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ASX ANNOUNCEMENT

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For more information, please contact:

Shubiao Tao
Managing Director
Energy Metals Limited
E: enquiry@energymetals.net

Isaac Stewart
Media Relations
Purple
E: istewart@purple.au

Office
Level 2, 5 Ord Street,
West Perth WA 6005
P: (08) 9322 6904

This report and further information are available on Energy Metals' website at:

www.energymetals.net

CHEMICAL ASSAYS CONFIRM BIGRLYI DRILLING RESULTS

HIGHLIGHTS

- **In September and October 2024, Energy Metals announced excellent drilling results from the Bigrlyi Deposit using eU_3O_8 values which were derived from downhole gamma probing.**
- **Chemical assay results have now been received and correlate well with the previously announced eU_3O_8 values.**
- **Chemical assay results include an exceptional intersection of 10.5m at 1.1% U_3O_8 from 529m downhole in BRD2408, which includes a high-grade core of 1m at 4.07% U_3O_8.**
- **High-grade intersections have increased by 12% on average, due to technical limitations of the gamma probe which becomes saturated in zones exceeding 1% U_3O_8.**
- **The Company is now preparing to update the Bigrlyi Mineral Resource Estimate with results expected in Q1, 2025.**

Perth-based Australian uranium company **Energy Metals Limited** (**ASX:EME** or **the Company**) is pleased to announce that all chemical assay results have been received from its recent drilling campaign at the Bigrlyi uranium deposit in the NT. These results confirm the previously announced[1,2] eU_3O_8 results which had been derived from downhole gamma logging, allowing the company to confidently proceed with a revised Mineral Resource Estimate (MRE).

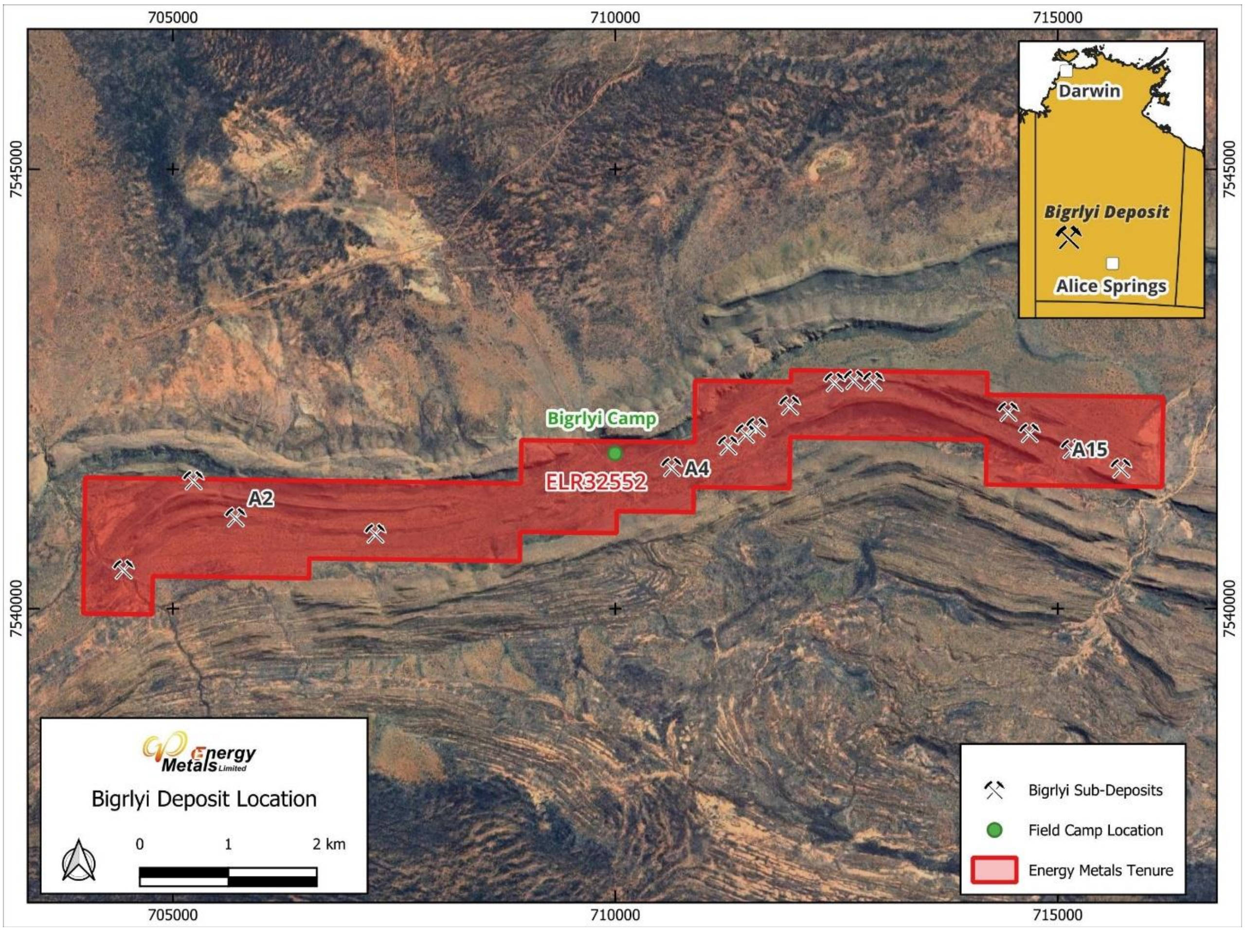
Bigrlyi Project Background

Located in the Ngalia Basin – 350km northwest of Alice Springs, the deposit is classified as a tabular sandstone-hosted uranium and vanadium deposit, occurring within the sub-vertical Mt Eclipse sandstone, which contains a sequence of medium-to-coarse grained felspathic sandstones.

The Project is a joint venture (JV) between Energy Metals (72.4%), NT Uranium (20.8%), and Noble Investments (6.8%).

Energy Metals completed an 11,055m drilling campaign in Q3 of 2024 designed to grow the uranium resource at Bigrlyi, which is currently 6.32Mt at an average grade of 1,530ppm for 9.66Kt (21.3 Mlbs) contained U_3O_8 using a 500ppm cut-off[3]. The current MRE comprises 18.2% Measured Resource, 54.3% Indicated Resource, with the remaining 27.5% classified as Inferred Resource (see Table 3 for details).

Figure 1: *Deposit Location Map showing sub-deposits A2, A4, and A15.*



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[1] ASX announcement 06/09/2024 - 'Outstanding Drilling Results from Bigrlyi'

[2] ASX announcement 08/10/2024 - 'More outstanding Drilling Results from Bigrlyi'

[3] ASX announcement 01/08/2024 - 'Resource Update Bigrlyi Project'

Commenting on the successful drilling campaign at Bigrlyi, Managing Director Shubiao Tao said: *"The chemical assay results confirm what we already know, that Bigrlyi is a great uranium deposit with some exceptional high-grade zones emerging from the recent drilling.*

We look forward to updating the MRE in early 2025, as we progress our exploration plans for the coming year".

Chemical Assay Results

In 2024, the Company completed 11,055m of RC and diamond drilling targeting three sub-deposits with good potential for resource growth. These sub-deposits, known as A2, A4, and A15, are shown on the location map displayed above in Figure 1. Selected drilling samples were submitted to a commercial laboratory in Adelaide for chemical assays, with all results now received and QAQC checks completed satisfactorily.

Sampling for chemical assays was carried out over zones of geological interest and any zone where downhole gamma probing had indicated potential grades in excess of 100ppm U_3O_8. Chemical assays are not expected to match exactly with calculated eU_3O_8 grades due to the differences in methodology and volume of sample tested. Chemical assays test the recovered drill core or drill chips, representing drillholes with diameters ranging from 50 to 140 mm. This contrasts with downhole gamma logging which tests the volume of rock surrounding the borehole and is estimated to penetrate approximately 1 to 1.5 metres into the surrounding rock.

Table 1 shows significant uranium intersections based on our chemical assay data. Some intersections show an increase in grade whilst others have reduced. Widths are generally unchanged, except where changes in grade lead to the amalgamation of multiple closely spaced intersections. Comparison of the two datasets shows that, as expected, the highest grade zones were underestimated by gamma derived eU_3O_8 due to the gamma probe becoming saturated. These higher-grade intersections (>1000ppm U_3O_8) have increased by approximately 12% on average. By contrast, lower-grade intersections (<1000ppm U_3O_8) have reduced by approximately 9% on average. There is sufficient correlation between the datasets to have full confidence in both sets of results.

Notable changes include an upgrade to the headline result from **BRD2408** where the original gamma-derived estimate was 10.6m at 0.86% eU_3O_8. Using the chemical assays this result is now **10.5m at 1.10% U_3O_8 from 529m downhole** with an estimated true width of 7.9m. The high-grade core of this intersection has also increased from the original gamma-derived estimate of 1.3m at 1.72% eU_3O_8 to a spectacular chemical assay result of 1m at 4.07% U_3O_8.

Another significant change comes from **BRD2415** which improved significantly. The original gamma-derived estimate was 5.0m at 0.34% eU_3O_8. Using the chemical assays this result is now calculated to be **5.0m at 0.84% U_3O_8 from 429m downhole** (estimated true width of 4.0m).

In both cases, the increase in overall intersection grade can be attributed entirely to the under-reporting of grades exceeding 1% eU_3O_8 by the downhole gamma probe.

All data relating to the 2024 drilling campaign has now been received, validated, and loaded to the Company database. Mineralisation wireframes have been updated, and the geological model is in the process of being refined. The process of updating the Bigrlyi Mineral Resource Estimate will soon commence, with results expected to be announced towards the end of Q1, 2025. Given the excellent results from the 2024 drilling, Energy Metals expects to be in position to deliver an increased MRE and support further resource expansion drilling in 2025.

Table 1: Significant Intersections over 0.3m width and 500ppm U_3O_8

HOLE ID	DEPTH (m)	WIDTH (m)	GRADE (ppm U_3O_8)	HIGH GRADE INCLUSION
BRD2404	432.8	0.6	2800	
BRD2406	313.7	0.5	8080	
BRD2407	270.8	0.3	2420	
BRD2407	272.3	0.4	4860	
BRD2407	296.9	0.8	1280	
BRD2408	238.5	0.5	790	
BRD2408	**490.5**	**1**	**10240**	**Including 0.5m at 1.75% U_3O_8 from 490.5m downhole**
BRD2408	**495.5**	**3.5**	**7460**	**Including 1m at 1.74% U_3O_8 from 496m downhole**
BRD2408	**520**	**4**	**7210**	**Including 2m at 1.29% U_3O_8 from 520m downhole**
BRD2408	**529**	**10.5**	**11030**	**Including 1m at 4.07% U_3O_8 from 534m downhole**
BRD2409	255.5	0.5	1310	
BRD2409	438.5	1.5	4260	
BRD2409	445	1	810	
BRD2409	**489.5**	**5**	**3600**	**Including 2.5m at 0.47% U_3O_8 from 490m downhole**
BRD2409	498	0.5	600	
BRD2409	541.5	0.5	680	
BRD2411	604.5	1.5	1850	
BRD2411	607.5	1	1090	
BRD2415	390.5	1	430	
BRD2415	401	1	830	
BRD2415	**429**	**5**	**8390**	**Including 0.5m at 3.36% U_3O_8 from 433m downhole**
BRD2415	440	1	710	
BRD2415	483.5	1.5	1100	
BRD2417	376	1.5	5300	
BRD2417	386	1	820	
BRC2428	12	3	840	
BRC2428	32	1	710	
BRC2428	45	1	540	
BRC2428	49	2	520	
BRC2428	116	1	2180	
BRC2428	119	1	710	
BRC2428	121	1	450	
BRC2428	124	1	1490	
BRC2428	129	2	5550	
BRC2430	124	2	1270	
BRC2430	**128**	**4**	**4750**	**Including 2m at 0.71% U_3O_8 from 128m downhole**
BRC2430	135	2	455	
BRC2433	182	4	1050	
BRC2434	140	3	960	
BRC2437	121	5	730	
BRC2437	131	2	750	

Note: Widths reported are downhole; true width is approximately 80% of this value in most cases. Selected intersections below 500ppm average grade are listed for comparison purposes with previously published eU_3O_8 results.

Figure 2: *Cross-Section showing the location of recent drillholes and selected high-grade intersections at depth below the A4 sub-deposit.*

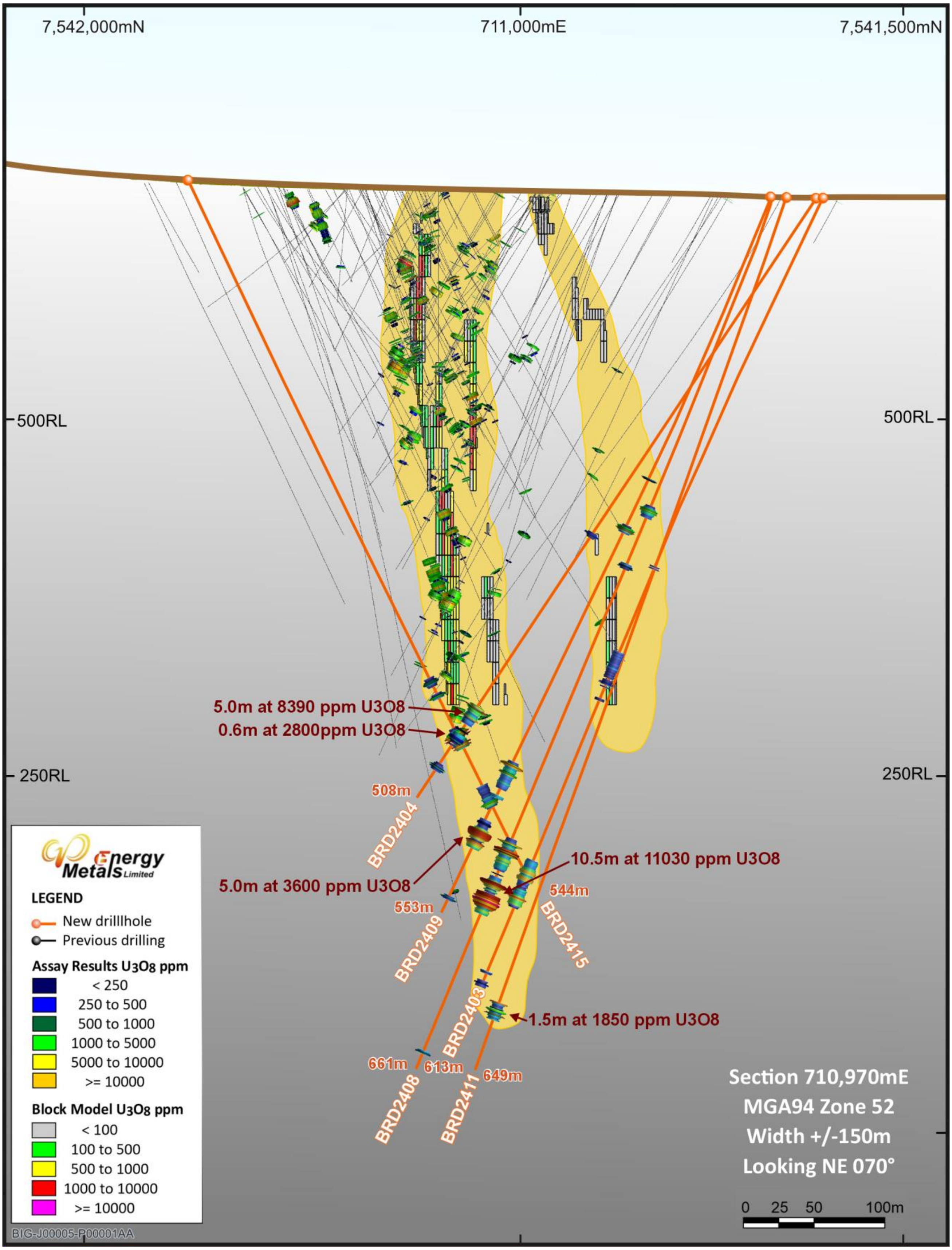


***Table 2**: Drill Collar Details*

HOLE ID	SUB-DEPOSIT	HOLE TYPE	EASTING	NORTHING	RL	DIP	AZIMUTH (GRID)	EOH DEPTH (m)
BRD2401	A4	RC/DD	710042	7541458	650	-70	142	466.2
BRD2402	A4	RC PRE	709965	7541397	649	-70	142	227
BRD2403	A4	RC/DD	710993	7541486	657	-63	333	613.1
BRD2404	A4	RC/DD	710991	7541489	658	-57	330	508
BRD2405	A4	RC EXP	709962	7541380	649	-90	0	50
BRD2406	A4	RC/DD	710043	7541457	650	-65	140	376
BRD2407	A4	RC/DD	710044	7541456	650	-56	141	330.9
BRD2408	A4	RC/DD	711087	7541579	657	-70	319	661.1
BRD2409	A4	RC/DD	711086	7541580	656	-65	324	552.8
BRD2410	A4	RC PRE	711169	7541613	656	-77	323	270
BRD2411	A4	RC/DD	711168	7541614	656	-72	325	649.2
BRD2412	A4	RC PRE	710917	7541497	657	-70	334	270
BRD2413	A4	RC PRE	711091	7541993	663	-68	157	184
BRD2414	A4	RC PRE	711092	7541992	663	-62	155	269
BRD2415	A4	RC/DD	710977	7541988	667	-67	153	544
BRD2416	A4	RC PRE	710977	7541989	667	-61	154	269
BRD2417	A15	RC/DD	715028	7541652	631	-68	28	435.7
BRD2418	A15	RC PRE	715659	7541766	625	-74	207	269
BRD2419	A15	RC/DD	715659	7541764	625	-70	205	322.8
BRD2420	A15	RC/DD	715793	7541757	623	-60	200	380
BRD2421	A15	RC PRE	715857	7541718	622	-70	198	240
BRC2422	A15	RC EXP	715857	7541717	622	-62	193	123
BRC2423	A15	RC EXP	715833	7541655	624	-64	197	220
BRC2424	A15	RC EXP	715805	7541671	624	-64	203	262
BRC2425	A15	RC EXP	715655	7541746	625	-64	198	245
BRC2426	A15	RC EXP	715735	7541741	624	-68	210	125
BRC2427	A15	RC EXP	715730	7541618	629	-67	14	131
BRC2428	A15	RC EXP	715484	7541740	628	-57	203	317
BRC2429	A2	RC EXP	706154	7541083	656	-67	185	185
BRC2430	A2	RC EXP	705929	7541117	658	-66	178	190
BRC2431	A2	RC PRE	705859	7541117	658	-76	182	180
BRC2432	A2	RC EXP	706008	7541104	657	-71	184	196
BRC2433	A2	RC EXP	706047	7541104	657	-76	177	269
BRC2434	A2	RC EXP	706047	7541102	657	-66	180	170
BRC2435	A2	RC PRE	705756	7541128	657	-73	188	189
BRC2436	A2	RC EXP	705861	7541118	658	-66	185	178
BRC2437	A2	RC EXP	705757	7541128	657	-66	188	160

RC/DD = RC Pre-collar with completed diamond tail. RC PRE = RC Pre-collar with pending diamond tail. RC EXP = RC only drillhole. All coordinates in GDA94, MGA Zone 52.

Table 3: Bigrlyi Mineral Resource Estimate (2024) at 500ppm eU3O8 cut-off grade.

Resource Category	Tonnes (Millions)	U_3O_8 (ppm)	V_2O_5 (ppm)	U_3O_8 (t)	V_2O_5 (t)	U_3O_8 (Mlb)	V_2O_5 (Mlb)
Measured	1.09	1,610	1,040	1,760	1,130	3.9	2.5
Indicated	3.14	1,670	1,140	5,250	3,570	11.6	7.9
Inferred	2.08	1,280	640	2,650	1,340	5.8	2.9
Total	6.32	1,530	960	9,660	6,040	21.3	13.3

Tonnes are metric (2204.62 pounds); figures may not total exactly due to rounding.

Figure 3A: Collar Plan Map for Recent Drillholes at A2

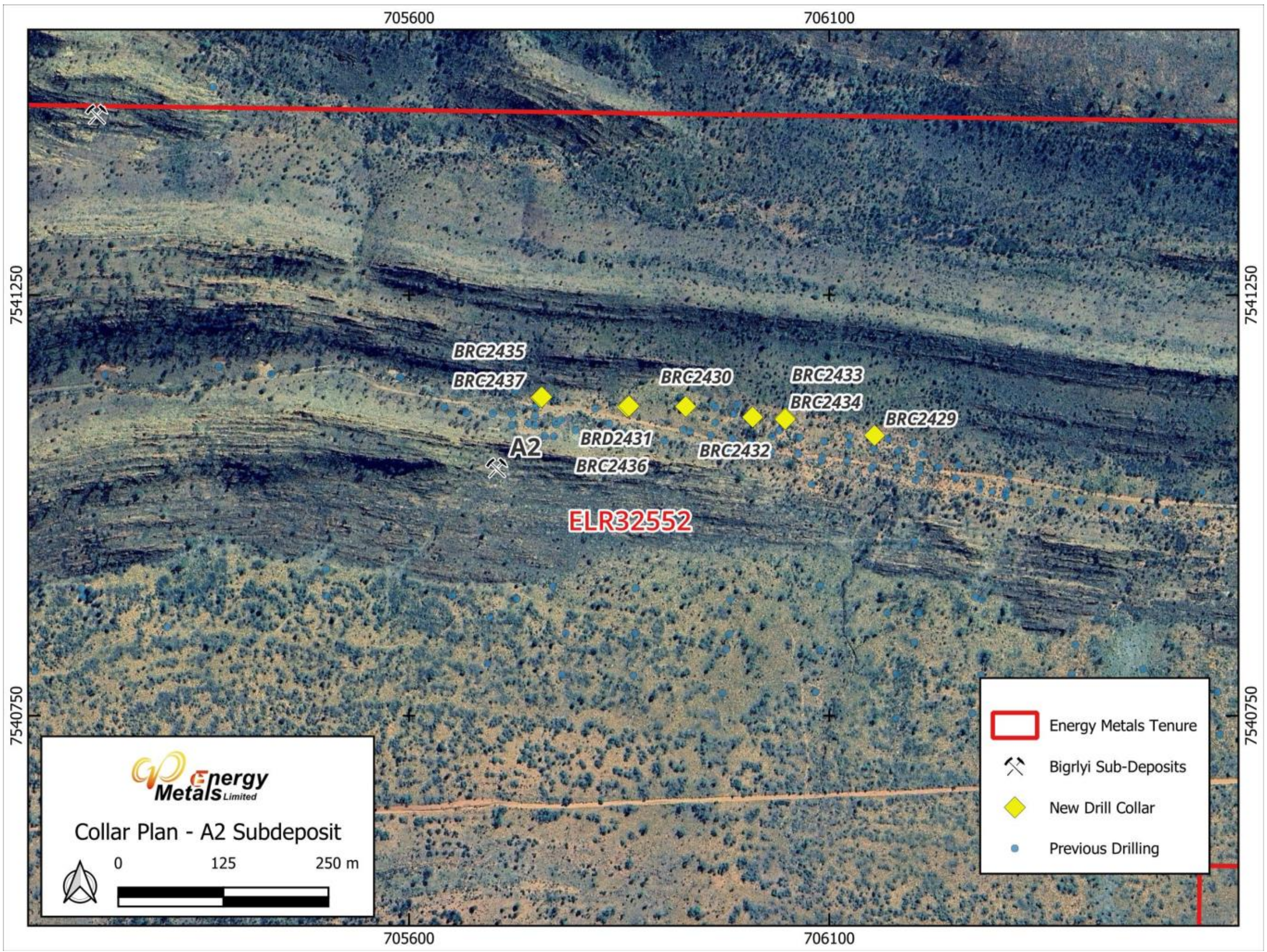


Figure 4B: Collar Plan Map for Recent Drillholes at A4

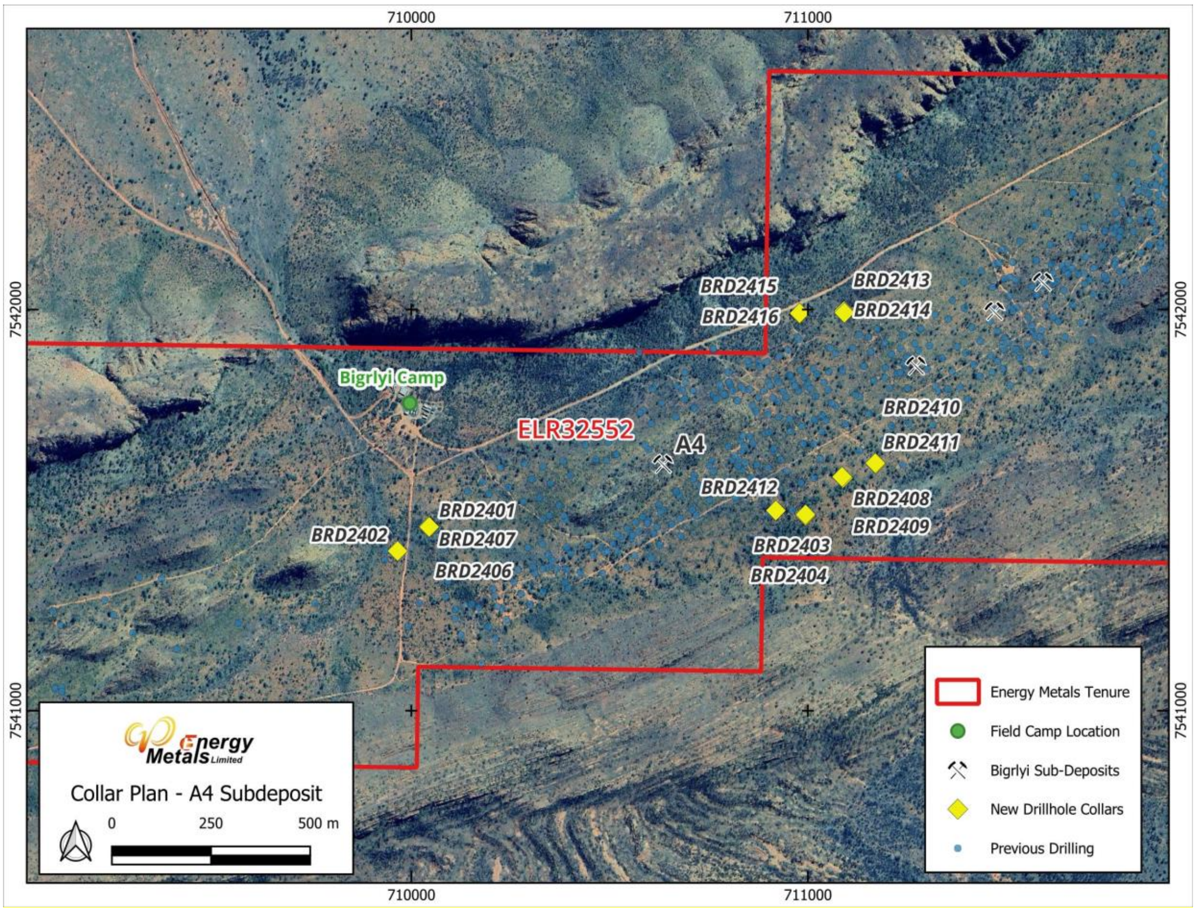
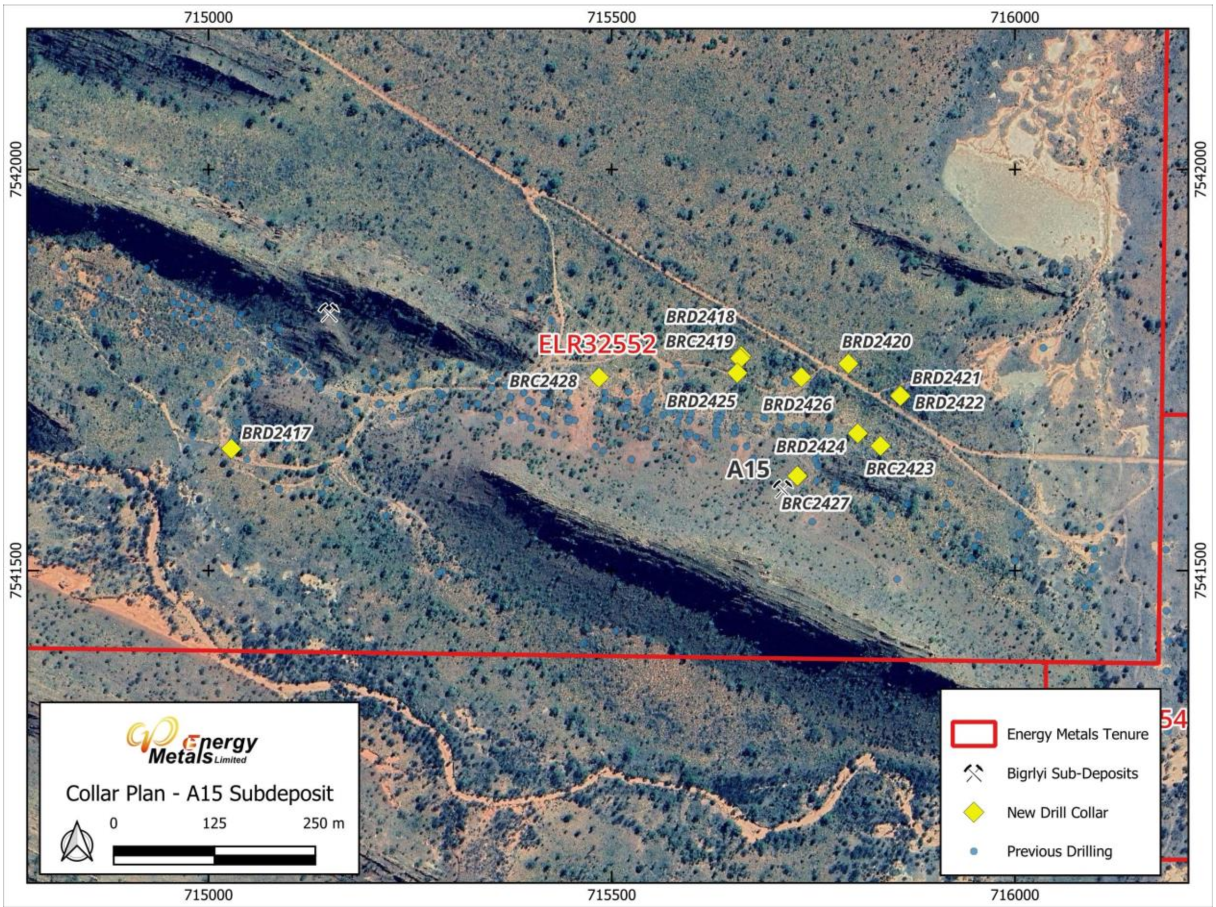


Figure 5C: Collar Plan Map for Recent Drillholes at A15



ENDS

This announcement dated 12th December 2024 has been authorised for release to the ASX by the Board of Energy Metals Limited.

For more information, please contact:

Shubiao Tao
Managing Director
Energy Metals Limited
E: enquiry@energymetals.net

Isaac Stewart
Media Relations
Purple
E: istewart@purple.au

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.

The Competent Person for interpreting downhole gamma information and assay results is Mr David Wilson. Mr Wilson has sufficient experience that 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'. Mr Wilson is a consultant to Energy Metals and is a full-time employee of 3D Exploration. Mr Wilson is a Member of the Australasian Institute of Geoscientists and consents to the inclusion in the report of the matters based on his information.

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 Bigrlyi deposit was sampled by reverse circulation (RC) and diamond core drilling methods. Drill holes were angled between 55 to 75 degrees to the north or south to optimally intersect the mineralisation in steeply dipping or sub-vertically oriented beds. • 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 of at least 3m above to 3m below significant eU_3O_8 intercepts (>100 ppm) were sampled for routine chemical assay. • Chemical assays for uranium, vanadium, chromium, and calcium were carried out on approx. 3 kg size, metre-sample RC drill spoils or in the case of diamond drilling, on cut half-core samples from mineralised intervals. • In some cases, minor adjustments have been made to the locations of downhole gamma peaks to ensure correlation with the observations of geologists logging the drill core. These adjustments are on the order of 0.5 to 2m and are believed to be a result of minor driller errors when zeroing the gamma probe depths before logging runs.
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 for exploration purposes was typically reverse circulation (RC) drilling to between 100 and 280 m depth or NQ/HQ diamond core (DD) drilling for deeper holes. • Core was oriented, loaded into trays, marked up, and checked for depth against core blocks; alpha/beta angle measurements on bedding planes and other features were undertaken on selected intervals using a goniometer orientation tool. • Energy Metals holds reference samples of all current drill core in its core yard archive on-site at Bigrlyi.
Drill sample	• *Method of recording and assessing core and chip sample*	• Assessment of RC drill spoil volumes or DD core recovery was made either as a visual estimate or from core length

recovery	*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.*	measurements and 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 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 and DD 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 & core 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 mineralised 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.*	• Sawn half-core samples of drill-cores were submitted for chemical assay. Sample lengths were variable from 0.2m to 1.2m with the majority being 0.5m in length. • 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. Core samples (ca 2kg size) were jaw crushed to 70% nominal passing -6mm and then pulverized as for the RC drill spoils. • 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.* • *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.*	• Samples were tested at an independent, NATA accredited laboratory. Samples were digested using lithium metaborate which is considered a total digest. Uranium was analysed by ICP-MS, with Ca, Cr, and V analysed by ICP-OES. • 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	• *The verification of significant intersections by either independent or alternative company personnel.*	• Significant intersections are verified by the Exploration Manager or his alternate on site.

assaying	• *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.*	• 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. • In the cases where uranium was reported as U ppm or %, a factor of 1.1792 was applied to convert metal to oxide value (U to U_3O_8). Previous studies have shown the uranium at Bigrlyi to be in equilibrium and thus no adjustment factor is applied in that regard. Minor depth adjustments (<2m) have been made to selected downhole gamma logs to ensure consistency of depths between gamma logs and chemical assays / geological logs.
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 provisionally recorded using handheld GPS units accurate to +/-3m. On completion of the drilling program, all new collars were professionally surveyed by an independent contractor using survey grade differential GPS. • 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 or Axis) 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.* • *Whether sample compositing has been applied.*	• The Bigrlyi sub-deposits were drilled on lines with nominal line spacing (Eastings) as follows: A2-3 C-D Contact 25-100m, B-C Contact 100m; A4 C-D & B-C Contacts 25-50m; A7-9 C-D & B-C Contacts 25-50m, A12-15 C-D & B-C Contacts 12-100m. • Energy Metals considers the spacing sufficient to establish continuity of geological units and grade. • The sample data is stored in Energy Metals database on an uncomposited basis.
Orientation of	• *Whether the orientation of sampling achieves unbiased*	• Several investigations have shown that Bigrlyi style (tabular

data in relation to geological structure	*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.*	stratiform sandstone-hosted) uranium-vanadium mineralisation 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 Bigrlyi deposit is located on an exploration licence with retention status (ELR32552) which is 72.4% owned by Energy Metals under the Bigrlyi Joint Venture (BJV). Energy Metals is the operator of the JV. • 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.*	• Previous exploration work and drilling programs at the Bigrlyi project were conducted by Central Pacific Minerals NL (CPM) in the period 1974 to 1981. 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.*	• Bigrlyi and associated satellite deposits 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:*
	  ○ *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.*
		• All drillhole information is provided in the collar table within the body of the report.

Data	• *In reporting Exploration Results, weighting averaging techniques,*	• Exploration results, i.e. mineralised intercepts, are reported as either

aggregation methods	*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.*	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 reported 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. Selected chemical assay intersections below 500ppm average grade are listed for comparison purposes with previously published eU_3O_8 results. • No metal equivalents have been used in this report.
Relationship between mineralisation on 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 geological mapping and structural measurements of drill core, beds have been upturned and are steeply dipping or sub-vertically oriented, typically at 70 to 85 degrees. • Most holes have been drilled at -60 degrees perpendicular to bedding planes and true widths of intersections are estimated to be 75% to 80% of the reported 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 and discussed within the report. A comprehensive report detailing all chemical assay results from the full drilling program will be released in due course.
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, provided this information is not commercially sensitive.*	• A further drilling program of similar scale is planned to begin at Bigrlyi in Q2 of 2025. The focus of this drilling will be resource growth. Drilling will also be carried out on the broader Ngalia Basin regional landholdings. • Relevant diagrams are included in the body of the document.