BRIDGING REPORT

EXPLORATION LICENCE 23540

Burnside Project – Saunders Creek

17 February 2010 to 15 January 2011

Distribution:-

1. DOR Darwin, NT
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1 EXECUTIVE SUMMARY

Exploration License (EL) 23540 is located about 145 km NE of Darwin in the immediate vicinity of Iron Blow gold and base metals deposits. EL 23540 was granted on 17 February 2003 and will expire on 16 February 2011. It comprises five blocks that cover approximately 16.1 km². The tenement formed part of the eastern boundary of tenement holdings comprising the Burnside Joint Venture, which was owned by GBS Gold Australia (liquidated). Crocodile Gold Australia purchased all assets held by GBS Gold Australia (liquidated), including EL 23540 and took over the control on 6 November 2009.

The EL is dominated by the rocks of the Koolpin Formation along with Gerowie Tuff and intruded by dykes of the Zamu Dolerite. Towards east, the stratigraphic horizon is intruded by the Prices Springs Granite. Strata are tightly folded on NNW striking axes during the Barramundi Orogeny. The folds plunge shallowly to the NNW and locally in the centre of the tenement, and have undergone strike faulting perhaps as a result of axial failure.

During 2008 and 2009, GBS Gold Australia remained under voluntary administration. The main activity was to prepare assets for sale. For this purpose, a technical review, tenement ranking and valuation was undertaken. During the review, significant magnetic anomalies were identified within the project area. These anomalies have the potential to host gold and base metal mineralisation in the Pine Creek Orogen.

There was no further exploration completed for EL23540 during the reporting period.

Crocodile Gold Australia regards the tenement highly due to its gold and base metal potential. For the 2011 to 2012 reporting period, exploration activities will include a regional geophysical VTEM survey and geochemical sampling over the Burnside project area; this will include parts of EL23540. The tenement is situated close to the Mt Bonnie and Iron Blow deposits which Crocodile Gold considers high-ranked targets for drilling and geophysical surveys.
2 INTRODUCTION

EL23540 (Saunders Creek) was applied for to cover vacant ground east of Yam Creek and Iron Blow. The area was considered prospective for gold and base metals mineralisation, with the possibility of repeat mineralisation like the Yam Creek and Iron Blow deposits. Crocodile Gold Australia took over the control of the tenement on 6 November 2009, after purchasing all liquidated assets of GBS Gold Australia.

Crocodile Gold Australia applied for group technical reporting status on the group of tenements comprising the Burnside project area. This was approved by Department of Resources in December 2010 and the Burnside project area was given the group reporting number GR-185/11. This report has been written to bridge the gap between the previous annual report ending 16 February 2010 and the new group Technical Reporting Anniversary of 15 January 2011.

In this report, exploration activity conducted between 17 February 2010 and 15 January 2011 is documented.

3 LOCATION AND ACCESS

EL 23540 is situated 150km SE of Darwin and 5km SE of Grove Hill on the Darwin-Adelaide railway (Figure 1).

Access to the tenement is via the Stuart Highway, thence north via the Grove Hill unsealed road that passes west of the tenement. Access can be gained via bush tracks that peel off north from the Mt Bonnie access road, towards Iron Blow. Alternatively tracks lead into the tenement south from the railway line east of Grove Hill. The headwaters of the Margaret River and Saunders Creek pass through the tenement and flow northwards. The tenement falls on the Pine Creek 1:250,000 sheet and on the Burrundie 1:50,000 sheet. The tenement also is within the Douglas Pastoral Lease. Apart from the course of Saunders Creek that passes through the eastern half of the ground, outcrops occur through much of the tenement, comprising undulating hills and ridges of low to moderate relief. The western sector of the ground in particular host units of the Zamu Dolerite and Gerowie Tuff and is the most elevated and dissected. The eastern half of the tenement is more topographically subdued and is affected by Saunders Creek and its black soil alluvial deposits.

4 TENEMENT DETAILS

EL 23540 was granted on 17 February 2003 and expired on 16 February 2009. The tenement was renewed for a period of two years on 12 January 2009, and now will expire on 16 February 2011. An application for renewal was lodged on 16 November 2010. It comprises five blocks that cover approximately 16.1 km² (Figure 1). The tenement was previously held by the Burnside JV, then taken over by GBS Gold Australia in. However, GBS Gold Australia went into voluntary receivership on 15 September 2009 and all assets were placed under care and maintenance. On 6 November 2009, Crocodile Gold Australia purchased all assets including EL 23540, and commenced exploration and mining activities in the region.
Figure 1: EL23540 Tenement Location
5 GEOLOGICAL SETTING

5.1 REGIONAL GEOLOGY

EL23540 is situated within 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 interlayered 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 phylite in sheared zones.

The Cullen intrusive event introduced a suite of fractionated calc-alkaline granitic batholith into the sequence in the period ~1.84-1.1.78Ga. These high temperature I-type intrusives induced strong contact metamorphic aureoles ranging up to (garnet) amphibolite facies, and created regionally extensive biotite and andalusite hornfels facies. Less deformed Middle and Late Proterozoic clastic rocks and volcanics have an unconformable relationship to the older sequences. Flat lying Palaeozoic and Mesozoic strata along with Cainozoic sediments and proto-laterite cementation overlie parts of the Pine Creek Orogen lithologies. Recent scree deposits sometimes with proto-laterite cement occupy the lower hill slopes while fluviatile sands, gravels and black soil deposits mask the river/creek flats areas.

There is a tendency for gold mineralisation to be focused in anticlinal settings within strata of the South Alligator Group and lower parts of the Finniss River Group. This sequence evolved from initial low energy shallow basinal sedimentation to higher energy deeper water flysch facies. Figure 2 illustrates the regional geology of the Burnside project.
The tenement encloses a sequence of South Alligator Group sediments that lie on the northern sector of the Burrundie Dome. The Margaret Syncline lies to the west and separates the Burrundie Dome from the Yam Creek sequence. To the east of the tenement, irregular and perhaps shallowly west-dipping Prices Creek Granite contact terminates the South Alligator strata.

Within the tenement, the South Alligator Group is represented by Koolpin Formation and Gerowie Tuff, both of which were extensively intruded and concordantly dilated by sills of Zamu Dolerite. All were tightly folded on NNW striking axes during the Barramundi Orogeny. The folds plunge shallowly to the NNW and locally in the centre of the tenement, and have undergone strike faulting perhaps as a result of axial failure.
6 PREVIOUS EXPLORATION

An unnamed copper occurrence is reported within the tenement (Kitto, 1969). The occurrence is vein-hosted and characterised by chalcopyrite and malachite in quartz veining within siltstones. Since then, a number of investigations were carried out covering part or whole of the EL 23540. First recorded exploration program was completed by Geopeko Limited. In this program, geological and structural interpretation of the area was undertaken and economic potential was established. Geochemical samples were taken and analysed for Cu, Pb, Zn, As, Bi, Sb, Sn, Fe, Mn and Au. A number of anomalous zones were identified which were considered worthy of follow-up for gold and base metal mineralisation.

In 1983, Geopeko re-interpreted the geochemical data obtained during 1983 exploration program (Rolfe and Radford, 1983) and identified 6 anomalous areas. In one of anomalies, it was found that anomalous gold in soil samples was sourced by a breccia gossans and two BIF units in the Middle Koolpin Formation. Rock chip sampling of these units indicate that gold values are generally less than 0.1 g/t. Another sample of the gossan assayed 3.10 g/t Au and the upper BIF assayed 6.94 g/t Au. These results are although sporadic but warranted further evaluation.

A radiometric appraisal part of the EL 23540 was undertaken by Total Mining Australia Pty Ltd to assess for the potential of uranium mineralisation (Kavanagh 1985). However, only one convincing anomaly was found in this survey. Under joint venture agreement, another campaign of geochemical sampling and magnetic survey was conducted by CSR in 1985 (Heyworth, 1986) which identified several zones of gold anomalism.

During 1985 CSR Limited explored part of the current EL 23540. Exploration activities included a regional programme comprising bulk stream sediment sampling, airborne and ground geophysical surveys, rock chip sampling and geological mapping was undertaken. Thirty two bulk stream sediments and fifty four rock chip samples were collected. During this exercise, two drainage and five rock chip samples provided gold anomalous results (Hamilton 1986).

Cyprus Gold explored part of EL23540 in the late 1980’s, taking over from CSR. Cyprus believed that the sulphidic sediments of the South Alligator Group were ideal host units for gold mineralisation. Cyprus carried out interpretations of aeromagnetic data to map major rock units, and identify South Alligator Group sediments. Rock chip sampling and mapping outlined gold and base metal anomalies related to axial zones of anticlines in an area outside EL 23540.

Shaw (2005) summarised some of the exploration activity surrounding EL 23540 which was conducted by Euralba Mining, Geopeko, Dominion Mining Ltd and Zapopan NL.

During 2007 to 2008, GBS Gold Australia completed a campaign of sampling, collecting a total of 94 rock chip and soil samples. The samples were analysed for gold and base metals (Bajwah, 2008). Gold concentration varied from 1 ppm to 1330 with an average of 20 ppm. Geophysical TMI imagery was also collected. With the aid of the new geophysical and sampling data, a fracture analysis of SPOT imagery was conducted with the aim of investigating fault and fracture orientations, changes in lithologies and the relationship to mineralised zones and existing deposits such as Yams Creek and Iron Blow. The study highlighted several areas that require further exploration.
GBS Gold Australia remained under voluntary administration during most of the 2009-10 reporting period. A technical review, tenement ranking and valuation were undertaken. In addition, reconnaissance visits were also undertaken. This exercise established the mineral potential of the tenement for gold, base metals and uranium. After meeting regulatory and statutory requirements Crocodile Gold Australia acquired all assets including EL 23540 held by GBS Gold Australia (liquidated) on 6 November 2009.

Following this transaction, Crocodile Gold Australia recommenced gold mining and processing and the first gold pour was achieved on 29 December 2009.

7 EXPLORATION ACTIVITY 17 FEBRUARY 2010 TO 15 JANUARY 2011

There was no further exploration conducted on EL23540 during the reporting period.
This tenement now forms part of the Burnside Exploration project for both exploration activities and for group reporting. Exploration activities for this project for the coming year will include:

- Crocodile Gold is currently looking at a large scale regional exploration push during the 2011 and 2012 seasons, including a helicopter-borne VTEM survey, region geochemical sampling and mapping, this will include areas of the Burnside project.
- Desktop review of all exploration activities conducted by Joint Venture partner Thundelarra Exploration, particularly looking at exploration for gold and base metals.
- Detailed review of all historic and recent geophysical data for the project, with the aim of generating green field targets.
- Thorough review of all geochemical data for the project area, to be used in future target generation.
- Review of targets using satellite imagery in conjunction with regional geological mapping and the latest geophysical data
- Field mapping of targets highlighted from these reviews
- RAB and RC drilling of highest ranked targets
- A review of all historic deposits noted in the MoDAT database

Through these activities Crocodile Gold will target mainly gold and base metal targets in the Burnside Project area to add to existing mineral resources. By identifying additional deposits in this project area the economic viability of this project area can be assured.

The Mt Bonnie deposit situated south-west of the tenement and the Iron Blow deposit situated west of the tenement are considered to be high ranked targets for Crocodile Gold. There will be a focus for geophysical exploration and drilling on and around the Mt Bonnie and Iron Blow deposits which will include part of EL23540.

A minimum budget of $25,000 has been proposed for EL23540.
REFERENCES


