

# **Birla Mt. Gordon Exploration**

# **Conquest EPM15996**

# **Annual Report**

 $23^{rd}$  January 2012 to  $22^{nd}$  January 2013

Distribution : 

Birla Mt Gordon – Mt Gordon Office

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## 1. SUMMARY AND RECOMMENDATIONS

This report describes the exploration activity undertaken by Birla Mt. Gordon Pty Ltd (Birla) within Conquest EPM15996 for the reporting period, in accordance with the program of activities for the permit. Birla's exploration philosophy and objective is the exploration for, and discovery of, copper mineralisation that can be economically treated at their nearby Mt Gordon operation. This is the fifth annual report for Conquest EPM15996 which was granted on 23/01/2008 for a period of 5 years.

Work completed on the tenement during the reporting period includes:

• *Drill access track reconstruction.* 

Historic drilling at the Caroline and Aslan prospects has outlined a widespread halo of pyritic mineralisation and hematitic alteration with local minor chalcopyrite and bornite mineralisation. Best historic intercepts were 36 metres at 0.42% copper at the Caroline prospect (including 2 metres at 2.9% copper) and 11 metres at 0.36% copper at the Aslan prospect (including 1 metre at 1.60% copper).

The tenement has been inadequately explored. Immediate work priorities include:

- A drill program (3 holes, 700m) at the Caroline prospect to test for extensions to historic drill results
- Detailed geological mapping west-northwest of the Aslan prospect along the Mount Robert/Lake Julius Fault structure
- Detailed geological mapping at Mount Robert prospect
- Completion of soil sample lines across the main structures
- Completion of airborne geophysical surveying of the entire tenement
- Interpretation of Hyperspectral satellite coverage of the tenement to determine alteration haloes associated with mineralisation.

## 2. Introduction

### 2.1. Introduction

This report describes the exploration activity undertaken by Birla Mt. Gordon Pty Ltd (Birla) within Conquest EPM15996 for the reporting period, in accordance with the program of activities for the permit. Birla's exploration philosophy and objective is the exploration for, and discovery of, copper mineralisation that can be economically treated at their nearby Mt Gordon operations. This is the fifth annual report for Conquest EPM15996 which was granted on 23/01/2008 for a period of 5 years.

### 2.2. Tenement Details

Tenement details are shown in Table 1 below.

EPM	BIM	BLOCK	SUB-BLOCK
15996	CLON	19	bcdefghik
15996	CLON	20	abfghlmn
15996	NORM	3402	Z
15996	NORM	3403	v w x y z

#### Table 1: Tenement details

### 2.3. Location and Access

Conquest EPM15996 is located 30km south-southeast of Mt Gordon as shown in Figure 1. Access is via station tracks leading from the Mt Gordon road. The EPM is located on the MAMMOTH MINES (6758), ALSACE (6858) and PROSPECTOR (6857) 1:100,000 sheets that form part of the CAMOOWEAL (SE5413), DOBBYN (SE5414) and CLONCURRY (SF542) 1:250,000 map sheets.

The map datum used for all survey work is the Australian Geodetic Datum (AGD84) using Universal Transverse Mercator Zone 54 (UTM54) map projection.

## 3. GEOLOGY

The geology is described in previous annual reports such as Little (2005) as follows:

"EPM15996 is underlain by rocks from the Haslingden Group and the Crystal Creek Block (Figure 2). The Crystal Creek Block comprises Mount Isa Group sediments preserved in a down faulted block. The Haslingden Group is represented by quartzite, sandstone and basalt of the Eastern Creek Volcanics (ECV). The southern boundary of the Crystal Creek Block is marked by the Mount Robert/Lake Julius Fault, which juxtaposes Mount Isa Group sediments (Moondarra Siltstone, Breakaway Shale and Native Bee Siltstone) against sediments and basalts of the ECV's. Similarly to the north, the Crystal Creek Block is bound against ECV's along the Crystal Creek Fault. Structurally the Crystal Creek region is complex, with folding, block faulting and refolding. Outcropping Haslingden Group rocks preserve a regional north-south structural fabric, which conflicts with the tight upright east-west trending folds preserved in adjacent Mount Isa Group rocks."

Previous work has shown that the Mount Isa Group units exhibit widespread Pb/Zn anomalism throughout the Crystal Creek Block with strong Cu anomalism along the bounding faults. The area is considered prospective for both stratiform sediment-hosted Pb/Zn deposits and Mount Isa/Mammoth-style breccia Cu deposits.

## 4. Previous Exploration

The Crystal Creek Block has an extensive exploration history. The following exploration activities have been reported for areas covering all or part of EPM15996.

Date	Tenement - Company - Activity	CR Numbers
1966	AtP 296M – Kern County Land Co.  - Regional grid mapping  - Soil/rock chip geochem  - RAB drilling (17 holes/1219m)  - No significant mineralisation	2577, 2082, 2083

Date	Tenement - Company - Activity	CR Numbers
1971	Surprise Creek, Crystal Creek. – Pickands Mather	
	& Co. Int.	
	- Regional stream sediments	
	- 23MLs in Crystal Creek transferred to Triako	
	Mines N.L. 1972	
	- Follow up auger sampling	
	- Minor IP, SP	
1974	AtP 1400 – Consolidated Gold Fields Aust. Ltd.	5192, 5641, 6037,
	- Photogeological mapping (1:25000, 1:2500,	6142
	1:500, 1:250)	
	- Ground magnetics	
	- Input EM (Mount Close)	
	- Costeaning (7, 1121m)	
	- Stream sediment	
	- Diamond drilling (2 holes)	
1974,	AtP 1339 – Consolidated Gold Fields Aust. Ltd	5191
1975	- Photogeological mapping, Mount Robert	
	1:25000, 1:5000)	
	- Diamond drilling (2 holes)	
	- Found Cu in fault breccia	
1977 to	AtP 1804M - Esso Exploration and Production	6718, 7496, 7675,
1981	Aust. Inc.	8199, 8417, 9909
	- Joint Venture – Triako + 23ML	, ,
	- Geological and photogeological mapping	
	- Aeromagnetic survey	
	- Rock chip sampling	
	- Percussion drilling and diamond drilling	
	- False colour Landsat imagery interpretation	
	- Withdrew 1981	
1983 to	AtP 3421M – Getty Oil Development Co. Ltd.	12425, 12927,
1986	- Rab (bedrock) drilling, two anomalous zones in	13821, 13822
1700	central and southern sub-basins	13021, 13022
	- Rock chip sampling	
	- Aerial photography (colour)	
	- Geological mapping	
	- Percussion and diamond drilling	
	- Petrography	
	- Best Pb/Zn drill results, uneconomic, at the	
	Egret prospect, southern sub-basin	
1987	AtP 3421 – Ausminco Pty Ltd	15838
1707	- Purchased Getty interests	13030
	1 dichased Getty Interests	

Date	Tenement - Company - Activity	CR Numbers
1990 –	EPMs 7336 and 7730, subsequently EPM 9890	23338
1995	MIM Exploration	25550
1770	- Drainage sampling	
	- Recon soil lines	
	- Airborne EM (Questem) survey	
	- Gridded soil lines	
	- Confirmed base metal anomalies along the Mount Robert Fault	
1996-	EPMs 10970 and 11803 Aberfoyle Resources,	
2007	Western Metals and Birla Mt Gordon	
2007	- Reprocessing and imaging of MIM AEM	
	- Ground EM at Mount Robert East, Mount	
	West, South Edge and Caroline prospects	
	- 1,370 surface geochemistry samples (max	
	82,500ppm Cu in soil, max 405ppm Cu in	
	stream sediment, max 161,000ppm Cu in rock	
	chip)	
	- Statistical analysis of stream sediment data	
	- Hyperspectral data collection and interpretation	
	- Reprocessing and imaging of IKONOS satellite	
	high-resolution multispectral, near-infrared	
	imagery - Reconnaissance and prospect geological	
	mapping mapping	
	- Drilling: 11 RC and diamond drill holes at	
	Caroline prospect and 1 diamond drill hole at	
	Aslan prospect	
	- Petrological study of one drill hole at Caroline	
	prospect	
2008-	EPM 15996 Birla Mt Gordon	
2010	- DHTEM on 2 holes	
	- 1 DD hole. 445.7m No significant	
	intercepts	

Table 2: Previous company exploration, 1956-2010

Historic drilling at the Caroline and Aslan prospects has outlined a widespread halo of pyritic mineralisation and hematitic alteration with local minor chalcopyrite and bornite mineralisation (Carthew and Oxenburgh 2007; Pike, Oxenburgh and Steinert 2008). Best historic intercepts were 36 metres at 0.42% copper at the Caroline prospect (including 2 metres at 2.9% copper) and 11 metres at 0.36% copper at the Aslan prospect (including 1 metre at 1.60% copper).

## 5. EXPLORATION WORK COMPLETED

## 5.1. Introduction

Exploration work completed during the reporting period includes:

• Drill access track reconstruction.

## 5.2. Drill Access Track Reconstruction

A drill program (3 holes, 700m) was proposed at the Caroline prospect to test for extensions to historic drill results. The historic drill access tracks were re-established during the reporting period but the drill program had to be postponed as a landholder compensation agreement was not concluded during the reporting period thus drill pads and sumps could not be constructed.

## 6. CONCLUSIONS AND RECOMMENDATIONS

Historic drilling at the Caroline and Aslan prospects has outlined a widespread halo of pyritic mineralisation and hematitic alteration with local minor chalcopyrite and bornite mineralisation. Best historic intercepts were 36 metres at 0.42% copper at the Caroline prospect (including 2 metres at 2.9% copper) and 11 metres at 0.36% copper at the Aslan prospect (including 1 metre at 1.60% copper).

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### 7. REFERENCES

Carthew S J and Oxenburgh S K 2007. Mt Gordon Combined Annual Report for the period ending February 28, 2007. Birla Mt Gordon unpublished report O0904.

Little G 2005. Combined Annual Report for the period ending 28 February 2005. Birla Mt Gordon Limited unpublished report Q0816.

Pike S, Oxenburgh S and Steinert G 2008. Mt Gordon Combined Annual Report for the period ending February 28, 2008. Birla Mt Gordon unpublished report Q0955.



