EL32032

Partial Relinquishment Report

for the period 09/07/2019 to 20/11/2023

Holder:	**Pinnacle Gold Pty Ltd**
Operator:	**DGR Global Limited**
Project Name:	**Blue Bush Bore**
Author:	**John Bierling**
Report Date:	**10 January 2024**
Commodity:	**Copper, Gold, Zinc, Lead, Silver, Cobalt**
Datum/Zone:	**GDA94/MGA Zone 53**
Map Sheets:	**Beetaloo 1:250,000 Sheet SE5306**
	Helen Springs 1:250,000 Sheet SE5310
	Monmoona 1:100,000 Sheet 5761
	Ucharonidge 1:100,000 Sheet 5762
Contact:	**NT@amets.com.au**

1 Abstract

This report presents exploration work conducted on a relinquished portion of EL32032 during the reporting period from grant on 9 July 2019 to cancellation on 20 November 2023. EL32032 is referred to as the Blue Bush Bore title, and is held by Pinnacle Gold Pty Ltd. The title lies approximately 160 km northeast of Tennant Creek. Pinnacle's interest in the Blue Bush Bore title stems from the successful 2017 Northern Australia Geochemical Survey (NAGS), which identified several highly anomalous drainage catchments which contain a series of gold, copper and arsenic MMI anomalies that have a broad spatial correlation with a series of moderately-dipping AEM conductive anomalies. Pinnacle conducted a review of historical exploration, analysis of NAGS geochemical anomalies, interpretation of Geoscience Australia airborne EM data, and analysis of borehole hydrological sampling. EL32032 is transected by two Geoscience Australia AEM survey lines. NTGS conducted ground gravity surveys over EL32032 and the surrounding area; this gravity data is open-file. On 20 November 2023 40 blocks were relinquished in response to a Partial Cancellation Notice issued by the DITT. Blocks were selected for relinquishment based on benign responses for magnetic and/or gravity anomalies, and/or partially covering off-tenure magnetic and/or gravity anomalies.

2 Copyright

Table of Contents

List of Figures

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3 Introduction

This report presents exploration work conducted on a relinquished portion of Exploration Licence (EL) 32032 (the title) during the reporting period from grant on 9 July 2019 to cancellation on 20 November 2023.

EL32032 is referred to as the Blue Bush Bore title, and is held by Pinnacle Gold Pty Ltd (Pinnacle). The title is operated by DGR Global Limited, who holds 94.34% of shares in Pinnacle.

On 20 November 2023 40 blocks were relinquished in response to a Partial Cancellation Notice issued by the Northern Territory Department of Industry, Tourism and Trade (DITT) to Pinnacle on 28 September 2023.

3.1 Location and Access

EL32032 is located in central Northern Territory, Australia. The title is located approximately 750 km southeast of the capital city of Darwin, and approximately 160 km north of the town of Tennant Creek (see Figure 1).

Access to EL32032 from Tennant Creek is via the Stuart Highway, then the Barkly Stock Route Road which intersects the northern part of the title. Unsealed tracks access the southern part of the title (see Figure 2). The Alice Springs – Darwin Railway is located approximately 75 km west of the title.

3.2 Title History

EL32032 was granted to Pinnacle on 9 July 2019, for a period of six years, and has an expiry date of 8 July 2025. The title initially covered an area of 200 blocks (652.83 km^2).

On 28 September 2023 DITT issued a Partial Cancellation Notice to Pinnacle, requiring the cancellation of 83 blocks from EL32032 as a result of underspending on the title during Years 3 and 4 of tenure. On 30 October 2023 Pinnacle requested that the number of blocks to be cancelled be amended to 40. On 20 November 2023 40 blocks were cancelled, resulting in the title currently covering 160 blocks (see Figure 3).

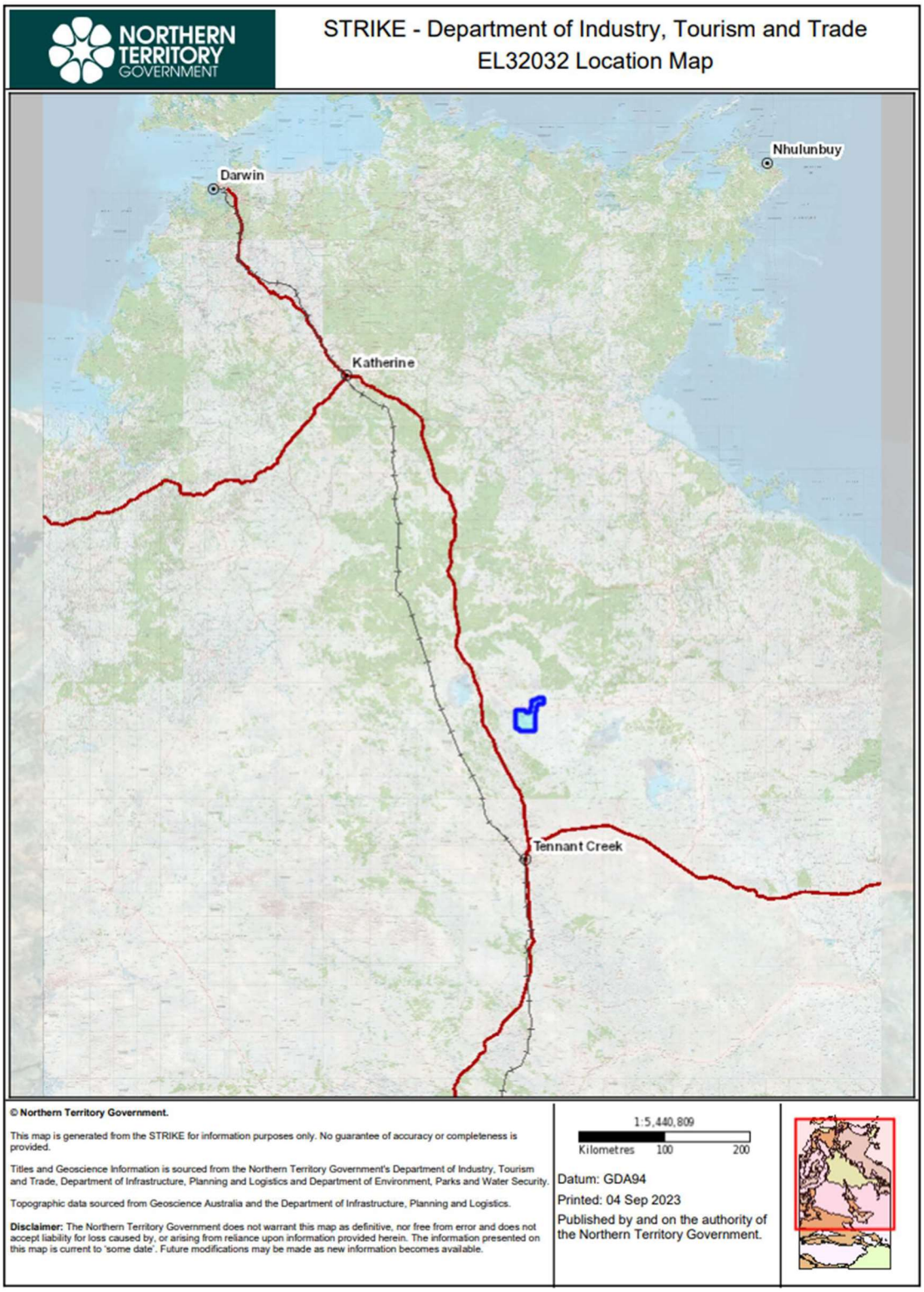

Figure 1: EL32032 location plan *(Source: STRIKE Northern Territory Government, 2023)*

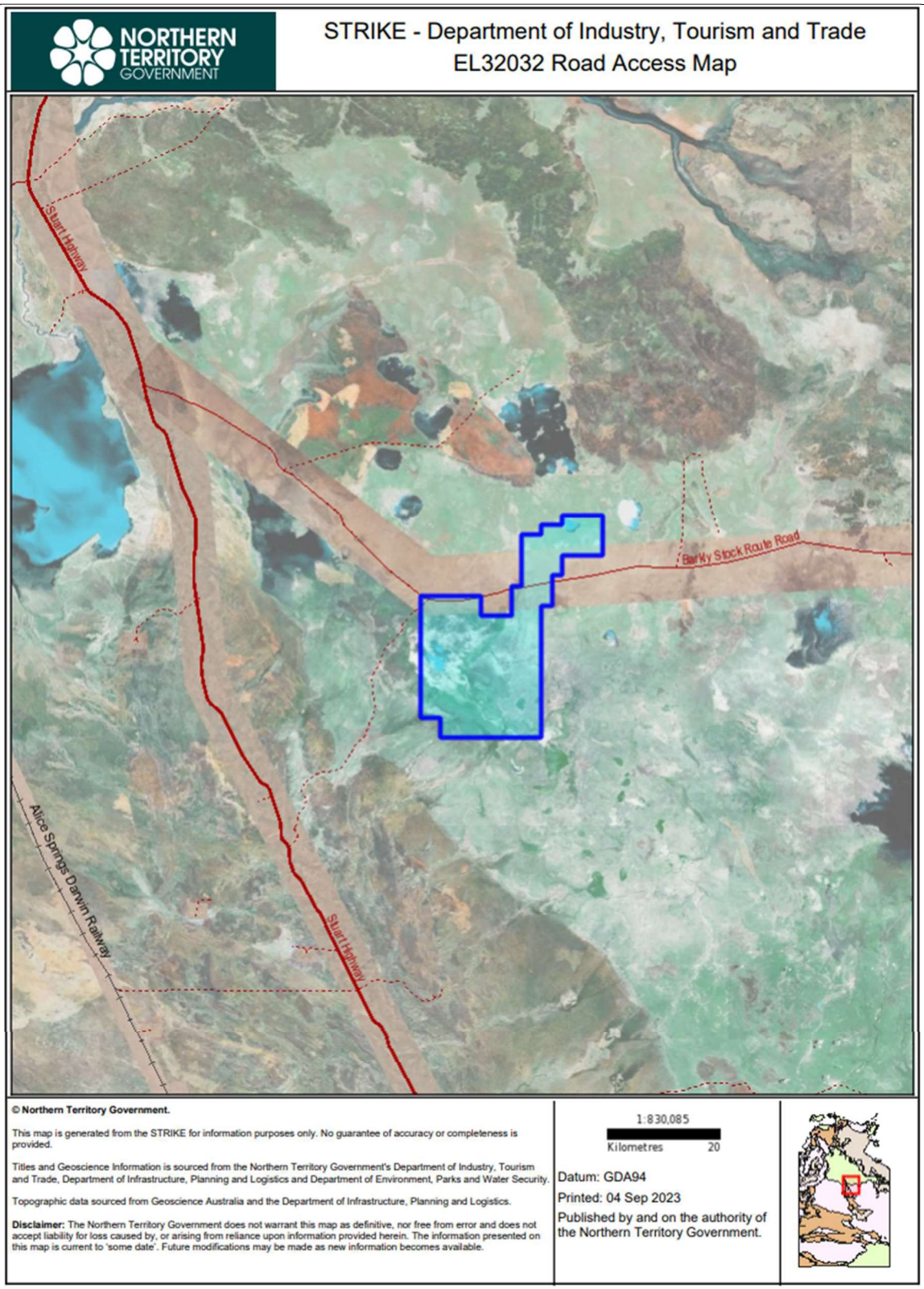

Figure 2: EL32032 access plan *(Source: STRIKE Northern Territory Government, 2023)*

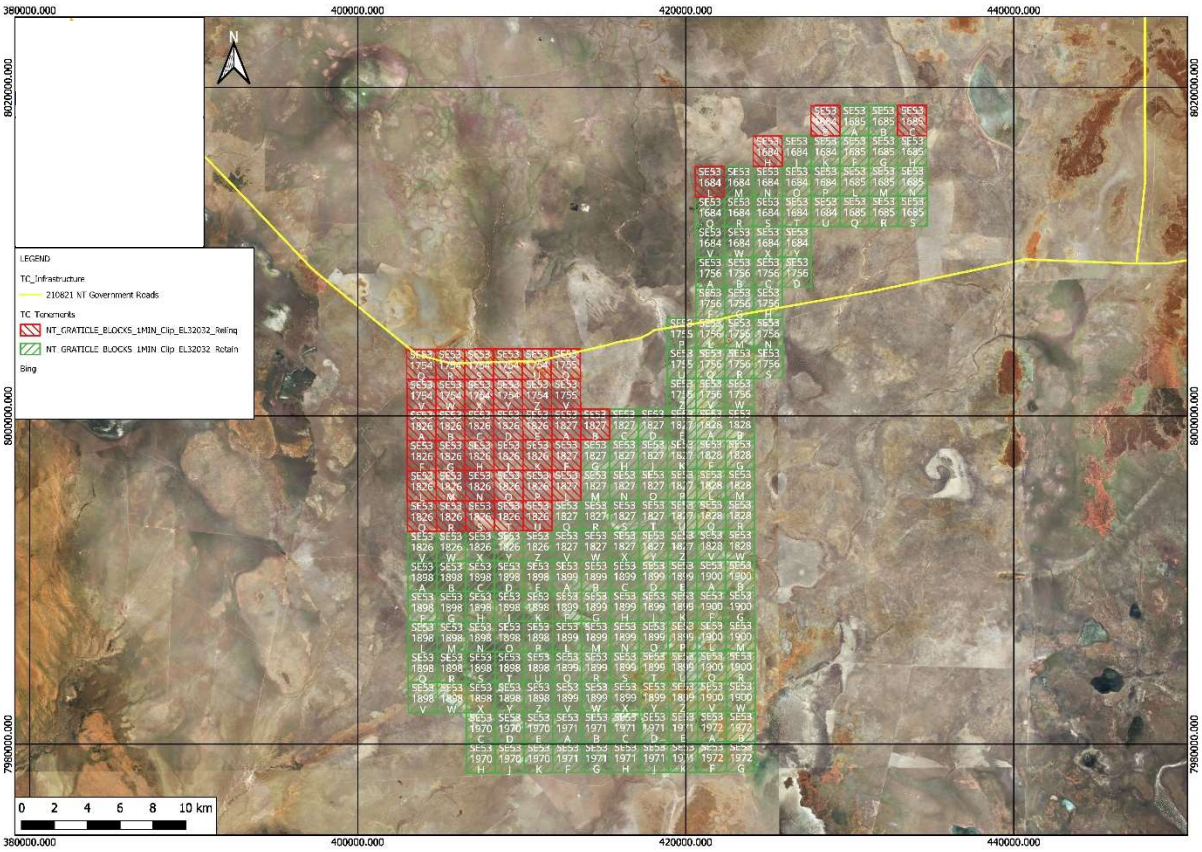

Figure 3: Cancelled blocks, EL32032

4 Geological Setting

4.1 Regional Geology

EL32032 is located to the east of the Tomkinson Creek Province, and largely overlies the Georgina Basin; some portions of the title are located in the Carpentaria Basin.

The title lies on the Helen Springs 250k map sheet. The Helen Springs 250k map sheet lies within the central northern Georgina Basin, which preserves a relatively thin (up to 440 m), flat-lying to gently folded platform succession of Middle Cambrian age (see Figure 4). In addition, the underlying Early Cambrian Helen Springs Volcanics of the Kalkarindji Province is widespread in the subsurface. This Cambrian succession collectively attains a known maximum thickness of 490 m. The Georgina Basin extends to the north where it continues beneath the onshore Carpentaria Basin. South of the Brunette Downs map sheet the Georgina Basin thickens to 1,500-2,000 m, and includes rocks of Neoproterozoic to Ordovician and Devonian age (720-416 Ma). Along the southern basin margin, these rocks have experienced several episodes of tectonism and concomitant deformation (Kruse et al., 2010).

Adjacent basement to the central Georgina Basin belongs to the North Australian Craton (NAC). It is exposed to the south and west (Tennant Region), and to the north and east (McArthur and South Nicholson Basins and Lawn Hill Platform) (see Figure 4). The geology of the Tennant Creek region has been documented by Donnellan et al. (1995), and a chronological framework was independently developed by Compston (1995).

Further afield, the McArthur Basin to the north contains an unmetamorphosed and relatively undeformed platform-cover succession of Middle Palaeoproterozoic to Late Cambrian carbonate, siliciclastic and volcanic rocks, altogether 5-15 km thick. The sedimentary succession in the immediate southern McArthur Basin region ranges from Late Palaeoproterozoic (~1,800 Ma) to late Cambrian. Key structural features in this southern region are the Wearyan Shelf to the east (extending into Queensland), and the Bauhinia Shelf to the west, separated by the north-south trending Batten Fault Zone. The series of west-dipping faults that now constitutes the Batten Fault Zone is the product of major, eastward-propagating post-1,450 Ma thrusting (Rawlings et al., 2004). The Batten Fault Zone extends into the northern Walhallow map sheet, immediately north of the Brunette Downs map sheet. The McArthur Basin is abutted to the southeast successively by the pre-orogenic Murphy Inlier (Middle Palaeoproterozoic), and in turn, by the post-orogenic South Nicholson Basin (Mesoproterozoic) and Lawn Hill Platform (Late Palaeoproterozoic). All these terranes continue into Queensland, the latter two as elements of the Mount Isa Inlier.

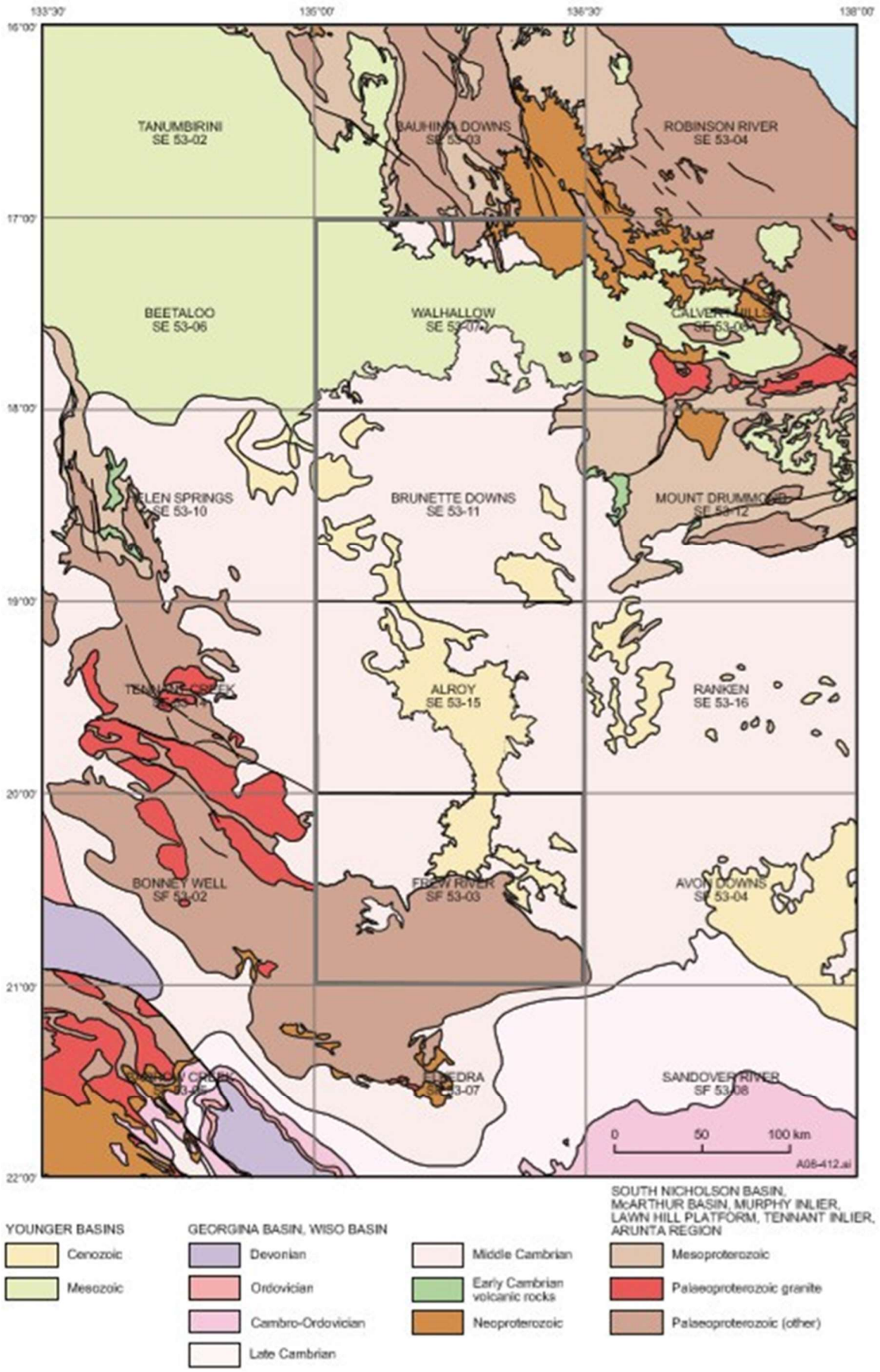

Figure 4: Regional geological setting of the Brunette Downs 250k geological map sheet

4.2 Local Geology

The oldest rocks form a greenschist-facies, turbiditic flysch sequence of lithic and tuffaceous arenite, wacke, siltstone, mudstone and argillaceous banded ironstone called the Warramunga Formation (see Figure 5). The depositional age is ~1,860 Ma. The Warramunga was intruded by I-type granitoids (including the Tennant Creek Granite), quartz feldspar porphyry and minor mafic bodies of the Tennant Creek Supersuite (Wyborn et al., 1998) during the (D1) Barramundi Orogeny (~1,850 Ma). The Warramunga Formation is host to the Tennant Creek-style massive ironstone-hosted gold-copper-bismuth mineralisation of the Tennant Creek Goldfield, which has produced in excess of 5,000,000 oz of gold to date. There are several models proposed for the formation of Tennant Creek mineralisation, including both single (Large, 1975) and two-stage processes. The two-stage model involves the deposition of structurally-controlled ironstone during D1 regional greenschist metamorphism, that later reacts with oxidised to reduced Au-Cu-Bi rich hydrothermal fluids (Skirrow, 2000).

The Flynn Group, aged between 1,855 and 1,820 Ma, unconformably overlies the Warramunga Formation and comprises predominantly subaerial volcanic rocks and associated shallow water volcaniclastic and clastic sedimentary rocks. Diorite and monzodiorite intrude the Flynn Group. A second (D2) deformation event (1,830-1,790 Ma) affects the Warramunga Formation and Flynn Group, and is probably contemporaneous with the early Strangways Orogeny (pre-1,780 Ma). Mineralisation may be related to this event. Tennant Creek deposits have an age range of ~1,830-1,825 Ma (Compston & McDougall, 1994).

The Tomkinson Creek and Hatches Creek Groups are inferred to unconformably overlie the Flynn Group in the north and south of the Tennant Creek region, respectively. They comprise a molasse sequence of lithic and quartz arenite, with subordinate siltstone, carbonate and volcanic rocks. A third phase of deformation (Davenport Orogeny) and syn-tectonic ~1,710 Ma magmatism (Devils Suite of Wyborn et al., 1998) postdates the Tomkinson Creek Group. The Devils Suite is a series of fractionated I-type granites, represented by the Warrego Granite in the Tennant Creek region. The Palaeozoic succession around the Tennant Inlier is represented by basic to intermediate volcanic rocks of the Helen Springs Volcanics (early Cambrian), and mid Cambrian carbonate-dominated stratigraphy of the Wiso and Georgina Basins.

The nature of the Proterozoic basement within the title is unknown due to the absence of historical work, in particular drill-testing of the basement. It is considered most likely to be the Tomkinson Group or the Warramunga Group, based on the proximity of known outcropping areas of these rocks. Geochemical anomalism is likely sourced from this Proterozoic basement that sits beneath potentially relatively thin, flat-lying Georgina Basin and Helen Springs cover sequences. Tomkinson Group outcropping exposures are located within 50 km to the west of EL32032.

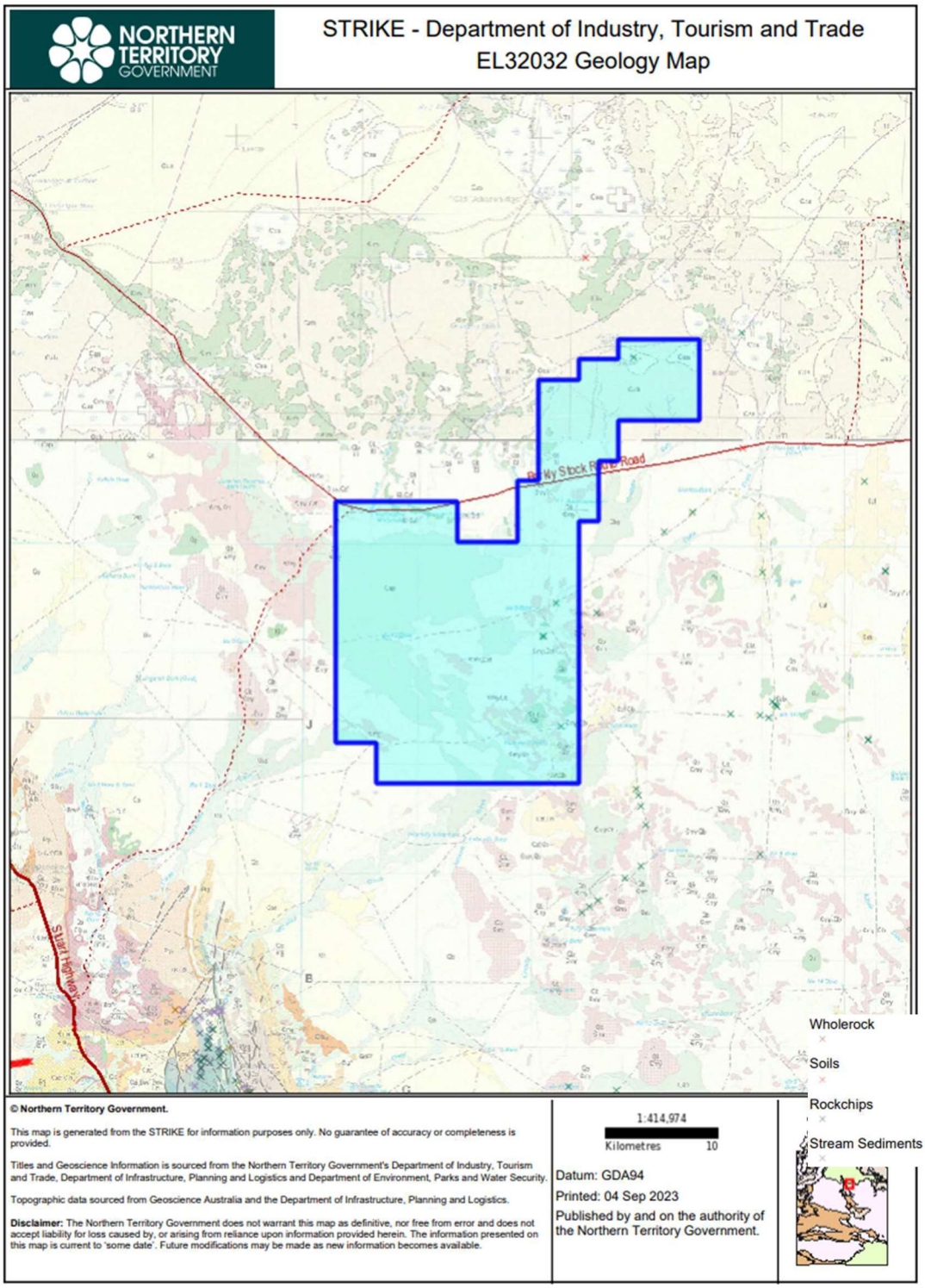

Figure 5: Geological mosaic map of EL32032 & surface sample locations *(Source: STRIKE Northern Territory Government, 2023)*

5 Exploration History

Almost no historical exploration has been conducted within and adjacent to EL32032. Previous work is restricted to aerial photo-based 250k geological mapping (1966, updated in 2010), regional stratigraphic drilling by the Northern Territory Geological Survey (NTGS) (drill holes BN04DD01 and NTGS02_01), the 2017 Northern Australia Geochemical Survey (NAGS) conducted by Geoscience Australia (Geoscience Australia, 2023), and a 4 km line-spacing airborne electromagnetic (EM) survey conducted by Geoscience (Geoscience Australia, 2023).

6 Exploration Rationale

The title has received limited historical exploration, despite the interpreted prospective Proterozoic basement being relatively close to surface (<100 m).

Pinnacle's interest in EL32032 stems from the successful 2017 NAGS, which identified several highly anomalous drainage catchments within EL32032 which contain a series of gold, copper and arsenic mobile metal ion (MMI) anomalies that have a broad spatial correlation with a series of moderately-dipping airborne EM (AEM) conductive anomalies (Geoscience Australia, 2023).

AEM survey data indicates that the title is overlain by flat-lying conductive cover between 50 and 200 m thick. AEM conductors are most likely associated with either carbonaceous or pyritic Proterozoic sedimentary rocks, and are considered the most likely source of MMI geochemical anomalism.

The Blue Bush Bore project is adjacent to Encounter Resources Limited's Elliot Project, which is focused on a 50 km copper in borehole hydrogeochemical anomaly along the southwestern flank of the Beetaloo Sub-Basin. EL32032 is located approximately 40 km north of the Bootu Creek manganese mine, adding to the mineralisation potential of the title.

Assessment of airborne EM, SEEBASE, magnetic, NAGS and borehole hydrogeochemical data indicate that EL32032 occupies a highly prospective structural position within the southern closure of the Beetaloo Sub-Basin. The title has the potential to host a significant sediment-hosted base metal deposit, either as an early Zn-Pb-Ag or later Cu-Co type system.

7 Work Conducted During the Reporting Period

From 2020 to 2022 field work was restricted by access restrictions related to the Covid-19 pandemic. Pinnacle conducted a review of historical exploration, analysis of NAGS geochemical anomalies (see Figures 6 - 8), interpretation of Geoscience Australia airborne EM data (Geoscience Australia, 2023), and analysis of borehole hydrological sampling data.

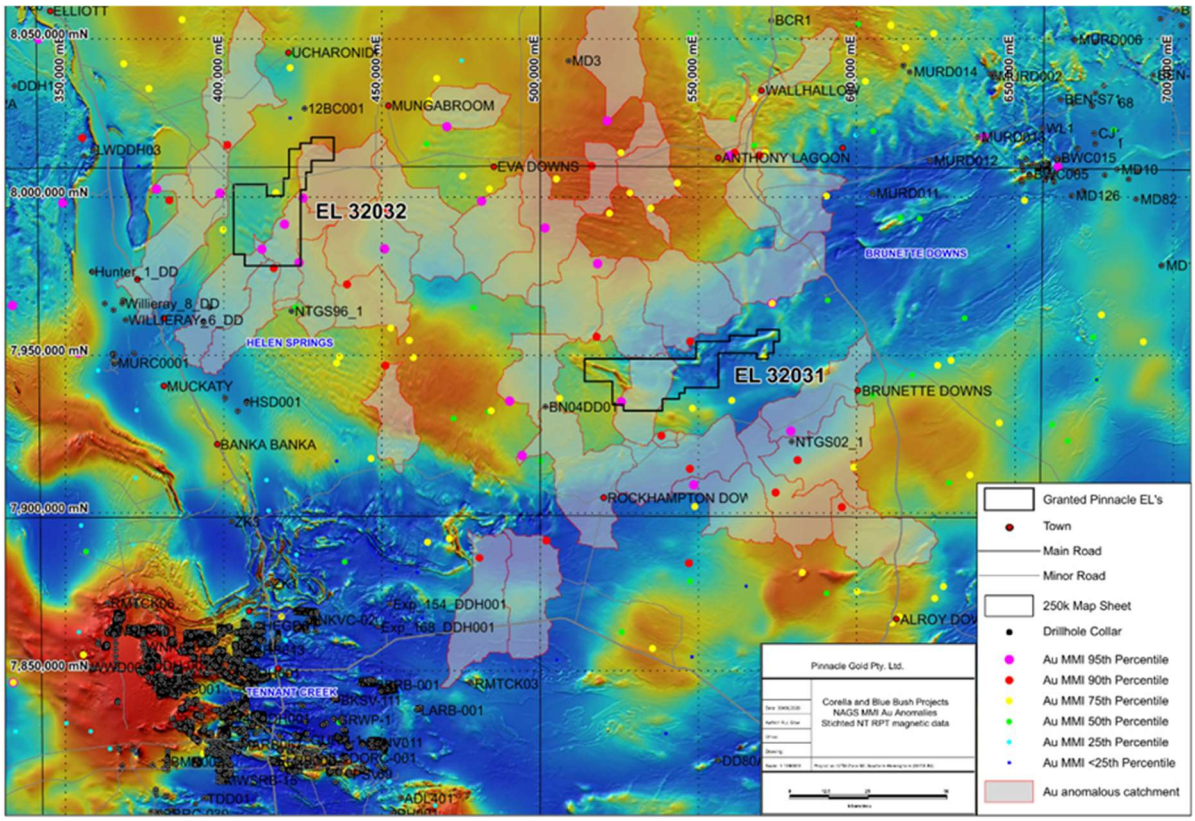

Figure 6: NT stitched RTP magnetic image of the Tennant Creek region showing anomalous gold MMI catchments in relation to EL32032

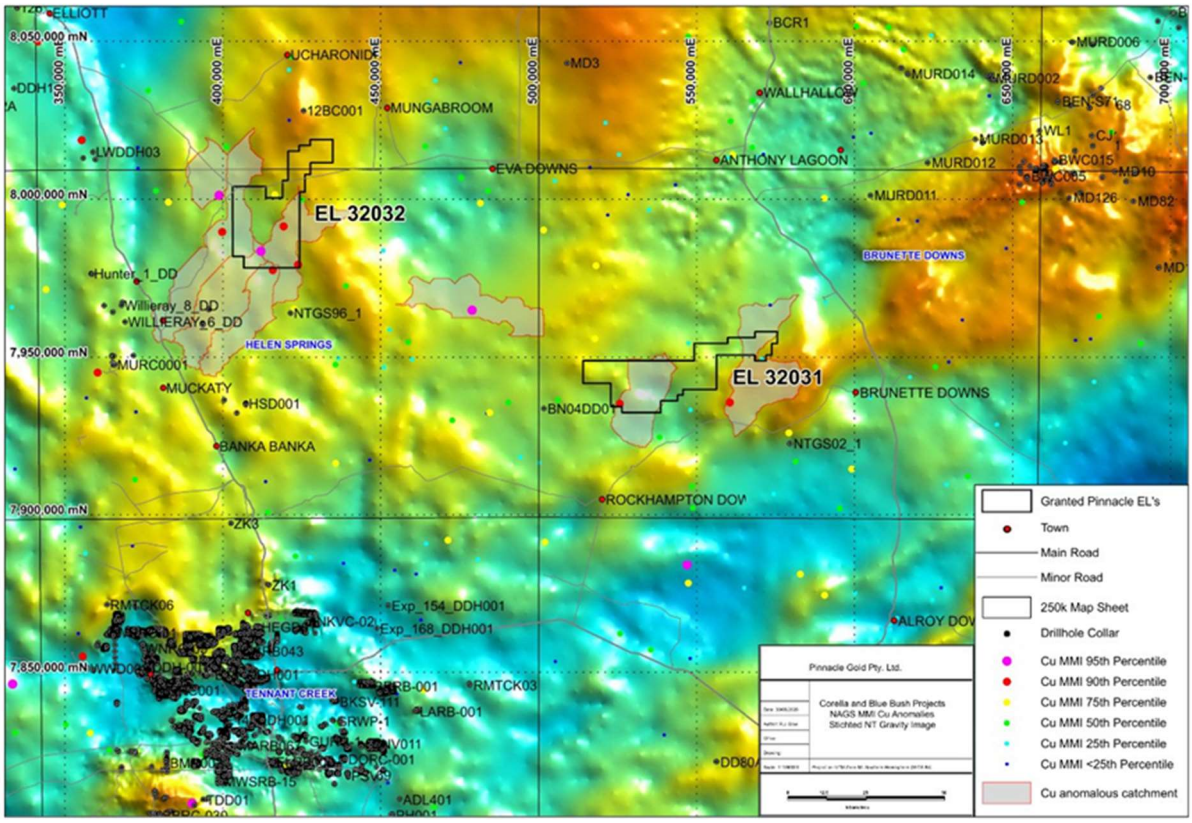

Figure 7: NT stitched gravity image of the Tennant Creek region showing anomalous copper MMI catchments in relation to EL32032

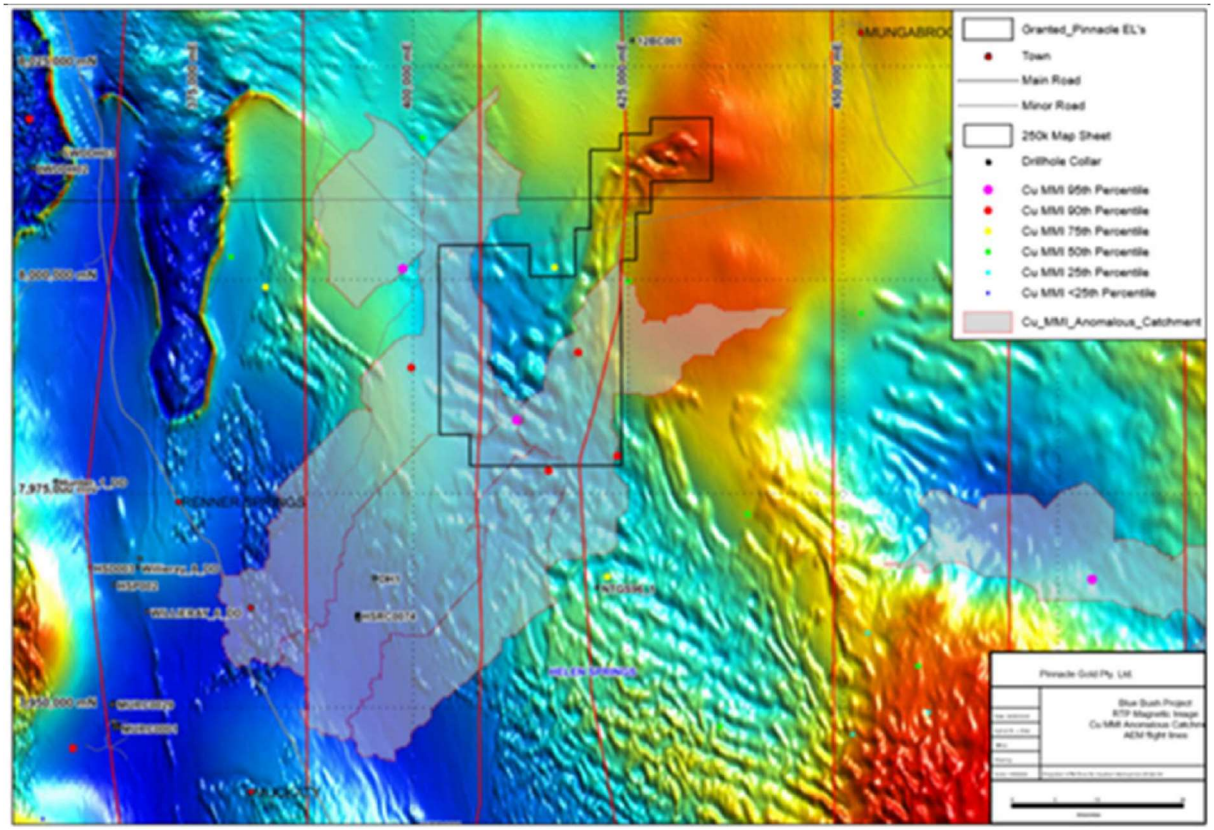

Figure 8: Enhanced RTP magnetic image of EL32032 showing anomalous Cu MMI catchments and AEM flight lines

EL32032 is transected by two Geoscience Australia AEM survey lines, 1120002_2 of 4 in the west and 1130002_2 of 4 in the east of the title (see Figures 8 - 10).

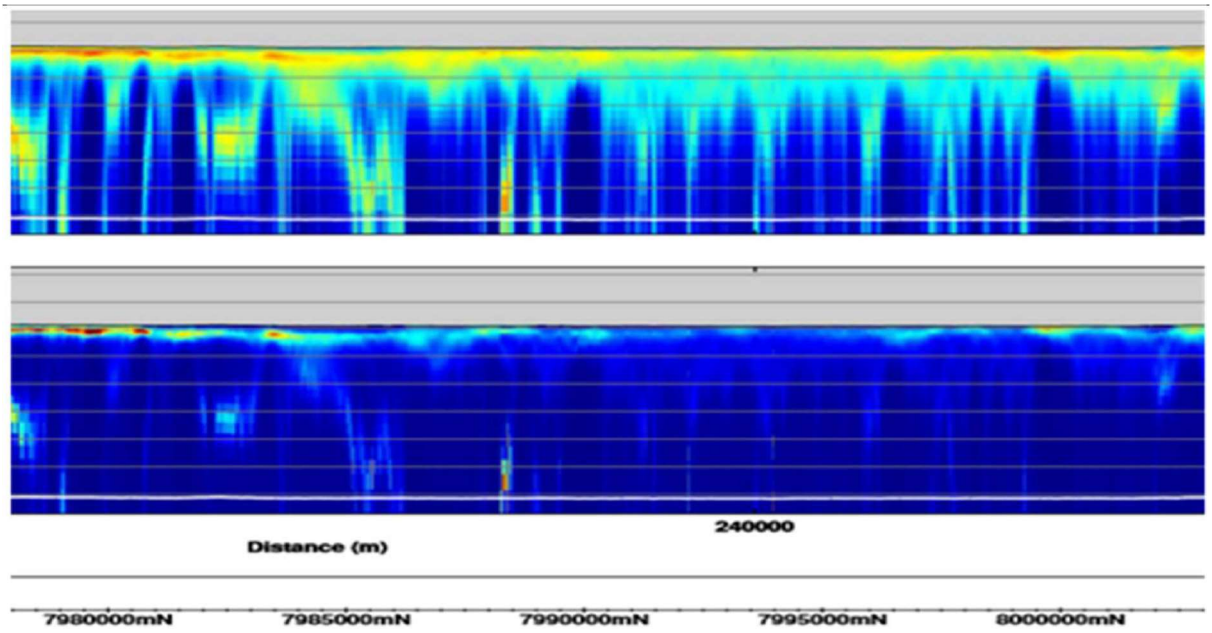

Figure 9: Geoscience Australia airborne EM survey line 1120002_2 of 4 covering the western half of EL32032 *(source: Geoscience Australia, 2023)*

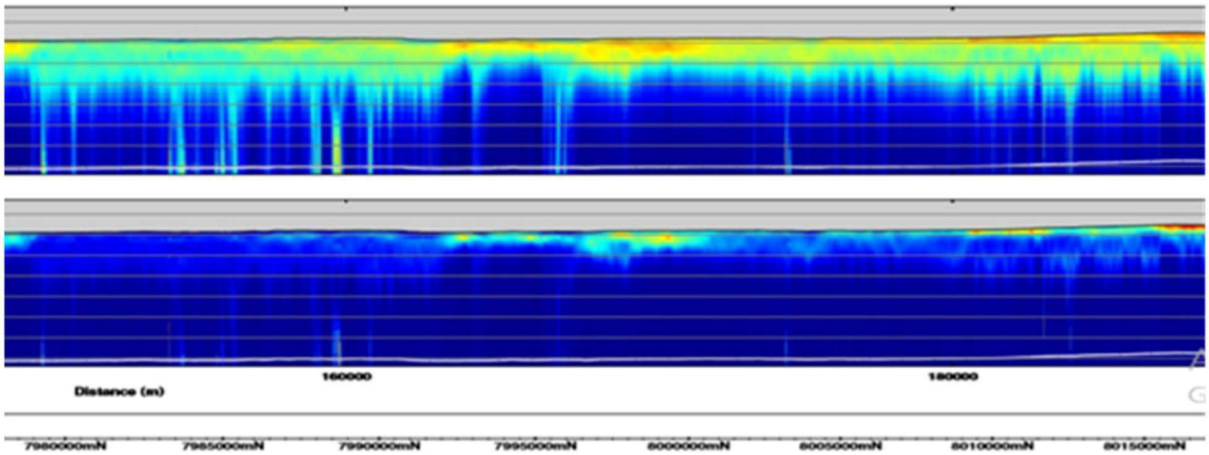

Figure 10: Geoscience Australia airborne EM survey line 1130002_2 of 4 covering the eastern half of EL32032 *(source: Geoscience Australia, 2023)*

The north and south limits of Figures 9 and 10 are defined by the title boundary. Grey horizontal lines are 100 m depth intervals.

NTGS conducted ground gravity surveys over the southern part of EL32032, to infill existing data from 4 km to 2 km. Pinnacle Gold participated in this program to reduce the spacing further to a 1 km grid in the southern area of EL32032 (see Figure 11). This gravity data is open-file (Northern Territory Government, 2023).

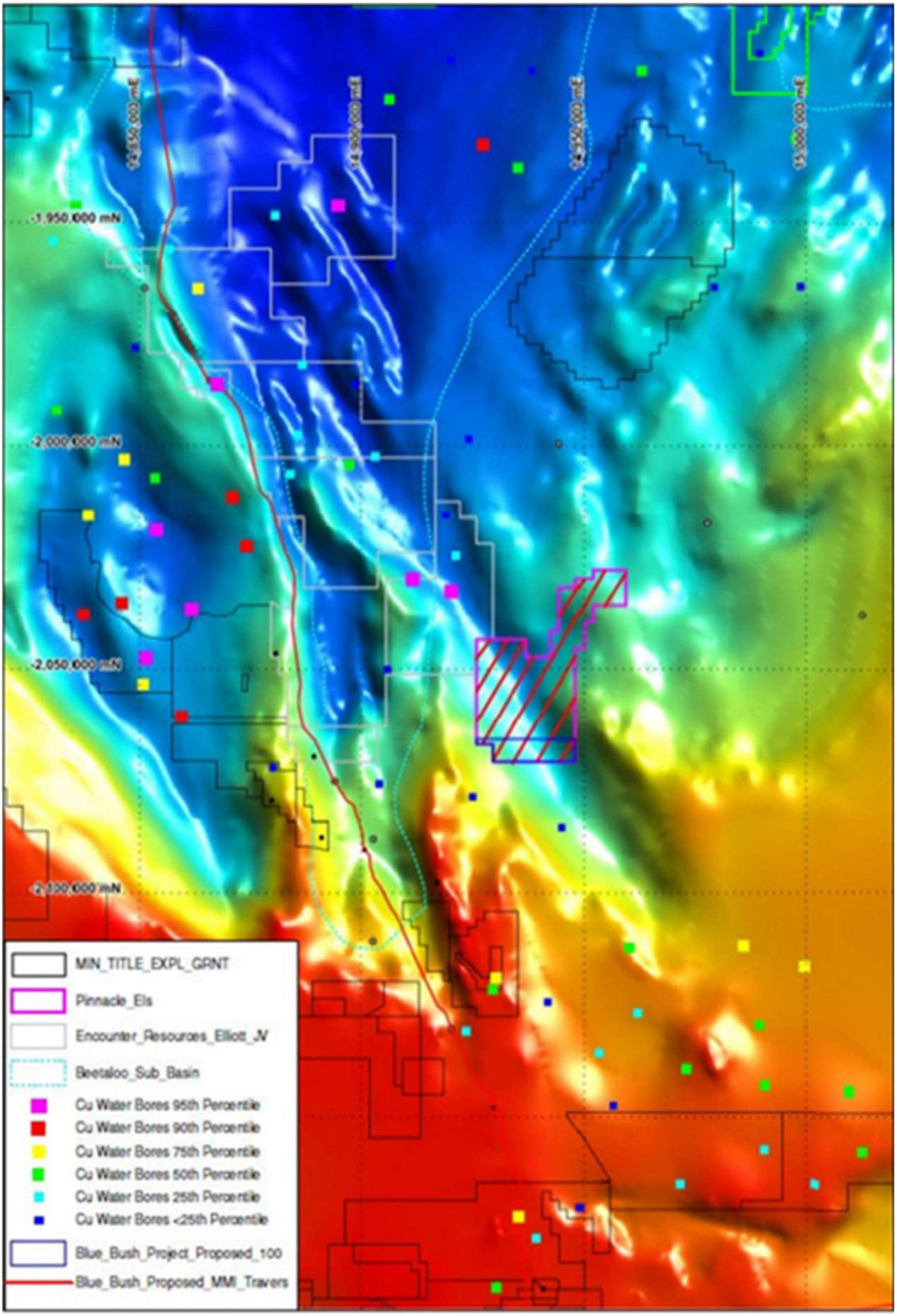

Figure 11: SEEBASE 2020 image of the southern closure of the Beetaloo Sub-Basin showing EL32032 straddling a significant northwest-trending basement structure

The blue polygon indicates the area of infill gravity stations to a 1km grid.

The NTGS Brunette Downs ground gravity survey covered an area of 57,000 km² just north of Tennant Creek and extending to the Northern Territory – Queensland border. The data from this gravity survey can be accessed on the GEMIS website (GEMIS, 2022).

8 Rationale for Surrender

On 28 September 2023 DITT issued a Partial Cancellation Notice to Pinnacle, requiring the cancellation of 83 blocks from EL32032 as a result of underspending on the title during Years 3 and 4 of tenure. Pinnacle requested that the number of blocks to be cancelled be amended to 40.

Pinnacle Gold Pty Ltd evaluated the shape of EL32032 in relation to the configuration of the magnetic and gravity anomalies compiled into various national grids by Geoscience Australia. The grids provide granular resolution to identify anomalies of interest within EL32032. Blocks were selected for relinquishment based on:

1. Benign responses for magnetic and/or gravity anomalies; and/or
2. Partially covering off-tenure magnetic and/or gravity anomalies.

On 20 November 2023 40 blocks were cancelled.

9 References

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