ASX ANNOUNCEMENT

22 July 2024



TENNANT CREEK TECHNICAL REVIEW TO DRIVE COPPER EXPLORATION PROGRAM

HIGHLIGHTS

- Detailed technical review has identified 4 high priority exploration targets to grow CuFe Tennant Creek global resources.
- Review has provided detailed information to initiate assessment of heritage and regulatory approvals for initial near term exploration program including approximately 5,000m of drilling.
- It has identified the potential to grow the Orlando resource based on existing drilling following an external review of the 2023 Orlando Resource and historical underground drill data.
- Detailed analysis to further define targets continues, including reprocessing and interpretation of historical geophysical data.

CuFe Ltd (ASX: **CUF**) (**CuFe** or the **Company**) is pleased to provide an update on the status of CuFe's Tennant Creek Cu-Au project, which is owned 55% by CuFe and 45% by Gecko Mining Company Pty Ltd. The project has an existing JORC 2012 resource of 7.3MT at 1.7% Copper and 0.6g/t Gold (refer to CuFe's ASX release dated 3 April 2023).

CuFe Executive Director, Mark Hancock, commented "With the ongoing exploration success of other juniors in the region, the sustained improvement in the copper market and historical highs in the gold price we have initiated a detailed technical review of our Tennant Creek project. The aim is to expand existing resources and highlight the exploration potential remaining in the area. We have developed a detailed suite of targets that we can translate to on ground exploration with an initial drill program to be executed post heritage and regulatory approvals. We see a lot of potential to add resources to underpin the future recommencement of mining in this world class mineral field."

Technical Review and Scope

A detailed technical review of the Tenant Creek geology, historical data sets and exploration targets has been undertaken by Mr John Dobe as a technical consultant to CuFe. Mr Dobe is a geologist with >30 years of global exploration experience (predominantly Homestake/Barrick) specialising in project generation and project evaluations at all stages of exploration, from grassroots through to brownfields. John has a detailed understanding of mineral deposits with particular focus on porphyry Cu-Au, IOCG, epithermal Au, orogenic Au, Sediment-hosted Cu, SEDEX, and VHMS deposits.

The scope of the review included auditing and consolidation of historical drill hole geological and geophysical databases, exploration target review, generation and ranking. The outcomes of the review have helped derive an exploration strategy with the aim of growing the global resources at the CuFe Tennant Creek Project.

Review Findings and Target Ranking

The Gecko and Orlando Corridors are well explored and current resources are mostly well defined with multiple generations of surface and underground drilling including RAB, vacuum, RC and Diamond. The sharp and well-defined nature of the mineralisation does provide further opportunities for additional

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resources extensions immediately adjacent to the known deposits. Geophysical data is also abundant and wide ranging including IP, Helitem, magnetics, gravity and seismic.

Exploration targets in aim of growing the global resource have been identified within the Orlando and Gecko Corridor and have been allocated the following categories:

- 1. Resource extensions and infill
- 2. Near Resource / brownfields
- 3. Target Delineation
- 4. Grassroots / Generative

Resource extensions and infill targets have a higher degree of certainty and potential than those that are grassroots generative and conceptual in nature.

Targets have also been ranked by priority on the basis of their complexity, exploration maturity and prospectivity. Their relative potential size has been estimated based on technical review/analysis and conceptual models and projections (See Figure 1).

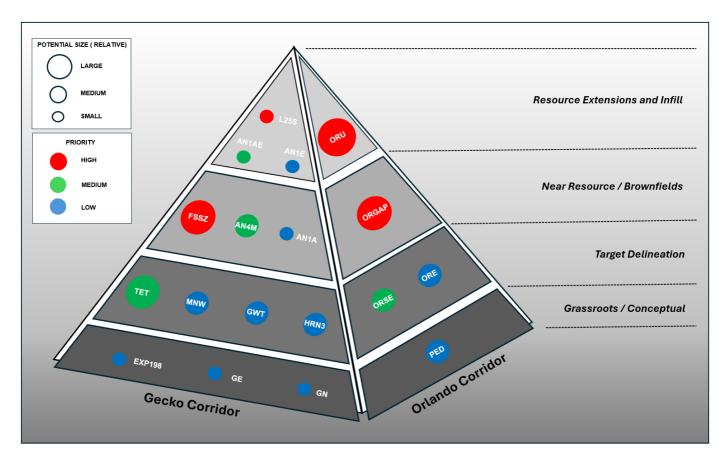


Figure 1: Targets defined during the technical review within the Gecko and Orlando corridors.

Four high priority targets have fallen out of the technical review that are located with both the Gecko and Orlando corridors. Spatially the targets are shown in Figure 2.



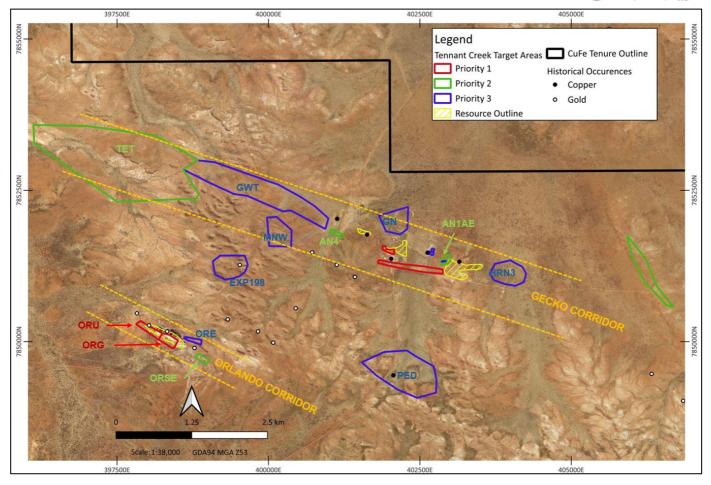


Figure 2: Location of the targets and the Orlando and Gecko Corridors

Orlando Corridor

Five targets have been identified within the Orlando Corridor, two of which are high priority, potentially adding to resources by extension and near resources / brownfields discoveries. Orlando underground resource extension includes the interpretation and modelling of the Orlando underground resources that are not included within the current Orlando Resource.

Recently MEC consulting was engaged by CuFe to review the Orlando Resources and historical drilling data. The review confirmed that there is drill hole data that supports extensions of copper and gold mineralisation from the existing open pit, into and around the historical underground workings. Currently this mineralisation is not interpreted and or reported in the existing 2023 Orlando Resource (See Figure 3 and refer to CuFe ASX announcement 3 April 2023). An immediate workstream has been initiated to develop a global resource for the Orlando deposit based on an updated validated drill hole data base including recently sourced Grade Control drilling from the Open Pit mining and historic drilling where QA/QC can be achieved. This target ranks high in terms of priority based on the short lead time with no drilling required and minimal execution costs. It also has the potential to grow the underground resource at Orlando with reasonable confidence considering the drill intercepts are confirmed and historical underground mining has recovered cooper and gold from these levels.

The second high priority target within the Orlando Corridor is an area immediately below the open pit and adjacent to the underground where there is a gap in drill coverage that leaves a portion of the resource open along strike and at depth (See Figure 3). Testing this gap will require deep drilling in the order of 350m but the potential scale of this target justifies its high ranking and priority.



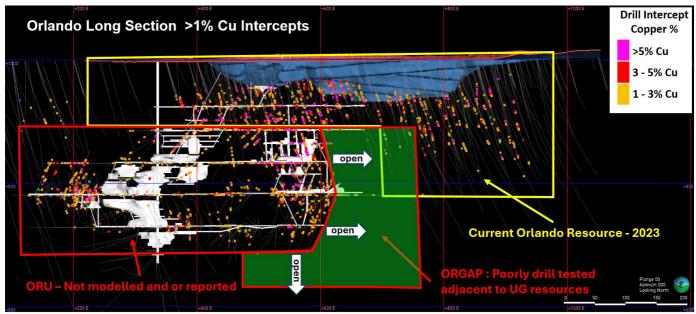


Figure 3: Orlando Underground (ORU) and Orlando Gap (ORGAP) shown on a long section that cover the existing 2023 Orlando Resource. Drill hole intercepts >1% Cu are highlighted.

Gecko Corridor

Two key high priority targets have been identified within the Gecko Corridor, FSSZ and L25S. The FSSZ target (Footwall Structural Shear Zone) is a copper dominated mineralised trend that sits along the southern margin of the Gecko Corridor. The target was initially identified and partially drill tested by Emmerson and Evolution in 2017. It intersected in numerous drill holes including one deep intercept of 355m and is supported by a geophysical response and iron ironstone outcrop. The shear zone and target are in the order of 1,000m in strike length (See Figure 4) and target holes have been designed to further test and infill the mineralisation envelope. The target is not currently part of the Gecko 2011 Resource.

The L25S Resource Extension target is an area of approximately 150m x 50m x50m with >1% Cu (\pm Au) and the mineralisation lies immediately to the south of the current L25 resource (Figure 5). The target includes drill intercepts that are not part of the current Gecko Resource and are open to the North West and would likely require close out drilling (Figure 5).

Exploration Strategy

The exploration strategy for FY2025 includes the parallel work streams on high priority targets defined by the technical review including:

- Reinterpretation and Resource modelling of a global Orlando Resource and modelling of L25S.
- Undertake a third party geophysical review of historic surveys, with the aim of identifying potential new techniques to old data (e.g. Trial the application of new 2.5D inversion software to the historic HELITEM survey), or the acquisition of new geophysical data (e.g. 3D IP, ground EM, detailed Drone magnetics).
- Heritage and land access review of target areas including regulatory approvals.
- Drill program execution.
- Review and planning Medium Priority targets.



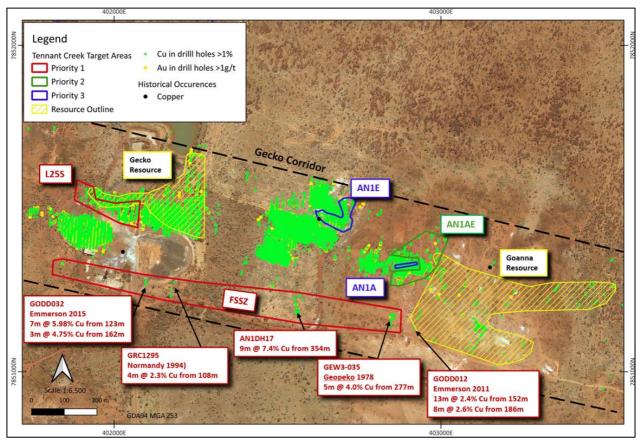


Figure 4: The FSSZ target within the Gecko Corridor.

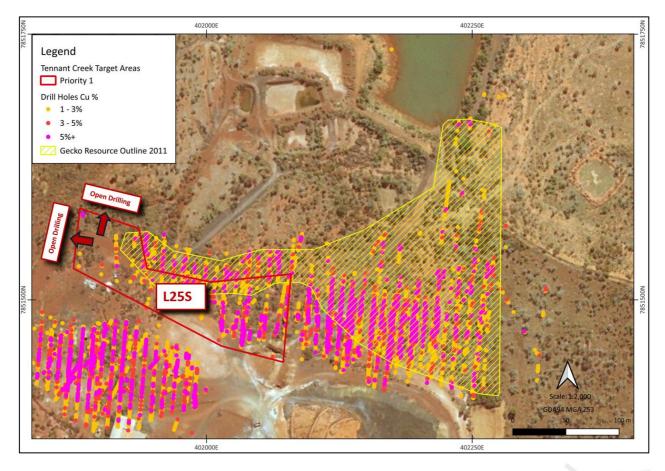


Figure 5: L25S target and open drilling to the NW.

ASX: CUF | cufe.com.au Page 5 of 16



Released with the authority of the CuFe Board.

COMPETENT PERSON

The information in this report that relates to geology is based on, and fairly represents, information which has been compiled by Matthew Ramsden, a Member of the Australasian Institute of Geoscientists and a full-time employee of CuFe Ltd. Matthew Ramsden has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken 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'. Matthew Ramsden consents to the inclusion in this report of the matters based on his information in the form and context in which they appear.



JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

	section apply to all succeeding sections.)	Commentant
Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	No sampling was undertaken related to this announcement.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	No drilling was undertaken related to this announcement.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	No drilling was undertaken related to this announcement.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	No drilling was undertaken related to this announcement.

ASX: CUF | cufe.com.au Page 7 of 16



Criteria	JORC Code explanation	Commentary		
	The total length and percentage of the relevant intersections logged.			
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	No drilling was undertaken related to this announcement.		
Quality of assay data and laboratory tests		No drilling was undertaken related to this announcement.		

ASX: CUF | cufe.com.au Page 8 of 16



Criteria	JORC Code explanation	Commentary		
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	No drilling was undertaken related to 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. Specification of the grid system used. Quality and adequacy of topographic control. 	GDA94 datum and MGA zone 53 projection.		
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	No drilling or sampling was undertaken related to 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. 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. 	No drilling was undertaken related to this announcement.		

ASX: CUF | cufe.com.au Page 9 of 16



Criteria		JORC Code explanation	Commentary		
Sample security		The measures taken to ensure sample security.	No samples taken in this announcement.		
Audits reviews	or	The results of any audits or reviews of sampling techniques and data.	Audit by MEC of the Orlando historic drill hole database		

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The Tennant Creek tenure portfolio is held by CuFe Tennant Creek Pty Ltd 55% and Gecko Mining Company Pty Ltd 45%. The tenure is in good standing please refer to Appendix 1 below. There are two royalty agreements applicable to the tenure: The Evolution agreement contains a royalty of 5% of gross revenue royalty of the first 80,000t of copper sold and 1.5% for sales beyond that and 5% of gross revenue for the first 60,000 Oz of gold sold and 1.5% beyond that. The Franco Nevada agreement contains a historical gold royalty of \$30/Oz which may apply to gold production from certain of the tenements subject to timing restrictions.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Exploration within the Tennant Creek Project Area has historically been aimed at discovering Tennant Creek-style copper-gold IOCG deposits within the Warramunga Formation. Orlando The underground workings were started by Peko Mines NL in the 1960s and closed in 1975 due to low copper prices and poor ground conditions. Open pit mining followed under the ownership of Normandy Mining Limited (Normandy). The pit was mined over 14 months and completed in October 1997. A resource model and scoping study was developed by Giants Reef

ASX: CUF | cufe.com.au Page 10 of 16



Criteria	JORC Code explanation	
		Mining in 2004.
		Gecko
		 There has been significant historical underground production at Gecko by a range of producers. The most recent producer was Normandy until 1999 when low commodity prices precipitated mine closure. Normandy carried out the drilling now being reported as resources at Anomaly 3, L25 and at K44 Lower.
		<u>Goanna</u>
		 Goanna is a more recent discovery by Emmerson Resources (i.e. no historic mining) from a HeliTEM survey, followed up by ground based deep penetrating induced polarization geophysics. It sits in, and is along strike from, the Gecko Project in the 'Gecko Corridor' and is immediately down plunge from historical production at Gecko Anomaly 1A.
		From mid- 2000s to 2019 Emmerson Resources, at times in JV with Evolution Mining, completed exploration works for copper and gold across the Tennant Creek project area including Orlando, Gecko and Goanna. Works included drilling, geophysical surveys, and resource modelling. The 2018 GR416 annual report details the more recent works completed by Emmerson and Evolution across the Gecko Corridor.
Geology	Deposit type, geological setting and style of mineralisation.	<u>Orlando</u>
		 The mineralisation is hosted by secondary haematite-kaolin- chlorite altered lenses within two east-southeast trending shear zones.
		<u>Gecko</u>
		 The mineralisation at Gecko is hosted in a sedimentary sequence of shales, siltstones and greywackes with intercalated haematite- rich shale units. Ironstone pods, which host mineralisation,

ASX: CUF | cufe.com.au Page 11 of 16



Criteria	JORC Code explanation	
		comprise varying amounts of magnetite-haematite-quartz and chlorite. Goanna Mineralisation at Goanna is primarily copper and is hosted in northwest-southeast trending lenses which are coincident with shear zones. The mineralisation is hosted in sulphide and quartz-sulphide tension vein arrays and sulphide-rich brecciated ironstone lenses. The depth of oxidation varies from 50m to 150m below surface.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a 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 metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	No drilling was undertaken related to this announcement.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 No data aggregation methods were used. No metal equivalents have been reported.
Relationship between mineralisatio n widths and	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 	No mineralisation widths have been reported.

ASX: CUF | cufe.com.au Page 12 of 16



Criteria	JORC Code explanation	
intercept lengths	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
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 plan view of drill hole collar locations and appropriate sectional views.	Included within body of the text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The accompanying document is a balanced report with a suitable cautionary note.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; 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.	Included within body of text.
Further work	 The nature and scale of planned further work (eg 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. 	 Drilling Geological mapping and surface rick chip sampling Soil Geochemical Surveys Airborne and ground geophysical surveys Aboriginal heritage surveys

ASX: CUF | cufe.com.au Page 13 of 16



Appendix 1: Tenement Information

Tenement	Status	Grant Date	Expiry Date	Holder	Current Area	Area Units
EL26595	Renewal Pending	7/07/2008	6/07/2024	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	2	Blocks
EL28777	Live	14/09/2011	13/09/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	27	Blocks
EL28913	Live	23/12/2011	22/12/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	1	Blocks
EL29012	Renewal Pending	3/04/2012	2/04/2024	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	1	Blocks
EL29488	Live	1/05/2013	30/04/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	9	Blocks
EL30488	Live	19/09/2014	18/09/2024	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	9	Blocks
EL30614	Live	6/10/2015	5/10/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	3	Blocks
EL31249	Renewal Pending	1/06/2016	31/05/2024	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	2	Blocks
EL32001	Live	15/05/2019	14/05/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	14	Blocks
ML23969	Live	17/03/2009	16/03/2034	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	15	Hectares
ML29917	Live	1/10/2013	30/09/2033	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	201.4	Hectares
ML29919	Live	1/10/2013	30/09/2028	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	436.2	Hectares
ML30714	Live	18/03/2015	17/03/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	40	Hectares
ML30745	Live	17/02/2015	16/02/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	80	Hectares
ML30783	Live	10/04/2015	9/04/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	20	Hectares
ML30873	Live	18/08/2015	17/08/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	60	Hectares
ML31021	Live	19/10/2015	18/10/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	13.04	Hectares
ML31023	Live	27/11/2015	26/11/2025	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	148.46	Hectares
ML33869	Live	31/05/2024	30/05/2045	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	32	Hectares
MLC21	Live	23/12/1958	31/12/2030	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	17	Hectares
MLC69	Renewal Pending	31/01/1968	31/12/2023	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares
MLC70	Renewal Pending	31/01/1968	31/12/2023	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares
MLC78	Renewal Pending	14/03/1968	31/12/2023	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares
MLC85	Live	19/10/1970	31/12/2030	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	15.89	Hectares
MLC86	Live	19/10/1970	31/12/2030	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	15.81	Hectares
MLC87	Live	19/10/1970	31/12/2030	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	14.12	Hectares
MLC88	Live	29/04/1971	31/12/2043	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares
MLC89	Live	29/04/1971	31/12/2043	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares
MLC90	Live	29/04/1971	31/12/2043	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares

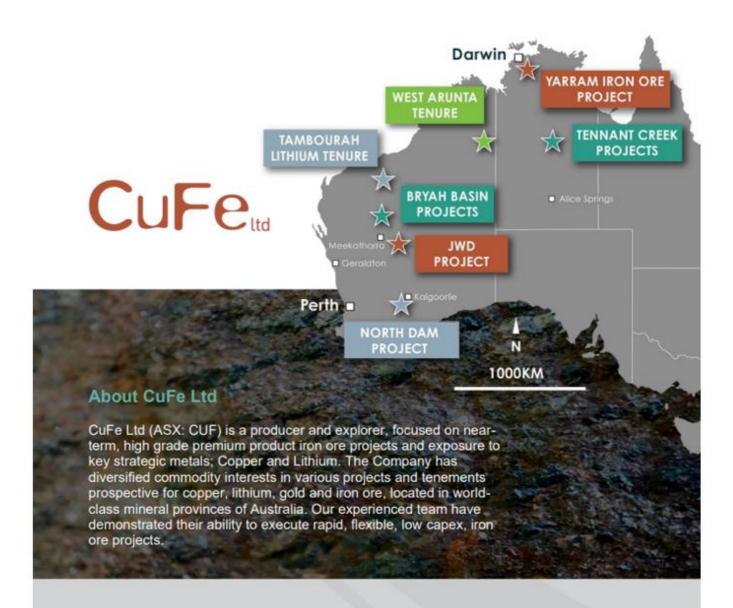
ASX Announcement – 22 July 2024



Page 15 of 16

MLC323	Live	22/04/1976	31/12/2032	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares
MLC324	Live	22/04/1976	31/12/2032	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	16	Hectares
MLC325	Live	22/04/1976	31/12/2032	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	13	Hectares
MLC326	Live	22/04/1976	31/12/2032	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	15	Hectares
MLC327	Live	22/04/1976	31/12/2032	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	9	Hectares
MLC506	Live	2/08/1941	31/12/2027	CuFe Tennant Creek Pty Ltd / Gecko Mining Co Pty Ltd	7	Hectares

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