# Open File Envelope No. 5324

## **EL 929**

## MOUNT LYNDHURST

## FIRST PARTIAL SURRENDER REPORT AT LICENCE EXPIRY/SURRENDER, FOR THE PERIOD 16/11/1981 TO 15/11/1983

Submitted by Adelaide and Wallaroo Fertilizers Ltd 1984

© 13/3/1984

This report was supplied as part of the requirement to hold a mineral or petroleum exploration tenement in the State of South Australia. The Department of State Development accepts no responsibility for statements made, or conclusions drawn, in the report or for the quality of text or drawings.

This report is subject to copyright. Apart from fair dealing for the purposes of study, research, criticism or review as permitted under the Copyright Act, no part may be reproduced without written permission of the Executive Director of the Department of State Development Resources and Energy Group,

GPO Box 320, Adelaide, SA 5001.

**Enquiries:** Customer Services

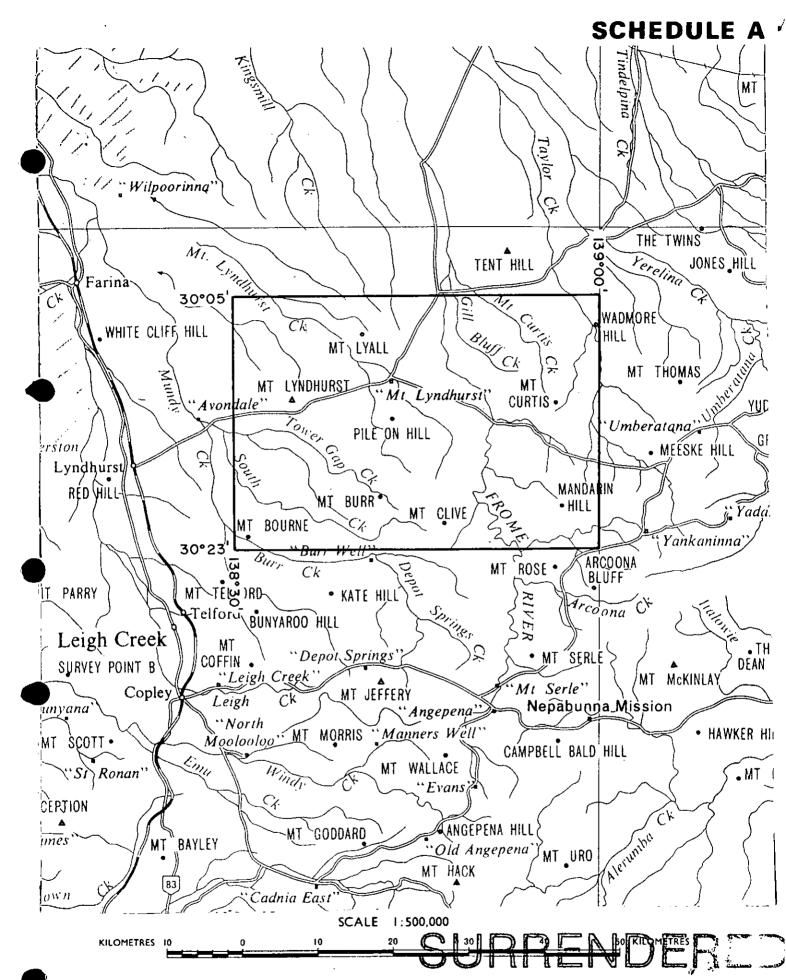
Resources and Energy Group

7th Floor

101 Grenfell Street, Adelaide 5000

Telephone: (08) 8463 3000 Facsimile: (08) 8204 1880





APPLICANT: ADELAIDE & WALLAROO FERTILIZERS LTD.

DM: 406 / 81 AREA: 1600 square kilometres

1:250 000 PLANS: COPLEY

LOCALITY: MT. LYNDHURST AREA - Approx 40 km N.E. of Leigh Creek

DATE GRANTED: 16-11-81 DATE EXPIRED: 15-11-82 BL No: 929

## CONTENTS ENVELOPE 5324

TENEMENT: E.L. 929 - Mount Lyndhurst.

TENEMENT HOLDER: Adelaide & Wallaroo Fertilizers Ltd.

REPORT: Partial Relinquishment Report. Pgs. 3-4
PLANS: Locality Map. Pg. 5
Geological Map. Pg. 6

### Env. 5324

EL 929 Mount Lyndhurst. Partial relinquishment report 3-1-84. 6 pages, no maps.

Authors: Adelaide and Wallaroo Fertilizers Ltd. Bampton, K

Map area: COPLEY (SH54-09:6637-1,4)

Prospects of no interest for oxidised copper. No work done.

Keywords: Mineral Exploration-SA/Base metals exploration/Copper/Adelaide Geosyncline/Gill Bluff/Northern Flinders Ranges.

EXPLORATION LICENCE NO. 929

PARTIAL RELINQUISHMENT REPORT



#### INTRODUCTION

E.L. 929 was granted to Adelaide & Wallaroo Fertilizers on 16-11-81 for an initial period of 12 months and subsequently renewed for a further 12 months from 16-11-82. Most of the area is now included in E.L. 1194 granted for 12 months from 22-11-83. This report summarizes work done on the relinquished portion, being the north eastern quarter of the area plus a one minute (of latitude) strip from the north western boundary - see figure.

#### WORK DONE

The purpose of the licence has been the systematic appraisal of more than fifty previously worked copper prospects to assess oxidized ore potential for possible exploitation in association with our Burra operation.

No work was done on the north west strip which is an area of 100% Quaternary cover.

In the north eastern quarter four prospects were inspected. A copper occurrence shown 1 km NW of Mount Curtis Bore on the Copley 1:250,000 geological sheet was not located, nor was a digging (mineral not recorded) 4 km further east.

At Gill Bluff and Gill Bluff West the Ni/Sb sulphide, ullmanite, occurs sporadically in siderite veins from a few millimetres up to one metre thick. The former locality is the more significant with workings scattered over a N-S length in excess of 200m and with one shaft extending below water. Traces of copper are associated locally.

Nevada, also knows as Walter's Well, consists of two sets of workings almost a kilometre apart. At the eastern site, a gossan carrying traces of copper carbonate is exposed in a 2 m deep pit. Minor gold has been reported here. To the west, two shallow inclined shafts and minor scratchings expose copper carbonates, hematite and siderite in contorted quartz veins cutting shale host rock. Sulphides are reported within 10 m of the surface. At Primrose, a swarm of quartz veins which appear quite barren have been shown to carry anomalous lead/zinc values by Cultus Pacific, and small pits on two of them show traces of copper carbonate associated with siderite.

#### CONCLUSION

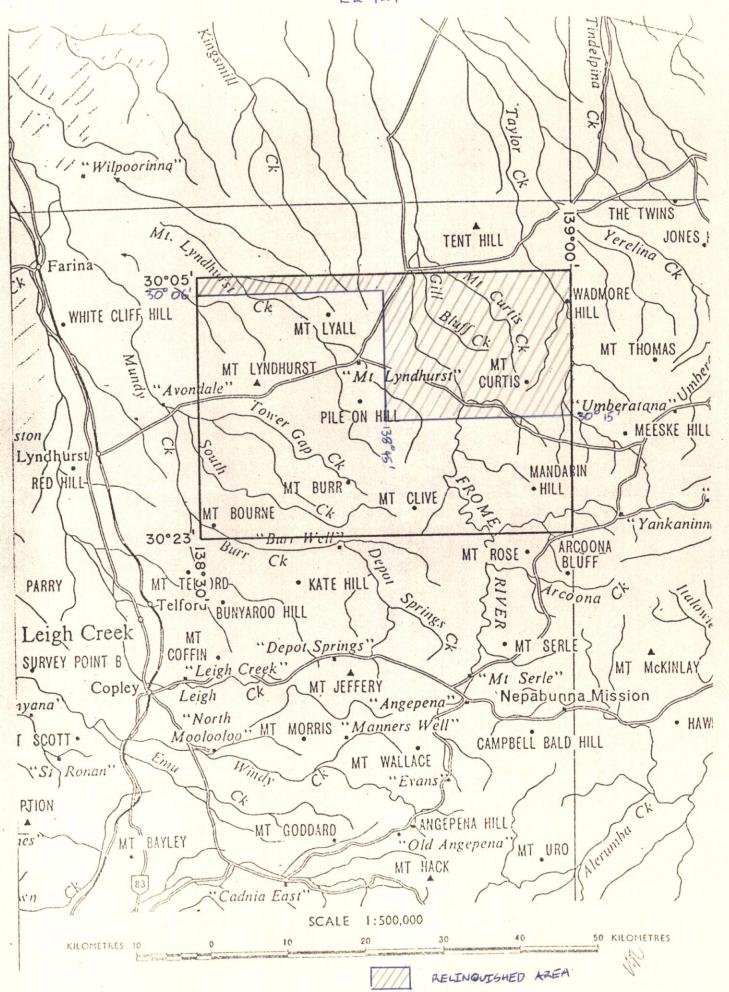
None of these prospects is of interest for oxidized copper because of:

- (a) restricted areal extent,
- (b) association with fresh siderite at surface, leading to sulphides at shallow depth, i.e. lack of pervasive oxidation,
- (c) occurrence in Amberoona Formation and no diapir association whereas other promising prospects all occur in lower stratigraphic units (basal Tapley Hill formation and underlying glacials) adjacent to diapirs.

(K. Bampton)
CHIEF GEOLOGIST

KB:jf 3-1-84





There is no warranty that the boundary of this Exploration Licence is correct in relation to other features on the map The boundary is to be apparatured by reference to the Australian Georgetic Datum

1: 250,000

