

Typhon Minerals Pty Ltd

EL31534 Illogwa Project

Annual report for the period:
2 January 2023 to 1 January 2024

Target Commodities: Cu, Co, Ni, PGE's, Au, Ag

Illogwa SF5315 and Alice Springs SF5314 (1:250,000)
6051 Brahma, 5951 Quartz, 5851 Riddoch, 5950 Limbla and 6050 Illogwa (1:100,000)

Prepared by Typhon Minerals Pty Ltd
26 February 2024

Abstract

- EL31534 (Project) is located approximately ~145km ENE of Alice Springs and comprises three separate areas.
- Previous exploration and mineral development activities in the general Project area have highlighted several Cu-Co and Ni-Cu-PGE anomalies.
- Typhon is assessing the Project for Basil-style Cu-Co sulphide deposits, Ni-Cu-PGE sulphide mineralisation associated with mafic and ultramafic intrusions, as well as alluvial Au deposits.
- The eastern portion of the Project adjoins EL26942 which covers the Basil Cu-Co deposit. There are a number of prominent faults and shear zones that extend from EL26942 into the Project area.
- Several mafic-ultramafic intrusions have been mapped within the Project area, or are inferred to be located under shallow cover. Some of these intrusions are located close to AEM anomaly's, and areas containing anomalous Cu and Ni rocks chip values.
- The rugged terrain at Mt Ruby in the far western portion of the Project contains a number of untested AEM conductivity anomalies, as well as anomalous rock chip samples associated with compositionally layered sequences of the Riddock Amphibolite.
- The potential for the Project area to contain economic mineralisation appears to be good, and further exploration assessment work is warranted.

Contents

	<u>Page</u>
Abstract	2
1. Introduction	4
2. Tenure	4
3. Geology	9
4. Exploration History	12
5. Summary of work undertaken	12
6. Conclusion and recommendations	12
7. Confidentiality Statement	14
8. References	15

1. Introduction

The Project is located ~145km ENE of Alice Springs and comprises three separate areas that extend across portions of the Ambalindum, Indiana and Numery Stations (Figure 1).

The Project is located near EL26942, which covers the Basil Cu-Co deposit, as well as a number of important Cu-Co and Ni-Cu-PGE prospects, such as Manuel, Miggins, Bob and Hammerhead.

The Project can be accessed from the north via the Plenty Highway and station tracks, or from the south via the Ross Highway and station tracks.

All maps in this report are shown using the GDA94 Geographic datum in MGA94 using the Zone 53 projection.

2. Tenure

EL31543 was granted for a 6 year period commencing on 2 January 2019 and originally covered 77 sub-blocks (Figure 2; Table 1).

A total of 38 sub-blocks were relinquished from the Project during February 2023, leaving 39 retained sub-blocks (Figure 3).

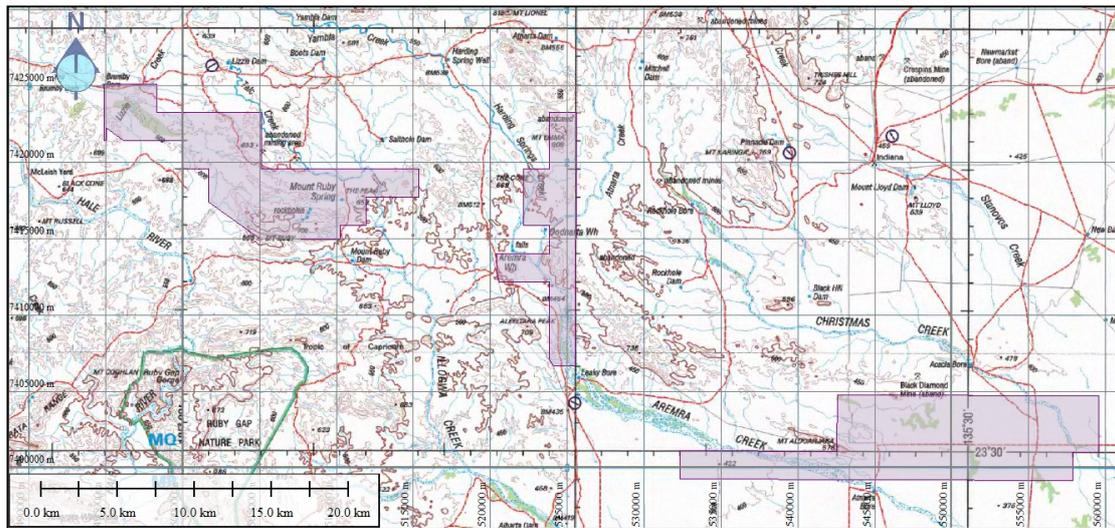


Figure 1: Location map (MGA94 zone 53).

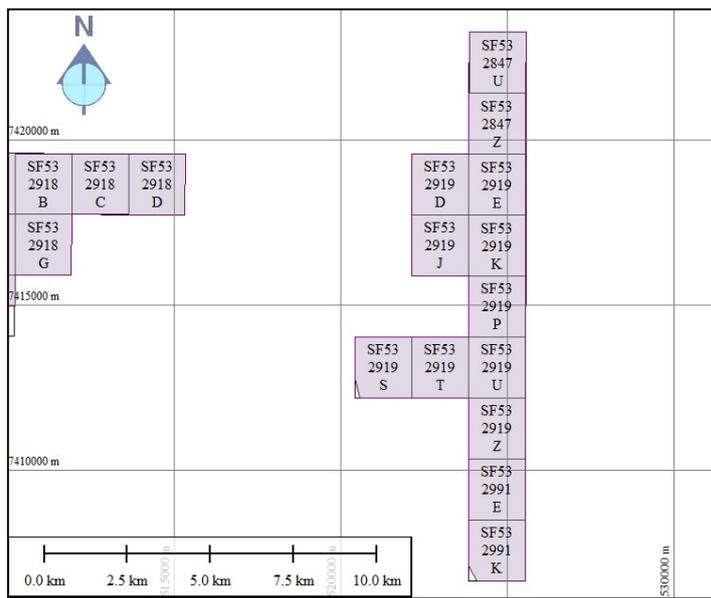


Figure 2: Tenement map (MGA94 Zone 53).

Table 1: Sub-Block List

NO	BLOCK	GRID_ID	BIM	SUB_BLOCK
1	2845	SF532845	SF53	V
2	2845	SF532845	SF53	W
3	2845	SF532845	SF53	X
4	2847	SF532847	SF53	Z
5	2917	SF532917	SF53	B
6	2917	SF532917	SF53	C
7	2917	SF532917	SF53	D
8	2917	SF532917	SF53	E
9	2918	SF532918	SF53	A
10	2918	SF532918	SF53	B
11	2918	SF532918	SF53	C
12	2918	SF532918	SF53	D
13	2919	SF532919	SF53	D
14	2919	SF532919	SF53	E
15	2844	SF532844	SF53	S
16	2844	SF532844	SF53	T
17	2844	SF532844	SF53	U
18	2845	SF532845	SF53	Q
19	2845	SF532845	SF53	R
20	2845	SF532845	SF53	S
21	2847	SF532847	SF53	U
22	2844	SF532844	SF53	N
23	2844	SF532844	SF53	O
24	2994	SF532994	SF53	Q
25	2994	SF532994	SF53	R
26	2994	SF532994	SF53	S
27	2994	SF532994	SF53	T
28	2994	SF532994	SF53	U
29	2995	SF532995	SF53	Q
30	2995	SF532995	SF53	R
31	2995	SF532995	SF53	S
32	2995	SF532995	SF53	T
33	2995	SF532995	SF53	U
34	3064	SF533064	SF53	E
35	3065	SF533065	SF53	A
36	3065	SF533065	SF53	B
37	3065	SF533065	SF53	C
38	3065	SF533065	SF53	D
39	3065	SF533065	SF53	E
40	3066	SF533066	SF53	A
41	3066	SF533066	SF53	B
42	3066	SF533066	SF53	C
43	3066	SF533066	SF53	D
44	3066	SF533066	SF53	E
45	3067	SF533067	SF53	A
46	3067	SF533067	SF53	B
47	3067	SF533067	SF53	C
48	3067	SF533067	SF53	D
49	2994	SF532994	SF53	V
50	2994	SF532994	SF53	W
51	2994	SF532994	SF53	X
52	2994	SF532994	SF53	Y
53	2994	SF532994	SF53	Z
54	2995	SF532995	SF53	V
55	2995	SF532995	SF53	W
56	2995	SF532995	SF53	X
57	2995	SF532995	SF53	Y
58	2995	SF532995	SF53	Z
59	2917	SF532917	SF53	N
60	2917	SF532917	SF53	O
61	2917	SF532917	SF53	P
62	2918	SF532918	SF53	L
63	2919	SF532919	SF53	P
64	2991	SF532991	SF53	E
65	2919	SF532919	SF53	S
66	2919	SF532919	SF53	T
67	2919	SF532919	SF53	Z
68	2919	SF532919	SF53	U
69	2991	SF532991	SF53	K
70	2917	SF532917	SF53	G
71	2917	SF532917	SF53	H
72	2917	SF532917	SF53	J
73	2917	SF532917	SF53	K
74	2918	SF532918	SF53	F
75	2918	SF532918	SF53	G
76	2919	SF532919	SF53	J
77	2919	SF532919	SF53	K

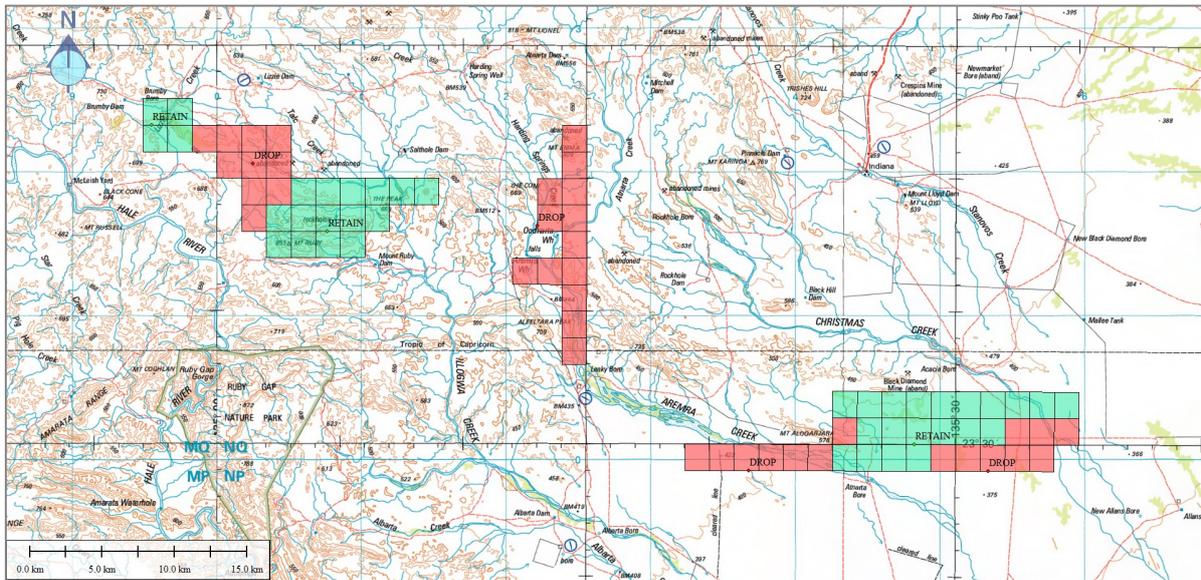


Figure 3: Tenement map showing relinquished (red shading) and retained (green shading) sub-blocks during February 2023. (MGA94 Zone 53).

3. Geology

The Project lies within the Cambrian aged Irindina Province and the Proterozoic Aileron Province of the south-eastern Arunta Inlier (Figures 4 and 5).

The Irindina Province comprises the Harts Range Group, a volcanosedimentary succession that was metamorphosed to granulite facies during the Ordovician Larapinta Event (~475-460 Ma). Litho-stratigraphical and geochronological data indicate that the Harts Range Group correlates with Neoproterozoic to Cambrian sediments of the adjacent Amadeus and Georgina Basins. Therefore, the Harts Range Group was probably deposited in a basin contiguous with, and possibly linking, the Amadeus and Georgina Basins.

While the Harts Range Group was metamorphosed to granulite-facies, sedimentation is interpreted to have continued in the Amadeus and Georgina Basins. Structural and lithological evidence suggest that the Larapinta Event was extensional, with very deep burial required for the measured metamorphic conditions (30-35 km). Such an event was probably associated with mantle melting. The numerous mafic and ultramafic units found throughout the Irindina Province, although their timing is poorly constrained, may have intruded during the Larapinta Event. These intrusions are considered prospective for Ni-Cu-PGE sulphide deposits.

The Harts Range Group and Amadeus and Georgina Basins were structurally inverted and brought to the surface during the mid-Palaeozoic Alice Springs Orogeny (450-300 Ma). Seismic traverse 09GA-GA1 shows that faults in the region form part of a major, north-dipping mid-crustal detachment that separates Irindina Province rocks the Aileron Province (Figure 5).

Exploration in the general region of the Project has identified significant sulphide-hosted Cu-Co mineralisation at the Basil Deposit (Inferred Resource of 26.5 Mt @ 0.57% Cu and 0.05% Co), as well as orthomagmatic Ni-Cu-PGE sulphide mineralisation at Blackadder and Baldrick Prospects (drill intercept of 9m @ 0.48% Ni and 0.37% Cu; Figure 4).

The Project covers units of the Riddock Amphibolite Member which contains variably deformed metagabbro intercalated with amphibolite and minor metapsammopelitic rocks.

The Basil Cu-Co deposit is located within a 10 km-long zone of hydrothermal alteration containing zones of massive, stringer and disseminated pyrite, pyrrhotite and chalcopyrite within the Riddock Amphibolite.

The genesis of the Basil deposit is not well understood due to extensive metamorphic overprinting. The two most likely options appear to be: 1) a metamorphosed orthomagmatic system; or 2) a metamorphosed volcanic-hosted massive sulphide system (e.g. Sharrad et. al., 2014).

A recent Geoscience Australia study highlighted the significant Ni-Cu-PGE potential of the mafic-ultramafic intrusions in the general application area (Duffer et al., 2016, GA Record 2016-001; see also Meixner and Hoatson, 2003, GA Record 2003/29, for further discussion of the Riddock Amphibolite).

Approximately 50% of the area is covered by a veneer of aeolian and colluvial sand and gravel.

The Project is considered prospective for;

- Ni-Cu-PGE mineralisation associated with mafic and ultramafic intrusions
- “Basil type” Cu-Co semi-massive sulphides
- Vein-style REE-Th mineralisation
- Uranium mineralisation

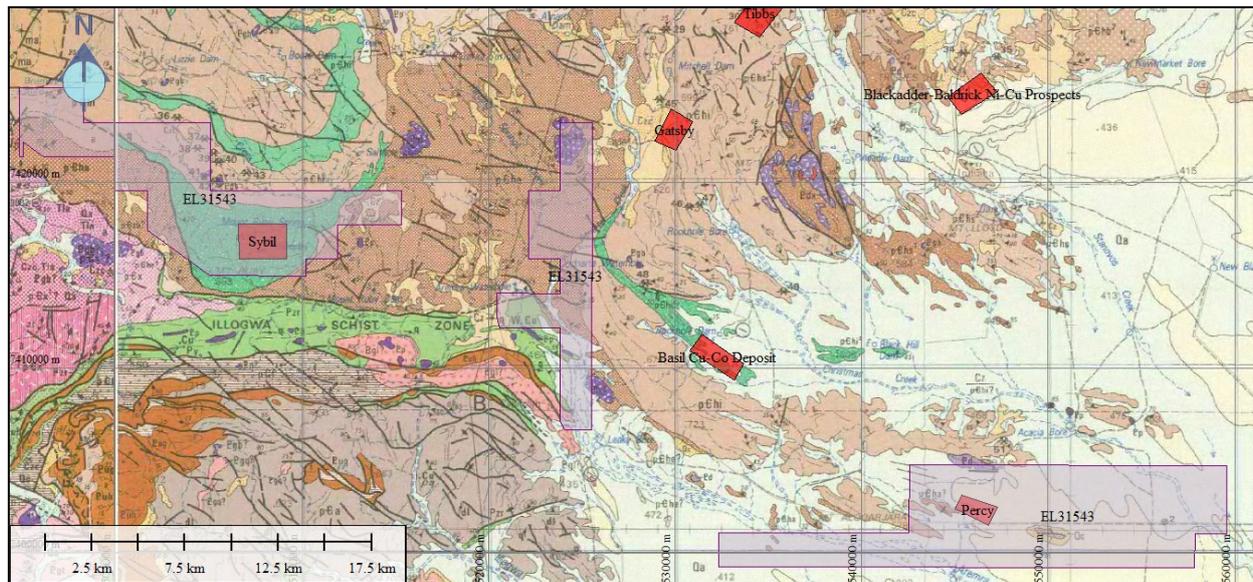


Figure 4: Regional geological map (1:250,000 NTGS mapping; MGA94 Zone 53). For lithological legend, please see the published Illogwa SF5315 and Alice Springs SF5314 maps.

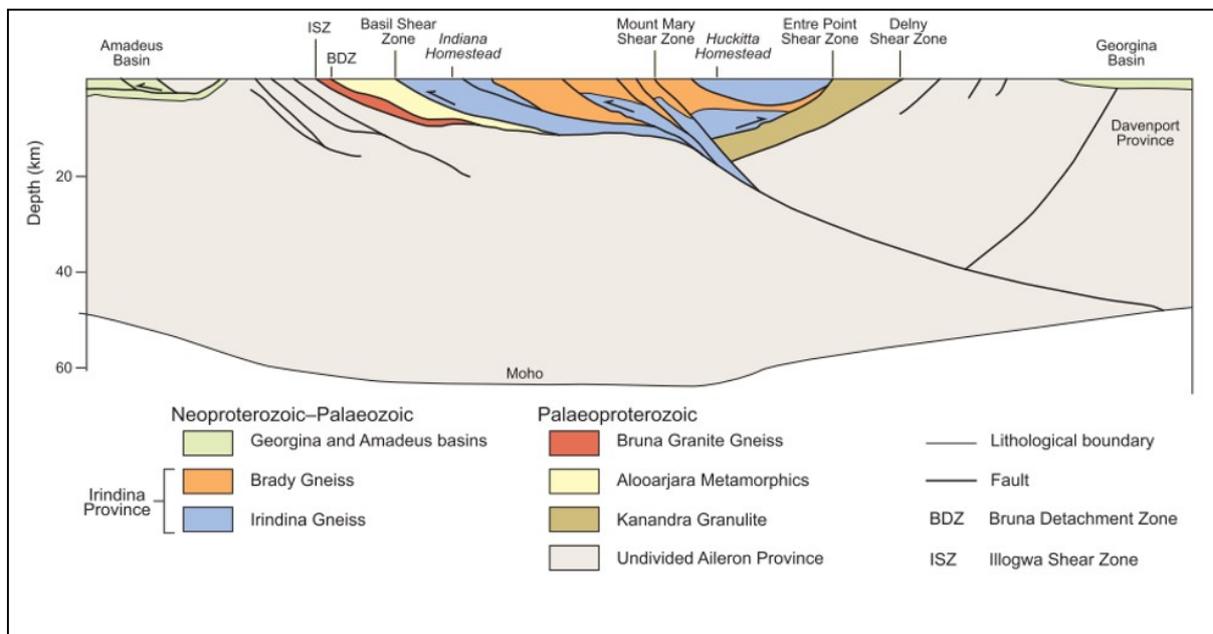


Figure 5: Interpreted migrated seismic section from seismic line 09GA-A1 showing large scale crustal structures along the southern margin the Irindina Province (modified after Scrimgeour, 2011).

4. Exploration history

The area within and surrounding the Project has previously been explored by a number of companies including Mithril Resources, MMG, BHP, Red Metal and Western Desert. Previous work included mapping, stream sediment, soil and rock chip sampling, ground and airborne magnetic and electromagnetic surveys, and AC, RC and DC drilling. The work located multiple gabbroic intrusions with potential to host magmatic Ni-Cu-PGE sulphide deposits. The AEM/GEM surveys identified a number of mid- to late-time bedrock responses. Large tonnages of Cu-Co mineralisation were defined at the Basil Deposit.

5. Summary of work undertaken

An integrated study, incorporating bedrock geology, drilling, remote sensing and geophysical datasets (e.g. Figures 4A-H in Appendix 1; Appendix 2) was undertaken over the Project and surrounding areas to determine the location of exploration targets for further assessment. Geological reconnaissance (including anomaly checking) has been undertaken. The assessment work covered the entire Project area so no exploration index map is provided in this report.

6. Conclusion and recommendations

The southeastern portions of the Project area are covered by extensive deposits of colluvium and aeolian sand, while the northwestern areas contain some rugged topography, but limited vehicular access, making the identification and location of potential mineralised rocks challenging.

The eastern portion of the Project adjoins EL26942 which covers the Basil copper-cobalt deposit. There are a number of prominent faults and shear zones within the Irindina Gneiss that extend from EL26942 into the Project area (e.g. Figure 5A).

Field sampling on EL32094, located immediately north of the Project, has located a number of anomalous rock chip results, including peak copper assays of 3.86% Cu, 2.53% Cu and 1.73% Cu, hosted by mafic and felsic gneisses hosting small olivine-bearing gabbroic intrusions.

Several additional mafic-ultramafic intrusions have been mapped within the Project area, or are inferred to be located under shallow cover, based on aeromagnetic datasets. Some of these intrusions are located close to linear trains of AEM anomaly picks (Figure 5B) and areas containing anomalous Cu and Ni rocks chip values (Figures 6A and B).

The rugged terrain at Sybil Prospect in the far western portion of the Project contains a number of untested high-priority VTEM conductivity anomalies, as well as anomalous rock chip samples associated with compositionally layered sequences of the Riddock Amphibolite.

Further work will be undertaken to assess the potential of these anomalies.

7. Confidentiality Statement

This document and its contents are the copyright of Typhon Minerals Pty Ltd. The document has been prepared for submission to the Northern Territory Department of Industry, Tourism and Trade as part of the tenement reporting requirements as per the Mineral Titles Act (NT). Any information included in the report that originates from historical reports or other sources is listed in the "References" section at the end of the document, or within the main body of the text. All relevant authorisations and consents have been obtained. Typhon Minerals Pty Ltd authorises the Department to copy and distribute the report and associated data.

8. References

Scrimgeour, I.R. (2011). Geology and Mineral Resources of the Northern Territory, p 29.1-29.12.

Sharrad, K. A. et. al. (2014). The Basil Cu–Co deposit, Eastern Arunta Region, Northern Territory, Australia: A metamorphosed volcanic-hosted massive sulphide deposit. *Ore Geology Reviews*, 2014, vol. 56, pp 141-156.

Various exploration reports for EL's 24194, 26942, 27243, 25643, 25453, 25402, 25653, 27662, 27178, as well as aeromagnetic and radiometric datasets (CR1996/285; CR2013/997; CR2014/579, CR2008/54; GA548 and GA 1003) and the Central Arunta Gravity Survey.