

THIRD ANNUAL REPORT

On

EL 25313 'CARANBIRINI'

McArthur River Project

From 30 May 2009 to 29 May 2010

Holder: Brumby Resources Limited

Operator: Brumby Resources Limited

Author

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Distribution:

- o Department of Primary Industry, Fisheries and Mines
- o Brumby Resources NL

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KEYWORDS: COPPER, LEAD, ZINC, GEOLOGICAL MAPPING				
LOCATION:	McARTHUR RIVER BA	SIN		
AMG ZONE:	GDA94 ZONE 53			
AMG CO-ORDINATES:	8 214900N / 583600E			

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FILE DESC

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1.0 **SUMMARY**

EL 25313 'Caranbirini' forms part of the McArthur River Project. The tenement is situated 640 kilometres southeast of Darwin in the McArthur Basin in the Northern Territory (Figure 1). The tenement was granted on 30 May 2007 and is registered in the name of Brumby Resources Limited (Brumby). A compulsory partial surrender of 20 blocks was completed after two years of tenure in 2009 and another partial surrender of 5 blocks after three years of tenure in 2010.

Exploration in the third year of tenure carried out by Brumby consisted of a data review including previous exploration and regional geological data. Also Brumby undertook efforts to joint venture out EL 25313.

2.0 INTRODUCTION

EL 25313 'Caranbirini' is located approximately 700 kilometres southeast of Darwin in the McArthur Basin in the Northern Territory (Figure 1). The HYC deposit is located 8 kilometres south of the southern tenement boundary of EL 25313. Caranbirini is explored as part of the McArthur River Project of Brumby Resources Limited.

The tenements of the McArthur River Project were acquired by Brumby in 2006 to provide the company with a strategic parcel of land in one of Australia's main base metal provinces. This report describes exploration carried out by Brumby in the third year of tenure for EL 25313.

3.0 **TENURE**

EL 25313 was granted to Brumby Resources Limited on 30 May 2007. A compulsory partial surrender was completed at the end of the second year with 20 blocks being relinquished in 2009 and 5 blocks being relinquished in 2010 (Figure 2). Tenement details are shown below in Table 1.

Table 1: **Tenement Details**

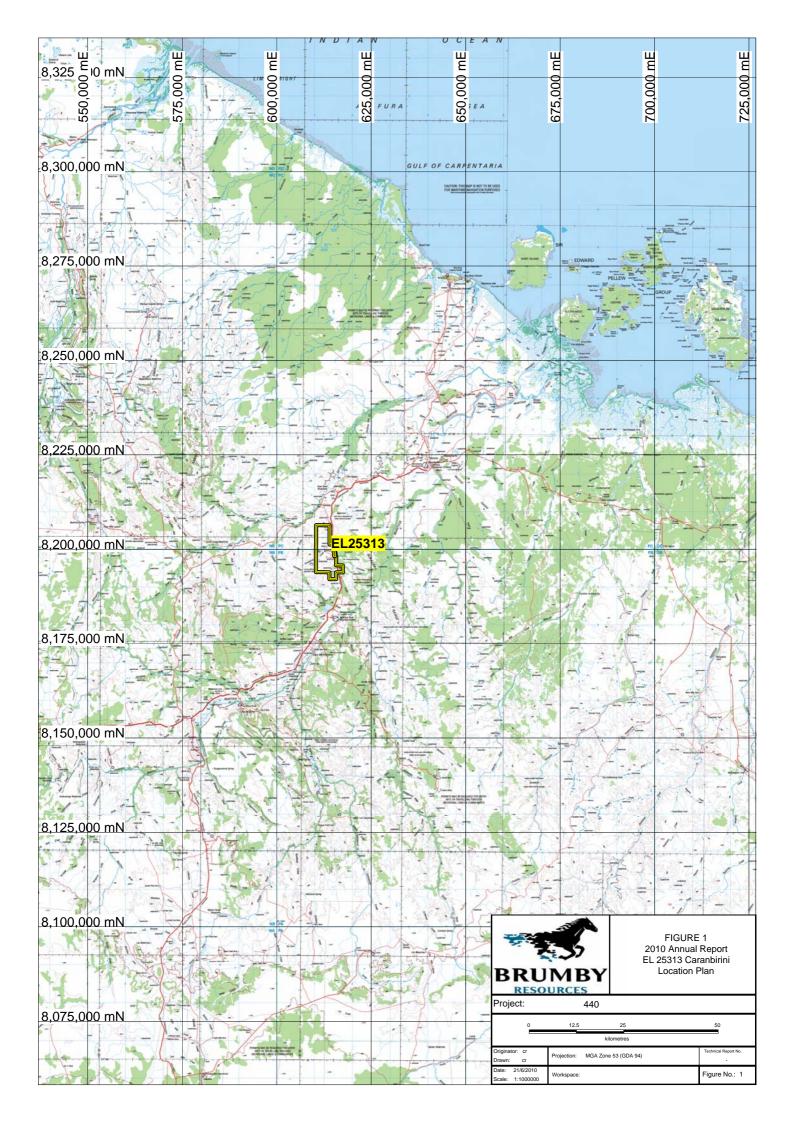
Tenement	Tenement Name	Area	Grant Date	Expiry Date
		(blocks)		
EL 25313	Caranbirini	15	30 May 2007	29 May 2013

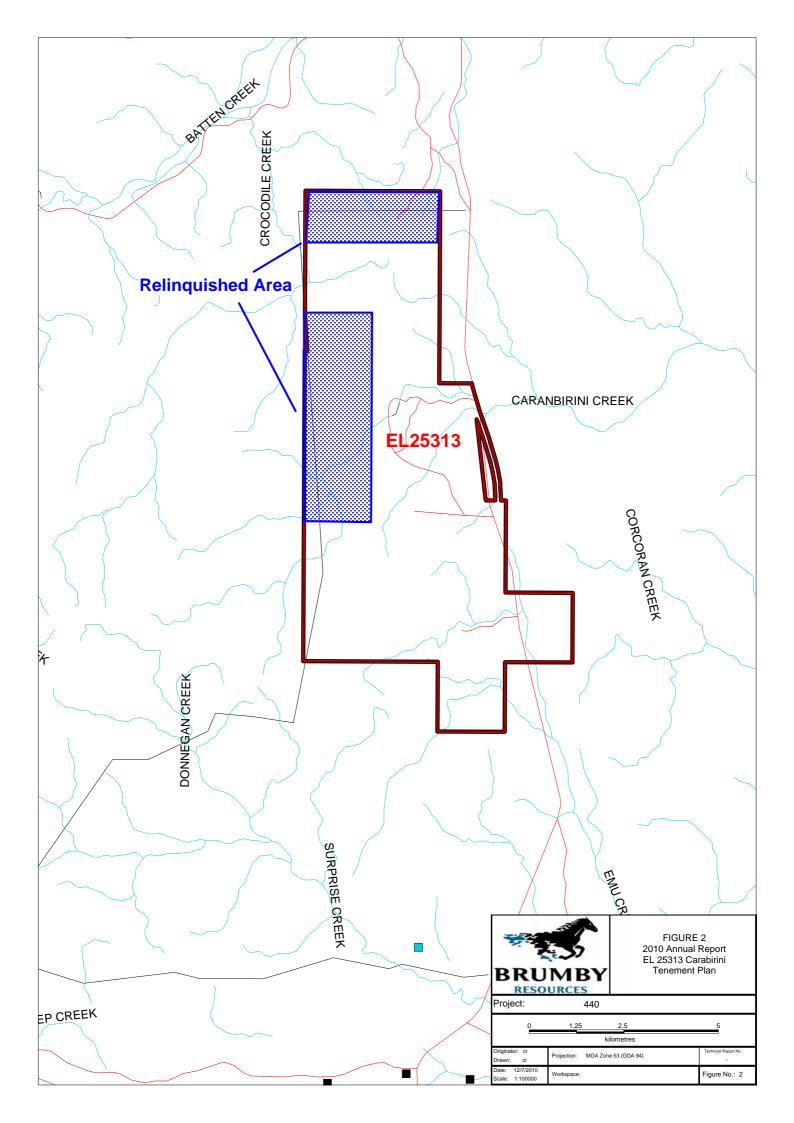
4.0 **GEOLOGY**

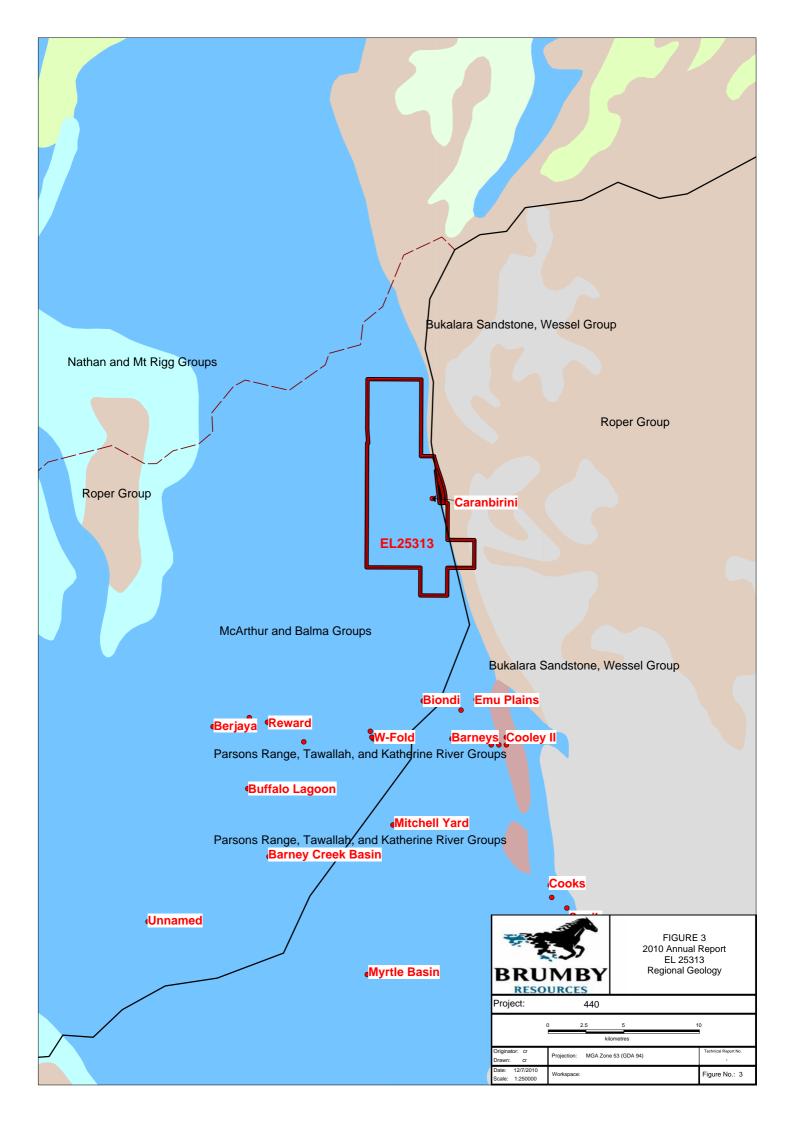
EL 25313 is situated in the McArthur Basin in the Northern Territory. The regional geology is shown on Figure 3.

The McArthur Basin is exposed over about 200,000 km2. It is the principal element of the North Australian Platform Cover and hosts the classic McArthur lead-zinc-silver deposits and lesser deposits of lead-zinc, copper, uranium and iron.

The basin is bounded by and uncomformably overlies the Early Proterozoic Pine Creek Inlier, Arnhem Block and Murphy Inlier. The palaeogeography and structure of the McArthur Basin may







be modeled in terms of several northerly trending asymmetric rifts, 30 to 80 km wide by 100 to >300 km long, separated by northwest trending transfer faults and transverse ridges.

Up to 12 km of shallow water Mid-Proterozoic sediments accumulated in the Batten and Walker troughs, compared to 1.5 to 4.0km on the stable Arnhem, Bauhinia, Caledon and Wearyan shelves on the margins (Plumb et al, 1990).

The interpreted geology of the Caranbirini area is shown on Figure 4, with the Geological Legend shown on Figure 5. Nearly all of EL 25313 is underlain by various lithologies of the Batten Subgroup. Minor Reward Dolomite is interpreted near the eastern tenement boundary. A major feature is the Emu fault zone, striking NNW along the eastern tenement boundary.

5.0 PREVIOUS EXPLORATION

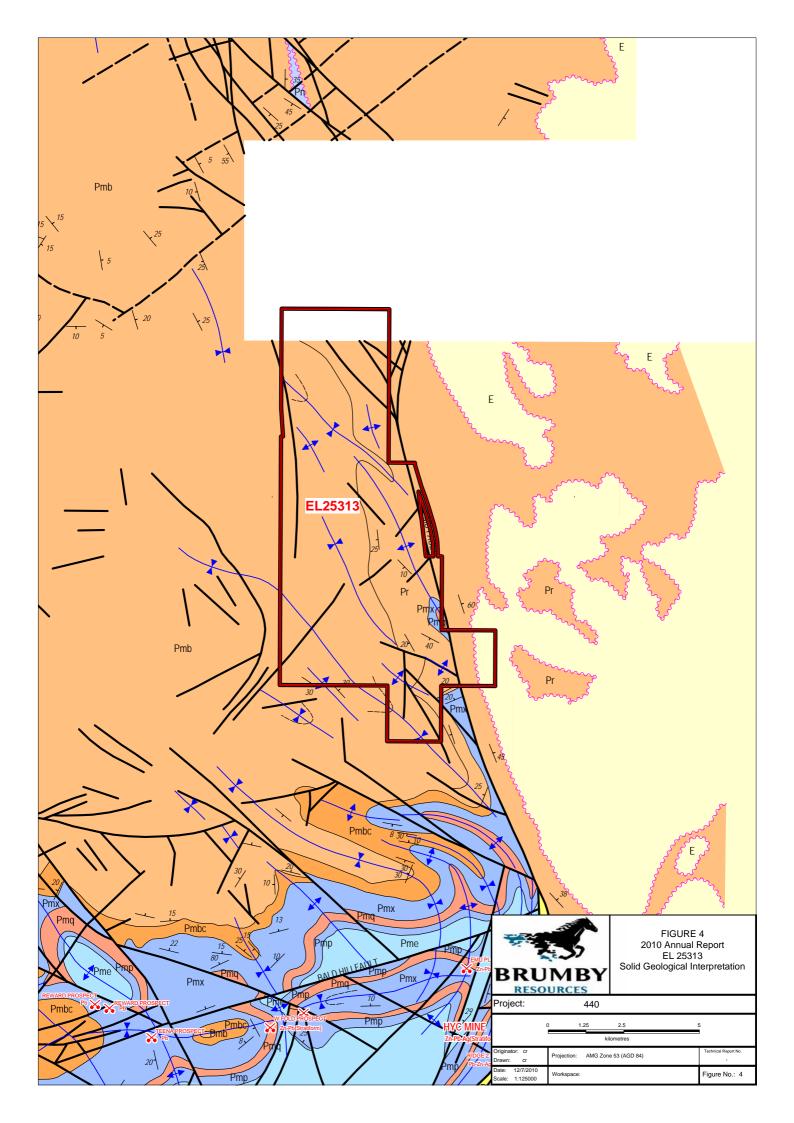
5.1 Year 1

Exploration in the first year of tenure carried out by Brumby consisted of extensive open file research and acquisition of regional geological mapping data of the McArthur River Basin. Previous historic work outlined anomalous zinc mineralisation in several drill holes and the Caranbirini zinc prospect close to the Emu fault zone (Figure 4).

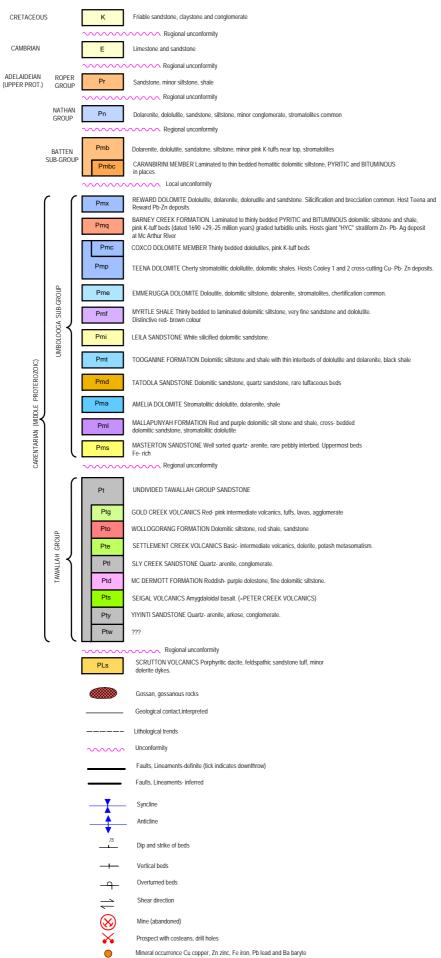
The area of EL 25313 has been extensively explored in the past by several companies. available exploration carried out previously was reviewed in detail and is listed in Table 2.

Table 2: List of Reviewed Previous Exploration Data in the Carabirini Area

Year / Period	Project Name	Company / Owner	Tenements	Commodity
1967-1971	McArthur	CEC	AP 1748	Cu, Pb, Zn, Ag
1972-1976	Barney Hill	CEC	EL 598	Cu, Pb, Zn, Ag
1977-1983	McArthur River Project, (Glyde River Project)	Amoco Minerals, CRA, Kennecott, (Shell)	EL 1332 (EL 1330, 1331, 1333, 1375, 1803, 1943)	Pb, Zn, Ag hydrocarbons
1979-1982	Mc Arthur River	Amoco	EL 1803	Cu, Pb, Zn
1984-1986	Caranbinni JV	Amoco, CRA	EL 4169, EL 4234	Cu, Pb, Zn
1988-1997	McArthur River	Top End Resources Noranda, Perylia Mines, MIM	EL 5787 (a lot more tenements within project)	Cu, Pb, Zn
1991-1996	Looking Glass Creek	Ashton Mining	EL 7302	Diamonds, Cu, Pb, Zn,
1992-1995	Cow Lagoon	ВНР	EL 7576 (EL 7576, 7577, 7578)	Diamonds,Cu, Pb, Zn
1993-1999	Lynott	MIM	EL 8078	Cu, Pb, Zn
1996	Stretton Creek	MIM	EL 8834	Cu, Pb, Zn
2004-2006	Mc Arthur River	American Exploration Australia	EL 23635	Pb, Zn



LEGEND



Early exploration by CEC on EL 1748 and EL 598 included geological mapping, various The Pb-Zn-Ag HYC deposit was geophysical surveys, geochemical sampling and drilling. discovered just eight kilometres to the south of the southern tenement boundary of EL 25313.

On EL 1332 Amoco Minerals, CRA and Kennecott completed an airborne EM survey, an IP and gravity survey, geochemical sampling, percussion and diamond drilling. The IP survey and geochemical sampling outlined the Caranbirini Zn prospect proximal to the Emu fault zone near the eastern tenement boundary within EL 25313. Percussion drilling intersected pyritc shales with marginal base metals, max values were 0.1-0.2% Zn in PMR3, 4, 7 and 11.

Diamond drill hole MANT-78-1 intersected massive pyrite in Barney Creek Formation, however only minor Zn values. No mineralization was encountered in MANT-79-2. MANT-79-3 ended in thickened Reward Dolomite with only minor base metal mineralization. Best intersection in **DD82CA1** was 0.5m@2.5% Pb, 22.4% Zn and 8.5ppm Aq. The Barney Creek Formation appears to thicken adjacent to the Emu Fault zone and contains indications of economic mineralization in Cooley dolomite member below 600m gravity response.

Amoco carried out exploration for base metals on EL 1803, EL 4169 and EL 4234, including further diamond drilling at the Caranbirini prospect. Weak mineralization was encountered in the Reward Dolomite and Cooley Dolomite breccia. Best intersections were in:

- DD83 CA2 0.5m at 6.45%Pb, 4.85%Zn and 11gm/t Ag from 387.5m,
- DD83 CA3 3m at 0.85%Pb, 7.25% Zn and 9.5g/t Ag from 663m
- DD84 CA4 2m at 1.4%Pb, 1.3% Zn, 9.5qm/t Aq from 520.9m.

On EL 5787 exploration by Top End Resources, Noranda, Perylia and MIM located mineralization at several prospects outside EL 25313. Percussion drilling in the central southern portion of EL 25313 encountered a best intersection of 1m@17.3%Zn, 1.32% Pb from 440.5m In CPD2 (near CPD3).

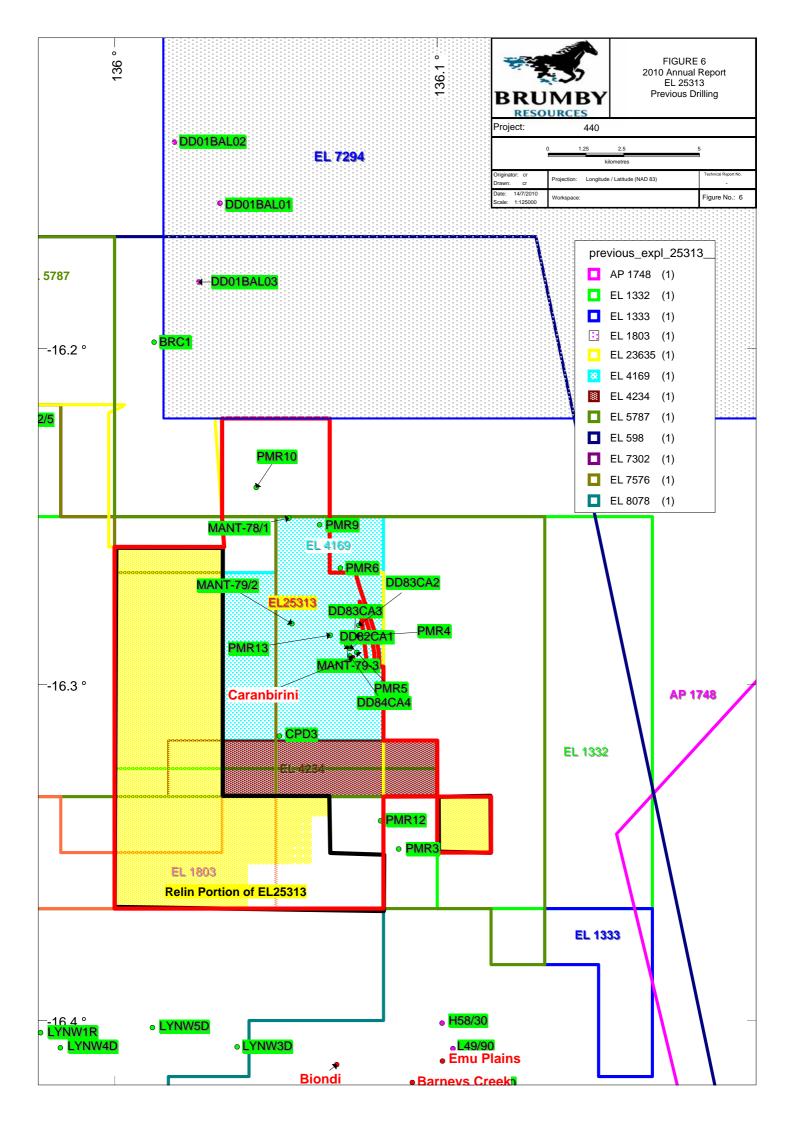
Further exploration by Ashton Mining, BHP and MIM on EL 7302, EL 7576, EL 8078 and EL 8834 discovered no further base metal mineralization on EL 25313.

On EL 23635 a ground TEM survey by American Exploration Australia defined no conductors.

5.2 Year 2

Exploration in Year 2 consisted of a more detailed data review of previous exploration and regional geological data. Reports and exploration data as well as geophysical and geological information were assessed. Based on the results the compulsory partial surrender of 20 blocks was completed. The northeastern area with the Canbirini Zn prospect was retained, as well as the area of Zn mineralisation at hole CPD2, see section 5.1.

Also Brumby undertook efforts to joint venture out EL 25313.



6.0 **EXPLORATION COMPLETED YEAR 3**

No field based exploration activities were carried out during the reporting period, exploration work concentrated on EL25467 within the McArthur River Project.

Exploration in Year 3 consisted of further data evaluation including more regional previous exploration data, which have become available on open file. All reports on EL 7294 were reviewed, where some diamond drilling had been conducted on the northern extension of the Emu fault zone.

Rio Tinto Exploration had completed three diamond drill holes totalling 178.6m of RC precollar and 727.3m of NQ diamond core at the Ballyhoo prospect. Two holes intersected 108.8m and 128.3m respectively of variably pyritic and dolomitic black mudstone of the Caranbirini Member.

Results for DD01BAL01 returned no significant intersections in the black mudstone, although a fault zone beneath this interval returned 6.2m at 3.2% Pb, 0.17%Zn and 0.5%Cu. No elevated values were intersected in DD01BAL2 or DD01BAL3. Figure 6 shows previous drill holes with some intersections.

7.0 **BIBLIOGRAPHY**

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