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#### **ASX Announcement**

9 April 2024

# DETAILED EM SURVEY COMMENCES AT CLUFF LAKE URANIUM PROJECT TO IDENTIFY NEW TARGETS

Survey designed to identify additional drill targets and provide enhanced detail over existing high priority targets.

## Highlights

- Detailed MobileMT airborne electromagnetic (EM) survey has commenced over the Cluff Lake Uranium Project, located in Canada's Athabasca Basin (Figure 1).
- MobileMT has been proven to detect deep conductive horizons as well as resistivity variations within the sandstone cover that potentially reflect alteration associated with unconformity-related uranium deposits this has been demonstrated at the nearby Shea Creek Uranium deposit.
- Results from the MobileMT survey will help further refine and prioritise the current drilling targets at Cluff Lake (Figure 2).
- Drilling permits approved at Cluff Lake to August 2025.

Thunderbird Resources Limited ("Thunderbird" or "the Company") (ASX: **THB**) is pleased to advise that a major electromagnetic (EM) survey has commenced over the Cluff Lake Uranium Project, located 7km east of the Cluff Lake uranium deposits on the western flank of Canada's world-class Athabasca Basin (Figure 1).

Expert Geophysics has been contracted to undertake the airborne EM survey, which will employ MobileMT (Mobile MagnetoTelluric) technology to help further refine and prioritise the current drilling targets within the Company's tenements. MobileMT is the first airborne system to measure the total MT field with the ability to successfully map the full range of resistivities and depths of the Athabasca Basin rocks, mineralisation and alteration zones from surface to 1.5-2km depth. MobileMT can detect not only deep and highly conductive graphitic horizons but also measures resistivity variations in the sandstone cover reflecting alteration zones which are potentially associated with unconformity-related uranium deposits.

MobileMT technology was successfully used to identify the Shea Creek uranium deposits, located 8 km southwest of Thunderbird's drill targets, which collectively host a total Indicated Resource of 2.056Mt grading 1.49%  $U_3O_8$  for 67.57Mlb of contained  $U_3O_8$  and an Inferred Resource of 1.254Mt grading 1.02%  $U_3O_8$  for 28.06Mlb of contained  $U_3O_8$  and together represent one of the largest undeveloped uranium resources in the Athabasca Basin<sup>1</sup>.

The survey will cover around 218km<sup>2</sup> (1,535 line-kms) and focus on two priority areas – Moose Lake and Douglas River where drill targets have already been defined (Figure 2). The survey is expected to take 8-9 days to complete, with preliminary data expected upon completion of the survey.

## **ASX:THB**



### Management Comment

Thunderbird Executive Chairman George Bauk said: "Given the proven success of MobileMT surveys in identifying uranium deposits in this part of the Athabasca Basin, this represents an important next step for Thunderbird to further increase confidence in and rank the high-quality exploration targets already identified within our tenement holding at Cluff Lake. Our current interpretation is that the drill targets along strike from Shea Creek are around 200m below surface, presenting an outstanding exploration target that is significantly shallower than the Shea Creek deposits."



Figure 1 - Location of Thunderbird Resources' uranium projects in the Athabasca Basin





Figure 2: Cluff Lake Project - Current drill targets

#### Moose Lake target area

The Moose Lake drill targets are located within the Carswell structure, around 12km northeast along a structural corridor from the historical Cluff Lake uranium mine, which produced around 62.5Mlbs  $U_3O_8^1$ . The targets in this area are basement-hosted, similar to the Cluff Lake deposits and defined by gravity lows with coincident interpreted structures and/or lithological contacts. Surface sampling from a historical trench proximal to the drill targets, conducted by Thunderbird in 2022, returned assays of up to 9.15% TREO, 112ppm U and 1570ppm Pb (Figure 3) (see VAL:ASX announcement dated 8<sup>th</sup> February 2023 titled *"Final priority drill targets selected for Cluff lake Uranium Project field season"*).





Figure 3: Moose Lake drill targets

#### **Douglas River target area**

The Douglas River target area comprises several drill targets, located 8-10km northeast of the Shea Creek deposits.

The targets in the Douglas River area are unconformity-related and basement-hosted targets, similar in style to the Shea Creek deposits, but interpreted to be only 100-200m below surface. The basement has been interpreted as being uplifted by faulting in this area with the historical MEGATEM survey data indicating conductors in the basement and potential alteration in the overlying sandstone (see Figure 4).





Figure 4: Douglas River and Moose Lake drill targets



Deposit	Owner	Status	Category	Tonnes	Lbs U <sub>3</sub> O <sub>8</sub>	Grade (% U <sub>3</sub> O <sub>8</sub> )	Cut- off (% U <sub>3</sub> O <sub>8</sub> )	Source
Cluff Lake	Orano	Past- Production	-	-	62,500,000	0.92	-	Saskatchewan Mining Association – Uranium in Saskatchewan – Fact Sheet, 2017
Shea Creek	Orano (51%), UEX Corp. (49%)	Advanced Project	Inferred	1,272,200	28,192,000	1.01	0.3	Technical Report on Shea Creek Property, Northern Saskatchewan, with an Updated Mineral Resource Estimate, UEX Corporation May 31, 2013
			Indicated	2,067,900	67,663,000	1.48		
			Measured	-	-	-		
			Total	3,340,100	95,855,000	1.3		
			Indicated	566,000	10,800,000	0.87		

This announcement has been authorised for release by the Board of Directors.

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#### **Competent Person Statement**

The information in this documents that relates to Exploration Results is based on information compiled by Mr Robin Wilson who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Wilson is a consultant and Technical Director for Thunderbird Resources and has sufficient experience 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' (the JORC Code). Mr Wilson consents to the inclusion of this information in the form and context in which it appears.



# **ABOUT THUNDERBIRD RESOURCES**

Thunderbird Resources (ASX:THB) ("Thunderbird" or "the Company") is an exploration company dedicated to creating shareholder value through acquisitions and exploration activities. The Company is focused on three key commodities, uranium, lithium and copper, as outlined below, in Canada.

- o Diversified critical minerals explorer focused on Tier-1 jurisdictions
- Strong track record of generating high-value projects (Uranium, Lithium and Copper)
- o Entered into binding agreements to acquire three lithium assets in Ontario, Canada
- Portfolio streamlined through recent sale of Picha and Charaque Copper Projects in Peru to Firetail Resources (ASX: FTL)
- Focus on high-potential, drill-ready uranium assets in Canada's Athabasca Basin at the right time in the Uranium cycle:

Hidden Bay (100%) - 5 drill-ready targets identified.

Cluff Lake (100%) - 4 priority drill targets identified.

Surprise Creek Fault (100%) - Mineralisation delineated over 500m of strike.

Hook Lake (80%) - Follow-up on 11 new targets.

Beatty River (100%) - Follow-up on historical HRE exploration results.

Significant leverage to exploration success in Peru through 20.58% shareholding in Firetail plus retained 20% project interest – drilling commenced at Picha Project in October 2023.

