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ASX ANNOUNCEMENT

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ASX: EME

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WALBIRI SOUTH RC DRILLING CONFIRMS URANIUM PROSPECTIVE HORIZON

HIGHLIGHTS

- Walbiri South identified as a new exploration prospect, situated 2km south of the Walbiri uranium deposit.
- Combination of geoscientific datasets suggests stratigraphic extension of the same package that hosts the large Walbiri deposit (15.5Mlbs U_3O_8).
- Successful drill-testing identified the host stratigraphic unit ('B-Sandstone') at Walbiri South.
- The B-Sandstone unit is estimated to have a strike extent of 5km across the prospect with potential to host a new uranium discovery.

Energy Metals Limited (**ASX:EME** or **the Company**) is pleased to advise results from a recently completed drilling program at its 100% owned Walbiri South target in the Ngalia Basin, NT. Walbiri South is located 50km ESE of the Bigrlyi uranium deposit and 2km south of the Walbiri uranium deposit. The target is a conceptual uranium prospect derived from a combination of geological and geophysical interpretation. The Company carried out a small program of RC drilling designed to test the interpretation and determine if Walbiri South has potential to host a uranium deposit.

Exploration Manager Dave Nelson commented: *"This drilling program highlights the uranium discovery potential at Walbiri South, while also showing the broader potential across the Ngalia Basin as a whole. We look forward to carrying out further exploration across the Basin in 2025".*

Project Background

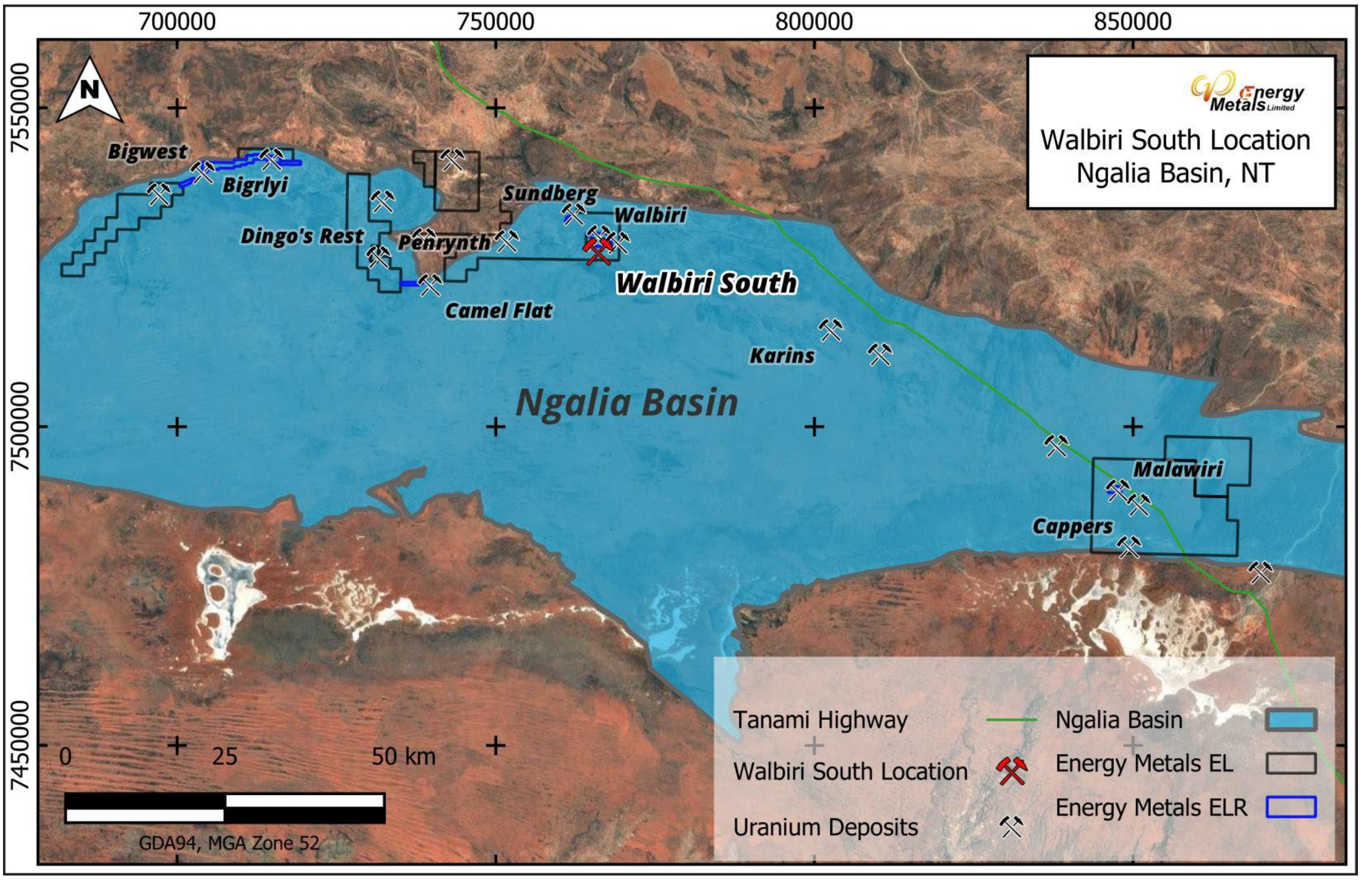
The Ngalia Basin is located 300km northwest of Alice Springs and contains multiple uranium deposits including Bigrlyi, Walbiri, Malawiri, and Cappers. In addition, there are many more known uranium prosects and exploration targets within the Basin including Walbiri South. The major uranium deposits of the Ngalia Basin are classified as tabular sandstone-hosted uranium deposits, occurring within reduced beds of the sub-vertical Mt Eclipse Sandstone, which contains a sequence of medium-to-coarse grained felspathic sandstones.

Walbiri South is part of the Ngalia Regional Project which is wholly owned by Energy Metals (100%). No previous drilling has taken place at Walbiri South and there is currently no mineral resource defined there.

Exploration drilling was carried out at the nearby Walbiri deposit in the 1970's, leading to the discovery of a significant uranium deposit and eventual development into an Inferred Mineral Resource (JORC 2012) of 7,037 tonnes (15.5Mlbs) U_3O_8 (based on historical data and announced 27/10/2015, "Walbiri Resource Estimate"). The existence of an Aboriginal cultural heritage site in the hills surrounding the Walbiri deposit means Energy Metals has been unable to conduct modern exploration there during its tenure. The Walbiri South prospect is located outside of this significant heritage site and has been surveyed and cleared for work.

The Walbiri South target was identified through study of the regional stratigraphy which showed continuation of the host mineralised sandstone from the Walbiri deposit further north. The target units have been folded and fault-offset by the Mt Eclipse Syncline and associated axial plane fault.

Figure 1: *Location Map showing Walbiri South and other selected uranium deposits within the Ngalia Basin.*



Work Program Rationale & Drilling Details

There is no outcropping rock at Walbiri South, which is obscured by a thin cover sequence of approximately 10m thickness, and no previous drilling has taken place. An Induced Polarisation (IP) geophysical survey was used in conjunction with stratigraphic interpretation to trace the southern continuation of marker horizons from the Walbiri deposit. These marker horizons have a known relationship to the mineralised horizon and can be readily identified by IP due to their physical properties. This allowed the Company to quantify the amount of offset caused by faulting and to identify an area where the prospective sandstone was likely to be present.

Six RC drillholes were completed at Walbiri South in November 2024. The drillholes had an average depth of 190m, maximum depth of 300m, and the total metreage drilled was 1140m. All holes were drilled at -60° towards the south. Collar details are given in Table 1 below and locations shown on the collar plan in Figure 2.

All samples were logged to determine their geology, stratigraphy, and the presence of any vectors toward uranium mineralisation. Samples were tested for radioactivity by use of a handheld personal radiation detector. Two of the six drillholes were logged downhole with a gamma probe. Selected samples were chosen for chemical assay based on elevated radioactivity and geological factors. No economic intersections of uranium mineralisation were encountered during the drilling campaign, however encouraging signs were noted in terms of both observed geology and geochemistry. Several samples returned anomalous uranium levels up to 5 times above background, and these correlated with increased levels of vanadium, sulphur, and total organic carbon which provides encouragement that conditions are permissive for the formation of a uranium deposit at Walbiri South.

***Table 1**: Drill Collar Details*

HOLE ID	HOLE TYPE	EASTING	NORTHING	RL	DIP	AZIMUTH	DEPTH (m)
WRC2401	RC EXP	765945	7527624	651	-60	179	228
WRC2402	RC EXP	766137	7527631	651	-60	179	192
WRC2403	RC EXP	766371	7527655	650	-60	179	180
WRC2404	RC EXP	766351	7527583	650	-60	179	120
WRC2405	RC EXP	766151	7527539	651	-60	179	120
WRC2406	RC EXP	765956	7527700	651	-60	179	300

All coordinates in GDA94, MGA Zone 52.

Interpretation and Future Plans

Mineralisation at Walbiri is found in an approximately 50m wide window of reduced sandstone known as the B-Sandstone, which forms an envelope around a stratigraphic marker unit known as the Beta Shale. The B-Sandstone and Beta Shale were identified in all six drillholes at Walbiri South. Low tenor but observable increases in gamma radioactivity were noted in the B-Sandstone in both holes which were gamma logged (see cross-section Figure 4 for details).

Identifying and locating these prospective rock units at Walbiri South is considered a successful outcome for the drilling program. The Company has used a combination of geology, geophysics, and drilling to demonstrate that the B-Sandstone is present over a strike extent of 400m in the centre of the prospect. This proves the targeting is effective and opens the door for further drilling to test the full strike extent, which is estimated to be around 5km in length.

Future work at Walbiri South is likely to involve broad-spaced lines of reconnaissance drilling to test the full strike extent, after which the focus will switch to identifying areas with anomalous uranium and searching for an economic deposit.

***Figure 2:** Collar Plan Map for Walbiri South*

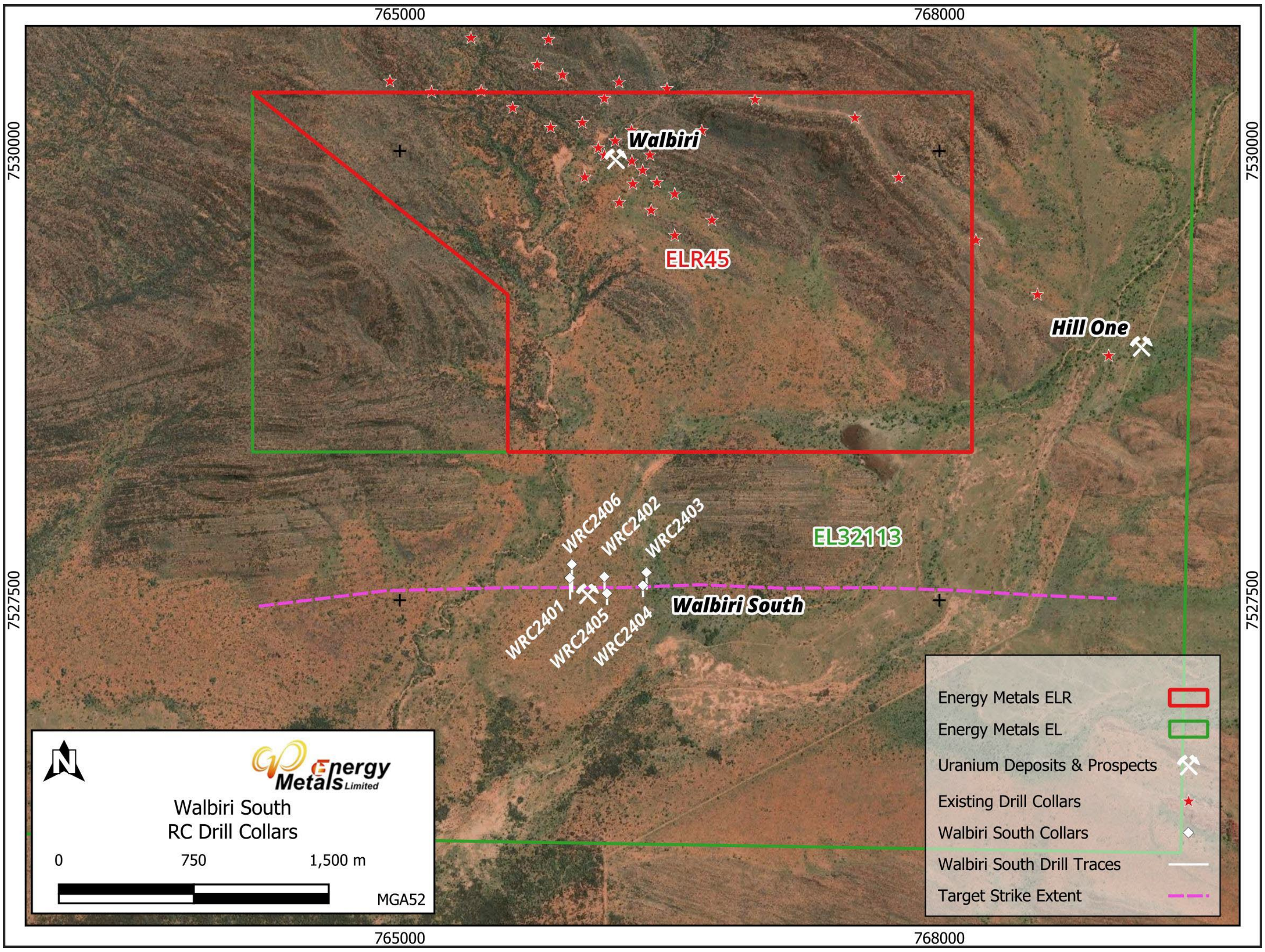
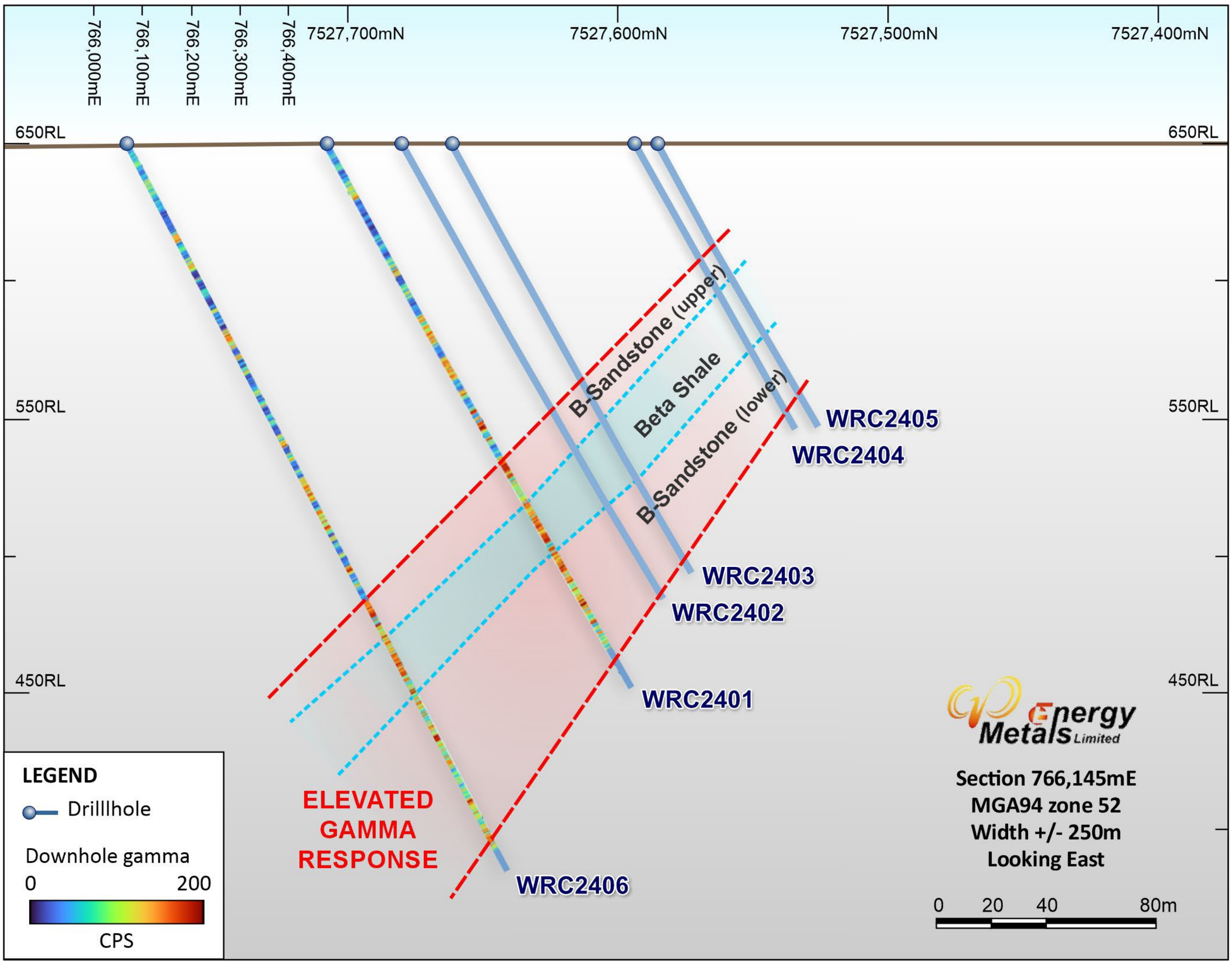


***Figure 3**: Chips of reduced B-Sandstone from drillhole WRC2406*

Figure 4: *Cross-sectional interpretation of Walbiri South RC Drilling*



ENDS

This announcement dated 28th January 2025 has been authorised for release to the ASX by the Board of Energy Metals Limited.

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Competent Persons Statement

The information in this report that relates to Mineral Exploration is based on information compiled by Mr David Nelson, a Competent Person who is a Member of The Australian Institute of Geoscientists ("AIG") (Member #4172). Mr Nelson is a full-time employee of Energy Metals Ltd where he holds the position of Exploration Manager. Mr Nelson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)'. Mr Nelson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Disclaimer

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *The nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay').* • *In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• The Walbiri South prospect was sampled by reverse circulation (RC) drilling. Drill holes were angled at 60 degrees to the south to optimally intersect the target units. • Selected drill holes were probed by a calibrated downhole gamma tool to obtain a total gamma count reading and processed to yield equivalent U_3O_8 values (eU_3O_8) with depth at 10 cm intervals. Intervals which were elevated above background were sampled for chemical assay, along with samples selected on the basis of mineralogy or stratigraphic unit. • Chemical assays for uranium, vanadium, chromium, and calcium were carried out on approx. 3 kg size, metre-sample RC drill spoils. Selected samples were also analysed for a multi-element suite and total organic carbon content.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other types, whether core is oriented and if so, by what method, etc).*	• Drilling used the reverse circulation (RC) method to drill standard 140mm (5-1/2") exploration holes using a face-sampling bit.
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*	• Assessment of sample recovery was by visual estimation of the relative size of RC drill spoil volumes. This information was entered into the Energy Metals' database. With the exception of some deeply weathered, water-saturated zones, estimated sample recoveries were high (>90%). Appropriate drilling techniques were used to maximize sample recovery. No relationship has been

	preferential loss/gain of fine/coarse material.	identified between sample recovery and grade of mineralisation.
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.*	• RC holes were geologically logged with information on lithology, colour, grain-size, stratigraphic unit, oxidation state, alteration, cementation, weathering and other features recorded digitally. All coded data was verified according to Energy Metals' standard logging look-up tables. • Logging was generally qualitative in nature, however the logging geologist endeavoured to quantify the relative proportions of trace and rock-forming minerals wherever possible. Chip trays were photographed before being archived at the Bigrlyi camp sample storage facility. • All drill holes are logged from collar to end of hole by a suitably qualified geologist, and all significant intersections are reviewed by a senior geologist or the Exploration Manager.
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.*	• RC drill spoils were sampled off the cyclone via a cone splitter to yield a 3-5 kg sub-sample in a calico bag and 40kg of bulk material which was collected in a large biodegradable plastic bag. Predominantly dry material was sampled. Field duplicates were collected by spear sampling the bulk sample. • Field QC procedures involved the insertion of a set of QC samples comprising a field standard, a blank, and a duplicate at the approx. frequency of 1 QC set per 25 samples. • Laboratory sample preparation of RC drill spoils involved riffle splitting the sample to a maximum sub-sample size of 3 kg; this was followed by pulverization in a low-Cr steel ring mill so that 85% passed 75 microns grain size. The unpulverised remainder was bagged and retained. • Sample sizes of 3-5 kg are considered to be appropriate for the style of mineralisation found here (tabular sandstone-hosted uranium) taking into consideration the nature and fine-grained mineralogy of mineralised intersections.
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.*	• Samples were tested at an independent, NATA accredited laboratory. Samples were digested using lithium metaborate fusion which is considered a total digest. Uranium was analysed by ICP-MS, with Ca, Cr, and V analysed by ICP-OES. TOC was

	• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	determined by combustion using a LECO furnace. • Quality control procedures comprised analysis of certified reference materials (CRMs) such as blanks and matrix-matched standards, which were included in the sample batches at a minimum ratio of 1 in 20. Field and laboratory pulp duplicates were also analysed to test repeatability of the sampling and lab prep processes. The results of the quality control procedures were compiled into a comprehensive QAQC report which indicated that sufficient levels of accuracy and precision have been established.
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.*	• Significant intersections are verified by the Exploration Manager or his alternate on site. • No twinned holes have been employed during this drilling program. • All primary digital data is stored securely on the company's data servers. Data is validated by a senior geologist before being loaded into the company geological database by an independent contractor and stored securely in an off-site location. • No adjustments have been made to any assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Hole collar locations were recorded using handheld GPS units accurate to +/-3m. • Coordinates are located on the MGA94 grid, Zone 52 using the GDA94 datum. • Topographic control is provided by a 10m spaced digital terrain model (DTM) which was flown by a fixed wing aircraft survey and is considered adequate for our purposes. • Down-hole surveys were undertaken using a multi-shot gyroscopic survey tool (Reflex EZ-Shot) on variable intervals not exceeding 30m. Initial collar orientations were also aligned using the gyroscopic survey tool.
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.*	• Three drill lines spaced approximately 200m apart were completed. Drill collar separation along lines was approximately 80m. • Energy Metals considers the spacing sufficient to establish continuity of geological units only.

	• *Whether sample compositing has been applied.*	• The sample data is stored in Energy Metals database on an uncomposited basis.
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.*	• Several investigations have shown that Bigrlyi style (tabular stratiform sandstone-hosted) uranium-vanadium mineralisation in the Ngalia Basin exhibits no significant structural control. • Mineralisation is controlled by physical and chemical characteristics of the host rock such as permeability and redox state and is influenced by primary depositional and sedimentological features. • Drilling has mostly been conducted perpendicular to bedding planes that host the mineralised zones and no bias of sampling related to orientation of these zones has been identified.
Sample security	• *The measures taken to ensure sample security.*	• The chain of custody of samples including dispatch and tracking is managed by Energy Metals staff. Samples are stored in a fenced yard at site prior to transport to the assay laboratory by Energy Metals personnel or by professional haulage contractors. Sample pulps are returned to site for storage and archive on completion of assay work.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits have been carried out in relation to this work.

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 parks, and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Walbiri South prospect is located on exploration licence EL32113 which is 100% owned by Energy Metals. • The exploration licence is located within the Mt Doreen Perpetual Pastoral Lease Native Title Claim (NTD39/2011) which was determined by consent on 3/7/2013. • The exploration licence is held in good standing with no known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The company is not aware of any previous exploration at Walbiri South by other parties. Previous exploration work and drilling programs at the nearby Walbiri deposit were conducted by Central Pacific Minerals NL (CPM) in the period 1971 to 1976. Energy Metals retains all CPM's historical exploration information in its data archive and relevant historical data has been verified and incorporated into EME's exploration database.
Geology	• *Deposit type, geological setting, and style of mineralisation.*	• Walbiri South has potential to host a uranium deposit of similar style to the nearby Bigrlyi and Walbiri deposits which are tabular, stratiform, sandstone-hosted uranium-vanadium deposits of Carboniferous age located on the northern margin of the Ngalia Basin (NT).
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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*	• All drillhole information is provided in the collar table within the body of the report.

	explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Exploration results, i.e. mineralised intercepts, are reported as either equivalent U_3O_8 values (eU_3O_8) from processed gamma logs or as chemical assay U_3O_8 values in parts per million (ppm) or percent (%) by weight. • Significant intercepts are calculated at a cut-off level of 500ppm U_3O_8 with a minimum thickness of 0.3m, a maximum internal dilution of 1m and no external dilution. No significant intersections were returned from this program. • No metal equivalents have been used in this report.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation concerning 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 (e.g. 'down hole length, true width not known').*	• Based on correlation of stratigraphy across drillholes, the target units are thought to be dipping at 50° towards 350°. • All holes have been drilled at -60 degrees towards the south, ensuring intersections are approximately perpendicular to bedding planes and true widths of intersections would be ~90% of downhole widths.
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 figures in the body of the text.
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.*	• All drillholes completed during this program are shown in the collar table & map and discussed within the report. All chemical assay results were returned and assessed before completion of this report.
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.*	• All relevant and material exploration data for the target areas discussed has been reported or referenced.
Further work	• *The nature and scale of planned further work (e.g. 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,*	• The exact nature of further work has not been determined yet but is likely to include broad-spaced RC drilling to define the target units over a larger strike length, before closer spaced drilling designed to identify zones of anomalous uranium. Future work beyond this point

	provided this information is not commercially sensitive.	will be highly dependent on results and cannot be predicted at this stage. • Relevant diagrams are included in the body of the document.