commenced over 3 target areas within the Mamadawerre Project to define drill targets.**
- **Follow up of historical float sampling identifies outcropping, in-situ, uranium (up to 6,650ppm U3O8 in rock chip samples) in the Steptoe Fault.**
- **Systematic evaluation of over 30 identified radiometric anomalies undertaken**
- **Alligator Energy Ltd and Cameco Australia Pty Ltd agree to variation of Mamadawerre JV Terms**

Alligator Energy Ltd (AGE) is pleased to provide a further update of exploration activities at the Mamadawerre Project. The Mamadawerre Project area consists of EL27251 held 100% by Northern Prospector Pty Ltd (a 100% owned subsidiary of Alligator Energy Ltd) and the adjoining Mamadawerre JV (EL24992) which is a joint venture between Cameco Australia Pty Ltd (Cameco) and Alligator whereby Alligator may earn up to 90% of the Mamadawerre JV project.

Helicopter-borne VTEM survey

Geotech Airborne Pty Ltd have been commissioned to conduct a Helicopter-borne VTEM Survey which will be conducted over 3 target areas covering 533 line km at the Mamadawerre Project area. The survey commenced on 11 November.

The survey is designed to identify alteration zones both within the Mamadawerre Sandstone and the underlying basement lithologies along the Steptoe Fault zone. The objective of the survey is to identify drill targets for both unconformity style and sandstone hosted uranium mineralisation.

Surface mapping and sampling undertaken recently by AGE and historically by Cameco in the area has identified a 3km strike length of the Steptoe Fault which contains uranium mineralisation and anomalism. While discontinuous, the area amounts to a significant zone of uranium anomalism with no previous drilling.

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ASX Code: AGE

Number of Shares:
304M Ordinary Shares
11.0M Unlisted
Options

Board of Directors:
Mr John Main
(Chairman)

Mr Robert Sowerby
(CEO, Director)

Mr Paul Dickson
(Non Exec. Director)

Mr Peter McIntyre
(Non Exec. Director)

Mr Andrew Vigar
(Non Exec. Director)

Recent mapping by AGE has identified a possible relationship between high grade mineralisation being associated with cross structures and specific stratigraphic layers within the sandstone indicating potential for horizontal mineralisation at depth.

The intersection of the Steptoe fault zone with the underlying basement rocks is also considered a target zone for unconformity style mineralisation provided favourable host rocks can be identified in the basement. An objective of the VTEM survey is to identify the presence of these host rocks.

AGE considers the Steptoe Fault to be part of a large scale fault system which includes the Stevens Fault zone. AGE have Exploration Licences Applications (ELAs) covering part of the Steptoe-Stevens Fault and the **Stevens Prospect including ELA 28293**. The Stevens Prospect (located on ELA 28293) was identified by previous explorers initially from radiometric surveys and then by ground follow up. Samples of float material assayed up to **4.67% U3O8**. Historic reconnaissance drilling intersected anomalous uranium (up to **1m @ 0.19% U3O8**) and Au + Pt and Pd) mineralisation (up to **5m @ 6.06g/t, 1.58g/t Pt and 2.2g/t Pd**).

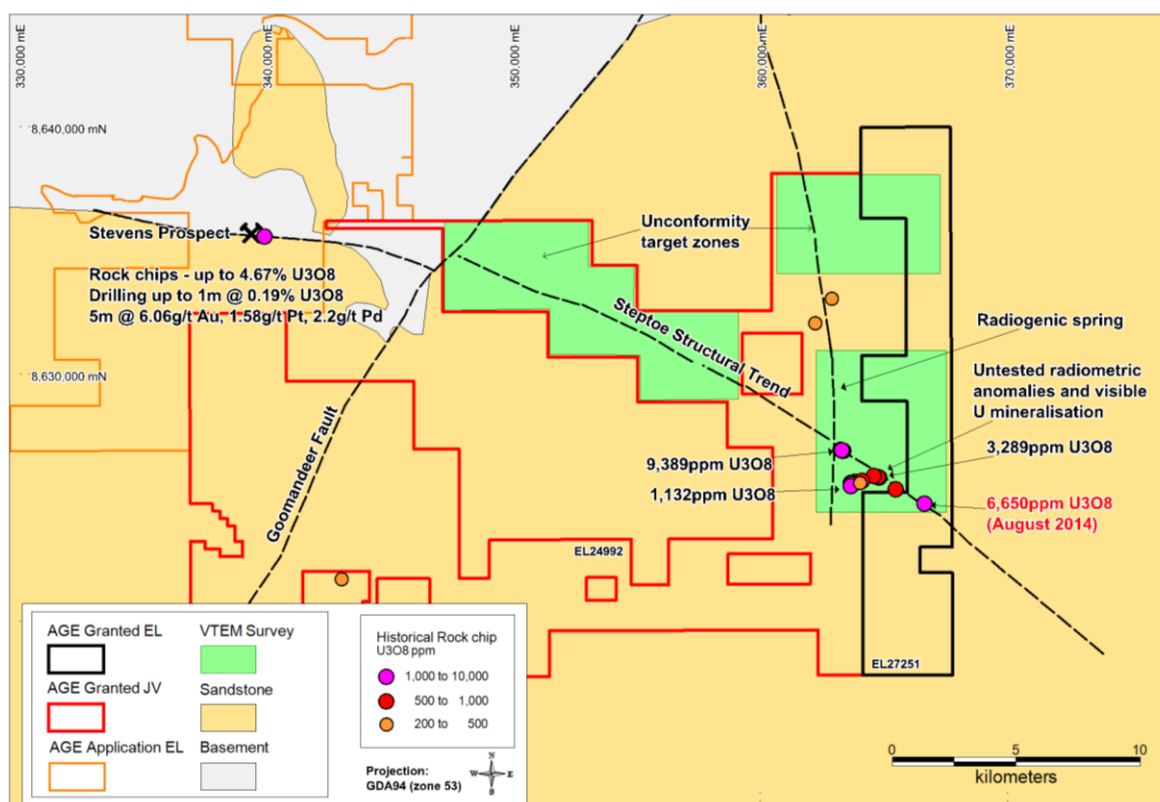


Figure 1: Location of current Airborne VTEM Survey .

Outcropping uranium in the Steptoe Fault Zone

Assay results have now been received for rock chip samples taken from initial reconnaissance of the Steptoe fault on EL27251 undertaken in August (see ASX release 21 August 2014). Three out of six rock chips obtained from EL27251 returned over 1000ppm U₃O₈ with one returning **6650ppm U₃O₈**.

Building on the initial field inspection of the NW trending Steptoe Fault in EL27251 undertaken in August, further sampling and mapping of the area extending onto EL24992 has been now been undertaken. Further in-situ uranium mineralisation has been identified which is associated with NW trending fracture zones. Two separate zones of fault controlled uranium mineralisation and anomalism have now been identified, each with a strike length of approximately 300 metres. Radiometric anomalism varies significantly within these zones from 100cps (counts per second) to in excess of 10,000cps using a Radiation Solutions Inc RS-125 scintillometer.



Figure 2. Photos of strong visible primary and secondary uranium mineralisation identified in Steptoe fault zone.

Regional Ground Investigation

A systematic reconnaissance program has been undertaken in October 2014 to assess over 30 radiometric anomalies located in the project area. An orientation soil sampling program has also been undertaken in an ENE trending structure where uranium mineralisation has previously been identified associated with transported sediments. The objective of this initial program was to determine the optimal sampling horizon for a more extensive survey. Infill soil profile sampling is currently underway in order to assist in this analysis.

Over 100 rock chip and soil samples have been taken across the tenement. Rock chips have been submitted for multi element analysis and radiogenic isotope analyses.

In addition, track access has been established to the northern part of the Project area in consultation with the Northern Land Council (NLC) and Traditional Owners. Enabling vehicle access will significantly reduce the cost of further exploration in this area, in particular, drilling.

Alligator Energy Ltd and Cameco Australia Pty Ltd agree to variation of Mamadawerre JV Terms

Alligator and Cameco have agreed to vary the terms of the Mamadawerre JV. Specifically, the definition of “Initial Expenditure Obligation” has been amended. The requirement for ‘Exploration on the Tenement to the value of \$500,000 in Expenditure’, now includes the identification of specific targets for drilling as part of the Stage 1 Farm-in requirements.

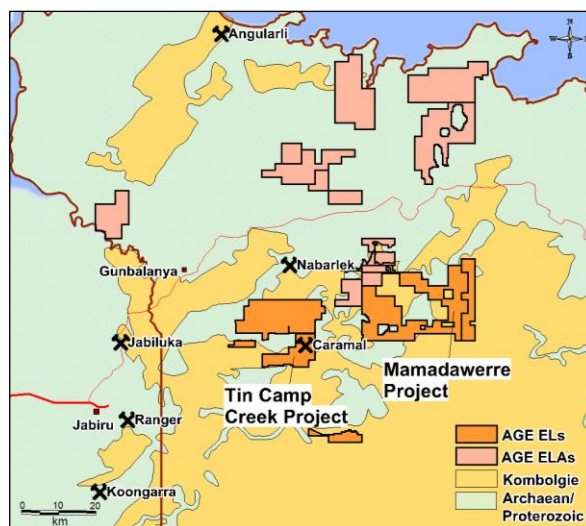
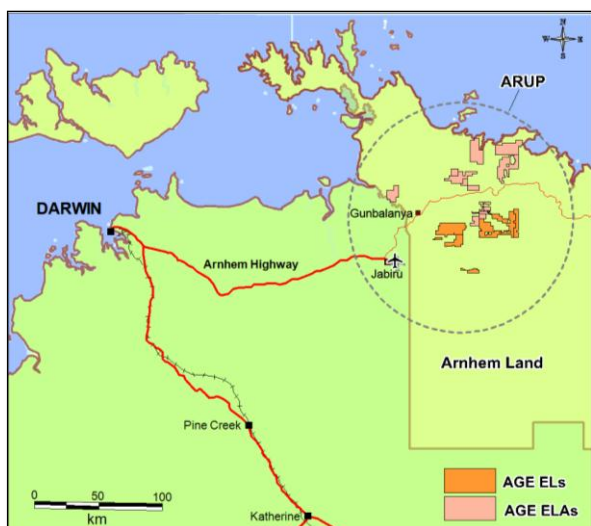
This amendment removes the requirement to drill specific targets during the period of the Initial Expenditure Obligation allowing more target areas to be initially assessed and deferring drilling until 2015.

Alligator is now required to complete the Initial Expenditure Obligation by 31 December 2014. The company expects to comfortably meet these obligations by the due date.

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 1000km² 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

FOR FURTHER INFORMATION, PLEASE CONTACT

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JORC Code, 2012 Edition – Table 1

Mamadawerre Project – Exploration reconnaissance and rock chip sampling

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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.</i> 	<p>Over 100 surface rock chip and soil samples of less than 3kg were obtained during the reported phase of work.</p> <p>The samples obtained are considered to be representative of the lithology from which they were obtained and sampling and sub-sampling techniques were appropriate for the sample type and for exploration purposes</p> <p>A Radiation Solutions RS-125 spectrometer was used to measure radioactivity (in counts per second – cps) of each sample. Samples were selected for laboratory based geological observation and radioactivity (cps) relative to background.</p>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <i>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).</i> 	No drilling was undertaken.
<i>Drill sample</i>	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries</i> 	No drilling was undertaken.



<i>recovery</i>	<p><i>and results assessed.</i></p> <ul style="list-style-type: none">• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>• <i>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.</i>	
<i>Logging</i>	<ul style="list-style-type: none">• <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>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>• <i>The total length and percentage of the relevant intersections logged.</i>	No drilling or logging was undertaken.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none">• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>• <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>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<p>The samples obtained are considered to be representative of the lithology from which they were obtained and sampling and sub-sampling techniques were appropriate for the sample type and for exploration purposes</p> <p>Field Blanks, duplicates and laboratory prepared standards are not used at this early exploration phase.</p> <p>Samples were submitted for analyses to Bureau Veritas' Laboratory in Darwin. Further sample preparation was undertaken by Bureau Veritas prior to assay. Rock chip samples are dried to a core temperature of approximately 100°C. Dried samples are then coarse crushed using a Boyd crusher to a sizing of approximately 5mm. The total sample is then milled in an LM5 pulveriser to 85% passing 75µm. An analytical pulp of 250 g is taken from the bulk and the residue retained. The pulp sample is then delivered to Bureau Veritas' laboratory in Adelaide.</p> <p>Sample sizes were considered appropriate for the type of material being sampled</p>



<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i><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><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>	<p>A Radiation Solutions RS-125 spectrometer was used to measure radioactivity (in counts per second – cps) of each sample. Samples are selected for laboratory assay based geological observation and radioactivity (cps) relative to background.</p> <p>Geochemical assay of representative samples is undertaken at Bureau Veritas' Adelaide laboratory. Uranium analysis is undertaken utilising ICP-MS following a multi-acid digest. This technique is considered a total analysis method and appropriate for the style of mineralisation targeted.</p> <p>Field Standards, blanks and duplicates were not included in the samples submitted to the laboratory at this early exploration phase.</p> <p>No assay data is provided in this report</p>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"><i>The verification of significant intersections by either independent or alternative company personnel.</i><i>The use of twinned holes.</i><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i><i>Discuss any adjustment to assay data.</i>	<p>No assay data is provided in this report</p> <p>No adjustment of assay data is undertaken</p>
<i>Location of data points</i>	<ul style="list-style-type: none"><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><i>Specification of the grid system used.</i><i>Quality and adequacy of topographic control.</i>	<p>Current sample locations were surveyed using GPS with accuracies of between 1-4 metres</p> <p>All samples have been surveyed on Map Grid of Australia 94 (MGA94 Zone 53)</p>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"><i>Data spacing for reporting of Exploration Results.</i><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the</i>	<p>Sampling during this phase of work has been broad spaced for exploratory purposes to test new structural targets and until significant mineralisation is identified is insufficient to define mineral resources.</p>

	<p><i>Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	Sample compositing has not been applied
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<p>Current sampling is of an exploratory nature. There is generally insufficient data in the areas during this phase of work to determine the orientation of host structures.</p> <p>No known sampling bias is known to have been introduced.</p>
<i>Sample security</i>	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	Samples, each contained in zip tied, plastic sample bags were delivered by Alligator personnel in directly to the Bureau Veritas Laboratory in Darwin with Chain of Custody documentation
<i>Audits or reviews</i>	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	No audits have been undertaken for this phase of drilling

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> 	<p>Exploration undertaken as reported in this ASX release was undertaken on the Mamadawerre Project which is comprised of contiguous exploration licences EL27251 and EL24992 in the Northern Territory. EL27251 is held by Northern Prospector (100%), a wholly owned subsidiary of Alligator Energy Ltd (Alligator). EL27251 was granted on 1 August 2014 for a period of 6 years.</p> <p>Alligator Energy Ltd is currently earning into EL24992 which is held by Cameco Australia Pty Ltd. Alligator may earn up to 40% interest of EL24992 by expenditure of \$2.5M at which stage Cameco may elect to contribute to maintain its 60% share or upon Alligator sole funding a cumulative \$10 million within six years, Alligator will be entitled to a further 50% of the tenement for a total interest of 90%.</p> <p>Exploration and Mining agreements with the</p>



		<p>Northern Land Council (NLC) on behalf of traditional owners are in place for these tenements in accordance with the Aboriginal Land Rights Act (1976).</p> <p>There are no known existing impediments to operating on any tenement within the Mamadawerre Project area.</p>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"><i>Acknowledgment and appraisal of exploration by other parties.</i>	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).
<i>Geology</i>	<ul style="list-style-type: none"><i>Deposit type, geological setting and style of mineralisation.</i>	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.
<i>Drill hole Information</i>	<ul style="list-style-type: none"><i>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:</i><ul style="list-style-type: none"><i>easting and northing of the drill hole collar</i><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i><i>dip and azimuth of the hole</i><i>down hole length and interception depth</i><i>hole length.</i><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>	No drilling was undertaken
<i>Data aggregation methods</i>	<ul style="list-style-type: none"><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high</i>	No assay data is provided in this report.



	<p>grades) and cut-off grades are usually Material and should be stated.</p> <ul style="list-style-type: none">• 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.	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none">• These relationships are particularly important in the reporting of Exploration Results.• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	No drilling undertaken
<i>Diagrams</i>	<ul style="list-style-type: none">• 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
<i>Balanced reporting</i>	<ul style="list-style-type: none">• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results of significance have been reported within this report
<i>Other substantive exploration data</i>	<ul style="list-style-type: none">• 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	No significant exploration data has been omitted

	<i>or contaminating substances.</i>	
<i>Further work</i>	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	A number of targets have been identified on the Mamadawerre Project area. The exploration reported on in this release is the first part of what Alligator intends to be a systematic test of these targets. 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.