529001

98-4212

CONNEMARA GOLD MINES PTY LTD

MATHINNA GOLD PROJECT

ANNUAL REPORT ON EXPLORATION LICENCE

EL 3/97

FOR THE TWELVE MONTHS ENDING 19 SEPTEMBER 1998

This report has been prepared by
Barminco Pty Ltd
for and on behalf of
Connemara Gold Mines Pty Ltd

Author:	R Colville	Copies:	
Date:	September 1998	Connemara Pty Ltd	1
Tenement Holder:	Connemara Gold Mines Pty Ltd	Barminco Pty Ltd	1
Land District:	Cornwall	MRT	1

98-4212

ANNUAL REPORT - MATHINNA GOLD
CONNEMARA - BARMINCO -EL 3/97
R COLVILLE

CONTENTS PAGE

LIST OF FIGURES

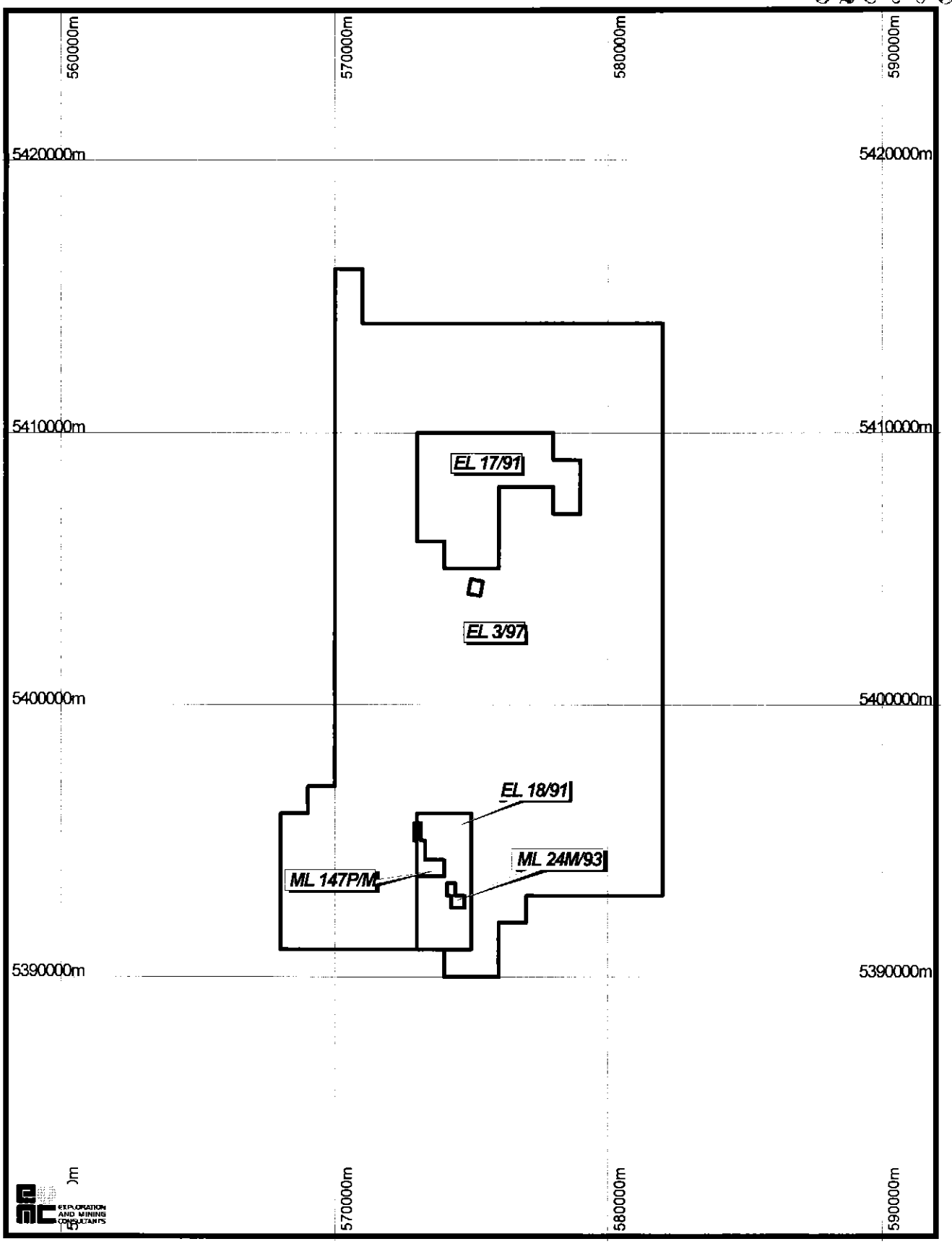
1.0 SUMMARY

The Mathinna Gold Project consists of six tenements in the Mathinna-Mangana area of north east Tasmania (Figure 1).

Connemara Gold Mines Pty Ltd purchased a number of Tenements, EL / 91, EL 17/ 91, ML 1479P/M, ML 43M/89 and ML 24M/93 covering the historical gold mining centres at Mathinna and Mangana in June 1997. At the same time Connemara applied for an area encompassing all of the above tenements. Exploration Licence EL 3/97 (formerly EL22/92 'Tower Hill') was granted on 19th September 1997 providing, with the exception of 3 small excisions (44/94) contiguous tenure over the highly prospective Mathinna – Tower Hill – Mangana historical gold mining areas.

Connemara's exploration approach has been focussed on the total geological environment the tenements cover, rather that being influenced by tenement boundaries, which was the reason for acquiring a contiguous block.

This report covers work undertaken on the Mathinna Gold Project which includes the work completed on EL 3/97, comprising compilation of all previous data, ground inspection of target areas and formulation of a proposed drilling programme.



CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

5 cm

Tenement Location Plan

Scale: 1:200000	Date: March1998	Figure No.: 1

CONNEMARA\TASSIE.APR

2.0 INTRODUCTION

2.1 Location and Access

EL 3/97 lies between Mathinna and Mangana, historic gold mining towns in north east Tasmania, approximately 65 kilometres east of Launceston (Figure 1).
Access to EL 3/97 is good, by sealed road from Launceston, with internal access provided by gravel forestry roads to most of the prospective areas.

2.2 Tenure

EL 3/97 was previously held by Resolute Resources Ltd as EL 22/92.
EL 3/97, details of which are listed below, was granted to Connemara Gold Mines Pty Ltd on 19 September 1997.

Tenement	Holder	Granted	Expiry	Area	Annual Expenditure
EL 3/97	Connemara GM Pty Ltd	19/09/97	19/09/02	249km^2	$62,250

2.3 Land Status/Usage

Topography largely dictates land usage, with river flats being private land under pasture and the hills, state forest. The only reserve is a very small part of Rosedale Flat in the northern part of the licence. There are no RAP's or other conservation areas within the licence.

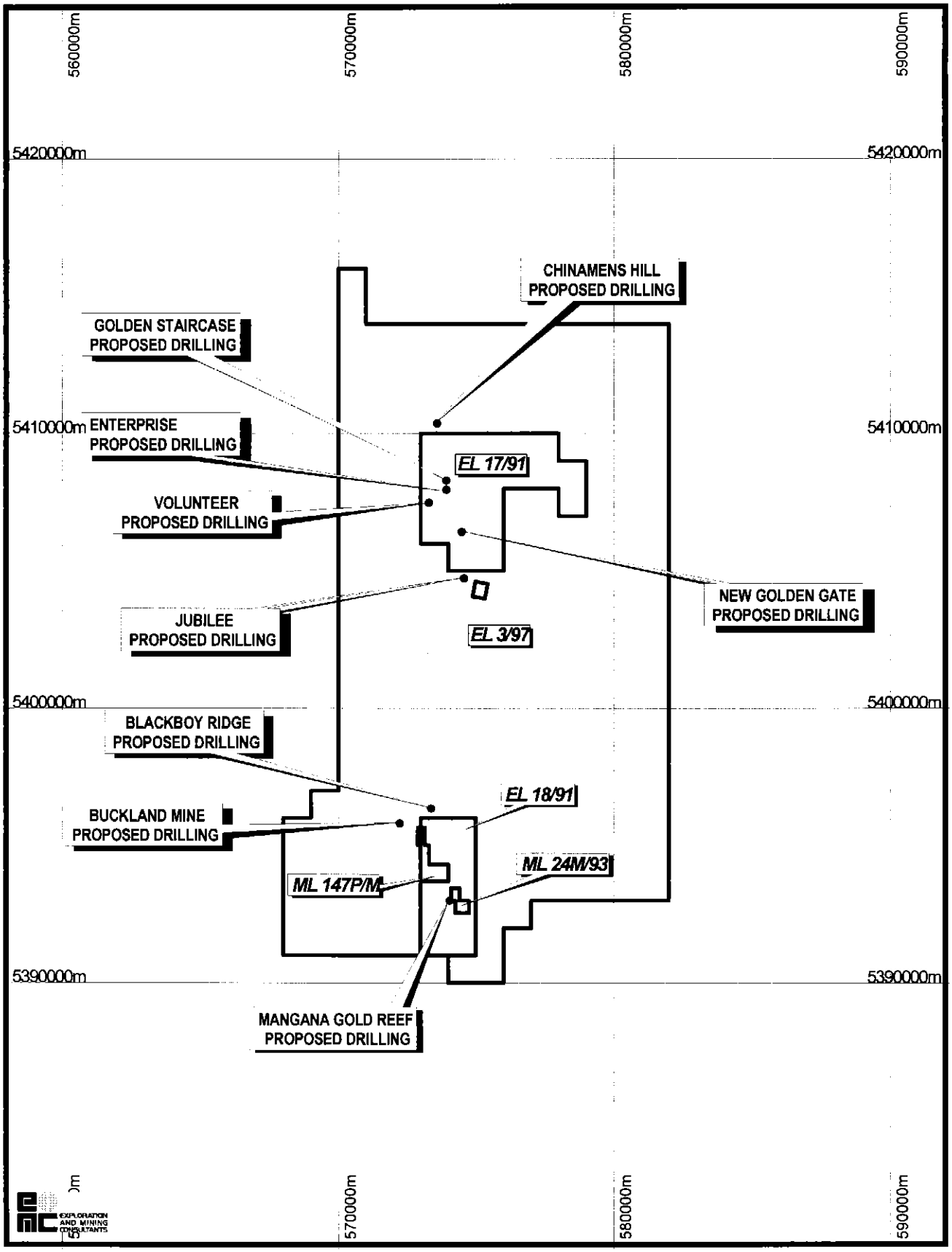
2.4 Topography/Vegetation

EL 3/97 covers hilly country with the exceptions being the flood plains of the South East River and the smaller Dans, Evercreech and Tower Rivulets. The hills rise up to a plateau surface largely defined by the erosional unconformity with the Permo-Triassic sediments. The exception to this is Tower Hill which rises a further 500m.

The hills are moderately steep (~ 25^0) and are almost invariably covered by either open iron bark eucalypt forest with effectively no understorey or radiata pine plantation. The only exception to this is in gullies and south facing slopes where vegetation is dominated by wattles and other understorey species.

2.5 Scope Of This Report

This report briefly summarises previous exploration activities within the licence and details the exploration activities undertaken in the 12 month period to 19 September 1998.



CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

5 cm

Exploration Index Map

Scale: 1:200000	Date: March1998	Figure No.: 2

CONNEMARA\TASSIE.APR

2.6 Exploration Summary

Exploration activities in the 12 months to 19 September 1998 have included:

(i) Review of past exploration/mining
(ii) Drilling proposals/schedules to further test areas of potential defined by previous operators

3.0 GEOLOGY

3.1 Regional Geology

Regional geology described below is from the Resolute Samantha 1995 Annual Report by G MacDonald - March 1996.

EL 3/97 lies toward the southern end of the distinctively north-north west trending lineament of gold deposits which extend from Mangana in the south to Lyndhurst on the coast. The gold deposits occur as auriferous quartz reefs hosted in the Mathinna Beds, a sequence of pelitic to quartzwacke turbidites.

The Mathinna Beds outcrop over much of the north east and are known to contain units of both Ordovician and Silurian age. They are the oldest known rocks in the north east.

The Mathinna Beds are intruded by I and S - type granitoids which range in age from Late Devonian to Early Carboniferous. The intrusive sequence has been shown in almost all cases to be granodiorite (oldest), adamellite, alkali feldspar granite (youngest).
The Lyndhurst-Mangana gold lineament lies along a corridor of the Mathinna Beds bounded to the west by the Scottsdale Batholith and to the east by the Blue Tier Batholith. This corridor widens to the south.

Both the granites and Mathinna Beds are overlain unconformably by Permo-triassic glacimarine sediments of the Parmeener Supergroup. These sediments are intruded by Jurassic dolerite sills.

Tertiary basalts occupy palaeotopographic lows with interbedded tertiary gravels not uncommon.

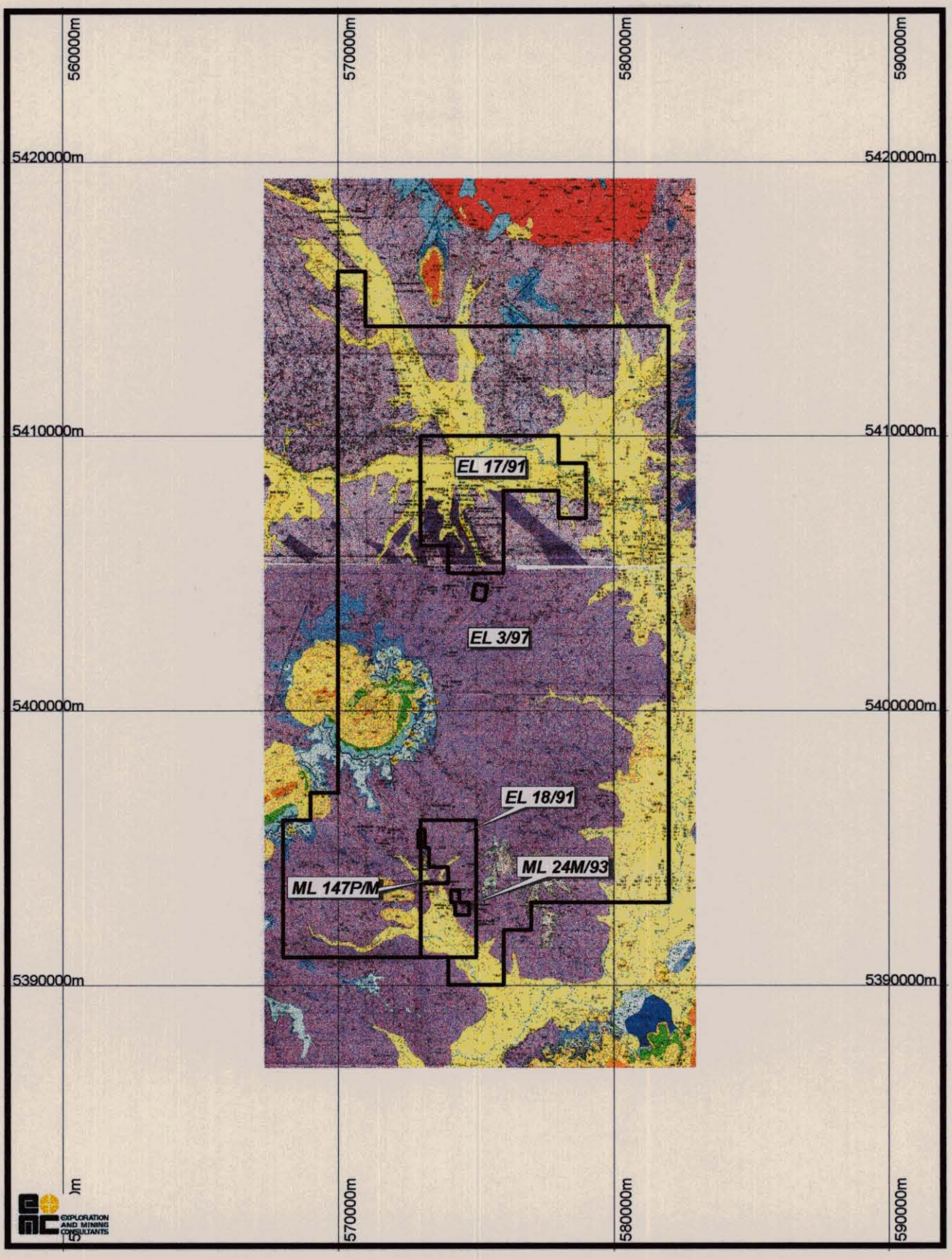
All rocks are unconformably overlain by Quaternary alluvium in river valleys.

Structure

Regional mapping shows the major structures in the Mathinna Beds to be north-north west trending horizontal to shallowly plunging, assymetrical folds with a (usually) south westerly dipping axial planar surface indicating a regional easterly vergence (Williams and McClenaghan, 1989).

More recent work (Keele, 1994) argues that "the north east terrain of Tasmania can be conceived as a gently west-dipping thrust wedge ... which had experienced crustal thickening during the Mid-Devonian orogeny".

529009



CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

5 cm

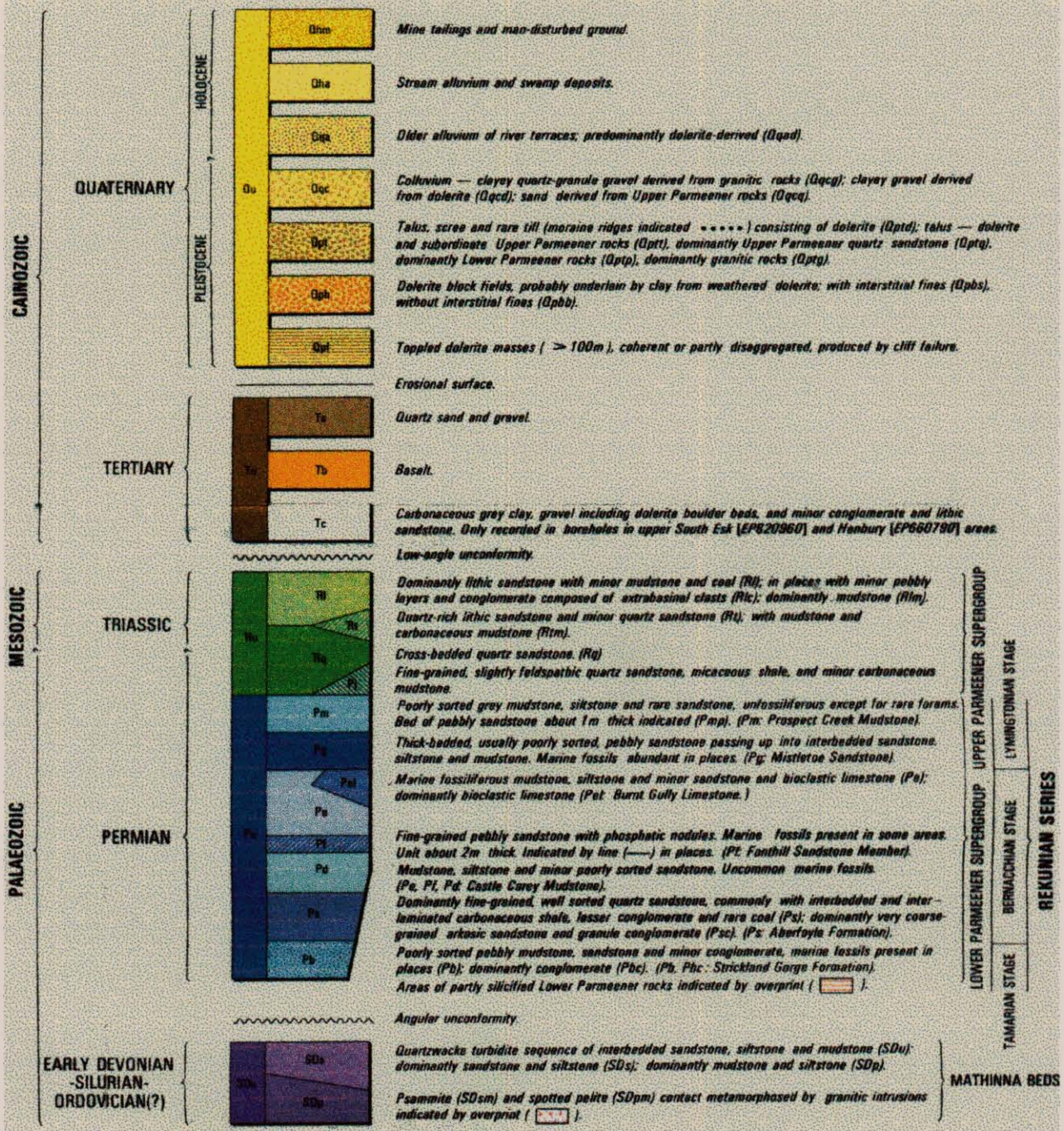
Project Geology Plan

Scale: 1:200000	Date: March1998	Figure No.: 3

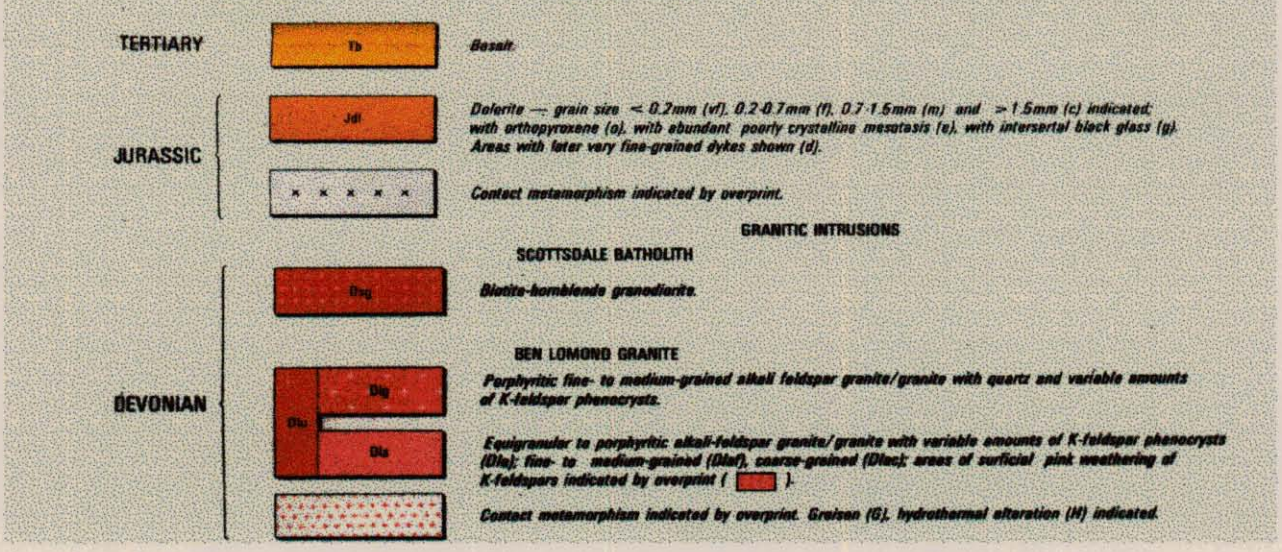
CONNEMARA\TASSIE.APR

529010

REFERENCE



IGNEOUS ROCKS



This folding and/or thrust faulting is interpreted to have taken place in the Mid Devonian in an event correlated with the Tabberabberan Orogeny (McClenaghan, 1994).
To a large degree granitoid intrusion post-dated this deformation phase as evidenced by the truncation of folds in the Mathinna Beds by these granites though some deformation is noted in granitoids and adjacent Mathinna Beds (Goscombe and Findlay, 1989).

The Mid Devonian deformation has produced an "approximate fold axial planar penetrative cleavage (S1) which is the predominant structural surface present throughout the whole of NE Tasmania" (Goscombe and Findlay, 1989). This cleavage is generally steeply dipping.

Both outcrop and mega-scale kink bands recognisable throughout the north east are interpreted to post date granitoid intrusion. They are interpreted to have been produced by a north-north west trending principal stress regime (Goscombe and Findlay, 1989).

Mineralisation

Gold bearing quartz veins are considered to have formed in the Middle Devonian (Taheri and Bottrill, 1994) however there is some uncertainty as to the role of the granitoids in gold mineralisation.

Gold mineralisation at both Lisle and Golden ridge, elsewhere in the north east, lies in Mathinna Beds in the thermal metamorphic aureole of granodiorites and appears to be genetically related (Klominsky and Groves, 1970), however this spatial relationship does not hold so well in the Mathinna area where the interpretation of aeromagnetic data suggests that Mathinna is underlain by granodiorite (Leaman, 1989) or granite (Richardson and Roach, 1994) at a depth of not less than 2 km.

Recent detailed geochemical work by Taheri and Bottrill (1994) on veining on the Mangana-Forester part of the lineament suggests that most gold bearing quartz veins were probably formed by "deep seated metamorphic fluid, probably resulting from devolatilisation of metamorphic rocks at depth (though) deeply convecting chemically modified meteoric fluids may have played an important role".

A number of generations of quartz veining are noted and although paragenitic relations have been interpreted (Goscombe and Findlay, 1989 and Taheri and Bottrill, 1994) "detailed relationships are complex and ambiguous" (Taheri and Bottrill, 1995).

4.0 PREVIOUS EXPLORATION

Gold was discovered at Mangana in 1852 and by the 1880's significant gold mines were operating in the field, with the bulk of gold (254,000 ozs) being produced from one mine, the New Golden Gate.

Prospecting methods utilised to discover the mines included panning, loaming and dollying, with shafts and adits used to further test mineralisation.

Significant mine production continued until about 1920, after which all significant production and exploration ceased. The field then lay dormant until about 1960.

From 1920-1960 the Department of Mines attempted to stimulate activity by conducting drilling programmes on various mines.

From the late 1950's to the present time the field has been explored by a myriad of exploration companies and individuals employing a variety of exploration techniques for targets ranging from reef gold to alluvials to tailings.
Despite varying levels of success from this period of exploration, little gold has been produced by the field over this period.

5.0 RECENT EXPLORATION

5.1 Review of Past Exploration/Mining

Connemara Gold Mines Pty Ltd has reviewed all past exploration pertaining to the field, especially that performed by Resolute Samantha in 1995, as the Resolute report contains a wide ranging and detailed study of the previous work, both contemporary and historic.

From this review a programme of RC and diamond drilling has been proposed over targets generated by Resolute, which Connemara considers may have the potential to host economic mineralisation.

5.2 Drilling Proposals - Mathinna

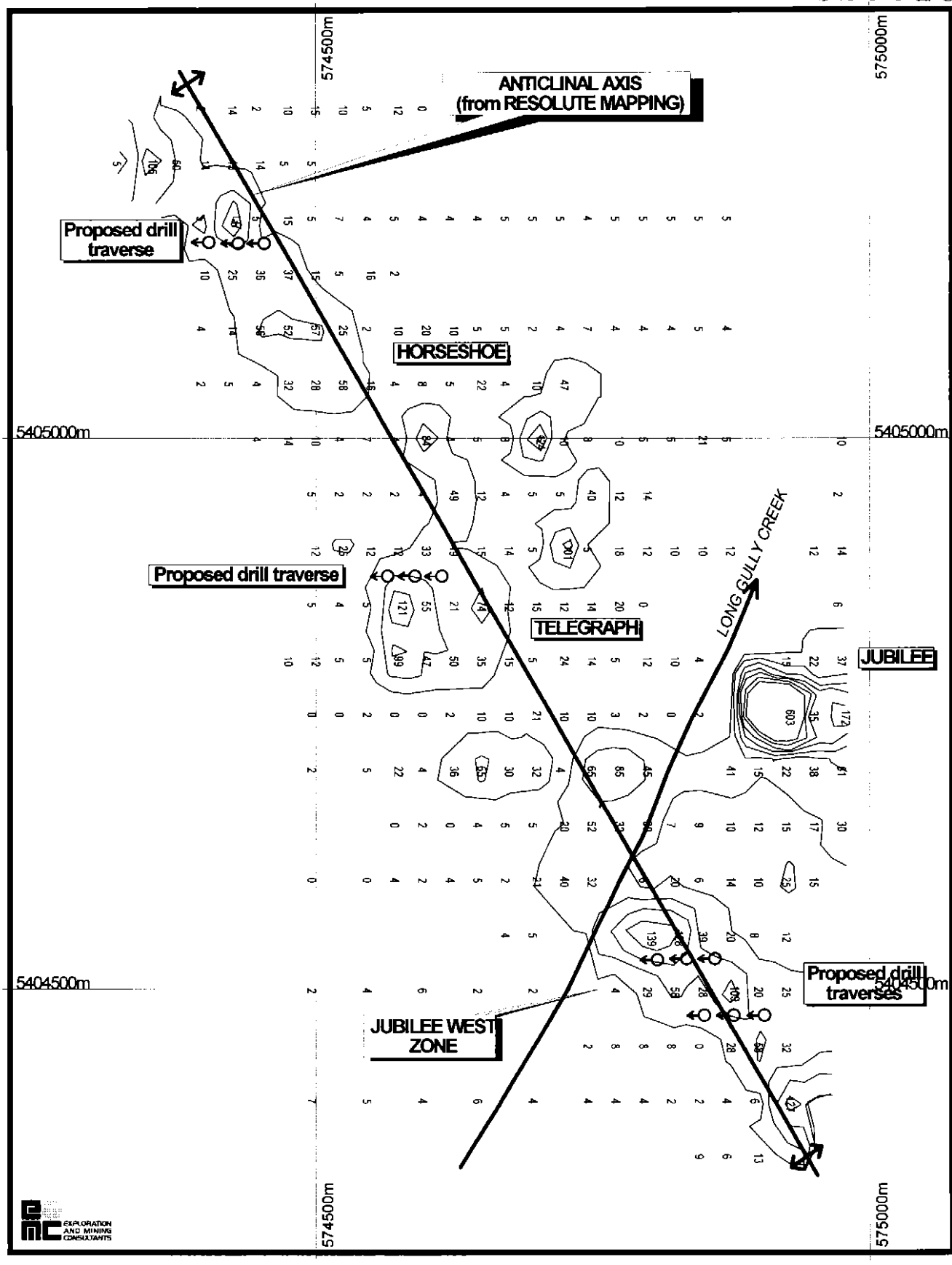
5.2.1 Jubilee Soil Anomaly (Tower Hill EL)

Soil sampling by Resolute produced a well defined trend of anomalous gold over 1km toward the southern part of the Mathinna field (Figure 4).
The anomalous trend runs up over the ridge between Black Horse Gully and Long Gully, where it corresponds with the minor old workings of the Horseshoe and Telegraph workings and then up the hill to the south west of the Jubilee workings where it remains open against the Beswick's Jubilee licence.

Mapping along the southern side of Long Gully and in some minor workings on the hill suggest that the anomalous trend may correspond with an anticlinal axis - a favourable structural setting, considering the structural style of the main Jubilee workings immediately to the north east.
Mineralisation at the Jubilee occurs as sub horizontal to shallowly dipping, bedding conformable reefs (Flat and Lyons Reefs) which appear to be the continuation of north-north west trending sub vertical reefs (Derby) cutting across bedding. This is not unlike some saddle reef developments across anticlinal axes.

A significant number of samples of quartz float were collected by Resolute from the anomalous zone around the Telegraph workings with individual results to ~ 1g/t (dump samples from the Telegraph shaft assayed up to 1.04g/t). This quartz float may explain this part of the soil anomaly.

The southern part of the anomaly (near Beswick's licence) is more strongly anomalous and interesting, particularly if it corresponds to an anticline. A negative factor may be that the old workings coincident with this zone, are not particularly encouraging, though they are only small.



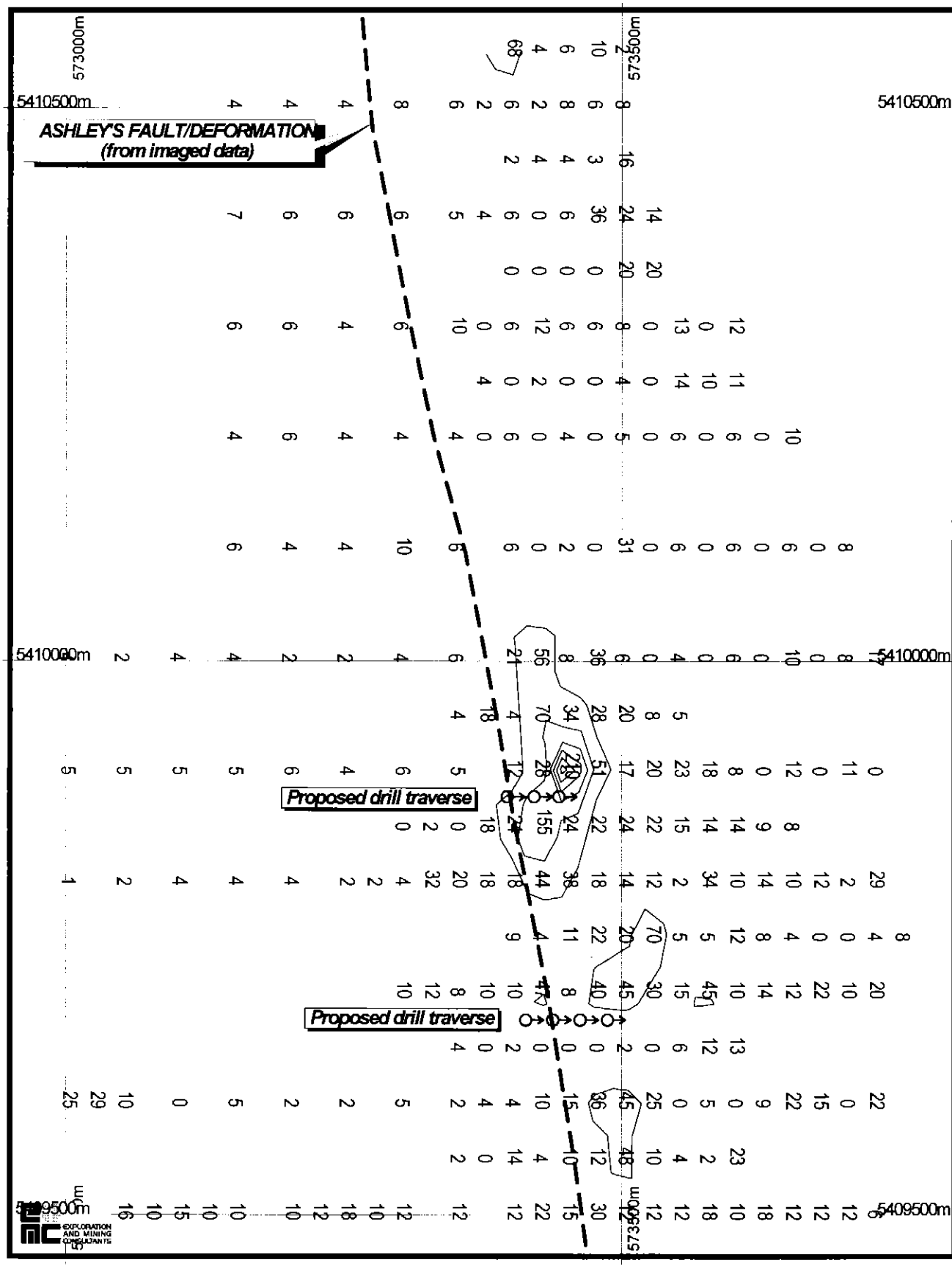
CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

5 cm

Jubilee Prospect
Soil Geochem (Au ppb) with Proposed Drilling

Scale: 1:5000	Date: March 1998	Figure No.: 4

CONNEMARA\TASSIE.APR



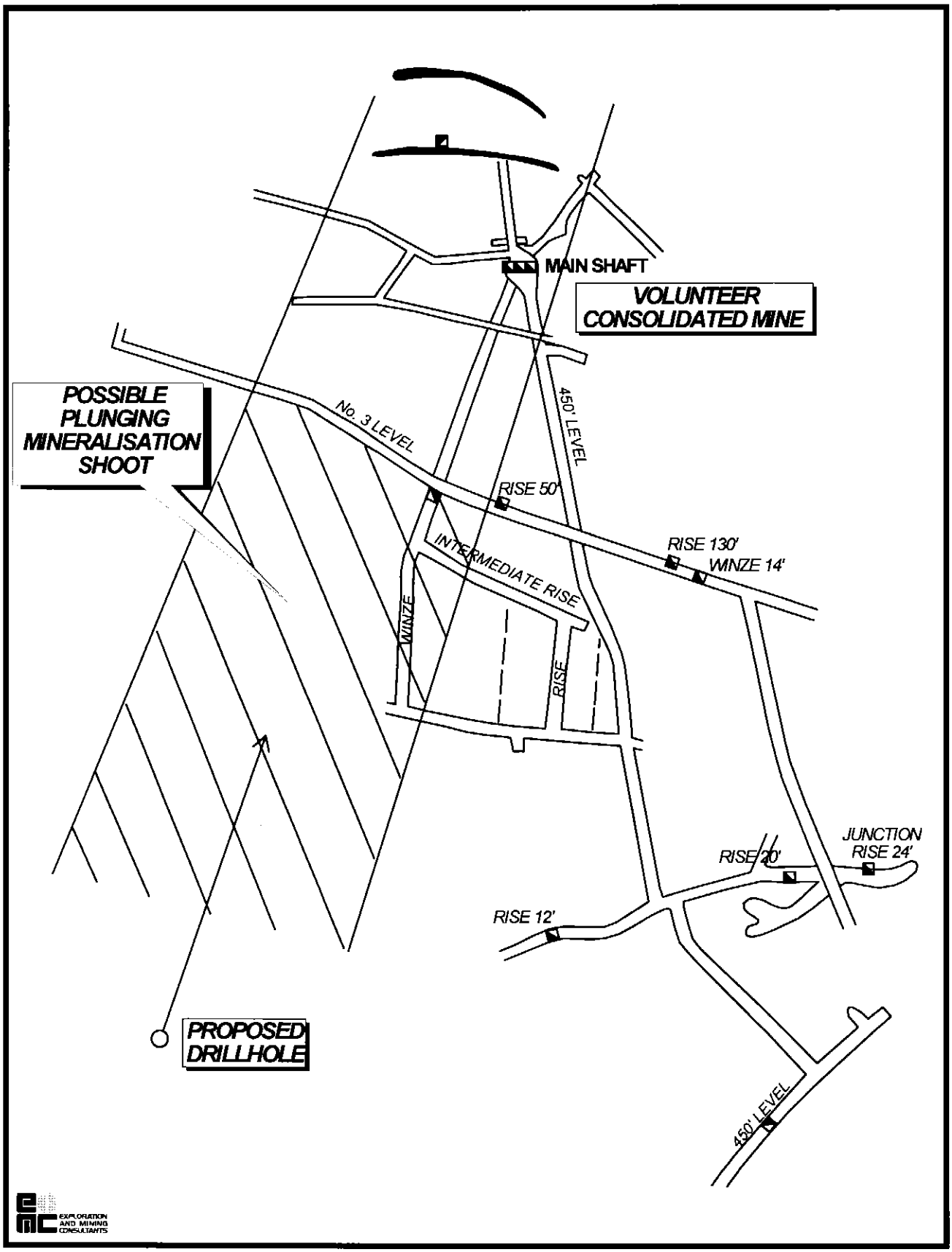
CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

5 cm

Chinamens Hill
Soil Geochem (Au ppb) with Proposed Drilling

Scale: 1:5000	Date: March 1998	Figure No.: 5

CONNEMARA\TASSIE.APR



CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

Volunteer Consolidated
Proposed Drilling

Scale: N.T.S.	Date: March 1998	Figure No.: 6

CONNEMARA\TASSIE.APR

Testing by the proposed drilling will require a substantial track (~ 300+m) from Long Gully across the nose of the ridge. Ideally the track should be pushed on to form a costean across the anomaly itself. A single fence of 2-3 80m RC holes would cover the zone, with a second fence approximately 50m downhill desirable.

The north eastern trend of the anomaly in the Telegraph area may also be worth some drilling.

5.2.2 Chinamens Hill Soil Anomaly (Mathinna and Tower Hill EL's)

This area was soil sampled by Resolute as it lies north along strike from the main trends of old workings at Mathinna with some evidence of old workings itself (City of Melbourne, Golden Horseshoe). It also corresponds with Ashley's F13 trend (Figure 5).

A well defined zone of anomalous gold is defined over 600metres within EL 17/91. This is truncated by the perched east-west trending palaeo river channel before perhaps reappearing in the area of the Golden Horseshoe workings. This palaeochannel has been prospected/worked in a number of places with shafts down to bedrock. Nuggets have been produced washing a creek draining across this palaeochannel.

Resolute float sampling of silicified and/or stockworked siltstone in the area where the anomaly crosses the top of the hill assayed to ~ 1g/t.

A Resolute costean (North Costean), across part of this anomalous trend was systematically channel sampled for 9m @ 1.35g/t Au and 3m @ 2.8g/t Au with a single sample ~20cm of silicified siltstone returning ~ 20g/t Au.

A fence of holes (3 @ 80m) would be easily achievable along the top of the ridge as access exists already.

Testing of the southern end of the anomaly could only be done by man-portable diamond drill rig.

A couple of RC holes may be warranted in the area of the Golden Horseshoe workings on the northern part of the anomaly under the 34 and 55ppb Au and 68ppbAu anomalies.

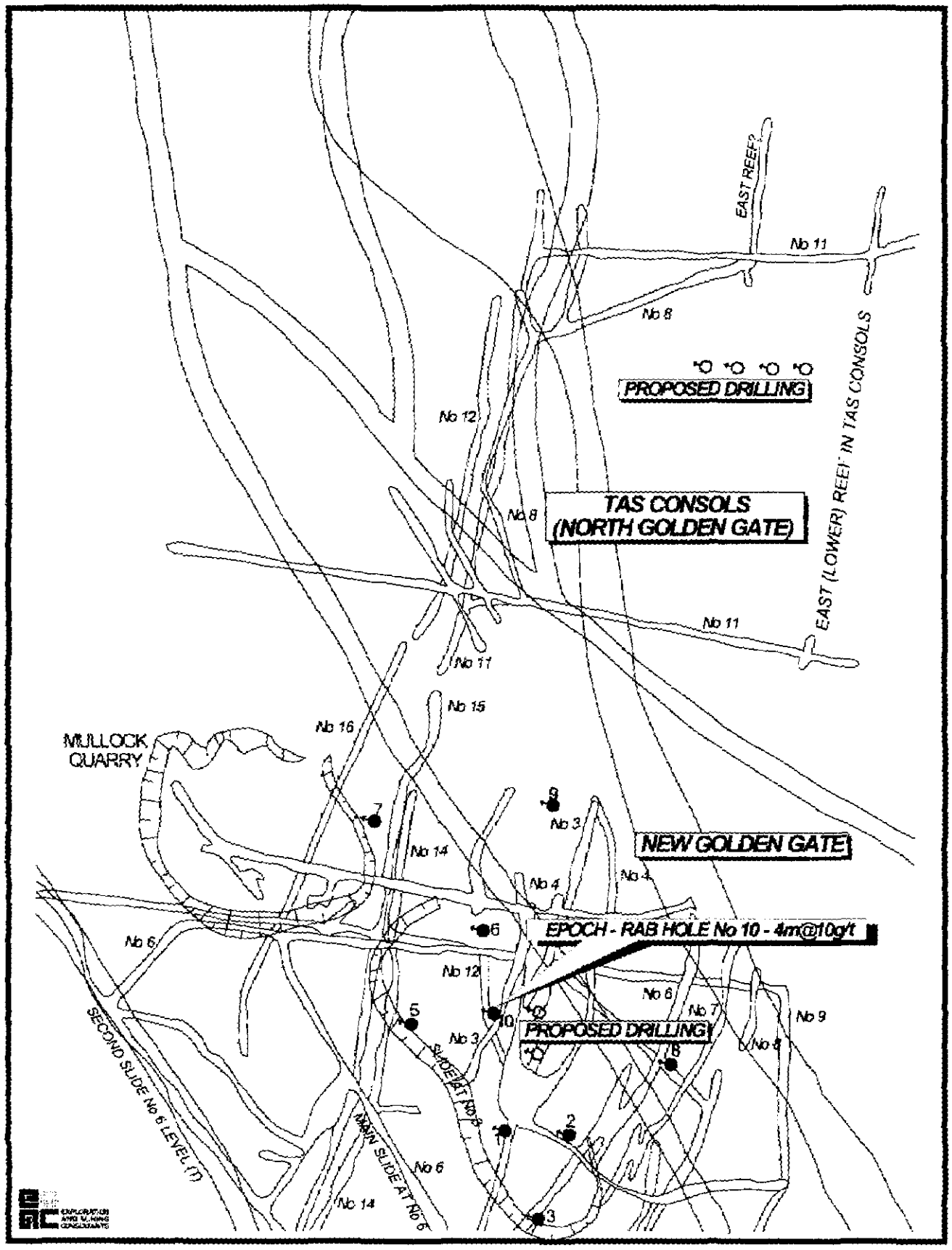
5.2.3 Volunteer Consolidated Old Workings (Matthinna EL)

The Volunteer Consolidated was one of the better producers in the field (2,000 ozs). Resolute collected mullock samples from the dump returning assays to 64.3g/t Au.

There is a suggestion of a moderately south-south west plunging shoot defined by reefs 2 and 3 on the surface and No. 2 and No. 3 levels (Figure 6). This proposed shoot could be tested by RC or diamond drilling.

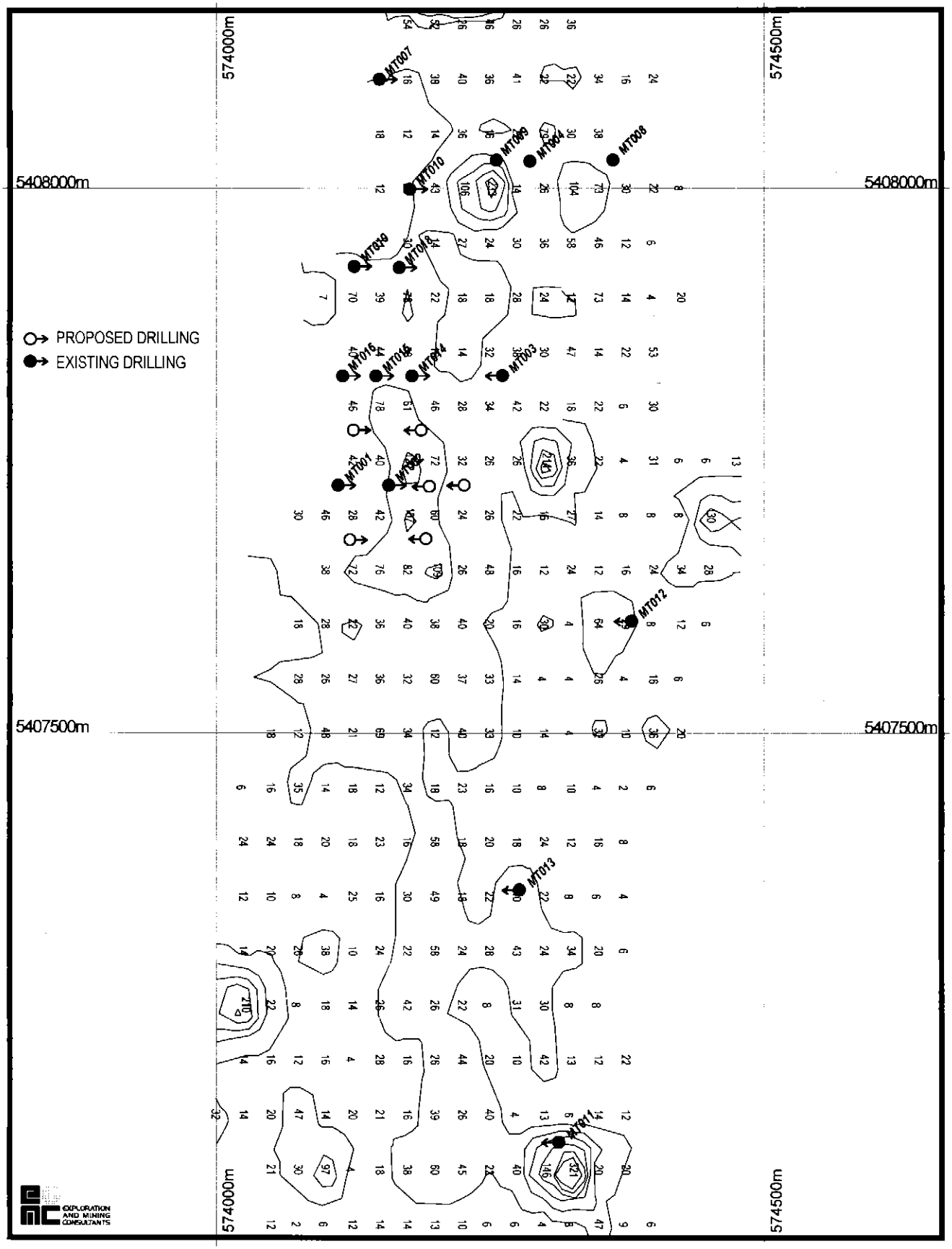
5.2.4 New Golden Gate East Reef - Tas Consols Section (ML within Mathinna EL)

The New Golden Gate worked two reefs in the lower levels of the mine. the Tas Consols (or North Gate) worked only the West Reef in its lower levels. A cross cut eastwards from the shaft in the Tas Consols mine on the 11 level to follow up a rich quartz vein in an underground drill hole intersected a quartz reef. This reef is probably the East reef from the New Golden Gate. A cross cut eastwards further north along a drive on the West reef intersected variably graded reef with 3.3m of mixed quartz and slate with assays to 60 g/t, 1m @ 24.5g/t and quartz of lower grade all reported. This again appears to be the East reef.



CONNEMARA GOLD MINE PTY LTD Mathinna Project EL 3/97		
New Golden Gate - East Reef Proposed Drilling		
Scale: N.T.S.	Date: March 1998	Figure No.: 7

CONNEMARA\TASSIE.APR



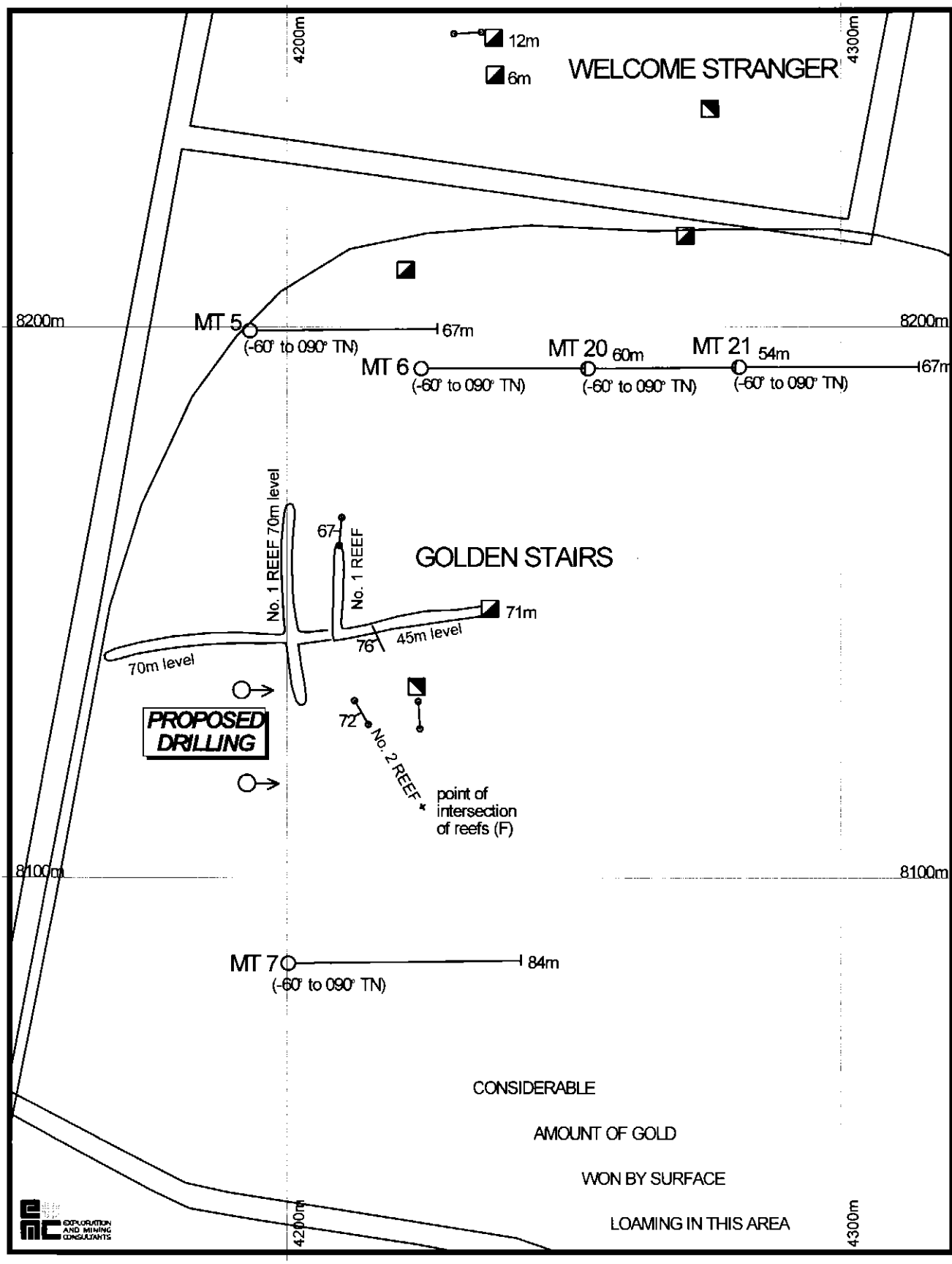
CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

5 cm

Enterprise
Soil Geochem (Au ppb) with Proposed Drilling

Scale: 1:5000	Date: March 1998	Figure No.: 8

CONNEMARA\TASSIE.APR



CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

5 cm

Golden Staircase
Proposed Drilling

Scale: 1:1000	Date: March 1998	Figure No.: 9

CONNEMARA\TASSIE APR

The 8 level plans show a cross cut eastwards with ~40m of drive along some form of reef or reef channel but there is no discussion of this working.
Testing of the East reef in the Tas Consols requires deep drilling with wedges to obtain multiple intersections.
A fence of five 80m RC holes across the up plunge projection of the East reef (Figure 7) is also warranted.

5.2.5 New Golden Gate - Upper East Reef (ML within Mathinna EL area)

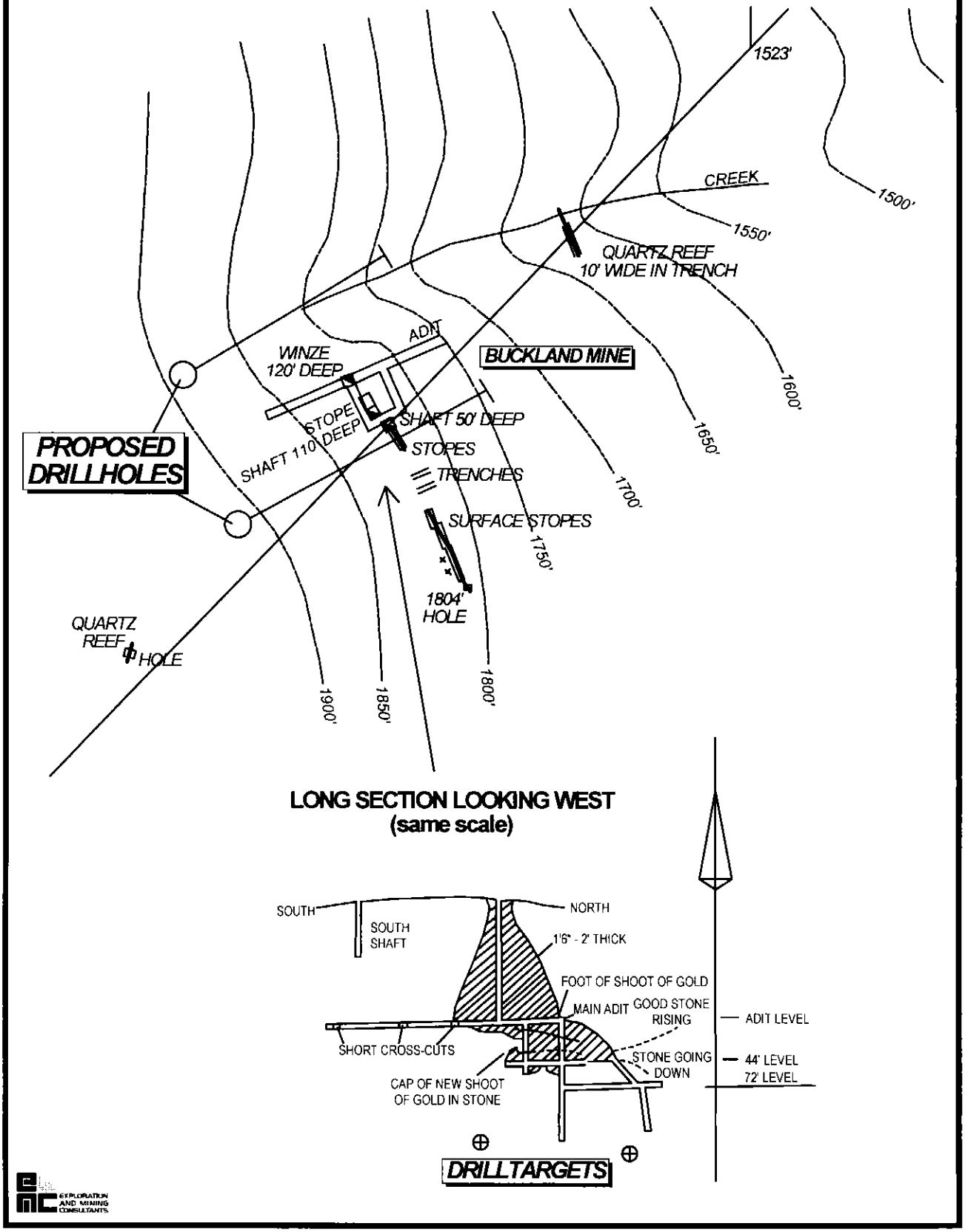
The other target in the New Golden Gate area is following up the Epoch intersection of 4m @ 10g/t intersected in RAB hole No. 10 (Figure 7). This intersection is almost certainly the upper East reef and there is potential for large tonnages.

5.2.6 Enterprise Drill Intersection (Mathinna EL)

The best intersection from Resolute's RC programme was in MT2 which was targeted on one of the stronger zones within the Township-Church Hill anomaly. The intersection was 1m @ 13.6g/t Au from 4-5m in MT2 and consisted of ~75% quartz as a massive reef. MT1 was drilled beneath this intersection without any significantly anomalous intersections. There are a number of possible explanations for this. The intersection may have been of a narrow east dipping vein with MT1 not deep enough to intersect it. However the zone of elevated arsence halfway down MT1 (ie 1290,540 and 930ppm As) with only 0.17g/t Au may be the same reef structure.
Surface enrichment may be partly responsible for the high grades in MT2 though mesothermal quartz veins could easily have the same variation in grade at depth, particularly if the quartz is bunchy in the reef structure and where MT1 intersected the zone it was more of a lode slate.
The soil anomaly extends in both directions and drilling close to MT2 is proposed (Figure 8). Both a scissor hole and holes to the immediate north and south are planned, bearing in mind that any high grade mineralisation will probably be in short strike length sub vertical plunging shoots.
Access for this programme is not a problem as the zone lies on crown land.

5.2.7 Golden Staircase (Mathinna EL)

Resolute drilled holes ~50 metres to the north and south of the workings and intersected low grade reef structure mineralisation. (Northern line - MT5 1m @ 1.01g/t Au, 2940ppm As; MT6 1m @ 0.97g/t Au, 3830ppm As; Southern line - MT7 1m @ 1.35g/t Au, 2400ppm As).
Drilling is proposed immediately south of the workings (Figure 9), as any high grade shoots are likely to be sub vertical and steeply plunging. Two 80 metre RC hole with 50m diamond tails are planned.

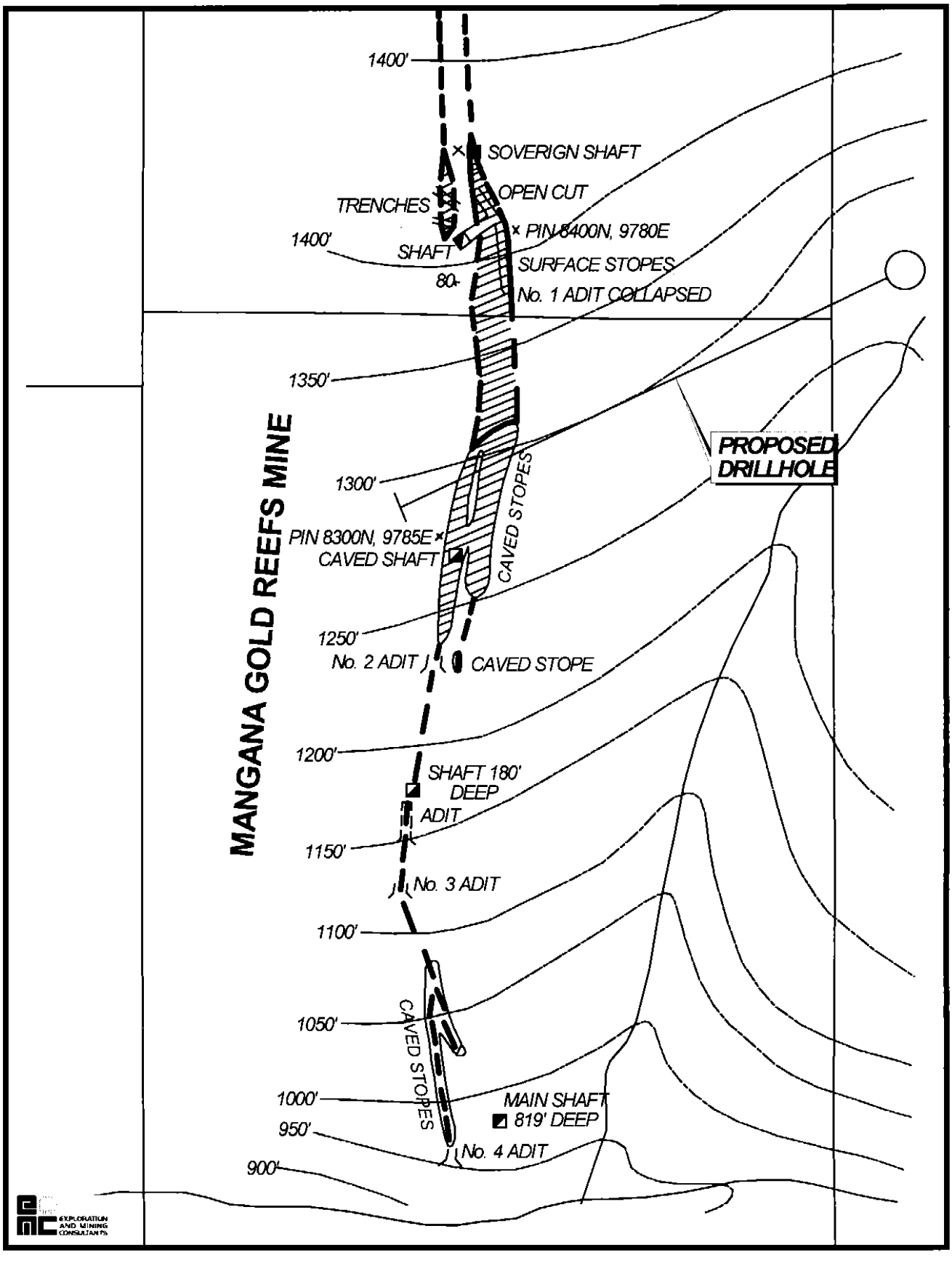


CONNEMARA GOLD MINE PTY LTD
Mathinna Project
EL 3/97

Buckland Mine
Proposed Drilling

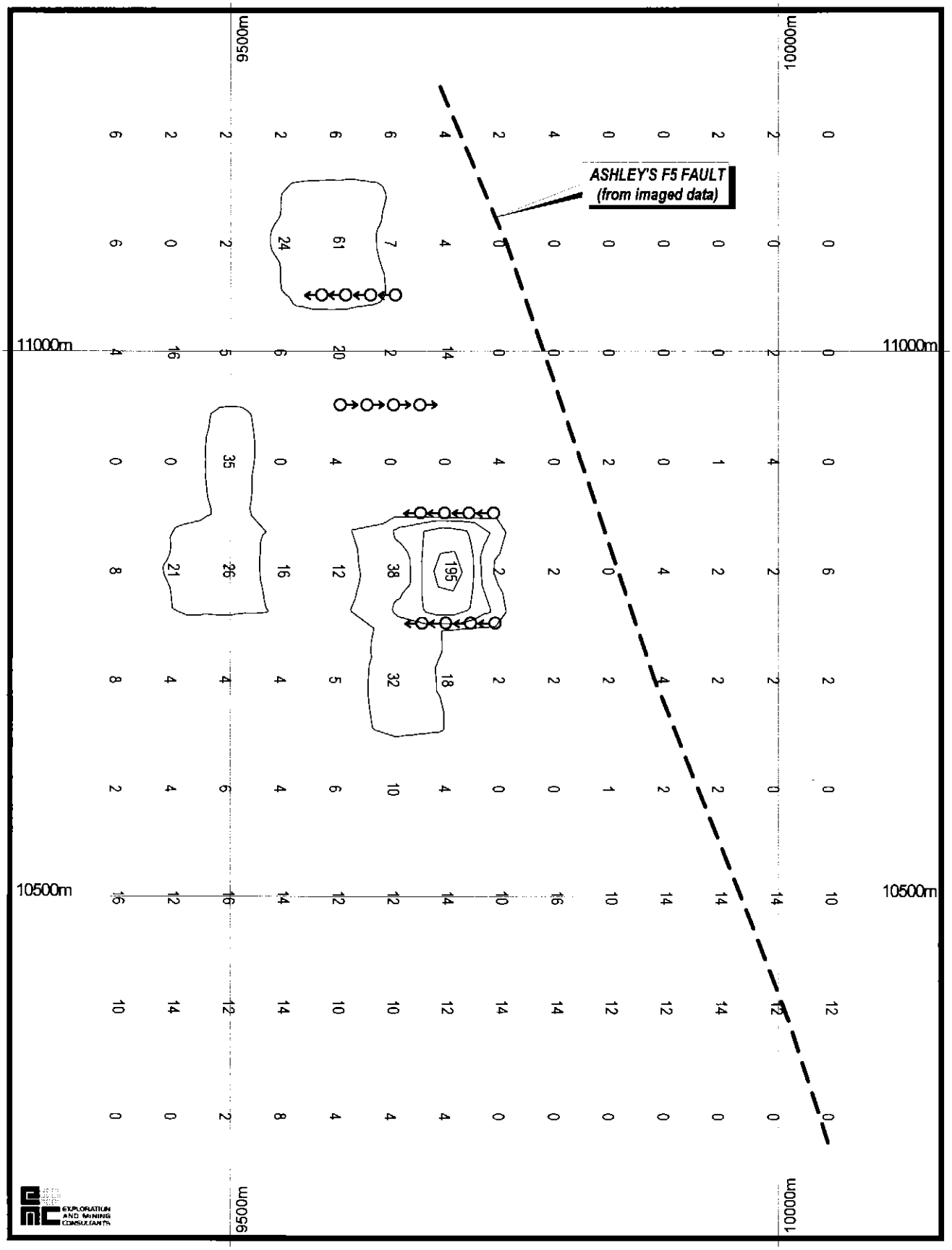
Scale: N.T.S.	Date: March 1998	Figure No.: 10

CONNEMARA\TASSIE APR



CONNEMARA GOLD MINE PTY LTD Mathinna Project EL 3/97		
Mangana Gold Reef Mine Proposed Drilling		
Scale: N.T.S.	Date: March 1998	Figure No.: 11

CONNEMARA\TASSIE.APR



CONNEMARA GOLD MINE PTY LTD

Mathinna Project

EL 3/97

5 cm

Blackboy Ridge

Mangana Grid - Soil Geochem (Au ppb) with Proposed Drilling

Scale: 1:5000	Date: March 1998	Figure No.: 12

CONNEMARA\TASSIE.APR

5.3 Drilling Proposals - Mangana

5.3.1 Buckland Mine (Tower Hill EL)

Old mine plans show a steeply north plunging orientation to the ore shoot with grades averaging 18-30g/t over 1 metre. The lowest level is at ~30 metres (Figure 10) and the down plunge projection of the mineralisation can be drilled from the top of the hill as the old workings lie just below the crest of the hill, which although steep, has a plateau like top.
Two 100m RC holes are planned with access from a track which leads southwards from further along the ridge.

5.3.2 Mangana Gold Reef (Mangana EL)

The major stoping on this mine stops at the 3 level. There are indications from the No. 4 adit that the main mineralised shoot may continue below 3 level.
Drilling this target will require a ~200m diamond hole (with a wedge and another 100m to get second intersection) collared in the saddle between the Mangana Gold Reef and Golden Entrance line of workings (Figure 11).

5.3.3 Blackboy Ridge Soil Anomaly/Aeromagnetic Trend (Mangana EL)

Resolute's only significant soil anomaly at Mangana came from Blackboy Ridge. This area was chosen for soil sampling as it lies along strike from the Argyle-Golden Entrance and Mangana Gold Reef trend, yet has no reported old workings.

Ashley's F5 fault trends roughly through the best (195ppb) Au anomaly and anomalous As (570, 190,100 and 300ppm).
Drilling of four fences of 80m deep RC holes is proposed (Figure 12). Access is by the track up to Alex White's workshop area.

6.0 REFERENCES

Ashley J, 1995 — Resolute/Samantha Group Northeast Tasmania "Mathinna Project" Interpretation of Aeromagnetic Data

MacDonald G, 1996 — Resolute Samantha Limited Annual Report 1995 EL 22/92 "Tower Hill"