

Q-58

387001

RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED
MELBOURNE, AUSTRALIA

PROJECT:— PRP/7/100

REPORT No.:— Miscellaneous/1958.

THE CORRIDOR ORE-BODY OF THE
MT. LYELL MINING AND RAILWAY CO.

by

J.B. Boniwell

58-255

FILE REFERENCE:— 8D/20A.

MAP REFERENCE:—

DATE:— 8/12/58.

387E

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Q58/163

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The Corridor Ore-Body of the Mt Lyell
M & R. Co
by
J.B. Boniwell 8/12/58

THE CORRIDOR ORE-BODY OF THE
MT. LYELL MINING AND RAILWAY CO.

by

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MICROFILMED

C O N T E N T S

P L A T E S

- | | | |
|---------|------------|-------------------------------------------------------------------|
| No. I | Plan T.494 | Corridor Gravity Survey
Bouguer Profiles. |
| No. II | Plan T.495 | Corridor Gravity Survey
Topographic Profiles. |
| No. III | Plan T.496 | Corridor Gravity Survey
showing Gravity - E.M.
Correlation. |

THE CORRIDOR ORE-BODY
of the
Mt. Lyell Mining & Railway Co.

The Corridor sulphide body was originally indicated by an electromagnetic survey run by the Bureau of Mineral Resources in 1956. A short gravimetric check of this body by the geophysical section of Rio Tinto in April 1958 was made for the express purpose of confirming that the mineralisation was amenable to gravimetric discrimination.

The main body of sulphides is a low-grade disseminated copper-pyrite body approximately 150' wide at the SE end, and striking for a total inferred length of 1700'. A second narrow band of sulphides approximately 15' wide was discovered in the drilling on the footwall of the main zone, and in close juxtaposition to the conglomerate contact. Both bodies dip approximately 75 degrees SW.

The surface expression of the main body coincides faithfully with the electrical indications. The residual gravimetric expression, however, reflects the down-dip distribution of the total sulphide content.

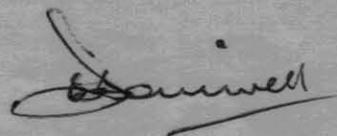
Drilling has revealed that the sulphides broaden with depth at the SE end (approximately 200' wide at a depth of 1000'), and narrow with depth to the NW (approximately 50' wide at 1000'). Mineralisation tends to be more massive near-surface (25% sulphides over 100 vertical feet), and more disseminated with depth (7-8%), but grade remains independently stable at 1% Cu. The footwall zone runs higher at 8% Cu.

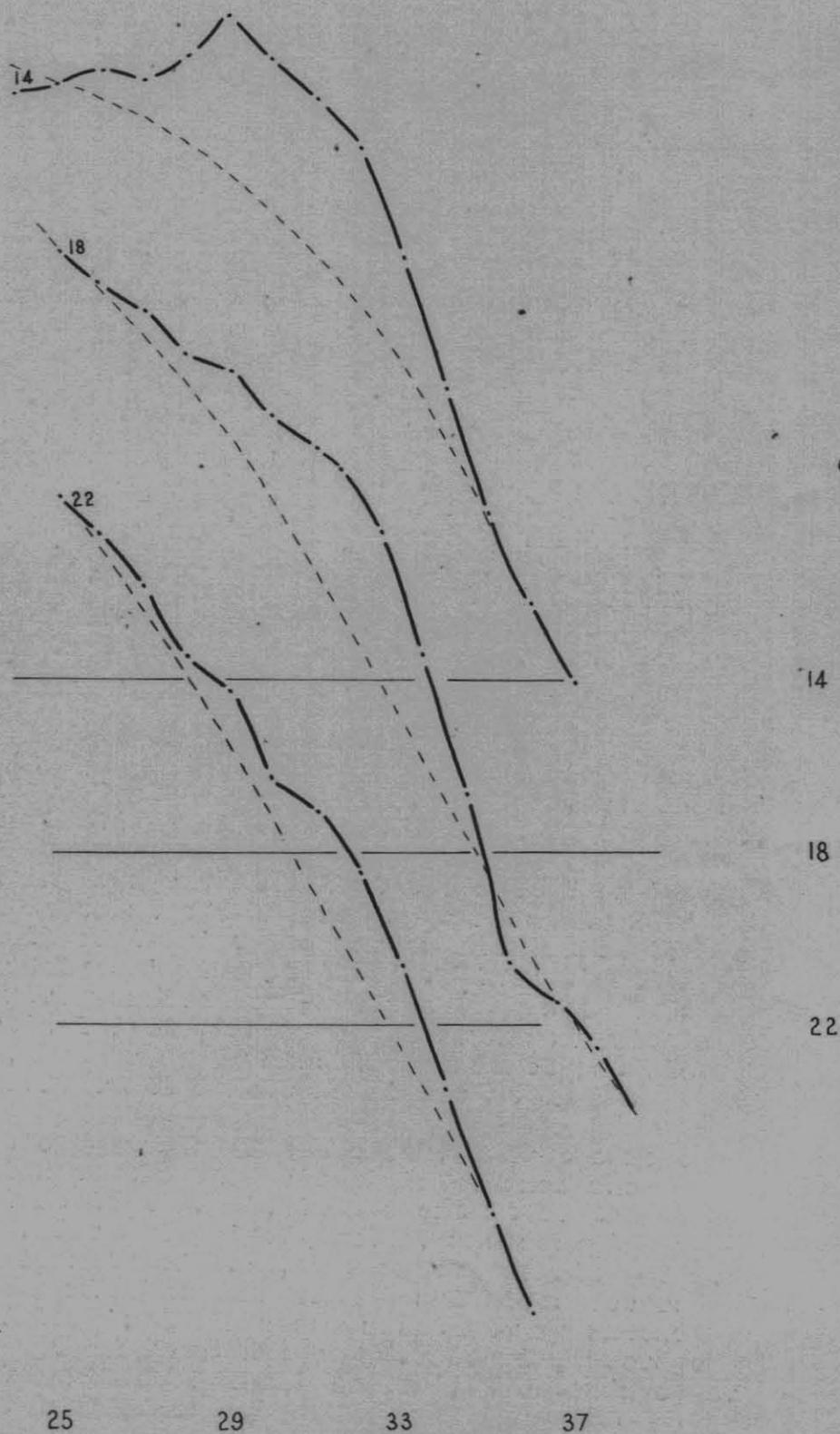
For the purposes of the check, only the more intense portion of the electrical disturbance was covered gravimetrically. Within the extent of the coverage, i.e. for a 1000' of strike, and assuming a country rock density of 2.70, and an ore density of 2.93, an estimated 9½ million tons of 10% sulphides occurs to a depth of 1000'. The excess mass that may extend beyond this depth can not be gauged. Assuming average horizontal dimensions of 1000' by 100', the tonnage per vertical foot is 8200 tons.

By the amount of anomaly resolved over this deposit, it is clear that the gravity method is applicable in the search for Lyell-type mineralisation.

8th. Dec. '58.
Zeehan, Tas.

J.B. Boniwell

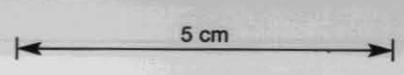




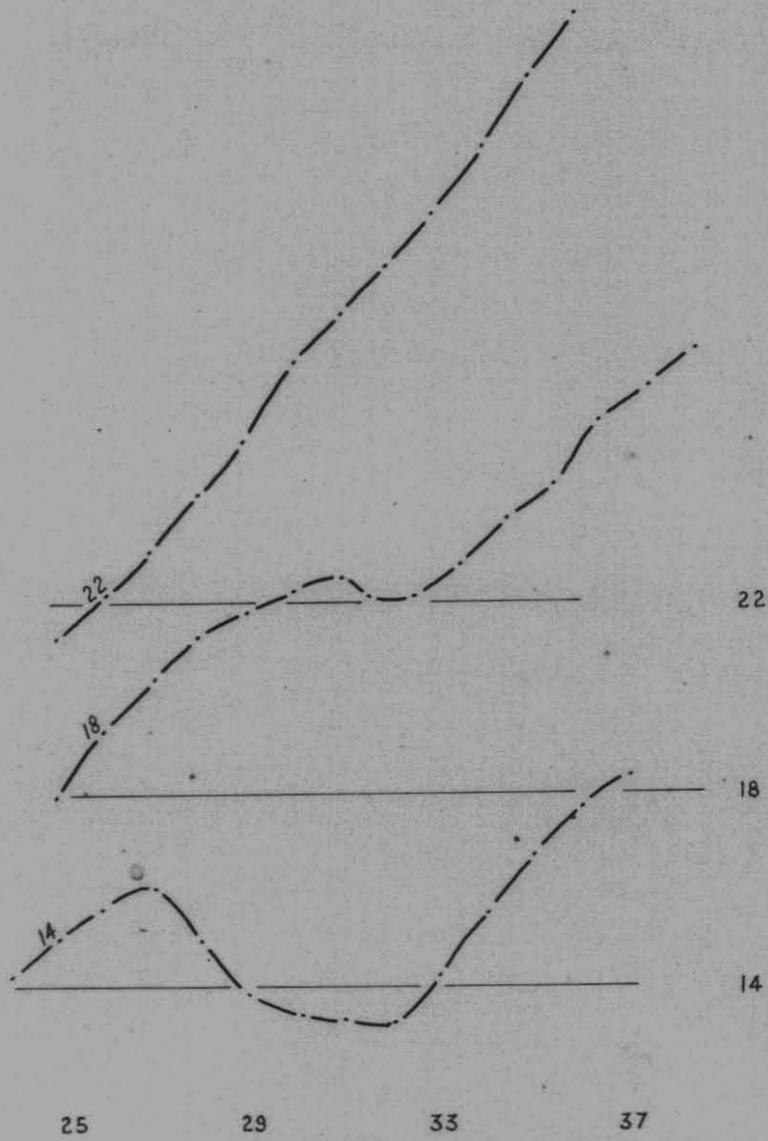
N.B. Lines deliberately reversed in space to avoid overplotting of related profiles consequent to a regional N-S gradient.

Regional gradient

Survey based on Bureau Grid

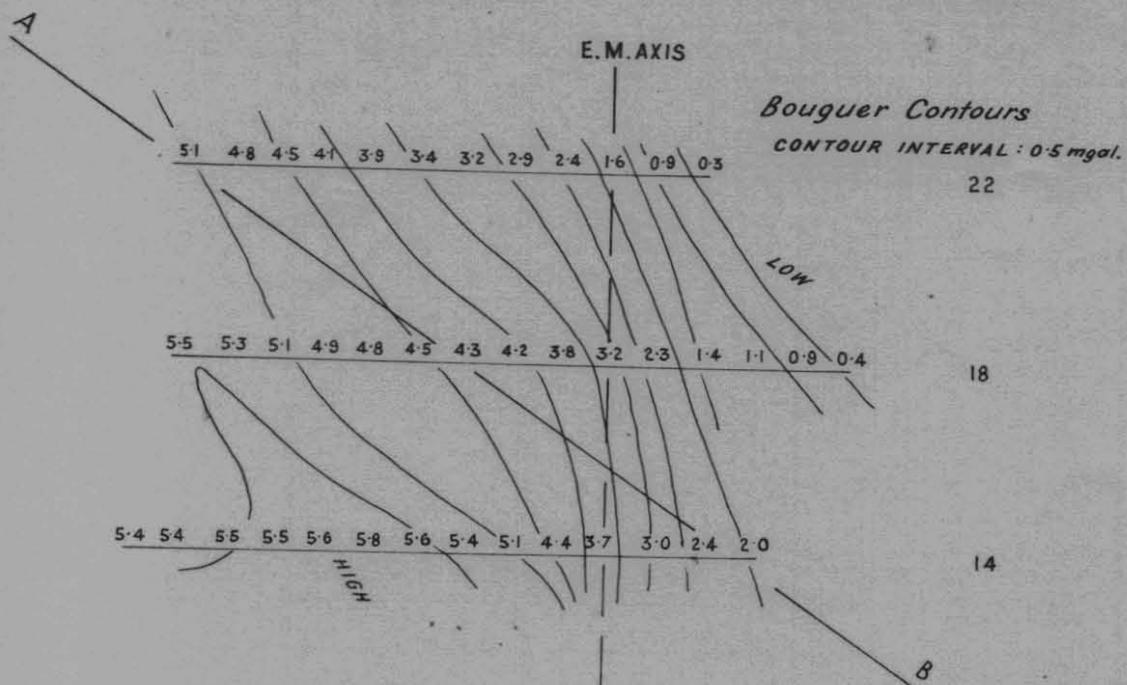


RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED		
CORRIDOR GRAVITY SURVEY MT. LYELL, TAS. BOUGUER PROFILES		
SCALE	VERT.	1" = 1.0 mgal.
	HOR.	1" = 400 ft.
P.R.P./7/100		PLATE I. Plan No. T494



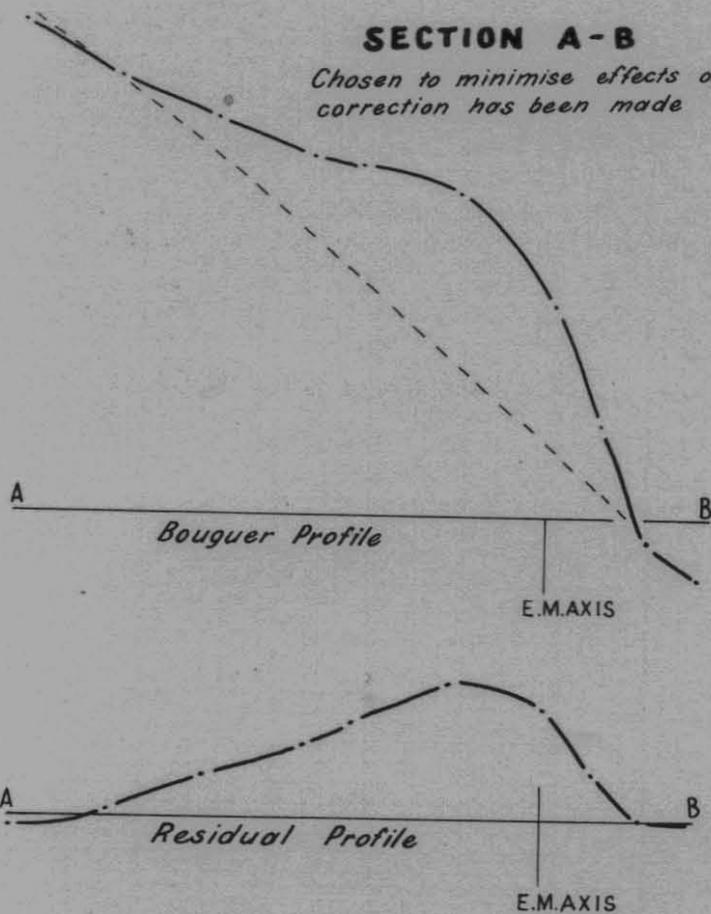
5 cm

RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED	
CORRIDOR GRAVITY SURVEY MT. LYELL, TAS. TOPOGRAPHIC PROFILES	
SCALE :	VERT. 1" = 100 FT. HOR. 1" = 400 FT.
P.R.P./7/100	PLATE II Plan No. 495



SECTION A-B

Chosen to minimise effects of terrain for which no correction has been made



5 cm

RIO TINTO AUSTRALIAN EXPLORATION PTY. LIMITED	
CORRIDOR GRAVITY SURVEY	
MT. LYELL, TAS.	
SHOWING GRAVITY- E.M. CORRELATION	
SCALE :	VERT 1" = 1.0 mgal HOR. 1" = 400'
P.R.P/7/100	PLATE III Plan No. T496