

# Advancing the Manyoni, Tanzania Uranium Project

16 October, 2024

# Moab Expands Flagship Manyoni Uranium Project by 488km<sup>2</sup> via Accretive Acquisition

# Highlights:

- Moab has executed a binding agreement with AuKing (ASX:AKN) to acquire four highly prospective prospecting licences immediately adjacent to Moab's existing Manyoni Uranium Project.
- The new tenements are highly strategic as they cover parts of the historic Manyoni Uranium Project held by Uranex (ASX:UNX) prior to 2013, representing the consolidation of all of the Manyoni Uranium deposits for the first time in over 10 years.
- The Manyoni Uranium Project is located within close proximity to infrastructure including modern rail and sealed highway as well as readily available power and water resources.
- The Stage One 105-hole core drilling program is currently underway at the Manyoni Uranium Project and will be followed by the Stage Two program of 100 exploration core holes
- Moab intends to release its Maiden JORC (2012) Mineral Resource Estimate in calendar year 2025 following completion of preliminary drilling activities.
- Scoping or Preliminary Feasibility Study, planned for calendar year 2025.

Moab Minerals Limited (ASX:**MOM**) (**Moab**, the **Company**) is pleased to announce the acquisition of four additional Prospecting Licences surrounding its Manyoni uranium project in Manyoni Province in Tanzania, Africa.

**Moab Managing Director, Mr Malcolm Day, commented**: "I visited the Manyoni Uranium Project last week to see the start of the drilling program. The program is expected to run over the next few months with most of the assay results available in November/December. The acquisition of these additional surrounding tenements, which contain three uranium Mineral Resources<sup>1</sup> known as E, F and G, estimated by Uranex resources in 2010 as part of Uranex's Manyoni Uranium Project, adds significant upside potential to Manyoni. We'll now look at expanding the current drill program to evaluate the resource potential of these new tenements".

1. See Table 1, below and appended Mineral Resource Estimate by Uranex dated 30 June 2010.



# **About the Manyoni Uranium Project**

# **Project Location**

The Manyoni Uranium Project tenements are located in the Republic of Tanzania (pop. 65 million), Africa, approximately 100km northwest of the capital city of Dodoma (pop. 765,000). The location of the uranium project at Manyoni is shown in Figure 1. Whilst Figure 2 shows the location of the Auking tenements that Moab (via its 80% owned local subsidiary company Katika Resources Ltd) will acquire.



Core drilling underway in August 2024 at Manyoni uranium project



Figure 1. Location of the Manyoni Uranium Project

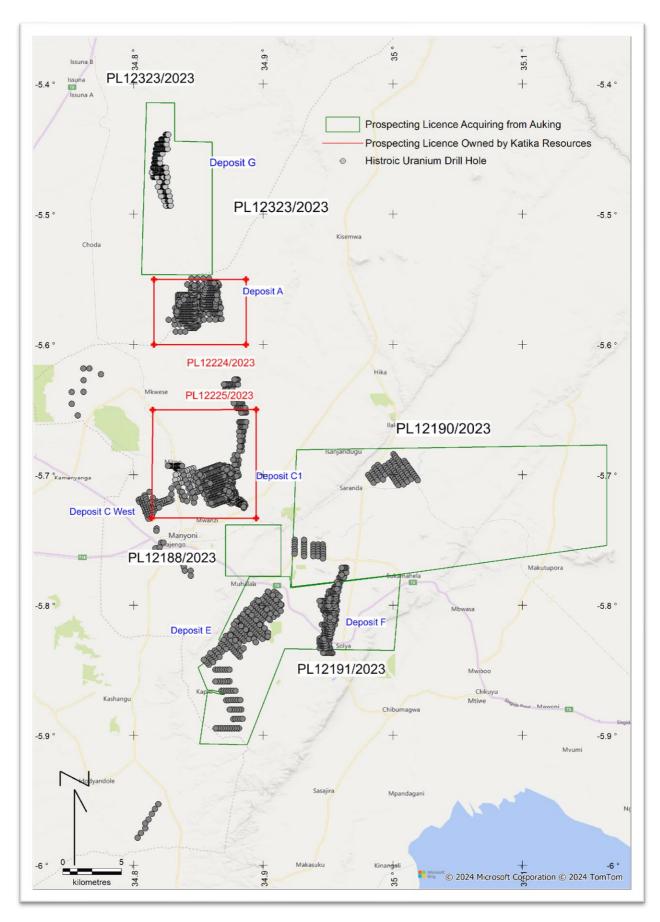


Figure 2. Manyoni Prospecting Licences, including the AuKing tenements that Moab is acquiring and historic drill holes.

# **Geological Setting and Uranium Mineralisation**

The tenements are located in the central part of the Tanzanian Archaean Shield, which is a stable platform of granite-gneiss terrane with marginal greenstone belts. Radiometrically "hot" granites have been subject to erosion over geological time and have contributed uranium and other metals into the pluvial streams and lakes which drain the shield.

In the Manyoni area the uranium is deposited in a shallow playa lake system as schröckingerite (in the lake sediments) and carnotite in the granitic saprolite below the lake sediments. The mineralisation varies from flat lying to shallowly dipping as it follows the direction of the palaeodrainage to the south-east while the average depth to the top of mineralisation varies from 3m to 10m.

# **Historical JORC 2004 Mineral Resource Estimate**

The Manyoni Uranium Project was explored by former owner, ASX listed company Uranex Ltd (ASX:UNL) (now Magnis Energy Technologies Ltd (ASX:MNS)) (Uranex), who identified six separate resource areas within their tenements including the resources known as E, F and G which are the subject of the Auking tenement acquisition.

Hellman & Schofield Pty Ltd (H & S) were commissioned by Uranex in 2008 to produce a Mineral Resource Estimate for the Manyoni Uranium project. The subsequent Mineral Resource Estimate was released to the ASX by Uranex on 30 June 2010 in an announcement entitled "30 June 2010 Manyoni Resource Increase". The Mineral Resource Estimate for E, F and G is presented in Table 1, below and the original report of the estimates of Mineral Resources by Uranex is attached to this announcement. The Mineral Resource Estimate (MRE) was reported under the JORC Code 2004. The reporting of the Mineral Resource Estimate may not conform to the requirements of the JORC Code 2012. For the avoidance of doubt, the information in Table 1 only relates to the new tenements to be acquired from AuKing.

The Manyoni uranium project tenements which Moab will acquire by virtue of the acquisition of the AuKing tenements, cover resource estimate "E" "F" and resource estimate "G" which have been extracted from the H & S Resource Estimation Report (Table One in the Uranex ASX release) and are documented in the table below for cut off grades of 100ppm uranium as per the H & S Resource Estimation Report:

**Table 1 - Newly Acquired Tenements** 

		Indicated		Inferred		Total		
Cut Off Grade	Domain	Tonnes	U <sub>3</sub> O <sub>8</sub>	Tonnes	U <sub>3</sub> O <sub>8</sub>	Tonnes	U <sub>3</sub> O <sub>8</sub>	Contained
U <sub>3</sub> O <sub>8</sub> (PPM)		(million)	(PPM)	(million)	(PPM)	(million)	(PPM)	U₃O <sub>8</sub> Pounds
								(million)
	E			19	130	19	130	5.4
100	F			4	140	4	140	1.2
	G			5	150	5	150	1.7
Total				28	140	28	147	8.3

#### **Cautionary Statement**

- 1. The estimates of Mineral Resources are not reported in accordance with the JORC Code 2012.
- 2. A Competent Person has not done sufficient work to classify the estimates of Mineral Resources in accordance with the JORC Code 1012.
- 3. It is possible that following evaluation and/or further exploration work the currently reported estimates may materially change and hence will need to be reported afresh under and in accordance with the JORC Code 2012.
- 4. Nothing has come to the attention of Moab that causes it to question the accuracy or reliability of the former owner's estimates; but
- 5. Moab has not independently validated the former owner's estimates and therefore is not to be regarded as reporting, adopting, or endorsing those estimates.

# Moab's view on the reliability of the MRE is as follows:

- Moab believes that the MRE is reliable because it has access to the historical databases and the MRE report prepared by H & S.
- Moab's Competent Person has been able to review the drill data and uranium assay reports together with other inputs used in the MRE including bulk density measurements and preliminary metallurgical test work results which demonstrate that the uranium mineral species are recoverable.

For the reasons set out above, it is reasonable for Moab to consider the Uranex Mineral Resource Estimates to be reliable.

The Mineral Resource Estimates are based on work programs by Uranex in the period 2005 to 2009 which are set out below:

• Drilling – see table below for summary of statistics; all drill holes are vertical and mostly less than 20m deep with collars surveyed by a combination of handheld GPS (28%) and DGPS (72%).

Drill Type	Number of Drill Holes
Trench	3
Pit	1,273
Auger	1,361
RAB	46
Aircore	423
RC	397
Sonic Core	243
Total	3,746

- Sampling nominal 25 cm intervals for all drill types.
- Assaying 2005 to 2007 samples were assayed at Genalysis in Perth while the 2009 samples were assayed by Mineral Services (SGS) in Johannesburg, South Africa. These laboratories are ISO certified.
- Assaying QA/QC Assay quality control measures include sets of duplicates, laboratory repeats, and reference standards. The repeats and duplicates generally correlate well with original results, however for both the 2005-2007 and 2009 sampling programmes the relatively small sets of standards' assay results tend to show slightly higher grades than the expected values. H&S recommended that the reliability of

- assaying for both sampling programmes should be checked by a programme of repeat assaying of several hundred representative samples from each sampling phase by a second laboratory.
- Bulk Density 51 bulk samples were collected from exploration pits, air dried and density determined by weight and volume measurement. A further 259 measurements were made on samples collected from 141 Sonic Core holes.

A summary of the key assumptions, mining and processing parameters and methods used to prepare the MRE is as follows:

- The MRE was estimated by Ordinary Kriging of 0.25m composited  $U_3O_8$  grades within mineralised wire-framed domains interpreted by Uranex geologists to represent mineralisation at a cut-off grade of 50 ppm  $U_3O_8$ .
- Individual block models were created for each deposit area, with the model aligned parallel to the sampling orientation, and the plan view block dimensions were selected from half the dominant drill spacing, ranging from 25 by 50 metres at C1 to 100 by 200 metres at Deposit E. For all models, 0.5 metre vertical block heights were used.
- MRE's were carried out for cut-off grades of 100 and 150 ppm  $U_3O_8$ . The above Table 1 uses a cut-off grade of 100ppm.
- The resource estimates are classified as Inferred on the basis of search pass and deposit area, and they reflect the reduction in mineralisation continuity with decreasing grade. Indicated resources are restricted to the C1 deposit which is the most closely sampled of the Manyoni deposits.

There are no more recent estimates or data relevant to the reported mineralisation available to Moab.

The evaluation and/or exploration work that Moab needs to complete to report the estimates as Mineral Resources in accordance with the JORC Code 2012 is as follows:

- Twinning of a statistically valid number of drill holes using PQ3 Drilling which provides the highest core recovery and sample quality. An estimated 90 drill holes to an average depth of 25m are required for a validation program. This program is designed to address assay reliability as noted by H&S.
- Bench scale metallurgical test work on a representative suite of bulk samples from the above drill program.
- Additional bulk density measurements to check historical records.
- Possible infill drilling to 100m x 50m so as to facilitate a Mineral Resource Estimate in the Indicated category.

It is estimated that the above work will be completed in 2025

## **Exploration Plan**

In addition to the above drilling, Moab is planning to undertake an exploration drilling program that is designed to locate extensions to the known mineralisation. This will be aided by ground geophysical surveys designed to locate buried alluvial channels and concealed faults (which are believed to control the high-grade uranium mineralisation). Moab has already acquired high quality

airborne geophysical data sets from the Geological Survey of Tanzania which will assist exploration targeting.

# **Purchase Agreement with AuKing**

Subject to an Asset Sale and Purchase Agreement between AuKing Mining Limited (Auking), Moab, 92U Tanzania Ltd (92U) and Katika Resources Ltd (Katika), executed on 15 October 2024, Katika, a wholly owned subsidiary in Tanzania of Moab, will acquire the prospecting licences from 92U, a wholly owned subsidiary in Tanzania of AuKing. The acquisition is subject to certain Conditions Precedent including:

- 30 days for Due Diligence from the date of execution of the Asset Sale and Purchase
- AuKing to provide access to all pertinent information within its control,
- The tenements being in good standing,
- Ministerial approval for the transfers,
- Fair Competition Council (FCC) of Tanzania approval if required.

# **The AuKing Tenements**

		•	e prospecting licences from 92U, a on is subject to certain Conditions				
Agreement, <ul><li>AuKing to provide ac</li><li>The tenements being</li></ul>	<ul> <li>30 days for Due Diligence from the date of execution of the Asset Sale and Purchase Agreement,</li> <li>AuKing to provide access to all pertinent information within its control,</li> <li>The tenements being in good standing,</li> <li>Ministerial approval for the transfers,</li> </ul>						
<ul> <li>Fair Competition Cou</li> </ul>	Fair Competition Council (FCC) of Tanzania approval if required.						
and unconditionally release	and waive the 92U h respect to the 92U	Claim and hold h J Claim. The 92U	from Auking and 92U to irrevocably armless Moab and Katika from any Claim means the claim of 92U and/				
The consideration for the acc Conditions Precedent, or wa	•	00 cash payable v	vithin two days of satisfaction of the				
The AuKing Tenements							
The tenements subject to acquisition are:							
Prospecting Licence No.	Area (km²)		Date Granted				
12188/2023	19.90		26 January,2023				
12190/2023	268.99		26 January 2023				
12191/2023	126.05		26 January,2023				
12323/2023	73.56		5 May, 2023				
This announcement is autho  For further information, please of	-	of Directors.					
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## For further information, please contact:

# **Malcolm Day**

#### Jane Morgan

# **Competent Person Statement**

The information in this report regarding the Tanzanian uranium project as it relates to exploration results and geology was compiled by Mr Geoff Balfe who is a Member of the Australasian Institute of Mining and Metallurgy and a Certified Professional. Mr Balfe is a consultant to Moab Minerals Limited. Mr Balfe 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 to qualify 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 Balfe consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

#### **ABOUT MOAB MINERALS**

Moab Minerals Limited (ASX:MOM) is an exploration and project development company with a portfolio of exploration projects including:

- The Manyoni and Octavo Uranium Projects located in Tanzania,
- The REX Uranium-Vanadium Project located in the famed Uravan Mineral Belt of Colorado,
- The Highline Copper-Cobalt Project in Southern Nevada, and
- The Woodlands Project in Western Australia

Moab also holds a 11.02% interest in CAA Mining, an exploration and development company focused on lithium and gold exploration in Ghana, Africa, providing Moab shareholders with an interest in three lithium projects that are complementary to its existing assets, expanding its business as a junior exploration company.



# ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE

#### 30 JUNE 2010

# **MANYONI RESOURCES INCREASED BY 53%**

- Total Mineral Resources increase to 92 million tonnes (at 100ppm cut off) containing 29 million pounds of U<sub>3</sub>O<sub>8</sub>.
- 11.6 million tonnes of C1 deposit upgraded to Indicated category.
- Initial resource estimates for three new deposits.
- Further Exploration Potential quantified at Manyoni (not including Itigi) at 10 to 20 million tonnes<sup>1</sup>

Uranex NL ("Uranex") is pleased to announce that new Resource Estimates for the Company's 100% owned Manyoni Project in Central Tanzania have now been completed by consultants, Hellman and Schofield Pty Ltd. (Table 1).

Table 1: Manyoni June 2010 Resource Estimates

		Indicated		Inferred		Total		
Cut off U <sub>3</sub> O <sub>8</sub> (ppm)	Domain	Tonnes (million)	U₃O <sub>8</sub> (ppm)	Tonnes (million)	U₃O₅ (ppm)	Tonnes (million)	U₃O <sub>8</sub> (ppm)	Contained  U <sub>3</sub> O <sub>8</sub> Pounds  (million)
100	Α			14	150	14	150	4.6
	C1	11.6	170	37	140	49	147	15.9
	C West			3	140	3	140	0.9
	E			19	130	19	130	5.4
	F			4	140	4	140	1.2
	G			5	150	5	150	1.7
	Total	11.6	170	80	140	92	144	29
	Α			5	180	5	180	2.0
	C1	4.8	230	8	190	13	204	5.8
	C West			1	180	1	180	0.4
150	E			2	170	2	170	0.7
	E F			1	180	1	180	0.4
	G			3	180	3	180	1.2
	Total	4.8	230	20	180	25	190	10.3

Note: Rounding Errors may occur.

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In addition to the resources listed in Table 1, Hellman and Schofield also identified further mineralisation with exploration potential of 10 to 20 million tonnes at an average U<sub>3</sub>O<sub>8</sub> grade of approximately 100 to 200 ppm at the deposits included in the above resource. This potential mineralisation is based on broadly spaced sampling and has had insufficient exploration to define a Mineral Resource, and therefore the estimates of tonnage are conceptual in nature, and it is uncertain whether further drilling will convert any of the exploration potential to a Mineral Resource.



The Resource Estimates for the Company's 100% owned Manyoni Project in Central Tanzania have resulted in an increase in the total resource to **29 million pounds of U<sub>3</sub>O<sub>8</sub>** (100ppm cut off) representing an increase of 53% from the November 2009 estimates. 11.6 million tonnes of the Inferred Resource for the C1 deposit has now been upgraded to the higher confidence Indicated category.

This new resource estimate is the final outcome of the 2009 drilling and sampling programmes, and builds upon the interim Resource Update released in November 2009. (57 million tonnes containing 19 million pounds of contained  $U_3O_8$ .)

As can be seen in Figure 1 the new resource represents an increase of 90% contained  $U_3O_8$  since the initial 2008 Resource Estimate, as momentum continues to build towards the development of the Project.

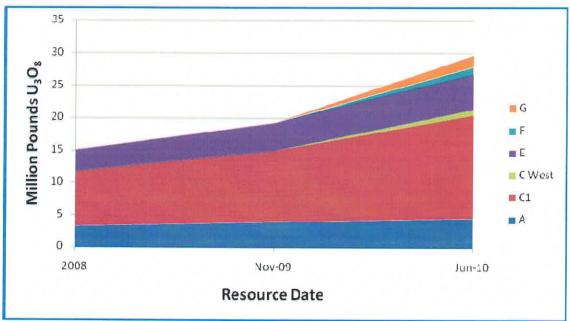


Figure 1: Manyoni Project Resource Expansion Progress.

The Mineral Resources listed in Table 1 above are located at Playa Deposits A, C1, C West, E, F and G, and do not include resources from Deposits B, D and Itigi, where further mineralisation has been identified, but there has been insufficient exploration to allow estimation of Mineral Resources (Figure 2).



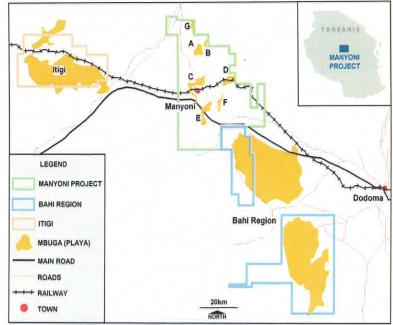


Figure 2: Manyoni Project with Bahi Region and Itigi Exploration areas.

Over the last six months an extensive ground scintillometer and pitting programme has been underway at Itigi. Sampling and assaying of samples collected are ongoing and results should begin to become available in the next quarter.

Dr John Cottle, Managing Director commented "The 2009 drilling programme was very successful and these updated Resource Estimates confirm our confidence in the "One Plant – Multiple Sources" Manyoni development strategy. I believe they will contribute greatly to a positive outcome for the Manyoni Pre-Feasibility Study, scheduled for completion in the September Quarter"

John Cottle Managing Director

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The information in this report that relates mineral resource estimation is based on work completed by Mr Jonathon Abbott who is a full time employee of Hellman and Schofield Pty Ltd and a member of the Australasian Institute of Mining and Metallurgy. Mr Abbott has not reviewed the quality or validity of the sampling data, or mineralisation interpretations upon which the Mineral Resources are based. Uranex personnel are responsible for these aspects of the resource estimates. Mr Abbott 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 to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' and as a Qualified Person as defined in the AIM Rules. Mr Abbott consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to mineralisation interpretation, data quality, cut off grades and comments on the resource estimates is based on information compiled by Dr John Cottle who is a Fellow and Chartered Professional - Geology of the Australasian Institute of Mining and Metallurgy, and who is a director of the Company. Dr Cottle has sufficient relevant experience to qualify as a Competent Person under the 2004 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Cottle consents to the inclusion of the data in the form and context in which it appears.

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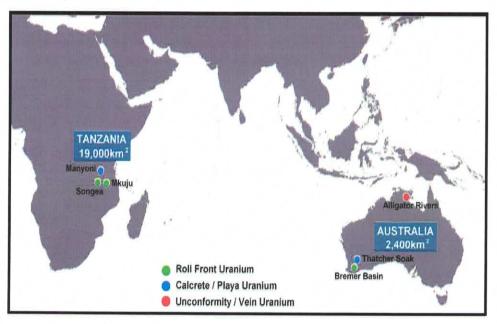


## **About Uranex**

Uranex NL is a uranium exploration and mining development company focused on the development of its, all 100% owned, advanced and exploration pipeline projects:

- Manyoni, Pre-Feasibility Study development Project in central Tanzania;
- Thatcher Soak Scoping Study development Project in Western Australia;
- Mkuju exploration project in southern Tanzania; and including
- Exploration of its other significant licence holdings in Western Australia, Tanzania and the Northern Territory.

All these projects are being progressed in line with Uranex's disciplined business plan to become a recognised uranium producer.



Uranex exploration and development projects distribution

The Manyoni and Thatcher Soak development projects are near surface, in largely pre-consolidation clay, sand, and weathered product host sediments, which suggest low mining costs and straightforward, conventional processing, with the accompanying prospect for increased operating margins and facilitation of production at industry-low cut-off grades.

Testwork to date at Manyoni has shown potential amenability to heap leach processing, which if shown to be appropriate by imminent planned testwork, could enable future production at low cut-off grades similar to those applied at the Trekkopje Uranium Project in Namibia (Areva 100%) of 100ppm  $U_3O_8$ .

Uranex's foundations for Growth by Development and Production include its:

- Quality Assets embracing a diversity of uranium mineralisation and occurrence types;
- Strong Management covering operations, development, technical, and financial expertise; and
- Strategy for Corporate Expansion by productive joint ventures and acquisitions.

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