

**Fourth Annual Report**  
**on**  
**EL 16/2012 – Reedy Marsh**

**Reporting Period:** 16 June 2016 – 15 June 2017  
**Project Operator:** ABx4 Pty Ltd  
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**CONTENTS**

1 ABSTRACT ..... 3

2 INTRODUCTION ..... 5

3 REVIEW OF PREVIOUS WORK ..... 8

4 EXPLORATION COMPLETED DURING THE REPORTING PERIOD ..... 9

5 CONCLUSIONS AND RECOMMENDATIONS ..... 10

6 ENVIRONMENT ..... 11

7 EXPENDITURE ..... 12

8 REFERENCES ..... 13

**TABLES**

Table 1. Exploration Activity and Expenditure Table for current annual reporting period ..... 12

**MAPS**

Map 1. Location map of EL 16/2012 “Reedy Marsh” ..... 7

## **ABSTRACT**

### **Objective:**

Exploration Licence (EL) 16/2012 “Reedy Marsh” was applied for in order to facilitate an exploration program to discover economically viable deposits of bauxite associated with Tertiary Volcanics and Jurassic Dolerite, in an area with old peneplained surfaces preserved as plateaus. The goal of the program is to determine the quality and quantity of the bauxite in the area using an RC drill rig mounted on a light 12 tonne truck.

### **Methodology:**

1. Detailed geological mapping, including geomorphological mapping, to define the areas with best potential for bauxite.
2. Systematic sampling of natural outcrops and exposures in road cuts of bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive silica, loss on ignition and other analyses as required in the bauxite search.
4. Drill testing of zones with best potential defined by work under 1, 2, and 3, by an RC drill rig mounted on a light Mitsubishi truck to get samples representing the whole bauxite profile.
5. Systematic drill testing at close spacing's to obtain data for resource estimation in the best target areas defined by programme under 4.
6. Mine-ability study of Tasmanian bauxite using a small excavator to dig bauxite and screen test on a larger scale.

### **Results:**

No exploration works were conducted during the current year of tenure.

**Recommendations for future work:**

Recommendations for future work include further:

1. Detailed geological mapping, including geomorphological mapping, to define the areas with best potential for bauxite.
2. Systematic sampling of natural outcrops and exposures in road cuts of bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive silica, loss on ignition and other analyses as required in the bauxite search.
4. Drill testing of zones with best potential defined by work under 1, 2. and 3, by an RC drill rig mounted on a light Mitsubishi truck to get samples representing the whole bauxite profile.
5. Systematic drill testing at close spacing's to obtain data for resource estimation in the best target areas defined by programme under 4.
6. Mine-ability study of Tasmanian bauxite using a small excavator to dig bauxite and screen test on a larger scale.

# 1 INTRODUCTION

## Exploration Rationale

ABx4 Pty Ltd - the holder of Category 1 Exploration Licence EL 16/2012 - is the wholly owned subsidiary of Australian Bauxite Ltd. Australian Bauxite Limited (ABx) (ASX: ABZ) is an exploration company that holds the core of the Tasmanian Bauxite Province with all tenements selected on 3 principles:

- Quality – good quality bauxite with potential for significant resource tonnages;
- Proximity – easy access to infrastructure connected to export ports; and
- Accessibility – free of socio-environmental or native title land constraints.

A large portion of the land within the tenement boundary consists of tree plantations owned by the recently-liquidated Gunns Limited.

EL 16/2012 “Reedy Marsh” was applied for in order to facilitate an exploration program to discover economically viable deposits of bauxite associated with Tertiary Volcanics and Jurassic Dolerite in an area with old peneplained surfaces preserved as plateaus.

## Geological Setting

In EL16/2012, the majority of bauxite targets are hosted in Jurassic Dolerite, however, some bauxite derived from Tertiary Volcanics could also be present.

The historic work done by H.B. Owen (‘Bauxite in Australia’, 1954) demonstrated that Bauxite in Tasmania are thought to form either as ‘grouped remnants of former continuous sheet’ or ‘formed in lenticular or pod shaped bodies in localised depressions’. This generally occurs in areas with high water flow and low erosion where the old surface has been preserved.

The Reedy Marsh tenement borders the ABx4 Pty Ltd “Deloraine” (EL 9/2010) tenement where recent exploration at the “DL-130” target has led to intersections of thick and high grade bauxite.

## Tenement Information

EL 16/2012 “Reedy Marsh” was granted to ABx4 Pty Ltd (ABx4) on 16 June 2013 for a period of 5 years. This is the Fourth Annual Report for the reporting period 16 June 2016 – 15 June 2017 incorporating the results of work completed during the fourth years of tenure.

Total area of the original licence is 109 km<sup>2</sup>. ABx4 has voluntarily relinquished area from this tenement such that the current licence area is 95 km<sup>2</sup>. The Mineral Category of EL 9/2010 is 1 – Metallic Minerals and Atomic Substances.

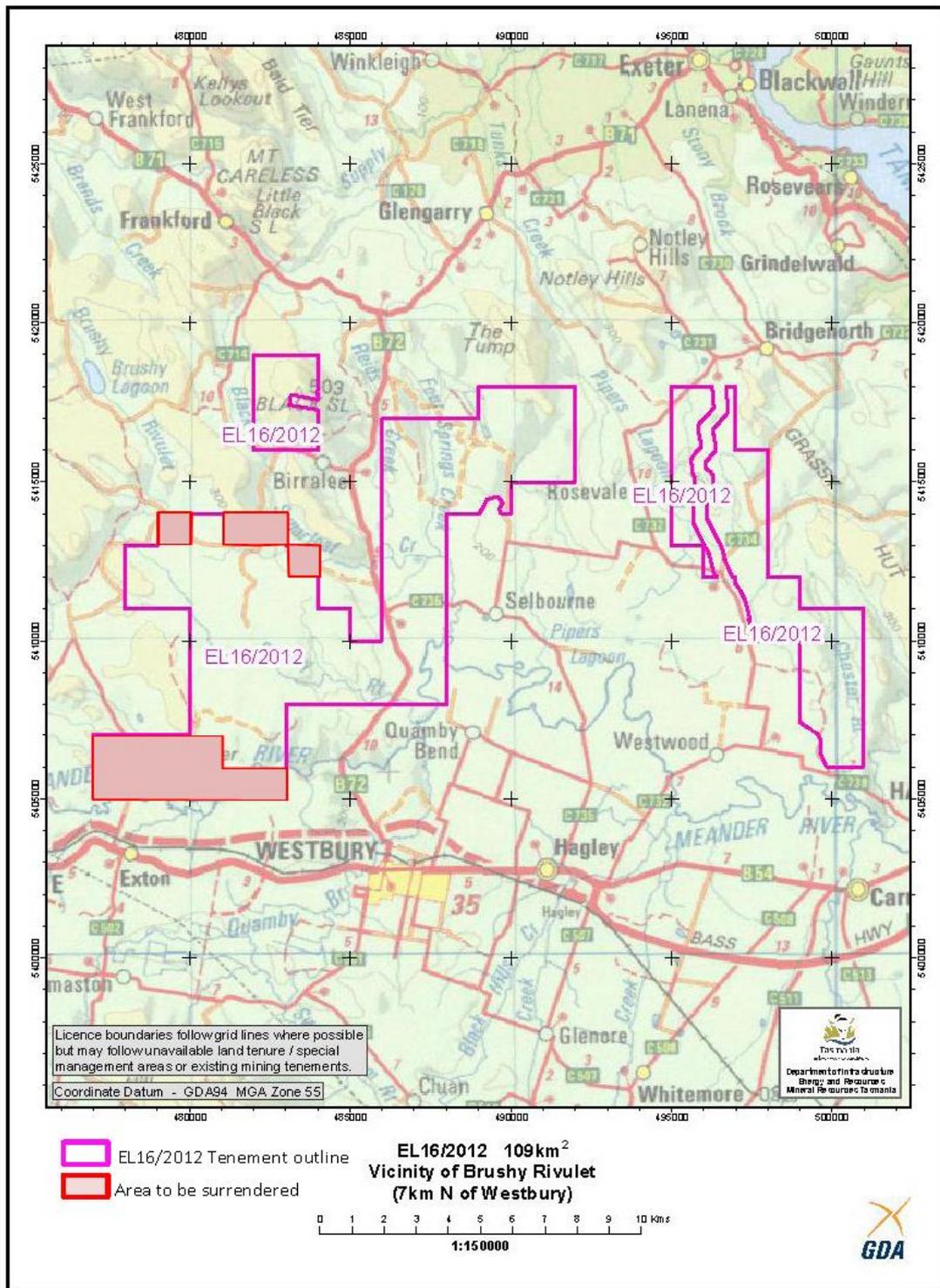
## Tenure, including joint venture details and title transfers

EL16/2012 “Reedy Marsh” is 100% owned by ABx4, a 100% owned subsidiary of Australian Bauxite Limited.

**Location**

The Reedy Marsh tenement area is composed of three main land parcels. The large southwest parcel is located just to the North of the Bass Highway connecting Exton and Hagley. The eastern parcel (dissected by a north-south-running Gas Pipeline Corridor) is located 1.3 km east of Rosevale and extends to the south-east towards Westwood. The small north-east parcel is located ~2km NW of Birralee along Birralee Rd. The tenement area is only located approximately 35 km south of the large operating port at Bell Bay.

The main land category in the tenement area is private land (incl. forestry operations), with other land categories including National Parks, Forest Reserves, and Conservation areas.



Map 1. Location map of EL 16/2012 “Reedy Marsh” including areas recently relinquished (red shading on map).

## **2 REVIEW OF PREVIOUS WORK**

### **Summary of Exploration Completed during Tenure**

During the initial 2 years of tenure, field reconnaissance was completed over much of the Reedy Marsh area in preparation for drilling programs. This field exploration identified a number of prospective targets with many surface samples positive for high-quality bauxite.

In February and March of 2015 the Rubble Flats, Blackwood South, Blackwood Hill, Mahoney's Hill and Egmont Property bauxite targets were drilled to identify bauxite resources. These were also targeted for additional tonnage for the DL-130 prospect in EL9/2010 which EL16/2012 largely encompasses. A bauxite resource has already been proved up for ABx4's "DL-130" deposit within the 'Deloraine' tenement where thick intersects of high-grade bauxite have been found, and an inferred JORC estimate of 5.7Mt. EL16/2012, along with neighbouring tenements EL 9/2010 and EL 37/2010, are well located in terms of distance from Bell Bay Port.

Drilling of prospects showed that only the Rubble Flats deposit contained significant quantities of bauxite. Mahoney's hill and Blackwood Hill require more drilling to determine viability and Blackwood south failed to identify significant quantities of bauxite.

### **3 EXPLORATION COMPLETED DURING THE REPORTING PERIOD**

No exploration works were conducted within the current annual reporting period.

## **4 CONCLUSIONS AND RECOMMENDATIONS**

No exploration works were conducted within the current annual reporting period.

On-site exploration should recommence in the next year of tenure.

## **5 ENVIRONMENT**

### **Surface Disturbing Operations:**

No surface disturbing activities were completed during the report period.

## 6 EXPENDITURE

Table 1. Exploration Activity and Expenditure Table for reporting period 16 June 2016 – 15 June 2017.

EL16/2010 Reedy Marsh - Expenditure over 4th Year of Tenure	
1. Geoscientific costs	
Geology	\$632
Geochemistry	
Geophysics	
Remote sensing	
2. Drilling and Gridding Costs	
Gridding	
Drilling	
Holes/metres	
3. Land Access Costs	
4. Rehabilitation Costs	
5. Feasibility Study Costs	
6. Other Costs	
7. Administration Costs (< 10%)	
8. Total Costs	
	\$632

Note: Office Administration was met by parent company – Australian Bauxite Limited.

## 7 REFERENCES

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