EL31951 ELKEDRA PROJECT
Partial Relinquish Report 2023

Title Holder:	Magnet Exploration Pty Ltd
Operator:	EARTH AI Operations Australia Pty Ltd
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Date Compiled:	25/05/2023
State:	Northern Territory
Commodity:	Vanadium, Lead, Copper, Silver, Zinc
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NT 1:250K map sheet:	ELKEDRA
NT 1:100K map sheet:	ELKEDRA, GEORGE CREEK

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Abstract

There have been 93 blocks (~296 km^2) relinquished from the EL31951 exploration licence on the Elkedra project (GR566). The tenement is managed by Magnet Exploration Pty Ltd, with exploration efforts conducted by EARTH AI OPERATIONS AUSTRALIA PTY LTD, a subsidiary of the EARTH AI Group (hereinafter referred to as EARTH AI). This report reviews all work undertaken over the three year period on the relinquished blocks. EARTH AI has pioneered an Artificial Intelligence (AI) driven technology for mineral targeting that leverages archived remote sensing, geophysical, and geochemical data to identify new mineral deposits. An initial comprehensive review of previous research conducted in the area did not yield any significant insights. Therefore AI targeting was conducted and cluster maps produced to generate mineralization targets. The relinquished blocks have been investigated for potential vanadium, lead, copper, silver, and zinc mineralization by our AI model where data was generated and clustered. Our results suggest low probable mineralization over the relinquished blocks warranting their relinquishment and further validated by 35 pXRF surface geochemical analysis in the field. Upon this conclusion we have relinquished the blocks described here.

Copyright

Location, Title History, Physiography and Access

The Elkedra Project (EL31951) is located approximately 400km north-east of Alice Springs and 200km south-east of Tennant Creek in the Barkly Region of the Northern Territory, Australia. Alice Springs serves as the major hub for freight, fuel and food, and the Alice Springs airport is used to fly in and fly out of the exploration area.

Access to the project is via the Sandover Highway from the south to and from Alice Springs. Station tracks on Elkedra Station provide access to much of the exploration area with track quality well-maintained by the pastoralists.

EL31951 lies on Elkedra Station Perpetual Pastoral Lease, Ammaroo Perpetual Pastoral Lease and covers land owned by Australian And Overseas Telecommunications Corp. Ltd. All work undertaken as part of the Elkedra South Project in this year is on the Elkedra Perpetual Pastoral Lease and a Land Access Agreement is in place with the Elkedra Pastoral Company. The project also covers the Sandover River native title determination. Earth AI is in regular contact with the CLC and the Kaytetye Alyawarr Awenyerraperte Ingkerr-Wenh Aboriginal Corporation RNTBC.

The target area is characterised by low rolling hills of quartzite surrounded by large flat plains. Small shrubs and gumtrees populate the landscape along with termite mounds and spinifex. There are dry creek crossings on station roads enroute to the target area but few significant drainage systems close to our main work area. This combined with the dry climate allows the flora to be easily negotiated with minimal environmental impact.

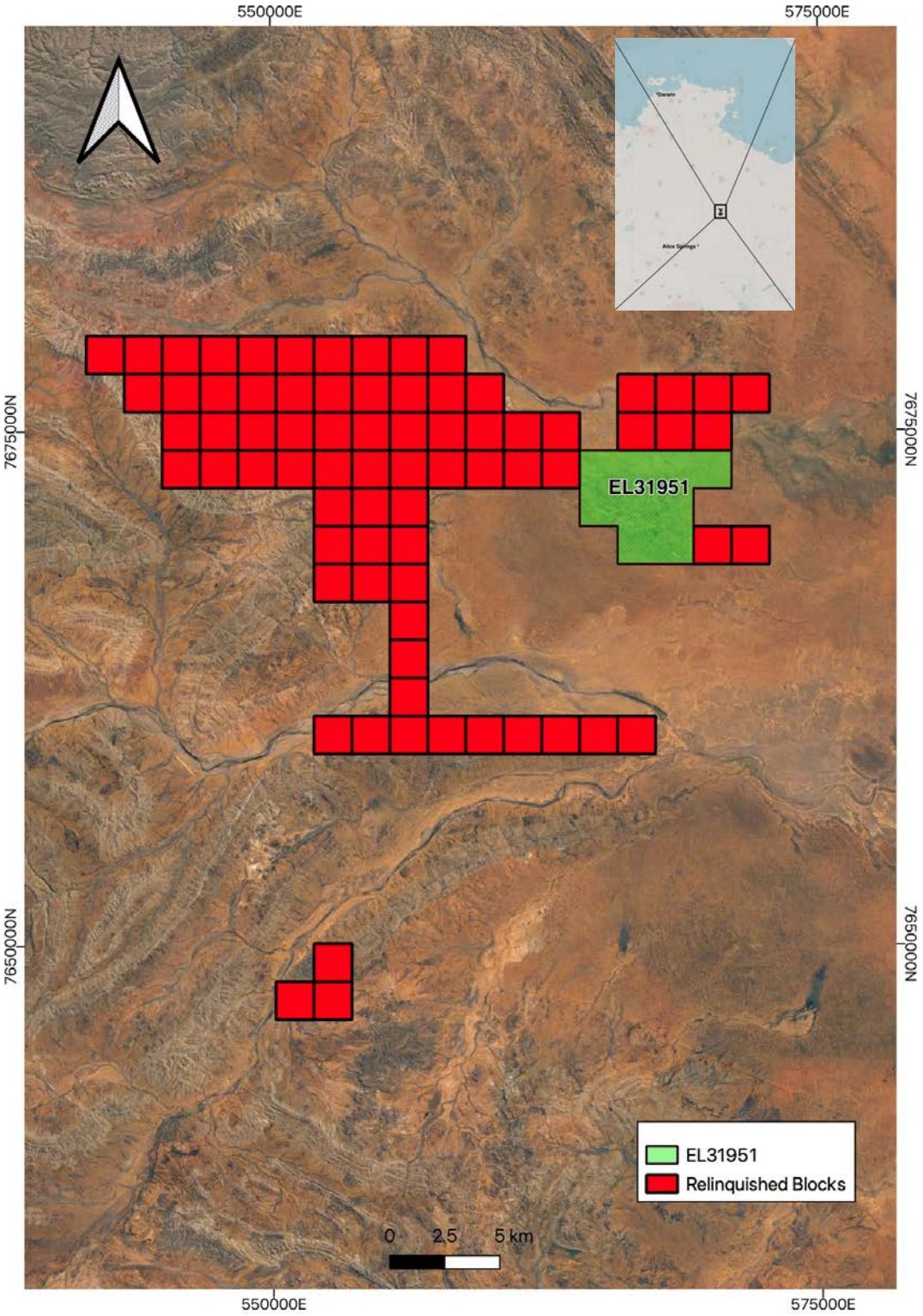

Figure 1. Map detailing GR566 location and title boundaries.

SF53833	z	1
SF53834	v,w,x,y,z	5
SF53835	v,w,x,y	4
SF53906	a,b,c,d,e,g,h,j,k,m,n,o,p	13
SF53907	a,b,c,d,e,f,g,h,j,k,l,m,n,o,p,q,r,s,v,w,x	21
SF53908	d,e,f,g,j,k,l,m	8
SF53909	a,b,f,v,w	**5**
SF53979	a,b,c,h,n,s,v,w,x,y,z	**11**
SF53980	v,w,x,y	4
SF532051	a,b,c,d,e,f,g,h,j,k,l,o,q,v	14
SF532052	a,b,c,d	4
SF531122	k	1
SF531123	a,f	2
	Total	**93**

Geological Setting

The Elkedra project is located within the Late Proterozoic Davenport province, which constitutes the Southern portion of the Palaeoproterozoic Tennant Creek Inlier. To the North West it borders Warramunga and Tomkinson provinces of overlapping age and common history. East of the licence area, the Osbourne and Crawford range stratigraphy correlates with lithologies of the Davenport Province.

The much younger Cambrian Wiso and Georgina Basins are present to the West and East of the province respectively. These basin sequences have undergone very little deformation and lie sub-horizontally. In some cases, erosional remnants of the Cambrian basins outcrop within the Davenport Province, typically capping the topographic highs.

The Davenport Province consists predominantly of Paleoproterozoic continental shallow marine sedimentary, and felsic with minor mafic volcanic sequences of Ooradidgee and Hatches Creek groups (1850-1810 Ma). The rocks of the Ooradidgee and Hatches Creek Group are generally sub-vertical and are regionally metamorphosed to predominantly greenschist facies and have undergone multiple stages of deformation.

Two magmatic suites occur in the Davenport Province: The ca 1820-1820 Ma Treasure Suite (comprises volcanic and intrusive felsic and mafic rocks) and ca 1720-1700 Ma Devils Suite (comprises intrusive highly fractionated post-tectonic granite). The latter is associated with tungsten-tin bearing vein mineralisation.

Deposition and emplacement of Ooradidgee and Hatches Creek Group rocks occurred synkinematic to the late stages of the Tennant Event at ca 1850 Ma. This event resulted in widespread folding and minor faulting throughout the Tennant Region.

The Murchison Event ca 1815-1805 Ma is mostly associated with reverse faulting of the Wauchope Fold Belt, emplacement of felsic and mafic rocks (Treasure suite and Ooradidgee Group) and ENE-WNW trending folds. Superimposed NW-trending folds within the Davenport Region are attributed to the Davenport event that occurred during ca 1720-1700 Ma. Synclines are highly elongated and generally have symmetrical limbs. The cores of synclines are composed of the youngest rocks in the area - the Lenee Creek Formation siltstones. Anticlines have a less elongated fabric, and exhibit an island-like outcrop pattern caused by their undulating hinges. Anticline cores generally have outcropping Newland volcanics or older rocks of the Hatches Creek Group. This second phase of folding was also synchronous with strike-slip faulting that produced NW-trending faults.

Several late brittle deformation events post-dating the Davenport Event (ca 1720-1700 Ma) can be observed in regional geology maps and are visible in regional magnetic imagery. Timing is not known but is inferred to be late and possibly attributed to the Alice Springs Orogeny.

The Elkedra South project within EL31951 is located adjacent to the Supplejack fault that juxtaposes calcareous, dolomitic Frew River Formation against Alinjabon arenites of the Wauchope and Hanlon Groups, respectively. Errolola sandstones (Hanlon Group) form ridges around the periphery of the latter, and patchy outcropping of Kudinga basalt occurs to the north.

Approximately 40-50% of GR566 is covered by Quaternary regolith (alluvial, flood plains, sandplains and aeolian dunes, colluvial deposits and scree). The 1:250,000 ELKEDRA sheet summarises the regional geology surrounding the licence area.

Tenement and Prospect geology

The oldest rocks of the region are the Proterozoic Hatches Creek Group. There are 3 subgroups of these rocks within the licence area: Hanlon, Umbeara Sandstone, and Wauchope Subgroups.

The NW corner and Central regions of EL31951 exhibit ridge-forming anticlines consisting of peripheral Coulters Sandstones and Newlands Volcanics cores. The SW corner of EL31951 has

rocks of the northern limb of an anticline outcropping as Kurinelli Sandstone ridge lines surrounded by rocks of the Treasure and Newland Volcanics Formations.

Throughout the Central region minor outcrops of Paleoproterozoic Alinjabon and Errolola Sandstones (Hanlon subgroup) are faulted against Paleoproterozoic rocks of the Frew River Formation and Kudinga Basalt (Wauchope subgroup). Sediments of the Cambrian Andagera Formation are weakly folded and unconformably overlie Kurinelli and Unimbra Sandstones and Newlands Volcanics in the Eastern and South-Central region of the licence area. The Cambrian sediments belong to the Georgina Basin sequence, and the dominant sequences are fossiliferous, and organic rich or limey siltstones and dolostones.

Several deformation events have affected the Hatches Creek Group Rocks. The earliest event formed large synclines and anticlines with NW-trending hinges (Murchison Event ca 1815-1805 Ma). Refolding around a NE-axis resulted in complex dome and basin structures that can be seen most clearly 50-80 km NW of the tenement in the Davenport province (Davenport Event ca 1720-1700 Ma).

Within GR566, dominant structures include the regional NW-SE trending Supplejack fault that strikes for over 40 km, NE-SW splays of the Supplejack fault, and the NE-trending Rockhole Anticline. The Supplejack shear zone formation and gold mineralisation are thought to be contemporaneous with one another, occurring at about 1815-1791 Ma.

Historical Exploration

A detailed review of historical exploration established that previous exploration was not systematic and only minimal field reconnaissance was carried out. Many companies have shown interest in the tenements between the 1970’s and 2000’s, and the historical findings warrant further field testing to assess the mineralisation potential through systematic exploration.

Historical sampling programs have found enrichments in Cu, Pb, Zn, As, Ba, W and Ta. Historical exploration has been focused on the presence of minor surface turquoise within the Cambrian rocks of the Georgina Basin. There are numerous historical turquoise (Cu Al phosphate) mine workings, including the Tosca mine that produced 60 tonnes of turquoise before shutting down in 1980. In 1992, Mount Isa Mines (CR1992-0660) drilled the Cobalt bloom prospect that had historical chip samples with 9300ppm Cu, 4800ppm Co, 2.55% Ba and 1250ppm Zn; although the drilling program was later suspended due to lack of ore body continuity directly underneath the outcropping mineralisation.

In 1971, Metals Investment Holdings (CR1971-0083) detailed historical accounts of the regional geology and copper-lead mineralisation of the Hatches Creek Group rocks in the North Eastern

area of EL31951. Geologic mapping and geochemical sampling were recommended but not pursued, no field reconnaissance was conducted.

Kewanee Australia conducted an extensive geological survey in 1972 followed by an inconclusive field program (CR1972-0072). No geochemical data was collected for the licence area.

A joint venture between Amoco Minerals Australia Company and BHP (CR1984-0095) in 1984 for kimberlite indicator minerals returned no significant results of the 13 samples collected within the exploration licence area. Failing to find indication of kimberlites, BHP withdrew from the venture and Amoco Minerals Australia Company continued to explore areas in the retained tenement area outside of EL31951 for tungsten and base metals.

Harrow Enterprise carried out a detailed desktop study in 1992 (CR1992-0510). Field reconnaissance in the same year targeting Amoco's manganese anomaly on the SE margin of the licence area returned anomalous results at the intersection of the regional NE and NW structure: 1.87% Ba, 3100ppm Cu, 410ppm Zn, 130ppm Ni. To the north of the manganese occurrence, a basalt unit with minor quartz veining also returned anomalous Ba at 1500ppm and Mn at 1580ppm. In the same area the Frew River Formation outcrop returned anomalous Ba at 1540ppm and Cu at 1380ppm. One drainage sample was collected and was anomalous for Ba (2000ppm) and Cu (730ppm). In their second year of tenure (CR1993-0642), work completed within the licence consisted of photogeological mapping, stream sediment (36) and rock chip (31) sampling to follow up results achieved in their first year. Analysis of stream sediment samples were not promising, returning only minor anomalous values for two samples: Pb at 70ppm and Zn at 105ppm. Rock chip samples from basalts and ferruginous silcrete and sandstone gave low values with maximums of: 100ppm Cu, 115ppm Zn, <0.01ppm Au.

In 2003 and 2004, Arafura Resources intended to explore for rare earth elements (CR2003-0046) but failed to raise funds. No exploration was conducted on the licence during this period. In their 3rd year (2005) an extensive reconnaissance program targeting Kurinelli-type Au, Hatches Creek-type tungsten, Barrow Creek-type Ni/Cu and diamonds was carried out. A total of 141 soil samples were collected and results returned 47 samples in the range of 1-2ppb Au. Base metal levels did not appear anomalous or above background values. The tenement was retained until 2006 before being relinquished due to lack of results.

Exploration was also conducted by Emmerson resources in the area between 2008 and 2009 (CR2009-0589). During this period a detailed prospectivity analysis was carried out in the licence area which consisted of data compilation and review of previous exploration work, analysis of magnetic anomalies and gravity methods. New targets that possibly displayed the potential for variations on the classic magnetite ironstone hosted gold copper deposits were defined. However, Emmerson prioritised other tenement work and failed to carry out adequate

exploration required to determine the economic potential of the licence area. The licence was surrendered to pursue other tenements considered more prospective by the company.

NuPower Resource Ltd (2009) reviewed previous exploration work in the licence area and conducted a desktop study of NTGS airborne surveys (uranium and thorium radiometric images). A selection of radiometric anomalies were assessed in the field and attributed to variations in background levels between rocks of the Newlands Volcanics and Coulters Sandstone. The tenement was relinquished due to the lack of results (CR2008-0946).

Between 2013-2015 China Australia Land Resources (CR2013-0830, CR2014-0812, CR2015-0814) carried out desktop surveys over the licence area and surrounds; no fieldwork was conducted.

Giants Reef noted in report CR2009-0589 that exposures of the Frew River Formation are commonly strongly iron-stained, with deposition considered to have been in a shallow-marine or lacustrine environment, analogous to the McArthur River Pb-Zn deposits.

The Juggler historical Tungsten Prospect is located adjacent to Elkedra Granite and comprises 0.2-1m quartz-tungsten veins. It was partially mined by small scale trenching. Peninsula Resources revisited the prospect in 2016 (CR2018-0425) and found significant Tungsten mineralisation returning 1.41% WO_3 in an outcropping shear hosted quartz-tourmaline-tungsten-tantalum vein.

In the eastern part of the area there is an alluvial deposit of Ta, W and Sn. Two historical samples assayed at the abandoned, historical Trew Creek Mine (no available historical exploration report) found 26.6% Ta_2O_5, 31.7% Nb, 2% WO_3 and 66.2% TaO_5, 10.3% Nb and 1.15% Sn.

Rum Jungle Resources (CR2016-0654) reported shallow, historical bulldozer scrapers into a turquoise outcrop just east of the meeting point of EL31951 and EL31952. The minor, non-gem-quality turquoise was found over an area 0.75km^2 which has previously reported anomalous phosphate results.

Exploration Rationale

Exploration targets within EL31951 were chosen based on three criteria:

1) Density of Earth AI proprietary AI technology predictions (referred to as clusters)
2) The size of the cluster (interpreted as the potential extent of the surface anomaly)
3) Multiple single-element clusters proximal to (within 1km), or overlapping other clusters

Multi-element analysis using Earth AI's proprietary artificial intelligence and machine learning technology predicted multiple high density clusters that in some cases overlapped, or were within a reasonable distance from one another.

Geological Activities and Office Studies

AI Targeting Analysis using EARTH AI's Proprietary Targeting Technology

EARTH AI data scientists have performed target generation analysis using the latest version of our proprietary machine learning system which utilises Australia-wide open file and public domain geological, geophysical and remote sensing data for training. Then it is able to recognise particular data signatures associated with mineralisation in areas of full remote sensing and geophysical data coverage, which have not been explored previously. This allows for predictions of mineralisation to be produced throughout greenfields regions with a coverage and scope not previously possible.
The latest predictions are based on the new Australia-wide database, which has been recleaned with our proprietary Geochem Dustbuster technology. Geochem Dustbuster fixes errors in geochemical data at scale in a half-automated way.

AI targeting results are produced in tabular format indicating each predicted point location coordinates and its probability.

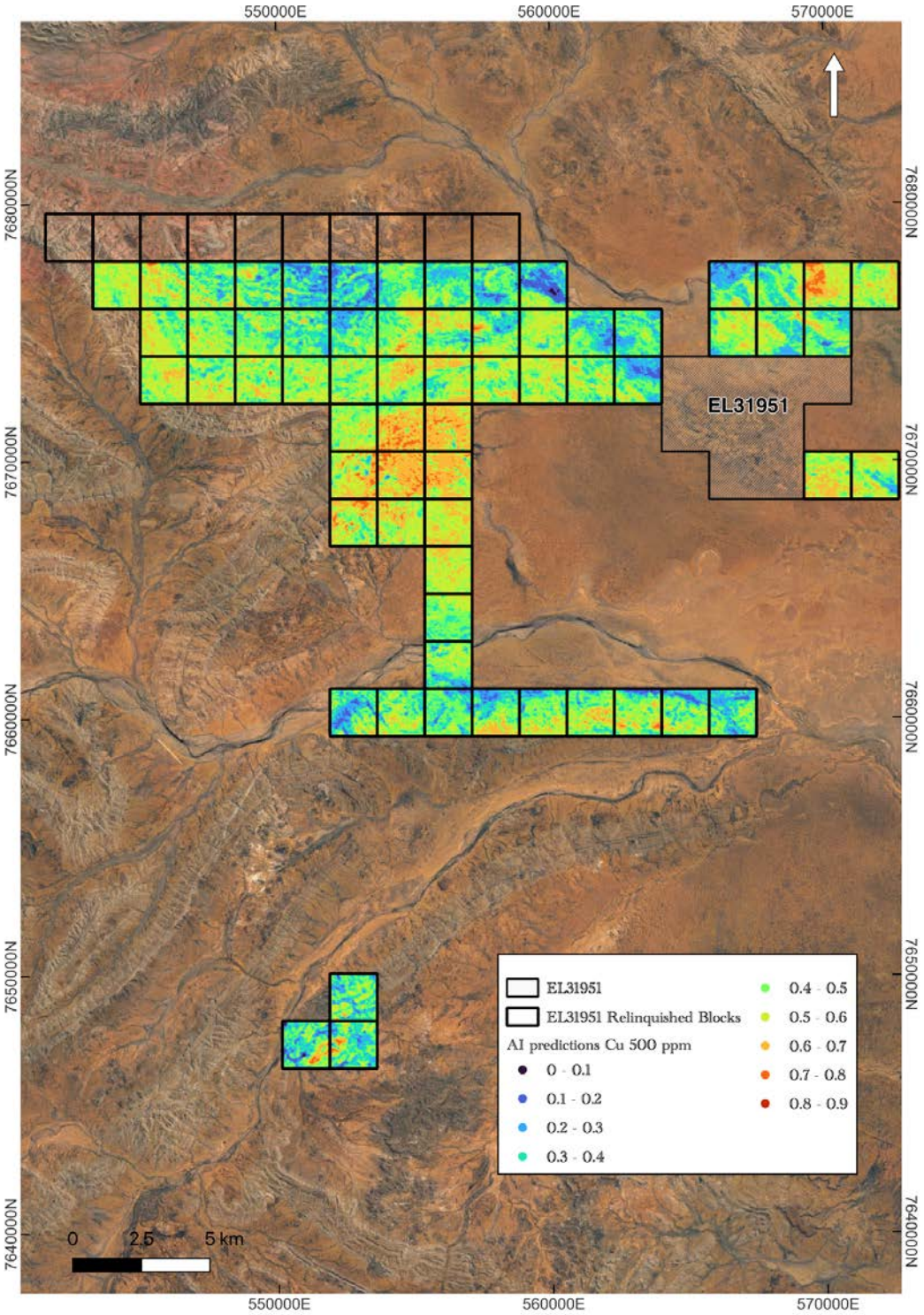

Figure 2. Latest Copper 500 ppm AI predictions from within relinquished areas of EL31951

AI Clustermap Analysis

Clustermap is a map or surface geology created by unsupervised machine learning analysis applied to multispectral and geophysical data over the area. Below is the latest version of the clustermap produced over the relinquished areas of EL31951.

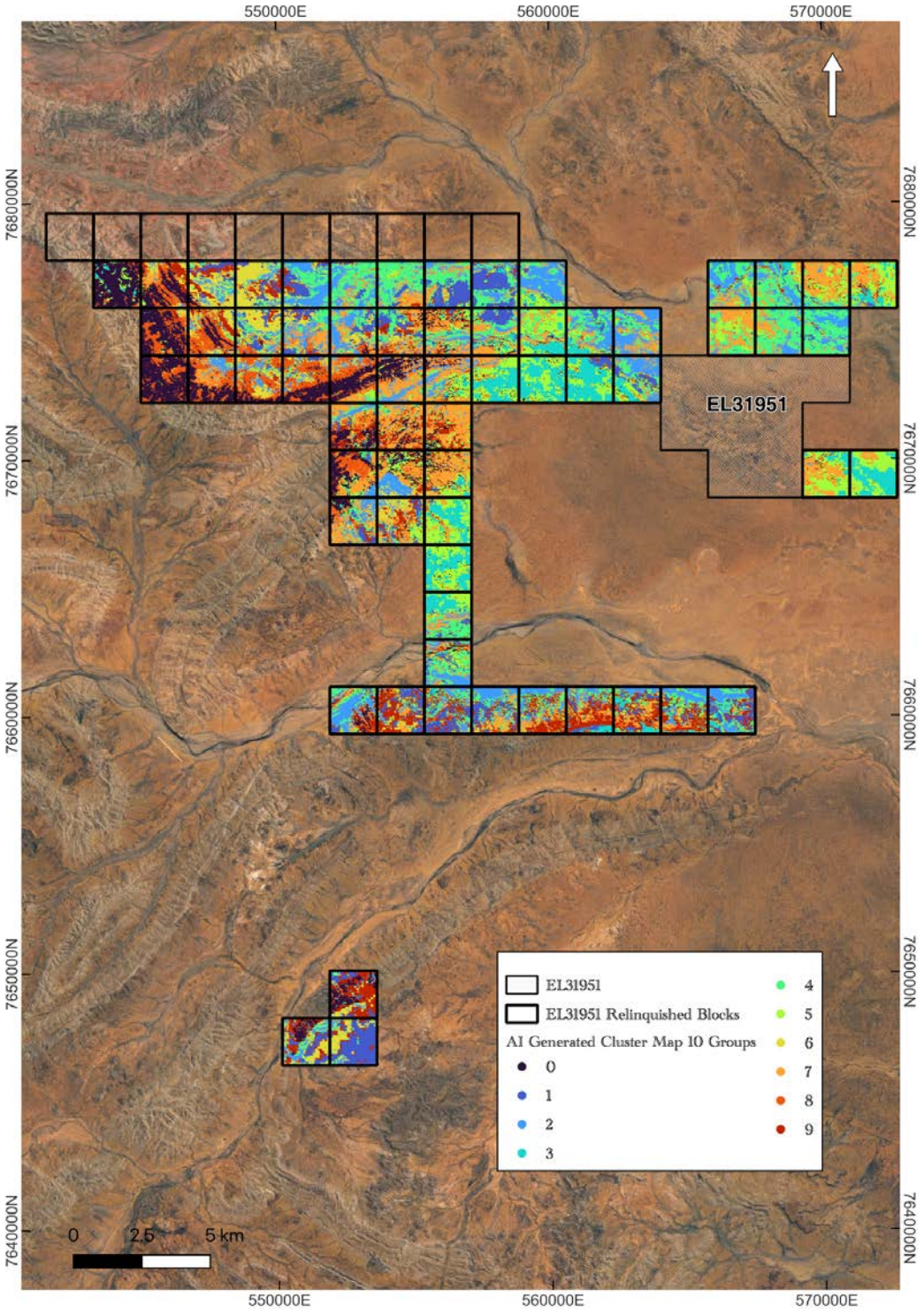

Figure 3 . Clustermap analysis for 10 groups from within relinquished areas of EL31951

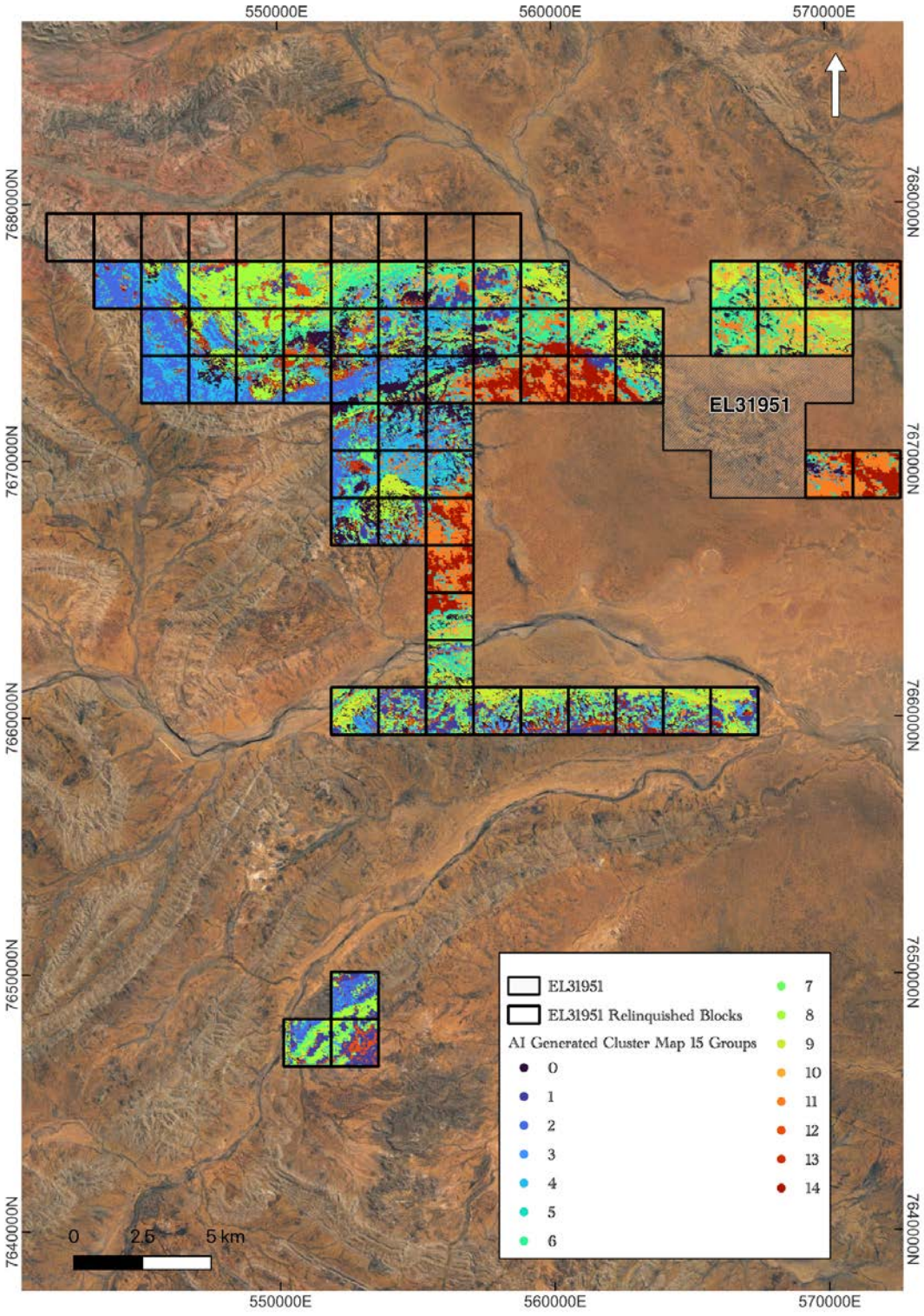

Figure 4 . Clustermap analysis for 15 groups from within relinquished areas of EL31951

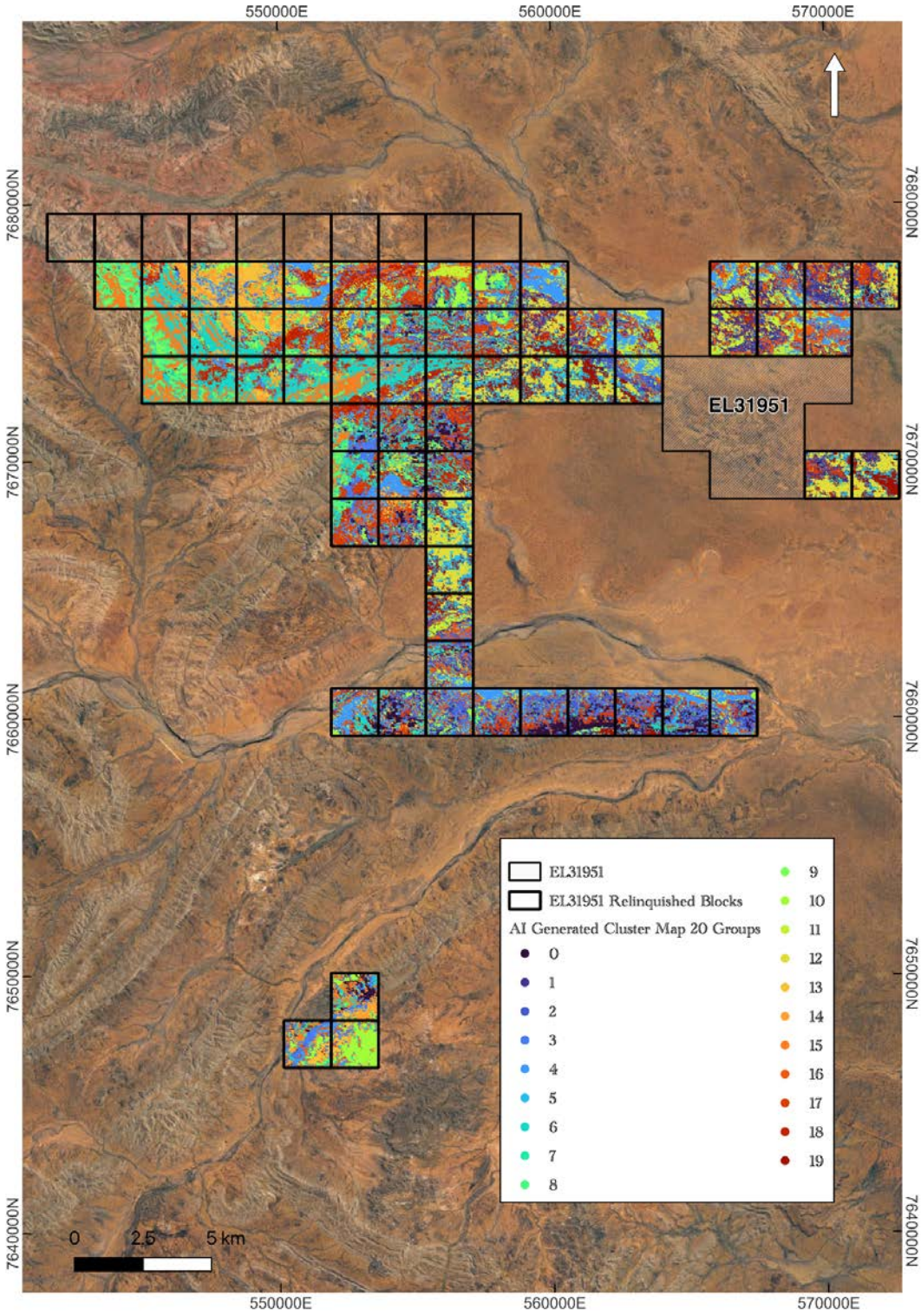

Figure 5 . Clustermap analysis for 20 groups from within relinquished areas of EL31951

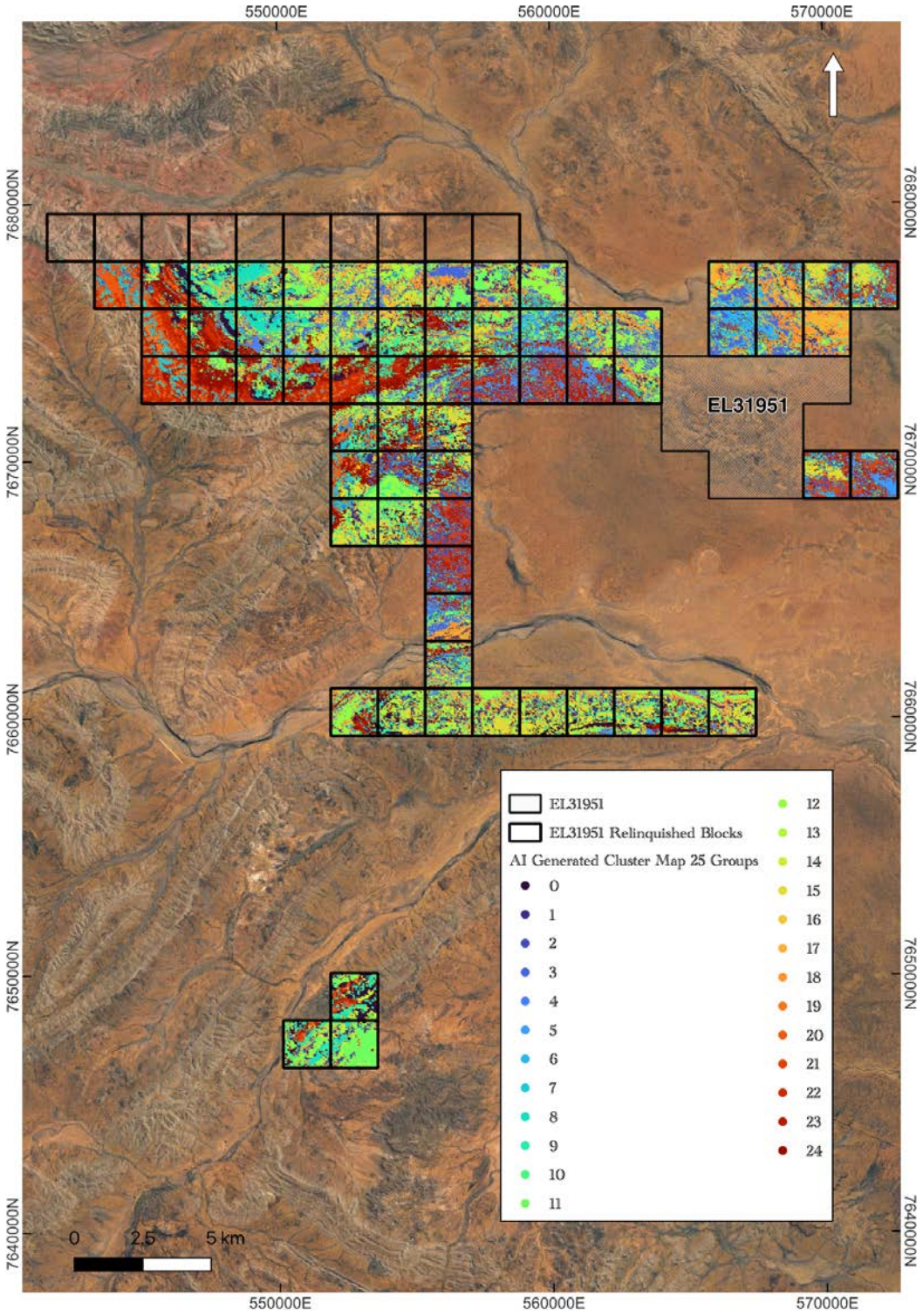

Figure 6 . Clustermap analysis for 25 groups from within relinquished areas of EL31951

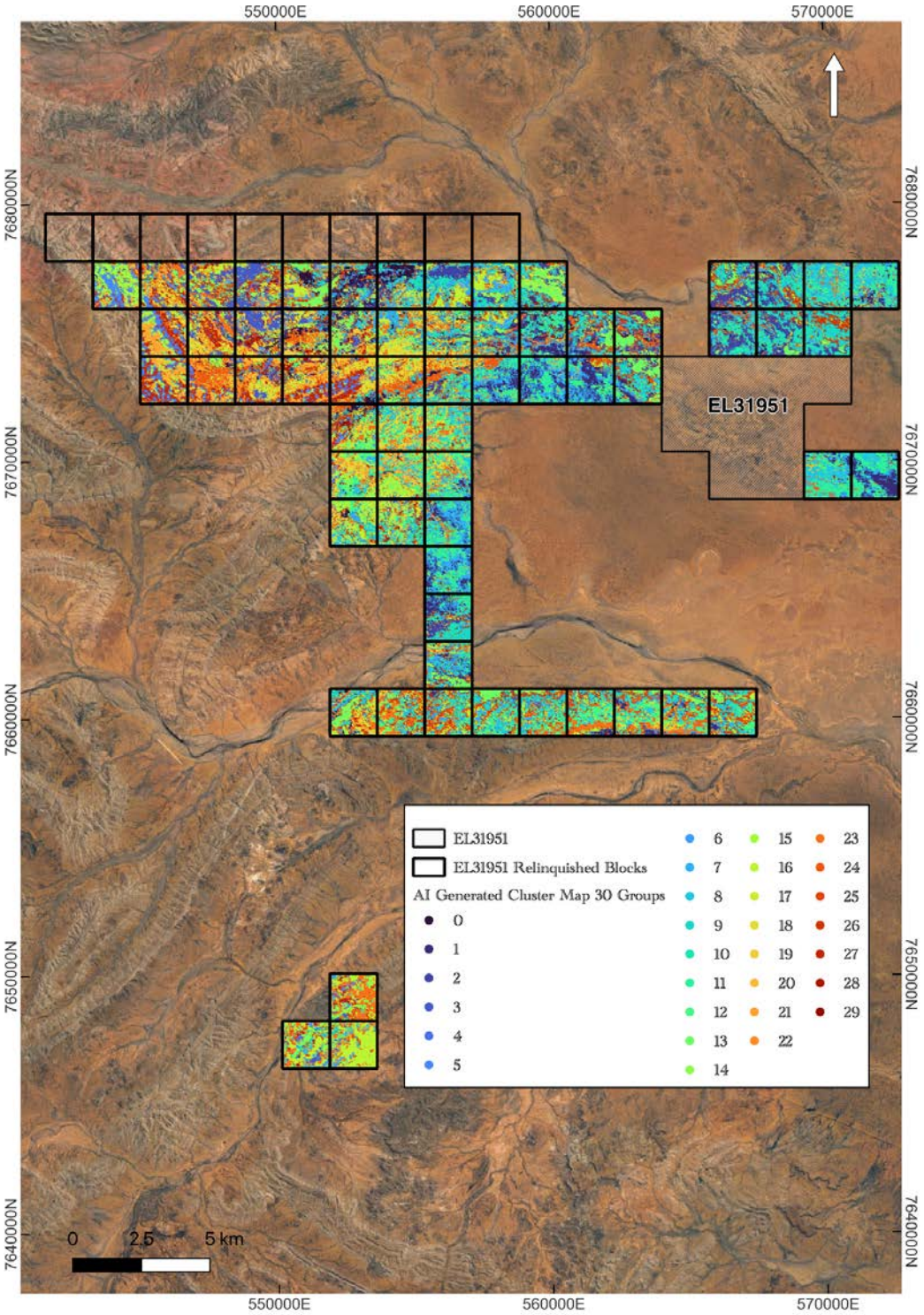

Figure 7 . Clustermap analysis for 30 groups from within relinquished areas of EL31951

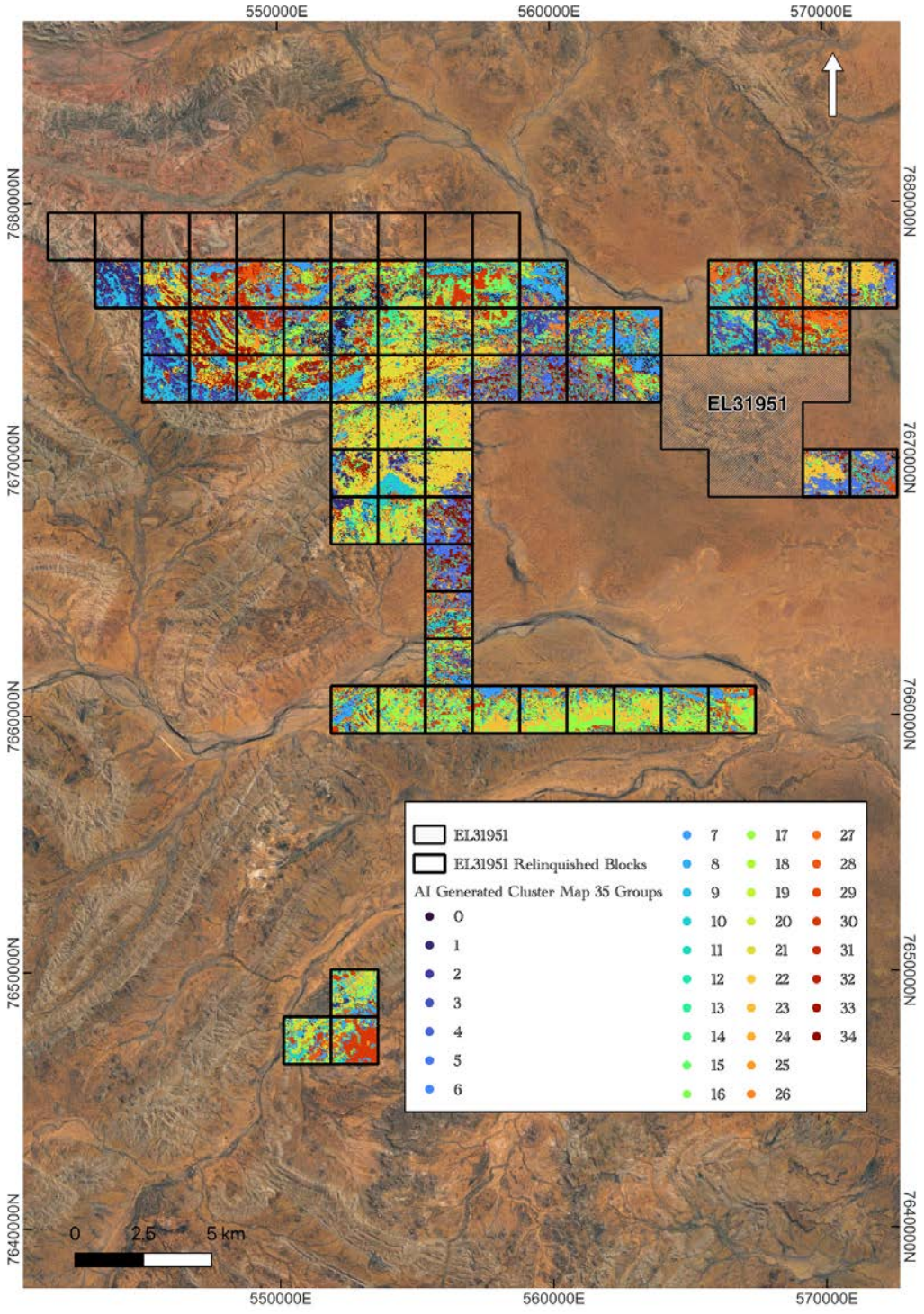

Figure 8 . Clustermap analysis for 35 groups from within relinquished areas of EL31951

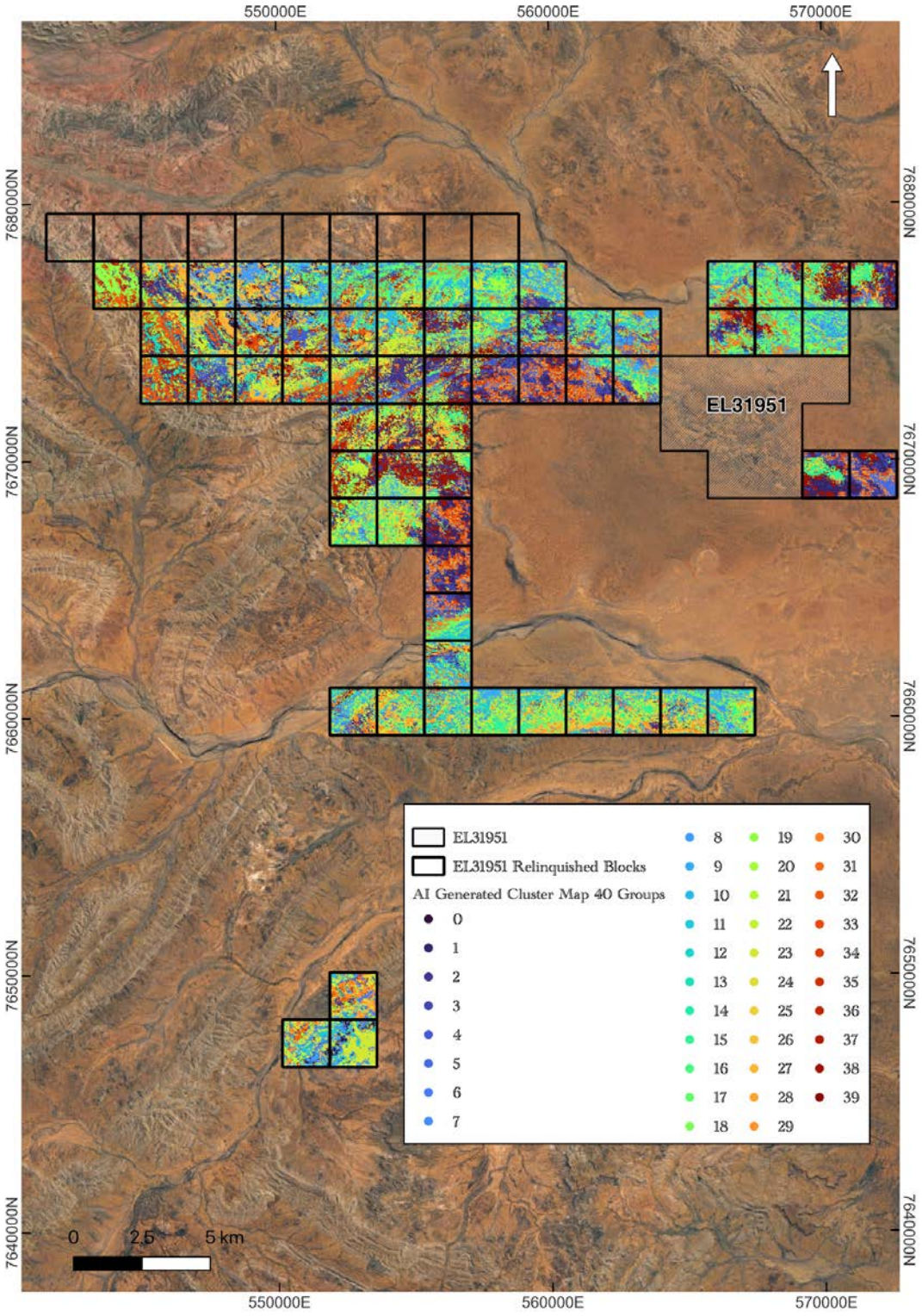

Figure 9 . Clustermap analysis for 40 groups from within relinquished areas of EL31951

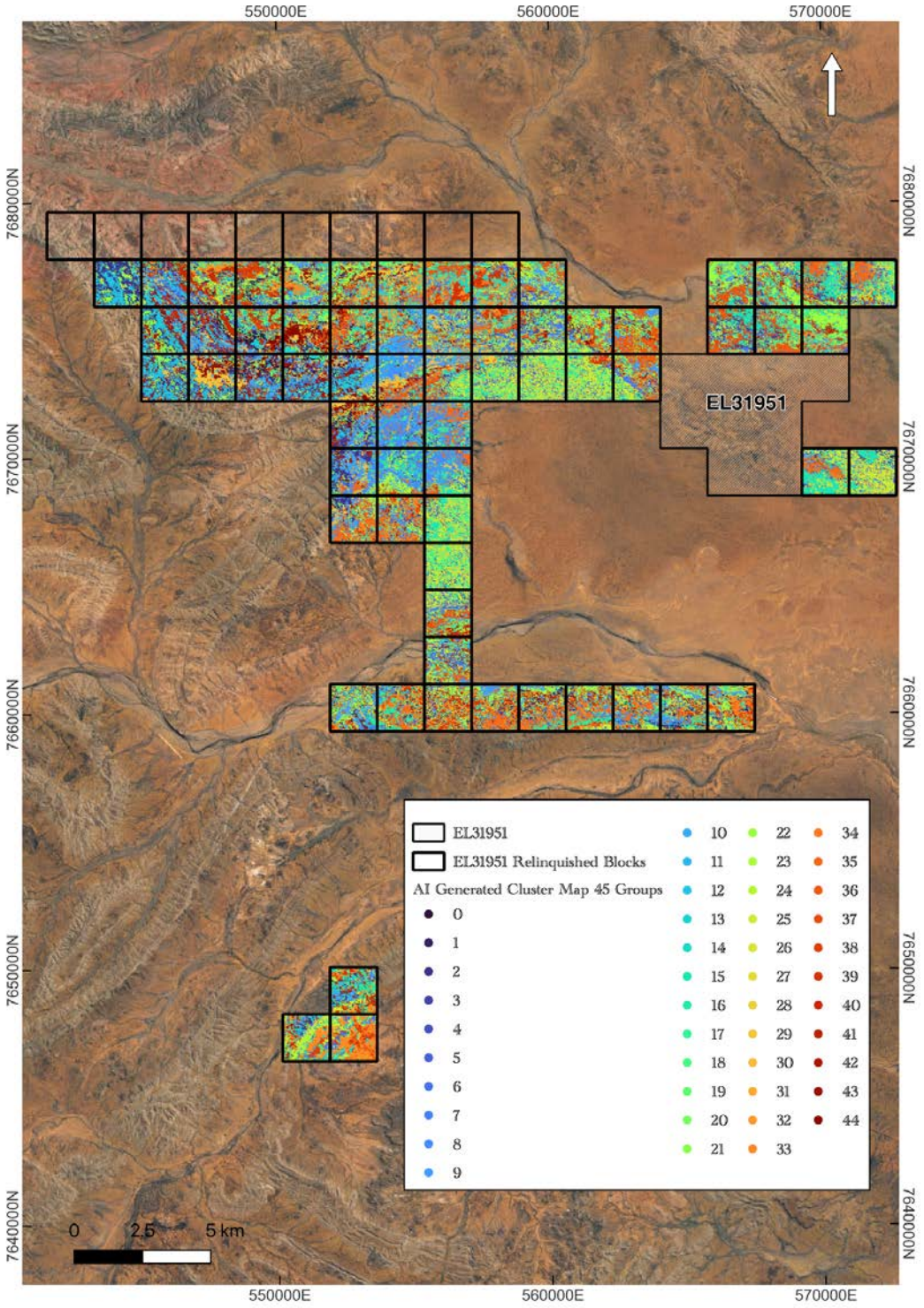

Figure 10 . Clustermap analysis for 45 groups from within relinquished areas of EL31951

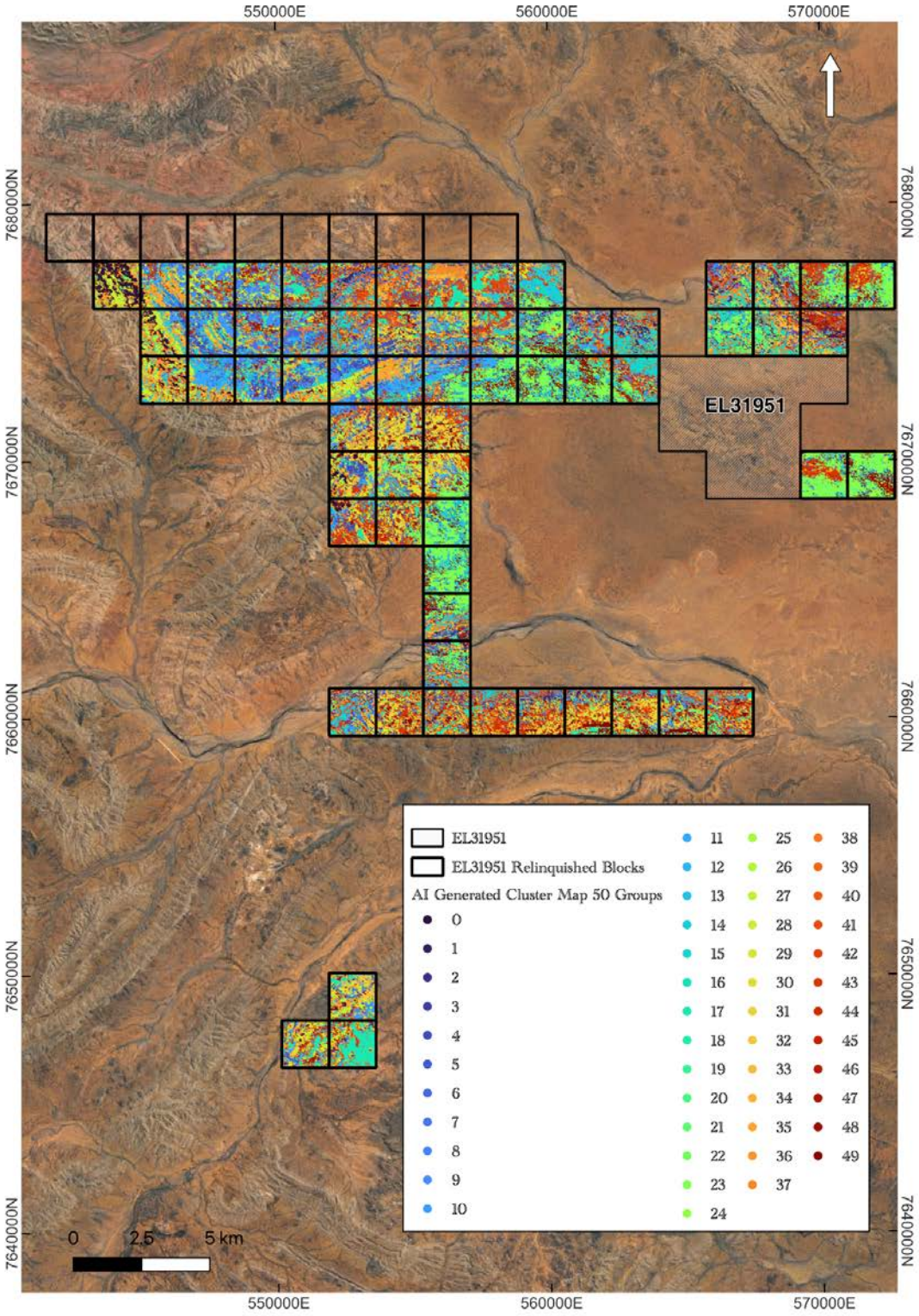

Figure 11 . Clustermap analysis for 50 groups from within relinquished areas of EL31951

Geophysical Activities

No geophysical activities were completed within the relinquished areas of EL31951.

Surface Geochemistry

Surface geochemical data collected during the reporting period has involved a combination of portable XRF (pXRF) and lab assaying of both soil and rock material. Samples obtained from relinquished areas were collected along geological transverses. These surveys are designed to map out larger scale extents of the mineralisation, find neighbouring anomalies and understand the geological setting and find possible genetic or structural links to the mineralisation, typically long and unstructured with hundreds to thousands samples per survey, while covering an area of more than 1km2. Sampling/Mapping profiles are adjusted to follow the line of best outcrop or area coverage, typically not straight and are guided by mapping or research hypotheses. Number, length and orientation of profiles is variable. Sample spacing is irregular, as determined by geologist, portable XRF is used routinely while rock samples are taken when anomalous values or potentially mineralized rocks are encountered, also all rock collection samples are sent for full geochemical analysis. While mapping, all distinctive rock types with distinctive alteration are collected to form a collection of rocks present in the area, each rock in this collection is sent for full geochemical analysis. Over our tenure of the the relinquished blocks 35 pXRF samples were taken (Figure 12). Of the 35 pXRF samples taken, 5 samples were sent for full geochemical analysis (Figure 13).

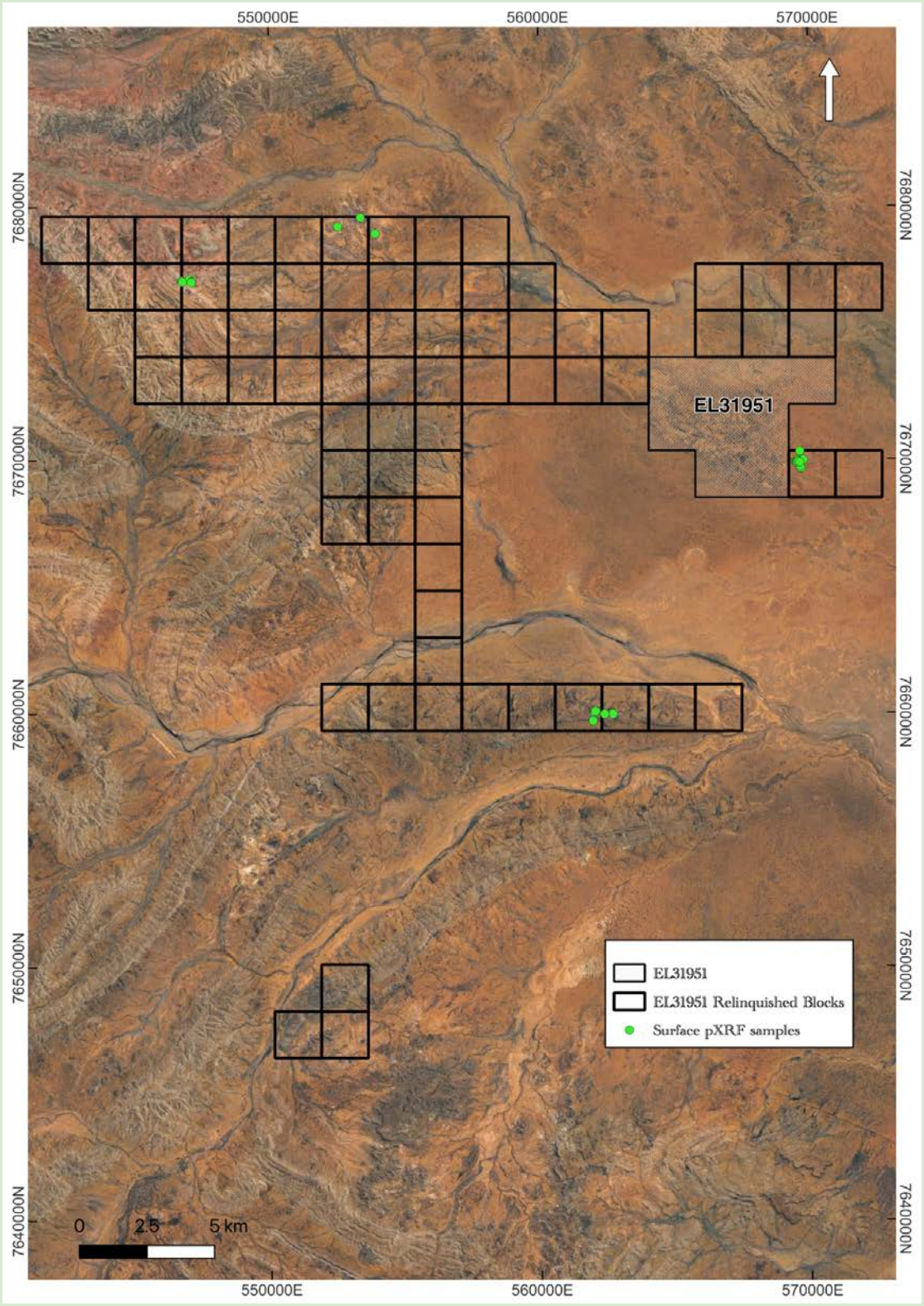

Figure 12. Surface pXRF sample location of the relinquished block from EL31951

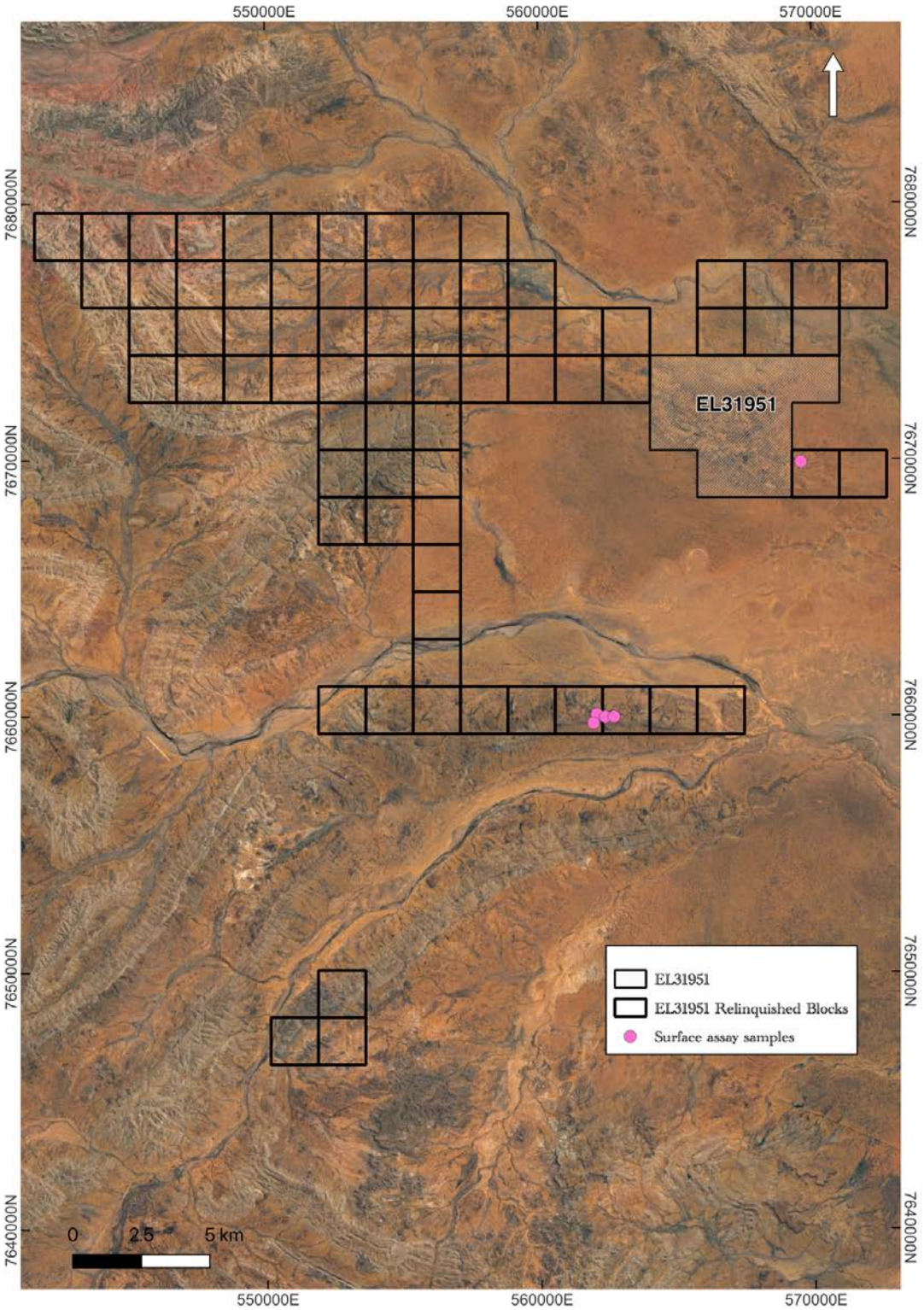

Figure 13. Surface assay sample location of the relinquished block from EL31951

Drilling

No drilling activities were completed within the relinquished areas of EL31951.

Conclusions and Recommendations for Future Work

In March 2023 a project wide tenement holding assessment led to the conclusion that the relinquished 93 blocks are of low priority for our exploration campaign, which focuses on vanadium, lead, copper, silver and zinc mineralisation.

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Data Formats and Specifications

See Appendix I (Appendix_I_tables.zip)

Tabular Data

See Appendix I (Appendix_I_tables.zip)