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Maiden Resource Estimate
MOPOKE WELL

Maiden Resource – Peninsula Prospect

Energy Metals Limited (ASX: EME) is pleased to announce that a resource estimate of 9.75Mt at 165 ppm eU_3O_8 for 1,613 tonnes or 3.56Mlb U_3O_8 at a cut-off grade of 100ppm U_3O_8 has been completed at the Peninsula Prospect within its 100% owned Mopoke Well Project (WA) (Figure 1).

The Mopoke Well Project, located 60km west of Leonora, contains the historic Peninsula and Stakeyard prospects. The Peninsula prospect is a calcrete hosted system similar in geological setting to the Yeelirrie, Centipede, Lake Way and Lake Maitland deposits, also located in the region.

One hundred vertical, ten metre deep holes were completed at Peninsula during 2012.

Each hole was gamma probed to determine the deconvolved uranium equivalent grade (eU_3O_8). Uranium mineralisation has now been identified over a strike length of 4km, and a width of approximately 800m. The mineralisation, often reaching thicknesses in excess of 3 metres, is usually within 4 metres of the surface.

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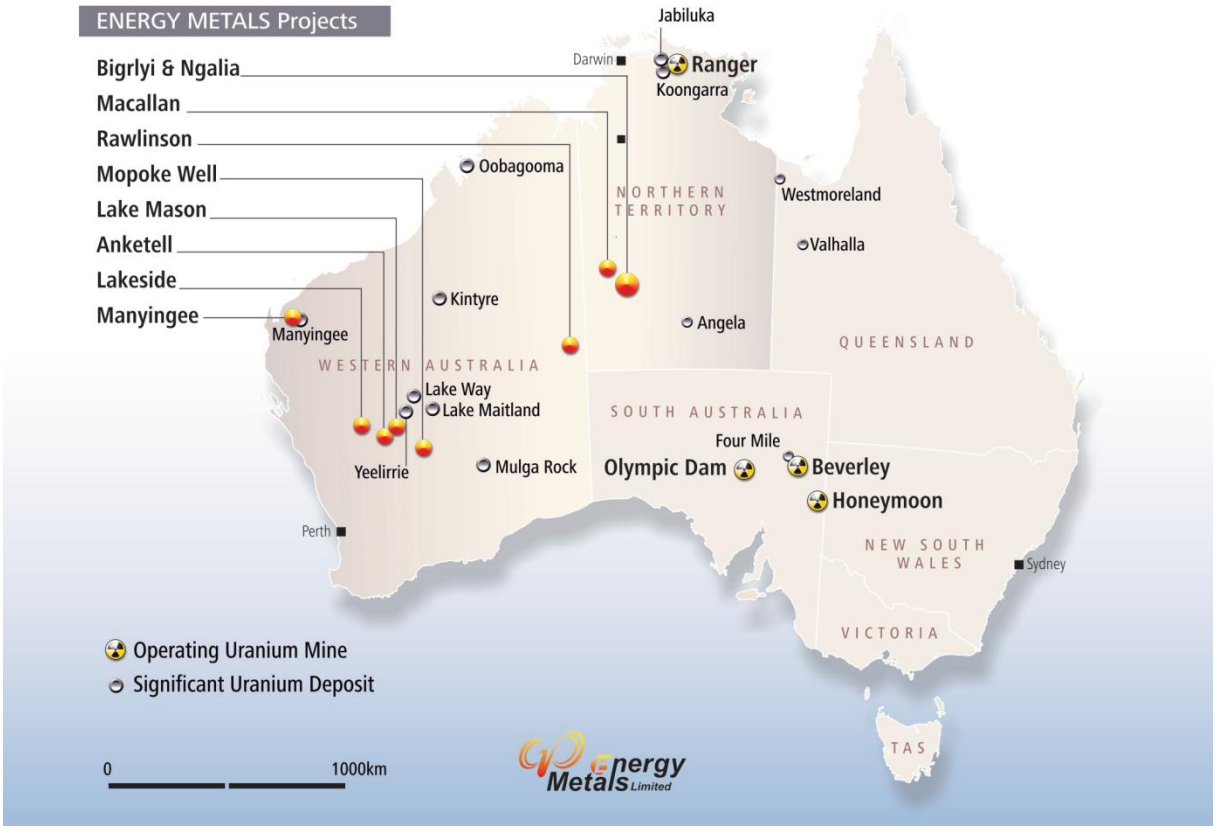

Figure 1 – Location of Energy Metals Projects

A Mineral Resource estimate for Peninsula has been completed by CSA Global Ltd (CSA). The Resource Estimate at a cut-off grade of 100ppm U_3O_8 (Table 1) has been classified as Inferred and contains 3.56Mlb U_3O_8.

Table 1: Peninsula Prospect Inferred Resource Estimate at a 100ppm eU_3O_8 cut-off

Tonnes (Million)	Grade eU_3O_8 (ppm)	Contained U_3O_8 (tonnes)	Contained U_3O_8 (Mlb)
9.75	**165**	**1,613**	**3.56**

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

The Resource Estimate is based on down-hole 2cm interval deconvolved gamma probe radiometric logging (eU_3O_8) from 244 vertical aircore holes drilled by EME between 2008 and 2012. All holes were 10m deep and were drilled 100m apart on mostly east-west traverses spaced approximately 250m apart (see Figure 2). Uranium mineralisation is hosted in shallow calcrete or calcareous clay layers (Figure 3). Chemical assays, undertaken on over 500 selected half-metre aircore samples using a mixed acid digest ICPMS determination, were used to check the validity of the gamma logging. On average, chemical assays were found to be significantly higher than radiometric logging, indicating that the use of eU_3O_8 values is conservative but appropriate for estimation in this case.

A wireframe of the deposit, using 0.5m composites from the deconvolved gamma logging results was created. Grade estimation was completed using the Inverse Distance Cubed (ID^3) within a block model using 100m x 100m x 0.5m primary blocks with sub-blocks of 20m x 20m x 0.1m to ensure adequate resolution. A bulk density of 1.9t/cubic metre was assumed.

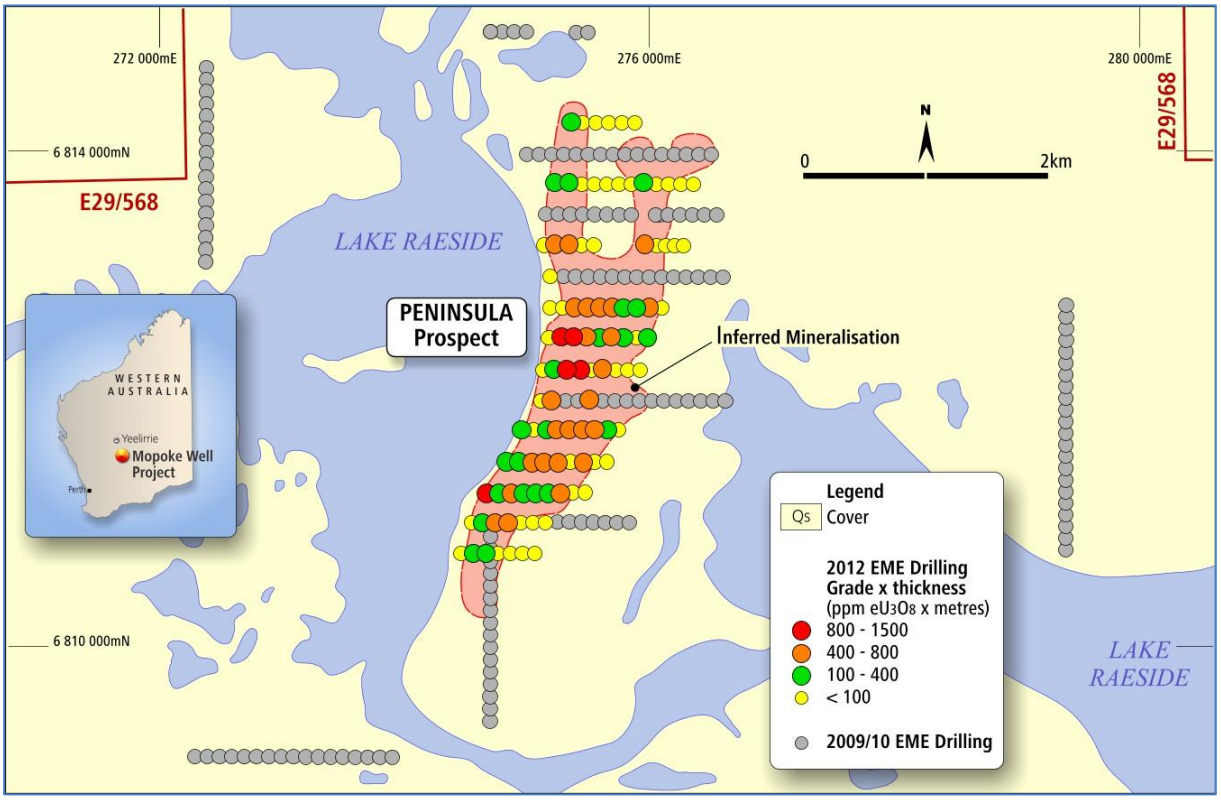

Figure 2. Plan showing location of drill-holes used in the resource estimate at the Peninsula Prospect, Mopoke Well Project . Holes from the 2012 drilling program have been categorized by grade x thickness.

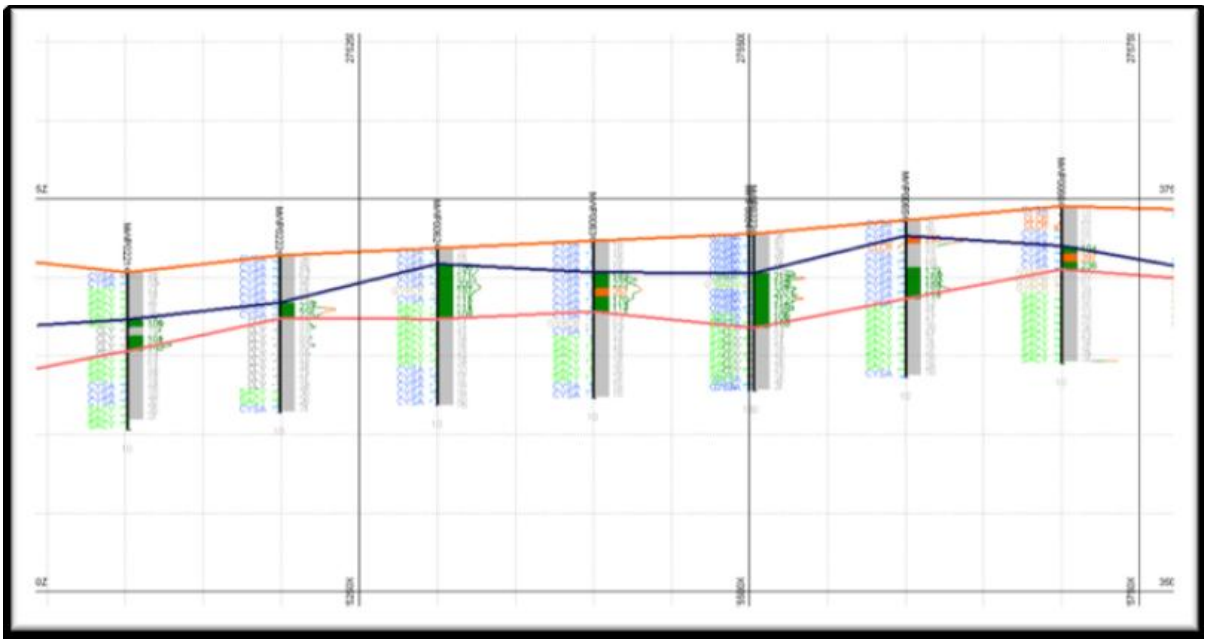

Figure 3. Mopoke Well Project – Section through the Peninsula Prospect at 6,812,000N showing the land surface (orange), and top (purple) and bottom (red) bounds of mineralised rock. Note: 10x vertical exaggeration used.

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The Mopoke Well project is located approximately 170km to the SE of Energy Metals' Lake Mason project (3.7Mlb U_3O_8) and 200km ESE of Energy Metals' Anketell Project (6Mlb U_3O_8). The Mopoke Well resource estimate takes Energy Metals' total uranium inventory in the central Yilgarn area to 13.3Mlbs U_3O_8. The Company will continue to look at opportunities to expand and up-grade resources in the area and evaluate possible development options.

For and on behalf of the Board

Weidong Xiang
Managing Director
12 March 2013

Information in this report relating to mineral resource estimation is based on information compiled by Mr Dimtry Pertel, and Mr Don Smith. They are both members of the AIG and are full time employees of CSA Global. Both Mr Pertel and Mr Smith have sufficient experience in the estimation of mineral resources and the mineral commodity uranium. Mr Pertel and Mr Smith are Competent Persons as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2004)". Mr Pertel and Mr Smith consent to the inclusion of the information in the report in the form and context in which it appears.

Information in this report relating to exploration results, data and cut off grades is based on information compiled by Mr Paul Dunbar. Mr Dunbar is a member of the AusIMM and the AIG. Mr Dunbar is a full time employee of Energy Metals. He has 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 a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2004)". Mr Dunbar consents to the inclusion of the information in the report in the form and context in which it appears.

Information in this report relating to the determination of the gamma probe results and geophysical work is based on information compiled by Mr David Wilson. Mr Wilson is a member of the AusIMM and the AIG. Mr Wilson is a consultant to Energy Metals. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code (2004)". Mr Wilson 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.
Total count gamma logging includes the generally small number of gamma rays emitted by background levels of thorium and potassium. These background gamma rays add the equivalent of a few parts per million to the equivalent uranium values and are relatively constant in each geological unit.

Downhole gamma logging of drill holes provides a powerful tool for uranium companies to explore for and evaluate uranium deposits. Such a method measures the natural gamma rays emitted from material surrounding a drill hole. Gamma radiation is measured from a volume surrounding the drill hole that has a radius of approximately 35cm. The gamma probe is therefore capable of sampling a much larger volume than the geological samples recovered from any normal drill hole.

Gamma ray measurements are used to estimate uranium concentrations with the commonly accepted initial assumption being that the uranium is in (secular) equilibrium with its daughter products (or radio- nuclides) which are the principal gamma ray emitters. If uranium is not in equilibrium (viz. in disequilibrium), as a result of the redistribution (depletion or enhancement) of uranium and/or its daughter products, then the true uranium concentration in the holes logged using the gamma probe will be higher or lower than those reported in the announcement.

Energy Metals is undertaking measurements to determine if disequilibrium is present and its distribution via undertaking chemical analysis of all eU_3O_8 intersections.

The logging programme was undertaken by Energy Metals utilising an Auslog Logging System. The gamma tools were calibrated in Adelaide at the Department of Water in calibration pits constructed under the supervision of CSIRO. Energy Metals carries out annual recalibration checks to validate the accuracy of gamma probe data. Furthermore, Energy Metals runs regular checks to validate the accuracy of probe data using calibrated test holes located on site.

The gamma ray data was converted from counts per second to eU3O8 using calibration factors obtained from measurements made at the calibration pits. The eU3O8 data was also adjusted by an attenuation factor, determined onsite, due to drill rods. These factors also take into account differences in drill hole size and water content. The eU3O8 data has been filtered (deconvolved) to more closely reproduce the true grades and thicknesses where thin narrow zones are encountered.

The various calibration factors and deconvolution parameters were calculated by David Wilson BSc MSc MAusIMM from 3D Exploration Ltd based in Perth, Western Australia.

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