FINAL REPORT

EXPLORATION LICENCE 23432

Burnside Project – “HAYES CREEK NORTH”

9 May 2003 to 8 May 2012

Distribution:-

1. DOR Darwin, NT
2. Crocodile Gold Australia, Humpty Doo

Mark Edwards
July 2012
# TABLE OF CONTENTS

1 EXECUTIVE SUMMARY .................................................................................................................. 3
2 COPYRIGHT .......................................................................................................................................... 3
3 INTRODUCTION .............................................................................................................................. 3
4 LOCATION AND ACCESS ................................................................................................................. 4
5 TENEMENT DETAILS ...................................................................................................................... 4
6 GEOLOGICAL SETTING .................................................................................................................. 5
   6.1 Regional Geology ..................................................................................................................... 5
   6.2 Local Geology .......................................................................................................................... 6
7 EXPLORATION ACTIVITIES 2003 TO 2012 ...................................................................................... 7
8 REFERENCES ....................................................................................................................................... 11
1 **EXECUTIVE SUMMARY**

EL 23432 is located about 140km SE of Darwin, Northern Territory, and 3km north of Hayes Creek roadhouse on the Stuart Highway. The tenement was granted to Burnside Joint Venture in 2003, managed by Burnside Operations P/L comprising Territory Goldfields NL and Buffalo Creek Mines NL. These were wholly owned subsidiaries of GBS Gold Australia Pty Ltd. GBS Gold Australia went into voluntary administration on 15 September 2009 and Crocodile Gold Australia purchased all assets held by the previous owner on 6 November 2009.

The tenement overlies the Burrell Creek Formation of the Finniss River Group. East of the tenement is the Hayes Creek Fault, a major north east striking fracture system. The Burrell Creek Formation that forms high ground in the tenement occupies the axial zone of the fold. This is interpreted as a refolded syncline. South-east and South-west of the tenement, deformed and metamorphosed rocks of the South Alligator and Mount Partridge Groups are present, which are inter-bedded with the Zamu Dolerite.

Work that has been completed by Crocodile Gold includes the review of all historic data including past geophysical surveys, surface geochemical sampling and drilling, it has been noted that little work has been done on this tenement meaning a first pass program would be required. Seeing as this title has been held for around 10 years and little work completed on ground Crocodile Gold decided to relinquish as there are other higher ranked targets to explore.

2 **COPYRIGHT**

This document and its content are the copyright of Crocodile Gold Australian Operations (CGAO). The document has been written by Marcelle Watson for submission to the Northern Territory Department of Resources as part of the tenement reporting requirements as per Regulation 87 of the Minerals Titles Act.

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.

This report may be released to open file as per Regulation 125(3)(a).

3 **INTRODUCTION**

EL 23432 is located within historically prospective region of the Pine Creek Orogen, and is surrounded by a number of gold, uranium and base metal deposits/prospects.
Although located in a flat synclinal structure, it still may have some potential for mineralisation. So far, it has been explored without any success.

4 LOCATION AND ACCESS

EL 23432 is situated 140km SE of Darwin NT and 3km north of Hayes Creek Roadhouse on the Stuart Highway. The Brocks Creek exploration office lies 9km to the north, adjacent to the Darwin-Adelaide Railway. The Stuart Highway crosses to the south west of the tenement (Figure 1). Further east and north east extensive elevated outcrops and ridges of Burrell Creek Formation have been dissected by a network of creeks, which makes accessibility difficult. The tenement falls on the Pine Creek 1:250,000 sheet and on the Fenton 1:50,000 sheet. It falls within Douglas pastoral lease.

5 TENEMENT DETAILS

EL23432 was granted on 9 May 2003 and expires on 8 May 2009. It comprises 6 blocks that cover approximately 19.32 km². Three blocks were surrendered at the end of Year 2. It is registered in the Crocodile Gold Australia and is operated by Crocodile Gold Australian Operations Pty. Ltd. (CGAO). The tenement is unencumbered by third party tenements.

GBS Gold Australia went into voluntary administration and as a result of that all exploration and mining assets were placed under care and maintenance. In June 2009, Crocodile Gold Australia announced to purchase all assets held by GBS Gold Australia (liquidated) in the Northern Territory. After meeting regulatory and statutory requirements all these assets including EL 23432 were transferred to Crocodile Gold Australia on 6 November 2009.
6 GEOLOGICAL SETTING

6.1 REGIONAL GEOLOGY

Regional geology is outlined in many publications, notably Ahmad et al. (1994), and Needham and Needham and Stuart-Smith (1984), and Needham et al. (1988). The tenement is within the Pine Creek Orogen, a folded sequence of Palaeoproterozoic
pelitic and psammitic sediments, with interlayered cherty tuff units. Mafic sills of the Zamu Dolerite (~1.87Ga) intruded lower formations of the South Alligator Group.

Figure 2 illustrates the regional geology of the Burnside project.

Figure 2: EL25295 Regional Geology

6.2 **LOCAL GEOLOGY**

The tenement overlies the Burrell Creek Formation sediments of the Finniss River Group (Figure 3). East of the tenement is the Hayes Creek Fault, a major north east striking fracture system. The Burrell Creek Formation that forms high ground in the tenement occupies the axial zone of the fold. This is interpreted by AGSO as a refolded syncline.

South-east and South-west of the tenement, deformed and metamorphosed rocks of the South Alligator and Mount Partridge Groups are present (Figure 2), which are interbedded with the Zamu Dolerite. These are the Mount Bonnie Formation, Koolpin Formation, Gerowie Tuff and Wildman Siltstone. The Depot Creek Sandstone and Stray Creek Siltstone are present south of the EL 23432. There are no MODAT occurrences recorded within the tenement.
7  EXPLORATION ACTIVITIES 2003 TO 2012

During 2003, the first year of grant of the EL, exploration work by the Burnside Joint Venture initiated the structural analysis of the tenement setting. This was put into a regional context using SPOT and Magnetic images. This work was supplemented by further interpretation during 2004-05. Results of this interpretation show the synclinal nature of the underlying geology. The area is not considered to have a high priority for exploration potential.

Work done during Year 3 of tenure consisted of a historic data compilation. During 2004, a significant part of exploration activity included by checking the historical tenure data,
searching data such as COREDAT, MODAT, Explorer 3 and open file company reports 147 soil samples in Explorer 3, comprising 12 soil samples from Solomon Pacific work (and translated from local grid to AMG by Acacia), and 135 soil auger samples collected by Acacia, with a max value of 13ppb Au. 5 stream sediment samples from Acacia work on EL9428 were also examined. All samples were at or below 0.5ppb Au. 10 rock chip samples (3 from Solomon Pacific work; 7 from Acacia work) had a maximum value of 1ppbAu and 175ppm As; CSMO12 assayed at 4ppb Au from the Solomon Pacific work (approx MGA 766900E / 8504170N).

In 2009 and 2010 EL 23432 remained under care and maintenance. Under the instructions from Several Administrators, a detailed technical review of the project area was undertaken, which identified gold and uranium potential of the EL. In addition tenement ranking and valuation was also undertaken.

Figure 4 shows TMI image of the EL which appears to be flat over most of the tenement area. However, northern part of the tenement is characterised by some magnetic ridges which could have significant structure for mineralisation. Other exploration activities were reconnaissance visit of the area, tenement management and annual exploration report preparation.

Figure 4: TMI image of EL23432
Work completed by Crocodile Gold since taking over ownership in 2009 has been limited on EL23432. The tenement is part of the Thundelarra Uranium Exploration joint venture who reported minimal work on reviewing regional radiometric data on this tenement as part of the regional review of uranium exploration.

The only other work completed includes the detailed review of historical data on this tenements with the regional document review database that Crocodile Gold has been working on over the past 12 months. Due to the lack of previous work and also the lack of noted gold/base metal/uranium targets in MODAT, this tenement has not had a large amount of historic data to include, therefore expenditure is only limited. Figure 5 below shows the limited work completed to date on EL23432.

The exploration commitment for EL23432 for the final year was $20,000 but only $3,820 was spent on the tenement for the reporting period. This was mainly attributed to the regional database work and supporting equipment.

No physical on ground work on this tenement has been completed according to our records since the tenement was granted in 2003 by any owners including Crocodile Gold.
8 REFERENCES


