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THE LINDA VALLEY ZINC PROJECT

by

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1965

1. The Economic Environment
2. The Structural Environment
3. The Superficial Blanket
4. The Mineralogic Evidence
5. The Selection of Area for Initial Geophysical (Gravity Survey).

Accompanying map in envelope
Geological & locality map

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THE LINDA VALLEY ZINC PROJECT

1. The Economic Environment

There is no doubt that the inescapable mineral outcrops which developed into the Blow, West Lyell and North Lyell Mines overshadowed any serious attempt to develop the well obscured potentialities of the eastern extension of the Mount Lyell Mining Field referred to generally as the Linda Valley.

As a result the present position is that with the exception of a very small gold producer there is no working mine in the Linda Valley. This is in spite of the fact that there exist all the desirable facilities such as road transport, water-supply and power. In addition the perceivable continuation of the dominant structural ore-feeding conditions of the Mt. Lyell mines into the Linda Valley has been ignored or just lost sight of. The reasons for this will be disclosed in the following paragraphs.

2. The Structural Environment

The Cambrian volcanic complex plus the unconformable Ordovician Owen Conglomerate -- Gordon Limestone assemblage were subjected to the prolonged and variable pressures of the Devonian (Taberabberan) Orogeny.

The effect of the first phase was to leave the Linda Basin as a relatively unfolded stratigraphical basin undisturbed structurally. Elsewhere the result was a pronounced overfold easterly as in the Huxley-Jukes-Darwin area.

The second phase exaggerated what has been termed the Linda Saucer as the now dominant tear fault movements brought great conglomerate masses which flank the northern and southern sides as steep mountain masses and less spectacularly on the western side, although in this latter area minor folds with an east-west axis developed.

3. The Superficial Cover

In view of the undoubted contribution of these Tear Faults in mineralisation at the Blow, West Lyell and North Lyell and the Corridor it is natural to look for them and their effects in the Linda Valley. Unfortunately this latter has been smothered by glacial moraines, the later glacio-fluviatile products therefrom and hill detritus in an

active erosional period.

4. The Mineralogic Evidence

Nevertheless the uppermost bed of the Ordovician Group (the Gordon Limestone) manages to thrust visible outcrops to the surface through the glacio-fluvial deposits (glacial deposits are too thick to allow this). It is significant and of potential economic importance that these outcrops especially in the vicinity of the Linda Cemetery consist of silicified limestone with resin-coloured sphalerite. In fact these occurrences were sufficiently numerous to justify the granting by the Government of a Zinc Reward Claim in 1902 of 40 acres which persisted until 1908. In those days three outstanding facts prevented any effective exploration or serious attention:-

- (a) There was no transport outlet to Hobart.
- (b) The R.Z. Company and works did not exist.
- (c) Zinc was poison to the Mr. Lyell Smelters.

Since those days the deposits have been lost sight of. They are not listed in any map of mineral occurrences or any Mines Department publication.

The exposed complexities of mineral assemblages recorded in The Blow, West Lyell and North Lyell mines suggests the possibility of minerals additional to these when adequately explored.

Indeed, based on experience elsewhere on the West Coast (Zeehan, Reed - Rosebery, etc.) it is possible that at a depth of from 300 to 400 feet the mineralisation may change to copper.

It must be realised that, (although in the main) the dominant ore-feeders North Lyell Tear Fault, ~~Blow~~ Tear Fault and Gap Tear Fault persist into the Linda Valley important ore deposition could reasonably be expected to have taken place.

5. The Selection of Area for Initial Geophysical Survey

It is suggested that due to the poor reaction to I.P. methods of sphalerite, this method be rejected.

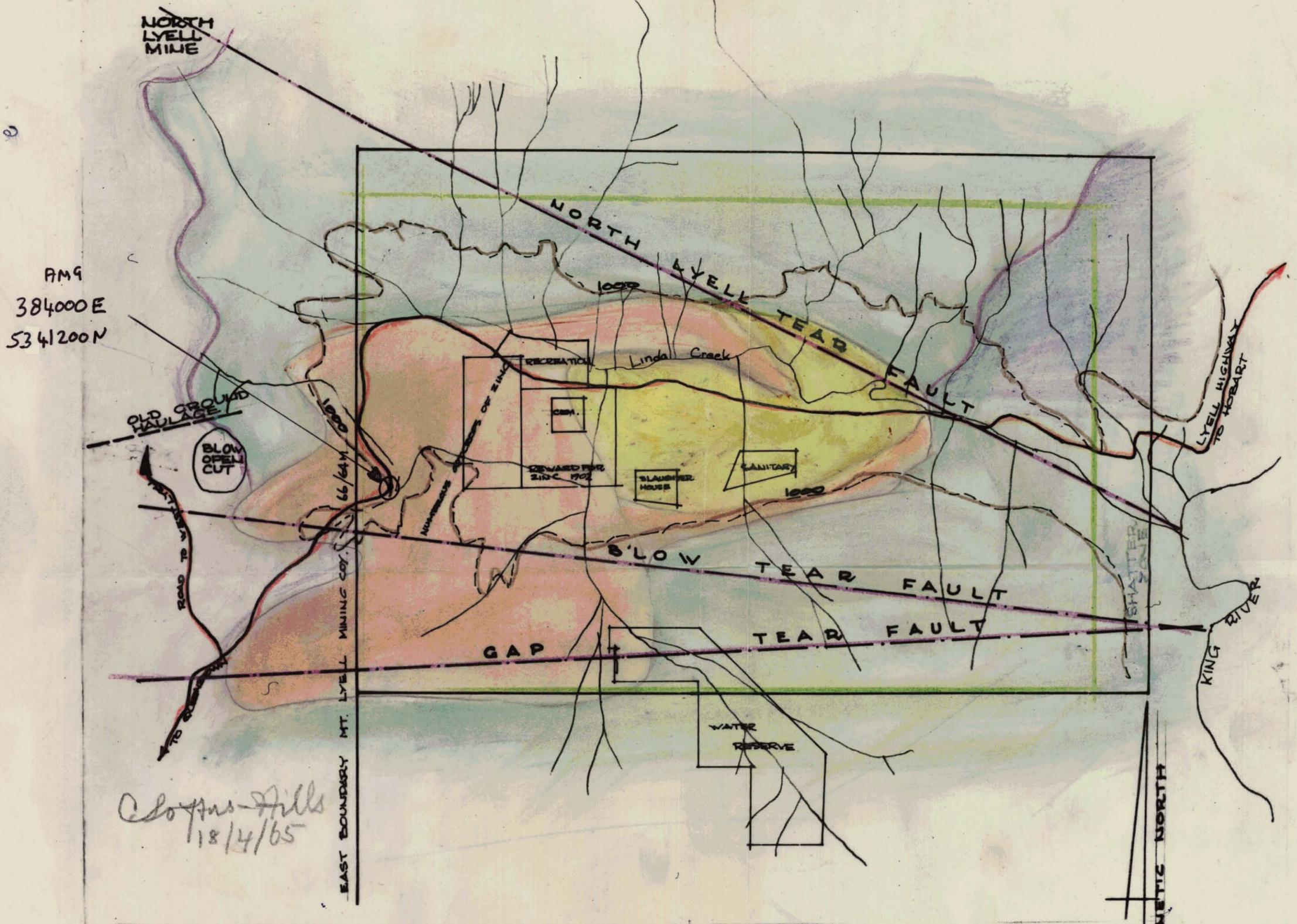
Any magnetic or electro-magnetic methods seem to be ruled out by the powerful electric operations of the adjoining mines.

But a Gravimetric Survey may be just what is required. Every facility for such a survey exists. The ground is undulating to flat and there is no clearing of sight lines needed as all vegetation is absent.

C. Loftus-Hills

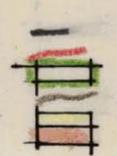
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13th March 1965

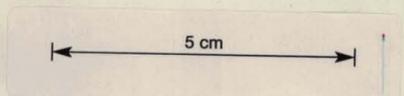


GEOLOGICAL & LOCALITY MAP OF THE LINDA VALLEY ZINC PROJECT

Legend.
 BOUNDARIES S.P.L.'s
 MAIN ROADS
 AREA SELECTED FOR GEOPHYSICAL SURVEY
 1000' CONTOUR ABOVE SEA LEVEL
 GLACIO-FLUVIAL AND DETRITAL COVER 0'-10' THICK
 GLACIAL MORAINES 10'-30' THICK



OVEN CONGLOMERATES (EN MASSE)
 SCHISTS
 Scale 1" = 20 CHAINS
 0 20 40 60
 CHAINS.



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