Otter Gold NL

4th ANNUAL REPORT
FOR
PECCADILLO AGREEMENT

EL’s 8576, 8727, 8932, 8980 & 9476

17th March 2001 – 16th March 2002

TANAMI REGION
NORTHERN TERRITORY

Compiled by: M Muir

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4th Annual Report for Exploration Licences (EL’s) 8576, 8727, 8932, 8980 and 9476 – The Peccadillo Agreement.

17 March 2001 to 16 March 2002

Maryanne Muir

TANAMI 1:250,000 SE 52-15

GOLD

APRIL 2002

SUMMARY

Exploration Licences 8576, 8727, 8932, 8980 and 9476 (subject to the Peccadillo Deed of Exploration executed on the 15th of December 1997) were granted on the 17th of March 1998, for a period of six years. These five Exploration Licences form the “Peccadillo Project Area” and cover an area of 260 square kilometres.

On completion of the fourth licence year work has concentrated on remotely detecting and ranking targets under cover using enhanced geophysical imaging. This imaging has been produced by Fractal Graphics and their ‘worming’ process.

Fifth year exploration within the Peccadillo Project Area will continue with the emphasis on exploring for targets under cover and regions surrounding the Maximus district.

Total expenditure for licence year 4 on EL’s 8576, 8727, 8932, 8980 and 9476 was $5402.94. See expenditures for 2001 – 2002.

Ongoing tenure of these licences by Otter Gold NL means that this report should remain CLOSED FILE.
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1.0 INTRODUCTION

Exploration Licences (EL) 8576, 8727, 8932, 8980 & 9476 are held by Otter Gold NL (100%) and are subject to the Peccadillo Deed of Exploration executed on the 15th December 1997. The fourth licence term for the subject EL’s has come to a close since their grant on the 17th February 1998 for a period of six years. These five Exploration Licences form the "Peccadillo Project Area" and cover an area of 260 square kilometres.

During the 2001 – 2002 field season work concentrated on the remote detection of viable targets using the Fractal Graphics multiscale edge analysis (warming) process. Existing geophysics was used in this process. Targets were also used generated using existing surficial data.

2.0 LOCATION AND EXPLORATION HISTORY

2.1 Location and Access

The Peccadillo Project area is located approximately 25km to the east of the West Australian – Northern Territory border, just south of the ‘Tanami Track’. An access track is available to the south of the Tanami Track that leads to Newmont Australia’s (ex - Normandy NFM) Wilson’s Camp. The Peccadillo Project region covers approximately 260 km² – 81 blocks. See Table 1 for break down of Exploration Licence sizes and Figure 1 for a location map.

Table 1: Tenement Data

<table>
<thead>
<tr>
<th>EL</th>
<th>8576</th>
<th>8727</th>
<th>8932</th>
<th>8980</th>
<th>9476</th>
<th>TOTAL</th>
</tr>
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<tbody>
<tr>
<td>Blocks</td>
<td>16</td>
<td>6</td>
<td>44</td>
<td>13</td>
<td>2</td>
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<tr>
<td>Sq km</td>
<td>51</td>
<td>19</td>
<td>142</td>
<td>42</td>
<td>6</td>
<td>260</td>
</tr>
</tbody>
</table>

The region is covered by the Central Desert Aboriginal Land Trust and the Mount Frederick Aboriginal Land Trust (administered by the Central Land Council).

2.2 Exploration History – Otter Gold NL

1998 – 1999: During the first year of exploration delays were encountered with arranging and conduction sacred site clearances within the areas. Clearance procedures were completed with the expectation of commencing work in the 1999 field season. Geophysical Surveys and interpretation were completed of the five Exploration Licences.

1999 – 2000: Second year work programmes included a regional helicopter surface sample programme (400m x 400m), infill programmes (100m x100m) and line sampling at 50m spacing with a high of 28.1ppb Au and 24.5ppb Au being recorded.

2000 – 2001: Work was extensive during this year with widespread infill surface sampling across the Maximus region and Angle RAB used to define the targets produced. Rockchipping was undertaken with a maximum result of 100g/t Au+. Walkabout posthole
was completed over at least five of the Licences determining deepcover in the eastern region of EL 8932 & EL 8980. Shallow cover was confirmed on the western licences even with alluvial channel defined. Smaller surface sampling programmes were completed to the north of Maximus along the unconformity and outlined potential targets within the Killi Killi sediments with a pyritic component.

3.0 GEOLOGY

3.1 Regional Geology

The Granites – Tanami Block is bounded to the west by the Canning Basin, and to the east by the Wiso Basin and is considered to be one of the westernmost Palaeoproterozoic inliers of the Northern Australian Orogenic Province. The block is thought to have developed around the Barramundi Orogeny – major event 1845 – 1840 Ma (Blake et al., 1979).

The stratigraphy of the Tanami Region has been revised as a result of an intensive study recently completed by the NTGS (Hendrickx et al., 2000). The stratigraphy outlined by Blake et al (1979) has had some significant modifications (Table 2).

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Birrindudu Group</td>
<td>Coomarie Sandstone</td>
</tr>
<tr>
<td>Talbot Well Formation</td>
<td>Birrindudu Group</td>
</tr>
<tr>
<td>Gardiner Sandstone</td>
<td>Coomarie Sandstone</td>
</tr>
<tr>
<td>Suplejack Downs Sandstone</td>
<td>Talbot Well Formation</td>
</tr>
<tr>
<td>Mount Winnecke</td>
<td>Gardiner Sandstone</td>
</tr>
<tr>
<td>Pargee Sandstone</td>
<td>Suplejack Downs Sandstone</td>
</tr>
<tr>
<td>Tanami Complex</td>
<td>Nanny Goat Creek Volcanics</td>
</tr>
<tr>
<td>Mt. Charles Beds</td>
<td>Mount Winnecke Group</td>
</tr>
<tr>
<td>Killi Killi Beds</td>
<td>Pargee Sandstone</td>
</tr>
<tr>
<td>Nanny Goat Creek Beds</td>
<td>Mount Charles Formation</td>
</tr>
<tr>
<td>Nongra Beds</td>
<td>Tanami Group</td>
</tr>
<tr>
<td>Helena Creek Beds</td>
<td>Killi Killi Formation</td>
</tr>
<tr>
<td></td>
<td>Twigg Formation</td>
</tr>
<tr>
<td></td>
<td>Dead Bullock Formation</td>
</tr>
<tr>
<td></td>
<td>MacFarlane Peak Group</td>
</tr>
<tr>
<td>Archaean</td>
<td>Browns Range Metamorphics</td>
</tr>
<tr>
<td></td>
<td>“Billabong Complex”</td>
</tr>
</tbody>
</table>

Table 2. Comparison of stratigraphic nomenclature (Hendrickx et al, 2000).

The Archaean Billabong Complex and Browns Range Metamorphics are the oldest rocks in the area. Browns Range Metamorphics comprise granitic gneiss and muscovite schist intruded by fine-grained granite, thin granitic sills, aplite and pegmatite. The Billabong Complex comprises banded granitic gneiss1, which are generally elongated and fault bound.
Lying unconformably above the Archaean basement is the Palaeoproterozoic McFarland Peak Group. These rocks are characterised by a thick sequence of mafic volcanic, volcaniclastic and clastic sedimentary rocks, which possess a distinctive magnetic and gravity signature. This package of rocks is structurally complex and is considered to have a tectonic contact with the overlying Tanami Group.

The Tanami group is subdivided into three formations:

- **Twigg Formation**: purple siltstone with minor sandstone and chert
- **Killi Killi Formation**: turbiditic sandstone
- **Dead Bullock Formation**: siltstone, mudstone, chert and banded iron formation

The Dead Bullock Formation occurs at the base of the Tanami Group and is dominated by fine-grained sedimentary rocks. The rocks outcrop at Dead Bullock Soak, Lightning Ridge and Officer Hill. At the Granites the rocks have been metamorphosed to amphibolite facies to form andalusite, garnet and hornblende bearing schists. The Dead Bullock formation is host to significant gold mineralisation at the Granites and Dead Bullock Soak.

The Killi-Killi Formation conformably overlies the Dead Bullock Formation and is the most extensive formation in the group. The sequence of turbidites includes micaceous greywacke, quartzwacke, and lithic greywacke, quartz arenite and lithic arenite, interbedded with siltstone, mudstone and occasional thin chert beds. Detrital mica is a characteristic feature. The Killi-Killi is metamorphosed to lower greenschist facies and is interpreted to be up to 4km thick.

The Twigg formation is confined to a narrow package of rocks immediately west of the Tanami Mine corridor. It comprises a sequence of interbedded purple siltstone with thin-bedded chert and minor medium bedded greywacke.

The Pargee Sandstone unconformably overlies the Tanami Group and is exposed on the western side of the Coomarie Dome extending into Western Australia. The Pargee Sandstone comprises thick-bedded quartz arenite, lithic arenite and conglomerate with pebbly sandstone and conglomerate at the base.

The Mount Charles Formation comprises an intercalated package of basalts and turbiditic sediments, which occur on the western side of the Frankenia Dome. The Mount Charles Formation is host to structurally controlled vein hosted gold mineralisation in the Tanami Mine Corridor. Sediments include sandstone, mudstone, carbonaceous mudstones and intraclast conglomerate. Basalts are predominantly massive units with pillow basalts and basaltic breccias also evident.

The Mt Winnecke Group is also interpreted to lie unconformably over the Tanami Group. This group is divided into two units including siliciclastic sediments and felsic volcanics.

The Nanny Goat Volcanics are characterised by extrusive volcanic rocks including quartzfeldspar ignimbrite, feldspar ignimbrite, rhyolite lava, basalt and minor siliciclastic sediments.

The Birrindudu group comprises 3 units with Gardner Sandstone at the base, overlain by Talbot Well Formation and Coomarie Sandstone. The Suplejack Down sandstone is interpreted to belong to this group but is relationship is unclear. The Birrindudu group lie
unconformably over the Browns Range Metamorphics, MacFarlane Peak Group, Tanami Group, Pargee Sandstone, Nanny Goat Creek Volcanics and Mount Winnecke Group.

Cenozoic laterite, silcrete, calcrete, and Quaternary debris cover 60 – 70% of the Tanami Desert. The Quaternary sediments are generally unconsolidated, representing the most recent phase of erosion and deposition of sands, gravels and lithic fragments.

3.2 Local Geology

The local geology comprises primarily of Killi Killi Beds and Pargee Sandstone. The Killi Killi Beds are characteristically micaceous to phyllitic sandstones. The Pargee Sandstone lies unconformably over the Killi Killi Beds and comprises of sub lithic to lithic arenites, cross-bedded; minor conglomerate and lithic greywacke. Outcropping Pargee Sandstone is folded into a series of NW-SE trending antiforms and synforms which plunge to the north west.

The Peccadillo group of tenements lies approximately five kilometres north of the major WNW- ESE trending Trans-Tanami Structure. Several north west trending splays pass through western edge of the Leases. The Peccadillo region has a low magnetic response due to the nature of the Killi Killi and Pargee sediments. To the south of the tenements dolerites have been noted from geophysical interpretation and it is hoped these extend to just west of the Maximus prospect – drilling is required to test there viability as potential hosts as they appear to be under cover. Outcropping regions north and south of the Maximus prospect have been investigated. The contact between the Pargee sandstone and the Killi Killi Beds has provided a conduit for fluids – with pyritic sediments being noted to the north of Maximus. Anomalism is indicated along the north – south unconformity however it appears to be a case of what you see is what you get – with the 10 + ppb Au outcropping. There are extensive plains of quartz float on the west of the Pargee Range.

4.0 EXPLORATION FOR 17 MARCH 2001 TO THE 16 MARCH 2002.

During 2001-2002 work focussed on the remote analysis of geophysical data with the use of the Fractal Graphics method for enhanced multi scale edge analysis (worming) of these regions. This tool enables us to enhance the aeromagnetics to determine 'edges' more accurately and thus assess the possibility for alteration and structural disruption with a greater degree of confidence.

EL8576: Work continued in this region remotely, with the geophysical data undergoing the Fractal graphics multiscale edge analysis technique. The resulting data was analysed for potential targets. An area of interest was discerned within fairly tightly folded Killi Killi Beds adjacent to EL 8932.

EL8727: Work continued in this region remotely, with the geophysical data undergoing the Fractal graphics multiscale edge analysis technique. The resulting data was analysed for potential targets.
EL8932: Work continued in this region remotely, with the geophysical data undergoing the Fractal graphics multiscale edge analysis technique. The resulting data was analysed for potential targets. An area of interest (a folded sequence of Killi Killi Beds) was determined adjacent to EL 8576.

EL8930: Work continued in this region remotely, with the geophysical data undergoing the Fractal graphics multiscale edge analysis technique. The resulting data was analysed for potential targets.

EL9476: Work continued in this region remotely, with the geophysical data undergoing the Fractal graphics multiscale edge analysis technique. The resulting data was analysed for potential targets.

4.1 Worm Data

Data obtained during the original geophysical survey of the Peccadillo Project Area was used in the analysis by Fractal graphics. This analysis, dubbed worming, is a tool used for emphasizing edges – and is used as a cost effective tool for exploring under deep cover.

The stitched data set was subdivided into 40km by 60km areas and grided using a 40m grid. Grided data sets were forwarded to Fractal Graphics in Perth for ‘Fractal Worm’ processing. Regional scale aeromagnetic and gravity data were also ‘wormed’.

The advantage of using the Fractal Worms to assist with interpretation of the basement geology is that they facilitate better definition and location of contacts between adjacent lithologic packages and faults.

Utilising the key parameters relevant to the geological model developed earlier for the Granites – Tanami intrusion-related gold mineralisation, ‘worm anomalies’ were identified. These worm anomalies comprise zones that have one or more of the following attributes:

- An anomalous decrease in magnetic intensity along or within a single lithology.
- An anomalous increase in magnetic intensity along or within a single lithology.
- Zones of anomalous tight folding within favourable lithologies
- Zones of complex faulting within favourable lithologies
- Anomalies are assessed on the following attributes.
- Nature of the host rocks
- Nature of the cover rocks / surface geology
- Regolith
- Proximity to granite / thermal aureole
- Nature of proximal granites
- Relationship to major and lower order structures
- Nature of the anomaly
- Local stratigraphic features incorporating orientation, folding, doming, etc.
- Existing sampling / drilling if any
- Cultural influences

A mechanism for ranking anomalies has been established that takes into account the different styles of mineralisation likely to be encountered.
5.0 EXPENDITURE FOR PERIOD 17/03/01 TO 16/03/02

5.1 Expenditure for period 17/03/01 to 16/03/02 on Peccadillo Project Area

Table 3 summarises the work programme for the fourth licence year and associated costs within the Peccadillo Project Area. It can be easily seen that the covenants were not met. Several factors can be attributed to the under done nature of the expenditures. Firstly the majority of the year was devoted to a more theoretical approach with emphasis on the use of the worms for target definition. Otter was subject to several take over offers thus reducing spending to minimum. Also staff were reduced to a total of three and priorities emphasized the maintenance of all exploration licences.

### TABLE 3 Expenditure Summary for Peccadillo Project Area (2001 – 2002)

<table>
<thead>
<tr>
<th>Exploration Licence</th>
<th>8576</th>
<th>8727</th>
<th>8932</th>
<th>8980</th>
<th>9476</th>
</tr>
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<tr>
<td>Geology</td>
<td>288.55</td>
<td></td>
<td>874.03</td>
<td>1311.57</td>
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<tr>
<td>Computer Support</td>
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<td></td>
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<td></td>
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<tr>
<td>Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field costs/Access</td>
<td>24.82</td>
<td>59.88</td>
<td>112.82</td>
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<tr>
<td>Assaying</td>
<td></td>
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<td>Drilling</td>
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6.0 PROPOSED WORK PROGRAMMES FOR 2002-2003

6.1 Proposed Work Programmes for Peccadillo Agreement 17/03/2002 – 16/03/2003

Within the Peccadillo Agreement Region there lie several untested possibilities for districts of anomalism, especially under cover. There remain good possibilities within dolerites and the prospective Killi Killi Beds of further discovery. All the tenements are deemed to be underexplored with the majority of areas only having first pass, regional scale surface sampling.

Work in these regions should also involve further analysis the worm data available and the assessment of any new targets. Site visits are recommended to any potential worm targets. If the targets are thought suitable for testing then a base programme of patterned posthole/surface sampling will be used to test the targets validity.

EL8576: Further work (possibly surface samples/posthole) is anticipated on more detailed analysis of ‘worm’ data from targets the adjacent Maximus district (EL 8932).

EL8727: Since the initial helicopter surface sample programme one infill programme has been completed with no encouraging results. It is anticipated that work will continue with further analysis of the ‘worm’ data.

EL8932: The work focus within this Lease is expected to change from the Maximus prospect to outer targets. Surface sampling to outlying targets will be a priority and possible Angle RAB programmes will ensues.

EL8980: Since the initial helicopter survey very little work has been done on this EL. It is anticipated that work will continue with further analysis of the ‘worm’ data.

EL9476: Projected work in this region should be based around the confirmation of existing regional soils results and a possible continuation of the regional walkabout posthole programme.

Pending promising results we envisage that at least one target will be generated for angle RAB drilling.

The proposed programme and expenditure commitment is summarised in Table 4
TABLE 4  Proposed Expenditure for Peccadillo Agreement, 2002 – 2003

<table>
<thead>
<tr>
<th>Exploration Licence</th>
<th>8576</th>
<th>8727</th>
<th>8932</th>
<th>8980</th>
<th>9476</th>
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<td>Geology</td>
<td>2000</td>
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<td>550</td>
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<td>Computer Support</td>
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</tr>
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7.0 REFERENCES


