

27 April 2022

## Quarterly Report for the Period Ending 31 March 2022

### KEY POINTS:

- Successful capital raise of A\$8.8 million (before costs) via an over-subscribed placement with funds to be used for the advancement of the fast-tracked 800 klb U<sub>3</sub>O<sub>8</sub> per annum Tiris Uranium Project in Mauritania.
- Appointment of Dr Will Goodall as Acting CEO to rapidly progress development of the fast-tracked Tiris Project and potential upgrade and expansion of the Tiris Resources.
- Progress on initiation of Engineering, Procurement and Construction Management (EPCM) for fast-track 800 klb U<sub>3</sub>O<sub>8</sub> Tiris Uranium Project:
  - Expressions of Interest distributed to qualified engineering consultants and two stand-out companies short-listed to bid for Front End Engineering Design (FEED) and EPCM development.
  - Key appointment of Engineering Manager to drive delivery of the fast-tracked Tiris Uranium project.
- Baseline Greenhouse Gas Emissions for fast-track Tiris Uranium Project modelled by Wood PLC to be ~16,000 tCO<sub>2</sub>e per annum, with a clear pathway for Net Zero Emissions defined.
- Bulk test work programme initiated with ANSTO Minerals to optimise uranium circuit and assess vanadium production options.
- JORC Resource of 18.4 million pounds V<sub>2</sub>O<sub>5</sub> defined within Aura's low capex, low operating cost Tiris Uranium Project in Mauritania<sup>1</sup>
- Work initiated on regulatory process in Mauritania for export of Uranium Oxide Concentrate (UOC) product.
- Work continues on integration of vanadium by-product circuit in Fast track Tiris Uranium Project.
- 10,000 m of drilling announced as part Resource Upgrade Programme to convert additional material to Measured and Indicated category announced to support future expansions.
- Regional exploration programme to examine potential opportunity for expanded resource base.
- Engagement of Diplomat Communications in Sweden to Liaise with the Swedish

<sup>1</sup> At a lower cut-off grade of 100 ppm U<sub>3</sub>O<sub>8</sub>

## Government and other stakeholders on the status of Aura's 800mlb U<sub>3</sub>O<sub>8</sub> Häggån Resource.

Aura Energy Limited (ASX:AEE, AIM:AURA) ("Aura", the "Company") is pleased to provide an overview of activities for the period ending 31 March 2022 ("Quarter", "Reporting Period") to accompany the Appendix 5B.

### Introduction

The March 2022 Quarter represented a period of significant development for Aura, with major milestones achieved to initiate key programmes in the development of the 800 klb U<sub>3</sub>O<sub>8</sub> per annum fast-tracked Tiris Uranium Project ("Tiris", "Fast-track Project", or the "Project"), along with plans to upgrade and expand the Tiris Resources. These steps have placed the Company in a strong position to deliver the Fast-tracked Tiris Project as one of the first greenfields uranium operations to achieve production in the current cycle.

In addition, plans were implemented to undertake further drilling at Tiris with the goal of upgrading and expanding the Tiris Uranium Resource Estimate to potentially support expansion of uranium production rate early in the project life.<sup>2</sup>

The Company received strong support from new and existing shareholders, along with several institutional investors, raising A\$8.8 million (before costs) in March to advance the Tiris Uranium Project. As a result, the Company is well funded for key programmes throughout the remainder of the 2022 calendar year, allowing progression of the Fast-track Project towards a final investment decision to commence mining in Q1 CY 2023.

The geopolitical situation in Ukraine has led to significant volatility in uranium markets through the Quarter, however sustained upward pressure on uranium spot and contract prices has maintained during the Reporting Period. The volatility has led to renewed debate around energy security, particularly in Europe, and a progressively positive sentiments towards nuclear energy as a stable source of low-emission baseload energy.

#### Commenting on the activities through the March Quarter, acting CEO Dr Will Goodall said:

*"During the March 2022 quarter, Aura establish a strong baseline for rapid development of the fast-tracked 800 klb U<sub>3</sub>O<sub>8</sub> per annum Tiris Uranium Project. We are now well poised for the Project to move into production of U<sub>3</sub>O<sub>8</sub> in 2024, aiming to be one of the first greenfields uranium projects to be developed in the current cycle."*

*"The Company received strong support from new and existing shareholders in successfully raising A\$8.8 million in March and is now well-funded to move into Engineering for the Fast-track Project. The funds will also allow Aura to complete a significant in-fill drilling programme that will target upgrade of a much higher proportion of the Tiris Resource to the Measured and Indicated category,*

<sup>2</sup> ASX & AIM release 19 April 2022 'Uranium Resource Upgrade Programme Underway'



*accelerating the potential for the production rates of the Project to be expanded early in the project life.”*

*“We are excited to have defined the baseline for our Net Zero Emissions strategy through the Quarter and will proceed through the development phase of the Fast-tracked Project, with sustainable design as a key pillar of value engineering decision making. By progressing work on inclusion of a vanadium pentoxide recovery circuit in the Tiris flow sheet, we aim to extract additional value from the processed material and will look to quantify these benefits through the following quarters. We will also continue to explore opportunities to reduce total GHG emissions by inclusion of additional renewable energy generation for the Project.”*

*“During the Quarter several geopolitical events occurred highlighting the importance of energy security globally, and specifically in Europe. Positive sentiments continue to grow for nuclear energy as a key form of low-emission baseload electricity and the inclusion of nuclear energy in the EU green taxonomy represented a clear shift in this direction. We have now engaged Diplomat Communications, a leading advisory group in Sweden, to explore the impact of these shifting sentiments on Swedish policy towards uranium mining. We continue to develop the Häggån Battery Metals Project and will monitor opportunities to generate value from the 800mlb U<sub>3</sub>O<sub>8</sub> Resource at Häggån in future.”*

*“Overall, at the end of the Quarter, Aura is well placed to move into development of the Fast-tracked Tiris Project, prepare for potential expansion of production rates early in the project life and be positioned to potentially provide security of supply for critical battery and energy minerals in Europe. Our pipeline of projects provides a strong basis for sustained value generation for our stakeholders and shareholders over many years.”*



### **Project Development Pipeline**

Aura has developed a strong pipeline of projects to support the transition from uranium explorer to uranium producer with continued growth. A timeline of key projects and how they relate to the Aura development strategy has been summarized in Figure 1.

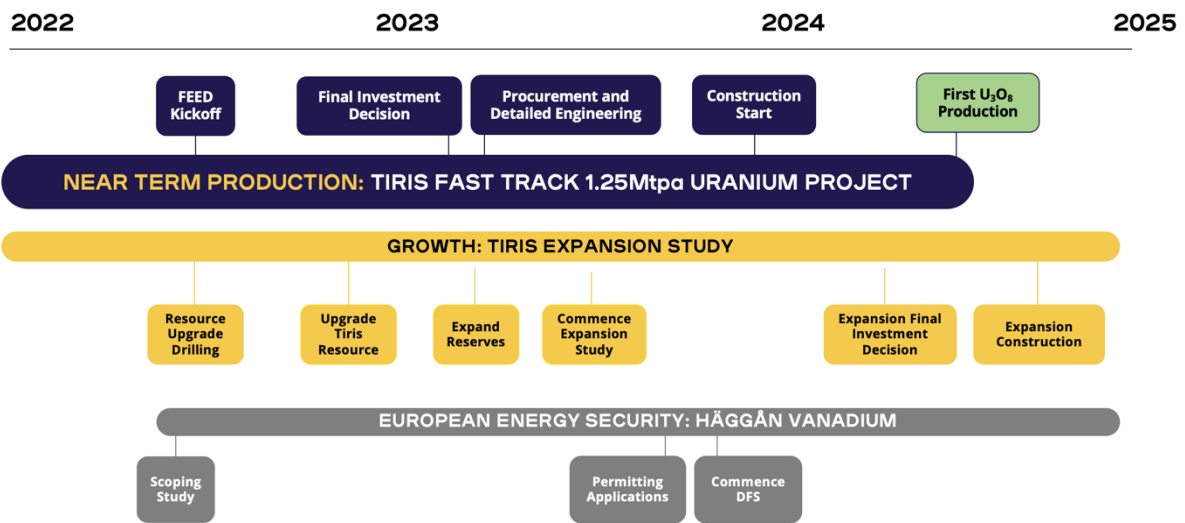


Figure 1 - Development pipeline and key milestones for Aura Energy projects

## Tiris Uranium Project

Aura's flagship Tiris Uranium Project remains the main focus of the Company's development strategy. The Project, located in Mauritania is proposed to be developed over two phases:

### Phase 1

Fast-tracked 800,000 lb U<sub>3</sub>O<sub>8</sub> Project is targeted at achieving uranium production in the near term, with low capital expenditure.

### Phase 2

The second phase of the Project is planned to expand the production rate within 2-3 years of Phase 1 commissioning, providing better utilisation of the Tiris Uranium Resources.

## Project Highlights

The Tiris Uranium Project in Mauritania was discovered by Aura, with development progressing to a Definitive Feasibility Study (DFS) in 2019. The fast tracked ~800 klbs U<sub>3</sub>O<sub>8</sub> per annum project now represents a compelling opportunity for Aura to move into uranium production by 2024, positioning the Project as potential to be one of the first greenfields uranium projects to move into production in the current cycle.

The uranium mineralisation at Tiris is shallow, extending from surface to a depth of ~4m, and is distributed over several deposits as shown in **Error! Reference source not found..** Uranium and vanadium are hosted with the mineral, carnotite (K<sub>2</sub>(UO<sub>2</sub>)<sub>2</sub>(VO<sub>4</sub>)<sub>2</sub>·3H<sub>2</sub>O) as fine liberated grains on the surface of friable weathered granite gangue. The material is free digging and liberation of the carnotite can be readily achieved using a simple rotary scrubbing and screening operation. These characteristics allow for ~80% of the mass to be rejected early in the process, with the balance containing ~90% of the uranium and vanadium for recovery in the leaching circuit.



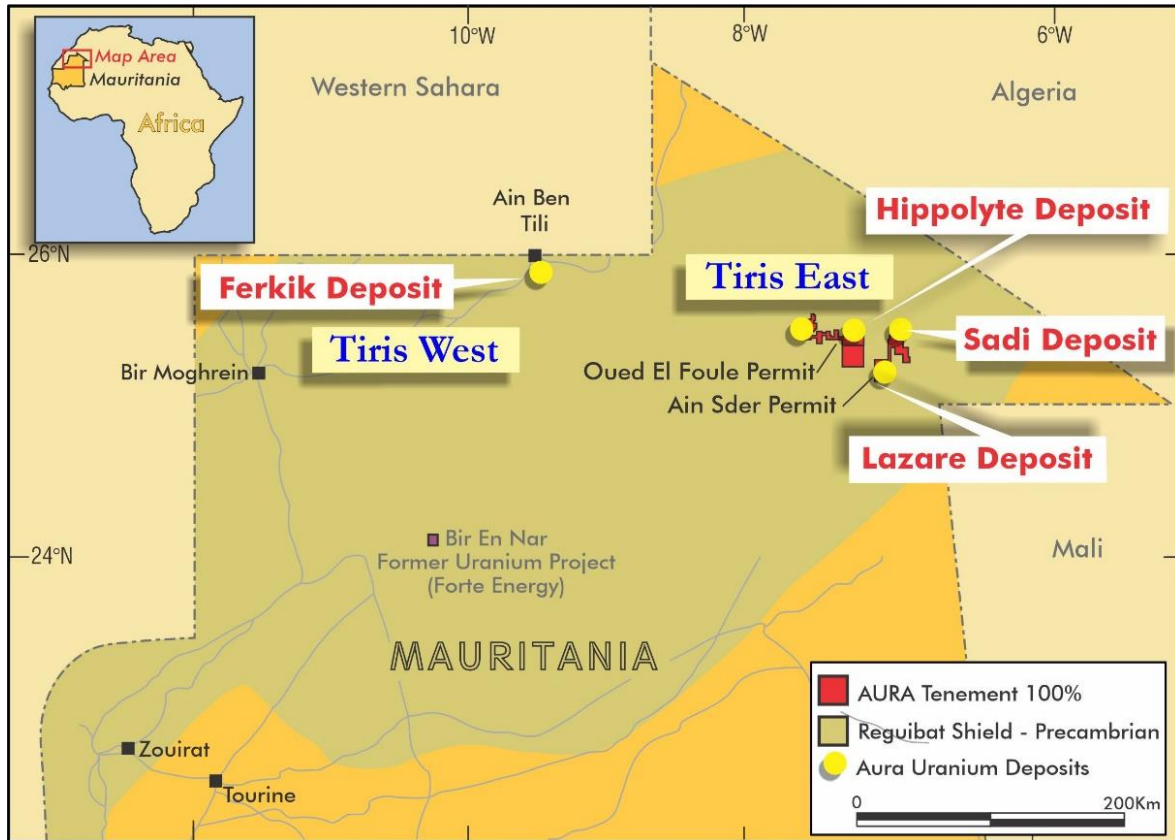


Figure 2 - Location of Aura's Tiris uranium and vanadium resources

Aura completed a Definitive Feasibility Study for the Tiris fast-tracked ~800 klb  $U_3O_8$  per annum project in August 2019, with an update to the Capital Estimate in 2021<sup>3</sup>. The fast-track project is fully permitted for mining and the Company is pursuing a strategy of rapid development to maximise value for shareholders early in the current uranium price cycle. The Tiris Resource Estimate contains 56.9 Mlbs  $U_3O_8$  and 18.4 Mlbs  $V_2O_5$  at cut off grade of 100 ppm  $U_3O_8$ <sup>4</sup>. The total Mineral Resource Estimate for the Tiris Project is summarised Error! Reference source not found. and Table 2.

Table 1 - Tiris Uranium Project Global Resource Estimate at 100ppm  $U_3O_8$  cut off grade

Cut-off $U_3O_8$ ppm	Class	Tonnes (Mt)	$U_3O_8$ (ppm)	$U_3O_8$ (Mlb)	$V_2O_5$ (ppm)	$V_2O_5$ (Mlb)
100	All	102.1	253	56.9	82	18.4

<sup>3</sup> ASX & AIM Release 18 August 2021 "Capital Estimate Update-Zero Emission Tiris Uranium Project"

<sup>4</sup> ASX & AIM Release 16 February 2022 "Aura Defines Vanadium JORC Resource at Tiris Uranium Project"

Table 2 - TIRIS RESOURCE CLASSIFICATION at 100ppm U<sub>3</sub>O<sub>8</sub> cut off grade - TOTAL, Feb 2022

Cut-off U <sub>3</sub> O <sub>8</sub> ppm	Class	Tonnes (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (Mlb)	V <sub>2</sub> O <sub>5</sub> (ppm)	V <sub>2</sub> O <sub>5</sub> (Mlb)
100	Measured	10.2	235.7	5.3	76.4	1.7
	Indicated	29.0	222.1	14.2	72.0	4.6
	Total M&I	39.2	226	19.5	73	6.3
	Inferred	62.9	270	37.4	87	12.1

A Maiden Reserve of 18.1 Mlbs U<sub>3</sub>O<sub>8</sub> at 175ppm cut-off grade was defined with the DFS<sup>5</sup>. This represents only 27% of the total uranium Resource at comparative cut-off grade.

Table 3 – Tiris Maiden uranium Reserve Estimate at 175ppm U<sub>3</sub>O<sub>8</sub> cut-off grade

Description	Mt	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (Mlb)
<b>Lazare North</b>			
Proved	0.7	354	0.6
Probable	4.4	332	3.2
<b>Lazare South</b>			
Proved	1.5	342	1.1
Probable	0.7	340	0.5
<b>Hippolyte</b>			
Proved	1.9	331	1.4
Probable	1.7	334	1.3
<b>Total</b>			
<b>Proved</b>	<b>4.1</b>	<b>339</b>	<b>3.1</b>
<b>Probable</b>	<b>6.8</b>	<b>333</b>	<b>5</b>
<b>Total</b>	<b>10.9</b>	<b>336</b>	<b>8.1</b>

The Tiris DFS defined a very simple mining operation, with the ore being free digging and mineralisation easily identified as shown in Figure 3. Utilising a small contract mining fleet a mining rate of 1.25Mtpa could be achieved with mining costs of US\$2.25/t material moved.

<sup>5</sup> ASX & AIM Release 29 July 2019 "TIRIS URANIUM DFS COMPLETED DEMONSTRATING A ROBUST DEVELOPMENT PROJECT"



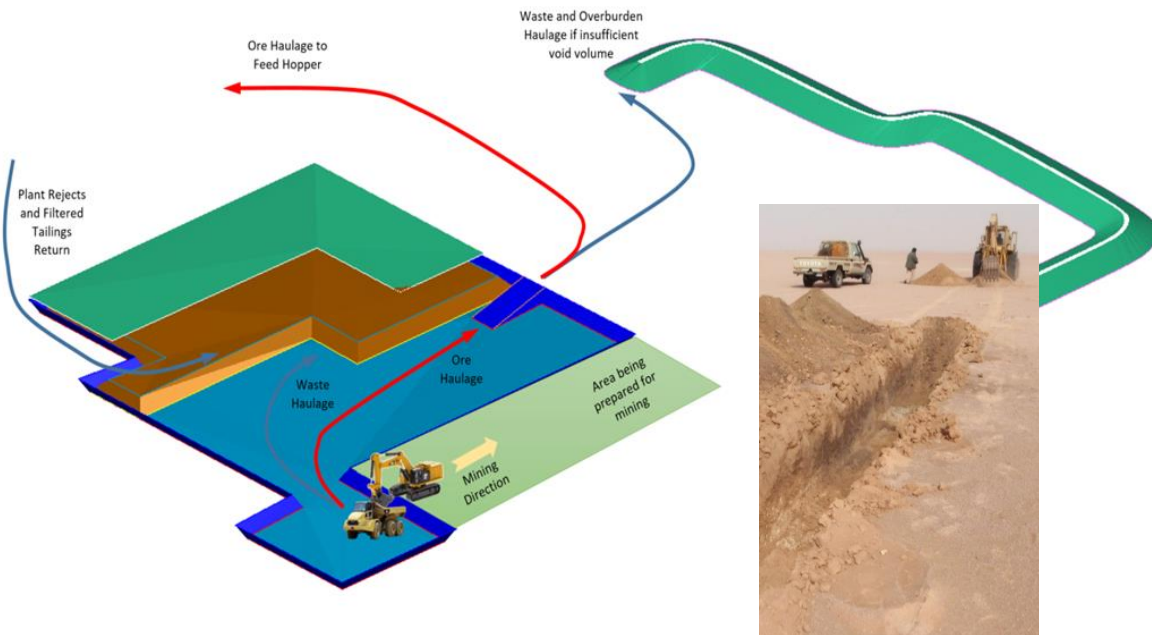


Figure 3 – Mining strategy for Tiris Uranium Project

The Tiris process flow sheet is simple, utilising the natural characteristics of the mineralisation to reject barren material early and minimise the size of the leaching, ion exchange and precipitation circuits. Figure 4 shows the beneficiation circuit located at the mining pits, with concentrated slurry pumped to a central processing facility and barren waste returned to pits.

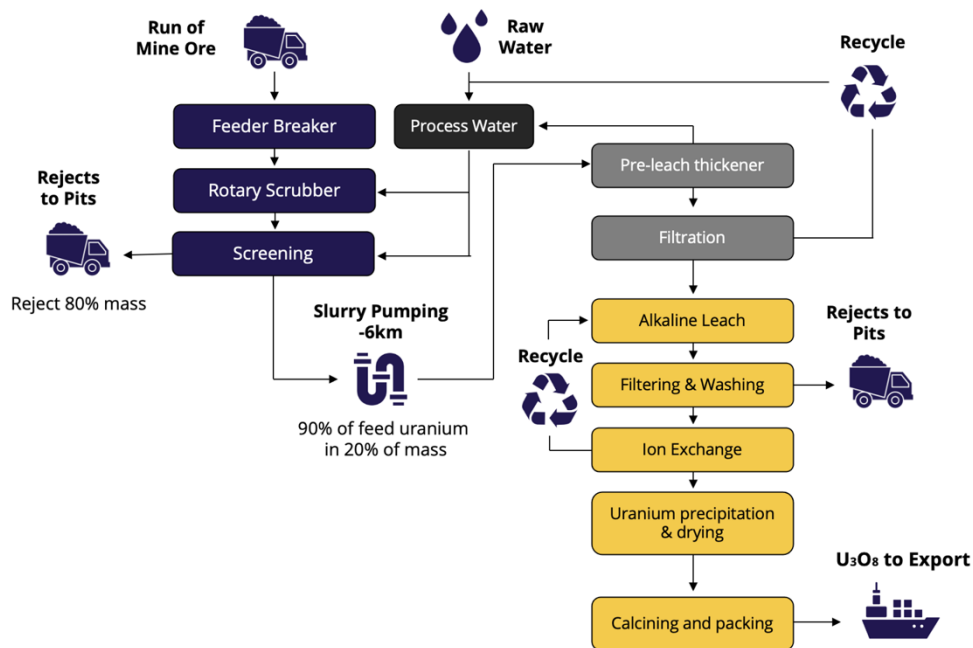


Figure 4 – Tiris Uranium Project process flow sheet

Aura completed an Environmental and Social Impact Assessment in 2017 and the Tiris exploitation permit was granted by the Mauritanian Government in 2018. The Project is fully permitted to mine, with minor regulatory approvals to be completed once construction is underway. Although Mauritania does not currently have an active uranium export market, Aura continues to work closely with the Mauritanian government and regulatory authorities to ensure that safeguards are in place for transport of UOC product.

The Tiris DFS was completed in 2019<sup>6</sup> for the fast-tracked 800klb U<sub>3</sub>O<sub>8</sub> per annum project and the Capital Estimate was updated in 2021<sup>7</sup> with current pricing to reflect the potential impact of COVID-19 related supply chain pressure. The outcomes of the DFS, using a conservative uranium price estimate of US\$60/lb U<sub>3</sub>O<sub>8</sub> have been summarized in Table 4 and Table 5.

**Table 4 - DFS outcomes summary<sup>8</sup>**

	Key Metric	DFS
<b>Resource</b>	Life of Mine (LOM)	15 Years
	Beneficiation Plant ore throughput (Design)	1.25 Mtpa
	Process Plant ore throughput	0.16 Mtpa
	ROM uranium grade (LOM)	364 ppm U <sub>3</sub> O <sub>8</sub>
<b>Production</b>	Uranium Metallurgical Recovery	86.1%
	Average Annual uranium production	823,000 lb U <sub>3</sub> O <sub>8</sub>
	LOM uranium production	12.35 Milb U <sub>3</sub> O <sub>8</sub>

**Table 5 - DFS financial outcomes summary<sup>4</sup>**

	Key Metric	US\$	A\$
<b>Capital</b>	Process plant, infrastructure, indirects	70.1 M	100.1 M
	Contingency	4.7 M	6.8 M
	Total Capital	74.8 M	106.9 M
<b>Operations</b>	Exchange rate (USD:AUD)	0.70	
	C1 Cash operating cost (\$/lb U <sub>3</sub> O <sub>8</sub> )	25.43	36.33
	AISC operating cost (\$/lb U <sub>3</sub> O <sub>8</sub> )	29.81	42.56
	Assumed price (baseline) (\$/lb U <sub>3</sub> O <sub>8</sub> )	60	86

<sup>6</sup> ASX & AIM Release: Tiris Uranium Definitive Feasibility Study completed, 29 July 2019

<sup>7</sup> ASX & AIM Release: Capital Estimate Update, 18 August 2021

<sup>8</sup> ASX & AIM Release: Tiris Uranium Definitive Feasibility Study completed, 29 July 2019



	Key Metric	US\$	A\$
Project Financials	Project NPV <sub>8</sub> (incl Royalties and tax)	79.9 M	114 M
	Project IRR (incl Royalties and tax)	22%	
	Cashflow – Total (after-tax)	214 M	305 M
	Cashflow – Annual (after-tax)	17.1 M pa	24.4 M pa
	Project NPV <sub>8</sub> (incl Royalties, pre-tax)	106 M	151 M
	Project Cashflow – Total (pre-tax)	275 M	393 M
	Project Cashflow – Annual (pre-tax)	24.5 M pa	33 M pa
	Project payback from start-up	4 years	

The DFS demonstrated that at current uranium price levels, the fast-track 800klb U<sub>3</sub>O<sub>8</sub> per annum project is projected to generate strong returns, providing an excellent baseline for future development of the Tiris Resources.

### Tiris development strategy

Aura's strategy for development of the Tiris Project is to focus on rapidly achieving uranium production at a capital investment and production rate appropriate for the stage of the uranium price cycle. This means focusing on fast tracking the low CAPEX 800 klb U<sub>3</sub>O<sub>8</sub> pa project, while providing the baseline for growing the project as the market matures to be a long life, low cost uranium producer. The targeted development programme for the Tiris fast-track and planned expansion projects has been summarized in Figure 5

Program	Completed	Underway	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
<b>800klb U<sub>3</sub>O<sub>8</sub> pa fast track Tiris project</b>							
Confirmation test work		Y					
Engage EPCM Consultant		Y					
FEED Study							
<b>Decision to Mine</b>							
<b>Value engineering</b>							
V2O5 resource	Y						
V2O5 test work		Y					
V2O5 circuit							
<b>Sustainability</b>							
GHG Emissions baseline	Y						
<b>Tiris Expansion Programme</b>							
Tiris East In-fill drilling							
Resource Upgrade							
<b>Reserve Upgrade</b>							
Exploration drilling							

Figure 5 - Tiris development schedule

The Tiris fast-track 800klb/a project development will target production by 2024 to generate early cash flow, which will be achieved by targeting a lean, low CAPEX operation for the first phase. Smaller production volumes allow for product contracting earlier in the uranium cycle while maintaining price upside through project expansion. In addition, by targeting lower production rates, Aura can leverage reductions in technical, country and marketing risk for lower initial capital outlay.

In conjunction with the fast-track project development, the Company will plan for project expansion early in the mine life. Design decisions through the Fast-track Project have always considered the option to expand the production rate once the operation is underway. The first step in preparation for production rate expansion is to work on upgrade of the resource and Reserves to support higher U<sub>3</sub>O<sub>8</sub> production rates. When the target of increased Reserves is achieved, studies will commence to evaluate production scenarios and economies of scale.

Finally, regional exploration will be undertaken to support long life production at expanded production rates. Aura’s exploration tenements cover a highly prospective and under-explored region of Northern Mauritania and the Companies target is to continue to expand the global Resource base to support long-life uranium production in the area.

**Project update – Fast-track 800 klb U<sub>3</sub>O<sub>8</sub> per annum project**

During the Reporting Period, Aura continued to accelerate the development of the fast-tracked ~800klb U<sub>3</sub>O<sub>8</sub> per annum Tiris Project. Work undertaken throughout the Quarter



provided a solid groundwork for progression of the Project, with a target to complete FEED engineering by Q1 2023 and first production of U<sub>3</sub>O<sub>8</sub> in 2024.

### Tiris project development and Engineering

As outlined in the Chairman's Letter<sup>9</sup> the Company has made the strategic decision to move the Fast-tracked Project forward to the Engineering and construction phase, with a target to achieve first production of U<sub>3</sub>O<sub>8</sub> in 2024. The development timeline, with key milestones has been summarized in Figure 6.

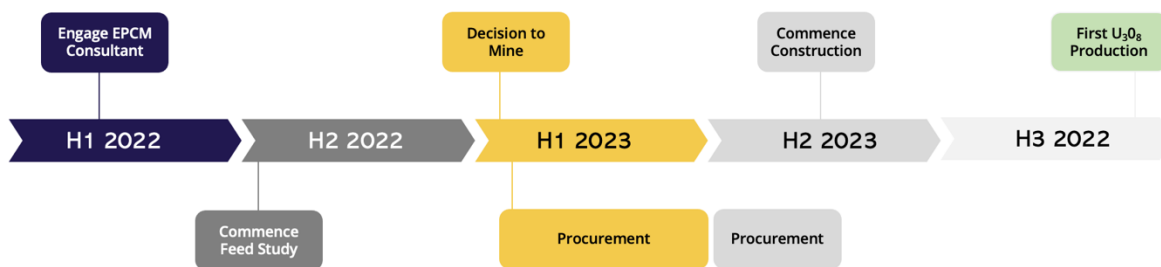


Figure 6 – Tiris Fast-track Project proposed engineering development timeline

A critical stage in development of the Tiris project is to engage an engineering partner with the ability to add value to the Project and deliver on-time and on-budget. During the Quarter, the Company engaged an Engineering Manager for the Owners Team and has been seeking and evaluating Expressions of Interest from Engineering Consultants to rapidly move the Tiris 800 klb U<sub>3</sub>O<sub>8</sub> pa project forward.

FEED and EPCM Expression of Interest were distributed to target Engineering Consultants with relevant expertise.

The Scope of work included:

- Value Engineering Study
- Front End Engineering and Design (FEED) Study
- Engineering, Procurement, Construction and Management (EPCM) programme.

Engineering consultants with both expertise in uranium flow sheets and demonstrated experience building operations in West Africa were shortlisted. Two highly qualified engineering consultants were shortlisted and are currently preparing bids for review by the Company.

Next steps include:

- Receipt of bids from shortlisted engineering consultants in Early May 2022.
- Award of FEED study contract and kick-off in early June 2022.

<sup>9</sup> ASX & AIM Release: Chairmans Letter Uranium Production and Expanding Resource, 20 January 2022

- Target to complete FEED study, supporting final investment decision by Q1 2023

During the Quarter, discussions were initiated with key vendors on opportunities to fast-track decision to proceed on long lead items.

### **Bulk test work programme**

In 2019, a successful pilot scale test of the rotary scrubbing and screening circuit was undertaken at Mintek Laboratories, Johannesburg South Africa. The products of this pilot programme were stored for use in final confirmatory bulk leaching, ion exchange and precipitation optimisation programme to support value engineering initiatives. The programme aims to target optimisation of leaching conditions, final definition of solid/liquid separation design factors and inclusion of vanadium by-product recovery in ion exchange. The test work programme was initiated in January 2022 at ANSTO Minerals, Lucas Heights, NSW ([www.ansto.gov.au](http://www.ansto.gov.au)). ANSTO Minerals are global leaders in uranium and vanadium processing and have been responsible for process test work throughout the Tiris development.

The aims of the programme include:

- Uranium recovery
  - To further optimise alkaline leaching conditions
  - To confirm Phase 1 ion exchange and uranium precipitation conditions on liquors generated from bulk leaching using optimised alkaline leaching conditions.
  - To produce samples of  $UO_4$  that meet relevant industry specifications with regards to impurity content.
  - To undertake vendor filtration and settling test work.
- Vanadium recovery
  - Test work to examine options for vanadium recovery from bulk leach liquors.
  - Assessment of preferred flow sheet for vanadium by-product production and expected reagent consumptions.

Overall, the ANSTO test work programme will provide the final inputs for the FEED engineering study and value engineering initiatives.

The test work programme was initiated in January 2022 and during the Quarter leach optimisation test work was completed. The bulk of the programme will be completed in Q2 CY 2022, including bulk leaching, vendor filtration and thickening, ion exchange optimisation and vanadium circuit option analysis. Final  $UO_4$  precipitation for product marketing is expected early in Q3 2022.



## **Uranium Export from Mauritania**

Mauritania has a well-established radiation regulatory authority, ARSN, and is a signatory for the International Atomic Energy Agency (“IAEA”). Aura has initiated process with ARSN to gain regulatory approval for export of Uranium Oxide Concentrate (UOC). ARSN has defined that to approve export of UOC Aura must provide a plan for radiation management, security and safe transport of uranium, with Aura having engaged expert independent consultants to extend work completed during the DFS on these matters. Once submitted ARSN will review plans with guidance from IAEA and if satisfactory within guidelines will approve export of UOC from Mauritania.

The final plan expected to be ready for submission to Mauritanian ARSN by Q3 CY 2022. During the Reporting Period, the Company continued to work with Mauritanian government for finalisation of shareholders agreement, which will define terms of the Mauritanian government’s 15% ownership of the Tiris Project. Completion of the terms is expected to be achieved in Q2 2022.

## **Sustainable design**

During the Quarter the baseline report for Greenhouse Gas Emission (GHG) projects based on the DFS was completed by Wood PLC (“Wood”) as the first step in defining the Net Zero Emission Pathway for the Tiris fast-track project<sup>10</sup>.

Total baseline Greenhouse Gas (GHG) emissions calculated at 16,600 tCO<sub>2</sub>e per annum, representing approximately 0.15% of the total GHG emissions of Mauritania per annum. This reinforces Tiris as a source of uranium products with low GHG emissions, enhancing the positive emission reduction potential and sustainability of nuclear energy.

The Study by Wood clearly defines a Net Zero Emission Pathway for the Tiris Fast-tracked Project, which is outlined in the summary below:

- Extended provision of renewable generation to meet the majority of power needs and reduce emissions associated with stationary combustion (Diesel generators).
- Further reductions via lower global warming potential (GWP) alternative refrigerants in buildings and vehicles.
- Residual emissions following these interventions are assessed as around potentially 30% of the initial baseline.
- Discussions with the Government of Mauritania, SOMELEC and UN partners to focus on potential direct investment in national projects to offset residual emissions (in preference to accessing the voluntary carbon market).

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<sup>10</sup> ASX & AIM Release - [Aura advances towards Net Zero Emission Production at Tiris](#) - 27 Jan 2022



**Figure 7 - Emissions by source as a percentage of annual emissions**

Aura is strongly committed to ESG practices and aims to create real and lasting benefits through uranium production at Tiris. Aligning with global targets for carbon neutrality, the Company aims to achieve net zero carbon emissions at the Project and will continue to review and implement the Net Zero Emission Pathway over the coming period.

A key component of the Net Zero Emissions Pathway will be to integrate GHG emissions reduction as a driver in Engineering decision making and value engineering. In doing this Aura will establish sustainable design practice as a core driver in project cost optimisation.

### Value Engineering

The DFS defined the Tiris fast-track project as a low operating cost process with potential for further optimisation. An opportunity review conducted by METS Engineering in 2021<sup>11</sup>.

The major opportunities identified included:

- Inclusion of a circuit to recover vanadium pentoxide as a by-product of  $U_3O_8$ .
- Reduction of operating costs and total greenhouse gas emissions (GHG) through optimization of power generation options.

### Inclusion of $V_2O_5$ by-product production circuit

The opportunity review for Tiris Fast-track project completed in Q3 2021 identified production of  $V_2O_5$  by-product to have potential to materially reduce operating costs. Similar opportunities identified at Langer Heinrich restart and are planned for inclusion.

Potential alterations to Tiris flowsheet were explored with two technically viable options recommended by METS Engineering. To realise this opportunity Aura has been working throughout the Quarter to:

- Define vanadium pentoxide resource estimate to support uranium resource estimate at Tiris (completed).
- Complete test work on recommended process flow sheet configurations to define optimum strategy to maximise vanadium pentoxide recovery without negatively impacting uranium oxide production (underway).
- Integrate proven vanadium pentoxide circuit configuration with uranium circuit in

<sup>11</sup> ASX & AIM Release: Tiris uranium project DFS update, 18 August 2021



FEED study.

The first step in addition of a V<sub>2</sub>O<sub>5</sub> by-product circuit was to define a vanadium pentoxide Resource Estimate to support the Uranium Oxide Resource Estimate. As announced on 16 February 2022, Aura announced the inclusion of V<sub>2</sub>O<sub>5</sub> in the Tiris Resource Estimate, demonstrating that vanadium consistently occurs at a ratio of 34% uranium through the Resource. The result was inclusion of 18.4Mlbs V<sub>2</sub>O<sub>5</sub> at an average recoverable grade of 82.5ppm V<sub>2</sub>O<sub>5</sub>.

**Table 6 – Tiris Uranium Project Global Resource Estimate<sup>12</sup>**

Cut-off U <sub>3</sub> O <sub>8</sub> ppm	Class	Tonnes (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (Mlb)	V <sub>2</sub> O <sub>5</sub> (ppm)	V <sub>2</sub> O <sub>5</sub> (Mlb)
100	All	102.1	253	56.9	82	18.4
200	All	55.0	336	40.8	109	13.2
300	All	24.8	452	24.7	146	8.0

**Table 7 - TIRIS RESOURCE CLASSIFICATION - TOTAL, Feb 2022<sup>13</sup>**

Cut-off U <sub>3</sub> O <sub>8</sub> ppm	Class	Tonnes (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (Mlb)	V <sub>2</sub> O <sub>5</sub> (ppm)	V <sub>2</sub> O <sub>5</sub> (Mlb)
100	Measured	10.2	235.7	5.3	76.4	1.7
	Indicated	29.0	222.1	14.2	72.0	4.6
	Total M&I	39.2	226	19.5	73	6.3
200	Inferred	62.9	270	37.4	87	12.1
	Measured	4.6	355.0	3.6	115.0	1.2
	Indicated	12.8	315.4	8.9	102.2	2.9
300	Total M&I	17.4	326	12.5	106	4.1
	Inferred	37.6	678.4	28.3	219.8	9.2
	Measured	2.1	496.8	2.3	161.0	0.7
300	Indicated	4.7	453.6	4.7	147.0	1.5
	Total M&I	6.8	467	7.0	151	2.3

Testing of vanadium recovery process options defined in the Opportunity Review is currently underway at ANSTO Minerals. It is anticipated that confirmation of the preferred option for vanadium pentoxide by-product recovery will be available late in Q2 2022, with potential operating cost savings modelled early in Q3 2022 as shown in Figure 8.

<sup>12</sup> ASX & AIM Release: Aura defines vanadium JORC resource at Tiris uranium Project, 16 February 2022

<sup>13</sup> ASX & AIM Release: Aura defines vanadium JORC resource at Tiris uranium Project, 16 February 2022

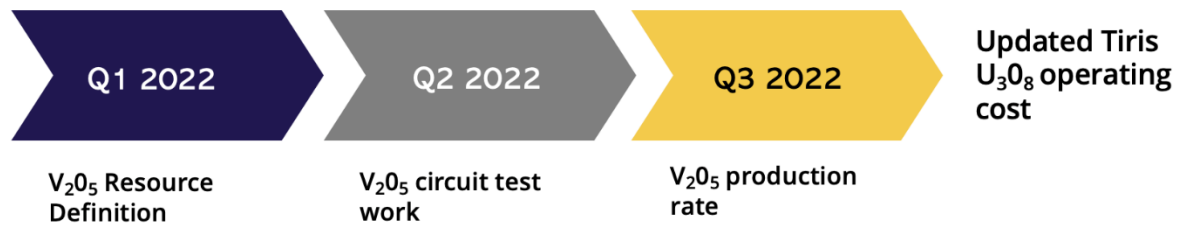


Figure 8 – Tiris fast-track project operating cost update timeline

### Sustainable design for cost reduction

Net Zero Emissions guidelines established through the baseline GHG emissions study completed by Wood will form the basis for optimisation of the Tiris operation through the value engineering and FEED phase.

Aura has defined direct relationship between GHG reduction and operating cost savings at Tiris based on the findings of the Wood Net Zero Emission study. Value engineering initiatives, such as reduction of diesel usage for power generation, have potential to bring equal positive impact to reduction of GHG emissions and overall operating cost of the operation.

### Water Programme

On the 13 December 2021 Aura announced the completion and successful results from the Company's 2021 water drilling programme, with strong flows encountered at the Tiris Uranium Project. This reconfirmed results from the 2019 water drilling programme undertaken by Aura (ASX & AIM Release – 25 September 2019).

Aura completed 8 boreholes for the 2021 water drilling programme, 7 of which are at Target C22, with all producing strong water flows, including several with high yields. With sufficient water located in the Oued el Foule Depression at the Project, production can be expedited with capital expenditure and operating costs likely to remain low in comparison to peer uranium projects.

The Project has an initial water requirement of approximately 0.5 giga-litres. Based on the spacing of water bearing drillholes to date, the C22 water occurrence is estimated to contain several giga-litres of water, and possibly significantly more, without allowing for recharge.





**Figure 9 - Water Drilling at the Tiris Uranium Project**

During the Reporting Period preliminary modelling of the groundwater supply options was undertaken. It was estimated based on measured flow rates that the C22 water occurrence showed potential for continuous water supply at a rate of ~0.25GL per year. In addition, recommendations were made for exploration of additional targets where the aquifer remains open to the south (Figure 10). These targets will be drilled as part of the upcoming drilling programme.

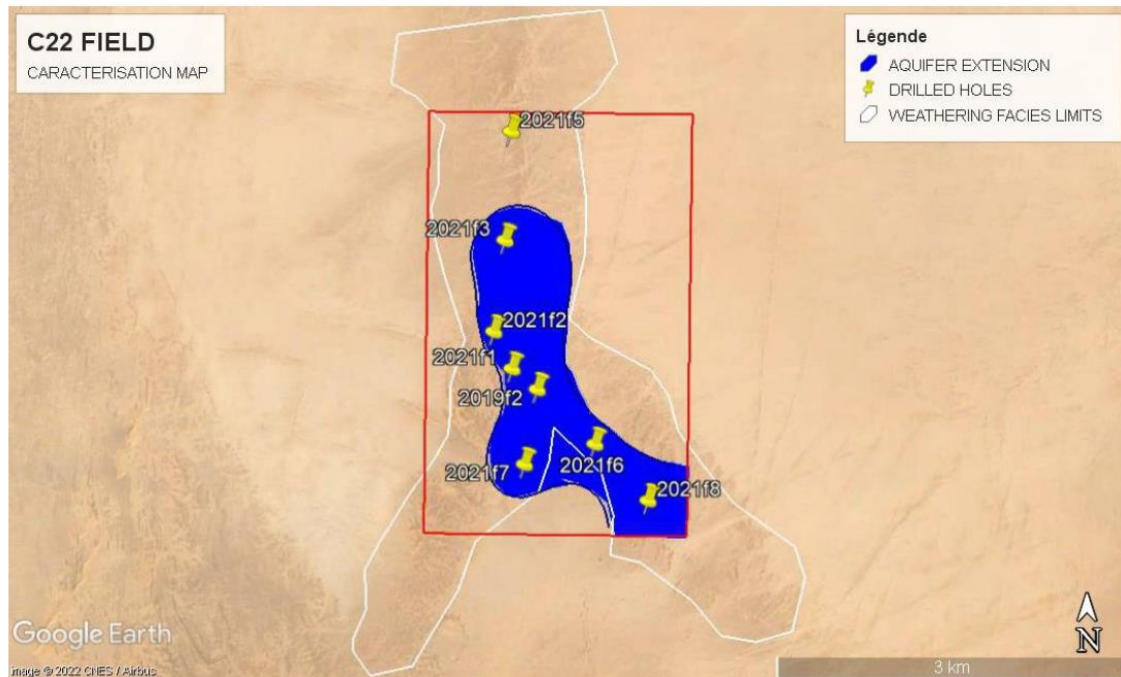


Figure 10 – C22 water occurrence aquifer modelled zone

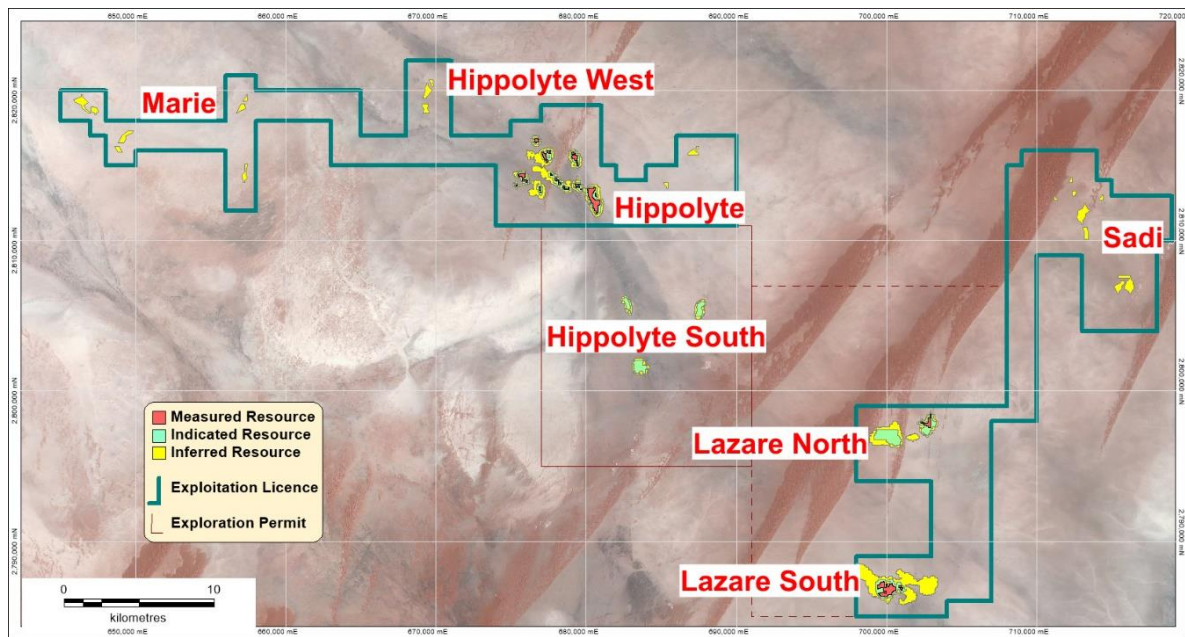
### Project Expansion - Tiris Uranium Resource Upgrade Programme

On 16 February 2022, Aura announced the inclusion of vanadium pentoxide in the Tiris Resource Estimate. The addition of vanadium to the Tiris Resource Estimate was undertaken after confirmation of a constant ratio of vanadium to uranium at Tiris in carnotite, a uranium vanadium potassium oxide mineral ( $K_2(UO_2)_2(VO_4)_2 \cdot 3H_2O$ ), which is the primary host of uranium.

The inclusion of vanadium pentoxide supports inclusion of a  $V_2O_5$  by-product in the 800klb  $U_3O_8$  per annum fast track Tiris project, potentially reducing operating costs.

On 9 February 2022, Aura announced plans to upgrade additional areas with the Tiris East deposits from the Inferred category to Measured or Indicated categories. Any upgrade of the Resource categories will aim to support future expansion of the Tiris project  $U_3O_8$  production rate.





**Figure 11 - Tiris East Resource zones. The resource upgrade programme will focus on areas of Inferred Resource at Sadi, Lazare South and Hippolyte.**

The Tiris uranium resource upgrade programme will represent a key milestone, laying the groundwork for potential future expansion of the Tiris Reserves and production rate. The Company anticipates that drilling will commence in mid-May 2022, with resource upgrade results available in Q3 2022.

The drilling programme will be the largest single programme undertaken on the Tiris deposits, aiming to increase the proportion of the Resources in the Measured and Indicated categories from 34% to >50%. If achieved, this will provide the baseline for increasing Reserves and supporting increased U<sub>3</sub>O<sub>8</sub> production rates from the Tiris Expansion Project.

### Tiris Regional Exploration

During the Quarter, Aura announced plans to continue exploration for uranium in Mauritania. As part of the Resource Upgrade programme Aura will undertake additional radiometric surveys and drilling to assess expansion of the Global Tiris Resource base.

The results of additional exploration activities are expected to be available in late Q3 2022.

## Häggån Project

Aura holds the 100% owned Häggån Project in Sweden, with a significant inferred resource<sup>14</sup> of 800m pounds of U<sub>3</sub>O<sub>8</sub><sup>15</sup>, and a high grade zone of 800m pounds of V<sub>2</sub>O<sub>5</sub>, along with other important Battery Metals including Ni, Zn and Mo<sup>16</sup>.

The Häggån Project provides a unique opportunity to support supply security in Sweden for both battery metals and uranium, through independent operations.

Sweden ranks 22<sup>nd</sup> of nations supplying battery metals<sup>17</sup>, however has made significant investment in battery manufacture with support for the Northvolt Gigafactory<sup>18</sup> positioning electrification as a central topic of debate.

On 1 January 2022, Brussels proposed a green taxonomy for nuclear power<sup>19</sup>, which will allow all European Union states to provide a green label for ESG nuclear investment in Europe to assist in meeting the Net Zero 2050 carbon emission target, with the aim of accelerating the low-carbon transition and phase out from coal.

The battle to recognise nuclear power as green has intensified in recent months as EU countries have faced record electricity prices this winter<sup>20</sup> Figure 1 below shows up to 500% + increases in electricity wholesale prices for some European countries between January 2020 and January 2022.

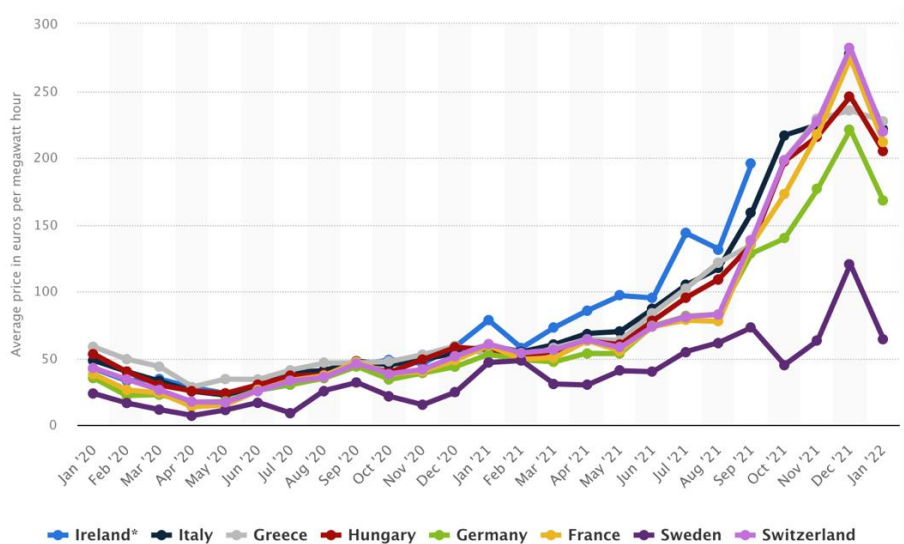


Figure 12 - Average monthly electricity wholesale prices in selected countries in the European Union (EU) from January 2020 to January 2022

<sup>14</sup> The information relating to the Häggån Uranium Resource Estimate was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

<sup>15</sup> ASX Release: "Outstanding Häggån Uranium Resource Expands to 800 million pounds" 22 August 2012

<sup>16</sup> ASX & AIM Release: "New Resource Estimate - Häggån Battery Metals Project, 23 May 2018

<sup>17</sup> Ranked: Top 25 nations producing battery metals for the EV supply chain, [www.mining.com](http://www.mining.com) 15 April 2021

<sup>18</sup> [Northvolt Ett assembles first lithium-ion battery cell](https://www.northvolt.com/en/press-releases/northvolt-ett-assembles-first-lithium-ion-battery-cell)

<sup>19</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_711](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_711)

<sup>20</sup> <https://www.statista.com/statistics/1267500/eu-monthly-wholesale-electricity-price-country/>



Sweden currently has 6 nuclear power plants in operation providing 40% of total power to the citizens that is carbon emission free<sup>21</sup>. In August 2018, under a power sharing deal with the Green party, the Swedish Government banned uranium mining<sup>22</sup> with that government coalition dissolved late 2021.

In February 2022, Swedish energy giant, Vattenfall AB, suspended orders of uranium and nuclear fuel from Russia in light of the current geopolitical situation<sup>23</sup>, with the Company expecting further countries expected to cease buying uranium from Russia. This highlights the relevance that security of supply will continue to show in the current political landscape.

### **Engagement of Diplomat Communication**

During the Quarter, Aura appointed leading consultancy group, Diplomat Communications, to liaise with the Swedish Government and other relevant stakeholders in relation to advancing the Häggån Projects. Based in Sweden, Diplomat Communications is a leading strategic communications consulting firm, that works across business, politics, the financial markets and media, to build trusting relationships, and drive internal and external change.

Aura looks forward to working with the current government with the aim of changing the current situation to help provide locally sourced uranium for Sweden's nuclear power plants, export market and associated jobs with the potential for the Häggån Projects.

The Company also aims to work alongside Diplomat Communications and the Swedish Government to further advance the project as the global demand for battery metals and carbon free energy continues to increase, supporting Sweden's energy transition.

## **Archaean Greenstone Gold**

### **Tasiast South Gold and Battery Metals**

#### **Bedrock Drilling Programme**

Aura also holds 100% of the Tasiast South Project in Mauritania, with assay results received from the auger drilling programme completed in late 2021. The objective of the programme was to sample top of bedrock within Nomads Farmin permit where outcrop is almost non-existent. The area lies along strike and in the same Archean greenstone belt as the giant Tasiast goldmine operated Kinross and has never before been subject to any subsurface testing.

<sup>21</sup> <https://world-nuclear.org/information-library/country-profiles/countries-o-s/sweden.aspx>

<sup>22</sup> ASX Release: "New Resource Estimate – Häggån Battery Metals Project, 23 May 2018

<sup>23</sup> <https://thedeepdive.ca/nuclear-energy-producer-vattenfall-cuts-uranium-purchases-from-russia/>

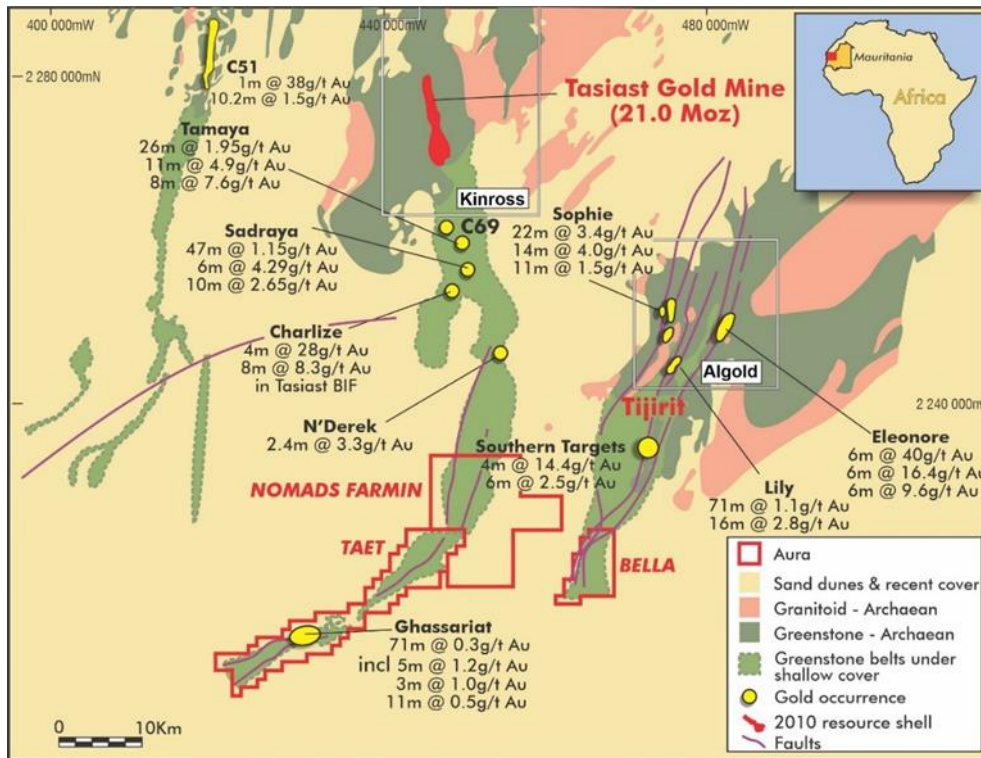


Figure 13 – Historic drill intercepts from Tasiast South region

In 2021, Aura conducted a detailed ground gravity survey over its entire tenement holdings at Tasiast South to better define geology and structures of relevance to gold and base metals mineralisation. On the Nomads Farmin the only prior existing data was regional air-magnetics, which is of limited use in defining geology, hence the gravity surveying a was value in defining the limits of the greenstone belt and structures. Structural geology specialist PGN Geoscience was commissioned to process the interpret the data. Their geological interpretation is presented in Figure 14. This highlighted similar geology to that present at the Tasiast mine 35 km to the north, with predominantly mafic rocks, banded iron formation and late stage intrusives within the greenstone belt.



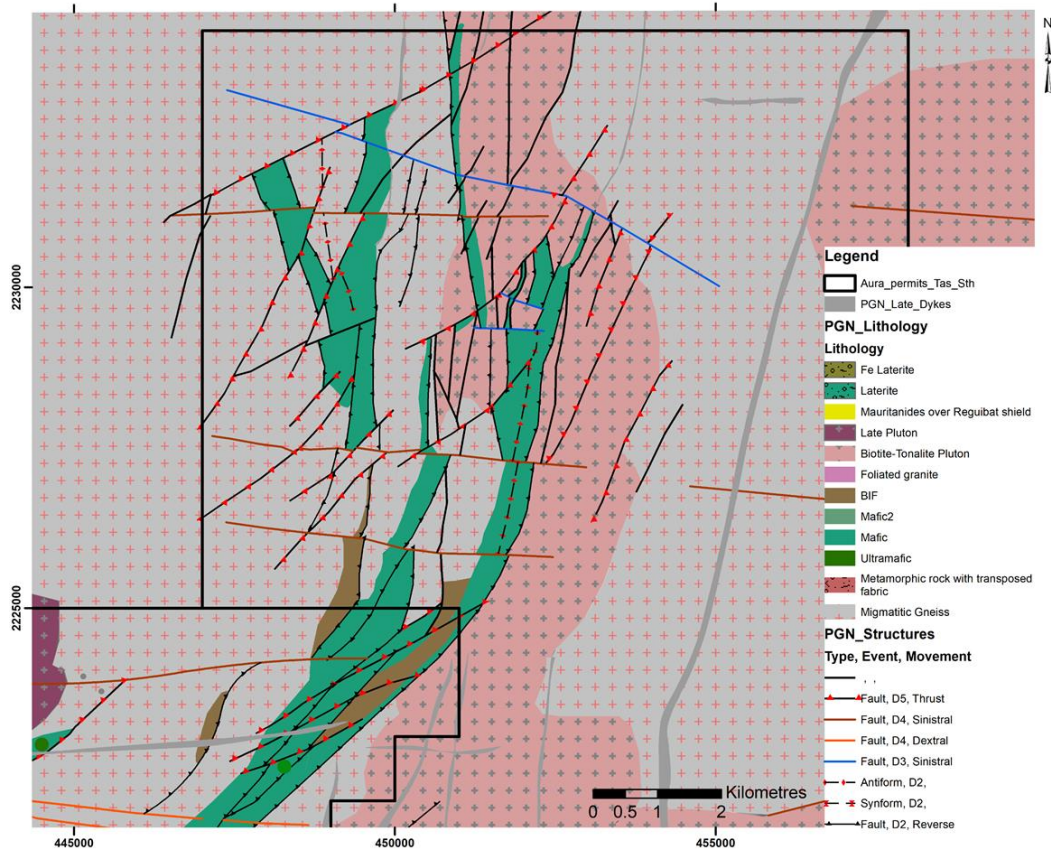


Figure 14 - Interpreted geology Nomads JV.

A programme of reconnaissance auger drilling was conducted with holes 100 m apart on lines spaced 800m to 1600m. Approximately 30% of holes failed to penetrate to fresh rock due to the occurrence of lateritic duricrust.

Results are summarised in Figure 15. Given the very broadly spaced nature of the drilling and the number of holes with limited penetration even low levels of gold can be significant in locating mineralisation. A number of zones of anomalous gold are evident, in places coinciding with anomalous arsenic which can be an indicator of mineralisation.

Closer spaced aircore drilling is being planned to follow up on these anomalous zones prior to deeper RC drilling.



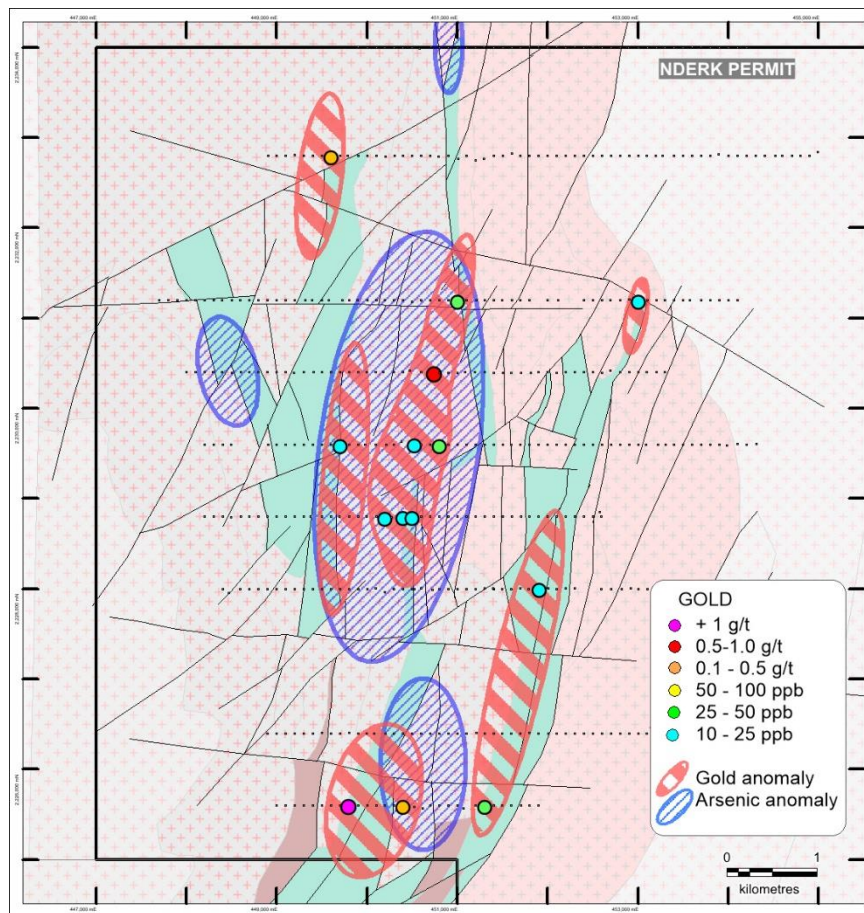


Figure 15 - Nomads Farmin auger geochemistry – best in hole gold & arsenic

## Corporate

### Acting CEO

On 13 January 2022, Aura appointed Dr Will Goodall as acting CEO to rapidly build momentum towards expansion of the Tiris Resource and preparation for uranium production (ASX Release 13 January 2022).

Dr Goodall has worked with Aura for over 10 years, has held the role of Aura’s Principal Metallurgist since 2018, and was responsible for delivering the Tiris Uranium Scoping and Definitive Feasibility Studies, and the Häggån Uranium Scoping Study.

Dr Goodall contributes over 20 years of experience in geometallurgy, mineral processing and hydrometallurgy across a wide range of commodities, contributing a strong mix of technical expertise and corporate experience.

Further to the Strategic Board Restructure announcement on 22 November 2021, the recruitment process to appoint a Managing Director & CEO with significant production experience was ongoing through Q1 2022.



## Financing

Funds Raised from the Rights Issue completed in November 2021 have been utilised as follows.

**Table 8.1 –Use of funds from November 2021 Rights Issue**

Use of Funds under Prospectus	Funds allocated under Prospectus Nov 2021	Funds expended between Rights Issue and 31 Mar 2022	Variance	
Tiris Uranium Project	\$1,200,000	\$439,531	\$760,469	63%
Corporate costs (including capital raising cost)	\$217,000	\$234,458	\$(17,458)	-8%
Working capital	\$613,399	\$454,955	\$158,444	26%
<b>Total</b>	<b>\$2,030,399</b>	<b>\$1,128,944</b>	<b>\$901,455</b>	<b>44%</b>

On 14 March 2022 the Company announced the successful placement of 35.2 million new shares in the Company to raise A\$8.8 million before costs ("The Placement") to advance the Tiris Uranium Project as defined in Table 9.2.

**Table 9.2 –Use of funds from A\$8.8 million placement**

Use of Funds under Prospectus	Funds allocated under Prospectus 17 Mar 2022	Funds expended between Placement and 31 Mar 2022	Variance	
Tiris Uranium Project	\$7,600,000	-	\$7,600,000	100%
Corporate costs (including capital raising cost)	\$557,000	\$540,810	\$16,190	3%
Working capital	\$643,000	-	\$643,000	100%
<b>Total</b>	<b>\$8,800,000</b>	<b>\$540,810</b>	<b>\$8,259,190</b>	<b>94%</b>

The Placement provides sufficient funds for the Company to complete the proposed Resource Upgrade Programme at Tiris and complete the fast-track Tiris Uranium Project FEED study by Q1 2023.

Payments to related parties of the entity and their associates are set out in the attached Appendix 5B. The payments relate to director fees to non-executive directors in the normal course of business at commercial rates, excluding reimbursements of out-of-pocket expenses.

## Tenement Summary

Details of mining tenements, farm-in and farm-out agreements held at the end of the quarter, and any changes to such tenements and agreements during the quarter.

**Table 10 – Summary of tenements**

Country / Tenement number	Name	Grant / Application date	Expiry date	km <sup>2</sup>	Holder	Equity
<b>Mauritania</b>						
2491C4	Ain Sder	8/02/2019	Exploitation Licence	207	Tiris Resources SA	85%
2492C4	Oued El Foule	8/02/2019	Exploitation Licence	190	Tiris Resources SA	85%
561	Oum Ferkik	16/04/2008	Subject to exclusivity negotiation	60	Aura Energy Limited	100%
2457B2	Hadeibet Belaa	2/04/2019	2/04/2022	41	Tiris International Mining Co.	100%
2458B2	Touerig Taet	2/04/2019	2/04/2022	134	Tiris International Mining Co.	100%
<b>Sweden</b>						
2007-243	Haggan nr 1	28/08/2007	28/08/2022	18	Vanadis Battery Metals AB	100%
2018-9	Mockelasen nr 1	21/01/2019	21/01/2022	18	Vanadis Battery Metals AB	100%
2018-7	Skallbole nr 1	20/01/2019	20/01/2022	8	Vanadis Battery Metals AB	100%

Farm-in agreement with Nomads Mining Company sarl, Mauritania, to earn up to 70% interest in Nomads 100% owned exploration permit in Mauritania (details in ASX announcement 11 June 2019).

## Summary of ASX releases

- Acting CEO appointment
- Chairman's Letter
- Global X ETF inclusion
- Resource Enhancement programme
- Vanadium resource estimate
- Investor presentation
- Placement results
- Media Release: Diplomat communications



The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ('MAR') which has been incorporated into UK law by the European Union (Withdrawal) Act 2018. Upon the publication of this announcement via Regulatory Information Service ('RIS'), this inside information is now considered to be in the public domain.

For Further Information, please contact:

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#### **About Aura Energy (ASX:AEE, AIM:AURA)**

Aura Energy is an Australian based minerals company that has major uranium and polymetallic projects with large resources in Africa and Europe.

The Company is now focused on uranium production the Tiris Project, a major greenfields uranium discovery in Mauritania, with Aura announcing a Resource Upgrade in August 2021 of 10% or 5.0 million lb U3O8 bringing the total JORC Resource to 56 Mlbs (at a 100 ppm U3O8 lower cut-off grade).

Aura also completed a capital estimate update for the Tiris Definitive Feasibility Study, to reflect current global pricing, with these 2021 figures reconfirming Tiris as one of the lowest capex, lowest operating cost uranium projects.

In October 2021, the Company entered a US\$10m Offtake Financing Agreement with Curzon, which includes an additional up to US\$10m facility, bringing the maximum available under the agreement to US\$20m.

In 2022, Aura will continue to transition from a uranium explorer to uranium producer, to capitalise on the rapidly growing demand for nuclear power as the world continues to shift towards a decarbonised energy system.

### **Disclaimer Regarding Forward Looking Statements**

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance or achievements to differ materially from the expectations described in such forward-looking statements. The Company does not give any assurance that the anticipated results, performance or achievements expressed or implied in those forward-looking statements will be achieved.

### **Mineral Resource and Ore Reserve Estimates**

The information in this announcement that relates to Mineral Resources or Ore Reserves is extracted from the reports titled 'Tiris Uranium Project - Resource Upgrade of 10%' released to the Australian Securities Exchange (ASX) on 27 August 2021 and 'Tiris Uranium Project DFS Update' released to the ASX on 18 August 2021 and for which Competent Persons' consents were obtained. Each Competent Person's consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the original ASX announcements continue to apply and have not materially changed.

The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original ASX announcements.

In respect to Resource statements there is a low level of geological confidence associated with inferred mineral resource and there is no certainty that further exploration work will result in the determination of indicated measured resource or that the production target will be realised.

### **Notes to Project Description**

The Company confirms that the material assumptions underpinning the Tiris Uranium Production Target and the associated financial information derived from the Tiris production target as outlined in the Aura Energy release dated 18 August 2021 for the Tiris Uranium Project Definitive Feasibility Study continue to apply and have not materially changed.

The Tiris Uranium Project Resource was released on 27 August 2021 "Resource Upgrade of 10% - Tiris Uranium Project". The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

In respect to Resource statements there is a low level of geological confidence associated with inferred mineral resource and there is no certainty that further exploration work will result in the determination of indicated measured resource or that the production target will be realised.

### **Competent Persons**

The Competent Person for the portion of the 2022 Tiris Vanadium Mineral Resource Estimate and classification relating to the Hippolyte, Hippolyte South, Lazare North, and Lazare South deposits is Mr Arnold van der Heyden of H&S Consulting Pty Ltd. The information in the report to which this statement is attached that relates to the 2018 Mineral Resource Estimate is based on information



compiled by Mr van der Heyden. Mr van der Heyden has sufficient experience that is relevant to the resource estimation to qualify Mr van der Heyden as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr van der Heyden is an employee of H&S Consultants Pty Ltd, a Sydney based geological consulting firm. Mr van der Heyden is a Member and Chartered Professional of The Australasian Institute of Mining and Metallurgy (AusIMM) and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Person for the portion of the 2022 Tiris Vanadium Resource Estimate and classification relating to all other deposits within the resource (Sadi South, Sadi North, Marie, Hippolyte West, Oum Ferkik East, Oum Ferkik West deposits) is Mr Oliver Mapeto, an independent resources consultant.

The information in the report to which this statement is attached that relates to the 2018 Resource Estimate is based on information compiled by Mr Mapeto. Mr Mapeto has sufficient experience that is relevant to the resource estimation to qualify Mr Mapeto as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Mapeto is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM) and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Person for drill hole data and for integrating the different resource estimates is Mr Neil Clifford. The information in the report to which this statement is attached that relates to compiling resource estimates and to drill hole data is based on information compiled by Mr Neil Clifford. Mr Clifford has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify Mr Clifford as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clifford is a consultant to Aura Energy. Mr Clifford is a Member of the Australasian Institute of Geoscientists. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.