

ASX RELEASE

17 October 2023

## Aura identifies new uranium Exploration Target extending from existing Tiris Project Resources

### KEY POINTS:

- Aura identifies an Exploration Target aimed to expand the existing 58.9 Mlbs U<sub>3</sub>O<sub>8</sub> Tiris Project Resource (113Mt at grade of 236ppm U<sub>3</sub>O<sub>8</sub>), which was defined at an exploration cost of ~US\$0.20 per lb U<sub>3</sub>O<sub>8</sub>.
- Preliminary work has identified seven Exploration Targets in Tiris East as extensions of the existing resources 30 – 60 Mt at 120 - 240 ppm U<sub>3</sub>O<sub>8</sub> for 8 - 32 Mlbs U<sub>3</sub>O<sub>8</sub>.
- The new Exploration Targets highlight the potential for the Tiris Project to achieve world-class scale.
- Exploration Target will be tested with a 15,500m drilling exploration program planned to commence imminently.
- Proving up additional resources is likely to expand the ore available to the Tiris Project and potentially facilitate modular expansion. The Front-End Engineering Design (FEED) study is 80% complete, and pre-construction activities will commence at the Tiris Project.

Aura Energy Limited (ASX: AEE, AIM: AURA) (“Aura” or “the Company”) is pleased to announce it has acquired additional radiometric survey data, reviewed historical drilling results, and identified strong indications of mineralisation extensions on Aura’s existing tenements that could significantly expand Aura’s current Tiris Project (“Project”) 58.9 Mlbs U<sub>3</sub>O<sub>8</sub> resource.

Aura has signed contracts for an exploration program of 15,500m air core drilling over approximately 78 km<sup>2</sup> on existing tenements, aiming to significantly increase the Inferred Mineral Resource at the Tiris Project in Mauritania by extending the existing resources. The mobilisation of the drilling contractor commenced on October 16<sup>th</sup>, with the program commencing soon after.

The potential quantity of the Exploration Target is conceptual in nature. There has been insufficient exploration of these targets to estimate a Mineral Resource, and it is uncertain whether this exploration effort will result in an estimation of a Mineral Resource.

### Aura Managing Director David Woodall said,

*“Aura’s strategy is to be development-ready in relation to our Tiris Project, and this strategy is progressing and accelerated as we aim to expand our mineral resource.*

*The near-term, low-cost, producer status of our Tiris Project was confirmed by our March 2023 Enhanced Definitive Feasibility Study<sup>1</sup>. Further resource expansion towards 100m lbs of U<sub>3</sub>O<sub>8</sub> progresses the project towards a global scale and reinforces the potential for Mauritania to be a material producer in the near term. The robust economics of our Tiris Uranium Project will be further enhanced by increasing our mineral resources and reserves. Due to the modular nature of the project, we see outstanding opportunities to grow the annual production capacity of the project to 3.5Mlb per annum, equivalent to the planned back-end plant capacity.”*

<sup>1</sup> See announcement dated 29 March 2023 “Tiris Uranium Project Enhanced Definitive Feasibility Study”.

“To that end, Aura will commence key pre-construction activities, including the geotechnical drilling of the proposed plant site, and allow some trial mining to provide valuable data in the production planning for the Tiris operation once developed.”

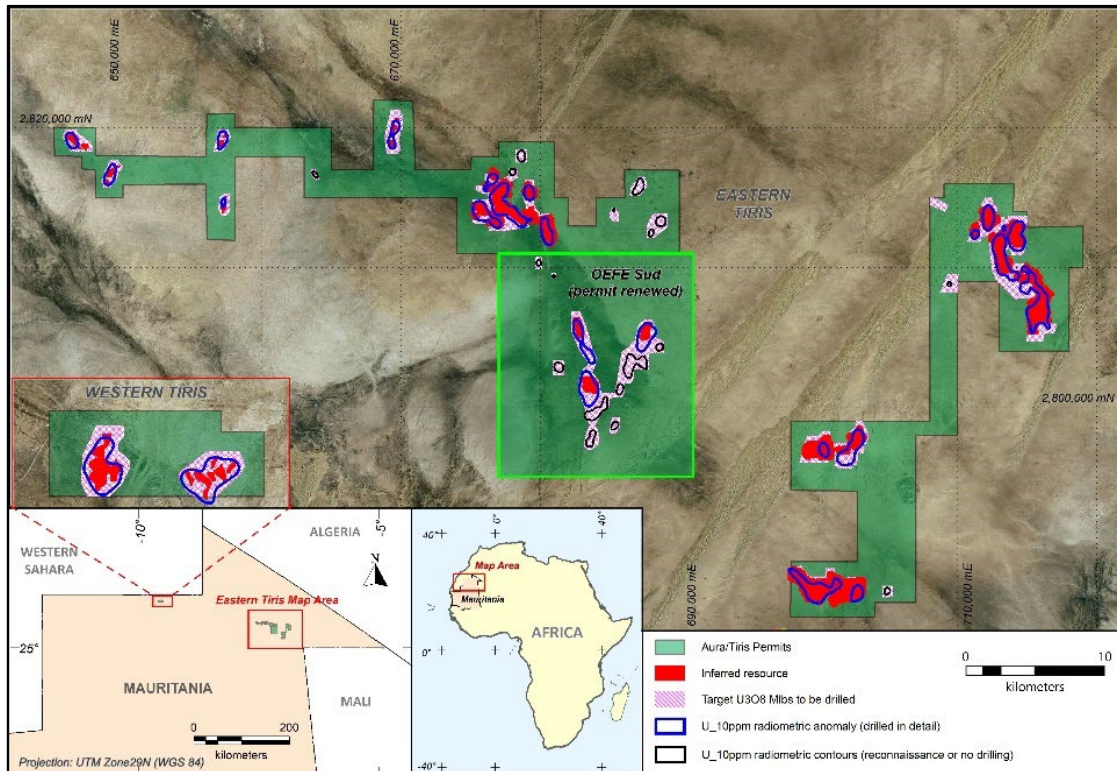


Figure 1 - Tiris Project Exploration Program Target Areas

The exploration program will be conducted on existing granted tenements targeting the expansion of the Mineral Resources at the Tiris Project. It will focus on the Exploration Target shown in Table 1 below.

Resource Area	Range Tonnage and Grade Expectations				Range Exploration Target	
	Tonnes Lower (Mt)	Tonnes upper (Mt)	Grade Lower U <sub>3</sub> O <sub>8</sub> (ppm)	Grade Upper U <sub>3</sub> O <sub>8</sub> (ppm)	Lower Range Mlbs U <sub>3</sub> O <sub>8</sub>	Upper Range Mlbs U <sub>3</sub> O <sub>8</sub>
Tiris East <sup>2</sup>	30	60	120	240	8	32
<b>Total Target</b>	<b>30</b>	<b>60</b>	<b>120</b>	<b>240</b>	<b>8</b>	<b>32</b>

Table 1 – Proposed Exploration Target<sup>3</sup>

<sup>2</sup> Ain Sder, OEFE and OEFE Sud tenements – Hippolyte East, Hippolyte West, Marie, Hippolyte North, Lazare North, Lazare South and Sadi resource areas.

<sup>3</sup> The lower range metal target has a 50% discount on both tonnage and grade.

## Exploration Target Estimate

A significant level of exploration has previously been undertaken by Aura on the currently held tenements, resulting in a Global Mineral Resource Estimate (MRE) of **113Mt at an average grade of 236ppm U<sub>3</sub>O<sub>8</sub> containing 58.9 Mlbs U<sub>3</sub>O<sub>8</sub><sup>4</sup>**, which was reported in a market announcement (“Major Resource Upgrade at Aura Energy’s Tiris Project”), dated 14<sup>th</sup> February 2023. The MRE has been based on 21,990 metres of drilling in 5,619 holes for a total project cost of US\$11.9M or US\$0.20 per lb U<sub>3</sub>O<sub>8</sub>.

Area	Class	Tonnes (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (Mlbs)
Hippolyte North	Measured	8.0	236	4.2
	Indicated	5.8	217	2.8
	Inferred	4.7	212	2.2
	<b>Sub-Total</b>	<b>18.5</b>	<b>224</b>	<b>9.1</b>
Hippolyte Marie & West	Inferred	8.2	310.0	5.6
Hippolyte South	Indicated	4.6	192	2.0
	Inferred	2.7	176	1.1
	<b>Sub-Total</b>	<b>7.4</b>	<b>186</b>	<b>3.0</b>
Lazare North	Measured	1.0	282	0.6
	Indicated	10.1	229	5.1
	Inferred	3.7	210	1.7
	<b>Sub-Total</b>	<b>14.8</b>	<b>228</b>	<b>7.4</b>
Lazare South	Measured	8.6	233	4.4
	Indicated	5.2	226	2.6
	Inferred	4.8	222	2.3
	<b>Sub-Total</b>	<b>18.6</b>	<b>228</b>	<b>9.3</b>
Sadi	Measured	11.5	189	4.8
	Indicated	7.4	200	3.2
	Inferred	10.3	228	5.2
	<b>Sub-Total</b>	<b>29.2</b>	<b>206</b>	<b>13.2</b>
All Deposits	Measured	29.1	218	14.0
	Indicated	33.0	215	15.6
	Inferred	34.5	237	18.0
<b>Total Tiris East</b>	<b>96.6</b>	<b>224</b>	<b>47.7</b>	
Oum Ferkik	Inferred	16.4	305.0	11.2
<b>Total Aura Resources</b>	<b>113.0</b>	<b>236</b>	<b>58.9</b>	

Table 2 - Tiris Mineral Resource Estimate<sup>5</sup>

Historical drilling has shown a strong relationship between mineralisation and zones of high radiometric signature, as seen in Figures 1 and 2.

Additional radiometric survey data recently acquired revealed several newly identified high radiometric anomalies not yet drilled. Continuing our earlier work, geologists have defined a series of Exploration Targets (shown in Figure 1) where the relationship between radiometric signature and mineralisation suggests further Exploration Targets may be available. Importantly, all targets are proximate to or contiguous with existing Inferred Resources and have yet to be tested by drilling.

<sup>4</sup> ASX Announcement: “Major Resource Upgrade at Aura Energy’s Tiris Project” 14th February 2023.

<sup>5</sup> ASX announcement: “Major Resource Upgrade at Aura Energy’s Tiris Project” 14th February 2023.

Resource Area Name	Area Resources and MIbs/km <sup>2</sup> of Anomaly Determined					
	Tonnes (Mt)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (Mkg)	U <sub>3</sub> O <sub>8</sub> (MIb)	Surface Area (km <sup>2</sup> )	MIbs return U <sub>3</sub> O <sub>8</sub> /km <sup>2</sup>
Hippolyte East						1.8
Hippolyte Marie and West	8.2	310	2.5	<b>5.6</b>	3.1	1.8
Hippolyte North	18.5	224	4.1	<b>9.1</b>	7.4	1.2
Hippolyte South	7.4	186	1.4	<b>3.0</b>	5.6	0.5
Lazare North	14.8	228	3.4	<b>7.4</b>	9.7	0.8
Lazare South	18.6	228	4.2	<b>9.3</b>	12.7	0.7
Sadi	29.2	206	6.0	<b>13.2</b>	33.6	0.4
Oum Ferkik East	4.5	240	1.1	<b>2.4</b>	3.1	0.8
Oum Ferkik West	11.9	330	4.0	<b>8.8</b>	2.9	3.0
Total	113.1		26.7	<b>58.8</b>	78.1	

**Table 3 – Tiris Project Relationship of Radiometric Signature to Mineral Resource Estimate. Note; no reported Resource exists over Hippolyte East so the nearby Hippolyte North figures were used..**

The Exploration Targets are focused on calcrete-style uranium deposits and lay beneath flat land surfaces with shallow overburden.

The uranium mineralisation generally lies within weathered, partially decomposed red granite or in colluvial gravels developed on or near red granites. Small portions occur in other rock types, such as meta-volcanics and meta-sediments. The mineralisation is believed to have developed within shallow depressions or basins, where colluvial material has accumulated in desert sheet wash events. The pebbles within the gravels are generally unweathered fragments washed in from the nearby exfoliating granites and other crystalline rocks, mixed with sand, silt, calcrete, gypsum and yellow uranium vanadates. This mineralised veneer of relatively unconsolidated material is typically less than 5 metres in thickness, although locally, it can occur up to 12 metres in depth. It forms continuous deposits on the plains or occurs in depressions amongst granite outcrops.

Defined Mineral Resource Estimates<sup>6</sup> occur within high radiometric anomalies identified by airborne geophysical surveys. Several radiometric anomalies within currently held Leases have yet to be tested, and many previously drilled areas remain open at boundaries. Additionally, only high radiometric signature anomalies have been tested. Aura's geology team have determined that there is a possibility that the lower-level anomalies may contain economic resources or that the anomalies have been partially or fully obscured by sand cover.

Details of Target tonnage and grade calculations for the Exploration Target are presented in Table 4. Inputs to the calculation of the Exploration Target have been estimated using data from radiometric anomalies near each target, which have been tested by drilling and included in the Mineral Resource Estimate.

The potential Exploration Target, expressed as MIbs U<sub>3</sub>O<sub>8</sub>/km<sup>2</sup>, for each exploration area, has been determined using the metal return from drilling completed at each resource area adjacent to the nearest Inferred Resource, as shown in Table 3.

<sup>6</sup> ASX announcement: "Major Resource Upgrade at Aura Energy's Tiris Project" 14th February 2023.

Resource Area Name	Tonnage and Grade Expectations				Range Exploration Target	
	Tonnes Upper (Mt)	Tonnes Lower (Mt)	Grade Upper U <sub>3</sub> O <sub>8</sub> (ppm)	Grade Lower U <sub>3</sub> O <sub>8</sub> (ppm)	Upper Range	Lower Range
Hippolyte East	6	3	228	114	3	1
Hippolyte Marie and West	17	8	310	155	11	3
Hippolyte North	9	4	224	112	4	1
Hippolyte South	15	7	186	93	6	2
Lazare North	6	3	228	114	3	1
Lazare South	2	1	228	114	1	0
Sadi	7	3	206	103	3	1
<b>Total and averages</b>	<b>60</b>	<b>30</b>	<b>240</b>	<b>120</b>	<b>32</b>	<b>8</b>

Table 4 - Exploration Target - Range of tonnage, grade and average Mlbs U<sub>3</sub>O<sub>8</sub>/km<sup>2</sup>. Totals are rounded.

All Exploration Targets are grouped into five different categories reflecting the quality of the target, ranging from those on high radiometric anomalies to low anomalies that may be affected by sand cover.

In calculating the potential size of the Exploration Target, a probability of success was then estimated for each Target Category to determine each target's upper bound of possible U<sub>3</sub>O<sub>8</sub>. By way of example, high-quality targets on high radiometric anomalies were given a 0.9 chance of success. In comparison, conceptual Targets such as possible mineralisation beneath cover were given a 0.1 chance of success.

In this manner, high-quality targets were given the most significant influence on Target tonnage, while conceptual Targets were given minor influence. To be very conservative, the estimated probabilities of success were then halved to determine Target's lower tonnage and grade ranges. These categories are presented in Appendix 1, along with the upper bounds of estimated probabilities used to calculate Target ranges.

An example of the categorisation of Exploration Targets for the Hippolyte West and Marie mineralised zones can be seen in Figure 2. This shows the relationship between the current Inferred Resource and the ranked Exploration Target areas. As demonstrated, the higher probability targets are on or directly adjacent to areas with a high radiometric anomaly, which host mineralisation. Lower ranked targets cover areas of lower radiometric signature and where cover by sand dunes may have depressed the radiometric signature.

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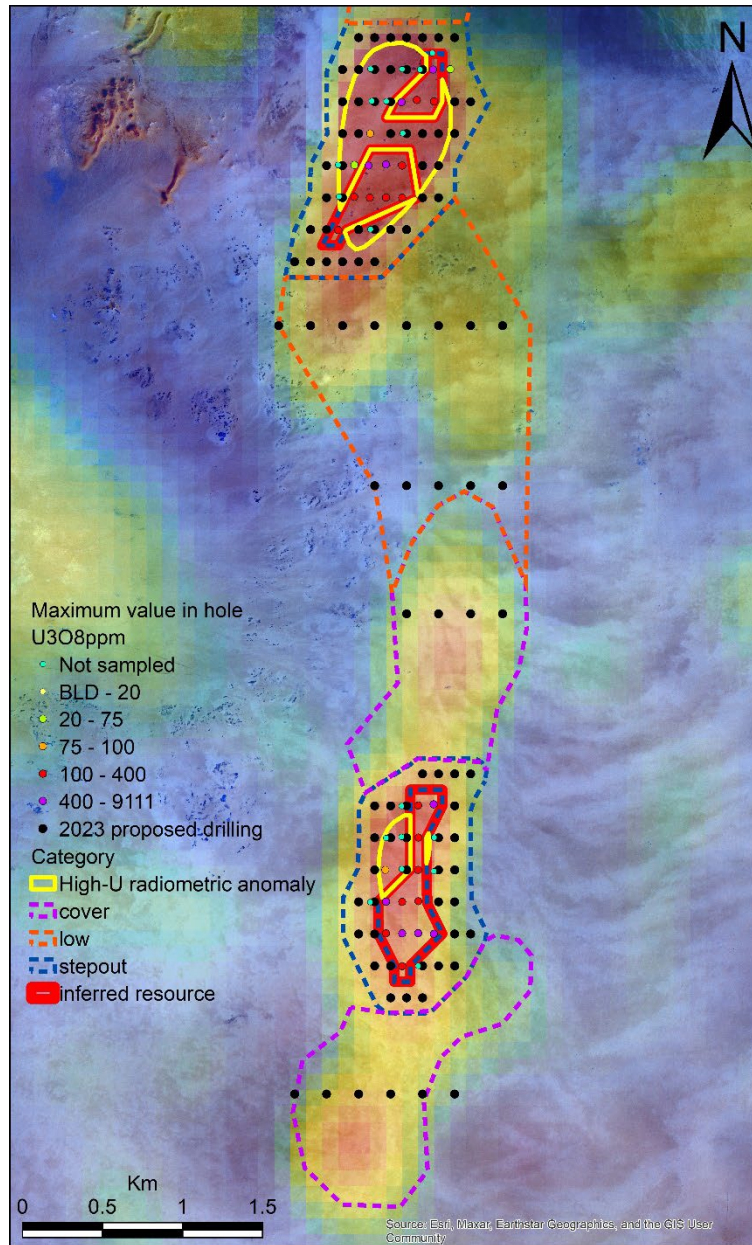


Figure 2 - Marie E-H, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Note that drilling has not been closed off, and portions of the high radiometric anomaly still need to be sufficiently tested.

The distribution of exploration targets for other mineralised zones within the Tiris East areas can be seen in Figures 5 to 13 in Appendix 2.

The development of Targets within currently held Leases has the benefit of providing tonnage close to presently planned operations, increasing the likelihood of mine life extension without having to modify the existing mining plan significantly. Additionally, the potential to develop higher-grade material in the Marie/Hippolyte West area (shown in Table 1) would substantially benefit profitability by adding higher-grade feed close to the treatment facility.

## Exploration Program Plan

The Company proposes to commence an exploration program at Tiris East to test the Exploration Targets as soon as possible. A drilling contractor has been selected, and the logistics planned around mobilising the air core rig into the country and to the Tiris East area. This will aim to rapidly complete 15,500m of air core drilling to grow the Resources within the Tiris East exploitation permits. Drilling at Tiris East will be to a depth of between 1 and 20 metres, with an average depth of 7 metres. Figures 5 to 15 in Appendix 2 show the proposed drilling plan for each mineralised area.

The efficiency of exploration in the Tiris East project area is significantly increased because of the level of data available on existing mineral resources. Drilling calcrete-hosted uranium mineralisation is undertaken by aircore drilling, with downhole gamma logging used to measure equivalent  $U_3O_8$  ( $eU_3O_8$ ). This output is converted to  $U_3O_8$  by calibration with assay and disequilibrium analysis, for which samples must be generated from diamond drilling. For a complete description, refer to ASX announcement: "Major Resource Upgrade at Aura Energy's Tiris Project" on 14<sup>th</sup> February 2023.

A detailed review has determined that sufficient disequilibrium data is available in the Tiris East area for inferred resource reporting. This will reduce the time required to report resources by approximately four months, streamlining the exploration process.

The aircore drilling program in Tiris East is expected to be completed within two months of the commencement of drilling, with an updated Mineral Resource Estimate to be completed shortly after the completion of the drilling program.

The Company will take the opportunity to commence pre-construction works for the Project during the exploration program. The activities will focus on trial mining to optimise mining costs and additional geotechnical studies.

## Tenement Status

The Targets fall on mineral exploration permits held 100% by Aura Energy: 2365B4 Oued EL Foule Sud, and on 2 Exploitation permits: 2492C4 Oued El Foule, 2491C4 Ain Sder held by Tiris Ressources SA. Oum Ferkik is currently under application for transfer from an Exploration Permit to an Exploitation Permit. Tiris Ressources SA is owned 85% by Aura Energy subsidiary, Aura Energy Mauritania, and 15% by ANARPAM, a Mauritanian Government entity.

**ENDS**

The Board of Aura Energy Ltd has approved this announcement.

**For further information, please contact:**

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

Aura Energy is an Australian-based minerals company with major uranium and battery metals projects with significant resources in Africa and Europe. The Company primarily focuses on uranium production from the Tiris Project, a significant greenfield uranium discovery in Mauritania.

A recent Enhanced Feasibility Study at Tiris has increased the project NPV significantly, reconfirming the project as one of the lowest capex, lowest operating cost uranium projects that remain undeveloped worldwide.

A Scoping Study into the Häggån Battery Metals Project in Sweden has outlined compelling economic value. Aura plans to follow up this study with further exploration to lift the Resource categorisation alongside close collaboration with the community surrounding the project to foster support to proceed.

In 2023, Aura will continue transitioning from a uranium explorer to a uranium producer to capitalise on the rapidly growing demand for nuclear power as the world shifts towards a decarbonised energy sector.

### **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 various 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 guarantee that the anticipated results, performance, or achievements expressed or implied in those forward-looking statements will be achieved.

### **Competent Persons**

The Competent Person for Exploration Target Estimation is Dr Michael Fletcher. The information in the report to which this statement is attached relates to compiling Exploration Target data and is based on information compiled by Dr Michael Fletcher. Dr Fletcher has sufficient relevant experience in the preparation and compilation of exploration data across a broad range of deposits 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'. Dr Fletcher is a consultant to Aura Energy, and a full-time employee of GeoEndeavours Pty Ltd. Dr Fletcher is a Member of the Australasian Institute of Geoscientists 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 Tiris Uranium Resource Estimate was reported in 2023 under the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The Mineral Resource Estimate was detailed in ASX announcement: "Major Resource Upgrade at Aura Energy's Tiris Project" 14<sup>th</sup> February 2023. Aura confirms that it is not aware of any new information or data that materially affects the information included in this announcement regarding the mineral resources and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



**Appendix 1 – Basis of Exploration Target**

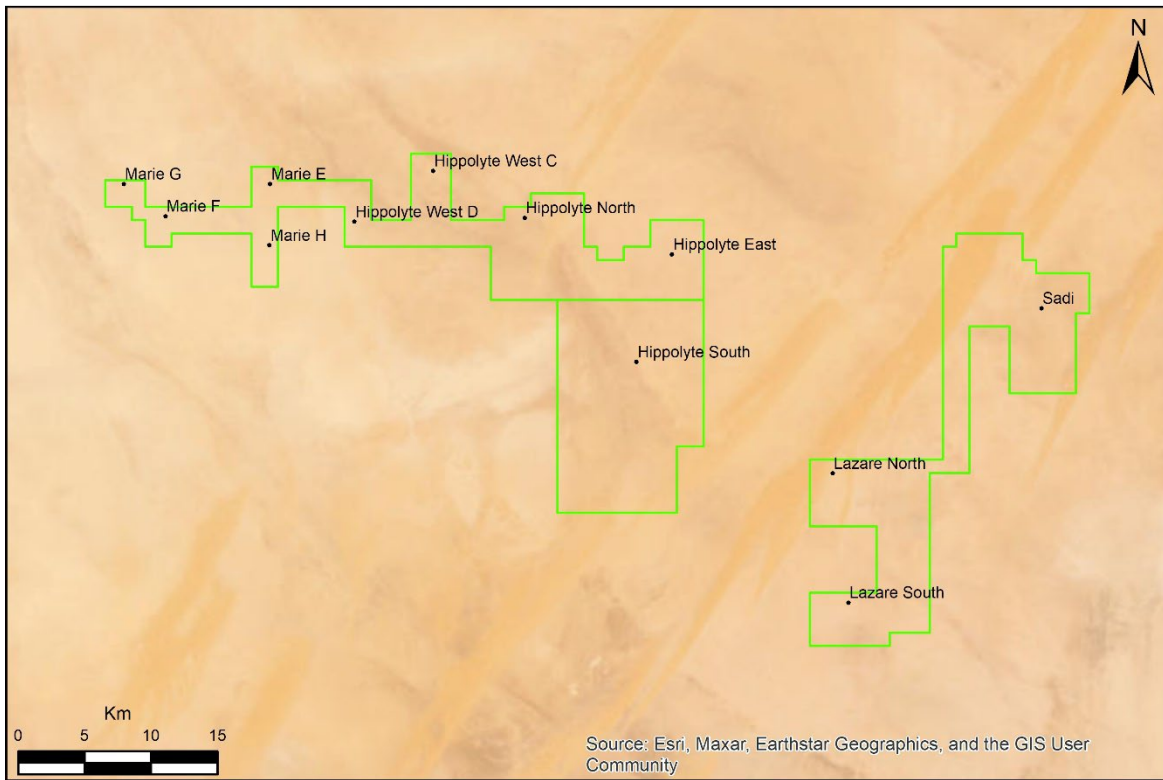
Category	Rank	Raw Mlbs	Probability of success	Mlbs U <sub>3</sub> O <sub>8</sub> target		Holes	Drill metres to assess Target	Probability inputs
				Upper range	Lower range			
<b>High-U radiometric anomaly</b>	1a	9.5	0.9	8.6	2.1	512	3,584	94% of anomalies on currently held leases have returned extremely positive drilling results, and the remaining six percent require further testing (the remaining six percent are in the next category).
<b>High-U radiometric anomaly, low values</b>	1b	1.3	0.6	0.8	0.2	108	756	large anomalies tested by just a few drillholes, which have returned subgrade values but demonstrate a mineralised zone. In some cases, ground radiometrics suggest zone may thin.
<b>stepout</b>	1c	30.4	0.6	18.2	4.6	1257	8,799	Areas where drilling has not been closed off within a few hundred metres of current resources or surrounding non-tested high radiometric anomalies.
<b>Dune Adjacent, low anomaly</b>	1d	7.2	0.2	1.4	0.4	109	763	Lazare north shows that a large resource exists that is not associated with a high U-Radiometric anomaly. Adjacent to sand dunes so probable sand cover subduing anomaly. This was given low probability due to unknown level of sand cover. Positive results from wide spaced drill test will raise probability.
<b>cover</b>	2a	7.9	0.1	0.8	0.2	31	217	Satellite imagery shows a difference in surface cover that may limit the anomaly, masking the radiometric signature. Wide spaced drilling required to test whether this is hiding anomaly, or whether it is simply different rock type that is not mineralised.
<b>low</b>	2b	18.1	0.1	1.8	0.5	177	1,239	Satellite imagery shows sand cover. Radiometric and satellite imagery at different acquisition times so not a direct comparison. This low level sand cover may move so unsure if this is a factor. Limited wide-spaced drilling will test this, and potentially identify large volume targets.
<b>no anomaly</b>	2c	0.3	0.1	0.0	0.0	12	84	No anomaly but possible cover identified in satellite imagery
<b>Total</b>				<b>32</b>	<b>8</b>	<b>2206</b>	<b>15,442</b>	

**Table 5 – Ranking matrix for Exploration Targets based on radiometric signature and proximity to existing mineralisation.<sup>7</sup>**

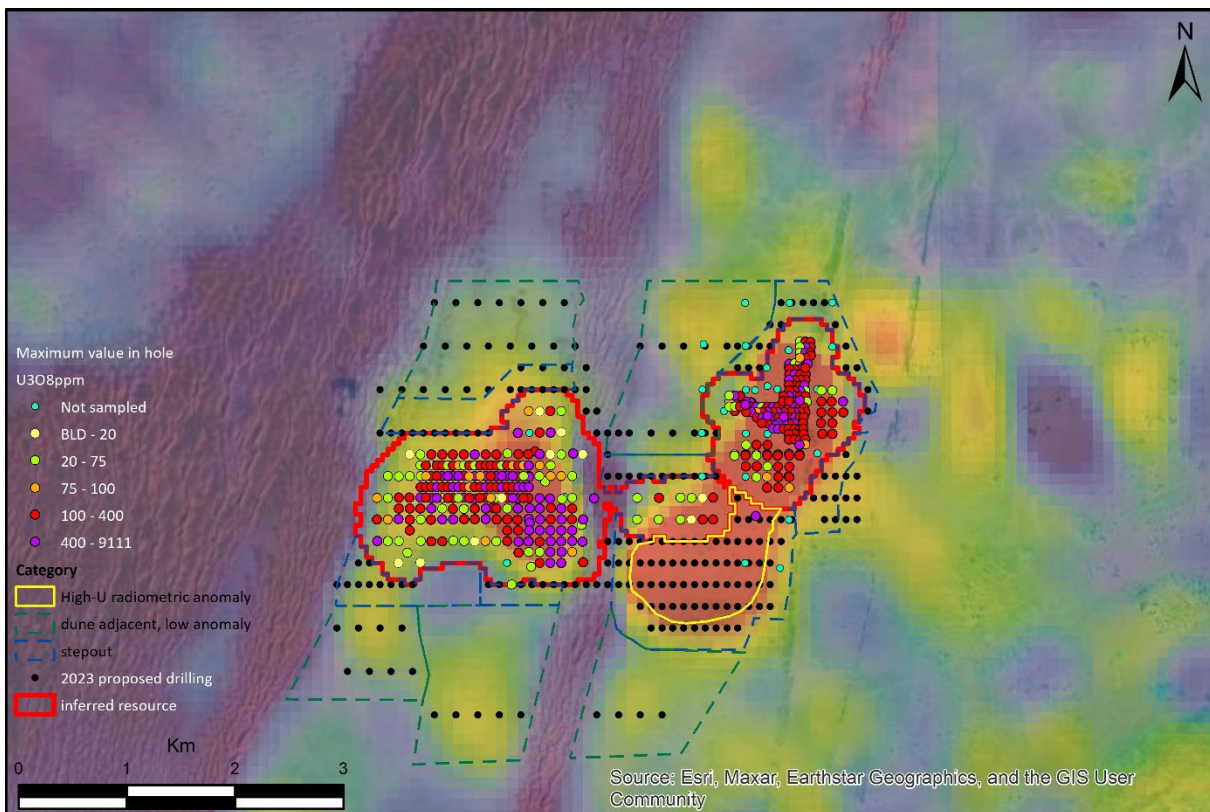
<sup>7</sup> Note that lower range metal target has a 50% discount on both tonnage and grade

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**Appendix 2 – Maps showing Target category locations in relation to radiometric anomalies, Resource boundaries and Satellite imagery.**



**Figure 3. Target Locations: Tiris East.**



**Figure 4. Lazare North, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Note that the western portion of the inferred resource is on a low radiometric anomaly adjacent to a sand dune. Sand may be obscuring the radiometric signature. Drilling has**

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not been closed off. Especially note the large section of high radiometric anomaly that adjoins the Resource and has only two drillholes.

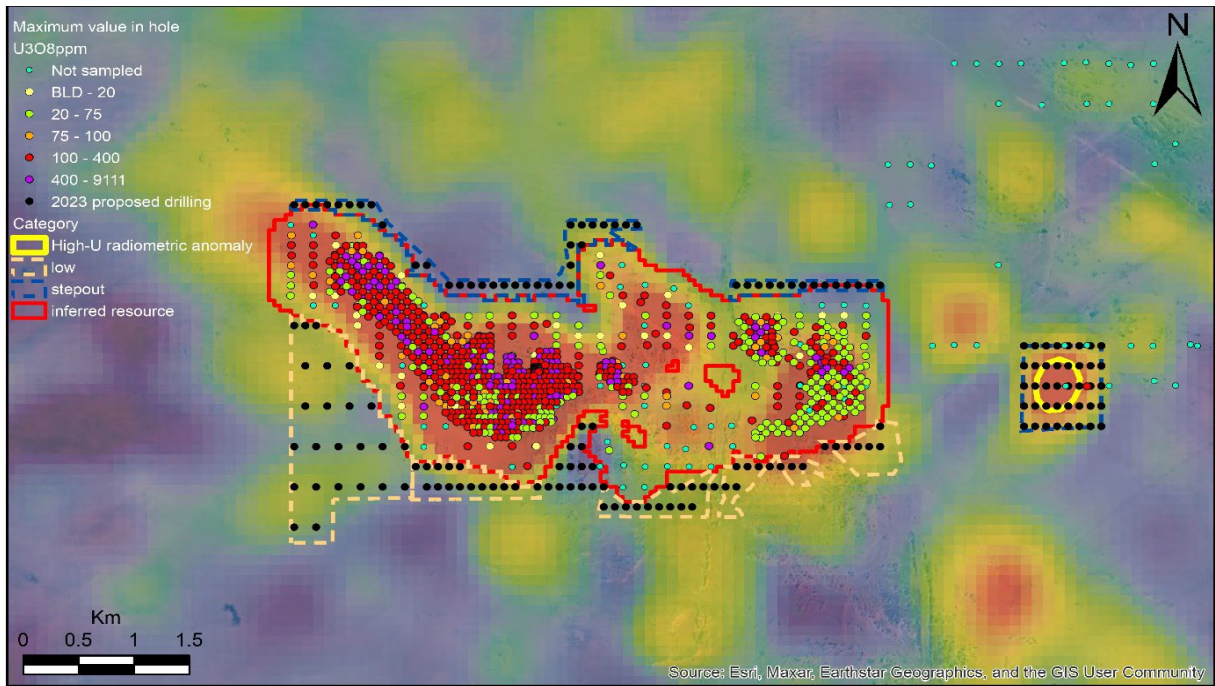


Figure 5. Lazare South, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes.

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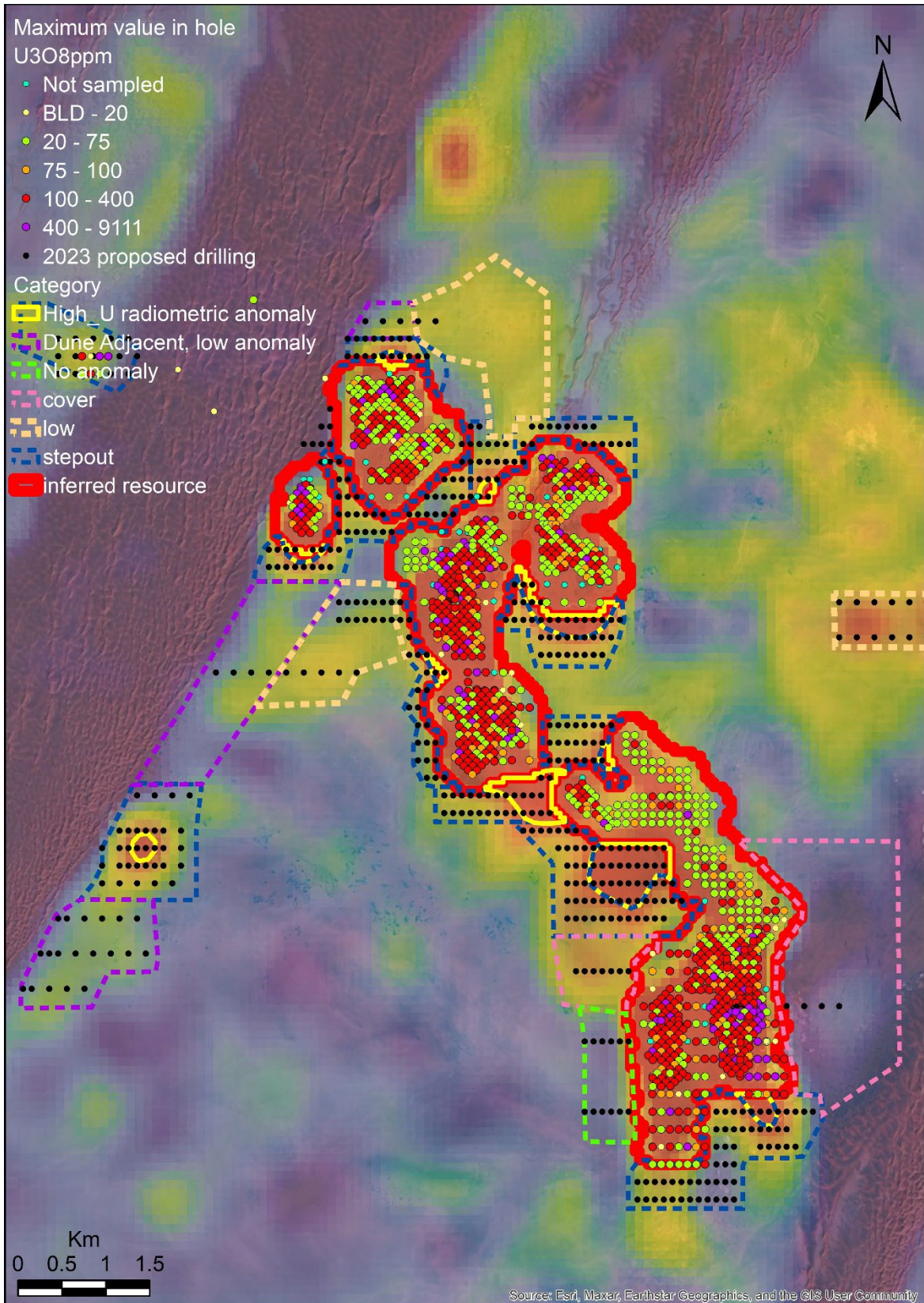


Figure 6. Sadi, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Most of the drilling has not been closed off.

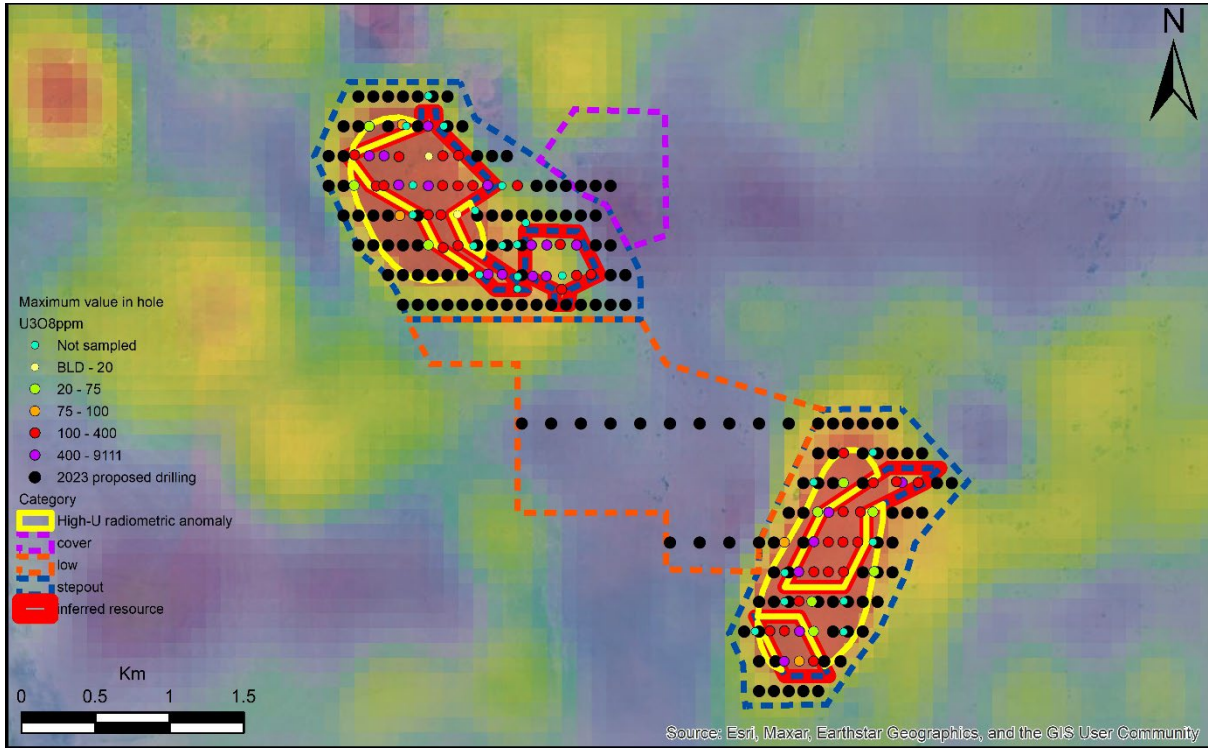


Figure 7. Marie F-G, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Drilling has not been closed off, and the high anomaly has not been sufficiently tested.



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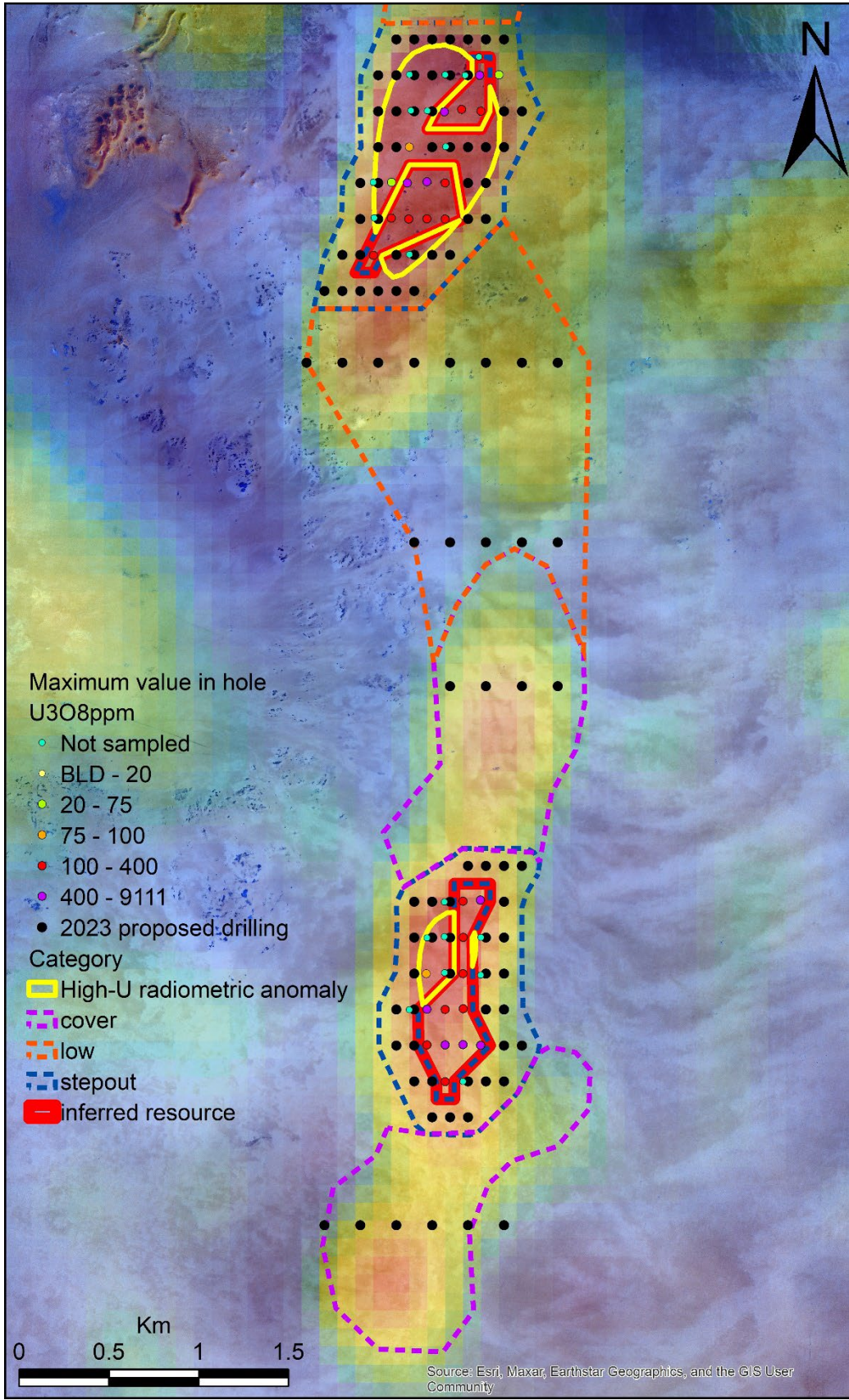


Figure 8. Marie E-H, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Anomalies (need field confirmation) lie to the east of an elevated



feature and appear to have sand cover that may be shedding from that elevated feature. Drilling has not been closed off.

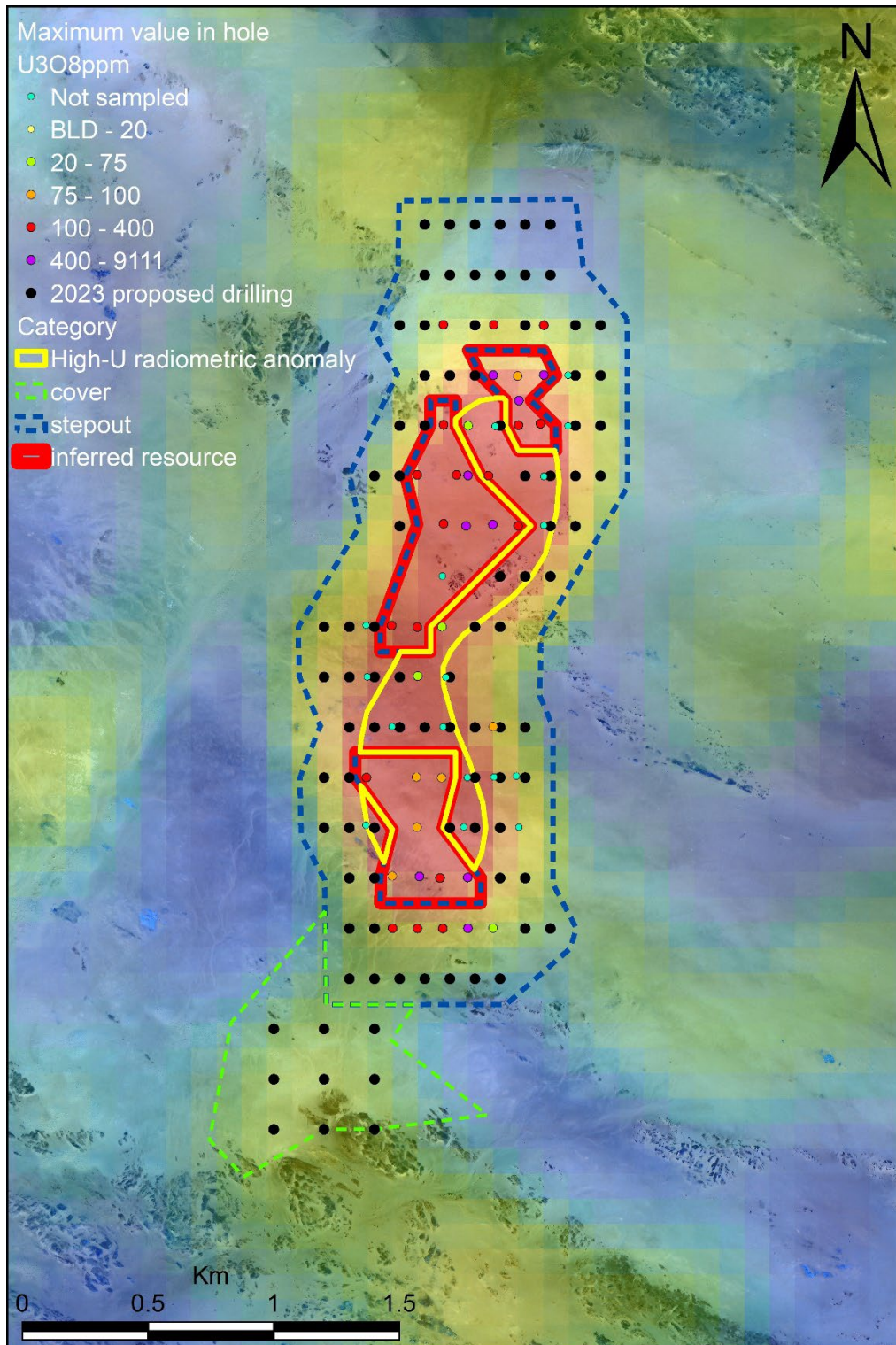


Figure 9. Hippolyte West C, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Note that drilling has not been closed off, and solid drill results exist outside the resource.

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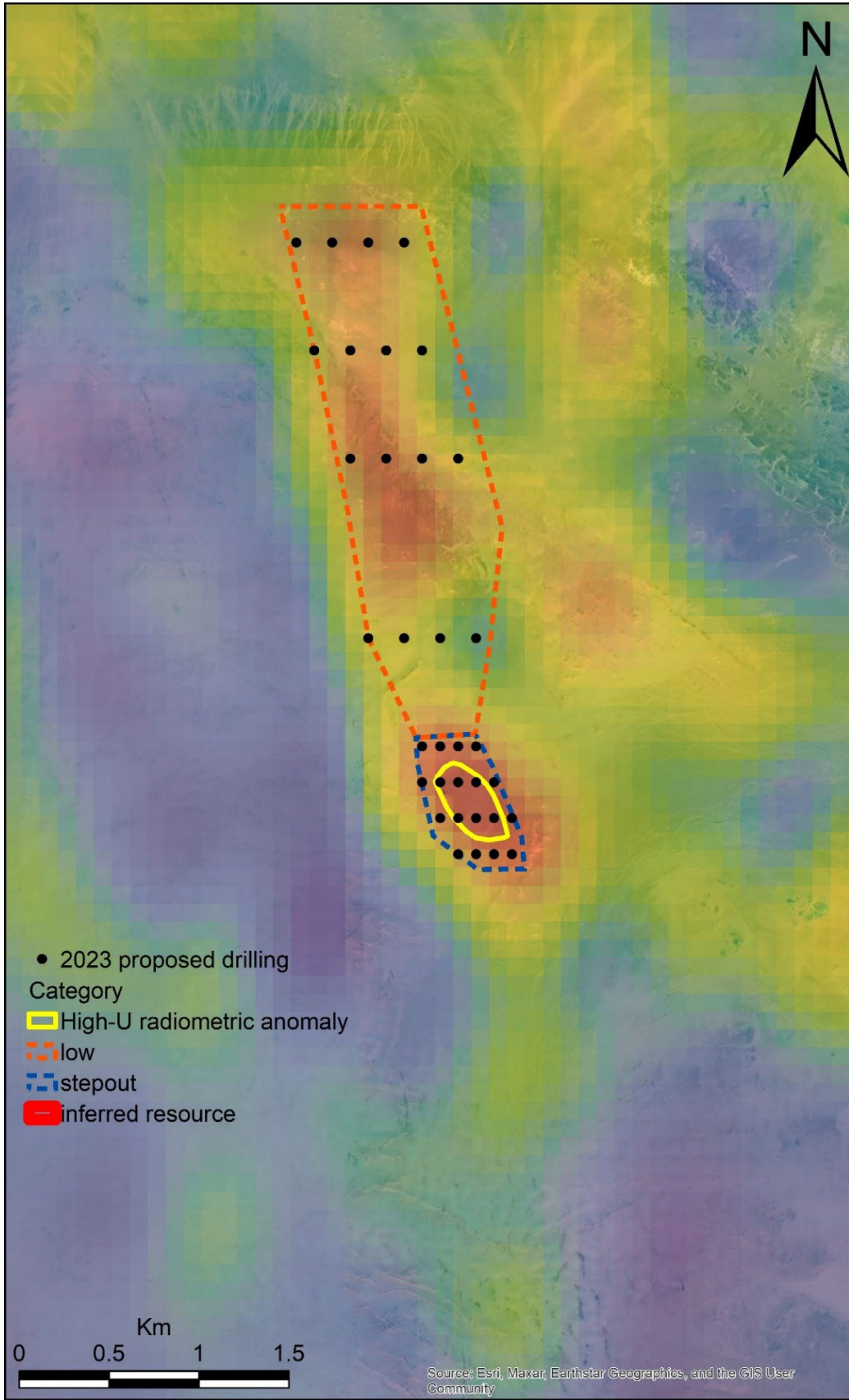


Figure 10. Hippolyte West D, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. No previous drilling exists on this Target.



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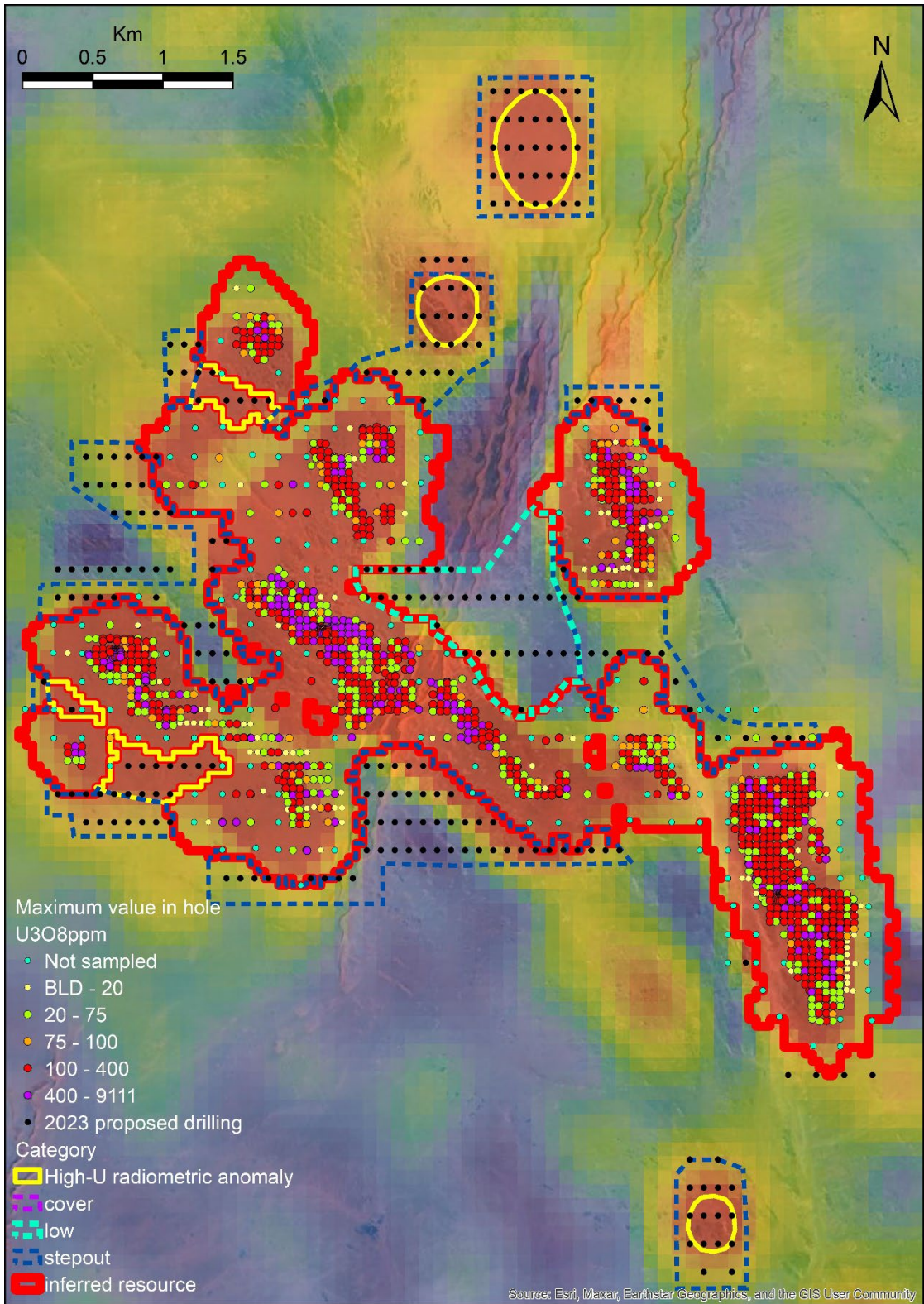


Figure 11. Hippolyte North, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Note the presence of sand dunes, so part of the radiometric anomaly may be obscured. Also, note drilling that has not been closed off.



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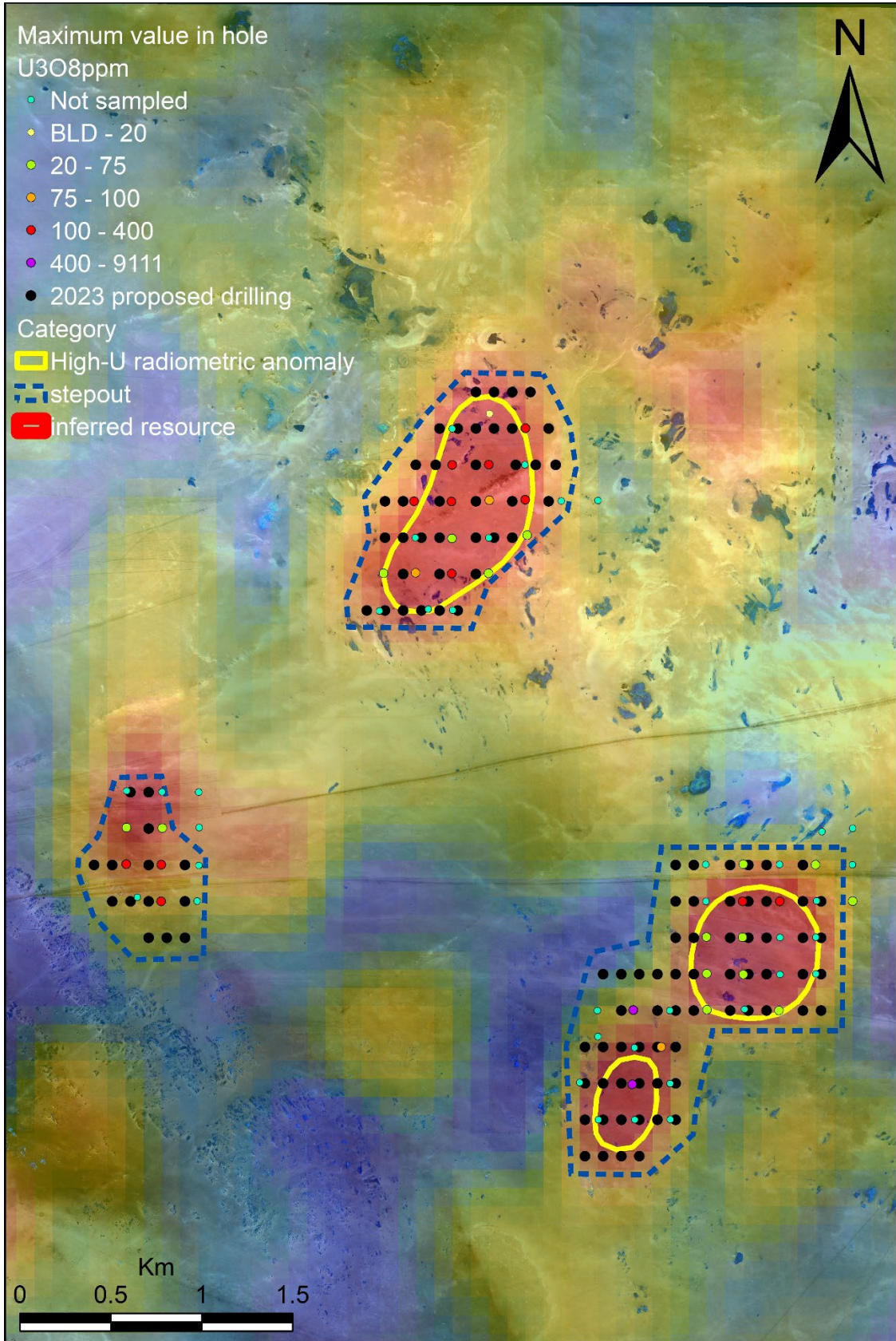


Figure 12. Hippolyte East, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes.



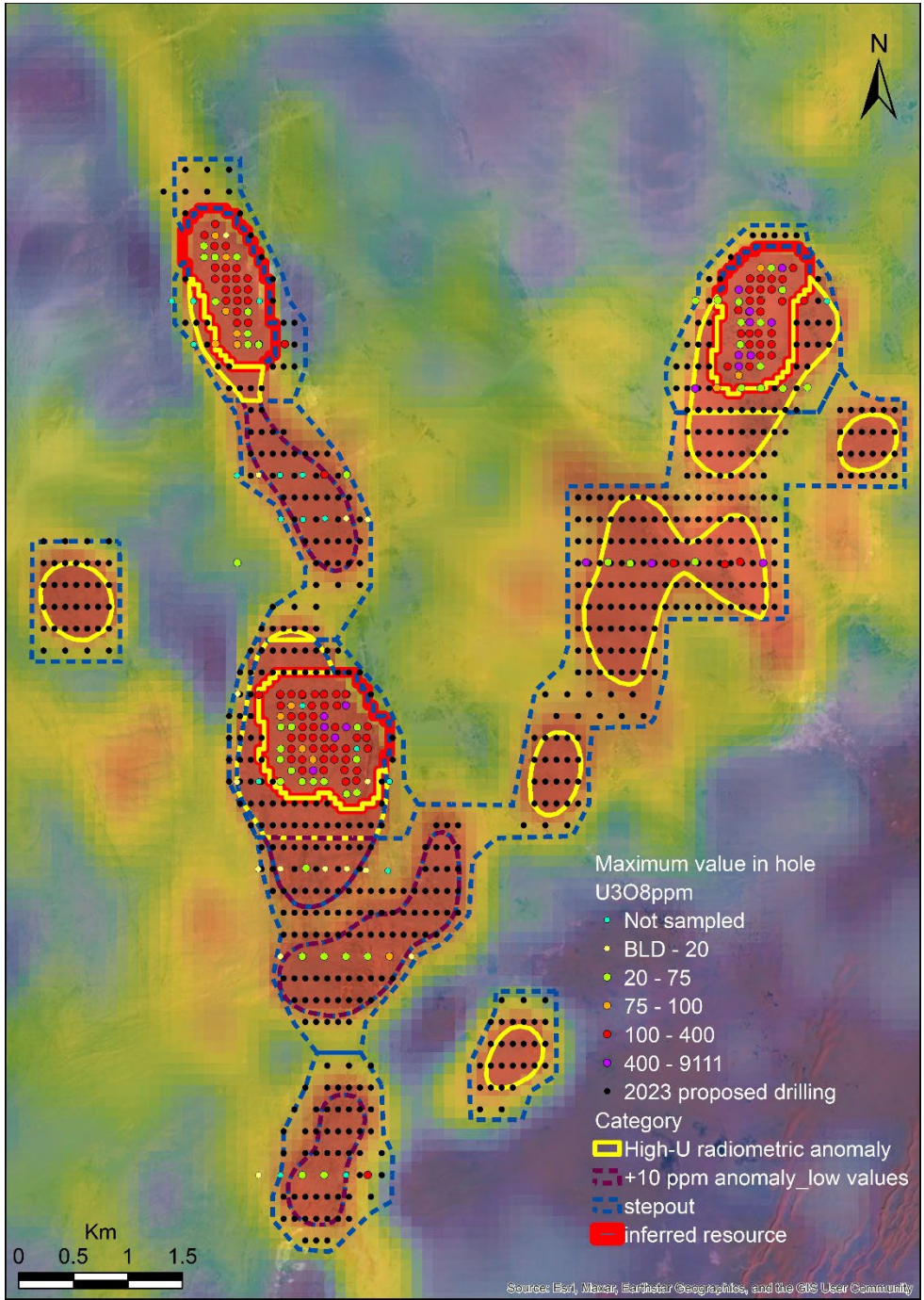


Figure 13. Hippolyte South, showing airborne U-radiometric anomalies, sand dunes, target categories, inferred resource outlines, and planned drillholes. Note resources are open, and drilling has not been closed off.