

# **Energy Metals Limited**

ABN 63 111 306 533

## QUARTERLY REPORT TO SHAREHOLDERS

for the three months  
ended 30 June 2009.

### ASX Code - EME

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[www.energymetals.net](http://www.energymetals.net)



## HIGHLIGHTS

- \* **Bigrlyi** (NT) resource increases to **29.4 Mlb** uranium (at 250ppm U<sub>3</sub>O<sub>8</sub> cut off, multiple indicator kriging) with 53% of resource classified as Indicated
- \* Bigrlyi JV partners approve extensional drilling program designed to increase resource base with drilling to commence September 2009
- \* Maiden 6 Mlb uranium resource at **Anketell** (WA)
- \* Energy Metals Board approves further exploration on 100% owned prospects in WA & NT, including drilling at **Cappers**, **Camel Flat** and **Mopoke Well**
- \* Energy Metals pegs high priority uranium anomaly at **Macallan** (NT)

## FINANCIAL

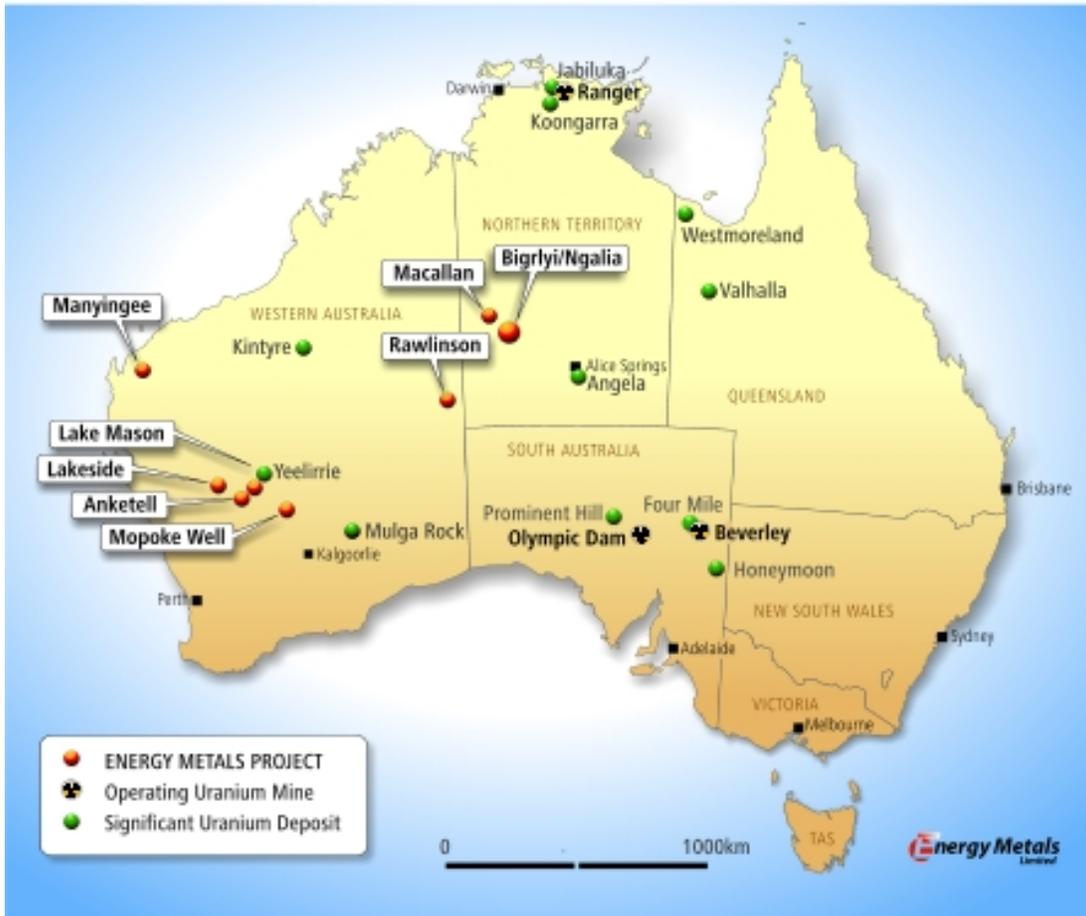
- \* Energy Metals had approximately \$5.0M in cash and a total of 117.1M shares on issue at 30 June 2009.



**Lindsay Dudfield**  
Executive Director  
21 July 2009

## **INTRODUCTION**

Energy Metals is a dedicated uranium explorer with nine projects located in the Northern Territory (NT) and Western Australia covering over 4,000 km<sup>2</sup>. Most of the projects contain uranium mineralisation discovered by major companies in the 1970's, including the advanced Biglryi Project (NT).



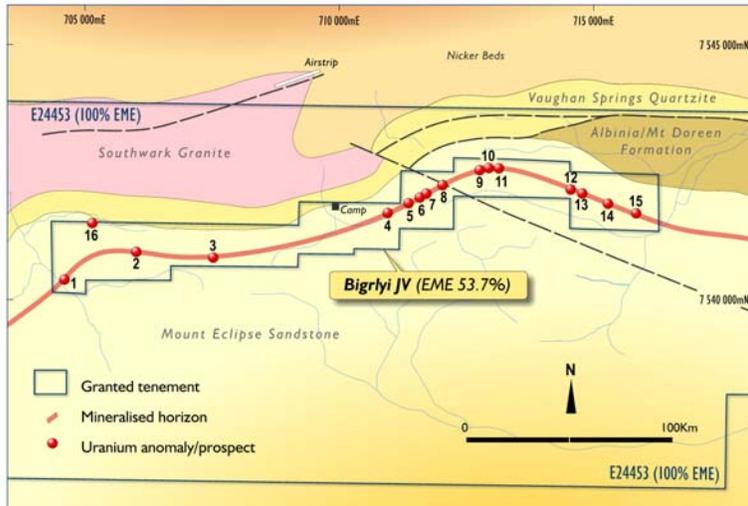
Australia has significant uranium endowment with the continent containing approximately 36% of the world's low cost uranium resources.

With the changing political and public sentiment to uranium mining in Australia and strong long term uranium prices Energy Metals is in a prime position to take advantage of the favourable outlook for the metal. In addition to advancing the projects currently in the portfolio the Company is also pursuing high quality uranium opportunities in Australia, with the high quality Macallan project (NT) being added to the portfolio during the period.

## NORTHERN TERRITORY

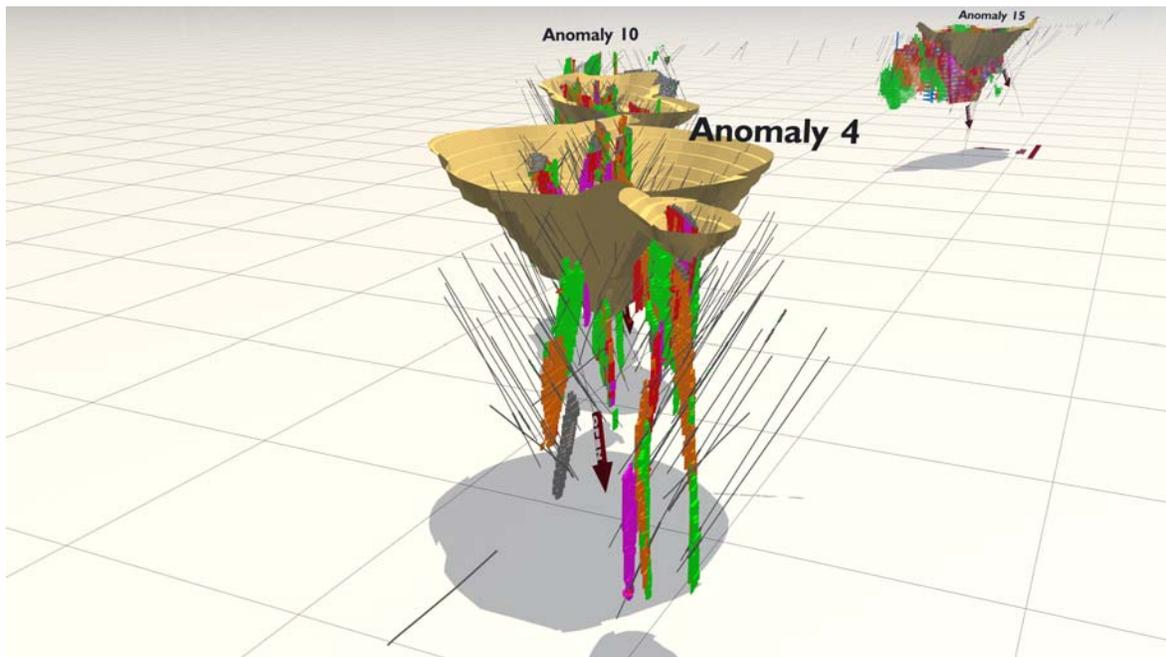
### **Bigrlyi (EME 53.74 %)**

The Bigrlyi Project comprises 10 granted exploration retention licenses located approximately 350 km northwest of Alice Springs. The project, which is a joint venture with Paladin Energy subsidiary Valhalla Uranium (42.06%) and Southern Cross Exploration (4.20%), has been subject to significant exploration activity since discovery in 1983, including over 850 drillholes, metallurgical testwork and mining studies.



The Bigrlyi Project is characterised by relatively high uranium grades (with vanadium credits) and excellent metallurgical recoveries. Base case acid leach tests recorded extraction rates of 98% uranium and 59% vanadium, with 94-95% of uranium extracted within 8 hours at optimum leach conditions (pH 1.8, 50°C, ORP=450 mV, coarse grind size).

For further information on metallurgical testwork, resource estimates and economic studies please refer to ASX announcements or the Company's website [www.energymetals.net](http://www.energymetals.net)



*Looking east over the A4 deposit to the A15 deposit. Note the multiple lenses at A4, adjacent to conceptual open pit development. Also note the limited drilling between A10 and A15 – this area will be drill tested over the coming months.*

## Activities (June 2009 Quarter)

New resource estimates incorporating the results from an infill drilling program (83 holes) completed in December 2008 were announced to ASX on 15 May 2009. The resources were estimated by Hellman & Schofield Pty Ltd (“H&S”) using the using ordinary kriging (OK) method and are summarised below.

### Indicated and Inferred Resources at 500ppm U<sub>3</sub>O<sub>8</sub> cut off – OK Estimation Method

Resource Category	Tonnes (Millions)	U <sub>3</sub> O <sub>8</sub> (ppm)	V <sub>2</sub> O <sub>5</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)	V <sub>2</sub> O <sub>5</sub> (t)	U <sub>3</sub> O <sub>8</sub> (Mlb)	V <sub>2</sub> O <sub>5</sub> (Mlb)
Indicated	2.74	1,530	2,300	4,190	6,310	9.2	13.9
Inferred	4.53	1,140	2,470	5,150	11,200	11.4	24.7

Tonnes are metric (2204.62 pounds); figures may not total due to round-off errors

At a cut-off grade of 500ppm U<sub>3</sub>O<sub>8</sub> the Bigirlyi OK resource totals 20.6 million pounds (Mlb) of U<sub>3</sub>O<sub>8</sub> and 38.6 Mlb of V<sub>2</sub>O<sub>5</sub>. Significantly 45% of the contained uranium metal (or 4.19 Kt U<sub>3</sub>O<sub>8</sub>) now reports to the Indicated Resource category, compared with 39% in the previous (March 2008) OK resource estimate (refer to the 15 May 2009 announcement for further details).

Geochemical assays from large diameter metallurgical core holes completed at Bigirlyi in December 2008 were received during the period and confirmed downhole calibrated gamma probe (eU<sub>3</sub>O<sub>8</sub>) results reported previously, with significant intercepts summarised below (refer to Table 1 for further details):

BO8079      **8.4m @ 0.96% U<sub>3</sub>O<sub>8</sub>, 0.45% V<sub>2</sub>O<sub>5</sub>** from 106.0m (at A4)

BO8083      **3.0m @ 1.71% U<sub>3</sub>O<sub>8</sub>, 1.57% V<sub>2</sub>O<sub>5</sub>** from 34.0m (at A15)

Pre development activities including further resource modeling and estimation, engineering and mine design, environmental studies and metallurgical testwork continued during the quarter.

Comminution studies on fresh material from the A4 and A15 deposits returned an average Ball Mill Work Index (BWI) of 8.4 at the coarse testwork grind size (285 µm), compared with a BWI of 12 assumed for previous studies, translating to a ball mill of approximately 400kW compared with a 900kW ball mill assumed previously. The average Abrasion Index (AI) for the fresh ore was 0.3234 (compared with 0.131 assumed previously).

An independent review of the process and metallurgical components of the project highlighted several areas with the potential to improve project economics, including:

- upgrading the ore using radiometric sorting
- reducing acid consumption via reverse flotation of carbonates
- selection of the optimum uranium solvent extraction and precipitation circuits
- producing ferro-vanadium (FeV) instead of V<sub>2</sub>O<sub>5</sub>

The review also recommended that in light of the very high dissolution characteristics of the Bigirlyi ore and (based on the current resource) the relatively short project life, the Bigirlyi Joint Venture (BJV) investigate both heap leaching and vat leaching as alternatives to the conventional processing routes considered to date.

As part of a review of alternative development options Energy Metals requested H&S re-estimate the uranium resources at Bigrlyi using the multiple indicator kriging (MIK) method with estimates at the 500ppm U<sub>3</sub>O<sub>8</sub> and 250ppm U<sub>3</sub>O<sub>8</sub> cut-off grades summarised below.

#### Indicated and Inferred Resources at 500ppm U<sub>3</sub>O<sub>8</sub> cut off – MIK Estimation Method

Resource Category	Tonnes (Millions)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)	U <sub>3</sub> O <sub>8</sub> (Mlb)
Indicated	4.42	1,288	5,692	12.5
Inferred	3.72	1,245	4,625	10.2

Tonnes are metric (2204.62 pounds); figures may not total due to round-off errors

#### Indicated and Inferred Resources at 250ppm U<sub>3</sub>O<sub>8</sub> cut off – MIK Estimation Method

Resource Category	Tonnes (Millions)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)	U <sub>3</sub> O <sub>8</sub> (Mlb)
Indicated	8.83	821	4,190	16.0
Inferred	7.76	780	5,150	13.4

Tonnes are metric (2204.62 pounds); figures may not total due to round-off errors

At a cut-off grade of 500ppm U<sub>3</sub>O<sub>8</sub> the MIK resource totals 22.7 Mlb of U<sub>3</sub>O<sub>8</sub> whilst at the 250ppm cut-off the MIK resource increases to 29.4 Mlb of U<sub>3</sub>O<sub>8</sub>, with most of this resource within 200m of the surface and potentially amenable to open cut mining. At both the 500ppm and 250ppm cut-off grades approximately 55% of the contained uranium metal reports to the Indicated Resource category (refer to Appendix 1 for further information on the Bigrlyi MIK resource estimation and methodology).

Both the OK and MIK estimates for Bigrlyi are based primarily on chemical assays, with only 15% of the assay database consisting of calibrated radiometric values. However it should be noted that the interpretation of the mineralisation differed between the two methods. The OK method used a nominal 100ppm U<sub>3</sub>O<sub>8</sub> threshold resulting in narrow zones of higher grade mineralisation, whereas the MIK method used a 10ppm U<sub>3</sub>O<sub>8</sub> threshold with broader zones of mineralisation including substantial lower grade material and in some case combining a number of the thinner 100ppm zones. Energy Metals considers that the MIK resource estimate better represents the resource amenable to open pit mining and potential leach processing.

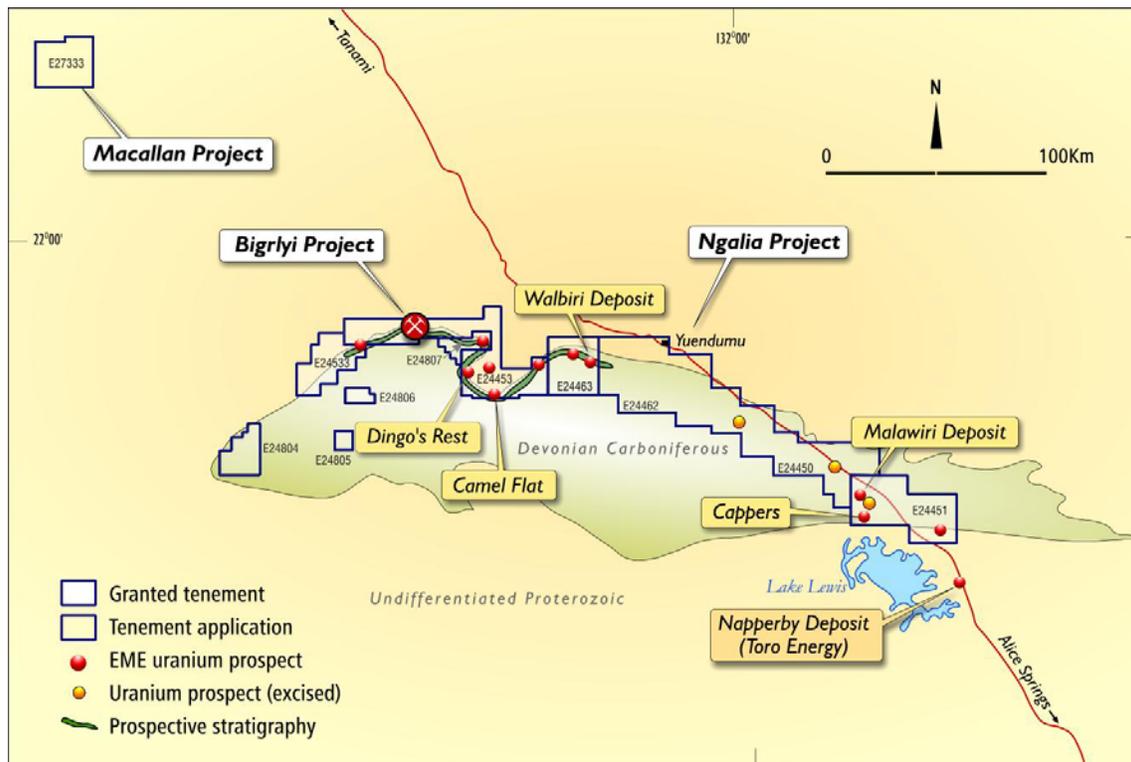
The differences in the estimates reflect the uncertainty in the geological interpretation and resource estimates themselves, but are well within the limits of accuracy for Indicated and Inferred resources. These differences are not considered material for the level of resource confidence.

In July 2009, Paladin Energy completed a desk top review based on the May 2009 OK resource which indicated that a maximum of 14 Mlb of U<sub>3</sub>O<sub>8</sub> would fall within conceptual open pit mining shells (maximum 200-220 depths) at the A4 and A15 deposits (cut off grade of 250ppm U<sub>3</sub>O<sub>8</sub>). The desktop review suggests that further work to identify extensions to the existing resource and to assess the potential for underground mining is likely to be required prior to determining the optimal development strategy for the Bigrlyi Project.

Subsequently the Bigrlyi partners approved extensional drilling programs designed to locate shallow uranium mineralisation between the A4 and A15 deposits and immediately west of A4, with drilling to commence in September 2009.

### Ngalia Regional (EME 100%)

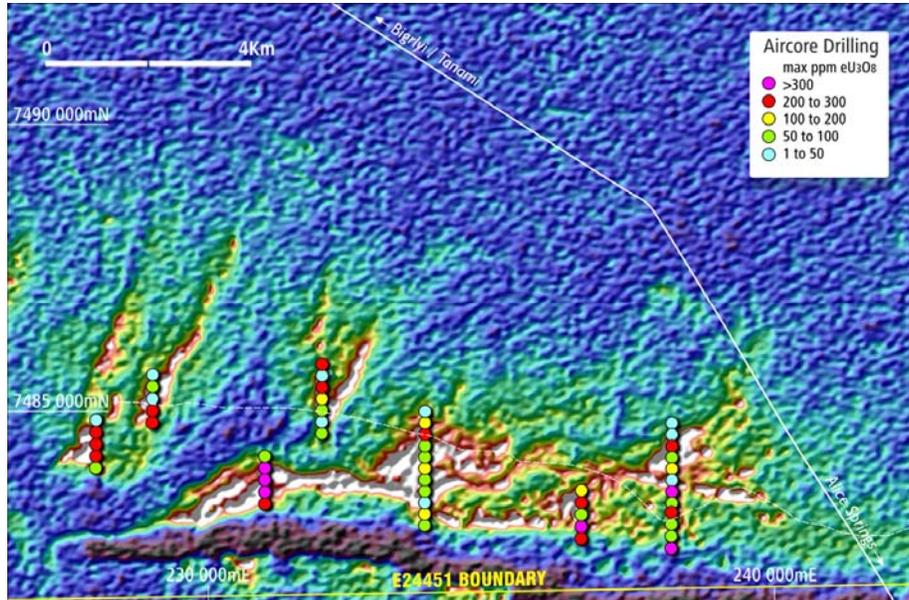
The Ngalia Regional project comprises ten 100% owned exploration licenses (total area 2,840 km<sup>2</sup>) located in the Ngalia Basin, between 180 and 350 km northwest of Alice Springs in the Northern Territory. Seven of these tenements are contiguous and enclose the Bigrlyi project as well as containing a number of uranium occurrences including the Walbiri and Malawiri prospects, located 55km and 150km SE of Bigrlyi respectively. The remaining 3 tenements are located southwest of the Bigrlyi deposits and cover discrete uranium anomalies with no evidence of previous exploration.



Seven of the 10 Ngalia Regional Exploration Licences have been granted. The remaining three applications (EL's 24450, 24462 and 24805) are located on Aboriginal Freehold land and the consent of the Traditional Owners is required before the tenements can be granted. Energy Metals has been negotiating with the Traditional Owners through the Central Land Council and is confident that the Company will eventually gain access to these areas.

The Energy Metals' Board has approved a \$1M exploration program for the Company's 100% owned projects in both NT and WA, including prospects within the Ngalia Regional project.

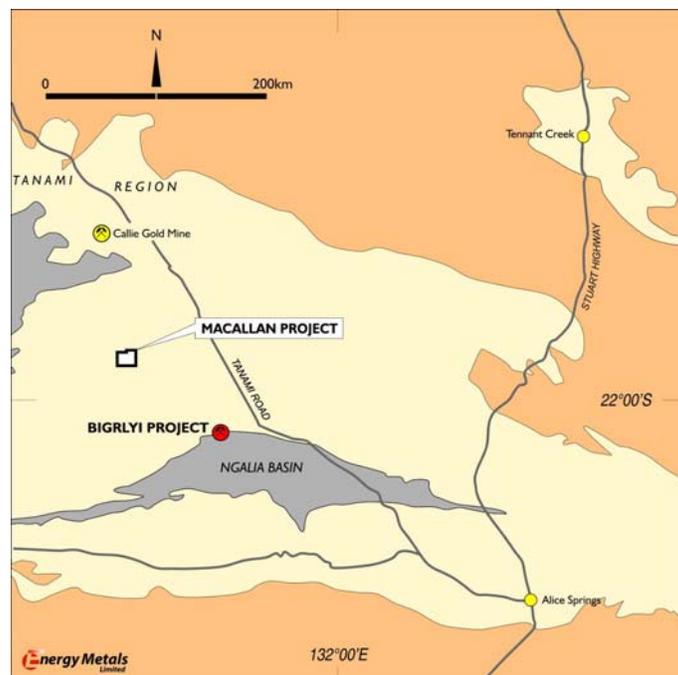
At **Cappers** prospect 300 holes are proposed to follow up widespread uranium anomalism intersected in broad spaced aircore drilling undertaken in the December 2008 quarter. This uranium mineralisation appears to be associated with calcareous alluvium similar to the Napperby deposit located 20 kms to the SE and currently being explored by Toro Energy.



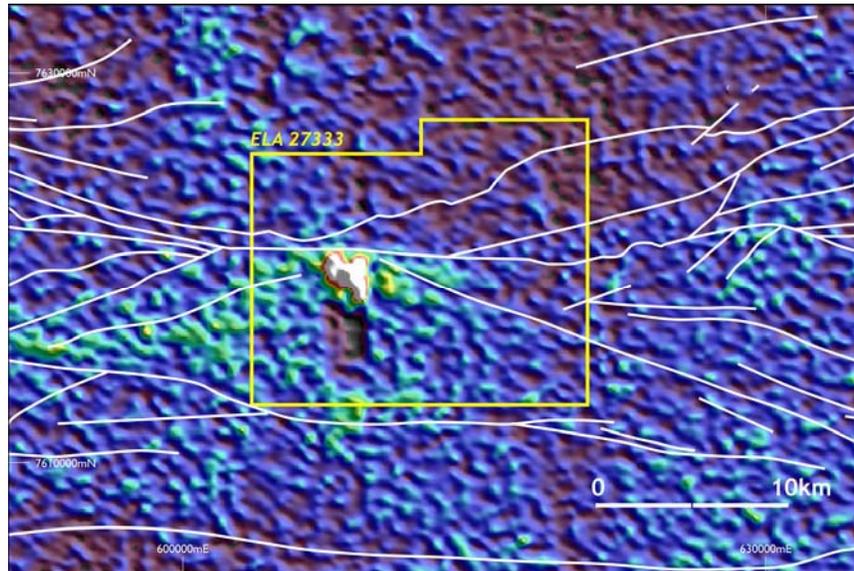
Other prospects earmarked for drill testing include **Camel Flat**, located 33 km SE of Bigirlyi, where diamond (core) drilling is proposed to further investigate Bigirlyi style uranium mineralisation intersected in RC drilling completed late 2008 (eg 2.5m @ 2,564 ppm eU<sub>3</sub>O<sub>8</sub>), and **Bigirlyi East**, where airborne geophysical data indicates uranium anomalous stratigraphy immediately east along strike from the Bigirlyi deposit.

### **Macallan (EME 100%)**

The **Macallan** project is a new exploration licence application (ELA27333), located 460 km northwest of Alice Springs and 140 km from the advanced Bigirlyi project (EME 53.7%). Newmont Australia's Callie Gold Mine is located a further 140 km to the north.



The Macallan tenement covers a strong 3km-long bullseye radiometric anomaly, identified through the interpretation of regional airborne geophysical data. The anomaly, which lies within the Tanami Desert, occurs in an area dominated by extensive sandplain, dune and sheetwash cover. The basement rocks are interpreted to comprise high grade metamorphosed sediments and granitoids, forming part of the Palaeoproterozoic Aileron Province.



*Macallan Project radiometric image showing interpreted regional faults (white lines).*

Energy Metals considers that the Macallan anomaly may indicate the presence of shallow structurally controlled uranium mineralisation. The Northern Territory Geological Survey has interpreted a series of significant regional faults intersecting very close to the position of the target, and these faults could have acted as channelways for uranium-bearing fluids, derived from the basement rocks.

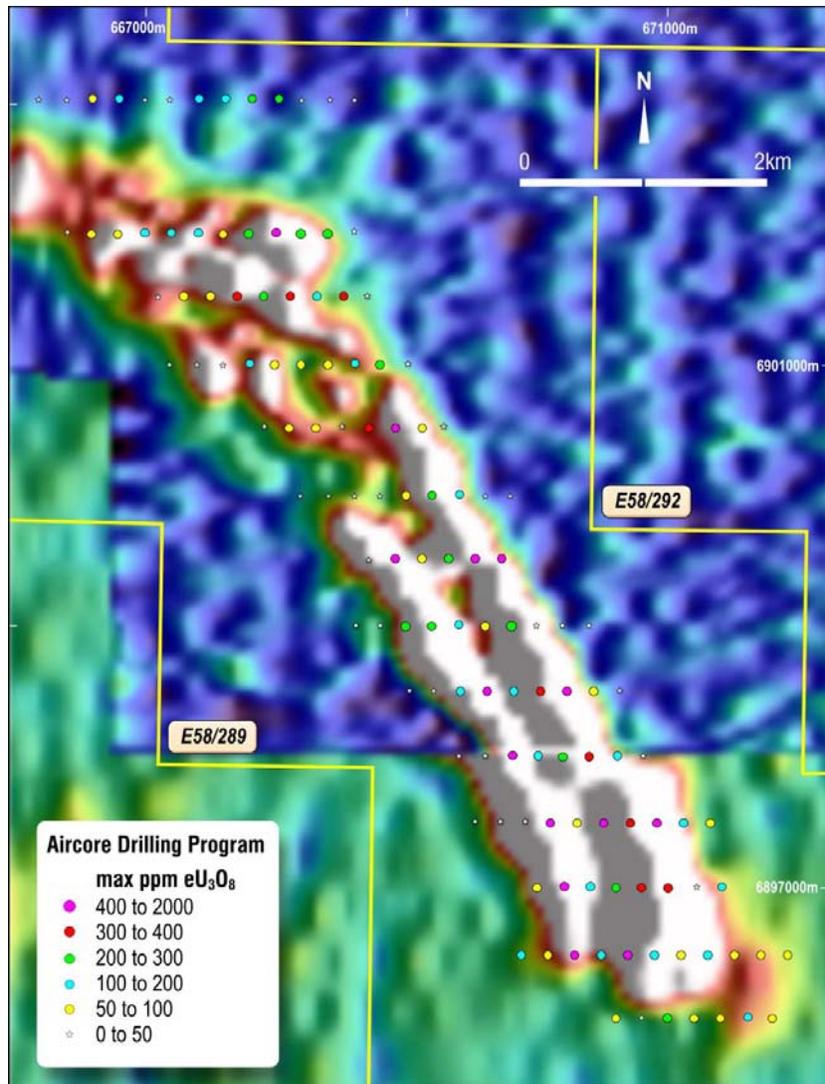
Although the area has been subject to previous gold and base metal exploration, there is no record of any past uranium exploration. Energy Metals will initiate access negotiations with the traditional owners so that testing of this target can commence as soon as possible.

## **WESTERN AUSTRALIA**

### **Anketell (EME 100%)**

The Anketell project is located 100 km east of Mt Magnet and comprises two granted exploration licences (E's 58/289 & 58/292) with a total area of 165 km<sup>2</sup>. The tenements contain shallow calcrete hosted carnotite mineralisation discovered by Western Mining (WMC) in 1972. The mineralisation is similar in style to the Yeelirrie deposit, also discovered by WMC in the same year and located 150 km to the northeast.

Aircore drilling completed by Energy Metals in 2007 and 2008 confirmed the presence of uranium mineralisation in calcrete and calcareous clays with most traverses recording anomalous intercepts at shallow depths (typically within 10m of surface).

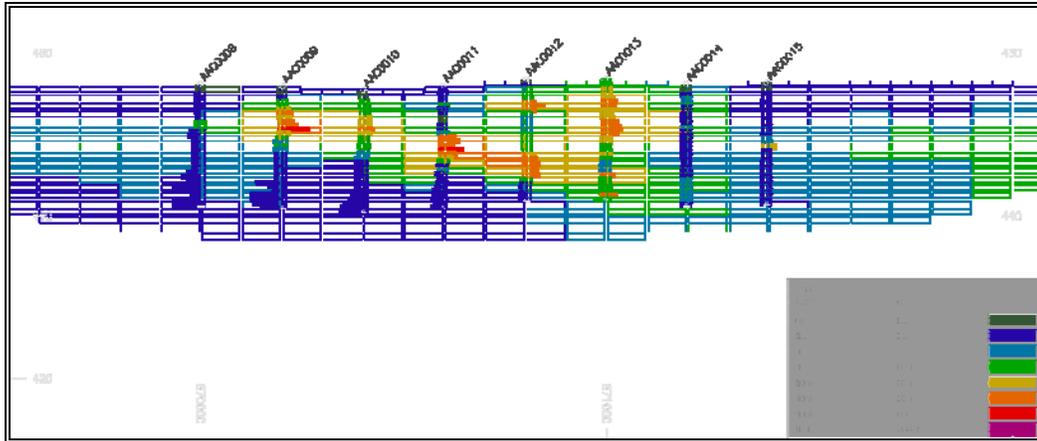


During the period independent consultants Hellman & Schofield Pty Ltd (H&S) estimated an Inferred Mineral Resource at Anketell of 16.3 million tonnes averaging 167ppm  $U_3O_8$  for a contained  $U_3O_8$  content of 2,720 tonnes (6.0 million pounds) at a cut-off grade of 100ppm  $U_3O_8$ , as summarised in the table below (refer to Appendix 2 for further information on the Anketell resource estimation and methodology).

Resource Category	Tonnes (Millions)	$U_3O_8$ (ppm)	Contained $U_3O_8$ Tonnes (x1,000)	Contained $U_3O_8$ Pounds (Million)
Inferred	16.3	167	2.7	6.0

Tonnes are metric (2204.62 pounds), figures may not total due to round-off errors.  
Significant figures do not imply precision.

Both Contained Tonnes  $U_3O_8$  and Contained Pounds  $U_3O_8$  are based on contained metal in the ground and do not consider any mining, metallurgical or economic parameters at this stage.



*Anketell Project – Section through deposit at 6,897,000N showing Uranium Distribution.*

The Anketell project is located close to infrastructure, being approximately 90 km east by sealed road from the mining town of Mount Magnet and 35 km from the gas pipeline at Windimurra. The project is also located approximately 45 km to the SW of Energy Metals' Lake Mason project (3 Mlb resource – see below) and takes Energy Metals' total resources in the area (reportable under JORC) to 9 Mlb U<sub>3</sub>O<sub>8</sub>. The Company will continue to look at opportunities to build resources in the area to the level where either a central processing facility or a mobile treatment plant may be considered.

### **Lake Mason (EME 100%)**

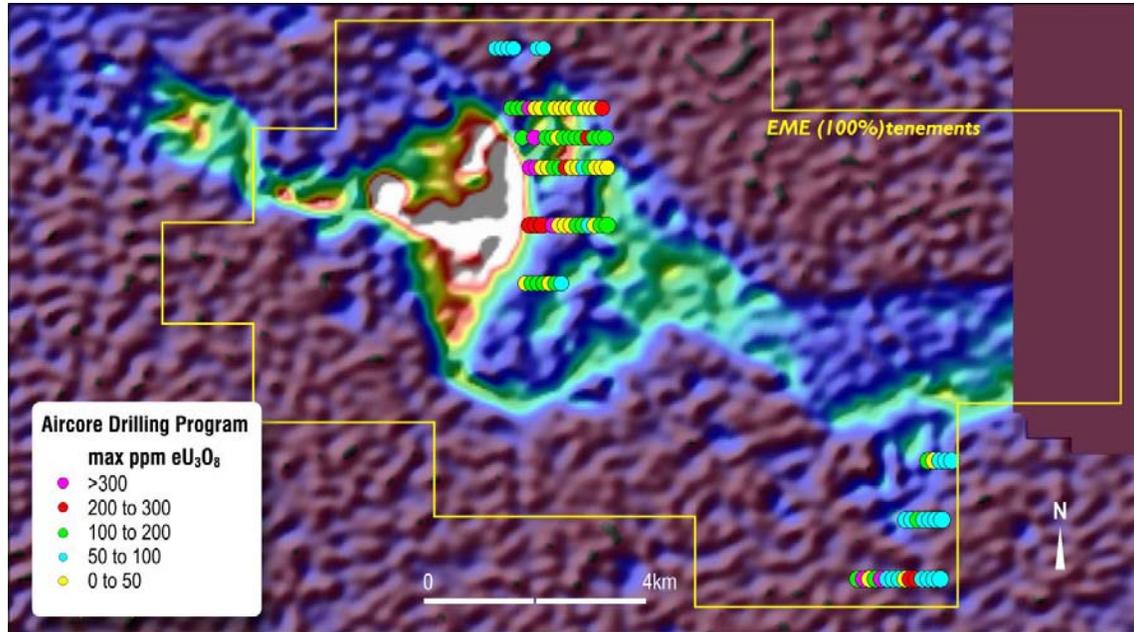
This project comprises one granted exploration licence (E 57/590) with an area of 64 km<sup>2</sup> centred 25 km NNE of Sandstone and 80 km SW of the Yeelirrie deposit. Previous exploration by BP Minerals in the 1970's discovered shallow carnotite mineralisation in valley calcretes associated with the Lake Mason drainage system.

In June 2008 Energy Metals announced an initial Inferred Mineral Resource at Lake Mason of 1,343 tonnes (3 Mlbs) U<sub>3</sub>O<sub>8</sub> at a grade of 170 ppm (100ppm U<sub>3</sub>O<sub>8</sub> cut-off). Preparations for an infill aircore drill program to increase the level of confidence of this resource are underway.

### **Mopoke Well (EME 100%)**

The Mopoke Well project comprises one exploration licence (E 29/568) located 55 km west of Leonora 2006. The tenement contains two historic uranium prospects (Peninsula and Stakeyard Well), with a third prospect (Raeside) located on the western edge of the tenement. All three prospects are hosted by valley calcretes associated with the Lake Raeside drainage system.

Geochemical assays from 95 aircore holes drilled at the Peninsula and Stakeyard Well prospects in the December 2008 quarter were received during the period. The geochemical assays confirm the widespread shallow uranium mineralisation indicated from downhole gamma probing with significant intercepts summarized in Table 2, including 2.5m @ 265ppm U<sub>3</sub>O<sub>8</sub> from 1m at Peninsula and 1.5m @ 351ppm U<sub>3</sub>O<sub>8</sub> from 3.5m at Stakeyard Well.



Follow up drilling is proposed for both the Peninsula and Stakeyard Well prospects.

### **Lakeside (EME 100%)**

The Lakeside project is located in the Murchison district 20 km west of Cue and comprises exploration licence E 21/120 (area 75 km<sup>2</sup>) which was granted late January 2006. This project was acquired to follow up previously discovered carnotite mineralisation hosted by valley calcretes associated with major saline drainages.

First pass aircore drilling completed in 2007 (holes 200m apart on 1 km spaced traverses) confirmed the presence of uranium mineralisation in calcrete and calcareous clays with most traverses recording anomalous intercepts. Geochemical assays from the limited number of infill aircore holes, drilled in the December 2008 quarter, were received during the period with weakly anomalous results from a number of holes.

### **Rawlinson (EME 100%)**

The Company acquired and interpreted Landsat satellite imagery and regional airborne radiometric data to identify priority targets ahead of an onsite meeting with the Traditional Owners for the Central Reserve lands covered by tenement applications E69/2283 and E69/2303.

Negotiations with the Traditional Owners are continuing.

## Manyingee (EME 100%)

The Manyingee exploration licence (E 08/1480) is located 85 km south of the port of Onslow. The tenement (total area 86 km<sup>2</sup>) surrounds the mining leases containing Paladin Energy's Manyingee resource, a stacked series of palaeochannel hosted roll front uranium deposits.

A review of airborne EM data and historical exploration in the area has interpreted a number of palaeochannels extending into the tenement from the Paladin Manyingee deposit. An aircore drilling is proposed to target extensions to the existing defined mineralisation as well as untested channels to the south.

An initial heritage survey was undertaken by the Thalanji people following the signing of an access agreement, as noted in the previous quarterly report. The survey covers a proposed aircore drill program testing for extensions to the palaeochannel uranium mineralization. This proposed aircore program (approximately 3000m) will be undertaken in the second half of this year.

Note: The information in this report relating to mineral resources is based on information compiled by Nick Burn BSc (Hons), MAIG, and Arnold van der Heyden BSc, MAusIMM. Mr Burn and Mr van der Heyden have more than five years relevant experience in estimation of mineral resources and the mineral commodity uranium.

Mr Burn is a full time employee of Energy Metals Limited and takes responsibility for the quality of the data and geological interpretations provided to H & S. Mr van der Heyden is a full time employee of H & S and takes responsibility for the resource estimation.

Mr Burn and Mr van der Heyden have sufficient experience relevant to the assessment of this style of mineralisation to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code". Each of the above named consents to the inclusion of the information in the report in the form and context in which it appears.

The information in this report relating to Exploration Results is based on information compiled by Nick Burn BSc(Hons), MAIG., who has more than five years relevant experience in estimation of mineral resources and the mineral commodity uranium. Mr Burn is a full time employee of Energy Metals Limited and takes responsibility for the quality of the data and geological interpretations.

Mr Burn has sufficient experience relevant to the assessment of this style of mineralisation to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code". Mr Burn consents to the inclusion of the information in the report in the form and context in which it appears.

\* Uranium mineralisation grades through this report are annotated with a sub-prefix 'e' because they have been reported as uranium equivalent grades derived from down-hole gamma ray logging results and should be regarded as approximations only.

Gamma logging or "total count gamma logging" (the method used by Energy Metals) is a common method used to estimate uranium grade where the radiation contribution from thorium and potassium is very small. Sandstone and calcrete hosted deposits are usually of this type. Gamma logging does not account for energy derived from thorium and potassium (as does spectral gamma logging) and thus the result is expressed as an equivalent value or eU<sub>3</sub>O<sub>8</sub>.

The gamma radiation from potassium, uranium and thorium is dominated by gamma rays at specific energy levels. These energy levels are sufficiently well separated such that they can be measured independently of each other. They are typically measured as narrow energy bands that contain the specific energy levels. Bands are used because the measuring systems do not have the resolution to target a specific energy wavelength. There is some scattering of higher energy gamma radiation, e.g. thorium, into lower energy radiation, e.g. uranium and potassium. This scattered radiation can be calculated from suitable calibration procedures and removed from the lower energy level measurements. This method is commonly termed spectral gamma logging.

Energy Metals uses gamma probes which are initially calibrated at the PIRSA (Primary Industry & Resources South Australia) test pits and then subjected to annual recalibration to ensure the integrity of the probe instrument. Furthermore, Energy Metals runs regular checks to validate the accuracy of probe data using calibrated test holes located on site.

**TABLE 1: SIGNIFICANT GEOCHEMICAL INTERCEPTS FROM BIGRLYI (NT)**

DEPOSIT	HOLE	FROM (m)	INTERCEPT (m)	U <sub>3</sub> O <sub>8</sub> (%)	U <sub>3</sub> O <sub>8</sub> (lb/t)	V <sub>2</sub> O <sub>5</sub> (%)	eU <sub>3</sub> O <sub>8</sub> intercept (%)
A4	B08075	40.3	5.7	0.11	2.4	0.53	2.3m @ 0.13 from 40.3m
	<i>incl.</i>	41.2	1.0	0.48	10.6	1.74	0.95m @ 0.11 from 44.1m
	B08079	106.0	8.4	0.96	21.1	0.44	8.55m @ 0.86 from 106.6m
	<i>incl.</i>	109.0	4.4	1.43	31.5	0.43	
A15	B08083	30.0	8.0	0.67	14.7	0.71	1.05m @ 0.08 from 30.3m
	<i>incl.</i>	34.0	3.0	1.71	37.6	1.57	1.8m @ 0.10 from 31.5m
							3.25m @ 1.10 from 33.7m

Assays based on PQ & HQ diamond core and analysed by Ammtec (Perth). U analysed by mixed acid digest and HF/ICP finish while vanadium analysed by Na<sub>2</sub>O<sub>2</sub> Fusion with ICP Finish. All assays are rounded to two decimal figures.

**TABLE 2: SIGNIFICANT GEOCHEMICAL INTERCEPTS FROM MOPOKE WELL (WA)**

HOLE	EASTING	NORTHING	PROSPECT	FROM (m)	INTERCEPT (m)	U <sub>3</sub> O <sub>8</sub> (ppm)	eU <sub>3</sub> O <sub>8</sub> intercept (ppm)
MWP-013	275300	6814000	Peninsula	2.0	1.0	200	1.00m @ 349 from 1.65m
MWP-018	275800	6814000	Peninsula	0.5	1.0	189	0.20m @ 214 from 0.75m
MWP-025	276500	6814000	Peninsula	2.5	1.5	134	0.30m @ 289 from 3.20m
MWP-031	275250	6813500	Peninsula	2.5	0.5	252	0.50m @ 295 from 2.20m
MWP-032	275350	6813500	Peninsula	2.5	1.0	163	0.85m @ 315 from 1.70m
MWP-042	276350	6813500	Peninsula	0.5	1.5	190	0.70m @ 285 from 0.60m
MWP-048	275300	6813000	Peninsula	4.0	2.0	275	0.80m @ 322 from 4.30m
MWP-049	275400	6813000	Peninsula	1.0	2.5	265	0.80m @ 362 from 1.05m
MWP-050	275500	6813000	Peninsula	0.5	1.5	188	0.25m @ 226 from 0.85m
MWP-054	275900	6813000	Peninsula	0.0	2.5	210	0.75m @ 261 from 1.00m
MWP-056	276100	6813000	Peninsula	1.0	0.5	268	0.20m @ 213 from 1.05m
MWP-062	275300	6812000	Peninsula	0.5	3.5	167	0.35m @ 205 from 1.20m 0.40m @ 235 from 2.30m
MWP-063	275400	6812000	Peninsula	2.5	2.0	218	0.20m @ 235 from 2.35m 0.90m @ 251 from 2.75m
MWP-065	275600	6812000	Peninsula	1.5 4.0	1.0 1.0	361 161	0.40m @ 349 from 1.15m 0.25m @ 236 from 4.25m
MWP-066	275700	6812000	Peninsula	2.5	2.0	216	1.05m @ 334 from 2.81m
MWS-020	282200	6807000	Stakeyard	2.5	2.5	176	0.75m @ 366 from 3.95m
MWS-026	281300	6806000	Stakeyard	3.5	1.5	351	0.95m @ 451 from 3.15m
MWS-034	282100	6806000	Stakeyard	4.5	1.0	179	0.50m @ 299 from 4.35m
MWS-035	282200	6806000	Stakeyard	4.0	0.5	429	0.50m @ 289 from 4.00m

## APPENDIX 1: BIGRLYI MIK RESOURCE ESTIMATION & METHODOLOGY

The resource estimates were jointly compiled by Energy Metals and H&S. Energy Metals completed digital data compilation, validation, QA/QC and sample quality assessment and geological interpretations. H&S completed independent resource estimates, as well as providing advice on modeling methods, geostatistics and wireframe modeling of the mineralisation domains. At the 250ppm U<sub>3</sub>O<sub>8</sub> cut-off grade H&S reports 53% of the resource tonnage and 54% of the contained uranium metal (or 7.3 Kt U<sub>3</sub>O<sub>8</sub>) to the Indicated Resource category, whilst at the 500ppm U<sub>3</sub>O<sub>8</sub> cut-off grade 54% of the resource tonnage and 55% of the contained uranium metal (or 5.7 Kt U<sub>3</sub>O<sub>8</sub>) to the Indicated Resource category. A tabulation of Indicated and Inferred Resources is provided below.

### SUMMARY OF RESOURCES – MIK ESTIMATION METHOD

#### Indicated Resources

Cut Off (ppm U <sub>3</sub> O <sub>8</sub> )	Tonnes (Millions)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)
250	8.83	821	4,190
500	4.42	1,288	5,692

#### Inferred Resources

Cut Off (ppm U <sub>3</sub> O <sub>8</sub> )	Tonnes (Millions)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)
250	7.76	780	5,150
500	3.72	1,245	4,625

Tonnes are metric (2204.62 pounds), figures may not total due to round-off errors.

The resource estimates are based on the interpretation of 459 historic drill holes (222 percussion and 237 pre-collared diamond holes) and 399 holes (311 percussion and 88 pre-collared diamond holes) drilled by Energy Metals between October 2006 and December 2008. Drill holes are spaced at between 20-50m along strike in the main resource areas of Anomalies 15, 4 and 2. This increases to a nominal 100m at Anomaly 3 and 200-400m in peripheral areas. Assays were derived from predominantly chemical methods (XRF) in all holes drilled by Energy Metals, and re-assayed historic diamond holes. Calibrated radiometric assay methods were used in historic percussion holes.

Wire frame models were digitized on north-south cross sections using a nominal 10ppm (U<sub>3</sub>O<sub>8</sub>) boundary to model multiple mineralised lenses outcropping at surface. The lenses generally occur within mineralised horizons within the Mt Eclipse Sandstone. The two major horizons are located at the contacts of the Units B and C and Units C and D. Additional horizons at Anomalies 4 and 15 are seen within Units D and B. These broader mineralised lenses are up to 50m wide and strike east-west. Dips of the mineralised lenses are sub vertical and predominantly dip south at 70-88 degrees. The modeled block dimensions are 15m along strike, 15m down dip and 2m width. These have been chosen to best reflect the geometry of the mineralisation.

## APPENDIX 2: ANKETELL RESOURCE ESTIMATION & METHODOLOGY

The Anketell resource estimate is based on the results from 171 vertical aircore holes generally drilled 200m apart on east-west traverses spaced 500m apart, between January 2007 and December 2008. Drill sections at the ends of the deposit are spaced 1000m apart but the reported resource is restricted to the area within and immediately surrounding the 200x500m drilling.

Chemical assays comprised about 30% of the data used for the estimation and were determined from half metre samples analysed by mixed acid inductively coupled mass spectrometry (ICPMS). Samples were selected for chemical assay using calibrated down-hole probes which measured radiometric equivalent  $eU_3O_8$ . A threshold of 100ppm  $eU_3O_8$  was used to select samples for chemical assays. The remaining data for estimation was deconvolved  $eU_3O_8$  values.

The resource models were built using the unconstrained Ordinary Kriging technique with estimation conducted in panels of 100m x 250m x 1m. A bulk density of 2.0t/cubic metre was assumed for the resource estimate.

All resources have been classified as Inferred, reflecting a number of uncertainties that are not addressed with the available data. These include a lack of data on the short range continuity of mineralisation on scales amenable to selective mining, a lack of duplicate samples and independent standards and a lack of dry bulk density data on representative mineralised samples.