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E.L. 1/92

Annual Report 1997-98

MINERAL RECORDS
EL 1/92
1997-1998
See folio 19

Cuttack Mining and Exploration Pty Ltd  
A.C.N. 009 579 739

**MICROFILMED**  
FICHE No. 014750-

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ANNUAL REPORT-97/98  
EL 1/92-CUTTACK MINING  
DR L MILLER

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AMG REFERENCE POINTS ADDED

## **Background to current exploration program**

The 1997 Annual Report details the conceptual approach to gold exploration currently being undertaken by the Company in north-east Tasmania.

EL 1/92 represents an irregular shaped area of 10 km<sup>2</sup> in the Dan's River Valley north west of Mathinna.

Portion of the previously held area was relinquished at the end of the 1996-97 exploration year, but the remaining portion contains all the known mineralisation within the Dan's Valley that is of interest to the current exploration program.

This program is concerned with location of significant ore bodies associated with older workings in the goldfield and is currently targeting the no. 1 reef at O'Briens as the most likely prospect for a significant intersection.

The work of Mineral Resources Tasmania in proving some modelling of possible gold mineralisation in the North-East of Tasmania through the NETGOLD project in particular has played a significant part in decision to concentrate on this previously drilled reef area at O'Briens.

The Company has undertaken its own drilling program, as well as joint venture exploration drilling with Montroyal Mining N.L. and Goldstream Mining and Exploration N.L. within the reef areas at O'Briens and formed the view that there may be significant ore bodies lying to the north of the known reef as expressed by old surface workings. The costs of further exploration drilling had to be weighed against the benefits of expending similar amounts of money constructing an exploration decline to the vicinity of known reef intersections with a view to at least obtaining a small parcel of ore and potentially opening access to more significant underground expressions of the reef or reefs at O'Briens.

The majority of Company expenditure on exploration during the past year has therefore been devoted to the single project of undertaking the exploration decline drive at the O'Briens No. 1 lode, and only a small amount of additional exploration activity has been undertaken elsewhere within the area covered by EL 1/92.

This report is therefore mainly a summary of work undertaken to date in developing the underground decline on the O'Briens No. 1 reef.

## **Exploration Decline at O'Briens No. 1 reef**

The project to investigate the O'Briens No. 1 reef by way of undertaking a decline drive to the vicinity of the known reef area below the old workings does not fit neatly into the normal framework of exploration activity. It is much more than normally would be allowed as exploration and yet it is clearly not a mining activity *per se*.

The relevant government departments, Mineral Resources Tasmania, Forestry Tasmania, and Environment and Land Management as well as the Break O' Day Council have to be commended for their forbearance and cooperation in relation to this project which we believe may help to re-establish the North-East of Tasmania as a viable gold bearing province.

The Company has sub-contracted the decline drive to G.I. Fisher who will be entitled to purchase any ore recovered from the drive or subsequent mine at agreed prices for processing at his treatment plant at Lefroy.

The project commenced in August 1997 and by mid-April 1998 has advanced some 65 lineal metres towards its target of 78 lineal metres. Originally, the proposal was for an open cut portion of 36 lineal metres and an underground portion of 42 lineal metres (see Appendix 1) but this has now been revised in the light of experience with ground conditions at O'Briens No. 1 reef.

To date, no significant mineralisation has been encountered. However, minor stringers of ore have been noted within the drive and assays carried out on them have indicated values around 155 g/t Au.

Advised 11/12/98 that G. Fisher to confirm grade of ore Au was insignificant!

The most significant feature of the work is that the ground has been almost entirely loose and unconsolidated so that work involving explosives has been both difficult and somewhat hazardous. A collapse of the overburden occurred after some 12 metres of underground decline had been completed. This occasioned delay both due to obvious physical limitations brought about by the collapse and by some understandable caution on the part of relevant authorities. Nevertheless, resumption of the decline has been approached with additional support systems and due diligence has been maintained throughout the operation.

### Geology and Structure

There was an overburden depth of somewhat greater dimension than had been anticipated at the site, the original assessment being based on the apparent consolidated nature of the old drive at O'Briens. The overburden was not cleared until the first 30 metres of the decline had been opened, and solid rock then took the form of a heavily jointed pink mudstone/shale, somewhat slate-like in appearance but of soft texture. Joints were water affected with iron staining to dark brown or black. These joint planes occasioned slippage when the support material was removed and much care had to be taken to constantly shore up the sides of the decline as well as the roof of the portal.

The dominant structural alignment appears to be a NNW strike with a near vertical dip, but jointing also to the SSW, perpendicular to the main jointing is also present. There is evidence also of compression or tension folding, this being consistent with earlier geological reports on the mine although the direction of the folding is not readily apparent from work completed to date.

The mineral bearing stringer material has not been discovered *in situ*; rather being found in the rubble after removal from the workings, and thus no directional information can be gained from this. The stringer material is remarkable for its large crystals of arsenopyrite and other pyritic materials carried within a quartz host material but there is no visible free gold. Nevertheless, total gold assays reveal values to 155 g/t Au in this material.

The nature of the ground encountered to the 65 metre mark is consistent with the theories pertaining to dextral wrench folding of the Mathinna beds developed in the work of Tahiri (1992) and Keele (1994) in that the beds would be likely to be uplifted to near vertical in this process, would also show frequent jointing due to stresses encountered in the folding processes, and are likely to be relatively difficult to work due to the frequency of the vertical jointing. These same conditions of structure and jointing are likely to encourage the penetration of thermally affected fluid material perhaps associated with the thermal effects of intrusions of granite at greater depth or other tectonic activity.

Water problems have also been encountered within the decline, but these are relatively minor and possibly associated with the accumulation of water in old drives and workings which are above and no great distance from the present decline. Suitable pumps have been brought in by the sub-contractor to deal with water as it accumulates within the drive.

### Summary

The exploration decline is now reaching the critical target area where it is anticipated that reef material should be encountered.

The exploration effort during the past year has been almost entirely taken up with the undertaking of the decline drive on O'Briens No. 1 reef. There has been some additional surface exploration in the northern part of the licence area around the Hinemoa reef but this work has not encountered any significant results.

The Company remains fairly confident of a significant intersection during the latter phase of the decline drive at O'Briens and is of the view that there will be more significant findings in the North-East gold corridor within the next few years.

## References

Keele, R.A. 1994, *Structure and veining in the Devonian-aged Mathinna-Alberton Gold Lineament, northeast Tasmania*, 1994/06, Mines Dept., Hobart.

Tahiri, J. 1992, *Northeast Goldfields: A summary of the Tower Hill, Mathinna and Dan's Rivulet Goldfields*, 1992/10, Mines Dept., Hobart.

STATE FOREST

HINEMOA

STARLIGHT RIDGE  
Snake Cave Creek

AMG  
569500E  
542100N

EL 1/92

AMG  
571000E  
541750N

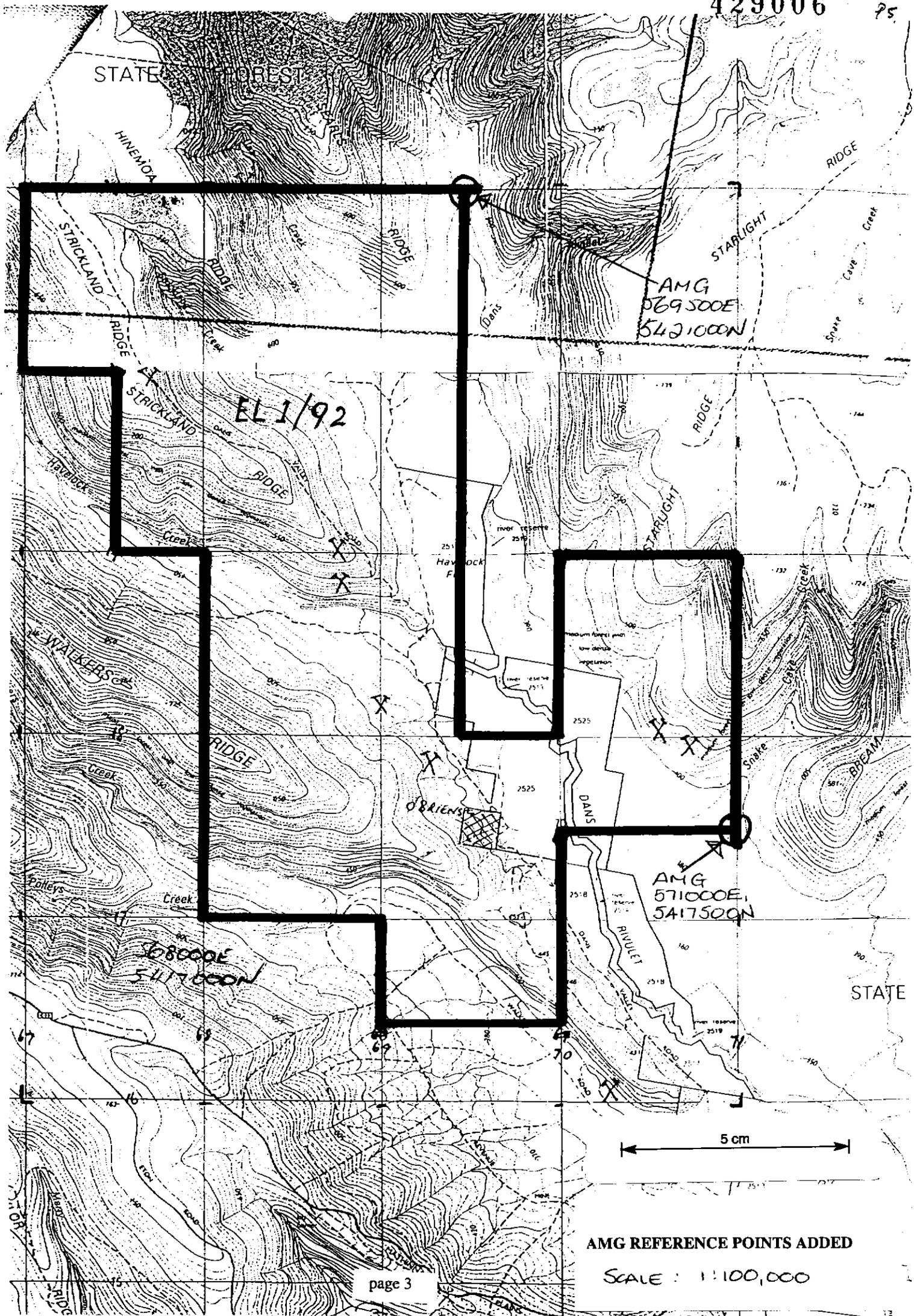
568000E  
541700N

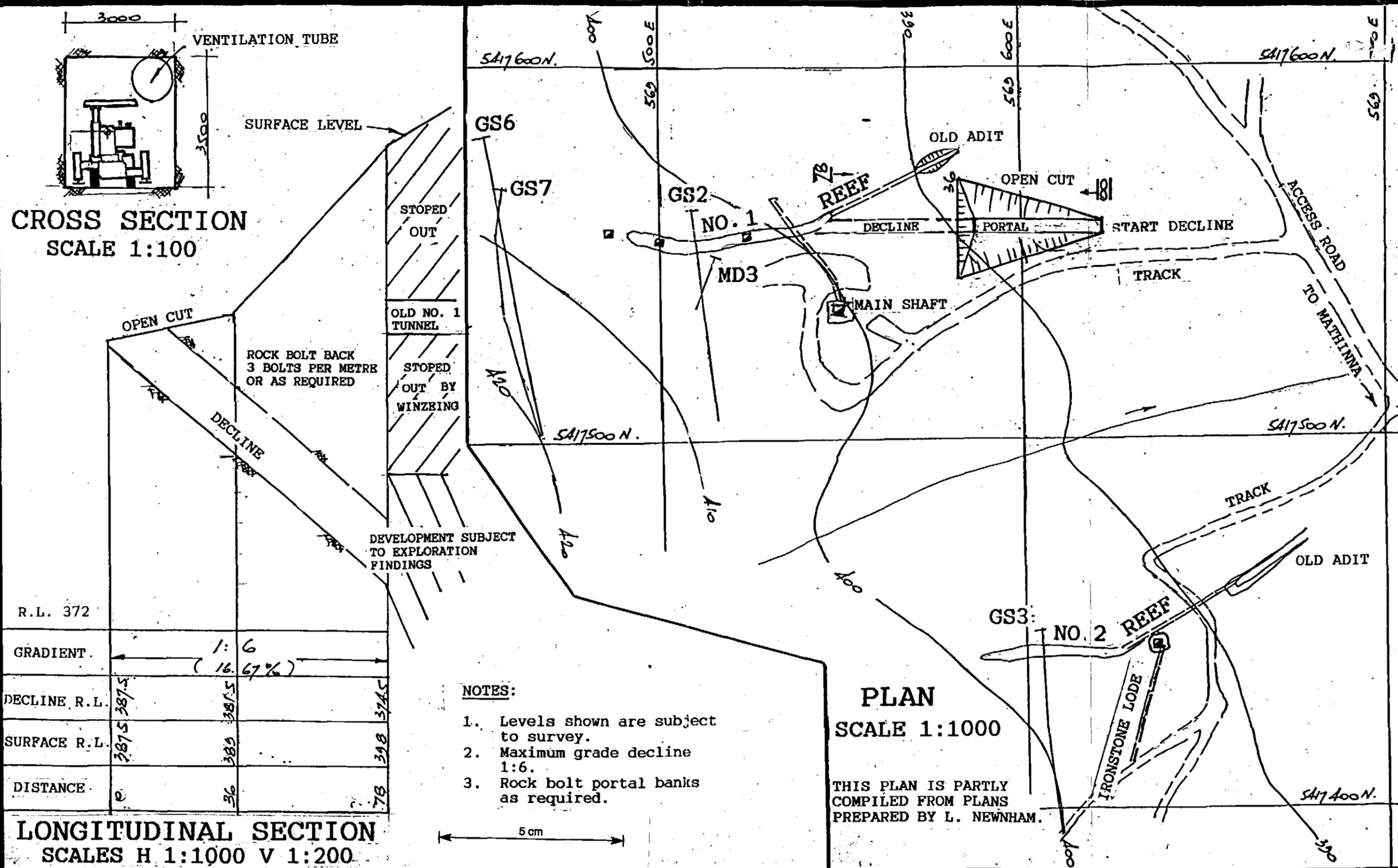
STATE

5 cm

AMG REFERENCE POINTS ADDED

SCALE : 1:100,000





**CROSS SECTION**  
SCALE 1:100

**PLAN**  
SCALE 1:1000

R.L. 372			
GRADIENT	1:6 (16.67%)		
DECLINE R.L.	387.5	381.5	374.5
SURFACE R.L.	387.5	381.5	374.5
DISTANCE	36	78	

- NOTES:**
1. Levels shown are subject to survey.
  2. Maximum grade decline 1:6.
  3. Rock bolt portal banks as required.

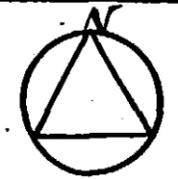
THIS PLAN IS PARTLY  
COMPILED FROM PLANS  
PREPARED BY L. NEWNHAM.

**LONGITUDINAL SECTION**  
SCALES H 1:1000 V 1:200

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**CUTTACK PTY. LTD.**  
PROPOSED DECLINE TO ORE BODY



*L. Fisher*  
REGISTERED SURVEYOR

DRAWN	G.I.F.	NO.
DATE	24/3/97	1791
SCALE	AS SHOWN	