PARTIAL RELINQUISHMENT REPORT

SUBSTITUTE EXPLORATION LICENCE 25054

Maud Creek Project

For period 17 April 2006 to 13 September 2010

Distribution:-

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

Marcelle Watson
December 2011
# TABLE OF CONTENTS

1 EXECUTIVE SUMMARY .................................................................................................................. 3  
2 INTRODUCTION............................................................................................................................... 4  
3 LOCATION AND ACCESS.................................................................................................................. 4  
4 TENEMENT DETAILS ....................................................................................................................... 4  
5 GEOLOGICAL SETTING.................................................................................................................... 6  
  5.1 Regional Geology ......................................................................................................................... 6  
  5.2 Local Geology ............................................................................................................................... 7  
6 EXPLORATION ACTIVITIES FOR RELINQUISHED AREA – 2006 to 2010  
7 REFERENCES....................................................................................................................................... 9
EXECUTIVE SUMMARY

Substitute Exploration Licence (SEL) 25054, is located about 20 km east of Katherine. It surrounds the Maud Creek gold project which has approximately 1 million oz of contained gold. The tenement was granted on 18 May 2006 to Terra Gold which was a subsidiary of GBS Gold Australia. Crocodile Gold Australia purchased these assets in June 2009 after GBS Gold went into voluntary administration. A small portion of the tenement adjacent to the Maud Creek mining tenements was relinquished in September 2010.

The geology of the Project area comprises folded Palaeoproterozoic meta-sedimentary and volcaniclastic sequences. These are unconformably overlain by the Meso-Proterozoic Kombolgie Sandstone, which forms scarps. Flat-lying areas are covered by Cambrian Antrim Plateau basalts, and Cambro-Ordovician limestone covers much of southern part of SEL 25054. Economically important rock units of the project area comprise greywackes, mudstones and tuffs of the Palaeoproterozoic Tollis Formation. The Maud Dolerite intrudes the Tollis Formation and forms irregular bodies up to 200m in width. The margins of the Maud Dolerite are strongly sheared, with mineralised quartz-filled shear zones. The Tollis Formation hosts the Maud Creek Gold Project on adjacent tenements.

Exploration activities conducted over the relinquished part of SEL25054, from 17 April 2006 to 13 September 2010, has included several project reviews and campaigns of reconnaissance mapping and field visits.

A total of $735 has been spent over the life of the relinquished area.
2 INTRODUCTION

SEL 25054 (now called EL25054) covers strategic landholding around Maud Creek Gold Deposit which has approximately 1 million oz of contained gold. The Tollis Formation hosts the Maud Creek Gold Project on the adjacent mining tenements. This same lithological unit is found within SEL25054. A small portion (1.04sqkm) of the tenement adjacent to the Maud Creek mining tenements was relinquished in September 2010.

In this report, exploration activities conducted over the life of the relinquished area is documented.

3 LOCATION AND ACCESS

SEL 25054 is located about 20 km east of Katherine, and surrounds the Maud Creek Project on three sides. Minor tracks and fence lines give access either east or south west of Maud Creek or north from the Stuart Highway via a track to King River and Rodgers Knoll. Access within the tenement is not well developed. Topography within the tenement varies with undulating plains, ridges and mesas. Earlier reports note that traversing within the tenement is difficult due to remnant spear grass covering most of the tenement, and deeply incised creeks and gullies accessible by helicopter.

The location of the SEL25054 is shown in Figure 1.

4 TENEMENT DETAILS

SEL 25054 was originally granted to Terra Gold Mining Limited on 18 April 2006 and will expire on 18 April 2012. The tenement comprised of 21 blocks with an area of 65km².

GBS Gold International acquired Terra Gold Mining Ltd on 7 November 2005, but the Titles remain in the name of Terra Gold Mining. On 15 September 2008, GBS Gold Australia went into voluntary administration and all assets were placed under care and maintenance. Crocodile Gold Australia purchased all assets including SEL 25054 held by GBS Gold Australia in the Northern Territory. After meeting all regulatory and statutory requirements they were transferred to Crocodile Gold Australia on 6 November 2009.

Underlying cadastre is Freehold land held by Graham Mitchell.
Figure 1: SEL25054 Tenement Location
5 GEOLOGICAL SETTING

5.1 REGIONAL GEOLOGY

The Maud Creek goldfields lie within the exposed southern margin of the Pine Creek Orogen, a tightly folded sequence of Lower Proterozoic rocks, 10km to 14km in thickness, laid down on a rifted granitic Archaean basement during the interval ~2.2-1.87Ga. The sequence is dominated by pelitic and psammitic (continental shelf shallow marine) sediments with locally significant inter-layered cherty tuff units. Pre-orogenic mafic sills of the Zamu Dolerite event (~1.87Ga) intruded the lower formations of the South Alligator Group (Ahmad et al 1993). During the Top End Orogeny (Nimbuwah Event ~1.87-1.85Ga) the sequence was tightly folded, faulted and pervasively altered with metamorphic grade averaging greenschist facies with phyllite in sheared zones.

SEL 25054 straddles the southern margin of exposed Palaeoproterozoic rocks of the Pine Creek Orogen represented by the Finniss River Group. Only the upper part of the Finniss River sequence is represented and comprises the greywacke/tuff assemblage of the Tollis Formation with interleaved mafic rocks of the Dorothy Volcanic Member.

The Katherine River Group crops out extensively in the northeast of SEL 25054. It comprises the oldest parts of the sequence (sandstone-dominant Kombolgie Formation with interlayered volcanic members). The basal contact is locally concordant, but in a more regional sense is unconformable and transgressive. The Kombolgie Formation was folded on northwest-trending axes with geometry possibly related to reactivation of basin faults. It was also intruded along fault/fractures by numerous NE-trending dolerite dykes.

According to recent mapping within SEL 25054, the basement geology occupies erosion windows of Palaeoproterozoic Tollis Formation rocks that correlate with the host rocks of the Maud Creek gold field immediately to the west. The prospective sequence is irregularly exposed by creek erosion of on-lapping younger Proterozoic, Palaeozoic and Mesozoic cover.

Gold mineralisation at the nearby Main Zone deposit at Maud Creek (North of SEL 25054) occurs at the sheared/brecciated contact between bedded Tollis Formation sediments (footwall) and mafic tuff (hanging wall). The contact (Main Zone Structure) is a N-striking, E-dipping complex multistage reverse dislocation cut by cross-faults which interacted to assist dilation and focusing of the mineralisation (Harmony, 2002). Other known mineral occurrences in the project area are Mount Gates, Chessman-Red Queen and Carpentaria Valley. No gold occurrences have been reported in SEL 25054. Numerous NE-trending dolerite and/or lamprophyre dykes cut the Lower Proterozoic sequence and have a magnetic expression.
5.2 **Local Geology**

The geology of the Project area comprises folder Palaeoproterozoic meta-sedimentary and volcanioclastic sequences. These are unconformably overlain by the Mesoproterozoic Kombolgie Sandstone, which forms scarps. Flat-lying areas are covered by Cambrian Antrim Plateau basalts, and Cambro-Ordovician limestone covers much of southern part of SEL 25054. Economically important rock units of the project area comprise greywackes, mudstones and tuffs of the Palaeoproterozoic Tollis Formation. The Maud Dolerite intrudes the Tollis Formation and forms irregular bodies up to 200m in width. The margins of the Maud Dolerite are strongly sheared, with mineralised quartz-filled shear zones. The Tollis Formation hosts the Maud Creek Gold Project on adjacent tenements.

Maud Creek has a reported resource of 935,000oz contained Au. The old Maud Creek workings were hosted within the Maud Dolerite. Gold occurs in quartz-hematite lodes varying from a few centimetres to a metre in width, trending NE and NW.

Figure 2 illustrates the local geology of the Maud Creek Project.
6 EXPLORATION ACTIVITIES FOR RELINQUISHED AREA – 2006 TO 2010

Exploration activities conducted over the relinquished part of SEL25054, from 17 April 2006 to 13 September 2010, has included several project reviews and campaigns of reconnaissance mapping and field visits.

A total of $735 has been spent over the life of the relinquished area.
7 REFERENCES


