

97-4065

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# ALLSTATE EXPLORATION NL

## MT CARELESS ANNUAL REPORT 1997

### EXPLORATION LICENCE 31/96 NE TASMANIA

**MICROFILMED**

FICHE No. 014424-25

EL31/96

97-4065

ANNUAL REPORT-MT CARELESS  
EL31/96 - ALLSTATE EXPL.  
I HART, C LARGE, K STANTON COOK

**REPORTING PERIOD:** 8 November 1996 -  
7 November 1997

**PROJECT NO:**

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Bearsfield Mine Office

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**SUMMARY**

Allstate Exploration NL seeks to renew the existing exploration licence (E.L. 31/96) in its entirety for a further one year period as allowable under the Mines Act.

E.L. 31/96 is being explored for Beaconsfield style mesothermal, quartz-carbonate vein hosted gold mineralisation. The Cambrian sediments may also be prospective for Henty style gold mineralisation and base metals.

For the 12 months ending 8 November 1997, Allstate has undertaken an exploration program incorporating stream sediment sampling, geological/structural mapping and rock chip sampling. Stream sediment results have delineated several drainages with anomalous gold values, and some anomalous quartz vein material was sampled.

## 1.0 INTRODUCTION

This report summarises the results and the methods of the work program carried out by Allstate Exploration NL within EL31/96 during the period 8/11/96 to 7/11/97.

### 1.1 Exploration Philosophy and Objectives

This exploration licence was sought to explore the outcropping Cabbage Tree Hill Formation within and around The Mt Careless Forestry Reserve. These units are thought to be prospective for Beaconsfield type mesothermal quartz-carbonate-gold vein deposits and other structurally controlled types of vein hosted gold mineralisation. The Cambrian sediments were also thought to be prospective for Henty style gold mineralisation and volcanogenic base metal deposits similar to those found on the West Coast.

This area was seen as being a favourable location for exploration due to its proximity to the Beaconsfield Mine which will be in production in 1998/99. Any additional ore that could be found adjacent to the mine would be of considerable benefit.

### 1.2 Tenure

An application to explore for minerals within EL31/96 was granted to Allstate Exploration NL on 8/11/96 for a period of five years.

The tenement status is summarised in Table 1 below:

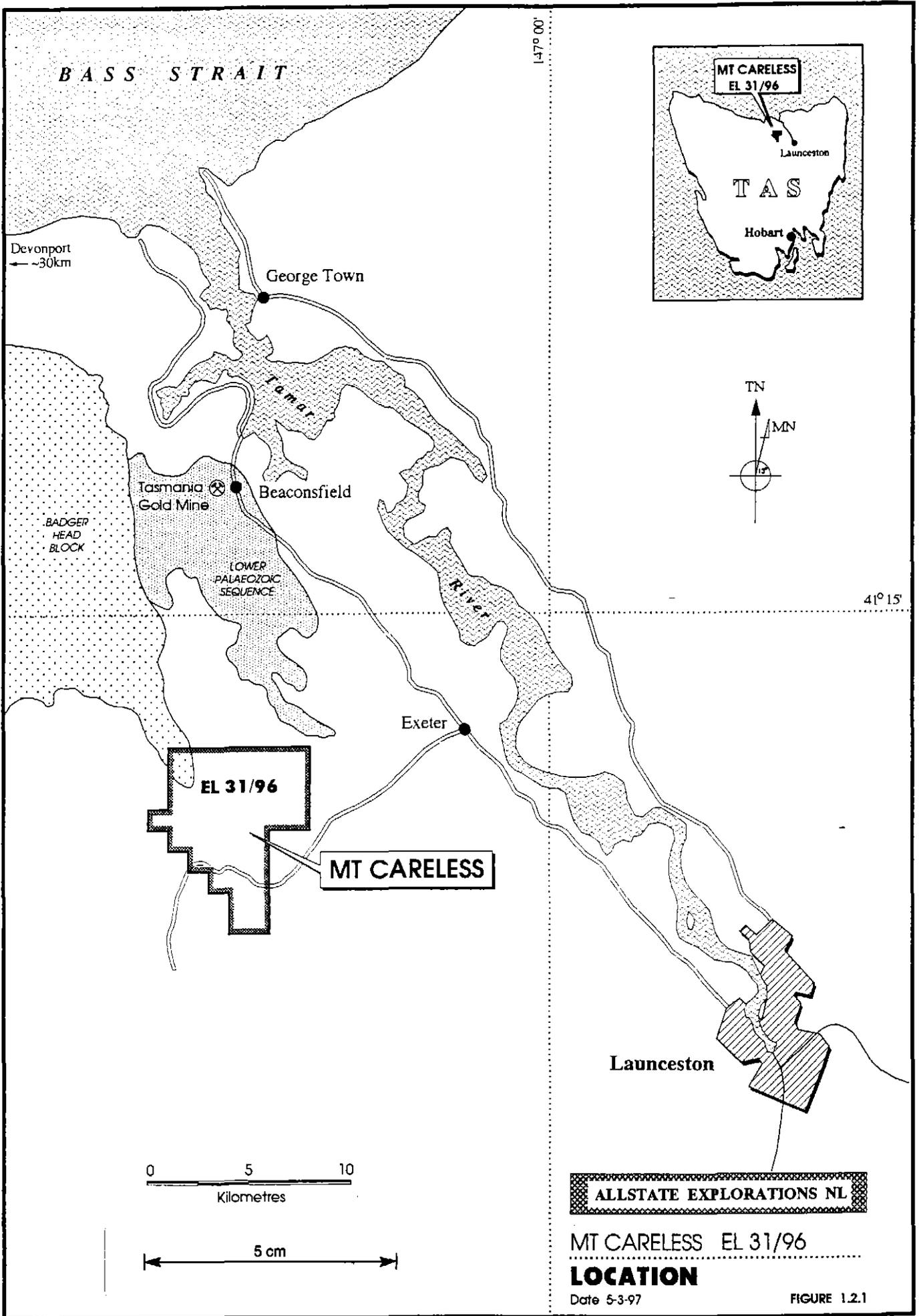
Tenement	EL No.	Date Granted	Expiry Date	No. of Blocks	Year 1&2 Covenant
Mt Careless	31/96	8/11/96	8/11/2001	45	\$30 750

**Table 1:** Tenement details, Allstate Exploration NL

### 1.3 Location and Access

Exploration Licence (EL) 31/96 is situated approximately 10 kms west of Exeter and 15 kms south of the Beaconsfield Mine (see Figure 1.2.1).

Access to the area is via the Holwell, Lamont, Nettlefolds and Frankford roads. Within the EL, access is provided by smaller Forestry, quarrying and pastoral dirt roads. Access to many sample locations was along ridges or drainages.



#### 1.4 Physiography

The topography varies from relatively flat, cleared farmland, to steeply ridged hills and valleys, and rocky cliffs associated with outcropping quartzites and conglomerates of the Cabbage Tree Formation. The main ranges of mountains comprise Kellys Lookout, Bald Tier and Mt Careless and cut through the middle of the EL in a NW-SE orientation. There is thick rainforest within the main water courses in the State Forest with large eucalypts, myrtles and tree ferns and a thick undergrowth. The majority of the EL is covered in medium eucalypt forest. The north eastern and south western sides of the EL are dominated by cleared farmland utilised for cattle and sheep grazing.

The main water courses drain to the east through the Supply and Little Supply Rivers. Most drainages are well defined, however some of the flatter areas are quite swampy with poorly defined waterways.

#### 1.5 History

Gold was first discovered in the Beaconsfield area in 1877 and mining began on the Tasmania Reef shortly thereafter. Within the Mt Careless area numerous old workings comprising shafts, adits and exploratory scrapes have been excavated. No major gold mines have been reported within the exploration licence and there were no records found during a Mines Department search detailing gold production from the area.

## 2.0 GEOLOGY

### 2.1 Regional Geology

The Exploration Licence is located in the central part of the TAMAR (1:100 000), Tasmania map sheet.

Stratigraphic nomenclature within the EL is based on the work by Gulline et al (1973) and other workers, which provides a good basis for more specific local geological extrapolation. The stratigraphic nomenclature is shown in Table 2 was compiled by the Beaconsfield Mine Joint Venture from a number of sources.

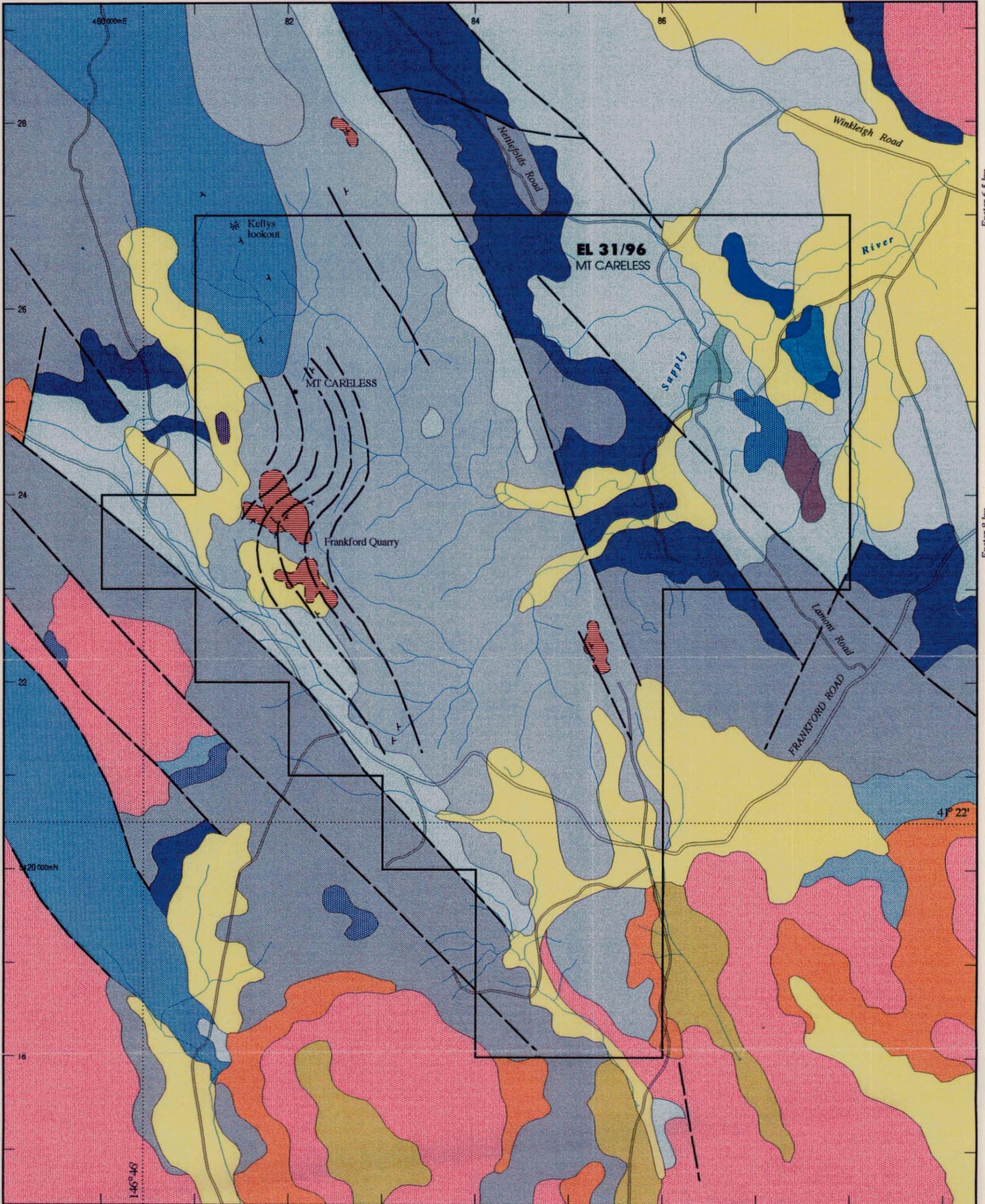
The exploration area occurs across the boundary between the Pre-Cambrian Badger Head block which is composed of sandstone, slate, phyllite and orthoquartzite and a sequence of Lower Palaeozoic sediments including the Beaconsfield gold mine host rocks (Cabbage Tree Formation). The Badger Head block is an allochthonous outlier of the Central Tasmanian Tyennan block consisting of a relatively unmetamorphosed, structurally complex sequence of quartzwacke, siltstone and mudstone. To the East, the Andersons Creek Ultramafic Complex, a large elongate NNW trending body of serpentinite, pyroxenite and gabbro, was thrust over the Badger Head block. A later sequence of Lower Palaeozoic rocks including Cambrian shales and siltstones with intercalated volcanics (Dallys Siltstone) and Ordovician arenites (Cabbage Tree Formation) and carbonates (Flowery Gully Formation) were in turn, imbricately thrust over the Badger Head block and the Andersons Creek Ultramafic Complex during the Devonian-Tabberabberan Orogeny (Gee and Legge, 1979). At Mt Careless, the Cabbage Tree Formation was thrust directly over the Badger Head block. The EL area occurs between the Badger Head Block and the Tamar River Graben (Figure 1.2.1).

Unconformably overlying the Lower Palaeozoic sediments is a sequence of Permian sediments, overlain by Triassic sandstones. Jurassic dolerites intrude all Palaeozoic and Triassic units, preferentially forming extensive sills in the Permian and Triassic sequences. Descriptions of the Permian, Triassic and Jurassic rocks are provided by Green (1957) and Gee and Legge (1979)

### 2.2 Local Geology

Within the project area, all major units are present (see Figure 2.2.1). The northern part of the EL covers part of the Pre Cambrian Badger Head Block which is unconformably overlain by the Ordovician-Devonian sediments which form a NW oriented block within the central part of the EL. Permian sediments occur to the east and west of the central area and Jurassic dolerite occurs to the south.

The Lower Palaeozoic sediments within the EL are thought to have a similar stratigraphic composition as those found at Cabbage Tree Hill adjacent to the

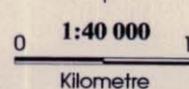
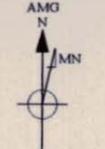


Exeter 6.5 km

Exeter 8 km



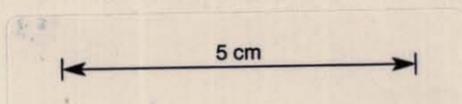
- |   |  |   |
|---|--|---|
| <b>CAINOZOIC</b>  | <b>PALAEZOIC</b>   | <b>PRECAMBRIAN</b>  |
| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: yellow; border: 1px solid black; margin-right: 5px;"></span> Alluvium</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: orange; border: 1px solid black; margin-right: 5px;"></span> Dolerite / Quartzite</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #f0f0f0; border: 1px solid black; margin-right: 5px;"></span> Clay, gravel, sand</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #d3d3d3; border: 1px solid black; margin-right: 5px;"></span> Clog Tom Sandstone / shale</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #a9a9a9; border: 1px solid black; margin-right: 5px;"></span> Mudstone</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #696969; border: 1px solid black; margin-right: 5px;"></span> Liffey Sandstone</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #c0c0c0; border: 1px solid black; margin-right: 5px;"></span> Mudstone / sandstone</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #e0e0e0; border: 1px solid black; margin-right: 5px;"></span> Quartzite / slaty siltstone</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #4682b4; border: 1px solid black; margin-right: 5px;"></span> Siltstone</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> Conglomerate</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #4682b4; border: 1px solid black; margin-right: 5px;"></span> Dolerite Suite ?</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #4682b4; border: 1px solid black; margin-right: 5px;"></span> Badger Head Group</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #4682b4; border: 1px solid black; margin-right: 5px;"></span> Sandstone / slate / phyllite</li> </ul> <p>(JURASSIC)</p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> Dolerite</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px; border-style: dashed;"></span> Gravel quarry</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Dip + Strike</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 1px dashed black; margin-right: 5px;"></span> Fault</li> </ul> |



ALLSTATE EXPLORATIONS NL

MT CARELESS EL 31/96  
**GEOLOGY**

Compiled Date 5-3-97 Scale 1:40,000  
 Drawn RSK Dwg FIGURE 2-2.1



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Beaconsfield mine (see Table 2). The unconformable nature of the contacts between these various units is apparent at numerous localities within the exploration area.

The Cabbage Tree Conglomerate within the area consists of thickly bedded grey and white quartzites with conglomeratic beds of quartz pebbles (generally 1cm diameter) varying upto 8cms in the basal beds. These units form steep ridges and cliffs within the exploration area and have been exploited as a silica flux and as a silica gravel from numerous quarries within the area. The quarries are mainly within the siliceous conglomerates and quartzites of the Cabbage Tree Conglomerate and rocks from the suspected Lower Transition Beds.

The pebble conglomerates within the quarries are composed of 0.5-15.0 cm quartz and lithic clasts, massively bedded and supported in a siliceous matrix. The clasts vary from subrounded to subangular and are from a variety of source rocks. Quartzites and sandstones are dominantly composed of quartz grains with some less homogeneous beds containing clays and micas. The beds strike approximately NW-NE (340°-020°) and dip to the east at an average of 25°.

Stratigraphic Unit	Sub Units	Thickness near Beaconsfield	Age
Corn Hill Beds			Siluro Devonian
Grubb Shale		30	Ordovician
Flowery Gully Limestone		170	Ordovician
Upper Transition Beds	- Siltstone and Sandstone - Calcareous Siltstone - Siltstone, Sandstone and Styolitic Limestone	40 20 120	Ordovician
Lower Transition Beds	- Sandstone and Pebble Beds - Microconglomerate "Wet Beds" - Sandstone, Grit and Pebble Conglomerate	20 10 90	Ordovician
Cabbage Tree Conglomerate		50	Ordovician
Blyth's Creek Formation		70	Ordovician
Dally's Siltstone			Cambrian
Andersons Creek Mafic-Ultramafic Complex			Cambrian
Badger Head Block			PreCambrian

Table 2 - Stratigraphic Nomenclature & Regional Correlation

### 3.0 PREVIOUS EXPLORATION

There has been no literature found on the old shafts, adits and scrapes within the EL and communications with the local old timers did not provide any answers as to the reasoning or methodology behind the location of many of the workings. Many of the adits and shafts were found to be associated with quartz veining within the sediments, however it is not known whether these were found by panning the creeks or outcrop investigations. There does not appear to be significant production from any of the old workings found during the exploration program.

Recent exploration activities over the licence area includes work by BHP Pty. Ltd. in 1966-67 looking for limestone, chromite, nickel, iron ore and base metal deposits. Work completed includes ground and aeromagnetics, stream sediment sampling assaying for leachable copper, zinc and nickel and total molybdenum, costeaning, percussion and diamond drilling, and geological mapping. Results were not significant and no further work was completed.

A geophysical review of available data was completed by Leaman Geophysics for Victor Petroleum and Resources Ltd. in 1981. The information covered included aeromagnetics, gravity, seismic reflection, resistivity and down hole logging. The potential basement geology is discussed and recommendations for further oil, coal and gas exploration are made.

#### 4.0 EXPLORATION WORK COMPLETED 8/12/96 - 7/12/97

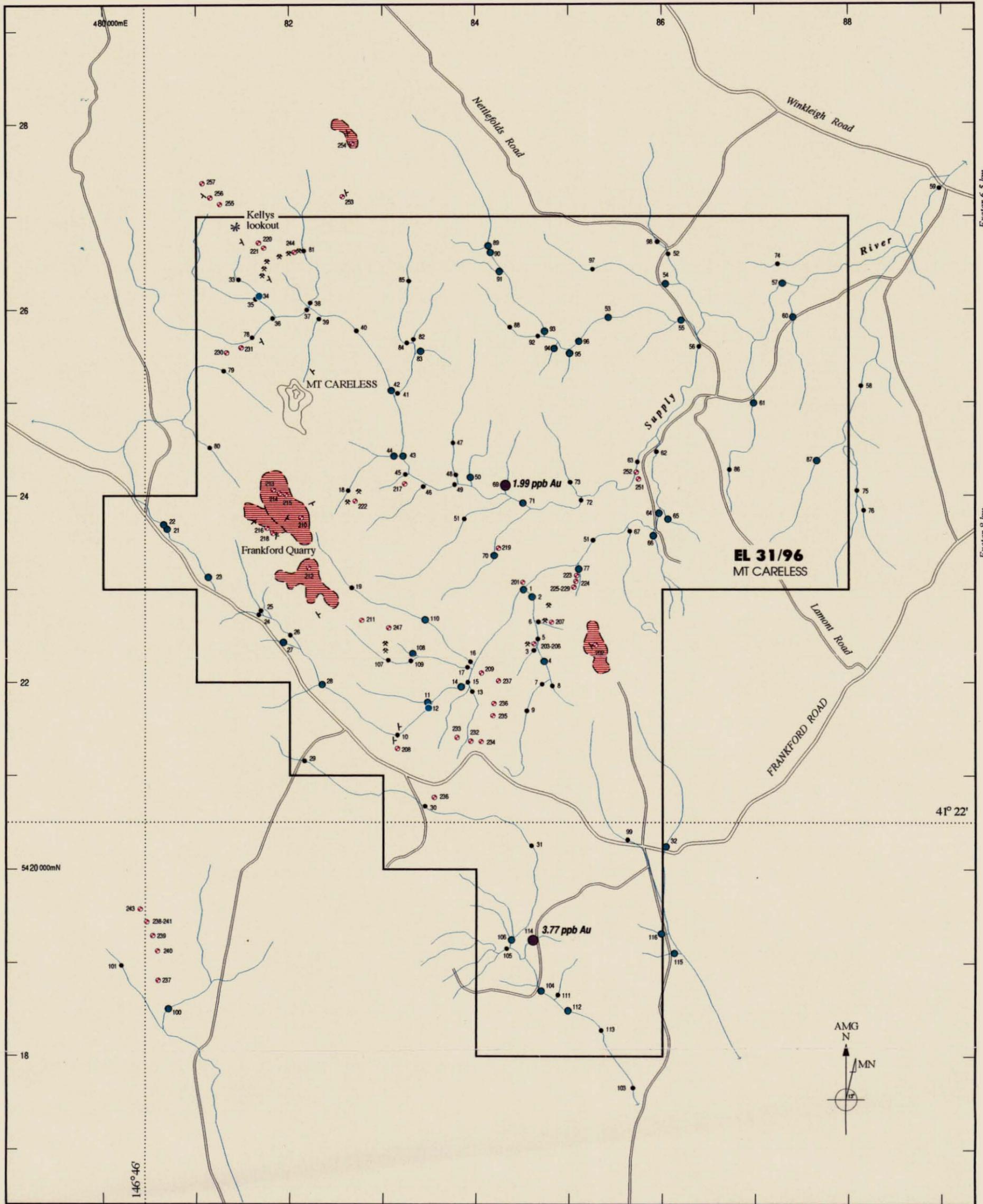
For the 12 months ending 7 December, 1997, Allstate has completed a work program incorporating stream sediment sampling, geological and structural mapping and rock chip sampling. The schedule of work statistics are presented in Table 3.

<b>TABLE 3</b>	
<b>Schedule of Work Statistics for 12 months ending 7 December, 1996</b>	
<i>Activity</i>	<i>Total</i>
<b>Geological Mapping</b>	20% of area
<b>Geochemistry</b>	
Rock Chip	56 samples
Stream sediment	116 samples

#### 4.1 Stream Sediment Sampling

A total of 116 BLEG stream sediment samples were taken within the EL providing a coverage of approximately 2.5 samples per square kilometre (see Figure 4.1.1). Samples were taken by obtaining 1-2 kg of -5mm stream sediment from across the main channel of the drainage so as to provide a representative sample of the rocktypes and potential mineralisation within the catchment area. The sediment was shovelled using a standard folding army shovel and sieved using a stainless steel sieve onto a plastic sheet. The sample material was then placed in a small plastic bag with internal and external sample identification labels and loaded five samples per large plastic bag. These samples were despatched to Analabs in Burnie for drying and thence to Queensland for analysis utilising the BLEG method.

The majority of the stream sediment samples were taken in sandy gravel material with minor clay, however some drainages were so poorly defined there was no clear channel and the only sample material contained abundant organic material or was rich in clay material. These problems were particularly apparent in some of the less well developed rainforest drainages and the cleared rural areas with land erosion. A record of the basic appearance of the drainage was taken at each site including the amount of water present (on a scale from 1-5), the geology of the rocks in the drainage, the maturity of the alluvial material and the amount of organic and clay material in the sample. These are provided in Appendix 1.



Exeter 6.5 km

Exeter 8 km

41° 22'

146° 46'

**LEGEND**

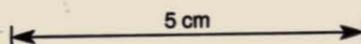
**BCL Stream Sediment**

- 48 ● < 0.05 ppb Au
- 50 ● 0.05 - 0.99
- Sample No. 69 ● 1.0+ ppb Au

**Rock Chip**

- 220 ○ Sample No.
- (Note: all values below 0.008 ppm Au)

- \* Old workings
- Gravel quarry
- λ Dip + Strike



**ALLSTATE EXPLORATIONS NL**

MT CARELESS EL 31/96  
**GEOCHEMISTRY**  
 Rock Chip and Stream Samples

Compiled Date 5-3-97 Scale 1:40,000  
 Drawn RSK Dwg FIGURE 4.1.1

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## 4.2 Geological Mapping

### 4.2.1 Geology

Geological mapping was conducted across the Mt. Careless tenement with special attention given to Kellys Lookout and the Gravel Reserve Ridge in the north, and the Frankford Quarry in the south (Figure 2.2.1). The Frankford Quarry offered the best exposure with several cleared rock faces exposing ~150m of stratigraphy (Figures 4.2.1.2, 4.2.1.3 and 4.2.1.4).

Kellys Lookout is composed of Proterozoic sediments including sandstone and phyllitic mudstone. Most outcrop on the western flank of the lookout is composed of dark-grey, fine-grained, mica-rich phyllite striking ~345° with a strong bedding sub-parallel cleavage. Bedding/cleavage relationships suggest an antiform to the east. The northern section of the Kellys Lookout area is dominated by leached, massive white sandstone with poorly defined cleavage. Quartz veins in this area were found to strike parallel to the cleavage.

The Gravel Reserve Ridge to the east of Kellys Lookout was found to have reasonable exposure in several areas. Permian conglomerate in the north, and pebbly sandstone in the south are currently being mined for cement gravel. Beds were found to strike ~350° and dip east. Outcrops of massive sandstone were observed on the northern end of the ridge with the sequence coarsening south and westward to sandstone with pebbly horizons and massive conglomerate.

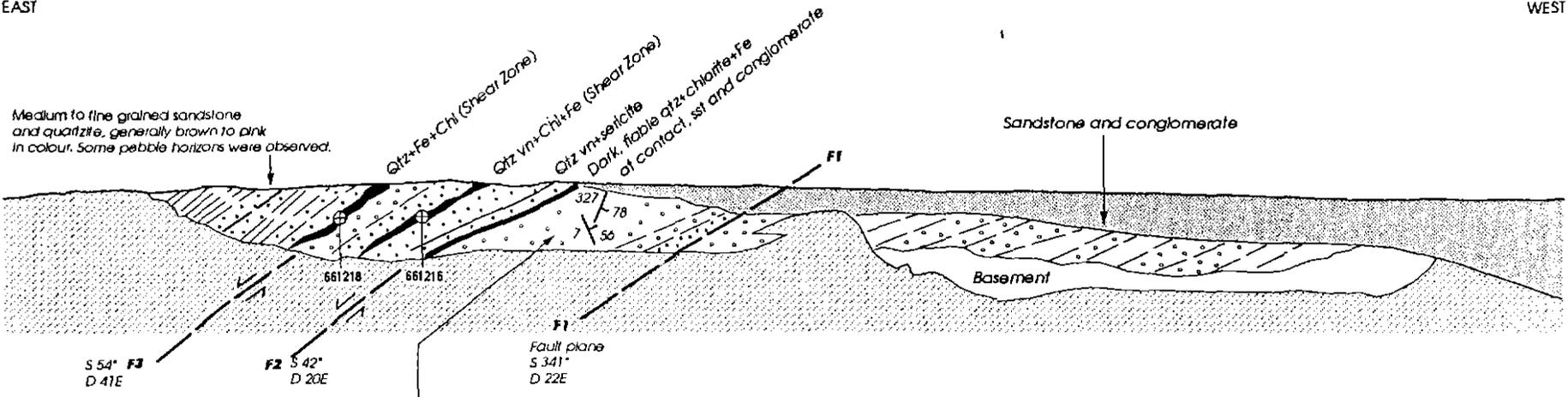
Mapping in the Frankford Quarry consisted of the construction of detailed cross-sections through the Ordovician Cabbage Tree Formation (Figures 4.2.1.2 to 4.2.1.4). The sections define an upward fining sequence with beds striking between 340° and 20° and dipping ~25° east. Lithological contacts appear to be gradational and therefore conformable and no specific beds are observed to be repeated in the sequence as might be expected in the event of recumbent folding or duplexing within the sequence.

Siliceous pink and grey Cabbage Tree Conglomerate is stratigraphically the lowest unit. The pebble conglomerate consists of sub-angular to sub-rounded clasts of vein quartz, quartzite and siltstone in a siliceous (sometimes pink) matrix. The conglomerate is generally matrix supported with a dense clast population.

Conformably overlying the conglomerate is a coarse sandstone and quartzite unit with pebbly horizons. The sandstone is often leached and white, while the quartzite may be pink in colour. These beds may constitute the oldest units of the Lower 'transition beds'. No lithological

A EAST

WEST B



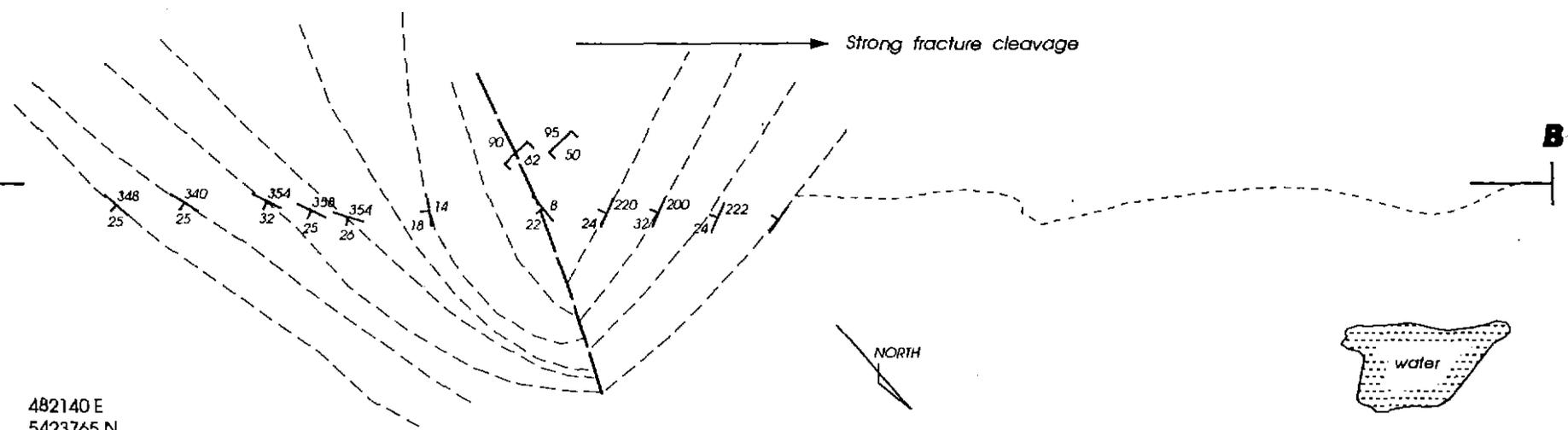
### SECTION

Pervasive spaced fracture cleavage  
S 95° E D 50° N

This rock type is a massive silticlastic pebble conglomerate. Quartz clasts and lithic fragments (0.5-4cm) are supported in a siliceous matrix. The conglomerate is pink in colour and is matrix supported. The matrix is pink while the Qtz pebbles are cream to white. Clasts are sub-rounded to sub-angular.

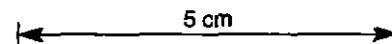
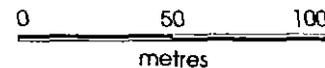
A

B



### PLAN

482140 E  
5423765 N  
+ AMG  
AGD 66 Zone 55



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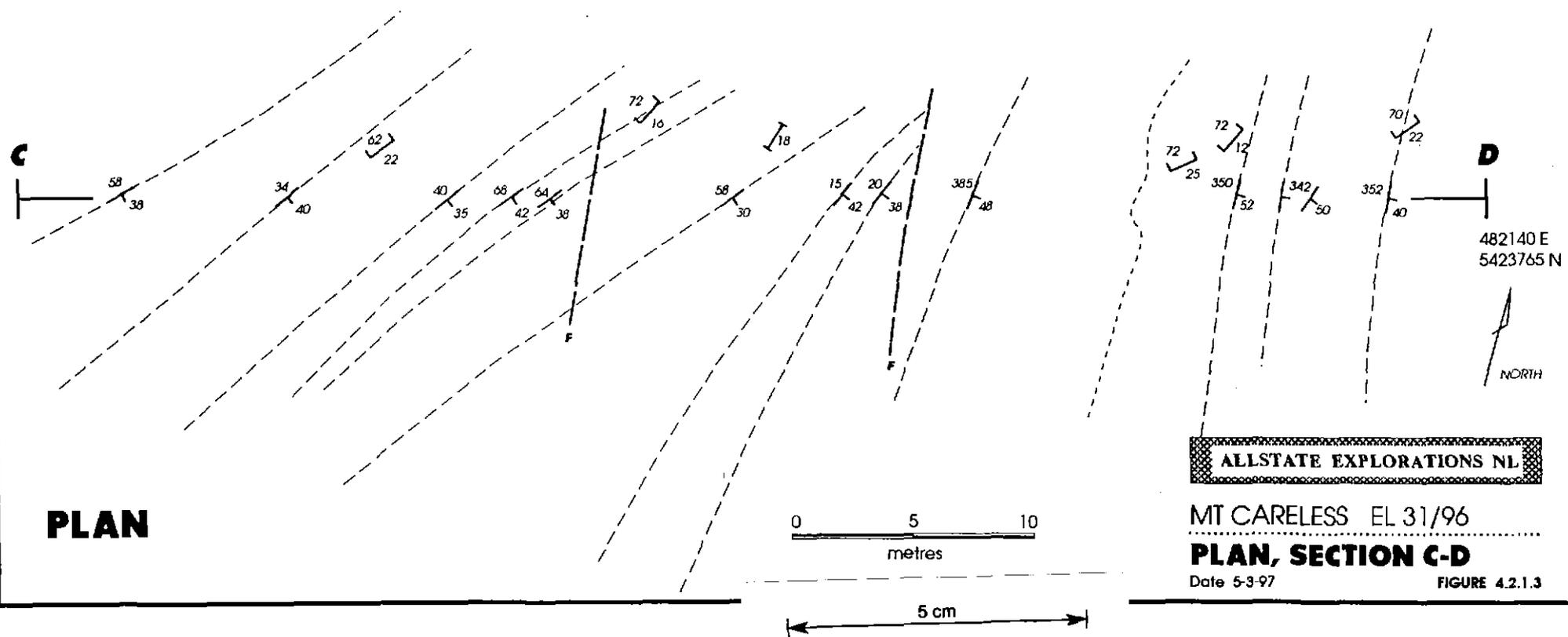
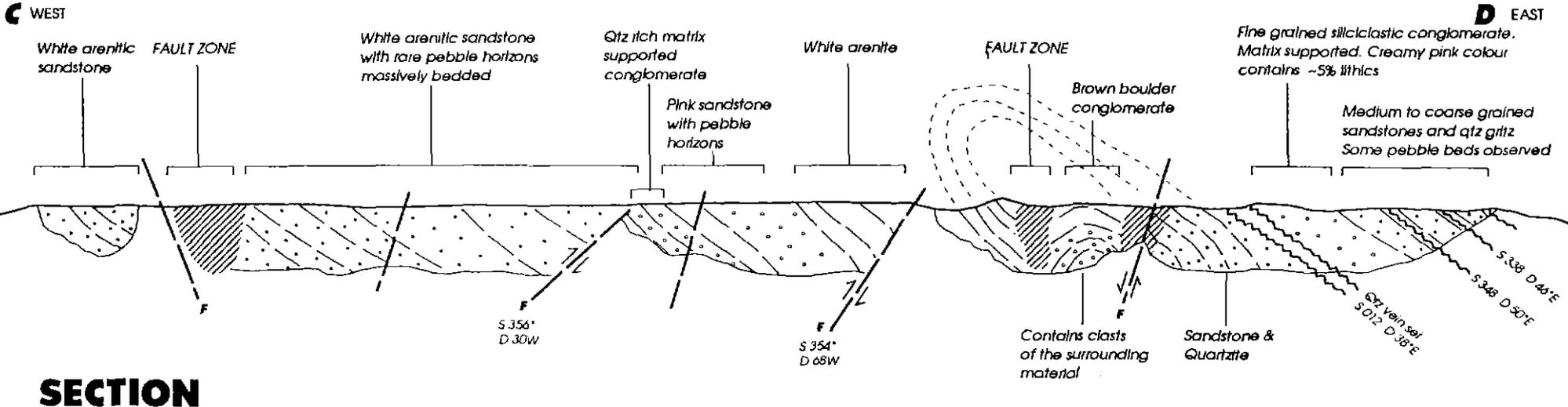
MT CARELESS EL 31/96

### PLAN, SECTION A-B

Date 5-3-97

FIGURE 4.2.1.2

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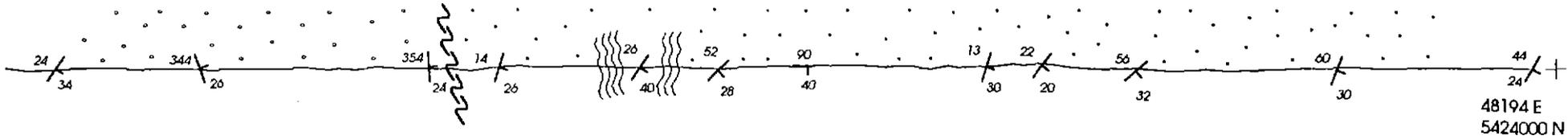
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**E** WEST

EAST **F**

SHEAR  
S 354°  
D 16E Sericite+Vn Qtz

White arenitic sandstone with pebble horizons



48194 E  
5424000 N

Brown pebble conglomerate

ANTICLINE SOUTH

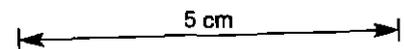
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MT CARELESS EL 31/96

LINE E-F

Date 5-3-97

FIGURE 4.2.1.4



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boundaries are clearly defined however, and descriptions can identify the general trends only.

#### **4.2.2 Structure**

Several bedding sub-parallel normal faults were observed in the transition zone between the conglomerate and the sandstone in the Frankford Quarry. Quartz veining and sericite-hematite-chlorite alteration was found to be associated with faults striking 350°. There was no evidence to suggest any great movement on the faults. Several quartz vein stockwork zones were also found to occur within the lower sandstone units. Striations on bedding planes indicated a bedding parallel shear although no sense of direction was obtained. A pervasive slaty cleavage within the sandstone strikes at 020° and dips 70° west. A pervasive spaced fracture cleavage within the conglomerate was observed to strike at 095° and dip 50° north. Other slaty cleavages in the mapping area were found to be related to local structures.

#### **4.2.3 Discussion (implications of mapping results)**

Units mapped in the Mt. Careless region bear significant resemblance to those within the Beaconsfield Mine Sequence. Lithologically, some units are comparable to the lower section of the mine sequence, and it is probable that units mapped within the Frankford Quarry represent sections of the Cabbage Tree Conglomerate and the Lower Transition Beds.

The beds strike NNW in a similar manner as the mine sequence and minor small scale folding can be observed within the Frankford Quarry. The fact that no siltstones were observed within the quarry suggests that fine-grained rocks within the sequence are present to the east of the mapping area. This should be the case if the beds are facing right-way-up and dipping to the east. Given this information and knowing that the Tasmania Reef at Beaconsfield is observed throughout the Upper and Lower Transition Beds in the mine sequence, the stratigraphy in the region of Mt. Careless is considered to be quite favourable for Beaconsfield style gold mineralisation.

Quartz vein mineralisation at Beaconsfield is thought to be closely related to the competency of the host rock. During deformation it is suspected the more brittle beds have formed fissures suitable for the deposition of the gold and the more ductile units have not produced any open spaces and therefore were not mineralised.

As the conditions for the deposition of gold are best within the Transition Beds, it is likely that in the Mt. Careless region, the best results (should this or another reef be present) would occur to the east of the mapping area within the State Forest. Although this area is densely vegetated,

sample density is strongest within the State Forest due to its rugged nature and the fact that the Supply River, and many smaller channels drain the valley which appears to trend roughly parallel to stratigraphy. It is notable that in the course of the mapping, several old workings were discovered, indicating previous exploration work in the area.

### 4.3 Rock Chip Sampling

A total of 56 rockchip samples were taken with the majority analysed for gold only by Fire Assay. Six of the samples were also analysed for Ca, Cu, Zn, As, Ag, Sb and Pb, but these were found to be below detection limits in the majority of samples. The location of the rockchip samples is shown in Figure 4.1.1. The majority of samples were composed of vein quartz with some shear zone and country rock samples included. The country rock samples include micaceous siltstones, ferruginous quartz pebble conglomerates, silicified siltstones and sandstones and clay altered (?) sandstones. The quartz vein samples frequently contain boxworks, indicating the potential for sulphide mineralisation at some stage. This is economically significant due to the good correlation found between the gold and sulphides within the Tasmania Reef at Beaconsfield.

Rockchip results were generally subdued with highs of 0.06 and 0.034 ppm Au, from quartz float material near some old workings and outcropping quartz vein material respectively. The majority of the rock chip samples were found to be less than 0.008 ppm Au.

### 4.4 Structural Analysis

The Beaconsfield area has the three components necessary for deposition of gold within the Tasmania Mine (ie. a gold mobilising hydrothermal event, structural disruption for a conduit/open space and suitable host rock geochemistry). The Mt Careless EL area is close enough to Beaconsfield to presume it has been affected by the same hydrothermal event. Mt Careless has also been found to have a suitable host rocks (equivalent to Beaconsfield) and gold anomalous areas (as defined from the stream sediment work). Whether or not there has been sufficient structural disruption within the area to provide a conduit and focus for the fluids has yet to be determined.

The development of the dilational shear zone hosting quartz carbonate reef gold mineralisation at the Beaconsfield mine is thought to be closely related to the relative ductility of the host rock. During shearing parallel to  $\sigma_1$  compression it is believed that the more brittle beds have dilated more readily in the  $\sigma_3$  direction forming a single wide fissure suitable for the deposition of the reef. More ductile units have yielded to form an anastomosing network of fractures which now host fine veinlets of similar mineralogy to the main reef but do not represent an economic lode.

Structural analysis of the data obtained from the mapping areas is being utilised to obtain an understanding of the intensity and orientation of the structural disruption. Further work within the anomalous drainages is required to locate any structures of significance and test their geochemistry. It is notable that we are targeting the equivalent of the mineralised reef system at Beaconsfield but which is probably only 1-2 metres wide. The Mt Careless EL over 41 skm hosts a number of 1-2 metre wide prospective quartz veins.

Bedding within the area is very consistent with the Precambrian sediments striking NW and dipping to the west at approximately 60-65°, the Palaeozoic sediments generally strike W-NW (076-145°) and have a variable dip to the east of 27-65°.

Faults within the area are quite variable and dip to the east, west and south at various angles. The data collected so far is not indicative of any preferred orientation for major stress related structures. Follow up work within the EL area should focus on the structural understanding of the area as well as the geochemistry.

#### 4.5 Results and Discussion

Results from the stream sediment sampling were only slightly anomalous with a maximum value of 3.77 ppb Au (against a background of <0.05ppb Au). Other results of significance include 1.99, 0.93, 0.92 and two samples with 0.85 ppb Au. These results define several anomalous catchments, the majority of which lie within the geologically favourable Cabbage Tree Conglomerate and Lower Transition Beds although some also lie within units mapped as Permian sediments (which are unlikely to contain Beaconsfield style mineralisation).

Two rock chip samples were found to be slightly anomalous with values of 0.034 and 0.060 ppm Au. These samples were taken from quartz vein float near some old diggings and a quartz vein outcropping on Mt Careless respectively. The stream sediments taken on the creek draining these areas were not significantly anomalous.

The results indicate there is some gold anomalism within the EL area which is considered to be geologically favourable. The anomalous drainages are concentrated within the prospective rocktypes and should be investigated further.

**5.0 EXPENDITURE FOR THE YEAR ENDING 7/12/97**

For the 12 months ending 7 November, 1997, Allstate Explorations N.L. spent \$39,500 against a covenant expenditure of \$10,250 for EL31/96. Generally, costs were spread through field exploration activities which included stream sediment and geological surveys (refer to Table 5 for a complete breakdown of costs).

<b>TABLE 3</b>	
<b>Expenditure statement for EL31/96</b>	
<b>For the 12 months ending 7 December, 1997</b>	
<i>Activity</i>	<i>Cost (\$)</i>
<b>Salaries/Wages</b>	<b>24,327.36</b>
<b>Consultants</b>	<b>2,153.13</b>
<b>Assay</b>	<b>2,464.00</b>
<b>Geophysics</b>	<b>2,688.20</b>
<b>Field Supplies</b>	<b>2,403.80</b>
<b>Office Supplies</b>	<b>5,241.36</b>
<b>Training</b>	
<b>Tenements</b>	<b>200.00</b>
<b>Total</b>	<b>39,477.85</b>

## 6.0 PROPOSED WORK PROGRAM FOR THE YEAR ENDING 7 November, 1998

### 6.1 Proposed Work Program

The Work Programme for 1998 has two phases:

Phase 1: Stream Sediment follow up

Phase 2: Grid establishment over prospective zones

#### Phase 1: Stream Sediment follow up

##### *Objectives*

- 1) To delineate the gold anomalous drainages that will allow follow-up exploration to be focused on potentially economic resources.

##### **Process**

##### *Regional Geochemical Prospecting.*

A cutoff for anomalous Au values will be established and ground checking of anomalous results will take place. The follow-up analysis of anomalous results will include;

- a). Detailed ground investigation of catchment area geology
- b). Soil and rock chip sampling of all zones of interest
- c). Further BLEG work to either confirm or outline any Au anomalies
- d). Check for presence of old workings and detailed investigation of any workings located
- e). Obtain Exploration Licence over any areas of similar geology not currently covered.

#### Phase 2: Grid establishment over prospective zones

##### *Objectives*

Convert areas of anomalous gold mineralisation to geological resources.

### 6.2 Proposed Expenditure

It is anticipated that a programme of exploration to achieve the aims set out above will take in the order of 8 – 10 weeks at a cost in the order of \$45,000.

## 7.0 ENVIRONMENTAL

Environmental disturbance has been kept to a minimum wherever possible. Mature trees were not disturbed and trimming of vegetation was limited to small bushes and grasses in order to obtain access during the sampling. No rehabilitation was necessary as a result of the activities undertaken.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

### 8.1 Exploration Summary

The EL area has favourable geology and some low level gold anomalism suggesting further work to investigate the structure and geochemistry must be undertaken to evaluate the true prospectivity of the area.

It is recommended that soil sampling be carried out within the anomalous drainages in conjunction with geological and structural mapping of any outcrop and old workings found within the catchments. Stream sediment samples may be utilised for follow up work where conditions are suitable.

## 9.0 REFERENCES

- GEBERT, H., 1967. Report on EL3/65 and 14/65, Beaconsfield Tas. Open File Company Report, Tas. Dept. Mines
- GEE, R.D. and LEGGE, P.J., 1979. Beaconsfield - Geological Atlas 1 mile series. *Dept Mines Tasmania Explanatory Rep. Zone 7 Sheet No. 30 (8215N)*
- GULLINE, A.B., Bravo, A.P. and NAQVI, I.H., 1973. Geology of the Frankford area. *Dept Mines Tasmania*
- GREEN, D.H., 1957. Geology of the Beaconsfield district, including the Anderson Creek Ultrabasic Complex., B.Sc. (Hons) thesis (unpublished), University of Tasmania
- LEAMAN, D.E., 1981. Review Report for geophysical information for EL31/80, EL6/81, EL16/81 Open File Company Report, Tas. Dept. Mines

**ALLSTATE  
EXPLORATION NL**

**MT CARELESS  
ANNUAL REPORT 1997**

**APPENDIX 1  
STREAM SEDIMENT  
SAMPLE DESCRIPTIONS  
AND LOCATIONS**

# OTTER

OTTER EXPLORATION NL  
A.C.N. 000 796 403

1 = dry 4 = running water  
2 = moist SAMPLE RECORD  
3 = watery 5 = rapids

409027

FILE COPY

SHEET: \_\_\_\_\_ OF: \_\_\_\_\_

PROJECT: MT CARELESS LOC. CODE: \_\_\_\_\_ HOLE/GRID/OTHER: \_\_\_\_\_  
SAMPLE TYPE: 1kg, BLEB SIEVE MESH: -5mm SAMPLER: CL/14/4W DATE: 8/1/97  
S.D.O. No.: \_\_\_\_\_ LAB: \_\_\_\_\_ ASSAY REP. No.: \_\_\_\_\_ DUPLICATE STORAGE: \_\_\_\_\_

SAMPLE No. PREFIX / NUMBER	LOCATION / DEPTH (m)		INTERVAL (m)	DESCRIPTION / REMARKS
	N	E		
1	5423000	484500	-	rounded-angular sst-slst + c 001 - gtz float
2	5422900	484550	-	rounded-sub angular gtz/congl/sst (quarry material)
3	5422330	484587	-	dk grey sandy/organic material (upstream from vein)
4	5422200	484750	-	cream quartz sands
5	5422480	484590	-	gtz/sst/gtz including vein gtz
6	5422610	484780	-	gtz/congl/sst " " (downstream from vein)
1	5421950	484750	-	gtz/congl/gtz " " "
1	5421980	484810	-	" " /slst (rounded) + ven gtz
3	5421700	484470	-	gtz material/organic matter poor sample
<b>No 4 661010</b>	5421450	483070	-	slst/sst/gtz veining angular rounded
4	5421850	483450	-	schist/sst/sst/gtz veining some organic
5	5421800	483450	-	" " " " "
3	5421935	483871	-	schist/mudstone/gtz some organic
5	5421990	483760	-	schist/sst/sst/gtz
2	5421995	483870	-	schist/mudstone - organic material
4	5422225	483880	-	schist/mudstone/sst/sst/gtz veining
3	5422125	483860	-	" " organic material
4	5424080	482580	-	pbble/gtz /conglomerate some organics
3	5423010	482830	-	gtz/sst/micaceous slst, milky gtz veins
<b>No 4 661020</b>	5424250	480300	-	gtz/sst/sst
4	5423750	480600	-	gtz/sst/sst/organics
3	5423750	480550	-	gtz vn/sst/a lot of organics poor sample
1	5423150	481050	-	gtz vn/sst good sample
4	5422800	481650	-	slst/vn gtz/conglomerate
2	5422830	481620	-	slst/vn gtz
4	5422550	481970	-	vn gtz/sst/conglomerate
4	5422450	481950	-	vn gtz/sst
4	5422008	482290	-	vn gtz/mica schist/sst
2	5421140	482020	-	vn gtz/schist/sst/minor organics
<b>No 2 661030</b>	5420650	483400	-	vn gtz/congl/sst/sst
1	5420220	484550	-	Soil/vn gtz poor sample medium
2	5420200	486000	-	slst/congl/vn gtz
3	5426250 H	484750	-	schist/gtz some organics
4	5426400 H	484000	-	" " " " schist o/c
5426100	481650	484830	-	" " " " "
2	5425900	481800	-	" " /slate
4	5425990	482180	-	schist/slate/siltstone/gtz/gtz - good o/c
4	5426300	482200	-	schist/siltstone/sst/gtz - good schist o/c
4	5425900	482270	-	schist/siltstone/gtz/gtz
<b>No 5 661040</b>	5425800	482750	-	" " " " o/c schist
3	5425100	483120	-	gtz/gtz
5	5425100	483050	-	" " /sandstone
5	5424450	483160	-	" " " "
4	5424410	483100	-	" " " "
3	5424300	483250	-	gtz + slst, sst
3	5424100	483450	-	" " " "
1	5424640	483750	-	gtz/micaceous sst - leaf material
2	5424280	483750	-	vn gtz/sst/sst
4	5424100	483750	-	slst/sst/vn gtz
<b>No 1 661050</b>	5424200	483950	-	Soil/vn gtz/sst/poor sample

# OTTER

## SAMPLE RECORD

409028

FILE COPY

OTTER EXPLORATION NL  
A.C.N. 000 796 403

SHEET: \_\_\_\_\_ OF: \_\_\_\_\_

PROJECT: Mt Careless LOC. CODE: \_\_\_\_\_ HOLE/GRID/OTHER: \_\_\_\_\_

SAMPLE TYPE: Stream Sed SIEVE MESH: 0.5cm SAMPLER: CL/SW/II DATE: 15/1/97

S.D.O. No.: \_\_\_\_\_ LAB: \_\_\_\_\_ ASSAY REP. No.: \_\_\_\_\_ DUPLICATE STORAGE: \_\_\_\_\_

SAMPLE No. PREFIX / NUMBER	LOCATION / DEPTH (m)		INTERVAL (m)	DESCRIPTION / REMARKS
	N	E		
4	1	5423750 483840	—	foliated slst/vn qtz
4	2	5426600 486150	—	slst/sst/vn qtz
4	3	5425900 485400	—	qtzite/slst/vn qtz
3	4	5426200 486050	—	"
4	5	5425900 486250	—	"
4	6	5425600 486450	—	"
4	7	5426200 487350	—	Mica schist, slst, vn qtz
3	8	5425100 488200	—	slst/vn qtz
4	9	5427250 489050	—	slst/schist/vn qtz
<b>No 3661060</b>				
3	1	5425100 487100	—	slst/sst/vn qtz/qtzite
4	2	5424450 485950	—	slst/sand/vn qtz
4	3	5424200 485700	—	sst/vn qtz/minor slst
5	4	5423800 485950	—	slst/sand/vn qtz
2	5	5423650 486100	—	Sand with qtz
3	6	5423600 485900	—	Sand - poor sample
4	7	5423600 485650	—	Mica schist/slst/sst/vn qtz/conglom
4	8	5423500 485250	—	"
1	9	5424450 484300	—	Phyllite/vn qtz/clay soil poor sample
<b>No 1661070</b>				
4	1	5423400 484250	—	Soil/vn qtz/minor sst poor sample
4	2	5423900 484500	—	sst/slst/vn qtz
4	3	5423950 483150	—	Qtz + Qtzite slst, schist (diortite + calcite)
4	4	5424150 485000	—	Schist/slst/sst/vn qtz good sample
3	5	5426500 487400	—	slst/sst/vn qtz
3	6	5424000 488150	—	Clay/coal slit/Qtz poor sample
1	7	5423700 488200	—	slst/vn qtz/soil/organics
3	8	5423190 485130	—	clay/slst/sst/Qtz/organics
3	9	5425670 488560	—	schist/sst/Qtz old nearby
1	9	5425340 481280	—	" " " " bulk organics
<b>No 3661080</b>				
4	1	5426650 482185	—	Qtzite/conglomerate/Qtz
4	2	5425650 483300	—	slst/vn qtz/schist
4	3	5425550 483350	—	sst/Qtzite/Qtz
4	4	5425550 483350	—	sst/phyllite/Qtz/organics
4	5	5425620 483250	—	phyllite/slst/Qtz
4	6	5426350 483350	—	Qtz/conglom/slst/sst
3	7	5424300 486800	—	Mud
2	8	5424400 487150	—	Qtz/slst/Qtzite
4	9	5425850 484300	—	Qtz/sst/mud
4	9	5426700 484100	—	sst/schist
<b>No 4661090</b>				
4	1	5426600 484150	—	Qtz/schist/slst/sst/conglom
4	2	5426400 484250	—	Qtz/slst/conglomerate
4	3	5425700 484700	—	Qtz/sst/conglom
4	4	5425780 484760	—	"
3	5	5425450 484850	—	Mud + organics / poor sample
4	6	5425500 485020	—	Mud + Qtz
4	7	5425600 485100	—	Qtz/sst/schist
4	8	5426400 485300	—	Qtz/sst/schist/conglom
1	9	5426700 486000	—	soil/organics poor sample
2	9	5420250 485700	—	swamp mud + vegetation - v. poor sample
<b>No 4661100</b>				
1	1	5418500 480650	—	schist/slst/Qtz

# OTTER

## SAMPLE RECORD

409029

FILE COPY

OTTER EXPLORATION NL  
A.C.N. 000 796 403

SHEET: \_\_\_\_\_ OF: \_\_\_\_\_

PROJECT: Mt Careless LOC. CODE: \_\_\_\_\_ HOLE/GRID/OTHER: \_\_\_\_\_SAMPLE TYPE: Blts SIEVE MESH: - 5mm SAMPLER: CL/SW/1H DATE: 19/1

S.D.O. No.: \_\_\_\_\_ LAB: \_\_\_\_\_ ASSAY REP. No.: \_\_\_\_\_ DUPLICATE STORAGE: \_\_\_\_\_

SAMPLE No. PREFIX / NUMBER	LOCATION / DEPTH (m)		INTERVAL (m)	DESCRIPTION / REMARKS
	N	E		
<del>3</del>	1	5418950 480150	-	schist/slst/abundant gk
<del>4</del>	2	5420020 479730	-	" " / gk.
3	3	5417640 485640	-	cond/gk/mud. some organics.
3	4	5418700 484620	-	" " " "
2	5	5419160 484300	-	mud
2	6	5419180 484340	-	slst/shale/gk
1	7	5422200 483000	-	schist/slst/gk some organics.
1	8	5422280 483320	-	schist/gk/dirt - mostly soil, organics
1	9	5422250 483310	-	" " "
<b>No 4 661110</b>		5422720 483260	-	schist/slst/gk/sst
1	1	5418630 484800	-	soil/clay - mucho organics.
1	2	5418640 484930	-	soil/clay "
2	3	<del>5418240</del> 5418240 485290	-	soil/sand - some organics.
1	4	5419240 484610	-	clay/soil mucho organico
1	5	5419090 486050	-	sand/soil " "
1	6	5419300 486020	-	clay/soil " "
	7			
	8			
	9			
<b>No 661120</b>				
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
<b>No 661130</b>				
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
<b>No 661140</b>				
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
<b>No 661150</b>				

**ALLSTATE  
EXPLORATION NL**

**MT CARELESS  
ANNUAL REPORT 1997**

**APPENDIX 2  
STREAM SEDIMENT  
ANALYTICAL RESULTS**



ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

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IAN HART

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METHOD	SAMPLE No.	Wght	Vol	Au					
		GG340	GG340	GG340					
1	661001	1800	1800	0.44					
2	661002	1800	1800	0.05					
3	661003	1110	1200	<0.05					
4	661004	1800	1800	0.05					
5	661005	1800	1800	<0.05					
6	661006	1800	1800	<0.05					
7	661007	1800	1800	<0.05					
8	661008	1720	1800	<0.05					
9	661009	1260	1300	<0.05					
10	661010	1800	1800	<0.05					
11	661011	1550	1600	0.07					
12	661012	1800	1800	0.05					
13	661013	1190	1200	<0.05					
14	661014	1800	1800	0.30					
15	661015	1800	1800	<0.05					
16	661016	1670	1700	<0.05					
17	661017	1620	1700	<0.05					
18	661018	1590	1600	<0.05					
19	661019	1590	1600	<0.05					
20	661020	1790	1800	0.17					
21	661021	1720	1800	0.13					
22	661022	1160	1200	0.42					
23	661023	1800	1800	0.11					
24	661024	1780	1800	<0.05					
25	661025	1800	1800	<0.05					

Results in ppm unless otherwise specified.  
 element not determined

IS = insufficient sample  
 SNR = sample not received

AUTHORISED OFFICER *PP M.A. Good*



**ANALYTICAL DATA**

SAMPLE PREFIX

REPORT No.

REPORT DATE

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PAGE

CTA201.60.12720

27/02/97

IAN HART

2 OF 5

	SAMPLE No.	Wght	Vol	Au					
METHOD		GG340	GG340	GG340					
1	661026	1800	1800	<0.05					
2	661027	1800	1800	0.85					
3	661028	1800	1800	0.05					
4	661029	1710	1800	<0.05					
5	661030	1800	1800	<0.05					
6	661031	1160	1200	0.07					
7	661032	1800	1800	0.15					
8	661033	1140	1200	<0.05					
9	661034	1250	1300	0.93					
10	661035	1540	1600	<0.05					
11	661036	1060	1100	<0.05					
12	661037	1470	1500	<0.05					
13	661038	1260	1300	<0.05					
14	661039	1300	1400	<0.05					
15	661040	1480	1500	<0.05					
16	661041	1740	1800	<0.05					
17	661042	1420	1500	0.15					
18	661043	1380	1400	0.05					
19	661044	1470	1500	0.08					
20	661045	1780	1800	<0.05					
21	661046	1040	1100	<0.05					
22	661047	1670	1700	<0.05					
23	661048	1160	1200	<0.05					
24	661049	1580	1600	<0.05					
25	661050	1110	1200	0.16					

Results in ppm unless otherwise specified  
element not determined

IS = insufficient sample  
SNR = sample not received

AUTHORISED OFFICER

*PPM Good*



**ANALYTICAL DATA**

SAMPLE PREFIX

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	SAMPLE No.	Wght	Vol	Au					
METHOD		GG340	GG340	GG340					
1	661051	1800	1800	<0.05					
2	661052	1780	1800	<0.05					
3	661053	1620	1700	0.23					
4	661054	1800	1800	0.92					
5	661055	1800	1800	0.10					
6	661056	1800	1800	0.07					
7	661057	1800	1800	0.05					
8	661058	1800	1800	<0.05					
9	661059	1590	1600	<0.05					
10	661060	1650	1700	0.62					
11	661061	1800	1800	0.85					
12	661062	1800	1800	0.14					
13	661063	1800	1800	<0.05					
14	661064	1800	1800	0.12					
15	661065	984	1000	0.70					
16	661066	584	1000	0.09					
17	661067	1800	1800	<0.05					
18	661068	1800	1800	<0.05					
19	661069	1310	1400	1.99					
20	661070	1440	1500	0.07					
21	661071	1800	1800	0.07					
22	661072	1800	1800	<0.05					
23	661073	1800	1800	<0.05					
24	661074	1800	1800	<0.05					
25	661075	1740	1800	<0.05					

Results in ppm unless otherwise specified  
 element not determined

IS = insufficient sample  
 SNR = sample not received

AUTHORISED OFFICER

*PPM.D. Good*



**ANALYTICAL DATA**

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

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27/02/97

IAN HART

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METHOD	SAMPLE No.	Wght	Vol	Au					
		GG340	GG340	GG340					
1	661076	1590	1600	<0.05					
2	661077	1070	1100	0.05					
3	661078	1500	1500	<0.05					
4	661079	1800	1800	<0.05					
5	661080	1800	1800	<0.05					
6	661081	1560	1600	<0.05					
7	661082	1490	1500	<0.05					
8	661083	1640	1700	0.06					
9	661084	1590	1600	<0.05					
10	661085	1360	1400	<0.05					
11	661086	960	1000	<0.05					
12	661087	1800	1800	0.20					
13	661088	1230	1300	<0.05					
14	661089	1800	1800	0.06					
15	661090	1800	1800	0.06					
16	661091	1800	1800	0.09					
17	661092	1800	1800	<0.05					
18	661093	1800	1800	0.07					
19	661094	952	1000	0.17					
20	661095	1480	1500	0.06					
21	661096	1800	1800	0.05					
22	661097	1470	1500	<0.05					
23	661098	1360	1400	<0.05					
24	661099	1070	1100	<0.05					
25	661100	1800	1800	0.05					

Results in ppm unless otherwise specified  
element not determined

IS = insufficient sample  
SNR = sample not received

AUTHORISED OFFICER

*[Signature]*



ANALYTICAL DATA

SAMPLE PREFIX

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PAGE

CTA201.60.12720

27/02/97

IAN HART

5 OF 5

METHOD	SAMPLE No.	Wght	Vol	Au						
	GG340	GG340	GG340							
1	661101	1320	1400	<0.05						
2	661102	1600	1700	<0.05						
3	661103	1700	1700	<0.05						
4	661104	1800	1800	0.06						
5	661105	1020	1100	<0.05						
6	661106	1380	1400	0.14						
7	661107	1350	1400	<0.05						
8	661108	1580	1600	0.06						
9	661109	1360	1400	<0.05						
10	661110	1410	1500	0.19						
11	661111	1190	1200	<0.05						
12	661112	1130	1200	0.60						
13	661113	1100	1200	<0.05						
14	661114	1010	1100	3.77						
15	661115	1800	1800	0.09						
16	661116	912	1000	0.35						
17										
18										
19										
20										
21										
22										
23										
24	DETECTION	1	1	0.05	= 0.00001 ppm					
25	UNITS	g	mls	ppb						

Results in ppm unless otherwise specified  
element not determined

IS = insufficient sample  
SNR = sample not received

AUTHORISED OFFICER

*PP M.L. Jones*

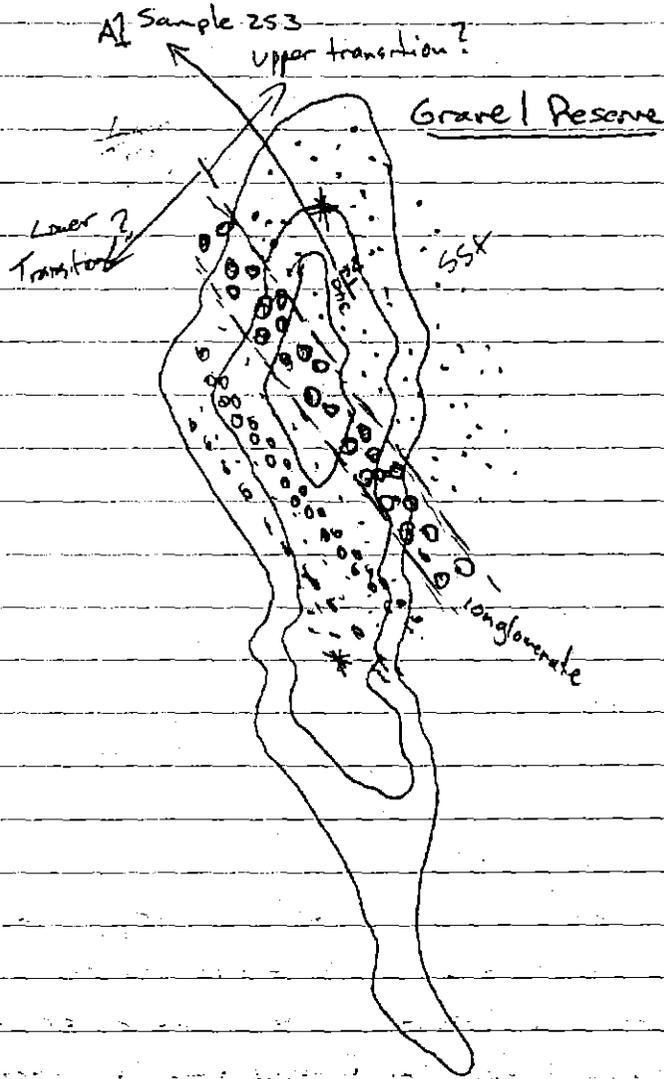
**ALLSTATE  
EXPLORATION NL**

**MT CARELESS  
ANNUAL REPORT 1997**

**APPENDIX 3  
ROCKCHIP  
DESCRIPTIONS  
AND LOCATIONS**

W

E



10/1/97

A1 (Sample 661253) Massive sandstone with approximate composition 80% Qtz 15% Mica 5% lithics. Some pebbly horizons were observed. Pebbles were Qtz and approx. 0.5-1.5cm dia. En-echelon vein sets were observed and sampled along with country rock. Veins contained Qtz + orange and pink minerals (ankerite?). S340°  
D52°E

Veins - S220 D60W

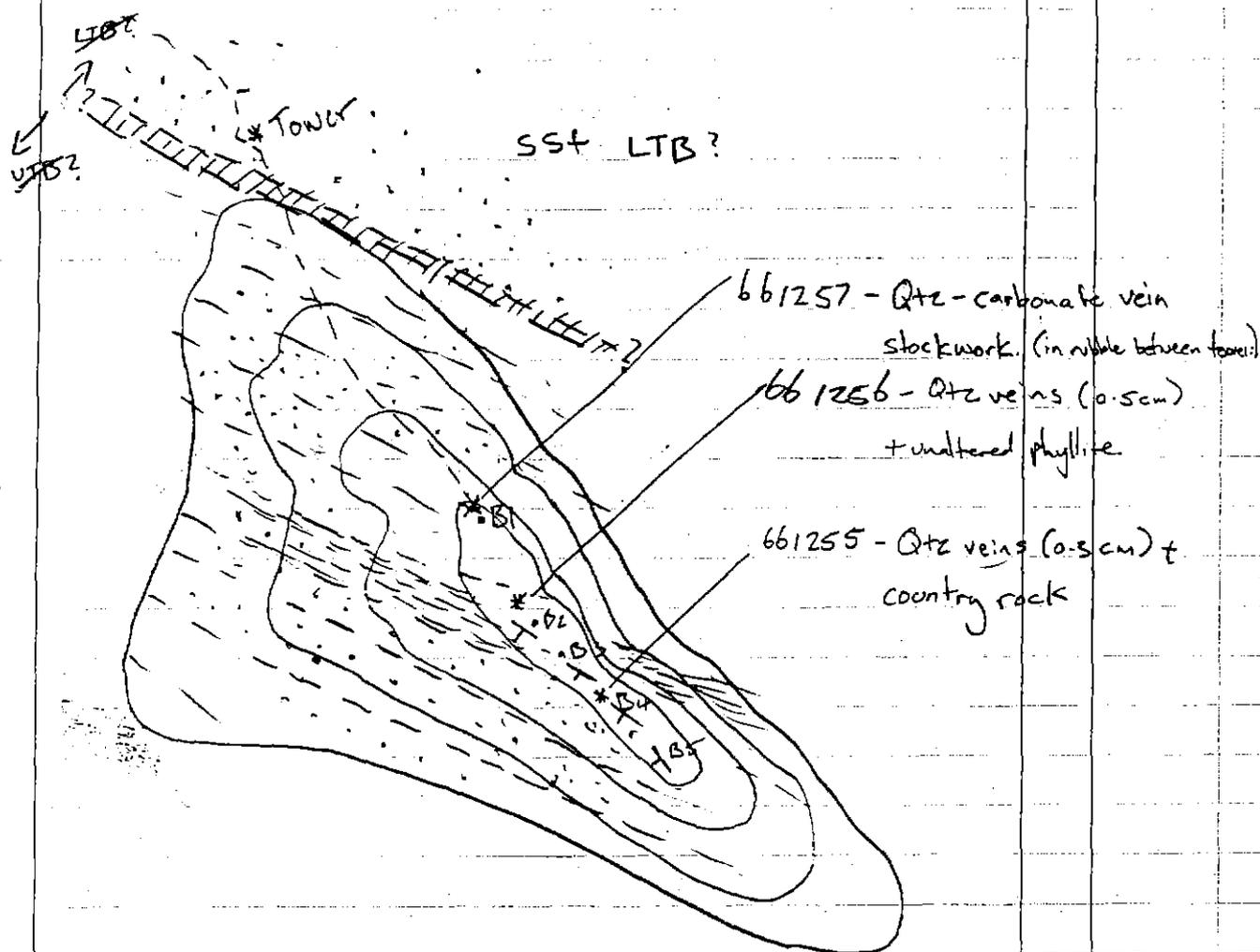
Float and subcrop to the north of A1 were of a similar composition as above (probably lower transitional beds). The matrix is pink or fawn in colour and very siliceous. Silicification intensifies in proximity to veins.

Float mapped to the south of A1 consisted of coarsening pebbly sandstone to pebble conglomerate with some pink bands. The pink colouration was observed within the matrix. The conglomerate is matrix supported with a high clast content.

Beds to the north of and including A1 may be part of the upper transition beds as they contain v. little pebbly material in comparison to the beds to the south. Orientation of these beds is inferred from the outcrop at A1. No other outcrop was observed. Mapping is of talus and subcrop along the ridgetop. Very few Qtz veins were found in the conglomerate. Veins generally occurred on the northern section of the ridge where the siliceous sandstone predominates.

A2 - (Sample 661254) - Outcrop in an old quarry. Fine grained, well sorted sandstone. Fawn in colour. No pebble beds were observed at this site. Beds - S241° D50°E  
Within this quarry is a shear zone consisting of phyllitic to schistose sediments. Qtz veining within the shear appears to be associated with local chlorite alteration. Sample 254 consists of green chloritic schist and Qtz veins with a chlorite volume.

## R2 - Kellys Lookout.



At Kellys lookout the dominant rock types are phyllitic sandstone and phyllitic siltstone. The vergence relationships between the cleavage and bedding suggest an antiform toward the east. Qtz veining generally occurs as thin (0.2-0.5cm) veins. Phyllite with Qtz-carbonate veining was observed in the rubble between the two towers at the end of the road. (661257)

The sequence may be Upper Transition Beds?  
No.

The shear zone at AZ: S323° D69°E

~ same for Qtz veins which are || to foliation.

### Kellys Lookout

B1 - Phyllitic sandstone, mica rich, grey brown in colour. (grey)

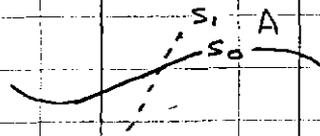
Foliation - S320° D68°W

Bedding - indistinct

B2 - Phyllite, finer grained than B1, grey, green in colour. Outcrop covered by organic material. Mica not as prevalent as in B1

Bedding - S289° D57°W

Cleavage - S304° D68°W



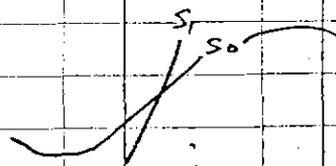
Antiform east

Possibly UTB as no pebble or conglomerate horizons have been observed.

B3 - Rock Type as above

Bedding S292° D61°W

Cleavage S300° D71°W



Antiform east

B4 - Phyllite, mica-rich, grey-brown in colour, no qtz veins. UTB?

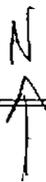
Bedding S286° D45°W

Cleavage S308° D68°W

B5 - As above

Bedding S300° D62°W

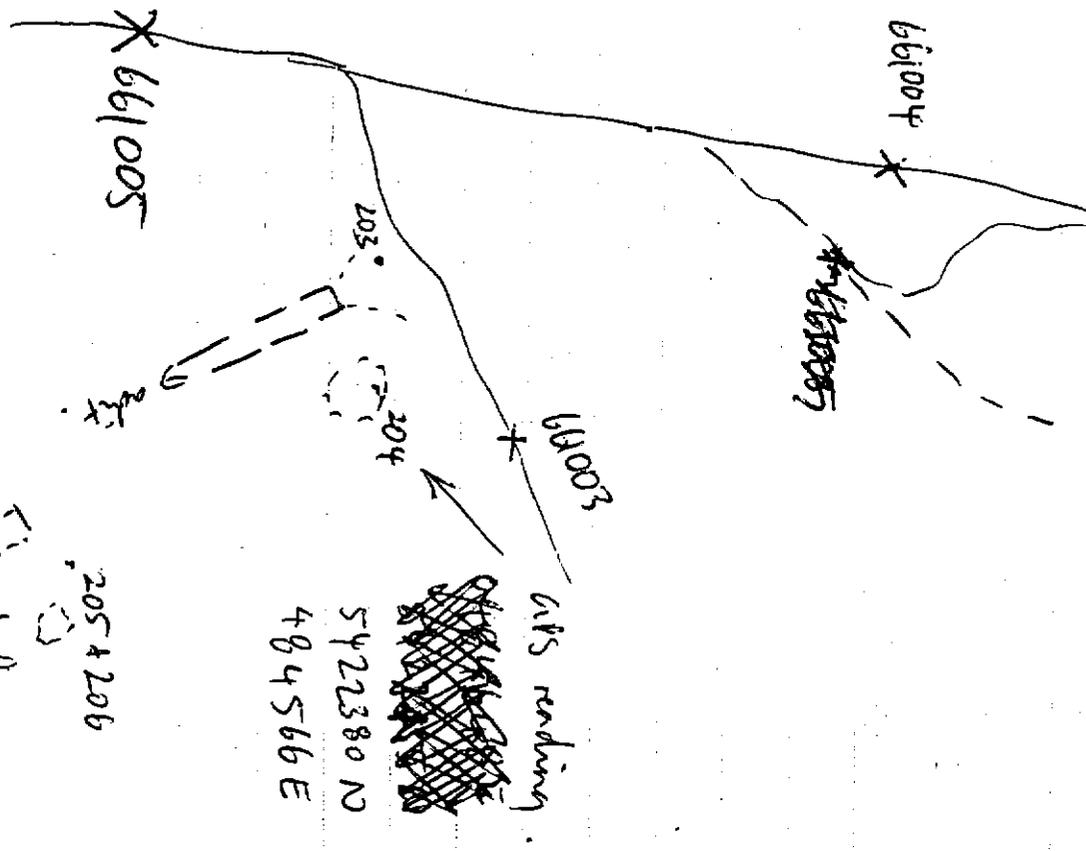
Cleavage S326° D78°W



A - Fine grained mica-rich sandstone.  
 S003° D86E light brown colour  
 Sample 212 at A of ven. qtz float.

pebble to boulder conglomerate  
 and qtz. grits. clast size 6/4  
 0.5 - 15cm av. 10cm. Polymict.  
 Matrix supported. Massively bedded.

C - Fine-grained mica-rich sandstone  
 S70°-100° D30E



Rock chips

661201 - ferruginous g<sub>1/2</sub> float  
in stream 5423000 N 4845000 E

661202 - milky g<sub>1/2</sub> vein from  
g<sub>1/2</sub> pebble conglomerate

5422350 N 4845500 E  
~~at~~ - adit + shaft - strike  
at adit ~ 250° possibly 240°  
to join shaft. adit within orange  
weathered clay/sandstone

661203 ferruginous g<sub>1/2</sub> vein material,  
pyrite pseudomorphs + some x-tal  
204 as above  
205 as above - pyrite vein?  
206 as above

- micaceous siltstone sample taken adjacent to adit.

661207 - gkz vein material from workings near 661006  
5422610 N 484710E

9/1/97  
661208 gkz vein material from micaceous slst.

150m below  
o/c of micaceous slst. insitu (?).  
~~26°~~ 26°/082 (dip/dip dir).

micaceous slst in ck bed - good o/c  
41/084  
483150E 5421500N

661209 ferruginous gkz vein in micaceous slst outcrop!  
strike  $\approx 070^\circ$  in middle of forestry track.  
484000E 5422100N

10/1/97

661210 goethitic gk (silica) rock  
- conglomerate / quartzite / silice  
possibly veining. Definitely some  
silicification. Appears subparallel to  
bedding (~090°) with dip to  
south.

Visible as ferruginous patch  
within white/pink siliceous material.  
482135 E 5423750 N

661211 ferruginous gk vein material  
subcrop / scree on forestry track  
approx. coords = ~~5422670 N~~ 4822665 E  
5422670 N 482710 E

13/1/97

661220 - box worked gk vein  
striking ~ 075° within  
mica schist (two samples for  
petrology taken)  
481800 E 5426550 N (approx.).

661221 - hem + bony gk along  
side of track near old workings -  
over 100 m sampled. Within mica schist  
some narrow veins.

481800 E 5426650 N (APS 3 subs).  
dip at bottom 70/230 ~~140/70W~~ dip/slp di.

dip strike

120/64S - bedding in dk.

"

64 - 7 210 dip/dip dir.

5425950 N 482100

Outcrop @ 5425550 N 482900E

qtzite + siliceous conglomerate

012/74E

strike/dip

(large block with dip to west thought to be rotated)

min. Qtz vein in qtzite oriented

076/30N

strike/dip

661222 hematite qtz

from rim of old

digging

5423950 N 482600E

661212 - Vein qtz float in Frankfort quarry. Qtz highly crystalline.  
5423220 N 482150E

661213 - Qtz and sericite alteration from shear zone in Frankfort quarry. 542460N 481800E

661214 - Qtz stockwork veinings with sericite alteration in Frankfort quarry. 542420N 481850E

661215 - as above. 5424000N 481900E

661216 - Fault zone qtz vein + chlorite and Fe alteration at Frankfort quarry.  
5423650N 481700E

5423600N 481760 E

661218 - qtz vein in fault zone  
with chlorite + Fe + sericite  
alteration in frankford quarry.

661217 - vein qtz from scree slope.  
Country rock is micaceous sandstone.  
approx. co-ords - 483200E  
5424240N

661219 - float in stream channel -  
Un qtz + country conglomerate and  
sandstone  
5423420 N 484180 E

223 - 5423000 }  
4930 }  
4850 }

17/1/97 → 29

661223-2265 - 9/2 float sample from  
road near old workings  
at 5423000  
485050



~~2265~~

661227 - 9/2 float above old  
adit.

661228 - 9/2 float next to old  
adit (at mouth).

661228 - 9/2 vein from within  
old adit at oriented 133/S9W  
strike dip.

661 229 - 9/2 vein float from  
around old adit.

661230 gk vein float/sfc on  
track.  
481320 5425540

661231 gk vein float btw  
stream sed 078 + above  
road chip.  
5425600 N - 481450 E

18/1/97

661232 - gk vein float +  
subcrop on track.  
483910 E 5421360 N

661233 - gk vein float collected  
over 100m section along road  
483730 E 5421390 N

661234 - as above.

484000 E 5421380 N

661235 - gk vein float in  
depression beside road.  
484140 E 5421630 N

661236 - gk vein float  
beside rd.  
484150 E 5421840 N

19/1/97

Brushy Lagoon Rd.

661237                       
gk vein float in  
quarry within schists

5418800 N - 480550 E

661238                       
gk vein float on track

5419420 N 480400 E

661239                       
gk vein float on track

5419260 N 480780 E

661240                       
gk vein float

5419120 N 480520 E

661241                       
siltstone schist with  
box worked clays(?) btw

foliation.

5419420 N 480400 E

Frankford Cemetery. 5420800 N - 483550 E

661242                       
gk vein float from back  
of cemetery.

661243                     

Brushy lagoon rd.

s/c + float milled gk veins.

5419580 N 480350 E

7/11/97

Birds quarry

- white + conglomerate quarry.  
bedding difficult to read. - conglomerate =  
160/46 NE 485340E 5419285N

matrix supported.

167/42 NE 485340E 5419200N  
conglomerate with sst overlying.

① 170/67 NE 485290E 5419175N  
ferruginous quartzite

② 166/52 NE white:

187/64W



①

409051

Parasitic fold(?) (drag fold?)

190/65W

in quarry.

Fe. rich siltstone

160/43 NE

187/48 NE

485227E

5419222N

Bedding (quartzite)

Joint

Joint

fault plane

Joint

Joint

Joint

167/42 NE

070/57 SW

061/60 SW

027/47° W

106/47 S

145/45 S

98/89 S

485150 E 5419255 N

Bedding

661245 - ferruginous gr. v. o/e from same site

159

~~336~~ / 47 N/E

409052

661246 - ferruginous matrix  
supported conglomerate float from  
above site.

---

white / conglomerate bedding  
138 / 49 NE  
485780E 5419390N

21/1/97.

~~XXXXXXXXXX~~

66/247 hematite milky qz  
vein float -  
5422580 N 483000 E

---

strike slip  
~~strike~~ / ~~strike~~  
142 / 54 E  
091 / 53 S  
146 / 57 E  
159 / 70 E

Eastern Quarry -  
quartzite bedding  
qz vein  
bedding  
"

5422510 N 485280 E

SILTSTONE o/c

Bedding 166 / 79 E

5422560N 485240E

Bedding 169 / 83 E  
fault plane 157 / 73 E

QUARTZITE NEAR OLD EXCAVATION - TOP

Bedding 166 / 60 E  
" 170 / 62 E  
" 176 / 76 E  
" 180 / 59 E  
" 173 / 39 E

542260N - 485285E

Bedding 177 / 61 E  
" 182 / 61 E  
" 175 / 58 E  
" 179 / 62 E

**ALLSTATE  
EXPLORATION NL**

**MT CARELESS  
ANNUAL REPORT 1997**

**APPENDIX 4  
ROCKCHIP  
ANALYTICAL RESULTS**

409057

→ MOUNT CARELESS - Rock Camp



# Analabs

\*\*\*\*\*

**Analabs Pty. Ltd.**

A.C.N. 004 591 664

Phone (004) 316837

14 Thirkell St. COOEE TAS 7320

Fax (004) 318890

## ANALYTICAL REPORT No.

CTA201.60.12693

THIS REPORT MUST BE READ IN CONJUNCTION WITH THE ACCOMPANYING ANALYTICAL DATA

INVOICE TO:

Ian Hart  
Allstate Exploration NL  
Level 3  
76 Berry Street  
NORTH SYDNEY NSW 2060

ORDER No.

PROJECT

IAN HART

42557

DATE RECEIVED

RESULTS REQUIRED

17/01/97

ASAF

No. OF PAGES OF RESULTS

DATE REPORTED

No. OF COPIES

TOTAL No. OF SAMPLES

2

21/01/97

1

29

SAMPLE NUMBERS

SAMPLE DESCRIPTION

ELEMENT/METHOD

661201/22,661251/7

RO Prep : 6P033

Au, Au(R)/66309

RESULTS TO

Ian Hart  
Allstate Exploration NL  
Level 3  
76 Berry Street  
NORTH SYDNEY NSW 2060

RESULTS TO

Kim Stanton-Cook  
Allstate Explorations NL  
Level 3  
76 Berry Street  
NORTH SYDNEY NSW 2060

RESULTS TO

REMARKS

pp *M.A. [Signature]*  
AUTHORISED OFFICER



ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

CTA201.60.12693

21/01/97

IAN HART

1 OF 2

METHOD	SAMPLE No.	Au	Au (R)						
		GG309	GG309						
1	661201	40.008	-						
2	661202	<0.008	-						
3	661203	<0.008	-						
4	661204	<0.008	-						
5	661205	<0.008	-						
6	661206	<0.008	-						
7	661207	<0.008	<0.008						
8	661208	<0.008	-						
9	661209	<0.008	-						
10	661210	<0.008	-						
11	661211	<0.008	-						
12	661212	<0.008	<0.008						
13	661213	<0.008	-						
14	661214	<0.008	-						
15	661215	<0.008	-						
16	661216	<0.008	-						
17	661217	<0.008	-						
18	661218	<0.008	-						
19	661219	<0.008	-						
20	661220	<0.008	-						
21	661221	<0.008	-						
22	661222	<0.008	<0.008						
23	661251	<0.008	-						
24	661252	<0.008	-						
25	661253	<0.008	-						

Results in ppm unless otherwise specified  
 - = result not determined

IS = insufficient sample  
 SNR = sample not received



ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

CTA201.60.12693

21/01/97

IAN HART

2 OF 2

METHOD	SAMPLE No.	Au	Au (R)						
		GB309	GB309						
1	661254	<0.008	-						
2	661255	<0.008	-						
3	661256	<0.008	<0.008						
4	661257	<0.008	-						
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24	DETECTION	0.008	0.008						
25	UNITS	ppm	ppm						





ANALYTICAL DATA

SAMPLE PREFIX

REPORT No.

REPORT DATE

CLIENT ORDER No.

PAGE

661201-661247

13/03/97

LAB HBR1

1 OF 2

METHOD	SAMPLE No.	BU	BU LR						
		66309	66309						
1	661213	<0.008	-						
2	661214	<0.008	-						
3	661215	<0.008	-						
4	661216	<0.008	-						
5	661217	<0.008	-						
6	661218	<0.008	-						
7	661219	<0.008	<0.008						
8	661220	<0.008	-						
9	661231	<0.008	-						
10	661232	<0.008	-						
11	661233	<0.008	-						
12	661234	<0.008	<0.008						
13	661235	<0.008	-						
14	661236	<0.008	-						
15	661237	<0.008	-						
16	661238	<0.008	-						
17	661239	<0.008	-						
18	661240	<0.008	-						
19	661241	<0.008	-						
20	661242	<0.008	-						
21	661243	<0.008	-						
22	661244	<0.008	<0.008						
23	661245	<0.008	-						
24	661246	<0.008	<0.008						
25	661247	<0.008	-						

Results in ppm unless otherwise specified  
 IS = insufficient sample  
 SNR = sample not received

IS = insufficient sample  
 SNR = sample not received

→ MOUNT CARELESS

W A L A B S

100% CHIP ASSAY

ANALYTICAL DATA

SAMPLE PREFIX REPORT No. REPORT DATE CLIENT ORDER No. PAGE

CTA201.60.12649 14/01/97 42555 1 OF 1

SAMPLE No.	Au	Au (R)						
GG309	GG309							
1 MC 1	0.060	-						
2 MC 2	0.020	-						
3 MC 3	0.008	0.008						
4 MC 4	<0.008	-						
5 MC 5	<0.008	-						
6 MC 6	<0.008	-						
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24 DETECTION	0.008	0.008						
25 UNITS	ppm	ppm						

AENC 409063

MT CARELED.

Page 1 of 2

(NEW PROJECT - NOT BJV.)

GENALYSIS LABORATORY SERVICES PTY. LTD.

Roy - new Towers on Kelly's lookout RSL

LABORATORY REPORT - pre

Jan Hart etc's work.

COMMENTS

ATTENTION : .....K STANTON-COOK.....  
ROCK.....

JOB INFORMATION

JOB CODE : 529.0/964885  
No. SAMPLES : 3  
ELEMENTS : 8  
CLIENT O/R : LETTER 08/08  
DATE RECEIVED : 09/08/96  
DATE COMPLETED : 19/08/96

LEGEND

'X' = LESS THAN DETECTION LIMIT  
'N/R' = SAMPLE NOT RECEIVED  
'\*' = RESULT CHECKED  
'( )' = RESULT STILL TO COME  
'I/S' = INSUFFICIENT SAMPLE FOR ANALYSIS  
'E6' = RESULT x 1,000,000

MAIN OFFICE AND LABORATORY  
17 DAVIDSON ST, MADDINGTON, WA 6109  
P.O. BOX 144 COSHELLS WA 6110  
Tel: (09)459 9011 Fax: (09)459 5343

KALGOORLIE SAMPLE PREPARATION DIVISION  
12 KEOGH WAY, KALGOORLIE WA 6430  
P.O. BOX 388 KALGOORLIE WA 6430  
Tel: (090)21 2881 Fax: (090)21 3476

