

# **HIGHLIGHTS**

- Continuing improvement in the exceptional beneficiation upgrading of Reguibat mineralisation
- 6 89% of the uranium retained within less than 14% of the original material
- Exceptional leaching characteristics far superior to the norm for calcrete uranium deposits
- Anticipated to have a major impact on Reguibat capital and operating costs
- C Elements of a Scoping Study are now finalised
- Smaller scale (3.5-7.5 Mtpa) options for the Häggån Project suggest that the Project is financially robust at smaller scales

# **PROJECT OVERVIEW**

# **REGUIBAT PROJECT, MAURITANIA (AURA 100%)**

The Reguibat Project comprises several laterally extensive developments of calcrete uranium mineralisation in northern Mauritania. An Inferred Resource of 49 million pounds at 334ppm  $U_3O_8$  at a cut-off grade of 100ppm  $U_3O_8$  was established in July 2011. These resources are contained in permits 100 per cent held by Aura.

# Project strategy and next steps

The implications of the beneficiation and leaching work for the development of the Reguibat Project are highly significant. Using conventional beneficiation procedures the project will require a relatively small leaching capacity, and consequently much lower capital and operating costs.

Aura's ongoing programme of beneficiation testwork will complete similar tests on material from other prospects, and from different depth levels, in the Project.

The work will provide the basis for continuing definition and improvement 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 months, subject to funding.



### Physical uranium concentration

Previous beneficiation upgrade test results on its Reguibat Project in Mauritania have provided exceptional results, indicated that grade increases of up to 8.5 times are achieved in fine-grained fractions of samples.

The additional size analysis that was completed in this quarter demonstrated that, by further reducing the screening size than previously reported, 89% of the mass could be rejected, while retaining 86% of the uranium. The average concentration of the product was 2,476ppm  $U_3O_8$ . This represents an upgrade factor of 7, achievable using simple beneficiation processes. The high product grade compares with the resource grade of 334ppm  $U_3O_8$ .

The composite sample of -300µm material from beneficiation tests from the upper level of a single mineralised zone, Ain Sder Zone 1, was used for mineralogy and additional size analysis. Mineralogical analysis using the QEMSCAN system showed that the deportment of uranium was exclusively with the carnotite mineral group. The carnotite occurs as extremely fine, liberated grains.

Reguibat is unusual among calcrete uranium projects in that the beneficiation and leaching characteristics identified to date improve the Project substantially. Many calcrete projects are metallurgically problematic because of the difficulty of beneficiation, and long leach times.



### Fig. 1: Project location in Mauritania

The carnotite mineral grains have been deposited on and between the coarser waste mineral surfaces, from which it is easily washed free.

### **Uranium leach testwork**

Preliminary leach testwork of beneficiated Reguibat material has achieved 94% uranium extraction within 4 hours.



### **Exploration potential**

Aura has extensive opportunities for expanding the resource base, as indicated in the map below. The locations of further resource potential are in three main areas: undrilled but mineralised anomalies south of the Western Reguibat Resource, 2012 drill results not in the current resource, and thick mineralisation open to the south and east at the Ain Sder Central Zone.

Aura has received assays of surface soil samples in one of the two Tiris Joint Venture permits. These samples were collected within a few centimetres of surface on broadly spaced lines across zones of strong airborne radiometric response. Strong uranium values have been reported over a large area within a radiometric anomaly extending over 5 km and covering an area of approximately 10 km<sup>2</sup>. The samples were taken from only one of the 2 permits

Values up to +400 ppm  $U_3O_8$  occur within the high uranium zone and, given they are soil samples in an area of abundant wind-blown sand, are strongly anomalous.

Previous reconnaissance by Aura, and work by the permit owners, has previously confirmed the presence of widespread uranium mineralisation at, or close to surface, in the permits. Several pits dug by Aura in the permits contained visible carnotite mineralisation, and gave values in the range 400-540ppm  $eU_3O_8$ , measured by spectrometer.



*Figure 2: Uranium in soils. Background image show uranium channel airborne radiometric response.* 





Fig. 3: Reguibat areas with potential for additional resources

## Project characteristics

The project mineralisation occurs at or just below the surface in flat-lying sheets. Mining will be inexpensive. It would be from shallow pits dug out by standard excavators and trucks, with no need for blasting. The strip ratio is likely to be well below 1.0.

The area of the deposit is largely flat-lying, treeless, uninhabited desert.



Fig. 4: Trench showing desert terrain, and white calcrete mineralisation

# HÄGGÅN PROJECT, SWEDEN (AURA 100%)

Häggån is a very large uranium project in Central Sweden, located in a largely uninhabited area of swamp and forest degraded by generations of commercial forestry. Sweden has a current and active mining industry, with a clear regulatory position and a well-established path from exploration to mining.

The Häggån resource of 803 million pounds uranium places it in the top two largest undeveloped uranium resources globally.



The Scoping Study completed in 2012 suggests that the Häggån Project has excellent potential to become a major, low cost producer of uranium, with by-product nickel and other metals.

### Small throughput option

Aura has considered it prudent, given the current market conditions, to reassess the May 2012 Häggån Scoping Study, which was based on a conceptual 30Mtpa operation, with smaller options which are more likely to attract funding than a project with a high initial capital cost.

Aura has considered three smaller size options: 3.5Mtpa, 5.0 Mtpa and 7.5 Mtpa, in order to provide a number of additional development alternatives with a substantially lower front end capital cost requirement. As Table 1 highlights the upfront capital costs are significantly reduced at all the modelled scales with operating costs remaining low in all cases.

In the analysis Aura's team used factored Scoping Study costs and published costs from similar heap leaching projects to develop the capital cost estimates. A peer review analysis of available information for comparable uranium and gold heap leach projects indicates that these cost estimates are appropriate in the current environment.

Heap leaching is a widely used low cost extraction technology that is well understood within the mining industry. Good comparative cost data is available. These highlight that unit operating costs show relatively little change when adopting lower production rates. Analysis of Häggån operating costs on this basis indicated the project will be in the lower half of the 2010 WNA cost curve (<\$25/lb. U3O8) after by-product credits.

This analysis of lower throughput options for Häggån underlines the exceptional financial robustness of this remarkable project even at substantially lower levels of initial capital investment.

Aura has assumed similar metal recoveries to that used in the 2012 Scoping Study, namely 75% for uranium, 60% for nickel, and 25% for molybdenum. This gives U3O8 production in the range of 1.0-2.0 million lbs per annum for the mill capacities considered, as indicated in Table 1.

МТРА	APPROX CAPEX*	OPCOST	U3O8	Мо	Ni
	\$m	US\$/lb.	Mlbs	Mlbs	Mlbs
3.5	150	21.00-25.00	1.0	0.4	1.7
5	190	18.00-22.00	1.4	0.6	2.4
7.5	250	18.00-22.00	2.1	1.0	3.6
30.0	540	13.50	7.8	4.3	14.8

Table 1: Range of upfront capital costs at 3.5, 5.0 and 7.5 Mtpa and metal production of uranium, nickel and molybdenum\* +/- 35% accuracy level)



### **Project summary**

The Häggån Project is a giant multi-metal deposit which is underpinned by a huge uranium resource. The main metals in the current resources are:

C	803Mlbs $U_3O_8$ inferred resource (2.35Bn tonnes @ 155	ppm U₃Oଃ)
C	Nickel	1,640Mlbs
C	Zinc	2,230Mlbs
C	Molybdenum	1,070Mlbs

Aura's discovery that the mineralisation is ideally suited to bioleach metal extraction was the major breakthrough to creating a robustly economic project. Bioleaching, including bioheap leaching, is a proven technology widely used in copper and gold industries, but has had limited prior application to the uranium industry.

# CORPORATE

Aura Energy has continued a new phase of investor and public relations to raise the profile of the company in the marketplace.

This programme is international in scope.

### **Cost Savings programme**

The rigorous programme of cost savings continues within the company.

### Aura Energy (ASX:AEE)

Headquartered in Melbourne and listed on the ASX, Aura Energy (AEE) is an explorer and developer of uranium assets. The company has advanced uranium projects with large resources that are close to the surface in both Europe and Africa and also has a resource in Australia. Aura holds a total of 853 million pounds of uranium in inferred resources. Its two main projects include: the Häggån Project located in Sweden's Alum Shale Province, the second largest undeveloped resource of uranium in the world, and the highly prospective Reguibat Province in Mauritania. The company aims to create shareholder value by completing feasibility studies on these two projects.

Market cap	:	A\$7.3m
Cash positio 2013):	on (31 December	\$0.7 million
Shares:		183 million
Options:		7.2 million
Main share	holders	
Technical In	ivesting	7.15%
Melbourne	Office	
Level 1, 19-	23 Prospect Street	
Box Hill, VIC	3128, Australia	
Tel:	+61 (0)3 9890 1744	
Fax:	+61 (0)3 9890 3411	
Email:	info@auraenergy.com.au	
Website:	www.auraenergy.com.au	



# HAGGAN RESOURCE STATEMENT

Category	Size	<i>U</i> ₃O <sub>8</sub>	Мо	V	Ni	Zn
	Mt	ррт	ррт	ррт	ррт	ррт
Inferred	2,350	155	207	1,519	316	431

Cut-off grade: 100ppm U<sub>3</sub>O<sub>8</sub>

### **Competent Persons for Häggån Resource**

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.

Mr. Arnold van der Heyden takes responsibility for estimation of uranium and associated metals in the Häggån Resource. Mr. van der Heyden is a director of H&SC and is a competent person in the meaning of JORC having had around thirty 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. van der Heyden consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Category	Lower Cut-off	Tonnes	Grade	Contained $U_30_8$
	ppm U <sub>3</sub> O <sub>8</sub>	Mt	ppm U <sub>3</sub> O <sub>8</sub>	Mlb
Inferred	100	66.0	334	49.0

Cut-off grade: 100ppm  $U_3O_8$ 

### **Competent Persons for Reguibat Resource**

The Competent Person for the Reguibat Resource estimation and classification is Mr Oliver Mapeto from Coffey Mining. The Competent Person for the drill hole data and data quality is Dr Robert Beeson from Aura Energy.

The information in the report to which this statement is attached that relates to the Mineral Resource and is based on information compiled by Oliver Mapeto. Oliver Mapeto 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. The qualifies Mr Mapeto as a Competent Person as defined in the 2004 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' Mr Mapeto is a Member of The Australasian Institute of Mining and Metallurgy. Mr Mapeto 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.

Rule 5.3

# **Appendix 5B**

# Mining exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/2013

### Name of entity

## AURA ENERGY LIMITED (AEE)

ABN

62 115 927 681

Quarter ended ("current quarter")

31 December 2013

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# **Consolidated statement of cash flows**

			Current	Year to date
	Cash flows related	to operating activities	quarter	(6 Months)
	cash nows related	to operating activities	\$A'000	\$A'000
1.1	Receipts from pro	duct sales and related debtors	-	-
1.2	Payments for:	(a) exploration & evaluation	(247)	(563)
		(b) development	-	-
		(c) production	-	-
		(d) administration	(308)	(725)
		(e) partnering development costs	-	-
1.3	Dividends received	d	-	-
1.4	Interest and other	items of a similar nature received	1	6
1.5	Interest and other	costs of finance paid	(1)	(2)
1.6	Income taxes paid		-	-
1.7	Other – Grant rece	eived		-
				(1.20.1)
	Net Operating Cas	sh Flows	(555)	(1,284)
	Cash flows related	d to investing activities		
1.8	Payment for purch	nases of: (a)prospects	-	-
		(b)equity investments	-	-
		(c) other fixed assets	-	-
1.9	Proceeds from sale	e of: (a) prospects	-	-
		(b) equity investments	-	-
		(c) other fixed assets	-	-
1.10	Loans to other ent	tities	-	-
1.11	Loans repaid by ot	ther entities	-	-
1.12	Other (provide de	tails if material)	-	-
	Net Investing Casi	n FIOWS	-	-
1.13	Total operating an	d investing cash flows (carried forward)	(555)	(1,284)

# Appendix 5B Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(555)	(1,284)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc. net of costs	-	(3)
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	-	-
	Net financing cash flows	-	(3)
	Net increase (decrease) in cash held	(555)	(1,290)
1.20	Cash at beginning of quarter/year to date	1,266	2,006
1.21	Exchange rate adjustments to item 1.20	(10)	(15)
1.22	Cash at end of quarter	701	701

# Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	163
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Directors Salary, Fees, and Superannuation; Corporate Management Fees paid to associated Company; and Exploration/Metallurgy Consultancy.

# Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Nil

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Nil

**Financing facilities available** Add notes as necessary for an understanding of the position.

		Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities	-	-
3.2	Credit standby arrangements	-	-

# Estimated cash outflows for next quarter

		\$A'000
4.1	Exploration and evaluation	278
4.2	Development	-
4.3	Production	-
4.4	Administration	83
	Total	361

# **Reconciliation of cash**

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.		Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	219	314
5.2	Deposits at call	277	737
5.3	Bank overdraft	-	-
5.4	Other: Refundable Guarantees	205	215
	Total: cash at end of quarter (item 1.22)	701	1,266

# **Changes in interests in mining tenements**

		Tenement	Nature of	Interest at	Interest at end
		reference	interest	beginning of	of quarter
			(note (2))	quarter	
6.1	Interests in mining tenements	Norrsten nr 1 7	Company elected to	100%	0%
	relinquished, reduced or	Stenby nr 1	relinquish non-core	100%	0%
	lapsed	Djurkalla nr 1 🗖	Tenements are not	100%	0%
		Hageby nr 2	related to Häggån	100%	0%
			and Reguibat		
6.2	Interests in mining tenements	Nil			
	acquired or increased				

**Issued and quoted securities at end of current quarter** Description includes rate of interest and any redemption or conversion rights together with prices and dates.

				Issue price per	Amount paid up
		Total number	Number quoted	security (see	per security (see
				note 3) (cents)	note 3) (cents)
7.1	<b>Preference *securities</b> (description)	-	-		
7.2	Changes during quarter	-	-		
	(a) Increases through				
	issues				
	(b) Decreases through				
	huv-backs				
	redemptions				
7.3	<sup>+</sup> Ordinary securities	183,285,591	183,285,591		
7.4	Changes during quarter	-	-		
	(a) increases through				
	(b) Decreases through				
	returns of capital,				
	buy-backs				
7.5	*Convertible debt	-	-		
	securities (description)				
7.6	Changes during quarter	-	-		
	(a) Increases through				
	(b) Decreases through				
	securities matured.				
	converted				
7.7	<b>Options</b> (description			Exercise price \$	Expiry date
	and conversion factor)	570,000	-	\$0.45	31.03.2016
		375,000	-	\$0.30	23.12.2014
		1,000,000	-	\$0.20	31.05.2015
		3,000,000	-	\$0.20 \$0.20	31.05.2015
		3 000 000	-	\$0.20 \$0.20	31 05 2015
		200.000	-	\$0.20	04.12.2016
		32,789,218	32,789,218	\$0.20	01.12.2014
7.8	Issued during quarter	4,000,000	-	\$0.15	13.01.2015
		5,000,000	-	\$0.20	13.07.2016
		2,000,000	-	\$0.15	21.05.2015
		2,250,000	-	\$0.20	21.05.2016
7.0	Even stand douters	2,000,000	-	Ş0.20	21.11.2016
7.9	exercised during quarter	-	-		
7.10	Expired during quarter	-	-		
7.11	<b>Debentures</b>	-	-		
7 12	Unsecured notes	-	-		
,	(totals only)				

# **Compliance statement**

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does give a true and fair view of the matters disclosed.

Dated: 31 January 2014

Company Secretary

Print name: JAY STEPHENSON

### Notes

Signed:

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 Issued and quoted securities. The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report.
- 5 Accounting Standards ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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# Interests in Mining Tenements Disclosure in accordance with ASX Listing Rule 5.3.3

Project/Tenements	Location	Held at end of quarter	Acquired during the quarter	Disposed during the quarter
<ul> <li>Wondinong Project:</li> <li>E58/349</li> <li>M58/357</li> </ul>	Australia	100%	0%	0%
<ul> <li>Häggån Project</li> <li>Gurumyren nr 1</li> <li>Häggån nr 1</li> <li>Häggån nr 2</li> <li>Marby nr 1</li> <li>Hackås nr 1</li> <li>Koborgsmyren nr 1</li> </ul>	Sweden	100%	0%	0%
<ul> <li>Kallsedet Project</li> <li>Hamborg nr 1</li> <li>Hamborg nr 2</li> <li>Olden nr 2</li> <li>Grässlåtten nr 1</li> </ul>	Sweden	100%	0%	0%
<ul> <li>Motala Project</li> <li>Hageby nr 1</li> <li>Hageby nr 2</li> <li>Ullevi nr 1</li> </ul>	Sweden	100%	0%	0%
<ul> <li>Reguibat Project</li> <li>Oued El Foule Est</li> <li>Ain Sder</li> <li>Oum Ferkik</li> <li>Mserif</li> <li>Saabia</li> <li>Oued El Foule Nord</li> <li>Oued El Merre</li> </ul>	Mauritania	100%	0%	0%
<ul> <li>Cheggat Project</li> <li>Aguelt Habib O Brahim</li> <li>Bir Nefé Nord</li> <li>Touirist El Hank</li> <li>Daya Ouelad Gheilane Nord</li> <li>Elb El Hammami</li> <li>Aleibat Ouelad Idriss</li> </ul>	Mauritania	100%	0%	0%

Farm-in Agreements / Tenements	Location	Held at end of quarter	Acquired during the quarter	Disposed during the quarter
🌈 Tiris Project	Mauritania	0%	0%	0%

Farm-out Agreements / Tenements	Location	Held at end of quarter	Acquired during the quarter	Disposed during the quarter
Nil				