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Aterian PLC
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Operational Update
Exploration, Trading and ESG in Rwanda

Aterian Plc
("**Aterian**" or the "**Company")**

Aterian Plc (LSE: ATN), the exploration and development company advancing its portfolio of African-focused critical and strategic metal assets, provides an operational update on its work streams in the Republic of Rwanda.

HCK Project Highlights:

- Prospective lithium bedrock potential confirmed by independent pegmatite fertility analysis of the multi-element geochemistry.
- New pegmatite zone discovered. Twenty-three separate target zones have now been discovered on the southern projects.
- Multi-method geophysical survey completed over the HCK-1 target area covering c.2.4 km^2.
    - Four sub-cropping pegmatite bodies were identified from the survey
    - Survey highlights the strong structural control on pegmatite emplacement
    - At least three deformation events are interpreted
- The HCK exploration licence was transferred to the 70% Aterian-owned Joint Venture Company, Kinunga Mining Limited.

Trading and ESG Highlights:

- Nationwide site visits to artisanal and small-scale mining projects are ongoing to develop a supply chain for mineral trading
    - Trading strategy to work with local mining parties to improve their productivity through mechanisation.
    - Construction of the concentrate upgrading facility in Kigali is progressing well.
- Independent ESG management consultancy produces its initial stakeholder survey findings.

Charles Bray, Chairman of Aterian, commented:

"I am highly encouraged by these results from HCK-1. The confirmation of the potential for lithium discovery, in addition to the identification of additional pegmatites and a new pegmatite zone, is very exciting. The multi-method geophysical survey has successfully delineated several sub-cropping pegmatite dykes and demonstrates its value as an exploration tool in Rwanda. Combined with the geochemical prospectivity/lithium fertility analysis, this work clearly demonstrates that the southern projects represent a strong exploration play with the opportunity for bedrock lithium discovery hosted by the LCT pegmatites. We now have a clearer understanding of the controlling structures and will plan a programme of scout drill holes to test for bedrock lithium (and tantalum-niobium-tin).

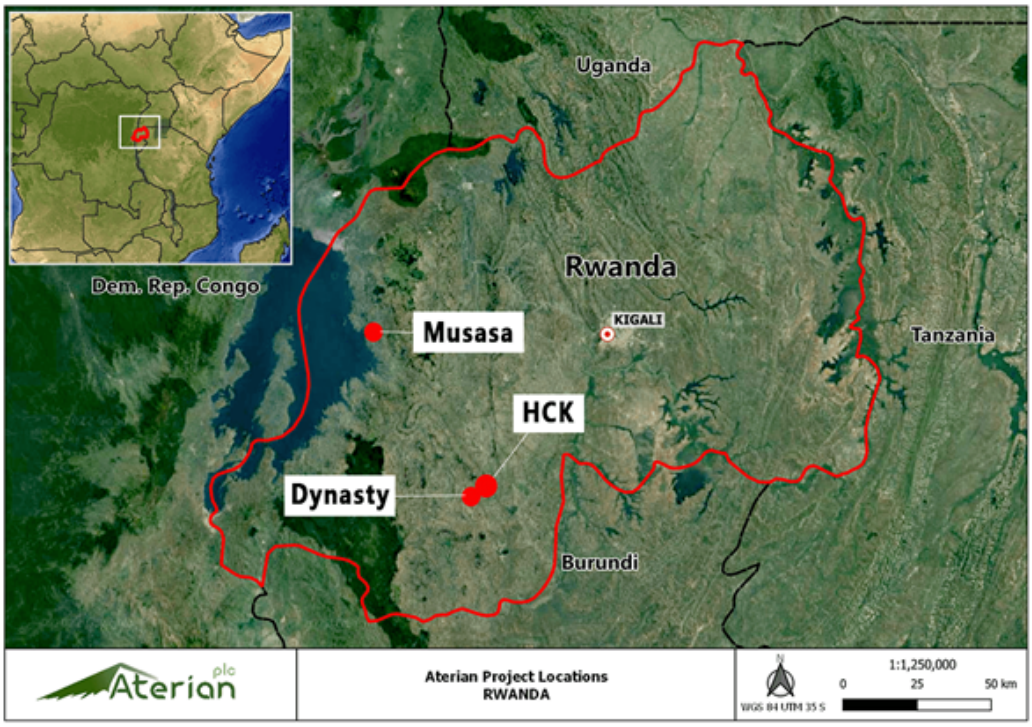
"We continue to build the trading business, and construction work on the mineral upgrading facility is progressing well. The trading team has visited over 25 potential mineral suppliers nationwide with many positive indications that a consistent supply chain will be established and maintained. We intend to work with the small-scale miners to provide investment and technical advice to improve their recoveries and production rates to benefit the miners and the Company.

"Receiving our first independent ESG report now allows us to benchmark our progress as an operator and plot a roadmap to improve and maintain stakeholder engagement. The independent nature of the work provides excellent insight into the work that needs to be done in the Musasa area following recent management changes to restore our relationships with the

community. Working in partnership with existing small-scale producers and creating an environment of positive engagement with all stakeholders in Rwanda will deliver substantial productivity gains, benefitting local communities and the Company."

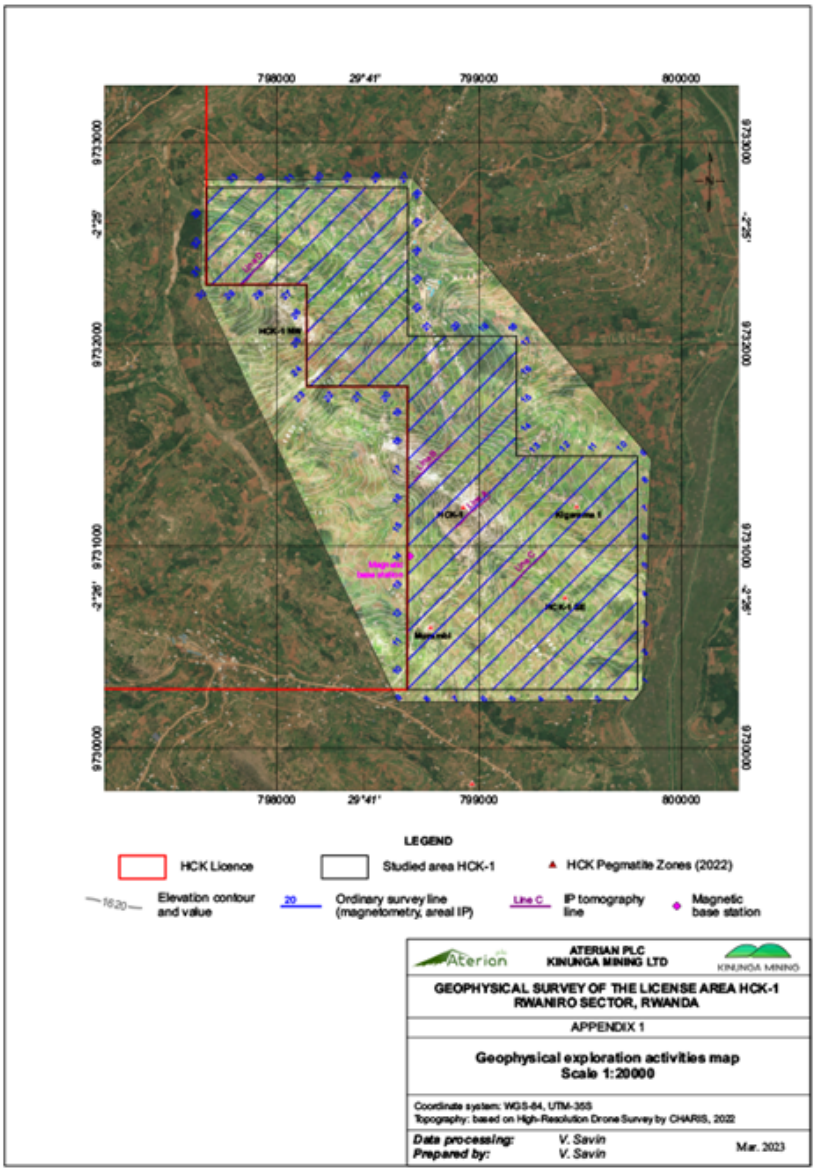
Projects Summary:

The Company's wholly-owned Rwandan subsidiary, Eastinco Limited ("Eastinco"), is currently engaged in three partnerships within Rwanda, working with local entities to explore and develop tantalum, niobium, tin and lithium opportunities. Eastinco holds a minerals trading licence, which will facilitate the trading of mineral concentrates within the region. The Company is building a mineral supply chain for trading by evaluating numerous artisanal and small-scale operations around the country and constructing a concentrate upgrade facility in Kigali.



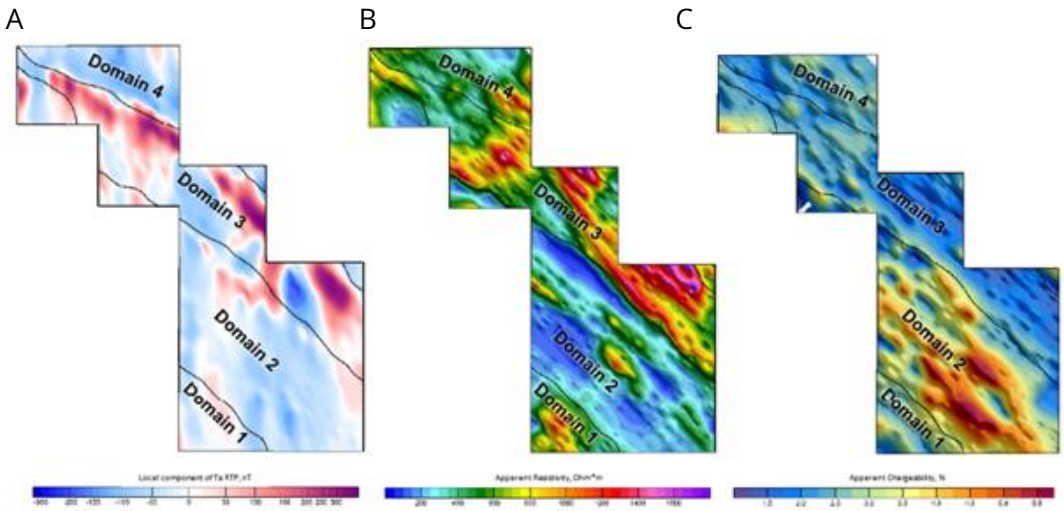
Exploration Update on the Southern Projects

A ground-based multi-method geophysical survey covering an area of 2.36 km^2 over the HCK-1 target has been completed. The survey, comprising magnetometry, induced polarisation ("IP"), and electrical IP tomography ("IPT"), was designed to provide information on the main geological controlling structures for the emplacement of the pegmatite bodies, the depth of weathering and recommended targets for detailed follow-up.



The magnetic and IP surveys were completed along 33 NE-SW orientated profiles (24-line km and 23.3-line km, respectively) with 100 m profile spacing and data points captured every 10 m along the profile. The IP survey used a gradient array to provide subsurface lithological resistivity and chargeability (polarizability) observations. Resistivity maps can help to identify conductive ore bodies, fractures, faults, and lithological variations. Chargeability maps, however, allow for identifying electron-conductive minerals, such as sulphides, magnetite, and graphite. Since Rwandan pegmatites are deeply weathered and kaolinised, they were expected to be characterised by low resistivity and have higher polarizability than the host rocks.

Based on the overall combined geophysical response, it has been possible to subdivide the surveyed area into four distinct domains.



Four geophysical domains separated by NE-SE boundaries interpreted from (A) the local component of the anomalous magnetic field reduced to pole, (B) apparent resistivity, and (C) apparent chargeability.

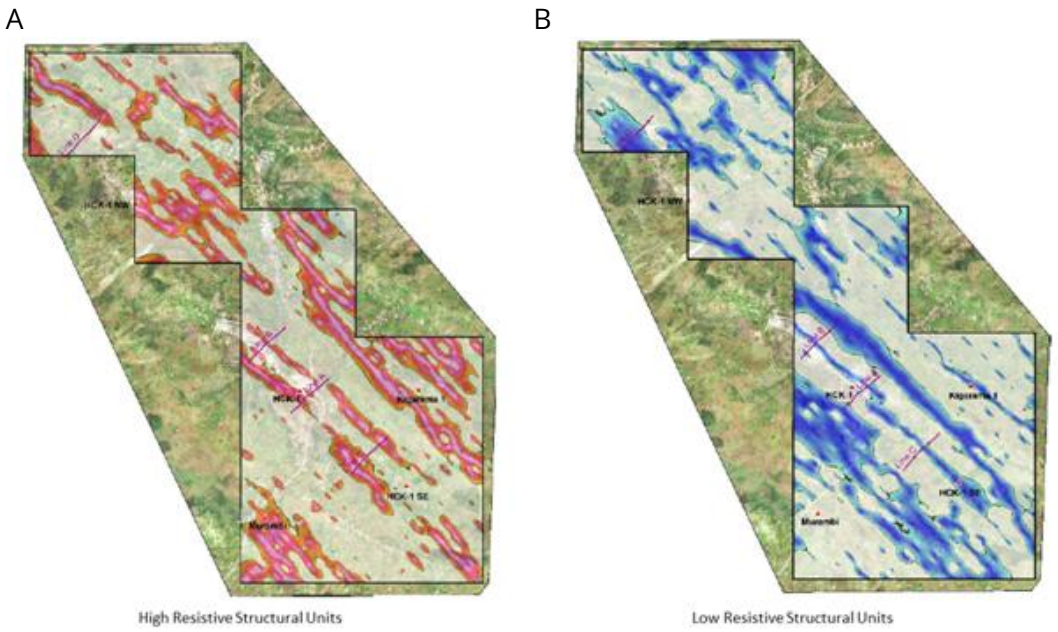
Domain 1 is characterised by low values (-45 to +45 nT) during the magnetic field RTP (reverse to pole) analysis, with a series of intensive apparent resistivity anomalies (400 - 1,200 Ohm m) having widths of 25 - 90 m and orientated in an NW-SE direction. The average apparent chargeability values of 2-3 % correspond to the background values for the entire surveyed area, with the Domain mapped as being underlain by quartz-rich phyllites.

Domain 2 hosts the HCK-1 target with the apparent resistivity data showing a symmetrical structure. The background values range from 60 - 180 Ohm m, with two 30 - 140 m wide prominent ridges having apparent resistivity values of 500 - 1,100 Ohm m. These ridges are separated by a 20 - 110 m wide zone of relatively low apparent resistivity (150 - 250 Ohm m) that coincides with the known pegmatite occurrences. The observed symmetry in the structure suggests a folded sequence with the resistivity highs occurring within the fold axis, indicating the possible structural control for HCK-1. Low resistivity and relatively high apparent chargeability values (3.0 - 5.5 %) on the flanks of this fold structure are associated with outcrops of graphitic schists. The high-resistive ridges surrounding the main pegmatite body are mainly composed of yellow and grey micaceous schists[1]. The described combination of graphitic and yellow-grey schists is characteristic of the pegmatite-bearing Uwinke Formation[2].

[1] A single grab sample of the graphitic schist analysed by Intertek Genalysis returned a total graphitic carbon value of 2.2 % Carbon.

[2] The Uwinka formation represents the lower basal unit of the Pindura Group, which forms part of the Mesoprotoerozoic Akanyaru Supergroup.

Two low-resistive and structurally-controlled anomalies with widths between 25 and 80 m are observed along the southwestern boundary of Domain 3. Recent geological reconnaissance has confirmed the presence of the pegmatite associated with these anomalies. The anomaly related to the Kigarama pegmatite trends for c. 1,100 m in an NW-SE direction remains open-ended to the SE.

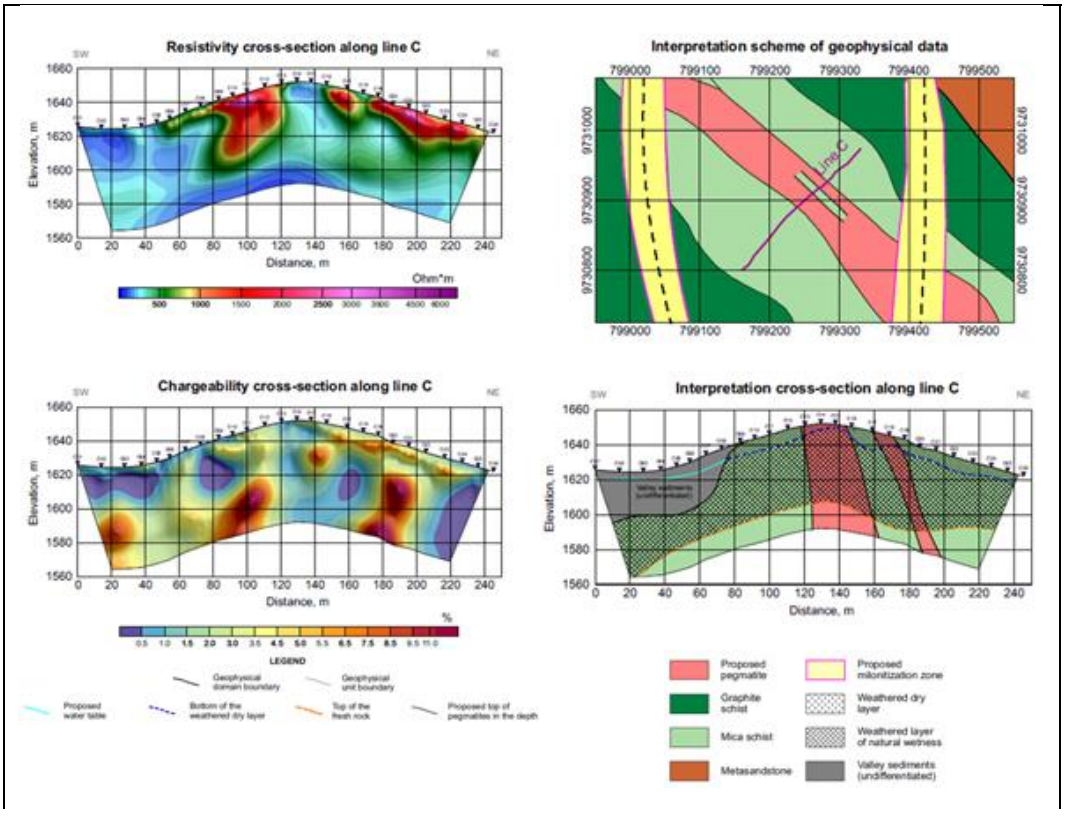


Analysis of tilt derivatives of the apparent resistivity and apparent chargeability, (A) Isolated structural units with high (TDR > 15°) and (B) low apparent resistivity (TDR < -15°) showing the locations of the IPT profiles and known pegmatite occurrences.

Domain 4 is located in the NE part of the surveyed area and is comparable to Domain 1. Based on the geophysical response and available geological data, it is assumed that quartz-rich phyllites and quartzites predominate within this Domain, with little evidence to suggest the presence of sub-cropping pegmatite.

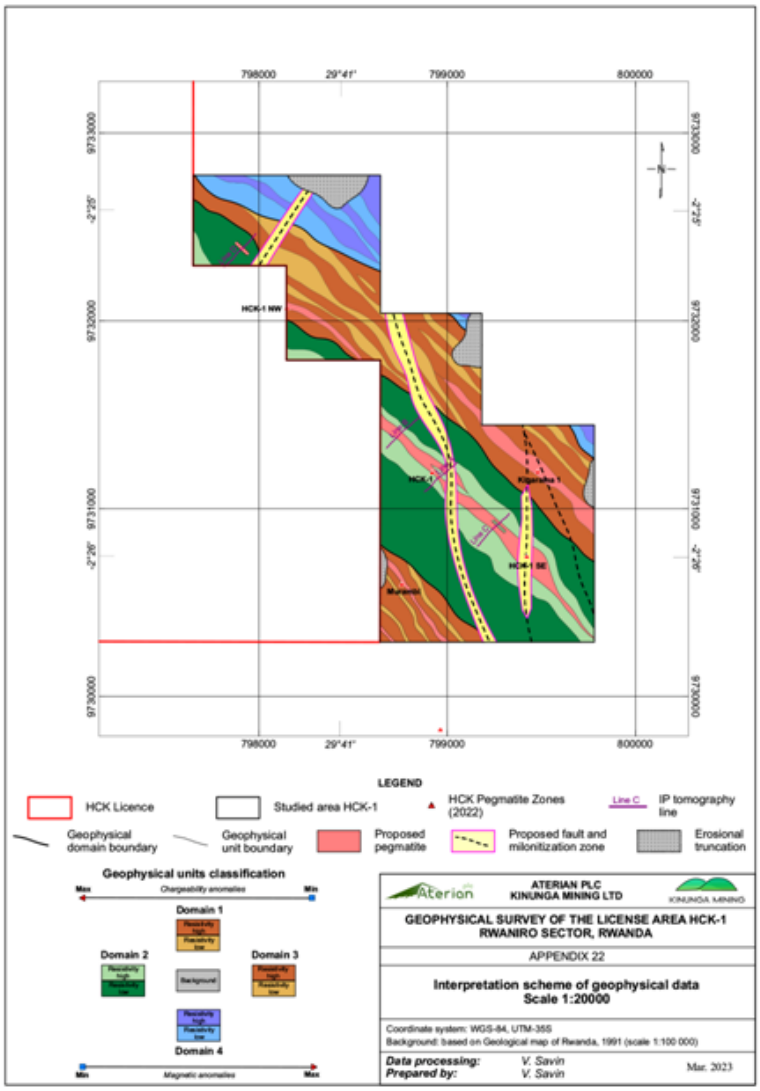
Four electrical IP tomography ("IPT") profiles were completed over the main topographic ridge at HCK-1 for 964-line meters. IPT was performed using induced polarisation with a pole-dipole array to produce vertical resistivity and chargeability cross-sections indicating the subsurface geology and the depth of expected weathering.

In all cross-sections, pegmatite is identified in the upper weathered horizon by a combination of resistivity values of 200-300 Ohm m and chargeability of less than 1 %. Within the fresh rock, the resistivity and chargeability response of the pegmatites shows little contrast with the country rock, which makes it difficult to define these targets reliably. However, the loss of contrast in the electrical properties of pegmatites and country rock can be used as a sign for distinguishing the approximate boundary between weathered and fresh pegmatite. The depth of the top of fresh pegmatites varies from 44 m (line C) to 65 m (line B) across HCK-1.



IP Tomography data interpretation along profile C

The geophysical survey results indicate that the combined survey method is appropriate for future regional exploration. Four pegmatite bodies were identified, with the survey highlighting the strong structural control on their emplacement. At least three deformation events are interpreted, but only the D1 and D2 events are considered pegmatite-controlling. The D1 is fold-related with an NW-SE trending axial plane, and D2 structures are inferred as regional NW-SE trending faults located close to domain boundaries. D3 structures are defined by elongated dipole magnetic RTP anomalies and low-resistive zones cross-cutting structural units within the domains. These structures are interpreted as N-S and NE-SW trending faults and shears exhibiting zones of low resistivities with widths of 30 - 110 m.



Interpretation Map of the *Main Geophysical Elements*

New Pegmatite Identified on HCK Licence

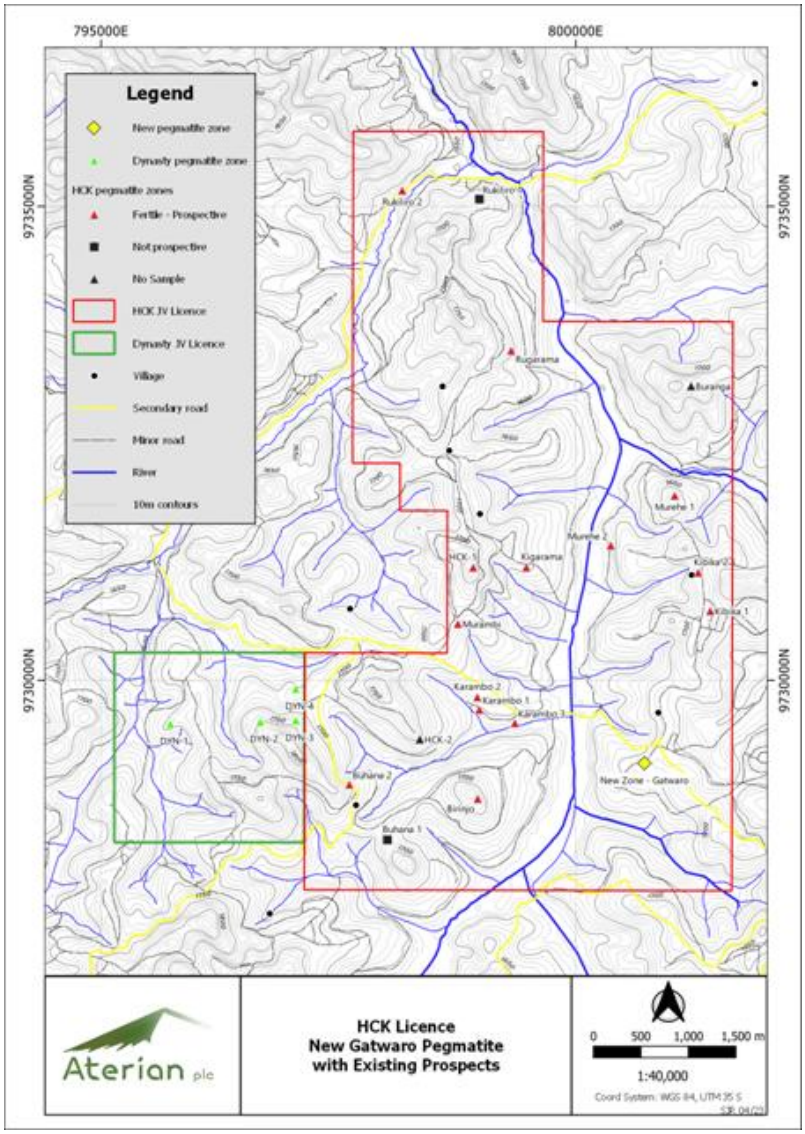
Geological prospecting has identified a new pegmatite target in the southeastern part of the HCK licence. The zone known as Gatwaro occurs as patchy outcrops of kaolinised pegmatite with centimetre-sized crystals of columbite recovered from the surrounding soils. The geological team will conduct further prospecting to confirm the extent of this new target. The addition of the Gatwaro zones brings the total number of identified targets on the southern projects to 23.

Sample Results and Analysis

HCK-1 and Regional Pegmatite Samples

The geochemical results from 18 surface grab samples have been received from the initial sampling of discovered pegmatite zones across the HCK licence (with the addition of 8 QA/QC samples), and 31 samples from the exploration pitting completed over the HCK-1 target (with the addition of 3 QA/QC samples and the inclusion of a sample of both a graphitic schist and granite). Of the HCK-1 samples, 6 reported > 100 ppm Ta, with a high of 297 ppm Ta. The maximum Sn reported was 1,856 ppm (0.186 % Sn), associated with 246 ppm Ta, 303 ppm Nb and 229 ppm Li. 25 samples reported > 100 ppm Li. In addition, two HCK-1 samples returned 394.5 and 316.1 ppm Ta, respectively, from the licence-wide reconnaissance sampling. A sample from the Murambi target reported 287 ppm Li from a clay-rich pegmatite.

Dr B. Steiner of Xplore Global Ltd, a UK-based geological consultancy specialising in rare metal pegmatites, conducted a pegmatite fertility analysis of the multi-element geochemistry. The study involved an analysis of the data by assessing various metal ratios and metal associations to predict the lithium prospectivity of the pegmatites occurring on the licence.



A summary of the study indicates that the HCK-1 pegmatite shows encouraging evidence for Li-Ta enrichment, even though the Ta grades generally seem to be < 200 ppm. The Ta grades are not unexpected given the irregular metal distribution within these weathered and kaolinised pegmatites, with the samples being collected from the near-surface environment. Given the deep tropical weathering, the enrichment of Li (16 samples > 150 ppm) is seen as encouraging for locating Li pegmatites at depth (below the weathering zone). The indicated presence of tourmaline and beryl from several localised zones along the strike of the HCK-1 pegmatite may imply internal zonation and/ or that the bedrock source pegmatite comprises more 'complex' pegmatites (which are generally the targets in LCT pegmatite exploration). The low Rb levels associated with anomalous Li may imply a non-mica lithium source and the low levels of phosphorus vectors toward a more spodumene-rich bedrock target.

The regional pegmatite samples are occasionally enriched in Li, Ta and Cs and require further investigation, given that only one surface sample was collected per occurrence during initial prospecting. The presence of tourmaline and beryl in the regional samples should be seen as positive pathfinders minerals for field follow-up. Overall, the results of the recent sampling campaign are encouraging, particularly concerning the possible presence of Li below the weathering horizon.

Kassava Prospect - Musasa Project

Although the geochemical analysis indicates a degree of fertility in the Kassava pegmatite, an overall metal enrichment is not observed in the data. The highest tantalum value reported was 107 ppm, associated with 260 ppm Nb. The large opening (a 20 m x 30 m wide cut into the ridge to a depth of c. 13 m) from earlier artisanal miners suggests that further work is required to fully evaluate this prospect and determine the main driver for the earlier mining activity.

Sampling Methodology and Analysis

All sample preparation was conducted in Rwanda at the Company's facility in Musasa, with analysis of the pulps undertaken by the Intertek Genalysis Laboratory, an accredited laboratory in Perth, Western Australia. All samples were analysed for a multi-element suite of 55 metals using a sodium peroxide fusion (in nickel crucibles) and hydrochloric acid to dissolve the melt and analysed by a combination of Inductively Coupled Plasma Mass Spectrometry and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry.

HCK Licence Transfer

A request from our partners, HCK Mining Company Limited, to transfer the exploration licence into the name of the joint venture company, Kinunga Mining Limited, was approved and completed by the Rwanda Mines, Petroleum and Gas Board ("RMB").

Metal Trading Update

Over the past two months, the trading team has visited potential suppliers of 3Ts mineral concentrates across Rwanda to build a supply chain before physical trading commences. Most of the 28 sites visited have expressed an interest in working with the Company, and the intention is to sign the first agreements in May and June this year.



Mine shaft at one of the potential small-scale partner mine sites

Aterian intends to partner with several suppliers in Rwanda to support their mining operations by providing mining and processing equipment, capital investment and training. The first partner project has been identified, and the Company is now conducting additional due diligence and technical planning to start in June this year officially. This initial project will evaluate the installation of basic mineral processing systems under a lease agreement and the development of new access tunnels into the deeper levels of the mining area. The new infrastructure should result in an immediate uplift in production by processing existing tailings material and a longer-term sustainable production uplift from accessing the deeper mineralised structures.



Mineral upgrade building under construction at the Kicukiro compound in Kigali.

Construction of the mineral upgrading facility in Kicukiro, Kigali, is progressing. The steel structure, roof and concrete floor have been completed, with the walls nearing completion. The concrete is due to cure over the next few weeks, ready for heavy mineral processing equipment to be positioned around the middle of May. The facility will include rock crushers to reduce the size of the ore material, high-intensity magnetic separation to remove iron ore and separate the cassiterite (tin) from the coltan (tantalum/niobium), shaking tables to remove free quartz from the cassiterite ore, an assay lab to measure the percentage of contained metals, a drying facility to remove excess moisture, and a mineral mixing area for homogenising the material before sampling. This facility will therefore allow Aterian to purchase, assay, upgrade, blend and export material to the international market.

As a member of the ITSCI programme, Aterian is committed to respecting the best international standards and regulations around supply chain and traceability, and on 26th April attended the OECD's "2023 Forum on Responsible Mineral Supply Chains" in Paris. The conference focused on new conflict risks, corruption and environmental risks in mineral supply chains, drivers of responsible trade, and systemic issues like regulatory developments and taking responsible finance to scale, all of which are critical to Aterian's vision to provide ethically sourced minerals for a responsible and reliable supply, essential for energy transition and modern technology industries.

ESG

The Company has received its first "Headline Risk Report" from Munday (formerly called 1Villager), who was recently engaged to provide ESG support to our operations in Rwanda. Mundaly provides a science and AI-driven SaaS platform for business whistleblower management, social license reporting and stakeholder engagement. Mundaly measures a company's whistleblowing and social license risks using its proprietary, research-backed scales.

The report findings are based on survey answers from 312 employees and partner communities, collected from a secure and confidential mobile app, where participants can report any misconduct and give feedback on the company's operations.

The overall Headline Risk score was 83/100, comprising two components, a social licence and a whistleblower risk score. The overall score is weighted more towards the social licence score (60%) than the whistleblower risk score (40%).

The social licence score measures public acceptance and approval of the Company's operations and practices. As the Company strives to operate sustainably and responsibly, we must understand and manage social licences. The social licence score achieved in the survey was 73/100 and requires improvement. Recent in-country management changes and establishing a mechanism that encourages dialogue amongst employees and partner communities will significantly improve facilitating grievance and feedback reporting.

The whistleblower risk score is a scale measuring the likelihood of unethical behaviours by asking respondents what they know about the severity of specific behaviours of the Company. The categories breakdown comprises 1.) labour, ethics and human rights, 2.) criminal and security concerns, 3.) bribery, corruption, and financial embezzlement, and 4.) environmental concerns. The Whistleblower Risk score was 97/100. We strive to achieve 100%.

Qualified Person

The technical disclosure in this regulatory announcement has been approved by Simon Rollason, Chief Executive Officer of Aterian Plc. A graduate of the University of the Witwatersrand in Geology (Hons). He is a Member of the Institute of Materials, Minerals and Mining, with over 30 years of experience in mineral exploration and mining. The section in this announcement about mineral geochemistry and analysis has been reviewed and approved by Dr B Steiner, a director of Xplore Global Ltd and a chartered fellow of the Geological Society of London (CGeol) and European Federation of Geologists (EurGeol). Dr Steiner is a practising geologist with fourteen years of continuous experience in mineral exploration across Europe, Africa, South America and Asia.

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This announcement contains information which, prior to its disclosure, was inside information as stipulated under Regulation 11 of the Market Abuse (Amendment) (EU Exit) Regulations 2019/310 (as amended).

For further information, please visit the Company's website: www.aterianplc.com or contact:

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Notes to Editors:

About Aterian plc

www.aterianplc.com

Aterian plc is an exploration and development company with a diversified African portfolio of critical and strategic metals projects.

Aterian plc seeks to acquire and develop new critical and strategic metal resources to strengthen its existing asset base whilst supporting ethical and sustainable supply chains. The supply of these metals is vital for developing the renewable energy, automotive, and electronic manufacturing sectors, which are playing an increasing role in reducing carbon emissions and meeting climate ambitions globally.

The Company currently has three partnerships in Rwanda, exploring and developing small-scale tantalum-niobium-tin mining opportunities and recently acquired Aterian Resources Ltd, which owns a portfolio of 15 copper and silver projects with a project area of 762 km^2 in the Kingdom of Morocco.

The Company's strategy is to seek new exploration and production opportunities across the African continent and to develop new sources of strategic and critical mineral assets for exploration, development, and trading.

Summary information on Rwandan Projects

HCK Joint Venture

Eastinco has a Joint Venture Agreement Agreement with HCK Mining Company Limited, a private non-related Rwanda registered entity and the holder of a 2,750-hectare exploration licence in southern Rwanda. Eastinco will fund and manage the exploration activities over the project and will retain a 70% share in the net operating profits with the right to purchase 100% of the Ta-Nb-Sn from any future production.

Dynasty Construction Joint Venture

Eastinco entered a Joint Venture Agreement and Operating Agreement with Dynasty Construction Ltd, a private non-related Rwanda registered entity and the holder of a 400-hectare exploration licence in the Huye District of southern Rwanda. A renewal of the exploration licence is pending approval with the Rwanda Government. Eastinco holds a 50% interest in the proposed joint venture company, with Eastinco and Dynasty to provide future capital expenditure in proportion with their shareholding at the time of any potential future mine build.

Musasa Joint Venture

A Joint Venture and Operating Agreement with the Kuaka Cooperative ("Kuaka"), the holder of a small-scale mining licence in western Rwanda. An application for a new 400-hectare licence in the name of the joint venture company, Musasa Mining Limited, is pending approval with the Rwanda Government. Eastinco will retain an 85% interest in the joint venture company holding the new licence, with the right to purchase 100% of the Ta-Nb-Sn from any future production.

Glossary of Terms

The following is a glossary of technical terms:

"3Ts"	means	Tin (cassiterite), Tungsten (wolframite), and Tantalum (coltan)
"Coltan"	means	a metallic ore from which the elements niobium and tantalum are extracted
"Cs"	means	Cesium, an alkali group metal found in LCT pegmatites
"Dyke"	means	a sheet of rock that is formed in a fracture of a pre-existing rock body

"ERT"	means	Electrical Resistivity Tomography. A geophysical method for imaging sub-surface structures from electrical resistivity measurements made on the surface
"Grades"	means	the quantity of ore or metal in a specified quantity of rock
"Gradient array"	means	geophysical mapping tool providing information about the subsurface, in the interval from a particular depth to the surface. The results are typically maps of the apparent resistivity and chargeability
"IP"	means	Induced Polarisation
"IP Survey"	means	a geophysical survey technique where electrodes induce and measure a potential field in the ground. From this data, the soil chargeability and apparent resistivity can be measured
"km"	means	kilometres
"LCT"	means	Lithium-Cesium-Tantalum pegmatite
"Li"	Means	lithium
"Ma"	Means	Mega-annum, which is equal to one million years
"Magnetic survey"	means	a survey mapping the magnetism of the underlying rock and is used to understand the general structure of these rocks
"mm"	means	millimetres
"Mt"	means	millions of tonnes
"NI 43-01"	means	National Instrument 43-101 Standards of Disclosure of Mineral Projects of the Canadian Securities Administrators
"Niobium"	means	a chemical element with the chemical symbol Nb that is very resistant to corrosion due to a layer of oxide on its surface. Niobium is used in alloys, including stainless steel
"nT"	means	nanotesla, a unit of measure of earth's magnetic field
"Ohm m"	means	The SI unit of electrical resistivity
"Outcrop"	means	a rock formation that is visible on the surface
"Pegmatite"	means	an igneous rock showing a very coarse texture, with large interlocking crystals usually greater in size than 1 cm (0.4 in) and sometimes greater than 1 meter (3 ft). Most pegmatites are composed of quartz, feldspar, and mica, having a similar silicic composition to granite
"ppm"	means	Parts per million (equivalent to g/t)
"Prospect"	means	an area that is a potential site of mineral deposits, based on preliminary exploration
"Rb"	means	rubidium, a chemical element with the symbol Rb and atomic number 37. Classified as an alkali metal commonly associated with rare metal pegmatites and lithium micas
"Schist"	means	a medium-grained, strongly foliated crystalline metamorphic rock
"Sn"	means	tin
"Tantalum" or "Ta"	means	a chemical element with the symbol Ta, typically found in the ore columbite-tantalite (usually referred to as coltan) and characterised by its high density. One of the primary

		uses of tantalum is in the production of electronic components
"QA/QC"	means	Quality Assurance/Quality Control
"Qualified Person"	means	a person that has the education, skills, and professional credentials to act as a qualified person under NI 43-101

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