Exploration Licence 23845

Tennant Creek District, Northern Territory
Tennant Creek 1:250,000 Sheet SE 53-14

First Annual Report
November 4, 2003 – November 3, 2004

Licensee
Sitzler Savage Pty Ltd

Dept. Business, Industry & Resource Development

17 JAN 2005
Received: Titles Division
Minerals & Energy Group

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December 2004
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SUMMARY

Exploration Licence 23845 is located 20 kms east of Tennant Creek township and wholly owned by Sitzler Savage Pty Ltd comprising four graticular blocks. This report records the exploration work carried out by the licensee during the reporting period November 4, 2003 – November 3, 2004.

Most of the past exploration effort did not focus on the area covered by EL 23845. The nearest detailed work in the late eighties was mapping, sampling and drilling was conducted over the Red Terror and EX199 prospects about a kilometre from EL 23845.

Recent analysis of regional geophysics and geological mapping however shows potential for gold and base metal mineralisation and further exploration work is justified to test this potential.

Further geological, geophysical and geochemical work is recommended for the forthcoming year to determine the resource potential of the licence.
INTRODUCTION

Exploration Licence 23845 is wholly owned by Sitzler Savage Pty Ltd comprising four graticular blocks. This report records the exploration work carried out by the licensees during the reporting period November 4, 2003 – November 3, 2004.

LOCATION

The Licence is located 20 kms east of Tennant Creek township with a dirt station track following closely along the southern boundary of three of the graticules, as shown on Figure 1. Several small workings/mapped mineral occurrences surround the licence including Tunnel, Black Boy, Red Terror, Desert Gold and New Hope but no workings or mineral occurrences are known within the licence area.

Access is along the sealed Peko-Nobles Nob road then almost due east along the station track from Nobles Nob.

TENURE

The EL covers four graticular blocks with a total area of 12.93km². The licence was granted for six years from November 4, 2003.

GEOLOGY

Regional

The reader is referred to AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea, Volume 1, pp 829-861), to gain a good introduction to the regional geology and mineralisation of the Tennant Creek region.

The target style of mineralisation on the licence is typical of Tennant Creek which is believed to be a result of mineralised hydrothermal fluids, usually passing along a shear zones and reacting with Proterozoic iron oxide rich sediments of the Warramunga Formation and precipitating out Au-Cu-Bi sulphide mineralisation. The main characteristics of this style of mineralisation are a compact ore body within a magnetite host with distinct mineralogical zoning. This zoning is generally shown as a high grade gold core with a copper/bismuth capping. Later tectonic movements may modify the structure.

Local

The NT Geol Survey 1:100,000 scale mapping shows the majority of the licence covered by Proterozoic sediments of the Lower Hatches Creek Sandstone. This unit conformably overlies other finer grained Proterozoic sediments of the Warramunga Formation comprising of greywacke, shale, siltstone and hematitic shales. It is these older finer grained sediments that host most of the known mineralisation in the area, including the Tunnel, Black Boy, Red Terror, Desert Gold and New Hope workings/mineral occurrences as well as the main mines at Tennant Creek including the Peko, Juno and Nobles Nob. No mineralisation or workings are known to exist on this Exploration Licence.

Figure 2 shows the geology of the area around EL 23845.
WORK DONE DURING THE YEAR

Data Integration
Tenure and geoscientific data compilation of from all available sources for all Peko Rehab tenements was commenced. For the area covered by this licence this has included NT Geol Survey geological mapping and tenement maps.

A search was commenced for all open documents covering all previous exploration work carried out over the licence by earlier workers. The reports identified that cover areas that intersect or cover EL 23845 are listed below. At the time of the compilation of this report only Abstracts had been properly evaluated.

EL 4536
Geopeko – Worked on EX199 prospect to 1-2kms south, Red Terror 1km west of EL. No follow up recommended, relinquished.

EL 9358
Giants Reef – Rock chip and geophysics, no focus on EL 23845 area

EL 8173
1994-0559
Roebuck Resources, North Flinders Mines – Drilling, geochemistry, aeromagnetics - no focus on EL 23845 area

EL 7274
Poseidon Gold Limited – After evaluating data surrendered portion covered by EL 23845 in 1993, retained remaining areas.

ATP 2093
1971-0046
Mat Exploration, Westmoreland Minerals, Paringa Mining and Exploration- no significant mineralisation found- no focus on EL 23845 area.

All available regional geophysical data was compiled and anomalous areas identified by Southern Geoscience Consultants over all the Peko Rehab tenements in the Tennant Creek region including EL23845. The data sets available and studied were as follows:

- Geoscience Australia and NTGS gravity databases for the Tennant Creek area.
- NTGS/GA supplied aeromagnetic and radiometric data covering the Tennant Creek 1:250,000 sheet.
- Shuttle Radar DEM from NASA.

Most of the data listed above did not directly cover EL 23845 however the regional gravity data indicated a gravity low over the EL interpreted as underlying granite and that there is a strong possibility that the structures hosting the Red Terror-Black Boy and Comstock-New Hope deposits may pass through part of the EL. A more detailed report on the results of the study by Southern Geosciences is attached as Appendix 1.
CONCLUSIONS

Most of the past exploration effort did not focus on the area covered by EL 23845. The nearest detailed work was carried out by Geopeko in the late eighties where mapping, sampling and drilling was conducted over the Red Terror and EX199 prospects about a kilometre from EL 23845.

Regional geophysics and geological mapping however shows potential for gold and base metal mineralisation on EL 23845 and further exploration work is justified to test this potential.

EXPENDITURE CURRENT YEAR

During the period November 4, 2003 – November 3, 2004 the company has expended $12,639 broken down as follows;

Geological Consultants $10,000
Geophysical Consultants $ 2,000
Tenure Maintenance $ 44
Administration and Overheads $ 585

**TOTAL $12,639**

The Year 1 exploration expenditure commitment specified in the EL licence is $11,500.

PROPOSED EXPLORATION PROGRAM AND EXPENDITURE FOR 2005

Upon the completion of the preparatory work outlined above it is proposed to carry out a field based exploration program over the EL to better define targets for future drilling in subsequent years. This work will include geological mapping and rock chip geochemical sampling where appropriate.

Planned geophysical work is as follows:
- Take gravimetric readings over the tenement on a 100m square grid and an area 2km around the tenement on a 1km square grid.
- Obtain the Normandy detailed aeromagnetics
- Image and model gravity and aeromagnetic data.

The budget for this proposed exploration program is as follows:

Geological Contractors and Consultants $ 8,250
Geophysical Consultants $10,000
Geophysical Equipment Hire and data collection $26,000
Chemical Analyses $ 2,200
Field Costs (vehicle hire, accommodation etc) $ 2,200
Tenure Maintenance $ 44
Administration and Overheads $ 5,000

**TOTAL $53,694**

Exploration program outcomes are unpredictable and most of the planned expenditure is contingent of outcomes from earlier work in the program. Actual expenditures may vary from the budget outlined above as a result of unexpected outcomes from the early work.
Appendix 1
MEMORANDUM

TO: Phil Jones
CC: Laurie Whitehouse
FROM: Kim Frankcombe
DATE: 6 January, 2005

SUBJECT: Regional Geophysics - EL 23845 Tennant Creek

This memo is a summary of our progress to date with a regional geophysical compilation over EL23845.

Data sets available are:

• Geoscience Australia and NTGS gravity databases for the Tennant Creek area. These databases include several thousand stations collected by explorers as well as regional government data. For reasons I have not yet been able to determine, the NTGS and GA versions of the database are different. Some industry acquired stations plot in different places indicating different datum assumptions while some of the regional government stations have different values. As the GA data set produced a cleaner image this was used however we may have to go back to the NTGS database if this later proves to be the more accurate version. Fortunately in the immediate area of EL23845 there are no differences between the two data sets so it will not be a problem for these discussions.

• NTGS/GA supplied aeromagnetic and radiometric data covering the Tennant Creek 1:250,000 sheet. The survey was flown by Kevron in 1998 for GA (AGSO at the time) using 200m line spacing and 60m flying height.

• Shuttle Radar DEM available from NASA with a 90m pixel size.

• Detailed aeromagnetics flown by Normandy Gold in 1998 on 50m lines 40m above ground level. This survey is shown as open file but was not available to the author at the time of writing.

Although the gravity coverage over the Tennant Creek sheet is good, it is focussed and there are only 5 published gravity readings within the EL boundary. This reflects the lack of modern historical exploration over this ground. Despite the poor gravity coverage a couple of features are immediately obvious. Firstly the tenement is within a discrete gravity low suggesting that it is underlain by granite. Secondly the structures hosting the Comstock - New Hope deposits to the east and Black Boy - Red Terror deposits to the west continue into the tenement and intersect in the general area of the tenement.
Unfortunately the existing gravity data is too coarse to pinpoint the intersection. The interpretation that the tenement is underlain by granite is interesting in that there are outcropping Proterozoic metasediments and the aeromagnetics indicates that these continue relatively uninterrupted from Comstock to Explorer 50 well to the west. It is therefore likely that the Proterozoic forms a relatively thin (<500m) veneer over the granite. This is thick enough for a substantial deposit, assuming the granite has not cooked off all the fluids. The strike extent of the two known mineralised structures should also be defined and investigated.

I recommend we obtain the detailed Normandy aeromagnetic data and process it to help with mapping, particularly the structures, as it is unlikely that there will be any obvious magnetic targets yet to be followed up. If a search of the open file data shows that there are no additional gravity stations in the tenement I recommend that it be covered, initially at 100m centres but with an allowance for in-fill over areas of interest. This will help resolve the structures and may indicate topographical variations on the interpreted granite roof.
Appendix 2
NORTHERN TERRITORY OF AUSTRALIA

Mining Act

EXPLORATION LICENCE

EL No. 23845

SITZLER SAVAGE PTY LTD, ACN 089 842 875, (hereinafter referred to as the "licensee") is hereby licensed, for a period of six (6) years to expire on 2 November 2009, to explore in accordance with the provisions of the Mining Act, the regulations thereunder and the terms and conditions specified in the First Schedule and the Second Schedule, all the area of land delineated in the Third Schedule excluding therefrom all land vested in the Commonwealth and all radio telecommunication repeater sites.

J P WHITFIELD
Principal Registrar
as Delegate of the Minister
for Business, Industry and Resource Development

November 2003

FIRST SCHEDULE

1. The licensee shall ensure that a minimum amount of $11 500 is expended in carrying out exploration on the licence area during year one (1) of the licence.

2. The licensee shall comply with the provisions of, and directions lawfully given under, the Act and all other laws in force in the Territory, as are applicable in relation to its activities on the licence area.

3. Not later than one (1) month after the expiration of each 12 month period of this licence, the licensee shall submit in writing a statement specifying the details of the exploration programme reflecting expenditure for the next year of the licence.

4. Compensation for the effect of a prescribed mining act on native title is payable to the native title holder by the holder of the mining interest to which the prescribed mining act relates; and includes compensation for the effect on native title of activities done under that mining interest as a result of the prescribed mining act.

5. The Licensee shall indemnify and hold indemnified at all times the Territory and its servants and agents from claims, actions, suits and demands whether debt damages, costs or otherwise arising out of a breach of the duties and obligations, whether expressed or implied, of the Licensee at common law, or of the Claim or of any law in force in the Territory that is applicable and whether such breach shall be that of the Licensee or any of its subcontractors, servants, employees or agents.

6. Exploration shall not take place within one hundred and twenty-five (125) metres of the centreline of any road or railway, unless specific approval is given by the Director of Mines.
SECOND SCHEDULE CONDITIONS

(Section 24A Mining Act)

General Principles

1. The Licensee shall carry out its activities in such a way as to minimise any impact to any extant native title rights and interests in the licence area, in particular, by ameliorating:

(a) any interference directly with the carrying on of community or social activities of registered native title claimants or holders; or

(b) any interference with areas or sites of particular significance, in accordance with the traditions of registered native title claimants or holders.

2. The Licensee shall carry out its activities in such a way as to minimise disturbance to the environment of the licence area, in particular, by minimising:

(a) interference with the use of the land by other persons;

(b) the disturbance of flora, fauna and other natural resources;

(c) pollution, including soil, water and atmospheric pollution;

(d) the incidence and effects of soil erosion.

3. Subject to the provisions of the Mining Act and the Mining Management Act, the Licensee shall in the course of their operations remain subject to the provisions of other relevant legislation. The Licensee shall ensure that all exploration personnel and their contractors and agents are familiar with such legislative requirements.

4. If and when the Licensee applies to the Minister for a lease which would allow productive mining, any registered native title claimants or holders are to be informed of this fact in writing so as to signal that another future act process may follow which allows them to exercise procedural rights.

5. To the extent possible the Licensee should employ persons and contractors resident in or around the licence area and give them the opportunity of quoting or tendering for contract work.

Consultations with Native Title Parties

6. (a) The Licensee shall, prior to the commencement of exploration activities other than reconnaissance, convene a meeting on the licence area (or the nearest convenient locality) with registered native title claimants or holders to explain the exploration activities. The Licensee may also invite the relevant pastoral lessee(s) or landholders to this meeting.

(b) Notice of the meeting shall be by letter and shall be posted to the registered native title claimants or holders and the representative body not less than 17 days before the meeting and shall nominate the date, time and place of the meeting.

(c) The Licensee must have regard to representations made to it at the meeting regarding any aspect of the exploration activities which raises concerns. These representations may deal with access procedures to particular areas of land within the licence area.
Site Protection

7. All exploration personnel and their contractors and agents shall be instructed on the legal necessity to protect sacred sites and other significant archaeological sites and structures which may exist within the licence area.

8. Prior to carrying out any work in the licence area the Licensee must consult with the Aboriginal Areas Protection Authority and inspect the Register of Sacred Sites. A Licensee wishing to carry out work may apply for an Authority Certificate.

Authorisation - Substantial Disturbance

9. Pursuant to s.166(1A) *Mining Act*, all exploration licences are granted subject to the condition that the holder of the licence or the holder's agent must also hold the relevant Authorisation in accordance with the *Mining Management Act* before carrying out on the licence area any exploration operations or works involving substantial disturbance (such as drilling, costeining, gridding, bulk sampling, camp establishment or road construction).

10. Pursuant to s.35 & 37 *Mining Management Act*, an application for such Authorisation is required prior to the commencement of activities and is to be accompanied by the Mining Management Plan for the activity.

   (a) The Mining Management Plan is to include particulars on the management of environmental issues.

   (b) The Minister may refuse grant of an Authorisation.

   (c) A granted Authorisation is subject to the condition that the operator must comply with the current Mining Management Plan, submit a security bond and any additional conditions that the Minister may determine.

11. Notwithstanding the conditions of an Authorisation in accordance with the *Mining Management Act*, the Licensee shall in addition adhere to the conditions stated herein.

Minimising of Environmental Impact

12. The Licensee shall not bring firearms or traps onto the licence area and shall not take or kill any wildlife.

13. All structures, facilities, survey markings or other related infrastructure shall be of a temporary nature and shall be removed from the area at the completion of the exploration programme unless approved otherwise in writing by the Minister.

14. The Licensee shall not use fire, unless approved in writing by the Minister, except for the purposes of preparing food or heating water and appropriate steps shall be taken to prevent bush fires.

15. The Licensee shall not construct new vehicle tracks unless unavoidable. New tracks should be constructed at the minimum width possible to conduct the exploration programme, avoid long straight stretches, and be constructed with sufficient furrows to provide appropriate drainage.

16. The Licensee shall keep clearing and/or disturbance of vegetation to a minimum; with particular care taken in regard to preserving mature trees and vegetation along watercourses.

17. The Licensee shall take such steps as are reasonably practical to prevent the spread of noxious weeds, including the washing down of vehicles and removal of grass seeds before moving vehicles and equipment to a new area.
18. No sites or structures that may have historic significance shall be disturbed or interfered with in any way unless prior written approval has been given by the Minister.

19. The Licensee shall take such steps as are practical to minimise disturbance to the soil, rocks, rock formations, creeks and watercourses.

20. The Licensee shall take all precautions necessary to prevent contamination of underground and surface waters in the licence area.

21. Where artesian groundwater is encountered during drilling, the Licensee shall advise the Minister of its occurrence and protect the water from wastage, pollution, deterioration or undue depletion.

**Environmental Rehabilitation**

22. Following any soil disturbance, and subject to the Mine Management Plan, the Licensee shall replace topsoil as near as possible to its original profile and contour.

23. The Licensee shall remove all rubbish and waste from the licence area and shall comply with directions of the Minister regarding disposal.

24. To the extent possible the Licensee should choose drillhole and excavation sites to minimise environmental impact and, subject to the Mine Management Plan, after completion of drill holes, the collar should be sealed off and casing plugged. Guidelines for this activity are at item 15. of the Mining Operation Pack.

**Complaint Mechanism**

25. Should any native title claimant or holder lodge a written complaint with the Minister that exploration activities are being conducted in a manner that adversely affects native title rights and interests in the licence area, the Minister may do one or more of the following:

   (a) seek an explanation in writing about the matter from the Licensee;
   (b) request the Licensee attend a meeting with the Minister to discuss the matter;
   (c) request the Licensee attend a conference with the Minister and the complainant with a view to resolving the matter;
   (d) and, having done one or more of the foregoing, may do one or more of the following:

   (e) direct the Licensee to carry out rectification work;
   (f) carry out rectification work at cost to the Licensee in accordance with s.166(3) of the *Mining Act*;

   (g) subject to the *Mining Act*, take any other action, including the cancellation of the licence, as the Minister considers appropriate.

**Definitions:**

"Licensee" means the grantee of the exploration licence and includes its workers, employees, contractors, agents and any person appointed by the Licensee as operator of the site pursuant to s.10 of the *Mining Management Act*.

"Minister" means the Northern Territory Minister for Business, Industry and Resource Development or Delegate.
Third Schedule
(Plan of Area)

EL23845
4 Blocks
12.93 sq kms