Ground Surrender Report

Frewena Frontier Project (EL 32688, & EL 32690)

Barkly Tableland, NT

Tenement Holder:	Inca Minerals Ltd (90%) MRG Resources Pty Ltd (10%)
Tenement Operator:	Inca Minerals Ltd
Tenements:	EL32688 (end year 2) & 32690
Date:	22 Janaury 2024
Author:	Dr Emmanuel Wembenyui and Dr Jonathan West jwest@incaminerals.com.au
Target Commodities:	Copper (Cu), Gold (Au), Silver (Ag), Bismuth (Bi), Uranium (U), Cobalt (Co), Tungsten (W), Molybdenum (Mo), Phosphate, Diamonds and Rare Earth Elements (REE)
1:100k Mapsheet:	Alexandria 6259, Wonarah 6158, Ranken 6258, Barry Caves 6257
1:250k Mapsheet:	Alroy (SE5315), Avon Downs SF5304, Ranken SE5316
	GDA94 / Zone 53S

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1. Abstract

This group report details exploration work undertaken during the second year of grant to 13 October 2023 over EL 32688, EL 32689 and EL 32690, which form the Frewena Frontier Project. The Project is located 200km east of Tennant Creek in the emerging East Tennant region and is considered prospective for iron ore copper-gold mineralisation and associated accessory metals. It is also considered prospective for phosphate and potentially diamonds.

Following a review of available exploration data, largely the broad spaced aerial AMAGRAD survey undertaken in 2021, it has been determined that there are a number of areas, particularly on EL 32688 and EL 32690 that have very low exploration potential and can be surrendered in accordance with the mandatory ground surrender requirements of the NT Mining Act. This report provides a brief comment on these matters.

Copyright Section

2. Introduction

The Frewena Frontier Project is located approximately 200km east of Tennant Creek, within the emerging East Tennant region of the Northern Territory. The Project consists of three Exploration Licences: EL 32688, EL 32689 and EL 32690, the subject of this group report.

Exploration at Frewena Frontier is targeting Tier 1 scale iron ore copper-gold (**IOCG**) mineralisation; however, potential also exists for orogenic Au and SEDEX base metal systems and also significant phosphate deposits similar to the Arruwurra deposit to the south held by Avenira. Review of recent AMAGRAD results indicate that there may also be potential for diamonds.

Coordinates presented in figures within this report refer to GDA94 / MGA zone 53 datum.

3. Tenure

The Frewena Frontier Project is a joint venture between Inca Minerals Ltd (**Inca**), and MRG Resources Pty Ltd (**MRG**), and covers 750 subblocks for a total area of 2,424 km^2. Group reporting was approved for this project in early 2022.

Frewena Frontier tenure details are listed in Table 1, and project location is shown in Figure 1.

Table 1:Tenure details of the Frewena Frontier Project

Project	Licence	Sub Blocks	Area (km^2)	Status	Grant Date	Term (years)	Expiry Date
Frewena Frontier	EL 32688	250	809	Granted	24 May 2021	6	5 May 2027
	EL 32689	250	808	Granted	5 May 2021	6	5 May 2027
	EL 32690	250	807	Granted	5 May 2021	6	5 May 2027

3.1 Location and Access

Frewena Frontier is accessed via the Barkly Highway between Tennant Creek and Camooweal, and then by existing station tracks, and fence lines as shown in Figure 1. The Project falls within the Dalmore Downs Pastoral Lease (NT Portion 773 and Perpetual Pastoral Lease 988).

3.2 Topography and Drainage

Terrain within the Project is largely subdued with minor dendritic drainages and black soil plains. No major drainages occur within the tenure.

The country is covered by moderate vegetation that includes acacias, grasses, and scattered eucalypt, especially on limestone/calcrete areas, with grassland occurring on black soil plains.

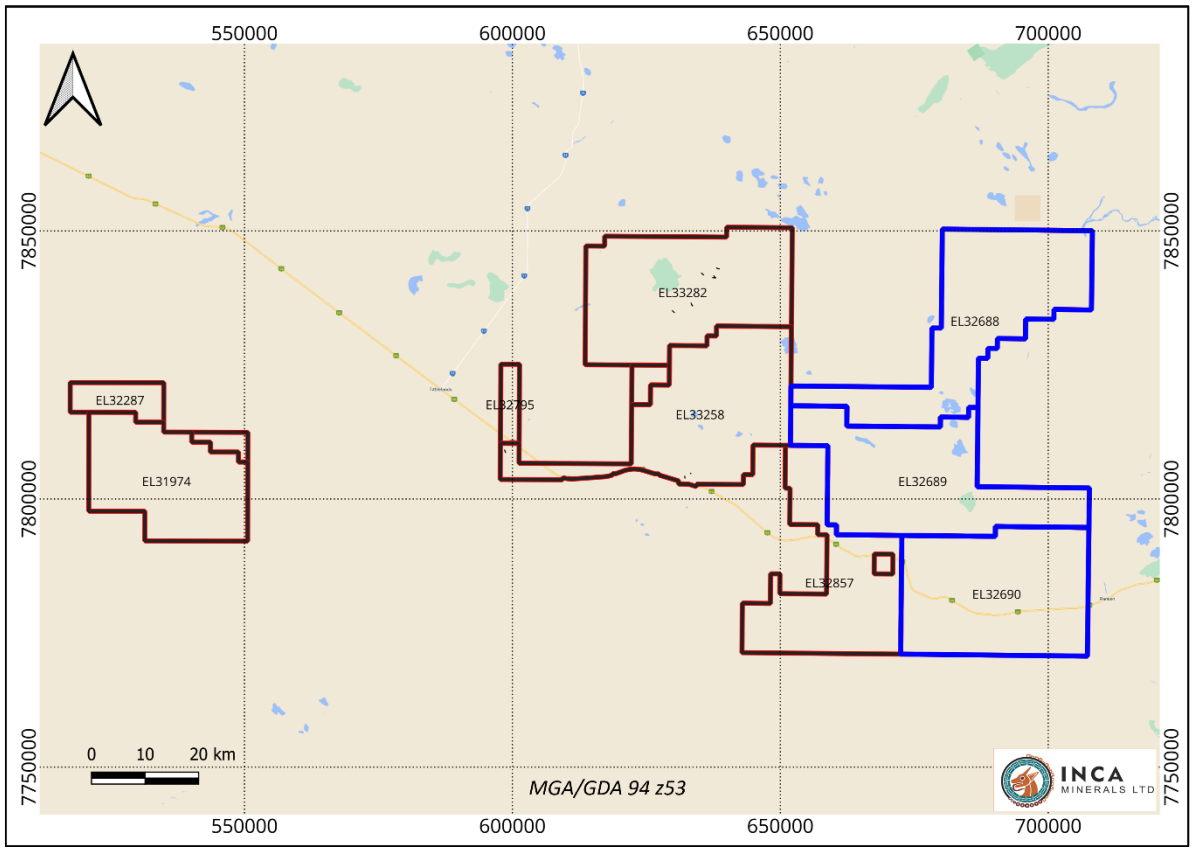

Figure 1: *Frewena Frontier Project location (blue polygons) relative to the other tenements that make up Inca Minerals Group of tenements in the East Tennant region of the Northern Territory*

4. Geological Setting

Frewena East lies within the Georgina Basin, a 360,000km^2 remnant of the Neoproterozoic to Palaeozoic sedimentary sequence that was originally deposited across an intra-continental platform in central Australia. Outcrop within the region, and locally within the Projects, is generally rare with geology largely comprised of carbonate sedimentary rocks, limestone, and shale. Cover thickness within the region varies from negligible to hundreds of meters thick.

Sedimentary lithologies of the Georgina Basin largely obscure older basement rocks. Past exploration of the region has largely been restricted to sedimentary-hosted phosphate deposits, which has left large swathes of land unexplored by modern methods for base and

precious metals. The region's location between the mining centres of Mt Isa and Tennant Creek, however, suggests Proterozoic basement could be prospective for large scale base and precious metal mineralisation and this realisation has seen the East Tennant region emerge as a potential new IOCG province in recent years.

Significant pre-competitive data acquisition has been undertaken in the East Tennant region by Geoscience Australia (GA), the Northern Territory Geological Survey (NTGS), and MinEx CRC. This work has included seismic, gravity, magnetotelluric (MT), and airborne electromagnetic (AEM) geophysical surveying, and stratigraphic drilling in the area covering the Projects. Important observations and conclusions about the East Tennant region from the various Government-led work programs include:

- Occurrence of a large scale and deep-seated structural architecture;
- Modelled iron-oxide alteration;
- Accessible basement depths;
- Modelled IOCG mineral potential;
- High conductivity features modelled to extend from the mantle which could indicate past metal bearing fluid flow zones relating to IOCG mineralisation; and
- Known phosphate resources nearby.

A standout interpretation from GA and NTGS's precompetitive work is conductivity cross sections derived from MT surveying. A large mantle tapping feature is postulated to occur along the East Tennant Ridge and extends to the near surface below the Frewena East and Frewena Far East Projects. This conductive feature potentially represents an ancient fluid flow zone from the mantle and may relate to a fluid pathway associated with IOCG style mineralisation and alteration.

5. Exploration History and Rationale

The extensive work undertaken by GA and the NTGS resulted in a pegging rush to secure tenure in the region during late 2019, in which Inca was an early mover. The tenement holders (Inca Minerals and MRG Resources) expanded their initial tenure holding in the region through the pegging of the Frewena Frontier Project in 2021. Frewena Frontier was identified through innovative generative studies that combined the existing exploration model (responsible for identifying Frewena Fable, Frewena East and Frewena Far East), with recent results from Government-led pre-competitive work.

Limited historical exploration is reported over the area, with most of the historical exploration having targeted sediment-hosted phosphate (mainly in the 1960's onwards) and minor base metal exploration by Jacaranda Minerals Pty Ltd in 2008-2010, mainly to the south of the Frewena frontier tenements. Helicopter assisted reconnaissance in late 2018 within Frewena Frontier, while restricted in nature, did return hematite-goethite brecciated sedimentary lithologies with large, fully goethitised clasts. Low level but elevated Au and S were returned in these rock chips and appeared to occur above a large intrusive feature interpreted in regional geophysical data.

In 2022, Inca/MRG, with funding support from the GDC, undertook a major airborne magnetic-radiometric survey. Heaslop (2023) reported in some detail the nature of this airborne survey and the preliminary results. Work in 2022-2023 largely involved the analysis and assessment of the extensive AMAGRAD data base developed following the airborne survey. A number of areas of interest were identified, which required further exploration to test whether the initial potential is realised.

6. Exploration During 2022-2023

Preliminary assessment of the geophysical responses generated by the AMAGRAD survey over Frewena Frontier, by Resource Potential, have suggested that there is potential for a number of different types of mineralisation, including phosphate, IOCG/Orogenic base metal deposits and diamonds. However, whilst some potential was noted, the 'coarseness" of the geophysical data means that further follow up ground-based geophysics, on a tighter line spacing will be required to determine whether this potential is realised. Much of the 2022-2023 year involved assessment of the data and planning for future activities (Wembenyui and West, 2023).

In view of the identified phosphate potential of the area, Inca carried out a thorough review of the captured AMAGRAD gravity data and identified areas of low gravity anomalies that are interpreted to represent basin structures. Importantly, these interpreted basin structures have the same characteristics as the basin structure that hosts the Wonarah Phosphate Deposit (Figure 2). At Wonarah, there is a precise juxtaposition of phosphate mineralisation and the basin structure.

As shown in Figure 3, several basin structures have been identified to date (either wholly or partly within Inca's ground) that warrant investigation for phosphate mineralisation. The two most prominent structures are located northeast and north-northwest of Wonarah. The basin northeast of Wonarah (on Inca's Frewena Frontier Project EL 32689) is particularly interesting in that it has not been drilled and there is no historical exploration over the area (Figure 2). Only a small section of postulated phosphate bearing basins were identified on tenements EL 32688 and EL 32690, which are the tenements subject to the current ground surrender. The ground surrender for EL's 32688 and 32690 exclude those areas of potential phosphate interest and the ground surrendered is not considered to have any mineral prospectivity.

No onground exploration has been conducted on these tenements and all decisions relating to the decision to retain or release ground has been based solely on interpretation of the aerial AMAGRAD geophysical survey data. Whilst this data is coarse there is a level of confidence that the ground being released/surrendered is the least prospective.

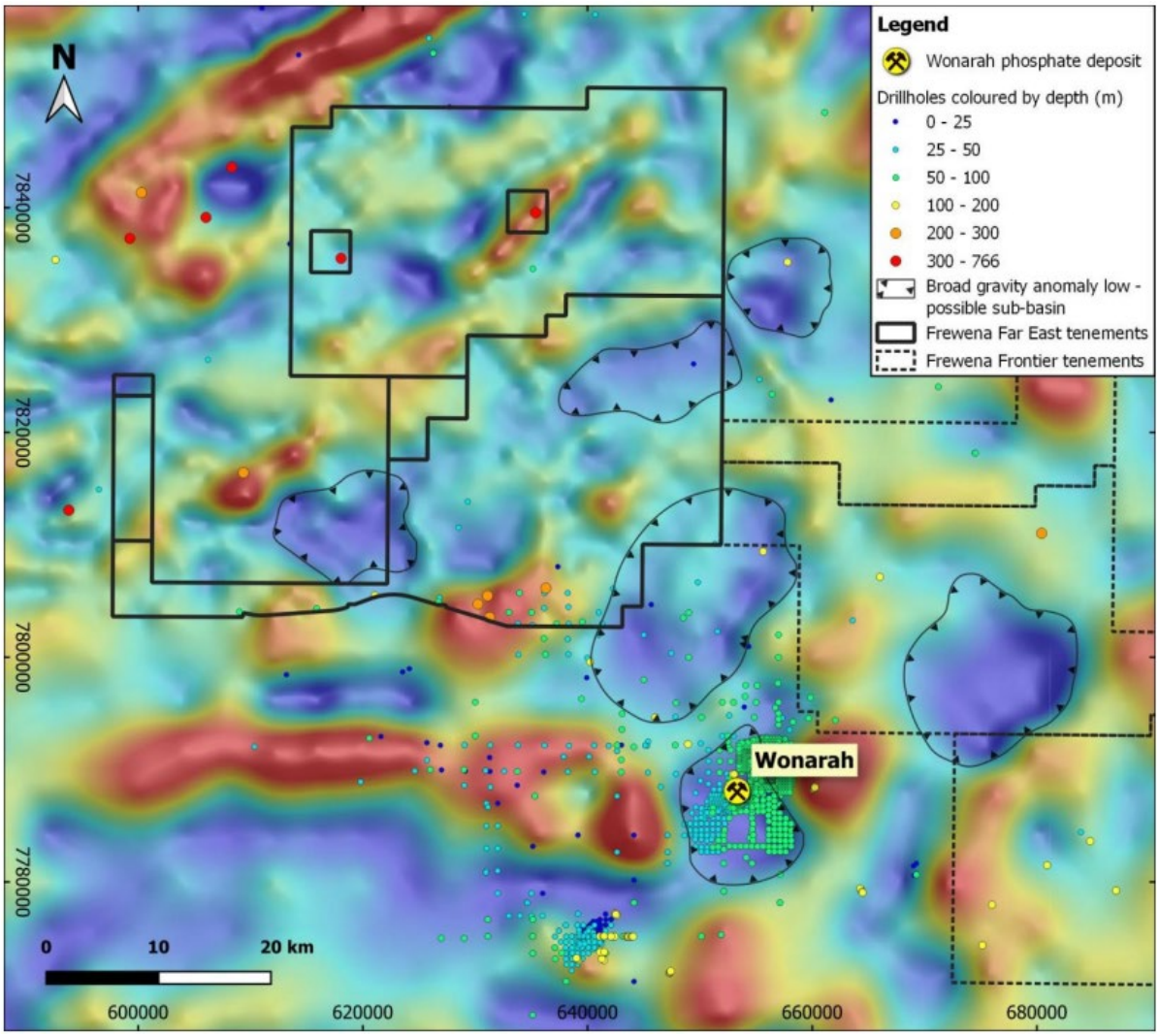

Figure 2: Frewena Far East gravity Bouguer anomaly 25 km high-pass image, along with broad gravity lows representing possible shallow Cambrian sub-basins with phosphate potential and existing drillholes.

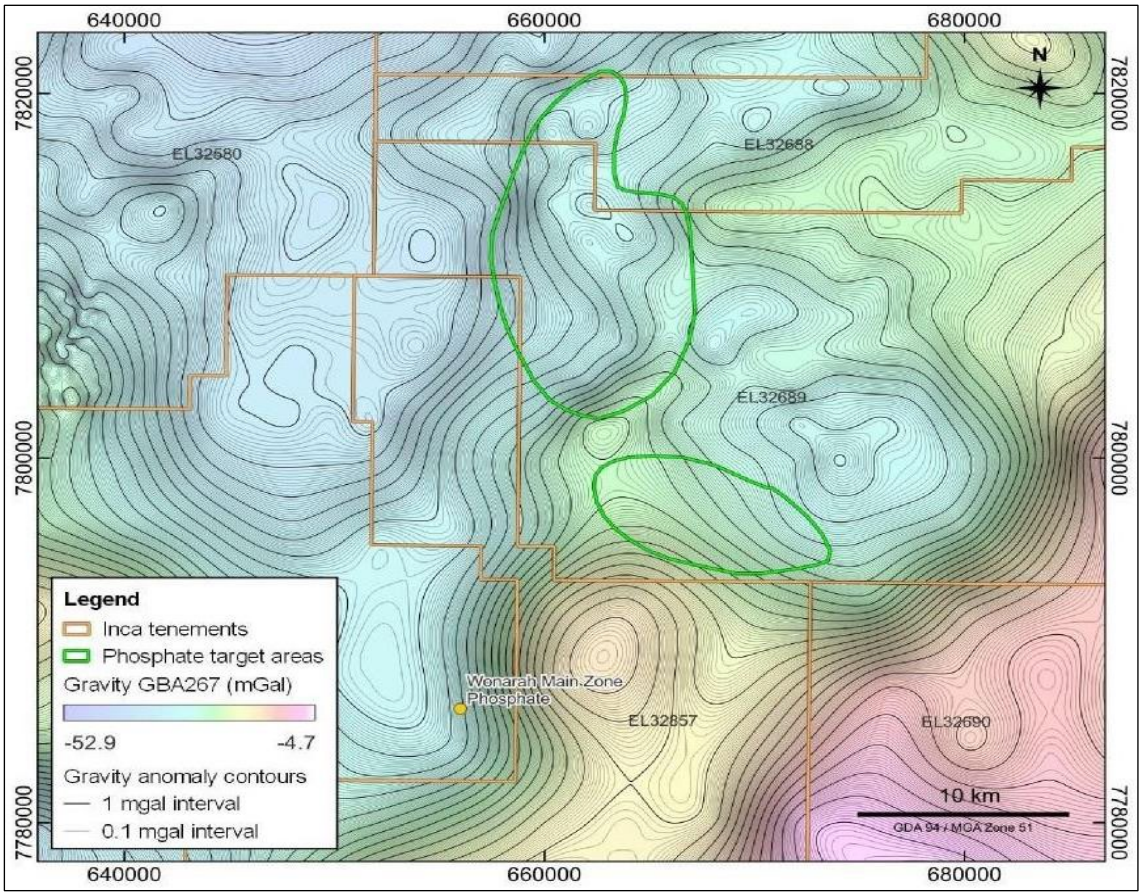

Figure 3: Resource Potential interpreted possible new phosphate sub-basin exploration areas shown as circular green outlines over a gravity anomaly contours.

7. Ground Surrender Details

In accordance with the required mandatory ground surrender requirements of the NT Mining Act, Inca Minerals has identified which portions of the Frewena frontier tenements it will surrender. A waiver for surrender was applied for and received for ground on EL 32689 and the full partial surrender (50%) was complied with for EL 32688 and EL 32690.

The decision on which ground to surrender was largely based on interpretation of available AMAGRAD survey data. Whilst these data were coarse the data provided a level of understanding of the potential for mineralisation on these two tenements. A number of areas on these two tenements were deemed to have potential and require follow up work and these areas have been retained. The ground that has been surrendered is considered to have low prospectivity and not needed for future exploration. Figure 4 shows details of the ground being retained and ground being relinquished for EL32688 and EL32690. EL32689 has been retained 100%. Shape files with details of retained and relinquished ground are presented in Appendix 1, including csv files with specific details of each subblock.

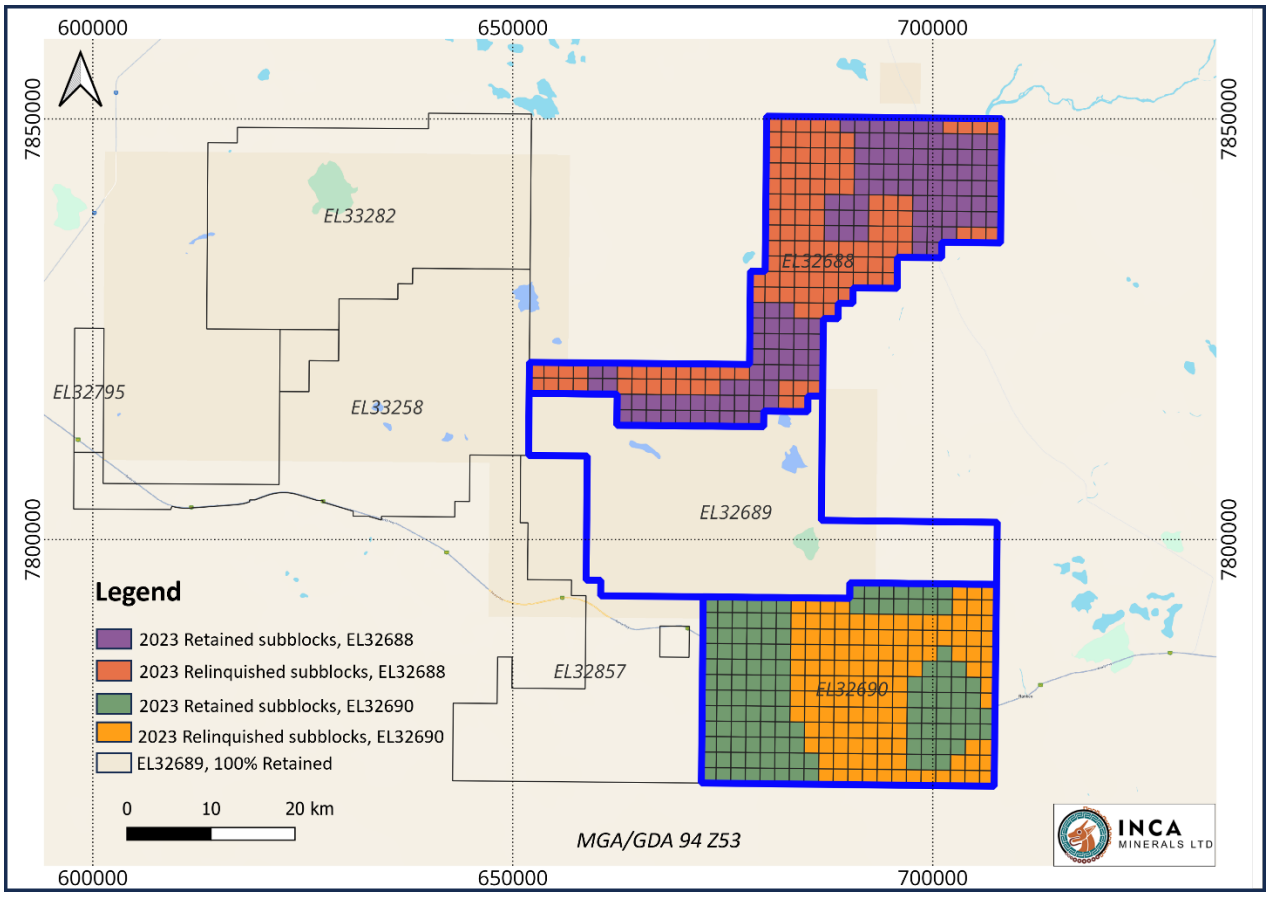

Figure 4: Frewena Frontier tenements (blue outlines) showing retained and relinquished subblocks. Also shown are other Inca Minerals tenements that make up part of the Frewena Group of tenements.

Reference to Figure 4 shows that the ground surrendered had little or no stand out geophysical responses/signatures. Whilst the data is coarse the low amplitude of the signatures leads Inca Minerals and MRG to believe that the surrendered ground is the least prospective of the tenements that are the subject of the mandatory ground surrender.

Further, it is believed that any decision to undertake more closely spaced but significantly higher cost ground geophysical surveys is not warranted on the basis of analysis of available data. Where there may be some exploration potential, for example in the far eastern corner of EL 32688 where there appears to be part of a basin which may have phosphate potential, the size of the area of potential interest is small and does not justify retention to the extent that it is not believed that it would yield an economic sized deposit, even if it was determined to have a phosphate resource.

8. Conclusions

Inca Minerals and MRG Resources conclude that the ground surrendered on Frewena Frontier EL's 32688 and 32690 is of low prospectivity potential and not worth retaining.

9. References

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Murr, J., 2019, *Iron oxide copper-gold (IOCG) mineral potential assessment for the Tennant Creek – Mt Isa region: geospatial data*, Geoscience Australia, Canberra

Wembenyui, E and West, J, 2023, Annual Report Frewena Frontier Project (EL 32688, EL 32689 & EL 32690), October 2023

Appendix 1: GIS SHAPE FILES WITH DETAILS OF RETAINED AND RELINQUISHED SUBBLOCKS IN EL'S 32688 AND EL32690