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# Exploration Licence 32361 Final Technical Report

for the period  
1 April 2023 to 29 January 2024

Title Holder Titles/Tenements Mine/Project Name Report Author  
Tenement Manager/Agent Date of Report

Target Commodity or Commodities : Copper

1:250 000 Map Sheet :Alice Springs

1:100 000 Map Sheet Laughlen 5751

Territory Exploration Pty Ltd EL32361  
Two Amigos  
D.W.Muller, F.AUS.I.M.M ,e; [dwmuller@me.com](mailto:dwmuller@me.com), ph.0458007040

28 March 2024

- Department of Industry, Tourism and Trade
- Territory Exploration Pty Ltd

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## Abstract

This report describes mapping and bulk rock chip sampling activities carried out over EL32361 during the reporting period from 1 April 2023 to 29 January 2024. No further field work was carried out in the current year due to the inability to secure a suitable RC rig to carry out a one-hole drilling program beneath the Two Amigos Gossan. EL32361 is located approximately 70 km north of Alice Springs. EL32361 is referred to as the Two Amigos project. The Project is initially focused on a significant exposure of gossanous copper-bearing ironstone, exposed in several outcrops over approximately 150 m in strike length and 10 m wide, which has hitherto been unexplored. Previous activity of bulk rock chip sampling was conducted; 16 samples were collected over several traverses across the width of the gossan. All sixteen sample traverses reported anomalous copper values up to 4,600 ppm, and zinc values up to 9%, accompanied by anomalous gold and silver values. Interestingly, gossan occurrences mapped to the south showed higher lead values, up to 3,800 ppm. In the upcoming reporting period regional geophysical data will be obtained and analysed. A single RC hole will be drilled to test the main gossan at depth.

It had been intended to drill one RC hole beneath the main gossan during the current year but due to high drill rig demand the company was unable to secure a suitable rig for a one-hole program. Based on the author's experience drilling look alike properties at Edward's Find and conclusions made on that exploration it was decided to relinquish EL 32361 prematurely on 29 January 2024.

## Copyright

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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. All relevant authorisations and consents have been obtained.

Territory Exploration Pty Ltd authorises the department to copy and distribute the report and associated data.

## **1 Introduction**

This report describes mapping and bulk rock chip sampling activities carried out over Exploration Licence (EL) 32361 during the reporting period from 1 April 2022 to 29 January 2024.

EL32361 is referred to as the Two Amigos project, and is wholly owned and operated by Territory Exploration Pty Ltd. The Project is initially focused on a significant exposure of gossanous copper- bearing ironstone in the Arunta province which has hitherto been unexplored.

### **1.1 Location, Physiography and Access**

EL32361 is located approximately 70 km north of Alice Springs on Pastoral Lease Yambah Station (see Figure 1). Access to Yambah Homestead is via a well-made and signposted gravel road branching off the Stuart Highway, 60 km north of Alice Springs. The road is suitable for road trains.

The main prospect, the Two Amigos copper gossan, is accessed via a station track approximately 20 km from the Yambah Homestead leading to a nearby dam as depicted on the Google Earth image (see Figure 2). The prospect is approximately 20 km east of Yambah Homestead. The station track provides year-round access apart from periods of heavy rainfall. The terrain is extremely hilly and inaccessible off the prepared station tracks. Hence the discovery was made by helicopter reconnaissance by the author of this report.

### **1.2 Title History**

#### **1.1 Location, Physiography and Access**

EL32361 is located approximately 70 km north of Alice Springs on Pastoral Lease Yambah Station (see Figure 1). Access to Yambah Homestead is via a well-made and signposted gravel road branching off the Stuart Highway, 60 km north of Alice Springs. The road is suitable for road trains.

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<sup>2</sup> The title covers 40 craticular blocks totalling approximately 126 km.

Title details are recorded in Table 1.

Table 1: Title Details

EL32361

Name: Two Amigos

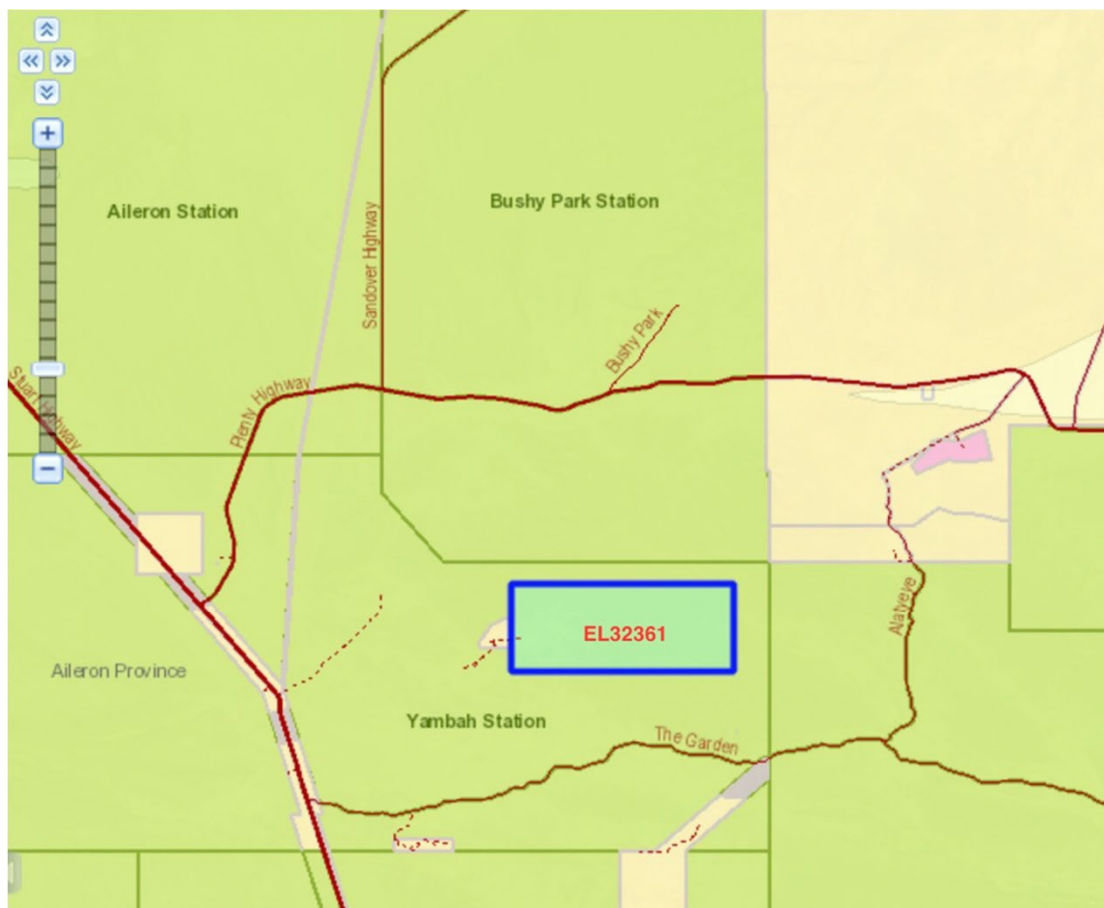
Holder: Territory Exploration Pty Ltd

Granted 01/04/2021 expiry 31/03/27

Size: 40 blocks 126.3 Sq Kilometres

## 1.2 Title History

The area was previously held under an Exploration Licence held by Davenport Resources, but no field work was carried out in the area of Two Amigos as that company focused its exploration at Johnny's Reward gold prospect further east.



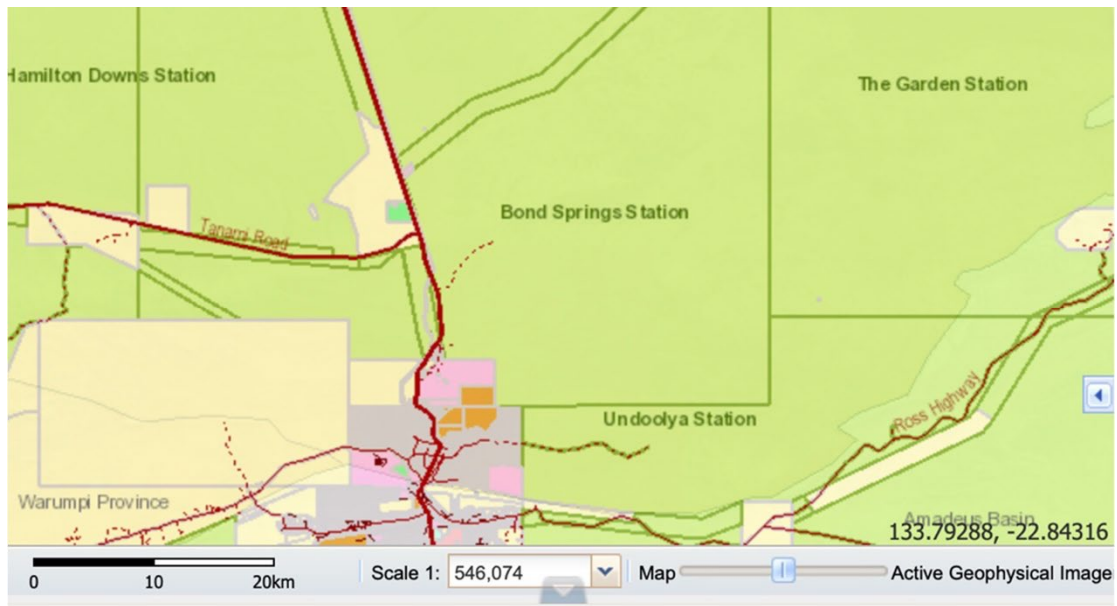


Figure 1: EL32361 location map

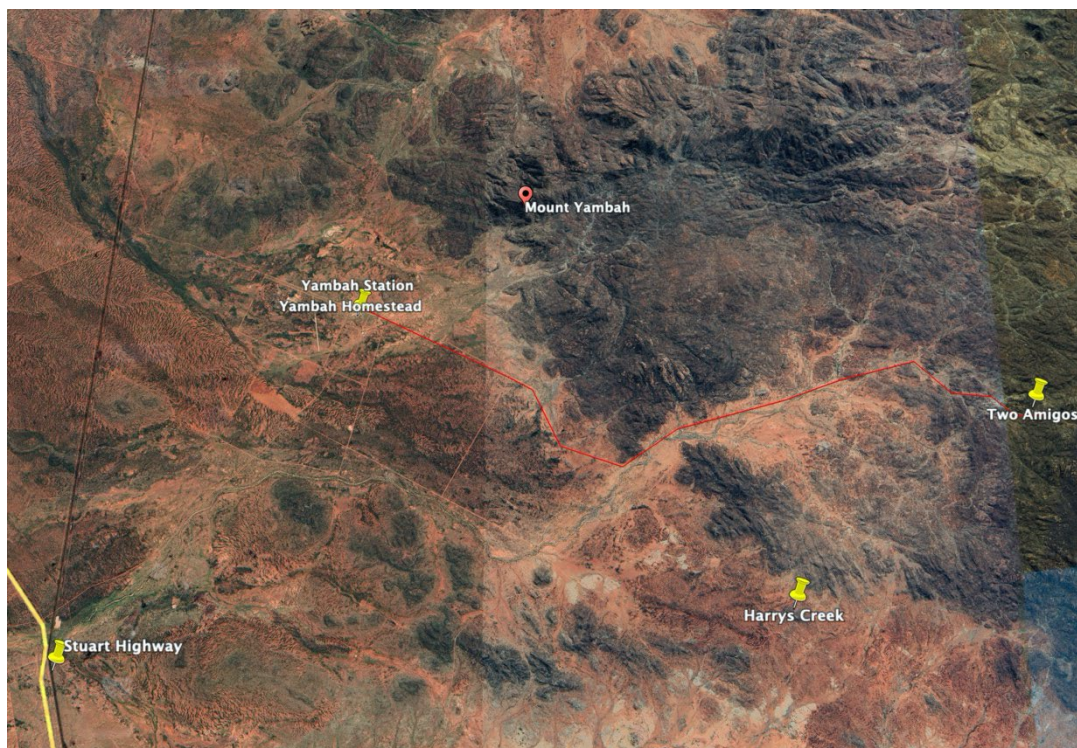


Figure 2: Access map – Yambah Station and Stuart Highway A37

Station track highlighted in red

## 2 Geological Setting



EL32361 is located within the Arunta Province in central Australia. The granulitic Strangways Metamorphic Complex (SMC) dominates the south-eastern part of the province, and hosts several mineral deposits in and around the title.

Two other known outcropping gossanous exposures within the Strangways province of the Arunta complex have been drill tested nearby, Harry's Reward and Edward's Creek. Both these occurrences lie outside EL32361.

## 2.1 Regional Geology

Geological rock units are well exposed within the title, and comprise granulite metamorphic facies gneisses, schists and amphibolite. The strata are often highly faulted and folded.

## 2.2 Local Geology

The Two Amigos prospect appears as a brecciated iron-rich gossan heavily stained with malachite (see Figures 3 and 4). It is approximately 150 m in strike length, and approximately 10 m wide, with a NW- SE orientation (see Figure 5). Exposures of granulite facies metamorphic units of amphibolite occur nearby.

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Figure 3: Two Amigos gossan outcrop – view from helicopter



Figure 4: Intense copper staining at Two Amigos gossan







No further field work was carried out during the reporting period pending securing a suitable RC drill rig to drill one hole beneath the prospect to satisfy expenditure commitments. Failure to secure such a rig resulted in the company relinquishing the tenement before time. Two companies were also approached for possible joint venture arrangements, but nothing could be consummated.

Previously, A visit was made to meet pastoralists on Yambah Station to determine the best access tracks into the prospect area.

Careful mapping extended the outcrop of the gossan to 150 m, the southern exposure being limited due to the area being covered by earth transported from a recently constructed pastoral dam (see Figure 5).

Bulk rock chip sampling was conducted; 16 samples were collected over several traverses across the width of the gossan (see Figure 6).

It must be emphasised that the samples were biased against collecting malachite-stained material; instead, it was intended to collect a representative sample of ferruginous material across the outcrop.

Samples were submitted to Intertek laboratory in Alice Springs for assay via Aqua-Regia digest and ICPMS.

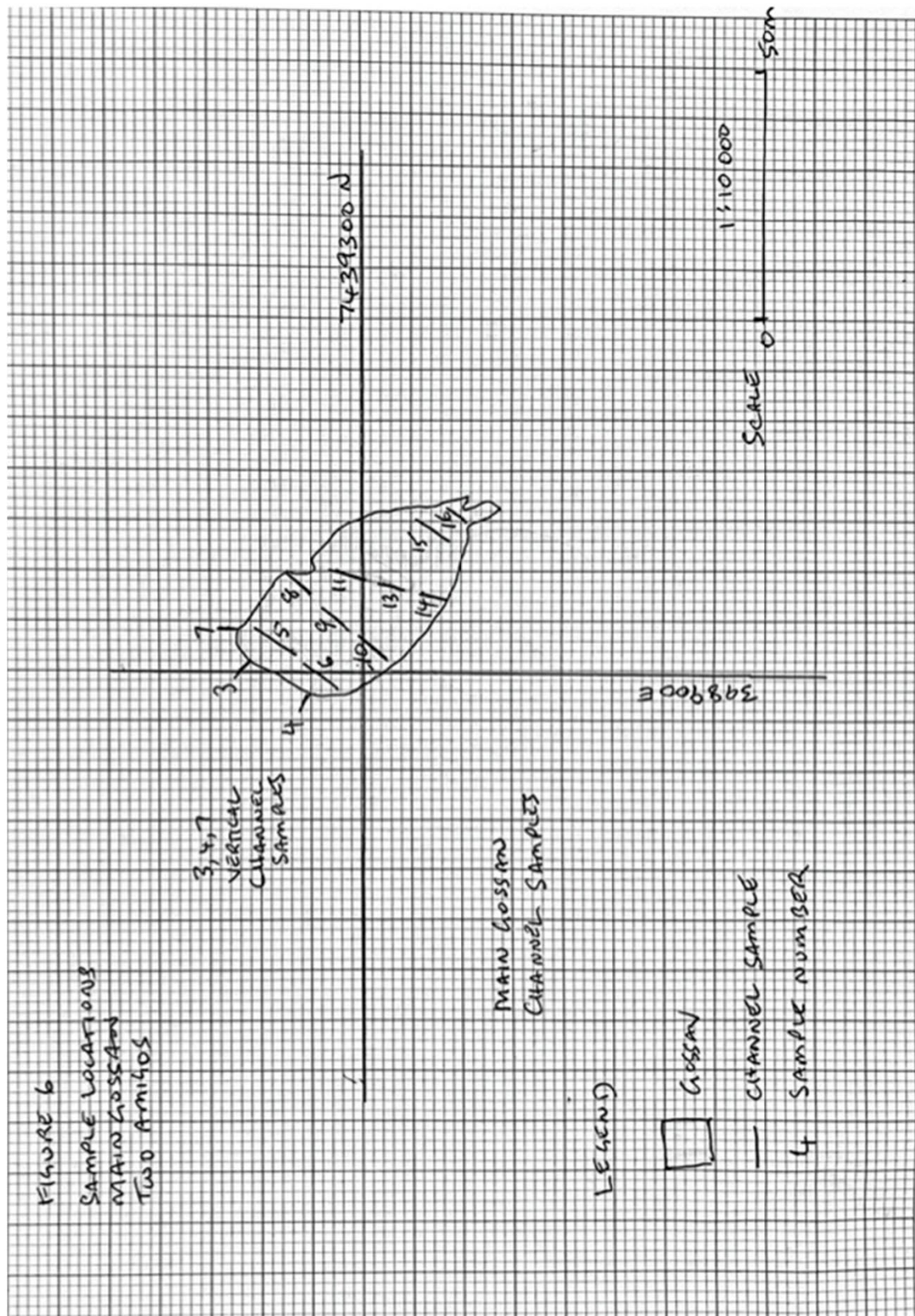
### **3.2 Results**

Laboratory results are attached as Appendix 1.

All sixteen sample traverses reported anomalous copper values up to 4,600 ppm, and zinc values up to 9%, accompanied by anomalous gold and silver values. Interestingly, the new outcrop mapped to the south

### **3.3 Conclusion and Recommendations**

It had been intended to drill one RC hole beneath the main gossan during the current year but due to high drill rig demand the company was unable to secure a suitable rig for a one-hole program. Based on the author's experience, drilling look alike properties at Edward's Find and conclusions made on that exploration it was decided to relinquish EL 32361 prematurely on 29 January 2024. This conclusion was based on the occurrence most likely being supergene enrichment within a shear zone. The lack of any magnetic response was also concluded as a negative factor in pursuing further exploration.



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Figure 6: Two Amigos gossan sampling plan

## References

Muller, D.W. 2022. Annual Technical Report Exploration Licence (EL) 32361 1 April 2021 to 31 March 2022. Unpublished report submitted to DITT.

Muller D.W. 2023 Annual Technical Report Exploration License (EL) 32361 1April 2022 to31 March 2023,Unpublished report submitted to DITT

## Appendix 1

### Assay Results

H1000	Sample_ID	Au	Ag	Cu	Pb	Zn	Zn-Rp1
H1001	Units	ppb	ppm	ppm	ppm	ppm	ppm
H1002	Assay Code	AR25/MS	AR25/MS	AR25/MS	AR25/MS	AR25/MS	4AH/OE
H1003	Lower_detection_limits	1	0.05	0.5	0.5	1	10
D	1 X	X		69.9	65.3	47	
D	2 X		0.09	15.1	44.1	17	
D	3	3	0.08	3787	587.9	3413	
D	4	8	0.53	2964.7	486.7	4230	
D	5	8	1.36	3894.5	535.1	>20000	49814
D	6	3	2.22	4640.4	520.5	>20000	92258
D	7	7	1.1	2280.9	1368	1929	
D	8	9	1.66	738.2	144.4	2784	
D	9	4	0.83	1186	180	2446	
D	10	45	8.14	12930.3	1223.8	16478	
D	11	15	1.79	4660	585	4739	
D	12	3	0.1	2158.5	26.5	339	
D	13	7	0.68	2910.3	169.4	6096	
D	14	10	1.56	1448.3	332.2	3054	
D	15	25	1.12	1507.4	528.8	1493	
D	16	4	1.16	619.8	261.8	441	
D	17	5	1.24	932.7	2750.1	2414	
D	18	54	6.29	1362.6	3794.3	3190	