New Niobium-REE Carbonatites Identified – West Arunta

- **RC drilling has intersected niobium-REE mineralised carbonatites at the Green and Emily targets in the south of the Aileron project (100% ENR), in the West Arunta region of WA**
- **Two, 200m spaced, RC holes completed in the eastern part of the Green target have intersected carbonatites to end of hole that are variably anomalous in niobium and REE[1]**
- **The mineralised trend established at Green remains open to the east towards a large circular feature defined in magnetics and interpreted as a potential intrusive complex**
- **The first RC drilling at the new Emily target, a magnetic low located 2km north-west of WA1's Luni discovery, has intersected carbonatites from ~50m depth which were variably mineralised in niobium-REE to end of hole[1]**
- **Assays from Green and Emily are expected in December 2023-January 2024**

Encounter Resources Ltd ("Encounter") is pleased to report the identification of new areas of niobium-REE mineralised carbonatites at the Aileron project (100% ENR), in the West Arunta region of WA.

Commenting on the new niobium-REE mineralised carbonatites, Encounter Managing Director Will Robinson said: *"The targeting models used in the West Arunta are evolving rapidly and are delivering an extraordinary success rate in drilling niobium-REE mineralised carbonatites.*

The new carbonatites at Green and Emily were intersected in the first phase of drilling in the southern part of the Aileron project.

The Green carbonatite intersections are a potential extension of an established north-east orientated mineralised trend that is open to the east towards a large circular magnetic feature.

Emily is a new mineralised carbonatite that was targeted based on recent learnings from RC drilling in other parts of Aileron and a credit to our highly credentialed exploration team."

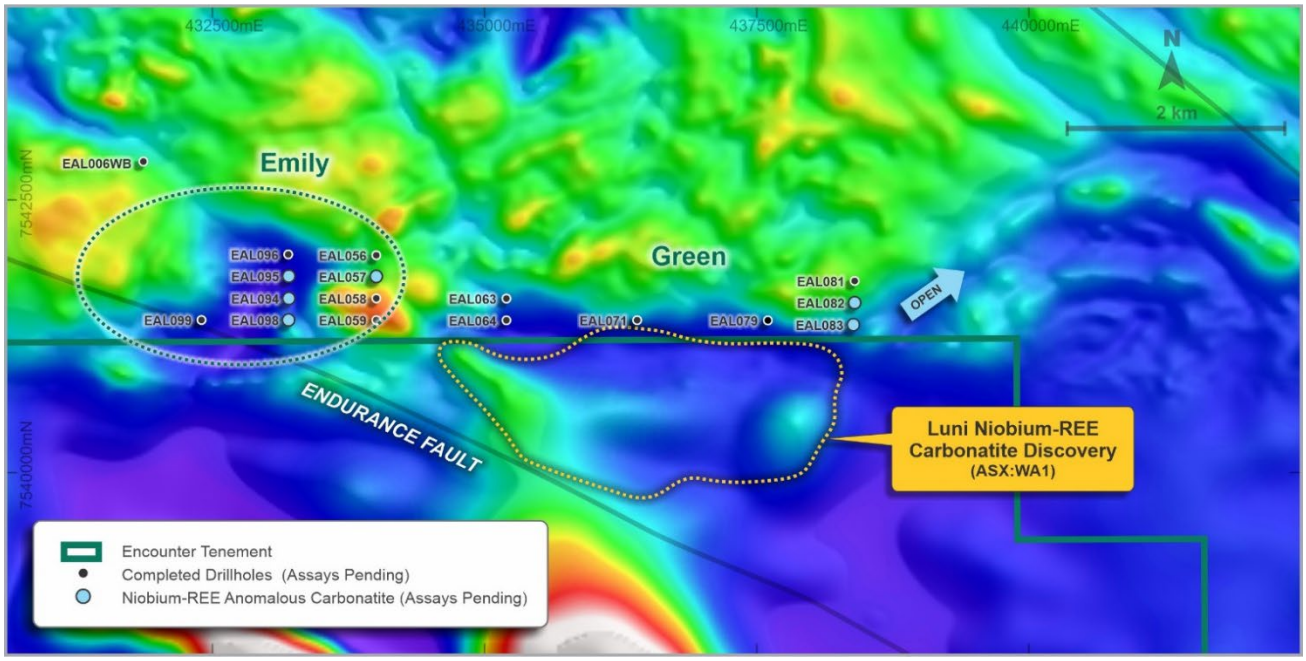


Figure 1 – Aileron drill plan over RTP magnetics showing new carbonatites intersected at Green and Emily. Also highlighted is a large circular magnetic feature interpreted as a potential intrusive complex east of Green (open arrow)

Encounter Resources Limited
Suite 2, 1 Alvan St
Subiaco WA 6008

P +61 8 9486 9455
E contact@enrl.com.au
www.enrl.com.au

[1] Nb and REE mineralised carbonatites inferred from pXRF field analysis.

Cautionary Statement - *The references to the presence of anomalism recorded in pXRF are not considered to be a proxy or substitute for laboratory analyses. Determination of mineralisation has been based on geological logging, visual observation and confirmation using a pXRF machine. No pXRF results are reported however the tool was used to verify the mineralisation. pXRF readings may not be representative of the average concentrations of the elements of interest in a certain volume of core. As such, pXRF results are used as a logging/sampling verification tool only. Laboratory analysis will be required to determine the level of mineralisation contained in the carbonatite zones.*

Visual estimates of mineral abundance or anomalism recorded on pXRF should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

Background

The 100% owned Aileron project covers 1,765km^2 and is located in the West Arunta region of WA, ~600km west of Alice Springs. Encounter completed large gravity, magnetic and radiometric surveys at Aileron to define initial drill targets.

RC Drill Program Update

Sixteen broad spaced RC holes have been completed in the first phase of drilling in the southern part of the Aileron project, north of WA1's Luni discovery. This program has successfully identified two new mineralised carbonatites at the Green and Emily targets.

Green Target

Seven drill holes were drilled at Green on an 800m to 1,200m line spacing (1 to 3 holes per line). Two holes (EAL082, EAL083) on the eastern most drill line intersected carbonatites anomalous in niobium and REE[1]. EAL082 intersected a carbonatite at 108m and EAL083 intersected carbonatite closer to surface at ~40m. These carbonatites were variably anomalous in niobium and REE to end of hole.

The north-east mineralised trend established at Green remains open to the east towards a large circular feature defined in magnetics which is interpreted as a potential intrusive complex (Figure 1).

An additional heritage survey will be completed early in 2024 to facilitate drill testing of this mineralised trend and interpreted intrusive body.

Emily Target

Following observations from drilling in other parts of Aileron, a distinct magnetic low on the Endurance Fault situated 2km north-west of WA1's Luni discovery, was targeted for drilling and named the Emily target ("Emily").

The first RC drilling at Emily intersected carbonatites at approximately 50m depth in three 200m spaced holes (EAL094, EAL095, EAL098). These carbonatites were variably mineralised in niobium-REE[1] to end of hole at 180-234m.

Additional drilling is planned for Emily in November 2023.

Next Steps

Assays from the RC drilling at Green and Emily are expected in December 2023-January 2024.

Hole_ID	Hole_Type	MGA_Grid_ID	MGA_East	MGA_North	MGA_RL	Azimuth	Dip	EOH Depth
EAL056	RC	MGA94_52	434003	7541996	380	180	-60	132
EAL057	RC	MGA94_52	434002	7541795	380	180	-60	234
EAL058	RC	MGA94_52	434001	7541598	380	180	-60	210
EAL059	RC	MGA94_52	434008	7541413	380	180	-60	198
EAL063	RC	MGA94_52	435200	7541597	380	180	-60	144
EAL064	RC	MGA94_52	435196	7541399	380	180	-60	188
EAL071	RC	MGA94_52	436396	7541393	380	180	-60	150
EAL079	RC	MGA94_52	437596	7541391	380	180	-60	186
EAL081	RC	MGA94_52	438398	7541744	380	180	-60	98
EAL082	RC	MGA94_52	438394	7541551	380	180	-60	180
EAL083	RC	MGA94_52	438388	7541357	380	180	-60	222
EAL094	RC	MGA94_52	433210	7541604	380	180	-60	234
EAL095	RC	MGA94_52	433195	7541796	380	180	-60	234
EAL096	RC	MGA94_52	433216	7542009	380	180	-60	198
EAL098	RC	MGA94_52	433180	7541407	380	180	-60	180
EAL099	RC	MGA94_52	432397	7541400	380	180	-60	160

Table 1: Collar locations and drill hole information of completed RC at the Green and Emily targets at Aileron

The information in this report that relates to Exploration Results and visual observations is based on information compiled by Mr. Mark Brodie who is a Member of the Australasian Institute of Mining and Metallurgy. Mr. Brodie holds shares and options in and is a full time employee of Encounter Resources Ltd and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Brodie consents to the inclusion in the report of the matters based on the information compiled by him, in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX releases and the form and context of the announcement has not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not been materially modified from the original market announcements.

This announcement has been approved for release by the Board of Encounter Resources Limited.

About Niobium

Niobium Uses

Niobium (Nb) is a ductile refractory metal that is highly resistant to heat and wear. Approximately 90% of niobium use is attributed to the steel industry, predominantly as a micro alloy with iron to make steel lighter and stronger. Applications of niobium in battery technology are evolving with potential to revolutionise the electric vehicle market.

Lighter, stronger and corrosion resistant steel

The addition of small, relatively cheap, amounts of niobium (much less than 1%) significantly increases the strength and decreases the weight of steel products. This results in more economic, beneficial products for use in the construction industry (e.g., beams in buildings, bridges, oil rigs, railway tracks), in gas and oil pipelines, and in the automotive industry where weight savings result in increased performance and fuel reduction.

The addition of approximately 300g of niobium can reduce the weight of steel in a mid-size car by 200kg which increases fuel efficiency by 5%.

Battery Technology Development

The incorporation of niobium into various battery components has shown the potential to enhance performance across a range of attributes including:

- Super-fast charging (<6 minutes) and discharging rates;
- Prolonging the lifespan of battery-powered products (more charging cycles); and
- Improved safety (lower fire risk).

CBMM, the world's largest niobium producer, has a partnership with Toshiba to advance battery technology incorporating niobium and commercialise the next generation of batteries.

Niobium Supply

Niobium production is heavily concentrated in Brazil, primarily under the control of CBMM. Brazil accounts for approximately 95% of global niobium supply from two producers: CBMM and China Molybdenum. Magris Performance Materials (MPM), the world's only other producer, operates the Niobec niobium mine in Canada.

Niobium resources at current producing mines	Deposit Size (Mt)	Nb_2O_5 (grade)	Contained Nb_2O_5 (kt)
Araxa (CBMM) [1]	462	2.48%	11,458
Catalao II (CMOC) [2]	48.4	1.01%	490
Niobec (Magris Resources) [3]	698	0.41%	2,883

Niobium is a Critical Mineral

Niobium is essential for advanced technology and is identified by the Australian, US and Japanese Governments and the European Union as a critical mineral, i.e. minerals (or elements) considered vital for the well-being of the world's economies, yet whose supply may be at risk of disruption.

Sources:

[1] US Geological Survey published 2017 available at https://pubs.usgs.gov/pp/1802/m/pp1802m.pdf

[2] IAMGOLD NI 43-101 Report https://www.miningdataonline.com/reports/Niobec_12102013_TR.pdf Resource as at 31 December 2012

[3] China Molybdenum Co. Ltd: Major Transaction Acquisition of Anglo American PLC's Niobium and Phosphate Businesses available at https://www1.hkexnews.hk/listedco/listconews/sehk/2016/0908/ltn20160908840.pdf Resource at 30 June 2016 (JORC 2012 Compliant)

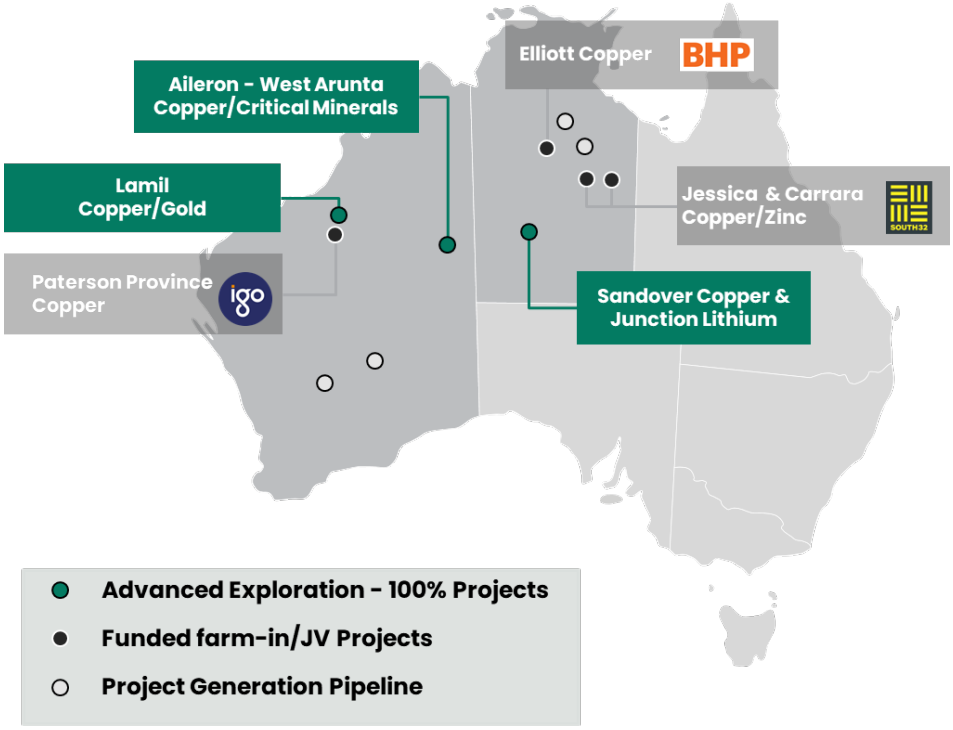
Geoscience Australia - Australian Resource Reviews: Niobium 2019

NioBay Metals - Corporate Presentation (on James Bay niobium project) - March 2023

NioCorp Investor Presentation - 3 February 2023

Argonaut Securities – Sector Research - Niobium Supermetal - George Ross - Analyst - 26 June 2023

About Encounter



Encounter is one of Australia's leading mineral exploration companies listed on the ASX. Encounter's primary focus is on discovering major copper and critical mineral deposits in Australia.

Encounter controls a large portfolio of 100% owned projects in Australia's most exciting mineral provinces that are prospective for copper and critical minerals. Complementing this, Encounter has numerous large scale copper projects being advanced in partnership and funded through farm-in agreements with leading miners: BHP, South32 and IGO. Encounter's assets include:

100% ENR Projects

Aileron Copper-Critical Minerals Project –WA
- Large niobium-REE rich carbonatites discovered
- 10,000m RC drill program in progress

Sandover Copper Project - NT
- Outcropping shale units that contain copper mapped for >20km
- Diamond drilling program Nov 2023

Junction Lithium Project - NT
- Highly anomalous lithium & critical minerals
- Confirmed LCT pegmatites

Lamil Copper-Gold Project - Paterson Province WA
- High-grade copper-gold reefs

Copper Farm-in Partners

$7m invested by partners on ENR projects in 2022

BHP

Elliott Copper Project - NT
(up to $25m farm-in funding)
- Diamond drilling intersected a potential "first reductant" horizon in 2022
- Key target for sediment-hosted copper deposits

SOUTH32

Jessica and Carrara Projects – NT
(ENR carried to Scoping Study)
- Diamond drilling July to November 2023
  - 5 holes (4,400m) at Jessica
  - 3 holes (3,000m) at Carrara

igo

Yeneena Project – Paterson Province WA
(up to $15m farm-in funding)
- Diamond drilling July to September 2023
- 5 holes (2,900m) targeting high-value sediment-hosted copper

For further information, please contact:

Will Robinson
Managing Director
+61 8 9486 9455
contact@enrl.com.au

Michael Vaughan
Fivemark Partners
+61 422 602 720
michael.vaughan@fivemark.com.au

SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sounds, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Sixteen RC drillholes, have been completed at the Emily and Green targets at Aileron. No assays are being reported in this announcement. RC samples undergo routine 2 metre composite pXRF analysis using a Bruker S1 TITAN to aid in logging and identifying zones of interest.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Drill hole collar locations were recorded by handheld GPS, which has an estimated accuracy of +/- 5m.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	RC drilling was used to obtain a split 2m sample with each sample weighing approximately 3kg. No assays are being reported in this announcement.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	Reverse circulation drilling was used in the drillholes to obtain 1-3 kg samples every 2m downhole.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	RC sample recoveries were estimated as a percentage and recorded by Encounter field staff.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Driller's used appropriate measures to minimise down-hole and/or cross – hole contamination in RC drilling. Where contamination of the sample was suspected this was noted by Encounter field staff as a percentage.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	To date, no detailed analysis to determine the relationship between sample recovery and/or and grade has been undertaken for this drill program.

Criteria	JORC Code explanation	Commentary
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	Encounter Geologists complete geological logs on all RC chips. Lithology, alteration, mineralisation, structure and veining are recorded. Detailed logging of diamond holes is completed by Encounter Geologists
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging is qualitative in nature and records lithology, alteration, mineralisation, structure, veining and other features of the samples.
	The total length and percentage of the relevant intersections logged	Encounter Geologists have logged reported drillholes in full including lithology, alteration, mineralisation, structure and veining.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	No diamond drillholes are being reported
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were collected on the rig using a cone splitter. Samples were recorded as being dry, moist, or wet by Encounter field staff.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No new results are being reported in this announcement. Samples will be sent to ALS laboratories in Perth for analyses. Samples will be crushed and pulverised to enable a subsample for analyses. This is considered appropriate for the laboratory analysis to be undertaken.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QC procedures involve the use of commercial certified reference materials (CRMs) and in house blanks. The insertion rate of these is at an average of 1:33.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Field duplicates were taken during RC drilling and were collected on the rig via a splitter at a rate of 1:50. The results from these duplicates are assessed on a periodical basis.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered appropriate to give an accurate indication of the mineralisation.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	No assays are being reported in this announcement.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Each 2m composite RC sample undergoes routine pXRF analysis using a Bruker S1 TITAN to aid in logging and identifying zones of interest. All pXRF readings were taken in GeoExploration mode with a 60 second 3 beam reading. OREAS supplied standard reference materials were used to calibrate the pXRF instrument.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	OREAS supplied standard reference materials were used to calibrate the pXRF instrument every 40m.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Geological observations included in this report have been verified by Sarah James (Exploration Manager)
	The use of twinned holes.	No twinned holes have been drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary logging and sampling data is being collected for drillholes on toughbook computers using Excel templates and Maxwell Geoservice's LogChief software. Data collected is sent offsite to Encounter's Database (Datashed software), which is backed up daily.
	Discuss any adjustment to assay data.	No assays are being reported in this announcement.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Drill hole collar locations are determined using a handheld GPS. Down hole surveys were collected during this drilling program at approximately 30m intervals downhole.
	Specification of the grid system used.	Horizontal Datum: Geocentric Datum of Australia1994 (GDA94) Map Grid of Australia 1994 (MGA94) Zone 52
	Quality and adequacy of topographic control.	Estimated RLs were assigned for drillhole collars and are to be corrected at a later stage using a DTM created during the aeromagnetic survey.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The RC drill hole spacing is 200m apart along north-south oriented drill lines. The completed drill sections are spaced between 800m and 1200m apart in an east-west direction.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Mineralisation has not yet demonstrated to be sufficient in both geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications to be applied.
	Whether sample compositing has been applied.	No assays are being reported in this announcement.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	This is early-stage exploration drilling and the orientation of the hole with respect to key structures is not fully understood.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	This is early stage drilling and the orientation of the hole with respect to key structures is not fully understood.

Sample security	*The measures taken to ensure sample security.*	The chain of custody is managed by Encounter. Samples will be transported by Encounter personnel and reputable freight contractors to the assay laboratory.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on Aileron data.

SECTION 2 REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties including joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	The Aileron project is located within the tenements E80/5169, E80/5469, E80/5470 and E80/5522 which are held 100% by Encounter Resources The tenements are contained within Aboriginal Reserve land where native title rights are held by the Parna Ngururrpa and the Tjamu Tjamu. No historical or environmentally sensitive sites have been identified in the work area.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Prior to Encounter Resources, no previous on ground exploration has been conducted on the tenement other than government precompetitive data.
Geology	*Deposit type, geological setting and style of mineralisation*	The Aileron project is situated in the Proterozoic West Arunta Province of Western Australia. The geology of the area is poorly understood due to the lack of outcrop and previous exploration. The interpreted geology summarises the area to be Paleo – Proterozoic in age and it is considered prospective for IOCG style and carbonatite-hosted critical mineral deposits.
Drill hole information	*A summary of all information material to the understanding of the exploration results including tabulation of the following information for all Material drill holes:* • *Easting and northing of the drill hole collar* • *Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar* • *Dip and azimuth of the hole* • *Down hole length and interception depth* • *Hole length*	Refer to tabulation in the body of this announcement.

Criteria	*JORC Code explanation*	**Commentary**
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	No assays are being reported in this announcement.
	Where aggregated intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	No assays are being reported in this announcement.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No assays are being reported in this announcement.
Relationship between mineralization widths and intercept lengths	*These relationships are particularly important in the reporting of exploration results.* *If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	The geometry of the mineralisation is not yet known due to insufficient drilling in the targeted area.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plane view of drill hole collar locations and appropriate sectional views.*	Refer to body of this announcement
Balanced Reporting	*Where comprehensive reporting of all Exploration Results is not practical, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	No assays are being reported in this announcement.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observation; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	All meaningful and material information has been included in the body of the text. No metallurgical assessments have been completed.
Further Work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large – scale step – out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	The next phase of work will include further RC drilling at Emily and the eastern extension of Green.