

22 March 2012

# HEAP LEACH SCALE-UP BEGINS FOR HÄGGÅN

### **HIGHLIGHTS**

- heap leach scale-up & validation testwork begins on samples from Häggån Uranium Project
- 2 metre high columns checking extraction & key variables under conditions closer to working heap leach operation
- work builds on previous exciting results
- Bacterial heap leaching and the testwork required for its design are now well established processes in the international minerals industry
- ▶ results expected in the next 3 4 months

Aura Energy (AEE) is a uranium explorer with advanced projects in Sweden, West Africa and Australia. The company is focusing on two main projects: the Häggån Project located in Sweden's Alum Shale Province, one of the largest depositories of uranium in the world; and the highly prospective Reguibat Province in Mauritania. The company aims to create shareholder value by rapidly establishing resources and then completing feasibility studies on these two projects. Aura Energy is headquartered in Melbourne, Australia and has been listed on the ASX since May 2006.



Aura Energy Limited (ASX code: AEE) has commissioned the next phase of metallurgical testwork to develop its very large Häggån uranium, nickel and molybdenum deposits in Sweden.

The work is being done by SGS Lakefield Oretest in Perth, which brings extensive experience in bacterial leaching and heap leaching from a range of commodities.

As a result of the recently announced Häggån scoping study, two flow sheet options have been selected: bacterial heap leaching and bacterial tank leaching. Both are well-established technologies and are used widely in the global minerals industry.

The scoping study also indicated that bacterial heap leaching is likely to generate a much more economically attractive outcome and will be the likely route. Until the scale-up studies are complete these two, being the most attractive options, will be retained.

A series of column leach tests have commenced using standard size columns applied by the industry for heap leach validation: two meters high and 0.15 meters in diameter (figure 1). Each column contains about 50 kilograms of material. These larger columns will provide validation of previously reported bacterial column testwork. In addition, the tests will examine different particle size distributions to determine the optimum crush size to balance recovery with reagent consumption. Heap temperature and acidity will also be examined.



Figure 1: Häggån bacterial heap and tank leach testing at SGS Lakefield Oretest, Perth



The testwork is expected to require three to four months to complete. Later testwork will increase scale, as is normal practice for heap leach development and confidence is built in the design and performance of the future commercial heap leach operation.

The tests reported in the scoping study resulted in extractions of 85% of the uranium, 65% of the nickel, 60% of the zinc and 25% of the molybdenum in the ore, which are typical heap leach results. Heap leaching does not require fine grinding or an elaborate leach tank farm and is much less expensive both to build and to operate.

The scoping study has indicated that a large heap leach operation at Häggån has the potential to be highly profitable at the present day price of uranium oxide.

A series of bacterial tank leach tests on finer material is also underway to build on the results for this possible alternative treatment option to heap leaching.

-Ends-

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## HÄGGÅN RESOURCE STATEMENT

Cutoff	Tonnes,	U <sub>3</sub> O <sub>8</sub>	MoO <sub>3</sub>	Ni	Zn
U₃O <sub>8</sub> ppm	Bn <sup>1</sup>	ppm	ppm	ppm	ppm
100	1.79	160	214	324	454

#### Competent Persons for Häggån Resource

Mr. Simon Gatehouse takes responsibility for estimation of uranium and associated metals in the Häggån Resource. This work was completed while Mr. Gatehouse was a consultant geologist, and a fulltime staff member of H&S. He is a competent person in the meaning of JORC having had a minimum of five years relevant experience in exploration and estimation of uranium and other metal resources in many parts of the world. He is a member of the Australian Institute of Geoscientists. Mr. Gatehouse consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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 the requirement of "reasonable prospects for eventual economic extraction" for the reporting of Häggån Resources at the quoted cut-off grades.

<sup>&</sup>lt;sup>1</sup> Billion