ANNUAL EXPLORATION REPORT ON EL 25295

YEAR ENDING 14 FEBRUARY 2010

PINE CREEK SD5208 1:250,000

Pine Creek 5270 1:100,000
PINE CREEK SD 52-8: 1:250,000

TENEMENT HOLDER: CROCODILE GOLD AUSTRALIA PTY LTD

Distribution:

1. DOR Darwin NT
2. Crocodile Gold Australia Humpty Doo NT
3. Brocks Creek NT

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SUMMARY

EL 25295 is a significant tenement within Crocodile Gold Australia’s portfolio. It is located in the southern part of the Burnside Project area, approximately 150 km SE of Darwin. The Licence was granted on 15 February 2007 to Buffalo Creek Mines Pty Ltd (50%) and Territory Goldfields Pty Ltd (50%), which were subsidiaries of GBS Gold Australia for a 6 year period; it will expire on 14th February 2013. Crocodile Gold Australia acquired all assets including EL 25295 on 6 November 2009.

The EL is situated in the central part of the Pine Creek Orogen. It encompasses eight mineral claims which cover the region known as ‘Margaret Diggings’ – a small placer gold prospect. Rocks belonging to the Wildman Siltstone, Koolpin Formation, Gerowie Tuff, Zamu Dolerite and McMinns Bluff Granite are present in the project area. The tenement is considered important and prospective in GBS’s portfolio, as it contains known mineralisation, and areas with prospective lithology, structure, geochemistry and pronounced magnetic anomalies.

During the year under review, 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. In addition, reconnaissance visits were also undertaken. Technical review identified the mineral potential of the project area by identifying significant magnetic anomalies which could host gold and base metal mineralisation in the project area. Proposed program for the next reporting period includes detail geological mapping to unravel structural complexities together with rock chip/soil sampling program to define geochemical anomalies better. On the availability of drilling rig, some RC/RAB drilling could also take place.
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1.0 INTRODUCTION

Exploration License (EL) 25295 is a strategic asset which Crocodile Gold Australia along other assets in the Burnside area acquired in November 2009. The tenement lies 20 km south east of Brocks Creek and some 5 km south east of the Mount Bonnie Mine. This report covers the status of the tenement during the year ended 14 February 2010.

2.0 TENEMENT DETAILS

EL 25295 comprises 5 blocks totaling 16.69 km\(^2\). The Licence was granted on 15 February 2007 for a 6 year period and expires on the 14 February 2013. Tenement holders were Buffalo Creek Mines Pty Ltd (50%) and Territory Goldfields Pty (50%) which were wholly owned subsidiaries of GBS Gold Australia Pty Ltd. GBS Gold Australia went into voluntary receivership and as a result of that all assets including EL 25295 were placed under care and maintenance. Crocodile Gold Australia purchased all assets held by GBS Gold Australia (liquidated) and its subsidiaries on 6 November 2009 and commenced mining and exploration activities in the region.

Underlying cadastre is dominantly Perpetual Pastoral Lease No. 815, Mary River West owned by Equest Pty Ltd (ACN 009 632 642).

3.0 LOCATION AND ACCESS

EL25295 is approximately 150km south east of Darwin, 65km south east of Adelaide River and five kilometers north-west of Emerald Springs. The tenement lies north of the Stuart Highway allowing for access via bush tracks and access to the Margaret Diggings. The region has steep hills intersected by gullies making for challenging access. Access to some off road areas is restricted to foot only, and may be limited or impassable during the wet season.
Figure 1: EL 25295 Tenement Location Map
4.0 GEOLOGICAL SETTING

Region geology of the area has been described by several workers notably Ahmad et al (1993) and Stuart-Smith et al (1987). EL23270 is situated within the Pine Creek Orogen, a tightly folded sequence of Palaeoproterozoic 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.

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.

The Cullen intrusive event introduced a suite of fractionated calc-alkaline granitic batholiths into the sequence in the period ~1.80-1.78Ga. 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.

4.1 Local Geology

EL 25295 is located in a ‘pocket’ of Palaeoproterozoic faulted and tightly folded South Alligator Group, Mount Partridge Group and Zamu Dolerite sandwiched between two I-type granites, the Prices Springs Granite and the McMinns Bluff Granite (Figure 2). The western portion of the Palaeoproterozoic sediments is known as the Golden Dyke Dome and the eastern portion of the sediment is known as the Burrundie Dome. Both folding and faulting show north-west to south-east trends.

The oldest rock unit is the Wildman Siltstone which is generally Siltstone, Phyllite with minor sandstone. It may contain some massive hematite lenses and is of shallow marine origin.
Figure 2: Local Geology of EL 25295
Much of the area is covered by the Koolpin formation and interlayered Zamu dolerite. The Koolpin Formation commonly occurs as carbonaceous siltstone, shale and phyllite with chert nodules. In places, massive limonitic ironstone lenses are also present. Deposition of the formation took place in shallow reducing water environment. In the eastern corner of the tenement, Gerowie Tuff is present which comprises siltstone, phyllite, tuffaceous chert, chert along with sub-aerial volcanic ash which may have been re-worked in low energy reducing environment.

Minor outcrops of Cretaceous sediments (sandstones) occur and manifest themselves as mesa like bodies in the terrain.

5.0 PREVIOUS EXPLORATION ACTIVITY

Previous exploration came from examining the historic tenure layer (NT_Historical_EL_AP dated 12/04/2007 from NTGS) in MapInfo. A list of previous tenure was compiled, and the reports were obtained after interrogating IRMS. Further checks on work within the Licence came from examining Explorer 3, MODAT and COREDAT. No data was found within the Explorer 3 and Coredat databases. And the Margaret Diggings were located within EL25295 from the MODAT database (Figure 2). They were classed as a small irregular Cainozoic Placer, disseminated Au-PGE deposit that is mined using open cut methods and part of the Cullen Mineral Field.

The summary showed over 15 expired tenements that cover EL25295 and did not include old and current MLN’s and MCN’s.

The earliest work covering EL25295 was conducted by the Chinese in the late 19th century. They mainly targeted alluvial gold in drainage systems. There is no documentation of gold being mined from quartz reefs of lode systems in the area. Specimens of quartz containing coarse gold suggest that the primary gold may have been mined from similar quartz leaders (Hardy 1995).

Ahmad et al (1993) discussed the Margaret Alluvial workings in detail estimating that the total reserve being at 136000 tonnes at 0.3g/t Au.
EL1601 was explored for by Nord Resources Pty Ltd between 1978 and 1981. Nord concluded that the quartz veins in the anticlinal closure close to the Margaret diggings carried gold. They carried out detailed geological mapping, costeaneing and sampling. Twelve of the 25 samples collected were greater than 0.1g/t Au with the peak value being 5.10g/t Au. Gold was identified in ironstones. A small uranium anomaly was detected in the Koolpin Formation. An airborne radiometric survey was conducted over the tenement.

EL3138 covered a large area and included four of the five blocks of EL25295. Geopeko exploration was regionally based during the first and second years concentrating on specific prospects as well. Margaret Prospect was looked at but there was doubt as to there validity with a contamination problem. Yellow Track was also assessed and showed anomalous gold values (attributed to a quartz vein within a carbonaceous mudstone) and downgraded. A gossan contained anomalous arsenic, copper, zinc and lead. Anaconda Australia Inc. became managers of the Golden Dyke Joint Venture in 1983. Hence another evaluation occurred of the region.

EL4450 was evaluated by the Mount Bonnie Gold Unit trust. Twelve bulk samples of alluvial material were taken and it was determined that the alluvial resource was not significant to the trust. The spotty nature of the hard rock mineralisation made it very difficult to effectively explore the region and it was decided to relinquish. The tenement was taken up by F. Frith, with further sampling undertaken.

EL4737 is adjacent to EL4817 and covers two blocks of EL25295. During the first year of tenure a total of 59 stream sediments were taken with two anomalous drainages outlined and 54 rock chips with five anomalous results. Over the subsequent three years of tenure, geological mapping, radiometric and airborne magnetics were completed. Plus a further stream sediment, soil and rock chipping programme. During the fourth year of tenure Cyprus took over operation of the tenement and collected 95 composite rock chips. The geochemical survey failed to outline any obvious targets for follow up. From field observations the Zamu Dolerite does not appear to be prospective in EL4734.

EL4817 covers two of the five blocks of EL25295. The ground was explored by CSR Limited and Cyprus Gold for gold in Palaeoproterozoic dolerites from 1985 to 1990. Some 59 stream sediments were taken and seven anomalous drainages located some
relating to the Margaret Diggings. 23 rock chips were taken and an aeromagnetic
survey was flown. During the second year of tenure an aeromagnetic survey was
completed. Third year work during 1989 saw rock chip sampling outline several
areas worthy of follow up particularly around sample 89923 (1.56g-t gold) in block
1647. Fourth year work consisted of 85 composite rock chip samples were taken in
conjunction with geological mapping. This work outlined 2 moderate gold-base metal
anomalies related to the axial zones of anticlines outlined in the south of the licence.
One of which id the Yellow Track anomaly discussed later?

**EL5006** was explored by Calvert River Manganese during 1988/1989. This single
block tenement covers the Margaret River Diggings. CR1988-0440 shows an
excellent geology map with diggings marked at 1:10,000.

It appears that much of the alluvial gold resource is locally derived. Results from 13
rock chip samples of the anticlinal closure yielded a maximum result of 5.01 g/t gold.
Samples from the central shear zone yielded results to 7 g/t gold. The promising
values occurring within the mineral claims thus licence surrendered.

**EL6529** was stream sediment sampled and soil sampled in 1990/1991 by Western
Mining. Initially five anomalies were delineated but none of these were enhanced by
further sampling. MCN 615-618, 620, 621.

**EL6264** was held for two years by Oceania Exploration and Mining. The
interpretation of the aeromagnetic data tends to suggest that the response is a function
of stratigraphy. There were no obvious targets.

**EL7113** was explored for Gold and base metals by Northern Gold NL from 1991 to
1995. During the first year of tenure mapping and rock chipping was undertaken.
Rock chipping (25 samples) over a zone of hematitic quartz veining produced results
up to 7.54ppm Au and four other samples assaying over 1ppm Au. The sampling lies
to the south & west of EL25295.

During the second year of tenure detailed soil sampling was carried over the Au
anomaly defined by the previous year’s rock chipping. The anomaly covers a 300m
by 60m zone. Third year work concentrated on defining the anomaly with three 39m
RC holes completed. The best result was 2m @ 1.75ppm Au which needs to be
followed up. No further work was completed. The region covering EL25295 was
During 1991, 98 rock chip samples were collected from **EL7127**. The best anomaly was from a gossanous horizon within the Yellow Track Anomaly (1.53% Zn max). The high zinc value was tested with a single diamond drill hole (YTD 1). A narrow (2m) zone of sulphides and carbonate alteration with anomalous base metal values was intersected down dip of the gossanous horizon.

During Year 2, 8 RC percussion holes (total depth 436m) and three diamond drill holes (224m) percussion pre collar and 389.5m diamond core were completed (YTD3 and YTD4).

Work consisted of geological mapping, soil and rock chip geochemistry and drilling. This work has shown that the gossan at Yellow Track is a stratiform silicate-sulphide lode that is stratigraphically positioned above a limestone bed in the Koolpin Formation. Diamond drilling confirmed that mineralisation occurs as stratiform sphalerite associated with pyrrhotite in a silicate-sulphide lode. The lode is folded into an overturned northwesterly plunging anticline, dipping southwesterly. (Yellow Track is same as EL7391).

Work completed on these licences during 1993 included 88 rock chip and 48 soil samples, 2 diamond drill holes totalling 295.5m and 4 ground magnetic surveys over 2 areas. Rock chip sampling at Bob's Knob returned weakly anomalous Zn (555ppm Zn) and Cu (508ppm). Rock chip follow up of anomalous stream sediment samples in EL7980 returned values to 3350ppm Zn and 547ppm Cu. Diamond drilling at the Yellow Track Anomaly returned 2m at 0.96% Zn. (Not all within EL7127).

During Year 4, no field work was completed during the last year of the licence. Work to date has located a thin gossan-silicate-sulphide lode with sphalerite associated with pyrrhotite throughout the licence.

**EL7021** was part of group tenements that included EL7127. First year exploration involved 183 soils samples been collected but no encouraging results were found. During the second year a further 128 soil samples were taken with no encouraging results. The Yellow Track anomaly grid mentioned earlier passes through the corresponding block for EL25295.

**EL7391** was worked between 1991 and 1995 by the Aztec Mining Company Ltd. Only one block of EL25295 coincides with the five blocks of EL7391. In their initial year they undertook rock chipping (122 samples) and soil sampling (210 soils)
targeting base metal mineralisation occurring as stratiform or discordant sulphide ore bodies. Aztec noted that there were a number of anomalous gossans similar to those within the Golden Dyke Dome.

Rock chipping found a peak result of 9.88% lead. Tin and tungsten geochemistry were generally low with Bi, Ag and Au were mostly below detection limit.

During the second year of tenure extensive soil sampling occurred over two anomalies, the Yellow track anomaly, 336 soils and 16 selective rock chips and the Emerald Springs anomaly with 160 soil samples. Silicified limestone and gossan outcrop defined a 35,000ppm lead anomaly coincident with a zinc result of 1609ppm. To follow up surface mineralisation a diamond drill rig was acquired and one hole was drilled (ESD1) at -65° towards 20° magnetic to test the surface mineralisation. The hole was pre-collared to 35m and drilled to 192m (NQ). The drilling intersected Zamu dolerite, dolomitic mudstone with traces of sphalerite in veinlets. It appeared that the mineralisation has been pinched out by the dolerite. Some 200m to the south west of the outcrop another hole was drilled open hole percussion for 29m.

The third of tenure (1993/1994) work completed included 88 rock chip and 48 soil samples, 2 diamond drill holes (YTD5 & ESD2) totalling 295.5m and 4 ground magnetic surveys over 2 areas. Rock chip sampling at Bob's Knob returned weakly anomalous Zn (555ppm Zn) and Cu (508ppm). Diamond drilling (YTD5) at the Yellow Track Anomaly returned 2m at 0.96% Zn, a siderite breccia anomalous in zinc. ESD2 was drilled 120m along strike at -69° towards 40° magnetic and intersected dolerite, Banded Iron Formation and dolomitic mudstone. Pyrite was noted.

During the fourth year of tenure (1994/1995) no field work was completed during the last year of the licence. The tenement was amalgamated into SEL8421. Work to date has located a thin gossan-silicate-sulphide lode with sphalerite associated with pyrrhotite throughout the licence.

The single block of EL8182 corresponds with one of the northern blocks of EL25295. This exploration licence was held by Northern Territory Gold Mines Pty Ltd for the 1993/1994 year. Research and data compilation were the focus of work completed in this region. They suggest that exploration for gold should be focused on structural targets as well as possible alluvial gold. In Hoskings (1994) he refers to Bagas
(1981) who states that the Margaret Diggings has a recorded production of some 40kg of gold since its discovery in 1872 to 1981. Between 1983 and 1986 a further two kilogrammes of gold has been produced. However he states that the records are incomplete and it possible many times that amount of gold has been removed from the region. He also comments on the nuggety nature of the gold and its possible provenience. Only one NTGS report was available for this licence.

**EL9485** covers the eastern four blocks of EL25295, and was held by Northern Gold NL and Camelot Northern Territory Ltd. For the two years this tenement was held work concentrated mainly on remote studies of the region involving magnetic data acquisition and manipulation and digital terrain modeling.

**EL7754** consists of three blocks covering the western most block of EL25295. The ground was initially held by NT GOLD Pty Ltd and Prospecting services, R Biddlecombe and managed by Northern Gold and Reynolds Australia Metals Ltd. This exploration licence was held from 1993 to 1999 and is the most recent tenement to have open file reports/data available. The first Annual Report reveals that they believe that the probable source of the nuggety/coarse alluvial gold is probably small quartz reefs in the contact zones between the Zamu dolerite and the Koolpin sediments. A detailed geological interpretation is provided in CR1994-0570, sect04. During 1994 404 soil samples were collected and submitted for BLEG Au analysis, As, Cu, Zn, and Pb. Sampling produced a north north-west linear trending anomaly covering the hinge region of the “Margaret Anticline” with 126ppb Au & 330ppm As.

During the third year of tenure infill soil sampling (402 soil samples with a peak of 295ppb Au) was completed in two areas defining the north-north west trending Au, As and Cu anomalies in the northern block of the tenement. A regional rock chip programme identified soil anomalies associated with gossanous quartz breccias (0.64ppm Au), pisolitic ironstones returned 3.75ppm Au and a single quartz chip returned 1.80g/t Au. Some 34 scout RC drilling holes (1281m) were completed over the original soil sample programme with nine holes reporting intersections between 0.70g/t Au and 2.72g/t Au. The drilling results indicate that the soil anomaly is coincident with a narrow zone of low grade bedrock mineralisation. The drilling identified two north-north west striking en echelon zones of gold mineralisation which have been offset by an east west fault along the west limb of the Margaret anticline.
During the fourth year of tenure 1995/1996, a regional RAB programme was undertaken to confirm soil sampling anomalies. Some 105 RAB drill holes were completed (738m). The best results from the drilling programme range from 102ppb Au to 632ppb Au.

During the fifth year of tenure 1996/1997 Northern Gold NL completed work involving magnetic data acquisition, manipulation and digital terrain modeling. During the sixth year of tenure the title transferred to R. Fisher and R. Stroud. No work was reported. During the seventh year of tenure 100 grab samples on two lines, five metres apart and at five metre intervals were taken south of the main dam wall continuing to the southern boundary of the EL. Nine samples returned grades of approximately 1g/t Au. No locations or results were provided with this report.

6.0 EXPLORATION YEAR ENDING 14 FEBRUARY 2010

GBS Gold Australia remained under voluntary administration during most of the 2008-09 reporting period. The main activity has been to prepare assets for sale. For this purpose, a technical review, tenement ranking and valuation was undertaken. In addition, reconnaissance visits were also undertaken. This exercise established the mineral potential of the tenement for gold and uranium. After meeting regulatory and statutory requirements Crocodile Gold Australia acquired all assets including EL 25295 held by GBS Gold Australia (liquidated) on 6 November 2009. Following this transaction, Crocodile Gold Australia embarked on an ambitious exploration and mining program in the area. Gold mining and processing re-commenced and first gold pour was achieved on 29 December 2009.

During review, TMI image of the project area was of special interest due to the presence of large NW-trending magnetic anomaly (Figure 3), which is complemented by another pronounced magnetic anomaly in the western block of the tenement. These anomalies have the potential to host gold and base metal mineralisation in the Pine Creek Orogen.
Figure 3: TMI image of the project area
Other activities which were conducted are given below:

- Data validation
- Reconnaissance visit
- Report preparation
- Tenement administration

Exploration expenditure for the reporting year is $8350.00 and details are given in Appendix 1.

7.0 PROPOSED EXPLORATION PROGRAMME FOR YEAR ENDING 14 FEBRUARY 2011

Crocodile Gold Australia regards the tenement highly due to its gold and base metal potential. It is intended to explore the project area to replenish its gold inventory base. In 2011, detail geological mapping will be undertaken to ascertain structural complexities. This will be complemented with rock chip/soil sampling program to define geochemical anomalies better. On the availability of drilling rig, some RC/RAB drilling may also take place. This program is costed $19500.00.

8.0 REFERENCES


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