



## OM Manganese Ltd

**Title holder / operator:** OM Manganese Ltd (100%)  
**Tenement Manager:** Australian Mining & Exploration Titles Services (AMETS)

# EL31665 Bootu Creek Manganese Project

## Final Report for Area Partially Cancelled On 26<sup>th</sup> October 2022

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## **Abstract**

EL31665 surrounds the Bootu Creek Manganese Operation (located on ML24031) and replaces remaining portions of expired licences EL10412, EL22428, EL22940, EL25593, EL28046, and the more recent consolidation of EL28662 and EL30913.

This report covers the partially cancelled area of EL31665, comprising 15 blocks surrendered on 26<sup>th</sup> October 2022.

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# 1 Location and Tenure

1:250,000:SE 53-10 HELEN SPRINGS

1:100,000:5760 Brunchilly

EL31665 was granted on 3/08/2017 and consisted of 111 blocks (319.73 Sq kms).

The number of blocks comprising EL31665 was reduced from 111 blocks to 83 blocks in October 2019, further reduced to 47 blocks (125.85 Sq km) in August 2021 and again reduced to 32 blocks in October 2022. The recent partial cancellation was comprised of 15 blocks.

The south-west corner of EL31665 is now located 4 km east of Stuart Highway and 120km north of Tennant Creek, predominately within the Banka-Banka West Pastoral station. The north and eastern portions of the EL extend on to Helen Springs Pastoral station.

EL31665 was granted for a period of six years and replaced expired licences EL10412, EL22428, EL22940, EL25593 and EL28046, and a more recent consolidation of EL28662 and EL30913. It entirely encloses the Bootu Creek Manganese Project located on ML24031.

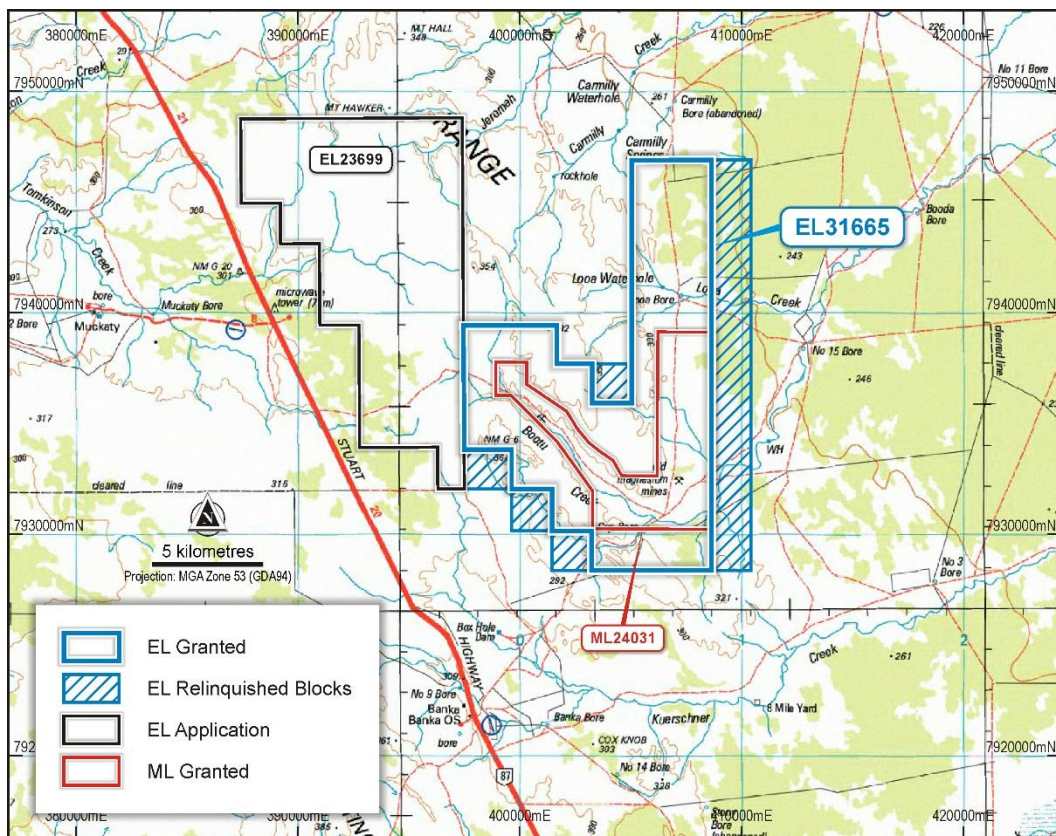


Figure 1. Plan shows the area of EL31665 being partially cancelled on 2<sup>nd</sup> August 2021, and adjacent OMM tenure.

## 2 Geology

The Bootu Creek area is part of the Ashburton Province of the Tennant Creek Inlier, which consists of Proterozoic platform cover of fluvial to shallow marine sandstone with minor volcanic rocks, siltstone and carbonate rocks of the Tomkinson, Namerinni and Renner groups, in part overlain by Cambrian volcanic and sediments (Hussey et al, 2001).

The northwest portion of EL31665 being cancelled consists predominately of an elevated platform of Bootu Formation (Ptb) sandstone with minor Namerinni sediments along the west boundary.

The eastern portion being cancelled consists of recent aeolian and fluvial deposits covering a shallow sequence of Cambrian sediment and basalt, onlapping over deeper Tomkinson Short Range (Pts), Attack Creek (Pta) and Bootu Formation sandstone sequences. The southern portion being cancelled consists of the ridge-forming Short-Range Formation sandstone and the recessive Morphett Creek Formation (Ptm) predominately comprised of siltstone and dolomite.

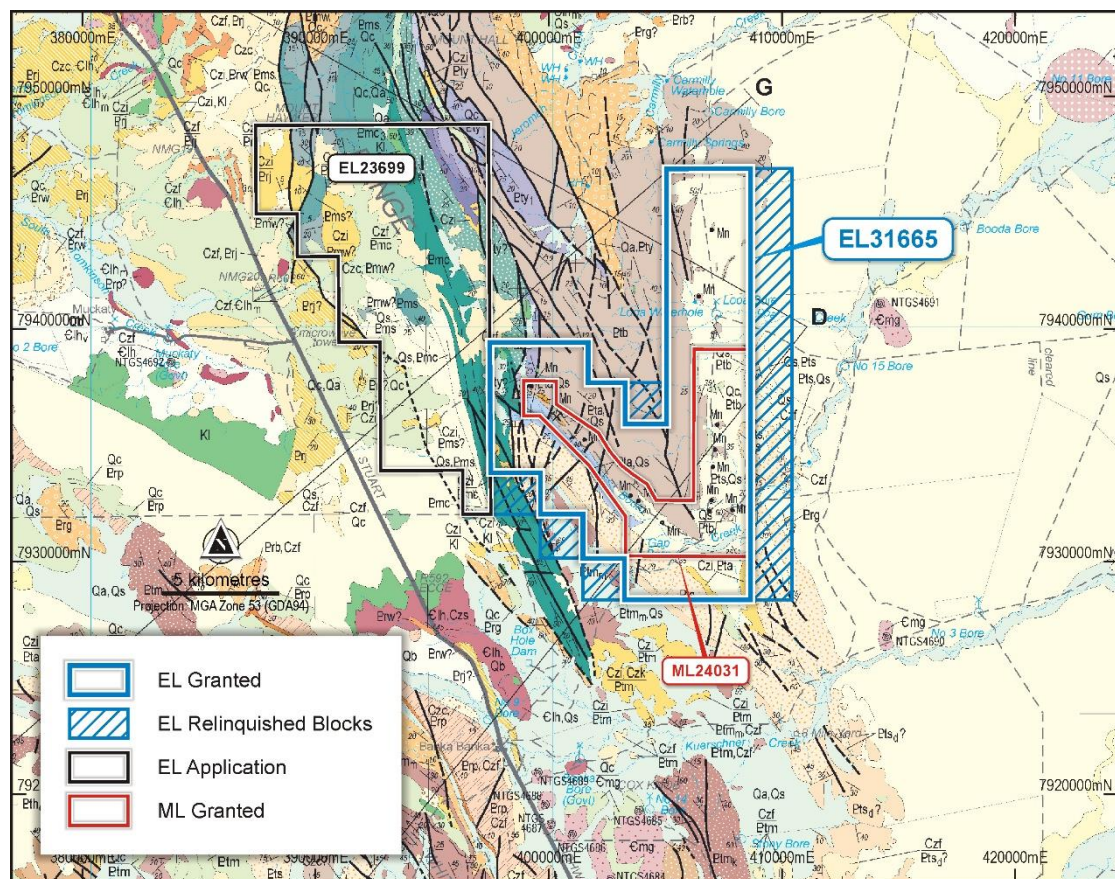


Figure 2. Geology map of remaining EL31665 area showing various members of the Tomkinson Creek Group. Geological data taken from the published Helen Springs 1:250,000 geology map sheet (Hussey et al, 2001)

No manganese mineralisation has been identified in the two portions of EL31665 currently being cancelled.

### **3 Previous Exploration Activity on the portions of EL31665 currently being cancelled.**

#### **3.1 Exploration Activity 2001-2004**

Work carried out on EL10412 and EL22428 by Bootu Creek Resources Pty Ltd prior to the excision of ML24031 (Sept 2004) comprised -

- Re-evaluation of existing geology, drilling and geophysical data
- Progress of heritage surveys, mining and land access agreements
- Aerial photography and digital terrain modelling

#### **3.2 Exploration Activity 2004-2011**

Work carried out on EL10412 and EL22428 by Bootu Creek Resources Pty Ltd and later by OM (Manganese) Ltd for the above period comprised -

- Acquisition and interpretation of Aster multi-spectral data
- Satellite imagery
- Combined aeromagnetic/radiometric airborne survey and data processing

For more detail, refer to the EL10412, Bootu Creek Manganese Project - Final Technical Report (Sept 2011).

#### **3.3 Exploration Activity 2011-2012**

Exploration activity on EL28662 in the year 1 reporting period included –

- Satellite imagery (Worldview-2)

#### **3.4 Exploration Activity 2012-2013**

Nil exploration activity on cancelled portions of EL31665 in the reporting period –

#### **3.5 Exploration Activity 2013-2014**

Nil exploration activity on cancelled portions of EL31665 in the reporting period –

#### **3.6 Exploration Activity 2014-2015**

Exploration activity on EL28662 in the year 4 reporting period included –

- World View II satellite imagery from July 2015.

#### **3.7 Exploration Activity 2015-2017**

There was no exploration activity or expenditure on EL28662 in the year 5 and 6 reporting periods.

The OMM Bootu Creek Operation was placed in Voluntary Administration on 4th December 2015 through to 24<sup>th</sup> August 2016 and continued on Care and Maintenance until operations recommenced at Bootu Creek in January 2017.

### **3.8 Exploration Activity 2017-2019**

There was no exploration activity on the first cancelled portion of EL31665.

### **3.9 Exploration Activity 2019-2021**

There was no exploration activity on the second cancelled portion of EL31665.

### **3.10 Exploration Activity 2021-2022**

There was no exploration activity on the third cancelled portion of EL31665.

## **4 Conclusions and Recommendations**

The 3 portions comprising the third partial surrender of EL31665 (15 blocks in total) host no known manganese mineralisation, and the near surface stratigraphy is not considered prospective for hosting manganese mineralisation.

Work to date on the area of this partial cancellation has been limited to satellite imagery, remote sensing including multi-spectral data, and magnetic/radiometric surveys. None of the surveys highlight any manganese mineralisation, or areas of enhanced prospectivity for manganese, within the 15 blocks being cancelled.

For more detail, refer to the EL10412, Bootu Creek Manganese Project - Final Technical Report (Sept 2011).

## **5 References**

Reddell, C.T., Bailey, M.H., (2011) EL10412 Bootu Creek Manganese Project, Final Technical Report for period 21<sup>st</sup> September 2001 to 20<sup>th</sup> September 2011, *OM (Manganese) Ltd, unpublished*.

Hussey, K.J., Beier, P.R., Crispe, A.J., Donnellan, N., and Kruse, P.D., (2001) Helen Springs, Northern Territory. 1:250,000 geological map series and explanatory notes, SE53-10 (Second Edition) *Northern Territory Geological Survey*