REPORT ON

CHAMBERS & PINKE BAYS -- HEAVY MINERAL

BEACH SANDS

NORTHERN TERRITORY

Placer Prospecting (Australia) Pty. Limited.
Sydney, N.S.W. Australia - June, 1969.

c.c. Placer, Vancouver
" Oakland
" Darwin
" Sydney
Nevsam, Melbourne
Chambers & Finke Bays -- Heavy Mineral Beach Sands

Northern Territory

Summary

An Authority to Prospect (A/P No. 1975) was granted to the Australus Mining Co. Pty. Ltd. This Authority comprised approximately 132 square miles and was examined in October, 1968. Shallow scout boring failed to disclose commercial mineralization or even much sand so the Authority has no value for this purpose and is being relinquished.

Locality & Description

This A/P is located along the northern coast of Northern Territory facing Van Dieman Gulf. It trends parallel to 12°15' South Latitude and extends roughly from 131°25' to 132°15' East Longitude. The area lies from 35 to 90 miles east of Darwin.

The Wildman, West Alligator and South Alligator Rivers discharge into Van Dieman Gulf at the east end of the area. As they transact a broad belt of Precambrian schists and sandstones, it was believed that their loads of sediment should include a heavy mineral assemblage of some magnitude which would be concentrated on the beaches by longshore currents. In addition, aerial photos showed what appeared to be several ancient beach lines occurring shoreward from the present strand which added to the potential here.

The attached map showing location of A/P was taken from the Darwin and the Alligator River Sheets, SD52-4 & SD53-1, Edition 1, Series R502 of the Army Map Series. Scale: 1:250,000.

Examination of the Area

Access to the area was by a Darwin based chartered helicopter. Close surveillance of ground surface was possible by flying mostly at an altitude of 200' and frequent landings were made for boring, sampling or examination of terrain by foot. A geologist and professional prospector made up the examining team.

A round trip reconnaissance of the area was accomplished in 7½ hours and failed to disclose more than a few miles of thin, narrow and discontinuous beaches. The rest of the shore line was largely mangrove and mud flats. A 2 mile stretch at the extreme eastern boundary of the A/P was the only substantial beach found. It had an average width of about 500' including a few wind-blown dunes behind the present foredune.
2.

A test bore on the crest of this dune was put down about 200' from low tide line. Fifteen feet of coarse reddish-brown sand was penetrated which yielded a very weak tail of predominantly magnetic heavies on panning.

The relatively few ancient strand lines that appeared in the aerial photos were closely inspected and borings made at 3 localities east of Point Stuart in the Finke Bay area. These holes ranged from 3' to 8' in depth and penetrated a shallow zone of black loam underlain by coarse shell hash on a mud base. As the mud was dried out, it was impossible to penetrate it with the hand auger available. However, the chances of substantial sand beds occurring below this mud was considered very remote. Upon panning, none of the loam or shell cuttings showed any H.M. values. Several landings were made along the Chambers Bay portion of the A/P but on close surficial inspection nothing was seen that was deemed worthy of scout boring.

Since 95% of the entire area traversed consisted of mud and shell with no sand whatever, it must be assumed that the load-carrying capacity of the three above-mentioned rivers was limited to silt-size particles in the estuarine portions of their channels. With little or no competency in these reaches, the sand and any associated H.M. was dropped at tide-water or farther up-stream. The country in these areas being so formidable and inaccessible would render what H.M. accumulation might have developed here practically worthless from an economic standpoint.

Expenses connected with this investigation are itemized in an Appendix.

Conclusions

This area has nothing to recommend it for further investigation from the standpoint of commercial heavy mineral potential. For this reason the A/P is being relinquished.
### APPENDIX

**Expenses Allocated to Exploration**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
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<tbody>
<tr>
<td>Geology</td>
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<tr>
<td>Hand Drilling</td>
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<td>Transportation</td>
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<tr>
<td>Office Overhead (15%)</td>
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Rounded Total: $750.00

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T. D. MURPHY  
Consulting Mining Geologist

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