

1964/14  
B

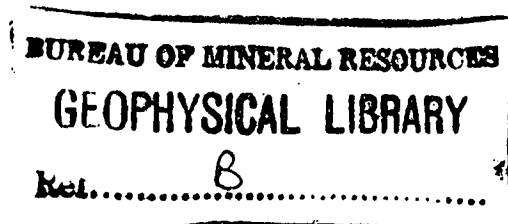
COMMONWEALTH OF AUSTRALIA

DEPARTMENT OF NATIONAL DEVELOPMENT

BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

RECORD No. 1964/14

NATONE MAGNETIC SURVEY,  
TASMANIA 1962



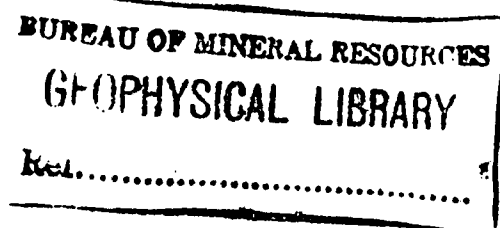
by  
E.N. EADIE



The information contained in this report has been obtained by the Department of National Development as part of the policy of the Commonwealth Government to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus or statement without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

RECORD No. 1964/14

NATONE MAGNETIC SURVEY,  
TASMANIA 1962



*by*

*E.N. EADIE*

The information contained in this report has been obtained by the Department of National Development as part of the policy of the Commonwealth Government to assist in the exploration and development of mineral resources. It may not be published in any form or used in a company prospectus or statement without the permission in writing of the Director, Bureau of Mineral Resources, Geology and Geophysics.

## CONTENTS

	Page
SUMMARY	
1. INTRODUCTION	1
2. RESULTS	1
3. REFERENCE	1

## ILLUSTRATION

- Plate 1. Locality map and traverse plan, showing vertical magnetic contours (Drawing No.K55/B7-64)

## SUMMARY

At the request of the Tasmanian Department of Mines, an aeromagnetic survey of selected areas in north-western Tasmania was done by the Bureau of Mineral Resources Geology and Geophysics during 1955 and 1956 to assist in the exploration for iron ore.

A ground magnetic survey of iron deposits at Natone was made by the Bureau during 1957.

During March 1962 some additional magnetic traverses at Natone were surveyed to obtain more detailed information about the anomalies observed during the 1957 survey.

The additional magnetic work has not in general modified the original indications very much, but has outlined the anomalies in more detail, and with greater certainty.

## 1. INTRODUCTION

At the request of the Tasmanian Department of Mines, an aeromagnetic survey of selected areas in north-western Tasmania was done by the Bureau of Mineral Resources, Geology and Geophysics during 1955 and 1956. The purpose of this survey was to assist in the exploration for iron ore.

Following this aeromagnetic survey, ground magnetic surveys were made of selected areas during 1957. Among these was a survey of iron deposits at Natone. The purpose of this survey was to determine more exactly the position of the deposits. The results of the survey were described by Keunecke (1959).

In order to outline in greater detail the anomalies observed during the 1957 survey some additional magnetic traverses were surveyed during March 1962 using an ABEM MZ-4 torsion magnetometer. Readings were taken along the traverses at intervals of 25 ft. As a check, some of the traverses from the 1957 survey were resurveyed; the magnetic results of both surveys were in good agreement.

The positions of additional traverses, and also of those which were resurveyed, are shown on Plate 1. As much of the Natone area is under cultivation, most of the pegs from the 1957 survey had been destroyed by 1962. The baseline was relocated and pegging was necessary not only of the new traverses, but also of those which were repeated. A permanent mark consisting of a length of piping, was inserted at 00 and at 2433S on the baseline (see Plate 1).

The magnetic readings were taken by E.N. Eadie, geophysicist of the Bureau assisted by one field assistant. Pegging of the traverses was done by surveyor R. Grace of the Department of the Interior, assisted by two chainmen.

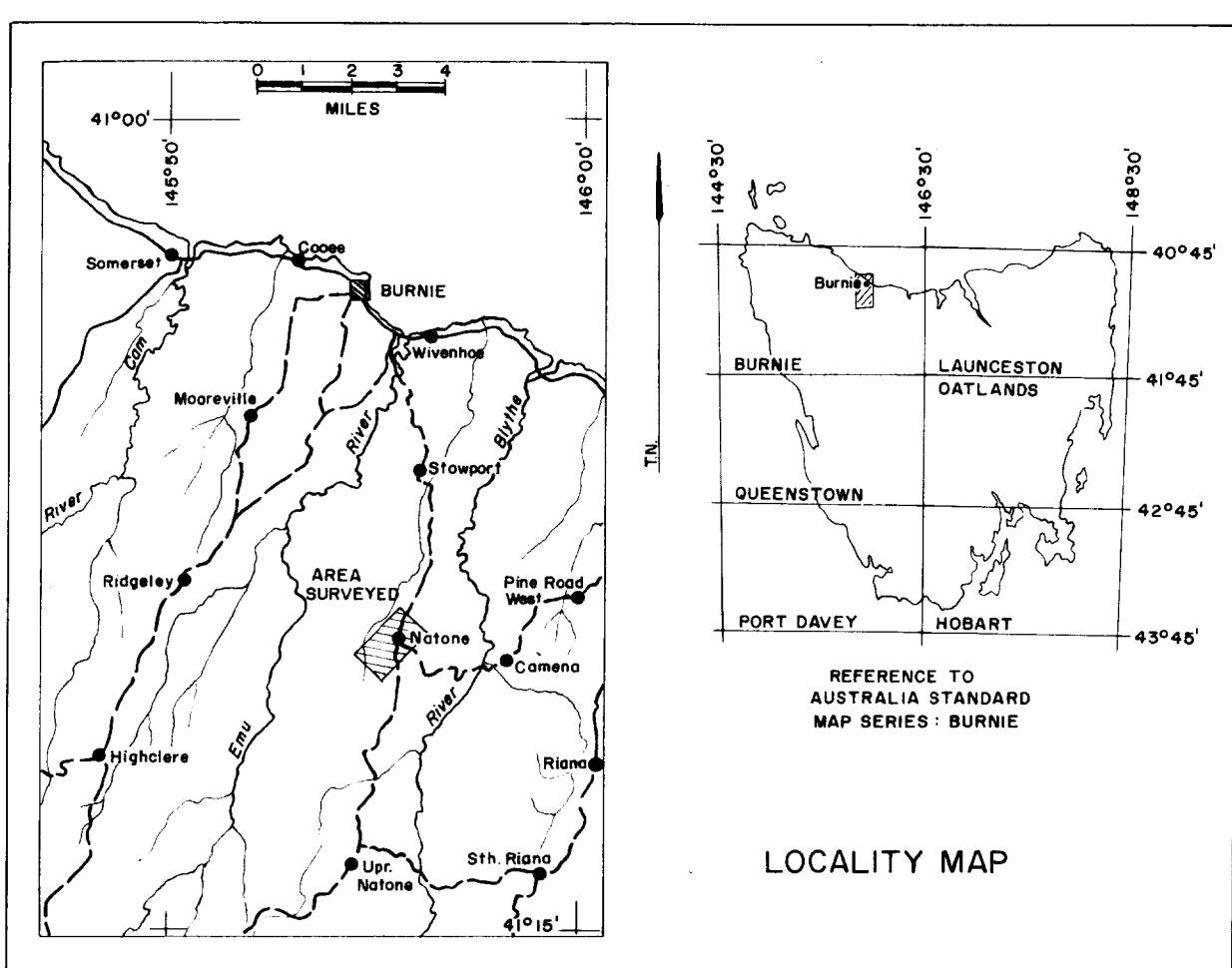
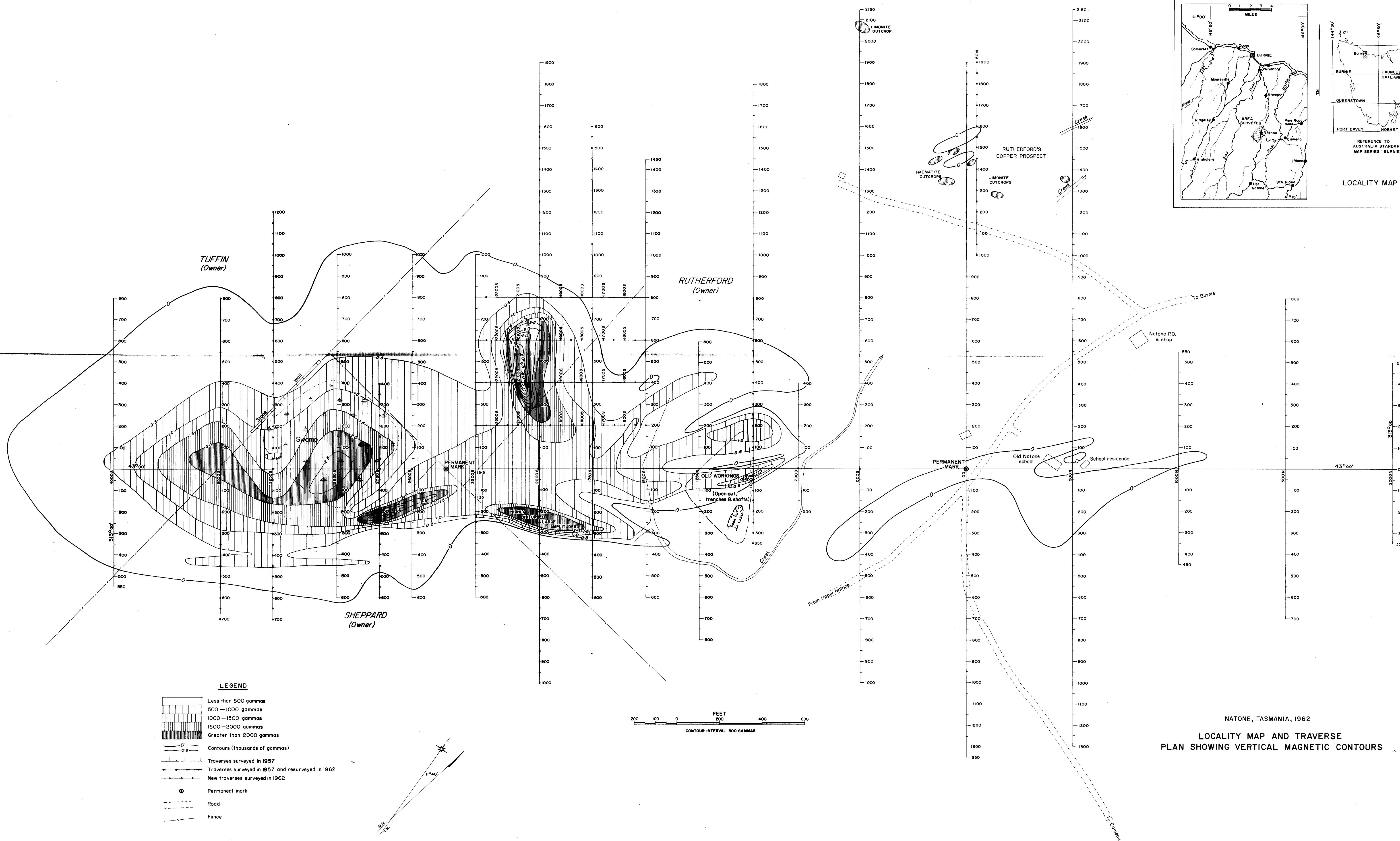
## 2. RESULTS

The magnetic results for the Natone area are shown on Plate 1 as contours of vertical magnetic field using a contour interval of 500 gammas and a scale of 200 ft to 1 inch. These contours include the results of both the 1957 and the 1962 surveys.

A comparison of this contour plan with that given by the earlier survey (Keunecke, 1959, Plate 4) shows that the additional magnetic work has not resulted in any major change to the original results. The anomaly centred about 2000S/500W has been outlined more accurately. Two of the new traverses, viz. 2750S and 3250S, have given more-detailed information on the large anomaly previously recorded south of Traverse 2300S. On Traverse 3250S the body causing this anomaly is shown to be narrower than previously supposed. The results on Traverse 2750S support the suggestion by Keunecke (1959) that the anomaly at about 200E is due to a separate body.

## 3. REFERENCE

- |              |      |   |
|--------------|------|---|
| KEUNECKE, O. | 1959 | Magnetic survey of the Natone, Blythe River - Cuprona, and Highclere iron ore deposits, north-western Tasmania.<br><u>Bur. Min. Resour. Aust. Rec.</u><br>1959/11 (unpubl). |
|--------------|------|---|



NATONE, TASMANIA, 1962  
 LOCALITY MAP AND TRAVERSE  
 PLAN SHOWING VERTICAL MAGNETIC CONTOURS