BRIDGING REPORT

EXPLORATION LICENCE 24682

Mt Bundy Project

2 February 2010 to 15 December 2010

Distribution:-

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

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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
  5.3 Deformation & Metamorphism .................................................................................................... 8
6 PREVIOUS EXPLORATION .............................................................................................................. 9
7 EXPLORATION ACTIVITY 2 FEBRUARY 2010 TO 15 DECEMBER 2010 .................................. 10
8 FORWARD PROGRAM YEAR ENDING 15 DECEMBER 2011 ................................................. 10
9 REFERENCES .................................................................................................................................... 11
10 APPENDIX 1 .................................................................................................................................... 12
EXECUTIVE SUMMARY

Exploration Licence 24682 is a significant tenement within Crocodile Gold Australia’s portfolio. It is located about 90 km east of Darwin and 8 km northwest of the Toms Gully Gold Mine. The tenement was granted on 1st February 2006 for a period of 6 years. The tenement comprises 34 blocks and covers 107.5 km2. It is part of the package which Crocodile Gold Australia purchased in November 2009 from GBS Gold Australia (liquidated).

EL 24682 is located within the Pine Creek Orogen, which has been interpreted as an intra-cratonic basin lying on an Archaean basement, and containing a 14 km thick sequence of Palaeoproterozoic sediments, accompanied by lesser volcanics, granitic plutons and dolerite intrusions. Predominant rocks exposed in the project area belong to the Wildman Siltstone, Koolpin Formation, Mt Bonnie Formation, Gerowie Tuff and Burrell Creek Formation. Palaeoproterozoic strata have been intruded by the Mount Bundy Granite.

During most of 2009 and 2010 GBS Gold Australia remained under voluntary administration. In April 2009, Crocodile Gold Australia announced to acquire all assets held by GBS Gold Australia (liquidated) in the Northern Territory. After meeting statutory and regulatory requirements all assets including EL 24682 were transferred to Crocodile Gold Australia on 6 November 2009, and the company immediately commenced exploration and mining activities in the region. After taking over control of EL 24682, Crocodile Gold Australia conducted a review and appraisal of the project area using existing exploration and geophysical data which identified the significant potential for gold, uranium and base metal mineralisation.

There were no further exploration activities for EL24682 during the reporting period.

During the 2011 reporting period, exploration activities for EL24682 will include a program of geological mapping and some soil/rock chip sampling. If results are encouraging it may lead to a program of RC or RAB drilling. Samples collected during drilling will be assayed for gold and base metals.
2 INTRODUCTION

EL 24682 is situated about 90 km east of Darwin and 8 km south of the Toms Gully Gold Mine. The EL is part of tenement package which GBS Gold Australia Pty Ltd acquired form the Renison Consolidated Mines Limited in 2007 and later was acquired by Crocodile Gold Australia Pty Ltd. Geological setting of the tenement suggests significant potential for gold, base metal and uranium mineralisation.

Crocodile Gold Australia applied for group technical reporting status on the group of tenements comprising the Mt Bundy project area. This was approved by Department of Resources in December 2010 and the Mt Bundy project area was given the group reporting number GR-184/11. This report has been written to bridge the gap between the previous annual report ending 2 February 2010 and the new group Technical Reporting Anniversary of 16 December 2010.

In this report, exploration activity conducted between 2 February 2010 and 15 December 2010 is reported.

3 LOCATION AND ACCESS

The tenement is located on the southern side of the Arnhem Highway (Figure 1) about 90 km from Darwin. EL24682 can be reached by Arnhem Highway and then via the Rustler’s Roost access road leading from the Arnhem Highway, and then via secondary tracks. These tracks provide good access for 4WD vehicles during the dry season, however these tracks become impassable after heavy rain, and therefore no access is possible throughout the wet season.

4 TENEMENT DETAILS

This Tenement was was granted to Renison Consolidated Mines on 1st February 2006 for a period of 6 years. The tenement comprises 34 blocks covering 107.5 km2. Underlying cadastre belongs to McKinlay River Cattle Station Pty Ltd (PPL 1184) and Berkshire Nominees Pty Ltd.

In July 2007, by virtue of an agreement between GBS Gold Australia and Renison Consolidated Mines, the former acquired all exploration and mining tenements in the Toms Gully area including EL 24682. However, GBS Gold Australia went into voluntary administration on 15 September 2008, and as result of that all assets including EL 24682 were placed under care and maintenance. Crocodile Gold Australia purchased all assets held by GBS Gold Australia (liquidated) and after meeting statutory and regulatory requirements, EL 24682 along with other assets were transferred to Crocodile Gold Australia on 6 November 2009.

EL 24682 is also part of an optional agreement between GBS Gold Australia Pty Ltd and Rum Jungle Pty Ltd which allows the later to explore for uranium mineralisation.
Figure 1: EL24682 Tenement Location
5 GEOLOGICAL SETTING

5.1 REGIONAL GEOLOGY

EL 24682 is located within the Pine Creek Orogen, which has been interpreted as an intra-cratic basin lying on an Archaean basement, and containing a 14 km thick sequence of Palaeoproterozoic sediments, accompanied by lesser volcanics, granitic plutons and dolerite intrusions. The northern part of the project area contains the oldest sediments such as the Mount Partridge Group that is unconformably overlain by the South Alligator Group.

The South Alligator Group mainly contains the Koolpin Formation, Mt Bonnie Formation and Gerowie Tuff. The southern portion of the project area is comprised of the Burrell Creek Formation which conformably overlies the South Alligator Group. Towards NE, the rocks have been intruded by the Mount Bundy Granite. Tertiary and Quaternary Soils and Gravel’s unconformably overlie all the lower lying portions of the tenement areas, generally referred to as “Black Soils Regions”. All of the Palaeoproterozoic sediments and volcanics in the Mount Bundy area were folded in a major deformation event dated around 1800 million years. The fold axes trend north-northeast, and generally plunge gently to the south. Figure 2 illustrates the geology of the region.

Figure 2: EL24682 Regional Geology
5.2 Local Geology

The Mount Partridge Group is represented by the Wildman Siltstone, which is interpreted to be up to 1500m thick. In the Mount Bundy Region the Wildman Siltstone consists of laminated and banded shale, carbonaceous and often pyritic siltstone inter-bedded with undifferentiated volcanics in up to 100m interbeds, minor dolomitic sediments may also be present. The sediments near the granite intrusion may also be hornfelsed. The Wildman Siltstone is interpreted to be prospective for large tonnage, low-grade gold deposits and small tonnage, high-grade deposits. Wildman Siltstone hosts the Tom’s Gully gold deposit.

The Koolpin Formation, Gerowie Tuff and the Mount Bonnie Formation represent the South Alligator Group. The rocks of the South Alligator Group are considered to be prospective for either large tonnage, low grade gold deposits (such as that at the nearby Rustler’s Roost gold mine) or small tonnage, high grade deposits.

The Koolpin Formation comprises ferruginous siltstone and shale, which is commonly carbonaceous and pyritic. Chert bands and nodular horizons are common and lenses of ironstone occur occasionally, as haematitic breccias throughout the sequence into undisturbed quartz-veined siltstone and shale. Minor components of dolomite can also occur. The Koolpin is one of the most prospective units in the Mount Bundy Region for hosting mineralisation (West Koolpin, Taipan, BHS and North Koolpin Open Pits at Quest 29) are all within Koolpin sediments.

The Gerowie Tuff conformably overlies the Koolpin and has similar characteristics of siltstones and shales but is not as iron rich. Within the Mount Bundy Region it is dominated by graded beds of siliceous tuffaceous mudstones grading to greywacke and arenite, diagenetically altered, up to 600m thick, and generally poorly mineralised. The highly siliceous component of the tuffs and arenites make them resistant to erosion, and they tend to form areas of high relief.

The Mount Bonnie Formation conformable overlies the Gerowie Tuff and is dominated by a shallow marine sequence of interbedded and graded siltstone, chert and greywacke with occasional BIF’s. The unit can be up to 600m thick and is generally iron rich and may be siliceous in places. The Mount Bonnie Formation hosts the Rustler’s Roost deposit.

Conformably overlying the Mount Bonnie Formation is the Burrell Creek Formation interpreted as a flysch sequence of fine to coarse marine sediments and appears to be part of continuous sedimentation process. Due to the lack of marker horizons and poor exposure the width of the unit is unknown but is thought to be >1000m. This Formation is considered prospective for large low-grade gold deposits as typified by the Batman deposit of Mount Todd. The potential also exists for small high-grade deposits similar to Possum and Happy Valley with John Shields GIGIAC Theory (Gold in Greywacke in Anticlinal Crests). Also high-grade deposits such as Bandicoot, Marrakai and the Ringwood line which all lie on a major deep-seated magnetic trend (Hall, 2007).
The Zamu Dolerite occurs as small bodies that are poorly exposed, as a result of its weathering, some rubble boulders may be present at surface. It consists of altered quartz dolerite and gabbro and is generally narrow and broadly conformable to bedding as thin sills. The Zamu Dolerite is the only known suite of mafic intrusives that were emplaced prior to regional metamorphism and deformation. The Zamu Dolerite appears to have a controlling influence on the mineralisation at Quest 29 within the Koolpin sediments but this is not fully understood at this stage. Mineralisation is also hosted within this unit at Quest 29 and also at Chinese Howley.

5.3 Deformation & Metamorphism

Regional deformation with north-northeast folding plunging gently south occurred around 1800 My, based on a rubidium-strontium analysis, causing metamorphism to greenschist, and sometimes higher to amphibolite facies. This event also resulted in the intrusion of thin sills of Zamu Dolerite, and the post-tectonic emplacement of the Mount Bundy Granite and Mount Goyder Syenite is a comparable cogenetic pluton dated at 1790 ± 110 My in the region. Structural deformation of the meta-sediments is complex.

The major folding episode resulted in tight folds whose axes plunge southwest. However within these major folds the more incompetent beds, i.e. carbonaceous shales, have been deformed into localised complex structures. The granitic emplacement has also influenced the fold structures as can be seen on the regional geological map. Metamorphism to greenschist facies through dynamic compression associated with intense folding is common. The granitic emplacement and the associated structural deformation and generation of hydrothermal fluids are thought to have been responsible for most of the gold enrichment throughout the Pine Creek Geosyncline. E.g. Cosmo Howley, Rustlers Roost, Toms Gully, Moline, Mt Todd and Quest 29.
6 PREVIOUS EXPLORATION

The earliest known record of exploration in this area of the Mount Bundy region was undertaken during the 1970’s by Geopeko and then by CRA Exploration. Geopeko used costeaneing, rock chipping, soil sampling, drilling and core sampling, while CRA mainly used rock chipping.

During the early 1980’s Aquitaine Australian Minerals/ Pan D’Or Mining, Jimberlana Mining, Optimal Mining and ACA Howe Australia all explored the area. Euralba Mining and Burmine completed gridding, minor drilling and rock chip sampling.

During the late 1980’s to the early 1990’s Carpentaria Gold held the tenements over the area, in which they took rock chip, soil, and stream sediments samples as a means of searching for gold deposits. Normandy Exploration conducted stream sediment sampling. Euralba Mining/Burmine undertook rock chip, stream sediment sampling, costeaneing and drilling.

During the 1990’s Normandy Exploration and Poseidon Exploration held the tenements over the area, collecting stream sediment samples and minor percussion drilling with diamond tails. Soil samples were taken within by Northern Gold.

During 2005-06, Renison Consolidated Mines held the tenement and conducted a desktop study and compiled geological and geochemical data to assess the mineral potential of the area (Figure 3). Several field excursions were undertaken across country. This area has been cut extensively by Quartz veins which form remnant low hills and ridges.

Other exploration activities completed on EL 24682 has consisted of a literature review of previous land holders and compilation of data and entry into the Regional GIS database and interpretation of remote-sensing imagery over the project area.

During most of 2009 to 2010, GBS Gold Australia remained under voluntary administration. An appraisal, ranking and valuation of EL 24682 was undertaken in order to prepare asset for sale. In April 2009 Crocodile Gold Australia announced to acquire all assets held by GBS Gold Australia (liquidated) in the Northern Territory. After meeting statutory and regulatory requirements all assets including EL 24682 were transferred to Crocodile Gold Australia on 6 November 2009, and the company immediately commenced exploration and mining activities in the region. After taking over control of EL 24682, Crocodile Gold Australia conducted a review and appraisal of the project area using existing exploration and geophysical data which identified the significant potential for gold, uranium and base metal mineralisation.
7 EXPLORATION ACTIVITY 2 FEBRUARY 2010 TO 15 DECEMBER 2010

There was no further work completed on EL24682 during the February to December 2010 reporting period.

8 FORWARD PROGRAM YEAR ENDING 15 DECEMBER 2011

This tenement now forms part of the Mt Bundy Exploration project for both exploration activities and for group reporting. Exploration activities planned for this project for the coming year will include:

- Desk top review of all exploration activities conducted by Joint Venture partner Rum Jungle Resources, particularly looking at exploration for Gold and Base Metals
- Detailed review of all historic and recent geophysical data for the project
- Thorough review of all geochemical data for the project area, to be used in future target generation
- RC and diamond drilling with subsequent Mineral Resource estimation of advanced projects (such as Quest 29) in the Mt Bundy project area
- Review of targets using Satellite imagery in conjunction with regional geology mapping
- Field mapping of targets highlighted from these reviews
- RAB or RC drilling or highest ranked targets

Through these activities Crocodile Gold will target mainly Gold and Base Metal targets in the Mt Bundy Project area to add to the existing Mineral Resources at Mt Bundy (formally Rustlers Roost) and Tom’s Gully. By identifying additional deposits in this project area the economic viability of this project area can be assured.

During the 2011 reporting period, exploration activities for EL24682 will include a program of geological mapping and some soil/rock chip sampling. If results are encouraging it may lead to a program of RC or RAB drilling. Samples collected during drilling will be assayed for gold and base metals.

This program is budgeted at least $26,000.
9 REFERENCES


Unpublished statutory report for Northern Territory Department of Mines and Energy.


NTDME, 1999. Rum Jungle Magnetics Survey

NTDME, 2000. Mary River Magnetics Survey

