OPEN FILE

EL 8719
Mt Theo, Yuendumu, NT

Relinquishment Report
for
14 October 1998

by

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for

Centrex Resources N L

Batchelor
November 1998
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SUMMARY

The seven blocks of 17 relinquished were chosen on the basis of airborne survey results only. Some minor potential for gold mineralisation remains.

1. INTRODUCTION

This document is the relinquishment report for EL 8719 for the blocks dropped on 14 October 1998.

Figure 1 shows the tenement boundary and Figure 2 the blocks relinquished. Figure 3 shows the blocks being relinquished on a Mines Department plot.

2. TENEMENT STATUS

The tenement was originally granted in 1994 with 42 blocks. This was reduced to 17 in Year 3 and now to 10; the Minister having allowed a partial waiver of reduction (Appendix 2).

The ownership has changed from J W Benger to Corporate Developments Pty Ltd to Centrex Resources N L, the current owners.

3. LOCATION

The tenement is located in the Northern Territory centred at 21°48'S, 131°53'E which is northwest of Alice Springs.

It is located on Mt Denison Pastoral Lease, N T Portion 312, approximately 55 kms north of the community of Yuendumu.

4. PREVIOUS EXPLORATION

The reader is referred to earlier relinquishment reports on this EL for details of previous exploration.

5. GEOLOGY

Figure 4 shows the location of the EL in the regional geological setting of the Arunta Block.

S Carthew of Rocks Prospecting has described the geological setting of the tenement in the 1996 Annual Report:
The Arunta Block is part of a widespread ensialic Proterozoic belt in central Australia. It is thrust fault bounded to the south by the Amadeus Basin and grades without clear boundaries north and west into the Tennant Creek and The Granites - Tanami Blocks.

This early Proterozoic ensialic complex comprises basalt, greywacke, schists, siltstones, BIF's and chemical sediments in which there are both pre metamorphic and post metamorphic basic to intermediate intrusives. Multiple granitoids are both syntectonic and cogenetic post tectonic granites (1740 - 1680 Ma) eg at Mt Campbell. They have a metamorphic aureole in the sediments at the intruded contact.

Rock exposure is poor as shown on the published geological 1:250 000 Mt Theo map. The area of exposure is between Mt Campbell and Keyser Hill, along a ridge. In this area lithologies are sandstone, ferruginous greywacke and sandstone that is weakly gneissic, and gneiss. These lithologies may belong to the Lower Proterozoic aged Lander Beds, interpreted to belong to Division 2, a flysch like facies deposited in a rift setting, (Stewart et al 1984).

6. EXPLORATION PROGRAM AND TARGETS

The tenement was acquired for its gold potential because of similarities to the Granites / Tanami region to the north.

7. WORK DONE

The work done on the blocks being relinquished is report chronologically:

7.1 Year 1 (15/7/94 to 14/7/95)

Year 1 work consisted of data acquisition, literature research and checking into the logistics of exploring a tenement in such a remote area.

7.2 Year 2 (15/7/95 to 14/7/96)

A field trip in Year 2 produced 20 rock samples and various soil profiles were observed in preparation for a soil survey.

None of this work was done in the 7 blocks being reported on and no samples were collected from the relinquished area.

7.3 Year 3 (15/7/96 - 14/7/97)

No field work or other work was done on the 7 relinquished blocks.
7.4  Year 4 (15/7/97 - 14/7/98)

In Year 4 AGSO airborne geophysical data was acquired and interpreted by Consultant Geophysicist, Andre Lebel.

Appendix 1 is a portion of A Lebel report to Centrex Resources NL giving the methodology of his work.

Figure 5 lists the specification of the acquired airborne geophysics and Figure 6 is a copy of the Legend adopted by A Lebel for his interpretation.

The 7 blocks relinquished fall into four areas.

Figures 7, 8, 9 and 10 show the airborne magnetics and A Lebel's interpretation for each of the four areas.

Following the completion of A Lebel's report for Centrex Resources NL, geologist J A Earthrowl and Field Assistant I Middleton visited EL 8719 in July 1998.

During this visit certain soil and rock sampling was conducted but none of the work was done within any of the four areas (7 blocks) relinquished.

8. RESULTS

No field work has been done on the 7 blocks being dropped.

The interpretation of the airborne geophysics shows the following:

Area 1: A monotonous series of Plc Lander Beds interbeded with Plc, iron rich units with some faulting in the north east corner.

Area 2: As per Area 1, with some magnetic quartzite.

Area 3: As above, in contact with Pg, granite.

Area 4: Contorted / folded iron rich units within the Lander sequence.

9. CONCLUSIONS

The 7 blocks relinquished were done so on the basis of the interpretation of airborne geophysical data - such as the lack of complex structures.

Without any tangible field evidence, such as soil geochemistry no definite downgrading factors exist.

Some potential for gold mineralisation remains. The problem is how to explore below thick aeolian sands.
EL8719
7 BLOCKS
23 sq kms

EL 8719
Showing 7 Blocks to be Relinquished

Fig 3
Extract from Godfrey and Monitorisation of the Arunta Block, N.T.
Andrew S. Wyclak and Zia U. Bashir
N.T.45 Darwin
Ass. Jour Aust. Geol. Geophy
17(3) 25-45 1998

Figure 1. Tectonic provinces, tectonostratigraphic units and location of significant mineral deposits in the Arunta Inlier. 1 Jervois; 2 Binya; 3 Molyhill; 4 Houdry; 5 Utopia; 6 Home of Bullen; 7 Barrow Creek; 8 Anvil; 9 Mount Allan; 10 Mount Stafford; 11 Mount Doreen; 12 Mount Hardy; 13 Silver King; 14 Clark; 15 Copper Queen; 16 Solia; 17 Virginia; 18 Pinnacles; 19 Oonagalabbi; 20 Johnson's Reward; 21 Harry Creek; 22 Johannsen's; 23 Winneka; 24 Glendora; 25 Arilanga; 26 Camp Hill; 27 Blusy; 28 Queen of Shels; 29 Harra Range-Plenty River Mica Field; 30 Oorabba Reefs; 31 Mud Tank Carbonitite

EL 8719
Showing Regional Geological Location

Fig 4
AIRBORNE SURVEY SPECIFICATIONS

Acquisition/Processing: AGSO
Flight Line Direction: 000 - 180 degrees
Flight Line Separation: 500 metres
Tie Line Direction: 270 - 090 degrees
Tie line Separation: 5000 metres
Recording Interval: 0.1 sec
Survey Flown: October, 1993
Grid Cell Size: 100m x 100m

MAP PRODUCTION BY: -

TESLA-10
JOB No. TA2550

LEGEND

Contour Interval 0.5nT

<table>
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<th>Contour</th>
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<tr>
<td></td>
<td>10 nT</td>
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<td></td>
<td>100 nT</td>
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GEOGRAPHIC NORTH

Scale 1:25000
AUSTRALIAN MAP GRID ZONE 52
AUSTRALIAN GEODETIC DATUM 1966

EZ 8719
AGSO Airborne Survey
Specifications

FIG 5.
LEGEND

Symbols

- : boundary of EL 8719

\[\text{boundary of geological unit}\]

--- : trend of magnetic body

\[\text{fault (with sense of displacement)}\]

\[\text{Shear zone}\]

\[\text{antidine}\]

\[\text{syncline}\]

\[\text{area of interest}\]

Rock Types

Pg : granite (high TC)

Plu : Landers Rock Beds (non-magnetic host)

Pla : quartzite (weakly magnetic)

Pl.d : dderite or gabbro (strongly magnetic)

Pli : "iron-rich" sediment (strongly magnetic)

Areas of Interest

: faulting, shearing, very close to granite, "iron-rich" sediments

: faulting, not far from granite, "iron-rich" sediments

: faulting, shearing, "iron-rich" sediments

: faulting, very close to granite, "metamorphic aureole", "iron-rich" sediments

EL 8719
Geological Legend of Geophysical Interpretaion Maps
Fig. 6
Fig 8
EC 8719
AREA 3
Airborne Magnetics
and Interpretation

FIG. 9
Fig 10
CENTREX RESOURCES N.L.

Mount Theo 1:250,000 sheet, N.T.
Mount Theo Project
EL 8719

Geological interpretation of two 1:25,000 sheets
(5254_ii_nw and 5254_ii_ne)
from
airborne geophysical data

Prepared for: Graham Chrisp and John A. Earthrowl
CENTREX RESOURCES N.L.

Prepared by: A. Lebel
DATASCIENCE
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1. INTRODUCTION

A geological interpretation of two 1:25,000 sheets in the SE corner of Mount Theo, N.T., is described in this report. The work was carried out for CENTREX RESOURCES N.L. (CENTREX) during May 1998 to assist mineral exploration.

The area of work, near Turner's Dome, includes Mount Campbell and Keyser Hill. Figure 1 at 1:250,000 sets the scene with geology, two 1:25,000 sheet outlines in red ink and a tenement boundary for EL 8719 in green ink.

2. DATA

The AGSO "The Granites Airborne Geophysical Survey" conducted in 1993 provided the raw data.

This survey had these specifications:
- line spacing: 500 m
- flying height: 90 m
- line direction: 0° - 180°

I purchased the AGSO point located data for two sheets in "ARK format on CENTREX's behalf.

Then, Tesla-10 of Perth processed it with a 100m x 100m cell size and produced three products for each sheet: stacked profiles of Total Magnetic Intensity (TMI), contours of TMI and contours of Total Count (TC).

3. INTERPRETATION

3.1. Geological controls

Figure 2 (Stewart, 1976, p. 9) at 1:1.1 million is a summary of the structure for the Mount Theo 1:250,000 geological map.

These are the main rock types mapped by Stewart, but modified for this interpretation:
- Pg: granitoid
- Pi1: Landar Rock Beds - Early Proterozoic - sandstone and schist
- P1a: quartzite
- Pi1d: dolerite dykes or gabbro sill
- P1i: "iron-rich" sediments

I looked at a 1:500,000 summary of the magnetic data and found no strong evidence for dyke swarms.
3.2. Structural patterns

There is a strong WNW-ESE grain which continues into NAPPERBY to the SE and HIGHLAND ROCKS to the west.

3.3. Mineralisation models

Numerous small copper and lead deposits have been found in Mount Doreen, the 1:250,000 sheet to the south of Mount Theo: Clark (Cu), Silver King (Pb, Cu, Ag), MOUNT DOREEN (Cu, W) and Mount Hardy (Cu). There are also numerous small copper and tin deposits on the NAPPERBY 1:250,000 sheet: Mount Stafford (Sn), Reward (Cu), Ailleron Gold Reef (Au).

These deposits lie to the SE of CENTREX's Mount Theo area along strike in what look like Lander Rock Beds or Reynolds Range rocks. As well, EXODUS MINERALS recently reported good results from its Sabre and Falchion prospects.

In EL 8719 itself, Stewart (1976, p. 13) says: "... Small amounts of cellular quartz-limonite gossan are present at Keyser Hill ...".

3.4. 1:25,000 interpretation

Magnetics are used to outline the different rock units within the area of interpretation.

- The WNW - ESE grain is extremely strong, but there is also a NNE - SSW structural bias to the interpretation.
- Faulting, according to my interpretation, forms a sinistral NNE-SSW and dextral NW-SE conjugate set.

Radiometric Total Count (TC) data can point to:

- Highs due to potassic alteration - sericite
- Highs due to clays within sedimentary units
- Highs due to potassium and uranium in granites

3.4.1. Sheet 5254_ii_nw - figure 3
Magnetics show both major trend directions. The NNE-SSW trend has four parallel magnetic units, some of which cross the tenements.

TC contours are generally low; some local higher values may be related to clay-rich sediments.

3.4.2. Sheet 5254_ii_nw - figure 4
Magnetics show two NNE-SSW units and much less linear fabric on the east side of the sheet.

Stronger TC values occur on the east side, pointing to granite occurrences in this area. Since the slope of ground is gently to the north, granite is likely in the SE corner of sheet.
Geology 1972 by A. J. Stewart
Gravimetry 1967 by Geophysical Branch, BMR
Cartography by Geological Branch, BMR
Drawn by Cartographic Drafting Services, Bendigo
Printed by Mercury-Walsh Pty Ltd, Hobart, Australia

Geology C General reconnaissance: some traverses and airphoto interpretation
--- Helicopter traverses
Gravity B Reconnaissance

CENTREX RESOURCES N.L.
Mount Theo Project - EL 8719
Mount Theo 1:250,000 geology
Figure 1
Mr Graham Chrisp  
Managing Director  
Centrex Resources NL  
3 Keys Court  
HOVE SA 5048

Dear Mr Chrisp

PARTIAL WAIVER OF REDUCTION OF EXPLORATION LICENCE 8719 – CENTREX RESOURCES NL

I am pleased to advise that, the Secretary, under the provisions of section 28 of the Mining Act, has waived the partial reduction in area of Exploration Licence 8719 by one (1) block enabling you to retain ten (10) blocks until 15 July 1999.

Nomination of blocks to be retained for the five year of the licence should be lodged by 14 June 1999.

I wish you every success with your exploration venture in the forthcoming year.

Yours sincerely,

MICHELLE MAY  
Mining Registrar