BURNSIDE PROJECT
KELLY'S AND SNAKE PROSPECTS
E.L.'S 3504 AND 3505
1985 ANNUAL REPORT
TO THE DEPARTMENT OF MINES AND ENERGY

OPEN FILE

R/85-19-U

P. MELVILLE
JUNE, 1986

NORTHERN TERRITORY GEOLOGICAL SURVEY
CP 86 / 197A

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TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>II. INTRODUCTION</td>
<td>2</td>
</tr>
<tr>
<td>III. TARGET</td>
<td>3</td>
</tr>
<tr>
<td>IV. REGIONAL GEOLOGY</td>
<td>4</td>
</tr>
<tr>
<td>V. LOCAL GEOLOGY</td>
<td>4</td>
</tr>
<tr>
<td>VI. WORK COMPLETED AND RESULTS</td>
<td>5</td>
</tr>
<tr>
<td>6.1 E.L. 3504 - KELLY'S PROSPECT</td>
<td>5</td>
</tr>
<tr>
<td>6.1.1 Geophysics</td>
<td>5</td>
</tr>
<tr>
<td>- Resistivity</td>
<td>5</td>
</tr>
<tr>
<td>- Magnetics</td>
<td>10</td>
</tr>
<tr>
<td>6.1.2 Radiometrics</td>
<td>11</td>
</tr>
<tr>
<td>6.1.3 Conclusion: Geophysics-Radiometry</td>
<td>11</td>
</tr>
<tr>
<td>6.1.4 Radon Survey - Alphacard</td>
<td>12</td>
</tr>
<tr>
<td>6.1.5 Geology Reinterpreted</td>
<td>13</td>
</tr>
<tr>
<td>6.2 E.L. 3505 - SNAKE ANOMALY</td>
<td>13</td>
</tr>
<tr>
<td>6.2.1 Introduction</td>
<td>13</td>
</tr>
<tr>
<td>6.2.2 Radon Survey: Alphacard</td>
<td>13</td>
</tr>
<tr>
<td>6.2.3 Geochemistry</td>
<td>14</td>
</tr>
<tr>
<td>6.2.4 Conclusions</td>
<td>14</td>
</tr>
<tr>
<td>VII. GENERAL CONCLUSIONS AND RECOMMENDATIONS</td>
<td>15</td>
</tr>
<tr>
<td>VIII. EXPENDITURE STATEMENT</td>
<td>16</td>
</tr>
</tbody>
</table>

APPENDICES

Appendix 1 L5 Forms

Appendix 2 Reinterpretation of Geology
LIST OF PLATES

<table>
<thead>
<tr>
<th>Plate</th>
<th>Description</th>
<th>Scale</th>
<th>Drg. No.</th>
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</thead>
<tbody>
<tr>
<td>Plate 1</td>
<td>Kelly's Prospect - Gradient Resistivity Survey. Iso-Apparent Resist. Contours</td>
<td>1:1,000</td>
<td>540-022</td>
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<tr>
<td>Plate 2</td>
<td>Kelly's Prospect - Total Magnetic Field Contour Plan - 1985 Survey</td>
<td>1:1,000</td>
<td>540-017</td>
</tr>
<tr>
<td>Plate 3</td>
<td>Kelly's Prospect - Ground Radiometry 1985 Survey</td>
<td>1:1,000</td>
<td>540-021</td>
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<tr>
<td>Plate 4</td>
<td>Radon Survey, Kelly's Prospect. Composite Contour Plan of Alphacard and SPP2 Results</td>
<td>1:1,000</td>
<td>540-028</td>
</tr>
<tr>
<td>Plate 5</td>
<td>Snake Anomaly. Composite plan with Alphacard and SPP2 Results</td>
<td>1:1,000</td>
<td>540-026</td>
</tr>
</tbody>
</table>

LIST OF FIGURES

Figure 1  Project Location Plan
Figure 2  Regional Geology, 1:500,000
Figure 3  Location Map E.L.'s 3504 and 3505, 1:80,000 approx.
I. SUMMARY

This report covers the uranium exploration activities of TOTAL Mining Australia Pty. Limited in 1985 over the Zapopan Joint Venture areas of E.L.'s 3504 and 3505 in the Pine Creek Geosyncline of the Northern Territory.

Field work consisted of gridding, geophysics (resistivity, S.P. and magnetics) and a radon (Alphacard) survey at Kelly's Prospect. Snake anomaly, on E.L. 3505, was covered by a small grid so a radon (Alphacard) survey could be completed.

During 1985 the tenements E.L.'s 3504 and 3505 were reduced by 50% in accordance with the requirements of the Department of Mines and Energy (see Figure 1).

A Joint Venture was negotiated for the exploration of gold over the entire E.L. area before the reduction. This Joint Venture is between Zapopan Consolidated N.L., TOTAL Mining Australia Pty. Limited and C.S.R. Limited (Colonial Sugar Refinery). C.S.R. have applied for the 50% of the tenements dropped, and have been appointed operator.
II. INTRODUCTION

Following the discovery of a narrow vein of primary uranium mineralisation at Kelly's Prospect in 1982, various radon detection methods and EM conductivity surveys were embarked upon.

These 1983 surveys located several new radon anomalies, using the R.O.A.C. and Alphacard method, but they were generally on strike with the original Kelly structure. The EM conductivity survey delineated two conductors paralleling the granite contact, at right angles to the interpreted aplite shear hosting the mineralisation.

Of geological significance in 1983 was the recognition of thin beds of dolomite within the interpreted Koolpin Formation. These acted as marker horizons and emphasised the sinuosity of the folding caused by the refolding of the syncline rimming the Burnside Pluton.

The activities of 1984 included both regional and localized work, specifically a heliborne spectrometer survey of the Burnside Granite margins and a limited percussion drilling programme at Kelly's. The drilling was partially successful in that anomalous U values were intersected in hornfelsic sediments associated with the granite.

The major proposals for the 1985 exploration programme were as follows:

(1) Resurvey Kelly's Prospect grid and extend it eastwards to cover possibly prospective structures and lithologies.

(2) Carry out a systematic resistivity survey over the new grid utilizing the gradient method.

(3) Conduct a systematic magnetometer and scintillometer survey in conjunction with the above.

As the field activities progressed additional work was generated including reconnaissance of Koolpin Formation in the NW corner of E.L. 3504, an Alphacard programme over three rectangles at Kelly's Prospect and a limited Alphacard survey at Snake Anomaly in E.L. 3505.
III. TARGET

The recognition of uranium mineralization being associated with shearing, and a dyke-like aplitic body at Kelly's, formed the basis for implementing a concentrated geophysical programme in 1985: a resistivity survey for the recognition of subsurface structures crosscutting the granite-sediment contact and a magnetic survey for the better definition of the lithologies as well as structural interpretation.

At Snake the target is a ferruginous ?dolomite within a black shale sequence; minor anomalies located in this environment were considered worthy of further limited prospecting.
IV. REGIONAL GEOLOGY

Figure 1 shows the location of the main project area within the overall Pine Creek Geosyncline - adjacent to the Burnside Granite, one of 21 Carpentarian multi-phase intrusives into Lower Proterozoic strata.

Figure 2 shows in more detail the kidney-shaped Burnside stock with the almost concordant flanking Lower Proterozoic sediments and volcanics.

V. LOCAL GEOLGY

Figure 3 is a plot of the E.L.'s on a B.M.R. geology base showing the apparently simple stratigraphic progression away from the granite contact - thus Wildman Siltstone, Acacia Gap Quartzite, Zamu Dolerite, Koolpin Formation carbonaceous shales and Gerowie Tuff. Kelly's Prospect is located within a thin band of sediments (shales and dolomite of the Koolpin Formation) sandwiched between the Burnside Granite and Zamu Dolerite. The extended grid at Kelly's now includes outcropping metamorphosed sediments: quartzites, mica schist and carbonaceous andalusite schists.

Snake anomaly lies within NE-SW trending sediments of the Koolpin Formation (see Figure 3). Zamu Dolerite intrusions flank the sediments to the NW and SE. The anomalies are associated with a discontinuous bed of ferruginous sediment thought to be of dolomitic origin; strike length is in the order of 150 m. The anomaly-bearing sediment band is flanked by dark grey to black shales, carbonaceous in part and in places highly contorted. The dolerites are poorly outcropping.
VI. WORK COMPLETED AND RESULTS

6.1 E.L. 3504 KELLY'S PROSPECT

6.1.1 Geophysics

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Resistivity

Introduction

A resistivity survey utilizing the gradient technique was carried out over a newly constructed grid at the Kelly's Prospect. The grid consisted of 11 rectangles, 200 m x 300 m in area, and colour coded with flagging tape for easy identification. Each rectangle overlapped the other on its long axis by 25 m. Self Potential readings were taken concurrently with the resistivity initially, but were discontinued because they were erratic and of no use (see Plate 1).

The survey was undertaken from 7th-21st May (rectangles 1 to 8) and 18th-25th July (rectangles 9, 10 and 11). During the latter period four existing rectangles in the vicinity of the mineralization and associated structures were "overlapped". This was termed rectangle 12.

Equipment


AB cable 1.5 mm cross section, single core 75° rating 30/0.25.

MN connecting cables, ordinary duty parallel pair 0.75 mm cross section 24/0.2.

AB electrodes - approximately 1 m² household aluminium foil buried 10 cm with moist in situ soil.

MN electrodes - 40 cm long, 4 mm diameter stainless steel rods with T-piece.

Method

Standard gradient technique with surveyed rectangle 300 m x 200 m.

AB (input electrodes) 600 m apart.

MN either 20 m or 25 m - the latter for rectangles 1 and 2.

The input current was generally 100mA but was as high as 200mA where there was good conductivity, and down to 50 and 20mA due to the dry soil conditions.
The MN electrodes were placed at least 12 hours in advance of readings to allow field stabilization. Readings were taken of Self Potential and V/I.

The team comprised 3 people:
- forward (M) electrode/cable man
- console operator
- AB cable man

Readings could be taken at approximately 2 1/2 minute intervals, allowing 1 rectangle to be completed in a day and with sufficient time remaining to establish all electrodes - AB and MN - for the following day.

Results

Due to inhomogeneity of the surface materials at the current electrode sites there are problems of tying the rectangles together to produce one plan for all the surveyed areas.

Difference in resistivity values of adjoining rectangles (at their overlap points) varies between 5% and 200% with most cases around 50%. This is due to the measurement of identical lines using different current electrode positions.

After several trials, a technique for smoothing the resistivity data along common rectangle lines has been found and the resistivity data from rectangles No. 3 to 11 have been corrected. A corrected map has been produced with iso-apparent resistivity lines at a scale of 1:10000 (see Plate 1).

The following is a summary of the geology based on the resistivity data; individual rectangles are treated separately.

Rectangle 1

- Dolerite: 140 - 300 ohm.m
- Granite: Contact to south, but it shows that an isolated granite body is attached to the main pluton at depth.
- Sediments: 160 - 600 ohm.m
- Structure: Kelly Shear Zone - evidence of deep granite truncation.
7.

Rectangle 2

Granite: Down to 80 ohm.m. Appendage in southeast corner.
Sediments: 350 - 700 ohm.m.
Structure: Good evidence for the Kelly Shear Zone with truncation of granite contact.

Additional north-south shear zone 70 metres east.

Rectangle 3

Granite: Down to 500 ohm.m which defines the mapped contact. There is a suggestion that the contact probably dips to the northeast. An embayment is indicated in the southeast.
Sediments: 200 - 300 ohm.m.
Structure: Very good definition of Kelly Shear Zone and an interpreted shear 60 metres east as in rectangle 2. Intrashear area ± 600 ohm.m.

North-south trends unexplained.

Rectangle 4

Granite: 560 - 1756 ohm.m, homogeneous; evidence of additional granite at depth in northwest corner.
Sediments: > 300 ohm.m.
Interpretation: Supports surface mapping of granite and also indicates pluton at depth. A previously unsuspected granite has been delineated at depth in the northwest.

Rectangle 5 (northern half)

Dolerite: 100 - 250 ohm.m.
Structure: Possible north-south fault. Nothing conclusive can be drawn from the data.
Rectangle 6 (northern half)

Dolerite: Contact with sediments shifted to the northeast as compared to the mapped contact, < 200 ohm.m.

Sediments: > 200 ohm.m.

Nothing conclusive can be drawn from the data.

Rectangle 7

Granite: > 500 ohm.m. Mapped granite is reflected at depth and to the south.

Sediments: Probable non-presence.

Dolerite: 200 - 350 ohm.m.

Structure: Moderate evidence for north-south shears.

Good evidence for mapped granite being equivalent to that indicated at depth.

Rectangle 8

Granite: 500 - 2000 ohm.m.

Sediments: ± 500 - 250 ohm.m.

Dolerite: 150 - 350 ohm.m.

Strong evidence for narrow granite embayment southwards, aligned north-south. Possible sheared sediment-granite contact.

Rectangle 9

Granite: Indicated subsurface contact trending NW-SE.

Intrusives: Two north and northeast trending structures indicated in northern half of rectangle. May be granite related or doleritic dykes.

Sediments: Probable sediments extreme northwest corner and along eastern boundary of rectangle.

Good definition of granite contact; probable dykes intruding sediments and dolerites.
Rectangle 10

Granite: Again obvious, supported by surface data. Sharp contact on eastern edge with metamorphosed sediments.

Sediments: In extreme southeast corner of rectangle (supported by surface data). Possible faulted or sheared contact with granite.

Dolerite: Indicated from surface data to cover much of northern section of the rectangle. Possible dykes with north-south trend.

Structure: Faulted granite-sediment contact indicated. Possible east-west fault separating granite and metamorphosed sediments in the south with dolerite to the north. North-south conductive axes may represent minor faults or shears emanating outwards from granite.

Rectangle 11

Granite: Not clear if present; possible granitic dykes intruding sediments in the south (may be doleritic dykes?).

Sediments: In southern section of rectangle supported by surface data. Sediments and/or dolerites occupy low-resistive ground to the north.

Structure: Abundance of generally trending north-south structures throughout, both resistive and conductive. Major fault (see also rectangles 9 and 10) separating metamorphics in south with sediments-dolerites to the north.

Recommendation

For future resistivity surveying using the gradient technique, it is suggested to:

- Improve the current input electrode site by preparing this site 2-3 days in advance of the survey.
- Drill 3-4 holes to a depth of 2-3 metres, fill them with water and salt. This should reduce the contact resistance.
- Carry out regular checking of the current cable for leakage during the actual survey.
Test the use of non-polarization potential electrodesss along a line which has already been surveyed using the stainless steel electrodes.

- Carry out at least two vertical electrical soundings (VES) using the Schlumberger Configuration to determine the vertical distribution of the resistivity values.

- **Magnetics**

**Introduction**

A ground magnetic survey was carried out in May coincident with the resistivity. The newly surveyed grid was covered at 10 m x 25 m intervals.

**Equipment**

Scintrex MP-3 proton precession magnetometer; two units were used: a stationary base and a mobile unit. Some operational difficulties were encountered with the base station instrument and as a result the mobile unit had to be utilized in the established loop system. All data were processed through the DOT portable computer.

**Results (see Plate 2)**

Major geological features outlined by the magnetic survey are as follows:

- Localized magnetic highs illustrated as 'plug-like' anomalies have been interpreted as due to mafic-rich doleritic intrusions. This is supported by outcrop at one of the locations. These highs are located at grid positions: 7840E/3020N, 8380E/2800N and 8900E/2720N.

- **Linear zones are present in the following areas:** 7600-7900E/3000N and 8600E-8950E/2950N. These are interpreted as lithological contacts, the former between granite and sediments, the latter between dolerite and sediments.

- Probable sedimentary bodies are represented as discontinuous linear zones with an east-west trend between 2850-3050N.

- As determined by outcrop mapping, the sheet-like dolerites are evident along the northern side of the grid.

- The mapped, folded sediments containing the Kelly's Prospect uranium mineralization is reflected in part by the magnetic data. This thin sedimentary sequence trends northeast/southwest between 8000-8200E/3000-3250N.

- Generally, the granite is not well defined by magnetics.
6.1.2 Radiometrics

+ Introduction

A further SPP2 survey was required at Kelly's due to regridding of the area and extensions to the grid. Most of the area covered by radiometrics during the current year had been previously surveyed (Plate 3).

+ Results

No new information has been gained by the new radiometric survey. Kelly's mineralized zone is exhibited by a localized 'high' with an approximate north-south trend.

A series of small highs embedded in a high background zone follows the drainage system. These are most likely due to radon-enriched waters and possibly also to entrapment of granite derived U (and Th) in the silts and mud. The dolerites characteristically exhibit a low radiometric background.

6.1.3 Conclusions

Overall, the combination of resistivity-magnetics-radiometrics has aided in further understanding the geology of Kelly's Prospect. The following points can be noted in relation to the subsurface geology:

+ The subsurface distribution of the Burnside Granite has been interpreted at the 100 m level from the resistivity data. The granite is seen to extend northwestwards under the ?sediments and dolerite.

The granite contact can also be postulated elsewhere especially by resistivity and to a lesser extent by magnetics.

+ The sediments are well illustrated by both resistivity and magnetics. Contacts with both the granite and dolerite are evident throughout the area surveyed.

+ The dolerites are broadly outlined by both resistivity and magnetics.

+ Two doleritic phases have been recognized by the magnetic surveying: the sheet-like 'sills' and mafic-rich doleritic 'plugs' (probably dykes). The latter is more magnetic and is represented by localized magnetic highs.

+ Interpreted structural trends, both resistive and conductive, have been clearly outlined by the resistivity. The magnetic surveying has provided a much poorer definition.
The most important structure, the Kelly Shear, is clearly defined by both geophysical methods. Other features of note are a parallel structure located to the east of the Kelly Shear and a possible granite embayment immediately southeast of the shear zone.

+ The SPP2 radiometric survey gave a broad definition of the various lithologies. Kelly's mineralized zone was clearly defined. The swamp/stream channel which traverses the grid exhibited several anomalies related to radon emanation and trapped mobile uranium.

6.1.4 Alphacard Survey

+ Introduction

Following geological interpretation based on resistivity and surface geology, an Alphacard survey was proposed in order to locate radon sources associated with the interpreted structures. The area chosen covers much of rectangles 9, 10 and 11 where certain structural trends have been postulated, representing faults/shears and/or dykes traversing the granite-sediment contact.

57 sites were surveyed using the AlphaNuclear cards and reader. The survey was carried out between 9th-11th November. Heavy storm rains had fallen prior to and during the survey.

+ Results (see Plate 4)

Three contour plans have been produced: Alphacard readings, SPP2 (ground level) and SPP2 (down hole). A combined assessment of the data has shown the following:

- An E-W trend of anomalous values corresponding to the swamplike area. This feature was reported under the previous heading and this work further confirms the anomalous nature of the creek water and sediment.

- The dolerites to the north of the creek exhibit low values.

- Some irregularities in the Alphacard and radiometric contours between 8500-8700E/2850-3000N may reflect a fault zone whereby the sediment-dolerite contact has been displaced to the north. No outcrop occurs in this area with a thick soil and rubble cover derived from the dolerite.

- Contact between the granite and metamorphics in the southeast corner of the grid is not outlined by the radiometric contours. The latter do not exhibit any anomalous values.
Conclusion

The survey was successful in that it clearly outlined the stream-swamp anomaly. Elsewhere, the only obvious feature was a less well defined area covered by the dolerite sheet which, characteristically, gave low radon values. There was virtually no clear distinction between granite and metamorphosed sediments. The comparable readings gained may indicate that the granite is near surface beneath the metamorphics.

No new occurrences of uranium mineralization have been indicated by the radon values obtained at Kelly's.

6.1.5 Geology Reinterpreted

A reinterpretation of the geology of Kelly's Prospect was necessary due to the additional data gained from the geophysical activities and from the auger hole cuttings supplied during the Alphacard survey. The results of this revision is shown in Appendix 2.

6.2 SNAKE ANOMALY - E.L. 3505

6.2.1 Introduction

During the 1983 field season, a "gossanous" outcrop within the Koolpin Formation was brought to the attention of the Company by Zapopan Consolidated Pty. Ltd. Radiometric prospecting located several anomalies, up to 700 cps SPF2.

The prospect was re-examined in 1985 and reconnaissance was carried out on a more regional basis without success; this included traversing the Burnside Granite contact to the west of "Snake". Here the Wildman Siltstone is in contact with the granite rather than the Koolpin Formation.

6.2.2 Alphacard Survey

In conjunction with the soil radon survey at Kelly's, a similar survey was planned for Snake. A base line 150 m long with four cross lines of 100 m length was constructed. Alphacard stations were located at 20 m intervals on the cross lines providing a total of 24 sites; an additional site was located adjacent to the 700 cps anomaly (see Plate 5).

The highest Alphacard value of 35 (1050E/1050N) is coincident with black soil/silt in a drainage system. The known radiometric anomaly did not produce encouraging radon values. Contour plans of the results show an overall homogeneous radon/radiometric signature.
6.2.3 Geochemistry

Six rock samples, five from the ferruginous dolomitic facies and one of the black shale, exhibited both anomalous uranium as well as base metal values (Batch 543-2, 28-5-85). These values reflect the mineralized nature of the outcrop however its localized extent gives the area a low priority.

In conjunction with the soil radon survey, a stream sediment survey was conducted in the immediate vicinity of the anomalous outcrop. Six samples were collected from surrounding drainages; the latter are not well developed being wide, flat, soil filled depressions rather than well defined sediment-filled channels.

6.2.4 Conclusions

Based on the Alphacard (soil radon) survey in combination with the geological assessment of the environment of the Snake Anomaly, no further work is recommended.
VII. GENERAL CONCLUSIONS AND RECOMMENDATIONS

Geophysical surveys at Kelly's Prospect have provided additional geological data in the areas of poor outcrop. Structural interpretation has been based upon the results of the resistivity and subsurface lithology on both resistivity and magnetic surveying. The Alphacard (radon in soil) method outlined a zone of anomalous values attributed to the swamp/drainage area which traverses the grid. No 'true' anomalies were located.

Based on the results obtained from the current years activities, no further work is recommended at Kelly's.

Snake anomaly was investigated by the Alphacard method; no radon anomalies were outlined. This, in conjunction with previous work at Snake, shows that there is a lack of potential for locating significant uranium concentrations in this area. No further work is recommended.
### VIII. EXPENDITURE STATEMENT

**E.L.'S 3504 AND 3505**

**FOR PERIOD 1ST MAY, 1985 TO 30TH APRIL 1986**

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FIGURES
Burnside Granite
Zamu Dolerite
Gerowie Tuff
Koolpin Formation
Wildman Siltstone
Acacia Gap Quartzite

BURNSIDE PROJECT - 1:100,000 GEOLOGY

FIGURE 3
APPENDIX 1

L5 FORMS
### Geochemical Results

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<td>46</td>
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(All from Snake Arm)

---

**Notes:**
- Method of analysis: XRF, XRF, AMS, AMS, AMS.
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<td>granite - from headwater of Kelly Prospect and upstream from bur-8841</td>
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<td>42</td>
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Sample types: R - surface rock, C - drill cuttings, S - soil, W - water, CC - channel sample, SS - stream sediment, O - overburden

Analysis methods: W - wet chemical assay, AAS - atomic absorption spectrophotometry, XRF - X-ray fluorescence, FRC - fluorimetric chemical analysis

Limit of detection: U, Th

Method of analysis: XRF, XRF, Spectroscopy
### GEOCHEMICAL RESULTS

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<td>64297</td>
<td>SHAKE ANOMALY SNL</td>
<td>S</td>
<td>Aluminia soil - grey slate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64298</td>
<td>-</td>
<td>-</td>
<td>gravel, alluv.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64299</td>
<td>-</td>
<td>-</td>
<td>Clayey soil, silt.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64300</td>
<td>-</td>
<td>-</td>
<td>Nilt, gravel - slate &amp; dolomite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64401</td>
<td>-</td>
<td>-</td>
<td>Nilt, gravel</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sample type:**
- S: soil
- W: water
- S5: stream sediment
- C: drill cuttings
- O: overburden

**Analysis methods:**
- AAS: atomic absorption spectrophotometry
- XRF: x-ray fluorescence
- S: spectrochemical analysis

**Limit of detection:**

**Method of analysis:**
- W: wet chemical assay
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Location</th>
<th>Sample type</th>
<th>Description</th>
<th>U</th>
<th>Th</th>
<th>U'</th>
<th>Zn</th>
<th>Pb</th>
<th>As</th>
<th>Au</th>
<th>U/Th</th>
<th>SPP-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>64177</td>
<td>SII-II-ME 23W 63E</td>
<td></td>
<td>Garnet, apatite, rich in fluorite</td>
<td>7.9</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>178</td>
<td></td>
<td></td>
<td>Chert/biotite rich shale nr. Samiti contact</td>
<td>8.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>245</td>
<td></td>
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<tr>
<td>179</td>
<td></td>
<td></td>
<td>Sacc Gtz. gossen ex. Cal. b. E.M., &lt;4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.01</td>
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<td></td>
</tr>
<tr>
<td>64180</td>
<td></td>
<td></td>
<td>Gtz Ssp. z.6x in Koolpin</td>
<td>1.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.02</td>
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</tr>
<tr>
<td>64182</td>
<td>NW Carrobuon Sr.</td>
<td></td>
<td>Black shale &amp; Gtz. vein in Sildolavry</td>
<td>1.3</td>
<td></td>
<td>15° 56'</td>
<td></td>
<td></td>
<td>10.01</td>
<td>200</td>
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</tr>
</tbody>
</table>

**Sample type:** R, surface rock

**Analysis methods:** W, wet chemical assay

**Limit of detection:** 4, 0.1

**Method of analysis:** XRF, AAS, AAS

**ORIGINATOR:** D. Harrop / D. Cream

**SIGNED:** P. J. Blake

**MINATOME AUSTRALIA PTY. LTD.**
APPENDIX 2

REINTERPRETATION OF GEOLOGY
Instrument ABH Tonometer
SAS 300 with SAS 3000 Booster

AB = 600 m
HN = 20 m \( \perp \) from AB East-West
Step = 20 m

HN = 25 m \( \perp \) from AB North-South
Step = 25 m

TOTAL MINING AUSTRALIA P/L
PROJECT 540 EL 3504
BURNSIDE
APARENT RESISTIVITY
GRID TEMPLATE
RECTANGLE NO 3
SCALE 1:2000
DARWIN JAE 28.5.85
Measure AEM Tensormeter
SAS 300 with SAS 2000 Booster

AB = 600 m
HN = 20 m } with AB East West
Step = 20 m

HN = 25 m } with AB North South
Step = 25 m

TOTAL MINING AUSTRALIA P/L.
PROJECT 540 EL 3504
BURNSIDE
APPARENT RESISTIVITY
GRID TEMPLATE
RECTANGLE NO. 4
SCALE 1:2000
DARWIN JAE 28/5/85
Instrument: AEM Four Parameter
SAS 300 with SAS 2000 Booster

$AB = 600 \text{ m}$
$HN = 20 \text{ m}$ (with AB East-West)
Step = 20 m

$HN = 25 \text{ m}$ (with AB North-South)
Step = 25 m

TOTAL MINING AUSTRALIA P/L

PROJECT S40 EL 3504
BURNSIDE
APPARENT RESISTIVITY
GRID TEMPLATE
RECTANGLE NO. 5
SCALE 1:2000
DARWIN JAE 28.5.85
Instrument: ABEH Tenameter
SAS 300 with SAS 2000 Booster

\(AB = 600 \text{ m}\)
\(HN = 20 \text{ m}\) \(\uparrow\) with \(AB\) East West
\(S\text{tep} = 20 \text{ m}\)

\(Hi = 25 \text{ m}\)
\(S\text{tep} = 25 \text{ m}\) \(\uparrow\) with \(AB\) North South

**Total Mining Australia P.L.**

**PROJECT 340 EL 3504**
**BURNSIDE**
**APPARENT RESISTIVITY**
**GRID TEMPLATE**
**RECTANGLE NO 6**
**SCALE 1:2000**
**DARWIN JAE 28.5.85**
Instrument ABEM Tenera meter
SAS 300 with SAS 2000 Booster

AB = 600 m
HN = 20 m
Step = 20 m

HN = 25 m
Step = 25 m

TOTAL MINING AUSTRALIA P.L.

PROJECT S40 EL 3504
BURNSIDE
APPARENT RESISTIVITY
GRID TEMPLATE
RECTANGLE NO 7
SCALE 1:2000
DARWIN JAE 28.5.85
Instrument ABEH Temarameter
SAS 300 with SAS 2000 Booster

\[ AB = 600 \text{ m} \]
\[ HN = 20 \text{ m} \] with AB east west
\[ Step = 20 \text{ m} \]

\[ HN = 25 \text{ m} \] with AB north south
\[ Step = 25 \text{ m} \]

TOTAL MINING AUSTRALIA P.L.
PROJECT 540 EL 3504 BURNSIDE APPARENT RESISTIVITY GRID TEMPLATE RECTANGLE No 8 SCALE 1:2000 DARWIN JAE 28.5.85