

VDM PROJECT SUMMARY

RINGAROOMA BAY

Summary

Ringarooma Bay is located in north-east Tasmania about 70km north-east of Launceston and 15km north-west of the historic mining township of Gladstone.

A tin-bearing alluvial resource, defined by drilling and sampling, exists within unconsolidated sediments up to 13m below the sea floor in waters up to 35m deep. The main resource is an offshore extension of the onshore Ringarooma palaeochannel.

A 1966/67 program of 138 drill holes defined a resource containing 23M cu.m of sediments with an average tin grade of 150g/cu.m. The resource also contains significant quantities of zirconium and titanium.

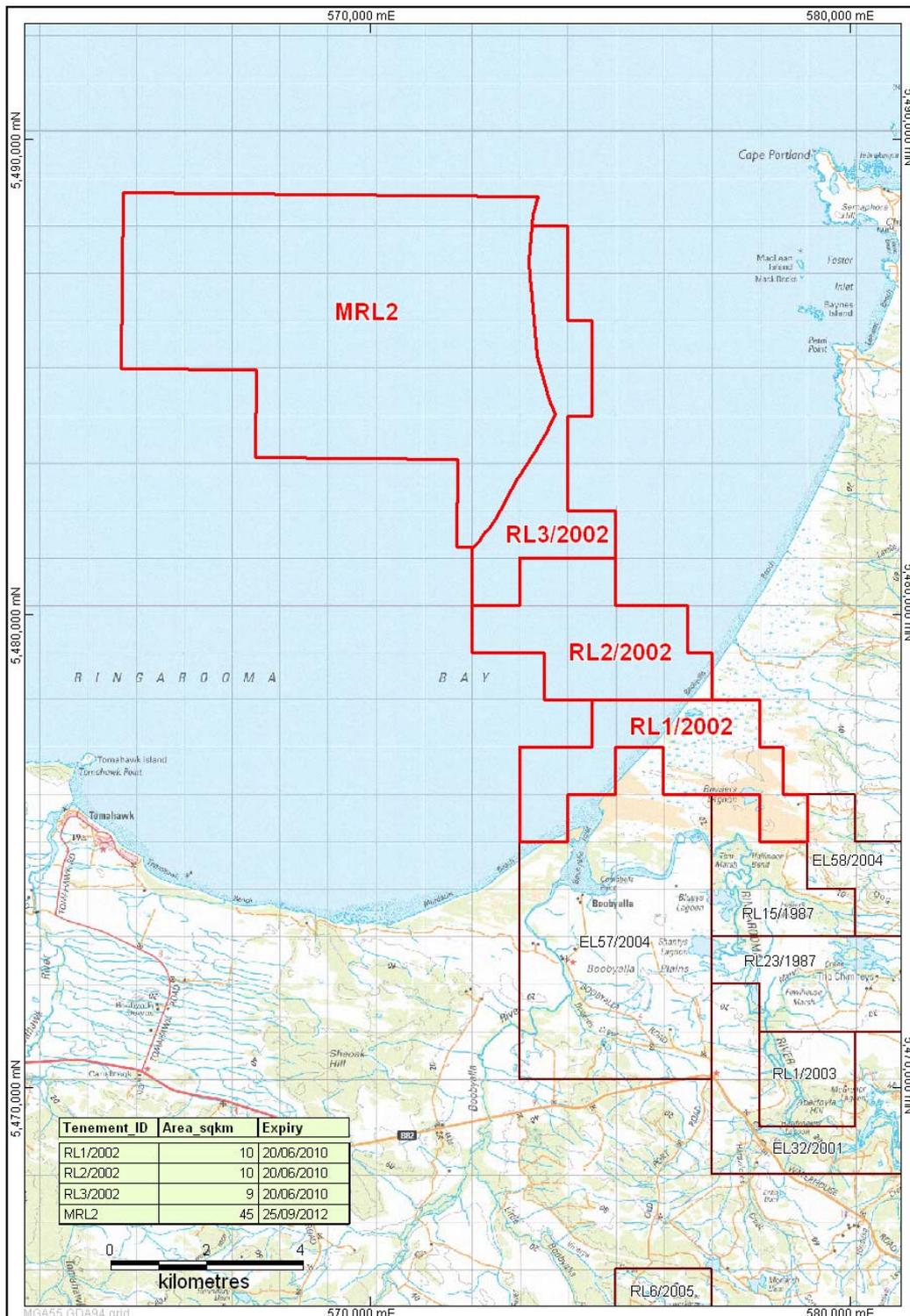
The alluvial resource is interpreted to extend further to the north-west, however at this time there is no data to support this.



Current Tenure

Van Dieman Mines (VDM) hold 100% of four retention licenses in Ringarooma Bay which cover the main resource area. These tenements total 74.67 sq km and were part of a package of 13 exploration tenements purchased by VDM from Mineral Holdings Australia (MHA) in 2004.

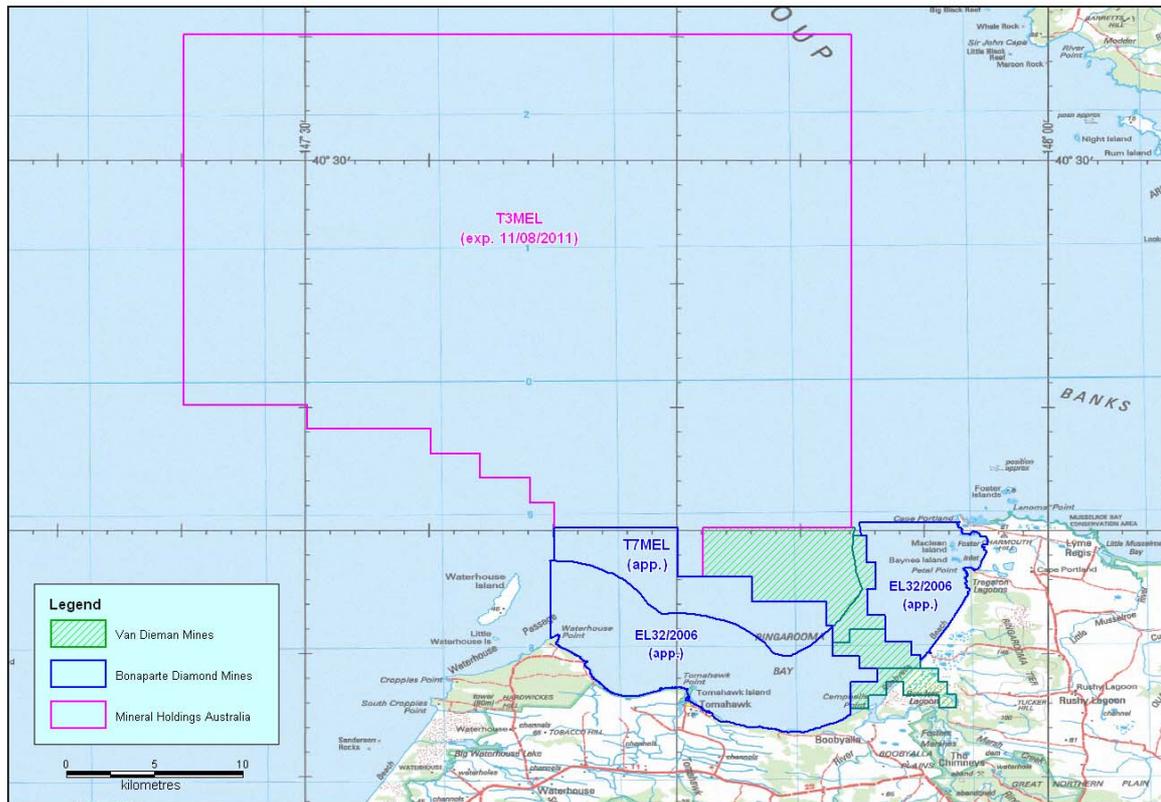
Three tenements lie within the 3 nautical mile (from the coast) limit ; the fourth lies outside the 3nm limit in Commonwealth waters.



Ringarooma Bay - VDM Tenement Location Map (on 100K topo)

MHA hold licence T3MEL (468 block / 1268 sq km) in Commonwealth waters, which has recently been granted for a term of three years (expiry 10/08/2011)

Situated immediately adjacent (west and east) of VDM's RLs are two applications from Bonaparte Diamond Mines (BDM), namely EL32/2006 and T7MEL. The applications are on hold until objections from fishing organisations are dealt with by Mineral Resources Tasmania (MRT).



Ringarooma Bay - All Tenements, September 2008 (on 250K topo)

VDMmap0809-002

Geology

In broad terms the geology of the north-east quadrant of Tasmania consists of an extensive series of Devonian granitic masses intruding generally fine grained Tertiary sediments. The sediments have been regionally metamorphosed and locally contact metamorphosed during the emplacement process.

Many of the granites, and parts of their contact aureole, are tin bearing, and weathering of these have formed extensive alluvial tin deposits on the land surface. Many of these form deep leads with between 60 and 300 feet of alluvium overlying old channels.

Thus in considering the offshore potential for tin deposits, three basic types can be considered :

- i) Buried deep lead type placers, consisting of the inferred drowned lower valleys of the ancient streams draining the area

- ii) Deposits laid down from the mouths of the drainage streams following the drowning epoch
- iii) Deposits formed by marine erosion and the possible action of currents in the near shore area, where some of the granites contain accessory cassiterite

Historic Exploration

Exploration in Ringarooma Bay has been carried out by various parties since the mid 1960's and has included geological mapping, drilling and seabed sampling. The main players, and a summary of their work includes :

** 1966 - BHP*

In February 1966, BHP carried out a reconnaissance geological mapping and sampling program along 80 miles of shoreline along the north-east coast of Tasmania. The primary object of the program was to test the fore-beach zone for the presence of heavy minerals, in particular cassiterite. Of the 20 samples taken, only 5 are located in Ringarooma Bay, and none of the five lie within VDM's tenements.

BHP concluded that "the ancient Ringarooma channel appears to be the only major possible deep lead type placer deposit existing within the area."

** 1966-67 - Ocean Mining A.G.*

Between February 1966 & March 1967, TOEC (Tasmanian Offshore Exploration Company), a consortium led by Ocean Mining A.G. (OMAG) of Germany, conducted an intensive exploration program for alluvial tin, rutile and zircon off the north coast of Tasmania.

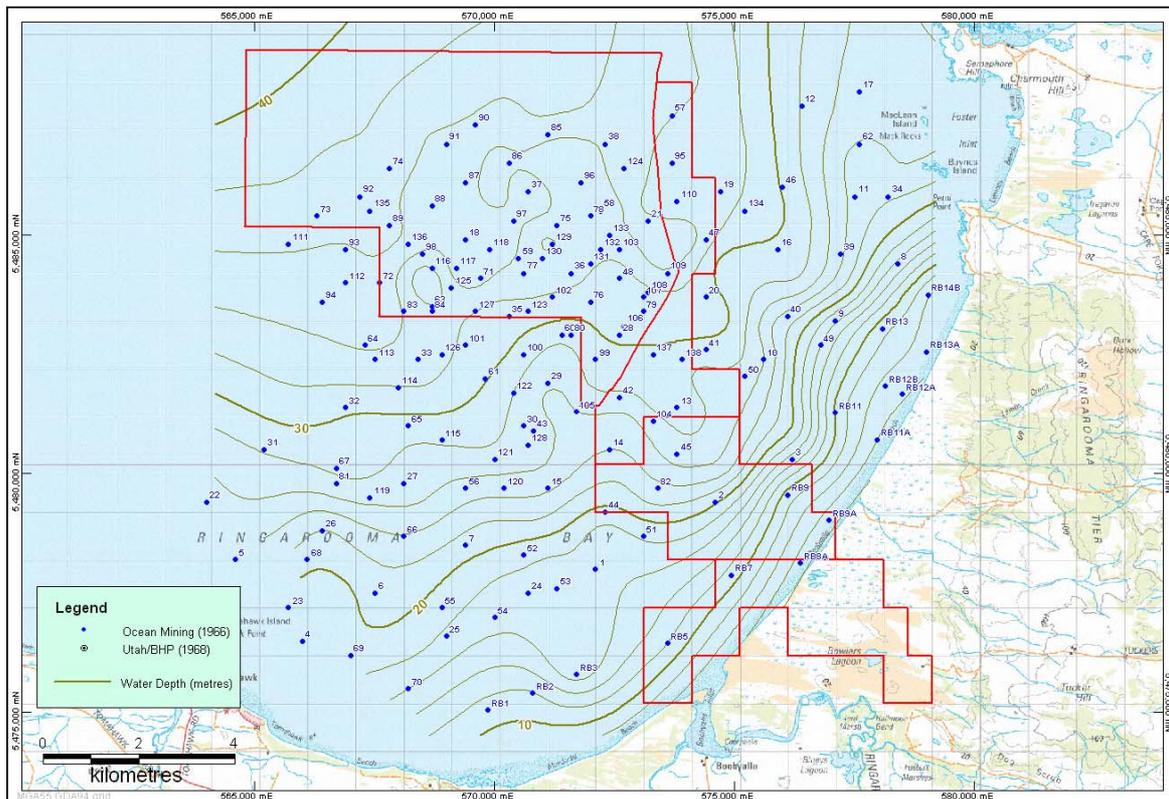
Phase I of exploration involved engaging a fleet of 3 vessels equipped with seismic and sampling equipment. Within 5 months, 3500 line miles of bathymetric and seismic profiling were run. From this data, detailed maps and profiles were compiled showing bathymetry, sediment thickness and bedrock topography, and based on this information 158 samples were obtained and assayed, and drilling targets were selected. Evaluation of the data indicated several areas of potential interest, including Ringarooma Bay.

Phase II operations were focused at Ringarooma Bay and involved a drilling campaign using a vessel specifically equipped to drill unconsolidated sediments of the ocean floor. 138 holes were drilled at an average depth of 6m in water up to 33m deep. Hole spacing averaged 90m. 1040 core samples were recovered and assayed for Sn, Ti and Zr.

Phase III operations, involving close-spaced drilling over "hot spots", were proposed by TOEC but were not conducted.

* 1968 - Utah & BHP

During February-May 1968, Utah & BHP carried out an offshore drilling program in Ringarooma Bay and Deep Bay (Cape Barren Island). The program included 15 holes in Ringarooma Bay averaging 8.5m (total 128m). Of the 15 holes, 2 were of nil depth (ie hard basement on sea floor), 2 holes reached basement, with the other 11 holes not reaching basement. The two best holes were within 600m of shore and averaged 50-85 g/cu.m.



Ringarooma Bay - Drill Hole Location Map

VDI/Map0608-003

* 1981-82 – Hellyer Mining

During 1981 and 1982 Hellyer completed a program of bathymetric, seismic and magnetic work, and a comprehensive reinterpretation of the TOEC data. They confirmed the existence of the main river palaeochannel and revealed other prospective structures. A proposed 80-hole drilling program planned for January 1982 was postponed for 12 months due to the unavailability of a rig and vessel, and in that time they subsequently changed priorities and withdrew their interest.

* 1983 – CRAE (Rio Tinto)

CRAE interpreted the identified resource to range from 21M cu.m at 175 g/cu.m to 14M cu.m at 200 g/cu.m, depending on the area of influence assigned to the TOEC samples. Together with an onshore review, they concluded the area was too small for their requirements.

* 1997-2002 Mineral Holdings Australia

In 1998, Mineral Holdings Australia Pty Limited (MHAPL), after conducting a pre-feasibility review of the onshore and offshore deposits, carried out further bottom sampling in Ringarooma Bay. They established that the palaeo-lead is in fact exposed in several areas of the Bay and is recognisable as a sequence of distinctive iron rich, pebbly and cobbley horizons.

MHA revised the pre-feasibility review in 2001.

OMAG Drilling Results

Drilling and assay results, and interpretation, of the 1966-67 OMAG drilling campaign are documented in their April 1969 report to MRT ([ref 94-3648](#)).

To summarise their main findings :

- traces of tin were found in most drill holes
- of the 138 drill holes, 27 yielded relatively high tin concentrations ; 16 of these showed grade over their total depth, which averages 10-13m
- there is a clear association of high tin grade with coarse sediments
- cassiterite occurs within 150-250 microns range

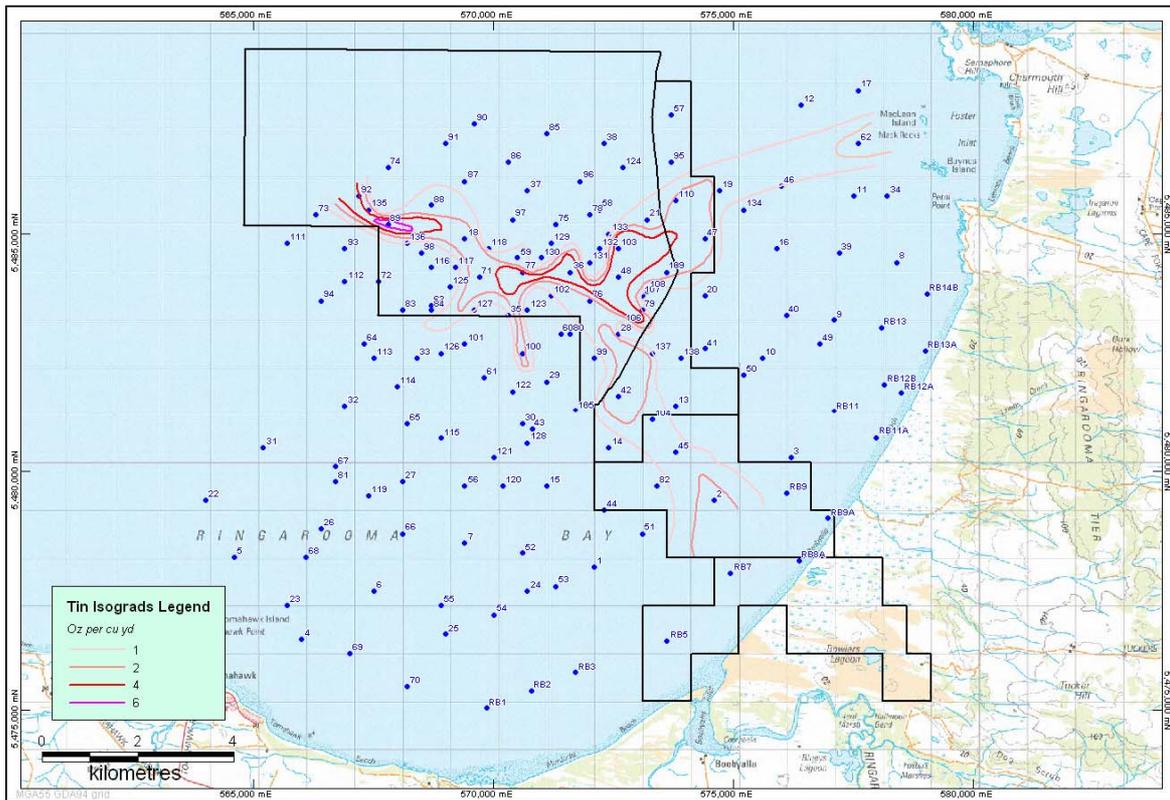
Results clearly show the linear nature of the mineralization extending seawards from the mouth of the Ringarooma River. Furthermore it is apparent that the alluvial deposit trends even further offshore to the north-west.

Exploration Database

All drill hole data and assay results (Sn, Ti, Zr) from the Ocean Mining drilling and sampling have been digitised. Lithology data is not available.

All drill hole data from the Utah/BHP drilling program have been digitised. Lithology data is not available.

Airborne MAG data is available by way of MRT's 2007 "TasExplore" survey and VDM's survey extension which covers all VDM RL's.



Ringarooma Bay - Drill Hole Location Map with Tin Isograds

VDMmap0803-004

Resources & Reserves

Ocean Mining's Phase II exploration revealed the existence of a relatively extensive, low grade alluvial tin deposit in Ringarooma Bay.

Ocean Mining estimated that "... at least 30million cubic yards of sediment with an average grade of 4 ounces of tin metal exists within the main 4 ½ square mile area of interest. This represents 3,300 long tons of tin metal. The area also contains about 3 ounces of zirconium and 1.5 ounces of titanium (as rutile) per cubic yard ..."

(conversions)

30M cubic yards = 23M cu metres

4 oz/cu yd = 150 g/m³

4 ½ sq miles = 11.5 sq km

The overall grade, depth and lateral extent of the richer tin ground is still uncertain due to the relatively wide spacing of the drill holes (~900m). Additional in-fill drilling could intersect more of the higher grade areas. The effect of this would be to reduce the volumes of influence of the existing lower grades and generally upgrade the deposit.

