Energy Metals Limited

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BIGRLYI VANADIUM MINERALISATION MODEL & EXTRACTION UPDATE

HIGHLIGHTS

- **Vanadium-enriched zones form a broad halo that extends beyond uranium mineralised sandstone into overlying and underlying stratigraphic units.**
- **The Bigrlyi vanadium-mineralised volume is on average three times the size of the uranium volume.**
- **New vanadium Exploration Target outlined.**
- **Potential of the Anomaly-7 to Anomaly-9 corridor to add significant vanadium resources identified.**
- **Conventional acid leaching test-work has improved vanadium extraction from 40% to over 72% for a modest increase in acid consumption.**
- **Vanadium extraction test-work using a novel acid-cure-water leach process in progress.**
- **New studies provide key parameters for future resource estimation and economic model updates.**

Energy Metals Limited (ASX: EME) is pleased to update the market following completion of three-dimensional vanadium mineralisation modelling studies of the Bigrlyi uranium-vanadium deposit and the estimation of a new Exploration Target for vanadium. The models include construction of vanadium wireframe volumes for a 100 ppm V_2O_5 cut-off grade and implicit modelling of vanadium, uranium and calcium mineralisation shells using Leapfrog software. Further details of recent metallurgical test-work, aimed at optimising the co-extraction of vanadium and uranium, are also provided.

A program to improve the economics of Energy Metals' flagship Bigrlyi project was initiated this year with a particular focus on studies to enhance the value of vanadium as a by-product commodity in a future Bigrlyi mining operation. Bigrlyi sandstone-hosted uranium-vanadium ores contain vanadium in various mineral forms that can be extracted by conventional acid leaching processes without the need for the extreme conditions required in the processing of more widely known magnetite-hosted vanadium. Bigrlyi uranium-vanadium ores are mineralogically identical to those of the Colorado Plateau district of the USA, which has a decades-long history of co-mining and co-recovery of uranium and vanadium; the extraction and recovery processes of uranium and vanadium from sandstone-hosted deposits are therefore well understood.

The predominant industrial use of vanadium, at present, is as a steel strengthening agent; however, the metal has growing future uses in energy storage technologies, particularly redox flow batteries, which is the technology of choice in medium-scale storage of photovoltaically-generated energy. Although the significant price rise in vanadium seen in the latter part of 2018 has not been sustained this year, demand is expected to grow in future years. The current vanadium price is approximately $US 6/lb V_2O_5, which is close to the long-term average vanadium price and compares with the current uranium spot price of $US26/lb U_3O_8.

Vanadium Mineralisation Modelling. The Bigrlyi deposit is hosted in the Mt Eclipse Sandstone of the Ngalia Basin (central Northern Territory) and various sub-deposits from Anomaly-2 to Anomaly-15 are recognised over a strike length of 10 km (Figure 1). In the past, modelling of uranium-vanadium mineralisation at Bigrlyi has been constrained by the uranium distribution resulting in previous vanadium resource estimates being reported on the basis of uranium cut-off grades.

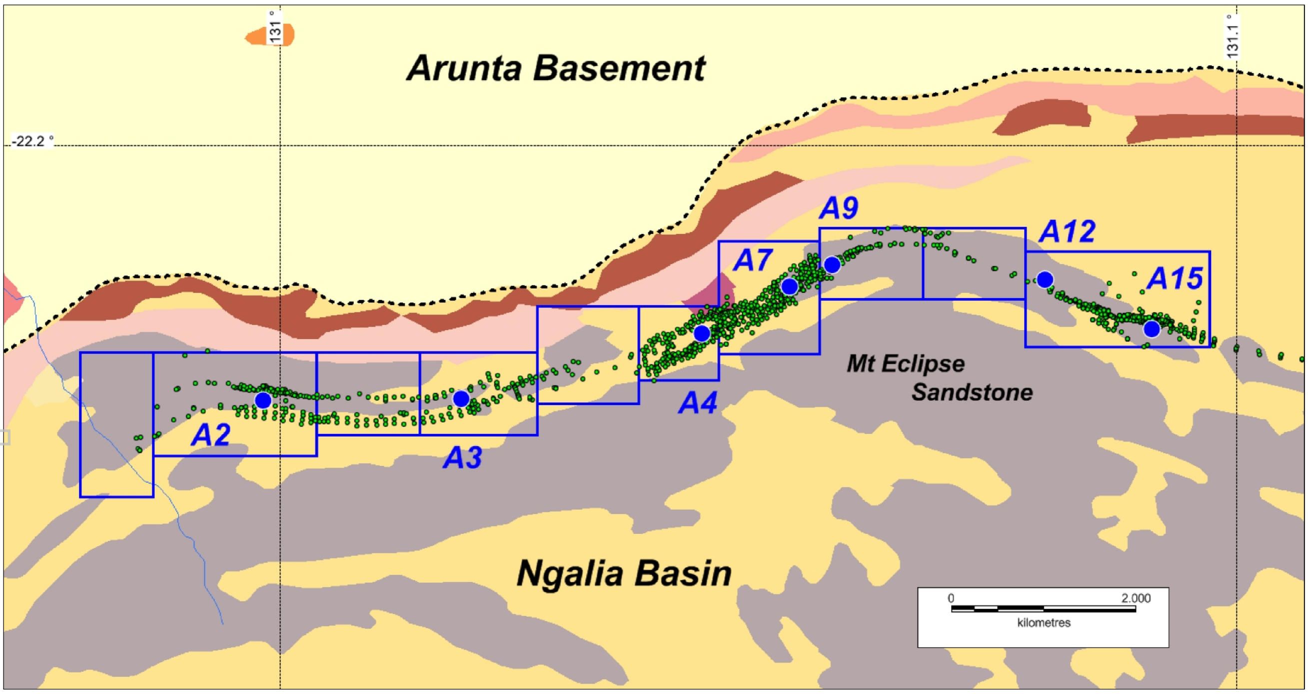

Figure 1. Bigrlyi deposit on the northern margin of the Ngalia Basin (NT) showing the location of Anomalies 2 to 15 (labelled A2 to A15) in relation to tenement boundaries (blue polygons), outcrop of host Mt Eclipse Sandstone (grey), and drill hole collars (green dots). Ngalia Basin northern margin shown by dotted black line.

In the 2011 Mineral Resource Estimate (MRE), contained vanadium was estimated at 8.9 kilotonnes (kt) V_2O_5 at 1,197 ppm (500 ppm U_3O_8 cut-off grade) or 14.0 kt V_2O_5 at 935 ppm (250 ppm U_3O_8 cut-off grade); refer to ASX announcement of 28 June 2011. However, it has been recognised since 1989 that a larger halo of vanadium mineralisation surrounds uranium mineralisation and that parts of the deposit are significantly vanadium-rich, yet uranium-poor; these parts of the deposit have not been adequately modelled previously and have potential to contribute significant additional vanadium resources.

A program to improve the Bigrlyi deposit mineralisation model was initiated using data from Energy Metals' recently updated and re-verified exploration database. The program involved two phases of work: (1) construction of a vanadium mineralisation wireframe model at the 100 ppm V_2O_5 cut-off level followed by estimation of a new Exploration Target for vanadium; and (2) development of geologically-constrained vanadium, uranium and calcium mineralisation shell models for the entire Bigrlyi deposit using Leapfrog implicit modelling software to interpolate between known mineralised zones, and to extrapolate along trend lines and to depth. Calcium was included in the modelling as a proxy for calcium carbonate (calcite), to better understand the distribution of acid-consuming gangue.

As a first step, drill-hole assay data for V, U and Ca was compiled from Energy Metals' database and composited to 1 metre intervals producing some 25,300 records. A plot of U_3O_8 versus V_2O_5 assay results on this basis (Figure 2) shows that the Bigrlyi deposit is dominated by vanadium-rich, but uranium-poor intervals – in fact 90% of the assayed metre intervals are of this type. Visualisation of this data in 3-dimensions shows that a large halo of vanadium mineralisation surrounds uranium-rich intervals. The halo is characterised by V_2O_5 values in the hundreds of ppm range (median 200 ppm V_2O_5) but with low uranium contents. At the 250ppm U_3O_8 cut-off level the vanadium halo would not be discernible, and it has not generally been considered in previous uranium-focused studies.

The assay compilation allows calculation of the median V_2O_5:U_3O_8 ratio for Bigrlyi mineralisation, which is 23 for all data and 3.8 for uranium mineralised intervals above the 100 ppm U_3O_8 cut-off level. The dataset contains a significant number of metre intervals of elevated vanadium content, with over 5% of the dataset falling in the range 0.2% V_2O_5 to 10% V_2O_5.

Wireframe models of the 3-dimensional vanadium distribution were constructed at the 100 ppm V_2O_5 cut-off level and are shown in Figures 3 and 4, respectively, for the Anomaly-4 to Anomaly-9 corridor, and the Anomaly-12 to Anomaly-15 corridor. The modelled mineralised volumes are given in Table 1 and show that, on average, the vanadium mineralised volume is more than 3 times larger than the previously estimated mineralisation volume determined on the basis of the 2011 MRE at 100 ppm U_3O_8 cut-off grade.

The modelling results permit the estimation of a new Exploration Target for vanadium in compliance with the JORC 2012 code (refer to Table 1 and associated caveats; Appendix 1 provides details of the methodology and the basis for the estimation). The results confirm the significantly expanded scale of vanadium mineralisation at Bigrlyi, compared to previous uranium-focussed results, and the potential to add resources in the future. A particular highlight is the Anomaly 7-to-9 corridor of sub-deposits, in which a vanadium-mineralised volume of more than 8 times the size of the uranium-mineralised volume has been estimated. The Anomaly 7-to-9 corridor is host to a vanadium Exploration Target (ET) of approximately 14 kilotonnes contained V_2O_5, which represents over 30% of the entire vanadium ET tonnage estimate for the Bigrlyi deposit.

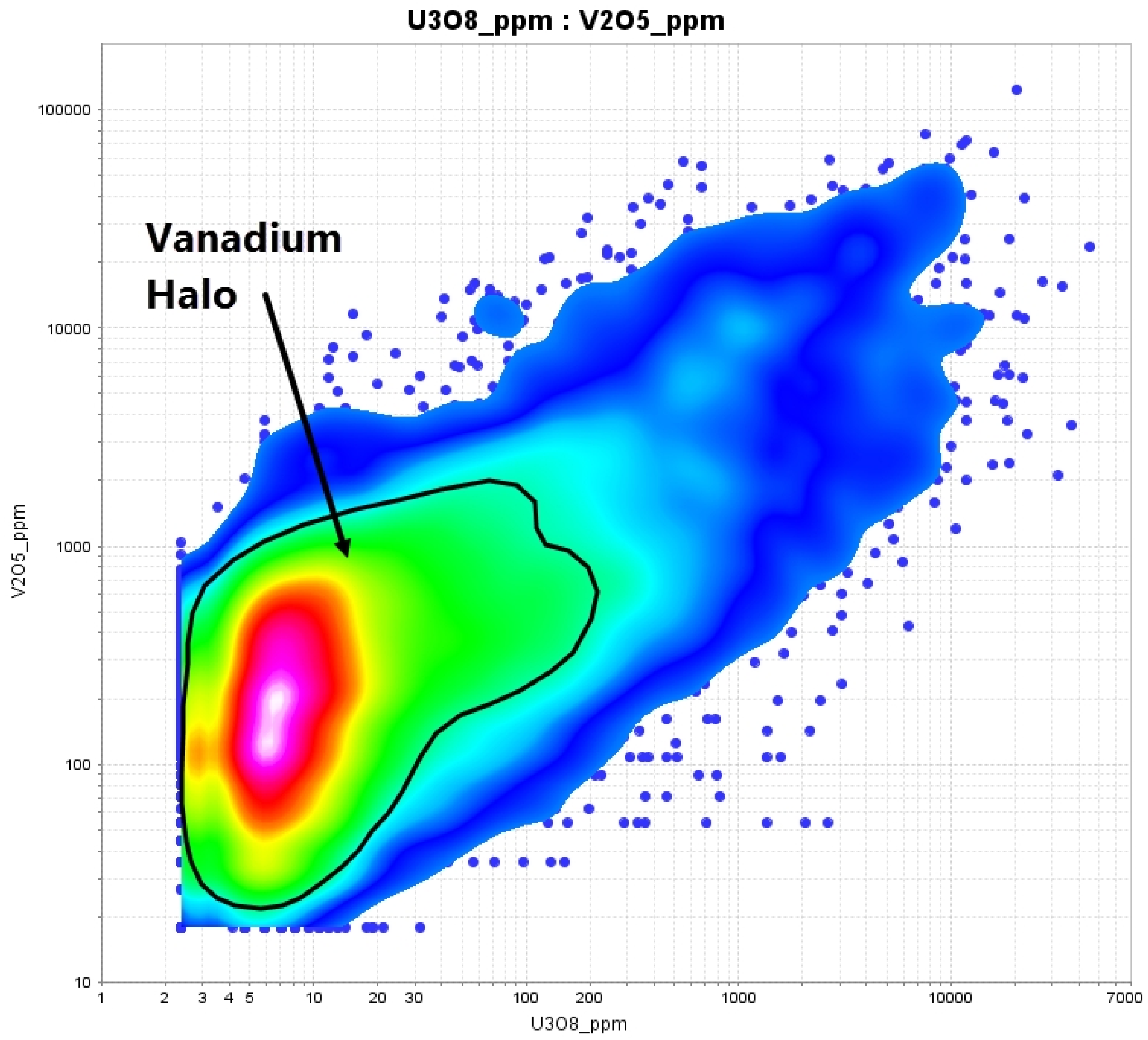

Figure 2. Density of data plot showing the variation in V_2O_5 versus U_3O_8 assay values for 1 metre composited drill-hole intervals covering the entire Bigrlyi deposit (25,300 metre intervals in total). The density of interval assay data clearly identifies the dominant vanadium-rich halo (hot colours), which is associated with vanadium levels in the hundreds of ppm (maximum 0.2% V_2O_5) and uranium poor intervals containing <200 ppm U_3O_8. The median V_2O_5:U_3O_8 ratio of the deposit is 23 and there are significant vanadium-rich intervals containing >0.2% V_2O_5.

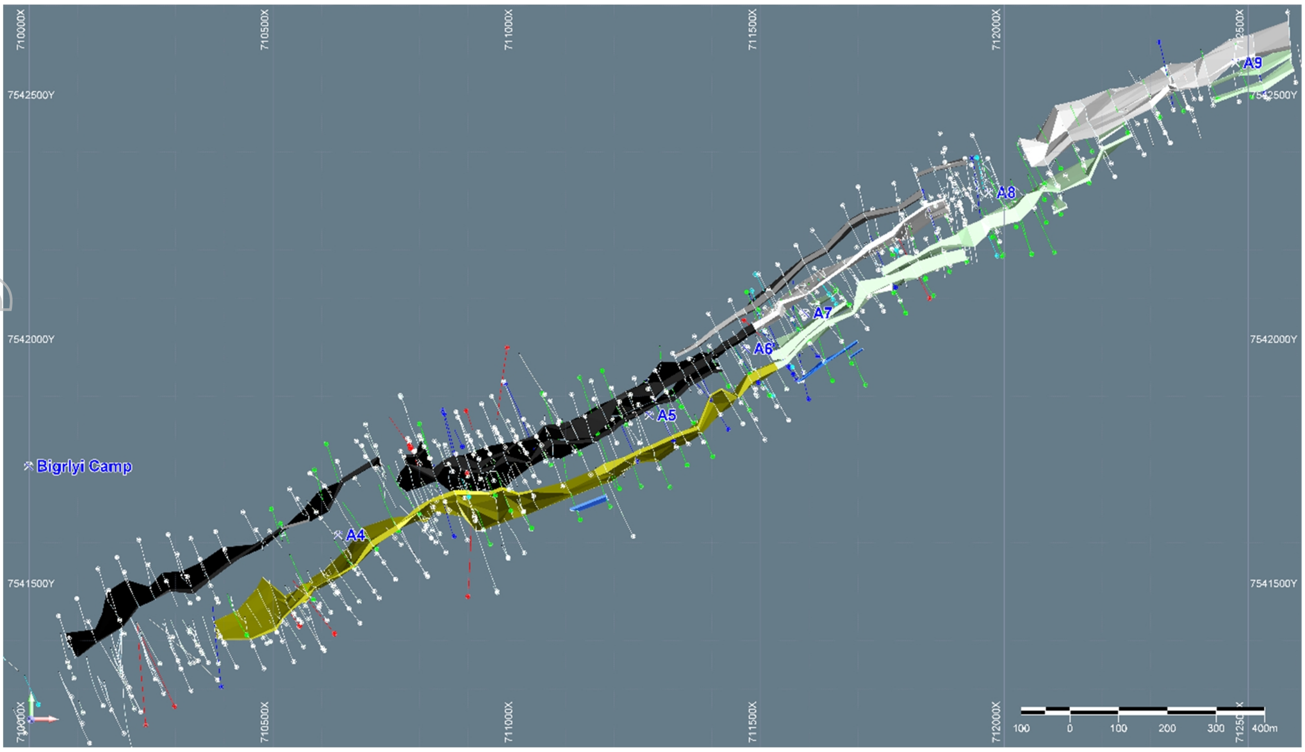

Figure 3. Plan view of the vanadium wireframe model for the Bigrlyi Anomaly-4 to Anomaly-9 corridor constructed for a 100ppm V_2O_5 cut-off. Drill-hole traces are shown. Additional vanadium-mineralised lenses were identified and modelled both stratigraphically above and below known uranium-mineralised areas.

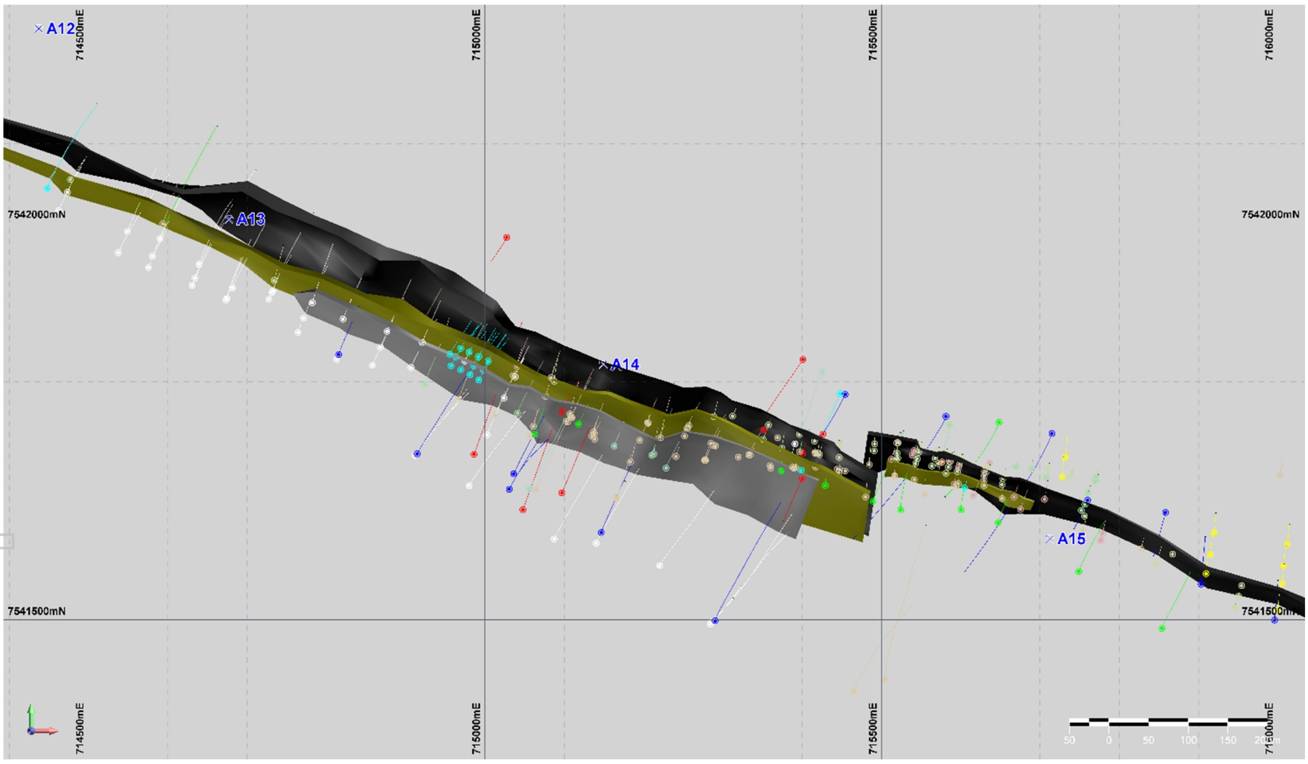

Figure 4. Oblique view of the vanadium wireframe model for the Bigrlyi Anomaly-12 to Anomaly-15 corridor constructed for a 100ppm V_2O_5 cut-off. Drill-hole traces are shown. Note the fault displacement between A14 and A15.

Table 1. Modelled Vanadium Mineralised Volumes and Exploration Target Ranges

Sub-Deposit Corridor	Vanadium Mineralised Volume* (Mm^3)	Uranium Mineralised Volume** (Mm^3)	Ratio V_2O_5 to U_3O_8 volumes	Estimated V_2O_5 Grade Range (ppm)	Contained V_2O_5 Exploration Target Range kilotonnes (kt) #
Anomaly 2-3	6.9	2.4	2.9	256 - 288	4.6 – 5.2
Anomaly 4	10.2	6.0	1.7	514 - 594	13.6 – 15.8
Anomaly 7-9	10.1	1.2	8.4	502 - 556	13.2 – 14.6
Anomaly 12-15	9.8	2.0	4.9	357 - 475	9.1 – 12.1
Total Bigrlyi	**37.0**	**11.6**	**3.2**	**422 - 494**	**40.5 – 47.6**

Figures may not calculate exactly due to rounding. *Current study for a 100ppm V_2O_5 cut-off grade.
**From June 2011 Bigrlyi Mineral Resource Estimate report at 100ppm U_3O_8 cut-off grade.
Determined for a 100ppm V_2O_5 cut-off grade; tonnages calculated using a density of 2.6 t/m^3.

Note: Mineralisation volumes (in millions of cubic metres) were determined from wireframe models based on previously announced drilling and significant assay results (Energy Metals 2006-2011), historical and more recent exploration results in the public domain, and for uranium, the 2011 Bigrlyi Mineral Resource Estimate (refer 28 June 2011 ASX announcement and the Appendix 1 commentary). The modelling results and previous exploration work provide sufficient information for a vanadium Exploration Target to be outlined under JORC (2012), however, the potential quantities and grades so determined should be regarded as conceptual in nature and the figures provided above are approximate. At this stage, there has not been sufficient interrogation or assessment of the available exploration data to determine whether estimation of a Mineral Resource for vanadium can proceed under JORC (2012), and it is uncertain whether further exploration work and review of existing data will result in a Mineral Resource. The information in this table is provided to give context to the scale and distribution of Bigrlyi vanadium mineralisation in relation to uranium mineralisation, and to identify areas of the deposit having potential to host significant vanadium resources not previously considered because of the uranium-focus of past studies. Details regarding the methodology and basis on which the Exploration Target and grade ranges were determined are provided in Appendix 1.

Leapfrog Modelling. In the second phase of the work program a 3-dimensional Leapfrog mineralisation model was constructed using a spheroidal interpolant method; the model was constrained by structural trends and internal fault planes. Vanadium, as well as uranium and calcium mineralisation shells were modelled for the entire deposit (Figure 5). Once again, the vanadium-rich but relatively uranium-poor zone along the Anomaly-7 to Anomaly-9 corridor was highlighted (Figures 6, 7).

Spatial variation in calcium, vanadium and uranium was explored in relation to internal stratigraphic units within the Mt Eclipse Sandstone. Most uranium mineralisation at Bigrlyi is associated with the contact zones between oxidised and reduced sandstone units, in particular between the oxidised Unit B and reduced Unit C higher in the stratigraphy (B-C contact), and between reduced Unit C and oxidised Unit D lower in the stratigraphy (C-D contact). The distribution of Ca, V & U in relation to these internal units is depicted in Figures 8 and 9 for Anomaly-15. Of particular note is the large calcium halo that extends stratigraphically above and below the unit contacts, and the occurrence of significant vanadium mineralisation within Unit C away from the B-C and C-D contacts. Leapfrog vanadium mineralisation shells compare favourably and are consistent with the wireframe model.

In conclusion, the development of vanadium mineralisation models unconstrained by uranium cut-off grades has highlighted the potential of the Bigrlyi deposit, and in particular the Anomaly-7 to Anomaly-9 corridor, to host vanadium mineral resources additional to those previously estimated. An Exploration Target estimate suggests the Anomaly-7 to Anomaly-9 corridor may contain up to a third of total Bigrlyi vanadium resources. These models will form key input parameters for a review and potential update of the Bigrlyi mineral resource estimate and economic model in the coming 12 months, as well as providing a firm basis for further exploration work.

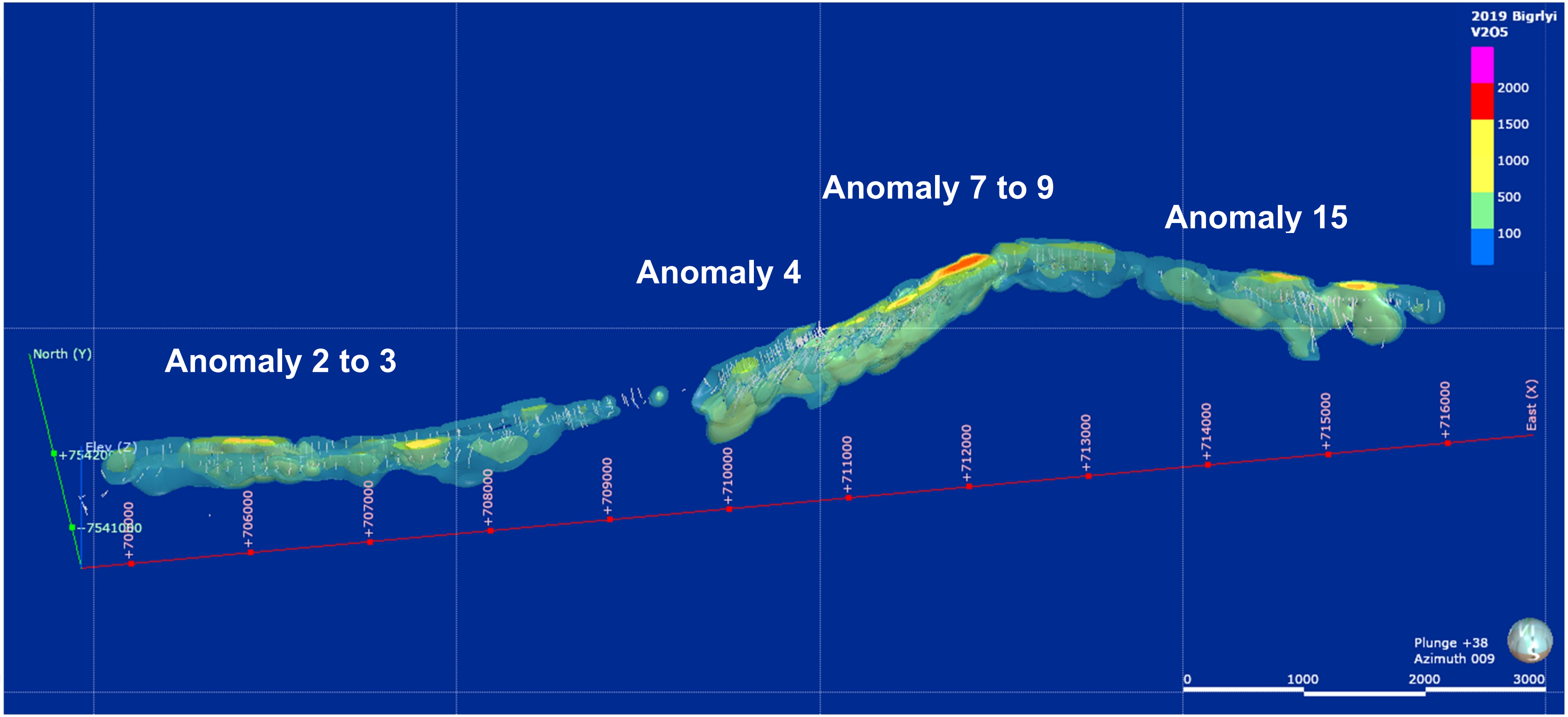

Figure 5. Spheroidal interpolated Leapfrog model showing V_2O_5 mineralised shells (colours indicate grade in ppm V_2O_5) for the entire Bigrlyi deposit, oblique view to north.

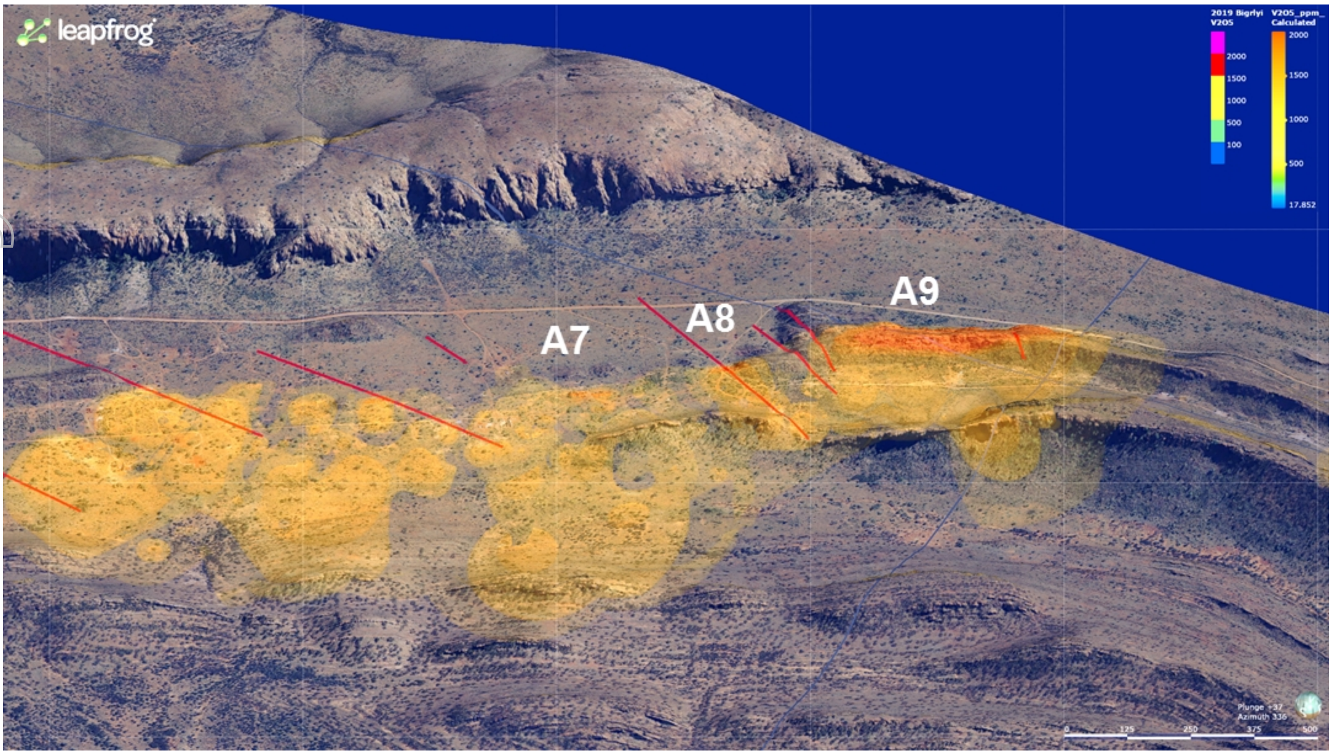

Figure 6. Spheroidal interpolated Leapfrog model showing V_2O_5 distribution in relation to the digital terrain model (semi-transparent). The figure is an oblique view looking north over the Anomaly-7 (A7) to Anomaly-9 (A9) corridor showing buried V_2O_5 mineralisation shells. Red lines = modelled fault traces. Hot colours indicate zones of high grade V_2O_5 mineralisation.

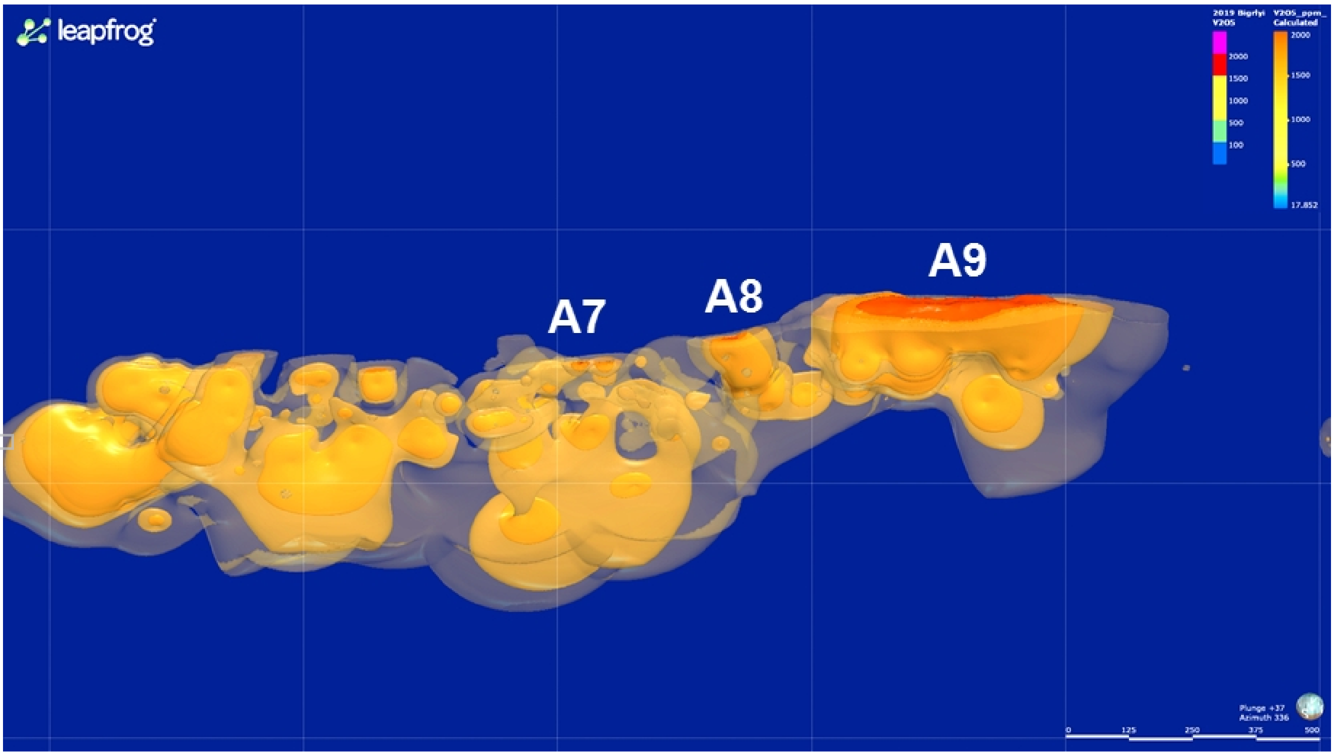

Figure 7. Detail of spheroidal interpolated Leapfrog model for V_2O_5 from Figure 6. The figure is an oblique view looking north over the A7 to A9 corridor showing V_2O_5 mineralisation shells (500-1000ppm, 1000-1500ppm, 1500-2000ppm V_2O_5) constrained by surface topography. Hot colours indicate zones of high grade V_2O_5 mineralisation.

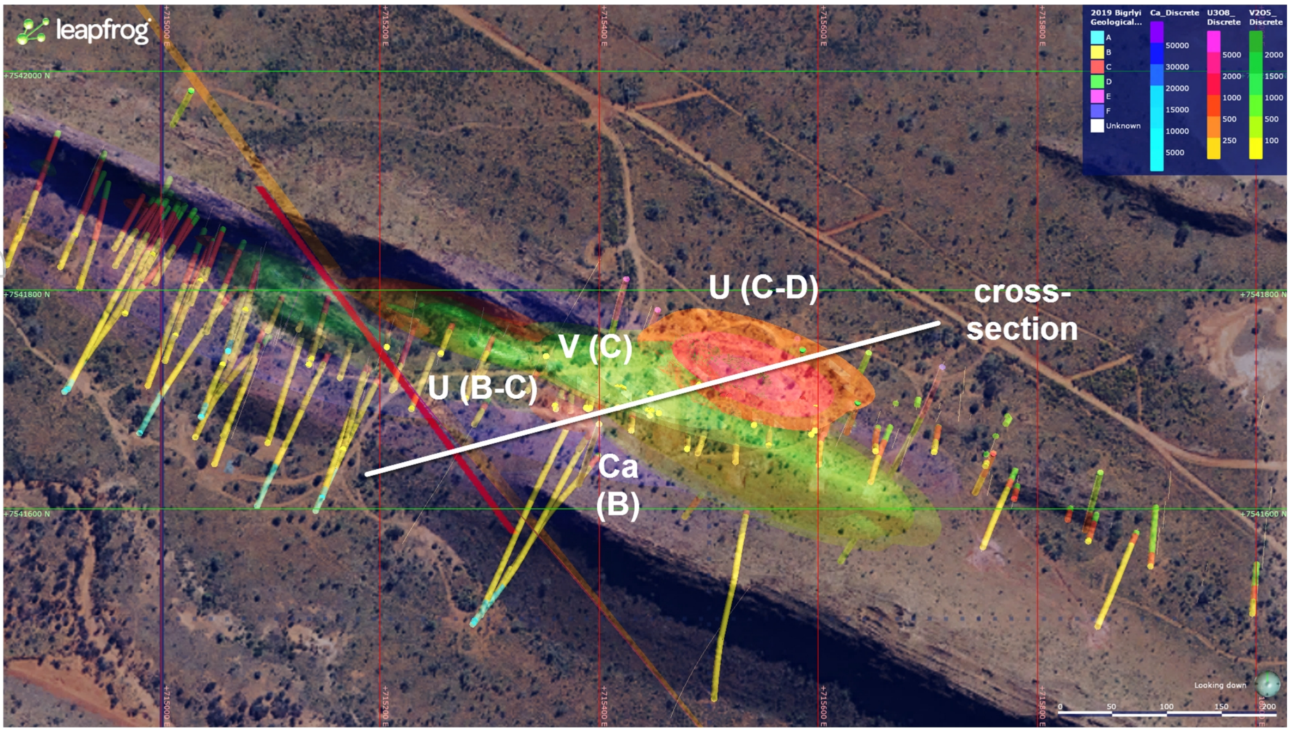

Figure 8. Spheroidal interpolated Leapfrog model showing Ca, V & U shells in plan view for Anomaly-15; modelled zones rich in Ca (blue-violet; within Unit B), U (red; Unit B-C contact), V (green; within Unit C) and U (red; Unit C-D contact) are shown.

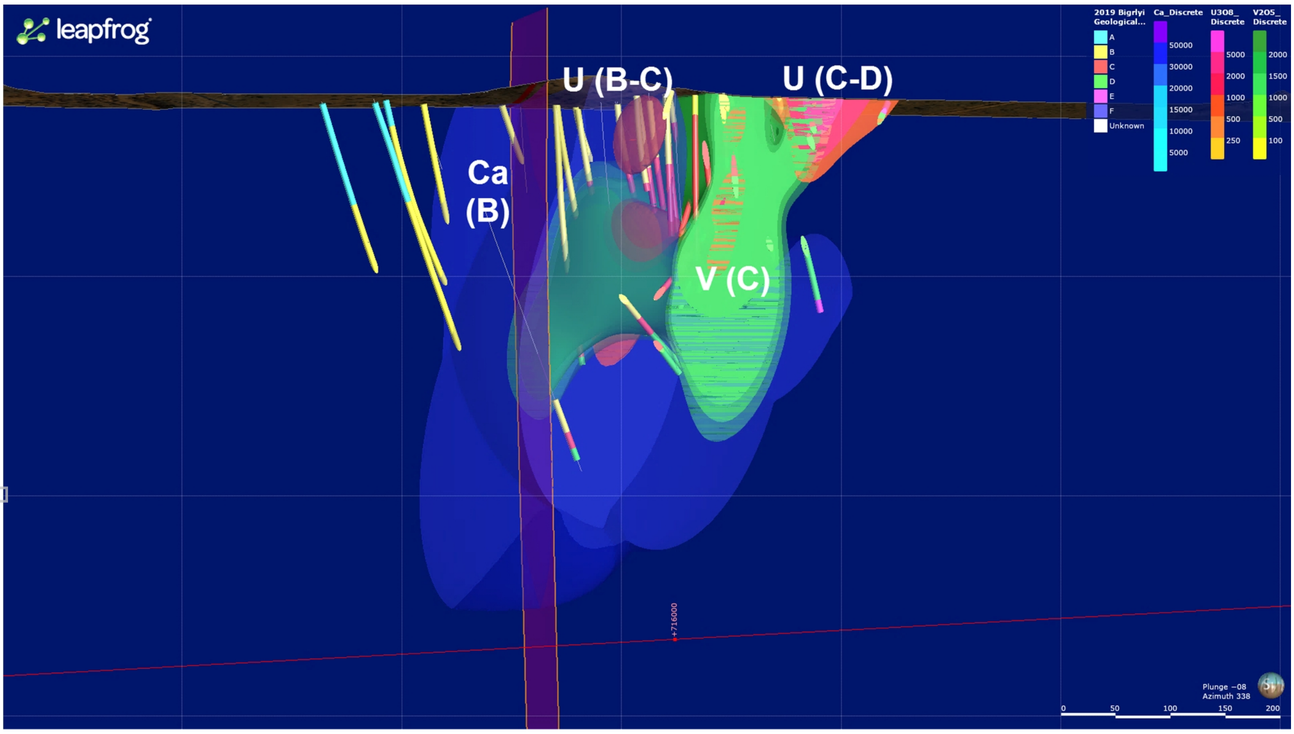

Figure 9. Spheroidal interpolated Leapfrog model showing distribution of Ca, V and U in a WSW to ENE cross-section through Anomaly-15 (see Figure 8 for location of the cross-section); modelled zones rich in Ca (blue-violet; within Unit B), U (red; Unit B-C contact), V (green; within Unit C) and U (red; Unit C-D contact) are shown. Red vertical line is a modelled fault plane.

Vanadium Optimisation Metallurgical Test-work. This year Energy Metals commenced a study to consider the range of metallurgical processing options available for co-recovery of uranium and vanadium from Bigrlyi uranium-vanadium ores. Following discussions with metallurgists at the Australian Nuclear Science and Technology Organisation (ANSTO), Lucas Heights, Sydney, the parameters were established for a laboratory-based metallurgical test-work program. The main objective of the program was to optimise, with respect to acid concentration (pH) and other parameters such as redox potential (ORP) and temperature, the extraction of vanadium from a representative Bigrlyi uranium-vanadium ore.

A new composite ore material was prepared using a 50:50 blend of Anomaly-4 and Anomaly-15 Unit C-D ores containing 2,007 ppm U_3O_8, 0.27% V (0.48% V_2O_5) and 3.1% Ca (4.3% CaO, equivalent to a maximum of 7.7% calcium carbonate). The results of an initial series of dilute (i.e. low slurry density) leach diagnostic tests were used to establish the base parameters for further conventional acid leach tests.

The diagnostic test results showed that under all conditions uranium is 99% extractable and that a maximum of 80% of vanadium is extractable under conditions of pH 1.2, temperature 60°C, and oxidation-reduction potential of 600 mV. The extractability was found to be most sensitive to pH.

The results of a series of conventional leach tests were received in September 2019 (Table 2). Three conventional acid leach tests at 50 wt% slurry density were conducted on a 1 kg of composite (P_{80} - 150 µm) under varying conditions. As expected, uranium extraction was >98% under all conditions, whereas the extraction of vanadium varied with the different pH and temperature targets.

Table 2. Leach Test Results

Test ID	Slurry (wt %)	Duration (h)	Temp (°C)	pH	ORP (mV)	Reagent Utilisation (kg/t)			Extraction (%)*	
						Acid Addition	Acid Consumption	Oxidant Addition	U	V
3A	50	24	60	1.2	550	140.2	123.4	2.9	98.9	72.7
4A	50	48	60	1.4	550	134.1	123.8	4.2	98.8	68.1
4B	50	48	70	1.5	550	133.2	123.2	4.8	98.7	64.0

* Calculated based on solid assay and includes mass loss.

Under the preferred leach conditions of pH 1.2 and 60 °C, the vanadium extraction from the conventional test was 72.7%; this was lower than the diagnostic test probably due to particle size and to solution effects at the higher slurry density. However, this result is a substantial improvement on previous conventional leach test-work, which showed typical vanadium extractions around 40%.

The sulphuric acid consumption of 123 kg/t represents a modest (approximately 20%) increase compared to acid consumption determined in previous base-case, uranium-only extraction tests. The economics of vanadium recovery is sensitive to reagent costs, and to acid consumption in particular; clearly such costs would be a key factor in development of a revised economic model for a Bigrlyi mining operation, and this factor would be important in determining whether vanadium recovery is economically viable within the current vanadium price framework.

Uranium and vanadium extraction were also investigated as a function of leach time. Uranium extraction was found to be complete in all cases within 12 hours, but the vanadium extraction continued beyond 24 hours, although at a considerably slower rate (Figure 10). The final leach liquor compositions for the three conventional leaches show that along with uranium and vanadium, significant aluminium, iron and magnesium impurities were also leached.

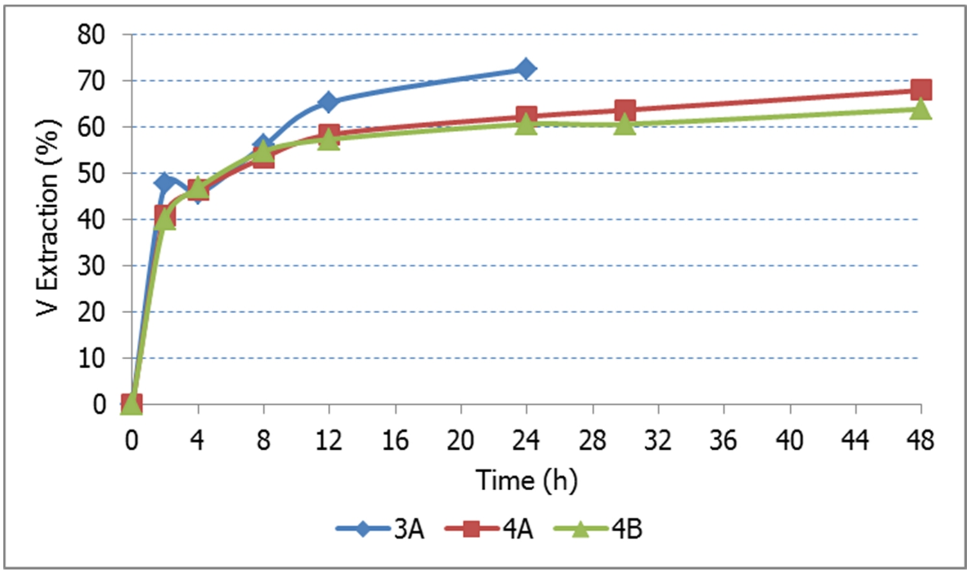

Figure 10. Vanadium Extraction vs. Time

Plots of acid consumption versus uranium and vanadium extraction confirm the correlation between acid consumption and degree of extraction (see Figure 11). It is important to note that the majority of the acid consumption occurs on acid addition to the ore due to its immediate reaction with calcium carbonate (calcite). The amount of calcite gangue in the ore feed is the most significant factor in determining overall acid consumption; for the ore material used in this test-work, the acid consumption due solely to reaction with carbonate gangue is estimated at 70 kg/t or just under 60% of the overall acid consumption.

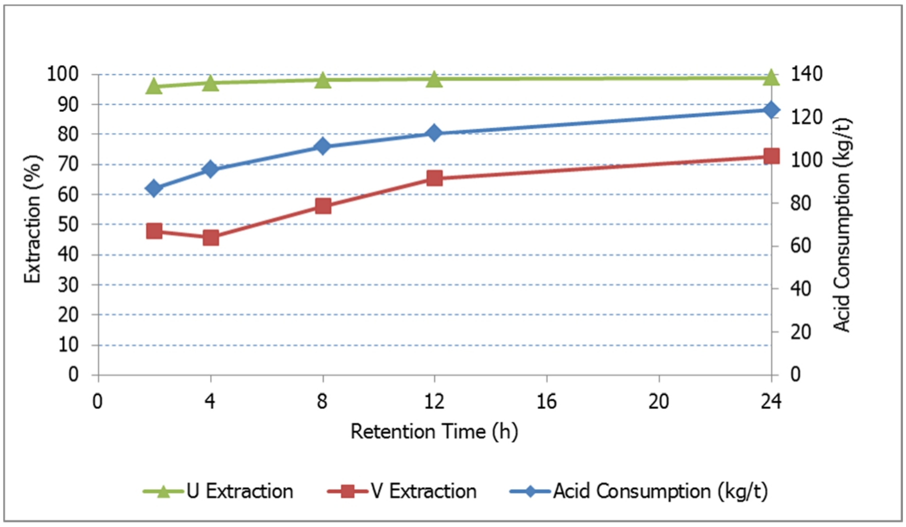

Figure 11. U and V Extraction and Acid Consumption vs. Time (pH 1.2, 60 °C, 24 h)

The uranium and vanadium extractions were also calculated for each size fraction (Table 3). Uranium recovery was high in all fractions whereas the vanadium extraction was less in the fine clay fraction (<38 µm fraction). Mineralogical analysis of the leach residues has confirmed that no uranium minerals and no vanadium oxyhydroxide minerals remain. However, various vanadium-bearing aluminosilicate minerals (roscoelite and vanadiferous clays) were found to be only partially leached especially in the fine <38 µm fraction, and about two-thirds of these minerals were found to be poorly or only partially liberated from associated gangue minerals in the fine-fraction residue. It is well known that vanadium-bearing aluminosilicate minerals can be difficult to leach because vanadium is held tightly within the mineral structure, and Bigrlyi ore appears to be no exception.

Table 3. U and V Extractions by Size Fraction

Size (µm)	Extraction (%)	
	U	V
+212	98.0	77.2
-212+150	99.1	69.1
-150+106	98.6	73.7
-106+75	98.8	75.0
-75+53	98.8	74.7
-53+38	98.9	77.6
<38	98.4	67.8

While the present results represent a significant improvement in vanadium extraction, and have identified acidity (pH) as the key driver for vanadium extraction, a review of the literature indicates that some non-conventional acid leach processes, specifically those designed to decompose the structure of vanadium aluminosilicate minerals, may improve vanadium co-extraction and reduce both acid consumption and the concentration of impurity elements in the leachate. To this end, an investigation of a novel acid-cure, water-leach extraction method, similar to that used in the processing of vanadiferous stone-coals in China and elsewhere, is now in progress at ANSTO Minerals Division, Sydney, with results expected in the coming quarter. An acid-cure process has been successfully employed in past uranium mining operations involving clay-rich sandstone ores from deposits in Niger with a significant reduction in acid consumption compared to conventional acid leaching processes.

For and on behalf of the Board.

肖树青

Shuqing Xiao
Managing Director
4th December 2019

Competent Persons Statement

The information in this report that relates to the 2011 Mineral Resource Estimate (MRE) for the Bigrlyi deposit is based on information compiled by Mr Arnold van der Heyden, BSc, who is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr van der Heyden is a full-time employee and director of H&S Consultants Pty Ltd and has sufficient experience in estimation of mineral resources for the style of deposit and mineralisation type under consideration and therefore qualifies as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2004)". Mr van der Heyden consents to the inclusion of the information in this report in the form and context in which it appears.

Note that the MRE for the Bigrlyi deposit was originally compiled and announced utilising parameters from the 2004 edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The information discussed in this report relating to exploration results, mineralisation modelling, exploration targets and metallurgical test-work results is based on information compiled by Dr Wayne Taylor and Mr Daniel Jordan. Dr Taylor and Mr Jordan are both members of the Australian Institute of Geoscientists (MAIG) and full-time employees of Energy Metals Ltd. They both have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2012)". Dr Taylor and Mr Jordan both consent to the inclusion of the information in the report in the form and context in which it appears.

APPENDIX 1. The following commentary is provided for the purposes of compliance with JORC (2012) requirements for estimation of a vanadium Exploration Target (ET) for the Bigrlyi deposit.

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.*	• The Bigrlyi deposit was sampled by reverse circulation (RC) and diamond core drilling methods. Drill holes were angled at a nominal 60 degrees to the north or south to optimally intersect the mineralisation in steeply dipping or sub-vertically oriented beds. Drill holes were probed by calibrated Auslog 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 5 cm intervals. Generally, intervals from 3 m above to 3 m below significant eU_3O_8 intercepts (>100 ppm) were sampled for routine chemical assay. • Routine chemical assays for uranium, vanadium and calcium were carried out on approx. 3 kg size, metre-sample RC drill spoils split from the cyclone or on half-metre-length, cut half-core from mineralised intervals. • For the purpose of comparison between uranium grades and the abundance of other elements including vanadium and calcium, only chemical assay data was used in this study. • Sampling was undertaken using industry standard methods and QAQC practices. Chemical assays for vanadium were obtained by pressed powder pellet XRF or acid-digest/ICP-OES methods (see below for further details).
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).*	• Drilling for exploration purposes was typically reverse circulation (RC) drilling to between 100 and 250 m depth or NQ/HQ diamond core (DD) drilling with a 50-100 m RC pre-collar for deeper holes. PQ or HQ DD holes, drilled from surface, were utilised for metallurgical test-work. 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. • Historical drilling in the period 1974-1981 was undertaking by percussion drilling and HQ, NQ & BQ DD methods. Except for some metallurgical samples, Energy Metals holds all current and historical core in its core yard archive on site at Bigrlyi.
Drill sample	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Assessment of RC drill spoil or DD core recovery was made either as a visual estimate or from core length measurements and this

Criteria	JORC Code explanation	Commentary
recovery	- *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.*	information was entered into Energy Metals' database; except in 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. Chip trays or core trays were archived at the Bigrlyi camp sample storage facility. Core was photographed prior to being archived. Historical paper-based core logs were re-coded and selected cores were re-logged. - In 2010 approx. 60,000 metres of drill chips and drill core from the 2006-2010 programs and from historical holes (1974-1981) were scanned on-site by the Hylog or Hychips method to provide an extensive down-hole spectral mineralogical dataset.
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 0.5m interval drill-cores were submitted for chemical assay. - RC drill spoils were sampled off the cyclone via a cone splitter to yield a 3-5 kg sub-sample and 40kg of bulk material which was collected in a large bag. Predominantly dry material was sampled.The bulk material was sampled by random spearing or by on-site riffle splitting to provide a sample for duplicate assay. - 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.

Criteria	JORC Code explanation	Commentary
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.*	• Uranium and vanadium were assayed by XRF using the pressed powder pellet (PPP-XRF) method for samples containing <1% U or <0.1% V, respectively. This method gives total uranium, vanadium content with detection limits of 4 ppm and 10 ppm, respectively. In addition to normal laboratory QC procedures, two certified reference materials with chemical matrices matching the sandstone-deposit-type were run as laboratory standards at a frequency of approx. 1 standard per 25 samples for PPP-XRF assay work. At levels equal to or above 0.1% V (i.e. beyond the calibration limit of the PPP-XRF method), vanadium was assayed by a 4-acid digest/ICP-OES method with a 1 ppm V detection limit. Calcium was assayed by the 4-acid digest/ICP-OES method (100 ppm Ca detection limit). Assays from historical exploration in the period 1974-1981 were undertaken either by PPP-XRF (20 ppm V detection limit) or by an acid digest/spectro-photometric method (10 ppm V detection limit). Energy Metals holds paper copies of all analytical certificates from historical assay work.
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 mineralised intersections were verified on-site during the course of a 60,000 metre Hylog and Hychips scanning campaign as part of the CSIRO JSU Ngalia Basin uranium study (2010-2012). • A number of high-grade holes were twinned as part of routine exploration procedures; gamma probe and assay measurements over mineralised intersections yielded comparable results with acceptable agreement achieved between the primary and twinned holes. • Primary data was collected in the field using a Micromine Field Marshal template operating on a Toughbook computer. The information was validated on import into Micromine and then dispatched to Perth office for compilation into an SQL database. • In the cases where vanadium was reported as V ppm or %, a factor of 1.79 was applied to convert metal to the oxide value (V to V_2O_5).
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 (including historical holes) were surveyed by Brian Blackman Surveys of Alice Springs. Measurements were carried out using RTK DGPS equipment with an accuracy of +/-30 mm for eastings, northings and elevation data. All measurements are based on existing site control points which were previously occupied by a GPS base station and resolved using the Geoscience Australia GPS processing service AUSPOS. Elevations are Derived AHD heights computed using the AUSGeoid09. The centre of the drill collar cap was measured for modern holes. For the historical holes,

Criteria	JORC Code explanation	Commentary
		the location of a tagged star picket marker was measured. - Coordinates are located on the MGA94 grid, Zone 52 using the GDA94 datum. - Down-hole surveys were primarily undertaken with a single-shot or multi-shot tool (Reflex EZ-Shot or Globaltech) every 30m or 3m, respectively, and at EOH depth. Initial collar orientations were aligned by compass and inclinometer. For QC purposes a sub-sample of holes were re-surveyed using a gyroscopic tool or a magnetic deviation tool. Historical holes were surveyed by acid-etch or single-shot methods.
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 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 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.*	- Geochemical sampling procedures were reviewed at various times in the period 2006-2013 with tests conducted to ensure optimal sampling methods were in place. - Following an audit and review by external Geobank consultants in

Criteria	JORC Code explanation	Commentary
		2017, Energy Metals' exploration database was upgraded and re-built in 2018 with re-loaded data subject to strict verification procedures. • Energy Metals considers its current exploration database to be of high quality and of a standard sufficient to carry out tasks related to resource estimation.

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.*	• The Bigrlyi deposit is located on ten exploration licences in retention (ELRs 46 to 55) which are 72.4% owned by Energy Metals under the Bigrlyi Joint Venture (BJV). Energy Metals is 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 licences in retention are 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*	• Refer to previous ASX announcements by Energy Metals Ltd for tabulations of drill hole information and results (2006-2012). • Statutory exploration technical reports, containing full details of exploration drilling and assay results for the Bigrlyi Joint Venture (ELRs 46-55 and formerly ERLs 46-55) in the period 2006-2011 are now in the public domain and may be downloaded from the Northern Territory Geological Survey (NTGS) GEMIS website. • Historical drill hole and exploration information from the period 1974-1981, when the project was operated by CPM, is publicly available by download of open file reports from the NTGS GEMIS website.

Criteria	JORC Code explanation	Commentary
	explain why this is the case.	
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.*	- 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) by weight. Vanadium chemical assays are reported as V_2O_5 values in parts per million (ppm) by weight. Chemical assaying for U_3O_8 and V_2O_5 were undertaken on metre samples of RC drill spoils or 0.5m core samples. - In the period 2006-2012, significant intercepts were reported at a cut-off level of 100ppm U_3O_8 with a minimum thickness of 1m and a maximum internal dilution of 3m and no external dilution. - Only chemical assay results have been used to define the V_2O_5 mineralised volumes, grades and tonnages discussed in the text. V_2O_5 assay results have previously been reported by Energy Metals on the basis of U_3O_8 cut-off grades.
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').*	- 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 significant drilling intercepts have previously been reported to the market by Energy Metals (2006-2012) based on a cut-off value of 100ppm U_3O_8 with a minimum thickness of 1m and a maximum internal dilution of 3m and no external dilution. - Mineral exploration reports (ex Energy Metals 2006-2011) and historical exploration reports (ex CPM), which include compilations of assay and processed gamma log data for drill-holes used in this study, are publicly available as open-file company reports and may be downloaded from the NTGS GEMIS website. - It should be noted that Energy Metals' reporting protocol in the period 2006-2011 may not have necessarily captured vanadium-rich, uranium-poor intervals of the deposit, however, data of this type, collected during the course of uranium exploration, was subject to the

Criteria	JORC Code explanation	Commentary
		same QAQC and data management protocols as uranium-rich samples, and has been extracted from Energy Metals' exploration database for this study.
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.*	• Refer to body of the announcement for metallurgical test results regarding the recovery of vanadium. Bulk density measurements on 946 core samples covering a range of host lithologies give an average bulk density of 2.60 t/m^3.
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.*	• No further drilling work is planned in the immediate future. • The modelling work discussed in the text has highlighted the vanadium potential of the Anomaly-7 to 9 corridor and further work to define the surface expression of this mineralisation and review the vanadium potential of archived drill core materials is planned. • As part of the modelling and interpretation process, drill-core which was considered likely to contain significant vanadium but was not previously assayed for V_2O_5 due to low U_3O_8 content, was flagged for further investigation and ranked on likelihood to add vanadium tonnage. • Provided certain criteria are met, the above work is expected to lead to the future estimation of a Mineral Resource for vanadium.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Exploration data was compiled by Energy Metals' database manager from original sources; the data was verified and loaded into Energy Metals SQL database. • Validation at data import included checks for overlapping intervals, missing survey data, missing or incorrectly recorded sample data, missing or invalid lithological codes, missing collars and invalid end of hole information. • All azimuths stored within the database are magnetic values and a declination adjustment of 5 degrees was applied for conversion to grid north.

Criteria	JORC Code explanation	Commentary
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Regular site visits have been undertaken by the Competent Persons who are familiar with Energy Metals procedures and protocols.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The drill-hole dataset is based on 1,151 exploration drill-holes (460 of which were historical) and is considered to be of high confidence. • Information from down-hole lithological logging, gamma logging, assay results, surface mapping and geophysical survey results (specifically magnetic and IP chargeability and resistivity survey imagery) have formed the basis for the geological interpretation. • Lithological boundaries were used to guide the interpretation of mineralised lenses. Specifically, mineralisation occurs along redox boundaries between, or less commonly within, mappable internal units (labelled as Units B to E) within steeply dipping Mt Eclipse Sandstone. • The vanadium-rich packages are relatively continuous and are recorded in most lithological logs; they mainly occur within sandstone or arkose and are primarily associated with shale interbeds and abundant shale rip-up clasts within the basal, coarser part of former channel sequences. • The geology of the deposit is well understood and has been modelled in 3-dimensions by various methods producing internally consistent results; minor variations to the geological interpretation would not materially affect the estimate. • Grade continuity is controlled by mappable redox boundaries and sedimentological features including the abundance of shale interbeds within sandstones and siltstones confined by impermeable zones.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Bigrlyi deposit has a strike length of approx. 10 km and sandstone-hosted vanadium mineralisation occurs in a series of stacked, discontinuous tabular lenses of approx. 1m to 50m width. Mineralisation has been intercepted at >500 metres below surface and is open at depth. There is a variably weathered (oxidised) zone typically from 25-85m depth that has not been modelled at this stage.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	• Assay data was composited using Micromine 2018 software to the following specifications: 100ppm minimum grade V_2O_5, 0.5m minimum length, 1.0m maximum length, internal waste up to 3m. • Mineralised strings were subsequently modelled on sections relative to drilling fences. The width of modelled vanadium mineralised domains varied between 0.5 and 47 m (true thickness). The average

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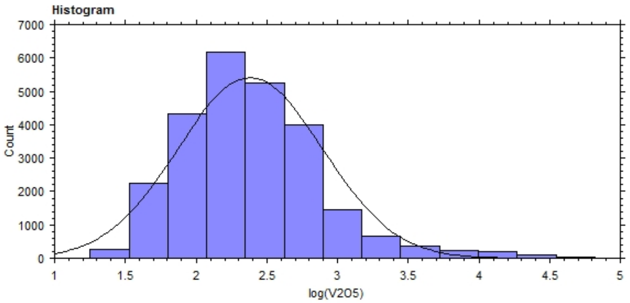
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	modelled depth is approximately 230 m below ground level with the deepest modelled body extending to 560 m in Anomaly-4. • Wireframe models of the V_2O_5 mineralisation halo were constructed for the major domains (Unit B-C, C-D and D-E boundaries and internal Unit B, C, D & E domain where appropriate) for each of the sub-deposit corridors (Anomaly 2-3, Anomaly 4, Anomaly 7-9 and Anomaly 12-15). • Only vanadium has been modelled. • The dip of the mineralisation varies along strike but the predominant dip direction is towards the south. In all sub-deposits the majority of vanadium mineralisation occurs at or slightly below the Unit B-C and Unit C-D boundaries and within Units C and D. • A comparison between the V_2O_5 and 2011 U_3O_8 wireframes shows they are strongly correlated providing confidence in the modelling method and interpretation considering that vanadium was independently modelled without reference to the uranium model. • The wireframe models were clipped to the surface DTM and volumes and tonnages were calculated using a density of 2.6 t/m^3. • For estimation purposes, the downhole V_2O_5 assay dataset was composited to 1m intervals and flagged by mineralisation domain. Only drill-hole data lying within the wireframe models was selected and used as input sample data for the calculation of variograms and V_2O_5 grade interpolation. • A block model was constructed in Datamine RM Studio software using a cell size of 15 x 2 x 15m. • A histogram chart of log-transformed V_2O_5 values from the input sample dataset shows that V_2O_5 variation conforms within reasonable limits to a log-normal distribution and thus ordinary kriging (OK) can be used to interpolate V_2O_5 grades. Variogram models were created, an ellipsoidal search volume of 120 x 50 x 120m was defined and the OK method was used to interpolate V_2O_5 grades into the block model.

Criteria	JORC Code explanation	Commentary
		 • Using a density of 2.6 t/m^3 a grade-tonnage report was prepared, and the V_2O_5 Exploration Target (ET) estimate was exported. • No top cutting of samples was done to remove the potential biasing effect of samples that are outside the range of a normally distributed grade population. The uncertainty associated with statistical outliers is accommodated by the estimated grade ranges of the ET. • The V_2O_5 grade values estimated by Nearest Neighbour (NN) and Inverse Power of Distance (ID) methods were used to validate those values estimated by OK. No reconciliation data is available.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• The tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A cut-off grade of 100 ppm V_2O_5 has been used for the ET estimate to provide geologically meaningful information regarding the scale of vanadium mineralisation.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Not applicable to an ET.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions*	• Refer to body of the announcement for metallurgical tests results designed to optimise the co-recovery of uranium and vanadium from representative Bigrlyi ore. In brief, the results indicate that 72% of the vanadium is potentially extractable for an acid consumption of 123

Criteria	JORC Code explanation	Commentary
	regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	kg/t. The economics of vanadium recovery are yet to be considered.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported.*	• Not applicable to an ET.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density measurements using the Archimedes method were determined for representative lithological units of the Mt Eclipse Sandstone. A total of 946 samples of sandstone and siltstone (both mineralised and un-mineralised) from core samples drilled at the Bigrlyi deposit were measured. • An average density of 2.60 t/m^3 was obtained and applied to all models. • Extensive testing has shown that there are no significant density differences due to sample porosity or alteration type.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The classification is at the Exploration Target (ET) confidence level only. • No economic assumptions have been considered in the estimate. • Grade range estimations were determined on the basis of statistical analysis of the log-transformed V_2O_5 input data distributions for each of the sub-deposit groups. The overall uncertainty in estimated average grade is +/- 7.9%. • The ET reflects the view of the Competent Persons.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Not applicable.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource.*	• Not applicable – Exploration Target only. No production data is available.