



EXPLORE, DISCOVER, DEVELOP

# Developing High Margin Uranium Projects

Peter Reeve – Executive Chairman  
July 2015

# Aura Energy Snapshot

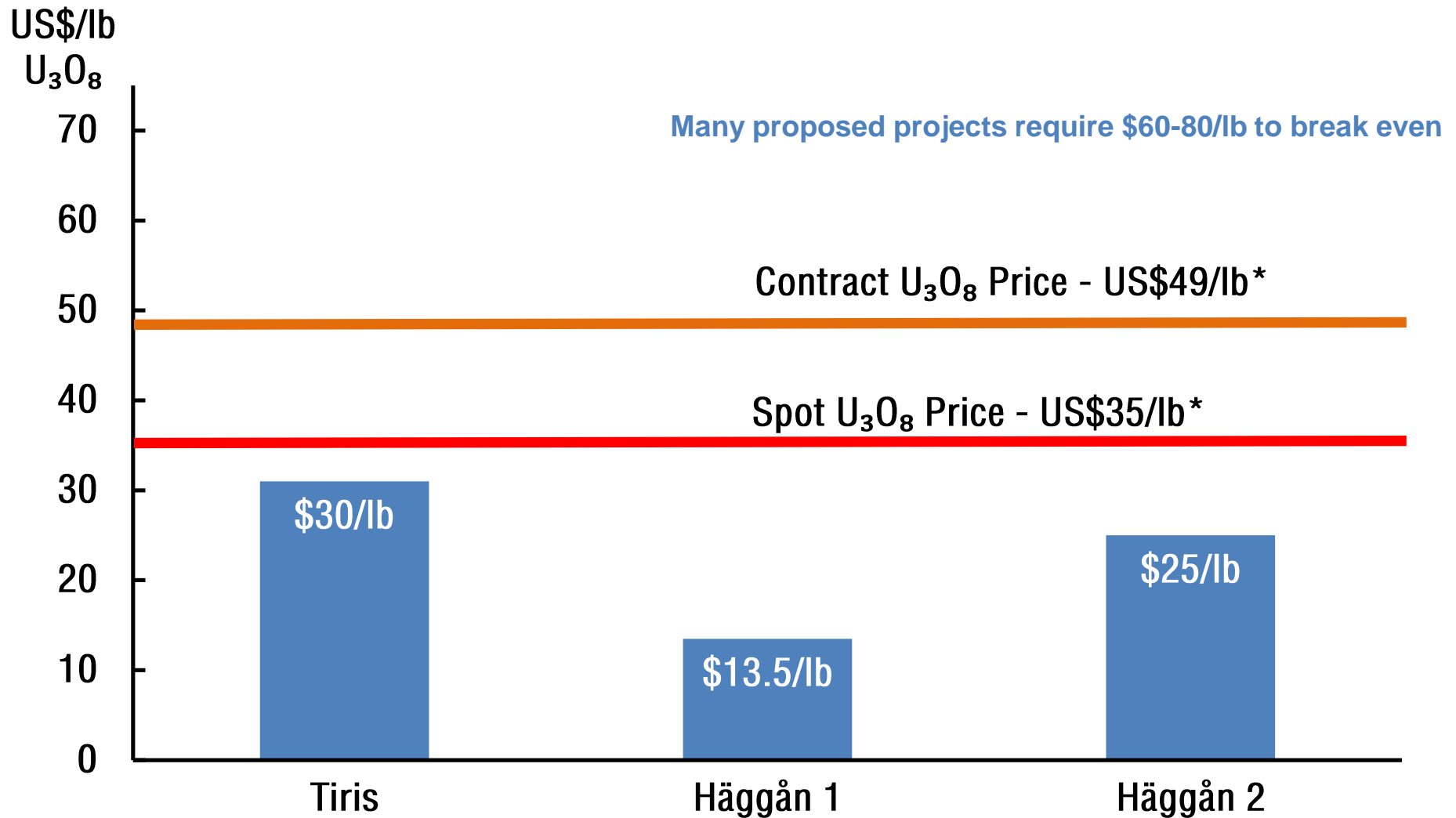


- Aura Energy has two 100% owned uranium development projects
- Both projects are large and have a significant margin at the current spot price:
  - Tiris : 50 Mlbs – Mauritania
  - Häggån : 800 Mlbs – Sweden

## Current focus - Tiris project providing near term production & cashflow

- C1 Cash costs of US\$30/lb U<sub>3</sub>O<sub>8</sub>
  - US\$45m capital cost
- 
- Häggån presents a large long term value option
    - C1 Cash costs of **US\$13.50/lb** incl credits

# Aura C1 Cash Costs Vs U<sub>3</sub>O<sub>8</sub> Pricing



\* Trade Tech Report

# Aura's Strategy – Moving to Cashflow

Aura's development strategy as follows:

- Complete the Tiris DFS within 18 mths
- Commence Tiris construction late 2016 (finance?)
- Continue project financing discussions H2 2015
- Progress critical path Haggan studies



# Uranium & Nuclear – Current Sentiment Drivers



- Chinese builds and Japanese reactor restarts remain are key to future uranium demand
- However other key issues are:
  - **Lack of term contracting is now critical**
  - Cigar Lake's 2015 guidance was 16 Mlbs; now 6-11Mlbs
  - Olympic Dam shutdown, ERA winding down

- Chinese demanding clean air
- EU nuclear reductions challenged
- Renewable only part solution
- Environmentalists nuclear support growing





# Tiris Uranium Project (100%)



Low Capex , Low Opex - Near Term Production and Cash Flow

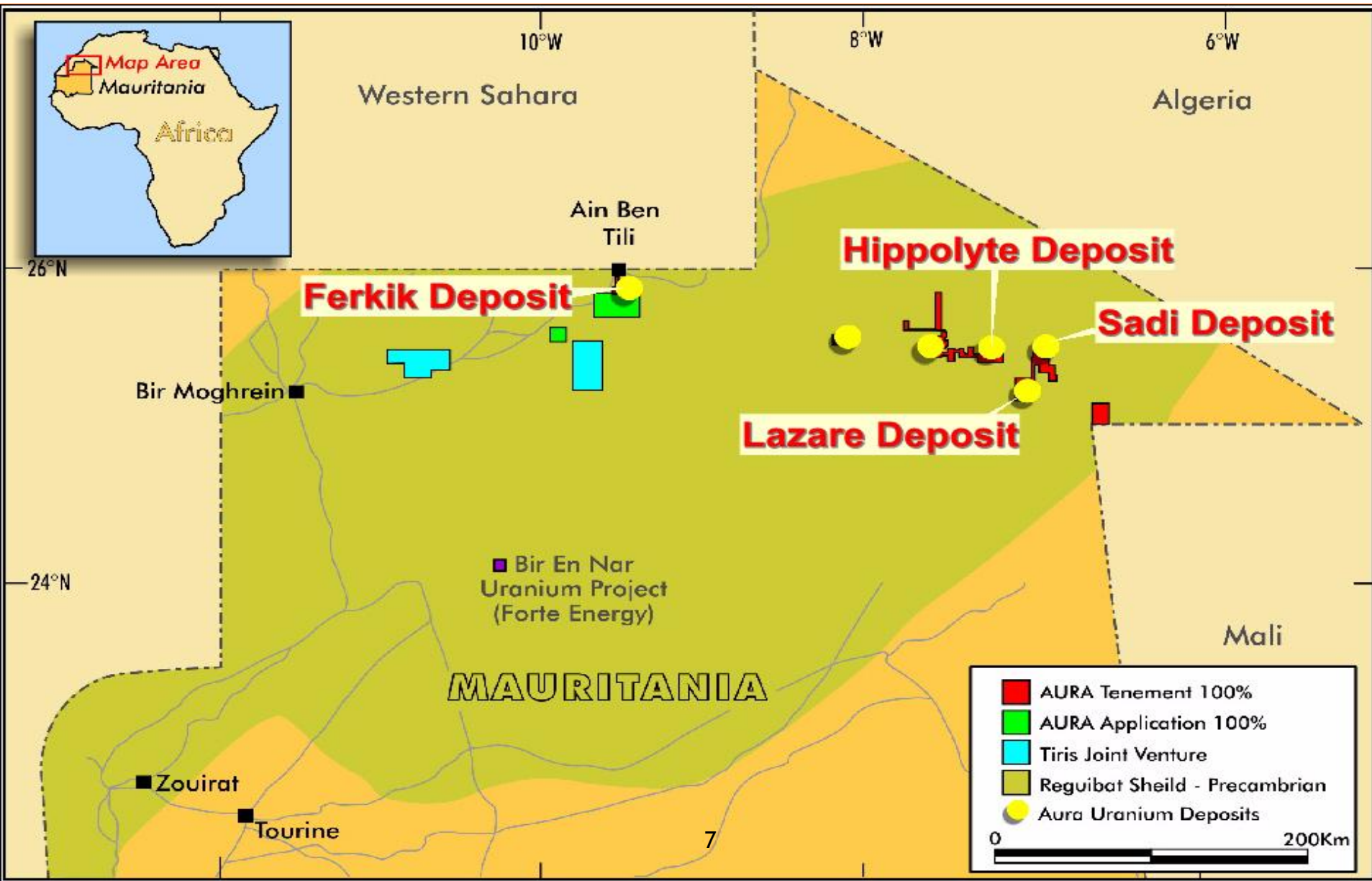
- Initial production profile up to 1mlbs per annum
- Key to low cash costs are:
  1. **Shallow Mining** at 1- 5 metres depth
  2. **Ore Upgrades** by 500 - 700%;
    - 335 ppm to 2,500 ppm  $U_3O_8$
  3. **Excellent Leach Recovery** and rate;
    - 94% in 4 hours

## Resulting project:

1. Very small physical footprint
2. **No grinding** – huge construction and operating savings
3. Easily scalable – modular, assembled on-site
4. Low Capex and Opex - US\$45 million and US\$30/lb  $U_3O_8$

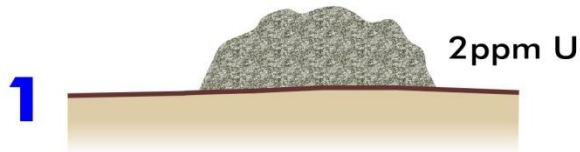


# Tiris Uranium Project Deposits



# Possible Tiris Geological Formation

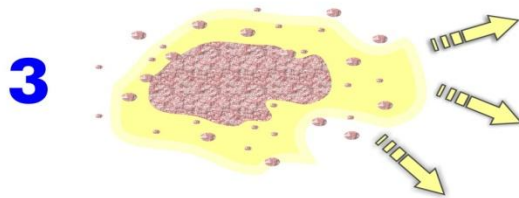
**Solid Unaltered Grey Granite**



**Sheared "Hot" Pink Granite**



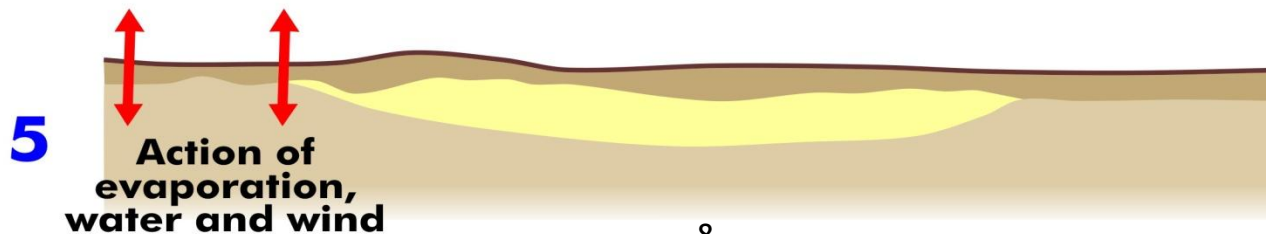
**$U_3O_8$  Leaches from Pink Granite  
- Sheds into Surrounds**



**Carnotite ( $U_3O_8$  Mineral)/Gravel Mix  
Gathers in Desert Low Points**



**Natural Processes Concentrate Carnotite  
into a Surficial "Supergene" Layer**





# Tiris Field Geology

Grey Granite



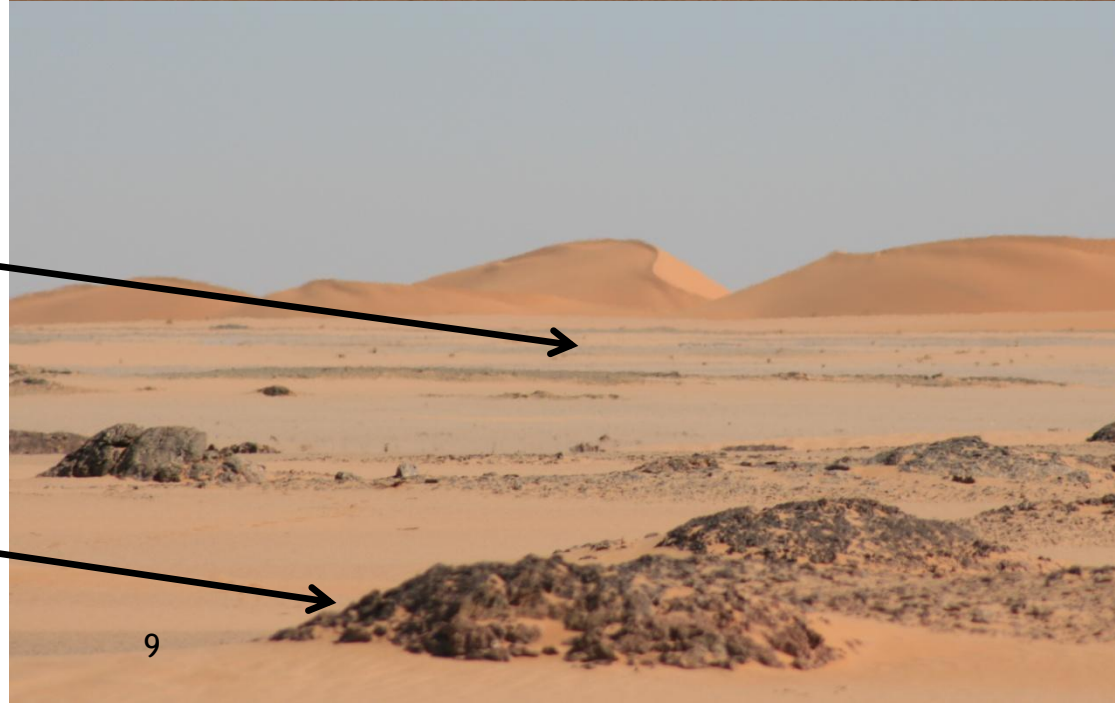
Altered Pink  
Granite



Flat Lying  $U_3O_8$   
Concentration Zones



Altered Pink Granite  
Shedding  $U_3O_8$



# Shallow Trenching Reveals Mineralisation

Calcrete deposit with carnotite uranium  
in a weathered granite host

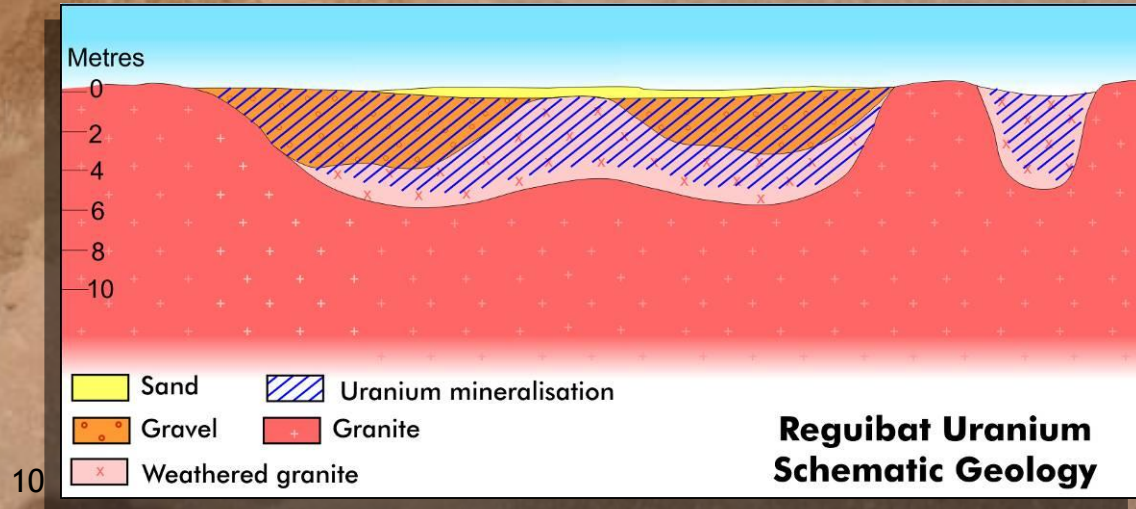


Uranium Mineralisation  
as Carnotite



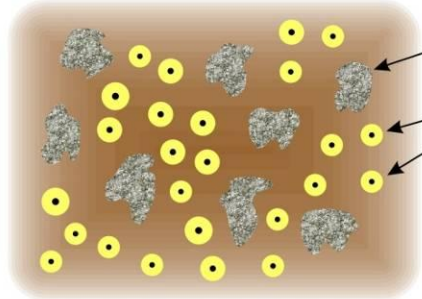
Free digging mining,  
No drill and blast

Permitting in a  
remote desert region



# Tiris Simple Ore Upgrade Steps

**Soft Friable Material  
That Breaks Down Easily**



**Coarse Weathered Granite**  
**Fine Grained Carnotite**

**120 TPH (1mtpa) Ore**  
**420 ppm  $U_3O_8$**

**Water**

**Slow Turning  
Low Power  
Washing Drum**

**Trommel**

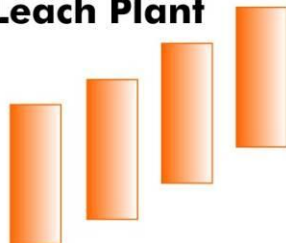


**Waste  
Coarse Oversize  
Weathered Granite**  
**90% Mass**  
**10% Uranium**

**75 $\mu$ m  
Screen**

**Fine  
10% Mass  
90% Uranium**

**Leach Plant**



**25 TPH (0.2mtpa)**  
**~2500 ppm  $U_3O_8$**

**Fine  
Carnotite**

# Tiris Scoping Study - July 2014 – DFS Underway



## Project

- Mine 1.0 Mtpa @ 420ppm  $U_3O_8$  for 15 years (~120 tph) & beneficiate  
—————→ 25 tph to small leach facility @ 2,500ppm  $U_3O_8$  (high grade)
- Producing 0.7-1.1 Mlbs  $U_3O_8$  per year
- 10.8 Mlbs  $U_3O_8$  - LOM Scoping Study mine plan versus 50 Mlb resource

## Key Financial Metrics

- Pre tax cashflow (15 years) : A\$360 M using US\$65/lb  $U_3O_8$  LT @90 cent AUD
- **Scoping Study utilises only 20% of known 50 m lb Resource**
- IRR of 78% before tax and royalties
- Breakeven price of US\$37/lb  $U_3O_8$

## Operational Milestones

- Project go ahead within 18 months post DFS subject to funding
- Expand project from cashflow
- Convert anomalies to target +75Mlb uranium Resource



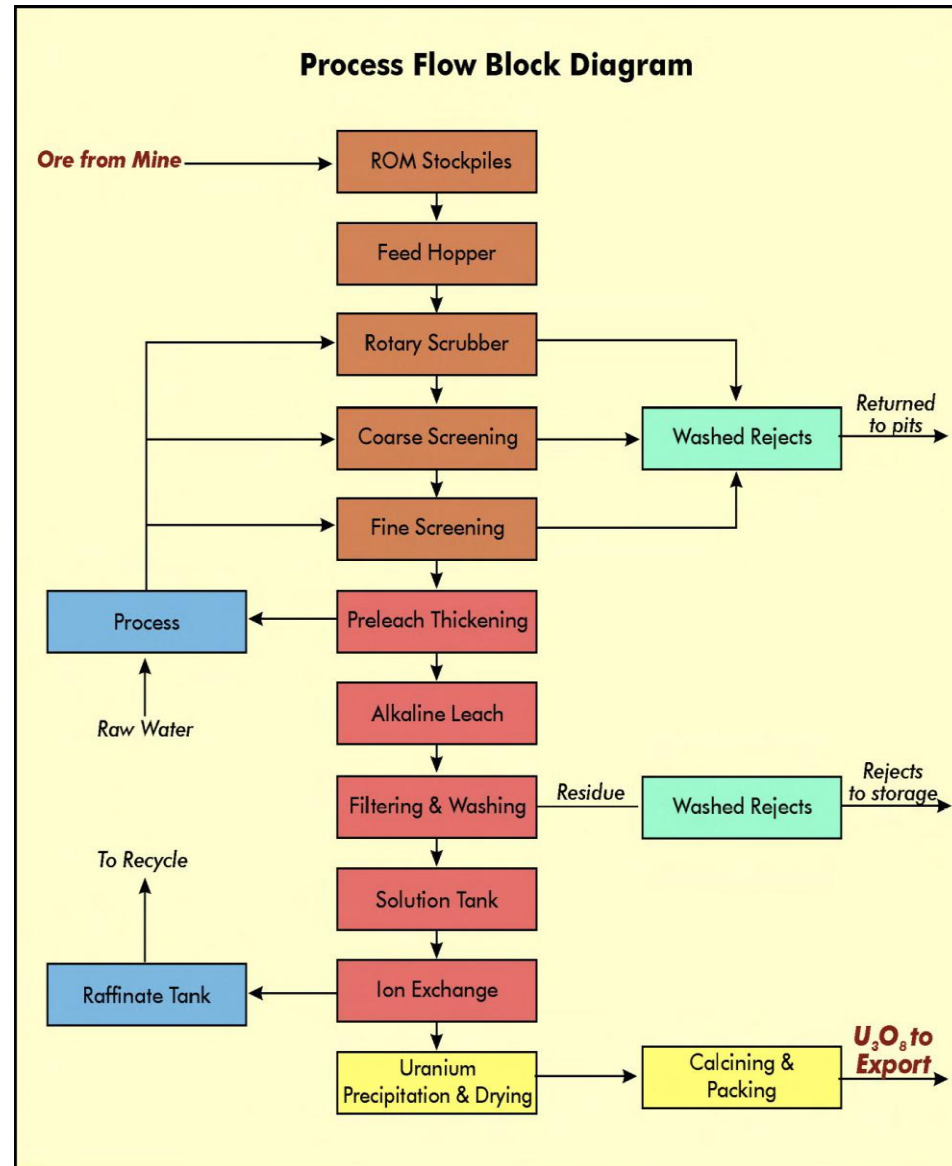
# Tiris Process Flowsheet



- Very small plant with no grinding
  - Wash & Screen
  - Alkaline Leach
  - Ion Exchange
  - U<sub>3</sub>O<sub>8</sub> Product Precipitation
  
- Capital estimate robust – direct quotes

Tiris Capital Cost	
Description	Cost (US\$ m)
Mining	1.12
Process Plant	22.0
Infrastructure	9.03
Engineering	3.19
Owners Cost	1.58
Contingency	8.05
<b>Total</b>	<b>45.0</b>

Tiris Operating Cost	
Description	Cost US\$/t Ore Mined
Mining	2.59
Processing	11.77
Services	3.00
G & A	4.08
<b>Total</b>	<b>21.42</b>



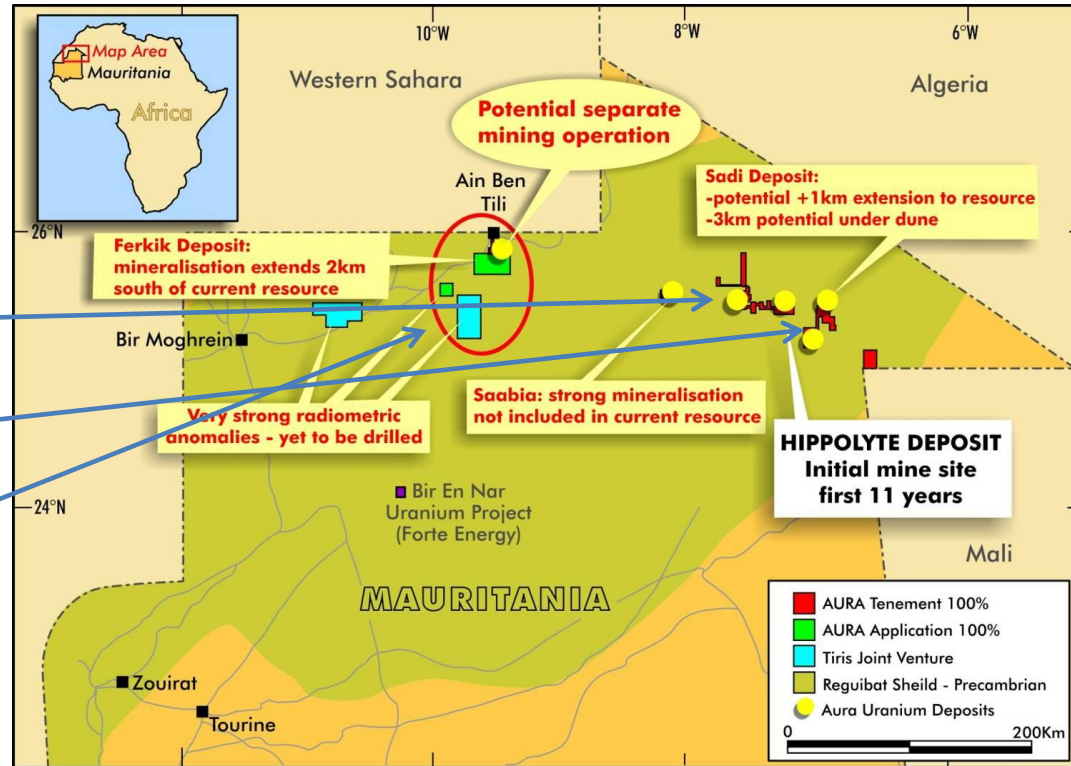


# Tiris Drilling Program and New Tenements



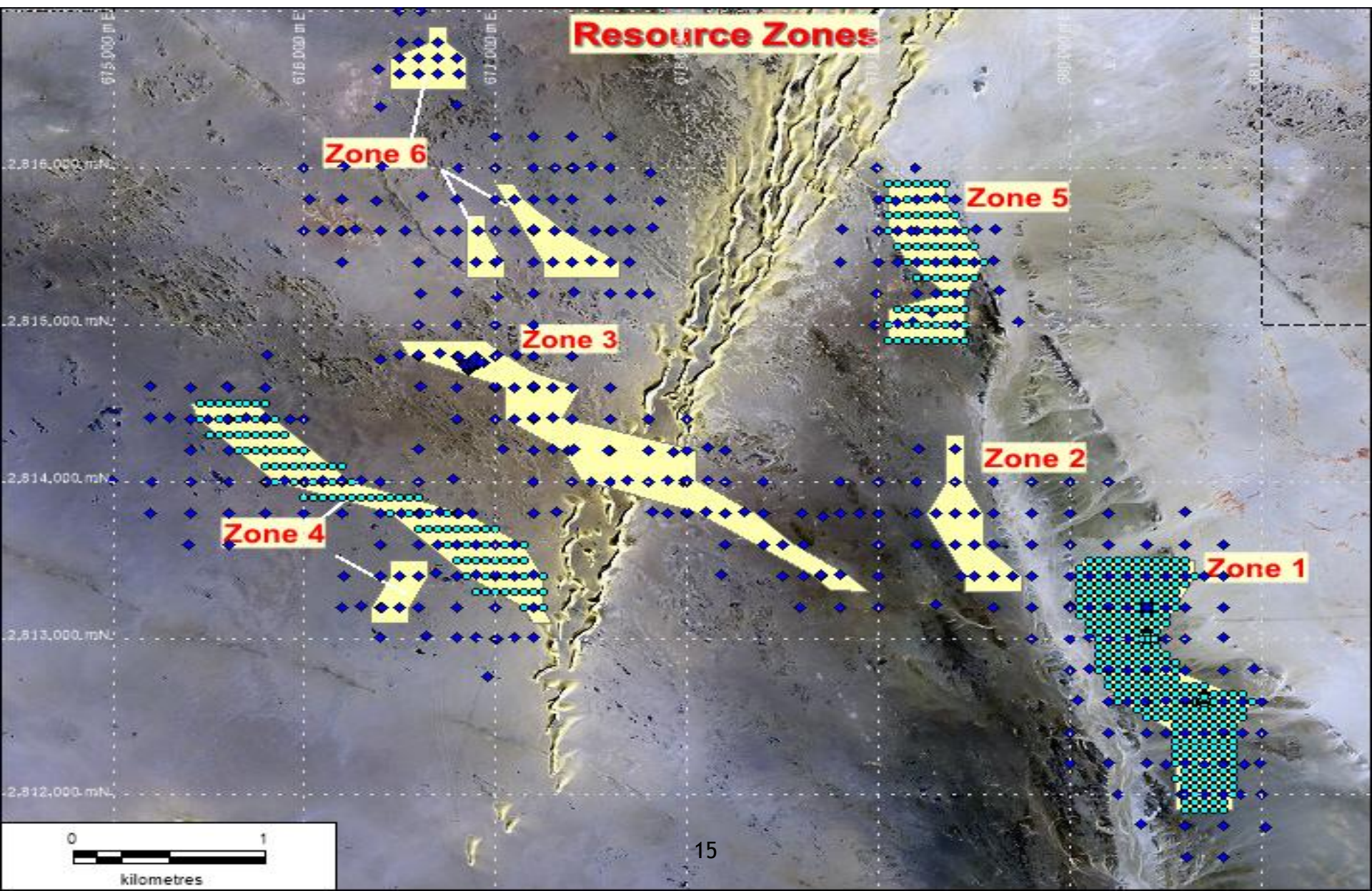
Important 4,000 metre drilling program completed in April to;

1. Upgrade early production years to Measured and Indicated Resource at Hippolyte
2. Expand known Resources particularly at Sadi
3. Strong untested radiometric anomalies drilled



- Upgrade to Measured and Indicated due in September
- Generally mineralised zones provide 3-5 M lbs U<sub>3</sub>O<sub>8</sub> per sq km
- Excellent potential to add to Resource

# Resource Drilling – 2015 Hippolyte

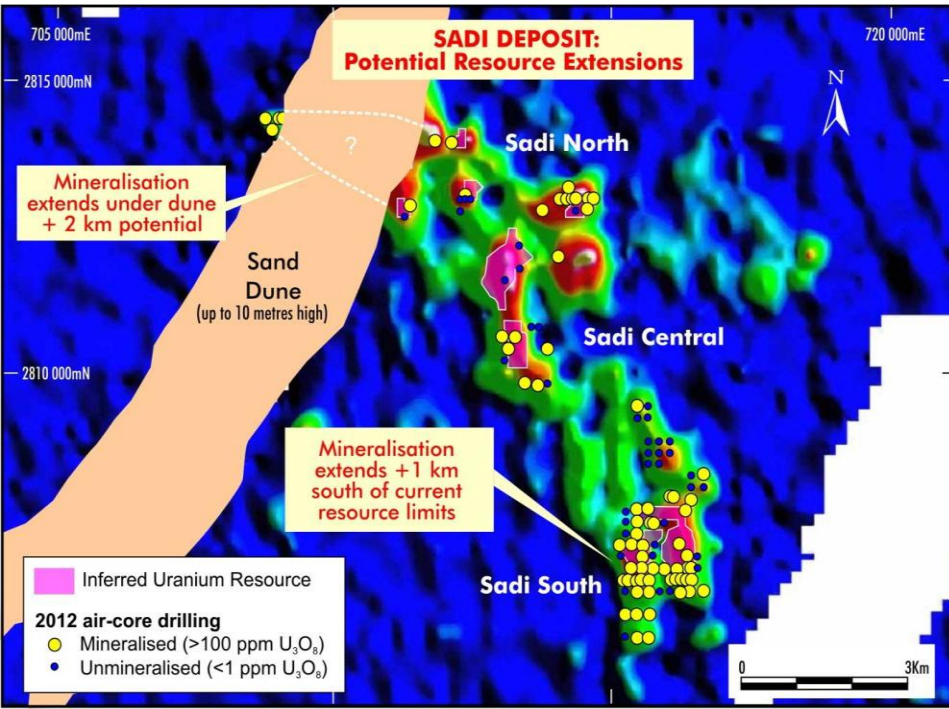
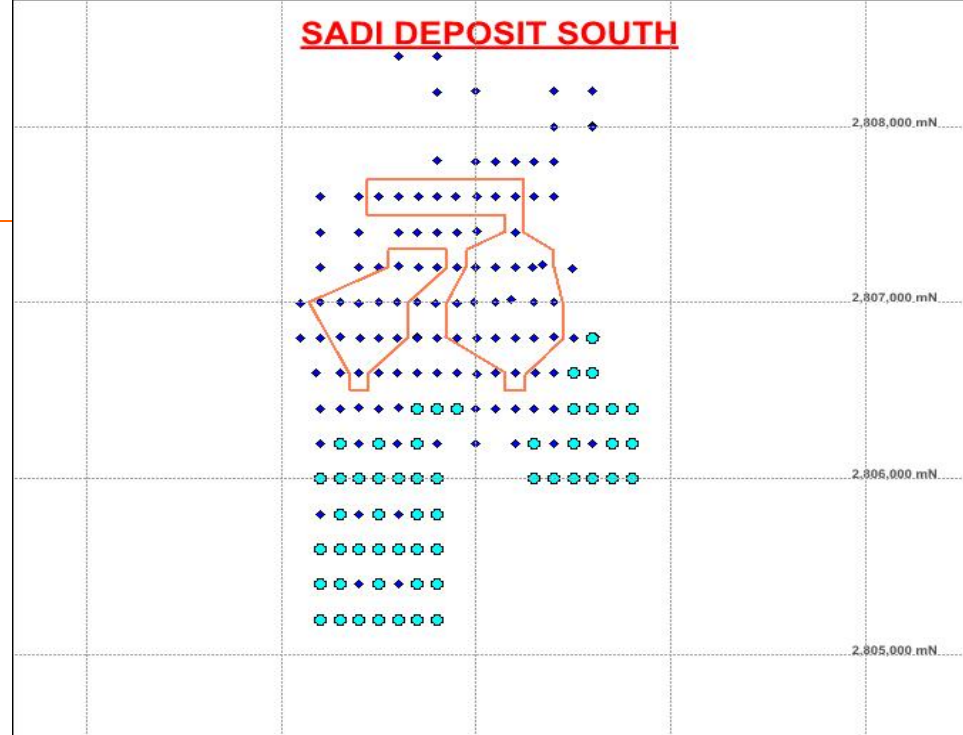




# Sadi Deposit Exploration

- Follow up drilling on previous high grades
- Mineralisation under sand – Sadi Sands
- Untested targets
- Untested known radiometric anomalies

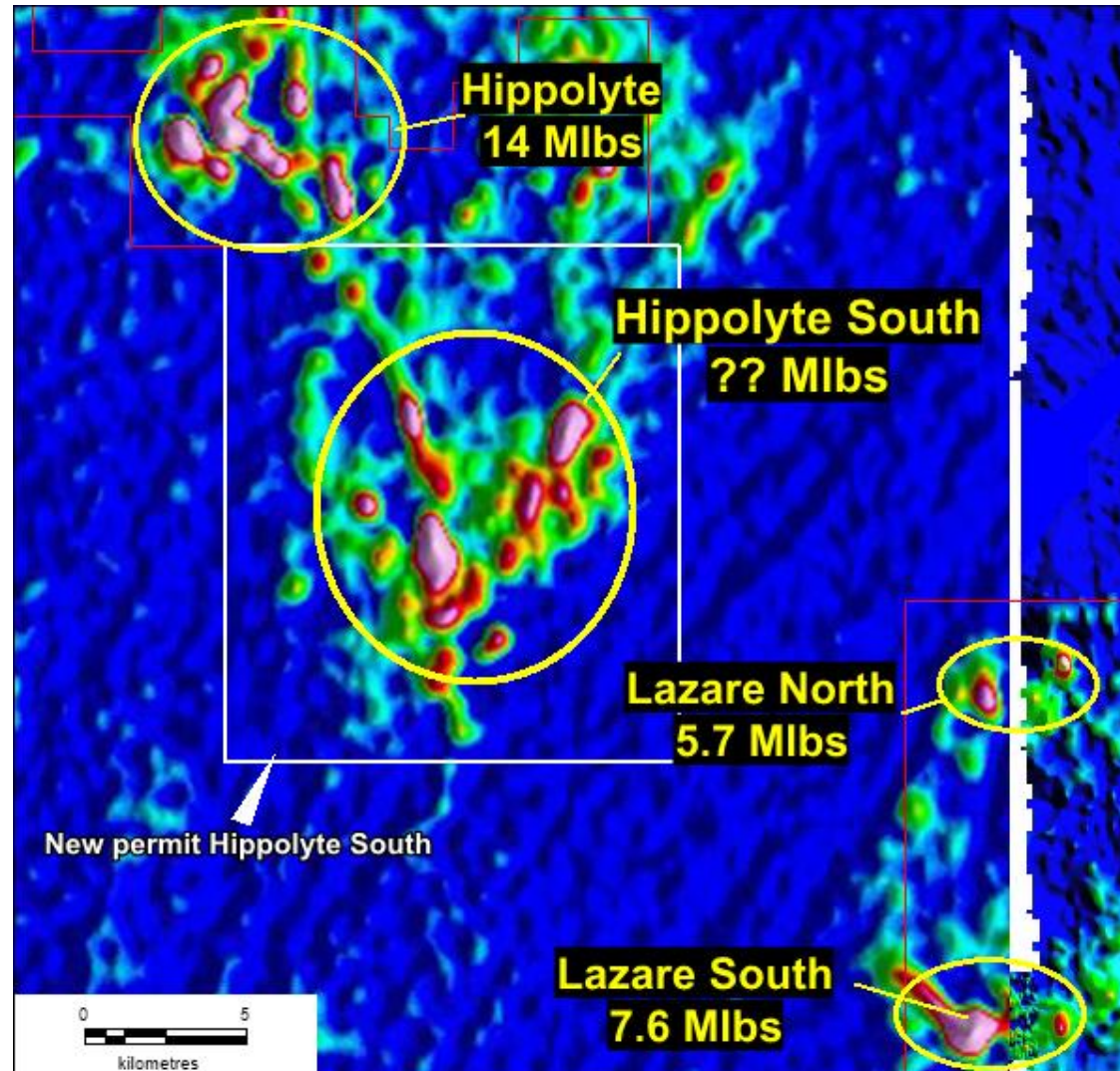
## SADI DEPOSIT SOUTH



# High Potential New Application - Hippolyte South



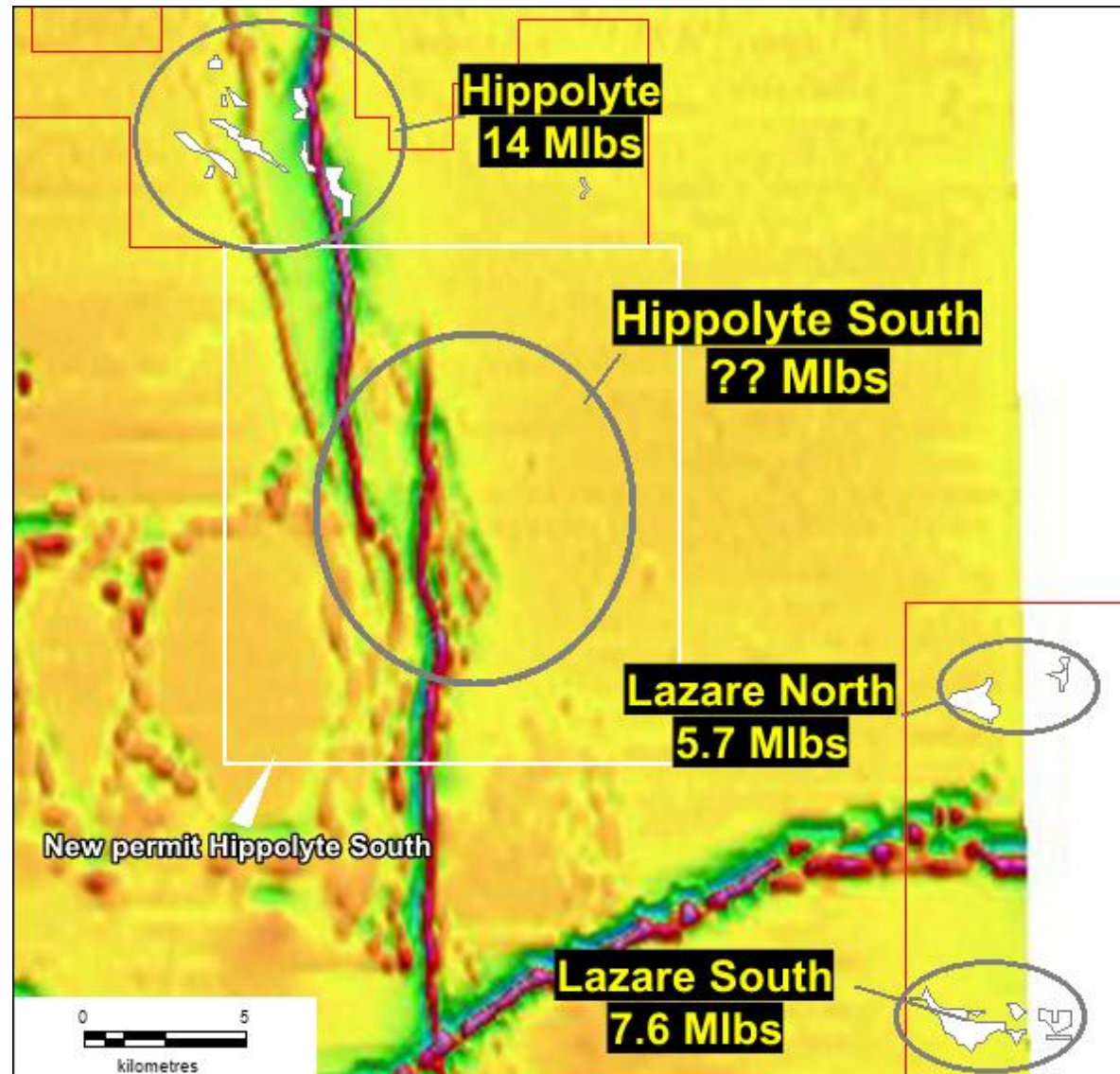
- Hippolyte South contains large radiometric anomaly similar to Hippolyte
- Lies between Hippolyte & Lazare resources
- Strong & extensive poorly tested radiometric's
- Good potential for 5 to 15 M lbs (based on the real extent of radiometric anomalies)





# Hippolyte South Structural Picture

- Air-magnetic data defines strong association between major structures & Hippolyte resource zones
- The same structures traverse the Hippolyte South tenement

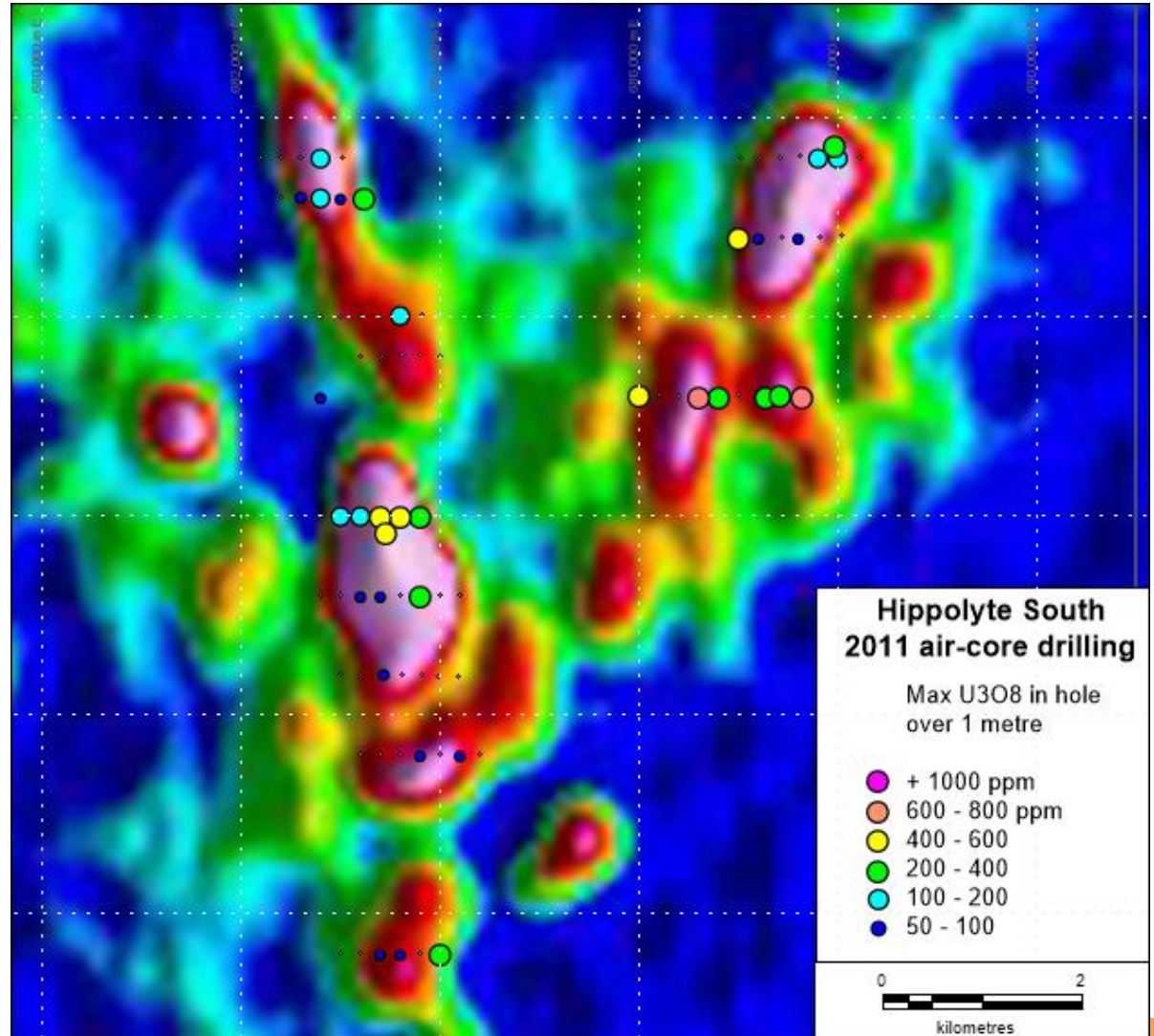




# High Potential New Application - Hippolyte South



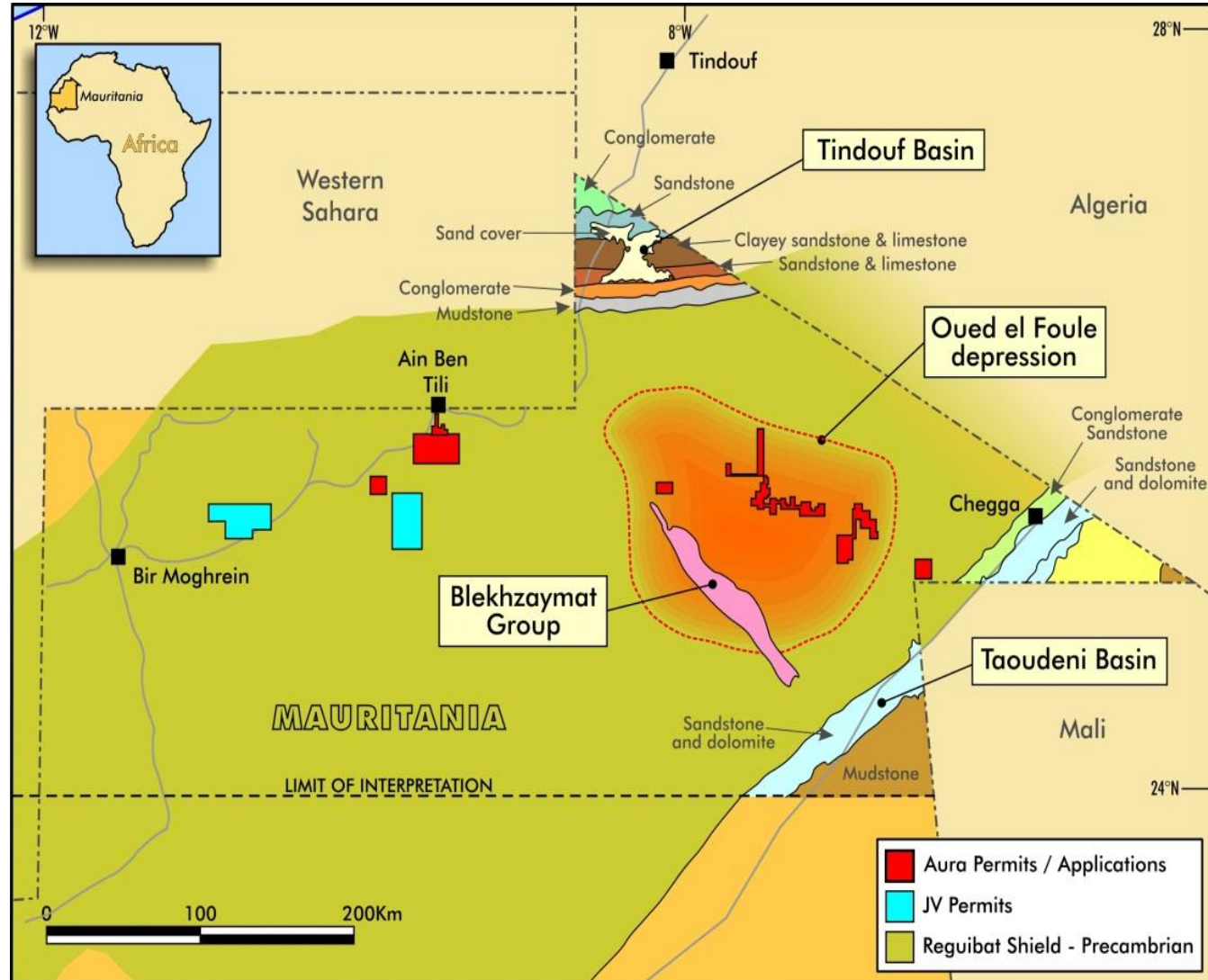
- Aura carried out a small AC drilling programme in 2011
- Mixed results, but suggests significant mineralisation



# Project Water – Plentiful Occurrences



- Water source study completed by Golder Associates
- Shallow drill holes hit water at 10-15 metres
- First target the shallow Reguibat Shield surrounding the Project
- Second target the Taoudeni Basin (Glencore, SNIM)
- Same source as the iron ore mines at Zouerate
- Water Geophysics program in September on site





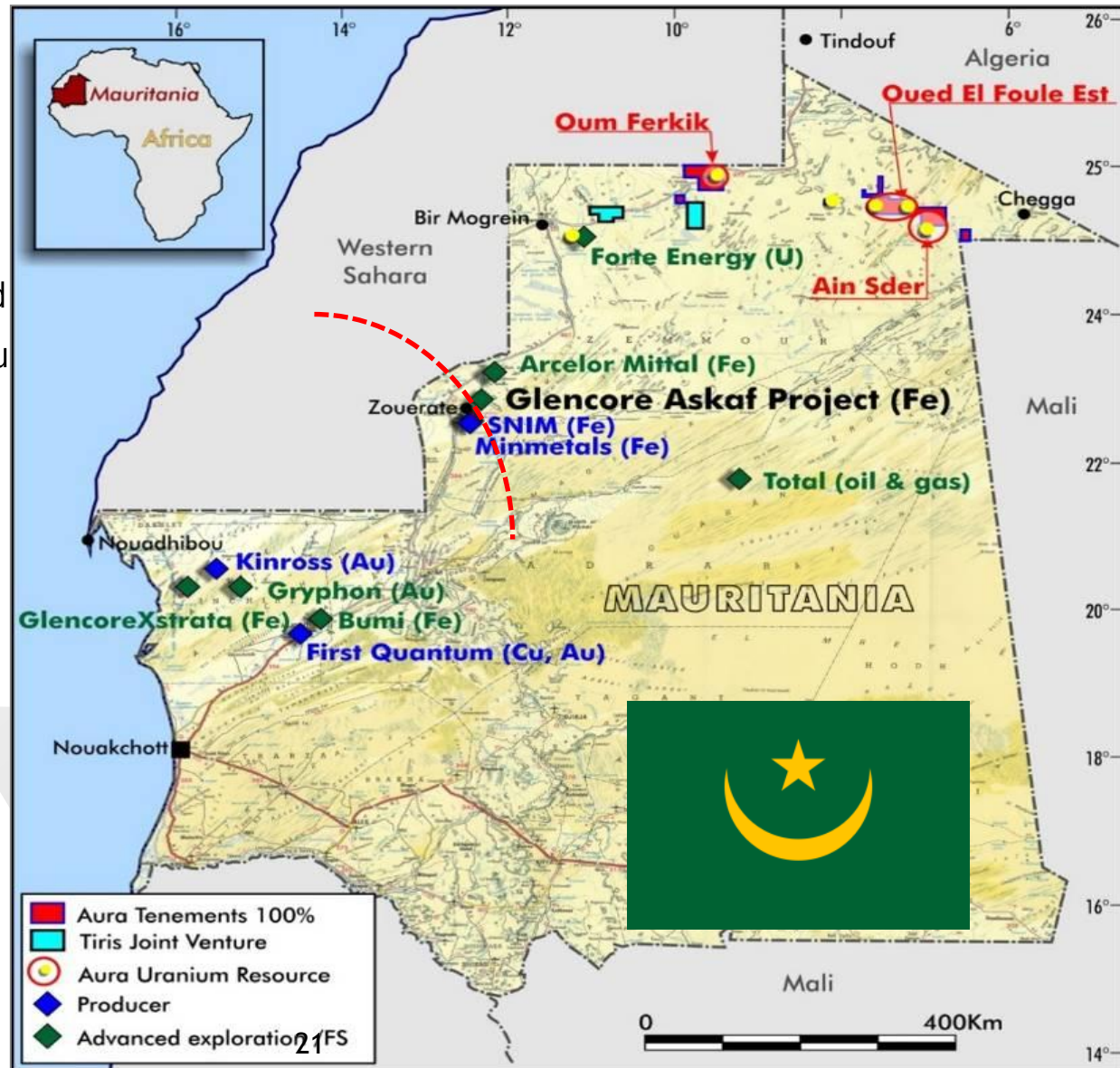
# Mauritania - Substantial Mining & Oil/Gas Investment

## - Strong US and French Gov Involvement



- Pop : 3.5 million
- Capital : Nouakchott
- State : Republic (Fmr French Colony)
- Established and proven mining code
- Permitting process transparent

- **Glencore** - \$1.0 B Askaf Iron Ore deferred
- **First Quantum** - \$800m Guelb Mog Cu-Au
- **Kinross** - \$7-8 billion, Tasiast Gold Mine
- **Arcelor Mittal** - Iron Ore JV SNIM
- **Minmetals** - Tazadit Iron Ore
- **Kosmos Energy** – Large gas discovery
- **Chevron** – Permit Exploration
- **Tullow Oil** – Permit Exploration
- **Cairn Energy** – Permit Exploration
- **Sterling Energy** – Exploration



# Next Key Steps – Tiris Feasibility Study



- Upgrade a significant portion of Hippolyte Resource to Measured and Indicated status
- Beneficiation testwork on ore zones
- ESIA (enviro) studies program
- Defining water sources – quantity and quality
- Leach testwork
- Mining study
- Safety management plan
- Assessment of transport and infrastructure requirements
- Process engineering
- Application for Exploitation Permit



# Häggån Project – Sweden (100%)



- **Strategic European Uranium Deposit;**
  - One of largest undeveloped globally
  - Russian energy behaviour 'wild card'
- Inferred Resource of 803mlbs  $U_3O_8$  with significant base metals of Mo, Ni, Zn, V
- 2012 Scoping Study - excellent project economics;
  - **C1 cash costs US\$13.50/lb** after Mo, Ni credits
- **Bio heap leaching** drives very low processing costs
- 30mtpa scale producing 7-8 Mlbs pa



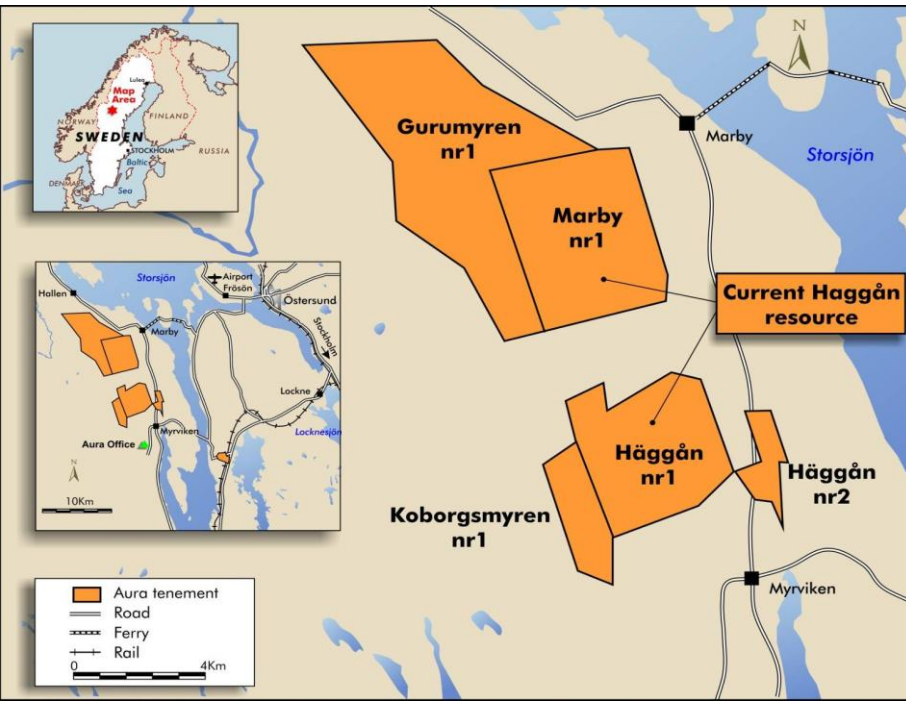
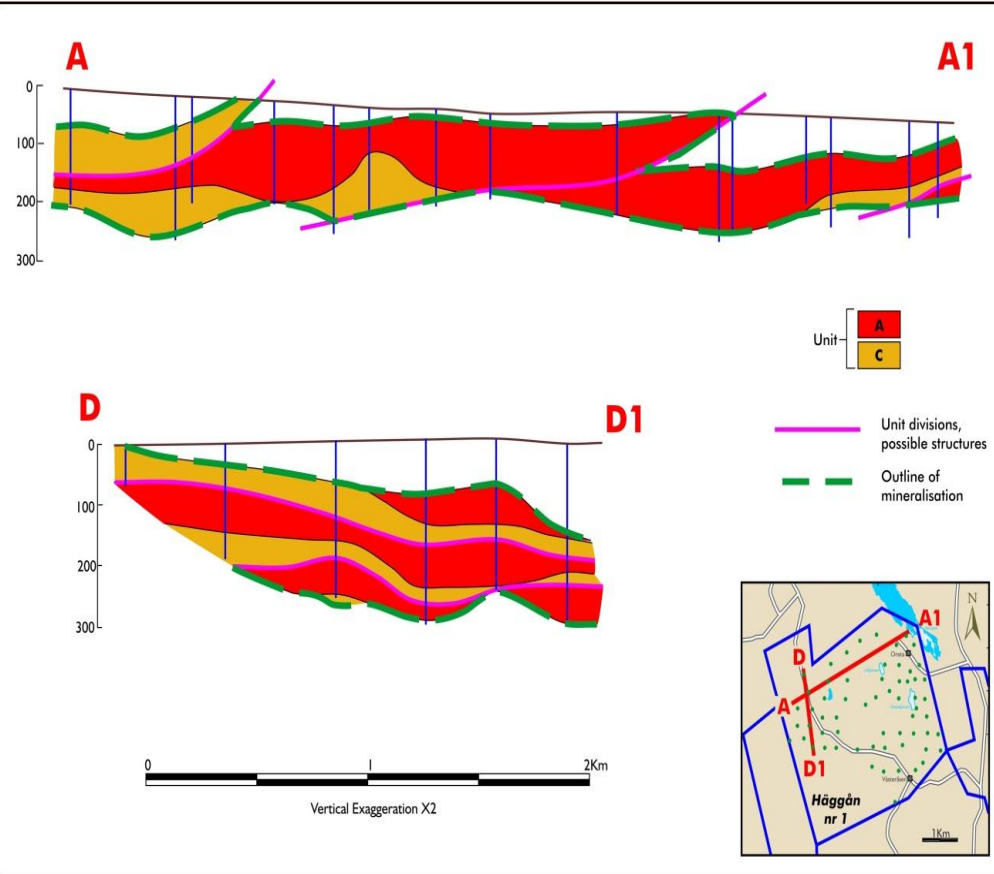
Currently re-establishing work programs for Community Engagement, further drilling evaluation and leach testwork planning.



# Häggån - Excellent Project Location



- Flat lying resource from surface to 200 m enables large scale, bulk open pit mining
- Excellent service infrastructure
- Located - Berg Commune, strong rural community
- Berg Commune population is 7,500
- Employment important factor for region
- Häggån project area is largely forest and swamp







# Häggån Exploration



# Bio Heap Leach Drives Low Capex

- Bacterial heap leaching provides low capital intensity
- Widely used in industry – Gold, Copper, some Uranium
- **Consistent 85% leach recovery** - 3 test series completed;
  - Bench test, 0.5m and 2.0m column tests
- Low acid consumption confirmed
- Leach uses bacteria found naturally in the ore



**GTK crib test at Outokumpu town  
Source GTK**

## Definitive project test requires;

1. Scoping column leach tests ~ \$1m
2. Crib Leach Test – Onsite pilot test ~ \$1m

Method	U %	Mo %	Ni %	Zn %
Bacterial column leach	85%	22%	66%	51%

# Häggån – Low cost, Low risk, Mining Project



MTPA	Approx Capex* \$m	OP COST US\$/lb	U <sub>3</sub> O <sub>8</sub> Mlbs p.a.	Mo Mlbs p.a.	Ni Mlbs p.a.
5	190	18.00-22.00	1.4	0.6	2.4
30.0	540	13.50	7.8	4.3	14.8

# Aura Financial Position



- Completed Placement recently for A\$1.02 million
- Share Purchase Plan plus shortfall raised a further A\$342,000
- Further shortfall available - \$657,750
- Cash on Hand (28<sup>th</sup> May Release) - circa \$1.5 million
- Main cost – DFS Completion
- Corporate funding options being pursued
- Minimise dilution



# Aura Energy News Flow



- Tiris Resource upgrade drilling results
- Tiris Resource expansion drilling results
- Tiris new exploration prospect results
- Tiris Resource update
- Häggån drilling results
- Tiris Feasibility Study update
- Beneficiation testwork results
- Financing and corporate discussions



# Aura Energy - Summary



- Aura is progressing low capex and low opex project developments
- High margin projects imply significant value
- Tiris Scoping Study successfully completed; **Capex US\$45m; Opex US\$30/lb**
- Häggån a “free option” on a uranium price recovery
- Häggån cash costs **US\$13.50/lb. incl. credits** = Lowest quartile
- Re-establishing work programs for Häggån currently
- Excellent exploration upside in both projects

# Aura Energy - Corporate Snapshot



## Capital Structure

Share Price	2.0 cps
Shares On Issue	335 m
Options On Issue <i>(ave exercise 10.8c)</i>	46.1m
Market Capitalisation	A\$6.7m
Cash <i>(28/5/15)</i>	A\$1.56m
<b>Enterprise Value</b>	<b>A\$6.7m</b>

## Board of Directors

<b>Executive Chairman</b>	Peter Reeve
<b>Non-Exec Director</b>	Bob Beeson
<b>Non-Exec Director</b>	Brett Fraser
<b>Non-Exec Director</b>	Jules Perkins

## Share Price & Volume



# Disclaimer & Competent Persons Statement



- *This presentation has been prepared to provide information on Aura Energy Limited's projects. It is not intended as an offer, invitation solicitation or recommendation with respect to the purchase or sale of any securities.*
- *This presentation should not be relied upon as the sole representation of any matter that a potential investor should consider in evaluating Aura, its affiliates or any of its directors, agents, officers or employees do not make any representation or warranty, express or implied, as to or endorsement of, the accuracy or completeness of any information, statements, representations or forecasts contained in this presentation, and they do not accept any liability for any statement made in, or omitted from, this presentation.*
- *Prospective investors should make their own independent evaluation of an investment in the Company.*
- *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.*



Thank You

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# Tiris Feasibility Study Team



The Tiris Project team has been confirmed as;

- **George Widelski – Project Study Manager**

George has over 40 years' experience in the metallurgical and mineral processing industries in Australia, North and South America, Africa, Europe and Asia. His project and study involvement has included gold, silver, copper, lead, zinc, uranium and mineral sands. George was a senior metallurgical consultant with Hatch and Fluor providing metallurgical and engineering support to projects, feasibility studies and worked with Bechtel in Chile as the manager of the global Copper Centre of Excellence. He has worked on several project developments in various parts of Africa and has worked with both large and junior resource companies.

- **Neil Clifford – Geology and Mauritanian Country Manager**

Neil Clifford is a geologist with extensive and successful experience in international minerals discovery and deposit evaluation. He has played key roles in the discovery of at least 9 major mineral deposits in Australia, South America and Africa, for a variety of commodities including gold, uranium, copper and tin. These discoveries have included 20 million ounces of gold and seven have subsequently become mines. He played the lead role in the discovery of Aura's Tiris uranium deposits in Mauritania. He has held senior management positions in Australia and in Europe including roles as Exploration Manager with Billiton, Acacia Resources, and AngloGold. He has been involved in West Africa since 2005.

- **Will Goodall – Metallurgy Study Manager**

Dr Will Goodall is a metallurgist with extensive experience in project development and optimization across a range of commodities for both junior and major mining companies, including Barrick Gold, Newcrest Mining, Harmony Gold, Eldorado Gold, Vedanta and First Quantum Minerals. He has managed large scale process development and testwork programs in bio-extraction of uranium, calcrete uranium, tin, copper and gold projects. This included the development of efficient recovery processes for uranium and other metals from the Håggån polymetallic deposit, Sweden. Dr Goodall has held research leadership roles in collaborative research projects with AMIRA International and the University of Queensland in geometallurgy and published extensively in peer-reviewed journals. As an expert in mineralogical characterisation and geometallurgy Dr Goodall brings a unique range of complementary skills to the team.

# Tiris and Häggån Resource Tables



## Tiris Resource

<i>100ppm cut-off</i>	Tonnes	Grade (ppm)	Mlbs U <sub>3</sub> O <sub>8</sub>
Indicated	2	300	2
Inferred	64	335	47
<b>Total</b>	<b>66</b>	<b>334</b>	<b>49</b>

\* Using a 100ppm U<sub>3</sub>O<sub>8</sub> cut-off grade

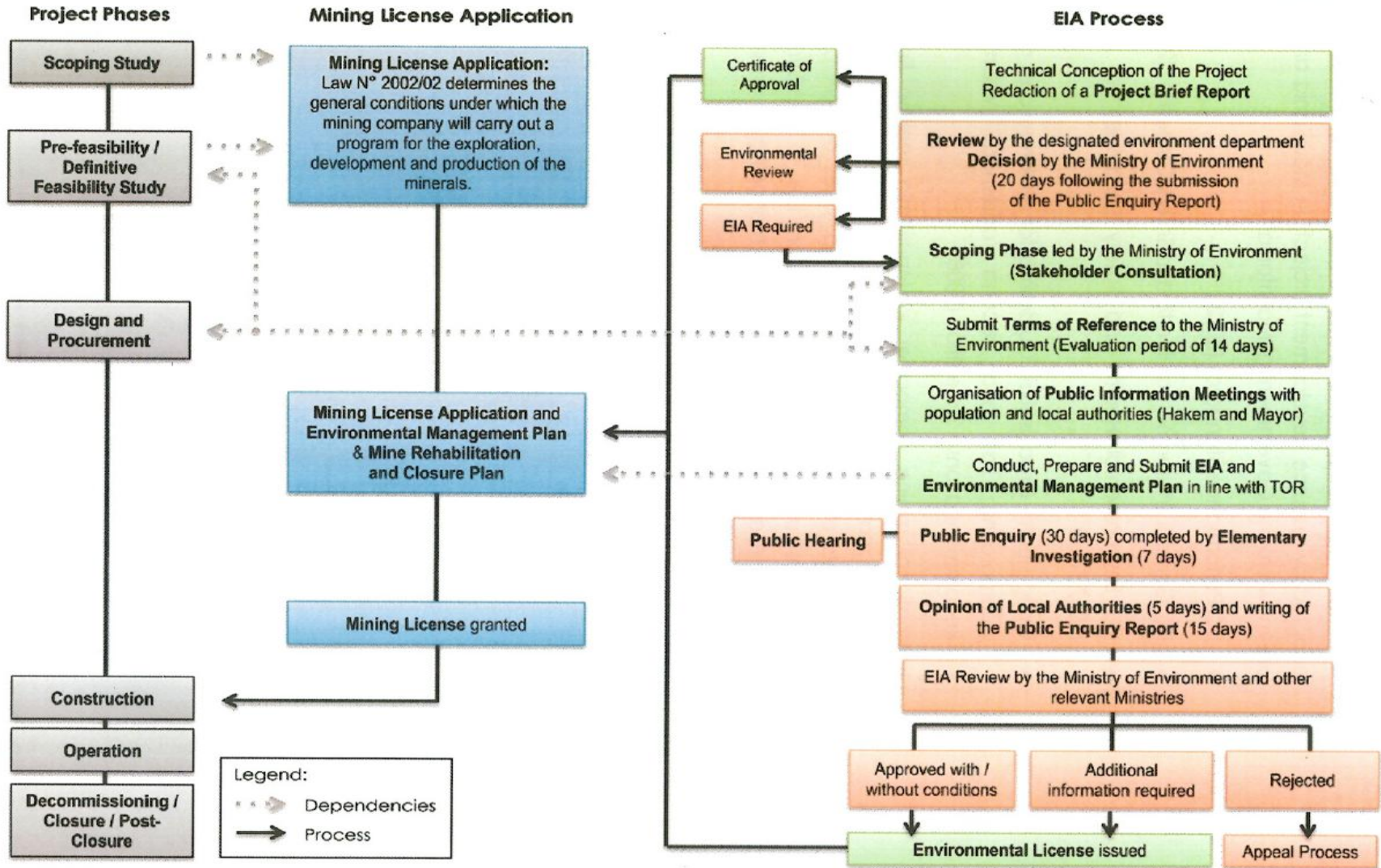
## Häggån Resource

<i>100ppm U<sub>3</sub>O<sub>8</sub> Cut-off</i>	Tonnes (Bt)	U <sub>3</sub> O <sub>8</sub> (ppm)	Mo (ppm)	V (ppm)	Ni (ppm)	Zn (ppm)
Inferred	2.35	155	207	1,519	316	431

- Uranium - 803 Mlbs (U<sub>3</sub>O<sub>8</sub>)
- Nickel - 1,640 Mlbs
- Zinc - 2,230 Mlbs
- Molybdenum - 1,070 Mlbs



# Tiris Mine Permitting Process - Mauritania



– Environmental permitting process in Mauritania in relation to project phases and mining license application process.