ANNUAL REPORT FOR
YEAR FOUR
EL 4733

FOR

SULLIVAN, K F EUPENE & R J STONE

BY

SUSAN H HICKEY
BSc (Hons)

EUPENE EXPLORATION ENTERPRISES PTY LTD

CR89/612

FOG BAY SD 52-3
Fog Bay 4972

DARWIN, NT
September 1988
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SUMMARY

Exploration continued to concentrate on pea-gravel sampling for base-metals on the remaining northern portion of the licence and also on auger sampling along the cheniers for shell grit.

The exploration programme for shell grit did not reveal any significant results. Unfortunately the pea-gravel samples were misplaced by the assaying company and no results were available for these. Exploration will continue in extreme northern portion of the licence for pea-gravel and auger sampling will continue on stranded cheniers in the central portion of the licence during the next year of tenure.

If the assaying company locates the samples, we will submit the results in due course.
INTRODUCTION

Field work over the remaining 15 blocks consisted of sampling for base metal and gold concentrations in Cainozoic soil cover on the northern portion of the licence and sampling cheniers, along the coastline and as strandlines in the black soil plains for shell grit.
TENURE

Exploration Licence 4733 was granted to Messrs K F Eupene, M V Western, J J Sullivan and R J Stone on 18 June, 1985 for a period of six years. The exploration licence is now held by Eupene, Sullivan and Stone and this report covers exploration in its fourth year of tenure.
TOPOGRAPHY AND ACCESS

The area contains six physiographic elements:

(i) an isolated rugged north-south trending hill consisting of Depot Creek Sandstone,

(ii) lateritic soil cover over undulating terrain in the northern half of the licence,

(iii) paludal and estuarine plains in the southern portion of the licence,

(iv) a complex system of dunes and beach ridges along the coastline on the western edge of the licence,

(v) beaches, and

(vi) tidal mudflats and mangroves fringing the coastline.

Access from Darwin is via the Stuart Highway, Mandorah road and the Finniss River Road.

There are various tracks which access most of the licence, although the central portion of the licence, the black soil plains, are inaccessible during the "wet".
GEOLOGY

The regional geology of the licence is described by Hickey (1985), in the notes to accompany the 1:100,000 Geological Map of Fog Bay (First Edition, 1984).

Base metal sampling was carried out over Cainozoic rocks which overlie the undifferentiated Early Proterozoic gneiss, schist, amphibolite and quartzite as described by Hickey.

Shell grit exploration was carried out over beach ridges northeast of the entrance to the Finniss River.
EXPLORATION PROGRAMME FOR 1988/1989

Pea–gravel sampling and shallow auger drillhole sampling continued over the licence during 1988/89.

Eight shallow auger holes were completed on the coastline north of Stingray Head and inland of Five Mile Beach to test for shell grit.

The average depth of the auger holes was 1m and the results largely revealed mud dominant sandy profiles with only limited pockets of shell grit. Appendix A lists the logs for each hole.

Twenty surface pea–gravel samples were taken from laterite covered terrain north of the Finniss River black soil plains.

The samples were submitted for analysis for Pb, Co, Cr, Cu, Ba, Sn, As and Au.

All the sample locations are detailed on Figure 2.
CONCLUSIONS

The auger sampling did not reveal any suitable shell grit localities.

The pea–gravel sampling programme has no results due to the misplacement of samples by the assaying company.
<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Wages</td>
<td></td>
</tr>
<tr>
<td>8 man days @ $300/day</td>
<td>$2400.00</td>
</tr>
<tr>
<td>8 man days @ $220/day</td>
<td>1760.00</td>
</tr>
<tr>
<td>Vehicle Expenses</td>
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</tr>
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<td>1000km @ 40c/km x two vehicles</td>
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</tr>
<tr>
<td>Parts and accessories</td>
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</tr>
<tr>
<td>Motorbike</td>
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<tr>
<td>Equipment and Supplies</td>
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<tr>
<td>Assay charges</td>
<td>-</td>
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<td>Camping Allowances and Insurance</td>
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<tr>
<td>Report Compilation and Drafting</td>
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<td><strong>SUB-TOTAL:</strong></td>
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<tr>
<td>Administration 15%</td>
<td>969.00</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td><strong>$7429.00</strong></td>
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PROPOSED EXPLORATION PROGRAMME FOR 1989/1990

Pea-gravel sampling will continue over the northern-most block while auger sampling for shell grit will continue over the remaining blocks.

Proposed expenditure for Year Four is $3000.00.
REFERENCES


APPENDIX A

AUGER HOLE LOGS

<table>
<thead>
<tr>
<th>Location</th>
<th>Depth (m)</th>
<th>Log</th>
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<tbody>
<tr>
<td>12471</td>
<td>1</td>
<td>Mixed, medium brown mud and fine sand.</td>
</tr>
<tr>
<td>12472</td>
<td>1</td>
<td>Cream-brown silt and clay with some shells.</td>
</tr>
<tr>
<td>12473</td>
<td>1</td>
<td>Mixed, light-medium brown mud and fine sand.</td>
</tr>
<tr>
<td>12474</td>
<td>1</td>
<td>Cream-brown shelly sand.</td>
</tr>
<tr>
<td>12475</td>
<td>1</td>
<td>Cream-brown silty sand with minor mud layers.</td>
</tr>
<tr>
<td>12476</td>
<td>1</td>
<td>Cream, shelly fine-medium sand with minor coral.</td>
</tr>
<tr>
<td>12477</td>
<td>1</td>
<td>Cream, shelly fine-medium sand with minor coral.</td>
</tr>
<tr>
<td>12478</td>
<td>1</td>
<td>Cream-brown fine sand mixed with light-medium brown muddy clay.</td>
</tr>
</tbody>
</table>