



## **BRIDGING REPORT**

***EXPLORATION LICENCE 10367***

***Mt Bundy Project***

**23 OCTOBER 2010 TO 15 DECEMBER 2010**

Darwin 1:250,000 SD5204  
Noonamah 1:100,000 5172

**Distribution:-**

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

**Report Number: EL10367 BR2010**

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February 2011**

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## 1 EXECUTIVE SUMMARY

EL10367 is an important tenement within Crocodile Gold Australia's portfolio which is located about 90 km SE of Darwin, and approximately 2 km south of the Rustlers Roost Mine along the Arnhem Highway.

EL10367 was originally applied for by Renison Consolidated Mines NL on the 22 October 2003 as part of a group of tenements (Au Quest Project) that have a northwest trend of mineralisation known as Noonamah-Corroboree trend. On 6 November 2009, Crocodile Gold Australia acquired EL 10367 after purchasing all assets held by GBS Gold Australia (liquidated).

The licence area encompasses a suite of meta-sedimentary rocks belonging to the Mt Bonnie Formation and the Burrell Creek Formation. These comprise brown to grey-green, thickly bedded to massive, fine to coarse feldspathic meta-greywacke with graded bedding in places and minor lenses of volcanolithic pebble conglomerate; brown to grey, laminated phyllite, slate and mudstone and minor quartz-mica schist.

During 2009-2010, Crocodile Gold Australia acquired the control of the tenement and commenced a thorough review of the project area. EL 10367 is situated in a close proximity of Rustlers Roost and Toms Gully gold mines and has similar geological setting which points towards mineral potential of the project area. However, much attention remained focused on mining and processing activities. Other activities during the 2009-2010 period included reconnaissance visits, tenement administration and report writing.

There was no further work conducted on EL10367 during this reporting period.

Exploration activity for the next reporting year will include a detailed review of previous geophysical and geochemical data as well as field mapping and sampling. A small RAB drilling campaign may be completed if targets are identified.

## **2 INTRODUCTION**

The project area forms a gold mineralised trend which is known as Noonamah-Corrobooree trend and EL 10367 was originally applied for by Renison Consolidated Mines NL to cover vacant ground in that area. The licence was then granted to GBS Gold Australia however, in 2009, Crocodile Gold Australia acquired EL 10367 after purchasing all assets held by GBS Gold Australia (liquidated).

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 22 October 2010 and the new group Technical Reporting Anniversary of 16 December 2010.

This report deals with exploration activity carried out from 23 October 2010 to 15 December 2010.

## **3 LOCATION AND ACCESS**

EL10367 is situated 90km SE of Darwin NT and two kilometres south of the Rustlers Roost Gold Mine along the Arnhem Highway.

Access to the tenement is 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.

The Burrell Creek Formation is the only geological sequence throughout the tenement area; it has been extensively lateritised and then eroded to a topographically flat surface which dips to the south. The Rustlers Roost Gold Mine is only a few kilometres north of the tenement.

The tenement falls on the Darwin 1:250,000 sheet and on the Noonamah 1:100,000 sheet. Underlying cadastre is held by B.F. Coulter under PPL 1163.

## **4 TENEMENT DETAILS**

EL10367 was granted to Renison Consolidated Mines NL on 22 October 2003. On 25 July 2007, GBS Gold Australia Pty Ltd acquired all tenements and Toms Gully gold mine held by Renison Consolidated Mines NL including EL 10367 in the Toms Gully area, Northern Territory. Due to financial difficulties, GBS Gold Australia went into voluntary administration on 15 September 2008 and all assets including EL 10367 were placed under care and maintenance. On 6 November 2009, Crocodile Gold Australia announced it was purchasing all assets held by GBS Gold Australia (liquidated) in the Northern Territory. It comprises 5 graticular blocks that covering an area of approximately 17 km<sup>2</sup> (Figure 1). The licence is due to expire in October 2011.

The new owner immediately commenced exploration, mining and processing activities in the region.

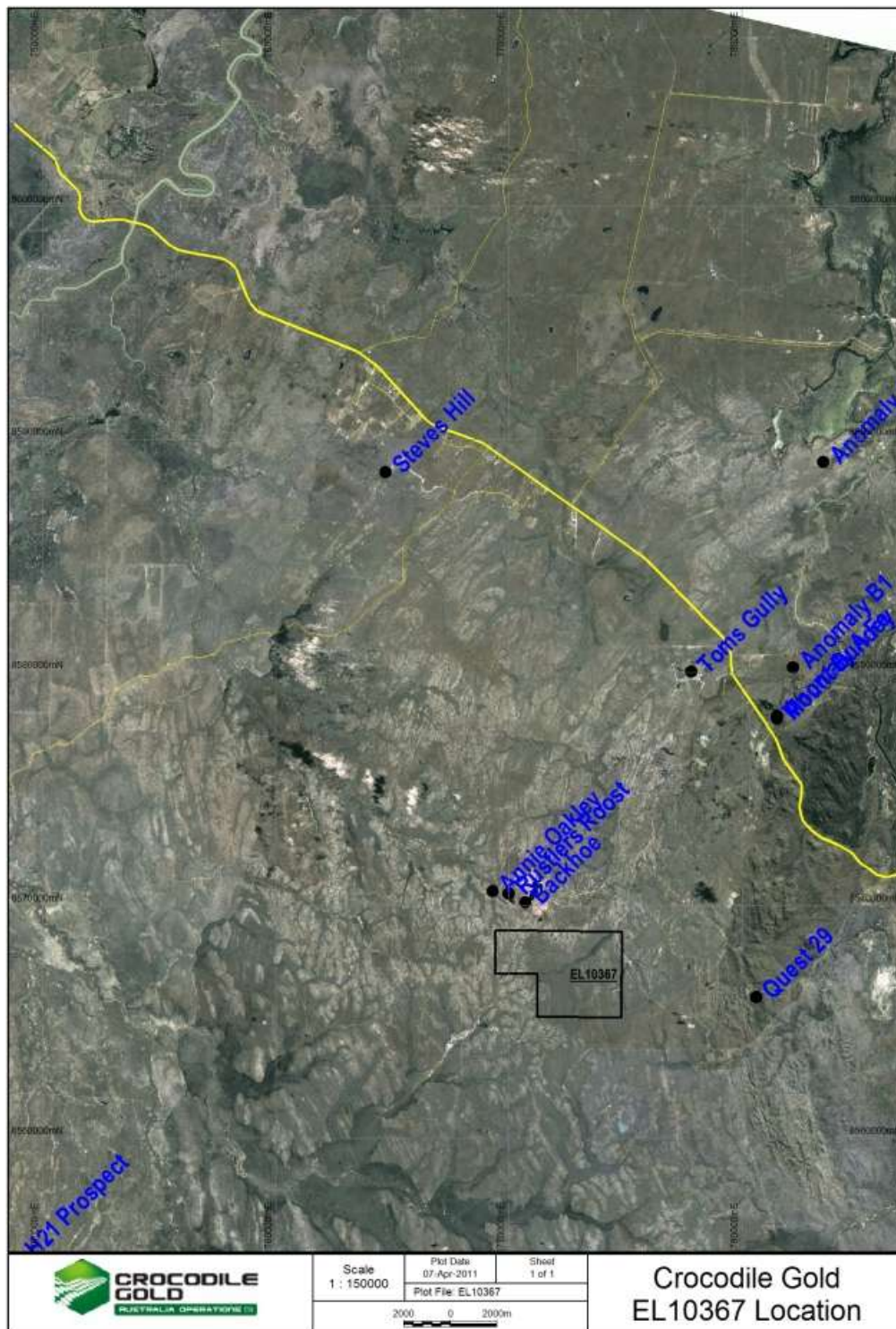


Figure 1: EL10367 Tenement Location

## 5 GEOLOGICAL SETTING

### 5.1 REGIONAL GEOLOGY

EL10367 is located within the Pine Creek Orogen, which has been interpreted as an intracratonic basin lying on an Archaean basement, and containing a 14 km thick sequence of Proterozoic sediments, accompanied by lesser volcanics, granitic plutons and dolerite intrusions.

The Mount Partridge Group is unconformably overlain by the South Alligator Group, which comprises most of the tenement areas. The southern portion of the Project area is comprised of the Burrell Creek Formation, which conformably overlies the South Alligator Group. Tertiary and Quaternary sediment overlie all the low lying portions of the tenement areas, generally referred to as “black soils regions”. All of the Early Proterozoic sediments and volcanics in the Mount Bundy area were folded in a major deformation event dated at 1.87 – 1.85 Ga known as Top End Orogeny. The fold axes trend north-northeast, and generally plunging gently to the south.

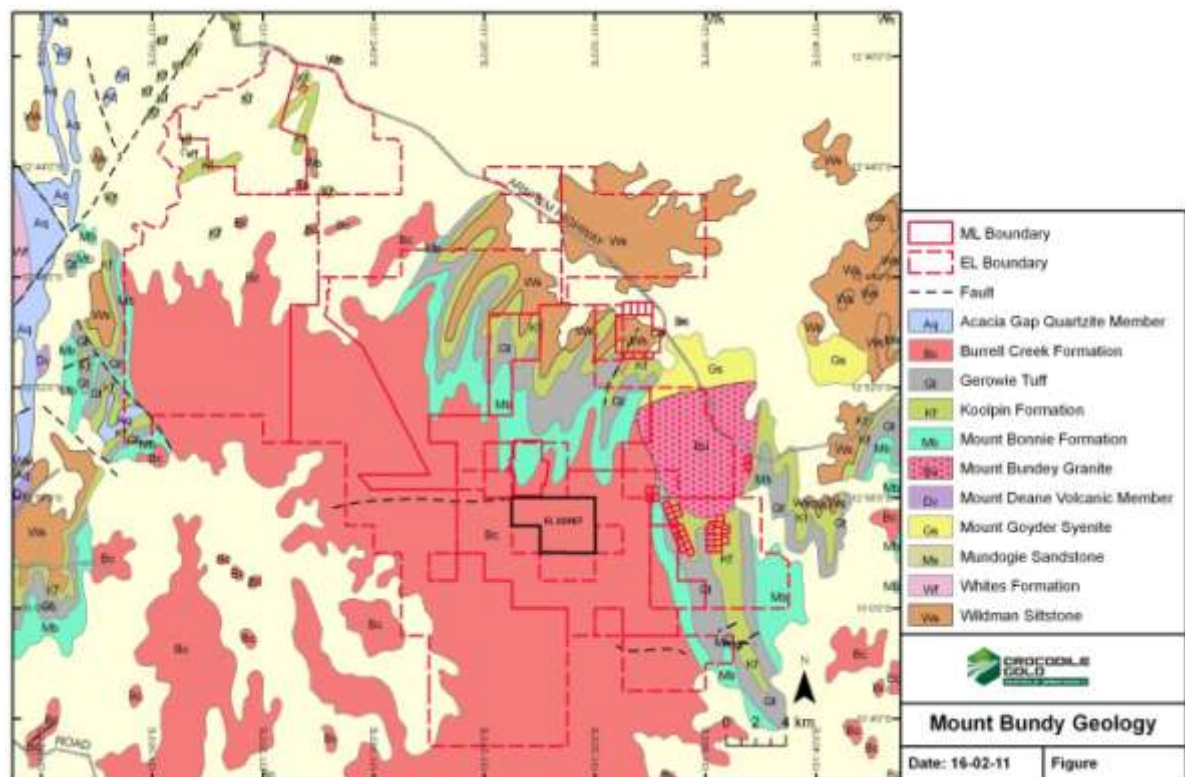


Figure 2: EL10367 Regional Geology

## 5.2 LOCAL GEOLOGY

The *South Alligator Group* is represented by the **Mount Bonnie Formation** which conformably 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.

The *Finniss River Group* is represented by the **Burrell Creek Formation** which unconformably overlies the Mount Bonnie Formation and is 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.

*Intrusives* within the Exploration Licence include the **Zamu Dolerite**. It 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.

## 6 PREVIOUS EXPLORATION

The earliest known record of exploration in this area of the Mount Bundy region was briefly undertaken in 1979 by Optimal Mining/ ACA Howe Australia and then by Aquitaine Australian Minerals/ Pan D'Or Mining/ Jimberlana Mining during the early 1980's. During 1983 and 1984 Talmina Trading held the tenement for EL2252.

During the late 1980's Australia Coal and Gold Holdings occupied EL4497 in which they used rock chip sampling and minor RAB drilling, as did Euralba Mining/Burmine/ Carpentaria Gold (EL4165) Joint Venture. They also used stream sediment sampling. Cyprus Gold Australian Corporation/ Greenbushes/ Moline Joint Venture also held EL4497.

During the early 1990's Carpentaria Gold held the tenements under EL5346, EL7166 and EL7389; in which they used costeaning, rock chip sampling, soil sampling, stream sediment sampling, trenching and drilling (both RC and diamond) as a means of searching for gold deposits, stream sediment sampling was used successfully to find the nearby Tom's Gully Deposit. In association with Euralba Mining/Burmine, Carpentaria Gold used stream sediment sampling and rock chip sampling and drilled RC holes within EL6214. Also during the early 1990's Normandy Exploration used stream sediment sampling within EL3019 and EL7569.

From the late 1990's until 2002 Territory Goldfields and Northern Gold drilled in EL8702, along with collecting samples of rock chips, soil samples and stream sediment sample for analysis.

During 2005-2006, exploration of EL10367 comprised of several field excursions along with vehicle and geological traverses across country. The central area of the licence is dominated by a remnant lateritic surface which gently dips to the south. Broad in-filled alluvial valleys drain the eastern part of the tenement. The north-western sector is being actively dissected by several prominent creeks draining to the south-west; numerous gullies occur as tributaries to the prominent creeks throughout the area. This area has been cut extensively by Quartz veins which form remnant low hills and ridges.

During 2006-2007, EL 10367 was purchased by GBS Gold Australia who conducted a review of the project area until they went into voluntary administration. At the same time JV partner Rum Jungle Uranium Limited flew a high resolution geophysical survey which identified some anomalies for further perusal.

During 2009-2010, Crocodile Gold Australia took over the control of EL 10367 and other assets held by GBS Gold Australia (liquidated), and commenced mining, processing and exploration activities in the region. The new owner embarked on the due diligence of all the assets including EL 10367. Crocodile Gold regards EL 10367 highly due to its close proximity to the Rustlers Roost and Toms Gully gold mines, and having extension of similar geological structures which host gold mineralisation.



## **7 EXPLORATION ACTIVITY 23 OCTOBER 2010 TO 15 DECEMBER 2010**

There was no further work done on EL10367 during the 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 on 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.

Exploration activity for the next reporting year will include a detailed review of previous geophysical and geochemical data (Figure 3) as well as field mapping and sampling. A small RAB drilling campaign may be completed if targets are identified.

This program is estimated to cost approximately \$20,000.

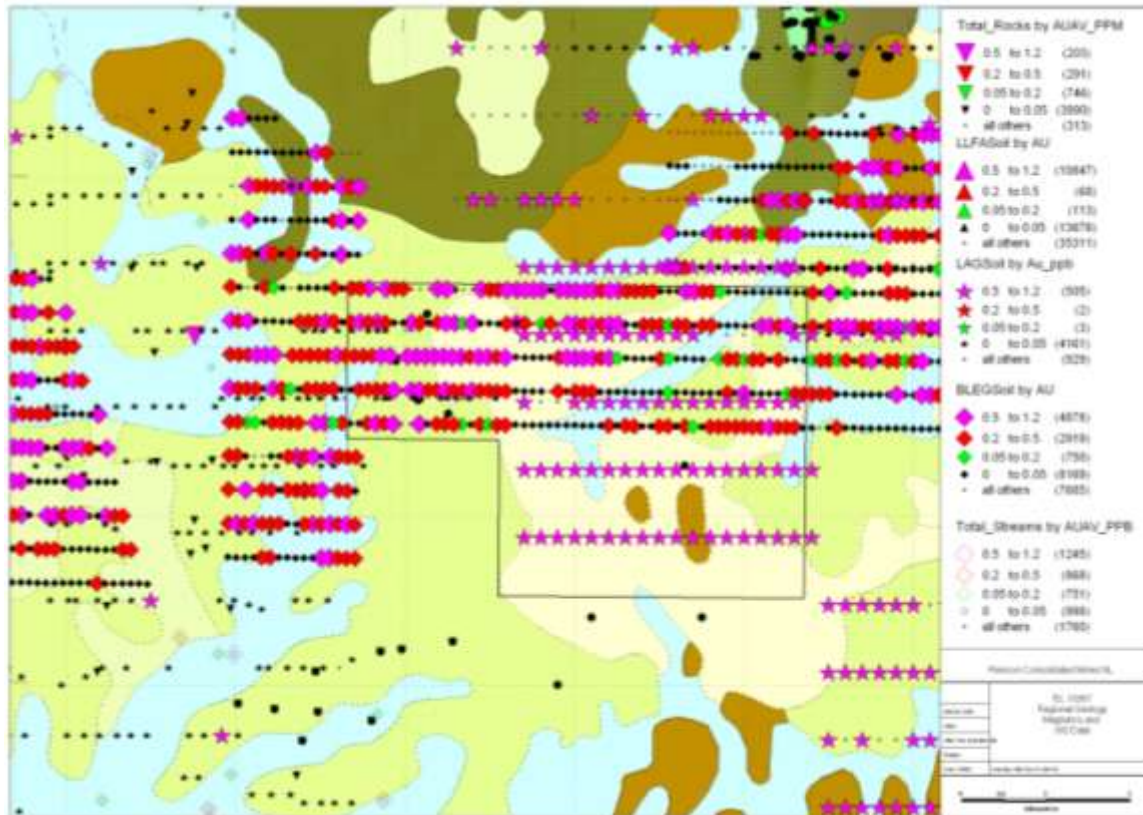


Figure 3: EL10367 Geochemical data

The actual budget and work program for EL10367 for 2011 is detailed in Table 1 below.

Detailed review of geophysical data	\$5,000
Detailed review of geochemical data	\$2,500
Field recon & sampling	\$2,500
RAB drilling program (200m)	\$5,000
<b>TOTAL</b>	<b>\$20,000</b>

Table 1: EL10367 work program & budget for 2011

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