28 NOVEMBER 2019

AURA COMPLETES OF ADDITIONAL HÄGGÅN VANADIUM LEACHING TESTWORK

V_2O_5 RECOVERY AVERAGED 96.5% IN VANADIUM TARGETED OXIDATIVE ACID PRESSURE LEACHING TESTS

LEACHING RESULTS ARE STRONGLY SUPPORTIVE FOR HÄGGÅN VANADIUM PROJECT

Aura Energy Limited (AEE:ASX, AURA:AIM) is pleased to announce that it has completed a successful program of metallurgical leach test work examining vanadium recovery by acid pressure leaching for the Häggån Vanadium Project, Sweden.

The program was carried out on a total of three drill hole composite samples defined as representative of the mineralisation within the Häggån Vanadium High Grade Resource following consultation with the ASX on the Häggån Scoping Study.

The test work resulted in **vanadium recoveries of up to 96.9%** to leach solution, with average recovery of 96.5% V_2O_5. This strong result for scoping level leaching test work provides the company with confidence that the proposed process flow sheet for the Häggån Vanadium Project is robust. A summary of results is presented in Table 1.

Table 1 - Summary of acid pressure leach test vanadium recovery results

Test	Sample	Leach Recovery Vanadium
AC1035	DDH006	96.1%
AC1036	DDH022	96.9%
AC1037	DDH031	96.7%
Average		96.5%

Following Aura's initial submission of the Häggån Vanadium Project Scoping Study in early September 2019 several technical queries were raised during the ASX review process. These queries related predominantly to assumptions regarding vanadium leach recovery. To ensure a comprehensive response to the issue and provide additional confidence in the results of the Häggån Vanadium scoping study Aura commissioned a vanadium targeted metallurgical test work program at ALS Minerals, by acid pressure leaching.

The results of these metallurgical tests exceeded the expectations for recovery of vanadium from the Häggån Resource and provide the company with great confidence that it has developed a robust flow sheet.

Aura is currently incorporating these results into the Häggån Vanadium Scoping Study and expect to deliver the scoping study shortly allowing progress of the project to its next stages.

HÄGGÅN TEST WORK RESULTS

Acid pressure leaching is generally considered the most efficient method for extraction of vanadium from Black Shale resources. In 2018, METS Engineering (METS) undertook a review of historic test work on the Häggån Resource, determining that acid pressure leaching was the best technically viable process option.

The current program was commissioned to validate this technical assessment by undertaking acid pressure leach tests at conditions targeted at vanadium extraction, as recommended by METS.

The metallurgical test work program was undertaken on splits of three samples used in the 2018 beneficiation and flotation program undertaken at ALS Minerals (Refer to ASX release: Häggån Vanadium Project Study Progressing Well, 25th October 2018). These samples were considered representative of mineralisation in the Häggån resource, with a range of vanadium grades. A summary of the samples used has been presented in Table 2.

Table 2 - Summary of diamond drill hole composite samples used in acid pressure leaching test work program. Full details of drill hole composites may be found in the October 2018 ASX Release

Sample	Test	Head Grade	
		V_2O_5	K_2O
DDH006	AC1035	0.30%	3.66%
DDH022	AC1036	0.29%	3.64%
DDH031	AC1037	0.22%	3.36%

The acid pressure leach conditions were determined based on recommendations from METS Engineering. These conditions were targeted at extraction of vanadium and have been summarised in Table 3.

Table 3 - Acid pressure leach conditions, ALS Minerals 2019

Parameter	Test Condition
Grind	P80 of 75µm
Oxygen partial pressure	1,200 kPa O_2
Total acid concentration – H_2SO_4	200 g/L H_2SO_4
Residence time	2 hours
Temperature	180°C

The results of acid pressure leaching tests targeted at vanadium recovery have been summarised in Table 4.

Table 4 – Summary of vanadium extraction by acid pressure leaching by sample

Test	Sample	Leach Recovery	
		Vanadium	Potassium
AC1035	DDH006	96.1%	78.8%
AC1036	DDH022	96.9%	84.4%
AC1037	DDH031	96.7%	86.8%
Average		**96.5%**	**83.3%**

These results demonstrated that consistently high vanadium extraction could be achieved across a range of samples. The tests returned an average vanadium extraction of 96.5%, with only 0.4% deviation from this average between the tests.

PREVIOUS METALLURGICAL TEST WORK

In October 2018 Aura announced successful completion of beneficiation and flotation test work for material from the Häggån Vanadium Project (Refer to ASX release: Häggån Vanadium Project Study Progressing Well, 25th October 2018). These results demonstrated recovery of an average of 85% vanadium to a concentrate with an average of 64% of the feed mass. The concentrate mass reduced to a total of 50% of feed mass with removal of the carbon component.

The preferred Häggån Vanadium flow sheet includes beneficiation, acid pressure leaching and solvent extraction of vanadium. The overall expected recovery for the Häggån vanadium process, including each of these components will be included in the Häggån Vanadium Scoping Study.

For further information please contact:

Mr Peter Reeve
Executive Chairman
Phone +61 (0)3 9516 6500
info@auraenergy.com.au

COMPETENT PERSON STATEMENTS

The Competent Person for the Häggån Metallurgical Test Work is Dr Will Goodall. Dr Goodall is Principal Metallurgist and a full time consultant to Aura Energy Ltd. The information in the report to which this statement is attached that relates to the test work is based on information compiled by Dr Will Goodall. Dr Goodall has sufficient experience that is relevant to the test work program and to the activity which he is undertaking. This qualifies Dr Goodall as a Competent Personas defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Goodall is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Dr Goodall consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

JORC CODE, 2012 EDITION – TABLE 1 REPORT

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The 2019 Häggån resource estimate was based on several drilling campaigns: ▪ 2008: 3453m in 17 diamond drillholes ▪ 2010: 5091m in 25 " ▪ 2011: 2279m in 10 " ▪ 2012: 2226m in 14 " ▪ 2015: 149m in 1 " ▪ 2017: 374m in 2 " ▪ 2018/19: 2930m in 22 " All drill samples were obtained by diamond drilling. Drillcore samples were provided to ALS Global at Piteå in Sweden (ALS) for preparation. Samples were analysed by ICP by ALS. The Alum Shale, host to the mineralisation, has a relatively consistent content of the target metals. Half-core was cut by diamond saw using a sample interval of 2m unless the interval included a lithological contact in which case each lithology was sampled separately. Samples were dried at 105°C, then prepared by ALS method Prep 22 (Crush to 70% less than 6mm, pulverize entire sample to better than 85% passing 75 microns). A 100g sample of pulp was taken by mini-riffle splitter for analysis.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Diamond drill core; standard tube; all BQTQ (core diameter 47mm) or an equivalent size depending on the contractor used. All 2018/19 holes & approximately 20% of previous holes were surveyed downhole, generally at 3m intervals. The majority of holes surveyed have limited deviation, with a maximum deviation at the bottom of a hole of c. 11 m. All holes but 1 drilled in 2010 were collared vertically. The 1 inclined hole was drilled at an angle of -65° to 090° and drillcore was oriented.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries	Any core loss was marked by the drillers and measured

Criteria	JORC Code explanation	Commentary
	and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	and recorded by the geologist during core logging. The Alum Shale, host to the mineralisation, consistently has recoveries of +95%. Assays in the few intervals which include higher core loss appear typical of assays in areas of high recovery nearby. There is no evidence of any grade bias that might arise from the small number of intervals with poor or no core recovery.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged.	Core was aligned and checked for continuity and marked out in one-meter intervals. It was checked for drill bit marking as bit matrices are known to contain molybdenum. Comments were recorded in the database regarding the presence of bit marks. Core was geologically logged, recording lithology, oxidation, mineralogy (where possible), texture, fracture density & structure and radiation levels recorded by handheld scintillometer. Down hole depth intervals were recorded with an accuracy of 20 cm. All core was photographed. All core was geologically logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	Core was sawn in half using a core saw. All drill holes were diamond drill holes. • Half core was taken using a sample interval of 2 m. Sample was dried at 105°C, then crushed to 70% - 2 mm using ALS method Prep 22 (crush to 70% less than 6mm, pulverize entire sample to better than 85% passing 75 microns). 100g sample of pulp to split off using mini-riffle splitter for analysis. • Precision of sampling and analysing pulps is based on QC sample results, considered to be within +/- 5% and acceptable for use in resource estimation at any confidence level. • The grain size of the Alum Shale is extremely fine, less than 10 microns, and commonly around 1 micron. The uranium mineralisation is finely disseminated throughout the shale, again at a micron scale or less. Consequently, the mineralisation and its host rock are very well represented in the 2m samples of core collected (average sample 3.3 kg). Sample size is therefore appropriate.
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used	Multi-element assaying was done by ALS Method ME-ICP61 on a 0.25g sample (4 acid digestion with ICP-AES finish). The ICP method after 4 acid digestion is reported

Criteria	JORC Code explanation	Commentary
laboratory tests	and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	to give near total assay for all resource elements. For quality control every 25 samples submitted for assay included 1 duplicate, 1 blank, and 1 CRM (certified reference material). The 3 CRMs used in the latest round of drilling were produced from Häggån Alum Shale to ensure matrix matching and certified by OREAS. QAQC data were inspected by Aura before data were accepted and entered into the Aura database. Review of these QAQC results indicates acceptable levels of accuracy and precision have been established.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	No twin holes were drilled. The following information primary data is recorded: Collar, alteration, assays, drilling type, Geology, Geotech, Magnetic susceptibility, mineralisation, radiometrics, samples, scintillometer, spectrometer, structure, veining, surface samples, batch details. All logging was done by the geologist digitally in an Excel spreadsheet. Photos of the core are taken after the hole was logged. Data is kept on site on an external hard drive as well as being sent by email to Aura Energy in Australia where it was uploaded into the independently managed EarthSQL data base. No data enters the database without verification by the Database Manager. Database is managed by external contractor EarthSQL. No adjustment has been made to assay data as received from the laboratory.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	Initial location was taken during drilling with handheld GPS at an accuracy of +/- 3metres. All holes on which the Indicated Resource are based were subsequently surveyed by DGPS with an accuracy of better than 20cm. All drill collars prior to 2015 were recorded in Swedish grid system RT 90 2.5. Subsequent holes were recorded in grid system SWEREF 99 TM following a change by the Swedish Government. All collars were converted to SWEREF 99 TM for the 2018 and 2019 resource estimation. Holes were vertical in all cases except Hole 39. Aura conducted down hole surveys for deviation using a Reflex Ex Trac survey device. All drillholes since 2015 have been downhole surveyed. Approximately 20% of drillholes prior to 2015 were downhole surveyed. The maximum deviation occurred in Hole 22 which had a dip of 75º at 250 m. This represents an average deviation of 0.3 degrees per meter and a maximum location error at the bottom of the hole of 11 m for holes assumed to be

Criteria	JORC Code explanation	Commentary
		vertical. Other surveyed holes had visibly less deviation. Drillholes on which the Inferred Resource is based were drilled on an approximately 100m x 100m pattern, and holes on which the Inferred Resource is based are located on an approximate 400 m by 400 m grid; precise locations depended partially on access. Topography: Collar RLs were determined by GPS to an accuracy of approx..3m. Hole collars used in the Indicated Resource were re-surveyed by DGPS to an accuracy of better than 20cm.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Exploration Results are not reported here as Mineral Resource Estimates exist. H&S Consultants (H&SC) consider the drillhole spacing to be sufficient for their Resource Classification as Indicated and Inferred. The vast majority of sample intervals are 2 m in length. For the purposes of Resource Estimation, samples were composited to 2 m intervals. The boundaries of the mineralisation wireframes were honoured.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	As the mineralisation occurs in sub-horizontal sheets, vertical drilling is an appropriate drilling orientation.
Sample security	The measures taken to ensure sample security.	Drillcore was collected by Aura personnel from the drill sites and immediately taken and housed in Aura's local locked core shed. After logging the core was transported to ALS Laboratories facility by either Aura or ALS personnel for core sawing, sample preparation and assaying.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Procedures were reviewed during visits by independent consultants Rupert Osborn of H&S Consulting in Dec 2018 and by W H Ireland in 2016 and no issues were identified.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All Resources of the Häggån Project are located on Exploration Permit Häggån No. 1. This permit is held in the name of the Aura Energy Ltd 100%-owned Swedish subsidiary company, Vanadis Battery Metals AB, which holds a 100% interest in this permit and adjoining permits. Only standard Swedish Government royalties apply to these permits. No native title interests are known to exist in the permits. A small, 2-hectare Natura 2000 area occurs against the eastern boundary of Häggån No.1 permit; this area is not in the vicinity of the currently-planned mining area should a project be initiated at Häggån. The Häggån Nr 1 Exploration Permit on which the entire resource is situated is valid until 28/8/2022.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Aura is not aware of any prior exploration by others.
Geology	Deposit type, geological setting and style of mineralisation.	Mineralisation at Häggån is hosted by bedded black shales of the Cambrian to Ordovician Alum Shale in tectonically or otherwise stratigraphically thickened metal-enriched north-north-west-striking elongated geological domains. The mineralised sequence outcrops in an area in the east of the tenement but elsewhere underlies a variably thin cover of limestone. Minor inter-beds of carbonate-enriched shale or siltstone occasionally occur within the mineralised sequence. The mineralised unit overlies a mixed sequence of siltstone and massive mineralized back shale above a granitoid gneissic basement. It is interpreted that there are a series of overthrusts which have displaced and caused thickening of Alum Shale within the resource area, and the sub-horizontal thrust sheets have influenced the grade distribution within the Häggån deposit.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill	Drillhole collar locations are shown in figures in the 10 October 2019 ASX announcement made by Aura “Häggån Battery Metal Project Resource Upgrade Estimate Successfully Completed” which this table accompanied. Further specific drillhole data is not relevant to the reporting of this resource estimation.

Criteria	JORC Code explanation	Commentary
	hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	No Exploration Results are reported here as they are superseded by Mineral Resource Estimates.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	As the mineralisation occurs in sub-horizontal sheets, downhole lengths are believed to be a close approximation to true widths.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant	Appropriate maps and sections and tabulations of intersects can be found on the Aura Energy website (www.auraenergy.com.au) or in releases to the Australian Stock Exchange (ASX), available on the ASX website.

Criteria	JORC Code explanation	Commentary
	discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	No Exploration Results are reported here as they are superseded by Mineral Resource Estimates.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	This information has been reported to the ASX over the 11 years since the discovery drillhole in 2008.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work plans are outlined in the report which this table accompanies. Areas for likely extension of the mineralisation are indicated on block model sections in the report that this table accompanies.