

8 October 2013

## **FIRST REGUIBAT PROJECT LEACH TEST PROVIDES HIGH EXTRACTION RATE**

### **94% OF URANIUM RECOVERED IN FIRST FOUR HOURS OF LEACHING**

Aura Energy Ltd (ASX: AEE, "Aura") is pleased to announce that preliminary leach testwork of beneficiated Reguibat material has achieved 94% uranium extraction within 4 hours. This excellent result is significant as it follows the strong beneficiation upgrade results for Reguibat reported on 26th September 2013.

"The production of high uranium grade beneficiation products, and this high leach extraction rate, constitutes a very significant technical breakthrough for the Reguibat Project." Aura's Managing Director, Dr Bob Beeson, said.

"The implications of beneficiation and leach work for the development of the Reguibat Project are significant, as, using conventional beneficiation procedures, the project will require a relatively small leaching capacity, and consequently much lower capital and operating costs. The leach test reported here confirms that this concept has considerable merit."

The beneficiation testwork results reported for Reguibat on 26<sup>th</sup> September showed that 83% of the material could be removed whilst retaining 90% of the uranium with this fraction having an average concentration of 1771 ppm  $U_3O_8$ . Significantly one third of the nine samples tested gave even better results grading between 0.27% and 0.34%  $U_3O_8$  which represented an average upgrade factor from the nine samples for uranium of 5.2. These compare with the resource grade of 334ppm  $U_3O_8$ .

The leaching testwork, undertaken independently at ANSTO Minerals, was performed on a composite sample of -300 $\mu$ m material from the beneficiation tests containing 335ppm  $U_3O_8$ . Atmospheric alkaline leaching typical of industry conditions were selected based on previous diagnostic leaching testwork. Preliminary evaluation of reagent consumption suggested moderate to high consumption but within acceptable limits given the high grade of beneficiated feed material.

"This work is still in its early stages, but Aura sees very considerable potential for the Reguibat project to become an early cash flow project for Aura with relocatable beneficiation plant feeding a central leach facility," Dr Beeson said.

#### **Next steps**

Given the highly encouraging leaching results Aura has commissioned detailed mineralogical characterisation of the upgraded product. In addition Aura's ongoing programme of beneficiation testwork will focus on the successful discovery that the uranium grade of the separate products increases with decreasing size. The target of this work is to minimise the volume of the uranium-bearing product whilst increasing the grade.

This ongoing work will provide further product for leach tests.

The work will provide the basis for further optimisation of the leaching conditions and provide a robust baseline for completion of an economic scoping study. Aura plans to complete this scoping study for the Project within 6-9 months, subject to funding.

### **Reguibat Project**

The mineralisation of the Reguibat deposit occurs in single sheets of flat-lying unconsolidated gravels with the mineralisation lying largely from surface to a depth of only 3-4 metres, and, as such, will be exceptionally easy to mine. The current resource at Reguibat contains 49 million pounds of U<sub>3</sub>O<sub>8</sub> at an average grade of 334ppm contained in 70 million tonnes of mineralisation.

### ***For further information contact:***

**Dr Bob Beeson**

**Managing Director**

**Phone +61 (0)8 6141 3570**

[info@auraenergy.com.au](mailto:info@auraenergy.com.au)

### ***Competent Persons Statement***

*Dr Robert Beeson 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. This qualifies Dr Beeson as a Competent Person as defined in the 2004 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Robert Beeson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Dr Beeson is a member of the Australian Institute of Geoscientists. Dr Beeson takes responsibility for data integrity, QA/QC and the requirement of "reasonable prospects for eventual economic extraction" for the reporting of Häggån Resources at the quoted cut-off grades.*

## Previous announcement on the successful beneficiation of the Reguibat mineralisation

26 September 2013

### **NEW REGUIBAT PROJECT UPGRADE TEST RESULTS PROVIDE EXCEPTIONAL RESULTS**

### **BENEFICIATION RESULTS IN FIVE-FOLD $U_3O_8$ GRADE INCREASE WITH 80% MASS REJECTION**

### **RESULTS TO DRIVE EARLY PRODUCTION STUDIES**

Aura Energy Ltd (ASX: AEE, "Aura") is pleased to announce that beneficiation upgrade test results on its Reguibat Project in Mauritania have provided exceptional results, indicating that more than 80% of the mineralisation could be rejected to waste while retaining 89% of the uranium. This represents a five-fold increase in the grade of the Reguibat deposit to almost 1800ppm  $U_3O_8$ .

Aura previously reported Reguibat testwork which resulted in a grade increase by a factor of more than three to over 1000ppm  $U_3O_8$  in a single test. More extensive tests have now been conducted which vastly improved the earlier test results and indicated that grade increases of up to 8.5 times are achieved in fine-grained fractions of samples.

Using this simple screening upgrade head grades of over 3000 ppm  $U_3O_8$  were achieved, compared with the resource grade of 334ppm  $U_3O_8$ . The generation of this high grade product now opens up substantial opportunities for fast tracked development given the simplicity of the process and potentially significant improvement in project economics.

The mineralisation of the Reguibat deposit occurs in single sheets of flat-lying unconsolidated gravels with the mineralisation lying largely from surface to a depth of only 3-4 metres, and, as such, will be exceptionally easy to mine. The current resource at Reguibat contains 49 million pounds of  $U_3O_8$  at an average grade of 334ppm contained in 70 million tonnes of mineralisation.

These scrubbing and screening tests were undertaken on samples from the eastern Reguibat Project with the samples sourced from the trench sampling program undertaken in 2012. The preliminary results of these tests showed that a significant upgrade of uranium could be achieved in the fine screen fractions.

Evaluation of the <75  $\mu m$  fraction showed an average recovery of 89% of the uranium; this was achieved in only 17% of the mass; this fraction has average concentration levels of 1771 ppm  $U_3O_8$ .

Significantly one third of the nine samples tested have fine product uranium grades between 0.27% and 0.34%  $U_3O_8$ .

The results represented an average upgrade factor from the nine samples for uranium of 5.2.

The presence of the uranium mineral, carnotite, in the fine fractions, and the difference in grain size between carnotite and the host rock minerals, explains the positive results to date. There is also potential that this difference may result in even higher grade products by refinement of the size fractioning.

The implications of this work for the development of the Reguibat Project are significant, as using conventional beneficiation procedures the project will require a relatively small leaching capacity, and consequently much lower capital and operating costs, given that only 15 million tonnes out of the 70 million tonnes resource will require leaching under this scenario.

### **Next steps**

Aura's ongoing programme of beneficiation testwork will now focus on the successful discovery that the uranium grade of the separate products increases with decreasing size. The target of this work is to minimise the volume of the uranium-bearing product whilst increasing the grade.

The next phase of beneficiation tests will investigate whether further upgrading of the screen product can be achieved by other physical separation techniques, and in particular cycloning and ultrafine screening.

The economics of potential alternative mining and processing options, based on this latest testwork, is under way, to provide a guide to the best way forward.

### ***For further information contact:***

**Dr Bob Beeson**

**Managing Director**

**Phone +61 (0)8 6141 3570**

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