SUBSTITUTE EXPLORATION LICENCE 7439

FINNIS RANGE, NORTHERN TERRITORY
Bynoe 100,000 sheet area 5072
08/4 - 111

ANNUAL REPORT FOR THE PERIOD ENDING
20 MAY, 1993.

CORPORATE DEVELOPMENTS PTY LTD
ACN 000 610 271

R.G.Bluck.
Brukunga Services Pty Ltd
ACN 008 209 916
June, 1993
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SEL 7439 FINNIS RANGE, NORTHERN TERRITORY

OUTLINE OF THE REDUCED TENEMENT
DRAINAGE TESTED BY AUGER DRILLING HIGHLIGHTED

Scale 1:25,000
1 SUMMARY.

Exploration Licence 7439 was granted to Corporate Developments Pty. Ltd. on 21 May, 1991, for a period of three years. This report presents the results of work carried out in the second year of tenure.

A report on the resource/reserve status of the pegmatites and their associated eluvials has been commissioned. The report is being compiled by Mr. C. Robinson, an independent consultant with expertise in tin-tantalite mineralisation: the compilation work commenced in May and the report is scheduled to be completed by mid July.

Reconnaissance auger drilling located a mineralised alluvial system of uncertain age. Drilling is incomplete and mineralised wash extends off section in three directions. The system has the potential to contain a substantial volume of exploitable alluvials.

2 INTRODUCTION.

During 1992-93 the evaluation of the tin-tantalite resources present within Substitute Exploration Licence 7439, and adjacent titles held by Corporate Developments, was continued. Early in 1993 the company purchased and refurbished an auger drill rig, principally to facilitate the exploration of its tenements in the Finnis Range - Bynoe Harbour area.

Based on the results of the previous years work the programme concentrated upon outlining the resources of mineralised material intimately associated with the pegmatites, and identifying and testing potentially mineralised alluvials.

Systematic field mapping and surface sampling of the regolith/eluvial material associated with the known pegmatites has generated data which is adequate for the quantification of these resources. Mr. Col Robinson has been retained to collate and verify this data and recommend any additional work which is necessary to bring material to reserve status. The contract calls for the work to be completed by the mid July, 1993, and the report produced will be provided to the Department as soon thereafter as possible.

Recent, Quaternary and pre-laterite mineralised alluvials have been mined elsewhere in the district and a programme to examine the alluvial potential of the title area was developed. This work did not identify any pre-laterite systems within the title area but several recent/active drainages were recognised as being potentially mineralised. A reconnaissance auger programme was commenced to test these systems but was suspended while procedural problems were resolved.
3 WORK COMPLETED.

3.1 METHODOLOGY AND RESOURCES.

Since the title was granted on 21 May, 1991 the exploration of
the area has progressed through several phases;

* systematic examination and sampling of the known
pegmatites to outline the resource potential and establish the
characteristics of the mineralisation of the individual bodies
(year 1),

* firming up of the resource calculations for the
mineralised pegmatites, an economic ranking of the prospects and
definition of the work necessary to increase the amount of
material with reserve status (year 2),

* an evaluation of the tenure for mineralised alluvials
(year 2).

The field work for the above programmes has been carried out by
Mr. J. Crago, a well experienced and capable prospector. The
field data relating to the pegmatite systems is presently being
collated and reported on by Mr. C. Robinson, a consultant
geologist with specific expertise in tin and mineralised
pegmatites. The field data for the alluvials programme has been
evaluated by the author, Mr. R. Bluck, a consultant geologist
with over twenty years general exploration experience.

3.2 PEGMATITE ASSESSMENT PROGRAMME.

The field data is being collated and assessed by Mr. C.
Robinson. The work was commissioned in May and the resulting
report should be available by mid July. A copy will be provided
to the department as soon as it becomes available.

3.3 ALLUVIAL EXPLORATION.

3.3.1 INTRODUCTION.

Exploration was commenced to examine potential for tin-tantalite
mineralisation within the Quaternary alluvial systems in the
licence area. The initial phase of the programme had the dual
objectives of determining whether high energy sedimentary facies
were present within the drainages, and whether heavy minerals had
been fed into the system from major source areas.

The area immediately below the Bilato and Saffums No 2 prospects
was selected for a first pass programme as they are located
adjacent to a large Quaternary black soil covered drainage, and
are of sufficient size to constitute a significant source.

A total of 23 auger holes were drilled to effective basement (ie
as far as the auger would go, generally fragments of bedrock were
found on the end of the auger flights). Bottom hole samples were
collected, panned down, and the combined cassiterite-tantalite
mineral content visually estimated in kilogrammes per cubic
metre. Sampling of the source pegmatites in the area has shown that the tantalite/niobium generally constitutes approximately 20% of the estimated grade, the balance being cassiterite.

### 3.3.2 DRILL LOGS.

#### Drill hole No 1.

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Sample description</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>1.0</td>
<td>grey silts</td>
<td>0.05</td>
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<td>1.0</td>
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<tr>
<td>2.0</td>
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<td>quartz gravel</td>
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#### Drill hole No 2.

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<td>1.0</td>
<td>grey silt and yellow sand</td>
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<tr>
<td>1.0</td>
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<td>yellow clay with quartz</td>
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#### Drill hole No 3.

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<td>1.0</td>
<td>grey silty clay</td>
<td>0.05</td>
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<tr>
<td>1.0</td>
<td>1.8</td>
<td>grey mottled clay, minor quartz</td>
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#### Drill hole No 4.

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<td>1.0</td>
<td>grey clay</td>
<td>0.01</td>
</tr>
<tr>
<td>1.0</td>
<td>2.5</td>
<td>grey clay and quartz</td>
<td>0.05</td>
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#### Drill hole No 5.

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<td>0.02</td>
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<td>1.5</td>
<td>quartz and clay</td>
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<td>1.5</td>
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<td>vein quartz</td>
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#### Drill hole No 6.

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<td>grey clay</td>
<td>0.01</td>
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<td>2.0</td>
<td>mottled grey sand and clay</td>
<td>0.03</td>
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<td>2.0</td>
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<td>quartz gravel</td>
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#### Drill hole No 7.

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<tbody>
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</tr>
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<td>1.5</td>
<td>quartz vein gravel</td>
<td>0.03</td>
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<td>grey clay</td>
<td>0.03</td>
</tr>
<tr>
<td>1.0</td>
<td>2.5</td>
<td>grey and orange mottled clay</td>
<td></td>
</tr>
</tbody>
</table>
SEL 7439

FINNIS RANGE, NORTHERN TERRITORY

LOCATION OF AUGER DRILL HOLES
IN THE SAFFUMS - BILATO AREA

Map Scale 1:1,000
View north
### Drill hole No 9.

<table>
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<th>Grade</th>
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<tbody>
<tr>
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<td>1.0</td>
<td>grey silt and clay</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>2.0</td>
<td>yellow sand</td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>2.8</td>
<td>mottled sand, minor quartz</td>
<td>0.02</td>
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### Drill hole No 10.

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<tbody>
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<td>1.0</td>
<td>grey clay</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>2.0</td>
<td>yellow sand and clay</td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>2.9</td>
<td>mottled clay</td>
<td></td>
</tr>
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### Drill hole No 11.

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<tbody>
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<td>1.0</td>
<td>grey clay</td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>2.8</td>
<td>mottled yellow silty and clay</td>
<td>0.02</td>
</tr>
</tbody>
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### Drill hole No 12.

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<td>grey clay</td>
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</tr>
<tr>
<td>1.0</td>
<td>2.0</td>
<td>mottled silts</td>
<td></td>
</tr>
<tr>
<td>2.0</td>
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<td>mottled clay</td>
<td>0.03</td>
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### Drill hole No 13.

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<tr>
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<td>yellow sand</td>
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</tr>
<tr>
<td>2.0</td>
<td>2.8</td>
<td>yellow sand and gravel</td>
<td>0.05</td>
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### Drill hole No 14.

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</tr>
<tr>
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<td>2.0</td>
<td>yellow sand</td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>2.9</td>
<td>yellow sand and gravel</td>
<td>0.40</td>
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### Drill hole No 15.

<table>
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<th>Grade</th>
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<tbody>
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<td>grey clay</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>2.0</td>
<td>yellow sand</td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>3.0</td>
<td>gravel</td>
<td>0.40</td>
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### Drill hole No 16.

<table>
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<th>Grade</th>
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<tbody>
<tr>
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<td>0.5</td>
<td>grey clay</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>2.0</td>
<td>yellow sand and clay</td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>3.0</td>
<td>lateritic gravel</td>
<td>0.20</td>
</tr>
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### Drill hole No 17.

<table>
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<th>Grade</th>
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<tbody>
<tr>
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<td>0.5</td>
<td>grey clay</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>2.8</td>
<td>mottled clay with angular quartz</td>
<td>0.02</td>
</tr>
</tbody>
</table>
Drill hole No 18.
From To Sample description Grade
0.0 1.0 grey clay
0.5 2.5 mottled grey and orange clay 0.02

Drill hole No 19.
From To Sample description Grade
0.0 1.0 grey clay
0.5 2.0 mottled clay with minor gravel
2.0 3.0 mottled clay with minor gravel 0.02

Drill hole No 20
From To Sample description Grade
0.0 0.5 grey clay
0.5 2.0 yellow sand
2.0 3.0 yellow clay
3.0 4.2 lateritic gravel with pisolites 0.40

Drill hole No 21.
From To Sample description Grade
0.0 0.5 grey clay
0.5 2.0 yellow silt
2.0 3.3 yellow silt and minor gravel 0.40

Drill hole No 22.
From To Sample description Grade
0.0 0.5 grey clay
0.5 2.0 yellow silt and sand
2.0 3.0 yellow sand with minor gravel 0.30

Drill hole No 23.
From To Sample description Grade
0.0 0.5 grey clay
0.5 2.0 yellow silt and sand
2.0 2.5 yellow silt and sand, minor gravel 0.20

In the logs:

* the surface sample, generally consisting of black soil with minor striped orange and black clays and silts, has been logged as "grey clay".

* "minor gravel" denotes less than 20% quartz and rock fragments, generally <200 mm, subrounded.

3.3.3 DISCUSSION.

The auger drilling successfully located higher energy sediments below the Quaternary black soil flood plain, and also disclosed that potentially economic tin-tantalite concentrations are present in the facies.
FINNIS RANGE, NORTHERN TERRITORY

AUGER DRILL HOLE PROFILE
SAFFUMS - BILATO AREA

SEL 7439

Scale, horizontal 1:250
vertical 1:50
View north
An assemblage of yellow sand and minor gravel occurs at the base of the Quaternary sequence within a band running sub-parallel to the eastern margin of the black soil. This basal sand-gravel facies has not been closed off the east, and to the west it is bounded by a lower energy assemblage of grey and orange mottled clays and silts. Both these units are overlain by an occasionally silty to clayey yellow sand unit which underlies the surface black soil horizon.

The basal sand-gravel unit consists predominantly of yellow sand and minor gravel, but two holes 16 and 20, intersected lateritic to pisolitic gravels. Both holes are located on the eastern ends of their respective traverses and are flanked to the west by unconsolidated yellow sand and gravel. The relationship between the unconsolidated and lateritic sediments is not known but the possibilities are:

* the lateritic gravels correlate with the "pre-laterite" mineralised alluvials which have been discovered elsewhere in the district,

* the lateritic gravels are a marginal, slightly more indurated, facies of the Quaternary system.

Irrespective of the detailed age and origin of the sand-gravel facies they are significantly mineralised. The area outlined so far is some 150 metres wide by 500 metres long and is open in both directions. There is sufficient untested ground below the Quaternary black soil cover for the area to contain a significant resource of mineralised alluvials. The grades obtained to date have been adequate to sustain a conventional alluvial mining operation.

4 CONCLUSION.

The assessment of the volume and grade of regolith/eluvial material associated with each of the known pegmatites is nearing completion. While the combined reserves and resources are anticipated to be significant it is unlikely that they will be economic under prevailing conditions. An investigation of the primary grades of the pegmatites needs to be carried out.

The location of significant heavy mineral grades in wash at the base of a Quaternary drainage has shifted the focus of exploration to these systems. A systematic reconnaissance auger programme will be carried out during the third year of the tenure.
5 EXPENDITURE STATEMENT FOR YEAR 2.

Field Programme
  Technical Assistant $3,000
  Field Assistant $720
  Auger, commissioning and drilling $1,665
  Vehicle $1,400

Technical
  General analysis and reporting $1,350
  Resource/reserve reporting, 33% of $2,666

Administration
  Reporting $900
  Field office $250
  Head office $250

  $6,785

  $4,016

  $1,400

  $12,201

6 PROPOSED PROGRAMME AND BUDGET FOR YEAR 3.

The two components of the programme for the third year of the tenure will be:

* the definition of volume and grades of mineralised material about the known pegmatites. The scope of the work required will not be finalised until Mr. Robinson's report is received.

* The systematic exploration of the Quaternary alluvial systems.

The work estimates (within the limits noted above) are:

Pegmatites.
  Auger drilling $1,125
  Drilling and gridding labour $1,500
  Sample processing $125
  Field recording $250
  Data processing $500
  Reporting $500

  $4,000

Alluvials.
  Auger drilling $4,000
  Drilling and gridding labour $4,250
  Sample processing $500
  Field recording $500
  Data processing $1,250
  Reporting $1,500

  $12,000

  $16,000
SEL 7439
FINNIS RANGE, NORTHERN TERRITORY
LOCATION OF THE TENEMENT WITHIN
THE DARWIN 1:250,000 SHEET AREA